



Attention Body Builders! Isuzu N-Series Body Builder guides are now available for FREE!
To access please visit: www.isuzutruckservice.com

Download Isuzu's Body Builder Guide or sections for important information about up fitting your N-Series Medium Duty Commercial truck. Please check Section 0 to review information that has changed since your last visit as the guide is updated from time to time to include the latest information available. All printed material, specifications, and drawings contained in the Isuzu's Body Builder Guide are based on the latest information available at the time of publication / posting. The manufacturer reserves the right to discontinue or change, at any time, without notice specifications, options, materials, equipment, design and models.

Information contained in the guide includes:

- FMVSS safety standard
- EPA requirements
- OE recommendations
- Cautions for successful application up fitting and Frame modification procedures
- Last updated on 7-OCT-2024

Introduction

This guide has been provided as an aid to final stage manufacturers in determining conformity to the applicable Emission Control and Federal Motor Vehicle Safety Standards. Final stage manufacturers should maintain current knowledge of all Emission Regulations and Federal Motor Vehicle Safety Standards and be aware of their specific responsibility in regards to each standard.

Any manufacturer making material alterations to this incomplete vehicle during the process of manufacturing the complete vehicle should be constantly alert to all effects, direct or indirect, on other components, assemblies or systems caused by such alterations. No alterations should be made to the incomplete vehicle that directly or indirectly results in any either component, assembly or system being in nonconformance with applicable Emission Regulations or Federal Motor Vehicle Safety Standards.

Isuzu Commercial Trucks of America, Inc. (ICTA) will honor its warranty commitment (for the cab-chassis only), to the ultimate consumer, provided:

1. The final stage manufacturer has not made any alterations or modifications which do not conform to any applicable laws, regulations or standards, or adversely affect the operation of the cab-chassis; and
2. The final stage manufacturer complied with the instructions contained in this guide with respect to the completion of the vehicle. Otherwise, the warranty becomes the responsibility of the final stage manufacturer.

The final stage manufacturer is solely responsible for the final certification of the vehicle and for compliance with Emission Control and Federal Motor Vehicle Safety Standards. The information contained in this guide has been provided for the final stage manufacturer's information and guidance.

This guide contains information pertaining to the:

- NPR & NPR-HD Gas Chassis Cab
- NPR & NPR-HD Gas Crew Cab
- NQR & NRR Gas Chassis Cab
- NQR & NRR Gas Crew Cab
- NRR EV Chassis Cab
- NPR-HD, NPR-XD, NRR Diesel Chassis Cab
- NPR-HD, NPR-XD, NRR Diesel Crew Cab
- F-Series Diesel Chassis Cab.

CAUTIONARY NOTES:

Electrical Sensitivity and Battery Relocation Warning

Starting with the 2011 Model year Diesel and 2012 Model year Gas N series, these products are more sensitive to poor electrical integrity of the starting circuit when compared to previous year models. This is due to the ever increasing electrical demands from the base vehicle that includes the new emissions componentry as well as more sophisticated engines and transmissions. The control modules for these devices require healthy electrical circuits without significant voltage drops through the supply and return circuits.

A relocation or modification of batteries coupled with insufficient wire gauge, poor terminal crimps, weak conductivity to frame rails, terminal corrosion, or loose bolts, could contribute to a possible no start condition.

All Fluids and Lubricants Caution

Any fluids or lubricants added to the chassis during the final manufacturing process must meet Isuzu's fluids and lubricants specifications. These fluids and lubricant specifications vary based on model year and chassis model code. A recommended fluids list based on model and model year can be found in the Vehicle Owner's Manual or online at www.isuzutruckservice.com

Low Speed Applications for N-Series Chassis

Any low speed vehicle applications using the Aisin Transmission such as sweeper, highway striping and road side mowing airport service must adhere to the following guidelines in order to prevent the over heating of the automatic transmission fluid.

Factory Recommendation: Select Range 1 for low speed operations under 11 mph, (18km/h).
 Select Range 2 for low speed operation under 22 mph, (36km/h).

Auxiliary Transmission Cooler Warning

Installation of Auxiliary automatic transmission fluid cooler will void warranty on transmission/engine.

Transmission Temperature Warning Lamp

Automatic transmission fluid temperature warning lamp illuminates over 140°Centigrade/284°Fahrenheit.

Tapping into Engine Cooling System

Do not connect any auxiliary heating or cooling devices to the chassis cooling system. Engine calibrations are based on the original cooling system and any changes may adversely affect performance or diagnostics. The chassis cooling system is part of the vehicle emission system and is also used to thaw DEF fluid in diesel trucks and meet mandatory emission thaw times.

Air Conditioning Modification

No modifications or alterations should be made to the factory provided air conditioning system.

Engine Front End Accessory Drive (FEAD) Modification

Modifying or installing additional equipment onto the engine accessory drive can impact engine performance and emissions regulations compliance. If modifications are made to the FEAD, impact to certification compliance and subsequent actions are solely the responsibility of those making the modifications.

CAUTIONARY NOTES CONTINUED:

Brake Override Logic

The ECM logic in the 2013 NPR; 2014 NPR-HD, NQR, NRR; and the 2018 NPR Gas, NPR-HD Gas model year chassis has been revised to adopted Brake Override Logic that will reduce engine RPM to idle RPM when the brake and accelerator pedals are applied simultaneously. This ECM logic has been adopted to enhance the safe operation of the vehicle. The brake override logic disables the accelerator pedal input and protects against vehicle malfunction in cases where the accelerator pedal and brake pedal are operated simultaneously, or if unintended driver acceleration pedal operations are detected.

No-Start Condition: Clicking or Banging from Starter 2012-2015MY Isuzu N-Series Equipped with 5.2L (4HK1) Diesel Engines

It is possible to experience a no-start condition accompanied by a clicking or banging-type noise from the starter. This condition presents itself when vehicle battery voltage is low. The insufficient voltage/current will cause an improper ground for the X-17 starter relay. As a result, the starter will not remain engaged to start the engine. This is not an indication of a defective starter, alternator or ECM.

The following is a list of common causes for low battery voltage. Inspect these items as possible causes for the described condition before further diagnosis.

1. Extreme low ambient temperatures (below 10°C / 50°F). The chemical reactions inside of batteries take place more slowly when the battery is cold. The vehicle systems therefore have less energy to work with when it tries to start the engine.
2. Vehicles stored for long periods without proper battery charging and maintenance.
3. Batteries that have been relocated further away from the starter than the original designed location.
4. Batteries or battery cables that have been replaced with improper gauge.
5. Corroded battery terminals and cables.
6. Vehicles that are started and stopped multiple times without allowing the charging system to replenish the batteries' charge.
7. Excessive use of electrical equipment such as electric lift gates.
8. Interior and exterior lighting left "On" without the engine running.

NOTE: Do not diagnose starters, alternators, ECM's or other no-start conditions prior to ensuring the battery is fully charged and none of the above common causes exist

Fuel Tank Caution

Fuel fill kit must be installed on cab chassis if it will be driven for an extended distance. Note: fuel tank kit provides venting for the fuel tank.

CAUTION: DO NOT RESTRICT OR KINK THE FUEL TANK VENT HOSE. Operating this vehicle with a restricted or kinked fuel tank vent hose may cause serious damage to the fuel tank and/or fuel injection pump. Continued operation may cause engine failure.

Anti-lock Brake System (ABS) & Electronic Stability Control (ESC)

ABS helps prevent the wheels from locking or from slipping when the brakes are applied under certain driving conditions.

ESC monitors the truck's steering wheel angle, individual wheel rotation speed, lateral G forces and more. When the system senses that the driver is at risk of losing stability, it alerts the driver via an on-dash warning light and automatically reduces engine output and applies braking pressure to help the driver maintain stability.

ABS and ESC systems are sensitive to chassis modifications. Please reference Section 2 – "Installation of Body and Special Equipment" prior to making modifications to the chassis.

ISUZU MEDIUM DUTY V.I.N. IDENTIFICATION

JAL E 5 J 1 2 0 H 7 9 00750

1-3	CODE	MANUFACTURER / ASSEMBLER	
	JAL	ISUZU MOTORS LTD., JAPAN	
	54D	THE SHYFT GROUP Inc., USA	
4	CODE	GVWR RANGE	BRAKE SYSTEM
	B	10001-14000	HYDRAULIC BRAKE
	C	14001-16000	HYDRAULIC BRAKE
	E	16001-19500	HYDRAULIC BRAKE
	K	23501-26000	AIR BRAKE
	M	26001-33000	AIR BRAKE
5	CODE	MAKE	DESCRIPTION
	4	ISUZU	NPR / NPR-HD / NPR-XD
	5	ISUZU	NQR / NRR
	6	ISUZU	FTR / FVR / FVRDR
6	CODE	CAB TYPE	
	W	TILT CAB, BBC = 71 in	
	J	NON-TILT CAB, BBC = 110 in	
	S	TILT CAB, BBC = 81.5 in	
7	CODE	AXLE DESCRIPTION	
	1	4X2, 2 AXLES, 1 DRIVING	
8	CODE	ENGINE DESCRIPTION	
	6	5.2L, L4 DIESEL, TURBO, INTERCOOLER	
	D	6.6L, V8 GAS, L8T	
	F	CUMMINS B6.7, 6-CYL DIESEL, TURBO	
	V	ZF CETRAX LITE	
9	CHECK DIGIT		
10	CODE	MODEL YEAR	
	K	FOR 2019	
	L	FOR 2020	
	M	FOR 2021	
	N	FOR 2022	
	P	FOR 2023	
	R	FOR 2024	
	S	FOR 2025	
	T	FOR 2026	
11	CODE	PLANT	
	7	FUJISAWA, JAPAN, IML	
	S	CHARLOTTE, MICHIGAN, THE SHYFT GROUP Inc.	
12	CODE	DESCRIPTION	
	0	NPR-HD DIESEL - 14,500 lb. GVWR	
	K	NPR-XD DIESEL - 16,000 lb. GVWR	
	P	NQR/NRR DIESEL - 17,950/19,500 lb. GVWR	
	A	FTR DIESEL - 25,950 lb. GVWR	
	B	FVR DERATE / FVR DIESEL - 25,950/33,000 lb. GVWR	
	2	NPR / NPR-HD GAS - 12,000/14,500 lb. GVWR	
	5	NQR GAS - 17,950 lb. GVWR	
	R	NRR GAS - 19,500 lb. GVWR	
	E	NRR EV - 17,950/19,500 lb. GVWR	
13-17	PLANT SEQUENTIAL NUMBER		

Symbols Used in This Publication



WARNING

- Failure to follow instructions identified by this symbol may result in death or injury to you and/or other people.



ADVICE

- Failure to follow instructions identified by this symbol could result in damage to your vehicle.

Installation of Body and Special Equipment

Anti-lock Brake System (ABS) & Electronic Stability Control (ESC)



ADVICE

- Do not relocate or modify the Electro-Hydraulic Control Unit (EHCU).
- Do not modify the electrical harness and connector(s) of ABS/ESC systems.
- Do not modify the vacuum line(s) inside cab.
- Do not use ABS/ESC component wiring to extract power or ground circuits for accessories or added equipment.
- Do not relocate or change the installation direction of the yaw rate sensor. The yaw rate sensor's operation is dependent on its position relative to the vehicle's center of gravity as well as the direction of its mounting. Altering the installed location or direction may cause the system to operate incorrectly.
- Do not set final gear ratio to anything other than ISUZU factory specification.
- The set value of the final gear ratio is programmed into the ABS/ESC control unit. If the final gear ratio is changed, the ABS/ESC systems may not operate correctly.
- Do not operate the vehicle with any combination of tires other than ISUZU factory-specified tires. When brakes are applied, the ABS/ESC systems monitor the rotational speed differences of the front and rear tires and rely on a preset value for the tire diameter programmed into the control unit. Using tires that are different from the preset values or using tires that vary greatly in diameter from front to rear, may negatively impact braking performance and cause abnormal operation of the ABS/ESC systems. Contact ICTA/ICTC before equipping any tires other than Isuzu factory-specified tires.
- Do not upfit chassis into a tractor or 5th wheel (Hot Shot) configuration.
- Do not route antenna wiring near the main vehicle harness to prevent electrical interference with the ABS/ESC control wires located within the main vehicle harness.
- Maintain more than 100 mm (3.94 inches) of clearance with ABS/ESC equipment (e.g. EHCU, speed sensor, yaw rate sensor, steering sensor, etc.) when installing the following types of equipment:
 1. Communication radio devices and their antennas.
 2. Motors, relays, and other devices that generate electrical noise.

Calibration is necessary when replacing and/or removing any of the following components (contact an Isuzu dealership for more details):

- Electro-hydraulic control unit and/or yaw rate sensor.
- Steering sensor and/or steering-related components and steering wheel.

ADAS (Advanced Driver Assistance System)

When changes are made that affect the position or view of the stereo camera; it will be necessary to perform stereo camera reprogramming.

Procedures that require the stereo camera to be reprogrammed include the following (contact an Isuzu dealership for more details):

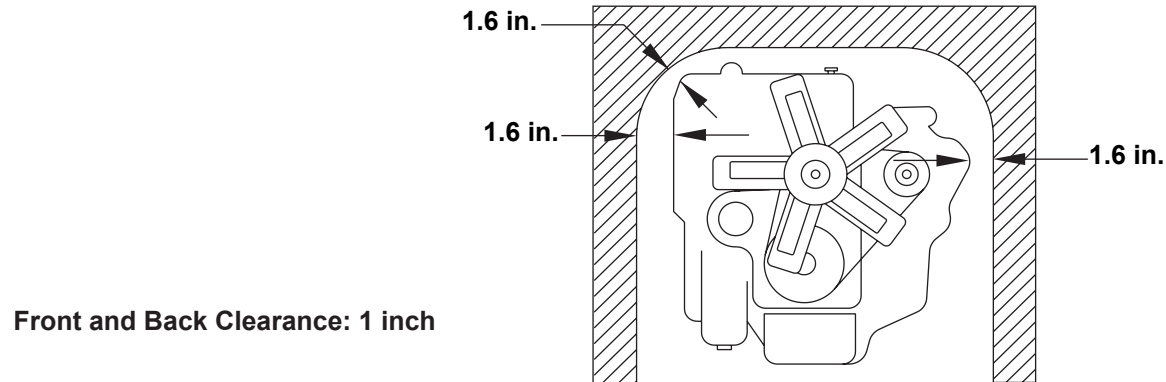
- Any instance where the camera position is moved from its factory-installed location or any vehicle modification that changes the view of the camera.
- Stereo camera, Windshield, or Instrument Panel (IP) removal and/or replacement.

Installation of Body and Special Equipment

N-Series Clearances

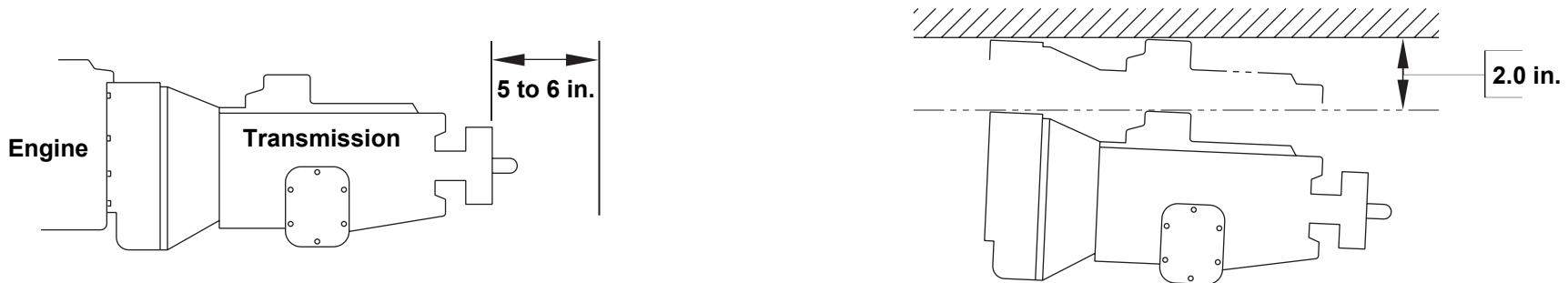
Engine

At least 1.6 inches of clearance should be maintained around the engine. At least 1 inch of clearance should be maintained to the front and rear of the engine. No obstacles should be added in front of the radiator or intercooler.



Transmission

The transmission is removed from the rear. Enough clearance must be provided to allow for rearward movement of the transmission assembly. At least 2 inches of clearance should be maintained above the automatic transmission to allow for transmission removal. At least 1 inch of clearance should be maintained to the front and rear of the transmission. Clearance should be sufficient to allow 5 to 6 inches of unrestricted movement of the transmission assembly. In addition, provide at least 2 inches of clearance around the control lever on the side of the transmission to allow free movement without any binding.

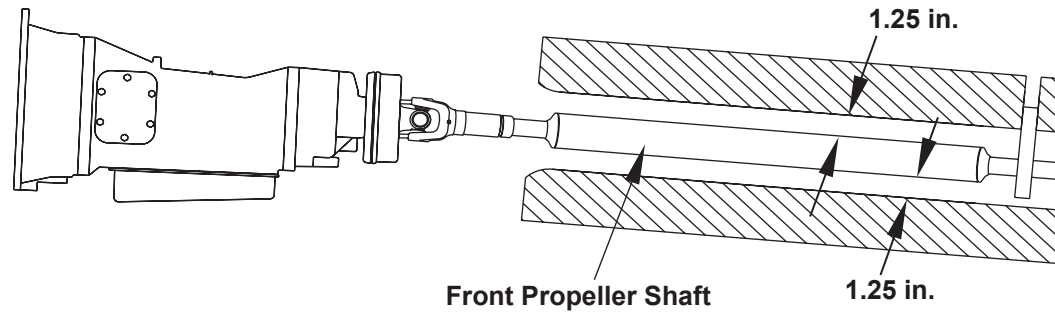


Front and Back Clearance: 1 inch

2026 Isuzu Truck

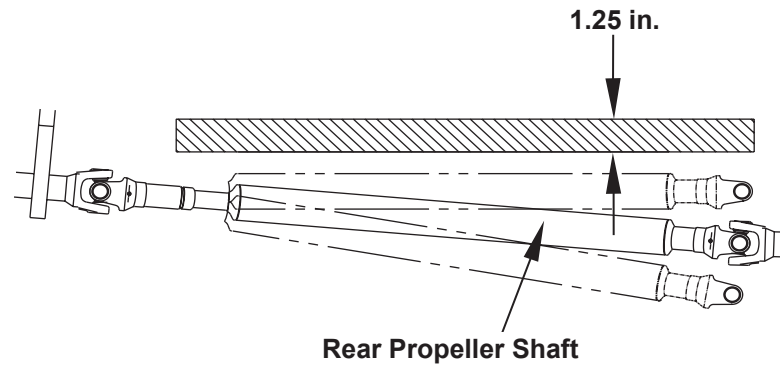
Front and Center Propeller Shafts

At least 1.25 inches of clearance should be maintained around front and center propeller shafts.



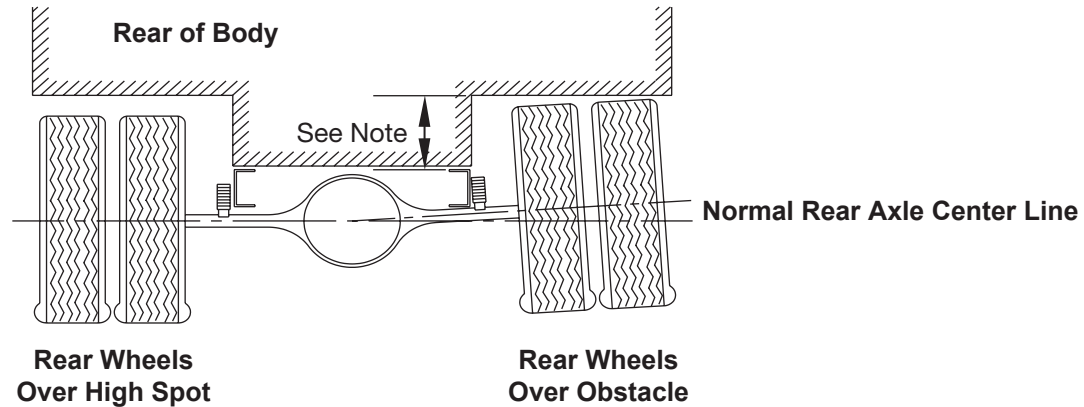
Rear Propeller Shaft

With the rear springs at maximum deflection, at least 1.25 inches of clearance should be provided over the rear propeller shaft.



Rear Wheel and Axle

The design and installation of the body should allow sufficient clearance for full vertical movement of the rear wheels and axle when the vehicle travels over rough or unlevelled surfaces.



Note: For recommended clearances, please refer to the Rear Axle Chart in each model's respective section.

Other Clearances

The transmission control cable may be broken if it is bent by or interferes with the body and its fixtures. To prevent this, 1 inch of minimum clearance should be provided. When cable is detached from body mounting, be sure not to bend the cable.

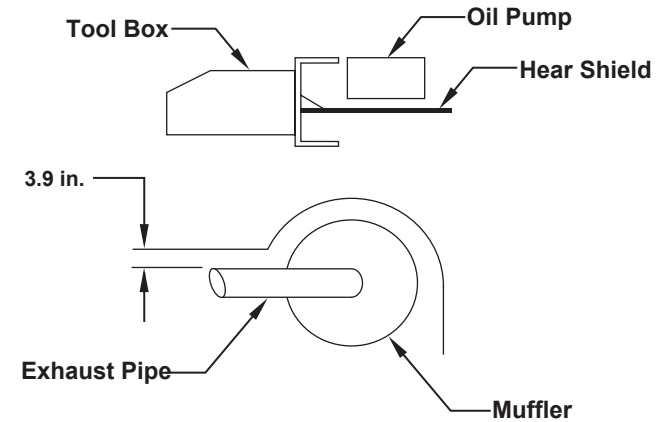
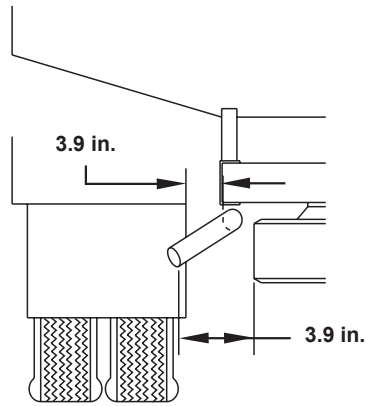
Accessibility to the grease nipple on the rear spring bracket/shackle should be provided so that serviceability with a grease gun is not hampered.

Parts	Location	Minimum Clearance (in)
Brake Hose	Axle Side	6.7
	Frame Side	1.6
Shock Absorber	Axle Side	2.4
	Frame Side	1.2
Parking Brake Cable	-	1.2
Fuel Hose	-	1.6

Exhaust Pipe Clearances

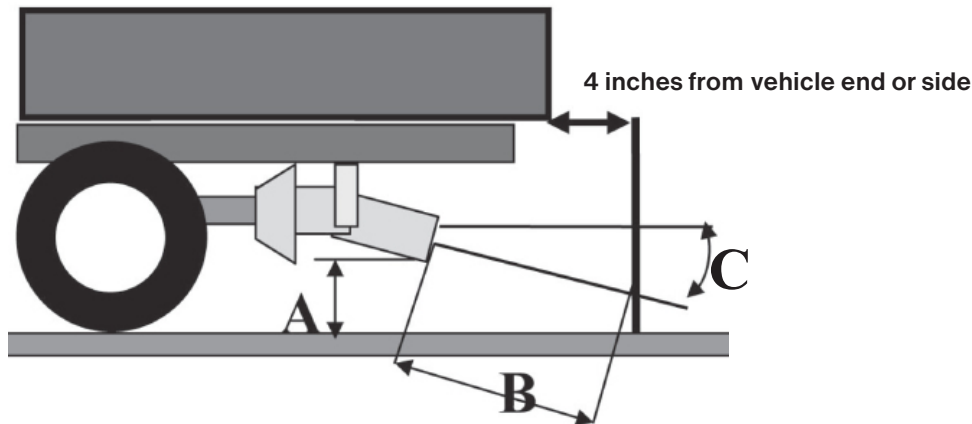
If flammable materials such as wood are used in the body, provide at least 3.9 inches of clearance between the body and any parts of the exhaust pipe, DPF/ SCR Package. If it is impossible to maintain the minimum clearance, use a heat shield. Also use a heat shield if an oil pump or line is located above the exhaust pipe, muffler or catalytic converter.

- Clearances around SCR system components must be greater than 1.0 inch at all times to avoid potential contact between the body and the exhaust components. The 1.0 inch allows for thermal expansion and assembly tolerance of the exhaust system. It does not account for dynamic movement in the body due to road conditions and other loads. Body companies are instructed to adjust this 1.0 inch clearance as required to account for body displacement while driving. This guidance does not supersede guidance or exhaust clearances for temperature sensitive or flammable components.
- Exhaust temperatures have not changed since the introduction of DPF in 2007.



Exhaust Heat Clearances

During the DPF regeneration cycle, exhaust gas temperatures are hot. Therefore, care should be exercised in placement of the pipe's end location and angle. Do not locate any body components or equipment around the exhaust pipe's end area.



Dimension	Clearance
A	8 in. (minimum)
B	18 in. (minimum)
C	45 deg. (maximum)

Exhaust System

The exhaust system has a crucial role in meeting 2010 EPA regulations. In order to maintain compliance with the 2010 EPA emissions levels the Diesel Particulate Filter (DPF) and SCR package must not be moved. The distance between the engine exhaust manifold down pipe and Diesel Particulate Filter (DPF) / Selective Catalytic Reduction Package (SCR) must be maintained and the pressure in the system must be sustained at a constant level. Due to increased temperatures in the exhaust system during the regeneration cycle and the heat stress caused by these temperatures, body builders should closely evaluate the placement of equipment and provide protection to these added components as needed.

Diesel Particulate Filter (DPF) and Selective Catalytic Reduction (SCR) Restrictions

1. The DPF/SCR has exhaust pressure pipes and temperature sensors. Care must be taken when a body is installed so as to not damage pipe sensors.
2. The DPF/SCR should be free from impact or vibration during body installation.
3. The DPF/SCR must have enough room for disassembly of the unit for service and cleaning.
4. The DPF/SCR switch in the cab should not be removed or disabled. No modification or relocation of the DPF/SCR unit, pressure pipes, and sensor is permitted.

Exhaust System Modification

Modification of the exhaust system should be avoided. If modifications are absolutely necessary, the following points should be maintained.

1. Maintain the clearance specified in the table below between all parts of the exhaust system and any fuel lines, brake lines, brake hoses, electrical cables, etc. The exhaust outlet should not point toward any of these parts.

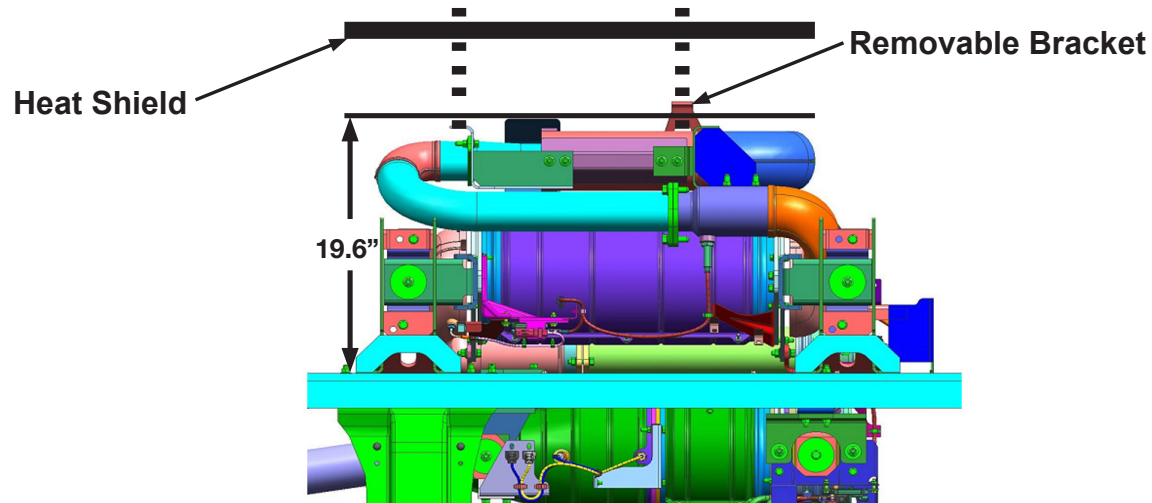
Component	Clearance Dimension
Brake Lines	2.4 in. or more. If the combined section of a group of parallel brake lines is more than 7.8 in., a clearance of 7 in. or more should be provided.
Flexible Brake Hoses	7.8 in. or more. The temperature of flexible brake hoses should not exceed 158°F. If the highest temperature is not measurable, a clearance of more than 15.7 in. should be maintained between the hoses and the exhaust system.
Wiring Harnesses and Cables	7.8 in. or more. The temperature of flexible brake hoses should not exceed 158°F. If the highest temperature is not measurable, a clearance of more than 15.7 in. should be maintained between the hoses and the exhaust system.
Steel Fuel Lines	3.1 in. or more.
Rubber or Vinyl Fuel Hoses	5.9 in. or more.

2. If a tool box is installed, it should preferably be made from steel. If a wooden tool box is installed, at least 7.8 inches of clearance should be maintained between the tool box and any parts of the exhaust system.
3. If the exhaust system is modified, it is the responsibility of those making the modification to ensure that the noise level meets appropriate standards.
4. If the exhaust system is modified it is the responsibility of those making the modification to ensure that the emission levels meet appropriate standards.
5. Exhaust system component temperatures are sufficient to ignite flammable materials; efforts should be made to prevent flammable materials from interacting with the exhaust system.

2026 Isuzu Truck

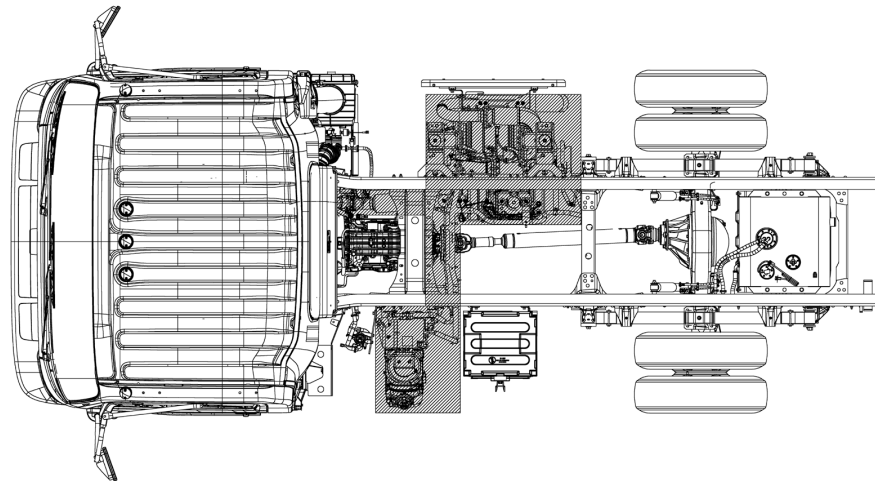
DPF/SCR Heat Shield Removal

The exhaust external heat shield does not impact vehicle emissions or emissions system durability. This shield can be removed or modified in order to facilitate body or equipment mounting, but the completed vehicle manufacturer should ensure that, when completed, the exhaust will be adequately shielded to prevent unintentional contact with hot exhaust components, and that heat transfer to body components is not so high as to present safety or durability risks. Detailed information on removal of the heat shield can be found in the Isuzu service manual available on line at www.isuzutruckservice.com.



N-Series No Modification Zones

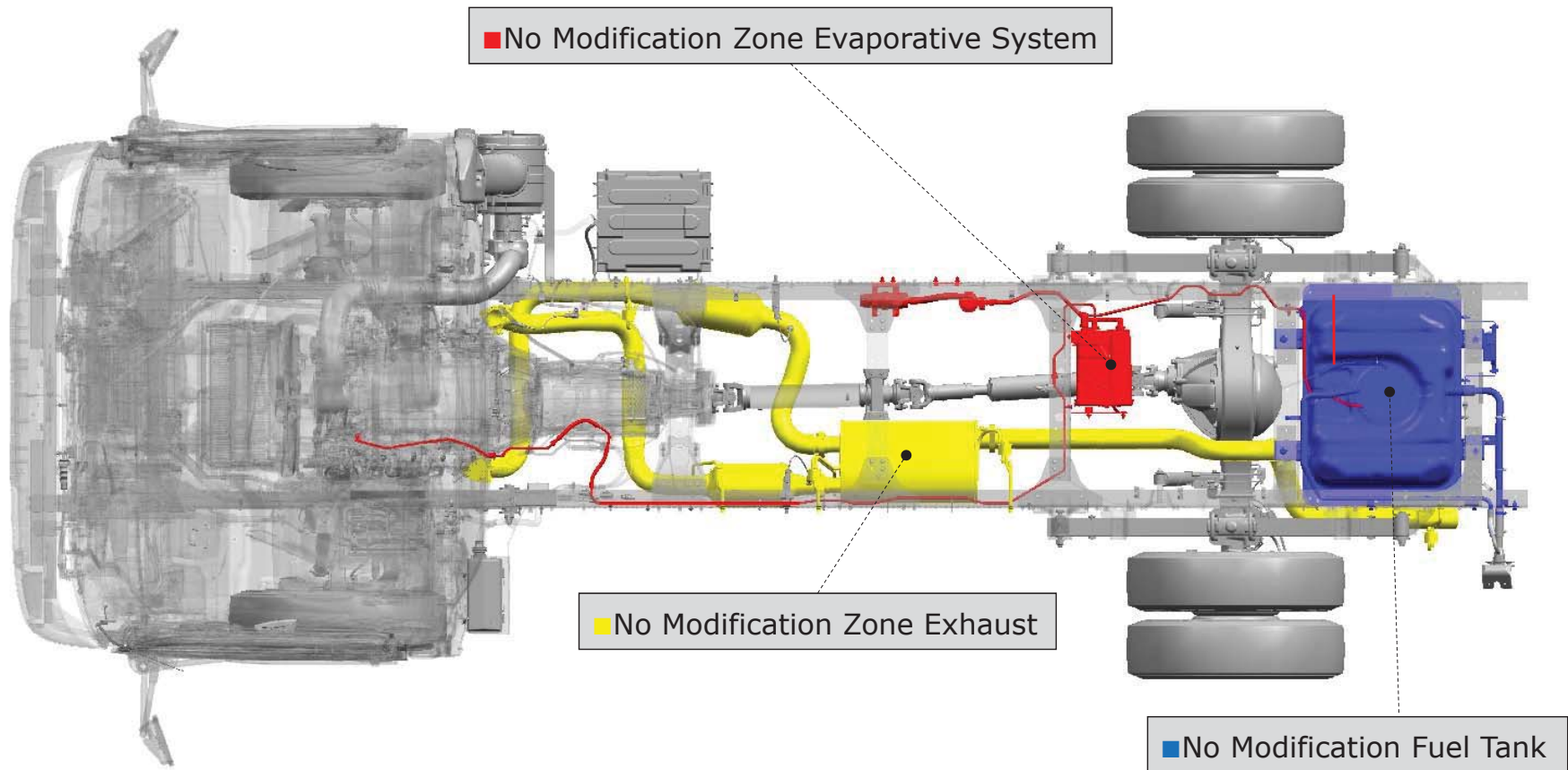
The DPF/SCR unit **CANNOT** be modified or moved. The DEF tank and pump **CANNOT** be modified or removed. DEF lines and coolant lines **CANNOT** be modified or rerouted.



2026 Isuzu Truck

N-Series Gas (6.6L Engine) No Modification Zones

The vehicle exhaust, evaporative system, and fuel tank are integral parts of the evaporative/engine and emission/diagnostic control system and **CANNOT** be modified or rerouted.



Body Installation

Mirrors

The Isuzu N-Series chassis will accommodate up to 96-inch wide bodies without modification to the mirror brackets.

WARNING

- **Bodies wider than 96 inches and up to 102 inches wide will require modified mirror brackets. This modification can be made at the port and the vehicle order/label will indicate a Regular Product Option (RPO) of IU2, indicating “Mirror Bracket for 102 wide body”. The brackets can also be modified by the Isuzu Dealer or the Body Company by installing mirror brackets ordered from Isuzu Parts.**

Side Step Door Installation Recommendations

1. Floor of body should be at least 10” above frame rail (2.5” wood + 4” long sill + 3” cross sill + 1.125” floor).
2. Forward end plate of step well area can interfere with SCR system.
3. All body components should maintain a minimum 1.0” of clearance to exhaust components UNDER ALL (DYNAMIC) CONDITIONS. (Body company will need to add to this 1.0” clearance to account for flex or movement in the body).
4. Outer heat shield on SCR system can be removed prior to mounting body if required for clearance. Care should be taken to adequately shield exhaust.
5. A driver’s side steps can also be accommodated depending on the door location. If the door is located behind the DEF tank, the battery may have to be relocated.
6. Access hatch for DEF tank fill may have to be added, depending on door location

Special Equipment on the Chassis

When installing special equipment on the chassis, extra consideration must be given to the weight and construction of the equipment to assure proper distribution of the load. Localization of the load should be prevented. All special equipment should be properly secured into position. We recommend the use of subframe members when installing special equipment.

Subframe Design and Mounting

The sub frame assembly should be mounted as close to the cab as possible. It should be contoured to match the shape and dimensions of the chassis frame as closely as possible.

Crew Cab Body / Frame Requirements

The N-Series Crew Cab will be available in two wheelbases, 150 and 176 inches with CA’s of 88.5 and 114.5 inches respectively.

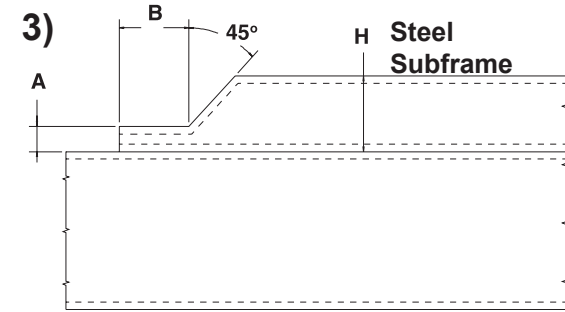
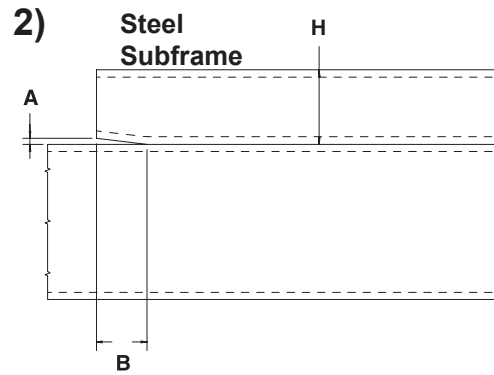
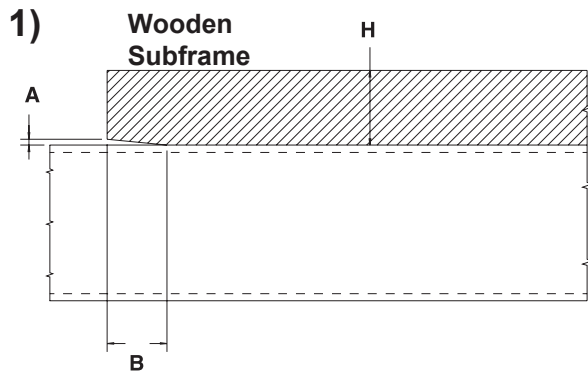
On this model chassis, Isuzu Commercial Trucks of America, Inc. (ICTA) will require that the body installed on the chassis have an understructure manufactured with any of the following structural steel “C” channels:

1. 4” x 1-5/8”, 7.5 lb./ft.
2. 5” x 1-3/4”, 6, 7 or 9.0 lb./ft.
3. 6” x 2”, 8.2, 10.5 or 13 lb./ft.

2026 Isuzu Truck

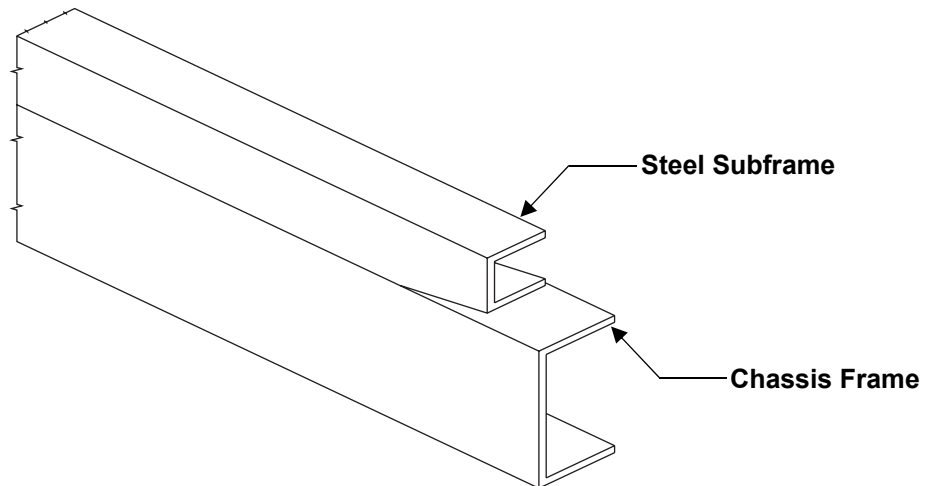
Subframe Contour

Contouring of the front end of the subframe members as shown in the three illustrations below will prevent stresses from being concentrated on certain areas of the chassis frame.



Drawing	A	B
1)	0.2 in.	$\frac{H}{2} \cong H$
2)	0.2 in.	H or greater
3)	$\frac{H}{3}$	H or greater

When using a steel subframe, do not close off the end of the subframe.



Prohibited Attachment Areas

Do not attach the subframe to the chassis frame with a bolt or bracket at the points indicated in the following illustrations.

1. At the front end of the subframe. The attaching bolt or bracket must be at least 2 inches behind the kick up point of the subframe (Figure 1).
2. Within 8 inches of bends in the chassis frame or the attachment points of any crossmembers (Figure 2).

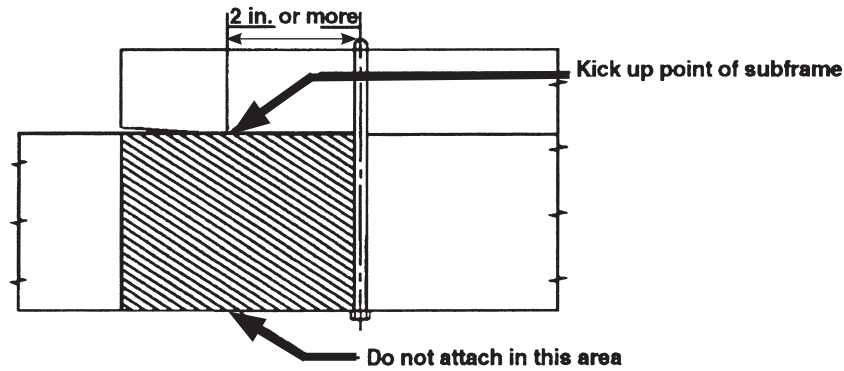


Figure 1

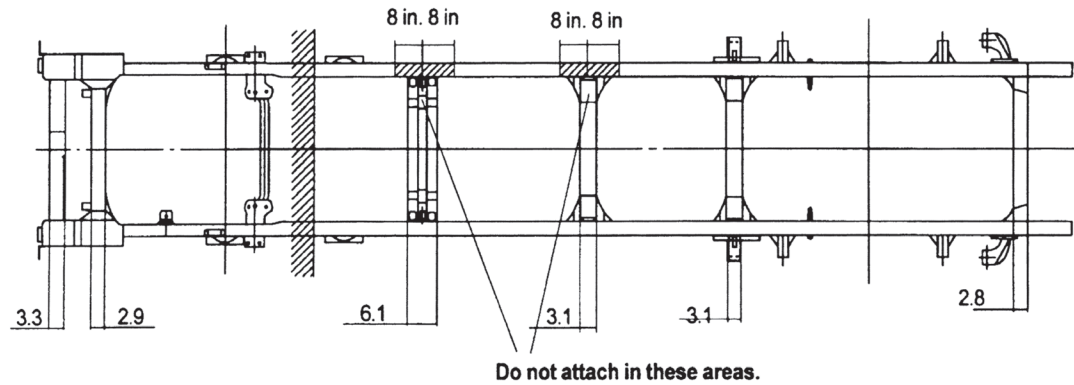
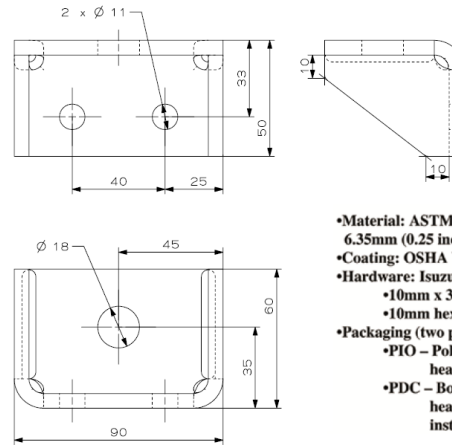
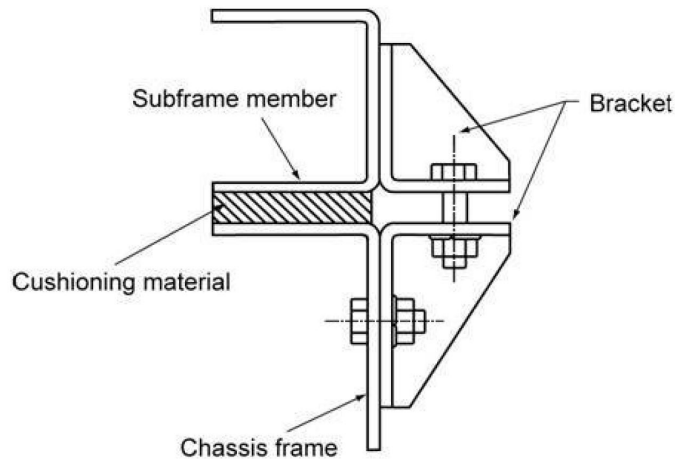


Figure 2

Subframe Mounting - Bracket Installation

Mounting brackets should be clamped to the chassis frame using bolts. For proper positions in which to install the bolts, refer to the section of this document "Modifications to the Chassis Frame." In addition to the illustrated bracket and U-bolts a shear plate may be required for adequately body mounting. The body company will be responsible for engineering their own mounting system.



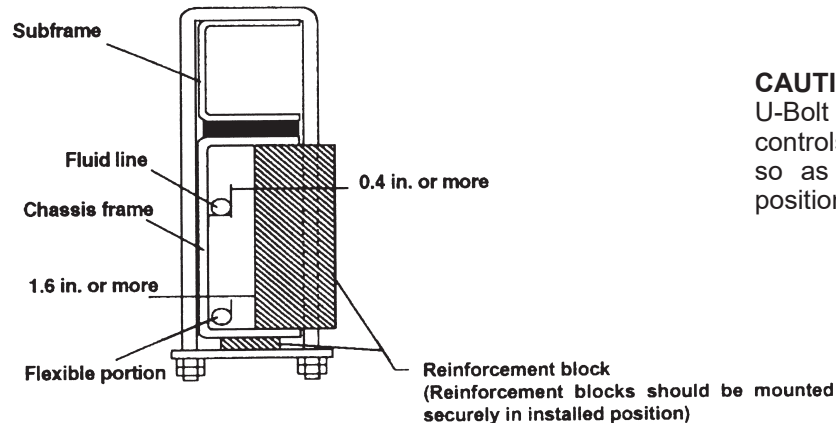
- Material: ASTM A-36 or equivalent 6.35mm (0.25 inch) thick
- Coating: OSHA Yellow powder coating
- Hardware: Isuzu supplied, two each
 - 10mm x 30mm hex head bolts
 - 10mm hex nuts
- Packaging (two part numbers):
 - PIO – Poly-Bag; 1 bracket, 2 10mm x 30mm hex head bolts, 2 10mm hex nuts
 - PDC – Box; 1 bracket, 2 10mm x 30mm hex head bolts, 2 10mm hex nuts, installation instructions

Note: Body mounting bracket will be painted "YELLOW" of easy identification

Figure 3

U-bolt Installation

When U-bolts are used to retain the subframe, reinforcement blocks must be installed in the frame members. This will prevent distortion of the frame flange as they are tightened. The drawing indicates the correct placement of reinforcement blocks. If you use wood blocks, be sure that there is sufficient clearance between them and any parts of the exhaust system. The use of J-bolts to retain the subframe is strictly prohibited. If any fluid lines or electric cables are located near the reinforcement blocks, you must provide at least 0.4 inches of clearance between rigid or stationary portions, and at least 1.6 inches between moveable or flexible portions of the lines.



CAUTION:

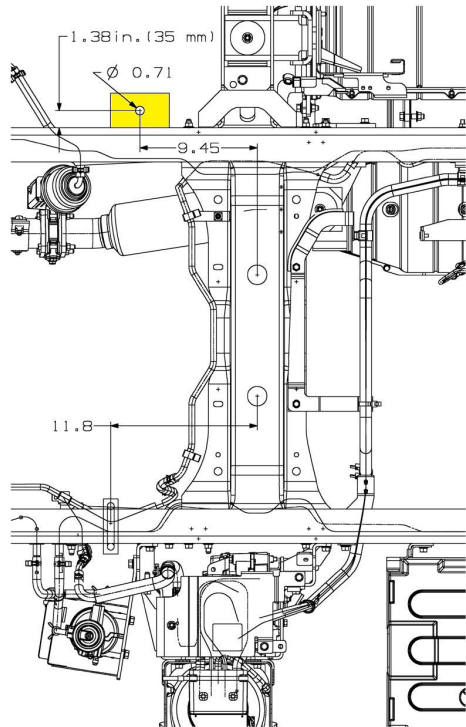
U-Bolt placement is critical with new emission systems and controls. Extra care must be taken when placing bodies on chassis so as not to damage these components. For the installation positions of the U-bolts, refer to "Prohibited Attachment Areas."

Front U-bolt and Mounting Bracket, Mounting Locations Ahead of Transmission

Mandatory location due to after treatment device location and interior frame components. The chassis will be supplied with one steel crush block in cab for left hand forward body attaching location as illustrated in the drawings below and one body mounting bracket (painted yellow) attached to the right hand frame rail in the location shown in the drawings below. Body Builder will be required to design a mating bracket for attaching the body to the yellow painted chassis body mounting bracket (Ref Figure 3 for illustration of bolt clamping 2 brackets). No U-bolt type attaching allowed.

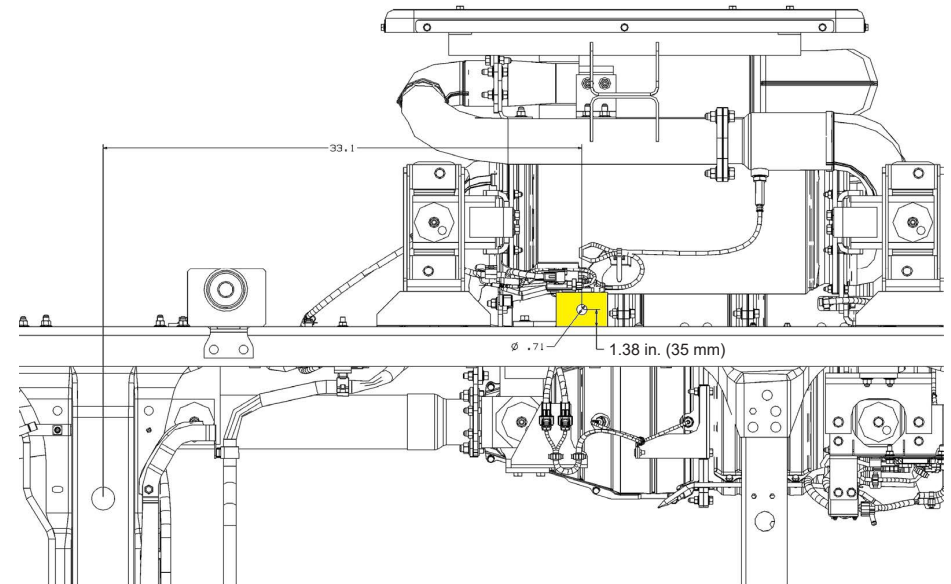
Front, RHS U-bolt on 150" Wheelbase Crew Cab interferes with after treatment system. Isuzu will supply body mounting bracket on chassis to facilitate body mounting on the passenger side of the vehicle as illustrated in Figure 4 below.

N-Series Standard Cab - Body Mounting Bracket Location



Note: 4H Body Mount Kit - PN 2901400270

N-Series Crew Cab 150" WB - Body Mounting Bracket Location



Note: 4H Body Mount Kit 150" WB Crew Cab - PN 2901400250

Crush Block and U-Bolt
(Left Hand -Rail)

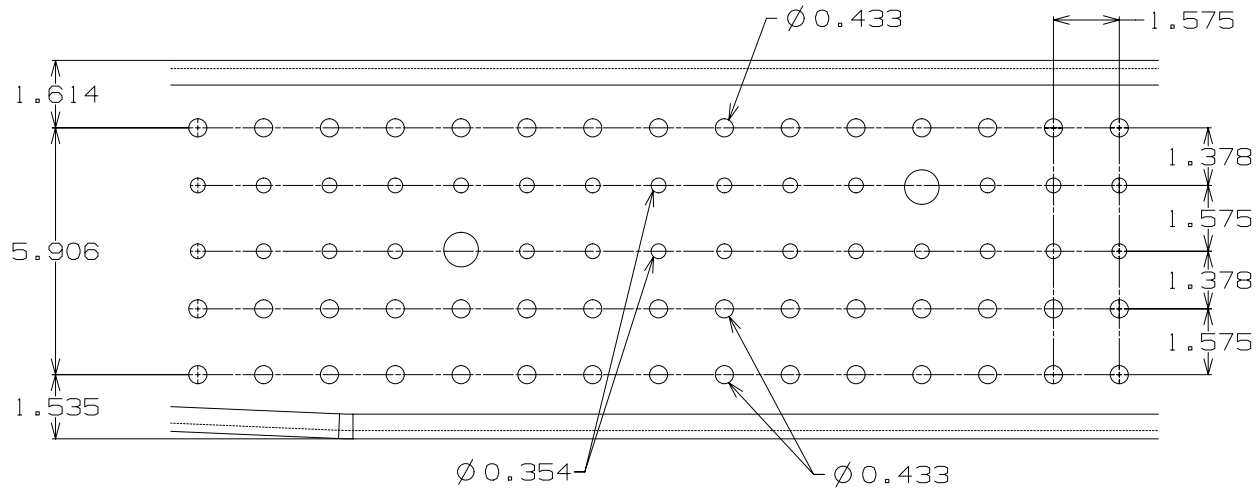
Body Mounting Bracket
(Right Hand -Rail)

Figure 4

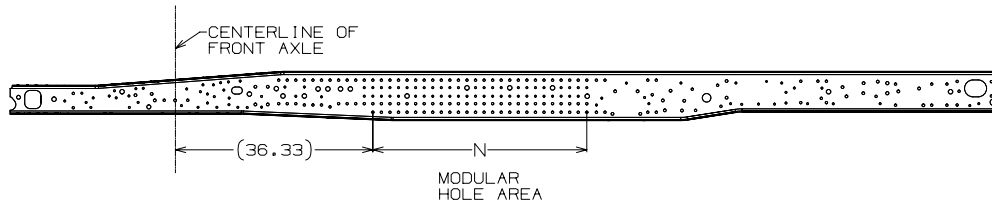
2026 Isuzu Truck

N-Series Modular Frame Hole Pattern

The frame material is a heat treated carbon manganese, and low alloy steel with good welding characteristics. The frame has an 40mm modular hole spacing standard. This standard pattern will assist with body mounting.



Depending on model, wheelbase and chassis specification some holes are in use and some holes are intentionally missing. (Subject to change without notice).



WB (inches) NPR NPR-HD NPR-XD NRR	N (inches)
109	39.37
132.5	63
150	80.3
176	105.5

Note: Re-tighten all attaching parts that are loosened during body installation.

Note: Dimensions in inches

Modification of the Frame

Modifications of the chassis frame should be held to an absolute minimum. Modification work should be performed according to the instructions in the following paragraphs. When modification is complete, chassis frame members should be carefully inspected to eliminate the possibility of any safety-related defects.

NOTE: PLEASE REFER TO NOTES ON CHASSIS FRAME MODIFICATION WITH ANTILOCK BRAKES.

Working on Chassis frame

The chassis frame is designed and built with consideration for proper load distribution. Sufficient physical strength is provided when the load is evenly distributed. Installation of special equipment on the chassis frame can cause variations in load distribution. If even distribution of load is not kept in mind when the equipment is installed, localization of stresses on specific areas of the frame could cause cracking of the chassis frame members or other problems, even if the total weight of the equipment is within the design limit. The chassis frame is designed as an integral unit. Therefore, we do not recommend cutting the chassis frame under any circumstances.

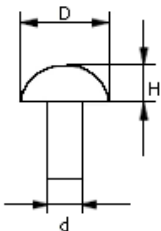
Drilling and Welding

WARNING

- For vehicles equipped with electronic engines and or electronic or hydra-matic transmissions, electric arc welding must be done with the negative battery cable disconnected.

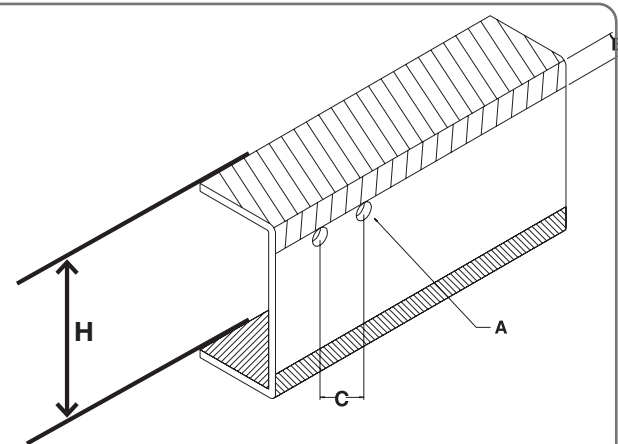
ADVICE

1. Do not drill or weld in the shaded portions of the chassis frame members (see below). Do not weld within 0.8 inches from the edges of any existing holes.
2. Hold the length of any welding beads within 1.2-2.0 inches. Allow at least 1.57 inches between adjacent welding beads.
3. All holes must be drilled. Do not use a torch to make any holes.
4. All riveting must be done with cold rivets. Do not use hot rivets.
5. The flange of the chassis frame must not be cut under any circumstances.
6. The subframe must be attached to the chassis frame with bolts. Do not weld.
7. Repaint exposed metal after drilling.



Rivet size detail:

D - 18mm (medium duty truck) / 21mm (heavy duty truck)
d - 11mm (medium duty truck) / 13mm (heavy duty truck)
H - 7.7mm (medium duty truck) / 11mm (heavy duty truck)



Dimensions:

A - no more than 0.59 inches in diameter
B - must be more than H/5 for welding and H/7 for holes
C - must be more than 1.57 inches
H = Frame Height

Figure 5

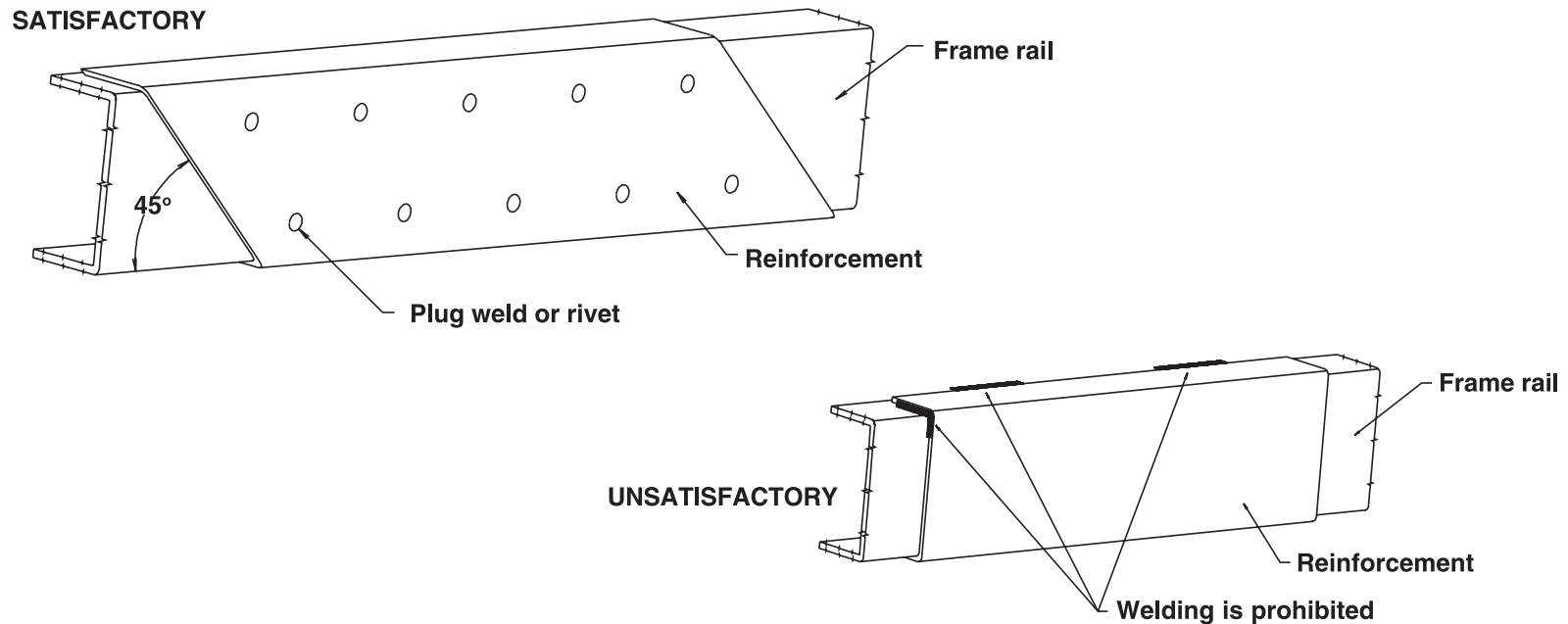
Reinforcement of Chassis Frame

Reinforcements must be installed to prevent the considerable variation in the section modulus. They must be welded so as to avoid localized stresses. The frame of the N-Series diesel is made of HT540 Hot-Rolled steel and the N-Series gas is made of SAPH440 mild steel. The drawing below illustrates the correct and incorrect methods of frame reinforcement.

Welding

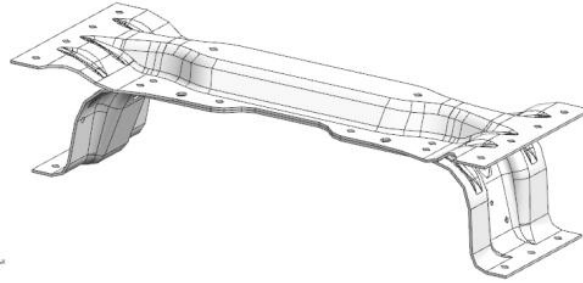
Keep reinforcement plates and chassis frame free from moisture and water. Avoid cooling with water after welding. Use a suitable means to protect pipes, wires, rubber parts, leaf springs, etc. against heat and effect of sputtering. Remove fuel tank assembly when welding portions near the fuel tank. Remove coat of paint completely when welding painted areas. Repaint exposed metal after welding.

When installing reinforcement by riveting or plug welding, place plugs or rivets in a zigzag pattern. When performing plug welding, be sure that electrical components, such as electric harnesses on the inner side of a chassis frame side member, are a minimum of 50mm apart from welding site. When inserting a rivet in a hole from which another rivet has previously been removed, the rivet should be 1 or 2mm larger in diameter than the removed one. Cold rivet only.

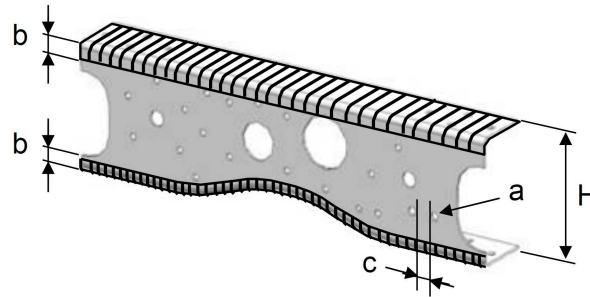


Crossmember Modification

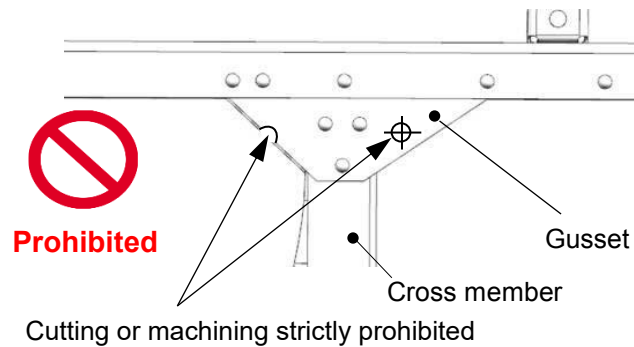
Alligator type cross member - For alligator type, hole drilling, notch making, and welding are prohibited.



Channel type cross member: a – Allowable maximum hole diameter is 9mm, and this hole should be used only for piping or harness routing.
b – Prohibited area, no drilling should be done in this area.
c – See Figure 5 for minimum required distance.



Gusset: Hole drilling and notch making are prohibited.



Rear Overhang Modification

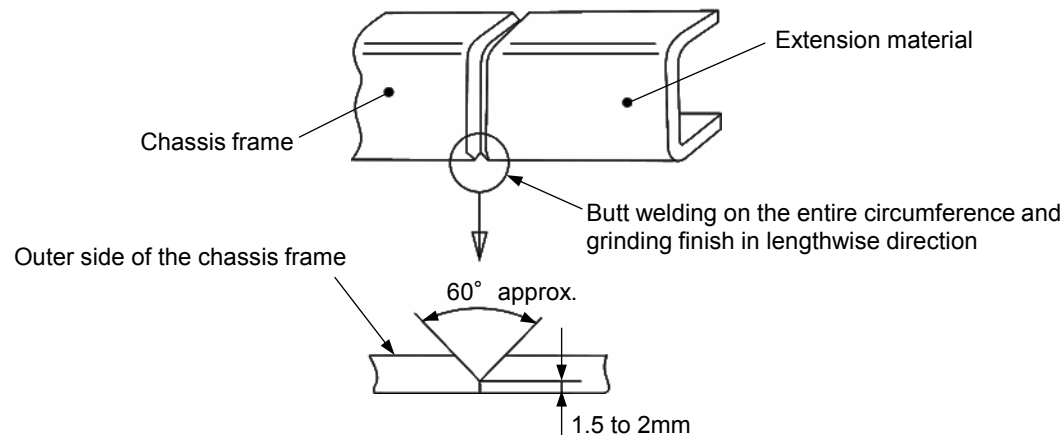
If a body protrudes outward from the rear end of the chassis frame by 300 mm (11.8 in.) or more, lengthen the rear overhang of the chassis frame as indicated below. If it is necessary to cut the chassis frame, ensure that the cut location does not split existing holes.

1. Extension material

- The extension material should be equivalent to that of side members. Refer to specification information for the vehicle model in consideration.
- Thickness and bending radius of the extension material should be the same as that of side members. Refer to specification information for the vehicle model in consideration.

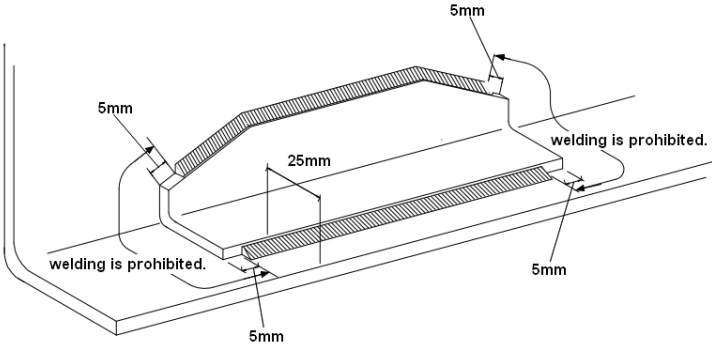
2. Installing extension material

- **Extension material is 300mm or shorter:** Join extension material and chassis frame with a continuous butt weld around the entire circumference. After welding, grind finish weld surface.

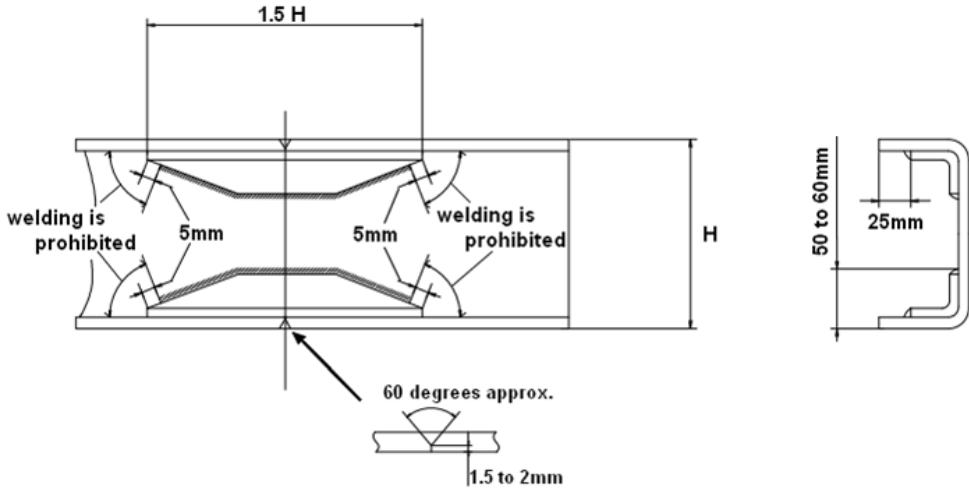


2026 Isuzu Truck

- **Extension material is longer than 300mm:** Join extension material and chassis frame with a continuous butt weld around the entire circumference, and then fit a reinforcement on the inner side of the chassis frame and extension material.



Side member thickness [mm]	Reinforcement material thickness (recommendation value) [mm]
8.0 at minimum	7.0
7.5	5.5 to 7.0
7.0	4.5 to 6.0
4.0 to 6.0	4.5



Fluid Lines

Do not disturb the layout of any brake lines or fuel lines unless absolutely necessary. When modification is needed, follow the instructions below carefully to ensure safety. Brake fluid lines must not be cut and spliced under any circumstances. We do not recommend the cutting or splicing of any fuel lines, but if it is absolutely necessary, be sure that the correct fitting and tools are used to form the joint, and then pressure test the joint. Steel lines are metric sizes.

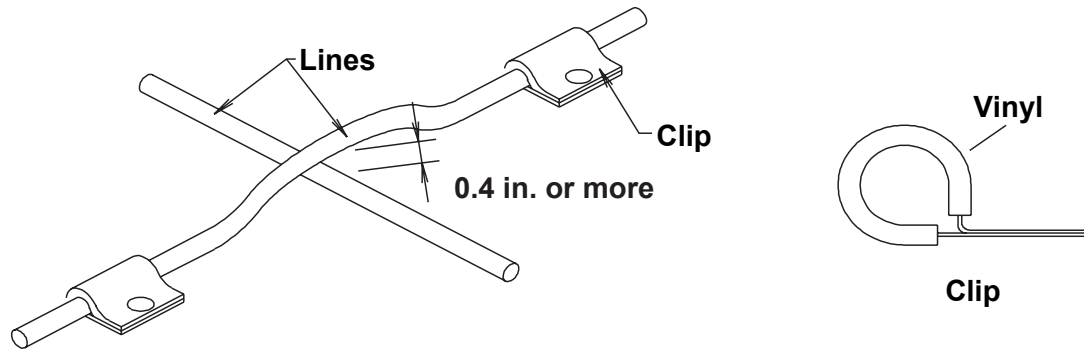
Preparation of Additional Lines

1. Where possible, use only genuine Isuzu lines as supplied by authorized Isuzu dealers.
2. Use the correct metric flaring and bending tools to form the lines.
3. Avoid repeated bending. Do not use heat for flaring and bending the lines. Before and after forming the new lines, examine them carefully for scratches, distortion, dents and the presence of any foreign matter.

Installation of Additional Lines

Install new lines away from adjacent parts and away from any sources of heat.

1. A minimum clearance of 0.4 inches must be maintained between lines. Where necessary, clip the lines into position in order to maintain this minimum clearance.
2. Minimize any crossing between lines. If a crossing is unavoidable, use the following procedure:
 - a. At least 0.4 inches of clearance should be maintained between lines at the crossing point.
 - b. If the 0.4 inches of clearance cannot be maintained, or if the lines are subject to vibration, clip them securely.
3. Plan the bends and clipping points of the lines to minimize vibration and the resulting fatigue.
4. Use rust-proofed clips and apply vinyl coating to the portions of the lines to be clipped.
5. Install new lines in positions where they are protected against water, dirt, grit, sand, rocks and other foreign matter that can come from above or below, or can be flung up by the wheels.



Fuel System

Relocation of the fuel tank, or installation of additional fuel tanks, is not recommended. If modifications to the fuel system are unavoidable, follow these recommendations:

1. Maintain adequate clearance between the fuel tank and any other device or structure.
2. Do not connect any additional fuel hose.

Electrical System Modifications

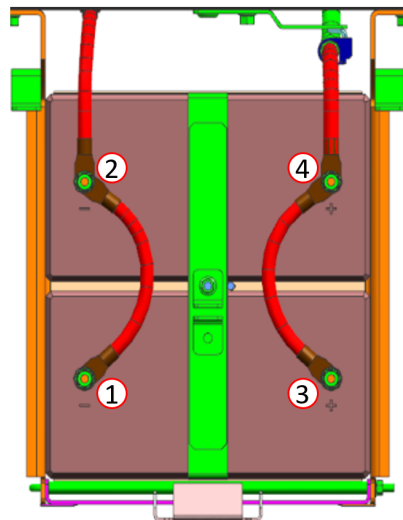
⚠ WARNING

- Before servicing any electrical component, the ignition key must be in the LOCK position and all electrical loads must be OFF, unless instructed otherwise in Isuzu service procedures. If a tool or equipment could easily come in contact with a live exposed electrical terminal, also disconnect the negative battery cable. Do not disconnect cable within 3 minutes after turning the ignition key to the Lock position. Failure to follow these precautions may cause personal injury and/or damage to the vehicle or its components.

👍 ADVICE

- Modifications/add-on wiring must be carefully reviewed to ensure compatibility with the base vehicle wiring by reviewing system schematics, wire routing paths, harness connections, etc.
- Due to the wide range of modifications that may be required for vocational needs, it is not feasible for the O.E.M. to take into account all potential revisions. For this reason, any person modifying existing vehicle wiring must assume responsibility that the revisions have not degraded the electrical system performance.
- Any add-on wiring needs to be properly fused and routed to prevent cut, pinch, and chafe problems, as well as avoid exposure to excessive heat.
- Care must be exercised that existing vehicle interfaces do not have their current load capabilities exceeded, and that the respective control devices are not overloaded.
- Added wire size should be at least as large as the wire to which it is attaching in order for fuse protection to be maintained.
- Electrical wiring components can be obtained through your authorized Isuzu dealers.

Battery Terminal Tightening Torque



No.	NUT SIZE	TORQUE
① ~ ④	3/8-16 (inch)	15±2 (N·m)

Electrical Wiring and Harnessing

To increase the reliability of the wiring, all frame harnesses are covered with corrugated vinyl tubing. The following instructions apply to extending or modifying these harnesses. See the Electrical Section for information on commonly used circuits in the N-Series Chassis.

Wiring

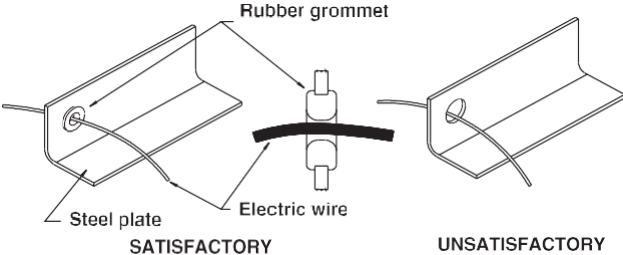
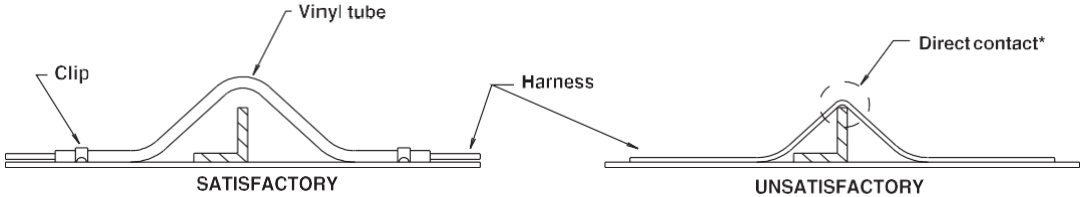


ADVICE

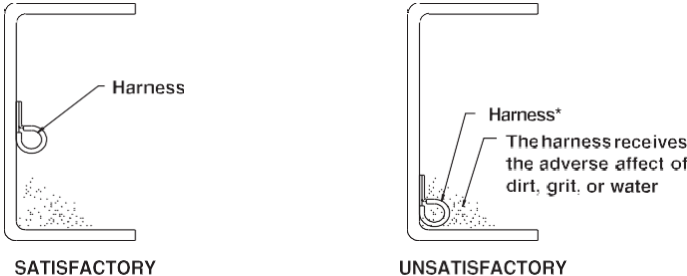
- Most wiring connections on Isuzu vehicles are made with terminals. We recommend the use of terminals when splicing cables and wires.
- When splicing, use new wire of the same gauge, and do not make splices inside the corrugated tubing.
- When making connections to the end of the harness, make sure the connections are electrically perfect. Use insulating tape as needed to prevent the entry of water, which results in short circuits and/or corrosion.
- When making new circuits, or modifying circuits already installed, make the cables only just taut enough to remove any slack. Use clips or grommets where required to protect cables from heat or sharp edges.
- Always use rustproof clips and apply vinyl coating to that portion of the clips in direct contact with the harnesses.
- No scotch clips or connectors.
- To minimize the vibration of the harness, clipping points should be set up according to the table below.
- When changing the length of the battery cable, do not cut or splice the existing cable. Make up a new cable of the correct length and wire gauge for the load and distance, without splices.
- When using connectors, use a socket (female) connector on the electrical source side and a plug (male) connector on the electrical load side to lower the possibility of a short circuit when disconnected.
- When connecting cables to moving or vibrating parts such as the engine or transmission, be sure to maintain sufficient slack in the wiring to absorb the vibration. Follow the example of existing cables connected by Isuzu. Keep flexible cables clear of other parts.
- Do not use vinyl tape in the engine compartment. The heat will tend to make it peel off. Use plated steel clips coated with rubber or vinyl.
- When locating auxiliary equipment or lines near the chassis components caution should be used to protect the chassis components from excessive vibration, heat or chemical reactions.
- See the following page for examples of proper harness protection

Wiring Harness Clip Distances

Harness Diameter	Clip Distance
less than 0.2 in.	less than 11.8 in.
0.2 in. ~ 0.4 in.	approx. 15.7 in.
0.4 in. ~ 0.8 in.	approx. 19.7 in.

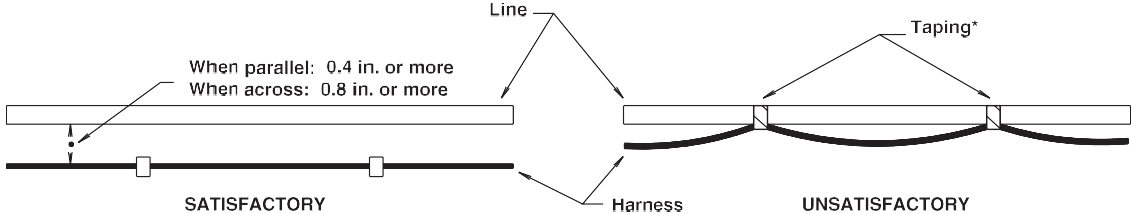


* Cables should not be in contact with sharp edges or piercec holes.



* Harnesses should not be installed on inside lower face of the chassis frame.

* Harnesses should not be taped to fuel lines or other lines. A sufficient clearance should be maintained between harness and pipe lines.



2026 Isuzu Truck

Wire Color Code

The electrical circuits of the N-Series Chassis Cab are connected with low-voltage stranded wire for automotive applications. The color coding standards are as follows for the N-Series Chassis Cab:

(1) Black	B Starter circuits and grounds	(5) Yellow	Y Instrument circuit
(2) White	W Generator (alternator) circuit	(6) Brown	Br Accessory circuit
(3) Red	R Lighting circuit	(7) Light Green	Lg Other circuit
(4) Green	G Signal circuit	(8) Blue	L Windshield wiper motor circuit

Maximum Allowable Current by Wire Size

Harness Design Diameter (mm)	AWG Equivalent	No. of Wires/Wire Diameter (mm)	Cross Sectional Area (mm ²)	Maximum Allowable Current (Amps)
100	00	217/0.80	109.1	363
85	0	169/0.80	84.96	305
60	1	127/0.80	63.84	248
50	1	108/0.80	54.29	223
40	1	85/0.80	42.73	191
30	2	70/0.80	35.19	171
20	4	41/0.80	20.61	123
15	6	84/0.45	13.36	93
8	8	50/0.45	7.952	68
5	8	65/0.32	5.228	51
3	12	41/0.32	3.297	39
2	14	26/0.32	2.091	29
1.25	16	16/0.32	1.287	21
0.85	18	11/0.32	0.8846	17
0.5	20	7/0.32	0.5629	13

Reference: The values given in the “maximum allowable current” column are based on the ambient temperature condition of 104°F with temperature increase of 104°F.

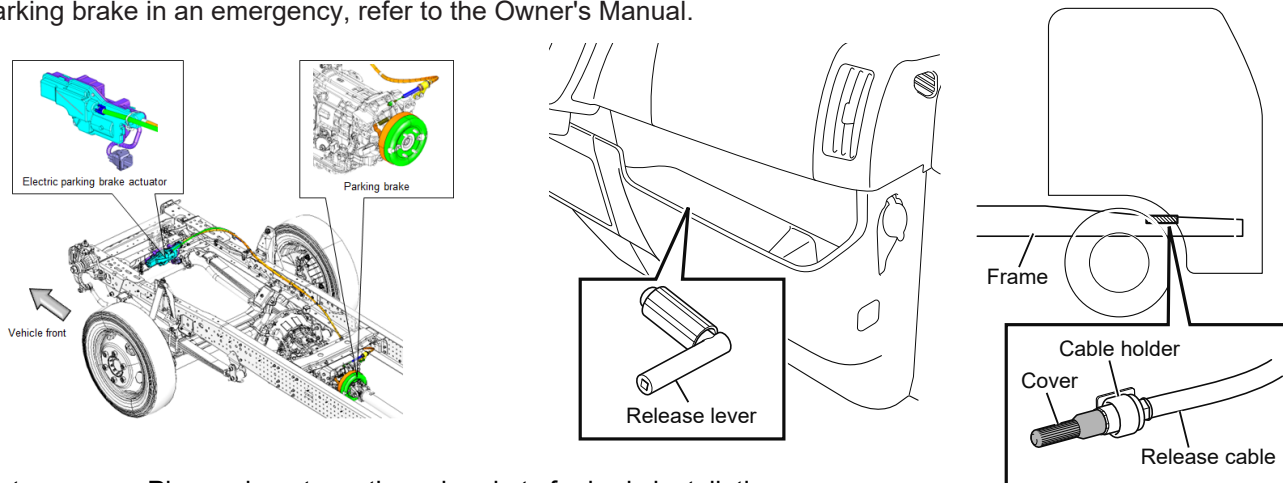
Electronic Parking Brake Release Cable

ADVICE

- A minimum clearance of 1.2 inches should be provided between the electronic parking brake cable and body components.
- Be sure to never bend the electronic parking brake release cable.
- The electronic parking brake cable may be broken if it is bent or interferes with the body and its fixtures.

Release Cable

The end of the release cable is located at the right front of the frame. If the electric parking brake cannot be released due to a malfunction of the electric parking brake, etc., it is possible to release the electric parking brake by attaching a tool to the end of the release cable. For the information on how to release the electric parking brake in an emergency, refer to the Owner's Manual.



Rear Lighting

Brackets installed are temporary. Please do not use these brackets for body installation.

Serviceability

ADVICE

- No matter what other modifications or changes are made, access to components requiring daily preventive maintenance or other routine service must not be obstructed. This includes the following items:
 1. Inspection, filling and draining of engine oil and cooling water.
 2. Inspection, filling and draining of transmission fluid.
 3. Adjustment, removal and installation of the fan belts.
 4. Inspection, filling and removal of the battery and battery cover.
 5. Inspection and filling of brake fluid.
 6. Inspection and bleeding of the brake system and servo unit.
 7. Maintenance of clearance for tightening of check bolt on brake safety cylinder.
 8. Operation of the spare tire carrier, including mounting and dismounting of the spare tire.
 9. Adjustment, removal and installation of distributor and/or cover.

Wheelbase Alteration

With certain applications, it may become necessary to alter the wheelbase of the chassis. The following pages provide the suggested guidelines for accomplishing either shortening or lengthening of the wheelbase.

Shortening/Lengthening the Wheelbase Without Altering the Frame

Since the frame is an integral part of the chassis, it is recommended for the frame not be cut if it is avoidable. When shortening or lengthening the wheelbase on some models, it is possible to do so without cutting the frame. This is possible on models which have a straight frame rail. If the chassis does not have a straight frame rail, it may still be necessary to cut the frame. For instructions on shortening or lengthening these chassis, refer to the "Altering the Wheelbase by Altering the Frame" section of this book. Otherwise, the wheelbase may be shortened or lengthened by removing the rear suspension, drilling new suspension mounting holes at the appropriate spot in the frame, and sliding the rear suspension, suspension liner, and suspension crossmembers forward or aft.

The suspension and suspension crossmembers' rivet holes left in the frame rail flange must be filled with GRADE 8 bolts and hardened steel washers at both the bolt head and nut, HUC bolts or GRADE 8 flanged bolts and hardened steel washers at the nut. When shortening/lengthening the wheelbase in this manner, the following guidelines must be adhered to:

1. All frame drilling must comply with the DRILLING AND WELDING section of this book.
2. All rivet holes left in the frame rail flange from the suspension and suspension crossmembers must be either filled with GRADE 8 bolts and hardened steel washers at both the bolt head and nut, HUC bolts or GRADE 8 flanged bolts and hardened steel washers at the nut.
3. The components required to be slid forward or aft are the suspension and suspension hangers, suspension crossmembers and suspension frame liner.

Altering the Wheelbase by Altering the Frame

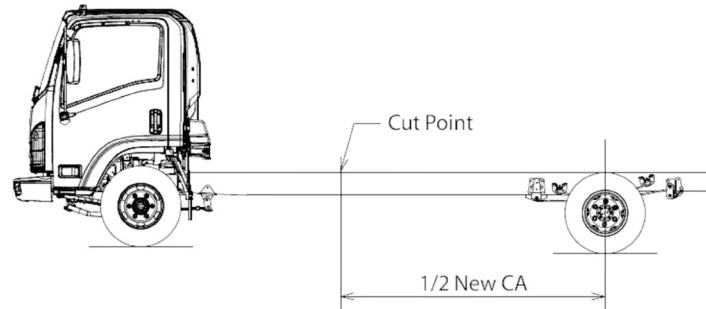
Even on a straight frame rail, it may be desirable to cut the frame and lengthen or shorten the wheelbase rather than simply sliding the rear suspension back or forward. The following section offers some guidelines and suggestions for cutting and lengthening or shortening the frame.

Glossary of Terms – Chassis Wheelbase Alteration

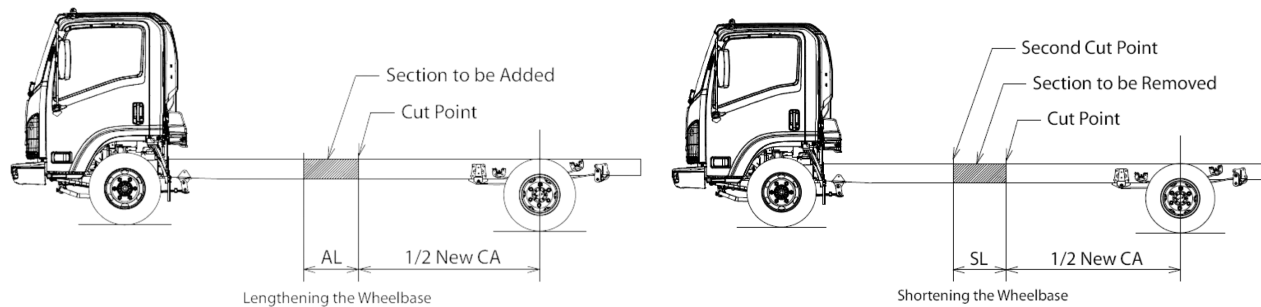
- CA – Length from back-of-cab to rear axle centerline in inches.
- AL – Added length (in case of a lengthened wheelbase). Difference between WB (new) and WB (old).
- SL – Shortened length (in case of shortened wheelbase). Difference between WB (old) and WB (new).

2026 Isuzu Truck

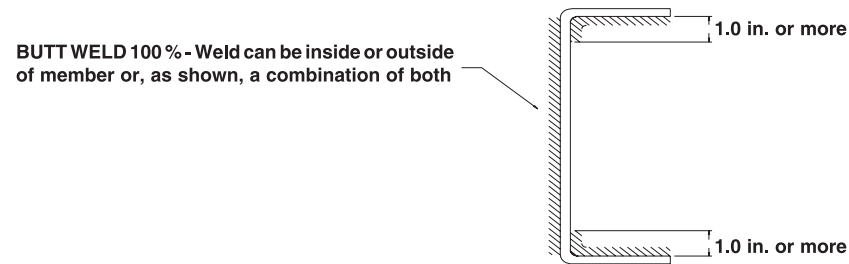
1. Determine the added length (AL) or shortened length (SL) required to lengthen or shorten chassis. (For added wheelbase: $\text{New CA} = \text{CA} + \text{AL}$; For shortened wheelbase: $\text{New CA} = \text{CA} - \text{SL}$.)
2. Obtain the material to be used as the insert for the lengthened wheelbase in the correct length (AL). The insert must have the same cross sectional dimensions and yield strength as the original frame rail.
3. Divide the new CA by two (2). Measure new $\text{CA}/2$ from the center of the rear axle forward and mark this point on the chassis frame (see figure below).



4. Cut the chassis frame at this point. If the wheelbase is to be lengthened, addition of the previously obtained insert (of length AL determined in step 1) will be made at this time. If the wheelbase is to be shortened, measure the distance (SL) forward of this cut and remove a length (SL) section from the chassis frame (see figure below). Insure that an adequate area on the frame remains for the required addition of the necessary reinforcements. These are the only suggested places for cutting the frame and reinforcements but may be changed upon the advice of Isuzu Commercial Trucks of America, Inc. Application Engineering.

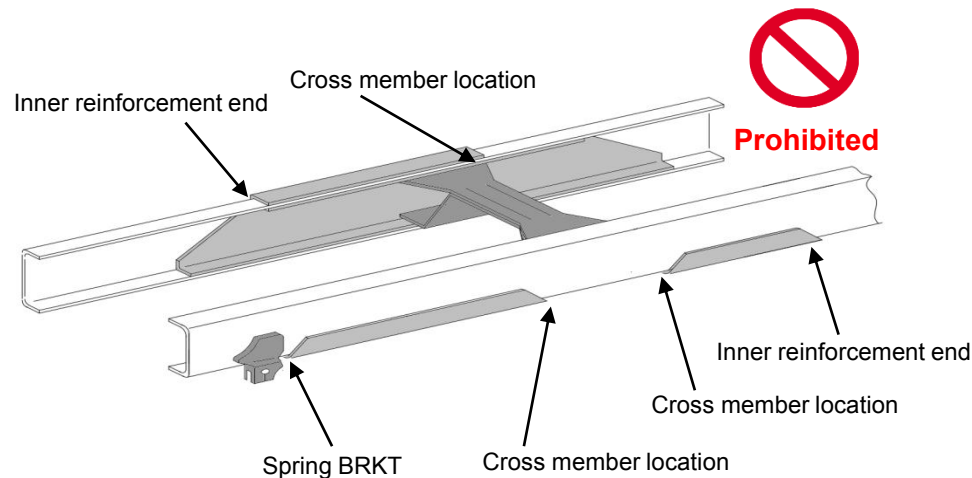


5. When welding the insert (length AL for wheelbase lengthening) to the original frame rail, a continuous butt weld must be used at the splices. When shortening the wheelbase, weld the ends of the chassis frame together with a continuous butt weld over the junction of the frame ends. Weld can be both the inside and outside of the frame rails using welding techniques prescribed by established welding standards (ref. SAE J1147) and in accordance with this guide. An example of this weld is shown below.



Installation position of reinforcement material

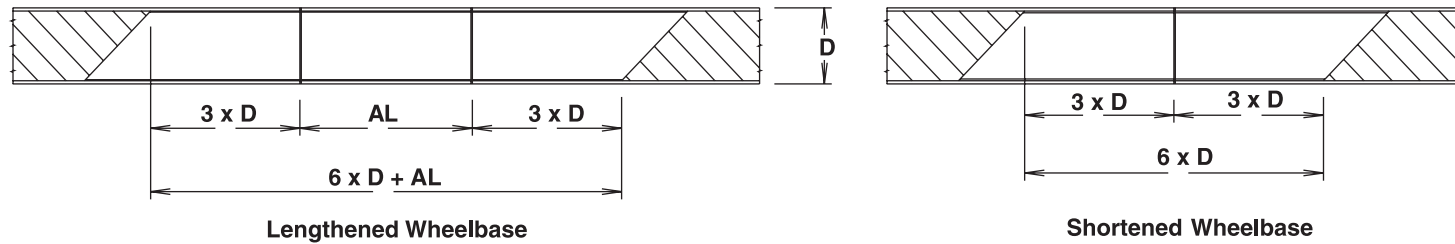
- Ends of outer reinforcement and inner reinforcement should not overlap.
- An end of outer reinforcement and cross member should not overlap.
- An end of outer reinforcement and spring bracket should not overlap.



6. Determine the appropriate additional internal reinforcements which are required using this equation:

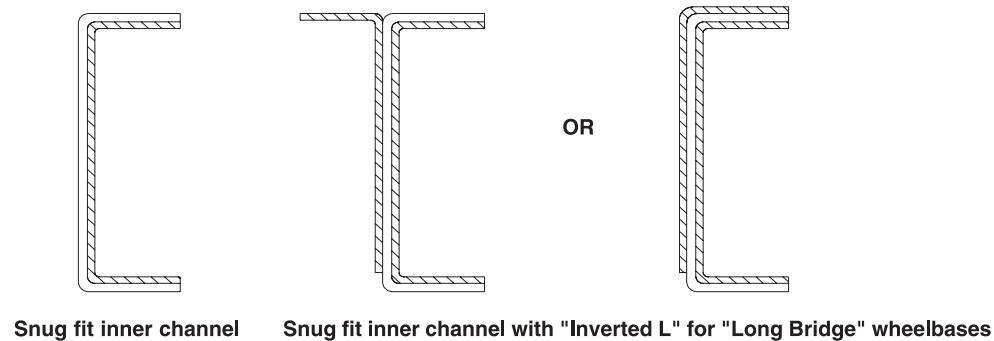
$$\text{Reinforcement Length} = AL + 6 \times (\text{original frame rail web depth}).$$

The figure below shows how this reinforcement is to be placed over the extended or shortened section of the frame rail.



D = Original frame rail web depth

The suggested cross section of this reinforcement is a snug fit inner channel. If the new wheelbase exceeds the upper limit of the optional wheelbases of this model, i.e.; a "long bridge", it may be necessary to use an "inverted L" reinforcement in addition to the snug fit channel reinforcement. Application Engineering should be consulted for approval of such cases. It should be noted that these methods of reinforcements, and any other methods which may be used, require a 45° angled cut at both ends to avoid stress concentrations in the frame (note the figures under item 7).



7. The reinforcements must be fastened securely to only the web of the original chassis frame rail. The reinforcement must be held rigidly in place using either HUC bolts, GRADE 8 bolts and hardened steel washers at both the bolt head and nut, or GRADE 8 flanged bolts and hardened steel washers at the nut. Below are some suggested bolt patterns. It should be noted that these bolt patterns must not align the bolts vertically, i.e.: the bolt pattern must be staggered.

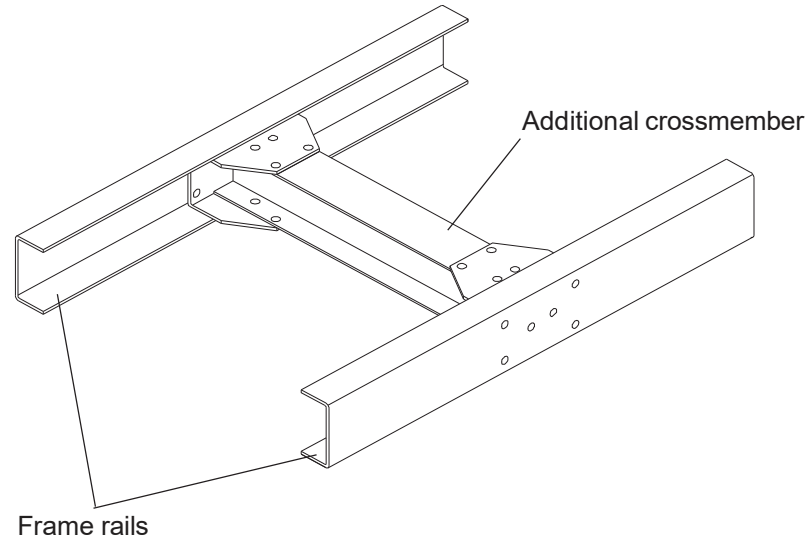


8. Lengthening the frame will also require extending the brake lines and basic chassis electrical harness. It is recommended that the original brake lines be removed and replaced with brake lines of the same diameter as the original lines and of the appropriate length. The extended ABS brake lines must be supported back to the frame to prevent vibration. The electrical harness must be replaced with one appropriate for the new wheelbase or extended in accordance with the *Electrical Wiring and Harnessing* section of this book.
- a) Starting with the 25MY **N-Diesel**, there will no longer be an extension harness. Instead, the entire rear harness will need to be replaced when going to the extended 200" and 212" wheelbases.
 - i) 200" WB Rear Harness Part # 7-55223-429-0
 - ii) 212" WB Rear Harness Part # 7-55223-430-0
 - b) Starting with the 26MY **N-Gas**, the Class 5 truck will offer the extended 200" and 212" wheelbases.
 - i) 200" & 212" WB Rear Harness Part # 7-55242-748-1
9. The propeller shafts' overall length will also need to be lengthened or shortened. If the extension is within the limits of the optional wheelbases of the respective model, the exact propeller shaft lengths and angles are given on or about Page 12 of the respective sections of this book. If the modified wheelbase exceeds the optional wheelbases of the respective model, the following guidelines must be adhered to:
- a) Propeller Shaft Length - the maximum propeller shaft lengths (pin to pin) for the respective models are shown in the table below.
 - b) Propeller Shaft Angles - the maximum propeller shaft angles, with respect to the previous shaft, are shown in the table below.
 - c) The propeller shaft angles must be designed such that the angles will cancel to avoid propeller shaft whip.
 - d) The propeller shaft yokes must be assembled such that the propeller shaft yokes are "in phase."

Chassis Model	GAS ENGINE				DIESEL ENGINE			
	NPR	NPR-HD	NQR	NRR	NPR-HD	NPR-XD	NRR DR	NRR
Propeller Shaft Diameter (in.)	3.25	3.25	3.54	3.54	3.25	3.25	3.54	3.54
Maximum Propeller Shaft Length (in.)	50.7	50.7	54.3	54.3	50.7	50.7	52.9	52.9
Maximum Propeller Shaft Angle (in.)	6.1°	6.1°	6.1°	6.1°	6.1°	6.1°	6.1°	6.1°

10. When extending to the 200" and 212" wheelbases it will need the drop bracket for the driveshaft center bearing.
- a) Part # 2-9005K-010-0.
11. Extending the frame will also require relocation and/or addition of crossmembers. If the extension is within the limits of the optional wheelbases of the respective model, the exact crossmember locations and dimensions are given in the respective model sections of this book. If the modified wheelbase exceeds the optional wheelbases of the respective model, the following guidelines must be adhered to:
- a) The crossmember location will largely be determined by the propeller shaft lengths and where the center carrier bearing locations are for the propeller shaft assembly.
 - b) A crossmember must be located at the front and rear spring hangers of the rear suspension (refer to the appropriate section of this book to see where these suspension crossmembers are to be located).

c) The crossmember must be constructed such that it supports both the upper and lower flange on each frame rail (see drawing on next page). A crossmember such as the one shown below may be constructed, or Isuzu crossmembers may be obtained from your Isuzu parts dealer.



d) The maximum distance between crossmembers for the respective models is given in the table below.

MODEL	NPR	NPR-HD	NPR-XD	NRR
Maximum Distance Between Crossmembers (in.)	35.7	35.7	35.7	35.7

e) The drilling for any additional holes in the frame rails must comply with the DRILLING AND WELDING section of this book.

12. All other aspects of lengthening or shortening the wheelbase must comply with the applicable section of this Body Builder's Guide. For special applications and longer than recommended body lengths, ICTA Application Engineering must be consulted for approval.
13. Please contact applications engineering for guidelines on N-Series Chassis frame modifications when the vehicle is equipped with an anti-lock brake system.

- **Please email ICTA.Application.Engineering@icta-us.com**
- **Or in the West Coast call 714-935-9327 and in the East Coast call 734-582-9284.**

Symbols Used in This Publication



WARNING

- Failure to follow instructions identified by this symbol may result in death or injury to you and/or other people.



ADVICE

- Failure to follow instructions identified by this symbol could result in damage to your vehicle.

Installation of Body and Special Equipment

Anti-lock Brake System (ABS) & Electronic Stability Control (ESC)



ADVICE

- Do not relocate or modify the Electro-Hydraulic Control Unit (EHCU).
- Do not modify the electrical harness and connector(s) of ABS/ESC systems.
- Do not modify the vacuum line(s) inside cab.
- Do not use ABS/ESC component wiring to extract power or ground circuits for accessories or added equipment.
- Do not relocate or change the installation direction of the yaw rate sensor. The yaw rate sensor's operation is dependent on its position relative to the vehicle's center of gravity as well as the direction of its mounting. Altering the installed location or direction may cause the system to operate incorrectly.
- Do not set final gear ratio to anything other than ISUZU factory specification.
- The set value of the final gear ratio is programmed into the ABS/ESC control unit. If the final gear ratio is changed, the ABS/ESC systems may not operate correctly.
- Do not operate the vehicle with any combination of tires other than ISUZU factory-specified tires. When brakes are applied, the ABS/ESC systems monitor the rotational speed differences of the front and rear tires and rely on a preset value for the tire diameter programmed into the control unit. Using tires that are different from the preset values or using tires that vary greatly in diameter from front to rear, may negatively impact braking performance and cause abnormal operation of the ABS/ESC systems. Contact ICTA/ICTC before equipping any tires other than Isuzu factory-specified tires.
- Do not upfit chassis into a tractor or 5th wheel (Hot Shot) configuration.
- Do not route antenna wiring near the main vehicle harness to prevent electrical interference with the ABS/ESC control wires located within the main vehicle harness.
- Maintain more than 100 mm (3.94 inches) of clearance with ABS/ESC equipment (e.g. EHCU, speed sensor, yaw rate sensor, steering sensor, etc.) when installing the following types of equipment:
 1. Communication radio devices and their antennas.
 2. Motors, relays, and other devices that generate electrical noise.

Calibration is necessary when replacing and/or removing any of the following components (contact an Isuzu dealership for more details):

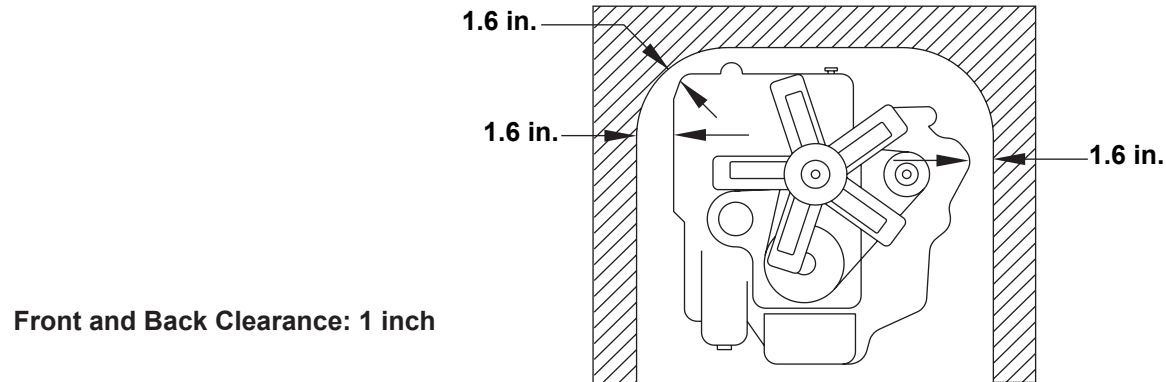
- Electro-hydraulic control unit and/or yaw rate sensor.
- Steering sensor and/or steering-related components and steering wheel.

Installation of Body and Special Equipment

F-Series Clearances

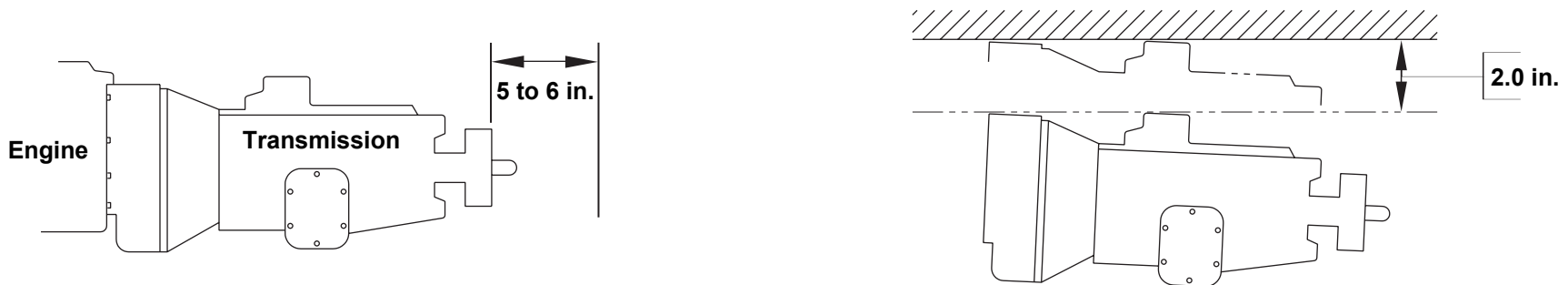
Engine

At least 1.6 inches of clearance should be maintained around the engine. At least 1 inch of clearance should be maintained to the front and rear of the engine. No obstacles should be added in front of the radiator or intercooler.



Transmission

The transmission is removed from the rear. Enough clearance must be provided to allow for rearward movement of the transmission assembly. At least 2 inches of clearance should be maintained above the automatic transmission to allow for transmission removal. At least 1 inch of clearance should be maintained to the front and rear of the transmission. Clearance should be sufficient to allow 5 to 6 inches of unrestricted movement of the transmission assembly. In addition, provide at least 2 inches of clearance around the control lever on the side of the transmission to allow free movement without any binding.

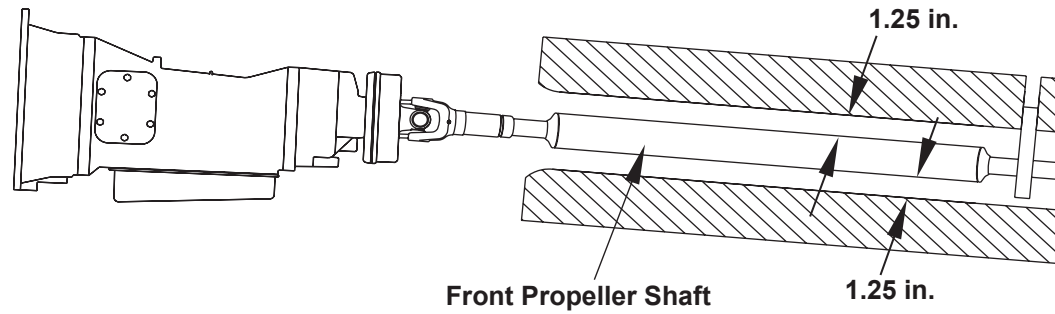


Front and Back Clearance: 1 inch

2026 Isuzu Truck

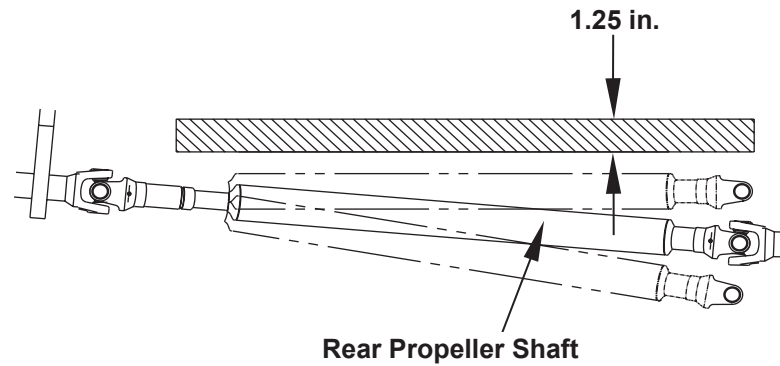
Front and Center Propeller Shafts

At least 1.25 inches of clearance should be maintained around front and center propeller shafts.



Rear Propeller Shaft

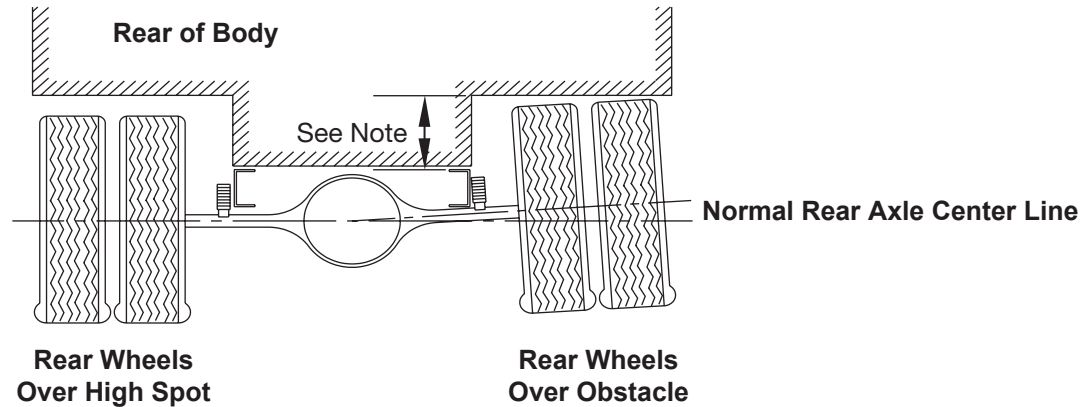
With the rear springs at maximum deflection, at least 1.25 inches of clearance should be provided over the rear propeller shaft.



2026 Isuzu Truck

Rear Wheel and Axle

The design and installation of the body should allow sufficient clearance for full vertical movement of the rear wheels and axle when the vehicle travels over rough or unlevelled surfaces.



Note: For recommended clearances, please refer to the Rear Axle Chart in each model's respective section.

Other Clearances

The transmission control cable may be broken if it is bent by or interferes with the body and its fixtures. To prevent this, 1 inch of minimum clearance should be provided. When cable is detached from body mounting, be sure not to bend the cable.

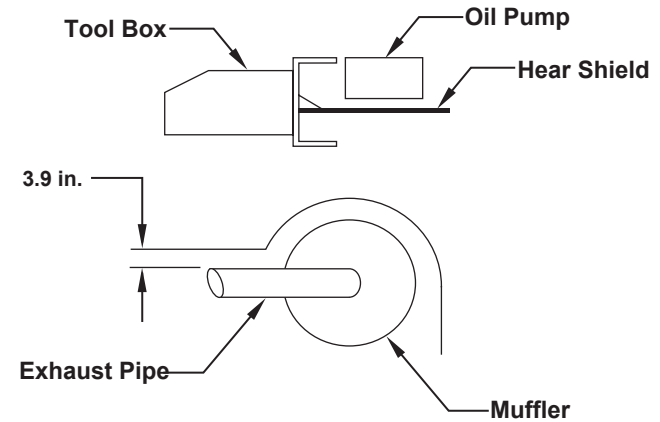
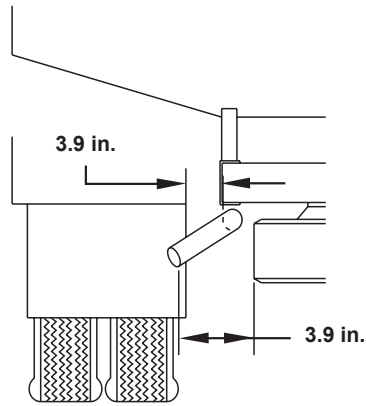
Accessibility to the grease nipple on the rear spring bracket/shackle should be provided so that serviceability with a grease gun is not hampered.

Parts	Location	Minimum Clearance (in)
Brake Hose	Axle Side	6.7
	Frame Side	1.6
Shock Absorber	Axle Side	2.4
	Frame Side	1.2
Parking Brake Cable	-	1.2
Fuel Hose	-	1.6

Exhaust Pipe Clearances

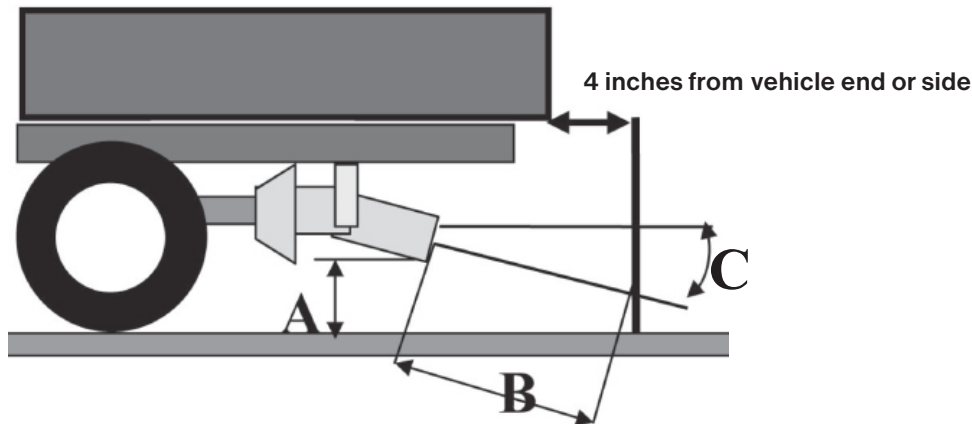
If flammable materials such as wood are used in the body, provide at least 3.9 inches of clearance between the body and any parts of the exhaust pipe, DPF/ SCR Package. If it is impossible to maintain the minimum clearance, use a heat shield. Also use a heat shield if an oil pump or line is located above the exhaust pipe, muffler or catalytic converter.

- Clearances around SCR system components must be greater than 1.0 inch at all times to avoid potential contact between the body and the exhaust components. The 1.0 inch allows for thermal expansion and assembly tolerance of the exhaust system. It does not account for dynamic movement in the body due to road conditions and other loads. Body companies are instructed to adjust this 1.0 inch clearance as required to account for body displacement while driving. This guidance does not supersede guidance or exhaust clearances for temperature sensitive or flammable components.
- Exhaust temperatures have not changed since the introduction of DPF in 2007.



Exhaust Heat Clearances

During the DPF regeneration cycle, exhaust gas temperatures are hot. Therefore, care should be exercised in placement of the pipe's end location and angle. Do not locate any body components or equipment around the exhaust pipe's end area.



Dimension	Clearance
A	8 in. (minimum)
B	18 in. (minimum)
C	45 deg. (maximum)

Exhaust System

The exhaust system has a crucial role in meeting 2010 EPA regulations. In order to maintain compliance with the 2010 EPA emissions levels the Diesel Particulate Filter (DPF) and SCR package must not be moved. The distance between the engine exhaust manifold down pipe and Diesel Particulate Filter (DPF) / Selective Catalytic Reduction Package (SCR) must be maintained and the pressure in the system must be sustained at a constant level. Due to increased temperatures in the exhaust system during the regeneration cycle and the heat stress caused by these temperatures, body builders should closely evaluate the placement of equipment and provide protection to these added components as needed.

Diesel Particulate Filter (DPF) and Selective Catalytic Reduction (SCR) Restrictions

1. The DPF/SCR has exhaust pressure pipes and temperature sensors. Care must be taken when a body is installed so as to not damage pipe sensors.
2. The DPF/SCR should be free from impact or vibration during body installation.
3. The DPF/SCR must have enough room for disassembly of the unit for service and cleaning.
4. The DPF/SCR switch in the cab should not be removed or disabled. No modification or relocation of the DPF/SCR unit, pressure pipes, and sensor is permitted.

Exhaust System Modification

Modification of the exhaust system should be avoided. If modifications are absolutely necessary, the following points should be maintained.

1. Maintain the clearance specified in the table below between all parts of the exhaust system and any fuel lines, brake lines, brake hoses, electrical cables, etc. The exhaust outlet should not point toward any of these parts.

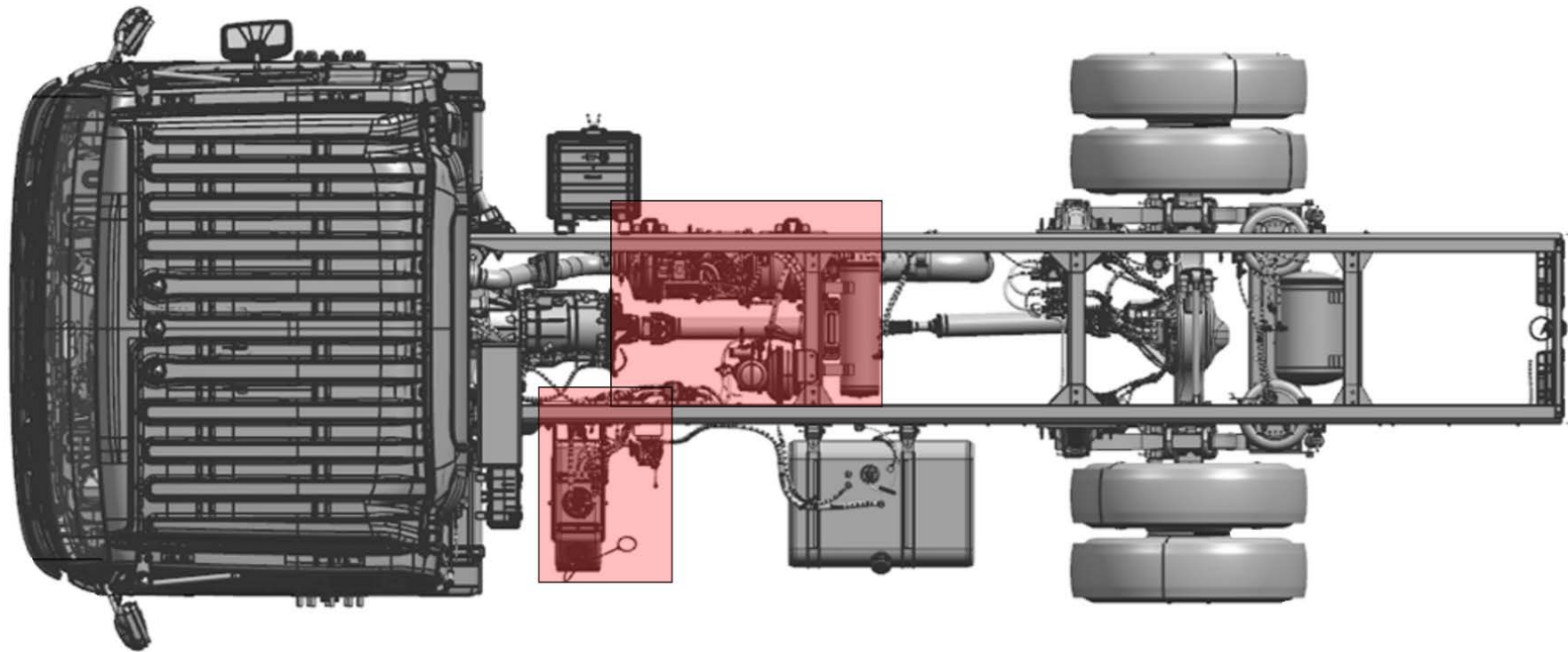
Component	Clearance Dimension
Brake Lines	2.4 in. or more. If the combined section of a group of parallel brake lines is more than 7.8 in., a clearance of 7 in. or more should be provided.
Flexible Brake Hoses	7.8 in. or more. The temperature of flexible brake hoses should not exceed 158°F. If the highest temperature is not measurable, a clearance of more than 15.7 in. should be maintained between the hoses and the exhaust system.
Wiring Harnesses and Cables	7.8 in. minimum and prevent temperatures more than 158°F. If maximum temperature cannot be measured, provide a minimum clearance of 15.7 in..
Steel Fuel Lines	3.1 in. or more.
Rubber or Vinyl Fuel Hoses	5.9 in. or more.

2. If a tool box is installed, it should preferably be made from steel. If a wooden tool box is installed, at least 7.8 inches of clearance should be maintained between the tool box and any parts of the exhaust system.
3. If the exhaust system is modified, it is the responsibility of those making the modification to ensure that the noise level meets appropriate standards.
4. If the exhaust system is modified it is the responsibility of those making the modification to ensure that the emission levels meet appropriate standards.
5. Exhaust system component temperatures are sufficient to ignite flammable materials; efforts should be made to prevent flammable materials from interacting with the exhaust system.

2026 Isuzu Truck

F-Series No Modification Zones

The DPF/SCR unit **CANNOT** be modified or moved. The DEF tank and pump **CANNOT** be modified or removed. DEF lines and coolant lines **CANNOT** be modified or rerouted.



Body Installation

Mirrors

The Isuzu F-Series chassis will accommodate up to 96 inch wide bodies without modification to the mirror brackets.

⚠ WARNING

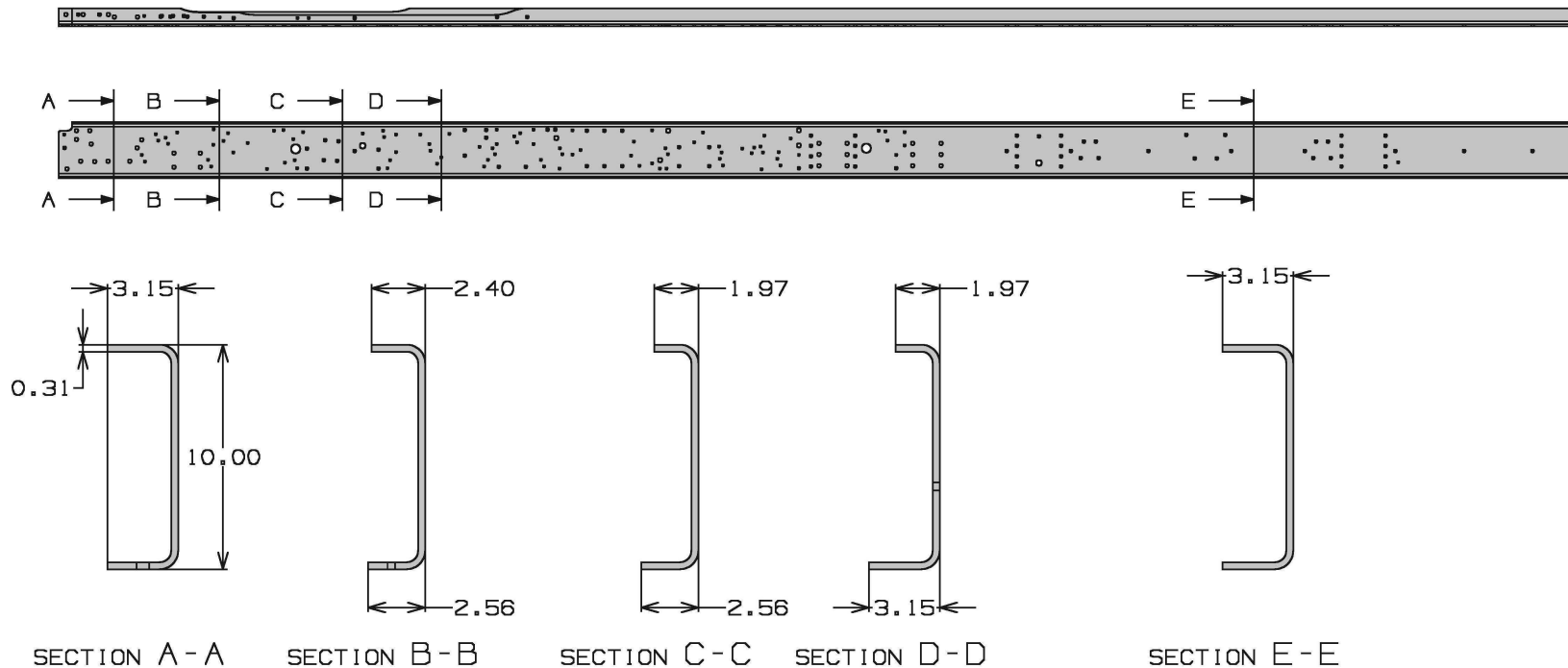
- Bodies wider than 96 inches and up to 102 inches wide will require modified mirror brackets. This modification can be made at the port and the vehicle order/label will indicate a Regular Product Option (RPO) of I4Q, I5Q or I6Q indicating "Mirror Bracket for 102 wide body". The brackets can also be modified by the Isuzu Dealer or the Body Company by installing mirror brackets ordered from Isuzu Parts.

Special Equipment on the Chassis

When installing special equipment on the chassis, extra consideration must be given to the weight and construction of the equipment to assure proper distribution of the load. Localization of the load should be prevented. All special equipment should be properly secured into position. We recommend the use of subframe members when installing special equipment.

Subframe Design and Mounting

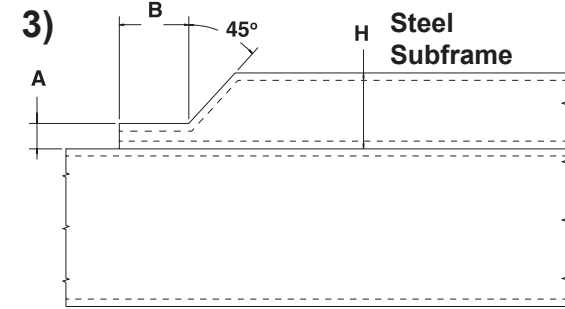
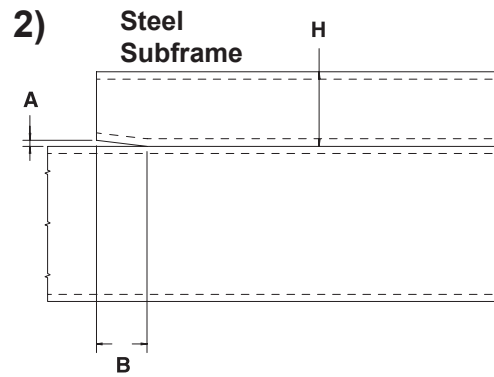
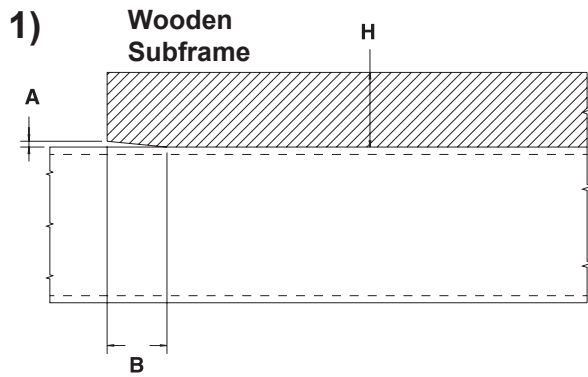
The sub frame assembly should be mounted as close to the cab as possible. It should be contoured to match the shape and dimensions of the chassis frame as closely as possible. See model specification sections for frame and crossmember layout.



2026 Isuzu Truck

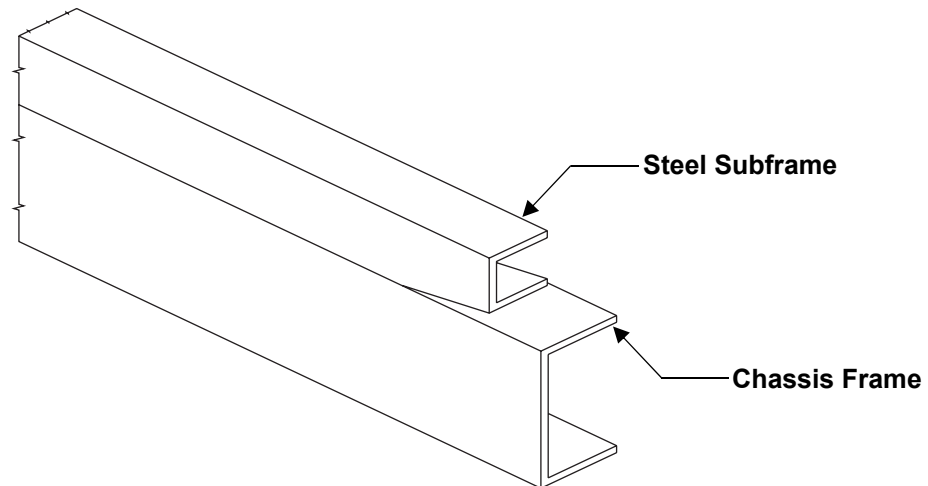
Subframe Contour

Contouring of the front end of the subframe members as shown in the three illustrations below will prevent stresses from being concentrated on certain areas of the chassis frame.



Drawing	A	B
1)	0.2 in.	$\frac{H}{2} \cong H$
2)	0.2 in.	H or greater
3)	$\frac{H}{3}$	H or greater

When using a steel subframe, do not close off the end of the subframe.



Prohibited Attachment Areas

Do not attach the subframe to the chassis frame with a bolt or bracket at the points indicated in the following illustrations.

1. At the front end of the subframe. The attaching bolt or bracket must be at least 2 inches behind the kick up point of the subframe (Figure 1).
2. Within 8 inches of bends in the chassis frame or the attachment points of any crossmembers (Figure 2).

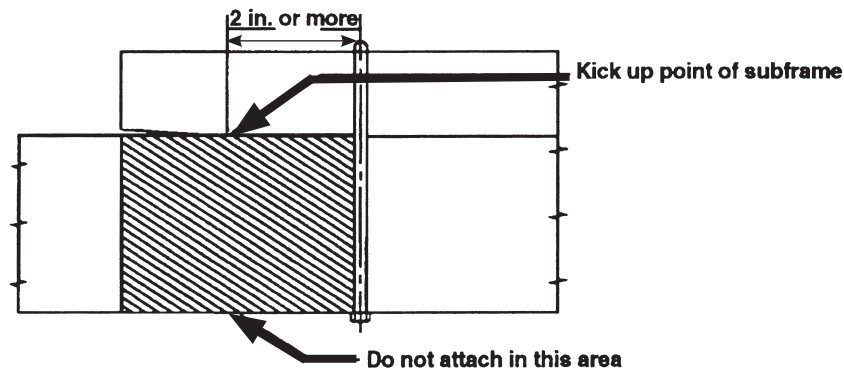


Figure 1

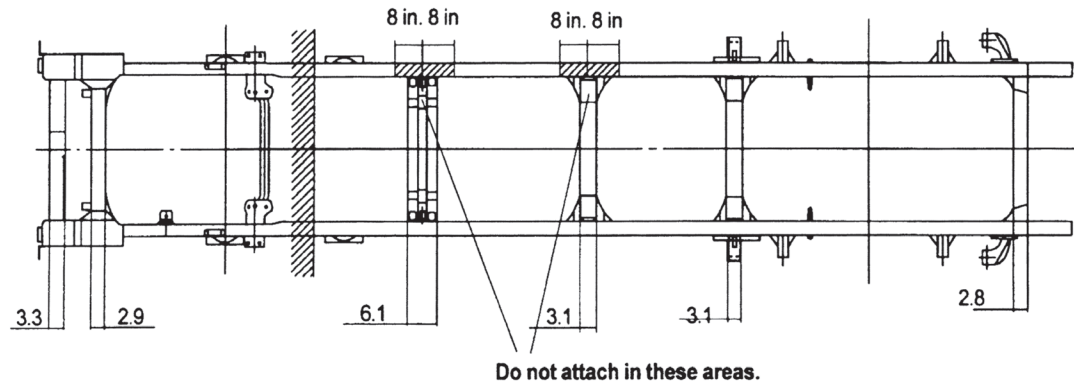
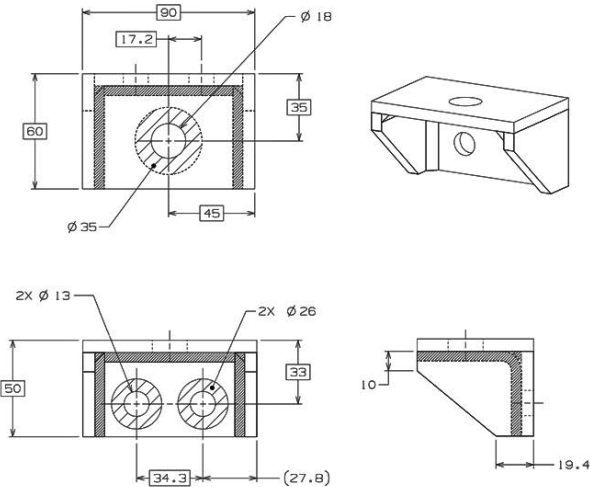
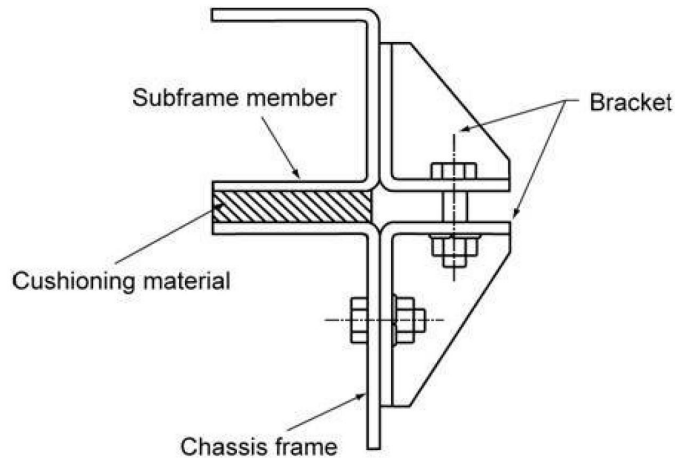


Figure 2

Subframe Mounting - Bracket Installation

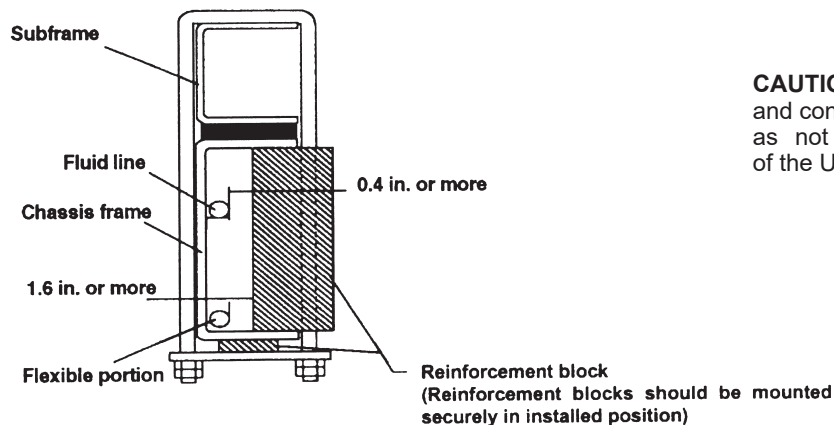
Mounting brackets should be clamped to the chassis frame using bolts. For proper positions in which to install the bolts, refer to the preceding section and the section "Modifications to the Chassis Frame." In addition to the illustrated bracket and U-bolts a shear plate may be required for adequately body mounting. The body company will be responsible for engineering their own mounting system.



Note: (3) Body mounting brackets are bolted to the frame from the factory, and they will be painted "YELLOW" of easy identification

U-bolt Installation

When U-bolts are used to retain the subframe, reinforcement blocks must be installed in the frame members. This will prevent distortion of the frame flange as they are tightened. The drawing indicates the correct placement of reinforcement blocks. If you use wood blocks, be sure that there is sufficient clearance between them and any parts of the exhaust system. If any fluid lines or electric cables are located near the reinforcement blocks, you must provide at least 0.4 inches of clearance between rigid or stationary portions, and at least 1.6 inches between movable or flexible portions of the lines.



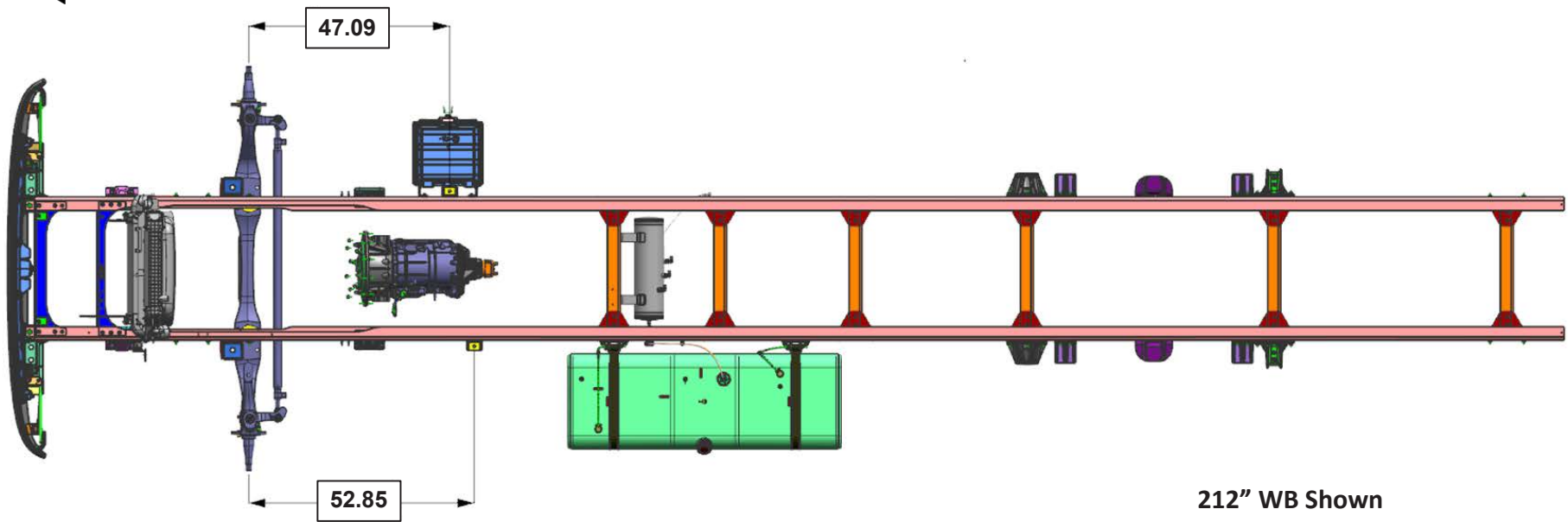
CAUTION: U-Bolt placement is critical with new emission systems and controls. Extra care must be taken when placing bodies on chassis so as not to damage these components. For the installation positions of the U-bolts, refer to "Prohibited Attachment Areas."

2026 Isuzu Truck

Front Body Mounting Brackets and Crush Block Mounting Locations

Due to the location of the after treatment device and other interior frame components, if body mounting is required in the area directly behind the cab, the supplied body mounting blocks provided on the chassis should be used. The chassis will be supplied with two (2) body mounting blocks (painted yellow) attached to the frame in the locations shown in the figure below. Body Builders will be required to design a mating bracket for attaching the body to the yellow painted chassis body mounting brackets. No U-bolt type attaching is allowed in these locations.

Front of Vehicle



Modification of the Frame

Modifications of the chassis frame should be held to an absolute minimum. Modification work should be performed according to the instructions in the following paragraphs. When modification is complete, chassis frame members should be carefully inspected to eliminate the possibility of any safety-related defects.

NOTE: PLEASE REFER TO NOTES ON CHASSIS FRAME MODIFICATION WITH ANTILOCK BRAKES.

Working on Chassis frame

The chassis frame is designed and built with consideration for proper load distribution. Sufficient physical strength is provided when the load is evenly distributed. Installation of special equipment on the chassis frame can cause variations in load distribution. If even distribution of load is not kept in mind when the equipment is installed, localization of stresses on specific areas of the frame could cause cracking of the chassis frame members or other problems, even if the total weight of the equipment is within the design limit. The chassis frame is designed as an integral unit. Therefore, we do not recommend cutting the chassis frame under any circumstances.

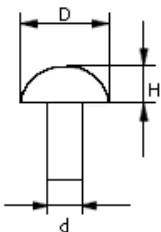
Drilling and Welding

⚠ WARNING

- For vehicles equipped with electronic engines and or electronic or hydra-matic transmissions, electric arc welding must be done with the negative battery cable disconnected.

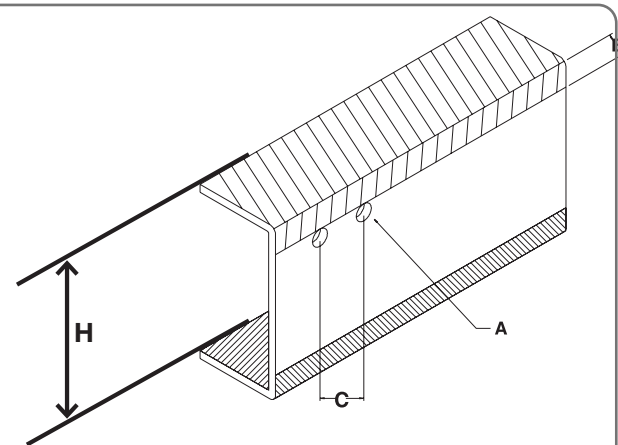
👍 ADVICE

1. Do not drill or weld in the shaded portions of the chassis frame members (see below). Do not weld within 0.8 inches from the edges of any existing holes.
2. Hold the length of any welding beads within 1.2-2.0 inches. Allow at least 1.57 inches between adjacent welding beads.
3. All holes must be drilled. Do not use a torch to make any holes.
4. All riveting must be done with cold rivets. Do not use hot rivets.
5. The flange of the chassis frame must not be cut under any circumstances.
6. The subframe must be attached to the chassis frame with bolts. Do not weld.
7. Repaint exposed metal after drilling.



Rivet size detail:

D - 18mm (medium duty truck) / 21mm (heavy duty truck)
d - 11mm (medium duty truck) / 13mm (heavy duty truck)
H - 7.7mm (medium duty truck) / 11mm (heavy duty truck)



Dimensions:

A - no more than 0.59 inches in diameter
B - must be more than H/5 for welding and H/7 for holes
C - must be more than 1.57 inches
H = Frame Height

Figure 3

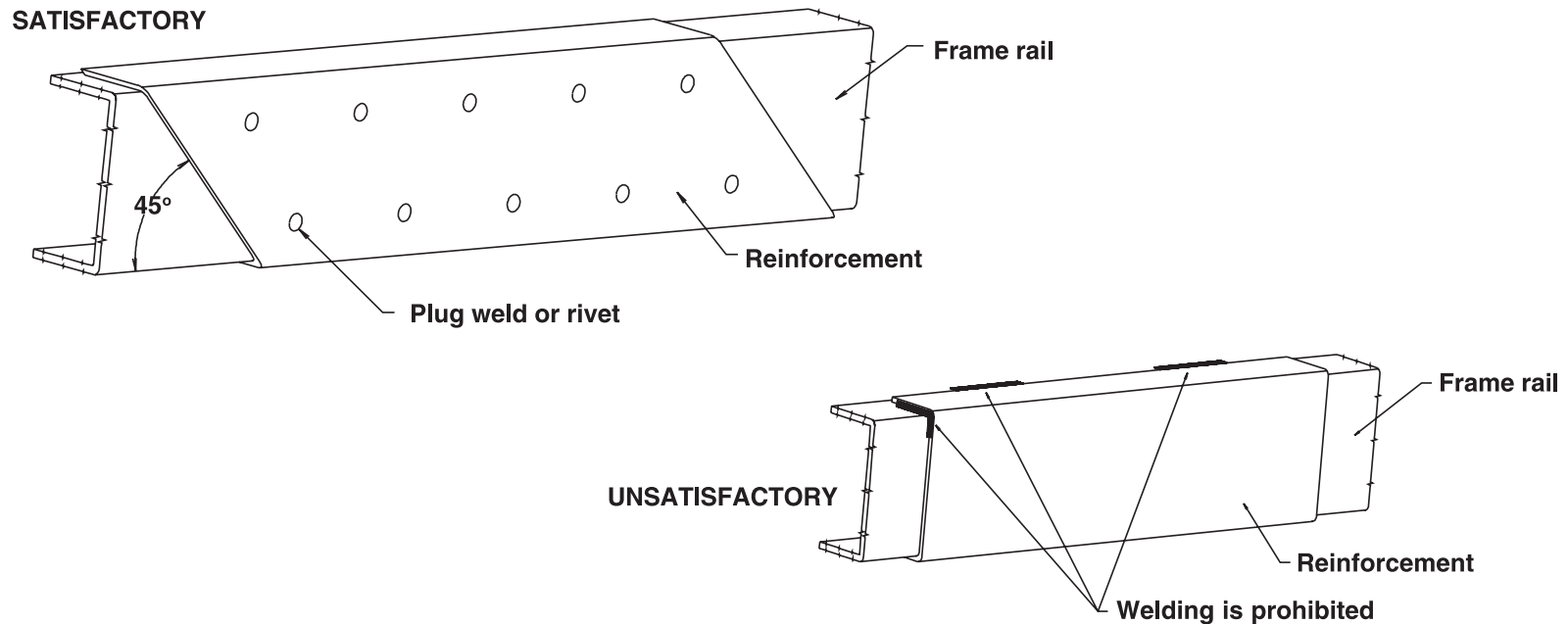
Reinforcement of Chassis Frame

Reinforcements must be installed to prevent the considerable variation in the section modulus. They must be welded so as to avoid localized stresses. The drawing below illustrates the correct and incorrect methods of frame reinforcement.

Welding

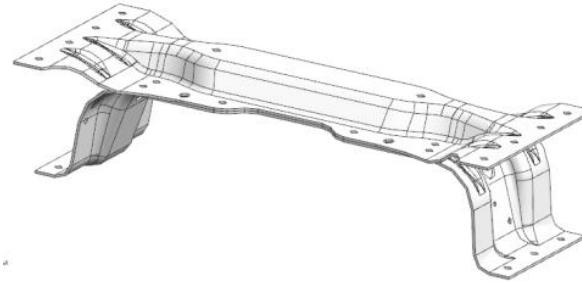
Keep reinforcement plates and chassis frame free from moisture and water. Avoid cooling with water after welding. Use a suitable means to protect pipes, wires, rubber parts, leaf springs, etc. against heat and effect of sputtering. Remove fuel tank assembly when welding portions near the fuel tank. Remove coat of paint completely when welding painted areas. Repaint exposed metal after welding.

When installing reinforcement by riveting or plug welding, place plugs or rivets in a zigzag pattern. When performing plug welding, be sure that electrical components, such as electric harnesses on the inner side of a chassis frame side member, are a minimum of 50mm apart from welding site. When inserting a rivet in a hole from which another rivet has previously been removed, the rivet should be 1 or 2mm larger in diameter than the removed one. Cold rivet only.

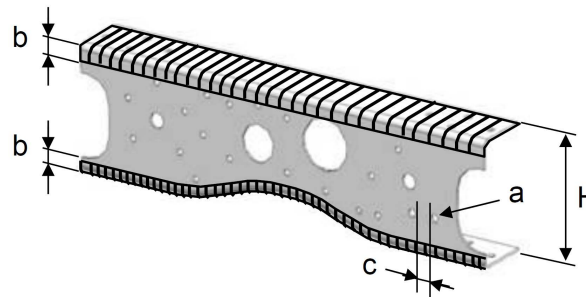


Crossmember Modification

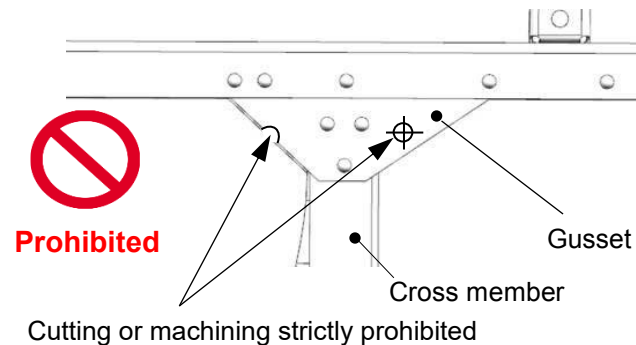
Alligator type cross member - For alligator type, hole drilling, notch making, and welding are prohibited.



Channel type cross member: a – Allowable maximum hole diameter is 9mm, and this hole should be used only for piping or harness routing.
b – Prohibited area, no drilling should be done in this area.
c – See Figure 3 for minimum required distance.



Gusset: Hole drilling and notch making are prohibited.



Rear Overhang Modification

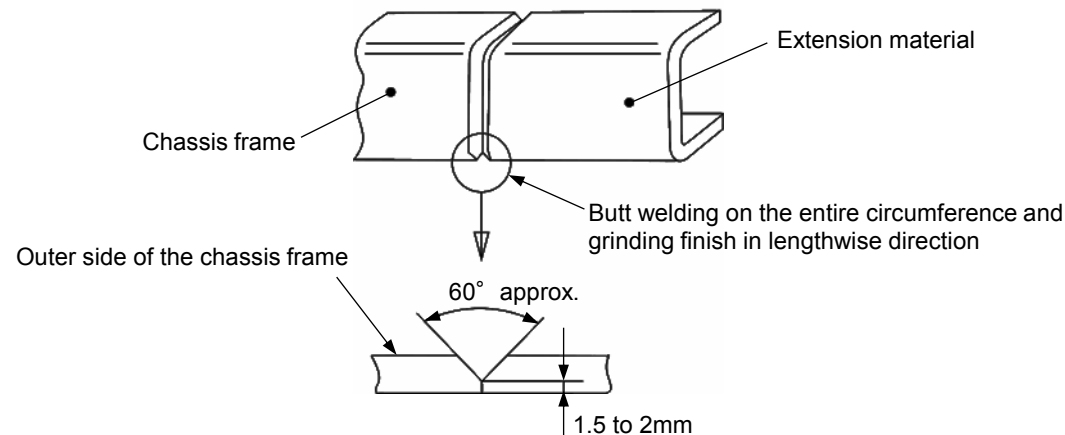
If a body protrudes outward from the rear end of the chassis frame by 300 mm (11.8 in.) or more, lengthen the rear overhang of the chassis frame as indicated below. If it is necessary to cut the chassis frame, ensure that the cut location does not split existing holes.

1. Extension material

- The extension material should be equivalent to that of side members. Refer to specification information for the vehicle model in consideration.
- Thickness and bending radius of the extension material should be the same as that of side members. Refer to specification information for the vehicle model in consideration.

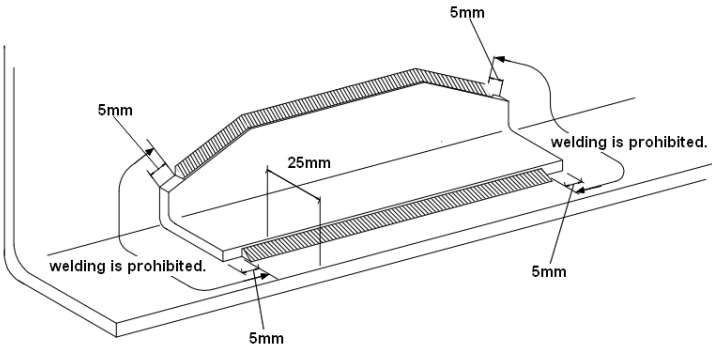
2. Installing extension material

- **Extension material is 300mm or shorter:** Join extension material and chassis frame with a continuous butt weld around the entire circumference. After welding, grind finish weld surface.

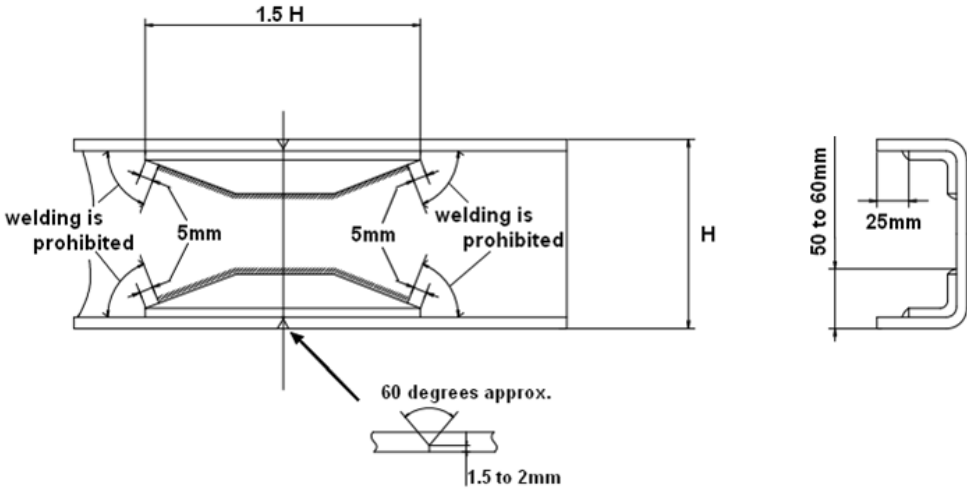


2026 Isuzu Truck

- **Extension material is longer than 300mm:** Join extension material and chassis frame with a continuous butt weld around the entire circumference, and then fit a reinforcement on the inner side of the chassis frame and extension material.



Side member thickness [mm]	Reinforcement material thickness (recommendation value) [mm]
8.0 at minimum	7.0
7.5	5.5 to 7.0
7.0	4.5 to 6.0
4.0 to 6.0	4.5



Fluid Lines

Do not disturb the layout of any brake lines or fuel lines unless absolutely necessary. When modification is needed, follow the instructions below carefully to ensure safety. Brake fluid lines must not be cut and spliced under any circumstances. We do not recommend the cutting or splicing of any fuel lines, but if it is absolutely necessary, be sure that the correct fitting and tools are used to form the joint, and then pressure test the joint. Steel lines are metric sizes.

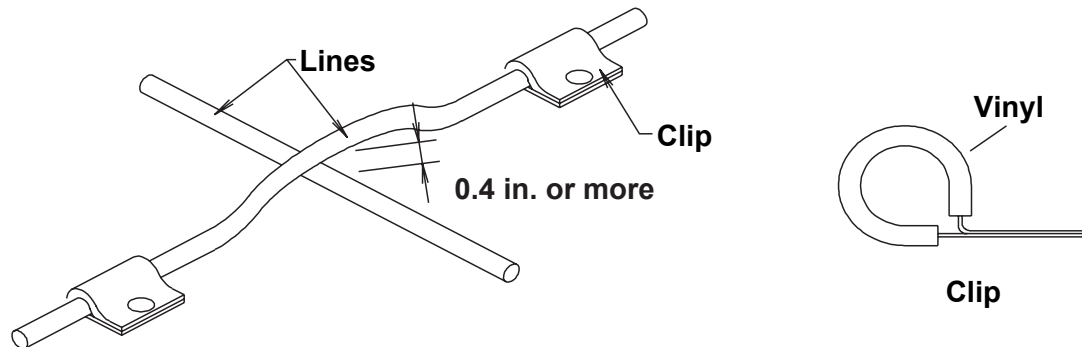
Preparation of Additional Lines

1. Where possible, use only genuine Isuzu lines as supplied by authorized Isuzu dealers.
2. Use the correct metric flaring and bending tools to form the lines.
3. Avoid repeated bending. Do not use heat for flaring and bending the lines. Before and after forming the new lines, examine them carefully for scratches, distortion, dents and the presence of any foreign matter.

Installation of Additional Lines

Install new lines away from adjacent parts and away from any sources of heat.

1. A minimum clearance of 0.4 inches must be maintained between lines. Where necessary, clip the lines into position in order to maintain this minimum clearance.
2. Minimize any crossing between lines. If a crossing is unavoidable, use the following procedure:
 - a. At least 0.4 inches of clearance should be maintained between lines at the crossing point.
 - b. If the 0.4 inches of clearance cannot be maintained, or if the lines are subject to vibration, clip them securely.
3. Plan the bends and clipping points of the lines to minimize vibration and the resulting fatigue.
4. Use rust-proofed clips and apply vinyl coating to the portions of the lines to be clipped.
5. Install new lines in positions where they are protected against water, dirt, grit, sand, rocks and other foreign matter that can come from above or below, or can be flung up by the wheels.



Electrical System Modifications

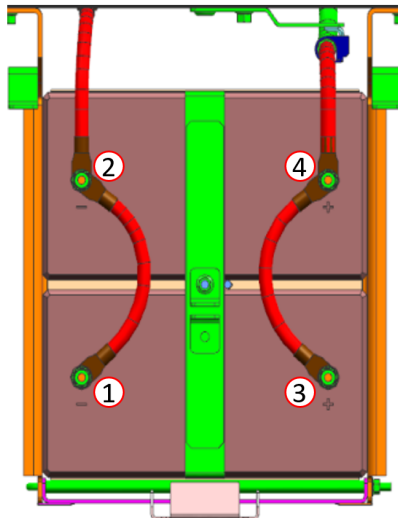
⚠ WARNING

- Before servicing any electrical component, the ignition key must be in the LOCK position and all electrical loads must be OFF, unless instructed otherwise in Isuzu service procedures. If a tool or equipment could easily come in contact with a live exposed electrical terminal, also disconnect the negative battery cable. Do not disconnect cable within 3 minutes after turning the ignition key to the Lock position. Failure to follow these precautions may cause personal injury and/or damage to the vehicle or its components.

👍 ADVICE

- Modifications/add-on wiring must be carefully reviewed to ensure compatibility with the base vehicle wiring by reviewing system schematics, wire routing paths, harness connections, etc.
- Due to the wide range of modifications that may be required for vocational needs, it is not feasible for the O.E.M. to take into account all potential revisions. For this reason, any person modifying existing vehicle wiring must assume responsibility that the revisions have not degraded the electrical system performance.
- Any add-on wiring needs to be properly fused and routed to prevent cut, pinch, and chafe problems, as well as avoid exposure to excessive heat.
- Care must be exercised that existing vehicle interfaces do not have their current load capabilities exceeded, and that the respective control devices are not overloaded.
- Added wire size should be at least as large as the wire to which it is attaching in order for fuse protection to be maintained.
- Electrical wiring components can be obtained through your authorized Isuzu dealers.

Battery Terminal Tightening Torque



No.	NUT SIZE	TORQUE
① ~ ④	3/8-16 (inch)	15±2 (N·m)

Electrical Wiring and Harnessing

To increase the reliability of the wiring, all frame harnesses are covered with corrugated vinyl tubing. The following instructions apply to extending or modifying these harnesses. See the Electrical Section for information on commonly used circuits in the F-Series Chassis.

Wiring



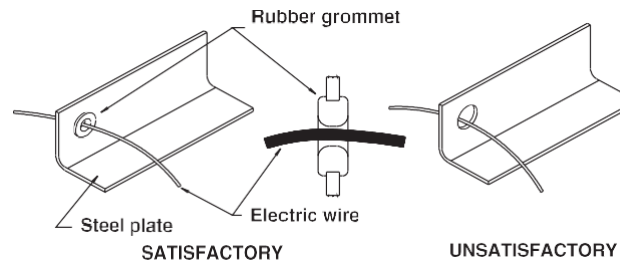
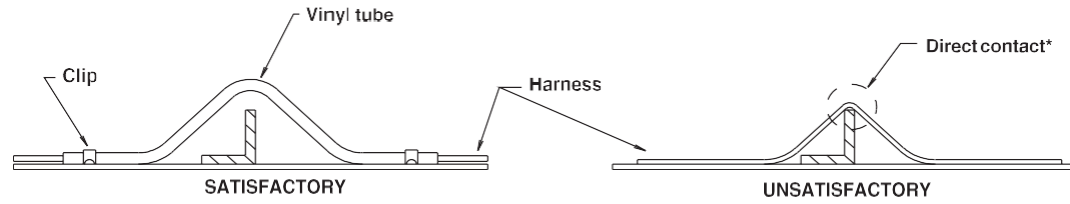
ADVICE

- Most wiring connections on Isuzu vehicles are made with terminals. We recommend the use of terminals when splicing cables and wires.
- When splicing, use new wire of the same gauge, and do not make splices inside the corrugated tubing.
- When making connections to the end of the harness, make sure the connections are electrically perfect. Use insulating tape as needed to prevent the entry of water, which results in short circuits and/or corrosion.
- When making new circuits, or modifying circuits already installed, make the cables only just taut enough to remove any slack. Use clips or grommets where required to protect cables from heat or sharp edges.
- Always use rustproof clips and apply vinyl coating to that portion of the clips in direct contact with the harnesses.
- No scotch clips or connectors.
- To minimize the vibration of the harness, clipping points should be set up according to the table below.
- When changing the length of the battery cable, do not cut or splice the existing cable. Make up a new cable of the correct length and wire gauge for the load and distance, without splices.
- When using connectors, use a socket (female) connector on the electrical source side and a plug (male) connector on the electrical load side to lower the possibility of a short circuit when disconnected.
- When connecting cables to moving or vibrating parts such as the engine or transmission, be sure to maintain sufficient slack in the wiring to absorb the vibration. Follow the example of existing cables connected by Isuzu. Keep flexible cables clear of other parts.
- Do not use vinyl tape in the engine compartment. The heat will tend to make it peel off. Use plated steel clips coated with rubber or vinyl.
- When locating auxiliary equipment or lines near the chassis components caution should be used to protect the chassis components from excessive vibration, heat or chemical reactions.
- See the following page for examples of proper harness protection

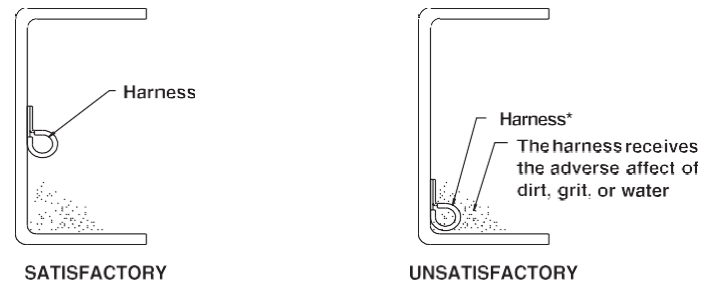
Wiring Harness Clip Distances

Harness Diameter	Clip Distance
less than 0.2 in.	less than 11.8 in.
0.2 in. ~ 0.4 in.	approx. 15.7 in.
0.4 in. ~ 0.8 in.	approx. 19.7 in.

Wiring Harness Detail

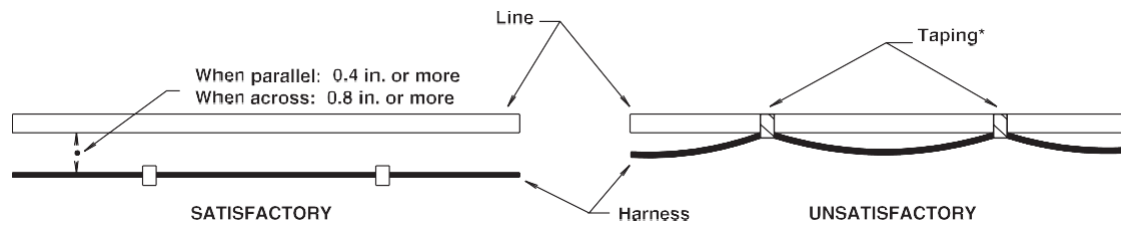


* Cables should not be in contact with sharp edges or pierced holes.



* Harnesses should not be installed on inside lower face of the chassis frame.

* Harnesses should not be taped to fuel lines or other lines. A sufficient clearance should be maintained between harness and pipe lines.



2026 Isuzu Truck

Wire Color Code

The electrical circuits of the F-Series Chassis Cab are connected with low-voltage stranded wire for automotive applications. The color coding standards are as follows for the F-Series Chassis Cab:

(1) Black	B Starter circuits and grounds	(5) Yellow	Y Instrument circuit
(2) White	W Generator (alternator) circuit	(6) Brown	Br Accessory circuit
(3) Red	R Lighting circuit	(7) Light Green	Lg Other circuit
(4) Green	G Signal circuit	(8) Blue	L Windshield wiper motor circuit

Maximum Allowable Current by Wire Size

Harness Design Diameter (mm)	AWG Equivalent	No. of Wires/Wire Diameter (mm)	Cross Sectional Area (mm ²)	Maximum Allowable Current (Amps)
100	00	217/0.80	109.1	363
85	0	169/0.80	84.96	305
60	1	127/0.80	63.84	248
50	1	108/0.80	54.29	223
40	1	85/0.80	42.73	191
30	2	70/0.80	35.19	171
20	4	41/0.80	20.61	123
15	6	84/0.45	13.36	93
8	8	50/0.45	7.952	68
5	8	65/0.32	5.228	51
3	12	41/0.32	3.297	39
2	14	26/0.32	2.091	29
1.25	16	16/0.32	1.287	21
0.85	18	11/0.32	0.8846	17
0.5	20	7/0.32	0.5629	13

Reference: The values given in the “maximum allowable current” column are based on the ambient temperature condition of 104°F with temperature increase of 104°F.

Fuel System

Relocation of the fuel tank, or installation of additional fuel tanks, is not recommended. If modifications to the fuel system are unavoidable, follow these recommendations:

1. Maintain adequate clearance between the fuel tank and any other device or structure.
2. Do not connect any additional fuel hose.

Rear Lighting

Brackets installed are temporary. Please do not use these brackets for body installation.

Serviceability



ADVICE

- No matter what other modifications or changes are made, access to components requiring daily preventive maintenance or other routine service must not be obstructed. This includes the following items:
 1. Inspection, filling and draining of engine oil and cooling water.
 2. Inspection, filling and draining of transmission fluid.
 3. Adjustment, removal and installation of the fan belts.
 4. Inspection, filling and removal of the battery and battery cover.
 5. Inspection and filling of brake fluid.
 6. Inspection and bleeding of the brake system and servo unit.
 7. Maintenance of clearance for tightening of check bolt on brake safety cylinder.
 8. Operation of the spare tire carrier, including mounting and dismounting of the spare tire.
 9. Adjustment, removal and installation of distributor and/or cover.

Wheelbase Alteration

With certain applications, it may become necessary to alter the wheelbase of the chassis. The following pages provide the suggested guidelines for accomplishing either shortening or lengthening of the wheelbase.

Shortening/Lengthening the Wheelbase Without Altering the Frame

Since the frame is an integral part of the chassis, it is recommended for the frame not be cut if it is avoidable. When shortening or lengthening the wheelbase on some models, it is possible to do so without cutting the frame. This is possible on models which have a straight frame rail. If the chassis does not have a straight frame rail, it may still be necessary to cut the frame. For instructions on shortening or lengthening these chassis, refer to the "Altering the Wheelbase by Altering the Frame" section of this book. Otherwise, the wheelbase may be shortened or lengthened by removing the rear suspension, drilling new suspension mounting holes at the appropriate spot in the frame, and sliding the rear suspension, suspension liner, and suspension crossmembers forward or aft.

The suspension and suspension crossmembers' rivet holes left in the frame rail flange must be filled with GRADE 8 bolts and hardened steel washers at both the bolt head and nut, HUC bolts or GRADE 8 flanged bolts and hardened steel washers at the nut. When shortening/lengthening the wheelbase in this manner, the following guidelines must be adhered to:

1. All frame drilling must comply with the DRILLING AND WELDING section of this book.
2. All rivet holes left in the frame rail flange from the suspension and suspension crossmembers must be either filled with GRADE 8 bolts and hardened steel washers at both the bolt head and nut, HUC bolts or GRADE 8 flanged bolts and hardened steel washers at the nut.
3. The components required to be slid forward or aft are the suspension and suspension hangers, suspension crossmembers and suspension frame liner.

Altering the Wheelbase by Altering the Frame

Even on a straight frame rail, it may be desirable to cut the frame and lengthen or shorten the wheelbase rather than simply sliding the rear suspension back or forward. The following section offers some guidelines and suggestions for cutting and lengthening or shortening the frame.

Glossary of Terms – Chassis Wheelbase Alteration

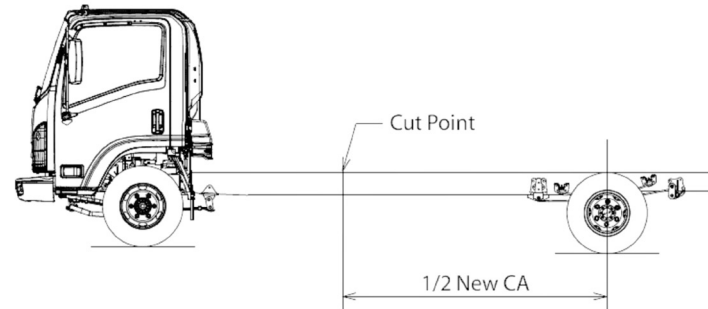
CA – Length from back-of-cab to rear axle centerline in inches.

AL – Added length (in case of a lengthened wheelbase). Difference between WB (new) and WB (old).

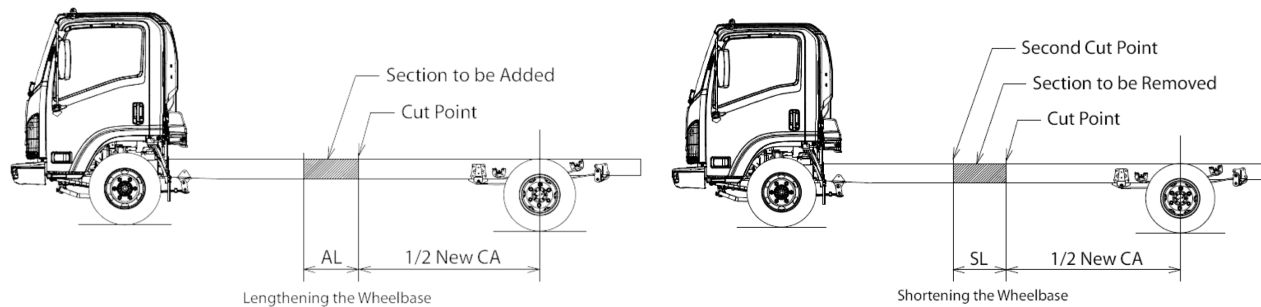
SL – Shortened length (in case of shortened wheelbase). Difference between WB (old) and WB (new).

2026 Isuzu Truck

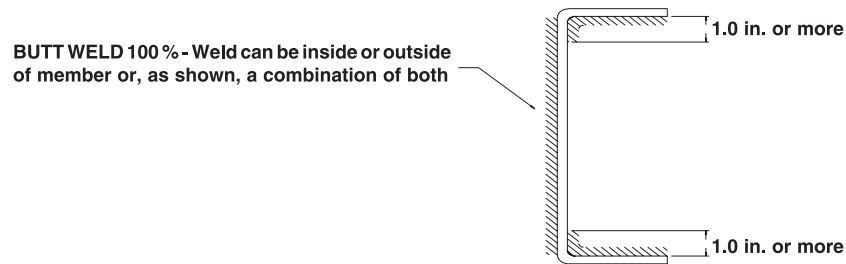
1. Determine the added length (AL) or shortened length (SL) required to lengthen or shorten chassis. (For added wheelbase: $\text{New CA} = \text{CA} + \text{AL}$; For shortened wheelbase: $\text{New CA} = \text{CA} - \text{SL}$.)
2. Obtain the material to be used as the insert for the lengthened wheelbase in the correct length (AL). The insert must have the same cross sectional dimensions and yield strength as the original frame rail.
3. Divide the new CA by two (2). Measure new $\text{CA}/2$ from the center of the rear axle forward and mark this point on the chassis frame (see figure below).



4. Cut the chassis frame at this point. If the wheelbase is to be lengthened, addition of the previously obtained insert (of length AL determined in step 1) will be made at this time. If the wheelbase is to be shortened, measure the distance (SL) forward of this cut and remove a length (SL) section from the chassis frame (see figure below). Insure that an adequate area on the frame remains for the required addition of the necessary reinforcements. These are the only suggested places for cutting the frame and reinforcements but may be changed upon the advice of Isuzu Commercial Trucks of America, Inc. Application Engineering.

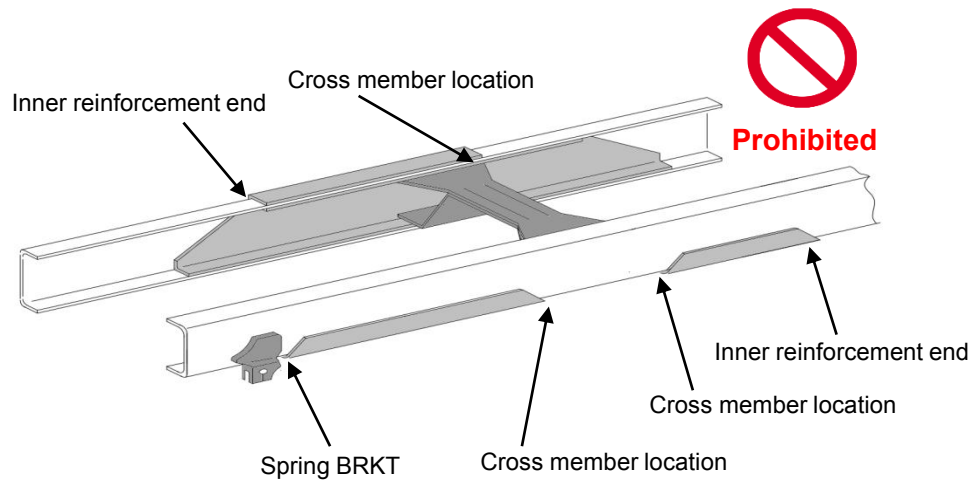


5. When welding the insert (length AL for wheelbase lengthening) to the original frame rail, a continuous butt weld must be used at the splices. When shortening the wheelbase, weld the ends of the chassis frame together with a continuous butt weld over the junction of the frame ends. Weld can be both the inside and outside of the frame rails using welding techniques prescribed by established welding standards (ref. SAE J1147) and in accordance with this guide. An example of this weld is shown below.



Installation position of reinforcement material

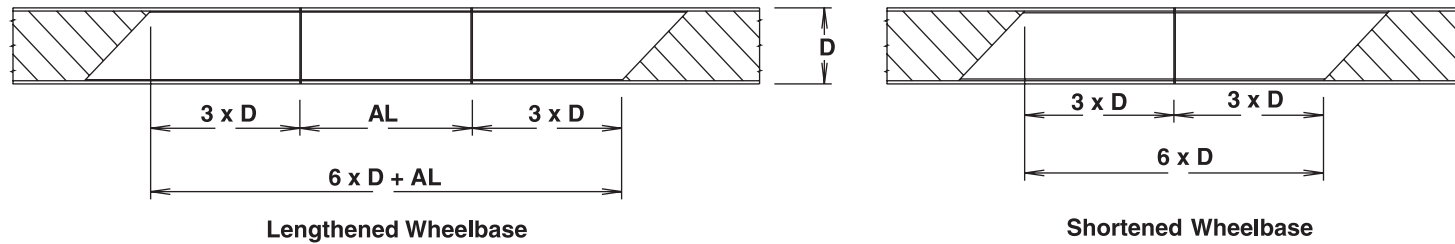
- Ends of outer reinforcement and inner reinforcement should not overlap.
- An end of outer reinforcement and cross member should not overlap.
- An end of outer reinforcement and spring bracket should not overlap.



6. Determine the appropriate additional internal reinforcements which are required using this equation:

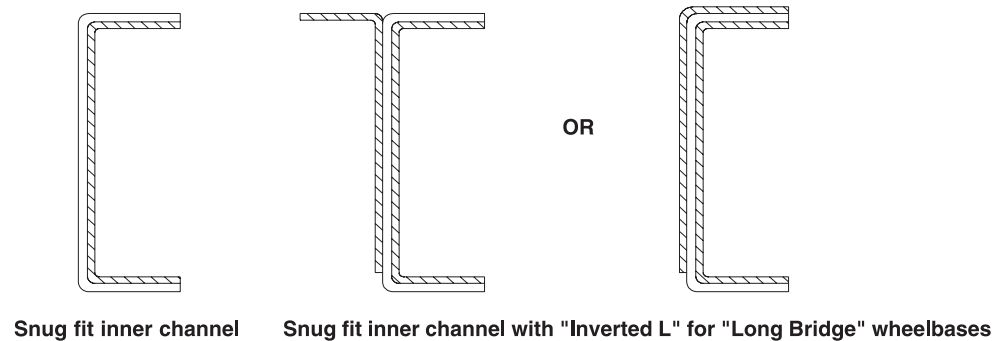
$$\text{Reinforcement Length} = AL + 6 \times (\text{original frame rail web depth}).$$

The figure below shows how this reinforcement is to be placed over the extended or shortened section of the frame rail.



D = Original frame rail web depth

The suggested cross section of this reinforcement is a snug fit inner channel. If the new wheelbase exceeds the upper limit of the optional wheelbases of this model, i.e.; a "long bridge", it may be necessary to use an "inverted L" reinforcement in addition to the snug fit channel reinforcement. Application Engineering should be consulted for approval of such cases. It should be noted that these methods of reinforcements, and any other methods which may be used, require a 45° angled cut at both ends to avoid stress concentrations in the frame (note the figures under item 7).



7. The reinforcements must be fastened securely to only the web of the original chassis frame rail. The reinforcement must be held rigidly in place using either HUC bolts, GRADE 8 bolts and hardened steel washers at both the bolt head and nut, or GRADE 8 flanged bolts and hardened steel washers at the nut. Below are some suggested bolt patterns. It should be noted that these bolt patterns must not align the bolts vertically, i.e.: the bolt pattern must be staggered.



9. The propeller shafts' overall length will also need to be lengthened or shortened. If the extension is within the limits of the optional wheelbases of the respective model, the exact propeller shaft lengths and angles are given on or about Page 12 of the respective sections of this book. If the modified wheelbase exceeds the optional wheelbases of the respective model, the following guidelines must be adhered to:

a) Propeller Shaft Length - the maximum propeller shaft lengths (pin to pin) for the respective models are shown in the table below.

ENGINE	DIESEL
Model	FTR, FVR
Propeller Shaft Diameter (in.)	4.0
Maximum Propeller Shaft Length (in.)	67.9

b) Propeller Shaft Angles - the maximum propeller shaft angles, with respect to the previous shaft, are shown in the table below.

c) The propeller shaft angles must be designed such that the angles will cancel to avoid propeller shaft whip.

d) The propeller shaft yokes must be assembled such that the propeller shaft yokes are "in phase."

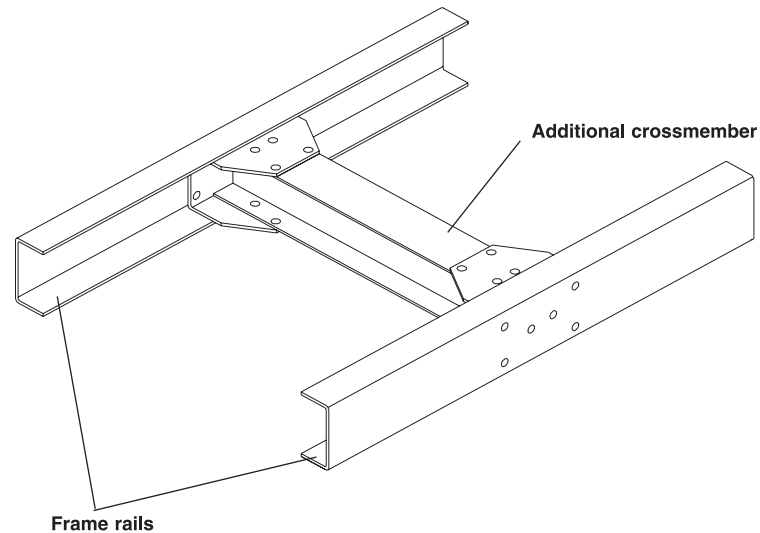
ENGINE	DIESEL
Model	FTR, FVR
Maximum Propeller Shaft Angle	3.4°

10. Extending the frame will also require relocation and/or addition of crossmembers. If the extension is within the limits of the optional wheelbases of the respective model, the exact crossmember locations and dimensions are given in the respective model sections of this book. If the modified wheelbase exceeds the optional wheelbases of the respective model, the following guidelines must be adhered to:

a) The crossmember location will largely be determined by the propeller shaft lengths and where the center carrier bearing locations are for the propeller shaft assembly.

b) A crossmember must be located at the front and rear spring hangers of the rear suspension (refer to the appropriate section of this book to see where these suspension crossmembers are to be located).

- c) The crossmember must be constructed such that it supports both the upper and lower flange on each frame rail (see drawing on next page). A crossmember such as the one on the next page may be constructed, or Isuzu crossmembers may be obtained from your Isuzu parts dealer.



- d) The maximum distance between crossmembers for the respective models is given in the table below.

ENGINE	DIESEL
Model	FTR, FVR
Maximum Distance Between Crossmembers (in.)	35.7

- e) The drilling for any additional holes in the frame rails must comply with the DRILLING AND WELDING section of this book.
11. All other aspects of lengthening or shortening the wheelbase must comply with the applicable section of this Body Builder's Guide. For special applications and longer than recommended body lengths, ICTA Application Engineering must be consulted for approval.
12. Please contact applications engineering for guidelines on F-Series Chassis frame modifications when the vehicle is equipped with an anti-lock brake system.

- Please email ICTA.Application.Engineering@icta-us.com
- Or in the West Coast call 714-935-9327 and in the East Coast call 734-582-9284.

Symbols Used in This Publication



WARNING

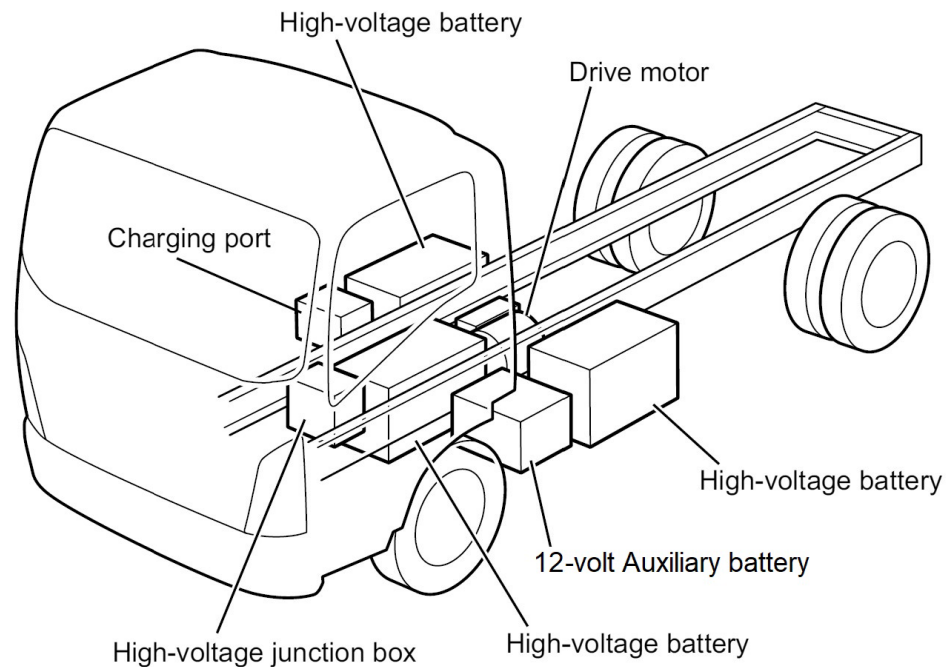
- Failure to follow instructions identified by this symbol may result in death or injury to you and/or other people.



ADVICE

- Failure to follow instructions identified by this symbol could result in damage to your vehicle.

Electric Vehicle System Overview



Safety and Precautions for Handling EV Chassis

Everyone who works on the NRR EV truck must take and pass both the Level 1 and Level 2 xEV Electrical Safety Awareness Certifications at: <https://www.ase.com/ev>



WARNING

- Do not touch, attempt to remove, or service high-voltage parts. Ignoring this warning will create risk of injury or death to yourself and bystanders.
- Prior to doing any work on the NRR EV truck, the vehicle's high-voltage electrical system must be decommissioned.
- The high-voltage batteries have a voltage of 354 volts and can cause electric shock and fire if not handled correctly

An authorized and EV-certified Isuzu dealer service center is the best place to have your vehicle repaired. Properly maintained high-voltage Personal Protective Equipment (PPE) is required. If you are not a trained Isuzu mechanic certified for work on the NRR EV, leave all repairs to an authorized service facility.

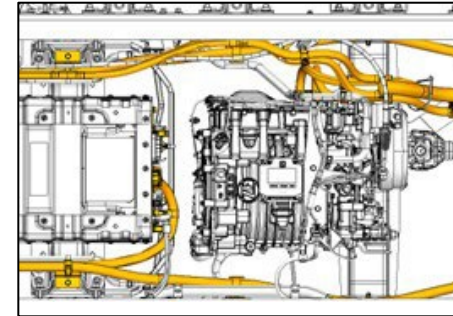
Cables or connectors that are colored bright orange signify high voltage. Before operating the vehicle, visually check for damaged components or low hanging cables below the truck. If you see anything damaged or in a questionable state, have an authorized Isuzu technician examine and repair the components immediately.



Safety and Precautions for Handling EV Chassis

High-Voltage Chassis Components

- High-voltage circuit cables use orange coatings and connectors to distinguish them from other wiring.
- Use caution when touching orange wires and connected parts.
- High-pressure washing is prohibited for high-voltage components.

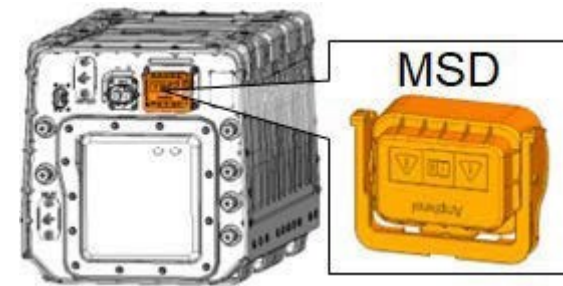


Insulating Personal Protective Equipment (PPE)

- Always wear appropriate PPE when performing decommissioning or upfitting work on the Isuzu EV.
- Wear insulated gloves rated at Class 0 that comply with IEC60903 and ASTM D120 standards when touching high-voltage components

Manual Service Disconnect (MSD)

- By removing an MSD, the high-voltage system circuit voltage can be physically cut off.
- When an MSD plug is pulled out, the Battery Management System (BMS) detects the disconnection and switches off all high-voltage battery pack relays
- As a result, high-voltage energy will no longer be present in the orange wires and connectors. This change should always be confirmed using the appropriate test equipment before working on the high-voltage system.



General Operation of the NRR EV

EV Control Switch: The starting circuit, EV system alarm circuits, and accessory circuits are all controlled by the EV Control Switch.



WARNING

- While driving, never turn the EV Control Switch to the "LOCK" position. Doing so while driving locks the steering wheel and is extremely dangerous.



ADVICE

- Using electrical devices such as the audio system for an extended period of time with the EV system off can completely discharge the 12-volt auxiliary battery.

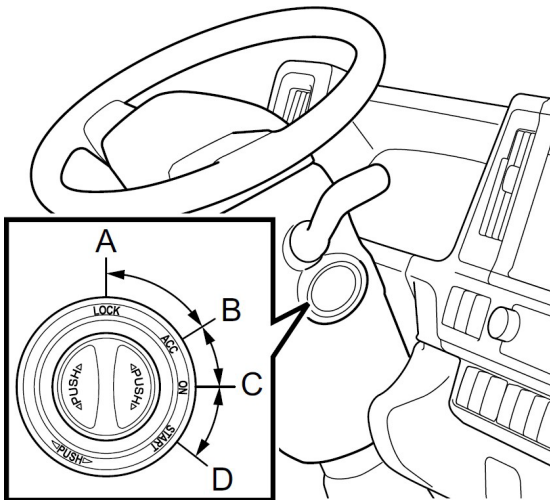
PUSH: When the EV Control Switch is pressed, the keyless start system checks for the remote-control unit, and once it is identified, the EV Control Switch can be operated.

A - LOCK: The position fully counterclockwise. In this position, the EV Control Switch is locked. To place the EV Control Switch in the "LOCK" position, press the switch and turn it all the way back to the "LOCK" position. If you are going to leave the vehicle, turn the steering wheel until it locks to help prevent theft.

B - Accessory ("ACC"): The first position clockwise. When the EV Control Switch is in this position, audio and other accessories can be used.

C - ON: The second position clockwise. When you turn the EV Control Switch to this position (but not past it), the vehicle will not start but the EV system, warning circuits, gauge circuits, and accessory circuits are energized. This is also the position to which the EV Control Switch returns after you do start the vehicle (by turning the EV Control Switch farther to the right) and remains while the vehicle is running.

D - START: The position farthest clockwise. Turn the EV Control Switch clockwise to the "START" position and release it. When the switch is released, spring pressure returns it to the "ON" position. The vehicle is ready to drive.



NOTE: If the EV Control Switch cannot be turned, the vehicle may have been unable to recognize the remote-control unit. If the EV Control Switch cannot be turned from the "LOCK" position, lightly move the steering wheel clockwise and counterclockwise while trying to turn the switch

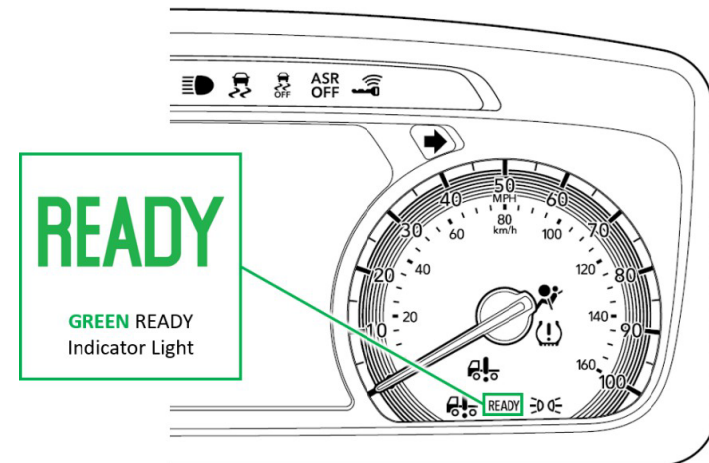
Starting the EV System

NOTE: Before starting the EV system, properly sit in the driver's seat. Confirm that the parking brake is engaged, the selector lever is in the "P" (Park) position, and the shift indicator also shows "P." In addition, pay attention to the following points when starting the EV system:

- Before moving the selector lever from the "P" position to the "D" (Drive) or "R" (Reverse) position, make sure that the READY indicator light on the instrument panel is illuminated as shown below.
- Do not depress the accelerator pedal at the EV system start.
- Turn the power to the dome light or accessories OFF before starting the EV system.

Steps for Starting the EV System

1. Confirm that the parking brake is engaged, the selector lever is in the "P" (Park) position, and the shift indicator also shows "P."
2. To start the vehicle, turn the EV Control Switch all the way clockwise against the spring pressure. When the control switch is released, spring pressure returns it to the "ON" position.
3. When the EV system is started, two short beeps sound and the READY indicator light on the instrument panel changes from flashing to illuminating. This indicates that the vehicle is ready to operate.
4. Release the switch as soon as the EV system has started and check to be sure the selector lever is still in the "P" position.



NOTE: If you cannot turn the EV Control Switch refer to the following points:

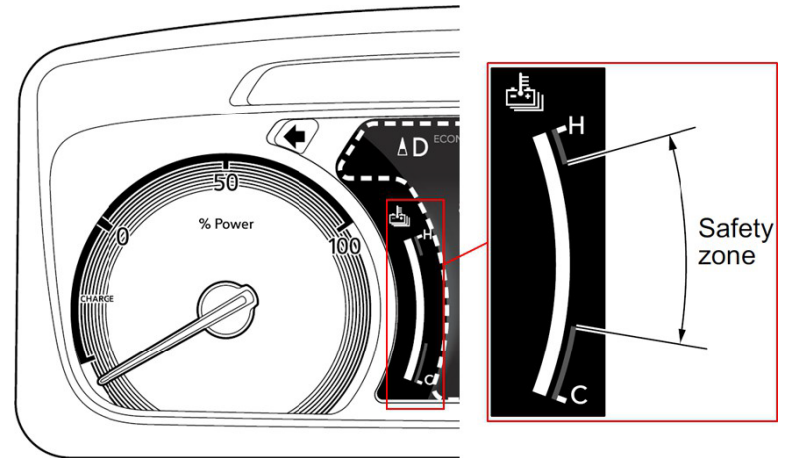
- If the keyless entry and start system fails to recognize the remote-control unit, such as when the remote-control unit is outside the operating range or when the battery has run out, the EV Control Switch cannot be turned from the "LOCK" position.
- If the keyless entry and start system fails to recognize the remote-control unit when the EV Control Switch is pressed, the keyless entry and start system warning light changes from slow flashing (approximately once every 2 seconds) to flashing (approximately once every 1 second). When the flashing changes, check that you are carrying the remote-control unit.
- If the keyless entry and start system warning light starts flashing (approximately once per second) even though you are carrying the remote-control unit, change the position of the remote-control unit you are carrying and try operating the EV Control Switch again.

When the EV System Cannot be Started



ADVICE

- The EV system cannot start and the vehicle may not be able to run if the vehicle has been parked with the high-voltage battery charge level of 30% or lower without being connected to the charger where the outside air temperature is below -4°F (-20°C). It is recommended to periodically charge the battery or leave the vehicle connected to the charger.
- If the EV system does not start, wait 2 seconds or more with the EV Control Switch in the "LOCK" or "ACC" position, and then press the EV Control Switch again. If the high-voltage battery temperature gauge indicates "C" (Cold zone), the vehicle may need to be connected to the charger. If "Battery low temp" appears on the instrument display, connect the vehicle to the charger and wait until the temperature reaches above the "C" zone.



NOTE: It is recommended to keep the vehicle indoors if the outside air temperature is expected to be extremely low.

Stopping the EV System

1. Bring the vehicle to a complete stop.
2. Apply the parking brake.
3. Move the selector lever to the "P" (Park) position and make sure that the shift indicator shows "P".
4. Turn the EV control switch to the "ACC" or "LOCK" position.



ADVICE

To prevent the 12-volt auxiliary battery from going dead, turn the EV Control Switch to the "ACC" or "LOCK" position after stopping the EV system. If you leave the vehicle for an extended period of time, place the EV Control Switch in the "LOCK" position.

Charging the EV System

The NRR EV charging port accommodates both normal and quick charging. For normal (AC) charging, the charge port conforms to the standard "SAE J1772/IEC62196-2 type1". For quick (DC) charging, the charge port conforms to the standard "CCS 1/ICE62196-3".

Normal Charging - AC Maximum Charge Rate:

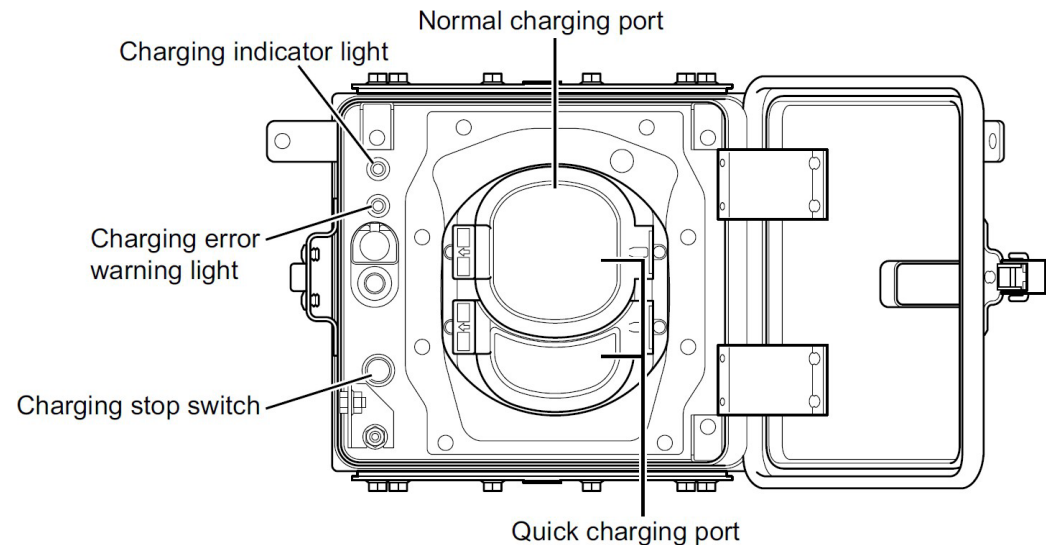
- 19.2 kW for 100 kWh, 140 kWh, and 180 kWh battery pack configurations with three on-board chargers (OBC)
- 7.2 kW for 60 kWh battery pack configuration with one OBC

Quick Charging - DC Maximum Charge Rate:

- 80 kW for 140 kWh and 180 kWh battery pack configurations
- 70 kW for 100 kWh battery pack configuration
- 42 kW for 60 kWh battery pack configuration

Charging Port

- Charging indicator light (green): It is illuminated when charging is started and is turned OFF when charging is complete.
- Charging error warning light (red): It is illuminated when an error occurs during charging.
- Charging stop switch: Press this switch to interrupt charging.



2026 Isuzu Truck

Preparing EV System for Body Upfit Work:

- The temporary covers shown below will be installed on the production line to protect the HV batteries from direct sunlight.
- The covers should remain on the HV batteries while the truck is in storage prior to body installation.
- Before installing a body or any equipment to the chassis these battery covers need to be removed and discarded.



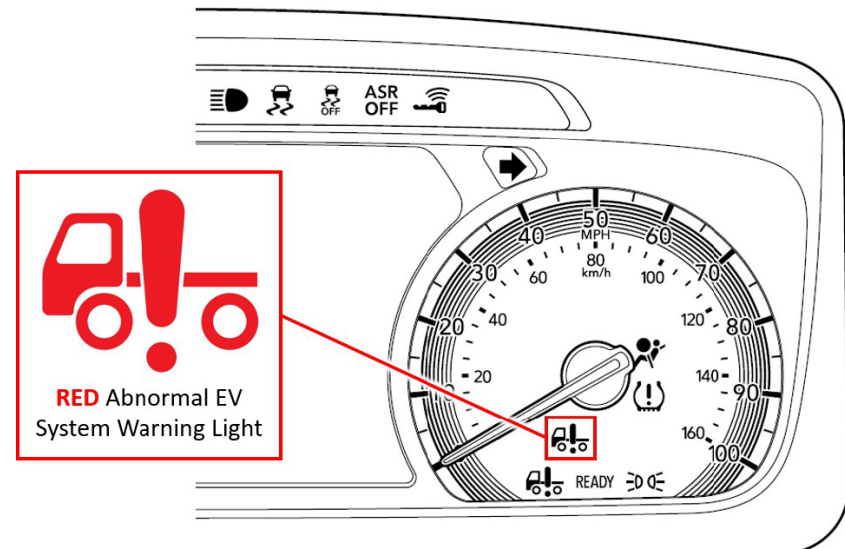
Decommissioning EV System for Body Upfit Work

⚠ WARNING

- Prior to starting the decommissioning process, the instrument panel display must be checked for the presence of a red "Abnormal EV System Warning Light."
- If the warning light shown in the figure below is illuminated on the dash, the vehicle is unsafe for upfit work and that there is a problem with the EV system that would prevent successful decommissioning of the high-voltage system.

Checking for EV System Warnings on the Instrument Display:

1. Disconnect the EV charger.
2. Start the EV using the procedure previously described in the section "Starting the EV System."
3. View the instrument panel and observe illuminated indicators.
4. Check the instrument panel for the red-light indicating malfunctions to the EV System as shown in the figure to the right.
5. If the warning light is shown on the dash, the vehicle is unsafe for upfit work.
6. Immediately turn the EV control switch to the "LOCK" position, stop all upfit work, and do not touch the vehicle any further. Contact an Isuzu Dealer.



Decommissioning EV System for Body Upfit Work

After determining no EV System Warnings are illuminated on the instrument panel, proceed with the following steps to decommission the NRR EV high-voltage system:

1. Ensure the EV control switch is in the OFF position.
2. Keep all remote-control units in a secure location away from the vehicle.
3. Wait three minutes for the vehicle control units to fully power down before proceeding to the next step.
4. Remove the negative terminals of the 12-volt auxiliary batteries.
5. Wear insulated gloves rated at Class 0 that comply with IEC60903 and ASTM D120 standards.
 - a. Remove (1) one of the Manual Service Disconnects (MSD) on the side of the battery packs while wearing insulated gloves.
 - b. Wait at least 5 minutes after unplugging the MSD for capacitor discharge.
 - c. Attach tape (low tack tape is recommended, e.g., painters or gaffers tape) to the MSD opening where it was removed from the high-voltage battery to prevent accidental contact with the high-voltage circuit and to prevent debris from entering.
6. Commence body mounting work.



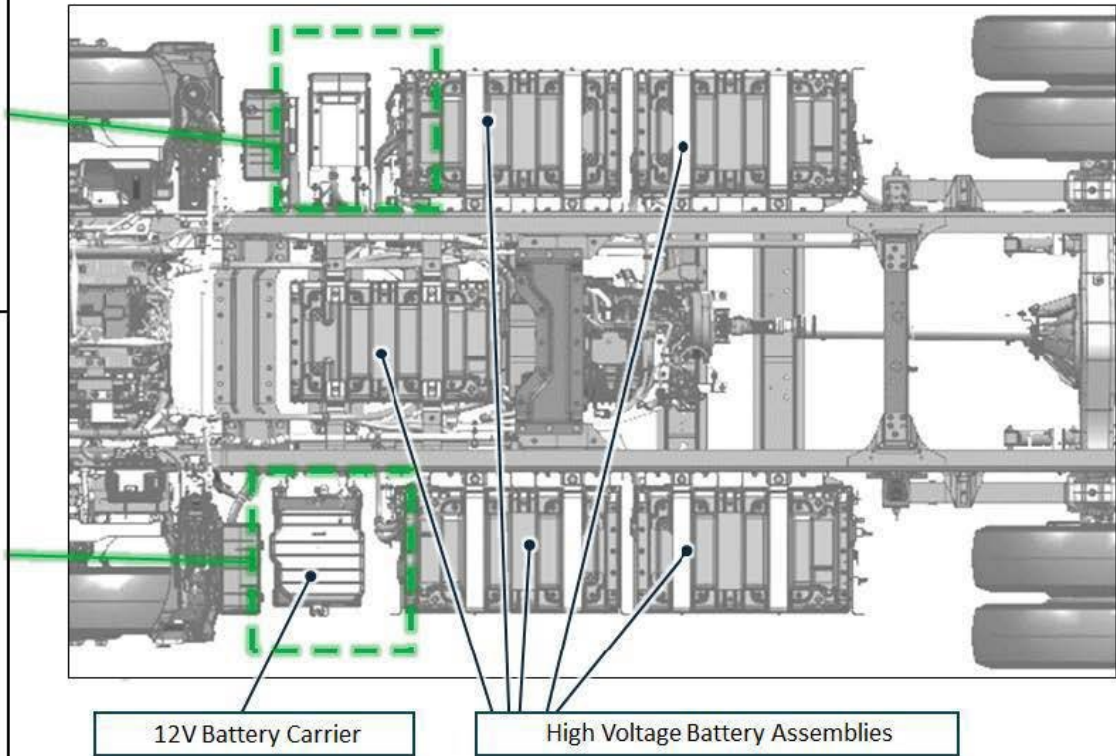
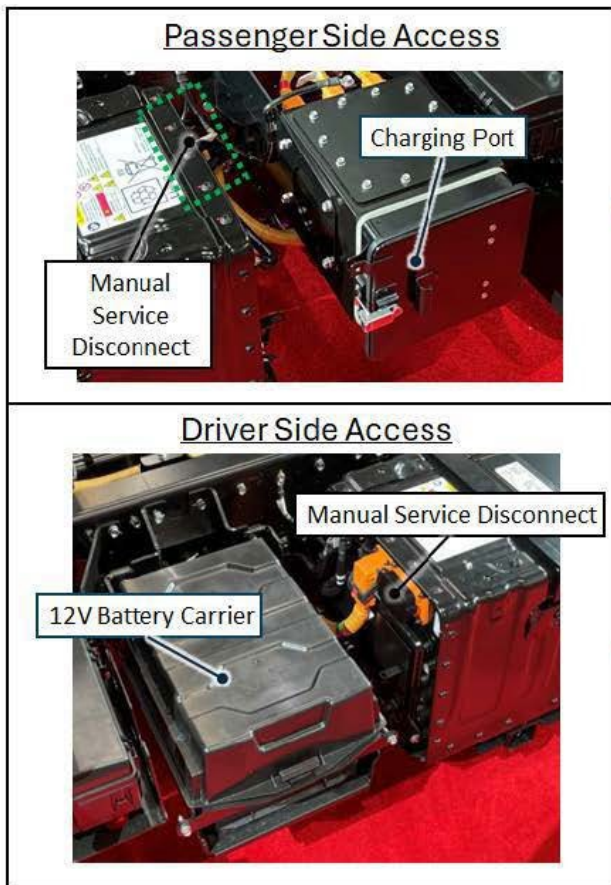
WARNING

- **High-voltage (around 354 volts) harnesses and connectors have an orange exterior. Never touch the high-voltage circuits.**
- **Do not disassemble the battery pack itself.**
- **Do not drill into or pierce battery pack exterior. Do not perform cutting or drilling operations near high-voltage components.**
- **When drilling on body, DO NOT drill vertically through the body flooring into the chassis. This will prevent puncture or damage to high-voltage components or harnesses.**

7. When performing electric welding for body upfitting, etc., do not disconnect the ground from the high-voltage equipment.
8. Do not ground welding equipment to the casing or ground cables of HV batteries or any other high-voltage equipment.
9. After completing the desired work, wear insulated gloves rated at Class 0 that comply with IEC60903 and ASTM D120 standards and connect the previously removed MSD. Never touch the high-voltage circuits while reconnecting the MSD. Connect the negative cables of the 12-volt auxiliary batteries.

Decommissioning EV System for Body Upfit Work:

- The installed body and equipment must not interfere with access to an MSD (Manual Service Disconnect) or the 12-volt auxiliary batteries.
- MSD and 12-volt battery access is required for high-voltage system decommissioning during body mounting, chassis upfit work, and in an emergency situation.



Anti-lock Brake System (ABS) & Electronic Stability Control (ESC)



ADVICE

- Do not relocate or modify the Electro-Hydraulic Control Unit (EHCU).
- Do not modify the electrical harness and connector(s) of ABS/ESC systems.
- Do not modify the vacuum line(s) inside cab.
- Do not use ABS/ESC component wiring to extract power or ground circuits for accessories or added equipment.
- Do not relocate or change the installation direction of the yaw rate sensor. The yaw rate sensor's operation is dependent on its position relative to the vehicle's center of gravity as well as the direction of its mounting. Altering the installed location or direction may cause the system to operate incorrectly.
- Do not set final gear ratio to anything other than ISUZU factory specification.
- The set value of the final gear ratio is programmed into the ABS/ESC control unit. If the final gear ratio is changed, the ABS/ESC systems may not operate correctly.
- Do not operate the vehicle with any combination of tires other than ISUZU factory-specified tires. When brakes are applied, the ABS/ESC systems monitor the rotational speed differences of the front and rear tires and rely on a preset value for the tire diameter programmed into the control unit. Using tires that are different from the preset values or using tires that vary greatly in diameter from front to rear, may negatively impact braking performance and cause abnormal operation of the ABS/ESC systems. Contact ICTA/ICTC before equipping any tires other than Isuzu factory-specified tires.
- Do not upfit chassis into a tractor or 5th wheel (Hot Shot) configuration.
- Do not route antenna wiring near the main vehicle harness to prevent electrical interference with the ABS/ESC control wires located within the main vehicle harness.
- Maintain more than 100 mm (3.94 inches) of clearance with ABS/ESC equipment (e.g. EHCU, speed senso, yaw rate sensor, steering sensor, etc.) when installing the following types of equipment:
 1. Communication radio devices and their antennas.
 2. Motors, relays, and other devices that generate electrical noise.

Calibration is necessary when replacing and/or removing any of the following components (contact an Isuzu dealership for more details):

- Electro-hydraulic control unit and/or yaw rate sensor.
- Steering sensor and/or steering-related components and steering wheel.

ADAS (Advanced Driver Assistance System)

When changes are made that affect the position or view of the stereo camera; it will be necessary to perform stereo camera reprogramming.

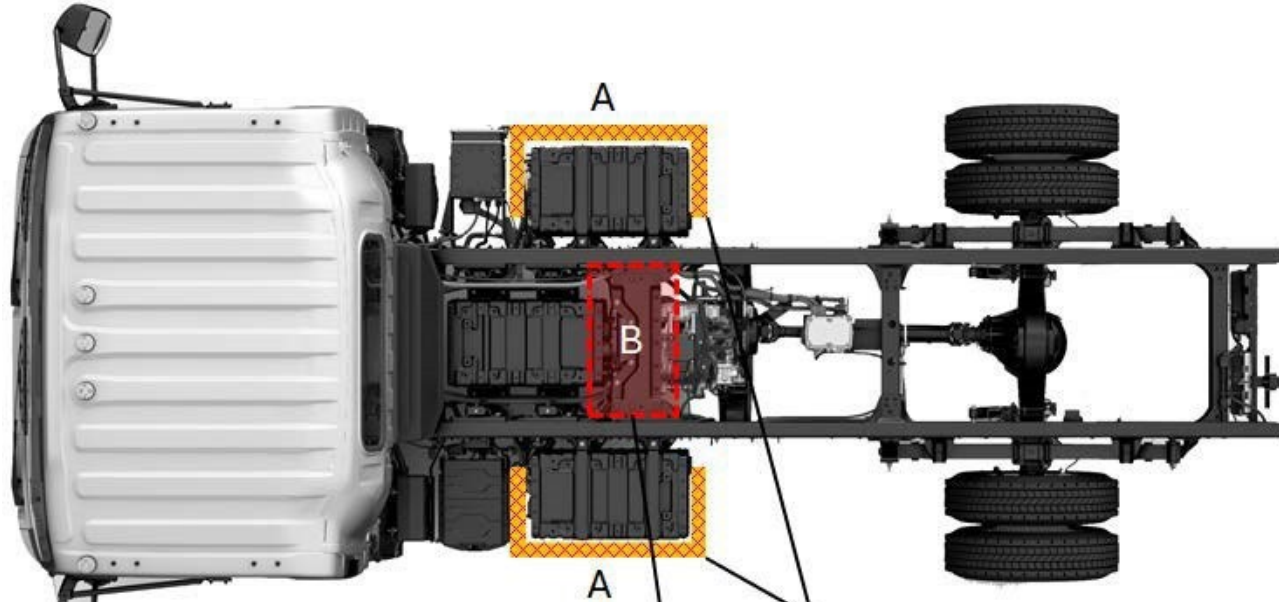
Procedures that require the stereo camera to be reprogrammed include the following (contact an Isuzu dealership for more details):

- Any instance where the camera position is moved from its factory-installed location or any vehicle modification that changes the view of the camera.
- Stereo camera, Windshield, or Instrument Panel (IP) removal and/or replacement.

2026 Isuzu Truck

Installation of Body and Special Equipment

NRR EV Clearances - HV Batteries and Motor

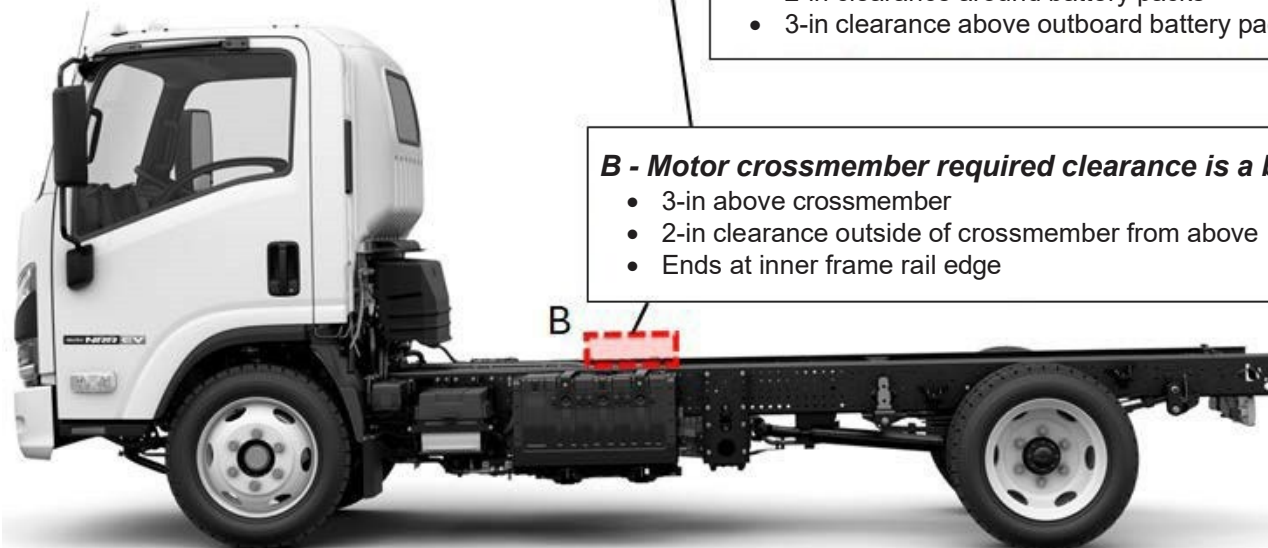


A - Battery pack required clearance:

- 2-in clearance around battery packs
- 3-in clearance above outboard battery packs

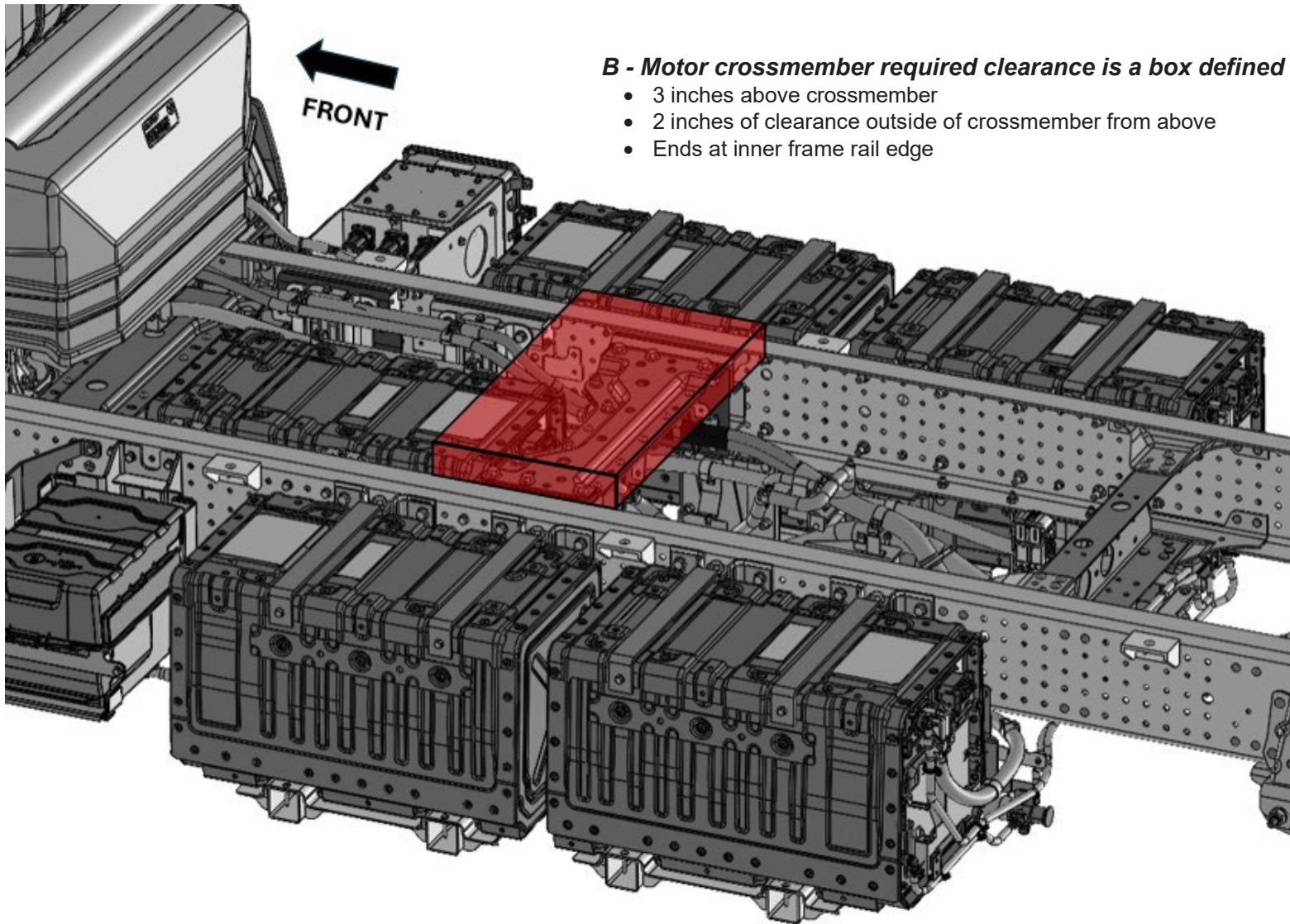
B - Motor crossmember required clearance is a box defined as:

- 3-in above crossmember
- 2-in clearance outside of crossmember from above
- Ends at inner frame rail edge



Installation of Body and Special Equipment

NRR EV Clearances - Motor Crossmember Detail



B - Motor crossmember required clearance is a box defined as:

- 3 inches above crossmember
- 2 inches of clearance outside of crossmember from above
- Ends at inner frame rail edge

Installation of Body and Special Equipment

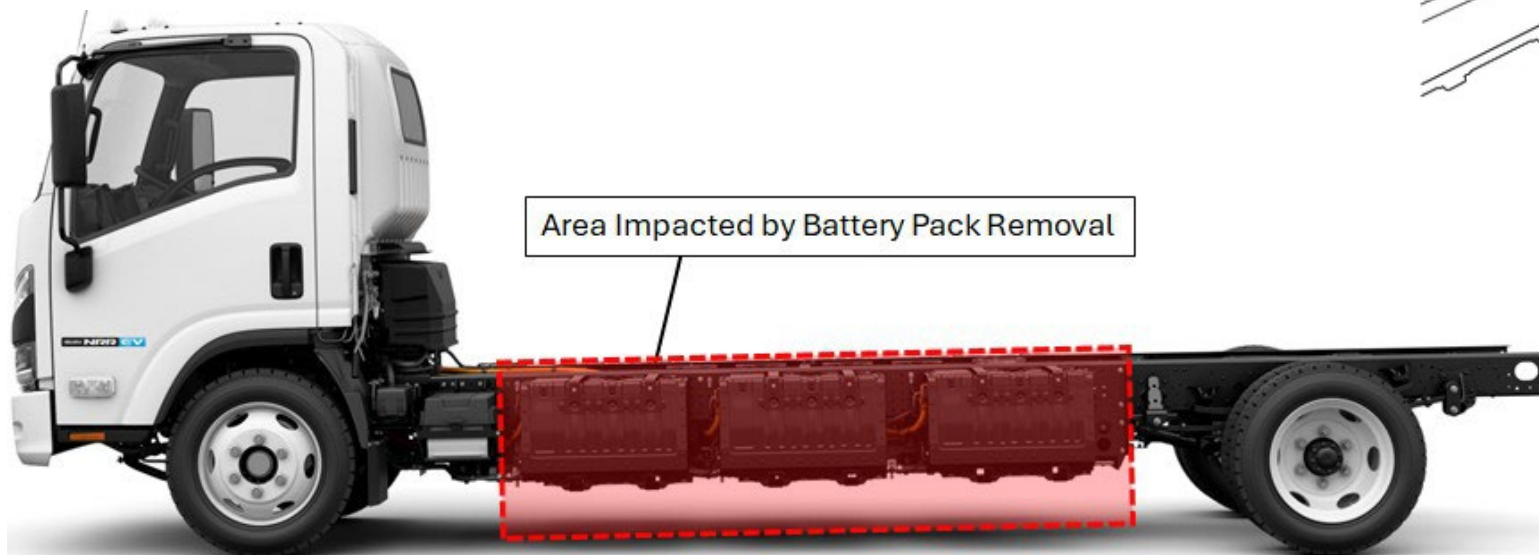
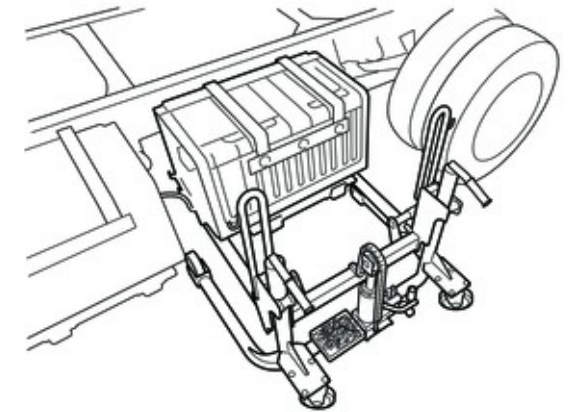
NRR EV Clearances - Removable Side Panels

NOTE: If the HV batteries need to be serviced or replaced, they need to be easily accessible. The battery removal process requires that the batteries are able to slide straight outward from the frame rail. If body side panels could obstruct this process, they should be removable. If side panels are not removable, the entire body may need to be removed for battery service.

Battery Pack Clearance for Removable Body Side Panels

1. 3 inches above top of battery packs
2. 2 inches of clearance at front and rear of battery packs (furthest point forward/rearward). Battery pack(s) should be able to slide straight out unimpeded.
3. When body panel(s) are removed, there should be no interference below the battery pack(s) to allow for battery lifting equipment (see Battery Removal Example).
4. If supports are needed for panel(s) within this area, they must be removable.

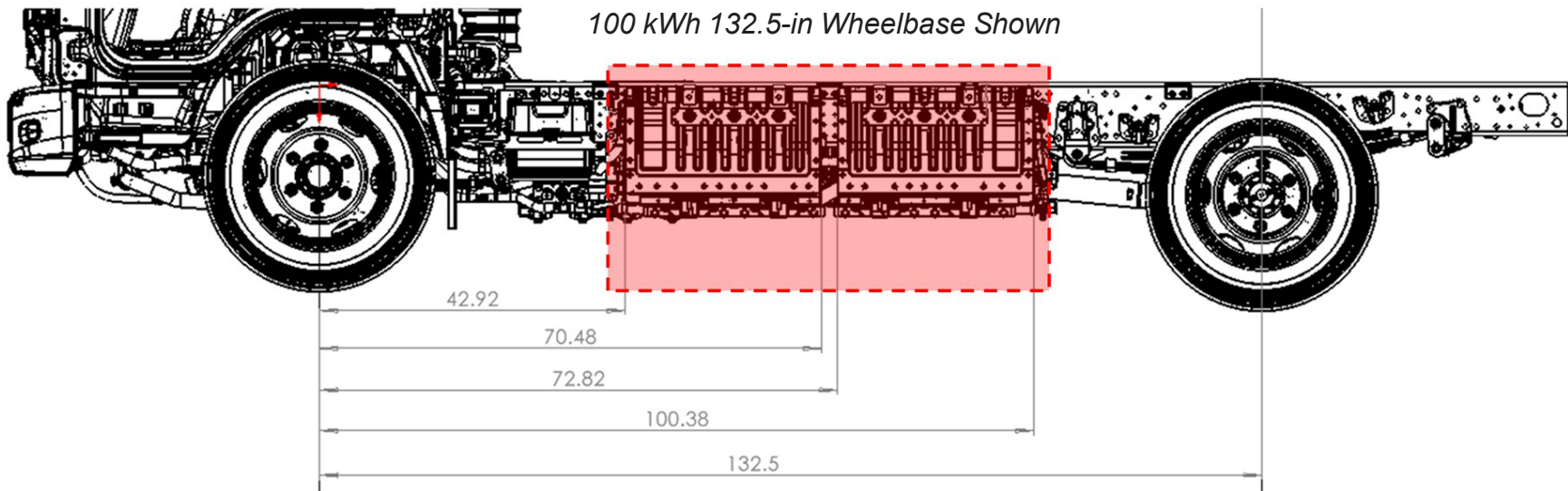
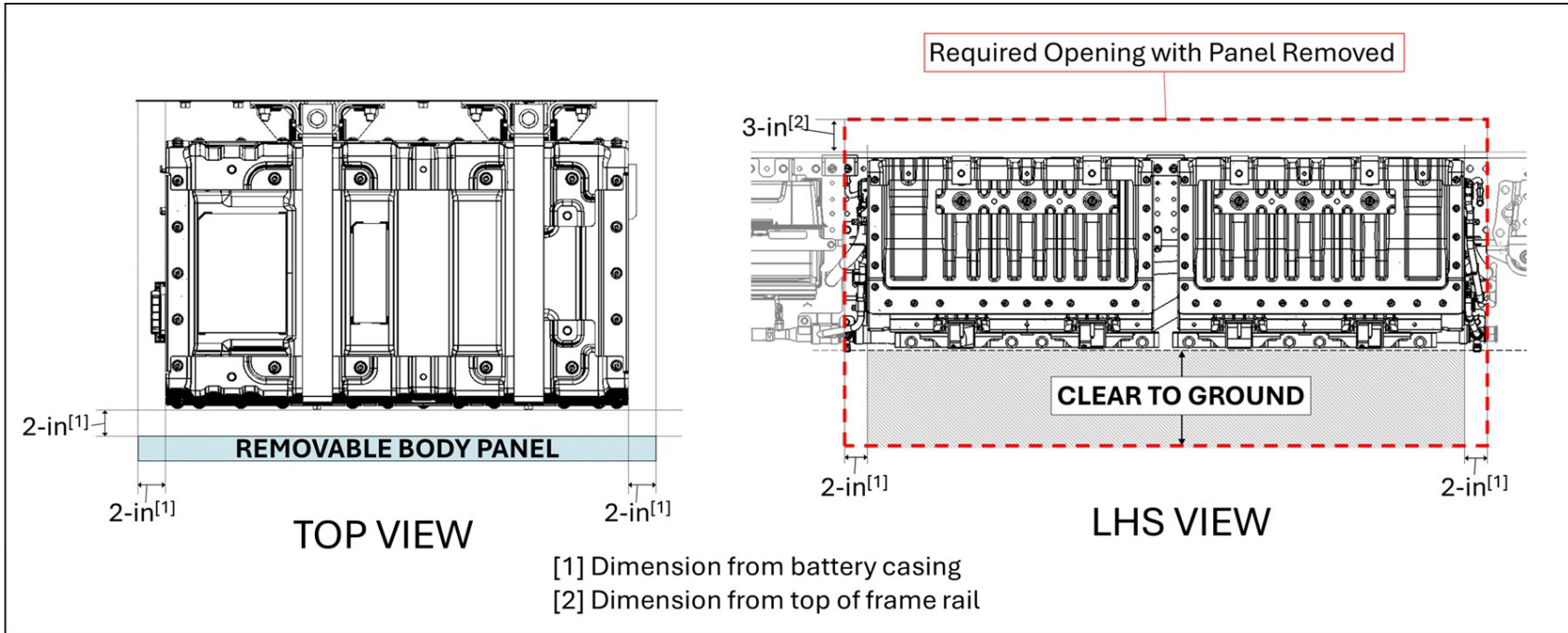
Battery Removal Example



2026 Isuzu Truck

Installation of Body and Special Equipment

NRR EV Clearances - Removable Side Panels



2026 Isuzu Truck

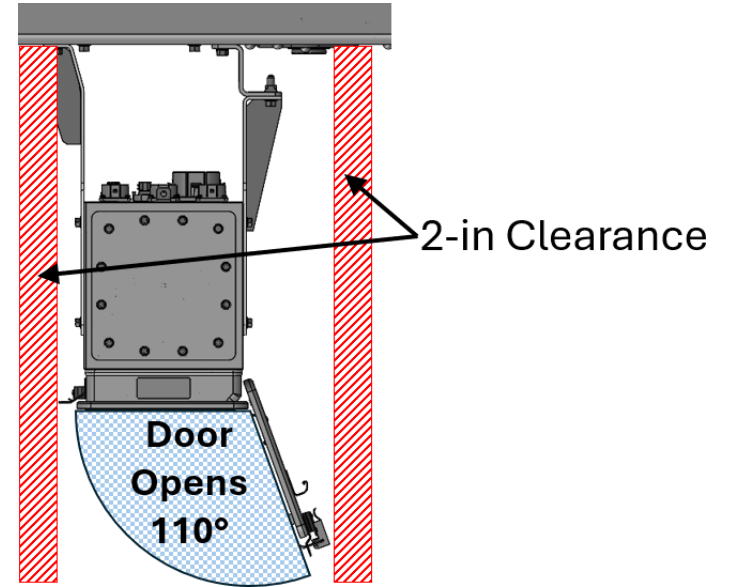
Installation of Body and Special Equipment

NRR EV Clearances - Charge Port Unit

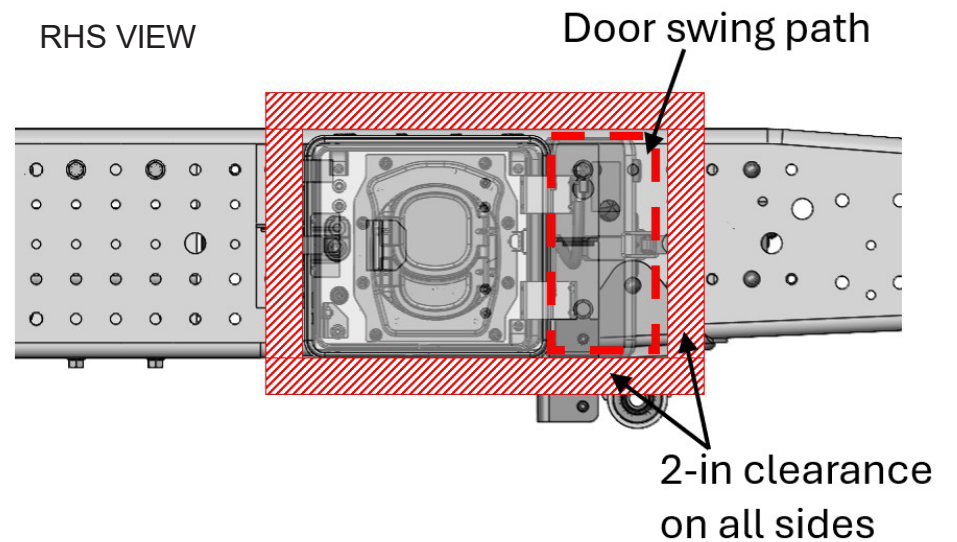
- 1. 2-in clearance above top of charge box
- 2. 2-in clearance forward of charge door edge when open
- 3. 2-in clearance rearward of charge box



TOP VIEW



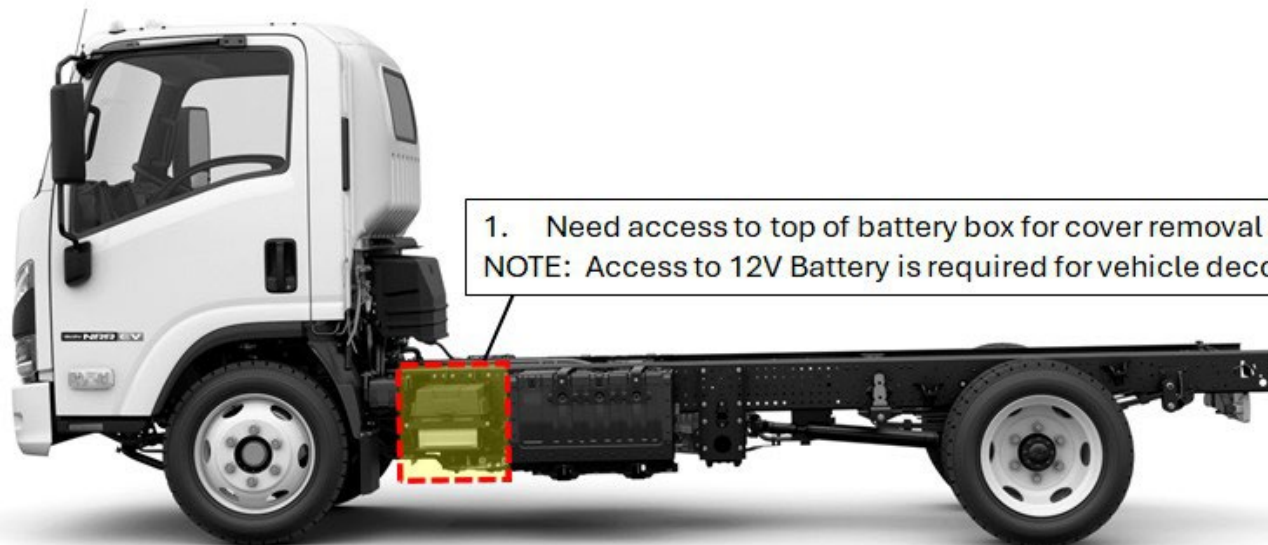
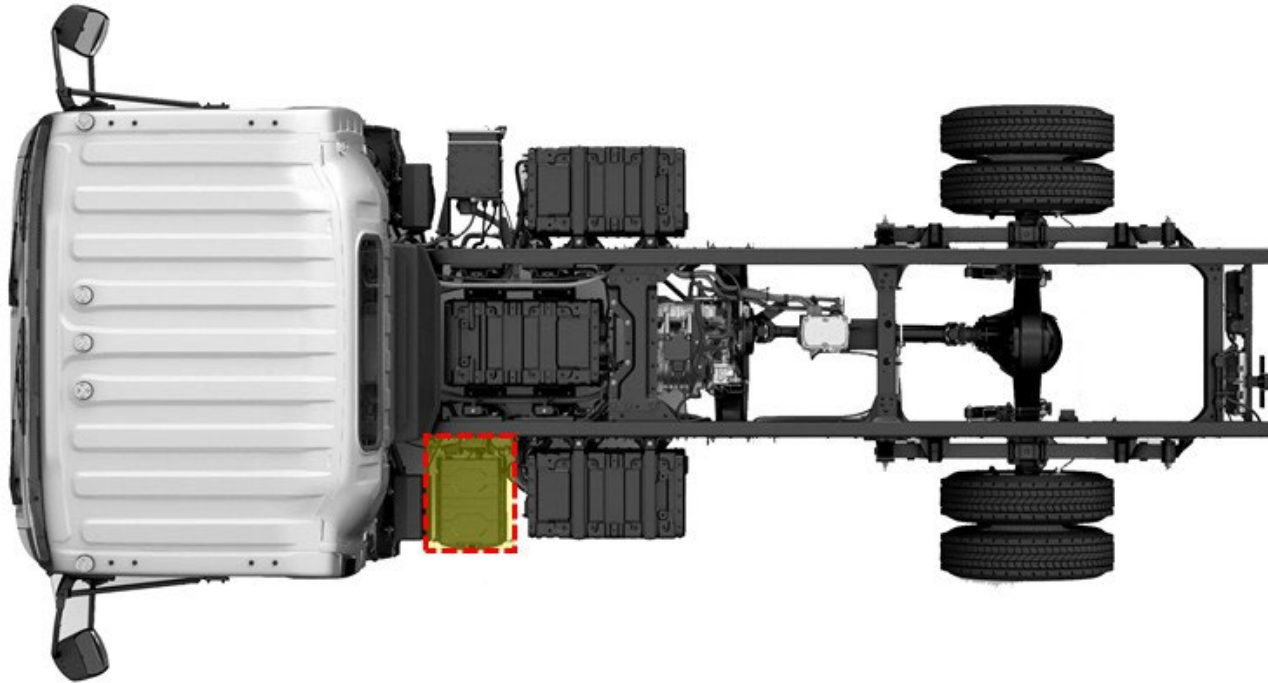
RHS VIEW



2026 Isuzu Truck

Installation of Body and Special Equipment

NRR EV Clearances - 12-volt Battery Box



1. Need access to top of battery box for cover removal and contact access
NOTE: Access to 12V Battery is required for vehicle decommissioning.

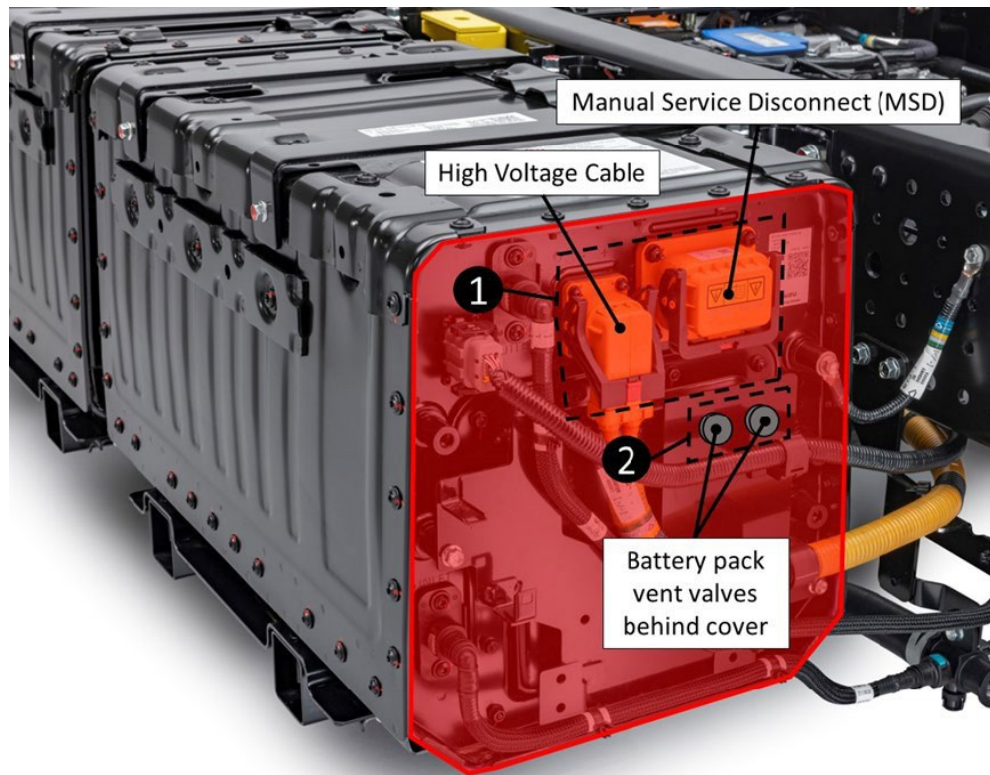
Installation of Body and Special Equipment

Paint Protection



ADVICE

- Manual Service Disconnect and High Voltage Cable must be covered to prevent paint from interfering with the release lever actuation.
- Battery Pack Vent Valves must be covered to prevent paint from blocking valves. The valves are located behind a metal shield in the position shown.
- Due to the sensitivity of the EV High Voltage Batteries, paint booth temperatures must be limited to a maximum of 131 F
- When the chassis is exposed to temperatures between 95 F to 131 F:
 1. If the 12-volt batteries are disconnected, limit temperature exposure to less than 5 hours.
 2. If the 12-volt batteries remain connected, there is no time limit to temperature exposure.



Installation of Body and Special Equipment

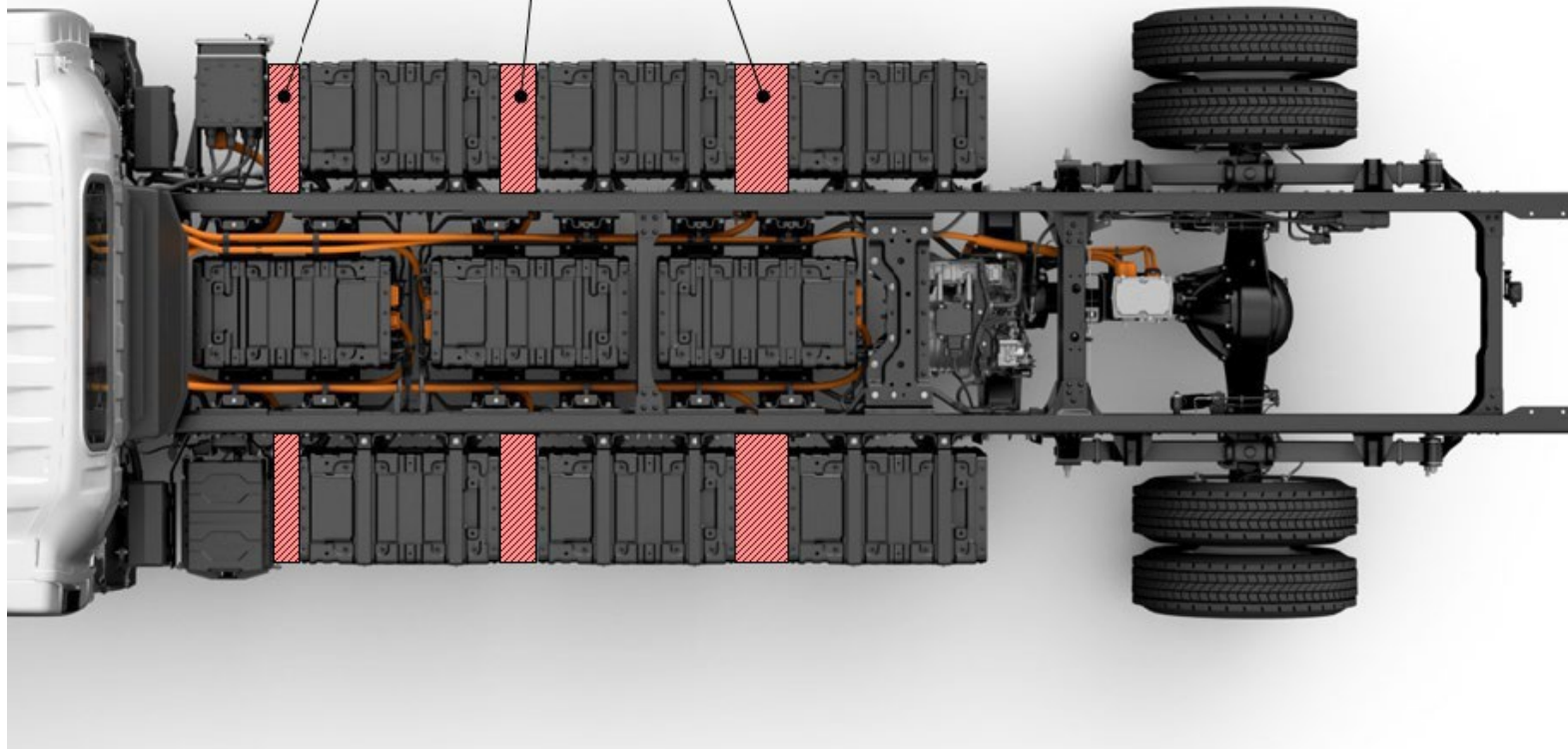
N-Series BEV No Modification Zones



ADVICE

- The high-voltage components **CANNOT** be modified or moved. Components below the cab in the "cradle" **CANNOT** be modified or moved.
- Wheelbase modifications are not supported.
- Areas adjacent to the MSDs (Manual Service Disconnect) must remain accessible for HV system decommissioning.

Areas must always be accessible
for MSD removal



Installation of Body and Special Equipment

Mirrors

The Isuzu N-Series chassis will accommodate up to 96-inch wide bodies without modification to the mirror brackets.

⚠ WARNING

- Bodies wider than 96 inches and up to 102 inches wide will require modified mirror brackets. This modification can be made at the port and the vehicle order/label will indicate a Regular Product Option (RPO) of IU2, indicating “Mirror Bracket for 102 wide body”. The brackets can also be modified by the Isuzu Dealer or the Body Company by installing mirror brackets ordered from Isuzu Parts.

Subframe and Special Equipment on the Chassis

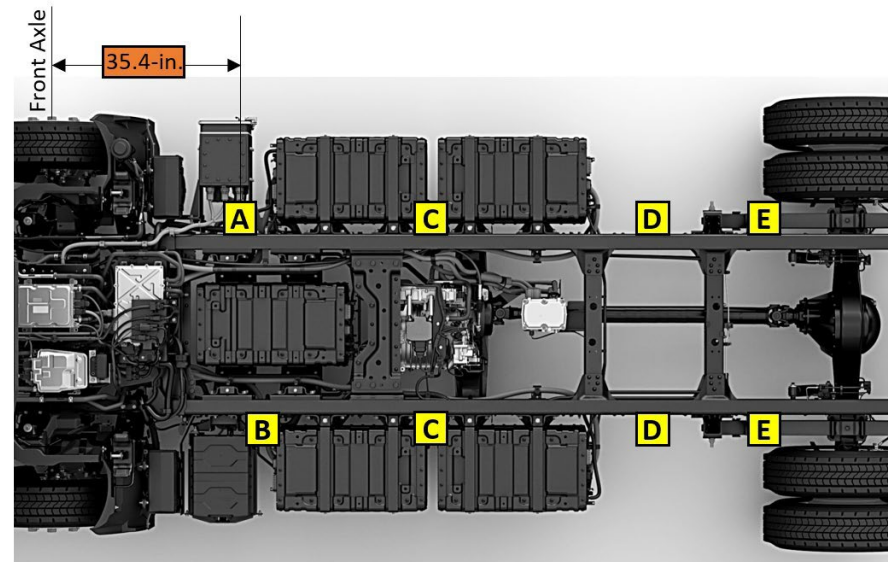
The use of a subframe is recommended when installing special equipment on the chassis. When installing special equipment on the chassis, extra consideration must be given to the weight and construction of the equipment to assure proper distribution of the load. Localization of the load should be prevented. All special equipment should be properly secured into position. The subframe assembly should be mounted as close to the cab as possible. It should be contoured to match the shape and dimensions of the chassis frame as closely as possible.

Body Mounting

- Factory installed body mounting blocks are included on the chassis for easy body attachment. See table below for location information. Traditional (U-Bolt style) mounting is not supported forward of the rear axle.
- Standard (U-bolt style) body mounting is applicable behind the rearmost chassis crossmember. U-bolts should not be attached within 8 inches of the crossmember chassis frame attachment points.

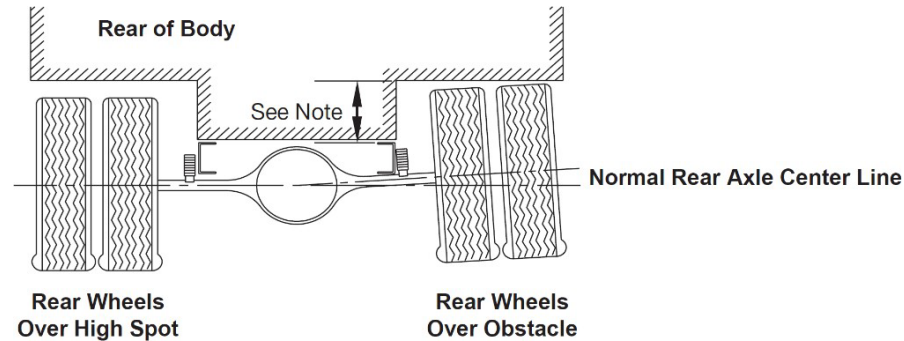
LOCATION	WHEELBASE (in.)			
	132.5	150	176	176
kWh	60 / 100	60 / 100	60 / 100	140 / 180
A	35.4	35.4	35.4	35.4
B	40.2	40.2	40.2	40.2
C	71.7	71.7	71.7	74.8
D	N/A	112.6	139.4	104.7
E	120.7	N/A	N/A	164.4

Note: Dimensions are given from front axle



Rear Wheel and Axle

The design and installation of the body should allow sufficient clearance for full vertical movement of the rear wheels and axle when the vehicle travels over rough or unlevelled surfaces.



NOTE: For recommended clearances, please refer to the Rear Axle Chart in each model's respective section.

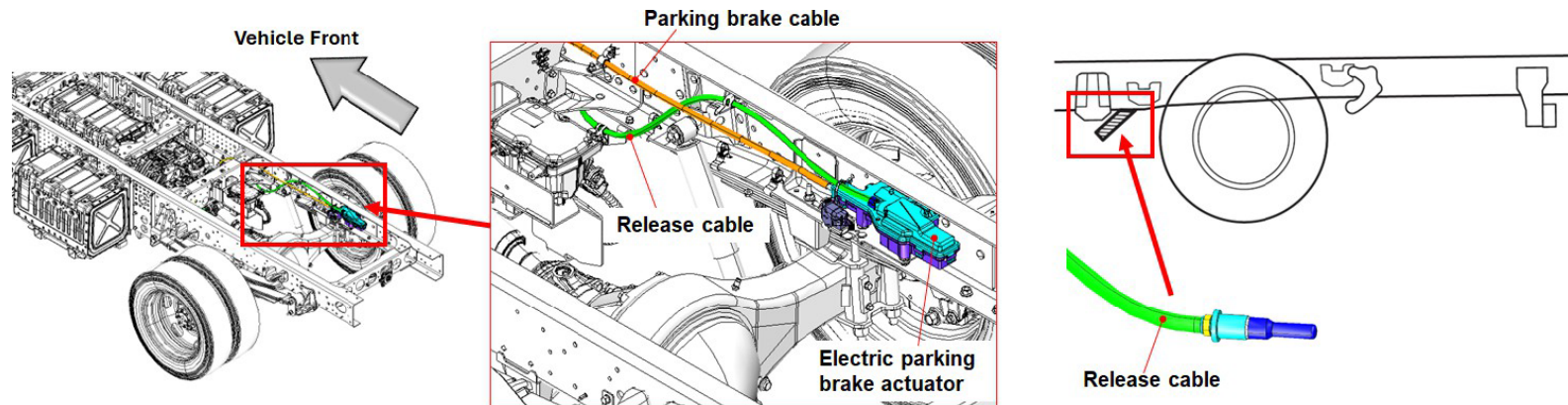
Electronic Parking Brake Release Cable



ADVICE

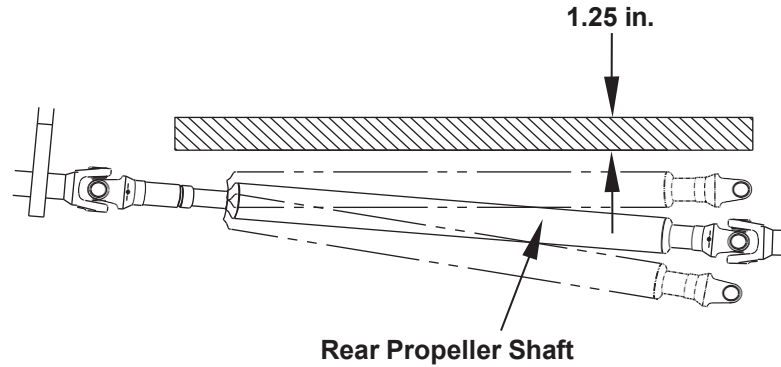
- A minimum clearance of 1.2 inches should be provided between the electronic parking brake cable and body components.
- Be sure to never bend the electronic parking brake release cable.
- The electronic parking brake cable may be broken if it is bent or interferes with the body and its fixtures.

The end of the release cable is located in front of the right rear suspension. If the electric parking brake cannot be released due to a malfunction of the electric parking brake, it is possible to release the electric parking brake by attaching a tool to the end of the release cable.



Rear Propeller Shaft

With the rear springs at maximum deflection, at least 1.25 inches of clearance should be provided over the rear propeller shaft.



NOTE: For recommended clearances, please refer to the Rear Axle Chart in each model's respective section.

Other Clearances

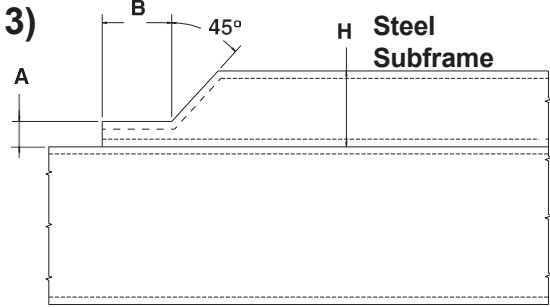
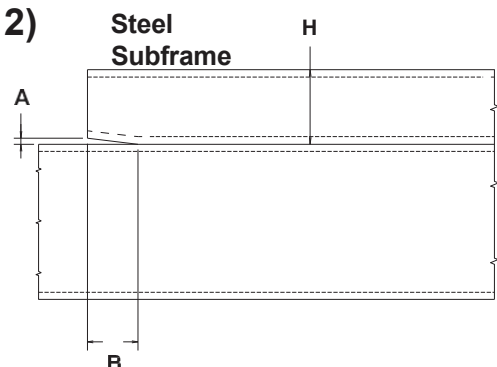
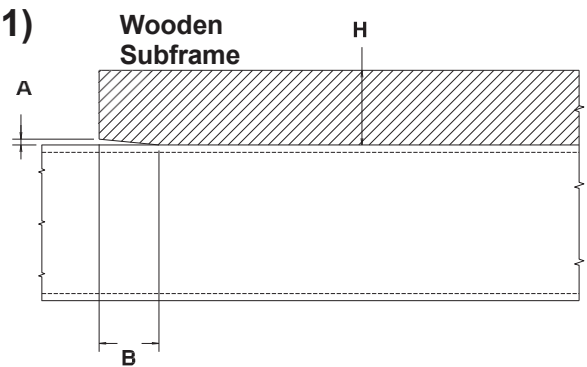
Accessibility to the grease nipple on the rear spring bracket/shackle should be provided so that serviceability with a grease gun is not hampered.

Parts	Location	Minimum Clearance (in)
Brake Hose	Axle Side	6.7
	Frame Side	1.6
Shock Absorber	Axle Side	2.4
	Frame Side	1.2
Parking Brake Cable	-	1.2

2026 Isuzu Truck

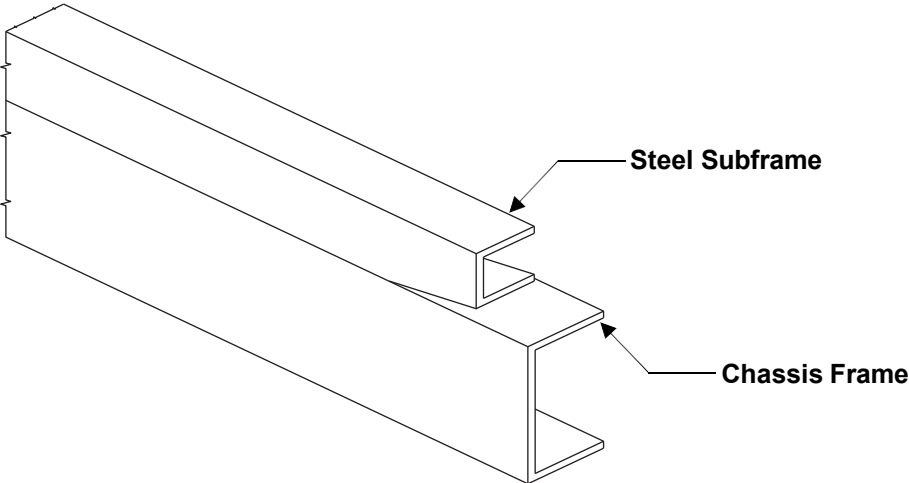
Subframe Contour

Contouring of the front end of the subframe members as shown in the three illustrations below will prevent stresses from being concentrated on certain areas of the chassis frame.



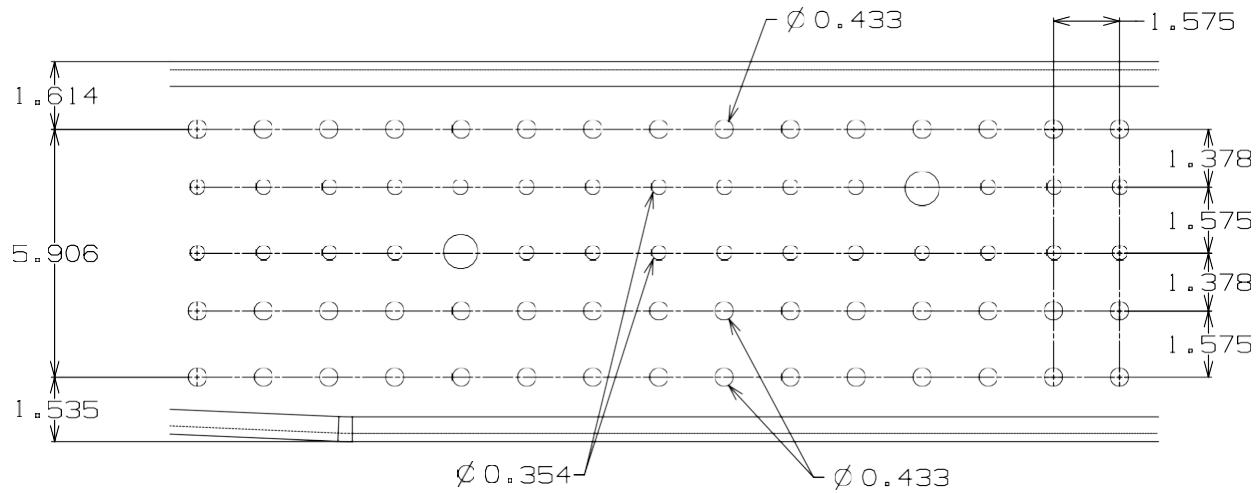
Drawing	A	B
1)	0.2 in.	$\frac{H}{2} \cong H$
2)	0.2 in.	H or greater
3)	$\frac{H}{3}$	H or greater

When using a steel subframe, do not close off the end of the subframe.

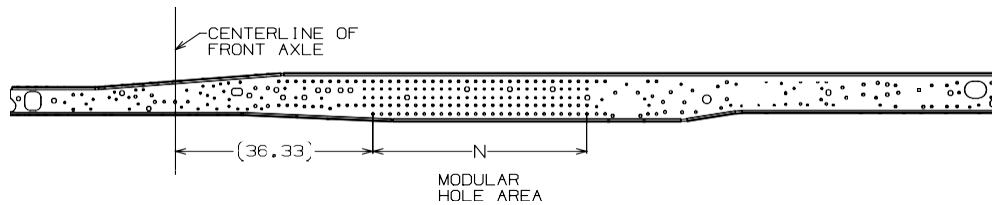


2026 Isuzu Truck

NRR EV Modular Frame Hole Pattern



Depending on model, wheelbase and chassis specification some holes are in use and some holes are intentionally missing. (Subject to change without notice.)



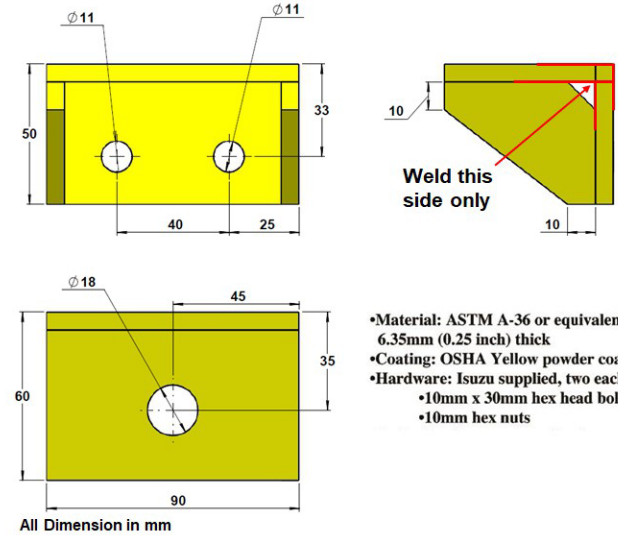
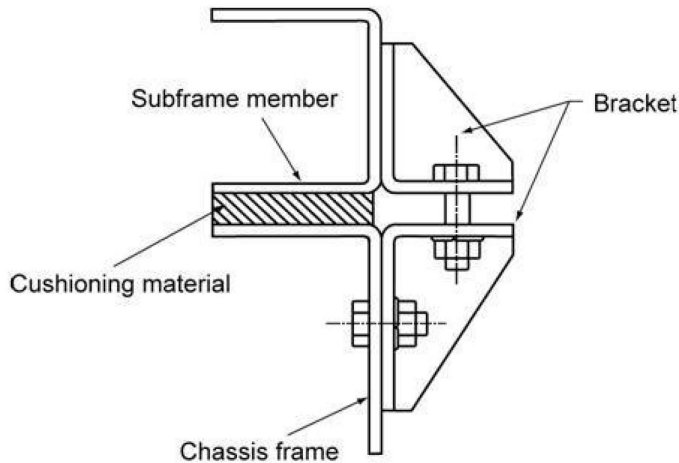
WB (inches)	N (inches)
132.5	63
150	80.3
176	105.5

NOTE: Re-tighten all attaching parts that are loosened during body installation.

Note: Dimensions in inches

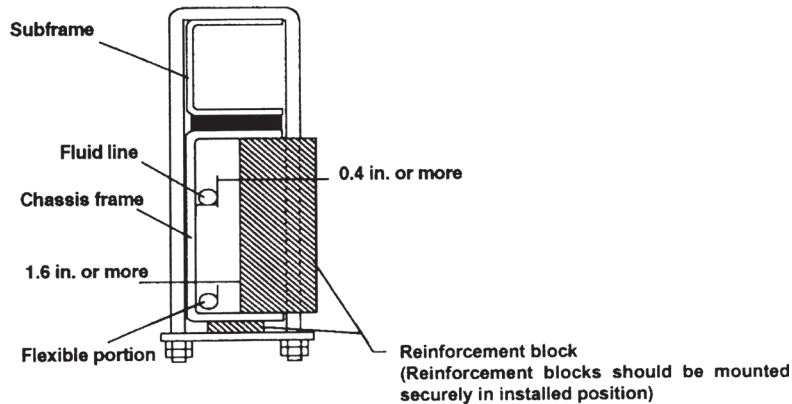
Subframe Mounting - Bracket Installation

Mounting brackets should be clamped to the chassis frame using bolts. For proper positions in which to install the bolts, refer to the section of this document "Modifications to the Chassis Frame." In addition to the illustrated bracket and U-bolts a shear plate may be required for adequately body mounting. The body company will be responsible for engineering their own mounting system.



U-bolt Installation (Supported behind Rear Axle)

When U-bolts are used to retain the subframe, reinforcement blocks must be installed in the frame members. This will prevent distortion of the frame flange as they are tightened. The drawing indicates the correct placement of reinforcement blocks. If you use wood blocks, be sure that there is sufficient clearance between them and any parts of the exhaust system. The use of J-bolts to retain the subframe is strictly prohibited. If any fluid lines or electric cables are located near the reinforcement blocks, you must provide at least 0.4 inches of clearance between rigid or stationary portions, and at least 1.6 inches between moveable or flexible portions of the lines.



Modifications of the Frame

Modifications of the chassis frame should be held to an absolute minimum. Modification work should be performed according to the instructions in the following paragraphs. When modification is complete, chassis frame members should be carefully inspected to eliminate the possibility of any safety-related defects.

Working on Chassis frame

The chassis frame is designed and built with consideration for proper load distribution. Sufficient physical strength is provided when the load is evenly distributed. Installation of special equipment on the chassis frame can cause variations in load distribution. If even distribution of load is not kept in mind when the equipment is installed, localization of stresses on specific areas of the frame could cause cracking of the chassis frame members or other problems, even if the total weight of the equipment is within the design limit. The chassis frame is designed as an integral unit. Therefore, we do not recommend cutting the chassis frame under any circumstances.

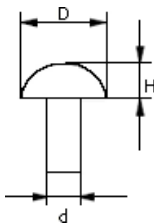
Drilling and Welding

WARNING

- Do not drill into or pierce battery pack exterior. Do not perform cutting or drilling operations near High Voltage components.
- When drilling on body, DO NOT drill vertically through the body flooring into the chassis. This will prevent puncture or damage to High Voltage components or harnesses.

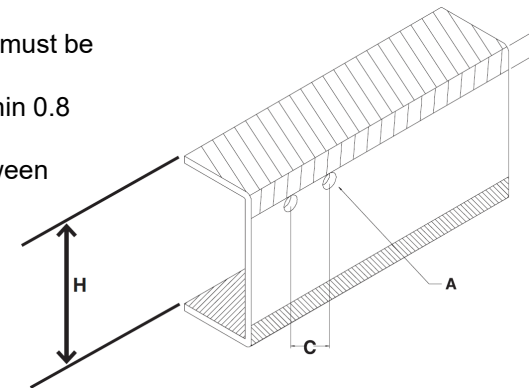
ADVICE

- For Battery electric vehicles due to sensitivity of chassis components, electric arc welding must be done with the 12-volt batteries' negative battery cable disconnected.
- Do not drill or weld in the shaded portions of the chassis frame members. Do not weld within 0.8 inches from the edges of any existing holes.
- Hold the length of any welding beads within 1.2-2.0 inches. Allow at least 1.57 inches between adjacent welding beads.
- All holes must be drilled. Do not use a torch to make any holes.
- All riveting must be done with cold rivets. Do not use hot rivets.
- The flange of the chassis frame must not be cut under any circumstances.
- The subframe must be attached to the chassis frame with bolts. Do not weld.
- Repaint exposed metal after drilling.



Rivet size detail:

D: 18 mm
d: 11 mm
H: 7.7 mm



Dimensions for hole drilling:

A - no more than 0.59 inches in diameter
B - must be more than H/5 for welding and H/7 for holes
C - must be more than 1.57 inches
H = Frame Height

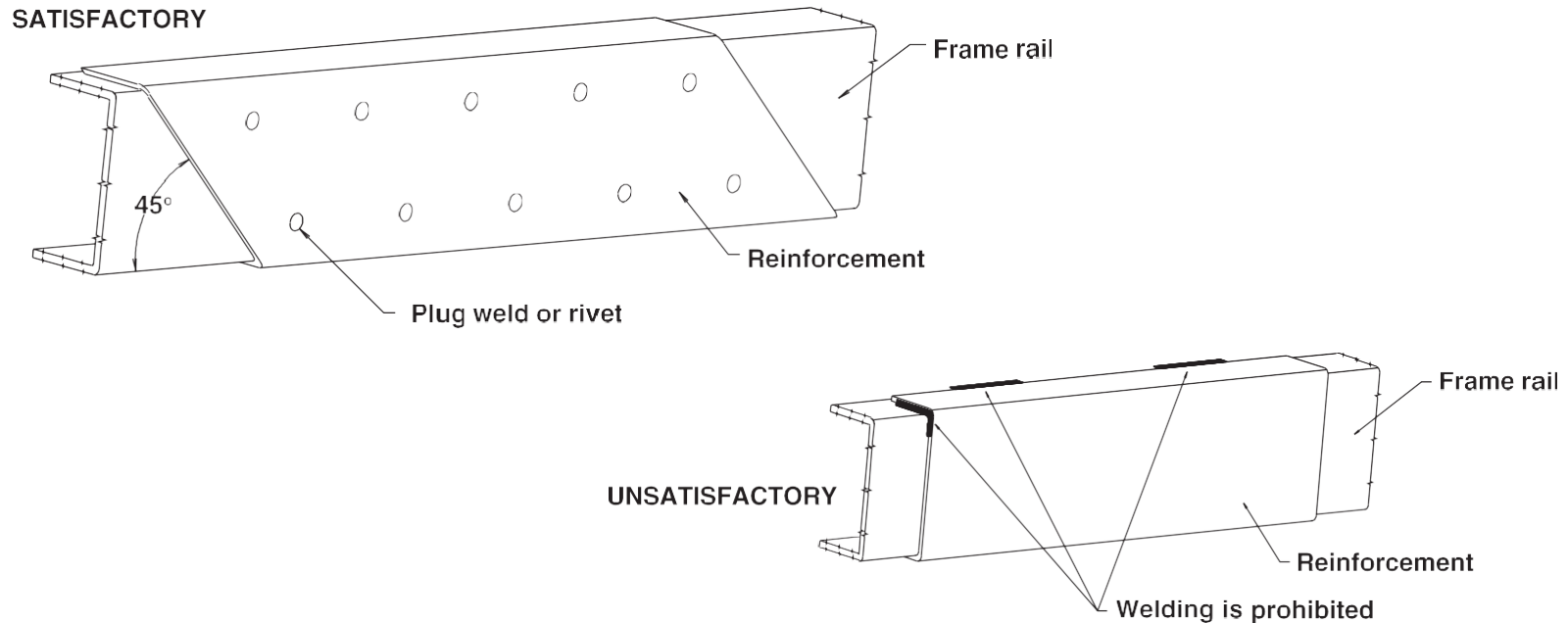
Reinforcement of Chassis Frame

Reinforcements must be installed to prevent the considerable variation in the section modulus. They must be welded so as to avoid localized stresses. The frame of the N-Series is made of HT540 Hot-Rolled steel. The drawing below illustrates the correct and incorrect methods of frame reinforcement.

Welding

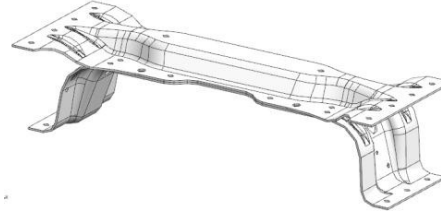
Keep reinforcement plates and chassis frame free from moisture and water. Avoid cooling with water after welding. Use a suitable means to protect pipes, wires, rubber parts, leaf springs, etc. against heat and effect of sputtering. Remove fuel tank assembly when welding portions near the fuel tank. Remove coat of paint completely when welding painted areas. Repaint exposed metal after welding.

When installing reinforcement by riveting or plug welding, place plugs or rivets in a zigzag pattern. When performing plug welding, be sure that electrical components, such as electric harnesses on the inner side of a chassis frame side member, are a minimum of 50mm apart from welding site. When inserting a rivet in a hole from which another rivet has previously been removed, the rivet should be 1 or 2mm larger in diameter than the removed one. Cold rivet only.

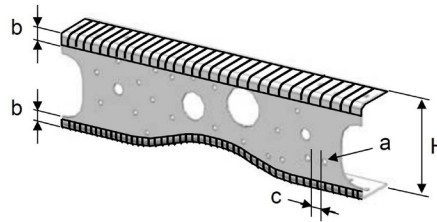


Crossmember Modification

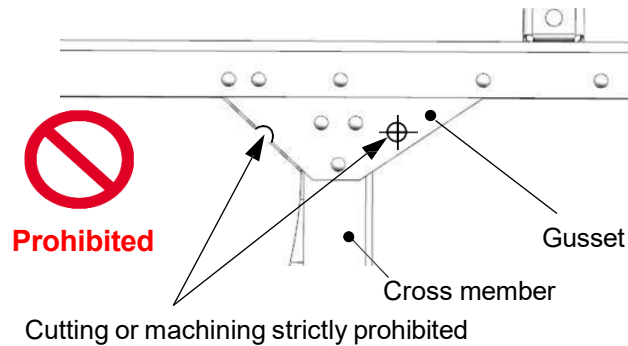
Alligator type cross member - For alligator type, hole drilling, notch making, and welding are prohibited.



Channel type cross member: a – Allowable maximum hole diameter is 9mm, and this hole should be used only for piping or harness routing.
 b – Prohibited area, no drilling should be done in this area.
 c – See Figure 1 on page 38 for minimum required distance.



Gusset: Hole drilling and notch making are prohibited.



The maximum distance between crossmembers for the respective models is given in the table below.

MODEL	NRR
Maximum Distance Between Crossmembers (in.)	35.7

Rear Overhang Modification

If a body protrudes outward from the rear end of the chassis frame by 300 mm (11.8 in.) or more, lengthen the rear overhang of the chassis frame as indicated below. If it is necessary to cut the chassis frame, ensure that the cut location does not split existing holes.

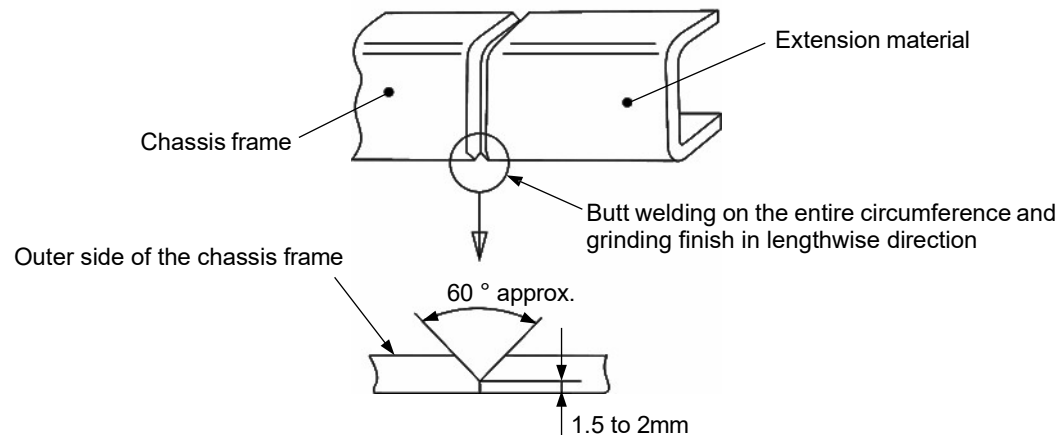
Refer to previously mentioned welding guidelines.

1. Extension material

- The extension material should be equivalent to that of side members. Refer to specification information for the vehicle model in consideration.
- Thickness and bending radius of the extension material should be the same as that of side members. Refer to specification information for the vehicle model in consideration.

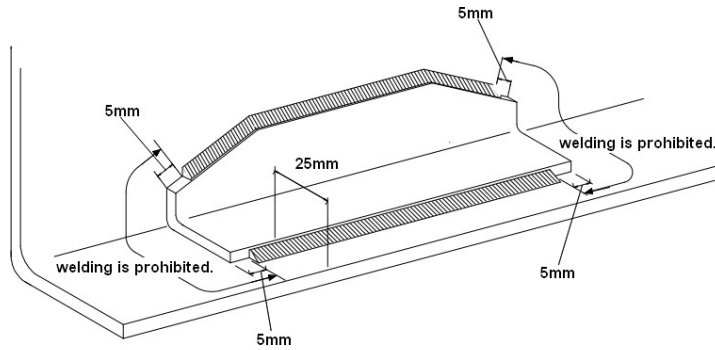
2. Installing extension material

- **Extension material is 300mm or shorter:** Join extension material and chassis frame with a continuous butt weld around the entire circumference. After welding, grind finish weld surface.

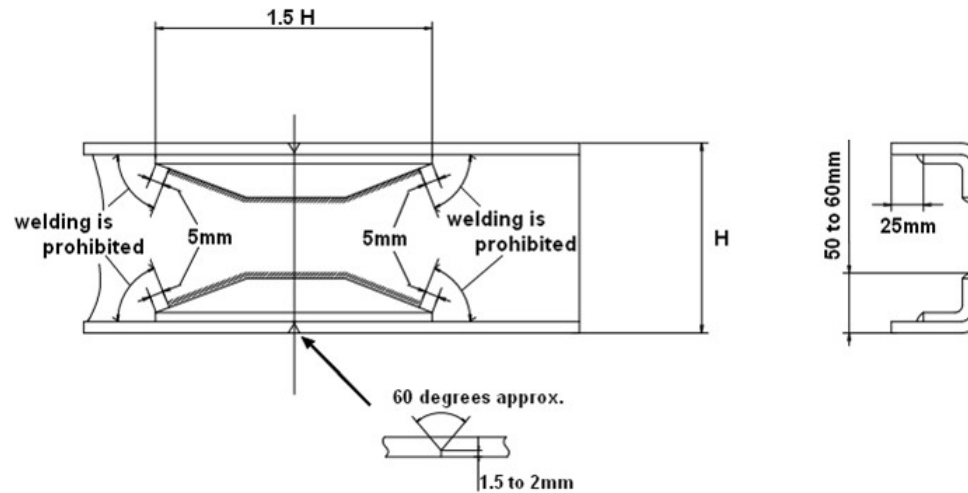


2026 Isuzu Truck

- **Extension material is longer than 300mm:** Join extension material and chassis frame with a continuous butt weld around the entire circumference, and then fit a reinforcement on the inner side of the chassis frame and extension material.



Side member thickness [mm]	Reinforcement material thickness (recommendation value) [mm]
8.0 at minimum	7.0
7.5	5.5 to 7.0
7.0	4.5 to 6.0
4.0 to 6.0	4.5



Low Voltage (12 V) Electrical System Modifications

WARNING

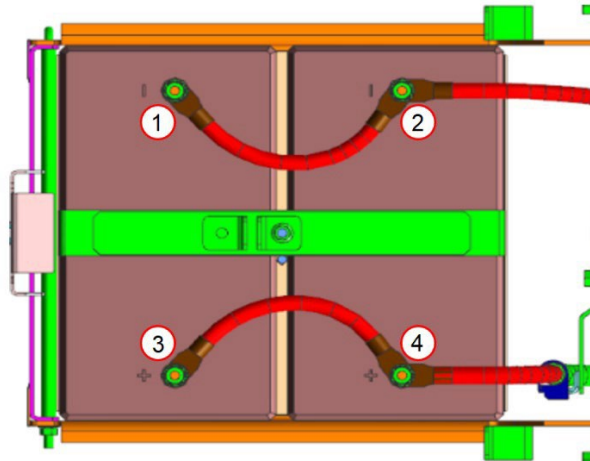
- Before servicing any electrical component, the ignition key must be in the LOCK position and all electrical loads must be OFF, unless instructed otherwise in Isuzu service procedures. If a tool or equipment could easily come in contact with a live exposed electrical terminal, also disconnect the negative battery cable. Do not disconnect cable within 3 minutes after turning the ignition key to the Lock position. Failure to follow these precautions may cause personal injury and/or damage to the vehicle or its components.

ADVICE

- Modifications/add-on wiring must be carefully reviewed to ensure compatibility with the base vehicle wiring by reviewing system schematics, wire routing paths, harness connections, etc.
- Due to the wide range of modifications that may be required for vocational needs, it is not feasible for the O.E.M. to take into account all potential revisions. For this reason, any person modifying existing vehicle wiring must assume responsibility that the revisions have not degraded the electrical system performance.
- Any add-on wiring needs to be properly fused and routed to prevent cut, pinch, and chafe problems, as well as avoid exposure to excessive heat.
- Care must be exercised that existing vehicle interfaces do not have their current load capabilities exceeded, and that the respective control devices are not overloaded.
- Added wire size should be at least as large as the wire to which it is attaching in order for fuse protection to be maintained.
- Electrical wiring components can be obtained through your authorized Isuzu dealers.

Battery Terminal Tightening Torque

No.	NUT SIZE	TORQUE
① ~ ④	3/8-16 (inch)	15±2 (N·m)



Low Voltage (12 V) Harnessing and Wiring

To increase the reliability of the wiring, all frame harnesses are covered with corrugated vinyl tubing. The following instructions apply to extending or modifying these harnesses. See the separate Electrical Section for information on commonly used circuits in the N-Series Chassis.

Wiring

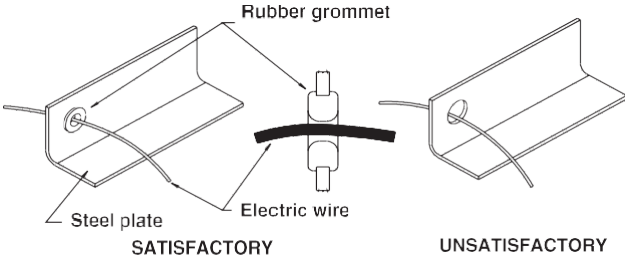
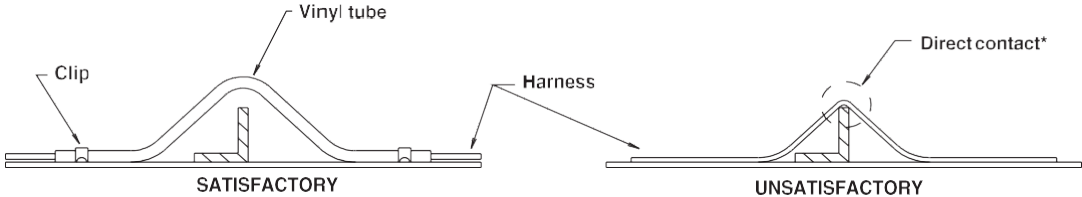


ADVICE

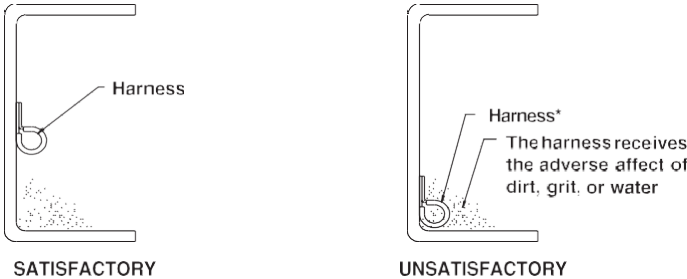
- Most wiring connections on Isuzu vehicles are made with terminals. We recommend the use of terminals when splicing cables and wires.
- When splicing, use new wire of the same gauge, and do not make splices inside the corrugated tubing.
- When making connections to the end of the harness, make sure the connections are electrically perfect. Use insulating tape as needed to prevent the entry of water, which results in short circuits and/or corrosion.
- When making new circuits, or modifying circuits already installed, make the cables only just taut enough to remove any slack. Use clips or grommets where required to protect cables from heat or sharp edges.
- Always use rustproof clips and apply vinyl coating to that portion of the clips in direct contact with the harnesses.
- No scotch clips or connectors.
- To minimize the vibration of the harness, clipping points should be set up according to the table below.
- When changing the length of the battery cable, do not cut or splice the existing cable. Make up a new cable of the correct length and wire gauge for the load and distance, without splices.
- When using connectors, use a socket (female) connector on the electrical source side and a plug (male) connector on the electrical load side to lower the possibility of a short circuit when disconnected.
- When connecting cables to moving or vibrating parts such as the engine or transmission, be sure to maintain sufficient slack in the wiring to absorb the vibration. Follow the example of existing cables connected by Isuzu. Keep flexible cables clear of other parts.
- Do not use vinyl tape in the engine compartment. The heat will tend to make it peel off. Use plated steel clips coated with rubber or vinyl.
- When locating auxiliary equipment or lines near the chassis components caution should be used to protect the chassis components from excessive vibration, heat or chemical reactions.
- See the following page for examples of proper harness protection

Wiring Harness Clip Distances

Harness Diameter	Clip Distance
less than 0.2 in.	less than 11.8 in.
0.2 in. ~ 0.4 in.	approx. 15.7 in.
0.4 in. ~ 0.8 in.	approx. 19.7 in.

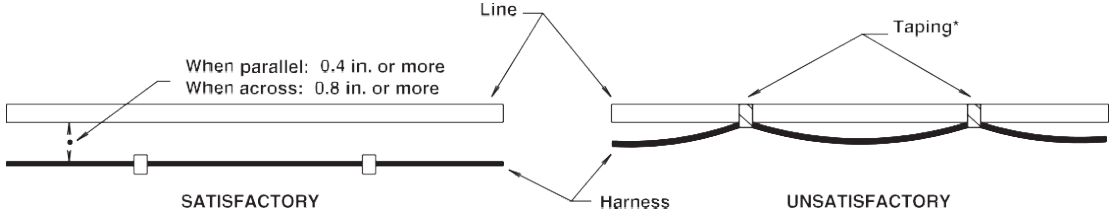


* Cables should not be in contact with sharp edges or piercec holes.



* Harnesses should not be installed on inside lower face of the chassis frame.

* Harnesses should not be taped to fuel lines or other lines. A sufficient clearance should be maintained between harness and pipe lines.



2026 Isuzu Truck

Wire Color Code

The electrical circuits of the N-Series Chassis Cab are connected with low-voltage stranded wire for automotive applications. The color coding standards are as follows for the N-Series Chassis Cab:

(1) Black	B Starter circuits and grounds	(5) Yellow	Y Instrument circuit
(2) White	W Generator (alternator) circuit	(6) Brown	Br Accessory circuit
(3) Red	R Lighting circuit	(7) Light Green	Lg Other circuit
(4) Green	G Signal circuit	(8) Blue	L Windshield wiper motor circuit

The electrical circuits of the NRR EV are connected with high-voltage wire for automotive applications. The color coding of the high-voltage wire is orange.

Maximum Allowable Current by Wire Size

Harness Design Diameter (mm)	AWG Equivalent	No. of Wires/Wire Diameter (mm)	Cross Sectional Area (mm ²)	Maximum Allowable Current (Amps)
100	00	217/0.80	109.1	363
85	0	169/0.80	84.96	305
60	1	127/0.80	63.84	248
50	1	108/0.80	54.29	223
40	1	85/0.80	42.73	191
30	2	70/0.80	35.19	171
20	4	41/0.80	20.61	123
15	6	84/0.45	13.36	93
8	8	50/0.45	7.952	68
5	8	65/0.32	5.228	51
3	12	41/0.32	3.297	39
2	14	26/0.32	2.091	29
1.25	16	16/0.32	1.287	21
0.85	18	11/0.32	0.8846	17
0.5	20	7/0.32	0.5629	13

Reference: The values given in the “maximum allowable current” column are based on the ambient temperature condition of 104°F with temperature increase of 104°F.

Fluid Lines



ADVICE

- Do not disturb the layout of any brake lines or coolant lines. Brake fluid lines must not be cut and spliced under any circumstances.
- Do not tap into High-Voltage coolants lines.

Rear Lighting

Brackets installed are temporary. Please do not use these brackets for body installation.

Serviceability



ADVICE

- No matter what other modifications or changes are made, access to components requiring daily preventive maintenance or other routine service must not be obstructed. This includes the following items:
 1. Inspection and operation of charge port.
 2. Inspection and operation of 12V battery.
 3. Inspection and operation of MSDs.
 4. Inspection and removal of HV batteries.
 5. Adjustment, removal and installation of the fan belts.
 6. Inspection, filling and removal of the battery and battery cover.
 7. Inspection and filling of brake fluid.
 8. Inspection and bleeding of the brake system and servo unit.
 9. Maintenance of clearance for tightening of check bolt on brake safety cylinder.
 10. Adjustment, removal and installation of distributor and/or cover.

For special applications and longer than recommended body lengths, ICTA Application Engineering must be consulted for approval.

- Please email ICTA.Application.Engineering@icta-us.com
- Or in the West Coast call 714-935-9327 and in the East Coast call 734-582-9284.

Storage



ADVICE

The auxiliary battery provides power for starting the EV system and many electric systems, such as the various lights and accessories.

- Start truck at least once per week to protect 12-volt batteries; leave on for 5-minutes to ensure DC-DC converter can charge 12-volt batteries.
- If the vehicle is not going to be driven for 30 days or longer, disconnect the ground cable from the negative (–) terminal of the 12-volt batteries to prevent discharge.

The lithium-ion battery is easily affected by ambient temperature, which may shorten the travel distance and lengthen the charging time.

To prevent the lithium-ion battery from being damaged, avoid the following:

- Leaving the vehicle with the high-voltage battery charging level at nearly 100% in a place where the temperature is approximately 35°C (95°F) or more for a long period of time.
- Leaving the vehicle in a place where the temperature is less than approximately -20°C (-4°F) for a long period of time.
- Leaving the vehicle with the remaining high-voltage battery charging level at nearly 0%.
- If the vehicle is to be parked in cold weather for 3 days or longer, make sure that the high-voltage batteries are charged to 50% or more.
- If the vehicle must be stored outside in extremely cold weather (-20°C (-4°F) or lower) for a long period, do not disconnect the 12-volt auxiliary battery and ensure it remains charged. If the cold weather is extreme, we recommend that you store the vehicle indoors.

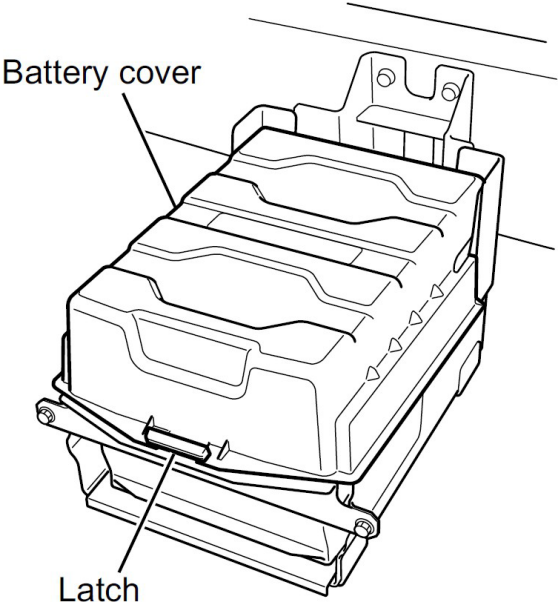
When the 12-volt Auxiliary Batteries are Fully Discharged

- This vehicle has two 12-volt batteries, 12-volt starting system and a negative ground electrical system; be sure the vehicle or equipment used to jump start your EV system is also 12-volt. Use of any other system may damage the vehicle's electrical components.
- Do not disconnect an auxiliary battery terminal with the EV system is activated. It could cause a breakdown in the electrical system.
- If you notice auxiliary battery fluid leaking, have an inspection carried out immediately by the nearest Isuzu Dealer.
- Always start the vehicle with the charged battery first. Allow it to run for a few minutes before attempting to start your disabled vehicle.

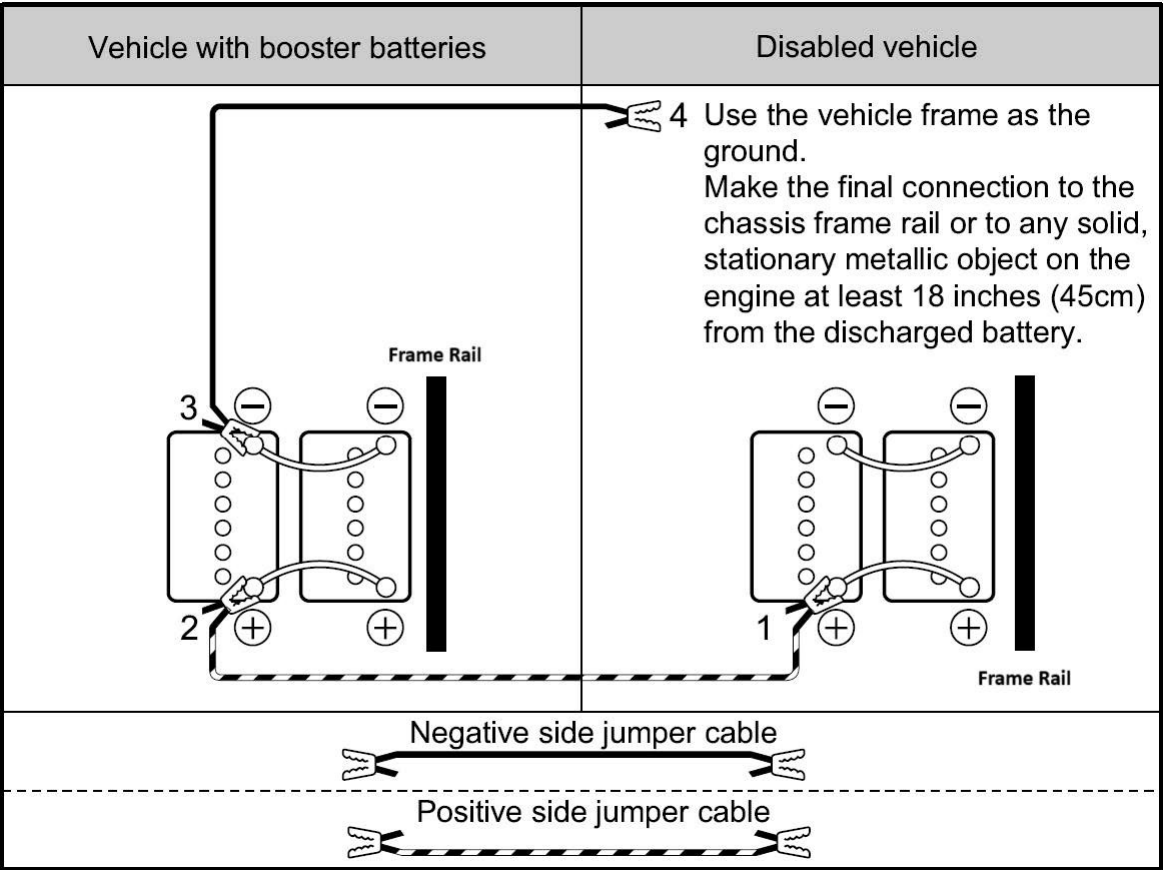
Use a jumper cable (sold separately) and the auxiliary batteries of another vehicle to start the EV system in the following sequence:

1. Use a vehicle that has a charged 12-volt battery with the same voltage. Make sure that the other vehicle also has a 12-volt starting system, and that it is the negative (–) terminal which is grounded (attached to the frame rail).
2. Position the vehicle with the good (charged) 12-volt battery so that the booster (jumper) cables will reach. But never let the vehicles touch. Also, be sure the booster cables to be used do not have loose or missing insulation.
3. In both vehicles, turn off the control switches and all lights and accessories except the hazard flashers or any lights needed for the work area.
4. In both vehicles, apply the parking brake and move the selector lever to the "P" (park) position. Remove the 12-volt battery cover and connect the jumper cables in the numbered sequence in the drawing on the following page.
5. Make sure the cable clamps do not touch any other metal parts. Make sure the cables are not on or near pulleys, fans or other parts that will move when the system is started.
6. After connecting the cables, start the EV system of the vehicle with the booster battery.
7. If the vehicle with the booster battery is equipped with an engine, slightly rev up the engine and start the EV system of the disabled vehicle.
8. If the EV system in the disabled vehicle starts, remove the jumper cables in reverse order sequence in which they were connected.

12-volt Battery Box



12-volt Battery Jumper Cable Connection Sequence



N-Series Body Application Summary Chart

MODEL GVWR	MODEL CODE	WB (in)	BOC (in)	BODY LENGTHS									
				10 ft.	12 ft.	14 ft.	16 ft.	18 ft.	20 ft.	22 ft.	24 ft.		
NPR GAS 12,000 lbs	1C1	109	7.7	X	X								
	1C2	132.5	7.7			X							
	1C3	150	7.7				X	X					
	1C4	176	7.7						X				
NPR CREW CAB GAS 12,000 lbs	1D3	150	5		X								
	1D4	176	5				X						
NPR HD GAS 14,500 lbs	1F1	109	7.7	X	X								
	1F2	132.5	7.7			X							
	1F3	150	7.7				X						
	1F4	176	7.7					X	X				
NPR HD CREW CAB GAS 14,500 lbs	1G3	150	5		X								
	1G4	176	5				X						
NQR GAS 17,950 lbs	1R2	132.5	7.7		X	X							
	1R3	150	7.7				X						
	1R4	176	7.7					X	X				
	1R5	200	7.7							X			
NQR CREW CAB GAS 17,950 lbs	1S3	150	5		X								
	1S4	176	5				X						
	1S5	200	5					X					
NRR GAS 19,500 lbs	1U2	132.5	7.7		X	X							
	1U3	150	7.7				X						
	1U4	176	7.7					X	X				
	1U5	200	7.7							X			
	1U6	212	7.7								X		
													X
NRR CREW CAB GAS 19,500 lbs	1V3	150	5		X								
	1V4	176	5				X						
	1V5	200	5					X					
	1V6	212	5						X				
NPR HD DIESEL 14,500 lbs	3F1	109	7.7		X								
	3F2	132.5	7.7			X							
	3F3	150	7.7				X ^[1]	X					
	3F4	176	7.7						X ^[1]				
NPR HD CREW CAB DIESEL 14,500 lbs	3G3	150	5.3		X ^[1]								
	3G4	176	5.3				X ^[1]						
NPR XD DIESEL 16,000 lbs	3Y1	109	7.7	X	X								
	3Y2	132.5	7.7			X							
	3Y3	150	7.7				X	X					
	3Y4	176	7.7					X	X				
NPR XD CREW CAB DIESEL 16,000 lbs	3Z3	150	5.3		X								
	3Z4	176	5.3				X						
NRR DERATE DIESEL ^[4] 17,950 lbs	3R1	109	7.7	X									
	3R2	132.5	7.7		X ^[1]	X							
	3R3	150	7.7				X	X					
	3R4	176	7.7						X				
	3R5	200	7.7							X			
NRR DERATE CREW CAB DIESEL ^[4] 17,950 lbs	3S3	150	5.3		X								
	3S4	176	5.3				X						
NRR DIESEL 19,500 lbs	3U1	109	7.7	X									
	3U2	132.5	7.7		X ^[1]	X							
	3U3	150	7.7				X						
	3U4	176	7.7					X	X				
	3U5	200	7.7							X			
	3U6	212	7.7								X		
NRR CREW CAB DIESEL 19,500 lbs	3V3	150	5.3		X								
	3V4	176	5.3				X						

Notes:

- [1] Indicated body size and chassis wheelbase combination requires the installation of a liftgate for an acceptable weight distribution.
- [2] WARNING - Body selection recommendations are based on water level weight distribution and no accessories (i.e. liftgates or refrigeration units). This table is intended for reference and does not preclude the necessity for an accurate weight distribution calculation.
- [3] The BOC (back of cab) values shown are the minimum requirements for the chassis. A weight distribution analysis should be performed for the completed vehicle to determine the necessary BOC value.
- [4] Available through PIO ordering

2026 Isuzu Truck

MODEL GVWR	MODEL CODE	WB (in)	BOC ^[3] (in)	BAT. CAP. (kWh)	12 ft.	14 ft.	16 ft.	18 ft.	20 ft.
NRR EV 19,500 lbs.	6U2 03	132.5	7.7	60	X	X			
	6U2 05			100	X	X			
	6U3 03	150		60			X		
	6U3 05			100			X	X	
	6U4 03	176		60				X	X
	6U4 05			100				X	X
	6U4 07			140				X	X
	6U4 09			180				X ^[1]	X
NRR EV DERATE 17,950 lbs.	6U2 03	132.5	7.7	60	X ^[1]	X			
	6U2 05			100	X ^[1]	X			
	6U3 03	150		60			X	X	
	6U3 05			100			X	X	
	6U4 03	176		60				X ^[1]	X
	6U4 05			100					X
	6U4 07			140					X
	6U4 09			180					X

Notes:

[1] Indicated body size and chassis wheelbase combination requires the installation of a liftgate for an acceptable weight distribution.

[2] WARNING - Body selection recommendations are based on water level weight distribution and no accessories (i.e. liftgates or refrigeration units). This table is intended for reference and does not preclude the necessity for an accurate weight distribution calculation. The weight distribution will change depending on selected battery capacity, this chart is intended only as a reference.

[3] The BOC values shown are for the minimum distance and may need to be adjusted depending on upfitted equipment.

F-Series Body Application Summary Chart

FTR

BODY APPLICATION SUMMARY													
MODEL CODE	GVWR (lbs)	WB (in)	BOC (in)	14 ft.	16 ft.	18 ft.	20 ft.	22 ft.	24 ft.	26 ft.	28 ft.	30 ft.	
MT1	25,950	152	10.4	X	X								
MT2		170				X							
MT3		188						X					
MT4		200							X				
MT5		212								X			
MT6		224									X		
MT7		236										X	
MT8		248											X

FVR Derate

BODY APPLICATION SUMMARY													
MODEL CODE	GVWR (lbs)	WB (in)	BOC (in)	14 ft.	16 ft.	18 ft.	20 ft.	22 ft.	24 ft.	26 ft.	28 ft.	30 ft.	
MW1	25,950	152	10.4	X	X								
MW2		170					X						
MW3		188							X				
MW4		200								X			
MW5		212									X		
MW6		224										X	
MW7		236											X
MW8		248											

Notes:

[1] WARNING - Body selection recommendations are based on water level weight distribution and no accessories (i.e. liftgates or refrigeration units). This table is intended for reference and does not preclude the necessity for an accurate weight distribution calculation.

[2] The BOC (back of cab) values shown are the minimum requirements for the chassis. A weight distribution analysis should be performed for the completed vehicle to determine the necessary BOC value.

FVR: Dry Freight Bodies

BODY APPLICATION SUMMARY												
MODEL CODE	GVWR (lbs)	WB (in)	BOC (in)	BODY ONLY								
				14 ft.	16 ft.	18 ft.	20 ft.	22 ft.	24 ft.	26 ft.	28 ft.	30 ft.
MV1	33,000	152	10.4	X								
MV2		170			X							
MV3		188				X						
MV4		200					X					
MV5		212						X				
MV6		224							X			
MV7		236								X	X	
MV8		248									X	X

FVR: Dry Freight Bodies with Liftgate

BODY APPLICATION SUMMARY												
MODEL CODE	GVWR (lbs)	WB (in)	BOC (in)	BODY LENGTHS W/ LIFTGATE								
				14 ft.	16 ft.	18 ft.	20 ft.	22 ft.	24 ft.	26 ft.	28 ft.	30 ft.
MV1	33,000	152	10.4	X								
MV2		170			X							
MV3		188				X						
MV4		200					X					
MV5		212						X				
MV6		224						X				
MV7		236							X			
MV8		248								X	X	

FVR: Refrigerated Freight Bodies

BODY APPLICATION SUMMARY												
MODEL CODE	GVWR (lbs)	WB (in)	BOC (in)	BODY LENGTHS W/ REEFER								
				14 ft.	16 ft.	18 ft.	20 ft.	22 ft.	24 ft.	26 ft.	28 ft.	30 ft.
MV1	33,000	152	10.4	X								
MV2		170			X	X						
MV3		188				X	X					
MV4		200					X	X				
MV5		212						X				
MV6		224							X			
MV7		236								X		
MV8		248									X	X

Notes:

[1] WARNING - Body selection recommendations are based on water level weight distribution and no accessories unless indicated (i.e. liftgates or refrigeration units). This table is intended for reference and does not preclude the necessity for an accurate weight distribution calculation.

[2] The BOC (back of cab) values shown are the minimum requirements for the chassis. A weight distribution analysis should be performed for the completed vehicle to determine the necessary BOC value.

Mechanical and Cab Specifications Engine Horsepower and Torque Chart

ENGINE	MODEL(S)	NET HP ^[1] HP/RPM	NET TORQUE ^[1] HP/RPM	GROSS HP ^[1] HP/RPM	GROSS TORQUE ^[1] LBS-FT/RPM
GMPT 6.6L-V8	NPR GAS NPR-HD GAS NQR GAS NRR GAS	350/4500	425/3800	-	-
ISUZU 4HK1-TC	NPR-HD DIESEL NPR-XD DIESEL NQR DIESEL NRR DIESEL	210/2500	441/1850	215/2550	452/1850
CUMMINS B6.7	FTR FVR DERATE FVR	-	-	260/2400	660/1600

NOTES: [1] HORSEPOWER AND TORQUE RATINGS ARE MEASURED UNDER SAE J1349

EV Motor Power and Torque Chart

MOTOR	MODEL(S)	MAX RATED OUTPUT	MAX RATED TORQUE	MAX RATED VOLTAGE
ZF CeTrax Lite 3-phase AC motor	NRR EV NRR DERATE EV	150 kW	280 lb-ft	350 Volts

GVWR / GCWR Ratings

The following table presents GVW ratings and corresponding GCW ratings for each model truck:

TRUCK MODEL	GVWR (lbs)	GCWR (lbs)*
NPR GAS	12,000	18,000
NPR-HD GAS	14,500	20,500
NQR GAS	17,950	23,950
NRR GAS	19,500	25,500
NPR-HD DIESEL	14,500	20,500
NPR-XD DIESEL	16,000	22,000
NRR DERATE DIESEL	17,950	23,950
NRR DIESEL	19,500	25,500
NRR DERATE EV	17,950	19,500
NRR EV	19,500	19,500
FTR DIESEL	25,950	30,000
FVR DERATE DIESEL	25,950	33,000
FVR DIESEL	33,000	33,000

* The NPR HD, NPR XD, NRR are not approved for Hot Shot applications.

Paint Code Chart

ISUZU PAINT CODE INFORMATION

ISUZU PAINT CODE	ISUZU OPTION CODE	ISUZU COLOR NAME	AKZO NOBEL CODE	DUPONT CODE	NEXA COLOR CODE	PPG CODE	SHERWIN WILLIAMS/ MARTIN SENOUR	SPIES HECKER CODE	STANDOX CODE	PANTONE (1)
W301-P801-0	729	Arc White	FLNA40156	729	729	91508	729	729	729	7541C
Y719-P801-0	812	Wheatland Yellow	FLNA10182	812	812	83931	812	812	812	137C
G705-P801-0	807	Woodland Green	FLNA60181	807	807	48339	807	807	807	3308C
R410-P801-0	736	Cardinal Red	ISU736	736	736	75097	736	736	736	202C
B414-P801-0	695	Dark Blue	ISU695	695	695	909649	695	695	695	655C
K705-P801-0	508	Ebony Black II	ISU508	508	508	N/A	508	508	508	Black 6C

(1) The Pantone colors listed are the closest Pantone color numbers to the Isuzu paint colors and are given for reference only

N-Series Towing Procedure

When towing a vehicle: Proper equipment must be used to prevent damage to vehicles during any towing. State and local laws which apply to vehicles in tow must be followed. Vehicles should not be towed at speeds in excess of 55 MPH (88 km/h). Connect to the main structural parts of the vehicle. Do not attach to bumpers, tow hooks or brackets. Use only equipment designed for this purpose. Follow the instructions of the wrecker manufacturer. A safety chain system must be used. The procedures below must be followed when towing to prevent possible damage.

Front End Towing (Front Wheels Off Ground)

To prepare a disabled vehicle for front end towing with front wheels raised off the ground, the following steps are necessary:

- Block the rear wheels of the disabled vehicle.
- Disconnect the propeller shaft at the rear axle. Secure the propeller shaft to the frame or cross member.

CAUTION: When towing, disconnect the driveshaft at the rear axle to ensure the transmission is not damaged.

If there is damage or suspected damage to the rear axle, remove the axle shafts.

Cover the hub openings to prevent the loss of lubricant or entry of dirt or foreign objects.

Place a 10 cm (4 in) wood beam against the towing guide behind the bumper.

(If no 10 cm (4 in) is available, then remove the bumper.) Ensure towing chains do not come into contact with the horns or the bumper.

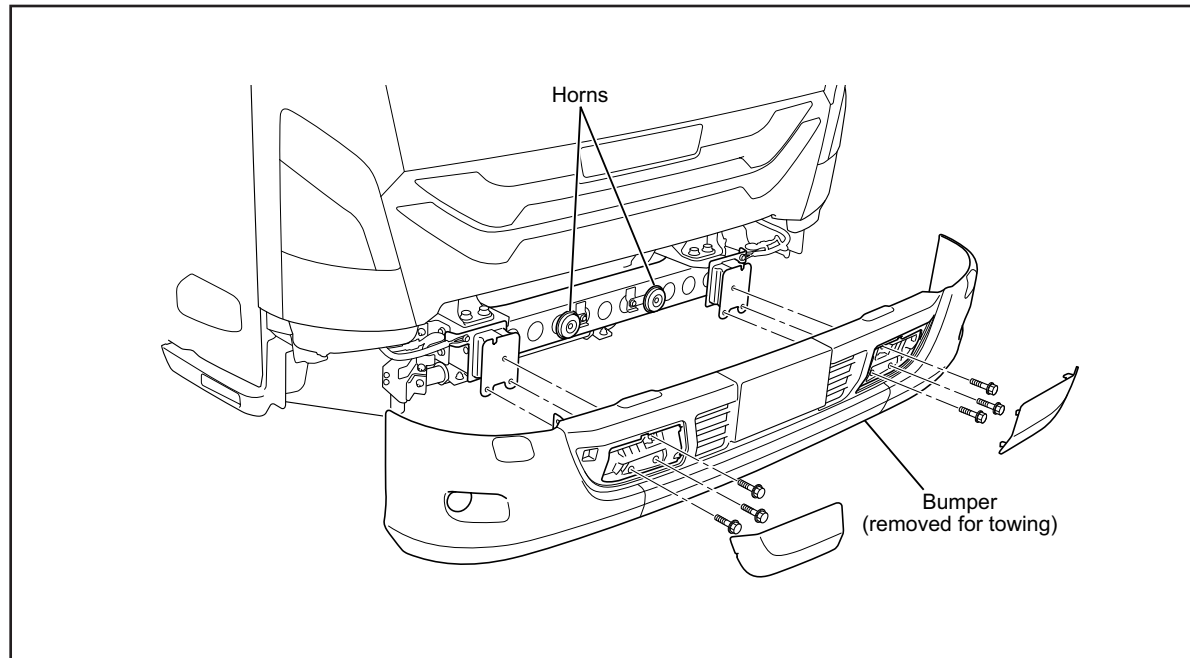


Figure 1

After Towing

After towing the vehicle, block the rear wheels and install axle shafts or driveshaft. Apply the parking brake before disconnecting from the towing vehicle.

Front End Towing (All Wheels On the Ground)

Your vehicle may be towed on all wheels provided the steering is operable. Remember that power steering and brakes will not have power assist. There must be a tow bar installed between the tow vehicle and the disabled vehicle.

Towing with all wheels on the ground

To prepare a disabled vehicle for front end towing with all wheels on the ground, the following steps are necessary:

- Block the wheels of the disabled vehicle.
- Disconnect the propeller shaft at the rear axle.
Secure the propeller shaft to the frame or crossmember.

CAUTION:

When towing, disconnect the driveshaft at the rear axle to ensure the transmission is not damaged. Provide wood blocking to prevent towing chains and bar from coming into contact with the bumper. If there is damage or suspected damage to the rear axle, remove the axle shafts. Cover the hub openings to prevent the loss of lubricant or entry of dirt or foreign objects.

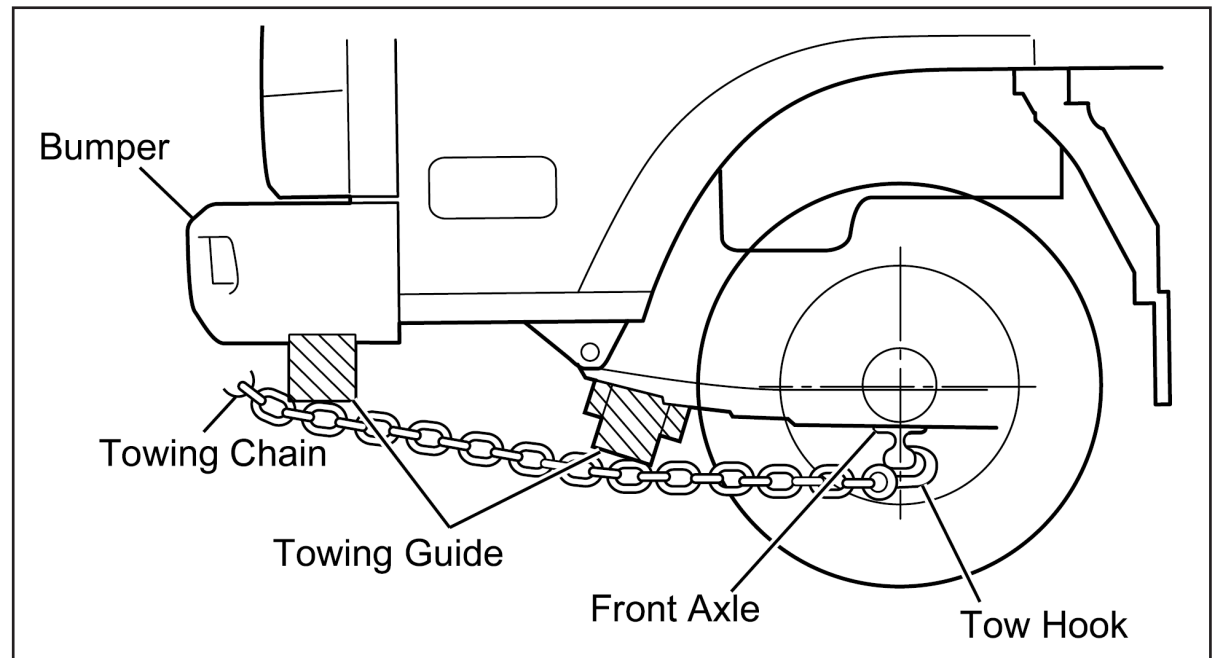


Figure 2

CAUTION:

When towing, disconnect the driveshaft at the rear axle to ensure the transmission is not damaged. Provide wood blocking to prevent towing chains and bar from coming into contact with the bumper. If there is damage or suspected damage to the rear axle, remove the axle shafts. Cover the hub openings to prevent the loss of lubricant or entry of dirt or foreign objects.

After Towing

After towing the vehicle, block the rear wheels and install axle shafts or propeller shaft. Apply the parking brake before disconnecting from the towing vehicle. Check and fill rear axle with oil, if required.

Rear End Towing

When towing a vehicle with rear wheels raised, secure the steering wheel to maintain straight-ahead position. Make certain that the front axle is not loaded beyond the front axle gross axle weight rating (GAWR) as indicated on the vehicle's VIN and weight rating plate.

Special Towing Instructions:

1. All state and local laws regarding such items as warning signals, night illumination, speed, etc., must be followed.
2. Safety chains must be used.
3. No vehicle should ever be towed over 55 MPH (88 km/h).
4. Loose or protruding parts of damaged vehicles should be secured prior to moving.
5. A safety chain system completely independent of the primary lifting and towing attachment must be used.
6. Operators should refrain from going under a vehicle which is being lifted by the towing equipment unless the vehicle is adequately supported by safety stands.
7. No towing operation which for any reason jeopardizes the safety of the wrecker operator or any bystanders or other motorists should be attempted.

WARNING (NRR EV):

- When the vehicle has been damaged, do not touch it unless you are certain that it is safe to do so. Move away from the vehicle, contact the nearest Isuzu Dealer, and explain that the vehicle involved in an electric vehicle.
- Do not tow the vehicle with the EV Control Switch turned to the "ON" position with just the front wheels or rear wheels raised. The ESC may operate and cause an accident.
- When towing the vehicle, ensure that the front wheels, or all 4 wheels, are off the ground. Failure to do so can cause the drive motor to generate power, which can damage the vehicle and may cause a fire.
- When towing the vehicle with the 4 wheels raised off the ground, apply the electric parking brake to secure the vehicle, preventing the vehicle from coming loose.

F-Series Towing Procedure

When towing a vehicle: To move a disabled vehicle, it is best to rely on someone in the wrecker or tow truck business. If that is not possible, follow these procedures. When towing, use appropriate equipment and comply with state and local legal requirements. Do not try to start the engine by towing or pushing the vehicle.

CAUTION:

- **Be sure to chock the wheels when disconnecting the axle shaft. The vehicle could start to move and cause a serious accident. The vehicle will start moving upon disconnecting the axle shaft.**
- **Place the gearshift lever in the “N” position, and tow for a maximum distance of 6.2 miles (10 km) at speeds less than 25 MPH (40 km/h). Other than the above, disconnect the axle shaft when towing to avoid damage to the transmission.**
- **Whenever possible, tow a vehicle with the engine started. If the engine is not started:**
 - **The brakes will not be as effective**
 - **The steering wheel will be hard to turn**
 - **The steering wheel could lock, making it impossible to move. This is extremely dangerous. (When the ignition key is removed.)**
- **If you apply any one of the air brake parking controls while the vehicle is moving, your rig will stop suddenly. If you are not ready for this, you or others could be injured. Do not apply any one of these controls while you are driving, unless you have to make an emergency stop.**

Front End Towing (All wheels on the ground, or the front wheels are off the ground): When it is possible to operate the steering wheel, the vehicle can be towed with all wheels on the ground. If the engine cannot be started, the power steering system does not work, making steering difficult. In addition, when air pressure is low, the brakes will not work. Either install a tow bar between the towing vehicle and the disabled vehicle, or use a tow truck to move the disabled vehicle. To prevent damage to the differential and pinion seal, the axle shafts need to be removed whenever the vehicle is towed with the rear tires on the ground. Remove the axle shaft and plug up the opening of the hub to prevent differential gear oil from leaking, or to prevent dirt or foreign objects from entering the axle. When towing, disconnect the axle shaft at the rear axle to ensure the transmission is not damaged.

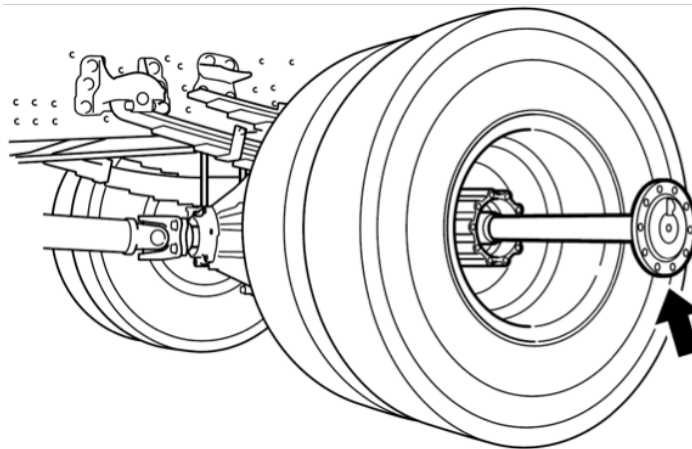


Figure 3

1. If the vehicle is towing or is towed, firmly attach a rope to the front towing hook on the same side.
2. During towing, carefully watch the stop lights of the towing vehicle in order to prevent slack in the rope. Ensure that there are no strong shocks or lateral force applied to the vehicle. Excessive towing load can damage the towing hook.

CAUTION:

- Do not tow a vehicle at an angle of greater than 15° . This could exert too much stress on the vehicle and damage it.
- Attach a rope to the towing hook only. Attaching a rope to any other part of the vehicle could damage it.
- Make sure there are no people near the towing rope and hook before towing a vehicle. If the rope snaps, people nearby could be injured.
- The towing hook is for use to tow a vehicle with about the same weight as the towing vehicle on good roads.
- When coming to channels or muddy areas, unload the vehicle. Do not use the towing hook to tow, but tow with a rope attached to the axle.

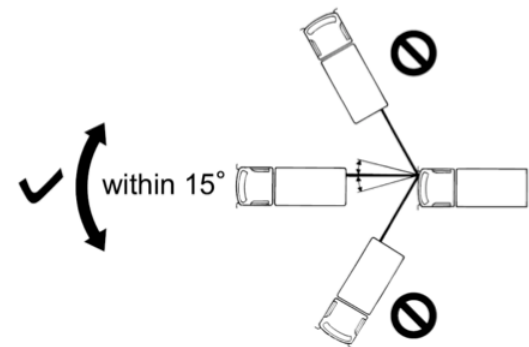
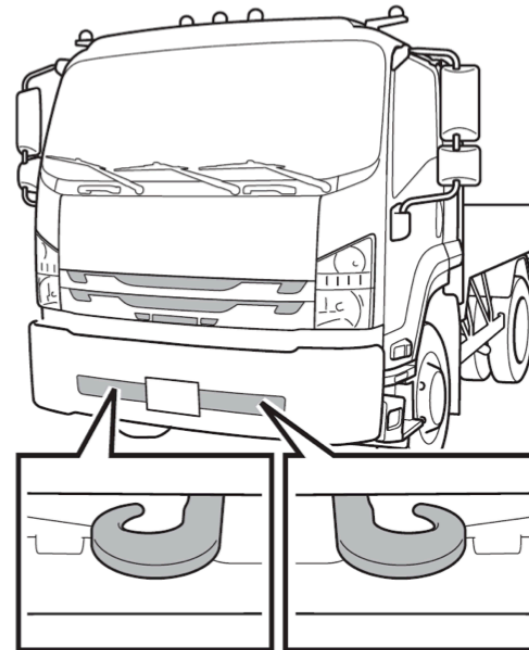


Figure 4

Weight Distribution Concepts

Weight Restrictions

The Gross Vehicle Weight Rating (GVWR) and the Gross Axle Weight Rating (GAWR) of each Incomplete Vehicle are specified on the cover of its Incomplete Vehicle Document in conformance to the requirements of Part 568.4 of the Federal Motor Vehicle Safety Regulations. The final stage manufacturer is responsible under Part 567.5 to place the GVWR and the GAWR of each axle on the Final Vehicle Certification Label. The regulation states that the appropriate rating “shall not be less than the sum of the unloaded vehicle weight, rated cargo load, and 150 pounds times the vehicle’s designated seating capacity.”

Unloaded vehicle weight means the weight of a vehicle with maximum capacity of all fluids necessary for operation of the vehicle, but without cargo or occupants.

During completion of this vehicle, GVWR and GAWR may be affected in various ways, including but not limited to the following:

1. The installation of a body or equipment that exceeds the rated capacities of this Incomplete Vehicle.
2. The addition of designated seating positions which exceeds the rated capacities of this Incomplete Vehicle.
3. Alterations or substitution of any components such as axles, springs, tires, wheels, frame, steering and brake systems that may affect the rated capacities of this Incomplete Vehicle.

Use the following chart to assure compliance with the regulations. Chassis curb weight and GVW rating is located in each vehicle section. Always verify the results by weighing the completed vehicle on a certified scale.

Curb Weight of Chassis (lbs.)		_____
		(From required vehicle section)
PLUS weight of added body components, accessories or other permanently attached components.	+	_____
		(Body, liftgate, reefer, etc.)
PLUS total weight of passengers, air conditioning and all load or cargo.	+	_____
		(Driver, passengers, accessories and load)
<hr/>		
EQUALS Gross Vehicle Weight (lbs.) (GVW) of completed vehicle.	=	_____
		(Should equal GVWR from required vehicle section)

Figure 1

Gross Axle Weight Rating

The Gross Vehicle Weight is further restricted by the Gross Axle Weight Rating (GAWR). The maximum GAWR for both front and rear axles is listed in each Vehicle Section. Weight distribution calculations must be performed to ensure GAWR is not exceeded. Always verify the results by weighing the completed vehicle on a certified scale.

NOTE: Although the Front Gross Axle Weight Rating (FGAWR) plus the Rear Gross Axle Weight Rating (RGAWR) may exceed the Gross Vehicle Weight Rating (GVWR), the total GVW may not exceed the respective maximum GVWR.

The variation in the GAWRs allow the second stage manufacturer some flexibility in the design of the weight distribution of the attached unit.

Weighing the Vehicle

Front and rear GAWRs and total GVWR should be verified by weighing a completed loaded vehicle. Weigh the front and rear of the vehicle separately and combine the weights for the total GVWR. All three weights must be less than the respective maximum shown in the vehicle sections.

Tire Inflation

Tire inflation must be compatible with GAWR and GVWR as specified on the cover of the Incomplete Vehicle Document for each vehicle.

Center of Gravity

The design of the truck body should be such that the center of gravity of the added load does not exceed the guidelines as listed in each Vehicle Section. If the body is mounted in such a way that the center of gravity height exceeds the maximum height of the center of gravity designated for each model, the directional stability at braking and roll stability at cornering will be adversely affected. A vertical and/or horizontal center of gravity calculation must be performed if a question in stability arises to ensure the designed maximum height of the center of gravity is not violated.

Weight Distribution

A truck as a commercial vehicle has but one purpose. That purpose is to haul some commodity from one place to another. A short distance or a long distance, the weight to be hauled, more than any other factor, determines the size of the truck. A small weight requires only a small truck; a large weight requires a large truck. A simple principle, but it can easily be misapplied. In any case, selecting the right size truck for the load to be hauled will ensure that the job will be done and that it will be able to be done with some degree of reliability and within the legal limitations of total gross weight and axle gross weights.

Not only must a truck be selected that will handle the total load, but the weight must also be properly distributed between the axles. This is of extreme importance from both a functional and economic aspect. If a truck consistently hauls less than its capacity, the owner is not realizing full return on his investment and his operating costs will be higher than they should be. If the truck is improperly loaded or overloaded, profits will be reduced due to increased maintenance costs and potential fines resulting from overloading beyond legal limitations. Careful consideration must be given to distribution of the load weight in order to determine how much of the total, including chassis, cab, body and payload, will be carried on the front axle and how much will be carried on the rear axle, on the trailer axles and the total. Moving a load a few inches forward or backward on the chassis can mean the difference between acceptable weight distribution for the truck or an application that will not do the job satisfactorily.

Every truck has a specific capacity and should be loaded so that the load distribution is kept within Gross Axle Weight Ratings (GAWR) and the truck's Gross Vehicle Weight Rating (GVWR) or Gross Combination Weight Rating (GCWR) for a tractor/trailer and the weight laws and regulations under which the truck will operate.

Another key concept in weight distribution is ensuring that the proper percentage of total vehicle weight (GVW) is distributed to each individual axle. This is typically analyzed by calculating what percentage of the total vehicle weight is being supported by the front axle. To ensure proper traction and vehicle operation, please reference the chart below for the recommended minimum front axle loading percentage by chassis model.

Minimum Recommended Front Axle Loading % by Chassis Model		
MODEL	GVWR (lbs)	Minimum FA %
NPR GAS	12,000	30.0%
NPR-HD GAS	14,500	30.0%
NQR GAS	17,950	25.8%
NRR GAS	19,500	25.8%
NPR-HD DIESEL	14,500	30.0%
NPR-XD DIESEL	16,000	30.0%
NRR DERATE DIESEL	17,950	30.0%
NRR DIESEL	19,500	30.0%
NRR DERATE EV	17,950	30.0%
NRR EV	19,500	30.0%
FTR DIESEL	25,950	30.0%
FVR DERATE DIESEL	25,950	30.0%
FVR DIESEL	33,000	30.0%

An improper weight distribution will cause problems in many areas:

1. Excessive front end wear and failure
 - a. Tie-rod and kingpin wear
 - b. Front axle failure
 - c. Overloading of front suspension
 - d. Wheel bearing failure

2. Rapid tire wear - When the weight on a tire exceeds its rating capacity, accelerated wear will result and could result in tire failure.

3. Rough, erratic ride - If the center of the payload is directly over or slightly behind the rear axle, the lack of sufficient weight on the front axle will create a bobbing effect, very rough ride, and erratic steering. This condition will be magnified when the truck is going uphill.

4. Hard steering
 - a. When loads beyond the capacity of the front axle are imposed upon it, the steering mechanism is also overloaded and hard steering will result.
 - b. Excessive overloading could result in steering component damage or failure.

5. Unsafe operating and conditions
 - c. Poor traction on the steering axle effects the safety of the driver and equipment, particularly on wet, icy and slippery surfaces. Experience indicates that approximately 30% of the total weight at the ground on a truck or tractor should be on the front axle with a low cab forward vehicle.
 - d. When a truck is overloaded, a dangerous situation may exist because minimum speeds cannot always be maintained, directional control may not be precise and insufficient braking capacity can cause longer than normal braking distances.

6. High maintenance costs - Improper weight distribution and overloading cause excessive wear and premature failure of parts. Additional stresses imposed on the frame by the misapplication of wheelbases may be instrumental in causing the frame to crack or break.

7. Noncompliance with weight laws and regulations - When there is the possibility that axle loads will exceed existing weight laws and regulations, careful weight distribution is necessary to provide a correct balance between front and rear axle loads and total load within legal limitations.

In this way, maximum payloads may be carried without exceeding legal limits. If the body is too long for a wheelbase, the center of the body and payload is placed directly over the rear axle. This places all the payload on the rear axles, resulting in overloading the rear tires, rear axle springs and wheel bearings and potentially exceeding the rear axle legal weight limit. The front axle is then carrying no part of the payload and is easily lifted off the ground when going over rough terrain, creating a very rough ride and temporary loss of steering control. If the body is too short for the wheelbase used, frame stress may be increased and may result in excessive loads on the front axle. Excessive front axle loads increase wear on the kingpins and bushings, wheel bearings and steering gear. Excessive front axle loads also overstress the front axle, springs, tires and wheels. All of these contribute directly to higher maintenance costs and hard steering, both of which are undesirable.

Weight distribution analysis involves the application of basic mathematical principles to determine the proper positioning of the payload and body weight in relation to the wheelbase of the truck chassis.

It is much less expensive to work all of this out on paper, make mistakes on paper and correct them there than to set up the truck incorrectly and either have it fail to do the job or, much worse, fail completely.

It is important to become familiar with the dimensions of the truck, as these will be needed to perform the necessary calculations.

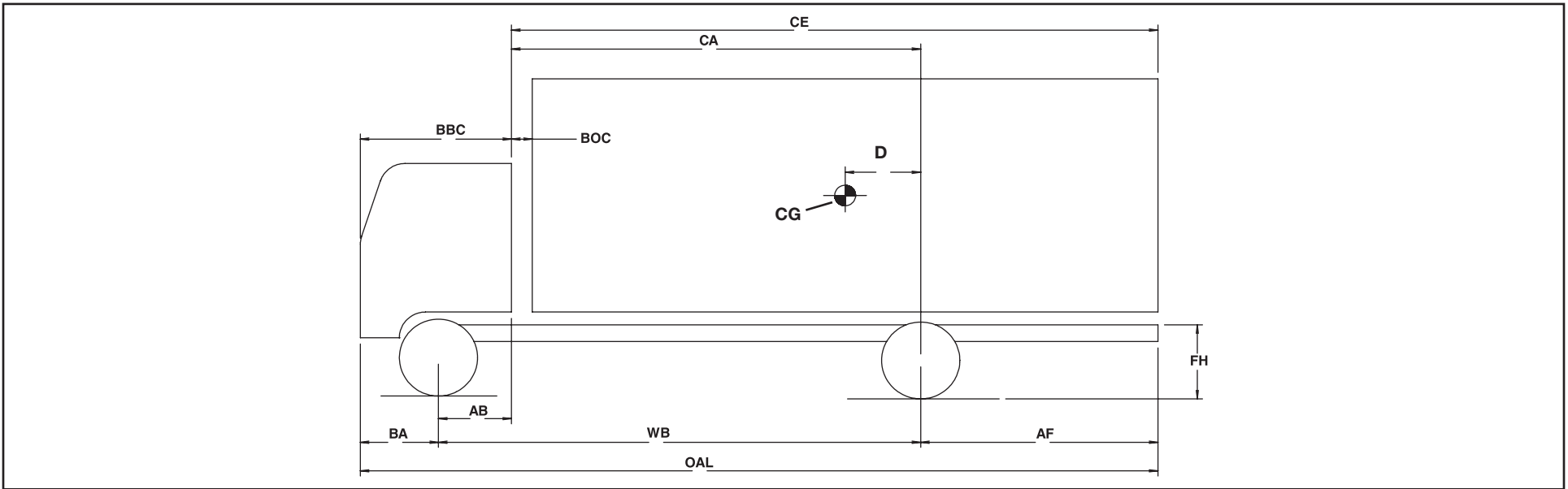


Figure 2

Glossary of Dimensions

- BBC** - Bumper to back of cab
- BA** - Bumper to axle
- CA** - Cab to axle
- AB** - Axle to back of cab
- BOC** - Back of cab clearance
- CE** - Cab to end of frame

- CG** - Center of gravity of body and payload
- WB** - Wheelbase
- OAL** - Overall length
- AF** - Axle to end of frame
- FH** - Frame height

Weight Distribution Formulas

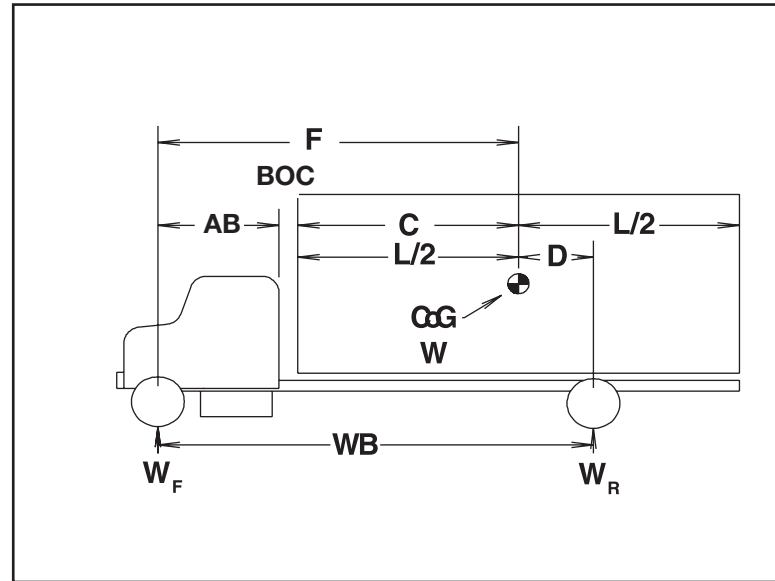


Figure 3

- AB** - Front axle to back of cab
- BOC** - Distance between cab and body or trailer
- C** - Front of body to C.G. or front of trailer to kingpin
- D** - Distance C.G. of body or fifth wheel is ahead of rear axle
- F** - (AB + BOC + C) or distance C.G. of weight of fifth wheel is behind front axle
- WB** - Wheelbase
- W** - Weight of body plus payload, or kingpin load
- W_f** - Portion of W transferred to front axle
- W_r** - Portion of W transferred to rear axle
- C** - Length of body divided by 2
- L/2** - Load location at half of body length
- L** - Distance over which the payload is spread within the Body

Basic Formulas

$$(a) W \times D = W_f \times WB$$

or

$$(c) WB = (AB + BOC + C + D) = (F + D)$$

$$(b) W \times F = W_r \times WB$$

$$(d) W = W_f + W_r$$

$$1. W_f = \frac{W \times D}{WB}$$

$$5. W_r = \frac{W \times F}{WB}$$

$$2. D = \frac{W_f \times WB}{W}$$

$$6. F = \frac{W_r \times WB}{W}$$

$$3. WB = \frac{W \times D}{W_f}$$

$$7. WB = \frac{W \times F}{W_r}$$

$$4. W = \frac{W_f \times WB}{D}$$

$$8. W = \frac{W_r \times WB}{F}$$

Weight Distribution Formulas in Words

To find:

1. Weight transferred to front axle = $\frac{(\text{Total weight}) \times (\text{Distance C.G. is ahead of the rear axle})}{(\text{Wheelbase})}$
2. Distance C.G. must be placed ahead of rear axle = $\frac{(\text{Weight transferred to the front axle}) \times (\text{Wheelbase})}{(\text{Total weight})}$
3. Wheelbase = $\frac{(\text{Total weight}) \times (\text{Distance C.G. is ahead of the rear axle})}{(\text{Weight to be transferred to the front axle})}$
4. Total Weight = $\frac{(\text{Weight to be transferred to the front axle}) \times (\text{Wheelbase})}{(\text{Distance C.G. is ahead of the rear axle})}$

1. Weight transferred to rear axle = $\frac{(\text{Total weight}) \times (\text{Distance C.G. is behind the front axle})}{(\text{Wheelbase})}$
2. Distance C.G. must be placed behind the front axle = $\frac{(\text{Weight transferred to the rear axle}) \times (\text{Wheelbase})}{(\text{Total weight})}$
3. Wheelbase = $\frac{(\text{Total weight}) \times (\text{Distance C.G. is behind the front axle})}{(\text{Weight to be transferred to the rear axle})}$
4. Total Weight = $\frac{(\text{Weight to be transferred to the rear axle}) \times (\text{Wheelbase})}{(\text{Distance C.G. is behind the front axle})}$
9. Remember = Total weight must always equal weight transferred to the rear axle plus the weight transferred to the front axle

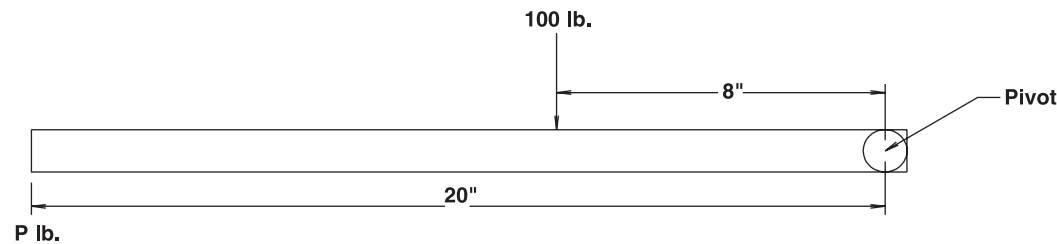


Figure 4

To find the value of “P”, the leverages must be equal for balance.

Example: 100 lbs. x 8 in. = “P” x 20 in.

or “P” = $\frac{100 \text{ lbs.} \times 8 \text{ in.}}{20 \text{ in.}}$

Therefore: “P” = 40 lbs.

This same approach is used to determine axle loadings on a tractor or truck chassis. Assuming the rear axle serves as a pivot point, the front axle load can be determined by applying the lever principle.

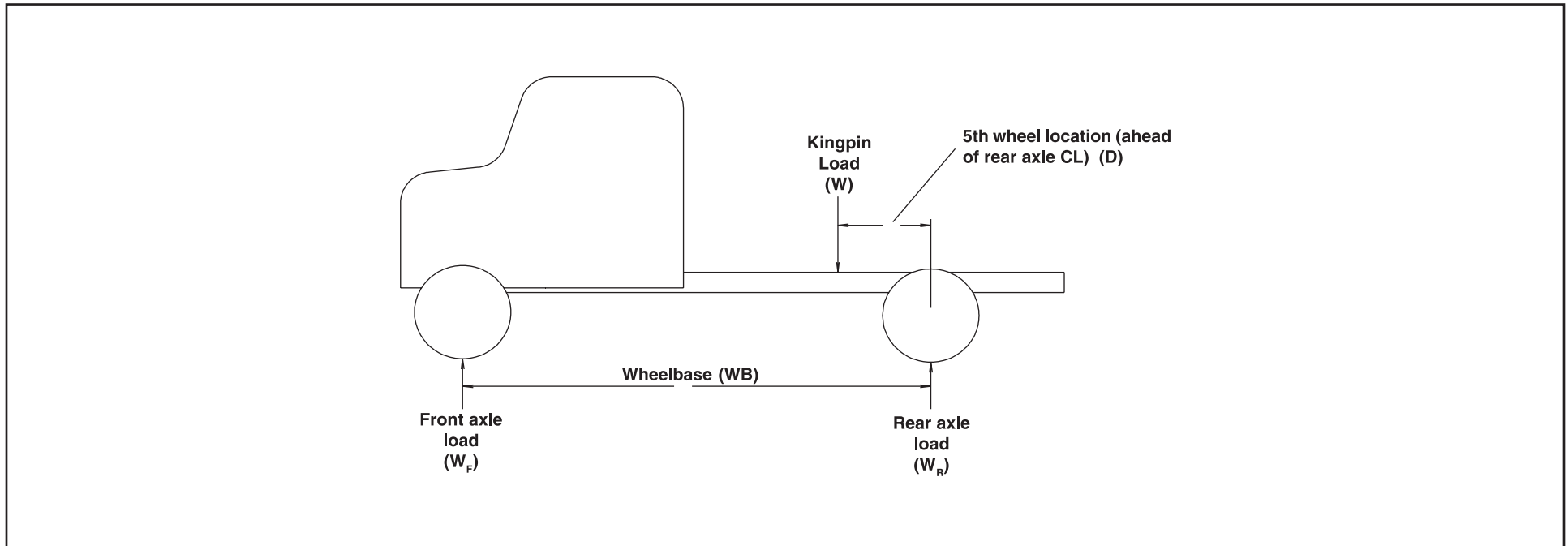


Figure 5

Front Axle Load: $= \frac{\text{Kingpin Load} \times \text{5th Wheel Location}}{\text{Wheelbase}}$

Rear Axle Load: $= \text{Kingpin Load} - \text{Front Axle Load}$

Example: (4) A tractor has a wheelbase of 150 inches. If the kingpin load is 20,000 lbs. and the fifth wheel location is 15 inches, find the total weight on the front and rear axles. The tare weight of the tractor is 7,000 lbs. on the front axle and 4,400 lbs. on the rear axle.

Front Axle Load $= \frac{20,000 \times 15}{150 \text{ WB}} = 2,000 \text{ lbs.}$

Rear Axle Load $= 2,000 + 7,000 \text{ lbs.} = 9,000 \text{ lbs.}$

Therefore:

Total Front Axle Weight $= 2,000 + 9,000 \text{ lbs.} = 11,000 \text{ lbs.}$

Total Rear Axle Weight $= 4,400 + 18,000 \text{ lbs.} = 22,400 \text{ lbs.}$

In calculating the weight distribution for a truck, the same lever principle is applied; however, there is one change in the initial consideration of the method of loading the truck body. Instead of the trailer kingpin location ahead of the rear axle centerline, we must determine the position of the center of gravity of the payload and body weight in relation to the rear axle centerline.

For our calculations, we assume that the payload is distributed in the truck body so that the load is supported evenly over the truck body floor (water-level distribution). The weight of the body itself is also considered to be evenly distributed along the truck frame. In this manner, we can add the payload and body weights together and calculate the distribution on the vehicle chassis as an evenly distributed load on the truck frame rails.

So that we can make the necessary calculation in a simple manner, the total body and payload weight is considered to act at the center of gravity which will be at the center of the body length.

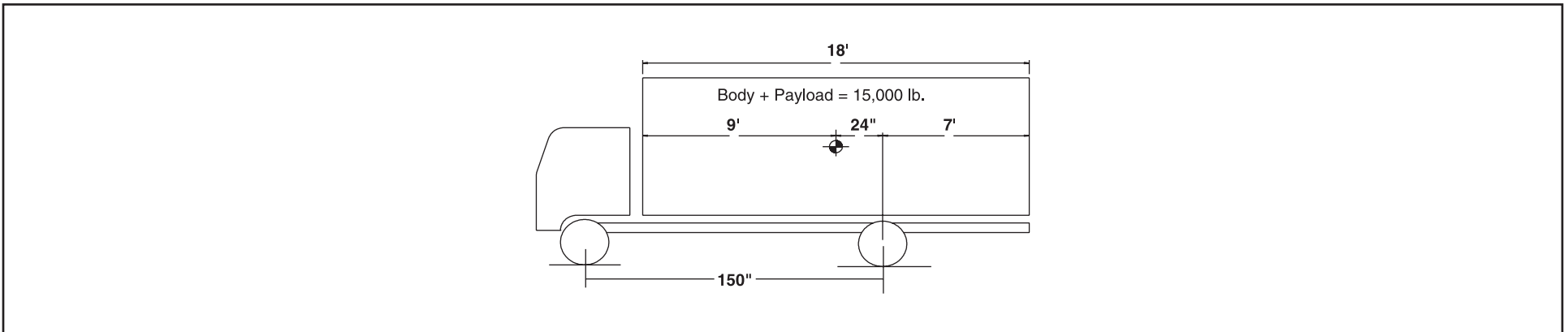


Figure 6

Example:

$$\text{Front Axle Load} = \frac{(\text{Body Weight} + \text{Payload}) \times \text{C of G location}}{\text{Wheelbase}}$$

$$\text{Rear Axle Load} = (\text{Body Weight} + \text{Payload}) - \text{Front Axle Load}$$

$$\text{Therefore, Front Axle Load} = \frac{15,000 \times 24}{150} = 2,400 \text{ lbs.}$$

$$\text{Rear Axle Load} = 15,000 - 2,400 = 12,600 \text{ lbs.}$$

If the truck tare weight without the body is 5,000 lbs. on the front axle and 2,400 lbs. on the rear axle, then

Total Front Axle Weight = 5,000 + 2,400 = 7,400 lbs. and

Total Rear Axle Weight = 2,400 + 12,600 = 15,000 lbs.

This same lever principle is applied in all calculations of weight distribution, whether we are dealing with concentrated loads as with a kingpin load acting on a fifth wheel or if it be with an evenly distributed load as with a truck body. The same approach is made in calculating an evenly distributed load on a trailer.

In the case of a tractor/trailer or a tractor with a set of double or triple trailers, each unit is handled as a separated unit and then combined to determine the total.

This simple example illustrates how the principles are applied. Using the formulas, find the weight distributed to each axle.

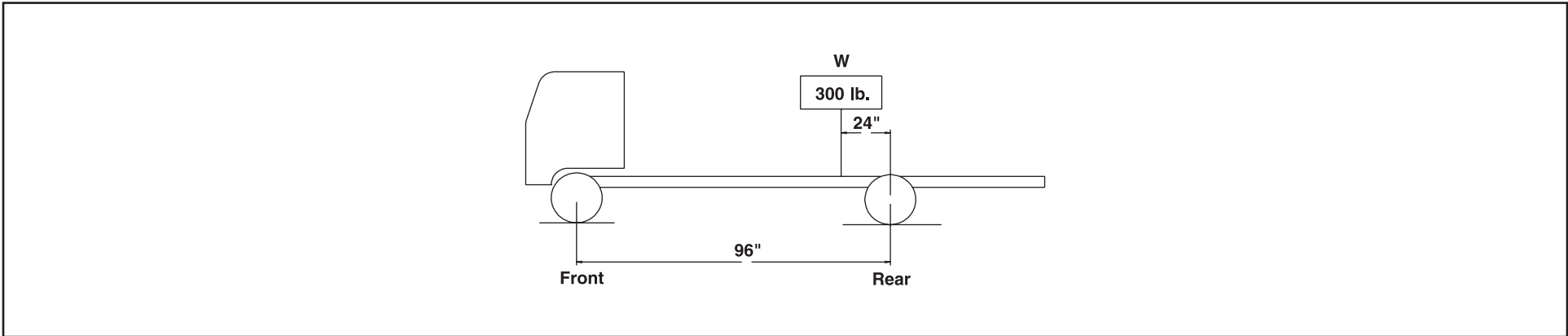


Figure 7

Front Weight

A. $W_f = \frac{W \times D}{WB}$

B. $\frac{300 \times 24}{96}$

C. = 75 lbs.

Rear Weight

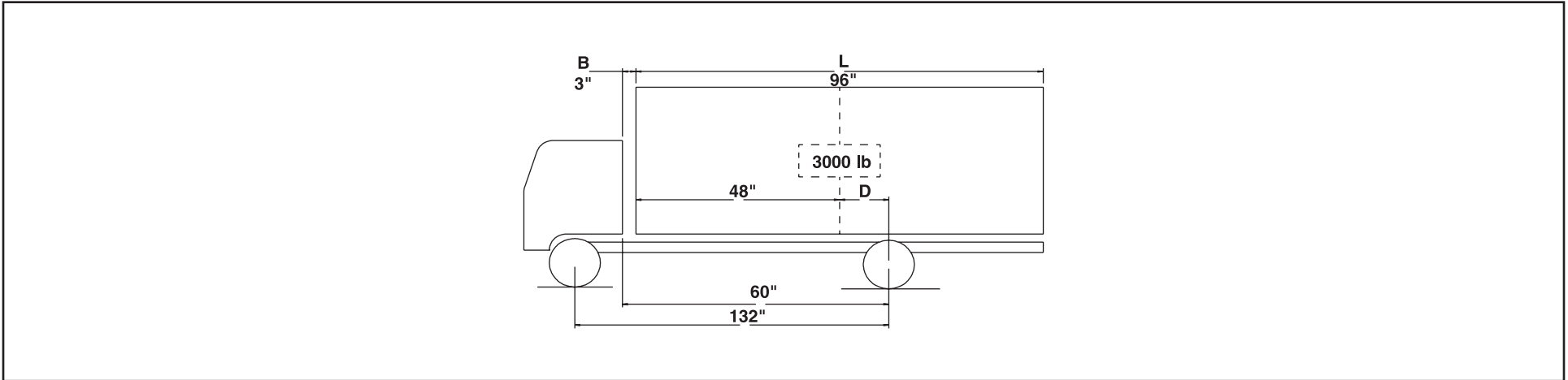
A. $W - W_f$

B. $300 - 75$

C. = 225 lbs.

The body manufacturer can provide the body length and weight, or actual measurements of the body may be taken with a tape. Generally, (D) is unknown. This you must find logically, or with a tape measure.

Find (D) and then solve for W_f and W_r .



$$D = 60 - 3 - 48 = 9 \text{ in.}$$

$$W_f = 205$$

$$W_r = 2,795$$

Figure 8

Recommended Weight Distribution % of Gross Vehicle Weight by Axle

Conventional (2 Axle)

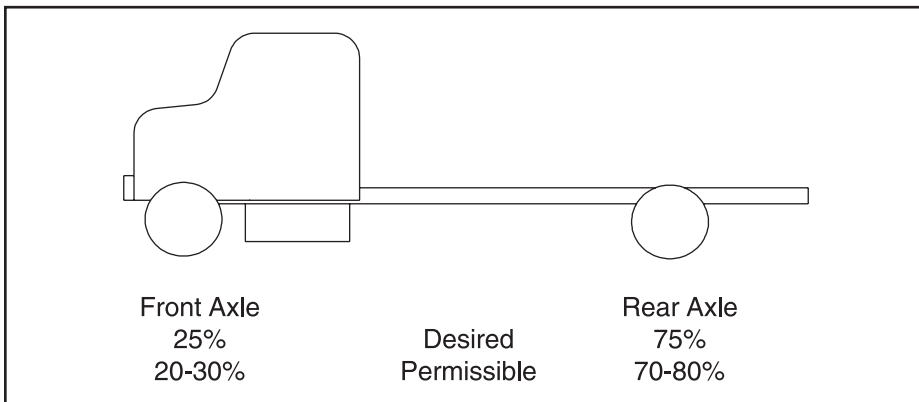


Figure 9

COE (2 Axle)

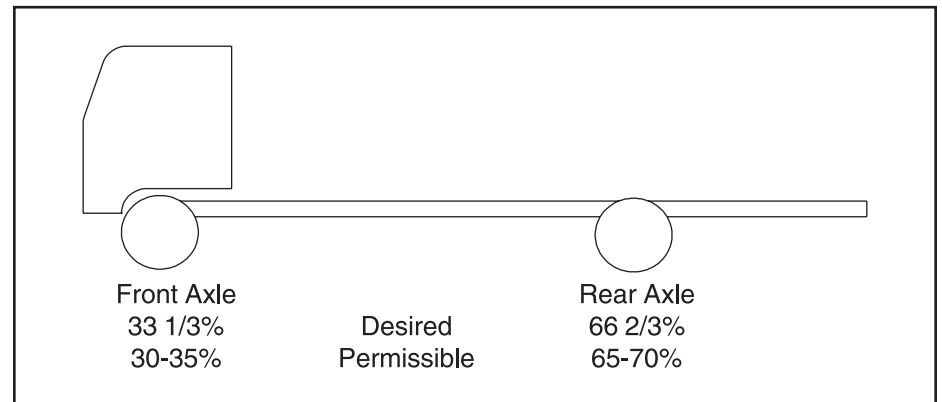


Figure 10

Conventional (3 Axle)

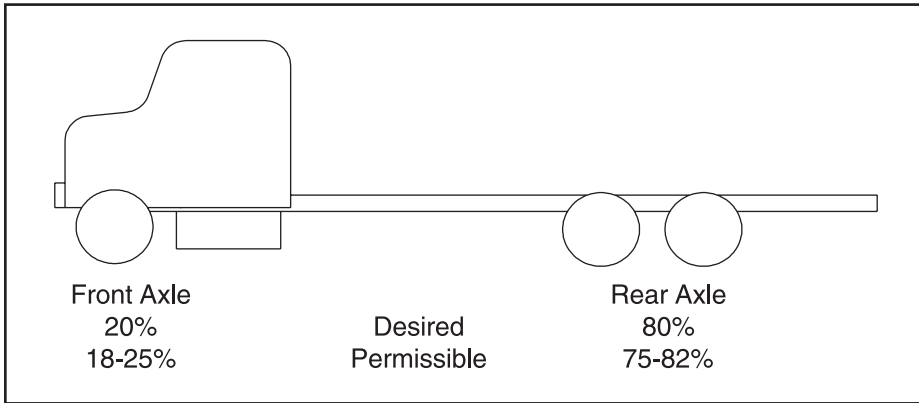


Figure 11

COE (3 Axle)

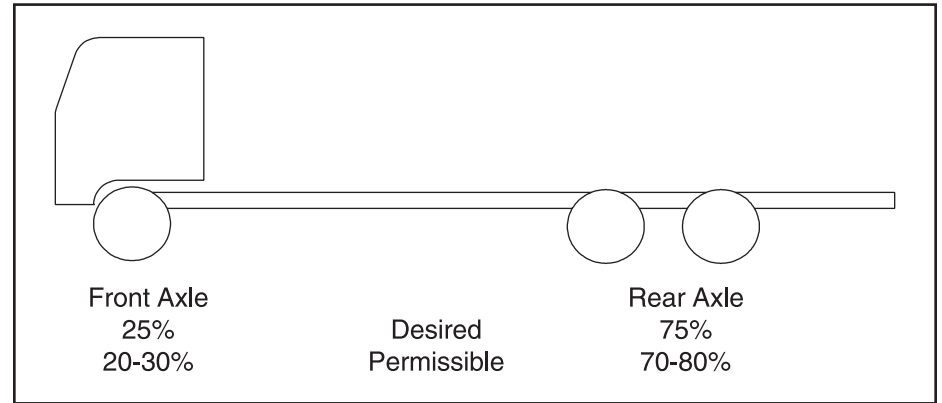
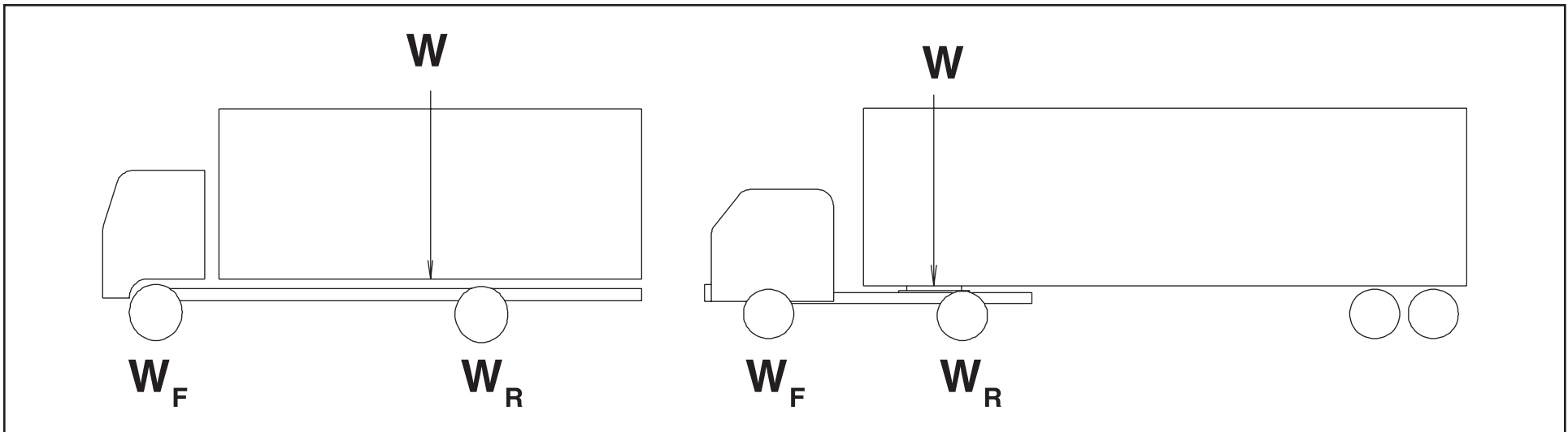


Figure 12

Calculating tractor/trailer weight distribution can be thought of in the same terms as calculating full trucks.



The weight at the center of the body and the load when applied is the same as the single point load of the kingpin on the fifth wheel.

Figure 13

Trailer Weight

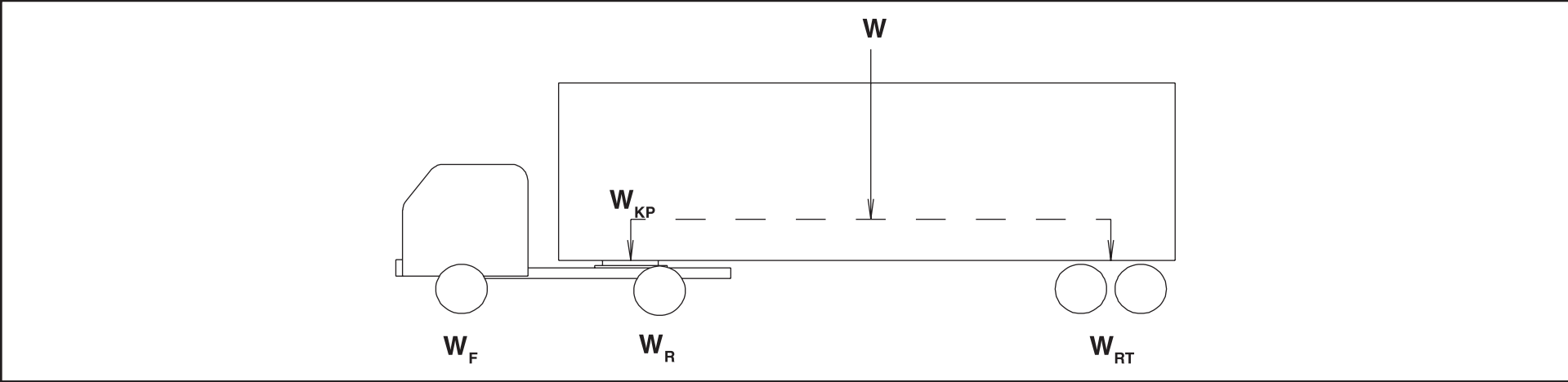


Figure 14

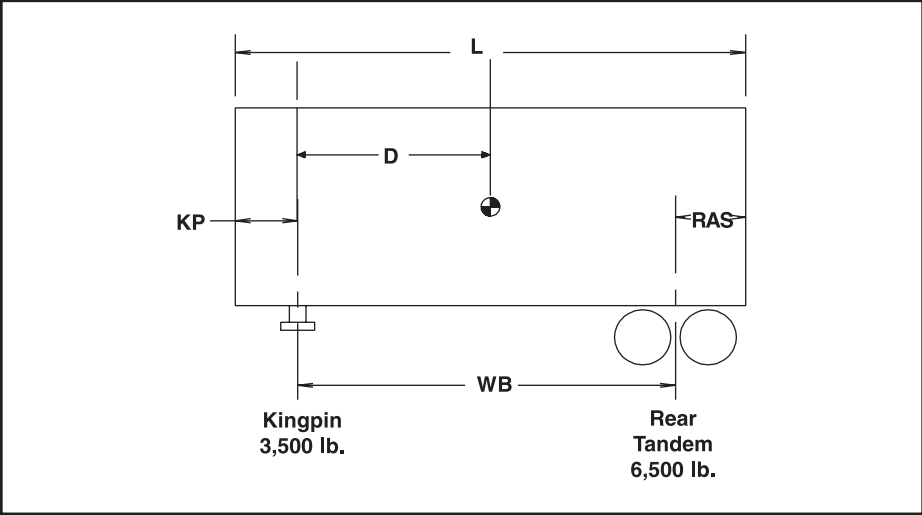


Figure 15

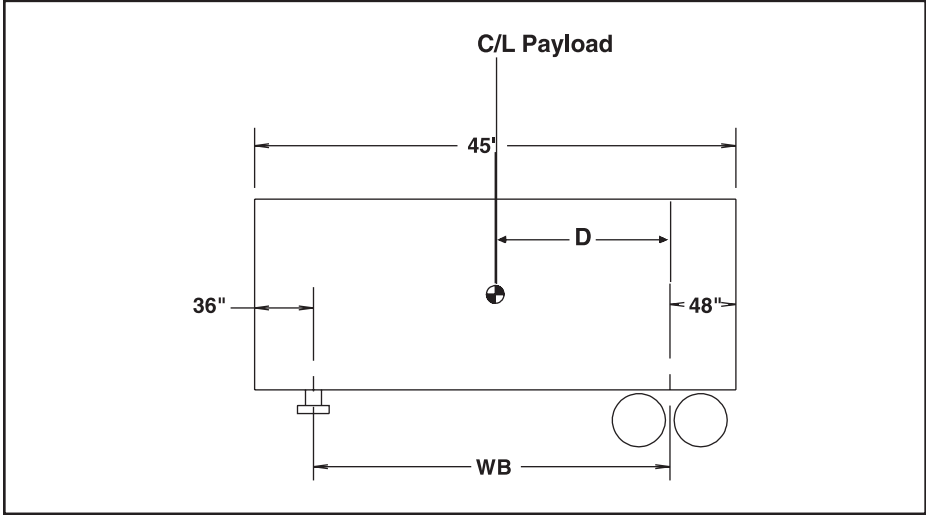


Figure 16

In the following example, a 50,000-pound payload at water-level loading. Calculate the payload (PL) weight transfer to kingpin and the rear axle.

NOTE: Apply the same principles used with truck chassis.

Payload at Kingpin

$$PL_{kp} = \frac{W \times D}{WB}$$

Calculate the "D" dimension.

$$OAL/2 - AF = D$$

$$45 \text{ feet}/2 - 48 \text{ inches} - 36 \text{ inches} = 186 \text{ inches}$$

$$PL_{kp} = \frac{50,000 \text{ lbs.} \times 186 \text{ in.}}{456 \text{ in.}} = 20,394 \text{ lbs.}$$

$$PL_{kp} = \mathbf{20,394 \text{ lbs.}}$$

Payload at Rear Tandem

$$PL_{rt} = W - PL_{kp}$$

$$PL_{rt} = 50,000 \text{ lbs.} - 20,394 \text{ lbs.} = 29,606 \text{ lbs.}$$

$$PL_{rt} = \mathbf{29,606 \text{ lbs.}}$$

Once the weight on the kingpin is determined, it can then be treated on the tractor the same as a weight on a straight truck.

Due to the variations in hauling and wheelbase requirements from one truck application to another, there is no one specific fifth wheel setting that will apply in all cases.

A "rule of thumb" which has proven satisfactory in many cases sets the fifth wheel one inch ahead of the rear axle for every 10 inches of wheelbase. In the case of tandem axles, the wheelbase is measured from the center line of the front axle to the midpoint between the tandem rear axles. The location of the fifth wheel fixes the load distribution between the front and rear axles. Too far forward and the front axle is overloaded. If too far back, the front axle may be too lightly loaded and cause an unsafe steering and braking control situation at the front axle.

(Weight Distribution Concepts Section – continued from previous page)

A tractor on a hill with the fifth wheel set at the axle center line or too close to it will result in an unsafe handling situation by transferring too much weight to the rear axle and actually unloading the front axle.

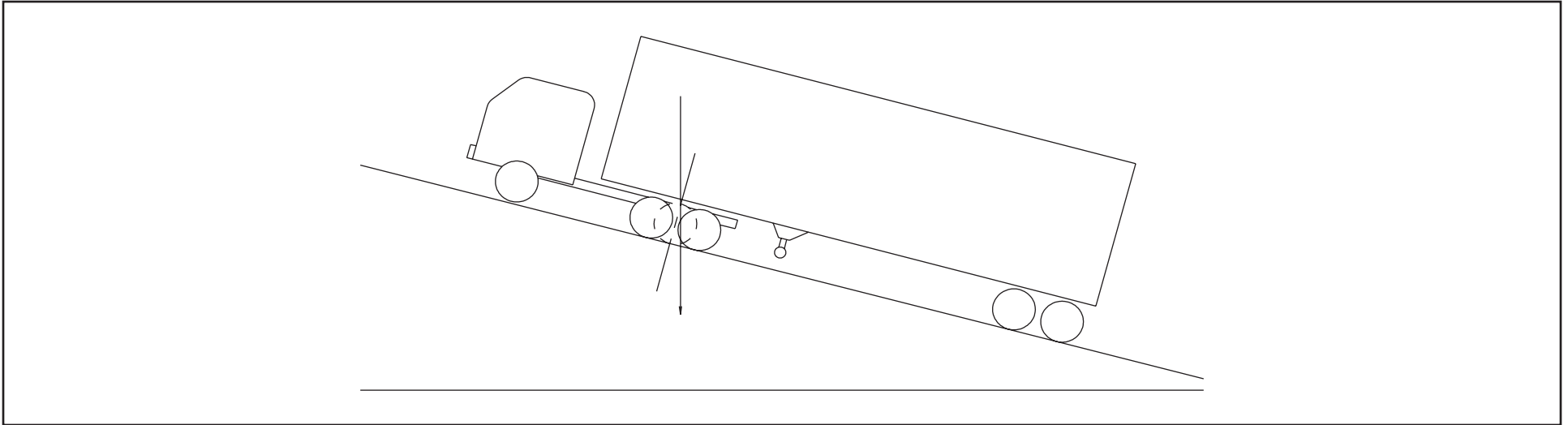


Figure 17

Performance Calculations

The following calculations have been included to help you determine the performance characteristics required by your customers and to select the appropriate model vehicle:

1. Speed Formula

This formula can be used to determine:

1. Top speed of the vehicle.
2. Speed in a given gear.
3. Final ratio required for a given speed.

$$\text{MPH @ Governed Speed} = \frac{(60) \times (\text{RPM})}{(\text{Rev/Mile}) \times (\text{Gear Ratio})}$$

Definitions in formula:

RPM	=	Revolutions per minute of the engine at Governed Speed
Rev/Mile	=	Tire revolutions per mile
Gear Ratio	=	The product of the axle ratio times the transmission ratio
60	=	Time Constant

Example: NPR 12,000 GVWR automatic transmission.

RPM	=	3,000
Rev/Mile	=	674
Gear Ratio	=	.703 x 5.375

$$\text{MPH @ Governed Speed} = \frac{(60) \times (3,000)}{(674) \times (.703 \times 5.375)}$$

$$\text{MPH @ Governed Speed} = 70 \text{ MPH}$$

2. Grade Horsepower Formula

This formula can be used to determine horsepower required for a given grade and speed.

$$\text{Horsepower Req'd. for a given grade} = \frac{\text{GVWR} \times \text{Grade} \times \text{Speed}}{37,500 \times \text{Efficiency Factor}} + \text{AHP}$$

Definitions in formula:

GVWR	=	Gross Vehicle Weight Rating
Grade	=	Grade anticipated in percent
Speed	=	Speed in miles per hour
37,500	=	Constant
Efficiency Factor	=	Factor for losses in drivetrain due to friction (use 0.9 for a 90% efficient driveline)
AHP Resistance	=	Horsepower required to overcome wind force

2026 Isuzu Truck

Example: NPR 11,050 GVWR automatic transmission with a van body.

GVWR	=	12,000 lbs.
Grade	=	1 percent
Speed	=	55 MPH
37,500	=	Constant
Efficiency Factor	=	0.9
AHP Resistance	=	53.6 HP (see the following formula for calculation)

$$\text{HP Required for Grade} = \frac{12,000 \times 1 \times 55}{37,500 \times 0.9} + 53.67$$

HP Required for Grade = 73.22

3. Air Resistance Horsepower Formula

This formula is used to determine the horsepower required to overcome air resistance at a given speed.

$$\text{Air Resistance Horsepower} = \frac{\text{FA} \times \text{Cd} \times (\text{MPH})^3}{156,000}$$

Definitions in formula:

FA	=	Frontal area of vehicle in square feet
Cd	=	Aerodynamic Drag Coefficient
MPH	=	Speed of vehicle in miles per hour
156,000	=	Constant

Frontal area is calculated by multiplying the height of the vehicle by the width of the vehicle and subtracting the open area under the vehicle from the total.

Aerodynamic Drag Coefficients (Source Material: Motor Truck Engineering Handbook):

- 0.70 for most trucks, semitrailer combinations with tanks or van bodies
- 0.77 for double and triple trailers and flatbeds with loads

Example: NPR 12,000 GVWR van body with 96" wide, 115" high (84" body height + 31" frame height).

$$FA = \frac{(96) \times (115)}{(12) \times (12)} - 3.2$$

$$FA = 73.47 \text{ ft.}^2$$

$$Cd = 0.70$$

$$\text{Speed} = 55 \text{ mph}$$

$$\text{Air Resistance HP} = \frac{73.47 \times 0.70 \times (55)^3}{156,000}$$

$$\text{Air Resistance HP} = 54.85$$

4. Engine Horsepower Formula

This formula can be used to derive the output at a given RPM and torque.

$$\text{Horsepower} = \frac{\text{Torque} \times \text{RPM}}{5,252}$$

Definitions in formula:

$$\text{Torque} = \text{Twisting output of engine given in lbs.-ft.}$$

$$\text{RPM} = \text{Revolutions per minute of engine}$$

$$5,252 = \text{Constant}$$

Example: NPR 12,000 GVWR automatic transmission.

$$\text{Torque} = 347 \text{ lbs.-ft.}$$

$$\text{RPM} = 2,000$$

$$132 \text{ HP} = \frac{(347) \times (2,000)}{5,252}$$

5. Gradeability Formula

This formula can be used to determine how large of a grade a vehicle can climb.

$$\text{Percent Grade} = \frac{1,200 \times (T) \times (E) \times (C) \times (R)}{\text{GVWR} \times r} - \text{RR}$$

Definitions in formula:

1,200	=	Constant
T	=	Maximum Torque of Engine
E	=	Engine Efficiency (0.9)
C	=	Driveline Efficiency (0.9)
R	=	Transmission Ratio x Axle Ratio
RR	=	Rolling Resistance (see following chart)
GVWR	=	Gross Vehicle Weight Rating
r	=	Loaded radius of tire

Example: NPR 12,000 GVWR automatic transmission on concrete highway.

T	=	347 lbs.-ft.
E	=	0.9
C	=	0.9
R	=	.703 x 5.375 (in overdrive)
RR	=	1.0
GVWR	=	12,000
r	=	14.1 in.

$$\text{Percent Grade} = \frac{1,200 \times (347) \times (0.9) \times (0.9) \times (.703) \times (5.375)}{12,000 \times 14.1} - 1.0$$

$$\text{Percent Grade} = 7.53 - 1$$

$$\text{Gradeability} = 6.53\%$$

Road Rolling Resistance			
Road Rolling Resistance – Expressed in Percent Grade			
Road Surface	Grade Road	Surface	Grade
Concrete, excellent	1.0	Cobbles, ordinary	5.5
Concrete, good	1.5	Cobbles, poor	8.5
Concrete, poor	2.0	Snow, 2 inches	2.5
Asphalt, good	1.25	Snow, 4 inches	3.75
Asphalt, fair	1.75	Dirt, smooth	2.5
Asphalt, poor	2.25	Dirt, sandy	3.75
Macadam, good	1.5	Mud	3.75 to 15.0
Macadam, fair	2.25	Sand, level soft	6.0 to 15.0
Macadam, poor	3.75	Sand, dune	16.0 to 30.0

Figure 19

6. Startability Formula

This formula is used to determine what type of a grade a vehicle can be started on.

$$\text{Startability} = \frac{(1,200) \times (\text{CET}) \times (\text{E}) \times (\text{C}) \times (\text{R})}{(\text{GVWR} \times r)} - 10\%$$

Definitions in formula:

- 1,200 = Constant
- CET = Clutch Engagement Torque
- E = 0.9
- C = 0.9
- R = Transmission x Axle Ratio
- 10% = Average break away resistance and static inertia constant
- GVWR = Gross Vehicle Weight Rating
- r = Loaded radius of tire

Example: NPR 12,000 GVWR manual transmission.

CET = 260 lbs.-ft.
 R = 6.02 x 4.10
 GVWR = 12,000 lbs.
 r = 14.1 in.

$$\text{Startability} = \frac{(1,200) \times (260) \times (0.9) \times (0.9) \times (6.02 \times 4.10)}{(12,000 \times 14.1)} - 10\%$$

$$\text{Startability} = 26.86\%$$

7. Vertical Center of Gravity Formula

These formulas are used to estimate the vertical center of gravity of a completed vehicle in order to determine whether maximum allowable limits have been exceeded. This formula should be used when encountering high center of gravity loads.

7.1 $W_v \times (V_v) = M_v$
 7.2 $W_b \times (V_b) = M_b$
 7.3 $W_p \times (V_p) = M_p$
 7.4 $W_e \times (V_e) = M_e$

$$7.5 \text{ VCg} = \frac{(M_v + M_b + M_p + M_e)}{(W_v + W_b + W_p + W_e)}$$

Definitions in formula:

VCg = The total average vertical center of gravity of the completed vehicle (vehicle, body, payload and equipment)
 Wv = Weight of vehicle
 Wb = Weight of body
 Wp = Weight of payload
 We = Weight of equipment

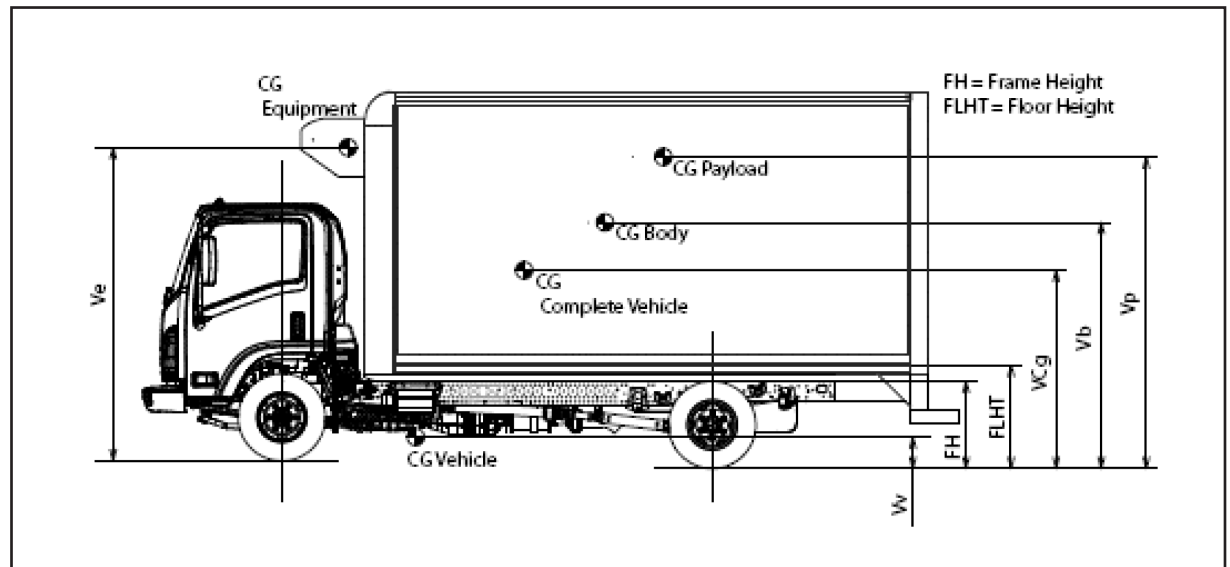


Figure 20

Definitions in formula (continued):

Vv	=	Distance from ground to center of gravity of the vehicle
Vb	=	Distance from ground to center of gravity of the body
Vp	=	Distance from ground to center of gravity of the payload
Ve	=	Distance from ground to center of gravity of the equipment
Mv	=	Moment of vehicle
Mb	=	Moment of body
Mp	=	Moment of payload
Me	=	Moment of equipment

Example: NPR 12,000 GVWR automatic transmission, 132" WB, 14' body length, 84" high body, full payload of boxes stacked to a maximum height of 48" above the flooring.

Wv	=	5,291 lbs.	(from vehicle specifications)
Wb	=	2,100 lbs.	(from body manufacturer)
Wp	=	4,609 lbs.	(GVWR – (Wv + Wb + We))
Vv	=	24.9 in.	(from Body Builder's Guide, NPR Section)
Vb	=	80 in.	(from body manufacturer)
Vp	=	62 in.	(1/2 of payload height + frame height + height from frame to flooring)
Mv	=	5,291 x 24.9 = 131,746 lbs.-in.	(from 7.1)
Mb	=	2,100 x 80 = 168,000 lbs.-in.	(from 7.2)
Mp	=	4,609 x 62 = 285,758 lbs.-in.	(from 7.3)

We, Ve, Me = None in this example

$$VCg = \frac{(131,746+168,000+285,758)}{(5,291 + 2,100 + 4,609)}$$

$$VCg = \frac{(528,504)}{(12,000)} = 48.8 \text{ inches}$$

8. Horizontal Center of Gravity Formula

These formulas are used to estimate the horizontal center of gravity of a completed vehicle in order to determine whether it exists between the centerlines of the front and rear axles. This formula should be used when a load and/or permanent equipment (liftgate, reefer unit, snowplow, etc.) is installed on either extreme along the completed vehicle's overall length.

$$8.1 W_v \times (H_v) = M_v$$

$$8.2 W_b \times (H_b) = M_b$$

$$8.3 W_p \times (H_p) = M_p$$

$$8.4 W_e \times (H_e) = M_e$$

$$8.5 HC_g = \frac{(M_v + M_b + M_p + M_e)}{(W_v + W_b + W_p + W_e)}$$

Definitions in formula:

- HC_g = The total average horizontal center of gravity of the completed vehicle (vehicle, body, payload and equipment)
- W_v = Weight of vehicle
- W_b = Weight of body
- W_p = Weight of payload
- W_e = Weight of equipment
- H_v = Distance from front axle to center of gravity of the vehicle
- H_b = Distance from front axle to center of gravity of the body
- H_p = Distance from front axle to center of gravity of the payload
- H_e = Distance from front axle to center of gravity of the equipment
- M_v = Moment of vehicle
- M_b = Moment of body
- M_p = Moment of payload
- M_e = Moment of equipment

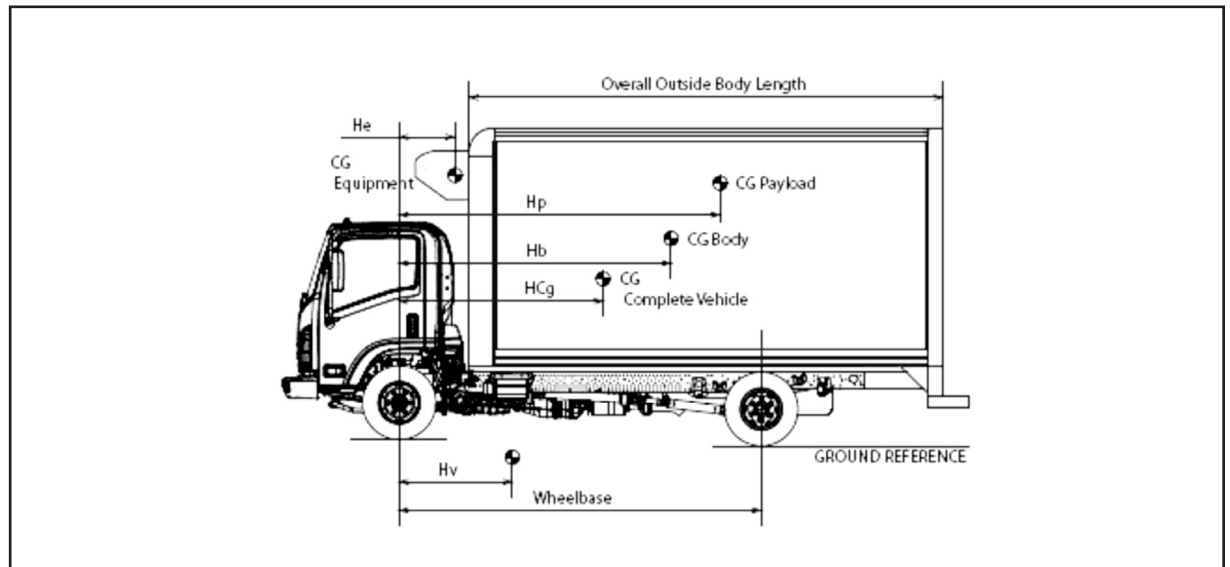


Figure 21

2026 Isuzu Truck

Example: NPR Diesel 12,000 GVWR automatic transmission, 132" WB, 14' body length, full payload of boxes stacked and distributed evenly throughout the flooring, 1,000 lb. reefer unit attached in front of body.

Wv	=	5,291 lbs.	(from vehicle specifications)
Wb	=	2,100 lbs.	(from body manufacturer)
Wp	=	3,609 lbs.	(GVWR - (Wv + Wb + We))
We	=	1,000 lbs.	(from equipment manufacturer)
Hv	=	42.4 in.	(from Body Builder's Guide, NPR Section)
Hb	=	107.5 in.	(from body manufacturer)
Hp*	=	107.5 in.	(1/2 of payload length + distance from front axle to front of body)
He	=	17.5 in.	(from equipment manufacturer)
Mv	=	5,291 x 42.4 = 224,338 lbs.-in.	(from 8.1)
Mb	=	2,100 x 107.5 = 225,750 lbs.-in.	(from 8.2)
Mp	=	3,609 x 107.5 = 387,967 lbs.-in.	(from 8.3)
Me	=	1,000 x 17.5 = 17,500 lbs.-in.	(from 8.4)

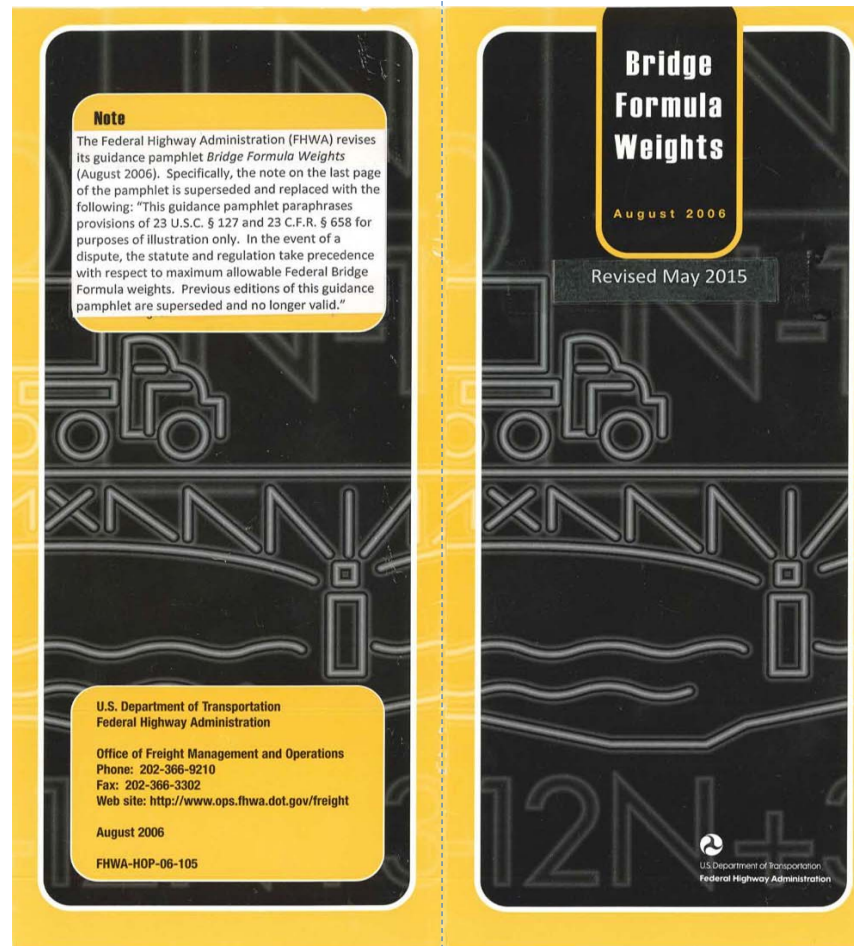
$$HCg = \frac{(224,338 + 225,750 + 387,967 + 17,500)}{(5,291 + 2,100 + 3,609 + 1,000)}$$

$$HCg = \frac{(855,555)}{(12,000)} = 71.3 \text{ inches}$$

71.3 < 132 inches (132 inches is the wheelbase dimension)

Since HCg for this truck is not greater than the WB or negative (-) (denotes HCg forward of front axle centerline), it exists between the centerlines of the front and rear axles.

NOTE: Hp and Hb dimensions are the same in this example because CG of body and payload happen to be at the same point.



Bridge Formula Weights

With a few exceptions noted in this pamphlet, the Bridge Formula establishes the maximum weight any set of axles on a motor vehicle may carry on the Interstate highway system. This pamphlet describes the Bridge Formula, why it was established, and how it is used.

What Is It?

Congress enacted the Bridge Formula in 1975 to limit the weight-to-length ratio of a vehicle crossing a bridge. This is accomplished either by spreading weight over additional axles or by increasing the distance between axles.

Compliance with Bridge Formula weight limits is determined by using the following formula:

$$W = 500 \left[\frac{LN}{N-1} + 12N + 36 \right]$$

W = the overall gross weight on any group of two or more consecutive axles to the nearest 500 pounds.

L = the distance in feet between the outer axles of any group of two or more consecutive axles.

N = the number of axles in the group under consideration.

In addition to Bridge Formula weight limits, Federal law states that single axles are limited to 20,000 pounds, and axles closer than 96 inches apart (tandem axles) are limited to 34,000 pounds. Gross vehicle weight is limited to 80,000 pounds (23 U.S.C. 127).

Is the Formula Necessary?

Bridges on the Interstate System highways are designed to support a wide variety of vehicles and their expected loads. As trucks grew heavier in the 1950s and 1960s, something had to

The truck shown in Figure 8 satisfies the single-axis weight limit (12,000 pounds are less than 20,000 pounds), the tandem-axis limit (30,000 pounds are less than 34,000 pounds) and the gross-weight limit (57,000 pounds are less than 80,000 pounds). With these restrictions satisfied, a check is done for Bridge Formula requirements, axles 1 through 4.

Actual Weight = 12,000 + 15,000 + 15,000 + 15,000 = 57,000 pounds.

Maximum weight (W) = 57,500 pounds (Bridge Table for "L" of 23 feet and "N" of 4 axles).

Since axles 1 through 4 are satisfactory, check axles 2 through 4:

Actual weight = 15,000 + 15,000 + 15,000 = 45,000 pounds.

Maximum weight (W) = 42,500 pounds (Bridge Table for "L" of 9 feet and "N" of 3 axles).

This is a violation because the actual weight exceeds the weight allowed by the Bridge Formula. The load must either be reduced, axles added, or spacing increased to comply with the Bridge Formula.

Quality Assurance Statement

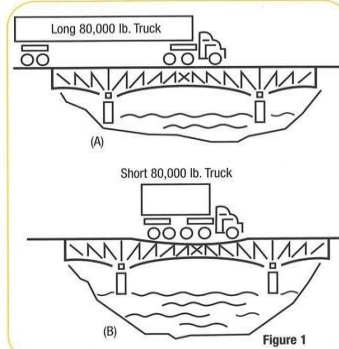
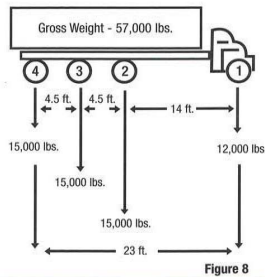
The Federal Highway Administration (FHWA) provides high-quality information to serve Government, industry, and the public in a manner that promotes public understanding. Standards and policies are used to ensure and maximize the quality, objectivity, utility, and integrity of its information. FHWA periodically reviews quality issues and adjusts its programs and processes to ensure continuous quality improvement.

Exception to Formula and Bridge Table

In addition to the grandfather rights noted on page 3, Federal law (23 U.S.C. 127) includes one other exception to the Bridge Formula and the Bridge Table—two consecutive sets of tandem axles may carry 34,000 pounds each if the overall distance between the first and last axles of these tandems is 36 feet or more. For example, a five-axle tractor-semitrailer combination may carry 34,000 pounds both on the tractor tandem (axles 2 and 3) and the trailer tandem (axles 4 and 5), provided axles 2 and 5 are spaced at least 36 feet apart. Without this exception, the Bridge Formula would allow an actual weight of only 66,000 to 67,500 pounds on tandems spaced 36 to 38 feet apart.

Bridge Formula Application to Single-Unit Trucks

The procedure described above could be used to check any axle combinations, but several closely spaced axles usually produce the most critical situation.



be done to protect bridges. The solution was to link allowable weights to the number and spacing of axles.

Axle spacing is as important as axle weight in designing bridges. In Figure 1A, the stress on bridge members as a longer truck rolls across is much less than that caused by a short vehicle as shown in Figure 1B, even though both trucks have the same total weight and individual axle weights. The weight of the longer vehicle is spread out, while the weight of the shorter vehicle is concentrated on a smaller area.

How Is the Formula Used?

The weight on various axle configurations must be checked to determine compliance with the Bridge Formula. Three definitions are needed to use the Bridge Formula correctly.

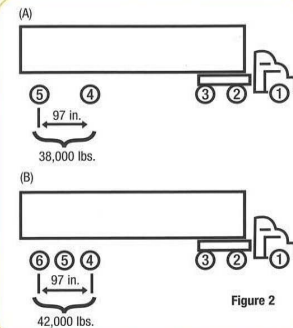
Gross Weight—the weight of a vehicle or vehicle combination and any load thereon. The Federal gross weight limit on the Interstate System is 80,000 pounds unless the Bridge Formula dictates a lower weight limit.

Single-Axle Weight—The total weight on one or more axles whose centers are spaced not more than 40 inches apart. The Federal single-axle weight limit on the Interstate System is 20,000 pounds.

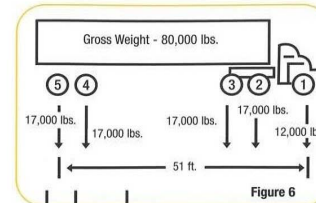
Tandem-Axle Weight—The total weight on two or more consecutive axles whose centers are spaced more than 40 inches apart but not more than 96 inches apart. The Federal tandem-axle weight limit on the Interstate System is 34,000 pounds.

Interstate System weight limits in some States may be higher than the figures noted above due to "grandfather" rights. When the Interstate System axle and gross weight limits were first adopted in 1956, and amended in 1975, States were allowed to keep or "grandfather" weight limits that were higher.

Bridge Formula calculations yield a series of weights (Bridge Table, pages 5-6). It is important to note that the single-axle weight limit replaces the Bridge Formula weight limit on axles not more than 40 inches apart, and the tandem-axle weight limit replaces the Bridge Formula weight limit for axles over 40 but not more than 96 inches apart. At 97 inches apart, for example, two axles may carry 38,000 pounds (Figure 2A), and three axles may carry 42,000 pounds, as shown in Figure 2B.



3

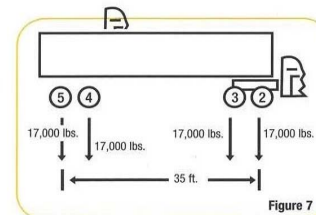


Now check axles 1 through 5 (Figure 6)

Actual weight = 12,000 + 17,000 + 17,000 + 17,000 + 17,000 = 80,000 pounds.

Maximum weight (W) = 80,000 pounds (Bridge Table for "L" of 51 feet and "N" of 5 axles).

Therefore, this axle spacing is satisfactory.



Now check axles 2 through 5 (Figure 7)

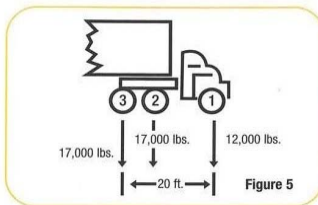
Actual weight = 17,000 + 17,000 + 17,000 + 17,000 = 68,000 pounds.

Maximum weight (W) = 65,500 pounds (Bridge Table for "L" of 35 feet and "N" of 4 axles).

This is a violation because the actual weight exceeds the weight allowed by the Bridge Formula. To correct the situation, some load must be removed from the vehicle or the axle spacing (35 feet) must be increased.

8

Before checking for compliance with the Bridge Formula, a vehicle's single-axle, tandem-axle, and gross weight should be checked. Here the single axle (number 1) does not exceed 20,000 pounds, tandems 2-3 and 4-5 do not exceed 34,000 pounds each, and the gross weight does not exceed 80,000 pounds. Thus, these preliminary requirements are satisfied. The first Bridge Formula combination is checked as follows:



Check axles 1 through 3 (Figure 5)

Actual weight = 12,000 + 17,000 + 17,000 = 46,000 pounds.

N = 3 axles

L = 20 feet

$$W = 500 \left[\frac{LN}{N-1} + 12N + 36 \right]$$

$$W = 500 \left[\frac{(20 \times 3)}{(3 - 1)} + (12 \times 3) + 36 \right] = 51,000 \text{ lbs.}$$

Maximum weight (W) = 51,000 pounds, which is more than the actual weight of 46,000 pounds. Thus, the Bridge Formula requirement is satisfied.

Example From the Bridge Table (pages 5 & 6)

The same number (51,000 pounds) could have been obtained from the Bridge Table by reading down the left side to L = 20 and across to the right where N = 3.

Federal law states that any two or more consecutive axles may not exceed the weight computed by the Bridge Formula even though single axles, tandem axles, and gross weight are within legal limits. As a result, the axle group that includes the entire truck—sometimes called the "outer bridge" group—must comply with the Bridge Formula. However, interior combinations of axles, such as the "tractor bridge" (axles 1, 2, and 3) and "trailer bridge" (axles 2, 3, 4, and 5), must also comply with weights computed by the Bridge Formula (Figure 3).

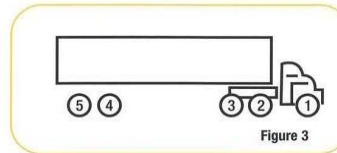
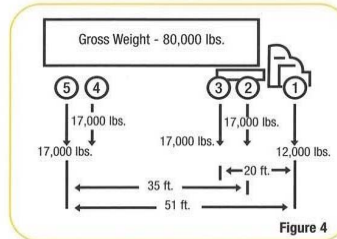


Figure 3 shows the most common vehicle checked for compliance with weight limit requirements. Although the Bridge Formula applies to each combination of two or more axles, experience shows that axle combinations 1 through 3, 1 through 5, and 2 through 5 are critical and must be checked. If these combinations are found to be satisfactory, then all of the others on this type of vehicle normally will be satisfactory.

The vehicle with weights and axle dimensions shown in Figure 4 is used to illustrate a Bridge Formula check.



2026 Isuzu Truck

Permissible Gross Loads for Vehicles in Regular Operation ¹									
Based on weight formula					$W = 500 \left[\frac{LN}{N-1} + 12N + 36 \right]$				
Distance in feet (L) between the extremes of any group of 2 or more consecutive axles									
Maximum load in pounds carried on any group of 2 or more consecutive axles ²									
L	N=	2 AXLES	3 AXLES	4 AXLES	5 AXLES	6 AXLES	7 AXLES	8 AXLES	9 AXLES
Tandem Axle Weight (see pages 3 & 4)	4	34,000							
	5	34,000							
	6	34,000							
	7	34,000							
	8	34,000	34,000						
	9	38,000	42,000						
	10	39,000	42,500						
	11	40,000	43,500						
	12	44,000							
	13	45,000	50,000						
	14	46,500	51,500						
	15	47,000	52,000						
	16	48,000*	52,500	58,000					
	17	48,500	53,500	58,500					
	18	49,500	54,000	59,000					
	19	50,000	54,500	60,000					
	20 (see page 7)	51,000	55,500	60,500	66,000				
	21	51,500	56,000	61,000	66,500				
	22	52,500	56,500	61,500	67,000				
	23	53,000	57,500	62,500	68,000				
	24	54,000	58,000	63,000	68,500	74,000			
	25	54,500	58,500	63,500	69,000	74,500			
	26	55,500	59,500	64,000	69,500	75,000			
	27	56,000	60,000	65,000	70,000	75,500			
	28	57,000	60,500	65,500	71,000	76,500	82,000		
	29	57,500	61,500	66,000	71,500	77,000	82,500		
	30	58,500	62,000	66,500	72,000	77,500	83,000		
	31	59,000	62,500	67,500	72,500	78,000	83,500		
	32	60,000	63,500	68,000	73,000	78,500	84,500	90,000	
	33		64,000	68,500	74,000	79,000	85,000	90,500	
	34		64,500	69,000	74,500	80,000	85,500	91,000	
	35		65,500	70,000	75,000	80,500	86,000	91,500	
	36		66,000	70,500	75,500	81,000	86,500	92,000	
	37		Exception (see page 9)	66,500	71,000	76,000	81,500	87,000	93,000
	38		67,500	71,500	77,000	82,000	87,500	93,500	
	39		68,000	72,000	77,500	82,500	88,500	94,000	
	40		68,500	73,000	78,000	83,500	89,000	94,500	
	41		69,500	73,500	78,500	84,000	89,500	95,000	
	42		70,000	74,000	79,000	84,500	90,000	95,500	
	43		70,500	75,000	80,000	85,000	90,500	96,000	
	44		71,500	75,500	80,500	85,500	91,000	96,500	
	45		72,000	76,000	81,000	86,000	91,500	97,500	
	46		72,500	76,500	81,500	87,000	92,500	98,000	
	47		73,500	77,500	82,000	87,500	93,000	98,500	
	48		74,000	78,000	83,000	88,000	93,500	99,000	
	49		74,500	78,500	83,500	88,500	94,000	99,500	
	50		75,500	79,000	84,000	89,000	94,500	100,000	
	51		76,000	80,000	84,500	89,500	95,000	100,500	
	52		76,500	80,500	85,000	90,500	95,500	101,000	
	53		77,500	81,000	85,000	91,000	96,500	101,500	
	54		78,000	81,500	86,500	91,500	97,000	102,000	
	55		78,500	82,500	87,000	92,000	97,500	102,500	
	56		Interstate Gross Weight Limit (see page 2)	79,500	83,000	87,500	92,500	98,000	103,000
	57		80,000	83,500	88,000	93,000	98,500	104,000	
	58			84,000	88,000	94,000	99,000	104,500	
	59			85,000	89,500	94,500	99,500	105,000	
	60			85,500	90,000	95,000	100,500	105,500	

¹The values in this table reflect FHWA's policy of rounding down when calculated weights fall exactly halfway between 500-pound increments. Because the Bridge Formula is designed to protect highway infrastructure, FHWA determined that this conservative policy is consistent with the statutory mandate.

²Fn. 2 The Federal Highway Administration (FHWA) revises its guidance pamphlet *Bridge Formula Weights* (August 2006). Specifically, footnote 2 on page 6 of the guidance is superseded and replaced with the following: "Pursuant to 23 CFR 650.3.13, all bridges must be inspected, rated to safe load-carrying capacity, and if required, posted or restricted with respect to the maximum allowable weight."

2026 Isuzu Truck

Commodity and Material Weights Approximate Weights of Commodities and Materials

Product	Size of Container	Lbs. Per Cu. Ft.	No. of Lbs. / Per	
Acetone	— — — —	50	6.6 / gallon	
Alcohol,	Commercial	— — — —	6.8 / gallon	
	Proof spirits	— — — —	7.6 / gallon	
Alfalfa seed	bushel	— —	60 / bushel	
Aluminum, Pure (cast)	— — — —	165	4,450 / cu. yard	
Apples,	Fresh	basket-bushel	— —	48 / bushel
	Western, box	11.5" x 12" x 20"	— —	50 / box
	New England, box	11.25" x 14.5" x 17.5"	— —	56 / box
	Standard barrel	17" head, 28.5" stave	— —	160 / barrel
	Dried	bushel	— —	24 / bushel
Apricots,	Fresh	bushel	— —	48 / bushel
	Western, box	5.5" x 12" x 20"	— —	23 / box
Artichokes,	Box	10" x 11.5" x 22"	— —	44 / box
Asbestos	— — — —	153	4,130 / cu. yard	
Asparagus,	crate, Loose	11.5" high x 9.75" top	— —	38 / crate
	Bunches	11" bottom x 19.38" long	— —	31 / crate
Avocados,	Box	5.75" x 11.25" x 17.5"	— —	16 / box
Bananas,	Single stem	bunch	— —	45-65 / bunch
Barley	bushel	— —	48 / bushel	
Barytes,	Mineral	— — — —	280	7,560 / cu. yard
Basalt,	Rock	— — — —	185	5,000 / cu. yard
Beans, dry,	Lima	bushel	— —	56 / bushel
	White	bushel	— —	60 / bushel
	Castor	bushel	— —	46 / bushel
	Beans, fresh,	Lima	bushel	— —
String		bushel	— —	36 / bushel
		hamper, 5 peck	— —	45 / hamper

Figure 1

Product	Size of Container	Lbs. Per Cu. Ft.	No. of Lbs. / Per	
Beef,	Slack barrel	21" x 30" stave (200 lbs. net)	— —	254 / barrel
Beer,	Wood barrel	.5 barrel (16 gal.)	— —	205 / barrel
	Wood barrel	.25 barrel (8 gal.)	— —	105 / barrel
	Steel barrel	.5 barrel (16 gal.)	— —	190 / barrel
	Steel barrel	.25 barrel (8 gal.)	— —	95 / barrel
	Dutchman	.13 barrel (4 gal.)	— —	51 / barrel
Case carton,*	Regular bottles	17.25" x 11.5" x 9.88"	— —	45 / case
24, 12 oz.	Steinie bottles	18.38" x 12.13" x 7.38"	— —	40 / case
	Tin cans	16.13" x 11" x 5.13"	— —	28 / case
Wooden case,*	Regular bottles	21" x 13.5" x 10"	— —	35 / case
24, 12 oz.	Steinie bottles	22" x 13.75" x 7.5"	— —	46 / case
Beets		bushel	— —	50-60 / bushel
	Small crate	9.75" x 13.75" x 24"	— —	50 / crate
	Western crate	14" x 19" x 24.5"	— —	95 / crate
Berries, crate,	24 pint	9.75" x 9.97" x 20"	— —	25 / crate
	24 quart	11.75" x 11.75" x 24"	— —	48 / crate
	32 quart	15.5" x 11.75" x 24"	— —	63 / crate
Bluegrass seed	bushel	— —	44 / bushel	
Bluestone	— — — —	120	3,240 / cu. yard	
Bone	— — — —	115	3,110 / cu. yard	
Borax	— — — —	110	2,970 / cu. yard	
Bran	bushel	— —	20 / bushel	
Brick,	Soft	2.25" x 4" x 8.25"	— —	4,320 / thousand
	Common	2.25" x 4" x 8.25"	— —	5,400 / thousand
	Hard	2.25" x 4.25" x 8.5"	— —	6,480 / thousand
	Pressed	2.38" x 4" x 8.38"	— —	7,500 / thousand
	Paving	2.25" x 4" x 8.5"	— —	6,750 / thousand
	Paving block	3.5" x 4" x 8.5"	— —	8,750 / thousand
	Fire	2.5" x 4.5" x 9"	— —	7,000 / thousand

* Note: Beer cases vary as to size and shape. Suggest checking with local source.

Figure 2

2026 Isuzu Truck

Product	Size of Container	Lbs. Per Cu. Ft.	No. of Lbs. / Per
Broccoli, Bushel crate	12.75" x 12.75" x 17"	— —	30 / bushel
Brussels sprouts, Crate	7.75" x 10.5" x 21.38"	— —	26 / crate
Buckwheat	bushel	— —	49 / bushel
Butter, tub, Small	15" dia. x 5.75"	— —	25 / tub
Standard	15" dia. x 15"	— —	70 / tub
Butter, case, 30 – 1-lb. bricks	10.75" x 8.75" x 10.5"	— —	32 / case
9-lb. pail	pail	— —	10 / pail
Cabbage	bushel	— —	38 / bushel
Hamper	1.5 bushel	— —	58 / hamper
Crate	12.75" x 18.5" x 19"	— —	60 / crate
Western crate	14" x 19" x 24.5"	— —	85 / crate
Barrel crate	12.75" x 18.75" x 37.38"	— —	110 / crate
Calf, Live (average)	per head	— —	140-160 / head
Cantaloupe, crate, Pony	11.75" x 11.75" x 23.5"	— —	58 / crate
Standard	12.75" x 12.75" x 23.5"	— —	68 / crate
Jumbo	13.75" x 13.75" x 23.5"	— —	78 / crate
Pony flat	4.75" x 12.75" x 23.5"	— —	26 / crate
Standard flat	5.25" x 14.25" x 23.5"	— —	28 / crate
Jumbo flat	5.75" x 15.25" x 23.5"	— —	32 / crate
Honeydew (Casaba)	6.38" x 15.13" x 23.5"	— —	35 / crate
Carbolic acid	— — —	60	8.0 / gallon
Carrots, Topped	bushel	— —	55 / bushel
With tops	bushel	— —	40 / bushel
Crate	11.75" x 14.13" x 24"	— —	60 / crate
Castor oil	— — —	61	8.1 / gallon
Cauliflower	bushel	— —	30 / bushel
Crate	9.38" x 19" x 24"	— —	50 / crate
Cedar* (lumber)	— — —	30	2,500 / M. Bd. ft.
Celery, Standard crate	11.63" x 22" x 22.63"	— —	70 / crate
Half crate	10.75" x 13" x 20.38"	— —	35 / crate
Northern crate	16.5" x 21.25" x 22"	— —	85 / crate

*Kiln dried lumber averages 10% to 15% lighter, and green lumber 40% to 50% heavier, than air dried.

Figure 3

Product	Size of Container	Lbs. Per Cu. Ft.	No. of Lbs. / Per
Cement, Block	8" x 8" x 16"	— —	42 / each
Block	8" x 12" x 16"	— —	58 / each
Portland	sack	— —	94 / sack
Portland	barrel (4 sacks per)	— —	376 / barrel
Chalk	— — —	137	3,700 / cu. yard
Charcoal, Oak	— — —	33	890 / cu. yard
Pine	— — —	23	620 / cu. yard
Cheese, Small box	15" dia. x 5.25"	— —	25 / box
Medium box	15" dia. x 7.5"	— —	35 / box
Large box	15" dia. x 15"	— —	70 / box
Cherries, Unstemmed	bushel	— —	56 / bushel
Stemmed	bushel	— —	64 / bushel
Lug box	5.63" x 11.88" x 19.75"	— —	17 / box
Chestnut* (lumber)	— — —	37	3,080 / M. Bd. ft.
Chestnuts	bushel	— —	50 / bushel
Chickens, Live, broilers (20 avg.)	standard crate	— —	58 / crate
Fowl (12 avg.)	standard crate	— —	78 / crate
Standard crate,	empty 24" x 35" x 13"	— —	18 / crate
Cinder blocks	8" x 8" x 16"	— —	35 / each
	8" x 12" x 16"	— —	45 / each
Cinders	— — —	50	1,350 / cu. yard
Clay, Dry lumps	— — —	85	2,300 / cu. yard
Wet lumps	— — —	110	2,970 / cu. yard
Wet packed	— — —	135	3,650 / cu. yard
Fire	— — —	125	3,375 / cu. yard
Cork	— — —	15	405 / cu. yard
Corn, Ear	bushel	— —	35 / bushel
Shelled	bushel	— —	56 / bushel
Sweet corn (green)	bushel	— —	43 / bushel
Crate	12.88" x 12.88" x 24"	— —	60 / crate
Corn meal	bushel	— —	44 / bushel

Figure 4

2026 Isuzu Truck

Product	Size of Container	Lbs. Per Cu. Ft.	No. of Lbs. / Per
Corn oil	— — —	58	7.8 / gallon
Corn syrup	— — —	86	11.5 / gallon
Cotton,	Gin bale	30" x 48" x 54"	515 / bale
	Standard bale	24" x 28" x 56"	515 / bale
	Comp. bale	20" x 24" x 56"	515 / bale
Cotton seed	bushel	— — —	32 / bushel
Cottonseed oil	— — —	58	7.8 / gallon
Cottonwood* (lumber)	— — —	37	3,080 / M. Bd. ft.
Cow,	Live-Feeder (average)	per head	600 / head
	Butcher (average)	per head	800 / head
	Butcher steer (average)	per head	1100 / head
Cranberries,	1/4 barrel box	9.5" x 11" x 14"	28 / box
	1/2 barrel box	12.25" x 14.75" x 22"	60 / box
Cream	— — —	64	8.5 / gallon
Creosote	— — —	68	9.2 / gallon
Crude oil	— — —	56	7.5 / gallon
Cucumbers	bushel	— — —	55 / bushel
	Crate	9.75" x 13.75" x 24"	75 / crate
	Case	5" x 13.25" x 19"	26 / case
Earth,	Loose, dry loam	— — —	76
	Packed	— — —	95
	Wet	— — —	125
Eggplant,	Hamper	bushel	40 / bushel
	Crate	14" x 11.75" x 24"	54 / crate
Eggs,	30 dozen crate	12" x 12" x 26"	55 / crate
Elm,*	Soft	— — —	38
	Rock	— — —	45
Fertilizer,	Commercial	burlap bag	100-200 / bag
Fir,*	Douglas	— — —	32
	Eastern	— — —	25

*Kiln dried lumber averages 10% to 15% lighter, and green lumber 40% to 50% heavier, than air dried.

Figure 5

Product	Size of Container	Lbs. Per Cu. Ft.	No. of Lbs. / Per
Fish, fresh,	Barrel	19" head, 29" stave	300 / barrel
	1/2 Barrel	18.5" head, 23.5" stave	160 / 1/2 barrel
Flour,	Barrel	19.13" head, 30" stave	215 / barrel
Fuel oil,	Furnace grade	— — —	56
	Diesel engine	— — —	52
Furniture,	Household	— — —	7
Garbage,	Dry, paper wrapped	— — —	15-30
	Wet	— — —	50
Gasoline	— — —	45	6.0 / gallon
Glass,	Common window	— — —	162 / cu. foot
	Plate or crown	— — —	161 / cu. foot
	1/4" plate	— — —	3.3 / sq. foot
Glue	— — —	80	2,160 / cu. yard
Glycerine	— — —	79	10.5 / gallon
Grapefruit,	Western box	11.5" x 11.5" x 24"	68 / box
	Southern box	12.75" x 12.75" x 27"	90 / box
Grapes,	Basket	bushel	48 / box
	Lug box	5.63" x 16.38" x 17.5"	30 / box
	Western keg	15.5" dia. x 14"	45 / keg
	Basket	12 quart	18 / basket
Gravel,	Dry	— — —	95
	Wet	— — —	125
Greens	bushel	— — —	25 / bushel
Groceries,	Misc. assorted	— — —	30
Hay,	Bale	26" x 30" x 46"	210 / bale
	Bale	17" x 22" x 43"	115 / bale
	Bale	14" x 16" x 43"	85 / bale
Hog,	Live (average)	per head	225-250 / head
Honey	— — —	90	12.0 / gallon
Horse,	Live (average)	per head	1,200-1,500 / head

Figure 6

2026 Isuzu Truck

Product	Size of Container	Lbs. Per Cu. Ft.	No. of Lbs. / Per
Horseradish roots	bushel	---	35 / bushel
Ice	----	57	1,540 / cu. yard
Ice (mfg.),	Block	11" x 22" x 32"	250 / block
	Block	14" x 14" x 40"	255 / block
	Block	11" x 22" x 56"	440 / block
Ice Cream,	2.5 gallon can, Full	9" dia. x 11"	18 / can
	Empty	----	6 / can
	5 gallon can, Full	9" dia. x 21"	35 / can
	Empty	----	11 / can
Kale	bushel	---	25 / bushel
Kerosene	----	50	6.6 / gallon
Lamb,	Live (average)	per head	75-85 / head
Lard,	Barrel	18" head, 30" stave	425 / barrel
Lath,	Standard length 29"	Packed in bundles of 50 Average bundle, dia. 9"	25 / bundle
Leather,	Dry	----	55
	Wet	----	65
Lemons,	Western box	10" x 13" x 25"	80 / box
	Southern box	12.75" x 12.75" x 27"	90 / box
Lentils	bushel	---	60 / bushel
Lettuce,	Hamper	bushel	25 / bushel
	Hamper	1.5 bushel	38 / hamper
	Basket	8.5" x 11.75" x 21.38"	17 / basket
	Crate	18.75" x 17.5" x 24.5"	75 / crate
	1/2 crate	9.5" x 13.5" x 24.5"	40 / 1/2 crate
Lime,	Hydrated	bushel	30 / bushel
	Barrel (small)	16.5" head, 27.5" stave	62
	Barrel (large)		62
Limes,	Western box	10" x 13" x 25"	80 / box
	Southern box	12.75" x 12.75" x 27"	90 / box

*Kiln dried lumber averages 10% to 15% lighter, and green lumber 40% to 50% heavier, than air dried.

Figure 7

Product	Size of Container	Lbs. Per Cu. Ft.	No. of Lbs. / Per
Linseed oil	----	59	7.9 / gallon
Lubricating oil	----	52	7.0 / gallon
Malt,	Barley	bushel	28 / bushel
	Rye	bushel	32 / bushel
	Brewer's grain	bushel	40 / bushel
Maple syrup	gallon	82	11.0 / gallon
Maple,*	Hard (lumber)	----	44
	Soft	----	34
Meal-corn	bushel	---	44 / bushel
Milk,	Bulk	----	64
	5 gallon can	10.25" dia. x 19"	62 / can
	10 gallon can	13" dia. x 23"	115 / can
	Crate, 20.5 pt. bottles	8.5" x 12.75" x 16.75"	33 / crate
	20 pt. bottles	8.5" x 12.75" x 16.75"	54 / crate
Millet	bushel	---	50 / bushel
Molasses		----	90
	Barrel	20.25" head, 34" stave	675 / barrel
Mortar,	Lime	----	110
Mud,	Flowing	----	106
	Packed	----	125
Muriatic acid,	40%	----	40
Naptha,	Petroleum	----	42
Nitric acid,	91%	----	94
Oak-red,*	Black	----	42
	White	----	48
Oats	bushel	---	32 / bushel
Okra,	Hamper	1/2 bushel	18 / hamper
	Hamper	bushel	34 / bushel
Oleomargarine, (mfg.-tub)		21" head, 34" stave	70 / tub
	Cases	----	15-65 / case

Figure 8

2026 Isuzu Truck

Product	Size of Container	Lbs. Per Cu. Ft.	No. of Lbs. / Per
Olive oil	----	58	7.7 / gallon
Onions, dry, Basket	bushel	---	55 / bushel
Bag	17" x 32"	---	50 / bag
Crate	20.5" x 11.5" x 10.5"	---	58 / crate
Green (with tops)	bushel	---	32 / bushel
Oranges, Western box	11.5" x 11.5" x 24"	---	80 / box
Southern box	12.75" x 12.75" x 27"	---	90 / box
Bushel box	10.75" x 10.75" x 23.5"	---	65 / box
Oysters (shucked or meats)			
Crate with 5.1 gal. cans	18" x 12" x 24"	(11.5 lbs. per gal.)	67 / crate
With shells (bags)	bushel	---	75 / bushel
Paint, Lead and oil	----	127	17 / gallon
Paper, Average solid	----	58	1,565 / cu. yard
Newspaper rolls	34.25" x 35" dia.	---	500 / roll
	51.5" x 35" dia.	---	1,000 / roll
	64.25" x 35" dia.	---	1,300 / roll
Paraffin	----	56	1,510 / cu. yard
Parsley, Bushel crate	12.75" x 12.75" x 17"	---	30 / crate
Parsnips	bushel	---	50 / bushel
Peaches, Basket	bushel	---	48 / bushel
1/2 bushel	----	---	25 / basket
Crate	10.5" x 11.25" x 24"	---	50 / crate
Western box	5.5" x 12.25" x 19.75"	---	22 / box
Peanuts, Unshelled	bushel	---	22 / bushel
Bag	----	---	100 / bag
Peanut oil	----	57	7.6 / gallon
Pears, Basket	bushel	---	50 / bushel
Western box	9.63" x 12.13" x 19.75"	---	51 / box
Peas, Dry	bushel	---	60 / bushel
Fresh hamper	bushel	---	35 / hamper
Hamper	40 quarts	---	45 / hamper

Figure 9

Product	Size of Container	Lbs. Per Cu. Ft.	No. of Lbs. / Per
Pecans, Large bag	----	---	100 / bag
Small bag	----	---	50 / bag
Peppers, Basket	bushel	---	25 / basket
Crate	14.13" x 11.75" x 24"	---	45 / crate
Petroleum	----	56	7.5 / gallon
Phosphate rock	----	200	5,400 / cu. yard
Pine,* Long leaf	----	44	3,670 / M. Bd. ft.
North Carolina	----	36	3,000 / M. Bd. ft.
Oregon	----	32	2,670 / M. Bd. ft.
Red	----	30	2,500 / M. Bd. ft.
White	----	26	2,170 / M. Bd. ft.
Yellow, long leaf	----	44	3,670 / M. Bd. ft.
Short leaf	----	38	3,170 / M. Bd. ft.
Pineapples, Crate	11" x 12.5" x 36"	---	85 / crate
Pitch	----	70	1,900 / cu. yard
Plums, Basket	bushel	---	56 / bushel
Western box	5.63" x 16.38" x 17.5"	---	25 / box
Pomegranates, Box	6.5" x 12" x 24.63"	---	30 / box
Popcorn, Ear	bushel	---	70 / bushel
Shelled	bushel	---	56 / bushel
Poplar*	----	27	2,250 / M. Bd. ft.
Porcelain	----	150	4,050 / cu. yard
Pork (dressed), Barrel (200 lbs. net)	18" head, 29" stave	---	240 / barrel
Potatoes, Sweet	bushel	---	55 / bushel
White or Irish	bushel	---	60 / bushel
Bag	1.67 bushel	---	102 / bag
Barrel	17.13" head, 28.5" stave	---	185 / barrel
Prunes, Box	5.63" x 16.38" x 19.75"	---	25 / box
Box	5.63" x 11.88" x 19.75"	---	22 / box
Quinces	bushel	---	50 / bushel

Figure 10

*Kiln dried lumber averages 10% to 15% lighter, and green lumber 40% to 50% heavier, than air dried.

2026 Isuzu Truck

Product	Size of Container	Lbs. Per Cu. Ft.	No. of Lbs. / Per
Radishes, Basket	bushel	— —	34 / bushel
Crate	9.75" x 13.75" x 24"	— —	40 / crate
Redwood*	— — —	30	2,500 / M. Bd. ft.
Resin	— — —	68	1,835 / cu. yard
Rhubarb (pie plant)	bushel	— —	50 / bushel
Box	5.25" x 11.5" x 22"	— —	24 / box
Rice,	Unhulled bushel	— —	43 / bushel
Rock, Crushed (average)	— — —	100	2,700 / cu. yard
Romaine, Crate	13.88" x 18.88" x 24.5"	— —	64 / crate
Crate	12.25" x 13" x 15.25"	— —	27 / crate
Rubber goods	— — —	94	2,540 / cu. yard
Rutabagas	bushel	— —	56 / bushel
Rye	bushel	— —	56 / bushel
Salt, rock, Solid	— — —	136	3,670 / cu. yard
Coarse	— — —	45	1,215 / cu. yard
Fine	— — —	50	1,350 / cu. yard
Barrel (average)	— — —	— —	280 / barrel
Sand, fine, Dry	— — —	110	2,970 / cu. yard
Wet	— — —	125	3,375 / cu. yard
Sand, coarse, Dry	— — —	95	2,565 / cu. yard
Wet	— — —	120	3,240 / cu. yard
Sand, Mixed	— — —	115	3,100 / cu. yard
Sandstone, Solid	— — —	147	3,970 / cu. yard
Crushed	— — —	86	2,325 / cu. yard
Shale, Solid	— — —	172	4,645 / cu. yard
Crushed	— — —	92	2,485 / cu. yard
Sheep, Live (average)	per head	— —	125-150 / head
Shingles, Bundle	Pkg. in bnds. of 200-250 Size (avg.) 24" x 20" x 10"	— —	50 / bundle
Snow, Moist-packed	— — —	50	1,350 / cu. yard

*Kiln dried lumber averages 10% to 15% lighter, and green lumber 40% to 50% heavier, than air dried.

Figure 11

Product	Size of Container	Lbs. Per Cu. Ft.	No. of Lbs. / Per
Soft drinks, Half depth bottle box	12.25" x 18.75" x 8.5"	— —	39 / box
24-6 to 8 oz. bottles			
Full depth bottle box	13.38" x 18.5" x 12.25"	— —	60 / box
12-24 to 32 oz. bottles			
Sorghum syrup	— — —	86	11.5 / gallon
Soybeans	bushel	— —	60 / bushel
Soybean oil	— — —	58	7.7 / gallon
Spinach, Hamper	bushel	— —	20 / bushel
Basket	bushel	— —	27 / bushel
Spruce*	— — —	28	2,330 / M. Bd. ft.
Squash	bushel	— —	46 / bushel
Starch	— — —	96	2,590 / cu. yard
Stone, Crushed, (average)	— — —	100	2,700 / cu. yard
Rip-rap	— — —	65	1,755 / cu. yard
Straw, Bale	17" x 22" x 42"	— —	110 / bale
Bale	26" x 30" x 46"	— —	180 / bale
Street sweepings	— — —	32	865 / cu. yard
Sugar	— — —	100	2,700 / cu. yard
Sugar, Bag	(100 lbs. net)	— —	101 / bag
Barrel (22 lbs. empty)	19.13" head, 30" stave	— —	345 / barrel
Case	24 – 5-lb. cartons	— —	135 / case
Case	60 – 2-lb. cartons	— —	135 / case
Sugar cane syrup	— — —	85	11.3 / gallon
Sulphur	— — —	125	3,375 / cu. yard
Sulfuric acid, 87%	— — —	112	15 / gallon
Sweet corn, Basket	bushel	— —	45 / bushel
Crate	13" x 13" x 24"	— —	60 / crate
Sycamore*	— — —	37	3,080 / M. Bd. ft.
Tallow	— — —	60	1,620 / cu. yard

Figure 12

2026 Isuzu Truck

Product	Size of Container	Lbs. Per Cu. Ft.	No. of Lbs. / Per	
Tanks, Acetylene, 102 cu. foot	empty	— —	70 / tank	
	filled	— —	75 / tank	
	310 cu. foot	empty	— —	200 / tank
		filled	— —	220 / tank
Tanks, Oxygen, 150 cu. foot	empty	— —	80 / tank	
	filled	— —	92 / tank	
	300 cu. foot	empty	— —	133 / tank
		filled	— —	153 / tank
Tar	— — —	65	1755 / cu. yard	
Tile, Solid	— — —	115	3,100 / cu. yard	
	Partition (construction)	— — —	40	1,080 / cu. yard
Tomatoes, Basket	bushel	— —	55 / bushel	
Lug box	7.25" x 14" x 17.5"	— —	35 / box	
Crate	10.5" x 11.25" x 24"	— —	48 / crate	
Basket	8.5" x 8.75" x 20"	— —	18 / basket	
Basket (paper)	4.25" x 8.5" x 16.25"	— —	9 / basket	
Basket (wood)	5.5" x 7.25" x 16.5"	— —	10 / basket	
Turpentine	— — —	54	7.2 / gallon	
Turnips, Basket	bushel	— —	54 / bushel	
Vetch seed	bushel	— —	60 / bushel	
Vinegar	— — —	64	8.5 / gallon	
Walnuts, Bulk	bushel	— —	50 / bushel	
	Bag	2 bushel	— —	100 / bag
Water, Fresh	— — —	63	8.4 / gallon	
Wheat, Bulk	bushel	— —	60 / bushel	
	Bag	1.5 bushel	— —	90 / bag
Wool, Pressed	— — —	82	2,215 / cu. yard	

*Kiln dried lumber averages 10% to 15% lighter, and green lumber 40% to 50% heavier, than air dried.

Figure 13

2026 Isuzu Truck

Chassis Specifications

Model	NPR GAS	NPR-HD GAS
GVWR / GCWR	12,000 lbs. / 18,000 lbs.	14,500 lbs./ 20,500 lbs.
WB	109 in., 132.5 in, 150 in., 176 in.	
Engine	GMPT L8T (Gen V), 8-cylinder, V Block 4-cycle, OHV, Direct Fuel Injection, Oil Jet Piston Cooling	
Model/Displacement	GMPT-V8/400 CID (6.6 liters)	
Horsepower	350 HP @ 4500 RPM	
Torque	425 lb.-ft. @ 3800 RPM	
Equipment	Direct injection technology, mass air flow meter, powertrain interface module (PIM), onboard diagnostics, oxygen sensors, catalytic convertor, map sensor, with external oil cooler, engine cruise control, and rear engine cover.	
Transmission	8L90 Hydra-Matic 8-speed automatic w/lock-up converter and overdrive. PTO not available.	
Steering	Integral power steering 18.8-20.9:1 ratio. Tilt and telescoping steering column.	
Front Axle	Reverse Elliot "I"-Beam rated at 6,830 lbs.	
Front Suspension	Semi-elliptical steel alloy tapered leaf springs with stabilizer bar and shock absorbers.	
Front GAWR	4,860 lbs.	6,630 lbs.
Rear Axle	Full floating single speed with hypoid gearing rated at 14,550 lbs.	
Rear GAWR	8,840 lbs.	11,020 lbs.
Rear Suspension	Semi-elliptical steel alloy multi-leaf springs and shock absorbers.	
Wheels	16 x 6.0 6-hole disc wheels, painted white.	19.5 x 6.0 6-hole disc wheels, painted white.
Tires	215/85R-16E (10 ply) LRR (Low Rolling Resistance) tubeless steel belted radials, all season, front and rear.	225/70R-19.5F/G (12/14 pr) LRR (Low Rolling Resistance) tubeless steel belted radials, all season, front and rear.
Brakes	Dual circuit vacuum assisted hydraulic service brakes with EBD (Electronic Brake Distribution) system for load proportioning of the brake system front and rear disc brake. The parking brake is a mechanical, cable actuated, internal expanding drum type, transmission mounted. 4 channel anti-lock brake system.	
Fuel Tank	38.6 gal. rectangular stainless steel fuel tank. Mounted between the frame rails with electric type fuel pump (mounted in tank) and fuel tank zone module (mounted on rearward crossmember). Through the rail fuel fill.	
Frame	Ladder type channel section straight frame rail 33.5 in wide through the total length of the frame. Yield strength 44,000 psi section modulus 7.20 cubic in, RBM 316,800 lb-in per rail.	
Cab	All steel, low cab forward, BBC 70.9 in, 45° mechanical tilt with torsion assist.	
Cab Equipment	TRICOT breathable cloth covered high back driver's seat with two occupant passenger seat. Dual cab mounted exterior mirrors with integral convex mirror. Tilt and telescoping steering column. Power windows and door locks, floor mats, tinted glass. AM/FM Radio with Aux input/USB port and Bluetooth. Air conditioning, a rear body dome lamp switch, and a cab latch switch with an indicator and buzzer are standard. Bi-LED Head Lamps and Signature Light.	
Electrical	12 volt, negative ground, 750 CCA maintenance free battery located on frame, 170 Amp alternator with integral regulator.	
Options	see page 10 for options	

NOTE: These selected specifications are subject to change without notice

2026 Isuzu Truck

Chassis Specifications

Model	NPR GAS CREW	NPR-HD GAS CREW
GVWR / GCWR	12,000 lbs. / 18,000 lbs.	14,500 lbs./ 20,500 lbs.
WB	150 in., 176 in.	
Engine	GMPT L8T (Gen V), 8-cylinder, V Block 4-cycle, OHV, Direct Fuel Injection, Oil Jet Piston Cooling	
Model/Displacement	GMPT-V8/400 CID (6.6 liters)	
Horsepower	350 HP @ 4500 RPM	
Torque	425 lb.-ft. @ 3800 RPM	
Equipment	Direct injection technology, mass air flow meter, powertrain interface module (PIM), onboard diagnostics, oxygen sensors, catalytic convertor, map sensor, with external oil cooler, engine cruise control, and rear engine cover.	
Transmission	8L90 Hydra-Matic 8-speed automatic w/lock-up converter and overdrive. PTO not available.	
Steering	Integral power steering 18.8-20.9:1 ratio. Tilt and telescoping steering column.	
Front Axle	Reverse Elliot "I"-Beam rated at 6,830 lbs.	
Front Suspension	Semi-elliptical steel alloy tapered leaf springs with stabilizer bar and shock absorbers.	
Front GAWR	4,860 lbs.	6,630 lbs.
Rear Axle	Full floating single speed with hypoid gearing rated at 14,550 lbs.	
Rear GAWR	8,840 lbs.	11,020 lbs.
Rear Suspension	Semi-elliptical steel alloy multi-leaf springs and shock absorbers.	
Wheels	16 x 6.0 6-hole disc wheels, painted white.	19.5 x 6.0 6-hole disc wheels, painted white.
Tires	215/85R-16E (10 ply) LRR (Low Rolling Resistance) tubeless steel belted radials, all season, front and rear.	225/70R-19.5F/G (12/14 pr) LRR (Low Rolling Resistance) tubeless steel belted radials, all season, front and rear.
Brakes	Dual circuit vacuum assisted hydraulic service brakes with EBD (Electronic Brake Distribution) system for load proportioning of the brake system front and rear disc brake. The parking brake is a mechanical, cable actuated, internal expanding drum type, transmission mounted. 4 channel anti-lock brake system.	
Fuel Tank	38.6 gal. rectangular stainless steel fuel tank. Mounted between the frame rails with electric type fuel pump (mounted in tank) and fuel tank zone module (mounted on rearward crossmember). Through the rail fuel fill.	
Frame	Ladder type channel section straight frame rail 33.5 in wide through the total length of the frame. Yield strength 44,000 psi section modulus 7.20 cubic in, RBM 316,800 lb-in per rail.	
Cab	All-steel, low cab forward, BBC 109.9 in., 7-passenger seating.	
Cab Equipment	TRICOT breathable cloth covered high back driver's seat with two occupant passenger seat and four passenger rear bench seat. Dual cab mounted exterior mirrors with integral convex mirror. Tilt and telescoping steering column. Power windows and door locks, floor mats, and tinted glass. AM/FM Radio with Aux input/USB port and Bluetooth. Air conditioning, a rear body dome lamp switch, and a cab latch switch with an indicator and buzzer are standard. Bi-LED Head Lamps and Signature Light.	
Electrical	12 volt, negative ground, 750 CCA maintenance free battery located on frame, 170 Amp alternator with integral regulator.	
Options	see page 10 for options	

NOTE: These selected specifications are subject to change without notice.

2026 Isuzu Truck

Chassis Specifications

Model	NQR GAS	NRR GAS
GVWR / GCWR	17,950 lbs. / 23,950 lbs.	19,500 lbs./ 25,500 lbs.
WB	132.5 in, 150 in., 176 in., 200 in.	132.5 in, 150 in., 176 in., 200 in., 212 in.
Engine	GMPT L8T (Gen V), 8-cylinder, V Block 4-cycle, OHV, Direct Fuel Injection, Oil Jet Piston Cooling	
Model/Displacement	GMPT-V8/400 CID (6.6 liters)	
HP (Gross)	350 HP @ 4500 RPM	
Torque (Gross)	425 lb.-ft. @ 3800 RPM	
Equipment	Direct injection technology, mass air flow meter, powertrain interface module (PIM), onboard diagnostics, oxygen sensors, catalytic convertor, map sensor, with external oil cooler, engine cruise control, and rear engine cover.	
Transmission	Allison 1000 RDS 6-speed automatic transmission.PTO not available.	
Steering	Integral power steering 18.8-20.9:1 ratio. Tilt and telescoping steering column.	
Front Axle	Reverse Elliot "I"-Beam rated at 6,830 lbs.	Reverse Elliot "I"-Beam rated at 7,275 lbs.
Front Suspension	Semi-elliptical steel alloy tapered leaf springs with stabilizer bar and shock absorbers.	
Front GAWR	6,830 lbs.	7,275 lbs.
Rear Axle	Full floating single speed with hypoid gearing rated at 14,550 lbs.	
Rear GAWR	13,660 lbs.	14,460 lbs.
Rear Suspension	Semi-elliptical steel alloy multi-leaf springs and shock absorbers.	
Wheels	19.5 x 6.0 6-hole disc wheels, painted white.	
Tires	225/70R-19.5G (14 pr) LRR (Low Rolling Resistance) tubeless steel belted radials, all season, front and rear.	
Brakes	Dual circuit power assisted hydraulic 4-channel anti-lock service brake system with EBD (Electronic Brake Distribution) for load proportioning of the front and rear disc brakes. The parking brake is a mechanical, cable actuated, internal expanding drum type, transmission mounted.	
Fuel Tank	38.6 gal. rectangular stainless steel fuel tank. Mounted between the frame rails with electric type fuel pump (mounted in tank) and fuel tank zone module (mounted on rearward crossmember). Through the rail fuel fill.	
Frame	Ladder type channel section straight frame rail 33.5 in wide through the total length of the frame.Yield strength 44,000 psi section modulus 7.20 cubic in, RBM 316,800 lb-in per rail.	
Cab	All steel, low cab forward, BBC 70.9 in, 45° mechanical tilt with torsion assist.	
Cab Equipment	TRICOT breathable cloth covered high back driver's seat with two occupant passenger seat. Dual cab mounted exterior mirrors with integral convex mirror. Tilt and telescoping steering column. Power windows and door locks, floor mats, tinted glass. AM/FM Radio with Aux input/USB port and Bluetooth. Rear body dome lamp switch. Cab latch switch and indicator with buzzer. Bi-LED Head Lamps and Signature Light.	
Electrical	12 volt, negative ground, 750 CCA maintenance free battery located on frame, 170 Amp alternator with integral regulator.	
Options	see page 3 for options	

NOTE: These selected specifications are subject to change without notice

2026 Isuzu Truck

Chassis Specifications

Model	NQR GAS CREW	NRR GAS CREW
GVWR / GCWR	17,950 lbs. / 23,950 lbs.	19,500 lbs./ 25,500 lbs.
WB	150 in., 176 in., 200 in.	150 in., 176 in., 200 in., 212 in.
Engine	GMPT L8T (Gen V), 8-cylinder, V Block 4-cycle, OHV, Direct Fuel Injection, Oil Jet Piston Cooling	
Model/Displacement	GMPT-V8/400 CID (6.6 liters)	
HP (Gross)	350 HP @ 4500 RPM	
Torque (Gross)	425 lb.-ft. @ 3800 RPM	
Equipment	Direct injection technology, mass air flow meter, powertrain interface module (PIM), onboard diagnostics, oxygen sensors, catalytic convertor, map sensor, with external oil cooler, engine cruise control, and rear engine cover.	
Transmission	Allison 1000 RDS 6-speed automatic transmission.PTO not available.	
Steering	Integral power steering 18.8-20.9:1 ratio. Tilt and telescoping steering column.	
Front Axle	Reverse Elliot "I"-Beam rated at 6,830 lbs.	
Front Suspension	Semi-elliptical steel alloy tapered leaf springs with stabilizer bar and shock absorbers.	
Front GAWR	6,830 lbs.	7,275 lbs.
Rear Axle	Full floating single speed with hypoid gearing rated at 14,550 lbs.	
Rear GAWR	13,660 lbs.	14,460 lbs.
Rear Suspension	Semi-elliptical steel alloy multi-leaf springs and shock absorbers.	
Wheels	19.5 x 6.0 6-hole disc wheels, painted white.	
Tires	225/70R-19.5G (14 pr) LRR (Low Rolling Resistance) tubeless steel belted radials, all season, front and rear.	
Brakes	Dual circuit power assisted hydraulic 4-channel anti-lock service brake system with EBD (Electronic Brake Distribution) for load proportioning of the front and rear disc brakes. The parking brake is a mechanical, cable actuated, internal expanding drum type, transmission mounted.	
Fuel Tank	38.6 gal. rectangular stainless steel fuel tank. Mounted between the frame rails with electric type fuel pump (mounted in tank) and fuel tank zone module (mounted on rearward crossmember). Through the rail fuel fill.	
Frame	Ladder type channel section straight frame rail 33.5 in wide through the total length of the frame.Yield strength 44,000 psi section modulus 7.20 cubic in, RBM 316,800 lb-in per rail.	
Cab	All steel, low cab forward, BBC 109.9 in., 7-passenger seating.	
Cab Equipment	TRICOT breathable cloth covered high back driver's seat with two occupant passenger seat. Dual cab mounted exterior mirrors with integral convex mirror. Tilt and telescoping steering column. Power windows and door locks, front and rear floor mats, tinted glass. AM/FM/CD Radio with Aux input/USB port and Bluetooth. Rear body dome lamp switch. Bi-LED Head Lamps and Signature Light.	
Electrical	12 volt, negative ground, 750 CCA maintenance free battery located on frame, 170 Amp alternator with integral regulator.	
Options	see page 3 for options	

NOTE: These selected specifications are subject to change without notice

2026 Isuzu Truck

Vehicle Weights, Dimensions and Ratings - NPR/NPR-HD

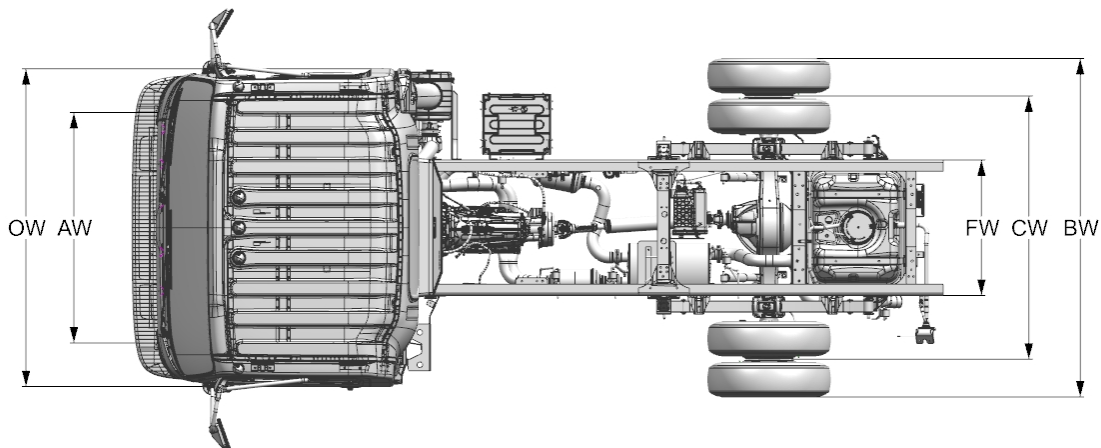


Figure 1

CHASSIS DIMENSIONS (in.)				
WB	CA[1]	CE[2]	AF	OAL
109	86.5	129.6	43.1	200.5
132.5	110.0	153.1	43.1	224.0
150	127.5	170.6	43.1	241.5
176	153.5	196.6	43.1	267.5
DIMENSION CONSTANTS (in.)				
AW = Front axle track				65.6
BA = Front bumper to centerline of axle				48.4
BBC = Bumper to back of cab				70.9
BOC = Back of cab clearance				7.7
BW = Overall width across rear axle				83.3
CW = Rear axle track				65
FW = Frame width				33.5
OW = Overall width across cab (without mirrors)				81.3
VARIABLE DIMENSIONS BY GVWR (in.)		12,000 lb.	14,500 lb.	
AH = Ground to bottom of axle		7.5	8.3	
FH = Frame height (unladen) at E.O.F.[3]		31.8	33	
OH = Overall height (without clearance lights)		90	90.9	

Notes:

[1] Effective CA is CA less BOC.

[2] Effective CE is CE less BOC.

[3] Measured at the end of the frame from the top of the frame to the ground at curb weight.

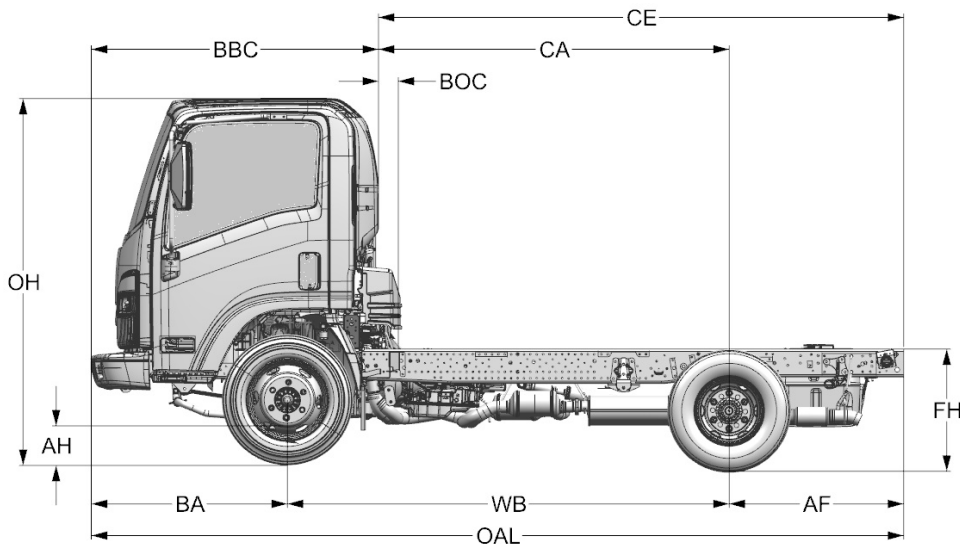


Figure 2

2026 Isuzu Truck

Vehicle Weights, Dimensions and Ratings - NPR/NPR-HD CREW

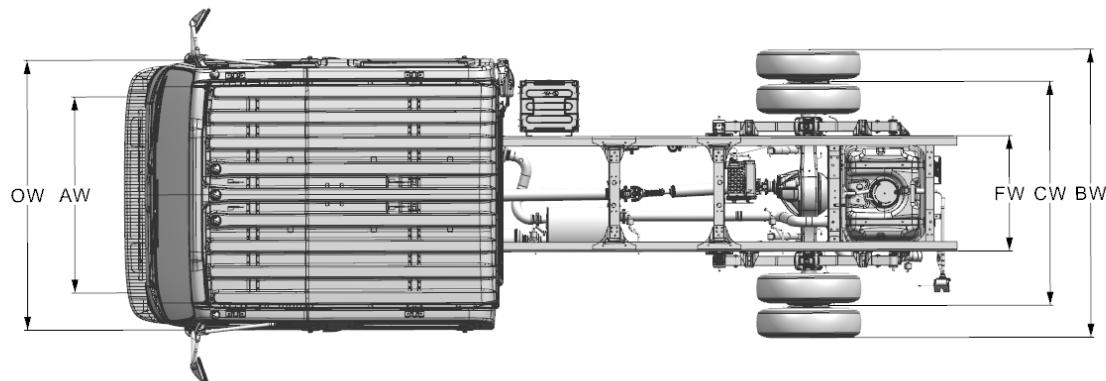


Figure 3

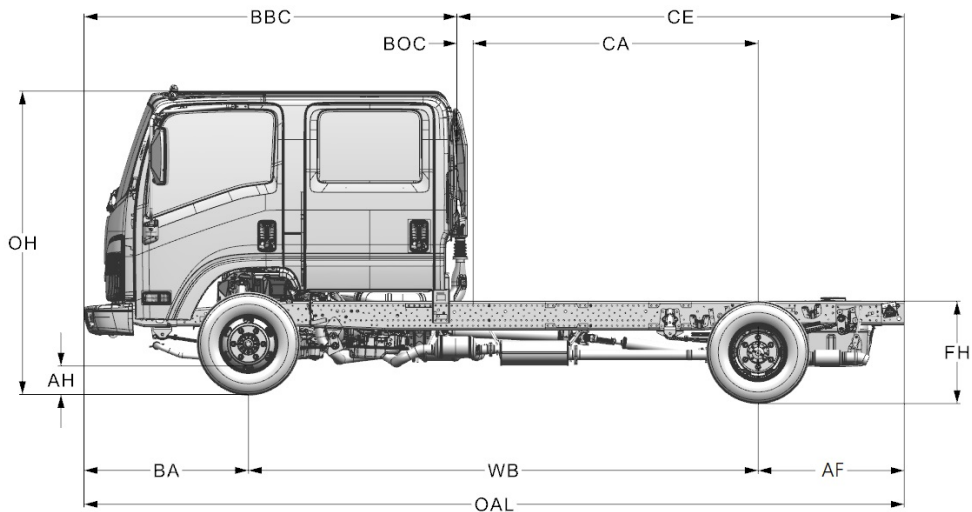


Figure 4

CHASSIS DIMENSIONS (in.)				
WB	CA[1]	CE[2]	AF	OAL
150	88.5	131.6	43.1	241.5
176	114.5	157.6	43.1	267.5
DIMENSION CONSTANTS (in.)				
AW = Front axle track				65.6
BA = Front bumper to centerline of axle				48.4
BBC = Bumper to back of cab				109.9
BOC = Back of cab clearance				5
BW = Overall width across rear axle				83.3
CW = Rear axle track				65
FW = Frame width				33.5
OW = Overall width across cab (without mirrors)				81.3
VARIABLE DIMENSIONS BY GVWR (in.)		12,000 lb.	14,500 lb.	
AH = Ground to bottom of axle		7.5	8.3	
FH = Frame height (unladen) at E.O.F.[3]		31.8	33	
OH = Overall height (without clearance lights)		90	91.1	

Notes:

- [1] Effective CA is CA less BOC.
- [2] Effective CE is CE less BOC.
- [3] Measured at the end of the frame from the top of the frame to the ground at curb weight.

2026 Isuzu Truck

Vehicle Weights, Dimensions and Ratings - NQR/NRR

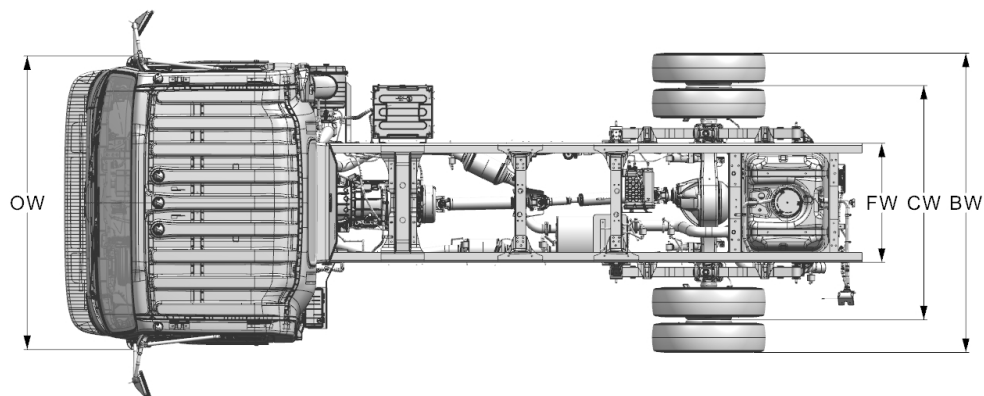


Figure 5

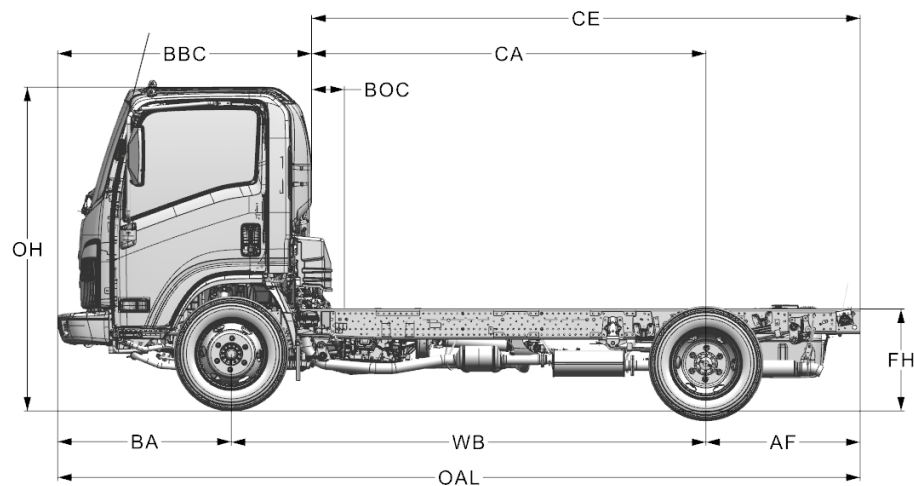


Figure 6

CHASSIS DIMENSIONS (in.)				
WB	CA[1]	CE[2]	AF	OAL
132.5	110.0	153.1	43.1	224.0
150	127.5	170.6	43.1	241.5
176	153.5	196.6	43.1	267.5
200	177.5	220.6	43.1	291.5
212 ^[4]	189.5	232.6	43.1	303.5
DIMENSION CONSTANTS (in.)				
AW = Front axle track				65.6
BA = Front bumper to centerline of axle				48.3
BBC = Bumper to back of cab				70.9
BOC = Back of cab clearance				7.7
BW = Overall width across rear axle				83.3
CW = Rear axle track				65
FW = Frame width				33.5
OW = Overall width across cab (without mirrors)				81.3
VARIABLE DIMENSIONS BY GVWR (in.)			17,950 lb.	19,500 lb.
AH = Ground to bottom of axle			7.5	7.5
FH = Frame height (unladen) at E.O.F.[3]			33	33
OH = Overall height (without clearance lights)			92.4	92.4

Notes:

- [1] Effective CA is CA less BOC.
- [2] Effective CE is CE less BOC.
- [3] Measured at the end of the frame from the top of the frame to the ground at curb weight.
- [4] Only available on the NRR

2026 Isuzu Truck

Vehicle Weights, Dimensions and Ratings - NQR/NRR CREW

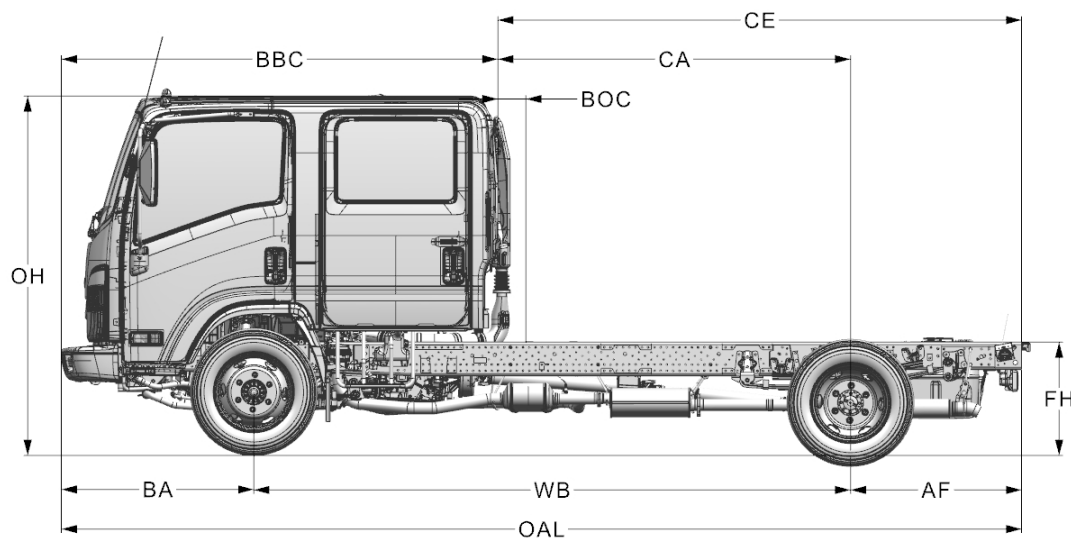


Figure 7

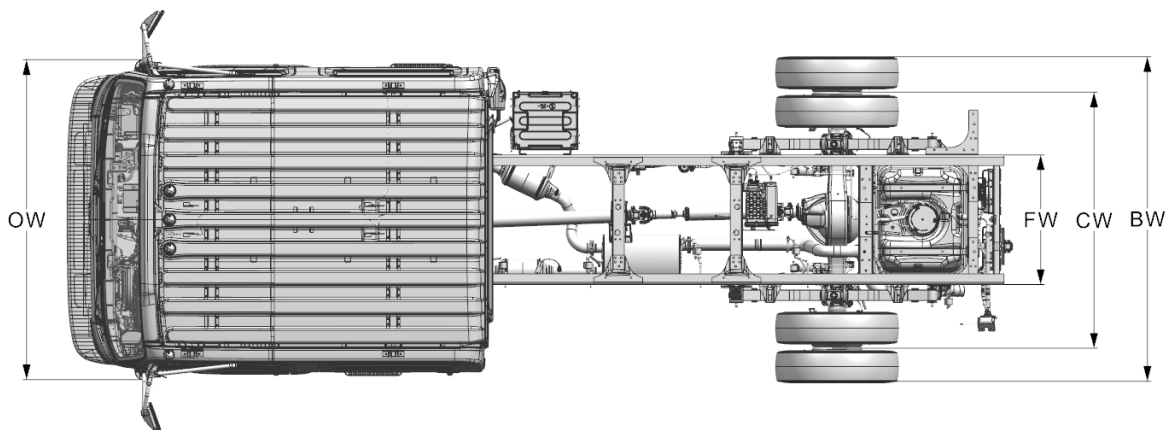


Figure 8

CHASSIS DIMENSIONS (in.)				
WB	CA[1]	CE[2]	AF	OAL
150	88.5	131.6	43.1	241.5
176	114.5	157.6	43.1	267.5
200	138.5	181.6	43.1	291.5
212 ^[4]	150.5	193.6	43.1	303.5
DIMENSION CONSTANTS (in.)				
AW = Front axle track				65.6
BA = Front bumper to centerline of axle				48.3
BBC = Bumper to back of cab				109.9
BOC = Back of cab clearance				5
BW = Overall width across rear axle				83.3
CW = Rear axle track				65
FW = Frame width				33.5
OW = Overall width across cab (without mirrors)				81.3
VARIABLE DIMENSIONS BY GVWR (in.)		17,950 lb.	19,500 lb.	
AH = Ground to bottom of axle		7.5	7.5	
FH = Frame height (unladen) at E.O.F.[3]		33	33	
OH = Overall height (without clearance lights)		92.4	92.4	

Notes:

- [1] Effective CA is CA less BOC.
- [2] Effective CE is CE less BOC.
- [3] Measured at the end of the frame from the top of the frame to the ground at curb weight.
- [4] Only available on the NRR

2026 Isuzu Truck

Vehicle Weights, Dimensions and Ratings

Chassis Curb Weights and Payloads						
NPR GAS STANDARD CAB - 12,000 lb. GVWR:						
Model	WB	Unit	Front	Rear	Total	Payload
1C1	109	lbs.	3309	1845	5154	6846
1C2	132.5	lbs.	3360	1896	5256	6744
1C3	150	lbs.	3380	1905	5285	6715
1C4	176	lbs.	3408	1925	5333	6667
NPR-HD GAS STANDARD CAB - 14,500 lb. GVWR:						
Model	WB	Unit	Front	Rear	Total	Payload
1F1	109	lbs.	3439	2075	5514	8986
1F2	132.5	lbs.	3488	2105	5593	8907
1F3	150	lbs.	3519	2114	5633	8867
1F4	176	lbs.	3549	2125	5674	8826

Figure 9

CHASSIS CURB WEIGHTS AND PAYLOADS						
NQR GAS STANDARD CAB - 17,950 lb. GVWR:						
Model	WB	Unit	Front	Rear	Total	Payload
1R2	132.5	lbs.	3663	2223	5886	12064
1R3	150	lbs.	3713	2216	5929	12021
1R4	176	lbs.	3753	2230	5983	11967
1R5	200	lbs.	3878	2407	6285	11665
NRR GAS STANDARD CAB - 19,500 lb. GVWR:						
Model	WB	Unit	Front	Rear	Total	Payload
1U2	132.5	lbs.	3666	2223	5889	13611
1U3	150	lbs.	3716	2216	5932	13568
1U4	176	lbs.	3756	2230	5986	13514
1U5	200	lbs.	3881	2407	6288	13212
1U6	212	lbs.	3901	2433	6334	13166

Figure 10

Chassis Curb Weights and Payloads						
NPR GAS CREW CAB - 12,000 lb. GVWR:						
Model	WB	Unit	Front	Rear	Total	Payload
1D3	150	lbs.	3759	2075	5834	6166
1D4	176	lbs.	3810	2075	5885	6115
NPR-HD GAS CREW CAB - 14,500 lb. GVWR:						
Model	WB	Unit	Front	Rear	Total	Payload
1G3	150	lbs.	3898	2284	6182	8318
1G4	176	lbs.	3948	2275	6223	8277

Figure 11

CHASSIS CURB WEIGHTS AND PAYLOADS						
NQR GAS CREW CAB - 17,950 lb. GVWR:						
Model	WB	Unit	Front	Rear	Total	Payload
1S3	150	lbs.	4073	2406	6479	11471
1S4	176	lbs.	4143	2400	6543	11407
1S5	200	lbs.	4268	2577	6845	11105
NRR GAS CREW CAB - 19,500 lb. GVWR:						
Model	WB	Unit	Front	Rear	Total	Payload
1V3	150	lbs.	4076	2406	6482	13018
1V4	176	lbs.	4146	2400	6546	12954
1V5	200	lbs.	4271	2577	6848	12652
1V6	212	lbs.	4291	2603	6894	12606

Figure 12

Notes:
 Chassis curb weight reflects standard equipment and fuel, but no driver or payload.
 Maximum Payload Weight is the allowed maximum for equipment, body, payload and driver and is calculated by subtracting chassis curb weight from the GVWR.

2026 Isuzu Truck

Vehicle Weight Limits and Option Weights

VEHICLE WEIGHT RATINGS				
Description	NPR Capacity (lb.)	NPR-HD Capacity (lb.)	NQR Capacity (lb.)	NRR Capacity (lb.)
GVWR Designed Maximum	12,000	14,500	17,950	19,500
GCWR Combined Maximum	18,000	20,500	23,950	25,500
GAWR - Front	4,860	6,630	6,830	7,275
GAWR - Rear	8,840	11,020	13,660	14,460

Option Weights		
RPO ^[1]	Option Description	Front / Rear (lb)
IF4	Air deflector roof mounted (not available in crew cab)	64 / 0
I1V	Audio system with 7" diagonal color touch screen	5 / 1
I2V	Audio system with 7" diagonal color touch screen with backup camera (camera shipped loose)	5 / 2
UZF	Back up alarm	0 / 2
I8T	Chrome grille	1 / 0
I2M	Delete Cruise Control Switch	0 / 0
IY4	Delete standard radio	-3 / 0
BW2	Dual Batteries (750 CCA x 2)	39 / 18
BA8	Dual AGM Batteries (825 CCA x 2)	51 / 24
I4W	Engine block heater with receptacle (115V 400W)	3 / 0
IF6	Fire extinguisher and triangle kit	19 / 0
I4V	Forward Collision and Lane Departure Warning (Mobileye)	2 / 0
I4Z	Front panel film	1 / 0
I0W	Heated dual remote control mirrors (17" head)	4 / 0
IS0	Heated mirrors	1 / 0
I8L	High visibility seat belt (orange color, driver and RH passenger seat only)	0 / 0
I7L	High visibility seat belt (orange color, driver seat only)	0 / 0
I4K	Keyless entry system	3 / 0
I6L	LED lighting package (converts all exterior and interior chassis lighting to LED bulbs)	0 / 0
IU2	Mirror bracket for 102" wide body	1 / 0
IV9	Seat covers crew cab	12 / 0
IV8	Seat covers for standard cab seats	6 / 0
I1M	Seat covers standard cab with suspension seat	6 / 0
I3Z	Spare keys (2 additional, 4 keys in total)	0 / 0
I0Z	Spartan Modification Center ship thru code	0 / 0
I3G	Speed limited to 65 mph (max cruise speed 60 mph)	0 / 0
I6T	Suspension driver's seat (standard cab only)	18 / 0
SEO ^[1]	Option Description	Front / Rear (lb)
04	Standard model specifications with power windows, power door locks, and air conditioning	Standard chassis weight includes these features
14	In rail fuel tank with power windows, power door locks, air conditioning and Limited Slip Differential	0 / 15

NOTES:

- [1] RPO is Regular Production Option that is stocked in Port inventory.
- LSO is Limited Stock Option that is stocked in Port inventory but should be checked for availability and delivery time.
- SEO is Special Equipment Option and requires 90-120 day lead time for delivery.

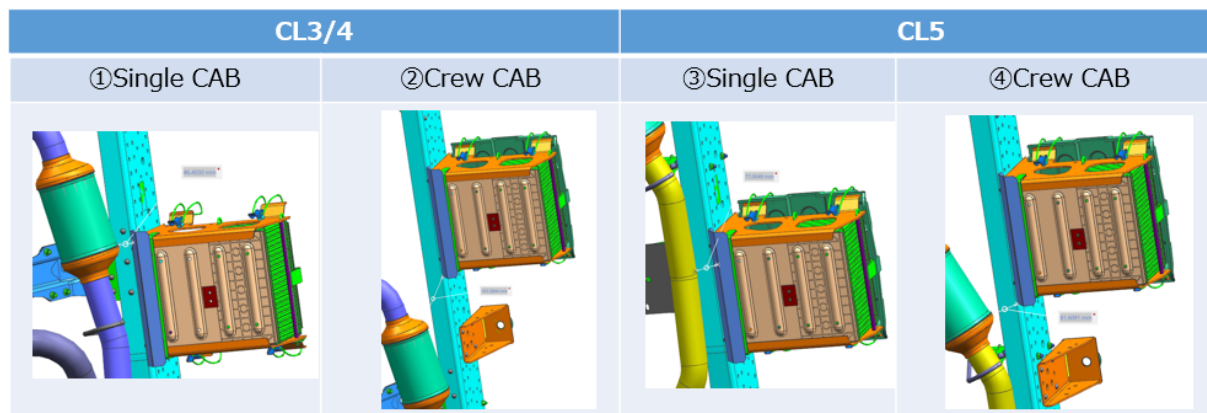
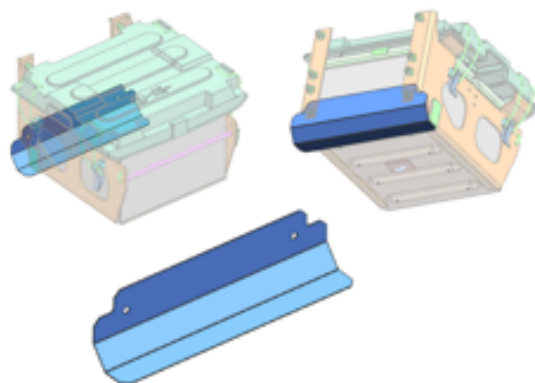
2026 Isuzu Truck

Dual Battery Heat Shield

Starting with the 26MY N-Gas vehicles, Isuzu will be offering the PIO option for dual batteries. A new heat shield will be provided when the PIO option is ordered.

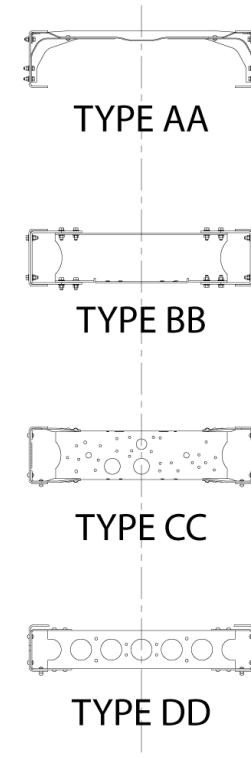
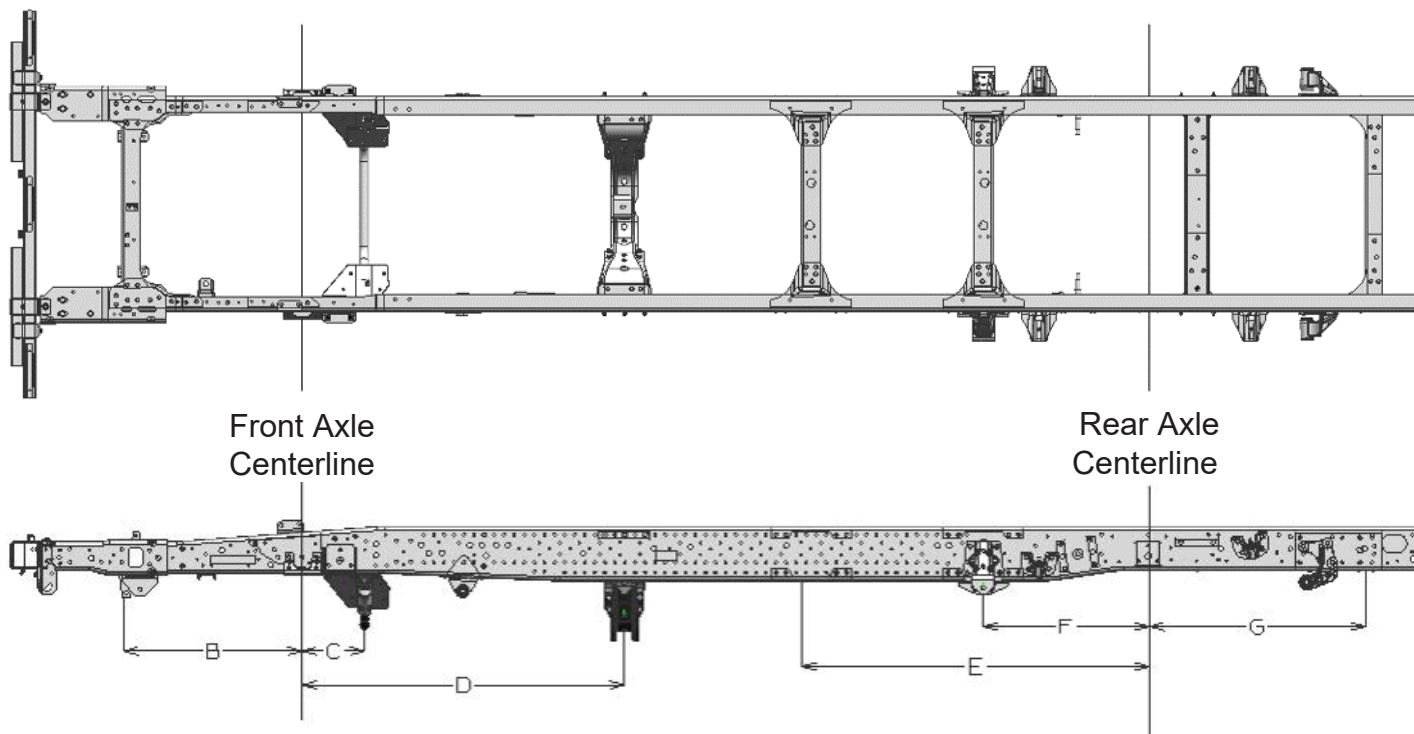
- Option Code: BW2 - Dual Batteries (750 CCA x 2)
- Option Code: BA8 - Dual AGM Batteries (825 CCA x 2)

If the PIO option is not ordered and a second battery is added after the fact, the proper heat shielding will also need to be added in the location shown below.



2026 Isuzu Truck

Frame and Crossmember Specifications - STD CAB



NPR/NPR-HD

WHEELBASE	FRAME THICKNESS	CROSSMEMBER TYPE/LOCATION					
		B	C	D	E	F	G
109	0.24	28	9.75	AA 50.4	-	CC 26.0	DD 33.8
132.5	0.24	28	9.75	AA 50.4	BB 54.4	CC 26.0	DD 33.8
150	0.24	28	9.75	AA 50.4	BB 57.9	CC 26.0	DD 33.8
176	0.24	28	9.75	AA 50.4	BB 74.5	CC 26.0	DD 33.8

NQR/NRR

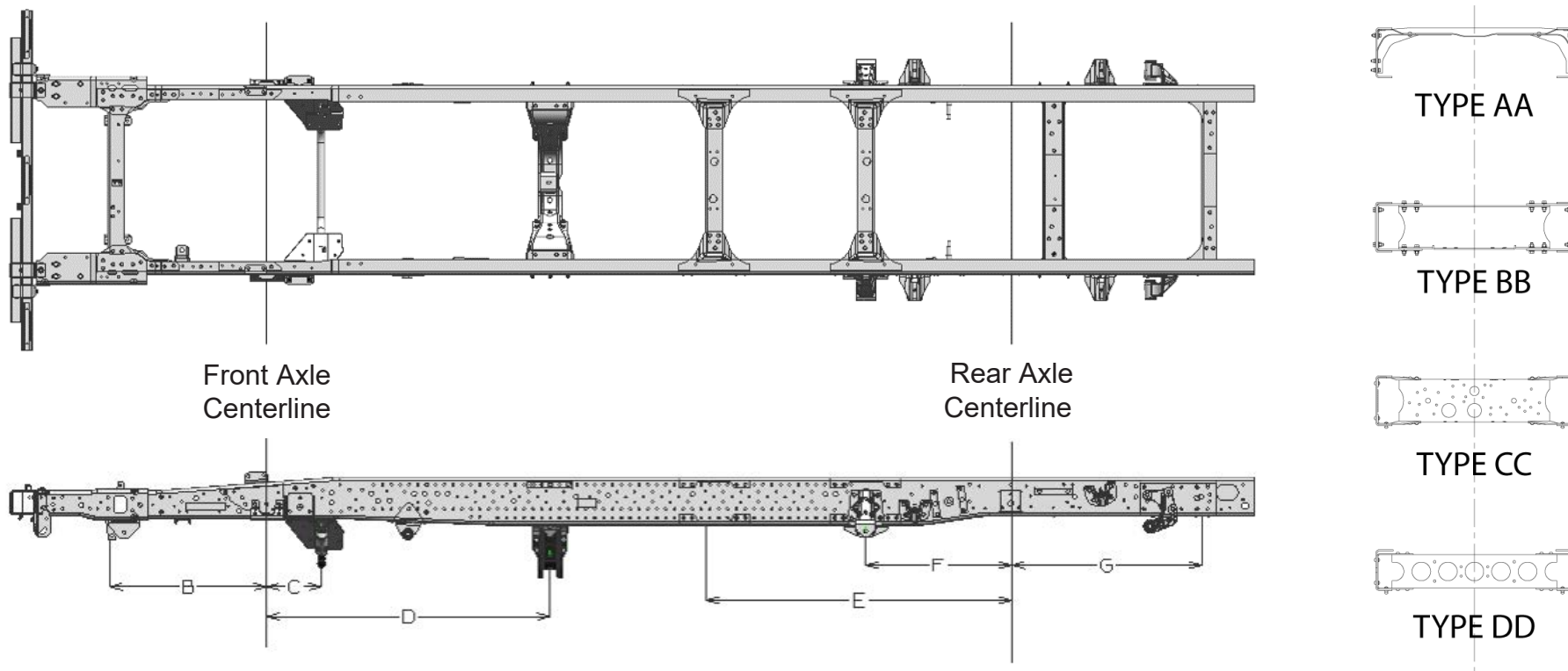
WHEELBASE	FRAME THICKNESS	CROSSMEMBER TYPE/LOCATION					
		B	C	D	E	F	G
132.5	0.24	27.55	9.9	AA 36.67	BB 57.68	CC 25.98	DD 33.62
150	0.24	27.55	9.9	AA 36.67	BB 58.07	CC 25.98	DD 33.62
176	0.24	27.55	9.9	AA 36.67	BB 74.61	CC 25.98	DD 33.62
200	0.24	27.55	9.9	AA 45.56	BB 98.85	CC 25.98	DD 33.62
212	0.24	27.55	9.9	AA 45.56	BB 110.85	CC 25.98	DD 33.62

Figure 13

Dimensions in inches

2026 Isuzu Truck

Frame and Crossmember Specifications - CREW CAB



	WHEELBASE	FRAME THICKNESS	CROSSMEMBER TYPE/LOCATION					
			B	C	D	E	F	G
NPR/NPR-HD	150	0.24	28	9.75	AA 50.4	BB 57.9	CC 26.0	DD 33.8
	176	0.24	28	9.75	AA 50.4	BB 74.5	CC 26.0	DD 33.8

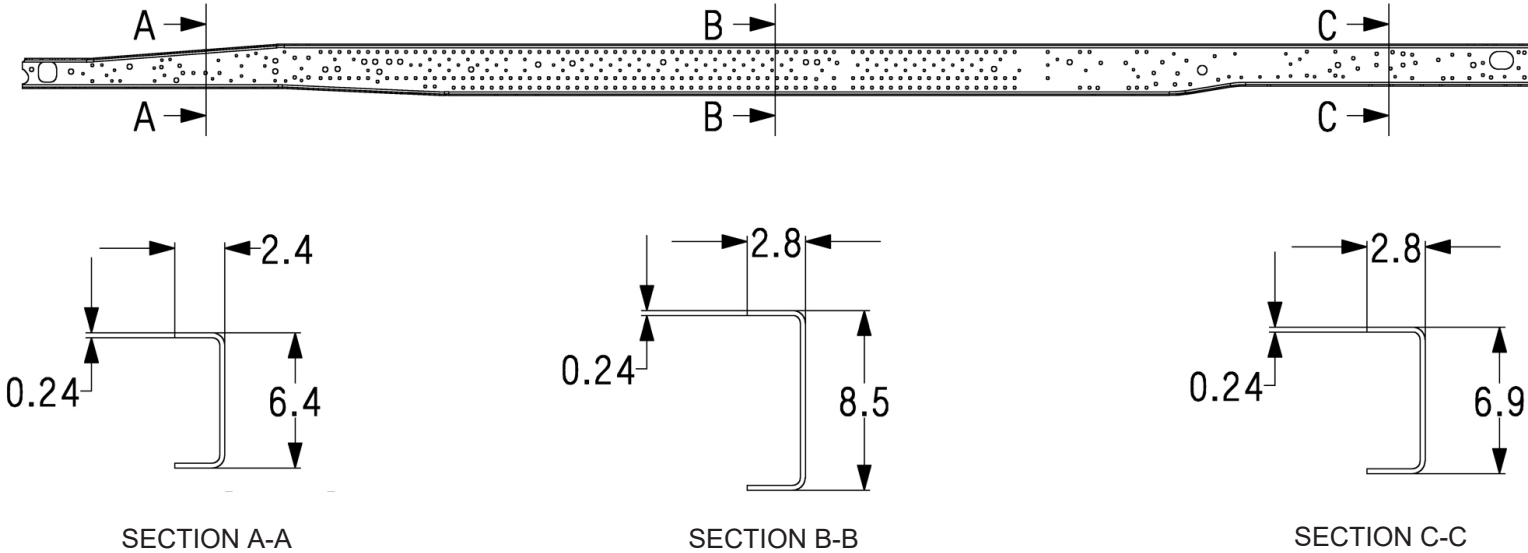
	WHEELBASE	FRAME THICKNESS	CROSSMEMBER TYPE/LOCATION					
			B	C	D	E	F	G
NQR/NRR	150	0.24	27.55	9.9	AA 36.67	BB 58.07	CC 25.98	DD 33.62
	176	0.24	27.55	9.9	AA 36.67	BB 74.61	CC 25.98	DD 33.62
	200	0.24	27.55	9.9	AA 45.56	BB 98.85	CC 25.98	DD 33.62
	212	0.24	27.55	9.9	AA 45.56	BB 110.85	CC 25.98	DD 33.62

Figure 14

Dimensions in inches

2026 Isuzu Truck

Frame Chart



WHEELBASE	FRAME FL	FRAME THICKNESS
109	182.5	0.24
132.5	206.1	0.24
150	223.8	0.24
176	249.8	0.24
200	273.8	0.24
212	285.8	0.24

Figure 15

Dimensions in inches

2026 Isuzu Truck

NPR/NPR-HD Standard Cab Dimension - Auxiliary Views

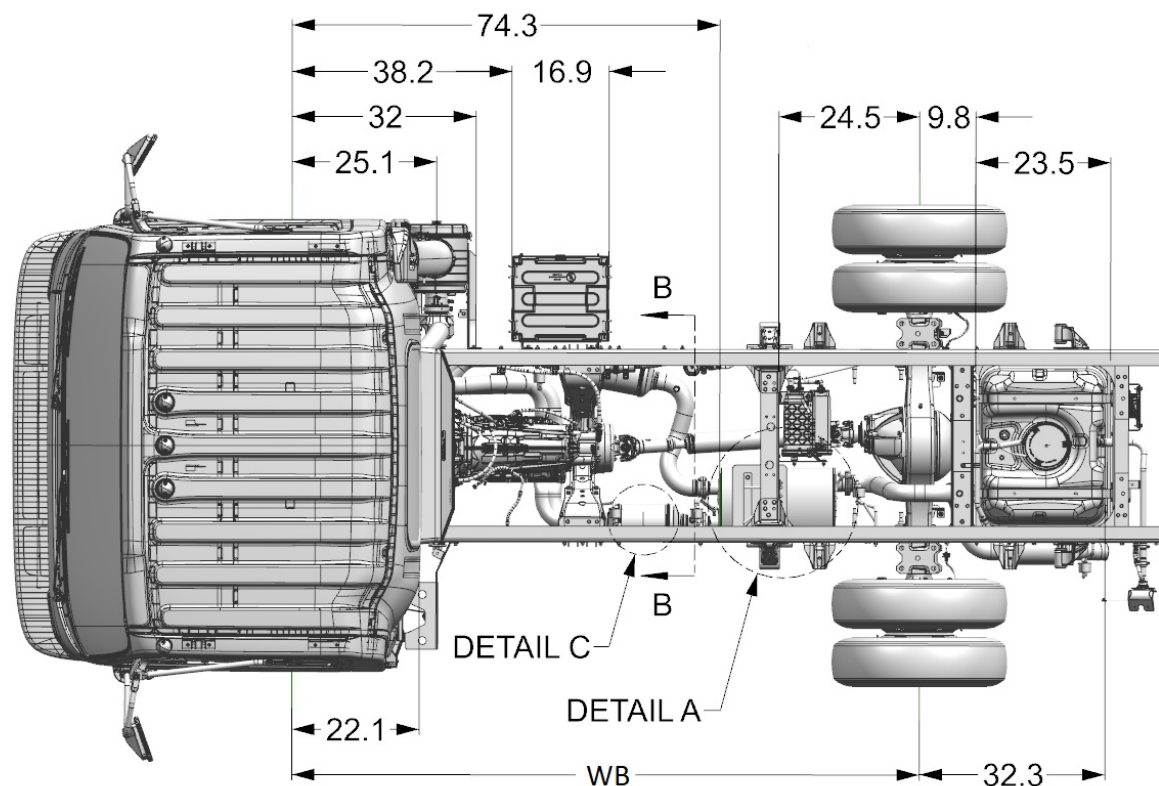


Figure 16

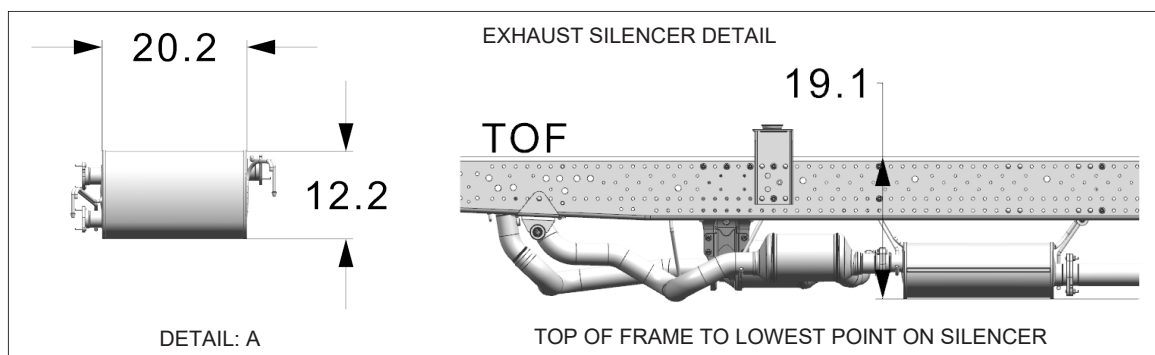


Figure 18

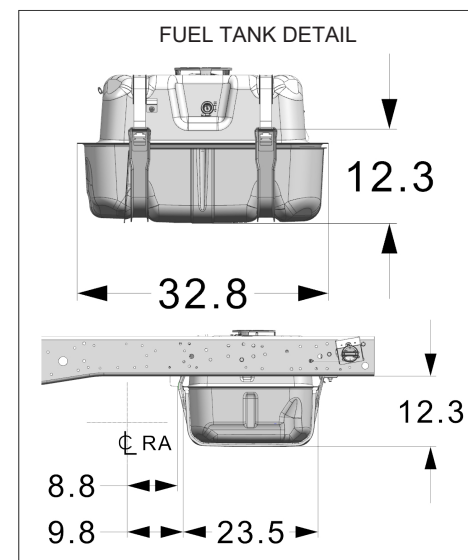


Figure 17

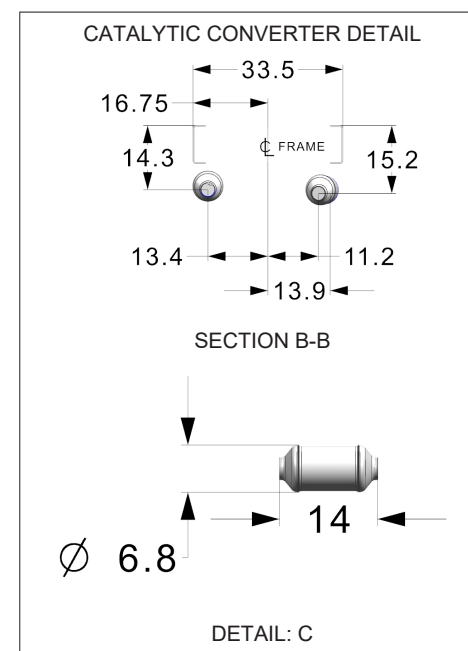


Figure 19

Dimensions in inches

2026 Isuzu Truck

NQR/NRR Standard Cab Dimension - Auxiliary Views

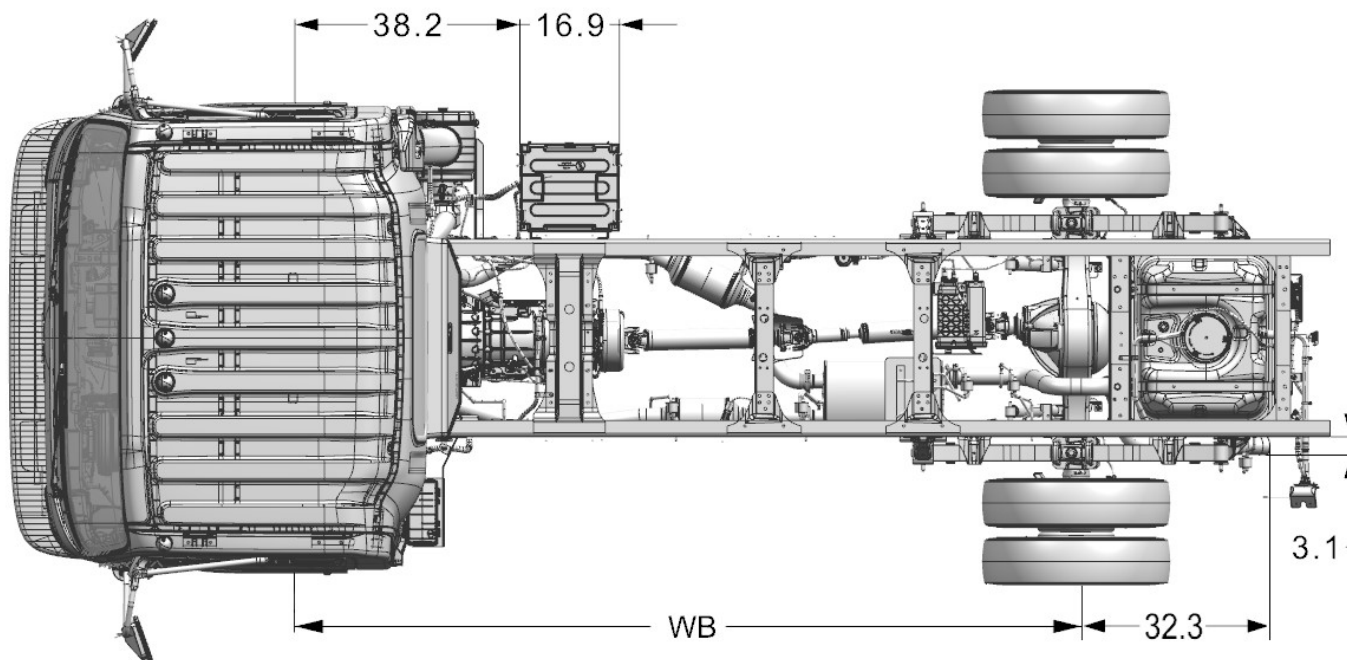


Figure 20

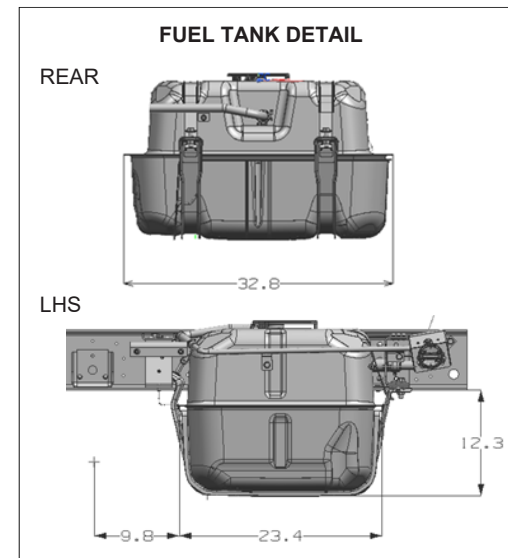
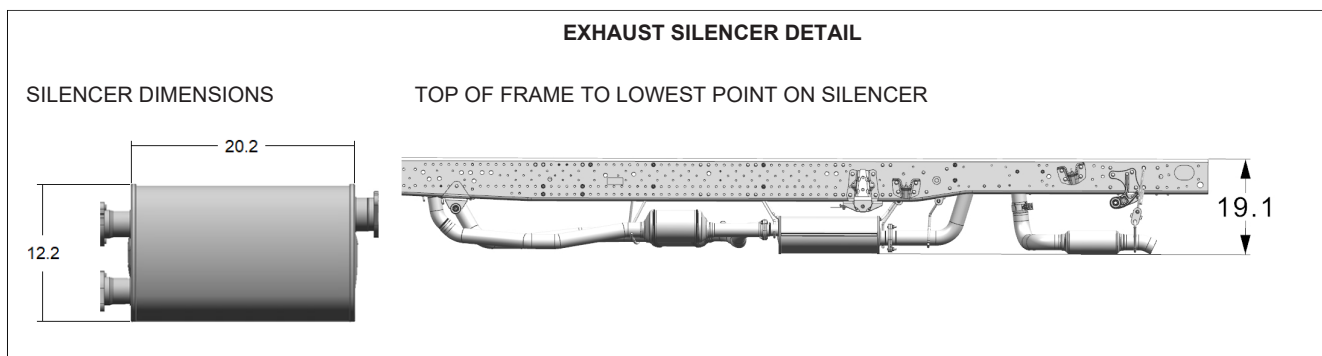


Figure 21



Dimensions in inches

Figure 22

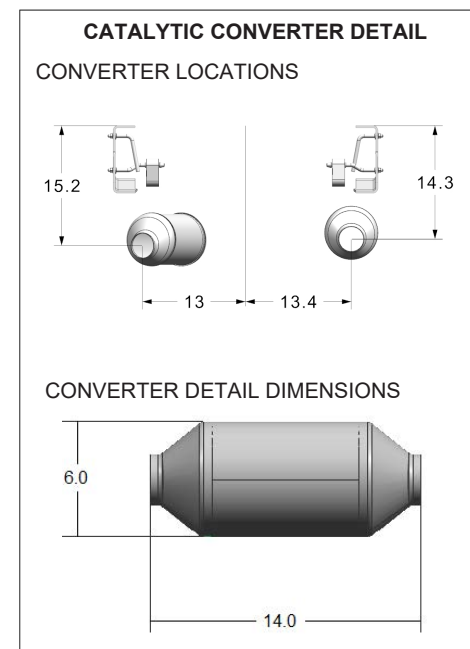


Figure 23

2026 Isuzu Truck

NPR/NPR-HD Crew Cab Dimension - Auxiliary Views

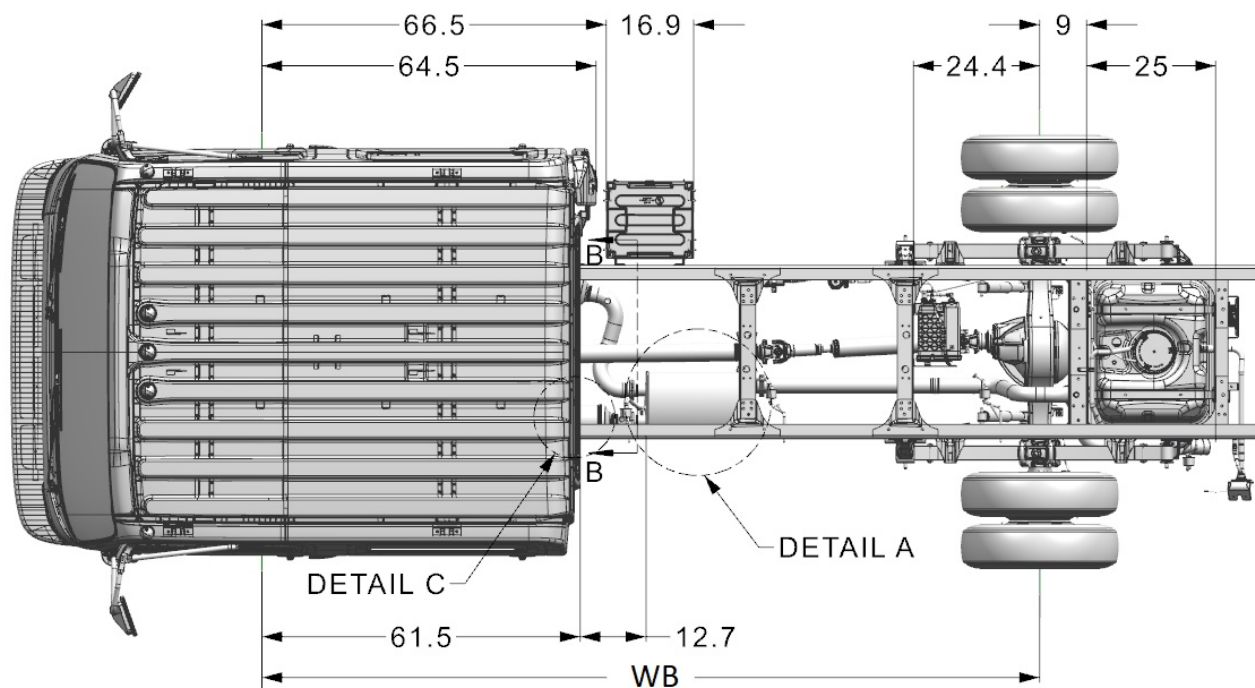


Figure 24

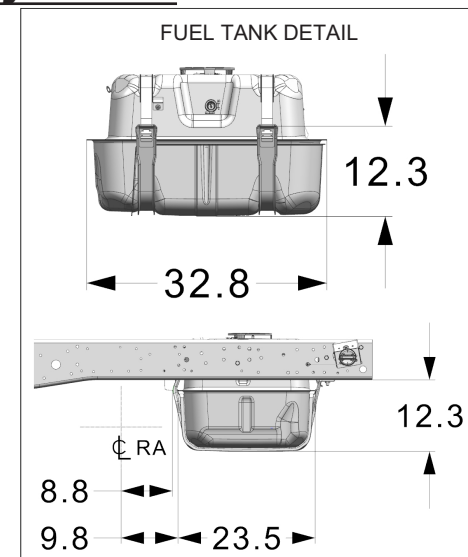


Figure 25

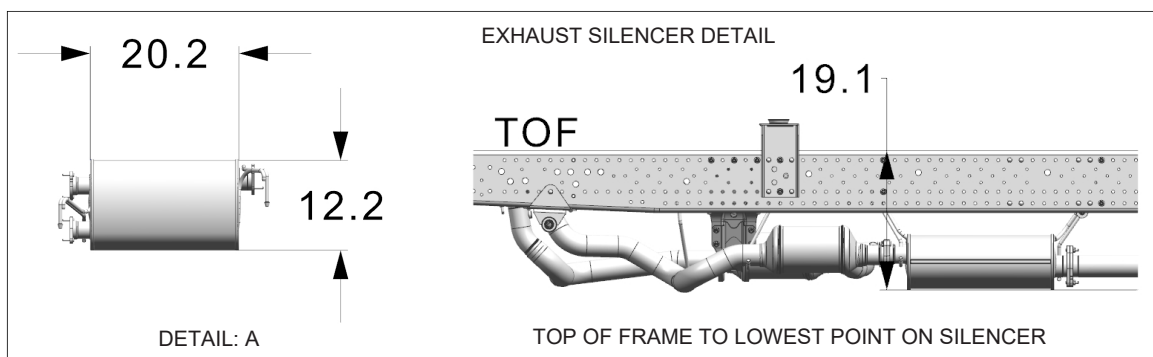


Figure 26

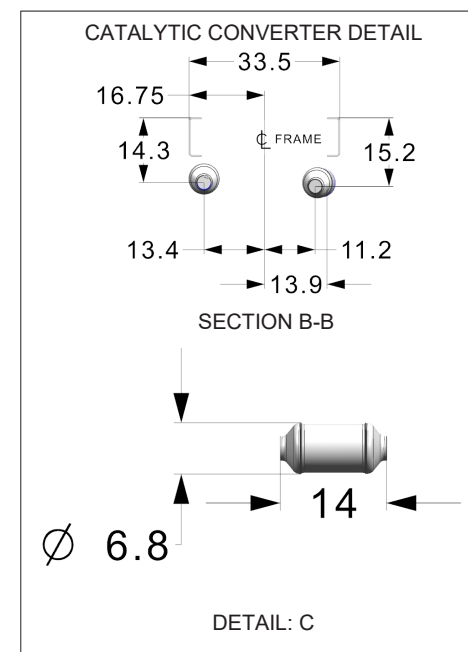


Figure 27

Dimensions in inches

2026 Isuzu Truck

NQR/NRR Crew Cab Dimension - Auxiliary Views

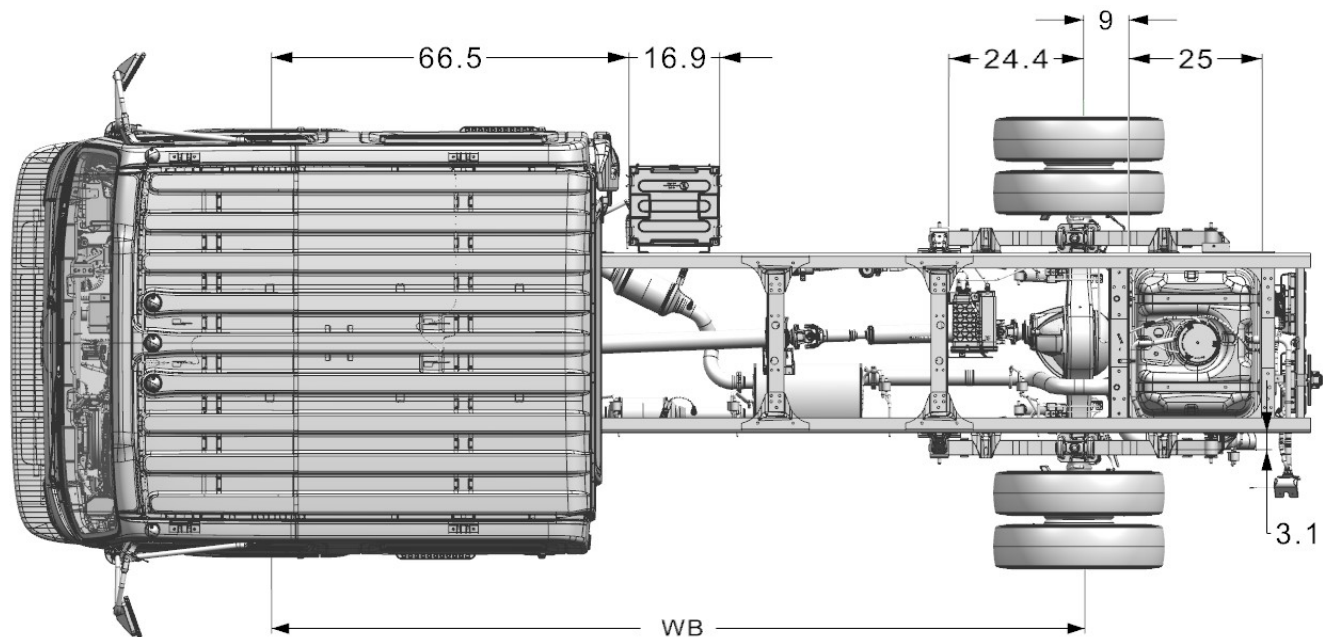


Figure 28

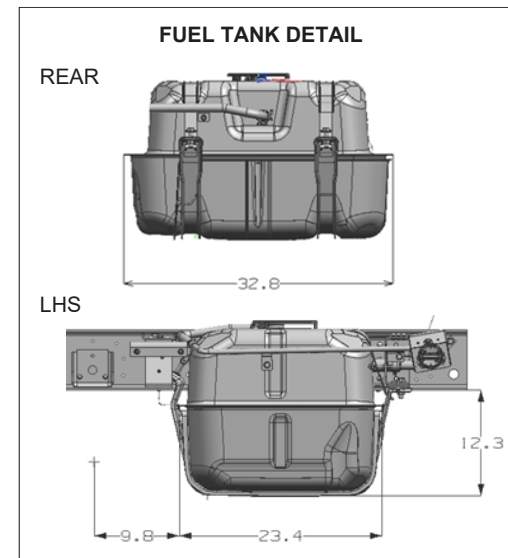


Figure 29

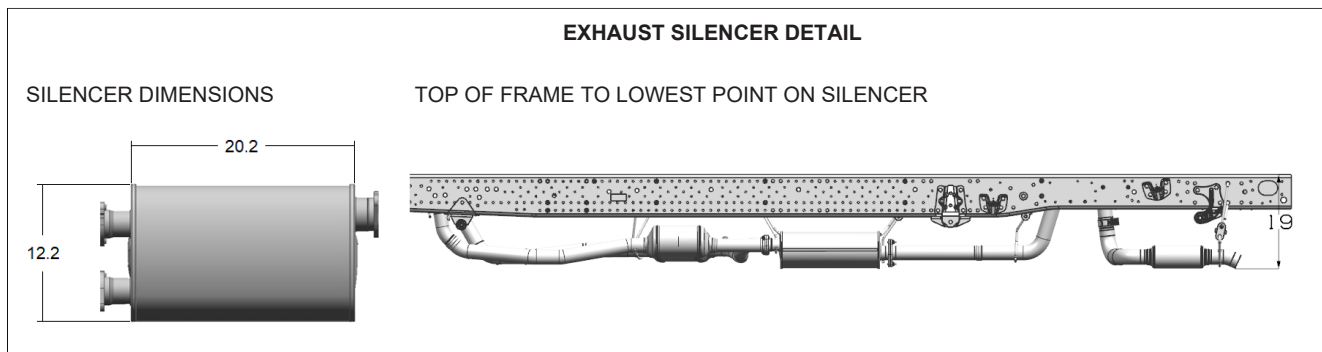


Figure 30

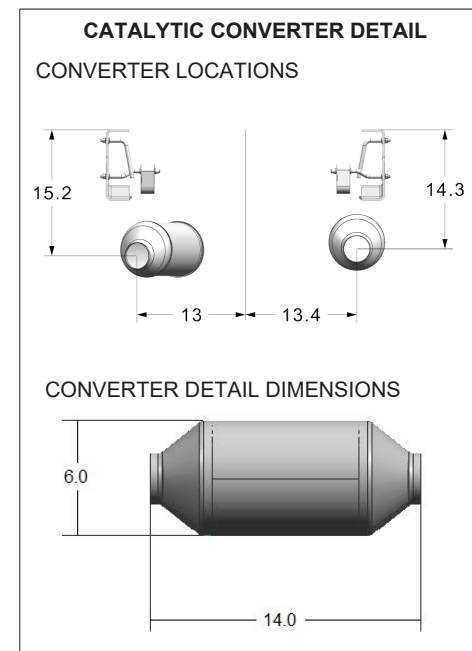


Figure 31

Dimensions in inches

Cab Tilt Illustration

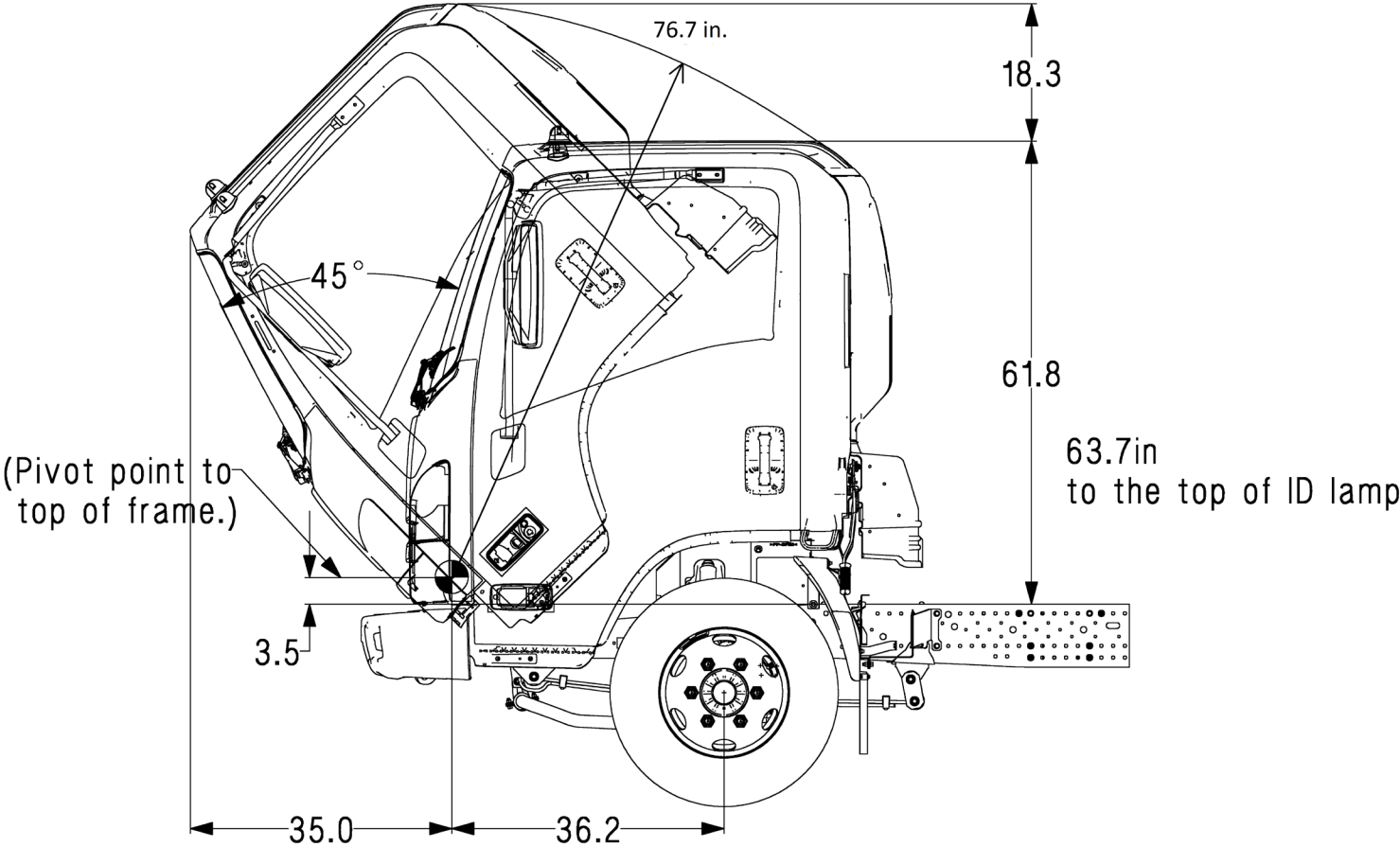
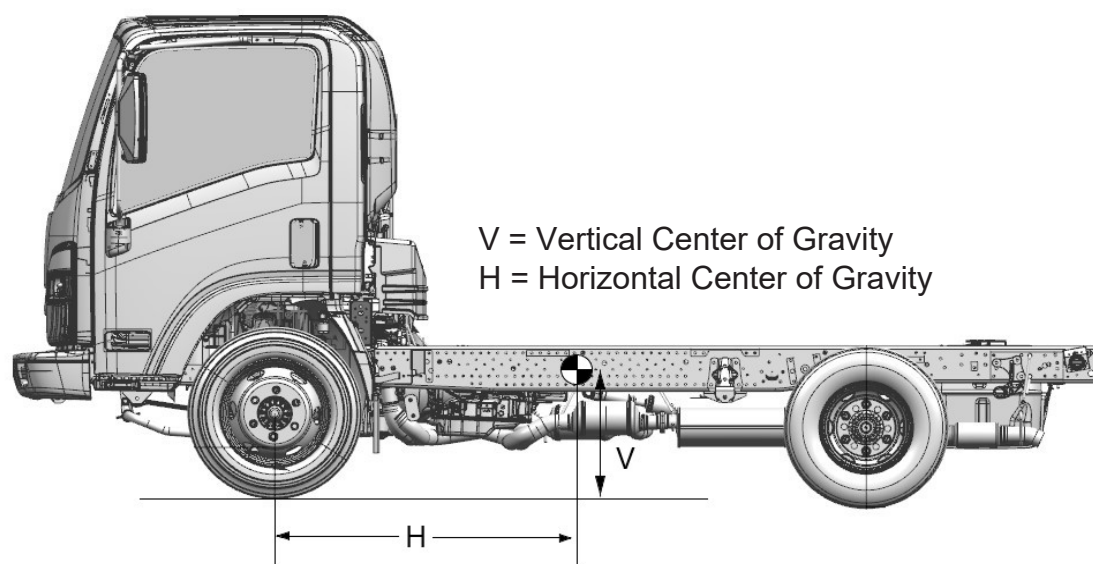


Figure 32

2026 Isuzu Truck

Center of Gravity



Horizontal and Vertical Center of Gravity of Chassis			
GVWR	Wheelbase (in)	Vertical CG - V (in)	Horizontal CG - H (in)
12,000 lbs.	109	23.8	39.9
	132.5	23.7	48.3
	150	23.6	54.4
	176	23.6	63.7
14,500 lbs.	109	23.8	41.3
	132.5	23.7	49.9
	150	23.7	56.2
17,950 lbs.	176	23.6	64.3
	109	23.8	41.3
	132.5	24.9	48.6
19,500 lbs.	150	25.0	54.7
	176	24.9	63.4
	200	24.9	65.3
	132.5	24.9	50.3
19,500 lbs.	150	25.1	56.6
	176	25.0	65.0
	200	25.0	66.9
	212	24.8	67.1

Figure 33

The maximum vertical center of gravity must not be exceeded at maximum GVWR and rated front and rear GAWR. The center of gravity maximum is 63" (1600mm) above ground. The horizontal center of gravity must be located between the front and rear axles.

NOTE: The Final Manufacturer must ensure that the combined vertical center of gravity of the chassis, body, and available payload at full GVW does not exceed the maximum vertical center of gravity outlined in the Isuzu Incomplete Vehicle Document and the Isuzu Body Builders Guide.

The maximum dimensions for a body installed on the N Series chassis are 102 inches wide (outside^[1]) by 91 inches high (inside). If approval is needed for larger body applications, please contact Isuzu Commercial Trucks of America (ICTA) Application Engineering. On the West Coast call 1-562-310-8599 and on the East Coast call 1-734-582-9284.

^[1] With 102 inches wide mirror brackets installed in place of standard mirror brackets

2026 Isuzu Truck

Center of Gravity

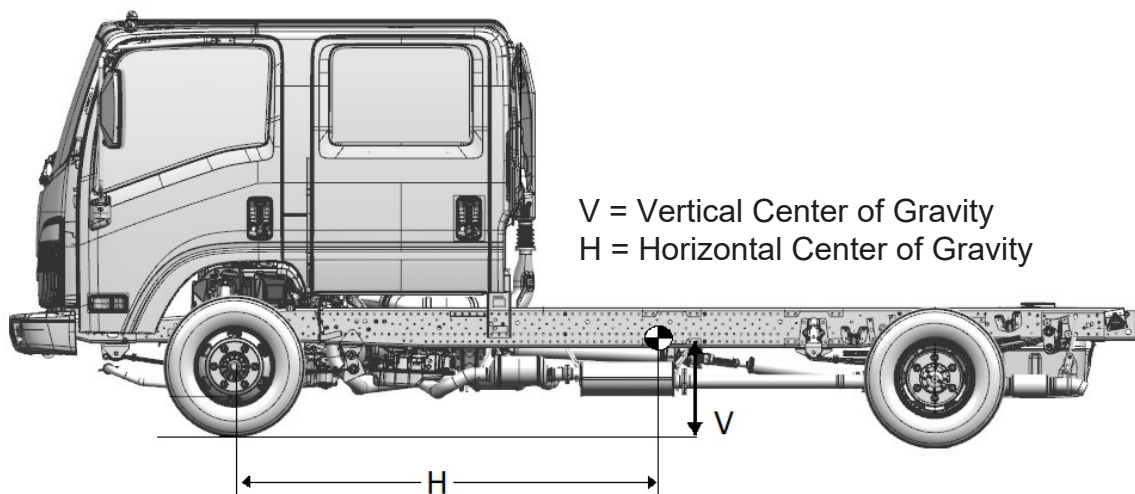


Figure 34

Horizontal and Vertical Center of Gravity of Chassis			
GVWR	Wheelbase (in)	Vertical CG - V (in)	Horizontal CG - H (in)
12,000 lbs.	150	25.9	53.6
	176	28.8	62.4
14,500 lbs.	150	26.9	55.3
	176	26.9	64.3
17,950 lbs.	150	27.9	55.1
	176	28.0	63.2
	200	28.0	65.1
19,500 lbs.	150	28.0	55.7
	176	28.1	63.9
	200	28.1	65.8
	212	27.9	66.0

The maximum vertical center of gravity must not be exceeded at maximum GVWR and rated front and rear GAWR. The center of gravity maximum is 63" (1600mm) above ground. The horizontal center of gravity must be located between the front and rear axles.

NOTE: The Final Manufacturer must ensure that the combined vertical center of gravity of the chassis, body, and available payload at full GVW does not exceed the maximum vertical center of gravity outlined in the Isuzu Incomplete Vehicle Document and the Isuzu Body Builders Guide.

The maximum dimensions for a body installed on the N Series chassis are 102 inches wide (outside^[1]) by 91 inches high (inside). If approval is needed for larger body applications, please contact Isuzu Commercial Trucks of America (ICTA) Application Engineering. On the West Coast call 1-562-310-8599 and on the East Coast call 1-734-582-9284.

[1] With 102 inches wide mirror brackets installed in place of standard mirror brackets

Dimensions in inches

Front Axle Chart

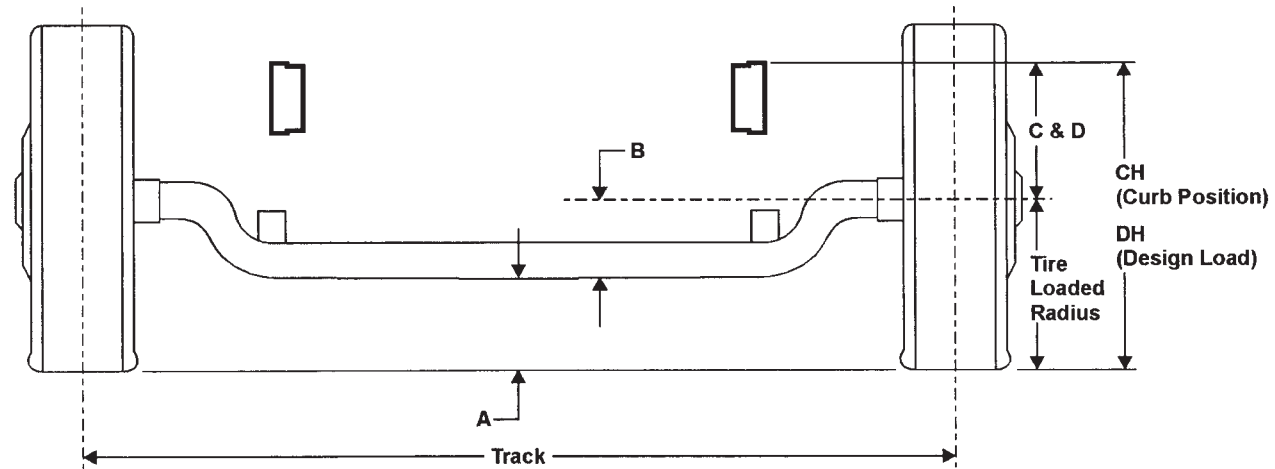


Figure 35

Formulas for calculating height dimensions:

- A = Tire Loaded Radius – B
- C = Centerline of Axle to Top of Frame Rail at Curb Position
- D = Centerline of Axle to Top of Frame Rail at Design Load
- CH = C + Tire Unloaded Radius
- DH = D + Tire Loaded Radius

Tire	GVWR	GAWR	A	B	C	D	CH	DH	Track	Tire Radius	
										Unloaded	Loaded
215/85R 16-E	12,000 lbs.	4,860 lbs.	7.5	6.6	12.9	12.2	27.5	26.3	65.5	14.6	14.1
225/70R 19.5-F	14,500 lbs.	6,630 lbs.	8.3	6.6	13	11.5	29	26.4	65.5	16	14.93
225/70R 19.5G	17,950 lbs.	6,830 lbs.	8.5	6.5	12.6	11.7	27.6	26.7	66.2	16.1	15.0
225/70R 19.5G	19,500 lbs.	7,275 lbs.	8.5	6.5	12.6	11.9	27.6	26.9	66.2	16	14.9

Figure 36

Dimensions in inches

2026 Isuzu Truck

Rear Axle Chart

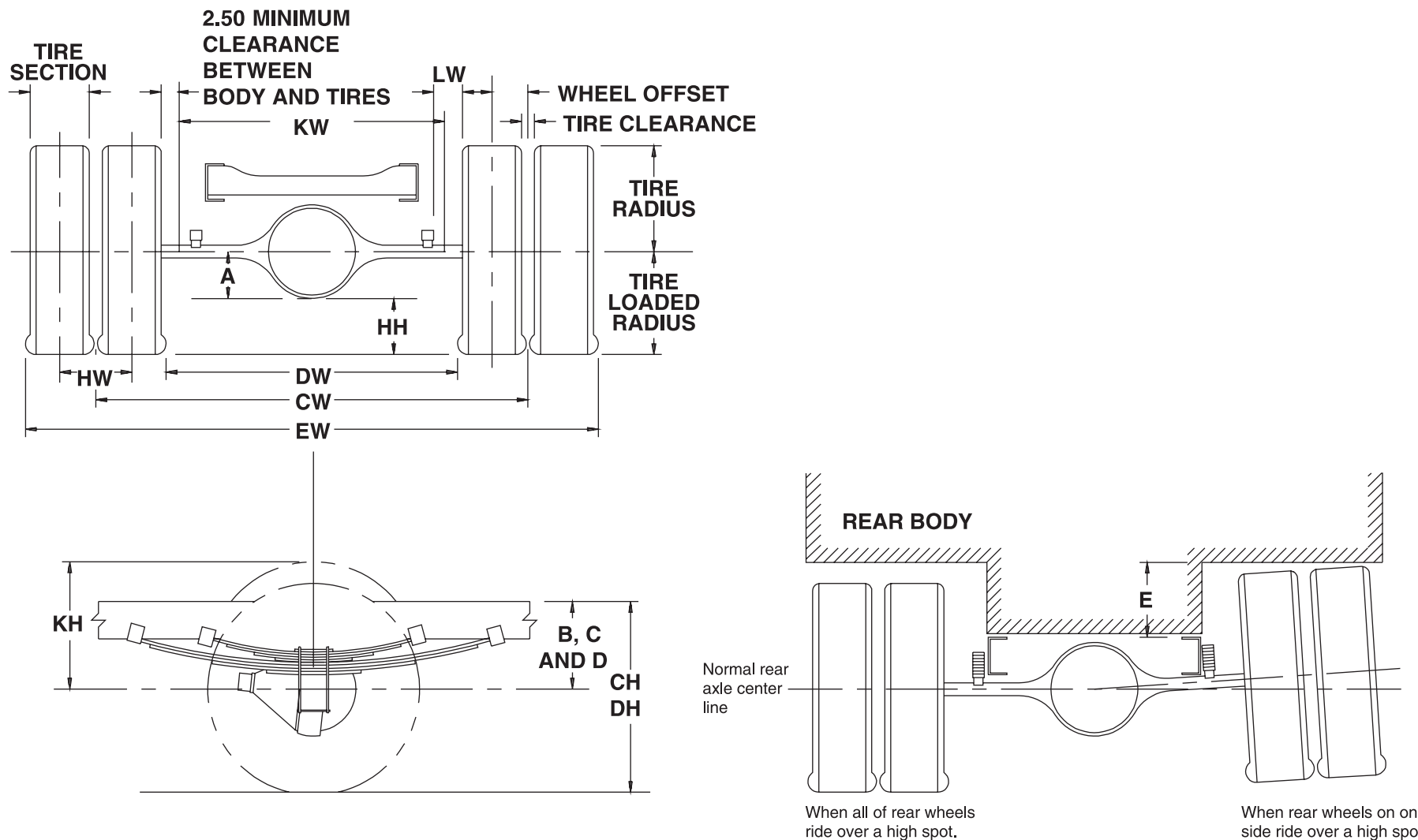


Figure 37

2026 Isuzu Truck

Definitions			
A	Centerline of axle to bottom of axle bowl.	DW	Minimum distance between the inner surfaces of the rear tires.
B	Centerline of axle to top of frame rail at metal-to-metal position.		
C	Centerline of axle to top of frame rail at curb position.	EW	Maximum Rear Width: Overall width of the vehicle measured at the outermost surface of the rear tires.
D	Centerline of axle to top of frame rail at design load.	HH	Rear Tire Clearance: Minimum clearance between the rear axle and the ground-line.
E	Rear Tire Clearance: Minimum clearance required for tires and chain measured from the top of the frame at the vertical centerline of the rear axle, when rear wheels on one side ride over a high spot.	HW	Dual Tire Spacing: Distance between the centerlines of the tires in a set of dual tires.
CH	Rear Frame Height: Vertical distance between the normal top of frame rail and the ground-line through the centerline of the rear axle at curb position.	KH	Tire Bounce Clearance: Minimum distance required for tire bounce as measured from the centerline of the rear axle and the top of the rear tire when one wheel rides over a high spot.
DH	Rear Frame Height: Vertical distance between the normal top of frame rail and the ground-line through the centerline of the rear axle at design load.	CW	Track Dual Rear Wheel Vehicles: Distance between the centerlines of the dual wheels measured at the ground-line.
Tire Section, Tire Radius, Tire Loaded Radius, Tire Clearance		See Tire Chart for Values	

Formulas for Calculating Rear Width and Height Dimensions			
CW	= Track	HH	= Tire loaded radius – A
CH	= Tire loaded radius + C	JH	= KH – B
DH	= Tire loaded radius + D	KH	= Tire radius + 3.00 inches
DW	= Track + 2 tire sections – tire clearance	KW	= DW – 5.00 inches
EW	= Track + 2 tire sections + tire clearance	LW	= 1.00-inch minimum clearance between tires and springs

NOTE: Track and overall width may vary with optional equipment.

Figure 38

Tire	GAWR	Track CW	A	B	C	D	E
215/85R 16-E	8,840 lbs.	65.0	6.5	9.3	15.4	13.0	7.8
225/70R 19.5-F	11,020 lbs.	65.0	7.7	9.3	15.6	13.4	8.4
225/70R 19.5G	13,660 lbs.	65.9	7.6	9.3	15.3	14.1	8.4 [1]
225/70R 19.5G	14,460 lbs.	65.9	7.6	9.3	15.3	13.9	8.4 [1]

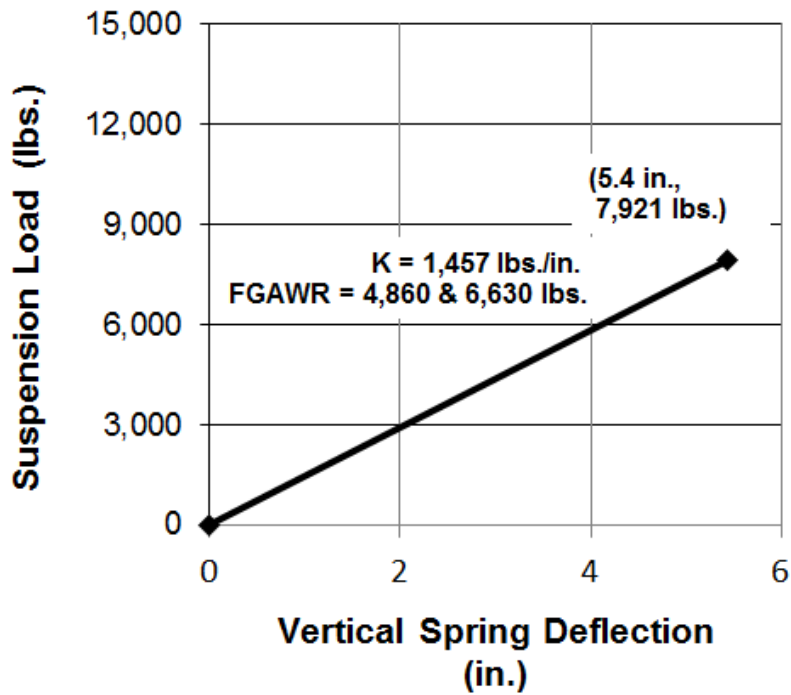
[1] - Previous Model. Update Coming Soon

Figure 39

Dimensions in inches

Suspension Deflection Charts – NPR Gas, NPR-HD Gas

**Front Suspension Load vs. Deflection
(Per Axle)
12,000 & 14,500 lb. GVWR**



**Rear Suspension Load vs. Deflection
(Per Axle)
12,000 & 14,500 lb. GVWR**

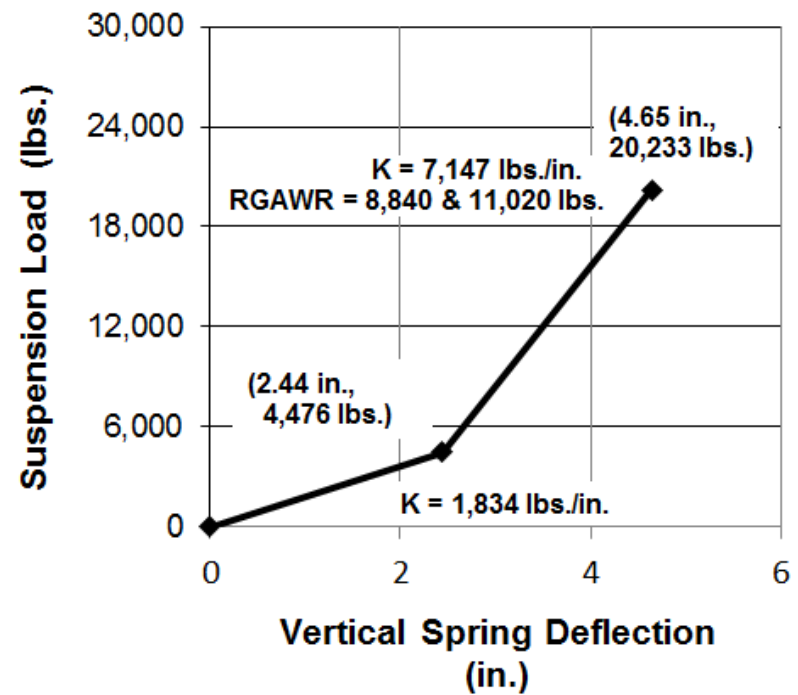


Figure 40

Suspension Deflection Charts – NQR Gas

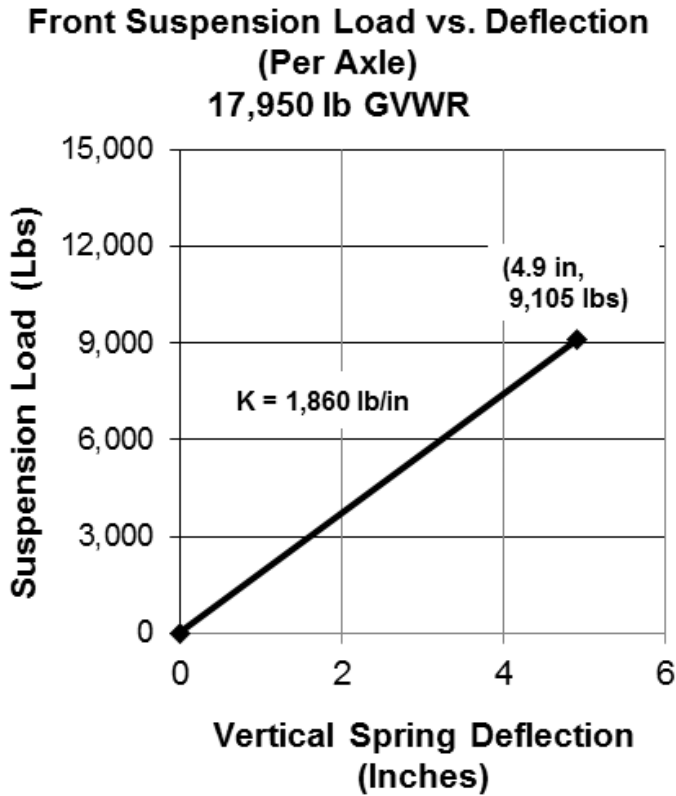


Figure 41

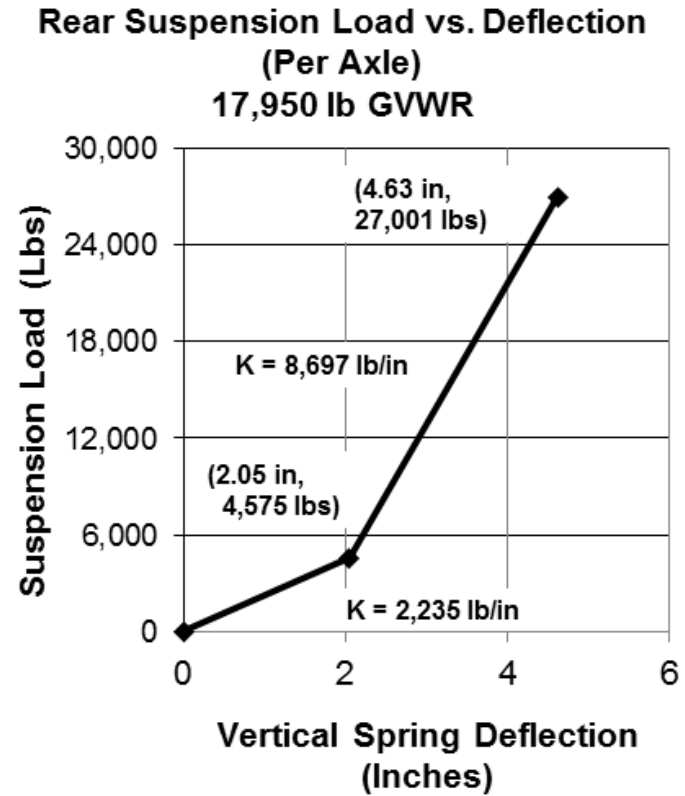


Figure 42

Suspension Deflection Charts – NRR Gas

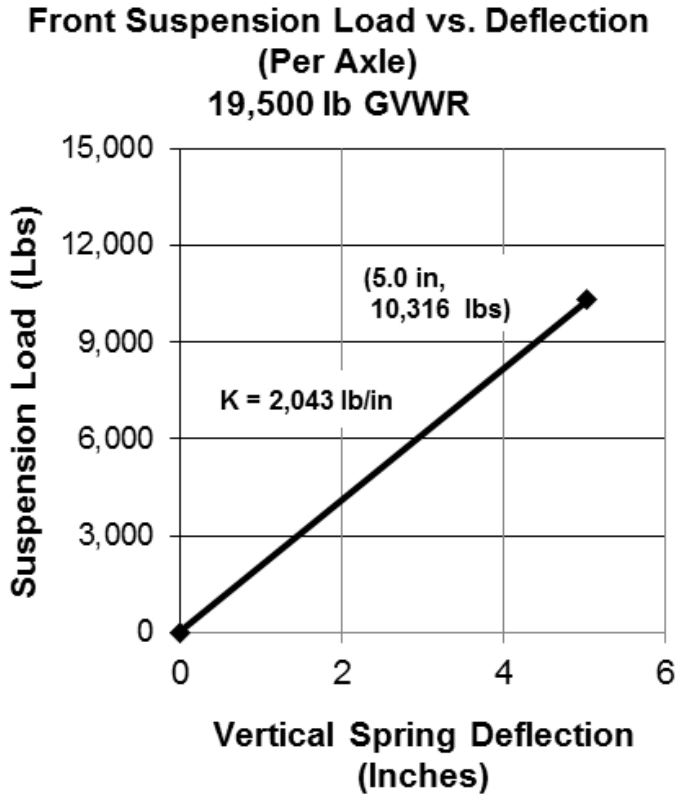


Figure 43

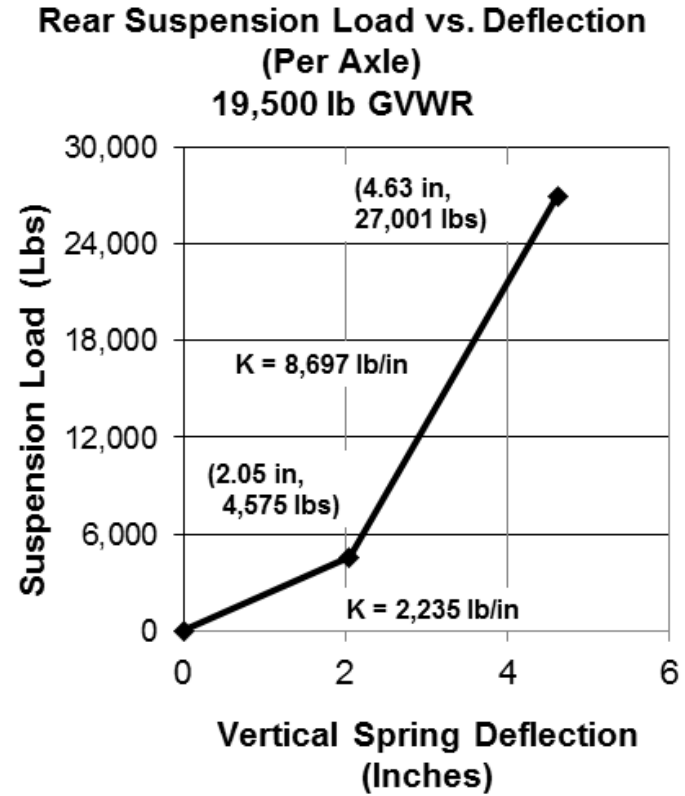


Figure 44

2026 Isuzu Truck

Tire and Disc Wheel Chart

Tire

Model	GVWR (lb.)	Manufacturer Model	Tire Size	Cold Inflation Pressure (psi)	Max Load Per Tire (lb.)		Max Tire Load Limits		Tire Radius (in.)		Loaded Tire Section Width	Tire Clearance (in.)	Design Rim Width (in)
					Single Tire	Dual Tire	Front	Rear	Loaded	Unloaded			
NPR	12,000	Yokohama TY213B	215/85R 16-E	70	2430	2210	4860	8840	14.1	14.6	8.5	1.5	6.0
NPR-HD	14,500	Goodyear G467	225/70R 19.5-G	85	3315	3115	6630	12460	14.9	16	9	1.1	6.0
		Goodyear Fuel Max							15	16.1	9.6	1.1	6.0
NQR	17,950	Yokohama TY213B	225/70R 19.5-G	95	3640	3415	7280	13660	15	16.1	9.6	1.1	6.0
NRR	19,500	Dunlop ENASAVE SP688A		105	3845	3615	7690	14460	14.9	16	9	1	6.0

Disc Wheel

GVWR (lb)	Wheel Size (in)	Bolt Holes	Bolt Circle Diameter (in)	Ft./Rr. Nut Size* (in)	Ft./Rr. Stud Size (in)	Nut Torque Specs.	Inner Circle (in)	Outside Offset (in)	Disc Thickness (in)	Rim Type	Manufacturer Material
12,000	16 X 6 K	6 JIS	8.75	1.61 (41mm) BUD HEX	0.83 (21mm)	325 ft-lb. (440 N-m)	6.46	5.0	0.35	5° DC	Topy Steel
14,500	19.5 X 6 RW	6 JIS	8.75	1.61 (41mm) BUD HEX	0.83 (21mm)	325 ft-lb. (440 N-m)	6.46	5.0	0.37	15° DC	Accuride Steel
17,950	19.5 X 6 RW	6 JIS	8.75	1.61 (41mm) BUD HEX	0.83 (21mm)	325 ft-lb. (440 N-m)	6.46	5.0	0.37	15° DC	Accuride Steel
19,500											

*O.D. Wrench Size

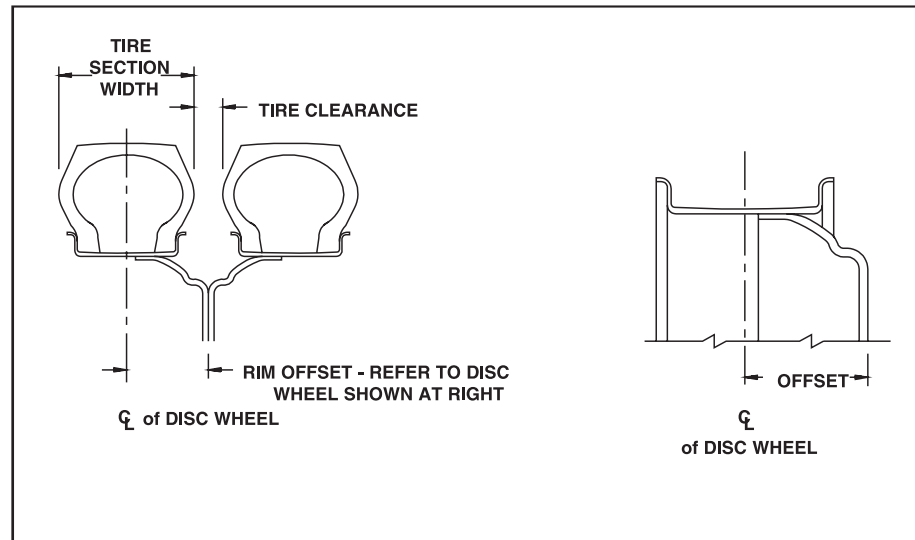
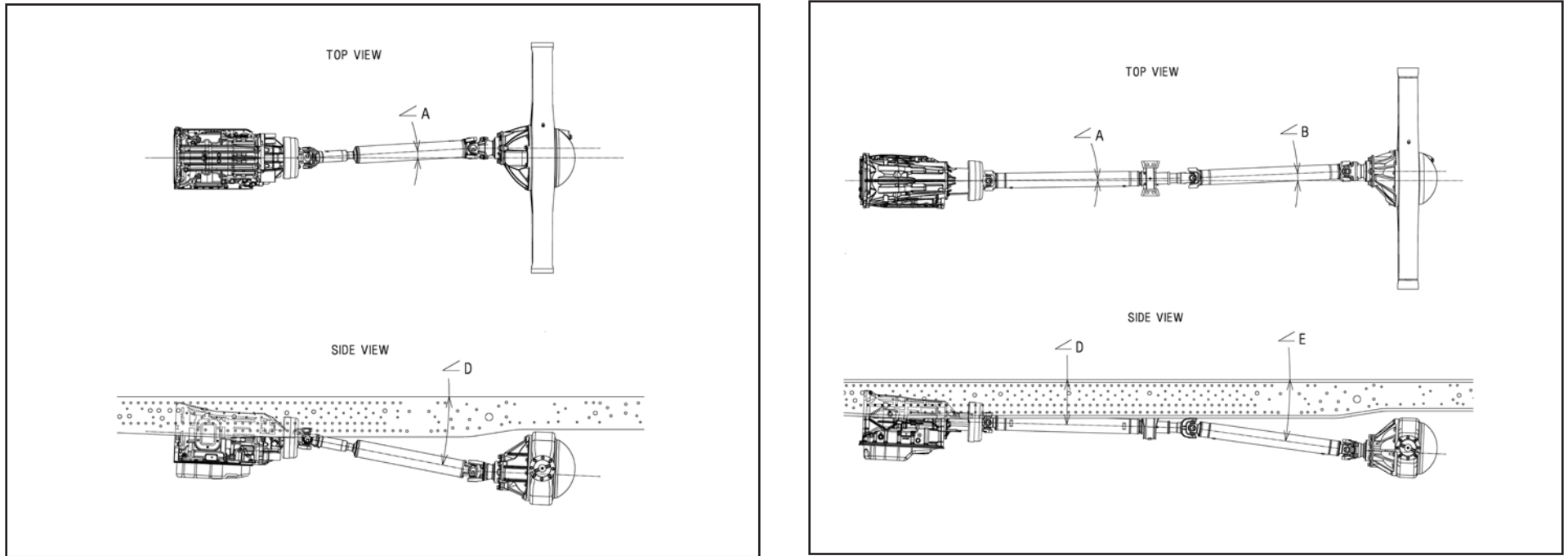


Figure 45

Dimensions in inches

Propeller Shaft - NPR/NPR-HD



Wheelbase (in.)	Top View		Side View			
	∠A	∠B	∠D	∠E	Trans	Rear Axle
109	3.2°	-	9.1°	-	2.5°	2.5°
132.5	1.5°	2.3°	3.0°	7.7°	2.5°	2.5°
150	0.8°	2.5°	1.5°	8.0°	2.5°	2.5°
176	0.6°	1.7°	2.0°	4.5°	2.5°	2.5°

Figure 46

NOTE: 1. Angles provided in table are relative to the frame angle. Please take this into consideration for service measurements.
 2. Driveline angles are based on the chassis curb weight which includes standard equipment, fuel but no driver, body or payload.

2026 Isuzu Truck

Propeller Shaft - NPR/NPR-HD

Wheelbase	109	132.5	150	176
No. of Shafts	1	2	2	2
Trans. Type	A/T	A/T	A/T	A/T
Shaft #1 O.D. (Inches)	3.25			
Thickness (Inches)	0.0906			
L (Inches)	35.51	21.73	35.91	46.54
Type	A	B	B	B
Shaft #2 O.D. (Inches)	3.25			
Thickness (Inches)	0.0906			
L (Inches)	N/A	31.38	34.92	50.08
Type	N/A	C	C	C

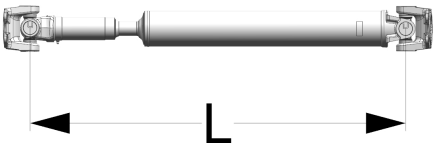
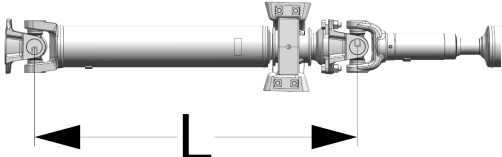
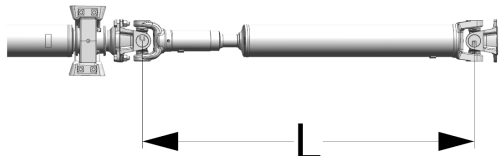
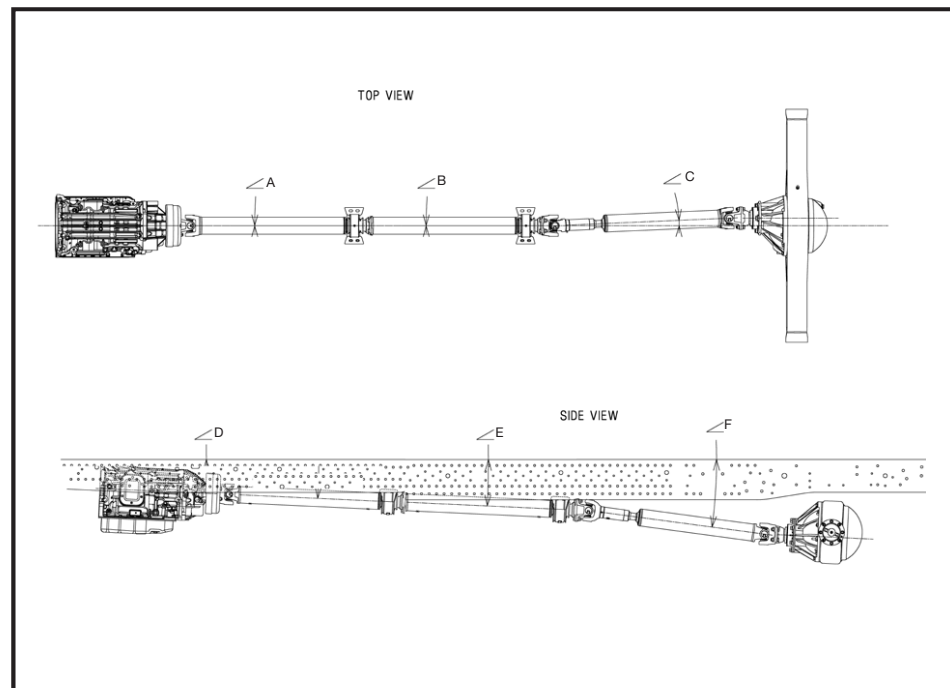
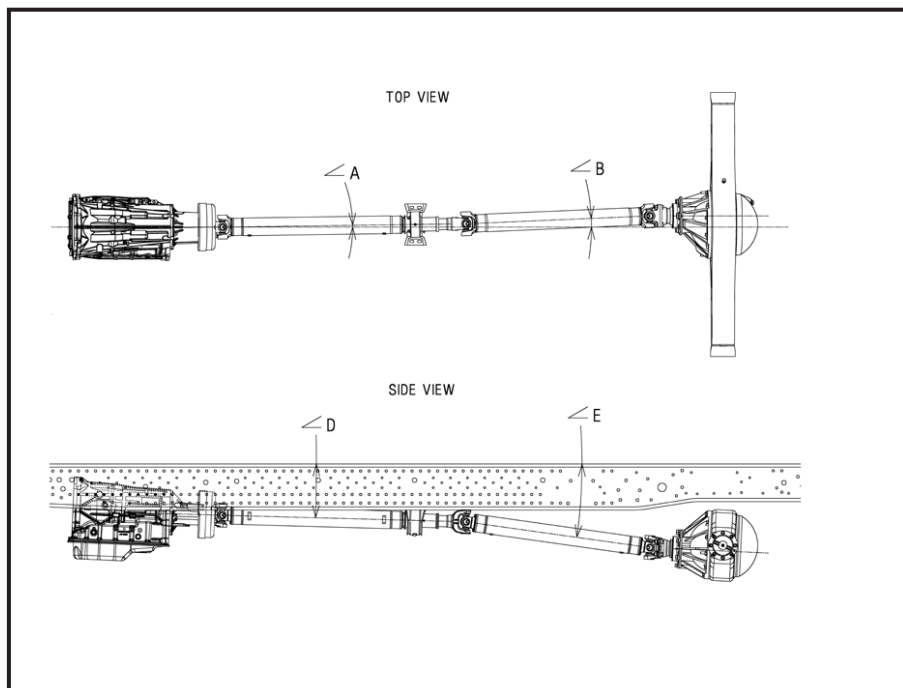
Type	Description	Illustration
Type A	1st shaft in 1-piece driveline	
Type B	1st shaft in 2-piece driveline	
Type C	2nd shaft in 2-piece driveline	

Figure 47

Dimensions in inches

2026 Isuzu Truck

Propeller Shafts - NQR/NRR



Wheelbase (in.)	Top View (degrees)			Side View (degrees)				
	∠A	∠B	∠C	∠D	∠E	∠F	Trans	Rear Axle
132.5	1.5	3.0	-	3.7	7.5	-	2.5	2.5
150	0.8	3.1	-	2.8	6.6	-	2.5	2.5
176	0.6	2.2	-	2.0	4.8	-	2.5	2.5
200	0.5	0.2	2.3	2.9	3.0	3.5	2.5	2.5
212	0.4	0.2	2.2	3.0	1.6	3.8	2.5	2.5

Figure 48

- NOTE:** 1. Angles provided in table are relative to the frame angle. Please take this into consideration for service measurements.
 2. Driveline angles are based on the chassis curb weight which includes standard equipment, fuel but no driver, body or payload.

Propeller Shaft - NQR/NRR

NQR & NRR GAS					
Wheelbase	132.5	150	176	200	212
No. of Shafts	2	2	2	3	3
Shaft #1 O.D.	3.54	3.54	3.54	3.54	3.54
Thickness	0.126	0.126	0.126	0.126	0.126
Length	23.90	41.02	51.85	52.42	52.61
Type	D	D	D	D	D
Shaft #2 O.D.	3.54	3.54	3.54	3.54	3.54
Thickness	0.126	0.126	0.126	0.126	0.126
Length	36.01	36.54	51.60	24.10	36.10
Type	A	A	A	A	A
Shaft #3 O.D.	-	-	-	3.54	3.54
Thickness	-	-	-	0.126	0.126
Length	-	-	-	51.83	51.63
Type	-	-	-	D	D

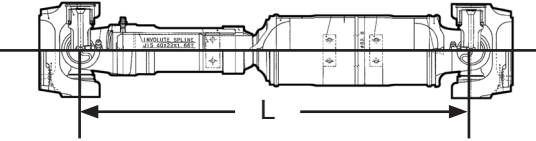
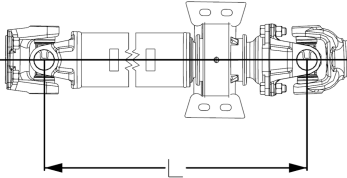
Type	Description	Illustration
Type A	2 nd shaft in 2 piece driveline.	
Type D	1 st shaft in 2 piece driveline.	

Figure 49

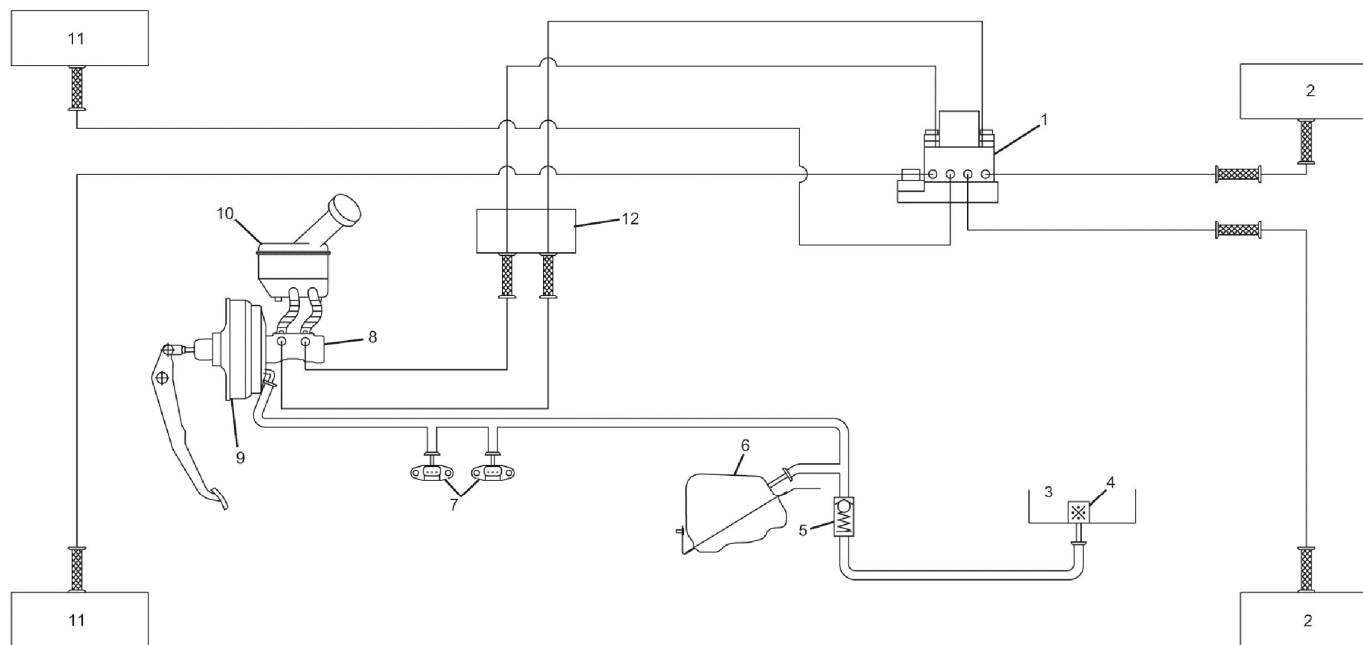
Dimensions in inches

2026 Isuzu Truck

Brake System Diagram - NPR/NPR-HD

Vacuum Over Hydraulic

Please refer to Introduction Section of book for antilock system cautions and wheelbase modification requirements.



Legend

- (1) Electronic Hydraulic Control Unit (EHCU)
- (2) Rear Brake
- (3) Vacuum Pump
- (4) Check Valve
- (5) Check Valve (One-way Valve)
- (6) Vacuum Tank
- (7) Vacuum Sensor
- (8) Vacuum Booster (Servo Unit)
- (9) Master Cylinder
- (10) Brake Fluid Reservoir
- (11) Front Brake
- (12) 4-way Connector




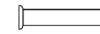

				
BRAKE HOSE HIGH PRESSURE	BRAKE HOSE LOW PRESSURE	BRAKE PIPE	VACUUM LINE	CHECK VALVE (ONE WAY VALVE)

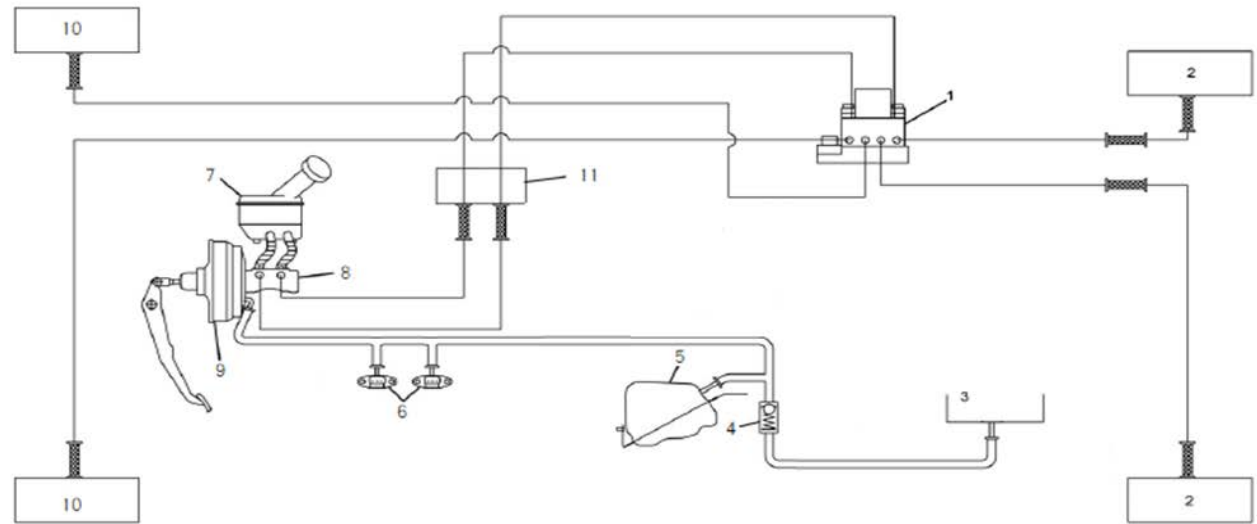
Figure 50

Brake System Diagram - NQR/NRR

Vacuum Plus Power Assist

Please refer to Introduction Section of book for antilock system cautions and wheelbase modification requirements.

Legend	
1	EHCU
2	Rear brake
3	Vacuum pump
4	Check valve
5	Vacuum tank
6	Vacuum sensor
7	Brake fluid tank
8	Master cylinder
9	Vacuum brake booster (servo unit)
10	Front brake
11	4-way connector



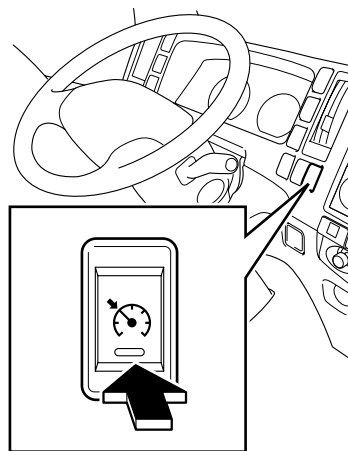
BRAKE HOSE HIGH PRESSURE	BRAKE HOSE LOW PRESSURE	BRAKE PIPE	VACUUM LINE	CHECK VALVE (ONE WAY VALVE)

Figure 51

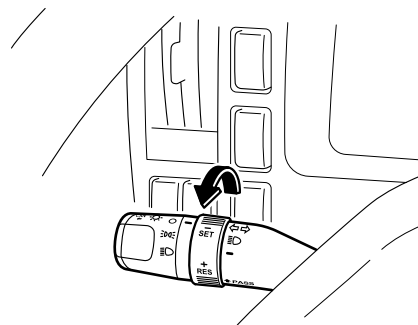
High Idle Mode

Use high idle mode to increase engine idle speed to 1,200 r/min when the vehicle is stationary.

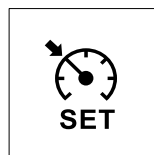
Cruise control main switch



Cruise control set switch



Cruise set indicator light



Activating High Idle Mode

Follow the below procedure to activate the high idle mode.

1. Set the parking brake.
2. Set the selector lever in "P" (Park) or "N" (Neutral) position.
3. Do not depress the brake pedal.
4. Press the cruise control main switch to set it to "ON". At this time, the operation indicating light will turn to green.
5. Turn and hold the cruise control set switch in the "SET" position. After approximately 3 seconds the cruise control set indicator light will begin to flash slowly and the engine idle will increase to 1,200 r/min.

2026 Isuzu Truck

L8T 6.6L FRONT END ACCESSORY DRIVE

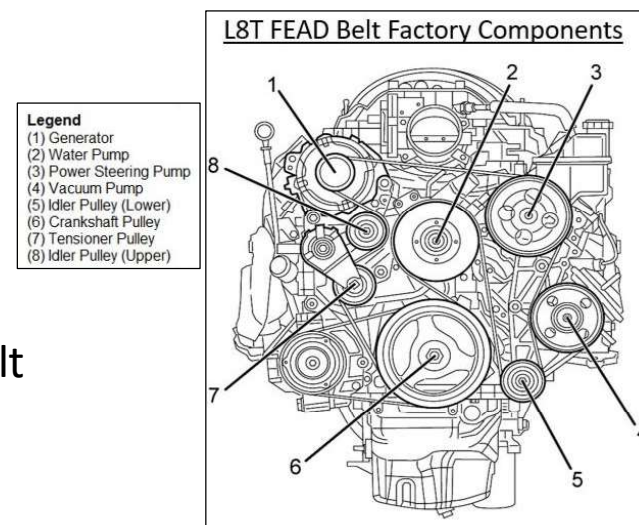
The L8T engine's Front End Accessory Drive (FEAD) can mount a range of equipment:

- Additional compressors for an engine driven refrigeration unit or auxiliary HVAC system.
- Clutch pumps for hydraulically powered equipment.
- Additional alternator for electrical equipment.

FEAD output for GM L8T 6.6L Gasoline Engine

- 13 hp @ 900 rpm
- 17 hp @ 1200 rpm
- 21 hp @ 1500+ rpm

❖ Accompanying aftermarket bracket(s) and a new belt routing design are required for most situations.



2026 Isuzu Truck

Chassis Specifications

Model	NPR-HD
GVWR / GCWR	14,500 lbs./ 20,500 lbs.
WB	109 in., 132.5 in, 150 in., 176 in.
Engine	Isuzu 4-cylinder, in-line 4-cycle, turbocharged, intercooled, direct injection diesel.
Model/Displacement	4HK1-TC/317 CID (5.19 liters)
HP (Gross)	215 HP @ 2500 RPM
Torque (Gross)	452 lb/ft torque @ 1850 RPM
Equipment	Dry element air cleaner with vertical intake; 2 rows 564 sq.in. radiator; 7 blade 20.1 in diameter fan with viscous drive. Cold weather starting device and an oil cooler. Engine oil level check. Engine warning system with audible warning for low oil pressure, high coolant temperature, and low coolant level. Engine cruise control function. Rear engine cover. Engine cruise control. Electronic Stability Control (ESC) with Anti-Slip Regulation(ASR).
Transmission	Aisin A465id 6 speed automatic transmission with fifth and sixth gear overdrive with lock up in 2nd, 3rd, 4th, 5th and 6th. PTO capability with automatic torque converter lockup in stationary PTO mode.
Steering	Integral power steering 18.8-20.9:1 ratio. Tilt and telescoping steering column.
Front Axle	Reverse Elliot "I"-Beam rated at 6,830 lbs.
Front Suspension	Semi-elliptical steel alloy tapered leaf springs with stabilizer bar and shock absorbers.
Front GAWR	5,360 lbs.
Rear Axle	Full-floating single speed with hypoid gearing rated at 11,020 lbs.
Rear Suspension	Semi-elliptical steel alloy multi-leaf springs and shock absorbers.
Rear GAWR	9,880 lbs.
Wheels	16 x 6.0-K 6-hole disc wheels, painted white.
Tires	215/85R-16E (10 pr) LRR (Low Rolling Resistance) tubeless steel belted radials, all season front and rear.
Tire Pressure Monitoring System (TPMS)	Tire pressure sensors are installed onto each wheel to detect changes in tire pressure and tire temperature. TPMS status will be displayed within the instrument panel.
Brakes	Dual circuit vacuum assisted hydraulic service brakes with EBD (Electronic Brake Distribution) system for load proportioning of the brake system front and rear disc brake. The parking brake is a mechanical, cable actuated, internal expanding drum type, transmission mounted. Vehicles equipped with factory optional ADAS will feature an electronically actuated cable that is controlled by a switch in the dash. The exhaust brake is standard and is vacuum operated. 4-channel anti-lock brake system.
Fuel Tank	30-gallon rectangular stainless steel fuel tank. Mounted between the frame rails with electric type fuel pump (mounted in tank). Through the rail fuel fill. Fuel water separator with indicator light on instrument cluster.
Frame	Ladder type channel section straight frame rail 33.5 in wide through the total length of the frame. Yield strength 54,800 psi section modulus 6.65 cubic in, RBM 364,420 lb-in per rail.
Cab	All steel, low cab forward, BBC 65.9 in, 45° mechanical tilt with torsion assist.
Cab Equipment	Gray breathable cloth covered high back driver's seat equipped with an armrest along with two occupant passenger seat. Dual cab mounted exterior mirrors with integral convex mirror. Tilt and telescoping steering column. Power windows and door locks, floor mats, tinted glass and air conditioning. AM/FM Radio with Aux input, USB port and Bluetooth. Rear body dome lamp switch. Cab latch switch with indicator and buzzer. Interior and exterior lights are all LED (excluding the rear taillight assembly). Driver and outboard passenger front supplemental restraint system air bags.
Electrical	12 Volt, negative ground, dual maintenance free batteries, 750 CCA each, 140 Amp alternator with integral regulator.
Options	see page 3 for options

NOTE: These selected specifications are subject to change without notice.

2026 Isuzu Truck

Chassis Specifications

Model	NPR-HD CREW
GVWR / GCWR	14,500 lbs./ 20,500 lbs.
WB	150 in., 176 in.
Engine	Isuzu 4-cylinder, in-line 4-cycle, turbocharged, intercooled, direct injection diesel.
Model/Displacement	4HK1-TC/317 CID (5.19 liters)
HP (Gross)	215 HP @ 2500 RPM
Torque (Gross)	452 lb/ft torque @ 1850 RPM
Equipment	Dry element air cleaner with vertical intake; 2 rows 564 sq.in. radiator; 7 blade 20.1 in diameter fan with viscous drive. Cold weather starting device and an oil cooler. Engine oil level check. Engine warning system with audible warning for low oil pressure, high coolant temperature, and low coolant level. Engine cruise control function. Rear engine cover. Engine cruise control. Electronic Stability Control (ESC) with Anti-Slip Regulation(ASR).
Transmission	Aisin A465id 6 speed automatic transmission with fifth and sixth gear overdrive with lock up in 2nd, 3rd, 4th, 5th and 6th. PTO capability with automatic torque converter lockup in stationary PTO mode.
Steering	Integral power steering 18.8-20.9:1 ratio. Tilt and telescoping steering column.
Front Axle	Reverse Elliot "I"-Beam rated at 6,830 lbs.
Front Suspension	Semi-elliptical steel alloy tapered leaf springs with stabilizer bar and shock absorbers.
Front GAWR	5,360 lbs.
Rear Axle	Full-floating single speed with hypoid gearing rated at 11,020 lbs.
Rear Suspension	Semi-elliptical steel alloy multi-leaf springs and shock absorbers.
Rear GAWR	9,880 lbs.
Wheels	16 x 6.0-K 6-hole disc wheels, painted white.
Tires	215/85R-16E (10 pr) LRR (Low Rolling Resistance) tubeless steel belted radials, all season front and rear.
Tire Pressure Monitoring System (TPMS)	Tire pressure sensors are installed onto each wheel to detect changes in tire pressure and tire temperature. TPMS status will be displayed within the instrument panel.
Brakes	Dual circuit vacuum assisted hydraulic service brakes with EBD (Electronic Brake Distribution) system for load proportioning of the brake system front and rear disc brake. The parking brake is a mechanical, cable actuated, internal expanding drum type, transmission mounted. Vehicles equipped with factory optional ADAS will feature an electronically actuated cable that is controlled by a switch in the dash. The exhaust brake is standard and is vacuum operated. 4-channel anti-lock brake system.
Fuel Tank	30-gallon rectangular stainless steel fuel tank. Mounted between the frame rails with electric type fuel pump (mounted in tank). Through the rail fuel fill. Fuel water separator with indicator light on instrument cluster.
Frame	Ladder type channel section straight frame rail 33.5 in wide through the total length of the frame. Yield strength of 54,800 psi, section modulus 11.87 cubic in, RBM 576,350 lb-in per rail.
Cab	All-steel, low cab forward, BBC 105.2 in., 7-passenger seating.
Cab Equipment	Gray breathable cloth covered high back driver's seat equipped with an armrest along with two occupant passenger seat and four occupant rear bench seat. Dual cab mounted exterior mirrors with integral convex mirror. Tilt and telescoping steering column. Power windows and door locks, floor mats, tinted glass and air conditioning. AM/FM Radio with Aux input, USB port and Bluetooth. Rear body dome lamp switch. Cab latch switch with indicator and buzzer. Interior and exterior lights are all LED (excluding the rear taillight assembly). Driver and outboard passenger front supplemental restraint system air bags.
Electrical	12 Volt, negative ground, dual maintenance free batteries, 750 CCA each, 140 Amp alternator with integral regulator.
Options	see page 3 for options

NOTE: These selected specifications are subject to change without notice.

2026 Isuzu Truck

Chassis Specifications

Model	NPR-XD
GVWR / GCWR	16,000 lbs./ 22,000 lbs.
WB	109 in., 132.5 in, 150 in., 176 in.
Engine	Isuzu 4-cylinder, in-line 4-cycle, turbocharged, intercooled, direct injection diesel.
Model/Displacement	4HK1-TC/317 CID (5.19 liters)
HP (Gross)	215 HP @ 2500 RPM
Torque (Gross)	452 lb/ft torque @ 1850 RPM
Equipment	Dry element air cleaner with vertical intake; 2 rows 564 sq.in. radiator; 7 blade 20.1 in diameter fan with viscous drive. Cold weather starting device and an oil cooler. Engine oil level check. Engine warning system with audible warning for low oil pressure, high coolant temperature, and low coolant level. Engine cruise control function. Rear engine cover. Engine cruise control. Electronic Stability Control (ESC) with Anti-Slip Regulation(ASR).
Transmission	Aisin A465id 6 speed automatic transmission with fifth and sixth gear overdrive with lock up in 2nd, 3rd, 4th, 5th and 6th. PTO capability with automatic torque converter lockup in stationary PTO mode.
Steering	Integral power steering 18.8-20.9:1 ratio. Tilt and telescoping steering column.
Front Axle	Reverse Elliot "I"-Beam rated at 6,830 lbs.
Front Suspension	Semi-elliptical steel alloy tapered leaf springs with stabilizer bar and shock absorbers.
Front GAWR	6,630 lbs.
Rear Axle	Full-floating single speed with hypoid gearing rated at 11,020 lbs.
Rear Suspension	Semi-elliptical steel alloy multi-leaf springs and shock absorbers.
Rear GAWR	11,020 lbs.
Wheels	19.5 X 6.0-K 6-hole disc wheels, painted white
Tires	225/70R-19.5 F (12 pr) LRR (Low Rolling Resistance) tubeless steel belted radials, all season, front and rear.
Tire Pressure Monitoring System (TPMS)	Tire pressure sensors are installed onto each wheel to detect changes in tire pressure and tire temperature. TPMS status will be displayed within the instrument panel.
Brakes	Dual circuit vacuum assisted hydraulic service brakes with EBD (Electronic Brake Distribution) system for load proportioning of the brake system front and rear disc brake. The parking brake is a mechanical, cable actuated, internal expanding drum type, transmission mounted. Vehicles equipped with factory optional ADAS will feature an electronically actuated cable that is controlled by a switch in the dash. The exhaust brake is standard and is vacuum operated. 4-channel anti-lock brake system.
Fuel Tank	30-gallon rectangular stainless steel fuel tank. Mounted between the frame rails with electric type fuel pump (mounted in tank). Through the rail fuel fill. Fuel water separator with indicator light on instrument cluster.
Frame	Ladder type channel section straight frame rail 33.5 in wide through the total length of the frame.Yield strength 54,800 psi section modulus 6.65 cubic in, RBM 364,420 lb-in per rail.
Cab	All steel, low cab forward, BBC 65.9 in, 45° mechanical tilt with torsion assist.
Cab Equipment	Gray breathable cloth covered high back driver's seat equipped with an armrest along with two occupant passenger seat. Dual cab mounted exterior mirrors with integral convex mirror. Tilt and telescoping steering column. Power windows and door locks, floor mats, tinted glass and air conditioning. AM/FM Radio with Aux input, USB port and Bluetooth. Rear body dome lamp switch. Cab latch switch with indicator and buzzer. Interior and exterior lights are all LED (excluding the rear taillight assembly). Driver and outboard passenger front supplemental restraint system air bags.
Electrical	12 Volt, negative ground, dual maintenance free batteries, 750 CCA each, 140 Amp alternator with integral regulator.
Options	see page 3 for options

NOTE: These selected specifications are subject to change without notice.

2026 Isuzu Truck

Chassis Specifications

Model	NPR-XD CREW
GVWR / GCWR	16,000 lbs./ 22,000 lbs.
WB	150 in., 176 in.
Engine	Isuzu 4-cylinder, in-line 4-cycle, turbocharged, intercooled, direct injection diesel.
Model/Displacement	4HK1-TC/317 CID (5.19 liters)
HP (Gross)	215 HP @ 2500 RPM
Torque (Gross)	452 lb/ft torque @ 1850 RPM
Equipment	Dry element air cleaner with vertical intake; 2 rows 564 square in. radiator; 7 blade 20.1 in. diameter fan with viscous drive. Cold weather starting device and an oil cooler. Engine oil level check. Engine warning system with audible warning for low oil pressure, high coolant temperature, and low coolant level. Engine cruise control function. Rear engine cover. Engine cruise control, Electronic Stability Control (ESC) with Anti-Slip Regulation (ASR).
Transmission	Aisin A465id 6 speed automatic transmission with fifth and sixth gear overdrive with lock up in 2nd, 3rd, 4th, 5th and 6th. PTO capability with automatic torque converter lockup in stationary PTO mode.
Steering	Integral power steering 18.8-20.9:1 ratio. Tilt and telescoping steering column.
Front Axle	Reverse Elliot "I"-Beam rated at 6,830 lbs.
Front Suspension	Semi-elliptical steel alloy tapered leaf springs with stabilizer bar and shock absorbers.
Front GAWR	6,630 lbs.
Rear Axle	Full-floating single speed with hypoid gearing rated at 11,020 lbs.
Rear Suspension	Semi-elliptical steel alloy multi-leaf springs and shock absorbers.
Rear GAWR	11,020 lbs.
Wheels	19.5 x 6.0-K 6-hole disc wheels, painted white.
Tires	225/70R-19.5F (12 ply) LRR (Low Rolling Resistance) tubeless steel belted radials, all-season, front and rear.
Tire Pressure Monitoring System (TPMS)	Tire pressure sensors are installed onto each wheel to detect changes in tire pressure and tire temperature. TPMS status will be displayed within the instrument panel.
Brakes	Dual circuit vacuum assisted hydraulic service brakes with EBD (Electronic Brake Distribution) system for load proportioning of the brake system front and rear disc brake. The parking brake is a mechanical, cable actuated, internal expanding drum type, transmission mounted. Vehicles equipped with factory optional ADAS will feature an electronically actuated cable that is controlled by a switch in the dash. The exhaust brake is standard and is vacuum operated. 4-channel anti-lock brake system.
Fuel Tank	30-gallon rectangular stainless steel fuel tank. Mounted between the frame rails with electric type fuel pump (mounted in tank). Through the rail fuel fill. Fuel water separator with indicator light on instrument cluster.
Frame	Ladder type channel section straight frame rail 33.5 in wide through the total length of the frame. Yield strength of 54,800 psi, section modulus 11.87 cubic in, RBM 576,350 lb-in per rail.
Cab	All-steel, low cab forward, BBC 105.2 in., 7-passenger seating.
Cab Equipment	Gray breathable cloth covered high back driver's seat equipped with an armrest along with two occupant passenger seat and four occupant rear bench seat. Dual cab mounted exterior mirrors with integral convex mirror. Tilt and telescoping steering column. Power windows and door locks, floor mats, tinted glass and air conditioning. AM/FM Radio with Aux input, USB port and Bluetooth. Rear body dome lamp switch. Cab latch switch with indicator and buzzer. Interior and exterior lights are all LED (excluding the rear taillight assembly). Driver and outboard passenger front supplemental restraint system air bags.
Electrical	12 Volt, negative ground, dual maintenance free batteries, 750 CCA each, 140 Amp alternator with integral regulator.
Options	see page 3 for options

NOTE: These selected specifications are subject to change without notice.

2026 Isuzu Truck

Chassis Specifications

Model	NRR DERATE
GVWR / GCWR	17,950 lbs./ 23,950 lbs.
WB	109 in., 132.5 in, 150 in., 176 in.. 200 in.
Engine	Isuzu 4-cylinder, in-line 4-cycle, turbocharged, intercooled, direct injection diesel.
Model/Displacement	4HK1-TC/317 CID (5.19 liters)
HP (Gross)	215 HP @ 2500 RPM
Torque (Gross)	452 lb/ft torque @ 1850 RPM
Equipment	Dry element air cleaner with vertical intake; 2 rows 564 square in. radiator; 7 blade 20.1 in. diameter fan with viscous drive. Cold weather starting device and an oil cooler. Engine oil level check. Engine warning system with audible warning for low oil pressure, high coolant temperature, and low coolant level. Engine cruise control function. Rear engine cover. Engine cruise control, Electronic Stability Control (ESC) with Anti-Slip Regulation (ASR).
Transmission	Aisin A465id 6 speed automatic transmission with fifth and sixth gear overdrive with lock up in 2nd, 3rd, 4th, 5th and 6th. PTO capability with automatic torque converter lockup in stationary PTO mode.
Steering	Integral power steering 18.8-20.9:1 ratio. Tilt and telescoping steering column.
Front Axle	Reverse Elliot "I"-Beam rated at 7,275 lbs.
Front Suspension	Semi-elliptical steel alloy tapered leaf springs with stabilizer bar and shock absorbers.
Front GAWR	6,830 lbs.
Rear Axle	Full floating single speed with hypoid gearing rated at 14,550 lbs.
Rear Suspension	Semi-elliptical steel alloy multi-leaf springs and shock absorbers.
Rear GAWR	12,980 lbs.
Wheels	19.5 X 6.0-K 6-hole disc wheels, painted white
Tires	225/70R-19.5F (12 pr) LRR (Low Rolling Resistance) tubeless steel belted radials, all season, front and rear.
Tire Pressure Monitoring System (TPMS)	Tire pressure sensors are installed onto each wheel to detect changes in tire pressure and tire temperature. TPMS status will be displayed within the instrument panel.
Brakes	Dual circuit vacuum assisted hydraulic service brakes with EBD (Electronic Brake Distribution) system for load proportioning of the brake system front and rear disc brake. The parking brake is a mechanical, cable actuated, internal expanding drum type, transmission mounted. Vehicles equipped with factory optional ADAS will feature an electronically actuated cable that is controlled by a switch in the dash. The exhaust brake is standard and is vacuum operated. 4-channel anti-lock brake system.
Fuel Tank	30-gallon rectangular stainless steel fuel tank. Mounted between the frame rails with electric type fuel pump (mounted in tank). Through the rail fuel fill. Fuel water separator with indicator light on instrument cluster.
Frame	Ladder type channel section straight frame rail 33.5 in wide through the total length of the frame. Yield strength 54,800 psi section modulus 6.65 cubic in, RBM 364,420 lb-in per rail.
Cab	All steel, low cab forward, BBC 65.9 in, 45° mechanical tilt with torsion assist.
Cab Equipment	Gray breathable cloth covered high back driver's seat equipped with an armrest along with two occupant passenger seat. Dual cab mounted exterior mirrors with integral convex mirror. Tilt and telescoping steering column. Power windows and door locks, floor mats, tinted glass and air conditioning. AM/FM Radio with Aux input, USB port and Bluetooth. Rear body dome lamp switch. Cab latch switch with indicator and buzzer. Interior and exterior lights are all LED (excluding the rear taillight assembly). Driver and outboard passenger front supplemental restraint system air bags.
Electrical	12 Volt, negative ground, dual maintenance free batteries, 750 CCA each, 140 Amp alternator with integral regulator.
Options	see page 3 for options

NOTE: These selected specifications are subject to change without notice.

2026 Isuzu Truck

Chassis Specifications

Model	NRR DERATE CREW
GVWR / GCWR	17,950 lbs./ 23,950 lbs.
WB	150 in., 176 in.
Engine	Isuzu 4-cylinder, in-line 4-cycle, turbocharged, intercooled, direct injection diesel.
Model/Displacement	4HK1-TC/317 CID (5.19 liters)
HP (Gross)	215 HP @ 2500 RPM
Torque (Gross)	452 lb/ft torque @ 1850 RPM
Equipment	Dry element air cleaner with vertical intake; 2 rows 564 square in. radiator; 7 blade 20.1 in. diameter fan with viscous drive. Cold weather starting device and an oil cooler. Engine oil level check. Engine warning system with audible warning for low oil pressure, high coolant temperature, and low coolant level. Engine cruise control function. Rear engine cover. Engine cruise control, Electronic Stability Control (ESC) with Anti-Slip Regulation (ASR).
Transmission	Aisin A465id 6 speed automatic transmission with fifth and sixth gear overdrive with lock up in 2nd, 3rd, 4th, 5th and 6th. PTO capability with automatic torque converter lockup in stationary PTO mode.
Steering	Integral power steering 18.8-20.9:1 ratio. Tilt and telescoping steering column.
Front Axle	Reverse Elliot "I"-Beam rated at 7,275 lbs.
Front Suspension	Semi-elliptical steel alloy tapered leaf springs with stabilizer bar and shock absorbers.
Front GAWR	6,830 lbs.
Rear Axle	Full-floating single speed with hypoid gearing rated at 14,550 lbs.
Rear Suspension	Semi-elliptical steel alloy multi-leaf springs and shock absorbers.
Rear GAWR	12,980 lbs.
Wheels	19.5 x 6.0-K 6-hole disc wheels, painted white.
Tires	225/70R-19.5F (12 ply) LRR (Low Rolling Resistance) tubeless steel belted radials, all-season, front and rear.
Tire Pressure Monitoring System (TPMS)	Tire pressure sensors are installed onto each wheel to detect changes in tire pressure and tire temperature. TPMS status will be displayed within the instrument panel.
Brakes	Dual circuit vacuum assisted hydraulic service brakes with EBD (Electronic Brake Distribution) system for load proportioning of the brake system front and rear disc brake. The parking brake is a mechanical, cable actuated, internal expanding drum type, transmission mounted. Vehicles equipped with factory optional ADAS will feature an electronically actuated cable that is controlled by a switch in the dash. The exhaust brake is standard and is vacuum operated. 4-channel anti-lock brake system.
Fuel Tank	30-gallon rectangular stainless steel fuel tank. Mounted between the frame rails with electric type fuel pump (mounted in tank). Through the rail fuel fill. Fuel water separator with indicator light on instrument cluster.
Frame	Ladder type channel section straight frame rail 33.5 in wide through the total length of the frame. Yield strength of 54,800 psi, section modulus 11.87 cubic in, RBM 576,350 lb-in per rail.
Cab	All-steel, low cab forward, BBC 105.2 in., 7-passenger seating.
Cab Equipment	Gray breathable cloth covered high back driver's seat equipped with an armrest along with two occupant passenger seat and four occupant rear bench seat. Dual cab mounted exterior mirrors with integral convex mirror. Tilt and telescoping steering column. Power windows and door locks, floor mats, tinted glass and air conditioning. AM/FM Radio with Aux input, USB port and Bluetooth. Rear body dome lamp switch. Cab latch switch with indicator and buzzer. Interior and exterior lights are all LED (excluding the rear taillight assembly). Driver and outboard passenger front supplemental restraint system air bags.
Electrical	12 Volt, negative ground, dual maintenance free batteries, 750 CCA each, 140 Amp alternator with integral regulator.
Options	see page 3 for options

NOTE: These selected specifications are subject to change without notice.

2026 Isuzu Truck

Chassis Specifications

Model	NRR
GVWR / GCWR	19,500 lbs./ 25,500 lbs.
WB	109 in., 132.5 in, 150 in., 176 in.. 200 in., 212 in.
Engine	Isuzu 4-cylinder, in-line 4-cycle, turbocharged, intercooled, direct injection diesel.
Model/Displacement	4HK1-TC/317 CID (5.19 liters)
HP (Gross)	215 HP @ 2500 RPM
Torque (Gross)	452 lb/ft torque @ 1850 RPM
Equipment	Dry element air cleaner with vertical intake; 2 rows 564 square in. radiator; 7 blade 20.1 in. diameter fan with viscous drive. Cold weather starting device and an oil cooler. Engine oil level check. Engine warning system with audible warning for low oil pressure, high coolant temperature, and low coolant level. Engine cruise control function. Rear engine cover. Engine cruise control, Electronic Stability Control (ESC) with Anti-Slip Regulation (ASR).
Transmission	Aisin A465id 6 speed automatic transmission with fifth and sixth gear overdrive with lock up in 2nd, 3rd, 4th, 5th and 6th. PTO capability with automatic torque converter lockup in stationary PTO mode.
Steering	Integral power steering 18.8-20.9:1 ratio. Tilt and telescoping steering column.
Front Axle	Reverse Elliot "I"-Beam rated at 7,275 lbs.
Front Suspension	Semi-elliptical steel alloy tapered leaf springs with stabilizer bar and shock absorbers.
Front GAWR	7,275 lbs.
Rear Axle	Full floating single speed with hypoid gearing rated at 14,550 lbs.
Rear Suspension	Semi-elliptical steel alloy multi-leaf springs and shock absorbers.
Rear GAWR	13,660 lbs.
Wheels	19.5 X 6.0-K 6-hole disc wheels, painted white
Tires	225/70R-19.5F (12 pr) LRR (Low Rolling Resistance) tubeless steel belted radials, all season, front and rear.
Tire Pressure Monitoring System (TPMS)	Tire pressure sensors are installed onto each wheel to detect changes in tire pressure and tire temperature. TPMS status will be displayed within the instrument panel.
Brakes	Dual circuit vacuum assisted hydraulic service brakes with EBD (Electronic Brake Distribution) system for load proportioning of the brake system front and rear disc brake. The parking brake is a mechanical, cable actuated, internal expanding drum type, transmission mounted. Vehicles equipped with factory optional ADAS will feature an electronically actuated cable that is controlled by a switch in the dash. The exhaust brake is standard and is vacuum operated. 4-channel anti-lock brake system.
Fuel Tank	30-gallon rectangular stainless steel fuel tank. Mounted between the frame rails with electric type fuel pump (mounted in tank). Through the rail fuel fill. Fuel water separator with indicator light on instrument cluster.
Frame	Ladder type channel section straight frame rail 33.5 in wide through the total length of the frame. Yield strength 54,800 psi section modulus 6.65 cubic in, RBM 364,420 lb-in per rail.
Cab	All steel, low cab forward, BBC 65.9 in, 45° mechanical tilt with torsion assist.
Cab Equipment	Gray breathable cloth covered high back driver's seat equipped with an armrest along with two occupant passenger seat. Dual cab mounted exterior mirrors with integral convex mirror. Tilt and telescoping steering column. Power windows and door locks, floor mats, tinted glass and air conditioning. AM/FM Radio with Aux input, USB port and Bluetooth. Rear body dome lamp switch. Cab latch switch with indicator and buzzer. Interior and exterior lights are all LED (excluding the rear taillight assembly). Driver and outboard passenger front supplemental restraint system air bags.
Electrical	12 Volt, negative ground, dual maintenance free batteries, 750 CCA each, 140 Amp alternator with integral regulator.
Options	see page 3 for options

NOTE: These selected specifications are subject to change without notice.

2026 Isuzu Truck

Chassis Specifications

Model	NRR CREW
GVWR / GCWR	19,500 lbs./ 25,500 lbs.
WB	150 in., 176 in.
Engine	Isuzu 4-cylinder, in-line 4-cycle, turbocharged, intercooled, direct injection diesel.
Model/Displacement	4HK1-TC/317 CID (5.19 liters)
HP (Gross)	215 HP @ 2500 RPM
Torque (Gross)	452 lb/ft torque @ 1850 RPM
Equipment	Dry element air cleaner with vertical intake; 2 rows 564 square in. radiator; 7 blade 20.1 in. diameter fan with viscous drive. Cold weather starting device and an oil cooler. Engine oil level check. Engine warning system with audible warning for low oil pressure, high coolant temperature, and low coolant level. Engine cruise control function. Rear engine cover. Engine cruise control, Electronic Stability Control (ESC) with Anti-Slip Regulation (ASR).
Transmission	Aisin A465id 6 speed automatic transmission with fifth and sixth gear overdrive with lock up in 2nd, 3rd, 4th, 5th and 6th. PTO capability with automatic torque converter lockup in stationary PTO mode.
Steering	Integral power steering 18.8-20.9:1 ratio. Tilt and telescoping steering column.
Front Axle	Reverse Elliot "I"-Beam rated at 7,275 lbs.
Front Suspension	Semi-elliptical steel alloy tapered leaf springs with stabilizer bar and shock absorbers.
Front GAWR	7,275 lbs.
Rear Axle	Full-floating single speed with hypoid gearing rated at 14,550 lbs.
Rear Suspension	Semi-elliptical steel alloy multi-leaf springs and shock absorbers.
Rear GAWR	13,660 lbs.
Wheels	19.5 x 6.0-K 6-hole disc wheels, painted white.
Tires	225/70R-19.5F (12 ply) LRR (Low Rolling Resistance) tubeless steel belted radials, all-season, front and rear.
Tire Pressure Monitoring System (TPMS)	Tire pressure sensors are installed onto each wheel to detect changes in tire pressure and tire temperature. TPMS status will be displayed within the instrument panel.
Brakes	Dual circuit vacuum assisted hydraulic service brakes with EBD (Electronic Brake Distribution) system for load proportioning of the brake system front and rear disc brake. The parking brake is a mechanical, cable actuated, internal expanding drum type, transmission mounted. Vehicles equipped with factory optional ADAS will feature an electronically actuated cable that is controlled by a switch in the dash. The exhaust brake is standard and is vacuum operated. 4-channel anti-lock brake system.
Fuel Tank	30-gallon rectangular stainless steel fuel tank. Mounted between the frame rails with electric type fuel pump (mounted in tank). Through the rail fuel fill. Fuel water separator with indicator light on instrument cluster.
Frame	Ladder type channel section straight frame rail 33.5 in wide through the total length of the frame. Yield strength of 54,800 psi, section modulus 11.87 cubic in, RBM 576,350 lb-in per rail.
Cab	All-steel, low cab forward, BBC 105.2 in., 7-passenger seating.
Cab Equipment	Gray breathable cloth covered high back driver's seat equipped with an armrest along with two occupant passenger seat and four occupant rear bench seat. Dual cab mounted exterior mirrors with integral convex mirror. Tilt and telescoping steering column. Power windows and door locks, floor mats, tinted glass and air conditioning. AM/FM Radio with Aux input, USB port and Bluetooth. Rear body dome lamp switch. Cab latch switch with indicator and buzzer. Interior and exterior lights are all LED (excluding the rear taillight assembly). Driver and outboard passenger front supplemental restraint system air bags.
Electrical	12 Volt, negative ground, dual maintenance free batteries, 750 CCA each, 140 Amp alternator with integral regulator.
Options	see page 3 for options

NOTE: These selected specifications are subject to change without notice.

2026 Isuzu Truck

Vehicle Weights, Dimensions, and Ratings

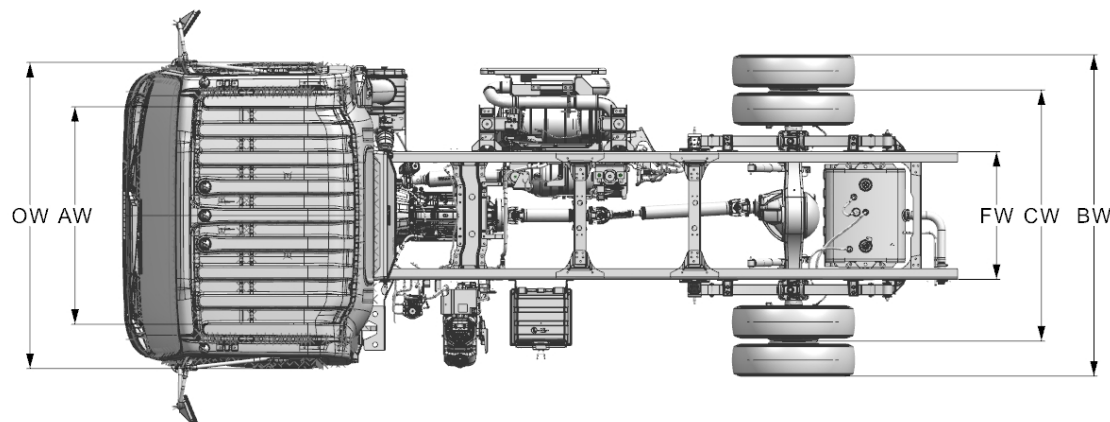


Figure 1

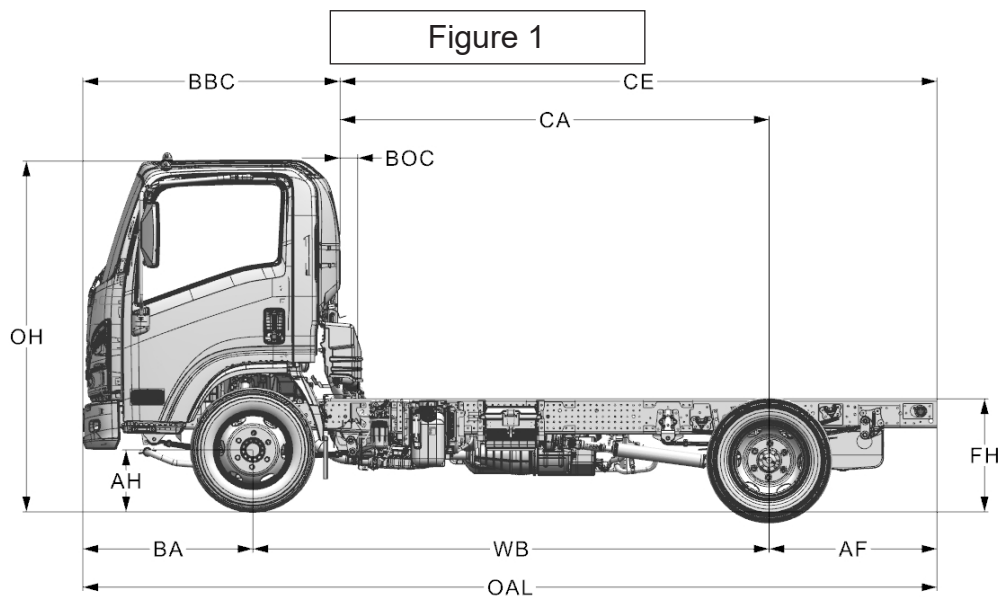


Figure 2

Dimension Constants:

Code	Inches	Code	Inches
AH	7.5	BW	83.3
AW	65.6	CW	65
BA	43.5	FW	33.5
BBC	65.9	OH (16" Tire)	91.3
BOC	7.7	OH (19.5" Tire)	92.9
FH (16" Tire)	31.6	OW	81.3
FH (19.5" Tire)	33.5		

Variable Chassis Dimensions:

Unit	WB	CA*	CE*	OAL	AF
inch	109.0	86.5	129.6	195.7	43.1
inch	132.5	110.0	153.1	219.2	43.1
inch	150.0	127.5	170.6	236.7	43.1
inch	176.0	153.5	196.6	262.7	43.1
inch	200.0 ^[1]	177.5	220.6	286.7	43.1
inch	212.0 ^[2]	189.5	232.6	298.7	43.1

* Effective CA & CE are CA/CE less BOC.

Vertical Exhaust Option Dimensions

Variable Chassis Dimensions:

Unit	WB	EFF CA*	EFF CE*	OAL	AF
inch	109.0	62.5	105.6	195.7	43.1
inch	132.5	86.0	153.1	219.2	43.1
inch	150.0	103.5	146.6	236.7	43.1
inch	176.0	129.5	172.6	262.7	43.1
inch	200.0 ^[1]	153.5	196.6	286.7	43.1
inch	212.0 ^[2]	165.5	208.6	298.7	43.1

* Effective CA & CE are CA/CE less BOC. BOC = 24 in. for Vertical Exhaust equipped chassis

Note:

[1] - Only available on NRR DERATE & NRR

[2] - Only available on the NRR

2026 Isuzu Truck

Vehicle Weights, Dimensions, and Ratings - Standard Cab

NPR-HD:

In-Frame Tank Weights and Payload by Model:

Model	WB	Unit	Front	Rear	Total	Payload
3F154	109.0	lbs.	3986	2044	6030	8470
3F124	109.0	lbs.	3996	2044	6040	8460
3F254	132.5	lbs.	4070	2030	6100	8400
3F224	132.5	lbs.	4080	2030	6110	8390
3F354	150.0	lbs.	4136	1997	6133	8367
3F324	150.0	lbs.	4146	1997	6143	8357
3F454	176.0	lbs.	4209	1964	6173	8327
3F424	176.0	lbs.	4219	1964	6183	8317

NRR DERATE*:

In-Frame Tank Weights and Payload by Model:

Standard 17,950 GVWR Chassis Weights and Payload by Model

Model	WB	Unit	Front	Rear	Total	Payload
3U154	109.0	lbs.	4171	2359	6530	11420
3U124	109.0	lbs.	4181	2359	6540	11410
3U254	132.5	lbs.	4257	2355	6612	11338
3U224	132.5	lbs.	4267	2355	6622	11328
3U354	150.0	lbs.	4325	2307	6632	11318
3U324	150.0	lbs.	4335	2307	6642	11308
3U454	176.0	lbs.	4398	2281	6679	11271
3U424	176.0	lbs.	4408	2281	6689	11261
3U554	200.0	lbs.	4523	2458	6981	10969
3U524	200.0	lbs.	4533	2458	6991	10959

*Note: NRR Derate available through PIO ordering

NPR-XD:

In-Frame Tank Weights and Payload by Model:

Model	WB	Unit	Front	Rear	Total	Payload
3Y154	109.0	lbs.	4162	2262	6424	9576
3Y124	109.0	lbs.	4172	2262	6434	9566
3Y254	132.5	lbs.	4246	2251	6497	9503
3Y224	132.5	lbs.	4256	2251	6507	9493
3Y354	150.0	lbs.	4325	2203	6528	9472
3Y324	150.0	lbs.	4335	2203	6538	9462
3Y454	176.0	lbs.	4395	2175	6570	9430
3Y424	176.0	lbs.	4405	2175	6580	9420

NRR:

In-Frame Tank Weights and Payload by Model:

Standard 19,500 GVWR Chassis Weights and Payload by Model

Model	WB	Unit	Front	Rear	Total	Payload
3U154	109.0	lbs.	4171	2359	6530	12970
3U124	109.0	lbs.	4181	2359	6540	12960
3U254	132.5	lbs.	4257	2355	6612	12888
3U224	132.5	lbs.	4267	2355	6622	12878
3U354	150.0	lbs.	4325	2307	6632	12868
3U324	150.0	lbs.	4335	2307	6642	12858
3U454	176.0	lbs.	4398	2281	6679	12821
3U424	176.0	lbs.	4408	2281	6689	12811
3U554	200.0	lbs.	4523	2458	6981	12519
3U524	200.0	lbs.	4533	2458	6991	12509
3U654	212.0	lbs.	4543	2484	7027	12473
3U624	212.0	lbs.	4553	2484	7037	12463

Technical Notes:

Chassis Curb Weight reflects standard equipment and fuel but no driver or payload.

Maximum Payload Weight is the allowed maximum for equipment, body, payload and driver and is calculated by subtracting chassis curb weight from the GVWR.

2026 Isuzu Truck

Vehicle Weights, Dimensions, and Ratings

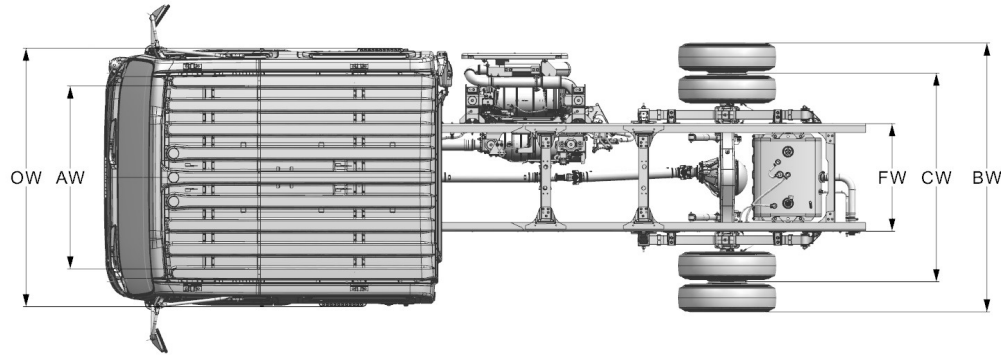


Figure 3

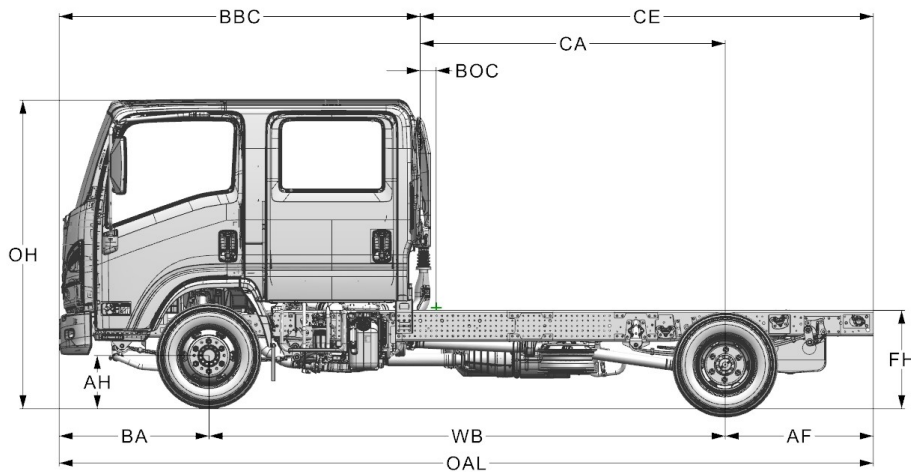


Figure 4

Dimension Constants:

Code	Inches	Code	Inches
AH	7.5	BW	83.3
AW	65.6	CW	65
BA	43.7	FW	33.5
BBC	105.2	OH (16" Tire)	90.5
BOC	5.3	OH (19.5" Tire)	92.4
FH (16" Tire)	31.6	OW	81.3
FH (19.5" Tire)	33.5		

Variable Chassis Dimensions:

Unit	WB	CA*	CE*	OAL	AF
inch	150.0	88.5	131.6	236.7	43.1
inch	176.0	114.5	157.6	262.7	43.1

* Effective CA & CE are CA/CE less BOC

2026 Isuzu Truck

Vehicle Weights, Dimensions, and Ratings - Crew Cab

NPR-HD:

In-Frame Tank Weights and Payload by Model:

Model	WB	Unit	Front	Rear	Total	Payload
3G354	150.0	lbs.	4506	2218	6724	7776
3G324	150.0	lbs.	4516	2218	6734	7766
3G454	176.0	lbs.	4610	2165	6775	7725
3G424	176.0	lbs.	4620	2165	6785	7715

NRR DERATE*:

In-Frame Tank Weights and Payload by Model:

Model	WB	Unit	Front	Rear	Total	Payload
3V354	150.0	lbs.	4696	2544	7240	10710
3V324	150.0	lbs.	4706	2544	7250	10700
3V454	176.0	lbs.	4810	2481	7291	10659
3V424	176.0	lbs.	4820	2481	7301	10649

*Note: NRR Derate available through PIO ordering

NPR-XD:

In-Frame Tank Weights and Payload by Model:

Model	WB	Unit	Front	Rear	Total	Payload
3Z354	150.0	lbs.	4683	2438	7121	8879
3Z324	150.0	lbs.	4693	2438	7131	8869
3Z454	176.0	lbs.	4795	2374	7169	8831
3Z424	176.0	lbs.	4805	2374	7179	8821

NRR:

In-Frame Tank Weights and Payload by Model:

Model	WB	Unit	Front	Rear	Total	Payload
3V354	150.0	lbs.	4696	2544	7240	12260
3V324	150.0	lbs.	4706	2544	7250	12250
3V454	176.0	lbs.	4810	2481	7291	12209
3V424	176.0	lbs.	4820	2481	7301	12199

Technical Notes:

Chassis Curb Weight reflects standard equipment and fuel but no driver or payload.
 Maximum Payload Weight is the allowed maximum for equipment, body, payload and driver and is calculated by subtracting chassis curb weight from the GVWR.

2026 Isuzu Truck

Vehicle Weight Limits and Option Weights

VEHICLE WEIGHT RATINGS				
Description	NPR-HD Capacity (lb.)	NPR-XD Capacity (lb.)	NRR DR Capacity (lb.)	NRR Capacity (lb.)
GVWR Designed Maximum	14,500	16,000	17,950	19,500
GCWR Combined Maximum	20,500	22,000	23,950	25,500
GAWR - Front	5,360	6,630	6,830	7,275
GAWR - Rear	9,880	11,020	12,980	13,660

Options Weights		
RPO ^[1]	Option Description	Front / Rear (lb)
I6B	AGM batteries (825 CCA x 2)	25 / 22
IF4	Air deflector roof mounted (not available in crew cab)	64 / 0
I1V	Audio system with 7" diagonal color touch screen	2 / 0
I2V	Audio system with 7" diagonal color touch screen with backup camera (camera shipped loose)	2 / 2
UZF	Back up alarm	0 / 2
I8T	Chrome grille	1 / 0
I2M	Delete cruise control switch	0 / 0
IY4	Delete standard radio	-3 / 0
IS9	Dual fuel tank - Additional 35 gallon diesel fuel tank mounted on LHS for 150" & 176" wheelbases only [18]	[2]
I79	Engine block heater and oil pan heater with receptacle	4 / 0
I72	Engine block heater with receptacle	2 / 0
IH2	Engine emergency shutdown system HWT, LWL, LOP	0 / 0
IY9	Engine idle shutdown (timer set at 3 minutes for engine shutdown)	0 / 0
I9A	Engine idle shutdown (timer set at 5 minutes for engine shutdown)	0 / 0
IF6	Fire extinguisher and triangle kit mounted in rear organizer	19 / 0
I7F	FMS Jumper Harness	TBD
I2S	GVWR Derate from 19,500 lbs to 17,950 lbs [21]	0 / 0
I0W	Heated dual remote control mirrors	4 / 0
IS0	Heated mirrors	1 / 0
I8L	High visibility seat belt (orange color, driver and RH passenger, available on standard cab and front driver and RH passenger seat only crew cab)	0 / 0
I7L	High visibility seat belt (orange color, driver seat only, available on standard cab and front driver seat only of crew cab)	0 / 0
I4K	Keyless entry	3 / 0
I9I	LED Fog Lamps	1 / 0
I8I	LED Tail Light Package	0 / 1
I6K	Lockable DEF fill cap	0 / 0
I5L	Lockable DEF fill cap (all keyed alike on multiple chassis ordered together)	0 / 0
IU2	Mirror bracket for 102" wide body	1 / 0
IL9	PTO enable switch and engine idle up switch recommended for PTO and idle applications only	1 / 0
IV9	Seat covers crew cab	6 / 0
I1M	Seat covers for suspension seat standard cab	6 / 0
IV8	Seat covers standard cab	6 / 0
I3Z	Spare keys (2 additional, 4 keys in total)	0 / 0
I1L	Speed limited to 58 MPH	0 / 0
I2L	Speed limited to 65 MPH	0 / 0
I3L	Speed limited to 68 MPH	0 / 0
I4L	Speed limited to 70 MPH	0 / 0
I6T	Suspension seat (not available in crew cab)	18 / 0
I0A	Vertical exhaust - Cross rail horizontal DPF/SCR with vertical exhaust	100 / 100
SEO ^[1]	Option Description	Front / Rear (lb)
54	Standard model specifications with power windows, power door locks and air conditioning	Standard chassis weight includes these features
24	Advanced Driver Assistance System (ADAS)	22 / 0
55	35 Gallon Aluminum LH Side Fuel Tank	[4]
25	35 Gallon Aluminum LH Side Fuel Tank w/ ADAS	[5]
56	55 Gallon Aluminum LH Side Fuel Tank [3]	149 / 43
26	55 Gallon Aluminum LH Side Fuel Tank w/ ADAS [3]	171 / 43

[1] RPO is Regular Production Option that is stocked in port inventory.

SEO is Special Equipment Option and requires 90-120 day lead time for delivery.

[2] Weights: 150 wb +77 lbs. front and +171 lbs. rear and 176 wb +89 lbs. front and +159 lbs. rear

[3] 176 inch WB std. cab only

[4] Weights: 150 wb +102 lbs. front and -52 lbs. rear and 176 wb +110 lbs. front and -60 lbs. rear

[5] Weights: 150 wb +124 lbs. front and -52 lbs. rear and 176 wb +132 lbs. front and -60 lbs. rear

Frame and Crossmember Specifications - Standard Cab

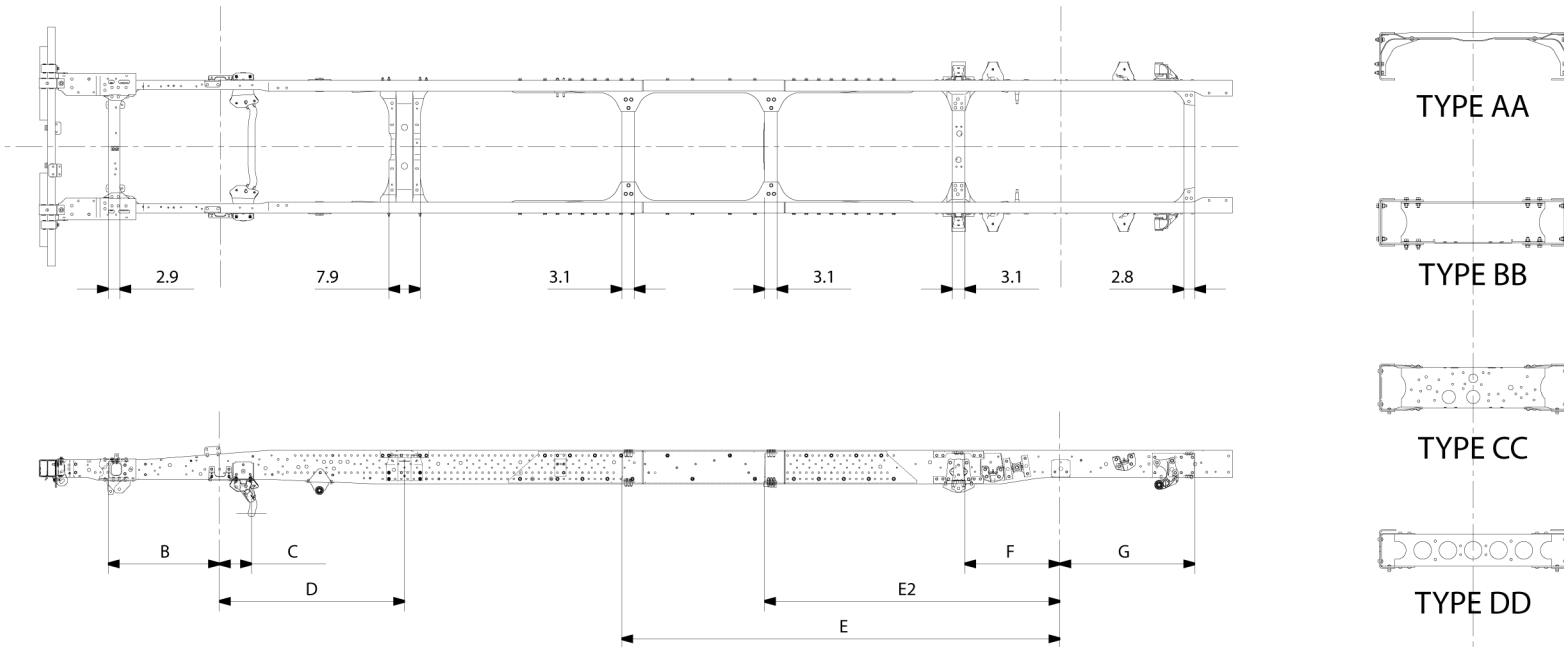


Figure 5

Wheelbase	Frame Thickness	Crossmember Type/Location											
		B	C	D		E		E2		F		G	
109	0.2	28.3	7.9	AA	47.2	-		-		CC	24.2	DD	33.8
132.5	0.2	28.3	7.9	AA	47.2	BB	57.5	-		CC	24.2	DD	33.8
150	0.2	28.3	7.9	AA	47.2	BB	57.9	-		CC	24.2	DD	33.8
176	0.2	28.3	7.9	AA	47.2	BB	74.4	-		CC	24.2	DD	33.8
200 ^[1]	0.2	28.3	7.9	AA	47.2	BB	98.9	BB	74.9	CC	24.2	DD	33.8
212 ^[2]	0.2	28.3	7.9	AA	47.2	BB	110.9	BB	74.9	CC	24.2	DD	33.8

Figure 6

[1] - Only available on NRR DERATE & NRR

[2] - Only available on the NRR

Note: Dimensions in inches

Frame Chart - Standard Cab

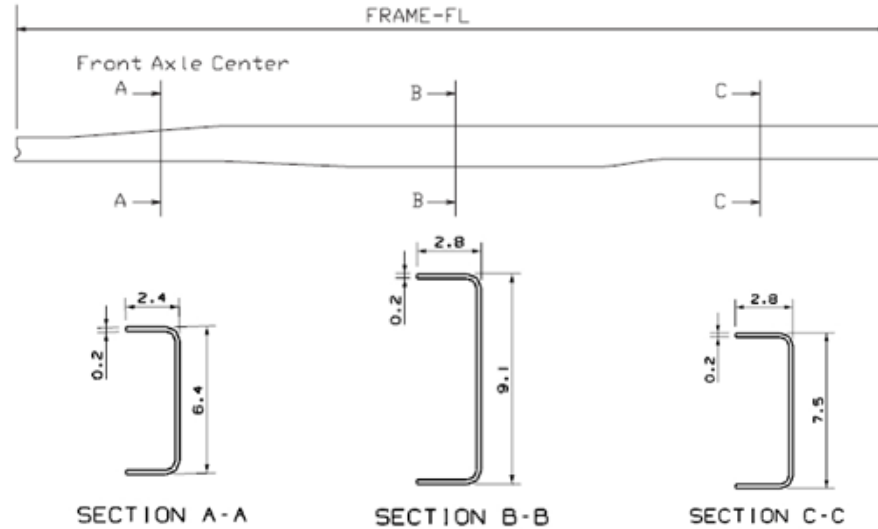


Figure 7

Wheelbase	Frame FL	Frame Thickness
109.0	182.5	0.2
132.5	206.1	0.2
150.0	223.8	0.2
176.0	249.8	0.2
200.0 ^[1]	273.8	0.2
212.0 ^[2]	285.8	0.2

Figure 8

Note: Dimensions in inches

[1] - Only available on NRR DERATE & NRR

[2] - Only available on the NRR

Frame and Crossmember Specifications - Crew Cab

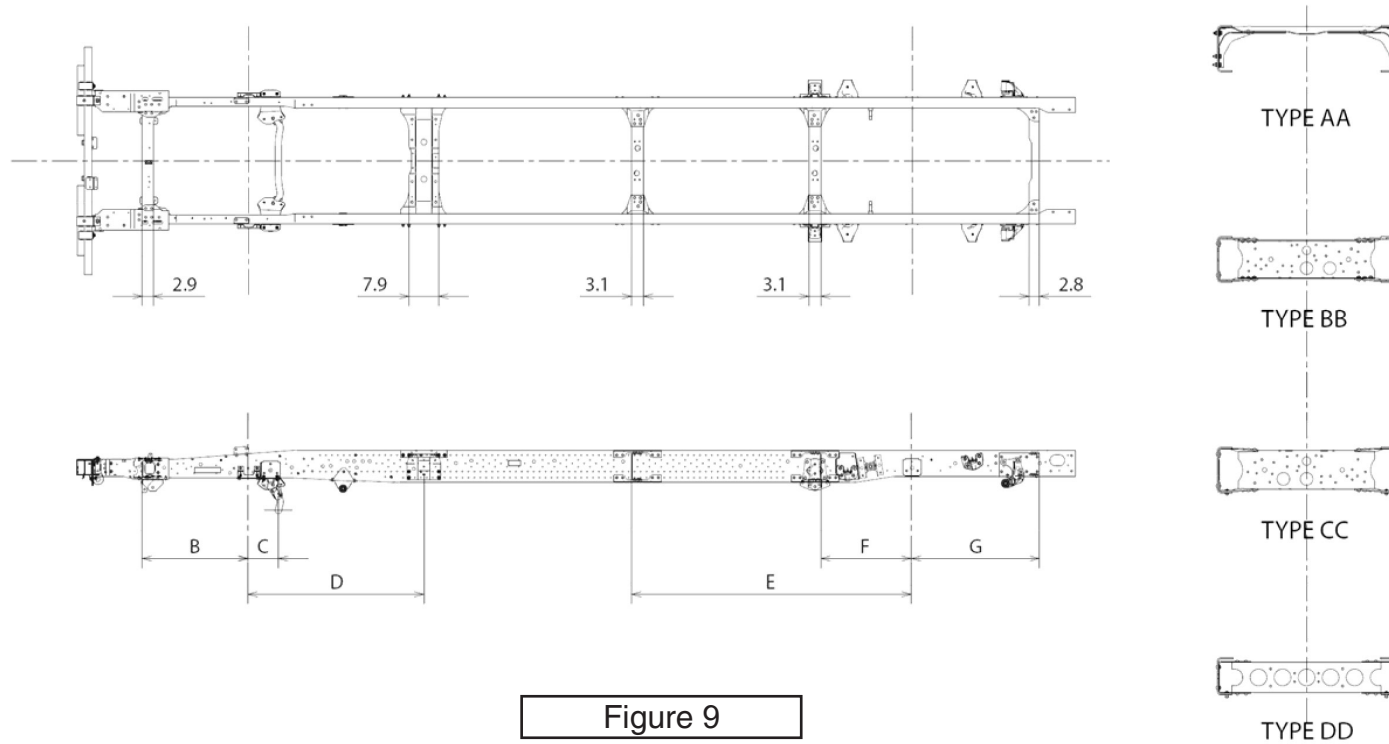


Figure 9

Wheelbase	Frame Thick	Crossmember Type/Location					
		B	C	D	E	F	G
150.0	0.2	28.3	7.9	AA 47.2	BB 57.9	CC 24.2	DD 33.8
176.0	0.2	28.3	7.9	AA 47.2	BB 74.4	CC 24.2	DD 33.8

Figure 10

Note: Dimensions in inches

Frame Chart - Crew Cab

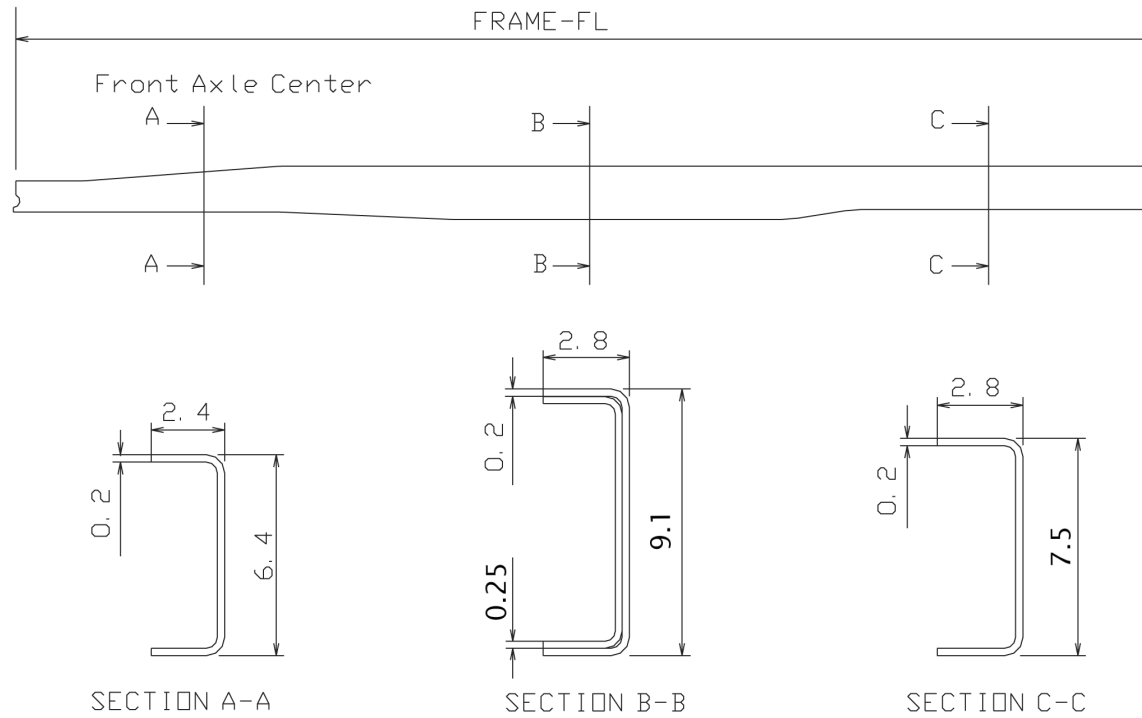


Figure 11

Wheelbase	Frame FL	Frame Thickness
150.0	223.8	0.2
176.0	249.8	0.2

Figure 12

Note: Dimensions in inches

Diesel Standard Cab - Top View

WB	A	B
109	43.4	80.1
132.5	49.7	84.4
150	43.4	80.1
176	43.4	80.1
200 ^[1]	43.4	80.1
212 ^[2]	43.4	80.1

[1] - Only available on NRR DERATE & NRR
 [2] - Only available on the NRR

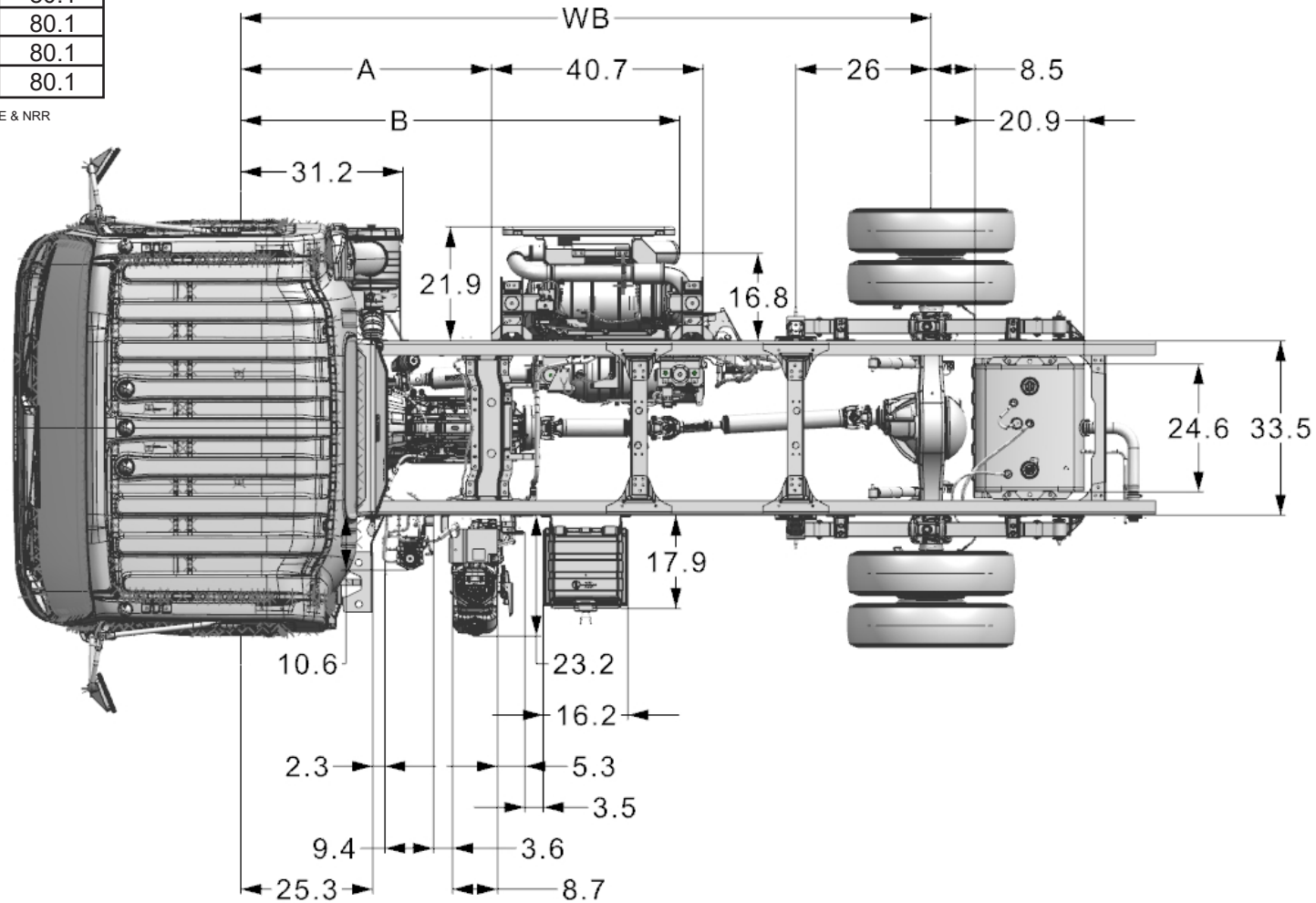


Figure 13

Note: Dimensions in inches

2026 Isuzu Truck

Diesel Standard Cab - Left Side View

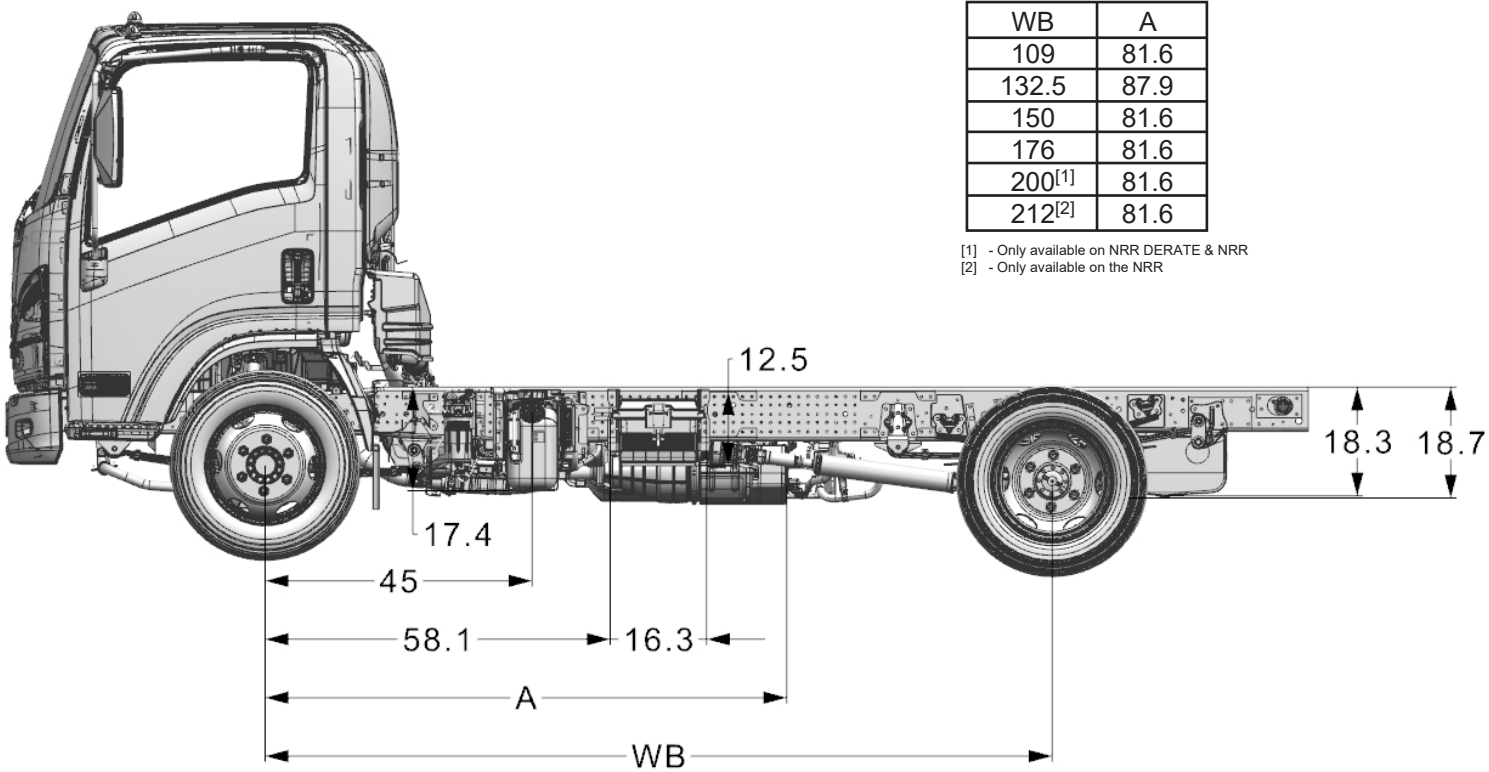


Figure 14

Note: Dimensions in inches

2026 Isuzu Truck

Diesel Standard Cab - Right Side View

WB	A
109	44.0
132.5	50.3
150	44.0
176	44.0
200 ^[1]	44.0
212 ^[2]	44.0

[1] - Only available on NRR DERATE & NRR
 [2] - Only available on the NRR

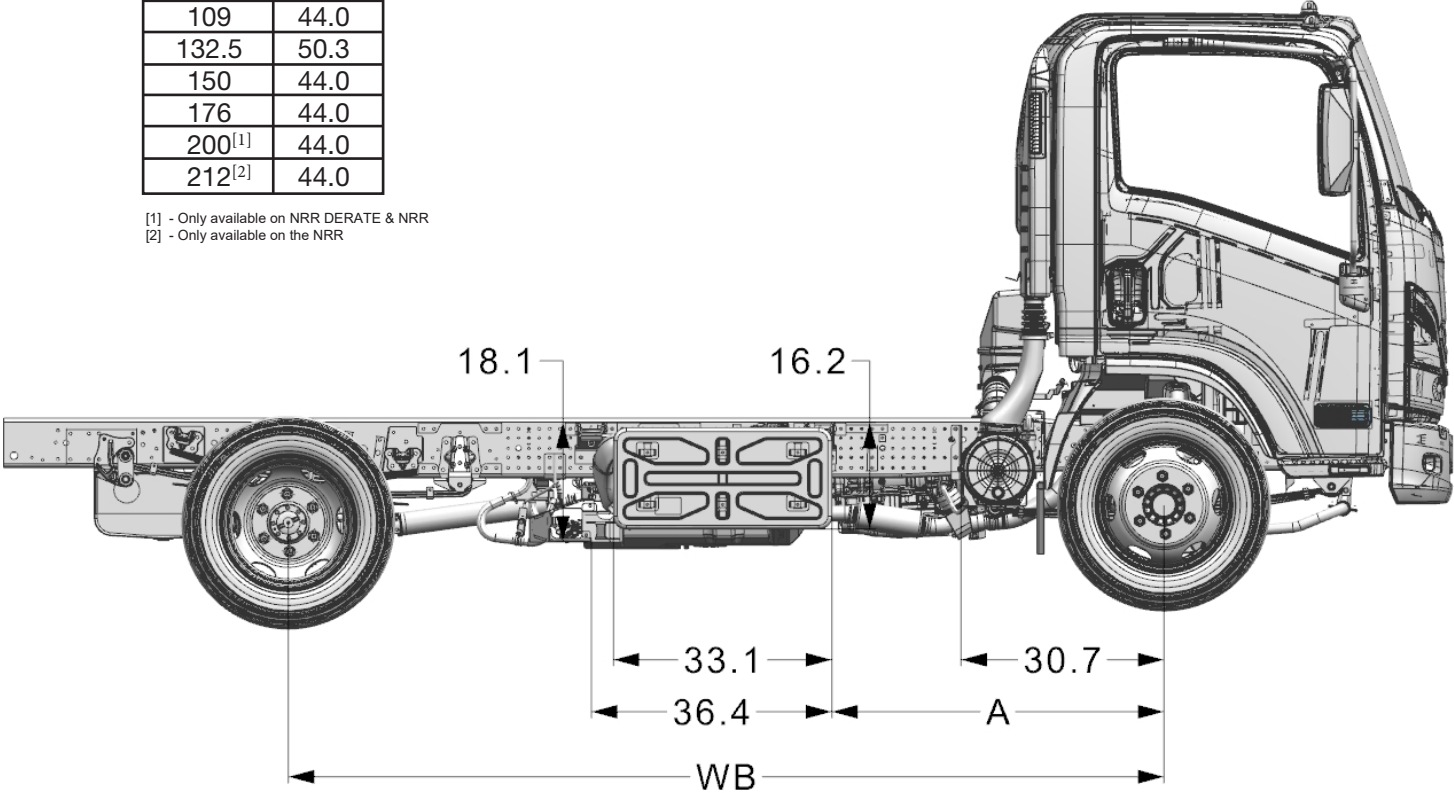


Figure 15

Note: Dimensions in inches

2026 Isuzu Truck

Diesel Crew Cab - Top View

WB	A	B
150	103.7	67.0
176	111.1	76.5

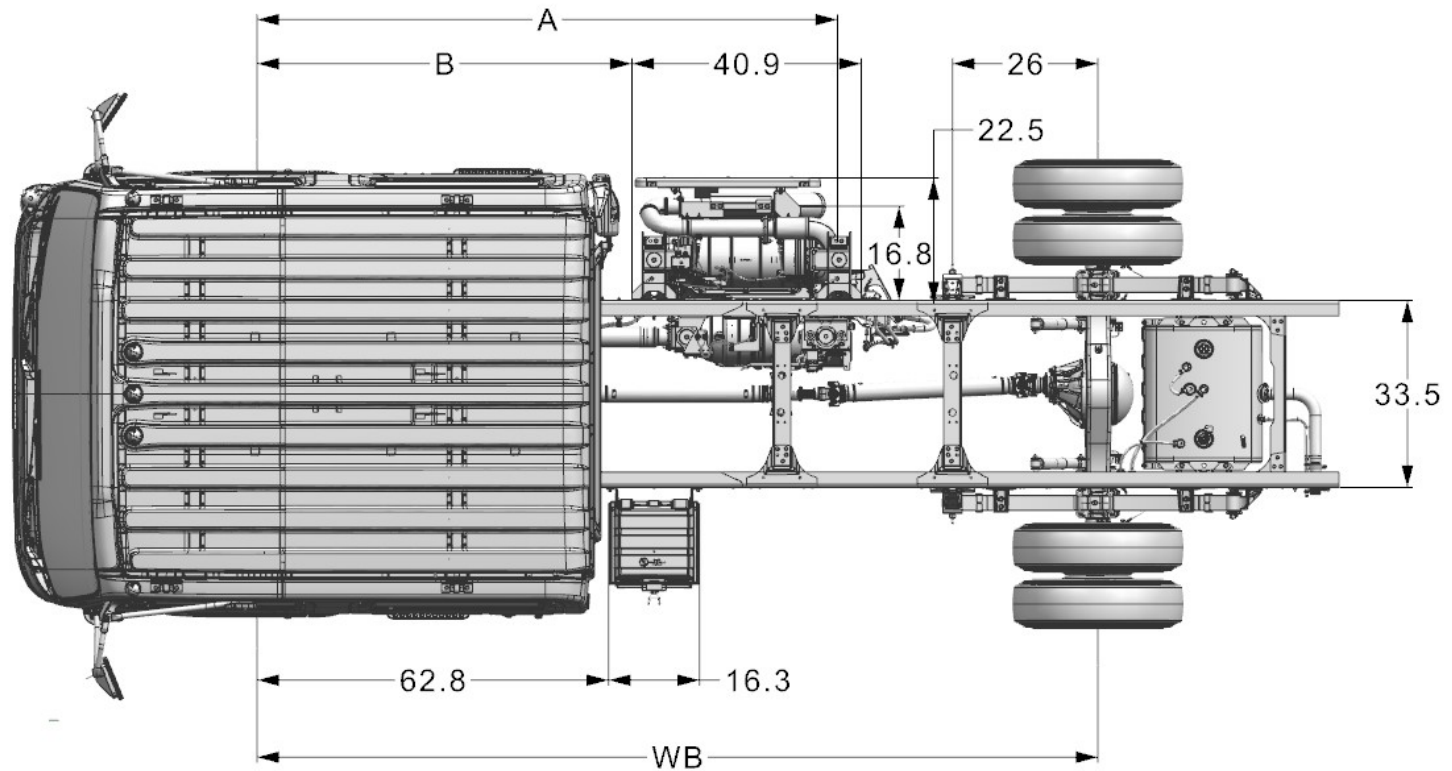


Figure 16

Note: Dimensions in inches

2026 Isuzu Truck

Diesel Crew Cab - Left Side View

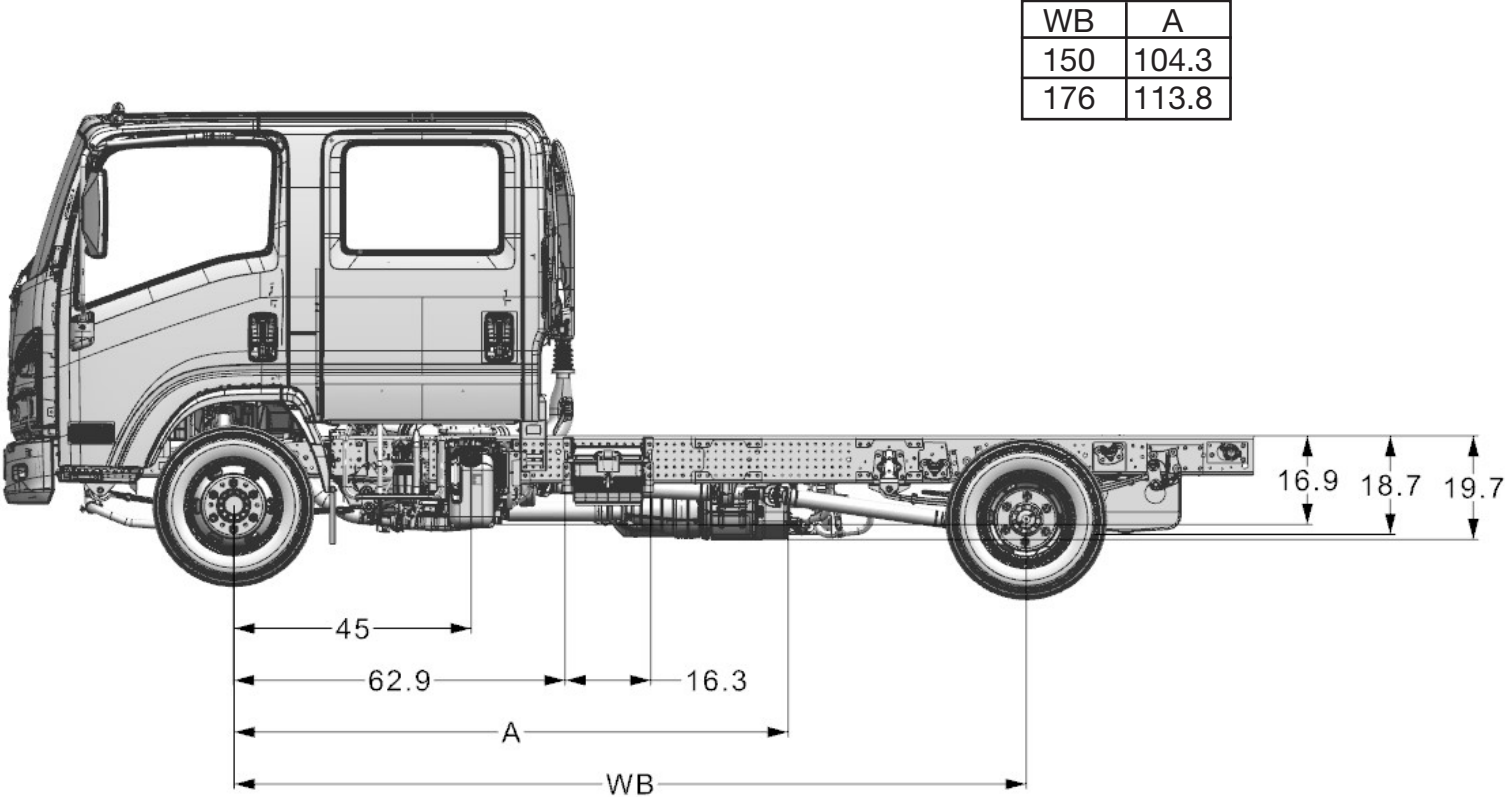


Figure 17

Note: Dimensions in inches

2026 Isuzu Truck

Diesel Crew Cab - Right Side View

WB	A
150	67.6
176	77.1

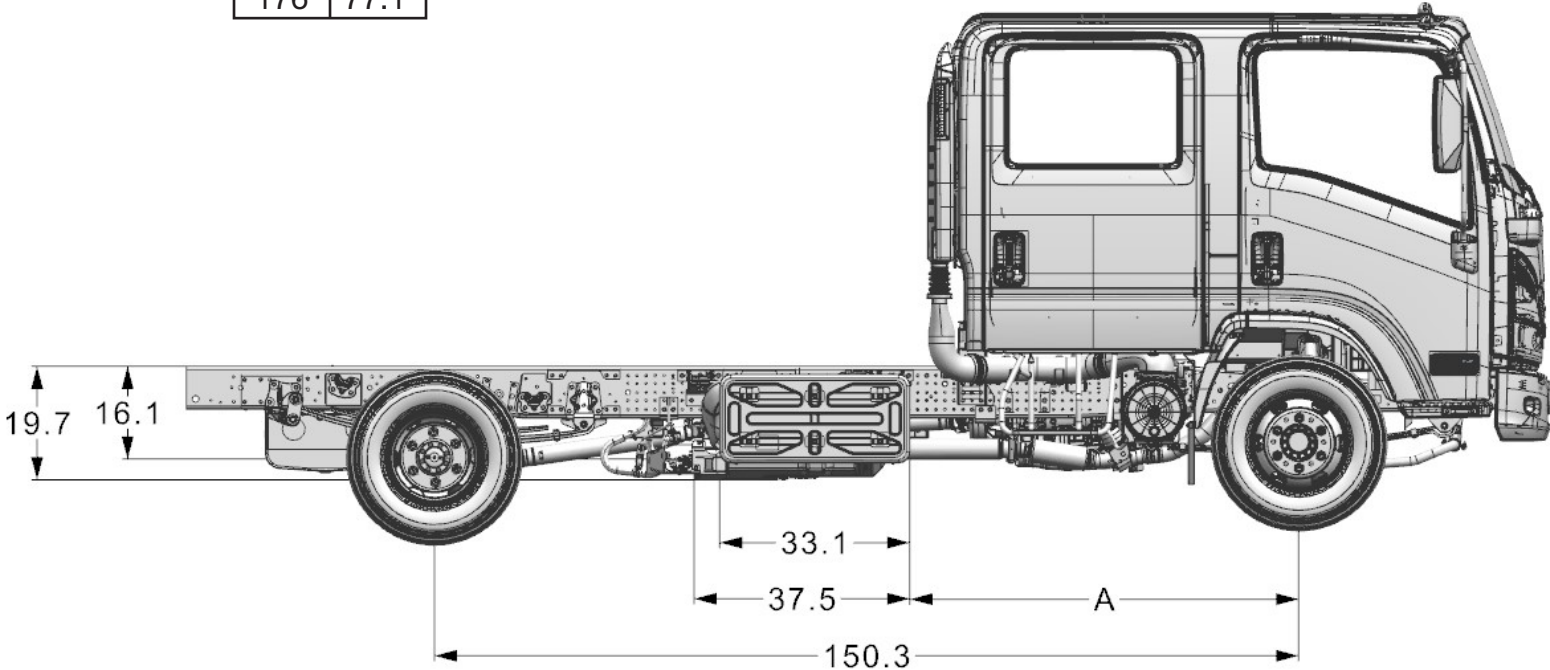


Figure 18

Note: Dimensions in inches

Exhaust System Dimensions SCR / DPF 4HK1-TC

View from top of chassis

View from front to rear chassis

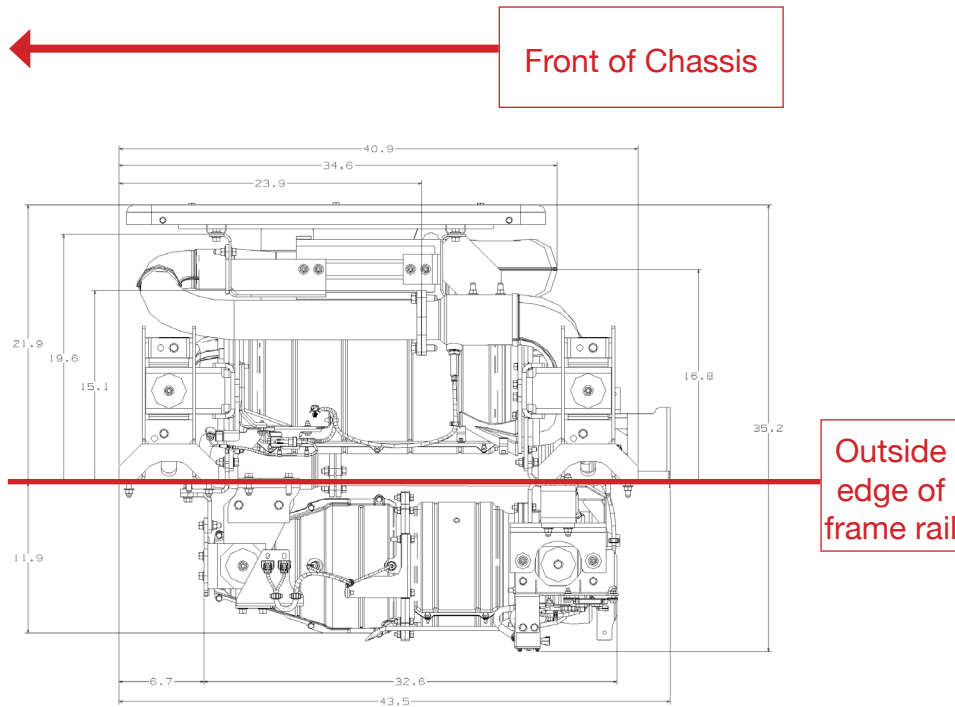


Figure 19

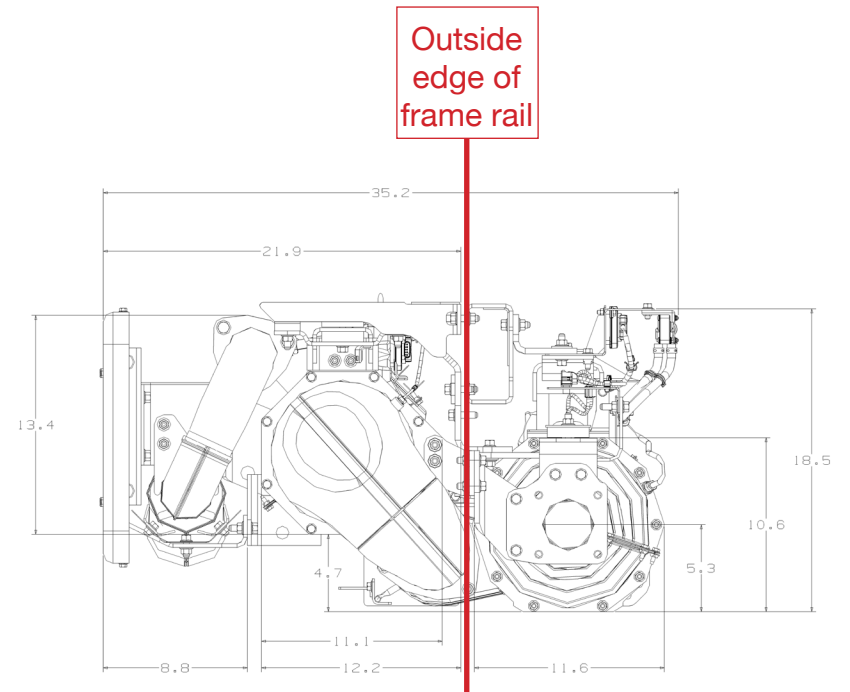
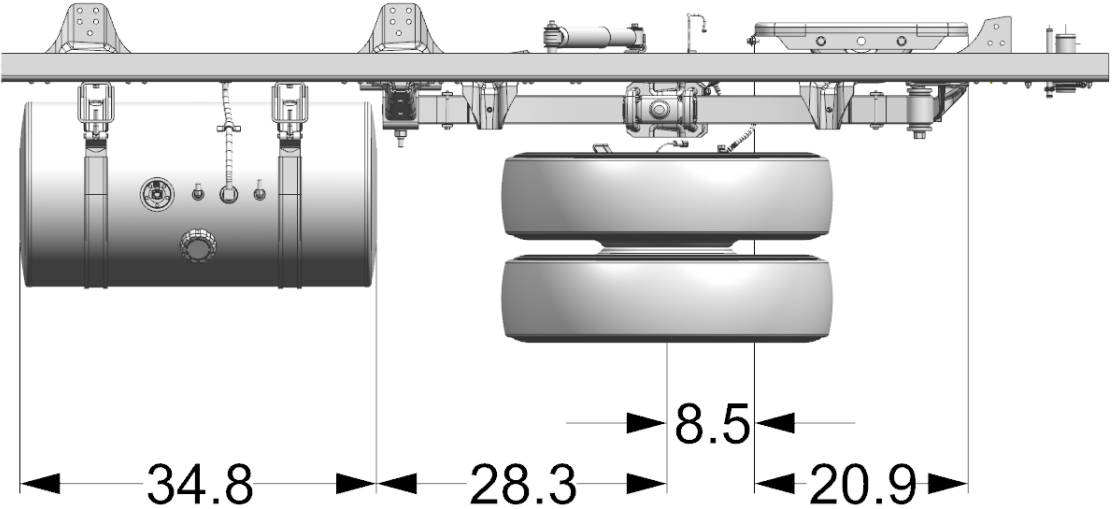


Figure 20

Note: Dimensions in inches

2026 Isuzu Truck

35 Gallon Aluminum Side Mounted Diesel Fuel Tank



← Front of chassis

Figure 21

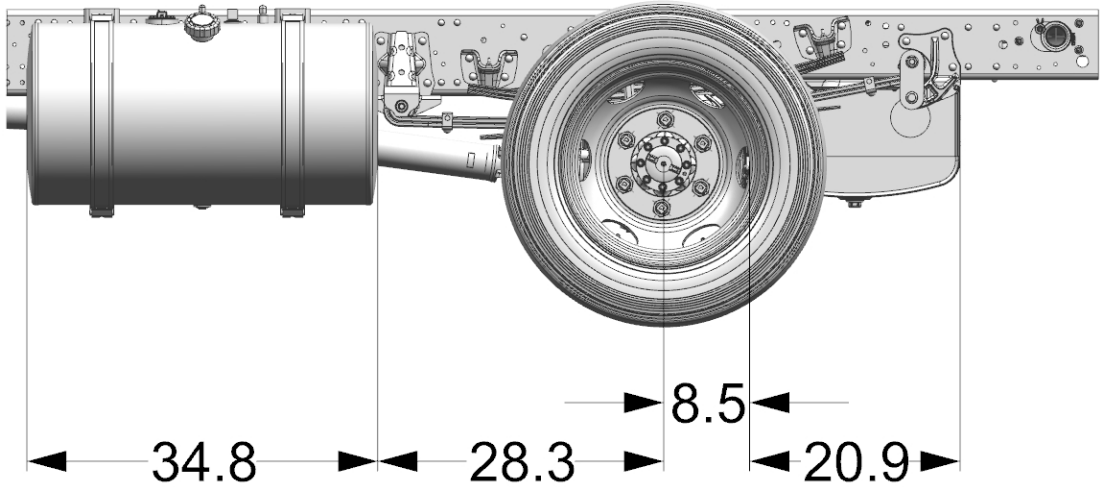


Figure 22

Note: Dimensions in inches

2026 Isuzu Truck

55 Gallon Aluminum Side Mounted Diesel Fuel Tank

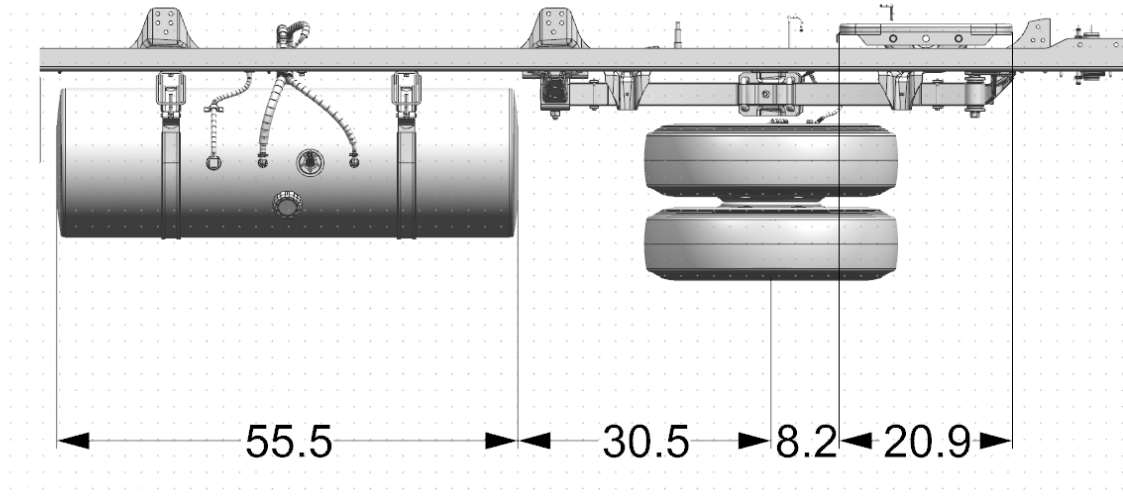


Figure 23

← Front of chassis

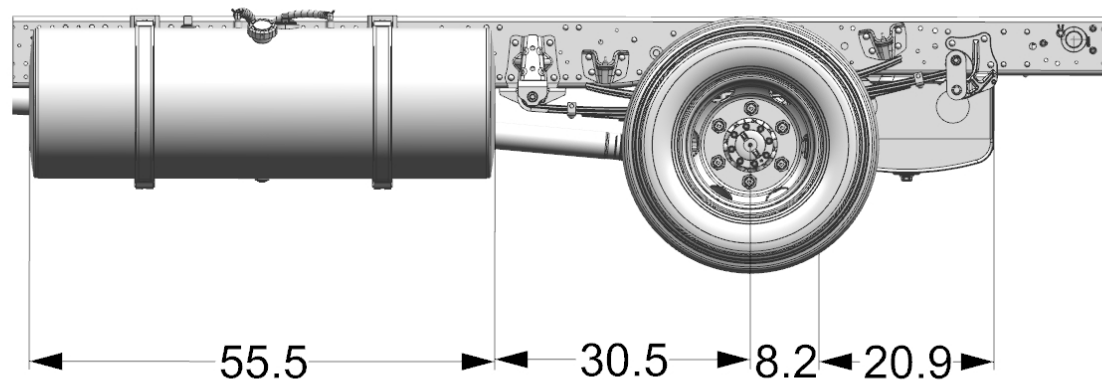


Figure 24

Note: Dimensions in inches

35 and 55 Gallon Side Mounted Fuel Tank Mounting Location and End View Dimensions

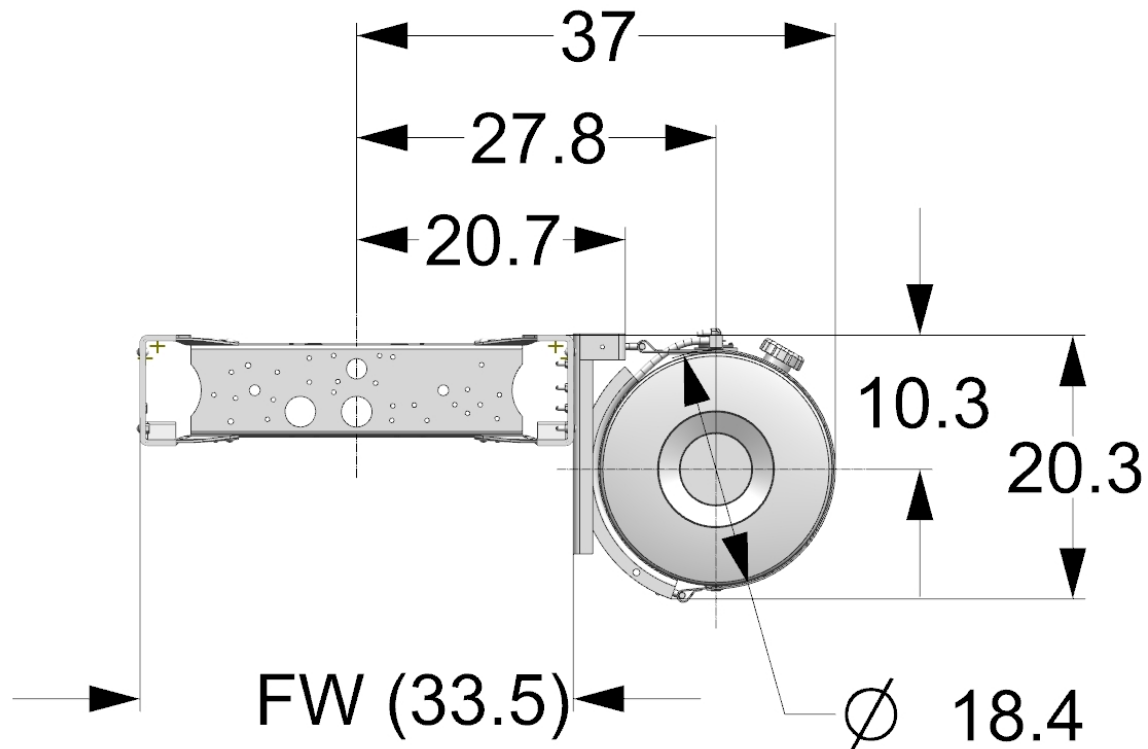


Figure 25

Note: Dimensions in inches

Cab Tilt Diagram

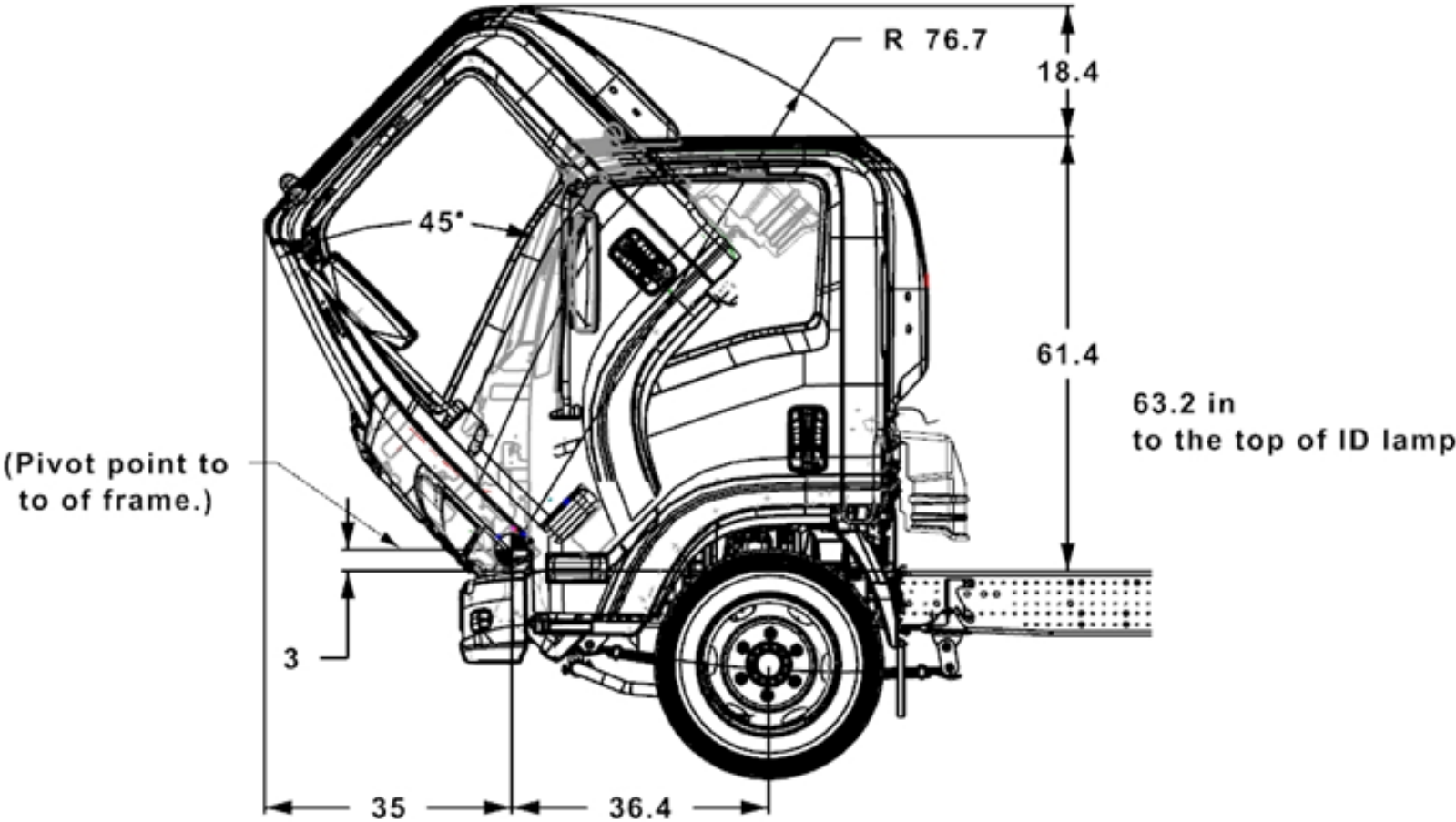


Figure 26

Note: Dimensions in inches

Turning Diameter

NPR-HD (215/85R-16E Tire):

Turning Diameters (design value)

WB	B (ft) Curb to Curb	C (ft) Wall to Wall
109	31.5	37.1
132.5	38.7	44
150 ^[3]	42.7	48.9
176 ^[3]	51.2	56.4

The NPR-HD Diesel steering features a 49.5 degree inside wheel cut angle

NPR-XD, NRR DERATE & NRR (225/70R-19.5F):

Turning Diameters (design value)

WB	B (ft) Curb to Curb	C (ft) Wall to Wall
109	32.8	38.7
132.5	40.0	44.9
150 ^[3]	45.3	50.2
176 ^[3]	52.5	58.1
200 ^[1]	61.0	67.2
212 ^[2]	66.0	73.0

[1] - Only available on NRR DERATE & NRR
 [2] - Only available on the NRR
 [3] - Applies to both single and crew cab chassis

The NPR-XD, NRR DERATE & NRR Diesel steering features a 46.5 degree inside wheel cut angle

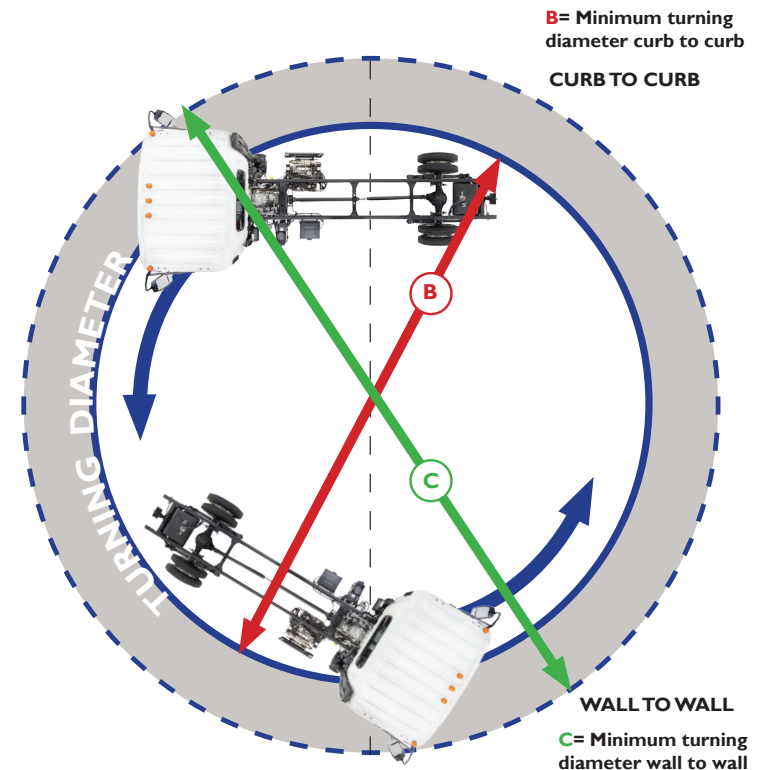


Figure 27

2026 Isuzu Truck

Center of Gravity - STD CAB

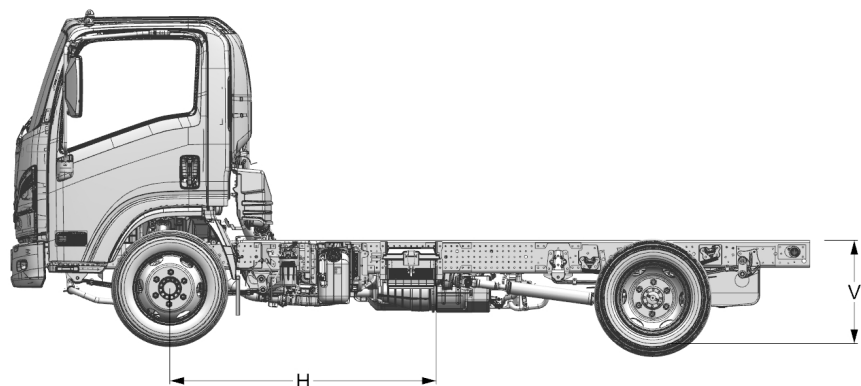


Figure 29

Horizontal and Vertical Center of Gravity of Chassis - STD Cab					
Model	Wheelbase	Vertical CG - V -	Horizontal CG - H -	Horizontal CG - H -	Horizontal CG - H -
			In-Frame Fuel Tank	35 gal. Side Fuel Tank	55 gal. Side Fuel Tank
NPR-HD	109	22.2	36.6	-	-
	132.5	22.1	43.8	-	-
	150	22	48.5	46.8	-
	176	22	55.7	54.0	50.0

Horizontal and Vertical Center of Gravity of Chassis - STD Cab					
Model	Wheelbase	Vertical CG - V -	Horizontal CG - H -	Horizontal CG - H -	Horizontal CG - H -
			In-Frame Fuel Tank	35 gal. Side Fuel Tank	55 gal. Side Fuel Tank
NPR-XD	109	23.5	38.2	-	-
	132.5	23.3	45.7	-	-
	150	23.3	50.8	49.2	-
	176	23.3	58.4	56.4	57.9

Horizontal and Vertical Center of Gravity of Chassis - STD Cab					
Model	Wheelbase	Vertical CG - V -	Horizontal CG - H -	Horizontal CG - H -	Horizontal CG - H -
			In-Frame Fuel Tank	35 gal. Side Fuel Tank	55 gal. Side Fuel Tank
NRR DR	109	23.5	39.2	-	-
	132.5	23.3	47.0	-	-
	150	23.3	52.2	50.6	-
	176	23.3	60.1	58.1	59.5
	200	23.3	62.0	-	-

Horizontal and Vertical Center of Gravity of Chassis - STD Cab					
Model	Wheelbase	Vertical CG - V -	Horizontal CG - H -	Horizontal CG - H -	Horizontal CG - H -
			In-Frame Fuel Tank	35 gal. Side Fuel Tank	55 gal. Side Fuel Tank
NRR	109	23.4	39.2	-	-
	132.5	23.3	47.0	-	-
	150	23.4	52.2	50.7	-
	176	23.4	60.1	58.1	59.6
	200	23.4	62.0	-	-
	212	23.2	62.2	-	-

The center of gravity of the completed vehicle with a full load should not exceed 63 inches above ground level at full GVWR, and must be located horizontally between the centerlines of the front and rear axles.

NOTE: The Final Manufacturer must ensure that the combined vertical center of gravity of the chassis, body, and available payload at full GVW does not exceed the maximum vertical center of gravity outlined in the Isuzu Incomplete Vehicle Document and the Isuzu Body Builders Guide.

The maximum dimensions for a body installed on the N Series chassis are 102 inches wide (outside*) by 91 inches high (inside). If approval is needed for larger body applications, please contact Isuzu Commercial Trucks of America (ICTA) Application Engineering. On the West Coast call 1-562-310-8599 and on the East Coast call 1-734-582-9284.

* With 102 inches wide mirror brackets installed in place of standard mirror brackets

Note: Dimensions in inches

Center of Gravity - Crew Cab

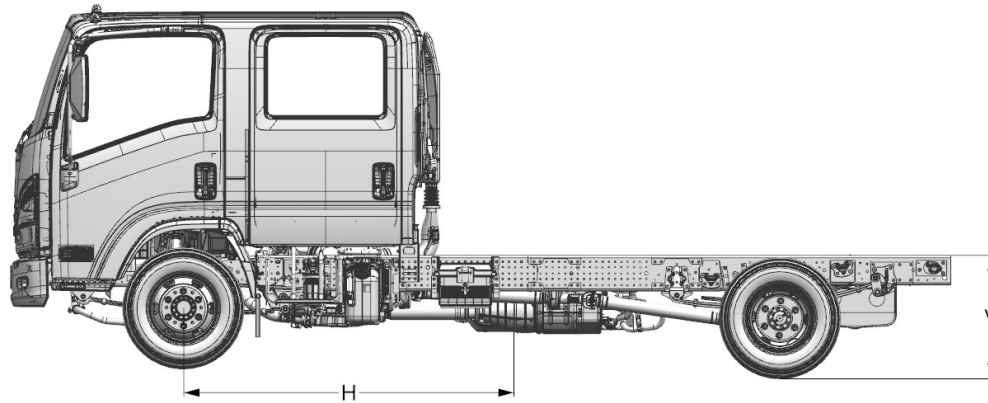


Figure 30

Horizontal and Vertical Center of Gravity of Chassis - Crew Cab					
Model	Wheelbase	Vertical CG - V -	Horizontal CG - H -	Horizontal CG - H -	Horizontal CG - H -
			In-Frame Fuel Tank	35 gal. Side Fuel Tank	55 gal. Side Fuel Tank
NPR-HD	150	25.3	49.2	47.7	-
	176	25.2	55.9	53.1	55.5

Horizontal and Vertical Center of Gravity of Chassis - Crew Cab					
Model	Wheelbase	Vertical CG - V -	Horizontal CG - H -	Horizontal CG - H -	Horizontal CG - H -
			In-Frame Fuel Tank	35 gal. Side Fuel Tank	55 gal. Side Fuel Tank
NPR-XD	150	25.3	51.2	49.8	-
	176	25.2	58.4	56.5	57.9

Horizontal and Vertical Center of Gravity of Chassis - Crew Cab					
Model	Wheelbase	Vertical CG - V -	Horizontal CG - H -	Horizontal CG - H -	Horizontal CG - H -
			In-Frame Fuel Tank	35 gal. Side Fuel Tank	55 gal. Side Fuel Tank
NRR DR	150	25.3	52.5	51.1	-
	176	25.2	59.9	58.1	59.4

Horizontal and Vertical Center of Gravity of Chassis - Crew Cab					
Model	Wheelbase	Vertical CG - V -	Horizontal CG - H -	Horizontal CG - H -	Horizontal CG - H -
			In-Frame Fuel Tank	35 gal. Side Fuel Tank	55 gal. Side Fuel Tank
NRR	150	25.3	52.6	51.1	-
	176	25.2	60.0	58.1	59.5

The center of gravity of the completed vehicle with a full load should not exceed 63 inches above ground level at full GVWR, and must be located horizontally between the centerlines of the front and rear axles.

NOTE: The Final Manufacturer must ensure that the combined vertical center of gravity of the chassis, body, and available payload at full GVW does not exceed the maximum vertical center of gravity outlined in the Isuzu Incomplete Vehicle Document and the Isuzu Body Builders Guide.

The maximum dimensions for a body installed on the N Series chassis are 102 inches wide (outside*) by 91 inches high (inside). If approval is needed for larger body applications, please contact Isuzu Commercial Trucks of America (ICTA) Application Engineering. On the West Coast call 1-562-310-8599 and on the East Coast call 1-734-582-9284.

* With 102 inches wide mirror brackets installed in place of standard mirror brackets

Note: Dimensions in inches

2026 Isuzu Truck

Front Axle Chart

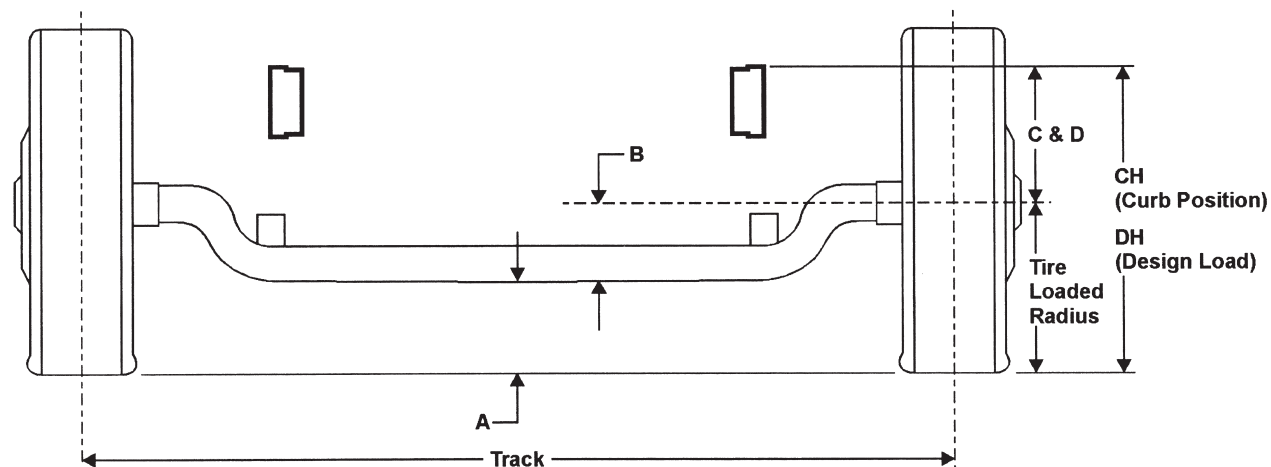


Figure 31

Formulas for calculating height dimensions:

- A = Tire Loaded Radius – B
- C = Centerline of Axle to Top of Frame Rail at Curb Position
- D = Centerline of Axle to Top of Frame Rail at Design Load
- CH = C + Tire Unloaded Radius
- DH = D + Tire Loaded Radius

Model	Tire	GVWR	GAWR	A	B	C	D	CH	DH	Track	Tire Radius	
											Unloaded	Loaded
NPR-HD	215/85 R 16-E	14,500 lbs.	5,360 lbs.	7.5	6.6	12.8	11.7	27.4	25.8	65.5	14.6	14.1
NPR-XD	225/70R 19.5F	16,000 lbs.	6,630 lbs.	8.3	6.6	13	11.5	29	26.4	65.5	16	14.93
NRR DERATE	225/70R 19.5F	17,950 lbs.	6,830 lbs.	8.3	6.6	12.3	11.5	28.3	26.4	65.5	16	14.91
NRR	225/70R 19.5F	19,500 lbs.	7,275 lbs.	8.3	6.6	12.3	11.5	28.3	26.4	65.5	16	14.91

Figure 32

Note: Dimensions in inches

Rear Axle Chart

Definitions								
A	Centerline of axle to bottom of axle bowl.							
B	Centerline of axle to top of frame rail at metal-to-metal position.							
C	Centerline of axle to top of frame rail at curb position.							
D	Centerline of axle to top of frame rail at design load.							
E	Rear Tire Clearance: Maximum clearance required for tires and chain measured from top of the frame at the vehicle centerline of the rear axle, when rear wheels on one side ride over a high spot.							
CH	Rear Frame Height (Curb Load): Vertical distance between the normal top of frame rail and the ground-line through the centerline of the rear axle at curb position.							
DH	Rear Frame Height (Design Load): Vertical distance between the normal top of frame rail and the ground-line through the centerline of the rear axle at design position.							
DW	Minimum distance between the inner surfaces of the rear tires.							
EW	Minimum Rear Width: Overall width of the vehicle measured at the outermost surfaces of the rear tires.							
HH	Rear Tire Clearance: Minimum clearance between the rear axle and the ground-line.							
HW	Dual Tire Spacing: Distance between the centerlines of the tires in a set of dual tires.							
KH	Tire Bounce Clearance: Minimum distance required for tire bounce as measured from the centerline of the rear axle and the top of the rear tire when one wheel rides over a high spot.							
CW	Track Dual Rear Wheel Vehicle: Distance between the centerlines of the dual wheels measured at the ground-line.							
KW	Clearance between body and tires.							
Equations								
CH	= Tire loaded radius + C							
DH	= Tire loaded radius + D							
DW	= CW + 2 tire sections - tire clearance							
EW	= CW + 2 tire sections + tire clearance							
HH	= Tire loaded radius - A							
JH	= KH - B							
KH	= Tire radius + 3.0 inches							
KW	= DW - 5.0 inches							
LW	= 1.0 inch minimum clearance between tires and springs							
Values								
Model	Tire	GAWR	CW	A	B	C	D	E
NPR-HD	215/85R 16-E	9,880 lbs.	65.0	6.5	9.3	15.4	13.0	7.8
NPR-XD	225/70R 19.5F	11,020 lbs.	65.7	7.7	9.3	15.3	13.4	8.4
NRR DERATE	225/70R 19.5F	12,980 lbs.	65.7	7.7	9.3	15.6	13.4	8.4
NRR	225/70R 19.5F	13,660 lbs.	65.7	7.7	9.3	15.6	13.4	8.4

Note: Dimensions in inches

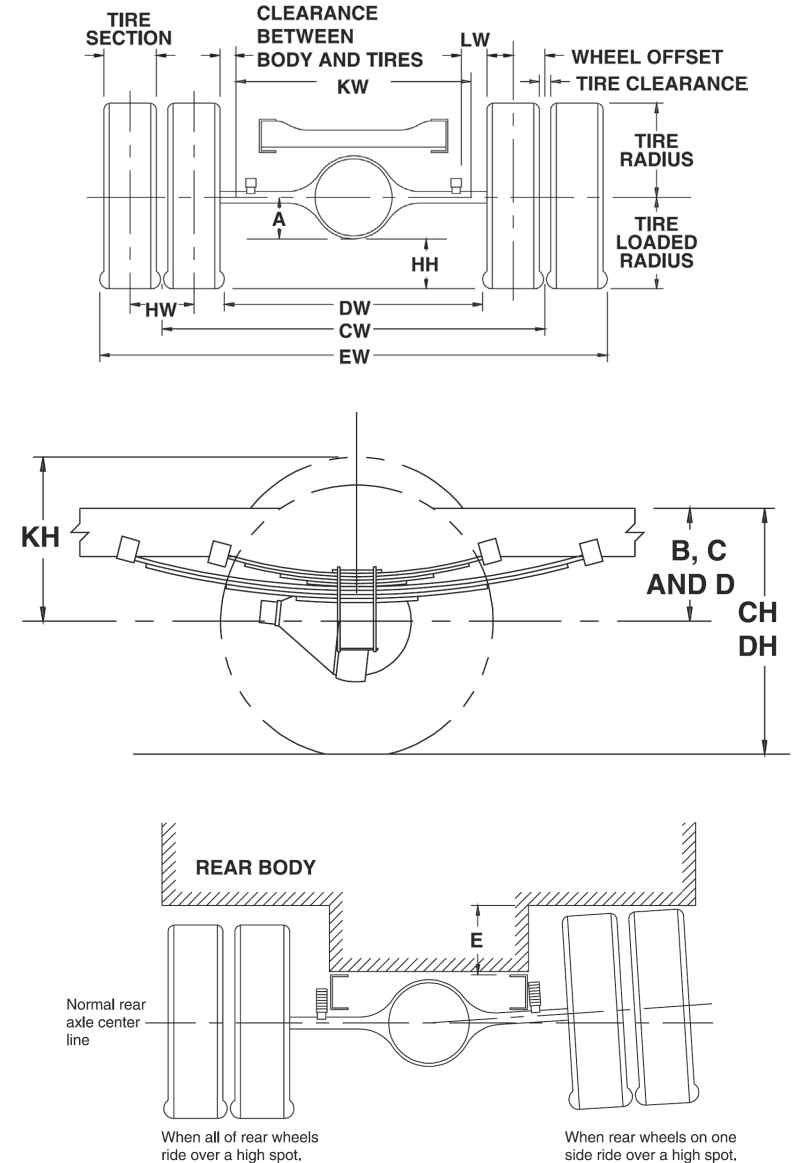


Figure 33

Suspension Deflection Charts

NPR-HD

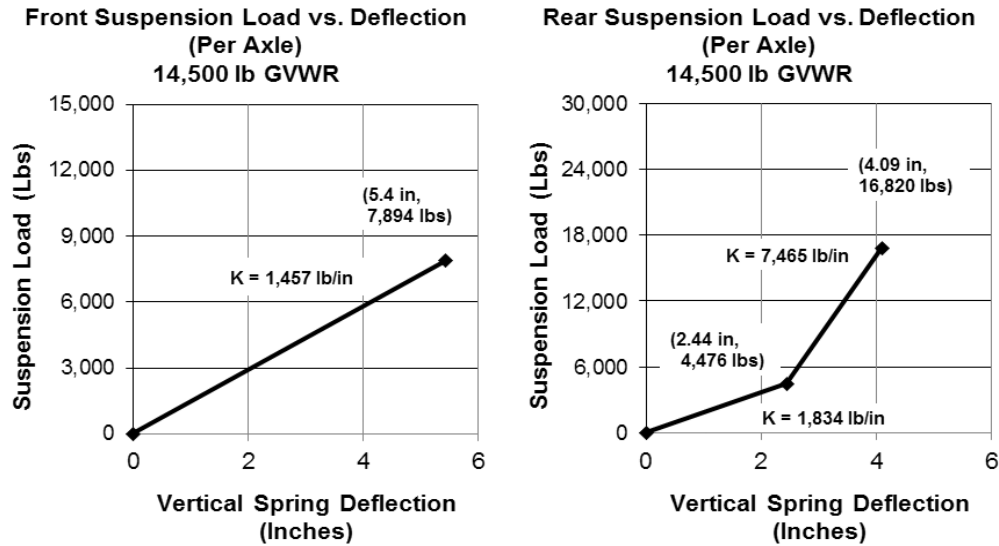


Figure 34

NPR-XD

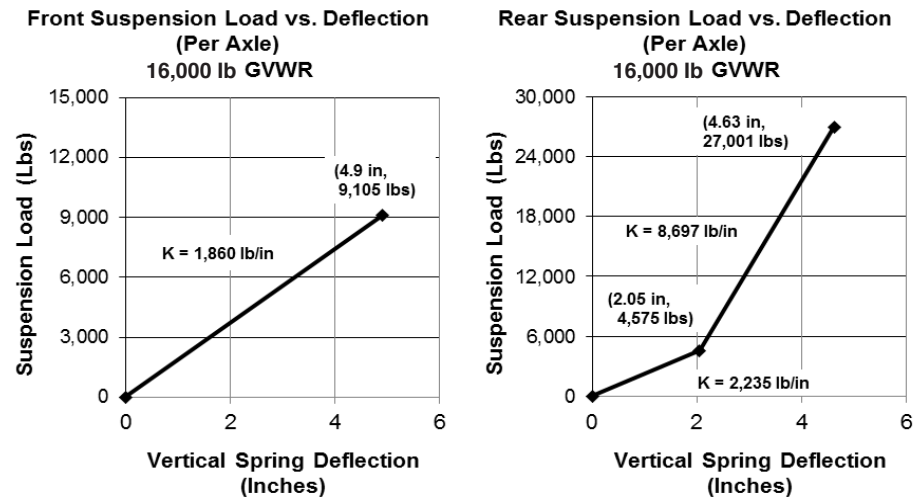


Figure 35

Suspension Deflection Charts

NRR DERATE

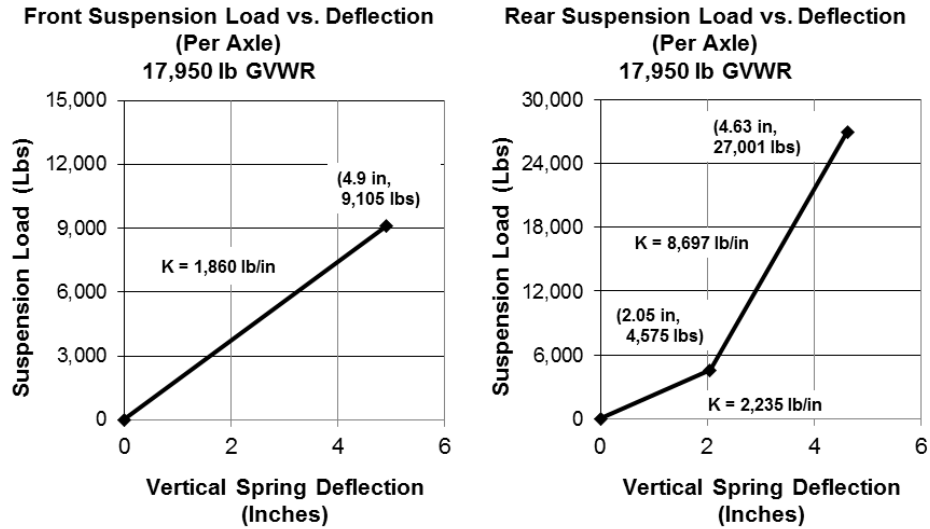


Figure 36

NRR

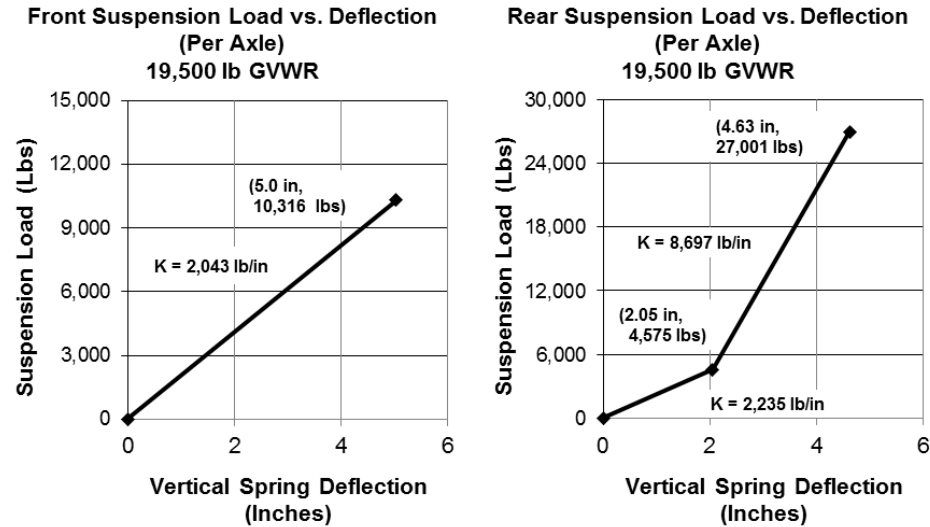


Figure 37

Tire and Disc Wheel Chart

Tire

Model	Tire Size	Manufacture Model	GVWR (lbs.)	Tire Load Limit and Cold Inflation Pressures				Maximum Tire Load Limits (lbs.)	
				Single		Dual		Front	Rear
				LBS.	PSI	LBS.	PSI	2 Single	4 Dual
NPR-HD	215/85R-16E	Yokohama TY213B Bridgestone M779	14,500	2,680	80	2,470	80	5,360	9,880
NPR-XD	225/70R-19.5F	Dunlop SP688 Bridgestone M895-II	16,000	3,315	85	3,115	85	6,630	12,460
NRR DERATE	225/70R-19.5F		17,950	3,640	95	3,415	95	7,280	13,660
NRR	225/70R-19.5F		19,500	3,640	95	3,415	95	7,280	13,660

Figure 38

Model	Tire Size	GVWR (lbs.)	Tire Radius				Tire Section Width	Tire Clearance	Design Rim Width
			Loaded		Unloaded				
			Front	Rear	Front	Rear			
NPR-HD	215/85R-16E	14,500	14.1	14.1	14.6	14.6	8.2	1.8	6.0
NPR-XD	225/70R-19.5F	16,000	14.93	14.98	16	16	8.7	1.3	6.0
NRR DERATE	225/70R-19.5F	17,950	14.91	14.96	16	16	8.7	1.3	6.0
NRR	225/70R-19.5F	19,500	14.91	14.96	16	16	8.7	1.3	6.0

Figure 39

Disc Wheel

Wheel Size	Bolt Holes	Bolt Circle Dia.	Ft./Rr. Nut Size*	Rear Stud Size*	Nut/Stud Torque Specs.	Inner Circle	Outside Offset	Disc Thickness	Rim Type	Material Mfg.
16 x 6 K	6 JIS	8.75	1.6142 (41 mm) BUD HEX	0.8268 (21 mm) SQUARE	325 ft-lb. (440 N•M)	6.46	5.0	0.37	5° DC	Steel TOPY
19.5 x 6.00 K	6 JIS	8.75	1.6142 (41 mm) BUD HEX	0.8268 (21 mm) SQUARE	325 ft-lb. (440 N•M)	6.46	5.0	0.35	15° DC	Steel TOPY

*O.D. Wrench Sizes

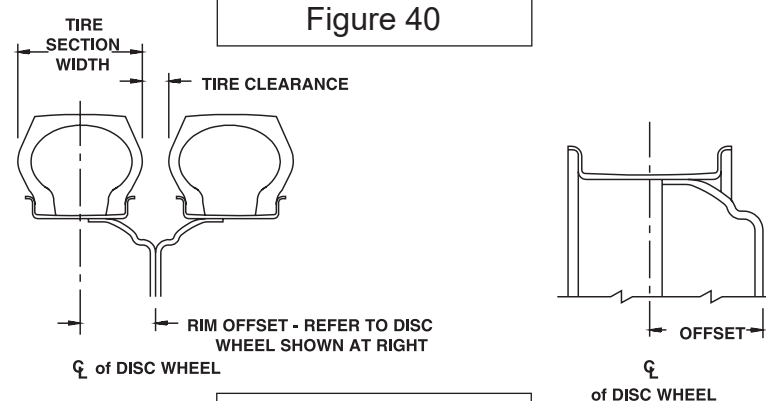
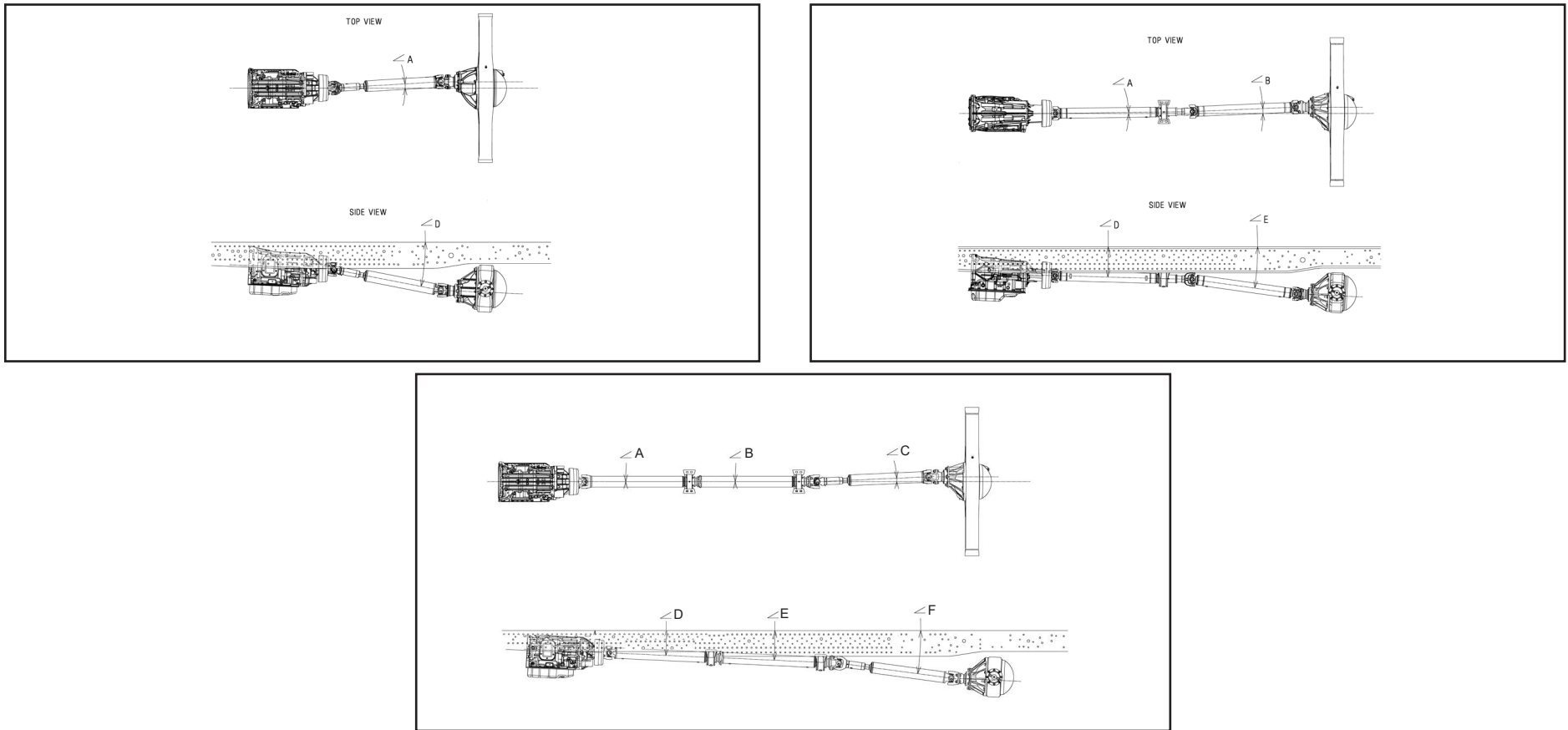


Figure 41

Note: Dimensions in inches

Propeller Shaft - NPR-HD



Wheelbase (in.)	Top View			Side View			Trans.	Rear Axle
	∠A	∠B	∠C	∠D	∠E	∠F		
109	2.5°	-	-	9.4°	-	-	2.5°	2.5°
132.5	0°	2.7°	-	5.3°	6.0°	-	2.5°	2.5°
150	0°	2.7°	-	2.6°	6.6°	-	2.5°	2.5°
176	0°	1.8°	-	2.1°	4.3°	-	2.5°	2.5°

Figure 42

Note: 1. Angles provided in table are relative to the frame angle. Please take this into consideration for service measurements.
 2. Driveline angles are based on the chassis curb weight which includes standard fuel but no driver, body, or payload.

Propeller Shaft Continued - NPR-HD

Wheelbase	109	132.5	150	176
No. of Shafts	1	2	2	2
Shaft #1 O.D.	3.25"	3.25"	3.25"	3.25"
Thickness	0.0906"	0.0906"	0.0906"	0.0906"
Length	36.57"	16.97"	34.29"	43.47"
Type	A	B	B	B
Shaft #2 O.D.	N/A	3.25"	3.25"	3.25"
Thickness	N/A	0.0906"	0.0906"	0.0906"
Length	N/A	33.62"	34.03"	50.47"
Type	N/A	C	C	C

Figure 43

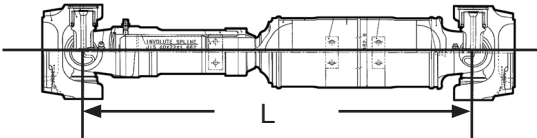
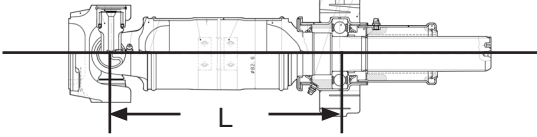
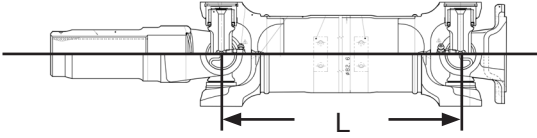
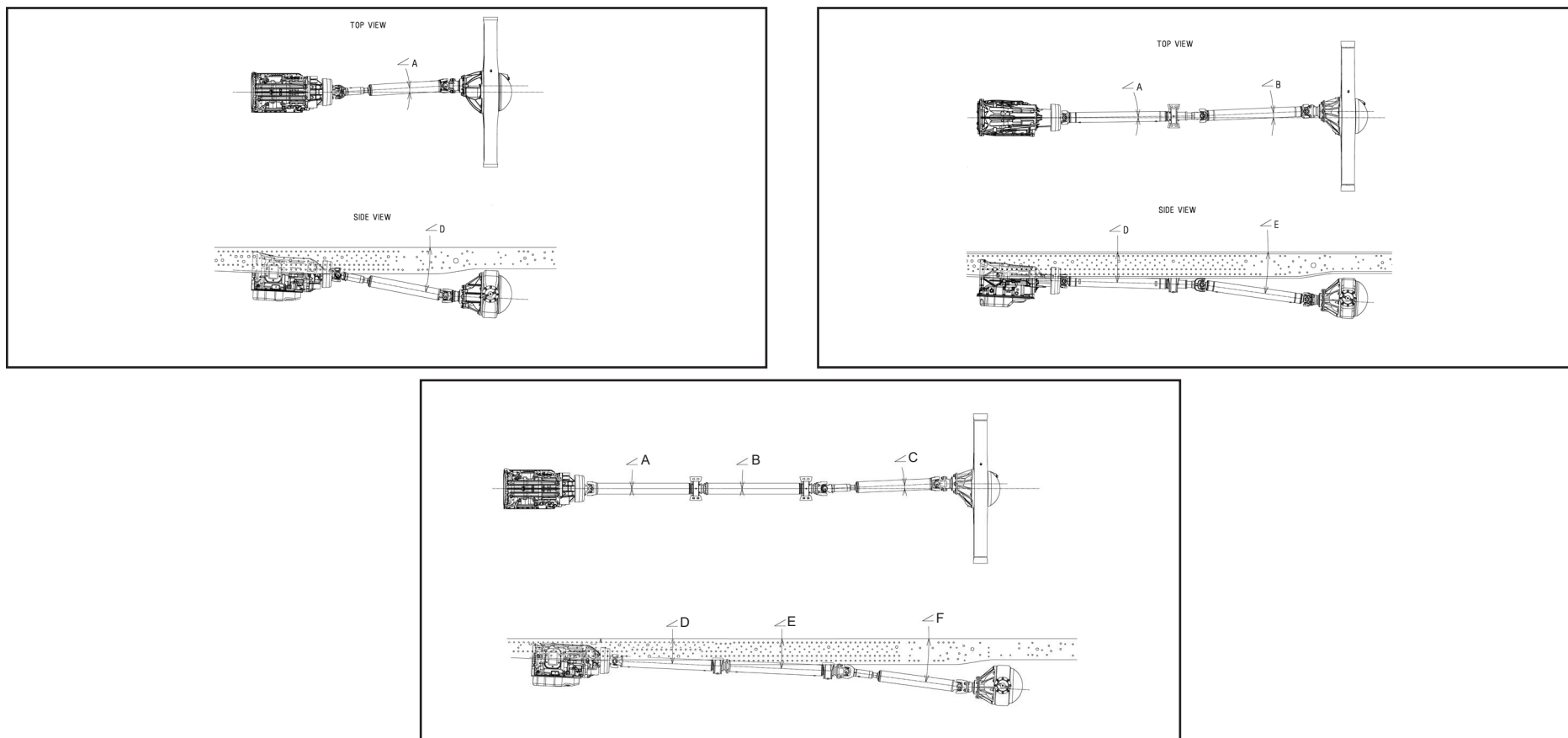
Type	Description	Illustration
Type A	1st shaft in 1-piece driveline	
Type B	1st shaft in 2-piece driveline	
Type C	2nd shaft in 2-piece driveline	

Figure 44

Note: Dimensions in inches

2026 Isuzu Truck

Propeller Shaft - NPR-XD



Wheelbase (in.)	Top View			Side View			Trans.	Rear Axle
	∠A	∠B	∠C	∠D	∠E	∠F		
109	2.5°	-	-	9.5°	-	-	2.5°	2.5°
132.5	0°	2.7°	-	5.3°	6.2°	-	2.5°	2.5°
150	0°	2.7°	-	2.6°	6.8°	-	2.5°	2.5°
176	0°	1.8°	-	2.1°	4.5°	-	2.5°	2.5°

Figure 42

Note: 1. Angles provided in table are relative to the frame angle. Please take this into consideration for service measurements.
 2. Driveline angles are based on the chassis curb weight which includes standard fuel but no driver, body, or payload.

Propeller Shaft Continued - NPR-XD

Wheelbase	109	132.5	150	176
No. of Shafts	1	2	2	2
Shaft #1 O.D.	3.25"	3.25"	3.25"	3.25"
Thickness	0.0906"	0.0906"	0.0906"	0.0906"
Length	36.6"	16.97"	34.29"	43.74"
Type	A	B	B	B
Shaft #2 O.D.	N/A	3.25"	3.25"	3.25"
Thickness	N/A	0.0906"	0.0906"	0.0906"
Length	N/A	33.65"	34.05"	50.50"
Type	N/A	C	C	C

Figure 43

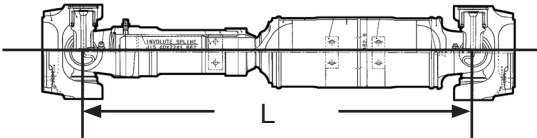
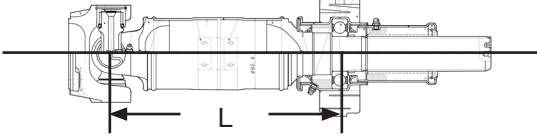
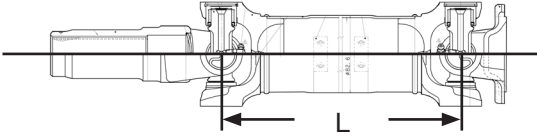
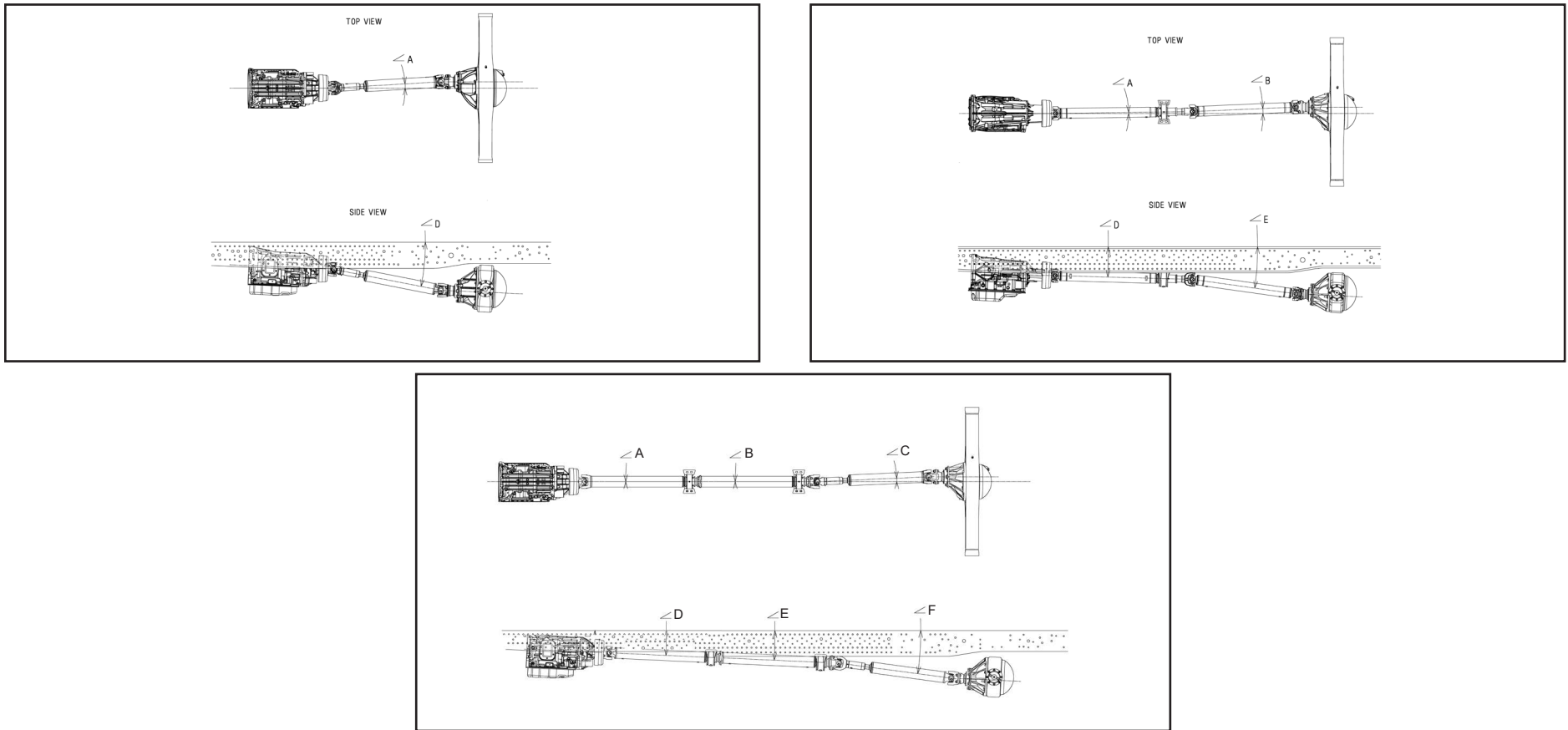
Type	Description	Illustration
Type A	1st shaft in 1-piece driveline	
Type B	1st shaft in 2-piece driveline	
Type C	2nd shaft in 2-piece driveline	

Figure 44

Note: Dimensions in inches

Propeller Shaft - NRR / NRR DR



Wheelbase (in.)	Top View			Side View			Trans.	Rear Axle
	∠A	∠B	∠C	∠D	∠E	∠F		
109	3.4°	-	-	11.1°	-	-	2.5°	2.5°
132.5	0°	3.3°	-	5.3°	7.3°	-	2.5°	2.5°
150	0°	3.2°	-	2.6°	7.6°	-	2.5°	2.5°
176	0°	2.2°	-	2.1°	5.1°	-	2.5°	2.5°
200 ^[1]	0°	0°	2.2°	2.3°	3.3°	3.4°	2.5°	2.5°
212 ^[2]	0°	0°	2.2°	2.3°	2.1°	3.1°	2.5°	2.5°

^[1] - Only available on NRR DERATE & NRR

^[2] - Only available on the NRR

Figure 42

Note: 1. Angles provided in table are relative to the frame angle. Please take this into consideration for service measurements.
 2. Driveline angles are based on the chassis curb weight which includes standard fuel but no driver, body, or payload.

Propeller Shaft Continued - NRR / NRR DR

Wheelbase	109	132.5	150	176	200 ^[1]	212 ^[2]
No. of Shafts	1	2	2	2	3	3
Shaft #1 O.D.	3.54	3.54	3.54	3.54	3.54	3.54
Thickness	0.091	0.126	0.091	0.126	0.126	0.126
Length	35.65	22.91	40.24	49.69	49.69	49.69
Type	A	B	B	B	B	B
Shaft #2 O.D.	N/A	3.54	3.54	3.54	3.54	3.54
Thickness	N/A	0.126	0.091	0.126	0.126	0.126
Length	N/A	36.09	36.46	52.86	23.90	35.71
Type	N/A	A	A	A	B	B
Shaft #3 O.D.	N/A	N/A	N/A	N/A	3.54	3.54
Thickness	N/A	N/A	N/A	N/A	0.126	0.126
Length	N/A	N/A	N/A	N/A	52.72	52.91
Type	N/A	N/A	N/A	N/A	A	A

Figure 43

[1] - Only available on NRR DERATE & NRR
 [2] - Only available on the NRR



Type	Description	Illustration
Type A	1st shaft in 1 piece driveline 2nd shaft in 2 piece driveline 3rd shaft in 3 piece driveline	
Type B	1st shaft in 2 or 3 piece driveline 2nd shaft in 3 piece driveline	

Figure 44

Note: Dimensions in inches

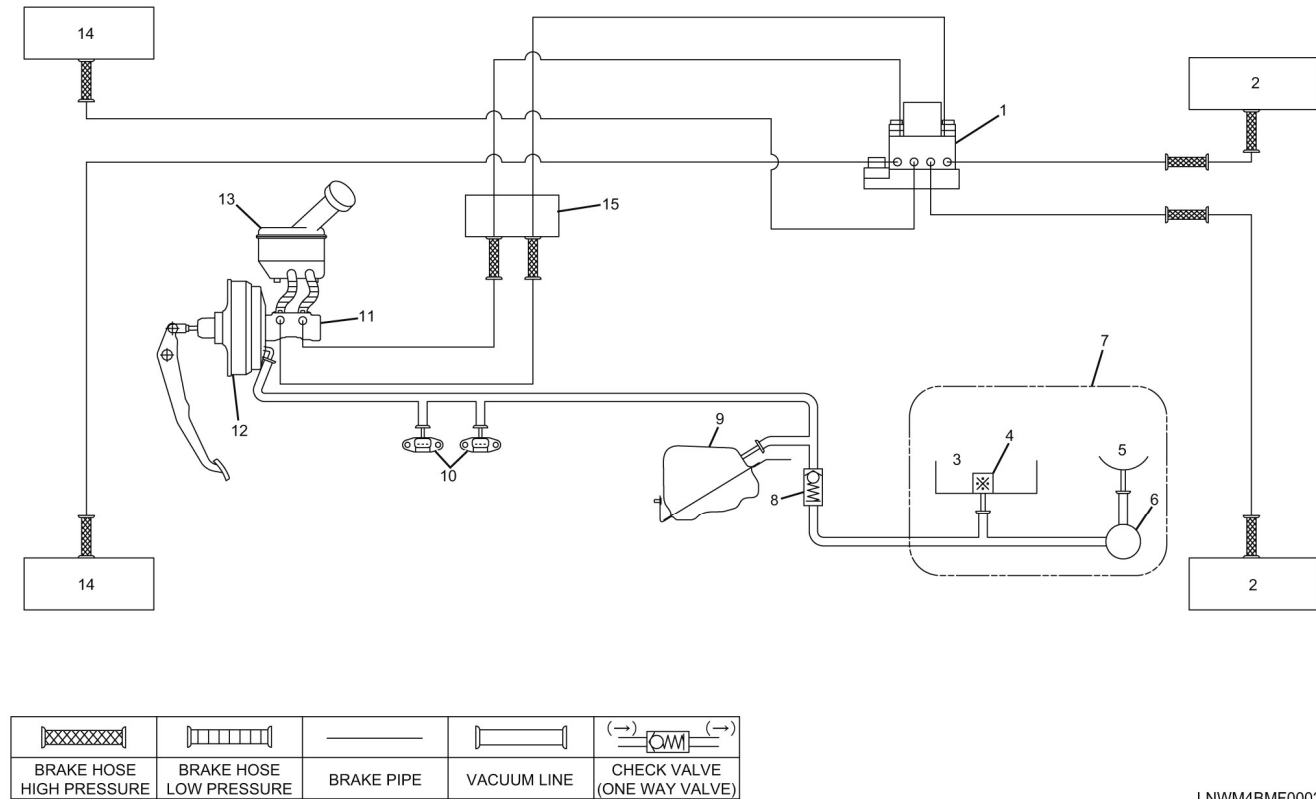
Brake System Diagram - 14,500 & 16,000 GVW

Vacuum Over Hydraulic

Please refer to Introduction Section of book for antilock system cautions and wheelbase modification requirements.

Legend

- (1) Electronic Hydraulic Control Unit (EHCU)
- (2) Rear Brake
- (3) Vacuum Pump
- (4) Check Valve
- (5) Exhaust Brake Valve
- (6) Magnetic Valve
- (7) Exhaust Brake
- (8) Check Valve (One-way Valve)
- (9) Vacuum Tank
- (10) Vacuum Sensor
- (11) Vacuum Booster (Servo Unit)
- (12) Master Cylinder
- (13) Brake Fluid Reservoir
- (14) Front Brake
- (15) 4-Way Connector



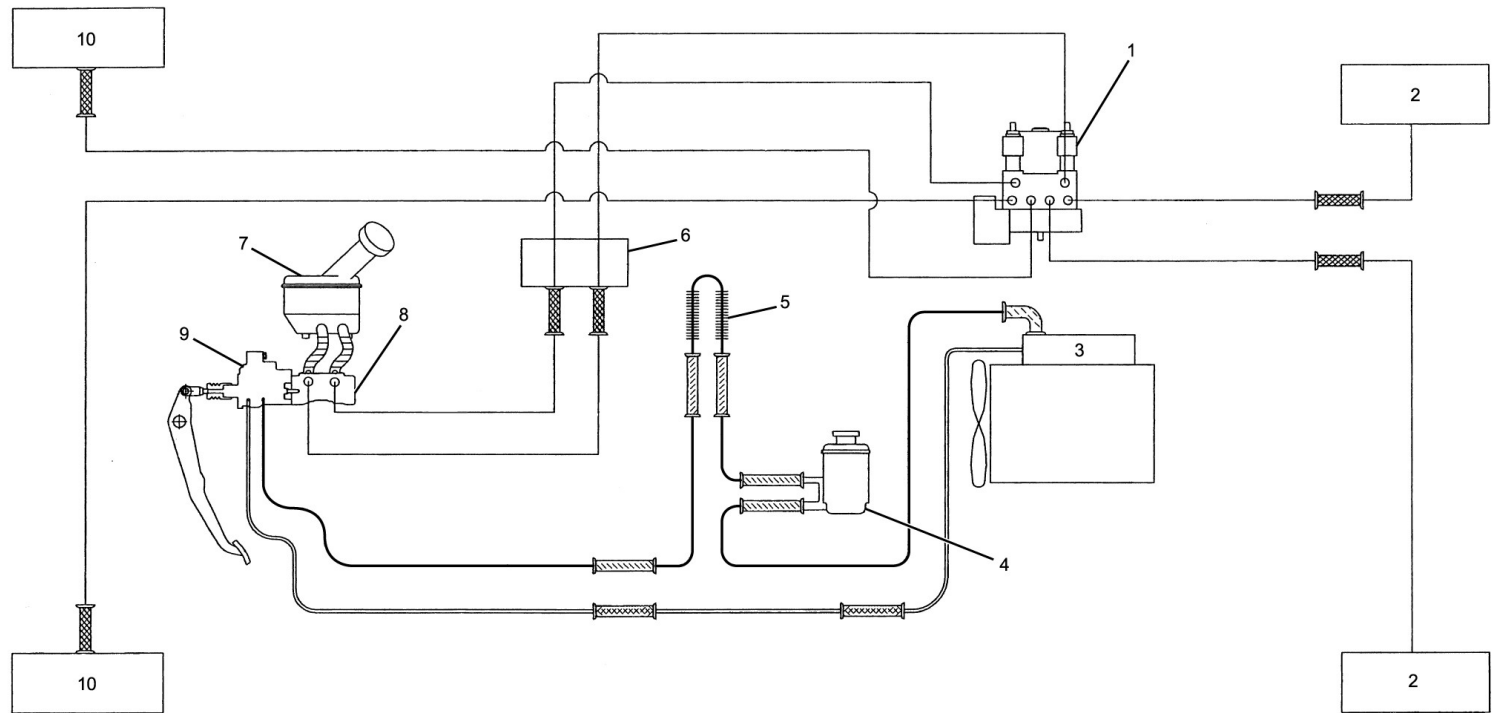
LNWM4BMF000201

Figure 45

Brake System Diagram - 17,950 & 19,500 GVW

Vacuum Over Hydraulic

Please refer to Introduction Section of book for antilock system cautions and wheelbase modification requirements.



Legend

- (1) Electronic Hydraulic Control Unit (EHCU)
- (2) Rear Brake
- (3) Hydraulic Booster Oil Pump
- (4) Hydraulic Booster Reservoir
- (5) Cooler Pipe
- (6) Pipe Connector
- (7) Brake Fluid Reservoir
- (8) Master Cylinder
- (9) Hydraulic Booster Unit
- (10) Front Brake

BRAKE HOSE HIGH PRESSURE	BRAKE HOSE LOW PRESSURE	BRAKE PIPE	HYDRAULIC HOSE (SUPPLY)	HYDRAULIC HOSE (RETURN/SUCTION)	HYDRAULIC PIPE (SUPPLY)	HYDRAULIC PIPE (RETURN/SUCTION)

Figure 46

2026 Isuzu Truck

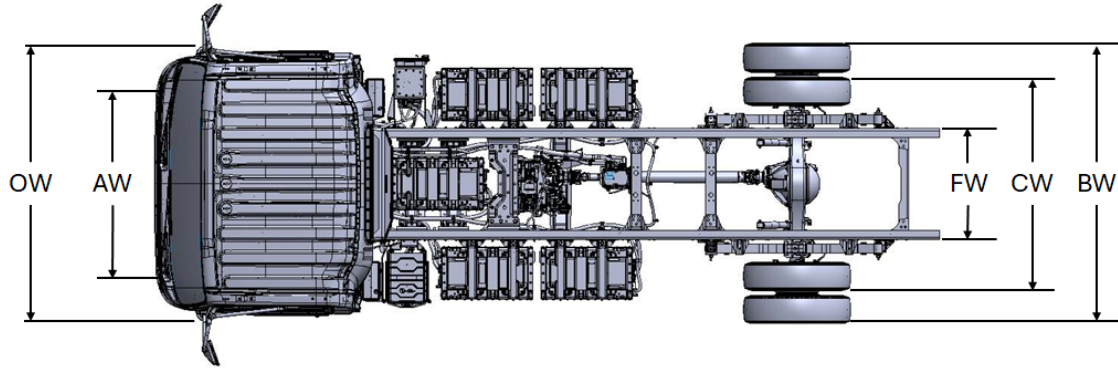
Chassis Specifications

Model	NRR EV
GVWR / GCWR	19,500 lbs. / 19,500 lbs.
WB	132.5 in, 150 in., 176 in.
Electric Motor	ZF CeTrax Lite 3-Phase AC Motor
Operating Voltage	350 Volts
Max Power Output	150 kW
Max Torque Output	280 lb-ft
Equipment	Motor Sub-Assembly includes an integrated DC-AC Inverter, Single Speed Reduction Gear, and Motor Control Unit
High Voltage Battery Packs	Liquid Cooled Lithium Ion High-Voltage battery packs. Each pack features 20kWh of battery capacity. Chassis are available in 3, 5, 7, or 9 battery pack configurations depending on wheelbase.
Charging	AC Charging from SAEJ1772 chargers up to 19.2kW (limited to 7.2kW on 60 kWh chassis) DC Fast Charging from CCS1 chargers up to 80kW
Steering	Integral power steering 18.8-20.9:1 ratio. Tilt and telescoping steering column.
Front Axle	Reverse Elliot "I"-Beam rated at 7,275 lbs.
Front Suspension	Semi-elliptical steel alloy tapered leaf springs with stabilizer bar and shock absorbers.
Front GAWR	7,275 lbs.
Rear Axle	Full floating single speed with hypoid gearing rated at 14,550 lbs.
Rear Suspension	Semi-elliptical steel alloy multi-leaf springs and shock absorbers.
Rear GAWR	13,660 lbs.
Wheels	19.5 X 6.0-K 6-hole disc wheels, painted white
Tires	225/70R-19.5 LRR (Low Rolling Resistance) tubeless steel belted radials, all season, front and rear.
Tire Pressure Monitoring System (TPMS)	Tire pressure sensors are installed onto each wheel to detect changes in tire pressure and tire temperature. TPMS status will be displayed within the instrument panel.
Brakes	Dual circuit power assisted hydraulic 4-channel anti-lock service brake system with EBD (Electronic Brake Distribution) for load proportioning of the front and rear disc brakes. The parking brake is a mechanical, electronically actuated, internal expanding drum type, driveshaft mounted.
Regenerative Braking	Adjustable regenerative braking with multiple strength levels. Braking strength can be quickly adjusted between High, Low and OFF using the steering wheel stalk switch.
Frame	Ladder type channel section straight frame rail 33.5 in wide through the total length of the frame. Yield strength 54,800 psi section modulus 6.65 cubic in, RBM 364,420 lb-in per rail.
Cab	All steel low cab forward, BBC 65.9 in, 45 degree mechanical tilt with torsion assist
Cab Equipment	Gray breathable cloth covered high back driver's seat equipped with an armrest along with two occupant passenger seat and four occupant rear bench seat. Dual cab mounted exterior mirrors with integral convex mirror. Tilt and telescoping steering column. Power windows and door locks, floor mats, tinted glass and air conditioning. AM/FM Radio with Aux input, USB port and Bluetooth. Rear body dome lamp switch. Cab latch switch with indicator and buzzer. Interior and exterior lights are all LED (excluding the rear taillight assembly). Driver and outboard passenger front supplemental restraint system air bags.
Electrical	Two 12-volt, negative ground, maintenance free batteries located on frame, 700 CCA, supplied by DC-DC Converter
Options	see page 3 for options

NOTE: These selected specifications are subject to change without notice.

2026 Isuzu Truck

NRR EV Vehicle Weights, Dimensions, and Ratings



Dimension Constants:

Code	Inches	Code	Inches
AH	7.5	BW	83.3
AW	65.6	CW	65
BA	43.5	FW	33.5
BBC	65.9	OH	92.4
BOC	7.7	OW	81.3
FH	33.5		

Variable Chassis Dimensions:

Unit	WB	CA*	CE*	OAL	AF
inch	132.5	110.0	153.1	219.2	43.1
inch	150.0	127.5	170.6	236.7	43.1
inch	176.0	153.5	196.6	262.7	43.1

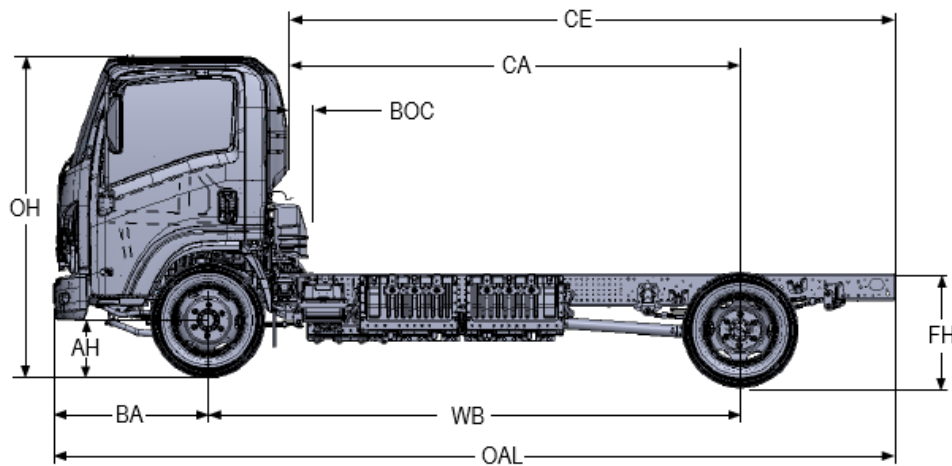
* Effective CA & CE are CA/CE less BOC.

Weights and Payload by Model:

CHASSIS CURB WEIGHTS AND PAYLOADS						GVWR	
N-SERIES EV STANDARD CAB						17,950 lbs. 19,500 lbs.	
MODEL	WB (in)	Battery Capacity (kWh)	Front (lbs)	Rear (lbs)	Total (lbs)	Payload (lbs)	Payload (lbs)
6U2-03	132	60	4139	2410	6549	11401	12951
6U2-05	132	100	4547	3016	7563	10387	11937
6U3-03	150	60	4256	2346	6602	11348	12898
6U3-05	150	100	4734	2882	7616	10334	11884
6U4-03	176	60	4452	2247	6699	11251	12801
6U4-05	176	100	5010	2706	7716	10234	11784
6U4-07	176	140	5268	3416	8684	9266	10816
6U4-09	176	180	5548	4070	9618	8332	9882

Notes:

- [1] Effective CA is CA less BOC.
- [2] Effective CE is CE less BOC.
- [3] Measured at the end of the frame from the top of the frame to the ground at curb
- [4] Chassis curb weight reflects standard equipment and fuel, but no driver or payload.
- [5] Maximum Payload Weight is the allowed maximum for equipment, body, payload and driver and is calculated by subtracting chassis curb weight from the GVWR.



Technical Notes:

Chassis Curb Weight reflects standard equipment and fuel, but no driver or payload.

Maximum Payload Weight is the allowed maximum for equipment, body, payload and driver and is calculated by subtracting chassis curb weight from the GVWR.

Truck Weight Limits and Option Weights

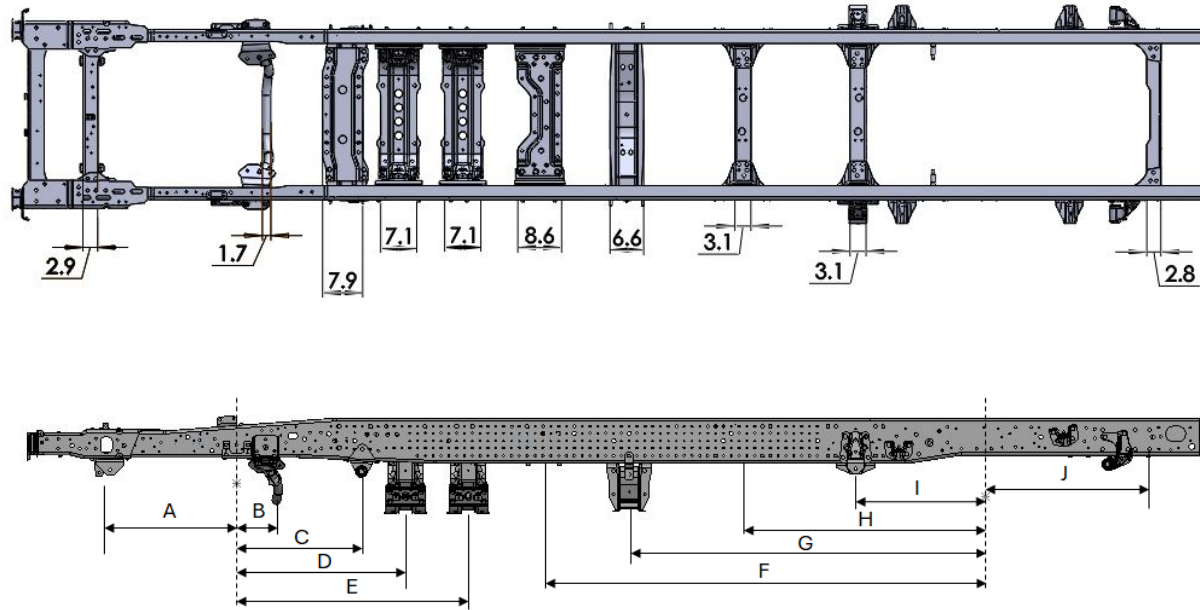
Vehicle Weight Limits	NRR DR Capacity (lb.)	NRR Capacity (lb)
GVWR Designed Maximum	17,950	19,500
GCWR Combined Maximum	19,500	19,500
GAWR - Front	6,830	7,275
GAWR - Rear	13,660	14,460

Option Weights		
RPO ^[1]	Option Description	Front / Rear (lb)
IF4	Air deflector roof mounted (not available in crew cab)	64 / 0
I1V	Audio system with 7" diagonal color touch screen	5 / 1
I2V	Audio system with 7" diagonal color touch screen with backup camera (camera shipped loose)	5 / 2
UZF	Back up alarm	0 / 2
I8T	Chrome grille	1 / 0
IY4	Delete STD AM/FM/CD Radio	-3 / 0
IF6	Fire extinguisher and triangle kit	19 / 0
I7F	FMS Extension Harness	TBD
IZ5	GVW DeRate (19,500 to 17,950 lbs.)	0 / 0
I0W	Heated dual remote control mirrors (17" head)	4 / 0
IS0	Heated mirrors	1 / 0
I7L	High visibility seat belt (orange color, driver seat only)	0 / 0
I8L	High visibility seat belt (orange color, driver and RH passenger seat only)	0 / 0
I9I	LED Fog Lamps	1 / 0
I8I	LED Tail Light Package	0 / 0
IU2	Mirror bracket for 102" wide body	1 / 0
IV8	Seat covers for standard cab seats	6 / 0
I0Z	Spartan Modification Center ship thru code	0 / 0

[1] RPO is Regular Production Option that is stocked in port inventory.

SEO is Special Equipment Option and requires 90-120 day lead time for delivery.

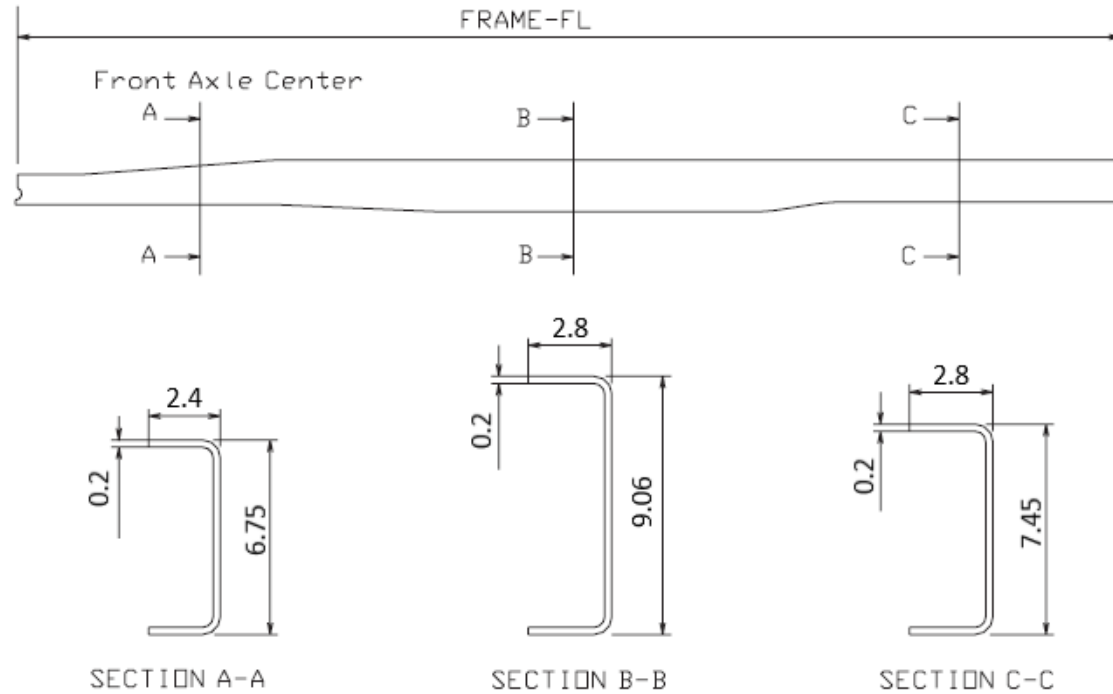
Frame and Crossmember Specifications



Wheelbase	Frame Thickness	Crossmember Location									
		A	B	C	D	E	F	G (Motor CMBR)	H	I	J
132.5	0.2	26.47	7.97	22.94	33.96	46.56	70.61	53.74	-	26.01	31.88
150	0.2	26.47	7.97	22.94	33.96	46.56	88.33	71.46	48.6	26.01	31.88
176	0.2	26.47	7.97	22.94	33.96	46.56	85.29	33.05	49.94	26.01	31.88

Note: Dimensions in inches

Frame Chart



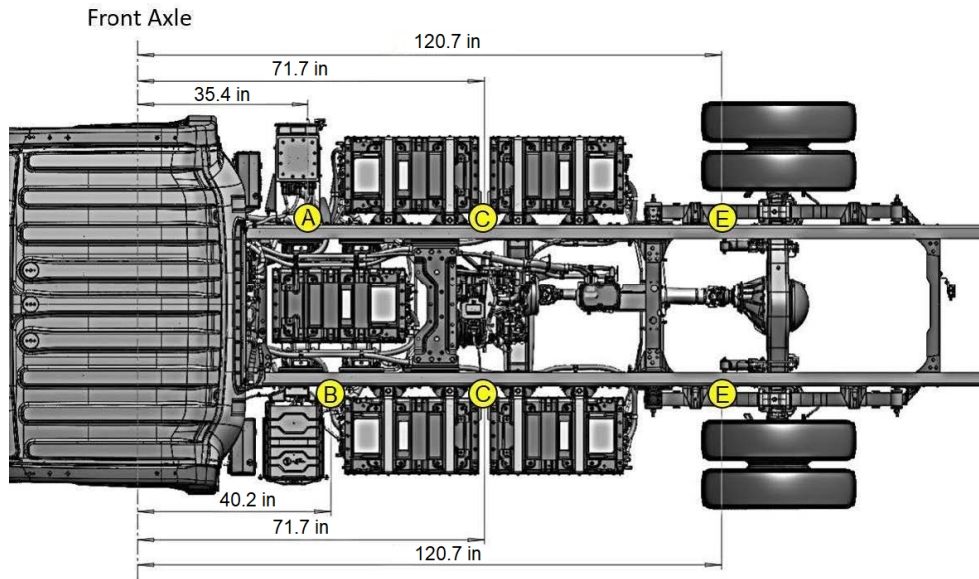
Wheelbase	Frame FL	Frame Thickness
132.5	206.1	0.2
150	223.8	0.2
176	249.8	0.2

Note: Dimensions in inches

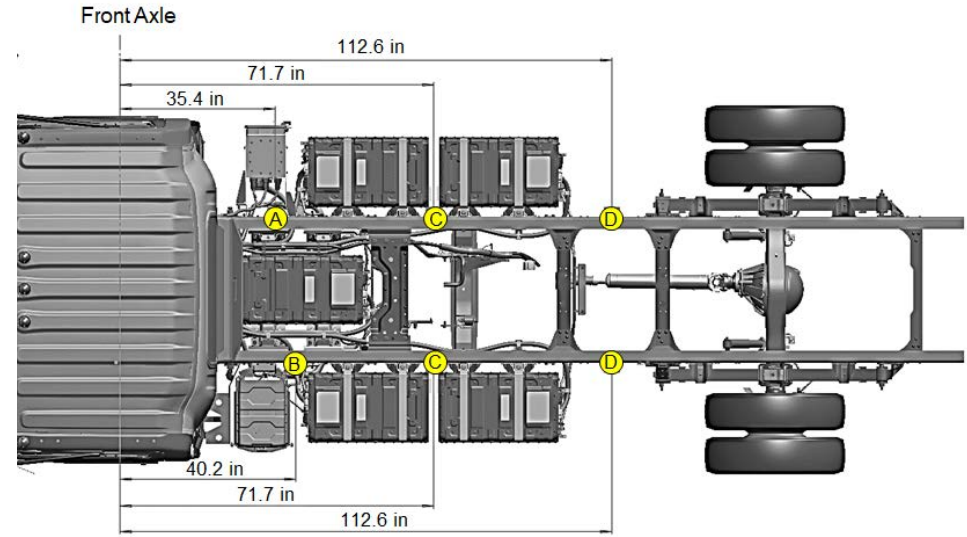
2026 Isuzu Truck

Body Mounting Block Locations

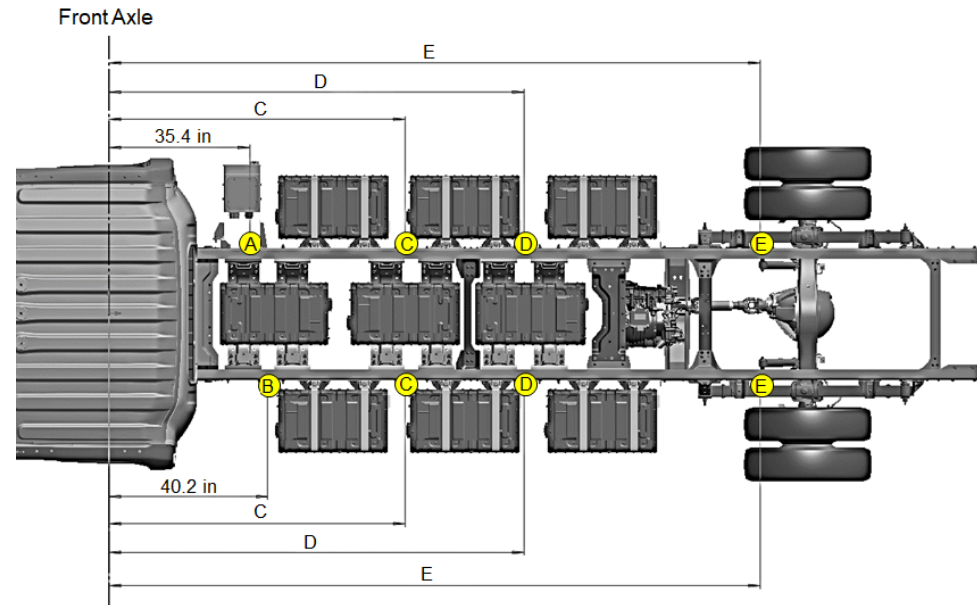
132" WB



150" WB



176" WB*



LOCATION (see diagram)	WHEELBASE (in.)			
	132.5	150	176	176
	60 kWh 100 kWh	60 kWh 100 kWh	60 kWh 100 kWh	140 kWh 180 kWh
A	35.4	35.4	35.4	35.4
B	40.2	40.2	40.2	40.2
C	71.7	71.7	71.7	74.8
D	N/A	112.6	139.4	104.7
E	120.7	N/A	N/A	164.4

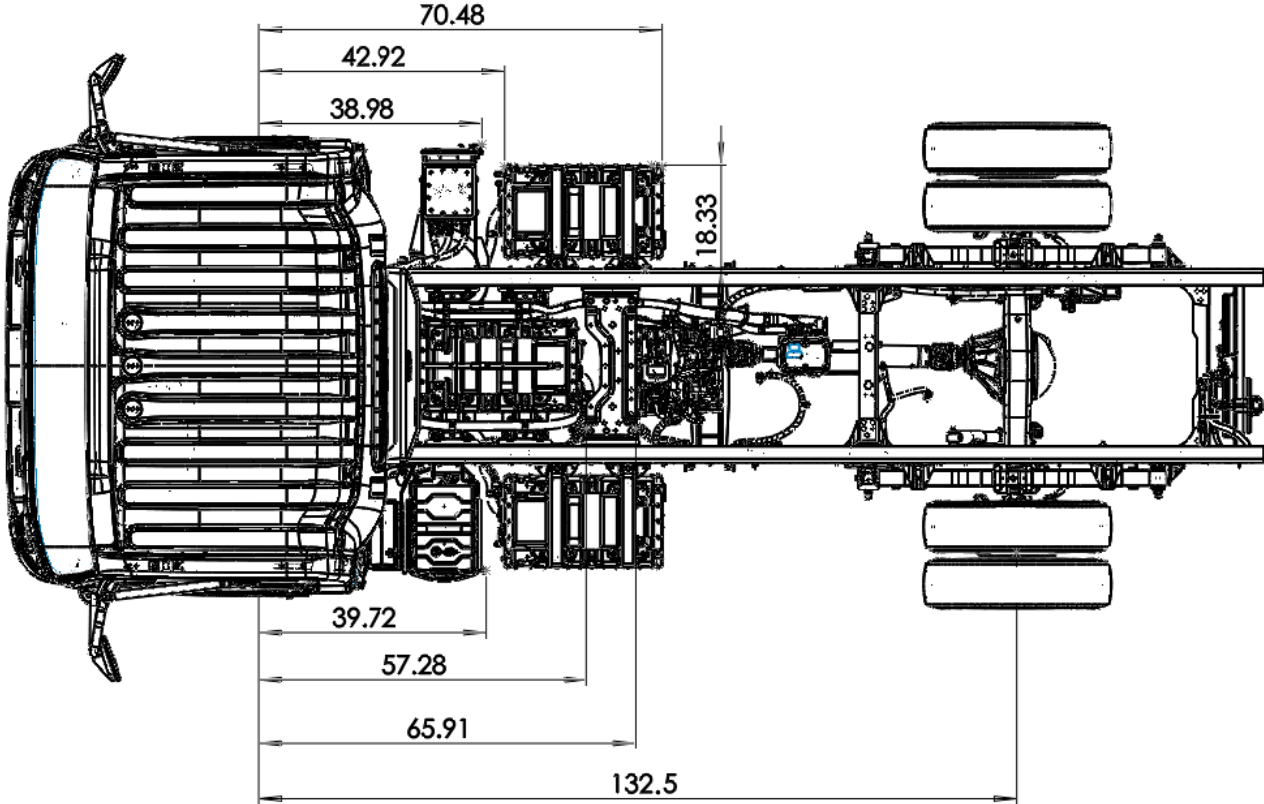
Note: Dimensions in inches

*180kWh battery shown, see table for other battery option dimensions

2026 Isuzu Truck

NRR EV Standard Cab - Top View

NRR EV 60 kWh 132.5-in. WB



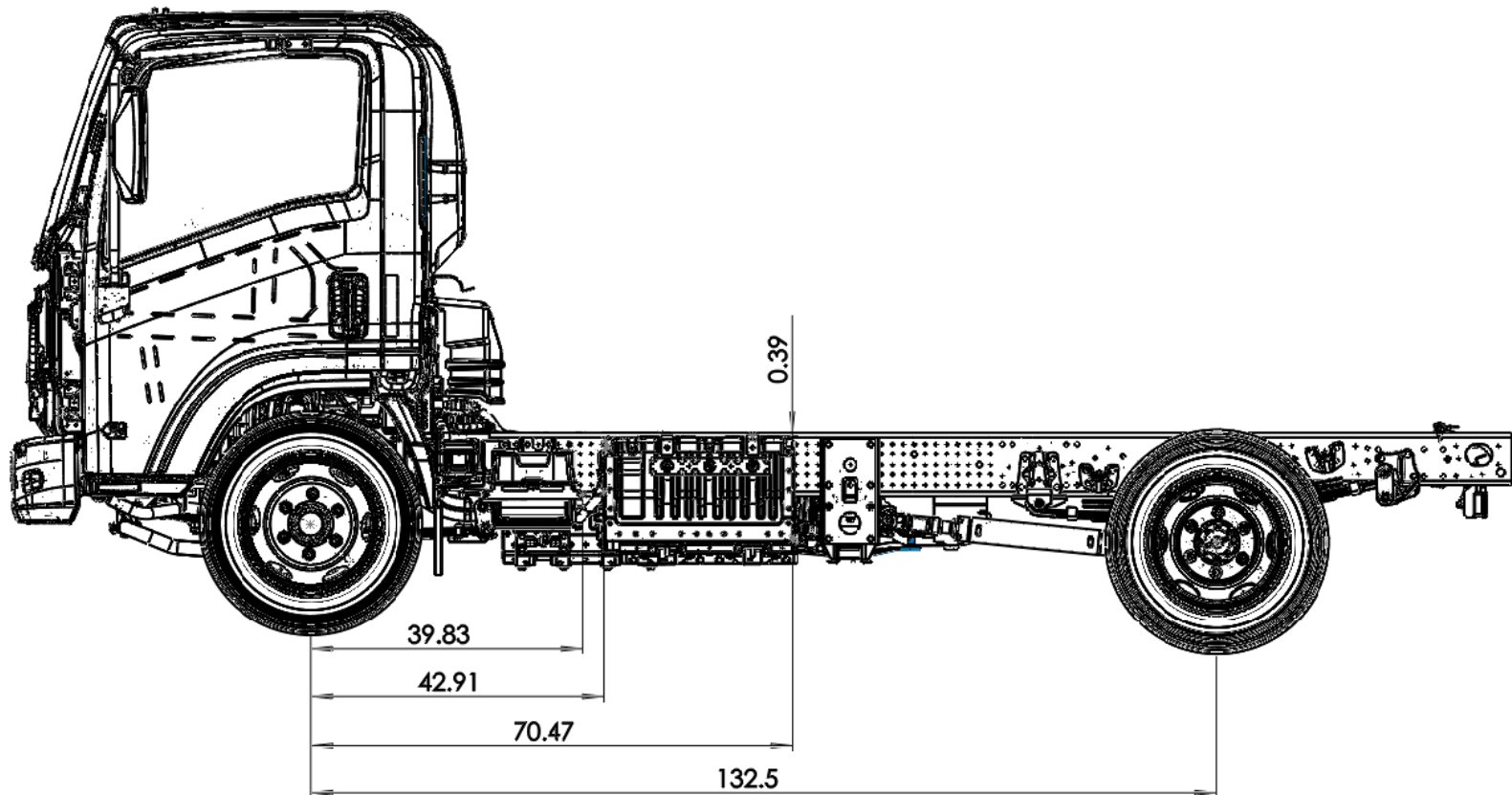
Note: Dimensions in inches

2026 Isuzu Truck

NRR EV

NRR EV Standard Cab - Left Side View

NRR EV 60 kWh 132.5-in. WB

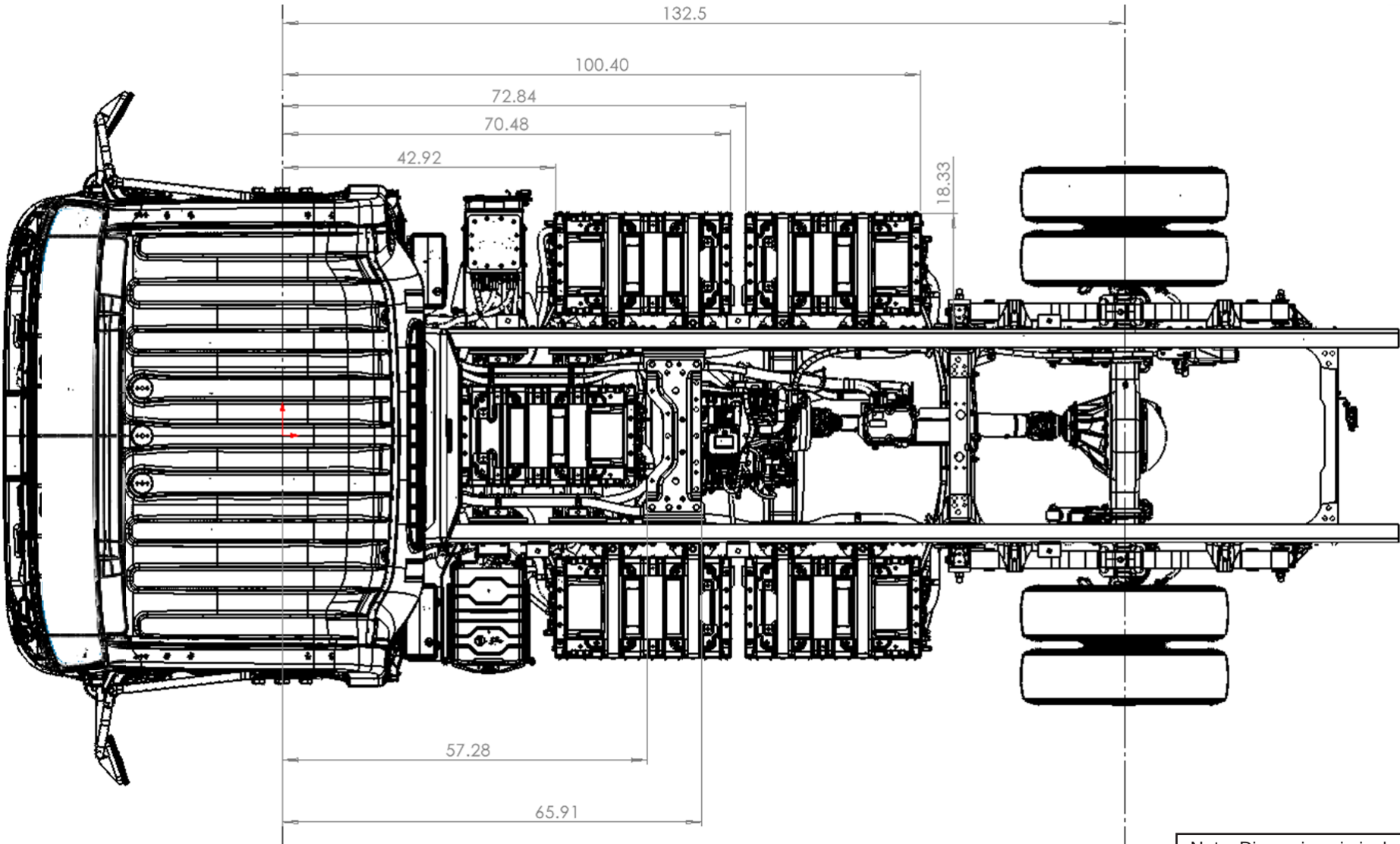


Note: Dimensions in inches

2026 Isuzu Truck

NRR EV Standard Cab - Top View

NRR EV 100 kWh 132.5-in. WB

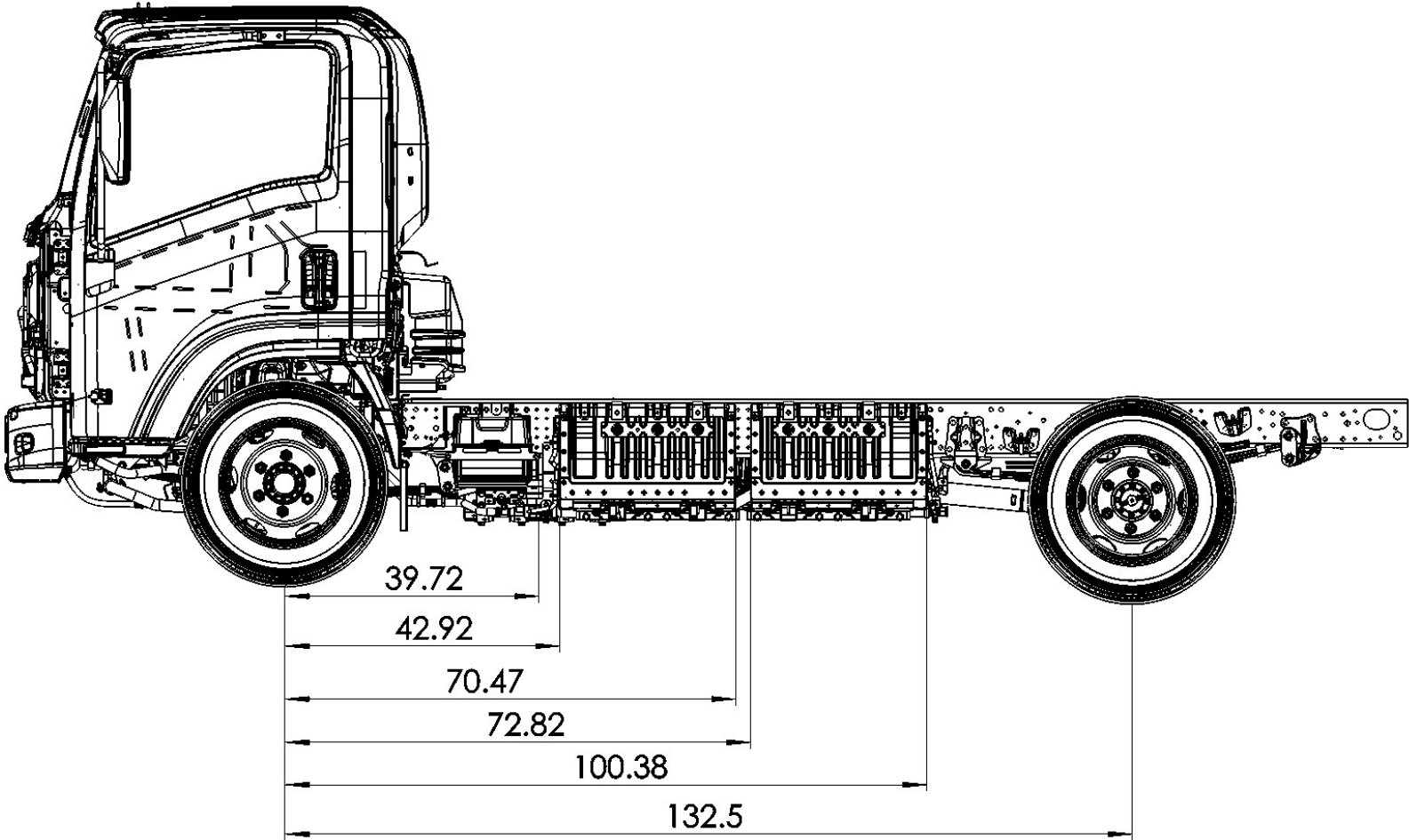


Note: Dimensions in inches

2026 Isuzu Truck

NRR EV Standard Cab - Left Side View

NRR EV 100 kWh 132.5-in. WB

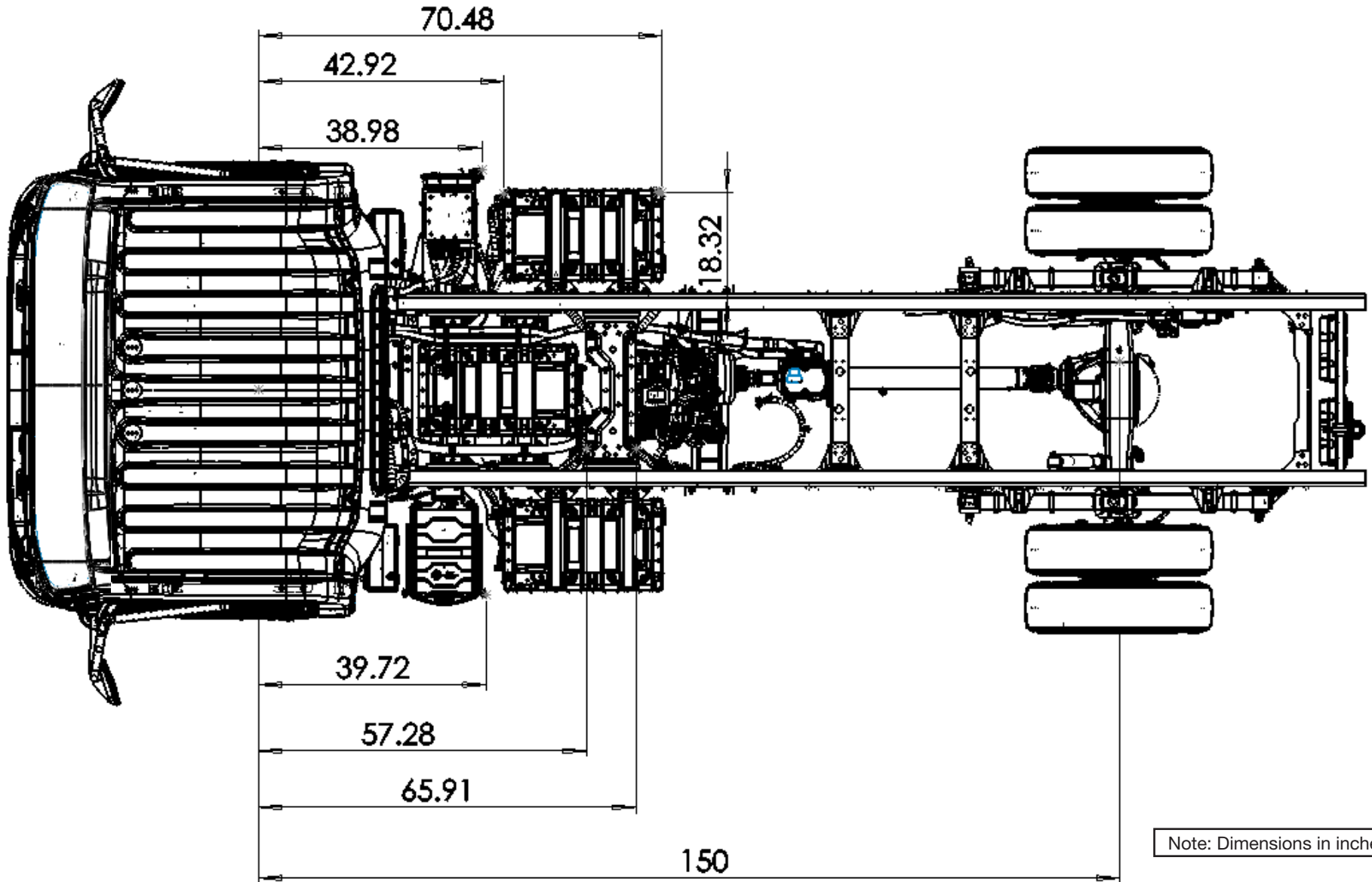


Note: Dimensions in inches

2026 Isuzu Truck

NRR EV Standard Cab - Top View

NRR EV 60 kWh 150-in. WB

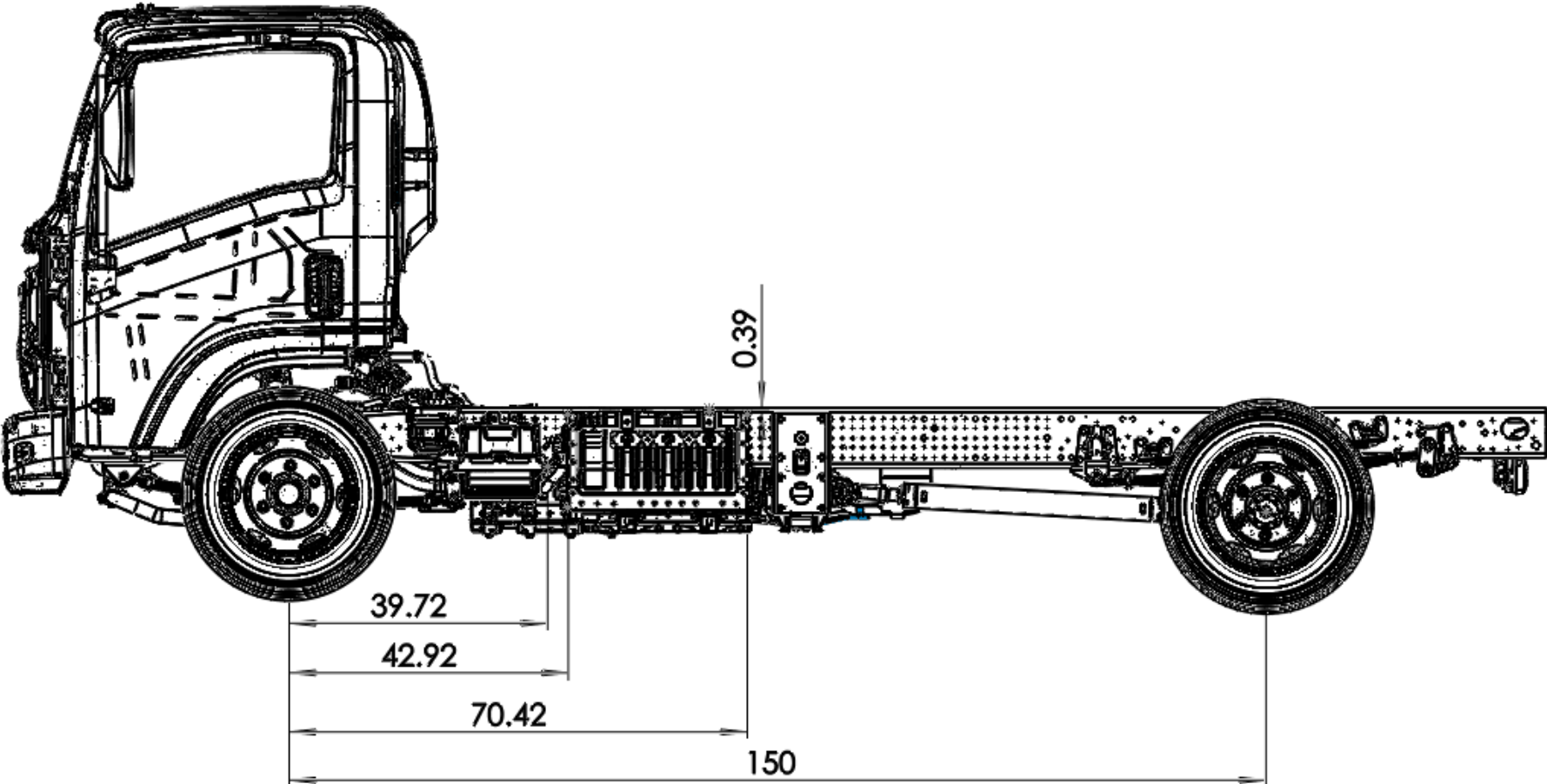


Note: Dimensions in inches

2026 Isuzu Truck

NRR EV Standard Cab - Left Side View

NRR EV 60 kWh 150-in. WB

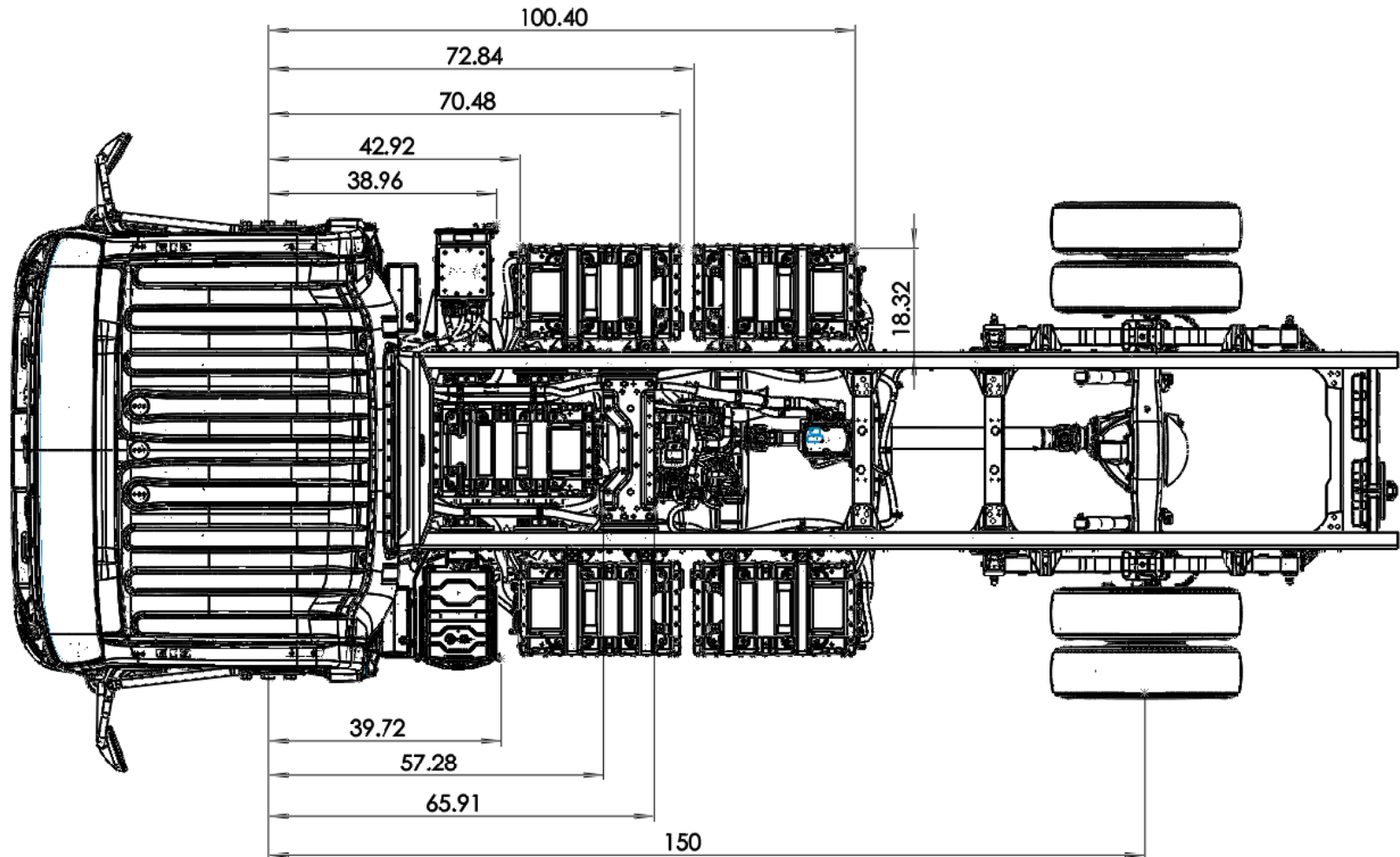


Note: Dimensions in inches

2026 Isuzu Truck

NRR EV Standard Cab - Top View

NRR EV 100 kWh 150-in. WB

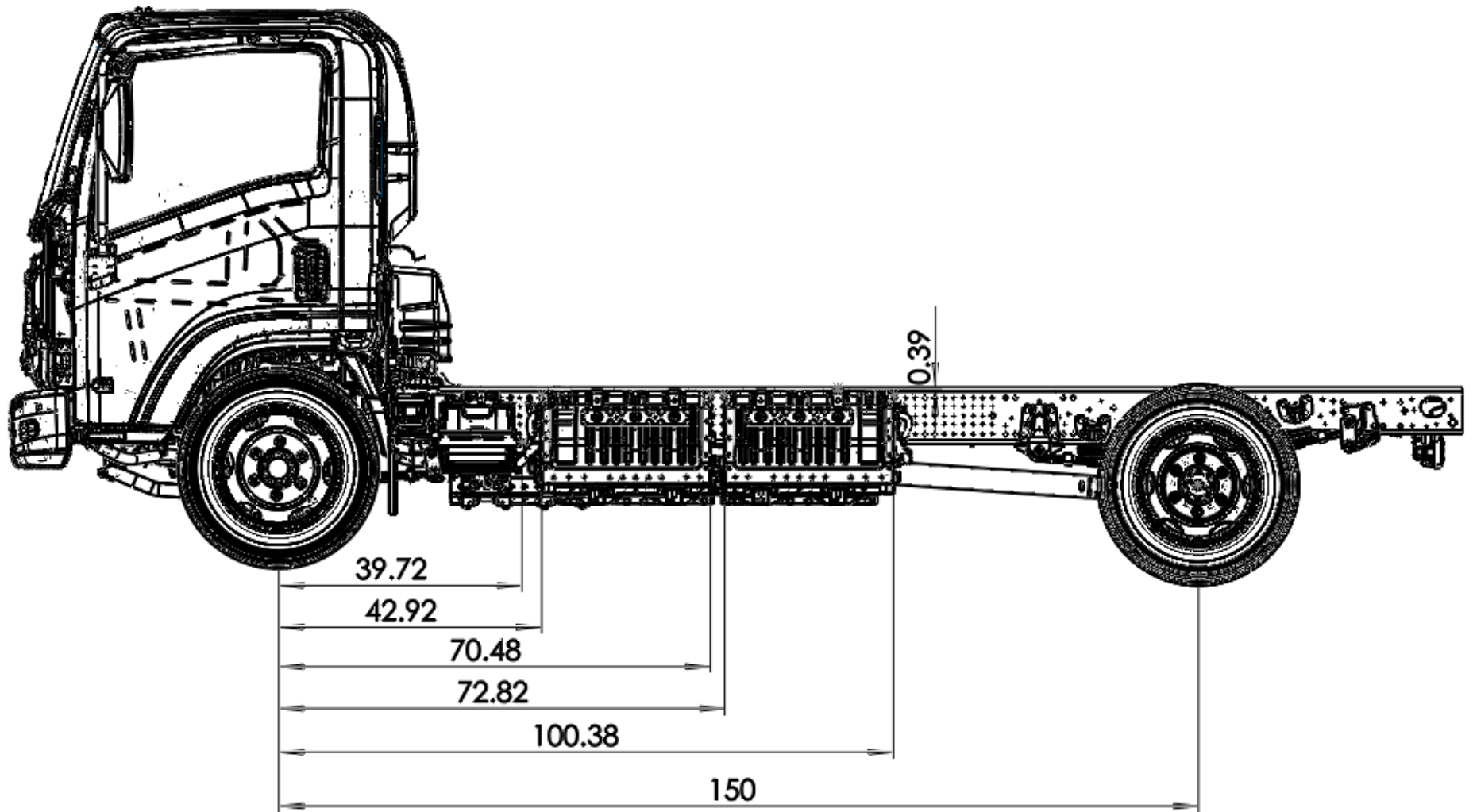


Note: Dimensions in inches

2026 Isuzu Truck

NRR EV Standard Cab - Left Side View

NRR EV 100 kWh 150-in. WB

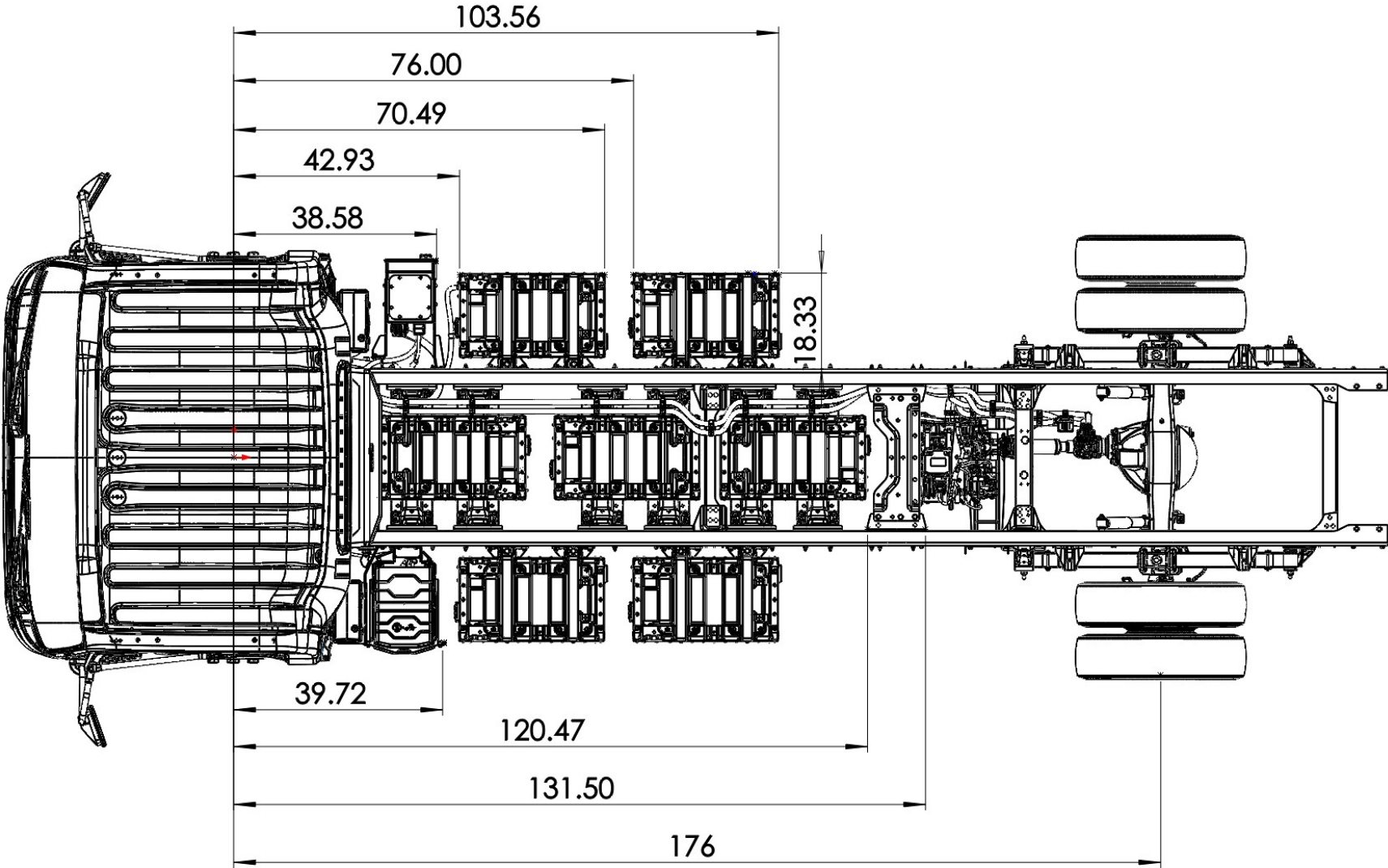


Note: Dimensions in inches

2026 Isuzu Truck

NRR EV Standard Cab - Top View

NRR EV 140 kWh 176-in. WB

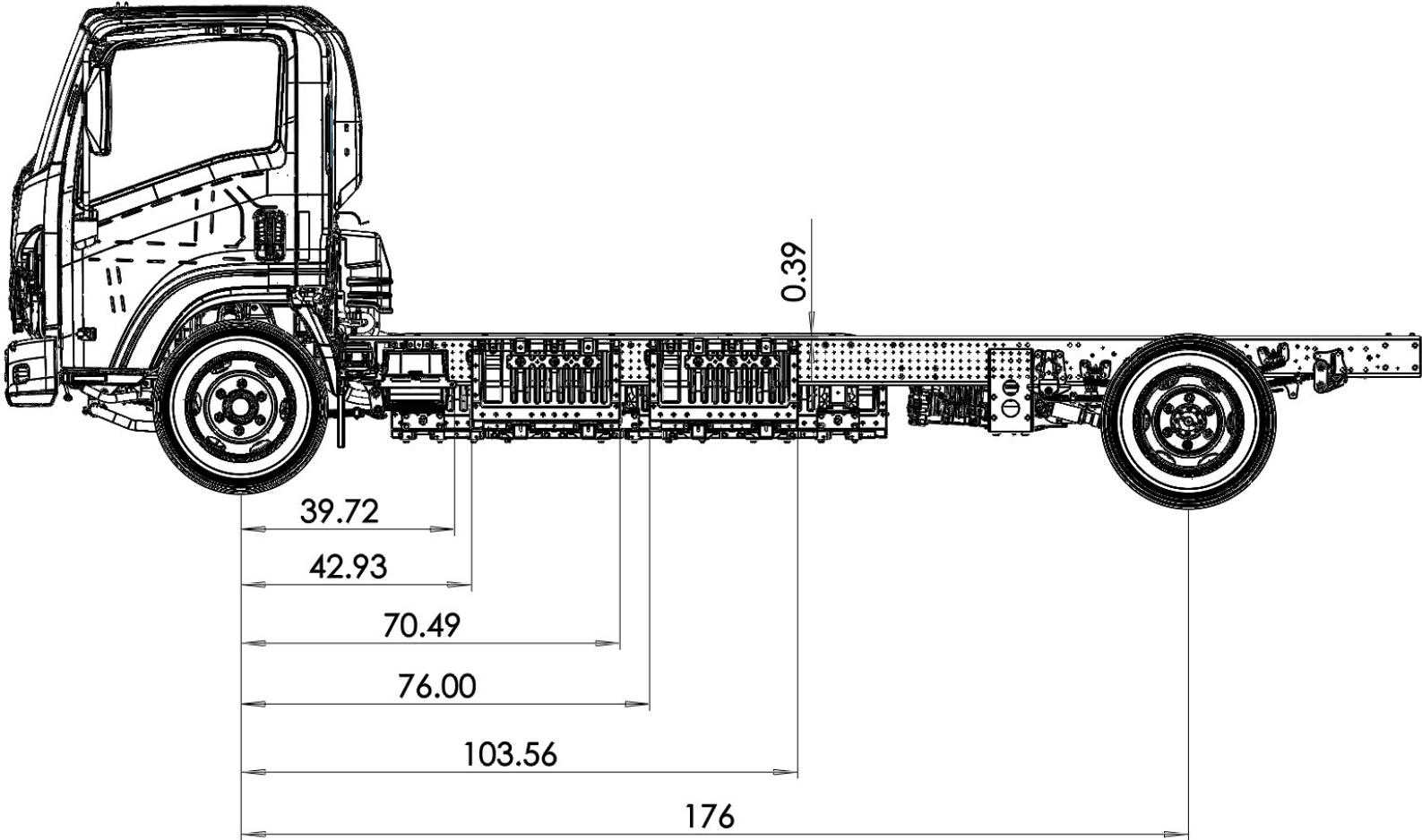


Note: Dimensions in inches

2026 Isuzu Truck

NRR EV Standard Cab - Left Side View

NRR EV 140 kWh 176-in. WB

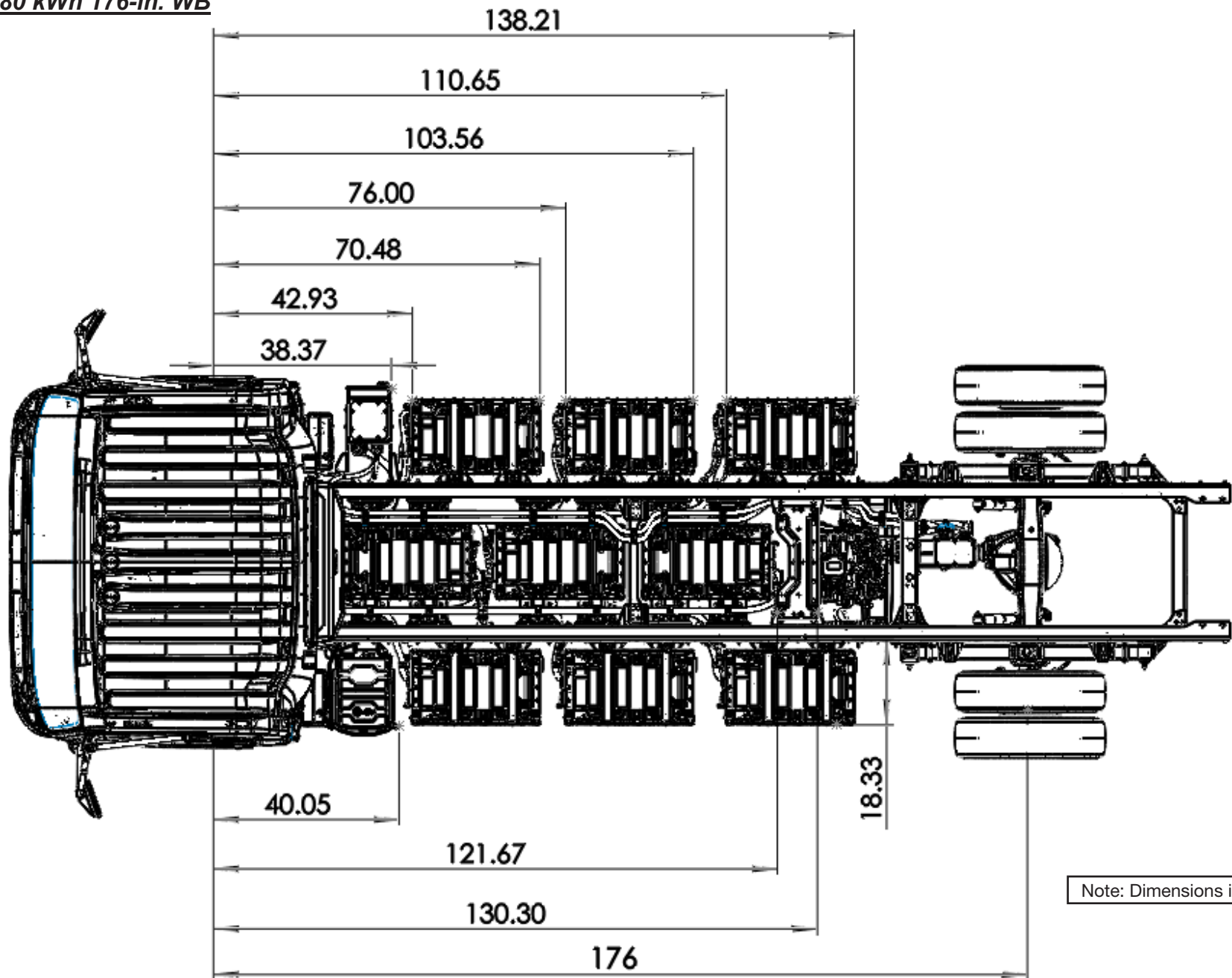


Note: Dimensions in inches

2026 Isuzu Truck

NRR EV Standard Cab - Top View

NRR EV 180 kWh 176-in. WB

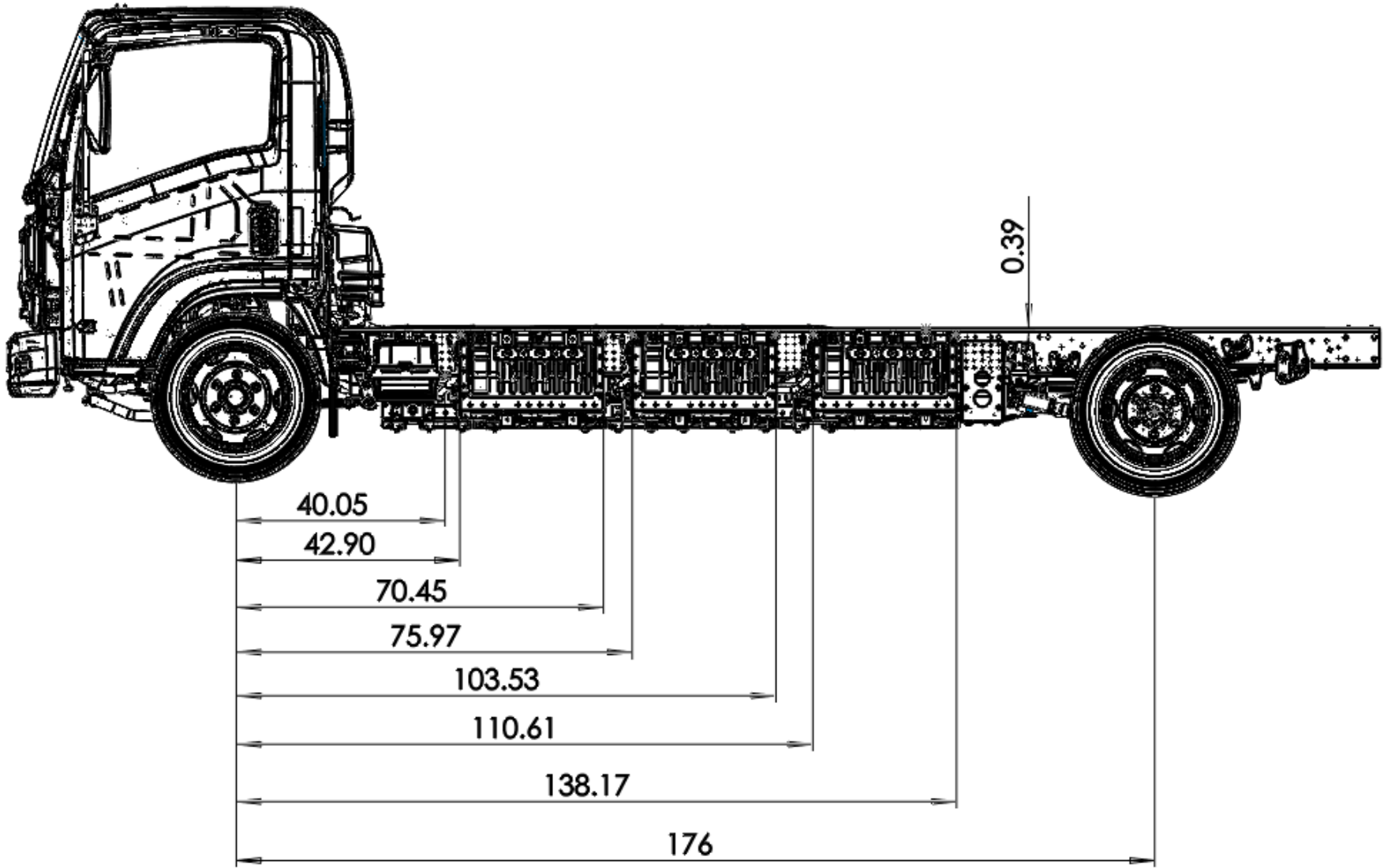


Note: Dimensions in inches

2026 Isuzu Truck

NRR EV Standard Cab - Left Side View

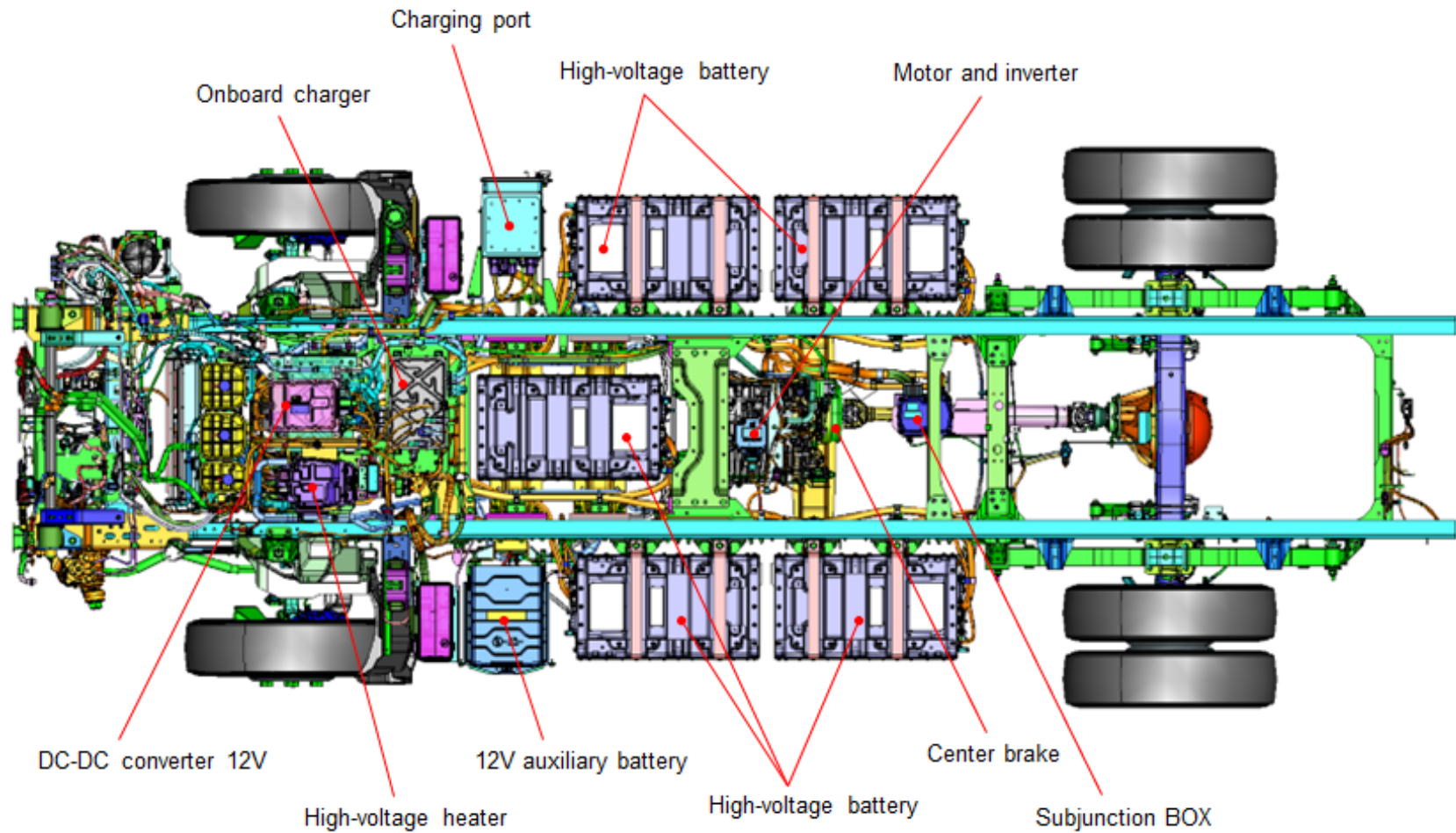
NRR EV 180 kWh 176-in. WB



Note: Dimensions in inches

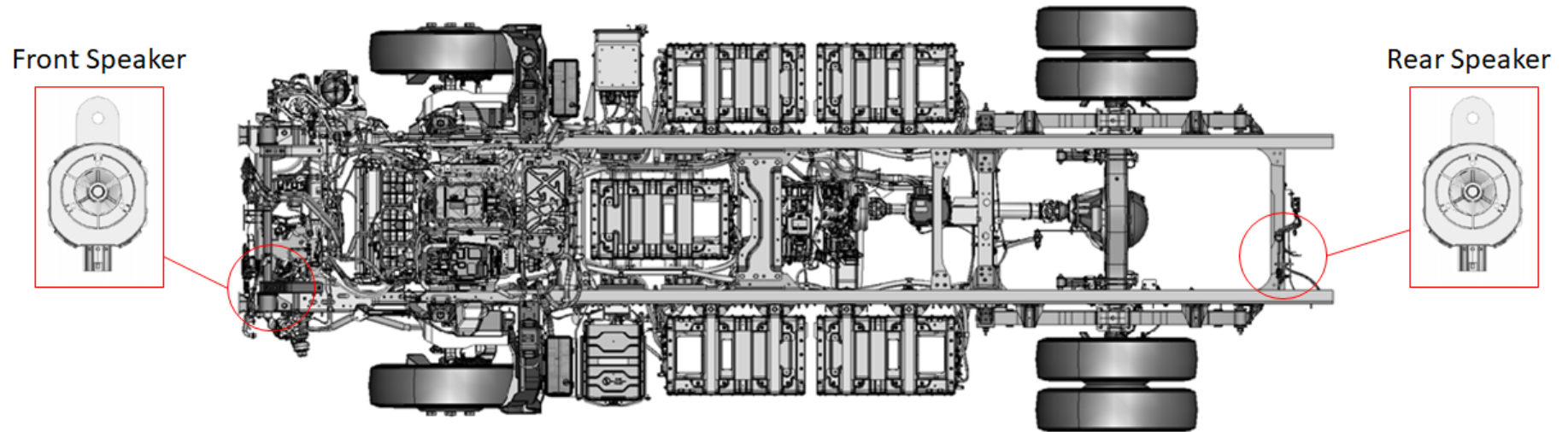
2026 Isuzu Truck

EV SYSTEM OVERVIEW



2026 Isuzu Truck

Acoustic Vehicle Alerting System (AVAS)

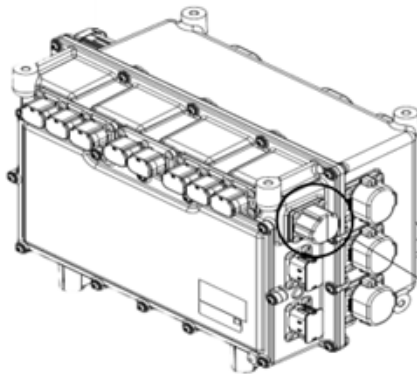
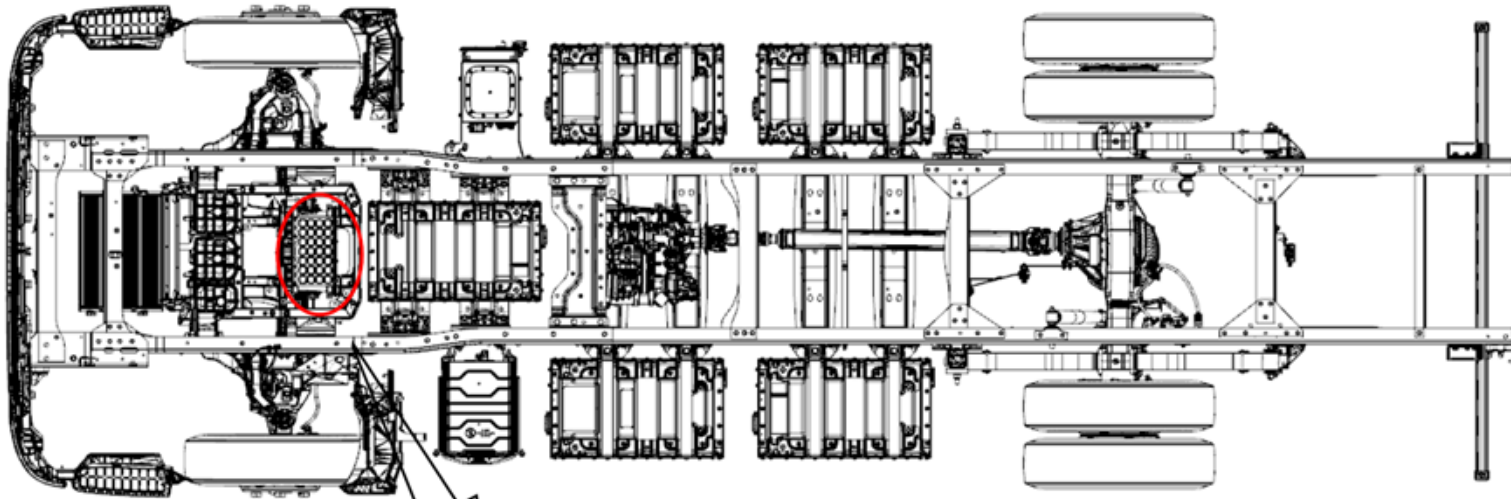


NOTE:

- Uses sound to notify people that they are in the vicinity of a low-speed vehicle
- Using both a front and rear speaker the sound is active:
 1. When moving forward at a speed of less than 12.4 mph
- and -
 2. When moving in reverse at any speed

2026 Isuzu Truck

ePTO Connector



Outlet port
Made: Tyco
P/N: HVSL362062A1

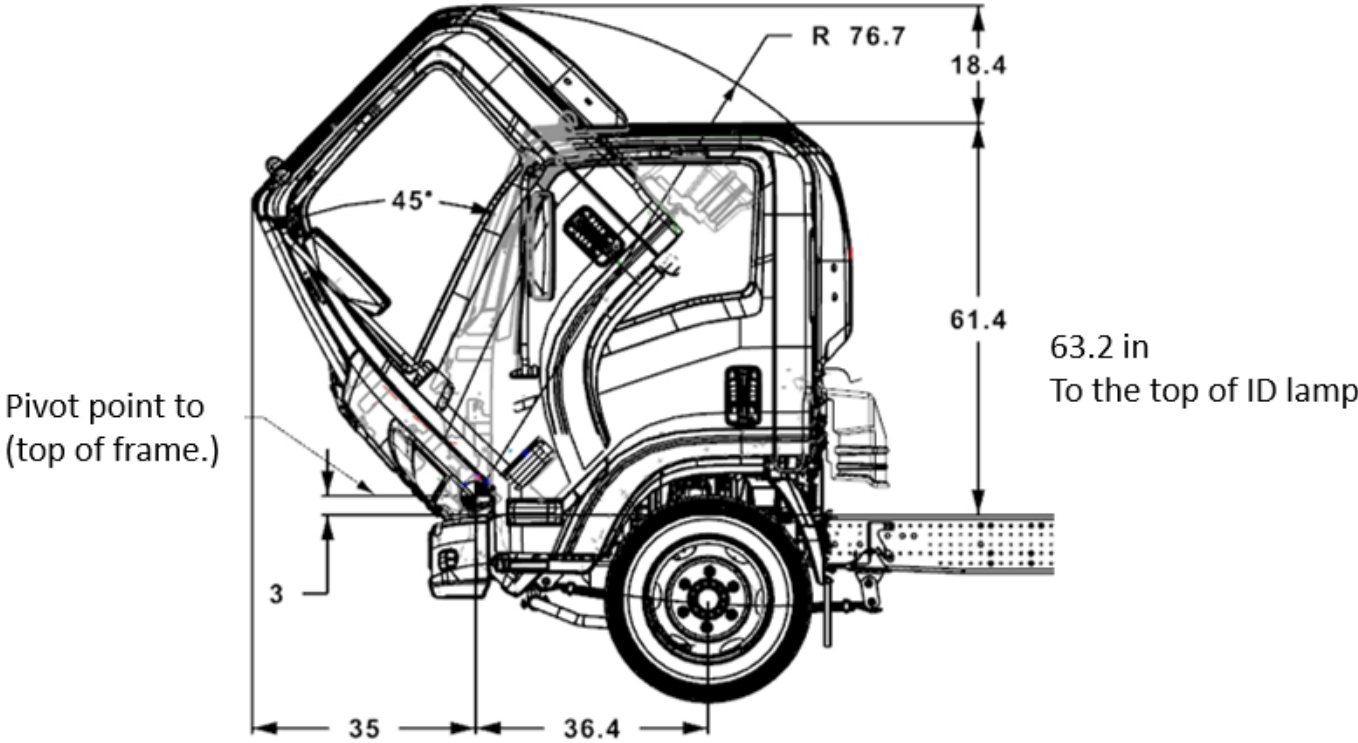
Item		Spec
Output		DC
Working Voltage Range:	Performance	300-400V
	Work	240-410V
Max Electrical Power:		26 kW
Max Electric Current:		67A

Note: See NRR EV ePTO section for details



2026 Isuzu Truck

Cab Tilt Diagram



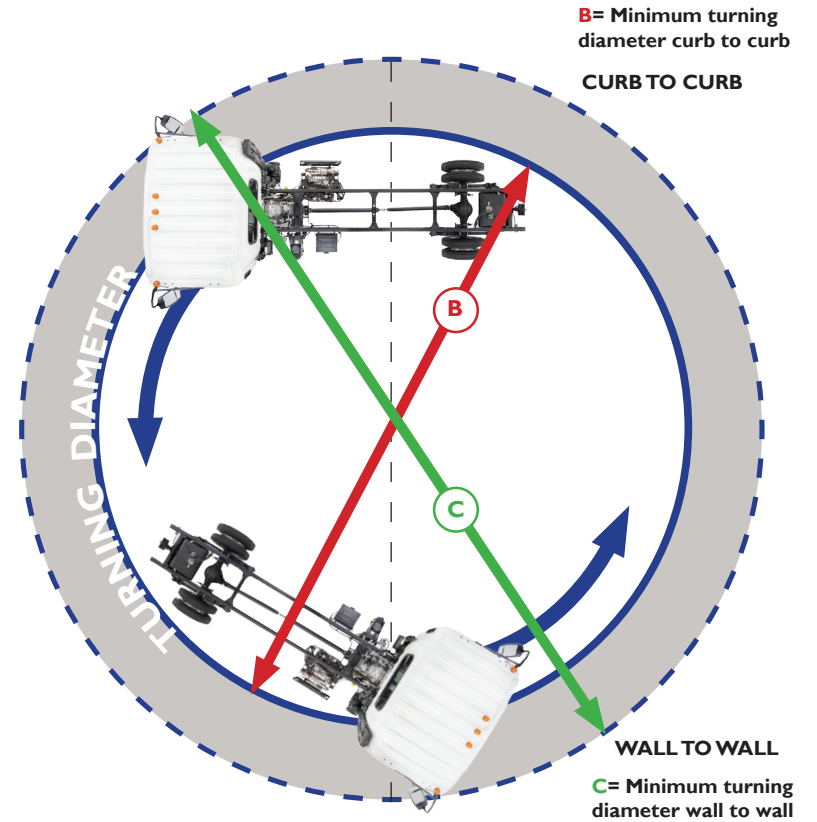
Note: Dimensions in inches

Turning Diameters

Turning Diameters (design value)

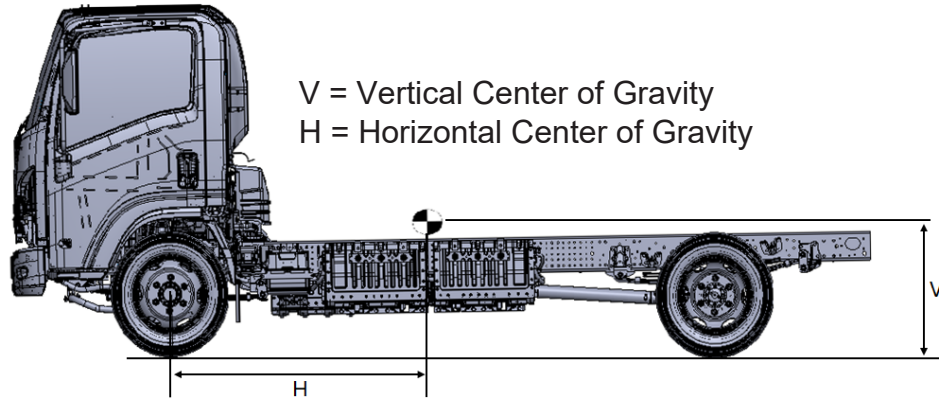
WB	B (ft) Curb to Curb	C (ft) Wall to Wall
132.5	40.0	44.9
150	45.3	50.2
176	52.5	58.1

The NRR EV steering features a 46.5 degree inside wheel cut angle



2026 Isuzu Truck

Center of Gravity



Horizontal and Vertical Center of Gravity of Chassis			
Wheelbase	Battery Packs / kWh	Vertical CG - V -	Horizontal CG - H -
132.5	3 / 60 kWh	25.19	48.76
132.5	5 / 100 kWh	24.18	52.84
150	3 / 60 kWh	25.01	53.30
150	5 / 100 kWh	24.00	56.76
176	3 / 60 kWh	24.75	59.03
176	5 / 100 kWh	23.73	61.72
176	7 / 140 kWh	22.97	69.23
176	9 / 180 kWh	22.26	74.48

The maximum vertical center of gravity specified below must not be exceeded at maximum GVWR and rated front and rear GAWR. The Center of Gravity (CG) maximum is 63" (1600 mm) above the ground.

NOTE: The Final Manufacturer must ensure that the combined vertical center of gravity of the chassis, body, and available payload at full GVW does not exceed the maximum vertical center of gravity outlined in the Isuzu Incomplete Vehicle Document and the Isuzu Body Builders Guide.

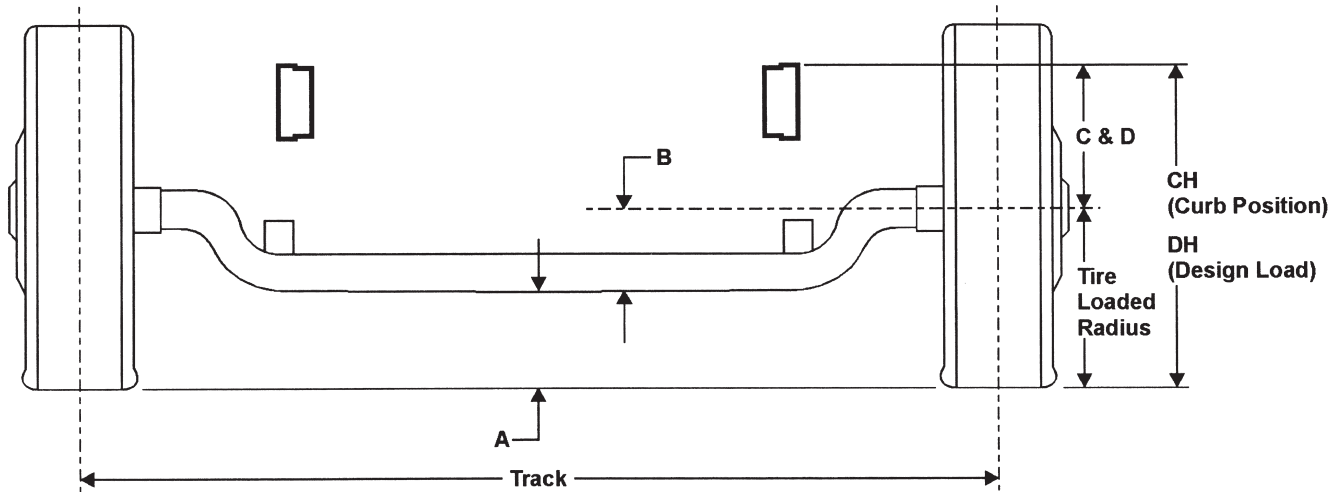
The maximum dimensions for a body installed on the N Series chassis are 102 inches wide (outside*) by 91 inches high (inside). If approval is needed for larger body applications, please contact Isuzu Commercial Trucks of America (ICTA) Application Engineering.

Please email ICTA.Application.Engineering@icta-us.com or call on the West Coast call 1-562-310-8599 and on the East Coast call 1-734-582-9284.

* With 102 inches wide mirror brackets installed in place of standard mirror brackets

Note: Dimensions in inches

Front Axle Chart



Formulas for calculating height dimensions:

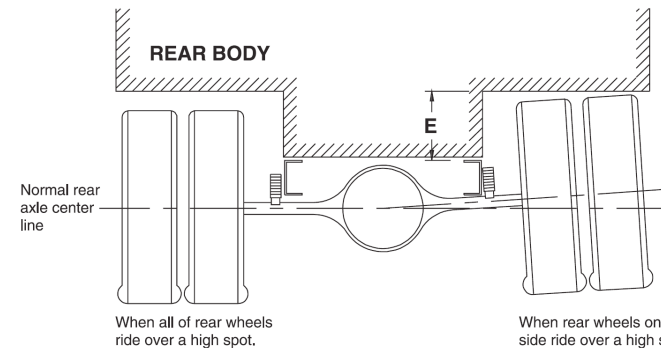
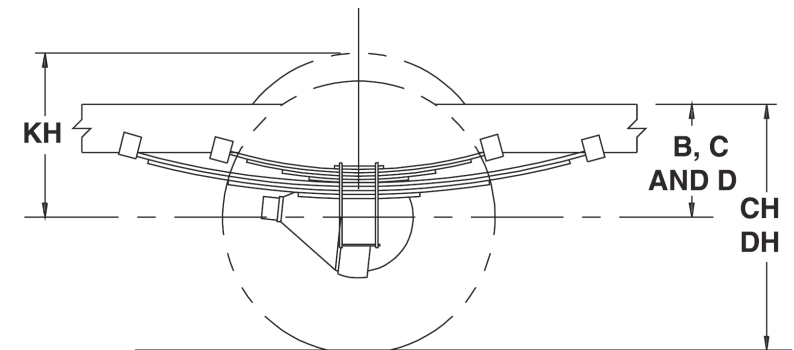
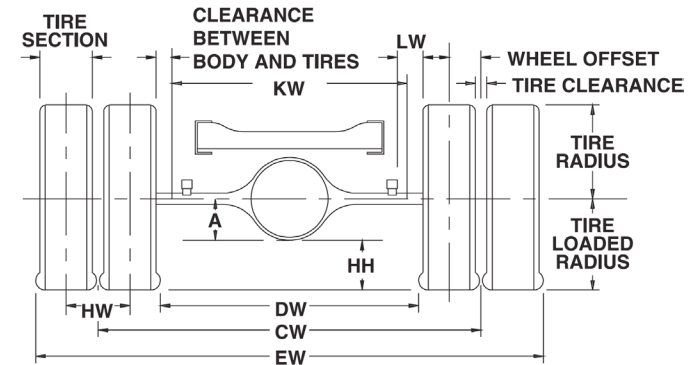
- A = Tire Loaded Radius – B
- C = Centerline of Axle to Top of Frame Rail at Curb Position
- D = Centerline of Axle to Top of Frame Rail at Design Load
- CH = C + Tire Unloaded Radius
- DH = D + Tire Loaded Radius

Model	Tire	GVWR	GAWR	A	B	C	D	CH	DH	Track	Tire Radius	
											Unloaded	Loaded
NRR DR EV	225/70R 19.5F	17,950 lbs.	6,830 lbs.	8.5	6.5	12.6	11.9	28.3	27.6	66.2	16	14.9
NRR EV		19,500 lbs.	7,275 lbs.	8.5	6.5	12.6	11.9	28.3	27.6	66.2	16	14.9

Note: Dimensions in inches

Rear Axle Chart

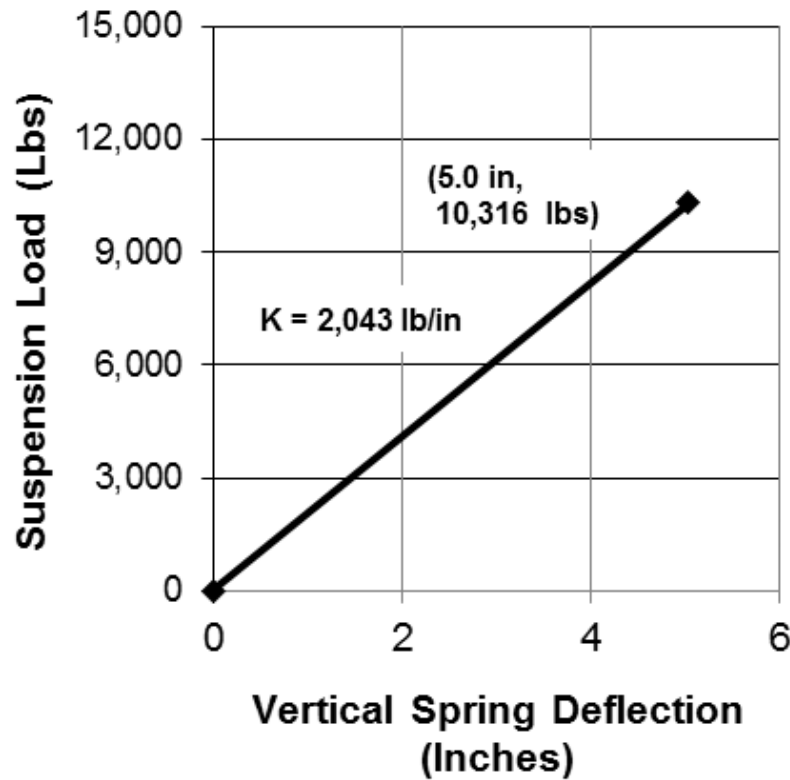
Definitions								
A	Centerline of axle to bottom of axle bowl.							
B	Centerline of axle to top of frame rail at metal-to-metal position.							
C	Centerline of axle to top of frame rail at curb position.							
D	Centerline of axle to top of frame rail at design load.							
E	Rear Tire Clearance: Maximum clearance required for tires and chain measured from top of the frame at the vehicle centerline of the rear axle, when rear wheels on one side ride over a high spot.							
CH	Rear Frame Height (Curb Load): Vertical distance between the normal top of frame rail and the ground-line through the centerline of the rear axle at curb position.							
DH	Rear Frame Height (Design Load): Vertical distance between the normal top of frame rail and the ground-line through the centerline of the rear axle at design position.							
DW	Minimum distance between the inner surfaces of the rear tires.							
EW	Minimum Rear Width: Overall width of the vehicle measured at the outermost surfaces of the rear tires.							
HH	Rear Tire Clearance: Minimum clearance between the rear axle and the ground-line.							
HW	Dual Tire Spacing: Distance between the centerlines of the tires in a set of dual tires.							
KH	Tire Bounce Clearance: Minimum distance required for tire bounce as measured from the centerline of the rear axle and the top of the rear tire when one wheel rides over a high spot.							
CW	Track Dual Rear Wheel Vehicle: Distance between the centerlines of the dual wheels measured at the ground-line.							
KW	Clearance between body and tires.							
Equations								
CH	= Tire loaded radius + C							
DH	= Tire loaded radius + D							
DW	= CW + 2 tire sections - tire clearance							
EW	= CW + 2 tire sections + tire clearance							
HH	= Tire loaded radius - A							
JH	= KH - B							
KH	= Tire radius + 3.0 inches							
KW	= DW - 5.0 inches							
LW	= 1.0 inch minimum clearance between tires and springs							
Values								
Model	Tire	GAWR	CW	A	B	C	D	E
NRR DR EV	225/70R 19.5F	13,660 lbs.	65.9	7.6	9.3	15.3	13.9	8.4
NRR EV		14,460 lbs.	65.9	7.6	9.3	15.3	13.9	8.4



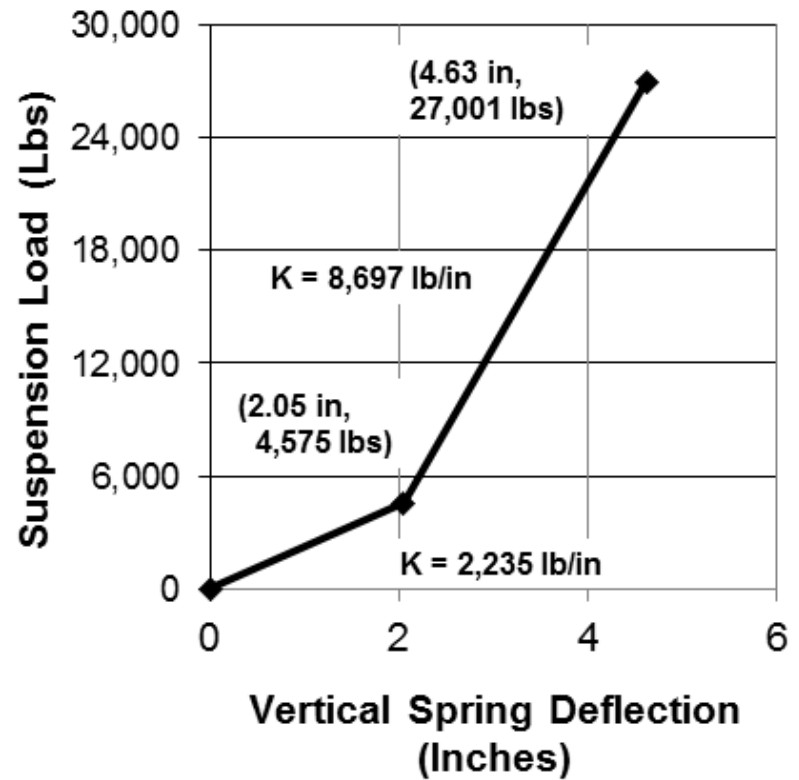
Note: Dimensions in inches

Suspension Deflection Charts

**Front Suspension Load vs. Deflection
(Per Axle)
19,500 lb GVWR**



**Rear Suspension Load vs. Deflection
(Per Axle)
19,500 lb GVWR**



2026 Isuzu Truck

Tire and Disc Wheel Chart

Tire

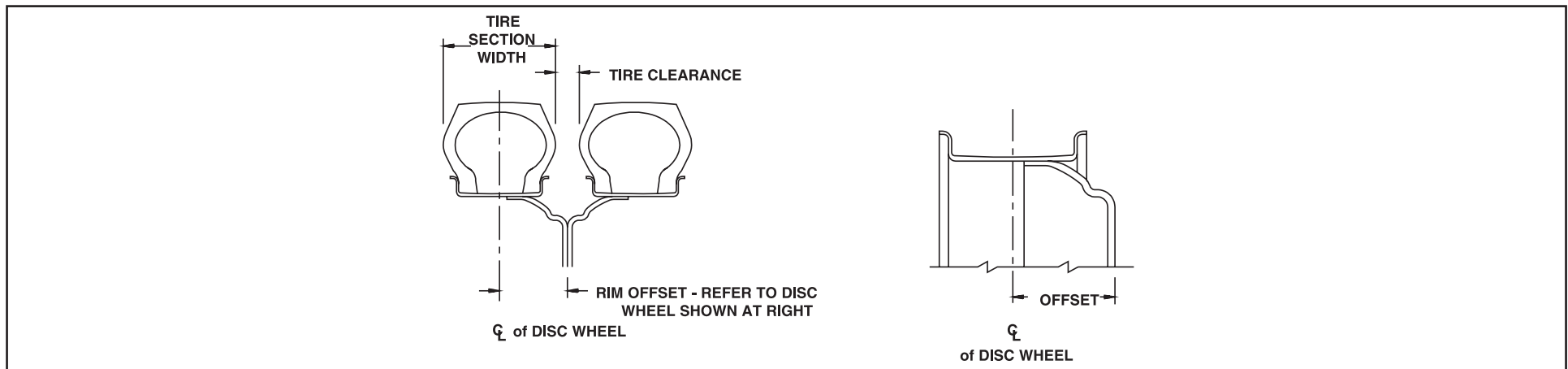
Model	Tire Size	Manufacture Model	GVWR (lbs.)	Tire Load Limit and Cold Inflation Pressures				Maximum Tire Load Limits (lbs.)	
				Single		Dual		Front	Rear
				LBS.	PSI	LBS.	PSI	2 Single	4 Dual
NRR EV	225/70R-19.5G	Dunlop SP688 Yokohama TY213B	19,500	3,845	105	3,615	105	7,690	14,460

Model	Tire Size	GVWR (lbs.)	Tire Radius				Tire Section Width	Tire Clearance	Design Rim Width
			Loaded		Unloaded				
			Front	Rear	Front	Rear			
NRR EV	225/70R-19.5F	19,500	14.9	14.9	16	16	9	1	6.0

Disc Wheel

Wheel Size	Bolt Holes	Bolt Circle Dia.	Ft./Rr. Nut Size*	Rear Stud Size*	Nut/Stud Torque Specs.	Inner Circle	Outside Offset	Disc Thickness	Rim Type	Material Mfg.
19.5 x 6.00 RW	6 JIS	8.75	1.61 (41 mm) BUD HEX	0.83 (21 mm) SQUARE	325 ft.-lb. (440 N•m)	6.46	5.0	0.37	15° DC	Steel TOPY

*O.D. Wrench Sizes

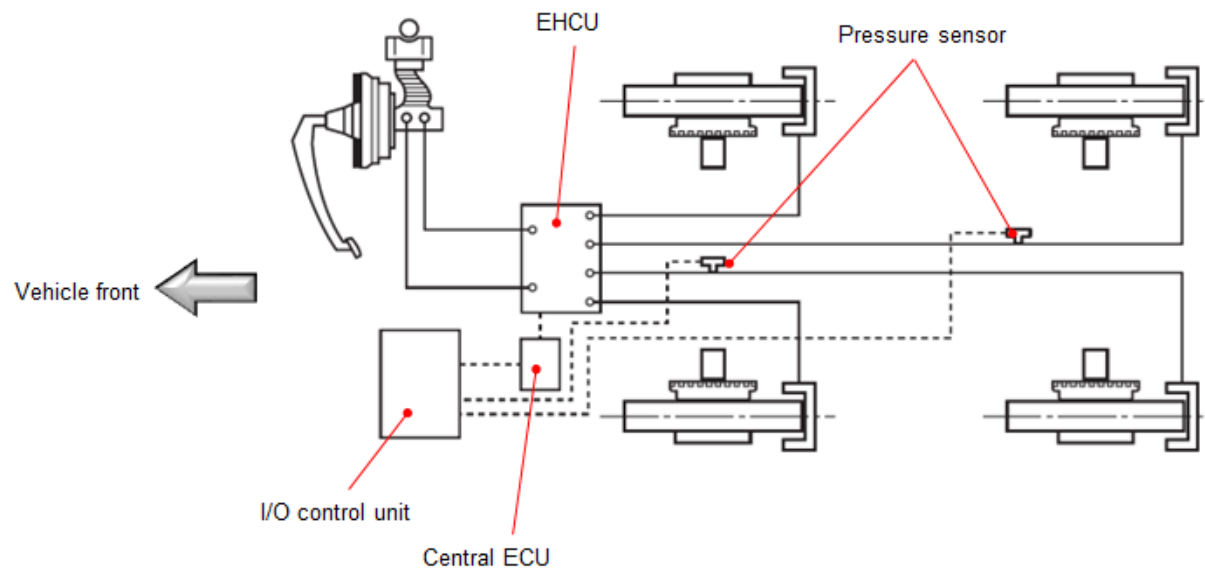


Note: Dimensions in inches

Brake System Diagram

Vacuum Over Hydraulic

Please refer to Introduction Section of book for antilock system cautions.



2026 Isuzu Truck

Chassis Specifications

Model	FTR
GVWR/GCWR	25,950 lbs. / 30,000 lbs.
WB	152 in., 170 in., 188 in., 200 in., 212 in., 224 in., 236 in., 248 in.
Engine	Cummins B6.7 diesel engine, 6-cylinder, turbocharged, inter-cooled, EGR cooler, high pressure common rail fuel system, and single module aftertreatment.
Model/Displacement	B6.7 / 408 CID (6.7L)
HP (Gross)	260 HP at 2400 RPM
Torque (Gross)	660 lb.-ft. torque at 1600 RPM with automatic transmission
Equipment	Dry element air cleaner with vertical intake; 1 row 748 in ² radiator; 11 blade 24.8in diameter fan with electro-viscous drive. Cold weather starting device and an oil cooler. Engine oil level check switch and light. Engine warning system with audible warning for low oil pressure, high coolant temperature, and low coolant level. Engine cruise control function, coolant temperature, and low coolant level. Engine cruise control function.
Transmission	Allison 2550 RDS 6 speed automatic transmission. A single PTO opening on the left hand side of the transmission with a maximum torque value of 250 lb-ft.
Steering	Integral power steering. Tilt and Telescoping steering column. Steering ratio of 22.4:1
Front GAWR	11R22.5G tires - 12,000 lbs.; 255/70R22.5H tires - 11,000 lbs.
Front Axle	Dana E-1254W reverse Elliot "I"-Beam type steer axle rated at 12,000 lbs.
Front Suspension	Semi-elliptical steel alloy tapered leaf springs with stabilizer bar and shock absorbers, rated at 12,000 lbs.
Rear GAWR	19,000 lbs.
Rear Axle	Dana S19-140 single-speed, 19,000 lbs. capacity drive axle.
Rear Suspension	Semi-elliptical steel alloy multi-leaf springs rated at 21,000 lbs. Air spring suspension with single leveling valve, dual shock absorbers, and an in cab dump/fill switch rated at 23,000 lbs.
Wheels	22.5 x 8.25 inch 10 hole disc wheels, painted white.; 22.5 x 8.25 inch 10 hole aluminum disc wheels.
Tires	11R22.5G LRR (Low Rolling Resistance) tubeless steel belted radials, premium highway front tread and premium highway traction rear tread. 255/70R22.5H LRR (Low Rolling Resistance) Low Profile, tubeless steel belted radials, premium highway front tread and premium highway traction rear tread.
Brakes	Dual circuit S-CAM drum air service brakes with 4 channel anti-lock brake system. An air operated exhaust brake, air controlled parking brake, heated air dryer, and automatic slack adjusters are standard.
Fuel Tank	50 / 100 gal. (depending on chassis wheelbase) rectangular aluminum fuel tank mounted on left hand frame. Includes a fuel water separator with indicator light.
Frame	Ladder type channel section straight frame rail, 33.5 in wide along the total length of the frame. Yield strength 80,000 psi; Section Modulus 12.69 cub. In, RBM 1,015,000 lb-in
Cab	All steel low cab forward, BBC 81.5 in, 45 degree mechanical tilt with torsion assist.
Cab Equipment	TRICOT breathable cloth covered high back air ride driver's seat with rigid passenger seat and center seat with fold down back. Dual cab mounted exterior mirrors with integral convex mirror and a right hand side mounted side cross mirror. Tilt and telescoping steering column. Power windows and door locks, floor mats, tinted glass, AM/FM/CD stereo radio with Bluetooth. Rear body dome lamp switch. Cab latch switch with indicator and buzzer.
Electrical	12 Volt, negative ground, dual maintenance free batteries with threaded posts, 750 CCA each, 160 Amp alternator with integral regulator.
Options	See page 3 for options

NOTE: These selected specifications are subject to change without notice.

2026 Isuzu Truck

Chassis Specifications

Model	FVR
GVWR/GCWR	33,000 lbs. / 33,000 lbs.
WB	152 in., 170 in., 188 in., 200 in., 212 in., 224 in., 236 in., 248 in.
Engine	Cummins B6.7 diesel engine, 6-cylinder, turbocharged, inter-cooled, EGR cooler, high pressure common rail fuel system, and single module aftertreatment.
Model/Displacement	B6.7 / 408 CID (6.7L)
HP (Gross)	260 HP at 2400 RPM
Torque (Gross)	660 lb.-ft. torque at 1600 RPM with automatic transmission
Equipment	Dry element air cleaner with vertical intake; 1 row 748 in ² radiator; 11 blade 24.8in diameter fan with electro-viscous drive. Cold weather starting device and an oil cooler. Engine oil level check switch and light. Engine warning system with audible warning for low oil pressure, high coolant temperature, and low coolant level. Engine cruise control function, coolant temperature, and low coolant level. Engine cruise control function.
Transmission	Allison 2500 RDS 6 speed automatic transmission. A single PTO opening on the left hand side of the transmission with a maximum torque value of 250 lb-ft.
Steering	Integral power steering. Tilt and Telescoping steering column. Steering ratio of 22.4:1
Front GAWR	11R22.5G tires - 12,000 lbs.
Front Axle	Dana E-1254W reverse Elliot "I"-Beam type steer axle rated at 12,000 lbs.
Front Suspension	Semi-elliptical steel alloy tapered leaf springs with stabilizer bar and shock absorbers, rated at 12,000 lbs.
Rear GAWR	21,000 lbs.
Rear Axle	Dana S21-140 single-speed, 21,000 lbs. capacity drive axle.
Rear Suspension	Semi-elliptical steel alloy multi-leaf springs rated at 21,000 lbs. Air spring suspension with single leveling valve, dual shock absorbers, and an in cab dump/fill switch rated at 23,000 lbs.
Wheels	22.5 x 8.25 inch 10 hole disc wheels, painted white.; 22.5 x 8.25 inch 10 hole aluminum disc wheels.
Tires	11R22.5G LRR (Low Rolling Resistance) tubeless steel belted radials, premium highway front tread and premium highway traction rear tread.
Brakes	Dual circuit S-CAM drum air service brakes with 4 channel anti-lock brake system. An air operated exhaust brake, air controlled parking brake, heated air dryer, and automatic slack adjusters are standard.
Fuel Tank	50 / 100 gal. (depending on chassis wheelbase) rectangular aluminum fuel tank mounted on left hand frame. Includes a fuel water separator with indicator light.
Frame	Ladder type channel section straight frame rail, 33.5 in wide along the total length of the frame. Yield strength 80,000 psi; Section Modulus 12.69 cub. In, RBM 1,015,000 lb-in
Cab	All steel low cab forward, BBC 81.5 in, 45 degree mechanical tilt with torsion assist.
Cab Equipment	TRICOT breathable cloth covered high back air ride driver's seat with rigid passenger seat and center seat with fold down back. Dual cab mounted exterior mirrors with integral convex mirror and a right hand side mounted side cross mirror. Tilt and telescoping steering column. Power windows and door locks, floor mats, tinted glass, AM/FM/CD stereo radio with Bluetooth. Rear body dome lamp switch. Cab latch switch with indicator and buzzer.
Electrical	12 Volt, negative ground, dual maintenance free batteries with threaded posts, 750 CCA each, 160 Amp alternator with integral regulator.
Options	See page 3 for options

NOTE: These selected specifications are subject to change without notice.

2026 Isuzu Truck

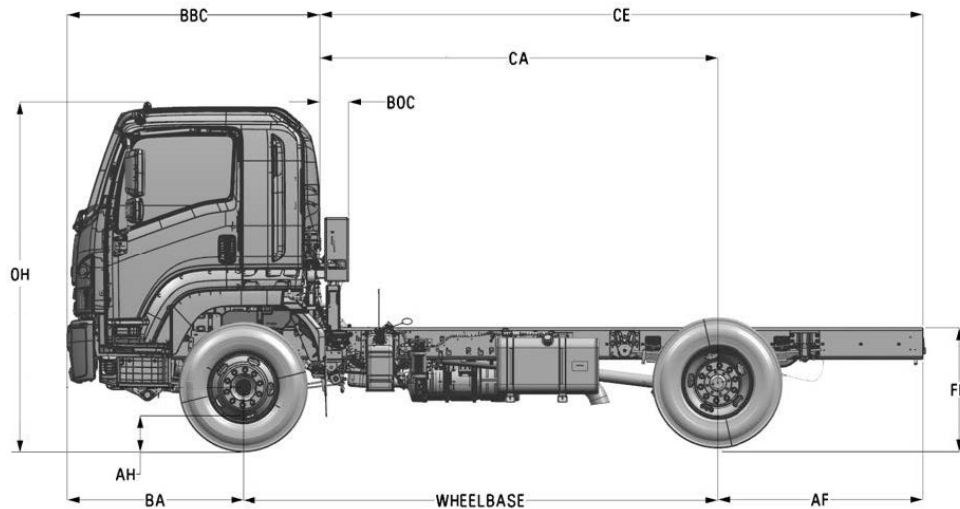
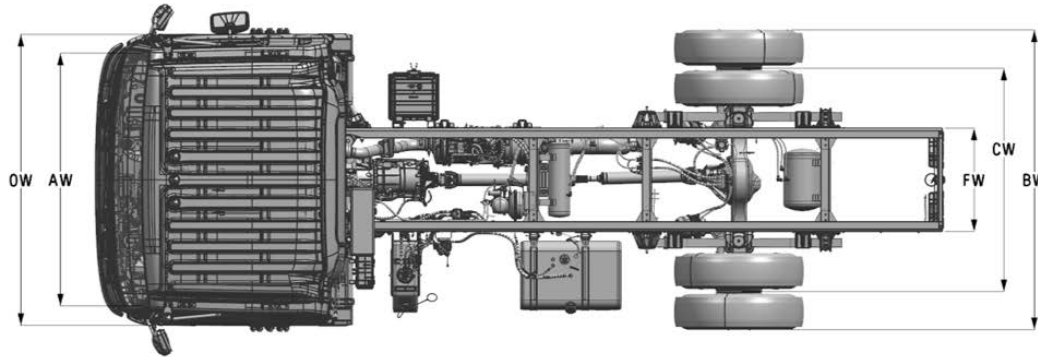
Chassis Specifications

Model	FVR DERATE
GVWR/GCWR	25,950 lbs. / 33,000 lbs.
WB	152 in., 170 in., 188 in., 200 in., 212 in., 224 in., 236 in., 248 in.
Engine	Cummins B6.7 diesel engine, 6-cylinder, turbocharged, inter-cooled, EGR cooler, high pressure common rail fuel system, and single module aftertreatment.
Model/Displacement	B6.7 / 408 CID (6.7L)
HP (Gross)	260 HP at 2400 RPM
Torque (Gross)	660 lb.-ft. torque at 1600 RPM with automatic transmission
Equipment	Dry element air cleaner with vertical intake; 1 row 748 in ² radiator; 11 blade 24.8in diameter fan with electro-viscous drive. Cold weather starting device and an oil cooler. Engine oil level check switch and light. Engine warning system with audible warning for low oil pressure, high coolant temperature, and low coolant level. Engine cruise control function, coolant temperature, and low coolant level. Engine cruise control function.
Transmission	Allison 2500 RDS 6 speed automatic transmission. A single PTO opening on the left hand side of the transmission with a maximum torque value of 250 lb-ft.
Steering	Integral power steering. Tilt and Telescoping steering column. Steering ratio of 22.4:1
Front GAWR	11R22.5G tires - 12,000 lbs.
Front Axle	Dana E-1254W reverse Elliot "I"-Beam type steer axle rated at 12,000 lbs.
Front Suspension	Semi-elliptical steel alloy tapered leaf springs with stabilizer bar and shock absorbers, rated at 12,000 lbs.
Rear GAWR	21,000 lbs.
Rear Axle	Dana S21-140 single-speed, 21,000 lbs. capacity drive axle.
Rear Suspension	Semi-elliptical steel alloy multi-leaf springs rated at 21,000 lbs. Air spring suspension with single leveling valve, dual shock absorbers, and an in cab dump/fill switch rated at 23,000 lbs.
Wheels	22.5 x 8.25 inch 10 hole disc wheels, painted white.; 22.5 x 8.25 inch 10 hole aluminum disc wheels.
Tires	11R22.5G LRR (Low Rolling Resistance) tubeless steel belted radials, premium highway front tread and premium highway traction rear tread.
Brakes	Dual circuit S-CAM drum air service brakes with 4 channel anti-lock brake system. An air operated exhaust brake, air controlled parking brake, heated air dryer, and automatic slack adjusters are standard.
Fuel Tank	50 / 100 gal. (depending on chassis wheelbase) rectangular aluminum fuel tank mounted on left hand frame. Includes a fuel water separator with indicator light.
Frame	Ladder type channel section straight frame rail, 33.5 in wide along the total length of the frame. Yield strength 80,000 psi; Section Modulus 12.69 cub. In, RBM 1,015,000 lb-in
Cab	All steel low cab forward, BBC 81.5 in, 45 degree mechanical tilt with torsion assist.
Cab Equipment	TRICOT breathable cloth covered high back air ride driver's seat with rigid passenger seat and center seat with fold down back. Dual cab mounted exterior mirrors with integral convex mirror and a right hand side mounted side cross mirror. Tilt and telescoping steering column. Power windows and door locks, floor mats, tinted glass, AM/FM/CD stereo radio with Bluetooth. Rear body dome lamp switch. Cab latch switch with indicator and buzzer.
Electrical	12 Volt, negative ground, dual maintenance free batteries with threaded posts, 750 CCA each, 160 Amp alternator with integral regulator.
Options	See page 3 for options

NOTE: These selected specifications are subject to change without notice.

2026 Isuzu Truck

Vehicle Weights, Dimensions and Ratings FTR Multi-leaf Suspension



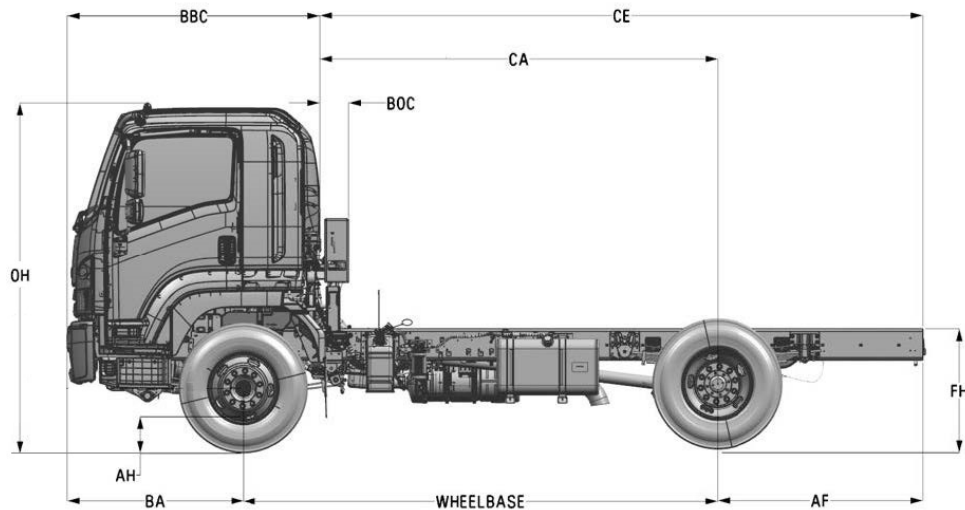
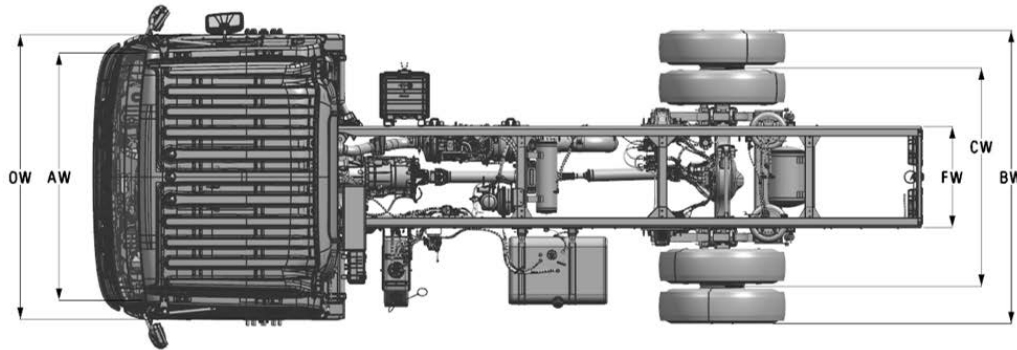
CHASSIS DIMENSIONS (in)							
MODEL	WB	CA ^[1]	CE ^[2]	AF	FL	OAL	
MT1	152	127	192.9	65.9	270.5	274.4	
MT2	170	145	220	75	297.6	301.5	
MT3	188	163	247	84.1	324.6	328.5	
MT4	200	175	264.9	90	342.5	346.4	
MT5	212	187	283.1	96.1	360.6	364.6	
MT6	224	199	301	102	378.5	382.5	
MT7	236	211	319.1	108.1	396.7	400.6	
MT8	248	223	337	114	414.6	418.5	
DIMENSION CONSTANTS (in)							
AW = Front axle track						81.1	
BA = Front bumper to centerline of axle						56.5	
BBC = Bumper to back of cab						81.5	
BOC = Back of cab clearance						10.4	
BW = Overall width across rear axle						96	
CW = Rear axle track						72.2	
FW = Frame width						33.5	
OW = Overall width across cab (without mirrors)						93.5	
DIMENSIONS BY TIRE SIZE (in.)					11R22.5G	255/70R22.5H	
AH = Ground to bottom of axle						10	7.7
FH = Frame height (unladen) at E.O.F. ^[3]						42.5	39.9
FH = Frame height (unladen) at R/A ^[4]						41	39.2
FH = Frame height (laden) at R/A ^[5]						37.5	36.4
OH = Overall height						112	110.2

Notes:

- [1] Effective CA is CA less BOC.
- [2] Effective CE is CE less BOC.
- [3] Measured at the end of the frame from the top of the frame to the ground at curb weight.
- [4] Measured at the rear axle from the top of the frame to the ground with the chassis at curb
- [5] Measured at the rear axle from the top of the frame to the ground with the chassis loaded to GVWR.
- [6] AT1, AT3, AT5 and AT6 are CARB Legacy models.

2026 Isuzu Truck

Vehicle Weights, Dimensions and Ratings FTR Air-spring Suspension



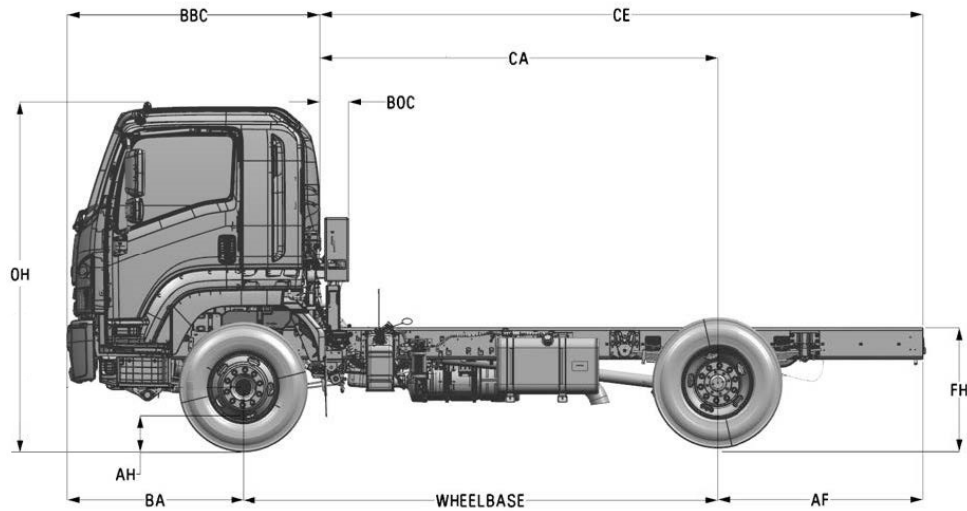
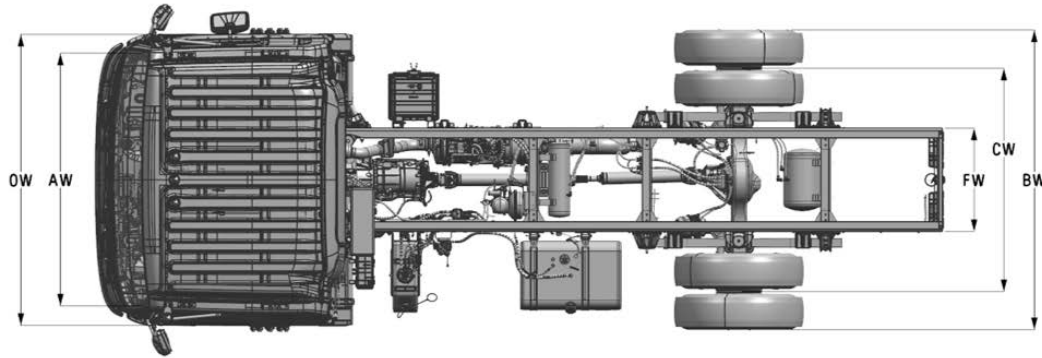
CHASSIS DIMENSIONS (in)						
MODEL	WB	CA _[1]	CE _[2]	AF	FL	OAL
MT1	152	127	192.9	65.9	270.5	274.4
MT2	170	145	220	75	297.6	301.5
MT3	188	163	247	84.1	324.6	328.5
MT4	200	175	264.9	90	342.5	346.4
MT5	212	187	283.1	96.1	360.6	364.6
MT6	224	199	301	102	378.5	382.5
MT7	236	211	319.1	108.1	396.7	400.6
MT8	248	223	337	114	414.6	418.5
DIMENSION CONSTANTS (in)						
AW = Front axle track						81.1
BA = Front bumper to centerline of axle						56.5
BBC = Bumper to back of cab						81.5
BOC = Back of cab clearance						10.4
BW = Overall width across rear axle						96
CW = Rear axle track						72.2
FW = Frame width						33.5
OW = Overall width across cab (without mirrors)						93.5
DIMENSIONS BY TIRE SIZE (in.)					11R22.5G	255/70R22.5H
AH = Ground to bottom of axle					10	7.7
FH = Frame height (unladen) at E.O.F. ^[3]					38.2	35.9
FH = Frame height (unladen) at R/A ^[4]					38.2	35.9
FH = Frame height (laden) at R/A ^[5]					38.2	35.9
FH = Frame height (dump position) at R/A					35.3	33
OH = Overall height					108.6	107

Notes:

- [1] Effective CA is CA less BOC.
- [2] Effective CE is CE less BOC.
- [3] Measured at the end of the frame from the top of the frame to the ground at curb weight.
- [4] Measured at the rear axle from the top of the frame to the ground with the chassis at curb
- [5] Measured at the rear axle from the top of the frame to the ground with the chassis loaded to GVWR.

2026 Isuzu Truck

Vehicle Weights, Dimensions and Ratings FVR/FVR Derate Multi-leaf Suspension



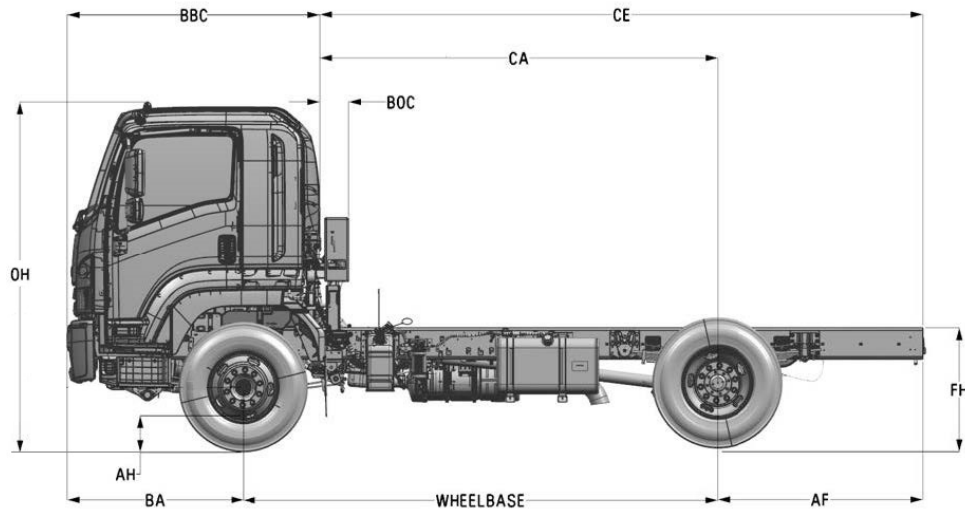
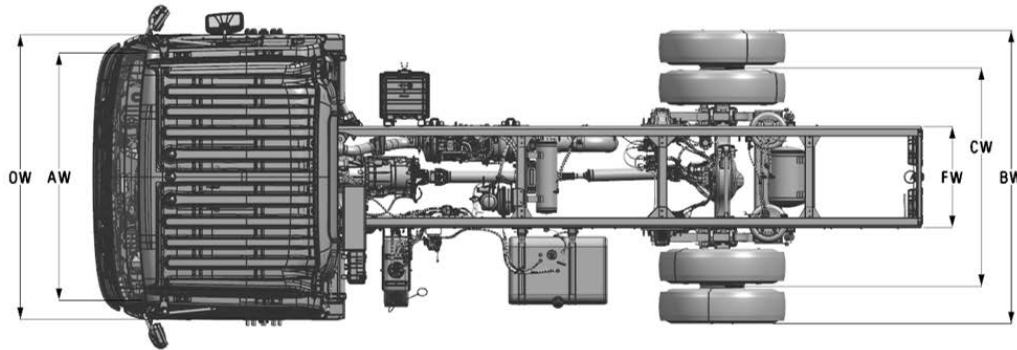
CHASSIS DIMENSIONS (in)						
MODEL	WB	CA ^[1]	CE ^[2]	AF	FL	OAL
MV1 / MW1	152	127	192.9	65.9	270.5	274.4
MV2 / MW2	170	145	220	75	297.6	301.5
MV3 / MW3	188	163	247	84.1	324.6	328.5
MV4 / MW4	200	175	264.9	90	342.5	346.4
MV5 / MW5	212	187	283.1	96.1	360.6	364.6
MV6 / MW6	224	199	301	102	378.5	382.5
MV7 / MW7	236	211	319.1	108.1	396.7	400.6
MV8 / MW8	248	223	337	114	414.6	418.5
DIMENSION CONSTANTS (in)						
AW = Front axle track						81.1
BA = Front bumper to centerline of axle						56.5
BBC = Bumper to back of cab						81.5
BOC = Back of cab clearance						10.4
BW = Overall width across rear axle						96
CW = Rear axle track						72.2
FW = Frame width						33.5
OW = Overall width across cab (without mirrors)						93.5
DIMENSIONS BY TIRE SIZE (in.)						11R22.5G
AH = Ground to bottom of axle						10
FH = Frame height (unladen) at E.O.F. ^[3]						42.5
FH = Frame height (unladen) at R/A ^[4]						41
FH = Frame height (laden) at R/A ^[5]						37.5
OH = Overall height						112

Notes:

- [1] Effective CA is CA less BOC.
- [2] Effective CE is CE less BOC.
- [3] Measured at the end of the frame from the top of the frame to the ground at curb weight.
- [4] Measured at the rear axle from the top of the frame to the ground with the chassis at curb
- [5] Measured at the rear axle from the top of the frame to the ground with the chassis loaded to GVWR.

2026 Isuzu Truck

Vehicle Weights, Dimensions and Ratings FVR/FVR Derate Air-spring Suspension



CHASSIS DIMENSIONS (in)						
MODEL	WB	CA ^[1]	CE ^[2]	AF	FL	OAL
MV1 / MW1	152	127	192.9	65.9	270.5	274.4
MV2 / MW2	170	145	220	75	297.6	301.5
MV3 / MW3	188	163	247	84.1	324.6	328.5
MV4 / MW4	200	175	264.9	90	342.5	346.4
MV5 / MW5	212	187	283.1	96.1	360.6	364.6
MV6 / MW6	224	199	301	102	378.5	382.5
MV7 / MW7	236	211	319.1	108.1	396.7	400.6
MV8 / MW8	248	223	337	114	414.6	418.5
DIMENSION CONSTANTS (in)						
AW = Front axle track						81.1
BA = Front bumper to centerline of axle						56.5
BBC = Bumper to back of cab						81.5
BOC = Back of cab clearance						10.4
BW = Overall width across rear axle						96
CW = Rear axle track						72.2
FW = Frame width						33.5
OW = Overall width across cab (without mirrors)						93.5
DIMENSIONS BY TIRE SIZE (in.)						11R22.5G
AH = Ground to bottom of axle						10
FH = Frame height (unladen) at E.O.F. ^[3]						38.2
FH = Frame height (unladen) at R/A ^[4]						38.2
FH = Frame height (laden) at R/A ^[5]						38.2
FH = Frame height (dump position) at R/A						35.3
OH = Overall height						108.6

Notes:

- [1] Effective CA is CA less BOC.
- [2] Effective CE is CE less BOC.
- [3] Measured at the end of the frame from the top of the frame to the ground at curb weight.
- [4] Measured at the rear axle from the top of the frame to the ground with the chassis at curb
- [5] Measured at the rear axle from the top of the frame to the ground with the chassis loaded to GVWR.

2026 Isuzu Truck

Vehicle Weights, Dimensions and Ratings Multi-leaf Suspension - FTR

VEHICLE WEIGHT LIMITS		
Rating	Tire	Capacity
GVWR Designed Maximum	All tire options	25,950 lb
GCWR Combined Maximum	All tire options	30,000 lb
Front GAWR	11R22.5G tires	12,000 lb
	255/70R22.5H tires	11,000 lb
Rear GAWR	All tire options	19,000 lb

CURB WEIGHTS AND PAYLOAD									
COC	OCC	WB (in)	Fuel Tank Capacity (gal)	Tire Size	Final Ratio	Front (lb)	Rear (lb)	Total (lb)	Payload (lb)
FTR LEAF SUSPENSION - STANDARD TIRES									
MT1	G1	152	50	11R22.5	5.57	6575	3668	10243	15707
MT2	G1	170	50	11R22.5	5.57	6650	3671	10321	15629
MT3	G1	188	50	11R22.5	5.57	6724	3780	10504	15446
MT3	G2	188	100	11R22.5	5.57	6773	3852	10625	15325
MT4	G1	200	50	11R22.5	5.57	6823	3925	10748	15202
MT4	G2	200	100	11R22.5	5.57	6872	3997	10869	15081
MT5	G1	212	50	11R22.5	5.57	6850	3986	10836	15114
MT5	G2	212	100	11R22.5	5.57	6912	4046	10958	14992
MT6	G1	224	50	11R22.5	5.57	6973	4108	11081	14869
MT6	G2	224	100	11R22.5	5.57	7031	4170	11201	14749
MT7	G2	236	100	11R22.5	5.57	7093	4231	11324	14626
MT8	G2	248	100	11R22.5	5.57	7153	4292	11445	14505
FTR LEAF SUSPENSION - LOW PROFILE TIRES									
MT1	G5	152	50	255/70R22.5	4.88	6503	3515	10018	15932
MT2	G5	170	50	255/70R22.5	4.88	6578	3518	10096	15854
MT3	G5	188	50	255/70R22.5	4.88	6652	3627	10279	15671
MT3	G6	188	100	255/70R22.5	4.88	6701	3699	10400	15550
MT4	G5	200	50	255/70R22.5	4.88	6751	3772	10523	15427
MT4	G6	200	100	255/70R22.5	4.88	6800	3844	10644	15306
MT5	G5	212	50	255/70R22.5	4.88	6778	3833	10611	15339
MT5	G6	212	100	255/70R22.5	4.88	6840	3893	10733	15217
MT6	G5	224	50	255/70R22.5	4.88	6901	3955	10856	15094
MT6	G6	224	100	255/70R22.5	4.88	6959	4017	10976	14974
MT7	G6	236	100	255/70R22.5	4.88	7021	4078	11099	14851
MT8	G6	248	100	255/70R22.5	4.88	7081	4139	11220	14730

Notes: [1] Chassis Curb Weight reflects standard equipment and fuel, but no driver or payload.
 [2] Maximum Payload Weight is the allowed maximum for equipment, body, payload and driver and is calculated by subtracting chassis curb weight from the GVWR.

2026 Isuzu Truck

Vehicle Weights, Dimensions and Ratings Multi-leaf Suspension - FTR

VEHICLE WEIGHT LIMITS		
Rating	Tire	Capacity
GVWR Designed Maximum	All tire options	25,950 lb
GCWR Combined Maximum	All tire options	30,000 lb
Front GAWR	11R22.5G tires	12,000 lb
	255/70R22.5H tires	11,000 lb
Rear GAWR	All tire options	19,000 lb

CURB WEIGHTS AND PAYLOAD									
COC	OCC	WB (in)	Fuel Tank Capacity (gal)	Tire Size	Final Ratio	Front (lb)	Rear (lb)	Total (lb)	Payload (lb)
FTR LEAF SUSPENSION - STANDARD TIRES - ALUMINUM WHEELS									
MT1	A1	152	50	11R22.5	5.57	6519	3556	10075	15875
MT2	A1	170	50	11R22.5	5.57	6594	3559	10153	15797
MT3	A1	188	50	11R22.5	5.57	6668	3668	10336	15614
MT3	A2	188	100	11R22.5	5.57	6717	3740	10457	15493
MT4	A1	200	50	11R22.5	5.57	6767	3813	10580	15370
MT4	A2	200	100	11R22.5	5.57	6816	3885	10701	15249
MT5	A1	212	50	11R22.5	5.57	6794	3874	10668	15282
MT5	A2	212	100	11R22.5	5.57	6856	3934	10790	15160
MT6	A1	224	50	11R22.5	5.57	6917	3996	10913	15037
MT6	A2	224	100	11R22.5	5.57	6975	4058	11033	14917
MT7	A2	236	100	11R22.5	5.57	7037	4119	11156	14794
MT8	A2	248	100	11R22.5	5.57	7097	4180	11277	14673
FTR LEAF SUSPENSION - LOW PROFILE TIRES - ALUMINUM WHEELS									
MT1	A5	152	50	255/70R22.5	4.88	6447	3403	9850	16100
MT2	A5	170	50	255/70R22.5	4.88	6522	3406	9928	16022
MT3	A5	188	50	255/70R22.5	4.88	6596	3515	10111	15839
MT3	A6	188	100	255/70R22.5	4.88	6645	3587	10232	15718
MT4	A5	200	50	255/70R22.5	4.88	6695	3660	10355	15595
MT4	A6	200	100	255/70R22.5	4.88	6744	3732	10476	15474
MT5	A5	212	50	255/70R22.5	4.88	6722	3721	10443	15507
MT5	A6	212	100	255/70R22.5	4.88	6784	3781	10565	15385
MT6	A5	224	50	255/70R22.5	4.88	6845	3843	10688	15262
MT6	A6	224	100	255/70R22.5	4.88	6903	3905	10808	15142
MT7	A6	236	100	255/70R22.5	4.88	6965	3966	10931	15019
MT8	A6	248	100	255/70R22.5	4.88	7025	4027	11052	14898

Notes: [1] Chassis Curb Weight reflects standard equipment and fuel, but no driver or payload.
 [2] Maximum Payload Weight is the allowed maximum for equipment, body, payload and driver and is calculated by subtracting chassis curb weight from the GVWR.

2026 Isuzu Truck

Vehicle Weights, Dimensions and Ratings Air-spring Suspension - FTR

VEHICLE WEIGHT LIMITS		
Rating	Tire	Capacity
GVWR Designed Maximum	All tire options	25,950 lb
GCWR Combined Maximum	All tire options	30,000 lb
Front GAWR	11R22.5G tires	12,000 lb
	255/70R22.5H tires	11,000 lb
Rear GAWR	All tire options	19,000 lb

CURB WEIGHTS AND PAYLOAD									
COC	OCC	WB (in)	Fuel Tank Capacity (gal)	Tire Size	Final Ratio	Front (lb)	Rear (lb)	Total (lb)	Payload (lb)
FTR AIR SUSPENSION- STANDARD TIRES									
MT1	G3	152	50	11R22.5	5.57	6575	3504	10079	15871
MT2	G3	170	50	11R22.5	5.57	6650	3507	10157	15793
MT3	G3	188	50	11R22.5	5.57	6724	3616	10340	15610
MT3	G4	188	100	11R22.5	5.57	6773	3688	10461	15489
MT4	G3	200	50	11R22.5	5.57	6823	3761	10584	15366
MT4	G4	200	100	11R22.5	5.57	6872	3833	10705	15245
MT5	G3	212	50	11R22.5	5.57	6850	3822	10672	15278
MT5	G4	212	100	11R22.5	5.57	6912	3882	10794	15156
MT6	G3	224	50	11R22.5	5.57	6973	3944	10917	15033
MT6	G4	224	100	11R22.5	5.57	7031	4006	11037	14913
MT7	G4	236	100	11R22.5	5.57	7093	4067	11160	14790
MT8	G4	248	100	11R22.5	5.57	7153	4128	11281	14669
FTR AIR SUSPENSION - LOW PROFILE TIRES									
MT1	G7	152	50	255/70R22.5	4.88	6503	3351	9854	16096
MT2	G7	170	50	255/70R22.5	4.88	6578	3354	9932	16018
MT3	G7	188	50	255/70R22.5	4.88	6652	3463	10115	15835
MT3	G8	188	100	255/70R22.5	4.88	6701	3535	10236	15714
MT4	G7	200	50	255/70R22.5	4.88	6751	3608	10359	15591
MT4	G8	200	100	255/70R22.5	4.88	6800	3680	10480	15470
MT5	G7	212	50	255/70R22.5	4.88	6778	3669	10447	15503
MT5	G8	212	100	255/70R22.5	4.88	6840	3729	10569	15381
MT6	G7	224	50	255/70R22.5	4.88	6901	3791	10692	15258
MT6	G8	224	100	255/70R22.5	4.88	6959	3853	10812	15138
MT7	G8	236	100	255/70R22.5	4.88	7021	3914	10935	15015
MT8	G8	248	100	255/70R22.5	4.88	7081	3975	11056	14894

Notes: [1] Chassis Curb Weight reflects standard equipment and fuel, but no driver or payload.

[2] Maximum Payload Weight is the allowed maximum for equipment, body, payload and driver and is calculated by subtracting chassis curb weight from the GVWR.

2026 Isuzu Truck

Vehicle Weights, Dimensions and Ratings Air-spring Suspension - FTR

VEHICLE WEIGHT LIMITS		
Rating	Tire	Capacity
GVWR Designed Maximum	All tire options	25,950 lb
GCWR Combined Maximum	All tire options	30,000 lb
Front GAWR	11R22.5G tires	12,000 lb
	255/70R22.5H tires	11,000 lb
Rear GAWR	All tire options	19,000 lb

CURB WEIGHTS AND PAYLOAD									
COC	OCC	WB (in)	Fuel Tank Capacity (gal)	Tire Size	Final Ratio	Front (lb)	Rear (lb)	Total (lb)	Payload (lb)
FTR AIR SUSPENSION- STANDARD TIRES - ALUMINUM WHEELS									
MT1	A3	152	50	11R22.5	5.57	6519	3392	9911	16039
MT2	A3	170	50	11R22.5	5.57	6594	3395	9989	15961
MT3	A3	188	50	11R22.5	5.57	6668	3504	10172	15778
MT3	A4	188	100	11R22.5	5.57	6717	3576	10293	15657
MT4	A3	200	50	11R22.5	5.57	6767	3649	10416	15534
MT4	A4	200	100	11R22.5	5.57	6816	3721	10537	15413
MT5	A3	212	50	11R22.5	5.57	6794	3710	10504	15446
MT5	A4	212	100	11R22.5	5.57	6856	3770	10626	15324
MT6	A3	224	50	11R22.5	5.57	6917	3832	10749	15201
MT6	A4	224	100	11R22.5	5.57	6975	3894	10869	15081
MT7	A4	236	100	11R22.5	5.57	7037	3955	10992	14958
MT8	A4	248	100	11R22.5	5.57	7097	4016	11113	14837
FTR AIR SUSPENSION - LOW PROFILE TIRES - ALUMINUM WHEELS									
MT1	A7	152	50	255/70R22.5	4.88	6447	3239	9686	16264
MT2	A7	170	50	255/70R22.5	4.88	6522	3242	9764	16186
MT3	A7	188	50	255/70R22.5	4.88	6596	3351	9947	16003
MT3	A8	188	100	255/70R22.5	4.88	6645	3423	10068	15882
MT4	A7	200	50	255/70R22.5	4.88	6695	3496	10191	15759
MT4	A8	200	100	255/70R22.5	4.88	6744	3568	10312	15638
MT5	A7	212	50	255/70R22.5	4.88	6722	3557	10279	15671
MT5	A8	212	100	255/70R22.5	4.88	6784	3617	10401	15549
MT6	A7	224	50	255/70R22.5	4.88	6845	3679	10524	15426
MT6	A8	224	100	255/70R22.5	4.88	6903	3741	10644	15306
MT7	A8	236	100	255/70R22.5	4.88	6965	3802	10767	15183
MT8	A8	248	100	255/70R22.5	4.88	7025	3863	10888	15062

Notes: [1] Chassis Curb Weight reflects standard equipment and fuel, but no driver or payload.
 [2] Maximum Payload Weight is the allowed maximum for equipment, body, payload and driver and is calculated by subtracting chassis curb weight from the GVWR.

2026 Isuzu Truck

Vehicle Weights, Dimensions and Ratings Multi-leaf Suspension - FVR

CHASSIS WEIGHT RATINGS		
Description	Tires	Capacity (lb)
Front GAWR	11R22.5G	12,000
Rear GAWR	ALL TIRE OPTIONS	21,000
GVWR Designed Maximum		33,000
GCWR Combined Maximum		33,000

CURB WEIGHTS AND PAYLOAD									
COC	OCC	WB (in)	Fuel Tank Capacity (gal)	Tire Size	Final Ratio	Front (lb)	Rear (lb)	Total (lb)	Payload (lb)
FVR Standard Tires - Leaf Suspension									
MV1	G1	152	50	11R22.5	5.57	6575	3768	10343	22657
MV2	G1	170	50			6650	3771	10421	22579
MV3	G2	188	100			6850	4086	10936	22064
MV4	G2	200	100			6912	4146	11058	21942
MV5	G2	212	100			6973	4208	11181	21819
MV6	G2	224	100			7031	4270	11301	21699
MV7	G2	236	100			7093	4331	11424	21576
MV8	G2	248	100			7153	4392	11545	21455
FVR Standard Tires - Leaf Suspension - Aluminum Wheels									
MV1	A1	152	50	11R22.5	5.57	6519	3656	10175	22825
MV2	A1	170	50			6594	3659	10253	22747
MV3	A2	188	100			6794	3974	10768	22232
MV4	A2	200	100			6856	4034	10890	22110
MV5	A2	212	100			6917	4096	11012	21988
MV6	A2	224	100			6975	4158	11133	21867
MV7	A2	236	100			7037	4219	11256	21744
MV8	A2	248	100			7097	4280	11377	21623

NOTES: [1] Curb weights reflect standard equipment and fuel, but no driver or payload.

[2] Payload weight is the allowed maximum for equipment, body, payload and driver and is calculated by subtracting chassis curb weight from the GVWR.

2026 Isuzu Truck

Vehicle Weights, Dimensions and Ratings Multi-leaf Suspension - FVR DERATE

CHASSIS WEIGHT RATINGS		
Description	Tires	Capacity (lb)
Front GAWR	11R22.5G	12,000
Rear GAWR	ALL TIRE OPTIONS	21,000
GVWR Designed Maximum		25,950
GCWR Combined Maximum		33,000

CURB WEIGHTS AND PAYLOAD									
COC	OCC	WB (in)	Fuel Tank Capacity (gal)	Tire Size	Final Ratio	Front (lb)	Rear (lb)	Total (lb)	Payload (lb)
FVR DERATE Standard Tires - Leaf Suspension									
MW1	G1	152	50	11R22.5	5.57	6575	3768	10343	15607
MW2	G1	170	50			6650	3771	10421	15529
MW3	G2	188	100			6850	4086	10937	15014
MW4	G2	200	100			6912	4146	11058	14893
MW5	G2	212	100			6973	4208	11181	14770
MW6	G2	224	100			7031	4270	11302	14649
MW7	G2	236	100			7093	4331	11424	14527
MW8	G2	248	100			7153	4392	11545	14405
FVR DERATE Standard Tires - Leaf Suspension - Aluminum Wheels									
MW1	A1	152	50	11R22.5	5.57	6519	3656	10175	15775
MW2	A1	170	50			6594	3659	10253	15697
MW3	A2	188	100			6794	3974	10769	15182
MW4	A2	200	100			6856	4034	10890	15061
MW5	A2	212	100			6917	4096	11013	14938
MW6	A2	224	100			6975	4158	11134	14817
MW7	A2	236	100			7037	4219	11256	14695
MW8	A2	248	100			7097	4280	11377	14573

NOTES: [1] Curb weights reflect standard equipment and fuel, but no driver or payload.

[2] Payload weight is the allowed maximum for equipment, body, payload and driver and is calculated by subtracting chassis curb weight from the GVWR.

2026 Isuzu Truck

Vehicle Weights, Dimensions and Ratings Air-spring Suspension - FVR

CHASSIS WEIGHT RATINGS		
Description	Tires	Capacity (lb)
Front GAWR	11R22.5G	12,000
Rear GAWR	ALL TIRE OPTIONS	21,000
GVWR Designed Maximum		33,000
GCWR Combined Maximum		33,000

CURB WEIGHTS AND PAYLOAD									
COC	OCC	WB (in)	Fuel Tank Capacity (gal)	Tire Size	Final Ratio	Front (lb)	Rear (lb)	Total (lb)	Payload (lb)
FVR Standard Tires - Air Suspension									
MV1	G3	152	50	11R22.5	5.57	6575	3604	10179	22821
MV2	G3	170	50			6650	3607	10257	22743
MV3	G4	188	100			6850	3922	10772	22228
MV4	G4	200	100			6912	3982	10894	22106
MV5	G4	212	100			6973	4044	11017	21983
MV6	G4	224	100			7031	4106	11137	21863
MV7	G4	236	100			7093	4167	11260	21740
MV8	G4	248	100			7153	4228	11381	21619
FVR Standard Tires - Air Suspension - Aluminum Wheels									
MV1	A3	152	50	11R22.5	5.57	6519	3492	10011	22989
MV2	A3	170	50			6594	3495	10089	22911
MV3	A4	188	100			6794	3810	10604	22396
MV4	A4	200	100			6856	3870	10726	22274
MV5	A4	212	100			6917	3932	10849	22151
MV6	A4	224	100			6975	3994	10969	22031
MV7	A4	236	100			7037	4055	11092	21908
MV8	A4	248	100			7097	4116	11213	21787

NOTES: [1] Curb weights reflect standard equipment and fuel, but no driver or payload.

[2] Payload weight is the allowed maximum for equipment, body, payload and driver and is calculated by subtracting chassis curb weight from the GVWR.

2026 Isuzu Truck

Vehicle Weights, Dimensions and Ratings Air-spring Suspension - FVR DERATE

CHASSIS WEIGHT RATINGS		
Description	Tires	Capacity (lb)
Front GAWR	11R22.5G	12,000
Rear GAWR	ALL TIRE OPTIONS	21,000
GVWR Designed Maximum		25,950
GCWR Combined Maximum		33,000

CURB WEIGHTS AND PAYLOAD									
COC	OCC	WB (in)	Fuel Tank Capacity (gal)	Tire Size	Final Ratio	Front (lb)	Rear (lb)	Total (lb)	Payload (lb)
FVR DERATE Standard Tires - Air Suspension									
MW1	G3	152	50	11R22.5	5.57	6575	3604	10179	15771
MW2	G3	170	50			6650	3607	10257	15693
MW3	G4	188	100			6850	3922	10773	15178
MW4	G4	200	100			6912	3982	10894	15057
MW5	G4	212	100			6973	4044	11017	14934
MW6	G4	224	100			7031	4106	11138	14813
MW7	G4	236	100			7093	4167	11260	14691
MW8	G4	248	100			7153	4228	11381	14569
FVR DERATE Standard Tires - Air Suspension - Aluminum Wheels									
MW1	A3	152	50	11R22.5	5.57	6519	3492	10011	15939
MW2	A3	170	50			6594	3495	10089	15861
MW3	A4	188	100			6794	3810	10605	15346
MW4	A4	200	100			6856	3870	10726	15225
MW5	A4	212	100			6917	3932	10849	15102
MW6	A4	224	100			6975	3994	10970	14981
MW7	A4	236	100			7037	4055	11092	14859
MW8	A4	248	100			7097	4116	11213	14737

NOTES: [1] Curb weights reflect standard equipment and fuel, but no driver or payload.

[2] Payload weight is the allowed maximum for equipment, body, payload and driver and is calculated by subtracting chassis curb weight from the GVWR.

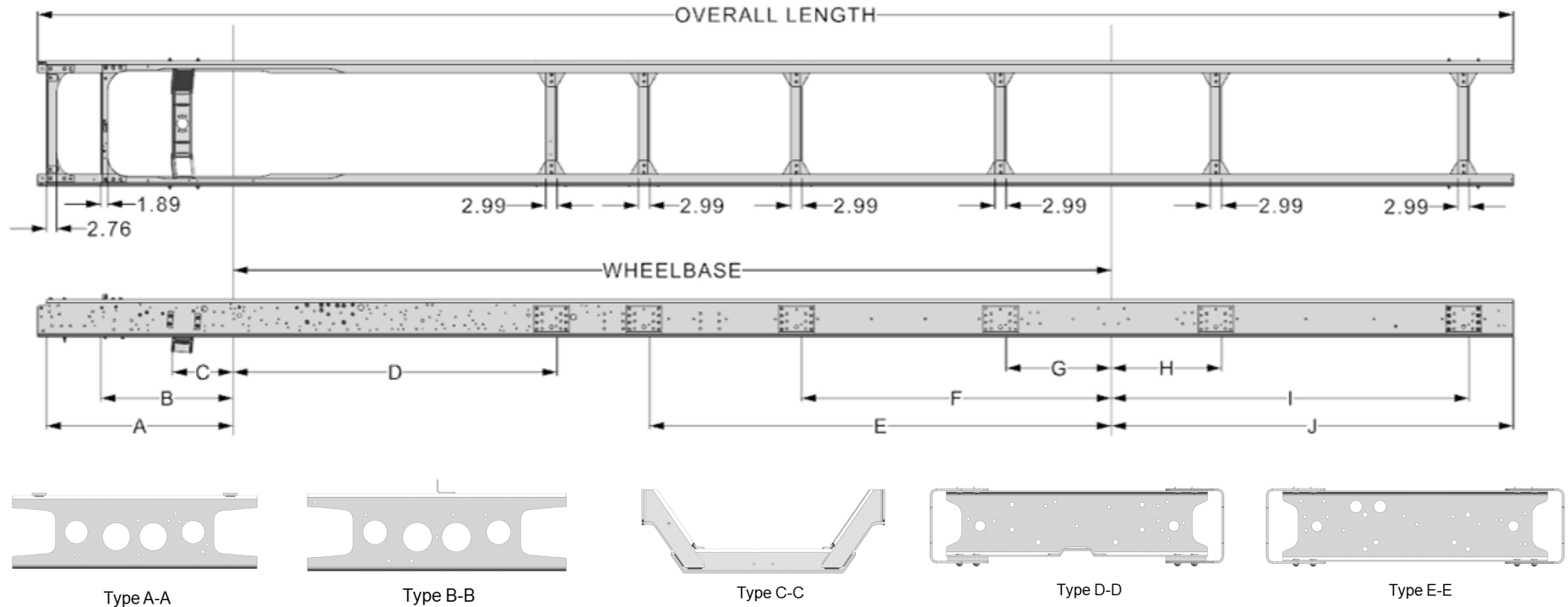
2026 Isuzu Truck

Optional Equipment Weights

OPTION WEIGHTS		
RPO Code	Description	Front / Rear (lbs)
I6B	AGM batteries (825 CCA x 2)	14 / 4
I7V	Aluminum wheels: 4 aluminum wheels + 2 steel rear inner wheels	-56 / -56
I8V	Aluminum wheels: 6 aluminum wheels	-56 / -112
I1V	Audio system with 7" diagonal color touch screen	2 / 0
I2V	Audio system with 7" diagonal color touch screen with backup camera (camera shipped loose)	2 / 2
UZF	Back up alarm	0 / 1
I79	Block heater and oil pan heater with receptacle	3 / 0
I72	Block heater with receptacle	2 / 0
V22	Chrome grille	1 / 0
I2M	Delete cruise control switch	-3 / 0
IY4	Delete radio	-3 / 0
IH2	Engine emergency shutdown system HWT, LWL, LOP	0 / 0
IY9	Engine idle shutdown (timer set at 3 minutes for engine shutdown)	0 / 0
I9A	Engine idle shutdown (timer set at 5 minutes for engine shutdown)	0 / 0
IF6	Fire extinguisher (2.5 lbs) and triangle kit	22 / 0
I8P	Fire extinguisher (5 lbs) and triangle kit	27 / 0
I4V	Forward collision and lane departure warning (Mobileye)	2 / 0
I8L	High visibility seat belt (orange color, driver and RH passenger seat only)	0 / 0
I7L	High visibility seat belt (orange color, driver seat only)	0 / 0
I4K	Keyless entry	1 / 0
I6L	LED lighting package	0 / 0
IL9	PTO enable switch and engine idle up switch recommended for PTO and idle applications only	0 / 0
IV8	Seat covers	6 / 0
I3Z	Spare keys (2 additional, 4 keys in total)	0 / 0
I0Z	Spartan Modification Center Ship Thru Code	0 / 0
I1L	Speed limited to 58 MPH	0 / 0
I2L	Speed limited to 65 MPH	0 / 0
I3L	Speed limited to 68 MPH	0 / 0
I4L	Speed limited to 70 MPH	0 / 0
I4Q	102" wide standard mirror heads	2 / 0
I5Q	102" wide heated mirrors (flat & convex)	2 / 0
I6Q	102" wide heated remote mirrors (heated flat & convex, remote flat only)	3 / 0
I2Q	96" wide heated mirrors (flat & convex)	1 / 0
I3Q	96" wide heated remote mirrors (heated flat & convex, remote flat only)	2 / 0

2026 Isuzu Truck

Frame and Crossmember Specifications



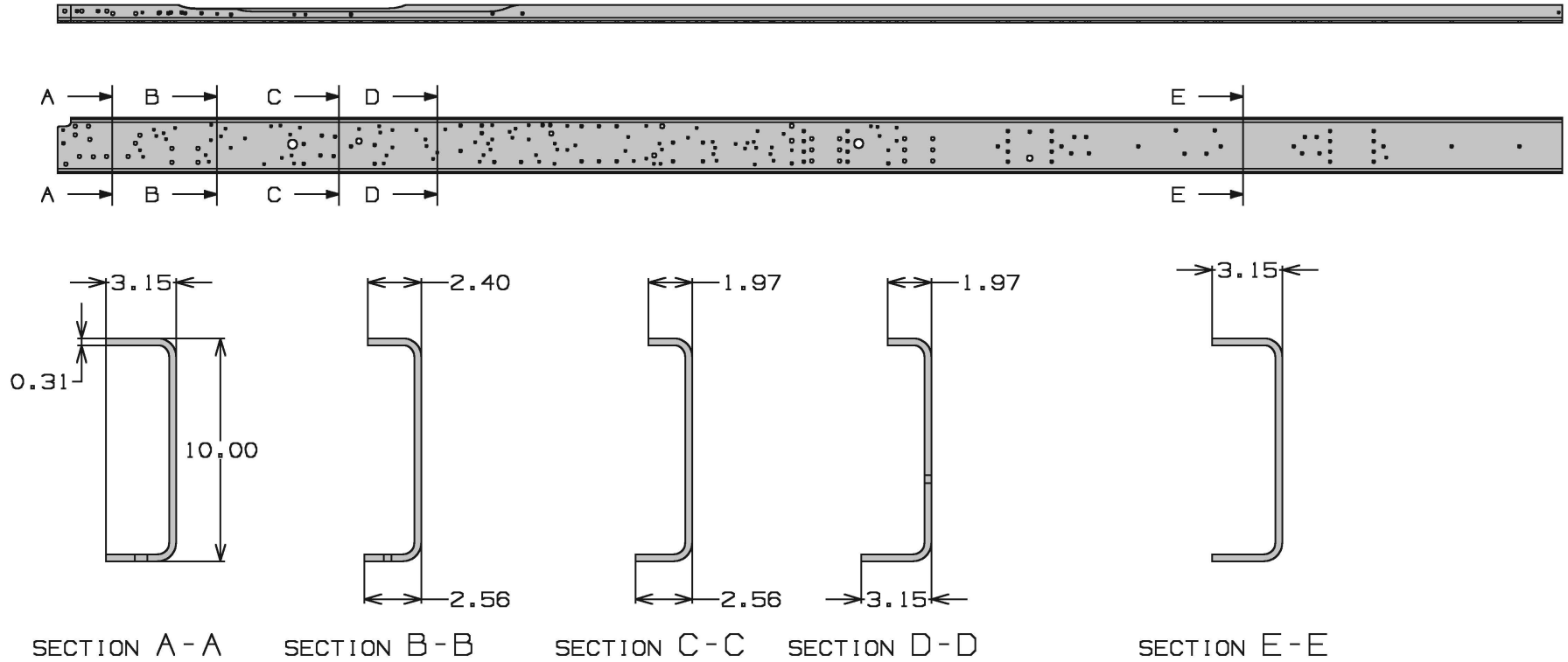
WHEEL BASE	OVERALL LENGTH	FRAME THICKNESS	CROSSMEMBER TYPE / LOCATION																								
			A		B		C		D		E		F		G		H		I		J						
														LEAF	AIR												
152	270.5	0.31	A-A	50.2	B-B	35.6	C-C	16.3	D-D	87.0	-	-	-	-	-	E-E	E-E	28.3	18.4	E-E	E-E	29.6	27.5	-	-	-	65.9
170	297.6			50.2		35.6		16.3		87.0	58.1	-	-	28.3	18.4			29.6	27.5			63.1	-	75.0			
188	324.6			50.2		35.6		16.3		87.0	76.1	-	-	28.3	18.4			29.6	27.5			72.1	-	84.0			
200	342.5			50.2		35.6		16.3		87.0	81.2	-	-	28.3	18.4			29.6	27.5			78.0	-	89.9			
212	360.6			50.2		35.6		16.3		87.0	100.1	-	-	28.3	18.4			29.6	27.5			84.1	-	96.0			
224	378.5			50.2		35.6		16.3		87.0	112.1	-	-	28.3	18.4			29.6	27.5			90.0	-	101.9			
236	396.7			50.2		35.6		16.3		87.0	124.1	-	-	28.3	18.4			29.6	27.5			96.1	-	108.0			
248	414.6			50.2		35.6		16.3		87.0	136.1	-	-	28.3	18.4			29.6	27.5			102.0	-	113.9			

NOTE: Dimensions in inches

NOTE: Air Suspension Measurement to Inside Trim Edge

2026 Isuzu Truck

Frame Chart

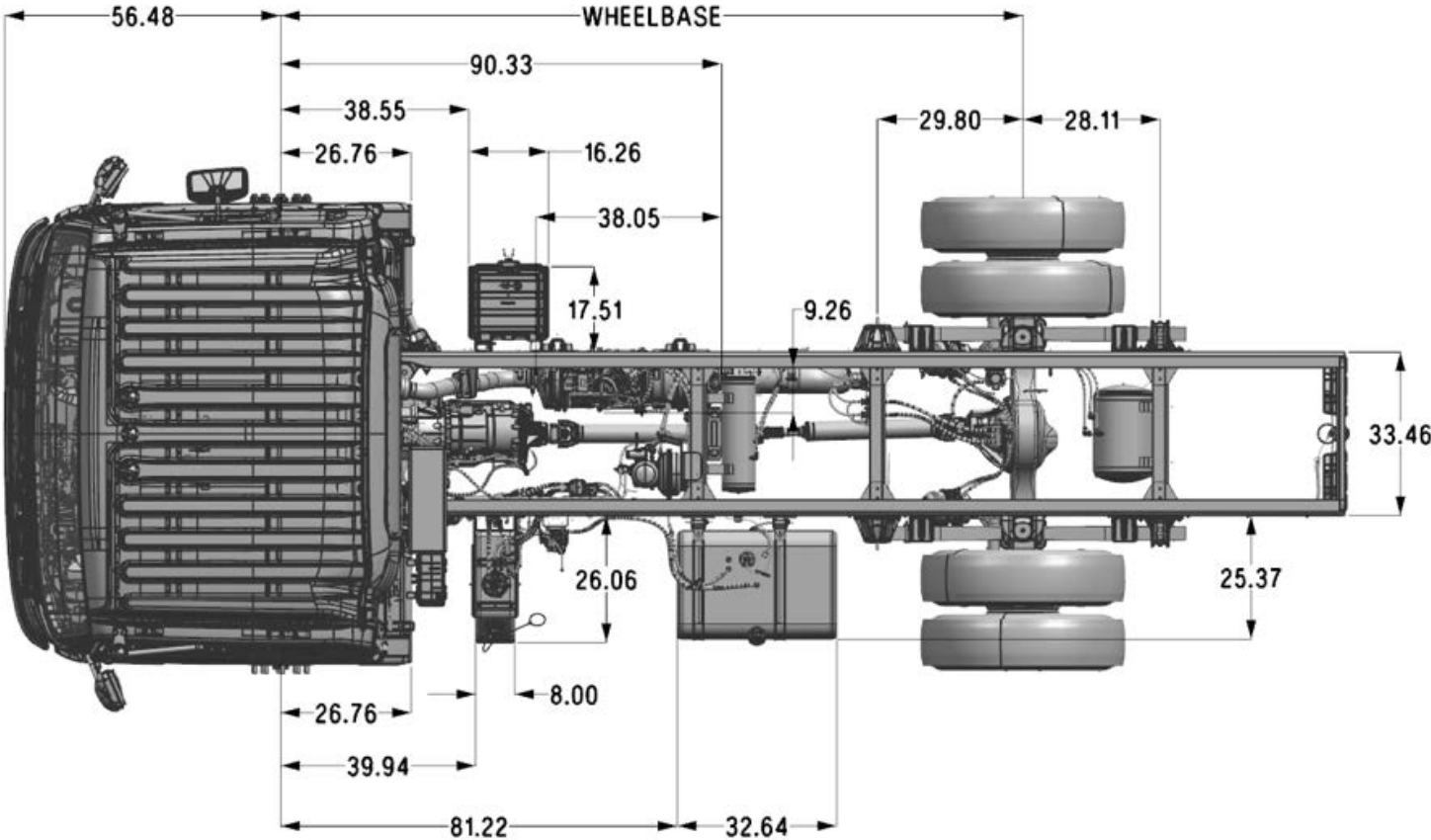


Wheelbase	Frame Length	Frame Thickness
152	270.5	0.315
170	297.6	0.315
188	324.6	0.315
200	342.5	0.315
212	360.6	0.315
224	378.5	0.315
236	396.7	0.315
248	414.6	0.315

Note: Dimensions in inches

2026 Isuzu Truck

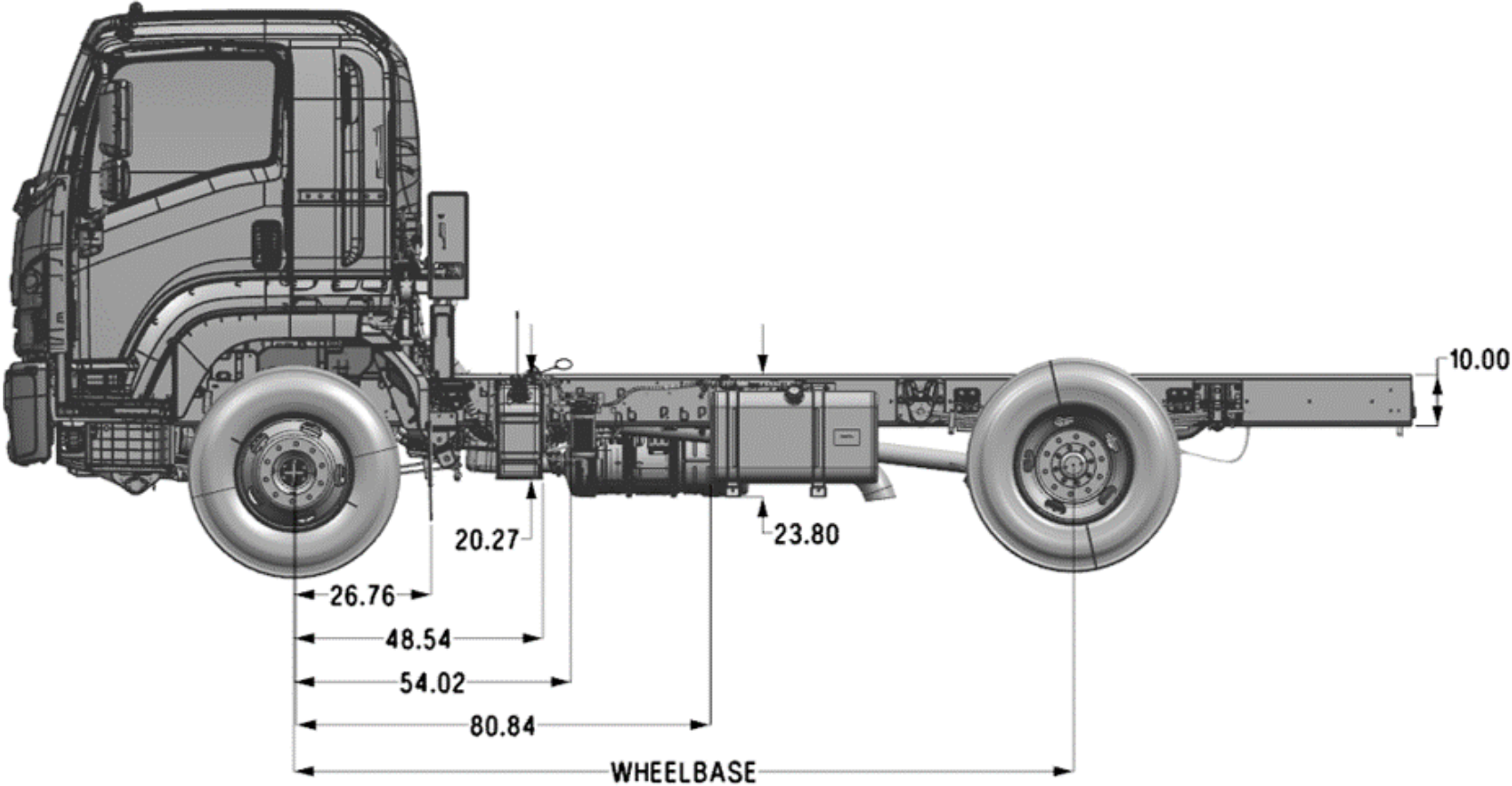
Diesel Multi-Leaf Spring Suspension - Top View



Note: Dimensions in inches

2026 Isuzu Truck

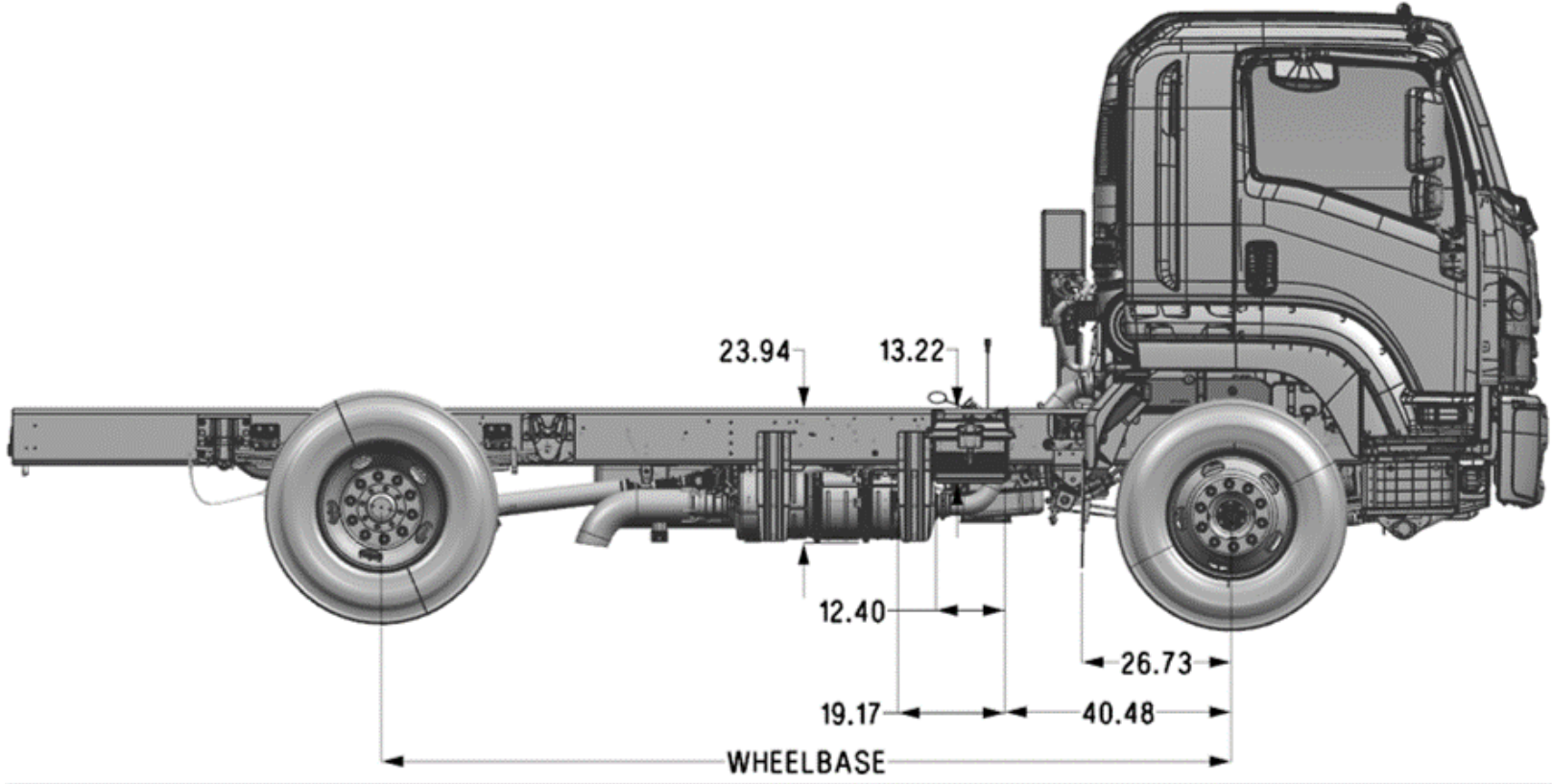
Diesel Multi-Leaf Spring Suspension - Left Side View



Note: Dimensions in inches

2026 Isuzu Truck

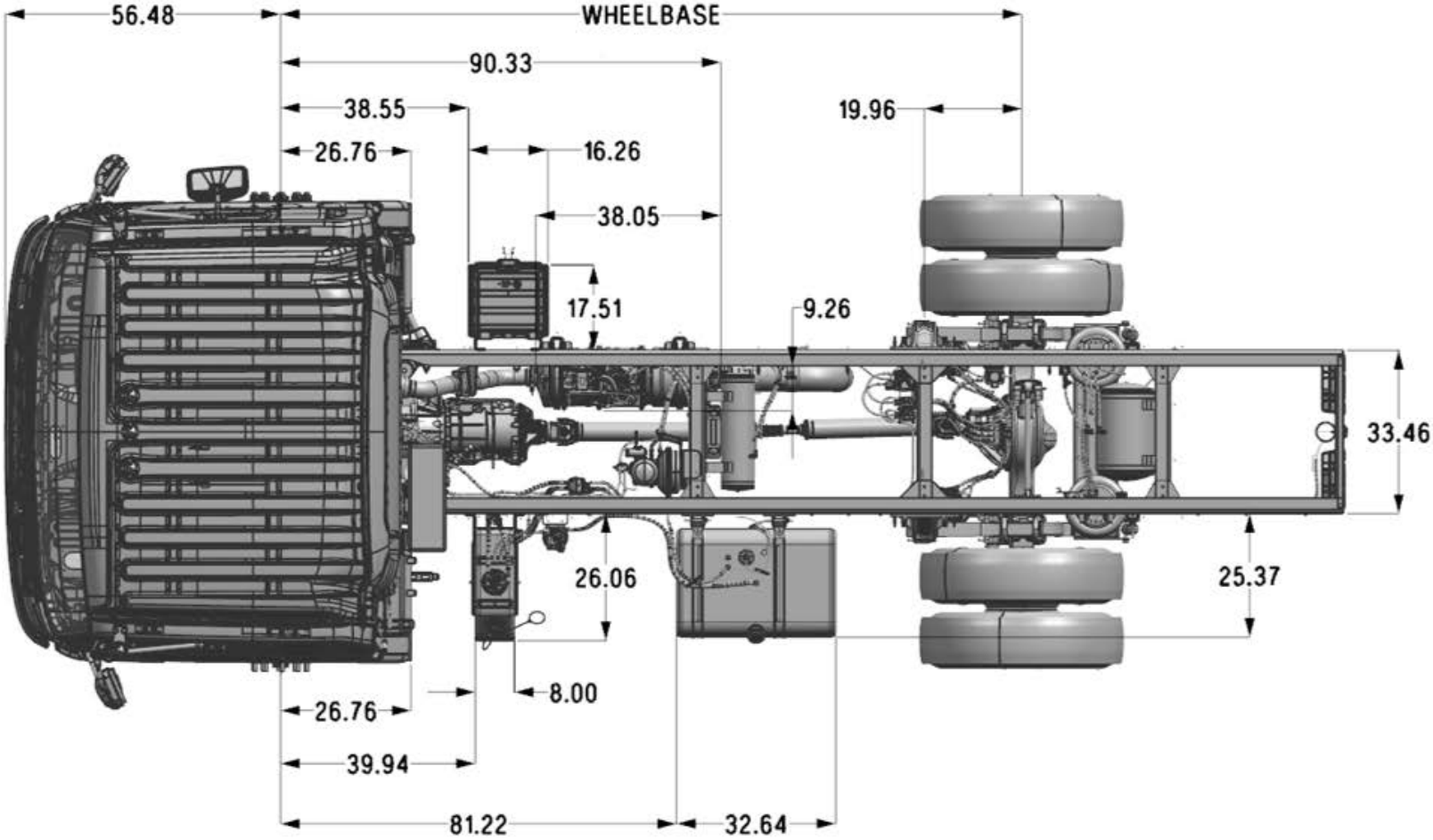
Diesel Multi-Leaf Spring Suspension - Right Side View



Note: Dimensions in inches

2026 Isuzu Truck

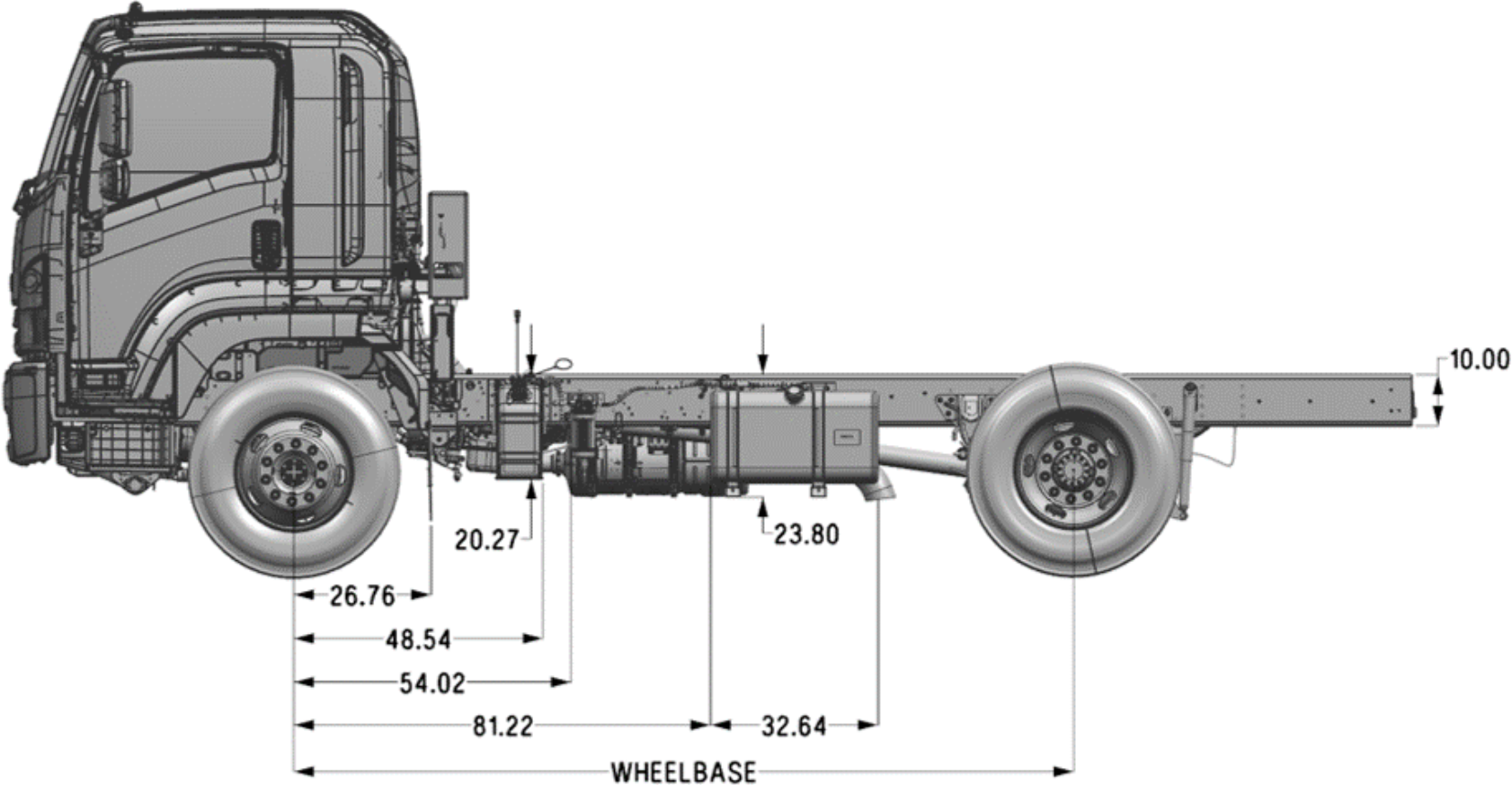
Diesel Air Spring Suspension - Top View



Note: Dimensions in inches

2026 Isuzu Truck

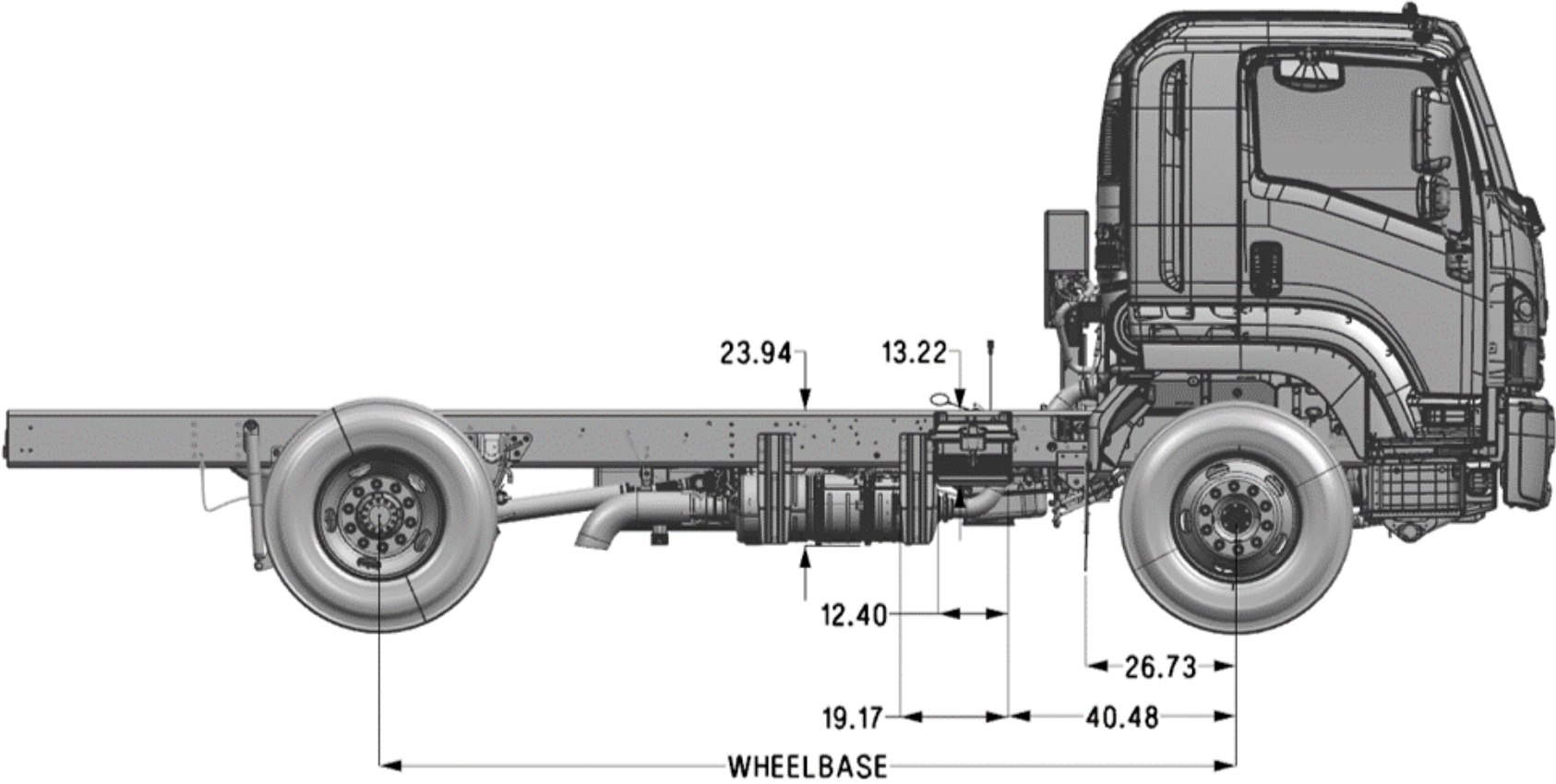
Diesel Air Spring Suspension - Driver Side View



Note: Dimensions in inches

2026 Isuzu Truck

Diesel Air Spring Suspension - Passenger Side View

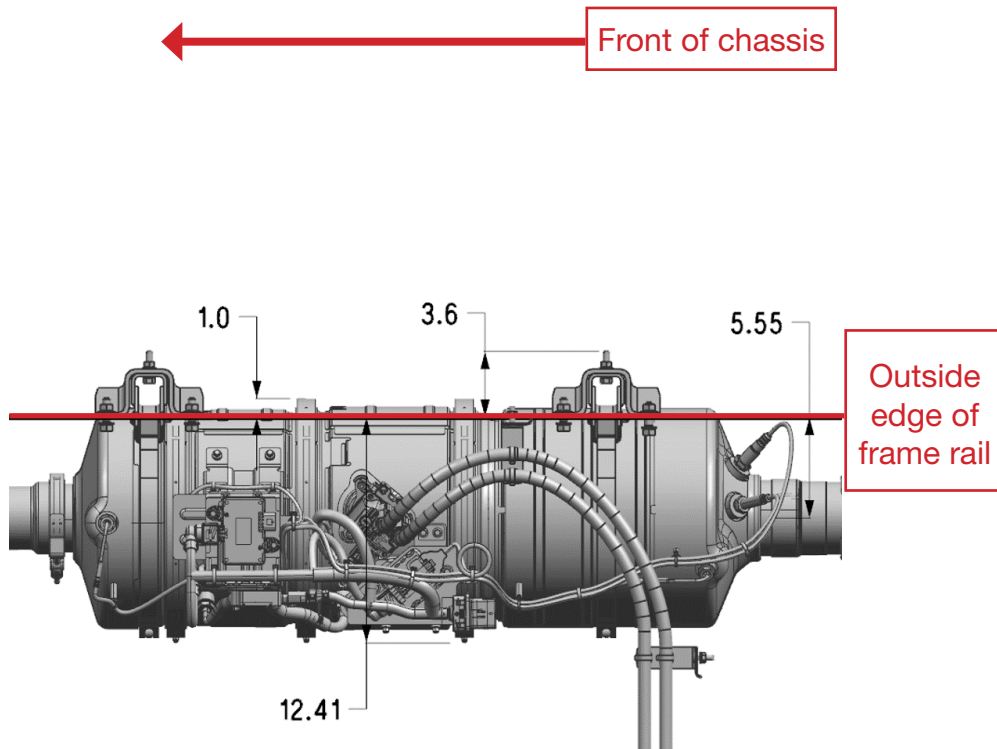


Note: Chassis shown with 255/70R22.5H tires

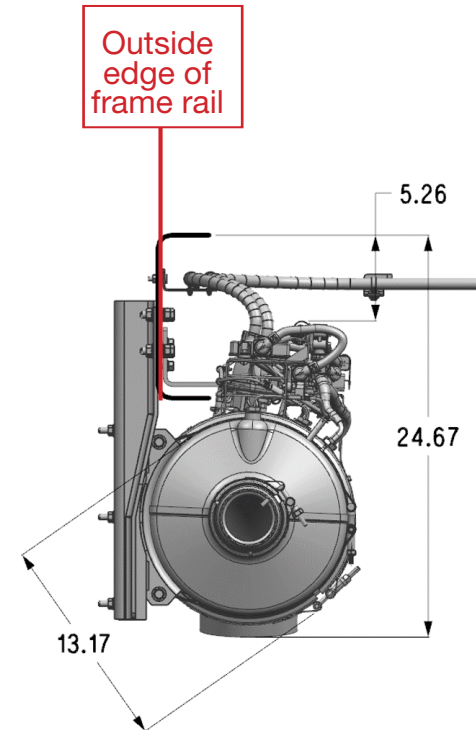
Note: Dimensions in inches

2026 Isuzu Truck

Exhaust System Dimensions SCR / DPF 4HK1-TC



Note: As viewed from top

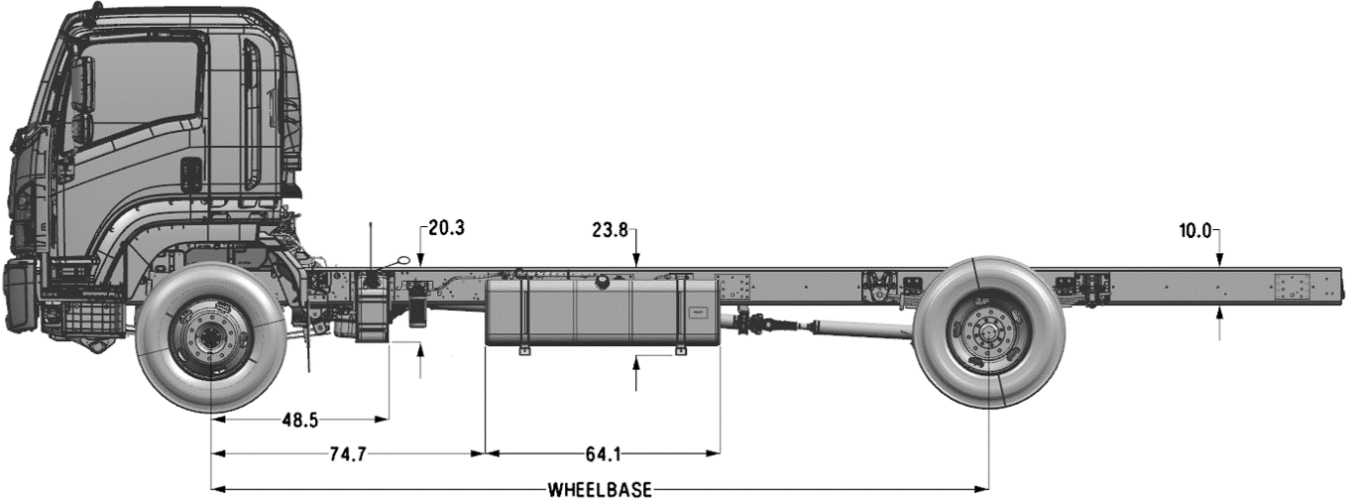
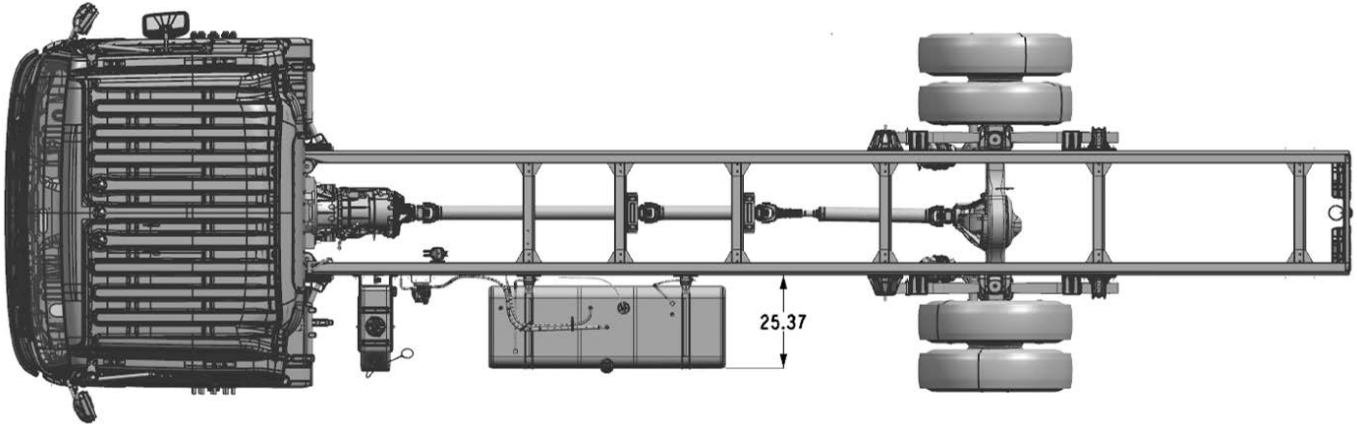


Note: As viewed from front

Note: Dimensions in inches

2026 Isuzu Truck

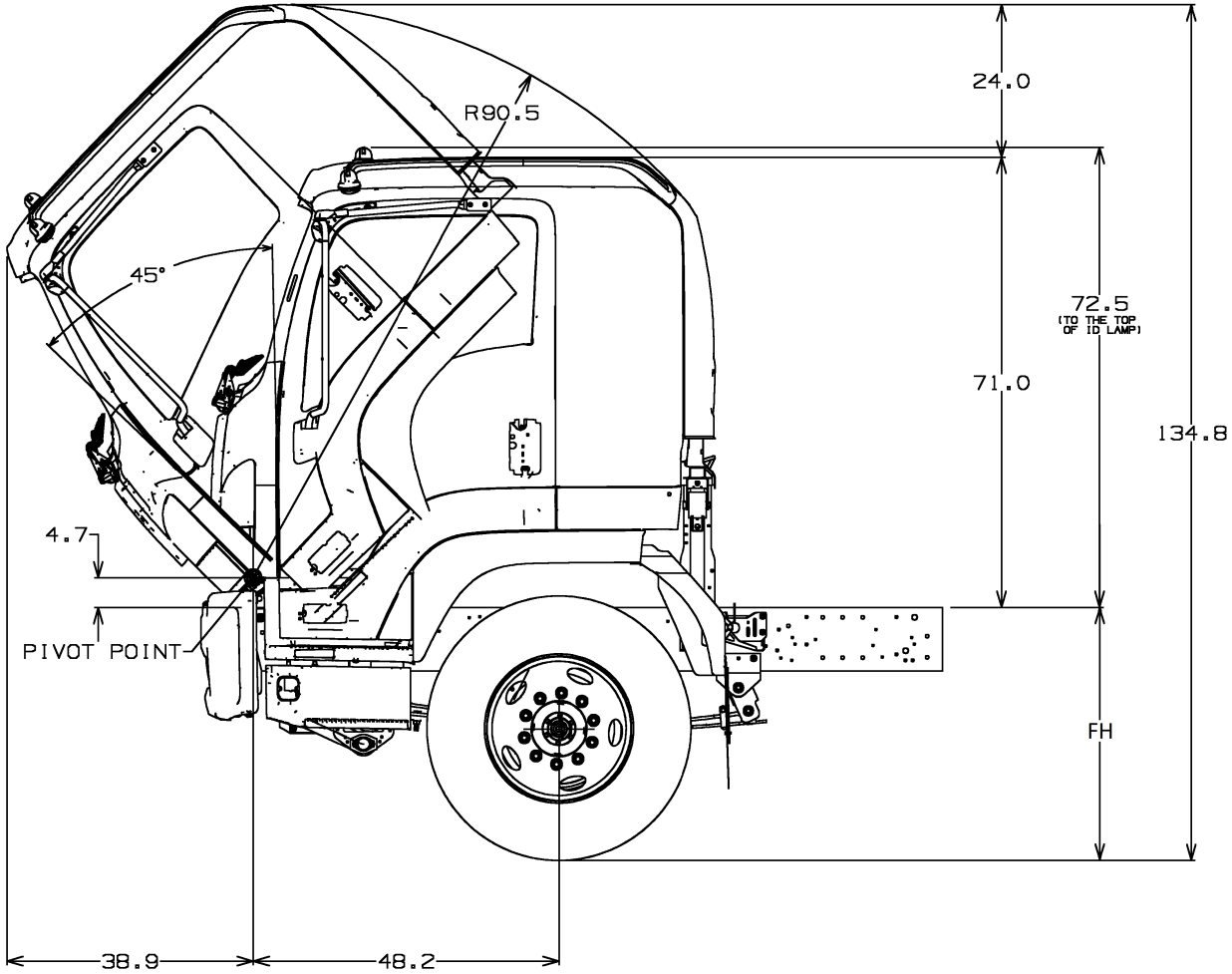
Fuel Tank Dimensions - 100 Gallon Tank



Note: Dimensions in inches

2026 Isuzu Truck

Cab Tilt

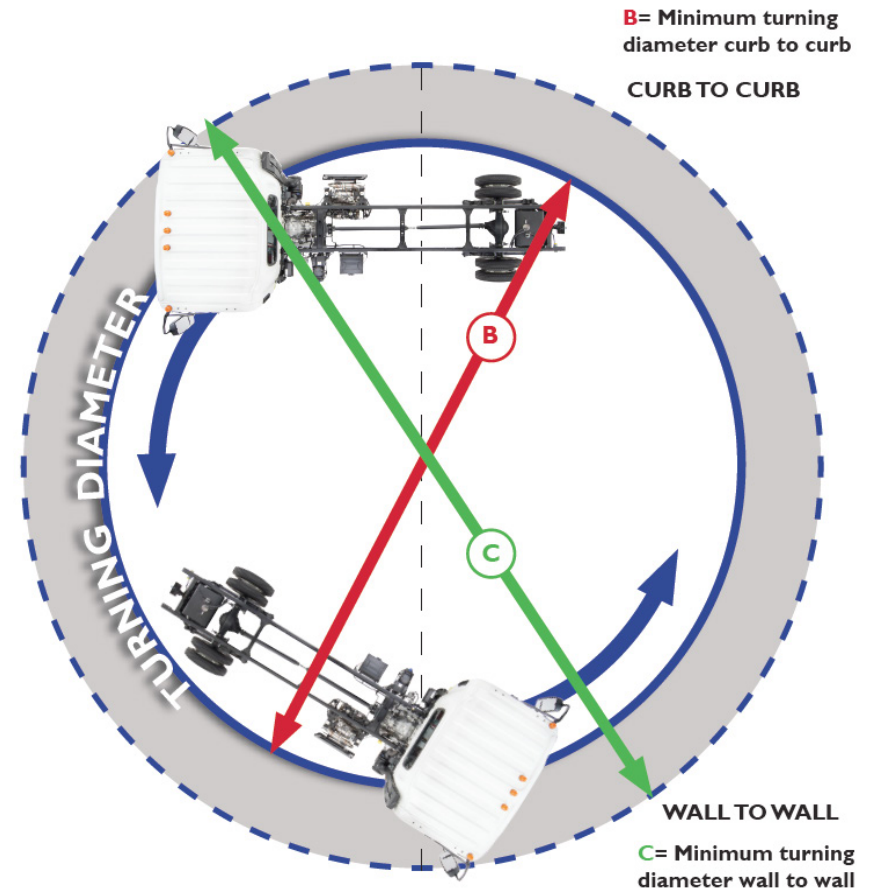


Note: Dimensions in inches

2026 Isuzu Truck

Turning Diameter

The F-Series Diesel steering features a 50 degree inside wheel cut angle.



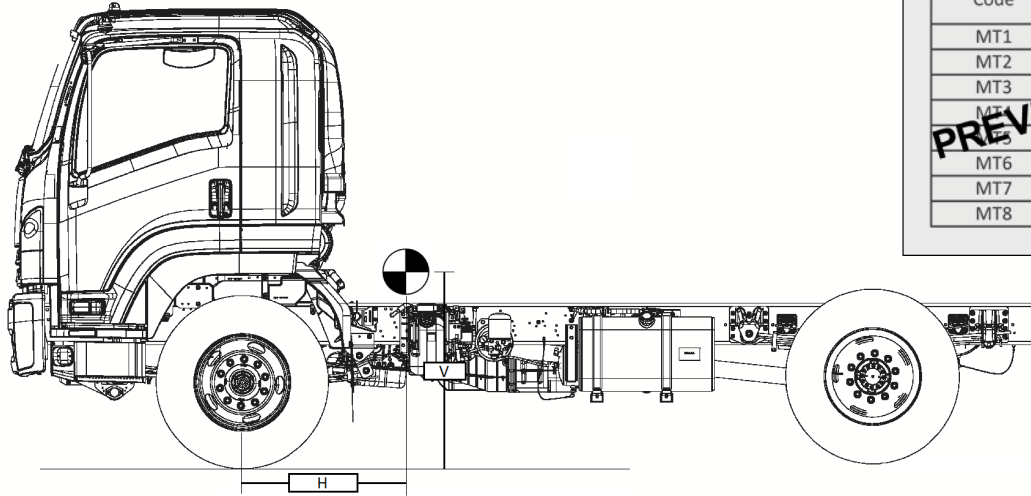
Wheelbase	in	152	170	188	200	212	224	236	248
Curb-to-Curb	ft	43.7	47.4	51.8	54.7	56.5	59.3	62.2	65.0
WALL-TO-WALL (Bumper)	ft	48.7	52.5	56.9	59.9	61.7	64.6	67.5	70.3
WALL-TO-WALL (96" Mirrors)	ft	48.6	52.5	56.9	59.8	61.6	64.5	67.3	70.2
WALL-TO-WALL (102" Mirrors)	ft	49.0	52.9	57.2	60.2	62.0	64.8	67.7	70.6

Note: Dimensions in inches

2026 Isuzu Truck

Center of Gravity

PREVIOUS MODEL YEAR DATA SHOWN - UPDATE COMING SOON



Horizontal and Vertical Center of Gravity of Chassis			
Model Code	Wheelbase (in)	Vertical CG - V - (in)	Horizontal CG (in)
MT1	152		55.3
MT2	170		61.9
MT3	188		69.2
MT4	200	31.0	73.6
MT5	215	(laden at GVWR)	78.1
MT6	224		82.5
MT7	236		87.0
MT8	248		91.5

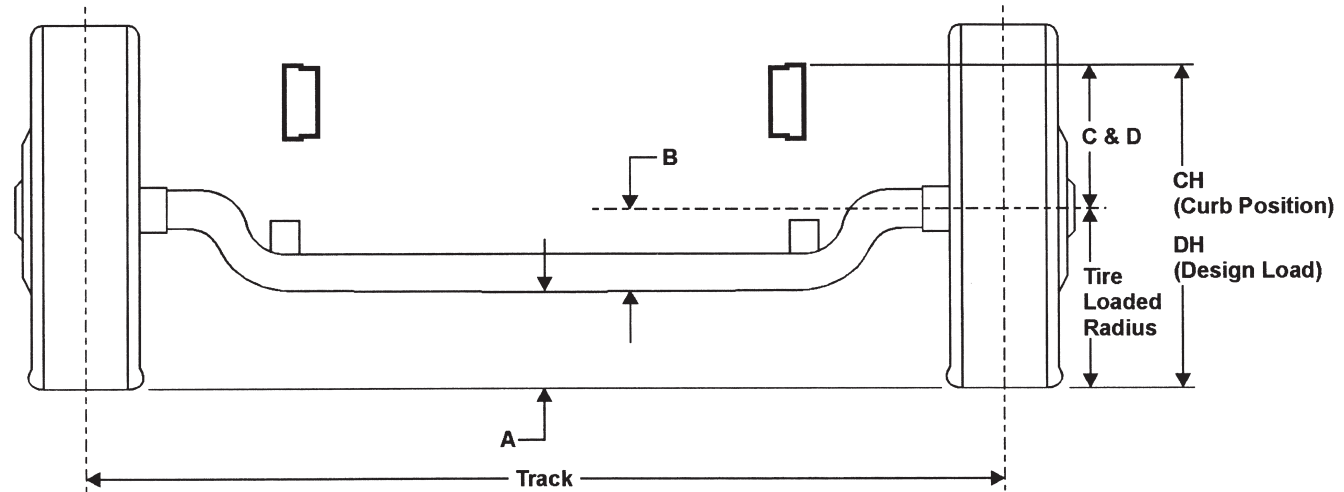
**PREVIOUS MODEL'S DATA SHOWN
UPDATE COMING SOON**

NOTE: The Final Manufacturer must ensure that the combined vertical center of gravity of the chassis, body, and available payload at full GVW does not exceed the maximum vertical center of gravity outlined in the Isuzu Incomplete Vehicle Document (IVD).

The maximum vertical center of gravity of the total vehicle at maximum GVWR is not to exceed 70 inches (1778 mm) above the ground. If a higher completed vehicle vertical center of gravity is required, please contact Isuzu Commercial Truck application engineering. On the West Coast call 1-562-310-8599 and on the East Coast call 1-734-582-9284.

2026 Isuzu Truck

Front Axle Chart



Formulas for calculating height dimensions:

- A = Tire Loaded Radius – B
- C = Centerline of Axle to Top of Frame Rail at Curb Position
- D = Centerline of Axle to Top of Frame Rail at Design Load
- CH = C + Tire Unloaded Radius
- DH = D + Tire Loaded Radius

TIRE	GVWR	GAWR	A	B	C	D	CH	DH	TRACK
11R22.5G	25,950 lb.	12,000 lb.	10.0	9.4	20.0	18.6	40.8	38.0	81.4
255/70R22.5H	25,950 lb.	11,000 lb.	7.7	9.4	20.0	18.6	38.3	35.7	81.4
11R22.5G	33,000 lb.	12,000 lb.	10.0	9.4	20.0	18.6	40.8	38.0	81.4

Note: Dimensions in inches

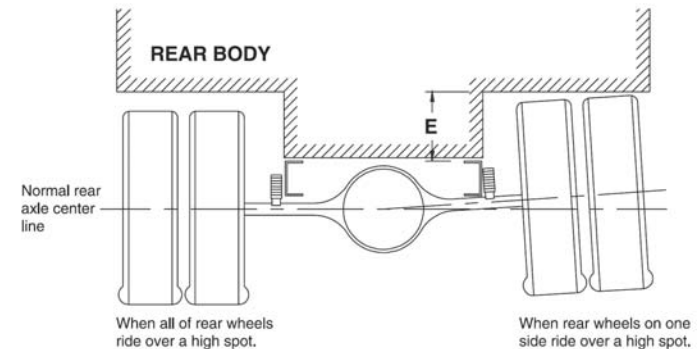
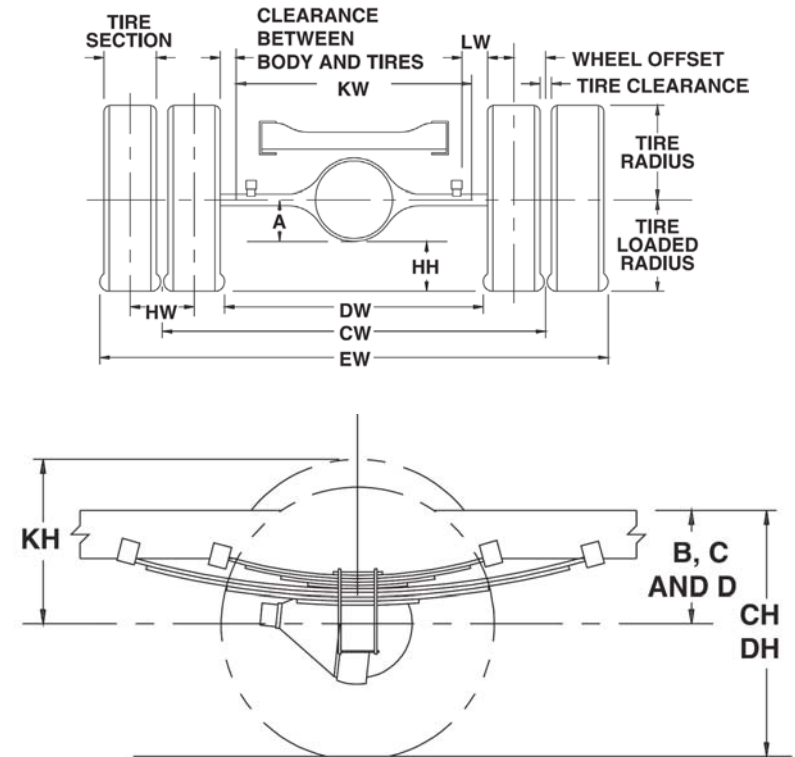
Rear Axle Chart

Definitions	
A	Centerline of axle to bottom of axle bowl.
B	Centerline of axle to top of frame rail at metal-to-metal position.
C	Centerline of axle to top of frame rail at curb position.
D	Centerline of axle to top of frame rail at design load.
E	Rear Tire Clearance: Minimum clearance required for tires measured from the top of the frame at the vehicle centerline of the rear axle, when rear wheels on one side ride over a high spot.
CH	Rear Frame Height (Curb Load): Vertical distance between the normal top of frame rail and the ground-line through the centerline of the rear axle at curb position.
DH	Rear Frame Height (Design Load): Vertical distance between the normal top of frame rail and the ground-line through the centerline of the rear axle at design position.
DW	Minimum distance between the inner surfaces of the rear tires.
EW	Minimum Rear Width: Overall width of the vehicle measured at the outermost surfaces of the rear tires.
HH	Rear Tire Clearance: Minimum clearance between the rear axle and the ground-line.
HW	Dual Tire Spacing: Distance between the centerlines of the tires in a set of dual tires.
KH	Tire Bounce Clearance: Minimum distance required for tire bounce as measured from the centerline of the rear axle and the top of the rear tire when one wheel rides over a high spot.
CW	Track Dual Rear Wheel Vehicle: Distance between the centerlines of the dual wheels measured at the ground-line.
KW	Clearance between body and tires.
Equations	
CH	= Tire loaded radius + C
DH	= Tire loaded radius + D
DW	= CW + 2 tire sections - tire clearance
EW	= CW + 2 tire sections + tire clearance
HH	= Tire loaded radius - A
JH	= KH - B
KH	= Tire radius + 3.0 inches
KW	= DW - 5.0 inches
LW	= 1.0 inch minimum clearance between tires and springs

SUSPENSION TYPE	TIRE SIZE	CW	A	B	C	D	E ^[1]
MULTI-LEAF	11R22.5G	72.1	8.1	13.8	20.8	17.9	11.4
	255/70R22.5H						10.8
AIR SPRING	11R22.5G			5.0			
	255/70R22.5H			3.2			

Notes:

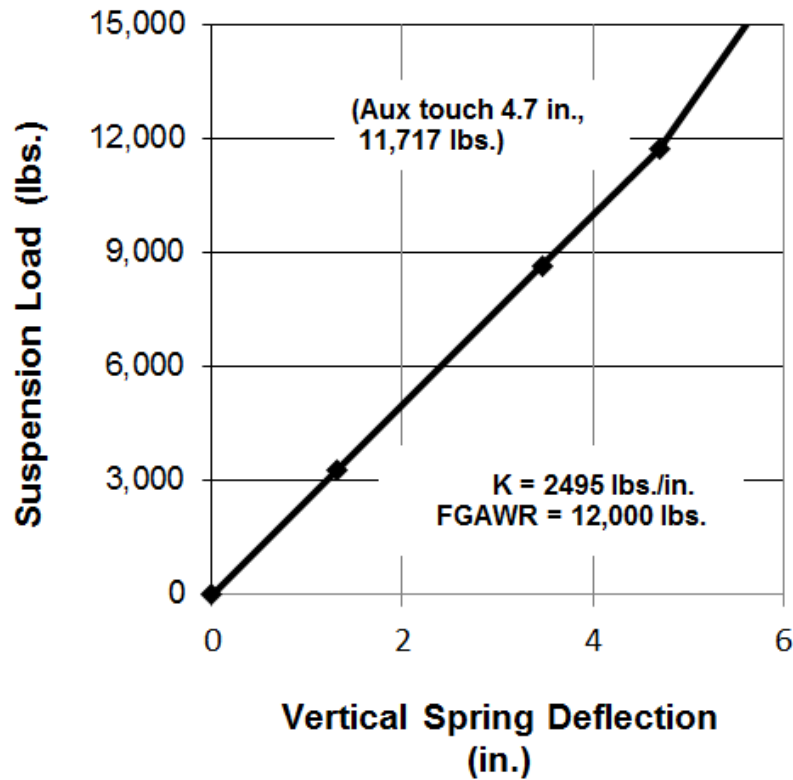
[1] Includes 2.5" of tire chain clearance



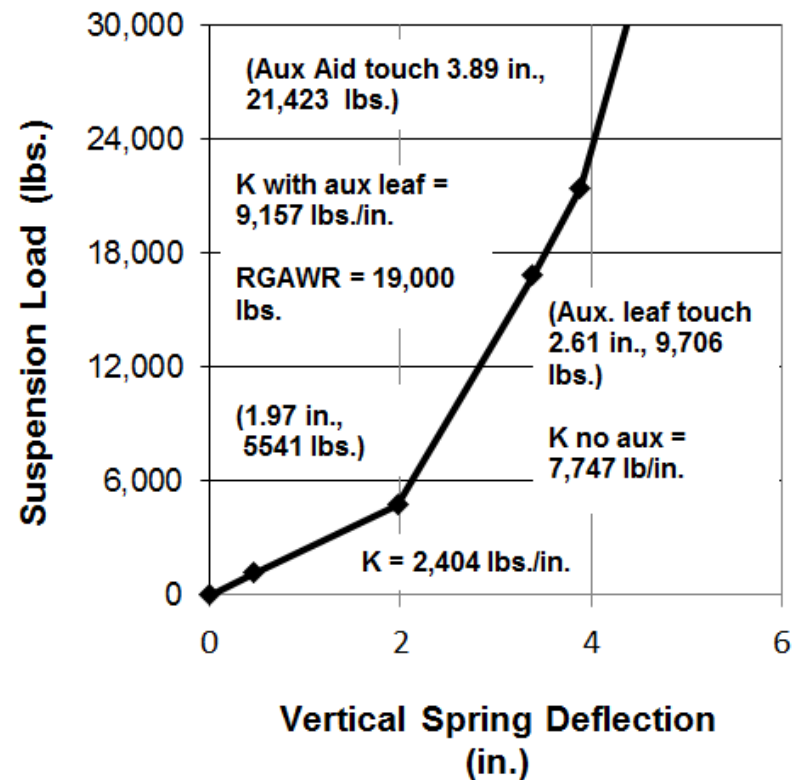
2026 Isuzu Truck

Multi-leaf Spring Suspension Deflection Charts

**Front Suspension Load vs. Deflection
(Per Axle)
26,000 lb. GVWR**



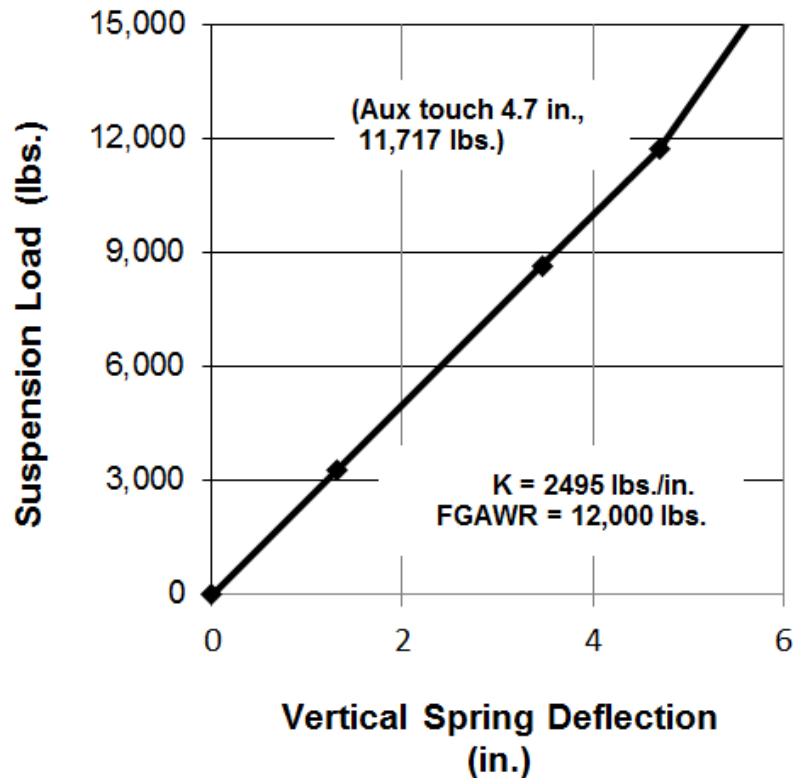
**Rear Suspension Load vs. Deflection
(Per Axle)
26,000 lb. GVWR**



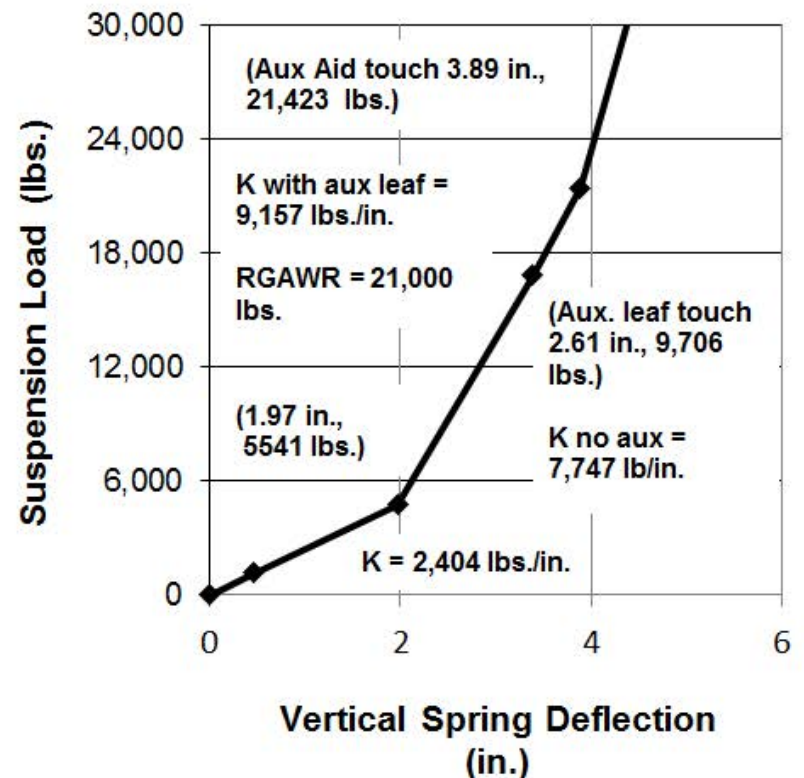
2026 Isuzu Truck

Multi-leaf Spring Suspension Deflection Charts

**Front Suspension Load vs. Deflection
(Per Axle)
33,000 lb. GVWR**



**Rear Suspension Load vs. Deflection
(Per Axle)
33,000 lb. GVWR**



Tire and Disc Wheel Chart

Tire

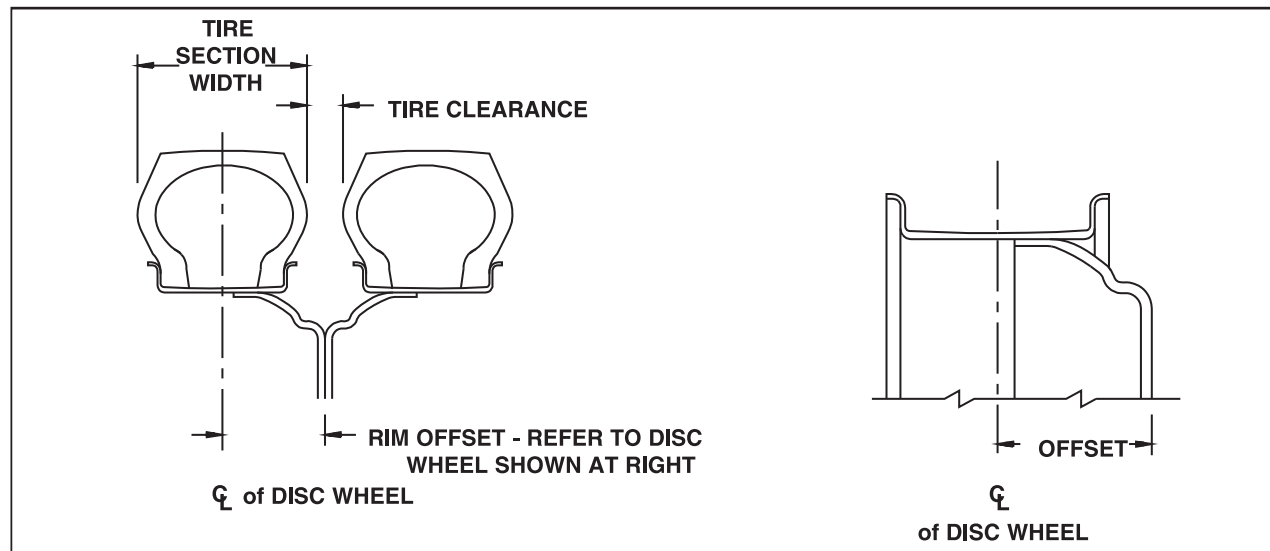
Brand	Size	Revolutions Per Mile	Max Load Per Tire (lb)		Cold Inflation Pressure (psi)	GVWR (lb)	Radius (in)		Loaded Section Width (in)	Tire Clearance (in)	Design Rim Width (in)
			Single	Dual			Loaded	Unloaded			
Bridgestone	11R22.5G	500	6175	5840	105	25,950	19.4	20.8	12.3	0.92	8.25
Continental	11R22.5G	498	6175	5840	105	25,950	19.4	20.8	12.0	0.20	8.25
Yokohama RY023 (Front Tire)	255/70R22.5	570	5510	5070	120	25,950 _[1]	17.1	18.25	10	2.83	7.5
Yokohama TY303 (Drive Tire)	255/70R22.5	563	5510	5070	120	25,950	17.3	18.5	10	2.83	7.5

Disc Wheel

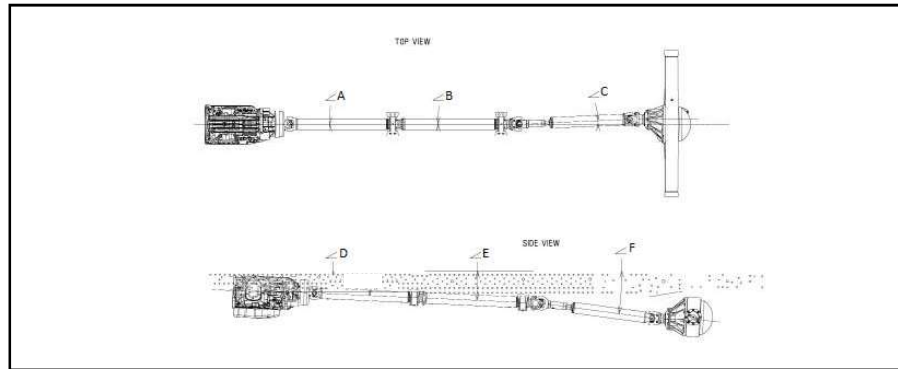
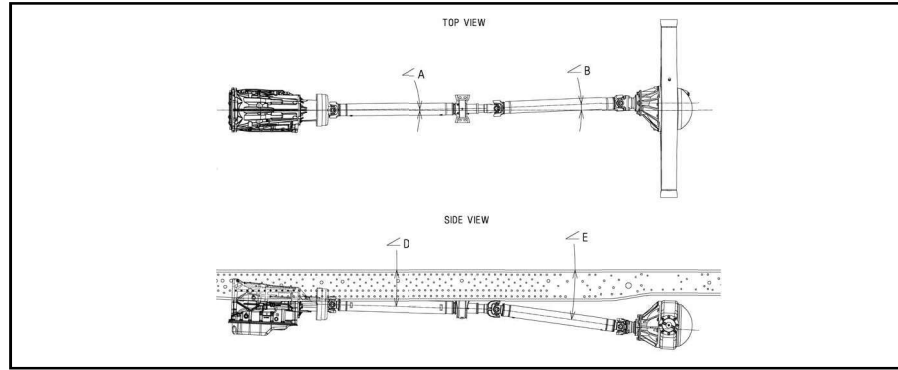
Brand	Size (in.)	Material	Rim Type	Bolt Holes	Bolt Circle Diameter (in)	Front & Rear Nut Size _[2]	Front & Rear Stud Size	Nut/Stud Torque Specs (ft-lb)	Inner Circle (in)	Wheel Outside Offset (in)	Disc Thickness (in)
Accuride	22.5 x 8.25	2-piece welded steel	Hub-piloted, dual-mounting, 15° tubeless	10-Hole	11.25	33mm Hex	M22 x 1.5	475 (644 N-m)	8.66	6.60	0.437
Alcoa _[3]	22.5 x 8.25	1-piece aluminum	Hub-piloted, dual-mounting, 15° tubeless	10-Hole	11.25	33mm Hex	M22 x 1.5	475 (644 N-m)	8.66	6.60	0.748

NOTES:

- [1] Front GAWR is reduced to 11,000 lb. with 255/70R22.5H tires equipped.
- [2] Outside dimension wrench size
- [3] Aluminum wheel options will include (4) wheel spacers to prevent dissimilar metal corrosion



Propeller Shaft Angles





Wheel Base (in.)	Top View			Side View				
	∠A	∠B	∠C	∠D	∠E	∠F	∠Trans.	∠Rear Axle
152	0	1.7	n/a	5.52	8.89	n/a	4	5.42
170	0	1.2	n/a	5.52	6.30	n/a	4	5.42
188	0	1.4	n/a	5.85	4.24	n/a	4	5.42
200	0	0	0.8	5.52	3.87	4.97	4	5.42
212	0	0	1.0	3.24	4.94	4.96	4	5.42
224	0	0	0.8	3.24	4.93	3.61	4	5.42
236	0	0	0.7	3.24	3.76	3.84	4	5.42
248	0	0	0.7	3.24	4.49	2.13	4	5.42

Note: 1. Angles provided in table are relative to the frame angle. Please take this into consideration for service measurements.
 2. Driveline angles are based on the chassis curb weight which includes standard fuel but no driver, body, or payload.

2026 Isuzu Truck

Propeller Shaft Lengths

Wheelbase	152	170	188	200	212	224	236	248
No. of Shafts	2	2	2	3	3	3	3	3
Shaft #1 O.D.	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Thickness	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095
Length	35.4	35.4	60.5	35.4	60.3	60.3	60.3	60.3
Type	A	A	A	A	A	A	A	A
Shaft #2 O.D.	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Thickness	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095
Length	44.1	62.0	54.8	31.8	31.9	43.8	41.1	53.0
Type	B	B	B	A	A	A	A	A
Shaft #3 O.D.	N/A	N/A	N/A	4.00	4.00	4.00	4.00	4.00
Thickness	N/A	N/A	N/A	0.095	0.095	0.095	0.095	0.095
Length	N/A	N/A	N/A	60.0	47.1	47.2	61.8	61.9
Type	N/A	N/A	N/A	B	B	B	B	B

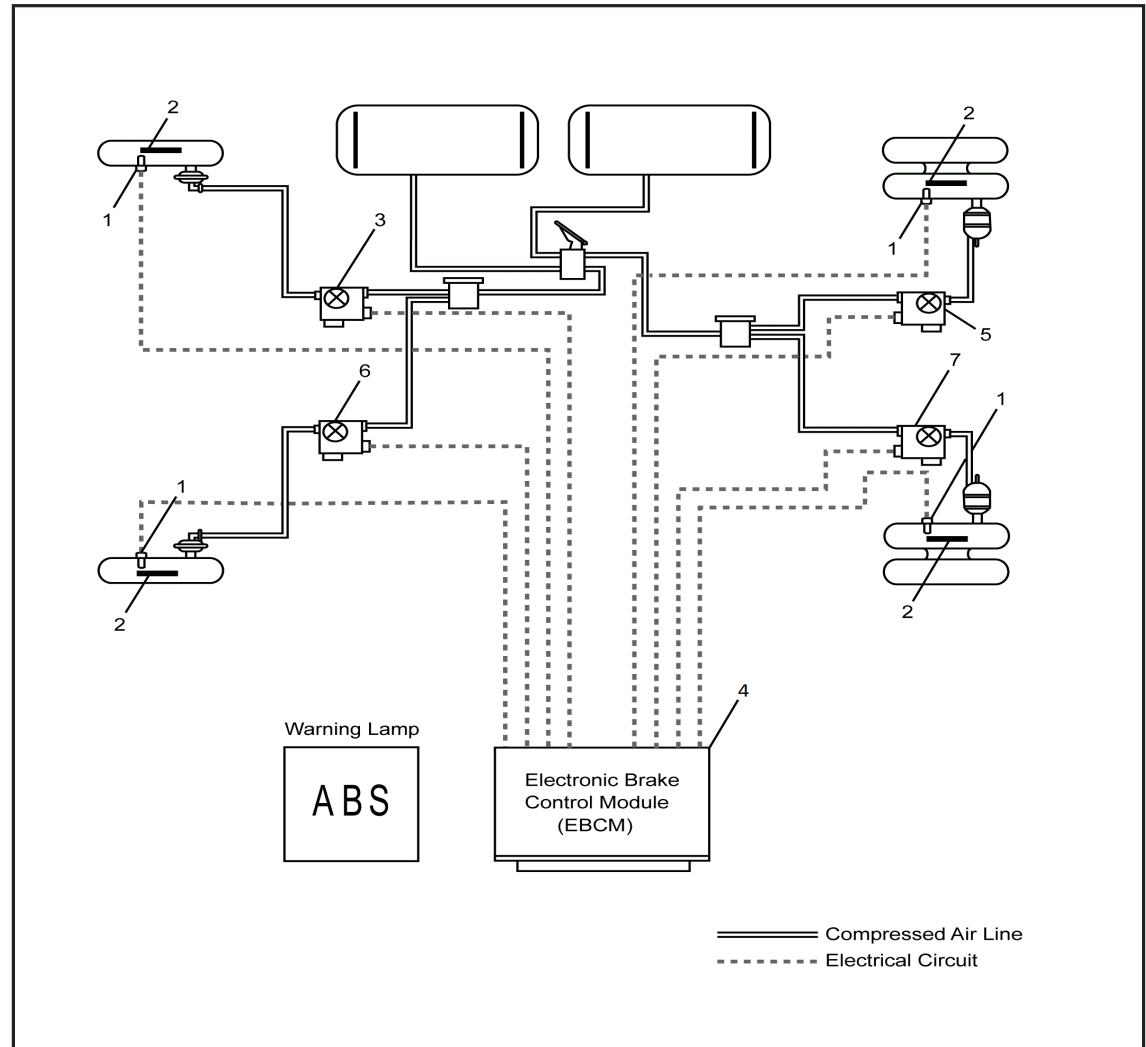
Type	Description	Illustration
Type A	1st shaft in 2 or 3-Piece Driveline 2nd shaft in 3-Piece Driveline	
Type B	2nd shaft in 2-piece Driveline 3rd shaft in 3-Piece Driveline	

Note: Dimensions in inches

Brake System Diagram

Legend FTR Brake System

- (1) Wheel Speed Sensors (WSS)
- (2) Speed Sensor Rotor
- (3) Right Front Brake Pressure Modulator Valve
- (4) Electronic Brake Control Module (EBCM)
- (5) Right Rear Brake Pressure Modulator Valve
- (6) Left Front Brake Pressure Modulator Valve
- (7) Left Rear Brake Pressure Modulator Valve



N-Diesel In-Frame Diesel Fuel Fill Installation Instructions

1. Disconnect battery.
2. Loosen hose from the tie downs. Remove caps from plate on rail.
3. Install hoses onto the plate.
4. Extend hose out from the driver side of the rail to body rail.
5. The filler neck must be mounted to allow the fill plate bracket to be parallel to the frame horizontal.
6. Cover with protector wrap and secure with tie wraps.
7. Filler hose is set for 102 inches outside width body.
8. Filler neck (Figure 9 or 14 - Dimension A) must be between 6.85 inches and 8.5 inches above frame.
9. Secure the filler plate to the bottom of the body and check for leaks.
10. Ensure that fill hose does not sag, creating an area where the fuel could pool in the fill hose.
11. Reconnect battery.

Fuel Tank Cautions

1. Fuel fill kit must be installed on cab chassis if it will be driven for an extended distance.
2. Fuel tank kit provides venting for the fuel tank.
3. **DO NOT RESTRICT OR KINK THE FUEL TANK VENT HOSE.** Operating this vehicle with a restricted or kinked fuel tank vent hose may cause serious damage to the fuel tank and/or fuel injection pump. Continued operation may cause engine failure.

N-Diesel Ultra Low Sulfur Diesel Label

Per EPA Title 40, Part 86, 86:007—35(c),
The decal illustrated below must be installed on the vehicle.
The decal is included in the fuel fill parts box.



INSTRUCTIONS FOR DECAL PLACEMENT:

1. The decal must be placed as close as possible to the fuel inlet and be clearly visible.
 2. The decal should be placed above or to the side of the fuel cap to avoid corrosion by possible contact with fuel.
 3. The decal may be placed on aerodynamic fairings, bodies, etc. as long as the decal is clearly visible and in close proximity to the fuel inlet.
 4. For installed bodies that have a fuel door, the decal should be placed above or to the side of the fuel door.
- Thoroughly clean the area of all grease, dirt, etc. before application of the decal. Apply the decal at room temperature, 65° to 75° F.

Figure 1

2026 Isuzu Truck

N-Diesel Through the Rail Fuel Fill Frame Hole

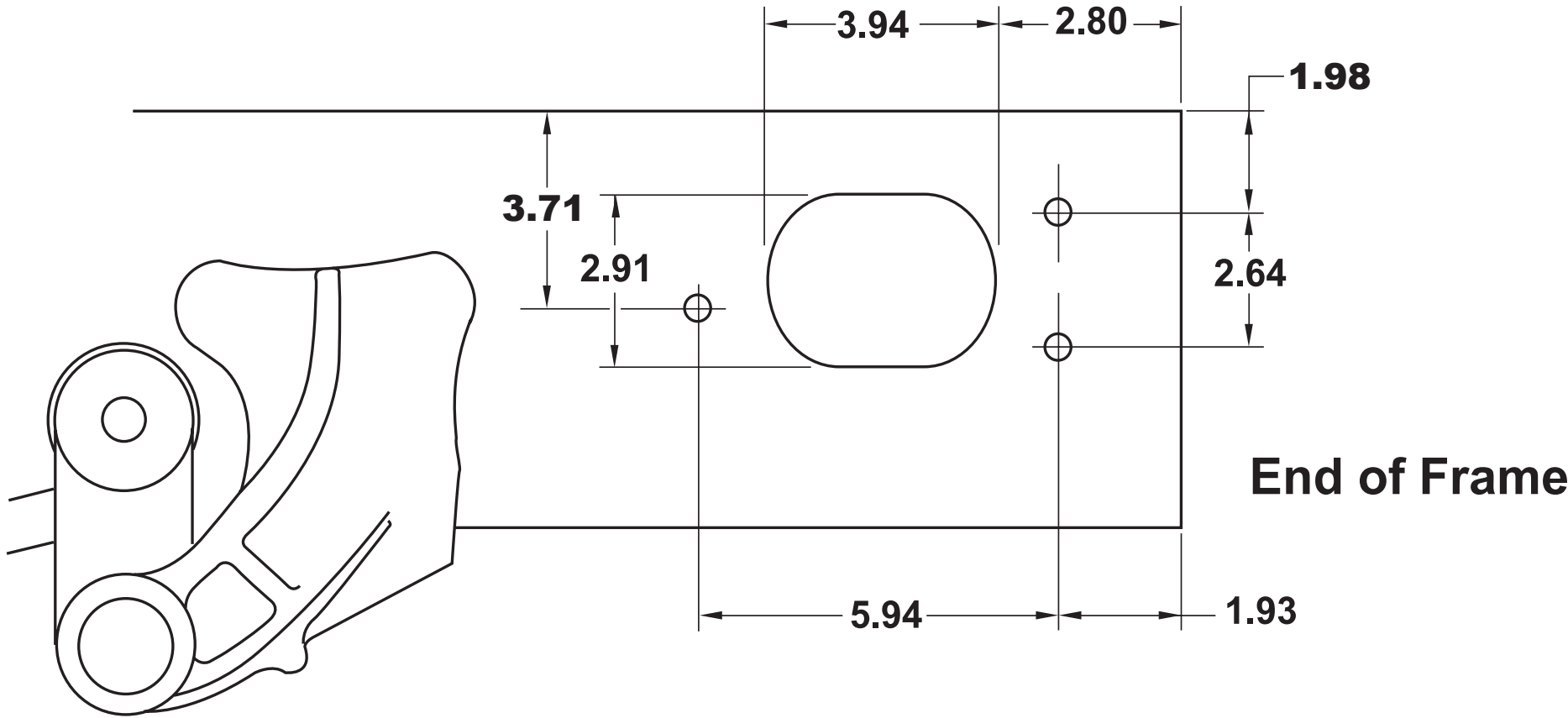


Figure 2

Note: Dimensions in inches

N-Series Diesel Installation Instructions and Considerations

The fuel tank shutter valve was a new component for 2011 model year. This component is meant to improve fuel splash-back performance of the fuel system. In the 2012 model year a running change was made and this valve was relocated from the fuel tank inlet to the inlet (outboard side) of the fuel filler neck bulkhead assemble that is bolted to the left hand frame rail as shown in Figure 3. This plastic valve snaps into place in the inlet of the frame mounted fuel pipe. The valve should be installed so that the plastic clip is at the top of the valve, so that the flap door opens up, as shown in Figure 4.

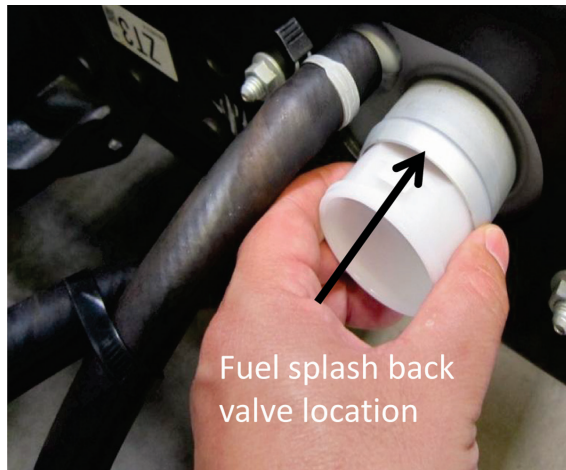


Figure 3

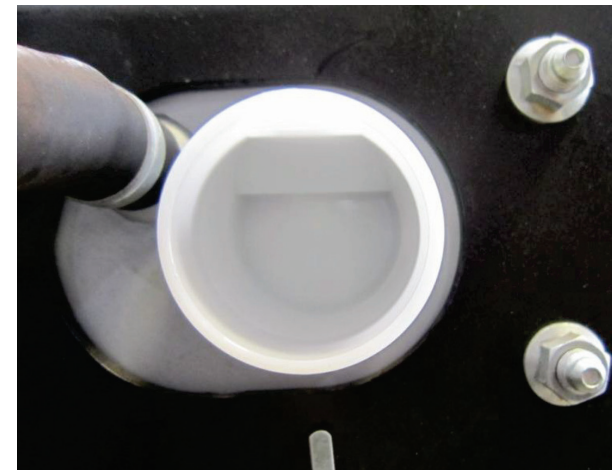


Figure 4

The fuel filler hose should be installed flush against the tank. The clamp should be installed between 1/16" and 3/8" from the tank. As shown in Figure 10 below.

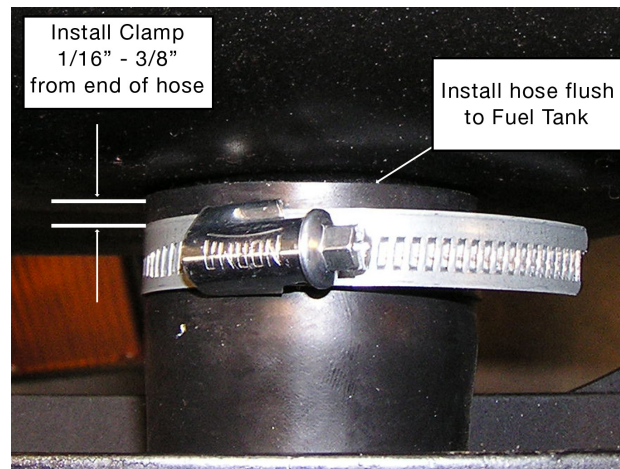


Figure 5

N-Diesel Roll-Over Valve Tubing

The roll-over valve has a hose attachment that will make this valve less sensitive to water intrusion. In order for the valve to work properly, it is critical for the hose to be installed to the rollover valve. The proper assembly of the outer hose is shown below in Figure 6.

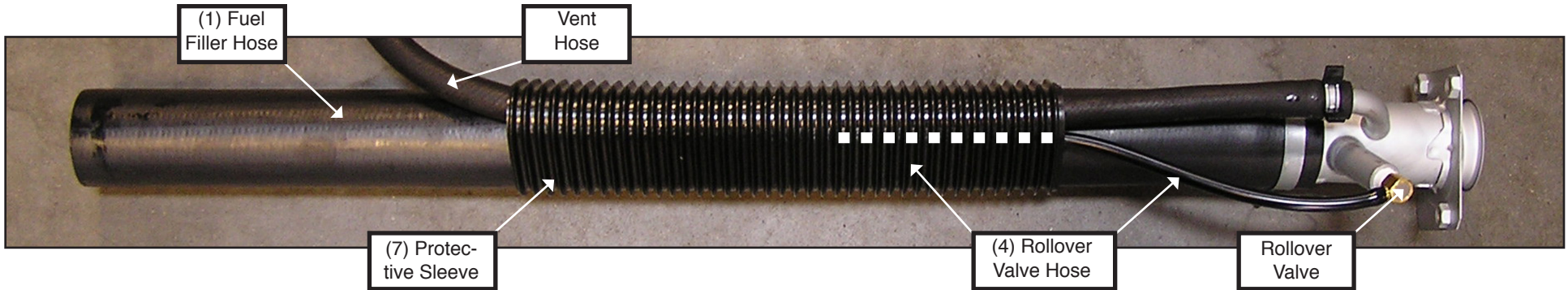


Figure 6

Filler Neck Installation

The fuel filler neck must be installed with the proper orientation on the body. The neck should be installed with the roll-over valve pointing upward, with the bottom edge of the filler neck oriented parallel to the ground, plus 33 to minus 7 degrees. See Figure 7 below for the proper orientation.

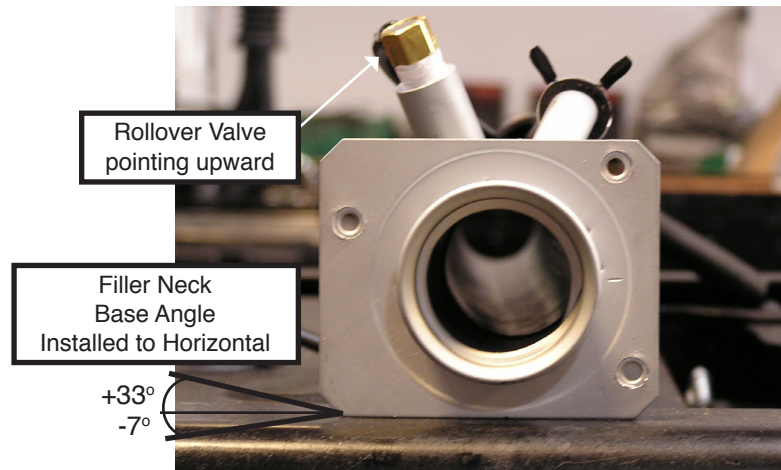


Figure 7

2025MY N-Diesel Fuel Fill Kit Parts List

Please review these instructions prior to installation of the fuel filler kit.

Parts Kit: There are two separate parts kits used for the 2011 and later model year N-diesel products. See parts list below.



FUEL FILLER KIT, NPR-HD, NQR, NRR 897663 8260			
ITEM #	PART NAME	PART #	QTY
1	HOSE: FUEL FILLER NECK	897651 144Y	1
2	HOSE: FUEL FILLER	898006 450Y	1
3	CAP: FILLER	897218 702Y	1
4	HOSE: ROLL-OVER VALVE	898164 876Y	1
5	NECK ASM: FUEL FILLER	898164 877Y	1
6	CLIP: JOINT	897835 0490	4
7	PROTECTOR: FILLER HOSE	897114 063Y	1
8	CLIP: BAND, HOSE FIXING	109707 107Y	2
9	CLIP: RUBBER, HOSE	894242 034Y	1
10	BRACKET: FILLER NECK	897116 621Y	1
11	SCREW: FILLER NECK	897581 217Y	3
12	CAUTION PLATE	898070 422Y	1
13	SHUTTER: FUEL TANK	898164 404Y	1

Figure 8

2026 Isuzu Truck

2025MY N-Diesel Rear View Fuel Fill

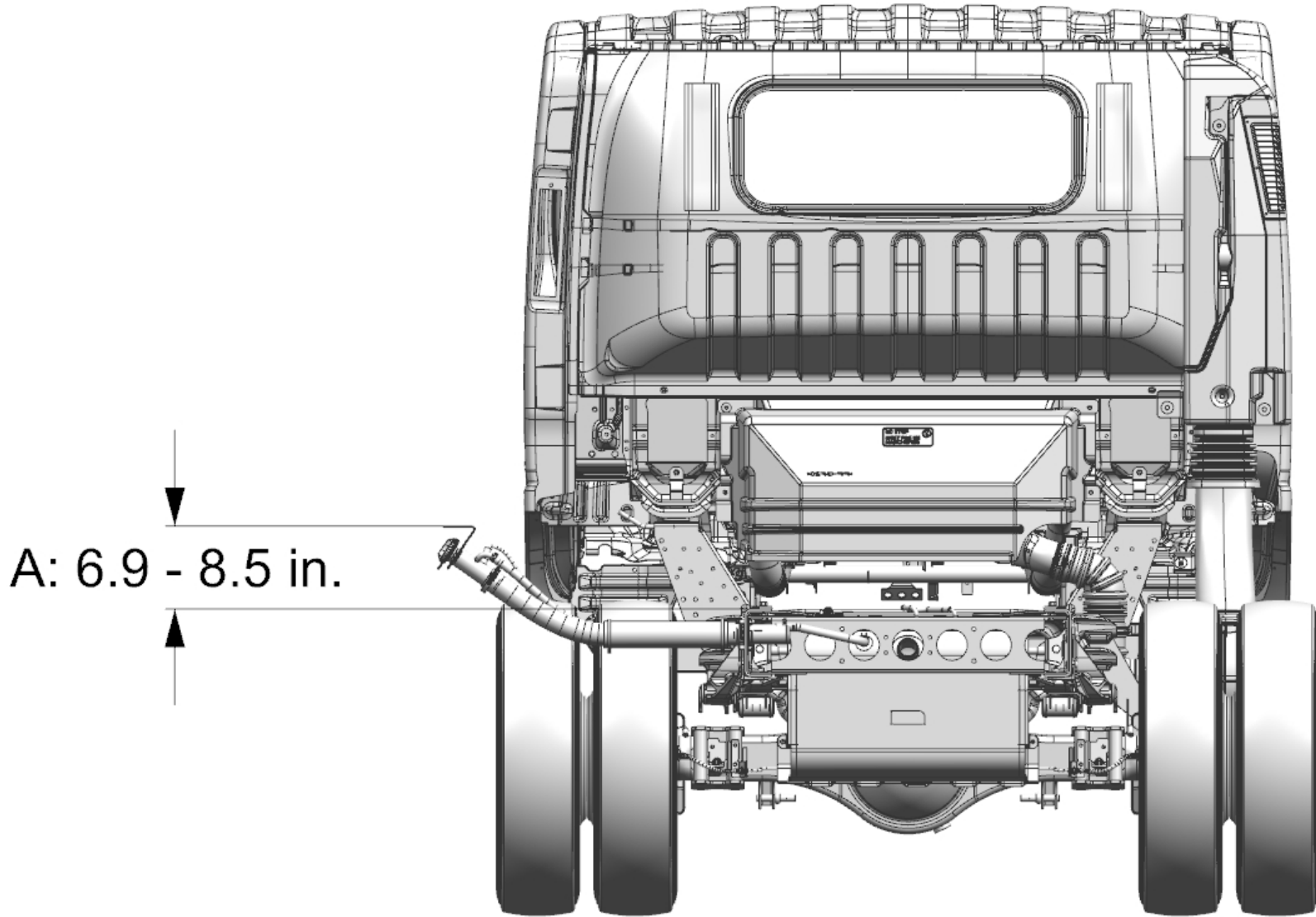


Figure 9

2025MY N-Diesel Top View Fuel Fill

Dimensions:
B = 29.75 inches (756 mm)
C = 34.00 inches (863 mm)
D = 39.29 inches (998 mm)
E = 33.86 inches (860 mm)
F = 50.60 inches (1,285 mm)

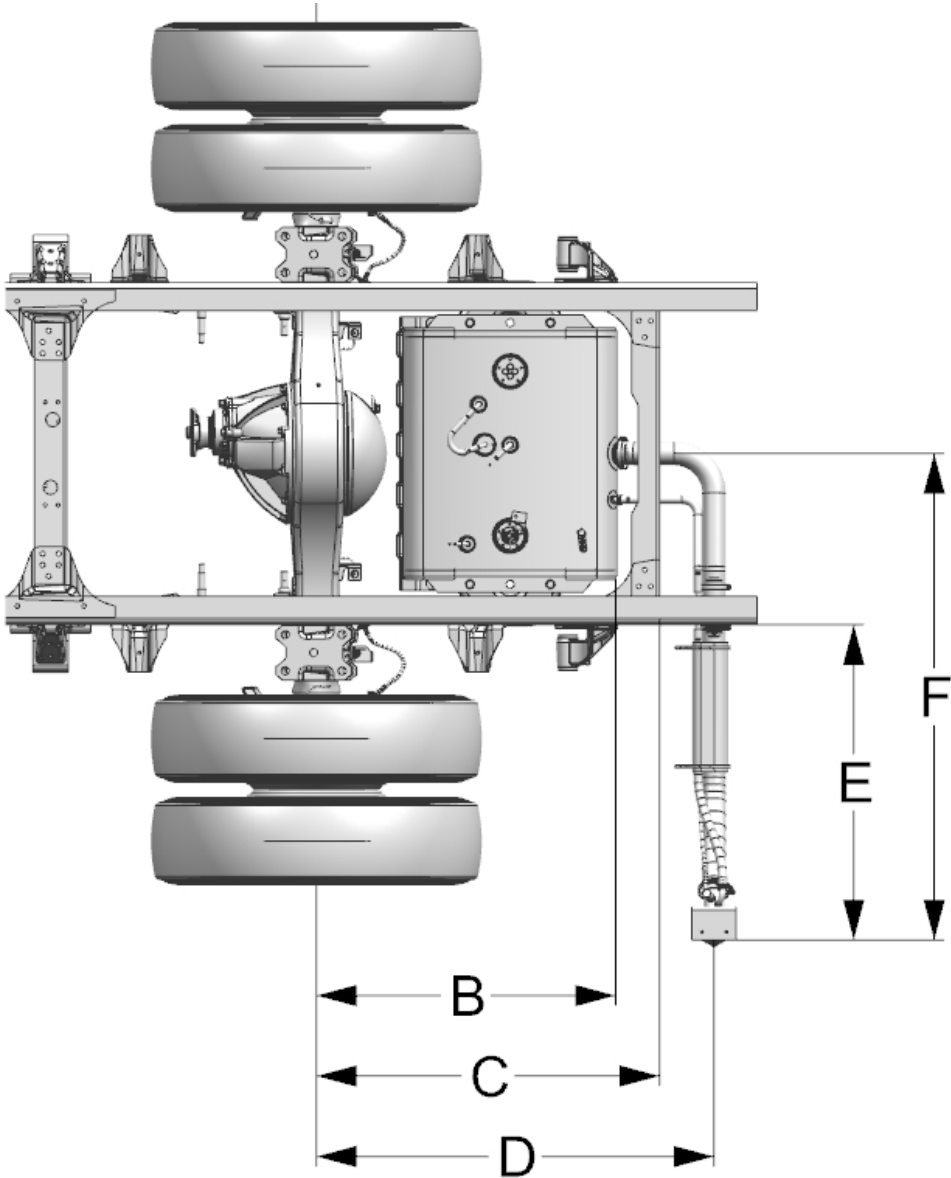
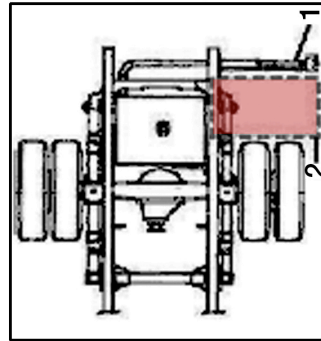


Figure 10

2025MY N-Diesel Hose Modification for Various Width Bodies and Fuel Fill Vent Protection



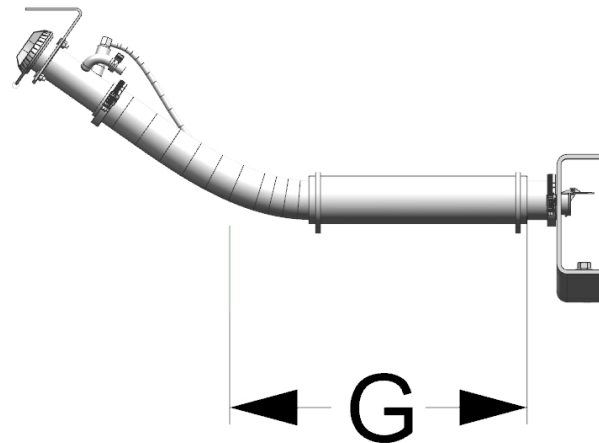
Fuel fill vent and neck should be protected from road spray

- 1. FUEL FILLER NECK
- 2. RECOMMENDED MUD FLAP MOUNTING AREA (RED ZONE).

Figure 11

Dimension: G

- 102 inch wide body remove 0 inches
- 96 inch wide body remove 3 inches
- 90 inch wide body remove 5 inches
- 86 inch wide body remove 8 inches
- 80 inch wide body remove 8 inches



NOTE: Shorten hose by dimension "G" based on chart at left.

Figure 12

N-Gas In-Frame Fuel Fill Installation Instructions

1. Disconnect battery.
2. Remove the short filler hose and the short breather hose from the breather and fuel filler pipes and the filler neck bracket assembly.
3. Filler kit hoses are designed for the 102 inch wide body width. Modify the hoses as required to fit the desired body width (Figure 20 - Dimension D).
4. Install flexible filler hose (Item 1) to fuel filler pipe and filler neck bracket assembly using existing screw clamps.
5. Install flexible breather hose (Item 2) to fuel breather pipe and filler neck bracket assembly using new clamps (item 3)
6. The filler neck must be mounted to allow the filler neck bracket to be parallel to the frame horizontal.
7. Filler neck (Figure 14 - Dimension A) must be between 6.85 inches and 8.5 inches above frame.
8. Secure the filler plate and ground strap to the bottom of the body and check for leaks. Ground straps should be connected to brackets or flanges, not the fuel filler hose or breather hose. Ground straps should have a minimum of 10mm clearance, in all deflected positions, from any metallic portions of the fuel filler hose or breather hose assembly.
9. Ensure that fill hose does not sag, creating an area where the fuel could pool in the fill hose.
10. Reconnect battery.

Fuel Type

Use regular unleaded gasoline rated at 87 octane or higher that meets specification ASTM D4814 in the U.S. Blended gasoline is suitable for use in the Isuzu N-Series Gas Chassis.

Ethanol is ethyl or grain alcohol. Properly-blended fuel that is no more than 10% ethanol is fine for your vehicle.

NOTICE: Fuel that is 15% Ethanol is not suitable for your vehicle. Fuel that is than 85% Ethanol is not suitable for your vehicle.

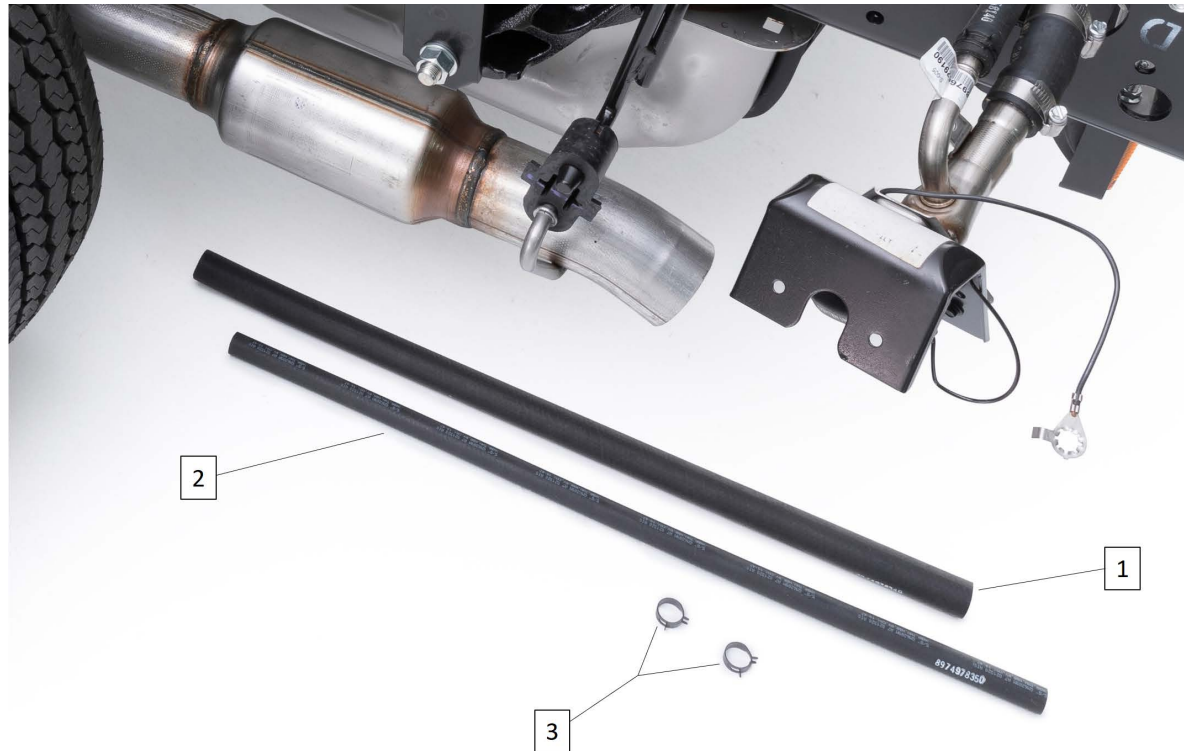
Methanol is methyl or wood alcohol.

NOTICE:

- 6.6L Engine: Fuel that is more than 5% methanol is bad for your vehicle. And even at 5% or less, there must be “co-solvents” and corrosion preventives in this fuel to help avoid damage to the fuel system from methanol.

- 6.0L Engine: Methanol-Gasoline mixtures are not suitable for your vehicle.

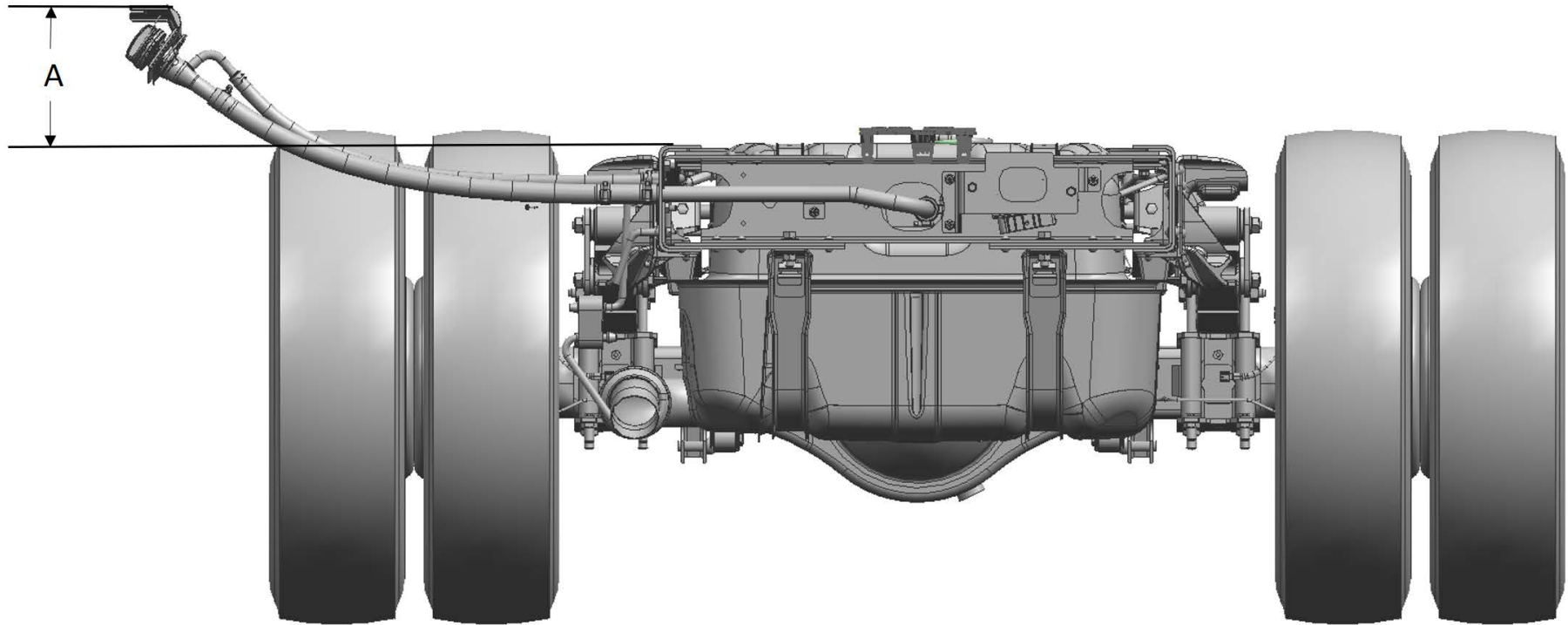
N-Gas Fuel Fill Parts Illustration



FUEL FILLER KIT - NPR & NPR-HD GAS		
PN: 8974968121		
Number	Description	Quantity
1	Hose, Fuel Filler	1
2	Hose, Breather	1
3	Clamp, Rubber Hose	2

Figure 13

N-Gas Rear View Fuel Fill



Dimension A = 6.85-8.5 inches (174-216 mm)

*6.6L N-Series Gas shown

Figure 14

N-Gas Top View Fuel Fill

Dimensions:

B = 35.85 inches (860 mm)

C = 37.79 inches (960 mm)

D = 34.25 inches (870 mm)

E = 51.61 inches (1311 mm)

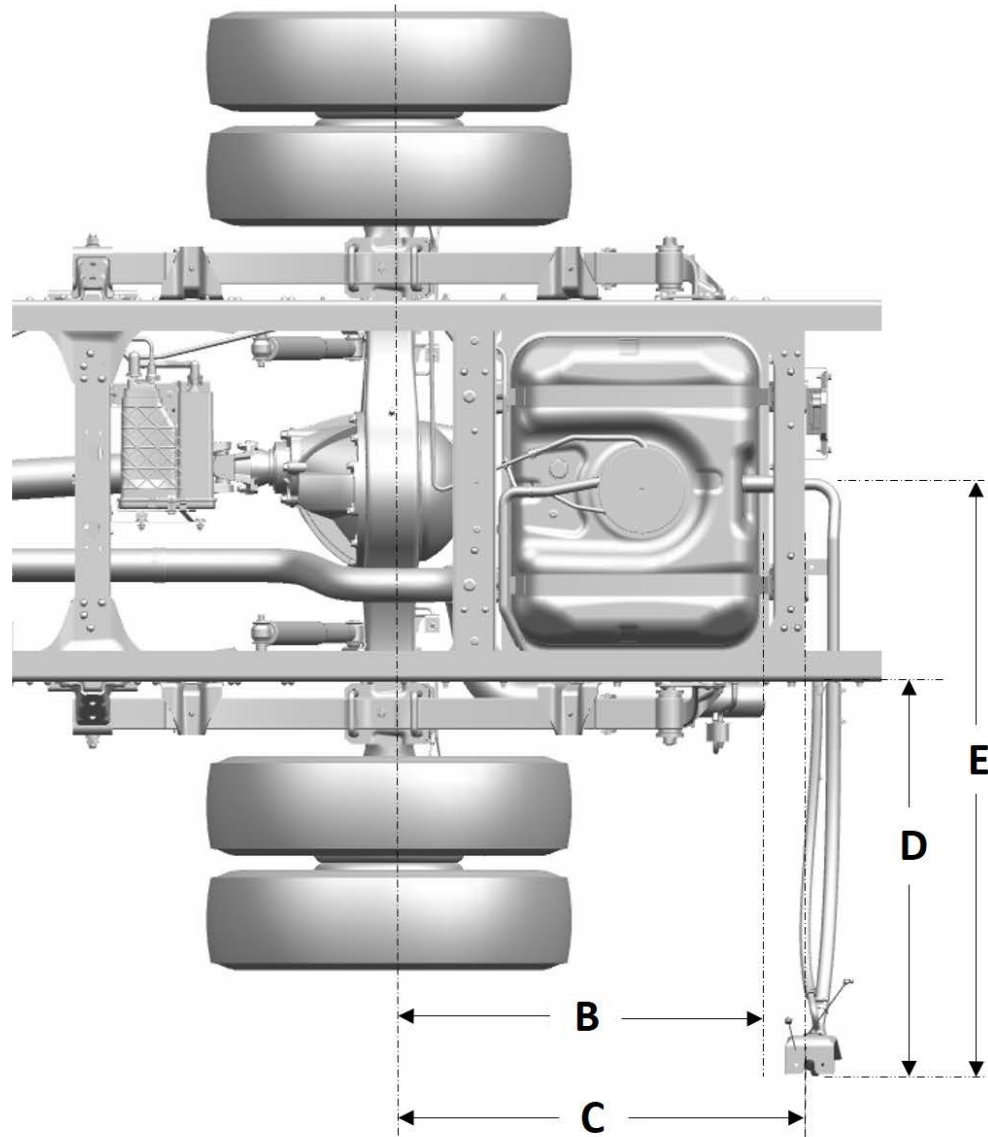


Figure 15

*6.6L N-Series Gas shown

N-Series Gas 6.6L Installation Considerations

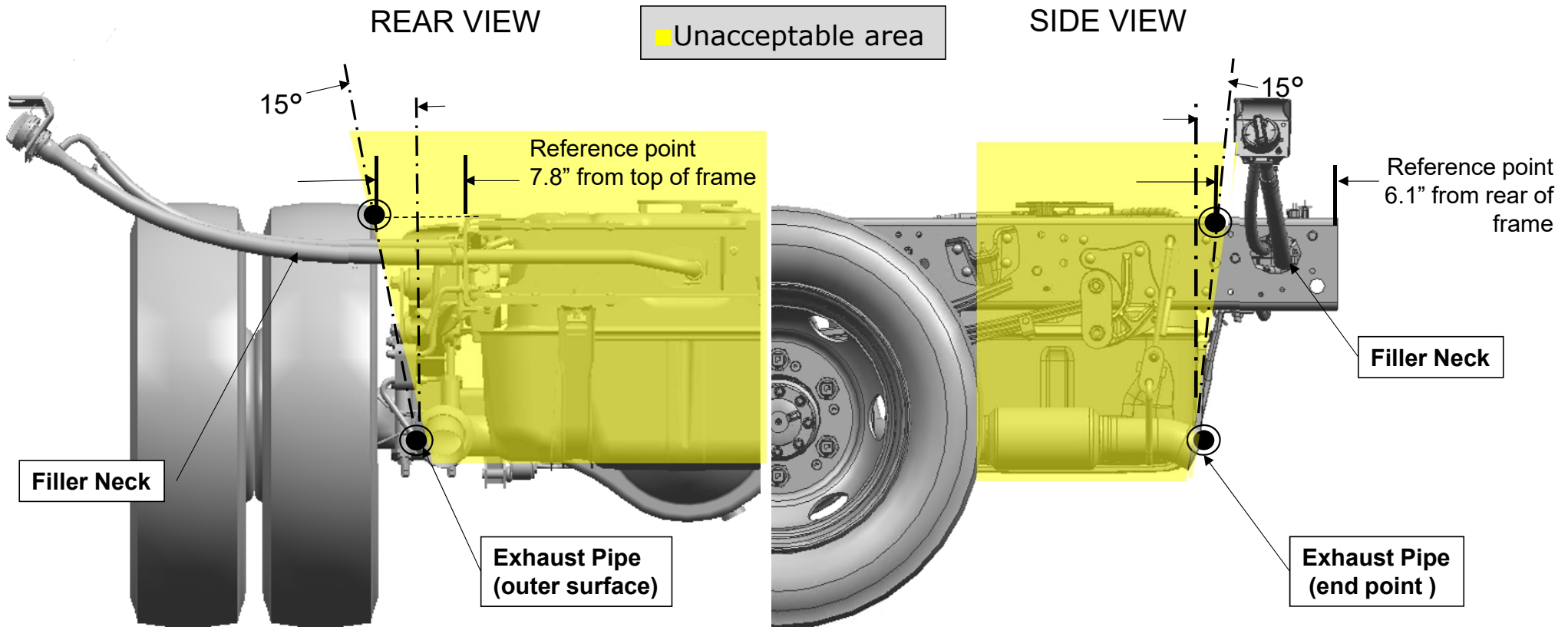


Figure 16

- Notes:**
1. Modification of the filler neck outside the frame rail must comply with FMVSS regulations for avoiding fuel dripping on hot surfaces.
 2. Do not install the connection point of Filler neck, pipe and hoses in unacceptable areas shown in the side and rear view above.

N-Series Gas Through the Rail Fuel Fill Frame Hole

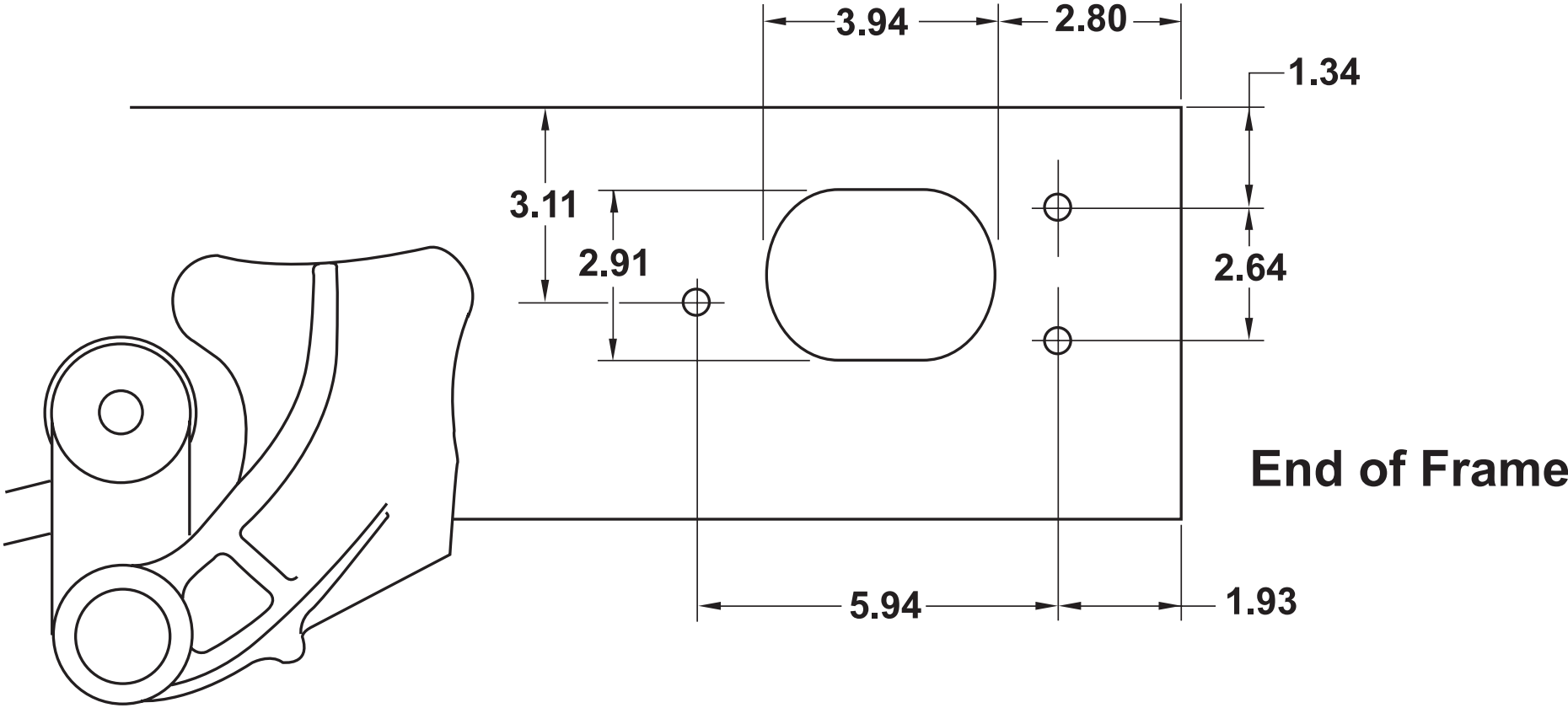





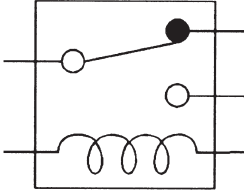


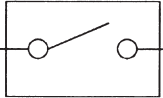
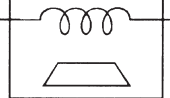
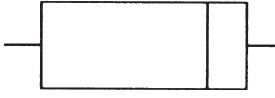
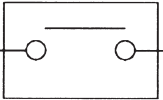
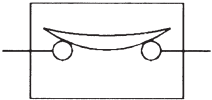
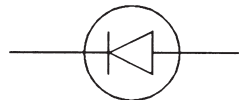
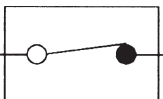

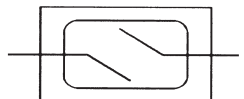


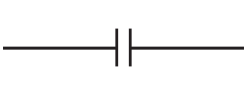
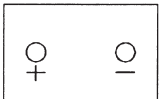

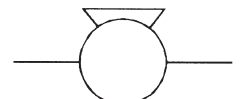
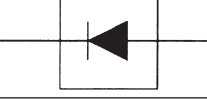
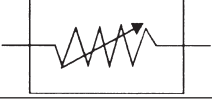
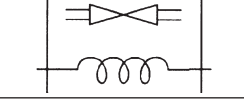


Figure 17

Dimensions in inches

N-Series Gas Electrical Symbols

	Fuse		Electronic Parts		Coil (Inductor), Solenoid Magnetic Valve
	Fusible Link		Resistor		Relay
	Fusible Link Wire		Speaker		
	Switch		Buzzer		Connector
	Switch		Circuit Breaker		Light-Emitting Diode
	Switch (Normal Close Type)		Bulb		Reed Switch
	Contact Wiring		Double-Filament Bulb		Condenser
	Battery		Motor		Horn
	Diode		Variable Resistor Rheostat		Vacuum Switching Valve

2026 Isuzu Truck

Abbreviations

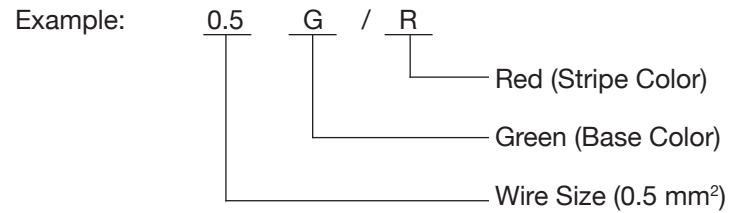
Abbreviation	Definition	Abbreviation	Definition
3A/T	6-Speed Automatic Transmission	IG	Ignition
4A/T	4-Speed Automatic Transmission	kW	kilowatt
A/T	Automatic Transmission	LH	Left hand
ABS	Anti-lock brake system	LO	Low
APP	Accelerator pedal position	LWB	Long wheelbase
ATF	Automatic Transmission Fluid	M/T	Manual Transmission
AUTO	Automatic	M/V	Magnetic valve
BRKT	Bracket	MAF	Mass airflow
C/B	Circuit breaker	MIL	Check engine light
CKP	Crankshaft position	OD	Over drive
CMP	Camshaft position	OPT	Option
COMB	Combination	PTO	Power Take Off
CONT	Control	RH	Right hand
D.R.L.	Day time running light	RR	Rear
DC	Direct current	SCV	Suction control valve
ECM	Electronic control module	ST	Start
ECT	Engine coolant temperature	STD	Standard
ECU	Electronic control unit	SW	Switch
EGR	Exhaust gas reticulation	SWB	Short wheelbase
EHCU	Electronic and hydraulic control unit	TCM	Transmission control module
FL	Fusible link	V	Volt
FRT	Front	VSV	Vacuum switching valve
FT	Fuel Temperature	W	Watt (S)
H/L	Headlight	W/	With
HI	High	W/O	Without
IAT	Intake air temperature	W/S	Weld splice
IC	Integrated circuit	WOT	Wide-open throttle

2026 Isuzu Truck

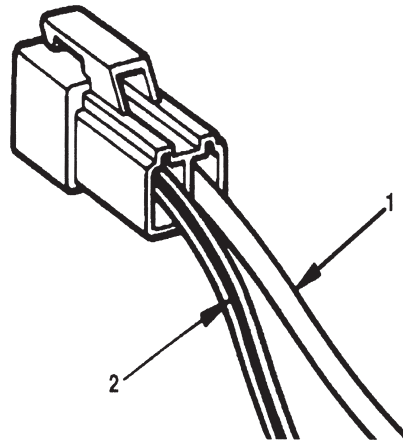
Wiring

Wire Color

All wires have color-coded insulation. Wires belonging to a system's main harness will have a single color. Wires belonging to a system's sub-circuits will have a colored stripe. Striped wires use the following code to show wire size and colors.



1. Single Color Wire
2. Colored Stripe Wire



2026 Isuzu Truck

Wiring

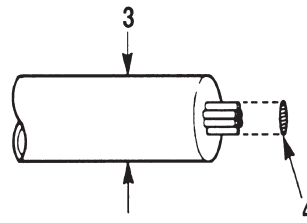
Abbreviations are used to indicate wire color within a circuit diagram. Refer to the following table.

Color-Coding	Meaning	Color-Coding	Meaning
B	Black	BR	Brown
W	White	LG	Light Green
R	Red	GR	Grey
G	Green	P	Pink
Y	Yellow	LB	Light Blue
L	Blue	V	Violet
O	Orange		

Wire Size

The size of wire used in a circuit is determined by the amount of current (amperage), the length of the circuit, and the voltage drop allowed. The following wire size and load capacity are specified by AWG (American Wire Gauge). (Nominal size means approximate cross sectional area.)

- 3. Outside Diameter
- 4. Cross Sectional Area



2026 Isuzu Truck

Wiring

Nominal Size	Cross Sectional Area (mm ²)	Outside Diameter (mm)	Allowable Current (A)	AWG Size (Cross reference)
0.3	0.372	1.8	9	22
0.5	0.563	2.0	12	20
0.85	0.885	2.2	16	18
1.25	1.287	2.5	21	16
2	2.091	2.9	28	14
3	3.296	3.6	37.5	12
5	5.227	4.4	53	10
8	7.952	5.5	67	8
15	13.36	7.0	75	6
20	20.61	8.2	97	4

Alternator pulley ratio NPR NPR-HD Gas Engine.
L8T 6.6L 3.16 : 1 alternator pullet to crankshaft pulley

Additional information including complete chassis wiring schematics, connector locations, wire sizes, and pin connector diagrams can be obtained from our service web site www.isuzutruckservice.com. There is a nominal fee for this service.

2026 Isuzu Truck

Fuses

Replacing Fuses

1. Before replacing fuses, apply the parking brake, then move the selector lever to the "P" (Park) position, and turn the engine control switch to the "LOCK" position.
2. Place the fuse puller on the fuse and pull it out. (The fuse puller is stored in the fuse box inside the cab.)
3. If the fuse appears as shown in the right hand side of the diagram at left, the fuse is blown. Replace with a spare fuse. (Spare fuses are stored in the fuse box inside the cab.)

Replacing Relays

1. Before replacing the relays, contact the nearest Isuzu Dealer.

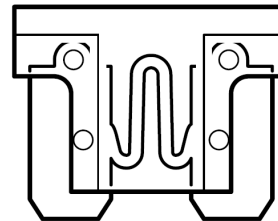
Fusible Links

1. The fusible link is primarily used to protect circuits where high amounts of current flow and where it would not be practical to use a fuse. For example, the starter circuit. When a current overload occurs, the fusible link melts open and interrupts the flow of current so as to prevent the rest of the wiring harness from burning.
2. Determine the cause of the overload before replacing the fusible link. The replacement fusible link must have the same amperage specification as the original fusible link.
3. Never replace a blown fusible link with fusible link of a different amperage specification. Doing so can result in an electrical fire or other serious circuit damage.

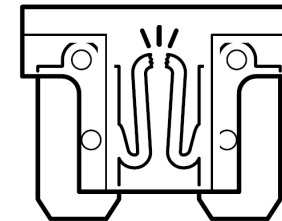
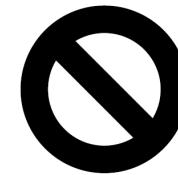


CAUTION

- Always use fuses specified by Isuzu. Using fuses with a rating other than that specified, or using wire or tin foil, etc., could result in fire or damage.
- If the new fuses blow right away and the cause is unknown, contact the nearest Isuzu Dealer.
- Do not inspect or replace fuses when the engine control switch is in the "ON" position. Doing so may lead to an accident.
- When inspecting fuses, be sure to park the vehicle on flat, level ground and apply chocks to the wheels.



Normal

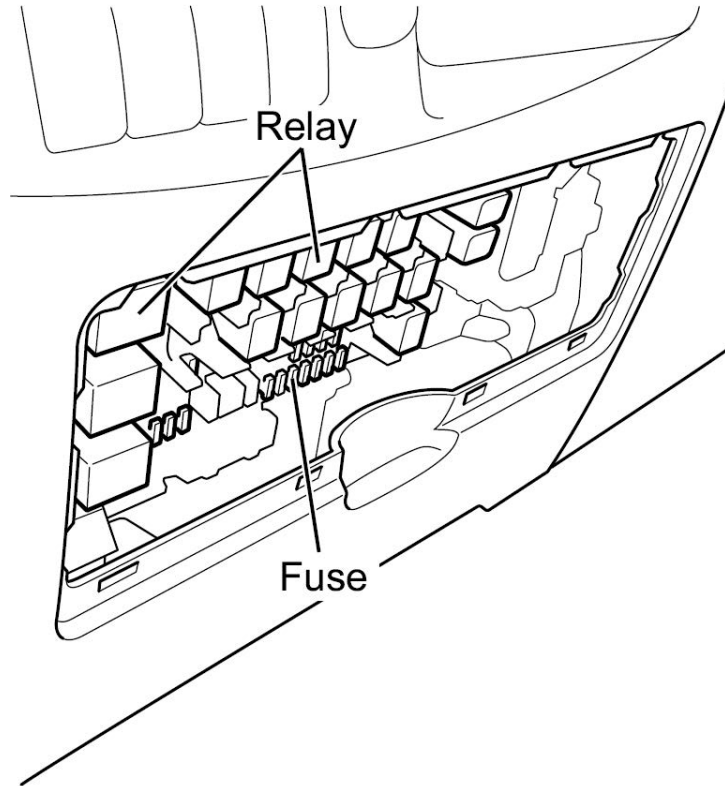


Blown

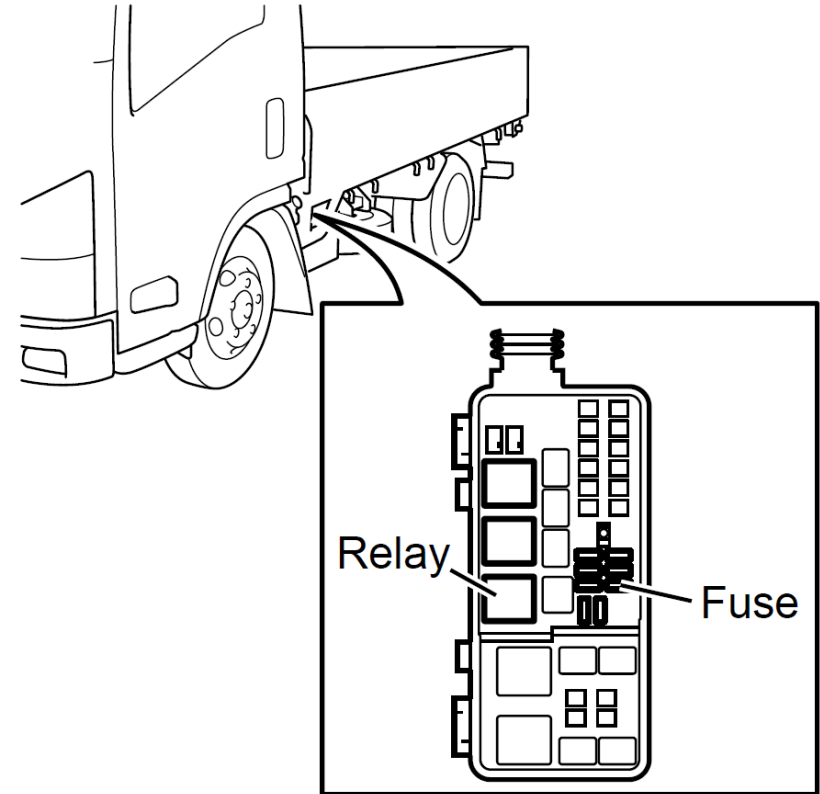
2026 Isuzu Truck

Fuse and Relay Box Locations

Interior

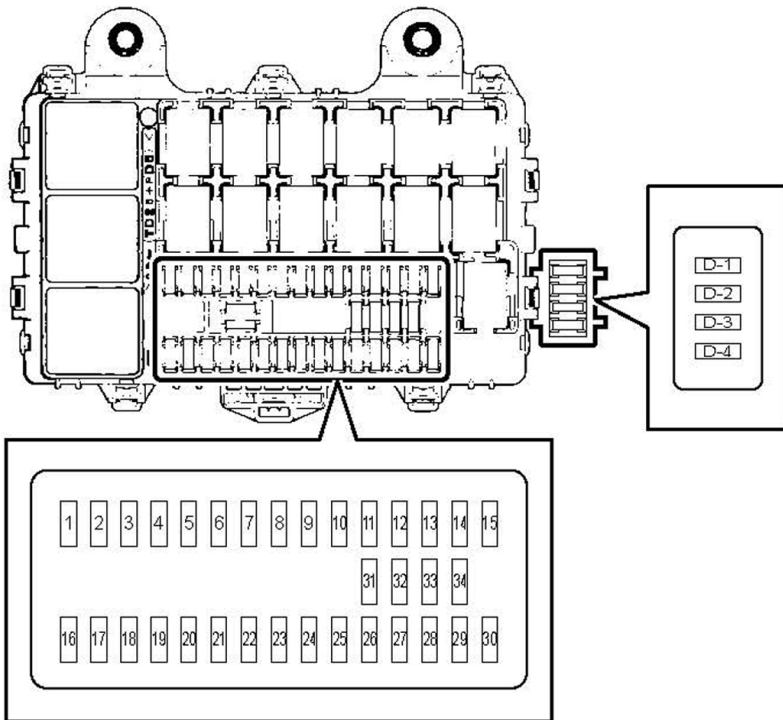


Exterior



2026 Isuzu Truck

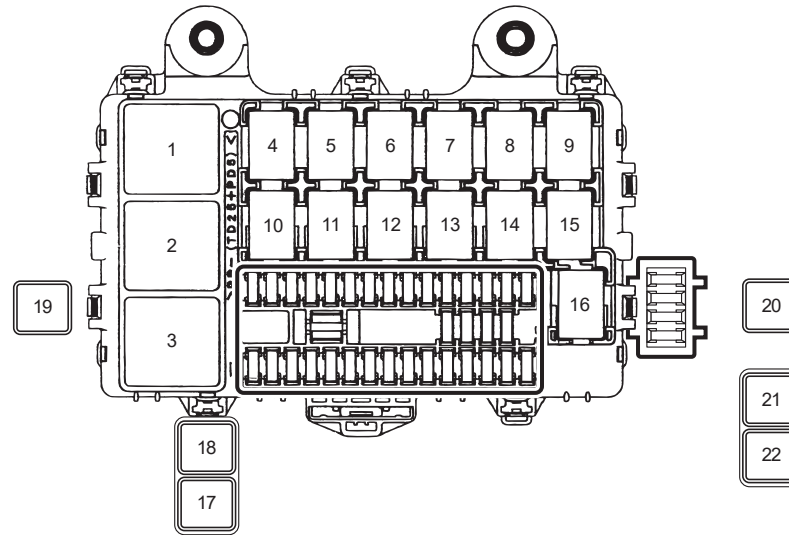
Fuse Locations Interior



No.	Description	Rating	No.	Description	Rating
1	RR P / WINDOW	25A	17	IGNITION2	10A
2	—	—	18	IGNITION1	10A
3	ROOM LAMP, AUDIO	10A	19	—	—
4	DOOR LOCK	15A	20	ECM	10A
5	TRAILER BRAKE	15A	21	METER	10A
6	P/ WINDOW	25A	22	ECU (BATT)	10A
7	ABS	10A	23	MIRROR	10A
8	WIPER	25A	24	AUDIO, ACC	15A
9	H / LAMP LO (LH)	10A	25	HORN	15A
10	LAMPS (BATT)	10A	26	TURN, HAZARD	15A
11	H / LAMP LO (RH)	10A	27	TAIL LAMPS	10A
12	BRAKE LAMPS	10A	28	ILLUMINATIONS	10A
13	STARTER	10A	29	CORNERING LAMPS	10A
14	H / LAMP HI (LH)	10A	30	AIR CONDITIONER	10A
15	H / LAMP HI (RH)	10A	31	SPARE	10A
16	MIRROR HEATER	15A	32	SPARE	15A
			33	SPARE	25A
			34	SPARE	20A
			D-1	CIGAR	20A
			D-2	ACCESSORIES SOCKET	15A
			D-3	POWER SOURCE	20A
			D-4	AUDIO REVERSE MUTE	10A

2026 Isuzu Truck

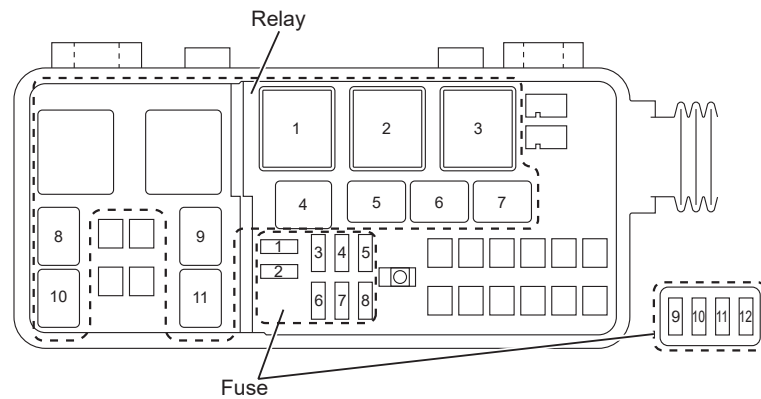
Relay Locations Interior



No.	Description	No.	Description
1	BRAKE LAMP	12	POWER WINDOW
2	DAYTIME RUNNING LAMP	13	HEAD LAMP LO
3	KEY ON	14	CORNERING LAMP
4	TCM	15	HEAD LAMP HI
5	PARKING/NEUTRAL	16	TAIL LAMP
6	WIPER MAIN	17	DAYTIME RUNNING LAMP
7	HORN	18	CIGAR LIGHTER
8	WIPER HI LO	19	POWER ACC
9	TRAILER BRAKE	20	BLOWER MOTOR
10	REAR POWER WINDOW	21	HEAD LAMP WASHER
11	CHARGE (ENG RUN)	22	HEAD LAMP WASHER

2026 Isuzu Truck

Fuse and Relay Locations Exterior - NPR/NPR-HD

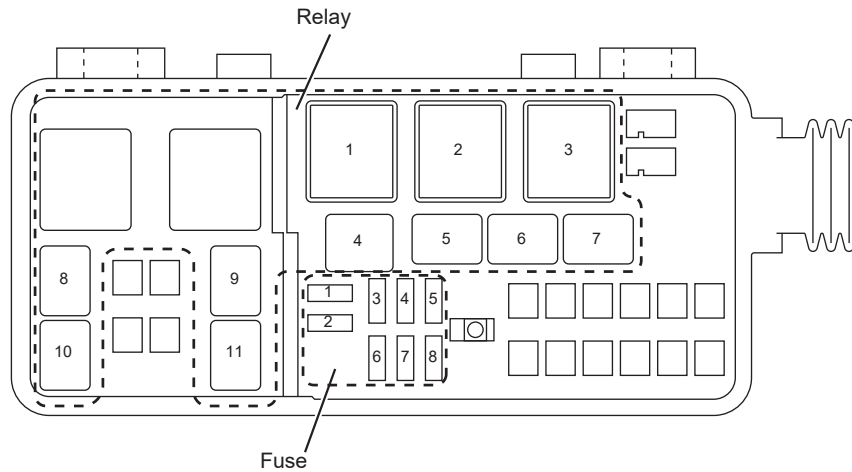


No.	Relay name	No.	Fuse name	Rating
1	STARTER	1	MARKER LAMP	20A
2	TAIL LAMP	2	TAIL MAIN	20A
3	—	3	PCM1	25A
4	A/C COMPRESSOR	4	PCM2	15A
5	CONDENSER FAN	5	PCM3	15A
6	—	6	POWER SOURCE	15A
7	RR DOME LAMP	7	CONDENSER FAN	20A
8	—	8	A/C COMPRESSOR	10A
9	—	9	IGN-COILS EVEN*	20A
10	MARKER LAMP	10	IGN-COILS ODD*	20A
11	PCM MAIN	11	TAIL LAMP*	10A
12	—	12	TCM*	10A
13	A/C			

*: Fuse No. 9 to No. 12 are installed inside the vehicle frame. If replacement or inspection is necessary, please contact your Isuzu Dealer.

2026 Isuzu Truck

Fuse and Relay Locations Exterior - NQR/NRR



No.	Relay name
1	STARTER
2	TAIL LAMP
3	—
4	A/C COMPRESSOR
5	CONDENSER FAN
6	FUEL PUMP
7	RR DOME LAMP
8	MARKER LAMP
9	PCM MAIN
10	—
11	A/C

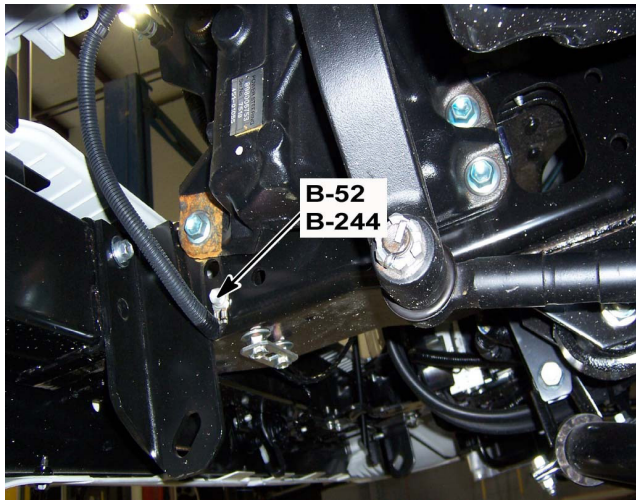
No.	Fuse name	Rating
1	MARKER LAMP	20A
2	TAIL MAIN	20A
3	PCM1	25A
4	PCM2	15A
5	PCM3	15A
6	POWER SOURCE	15A
7	CONDENSER FAN	20A
8	A/C COMPRESSOR	10A
9	TAIL LAMP*	10A
10	IGN-COILS EVEN*	20A
11	IGN-COILS ODD*	20A

*: Fuse No. 9 to No. 11 are installed inside the vehicle frame. If replacement or inspection is necessary, please contact your Isuzu Dealer.

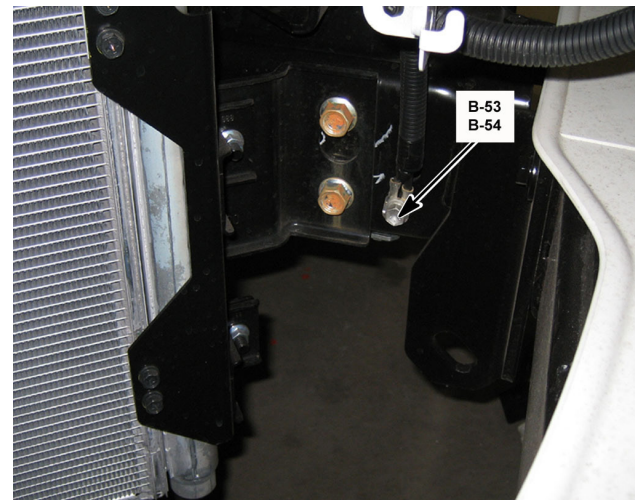
2026 Isuzu Truck

Grounding Point Location

B-52 and B-244



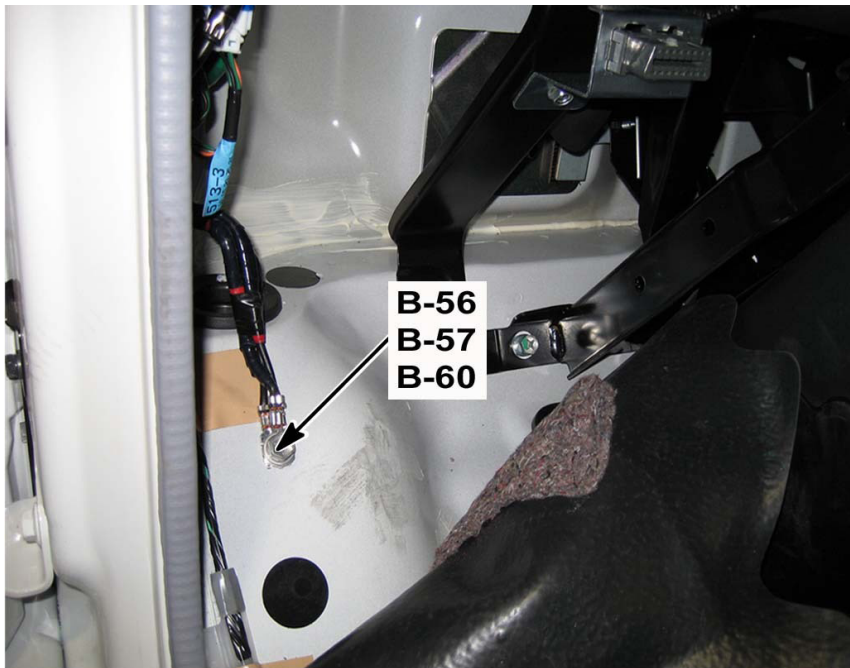
B-53 and B-54



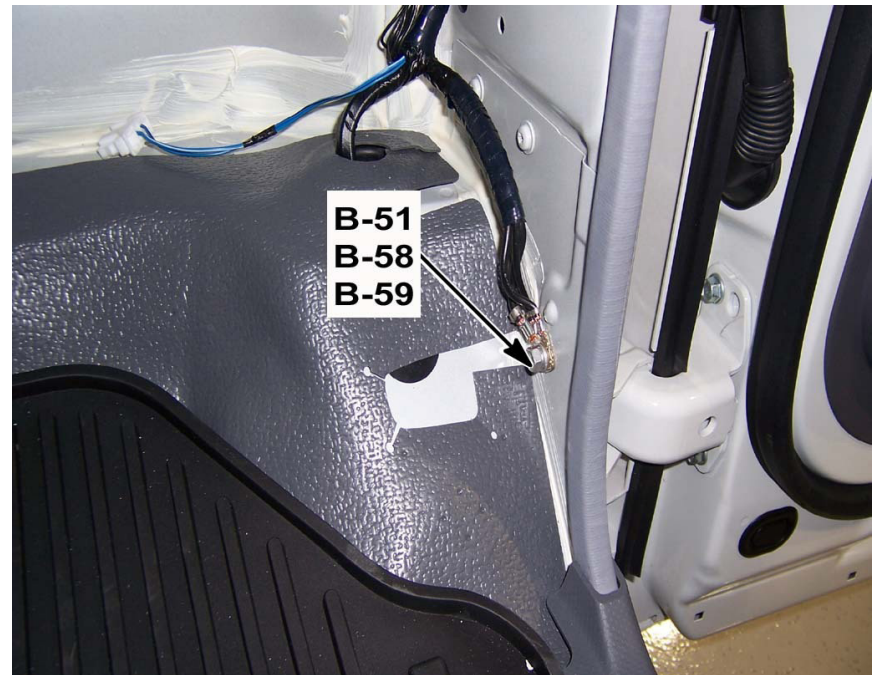
2026 Isuzu Truck

Grounding Point Location

B-56, B-57 and B-60



B-51, B-58 and B-59



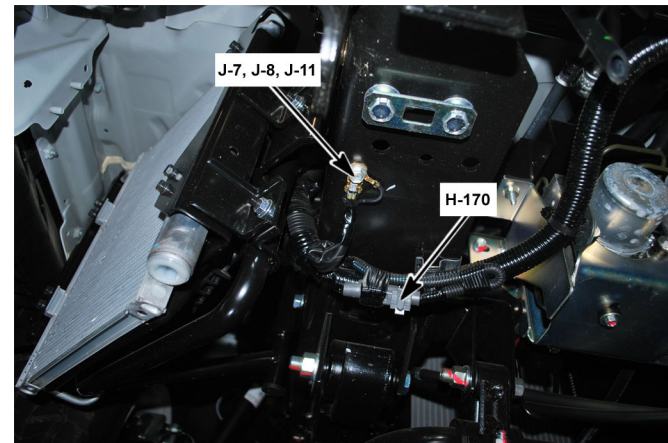
2026 Isuzu Truck

Grounding Point Location

J-9, J-10 and J-12



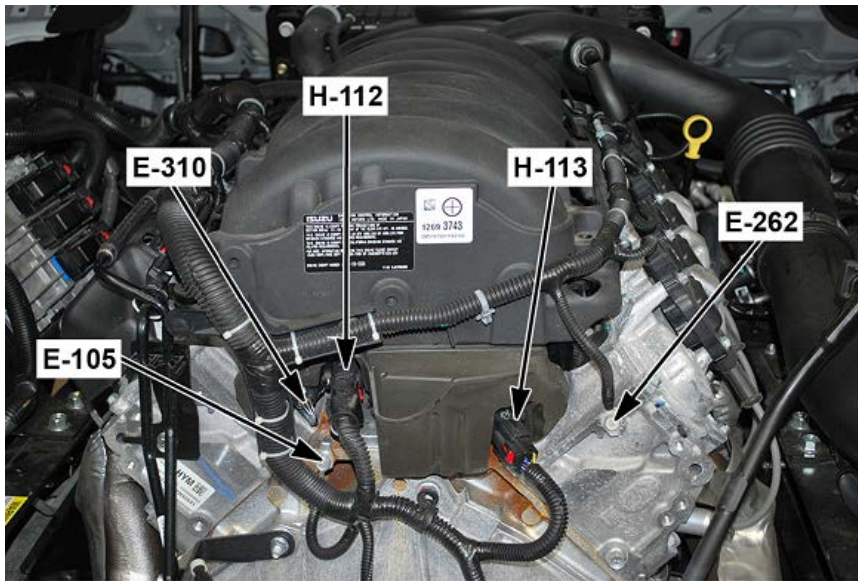
J-7, J-8 and J-11



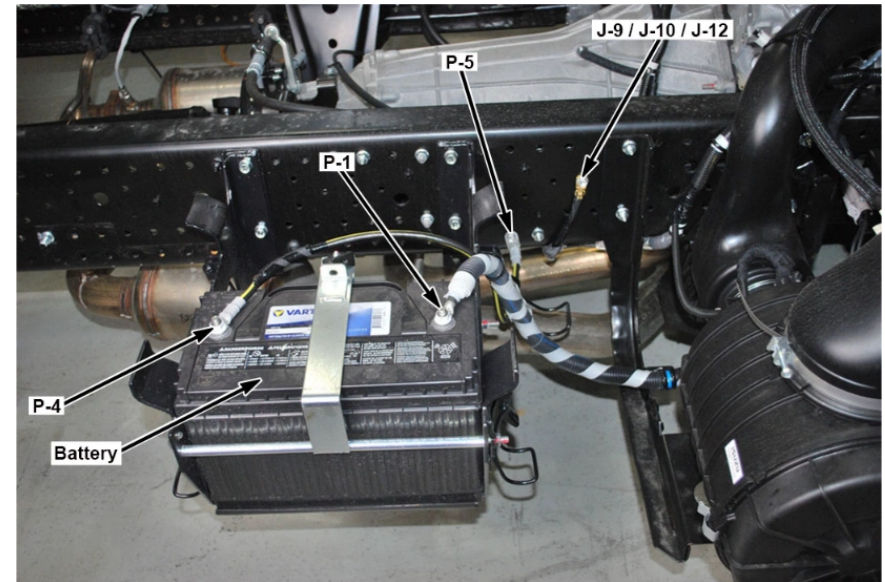
2026 Isuzu Truck

Grounding Point Location

E-105



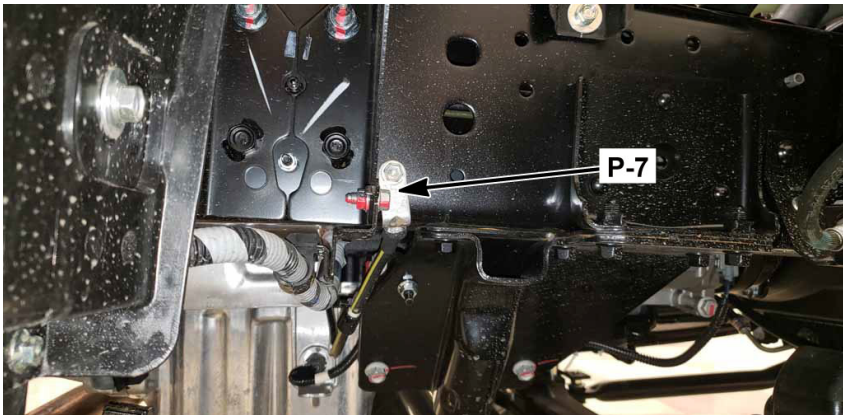
P-5



2026 Isuzu Truck

Grounding Point Location

P-7



E-97 & E-98



Grounding Point Location

P-8



2026 Isuzu Truck

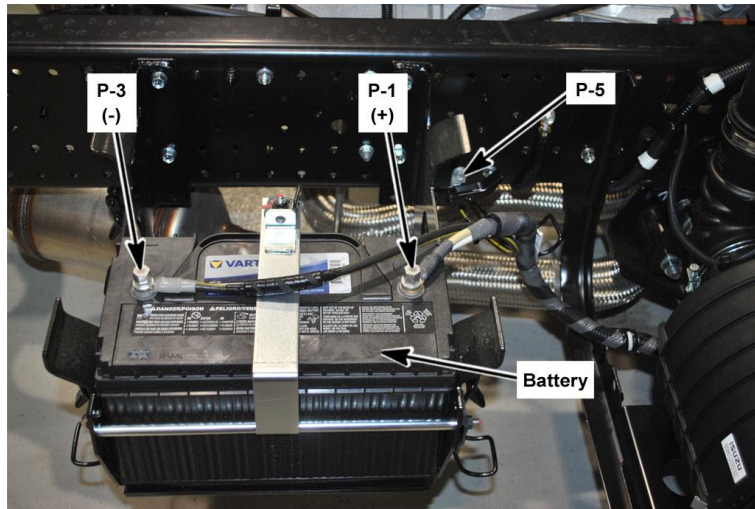
Reference Table of Grounding Points

Connector Number	Load	Location
B-52	Ground to Splice Pack B-561 and Splice Pack B-49	On the Front Left Frame Rail, Behind the Front Bumper
B-244	Ground to B-56	On the Front Left Frame Rail, Behind the Front Bumper
B-53 and B-54	Ground to Splice Pack B-53	On the Front Right Frame Rail, Behind the Front Bumper
B-51, B-58, and B-59	Ground to Splice 9	Behind the Right Side of the I/P, On the Interior Wall of the Right A-Pillar
B-56, B-57, and B-60	Ground to B-244	On the Front Cab Floor Under the Floor Mat, Next to the Left A-Pillar
E-105	Engine Ground	Left Rear of Engine On Cylinder Head
E-97 and E-98	Ground to Oil Level Sensor, AC Compressor and ECM	Right Lower Rear of Engine, Next to the Starter
J-7, J-8, and J-11	Ground to J-12 and Rear Manufactures Connector	Bottom of Right Front Frame Rail, Behind Front Bumper
J-9, J-10, and J-12	Ground to J-7 and Rear Manufactures Connector	Right Outer Frame Rail, in Front of the Battery
P-5	Ground from Battery	Right Outer Frame Rail, in Front of the Battery
P-7	Frame Ground to Engine Ground P-8	Right Outer Frame Rail, Just Behind the Engine Crossmember
P-8	Engine Ground to Frame Ground P-7	Right Lower Side of the Engine Block, Just Behind the Motor Mount

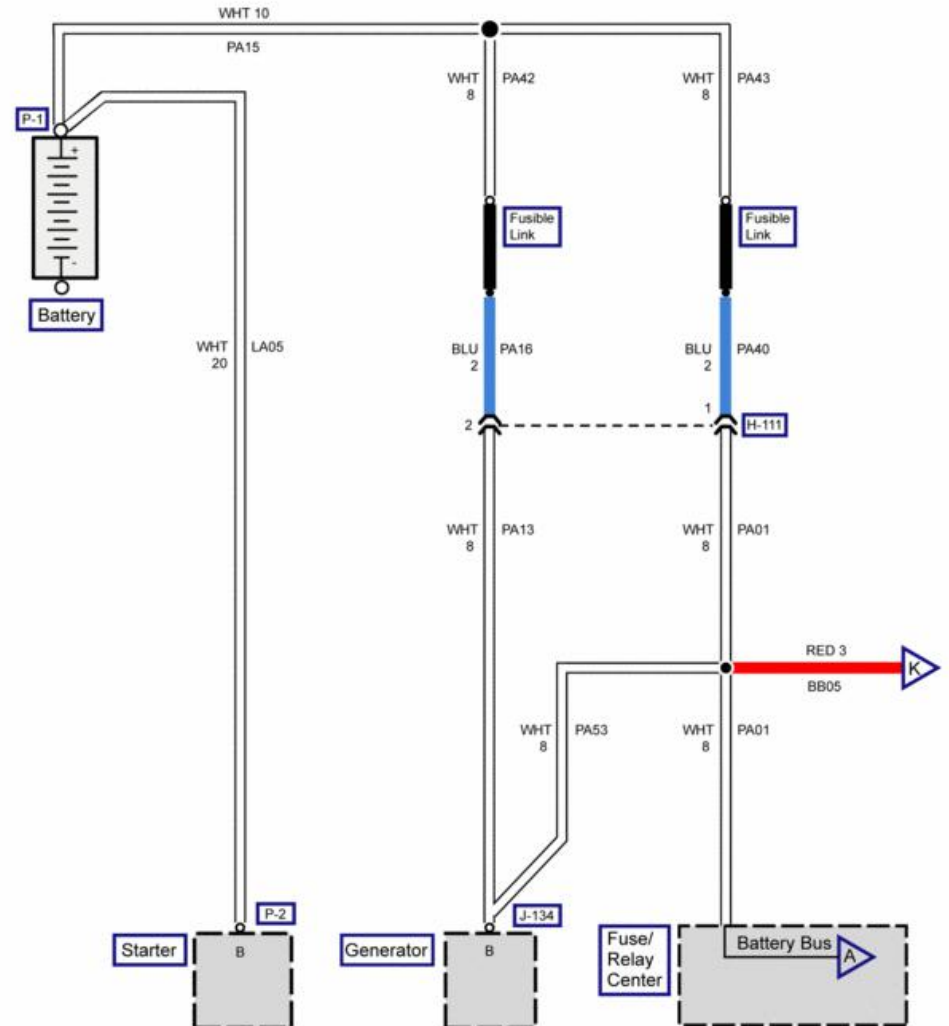
2026 Isuzu Truck

Battery Cable Connection

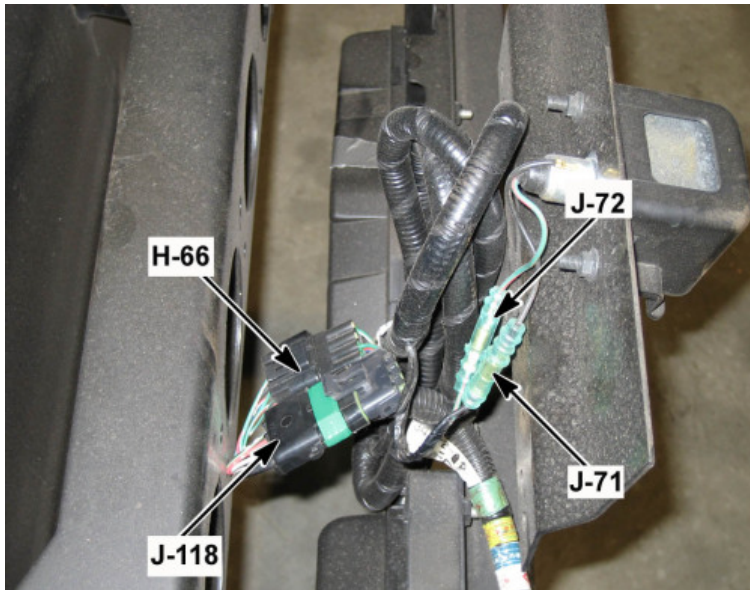
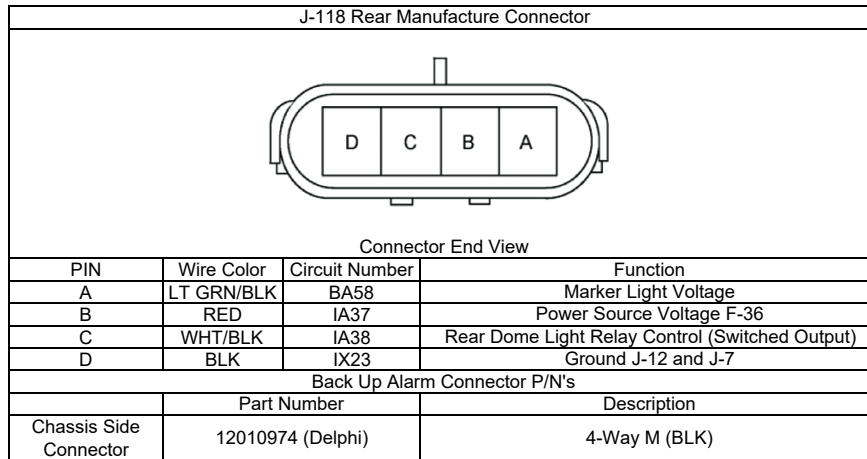
P-1 & P-3: Battery Positive and Negative Terminals			
Connector End View			
PIN	Wire Color	Circuit Number	Function
P-1	WHT	PA15	Battery Positive to Fuse Links
	WHT	LA05	Battery Positive to Starter Motor
P-3	BLK/YEL	-	Battery Negative to Frame (P-5)
Connector Part Information			
	Part Number	Description	
Chassis Side Connector	7306-3102-01	1-Way Eyelet	



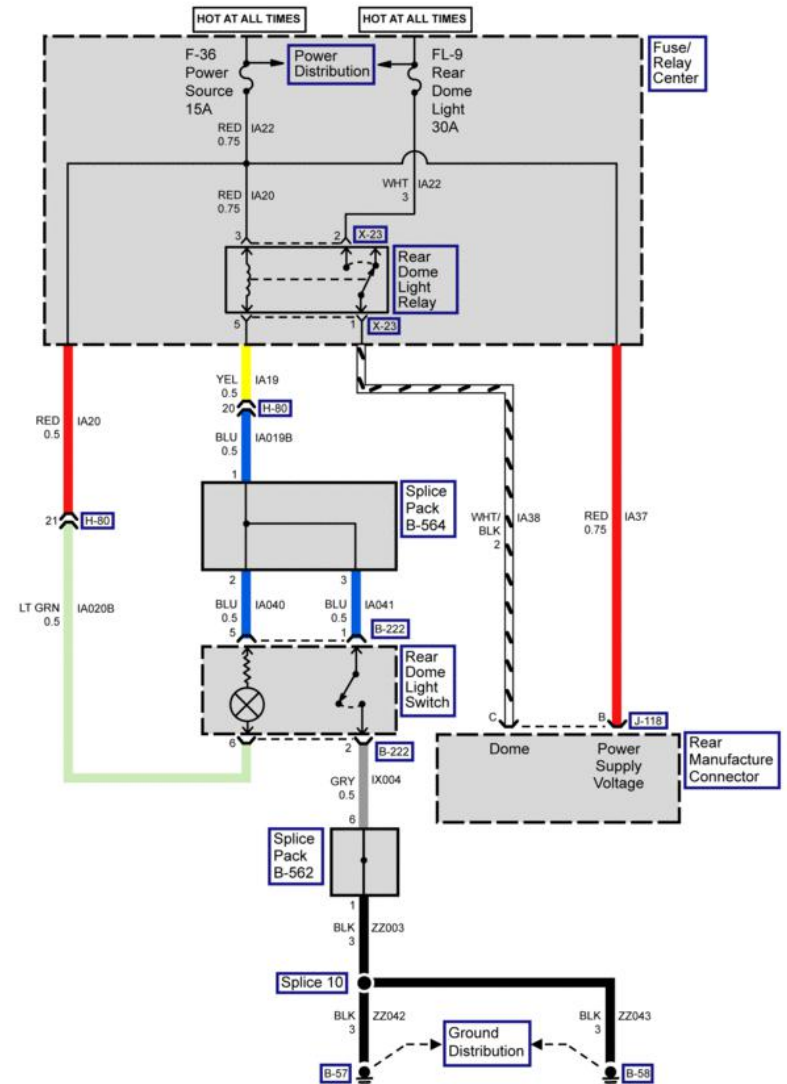
Tightening Torques: 15 N-m (11 lb-ft)



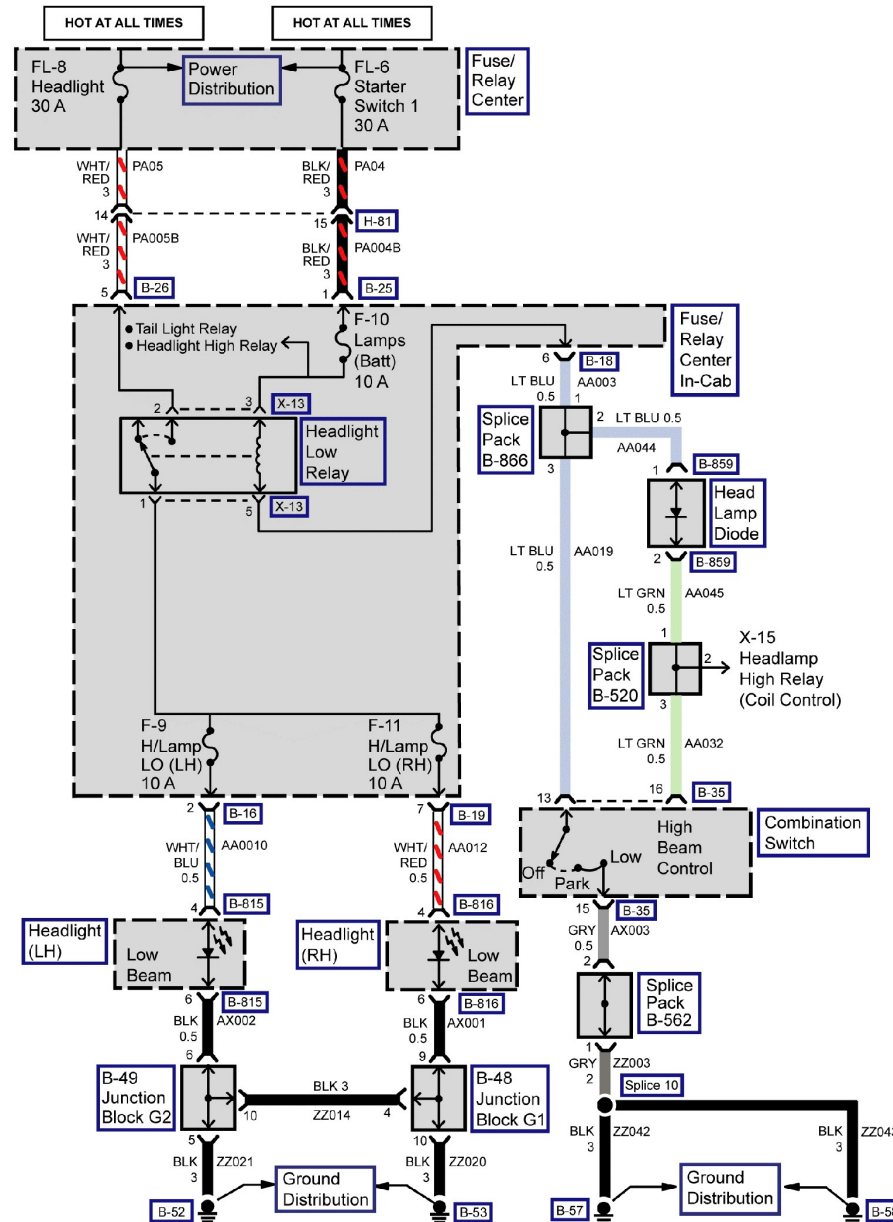
Rear Manufacture Connector



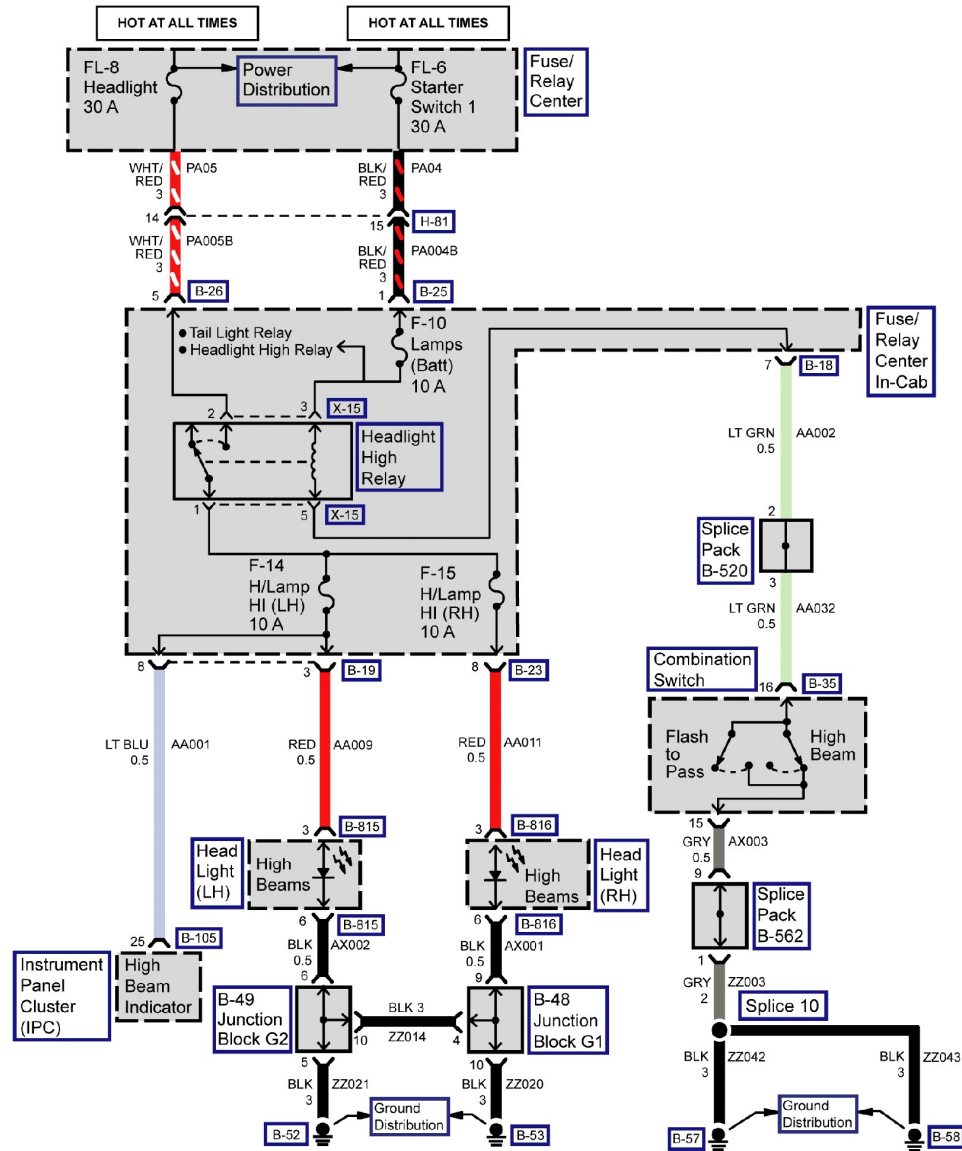
Center rear of last crossmember



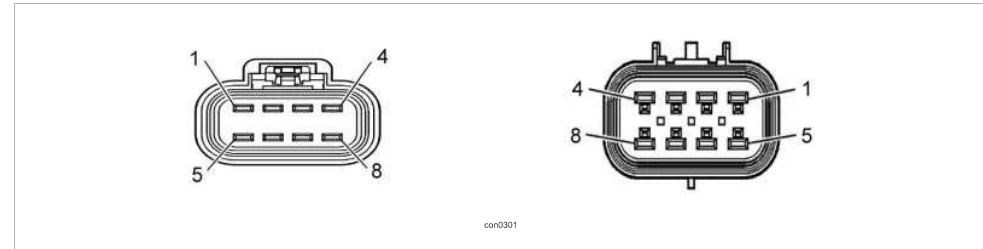
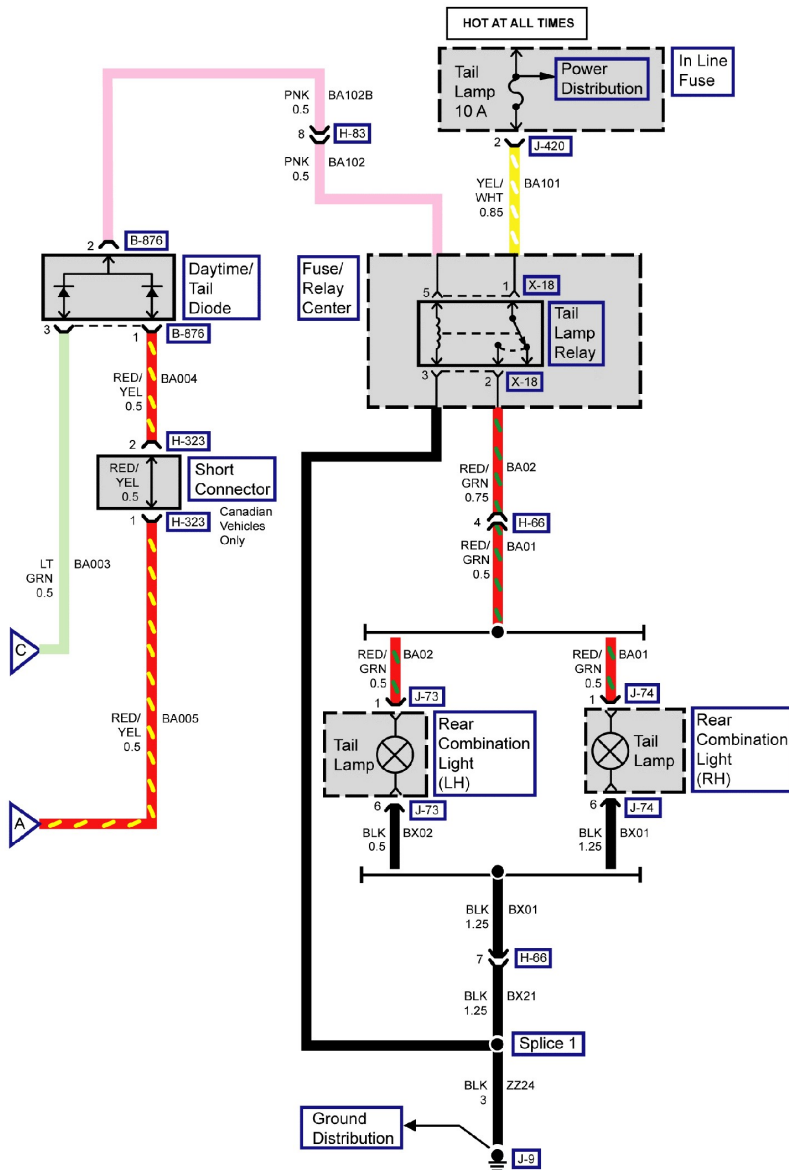
Headlights (Low Beam)



Headlights (High Beam)

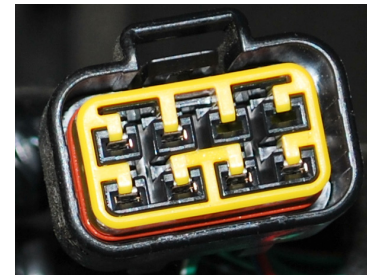


Taillights

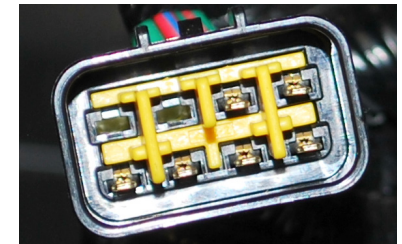


Part Information				Part Information			
<ul style="list-style-type: none"> • X010369 Furukawa • 8-Way F (BLK) 				<ul style="list-style-type: none"> • X010371 Furukawa • 8-Way M (BLK) 			
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
1	GRN/BLK	JA024	Turn Signal Light Voltage (LH) from Splice Pack B-508	1	GRN/BLK	JA14	Turn Signal Light Voltage (LH) to Rear Combination Light (LH)
2	GRN	CA001	Rear Combination Lights Voltage from Splice Pack B-559	2	GRN	CA01	Rear Combination Lights Voltage to Rear Lights
3	—	—	Not Used	3	—	—	Not Used
4	RED/GRN	BA002	Tail Light Voltage from Tail Lamp Relay X-16 pin 2	4	RED/GRN	BA01	Tail Light Voltage to Rear Lights
5	GRN/RED	BA059	Voltage from Fuse F-27	5	GRN/RED	BA04	Fuse F-27 Supply Voltage to License Plate Light
6	RED/BLU	KA002	Voltage When in Reverse (Fuse F-18)	6	RED/BLU	KA12	Voltage When in Reverse (Fuse F-18) to Rear Lights
7	BLK	BX021	Ground to Splice 1 (J-9 Ground)	7	BLK	BX01	Ground to Splice 1 (J-9 Ground) to Rear Lighting
8	GRN/WHT	JA025	Turn Signal Light Voltage (RH) from Splice 19	8	GRN/WHT	JA15	Turn Signal Light Voltage (RH) to Rear Combination Light (RH)

The connectors that match the end of frame tail and stop lamp harness can now be ordered through Isuzu & W-Series dealers.



Chassis harness side
part number **897364-5300**



Stop and tail lamp side
part number **897364-5310**

Roof Marker Lights

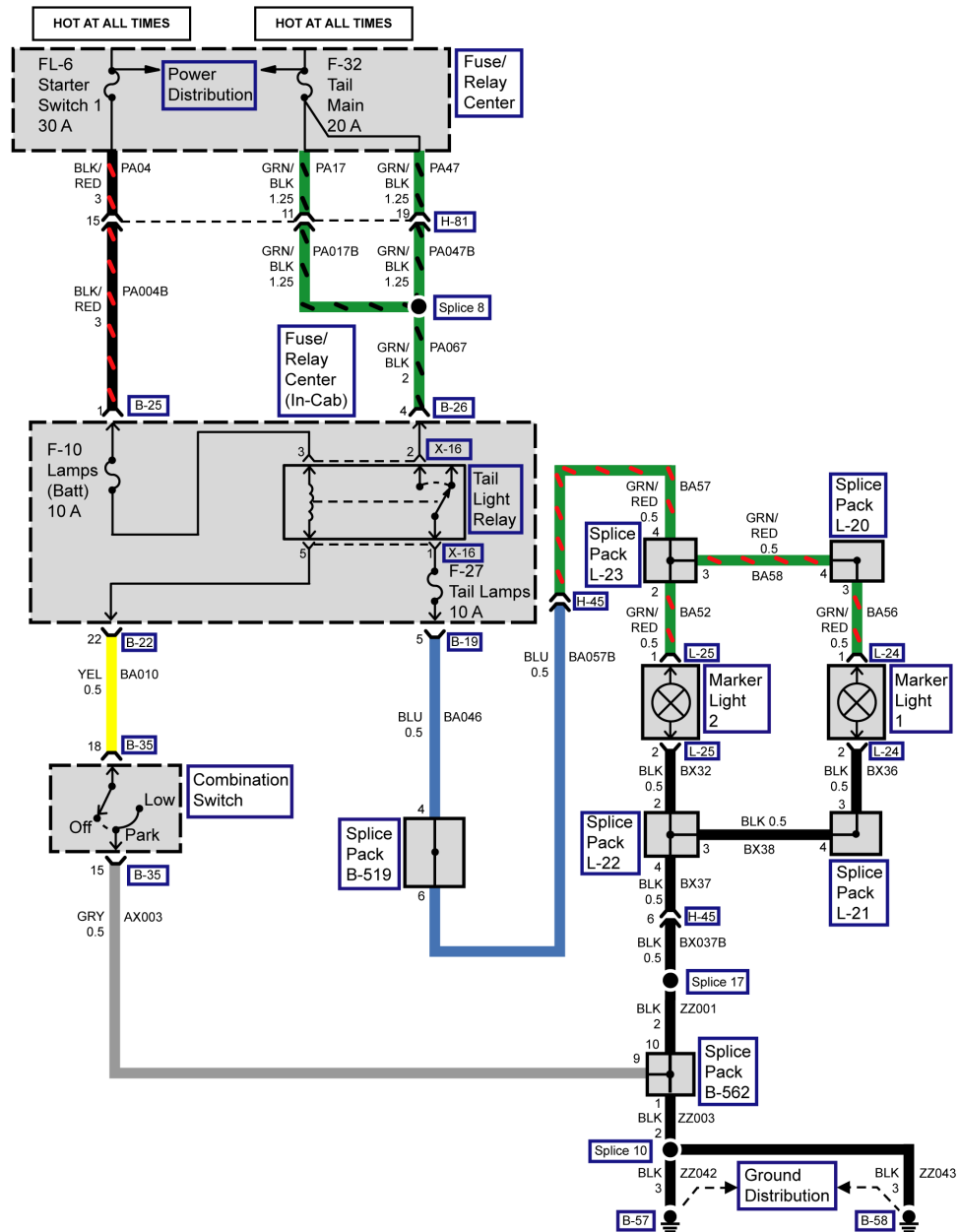


Figure 34

Roof Clearance Lights

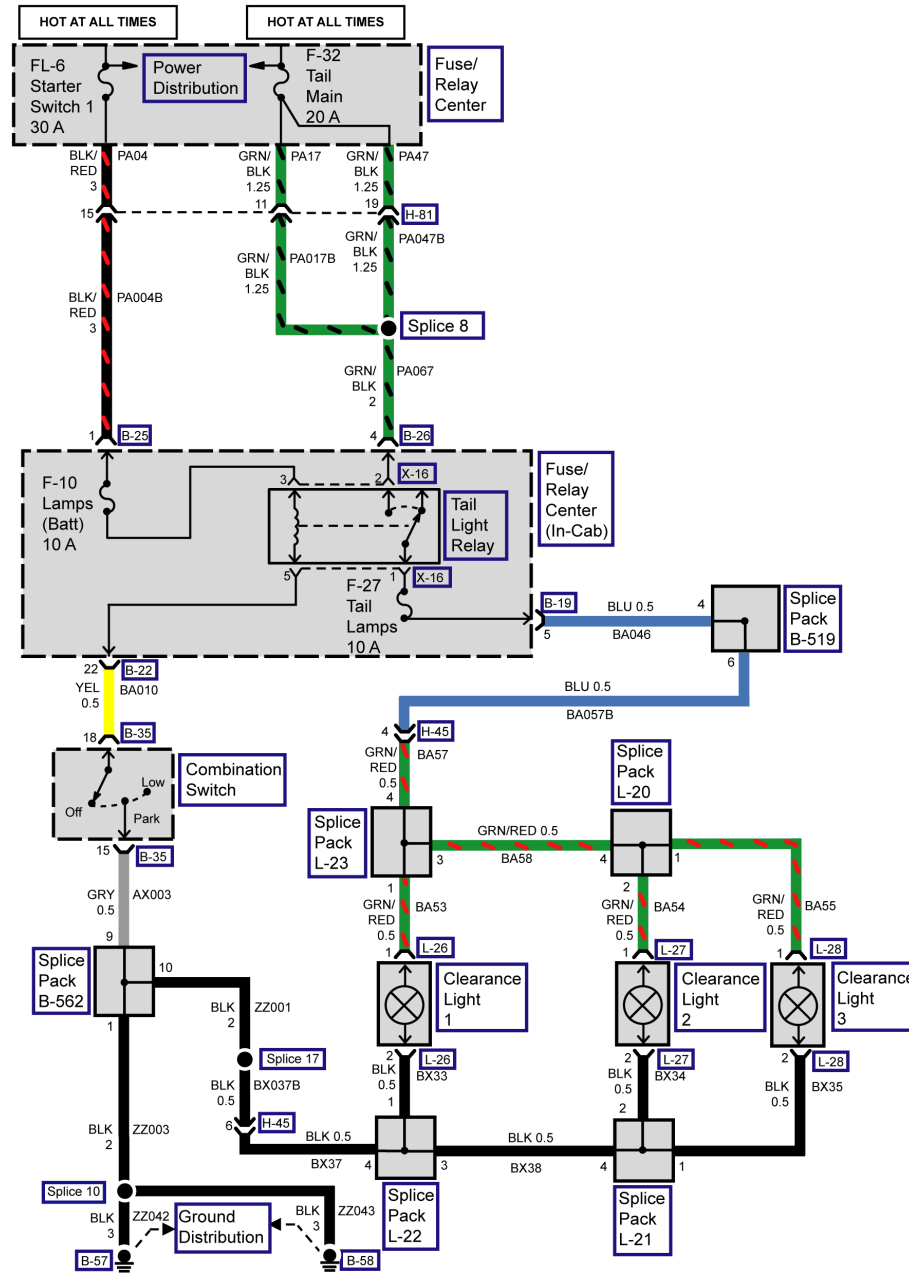


Figure 35

Rear Turn Signal Lights

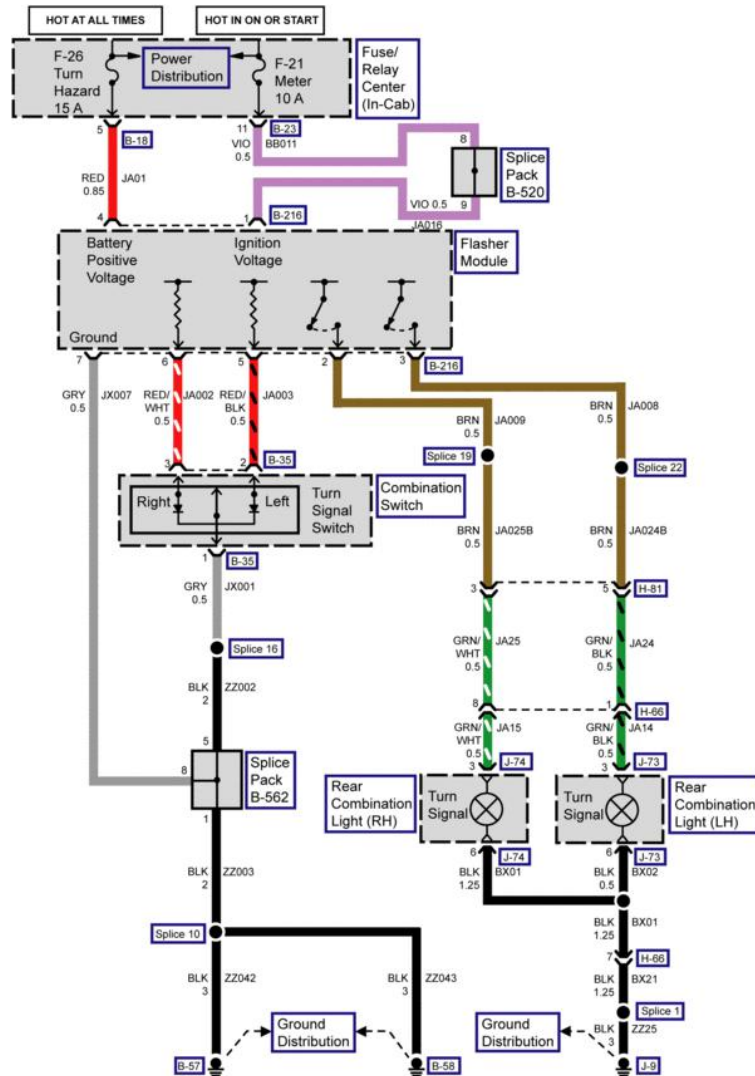
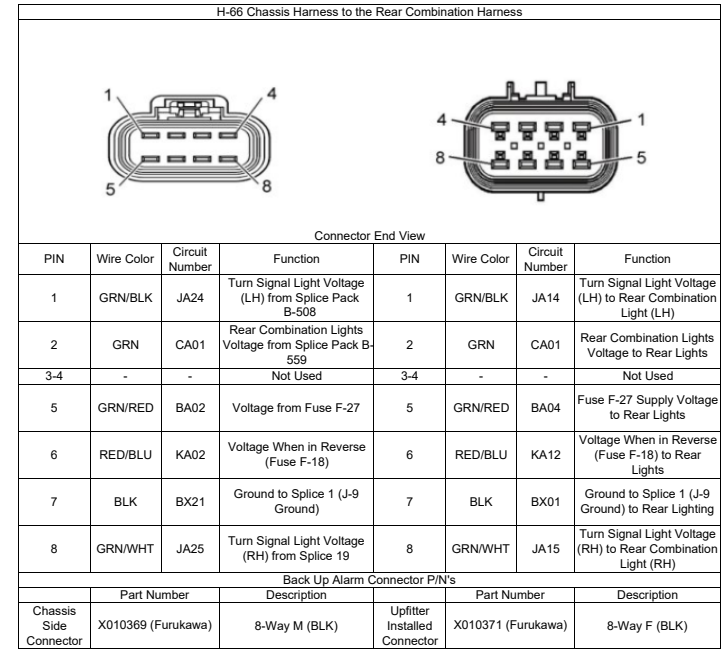
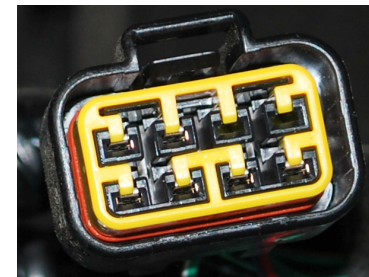


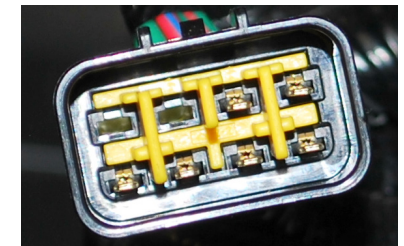
Figure 36



The connectors that match the end of frame tail and stop lamp harness can now be ordered through Isuzu & W-Series dealers.



Chassis harness side
part number **897364-5300**

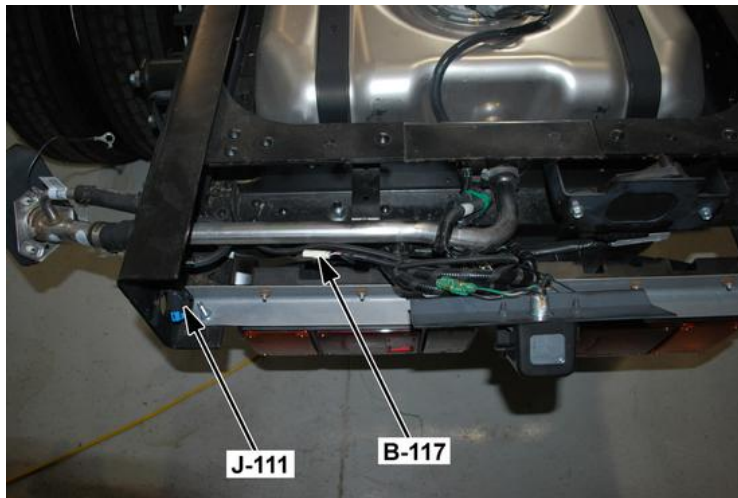
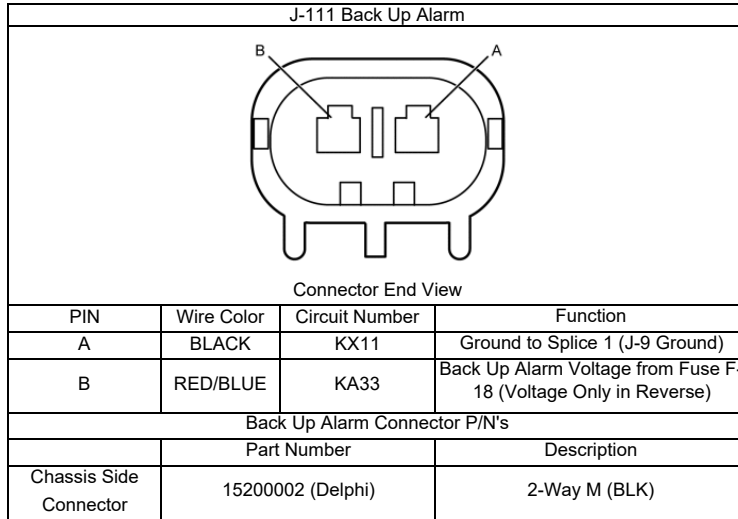


Stop and tail lamp side
part number **897364-5310**

Figure 37

Figure 38

Back Up Light and Back Up Alarm Circuits



Left Inner Frame Rail, In Front of the Last Crossmember

Figure 39

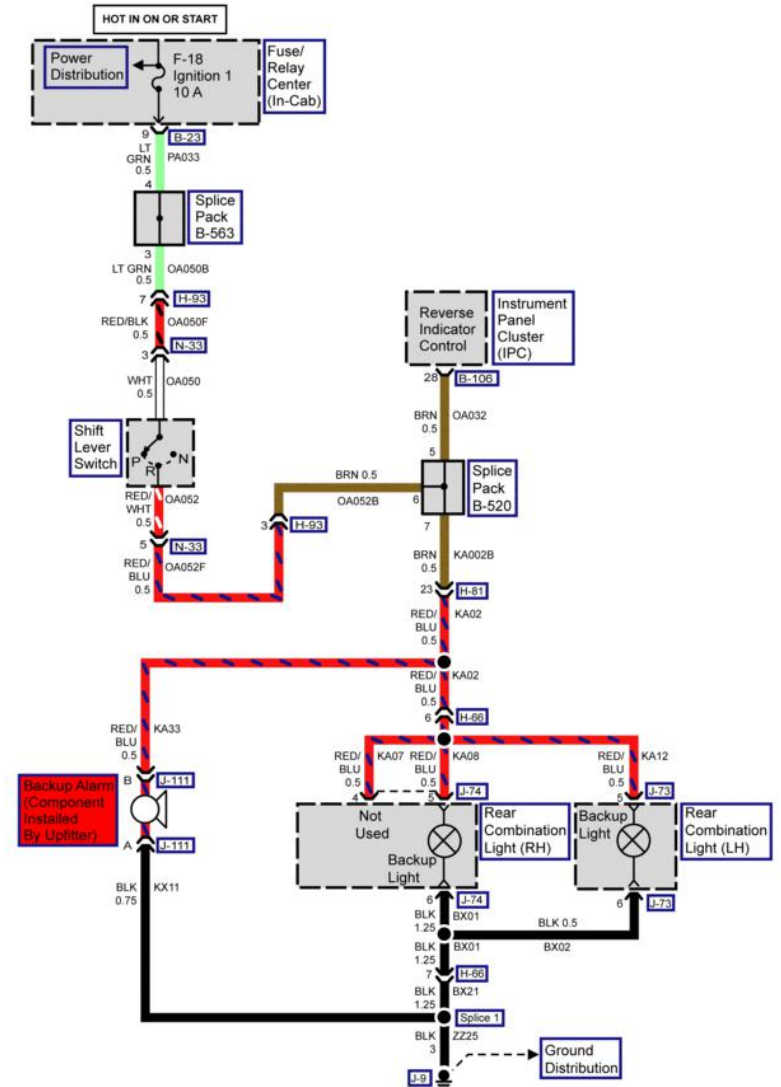


Figure 40

Cigar Lighter Circuits

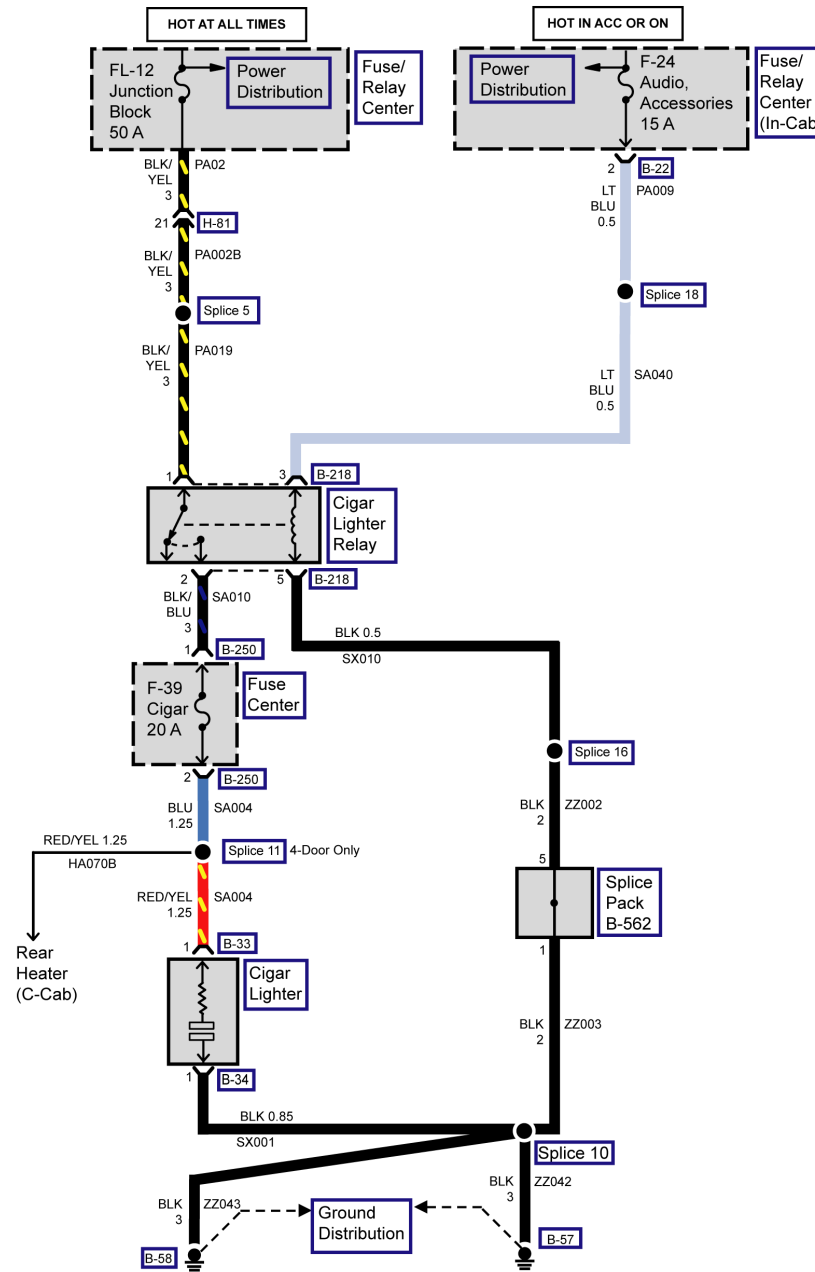


Figure 41

Radio Circuits without Backup Camera

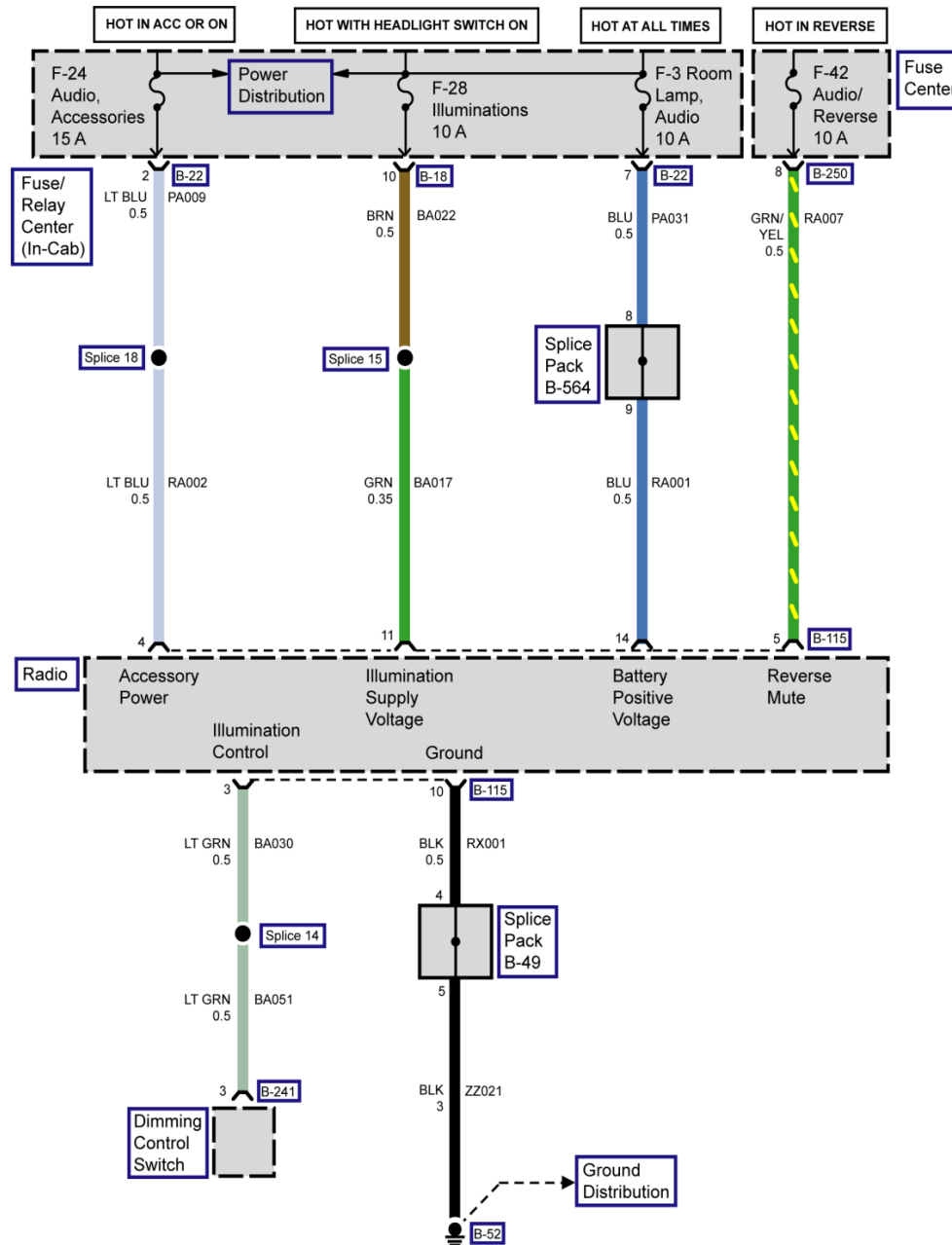


Figure 42

Radio Circuits with Backup Camera

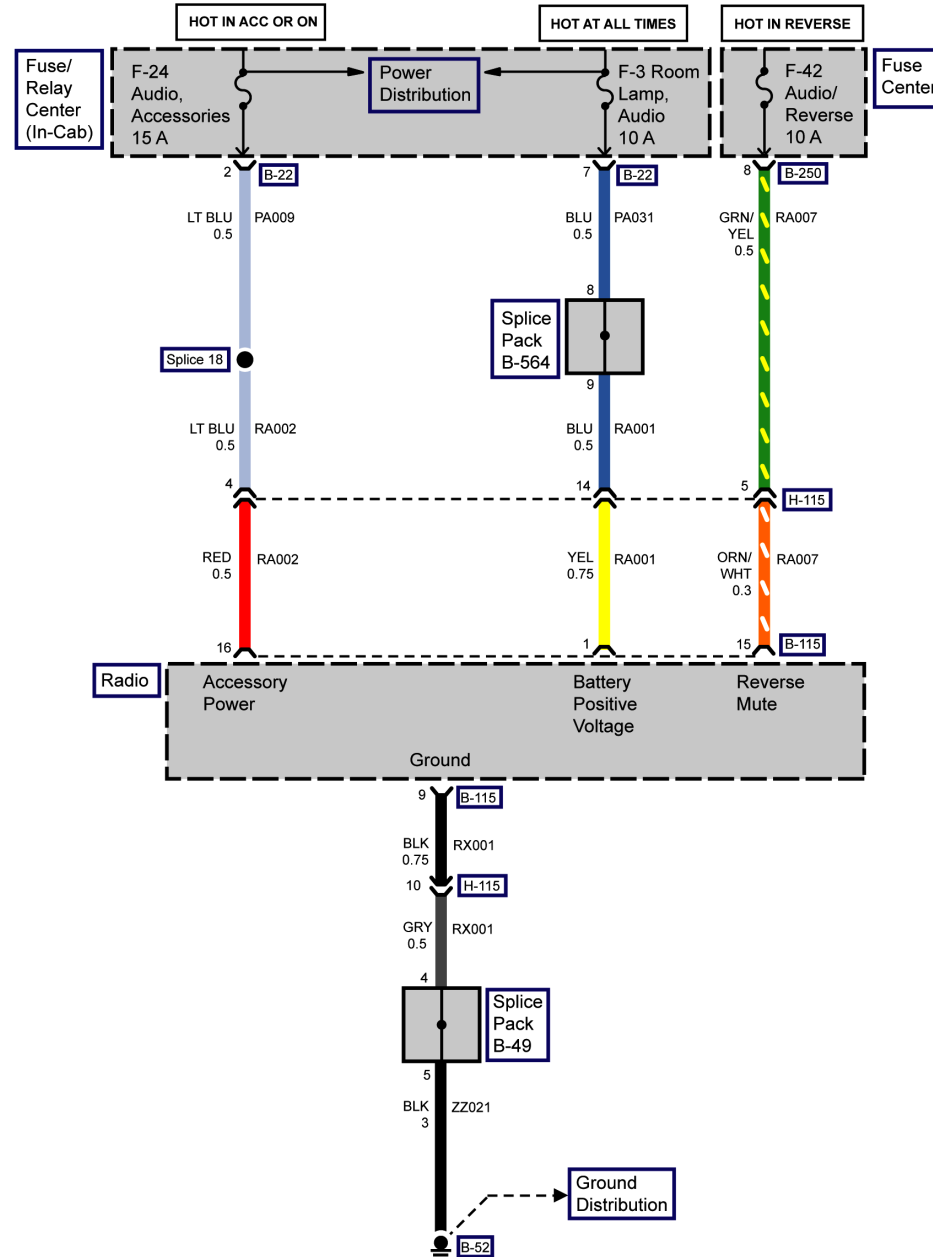
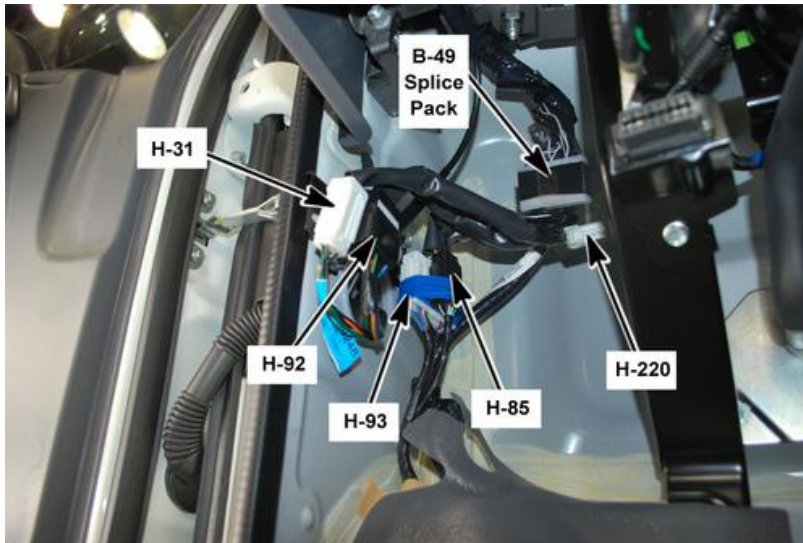
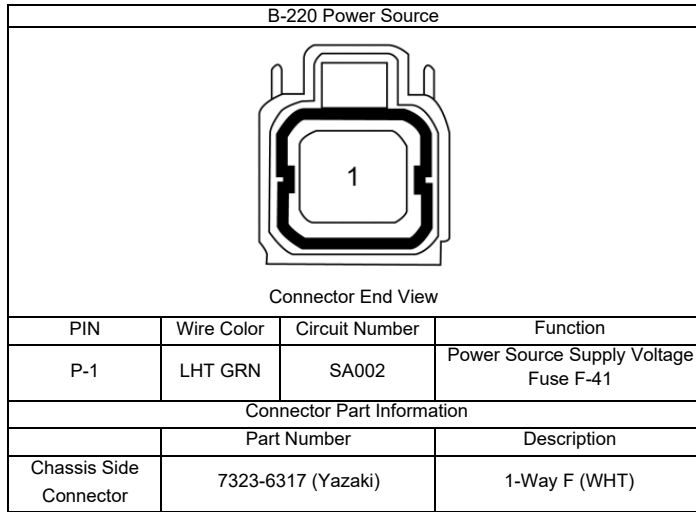


Figure 43

Auxiliary Power Source Circuit Diagram



On the Left Side of the I/P, to the Left of the Steering Column

Figure 44

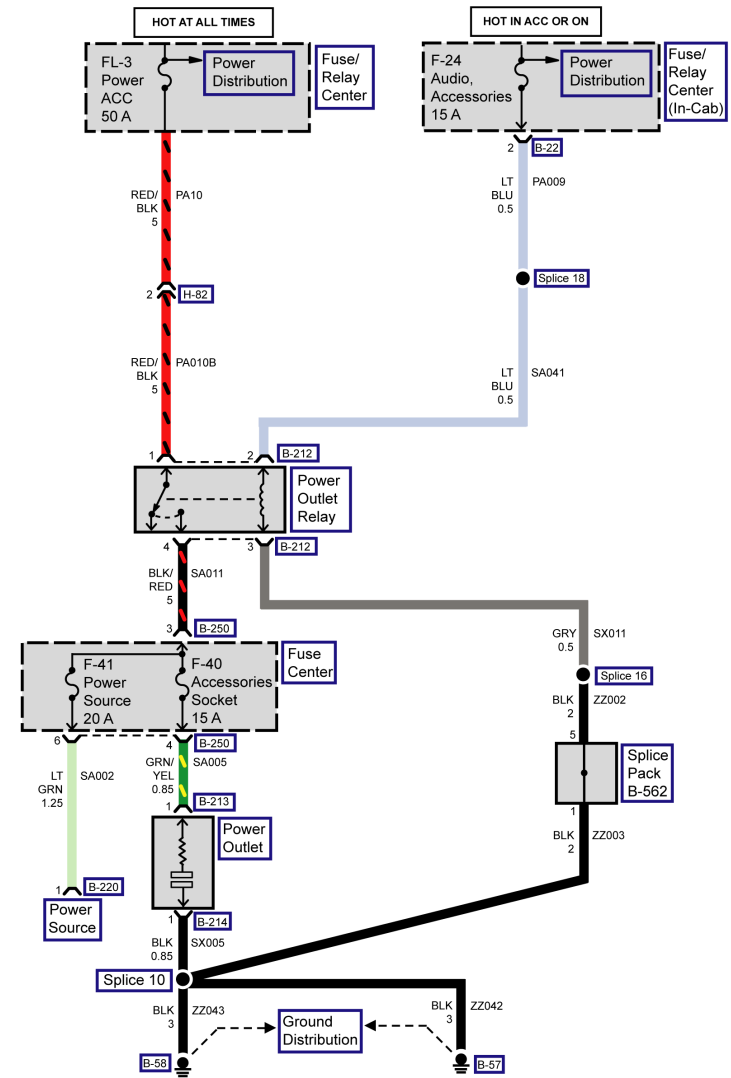
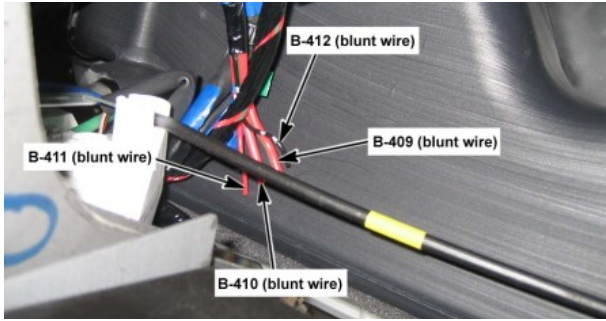


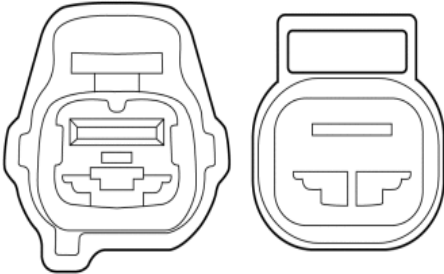
Figure 45

Trailer Brake Controller Wiring and Activation

B-409, B-410, B-411 & B-412: Electrical Trailer Brake Controller (Upfitter Installed)			
PIN	Wire Color	Circuit Number	Function
B-409	RED/GRN	MF010B	Voltage from Fuse FL-4
B-410	RED	MF011B	ETB Voltage Supply
B-411	RED	MF012B	Voltage from Trailer Brake Relay (Switched Output)
B-412	BLK	MU002B	Ground to Splice 10 (B-57 and B-58 Ground)



Connector Part Information		
Chassis Side Connector	Part Number	Description
	N/A	Blunt Wire End

B-413: Electrical Trailer Brake Controller (Upfitter Installed)			
			
Connector End View			
PIN	Wire Color	Circuit Number	Function
1	RED	MF011B	ETB Voltage Supply

Connector Part Information		
Chassis Side Connector	Part Number	Description
	7382-3013-30	1-Way M (LT GRY)

Figure 46

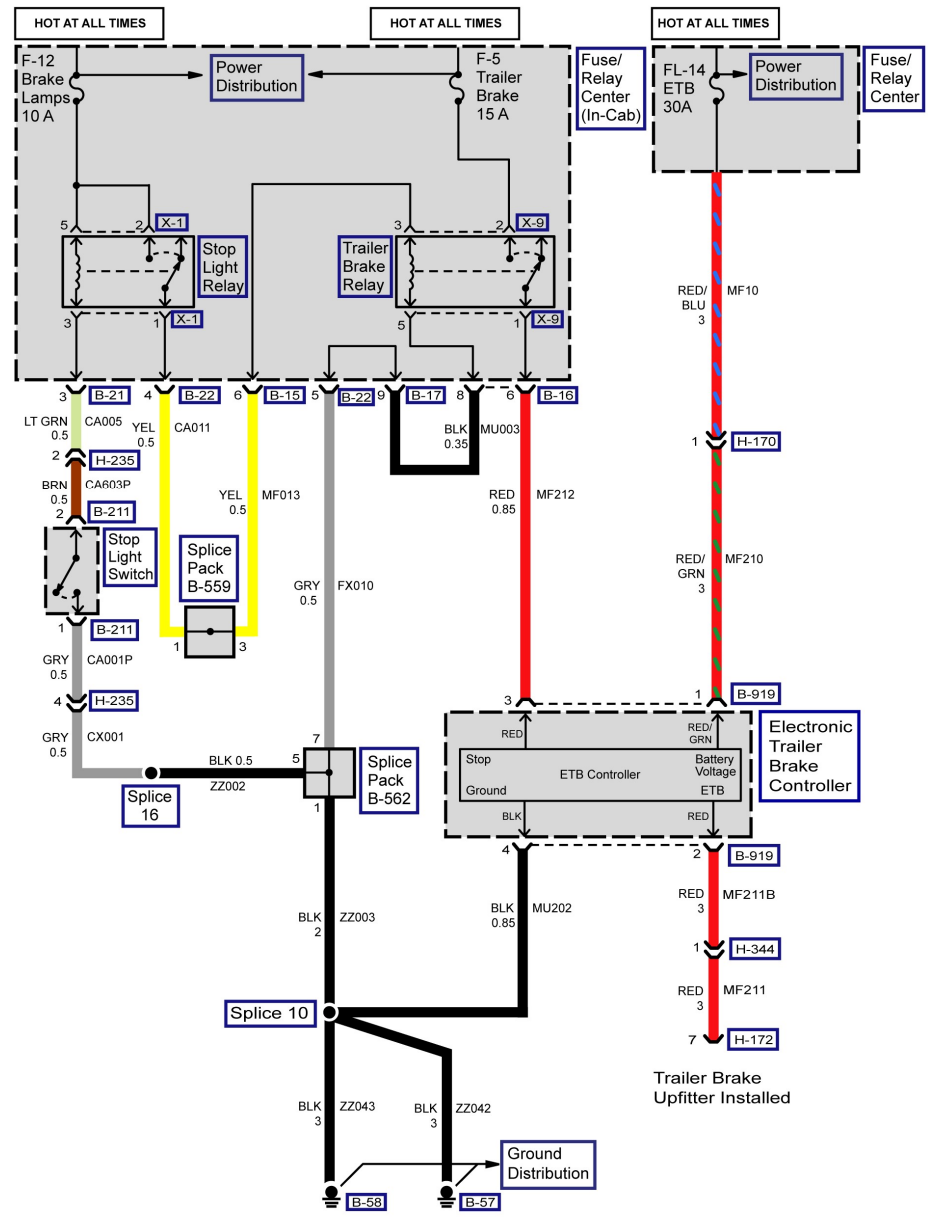


Figure 47

2026 Isuzu Truck

N-Gas Trailer Brake Controller Wiring and Activation

Introduction:

From model year 2009 Model Year NPR and NPR-HD Gas chassis feature integrated electronic trailer brake controller wiring and a dedicated chassis wiring harness for control of trailer stop, turn, and tail lamps. **Note: the electronic brake controller is not supplied with the vehicle.**

Integrated Electronic Brake Controller Wiring and Activation:

Wires for the electronic trailer brake controller are located behind the radio. To access these wire, remove the radio and DIN pocket from the dash, and pull out the wiring pigtail for the trailer brake controller.

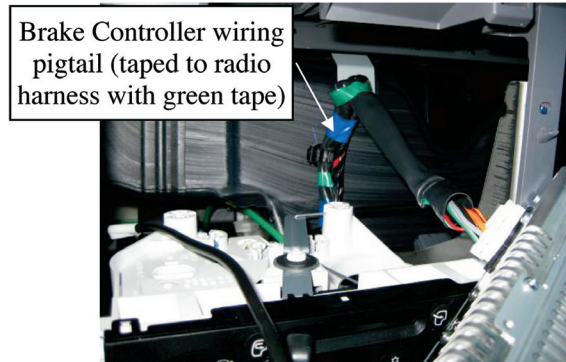


Figure 48

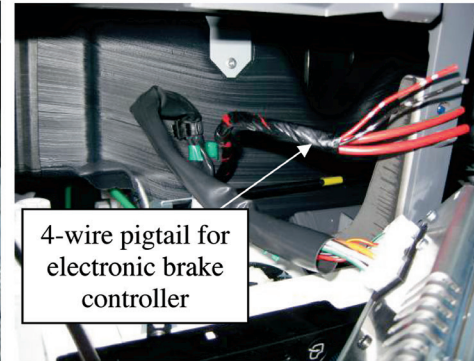


Figure 49

Wire Chart for the brake controller pigtail:

Wire#	Wire Color	Wire Size (mm ²)	Wire Size (AWG Approx)	Description/Notes
1	Red/Green	3	12	Supply power for brake controller (Fused to battery 20A; continuous max)
2	Red	3	12	Output signal from brake controller (rated max 20A continuous)
3	Red	0.85	18	Brake lamp signal (12V on when brake applied. Activated by relay R-9)
4	Black	0.85	18	Ground (max continuous current 10A)

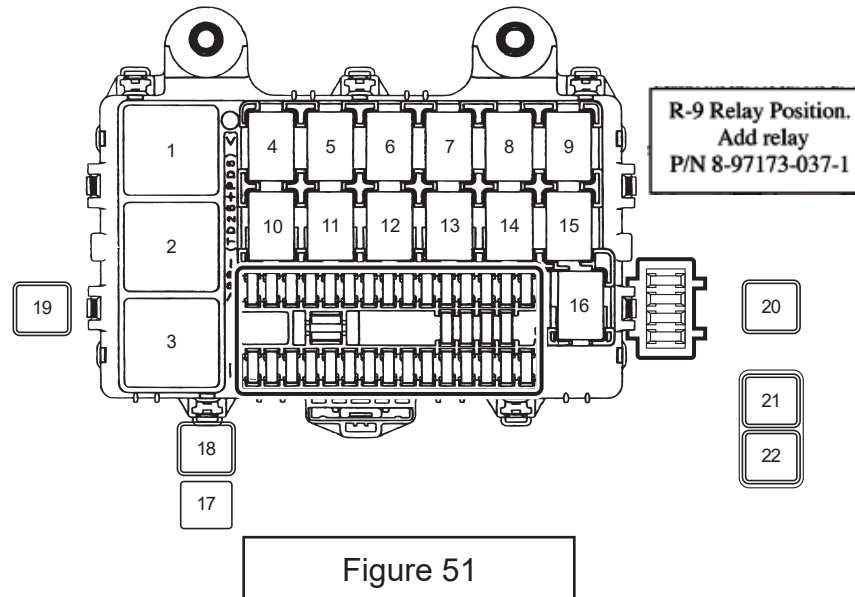
The brake signal wire (Wire # 3) is activated by installation of a relay in the "R-9" position in the center relay console located in the center of the dash just above floor level.

Figure 50

2026 Isuzu Truck

N-Gas Trailer Brake Controller Wiring and Activation

The R9 relay (P/N 8-97173-037-1) is not supplied with the vehicle. The relay can be ordered from your Authorized Isuzu Dealer's parts Department.
R-9 relay position:



2026 Isuzu Truck

N-Gas Trailer Brake Controller Wiring and Activation

The power supply for the trailer brake controller (Wire #1) is not energized from the factory. To power the brake controller, the brake controller harness power supply must be plugged in to the chassis power supply plug.

- 1) Locate the trailer brake controller power supply harness under the cab, behind the passenger-side head light:
- 2) Remove tape to expose the 2 connectors. The Grey connector is used to supply power to the trailer brake controller (Wire #1). This connector plugs in to the chassis trailer brake controller power supply. The Black connector is the output signal wire from the trailer brake controller (Wire #2).
- 3) Unplug the harness. Connect the Black connector (Wire #2) to an extension wire of suitable length and route the wire to the rear of the vehicle. This wire is the trailer brake controller output signal wire.

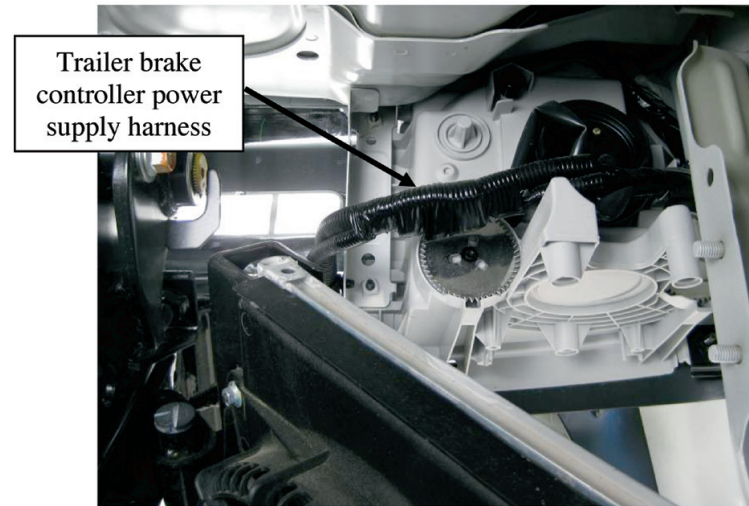


Figure 52

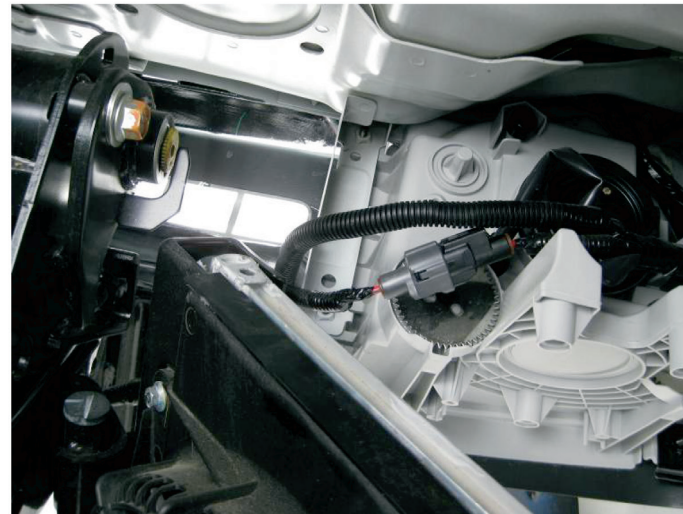


Figure 53

2026 Isuzu Truck

N-Gas Trailer Brake Controller Wiring and Activation

4) Remove the tape from the wire with the Grey connector (Wire #1) and route this wire underneath of the right hand frame rail.

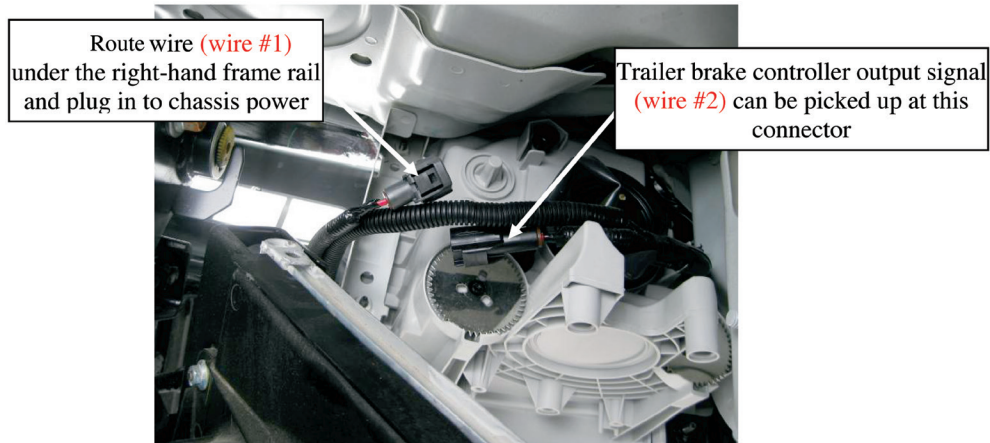


Figure 54

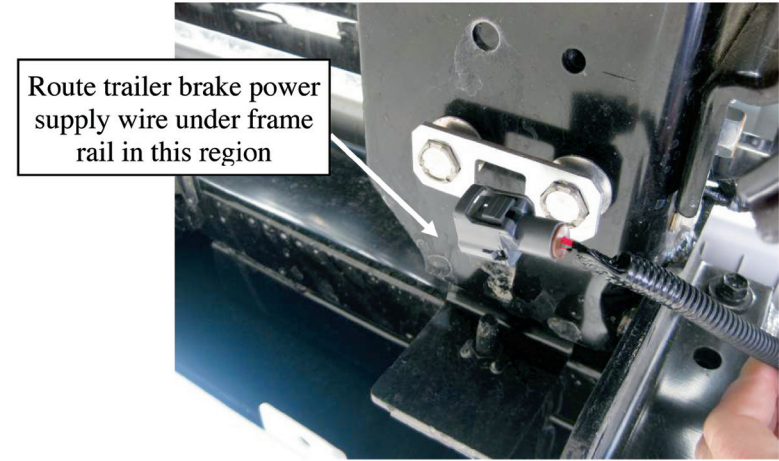


Figure 55

5) Locate the chassis side power supply harness. This connector is located just inboard of the right hand frame rail, beneath the ABS control module.

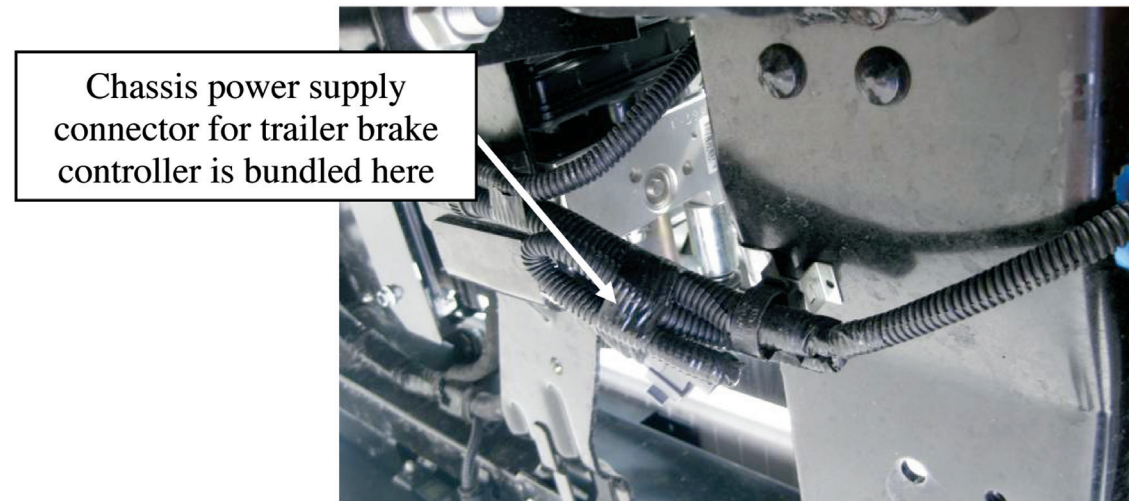


Figure 56

N-Gas Trailer Brake Controller Wiring and Activation

- 6) Remove tape and route chassis side power supply wire to brake controller power supply wire:



Figure 57

- 7) Remove protective cover, and plug chassis side power supply harness into electronic trailer brake controller power supply connector (Wire #1). Secure harness to chassis with suitable tie strap.



Figure 58

2026 Isuzu Truck

Power, Ground, and Trailer Connector

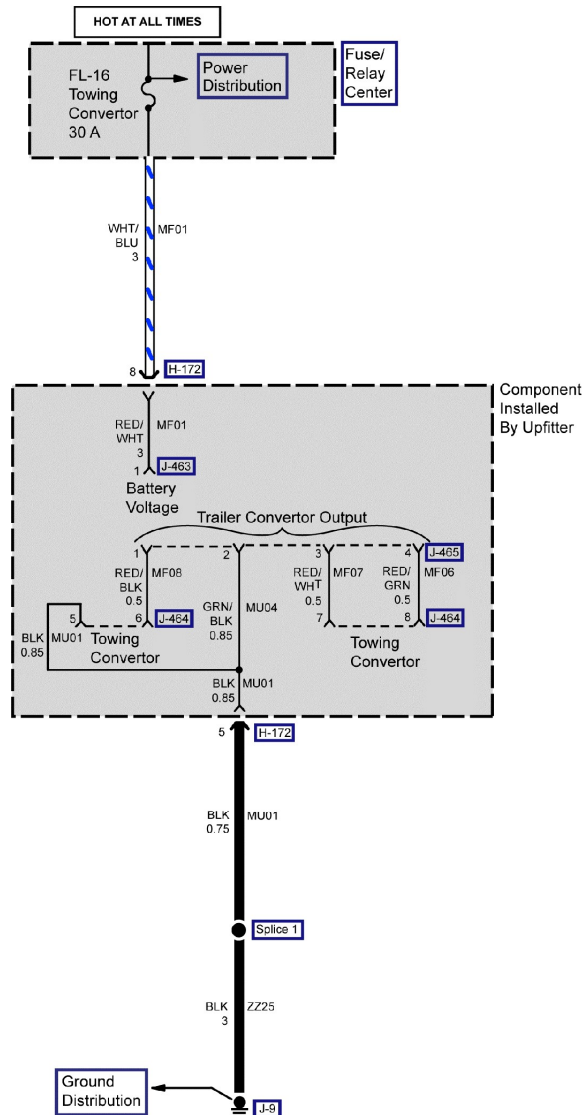


Figure 59

2026 Isuzu Truck

H-172 Chassis Harness to Towing Converter Connector

The H-172 wiring harness allows upfitters to control trailer lighting functions without having to splice into the vehicle tail lamp harness. The connector is located on the left hand frame rail (driver's side), to the rear of the transmission cross member. The connector wires are the standard 4-wire electrical light system that is used on the chassis (separate stop and turn light). If the trailer has a 3-wire electrical system (combined stop and turn light) a heavy duty tail light converter box will be necessary for proper trailer light integration.

Part Information				Part Information			
<ul style="list-style-type: none"> ● R020050 Furukawa ● 8-Way F (BLK) ● Upfitter Installed 				<ul style="list-style-type: none"> ● R020054 Furukawa ● 8-Way M (BLK) 			
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
1	GRN	MF02	Stop Light Voltage to Towing Converter	1	GRN	MF02	Stop Light Voltage from Switch
2	GRN/RED	MF03	Tail Light Voltage to Towing Converter	2	GRN/RED	MF03	Tail Light Voltage from Fuse F-27
3	GRN/BLK	MF04	Left Turn Signal Voltage to Towing Converter	3	GRN/BLK	MF04	Left Turn Signal Voltage from Flasher Module
4	GRN/WHT	MF05	Right Turn Signal Voltage to Towing Converter	4	GRN/WHT	MF05	Right Turn Signal Voltage from Flasher Module
5	BLK	MU01	Ground to Splice 1 to Towing Converter	5	BLK	MU01	Ground to Splice 1 to J-9 Ground
6	-	-	Not Used	6	-	-	Not Used
7 (MY 2024)	-	-	Not Used	7 (MY 2024)	RED	MF211B	Trailer Brake Control
8	RED/WHT	MF01	Voltage from Fuse FL-16 to Towing Converter	8	WHT/BLU	MF01	Voltage from Fuse FL-16

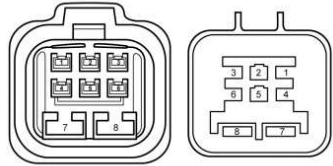
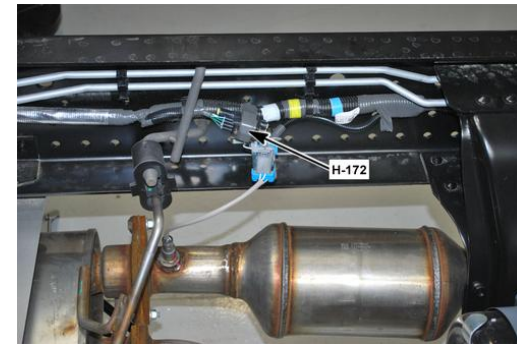


Figure 60

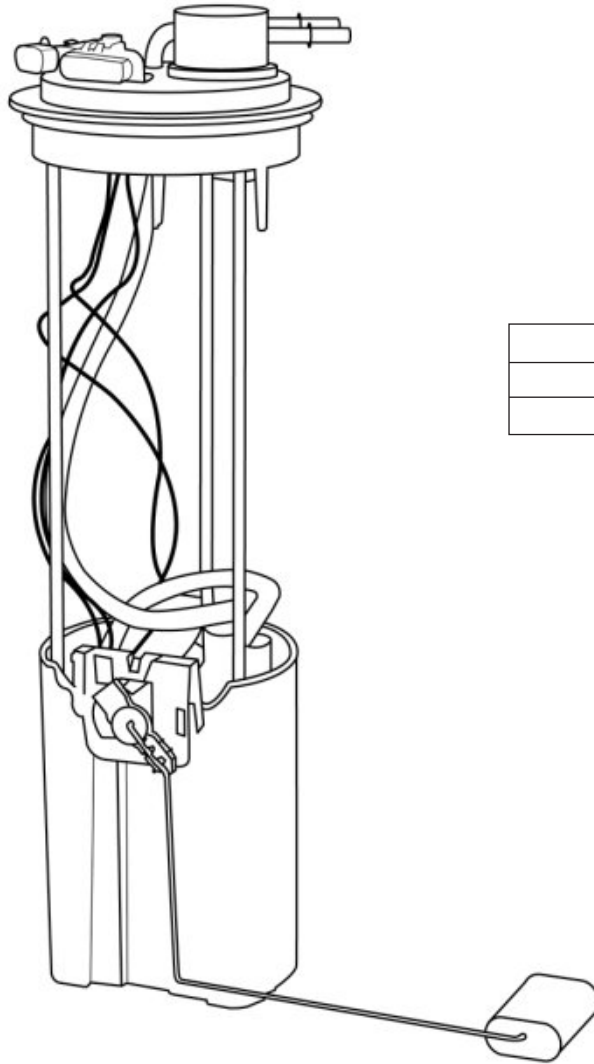


Left Inner Side of the Frame Rail, Behind the Transmission Crossmember

Figure 61

2026 Isuzu Truck

Fuel Tank Sending Unit Resistance Values



Float Position	Standard Resistance (ohms)
Empty Stop	248.5
Full Stop	40

Figure 62

Back Up Camera Installation Information

2026 Isuzu Truck

Isuzu Back Up Camera Installation Overview

- The Alpine HCE-C1100 Back Up Camera is available with RPO code I2V (Audio system with 7" diagonal color touch screen with backup camera).
- RPO codes I1V (Audio system with 7" diagonal color touch screen) and I2V (Audio system with 7" diagonal color touch screen with backup camera) will both include a pre-wired camera input connection at the end of the chassis frame. (Figure 63)

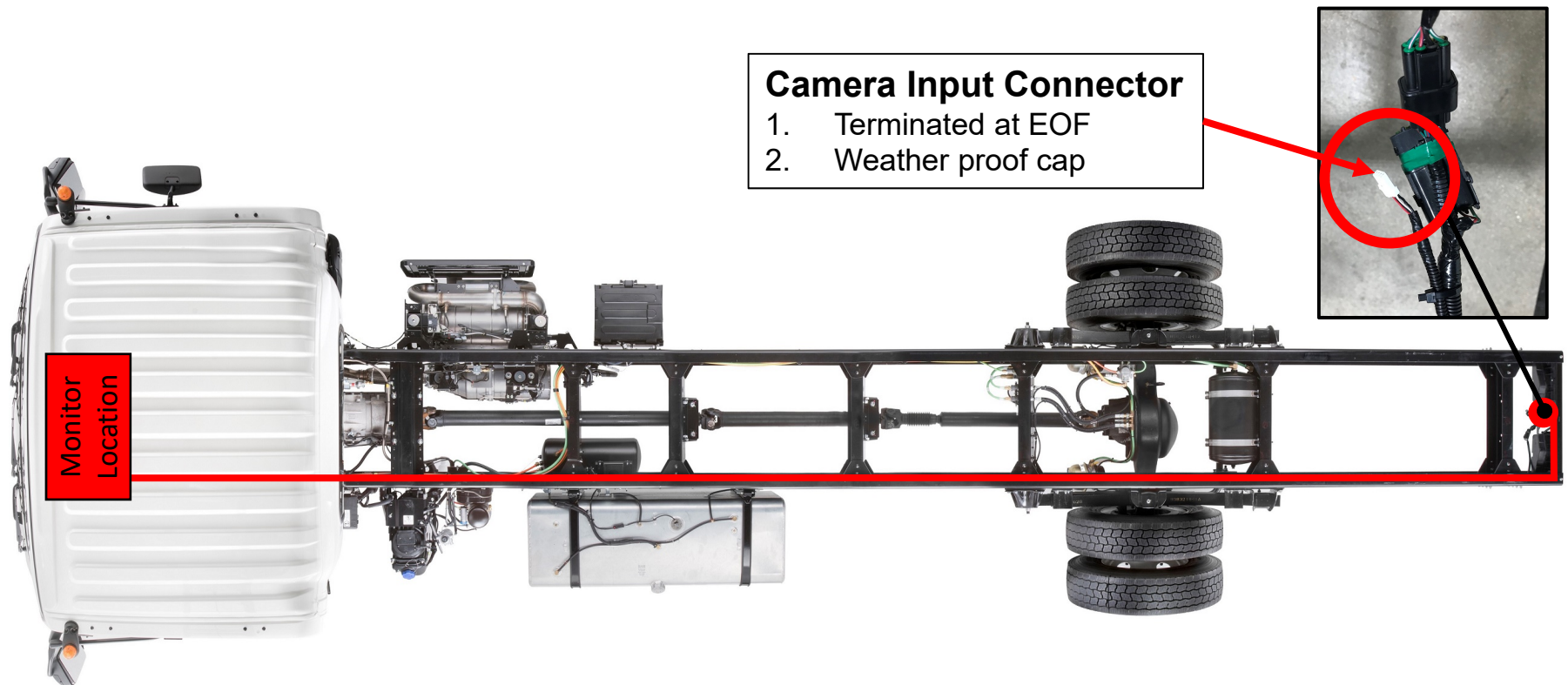


Figure 63
Camera Installation Overview

2026 Isuzu Truck

Back Up Camera Installation Kit Part Numbers

KIT PART NUMBER: 8975462720			
NO.	PART NUMBER	DESCRIPTION	QTY
1	8975438760	HCE-C1100 Back Up Camera	1
2	8975438730	Camera Bracket/Shroud	1
3	8975438750	23' Camera Extension Harness	1

Figure 64 – Camera Install Kit Part Numbers

- When RPO code I2V (Audio system with 7" diagonal color touch screen with backup camera) is selected, the Back Up Camera Kit will be shipped in the cab, in a poly bag, band tied to the center seat. (Figure 67).
- The Back Up Camera Kit will include the parts listed in Figure 64, provided in a sealed package. The package also includes a piece of shrink tube that should be used to protect the connection between the camera pigtail and the 23' extension harness (see the circled location in Figure 66 below).

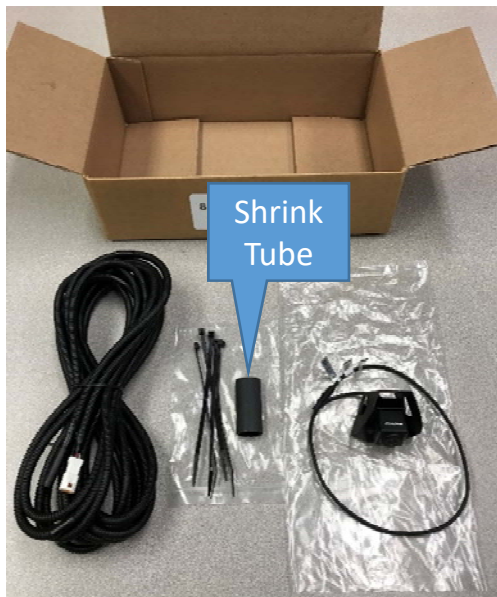


Figure 65
Camera Install Kit



Figure 66
Camera Install Kit Shrink Tube Installation



Figure 67
Camera Install Kit Shipping Location

Isuzu Back Up Camera Mounting Information

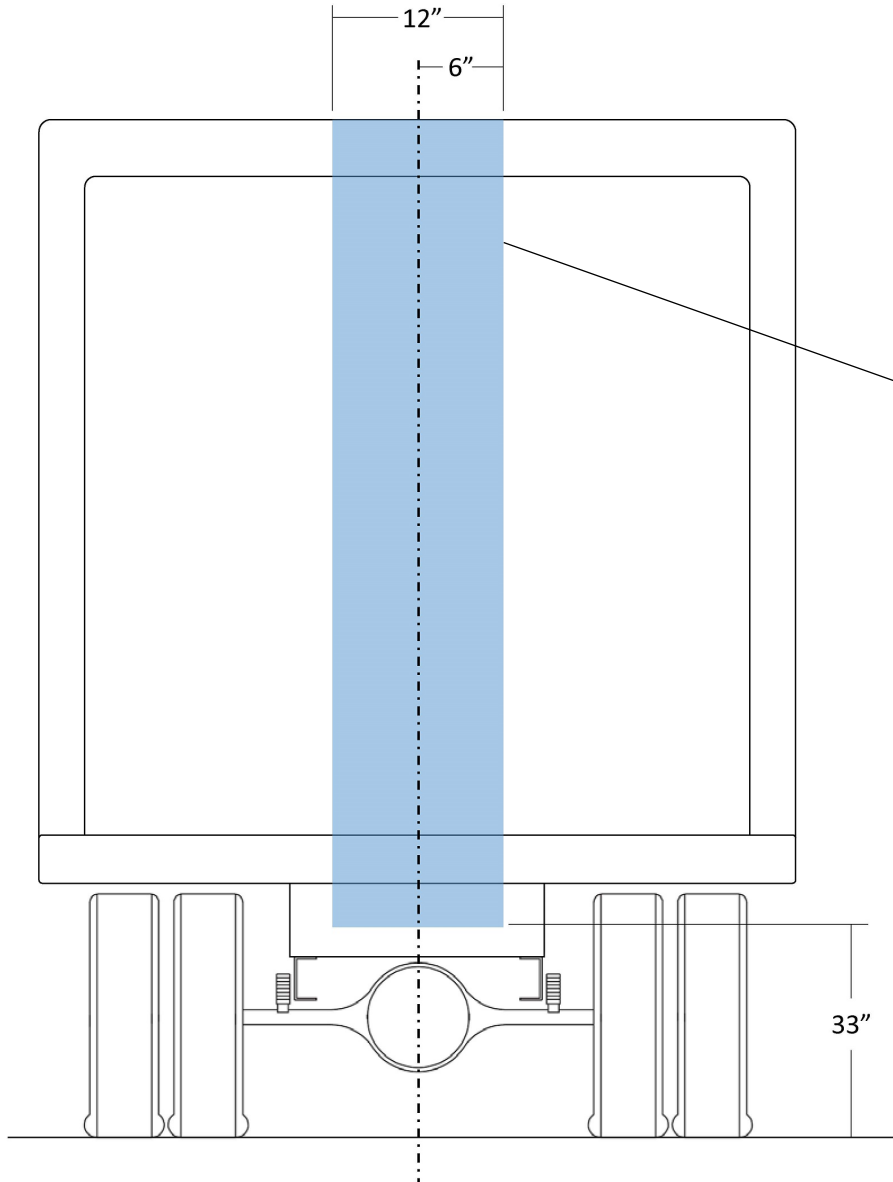
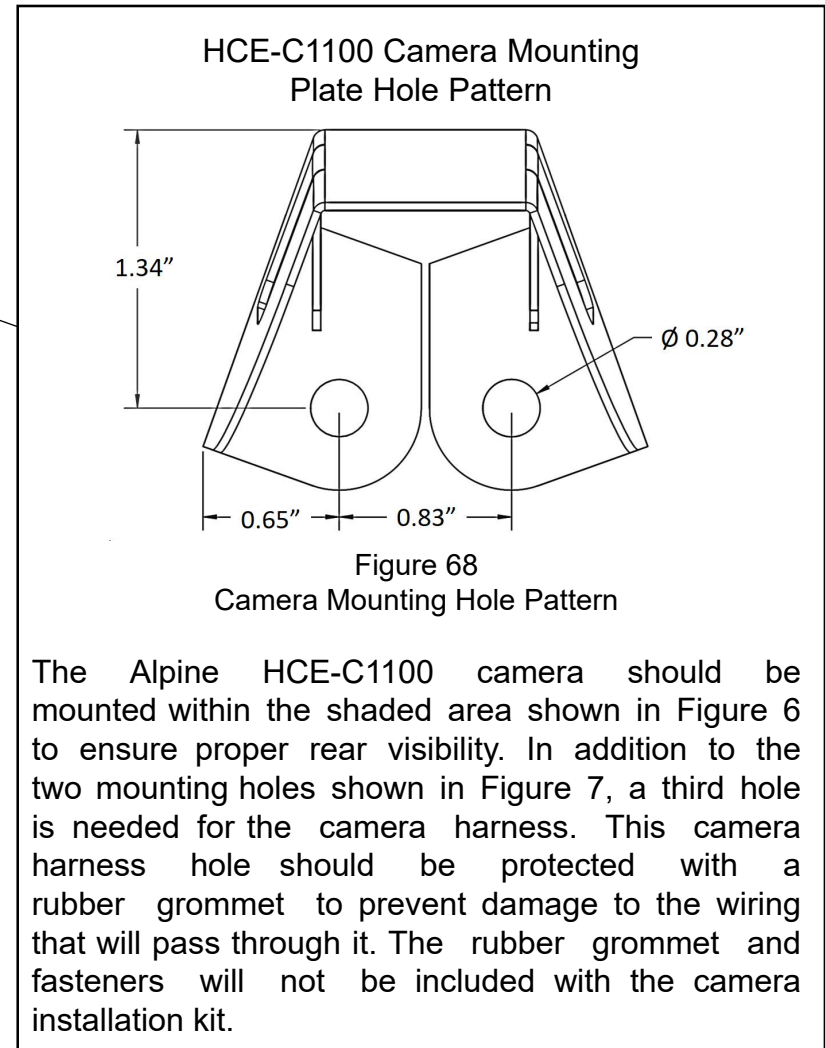

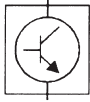



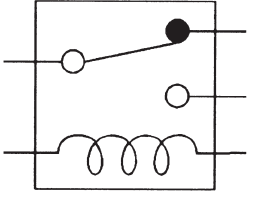


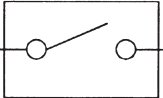
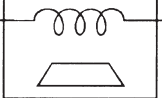

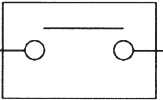
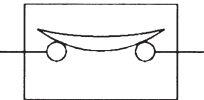
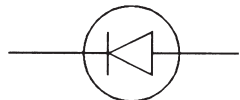
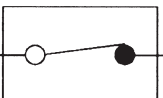

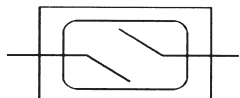



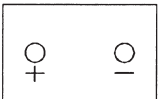

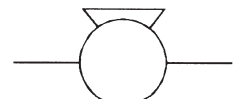
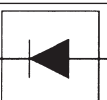
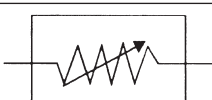
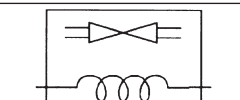


Figure 68
Camera Mounting Area



N-Series Diesel Electrical Symbols

	Fuse		Electronic Parts		Coil (Inductor), Solenoid Magnetic Valve
	Fusible Link		Resistor		Relay
	Fusible Link Wire		Speaker		
	Switch		Buzzer		Connector
	Switch		Circuit Breaker		Light-Emitting Diode
	Switch (Normal Close Type)		Bulb		Reed Switch
	Contact Wiring		Double-Filament Bulb		Condenser
	Battery		Motor		Horn
	Diode		Variable Resistor Rheostat		Vacuum Switching Valve

2026 Isuzu Truck

Abbreviations

Abbreviation	Definition	Abbreviation	Definition
3A/T	6-Speed Automatic Transmission	IG	Ignition
4A/T	4-Speed Automatic Transmission	kW	kilowatt
A/T	Automatic Transmission	LH	Left hand
ABS	Anti-lock brake system	LO	Low
APP	Accelerator pedal position	LWB	Long wheelbase
ATF	Automatic Transmission Fluid	M/T	Manual Transmission
AUTO	Automatic	M/V	Magnetic valve
BRKT	Bracket	MAF	Mass airflow
C/B	Circuit breaker	MIL	Check engine light
CKP	Crankshaft position	OD	Over drive
CMP	Camshaft position	OPT	Option
COMB	Combination	PTO	Power Take Off
CONT	Control	RH	Right hand
D.R.L.	Day time running light	RR	Rear
DC	Direct current	SCV	Suction control valve
ECM	Electronic control module	ST	Start
ECT	Engine coolant temperature	STD	Standard
ECU	Electronic control unit	SW	Switch
EGR	Exhaust gas reticulation	SWB	Short wheelbase
EHCU	Electronic and hydraulic control unit	TCM	Transmission control module
FL	Fusible link	V	Volt
FRT	Front	VSV	Vacuum switching valve
FT	Fuel Temperature	W	Watt (S)
H/L	Headlight	W/	With
HI	High	W/O	Without
IAT	Intake air temperature	W/S	Weld splice
IC	Integrated circuit	WOT	Wide-open throttle

N-Series Diesel Electrical Section

Additional information including complete chassis wiring schematics, connector locations, wire sizes, and pin connector diagrams can be obtained from our service web site www.isuzutruckservice.com. There is a nominal fee for this service.

Wiring

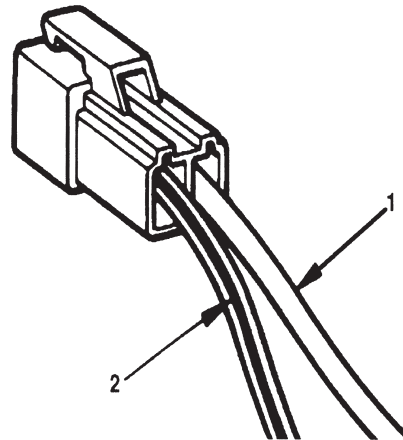
Wire Color

All wires have color-coded insulation. Wires belonging to a system's main harness will have a single color. Wires belonging to a system's sub-circuits will have a colored stripe. Striped wires use the following code to show wire size and colors.

Example: 0.5 GRN / R

0.5 — Wire Size
GRN — (Base Color)
R — (Stripe Color)

1. Single Color Wire
2. Colored Stripe Wire



2026 Isuzu Truck

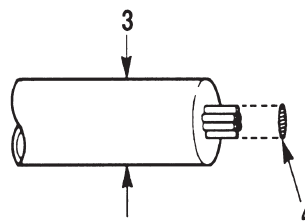
Wiring (continued)

Nominal Size	Cross Sectional Area (mm ²)	Outside Diameter (mm)	Allowable Current (A)	AWG Size (Cross reference)
0.3	0.372	1.8	9	22
0.5	0.563	2.0	12	20
0.85	0.885	2.2	16	18
1.25	1.287	2.5	21	16
2	2.091	2.9	28	14
3	3.296	3.6	37.5	12
5	5.227	4.4	53	10
8	7.952	5.5	67	8
15	13.36	7.0	75	6
20	20.61	8.2	97	4

Wire Size

The size of wire used in a circuit is determined by the amount of current (amperage), the length of the circuit, and the voltage drop allowed. The following wire size and load capacity are specified by AWG (American Wire Gauge). (Nominal size means approximate cross sectional area.)

- 3. Outside Diameter
- 4. Cross Sectional Area



Alternator and Battery Information

NPR-HD, NPR-XD, and NRR Diesel Engine

2.662:1 alternator pulley to crankshaft pulley

Electrical Caution: Please see note in Section 1 Introduction on page 1.9 of on the subject of “NO-START CONDITION – CLICKING OR BANGING FROM STARTER 2012-2015MY Isuzu N-Series Equipped with 5.2L (4HK1) Diesel Engines”.

Fuses

Replacing Fuses

1. Before replacing fuses, apply the parking brake, then move the selector lever to the "P" (Park) position, and turn the engine control switch to the "LOCK" position.
2. Place the fuse puller on the fuse and pull it out. (The fuse puller is stored in the fuse box inside the cab.)
3. If the fuse appears as shown in the right hand side of the diagram at left, the fuse is blown. Replace with a spare fuse. (Spare fuses are stored in the fuse box inside the cab.)

Replacing Relays

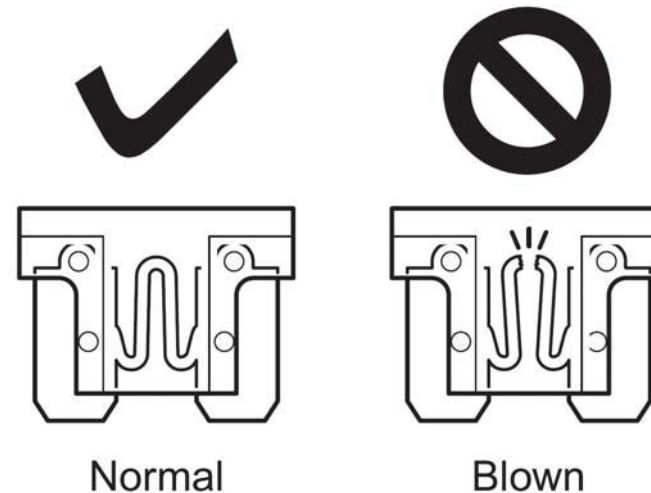
1. Before replacing the relays, contact the nearest Isuzu Dealer.

Fusible Links

1. The fusible link is primarily used to protect circuits where high amounts of current flow and where it would not be practical to use a fuse. For example, the starter circuit. When a current overload occurs, the fusible link melts open and interrupts the flow of current so as to prevent the rest of the wiring harness from burning.
2. Determine the cause of the overload before replacing the fusible link. The replacement fusible link must have the same amperage specification as the original fusible link.
3. Never replace a blown fusible link with fusible link of a different amperage specification. Doing so can result in an electrical fire or other serious circuit damage.

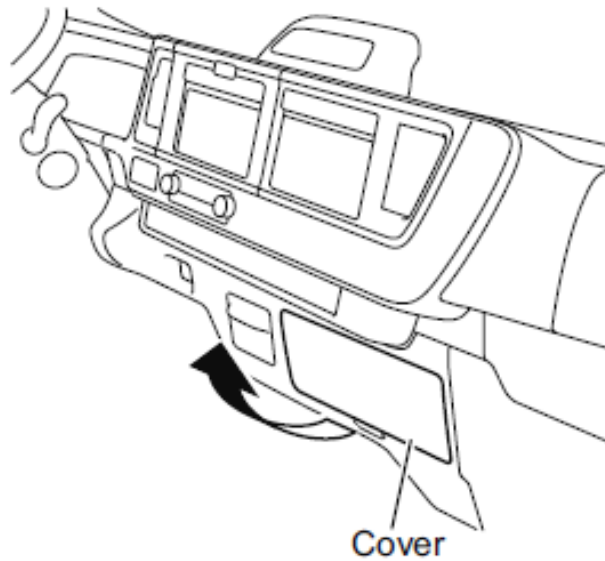
CAUTION

- Always use fuses specified by Isuzu. Using fuses with a rating other than that specified, or using wire or tin foil, etc., could result in fire or damage.
- If the new fuses blow right away and the cause is unknown, contact the nearest Isuzu Dealer.
- Do not inspect or replace fuses when the engine control switch is in the "ON" position. Doing so may lead to an accident.
- When inspecting fuses, be sure to park the vehicle on flat, level ground and apply chocks to the wheels.

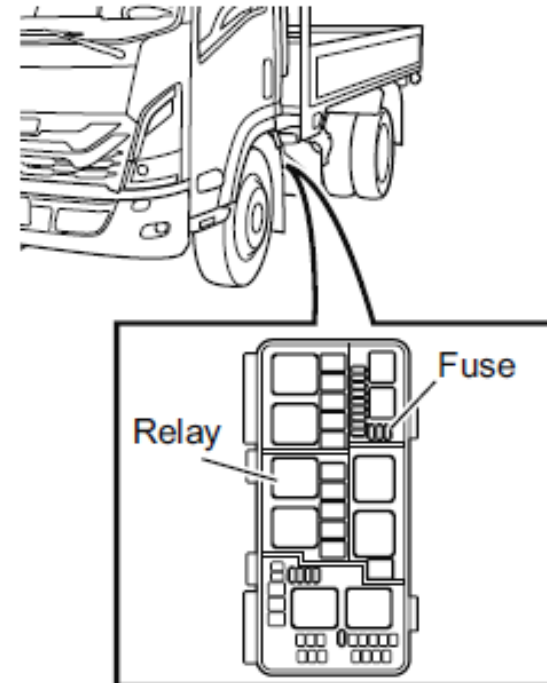


Fuse and Relay Box Locations

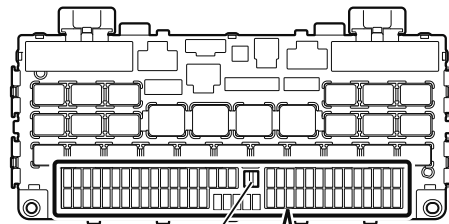
Interior



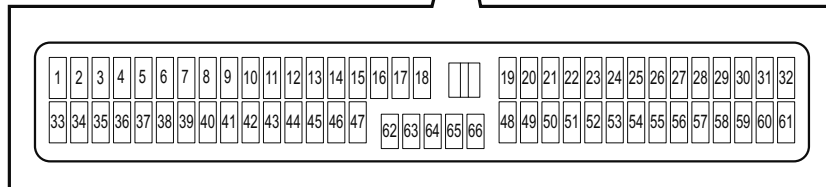
Exterior



Fuse Location (interior)



Fuse puller



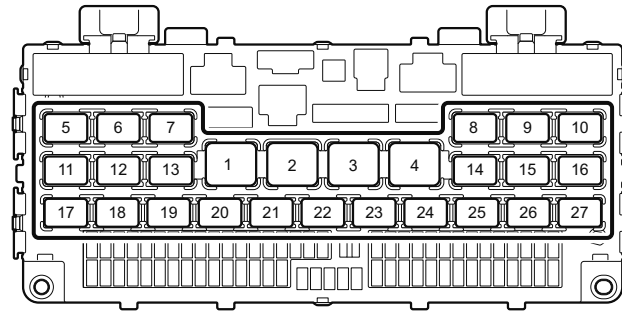
No.	Description	Rating
1	HEAD LIGHT HI(RH)	10A
2	AUDIO REVERSE MUTE	10A
3	HEAD LIGHT HI(LH)	10A
4	HEAD LIGHT LO(RH)	10A
5	HEAD LIGHT LO(LH)	10A
6	SRS	5A
7	CONTROLLER(ACC)	15A
8	—	5A
9	TRAILER BRAKE	25A
10	—	10A
11	ACC.SOCKET, AUDIO, USB	15A
12	—	10A
13	—	10A
14	METER(IGN)	5A
15	TRANSMISSION(IGN)	10A
16	POWER SOURCE(ACC)	20A
17	CENTRAL GATEWAY(IGN)	5A
18	—	15A
19	BLOWER	25A

No.	Description	Rating
20	TURN, HAZARD	15A
21	—	10A
22	MIRROR HEATER	15A
23	WIPER	25A
24	TRANSMISSION(BATT)	10A
25	BACK UP LIGHTS	10A
26	AIR CONDITIONER(BATT)	15A
27	—	10A
28	BODY CONTROL(BATT)	10A
29	ELECTRIC PARKING BRAKE(IGN)	10A
30	ABS,STEREO CAMERA(IGN)	5A
31	I/O CONTROLLER(BATT)	15A
32	FOG LIGHTS	10A
33	DRL	10A
34	BRAKE LIGHTS	10A
35	TRAILER BRAKE	15A
36	BRAKE LIGHTS SWITCH	10A
37	ILLUMINATIONS	10A

No.	Description	Rating
38	TAIL LIGHTS	10A
39	KEYLESS ENTRY(IGN)	5A
40	AUDIO(BATT)	10A
41	I/O CONTROLLER(IGN)	10A
42	MARKER LIGHTS	10A
43	—	10A
44	ENGINE CONTROL SWITCH	10A
45	POWER TAKE OFF,HSA	10A
46	CONTROLLER(IGN)	10A
47	MOBILEYE	10A
48	AIR CONDITIONER(IGN)	10A
49	HEAD LIGHTS WASHER	25A
50	BODY CONTROL(IGN)	10A
51	HORN	15A
52	—	5A

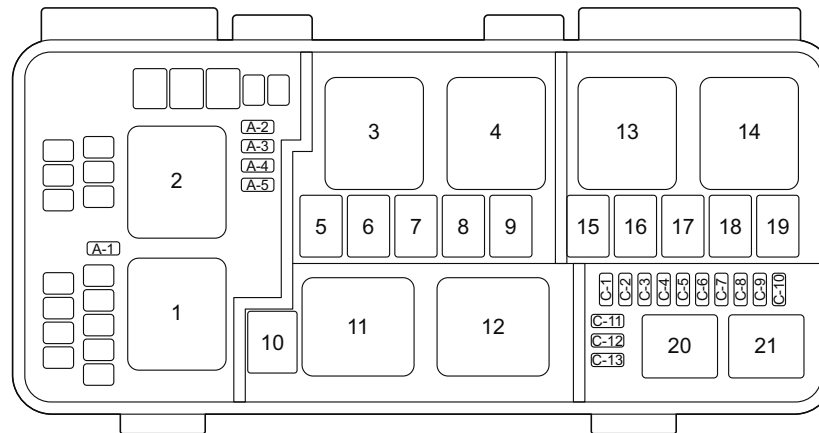
No.	Description	Rating
53	CONTROLLER(BATT)	15A
54	METER(BATT)	10A
55	KEYLESS ENTRY(BATT)	10A
56	—	10A
57	—	10A
58	STARTER	10A
59	CORNERING LIGHTS	5A
60	CENTRAL GATEWAY(BATT)	5A
61	STEREO CAMERA(BATT)	10A
62	SPARE	—
63	SPARE	—
64	SPARE	—
65	SPARE	—
66	SPARE	—

Relay Location (interior)



No.	Description	No.	Description
1	Accessory	15	—
2	Ignition main	16	Headlights high
3	Blower motor	17	DRL
4	Wiper key on	18	Headlights low
5	—	19	Trailer brake (model with trailer)
6	Clearance lights cut	20	Power window
7	Power window (rear) (crew cab model)	21	Headlights washer
8	—	22	Back up lights
9	—	23	Washer motor
10	—	24	Horn
11	DRL	25	—
12	—	26	—
13	—	27	Fog lights (model with fog lights)
14	Tail lights		

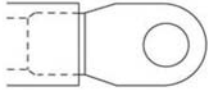
Relay and Fuse Locations (exterior)



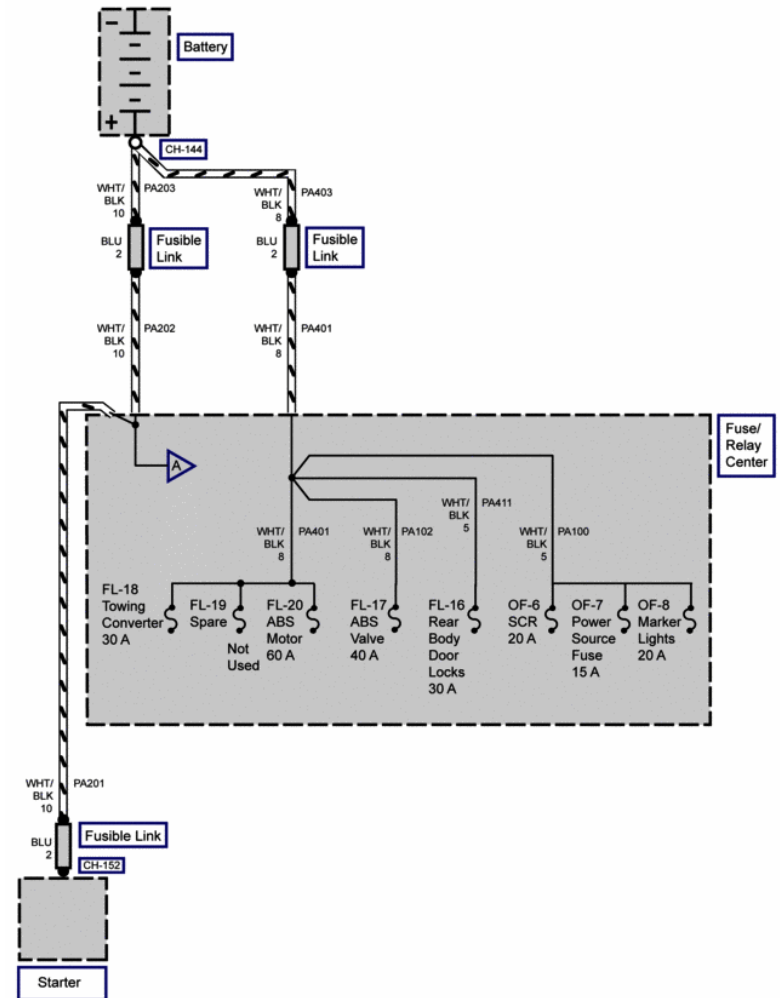
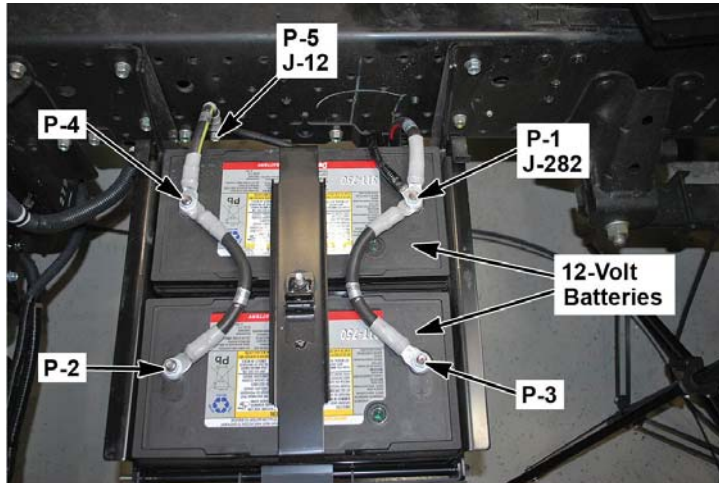
No.	Relay name	No.	Fuse name	Rating
1	Starter	A-1	Air conditioner	20A
2	—	A-2	ECM (battery)	10A
3	—	A-3	—	—
4	—	A-4	—	—
5	—	A-5	—	—
6	—	C-1	SCR	20A
7	Fuel heater	C-2	Power source	15A
8	—	C-3	Marker lights	20A
9	—	C-4	Chassis ignition	15A
10	Rear dome light	C-5	SCR ignition	10A
11	—	C-6	ECM ignition	15A
12	NOx & Urea	C-7	ECM main	20A
13	ECM main	C-8	PM sensor	15A
14	Ignition chassis	C-9	PTO	10A
15	Marker lights	C-10	—	—
16	—	C-11	Chassis (battery)	10A
17	Heater valve	C-12	—	—
18	—	C-13	—	—
19	Condenser fan			
20	A/C compressor			
21	Starter cut			

Battery Cable Tightening Torques

P-1, P-2, P-3, P-4 Battery Terminals Connector End View

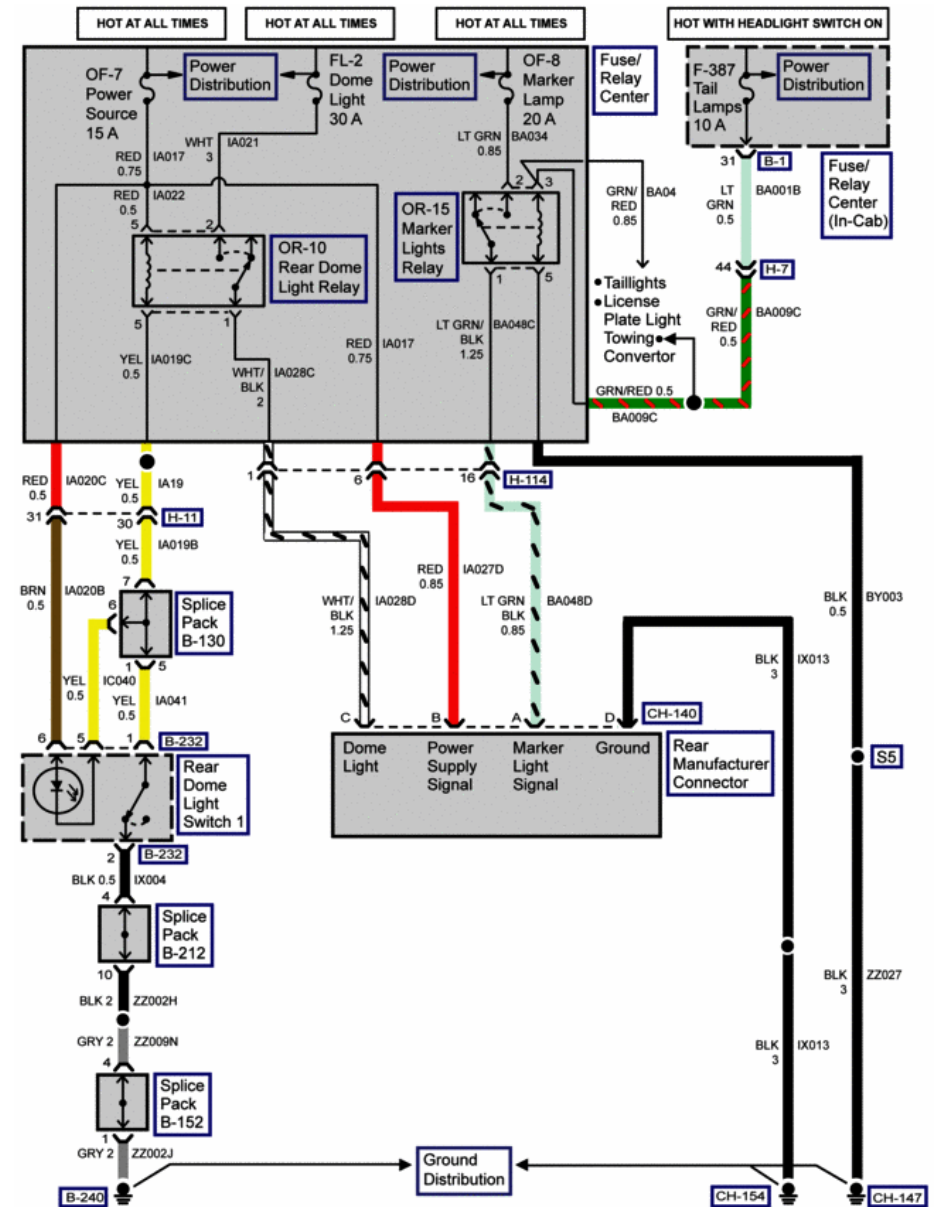
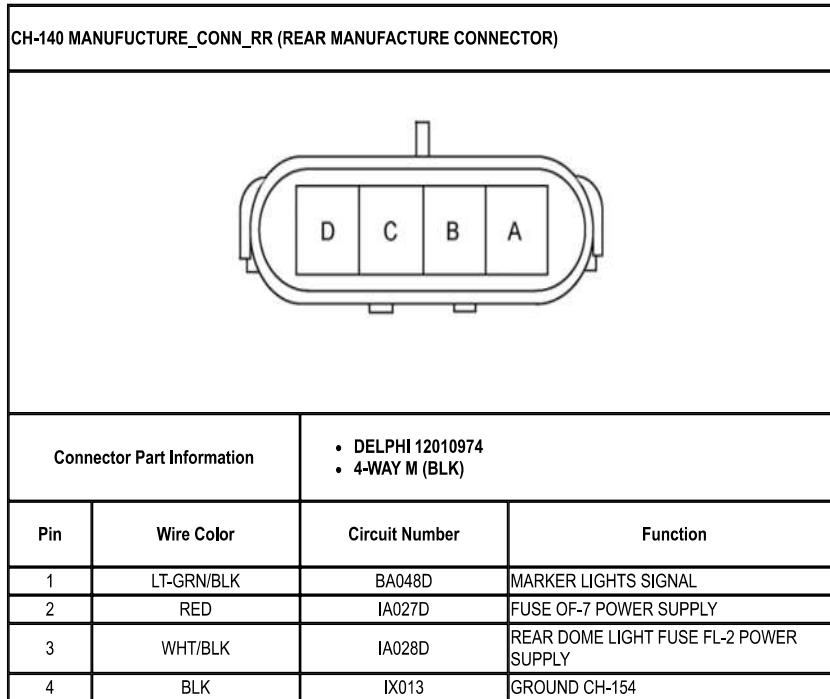


Connector Part Information		• 1 Way Eyelet	
Pin	Wire Color	Circuit Number	Function
P-1	BLK BLK/RED	—	Battery Positive To Positive Battery Battery To Starter Positive
P-2	BLK	—	Battery Negative To Battery Negative
P-3	BLK	—	Battery Positive To Battery Positive
P-4	BLK BLK/YEL	—	Battery Negative To Battery Negative Battery To Ground P-5

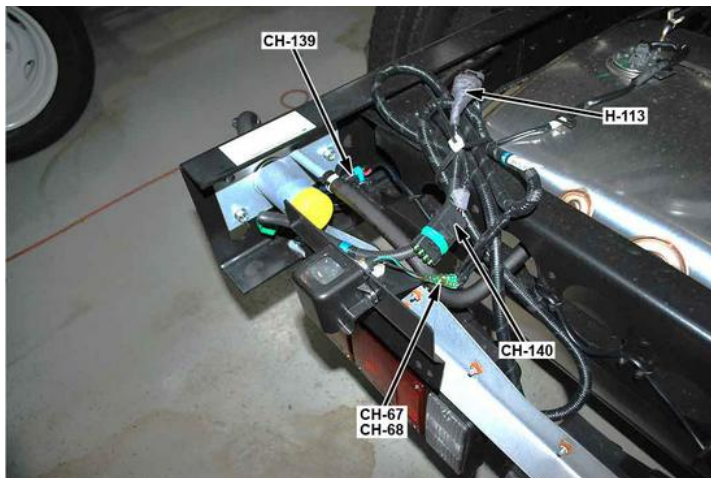


Tightening Torques: 15 N-m (11 lb-ft)

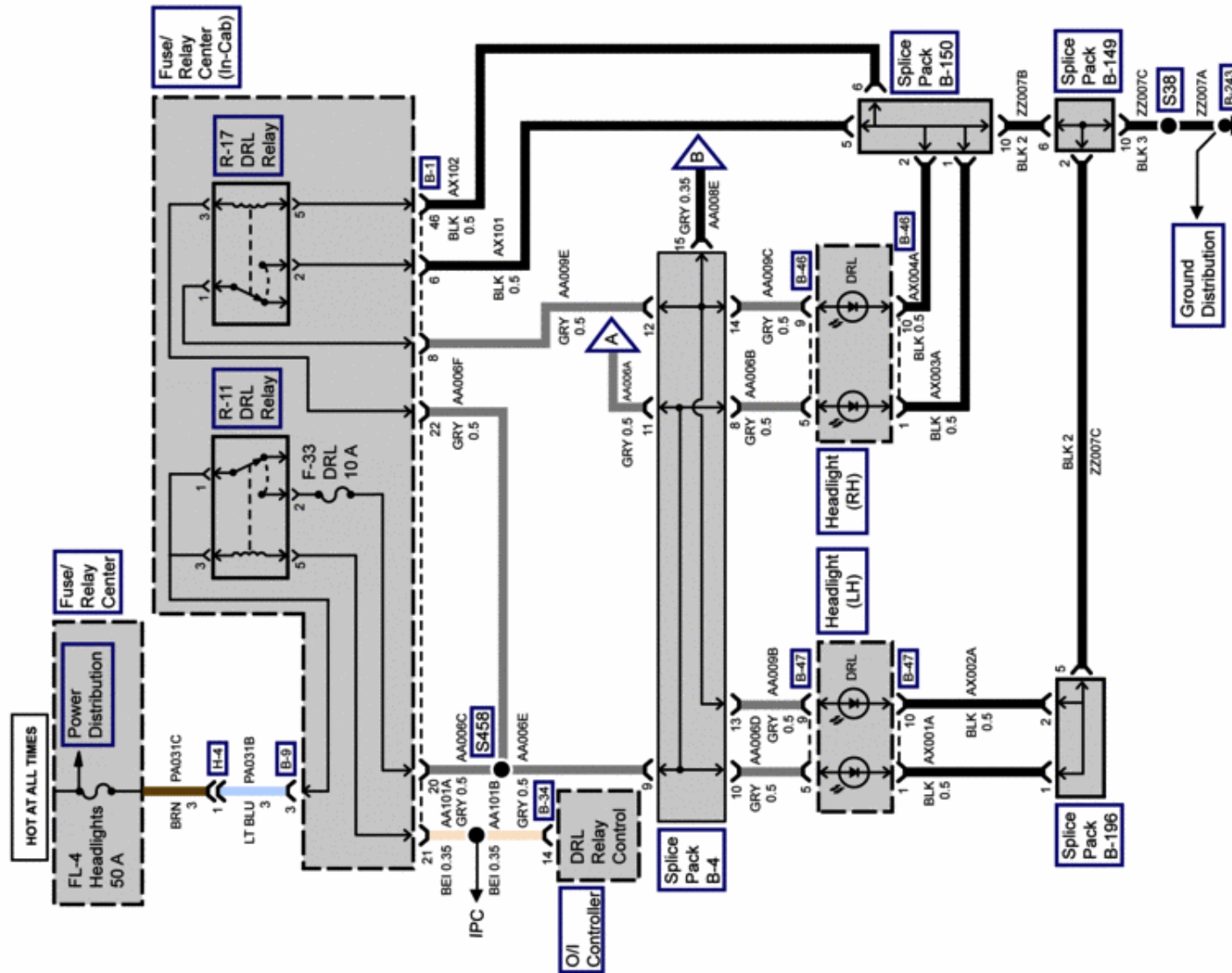
Rear Manufacturer Connector Location and Diagram



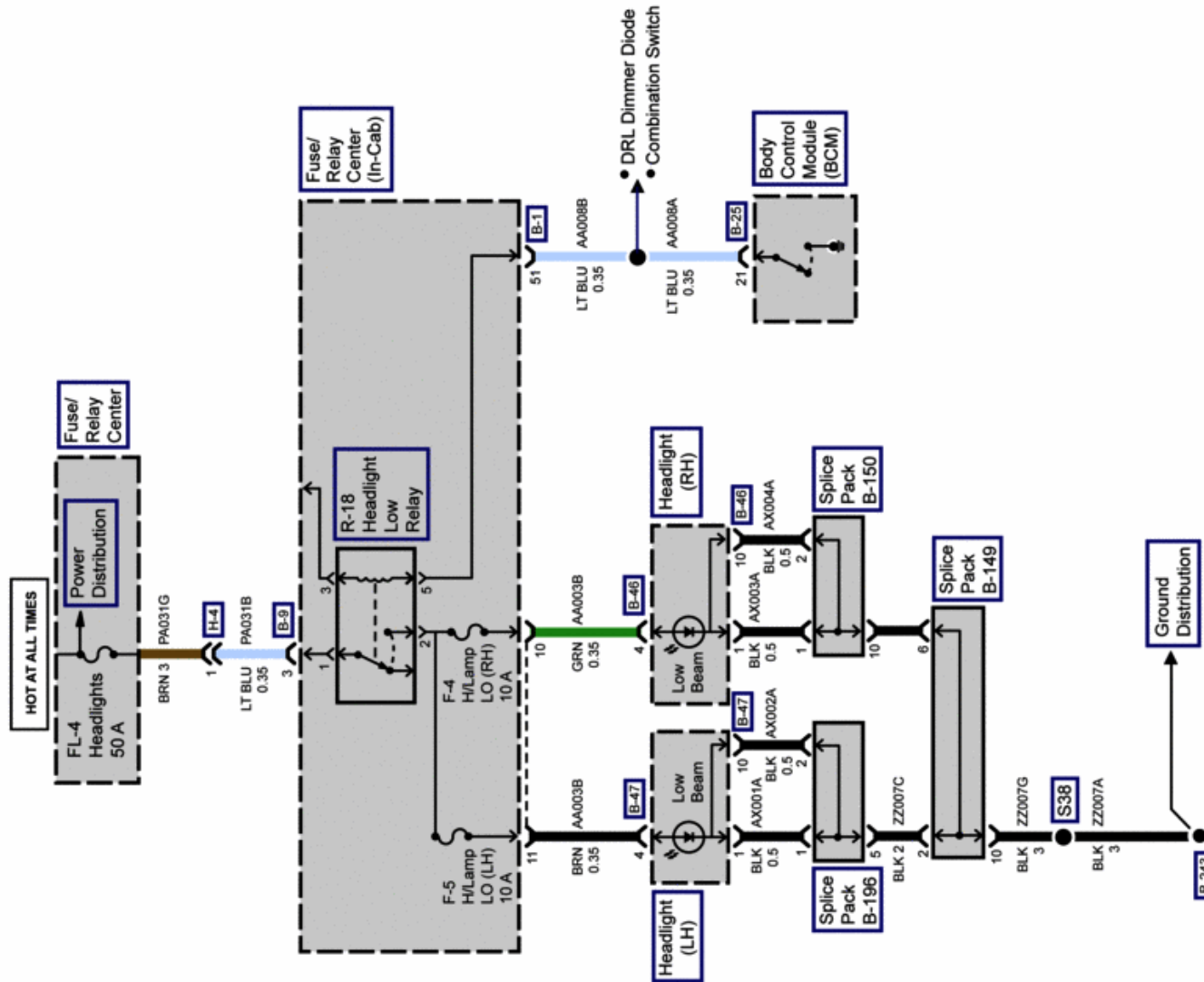
Left Rear Corner of the Frame



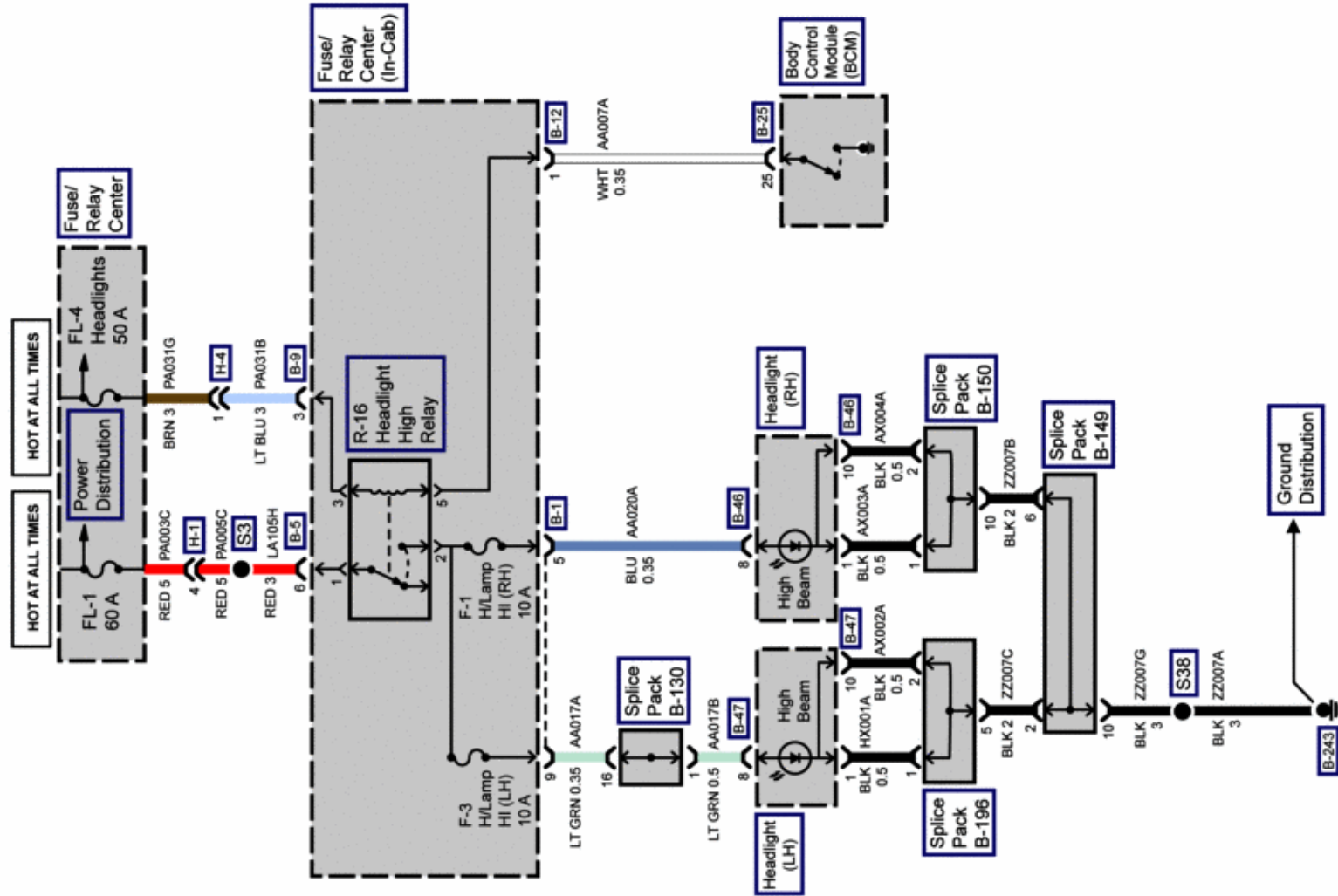
Headlights



Headlights Low Beam



Headlights High Beam

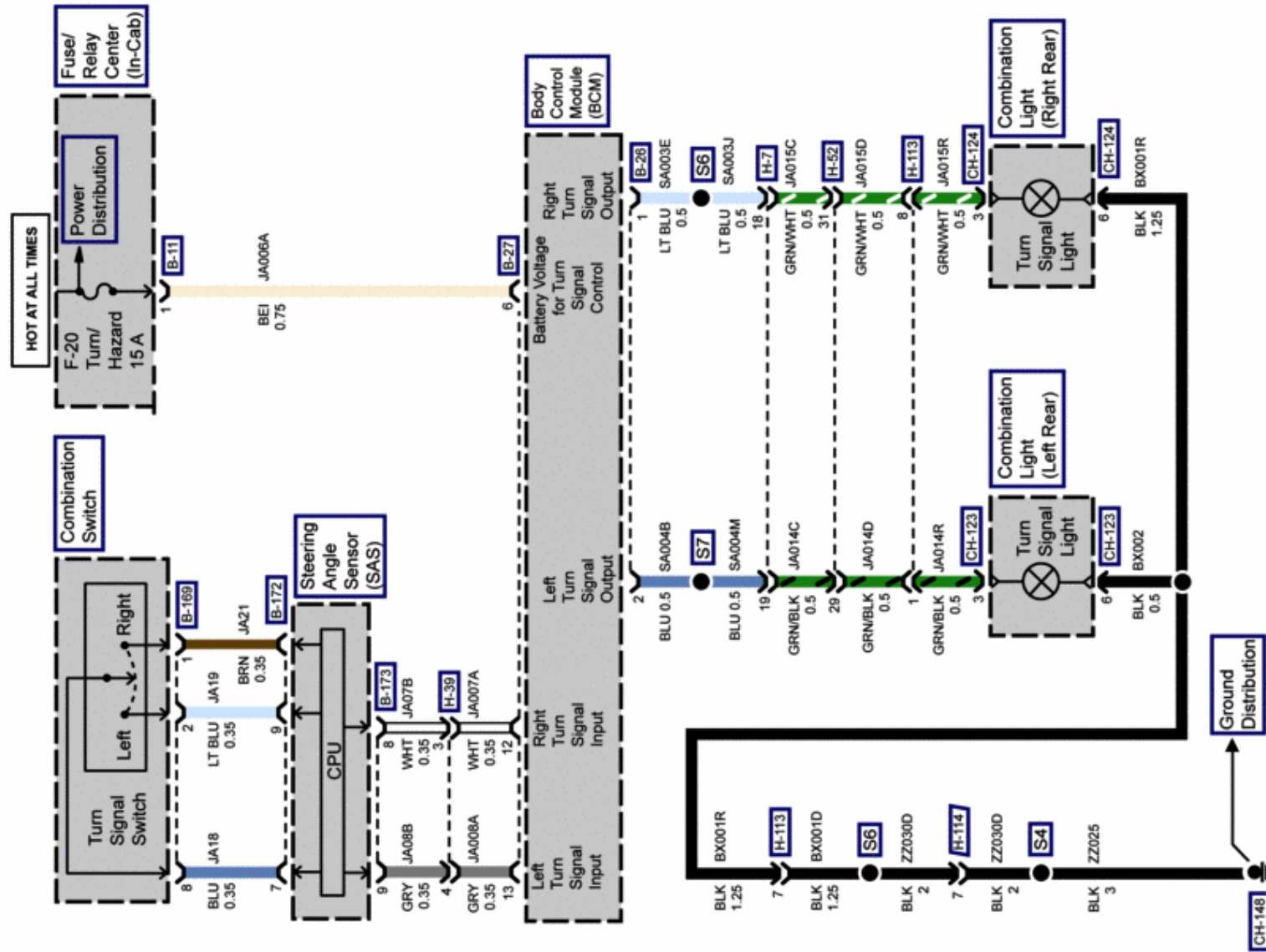


Rear Combination Lights Connector

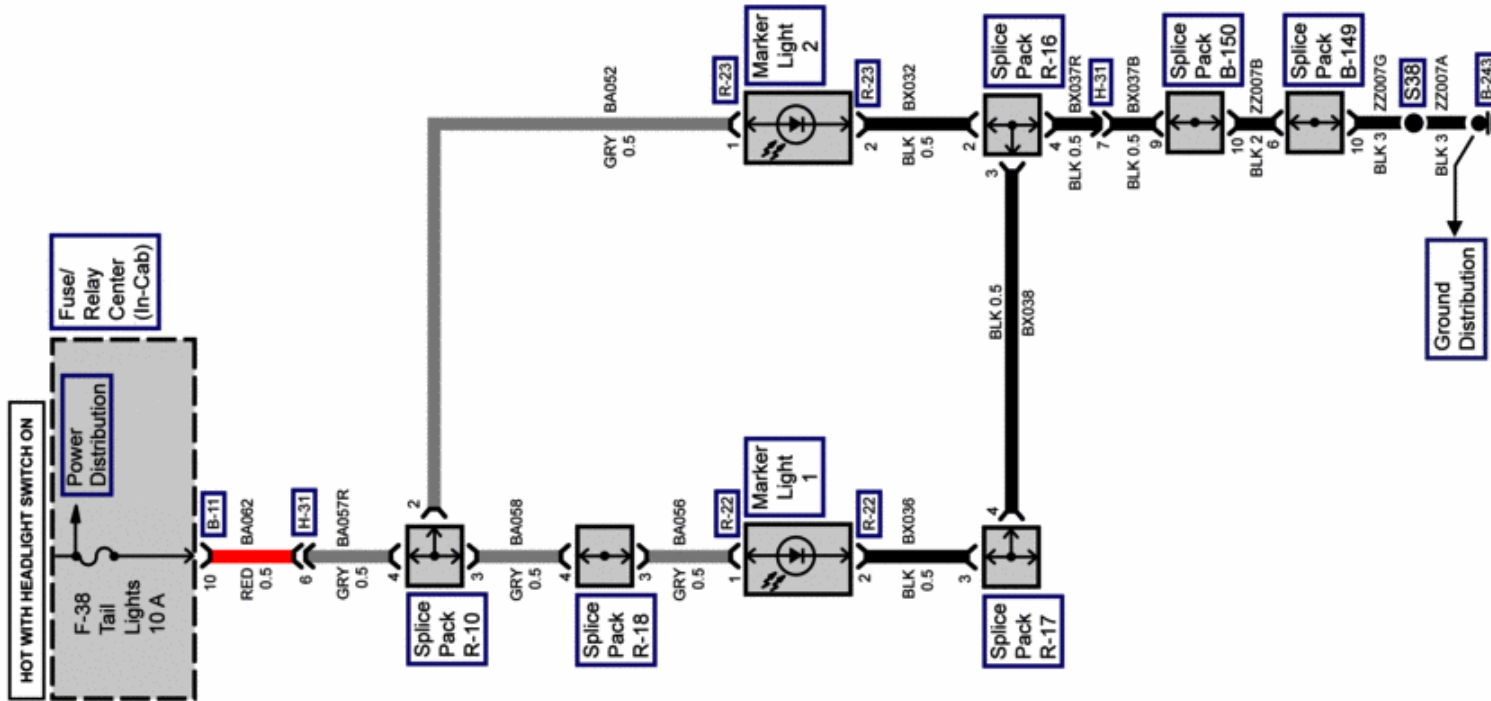
H-113 Rear Chassis Harness to Rear Lamps Harness											
				<ul style="list-style-type: none"> • FURUKAWA X010369 • 8-WAY F (BLK) 				<ul style="list-style-type: none"> • FURUKAWA X010371 • 8-WAY M (BLK) 			
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function				
1	GRN/BLK	JA014D	LEFT TRUN SIGNAL FROM H-52 PIN 29	1	GRN/BLK	JA014R	LEFT TRUN SIGNAL TO CH-123 PIN 3				
2	GRN	CA002D	STOP LIGHT (RH) OUTPUT SIGNAL FROM H-52 PIN 30	2	GRN	CA002R	STOP LIGHT (RH) OUTPUT SIGNAL TO CH-124 PIN 2				
3	BRN	CA001D	STOP LIGHT (LH) OUTPUT SIGNAL FROM H-52 PIN 28	3	BRN	CA001R	STOP LIGHT (LH) OUTPUT SIGNAL TO CH-123 PIN 2				
4	-	-	NOT USED	4	-	-	NOT USED				
5	GRN/RED	BA004D	FUSE F-38 POWER SUPPLY FROM H-52 PIN 24	5	GRN/RED	BA004R	FUSE F-38 POWER SUPPLY TO CH-67 PIN 1, CH-123 PIN 1, CH-124 PIN 1				
6	RED/BLU	KA012D	FUSE F-25 POWER SUPPLY FROM H-52 PIN 33	6	RED/BLU	KA012R	FUSE F-25 POWER SUPPLY TO CH-123 PIN 5, CH-124 PINS 4, 5				
7	BLK	BX001D	GROUND FROM S6	7	BLK	BX001R	GROUND TO CH-123 PIN 6, CH-124 PIN 6, CH-68 PIN 1				
8	GRN/WHT	JA015D	RIGHT TRUN SIGNAL FROM H-52 PIN 31	8	GRN/WHT	JA015R	RIGHT TRUN SIGNAL TO CH-124 PIN 3				

Left Rear Corner of the Frame

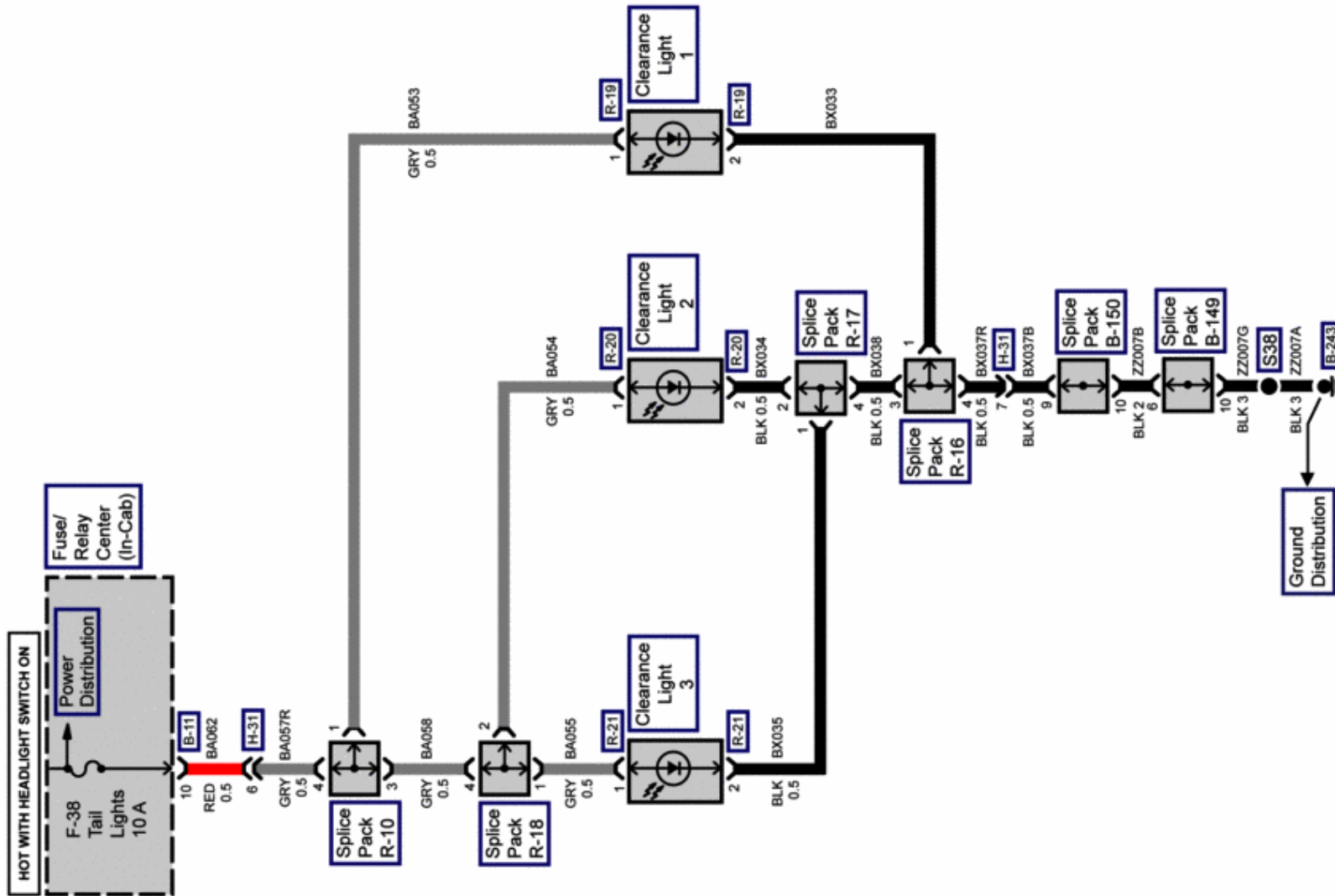
Rear Turn Signal Lights



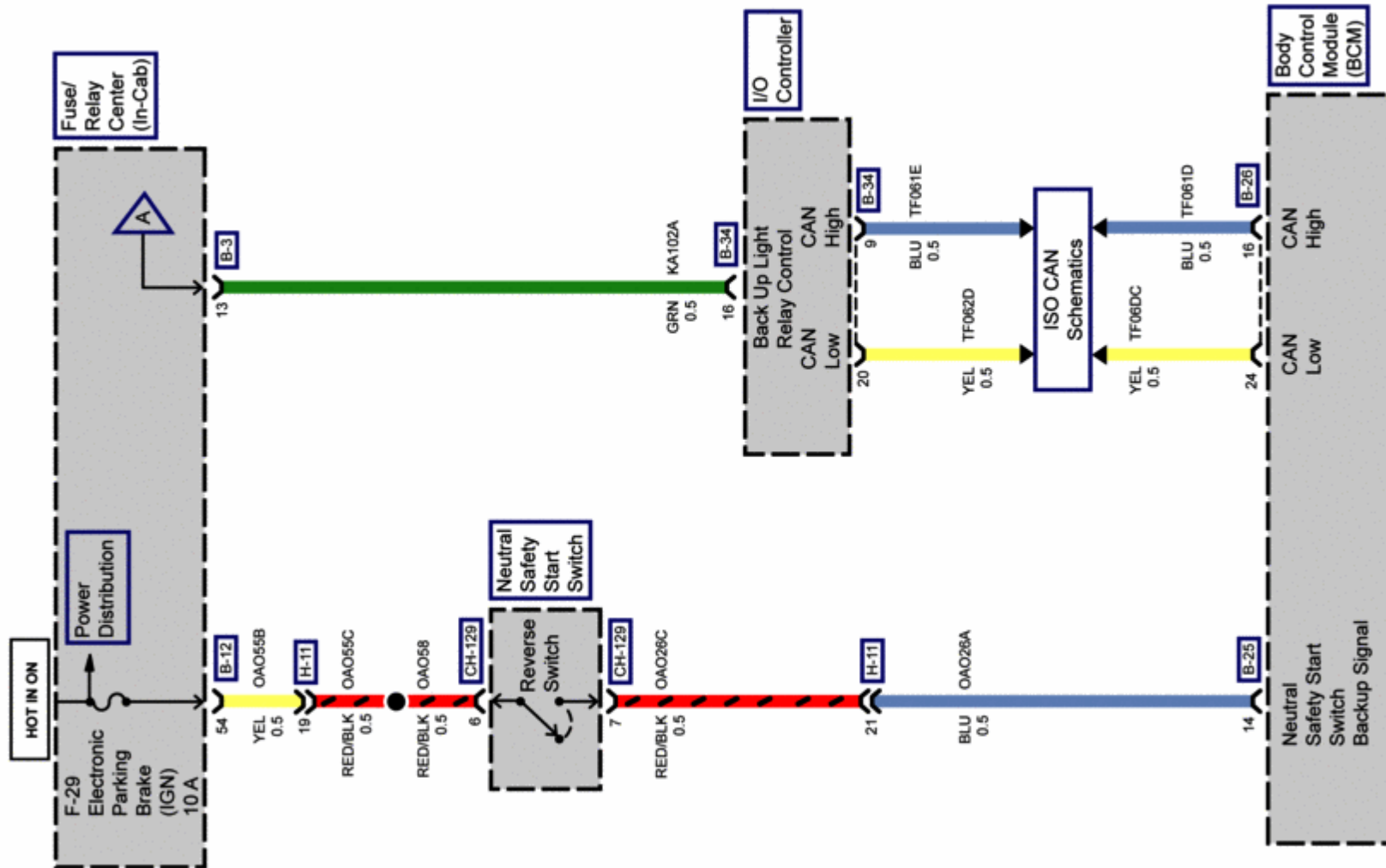
Roof Marker Lights



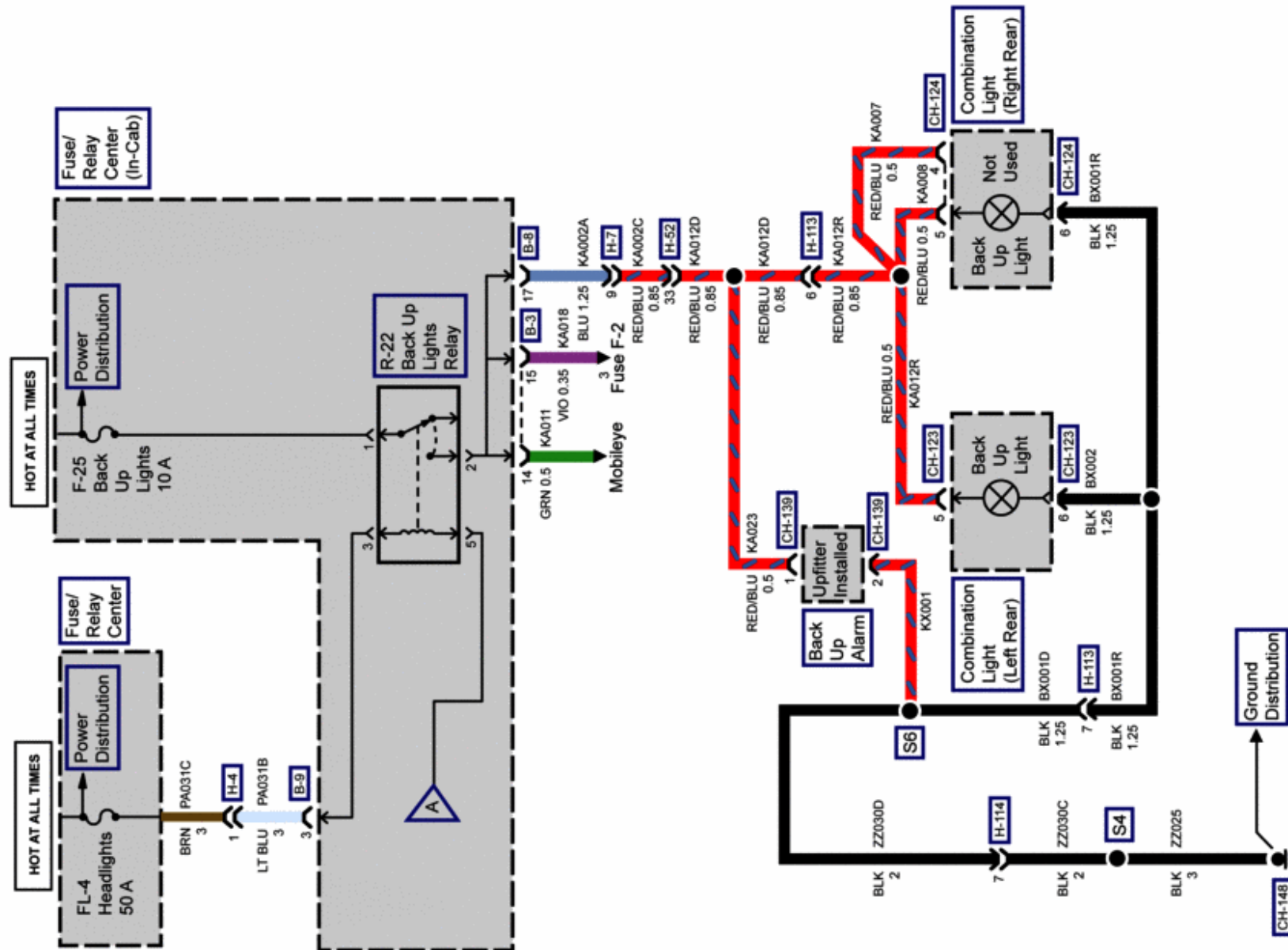
Roof Clearance Lights



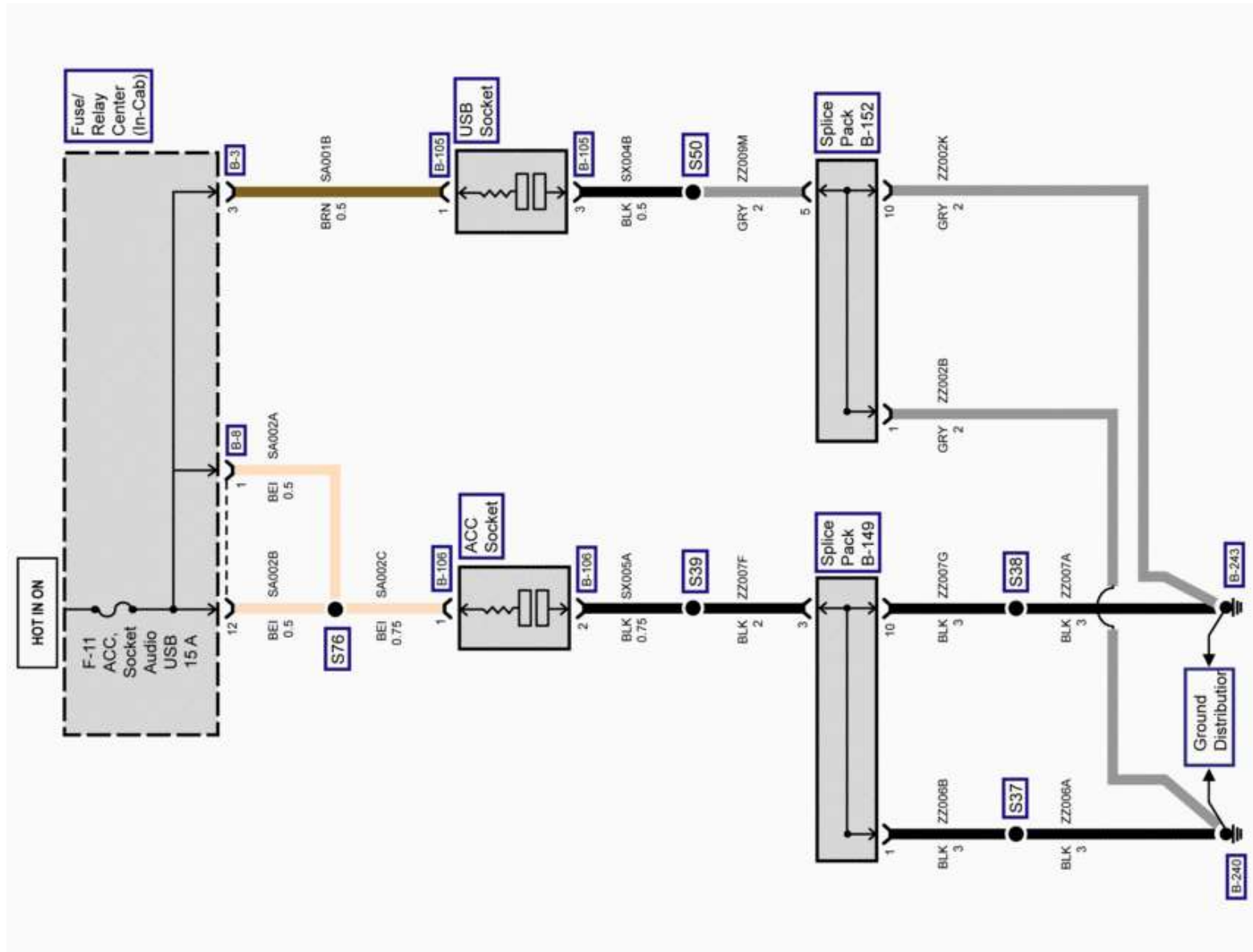
Back Up Light Circuit



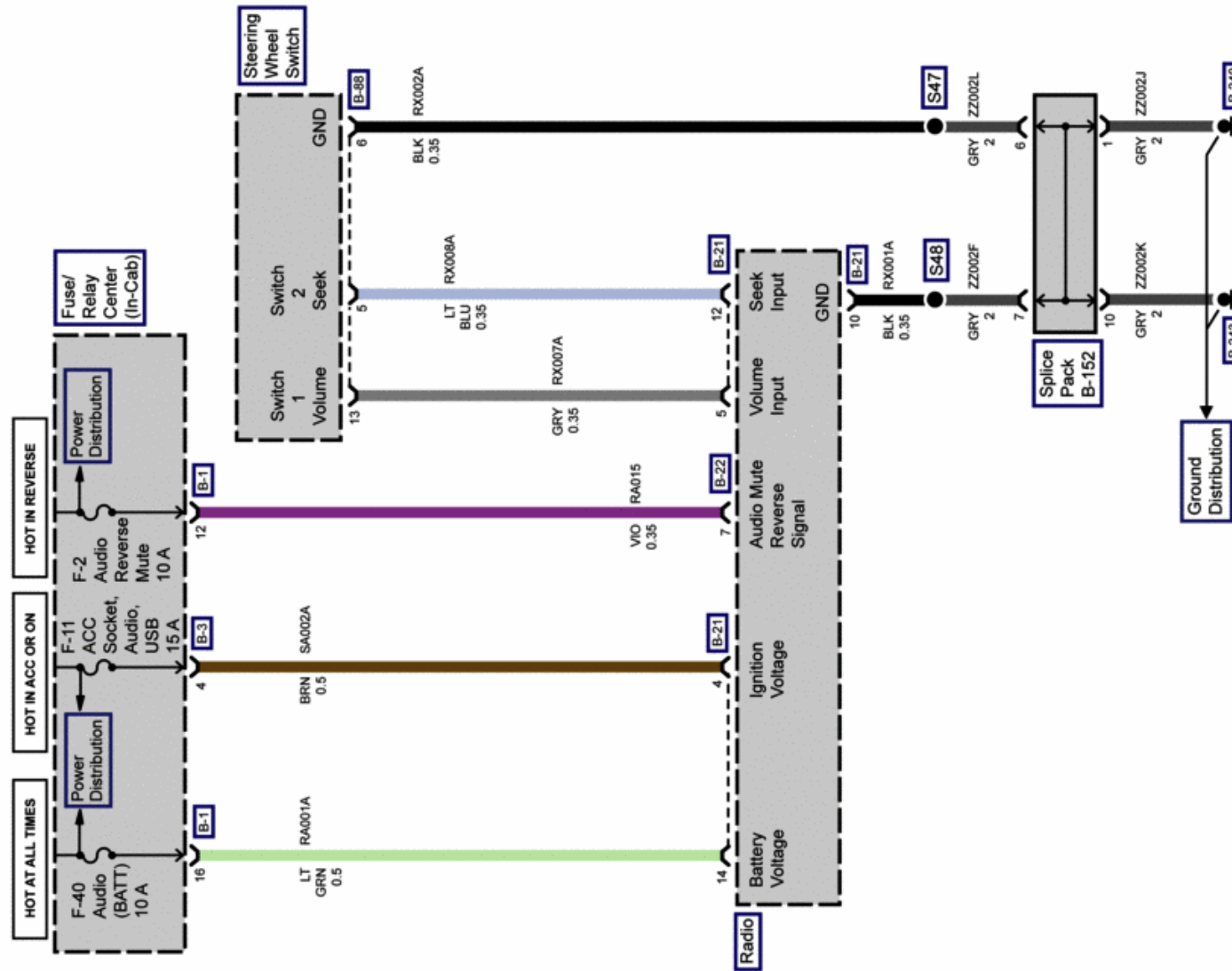
Back up Alarm Circuit



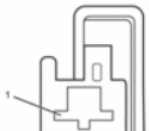
Power Outlet, USB Outlet



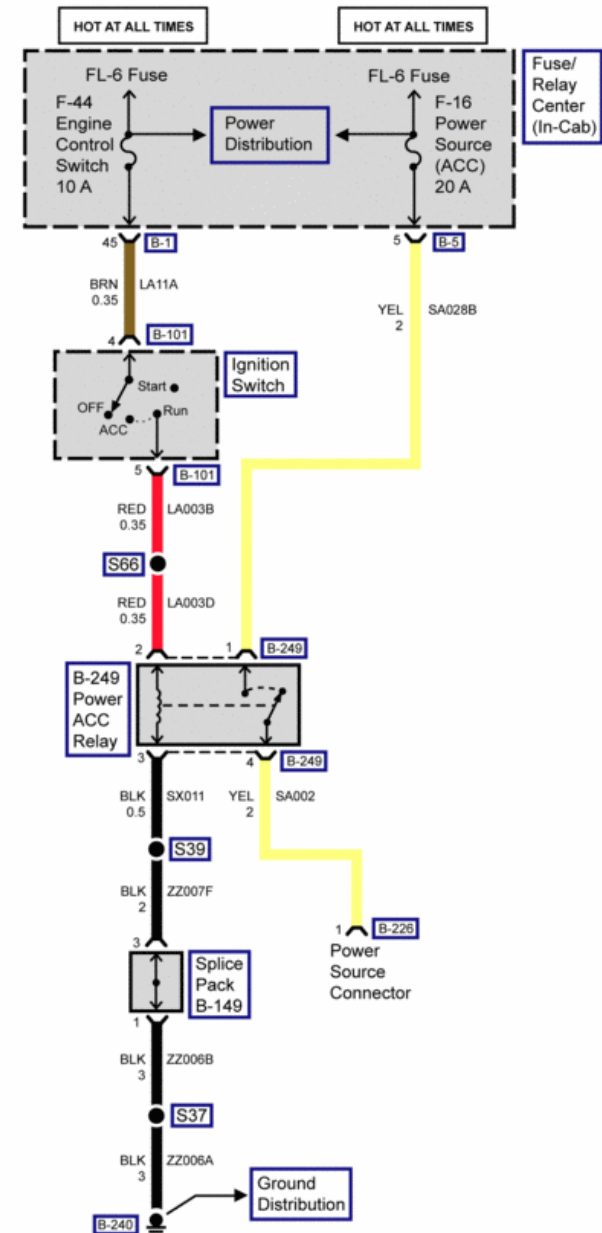
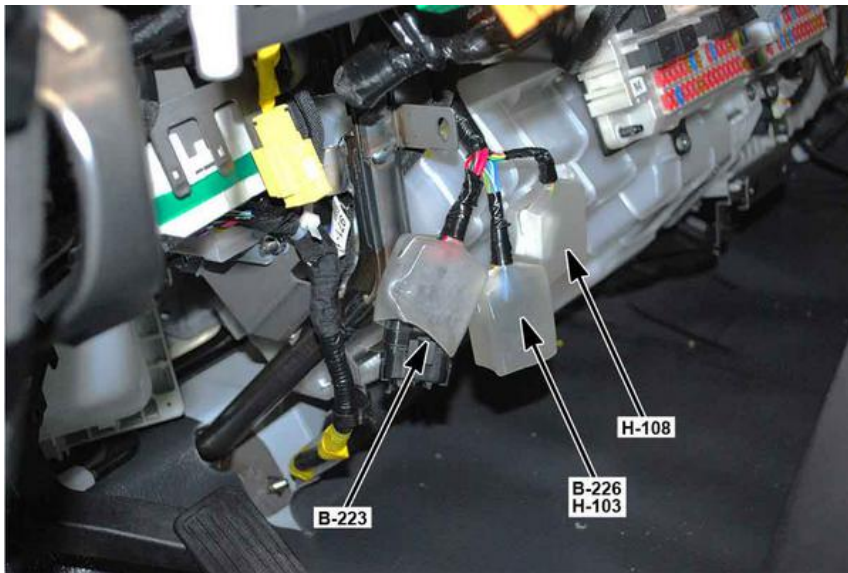
Radio Circuits



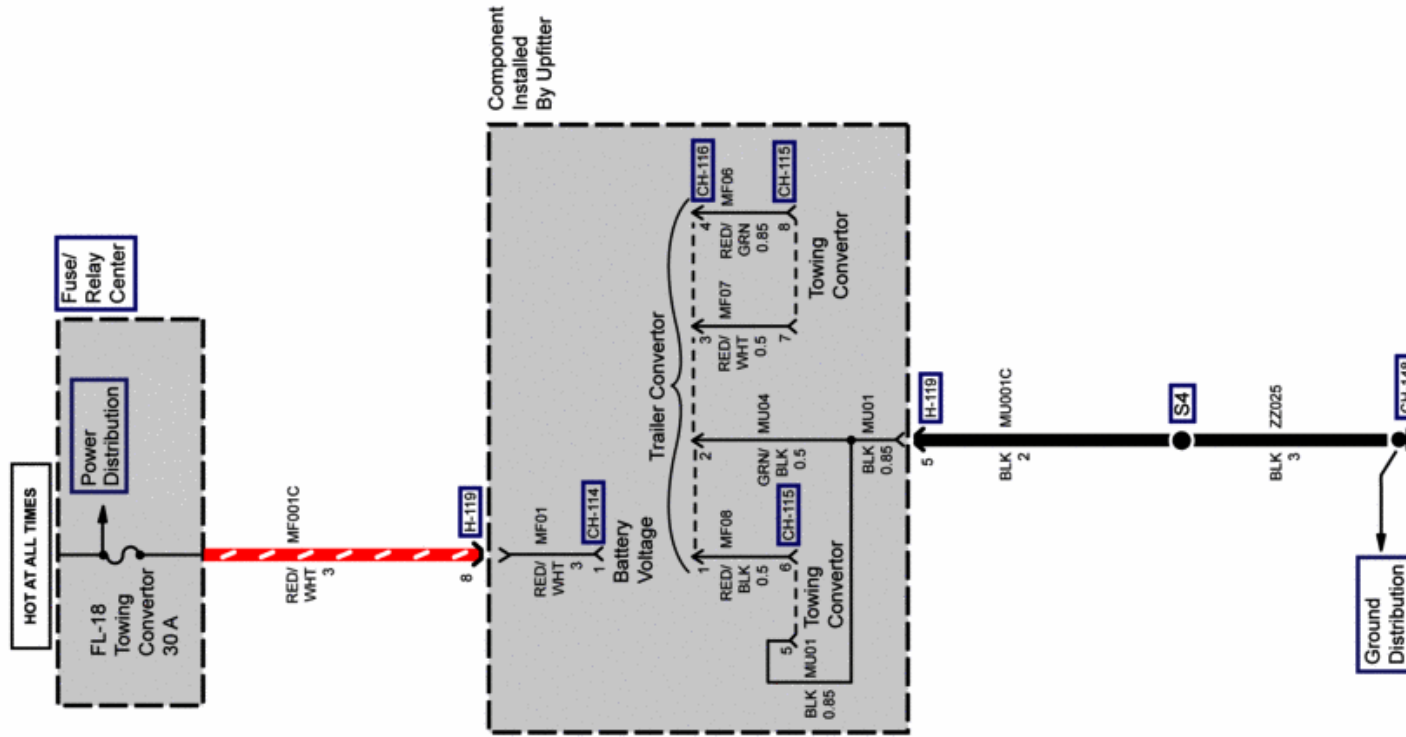
Auxiliary Power Source Circuit Diagram

B-226 Power Source			
			
Connector Part Information		<ul style="list-style-type: none"> • YAZAKI 7323-6317 • 1-WAY F (WHT) 	
Pin	Wire Color	Circuit Number	Function
1	YEL	SA002	FUSE F-11 POWER SUPPLY TO ACC SOCKET B-106 PIN 1

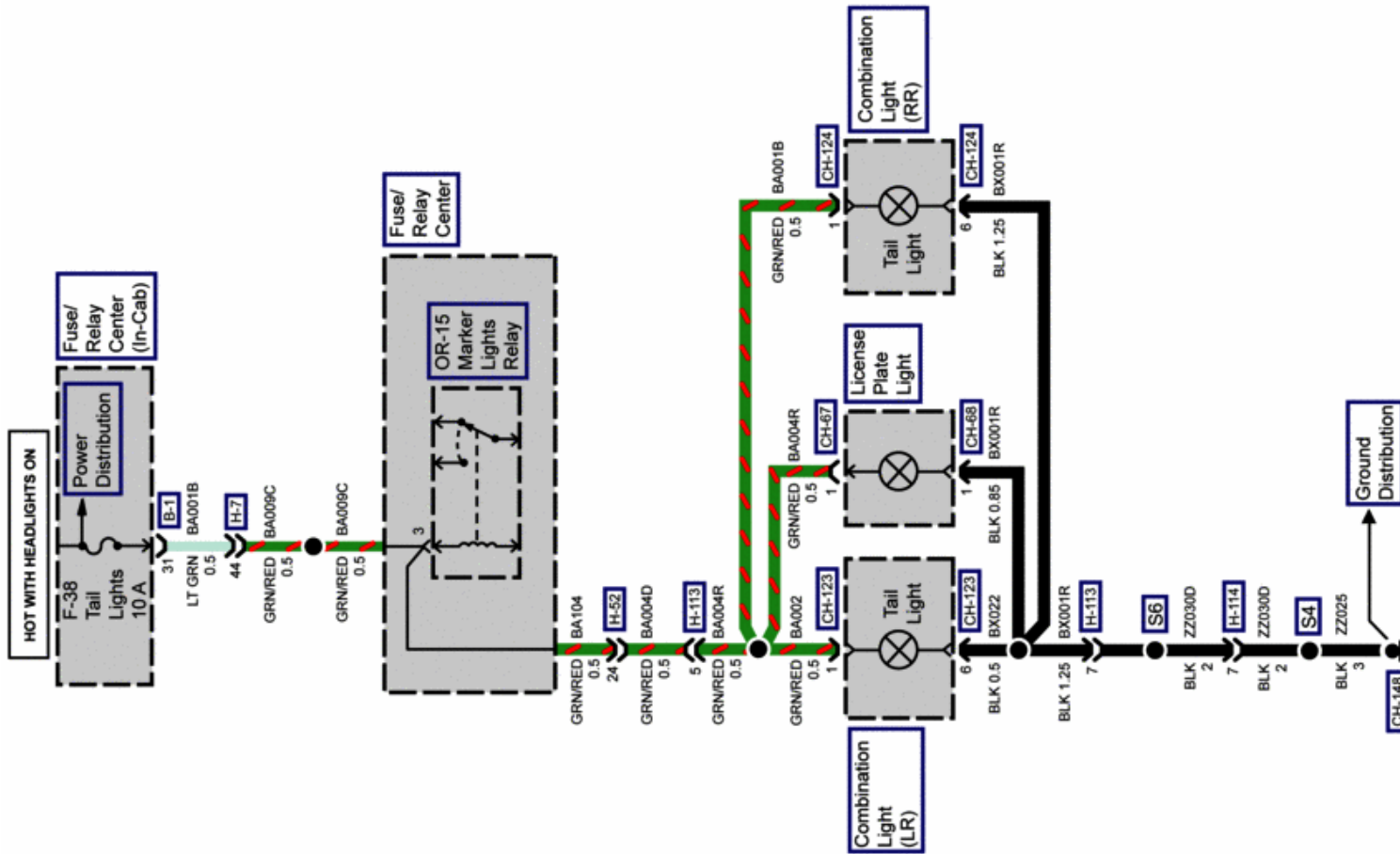
Lower Instrument Panel, Next to the Accelerator Pedal



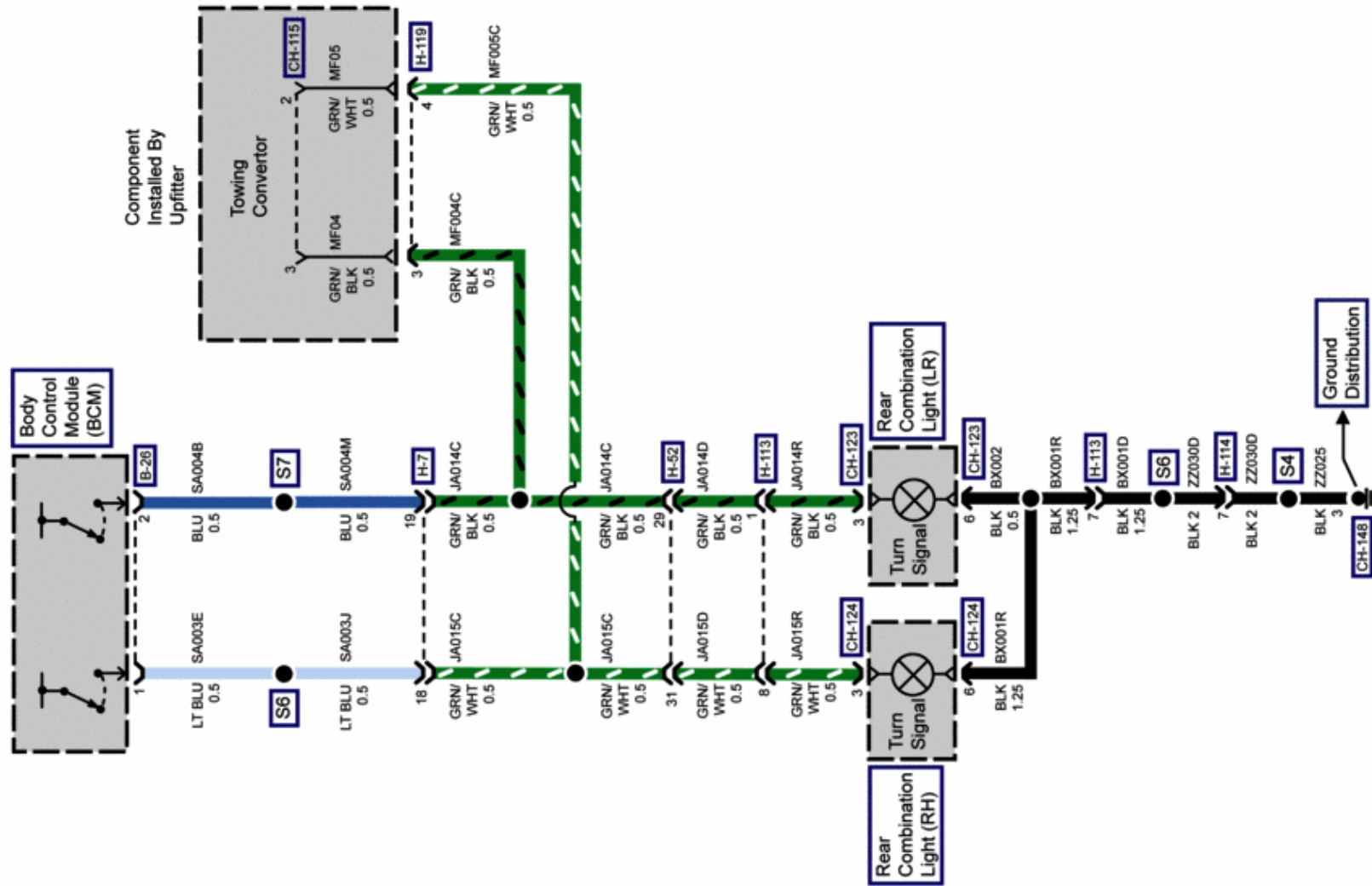
Trailer Brake Connector Circuit Diagram (Page 1 of 5)



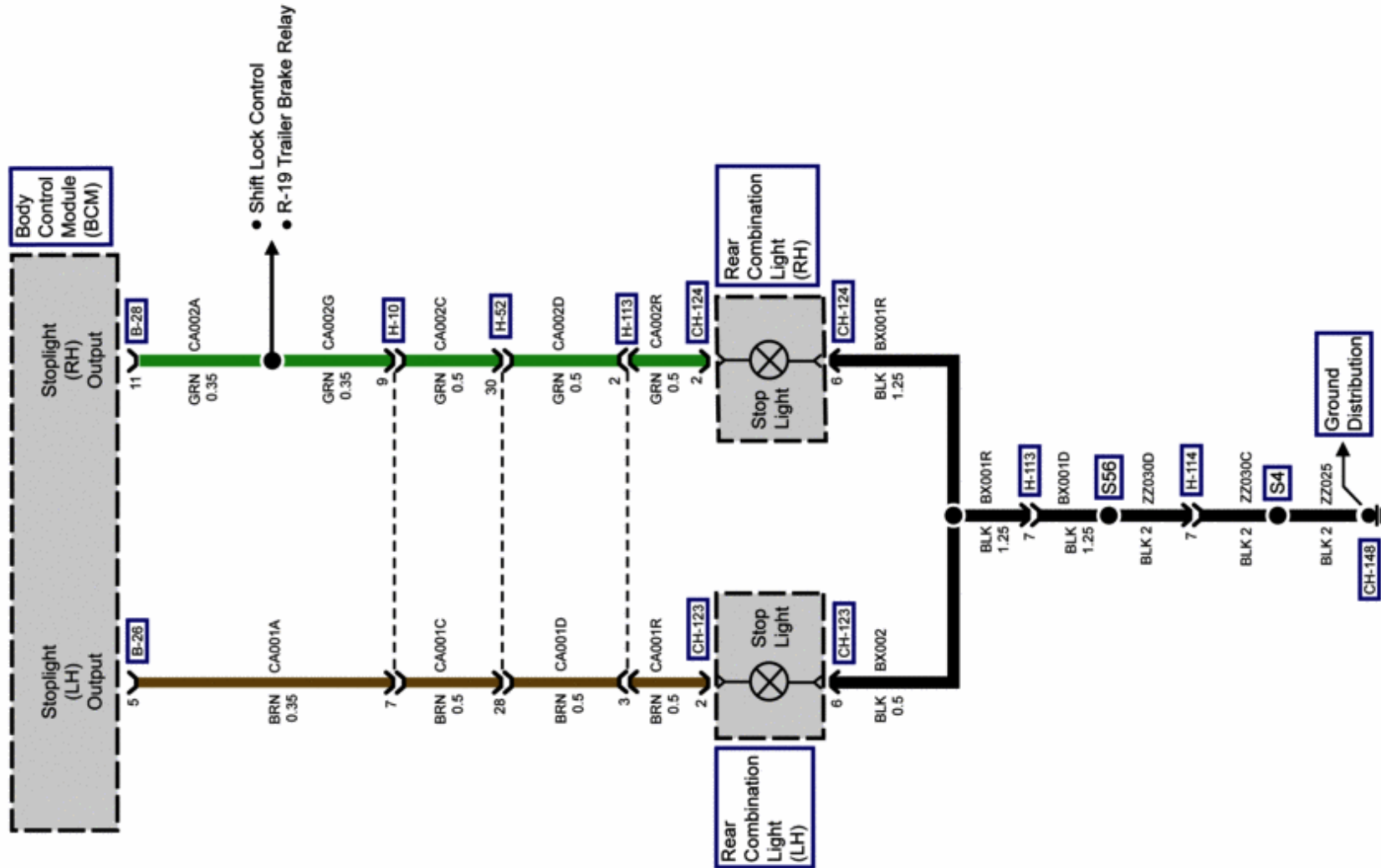
Trailer Brake Connector Circuit Diagram (Page 2 of 5)



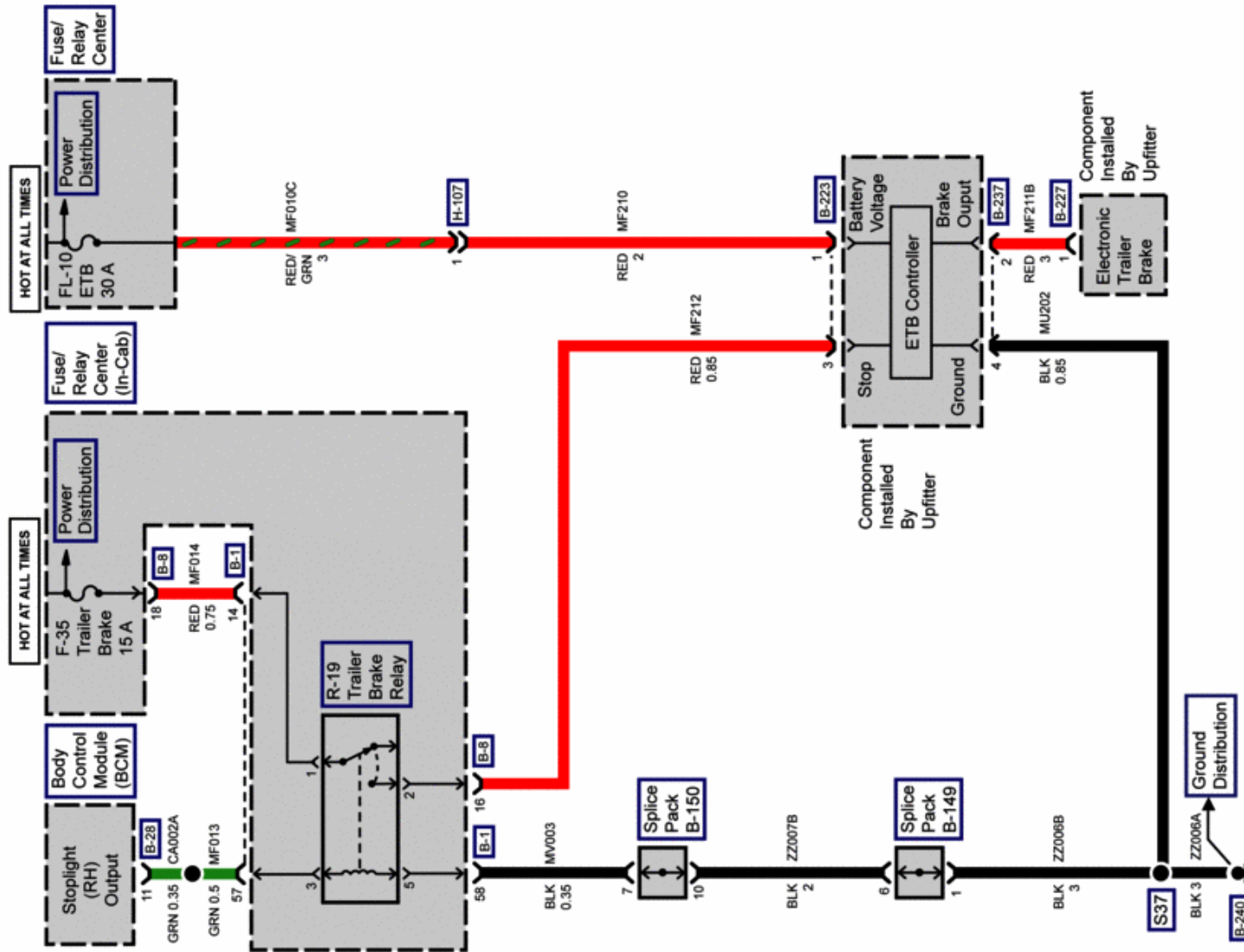
Trailer Brake Connector Circuit Diagram (Page 3 of 5)



Trailer Brake Connector Circuit Diagram (Page 4 of 5)



Trailer Brake Connector Circuit Diagram (Page 5 of 5)



2026 Isuzu Truck

Model Year N-Diesel Trailer Brake Controller Wiring, Activation and Trailer Wiring Connector

Introduction:

Beginning with the 2011 Model Year NPR ECO-MAX, NPR-HD, NQR, and NRR feature integrated electronic trailer brake controller wiring and a dedicated chassis wiring harness for control of trailer stop, turn, and tail lamps. **Note: the electronic brake controller is not supplied with the vehicle.**

Integrated Electronic Brake Controller Wiring and Activation:

The connection point for an electronic trailer brake controller is located behind the dash panel within the 4-pin connector shown below (B-123). The brake signal wire in Pin 2 (MF211B) is activated by the installation of a relay in the "R-19" position within the in-cab relay console located in the center of the dash just above floor level.

B-223 Location



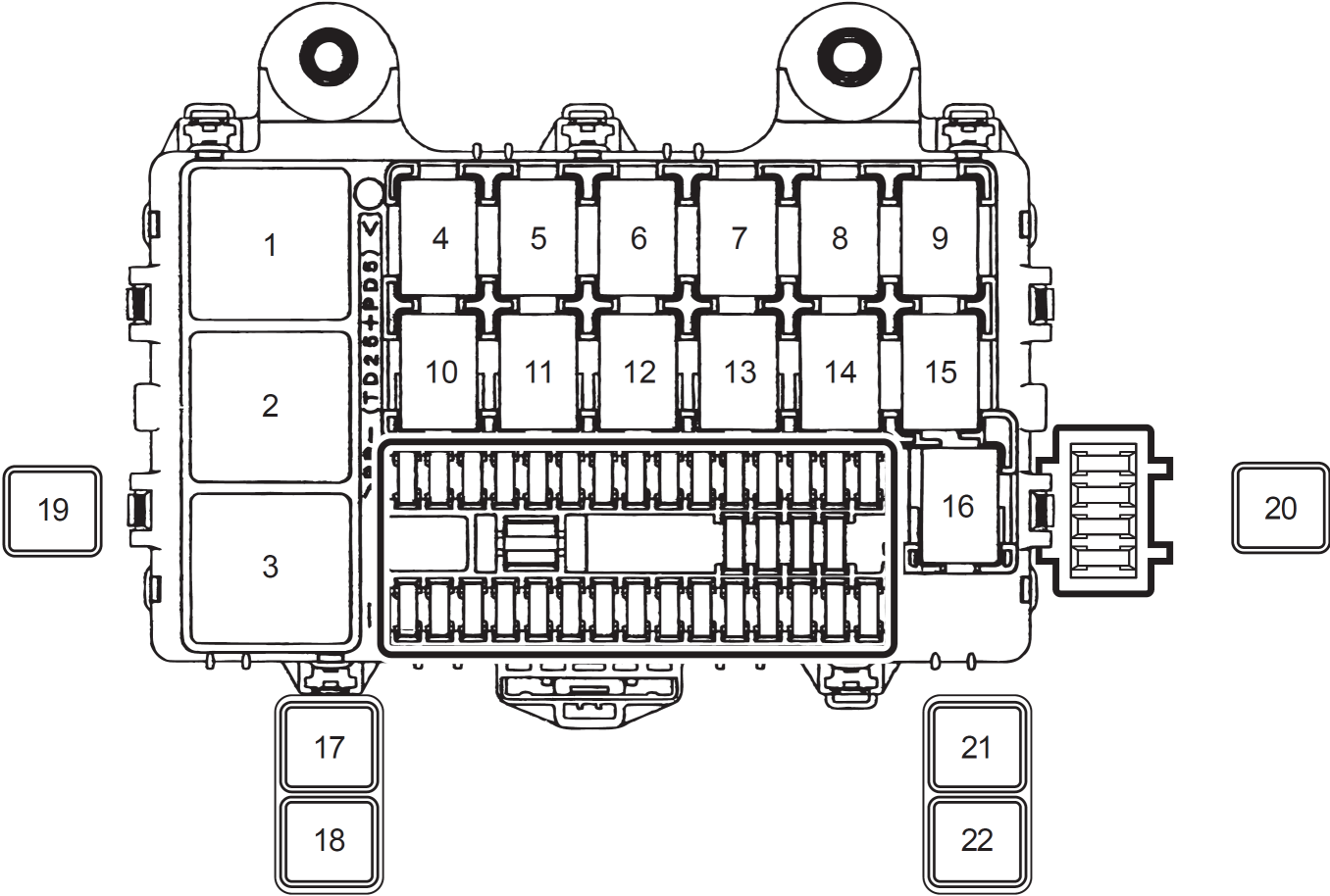
B-223 Connector

B-223 ETB_CONT			
Connector Part Information		<ul style="list-style-type: none"> • DELPHI 12010974 • 4-WAY M (BLK) 	
Pin	Wire Color	Circuit Number	Function
1	RED	MF210	FUSE FL-10- POWER SUPPLY FROM H-107 PIN 1
2	RED	MF211B	BRAKE OUTPUT SIGNAL TO B-237 PIN 1
3	RED	MF212	FUSE F-35 POWER SUPPLY FROM B-8 PIN 2
4	BLK	MU202	GROUND FROM S37

2026 Isuzu Truck

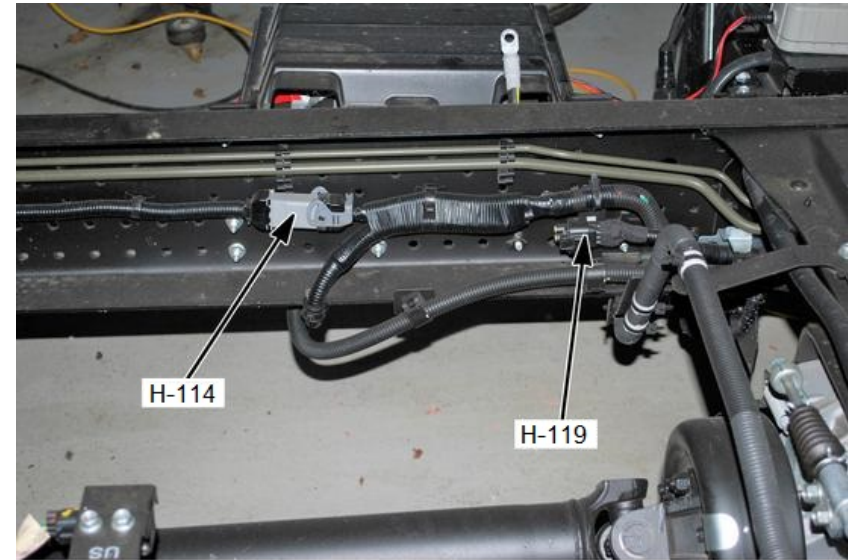
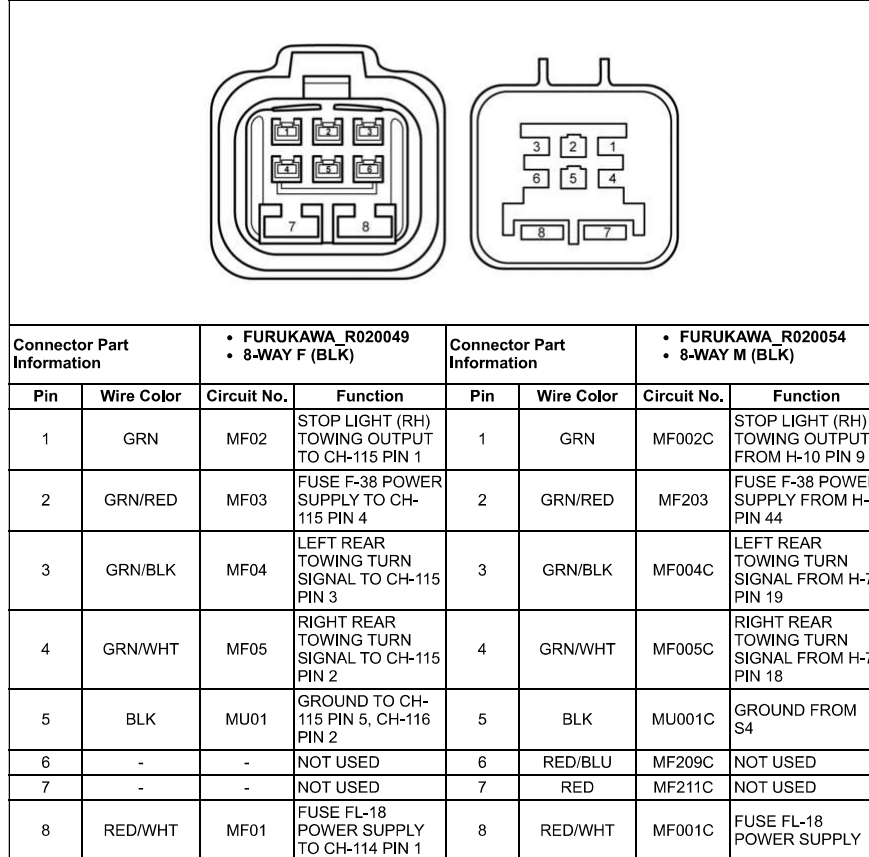
The R19 relay (P/N 8-97173-037-1) is not supplied with the vehicle. The relay can be ordered from your Authorized Isuzu Dealer's parts Department.

In-cab Fuse Panel



Trailer Wiring Connector Diagram

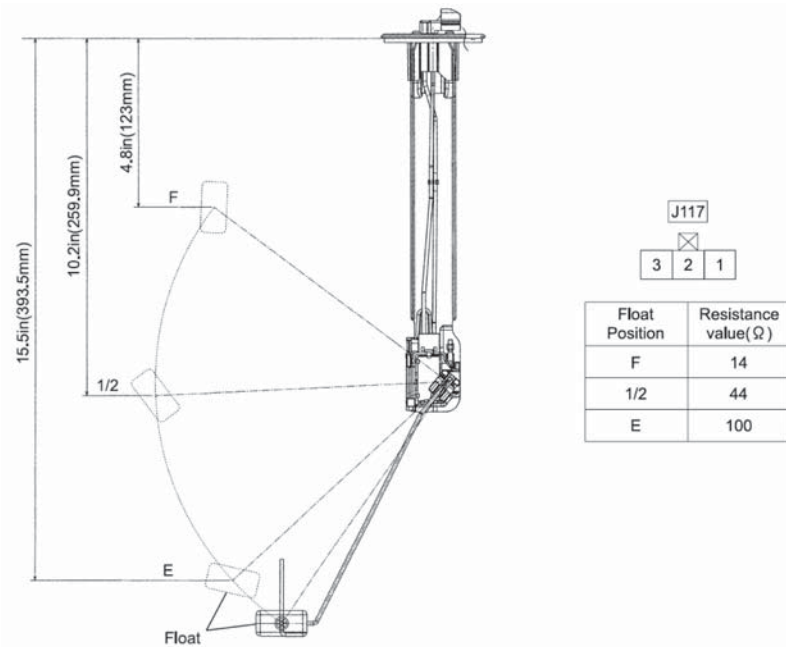
H-119 Front Frame Harness to Towing Converter (Upfitter installed)



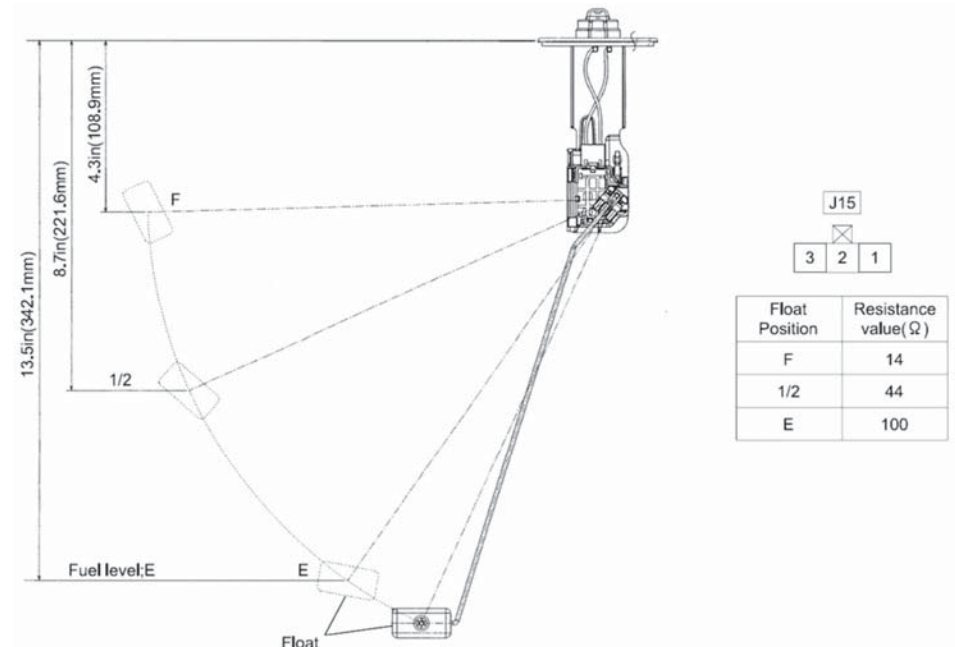
Left Inner Side of the Frame Rail, Next to the Batteries.

Fuel Tank Sending Unit Resistance (In-Frame Tank & Side Frame Tank)

Fuel Tank Sending Unit Resistance (In-Frame Tank)



Fuel Tank Sending Unit Resistance (Side Frame Tank)



CAN Interface Converter Information

Isuzu CAN Interace Converter Overview

- Starting with the 2025MY N-Series Diesel, read-only SAE J1939 CAN information is available from the chassis without the need for additional equipment.
 - N-Series diesel chassis from 2017-2024MY require an optional CAN Interface Converter to access ready-only SAE J1939 CAN information. See the corresponding model year's Body Builder Guide for additional details.
- An optional extension harness (RPO Code I7F; P/N:7552536010) is available that converts the standard connector into an SAE J1939 connector.
- The CAN data broadcasted from the CAN Interface Converter module is a read only SAE J1939 broadcast; commands, requests, and acknowledgements are not supported.
- The Isuzu N-Series uses twisted pair cables with no shield. The electrical properties (resistance, impedance, capacitance, etc.) are defined in SAE J1939-15 Reduced Physical Layer.

2026 Isuzu Truck

Instructions for FMS Jumper Harness Installation

- The optional FMS Jumper Harness (P/N 7552536010) provides a standard 9-pin heavy duty connector for the integration of fleet management systems (FMS) and other telematics devices that require read-only CAN information from the chassis.
 - To comply with California regulations, the final location of the provided 9-pin heavy duty connector (black) should not be within proximity of the existing chassis OBD connector. Figure 1 shows the restricted area where connector mounting should be avoided.
 - The FMS Jumper Harness is located within the passenger side tray below the airbag as shown in Figure 2.
- 1 Remove the FMS Jumper Harness from its bag and find the connectors on either end.
 - a) Identify the white 6-pin female connector located on one end of the harness shown in Figure 3.
 - b) Identify the black 9-pin heavy duty connector located on the other end of the harness Figure 3.
 - 2 Find the white 6-pin chassis side connector located at the edge of the dash adjacent to the cup holder as shown in Figure 4.
 - a) Connect the white 6-pin female end of the FMS Jumper Harness with this connector.
 - 3 Route the FMS Jumper Harness so that the 9-pin heavy duty connector's final location is outside of the restricted area indicated in Figure 1.
 - a) The harness is 3 feet in length. Harness routing and the mounting location of telematics devices are at the installer's discretion.
 - 4 Connect your FMS or other CAN device to the 9-pin heavy duty connector of the FMS Jumper Harness.

Important Note:

See Body Builder Guide Section 2 – Electrical Wiring and Harnessing for chassis wiring guidance

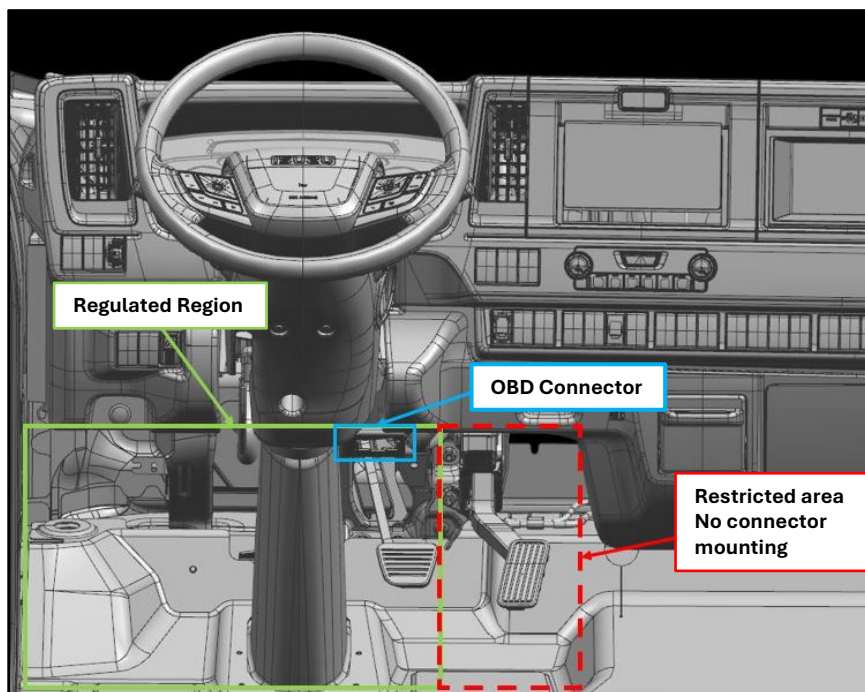


Figure 1

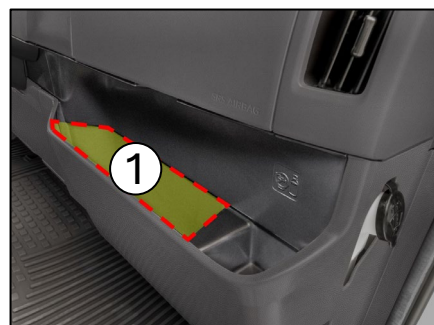


Figure 2

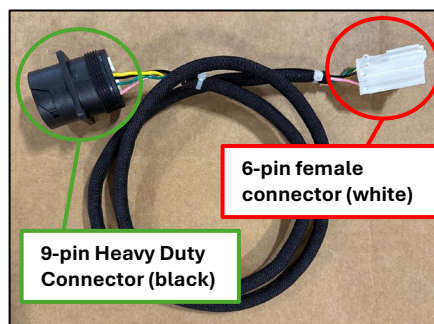


Figure 3

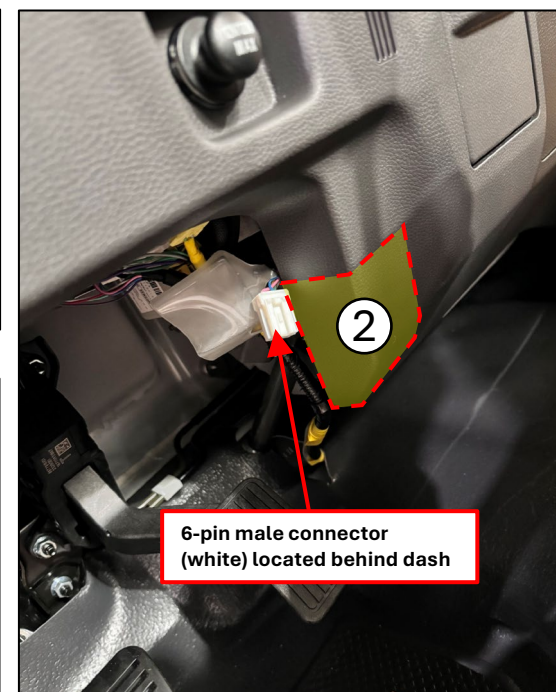


Figure 4

2026 Isuzu Truck

Isuzu CAN Interface Converter General Guidelines

- Upfitters link their own control unit or telematics device to the CAN Interface Converter module via a connector. The upfitter is responsible for ensuring that the external CAN bus is used correctly.
- Control units connected to a CAN bus must be able to handle up to 100% of the CAN bus load and have no significant functional limitations or malfunctions.
- Avoid closing control loops over the CAN. The access time is relatively long and fast control loops require large amounts of bandwidth.
- Avoid CAN communication when the engine control switch is in the LOCK or ACC positions.
- Avoid CAN communication during the start sequence of the control units connected to the external CAN bus.
- During an engine start sequence (starter motor turning) the supply voltage can be low and communication from the CAN Interface Converter module cannot be guaranteed.
- Fault codes related to communication with the CAN Interface Converter module should not be set when the system voltage is under 9V.
- When the engine control switch is turned to the ON position, the CAN Interface Converter module starts sending messages within a few seconds.

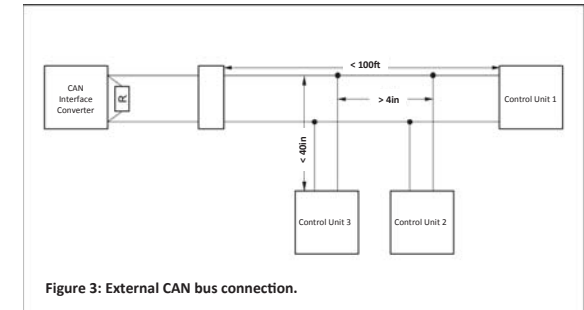
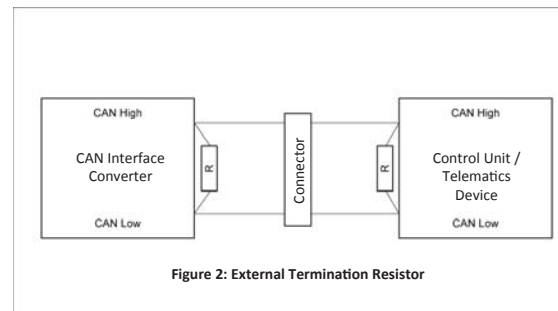
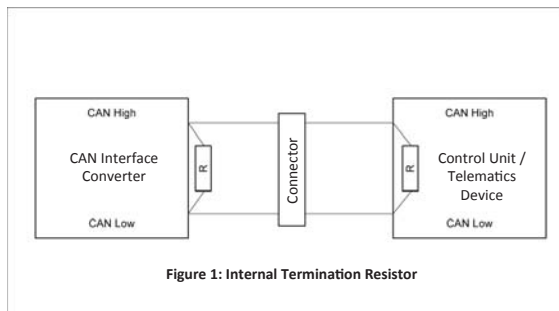
CAN Interace Converter Connection Guidelines

Termination Resistor

- The CAN bus cable must be connected using a 120 Ohm resistor at each end in accordance with SAE J1939-15 Physical Layer. This allows CAN communication without interference.
 - The CAN Interface Converter harness contains one of the two 120 Ohm resistors.
 - The second termination resistor is required at the control unit / telematics device end of the harness.
- Certain devices have a built-in termination resistor (Figure 1) while others are not terminated. If the control unit is not equipped with an internal termination resistor, an external termination resistor must be connected as close to the control unit as possible (Figure 2).

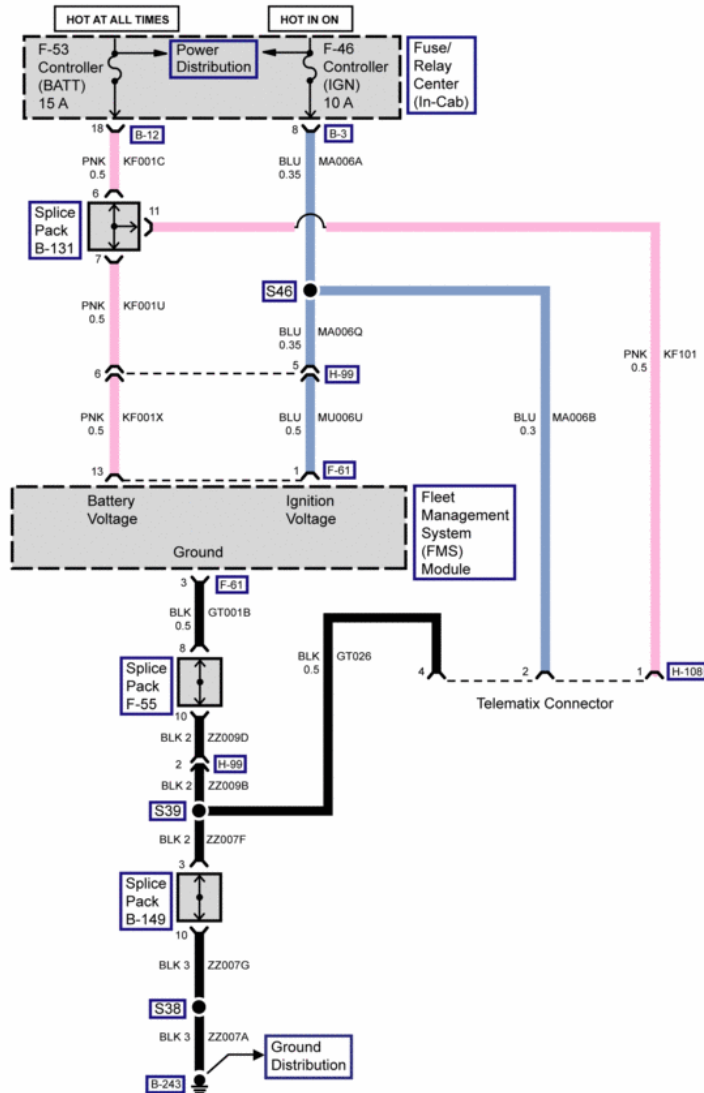
Harness Connection

- The harness should be as short as possible to minimize the effect of electromagnetic interference.
- The length of the main cable must not exceed 100 feet between the CAN Interface Converter connector and Control Unit 1 (Figure 3).
- If more than one control unit is connected, the length of the cables between the main cable and additional control unit should not exceed 40 inches (Figure 3).
- There should be at least 4 inches between the nodes of each control unit cable on the main bus cable (Figure 3).
- The number of devices in the external CAN network should not exceed 9 control units.

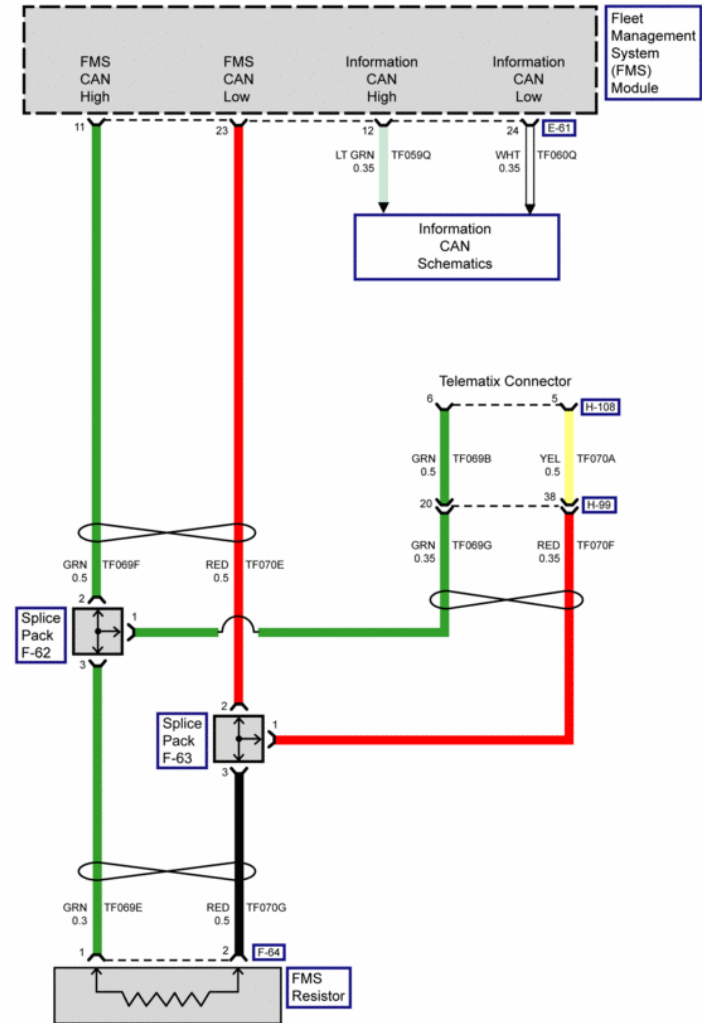


CAN Interface Converter Circuit Diagram

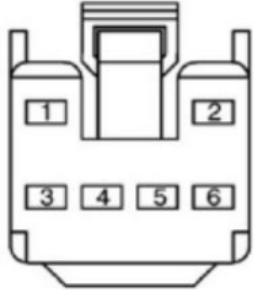
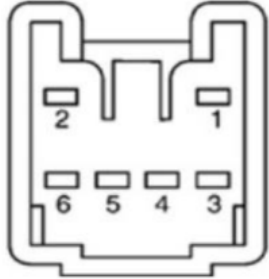
Module Power and Ground



Communication



CAN Interface Converter Connector

Connector End View (Vehicle Side)				Mating Connector (Control Unit / Telematics Equipment)			
							
Connector Part Information		<ul style="list-style-type: none"> • YAZAKI 7323-8365 • 6-WAY F (WHT) 		Connector Part Information		<ul style="list-style-type: none"> • 6-WAY M 	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
1	PNK	KF101	FUSE F-53 POWER SUPPLY	1			
2	BLU	MA006B	FUSE F-46 POWER SUPPLY FROM S46A	2			
3	-	-	NOT USED	3	-	-	
4	BLK	GT026	GROUND S39	4			
5	YEL	TF070A	CAN LOW	5			
6	GRN	TF069B	CAN HIGH	6			

CAN Interface Converter Output

Summary of the messages supported by the CAN interface.
(Messages are sent to the external CAN bus from the vehicle.)

Message sent from vehicle	Identifier (Hex)	Specification	ISUZU FMS Interface
Cruise Control/Vehicle Speed 1	18 FE F1 00	SAE J1939-71	*
DM1(DTC record)	18 FE CA **	SAE J1939-73	*
Electronic Engine Controller 1	0C F0 04 00	SAE J1939-71	*
Electronic Engine Controller 2	0C F0 03 00	SAE J1939-71	*
Electronic Transmission Controller 5	1C FE C3 41	SAE J1939-71	*
Electronic Transmission Controller 2	18 F0 05 03	SAE J1939-71	*
Engine Hours, Revolutions	18 FE E5 41	SAE J1939-71	*
Engine Temperature 1	18 FE EE 00	SAE J1939-71	*
FMS-standard Interface Identity/Capabilities	1C FD D1 41	SAE J1939-71	*
Fuel Consumption (Liquid)	18 FE E9 41	SAE J1939-71	*
Fuel Economy (Liquid)	18 FE F2 41	SAE J1939-71	*
High Resolution Vehicle Distance	18 FE C1 41	SAE J1939-71	*
Idle Operation	18 FE DC 41	SAE J1939-71	*
Auxiliary Input/Output Status 1	18 FE D9 00	SAE J1939-71	*
Time/Date	18 FE E6 41	SAE J1939-71	*
Vehicle Distance	18 FE E0 41	SAE J1939-71	*
Vehicle Identification	18 FE EC 41	SAE J1939-71	*
Wheel Speed Information	18 FE BF 0B	SAE J1939-71	*

NOTES

- * Isuzu CAN Interface provides this message.
- ** Applies to all values between 00h and FFh.

If additional CAN message information is required, call 1-770-740-1620 Ext. 4491 (East Coast) or 1-714-935-9327 (West Coast).

Cab Body Plug

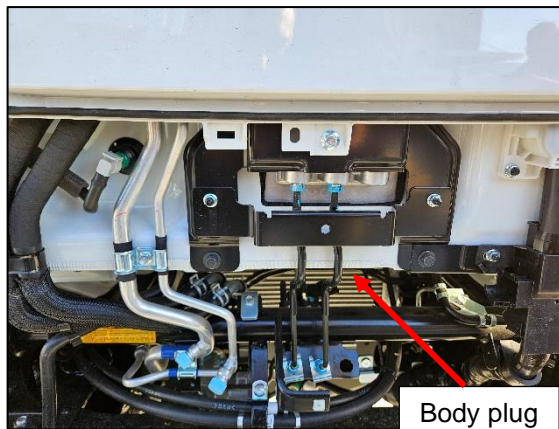
To avoid drilling through the cab floor for electrical wiring, there is a body plug access point for routing wires into/out of the cab. Follow the instructions below to access this body plug.

Disassembly of Front Grille

1. Remove one (1) phillips head screw <REUSE>.
2. Remove grille from cab by gently pulling outward to release five (5) top clips, one center clip, and two (2) lower clips.

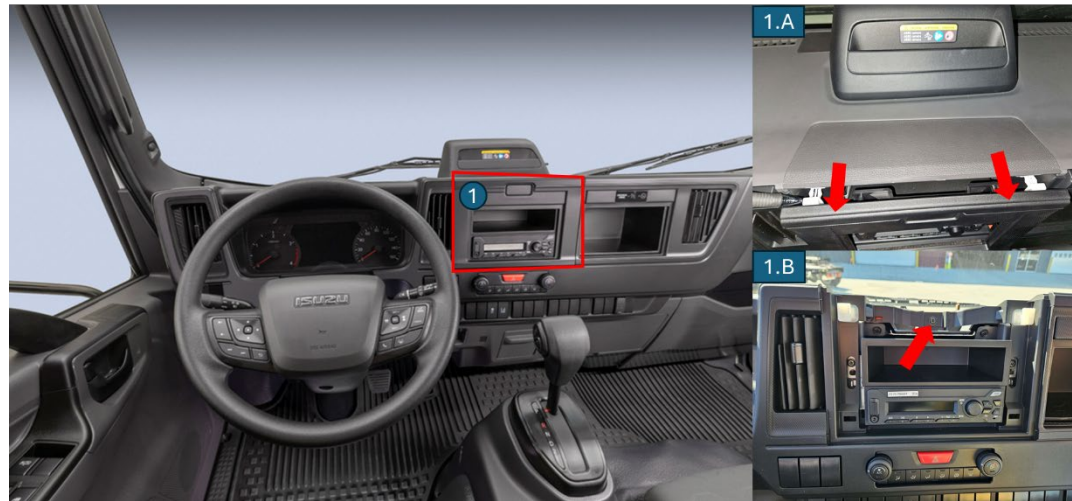


3. From front of vehicle, locate body plug in middle of vehicle behind brake lines. Remove plug, cut approximately a 1"x1" X in the middle, set aside.



Upper Dash Trim Removal

- STEP 1: Remove radio trim (1.A) and retaining screw (1.B). Gently pull dash trim (no more than 1/2") outward.



- STEP 2: Remove air bag indicator trim (2.A) and air bag indicator harness (2.B). Remove connectors from switches and or blanking plates (make note of each connectors position before removal). Set aside dash trim.



Back Up Camera Installation Information

Isuzu Back Up Camera Installation Overview

- The Alpine HCE-C1100 Back Up Camera is available with RPO code I2V (Audio system with 7" diagonal color touch screen with backup camera).
- RPO codes I1V (Audio system with 7" diagonal color touch screen) and I2V (Audio system with 7" diagonal color touch screen with backup camera) will both include a pre-wired camera input connection at the end of the chassis frame. (Figure 5)

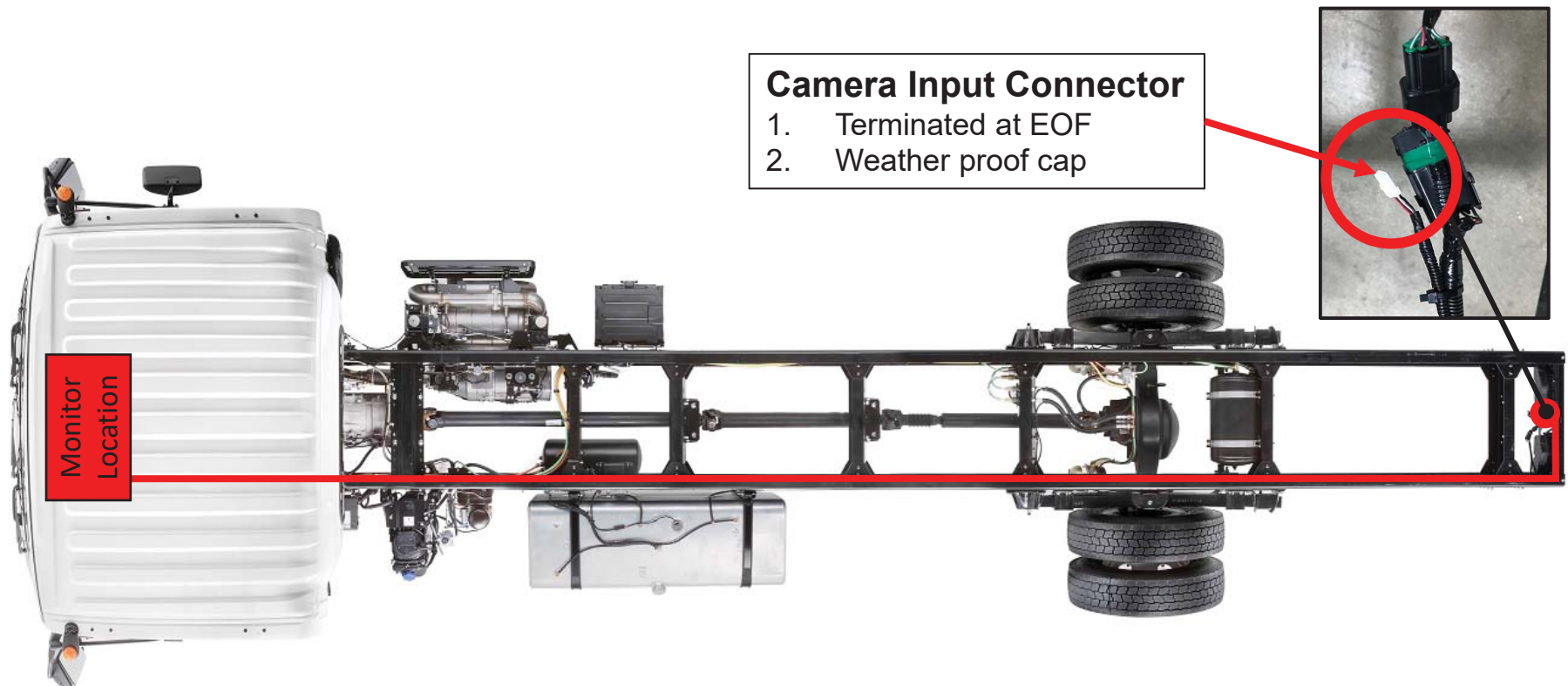


Figure 5 – Camera Installation Overview

Back Up Camera Installation Kit Part Numbers

KIT PART NUMBER: 8975462720			
NO.	PART NUMBER	DESCRIPTION	QTY
1	8975438760	HCE-C1100 Back Up Camera	1
2	8975438730	Camera Bracket/Shroud	1
3	8975438750	23' Camera Extension Harness	1

Figure 6 – Camera Install Kit Part Numbers

- When RPO code I2V (Audio system with 7" diagonal color touch screen with backup camera) is selected, the Back Up Camera Kit will be shipped in the cab, in a poly bag, band tied to the center seat. (Figure 9).
- The Back Up Camera Kit will include the parts listed in Figure 6, provided in a sealed package. The package also includes a piece of shrink tube that should be used to protect the connection between the camera pigtail and the 23' extension harness (see the circled location in Figure 8 below).



Figure 7 – Camera Install Kit



Figure 8 – Camera Install Kit Shipping Location



Figure 9 – Camera Install Kit Shipping Location

Isuzu Back Up Camera Mounting Information

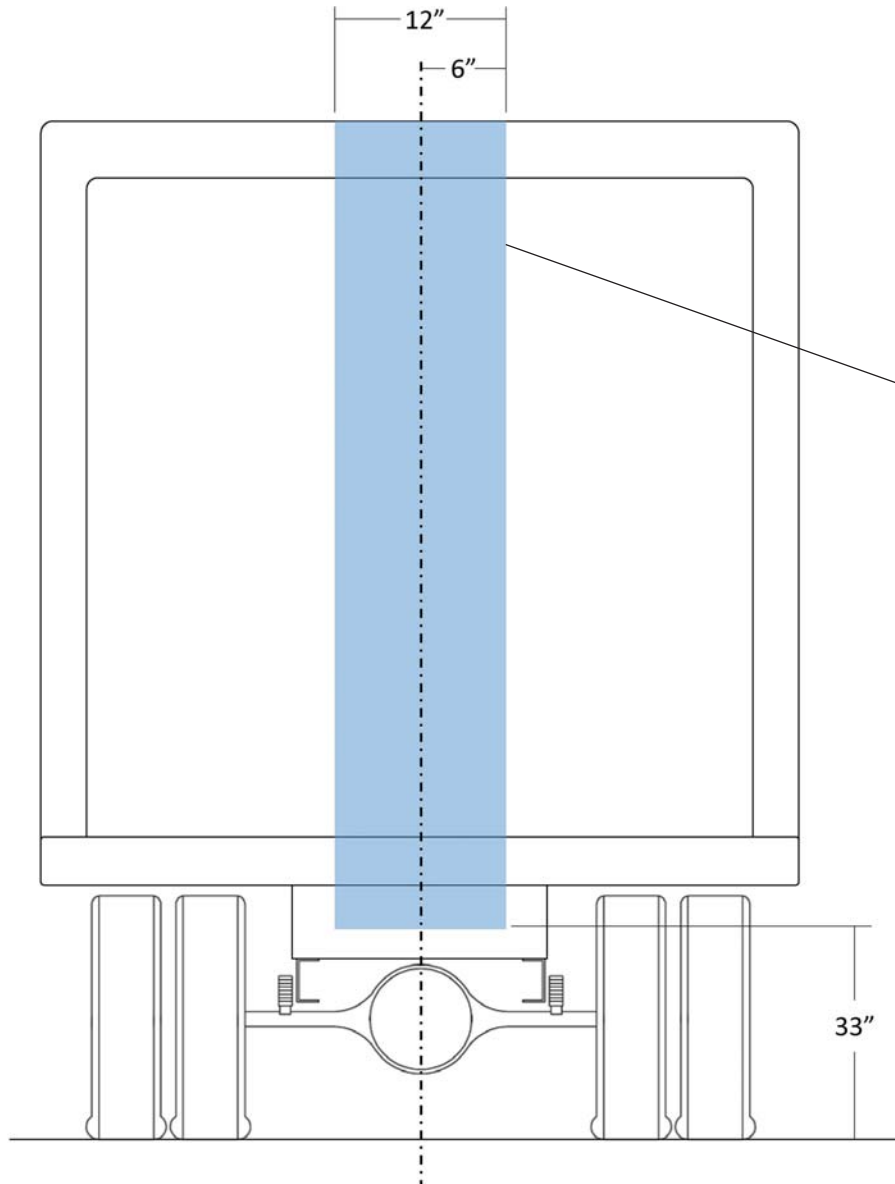


Figure 10 – Camera Mounting Area

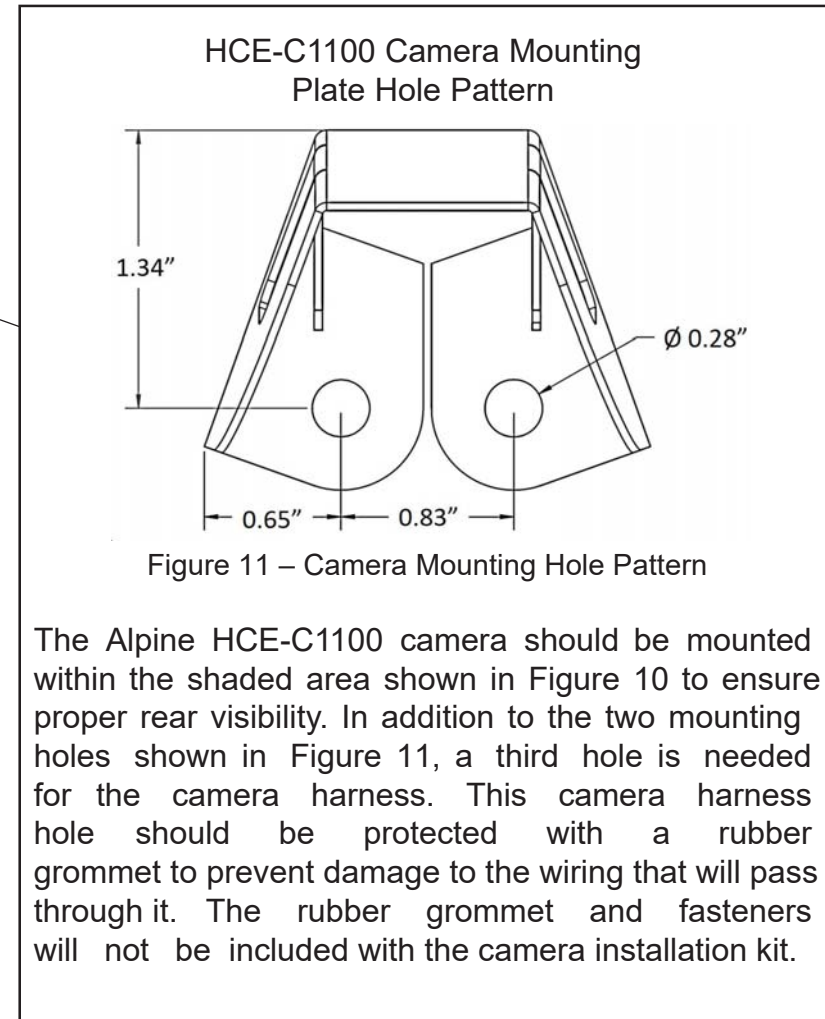


Figure 11 – Camera Mounting Hole Pattern

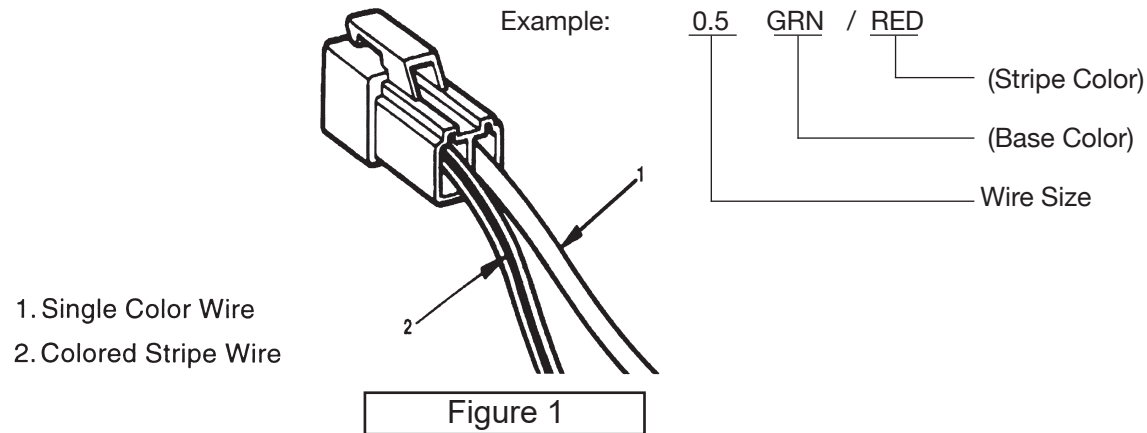
The Alpine HCE-C1100 camera should be mounted within the shaded area shown in Figure 10 to ensure proper rear visibility. In addition to the two mounting holes shown in Figure 11, a third hole is needed for the camera harness. This camera harness hole should be protected with a rubber grommet to prevent damage to the wiring that will pass through it. The rubber grommet and fasteners will not be included with the camera installation kit.

F-Series Diesel Electrical Section

Additional information including complete chassis wiring schematics, connector locations, wire sizes, and pin connector diagrams can be obtained from our service web site www.isuzutruckservice.com. There is a nominal fee for this service.

Wire Colors

All wires have color-coded insulation. Wires belonging to a system's main harness will have a single color. Wires belonging to a system's sub-circuits will have a colored stripe. Striped wires use the following code to show wire size and colors.



Abbreviations are used to indicate wire color within a circuit diagram. Refer to the following table.

Color-Coding	Meaning	Color-Coding	Meaning
B	Black	BR	Brown
W	White	LG	Light Green
R	Red	GR	Grey
G	Green	P	Pink
Y	Yellow	LB	Light Blue
L	Blue	V	Violet
O	Orange		

Figure 2

Wire Sizes

The size of wire used in a circuit is determined by the amount of current (amperage), the length of the circuit, and the voltage drop allowed. The following wire size and load capacity are specified by AWG (American Wire Gauge). (Nominal size means approximate cross sectional area.)

- 3. Outside Diameter
- 4. Cross Sectional Area

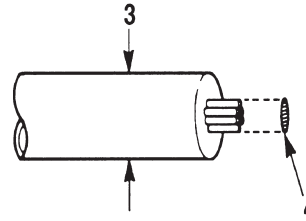


Figure 3

Nominal Size	Cross Sectional Area (mm ²)	Outside Diameter (mm)	Allowable Current (A)	AWG Size (Cross reference)
0.3	0.372	1.8	9	22
0.5	0.563	2.0	12	20
0.85	0.885	2.2	16	18
1.25	1.287	2.5	21	16
2	2.091	2.9	28	14
3	3.296	3.6	37.5	12
5	5.227	4.4	53	10
8	7.952	5.5	67	8
15	13.36	7.0	75	6
20	20.61	8.2	97	4

Figure 4

2026 Isuzu Truck

Fuses

Replacing Fuses

1. Before replacing fuses, apply the parking brake, then move the selector lever to the "P" (Park) position, and turn the engine control switch to the "LOCK" position.
2. Place the fuse puller on the fuse and pull it out. (The fuse puller is stored in the fuse box inside the cab.)
3. If the fuse appears as shown in the right hand side of the diagram at left, the fuse is blown. Replace with a spare fuse. (Spare fuses are stored in the fuse box inside the cab.)

Replacing Relays

1. Before replacing the relays, contact the nearest Isuzu Dealer.

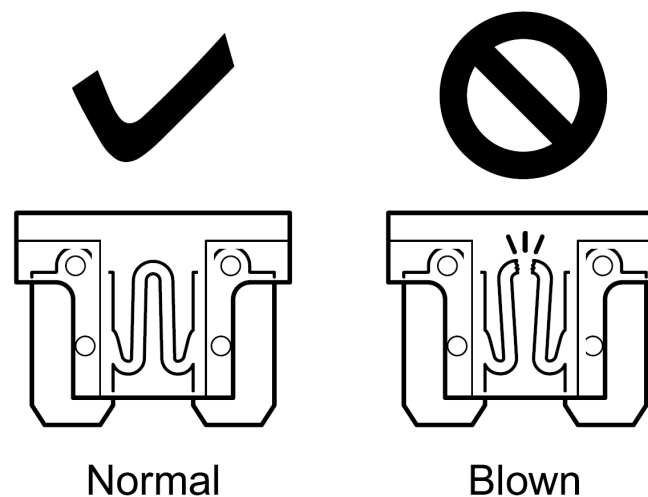
Fusible Links

1. The fusible link is primarily used to protect circuits where high amounts of current flow and where it would not be practical to use a fuse. For example, the starter circuit. When a current overload occurs, the fusible link melts open and interrupts the flow of current so as to prevent the rest of the wiring harness from burning.
2. Determine the cause of the overload before replacing the fusible link. The replacement fusible link must have the same amperage specification as the original fusible link.
3. Never replace a blown fusible link with fusible link of a different amperage specification. Doing so can result in an electrical fire or other serious circuit damage.



CAUTION

- Always use fuses specified by Isuzu. Using fuses with a rating other than that specified, or using wire or tin foil, etc., could result in fire or damage.
- If the new fuses blow right away and the cause is unknown, contact the nearest Isuzu Dealer.
- Do not inspect or replace fuses when the engine control switch is in the "ON" position. Doing so may lead to an accident.
- When inspecting fuses, be sure to park the vehicle on flat, level ground and apply chocks to the wheels.



Normal

Blown

Figure 5

Fuse and Relay Box Locations

Interior

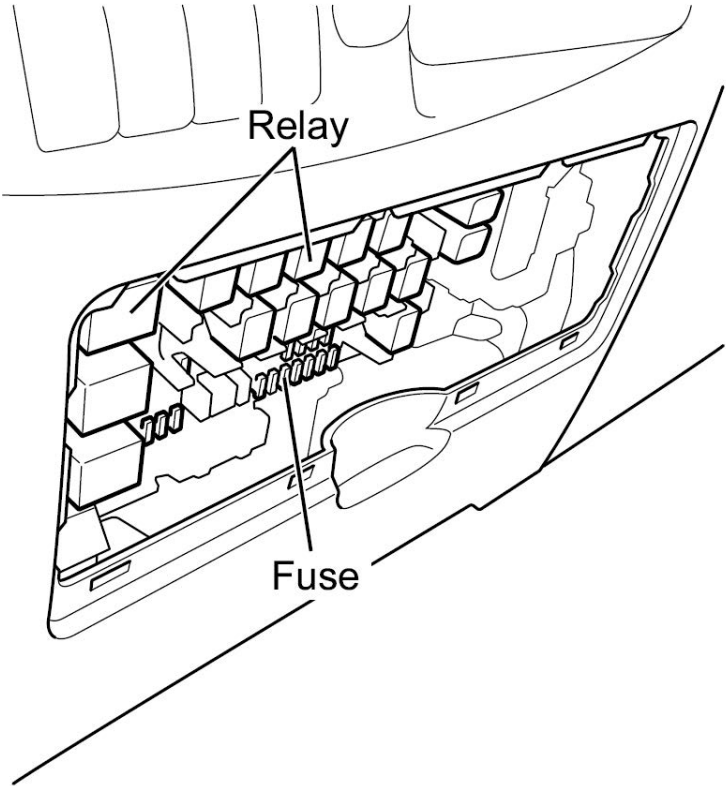


Figure 6

Exterior

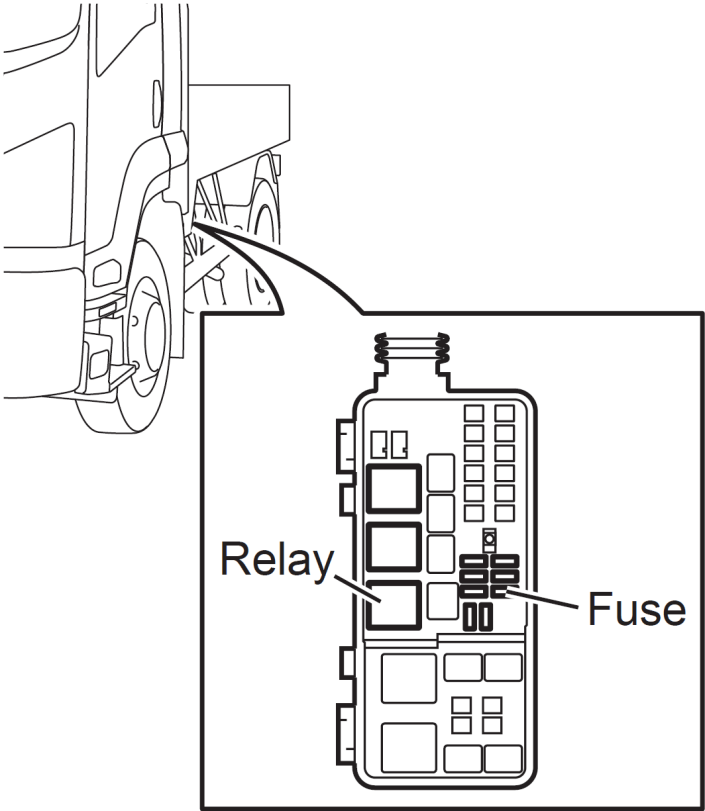


Figure 7

Fuse Location (interior)

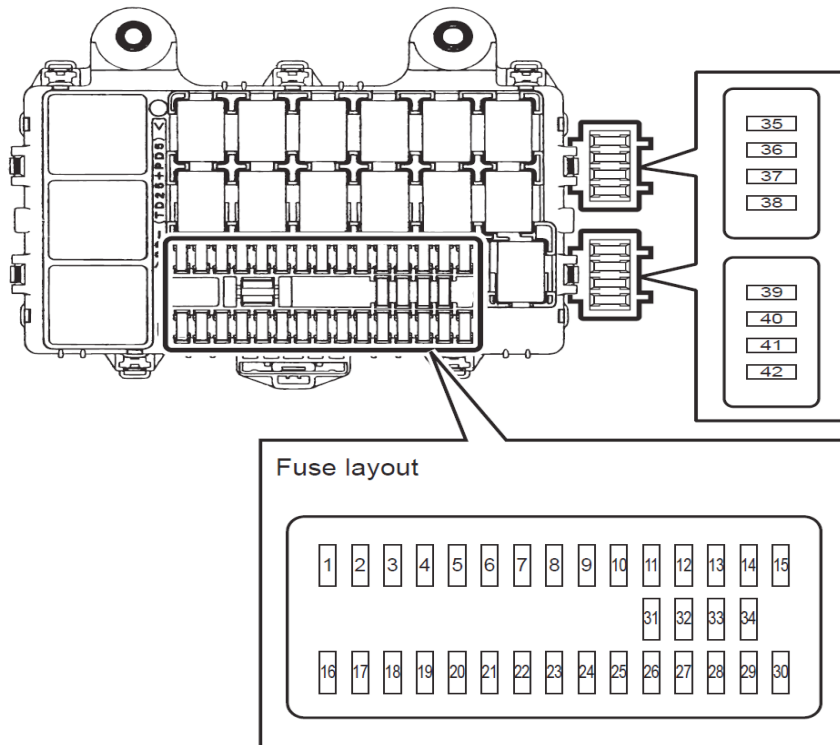


Figure 8

No.	Description	Rating	No.	Description	Rating
1	—	25A	16	MIRROR HEATER	15A
2	SPARE	5A	17	IGNITION2	10A
3	ROOM LAMP, AUDIO	10A	18	IGNITION1	10A
4	DOOR LOCK	15A	19	—	—
5	—	15A	20	ECM	5A
6	P/ WINDOW	25A	21	METER	10A
7	ABS	10A	22	ECU (BATT)	5A
8	WIPER	25A	23	MIRROR	10A
9	H / LAMP LO (LH)	10A	24	ACC	15A
10	LAMPS (BATT)	10A	25	HORN	15A
11	H / LAMP LO (RH)	10A	26	TURN, HAZARD	15A
12	BRAKE LAMPS	10A	27	TAIL LAMPS	10A
13	STARTER	10A	28	ILLUMINATIONS	10A
14	H / LAMP HI (LH)	10A	29	CORNERING LAMPS	10A
15	H / LAMP HI (RH)	10A	30	AIR CONDITIONER	10A

No.	Description	Rating	No.	Description	Rating
31	SPARE	—	37	POWER SOURCE	20A
32	SPARE	—	38	REVERSE LAMPS	10A
33	SPARE	—	39	MIRROR HEATER DR	20A
34	SPARE	—	40	SERVICE, REVERSE	10A
35	CIGAR	20A	41	AUDIO, REVERSE	10A
36	ACCESSORIES SOCKET	15A	42	MIRROR HEATER AS	20A

Figure 9

2026 Isuzu Truck

Relay Location (interior)

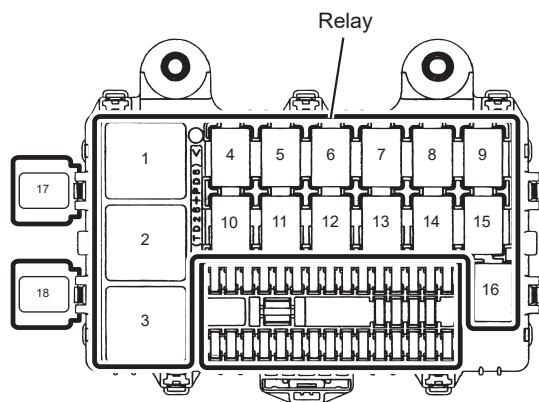


Figure 10

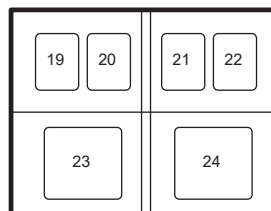
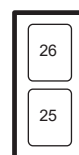


Figure 11



Under the right side of the relay box

Figure 12

No.	Description
1	BRAKE LAMP
2	DAYTIME RUNNING LAMP
3	KEY ON
4	DAYTIME RUNNING LAMP CUT
5	CORNERING LAMP
6	WIPER MAIN
7	HORN
8	WIPER HI LO
9	BLANK
10	BLANK
11	DOOR SWITCH (ALLISON2500RDS MODEL ONLY)
12	POWER WINDOW
13	HEAD LAMP LO
14	AIR DUMP (AIR SUSPENSION VEHICLE)
15	HEAD LAMP HI
16	TAIL LAMP
17	POWER ACC
18	BLOWER MOTOR
19	BRAKE LAMP SWITCH
20	CONDENSER FAN
21	REVERSE LAMP
22	CIGAR LIGHTER
23	MIRROR HEATER AS
24	MIRROR HEATER DR
25	COOLANT LEVEL SWITCH
26	BLANK

Relay and Fuse Locations (exterior)

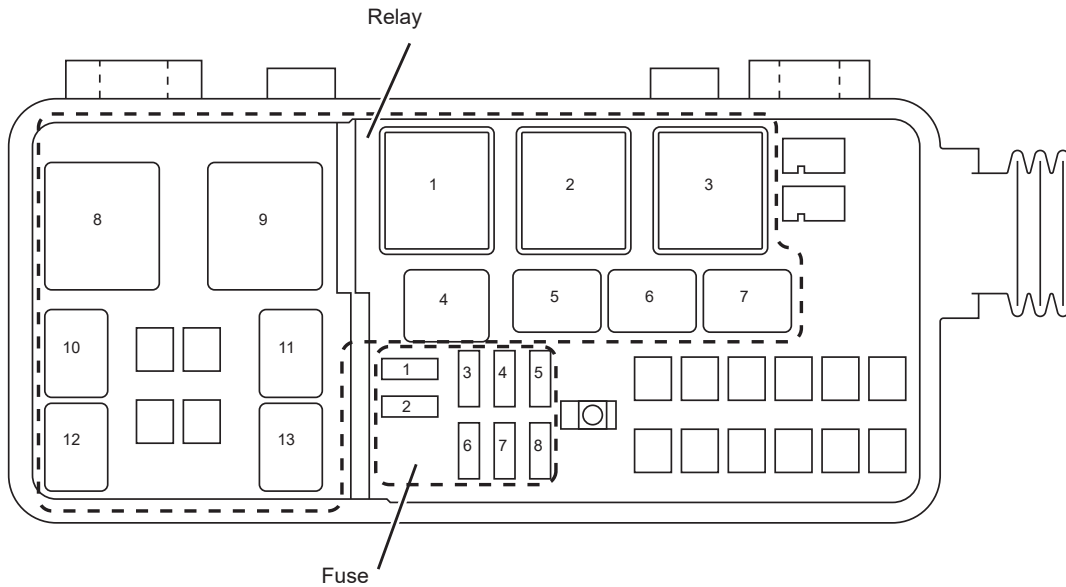


Figure 13

No.	Relay name
1	STARTER
2	TAIL LIGHT
3	NOx & DEF SENSOR
4	A/C COMPRESSOR
5	STARTER CUTOFF
6	RR DOME LIGHT
7	DEF PUMP
8	LINE HEATER3
9	NEUTRAL SAFETY GEAR
10	MARKER LIGHT
11	LINE HEATER1
12	LINE HEATER2
13	FUEL HEATER

No.	Fuse name	Rating
1	MARKER LIGHT	20A
2	TAIL MAIN	20A
3	ECM MAIN	10A
4	SCR	15A
5	TCM	15A
6	POWER SOURCE	15A
7	CONDENSER FAN	20A
8	A/C	10A

Figure 14

2026 Isuzu Truck

Ground Point Location

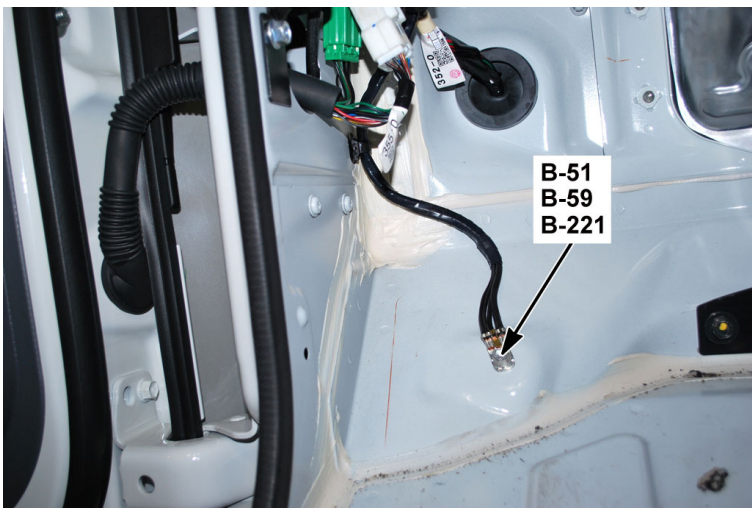


Figure 15

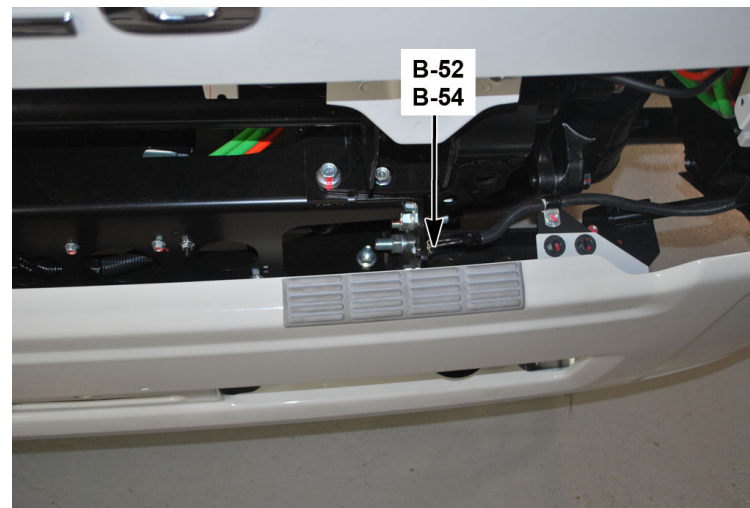


Figure 16

Note:

Abnormal phenomena of electrical components are often the result of a defective ground connection. During electrical troubleshooting and repairs, be sure to inspect grounding points and associated fasteners.

2026 Isuzu Truck

Ground Point Location

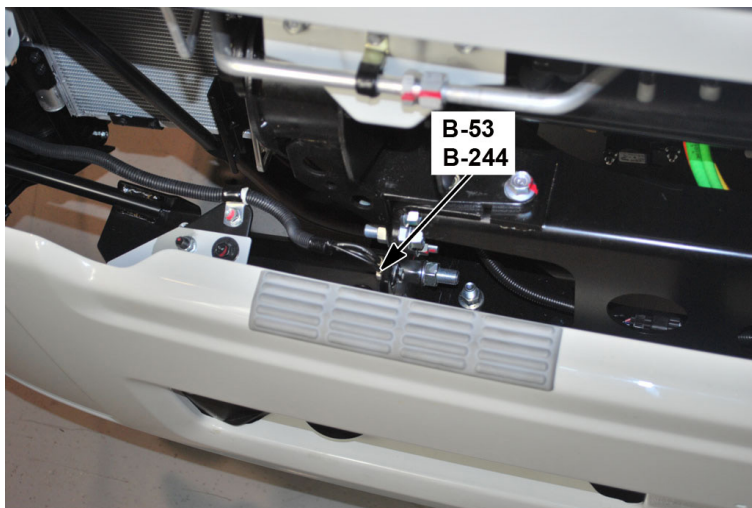


Figure 17

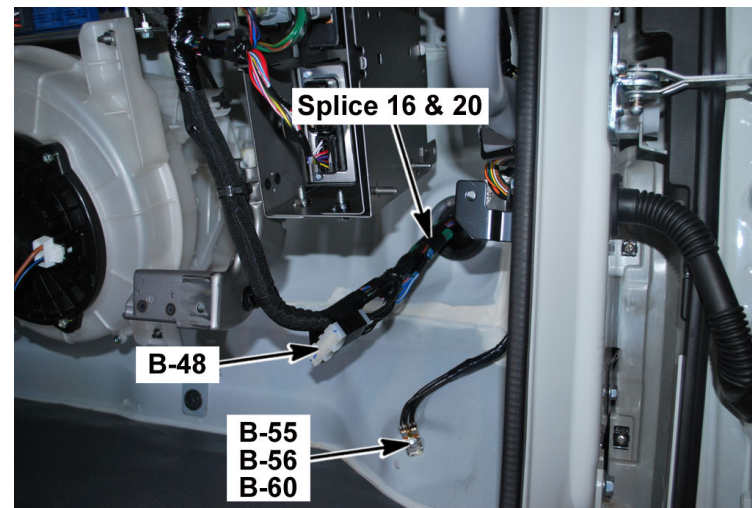


Figure 18

Note:

Abnormal phenomena of electrical components are often the result of a defective ground connection. During electrical troubleshooting and repairs, be sure to inspect grounding points and associated fasteners.

2026 Isuzu Truck

Ground Point Location

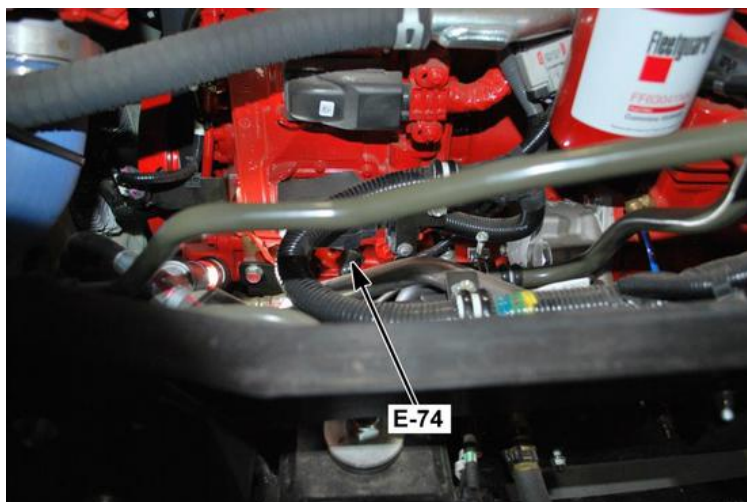


Figure 19

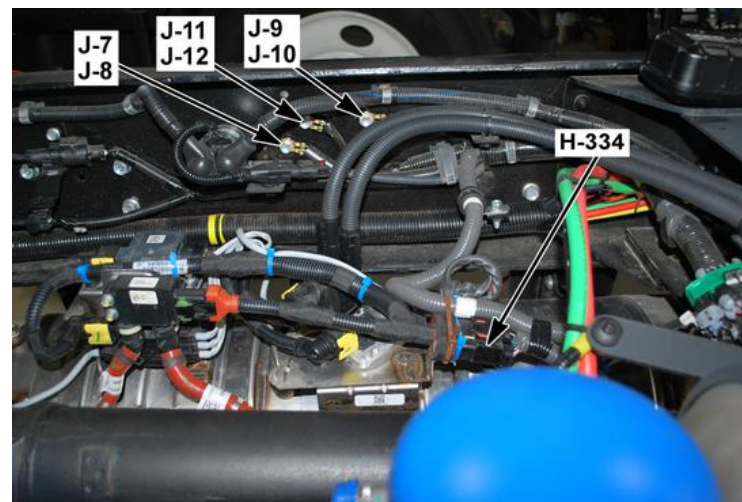


Figure 20

Note:

Abnormal phenomena of electrical components are often the result of a defective ground connection. During electrical troubleshooting and repairs, be sure to inspect grounding points and associated fasteners.

Ground Point Location

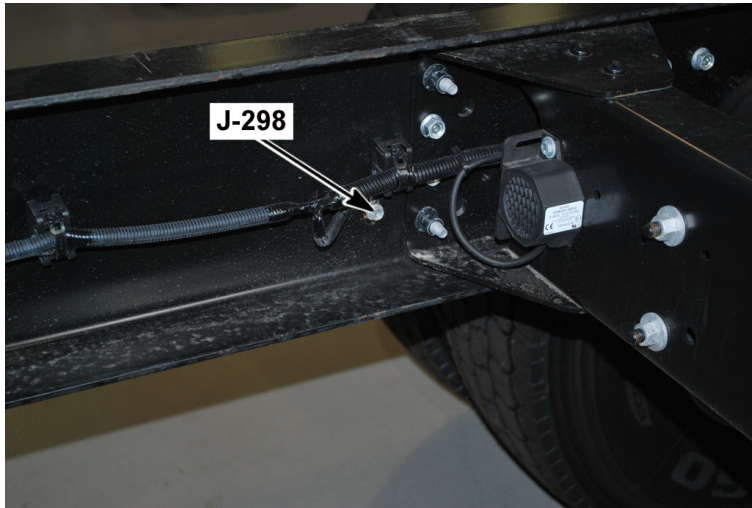


Figure 21

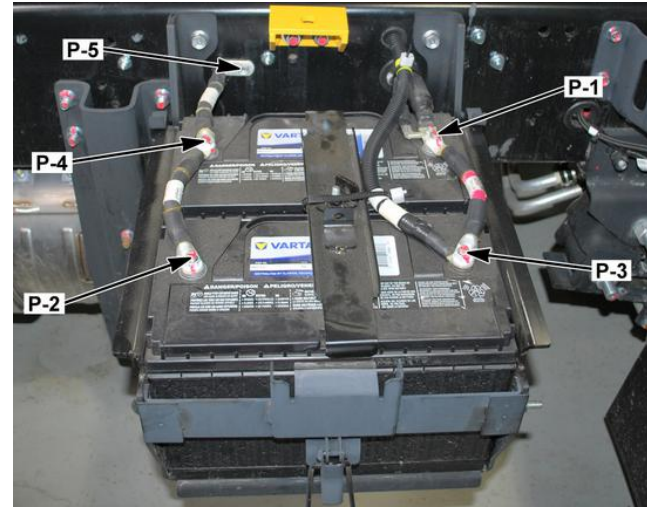


Figure 22

Note:

Abnormal phenomena of electrical components are often the result of a defective ground connection. During electrical troubleshooting and repairs, be sure to inspect grounding points and associated fasteners.

2026 Isuzu Truck

Ground Point Location

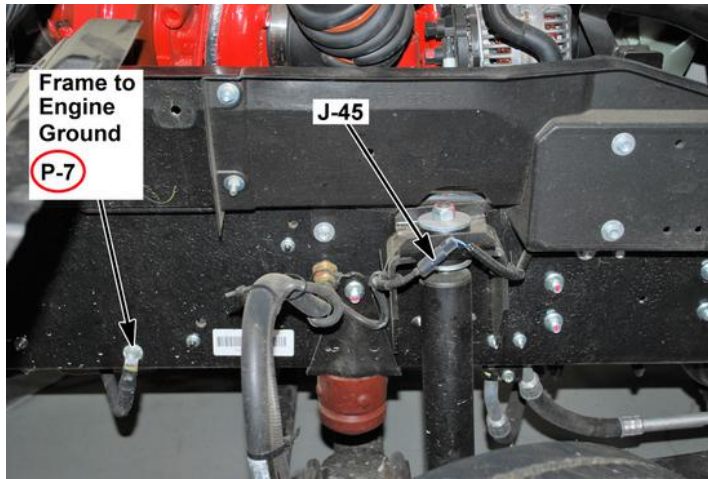


Figure 23

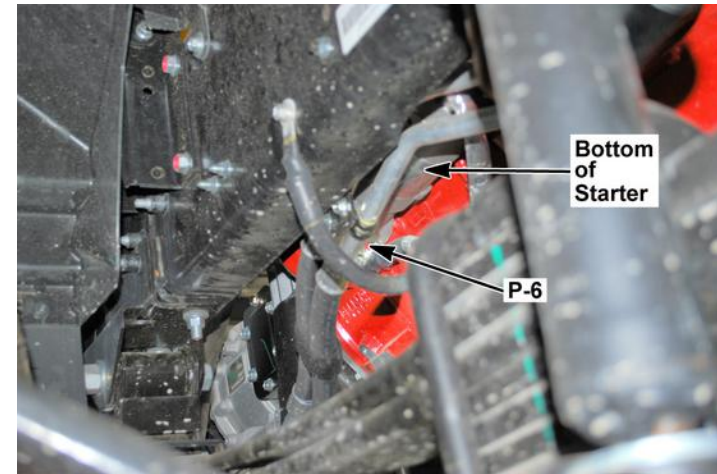


Figure 24

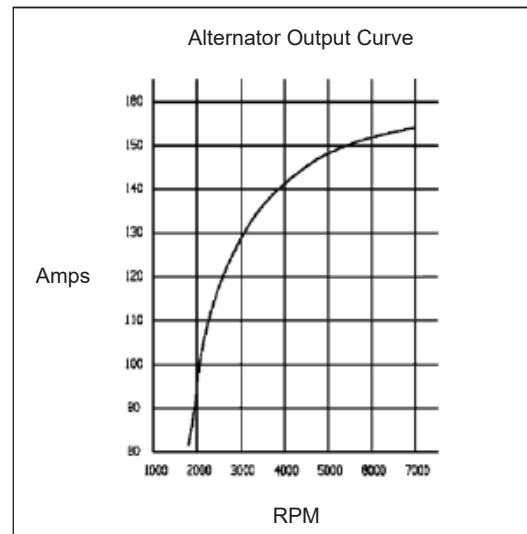
Note:

Abnormal phenomena of electrical components are often the result of a defective ground connection. During electrical troubleshooting and repairs, be sure to inspect grounding points and associated fasteners.

Alternator and Battery Information

FTR Diesel Engine

2.662 : 1 alternator pulley to crankshaft pulley



Battery	VARTA GR31
Cold Crank Capacity	750 AMP
Reserve Capacity (25 AMPS)	180 Minutes
Alternator	12V-160AMP

Figure 25

Battery

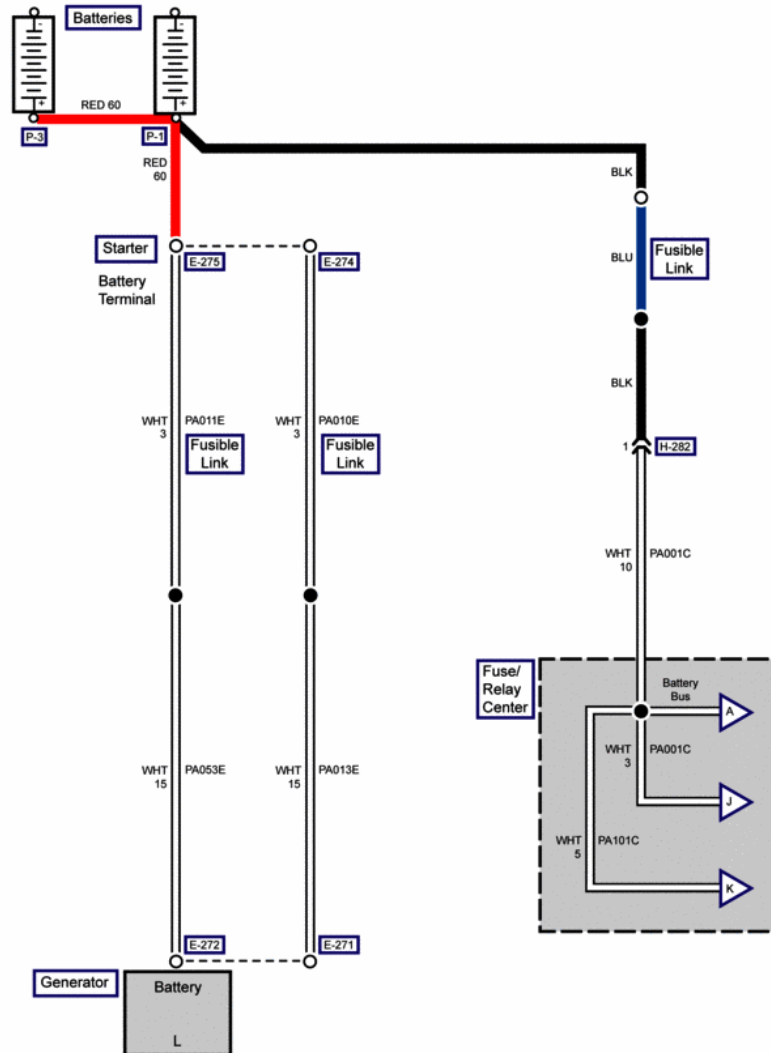
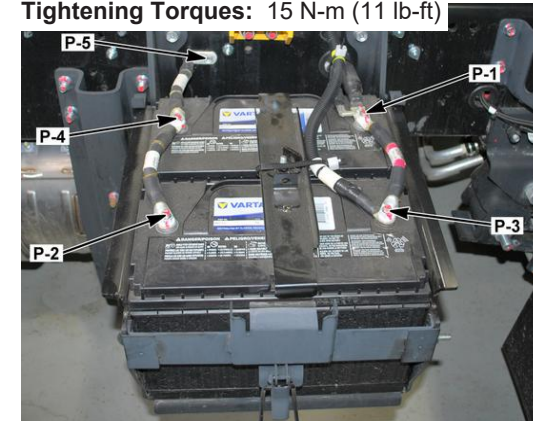


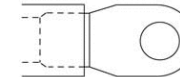
Figure 26

Tightening Torques: 15 N-m (11 lb-ft)



P-1, P-2, P-3, P-4 Battery Terminals Connector End View

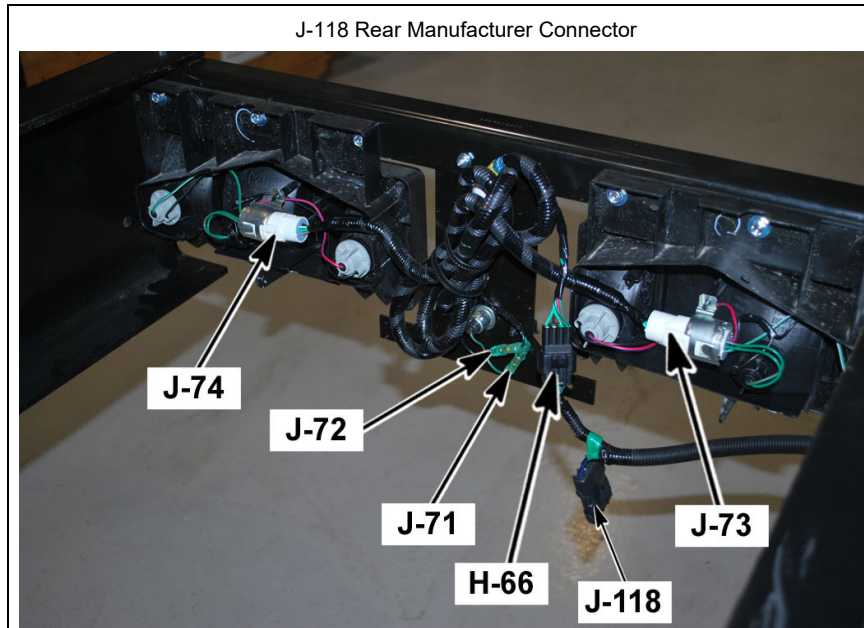
• 1 Way Eyelet



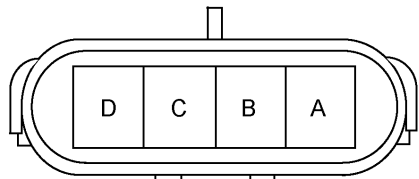
Connector Part Information			
Pin	Wire Color	Circuit Number	Function
P-1	BLK RED RED	—	Battery Voltage to H-282 pin 1 Battery Positive To Positive Battery Battery Positive To Starter Positive
P-2	BLK	—	Battery Negative To Battery Negative
P-3	RED	—	Battery Positive To Battery Positive
P-4	BLK BLK/YEL	—	Battery Negative To Battery Negative Battery To Ground P-5

Figure 27

Rear Manufacturer Lighting Connector J-118



At the Rear of the Frame, Near the Rear Combination Lamps



Connector End View

PIN	Wire Color	Circuit Number	Function
A	LT GRN/BLK	BA048D	Switched Output Voltage from Marker Lamp Relay
B	RED	IA027D	Battery Voltage from Fuse F36
C	WHT/BLK	IA028D	Switched Output Voltage from Rear Dome Lamp
D	BLK/BLU	IX013D	Ground to J-298
Rear Manufacturer Connector P/N's			
	Part Number	Description	
Chassis Side Connector	12010974 (Delphi)	4-Way M (BLU)	
Upfitter Installed Connector	12015787 (Delphi)	4-Way F	

Figure 28

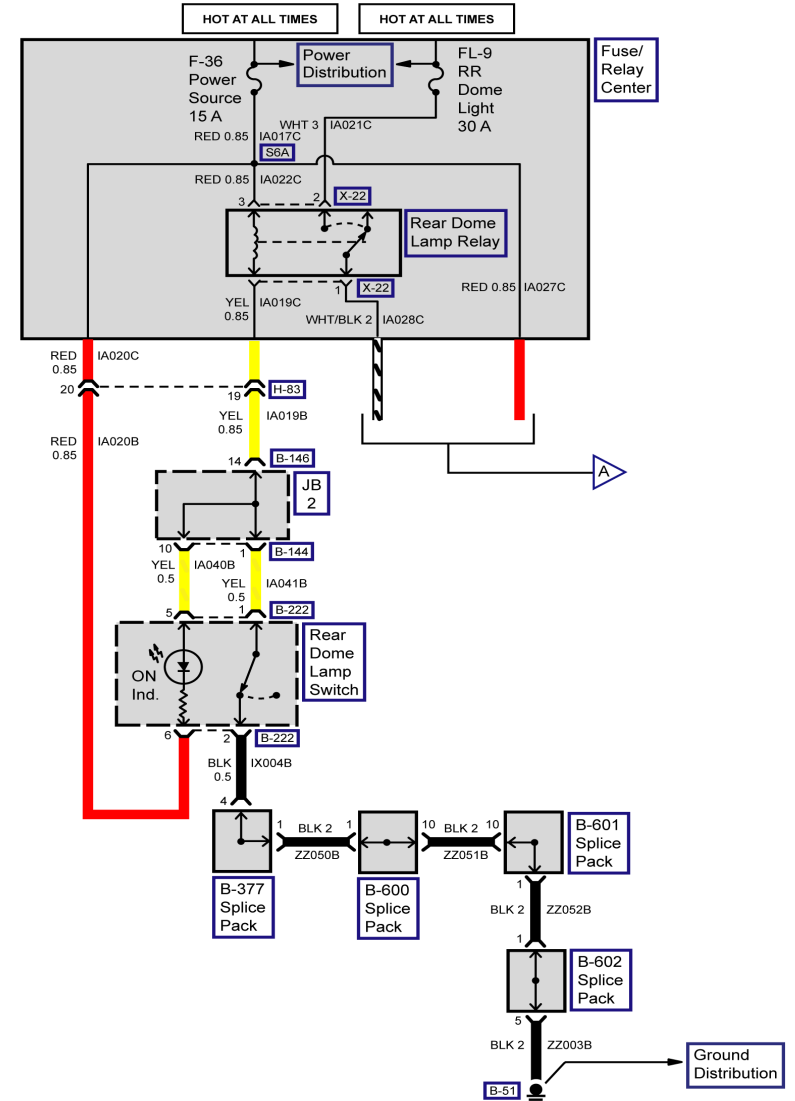


Figure 29

2026 Isuzu Truck

Body Builders Connector H-246

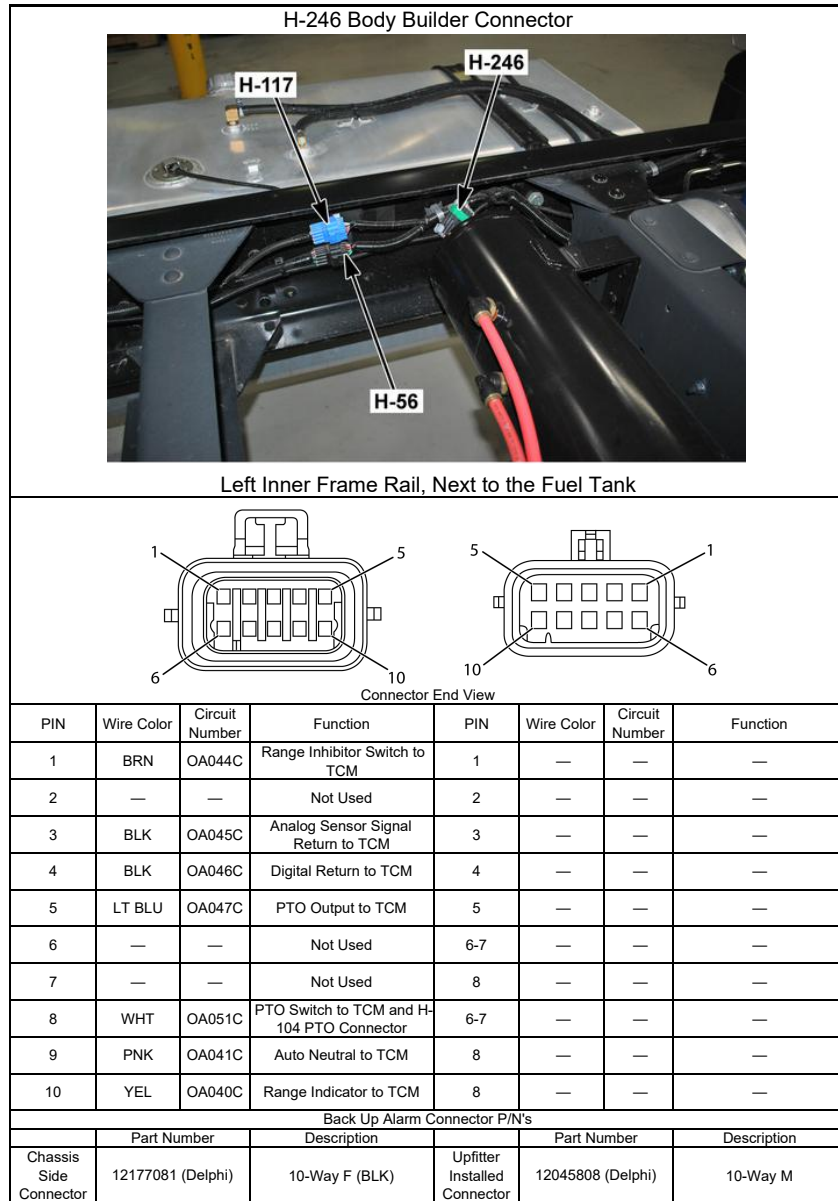


Figure 30

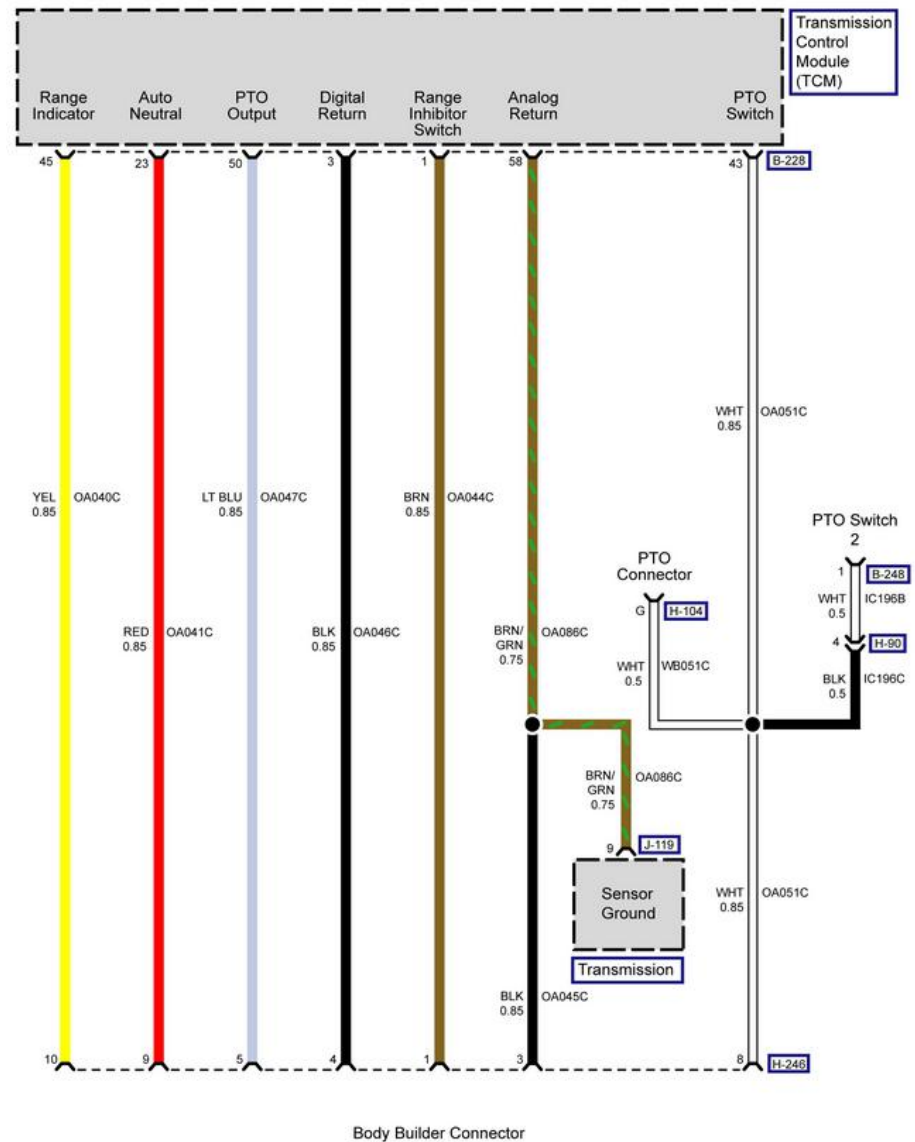


Figure 31

Back Up Lamp and Alarm Circuit J-111

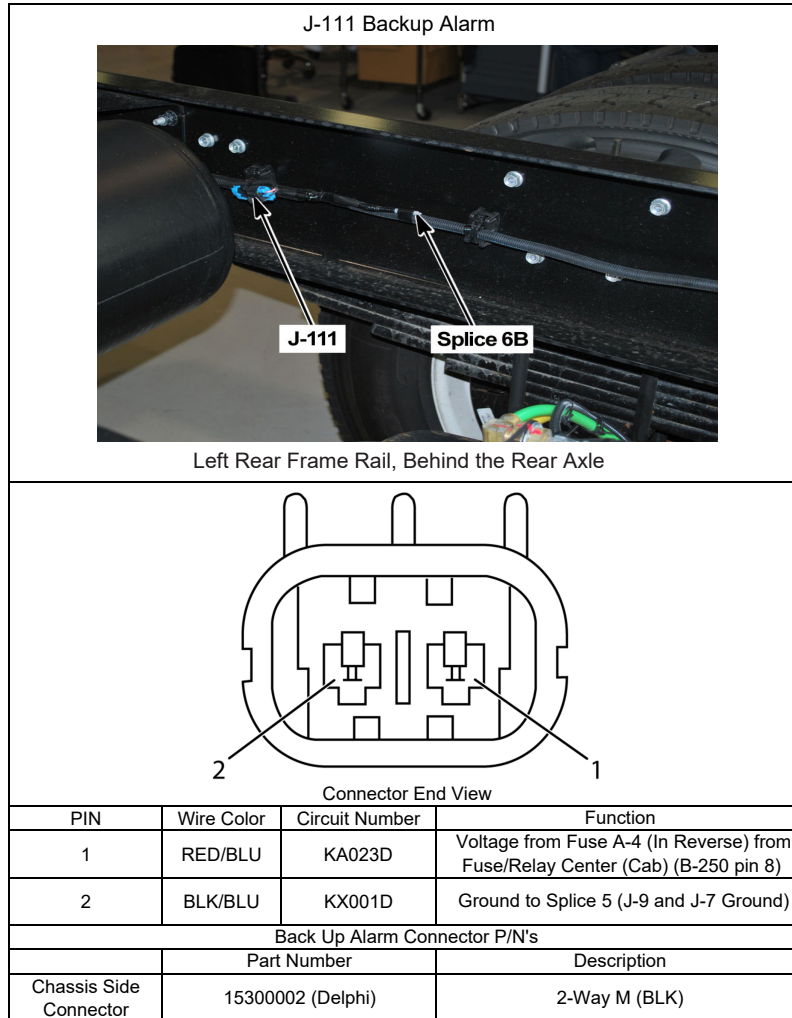


Figure 32

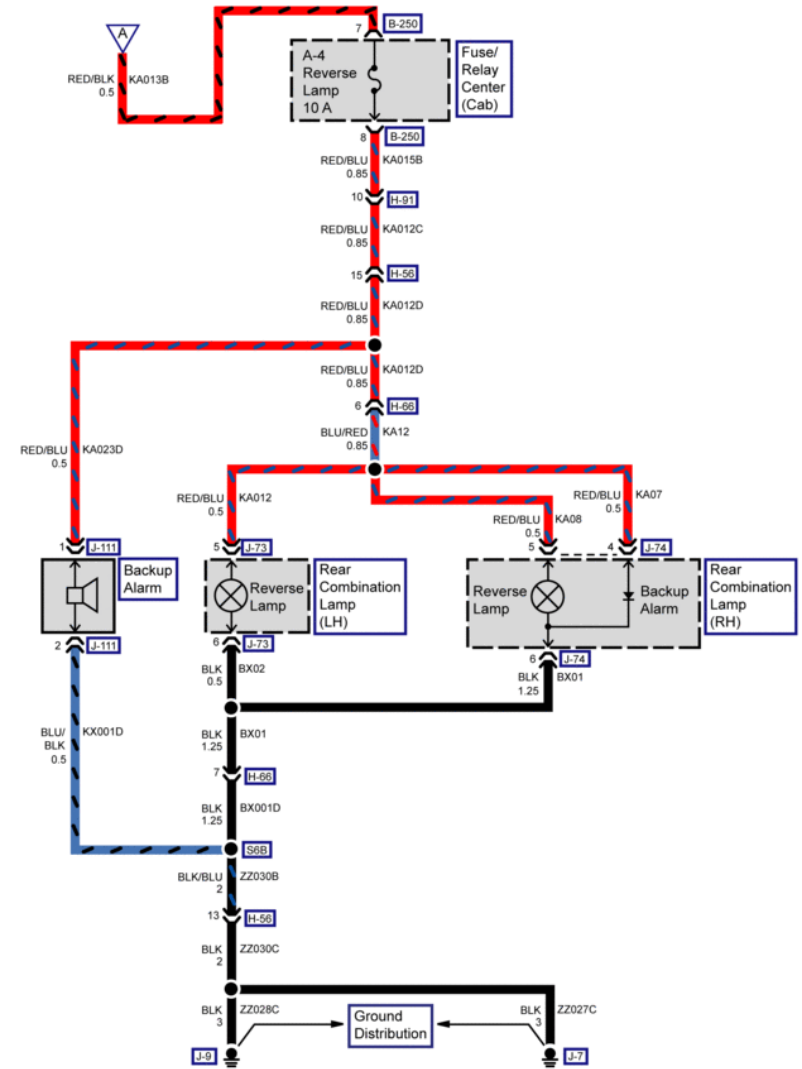
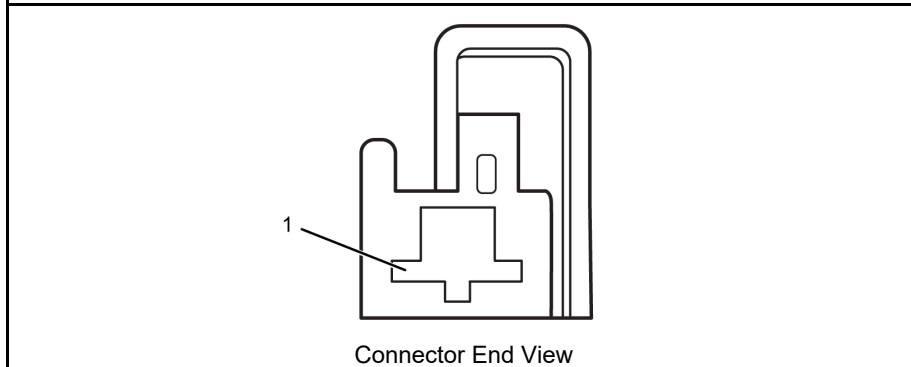
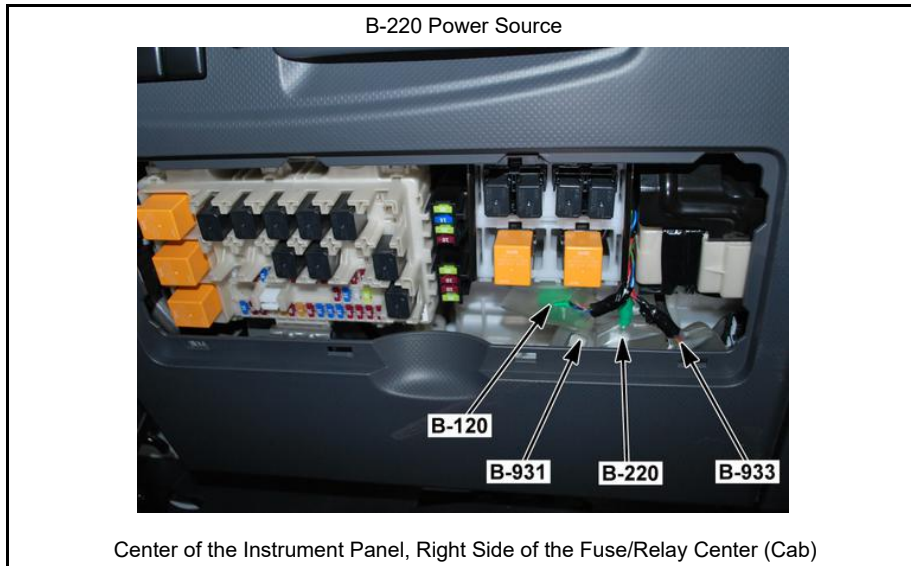


Figure 33

Power Source Connector B-220 and Lower Power Outlet



PIN	Wire Color	Circuit Number	Function
1	GRN/ORN	SA002B	Ignition Voltage from Fuse A-3
Connector Part Information			
		Part Number	Description
Chassis Side Connector		7323-6317 (Yazaki)	1-Way F (WHT)

Figure 34

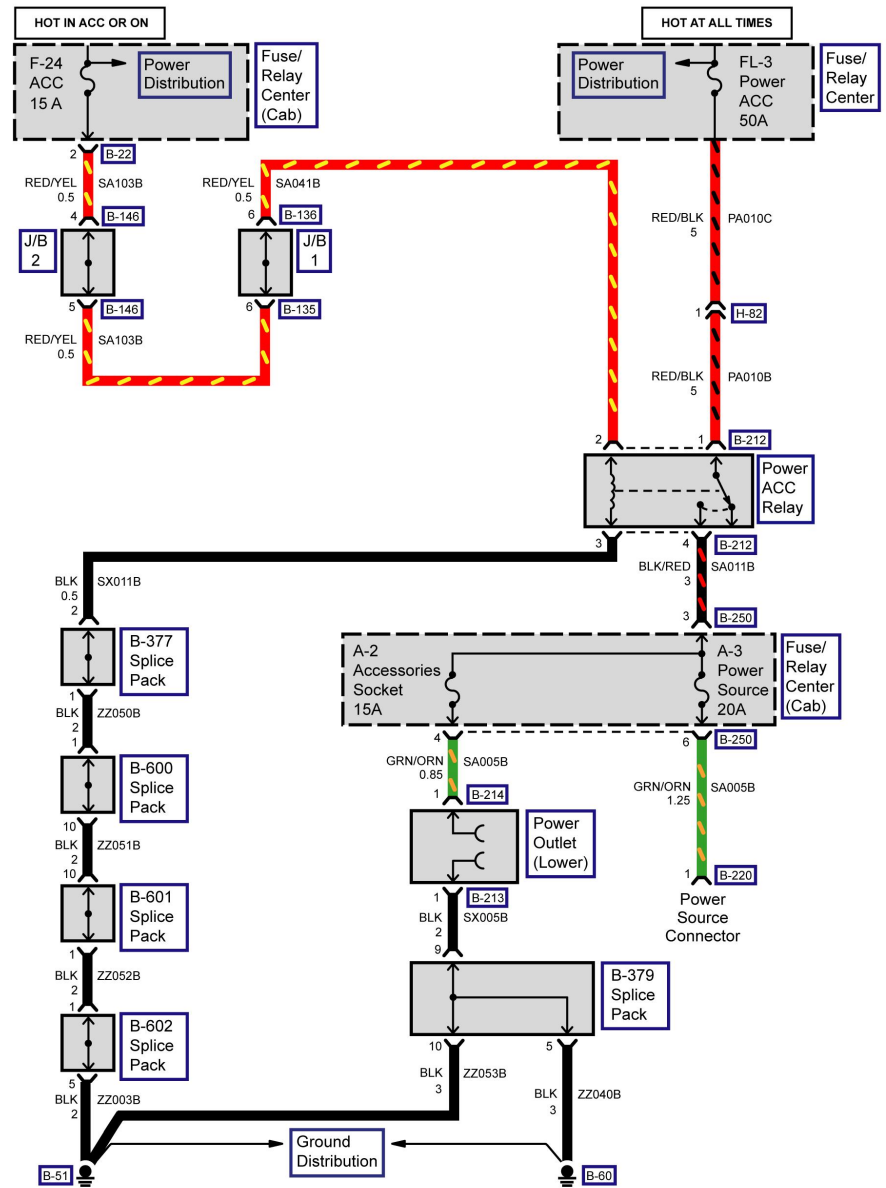


Figure 35

Upper Power Outlet

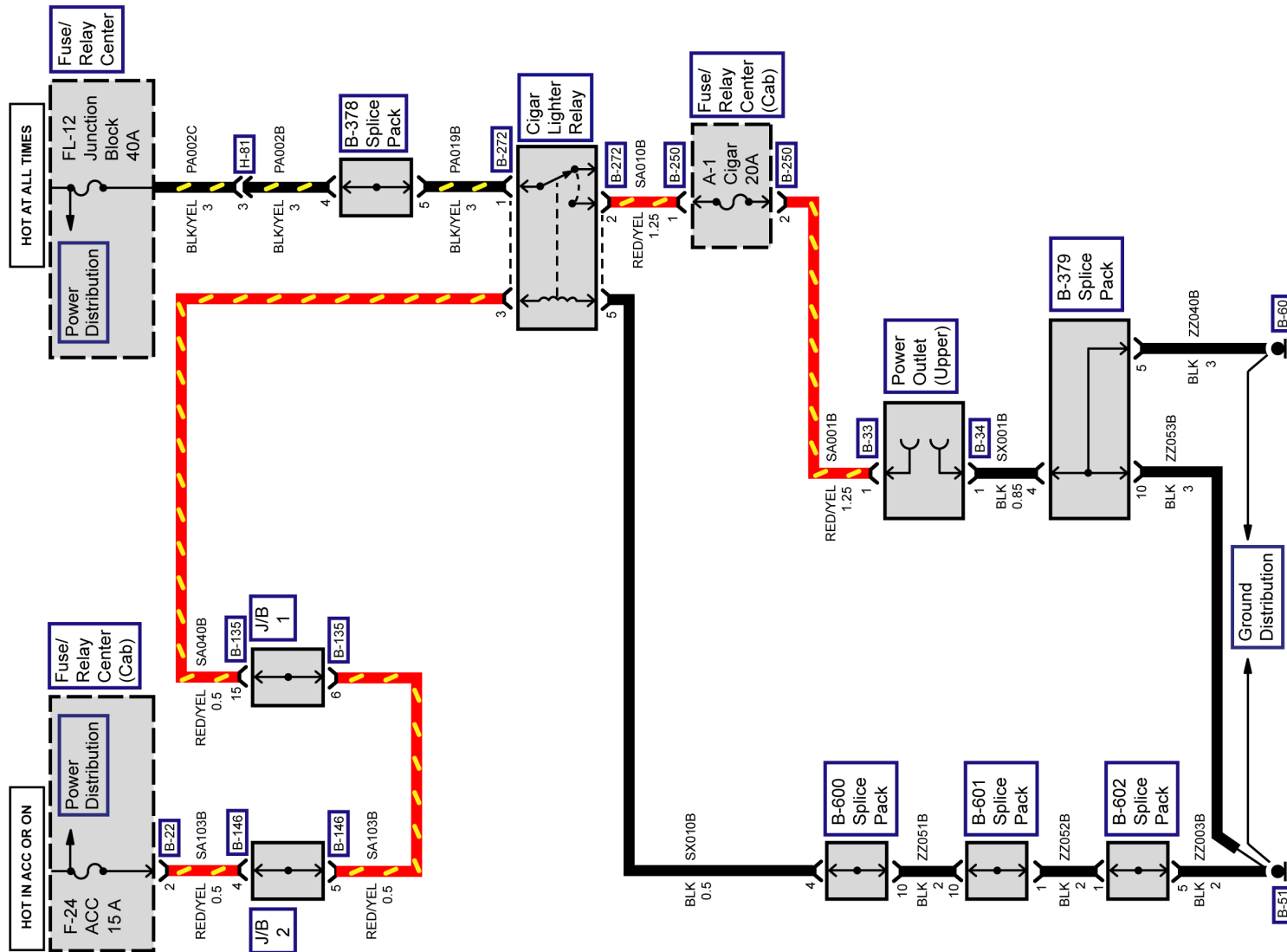


Figure 36

Headlights Low Beam

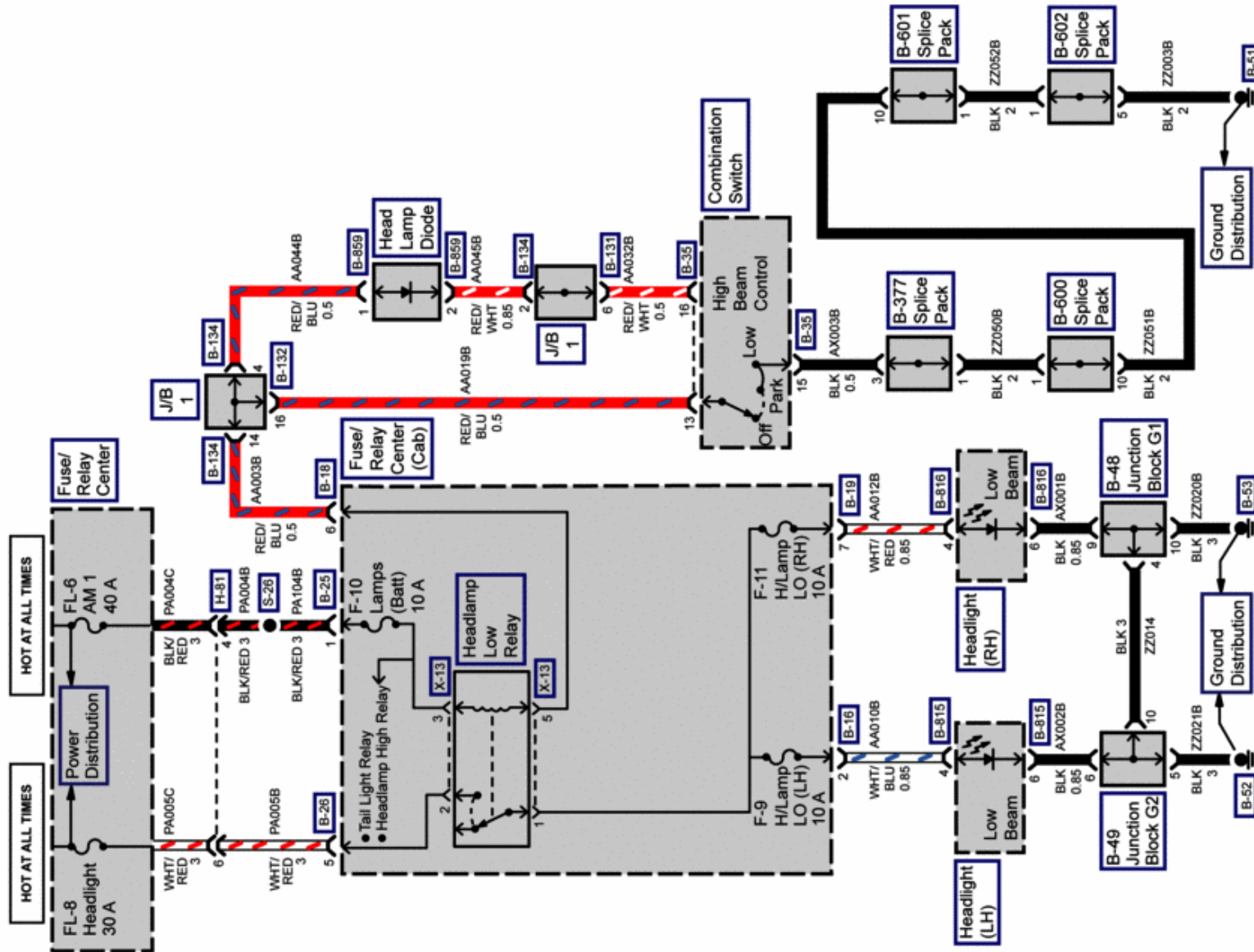


Figure 37

Headlights High Beam

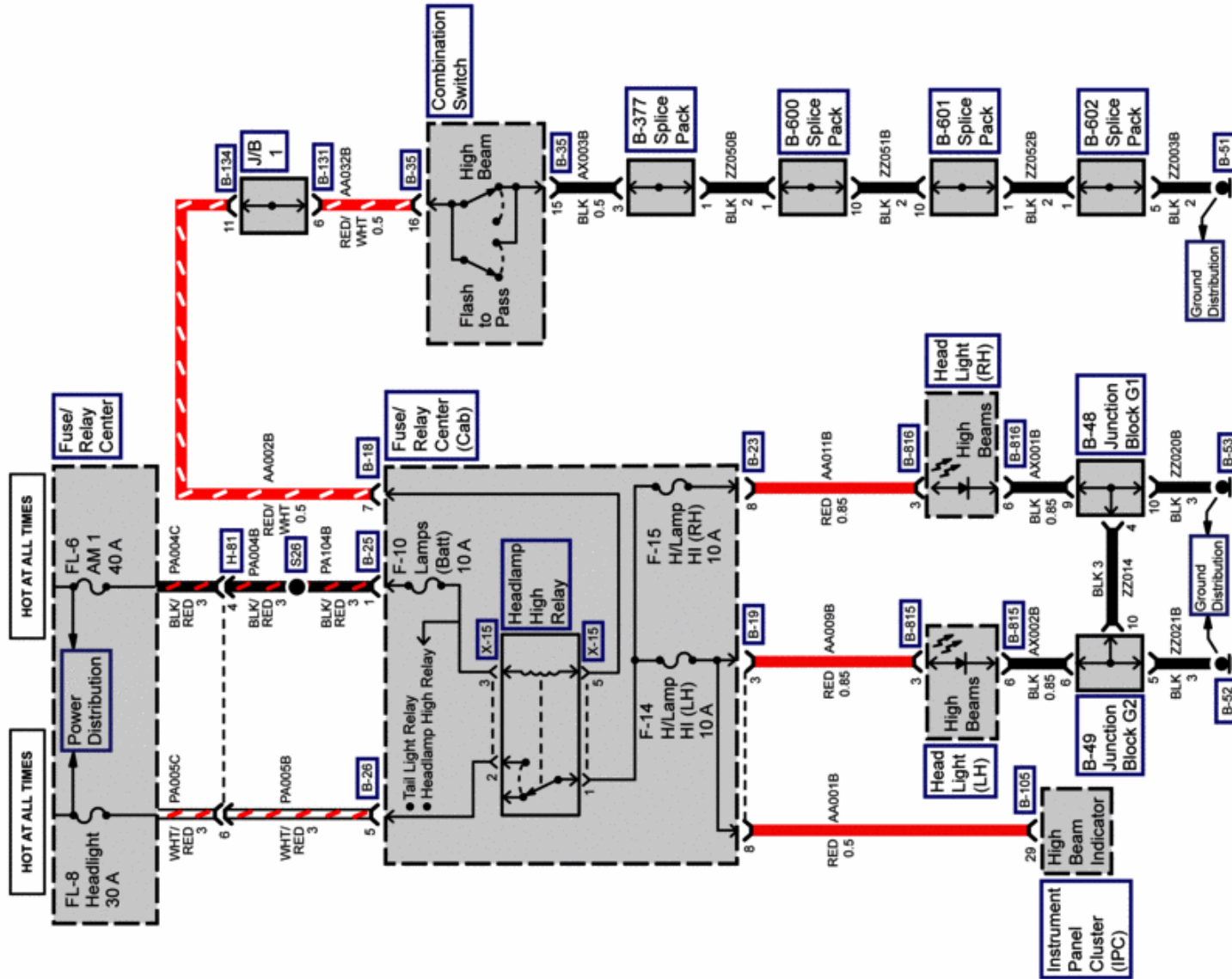


Figure 38

Roof Marker Lights

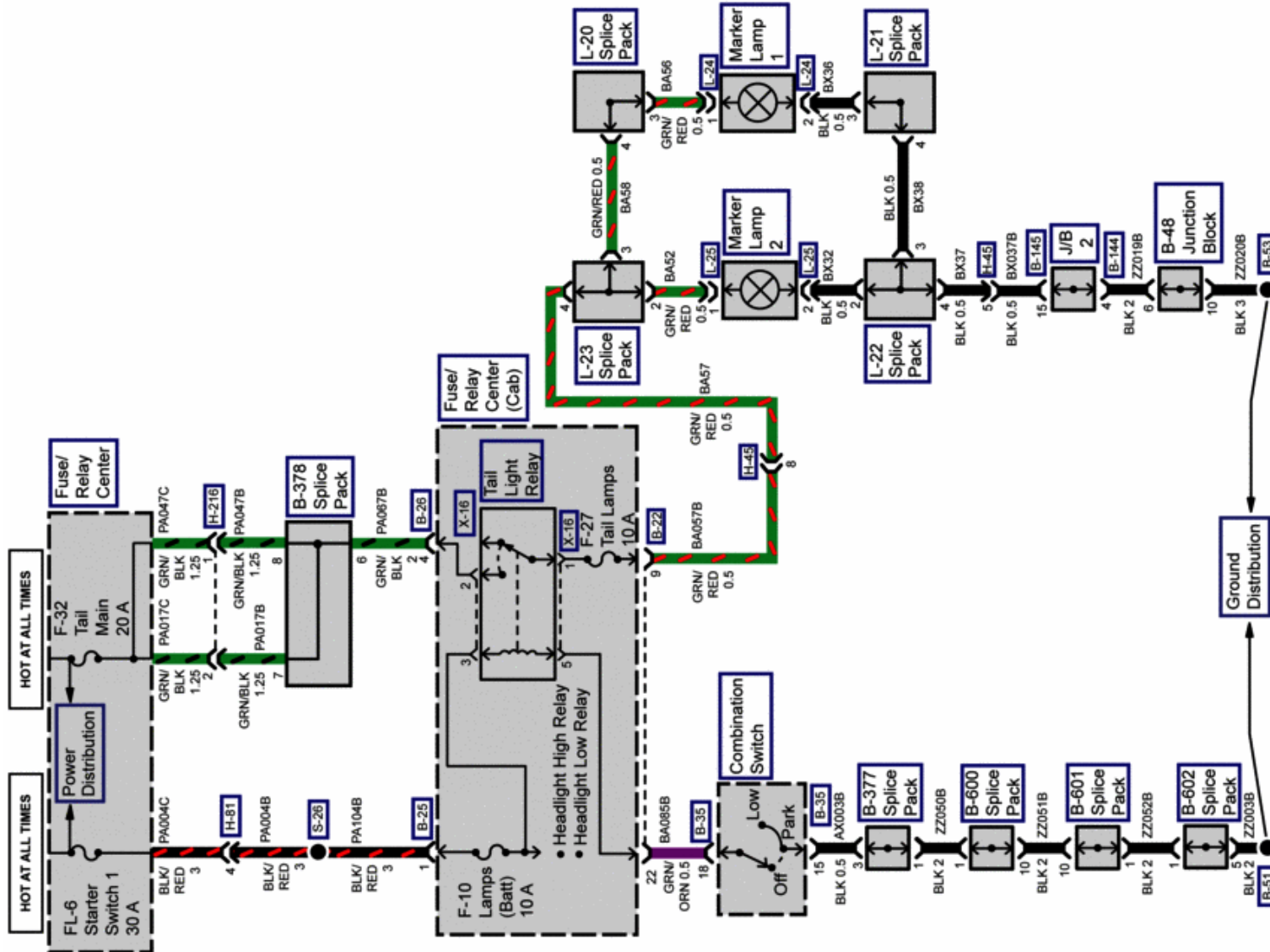


Figure 40

Roof Clearance Lights (AT)

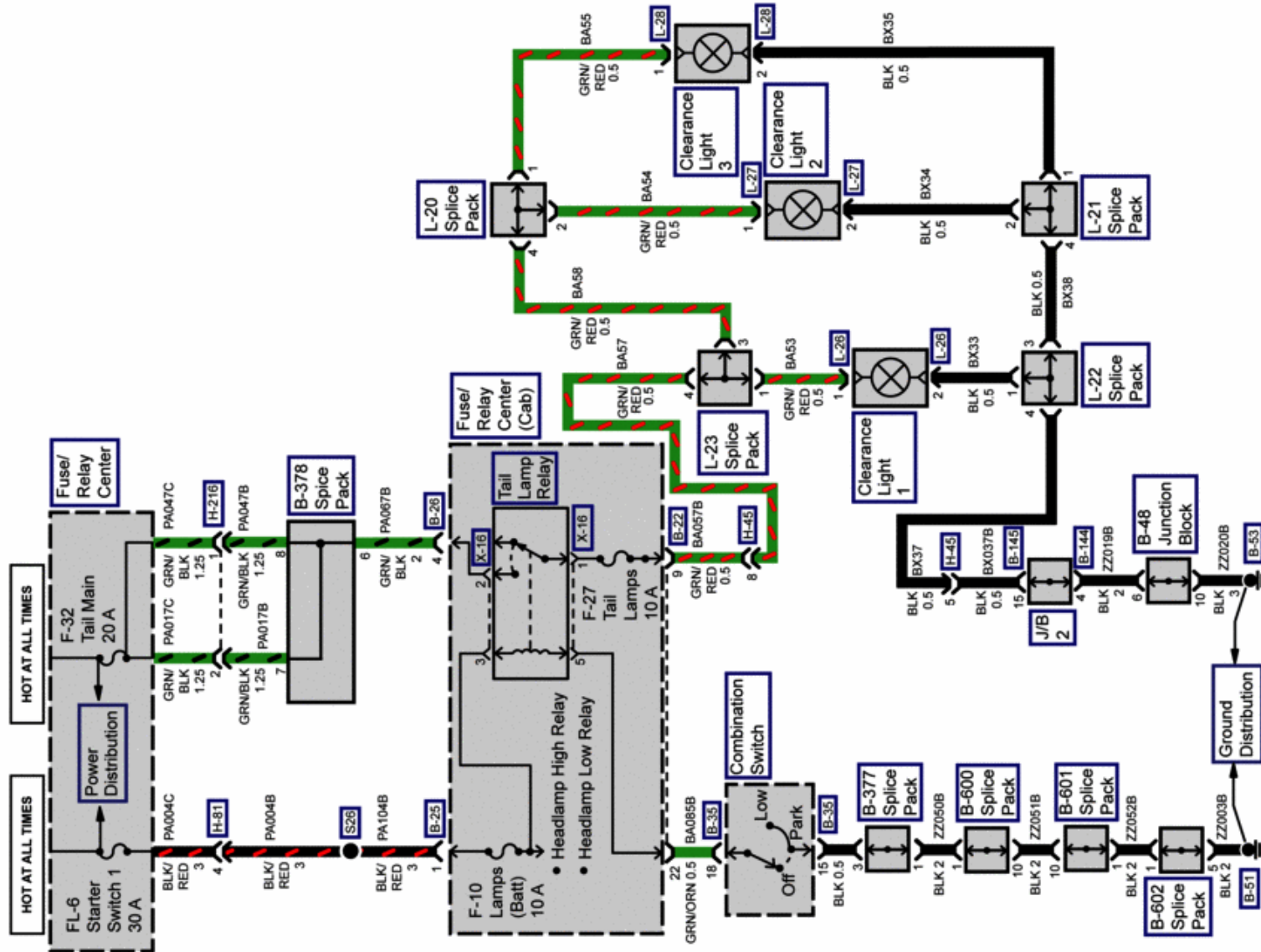


Figure 41

Rear Turn Signals Lights

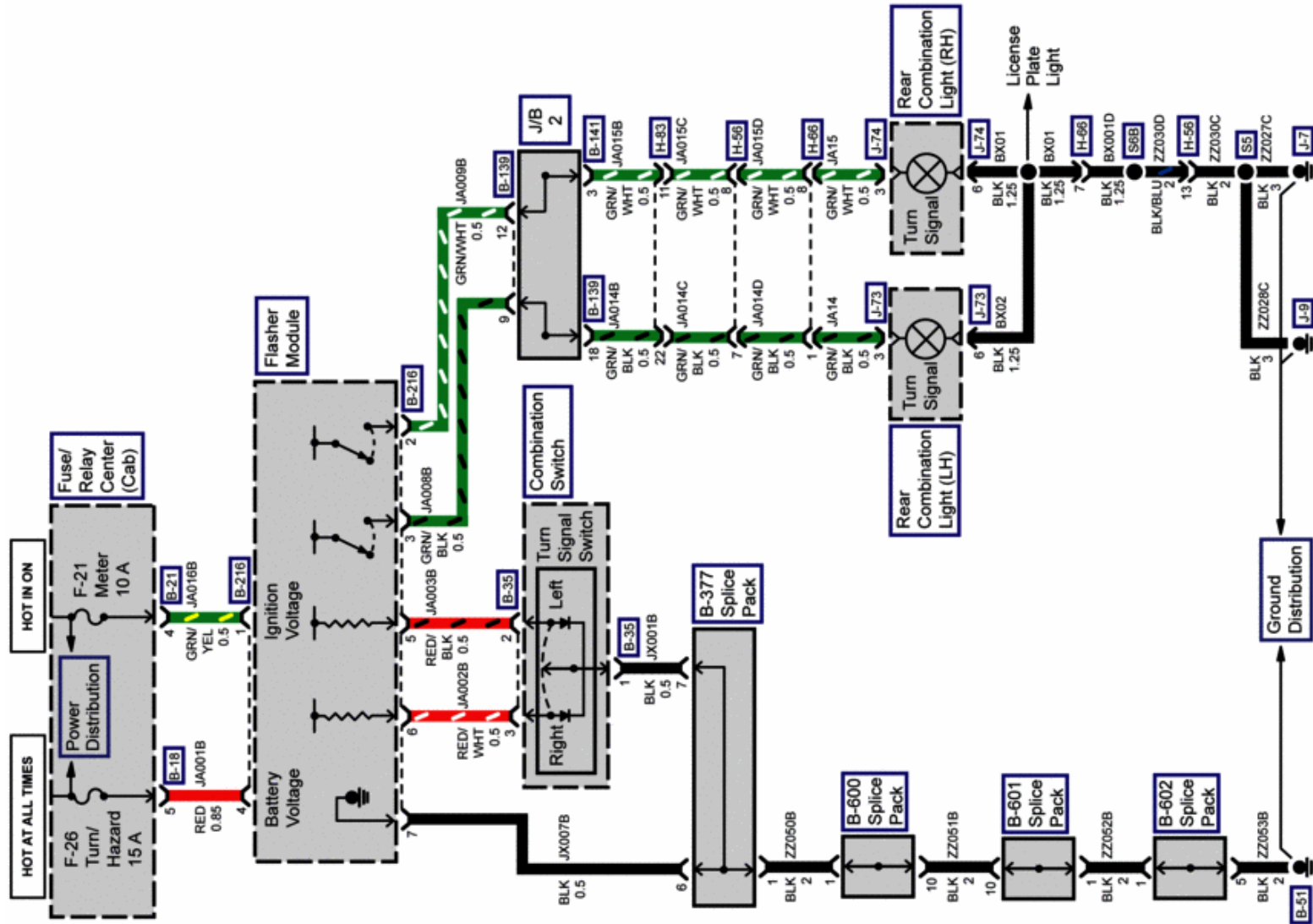


Figure 42

Radio Circuits

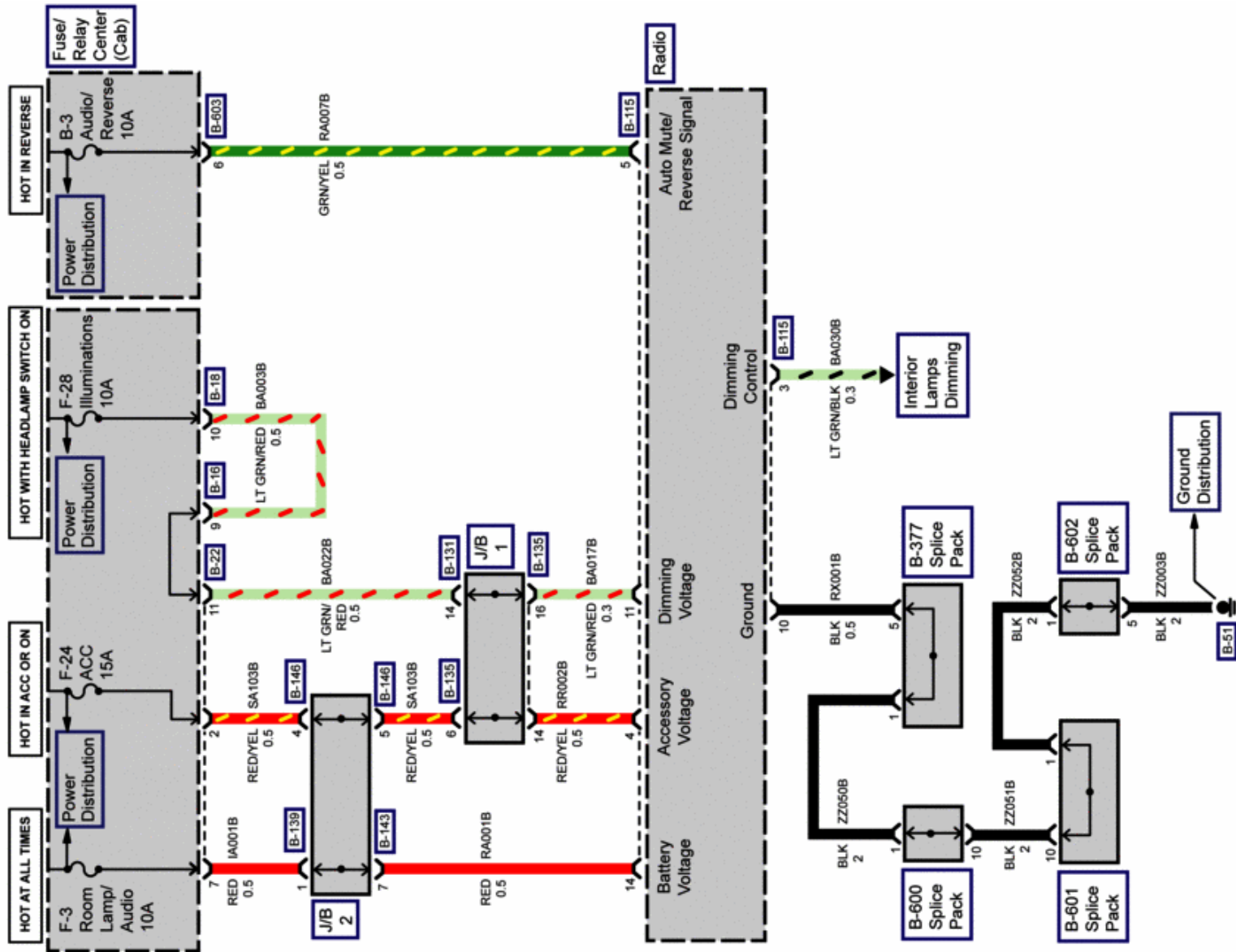
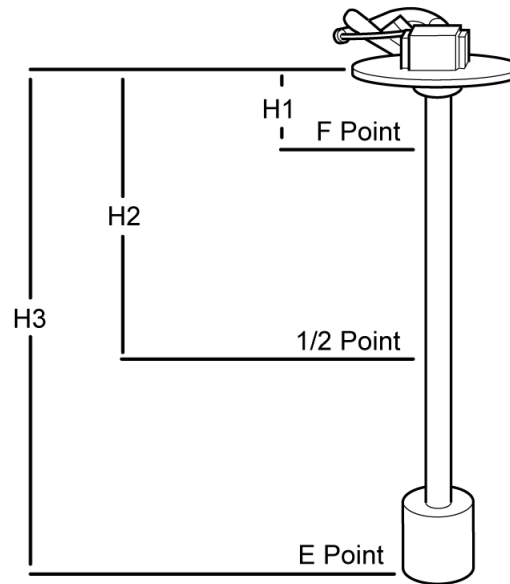


Figure 43

Fuel Sending Unit Resistance Values



Float Position	Distance to Flange (mm)	Distance to Flange (in)	Resistance Value (ohms)
H1 - Full	132	5.20	14.1
H2 - Half	276	10.87	44.1
H3 - Empty	420	16.54	100

Figure 44

Electrical Symbols






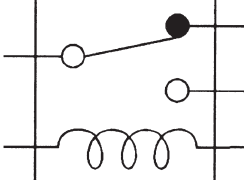


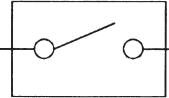
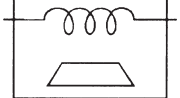
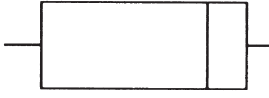
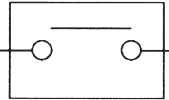
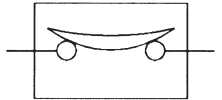
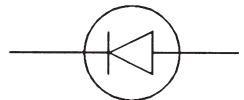
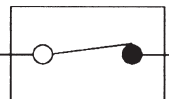

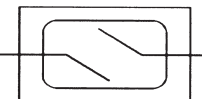


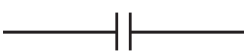
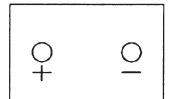

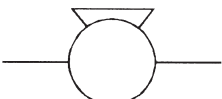
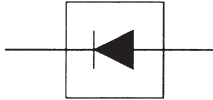
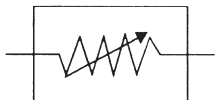
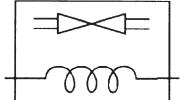
	Fuse		Electronic Parts		Coil (Inductor), Solenoid Magnetic Valve
	Fusible Link		Resistor		Relay
	Fusible Link Wire		Speaker		
	Switch		Buzzer		Connector
	Switch		Circuit Breaker		Light-Emitting Diode
	Switch (Normal Close Type)		Bulb		Reed Switch
	Contact Wiring		Double-Filament Bulb		Condenser
	Battery		Motor		Horn
	Diode		Variable Resistor Rheostat		Vacuum Switching Valve

Figure 45

2026 Isuzu Truck

Abbreviations

Abbreviation	Definition	Abbreviation	Definition
3A/T	6-Speed Automatic Transmission	IG	Ignition
4A/T	4-Speed Automatic Transmission	kW	kilowatt
A/T	Automatic Transmission	LH	Left hand
ABS	Anti-lock brake system	LO	Low
APP	Accelerator pedal position	LWB	Long wheelbase
ATF	Automatic Transmission Fluid	M/T	Manual Transmission
AUTO	Automatic	M/V	Magnetic valve
BRKT	Bracket	MAF	Mass airflow
C/B	Circuit breaker	MIL	Check engine light
CKP	Crankshaft position	OD	Over drive
CMP	Camshaft position	OPT	Option
COMB	Combination	PTO	Power Take Off
CONT	Control	RH	Right hand
D.R.L.	Day time running light	RR	Rear
DC	Direct current	SCV	Suction control valve
ECM	Electronic control module	ST	Start
ECT	Engine coolant temperature	STD	Standard
ECU	Electronic control unit	SW	Switch
EGR	Exhaust gas reticulation	SWB	Short wheelbase
EHCU	Electronic and hydraulic control unit	TCM	Transmission control module
FL	Fusible link	V	Volt
FRT	Front	VSV	Vacuum switching valve
FT	Fuel Temperature	W	Watt (S)
H/L	Headlight	W/	With
HI	High	W/O	Without
IAT	Intake air temperature	W/S	Weld splice
IC	Integrated circuit	WOT	Wide-open throttle

Figure 46

Back Up Camera Installation Information

2026 Isuzu Truck

Isuzu Back Up Camera Installation Overview

- The Alpine HCE-C1100 Back Up Camera is available with RPO code I2V (Audio system with 7" diagonal color touch screen with backup camera).
- RPO codes I1V (Audio system with 7" diagonal color touch screen) and I2V (Audio system with 7" diagonal color touch screen with backup camera) will both include a pre-wired camera input connection at the end of the chassis frame. (Figure 1)

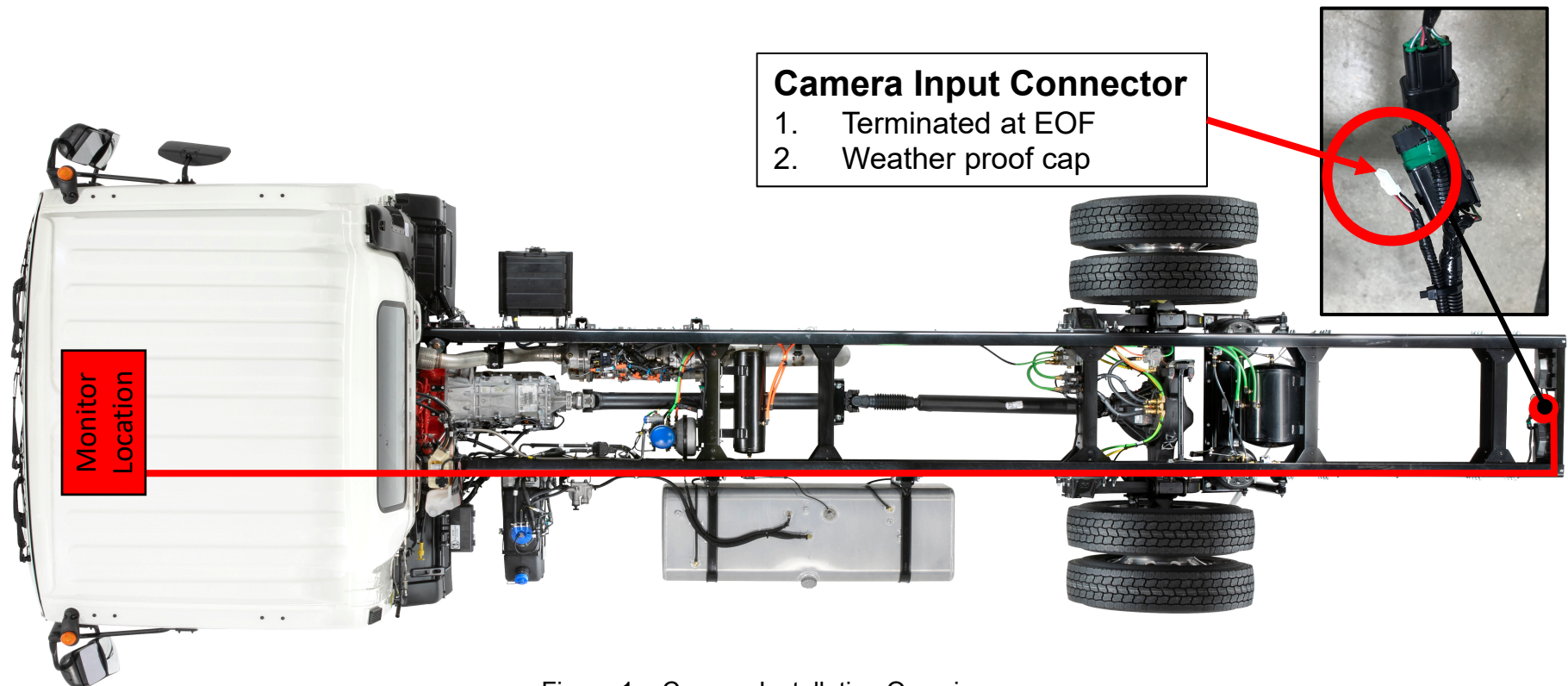


Figure 1 – Camera Installation Overview

2026 Isuzu Truck

Back Up Camera Installation Kit Part Numbers

KIT PART NUMBER: 8975462720			
NO.	PART NUMBER	DESCRIPTION	QTY
1	8975438760	HCE-C1100 Back Up Camera	1
2	8975438730	Camera Bracket/Shroud	1
3	8975438750	23' Camera Extension Harness	1

Figure 2 – Camera Install Kit Part Numbers

- When RPO code I2V (Audio system with 7" diagonal color touch screen with backup camera) is selected, the Back Up Camera Kit will be shipped in the cab, in a poly bag, band tied to the center seat. (Figure 5).
- The Back Up Camera Kit will include the parts listed in Figure 2, provided in a sealed package. The package also includes a piece of shrink tube that should be used to protect the connection between the camera pigtail and the 23' extension harness (see the circled location in Figure 4 below).



Figure 3 – Camera Install Kit



Figure 4 – Camera Install Kit Shipping Location



Figure 5 – Camera Install Kit Shipping Location

Isuzu Back Up Camera Mounting Information

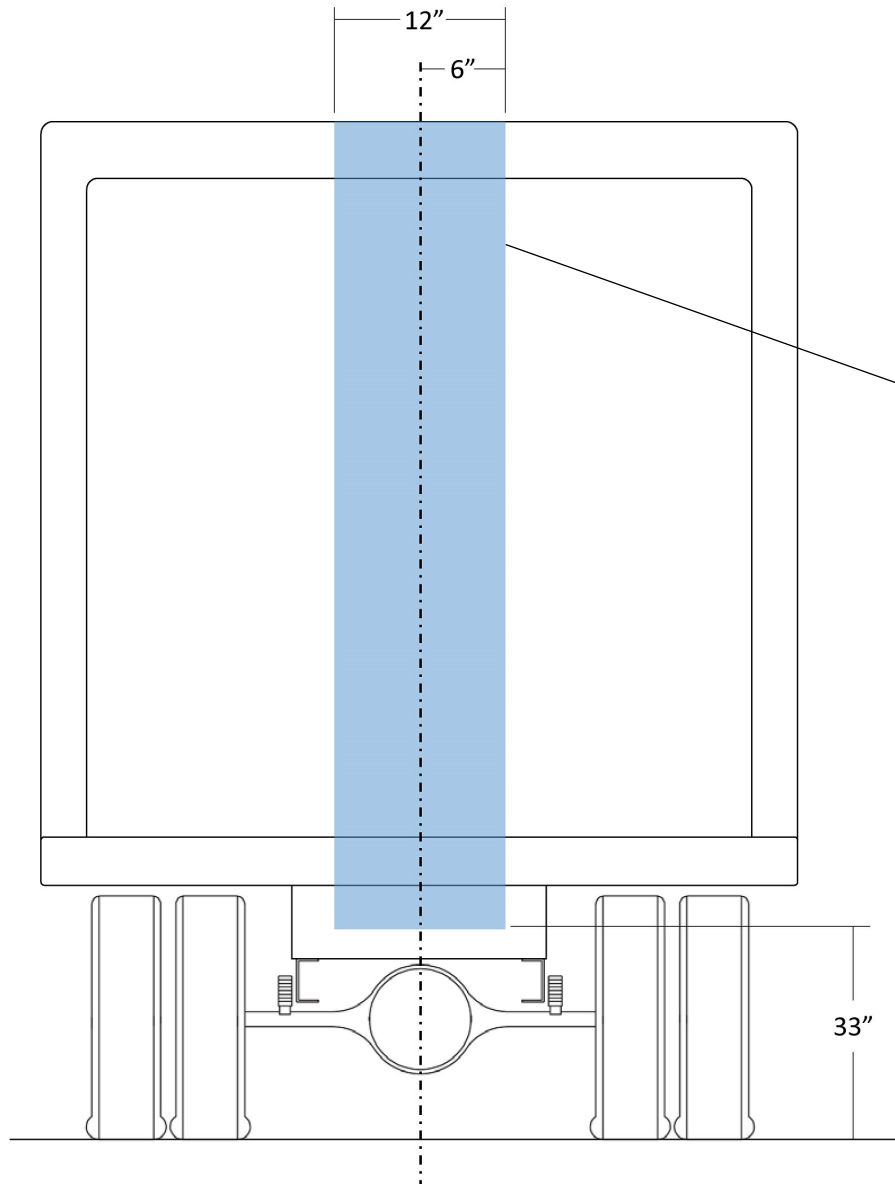
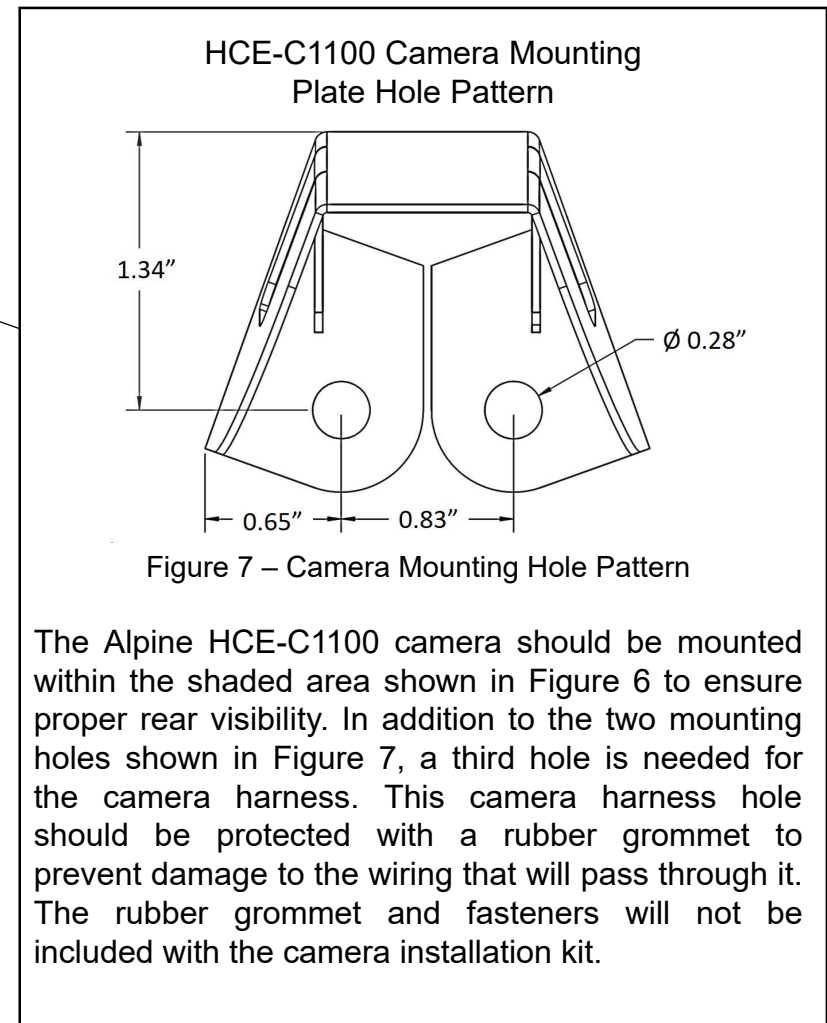


Figure 6 – Camera Mounting Area



2026 Isuzu Truck

Power Take Off (PTO) System for N-Series 5.2 L 4HK1

The engine control module (ECM) has the functionality to accommodate a variety of different PTO systems depending on up-fitter specification. These systems consist of the following:

- Stationary Preset PTO Mode
- Stationary Variable PTO Mode
- Mobile Variable PTO Mode
- Engine Shutdown Protection
- Speedometer Calibration

Each mode is used with the specification of upfitter installation, which can be programmed to a tailored use. Moreover, the following functions are common with each PTO mode:

- PTO Standby Speed
- PTO Maximum Engine Speed
- PTO Engine Shutdown
- PTO Engage Relay
- PTO (Relay Maximum) Engage Speed
- PTO Feedback

Each vehicle is factory equipped with two chassis PTO electrical connectors; PTO Harness 1 (H-126) and PTO Harness 2 (H-125). Connection points for both harnesses are located on the inner left frame rail next to the crossmember in front of the rear axle. The purpose of these connectors is to allow the upfitter to easily connect to the ECM PTO circuits without having to alter any of the factory-installed wiring.

PTO Controls

PTO (power take off) is a device that is used to provide engine power to special equipment directly from the engine or through the transmission. For details about the PTO operation, refer to the separate instruction manual provided by its maker. Improper operation of these switches may cause personal injury or damage.

NOTE

PTO mode must be enabled prior to PTO equipment operation. PTO mode can be enabled through the use of optional factory PTO switches (shown below) by pressing the PTO Main Switch and then pressing either +/- on the PTO Engine Speed Control Switch.

Installation of PTO Switches

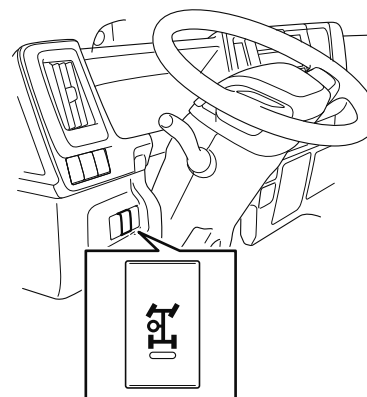
Parts List:

QTY 1 - PN: 8-97268-081-0; PTO Switch

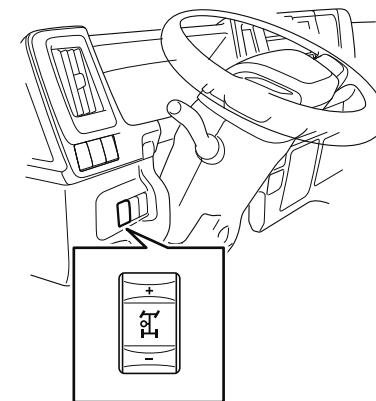
QTY 1 - PN: 8-97268-079-0; PTO Adjustment

Switch Installation Instructions:

- 1) Remove dash cover
- 2) Remove two (2) hole covers (center and left) from left side dash and remove harness connectors from hole cover
- 3) Insert PTO On/Off Switch in center slot and PTO Adjustment Switch in left slot
- 4) Attach green connector to PTO switch and orange connector to PTO Adjustment Switch
- 5) Re-install dash panel



PTO Main Switch



PTO Engine Speed Control Switch

NOTE

- The brake pedal may need to be depressed and released before the idle speed will increase.

NOTE

The optional PTO main switch and PTO engine speed control switch can be used to increase the engine idle r/min without additional programming. Pressing the PTO main switch once increases the idle up speed to the preset 800 r/min, and pressing either +/- on the PTO engine speed control switch once activates the PTO mode. Once in PTO mode the PTO engine speed control switch can be used to adjust the idle speeds between the preset 1,300 and 1,700 r/min. Moving the selector lever from park or neutral, applying the brake pedal or releasing the parking brake will cancel PTO mode and return the engine idle speed to normal. For additional details about PTO programming, contact your local Isuzu Dealer.

2026 Isuzu Truck

Power Take Off (PTO) System for N-Series 5.2 L 4HK1

I. Stationary Preset PTO Mode

In Stationary Preset PTO Mode, the PTO control is performed while the vehicle is stopped by arbitrarily selecting one of multiple preset (up to four not including PTO Standby Speed) engine speeds as the PTO desired engine speed. If the engine speed the driver requests by pressing on the accelerator pedal is higher than the PTO desired engine speed, the accelerator pedal engine speed is used. However, the accelerator pedal engine speed cannot go higher than the PTO Maximum Engine Speed.

Hardware Configuration - The Stationary Preset PTO Mode is enabled based on the following hardware inputs to the ECM.

A. Factory Installed Switches (optional):

1. PTO Main Switch: The factory-option dash mounted PTO Main Switch is used to enable or cancel PTO mode. The engine speed will be set to the PTO Standby Speed when the PTO main switch is pressed. The switch is a push-lock type switch. The input circuit is connected to the ECM 56 of CH-119 connector.
2. PTO Engine Speed Control Switch: The factory-option dash mounted PTO Engine Speed Control Switch can be used in PTO mode to decrease or increase the engine speed when the switch is tapped or while this switch is pressed to (-) or (+). The switch is a momentary switch. The input circuits are connected to the ECM 54 and 69 of CH-119 connector.

Power Take Off (PTO) System for N-Series 5.2 L 4HK1

B. Upfitter Installed Switches:

1. Remote PTO Set Switch: The upfitter-installed Remote PTO Set Switch can be used in PTO mode to set the Remote PTO Set Switch (same engine speed as the PTO Set Speed) when this switch is pressed. The switch needs to be a momentary switch. The PTO harness 1 connector is equipped with an input circuit to the ECM 18 of CH-119 connector through the J of H-126 connector.
2. Remote PTO Resume Switch: The upfitter-installed Remote PTO Resume Switch can be used in PTO mode to set the Remote PTO Resume Switch (same engine speed as the PTO Resume Speed) when this switch is pressed. The switch needs to be a momentary switch. The PTO harness 1 connector equipped with input circuit to the ECM 42 of CH-119 connector through the K of H-126 connector.
3. Remote Set Speed A Switch: The upfitter-installed Remote Set Speed A Switch can be used in PTO mode to set the PTO Set Speed A when this switch is pressed. The switch needs to be a toggle or push-lock switch. The PTO harness 1 connector equipped with input circuit to the ECM 30 of CH-119 connector through the D of H-126 connector.
4. Remote Set Speed B Switch: The upfitter-installed Remote Set Speed B Switch can be used in PTO mode to set the PTO Set Speed B when this switch is pressed. The switch needs to be a toggle or push-lock switch. The PTO harness 1 connector equipped with an input circuit to the ECM 46 of CH-119 connector through C of H-126 connector.
5. PTO Engage Relay: The upfitter-installed PTO Engage Relay can be used to supply switched battery voltage to operate a PTO hydraulic solenoid. The solenoid in turn allows fluid to flow to a PTO hydraulic pump. The relay is controlled via the ECM grounding the relay coil control circuit. The PTO harness 2 C of H-125 connector is equipped with the voltage feed circuit to the relay. Also, the PTO harness 2 connector is equipped with a grounding circuit to ECM 3 of CH-119 connector through B of the H-125 connector.
6. PTO Feedback Switch: Some applications require that the operator press an upfitter installed momentary switch usually located outside the cab before entering any PTO set speed (not PTO Standby Speed). The switch is normally tied into the PTO Engage Relay switch circuit. Once the switch is pressed with the relay turned ON, the ECM should detect a high voltage at the PTO Feedback Switch input. This momentarily high input will allow the operator to use any of the PTO speeds above the PTO Standby Speed until PTO mode is cancelled. The PTO harness 1 A of H-126 connector is equipped with a voltage feed circuit to the PTO Engage Relay. Also, the PTO harness 2 connector is equipped with an input circuit to the ECM 68 of CH-119 connector through A of H-125 connector.
7. PTO Engine Shutdown Switch: The upfitter-installed PTO Engine Shutdown Switch can be used in PTO mode to turn Off the engine. The switch needs to be a toggle or push-lock switch. The PTO harness 1 connector equipped with an input circuit to the ECM 55 of CH-119 connector through the F of H-126 connector.

2026 Isuzu Truck

Power Take Off (PTO) System for N-Series 5.2 L 4HK1

II. Stationary Variable PTO Mode

In Stationary Variable PTO Mode, the PTO control is performed while the vehicle is stopped by arbitrarily selecting an engine speed as the PTO desired engine speed. If the engine speed the driver requests by pressing on the accelerator pedal is higher than the PTO desired engine speed, the accelerator pedal engine speed is used.

Hardware Configuration - The Stationary Variable PTO Mode is enabled based on the following hardware inputs to the ECM.

A. Factory Installed Switches (Optional):

1. PTO Main Switch: The factory-option dash mounted PTO Main Switch is used to enable or cancel PTO mode. The engine speed will be set to the PTO Standby Speed when the PTO main switch is pressed. The switch is a pushlock type switch. The input circuit is connected to the ECM 56 of CH-119 connector.
2. PTO Engine Speed Control Switch: The factory-option dash mounted PTO Engine Speed Control Switch can be used in PTO mode to decrease or increase the engine speed when the switch is tapped or while this switch is pressed to (-) or (+). The switch is a momentary switch. The input circuits are connected to the ECM 54 and 69 of CH-119 connector.

Power Take Off (PTO) System for N-Series 5.2 L 4HK1

B. Upfitter-installed Switches:

1. Remote PTO Set Switch: The upfitter-installed Remote PTO Set Switch can be used in PTO mode to decrease the engine speed when this switch is tapped or while this switch is pressed. The switch needs to be a momentary switch. The PTO harness 1 connector equipped with an input circuit to the ECM 18 of CH-119 connector through the J of H-126 connector.
2. Remote PTO Resume Switch: The upfitter-installed Remote PTO Resume Switch can be used in PTO mode to increase the engine speed at when this switch is tapped or while this switch is pressed. The switch needs to be a momentary switch. The PTO harness 1 connector equipped with input circuit to the ECM 42 of CH-119 connector through the K of H-126 connector.
3. Remote PTO Throttle: The upfitter-installed Remote PTO Throttle can be used in PTO mode to increase or decrease the engine speed the same as an accelerator pedal. The device needs to be a potentiometer. The ECM supplies 5 volts reference circuit to the Remote PTO Throttle from the ECM 14 of CH-119 connector through the E of H-125 connector. The ECM also provides a ground on the low reference circuit from the ECM 20 of CH-119 connector through the G of H-125 connector. The ECM monitors the Remote PTO Throttle signal on the ECM 11 of CH-119 connector through the F of H-125 connector.
 - a) *It is necessary to program the Remote PTO Throttle signal inputs to the ECM at position 0% and 100%.*
 - (1) Preset value at 0%: 0.85 volts
 - (2) Preset value at 100%: 3.75 volts
 - b) *If the ECM then detects the Remote PTO Throttle signal more than 4.9 volts, DTC P254D will set. The Remote PTO Throttle MUST be enabled (programmed) in the ECM.*
4. PTO Engage Relay: The upfitter-installed PTO Engage Relay can be used to supply switched battery voltage to operate a PTO hydraulic solenoid. The solenoid in turn allows fluid to flow to a PTO hydraulic pump. The relay is controlled via the ECM grounding the relay coil control circuit. The PTO harness 2 C of H-125 connector is equipped with the voltage feed circuit to the relay. Also, the PTO harness 2 connector is equipped with a grounding circuit to ECM 3 of CH-119 connector through B of the H-125 connector.
5. PTO Feedback Switch: Some applications require that the operator press an upfitter installed momentary switch usually located outside the cab before entering any PTO set speed (not PTO Standby Speed). The switch is normally tied into the PTO Engage Relay switch circuit. Once the switch is pressed with the relay turned ON, the ECM should detect a high voltage at the PTO Feedback Switch input. This momentarily high input will allow the operator to use any of the PTO speeds above the PTO Standby Speed until PTO mode is canceled. The PTO harness 1 A of H-126 connector is equipped with a voltage feed circuit to the PTO Engage Relay. Also, the PTO harness 2 connector is equipped with an input circuit to the ECM 68 of CH-119 connector through A of H-102 connector.

2026 Isuzu Truck

Power Take Off (PTO) System for N-Series 5.2 L 4HK1

6. PTO Engine Shutdown Switch: The upfitter-installed PTO Engine Shutdown Switch can be used in PTO mode to turn Off the engine. The switch needs to be a toggle or push-lock switch. The PTO harness 1 connector equipped with an input circuit to the ECM 55 of J-419 connector through the F of H-126 connector.
7. PTO Engine Shutdown Switch input MUST be enabled (programmed) in the ECM AND the ECM must detect a low voltage input at pin 55 of CH-119 connector. These both are necessary for this shutdown feature to operate.

III. Mobile Variable PTO Mode

In Mobile Variable PTO Mode, the PTO control is performed while the vehicle is running by arbitrarily selecting engine speeds as the PTO desired engine speed. The system allows increases or decreases above the PTO Standby Speed by two switch inputs into the ECM while the vehicle is moving. If the engine speed the driver requests by pressing on the accelerator pedal is higher than the PTO desired engine speed, the accelerator pedal engine speed is used.

The PTO Maximum Vehicle Speed for Mobile Variable PTO Mode can change within the following allowable range:

- Minimum: 0 MPH (0 km/h)
- Maximum: 75 MPH (120 km/h)
- Preset value: 75 MPH (120 km/h)

In order to burn off the accumulated PM in the diesel particulate filter (DPF) during the mobile variable mode, entering the regeneration event is allowed via ECM programming.

- Preset Value: No

2026 Isuzu Truck

Power Take Off (PTO) System for N-Series 5.2 L 4HK1

Hardware Configuration - Mobile Variable Mode uses only switches in the cab and is enabled based on the following hardware inputs to the ECM.

A. Factory Installed Switches (Optional):

1. PTO Main Switch: The factory-option dash mounted PTO Main Switch is used to enable or cancel PTO mode. The engine speed will be set to the PTO Standby Speed when the PTO main switch is pressed. The switch is a push-lock type switch. The input circuit is connected to the ECM 56 of CH-119 connector.
2. PTO Engine Speed Control Switch: The factory-option dash mounted PTO Engine Speed Control Switch can be used in PTO mode to decrease or increase the engine speed when the switch is tapped or while this switch is pressed to (-) or (+). The switch is a momentary switch. The input circuits are connected to the ECM 54 and 69 of CH-119 connector.

B. Upfitter-installed:

1. PTO Engage Relay: The upfitter-installed PTO Engage Relay can be used to supply switched battery voltage to operate a PTO hydraulic solenoid. The solenoid in turn allows fluid to flow to a PTO hydraulic pump. The relay is controlled via the ECM grounding the relay coil control circuit. The PTO harness 2 C of H-125 connector is equipped with the voltage feed circuit to the relay. Also, the PTO harness 2 connector is equipped with a grounding circuit to ECM 3 of CH-119 connector through B of the H-125 connector.
2. PTO Feedback Switch: Some applications require that the operator press an upfitter installed momentary switch usually located outside the cab before entering any PTO set speed (not PTO Standby Speed). The switch is normally tied into the PTO Engage Relay switch circuit. Once the switch is pressed with the relay turned ON, the ECM should detect a high voltage at the PTO Feedback Switch input. This momentarily high input will allow the operator to use any of the PTO speeds above the PTO Standby Speed until PTO mode is cancelled. The PTO harness 1 A of H-126 connector is equipped with a voltage feed circuit to the PTO Engage Relay. Also, the PTO harness 2 connector is equipped with an input circuit to the ECM 68 of CH-119 connector through A of H-125 connector.
3. PTO Engine Shutdown Switch: The upfitter-installed PTO Engine Shutdown Switch can be used in PTO mode to turn Off the engine. The switch needs to be a toggle or push-lock switch. The PTO harness 1 connector equipped with an input circuit to the ECM 55 of CH-119 connector through the F of H-126 connector.
 - a) *PTO Engine Shutdown Switch input MUST be enabled (programmed) in the ECM AND the ECM must detect a low voltage input at pin 55 of CH-119 connector. These both are necessary for this shutdown feature to operate.*

Caution About Regeneration

1. The check engine malfunction indicator light and reduced engine power indicator light may come on and the power output may be limited if driving or power take-off (PTO) operation is continued for a long time with the regeneration required warning light or selectable (switch) regeneration required warning light (amber/red) on.
2. This is to prevent the DPF from being damaged. When operating PTO during parking, check to ensure that the regeneration required warning light or selectable (switch) regeneration required warning light (amber/red) on the MID is not on.
3. The exhaust pipe is extremely hot immediately after vehicle operation. Before parking, make sure the area is free of flammable material (for example, grass, waste paper, oil or old tires).
4. Take particular care when parking in a garage.
5. Use caution concerning exhaust gases while the engine is idling. Be particularly careful when the power take-off (PTO) is operating (if your vehicle is equipped with a PTO) or the DPF is regenerating while the engine is idling.

2026 Isuzu Truck

Additional PTO Functions

These additional functions can be programmed into the ECM:

- A. Manual Regeneration only for GSE vehicles
For certain applications the automatic regeneration function can be inhibited and manual regeneration only can be programmed.
(Example Airport Ground Support vehicles).
- B. Allow Automatic Regeneration in PTO Mode
For certain applications the Automatic regeneration function can be enabled in the PTO stationary mode
(Example Lawn care and carpet cleaning).
- C. Allow Automatic Regeneration in PTO Mode
For certain applications the Automatic regeneration function can be enabled in the PTO mobile mode
(Example Line painting).

Procedure for Setting Manual Regeneration in Power Take-off Mode

1. Choose the correct Model Year, Model and Transmission type using IDSS, then click 'Submit'.
2. Click on 'Controller Programming' in the table of contents on the left.
3. Click on Engine Control Module > Vehicle Options, then choose the PTO Options tab on the right.
4. Select the correct PTO Options for the vehicle that is being setup. Manual DPF Regeneration in PTO
5. Click Download when all of the PTO options have been changed, then follow the On-screen instructions to complete the programming process.

Procedure for Setting Auto Regeneration in Power Take-off Mode

1. Choose the correct Model Year, Model and Transmission type using IDSS, then click 'Submit'.
2. Click on 'Controller Programming' in the table of contents on the left.
3. Click on Engine Control Module > Vehicle Options, then choose the PTO Options tab on the right.
4. Select the correct PTO Options for the vehicle that is being setup. The two programmable options for automatic regeneration are as follows:
 - a. Auto DPF Regen in PTO within RPM Range. This is for use in Stationary PTO mode.
 - b. Auto DPF Regen in Mobile PTO Standby or Driving. This is for use in Mobile PTO mode
5. Click Download when all of the PTO options have been changed, then follow the On-screen instructions to complete the programming process.

2026 Isuzu Truck

Selectable DPF Regeneration - Only For Use With Ground Support Equipment (GSE) Vehicles

Certain applications require the Automatic Regeneration Function to be inhibited and Manual DPF Regeneration only to be used. The ECM via the IDSS tool can be programmed for this function.

IDSS Programming procedure:

Controller Programming\Engine Control Module\Vehicle Options\DPF Options

1. Change Auto DPF Regen Disable from NO to YES.
 - a. NO = Automatic Regen (factory default value)
 - b. YES = Selectable DPF Regeneration only

2026 Isuzu Truck

Performing a Selectable DPF Regeneration

During regeneration, white smoke may be temporarily produced from the exhaust pipe as a result of the combustion of particulate material; it does not indicate a failure.

To ensure the selectable DPF regeneration will take shortest amount of time to complete, the engine should be at operating temperature before starting.

Selectable DPF Regeneration will complete earlier when performed immediately after driving rather than when the engine is cold. The engine coolant temperature may rise during Selectable DPF Regeneration. The time needed to complete regeneration differs depending on the outside temperature.

The exhaust brake or exhaust throttle is activated during DPF regeneration. The exhaust brake or exhaust throttle starting to operate or being disengaged will produce a sound, but this does not indicate a failure.

CAUTION - To prevent a fire, make sure that there is no flammable material near the muffler, DPF and exhaust pipe. Remember that the temperature of exhaust gases is high enough to burn you.

When operating the PTO for a long time (if your vehicle is so equipped) make sure that the regeneration required warning light or selectable Regeneration Required warning light (amber) is not turning on.

Once the Selectable DPF Regeneration is started, it cannot be switched to the "Running" regeneration if interrupted.

When the "Switch" regeneration is selected, end regeneration in a single operation if possible.

During the regeneration, the engine speed may vary, causing the exhaust brake valve to be deactivated. However, while the regeneration is in progress, an indicator light (amber) appears showing regeneration is still taking place, so continue to perform regeneration until the message goes off.

Please see owner's manual for additional details, cautions, advice, and notes.

2026 Isuzu Truck

Performing a Selectable DPF Regeneration Continued

Procedure for performing a Selectable DPF Regeneration

1. To start, the following steps are required:
 - a. Engine is running
 - b. Transmission is in the Park position
 - c. The parking brake is applied
2. Press and hold the DPF regeneration switch. The MID will display “Checking PM Level”, this will occur while the system is checking to see if a selectable DPF regeneration can be performed.
3. Release the switch, if the DPF does not need to be regenerated, the “Checking PM Level” light will stay out. If there is enough soot accumulation in the DPF to allow a selectable DPF regeneration the MID will display “Selectable Regen Required.”
4. Press and release the switch again, the MID will display “Regeneration In Progress”. The engine RPM will raise and the exhaust brake will close. The Regeneration will take approximately 20 minutes to complete. When the engine RPM returns to idle, the DPF regeneration is completed.

Note: Once a Selectable DPF Regeneration has been started, it must be completed. Failure to complete will result in the Automatic and Emergency Running DPF Regeneration functions being disabled.

2026 Isuzu Truck

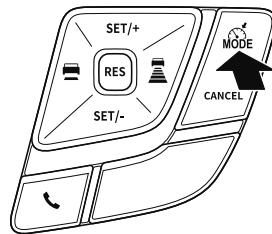
Cruise Control

The cruise control function allows you to drive the vehicle at a constant speed without operating the accelerator pedal. Use this function when the vehicle speed is between 30 and 75 MPH (48 and 121 km/h). This function should only be used when driving without frequent starts and stops.

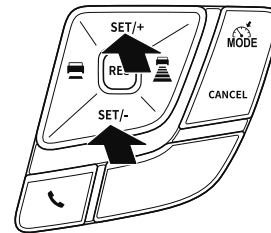
NOTE: Any time the cruise control switch is turned on, the PTO will not be engaged. Pressing the Cruise Control button to activate Cruise Control will pause PTO.

CAUTION: Cruise control can be dangerous where you cannot drive safely at a steady speed. Do not use cruise control on winding roads or in heavy traffic. Cruise control can be dangerous on slippery roads. On such roads, fast changes in tire traction can cause needless wheel spinning, and you could lose control. Do not use cruise control on slippery roads.

Cruise control main switch



Cruise control Set/Resume switch



Cruise Main Indicator Light



2026 Isuzu Truck

IDSS Programming Parameters

Parameter	Default	Unit	Range	Setting Criteria
PTO Standby Speed	800	RPM	650-3150	Must be an increment of 25 RPM
				Value cannot exceed PTO Max Engage Speed
				Value cannot exceed PTO Set Speed
				Value cannot exceed PTO Resume Speed
				Value cannot exceed Remote PTO Set Speed A
				Value cannot exceed Remote PTO Set Speed B
				Value cannot exceed PTO Max Engine Speed
				Value cannot exceed Remote PTO Throttle Max Engine Speed
PTO Standby Speed Limit	1300	RPM	650-3150	Value cannot exceed PTO Standby Speed Limit
				PTO Max Engine Speed must be an increment of 25 RPM
				Value cannot be less than PTO Standby Speed
				Value cannot be less than PTO Max Engage Speed
				Value cannot be less than PTO Set Speed
				Value cannot be less than PTO Resume Speed
				Value cannot be less than Remote PTO Set Speed A
				Value cannot be less than Remote PTO Set Speed B
PTO Max Engine Speed	1050	RPM	650-3150	Value must be higher than PTO Set Speed, PTO Resume Speed, Remote PTO Set Speed
				Value cannot be less than Remote PTO Throttle Engine Speed Range
PTO Max Engine Speed with Vehicle Moving	3050	RPM	650-3150	Value cannot exceed PTO Max Engine Speed with Vehicle Moving
PTO Max Vehicle Speed	75	mph/kmh	0-75 MPH (0-120 km/h)	Must be an increment of 25 RPM
PTO Engage Relay	No	Yes/No	No-Yes	Value cannot be less than PTO Max Engine Speed
PTO Max Engage Speed	1050	RPM	650-3150	Must be an increment of 25 RPM
				Value cannot exceed PTO Max Engage Speed
				Value cannot exceed PTO Standby Speed Value cannot exceed Remote PTO Throttle
PTO Feedback	No	Yes/No	No-Yes	
PTO Shutdown with Circuit Input	No	Yes/No	No-Yes	Will only shut down PTO if PTO Engine Shutdown with Circuit Input is not selected
PTO Engine Shutdown with Circuit Input	No	Yes/No	No-Yes	PTO Shutdown with Circuit Input must also be selected
PTO Shutdown Vehicle Speed	1	mph/kmh	0-75 MPH (0-120 km/h)	Will only shut down PTO if PTO Engine Shutdown with Circuit Input is not selected
PTO Engine Shutdown Time Delay	0	Hrs:min:sec	00:00:00-24:00:00	
Disable Cab Controls	No	Yes/No	No-Yes	If YES, Disable Cab Controls with Circuit Input must be set to NO
Disable Cab Controls with Circuit Input	No	Yes/No	No-Yes	If YES, Disable Cab Controls must be set to NO
PTO Brake/Clutch Override with Circuit Input	No	Yes/No	No-Yes	
Auto DPF Regen in PTO within RPM Range	No	Yes/No	No-Yes	When this parameter is set to YES, automatic DPF regeneration will occur in any PTO mode with engine speed between 1050 and 1700 RPM.
Auto DPF Regen in Mobile PTO Standby or Driving	No	Yes/No	No-Yes	When this parameter is set to YES, automatic DPF regeneration will occur only during driving and standby speed when in Mobile PTO mode.
				If this value is YES, then PTO mode must equal Mobile Variable.
Manual DPF Regeneration in PTO	No	Yes/No	No-Yes	
PTO Set Speed	1300	RPM	650-3150	PTO Set Speed must be an increment of 25 RPM
				Value cannot exceed PTO Resume Speed
				Value cannot exceed PTO Max Engine Speed
				Value cannot be less than PTO Standby Speed
				Value must be 25 RPM less than PTO Resume Speed

2026 Isuzu Truck

IDSS Programing Parameters

Parameter	Default	Unit	Range	Setting Criteria
PTO Resume Speed	1700	RPM	650-3150	PTO Set Speed must be an increment of 25 RPM
				Value cannot exceed PTO Max Engine Speed
				Value cannot be less than PTO Standby Speed
				Value cannot be less than PTO Set Speed
Remote PTO Set Speed AB Switches	No	Yes/No	No-Yes	Value must be 25 RPM greater than PTO Set Speed
Remote PTO Set Speed A	800	RPM	650-3150	Remote PTO Set Speed A must be an increment of 10 RPM
				Value cannot exceed Remote PTO Set Speed B
				Value cannot exceed PTO Max Engine Speed
				Value cannot be less than PTO Standby Speed
Remote PTO Set Speed B	800	RPM	650-3150	Will not work if Remote PTO Throttle is set to Yes
				Remote PTO Set Speed B must be an increment of 10 RPM
				Value cannot exceed PTO Max Engine Speed
				Value cannot be less than PTO Standby Speed
PTO Increase/Decrease RPM	25	RPM	25-1000	Value cannot be less than Remote PTO Set Speed A
PTO Accel RPM Rate	20	RPM per second	25-1000	Will not work if Remote PTO Throttle is set to Yes
PTO Reduce RPM Rate	30	RPM per second	25-1000	
Remote PTO Set/Resume Switches	Yes	Yes/No	No-Yes	
Remote PTO Throttle	Yes	Yes/No	No-Yes	
Remote PTO Throttle 0%	0.85	Volts	0-5	Remote PTO Throttle 0% must be an increment of 0.05 Volts
Remote PTO Throttle 100%	3.75	Volts	0-5	Remote PTO Throttle 100% must be an increment of 0.05 Volts
Remote PTO Throttle Engine Speed Range	2100	RPM	0-2500	Remote PTO Throttle Engine Speed Range must be an increment of 10 RPM
				Value cannot be less than PTO Standby Speed
				Value cannot exceed PTO Max Engine Speed

2026 Isuzu Truck

IDSS Programing Screen

Isuzu Diagnostic Service System (IDSS)

Isuzu 2011 NPRHD 5.2L AUTO GVWR - 14,001 - 16,000 lb

JALC4W164B7003094

Vehicle Options

Click on a Value to edit:

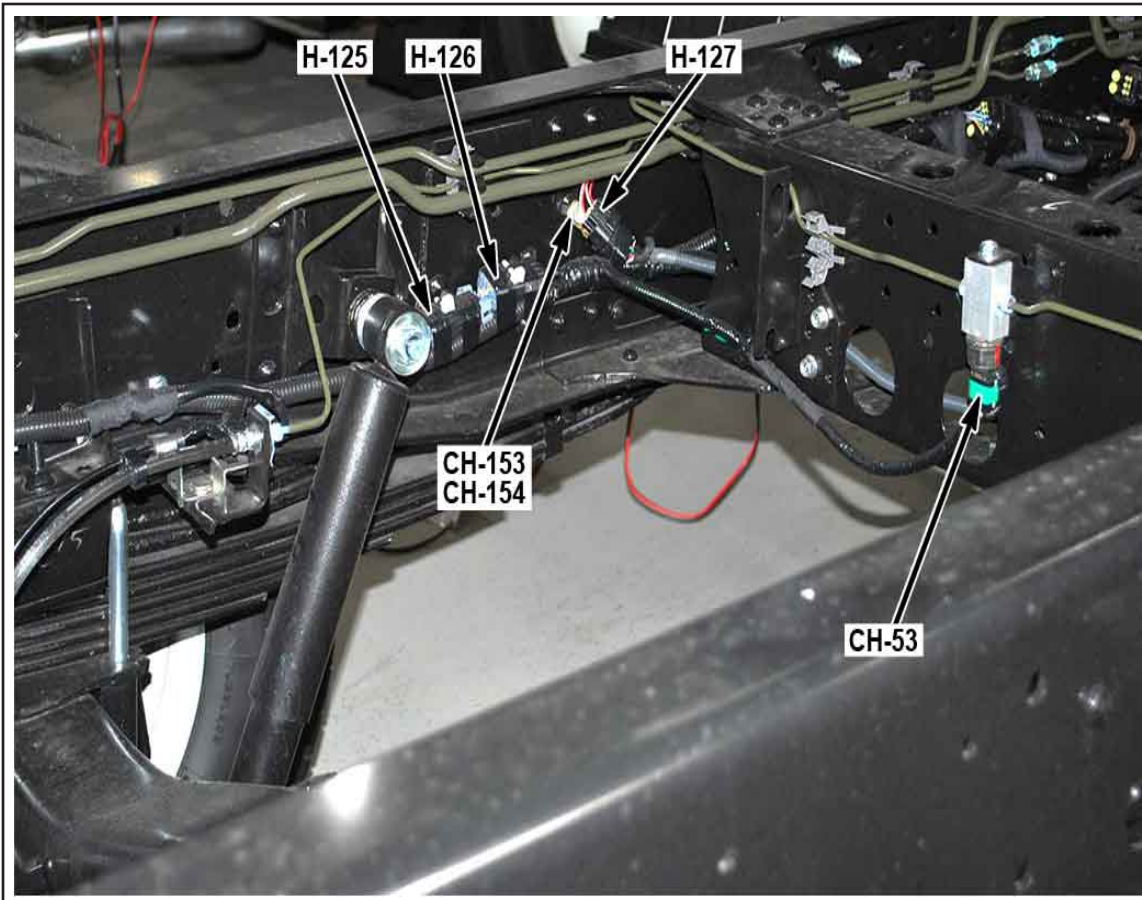
Vehicle Speed Limit	PTO Options	Engine Shutdown/Warning Protection	Idle Shutdown	Base Engine Idle Speed	Cruise Control	Exhaust Brake	DPF Options
Parameter		Value	Unit	Range			
Auto DPF Regen Disable		No Yes	Yes/No	No-Yes			

Notes regarding selected parameter:
IMPORTANT: This function was not available at time of production. Reprogram the ECM if the current software level number is lower than 98183213.

Data retrieved

Download Continue Exit

PTO Switch Harness H-125 & H-126



NOTE: Left Inner Frame Rail, In Front of the Left Rear Upper Shock Mount

2026 Isuzu Truck

H-125 Rear Frame Harness to the PTO

Additional information and connector drawings are available at www.powerandsignal.com and at <http://connectors2.delphi.com/dcsgdmcs/homepage.aspx>

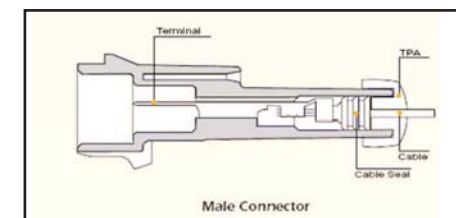
Pins and seals vary with wire size. Parts listed at the right are for the mating connector 12045808. Please confirm parts via web sites listed above.

H-125 Rear Chassis Harness to PTO Harness							
Connector Part Information				Connector Part Information			
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	BLK/WHT	IC172D	PTO Main Relay Signal	A	-	-	-
B	PNK/GRN	IC173D	PTO Main Relay Coil Control	B	-	-	-
C	PNK	IC181D	PTO Main Switch (Toggle Switch Signal) From H-52 Pin 18	C	-	-	-
D	BLU/YEL	IC188D	PTO Engine Speed Control Switch Down (-) Signal (PTO Set)	D	-	-	-
E	BLU	IC037D	PTO Throttle Sensor 5V Reference Voltage From H-52 Pin 10	E	-	-	-
F	YEL	IC038D	PTO Throttle Sensor Signal From H-52 Pin 9	F	-	-	-
G	BLU/RED	IC039D	PTO Throttle Sensor Low Reference Voltage From H-52 Pin 8	G	-	-	-
H	BLU/ORN	IC187D	PTO Engine Speed Control Switch Up (+) Signal (PTO Resume)	H	-	-	-

Left Inner Frame Rail, In Front of the Left Rear Upper Shock Mount

Termianl		
PN	Wide range	
12045773	1.0-0.08 mm2	
12077628	0.5-0.35 mm2	
TPA		
PN		
12124264		
included with connector		
Cable Seats		
Loose PN	Wide range	Color
12048086	2.85-2.03	Dk.Red
12089678	2.15-1.60	White
12048087	1.70-1.29	Blue
12084193	1.009-0.995	Tan
Cavity Plug		
PN	Cavity ID	Color
12059168	5.2mm	Dk.Red

Connector H125 - H126



2026 Isuzu Truck

H-126 Rear Frame Harness to PTO Harness

Additional information and connector drawings are available at www.powerandsignal.com and at <http://connectors2.delphi.com/dcsgdmcs/homepage.aspx>

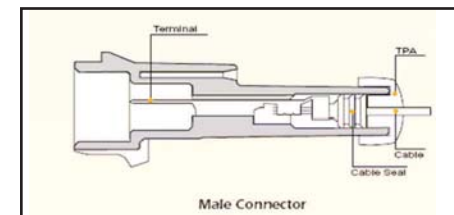
Pins and seals vary with wire size. Parts listed at the right are for the mating connector 12045808. Please confirm parts via web sites listed above.

H-126 Rear Chassis Harness to PTO Harness							
Connector Part Information		<ul style="list-style-type: none"> • DELPHI 12065425 • 10-WAY F (BLK) 		Connector Part Information		<ul style="list-style-type: none"> • Upfitter Installed • 10-WAY M (BLK) 	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	RED/BLK	IC180D	Fuse OF-14 Voltage From H-114 Pin 8	A	-	-	-
B	RED/GRN	IC168D	PTO Brake/Clutch Override Switch Signal	B	-	-	-
C	RED/BLU	IC166D	Remote PTO Set Speed B Switch Signal	C	-	-	-
D	GRY/RED	IC165D	Remote PTO Set Speed A Switch Signal	D	-	-	-
E	BRN	IC167D	PTO Cab Control Disable Switch Signal	E	-	-	-
F	PNK/BLK	IC169D	PTO Engine Shutdown Switch Signal	F	-	-	-
G	-	-	Not Used	G	-	-	-
H	BLK	IZ007D	Ground to CH-153	H	-	-	-
J	RED/YEL	IC171D	Remote PTO Set Switch Signal	J	-	-	-
K	RED/BLK	IC170D	Remote PTO Resume Switch Signal	K	-	-	-

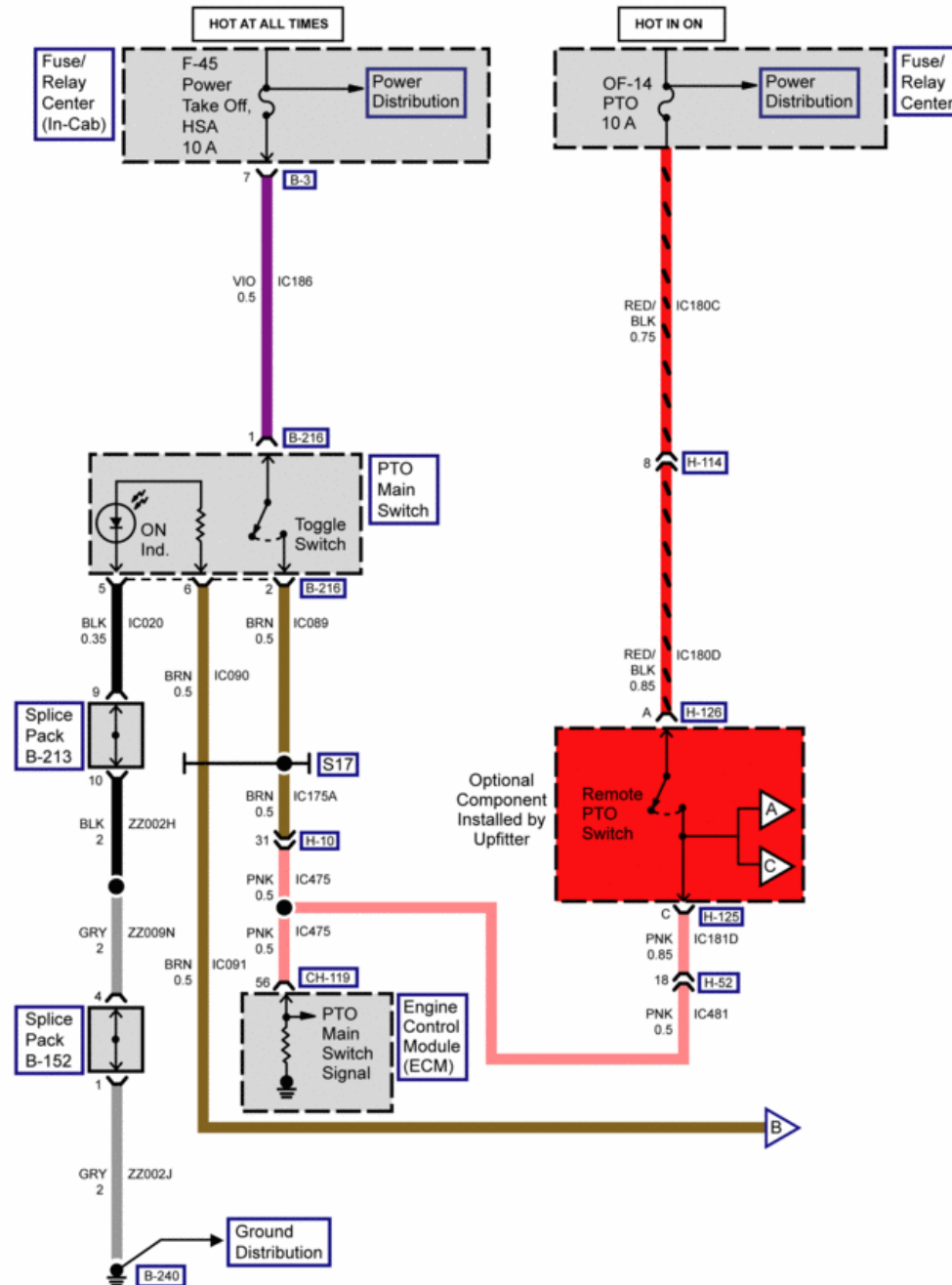
Left Inner Frame Rail, In Front of the Left Rear Upper Shock Mount

Terminal		
PN	Wide range	
12045773	1.0-0.08 mm ²	
12077628	0.5-0.35 mm ²	
TPA		
PN		
12124264		
included with connector		
Cable Seats		
Loose PN	Wide range	Color
12048086	2.85-2.03	Dk.Red
12089678	2.15-1.60	White
12048087	1.70-1.29	Blue
12084193	1.009-0.995	Tan
Cavity Plug		
PN	Cavity ID	Color
12059168	5.2mm	Dk.Red

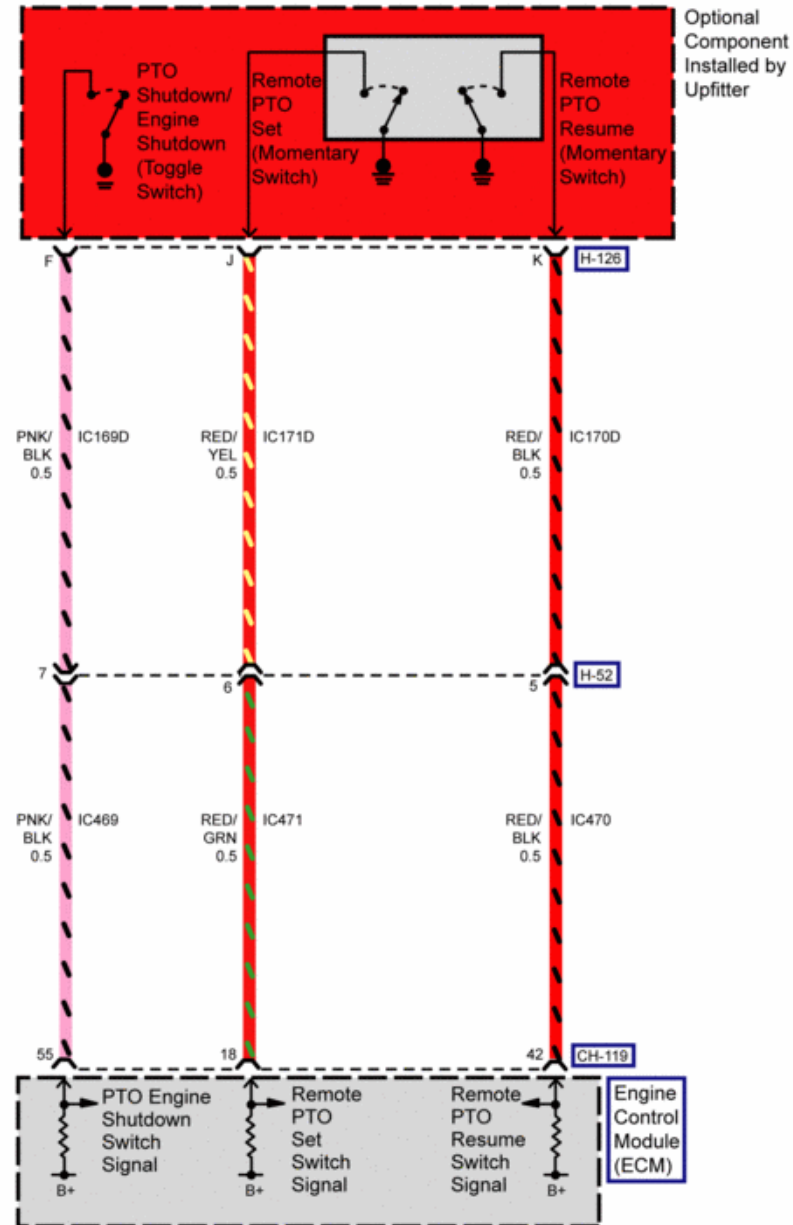
Connector H125 - H126



Power Take-Off Switch and Vehicle Speed Sensor 2

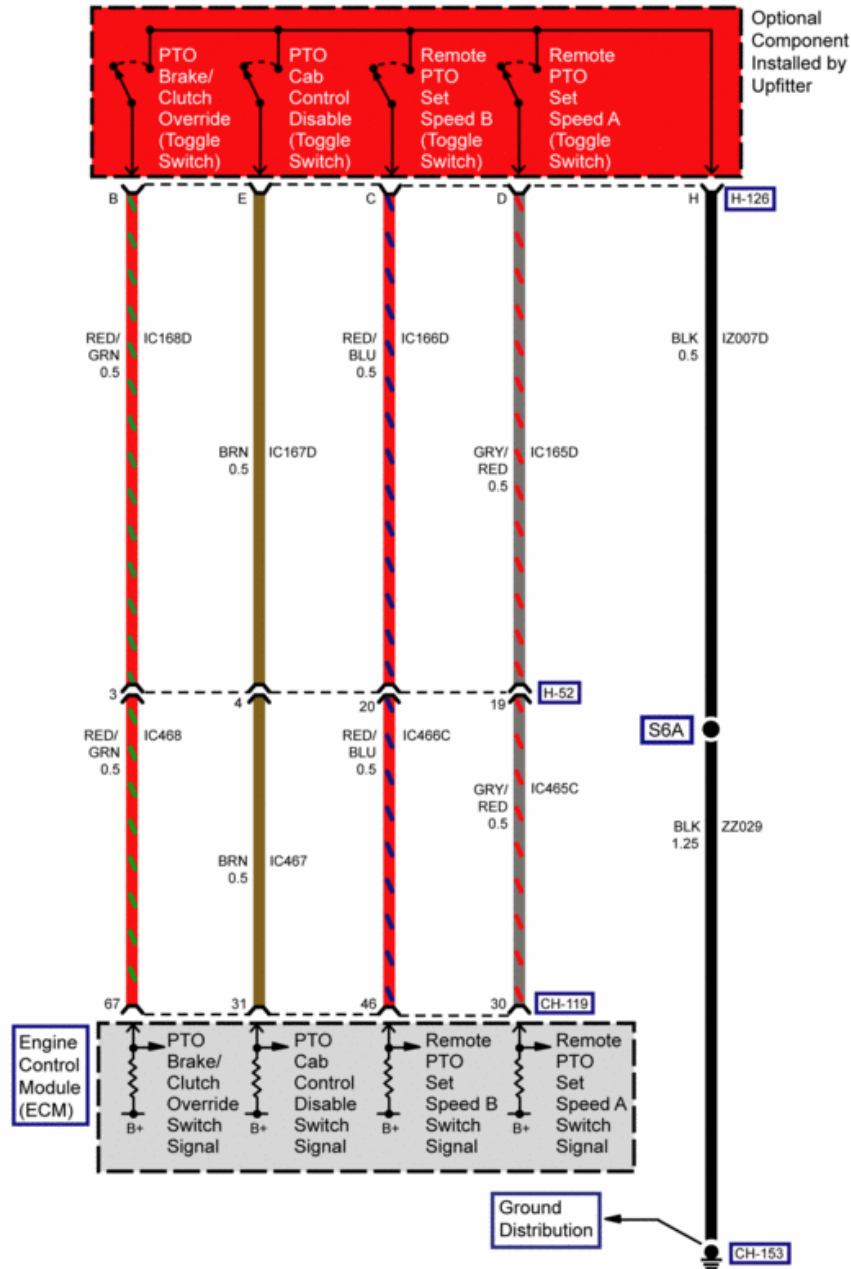


PTO Resume, Disable and Set Switch

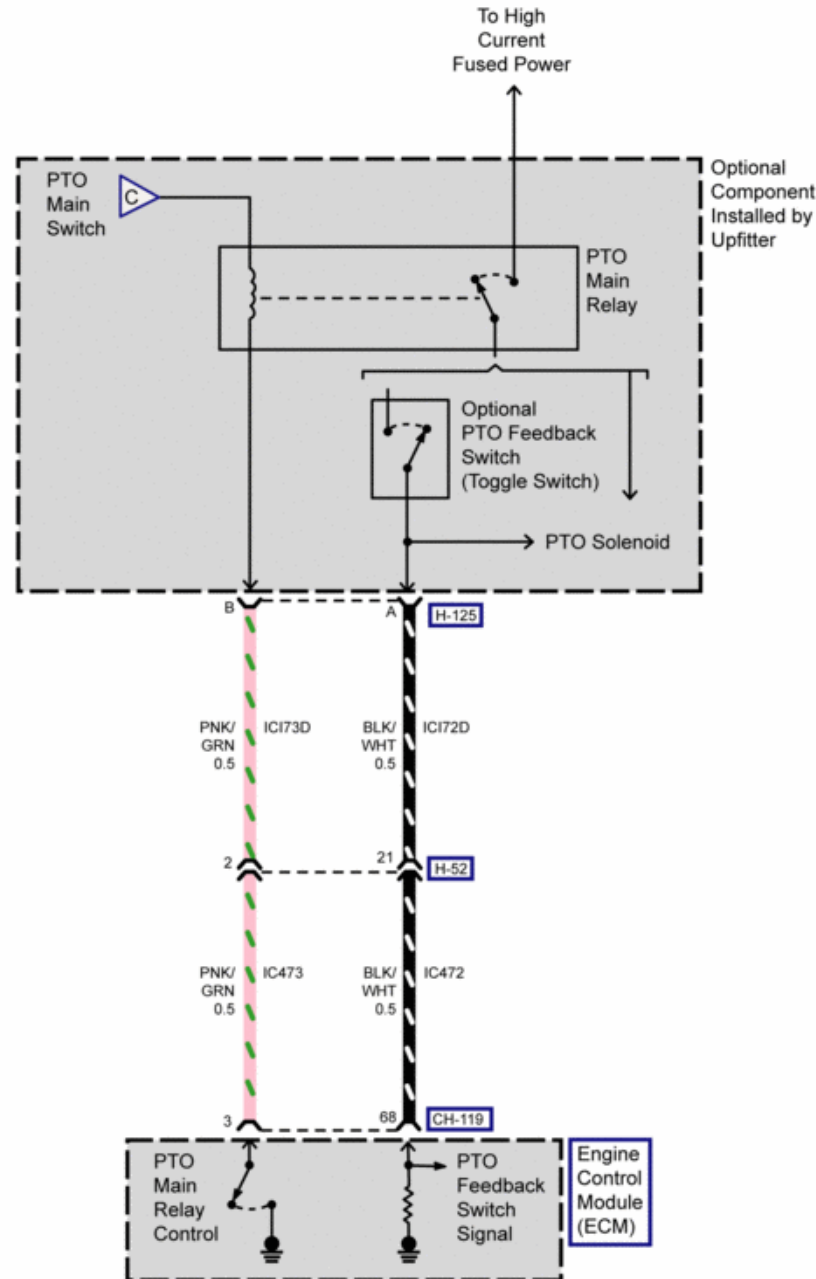


2026 Isuzu Truck

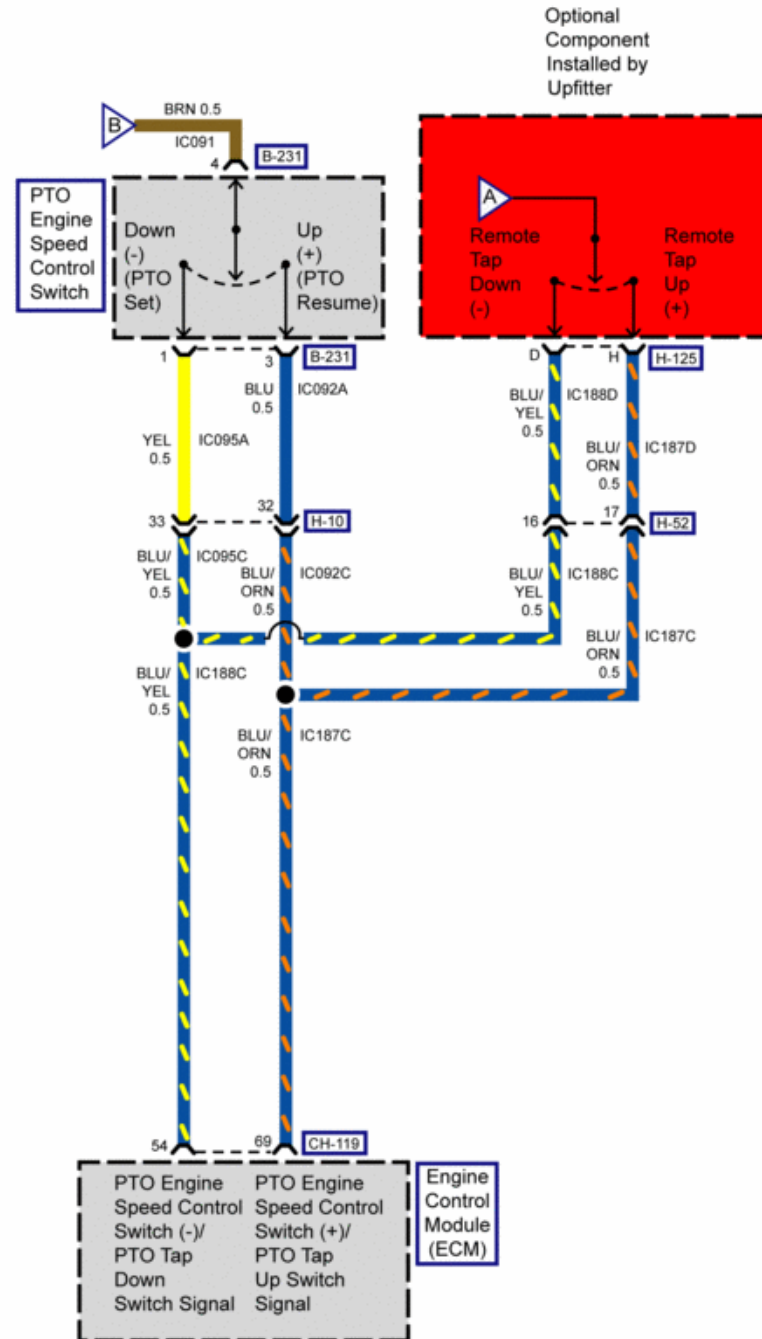
Brake Clutch Override, Cab Control Disable, Set Switches A and B



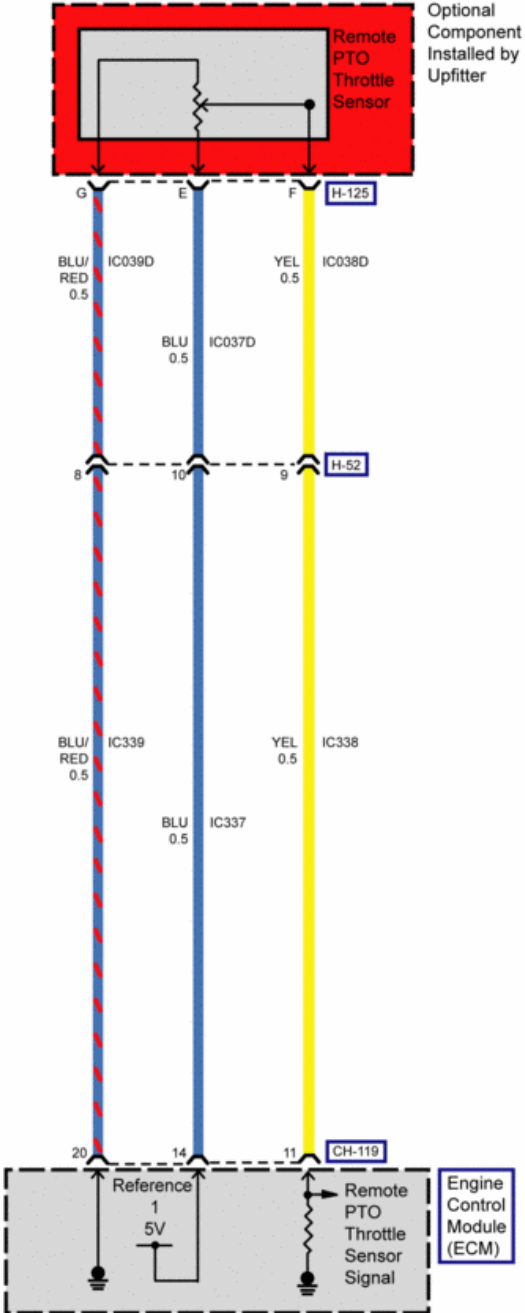
Power Take-Off Enable Relay Automatic Transmission



Power Take-Off Set Resume Switches (Up-Down)



Power Take-Off Throttle Sensor



2026 Isuzu Truck

Pressure and Lubrication Port Locations - Aisin Transmission

Transmission Model by Model Year and Vehicle Model

Transmission Model	Engine Model	Model Year	Vehicle Model
A450	4HE1-TC	1999-2004	NPR, NPR-HD, NQR, NRR
A450	4HK1-TC	2005-2007	NPR, NPR-HD, NQR, NRR
A460	4JJ1-TC	2011-2018	NPR
A465	4HK1-TC	2007-2019	NPR-HD, NPR-XD, NQR, NRR
A465id	4HK1-TC	2020-Present	NPR-HD, NPR-XD, NQR, NRR

PTO Pressure and Lubrication Port Locations - Aisin A450

Model Years: 1999-2007

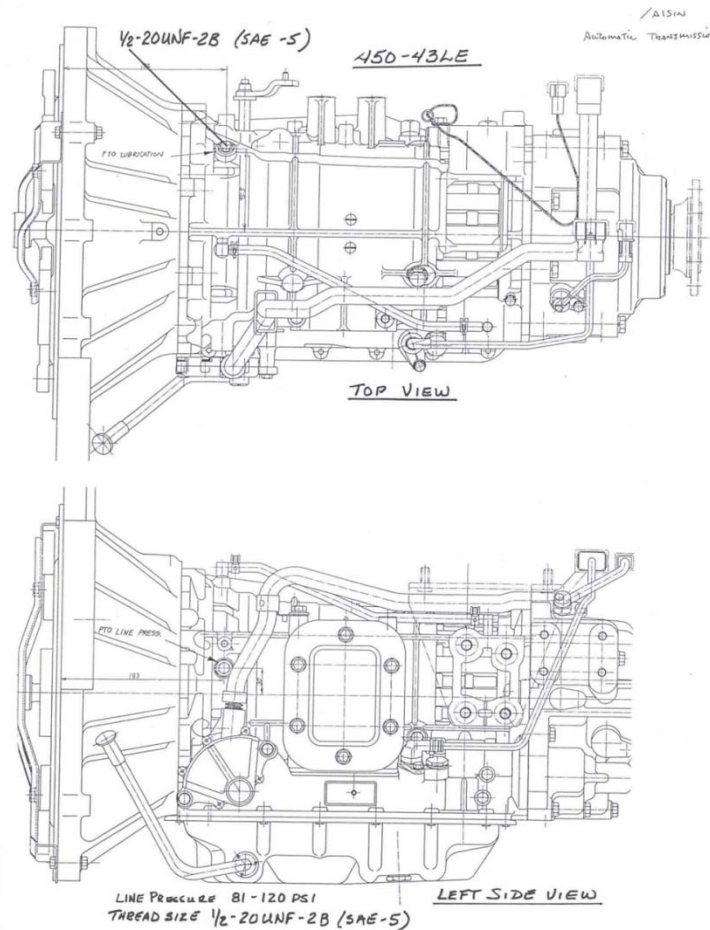
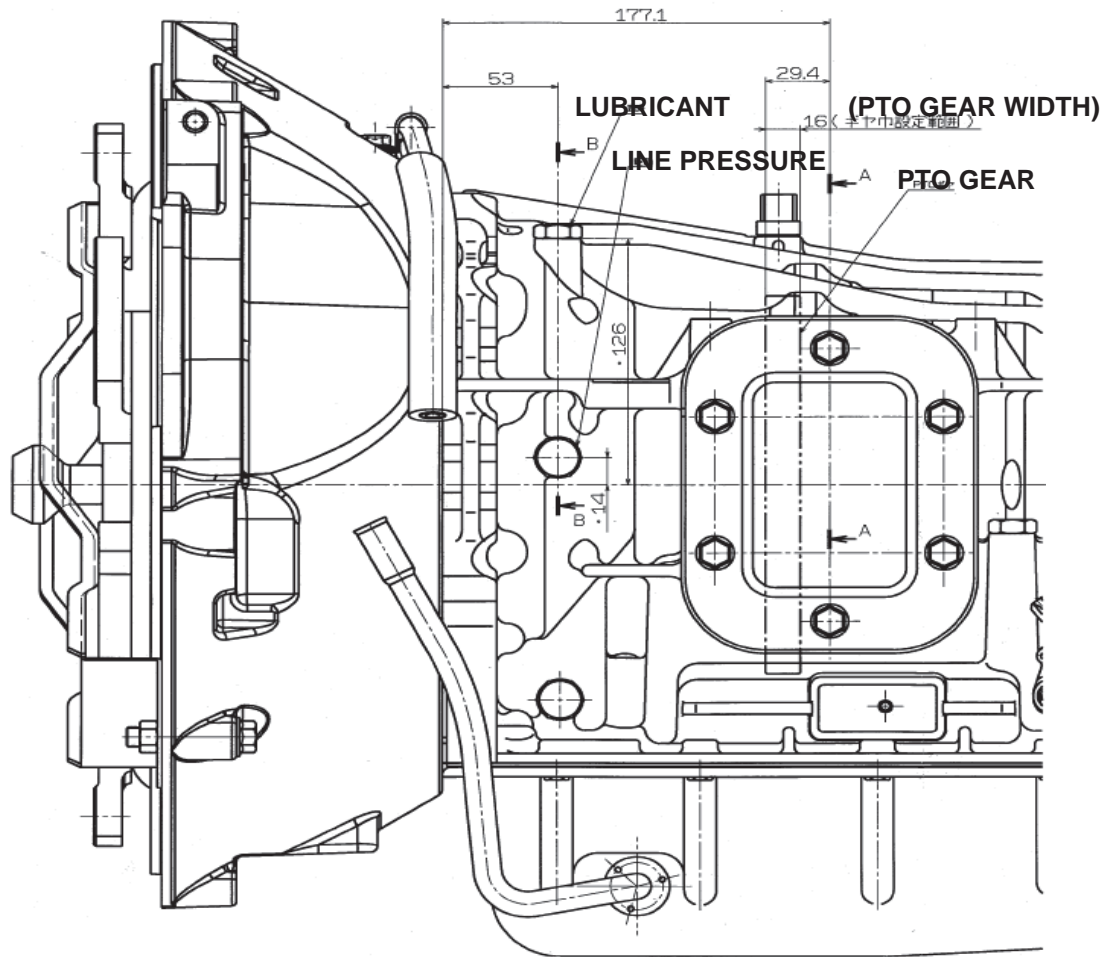


Figure 13

PTO Pressure and Lubrication Port Locations - Aisin A460

Model Years: 2011-2018

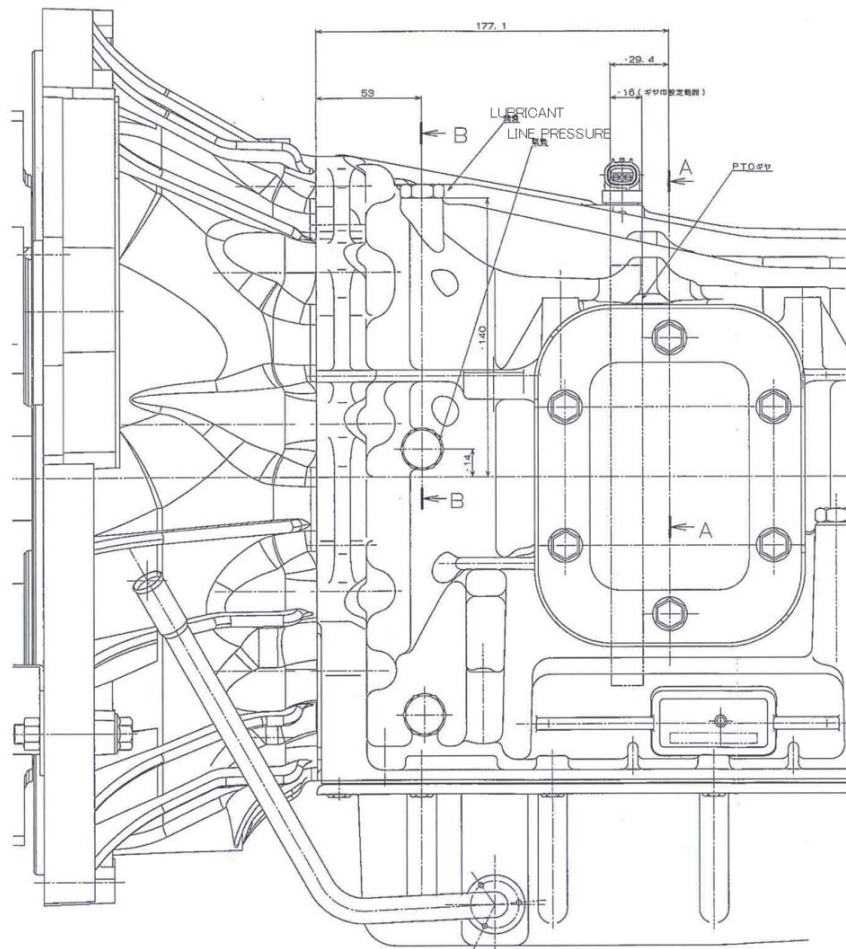


Line pressure: 261PSI (1.8MPa)
Fixing Torque:
Nominal 15.5 ft-lb (21Nm)
14.0-17.7 ft-lb (19-24 Nm)

Figure 14

PTO Pressure and Lubrication Port Locations - Aisin A465

Model Years: 2007-2019



Line pressure: 261PSI (1.8MPa)
Fixing Torque:
Nominal 15.5 ft-lb (21Nm)
14.0-17.7 ft-lb (19-24 Nm)

Figure 15

Transmission Opening Diagram - Aisin A460 and A465

Aisin A460 and A465 Automatic Torque Converter Lock Up Function.

In either the Stationary Preset PTO Mode (A460 and A465) or Stationary Variable PTO Mode (A460 and A465), when engine speed exceeds 1200 RPM, the torque converter will lock up. The engine speed can not be modified and the lockup function cannot be turned off. Please note that with PTO applications that operate around 1200 RPM, the transmission software holds the torque converter in lockup until engine speed falls below 1100 RPM.

The lock up function will cancel if the transmission shift lever is moved from the park or neutral positions which will remove the transmission from the stationary mode.

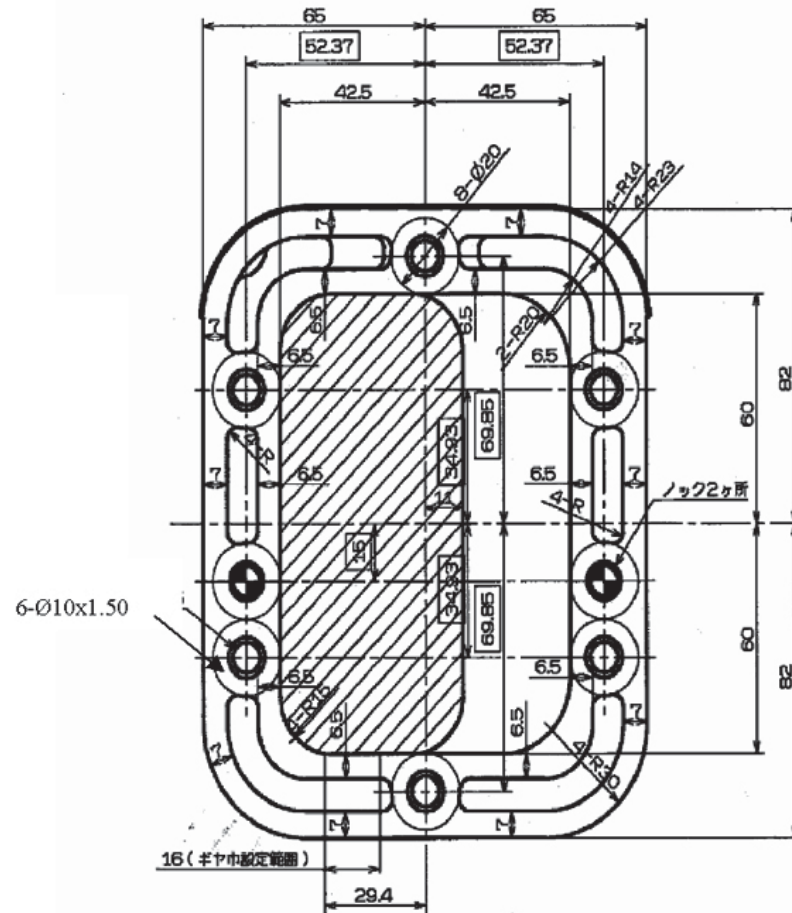


Figure 16

PTO Location, Drive Gear, and Opening Information - Aisin A465 and A465id

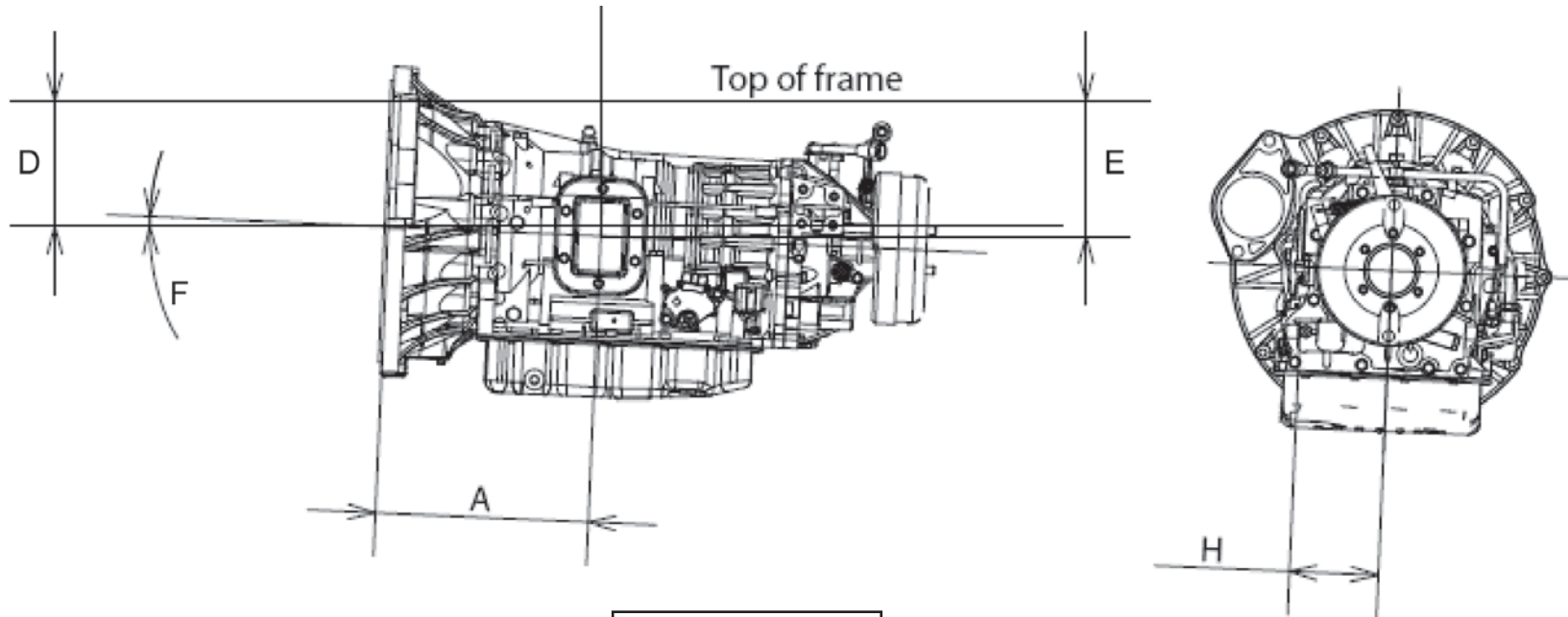


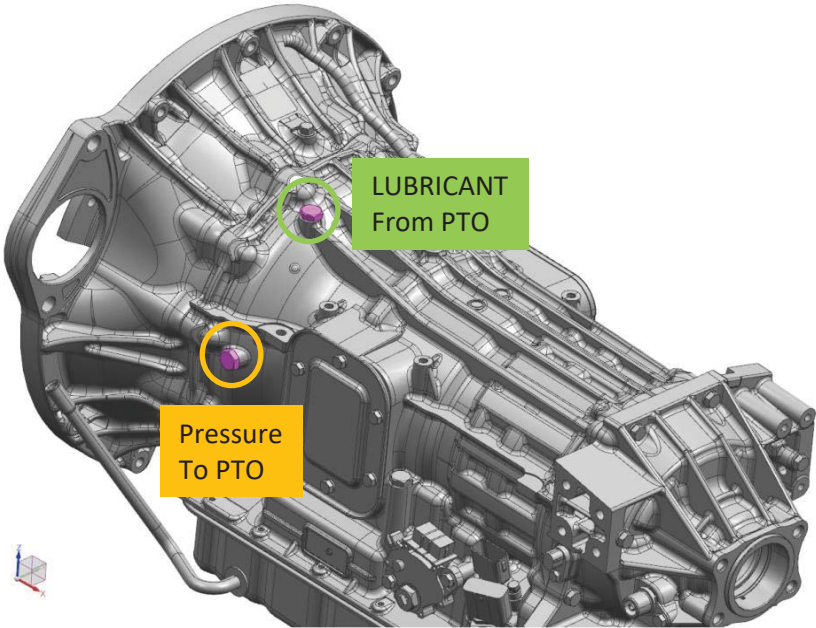
Figure 17

Transmission	Opening Location	Bolt Pattern	A	B ₁	C	D	E	F	H	PTO Drive Gear	Ratio of PTO Drive Gear Speed to Engine Speed	Number of Teeth	Pitch	Helix Angle	Max Output Torque
Aisin A465	Left	(Dr 2)	12.4	36.9	0	7.85	7.31	2.5°	5.16	PTO Gear	1:1 with turbine	69	N/A	0°	134 lbs-ft @ 1700 RPM
Aisin A465id	Left	(Dr 2)	12.4	36.9	0	7.37	7.88	2.5°	5.16	PTO Gear	1:1 with turbine	69	N/A	0°	134 lbs-ft @ 1700 RPM

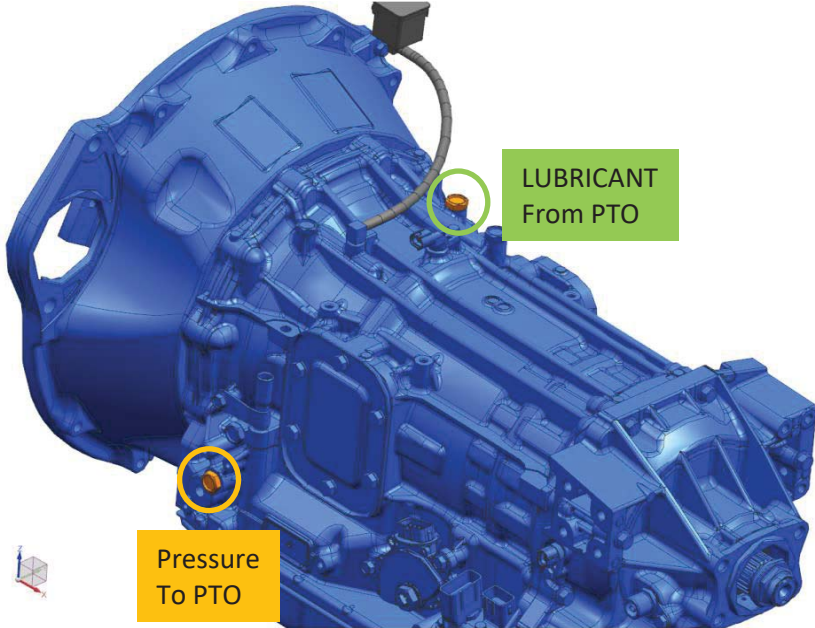
Notes: 1. Centerline of PTO to centerline of front axle

Note: Dimensions in inches

PTO Pressure and Lubrication Port Comparison - Aisin A465 vs A465id



A465



A465id

Figure 18

PTO Pressure and Lubrication Port Locations - Aisin A465id Model Years: 2020-Present

PTO Specifications	
Line Pressure:	261 PSI (1.8 Mpa)
Fixing Torque:	Nominal: 15.5 ft-lb (21 Nm) 14.0 - 17.7 ft-lb (19 - 24 Nm)
PTO Mounting Bolt Fixing Torque:	Nominal: 19.5 ft-lb (26.5 Nm) 18.4 - 21.4 ft-lb (25 - 29 Nm)
Recommended Backlash:	0.0118 - 0.0177 in (0.3 - 0.45 mm)

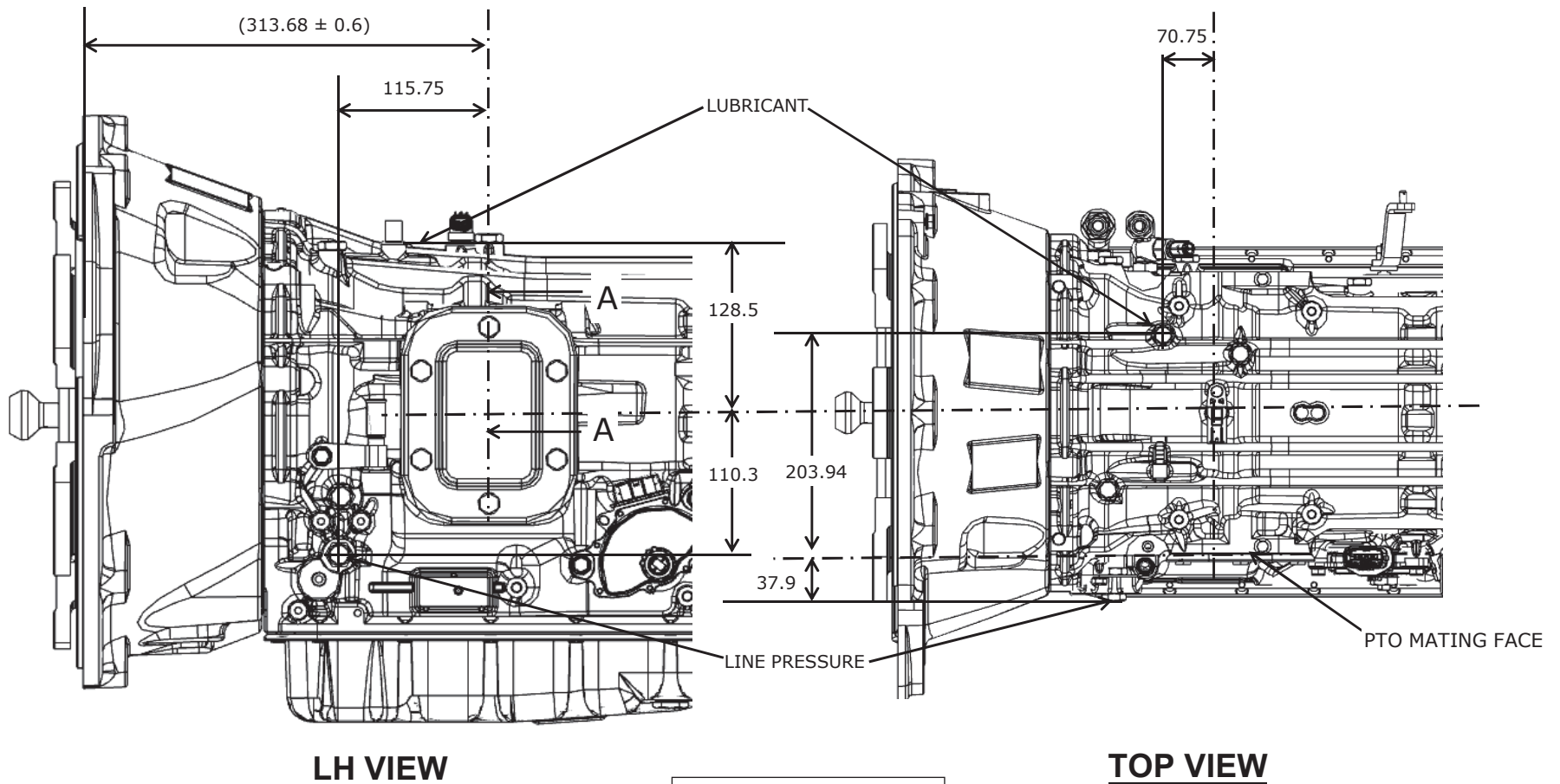


Figure 19

Transmission Opening Diagram - Aisin A465id

Aisin A465id Automatic Torque Converter Lock Up Function.

In either the Stationary Preset PTO Mode or Stationary Variable PTO Mode, when engine speed exceeds 1200 RPM, the torque converter will lock up. The engine speed can not be modified and the lockup function cannot be turned off. Please note that with PTO applications that operate around 1200 RPM, the transmission software holds the torque converter in lockup until engine speed falls below 1000 RPM.

The lock up function will cancel if the transmission shift lever is moved from the park or neutral positions which will remove the transmission from the stationary mode.

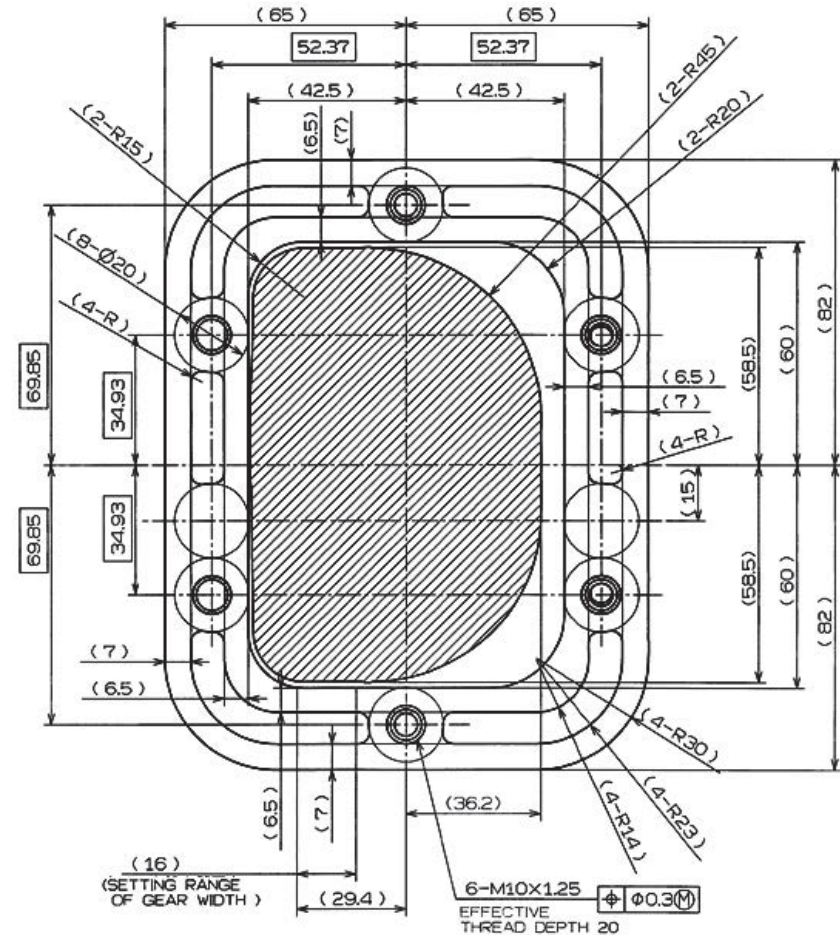


Figure 20

2026 Isuzu Truck

Power Take Off for Cummins F-Series Trucks

The Isuzu F-Series has a variety of Power Take Off (PTO) functions designed to accommodate a range of vehicle applications. A PTO is a device used to provide engine power to auxiliary equipment directly from the engine or through the transmission. For details about specific PTO equipment operation, refer to the documentation provided by its manufacturer. Access to Cummins INSITE Electronic Service Tools will be necessary to modify programming functions that control the PTO feature. The following pages will cover the main topics shown below:

1. Types of PTO modes:
 - a. Cab PTO
 - b. Remote PTO
 - c. Remote Station PTO
2. Remote Accelerator Engine Control
3. Overview of Programming Options
4. Wiring and Connector Diagrams

*Note: Not all engine calibrations within a model year support all modes. Check your specific engine calibration.

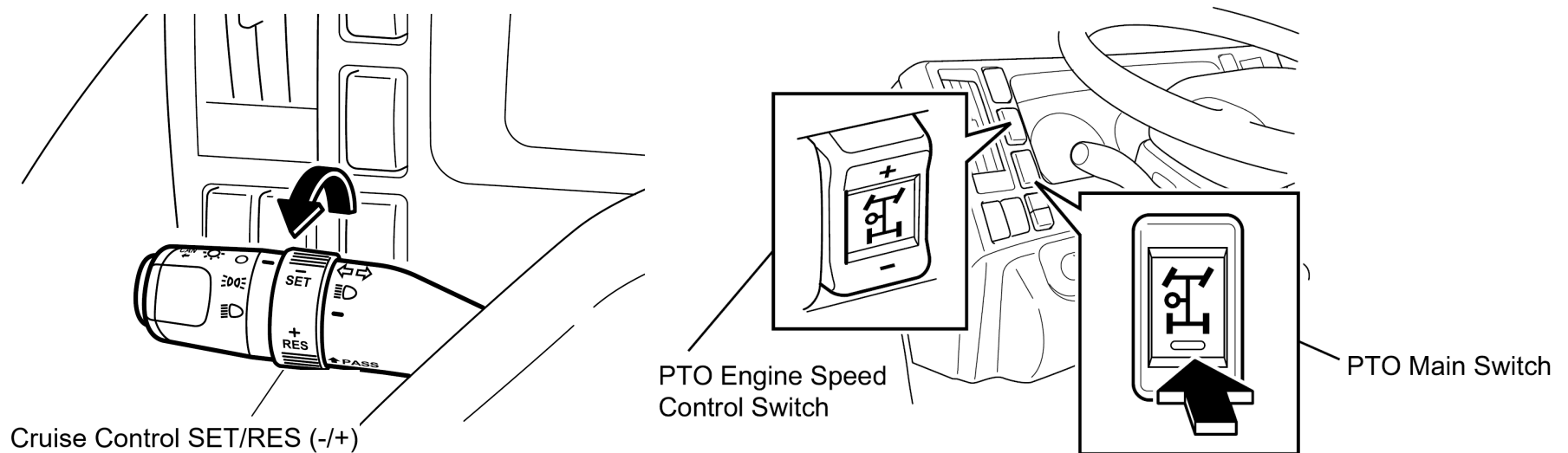
Introduction

- The PTO feature is intended to maintain engine speed at an operator-selectable level, and is typically used to drive auxiliary equipment mounted to the vehicle.
- The PTO feature can be split into two types:
 - The “Cab” version of PTO is intended for operation in the vehicle cab.
 - The “Remote” versions of PTO are intended to be operated outside of the cab and take priority over Cab PTO if both (Cab and one of the Remote PTO modes) are enabled at the same time.
- The PTO feature can be controlled by either Cab PTO Switches or the Remote PTO Switch(es). The Cab PTO switches, and the traditional single Remote PTO Switch can be either hardwired or SAE J1939 Data Link multiplexed. The Remote Station PTO switches can only be hardwired.
 - Switches can be hardwired to the ECM or multiplexed (multiplexed devices added by the body builder must have source addresses that do not conflict with OEM equipment).

Cab PTO Controls

Optional dash mounted PTO controls integrate the PTO Main Switch and Engine Speed Control Switch into the cab. These Isuzu supplied switches can be installed at a factory level if selected during chassis ordering, or they can also be purchased through an Isuzu dealer and easily integrated into the chassis wiring harness.

In PTO mode, Cruise Set/Resume Switch can be used exactly the same as PTO Engine Speed Control Switch. Improper operation of these switches may cause personal injury or damage.



Installation of PTO Switches

Parts

- (1) PTO Main Switch: 8-98032-058-4
- (1) PTO Engine Speed Adjustment Switch: 8-98061-161-1

Installation Instructions

- 1) Remove dash cover.
- 2) Remove two (2) hole covers (middle and bottom) from left side dash and remove harness connectors from hole cover
- 3) Insert PTO On/Off Switch in bottom slot and PTO Adjustment Switch in middle slot
- 4) Attach green connector to PTO switch and orange connector to PTO Adjustment Switch
- 5) Re-install dash panel

2026 Isuzu Truck

PTO Modes

Cab PTO Mode

- **Cab PTO** uses OEM installed Cruise Control / PTO switches to engage the engine at a preset speed from within the cab of the vehicle. There is also additional functionality when compared to the Remote PTO feature. Cab PTO has its own enable parameter that should be enabled to access its additional features.
 - Two speeds can be programmed (Set or Resume).
 - Alternate PTO – Allows engine speed to be ramped up from Idle speed and then ramped back down again. This helps eliminate jarring the driveline when engaging set speeds.

Remote PTO Modes - Remote PTO or Remote Station PTO

Any given vehicle can only have one remote PTO mode enabled at a time – Remote PTO or Remote Station PTO

- **Remote PTO** uses one switch to toggle between up to 5 speeds. In INSITE you can program up to 5 distinct target engine speeds
 - Each time the switch is toggled from ON-OFF-ON the engine will go to the next speed.
 - If at the 5th speed and the switch is toggled again the engine speed will match the 1st speed
- **Remote Station PTO** - can provide up to 3 pre-programmed speeds and engine speed ramping functionality.
 - Offers more functionality than the Remote PTO feature. Very similar to Cab PTO mode and duplicates the cab switches outside of the cab.
 - To use both the Cab PTO and the Remote Station PTO features on the same vehicle, the Cab PTO switches must be multiplexed. The Remote Station PTO switches must be hardwired to the ECM.
 - Set, Resume and Additional target speeds can be programmed in INSITE

Additional PTO Feature - Remote Accelerator

- Allows the use of a remotely mounted accelerator, potentiometer, hand throttle, or foot pedal.
- A toggle switch input is required at H104 PIN 6 in order to activate the remote accelerator.
- Up to two throttles can be used, and one or more can be multiplexed.
- **Must not be used to drive the vehicle on the road**

2026 Isuzu Truck

PTO Programming Overview

- Accelerator Pedal or Lever Override with Maximum Engine Speed
 - If this functionality is disabled, then any installed accelerator pedal or lever will be disabled.
 - If pedal override is desired, then set the Enable parameter to Enable and enter in the maximum engine speed allowed with the accelerator.
- Maximum Engine Load – Used to limit the engine torque in order to protect sensitive PTO pumps, etc.
- Maximum Speed – During PTO operation engine speed will not be allowed to exceed this speed.
- Maximum Vehicle Speed – During PTO operation if vehicle speed exceeds this value the PTO governor will disengage unless the parameter “Ignore Vehicle Speed Source in PTO” is enabled. This parameter will also not permit PTO to be engaged if vehicle speed is above this value.
- Minimum Speed – Minimum speed that PTO can command. If Low Speed Governor (LSG) has a higher setting, then engine speed will not drop below the LSG setting.
- Ramp Rate – Ramp rate used when first engaging PTO or when ramping up and down with Cab PTO. In order to ramp the engine speed PTO Speed Adjustment must be enabled. **This is a desired rate and physical limitations of the engine, especially due to emissions requirements, will impact the ramp rate.**
- Ignore Vehicle Source in PTO – When enabled the Maximum Vehicle Speed parameter will be ignored and so will Vehicle Speed Sensor faults. **If Transmission Driven PTO is enabled then this parameter must be set to Disable.**
- Parking Brake Interlock Type – This setting decides whether or not to allow PTO operations based on Parking Brake Position. There are 4 choices:
 - All – All PTO modes require Parking Brake engagement.
 - Cab Only – Only applies to Cab PTO mode, but does not apply to Remote PTO modes.
 - Remote Only - Only Remote PTO modes require Parking Brake engagement.
 - None – All PTO modes will ignore the Parking Brake.
- PTO Pump Mode – For applications where the vehicle’s main driveshaft is used to drive auxiliary equipment with the PTO feature engaged.
- PTO Speed Adjustment – When enabled it allows engine speed to be ramped up or down based on the customer selectable ramp rate.

2026 Isuzu Truck

PTO Programming Overview

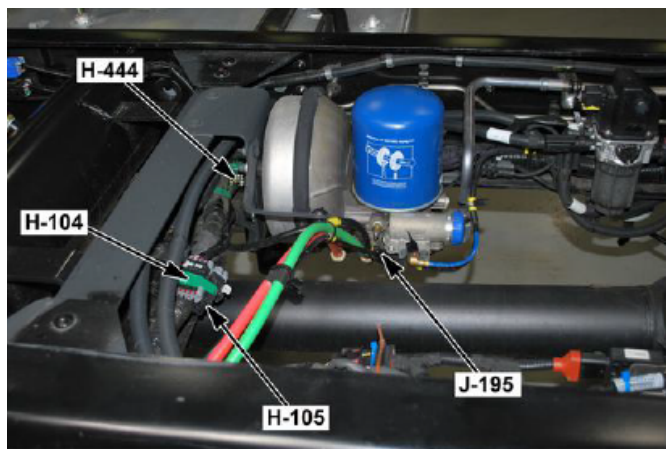
- Remote PTO Service Brake and Clutch Override –This must be enabled for PTO Mode to be cancelled by Service Brake Pedal operation. **Service Brake Override must be set to enable in order to use this feature.**
- Transmission Driven PTO – Used for split shaft operations.
- Transmission Neutral Interlock – If enabled PTO will not operate unless the transmission is in Neutral.
- Zero Vehicle Speed Source Limit – If enabled engine speed is limited by the Maximum Engine Speed with Zero VSS which is set under Vehicle Speed Source.

2026 Isuzu Truck

PTO Switch and Relay Harnesses H-104 & H-105

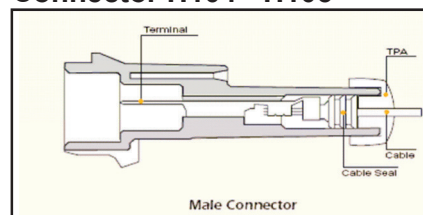
H-104 Body Builder Connector				H-104 Body Builder Connector			
Connector Part Information		<ul style="list-style-type: none"> Delphi 12065425 10-Way F (BLK) 		Connector Part Information		<ul style="list-style-type: none"> Delphi 12045808 10-Way M (BLK) Body Builder Installed 	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	RED/BLK	IC180C	Ignition Voltage from Fuse F-18	A	—	—	—
B	RED/GRN	IC168C	Not Used	B	—	—	—
C	RED/BLU	IC166C	Not Used	C	—	—	—
D	GRY/RED	IC165C	Not Used	D	—	—	—
E	BRN	IC167C	PTO Remote Throttle Enable Switch	E	—	—	—
F	PNK/BLK	IC169C	PTO Remote Shut Down Switch Signal	F	—	—	—
G	WHT	WB051C	PTO Switch Signal to TCM	G	—	—	—
H	BLK	I2007C	Ground to Splice 5 (J-7)	H	—	—	—
J	RED/GRN	IC171C	Not Used	J	—	—	—
K	RED/BLK	IC170C	Not Used	K	—	—	—

H-105 Body Builder Connector				H-105 Body Builder Connector			
Connector Part Information		<ul style="list-style-type: none"> Delphi 12047937 8-Way F (BLK) 		Connector Part Information		<ul style="list-style-type: none"> Delphi 1204931 8-Way M (BLK) Body Builder Installed 	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	BLK/WHT	IC172C	PTO Engage Switch Signal	A	—	—	—
B	PNK/GRN	IC173C	Not Used	B	—	—	—
C	PNK	IC181C	Low Reference ECM	C	—	—	—
D	BLU/YEL	IC188C	Remote PTO Set Switch	D	—	—	—
E	BLU	IC037C	PTO Throttle Sensor Reference Voltage	E	—	—	—
F	YEL	IC038C	PTO Throttle Sensor Signal	F	—	—	—
G	BLU/RED	IC039C	PTO Throttle Sensor Low Reference	G	—	—	—
H	BLU/ORN	IC187C	Remote PTO Resume Switch	H	—	—	—



Connectors are located between the frame rails, on the crossmember next to the fuel tank.

Connector H104 - H105



Terminal

PN	Wide range
12045773	1.0-0.08 mm ²
12077628	0.5-0.35 mm ²

TPA

PN
12124264
included with connector

Cable Seats

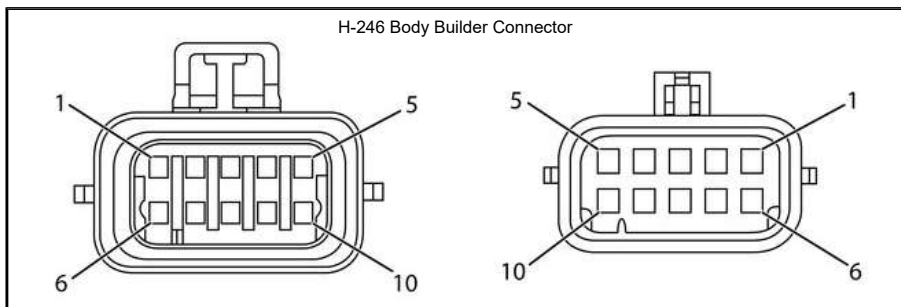
Loose PN	Wide range	Color
12048086	2.85-2.03	Dk.Red
12089678	2.15-1.60	White
12048087	1.70-1.29	Blue
12084193	1.009-0.995	Tan

Cavity Plug

PN	Cavity ID	Color
12059168	5.2mm	Dk.Red

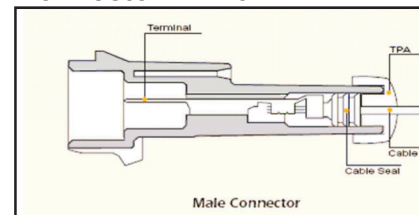
2026 Isuzu Truck

PTO Transmission Harness H-246



Connector Part Information				Connector Part Information			
<ul style="list-style-type: none"> Delphi 12177081 10-Way F (BLK) Letters stamped on connector body 				<ul style="list-style-type: none"> Delphi 12045808 10-Way M Body Builder Installed Letters stamped on connector body 			
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
1 (F)	BRN	OA044C	Range Inhibitor Switch to TCM	1 (F)	—	—	—
2 (G)	—	—	Not Used	2 (G)	—	—	—
3 (H)	BLK	OA045C	Analog Sensor Signal Return to TCM	3 (H)	—	—	—
4 (J)	BLK	OA046C	Digital Return to TCM	4 (J)	—	—	—
5 (K)	LT BLU	OA047C	PTO Output to TCM	5 (K)	—	—	—
6 (E)	—	—	Not Used	6 (E)	—	—	—
7 (D)	—	—	Not Used	7 (D)	—	—	—
8 (C)	WHT	OA051C	PTO Switch to TCM and H-104 PTO Connector	8 (C)	—	—	—
9 (B)	PNK	OA041C	Auto Neutral to TCM	9 (B)	—	—	—
10 (A)	YEL	OA040C	Range Indicator to TCM	10 (A)	—	—	—

Connector H-246



Terminal

PN	Wide range
12045773	1.0-0.08 mm2
12077628	0.5-0.35 mm2

TPA

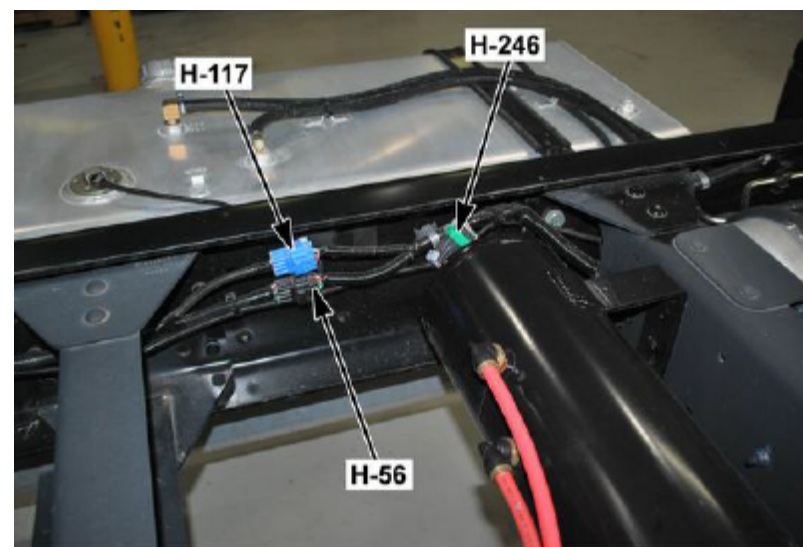
PN
12124264
included with connector

Cable Seats

Loose PN	Wide range	Color
12048086	2.85-2.03	Dk.Red
12089678	2.15-1.60	White
12048087	1.70-1.29	Blue
12084193	1.009-0.995	Tan

Cavity Plug

PN	Cavity ID	Color
12059168	5.2mm	Dk.Red



Connector is located within the frame rails, next to the fuel tank.

2026 Isuzu Truck

PTO Programming Overview

Parameter	Defaults	Unit	Range	Setting Criteria
PTO	Y	Y = Enable N = Disable	N or Y	Remote PTO and Remote Station PTO take priority over Cab PTO if both are enabled at the same time.
Cab PTO	Y	Y = Enable N = Disable	N or Y	Cab PTO cannot be enabled if PTO is disabled.
Remote PTO	Y	Y = Enable N = Disable	N or Y	Remote PTO cannot be enabled if PTO is disabled.
Remote Station PTO	N	Y = Enable N = Disable	N or Y	Remote Station PTO cannot be enabled if PTO is disabled.
Diesel Particulate Filter Regeneration Allowed in PTO and Other Modes	Y	Y = Enable N = Disable	N or Y	
Fast Idle Warmup PTO Load Threshold	10	%	Min: 0 Max: 50	Fast Idle Warmup PTO Load Threshold cannot be programmed if Fast Idle Warmup is disabled.
Idle Shutdown in PTO	Y	Y = Enable N = Disable	N or Y	Idle Shutdown in PTO cannot be enabled if Idle Shutdown is disabled. Idle Shutdown in PTO cannot be enabled if PTO is disabled.
PTO Set Switch Engine Speed	950	rpm	Min: 500 Max: 2600	PTO Set Switch Engine Speed cannot be programmed if PTO is disabled.
PTO Resume Switch Engine Speed	950	rpm	Min: 500 Max: 2600	PTO Resume Switch Engine Speed cannot be programmed if PTO is disabled.
PTO Additional Switch Engine Speed	950	rpm	Min: 500 Max: 2600	PTO Additional Switch Engine Speed cannot be programmed if PTO is disabled.
PTO Service Brake Override	Y	Y = Enable N = Disable	N or Y	PTO Service Brake Override cannot be enabled if PTO is disabled. PTO Service Brake Override cannot be enabled if Service Brake Switch is disabled. PTO Service Brake Override cannot be disabled if Transmission Type is set to Automated Without Clutch.
PTO Clutch Override	Y	Y = Enable N = Disable	N or Y	PTO Clutch Override cannot be enabled if PTO is disabled. PTO Clutch Override cannot be enabled if Clutch Switch is disabled.
PTO Speed Adjustment Enable	N	Y = Enable N = Disable	N or Y	Cannot be enabled if PTO Enable is Disabled
PTO Speed Adjustment Rate	50	rpm	Min: 25 Max: 1000	Cannot be enabled if PTO Enable is Disabled Cannot be enabled if PTO Speed Adjustment Enable is Disabled
Remote PTO Speed Setting 1	950	rpm	Min: 500 Max: 2600	Remote PTO Speed Setting 1 cannot be programmed if Remote PTO is disabled.
Remote PTO Speed Setting 2	950	rpm	Min: 500 Max: 2600	Remote PTO Speed Setting 2 cannot be programmed if Remote PTO is disabled.
Remote PTO Speed Setting 3	950	rpm	Min: 500 Max: 2600	Remote PTO Speed Setting 3 cannot be programmed if Remote PTO is disabled.
Remote PTO Speed Setting 4	950	rpm	Min: 500 Max: 2600	Remote PTO Speed Setting 4 cannot be programmed if Remote PTO is disabled.
Remote PTO Speed Setting 5	950	rpm	Min: 500 Max: 2600	Remote PTO Speed Setting 5 cannot be programmed if Remote PTO is disabled.
Remote PTO Number of Speed Settings	1	none	Min: 1 Max: 5	Remote PTO Number of Speed Settings cannot be programmed if Remote PTO is disabled.
Remote Station PTO Set Switch Engine Speed	950	rpm	Min: 500 Max: 2600	Remote Station PTO Set Engine Speed cannot be enabled if PTO is disabled.
Remote Station PTO Resume Switch Engine Speed	950	rpm	Min: 500 Max: 2600	Remote Station PTO Resume Engine Switch Engine Speed cannot be enabled if PTO is disabled.

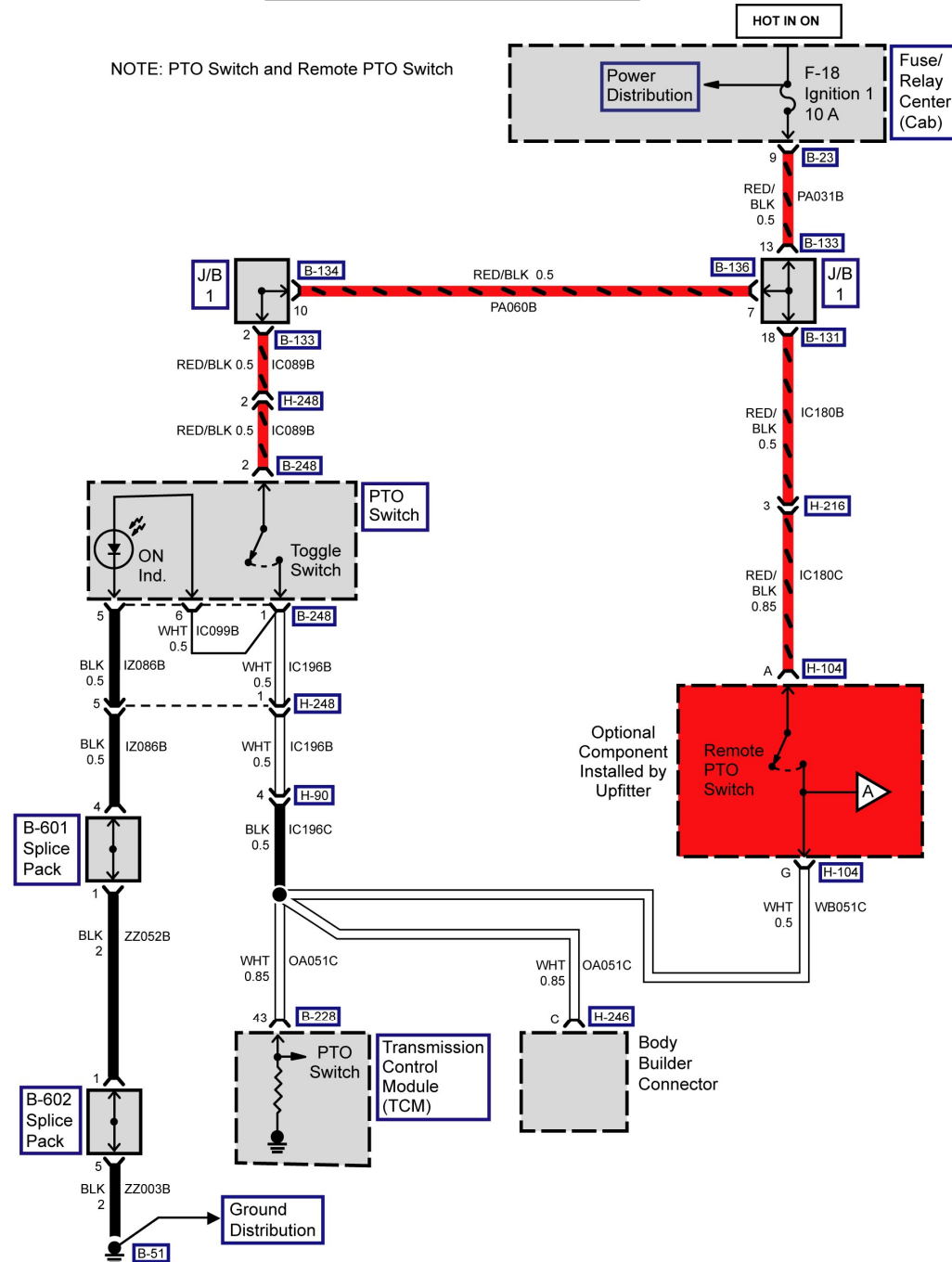
2026 Isuzu Truck

PTO Programming Overview

Parameter	Defaults	Unit	Range	Setting Criteria
Remote PTO Service Brake and Clutch Override	N	Y = Enable N = Disable	N or Y	Remote PTO Service Brake and Clutch Override cannot be enabled if PTO is disabled.
PTO Maximum Engine Speed	2400	rpm	Min: 500 Max: 2600	PTO Maximum Engine Speed cannot be programmed if PTO is disabled. PTO Maximum Engine Speed must be greater than or equal to PTO Minimum Engine Speed AND it must be less than or equal to PTO Accelerator Override Maximum Engine Speed.
PTO Minimum Engine Speed	700	rpm	Min: 500 Max: 2600	PTO Minimum Engine Speed cannot be programmed if PTO is disabled. PTO Minimum Engine Speed must be less than or equal to PTO Maximum Engine Speed.
PTO Maximum Vehicle Speed	9.66	km/h	Min: 0 Max: 48.3	PTO Maximum Vehicle Speed cannot be programmed if PTO is disabled.
PTO Maximum Engine Load	1084	Nm	Min: 0 Max: 1625	PTO Maximum Engine Load cannot be programmed if PTO is disabled.
PTO Engine Speed Ramp Rate	250	rpm/s	Min: 0.5 Max: 2500	PTO Engine Speed Ramp Rate cannot be programmed if PTO is disabled.
PTO Accelerator Override Maximum Engine Speed	3000	rpm	Min: 500 Max: 3000	PTO Accelerator Override Maximum Engine Speed cannot be programmed if PTO Accelerator Override is disabled.
PTO Accelerator Override	N	Y = Enable N = Disable	N or Y	PTO Accelerator Override cannot be enabled if PTO is disabled.
Ignore Vehicle Speed Source in PTO	N	Y = Enable N = Disable	N or Y	Ignore Vehicle Speed Source in PTO cannot be enabled if PTO is disabled. Ignore Vehicle Speed Source in PTO cannot be enabled if Transmission Driven PTO is enabled.
PTO Pump Mode	N	Y = Enable N = Disable	N or Y	PTO Pump Mode cannot be enabled if PTO is disabled.
PTO Pump Mode Maximum Vehicle Speed	0	km/h	Min: 0 Max: 24	PTO Pump Mode Maximum Vehicle Speed cannot be enabled if PTO is disabled.
PTO Pump Mode Vehicle Speed Sensor Override	Y	Y = Enable N = Disable	N or Y	PTO Pump Mode Vehicle Speed Sensor Override cannot be enabled if PTO is disabled.
PTO Transmission Neutral Interlock	N	Y = Enable N = Disable	N or Y	
PTO Parking Brake Interlock Type	0	n/a	Min: 0 Max: 3	0 = None; 1 = Cab Only; 2 = Remote Only; 3 = All
Remote Accelerator	N	Y = Enable N = Disable	N or Y	
Remote Accelerator Mode	1	n/a	0, 1, and 4	0 = Remote Accelerator Not Including Transition Verification; 1 = Remote Accelerator Including Transition Verification; 4 = Maximum Accelerator. Only remote accelerator modes; 0, 1, and 4 are supported at this time. Remote Accelerator Mode cannot be programmed if Remote Accelerator is disabled.
Transmission Driven PTO (split shaft) with Vehicle Speed Processing	N	Y = Enable N = Disable	N or Y	
Transmission Driven PTO (split shaft)	N	Y = Enable N = Disable	N or Y	Parking Brake Switch must be enabled when Transmission Driven PTO is enabled. Transmission Driven PTO cannot be enabled if Ignore Vehicle Speed Source in PTO is enabled.
Transmission Driven PTO Type (split shaft)	2	n/a	Min: 0 Max: 3	0 = Engine Driven - Steady Load; 1 = Transmission Driven - Steady Load; 2 = Transmission Driven - Irregular Load; 3 = Transmission Driven - Cyclic Load Transmission Driven PTO Type cannot be programmed if Transmission Driven PTO is set to disable.

PTO Switch 1 of 2

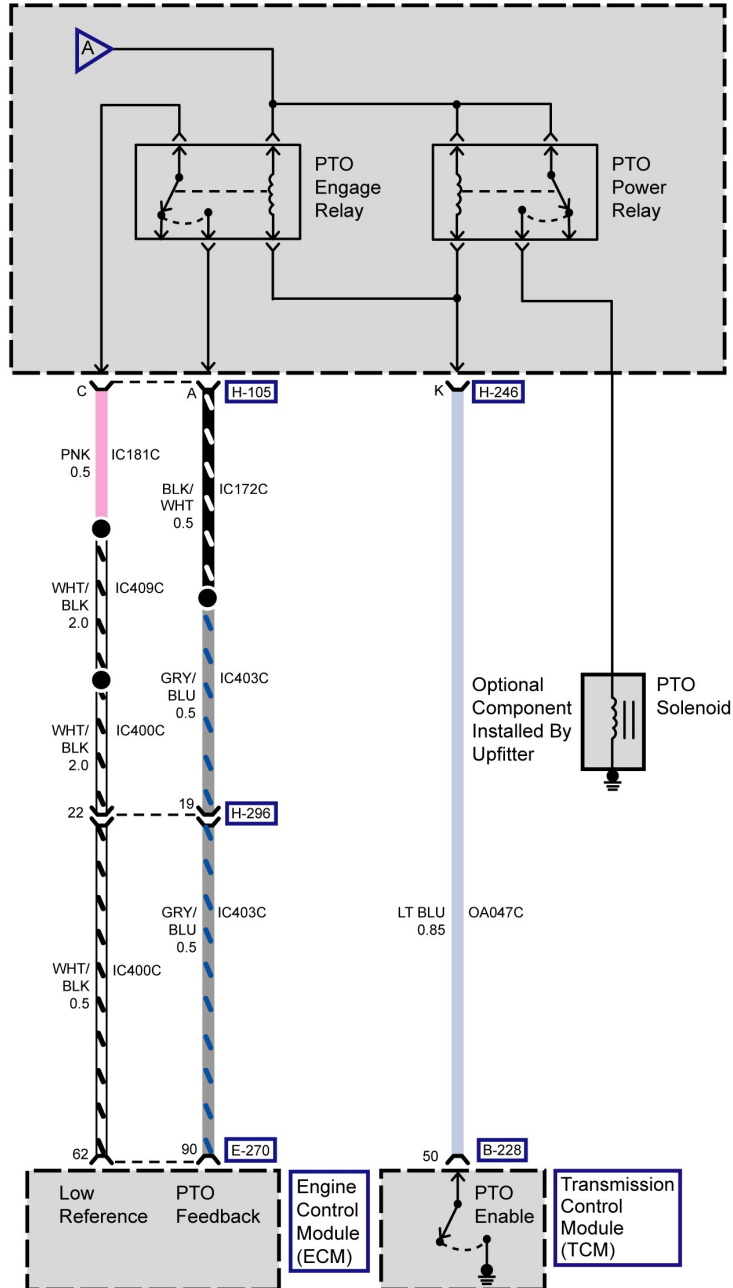
NOTE: PTO Switch and Remote PTO Switch



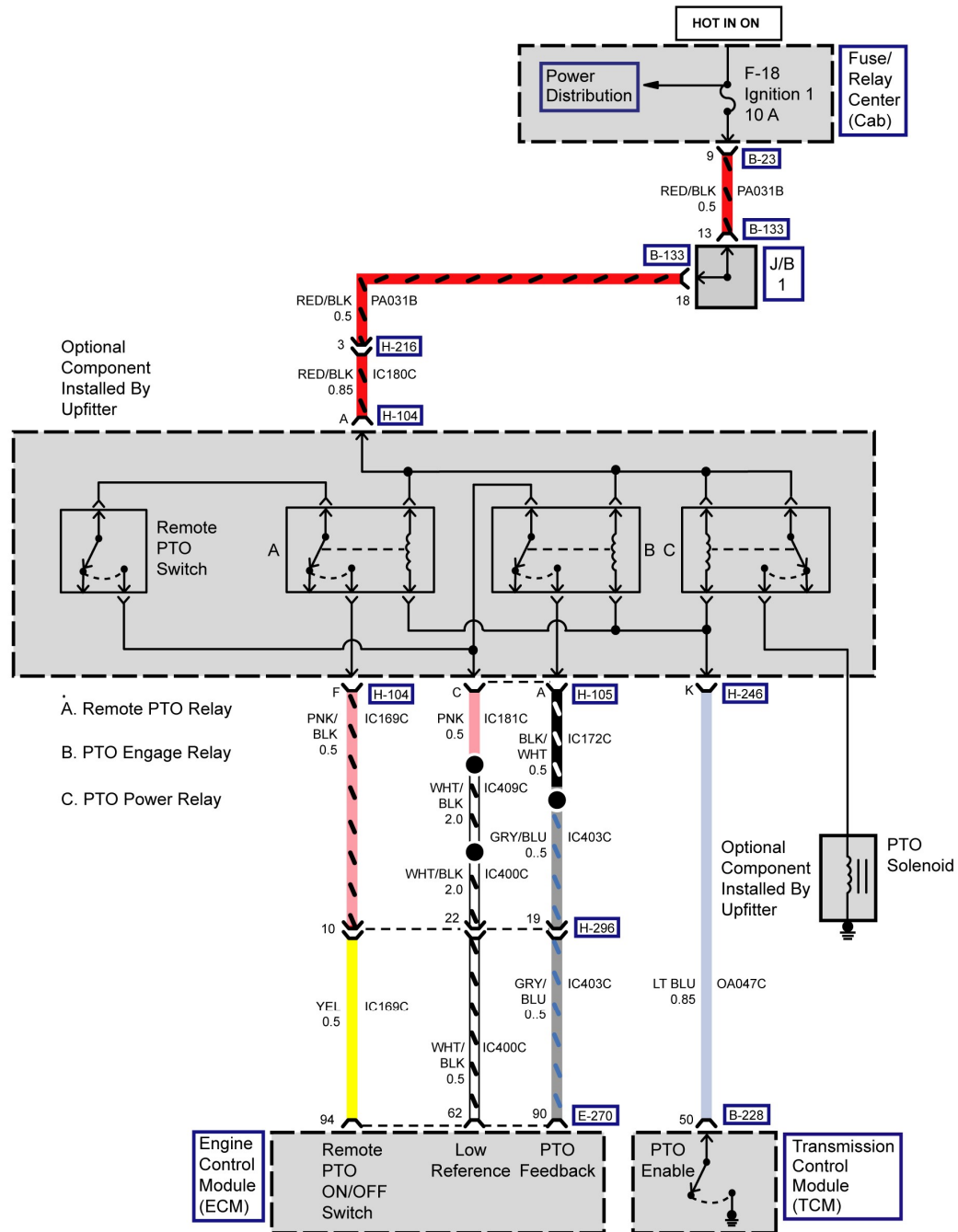
PTO Switch 2 of 2

NOTE: PTO Relays for Cab PTO Mode or Remote Station PTO Mode

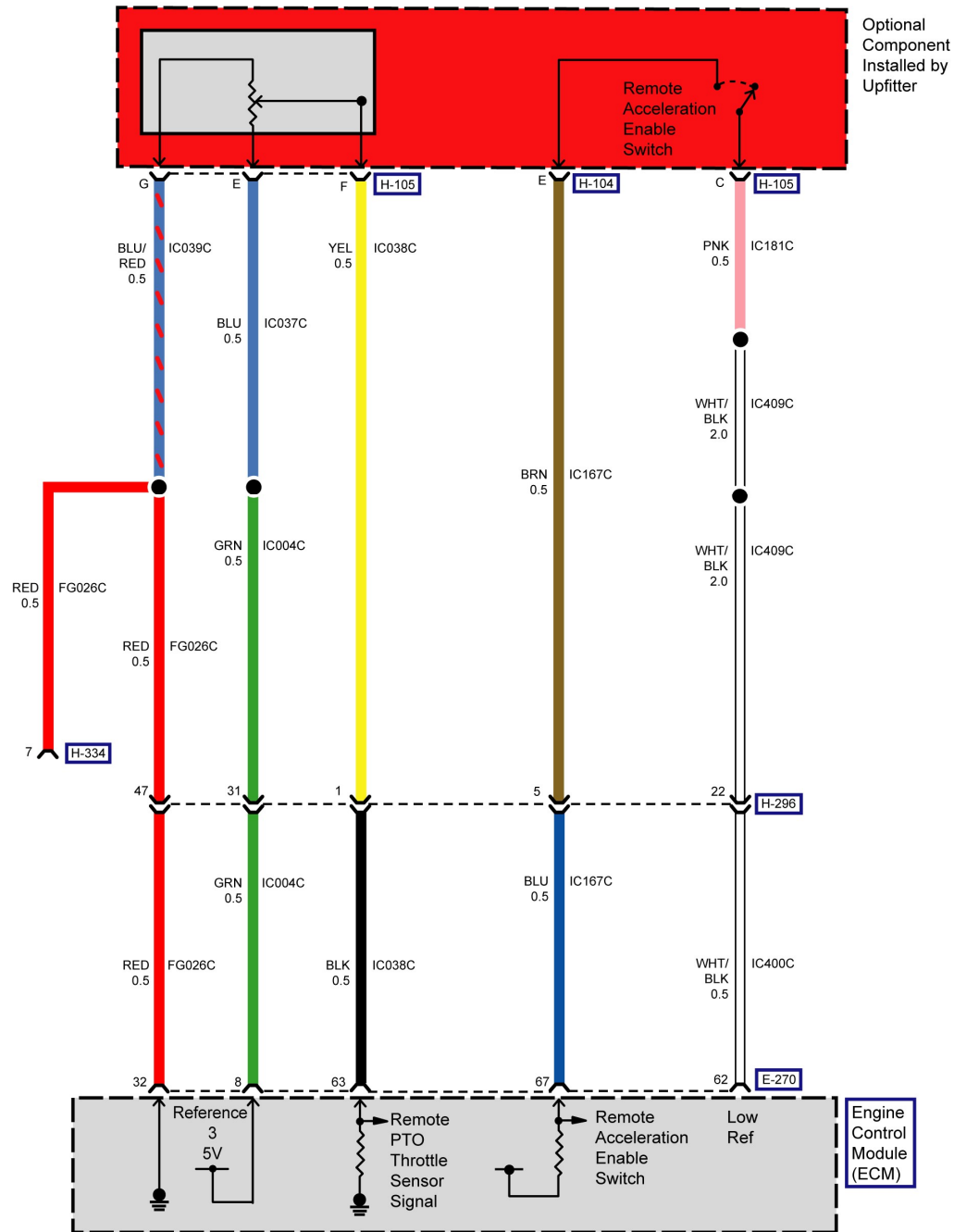
Optional Component Installed By Upfitter



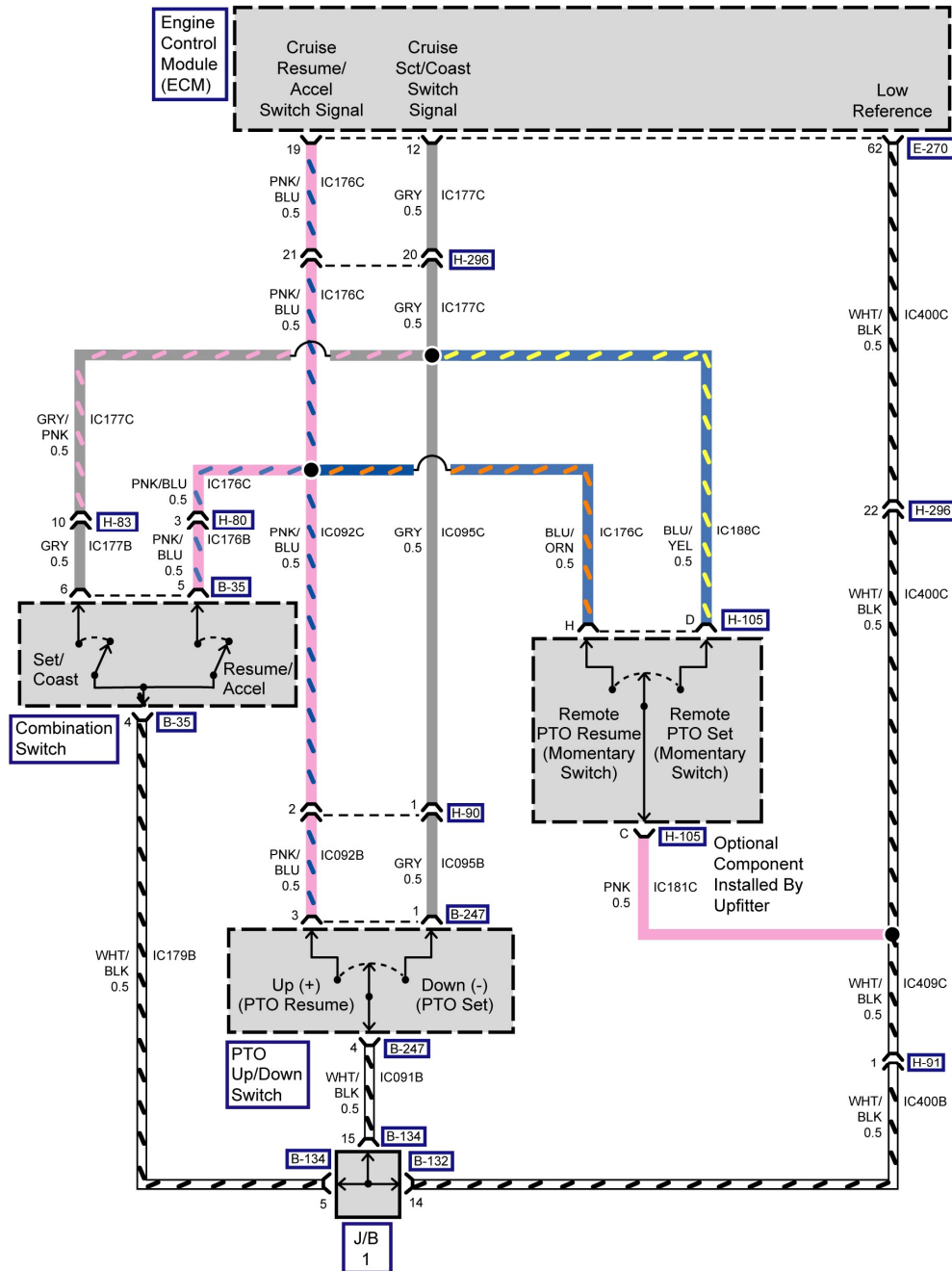
PTO Remote Switch



Remote Accelerator



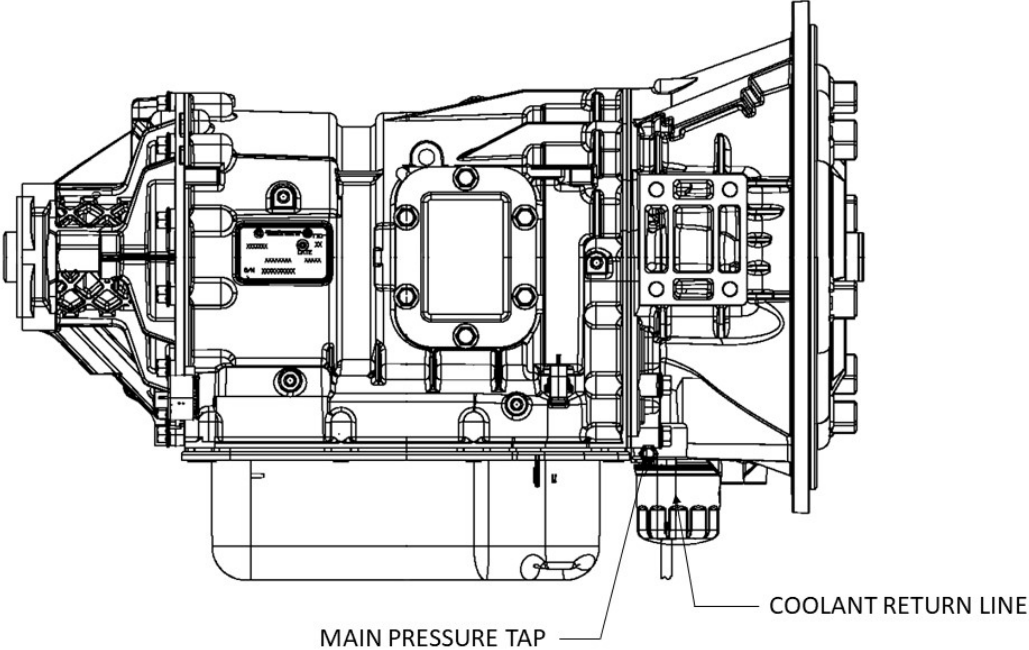
PTO Set/Resume



2026 Isuzu Truck

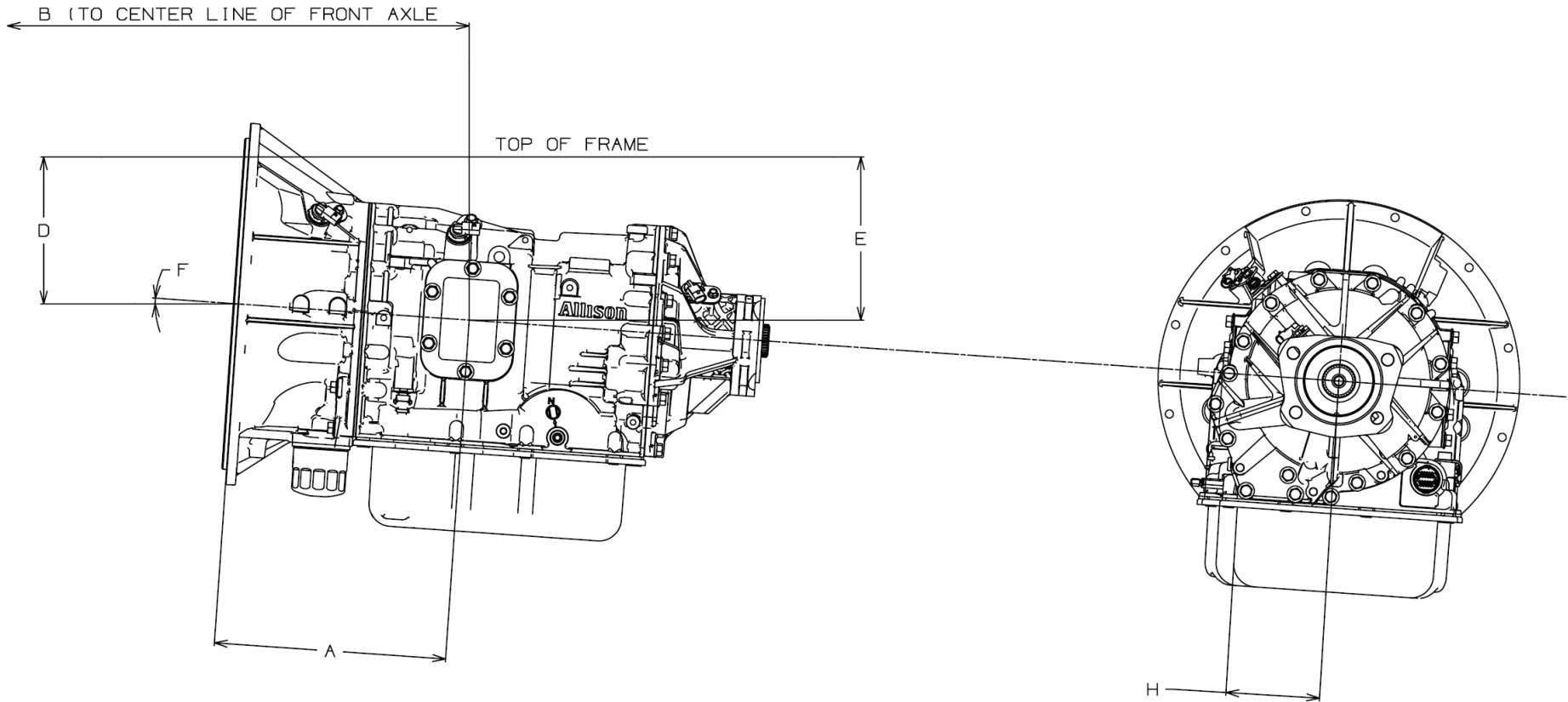
Transmission Model by Model Year and Vehicle Model

Transmission Model	Engine Model	Model Year	Chassis Model
Allison 2550 RDS	4HK1-TC	2018-2021	FTR
Allison 2550 RDS	B6.7	2022-Current	FTR
Allison 2500 RDS	B6.7	2022-Current	FVR & FVR-DR



2026 Isuzu Truck

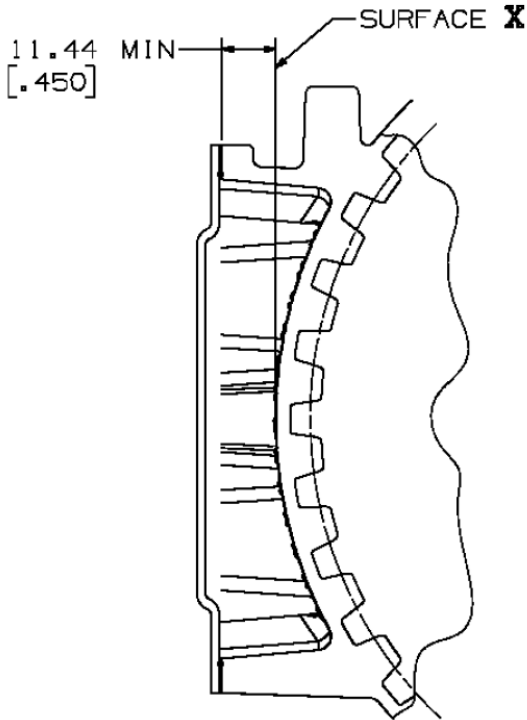
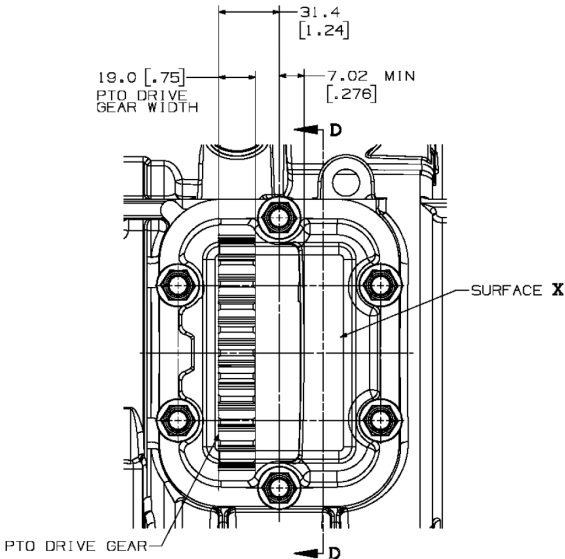
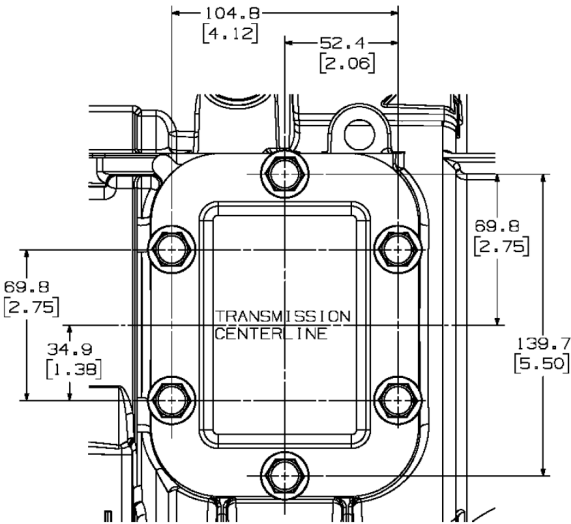
PTO Location, Drive Gear and Opening Information



TRANSMISSION	OPENING LOCATION	BOLT PATTERN	A	B	D	E	F	H	PTO DRIVE GEAR LOCATION	RATIO OF PTO DRIVE GEAR SPEED TO ENGINE SPEED	NUMBER OF TEETH	PITCH	MAX. OUTPUT TORQUE
ALLISON	LEFT	DR 2	12.33	31.18	7.81	8.67	4.0°	4.99	PTO GEAR	1:1 WITH TURBINE	64	6.865	250 LB-FT

2026 Isuzu Truck

PTO Opening Information



SECTION D-D

DOCUMENT FOR INCOMPLETE VEHICLE APPLICABLE TO THE ISUZU 2025+ MY N-SERIES

Isuzu Commercial Truck of America, Inc.
1400 S. Douglass Road, Suite 100 Anaheim, CA 92806

DO NOT REMOVE

THIS DOCUMENT MUST REMAIN WITH THIS VEHICLE UNTIL IT IS CERTIFIED AS A COMPLETED VEHICLE.

PLACE LABEL HERE

The Label affixed here includes the following information:

- The name of the incomplete vehicle manufacturer;
- The month and year the incomplete vehicle manufacturer performed its last manufacturing operation on the incomplete vehicle;
- The vehicle identification number (VIN);
- The Gross Vehicle Weight Rating (GVWR) expressed in kg (lb), intended for the vehicle when it is a completed vehicle;
- The Gross Axle Weight Rating (GAWR) expressed in kg (lb), intended for each axle of the vehicle when it is a completed vehicle, listed in order from front to rear
- Tire size, rim size, cold tire pressure.

This document is furnished as required by the Canada Motor Vehicle Safety Act (CVMSA) and United States (U.S.) Federal Motor Vehicle Safety Regulations (FMVSR) to aid intermediate and final stage manufacturers in their determination of conformity of the completed vehicle with applicable Canada Motor Vehicle Safety Standards (CMVSS), U.S. Federal Motor Vehicle Safety Standards (FMVSS), Canadian On-Road Vehicle and Engine Emission Regulations and Canada Interference Causing Equipment Standard - ICES-002. Also included are instructions, which must be followed in order to assure that U.S. Environmental Protection Agency (EPA) and California Air Resources Board (CARB)* emission certification requirements and U.S. National Highway Traffic Safety Administration (NHTSA) Fuel Economy Regulations and Canada/U.S. EPA Greenhouse Gas Regulations are met.

The label attached to this document will indicate this vehicle was either manufactured by Isuzu Motors Limited, Japan or by Builtmore Contract Manufacturing US, a division of The SHYFT Group, Inc. under a contractual agreement with Isuzu. All inquiries regarding the content of this document should be forwarded to Isuzu through the www.isuzutruckservice.com website.

This document is not a substitute for knowledge and understanding of the requirements of the Canada Motor Vehicle Safety Act, Federal Motor Vehicle Safety Regulations (FMVSR); or applicable Canada Motor Vehicle Safety Standards (CMVSS) and U.S. Federal Motor Vehicle Safety Standards (FMVSS). Intermediate and final stage manufacturers should be familiar with the Regulations and Standards referred to above to be aware of their specific responsibilities as they relate to the final destination and sale of each incomplete vehicle.

Any intermediate or final stage manufacturer making material alterations to this incomplete vehicle during the process of manufacturing the complete vehicle should be constantly vigilant to recognize all effects, either direct or indirect, on other components, assemblies or systems caused by any alteration. No alteration should be made to the incomplete vehicle that directly or indirectly results in any component, assembly or system being in nonconformance with any applicable Canada Motor Vehicle Safety Standard or U.S. Federal Motor Vehicle Safety Standard or Emission Regulation or Fuel Economy/Greenhouse Gas Regulation.

The statements contained in this Incomplete Vehicle Document are accurate as of the date of manufacture of the Incomplete Vehicle and can be relied on by any intermediate and/or final stage manufacturer as a basis for certification.

*Please see the Vehicle Emission Control Information to identify if the vehicle is California certified.

INTRODUCTION

This document contains information relative to conformance of this incomplete vehicle with the following:


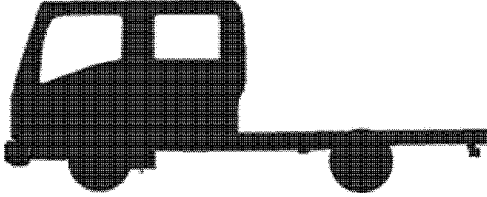
Part I - U.S. FEDERAL MOTOR VEHICLE SAFETY STANDARDS AND CANADA MOTOR VEHICLE SAFETY STANDARDS

Part II - U.S. EPA, CALIFORNIA, AND CANADA EXHAUST & EVAPORATIVE EMISSION REQUIREMENTS AND EPA/ NHTSA / CANADA GREENHOUSE GAS EMISSIONS/FUEL ECONOMY REGULATIONS

Part III - CANADA INTERFERENCE CAUSING EQUIPMENT STANDARD

If supplemental technical information is required to support this document, go to the Body Builder webSite located at www.isuzutruckservice.com, or call 1-770-740-1620 Ext.262 (East Coast) or 1-714-935-9327 (West Coast).

This document pertains to the following styles of trucks: Diesel or Gasoline engine

Single cab model	
<u>MODEL</u>	
NPR	
NPR- HD	
NPR-XD	
NQR NRR	
Crew cab model	
<u>MODEL</u>	
NPR	
NPR-HD	
NPR- XD	
NQR NRR.	

**NOTE: Incomplete vehicle can be built into straight truck type vocational vehicles.
It cannot be built into a Truck Tractor or Bus**

*Emission Certification:

To verify if this vehicle is certified to California emission standards, please locate the Vehicle Emission Control Information label generally located in the driver door area. The compliance statement on the label must say "This vehicle complies with U.S. EPA and California regulations." If the label only states U.S EPA regulations, then the vehicle is not California certified.

PART I

U.S. FEDERAL MOTOR VEHICLE SAFETY STANDARDS AND CANADA MOTOR VEHICLE SAFETY STANDARDS

This section contains a list of Canada Motor Vehicle Safety Standard (CMVSS), and U.S. Federal Motor Vehicle Safety Standards (FMVSS), followed by a section entitled Statements Regarding Canada Motor Vehicle Safety Standards (CMVSS), and Federal Motor Vehicle Safety Standards (FMVSS). An appropriate statement of applicability is made for each standard, and by vehicle model as it relates to the incomplete vehicle.

The identifiers TYPE 1, TYPE 2 or TYPE 3 prefix statements (of applicability) regarding Canada Motor Vehicle Safety Standards (CMVSS), and Federal Motor Vehicle Safety Standards (FMVSS). "Examples" of these statements follow:

TYPE 1 A statement that the vehicle, when completed, will conform to the standard if no alterations are made in identified components of the incomplete vehicle. **EXAMPLE:** This vehicle when complete will conform to CMVSS 104 and FMVSS No. 104,. Windshield Wiping and Washing Systems, if no alterations are made in the windshield wiper components.

TYPE 2 A statement of specific conditions of final manufacture under which the manufacturer specifies that the completed vehicle will conform to the standard. **EXAMPLE:** This vehicle when completed will conform to CMVSS 121 and FMVSS 121, Air Brake Systems, if it does not exceed any of the gross axle weight ratings, if the center of gravity at GVWR is not higher than## feet above the ground, and if no alterations are made. to any brake system component.

TYPE 3 A statement that conformity with the standard cannot be determined based upon the components supplied on the incomplete vehicle, and that the incomplete vehicle manufacturer makes no representation to conformity with the standard.

In accordance with the requirements of Canada Motor Vehicle Safety Regulations, and Federal Motor Vehicle Safety Regulations Part 568.4, the following information is included on the label affixed to the front cover of this document:

- The name and mailing address of the incomplete vehicle manufacturer;
- The month and year the incomplete vehicle manufacturer performed its last manufacturing operation on the incomplete vehicle;
- The vehicle identification number (VIN);
- The Gross Vehicle Weight Rating (GVWR) expressed in kg (lb), intended for the vehicle when it is a completed vehicle;
- The Gross Axle Weight Rating (GAWR) expressed in kg (lb), intended for each axle of the vehicle when it is a completed vehicle, listed in order from front to rear.

In addition, the final stage manufacturer is responsible under Canada Motor Vehicle Safety Regulations, and Federal Motor Vehicle Safety Regulations and Part 567.5, to place the GVWR and the GAWR of each axle, on the Final Vehicle Certification Label. Required on label is the "Gross Vehicle Weight Rating" or "GVWR" followed by the appropriate value in kilograms and (pounds), which shall not be less than the sum of the unloaded vehicle weight, rated cargo load, and 68 kg (150 lb.) times the number of the vehicle's designated seating positions.

Unloaded Vehicle Weight means the weight of a vehicle with maximum capacity of all fluids necessary for operation of the vehicle, but without cargo or occupants or accessories that are ordinarily removed from the vehicle when they are not in use.

During the completion of this vehicle, GVWR and GAWR may be affected in various ways, including but not limited to the following:

- The installation of a body or equipment that exceeds the rated capacities of the incomplete vehicle.
- The addition of designated seating positions that exceed the rated capacities of the incomplete vehicle.
- Alterations or substitution of any components such as axles, springs, tires, wheels, frames, steering and brake systems that may affect the rated capacities of the incomplete vehicle.

If supplemental technical information is required to support this document, go to the Isuzu Truck Service website located at www.isuzutruckservice.com

PART I - CHART A

LIST OF CANADA MOTOR VEHICLE SAFETY STANDARDS (CMVSS), AND FEDERAL MOTOR VEHICLE SAFETY STANDARDS (FMVSS), APPLICABLE TO GASOLINE OR DIESEL FUELED TRUCKS WITH A GVWR OF GREATER THAN 4536 kg (10,000 lb)

SEE STATEMENTS REGARDING CMVSS AND FMVSS ON PAGES THAT FOLLOW

CMVSS	FMVSS	TITLE	N-Series
CMVSR Sec 6-7	Part 567***	Labeling and Documentation Requirements	3
101	101	Controls and displays	1
102	102	Transmission shift lever sequence, starter interlock and transmission braking effect	1
103	103	Windshield defrosting and defogging systems	1
104	104	Windshield wiping and washing systems	1
105	105	Hydraulic brake systems	2
106	106	Brake hoses, Hydraulic, air and vacuum	1
108	-	Daytime Running Lights	2
108	108	Lamps, reflective devices and associated equipment	2
111	111	Mirrors and Rearview Visibility Systems	1
113	113	Hood Latch System	1
115	Part 565 **	Vehicle Identification Number	1
116	116	Motor-vehicle brake fluids	1
119	119	New pneumatic tires	1
120	120	Tire selection and rims	2
124	124	Accelerator control systems	1
-	125	Warning devices designed to be carried in motor vehicles	3
136	136	Electronic Stability Systems for Heavy Vehicles	3
205	205	Glazing materials	1
206	206	Door locks and door retention components	1
207	207	Seating systems	1
208	208	Occupant Crash Protection	1,3
209	209	Seat belt assemblies	1,3
210	210	Seat belt assembly anchorages	1,3
302	302	Flammability of interior materials	1
ICES-002	-	Canada interference causing equipment standard [PART III]	1
1106	40 CFR 202	Noise Emissions [PART II]	1

* TYPE 1, 2 or 3 numbers to the right side of the table above designate the appropriate paragraph in the CMVSS or FMVSS standards that follow.

** CFR Title 49 Transportation Part 565, Part 567

Statements Regarding Canada Motor Vehicle Safety Standards (CMVSS), and U.S. Federal Motor Vehicle Safety Standards (FMVSS).

CMVSR SEC. 6 and 49 CFR 567 LABELING AND DOCUMENTATION REQUIREMENTS Applies to all models of incomplete vehicles contained in this document

TYPE 3 The following statement is applicable to all models of Incomplete Vehicles contained in this document.

This incomplete vehicle, when completed in stages by an intermediate and final stage manufacturer will comply with the requirements of Part 567 or the CMVSR Section 6, when the intermediate and final stage manufacturers provide additional labeling to meet these requirements. Isuzu makes no representation as to conformity.

CMVSS 101 and FMVSS 101- CONTROLS AND DISPLAYS Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of Incomplete Vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 101 and FMVSS 101 providing no alterations are made which affect the size, location, identification, or illumination of the controls and displays identified or the location, travel and type of driver's seat. If the driver's seat is installed by the intermediate or final stage manufacturer, the "H" point must be located as shown in the "Body Builder Manuals" and visibility and operation of the controls and displays listed below must meet the requirements of the standard.

The following controls must be operable, and the following displays for the following functions- and malfunctions shall be fitted in such a manner that they are identifiable, by the driver while the driver is seated in the driver's designated seating position with the driver's seat belt fastened around the driver in accordance with the manufacturer's instructions:

Hand operated controls (if equipped):

Automatic vehicle speed (cruise control)	Identification lamps (switch)
Automatic transmission shift lever	Ignition (switch)
Clearance lamps (switch)	Illumination intensity control
Driver's Sunvisor	Master lighting switch
Engine Idle Speed	Position, side marker, end-outline marker, identification or clearance lamps
Engine Start	Service brake
Engine Stop	Steering wheel
Hazard warning signal	Tail lamps
Hazard warning switch	Turn signal
Headlamps	Windshield defogging and defrosting systems
Headlamp high or low beam switch	Windshield washer (washing system)
Heating and air conditioning fan	Windshield wiper (wiping system)
Heating and air conditioning system	
Horn control	

Foot operated controls (if equipped):

Accelerator	Service brake (pedal)
Park brake (pedal)	

Displays (if equipped):

Air brake low pressure	Headlamp high beam
Air bag system readiness	Low fuel indicator
Antilock brake system malfunction	Low brake air pressure telltale
Battery charging condition	Low brake fluid condition
Brake lining wear-out condition	Odometer(*)
Brake system malfunction (*)	Parking brake applied
Brake failure warning	Passenger air bag status
Electrical charge indicator	Seat belt (unfastened telltale)
Engine oil pressure	Speedometer(*)
Fuel level	Transmission control position
Gross loss of brake pressure condition	Turn signal(s)
Hazard warning signal	Variable brake proportioning system malfunction
Engine coolant temperature display	Multi information display (MID)
Gear position	DEF (Diesel Exhaust Fluid) Gauge
DPF (Diesel Particulate Filter) Gauge	

* For CMVSS only, when Canadian option is specified.

If the intermediate or final stage manufacturer installs any of the above controls and displays, those controls and displays will also have to meet the requirements of this standard.

CMVSS 102 and FMVSS 102 -TRANSMISSION SHIFT LEVER SEQUENCE, STARTER INTERLOCK AND TRANSMISSION BRAKING EFFECT

Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all incomplete vehicle models contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 102 and FMVSS 102 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below (if equipped):

Automatic Transmission (A/T) control and identification system, including but not limited to:

A/T gear shift sequence and control logic (electrical or mechanical)	Brake - A/T interlock controls
A/T steering column assembly	Engine starter interlock controls
A/T control from floor shift mechanism to transmission linkage	Vehicle & Chassis wiring harnesses
A/T floor shift mechanism	A/T position indicator (pointer)
A/T neutral safety switch assembly and wire	A/T position indicator actuating linkage
A/T position indicator dial	Automatic transmission assembly
	Transmission shift position p.attern (knob, plate or label)

CMVSS 103 and FMVSS 103 - WINDSHIELD DEFROSTING AND DEFOGGING SYSTEMS

Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all incomplete vehicle models contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 103 and FMVSS 103 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below (if equipped):

Windshield defrosting and defogging systems, including but not limited to:

Chassis and instrument panel wiring harness assembly	Engine water outlet thermostat assembly
Defroster air distributor assembly (manifold)	Heater & defroster assembly- including motor & blower
Defroster air duct assembly	Heater & defroster control (mechanical)
Defroster air hoses - manifold to nozzle	Heater blower motor resistor assembly (blower speed control)
Defroster air to windshield outlet assembly (nozzle)	Heater & water hoses and hose assemblies
Defroster outlet to heater assembly adapter	Heater water inlet valve control
	Windshield assembly

CMVSS 104 and FMVSS 104 -WINDSHIELD WIPING AND WASHER SYSTEMS

Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 104 and FMVSS 104 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below (if equipped):

Windshield wiping and washing systems, including but not limited to:

Chassis wiring harness	Windshield wiper linkage assembly
Washer reservoir cap	Windshield wiper and washer control
Water reservoir filler assembly	Windshield wiper and washer motor and pump assembly
Windshield assembly	Windshield washer fluid reservoir
Windshield wiper arm assembly	Windshield washer system hoses
Windshield wiper blade assembly	Windshield washer nozzle

CMVSS 105 and FMVSS 105 - HYDRAULIC BRAKE SYSTEMS
Applies to all models of incomplete vehicles contained in this document

TYPE 2 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, if equipped with hydraulic brakes, when completed, will conform to CMVSS 105 and FMVSS 105 providing no alterations are made which affect the function, physical or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems identified below. In addition, the maximum vertical center of gravity specified below must not be exceeded at maximum GVWR and rated front and rear GAWR.

<u>Application</u>	<u>Maximum Center of Gravity millimeter (inches) above ground</u>
N-Series Class 3,4,5	1600 mm (63")

Hydraulic Brake Systems, including but not limited to:

- Hydraulic brake lines, fittings and routings including gauges, warning devices and warning statements
- Hydraulic brake valves and components
- Hydraulic brake reservoir
- Service and/or parking brake assemblies and components
{Power boosters, master cylinder, ABS module, calipers, wheel cylinders, etc.}
- Tires
- Wheelbases
- Brake pedal, brake light switch, parking brake hand level and switch, and related mechanical components
- Brake and ABS warning light
- Vacuum pump, tank, pipes and hoses (including warning devices and statements)
- Master cylinder reservoir warning statement
- Hydraulic booster pump, pipes, hoses and reservoir (including warning devices)

CMVSS 106 and FMVSS 106 - BRAKE HOSES
Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 106 and FMVSS 106 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below:

Hydraulic Air, and Vacuum Brake Hoses	Brake Hose Assemblies - and Brake Hose
Hoses and hose end fittings	End Fittings
Labeling requirements	

CMVSS 108 - DAYTIME RUNNING LIGHTS

Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed will conform to the Daytime Running Lamps (DRL) requirements of CMVSS108 providing no alterations are made to the ignition switch, DRL system components or wiring, and any vehicle forward lighting as manufactured by Isuzu.

CMVSS 108 and FMVSS 108 - LAMPS, REFLECTIVE DEVICES AND ASSOCIATED EQUIPMENT

Applies to all models of incomplete vehicles contained in this document

TYPE 2 The following statement is applicable to all models of incomplete vehicle.s contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 108 and FMVSS 108 providing it is completed in accordance with the following specific conditions by the final stage manufacturer:

1. Body width must be between 2.032 m (80") and 2.438 m (96"). (2.184 m (86") MIN Body Width For Crew Cab).
2. Each of these devices must be properly installed on the completed vehicle and meet all the requirements of CMVSS 108 and FMVSS 108:
 - a. The following devices, when provided, located and/or wired by Isuzu meet the requirements of this standard.

Headlamps or Daytime running lamps	
Cab roof clearance and ID lamps (front)	Turn signal lamps (front)
Side marker lamp (Front)	Turn signal operating unit
Side reflex reflectors (front)	Vehicle hazard warning signal operating unit
Turn signal flasher	Vehicle hazard warning signal flasher
 - b. The following lamps and reflective devices are temporarily mounted on this incomplete vehicle as required for transportation. When relocating them, intermediate or final stage manufacturers must refer to the Isuzu Body Builders Manual and assure conformance with the location, visibility, and operational requirements of CMVSS 108 and FMVSS 108.

License plate lamp	
Rear combination lamps (tail lamps, stop lamps, turn signal lamps and back-up lamps)	
Reflex reflectors {rear}	
 - c. No part of the completed vehicle shall be installed so as to prevent any of the devices listed in (a) or (b) above from meeting their required photometric output at the specified test points. If such interference exists, the applicable devices may have to be relocated or additional devices added to meet the requirements of CMVSS 108 and FMVSS 108:

Any CMVSS 108 and FMVSS 108 part shall not be painted.

- d. The following devices are not installed on this incomplete vehicle or supplied by Isuzu. When added by intermediate or final stage manufacturers, they must also meet the requirements of CMVSS 108 and FMVSS 108:
 - Clearance lamps (rear)
 - Identification lamps (rear)
 - Side reflex reflectors (rear)
 - Side marker lamps (rear)

- e. The following additional devices must be installed on the van body and meet all requirements of this standard if the overall vehicle length is 9.1 m (30 feet) or greater.
 - Intermediate side marker lamps
 - Intermediate side reflex reflectors

- 3. No alterations (other than any relocation of Items in 2) b.) which may be necessary for conformance to CMVSS 108 and FMVSS 108 should be made which affect the location, mounting surfaces, function, environment or visibility clearance of the above listed devices which have been installed on this incomplete vehicle.

CMVSS 111 and FMVSS 111- REARVIEW MIRRORS

Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover of this document).

This incomplete vehicle, when completed, will conform to FMVSS 111 providing no alterations or substitutions are made to the outside rearview mirrors, the driver's seat location is not altered, and the body is installed symmetrical about the vehicle centerline. The overall width should be no greater than;

<u>Model</u>	<u>Width Limit millimeter (inches)</u>	<u>Width Limit with 102" wide mirror brackets millimeter (inches)</u>
N-Series Class 3,4,5	2438 mm (96")	2590 mm (102")

CMVSS 113 and FMVSS 113 - HOOD LATCH SYSTEM

Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover of this document).

This incomplete vehicle, when completed, will conform to CMVSS 113 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below (if equipped)

Hood	Hood Latch System
------	-------------------

CMVSS 115 and 49 CFR 565 -VEHICLE IDENTIFICATION NUMBER
Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 115 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below:

Vehicle Identification Number (VIN)	VIN label or plate
	VIN plate fasteners

CMVSS 116 and FMVSS 116 - MOTOR VEHICLE BRAKE FLUIDS
Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when equipped with approved hydraulic brake fluid will conform to CMVSS 116 and FMVSS 116 providing no alterations are made which affect the physical or chemical properties of the brake fluid.

CMVSS 119 and FMVSS 119 - NEW PNEUMATIC TIRES FOR MOTOR VEHICLES
WITH A GVWR OF MORE THAN 4,536 KILOGRAMS (10,000 POUNDS)
Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS119 and FMVSS119 providing no alternation are made which affect the function, physical, chemical or mechanical properties, environment, location or vital spatial clearance of the components, assemblies or systems including but not limited to those listed below:

Tires	Wheels
-------	--------

CMVSS 120 and FMVSS 12.0 - TIRE SELECTION AND RIMS FOR VEHICLES OTHER THAN PASSENGER CARS

Applies to all models of incomplete vehicles contained in this document

TYPE 2 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 120 and FMVSS 120 provided:

- A. No alterations are made which affect the function, physical or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to:
 - Owner Manual Instructions
 - Wheels
 - Tires
- B. GVWR, GAWR front and rear weight ratings as listed on the incomplete vehicle label affixed to the front cover of this document are not exceeded.
- C. The tire and wheel information shown on the incomplete vehicle label must be transferred to the final stage manufacturer's Certification label or Tire Information Label providing no equipment or tire pressure changes are made and the final stage manufacturer labels the vehicle in compliance with CMVSS 120 and FMVSS120.

NOTE: Incomplete Vehicles referenced in this document may be shipped with reduced tire pressures for shipping purposes only. Inflate tires to specified pressure before delivery to customers.

CMVSS 124 and FMVSS 124 - ACCELERATOR CONTROL SYSTEMS

Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 124 and FMVSS 124 providing no alterations are made which affect the function, physical chemical, or mechanical properties, environment, location, or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below:

Accelerator/throttle control systems, including but not limited to:

- Accelerator pedal and attachments
- Accelerator lever and supporting bracket assembly
- Accelerator cable, support brackets, and seals
- Accelerator return spring(s)
- Attachment to injection pump lever - pin, hole, or ball stud
- Downshift switch
- Idling control cable assembly

FMVSS 125 -WARNING DEVICES

Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to FMVSS 125 providing no alterations are made which affect the function, physical chemical, or mechanical properties, environment, location, or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below:

Warning devices (if equipped)

Safety warning triangles

Backup Alarm

Fire Extinguisher

CMVSS 136 and FMVSS 136 - ELECTRONIC STABILITY CONTROL SYSTEMS FOR HEAVY VEHICLES

Applies to all models of incomplete vehicles contained in this document

TYPE 3 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

Conformity with CMVSS 136 and FMVSS 136 cannot be determined upon the components supplied on the incomplete vehicle, and Isuzu makes no representation to conformity with the standard.

This incomplete vehicle has not been built, tested, or manufactured with an electronic stability control system.

NOTE: This incomplete vehicle cannot be built into a Truck Tractor.

CMVSS 205 and FMVSS 205 - GLAZING MATERIALS

Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 205 and FMVSS 205 providing no alterations are made which affect the function, physical chemical, or mechanical properties, environment, location, or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below:

Glazing material

Visibility of the monogram

Monogram

Windshield shade banding

Driver's Side Reference Point {SgRP}

Final compliance with CMVSS 205 and FMVSS 205 is the responsibility of the final stage manufacturer for any modifications, or added material, parts, components, or systems.

CMVSS. 206 and FMVSS 206 - DOOR LOCKS AND DOOR RETENTION COMPONENTS

Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover of this document).

This incomplete vehicle, when completed, will conform to CMVSS 206 and FMVSS 206 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below:

Door lock	Door hinge
Door latch	Inside lock control linkage
Door latch striker plate	Exterior door handles

Final compliance with CMVSS 206 and FMVSS 206 is the responsibility of the final stage manufacturer for any modifications, or added material, parts, components, or systems.

CMVSS 207 and FMVSS 207 -ANCHORAGE OF SEATS

Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover of this document).

This incomplete vehicle, when completed, will conform to CMVSS 207 and FMVSS 207 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below:

Seating systems, including but not limited to:

Floor pan assemblies	Seat assembly
Folding seat or seat back latch assembly	Seat or seat back latch assembly
Seat adjuster assembly	Seat or seat back latch release control
Seat anchorage's brackets reinforcements, attachment hardware, etc.	Seat or seat back latch striker
	Seat riser

CMVSS 208 and FMVSS 208 - OCCUPANT CRASH PROTECTION

Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document **(unless otherwise noted on the cover).**

This incomplete vehicle, when completed, will conform to the seat belt provision sections of CMVSS 208 and FMVSS 208 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems installed by Isuzu including but not limited to:

Owner Manual Instructions	Location/configuration of designated seats
Seat anchorages	Seat belt assemblies
Seat assemblies	Seat belt warning system
Seat belt anchorages	

TYPE 3 The following statement is applicable to all types of incomplete vehicles contained in this document **with respect to any seats, seat belt assemblies or seat belt assembly anchorages installed by the intermediate or final stage manufacturer (unless otherwise noted on the cover).**

Conformity with CMVSS 208 and FMVSS 208 cannot be determined based upon the components supplied by intermediate or final stage manufacturer, and Isuzu makes n.o representation to conformity with the standard.

CMVSS 209 and FMVSS 209 - SEAT BELT ASSEMBLIES

Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document **(unless otherwise noted on the cover).**

This incomplete vehicle, when completed, will conform to the CMVSS 209 and FMVSS 209 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems installed by Isuzu including but not limited to:

Owner Manual instructions	Location/configuration of designated seats
Seat anchorages	Seat belt assemblies
Seat ass.emblies	Seat belt warning system
Seat belt anchorages	Original attachment locations

TYPE 3 The following statement is applicable to all types of incomplete vehicles contained in this document **with respect to any seats, seat belt assemblies or seat belt assembly anchorages installed by the intermediate or final stage manufacturer (unless otherwise noted on the cover).**

Conformity with CMVSS 209 and FMVSS 209 cannot be determined based upon the components supplied by intermediate or final stage manufacturer, and Isuzu makes no representation to conformity with the standard.

CMVSS 210 and FMVSS 210-SEAT BELT ASSEMBLY ANCHORAGES
Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document {unless otherwise noted on the cover}.

This incomplete vehicle, when completed, will conform to CMVSS 210 and FMVSS 210 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below:

Seat assemblies	Seat belt anchorage brackets, plates, and reinforcements
Seat belt assemblies	
Floor pan assembly	Child restraint system including anchorages, brackets, plates and reinforcements
Seat belt routing	
Seat position/adjustment capability	B or C pillar structures
Owner Manual instructions	Roof structure

TYPE 3 The following statement is applicable to all types of incomplete vehicles contained in this document with respect to any seats, seat belt assemblies or seat belt assembly anchorages installed by the intermediate or final stage manufacturer (unless otherwise noted on the cover).

Conformity with CMVSS 210 and FMVSS 210 cannot be determined based upon the components supplied by intermediate or final stage manufacturer, and Isuzu makes no representation to conformity with the standard.

CMVSS 302 and FMVSS 302- FLAMMABILITY OF INTERIOR MATERIALS
Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 302 and FMVSS 302 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below, and installed by Isuzu:

Arm rests	Rear Organizer
Compartment shelves	Seat assemblies
Console	Seat backs
Engine compartment covers	Seat belts
Floor coverings	Seat cushions
Head restraints	Shades
Headlining	Sun visors
Instrument panel	Wheel housing covers

All trim panels including door, front, rear and side panels.

NOTE: This list above includes any other interior materials, such as padding and crash deployed elements that are designed to absorb energy on contact by occupants in the event of a crash

PART II

U.S. EPA, CALIFORNIA, AND CANADA EXHAUST & EVAPORATIVE EMISSION REQUIREMENTS AND EPA/ NHTSA / CANADA GREENHOUSE GAS EMISSIONS /FUEL ECONOMY REGULATIONS

Incomplete vehicles come in three major classifications: (1) Light Duty Vehicles, Light Duty Trucks, and Heavy Duty Vehicles (Including Medium Duty in California) are certified by the primary manufacturer and the vehicle is labeled as being in compliance with emission and fuel economy requirements. (2) Heavy Duty Vehicles are required to have an engine certified by the engine manufacturer and bear an engine emissions label, and if a gasoline vehicle bear an evaporative emissions label. (3) Light Duty Vehicles certified and labeled by the intermediate or final stage vehicle manufacturer as complying with emission and fuel economy requirements.

The incomplete vehicles contained in this document are classified as Heavy Duty Vehicles. The final stage manufacturer is responsible to not exceed the GVWR and GAWR listed on the incomplete vehicle certification label and to apply a Final Vehicle Certification Label. If any of these restrictions are exceeded, re-certification by the final stage manufacturer will be required.

In addition, all gasoline/gasoline-ethanol blend powered Federal/California Light Duty, Medium Duty and Heavy Duty Vehicles are required to have an approved fuel evaporative emission control system. Vehicles certified to Heavy Duty gasoline emission standards also require special evaporative emission labeling. In order to assure that Environmental Protection Agency (EPA), National Highway Traffic Safety Administration (NHTSA), California and Canada Emission Certification and/or Greenhouse Gas/Fuel Economy regulations are met, this vehicle must be completed in strict accordance with all instructions contained in this document, especially the following instructions which relate to:

- EMISSION RELATED COMPONENTS
- EVAPORATIVE EMISSION REQUIREMENTS
- FUEL PIPE AND FUEL NECKS (CALIFORNIA)
- LABELS
- EXTERIOR NOISE

EMISSION RELATED COMPONENTS EXHAUST AND EVAPORATIVE REQUIREMENTS.

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, conforms to U.S. EPA, CALIFORNIA, AND CANADIAN EXHAUST & EVAPORATIVE EMISSION REQUIREMENTS providing no alterations are made which affect the function, physical chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below (if equipped), and installed by Isuzu:

Air inlet system	Exhaust system*2
Axles*2	Evaporative emission control system (t)*1
Catalytic converter	Fuel injection system
Coolant temperature sensor	Fuel system*2
Crankcase emission control system	Ignition system (t)
Engine assembly*2	Intake manifold
Engine electronics (ECM/PCM/VCM)	MAF Sensor
Engine speed sensor	

EGR system	Tires*2
Exhaust emission control system	Transmission Control Module (TCM)*2
Charge Air Cooler and related system	A/C System (if equipped)
Exhaust oxygen sensors (if equipped)	Owner Manual instructions
Diesel Particulate Filter(tt)	Selective Catalytic Reduction System(tt)

t Gasoline engine ttoiesel engine

*1 All Federal/California gasoline powered heavy duty vehicles will have an evaporative emission control system that is certified for a fuel tank capacity not to exceed the amount shown on Vehicle Evaporative Emission Control Information Label.

*2 All Federal certified heavy duty vehicles are required to meet Federal Green House Gas (GHG) requirements. Please check the Vehicle Emission Label located either on driver's side door or inside the engine compartment.

ORIGINAL TIRES for compliance to GHG requirements are described in the Owners Manual.

Refer to the Owners Manual for replacing of tires.

EXHAUST SYSTEM

TYPE 1 The following statement is applicable to all incomplete vehicle models contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to 49 CFR Part 393.83 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems.

Vertical exhaust kit assembly provided by Isuzu meets the Part 393.83 requirements, Isuzu makes not statement of conformity with this standard for other vertical exhaust kits.

EVAPORATIVE EMISSION REQUIREMENTS.

TYPE 1 The following statement is applicable to all gasoline models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to applicable exhaust and evaporative emission requirements providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below, and installed by Isuzu:

- | | |
|---------------------------------------|---|
| Fuel Tank Assembly | Fuel tank vent hoses to filler neck |
| Fuel feed hoses front and rear | Fuel vapor lines at canister |
| Fuel return hoses front and rear | Fuel vapor lines from engine to chassis pipes |
| Fuel tank filler hoses to filler neck | Fuel vapor lines from fuel tank |
| Exhaust system | sender to chassis pipes |

SPECIFICATION FOR FILL PIPES AND OPENINGS OF MOTOR VEHICLE FUEL TANKS (APPLICABLE ONLY TO CALIFORNIA GASOLINE/GASOLINE-ETHANOL BLEND POWERED VEHICLES)

TYPE 2 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to Title 13, California Code of Regulations Section 2235, and the "Specifications for Fill Pipes and Openings of 2015 and subsequent Model Year Motor Vehicle Fuel Tanks", dated March 22, 2012, providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the fuel filler neck(s) and any intermediate or final stage manufacturer completes the fuel filler neck installation(s) according to the instructions which are furnished in the loose parts box.

LABELS

TYPE 2 The following statement is applicable to all types of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to U.S. EPA, CALIFORNIA, AND CANADIAN EXHAUST & EVAPORATIVE EMISSION REQUIREMENTS AND EPA/NHTSA GREENHOUSE GAS EMISSIONS/FUEL ECONOMY REGULATION labeling requirements providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the Emission Control related Information Labels that are permanently affixed. The labels are required by government regulation and must not be obstructed from view or defaced so as to impair their visibility or legibility.

EXTERIOR NOISE

CMVSS 1106 - EXTERIOR NOISE

Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles (unless otherwise noted on the cover of this document).

This incomplete vehicle, when completed, will conform to the above standards providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below (if equipped):

Air Induction System (tuning elements)	Intake system (i.e. Air filter,
Alternator	Mass Air flow (MAF) sensor, ducts))
Axles/halfshafts/propshaft	Power steering pump
Catalytic converter and its location {if equipped}	Powertrain control and logic
Engine assembly	Powertrain cooling fan and motor assemblies
Exhaust System	Radiator/condenser assembly to body seals
Exterior noise generating devices	Tires (including correct tire pressure)
Exterior rearview mirror assemblies	Transmission/Transaxle assembly
Front of dash sound deadening material	Underbody shields including air deflector
Hood assembly including sound deadening material and seals	Wheel house liners and shields

Final compliance with CMVSS 1106 is the responsibility of the final stage manufacturer for any modifications, or added material, components, or systems..

PART III

CANADA INTERFERENCE CAUSING EQUIPMENT STANDARD

INTERFERENCE CAUSING EQUIPMENT STANDARD (CANADA ONLY) - ICES-002

Applies to all models of Incomplete Vehicles contained in this document

TYPE 1 The following statement is applicable to all types of incomplete vehicles propelled by an internal combustion engine, electrical means or both contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to the performance requirements of the above standard provided no alterations made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below:

Ignition wires & plugs	Spark plug wires
Ignition coil(s)	ECM/TCM/PCM
Low voltage battery	BCM/SDM
Charging system	

Each vehicle propelled by an internal combustion engine, electrical means or both shall bear a bi-lingual label that represents the manufacturer's Self-Declaration of Compliance (SDoC) to Innovation, Science and Economic Development Canada ICES-002. This label shall be permanently affixed to the vehicle propelled by an internal combustion engine, electrical means or both or displayed electronically and its text must be clearly legible.

The final stage manufacturer must provide a statement of compliance on the Final Stage Manufacturer's Compliance Label or an additional label with the following bilingual information in order to comply with Industry Canada's Interference Causing Equipment Standard ICES/NMB-002:

ICES/NMB-002

NOTES

DOCUMENT FOR INCOMPLETE VEHICLE APPLICABLE TO THE ISUZU 2024+ MY F-SERIES

Isuzu Commercial Truck of America, Inc.
1400 S. Douglass Road, Suite 100
Anaheim, CA 92806

DO NOT REMOVE

THIS DOCUMENT MUST REMAIN WITH THIS VEHICLE UNTIL IT IS CERTIFIED AS A COMPLETED VEHICLE.

PLACE LABEL HERE

The Label affixed here includes the following information:

- The name of the incomplete vehicle manufacturer;
- The month and year the incomplete vehicle manufacturer performed its last manufacturing operation on the incomplete vehicle;
- The vehicle identification number (VIN);
- The Gross Vehicle Weight Rating (GVWR) expressed in kg (lb), intended for the vehicle when it is a completed vehicle;
- The Gross Axle Weight Rating (GAWR) expressed in kg (lb), intended for each axle of the vehicle when it is a completed vehicle, listed in order from front to rear
- Tire size, rim size, cold tire pressure.

This document is furnished as required by the Canada Motor Vehicle Safety Act and United States (U.S.) Federal Motor Vehicle Safety Regulations (FMVSR) to aid intermediate and final stage manufacturers in their determination of conformity of the completed vehicle with applicable Canada Motor Vehicle Safety Standards (CMVSS), U.S. Federal Motor Vehicle Safety Standards (FMVSS), Canadian On-Road Vehicle and Engine Emission Regulations and Canada Interference Causing Equipment Standard – ICES-002. Also included are instructions, which must be followed in order to assure that U.S. Environmental Protection Agency (EPA) and California Air Resources Board (CARB)* emission certification requirements and U.S. National Highway Traffic Safety Administration (NHTSA) Fuel Economy Regulations and Canada/U.S. EPA Greenhouse Gas Regulations are met.

This label attached to this document will indicate this vehicle was manufactured by Builtmore Contract Manufacturing, a division of The SHYFT Group, Inc under a contractual agreement with Isuzu. All inquiries regarding the content of this document should be forwarded to Isuzu through the www.isuzutruckservice.com website.

This document is not a substitute for knowledge and understanding of the requirements of the Canada Motor Vehicle Safety Act, Federal Motor Vehicle Safety Regulations (FMVSR); or applicable Canada Motor Vehicle Safety Standards (CMVSS) and U.S. Federal Motor Vehicle Safety Standards (FMVSS). Intermediate and final stage manufacturers should be familiar with the Regulations and Standards referred to above to be aware of their specific responsibilities as they relate to the final destination and sale of each incomplete vehicle.

Any intermediate or final stage manufacturer making material alterations to this incomplete vehicle during the process of manufacturing the complete vehicle should be constantly vigilant to recognize all effects, either direct or indirect, on other components, assemblies or systems caused by any alteration. No alteration should be made to the incomplete vehicle that directly or indirectly results in any component, assembly or system being in nonconformance with any applicable Canada Motor Vehicle Safety Standard or U.S. Federal Motor Vehicle Safety Standard or Emission Regulation or Fuel Economy/Greenhouse Gas Regulation.

The statements contained in this Incomplete Vehicle Document are accurate as of the date of manufacture of the Incomplete Vehicle and can be relied on by any intermediate and/or final stage manufacturer as a basis for certification.

*Please see the Vehicle Emission Control Information to identify if the vehicle is California certified.

2026 Isuzu Truck

INTRODUCTION

This document contains information relative to conformance of this incomplete vehicle with the following:

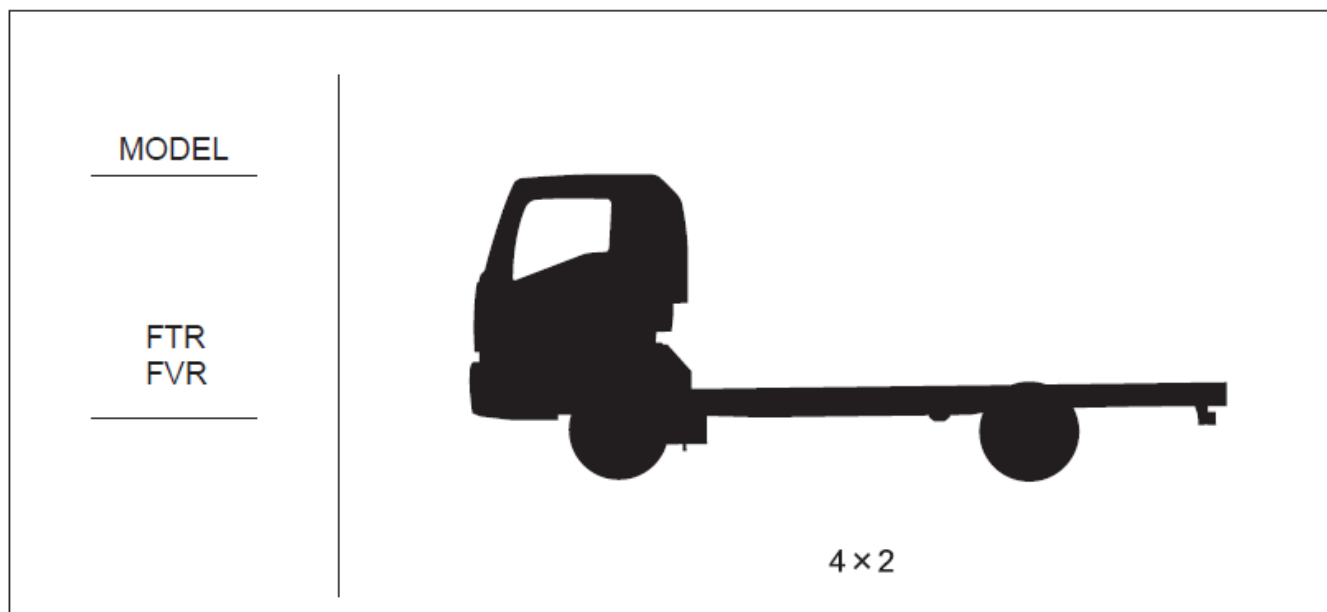
Part I – U.S. FEDERAL MOTOR VEHICLE SAFETY STANDARDS AND CANADA MOTOR VEHICLE SAFETY STANDARDS

Part II – U.S. EPA, CALIFORNIA, AND CANADA EXHAUST & EVAPORATIVE EMISSION REQUIREMENTS AND EPA / NHTSA / CANADA GREENHOUSE GAS EMISSIONS/FUEL ECONOMY REGULATIONS

Part III – CANADA INTERFERENCE CAUSING EQUIPMENT STANDARD

If supplemental technical information is required to support this document, go to the Body Builder website located at www.isuzutruckservice.com, or call 1-770-740-1620 Ext.262 (East Coast) or 1-714-935-9327 (West Coast).

This document pertains to the following styles of truck:



**NOTE: Incomplete vehicle can be built into straight truck type vocational vehicles.
It cannot be built into a Truck Tractor**

*Emission Certification:

To verify if the incomplete vehicle is California emission certified, please locate the Vehicle Emission Control Information label generally located in the driver door area. The compliance statement on the label must say "This vehicle complies with U.S. EPA and California regulations." If the label only states U.S. EPA regulations, then the vehicle is not California certified.

PART I

U.S. FEDERAL MOTOR VEHICLE SAFETY STANDARDS AND CANADA MOTOR VEHICLE SAFETY STANDARDS

This section contains a list of Canada Motor Vehicle Safety Standard (CMVSS), and U.S. Federal Motor Vehicle Safety Standards (FMVSS), followed by a section entitled "Statements Regarding Canada Motor Vehicle Safety Standards (CMVSS), and Federal Motor Vehicle Safety Standards (FMVSS). An appropriate statement of applicability is made for each standard, and by vehicle model as it relates to the incomplete vehicle.

The identifiers TYPE 1, TYPE 2 or TYPE 3 prefix statements (of applicability) regarding Canada Motor Vehicle Safety Standards (CMVSS), and Federal Motor Vehicle Safety Standards (FMVSS). "Examples" of these statements follow:

TYPE 1 A statement that the vehicle when completed will conform to the standard if no alterations are made in identified components of the incomplete vehicle. **EXAMPLE:** This vehicle when complete will conform to CMVSS 104 and FMVSS No. 104, Windshield Wiping and Washing Systems, if no alterations are made in the windshield wiper components.

TYPE 2 A statement of specific conditions of final manufacture under which the manufacturer specifies that the completed vehicle will conform to the standard. **EXAMPLE:** This vehicle when completed will conform to CMVSS 121 and FMVSS 121, Air Brake Systems, if it does not exceed any of the gross axle weight ratings, if the center of gravity at GVWR is not higher than ## feet above the ground, and if no alterations are made to any brake system component.

TYPE 3 A statement that conformity with the standard cannot be determined based upon the components supplied on the incomplete vehicle, and that the incomplete vehicle manufacturer makes no representation to conformity with the standard.

In accordance with the requirements of Canada Motor Vehicle Safety Regulations, and Federal Motor Vehicle Safety Regulations Part 568.4, the following information is included on the label affixed to the front cover of this document:

- The name and mailing address of the incomplete vehicle manufacturer;
- The month and year the incomplete vehicle manufacturer performed its last manufacturing operation on the incomplete vehicle;
- The vehicle identification number (VIN);
- The Gross Vehicle Weight Rating (GVWR) expressed in kg (lb), intended for the vehicle when it is a completed vehicle;
- The Gross Axle Weight Rating (GAWR) expressed in kg (lb), intended for each axle of the vehicle when it is a completed vehicle, listed in order from front to rear.

In addition, the final stage manufacturer is responsible under Canada Motor Vehicle Safety Regulations, and Federal Motor Vehicle Safety Regulations and Part 567.5, to place the GVWR and the GAWR of each axle, on the Final Vehicle Certification Label. Required on label is the "Gross Vehicle Weight Rating" or "GVWR" followed by the appropriate value in kilograms and (pounds), which shall not be less than the sum of the unloaded vehicle weight, rated cargo load, and 68 kg (150 lb.) times the number of the vehicle's designated seating positions.

Unloaded Vehicle Weight means the weight of a vehicle with maximum capacity of all fluids necessary for operation of the vehicle, but without cargo or occupants or accessories that are ordinarily removed from the vehicle when they are not in use.

During the completion of this vehicle, GVWR and GAWR may be affected in various ways, including but not limited to the following:

- The installation of a body or equipment that exceeds the rated capacities of the incomplete vehicle.
- The addition of designated seating positions that exceed the rated capacities of the incomplete vehicle.
- Alterations or substitution of any components such as axles, springs, tires, wheels, frames, steering and brake systems that may affect the rated capacities of the incomplete vehicle.

If supplemental technical information is required to support this document, go to the Isuzu Truck Service website located at www.isuzutruckservice.com

PART I – CHART A

LIST OF CANADA MOTOR VEHICLE SAFETY STANDARDS (CMVSS), AND FEDERAL MOTOR VEHICLE SAFETY STANDARDS (FMVSS), APPLICABLE TO GASOLINE OR DIESEL – FUELED TRUCKS WITH A GVWR OF GREATER THAN 4536 kg (10,000 lb)

SEE STATEMENTS REGARDING CMVSS AND FMVSS ON PAGES THAT FOLLOW

CMVSS	FMVSS	TITLE	F*R
CMVSR Sec 6-7	Part 567**	Labeling and Documentation Requirements	3
101	101	Controls and displays	1
102	102	Transmission shift lever sequence, starter interlock and transmission braking effect	1
103	103	Windshield defrosting and defogging systems	1
104	104	Windshield wiping and washing systems	1
106	106	Brake hoses, Hydraulic, air and vacuum	1
108	-	Daytime Running Lights	2
108	108	Lamps, reflective devices and associated equipment	2
111	111	Mirrors and Rearview Visibility Systems	1
113	113	Hood Latch System	1
115	Part 565 **	Vehicle Identification Number	1
119	119	New pneumatic tires	1
120	120	Tire selection and rims	2
121	121	Air Brake Systems	1
124	124	Accelerator control systems	1
-	125	Warning devices designed to be carried in motor vehicles	3
136	136	Electronic Stability Systems for Heavy Vehicles	3
205	205	Glazing materials	1
206	206	Door locks and door retention components	1
207	207	Seating systems	1
208	208	Occupant Crash Protection	1,3
209	209	Seat belt assemblies	1,3
210	210	Seat belt assembly anchorages	1,3
302	302	Flammability of interior materials	1
ICES-002	-	Canada interference causing equipment standard [PART III]	1
1106	NA	Noise Emissions [PART II]	1

* TYPE 1, 2 or 3 numbers to the right hand side of the table above designate the appropriate paragraph in the CMVSS or FMVSS standards that follow.

** CFR Title 49 Transportation Part 565, Part 567

Statements Regarding Canada Motor Vehicle Safety Standards (CMVSS), and U.S. Federal Motor Vehicle Safety Standards (FMVSS).

CMVSR SEC. 6 and 49 CFR 567 LABELING AND DOCUMENTATION REQUIREMENTS

Applies to all models of incomplete vehicles contained in this document

TYPE 3 The following statement is applicable to all models of Incomplete Vehicles contained in this document.

This incomplete vehicle, when completed in stages by an intermediate and final stage manufacturer will comply with the requirements of Part 567 or the CMVSR Section 6, when the intermediate and final stage manufactures provide additional labeling to meet these requirements.

CMVSS 101 and FMVSS 101 – CONTROLS AND DISPLAYS

Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of Incomplete Vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 101 and FMVSS 101 providing no alterations are made which affect the size, location, identification, or illumination of the controls and displays identified or the location, travel and type of driver's seat. If the driver's seat is installed by the intermediate or final stage manufacturer, the "H" point must be located as shown in the "Body Builder Manuals" and visibility and operation of the controls and displays listed below must meet the requirements of the standard.

The following controls must be operable, and the following displays for the following functions and malfunctions shall be fitted in such a manner that they are identifiable, by the driver while the driver is seated in the driver's designated seating position with the driver's seat belt fastened around the driver in accordance with the manufacturer's instructions:

Hand operated controls (if equipped):

Automatic vehicle speed (cruise control)	Identification lamps (switch)
Automatic transmission shift lever	Ignition (switch)
Clearance lamps (switch)	Illumination intensity control
Driver's Sunvisor	Master lighting switch
Engine Idle Speed	Position, side marker, end-outline marker, identification or clearance lamps
Engine Start	Service brake
Engine Stop	Steering wheel
Hazard warning signal	Tail lamps
Hazard warning switch	Turn signal
Headlamps	Windshield defogging and defrosting systems
Headlamp high or low beam switch	Windshield washer (washing system)
Heating and air conditioning fan	Windshield wiper (wiping system)
Heating and air conditioning system	
Horn control	

Foot operated controls (if equipped):

Accelerator	Service brake (pedal)
Park brake (pedal)	

Displays (if equipped):

Air brake low pressure	Gear position
Air bag system readiness	Headlamp high beam
Antilock brake system malfunction	Low fuel indicator
Battery charging condition	Low brake air pressure telltale
Brake lining wear-out condition	Low brake fluid condition
Brake system malfunction (*)	Odometer (*)
Brake failure warning	Parking brake applied
Diesel Particulate Filter Gauge	Passenger air bag status
Diesel Exhaust Fluid Gauge	Seat belt (unfastened telltale)
Electrical charge indicator	Speedometer (*)
Engine oil pressure	Transmission control position
Fuel level	Turn signal(s)
Gross loss of brake pressure condition	Variable brake proportioning system malfunction
Hazard warning signal	Multi information display (MID)
Engine coolant temperature display	

* For CMVSS only, when Canadian option is specified.

If the intermediate or final stage manufacturer installs any of the above controls and displays, those controls and displays will also have to meet the requirements of this standard.

**CMVSS 102 and FMVSS 102 – TRANSMISSION SHIFT LEVER SEQUENCE,
STARTER INTERLOCK AND TRANSMISSION BRAKING EFFECT**
Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all incomplete vehicle models contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 102 and FMVSS 102 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below (if equipped):

Automatic Transmission (A/T) control and identification system, including but not limited to:

A/T gear shift sequence and control logic (electrical or mechanical)	Brake – A/T interlock controls
A/T steering column assembly	Engine starter interlock controls
A/T control from floor shift mechanism to transmission linkage	Vehicle & Chassis wiring harnesses
A/T floor shift mechanism	A/T position indicator (pointer)
A/T neutral safety switch assembly and wire	A/T position indicator actuating linkage
A/T position indicator dial	Automatic transmission assembly
	Transmission shift position pattern (knob, plate or label)

CMVSS 103 and FMVSS 103 – WINDSHIELD DEFROSTING AND DEFOGGING SYSTEMS **Applies to all models of incomplete vehicles contained in this document**

TYPE 1 The following statement is applicable to all incomplete vehicle models contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 103 and FMVSS 103 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below (if equipped):

Windshield defrosting and defogging systems, including but not limited to:

Chassis and instrument panel wiring harness assembly	Engine water outlet thermostat assembly
Defroster air distributor assembly (manifold)	Heater & defroster assembly – including motor & blower
Defroster air duct assembly	Heater & defroster control (mechanical)
Defroster air hoses – manifold to nozzle	Heater blower motor resistor assembly (blower speed control)
Defroster air to windshield outlet assembly (nozzle)	Heater & water hoses and hose assemblies
Defroster outlet to heater assembly adapter	Heater water inlet valve control
	Windshield assembly

CMVSS 104 and FMVSS 104 – WINDSHIELD WIPING AND WASHER SYSTEMS **Applies to all models of incomplete vehicles contained in this document**

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 104 and FMVSS 104 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below (if equipped):

Windshield wiping and washing systems, including but not limited to:

Chassis wiring harness	Windshield wiper linkage assembly
Washer reservoir cap	Windshield wiper and washer control
Water reservoir filler assembly	Windshield wiper and washer motor and pump assembly
Windshield assembly	Windshield washer fluid reservoir
Windshield wiper arm assembly	Windshield washer system hoses
Windshield wiper blade assembly	Windshield washer nozzle

CMVSS 106 and FMVSS 106 – BRAKE HOSES

Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 106 and FMVSS 106 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below:

Hydraulic Air, and Vacuum Brake Hoses	Brake Hose Assemblies – and Brake Hose
Hoses and hose end fittings	End Fittings
Labeling requirements	

CMVSS 108 – DAYTIME RUNNING LIGHTS

Applies to all models of incomplete vehicles contained in this document

TYPE 2 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed will conform to the Daytime Running Lamps (DRL) requirements of CMVSS108 providing no alterations are made to the ignition switch, DRL system components or wiring, and any vehicle forward, side, or rear lighting as manufactured by Isuzu.

CMVSS 108 and FMVSS 108 – LAMPS, REFLECTIVE DEVICES AND ASSOCIATED EQUIPMENT

Applies to all models of incomplete vehicles contained in this document

TYPE 2 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 108 and FMVSS 108 providing it is completed in accordance with the following specific conditions by the final stage manufacturer:

1. Body width must be a minimum of 2.032 m (80”).
2. Each of these devices must be properly installed on the completed vehicle and meet all the requirements of CMVSS 108 and FMVSS 108:
 - a. The following devices, when provided, located and/or wired by Isuzu meet the requirements of this standard.

Headlamps or Daytime running lamps (DRL)	Turn signal lamps (front)
Cab roof clearance and ID lamps (front)	Turn signal operating unit
Side marker lamp (Front)	Vehicle hazard warning signal operating unit
Side reflex reflectors (front)	Vehicle hazard warning signal flasher
Turn signal flasher	

- b. The following lamps and reflective devices are temporarily mounted on this incomplete vehicle as required for transportation. When relocating them, intermediate or final stage manufacturers must refer to the Isuzu Body Builders Manual and assure conformance with the location, visibility, and operational requirements of CMVSS 108 and FMVSS 108.
 - License plate lamp
 - Rear combination lamps (tail lamps, stop lamps, turn signal lamps and back-up lamps)
 - Reflex reflectors (rear)
 - Daytime Running Lamps

 - c. No part of the completed vehicle shall be installed so as to prevent any of the devices listed in (a) or (b) above from meeting their required photometric output at the specified test points. If such interference exists, the applicable devices may have to be relocated or additional devices added to meet the requirements of CMVSS 108 and FMVSS 108:
 - Any CMVSS 108 and FMVSS 108 part shall not be painted.

 - d. The following devices are not installed on this incomplete vehicle or supplied by Isuzu. When added by intermediate or final stage manufacturers, they must also meet the requirements of CMVSS 108 and FMVSS 108:
 - Clearance lamps (rear)
 - Identification lamps (rear)
 - Side reflex reflectors (rear)
 - Side marker lamps (rear)

 - e. The following additional devices must be installed on the van body and meet all requirements of this standard if the overall vehicle length is 9.1 m (30 feet) or greater.
 - Intermediate side marker lamps
 - Intermediate side reflex reflectors
3. No alterations (other than any relocation of Items in 2) b.) which may be necessary for conformance to CMVSS 108 and FMVSS 108 should be made which affect the location, mounting surfaces, function, environment or visibility clearance of the above listed devices which have been installed on this incomplete vehicle.

CMVSS 111 and FMVSS 111 – REARVIEW MIRRORS
Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover of this document).

This incomplete vehicle, when completed, will conform to FMVSS 111 providing no alterations or substitutions are made to the outside rearview mirrors, the driver’s seat location is not altered, and the body is installed symmetrical about the vehicle centerline. The overall width should be no greater than;

<u>Model</u>	<u>Width Limit millimeter (inches)</u>	<u>Width Limit with 102” wide mirror brackets millimeter (inches)</u>
F*R	2438 mm (96”)	2590 mm (102”)

CMVSS 113 and FMVSS 113 – HOOD LATCH SYSTEM

Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover of this document).

This incomplete vehicle, when completed, will conform to CMVSS 113 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below (if equipped)

Hood

Hood Latch System

CMVSS 115 and 49 CFR 565 – VEHICLE IDENTIFICATION NUMBER

Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 115 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below:

Vehicle Identification Number (VIN)

VIN label or plate

VIN plate fasteners

CMVSS119 and FMVSS119 - NEW PNEUMATIC TIRES FOR MOTOR VEHICLES WITH A GVWR OF MORE THAN 4,536 KILOGRAMS (10,000 POUNDS)

Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS119 and FMVSS119 providing no alternation are made which affect the function, physical, chemical or mechanical properties, environment, location or vital spatial clearance of the components, assemblies or systems including but not limited to those listed below:

Tires

Wheels

CMVSS 124 and FMVSS 124 – ACCELERATOR CONTROL SYSTEMS **Applies to all models of incomplete vehicles contained in this document**

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 124 and FMVSS 124 providing no alterations are made which affect the function, physical chemical, or mechanical properties, environment, location, or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below:

Accelerator/throttle control systems, including but not limited to:

- Accelerator pedal and attachments
- Accelerator lever and supporting bracket assembly
- Accelerator cable, support brackets, and seals
- Accelerator return spring(s)
- Attachment to injection pump lever - pin, hole, or ball stud
- Downshift switch
- Idling control cable assembly

FMVSS 125 –WARNING DEVICES **Applies to all models of incomplete vehicles contained in this document**

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to FMVSS 125 providing no alterations are made which affect the function, physical chemical, or mechanical properties, environment, location, or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below:

Warning devices (if equipped)

- Safety warning triangles
- Backup Alarm
- Fire Extinguisher

CMVSS 136 and FMVSS 136 – ELECTRONIC STABILITY CONTROL SYSTEMS FOR HEAVY VEHICLES **Applies to all models of incomplete vehicles contained in this document**

TYPE 3 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

Conformity with CMVSS 136 and FMVSS 136 cannot be determined upon the components supplied on the incomplete vehicle, and Isuzu makes no representation to conformity with the standard.

This incomplete vehicle has not been built, tested, or manufactured with an electronic stability control system.

NOTE: This incomplete vehicle cannot be built into a Truck Tractor.

CMVSS 205 and FMVSS 205 – GLAZING MATERIALS
Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 205 and FMVSS 205 providing no alterations are made which affect the function, physical chemical, or mechanical properties, environment, location, or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below:

- | | |
|--------------------------------------|----------------------------|
| Glazing material | Visibility of the monogram |
| Monogram | Windshield shade banding |
| Driver's Side Reference Point (SgRP) | |

Final compliance with CMVSS 205 and FMVSS 205 is the responsibility of the final stage manufacturer for any modifications, or added material, parts, components, or systems.

CMVSS 206 and FMVSS 206 – DOOR LOCKS AND DOOR RETENTION COMPONENTS
Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover of this document).

This incomplete vehicle, when completed, will conform to CMVSS 206 and FMVSS 206 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below:

- | | |
|--------------------------|-----------------------------|
| Door lock | Door hinge |
| Door latch | Inside lock control linkage |
| Door latch striker plate | Exterior door handles |

Final compliance with CMVSS 206 and FMVSS 206 is the responsibility of the final stage manufacturer for any modifications, or added material, parts, components, or systems.

CMVSS 207 and FMVSS 207 – ANCHORAGE OF SEATS

Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover of this document).

This incomplete vehicle, when completed, will conform to CMVSS 207 and FMVSS 207 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below:

Seating systems, including but not limited to:

Floor pan assemblies	Seat assembly
Folding seat or seat back latch assembly	Seat or seat back latch assembly
Seat adjuster assembly	Seat or seat back latch release control
Seat anchorage's brackets reinforcements, attachment hardware, etc.	Seat or seat back latch striker
	Seat riser

CMVSS 208 and FMVSS 208 – OCCUPANT CRASH PROTECTION

Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to the seat belt provision sections of CMVSS 208 and FMVSS 208 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems installed by Isuzu including but not limited to:

Owner Manual instructions	Location/configuration of designated seats
Seat anchorages	Seat belt assemblies
Seat assemblies	Seat belt warning system
Seat belt anchorages	

TYPE 3 The following statement is applicable to all types of incomplete vehicles contained in this document with respect to any seats, seat belt assemblies or seat belt assembly anchorages installed by the intermediate or final stage manufacturer (unless otherwise noted on the cover).

Conformity with CMVSS 208 and FMVSS 208 cannot be determined based upon the components supplied on the incomplete vehicle, and Isuzu makes no representation to conformity with the standard.

CMVSS 209 and FMVSS 209 – SEAT BELT ASSEMBLIES

Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to the CMVSS 209 and FMVSS 209 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems installed by Isuzu including but not limited to:

Owner Manual instructions	Location/configuration of designated seats
Seat anchorages	Seat belt assemblies
Seat assemblies	Seat belt warning system
Seat belt anchorages	Original attachment locations

TYPE 3 The following statement is applicable to all types of incomplete vehicles contained in this document with respect to any seats, seat belt assemblies or seat belt assembly anchorages installed by the intermediate or final stage manufacturer (unless otherwise noted on the cover).

Conformity with CMVSS 209 and FMVSS 209 cannot be determined based upon the components supplied on the incomplete vehicle, and Isuzu makes no representation to conformity with the standard.

CMVSS 210 and FMVSS 210 – SEAT BELT ASSEMBLY ANCHORAGES

Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 210 and FMVSS 210 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below:

Seat assemblies	Seat belt anchorage brackets, plates, and reinforcements
Seat belt assemblies	Child restraint system including anchorages, brackets, plates and reinforcements
Floor pan assembly	B or C pillar structures
Seat belt routing	Roof structure
Seat position/adjustment capability	
Owner Manual instructions	

TYPE 3 The following statement is applicable to all types of incomplete vehicles contained in this document with respect to any seats, seat belt assemblies or seat belt assembly anchorages installed by the intermediate or final stage manufacturer (unless otherwise noted on the cover).

Conformity with CMVSS 210 and FMVSS 210 cannot be determined based upon the components supplied on the incomplete vehicle, and Isuzu makes no representation to conformity with the standard.

CMVSS 302 and FMVSS 302 – FLAMMABILITY OF INTERIOR MATERIALS
Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 302 and FMVSS 302 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below, and installed by Isuzu:

Arm rests	Rear Organizer
Compartment shelves	Seat assemblies
Console	Seat backs
Engine compartment covers	Seat belts
Floor coverings	Seat cushions
Head restraints	Shades
Headlining	Sun visors
Instrument panel	Wheel housing covers

All trim panels including door, front, rear and side panels.

NOTE: This list above includes any other interior materials, such as padding and crash deployed elements that are designed to absorb energy on contact by occupants in the event of a crash

PART II

U.S. EPA, CALIFORNIA, AND CANADA EXHAUST & EVAPORATIVE EMISSION REQUIREMENTS AND EPA / NHTSA / CANADA GREENHOUSE GAS EMISSIONS /FUEL ECONOMY REGULATIONS

Incomplete vehicles come in three major classifications: (1) Light Duty Vehicles, Light Duty Trucks, and Heavy Duty Vehicles (Including Medium Duty in California) are certified by the primary manufacturer and the vehicle is labeled as being in compliance with emission and fuel economy requirements. (2) Heavy Duty Vehicles are required to have an engine certified by the engine manufacturer and bear an engine emissions label, and if a gasoline vehicle bear an evaporative emissions label. (3) Light Duty Vehicles certified and labeled by the intermediate or final stage vehicle manufacturer as complying with emission and fuel economy requirements.

The incomplete vehicles contained in this document are classified as Heavy Duty Vehicles. The final stage manufacturer is responsible to not exceed the GVWR and GAWR listed on the incomplete vehicle certification label and to apply a Final Vehicle Certification Label. If any of these restrictions are exceeded, re-certification by the final stage manufacturer will be required.

In addition, all gasoline/gasoline-ethanol blend powered Federal/California Light Duty, Medium Duty and Heavy Duty Vehicles are required to have an approved fuel evaporative emission control system. Vehicles certified to Heavy Duty gasoline emission standards also require special evaporative emission labeling. In order to assure that Environmental Protection Agency (EPA), National Highway Traffic Safety Administration (NHTSA), California and Canada Emission Certification and/or Greenhouse Gas/Fuel Economy regulations are met, this vehicle must be completed in strict accordance with all instructions contained in this document, especially the following instructions which relate to:

- EMISSION RELATED COMPONENTS
- EVAPORATIVE EMISSION REQUIREMENTS
- FUEL PIPE AND FUEL NECKS (CALIFORNIA)
- LABELS
- EXTERIOR NOISE

EMISSION RELATED COMPONENTS

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, conforms to U.S. EPA, CALIFORNIA, AND CANADIAN EXHAUST & EVAPORATIVE EMISSION REQUIREMENTS providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below (if equipped), and installed by Isuzu:

Air inlet system	Exhaust system*2
Axles*2	Evaporative emission control system (†)*1
Catalytic converter	Fuel injection system
Coolant temperature sensor	Fuel system*2
Crankcase emission control system	Ignition system (†)
Engine assembly*2	Intake manifold
Engine electronics (ECM/PCM/VCM)	MAF Sensor
Engine speed sensor	

EGR system
Exhaust emission control system
Charge Air Cooler and related system
Exhaust oxygen sensors (if equipped)

Tires*2
Transmission Control Module (TCM)*2
A/C System(if equipped)
Owner Manual instructions

† Gasoline engine

*1 All Federal/California gasoline powered heavy duty vehicles will have an evaporative emission control system that is certified for a fuel tank capacity not to exceed the amount shown on Vehicle Evaporative Emission Control Information Label.

*2 All Federal certified heavy duty vehicles are required to meet Federal Green House Gas (GHG) requirements. Please check the Vehicle Emission Label located either on driver's side door or inside the engine compartment.

Conformance to U.S. EPA, California, and Canadian Exhaust & Green House Gas Emission requirements and restrictions for these incomplete vehicles.

ORIGINAL TIRES for compliance to GHG requirements are described in the Owners Manual.

Refer to the Owners Manual for tire replacement.

TYPE 3 The following statement is applicable to all types of incomplete vehicles contained in this document with respect to any tires installed by the intermediate or final stage manufacturer (unless otherwise noted on the cover).

Conformity with vocational vehicle GHG above 19,500 GVWR and at or below 33,000 GVWR cannot be determined based upon the components not supplied by Isuzu on the incomplete vehicle and Isuzu makes no representation to conformity with the standard.

EVAPORATIVE EMISSION REQUIREMENTS.

All models of incomplete vehicles contained in this book are operated on diesel fuel. Evaporative emissions are not required

SPECIFICATION FOR FILL PIPES AND OPENINGS OF MOTOR VEHICLE FUEL TANKS (APPLICABLE ONLY TO CALIFORNIA GASOLINE/GASOLINE-ETHANOL BLEND POWERED VEHICLES)

LABELS

TYPE 2 The following statement is applicable to all types of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to U.S. EPA, CALIFORNIA, AND CANADIAN EXHAUST & EVAPORATIVE EMISSION REQUIREMENTS AND EPA/NHTSA GREENHOUSE GAS EMISSIONS/FUEL ECONOMY REGULATION labeling requirements providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the Emission Control related Information Labels that are permanently affixed. The labels are required by government regulation and must not be obstructed from view or defaced so as to impair their visibility or legibility.

EXTERIOR NOISE

CMVSS 1106 – EXTERIOR NOISE

Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles (unless otherwise noted on the cover of this document).

This incomplete vehicle, when completed, will conform to the above standards providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below (if equipped):

Air Induction System (tuning elements)	Intake system (i.e. Air filter,
Alternator	Mass Air flow (MAF) sensor, ducts))
Axles/halfshafts/propshaft	Power steering pump
Catalytic converter and its location (if equipped)	Powertrain control and logic
Engine assembly	Powertrain cooling fan and motor assemblies
Exhaust & After treatment Systems	Radiator/condenser assembly to body seals
Exterior noise generating devices	Tires (including correct tire pressure)
Exterior rearview mirror assemblies	Transmission/Transaxle assembly
Front of dash sound deadening material	Underbody shields including air deflector
Hood assembly including sound deadening material and seals	Wheel house liners and shields

Final compliance with CMVSS 1106 is the responsibility of the final stage manufacturer for any modifications, or added material, components, or systems.

PART III

CANADA INTERFERENCE CAUSING EQUIPMENT STANDARD

INTERFERENCE CAUSING EQUIPMENT STANDARD (CANADA ONLY) – ICES-002

Applies to all models of Incomplete Vehicles contained in this document

TYPE 1 The following statement is applicable to all types of incomplete vehicles propelled by an internal combustion engine, electrical means or both contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to the performance requirements of the above standard provided no alterations made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below: (if equipped)

Ignition wires & plugs	Spark plug wires
Ignition coil(s)	ECM/TCM/PCM
Low voltage battery	BCM/SDM
Charging system	

Each vehicle propelled by an internal combustion engine, electrical means or both shall bear a bi-lingual label that represents the manufacturer's Self-Declaration of Compliance (SDoC) to Innovation, Science and Economic Development Canada ICES-002. This label shall be permanently affixed to the vehicle propelled by an internal combustion engine, electrical means or both or displayed electronically and its text must be clearly legible.

The final stage manufacturer must provide a statement of compliance on the Final Stage Manufacturer's Compliance Label or an additional label with the following bilingual information in order to comply with Industry Canada's Interference Causing Equipment Standard ICES/NMB-002:

ICES/NMB-002

DOCUMENT FOR INCOMPLETE VEHICLE APPLICABLE TO THE ISUZU 2024+ MY N-GAS SERIES

Isuzu Commercial Truck of America, Inc.
1400 S. Douglass Road, Suite 100
Anaheim, CA 92806

DO NOT REMOVE

THIS DOCUMENT MUST REMAIN WITH THIS VEHICLE UNTIL IT IS CERTIFIED AS A COMPLETED VEHICLE.

PLACE LABEL HERE

The Label affixed here includes the following information:

- The name of the incomplete vehicle manufacturer;
- The month and year the incomplete vehicle manufacturer performed its last manufacturing operation on the incomplete vehicle;
- The vehicle identification number (VIN);
- The Gross Vehicle Weight Rating (GVWR) expressed in kg (lb), intended for the vehicle when it is a completed vehicle;
- The Gross Axle Weight Rating (GAWR) expressed in kg (lb), intended for each axle of the vehicle when it is a completed vehicle, listed in order from front to rear
- Tire size, rim size, cold tire pressure.

This document is furnished as required by the Canada Motor Vehicle Safety Act and United States (U.S.) Federal Motor Vehicle Safety Regulations (FMVSR) to aid intermediate and final stage manufacturers in their determination of conformity of the completed vehicle with applicable Canada Motor Vehicle Safety Standards (CMVSS), U.S. Federal Motor Vehicle Safety Standards (FMVSS), Canadian On-Road Vehicle and Engine Emission Regulations and Canada Interference Causing Equipment Standard – ICES-002. Also included are instructions, which must be followed in order to assure that U.S. Environmental Protection Agency (EPA) and California Air Resources Board (CARB) emission certification requirements and U.S. National Highway Traffic Safety Administration (NHTSA) Fuel Economy Regulations and Canada/U.S. EPA Greenhouse Gas Regulations are met.

This label attached to this document will indicate this vehicle was manufactured by Builtmore Contract Manufacturing, a division of The SHYFT Group, Inc under a contractual agreement with Isuzu. All inquiries regarding the content of this document should be forwarded to Isuzu through the www.isuzutruckservice.com website.

This document is not a substitute for knowledge and understanding of the requirements of the Canada Motor Vehicle Safety Act, Federal Motor Vehicle Safety Regulations (FMVSR); or applicable Canada Motor Vehicle Safety Standards (CMVSS) and U.S. Federal Motor Vehicle Safety Standards (FMVSS). Intermediate and final stage manufacturers should be familiar with the Regulations and Standards referred to above to be aware of their specific responsibilities as they relate to the final destination and sale of each incomplete vehicle.

Any intermediate or final stage manufacturer making material alterations to this incomplete vehicle during the process of manufacturing the complete vehicle should be constantly vigilant to recognize all effects, either direct or indirect, on other components, assemblies or systems caused by any alteration. No alteration should be made to the incomplete vehicle that directly or indirectly results in any component, assembly or system being in nonconformance with any applicable Canada Motor Vehicle Safety Standard or U.S. Federal Motor Vehicle Safety Standard or Emission Regulation or Fuel Economy/Greenhouse Gas Regulation.

The statements contained in this Incomplete Vehicle Document are accurate as of the date of manufacture of the Incomplete Vehicle and can be relied on by any intermediate and/or final stage manufacturer as a basis for certification.

2026 Isuzu Truck

INTRODUCTION

This document contains information relative to conformance of this incomplete vehicle with the following:

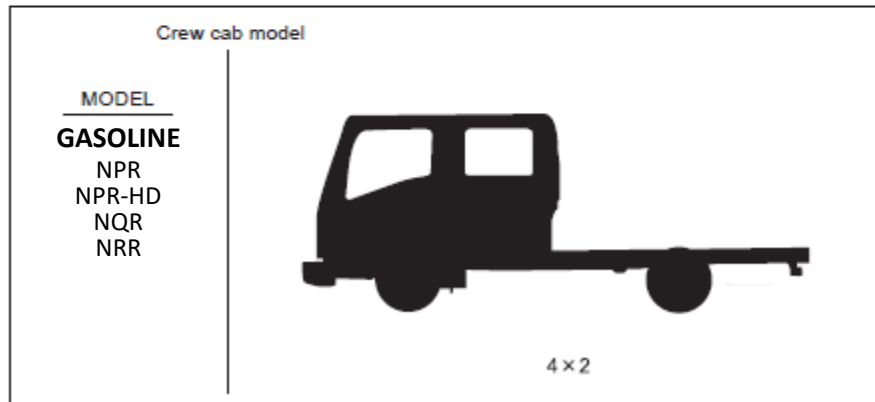
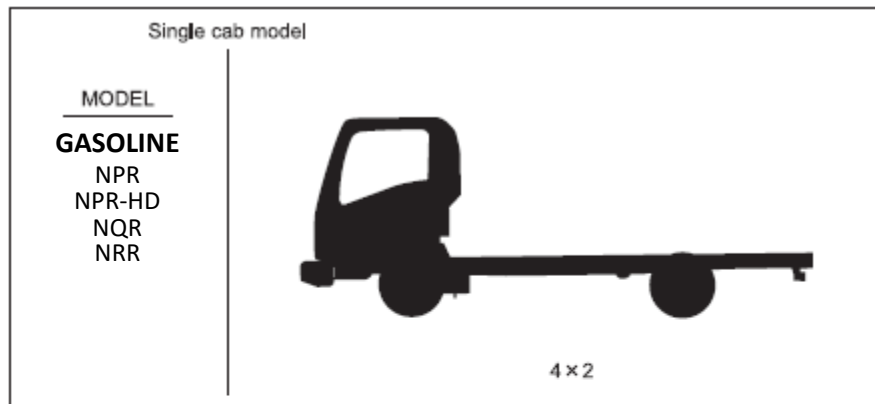
Part I – U.S. FEDERAL MOTOR VEHICLE SAFETY STANDARDS AND CANADA MOTOR VEHICLE SAFETY STANDARDS

Part II – U.S. ENVIRONMENTAL PROTECTION AGENCY, STATE OF CALIFORNIA, AND CANADA EMISSION REQUIREMENTS AND NHTSA FUEL ECONOMY REQUIREMENTS, AND CANADA/ U.S. EPA GREENHOUSE GAS REGULATIONS

Part III – CANADA INTERFERENCE CAUSING EQUIPMENT STANDARD

If supplemental technical information is required to support this document, go to the Body Builder website located at www.isuzutruckservice.com, or call 1-770-740-1620 Ext.262 (East Coast) or 1-714-935-9327 (West Coast).

This document pertains to the following styles of truck:



**NOTE: Incomplete vehicle can be built into straight truck type vocational vehicles.
It cannot be built into a Truck Tractor or a Bus**

PART I

U.S. FEDERAL MOTOR VEHICLE SAFETY STANDARDS AND CANADA MOTOR VEHICLE SAFETY STANDARDS

This section contains a list of Canada Motor Vehicle Safety Standard (CMVSS), and U.S. Federal Motor Vehicle Safety Standards (FMVSS), followed by a section entitled "Statements Regarding Canada Motor Vehicle Safety Standards (CMVSS), and Federal Motor Vehicle Safety Standards (FMVSS). An appropriate statement of applicability is made for each standard, and by vehicle model as it relates to the incomplete vehicle.

The identifiers TYPE 1, TYPE 2 or TYPE 3 prefix statements (of applicability) regarding Canada Motor Vehicle Safety Standards (CMVSS), and Federal Motor Vehicle Safety Standards (FMVSS). "Examples" of these statements follow:

TYPE 1 A statement that the vehicle when completed will conform to the standard if no alterations are made in identified components of the incomplete vehicle. **EXAMPLE:** This vehicle when complete will conform to CMVSS 104 and FMVSS No. 104, Windshield Wiping and Washing Systems, if no alterations are made in the windshield wiper components.

TYPE 2 A statement of specific conditions of final manufacture under which the manufacturer specifies that the completed vehicle will conform to the standard. **EXAMPLE:** This vehicle when completed will conform to CMVSS 121 and FMVSS 121, Air Brake Systems, if it does not exceed any of the gross axle weight ratings, if the center of gravity at GVWR is not higher than ## feet above the ground, and if no alterations are made to any brake system component.

TYPE 3 A statement that conformity with the standard cannot be determined based upon the components supplied on the incomplete vehicle, and that the incomplete vehicle manufacturer makes no representation to conformity with the standard.

In accordance with the requirements of Canada Motor Vehicle Safety Regulations, and Federal Motor Vehicle Safety Regulations Part 568.4, the following information is included on the label affixed to the front cover of this document:

- The name and mailing address of the incomplete vehicle manufacturer;
- The month and year the incomplete vehicle manufacturer performed its last manufacturing operation on the incomplete vehicle;
- The vehicle identification number (VIN);
- The Gross Vehicle Weight Rating (GVWR) expressed in kg (lb), intended for the vehicle when it is a completed vehicle;
- The Gross Axle Weight Rating (GAWR) expressed in kg (lb), intended for each axle of the vehicle when it is a completed vehicle, listed in order from front to rear.

In addition, the final stage manufacturer is responsible under Canada Motor Vehicle Safety Regulations, and Federal Motor Vehicle Safety Regulations and Part 567.5, to place the GVWR and the GAWR of each axle, on the Final Vehicle Certification Label. Required on label is the "Gross Vehicle Weight Rating" or "GVWR" followed by the appropriate value in kilograms and (pounds), which shall not be less than the sum of the unloaded vehicle weight, rated cargo load, and 68 kg (150 lb.) times the number of the vehicle's designated seating positions, if known. However, for school buses the minimum occupant weight allowance shall be 54.4 kg (120 lb.) per passenger and 68 kg (150 lb.) for the driver.

Unloaded Vehicle Weight means the weight of a vehicle with maximum capacity of all fluids necessary for operation of the vehicle, but without cargo or occupants or accessories that are ordinarily removed from the vehicle when they are not in use.

During the completion of this vehicle, GVWR and GAWR may be affected in various ways, including but not limited to the following:

- The installation of a body or equipment that exceeds the rated capacities of the incomplete vehicle.
- The addition of designated seating positions that exceed the rated capacities of the incomplete vehicle.
- Alterations or substitution of any components such as axles, springs, tires, wheels, frames, steering and brake systems that may affect the rated capacities of the incomplete vehicle.

If supplemental technical information is required to support this document, go to the Isuzu Truck Service website located at www.isuzutruckservice.com

PART I – CHART A

LIST OF CANADA MOTOR VEHICLE SAFETY STANDARDS (CMVSS), AND FEDERAL MOTOR VEHICLE SAFETY STANDARDS (FMVSS), APPLICABLE TO GASOLINE OR DIESEL – FUELED TRUCKS WITH A GVWR OF GREATER THAN 4536 kg (10,000 lb)

SEE STATEMENTS REGARDING CMVSS AND FMVSS ON PAGES THAT FOLLOW

CMVSS	FMVSS	TITLE	NPR/NPR-HD GASOLINE	NQR/NRR GASOLINE
CMVSR Sec 6-7	Part 567**	Labeling and Documentation Requirements	3	3
101	101	Controls and displays	1	1
102	102	Transmission shift lever sequence, starter interlock and transmission braking effect	1	1
103	103	Windshield defrosting and defogging systems	1	1
104	104	Windshield wiping and washing systems	1	1
105	105	Hydraulic brake systems	2	2
106	106	Brake hoses, Hydraulic, air and vacuum	1	1
108	-	Daytime Running Lights	1	1
108	108	Lamps, reflective devices and associated equipment	2	2
111	111	Mirrors and Rearview Visibility Systems	1	1
113	113	Hood Latch System	1	1
115	Part 565 **	Vehicle Identification Number	1	1
116	116	Motor-vehicle brake fluids	1	1
119	119	New pneumatic tires	1	1
120	120	Tire selection and rims	2	2
124	124	Accelerator control systems	1	1
-	125	Warning devices designed to be carried in motor vehicles	1	1
136	136	Electronic Stability Systems for Heavy Vehicles	3	3
205	205	Glazing materials	1	1
206	206	Door locks and door retention components	1	1
207	207	Seating systems	1	1
208	208	Occupant Crash Protection	1,3	1,3
209	209	Seat belt assemblies	1,3	1,3
210	210	Seat belt assembly anchorages	1,3	1,3
302	302	Flammability of interior materials	1	1
ICES-002	-	Canada interference causing equipment standard	1	1
1106	NA	Noise Emissions	1	1

* TYPE 1, 2 or 3 numbers to the right hand side of the table above designate the appropriate paragraph in the CMVSS or FMVSS standards that follow.

** CFR Title 49 Transportation Part 565, Part 567

Statements Regarding Canada Motor Vehicle Safety Standards (CMVSS), and U.S. Federal Motor Vehicle Safety Standards (FMVSS).

CMVSR SEC. 6 and 49 CFR 567 LABELING AND DOCUMENTATION REQUIREMENTS

Applies to all models of incomplete vehicles contained in this document

TYPE 3 The following statement is applicable to all models of Incomplete Vehicles contained in this document.

This incomplete vehicle, when completed in stages by an intermediate and final stage manufacturer will comply with the requirements of Part 567 or the CMVSR Section 6, when the intermediate and final stage manufactures provide additional labeling to meet these requirements.

CMVSS 101 and FMVSS 101 – CONTROLS AND DISPLAYS

Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of Incomplete Vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 101 and FMVSS 101 providing no alterations are made which affect the size, location, identification, or illumination of the controls and displays identified or the location, travel and type of driver's seat. If the driver's seat is installed by the intermediate or final stage manufacturer, the "H" point must be located as shown in the "Body Builder Manuals" and visibility and operation of the controls and displays listed below must meet the requirements of the standard.

The following controls must be operable, and the following displays for the following functions and malfunctions shall be fitted in such a manner that they are identifiable, by the driver while the driver is seated in the driver's designated seating position with the driver's seat belt fastened around the driver in accordance with the manufacturer's instructions:

Hand operated controls (if equipped):

Automatic vehicle speed (cruise control)	Identification lamps (switch)
Automatic transmission shift lever	Ignition (switch)
Clearance lamps (switch)	Illumination intensity control
Driver's Sunvisor	Master lighting switch
Engine Idle Speed	Position, side marker, end-outline marker, identification or clearance lamps
Engine Start	Service brake
Engine Stop	Steering wheel
Hazard warning signal	Tail lamps
Hazard warning switch	Turn signal
Headlamps	Windshield defogging and defrosting systems
Headlamp high or low beam switch	Windshield washer (washing system)
Heating and air conditioning fan	Windshield wiper (wiping system)
Heating and air conditioning system	
Horn control	

Foot operated controls (if equipped):

Accelerator
Park brake (pedal)

Service brake (pedal)

Displays (if equipped):

Air brake low pressure	Headlamp high beam
Air bag system readiness	Low fuel indicator
Antilock brake system malfunction	Low brake air pressure telltale
Battery charging condition	Low brake fluid condition
Brake lining wear-out condition	Odometer (*)
Brake system malfunction (*)	Parking brake applied
Brake failure warning	Passenger air bag status
Electrical charge indicator	Seat belt (unfastened telltale)
Engine oil pressure	Speedometer (*)
Fuel level	Transmission control position
Gross loss of brake pressure condition	Turn signal(s)
Hazard warning signal	Variable brake proportioning system malfunction
Engine coolant temperature display	Multi information display (MID)
Gear position	

* For CMVSS only, when Canadian option is specified.

If the intermediate or final stage manufacturer installs any of the above controls and displays, those controls and displays will also have to meet the requirements of this standard.

**CMVSS 102 and FMVSS 102 – TRANSMISSION SHIFT LEVER SEQUENCE,
STARTER INTERLOCK AND TRANSMISSION BRAKING EFFECT**
Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all incomplete vehicle models contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 102 and FMVSS 102 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below (if equipped):

Automatic Transmission (A/T) control and identification system, including but not limited to:

A/T gear shift sequence and control logic (electrical or mechanical)	Brake – A/T interlock controls
A/T steering column assembly	Engine starter interlock controls
A/T control from floor shift mechanism to transmission linkage	Vehicle & Chassis wiring harnesses
A/T floor shift mechanism	A/T position indicator (pointer)
A/T neutral safety switch assembly and wire	A/T position indicator actuating linkage
A/T position indicator dial	Automatic transmission assembly
	Transmission shift position pattern (knob, plate or label)

CMVSS 103 and FMVSS 103 – WINDSHIELD DEFROSTING AND DEFOGGING SYSTEMS
Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all incomplete vehicle models contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 103 and FMVSS 103 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below (if equipped):

Windshield defrosting and defogging systems, including but not limited to:

Chassis and instrument panel wiring harness assembly	Engine water outlet thermostat assembly
Defroster air distributor assembly (manifold)	Heater & defroster assembly – including motor & blower
Defroster air duct assembly	Heater & defroster control (mechanical)
Defroster air hoses – manifold to nozzle	Heater blower motor resistor assembly (blower speed control)
Defroster air to windshield outlet assembly (nozzle)	Heater & water hoses and hose assemblies
Defroster outlet to heater assembly adapter	Heater water inlet valve control
	Windshield assembly

CMVSS 104 and FMVSS 104 – WINDSHIELD WIPING AND WASHER SYSTEMS **Applies to all models of incomplete vehicles contained in this document**

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 104 and FMVSS 104 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below (if equipped):

Windshield wiping and washing systems, including but not limited to:

Chassis wiring harness	Windshield wiper linkage assembly
Washer reservoir cap	Windshield wiper and washer control
Water reservoir filler assembly	Windshield wiper and washer motor and pump assembly
Windshield assembly	Windshield washer fluid reservoir
Windshield wiper arm assembly	Windshield washer system hoses
Windshield wiper blade assembly	Windshield washer nozzle

CMVSS 105 and FMVSS 105 – HYDRAULIC BRAKE SYSTEMS
Applies to all models of incomplete vehicles contained in this document

TYPE 2 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, if equipped with hydraulic brakes, when completed, will conform to CMVSS 105 and FMVSS 105 providing no alterations are made which affect the function, physical or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems identified below. In addition, the maximum vertical center of gravity specified below must not be exceeded at maximum GVWR and rated front and rear GAWR.

<u>Application</u>	<u>Maximum Center of Gravity millimeter (inches) above ground</u>
NPR/ NPR-HD Gas	1600 mm (63")
NQR/NRR Gas	

Hydraulic Brake Systems, including but not limited to:

- Hydraulic brake lines, fittings and routings including gauges, warning devices and warning statements
- Hydraulic brake valves and components
- Hydraulic brake reservoir
- Service and/or parking brake assemblies and components
(Power boosters, master cylinder, ABS module, calipers, wheel cylinders, etc.)
- Tires
- Wheelbases
- Brake pedal, brake light switch, parking brake hand level and switch, and related mechanical components
- Brake and ABS warning light
- Vacuum pump, tank, pipes and hoses (including warning devices and statements)
- Master cylinder reservoir warning statement
- Hydraulic booster pump, pipes, hoses and reservoir (including warning devices)

CMVSS 106 and FMVSS 106 – BRAKE HOSES
Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 106 and FMVSS 106 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below:

Hydraulic Air, and Vacuum Brake Hoses	Brake Hose Assemblies – and Brake Hose
Hoses and hose end fittings	End Fittings
Labeling requirements	

CMVSS 108 – DAYTIME RUNNING LIGHTS

Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed will conform to the Daytime Running Lamps (DRL) requirements of CMVSS108 providing no alterations are made to the ignition switch, DRL system components or wiring, and any vehicle forward lighting as manufactured by Isuzu.

CMVSS 108 and FMVSS 108 – LAMPS, REFLECTIVE DEVICES AND ASSOCIATED EQUIPMENT

Applies to all models of incomplete vehicles contained in this document

TYPE 2 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 108 and FMVSS 108 providing it is completed in accordance with the following specific conditions by the final stage manufacturer:

1. Body width must be between 2.032 m (80") and 2.438 m (96"). (2.184 m (86") MIN Body Width For Crew Cab).
2. Each of these devices must be properly installed on the completed vehicle and meet all the requirements of CMVSS 108 and FMVSS 108:
 - a. The following devices, when provided, located and/or wired by Isuzu meet the requirements of this standard.

Headlamps or Daytime running lamps	Turn signal lamps (front)
Cab roof clearance and ID lamps (front)	Turn signal operating unit
Side marker lamp (Front)	Vehicle hazard warning signal operating unit
Side reflex reflectors (front)	Vehicle hazard warning signal flasher
Turn signal flasher	
 - b. The following lamps and reflective devices are temporarily mounted on this incomplete vehicle as required for transportation. When relocating them, intermediate or final stage manufacturers must refer to the Isuzu Body Builders Manual and assure conformance with the location, visibility, and operational requirements of CMVSS 108 and FMVSS 108.

License plate lamp
Rear combination lamps (tail lamps, stop lamps, turn signal lamps and back-up lamps)
Reflex reflectors (rear)
 - c. No part of the completed vehicle shall be installed so as to prevent any of the devices listed in (a) or (b) above from meeting their required photometric output at the specified test points. If such interference exists, the applicable devices may have to be relocated or additional devices added to meet the requirements of CMVSS 108 and FMVSS 108:

Any CMVSS 108 and FMVSS 108 part shall not be painted.

- d. The following devices are not installed on this incomplete vehicle or supplied by Isuzu. When added by intermediate or final stage manufacturers, they must also meet the requirements of CMVSS 108 and FMVSS 108:
 - Clearance lamps (rear)
 - Identification lamps (rear)
 - Side reflex reflectors (rear)
 - Side marker lamps (rear)

- e. The following additional devices must be installed on the van body and meet all requirements of this standard if the overall vehicle length is 9.1 m (30 feet) or greater.
 - Intermediate side marker lamps
 - Intermediate side reflex reflectors

- 3. No alterations (other than any relocation of Items in 2) b.) which may be necessary for conformance to CMVSS 108 and FMVSS 108 should be made which affect the location, mounting surfaces, function, environment or visibility clearance of the above listed devices which have been installed on this incomplete vehicle.

CMVSS 111 and FMVSS 111 – REARVIEW MIRRORS
Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover of this document).

This incomplete vehicle, when completed, will conform to FMVSS 111 providing no alterations or substitutions are made to the outside rearview mirrors, the driver’s seat location is not altered, and the body is installed symmetrical about the vehicle centerline. The overall width should be no greater than;

<u>Model</u>	<u>Width Limit millimeter (inches)</u>	<u>Width Limit with 102” wide mirror brackets millimeter (inches)</u>
NPR / NPR-HD Gas	2438 mm (96”)	2590 mm (102”)
NQR / NRR Gas		

CMVSS 113 and FMVSS 113 – HOOD LATCH SYSTEM
Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover of this document).

This incomplete vehicle, when completed, will conform to CMVSS 113 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below (if equipped)

Hood

Hood Latch System

CMVSS 115 and 49 CFR 565 – VEHICLE IDENTIFICATION NUMBER
Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 115 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below:

Vehicle Identification Number (VIN)	VIN label or plate
	VIN plate fasteners

CMVSS 116 and FMVSS 116 – MOTOR VEHICLE BRAKE FLUIDS
Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when equipped with approved hydraulic brake fluid will conform to CMVSS 116 and FMVSS 116 providing no alterations are made which affect the physical or chemical properties of the brake fluid.

**CMVSS 119 and FMVSS 119 - NEW PNEUMATIC TIRES FOR MOTOR VEHICLES
WITH A GVWR OF MORE THAN 4,536 KILOGRAMS (10,000 POUNDS)**
Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS119 and FMVSS119 providing no alternation are made which affect the function, physical, chemical or mechanical properties, environment, location or vital spatial clearance of the components, assemblies or systems including but not limited to those listed below:

Tires	Wheels
-------	--------

FMVSS 125 –WARNING DEVICES

Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to FMVSS 125 providing no alterations are made which affect the function, physical chemical, or mechanical properties, environment, location, or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below:

Warning devices (if equipped)

Safety warning triangles

Backup Alarm

Fire Extinguisher

CMVSS 136 and FMVSS 136 – ELECTRONIC STABILITY CONTROL SYSTEMS FOR HEAVY VEHICLES

Applies to all models of incomplete vehicles contained in this document

TYPE 3 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

Conformity with CMVSS 136 and FMVSS 136 cannot be determined upon the components supplied on the incomplete vehicle, and Isuzu makes no representation to conformity with the standard.

This incomplete vehicle has not been built, tested, or manufactured with an electronic stability control system.

NOTE: This incomplete vehicle cannot be built into a Truck Tractor.

CMVSS 205 and FMVSS 205 – GLAZING MATERIALS

Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 205 and FMVSS 205 providing no alterations are made which affect the function, physical chemical, or mechanical properties, environment, location, or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below:

Glazing material

Visibility of the monogram

Monogram

Windshield shade banding

Driver's Side Reference Point (SgRP)

Final compliance with CMVSS 205 and FMVSS 205 is the responsibility of the final stage manufacturer for any modifications, or added material, parts, components, or systems.

CMVSS 206 and FMVSS 206 – DOOR LOCKS AND DOOR RETENTION COMPONENTS

Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover of this document).

This incomplete vehicle, when completed, will conform to CMVSS 206 and FMVSS 206 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below:

Door lock	Door hinge
Door latch	Inside lock control linkage
Door latch striker plate	Exterior door handles

Final compliance with CMVSS 206 and FMVSS 206 is the responsibility of the final stage manufacturer for any modifications, or added material, parts, components, or systems.

CMVSS 207 and FMVSS 207 – ANCHORAGE OF SEATS

Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover of this document).

This incomplete vehicle, when completed, will conform to CMVSS 207 and FMVSS 207 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below:

Seating systems, including but not limited to:

Floor pan assemblies	Seat assembly
Folding seat or seat back latch assembly	Seat or seat back latch assembly
Seat adjuster assembly	Seat or seat back latch release control
Seat anchorage's brackets reinforcements, attachment hardware, etc.	Seat or seat back latch striker
	Seat riser

CMVSS 208 and FMVSS 208 – OCCUPANT CRASH PROTECTION
Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to the seat belt provision sections of CMVSS 208 and FMVSS 208 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems installed by Isuzu including but not limited to:

- | | |
|---------------------------|--|
| Owner Manual instructions | Location/configuration of designated seats |
| Seat anchorages | Seat belt assemblies |
| Seat assemblies | Seat belt warning system |
| Seat belt anchorages | |

TYPE 3 The following statement is applicable to all types of incomplete vehicles contained in this document with respect to any seats, seat belt assemblies or seat belt assembly anchorages installed by the intermediate or final stage manufacturer (unless otherwise noted on the cover).

Conformity with CMVSS 208 and FMVSS 208 cannot be determined based upon the components supplied on the incomplete vehicle, and Isuzu makes no representation to conformity with the standard.

CMVSS 209 and FMVSS 209 – SEAT BELT ASSEMBLIES
Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to the CMVSS 209 and FMVSS 209 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems installed by Isuzu including but not limited to:

- | | |
|---------------------------|--|
| Owner Manual instructions | Location/configuration of designated seats |
| Seat anchorages | Seat belt assemblies |
| Seat assemblies | Seat belt warning system |
| Seat belt anchorages | Original attachment locations |

TYPE 3 The following statement is applicable to all types of incomplete vehicles contained in this document with respect to any seats, seat belt assemblies or seat belt assembly anchorages installed by the intermediate or final stage manufacturer (unless otherwise noted on the cover).

Conformity with CMVSS 209 and FMVSS 209 cannot be determined based upon the components supplied on the incomplete vehicle, and Isuzu makes no representation to conformity with the standard.

CMVSS 210 and FMVSS 210 – SEAT BELT ASSEMBLY ANCHORAGES
Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 210 and FMVSS 210 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below:

Seat assemblies	Seat belt anchorage brackets, plates, and reinforcements
Seat belt assemblies	Child restraint system including anchorages, brackets, plates and reinforcements
Floor pan assembly	B or C pillar structures
Seat belt routing	Roof structure
Seat position/adjustment capability	
Owner Manual instructions	

TYPE 3 The following statement is applicable to all types of incomplete vehicles contained in this document with respect to any seats, seat belt assemblies or seat belt assembly anchorages installed by the intermediate or final stage manufacturer (unless otherwise noted on the cover).

Conformity with CMVSS 210 and FMVSS 210 cannot be determined based upon the components supplied on the incomplete vehicle, and Isuzu makes no representation to conformity with the standard.

CMVSS 302 and FMVSS 302 – FLAMMABILITY OF INTERIOR MATERIALS
Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 302 and FMVSS 302 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below, and installed by Isuzu:

Arm rests	Rear Organizer
Compartment shelves	Seat assemblies
Console	Seat backs
Engine compartment covers	Seat belts
Floor coverings	Seat cushions
Head restraints	Shades
Headlining	Sun visors
Instrument panel	Wheel housing covers

All trim panels including door, front, rear and side panels.

NOTE: This list above includes any other interior materials, such as padding and crash deployed elements that are designed to absorb energy on contact by occupants in the event of a crash

PART II

U.S. EPA, CALIFORNIA, AND CANADA EXHAUST & EVAPORATIVE EMISSION REQUIREMENTS AND EPA / NHTSA / CANADA GREENHOUSE GAS EMISSIONS /FUEL ECONOMY REGULATIONS

Incomplete vehicles come in three major classifications: (1) Light Duty Vehicles, Light Duty Trucks, and Heavy Duty Vehicles (Including Medium Duty in California) are certified by the primary manufacturer and the vehicle is labeled as being in compliance with emission and fuel economy requirements. (2) Heavy Duty Vehicles are required to have an engine certified by the engine manufacturer and bear an engine emissions label, and if a gasoline vehicle bear an evaporative emissions label. (3) Light Duty Vehicles certified and labeled by the intermediate or final stage vehicle manufacturer as complying with emission and fuel economy requirements.

The incomplete vehicles contained in this document are classified as Heavy Duty Vehicles. The final stage manufacturer is responsible to not exceed the GVWR and GAWR listed on the incomplete vehicle certification label and to apply a Final Vehicle Certification Label. If any of these restrictions are exceeded, re-certification by the final stage manufacturer will be required.

In addition, all gasoline/gasoline-ethanol blend powered Federal/California Light Duty, Medium Duty and Heavy Duty Vehicles are required to have an approved fuel evaporative emission control system. Vehicles certified to Heavy Duty gasoline emission standards also require special evaporative emission labeling. In order to assure that Environmental Protection Agency (EPA), National Highway Traffic Safety Administration (NHTSA), California and Canada Emission Certification and/or Greenhouse Gas/Fuel Economy regulations are met, this vehicle must be completed in strict accordance with all instructions contained in this document, especially the following instructions which relate to:

- EMISSION RELATED COMPONENTS
- EVAPORATIVE EMISSION REQUIREMENTS
- FUEL PIPE AND FUEL NECKS (CALIFORNIA)
- LABELS
- EXTERIOR NOISE

EMISSION RELATED COMPONENTS

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, conforms to U.S. EPA, CALIFORNIA, AND CANADIAN EXHAUST & EVAPORATIVE EMISSION REQUIREMENTS providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below (if equipped), and installed by Isuzu:

Air inlet system	Exhaust system*2
Axles*2	Evaporative emission control system (†)*1
Catalytic converter	Fuel injection system
Coolant temperature sensor	Fuel system*2
Crankcase emission control system	Ignition system (†)
Engine assembly*2	Intake manifold
Engine electronics (ECM/PCM/VCM)	MAF Sensor
Engine speed sensor	Tires*2
EGR system	

Exhaust emission control system
Charge Air Cooler and related system
Exhaust oxygen sensors (if equipped)

Transmission Control Module (TCM)*2
A/C System(if equipped)
Owner Manual instructions

† Gasoline engine

*1 All Federal/California gasoline powered heavy duty vehicles will have an evaporative emission control system that is certified for a fuel tank capacity not to exceed the amount shown on Vehicle Evaporative Emission Control Information Label.

*2 All Federal certified heavy duty vehicles are required to meet Federal Green House Gas (GHG) requirements. Please check the Vehicle Emission Label located either on driver's side door or inside the engine compartment.

Conformance to U.S. EPA, California, and Canadian Exhaust & Green House Gas Emission requirements and restrictions for these incomplete vehicles.

ORIGINAL TIRES for compliance to GHG requirements are described in the Owners Manual.

Refer to the Owners Manual for replacing of tires.

TYPE 3 The following statement is applicable to all types of incomplete vehicles contained in this document with respect to any tires installed by the intermediate or final stage manufacturer (unless otherwise noted on the cover).

Conformity with vocational vehicle GHG at or below 19,500 GVWR cannot be determined based upon the components supplied on the incomplete vehicle, and Isuzu makes no representation to conformity with the standard.

EVAPORATIVE EMISSION REQUIREMENTS.

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to applicable exhaust and evaporative emission requirements providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below, and installed by Isuzu:

Fuel Tank Assembly	Fuel tank vent hoses to filler neck
Fuel feed hoses front and rear	Fuel vapor lines at canister
Fuel return hoses front and rear	Fuel vapor lines from engine to chassis pipes
Fuel tank filler hoses to filler neck	Fuel vapor lines from fuel tank
Exhaust system	sender to chassis pipes

SPECIFICATION FOR FILL PIPES AND OPENINGS OF MOTOR VEHICLE FUEL TANKS (APPLICABLE ONLY TO CALIFORNIA GASOLINE/GASOLINE-ETHANOL BLEND POWERED VEHICLES)

TYPE 2 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to Title 13, California Code of Regulations Section 2235, and the "Specifications for Fill Pipes and Openings of 2015 and subsequent Model Year Motor Vehicle Fuel Tanks", dated March 22, 2012, providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the fuel filler neck(s) and any intermediate or final stage manufacturer completes the fuel filler neck installation(s) according to the instructions which are furnished in the loose parts box.

TYPE 3 The following statement is applicable to all types of incomplete vehicles contained in this document with respect to fuel neck assemblies installed by the intermediate or final stage manufacturer (unless otherwise noted on the cover).

Conformity with California's SPECIFICATION FOR FILL PIPES AND OPENINGS OF MOTOR VEHICLE FUEL TANKS cannot be determined based on the components supplied on the incomplete vehicle, and Isuzu makes no representation to conformity with the standard.

LABELS

TYPE 2 The following statement is applicable to all types of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to U.S. EPA, CALIFORNIA, AND CANADIAN EXHAUST & EVAPORATIVE EMISSION REQUIREMENTS AND EPA/NHTSA GREENHOUSE GAS EMISSIONS/FUEL ECONOMY REGULATION labeling requirements providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the Emission Control related Information Labels that are permanently affixed. The labels are required by government regulation and must not be obstructed from view or defaced so as to impair their visibility or legibility.

EXTERIOR NOISE

CMVSS 1106 – EXTERIOR NOISE

Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles (unless otherwise noted on the cover of this document).

This incomplete vehicle, when completed, will conform to the above standards providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below (if equipped):

Air Induction System (tuning elements)	Intake system (i.e. Air filter,
Alternator	Mass Air flow (MAF) sensor, ducts))
Axles/halfshafts/propshaft	Power steering pump
Catalytic converter and its location (if equipped)	Powertrain control and logic
Engine assembly	Powertrain cooling fan and motor assemblies
Exhaust System	Radiator/condenser assembly to body seals
Exterior noise generating devices	Tires (including correct tire pressure)
Exterior rearview mirror assemblies	Transmission/Transaxle assembly
Front of dash sound deadening material	Underbody shields including air deflector
Hood assembly including sound deadening material and seals	Wheel house liners and shields

Final compliance with CMVSS 1106 is the responsibility of the final stage manufacturer for any modifications, or added material, components, or systems.

PART III

CANADA INTERFERENCE CAUSING EQUIPMENT STANDARD

INTERFERENCE CAUSING EQUIPMENT STANDARD (CANADA ONLY) – ICES-002

Applies to all models of Incomplete Vehicles contained in this document

TYPE 1 The following statement is applicable to all types of incomplete vehicles propelled by an internal combustion engine, electrical means or both contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to the performance requirements of the above standard provided no alterations made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below:

Ignition wires & plugs	Spark plug wires
Ignition coil(s)	ECM/TCM/PCM
Low voltage battery	BCM/SDM
Charging system	

Each vehicle propelled by an internal combustion engine, electrical means or both shall bear a bi-lingual label that represents the manufacturer's Self-Declaration of Compliance (SDoC) to Innovation, Science and Economic Development Canada ICES-002. This label shall be permanently affixed to the vehicle propelled by an internal combustion engine, electrical means or both or displayed electronically and its text must be clearly legible.

The final stage manufacturer must provide a statement of compliance on the Final Stage Manufacturer's Compliance Label or an additional label with the following bilingual information in order to comply with Industry Canada's Interference Causing Equipment Standard ICES/NMB-002:

ICES/NMB-002

DOCUMENT FOR INCOMPLETE VEHICLE APPLICABLE TO THE ISUZU 2025+ MY N- EV SERIES

Isuzu Commercial Truck of America, Inc.
1400 S. Douglass Road, Suite 100, Anaheim, CA 92806

DO NOT REMOVE

THIS DOCUMENT MUST REMAIN WITH THIS VEHICLE UNTIL IT IS CERTIFIED AS A COMPLETED VEHICLE.

PLACE LABEL HERE

The Label affixed here includes the following information:

- The name of the incomplete vehicle manufacturer;
- The month and year the incomplete vehicle manufacturer performed its last manufacturing operation on the incomplete vehicle;
- The vehicle identification number (VIN);
- The Gross Vehicle Weight Rating (GVWR) expressed in kg (lb), intended for the vehicle when it is a completed vehicle;
- The Gross Axle Weight Rating (GAWR) expressed in kg (lb), intended for each axle of the vehicle when it is a completed vehicle, listed in order from front to rear
- Tire size, rim size, cold tire pressure.

This document is furnished as required by the Canada Motor Vehicle Safety Act and United States (U.S.) Federal Motor Vehicle Safety Regulations (FMVSR) to aid intermediate and final stage manufacturers in their determination of conformity of the completed vehicle with applicable Canada Motor Vehicle Safety Standards (CMVSS), U.S. Federal Motor Vehicle Safety Standards (FMVSS), Canadian On-Road Vehicle and Engine Emission Regulations and Canada Interference Causing Equipment Standard – ICES-002. Also included are instructions, which must be followed in order to assure that U.S. Environmental Protection Agency (EPA) and California Air Resources Board (CARB) emission certification requirements and U.S. National Highway Traffic Safety Administration (NHTSA) Fuel Economy Regulations and Canada/U.S. EPA Greenhouse Gas Regulations are met.

This label attached to this document will indicate this vehicle was manufactured by Builtmore Contract Manufacturing, a division of The SHYFT Group, Inc under a contractual agreement with Isuzu. All inquiries regarding the content of this document should be forwarded to Isuzu through the www.isuzutruckservice.com website.

This document is not a substitute for knowledge and understanding of the requirements of the Canada Motor Vehicle Safety Act, Federal Motor Vehicle Safety Regulations (FMVSR); or applicable Canada Motor Vehicle Safety Standards (CMVSS) and U.S. Federal Motor Vehicle Safety Standards (FMVSS). Intermediate and final stage manufacturers should be familiar with the Regulations and Standards referred to above to be aware of their specific responsibilities as they relate to the final destination and sale of each incomplete vehicle.

Any intermediate or final stage manufacturer making material alterations to this incomplete vehicle during the process of manufacturing the complete vehicle should be constantly vigilant to recognize all effects, either direct or indirect, on other components, assemblies or systems caused by any alteration. No alteration should be made to the incomplete vehicle that directly or indirectly results in any component, assembly or system being in nonconformance with any applicable Canada Motor Vehicle Safety Standard or U.S. Federal Motor Vehicle Safety Standard or Emission Regulation or Fuel Economy/Greenhouse Gas Regulation.

The statements contained in this Incomplete Vehicle Document are accurate as of the date of manufacture of the Incomplete Vehicle and can be relied on by any intermediate and/or final stage manufacturer as a basis for certification.

INTRODUCTION

This document contains information relative to conformance of this incomplete vehicle with the following:

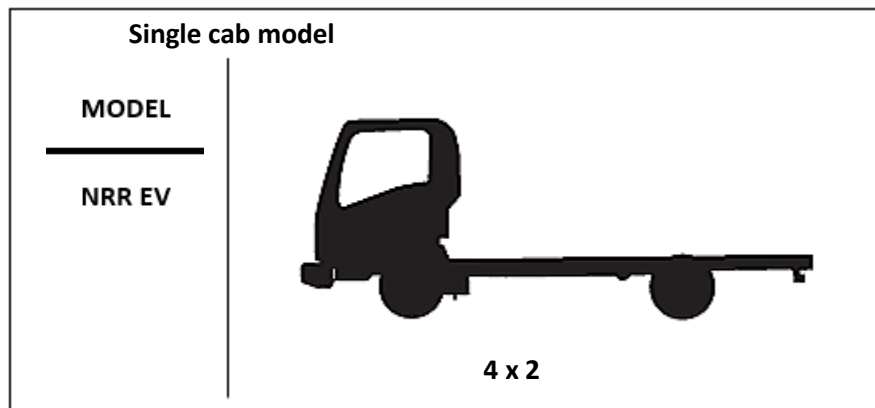
Part I – U.S. FEDERAL MOTOR VEHICLE SAFETY STANDARDS AND CANADA MOTOR VEHICLE SAFETY STANDARDS

Part II – U.S. ENVIRONMENTAL PROTECTION AGENCY, STATE OF CALIFORNIA, AND CANADA EMISSION REQUIREMENTS AND NHTSA FUEL ECONOMY REQUIREMENTS, AND CANADA/ U.S. EPA GREENHOUSE GAS REGULATIONS

Part III – CANADA INTERFERENCE CAUSING EQUIPMENT STANDARD

If supplemental technical information is required to support this document, go to the Body Builder website located at www.isuzutruckservice.com, or call 1-770-740-1620 Ext.262 (East Coast) or 1-714-935-9327 (West Coast).

This document pertains to the following styles of truck:



**NOTE: Incomplete vehicle can be built into straight truck type vocational vehicles.
It cannot be built into a Truck Tractor or a Bus**

PART I

U.S. FEDERAL MOTOR VEHICLE SAFETY STANDARDS AND CANADA MOTOR VEHICLE SAFETY STANDARDS

This section contains a list of Canada Motor Vehicle Safety Standard (CMVSS), and U.S. Federal Motor Vehicle Safety Standards (FMVSS), followed by a section entitled "Statements Regarding Canada Motor Vehicle Safety Standards (CMVSS), and Federal Motor Vehicle Safety Standards (FMVSS). An appropriate statement of applicability is made for each standard, and by vehicle model as it relates to the incomplete vehicle.

The identifiers TYPE 1, TYPE 2 or TYPE 3 prefix statements (of applicability) regarding Canada Motor Vehicle Safety Standards (CMVSS), and Federal Motor Vehicle Safety Standards (FMVSS). "Examples" of these statements follow:

- TYPE 1** A statement that the vehicle when completed will conform to the standard if no alterations are made in identified components of the incomplete vehicle. **EXAMPLE:** This vehicle when complete will conform to CMVSS 104 and FMVSS No. 104, Windshield Wiping and Washing Systems, if no alterations are made in the windshield wiper components.
- TYPE 2** A statement of specific conditions of final manufacture under which the manufacturer specifies that the completed vehicle will conform to the standard. **EXAMPLE:** This vehicle when completed will conform to CMVSS 121 and FMVSS 121, Air Brake Systems, if it does not exceed any of the gross axle weight ratings, if the center of gravity at GVWR is not higher than ## feet above the ground, and if no alterations are made to any brake system component.
- TYPE 3** A statement that conformity with the standard cannot be determined based upon the components supplied on the incomplete vehicle, and that the incomplete vehicle manufacturer makes no representation to conformity with the standard.

In accordance with the requirements of Canada Motor Vehicle Safety Regulations, and Federal Motor Vehicle Safety Regulations Part 568.4, the following information is included on the label affixed to the front cover of this document:

- The name and mailing address of the incomplete vehicle manufacturer;
- The month and year the incomplete vehicle manufacturer performed its last manufacturing operation on the incomplete vehicle;
- The vehicle identification number (VIN);
- The Gross Vehicle Weight Rating (GVWR) expressed in kg (lb), intended for the vehicle when it is a completed vehicle;
- The Gross Axle Weight Rating (GAWR) expressed in kg (lb), intended for each axle of the vehicle when it is a completed vehicle, listed in order from front to rear.

In addition, the final stage manufacturer is responsible under Canada Motor Vehicle Safety Regulations, and Federal Motor Vehicle Safety Regulations and Part 567.5, to place the GVWR and the GAWR of each axle, on the Final Vehicle Certification Label. Required on label is the "Gross Vehicle Weight Rating" or "GVWR" followed by the appropriate value in kilograms and (pounds), which shall not be less than the sum of the unloaded vehicle weight, rated cargo load, and 68 kg (150 lb.) times the number of the vehicle's designated seating positions, if known. However, for school buses the minimum occupant weight allowance shall be 54.4 kg (120 lb.) per passenger and 68 kg (150 lb.) for the driver.

Unloaded Vehicle Weight means the weight of a vehicle with maximum capacity of all fluids necessary for operation of the vehicle, but without cargo or occupants or accessories that are ordinarily removed from the vehicle when they are not in use.

During the completion of this vehicle, GVWR and GAWR may be affected in various ways, including but not limited to the following:

- The installation of a body or equipment that exceeds the rated capacities of the incomplete vehicle.
- The addition of designated seating positions that exceed the rated capacities of the incomplete vehicle.
- Alterations or substitution of any components such as axles, springs, tires, wheels, frames, steering and brake systems that may affect the rated capacities of the incomplete vehicle.

If supplemental technical information is required to support this document, go to the Isuzu Truck Service website located at www.isuzutruckservice.com

PART I – CHART A

LIST OF CANADA MOTOR VEHICLE SAFETY STANDARDS (CMVSS), AND FEDERAL MOTOR VEHICLE SAFETY STANDARDS (FMVSS),
APPLICABLE TO ELECTRIC – TRUCKS WITH A GVWR OF GREATER THAN 4536 kg (10,000 lb)

SEE STATEMENTS REGARDING CMVSS AND FMVSS ON PAGES THAT FOLLOW

CMVSS	FMVSS	TITLE	NRR EV
CMVSR Sec 6-7	Part 567**	Labeling and Documentation Requirements	3
101	101	Controls and Displays	1
102	102	Transmission Shift Position Sequence, Starter Interlock, and Transmission Braking Effect	N/A
103	103	Windshield Defrosting and Defogging Systems	1
104	104	Windshield Wiping and Washing Systems	1
105	105	Hydraulic and Electric Brake Systems	2
106	106	Brake Hoses, Hydraulic, Air and Vacuum	1
108	-	Daytime Running Lights	1
108	108	Lamps, Reflective Devices, and Associated Equipment	2
111	111	Mirrors and Rearview Visibility Systems	1
115	Part 565 **	Vehicle Identification Number	1
116	116	Motor Vehicle Brake Fluids	1
119	119	New pneumatic Tires for Motor Vehicles with a GVWR of More Than 4,536 Kilograms (10,000 pounds)	1
120	120	Tire Selection and Rims for Motor Vehicles with a GVWR of More Than 4,536 Kilograms (10,000 pounds)	2
124	124	Accelerator Control Systems	1
-	125	Warning Devices Designed to be carried in Motor Vehicles	1
136	136	Electronic Stability Control Systems for Heavy Vehicles	3
205	205	Glazing Materials	1
206	206	Door Locks and Door Retention Components	1
207	207	Seating Systems	1
208	208	Occupant Crash Protection	1,3
209	209	Seat Belt Assemblies	1,3
210	210	Seat Belt Assembly Anchorages	1,3
213	213	Child Restraint Systems	N/A
302	302	Flammability of Interior Materials	1
ICES-002	-	Canada interference causing equipment standard	1
1106	NA	Noise Emissions	1

* TYPE 1, 2 or 3 numbers to the right hand side of the table above designate the appropriate paragraph in the CMVSS or FMVSS standards that follow.

** CFR Title 49 Transportation Part 565, Part 567

Statements Regarding Canada Motor Vehicle Safety Standards (CMVSS), and U.S. Federal Motor Vehicle Safety Standards (FMVSS).

CMVSR SEC. 6 and 49 CFR 567 LABELING AND DOCUMENTATION REQUIREMENTS Applies to all models of incomplete vehicles contained in this document

TYPE 3 The following statement is applicable to all models of Incomplete Vehicles contained in this document.

This incomplete vehicle, when completed in stages by an intermediate and final stage manufacturer will comply with the requirements of Part 567 or the CMVSR Section 6, when the intermediate and final stage manufacturers provide additional labeling to meet these requirements. ISUZU makes no representation as to conformity.

CMVSS 101 and FMVSS 101 – CONTROLS AND DISPLAYS Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of Incomplete Vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 101 and FMVSS 101 providing no alterations are made which affect the size, location, identification, or illumination of the controls and displays identified or the location, travel and type of driver's seat. If the driver's seat is installed by the intermediate or final stage manufacturer, the "H" point must be located as shown in the "Body Builder Manuals" and visibility and operation of the controls and displays listed below must meet the requirements of the standard.

The following controls must be operable, and the following displays for the following functions and malfunctions shall be fitted in such a manner that they are identifiable, by the driver while the driver is seated in the driver's designated seating position with the driver's seat belt fastened around the driver in accordance with the manufacturer's instructions:

Hand operated controls (if equipped):

Automatic vehicle speed (cruise control)	Identification lamps (switch)
Automatic transmission shift lever	Illumination intensity control
Clearance lamps (switch)	Master lighting switch
Driver's Sunvisor	Position, side marker, end-outline marker, identification or clearance lamps
Motor Start	Service brake
Motor Stop	Steering wheel
Hazard warning signal	Tail lamps
Hazard warning switch	Turn signal
Headlamps	Windshield defogging and defrosting systems
Headlamp high or low beam switch	Windshield washer (washing system)
Heating and air conditioning fan	Windshield wiper (wiping system)
Heating and air conditioning system	
Horn control	
Parking brake switch	

Foot operated controls (if equipped):

Accelerator	Service brake (pedal)
Park brake (pedal)	

Displays (if equipped):

Air brake low pressure	Headlamp high beam
Air bag system readiness	
Antilock brake system malfunction	Low brake air pressure telltale
Battery charging condition	Low brake fluid condition
Brake lining wear-out condition	Odometer (*)
Brake system malfunction (*)	Parking brake applied
Brake failure warning	Passenger air bag status
Electrical charge level meter	Seat belt (unfastened telltale)
Tire Pressure Monitoring System	Speedometer (*)
Gross loss of brake pressure condition	Transmission control position
Hazard warning signal	Turn signal(s)
Battery coolant temperature display	Variable brake proportioning system
Gear position	malfunction
Regenerative braking system inoperative	Multi information display (MID)

* For CMVSS only, when Canadian option is specified.

If the intermediate or final stage manufacturer installs any of the above controls and displays, those controls and displays will also have to meet the requirements of this standard.

**CMVSS 102 and FMVSS 102 – TRANSMISSION SHIFT LEVER SEQUENCE,
STARTER INTERLOCK AND TRANSMISSION BRAKING EFFECT**
Applies to all models of incomplete vehicles contained in this document

Not Applicable

CMVSS 103 and FMVSS 103 – WINDSHIELD DEFROSTING AND DEFOGGING SYSTEMS
Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all incomplete vehicle models contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 103 and FMVSS 103 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below (if equipped):

Windshield defrosting and defogging systems, including but not limited to:

Chassis and instrument panel wiring harness assembly	Battery water outlet thermostat assembly
Defroster air distributor assembly (manifold)	Heater & defroster assembly – including motor & blower
Defroster air duct assembly	Heater & defroster control (mechanical)
Defroster air hoses – manifold to nozzle	Heater blower motor resistor assembly (blower speed control)
Defroster air to windshield outlet assembly (nozzle)	Heater & water hoses and hose assemblies
Defroster outlet to heater assembly adapter	Heater water inlet valve control
	Windshield assembly

CMVSS 104 and FMVSS 104 – WINDSHIELD WIPING AND WASHER SYSTEMS

Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 104 and FMVSS 104 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below (if equipped):

Windshield wiping and washing systems, including but not limited to:

- | | |
|---------------------------------|---|
| Chassis wiring harness | Windshield wiper linkage assembly |
| Washer reservoir cap | Windshield wiper and washer control |
| Water reservoir filler assembly | Windshield wiper and washer motor and pump assembly |
| Windshield assembly | Windshield washer fluid reservoir |
| Windshield wiper arm assembly | Windshield washer system hoses |
| Windshield wiper blade assembly | Windshield washer nozzle |

CMVSS 105 and FMVSS 105 – HYDRAULIC AND ELECTRIC BRAKE SYSTEMS
Applies to all models of incomplete vehicles contained in this document

TYPE 2 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, if equipped with hydraulic brakes, when completed, will conform to CMVSS 105 and FMVSS 105 providing no alterations are made which affect the function, physical or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems identified below. In addition, the maximum vertical center of gravity specified below must not be exceeded at maximum GVWR and rated front and rear GAWR.

<u>Application</u>	<u>Maximum Center of Gravity millimeter (inches) above ground</u>
NRR EV	1600 mm (63")

Hydraulic Brake Systems, including but not limited to:

Hydraulic brake lines, fittings and routings including gauges, warning devices and warning statements	Tires Wheelbases
Hydraulic brake valves and components	Brake and ABS warning light
Brake pedal, brake light switch, parking brake hand level and switch, and related mechanical components	Vacuum pump, tank, pipes and hoses including warning devices and statements
Master cylinder reservoir warning statement	Hydraulic booster pump, pipes, hoses and reservoir (including warning devices)
Service and/or parking brake assemblies and components	

CMVSS 106 and FMVSS 106 – BRAKE HOSES
Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 106 and FMVSS 106 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below:

Hydraulic Air, and Vacuum Brake Hoses	Brake Hose Assemblies – and Brake Hose
Hoses and hose end fittings	End Fittings
Labeling requirements	

CMVSS 108 – DAYTIME RUNNING LIGHTS

Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed will conform to the Daytime Running Lamps (DRL) requirements of CMVSS108 providing no alterations are made to the ignition switch, DRL system components or wiring, and any vehicle forward lighting as manufactured by Isuzu.

CMVSS 108 and FMVSS 108 – LAMPS, REFLECTIVE DEVICES AND ASSOCIATED EQUIPMENT

Applies to all models of incomplete vehicles contained in this document

TYPE 2 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 108 and FMVSS 108 providing it is completed in accordance with the following specific conditions by the final stage manufacturer:

1. Body width must be between 2.032 m (80") and 2.438 m (96"). (2.184 m (86") MIN Body Width For Crew Cab).
2. Each of these devices must be properly installed on the completed vehicle and meet all the requirements of CMVSS 108 and FMVSS 108:
 - a. The following devices, when provided, located and/or wired by Isuzu meet the requirements of this standard.

Headlamps or Daytime running lamps	
Cab roof clearance and ID lamps (front)	Turn signal lamps (front)
Side marker lamp (Front)	Turn signal operating unit
Side reflex reflectors (front)	Vehicle hazard warning signal operating unit
Turn signal flasher	Vehicle hazard warning signal flasher
 - b. The following lamps and reflective devices are temporarily mounted on this incomplete vehicle as required for transportation. When relocating them, intermediate or final stage manufacturers must refer to the Isuzu Body Builders Manual and assure conformance with the location, visibility, and operational requirements of CMVSS 108 and FMVSS 108.
 - License plate lamp
 - Rear combination lamps (tail lamps, stop lamps, turn signal lamps and back-up lamps)
 - Reflex reflectors (rear)
 - c. No part of the completed vehicle shall be installed so as to prevent any of the devices listed in (a) or (b) above from meeting their required photometric output at the specified test points. If such interference exists, the applicable devices may have to be relocated or additional devices added to meet the requirements of CMVSS 108 and FMVSS 108: Any CMVSS 108 and FMVSS 108 part shall not be painted.
 - d. The following devices are not installed on this incomplete vehicle or supplied by Isuzu. When added by intermediate or final stage manufacturers, they must also meet the requirements of CMVSS 108 and FMVSS 108:
 - Clearance lamps (rear)
 - Identification lamps (rear)
 - Side reflex reflectors (rear)
 - Side marker lamps (rear)
 - e. The following additional devices must be installed on the van body and meet all requirements of this standard if the overall vehicle length is 9.1 m (30 feet) or greater.
 - Intermediate side marker lamps
 - Intermediate side reflex reflectors
3. No alterations (other than any relocation of Items in 2) b.) which may be necessary for conformance to CMVSS 108 and FMVSS 108 should be made which affect the location, mounting surfaces, function, environment or visibility clearance of the above listed devices which have been installed on this incomplete vehicle.

CMVSS 111 and FMVSS 111 – REARVIEW MIRRORS
Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover of this document).

This incomplete vehicle, when completed, will conform to FMVSS 111 providing no alterations or substitutions are made to the outside rearview mirrors, the driver's seat location is not altered, and the body is installed symmetrical about the vehicle centerline. The overall width should be no greater than;

<u>Model</u>	<u>Width Limit</u> <u>millimeter (inches)</u>	<u>Width Limit with 102" wide mirror brackets</u> <u>millimeter (inches)</u>
NRR EV	2438 mm (96")	2590 mm (102")

CMVSS 115 and 49 CFR 565 – VEHICLE IDENTIFICATION NUMBER
Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 115 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below:

Vehicle Identification Number (VIN)	VIN label or plate
	VIN plate fasteners

CMVSS 116 and FMVSS 116 – MOTOR VEHICLE BRAKE FLUIDS
Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when equipped with approved hydraulic brake fluid will conform to CMVSS 116 and FMVSS 116 providing no alterations are made which affect the physical or chemical properties of the brake fluid.

**CMVSS 119 and FMVSS 119 - NEW PNEUMATIC TIRES FOR MOTOR VEHICLES
WITH A GVWR OF MORE THAN 4,536 KILOGRAMS (10,000 POUNDS)
Applies to all models of incomplete vehicles contained in this document**

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS119 and FMVSS119 providing no alternation are made which affect the function, physical, chemical or mechanical properties, environment, location or vital spatial clearance of the components, assemblies or systems including but not limited to those listed below:

Tires

Wheels

**CMVSS 120 and FMVSS 120 – TIRE SELECTION AND RIMS FOR VEHICLES
OTHER THAN PASSENGER CARS
Applies to all models of incomplete vehicles contained in this document**

TYPE 2 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 120 and FMVSS 120 provided:

- A. No alterations are made which affect the function, physical or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to:
 - Owner Manual Instructions
 - Wheels
 - Tires
- B. GVWR, GAWR front and rear weight ratings as listed on the incomplete vehicle label affixed to the front cover of this document are not exceeded.
- C. The tire and wheel information shown on the incomplete vehicle label must be transferred to the final stage manufacturer's Certification label or Tire Information Label providing no equipment or tire pressure changes are made and the final stage manufacturer labels the vehicle in compliance with CMVSS 120 and FMVSS120.

NOTE: Incomplete Vehicles referenced in this document may be shipped with reduced tire pressures for shipping purposes only. Inflate tires to specified pressure before delivery to customers.

**CMVSS 124 and FMVSS 124 – ACCELERATOR CONTROL SYSTEMS
Applies to all models of incomplete vehicles contained in this document**

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 124 and FMVSS 124 providing no alterations are made which affect the function, physical chemical, or mechanical properties, environment, location, or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below:

Accelerator/throttle control systems, including but not limited to: (for Gasoline Vehicles)

- Accelerator pedal and attachments
- Accelerator lever and supporting bracket assembly
- Accelerator return spring(s)

FMVSS 125 –WARNING DEVICES

Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to FMVSS 125 providing no alterations are made which affect the function, physical chemical, or mechanical properties, environment, location, or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below:

Warning devices (if equipped)

Safety warning triangles

Backup Alarm

Fire Extinguisher

CMVSS 136 and FMVSS 136 – ELECTRONIC STABILITY CONTROL SYSTEMS FOR HEAVY VEHICLES

Applies to all models of incomplete vehicles contained in this document

TYPE 3 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

Conformity with CMVSS 136 and FMVSS 136 cannot be determined upon the components supplied on the incomplete vehicle, and Isuzu makes no representation to conformity with the standard.

This incomplete vehicle has not been built, tested, or manufactured with an electronic stability control system.

NOTE: This incomplete vehicle cannot be built into a Truck Tractor.

CMVSS 205 and FMVSS 205 – GLAZING MATERIALS

Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 205 and FMVSS 205 providing no alterations are made which affect the function, physical chemical, or mechanical properties, environment, location, or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below:

Glazing material

Visibility of the monogram

Monogram

Windshield shade banding

Driver's Side Reference Point (SgRP)

Final compliance with CMVSS 205 and FMVSS 205 is the responsibility of the final stage manufacturer for any modifications, or added material, parts, components, or systems.

CMVSS 206 and FMVSS 206 – DOOR LOCKS AND DOOR RETENTION COMPONENTS

Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover of this document).

This incomplete vehicle, when completed, will conform to CMVSS 206 and FMVSS 206 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below:

Door lock

Door hinge

Door latch

Inside lock control linkage

Door latch striker plate

Exterior door handles

Final compliance with CMVSS 206 and FMVSS 206 is the responsibility of the final stage manufacturer for any modifications, or added material, parts, components, or systems.

CMVSS 207 and FMVSS 207 – ANCHORAGE OF SEATS
Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover of this document).

This incomplete vehicle, when completed, will conform to CMVSS 207 and FMVSS 207 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below:

Seating systems, including but not limited to:

Floor pan assemblies	Seat assembly
Folding seat or seat back latch assembly	Seat or seat back latch assembly
Seat adjuster assembly	Seat or seat back latch release control
Seat anchorage's brackets reinforcements, attachment hardware, etc.	Seat or seat back latch striker
	Seat riser

CMVSS 208 and FMVSS 208 – OCCUPANT CRASH PROTECTION
Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to the seat belt provision sections of CMVSS 208 and FMVSS 208 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems installed by Isuzu including but not limited to:

Owner Manual instructions	Location/configuration of designated seats
Seat anchorages	Seat belt assemblies
Seat assemblies	Seat belt warning system
Seat belt anchorages	

TYPE 3 The following statement is applicable to all types of incomplete vehicles contained in this document with respect to any seats, seat belt assemblies or seat belt assembly anchorages installed by the intermediate or final stage manufacturer (unless otherwise noted on the cover).

Conformity with CMVSS 208 and FMVSS 208 cannot be determined based upon the components supplied on the incomplete vehicle, and Isuzu makes no representation to conformity with the standard.

CMVSS 209 and FMVSS 209 – SEAT BELT ASSEMBLIES
Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to the CMVSS 209 and FMVSS 209 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems installed by Isuzu including but not limited to:

Owner Manual instructions	Location/configuration of designated seats
Seat anchorages	Seat belt assemblies
Seat assemblies	Seat belt warning system
Seat belt anchorages	Original attachment locations

TYPE 3 The following statement is applicable to all types of incomplete vehicles contained in this document with respect to any seats, seat belt assemblies or seat belt assembly anchorages installed by the intermediate or final stage manufacturer (unless otherwise noted on the cover).

Conformity with CMVSS 209 and FMVSS 209 cannot be determined based upon the components supplied on the incomplete vehicle, and Isuzu makes no representation to conformity with the standard.

CMVSS 210 and FMVSS 210 – SEAT BELT ASSEMBLY ANCHORAGES
Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 210 and FMVSS 210 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below:

Seat assemblies	Seat belt anchorage brackets, plates,
Seat belt assemblies	and reinforcements
Floor pan assembly	Child restraint system including anchorages,
Seat belt routing	brackets, plates and reinforcements
Seat position/adjustment capability	B or C pillar structures
Owner Manual instructions	Roof structure

TYPE 3 The following statement is applicable to all types of incomplete vehicles contained in this document with respect to any seats, seat belt assemblies or seat belt assembly anchorages installed by the intermediate or final stage manufacturer (unless otherwise noted on the cover).

Conformity with CMVSS 210 and FMVSS 210 cannot be determined based upon the components supplied on the incomplete vehicle, and Isuzu makes no representation to conformity with the standard.

CMVSS 213 and FMVSS 213a – CHILD RESTRAINT SYSTEMS
Not Applicable to all models of incomplete vehicles contained in this document

Vehicles are not offered with or equipped with add-on child restraint systems.

CMVSS 302 and FMVSS 302 – FLAMMABILITY OF INTERIOR MATERIALS
Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to CMVSS 302 and FMVSS 302 providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below, and installed by Isuzu:

Arm rests	Rear Organizer
Compartment shelves	Seat assemblies
Console	Seat backs, Seat belts, Seat cushions
Floor coverings	Shades
Head restraints	Sun visors
Headlining	Wheel housing covers
Trim Panels (including door, front, rear and side panels)	Instrument panel

NOTE: This list above includes any other interior materials, such as padding and crash deployed elements that are designed to absorb energy on contact by occupants in the event of a crash.

PART II

U.S. EPA, CALIFORNIA, AND CANADA EXHAUST & EVAPORATIVE EMISSION REQUIREMENTS AND EPA/NHTSA/CANADA GREENHOUSE GAS EMISSIONS /FUEL ECONOMY REGULATIONS

Incomplete vehicles come in three major classifications: (1) Light Duty Vehicles, Light Duty Trucks, and Heavy Duty Vehicles (Including Medium Duty in California) are certified by the primary manufacturer and the vehicle is labeled as being in compliance with emission and fuel economy requirements. (2) Heavy Duty Vehicles are required to have an engine certified by the engine manufacturer and bear an engine emissions label, and if a gasoline vehicle bear an evaporative emissions label. Electric vehicles may be powertrain certified by the California Air Resources Board and bear a zero-emission powertrain certification label. (3) Light Duty Vehicles certified and labeled by the intermediate or final stage vehicle manufacturer as complying with emission and fuel economy requirements.

The incomplete vehicles contained in this document are classified as Heavy Duty Vehicles. The final stage manufacturer is responsible to not exceed the GVWR and GAWR listed on the incomplete vehicle certification label and to apply a Final Vehicle Certification Label. If any of these restrictions are exceeded, re-certification by the final stage manufacturer will be required.

In addition, all gasoline/gasoline-ethanol blend powered Federal/California Light Duty, Medium Duty and Heavy Duty Vehicles are required to have an approved fuel evaporative emission control system. Vehicles certified to Heavy Duty gasoline emission standards also require special evaporative emission labeling. In order to assure that Environmental Protection Agency (EPA), National Highway Traffic Safety Administration (NHTSA), California and Canada Emission Certification and/or Greenhouse Gas/Fuel Economy regulations are met, this vehicle must be completed in strict accordance with all instructions contained in this document, especially the following instructions which relate to:

- EMISSION RELATED COMPONENTS
- EVAPORATIVE EMISSION REQUIREMENTS – N/A
- FUEL PIPE AND FUEL NECKS (CALIFORNIA) – N/A
- LABELS
- EXTERIOR NOISE

EMISSION RELATED COMPONENTS

TYPE 1 The following statement is applicable to all models of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, conforms to U.S. EPA, CALIFORNIA, AND CANADIAN EXHAUST & EVAPORATIVE or GREENHOUSE GAS EMISSION REQUIREMENTS providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below (if equipped), and installed by Isuzu:

A/C System (if equipped)	Tires*1
Owner Manual instructions	Axles*1
	Transmission*1

*1 All Federal certified heavy duty vehicles are required to meet Federal Green House Gas (GHG) requirements. Please check the Vehicle Emission Label located either on driver's side door or inside the engine compartment.

TYPE 3 The following statement is applicable to all types of incomplete vehicles contained in this document with respect to any tires installed by the intermediate or final stage manufacturer (unless otherwise noted on the cover).

Conformity with vocational vehicle GHG at or below 19,500 GVWR cannot be determined based upon the components supplied on the incomplete vehicle, and Isuzu makes no representation to conformity with the standard.

LABELS

TYPE 2 The following statement is applicable to all types of incomplete vehicles contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to U.S. EPA, CALIFORNIA, AND CANADIAN EXHAUST & EVAPORATIVE EMISSION REQUIREMENTS AND EPA/NHTSA GREENHOUSE GAS EMISSIONS/FUEL ECONOMY REGULATION labeling requirements providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the Emission Control related Information Labels that are permanently affixed. The labels are required by government regulation and must not be obstructed from view or defaced so as to impair their visibility or legibility.

EXTERIOR NOISE

CMVSS 1106 – EXTERIOR NOISE

Applies to all models of incomplete vehicles contained in this document

TYPE 1 The following statement is applicable to all models of incomplete vehicles (unless otherwise noted on the cover of this document).

This incomplete vehicle, when completed, will conform to the above standards providing no alterations are made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below (if equipped):

AC compressor	Power steering pump
Axles/halfshafts/propshaft	Powertrain system
Exterior noise generating devices	Powertrain control and logic
Exterior rearview mirror assemblies	Powertrain cooling fan and motor assemblies
Front of dash sound deadening material	Radiator/condenser assembly to body seals
Hood assembly including sound deadening material and seals	Tires (including correct tire pressure)
	Underbody shields including air deflector
	Wheel house liners and shields

Final compliance with CMVSS 1106 is the responsibility of the final stage manufacturer for any modifications, or added material, components, or systems.

CANADA INTERFERENCE CAUSING EQUIPMENT STANDARD

INTERFERENCE CAUSING EQUIPMENT STANDARD (CANADA ONLY) – ICES-002

Applies to all models of Incomplete Vehicles contained in this document

TYPE 1 The following statement is applicable to all types of incomplete vehicles propelled by an internal combustion engine, electrical means or both contained in this document (unless otherwise noted on the cover).

This incomplete vehicle, when completed, will conform to the performance requirements of the above standard provided no alterations made which affect the function, physical, chemical, or mechanical properties, environment, location or vital spatial clearances of the components, assemblies or systems including but not limited to those listed below:

Powertrain System-	Control modules
Charging system	(ECM/TCM/PCM/VCU/BCM/SDM)
High voltage battery / Low voltage battery	

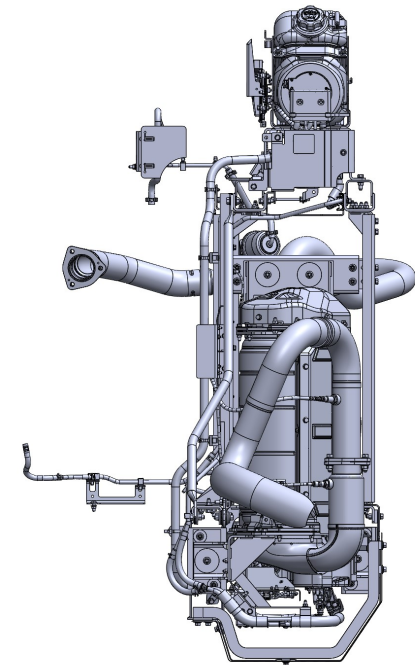
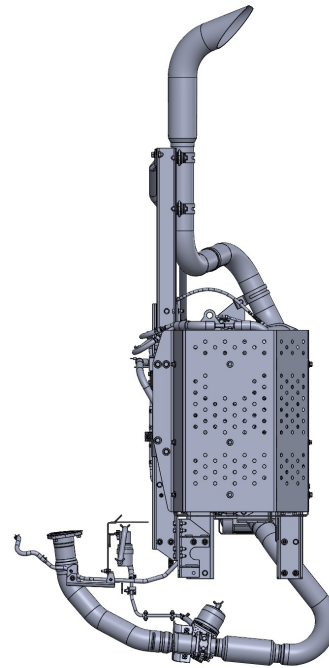
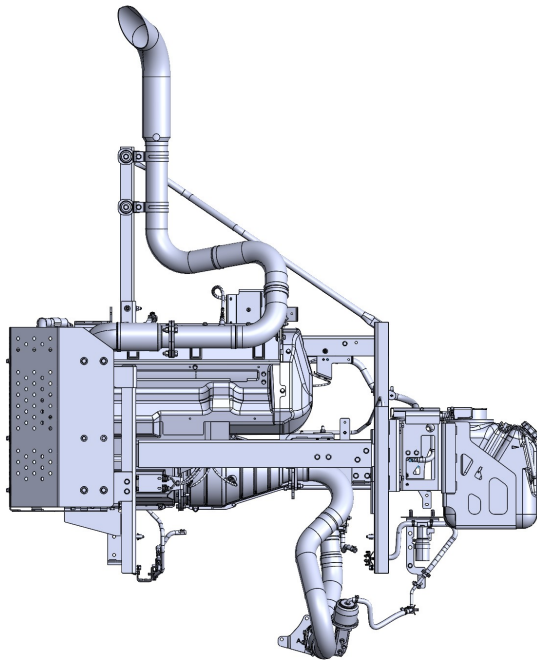
Each vehicle propelled by an internal combustion engine, electrical means or both shall bear a bi-lingual label that represents the manufacturer's Self-Declaration of Compliance (SDoC) to Innovation, Science and Economic Development Canada ICES-002. This label shall be permanently affixed to the vehicle propelled by an internal combustion engine, electrical means or both or displayed electronically and its text must be clearly legible.

The final stage manufacturer must provide a statement of compliance on the Final Stage Manufacturer's Compliance Label or an additional label with the following bilingual information in order to comply with Industry Canada's Interference Causing Equipment Standard ICES/NMB-002:

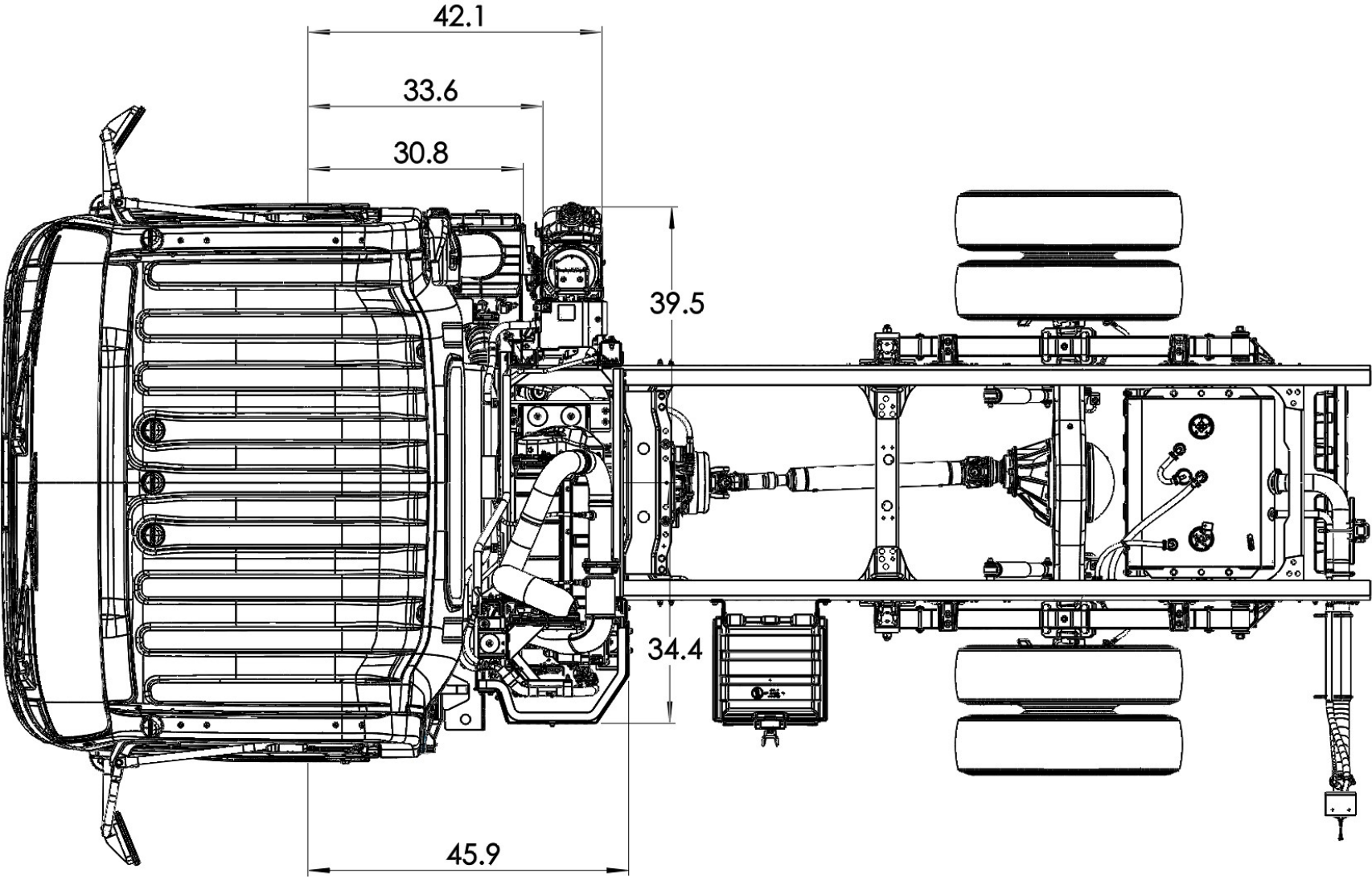
ICES/NMB-002

N Series Vertical Exhaust

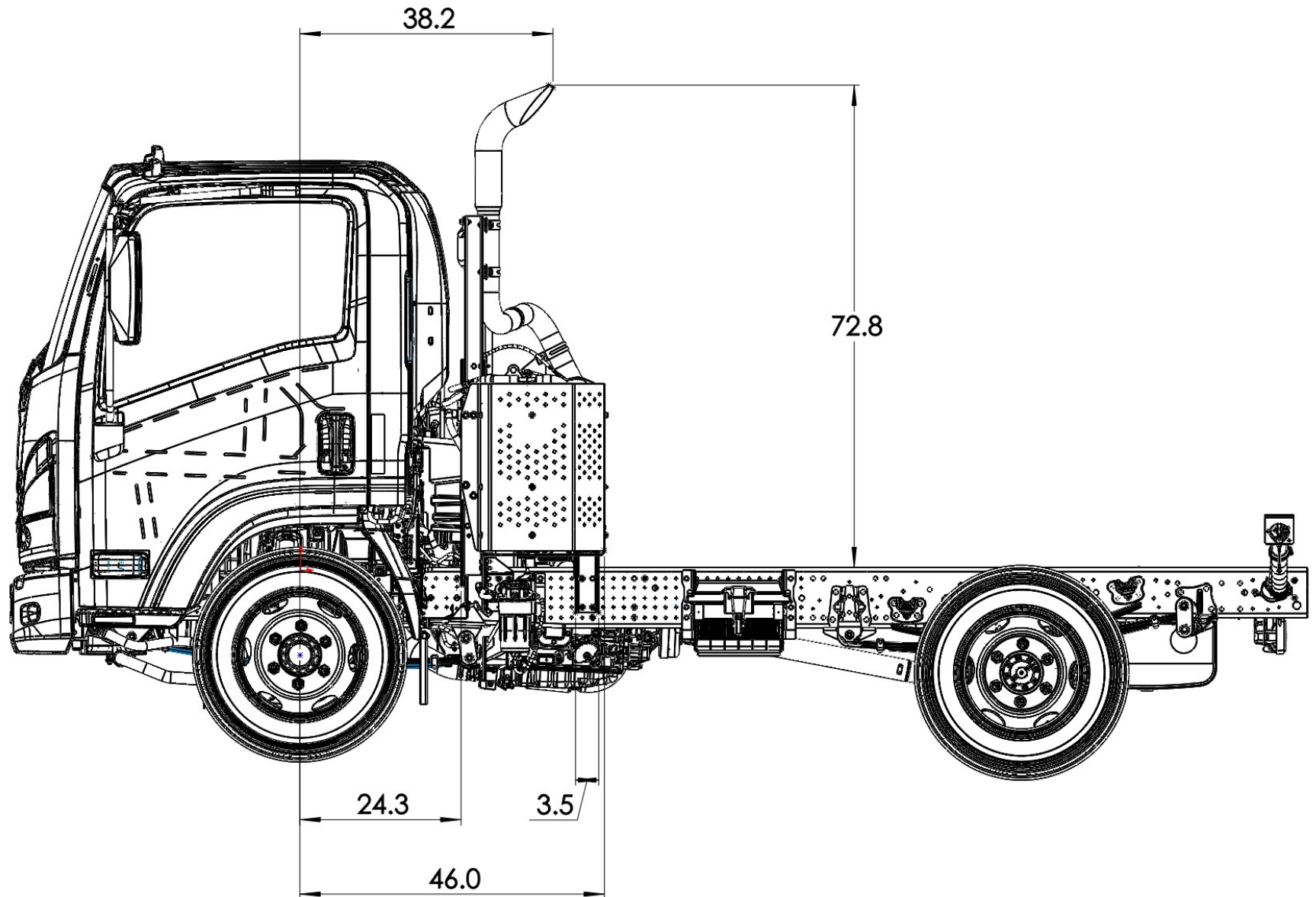
- Available on NPR-HD 14,500 GVW, NPR-XD 16,000 GVW, NRR DERATE 17,950 GVW, and NRR 19,500 GVW
- Vertical exhaust is available on 109, 132.5, 150, 176, 200, and 212 inch wheelbases
- Option Code IOA
- Not available on gas engine models
- Available as a port installed option only
- Available with in rail fuel tank only
- Available with single cab only



Vertical Exhaust - Top View



Vertical Exhaust - Driver Side View



F-Series Single Cab - Side View

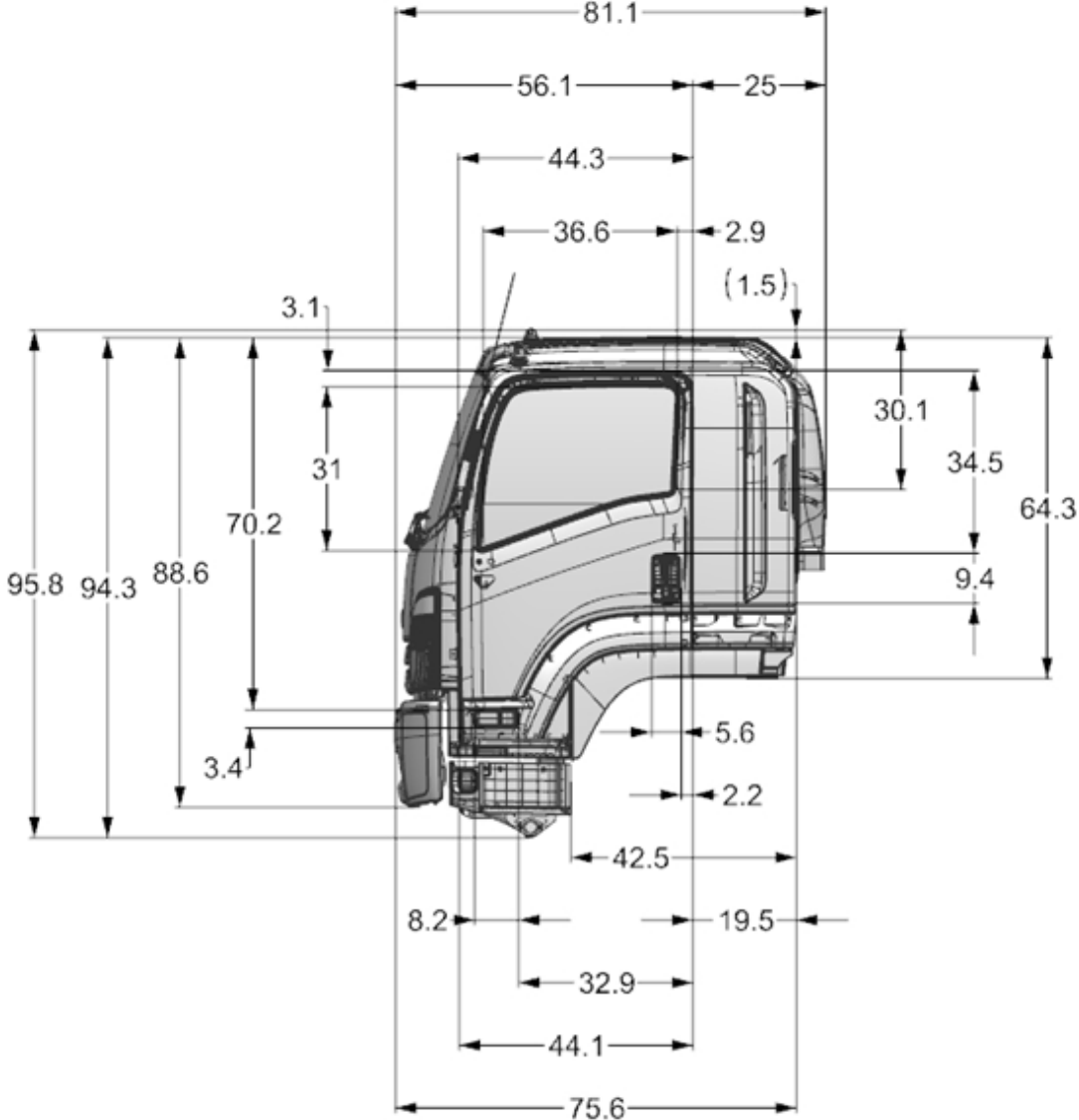


Figure 1

Dimensions in inches

2026 Isuzu Truck

F-Series Single Cab - Front View

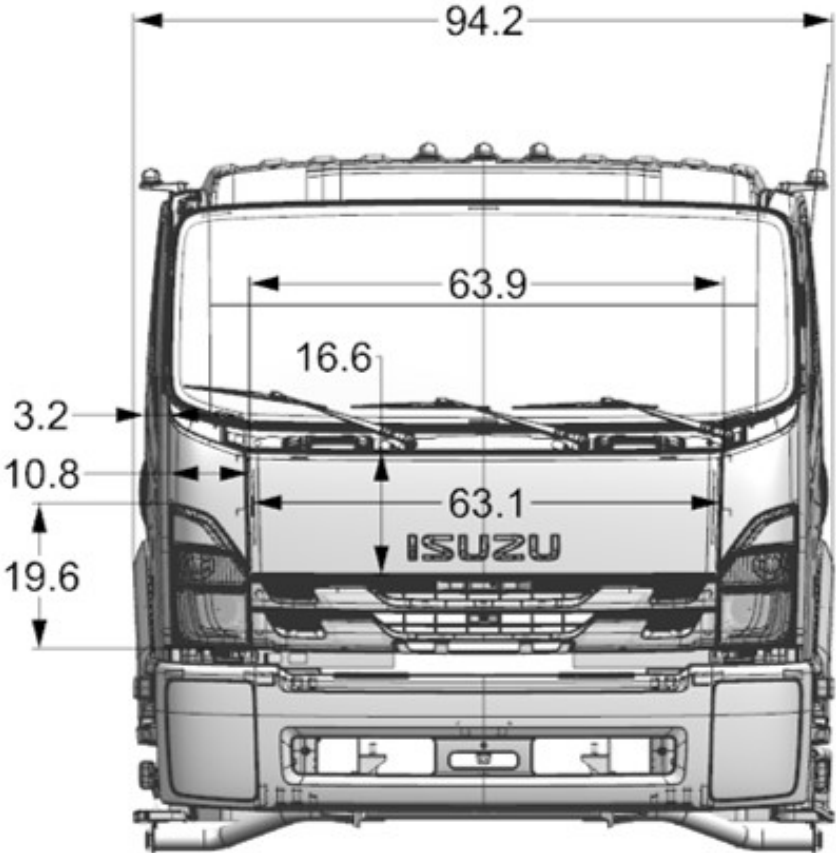


Figure 2

Dimensions in inches

2026 Isuzu Truck

F-Series Single Cab - Rear View

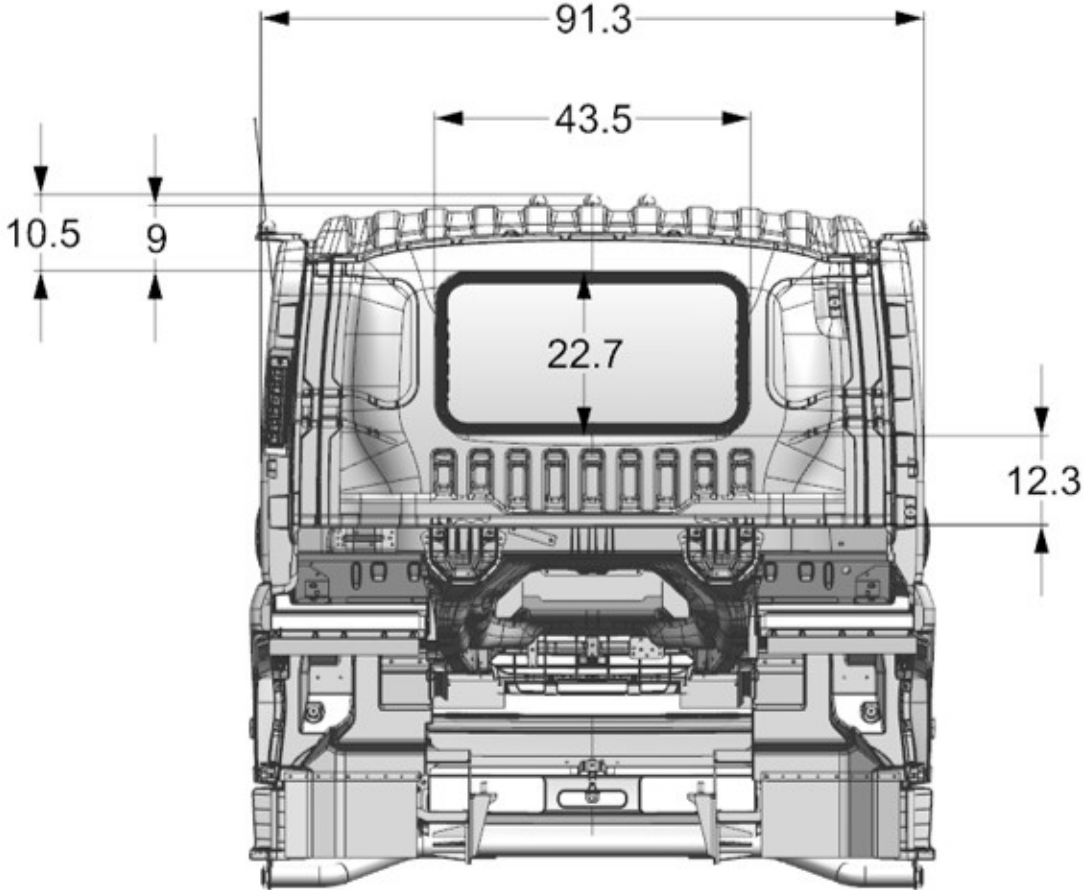
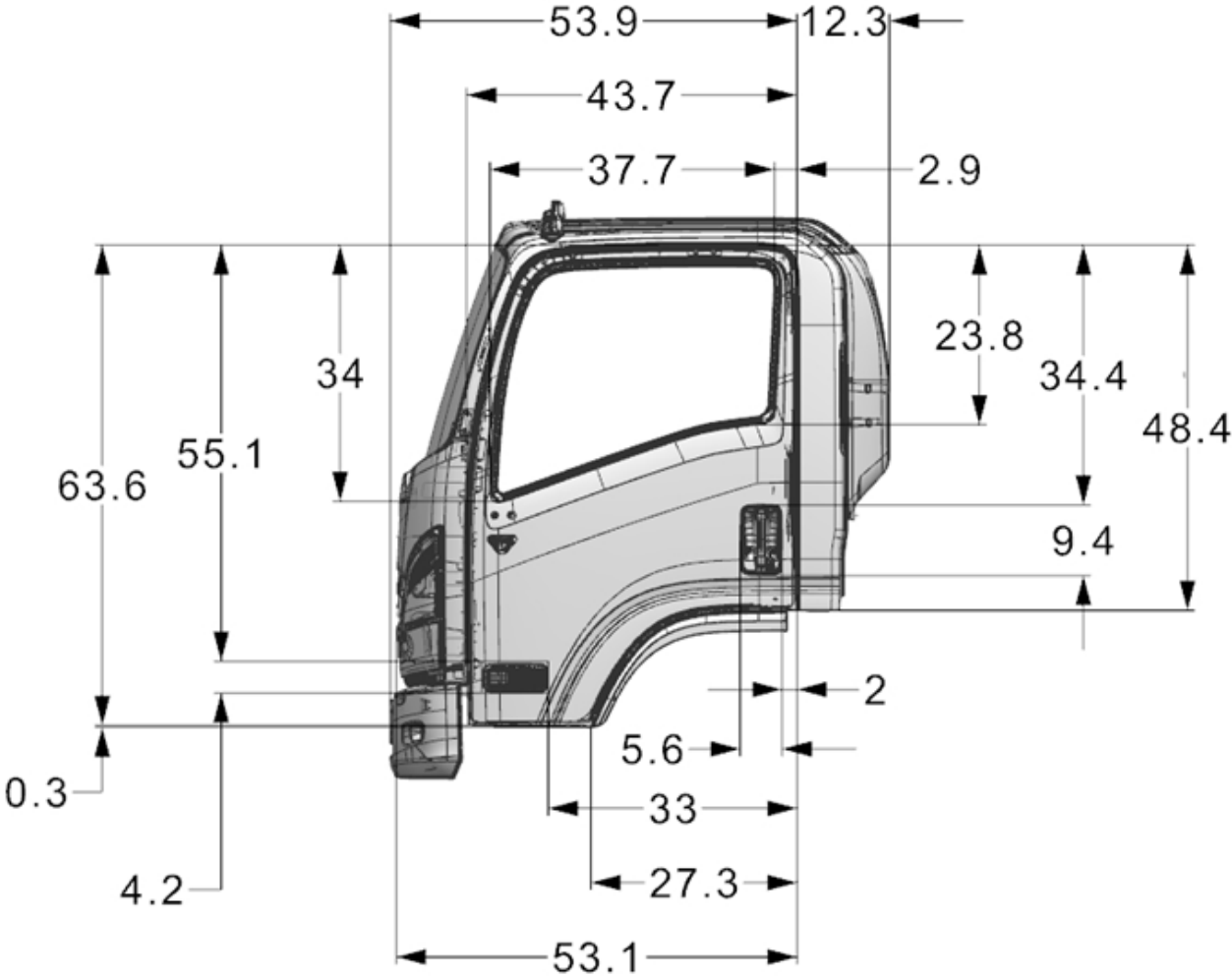


Figure 3

Dimensions in inches

2026 Isuzu Truck

26MY Diesel Single Cab - Side View



Dimensions in inches

Figure 1

2026 Isuzu Truck

26MY Diesel Single Cab - Front View

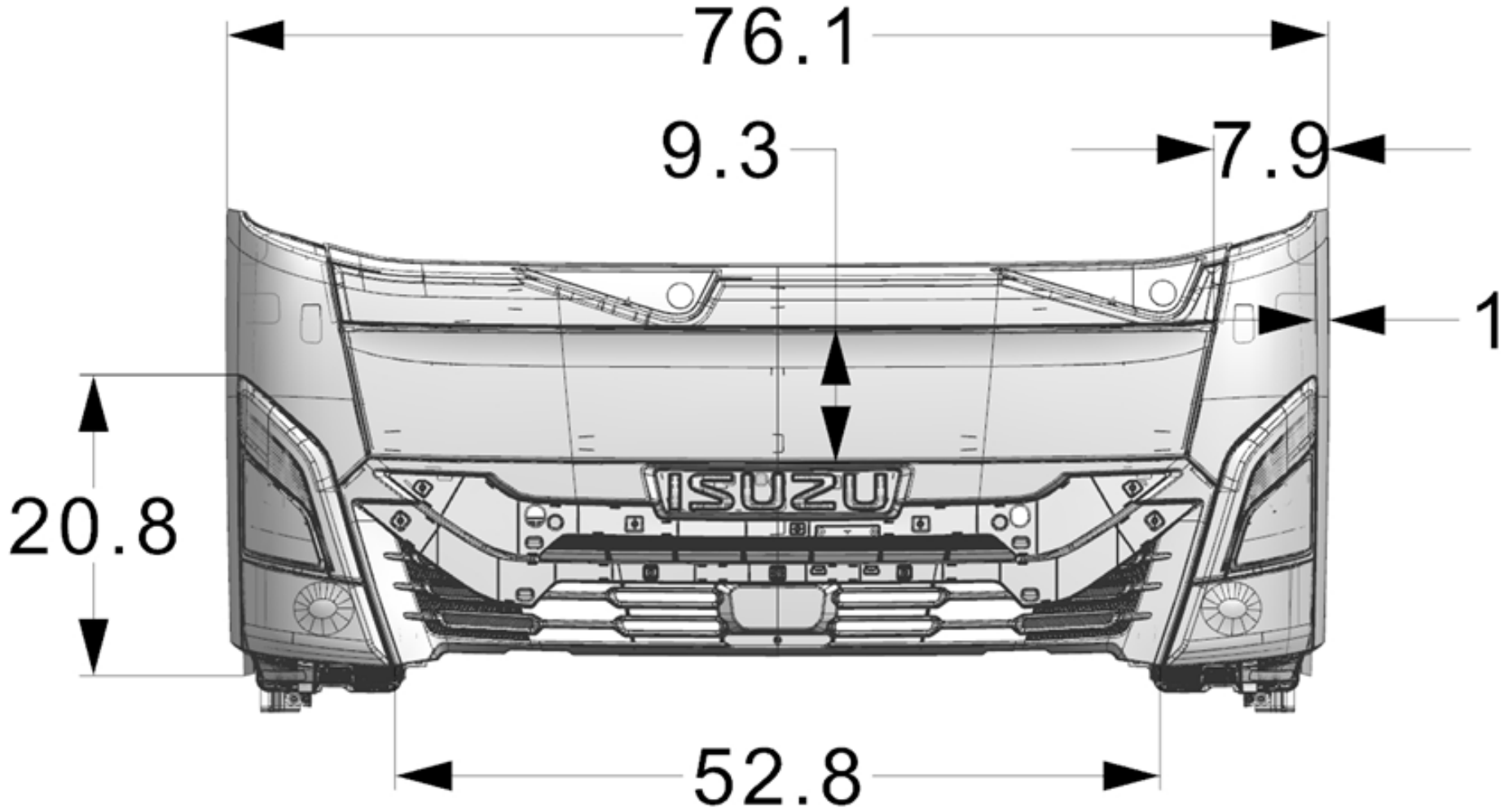


Figure 2

Dimensions in inches

2026 Isuzu Truck

26MY Diesel Single Cab - Rear View

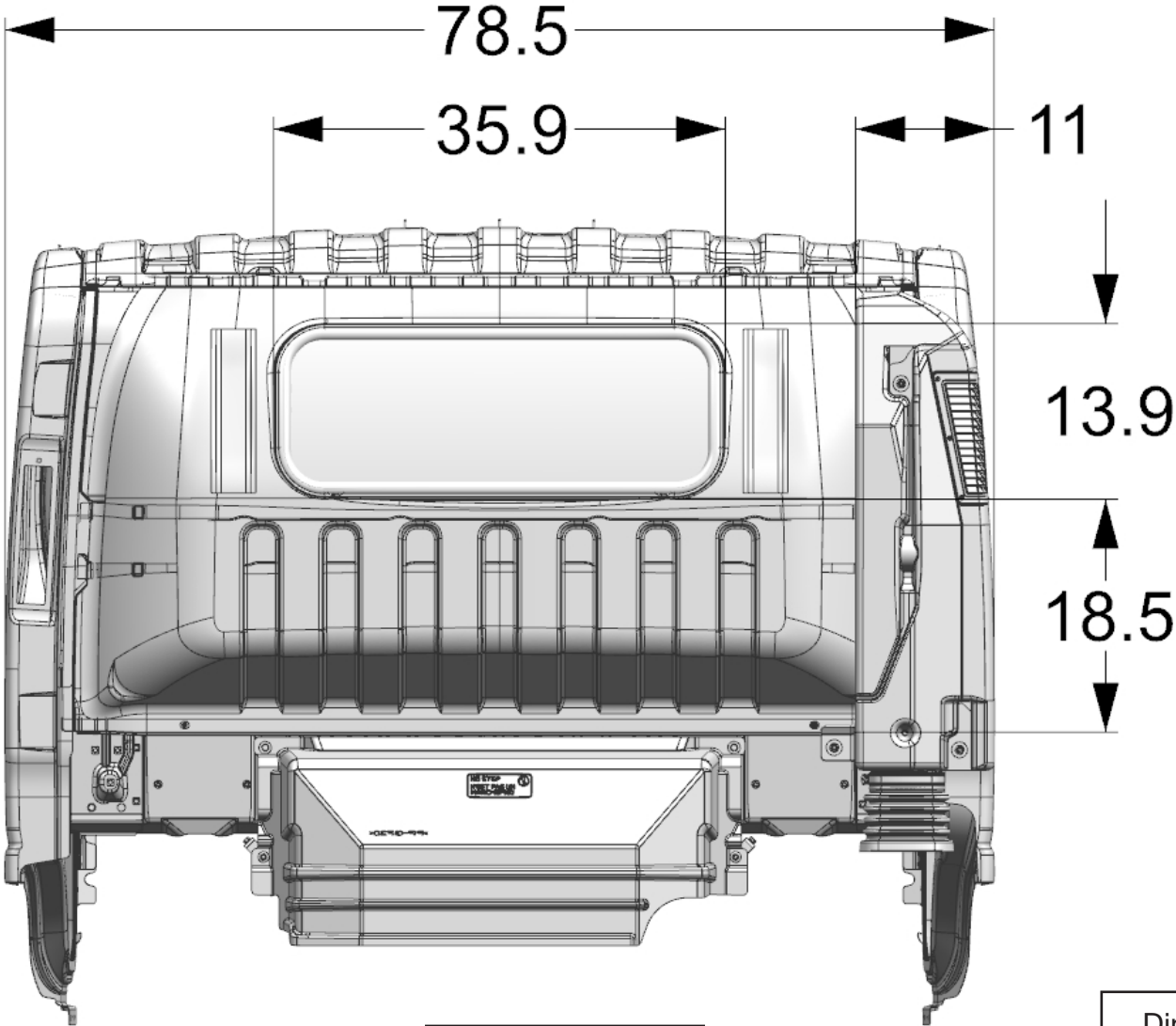


Figure 3

Dimensions in inches

Note:
top of window to top of roof 7.64 inches
top of window to top of cab roof lights 9.64 inches

2026 Isuzu Truck

26MY Diesel Crew Cab - Cab Side View

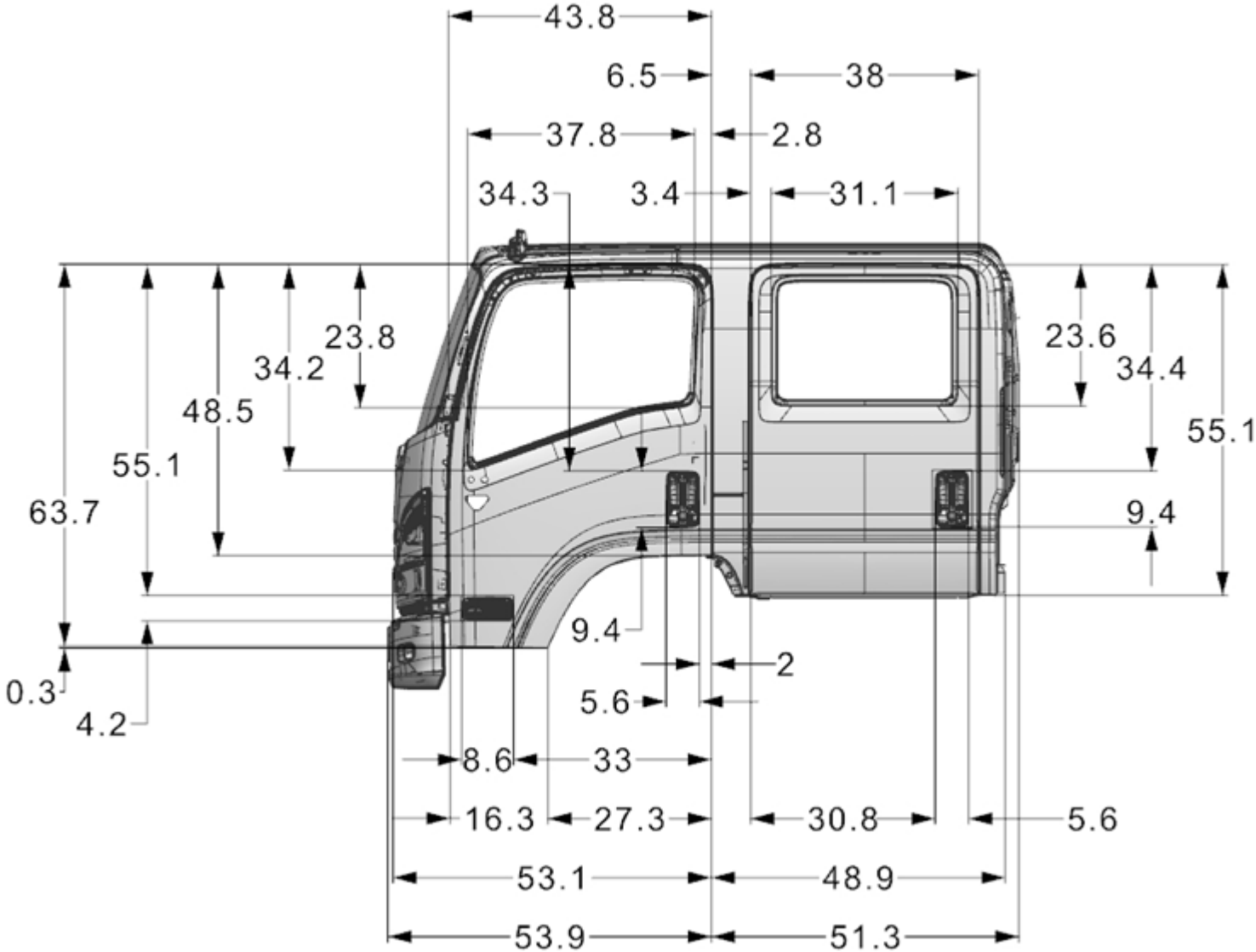


Figure 4

Dimensions in inches

2026 Isuzu Truck

26MY Diesel Crew Cab - Front View

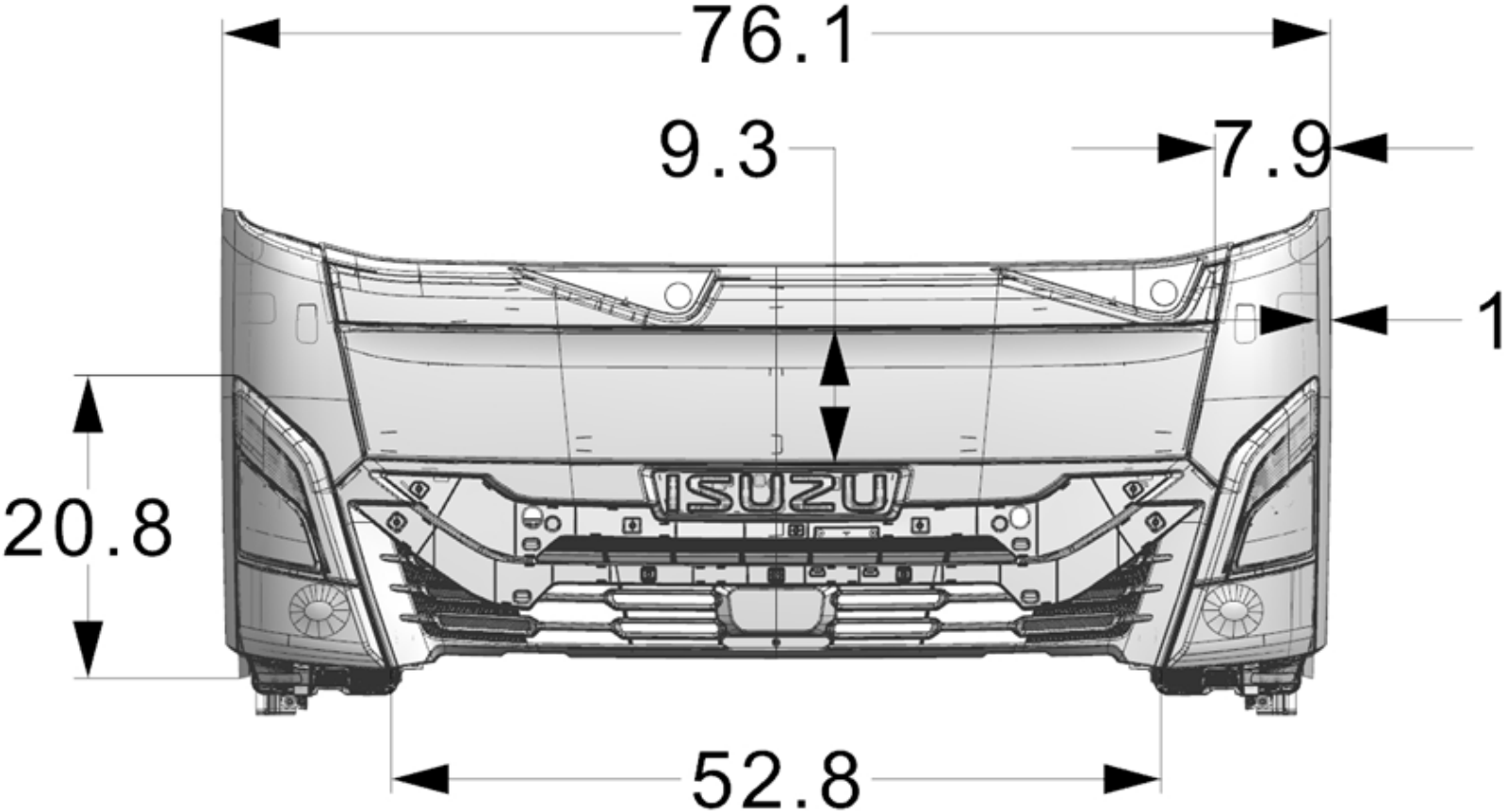


Figure 5

Dimensions in inches

2026 Isuzu Truck

26MY Diesel Crew Cab - Rear View

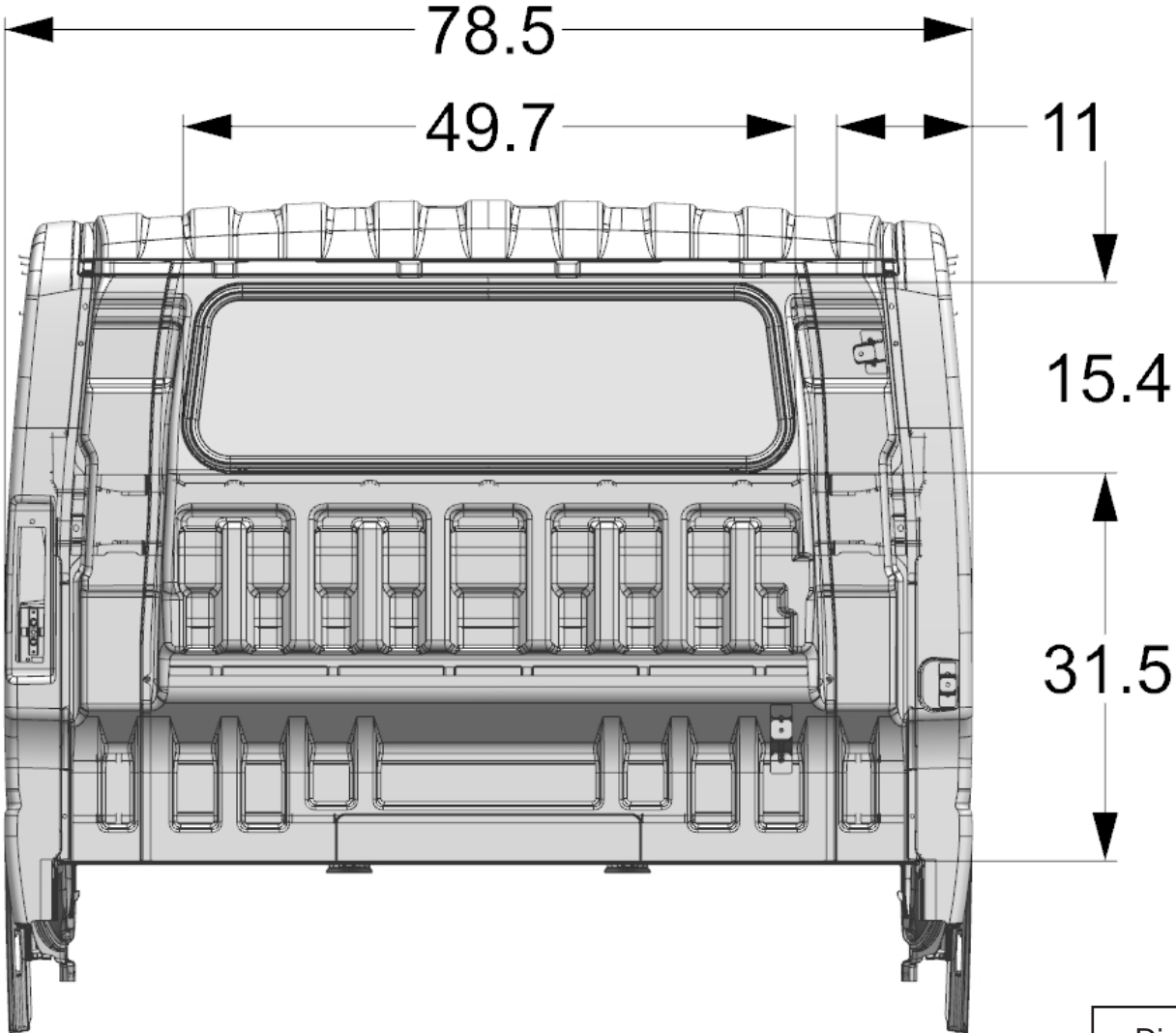
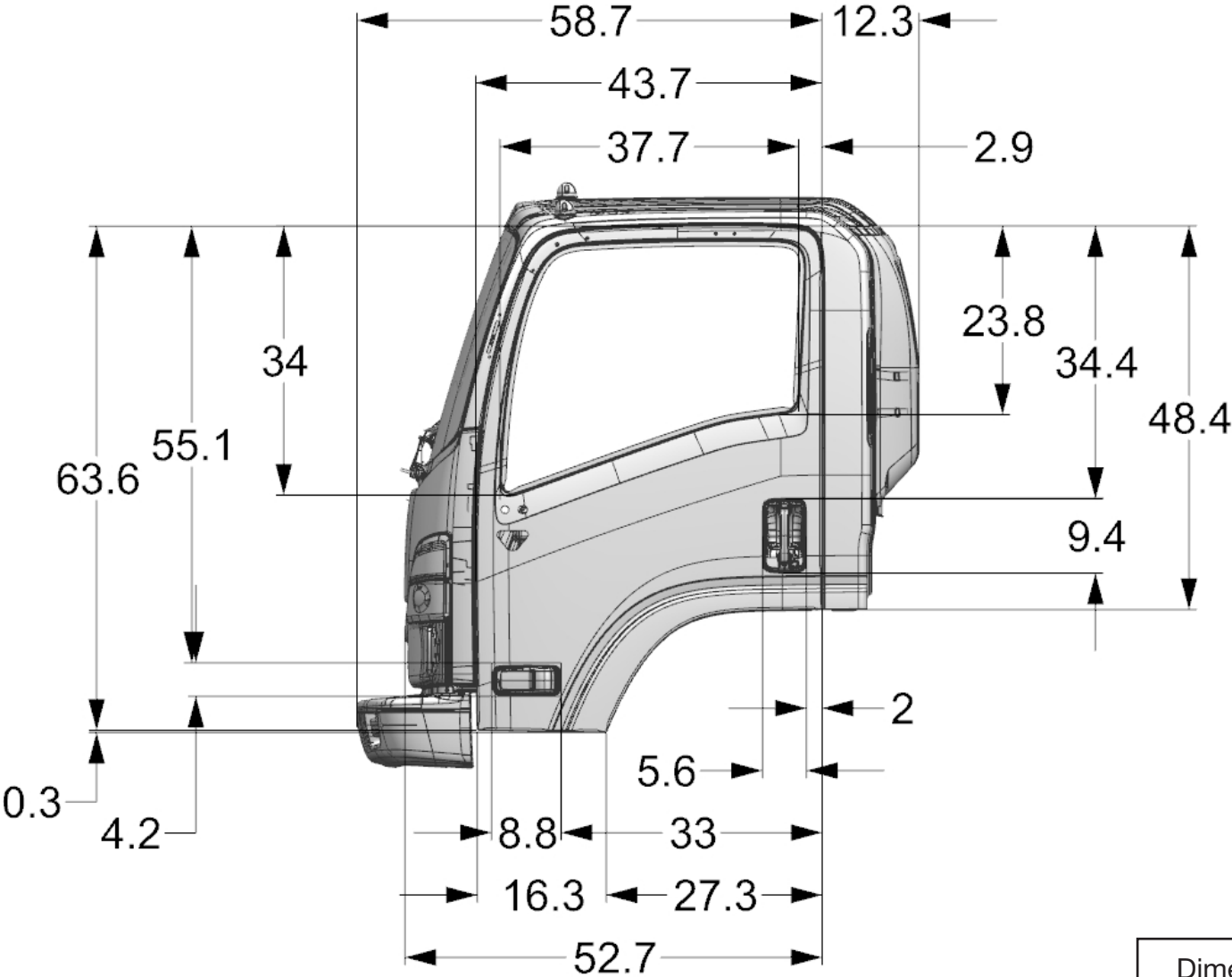


Figure 6

Dimensions in inches

2026 Isuzu Truck

26MY Gas Single Cab - Side View



Dimensions in inches

Figure 7

2026 Isuzu Truck

26MY Gas Single Cab - Front View

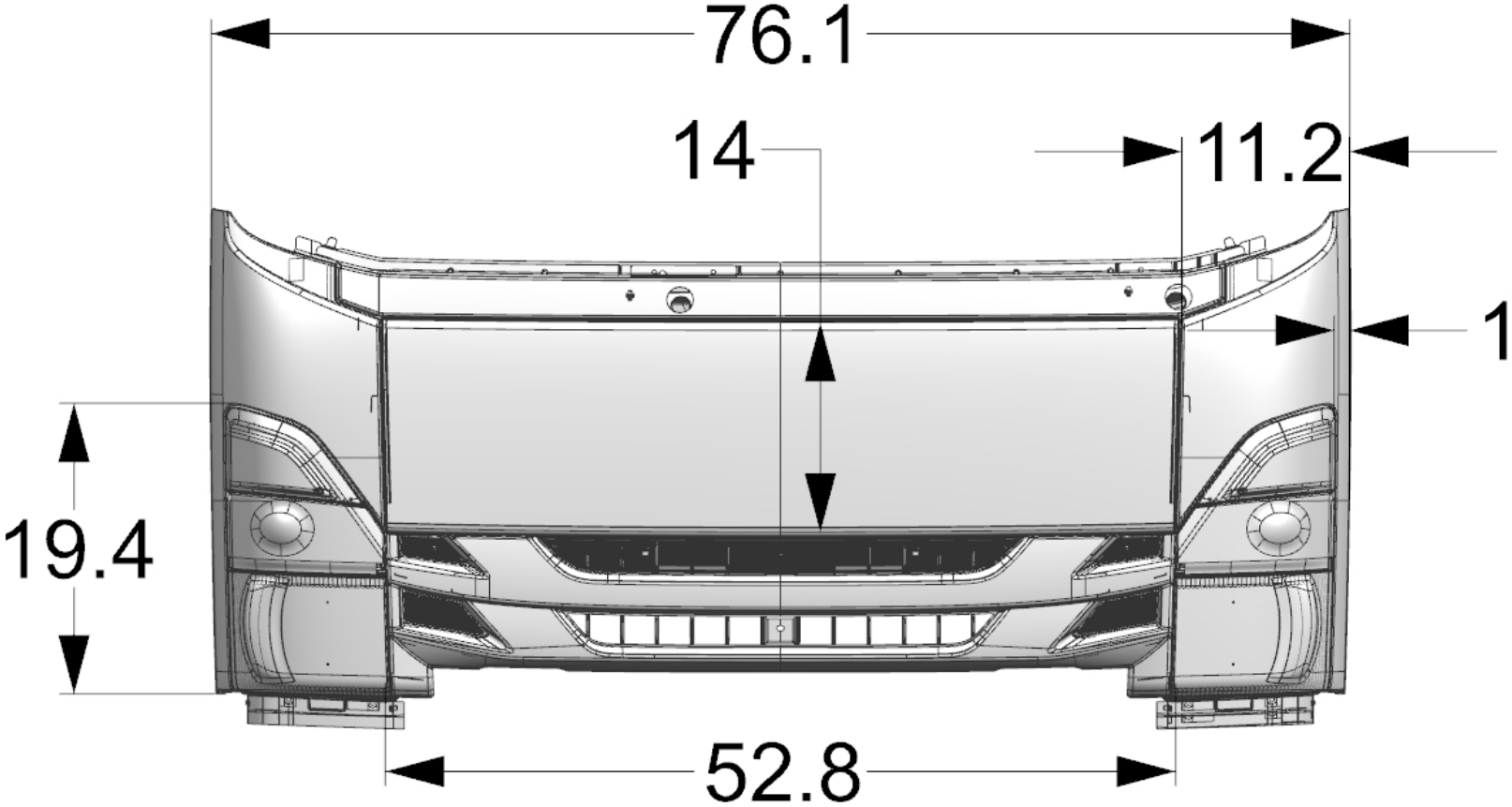


Figure 8

Dimensions in inches

2026 Isuzu Truck

26MY Gas Single Cab - Rear View

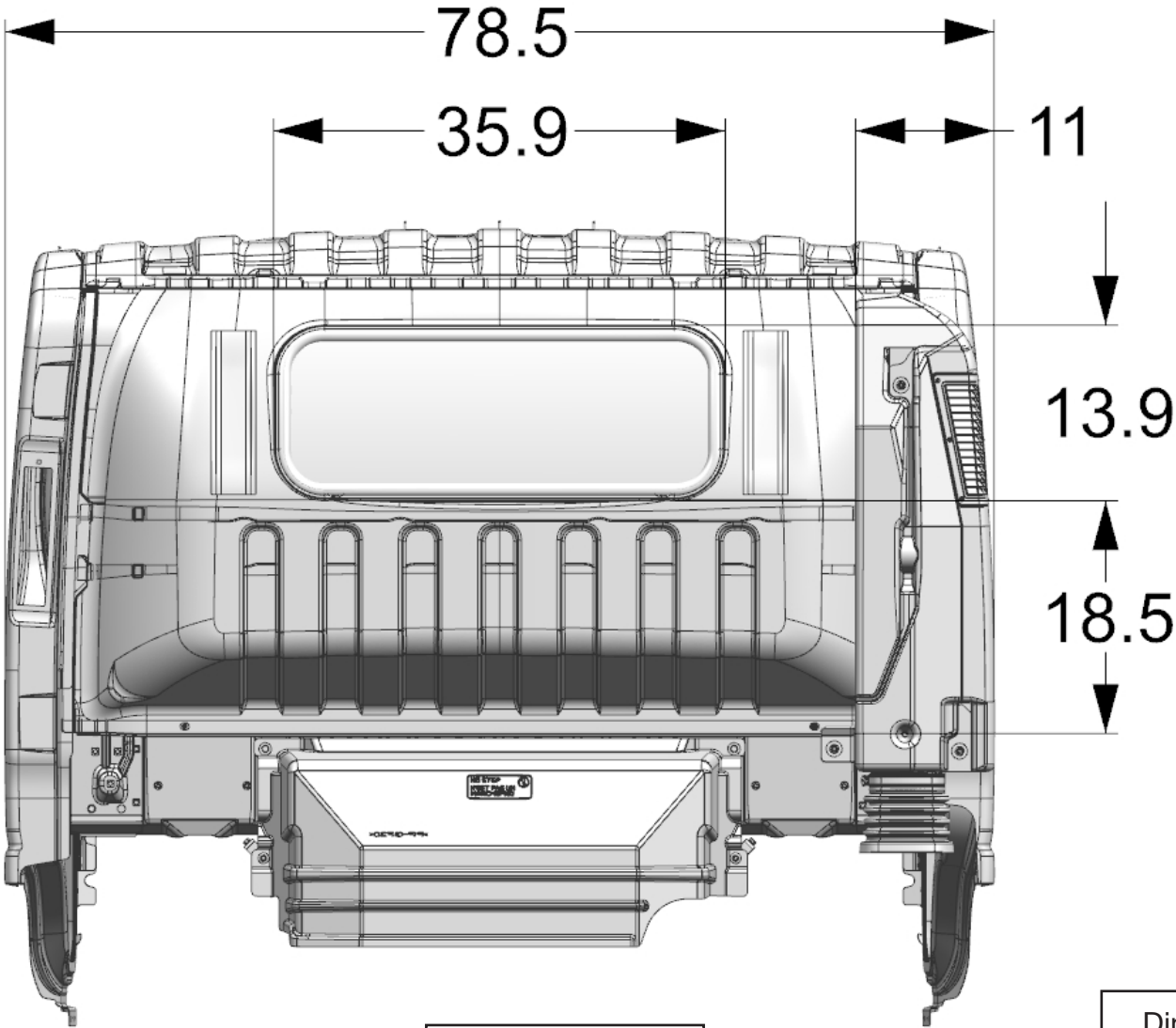


Figure 9

Dimensions in inches

Note:
top of window to top of roof 7.64 inches
top of window to top of cab roof lights 9.64 inches

2026 Isuzu Truck

26MY Gas Crew Cab - Cab Side View

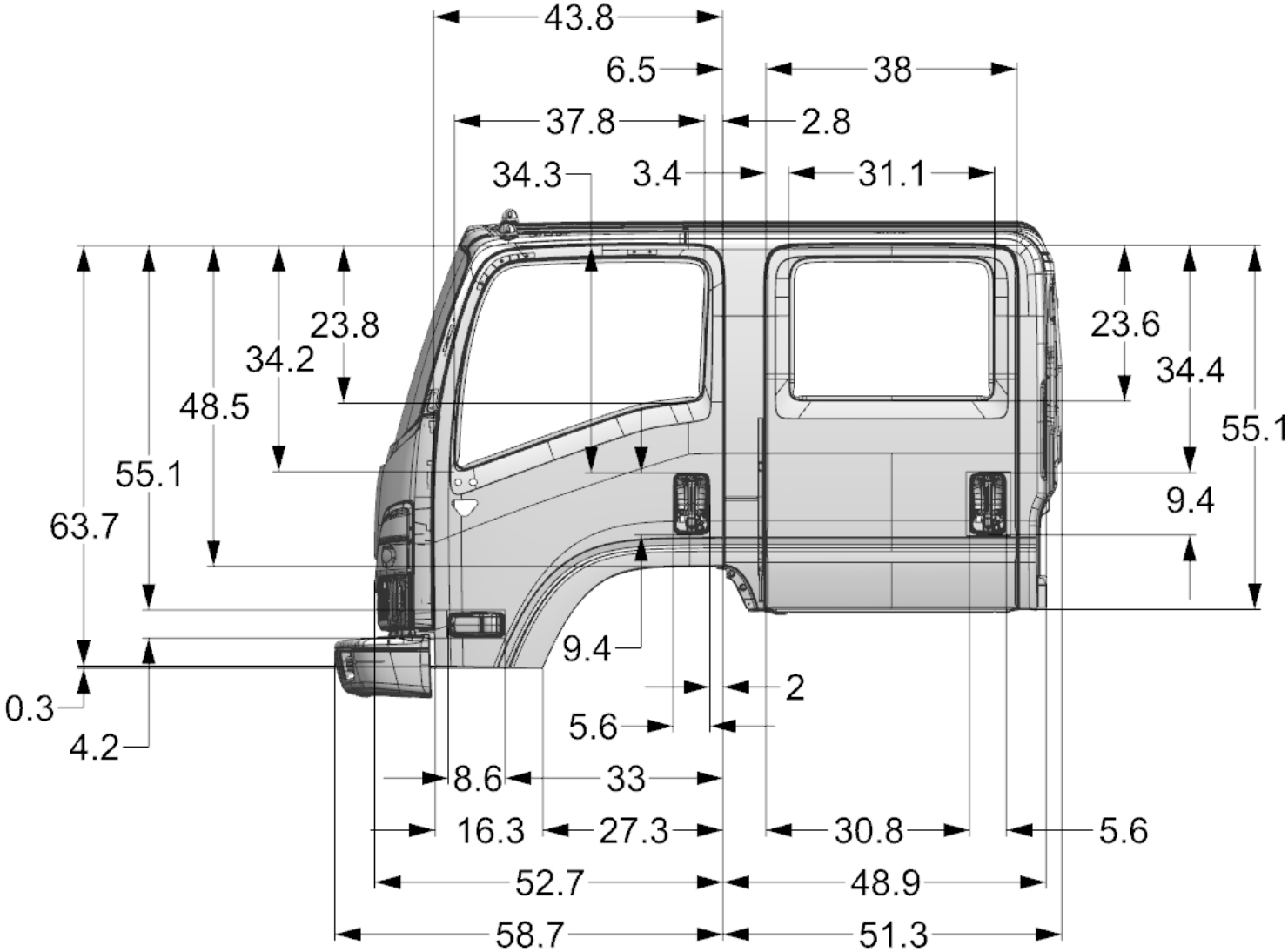


Figure 10

Dimensions in inches

2026 Isuzu Truck

26MY Gas Crew Cab - Front View

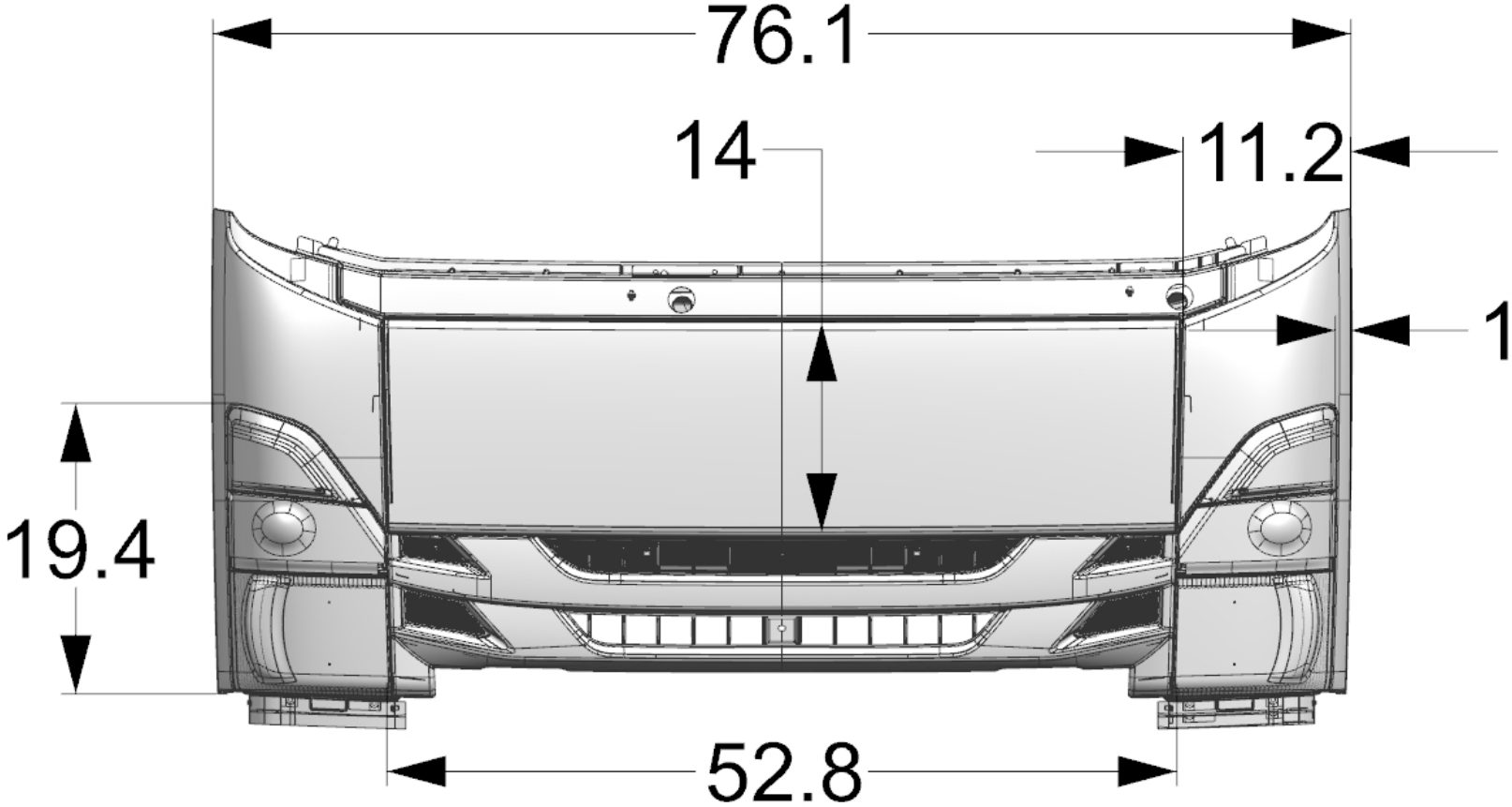


Figure 11

Dimensions in inches

2026 Isuzu Truck

26MY Gas Crew Cab - Rear View

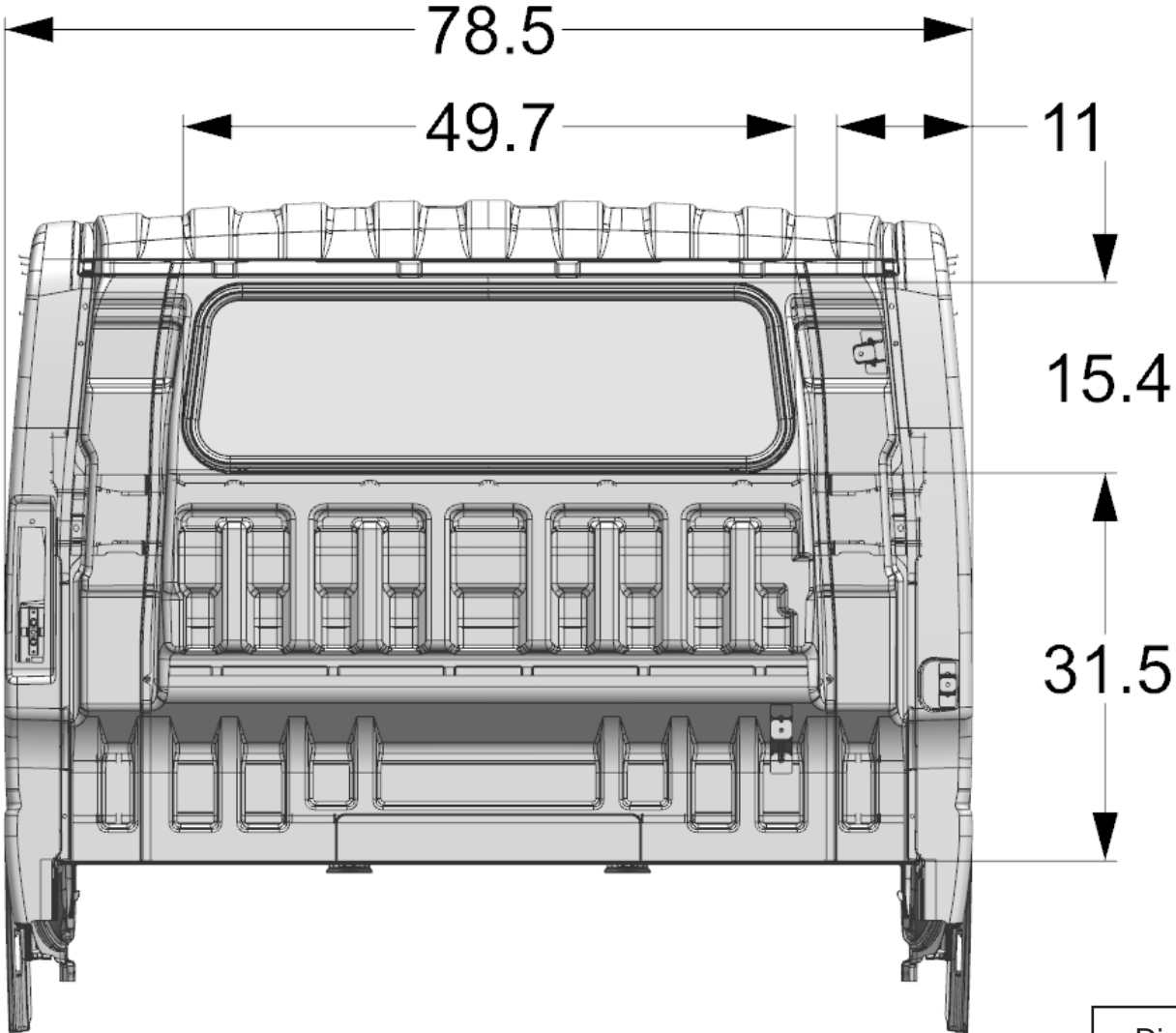


Figure 12

Dimensions in inches

2026 Isuzu Truck

Single Cab - Front and Side View (Air Shield on Single Cab only)

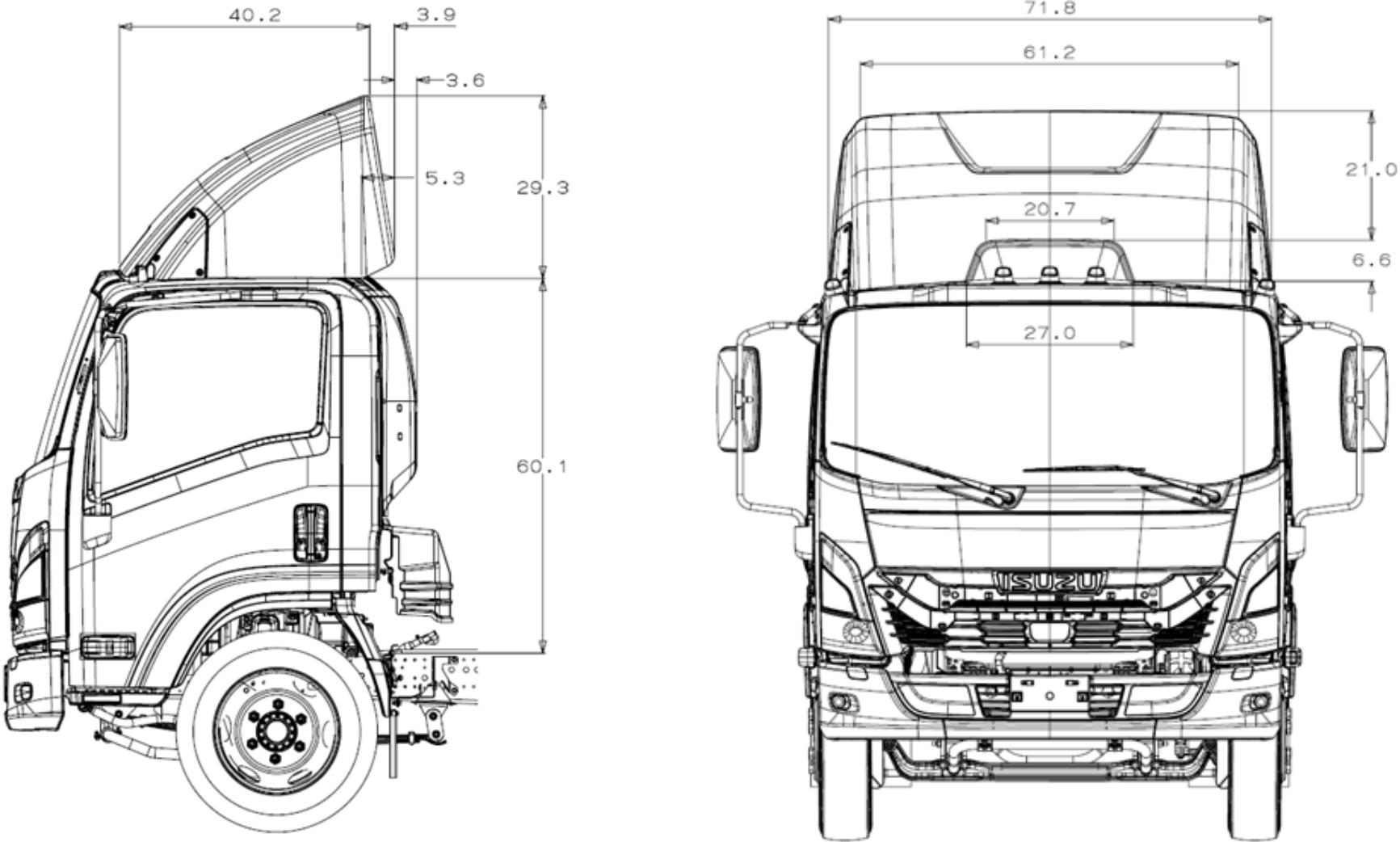


Figure 13

Dimensions in inches

Understanding DPF Regeneration

Understanding SCR (Selective Catalyst Reduction) and Diesel Exhaust Fluid (DEF)

The Selective Catalyst Reduction (SCR) system reduces nitrogen oxide (NOx) emissions emitted from a diesel engine. The SCR system reduces NOx by adding (injecting) Diesel Exhaust Fluid (DEF) into the exhaust system and inducing a reaction converting NOx into water vapor and nitrogen. This reaction takes place without any driver involvement. In addition, as long as the DEF tank is regularly filled with good quality DEF and at a satisfactory level above empty, the driver may never notice the SCR system.

It is the driver's responsibility to keep a good supply of quality DEF in the DEF tank for the proper operation of the SCR system. The SCR system will continuously monitor itself and the NOx reduction performance for any condition that will reduce or stop this emission reduction. The information provided in the remainder of this bulletin will outline the SCR system functions, common characteristics of the SCR system, DEF quality requirements and indicator and warning lights should the SCR system detect an incorrect fluid or if the DEF level in the DEF tank becomes too low.

SCR System Operation and The Driver

The SCR system requires good quality DEF for proper operation. The system is equipped with various sensors to detect the proper fluid is added to the DEF tank. The driver's only responsibility is to add good quality DEF to the DEF tank as necessary. The DEF level gauge on the instrument cluster shows the amount of DEF remaining. In addition the Multi Information Display (MID) will provide additional notice to encourage the driver to add DEF. In order to keep the SCR system operational and emissions compliant a warning system will activate when the DEF level becomes too low (see DEF Low Level Warning System).

After starting the engine the SCR control module will pressurize the system and based on various sensor inputs begin to reduce NOx emissions. No driver action is necessary for the SCR system to function. After the engine is turned "OFF" the SCR control module will reduce system pressure and recover all DEF in the system piping back to the DEF tank. This action is taken as cold weather protection.

Note: Drivers may notice a buzzing noise from the driver side of the vehicle near the DEF tank a few moments after turning "OFF" the engine. This is a function of the SCR system and should be considered normal.

During cold weather seasons DEF may freeze in the DEF tank. Once the engine is started, engine coolant circulates through the DEF tank to thaw it when frozen and prevent it from freezing while the engine is running. The vehicle can be driven normally when DEF is frozen in the DEF tank

Adding DEF

Under normal conditions DEF can be added simply by removing the DEF tank fill cap and pouring in DEF. A few points to be aware of when transferring DEF from its original container to the DEF tank are:

1. Be sure the outside of the container is clean from any debris
2. If using a funnel or pump to transfer DEF, be sure to use equipment exclusively for DEF made from polyethylene resin or stainless steel.
3. Do not overfill the DEF tank

Take care not to spill DEF. When DEF dries it will leave a crystalline residue. This condition is normal. Wash, with water, or wipe away the residue to prevent it from entering the DEF tank. If DEF is spilled on the body or frame, it may cause the metal to rust, so wipe it off and then rinse it away with water.

Note: For cold weather climates (ambient temperatures below -11°C/12°F)

Isuzu does not recommend parking the vehicle for long periods with the refill diesel exhaust fluid (DEF) warning light on in cold weather. The DEF low level warning system may not reset when DEF is added. Take the following actions to avoid this condition in cold weather.

1. Refill the DEF as soon as possible after parked vehicle.
2. Turn the engine control switch to the "ON" position from the "LOCK" position.
3. Wait for the warning buzzers and warning lights to turn off.
4. If the buzzer does not stop, return the engine control switch back to the "LOCK" position and add more DEF, and then start over the step (2) above.
5. Turn the engine control switch to the "LOCK" position. Turn the engine control switch to the "ON" position from the "LOCK" position.
6. Wait for the warning buzzers and warning lights to turn off.
7. If the buzzer does not stop, return the control switch back to the "LOCK" position and add more DEF, and then start over the step (2) above.
8. Turn the engine control switch to the "LOCK" position.

DEF Low Level Warning System

To avoid running out of DEF the SCR system will turn on warning and indicator lights and reduce engine power in progressive stages to encourage adding DEF. The following is a summary of the diesel exhaust fluid (DEF) low level warning lights, indicator lights and engine power reductions. Continuing to drive for too long after these lights come on will eventually result in a severe vehicle speed limitation. These warning and indicator lights will go out automatically and engine power will be restored to normal after the SCR system detects that the DEF tank is refilled with DEF.

Stage 1: When the remaining level of DEF becomes excessively low the DEF gauge will change color from green to amber. In addition, warning and indicator lights will come on as shown in the table and engine power will be reduced so the vehicle speed will not exceed 55 MPH (89 km/h).

Stage 2: If driving is continued without adding DEF (approximately 200 miles (320 km)) the DEF gauge, warning and indicator lights will begin blinking. Again, engine power will be reduced so the vehicle speed will not exceed 35 MPH (56 km/h).

Stage 3: If driving is continued until the DEF tank is empty, the DEF gauge will change color from amber to red and the warning and indicator lights will begin to blink faster. Engine power will still be reduced so the vehicle speed will not exceed 35 MPH (56 km/h). The vehicle speed will be limited to 5 MPH (8 km/h) either when the vehicle is stopped after driving further on (approximately 35 miles (56 km)) or when the engine is restarted.

Stage 4: The DEF gauge is red, the indicator light is blinking and the buzzer is beeping continuously indicates the vehicle speed is limited to 5 MPH (8 km/h).

DEF Quality and Storage

Diesel Exhaust Fluid is a urea-based chemical reactant designed specifically for use in SCR systems to reduce NOx emissions. The raw materials used to produce DEF include natural gas, coal or other petroleum products. DEF is prepared by combining high purity urea with deionized water to create a 32.5% solution. DEF and similar urea-based products are widely used today for a variety of agricultural and industrial needs. Isuzu DEF is API certified and meets ISO22241 specifications for purity and composition, while being:

- Non-toxic and non-polluting
- Non-flammable
- Stable and colorless
- Non-hazardous

DEF should be stored in an indoor place with good ventilation avoiding direct sunlight, if possible. Be sure containers are sealed properly to avoid contamination and evaporation. To maximize shelf life, ideal storage temperature is below 30°C/86°F and above -11°C/12°F to prevent freezing. If frozen DEF can be thawed and used without any concerns.

DEF Safety

Though it should be harmless for physical contact, there may be a rare case to induce inflammation depending on the body constitution, so make sure to take following actions.

- In the event that the fluid does come into contact with your skin, wash it off with water. Although it is rare, a person with sensitive skin may suffer from irritation. If you come into contact with DEF, flush the affected area with soap and/or water. If irritation or redness develops or persists, seek medical attention.
- If it is accidentally swallowed, drink 1- 2 glasses of water or milk and seek immediate medical attention.
- If it does come into contact with the eyes, immediately rinse it off with a large amount of water for at least 15 minutes, and then seek medical attention.

Customer Assistance in locating DEF

DEF is available from all authorized Isuzu dealers. In addition, the U.S. Department of Energy has created an on-line DEF locator that can be accessed at www.afdc.energy.gov/afdc/locator/def/. The American Petroleum Institute (API) also maintains a list of API-certified distributors of DEF on their web page at <http://www.apidef.org/>

Preparation of New Isuzu Vehicles for Storage Beyond 30-days

In the event new Isuzu vehicles are to be stored for extended periods beyond thirty (30) days, the following additional maintenance items are suggested:

NOTE: When new Isuzu vehicles are stored outside, particularly along coastal areas, paint and bright metal deterioration will be more rapid due to prevailing salt-water atmosphere and high humidity. For this reason, it may be necessary to wash each vehicle and wax the chrome and stainless steel metal parts at least once a month.

NOTE: To prevent the possibility of a build-up of mildew, open the doors to air out each vehicle at least once a month depending upon climatic condition. If there is condensation, wipe the condensation dry with a clean cloth and air out the vehicles.

- A. "Block out" mechanical clutches by holding the clutch pedal partially depressed (approximately 1/2 way) with wooden blocks or bracing. This will prevent clutch plates from rusting to the flywheel and clutch pressure plate.
- B. Remove windshield wiper arms and blades and store in the vehicle.

In addition, the following procedures are to be carried out at thirty (30)-day intervals and instituted after the first thirty (30) days of vehicle storage.

- A. Check the battery water level and specific gravity. **If voltage is under 12.20 volts, recharge the battery.**
- B. Connect the battery ground cable. Start engine in P range and let idle for at least twenty (20) seconds.
- C. Raise the idle up to 2,000 rpm for fifteen (15) minutes. Be sure there is sufficient fuel in tank. Each new Isuzu vehicle is supplied with approximately 1.5 gallons of fuel. Do not let the tank run dry.
- D. Shift the transmission lever to all positions while the engine is running.
- E. Move the vehicle for a distance of at least thirty (30) feet to lubricate the wheel bearings.
NOTE: The vehicle should be re-parked so that a different area of the tires is in contact with the ground to reduce the possibility of tire damage.
- F. Turn the steering wheel lock-to-lock while the vehicle is moving slowly.
- G. Apply and release the service and parking brakes several times (do not apply the parking brake when the vehicle is moving).
- H. Stop the engine.
- I. After warm-up operation, check under the vehicle to make sure there is no oil or fluid leakage.
- J. Disconnect the battery ground cable.
- K. Drain the brake air reservoirs (if appropriate) and close the drain cocks.

New Isuzu Vehicles Stored Beyond One Year

In the event new Isuzu vehicles are to be stored for extended periods beyond one (1) year, the following additional maintenance is required every twelve (12) months:

- A. Replace engine oil, coolant, brake fluid, transmission oil, differential gear oil and all other fluids.
- B. Drain and refill diesel exhaust fluid (DEF).
- C. Drain and refill fuel (diesel and gasoline).
- D. Replace fuel filters (diesel only).

Modes of Regeneration Quick Reference Guide

- 2011-2015MY Isuzu N-Series Equipped with Diesel Particulate Filter (DPF)

ISUZU
Information Bulletin

BULLETIN NUMBER: IB14-L-001
ISSUE DATE: MARCH 2014
GROUP: FUEL

N-Series - Understanding DPF Regeneration; Modes of Regeneration Quick Reference Guide

AFFECTED VEHICLES

2011 - 2015 Isuzu NPR/NPRHD/NQR/NRR
2012 - 2014 Isuzu NPR

SERVICE INFORMATION

AFFECTED VEHICLES

- 2011-2015MY Isuzu N-Series Equipped with Diesel Particulate Filter (DPF)

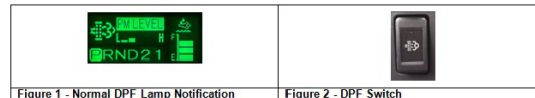
This bulletin supersedes bulletin IB07-L-002B. This bulletin is being revised to update Model Years and Service Information. Please discard bulletin IB07-L-002B.

SERVICE INFORMATION








Isuzu has found that many times customers are unfamiliar with the overall operation of the DPF system (including the importance of completing a regeneration), which leads to unnecessary vehicle downtime. Please make sure your sales and service staff is completely familiar with the DPF system functionality and operation so when a new truck is delivered or comes in for service, the dealership team can instruct customers on proper operation which will minimize vehicle downtime.

The quick reference information below is provided to assist dealer personnel in better understanding the DPF Emission System Operation. Additional information regarding DPF Regeneration can be found in the Owner's Manual, Service Manual, the driver side sunvisor label, or on the Emission System Operation video. For your convenience, this video may be downloaded from www.isuzucv.com.

IMPORTANT: DPF cleaning is due every 100,000 miles or 3,000 hours of operation (whichever occurs first). Some applications (such as sweepers, trucks that idle for extended periods, along with frequent stop/go), may require more frequent cleaning. Please see the appropriate owner's manual for specific cleaning instructions.




IMPORTANT: Before starting DPF regeneration, ensure that the exhaust area is clear of grass, leaves, or any dry debris that could ignite, as this area will become very hot during regeneration.

MID Message	Action Required	Description
	No Action Required	DPF filter is in Regeneration Mode.
	When Possible	Perform Running Regeneration – Drive vehicle above 30 mph (50 km/h) for approximately 20 minutes until "REGEN IN PROGRESS" message goes off or, if that is not possible, perform the Switch Regeneration described below. A REGEN can also occur when stationary with the transmission in "P".
	Immediately	
	When Possible	Perform Selectable (Switch) Regeneration – Idle in "P" (A/T) or neutral (M/T) with the parking brake on, press the switch  and continue idling approximately 20 minutes until "REGEN IN PROGRESS" message goes off.
	Immediately	
	When Possible	Illuminates when the DPF switch is held down. When ON, the system is checking whether or not Selectable (Switch) regeneration is possible, and then changes to the required warning light. If the switch does not change, regeneration is not required.

IMPORTANT: Before starting DPF regeneration, ensure that the exhaust area is clear of grass, leaves, or any dry debris that could ignite, as this area will become very hot during regeneration.

REGENERATION MODES

Mode Name	Description
Automatic Regeneration	<ul style="list-style-type: none"> ECM monitors sensor inputs and determines if DPF regeneration is necessary The ECM will command "REGEN IN PROGRESS" message Vehicle should be driven normally <p>Note: If idling at a stop or in "Park" during this regeneration mode, the engine RPM will increase and the exhaust brake will activate.</p> <p>Note: DPF regeneration may be initiated automatically during prolonged idling. The "REGEN IN PROGRESS" light will illuminate – this is normal and does not indicate a failure.</p>
Emergency Regeneration	<p>Yellow or Red "REGEN REQUIRED" light comes "ON" Driver must choose one of the following options to perform this regeneration. If one of the following options is not completed, Limp Home Mode may be activated.</p> <p>Running Option 1:</p> <ul style="list-style-type: none"> Operate vehicle above 30mph for approximately 20 minutes ECM will determine if regeneration is necessary Drive until the "REGEN IN PROGRESS" message goes off, or if that is not possible, perform the Switch Regeneration as described below <p>Switched Option 2:</p> <ul style="list-style-type: none"> Set the parking brake with engine running and transmission in Park or Neutral Position Press the DPF button Continue idling for approximately 20 minutes until the "REGEN IN PROGRESS" message goes off <p>IMPORTANT: Once Emergency Switched or Selectable Regeneration Modes have been selected, the Emergency Running Modes are no longer available. Automatic and Emergency Running Modes will become available after Switched or Selectable DPF regeneration is completed.</p>
Selectable Regeneration	<p>NOTE: For quickest possible regeneration, be sure the vehicle is at operating temperature before performing selectable regeneration.</p> <ul style="list-style-type: none"> Engine is running and in "Park" position Parking brake is applied Press and hold the DPF button <ul style="list-style-type: none"> "CHECKING PM LEVEL" will turn "ON" when the system is checking if "Selectable" regeneration is possible If the regeneration light does not stay "ON", regeneration is not necessary

	<ul style="list-style-type: none">• If the "REGEN IN PROGRESS" light turns "ON", regeneration will start and will take about 20 minutes• Engine RPM will increase and the exhaust brake will activate• If the selectable regeneration mode is interrupted, the red "SEL REGEN REQUIRED" light will flash and will go into reduced power condition <p>CAUTION: The following actions will interrupt the stationary type regeneration. Failure to restart and complete the regeneration cycle will result in filter clogging.</p> <ul style="list-style-type: none">• Applying the accelerator pedal• Shifting into gear (Automatic Transmission)• Pressing the clutch pedal (Manual Transmission)
Limp Home Mode 	<p>This condition should only be diagnosed and repaired by an Isuzu trained technician</p> <ul style="list-style-type: none">• MIL lamp is on, vehicle speed is reduced• Technician diagnosis required• IDSS induced regeneration (fast or slow) based on diagnosis• Slow process – will take 2 hours

IMPORTANT: If the truck continues to be operated without regenerating you will notice:

- Engine reduced power condition with the red "REGEN REQUIRED" light
- Illuminated check engine light
- You must take vehicle to dealer for service


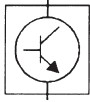



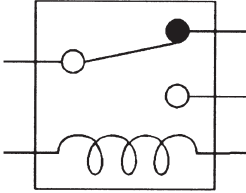

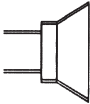
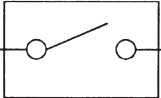
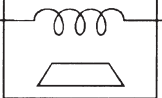

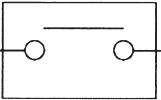
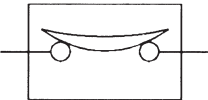
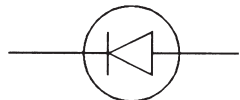
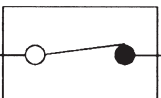

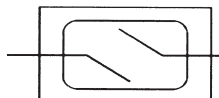



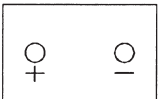

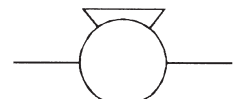
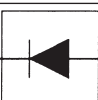
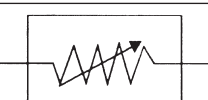
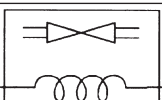
2026 Isuzu Truck

Limited Slip Differential Fluid

Should it become necessary to add fluid to the rear axle of a chassis equipped with a limited slip differential please consult the Isuzu Owners Manual for the appropriate selection of lubricants to be used.

Axle Housing Stamp		
Ratio	Stand	LSD
	Axle	Axle
4.300	SO	HO
4.555	C9	D9
4.777	S9	H9
5.125	C8	D8
5.375	S8	H8
5.571	A7	B7
5.857	C7	D7

NRR EV Electrical Symbols

	Fuse		Electronic Parts		Coil (Inductor), Solenoid Magnetic Valve
	Fusible Link		Resistor		Relay
	Fusible Link Wire		Speaker		
	Switch		Buzzer		Connector
	Switch		Circuit Breaker		Light-Emitting Diode
	Switch (Normal Close Type)		Bulb		Reed Switch
	Contact Wiring		Double-Filament Bulb		Condenser
	Battery		Motor		Horn
	Diode		Variable Resistor Rheostat		Vacuum Switching Valve

2026 Isuzu Truck

Abbreviations

Abbreviation	Definition	Abbreviation	Definition
ABS	Anti-lock brake system	JB	Junction box
APP	Accelerator pedal position	kW	kilowatt
AUTO	Automatic	LH	Left hand
BRKT	Bracket	LO	Low
C/B	Circuit Breaker	LWB	Long Wheelbase
COMB	Combination	M/V	Magnetic valve
CONT	Control	OPT	Option
D.R.L.	Day time running light	ePTO	Electronic Power Take Off
DC	Direct current	RH	Right hand
ECM	Electronic control module	RR	Rear
ECU	Electronic control unit	SOC	State of charge
EHCU	Electronic and hydraulic control unit	ST	Start
EOL	End of life	STD	Standard
FL	Fusible link	SW	Switch
FRT	Front	SWB	Short wheelbase
H/L	Headlight	V	Volt
HI	High	VCU	Vehicle control unit
HV	High voltage	VSV	Vacuum switching valve
HV BATT	High voltage battery	W	Watt (S)
IAT	Intake air temperature	W/	With
IC	Integrated circuit	W/O	Without
IG	Ignition	W/S	Weld splice

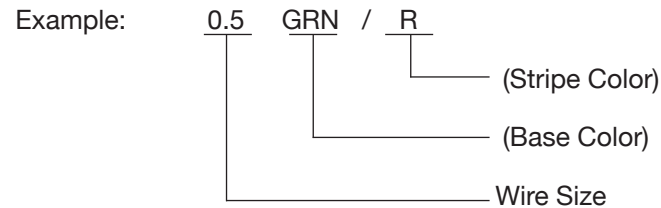
NRR EV Electrical Section

Additional information including complete chassis wiring schematics, connector locations, wire sizes, and pin connector diagrams can be obtained from our service web site www.isuzutruckservice.com. There is a nominal fee for this service.

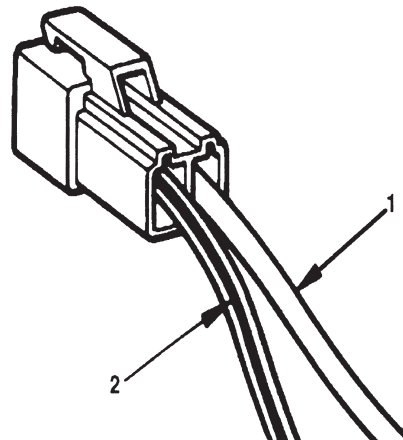
Wiring

Wire Color

All wires have color-coded insulation. Wires belonging to a system's main harness will have a single color. Wires belonging to a system's sub-circuits will have a colored stripe. Striped wires use the following code to show wire size and colors.



1. Single Color Wire
2. Colored Stripe Wire



2026 Isuzu Truck

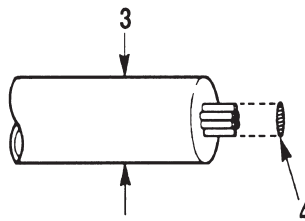
Wiring (continued)

Nominal Size	Cross Sectional Area (mm ²)	Outside Diameter (mm)	Allowable Current (A)	AWG Size (Cross reference)
0.3	0.372	1.8	9	22
0.5	0.563	2.0	12	20
0.85	0.885	2.2	16	18
1.25	1.287	2.5	21	16
2	2.091	2.9	28	14
3	3.296	3.6	37.5	12
5	5.227	4.4	53	10
8	7.952	5.5	67	8
15	13.36	7.0	75	6
20	20.61	8.2	97	4

Wire Size

The size of wire used in a circuit is determined by the amount of current (amperage), the length of the circuit, and the voltage drop allowed. The following wire size and load capacity are specified by AWG (American Wire Gauge). (Nominal size means approximate cross sectional area.)

- 3. Outside Diameter
- 4. Cross Sectional Area



2026 Isuzu Truck

Fuses

Replacing Fuses

1. Before replacing fuses, apply the parking brake, then move the selector lever to the "P" (Park) position, and turn the engine control switch to the "LOCK" position.
2. Place the fuse puller on the fuse and pull it out. (The fuse puller is stored in the fuse box inside the cab.)
3. If the fuse appears as shown in the right hand side of the diagram at left, the fuse is blown. Replace with a spare fuse. (Spare fuses are stored in the fuse box inside the cab.)

Replacing Relays

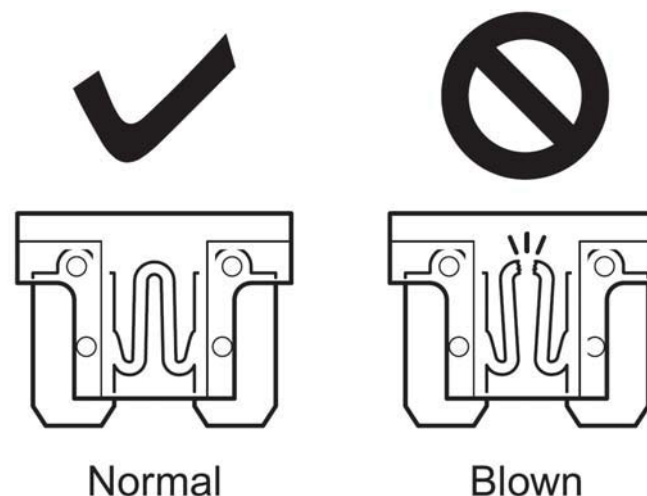
1. Before replacing the relays, contact the nearest Isuzu Dealer.

Fusible Links

1. The fusible link is primarily used to protect circuits where high amounts of current flow and where it would not be practical to use a fuse. For example, the starter circuit. When a current overload occurs, the fusible link melts open and interrupts the flow of current so as to prevent the rest of the wiring harness from burning.
2. Determine the cause of the overload before replacing the fusible link. The replacement fusible link must have the same amperage specification as the original fusible link.
3. Never replace a blown fusible link with fusible link of a different amperage specification. Doing so can result in an electrical fire or other serious circuit damage.

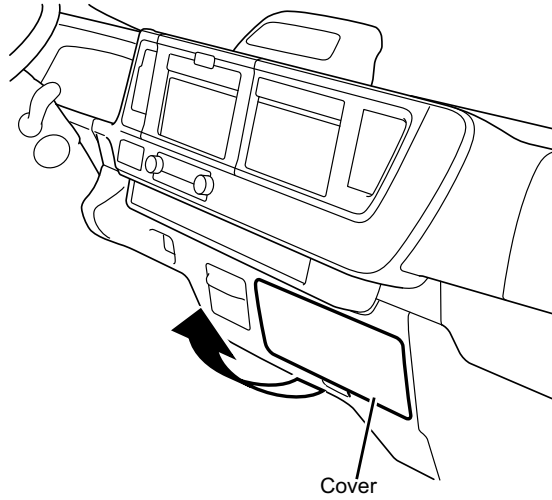
CAUTION

- Always use fuses specified by Isuzu. Using fuses with a rating other than that specified, or using wire or tin foil, etc., could result in fire or damage.
- If the new fuses blow right away and the cause is unknown, contact the nearest Isuzu Dealer.
- Do not inspect or replace fuses when the engine control switch is in the "ON" position. Doing so may lead to an accident.
- When inspecting fuses, be sure to park the vehicle on flat, level ground and apply chocks to the wheels.

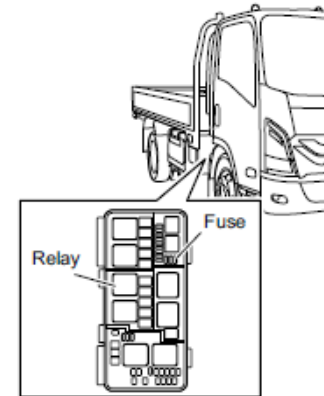
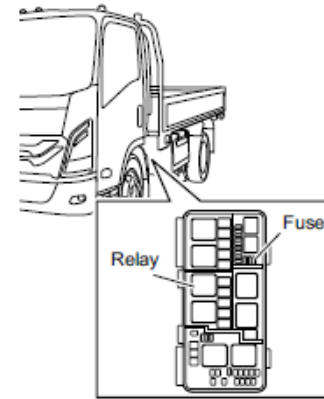


Fuse and Relay Box Locations

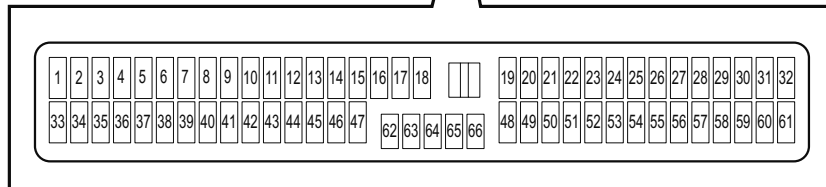
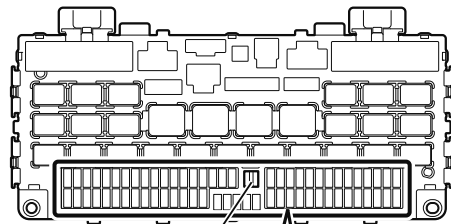
Interior



Exterior



Fuse Location (interior)



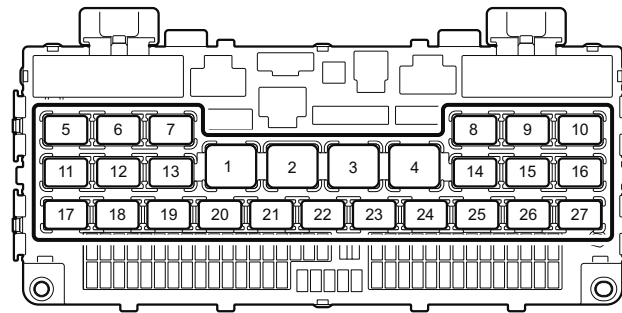
No.	Description	Rating
1	HEADLIGHT HI (RH)	10A
2	AUDIO REVERSE MUTE	10A
3	HEADLIGHT HI (LH)	10A
4	HEADLIGHT LO (RH)	10A
5	HEADLIGHT LO (LH)	10A
6	SRS	5A
7	CONTROLLER (ACC)	15A
8	—	5A
9	CONTROLLER (SYS)	25A
10	—	10A
11	ACC.SOCKET, AUDIO, USB	15A
12	—	10A
13	—	10A
14	AIR CONDITIONER (SYS)	5A
15	INFORMATION MODULE	10A
16	POWER SOURCE (ACC)	20A
17	CENTRAL GATEWAY (IGN)	5A

No.	Description	Rating
18	SEAT HEATER	15A
19	BLOWER	25A
20	TURN, HAZARD	15A
21	—	10A
22	MIRROR HEATER	15A
23	WIPER	25A
24	BRAKE LIGHTS SWITCH (SYS)	10A
25	BACK UP LIGHTS	10A
26	AIR CONDITIONER, METER (BATT)	15A
27	—	10A
28	BODY CONTROL (BATT)	10A
29	ELECTRIC PARKING BRAKE	10A
30	STEREO CAMERA (IGN)	5A
31	I/O CONTROLLER (BATT)	15A
32	FOG LIGHTS	10A

No.	Description	Rating
33	DRL	10A
34	BRAKE LIGHTS	10A
35	—	15A
36	BRAKE LIGHTS SWITCH (BATT)	10A
37	ILLUMINATIONS	10A
38	TAILLIGHTS	10A
39	Passive Entry and Start System (IGN)	5A
40	AUDIO (BATT)	10A
41	I/O CONTROLLER (IGN)	10A
42	MARKER LIGHTS	10A
43	—	10A
44	MOTOR CONTROL SWITCH	10A
45	METER (IGN)	10A
46	CONTROLLER (IGN)	10A
47	MOBILEYE	10A
48	ABS	10A
49	DOOR LOCK, HEADLIGHTS WASHER	25A

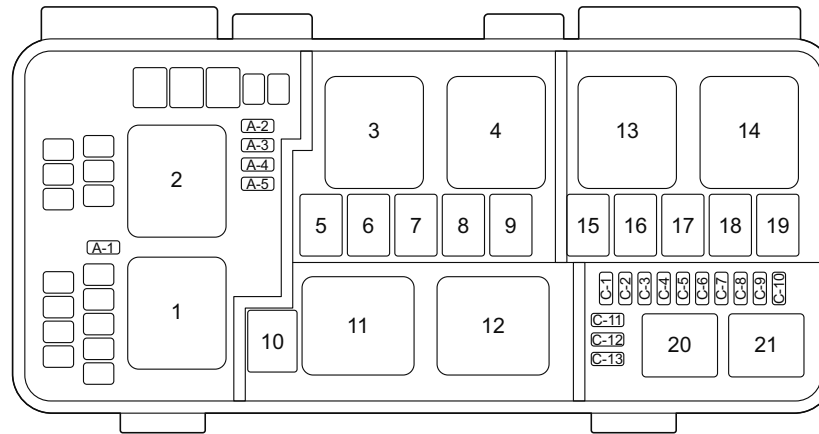
No.	Description	Rating
50	BODY CONTROL (IGN)	10A
51	HORN	15A
52	—	5A
53	CONTROLLER (BATT)	15A
54	SOLENOID VALVE;LOW PRESSURE	10A
55	Passive Entry and Start System (BATT)	10A
56	AVAS	10A
57	—	10A
58	STARTER	10A
59	CORNERING LIGHTS	5A
60	CENTRAL GATEWAY (BATT)	5A
61	STEREO CAMERA (BATT)	10A
62	SPARE	—
63	SPARE	—
64	SPARE	—
65	SPARE	—
66	SPARE	—

Relay Location (interior)



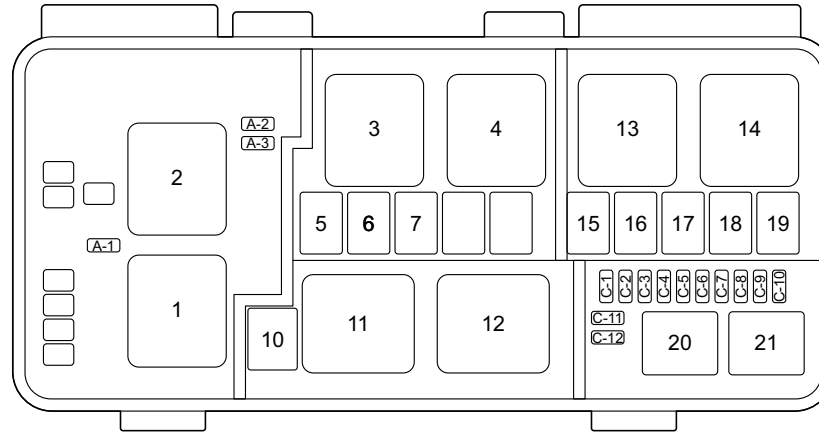
No.	Description	No.	Description
1	Accessory	15	—
2	Ignition main	16	Headlights high
3	Blower motor	17	DRL
4	Wiper key on	18	Headlights low
5	System and ignition	19	—
6	Clearance lights cut	20	Power window
7	—	21	Headlights washer
8	—	22	Back up lights
9	—	23	Washer motor
10	—	24	Horn
11	DRL	25	—
12	—	26	—
13	—	27	Fog lights (model with fog lights)
14	Taillights		

Relay and Fuse Locations (Left Rear of Cab Exterior)



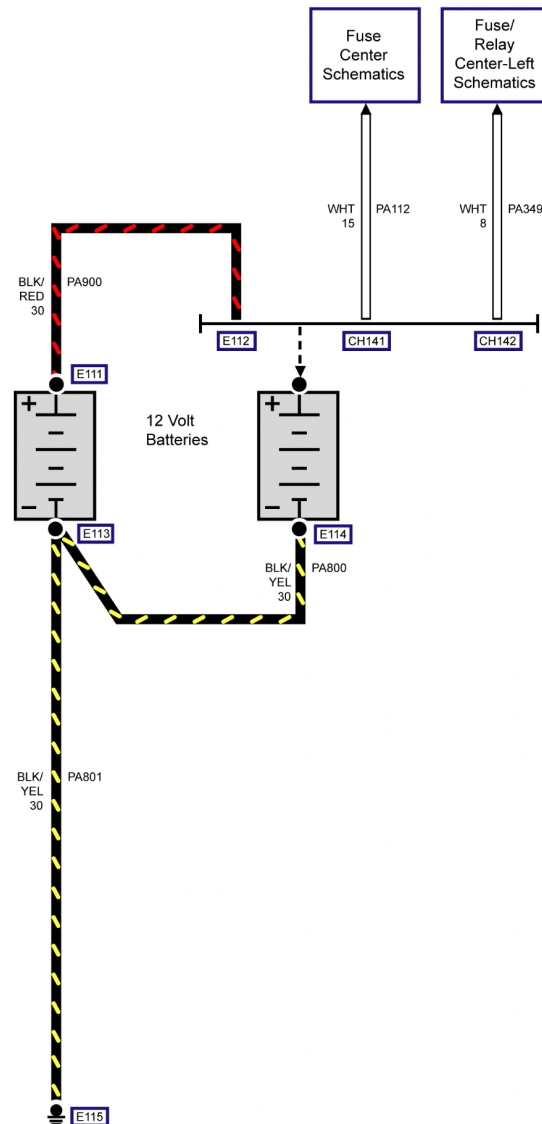
No.	Relay name	No.	Fuse name	Rating
1	—	A-1	Not used	10A
2	—	A-2	VCU (ignition)	5A
3	—	A-3	Electric power steering pump (ignition)	5A
4	—	A-4	Chassis (ignition)	10A
5	—	C-1	—	—
6	Starter	C-2	Power source	15A
7	—	C-3	Marker lights	20A
8	—	C-4	—	—
9	—	C-5	—	—
10	Rear dome light	C-6	—	—
11	—	C-7	Battery 1/6/7	15A
12	—	C-8	Battery 3/5/9	15A
13	—	C-9	PTC heater 1	20A
14	Chassis (ignition)	C-10	PTC heater 3	20A
15	PTC heater 2	C-11	Battery 4 (model with 7-pack/9-pack battery)/ Battery 8	10A
16	PTC heater 1	C-12	—	—
17	PTC heater 3			
18	—			
19	Marker lights			
20	—			
21	—			

Relay and Fuse Locations (Right Rear of Cab Exterior)



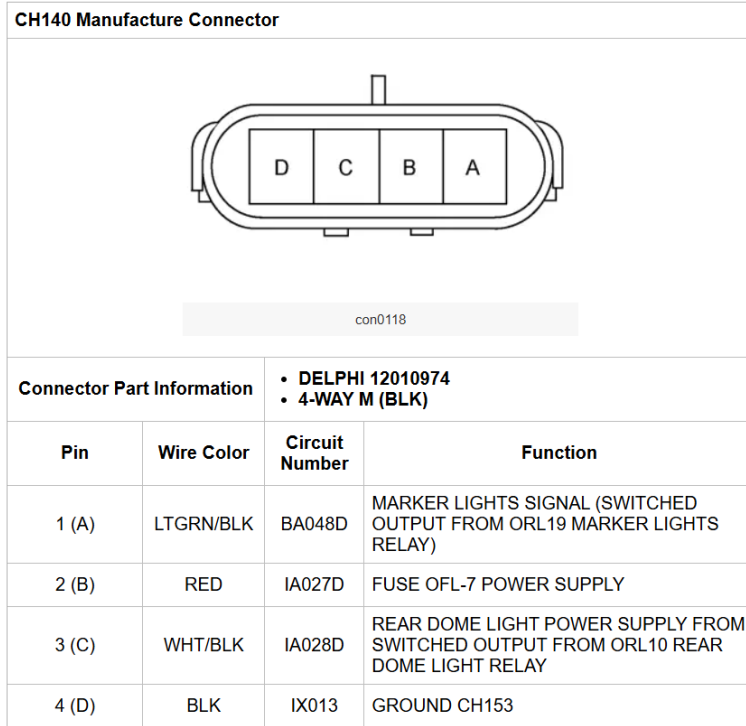
No.	Relay name	No.	Fuse name	Rating
1	12V (system) A	A-1	PTC heater A/C	10A
2	12V (system) B	A-2	Relay (system)	10A
3	Vacuum pump 1	A-3	Cab (system)/ Compressor (system)	10A
4	Vacuum pump 2	C-1	Vacuum pump 1	25A
5	Condenser fan high	C-2	Vacuum pump 2	25A
6	Condenser fan on	C-3	VCU (battery)	20A
7	—	C-4	VCU (system)	10A
8	Vacuum pump main 2	C-5	Inverter	10A
9	Vacuum pump main 1	C-6	On-board charger	20A
10	—	C-7	DCDC 12V (system)	10A
11	Pump battery/ Pump system	C-8	High-voltage junction box (system)	10A
12	Pump cab	C-9	PTC heater (battery)	10A
13	—	C-10	High-voltage junction box/ MCU	15A
14	—	C-11	DCDC 12V	15A
15	—	C-12	Battery 2/ Battery 4 (model with 5-pack battery)	10A
16	—			
17	—			
18	—			
19	—			
20	—			
21	—			

12V Batteries

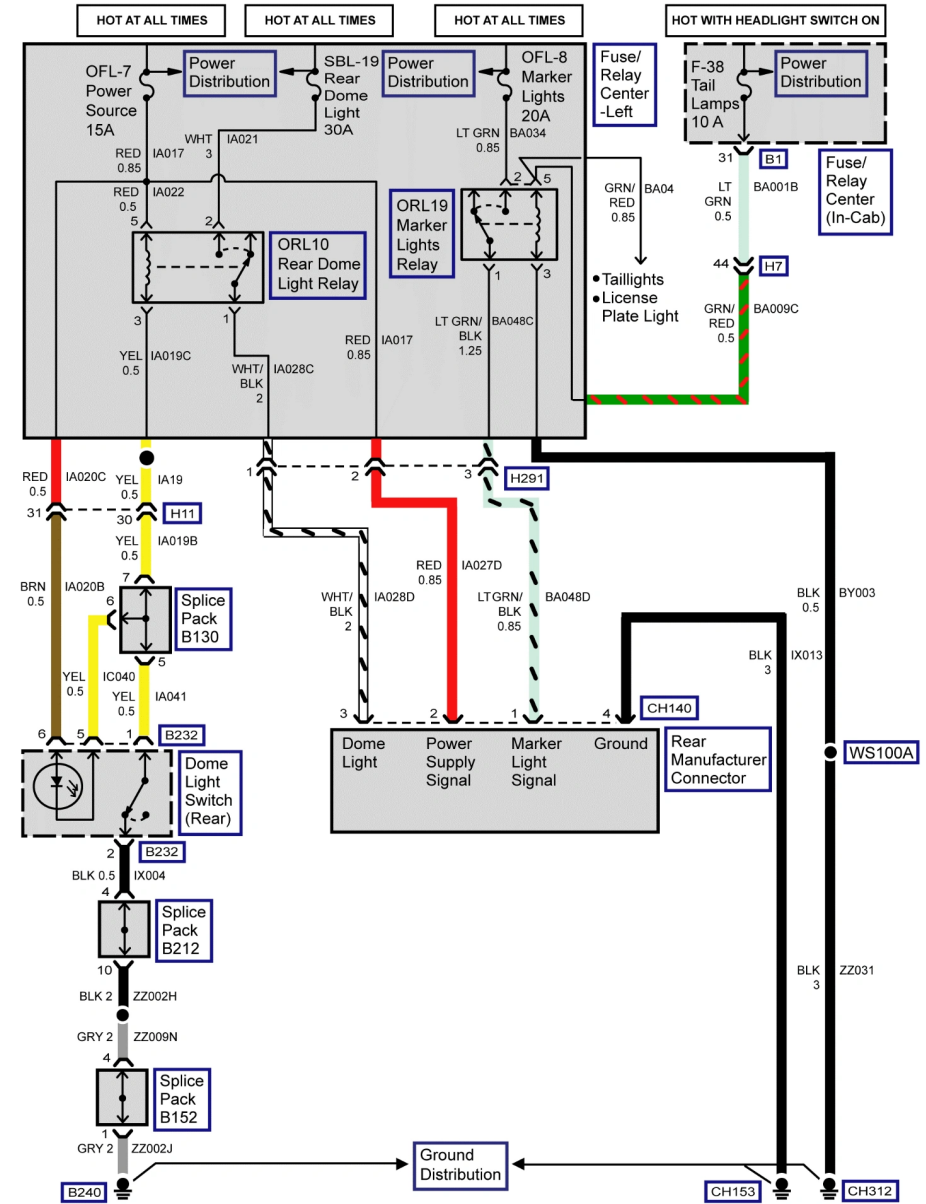
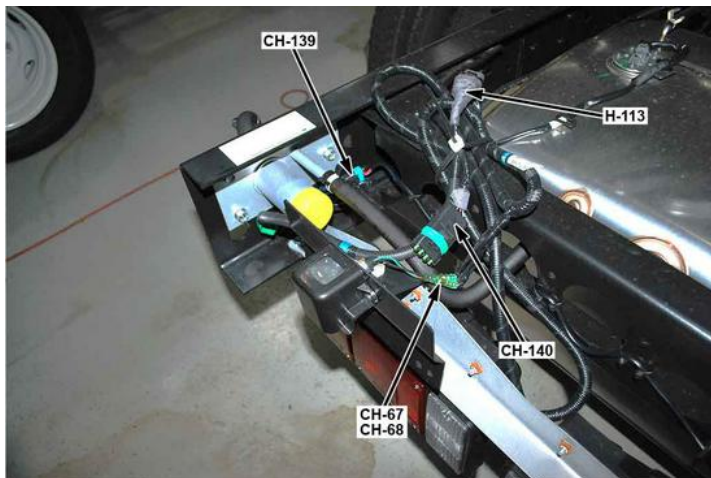


Tightening Torques: 15 N-m (11 lb-ft)

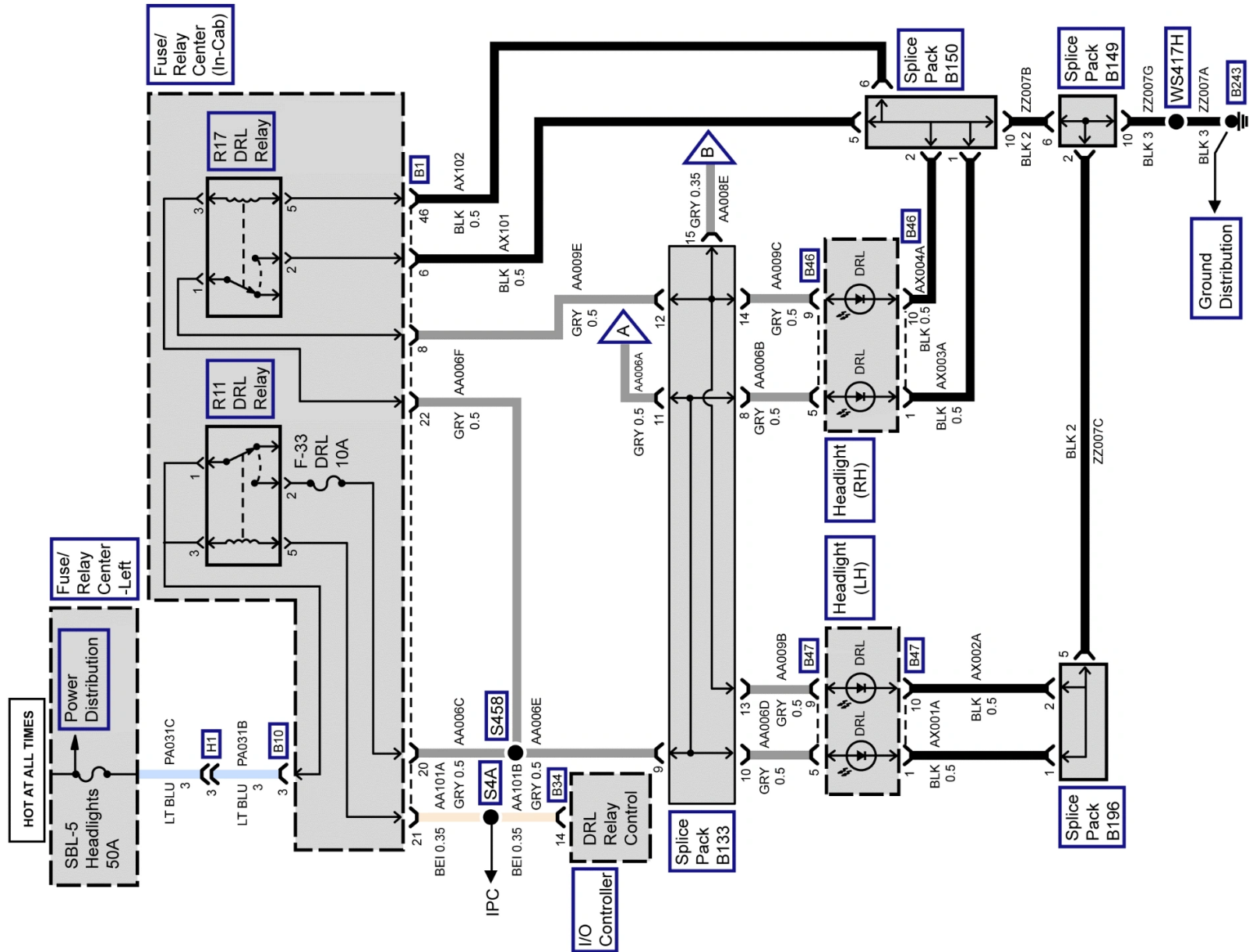
Rear Manufacturer Connector Location and Diagram



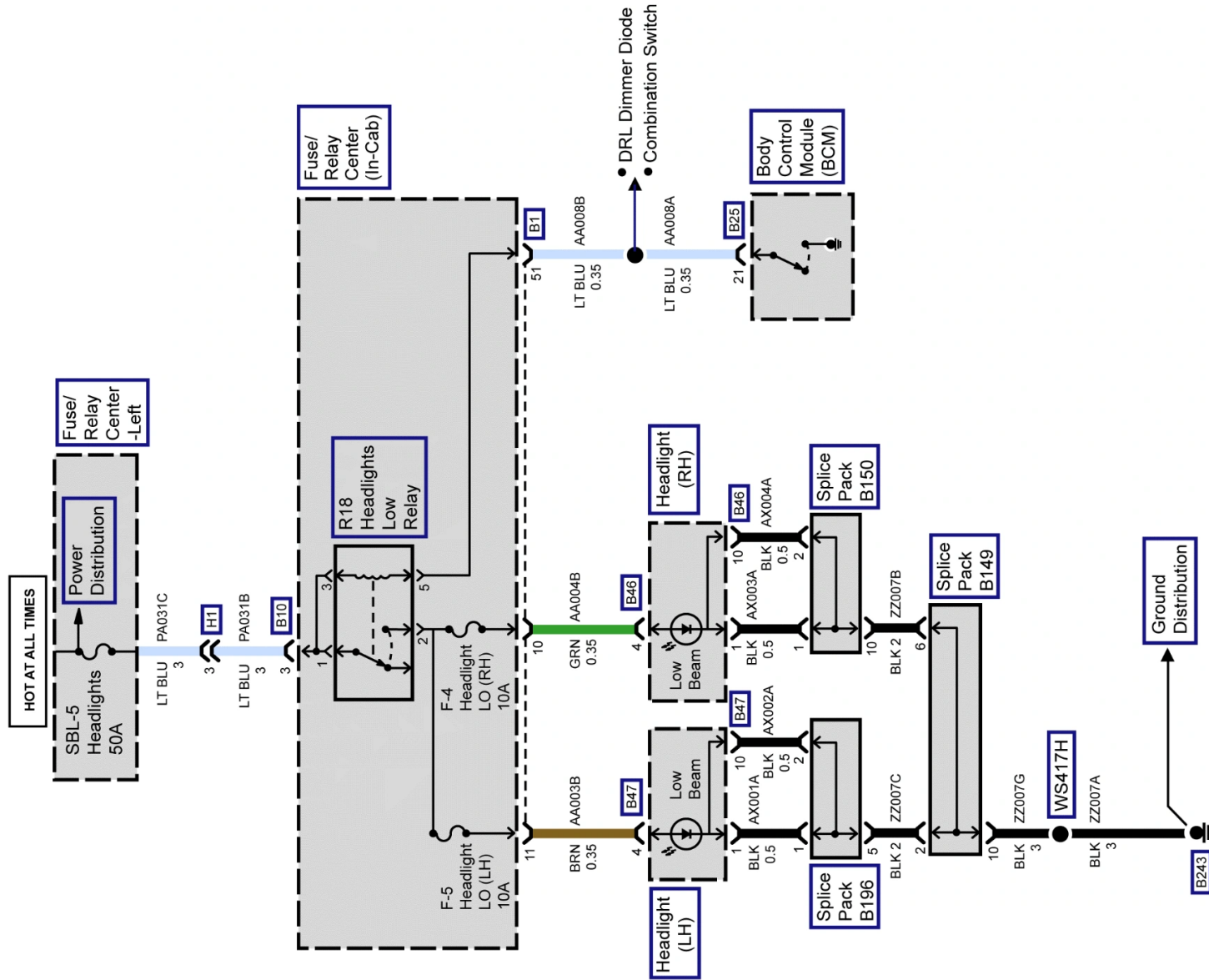
Left Rear Corner of the Frame



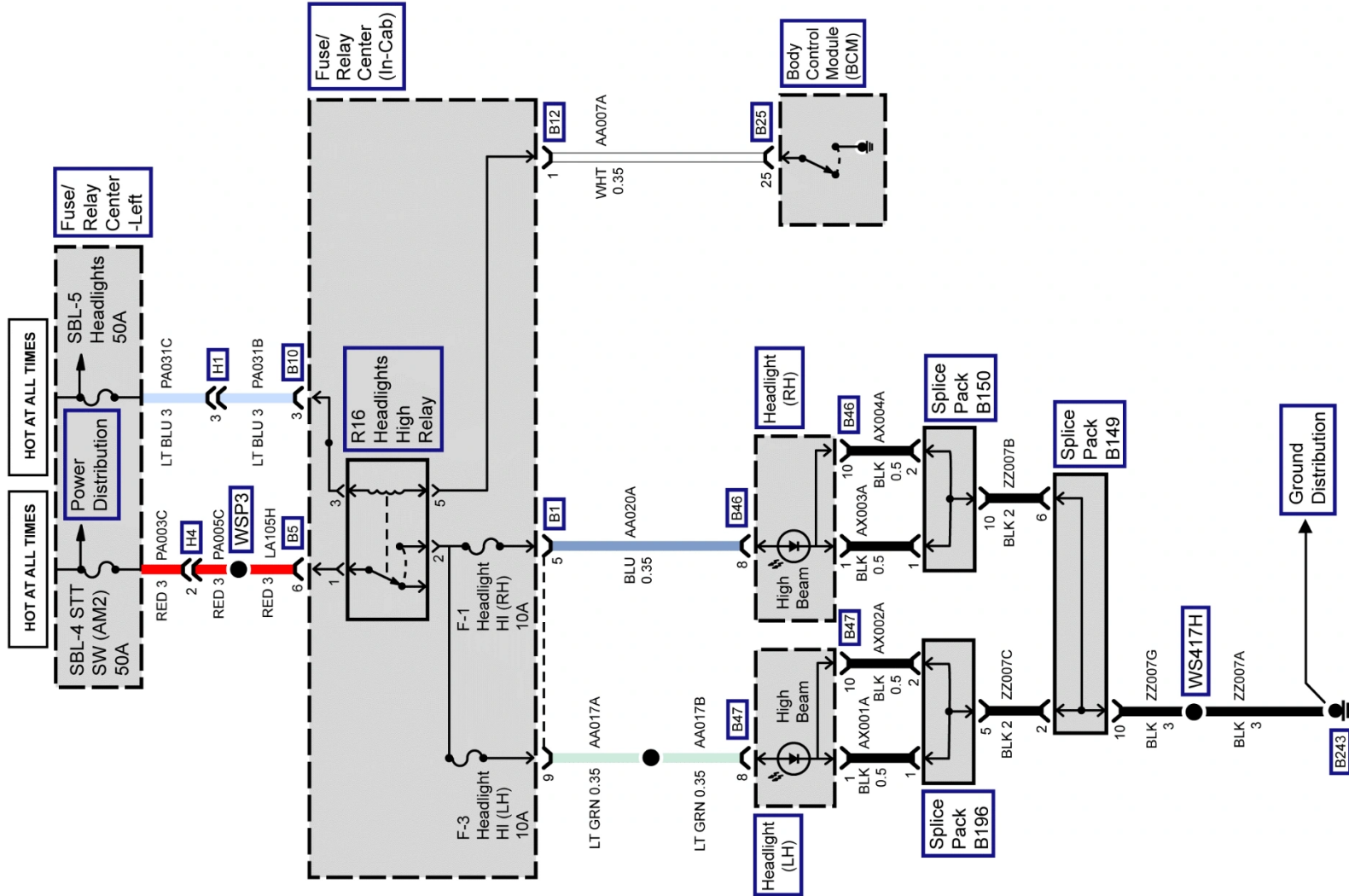
Headlights



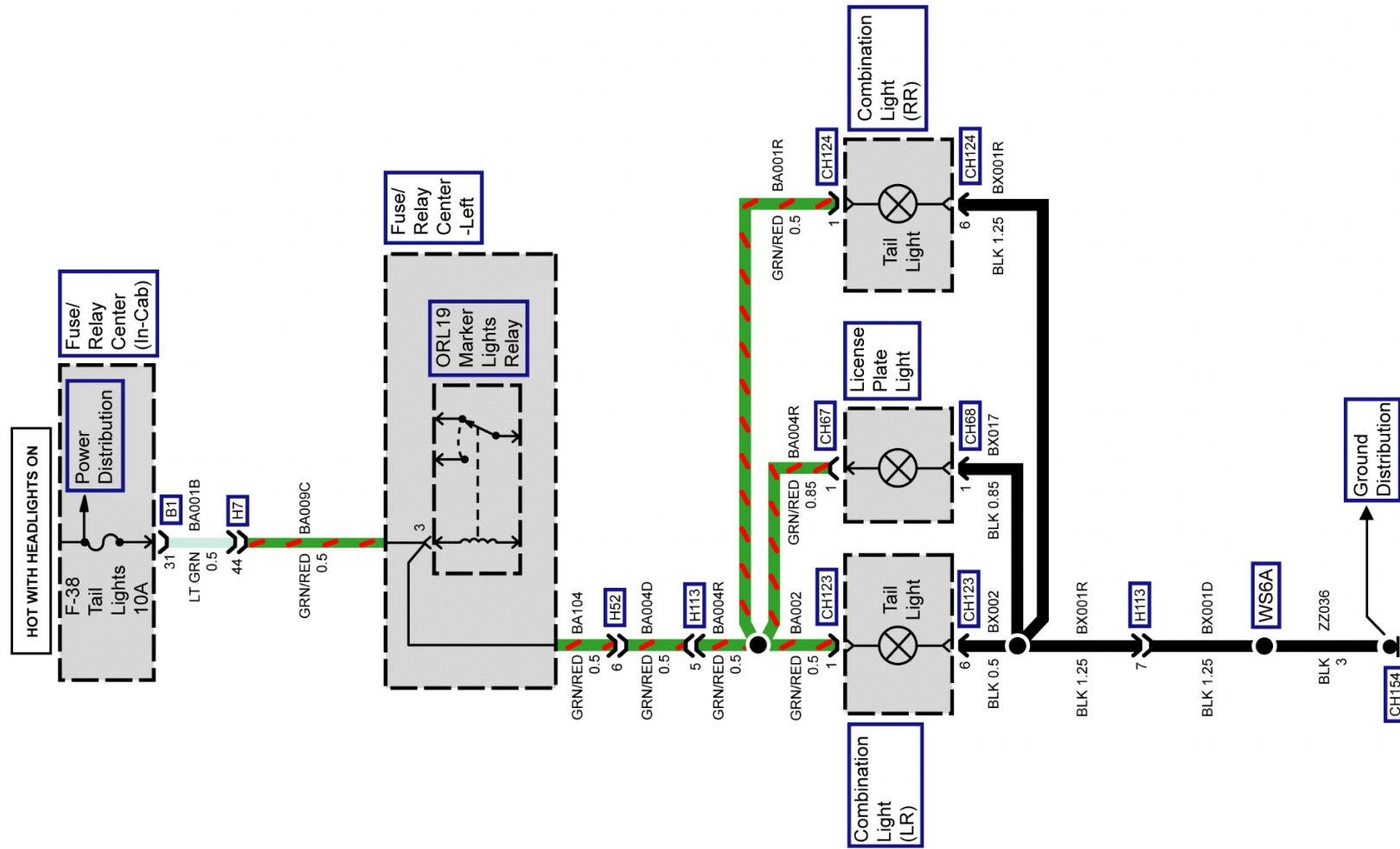
Headlights Low Beam



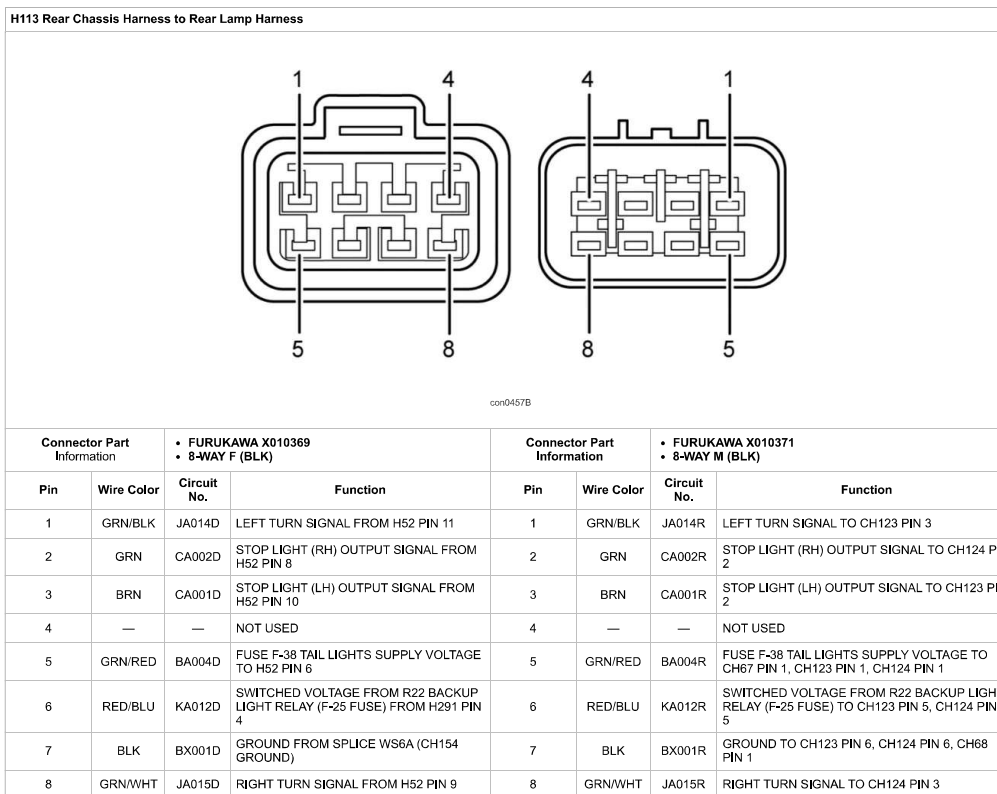
Headlights High Beam



Tail Lights

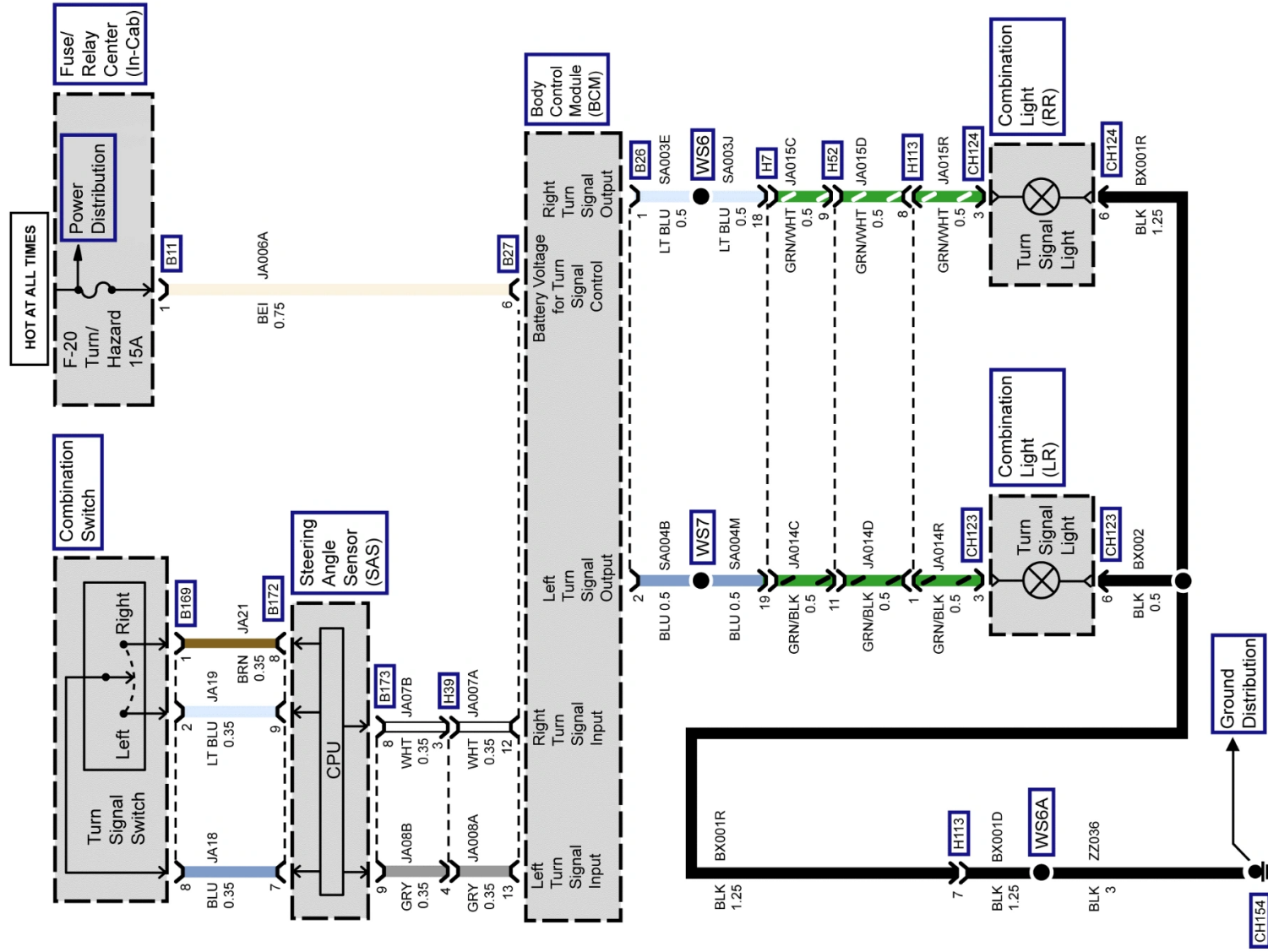


Rear Combination Lights Connector

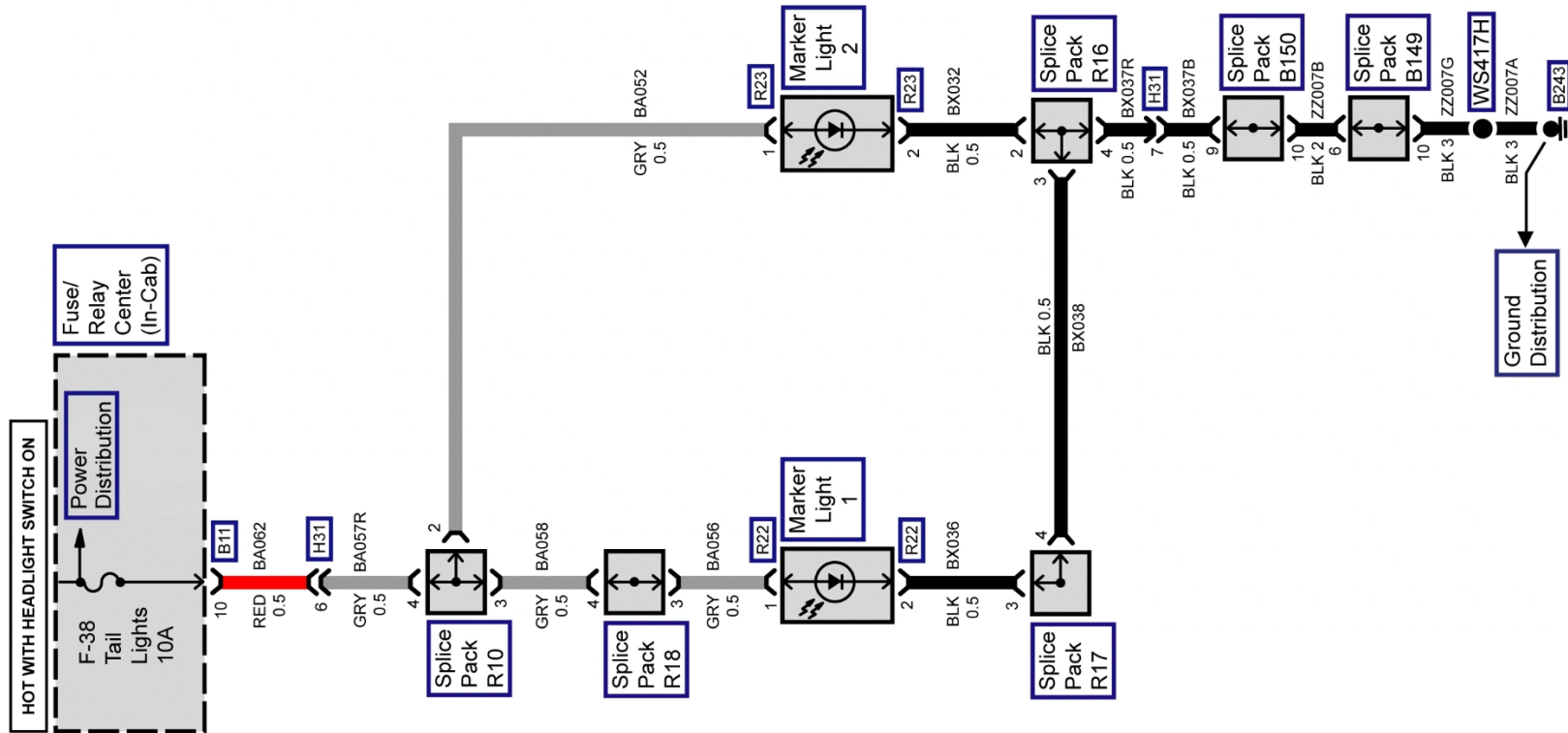


Left Rear Corner of the Frame

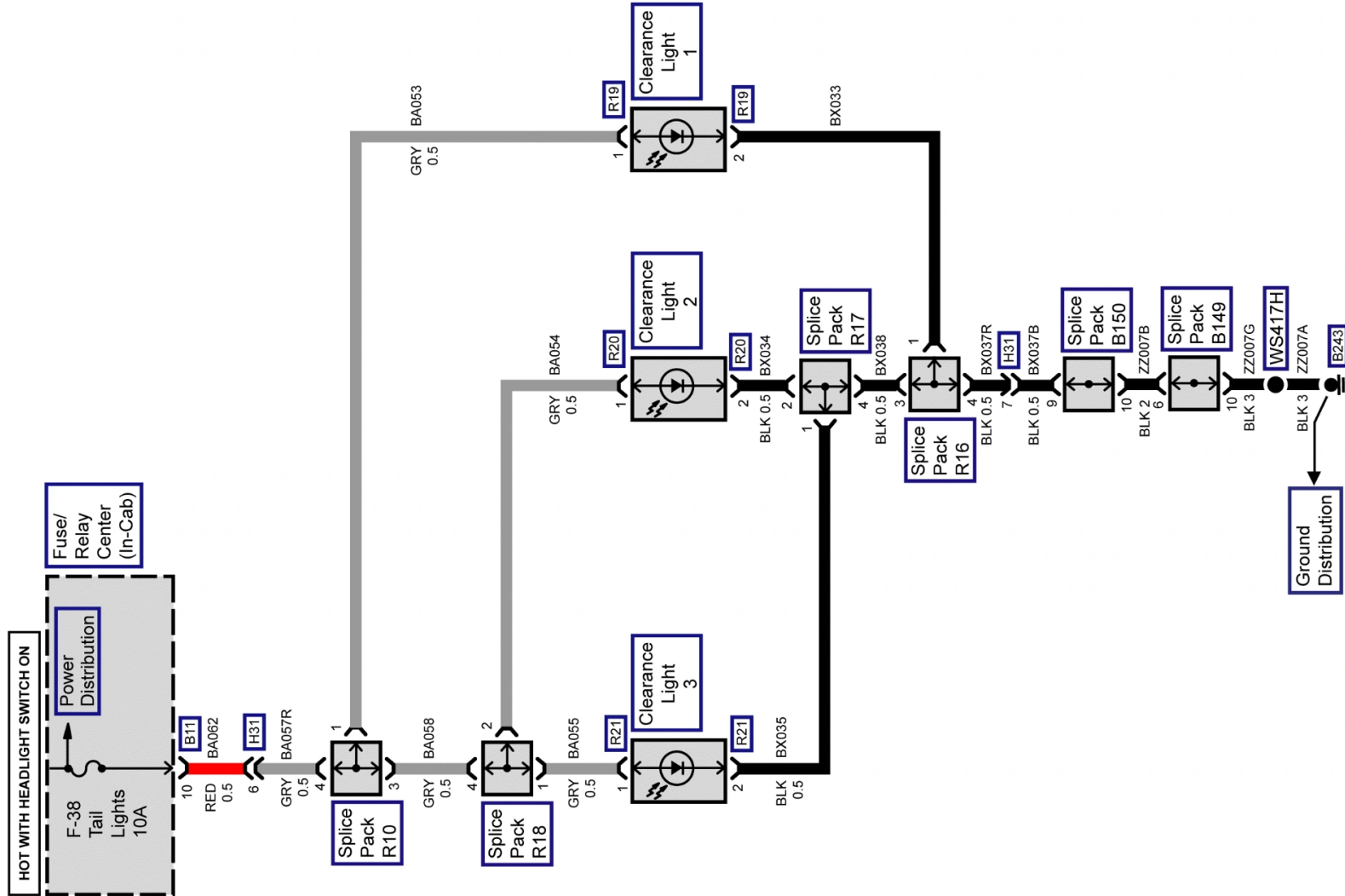
Rear Turn Signal Lights



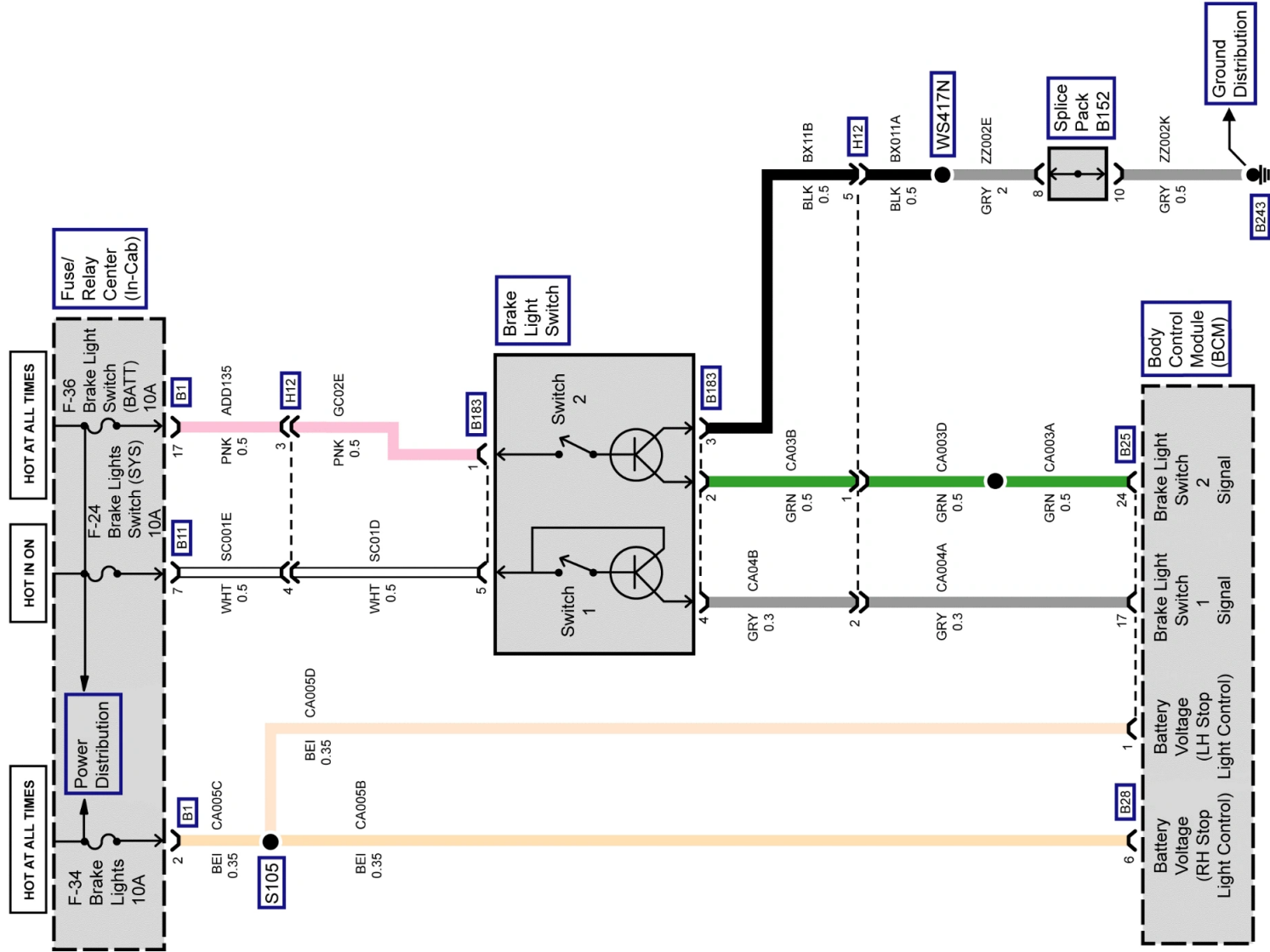
Roof Marker Lights



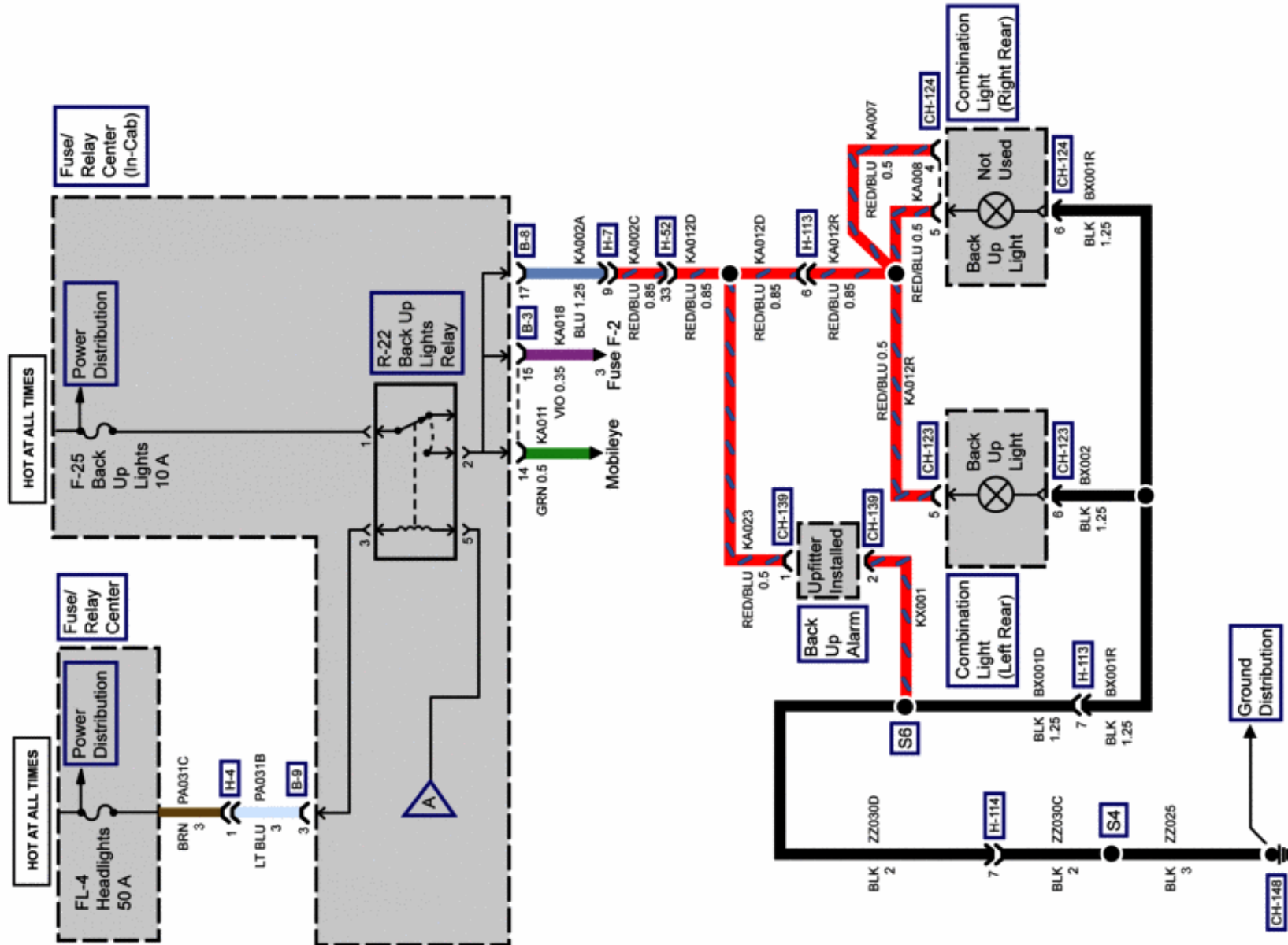
Roof Clearance Lights



Back Up Light Circuit

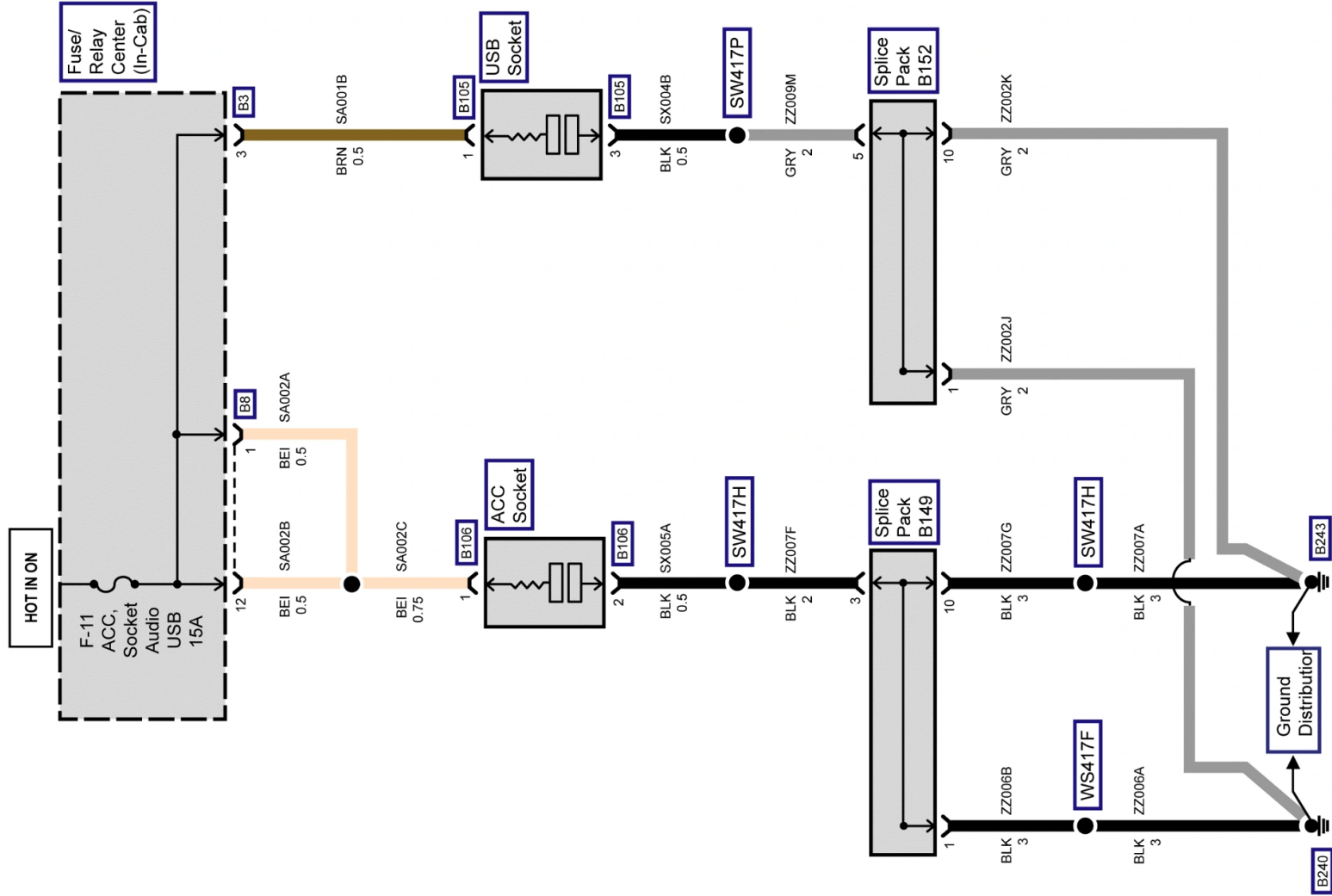


Back up Alarm Circuit

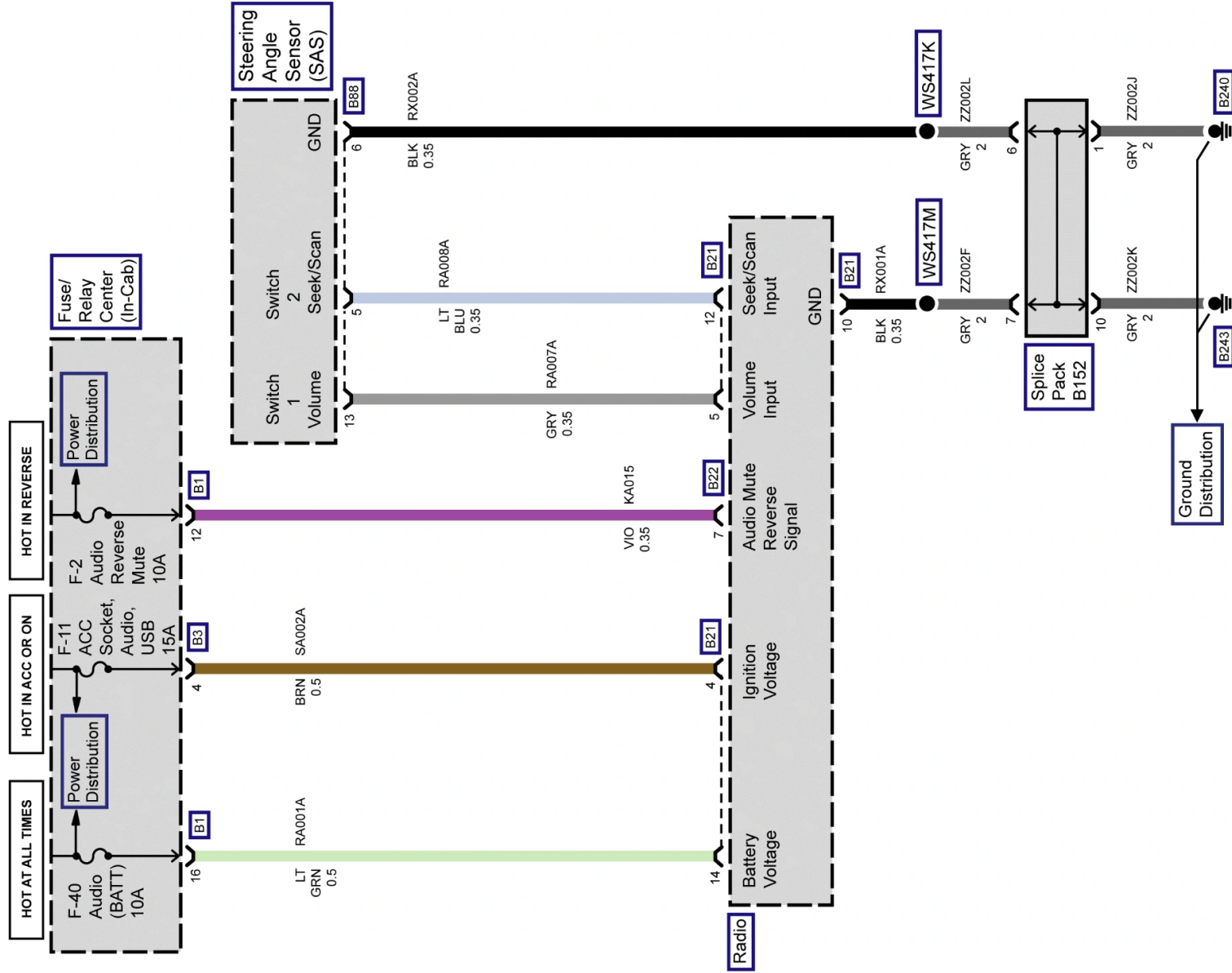


2026 Isuzu Truck

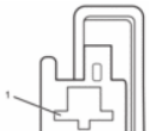
Power Outlet, USB Outlet



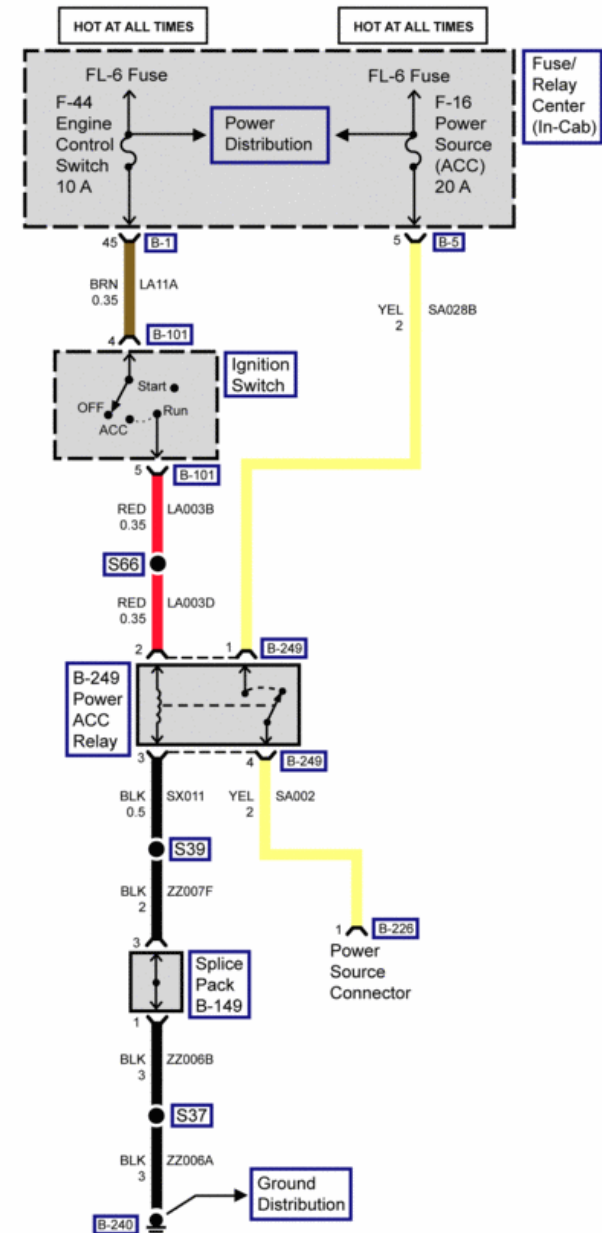
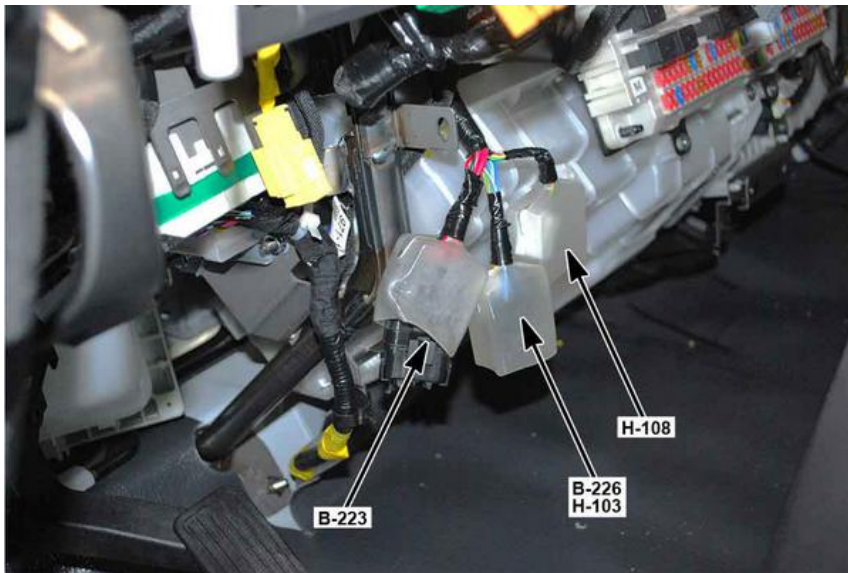
Radio Circuits



Auxiliary Power Source Circuit Diagram

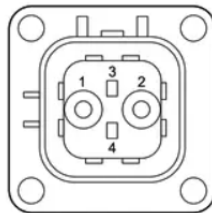
B-226 Power Source			
			
Connector Part Information		<ul style="list-style-type: none"> • YAZAKI 7323-6317 • 1-WAY F (WHT) 	
Pin	Wire Color	Circuit Number	Function
1	YEL	SA002	FUSE F-11 POWER SUPPLY TO ACC SOCKET B-106 PIN 1

Lower Instrument Panel, Next to the Accelerator Pedal



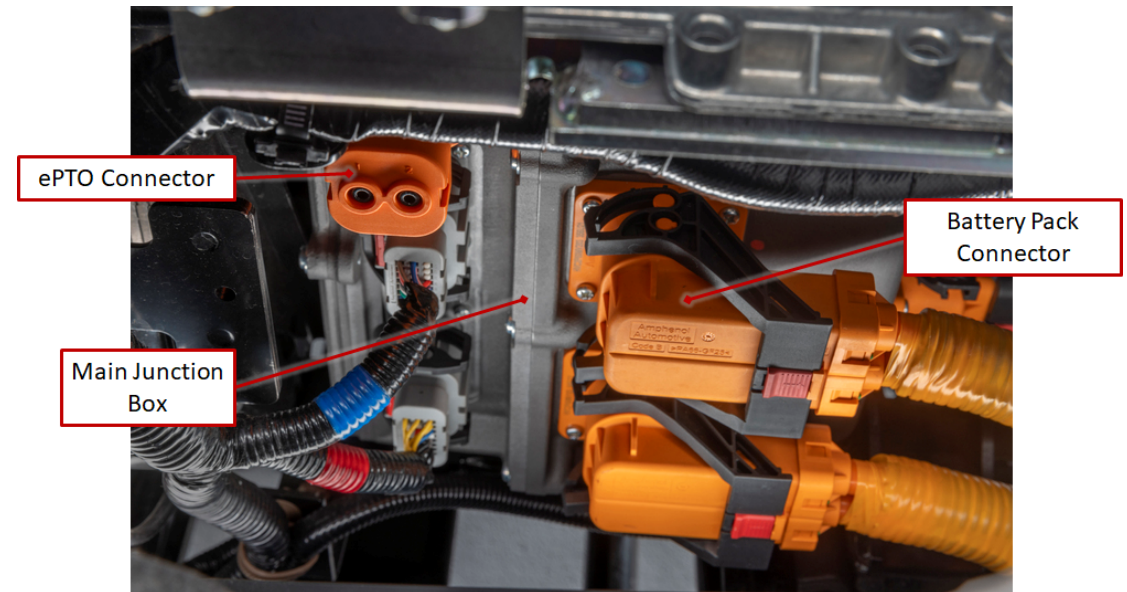
ePTO

Electric PTO HV connector pin layout



Terminal No.	Signal name
1	HV-(NEG)
2	HV+(POS)
3	High voltage connector connection detection signal
4	High voltage connector connection detection signal

Located on the Main Junction Box



CAN Interface Converter Information

2026 Isuzu Truck

Isuzu CAN Interace Converter Overview

- Starting with the 2025MY NRR EV, read-only SAE J1939 CAN information is available from the chassis without the need for additional equipment.
- An optional extension harness (RPO Code I7F; P/N:7552536010) is available that converts the standard connector into an SAE J1939 connector.
- The CAN data broadcasted from the CAN Interface Converter module is a read only SAE J1939 broadcast; commands, requests, and acknowledgements are not supported.
- The Isuzu N-Series uses twisted pair cables with no shield. The electrical properties (resistance, impedance, capacitance, etc.) are defined in SAE J1939-15 Reduced Physical Layer.

2026 Isuzu Truck

Instructions for FMS Jumper Harness Installation

- The optional FMS Jumper Harness (P/N 7552536010) provides a standard 9-pin heavy duty connector for the integration of fleet management systems (FMS) and other telematics devices that require read-only CAN information from the chassis.
 - To comply with California regulations, the final location of the provided 9-pin heavy duty connector (black) should not be within proximity of the existing chassis OBD connector. Figure 1 shows the restricted area where connector mounting should be avoided.
 - The FMS Jumper Harness is located within the passenger side tray below the airbag as shown in Figure 2.
- 1 Remove the FMS Jumper Harness from its bag and find the connectors on either end.
 - a) Identify the white 6-pin female connector located on one end of the harness shown in Figure 3.
 - b) Identify the black 9-pin heavy duty connector located on the other end of the harness Figure 3.
 - 2 Find the white 6-pin chassis side connector located at the edge of the dash adjacent to the cup holder as shown in Figure 4.
 - a) Connect the white 6-pin female end of the FMS Jumper Harness with this connector.
 - 3 Route the FMS Jumper Harness so that the 9-pin heavy duty connector's final location is outside of the restricted area indicated in Figure 1.
 - a) The harness is 3 feet in length. Harness routing and the mounting location of telematics devices are at the installer's discretion.
 - 4 Connect your FMS or other CAN device to the 9-pin heavy duty connector of the FMS Jumper Harness.

Important Note:

See Body Builder Guide Section 2 – Electrical Wiring and Harnessing for chassis wiring guidance

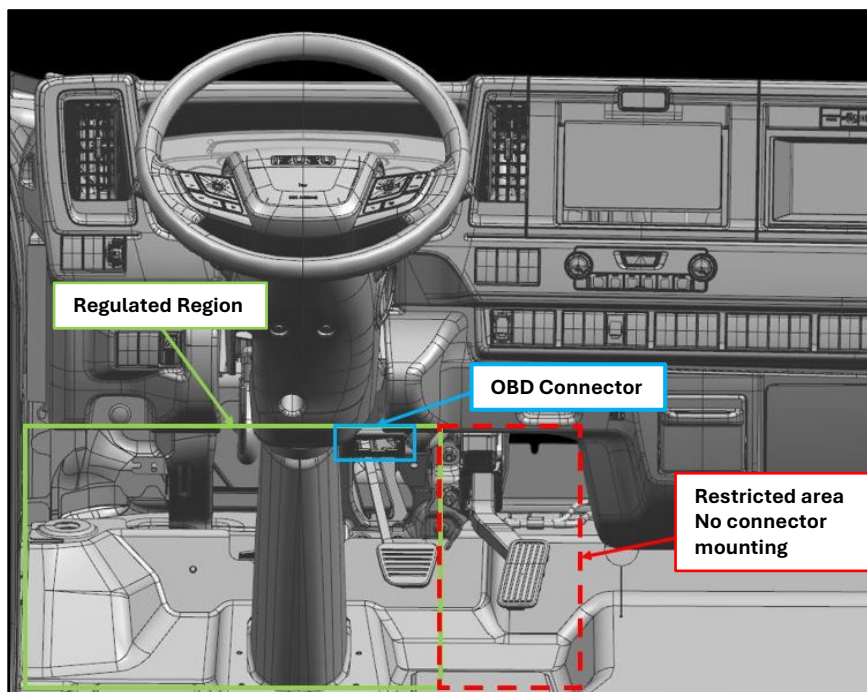


Figure 1

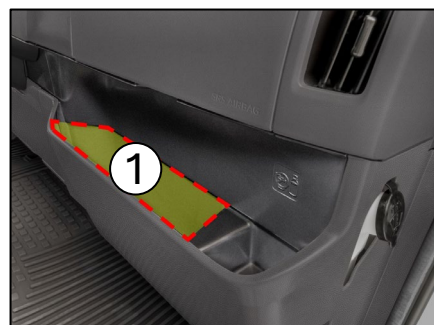


Figure 2

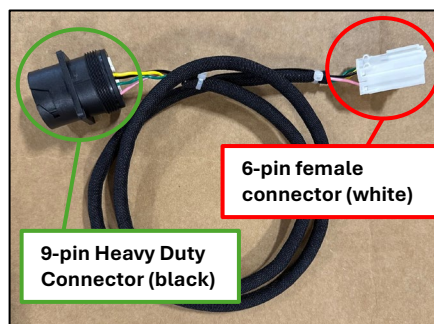


Figure 3

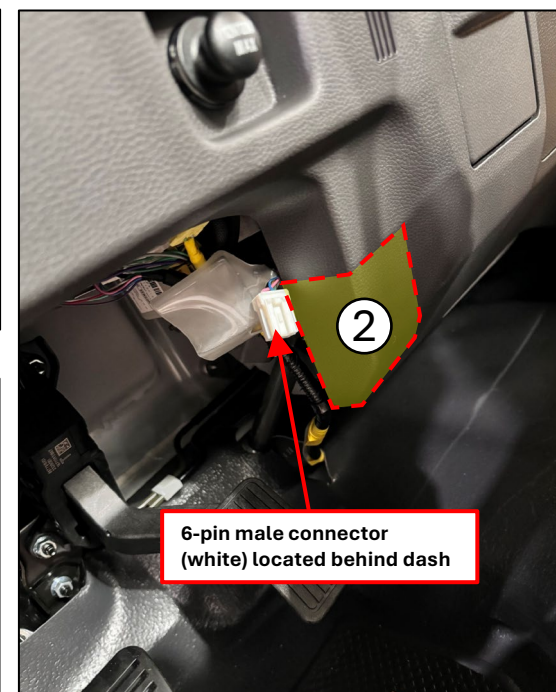


Figure 4

2026 Isuzu Truck

Isuzu CAN Interface Converter General Guidelines

- Upfitters link their own control unit or telematics device to the CAN Interface Converter module via a connector. The upfitter is responsible for ensuring that the external CAN bus is used correctly.
- Control units connected to a CAN bus must be able to handle up to 100% of the CAN bus load and have no significant functional limitations or malfunctions.
- Avoid closing control loops over the CAN. The access time is relatively long and fast control loops require large amounts of bandwidth.
- Avoid CAN communication when the engine control switch is in the LOCK or ACC positions.
- Avoid CAN communication during the start sequence of the control units connected to the external CAN bus.
- During an engine start sequence (starter motor turning) the supply voltage can be low and communication from the CAN Interface Converter module cannot be guaranteed.
- Fault codes related to communication with the CAN Interface Converter module should not be set when the system voltage is under 9V.
- When the engine control switch is turned to the ON position, the CAN Interface Converter module starts sending messages within a few seconds.

2026 Isuzu Truck

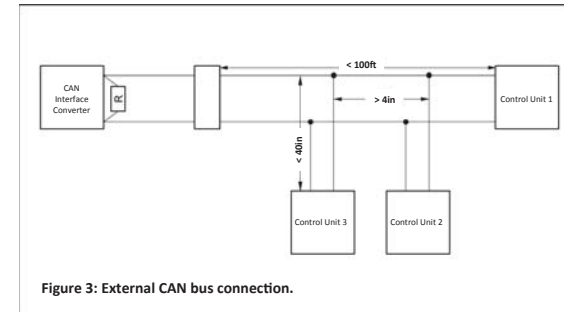
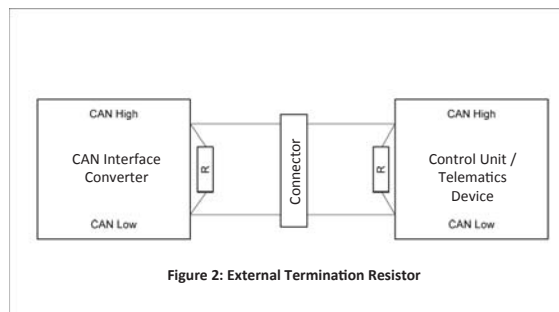
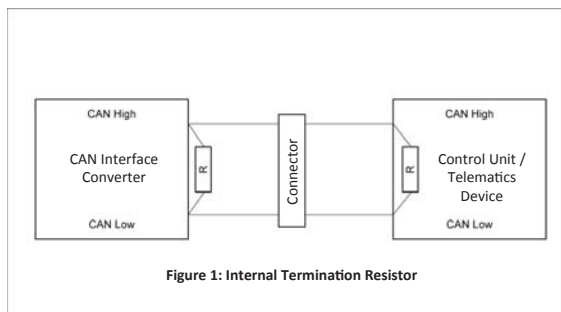
CAN Interace Converter Connection Guidelines

Termination Resistor

- The CAN bus cable must be connected using a 120 Ohm resistor at each end in accordance with SAE J1939-15 Physical Layer. This allows CAN communication without interference.
 - The CAN Interface Converter harness contains one of the two 120 Ohm resistors.
 - The second termination resistor is required at the control unit / telematics device end of the harness.
- Certain devices have a built-in termination resistor (Figure 1) while others are not terminated. If the control unit is not equipped with an internal termination resistor, an external termination resistor must be connected as close to the control unit as possible (Figure 2).

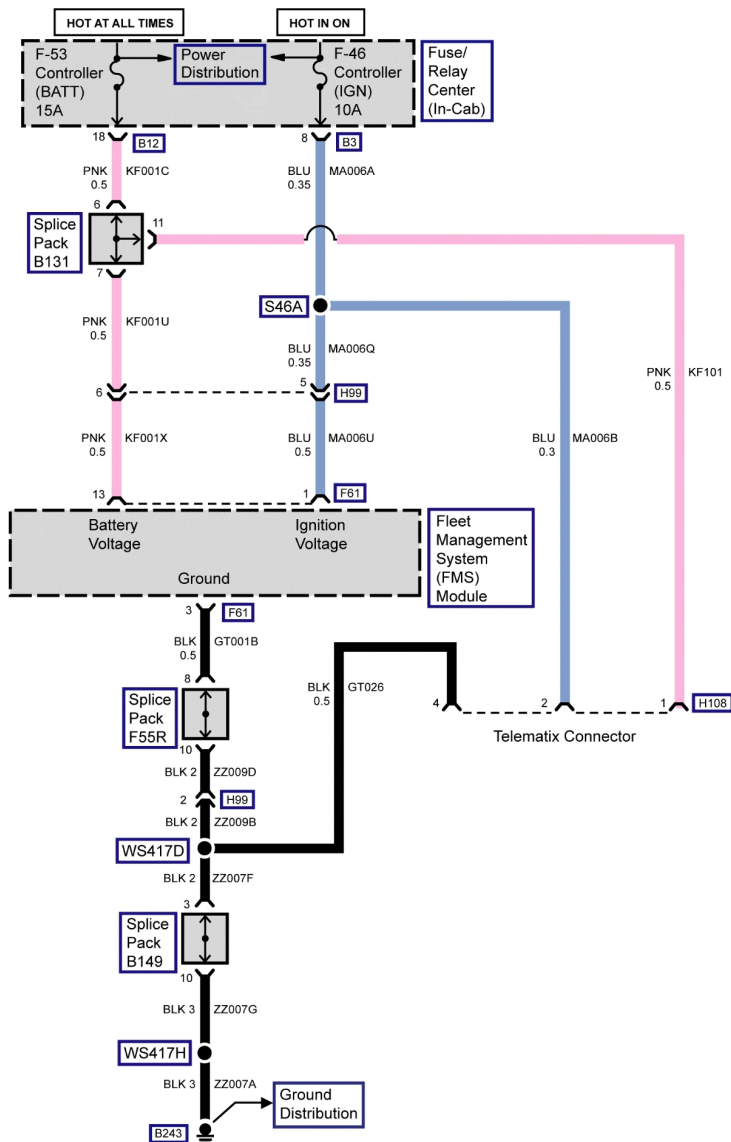
Harness Connection

- The harness should be as short as possible to minimize the effect of electromagnetic interference.
- The length of the main cable must not exceed 100 feet between the CAN Interface Converter connector and Control Unit 1 (Figure 3).
- If more than one control unit is connected, the length of the cables between the main cable and additional control unit should not exceed 40 inches (Figure 3).
- There should be at least 4 inches between the nodes of each control unit cable on the main bus cable (Figure 3).
- The number of devices in the external CAN network should not exceed 9 control units.

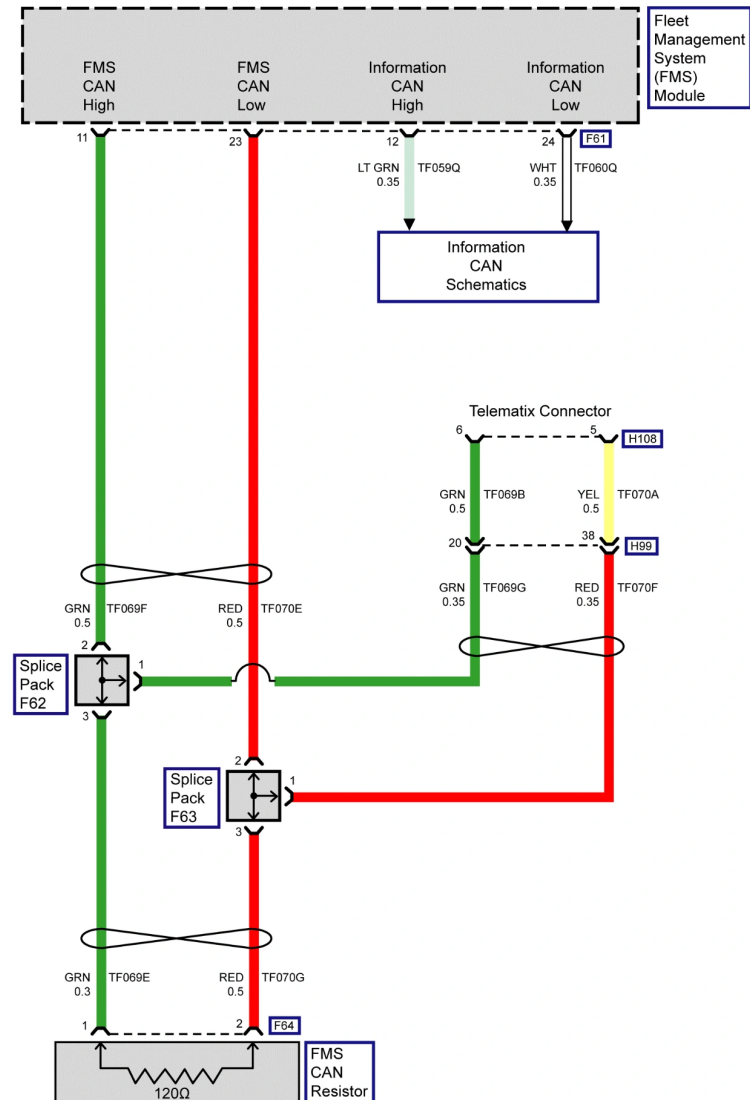


CAN Interface Converter Circuit Diagram


Module Power and Ground



Communication



CAN Interface Converter Connector

H108 Telematics Connection							
 <p>con0125</p>							
Connector Part Information		<ul style="list-style-type: none"> • YAZAKI 7323-8365 • 6-WAY F (WHT) 		Connector Part Information		<ul style="list-style-type: none"> • 6-WAY M 	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
1	PNK	KF101	FUSE F-53 POWER SUPPLY FROM SPLICE PACK B131 PIN 11	1	—	—	—
2	BLU	MA006B	FUSE F-46 CONTROLLER (IGN) 10A SUPPLY VOLTAGE FROM SPLICE S46A	2	—	—	—
3	—	—	NOT USED	3	—	—	NOT USED
4	BLK	GT026	GROUND TO WS417D (F84 GROUND)	4	—	—	—
5	YEL	TF070A	FMS CAN LOW FROM H99 PIN 38	5	—	—	—
6	GRN	TF069B	FMS CAN HIGH FROM H99 PIN 20	6	—	—	—

CAN Interface Converter Output

Summary of the messages supported by the CAN interface.
(Messages are sent to the external CAN bus from the vehicle.)

Message sent from vehicle	Identifier (Hex)	Specification	ISUZU FMS Interface
Cruise Control/Vehicle Speed 1	18 FE F1 00	SAE J1939-71	*
DM1(DTC record)	18 FE CA **	SAE J1939-73	*
Electronic Engine Controller 1	0C F0 04 00	SAE J1939-71	*
Electronic Engine Controller 2	0C F0 03 00	SAE J1939-71	*
Electronic Transmission Controller 5	1C FE C3 41	SAE J1939-71	*
Electronic Transmission Controller 2	18 F0 05 03	SAE J1939-71	*
Engine Hours, Revolutions	18 FE E5 41	SAE J1939-71	*
Engine Temperature 1	18 FE EE 00	SAE J1939-71	*
FMS-standard Interface Identity/Capabilities	1C FD D1 41	SAE J1939-71	*
Fuel Consumption (Liquid)	18 FE E9 41	SAE J1939-71	*
Fuel Economy (Liquid)	18 FE F2 41	SAE J1939-71	*
High Resolution Vehicle Distance	18 FE C1 41	SAE J1939-71	*
Idle Operation	18 FE DC 41	SAE J1939-71	*
Auxiliary Input/Output Status 1	18 FE D9 00	SAE J1939-71	*
Time/Date	18 FE E6 41	SAE J1939-71	*
Vehicle Distance	18 FE E0 41	SAE J1939-71	*
Vehicle Identification	18 FE EC 41	SAE J1939-71	*
Wheel Speed Information	18 FE BF 0B	SAE J1939-71	*

NOTES

- * Isuzu CAN Interface provides this message.
- ** Applies to all values between 00h and FFh.

If additional CAN message information is required, call 1-770-740-1620 Ext. 4491 (East Coast) or 1-714-935-9327 (West Coast).

2026 Isuzu Truck

Cab Body Plug

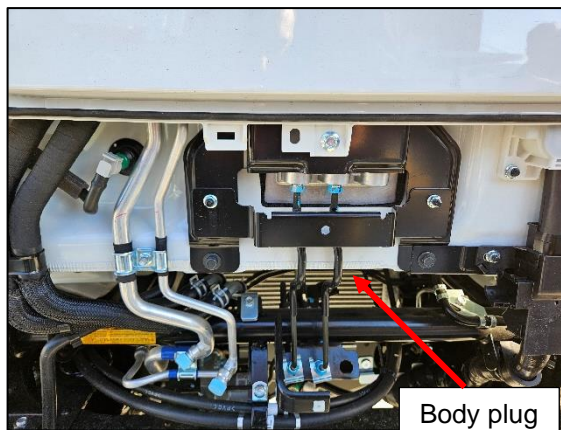
To avoid drilling through the cab floor for electrical wiring, there is a body plug access point for routing wires into/out of the cab. Follow the instructions below to access this body plug.

Disassembly of Front Grille

1. Remove one (1) phillips head screw <REUSE>.
2. Remove grille from cab by gently pulling outward to release five (5) top clips, one center clip, and two (2) lower clips.



3. From front of vehicle, locate body plug in middle of vehicle behind brake lines. Remove plug, cut approximately a 1"x1" X in the middle, set aside.



2026 Isuzu Truck

Upper Dash Trim Removal

- STEP 1: Remove radio trim (1.A) and retaining screw (1.B). Gently pull dash trim (no more than 1/2") outward.



- STEP 2: Remove air bag indicator trim (2.A) and air bag indicator harness (2.B). Remove connectors from switches and or blanking plates (make note of each connectors position before removal). Set aside dash trim.



Back Up Camera Installation Information

Isuzu Back Up Camera Installation Overview

- The Alpine HCE-C1100 Back Up Camera is available with RPO code I2V (Audio system with 7" diagonal color touch screen with backup camera).
- RPO codes I1V (Audio system with 7" diagonal color touch screen) and I2V (Audio system with 7" diagonal color touch screen with backup camera) will both include a pre-wired camera input connection at the end of the chassis frame. (Figure 5)

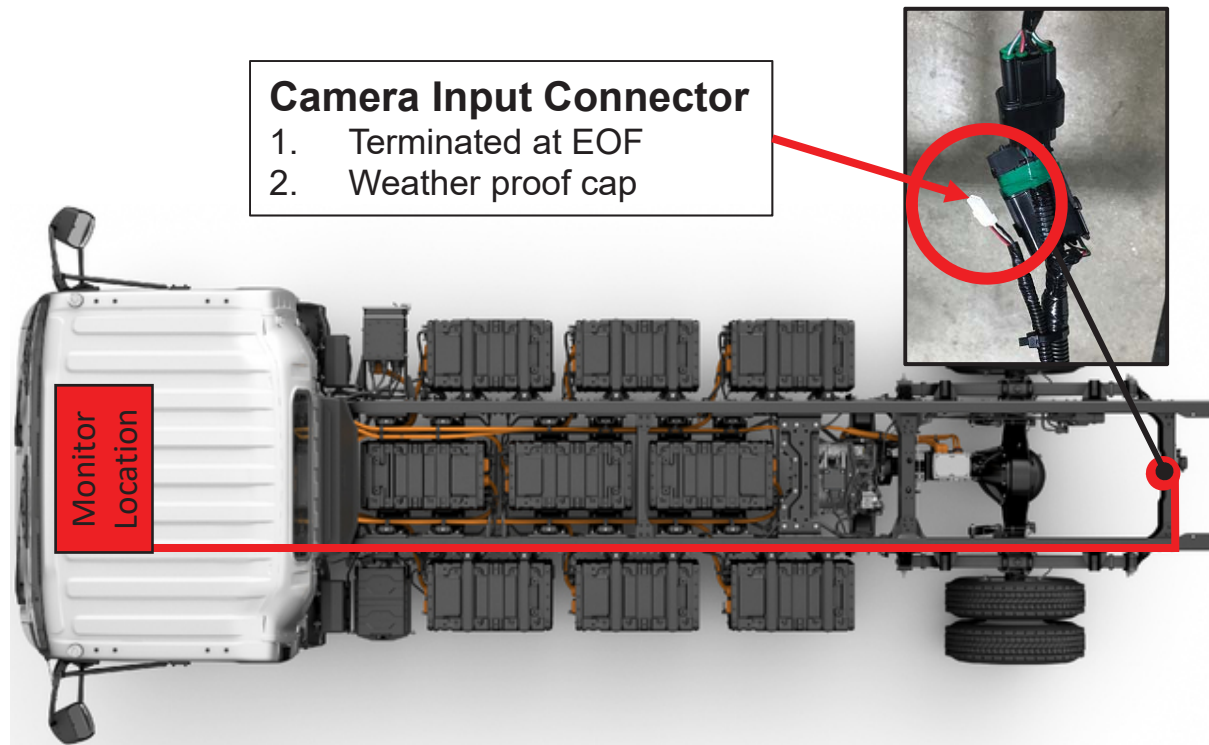


Figure 5 – Camera Installation Overview

Back Up Camera Installation Kit Part Numbers

KIT PART NUMBER: 8975462720			
NO.	PART NUMBER	DESCRIPTION	QTY
1	8975438760	HCE-C1100 Back Up Camera	1
2	8975438730	Camera Bracket/Shroud	1
3	8975438750	23' Camera Extension Harness	1

Figure 6 – Camera Install Kit Part Numbers

- When RPO code I2V (Audio system with 7" diagonal color touch screen with backup camera) is selected, the Back Up Camera Kit will be shipped in the cab, in a poly bag, band tied to the center seat. (Figure 9).
- The Back Up Camera Kit will include the parts listed in Figure 6, provided in a sealed package. The package also includes a piece of shrink tube that should be used to protect the connection between the camera pigtail and the 23' extension harness (see the circled location in Figure 8 below).



Figure 7 – Camera Install Kit



Figure 8 – Camera Install Kit Shipping Location



Figure 9 – Camera Install Kit Shipping Location

Isuzu Back Up Camera Mounting Information

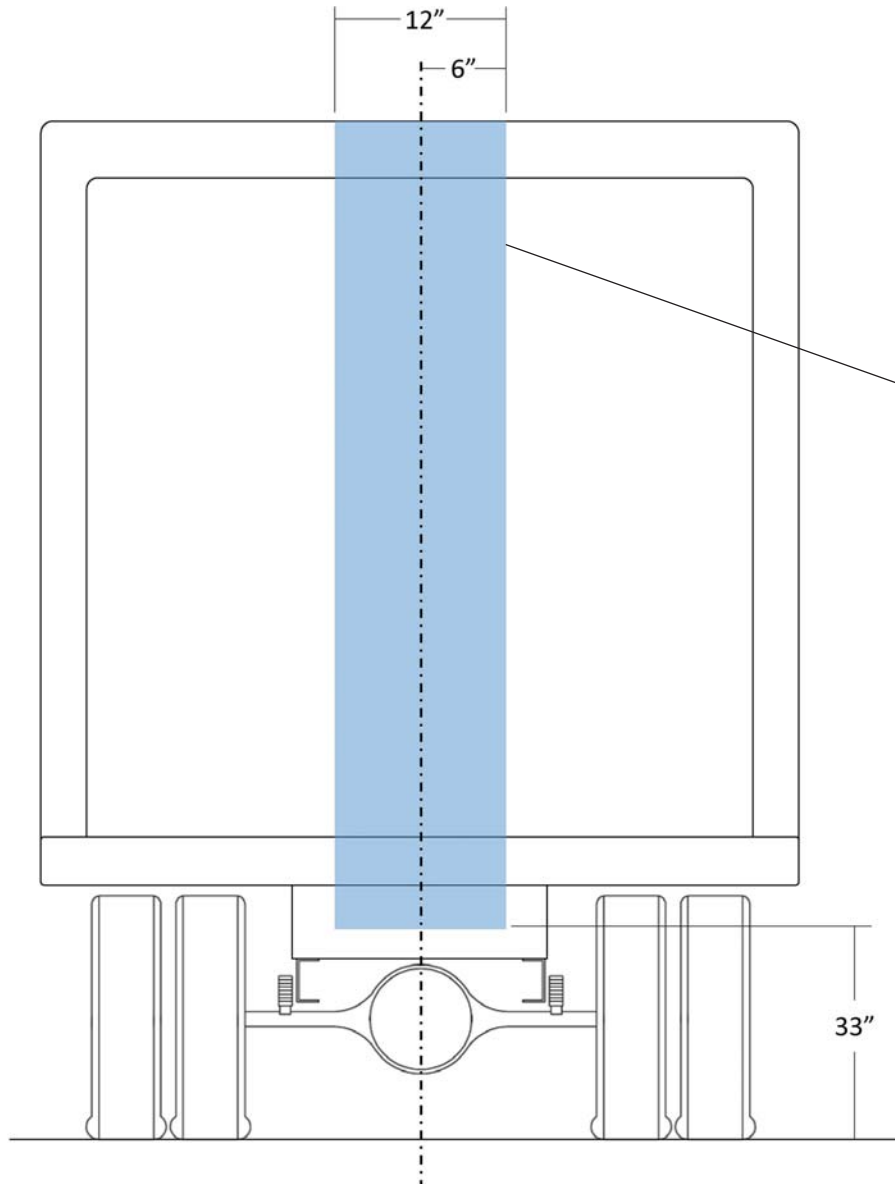


Figure 10 – Camera Mounting Area

