

ISUZU

Isuzu Commercial Truck of America, Inc.

&

Isuzu Commercial Truck of Canada, Inc.



October 13, 2026

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Brian Tabel

Assistant Vice President of Marketing



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Tim Ellsworth

Director of Product Planning





Trucks On Display

- 2028 N-Series NRR Gas
- 2027 N-Series NRR Diesel
- 2027 N-Series NRR Diesel Crew Cab
- 2027 F-Series FVR De-Rate

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2026 NTEA CVUS Product Update



Tim Ellsworth
Director, Product Planning



Topics

1. Isuzu Lineup & Start of Production
2. 27MY N-Series Gas Product Update
3. 28MY N-Series Gas Product Update
4. Upfitter Considerations
5. Application Support



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Model Line Up

	Class 3 10,001 - 14,000	Class 4 14,001 - 16,000	Class 5 16,001 - 19,500	Class 6 19,501 - 26,000	Class 7 26,001 - 33,000
Diesel		GVWR: 14,500 lbs NPR_{HD} NPR_{XD} GVWR: 16,000 lbs	GVWR: 17,950 lbs NRR DERATE NRR GVWR: 19,500 lbs	GVWR: 25,950 lbs FTR FVR DERATE GVWR: 25,950 lbs	GVWR: 33,000 lbs FVR
Gas	GVWR: 12,000 lbs NPR	GVWR: 14,500 lbs NPR_{HD}	GVWR: 17,950 lbs NQR NRR GVWR: 19,500 lbs		
EV			GVWR: 17,950 lbs NRR DERATE NRR GVWR: 19,500 lbs		

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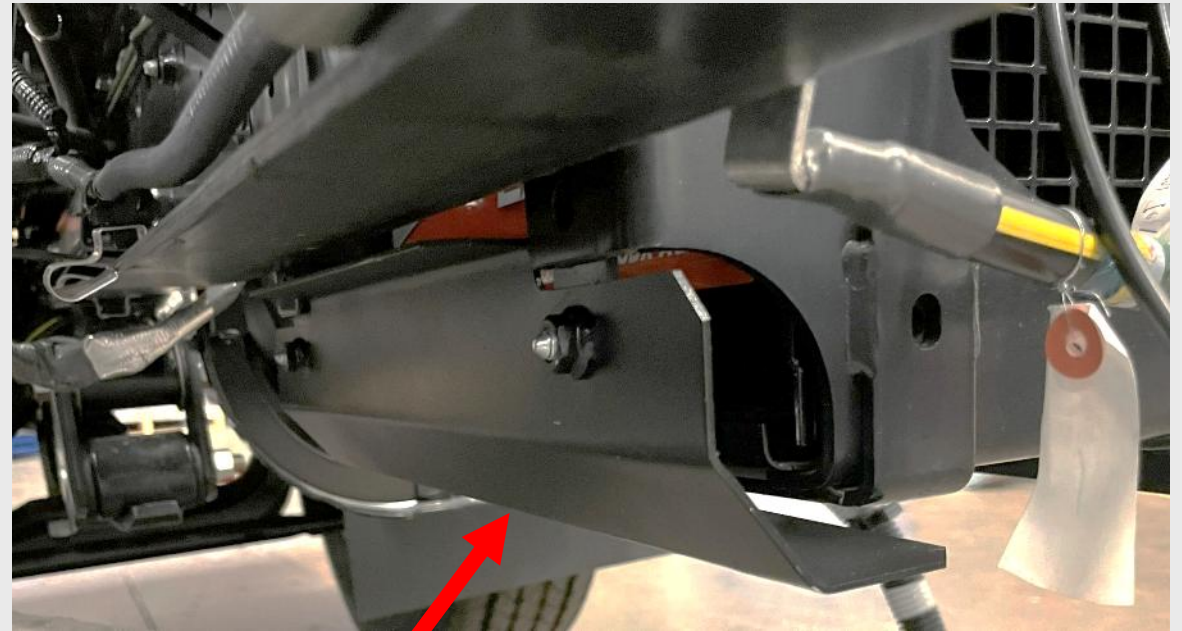
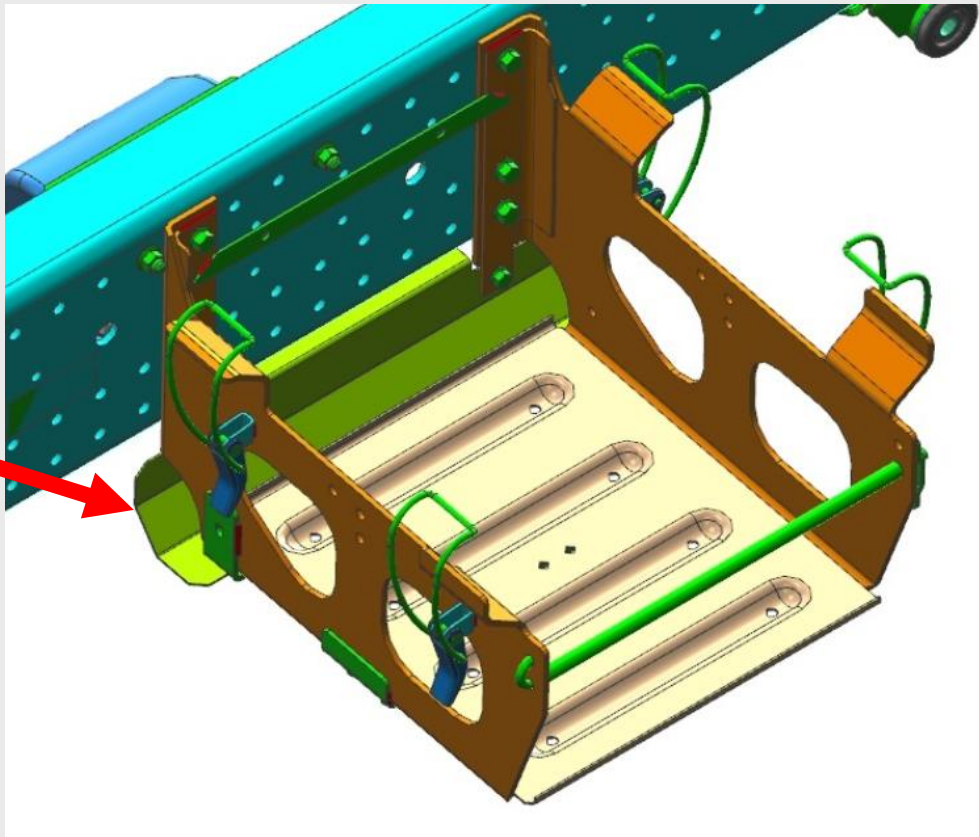
Topics

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27MY N-Series Gas Battery Carrier Update

- Heat shield for dual battery options added to base vehicle





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28MY N-Series Gas Highlights

- ❑ Introduce new exterior & interior cab design
- ❑ Improved GM 6.6L V8 gas engine to comply with 2027 emissions
- ❑ NRR (Class 5) GM 10-speed transmission with PTO capability
- ❑ Adopt EVSC and ADAS standard safety package (dual camera)
- ❑ Introduce frame change (common with N-Diesel & N-EV)
- ❑ NQR model replaced by NRR derate model (17,950# GVWR)
- ❑ Isuzu 360 telematics capable

28MY N-Series Gas Cab Exterior Updates

☐ Same exterior cab updates as seen on N-Series Diesel & NRR EV

☐ Standard features:

- ☐ Polymer front panel
- ☐ 'World Cross Flow' radiator grille
- ☐ All LED cab lighting
- ☐ Auto head lamps
- ☐ Headlamp washer
- ☐ Roof mounted antenna
- ☐ Modular design front bumper
- ☐ Maintenance-free axle hub unit bearings

☐ Optional:

- ☐ LED fog lamps
- ☐ LED tail lamps



28MY N-Series Gas Cab Interior Updates

- ❑ Similar interior cab updates as seen on N-Series Diesel & NRR EV
- ❑ Standard features:
 - ❑ Driver and outboard passenger SRS frontal airbags
 - ❑ 7-inch color Multi-Information Display (MID)
 - ❑ Reduced diameter steering wheel with built-in control switches
 - ❑ Driver's seat arm rest
 - ❑ Electric parking brake
 - ❑ Tire pressure monitoring system
 - ❑ Enhanced "smart" keyless entry (similar to NRR EV)
 - ❑ Complete electrical architecture change (similar to N-Diesel & N-EV)

28MY N-Series Gas ADAS Implementation

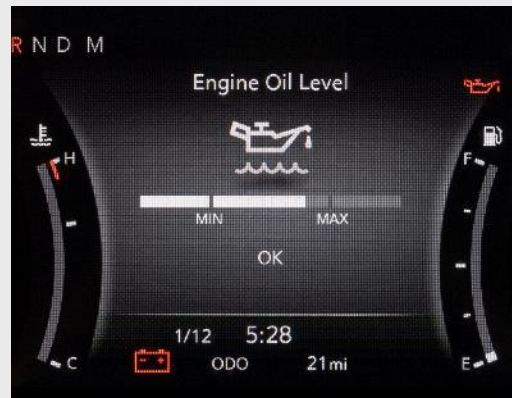
- ❑ Same dual “stereo” camera system as seen on N-Series Diesel & NRR EV
- ❑ Standard for N-Series Gas
- ❑ Features include:
 1. Automatic Emergency Braking System (AEBS)
 2. Lane Departure Warning System (LDWS)
 3. Full-Range Adaptive Cruise Control (FACC)
 4. Following Distance Warning (FDW)
 5. Forward Vehicle Start Notification (FVSN)
 6. Mis-Acceleration Mitigation (MAM)
 7. Attention Assist



GM 6.6L V8 Gas Engine

	27MY	28MY Truck
Engine Designator	L8T	L8S
HP	350	363
Torque (lb-ft)	425	430

- Improved GM 6.6L V8 gas engine to comply with 2027 emissions
- Gen 6 style manifold and throttle body
- Engine mounted oil cooler
- Next gen E94 controller
- Electronic oil level sensing (no dipstick)
- MID oil level & oil life display



28MY N-Series Gas Exhaust Layout

- 4x catalytic converters to meet Low NOx requirements
- Common front pipes for all models



NRR (CL5) 10-speed GM Transmission

- Adopted GM 10L1000 transmission for class 5 NRR
- Manual mode – tap up, tap down
- No ATF dipstick
- Final ratio 4.3 : 1 (was 5.375)
- Transmission is PTO ready

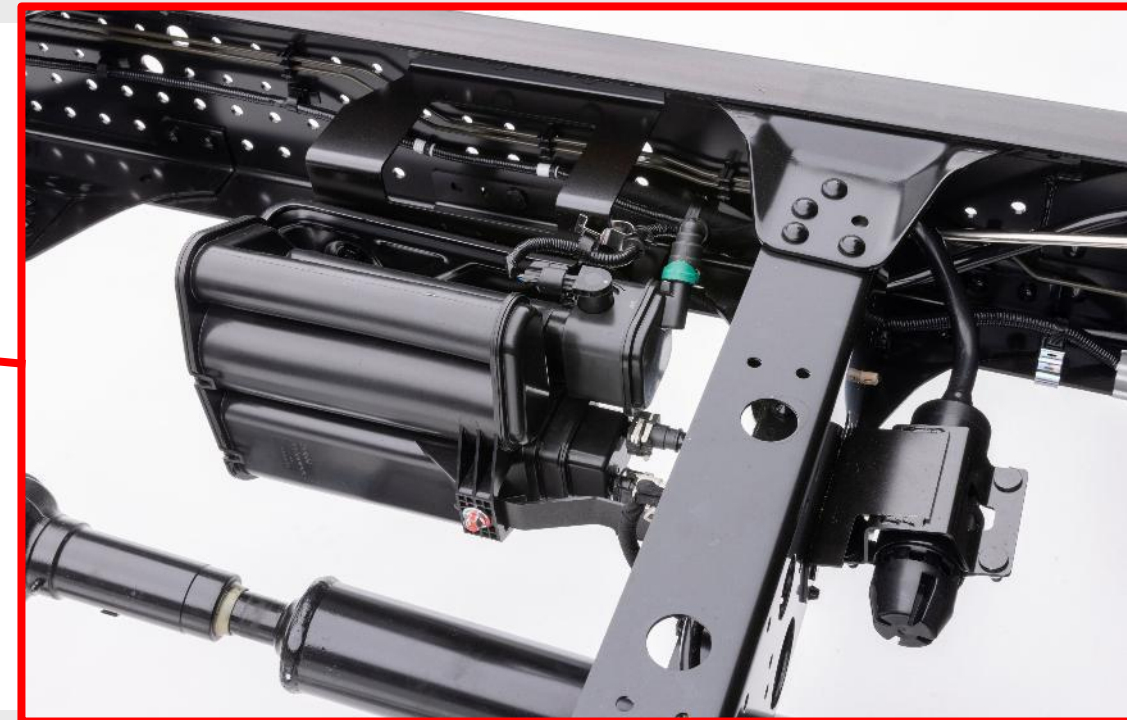
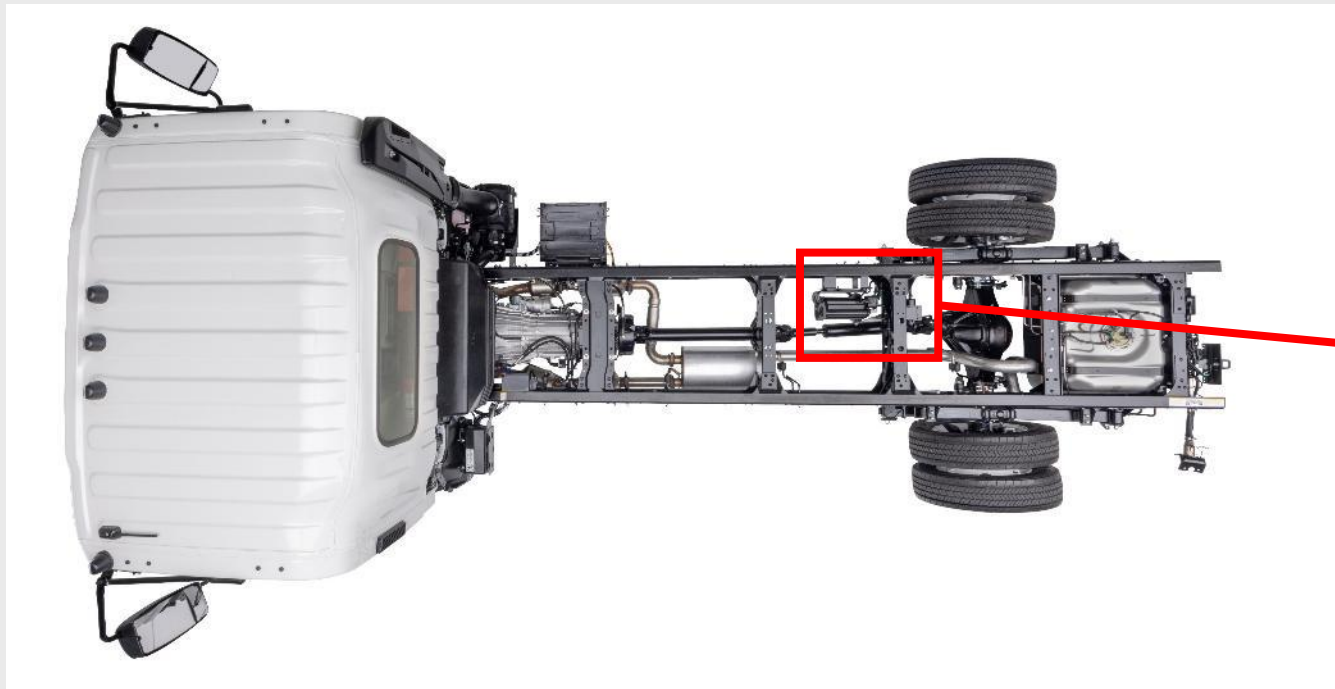
PTO Parameter	Value
Device Interface	SAE J744 FEB2013 Rev
Mounting	SAE “A” [82-1 (2 bolt)]
Shaft	SAE “A” $\frac{3}{4}$ ” – 11T Female Spline
Max. Speed	2500 rpm
Max. Torque	165 ft-lbs
Max. Power	40 HP

N-GAS



28MY N-Series Gas Evap. Emissions

- EPA requirement to meet ORVR (Onboard Refueling Vapor Recovery)
- Larger canister with integrated vent solenoid and scrubber



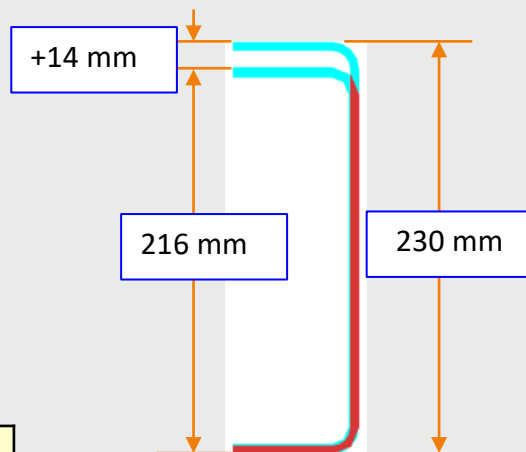
28MY N-Series Gas Frame Update

- ❑ Common frame with N-Series Diesel & NRR EV
- ❑ Changes to material, channel height, channel thickness, and hole pattern
- ❑ 15% increase to RBM

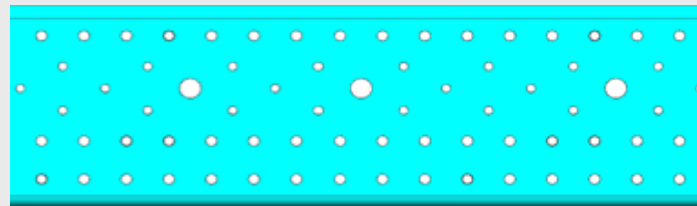
	27MY	28MY
Material	JSH440	HT540
Yield Strength (PSI)	44,000	54,800
Section Modulus (in ³)	7.20	6.65
RBM (lb-in)	316,800	364,420



Frame Cross Section

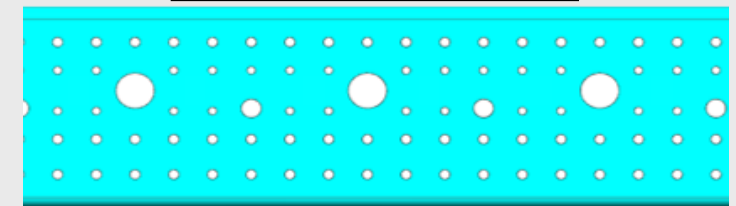


27MY N-Series Gas



- Hole spacing 40/80mm.
- Frame thickness 6mm.

28MY N-Series Gas



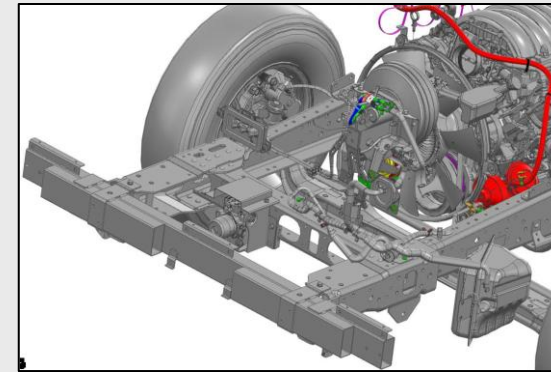
- Hole spacing 40mm.
- Frame thickness 5mm.

28MY N-Series Gas Vacuum Pump

- Change from pulley drive mechanical pump to dual electric vacuum pumps

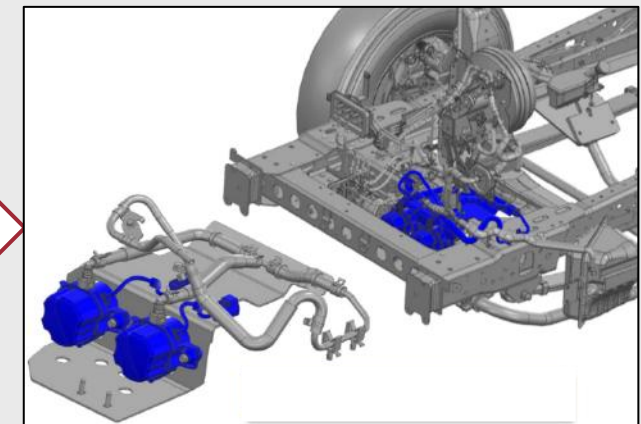


N-GAS



27MY

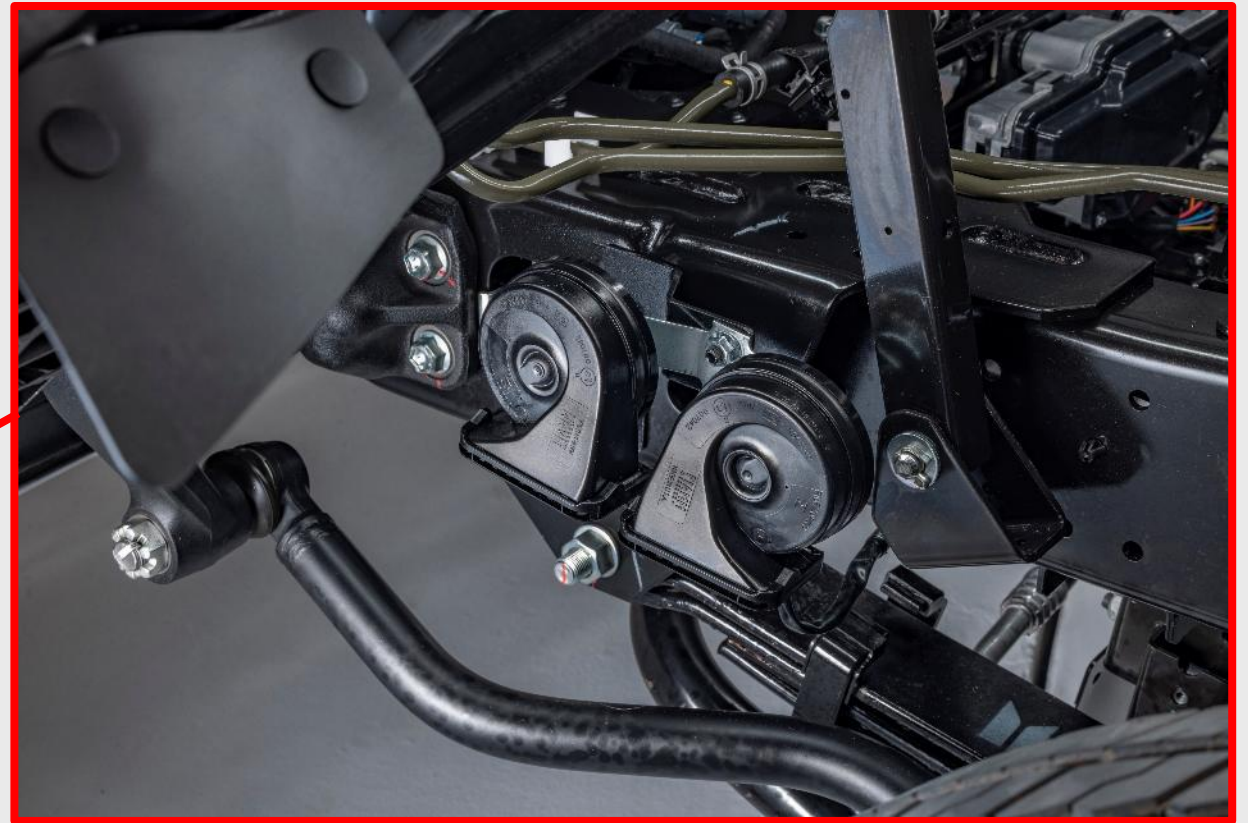
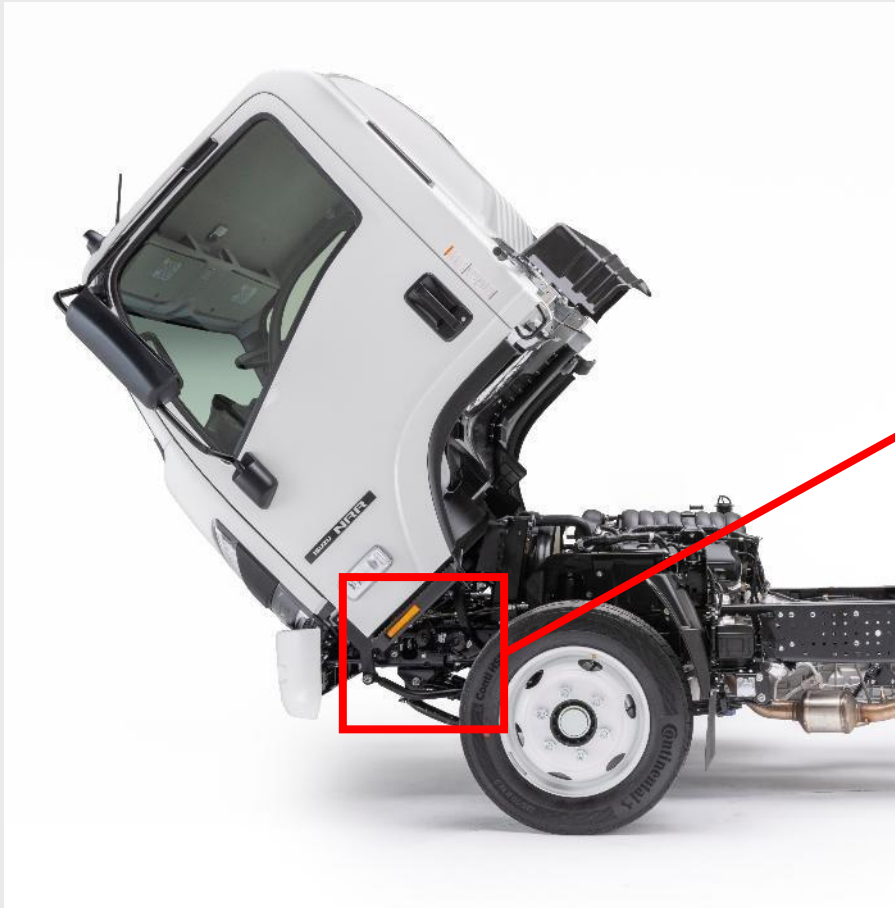
28MY



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28MY N-Series Gas Horn Upgrade

- Horn upgraded to from button style to helical style w/ deeper sound



28MY N-Series Gas Rear Cooler

- Adopted standard rear cooler system (crew cab only)





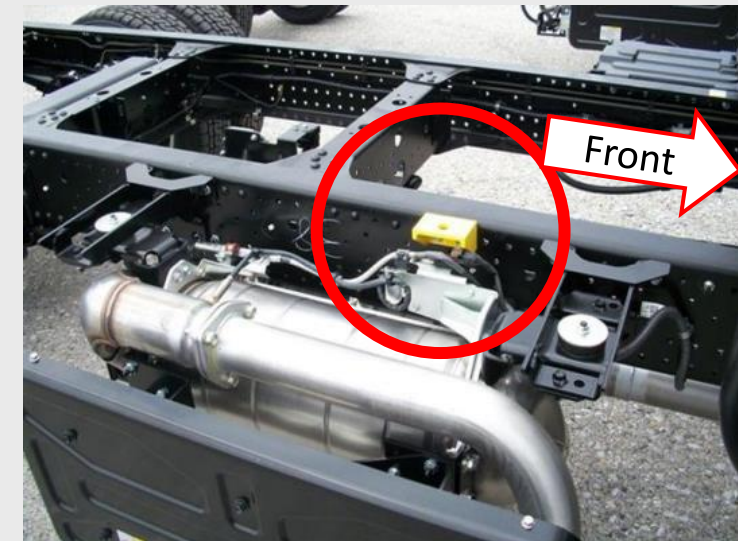
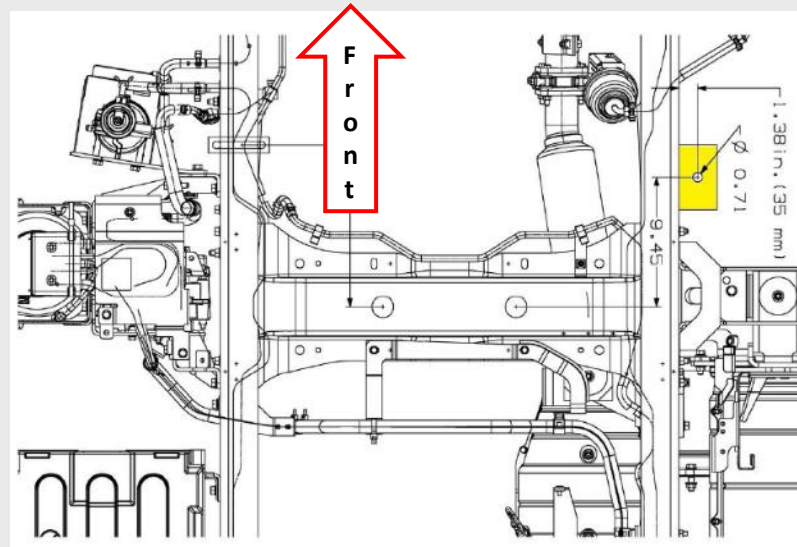
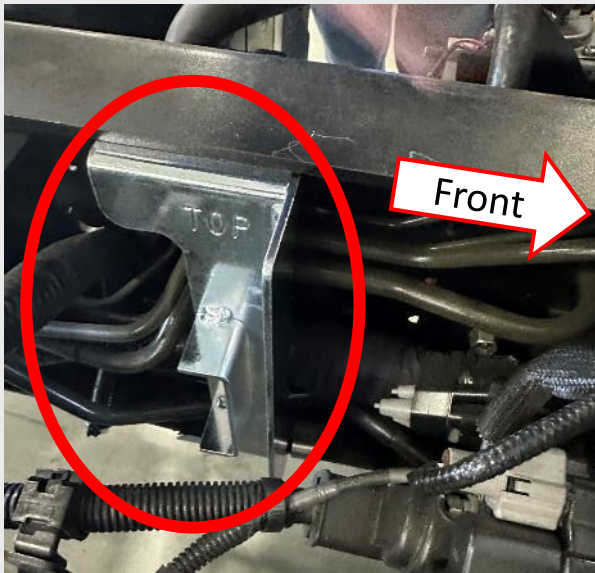
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N-Series Diesel & Gas Body Mounting

- Body mount bracket (painted yellow) provided from factory on RH chassis rail.
 - N-Series Diesel single cab and 150"WB crew cab only.
- Reinforcement block for U-bolt provided in cab for LH chassis rail.
 - N-Series Diesel single cab only.
- Traditional U-bolt w/ wood reinforcement other locations.
- J-hook body mounts are NOT allowed.

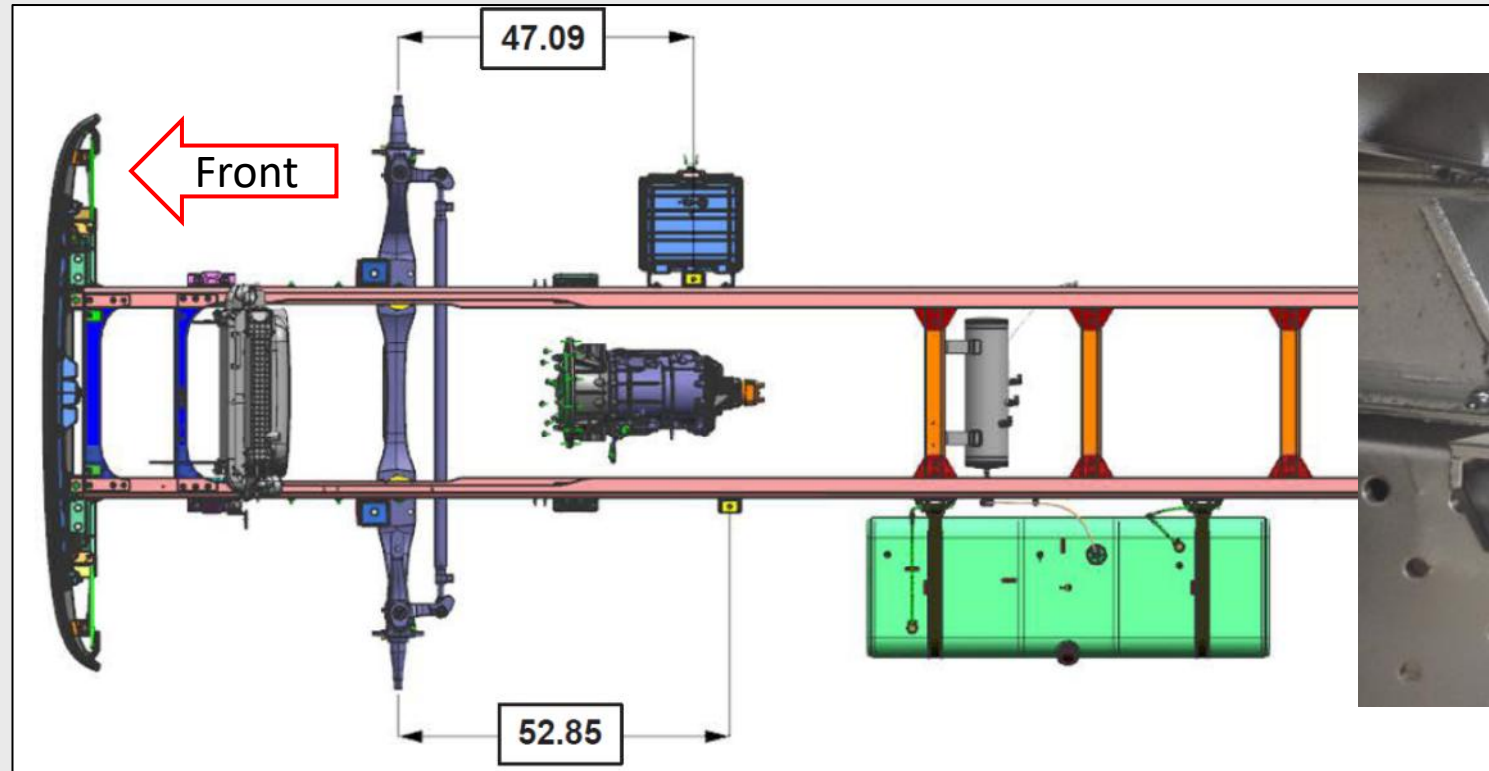


N-DSL

N-GAS

F-Series Body Mounting

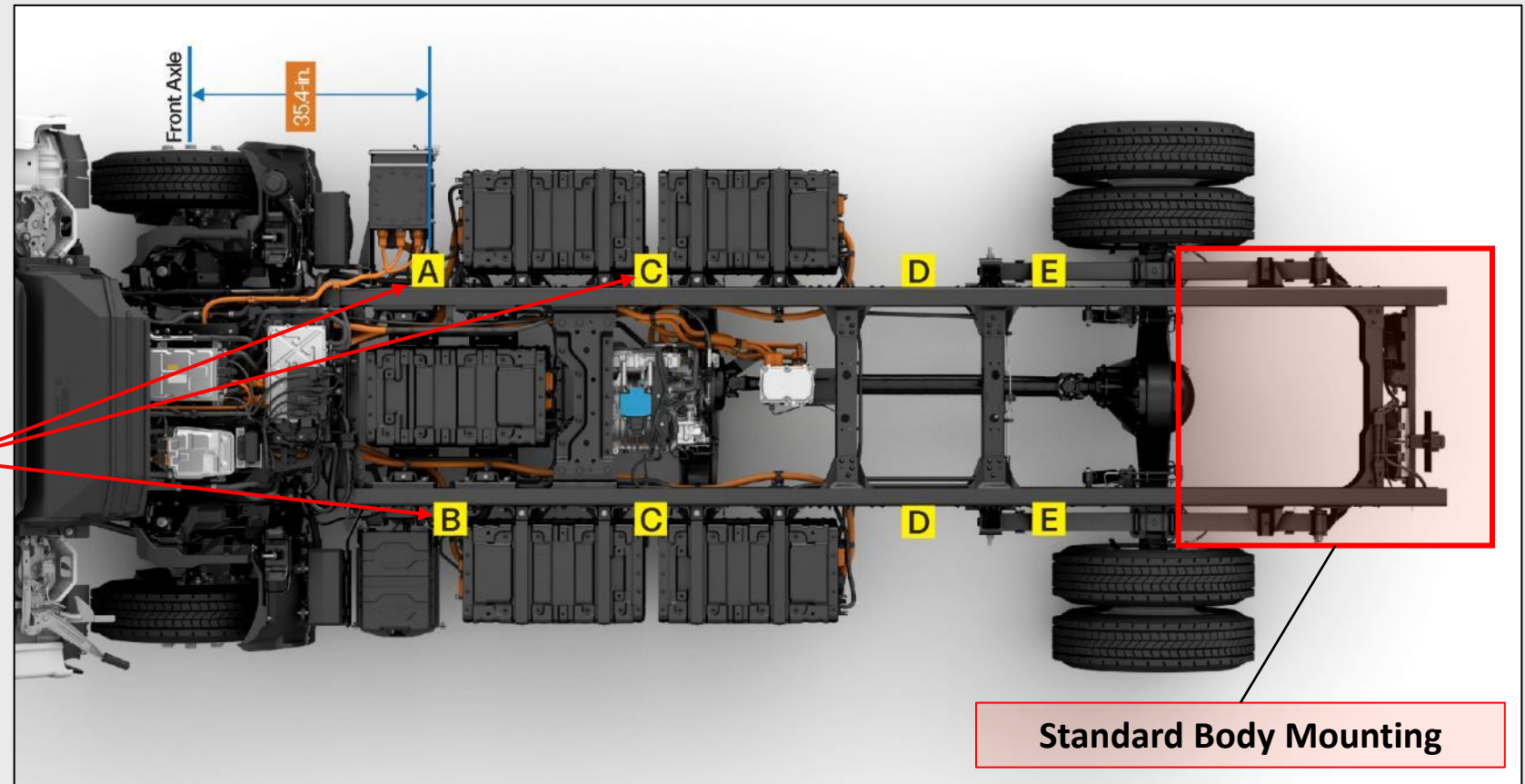
- Body mount brackets (painted yellow) provided from factory.
- Traditional U-bolt w/ wood reinforcement other locations.



NRR EV Body Mounting

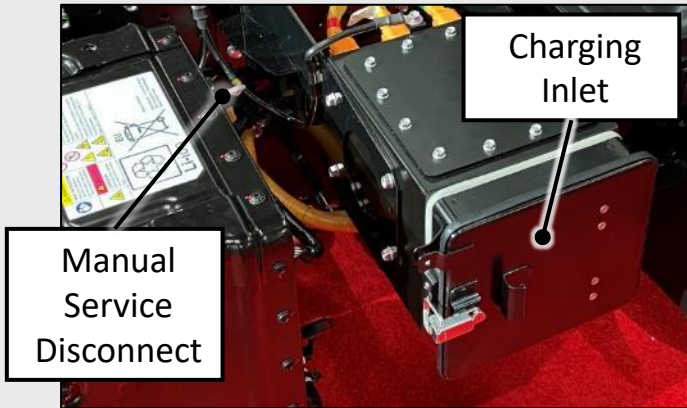
Mounting Block Locations from Front Axle

	WHEELBASE (in.)			
LOCATION	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

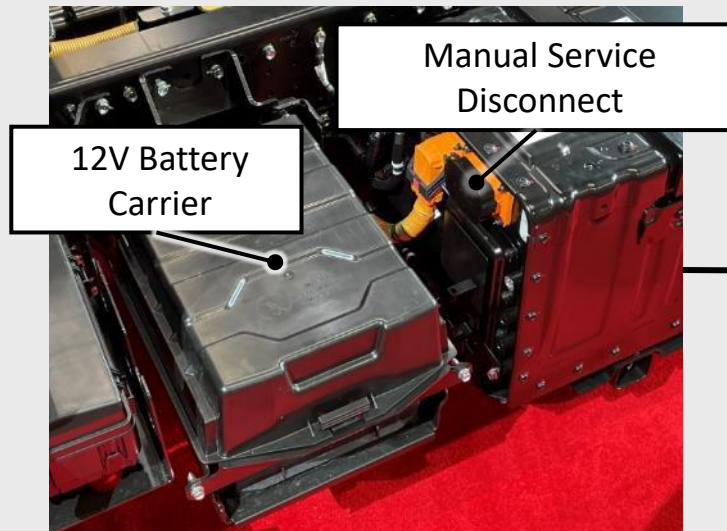


NRR EV Upfit Clearance

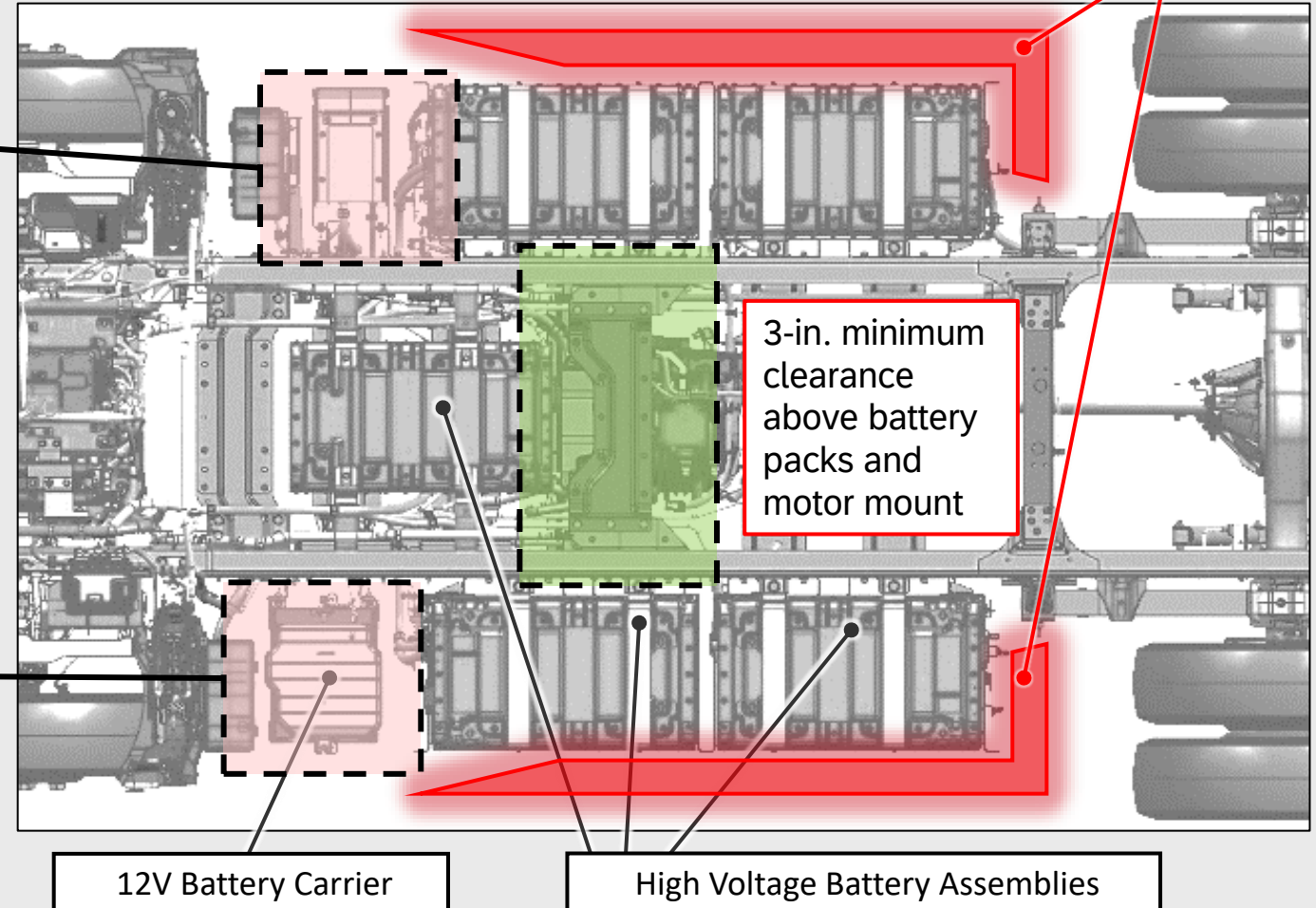
Passenger Side Access Points



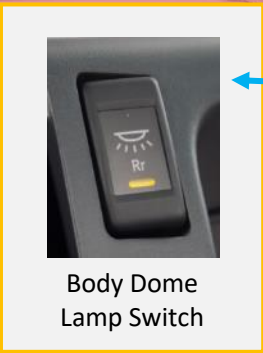
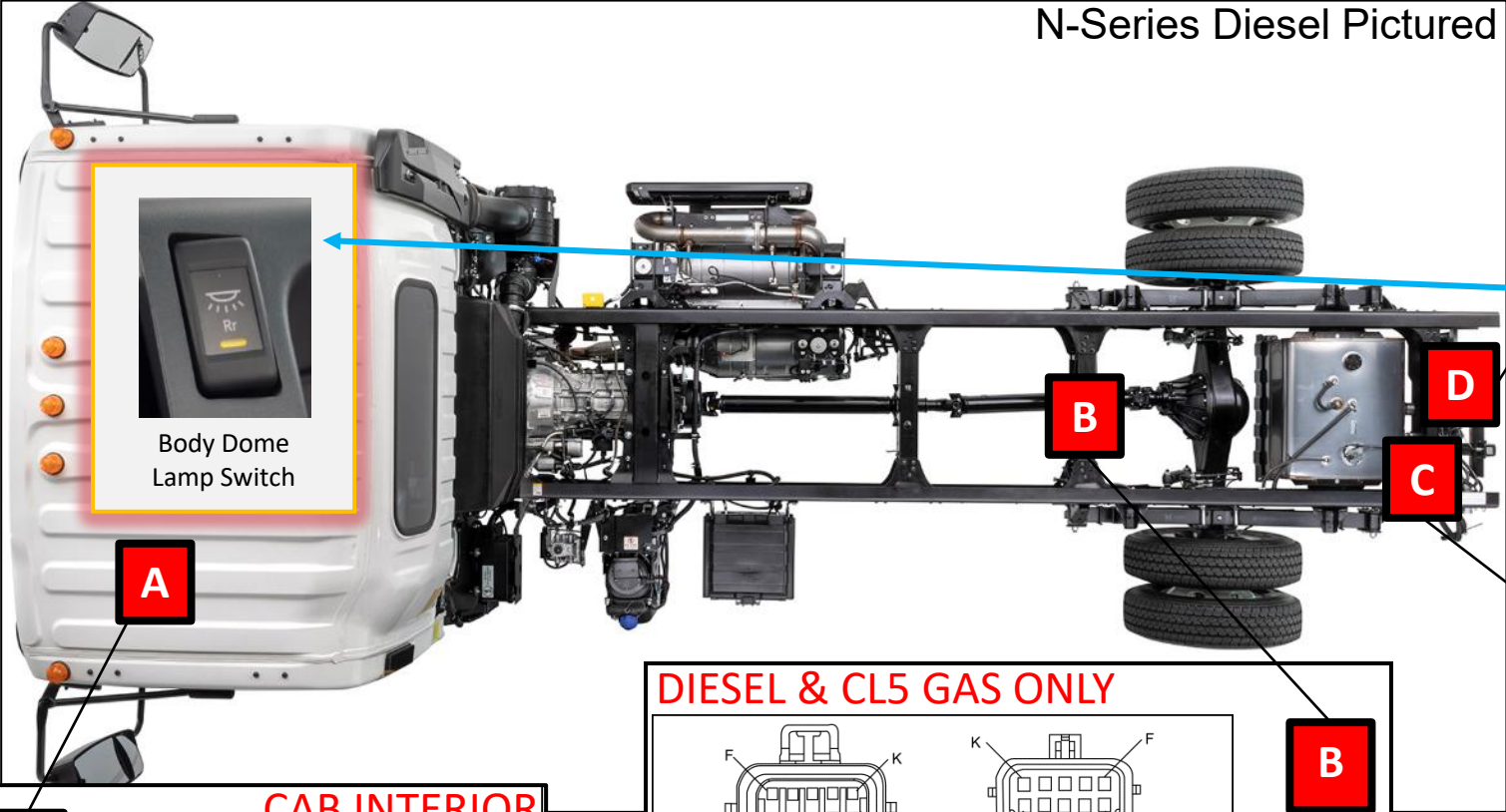
Driver Side Access Points



2-in. minimum clearance between battery pack assemblies and body on all sides



Body Builder Connectors

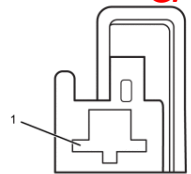


Body Dome
Lamp Switch

A

A

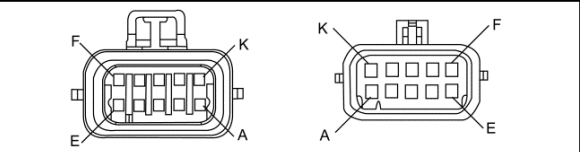
AUX
Power



Connector Part Information			
• Yazaki 7323-6317 • 1-Way F (WHT)			
Pin	Wire Color	Circuit Number	Function
1	YEL	SA002	Fuse F-41 Voltage from Fuse Center

CAB INTERIOR

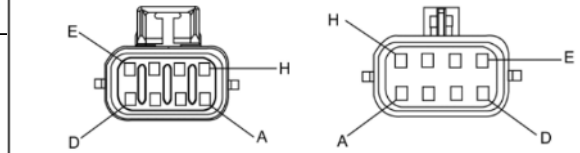
DIESEL & CL5 GAS ONLY



B

PTO

Connector Part Information • Delphi 12065425 Connector Part • Delphi 12045808 • 10-Way M (BLK)



Connector Part Information • Delphi 12047937 • 8-Way F (BLK) Connector Part Information • Delphi 1204931 • 8-Way M (BLK) • Upfitter Installed

D

Upfitter

Pin-C is controlled by Dome Lamp switch in dash

Connector Part Information		• Delphi 12010974 • 4-Way M (BLK)	
Pin	Wire Color	Circuit Number	Function
A	LT GRN/BLK	BA48	Marker Light Voltage from Marker Light Relay (X-26)
B	RED	IA17	Power Source Voltage from Fuse F-36 Fuse/Relay Center
C	WHT/BLK	IA28	Dome Light Voltage from Rear Dome Light Relay (X-22) Fuse/Relay Center
D	BLK	IX13	Ground to J-110

C

BU Alarm

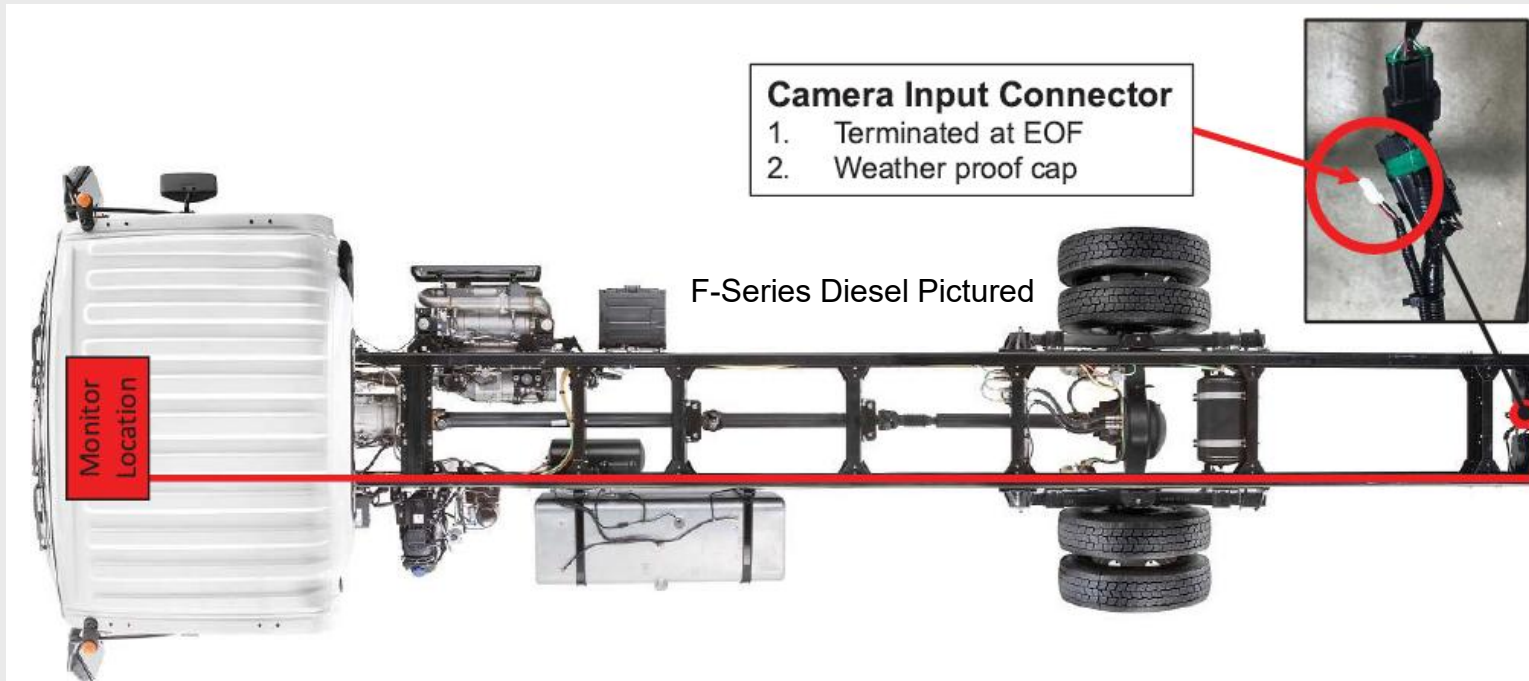
Connector Part Information		• Delphi 15300027 • 2-Way M (BLK)	
Pin	Wire Color	Circuit Number	Function
1	BLK	KX01	Ground
2	RED/BLU	KA23	Backup Alarm Supply Voltage

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- N-DSL
- N-EV
- N-GAS
- F-DSL

Isuzu / Alpine Back Up Camera Wiring

- Trucks with optional Alpine audio systems are provided with pre-wiring.



Optional Back Up Camera Kit



N-DSL

N-EV

N-GAS

F-DSL

Audio Kit Options:

I1V – Alpine Touch Screen Audio System

I2V – Alpine Touch Screen Audio System w/ Back Up Camera

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Steering Angle Sensor

- Steering angle sensor to support electronic stability control.
- Changes, removal, or replacement of certain components may require a relearn procedure to the steering angle sensor:
 - Steering Angle Sensor
 - Electronic Hydraulic Control Unit
 - Front Axle
 - Steering Arm
 - Drag Link
 - Steering Gear
 - Combination Switch
 - Tie Rod (wheel alignment)
 - Steering Wheel
 - Steering Column
- The relearn procedure should be performed by an Isuzu dealer.

N-DSL

N-EV

N-GAS

ISUZU

ADAS Camera



- Dual camera sensing system to support ADAS.
- If the following occurs, camera calibration is required.
 - Camera is removed and installed.
 - Front windshield glass or instrument panel is replaced.
 - Vehicle posture is changed (such as tire size change or suspension replacement).
- Calibrations should be performed by an Isuzu dealer.

N-DSL

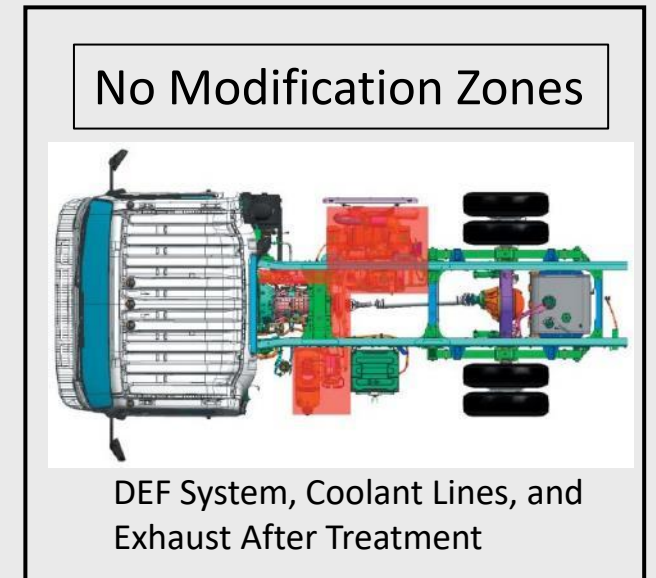
N-EV

N-GAS

ISUZU

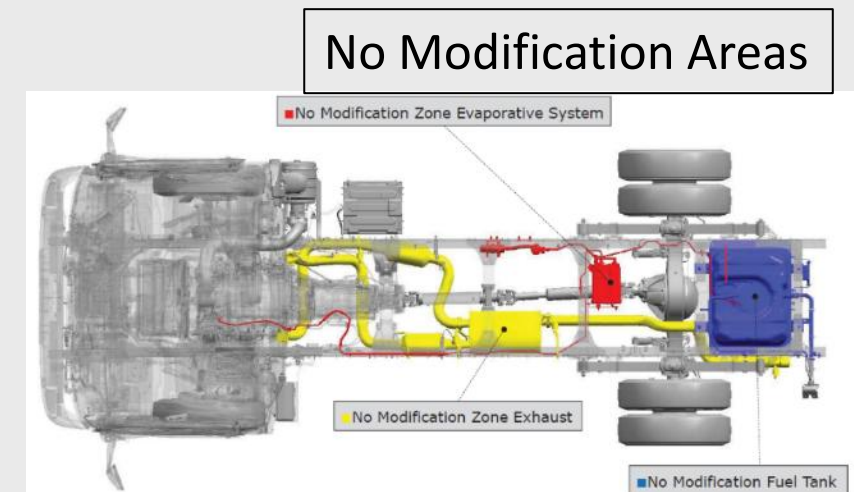
N-Series Diesel Wheelbase Modification

- Vehicle assist features (Electronic Stability Control and ADAS).
- Wheelbase modifications require ABS module (for ESC) and ADAS camera calibration updates.
- Maximum wheelbase supported is 212 inches.
- Calibrations are ONLY available for factory wheelbases.
 - 109", 132.5", 150", 176", 200", and 212"
- Calibrations should be performed by an Isuzu dealer.
 - 25MY Update – Entire rear harness is replaced with 200" and 212" wheelbase variations at modification centers.



N-Series Gas Wheelbase Modification

- Vehicle assist features (Electronic Stability Control and ADAS) starting with 28MY.
- Wheelbase modifications require ABS module (for ESC) and ADAS camera calibration updates starting with 28MY.
- Wheelbase modifications require an ABS module (non-ESC) calibration update – through 27MY.
- Calibrations should be performed by an Isuzu dealer.
- Calibrations are ONLY available for factory wheelbases.
 - NPR & NPR-HD: 109", 132.5", 150", and 176"
 - NQR & NRR: 132.5", 150", and 176"
+ 200" and 212" starting with 26MY



N-Series Diesel Fuel Filler

- Fuel filler kit provided in cab.

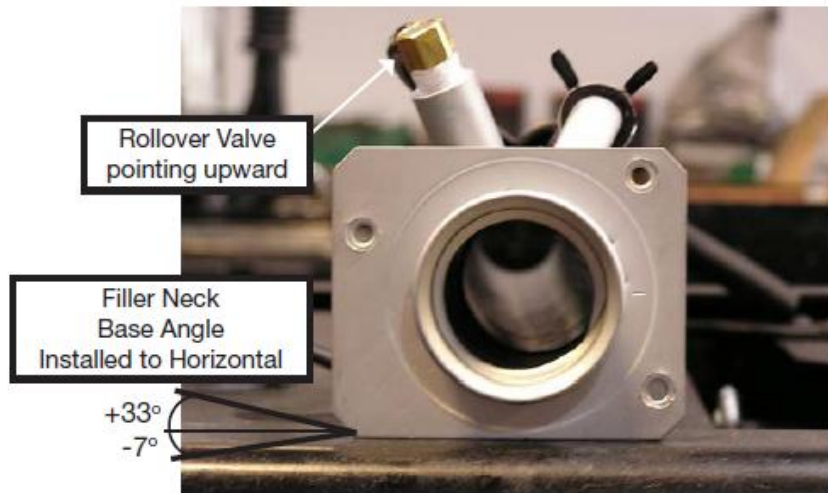


Figure 10.34.2

- Fuel filler orientation**
- Rollover valve up**



Figure 10.33.1

- Splash back valve**
- LH frame rail**
- Flat side up**



! CAUTION

DO NOT RESTRICT OR KINK THE FUEL TANK VENT HOSE.

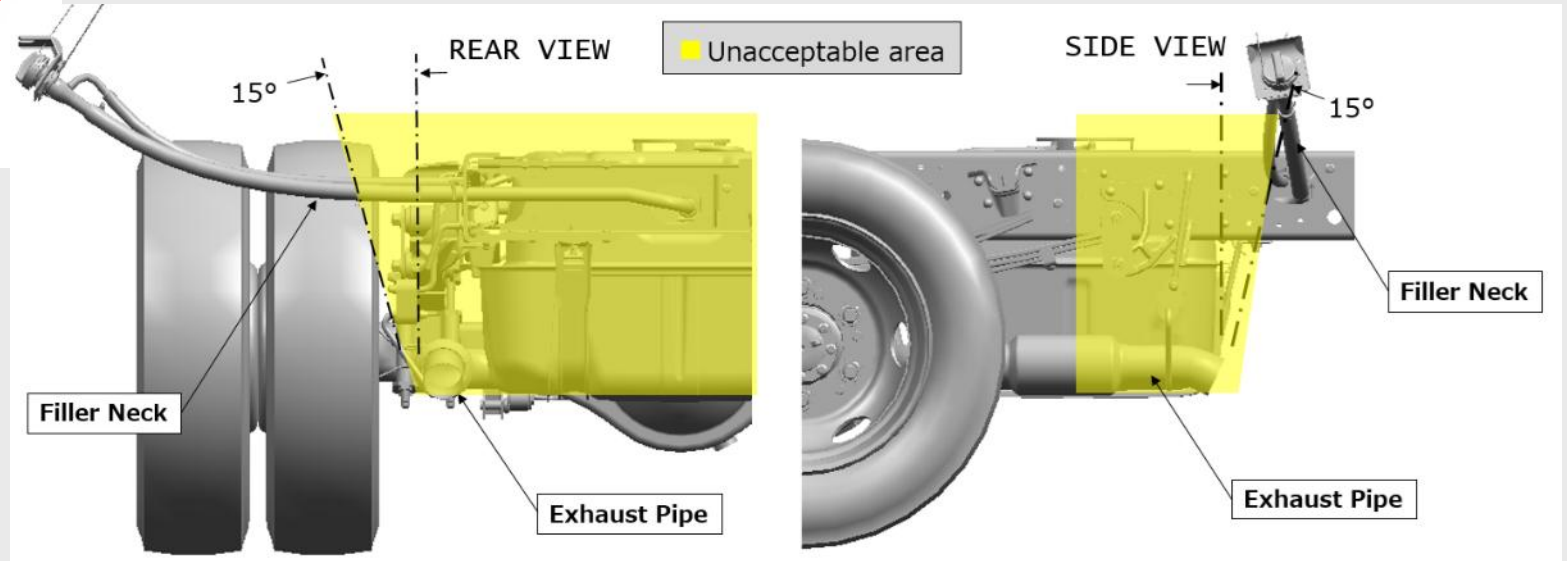
OPERATING THIS VEHICLE WITH A RESTRICTED OR KINKED FUEL TANK VENT HOSE MAY CAUSE SERIOUS DAMAGE TO THE FUEL TANK AND/OR FUEL INJECTION PUMP. CONTINUED OPERATION MAY CAUSE ENGINE FAILURE.

N-Series Gas Fuel Filler



Fuel Filler
Ground Strap

Hoses Provided in Cab
Adjust per Body Width
See Body Builder Guide



- Do not install connection point of filler, pipe, or hoses in unacceptable area.
- Filler neck should not be modified – must comply with FMVSS

N-Series Diesel Power Take Off

- Reference the Body Builder Guide for an entire section dedicated to PTO.
- ECM communication to prevent DTCs.
 - Recommended using Isuzu PTO switches and chassis connectors.
 - Remote PTO controllers must signal PTO activation to ECM.

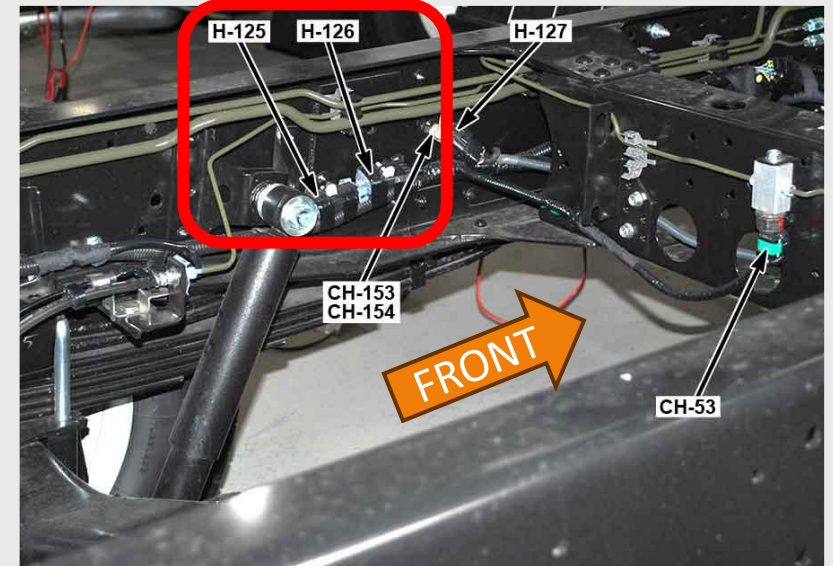
PTO Functional Modes

- 1) Stationary Preset
- 2) Stationary Variable
- 3) Mobile Variable

PTO Main & Idle Switches

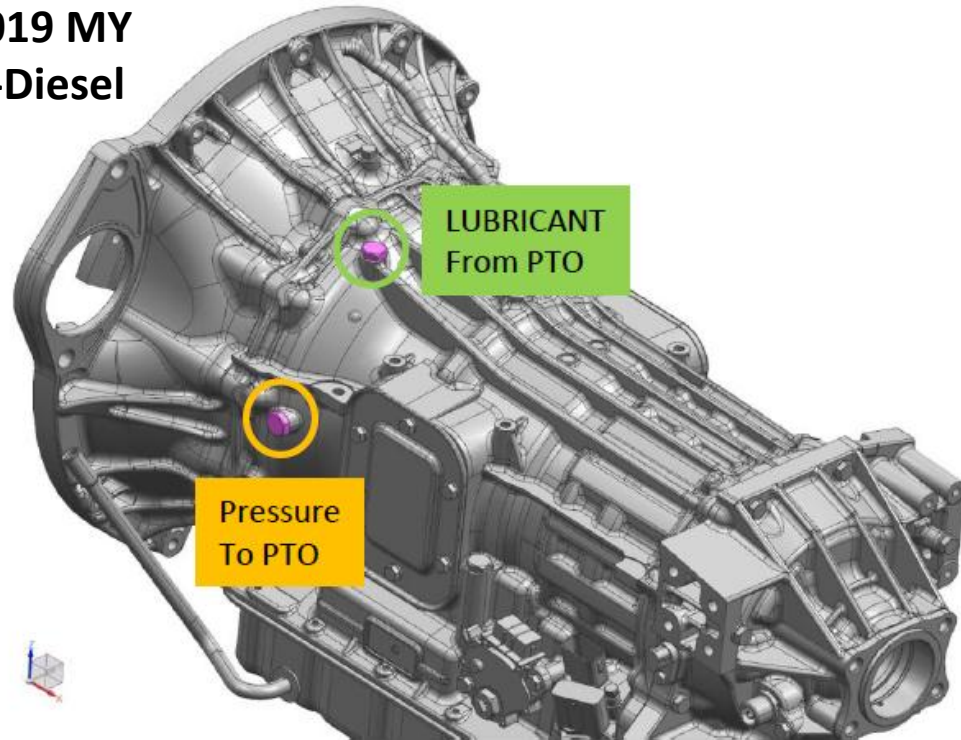


PTO Connectors on Chassis



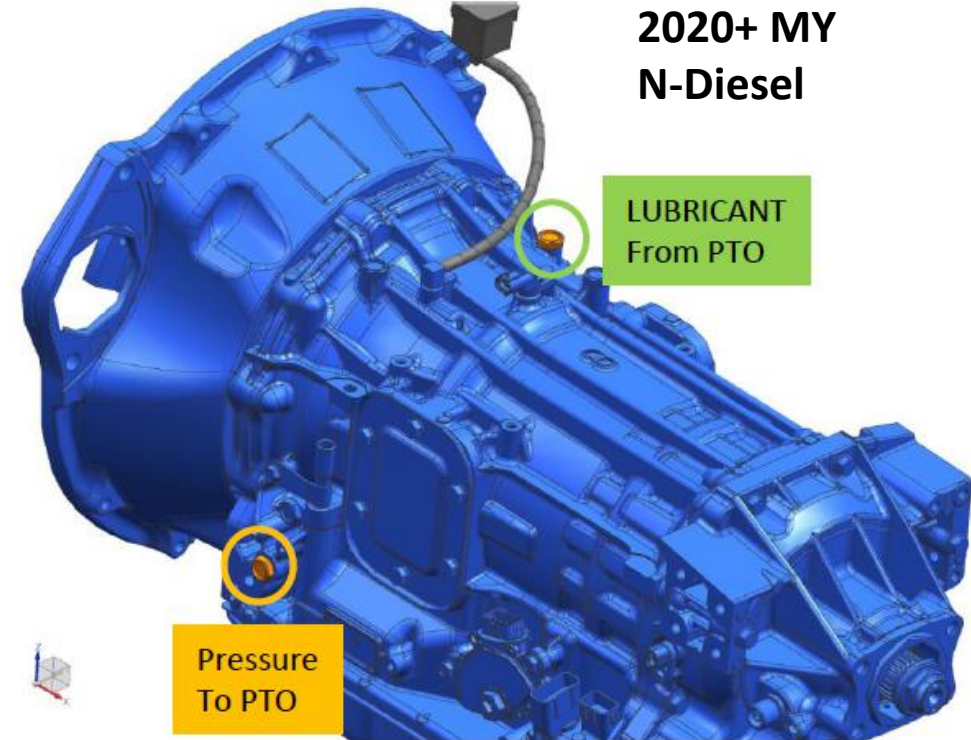
N-Series Diesel PTO Connection Change

2019 MY
N-Diesel



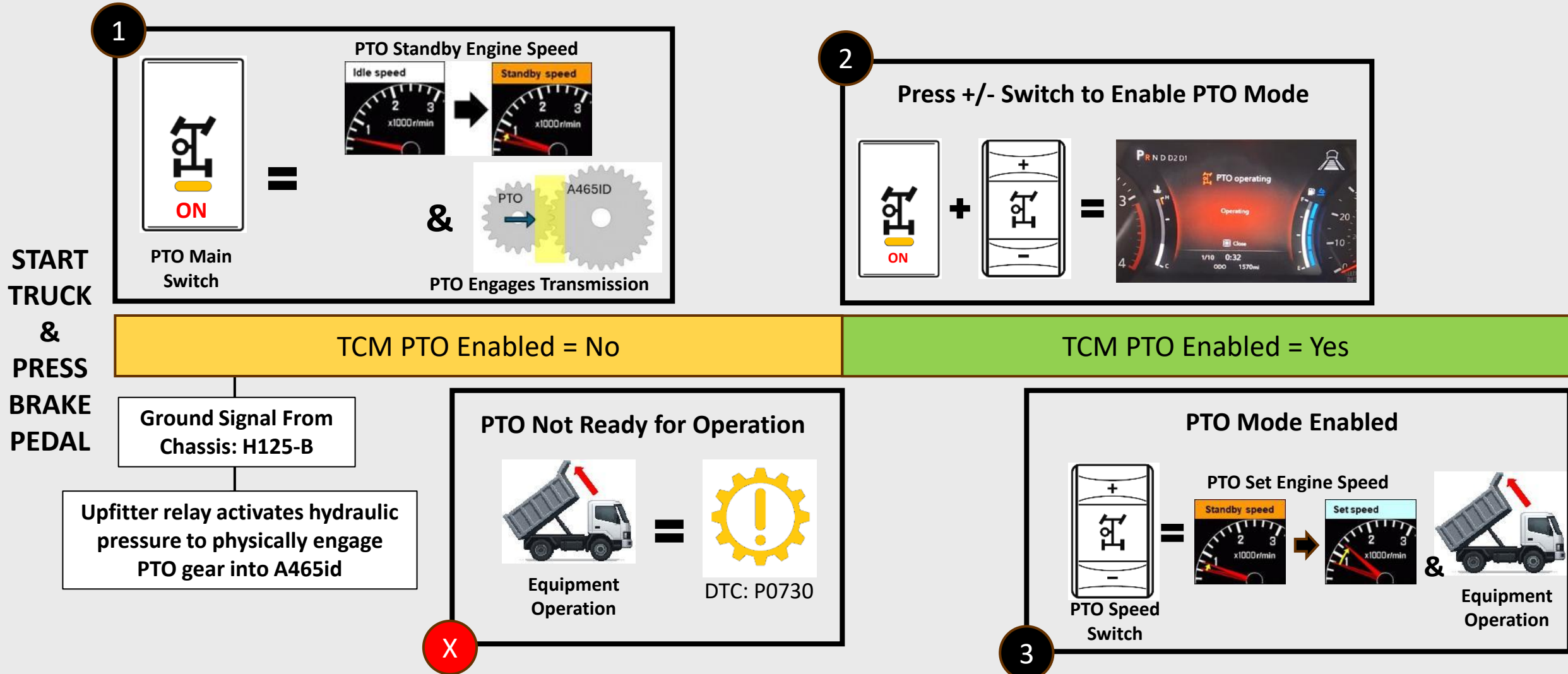
A465

2020+ MY
N-Diesel



A465id

25MY+ N-Series Diesel PTO Operation Change



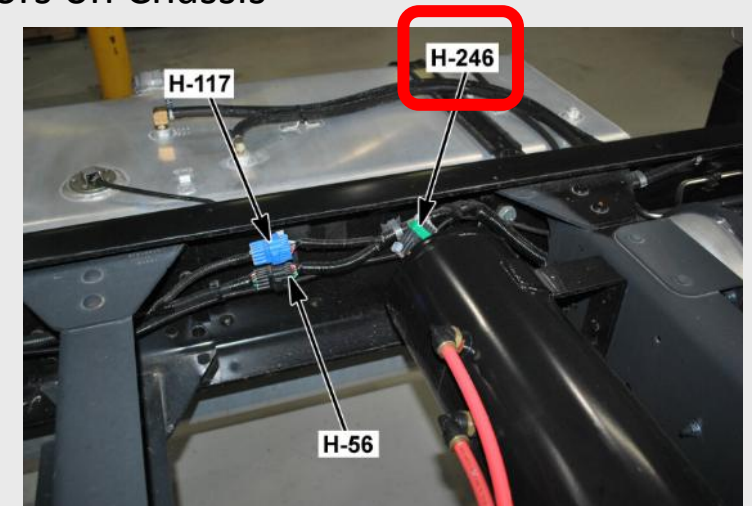
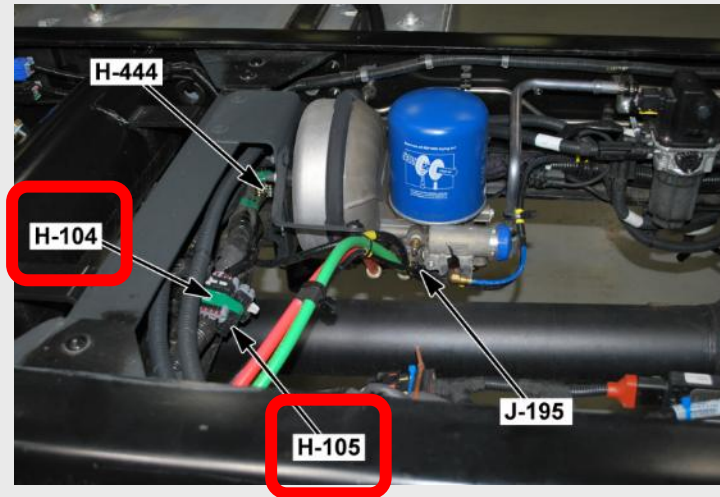
F-Series Power Take Off

- Reference the Body Builder Guide for an entire section dedicated to PTO.
- Cummins Service Tool is required to modify programming functions that control the PTO features.

PTO Main & Idle Switches



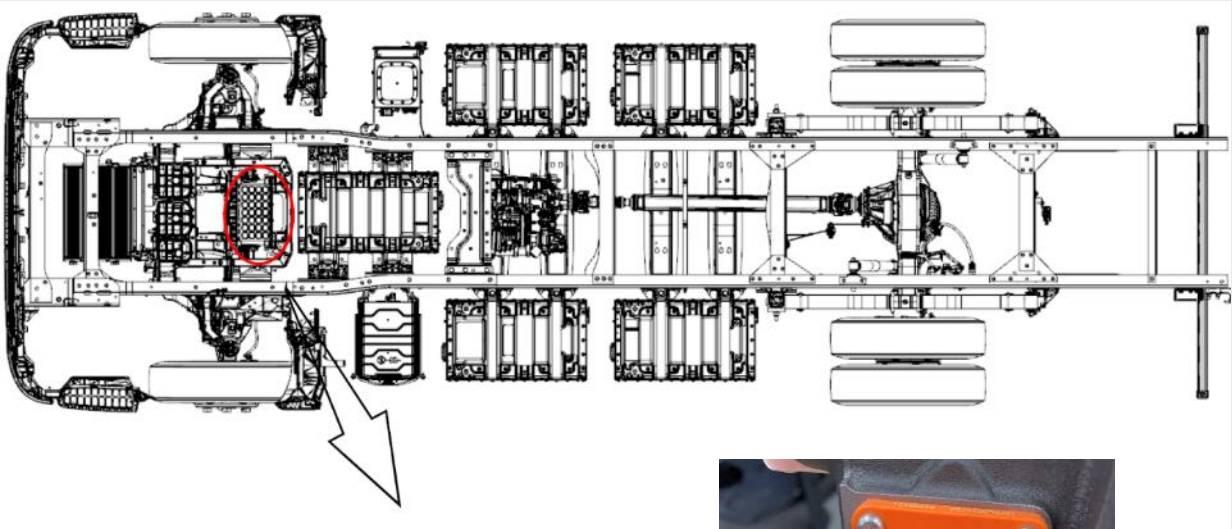
PTO Connectors on Chassis



Cummins PTO Modes

- 1) Cab PTO
- 2) Remote PTO
- 3) Remote Station PTO

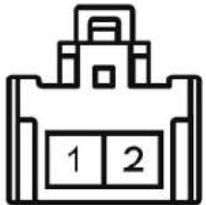
NRR-EV ePTO



Item		Spec
Output		DC
Working Voltage Range:	Performance	300-400 V
	Work	240-410 V
Max Electrical Power:		12 kW
Max Electric Current:		40 A



Pin #	Signal
1	CAN2_H
2	CAN2_L



Item		Spec
Communication	CAN - ISO11898-2	
Speed	500kbps	
Resistance	VCU 120 Ω	
	120 Ω is required by upfitter	



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Application Support Contacts



Application Engineering Support

- General Product Questions
- Application Technical Support
- Weight Distributions
- Application Approval Letters
- CAD Data Requests

Start Here: **ANTHONY MOUSSEAU**
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Product Planning

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ISUZU

Providing diagnostic tools for Isuzu commercial vehicles.

Body Builder Information



Dealers Aftermarket **Body Builders**

Attention Body Builders:

Last update: 1/14/2022

The Isuzu Body Builder Guides are now available for FREE! Download Isuzu's Body Builder Guide or sections for important information about upfitting your Isuzu commercial truck.

Starting with the 2011 Model Year please review Section 0 for change information as the Isuzu's Body Builder Guide is updated from time to time keep 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 prior notice, specifications, options, materials, equipment, design and models.

Information contained in the guide includes:

- FMVSS safety standards
- EPA requirements
- OE recommendations
- Cautions for successful application upfitting
- Frame modification procedures

Select your model year below to view or download Isuzu's Body Builder guide. Please be patient while the guide downloads.

Select Model Year ▾



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Dealers Aftermarket **Body Builders**

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NEW

Full Body Builder Guide also available at ISUZUCV.com

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Thank You!

