Navistar Electrical Systems Medium and Heavy Vocational Series Sales Data Book

Table of Contents

1. Revision Summary Table

REVISION	DATE	SECTION	CHANGE DESCRIPTION	REASON FOR CHANGE	REVISED BY
01	5/03/2018	ALL	INITIAL DRAFT	INITIATION OF DOCUMENT	J. BISSONTZ

2. Forward:

Warning - In the pages of this document are a diverse set of truck chassis system and subsystem integration features which contain the potential for both simple and complex operational situations and interactions when integrated in combination with a truck

chassis and truck mounted equipment. It is the responsibility of persons performing truck chassis and, or truck mounted equipment system integration and testing to fully understand the plurality of operational outcomes and take the appropriate as well as necessary precautions to avoid property damage, personal injury up to and including death when performing system integration and, or test in association with the content of this document.

Note - In this manual, International® Truck and Engine Corporation provides information about its different products to assist those who wish to modify these products for individual applications. International does not recommend or approve any firm nor make any judgements on the quality of the work performed by a particular firm. Individuals who use the services of a Body Builder must satisfy themselves as to the quality of the work.

The party installing a body, a fifth wheel, any other equipment, or making any modifications to complete the vehicle for delivery and make it road-ready is responsible to see that the completed vehicle complies with all applicable certification procedures and safety standards, as may be set forth in Federal, State, and local statutes, rules and regulations.

Specifications, descriptions and illustrative material in this literature are as accurate as known at time of publication but are subject to change without notice. Illustrations are not always to scale and may include optional equipment and accessories but may not include all standard equipment.

3. Vehicle Architectures:

3.1. Multiplexing Architecture:

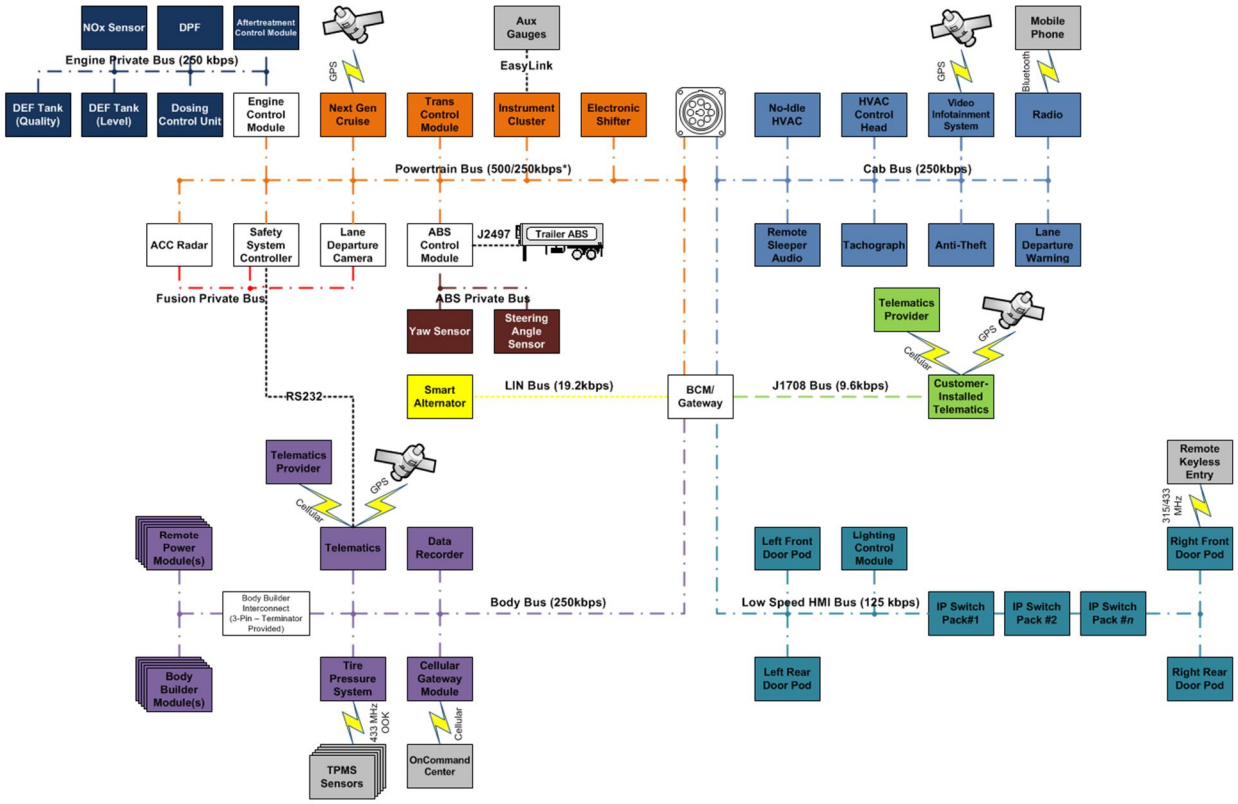
Unlike the electrical systems on previous models, which utilized point-to-point wiring for all input signals and output loads, this system uses multiplex technology to provide control and communication between major functional areas of the vehicle. Multiplexing simply means, communicating multiple pieces of information via a single twisted pair of wires (called the data link) without requiring a wire for each piece of information. This information could be gauge information such as engine oil pressure, or switch information that controls vehicle functions such as headlamps.

The electrical system relies on a collection of electronic circuit modules and software to perform vehicle functions instead of implementing similar features using complex wire harness designs with electromechanical relays and switches. These electronic module components are connected together by data links. The data links can be thought of as computer networks that allow the electronic components on the vehicle to communicate with one another.

The concept of multiplexing is not new since data links for communicating between engine controllers, the instrument cluster and the diagnostic connector have been used for several years.

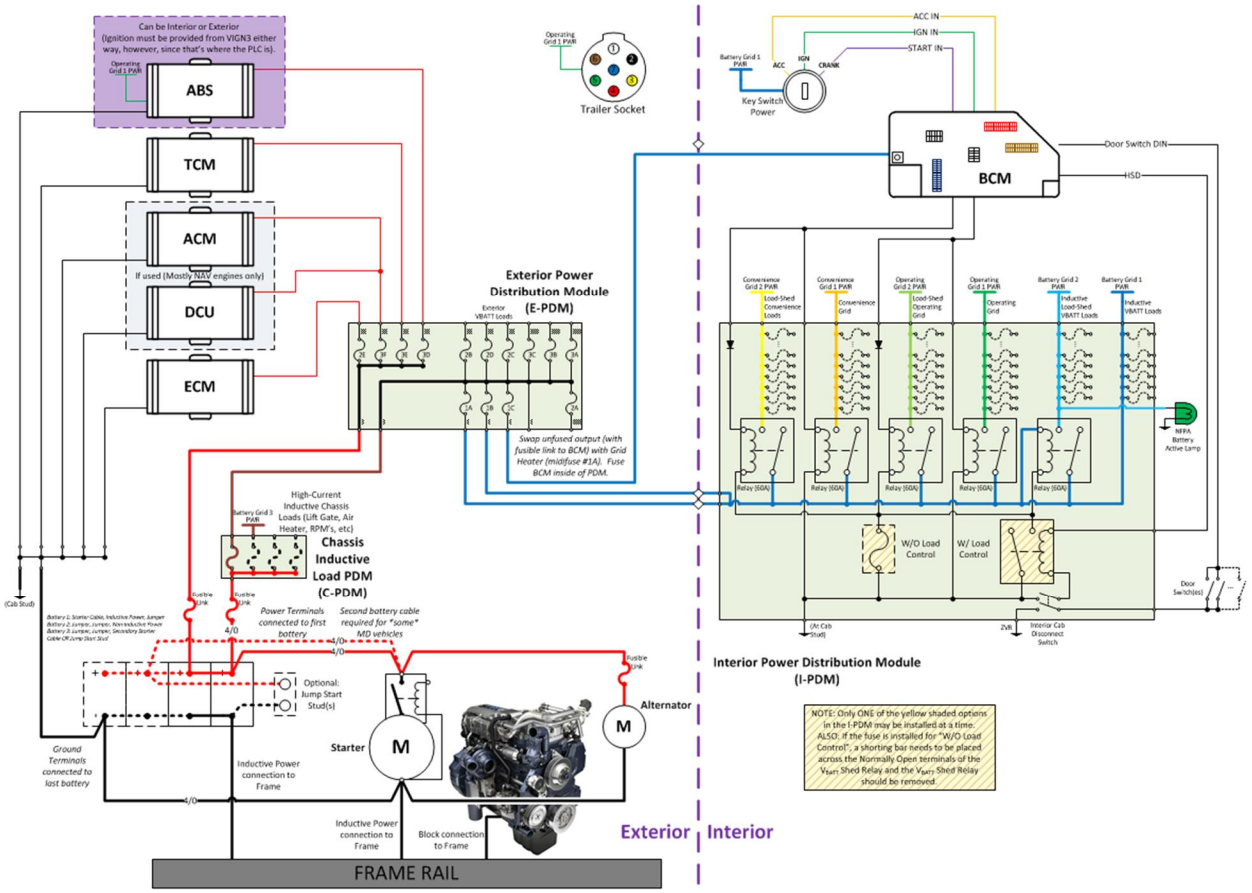
The goal of multiplexing is to reduce cab harness wiring and to simplify circuits. This is accomplished by using a low current data link for communicating between cab switches, the Body Controller and the Instrument Cluster. Other data links in the vehicle allow other electrical controllers, the BC and the Instrument Cluster to communicate with each other.

3.2. Vehicle Multiplex Architecture



Vehicle Multiplex Architecture

3.3. Vehicle Power Distribution Architecture:



Vehicle Power Distribution Architecture

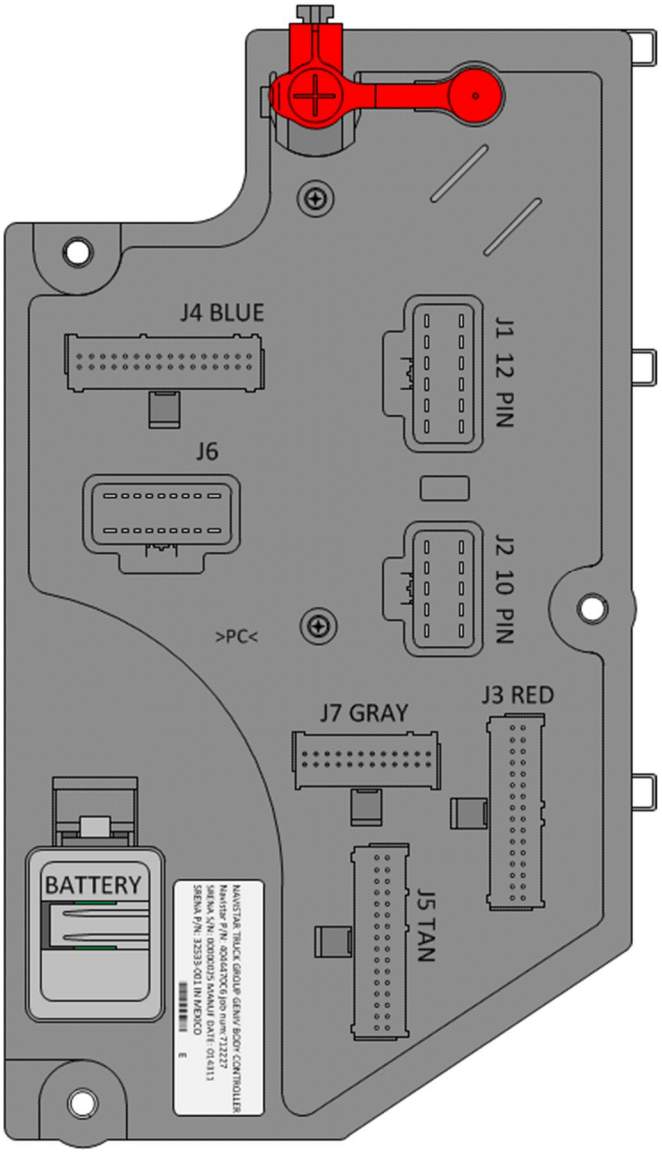
4. Body Controller

4.1. Body Control Module Gen IV:

At the center of the Diamond Logic® Electrical System is the Body Controller (BC). The BC is an electronic module that provides multiple analog and switched input/output interfaces to monitor vehicle sensors and control vehicle functions through solid state switches, relay driver outputs, and serial data communications. Serial datalinks connected to the BC include the following:

The BC is located under the IP behind a kick plate to the left of the driver's left foot. All connections are now located inside the cab with the exception of the power connection that passes thru the dash panel to the engine compartment. The BC receives battery power from the maxi-fuse block and Ignition (IGN) power from the IP harness.
The Body Controller communicates with plurality of modules over a series of differing baud rate data links in an exchange of tens of thousands of digital messages ever second. It also receives input from various sensors and hard wire inputs throughout the truck. The BC converts these inputs, in accordance with the programmed "rules," into data to be transmitted on the datalinks. It is also the power source for circuits that feed the components, controlled by the multiplexed switches, inside and outside of the cab. The primary vehicle software programming resides in the Body Controller.

Body Control Module Gen IV (Connector Header View):



Body Control Module

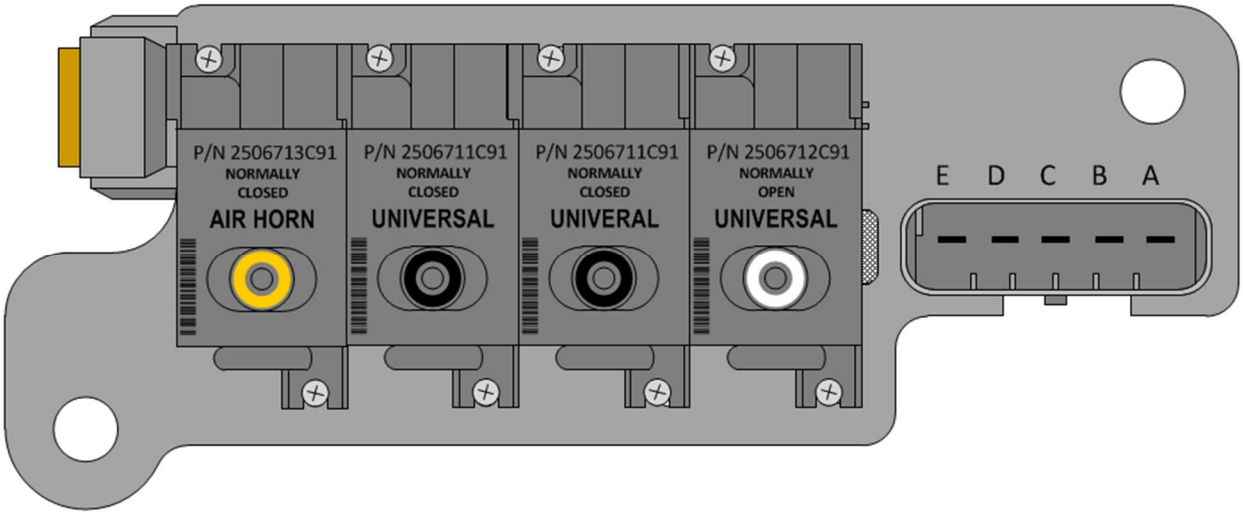
5. Multiplex Switch-Packs (Center Panel Mounted)

5.1. Multiplex Switch-Pack Housing:

Multiplex Switch-Pack Housing

6. Air Solenoid 4-Packs:

6.1. Air Solenoid 4-Pack Module:



Air Solenoid Module Assembly

Note: Although many features employ the use of the 4-pack air solenoid modules - Including features using multiple air solenoid modules where each module could contain up to a maximum of four air solenoids. Despite their diverse utilization and flexible applicability, air solenoids can be categorized into three configurations.

- Normally Closed 6-Cubic Foot Per Minute (CFM) volumetric pneumatic flow. This air solenoid can be quickly identified by its yellow band around the pneumatic fitting release collar. This air solenoid is most commonly used for applications like chassis mounted pneumatic [air] horn/s and custom applications where a higher level of pneumatic volumetric communication is required.
- Normally Closed 4-Cubic Foot Per Minute (CFM) volumetric pneumatic flow. This air solenoid can be quickly identified by its black band around the pneumatic fitting release collar. This air solenoid is most commonly used for applications like pneumatically controlled power take off units, transfer case shift controls, universal applications and the like.
- Normally Open 4-Cubic Foot Per Minute (CFM) volumetric pneumatic flow. This air solenoid can be quickly identified by its white band around the pneumatic fitting release collar. This air solenoid is most commonly used for applications like universal applications and the like.

7. Lighting Control Module:

LCM *(Pictured example Configured with Auto Light Ctrl & Fog Lights)*

8. Remote Power Module:

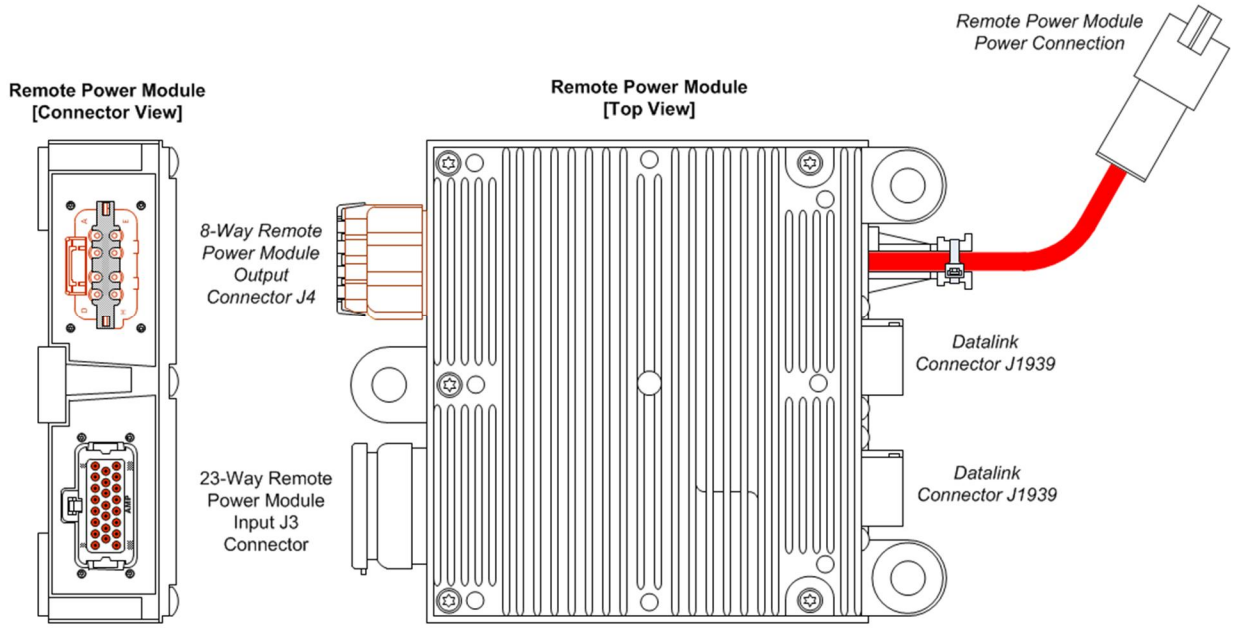
Remote power modules provide a method of distributing and controlling power to various device loads on the vehicle, outside the cab, without running high current wires from in-cab switches to the loads or splicing into existing wiring.

The RPM is connected to the BC via the Body Builder J1939 datalink (the BC is capable of controlling up to seven RPMs on the vehicle). The only factory-installed wires connected to the RPM are battery power for driving the loads and the datalink cable. Connectors for Body Builder-installed inputs and outputs are also provided. Power is fed to the RPM through a fusible link to the battery source. Each RPM has six independently controllable, 20 Ampere (AMP) outputs (80 maximum per RPM) with virtual (software programmable) fusing similar to the BC. If higher current capacity is needed, two outputs can be paralleled or the RPM can control a high current relay while still maintaining logic and diagnostic capability without having to wire to the inside of the cab.

Because the RPM is connected to the BC via the datalink, it also serves as an “integration gateway” to the BC and the vehicle electrical system. Six inputs on each RPM allow information from body accessories to be communicated to the BC and processed for interlocks, operator information/warning, etc. These inputs also allow the Body Builder to add body-mounted switches to turn on or off the same electrical devices controlled by in-cab switches.

Additional information concerning the use and installation of RPMs is contained in the applicable Feature sections that follow (see 60AAA/60AAB in particular for detailed data on RPM connectors/pin functions, wiring, and mounting).

8.1. Remote Power Module Composite View



Remote Power Modul *(End and Top Views)*

9. Instrument Panels

9.1. Base Flat Instrument Panel:

Base Instrument Panel

Base Instrument Panel Overview:

- The base instrument panel configuration can accommodate up to two 6-pack module locations.
- Aux gauges will be packaged in the upper righthand corner of instrument panel
- Cable shifted transmissions will have a T-handled shifter in the IP
- Electronic transmissions will use steering wheel mounted stalk shifter

9.2. Premium Flat Instrument Panel:

Premium Instrument Panel

Premium Instrument Panel Overview:

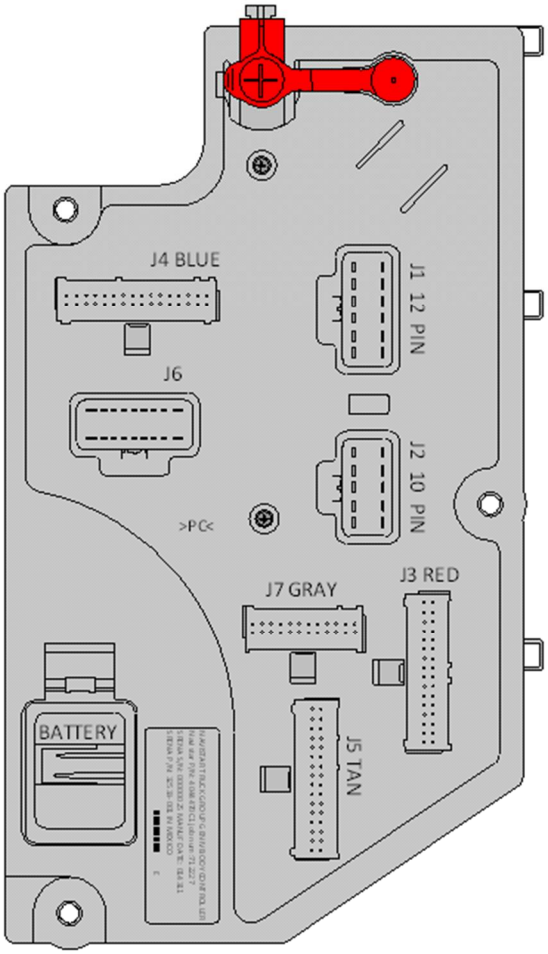
- The base instrument panel configuration can accommodate up to five 6-pack module locations.
- Aux gauges will be packaged in the upper righthand corner
- Cable shifted transmissions will have a T-handled shifter in the IP
- Electronic transmissions will use steering wheel mounted stalk shifter

10. Air Conditioning

10.1. 16WKB: Air Conditioner (International® Blend Air) with integral heater, defroster and R134-A Refrigerant.

Extended Description: This feature provides HVAC controls for the cab environment. For Body Builders installing secondary HVAC systems for body interiors that use the chassis A/C compressor, there is no direct electrical connection point provided for tapping into the A/C clutch wire. However, if an A/C clutch connection is necessary, the Body Builder may use proper splice techniques to tap into the A/C clutch wire powered from the Body Controller (BC). The added load required by the Body Builder should not exceed two Amperes (AMPS). This control wire shall be at battery volts when the A/C clutch is on and 0 volts when off. The software in the Body Controller (BC) determines when the A/C clutch should be on or off based upon the mode of the HVAC controls in the cab and condenser temperatures and high side pressures of the A/C system.

System Block Diagram:



WIRING INFORMATION

WIRE GAUGE: 16 Gauge

WIRE NUMBER/COLOR: AC77A-LTGN

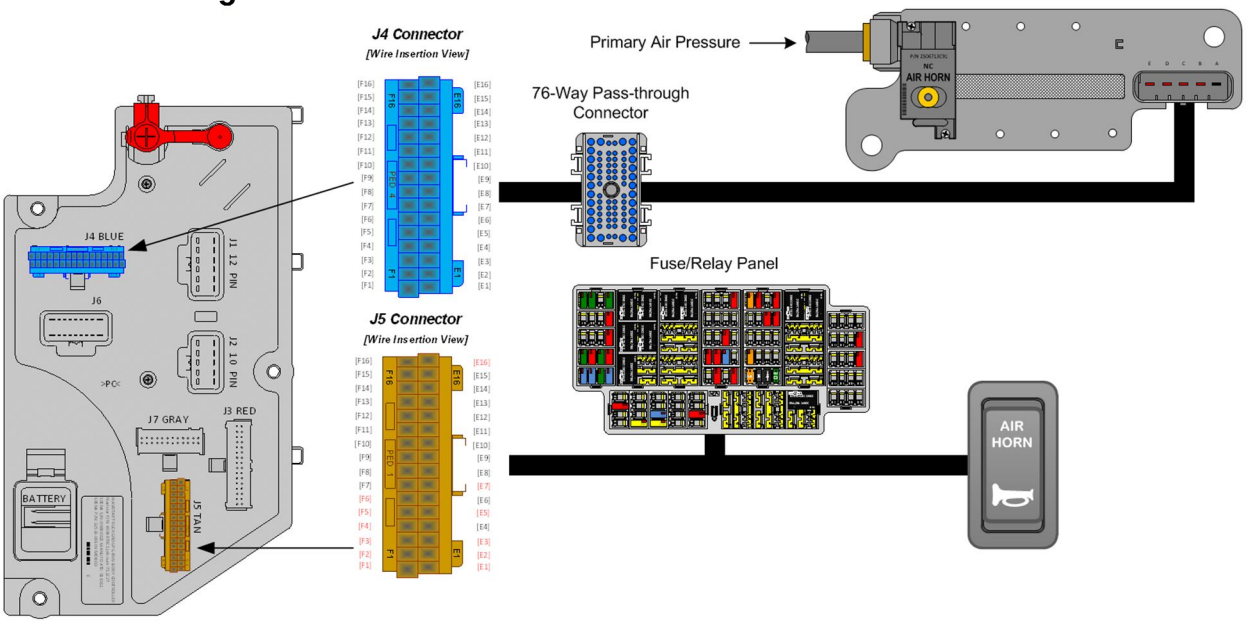
BC connector (1603): Pin C

11. Air Solenoid Features (Normally Open, Closed and Air Horn)

11.1. 08WEE: SWITCH, AIR HORN, PASSENGER Fire Truck Application; Switch Located in Instrument Panel (IP) Close to Passenger; Driver Also to Activate Switch at Steering Wheel.

Extended Description: The passenger side air horn switch provides a method for an individual to activate the vehicle air horn from the passenger seat. The feature consists of a hardwired momentary switch located in the lower right corner of the central IP. This rocker switch is used in conjunction with the air horn lanyard located at the headliner above the driver side door.

System Block Diagram:

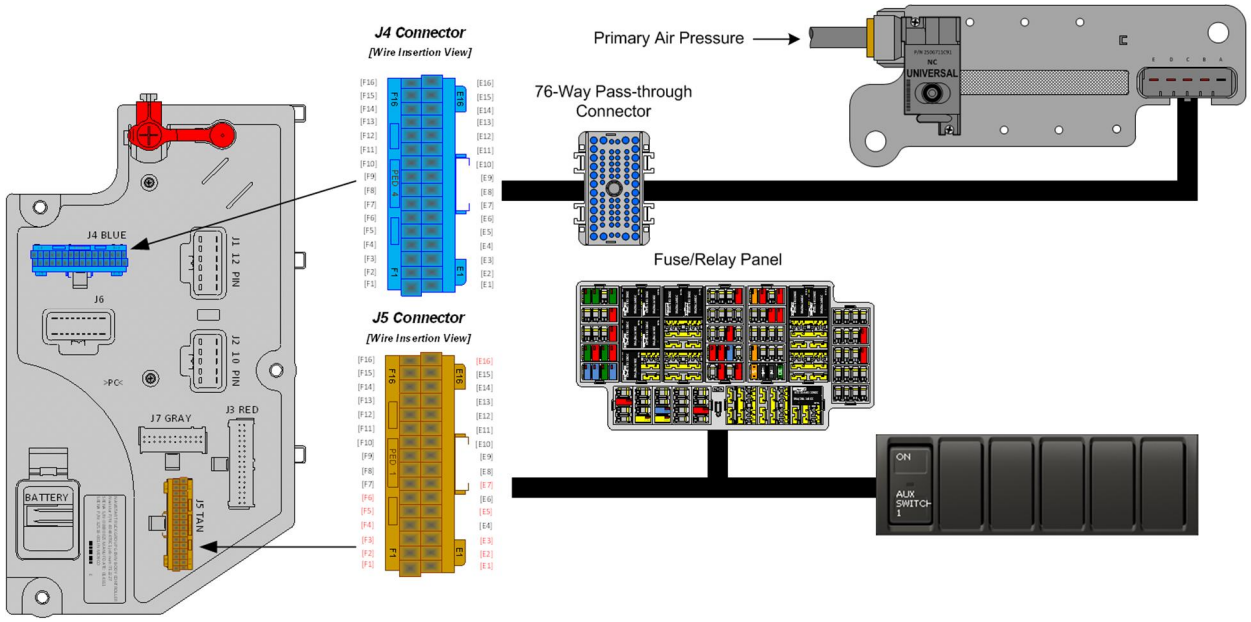


08WEE System Diagram

11.2. 08WGA: SOLENOID, AIR for Customer Use; Provides (1) Normally Closed Pilot Air Source, Approx. 4-CFM, Includes Switch in Cab; Air Available Only with Key in “Ignition (IGN)” or “Accessory” Position; Air Will Exhaust with Key in “Off” Position.

Extended Description: 08WGA includes a normally closed pilot air solenoid for customer use. The solenoid is controlled by a 2-position latching switch in the instrument panel. The solenoid is provided 12V power through a high side relay driver output from the body controller and is mounted in a four-pack air solenoid module base mounted under cab driver side frame rail, on the passenger side frame rail mid-frame or on the passenger side frame rail near the end of frame. The location is dependent on the number of factory features ordered on the vehicle that utilize air solenoids for pilot air.

System Block Diagram:



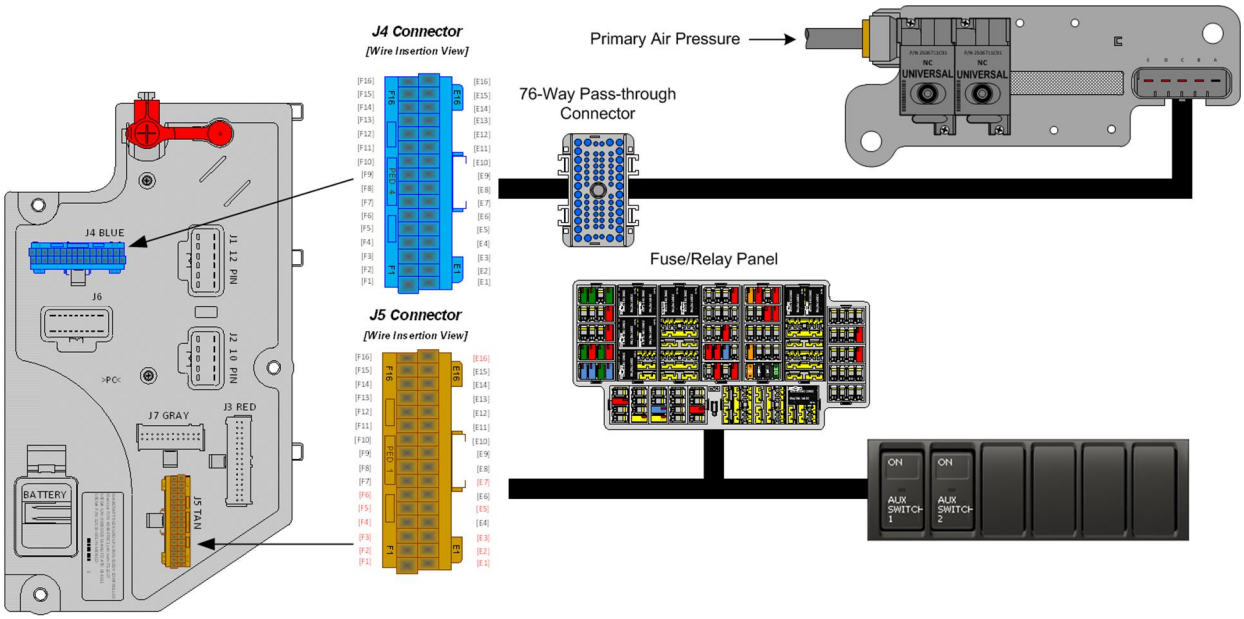
08WGA System Diagram

Body Controller Software Feature Codes:
597256 - BCM PROG, **AIR SOLENOID MODULE #1 NORMALLY CLOSED**

11.3. 08WGB: SOLENOID, AIR for Customer Use; Provides (2) Normally Closed Pilot Air Source, Approx. 4-CFM, Includes Switch in Cab; Air Available Only with Key in “IGN” or “Accessory” Position; Air Will Exhaust with Key in “Off” Position.

Extended Description: 08WGB includes two normally closed pilot air solenoids for customer use. The solenoids are each individually controlled by 2-position latching switches in the instrument panel. The solenoids are provided 12V power through high side relay driver outputs from the body controller and are mounted in one or more four-pack air solenoid module bases mounted under cab driver side frame rail, on the passenger side frame rail mid-frame or on the passenger side frame rail near the end of frame. The locations are dependent on the number of factory features ordered on the vehicle that utilize air solenoids for pilot air.

System Block Diagram:



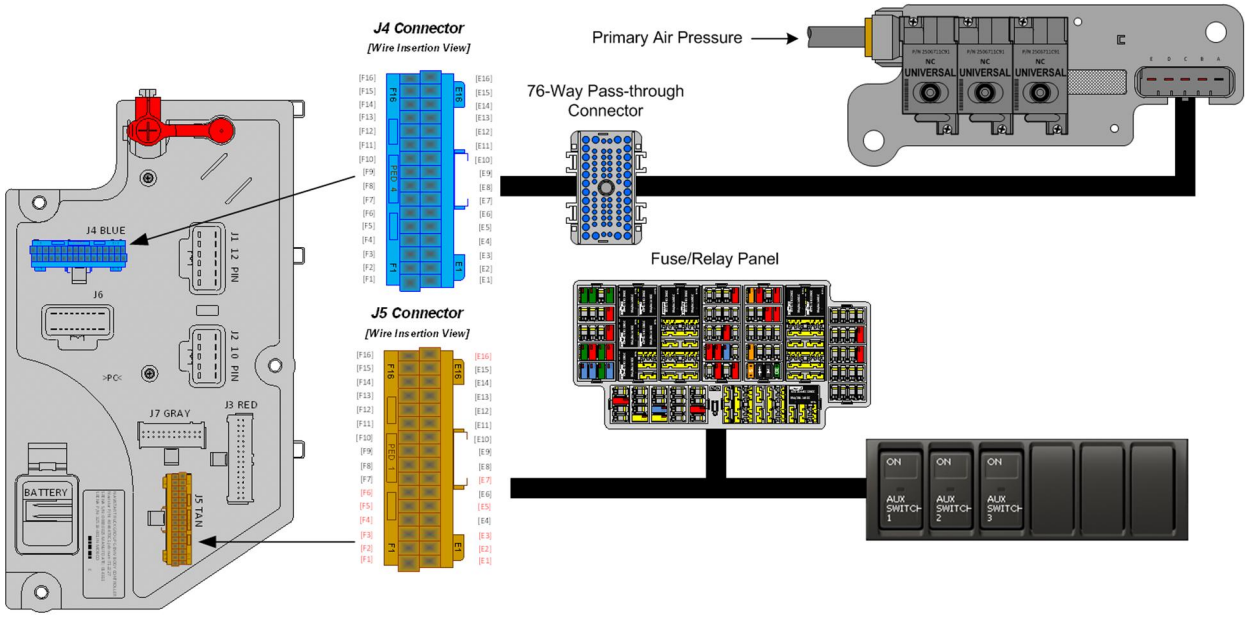
08WGB System Diagram

Body Controller Software Feature Codes:
597257 - BCM PROG, **AIR SOLENOID MOD #2 CLOSED**

11.4. 08WGC: SOLENOID, AIR for Customer Use; Provides (3) Normally Closed Pilot Air Source, Approx. 4-CFM, Includes Switch in Cab; Air Available Only with Key in “IGN” or “Accessory” Position; Air Will Exhaust with Key in “Off” Position.

Extended Description: 08WGC includes three normally closed pilot air solenoids for customer use. The solenoids are each individually controlled by 2-position latching switches in the instrument panel. The solenoids are provided 12V power through high side relay driver outputs from the body controller and are mounted in one or more four-pack air solenoid module bases mounted under cab driver side frame rail, on the passenger side frame rail mid-frame or on the passenger side frame rail near the end of frame. The locations are dependent on the number of factory features ordered on the vehicle that utilize air solenoids for pilot air.

System Block Diagram:



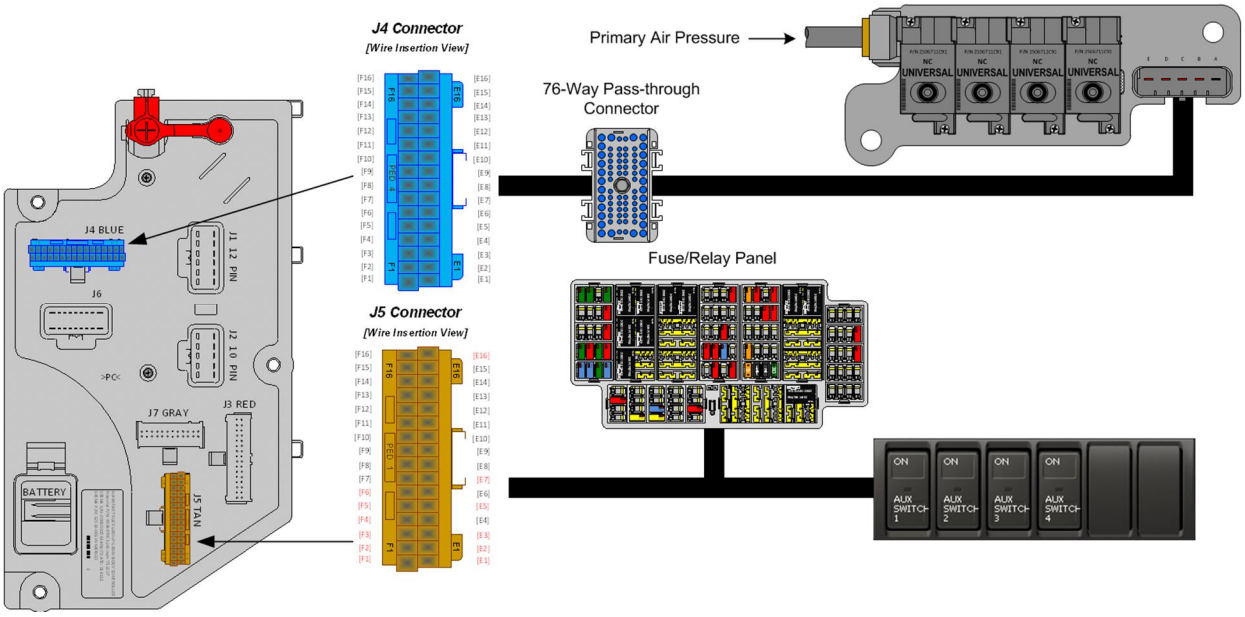
08WGC System Diagram

Body Controller Software Feature Codes:
597258 - BCM PROG, **AIR SOLENOID MOD #3 CLOSED**

11.5. 08WGD: SOLENOID, AIR for Customer Use; Provides (4) Normally Closed Pilot Air Source, Approx. 4-CFM, Includes Switch in Cab; Air Available Only with Key in “IGN” or “Accessory” Position; Air Will Exhaust with Key in “Off” Position.

Extended Description: 08WGD includes four normally closed pilot air solenoids for customer use. The solenoids are each individually controlled by 2-position latching switches in the instrument panel. The solenoids are provided 12V power through high side relay driver outputs from the body controller and are mounted in one or more four-pack air solenoid module bases mounted under cab driver side frame rail, on the passenger side frame rail mid-frame or on the passenger side frame rail near the end of frame. The locations are dependent on the number of factory features ordered on the vehicle that utilize air solenoids for pilot air.

System Block Diagram:



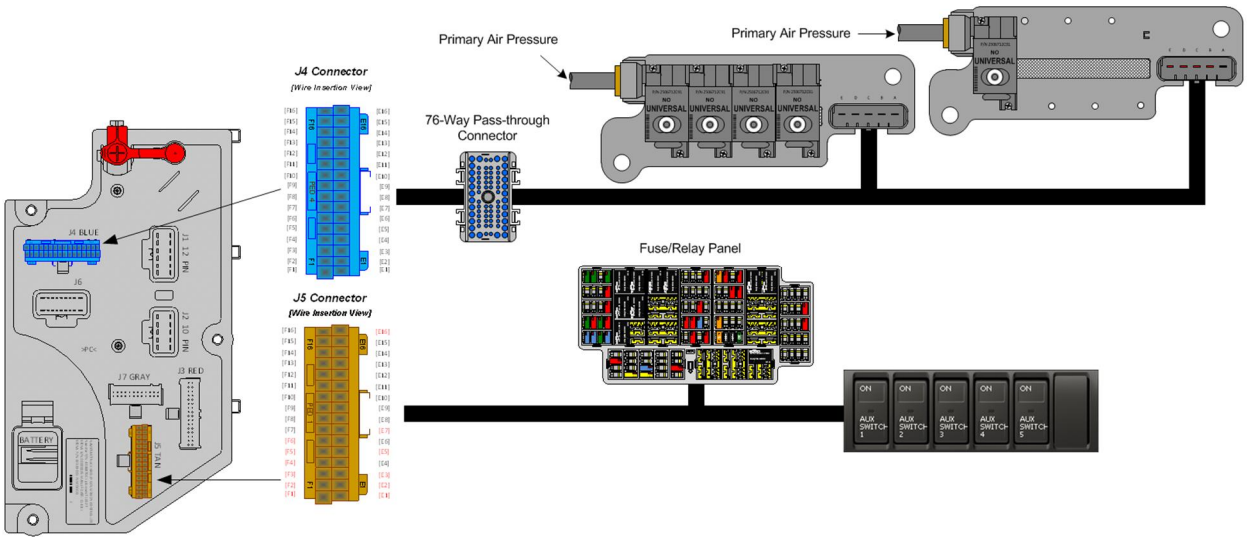
08WGD System Diagram

Body Controller Software Feature Codes:
597303 - BCM PROG, **AIR SOLENOID MOD #4 CLOSED**

11.6. 08WGP: SOLENOID, AIR for Customer Use; Provides (5) Normally Open Pilot Air Source, Approx. 4-CFM, Includes Switch in Cab; Air Exhausted Only with Key in “IGN” or “Accessory” Position; Air Will be Supplied with Key in “Off” Position.

Extended Description: 08WGP includes five normally open pilot air solenoids for customer use. The solenoids are each individually controlled by 2-position latching switches in the instrument panel. The solenoids are provided 12V power through high side relay driver outputs from the body controller and are mounted in one or more four-pack air solenoid module bases mounted under cab driver side frame rail, on the passenger side frame rail mid-frame or on the passenger side frame rail near the end of frame. The locations are dependent on the number of factory features ordered on the vehicle that utilize air solenoids for pilot air.

System Block Diagram:



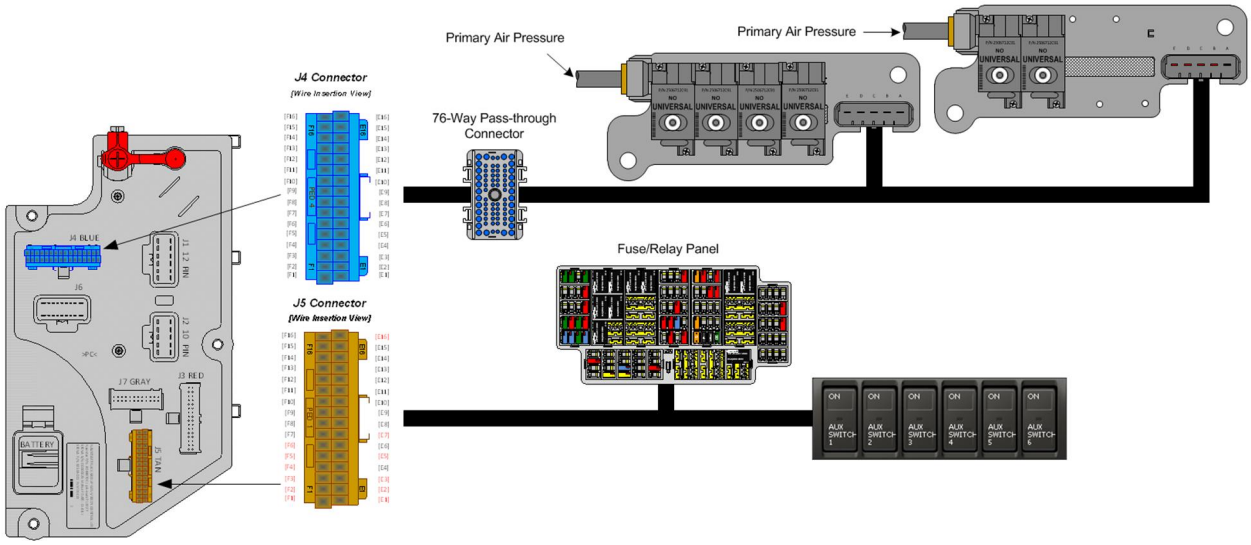
08WGP System Diagram

Body Controller Software Feature Codes:
597262 - BCM PROG, AIR SOLENOID MOD #5 OPEN

11.7. 08WGR: SOLENOID, AIR for Customer Use; Provides (6) Normally Open Pilot Air Source, Approx. 4-CFM, Includes Switch in Cab; Air Exhausted Only with Key in “IGN” or “Accessory” Position; Air Will be Supplied with Key in “Off” Position.

Extended Description: 08WGR includes six normally open pilot air solenoids for customer use. The solenoids are each individually controlled by 2-position latching switches in the instrument panel. The solenoids are provided 12V power through high side relay driver outputs from the body controller and are mounted in one or more four-pack air solenoid module bases mounted under cab driver side frame rail, on the passenger side frame rail mid-frame or on the passenger side frame rail near the end of frame. The locations are dependent on the number of factory features ordered on the vehicle that utilize air solenoids for pilot air.

System Block Diagram:



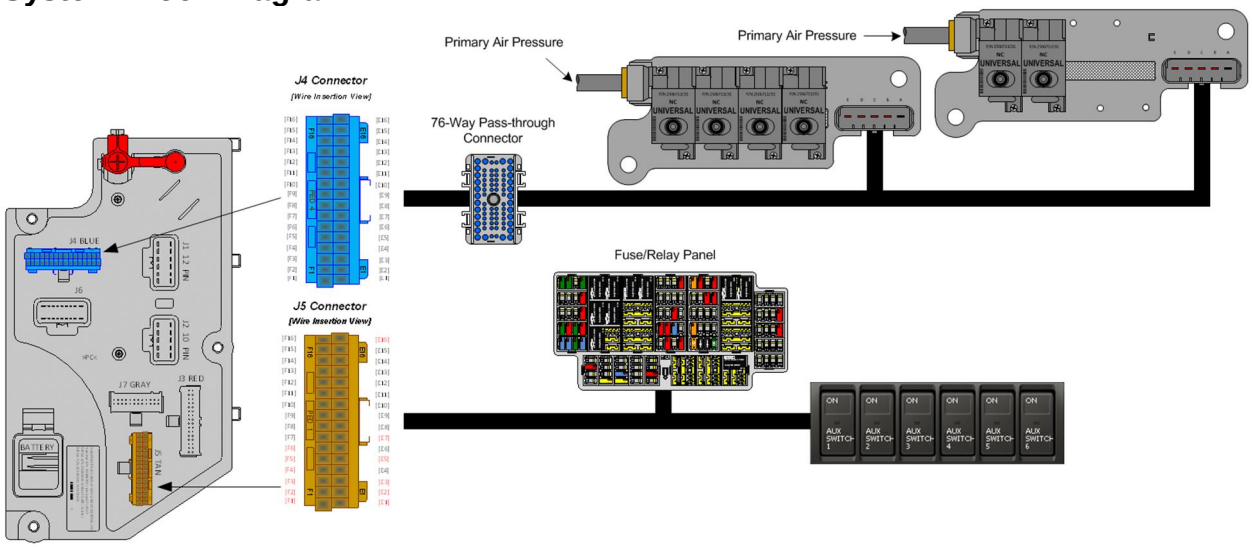
08WGR System Diagram

Body Controller Software Feature Codes:
597261 - BCM PROG**,** AIR SOLENOID MOD #6 OPEN

11.8. 08WKM: SOLENOID, AIR for Customer Use; Provides (6) Normally Closed Pilot Air Source, Approx. 4-CFM, Includes Switch in Cab; Air Available Only with Key in “Ignition” or “Accessory” Position; Air Will Exhaust with key in “Off” Position.

Extended Description: 08WKM includes six normally closed pilot air solenoids for customer use. The solenoids are each individually controlled by 2-position latching switches in the instrument panel. The solenoids are provided 12V power through high side relay driver outputs from the body controller and are mounted in one or more four-pack air solenoid module bases mounted under cab driver side frame rail, on the passenger side frame rail mid-frame or on the passenger side frame rail near the end of frame. The locations are dependent on the number of factory features ordered on the vehicle that utilize air solenoids for pilot air.

System Block Diagram:



08WKM System Diagram

Body Controller Software Feature Codes:
597259 - BCM PROG, AIR SOLENOID MOD #6 CLOSED

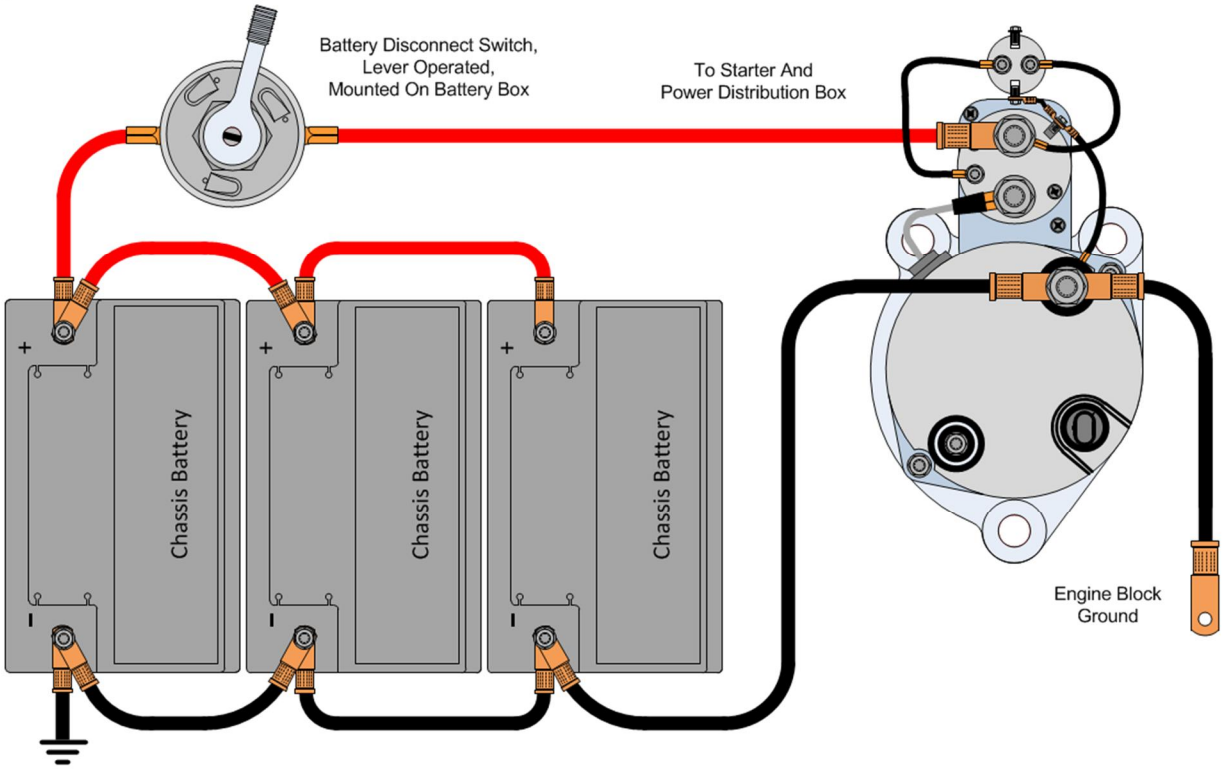
12. Battery Disconnect Switch Features

12.1. 08WAD: BATTERY DISCONNECT SWITCH {Joseph Pollak} Lever Operated.

Extended Description: The battery disconnect switch is used to shut down the entire battery-fed electrical system. When a vehicle is not going to be used for several days or longer, this switch will shut off the system so that the electrical components on the vehicle, if left on, do not drain the batteries of their charge. 08WAD provides a lever operated battery disconnect switch mounted to the battery box.

NOTE: The disconnect switch should never be used to shut off the engine as there is a possibility of the alternator generating a high positive voltage spike which may result in electrical damage.

System Block Diagram:



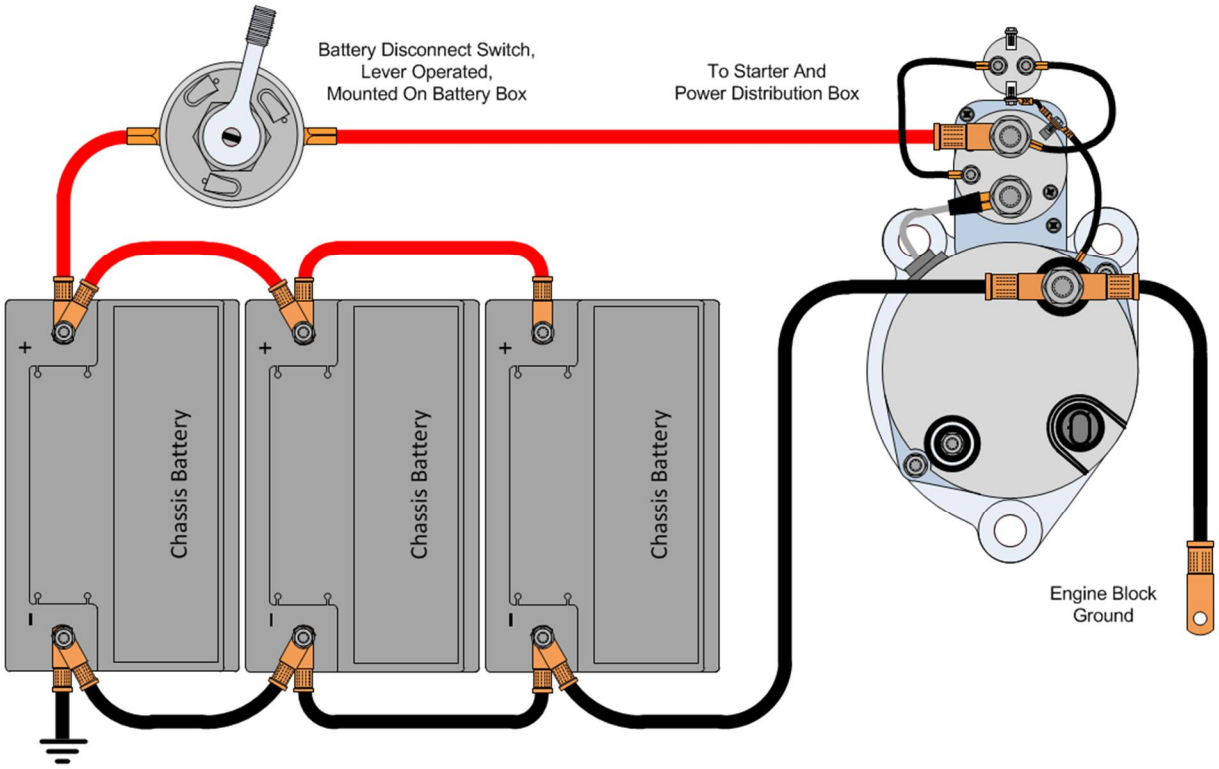
08WAD System Diagram

12.2. 08WCS: BATTERY DISCONNECT SWITCH {Joseph Pollak 51-315} Positive Type, Lever Operated, Mounted on Cab Floor.

Extended Description: The battery disconnect switch is used to shut down the entire battery-fed electrical system. When a vehicle is not going to be used for several days or longer, this switch will shut off the system so that the electrical components on the vehicle, if left on, do not drain the batteries of their charge. 08WCS provides a lever operated battery disconnect switch mounted on the cab floor driver side.

NOTE: The disconnect switch should never be used to shut off the engine as there is a possibility of the alternator generating a high positive voltage spike which may result in electrical damage.

System Block Diagram:



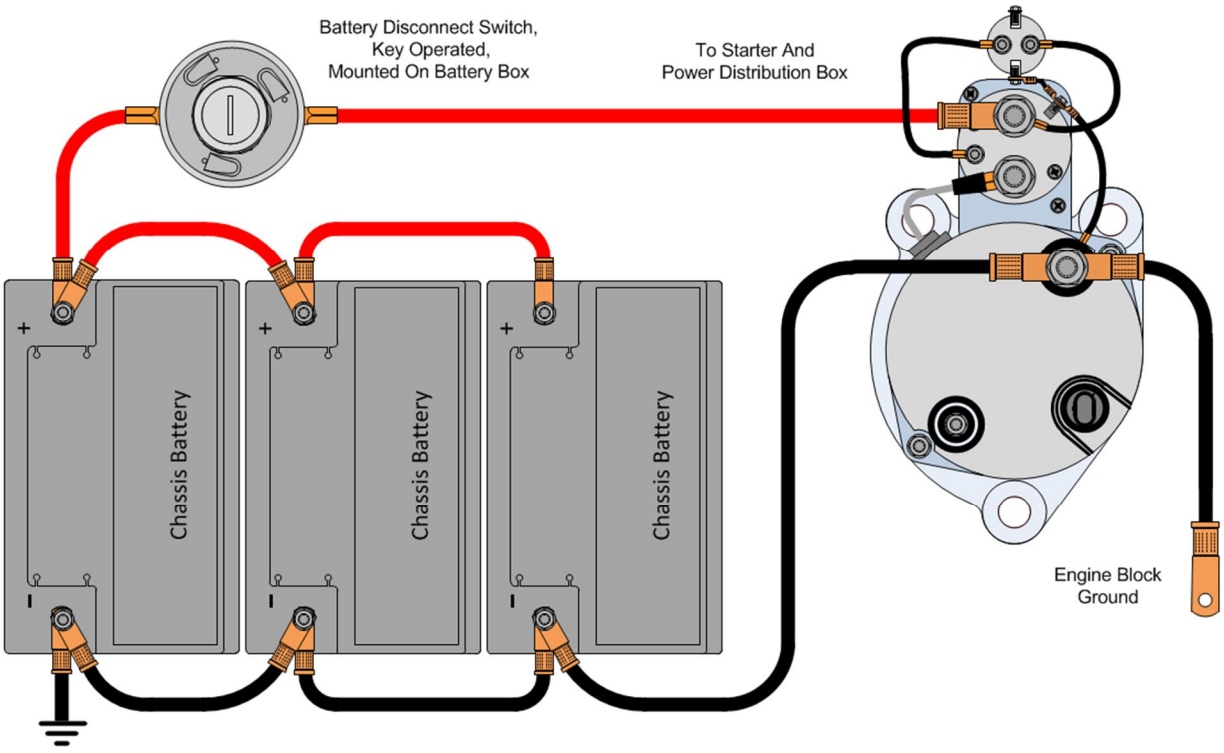
08WCS System Diagram

12.3. 08WHX: BATTERY DISCONNECT SWITCH {Joseph Pollak 51-316} Locking, Key Operated, Positive Type, Mounted on Battery Box.

Extended Description: The battery disconnect switch is used to shut down the entire battery-fed electrical system. When a vehicle is not going to be used for several days or longer, this switch will shut off the system so that the electrical components on the vehicle, if left on, do not drain the batteries of their charge. 08WHX provides a key operated battery disconnect switch mounted on the battery box.

NOTE: The disconnect switch should never be used to shut off the engine as there is a possibility of the alternator generating a high positive voltage spike which may result in electrical damage.

System Block Diagram:



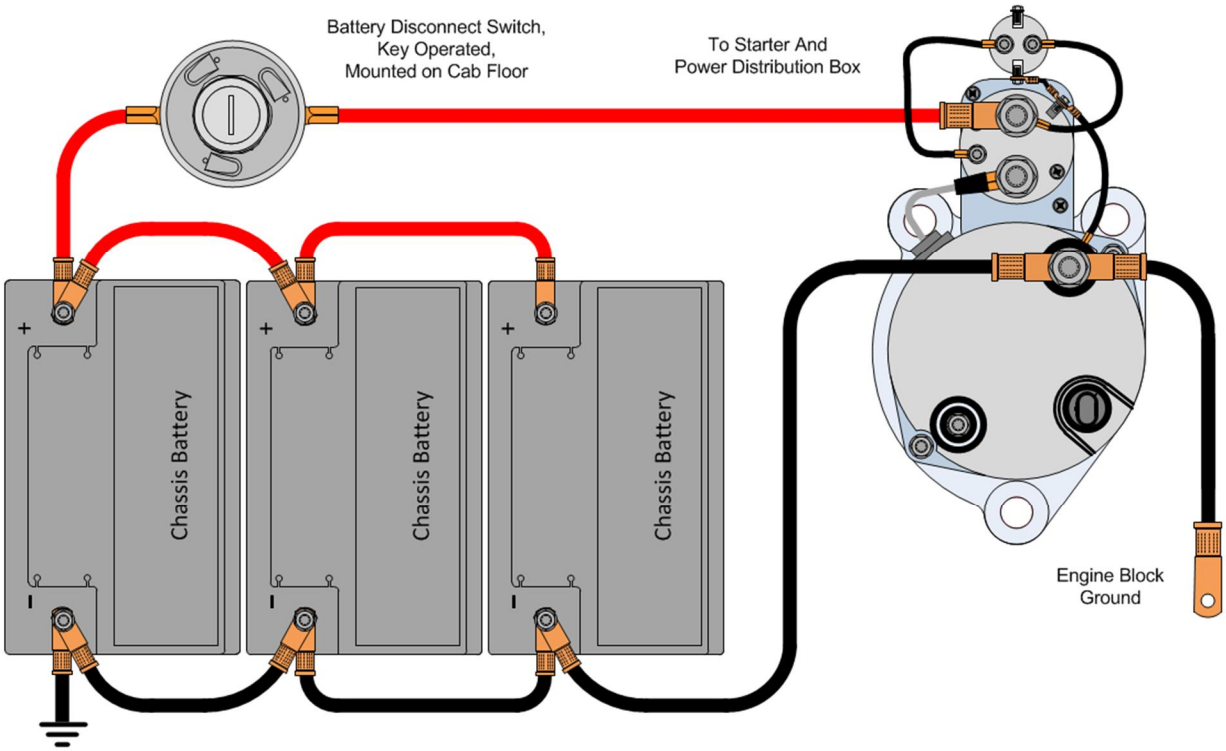
08WHX System Diagram

12.4. 08WHY: BATTERY DISCONNECT SWITCH {Joseph Pollak 51-316} Positive Type, Locking, Key Operated, Mounted on Cab Floor

Extended Description: The battery disconnect switch is used to shut down the entire battery-fed electrical system. When a vehicle is not going to be used for several days or longer, this switch will shut off the system so that the electrical components on the vehicle, if left on, do not drain the batteries of their charge. 08WHY provides a key operated battery disconnect switch mounted on the cab floor driver side.

NOTE: The disconnect switch should never be used to shut off the engine as there is a possibility of the alternator generating a high positive voltage spike which may result in electrical damage.

System Block Diagram:



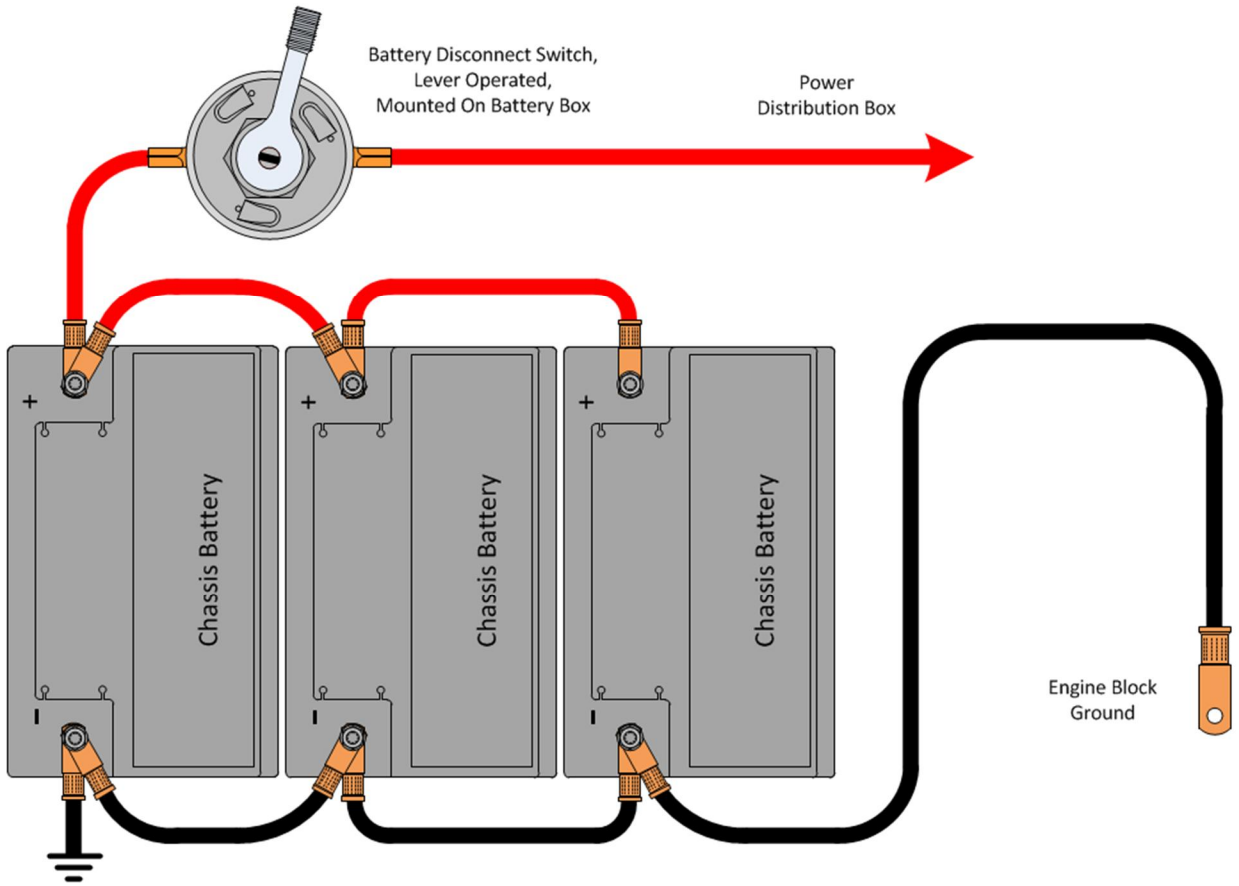
08WHY System Diagram

12.5. 08WJT: BATTERY DISCONNECT SWITCH {Joseph Pollak} Lever Operated, Disconnect Power to PDC, Does Not Disconnect Charging Circuits, Mounted on Battery Box.

Extended Description: The battery disconnect switch is used to shut down the entire battery-fed electrical system. When a vehicle is not going to be used for several days or longer, this switch will shut off the system so that the electrical components on the vehicle, if left on, do not drain the batteries of their charge. 08WJT provides a lever operated battery disconnect switch mounted on the battery box. 08WJT disconnects power to the Power Distribution Center (PDC), but does NOT disconnect the charging circuits to the batteries.

NOTE: The disconnect switch should never be used to shut off the engine as there is a possibility of the alternator generating a high positive voltage spike which may result in electrical damage.

System Block Diagram:



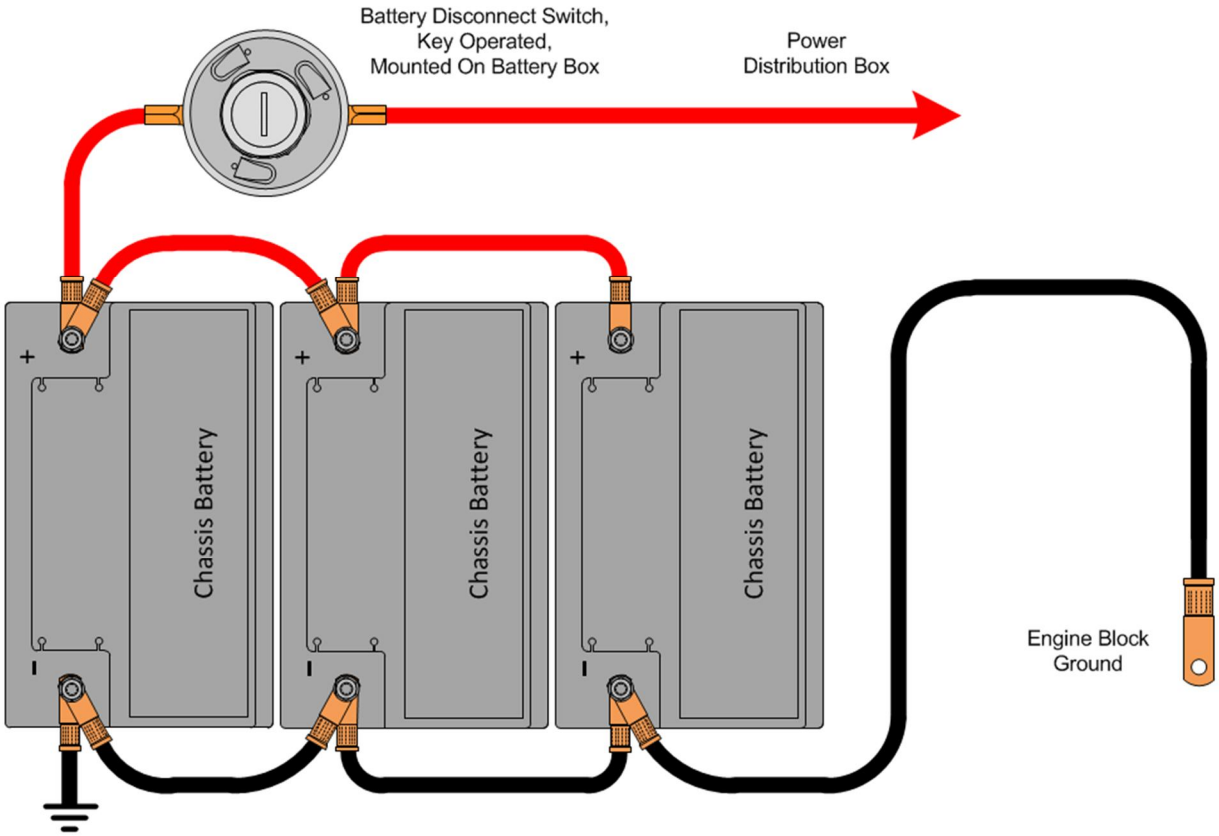
08WJT System Diagram

12.6. 08WJU: BATTERY DISCONNECT SWITCH {Joseph Pollak} Locking, Key Operated, Disconnects Power to PDC, Does Not Disconnect Charging Circuits, Mounted on Battery Box.

Extended Description: The battery disconnect switch is used to shut down the entire battery-fed electrical system. When a vehicle is not going to be used for several days or longer, this switch will shut off the system so that the electrical components on the vehicle, if left on, do not drain the batteries of their charge. 08WJU provides a key operated battery disconnect switch mounted on the battery box. 08WJU disconnects power to the Power Distribution Center (PDC), but does NOT disconnect the charging circuits to the batteries.

NOTE: The disconnect switch should never be used to shut off the engine as there is a possibility of the alternator generating a high positive voltage spike which may result in electrical damage.

System Block Diagram:



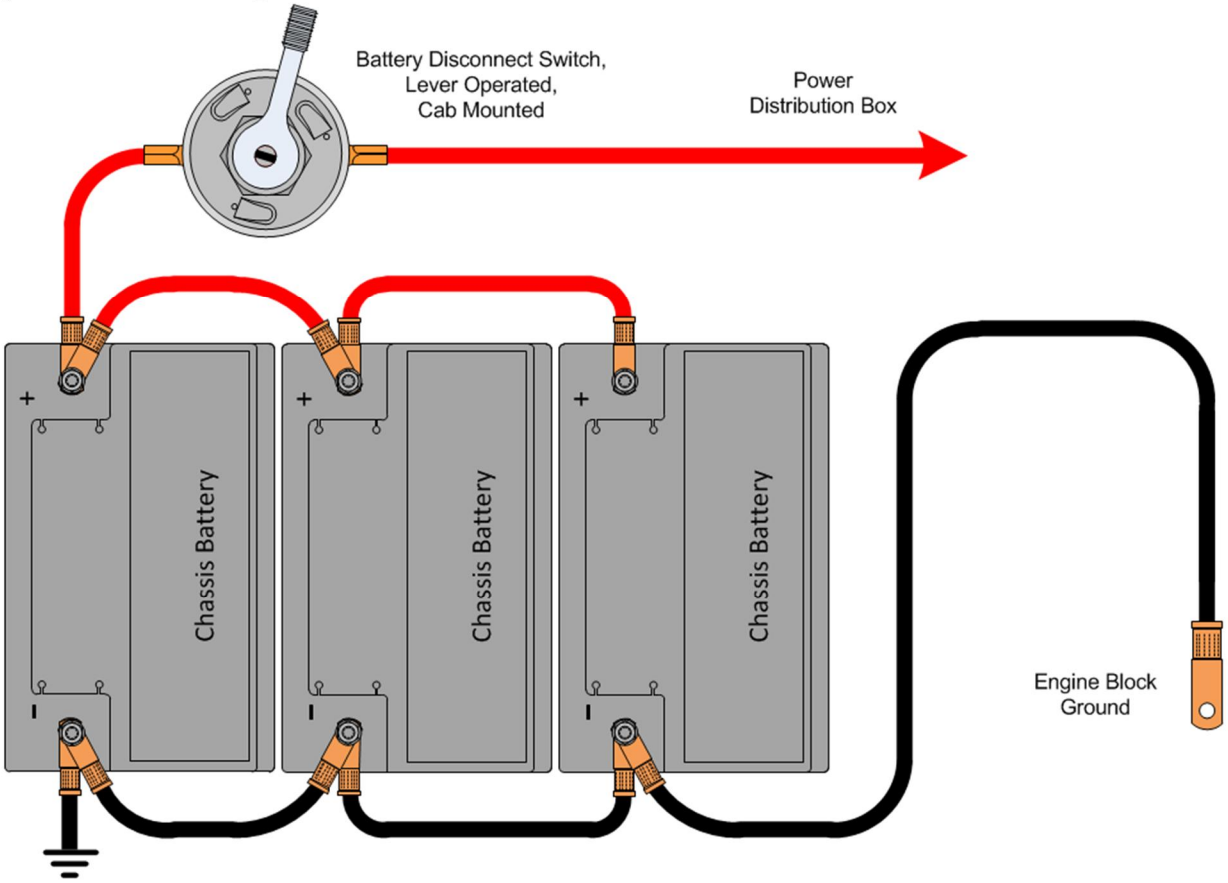
08WJU System Diagram

12.7. 08WJV: BATTERY DISCONNECT SWITCH (Joseph Pollak) for Cab Power Disconnect Switch; Cab Mounted, Lever Operated, Disconnects Power to PDC, Does Not Disconnect Charging Circuits.

Extended Description: The battery disconnect switch is used to shut down the entire battery-fed electrical system. When a vehicle is not going to be used for several days or longer, this switch will shut off the system so that the electrical components on the vehicle, if left on, do not drain the batteries of their charge. 08WJV provides a lever operated battery disconnect switch mounted on the cab floor driver side. 08WJV disconnects power to the Power Distribution Center (PDC), but does NOT disconnect the charging circuits to the batteries.

NOTE: The disconnect switch should never be used to shut off the engine as there is a possibility of the alternator generating a high positive voltage spike which may result in electrical damage.

System Block Diagram:



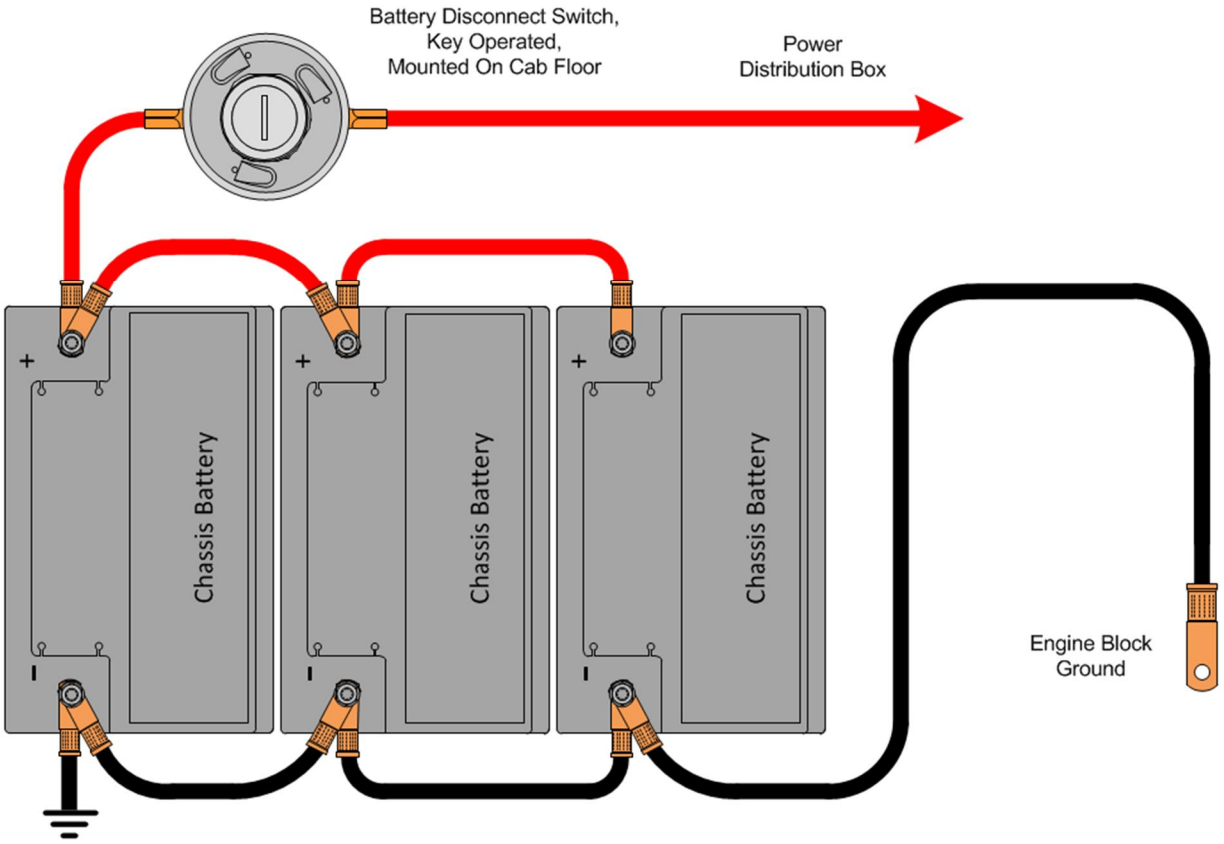
08WJV System Diagram

12.8. 08WJW: BATTERY DISCONNECT SWITCH {Joseph Pollak} Key Operated, Disconnects Power to PDC, Does Not Disconnect Charging Circuits, Cab Mounted.

Extended Description: The battery disconnect switch is used to shut down the entire battery-fed electrical system. When a vehicle is not going to be used for several days or longer, this switch will shut off the system so that the electrical components on the vehicle, if left on, do not drain the batteries of their charge. 08WJW provides a key operated battery disconnect switch mounted on the cab floor driver side. 08WJW disconnects power to the Power Distribution Center (PDC), but does NOT disconnect the charging circuits to the batteries.

NOTE: The disconnect switch should never be used to shut off the engine as there is a possibility of the alternator generating a high positive voltage spike which may result in electrical damage.

System Block Diagram:

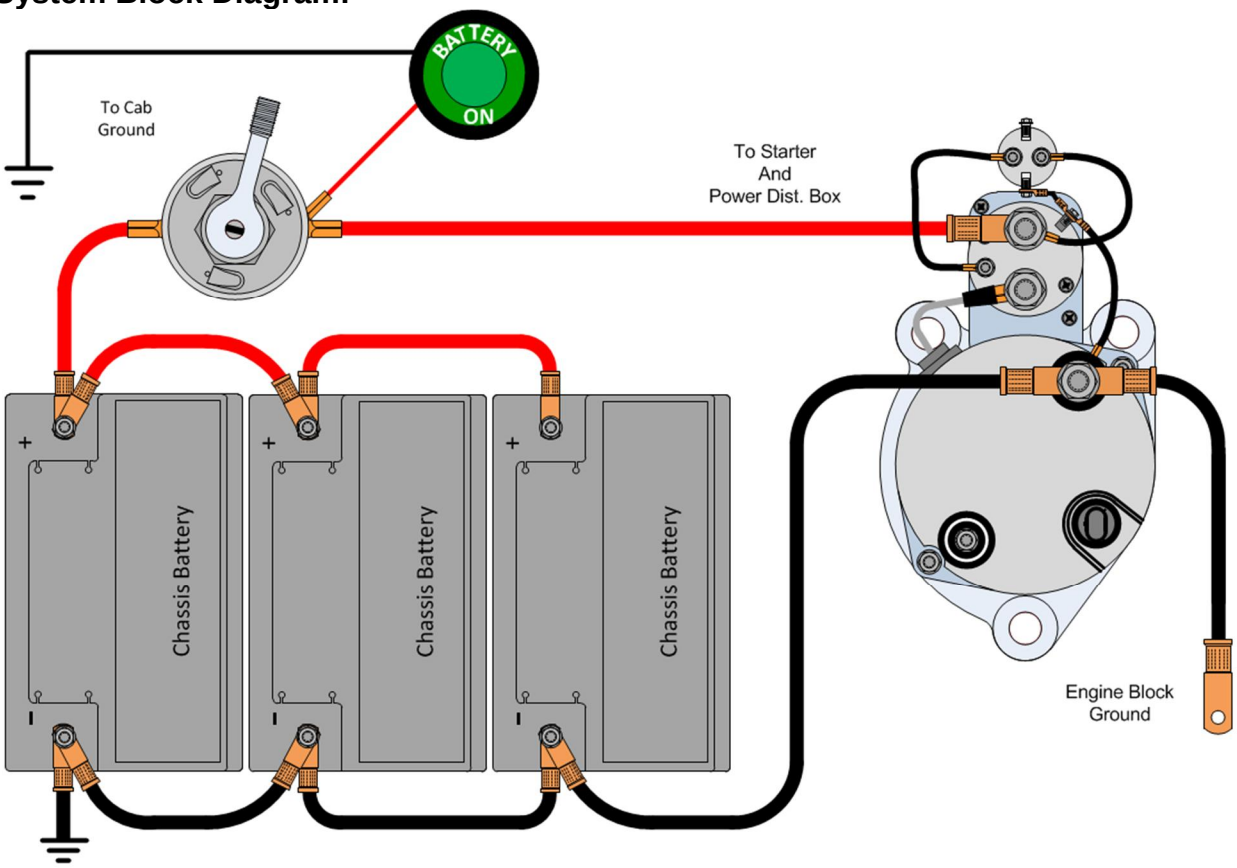


08WJW System Diagram

12.9. 08WZP: BATTERY WARNING Green Indicator Mounted on Left Side of Instrument Panel above left side switch panel.

Extended Description: May be used with factory code 08WAD, 08WCS, 08WHX, 08WHY, 08WJT, 08WJU, 08WJV or 08WJW (battery disconnect switch for cab power) or with a customer supplied disconnect. The indicator will illuminate any time the battery disconnect switch is turned on regardless of key position.

System Block Diagram:



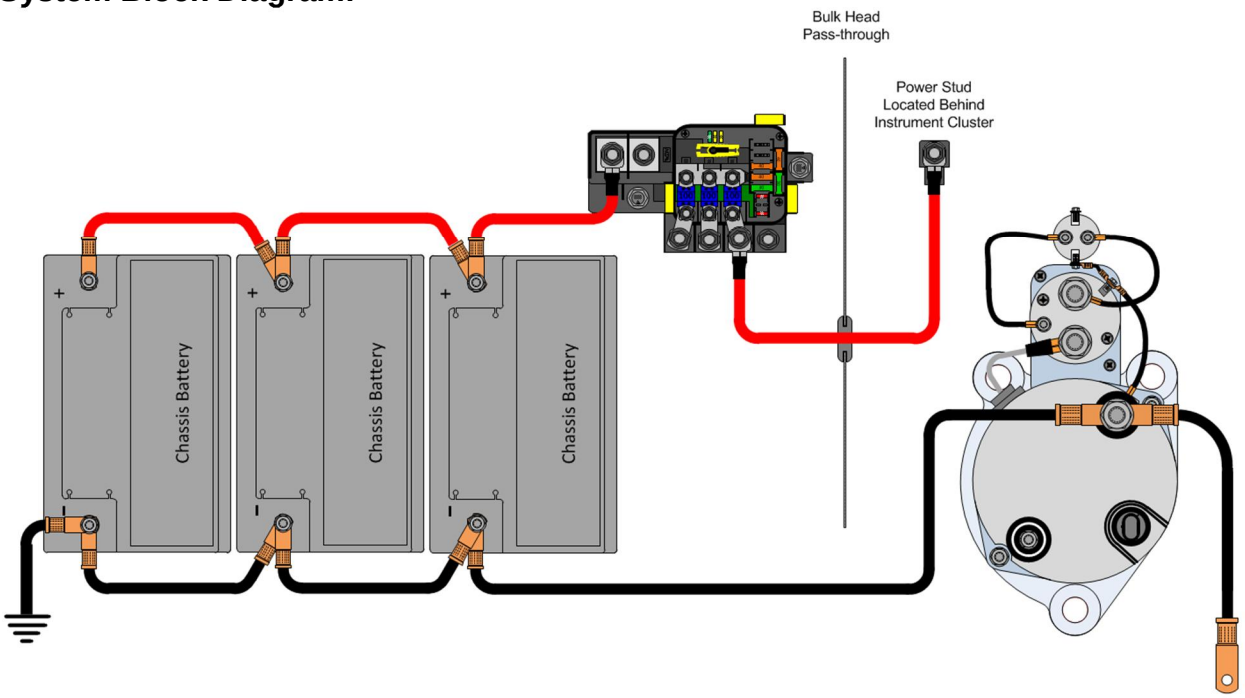
08WZP System Diagram

13. Body Builder Integration Harnesses

13.1. 08WZG: JUNCTION BLOCK Stud, 100-Amp Battery Feed, protected by a Fusible Link, Stud to be used for Body Builder Feeds Inside Cab.

Extended Description: This feature is a battery feed point provided inside the cab. The connection will provide up to 100-amps for body builder use. The circuit feeds off the mega fuse on the left side of the dash panel and is protected by a fusible link connection. A 3/8” stud is provided on the left side of the instrument panel behind the gauge cluster.

System Block Diagram:



08WZG System Diagram

13.2. 60ABM: BDY INTG, RPM I/O HARNESS, Includes a Harness with 6 Input Blunt Cut wires and 6 Output Blunt Cut Wires, for use with one RPM.

Extended Description: Feature 60ABM provides the I/O RPM connectors, terminals and blunt cut wires for TEMs and Body Builders to connect body wiring to the RPM. This significantly reduces labor installation and material content previously required with just the connectors. The included wires are approximately 3-feet long and ease connecting the RPM to body wiring.

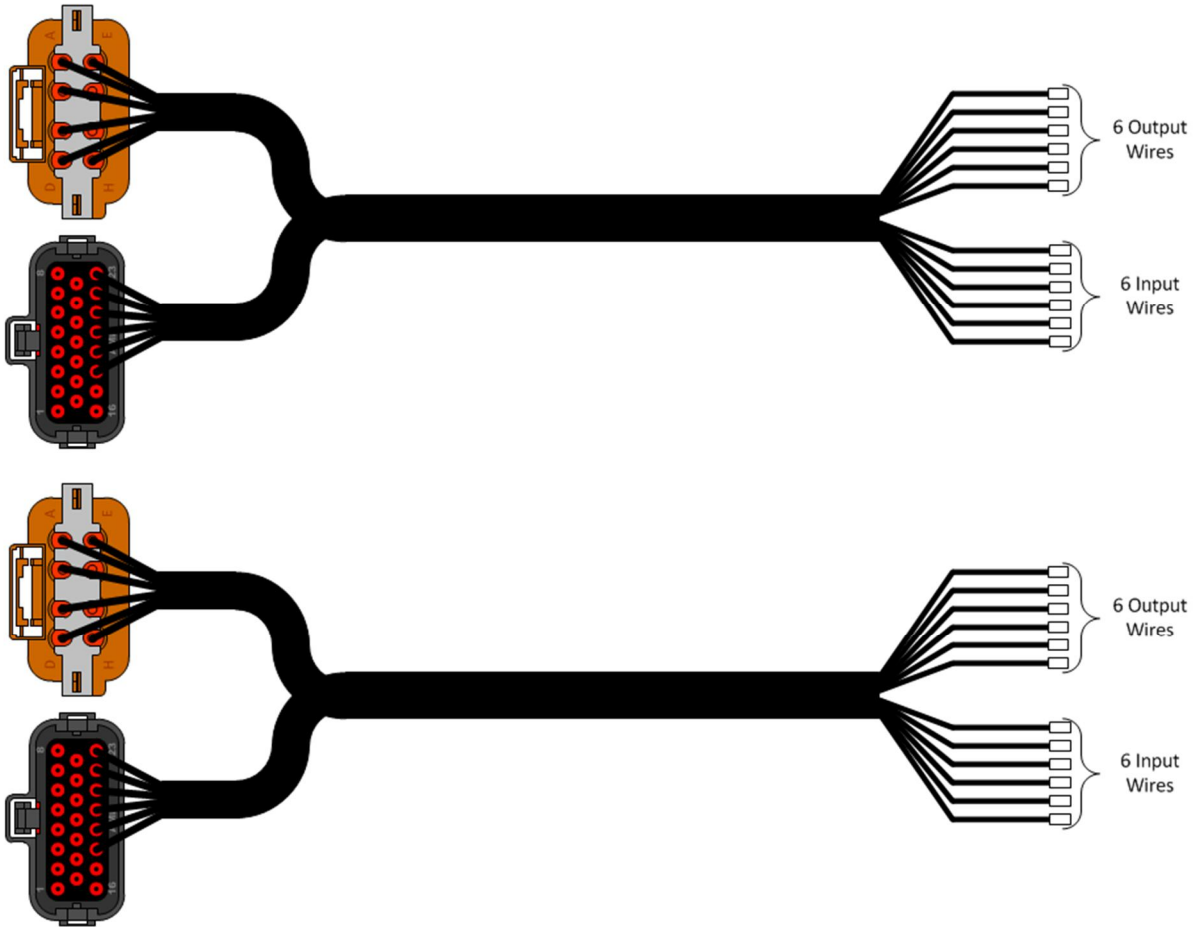
System Block Diagram:

60ABM Harness Diagram

13.3. 60ABN: BDY INTG, RPM I/O HARNESS, Includes 2-Harnesses with 6-Input Blunt Cut wires and 6 Output Blunt Cut Wires, for use with two RPMs.

Extended Description: Feature 60ABN provides the I/O RPM connectors, terminals and blunt cut wires for TEMs and Body Builders to connect body wiring to two RPMs. This significantly reduces labor installation and material content previously required with just the connectors. The included wires are approximately 3-feet long and ease connecting the RPMs to body wiring.

System Block Diagram:



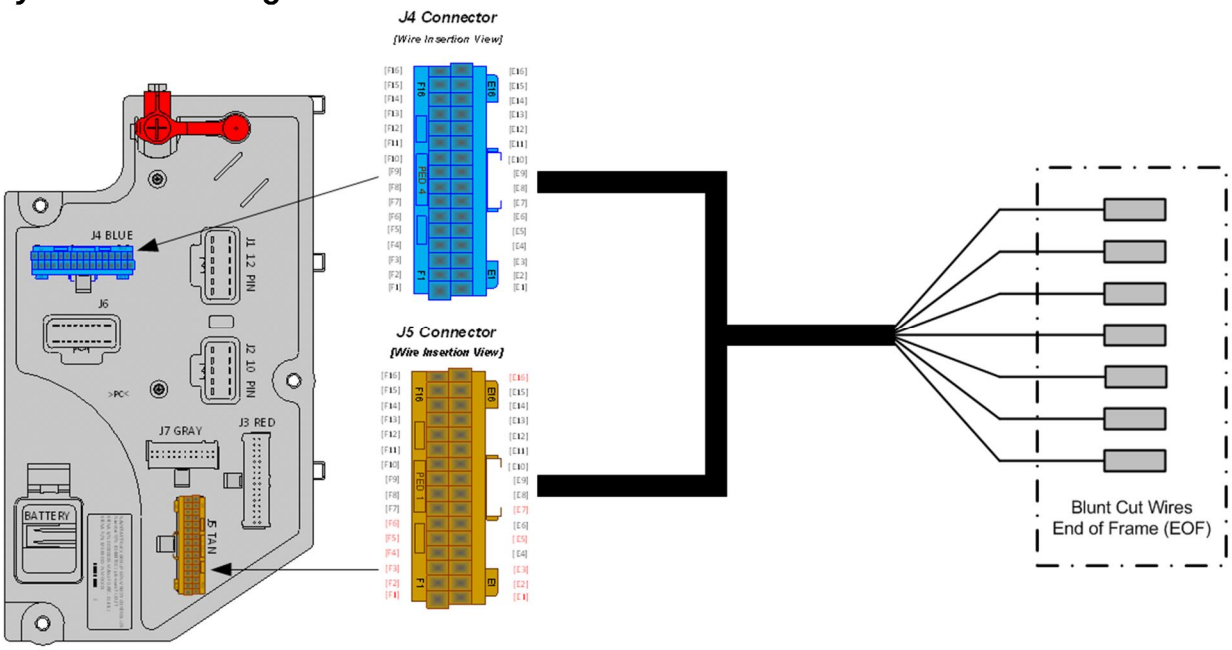
60ABN Harness Diagram

13.4. 60ACW: BODY INTG, I/O EXPANSION HARNESS (for Diamond Logic® Builder only) includes a harness with five blunt-cut wires routed on lower left of IP. Two GND active inputs and two (0.5 AMP) relay driver outputs (GND active) are provided.

Extended Description: This feature is an input/output expansion feature for Diamond Logic® Builder to be utilized by Body Builders. This expansion feature provides the following: (2) ground digital inputs, (2) 0.5-Amp ground relay driver outputs, (1) Zero Volt Reference (ZVR) on the Body Controller (BC) as well as an expansion overlay harness that is part of the IP harness. The expansion overlay harness grants access to these inputs, outputs, and ZVR by providing blunt-cut wires that are strapped to the main IP harness trunk near the J1939 diagnostic connector on the interior of the cab. The overlay harness was designed to be long enough to allow the wires to be inserted into the 72-way pass thru connector if desired.

Additionally, there are (2) 0.5-Amp ground relay driver outputs not included in the overlay harness which are available only through the advanced logic capabilities of Diamond Logic® Builder. When this feature is added to the vehicle, the BC pins will not show up on the connector view of DLB until they are written to with Advanced Logic. The feature must be turned on and the inputs/outputs must be used in Advanced Logic to show up on the connector view of DLB. The above pins are NOT assigned with the feature. Diamond Logic® advanced logic must be used to assign these pins.

System Block Diagram:



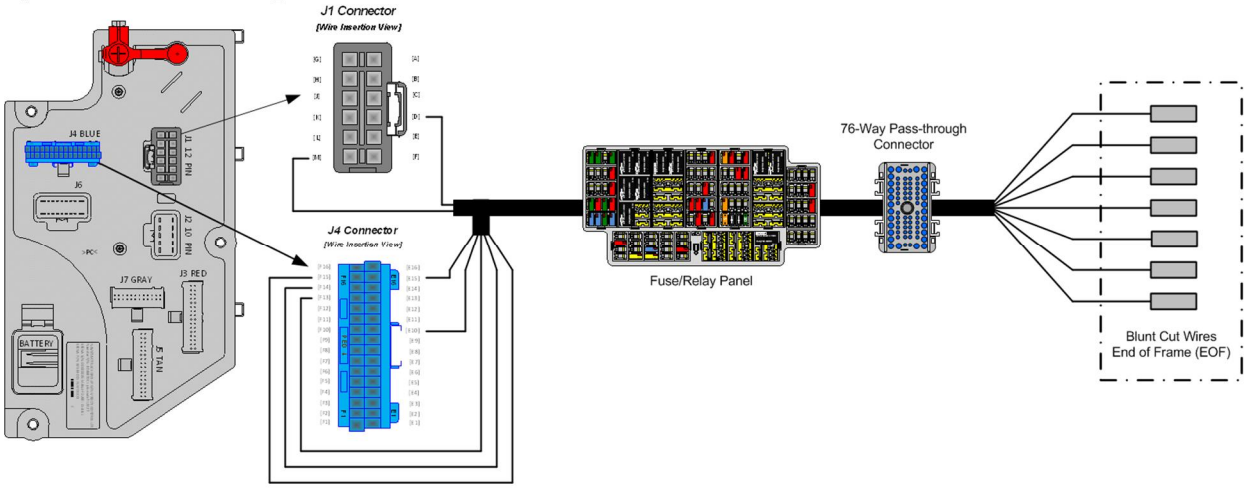
Body Controller Software Feature Codes:
597320 - BCM PROG, DLB I/O EXPANSION

14. Body Builder Wiring, for Stop/Turn/Tail Lights/ Though Power:

14.1. 08HAA: BODY BUILDER WIRING To EOF, With Stop, Tail, Turn, and Marker Lights Circuits, Ignition (IGN)-Controlled Auxiliary Feed and Ground (GND), Less Trailer Socket.

Extended Description: This feature is for vehicles that have heavy-duty lighting requirements. This feature has a 30-AMP IGN Feed. Right and left turn signals can support up to seven turn lamps per side. Code 08HAA is designed for separate stop and turn lamps only. The 7-wire breakout is located at the EOF and there is no connector. The wires are blunt-cut with heat shrink covering.

System Block Diagram:



Body Controller Software Feature Codes:

- 597054 – BCM PROG, TRAILER LIGHTING

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
Trailer_Left_Turn_Lamp_OC_Current	3175	Trailer Left Lamp Open Circuit Detection Level value range	0	A	0	20	0.1
Trailer_Left_Turn_Lamp_Low_Current	3177	Trailer Left Lamp Low Current Detection Level value range	0	A	0	20	0.1
Trailer_Left_Turn_Lamp_High_Current	3178	Trailer Left Lamp High Current Detection Level value range	15	A	0	20	0.1
Trailer_Right_Turn_Lamp_High_Current	3179	Trailer Right Lamp High Current Detection Level value range	15	A	0	20	0.1
Trailer_Right_Turn_Lamp_Low_Current	3180	Trailer Left Lamp Low Current Detection Level value range	0	A	0	20	0.1
Trailer_Right_Turn_Lamp_OC_Current	3181	Trailer Left Lamp Open Circuit Detection Level value range	0	A	0	20	0.1

Trailer_Marker_Lamp_High_Current	3182	Trailer Marker Lamp High Current Detection Level value range	20	A	0	20	0.1
Trailer_Marker_Lamp_Low_Current	3183	Trailer Marker Lamp Low Current Detection Level value range	0	A	0	20	0.1
Trailer_Marker_Lamp_OC_Current	3184	Trailer Marker Lamp Open Circuit Detection Level value range	0	A	0	20	0.1
Trailer_Tail_Lamp_High_Current	3185	Trailer Tail Lamp High Current Detection Level value range	20	A	0	20	0.1
Trailer_Tail_Lamp_Low_Current	3186	Trailer Tail Lamp Low Current Detection Level value range	0	A	0	20	0.1
Trailer_Tail_Lamp_OC_Current	3187	Trailer Tail Lamp Open Circuit Detection Level value range	0	A	0	20	0.1

Parameter Definitions:

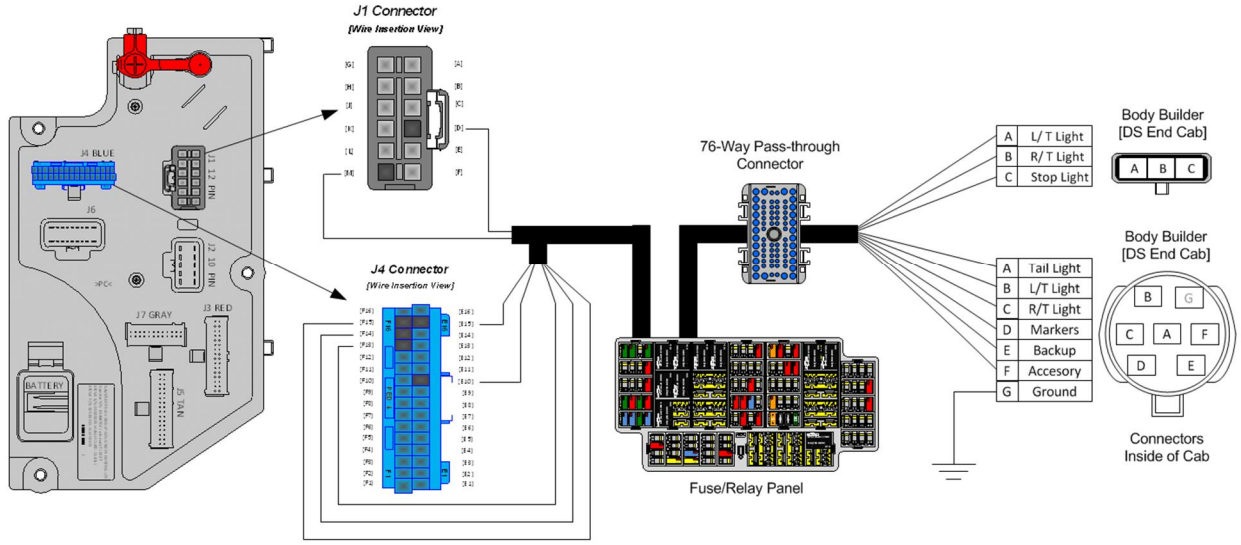
- **Trailer_Left_Turn_Lamp_OC_Current** – This parameter sets the minimum fuse level for the open circuit of the Trailer Left Turn Lamp. If the current draw is below this value, a fault will be set.
- **Trailer_Left_Turn_Lamp_Low_Current** – This parameter sets the minimum fuse level for normal operation of the Trailer Left Turn Lamp. If the current draw exceeds this value, the circuit will open
- **Trailer_Left_Turn_Lamp_High_Current** – This parameter sets the maximum fuse level for normal operation of the Trailer Left Turn Lamp. If the current draw exceeds this value, the circuit will open.
- **Trailer_Right_Turn_Lamp_High_Current** – This parameter sets the maximum fuse level for normal operation of the Trailer Right Turn Lamp. If the current draw exceeds this value, the circuit will open.
- **Trailer_Right_Turn_Lamp_Low_Current** – This parameter sets the minimum fuse level for normal operation of the Trailer Right Turn Lamp. If the current draw exceeds this value, the circuit will open
- **Trailer_Right_Turn_Lamp_OC_Current** – This parameter sets the minimum fuse level for the open circuit of the Trailer Right Turn Lamp. If the current draw is below this value, a fault will be set.
- **Trailer_Marker_Lamp_High_Current** – This parameter sets the maximum fuse level for normal operation of the Trailer Marker Lamp. If the current draw exceeds this value, the circuit will open.
- **Trailer_Marker_Lamp_Low_Current** – This parameter sets the minimum fuse level for normal operation of the Trailer Marker Lamp. If the current draw exceeds this value, the circuit will open
- **Trailer_Marker_Lamp_OC_Current** – This parameter sets the minimum fuse level for the open circuit of the Trailer Marker Lamp. If the current draw is below this value, a fault will be set.
- **Trailer_Tail_Lamp_High_Current** – This parameter sets the maximum fuse level for normal operation of the Trailer Tail Lamp. If the current draw exceeds this value, the circuit will open.
- **Trailer_Tail_Lamp_Low_Current** – This parameter sets the minimum fuse level for normal operation of the Trailer Tail Lamp. If the current draw exceeds this value, the circuit will open

- **Trailer_Tail_Lamp_OC_Current** – This parameter sets the minimum fuse level for the open circuit of the Trailer Tail Lamp. If the current draw is below this value, a fault will be set.

14.2. 08HAB: BODY BUILDER WIRING, BOC AT LEFT OF FRAME, includes 7-way sealed connector for tail/amber/backup/accessory power/GND and sealed connectors for combination stop/turn and a 3-way for separate stop/turn lights.

Extended Description: This feature includes one 7-way and one 3-way sealed connector at the back of cab. The 7-way connector includes tail light, clearance, backup, stop/turn, accessory and ground circuits for the body builder to connect to in place of wiring into the chassis equipped end of frame light circuits. The 3-way connector includes circuits for separate stop and turn lights if needed.

System Block Diagram:



Body Controller Software Feature Codes:

- 597054 – BCM PROG, TRAILER LIGHTING

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
Trailer_Left_Turn_Lamp_OC_Current	3175	Trailer Left Lamp Open Circuit Detection Level value range	0	A	0	20	0.1
Trailer_Left_Turn_Lamp_Low_Current	3177	Trailer Left Lamp Low Current Detection Level value range	0	A	0	20	0.1
Trailer_Left_Turn_Lamp_High_Current	3178	Trailer Left Lamp High Current Detection Level value range	15	A	0	20	0.1
Trailer_Right_Turn_Lamp_High_Current	3179	Trailer Right Lamp High Current Detection Level value range	15	A	0	20	0.1
Trailer_Right_Turn_Lamp_Low_Current	3180	Trailer Left Lamp Low Current Detection Level value range	0	A	0	20	0.1
Trailer_Right_Turn_Lamp_OC_Current	3181	Trailer Left Lamp Open Circuit Detection Level value range	0	A	0	20	0.1

Trailer_Marker_Lamp_High_Current	3182	Trailer Marker Lamp High Current Detection Level value range	20	A	0	20	0.1
Trailer_Marker_Lamp_Low_Current	3183	Trailer Marker Lamp Low Current Detection Level value range	0	A	0	20	0.1
Trailer_Marker_Lamp_OC_Current	3184	Trailer Marker Lamp Open Circuit Detection Level value range	0	A	0	20	0.1
Trailer_Tail_Lamp_High_Current	3185	Trailer Tail Lamp High Current Detection Level value range	20	A	0	20	0.1
Trailer_Tail_Lamp_Low_Current	3186	Trailer Tail Lamp Low Current Detection Level value range	0	A	0	20	0.1
Trailer_Tail_Lamp_OC_Current	3187	Trailer Tail Lamp Open Circuit Detection Level value range	0	A	0	20	0.1

Parameter Definitions:

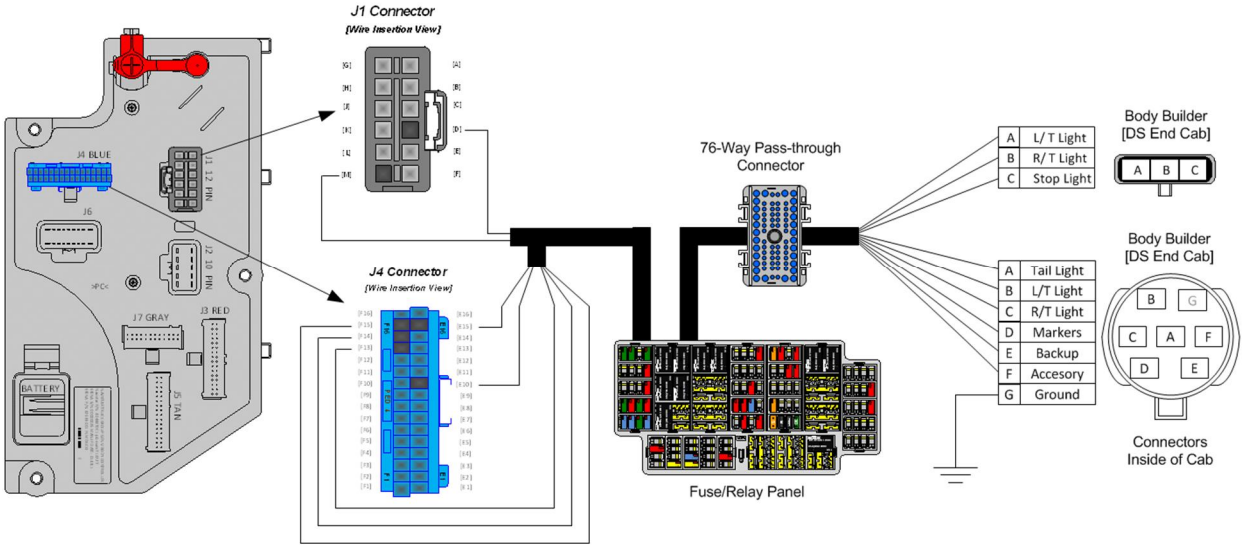
- **Trailer_Left_Turn_Lamp_OC_Current** – This parameter sets the minimum fuse level for the open circuit of the Trailer Left Turn Lamp. If the current draw is below this value, a fault will be set.
- **Trailer_Left_Turn_Lamp_Low_Current** – This parameter sets the minimum fuse level for normal operation of the Trailer Left Turn Lamp. If the current draw exceeds this value, the circuit will open
- **Trailer_Left_Turn_Lamp_High_Current** – This parameter sets the maximum fuse level for normal operation of the Trailer Left Turn Lamp. If the current draw exceeds this value, the circuit will open.
- **Trailer_Right_Turn_Lamp_High_Current** – This parameter sets the maximum fuse level for normal operation of the Trailer Right Turn Lamp. If the current draw exceeds this value, the circuit will open.
- **Trailer_Right_Turn_Lamp_Low_Current** – This parameter sets the minimum fuse level for normal operation of the Trailer Right Turn Lamp. If the current draw exceeds this value, the circuit will open
- **Trailer_Right_Turn_Lamp_OC_Current** – This parameter sets the minimum fuse level for the open circuit of the Trailer Right Turn Lamp. If the current draw is below this value, a fault will be set.
- **Trailer_Marker_Lamp_High_Current** – This parameter sets the maximum fuse level for normal operation of the Trailer Marker Lamp. If the current draw exceeds this value, the circuit will open.
- **Trailer_Marker_Lamp_Low_Current** – This parameter sets the minimum fuse level for normal operation of the Trailer Marker Lamp. If the current draw exceeds this value, the circuit will open
- **Trailer_Marker_Lamp_OC_Current** – This parameter sets the minimum fuse level for the open circuit of the Trailer Marker Lamp. If the current draw is below this value, a fault will be set.
- **Trailer_Tail_Lamp_High_Current** – This parameter sets the maximum fuse level for normal operation of the Trailer Tail Lamp. If the current draw exceeds this value, the circuit will open.
- **Trailer_Tail_Lamp_Low_Current** – This parameter sets the minimum fuse level for normal operation of the Trailer Tail Lamp. If the current draw exceeds this value, the circuit will open

- **Trailer_Tail_Lamp_OC_Current** – This parameter sets the minimum fuse level for the open circuit of the Trailer Tail Lamp. If the current draw is below this value, a fault will be set.

14.3. 08HAE: BODY BUILDER WIRING, BOC REAR OF FRAME, includes 7-way sealed connector for tail/amber/backup/accessory power/GND and sealed connectors for combination stop/turn and a 3-way for separate stop/turn lights.

Extended Description: This feature includes one 7-way and one 3-way sealed connector at the end of frame (EOF). The 7-way connector includes tail light, clearance, backup, stop/turn, accessory and ground circuits for the body builder to connect to in place of wiring into the chassis equipped end of frame light circuits. The 3-way connector includes circuits for separate stop and turn lights if needed.

System Block Diagram:



Body Controller Software Feature Codes:

- 597054 – BCM PROG, TRAILER LIGHTING

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
Trailer_Left_Turn_Lamp_OC_Current	3175	Trailer Left Lamp Open Circuit Detection Level value range	0	A	0	20	0.1
Trailer_Left_Turn_Lamp_Low_Current	3177	Trailer Left Lamp Low Current Detection Level value range	0	A	0	20	0.1
Trailer_Left_Turn_Lamp_High_Current	3178	Trailer Left Lamp High Current Detection Level value range	15	A	0	20	0.1
Trailer_Right_Turn_Lamp_High_Current	3179	Trailer Right Lamp High Current Detection Level value range	15	A	0	20	0.1
Trailer_Right_Turn_Lamp_Low_Current	3180	Trailer Left Lamp Low Current Detection Level value range	0	A	0	20	0.1
Trailer_Right_Turn_Lamp_OC_Current	3181	Trailer Left Lamp Open Circuit Detection Level value range	0	A	0	20	0.1

Trailer_Marker_Lamp_High_Current	3182	Trailer Marker Lamp High Current Detection Level value range	20	A	0	20	0.1
Trailer_Marker_Lamp_Low_Current	3183	Trailer Marker Lamp Low Current Detection Level value range	0	A	0	20	0.1
Trailer_Marker_Lamp_OC_Current	3184	Trailer Marker Lamp Open Circuit Detection Level value range	0	A	0	20	0.1
Trailer_Tail_Lamp_High_Current	3185	Trailer Tail Lamp High Current Detection Level value range	20	A	0	20	0.1
Trailer_Tail_Lamp_Low_Current	3186	Trailer Tail Lamp Low Current Detection Level value range	0	A	0	20	0.1
Trailer_Tail_Lamp_OC_Current	3187	Trailer Tail Lamp Open Circuit Detection Level value range	0	A	0	20	0.1

Parameter Definitions:

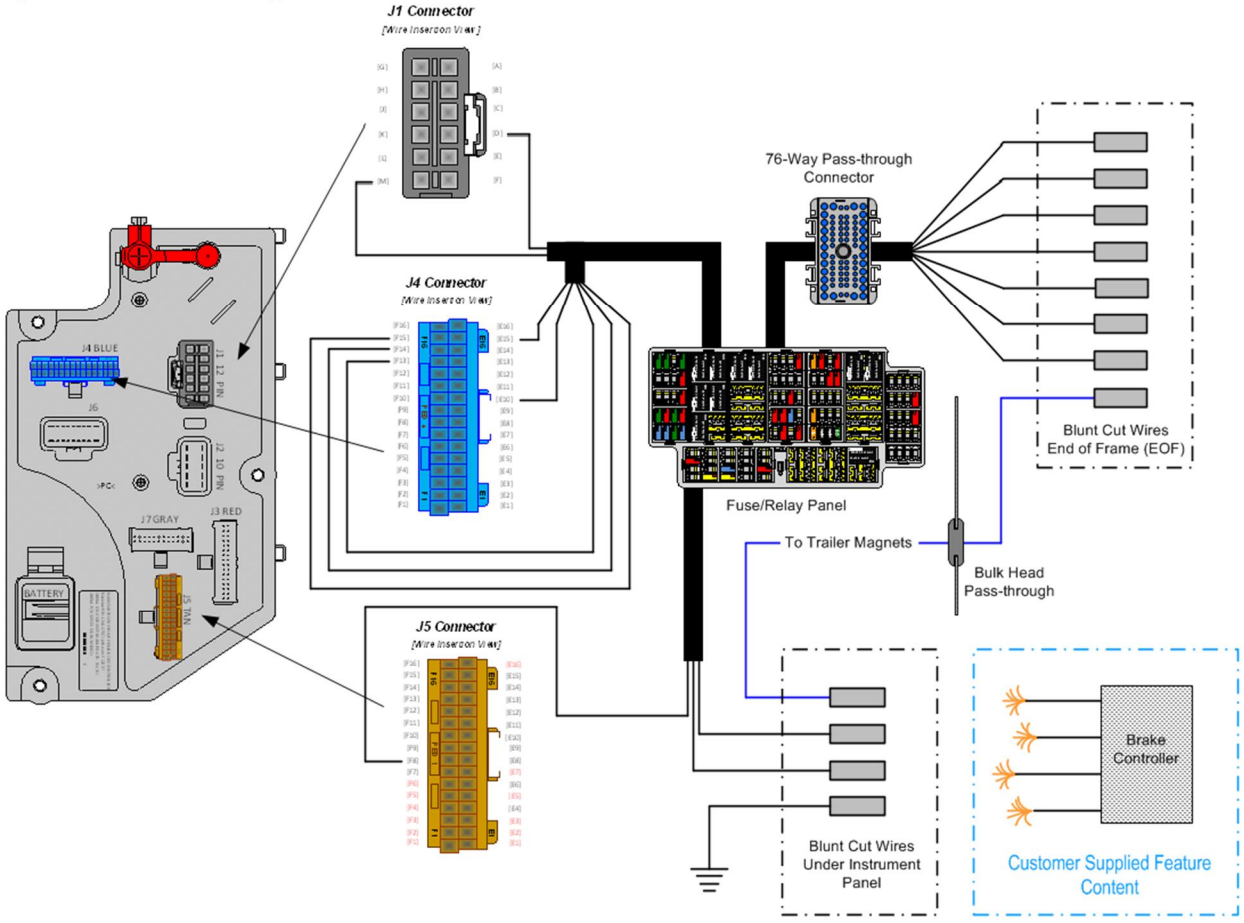
- **Trailer_Left_Turn_Lamp_OC_Current** – This parameter sets the minimum fuse level for the open circuit of the Trailer Left Turn Lamp. If the current draw is below this value, a fault will be set.
- **Trailer_Left_Turn_Lamp_Low_Current** – This parameter sets the minimum fuse level for normal operation of the Trailer Left Turn Lamp. If the current draw exceeds this value, the circuit will open
- **Trailer_Left_Turn_Lamp_High_Current** – This parameter sets the maximum fuse level for normal operation of the Trailer Left Turn Lamp. If the current draw exceeds this value, the circuit will open.
- **Trailer_Right_Turn_Lamp_High_Current** – This parameter sets the maximum fuse level for normal operation of the Trailer Right Turn Lamp. If the current draw exceeds this value, the circuit will open.
- **Trailer_Right_Turn_Lamp_Low_Current** – This parameter sets the minimum fuse level for normal operation of the Trailer Right Turn Lamp. If the current draw exceeds this value, the circuit will open
- **Trailer_Right_Turn_Lamp_OC_Current** – This parameter sets the minimum fuse level for the open circuit of the Trailer Right Turn Lamp. If the current draw is below this value, a fault will be set.
- **Trailer_Marker_Lamp_High_Current** – This parameter sets the maximum fuse level for normal operation of the Trailer Marker Lamp. If the current draw exceeds this value, the circuit will open.
- **Trailer_Marker_Lamp_Low_Current** – This parameter sets the minimum fuse level for normal operation of the Trailer Marker Lamp. If the current draw exceeds this value, the circuit will open
- **Trailer_Marker_Lamp_OC_Current** – This parameter sets the minimum fuse level for the open circuit of the Trailer Marker Lamp. If the current draw is below this value, a fault will be set.
- **Trailer_Tail_Lamp_High_Current** – This parameter sets the maximum fuse level for normal operation of the Trailer Tail Lamp. If the current draw exceeds this value, the circuit will open.
- **Trailer_Tail_Lamp_Low_Current** – This parameter sets the minimum fuse level for normal operation of the Trailer Tail Lamp. If the current draw exceeds this value, the circuit will open

- **Trailer_Tail_Lamp_OC_Current** – This parameter sets the minimum fuse level for the open circuit of the Trailer Tail Lamp. If the current draw is below this value, a fault will be set.

14.4. 08HAG: ELECTRIC TRAILER BRAKE/LIGHTS Accommodation Package to Rear of Frame (ROF); for Separate Trailer Stop, Tail, Turn, Marker Light Circuits; Includes Electric Trailer Brake Accommodation Package with Cab Connections for Mounting Customer- Installed Electric Brake Unit, Less Trailer Socket.

Extended Description: This feature provides a four-circuit breakout, blunt-cut with heat shrink covering located under the Instrument Panel (IP) on the right side of the steering column. The circuits include a Ground (GND) circuit, an electric brake feed to electric trailer brakes, a 30-Ampere (AMP) power circuit plus the stop lamp feed. The circuits are designed to work with all popular electric trailer brake controllers. The feature is designed to handle trailers with separate stop and turn lights. The seven circuits that connect to the trailer are located at the rear of frame and are blunt cut with heat shrink covering. The appropriate socket assembly needs to be added by the customer.

System Block Diagram:



Body Controller Software Feature Codes:

- 597054 – BCM PROG, TRAILER LIGHTING
- 597193 – BCM PROG, ELECTRIC TRAILER BRAKE

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max		Step
Trailer_Left_Turn_Lamp_OC_Current	3175	Trailer Left Lamp Open Circuit Detection Level value range	0	A	0	20		0.1
Trailer_Left_Turn_Lamp_Low_Current	3177	Trailer Left Lamp Low Current Detection Level value range	0	A	0	20		0.1
Trailer_Left_Turn_Lamp_High_Current	3178	Trailer Left Lamp High Current Detection Level value range	15	A	0	20		0.1
Trailer_Right_Turn_Lamp_High_Current	3179	Trailer Right Lamp High Current Detection Level value range	15	A	0	20		0.1
Trailer_Right_Turn_Lamp_Low_Current	3180	Trailer Left Lamp Low Current Detection Level value range	0	A	0	20		0.1
Trailer_Right_Turn_Lamp_OC_Current	3181	Trailer Left Lamp Open Circuit Detection Level value range	0	A	0	20		0.1
Trailer_Marker_Lamp_High_Current	3182	Trailer Marker Lamp High Current Detection Level value range	20	A	0	20		0.1
Trailer_Marker_Lamp_Low_Current	3183	Trailer Marker Lamp Low Current Detection Level value range	0	A	0	20		0.1
Trailer_Marker_Lamp_OC_Current	3184	Trailer Marker Lamp Open Circuit Detection Level value range	0	A	0	20		0.1
Trailer_Tail_Lamp_High_Current	3185	Trailer Tail Lamp High Current Detection Level value range	20	A	0	20		0.1
Trailer_Tail_Lamp_Low_Current	3186	Trailer Tail Lamp Low Current Detection Level value range	0	A	0	20		0.1
Trailer_Tail_Lamp_OC_Current	3187	Trailer Tail Lamp Open Circuit Detection Level value range	0	A	0	20		0.1

Parameter Definitions:

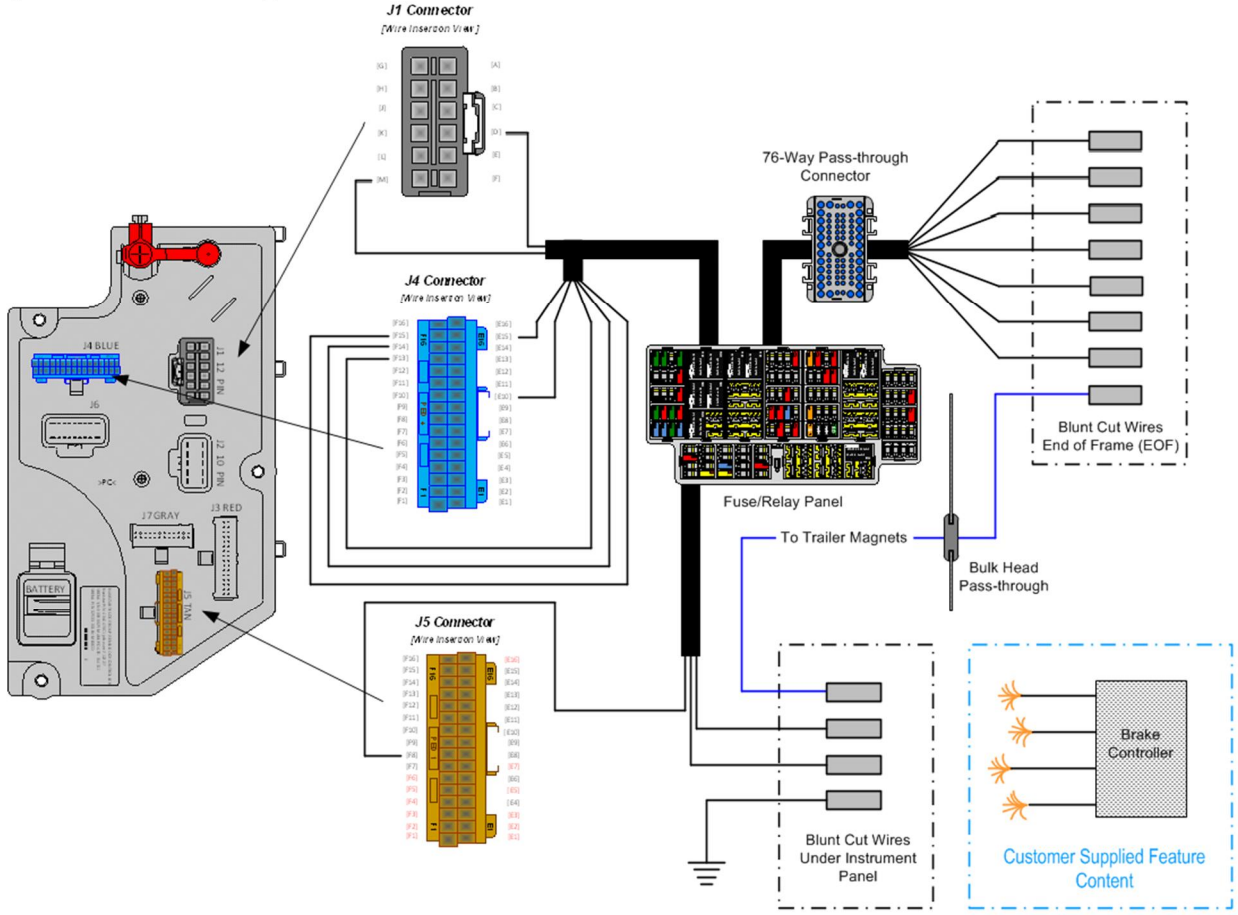
- **Trailer_Left_Turn_Lamp_OC_Current** – This parameter sets the minimum fuse level for the open circuit of the Trailer Left Turn Lamp. If the current draw is below this value, a fault will be set.
- **Trailer_Left_Turn_Lamp_Low_Current** – This parameter sets the minimum fuse level for normal operation of the Trailer Left Turn Lamp. If the current draw exceeds this value, the circuit will open
- **Trailer_Left_Turn_Lamp_High_Current** – This parameter sets the maximum fuse level for normal operation of the Trailer Left Turn Lamp. If the current draw exceeds this value, the circuit will open.
- **Trailer_Right_Turn_Lamp_High_Current** – This parameter sets the maximum fuse level for normal operation of the Trailer Right Turn Lamp. If the current draw exceeds this value, the circuit will open.
- **Trailer_Right_Turn_Lamp_Low_Current** – This parameter sets the minimum fuse level for normal operation of the Trailer Right Turn Lamp. If the current draw exceeds this value, the circuit will open

- **Trailer_Right_Turn_Lamp_OC_Current** – This parameter sets the minimum fuse level for the open circuit of the Trailer Right Turn Lamp. If the current draw is below this value, a fault will be set.
- **Trailer_Marker_Lamp_High_Current** – This parameter sets the maximum fuse level for normal operation of the Trailer Marker Lamp. If the current draw exceeds this value, the circuit will open.
- **Trailer_Marker_Lamp_Low_Current** – This parameter sets the minimum fuse level for normal operation of the Trailer Marker Lamp. If the current draw exceeds this value, the circuit will open
- **Trailer_Marker_Lamp_OC_Current** – This parameter sets the minimum fuse level for the open circuit of the Trailer Marker Lamp. If the current draw is below this value, a fault will be set.
- **Trailer_Tail_Lamp_High_Current** – This parameter sets the maximum fuse level for normal operation of the Trailer Tail Lamp. If the current draw exceeds this value, the circuit will open.
- **Trailer_Tail_Lamp_Low_Current** – This parameter sets the minimum fuse level for normal operation of the Trailer Tail Lamp. If the current draw exceeds this value, the circuit will open
- **Trailer_Tail_Lamp_OC_Current** – This parameter sets the minimum fuse level for the open circuit of the Trailer Tail Lamp. If the current draw is below this value, a fault will be set.

14.5. 08HAH: ELECTRIC TRAILER BRAKE/LIGHTS Accommodation Package to Rear of Frame (ROF); for Combined Trailer Stop, Tail, Turn, Marker Light Circuits; Includes Electric Trailer Brake Accommodation Package with Cab Connections for Mounting Customer- Installed Electric Brake Unit, Less Trailer Socket.

Extended Description: This feature provides a four-circuit breakout, blunt-cut with heat shrink covering located under the Instrument Panel (IP) on the right side of the steering column. The circuits include a Ground (GND) circuit, an electric brake feed to electric trailer brakes, a 30-Ampere (AMP) power circuit plus the stop lamp feed. The circuits are designed to work with all popular electric trailer brake controllers. The feature is designed to handle trailers with combined stop and turn lights. The seven circuits that connect to the trailer are located at the rear of frame and are blunt cut with heat shrink covering. The appropriate socket assembly needs to be added by the customer.

System Block Diagram:



Body Controller Software Feature Codes:

- 597054 – BCM PROG, TRAILER LIGHTING
- 597193 – BCM PROG, ELECTRIC TRAILER BRAKE

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
Trailer_Left_Turn_Lamp_OC_Current	3175	Trailer Left Lamp Open Circuit Detection Level value range	0	A	0	20	0.1
Trailer_Left_Turn_Lamp_Low_Current	3177	Trailer Left Lamp Low Current Detection Level value range	0	A	0	20	0.1
Trailer_Left_Turn_Lamp_High_Current	3178	Trailer Left Lamp High Current Detection Level value range	15	A	0	20	0.1
Trailer_Right_Turn_Lamp_High_Current	3179	Trailer Right Lamp High Current Detection Level value range	15	A	0	20	0.1
Trailer_Right_Turn_Lamp_Low_Current	3180	Trailer Left Lamp Low Current Detection Level value range	0	A	0	20	0.1
Trailer_Right_Turn_Lamp_OC_Current	3181	Trailer Left Lamp Open Circuit Detection Level value range	0	A	0	20	0.1
Trailer_Marker_Lamp_High_Current	3182	Trailer Marker Lamp High Current Detection Level value range	20	A	0	20	0.1
Trailer_Marker_Lamp_Low_Current	3183	Trailer Marker Lamp Low Current Detection Level value range	0	A	0	20	0.1
Trailer_Marker_Lamp_OC_Current	3184	Trailer Marker Lamp Open Circuit Detection Level value range	0	A	0	20	0.1
Trailer_Tail_Lamp_High_Current	3185	Trailer Tail Lamp High Current Detection Level value range	20	A	0	20	0.1
Trailer_Tail_Lamp_Low_Current	3186	Trailer Tail Lamp Low Current Detection Level value range	0	A	0	20	0.1
Trailer_Tail_Lamp_OC_Current	3187	Trailer Tail Lamp Open Circuit Detection Level value range	0	A	0	20	0.1

Parameter Definitions:

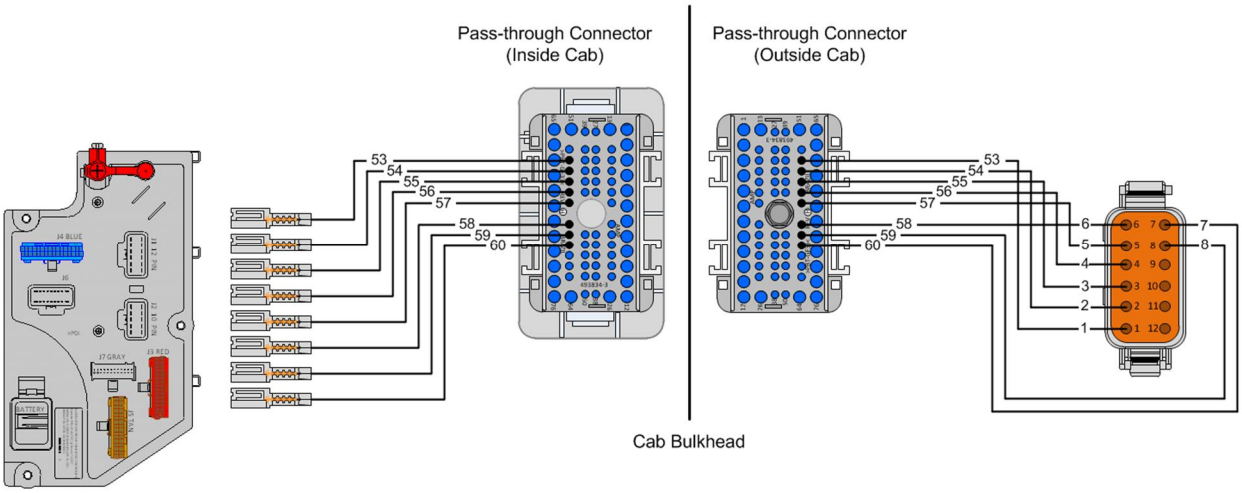
- **Trailer_Left_Turn_Lamp_OC_Current** – This parameter sets the minimum fuse level for the open circuit of the Trailer Left Turn Lamp. If the current draw is below this value, a fault will be set.
- **Trailer_Left_Turn_Lamp_Low_Current** – This parameter sets the minimum fuse level for normal operation of the Trailer Left Turn Lamp. If the current draw exceeds this value, the circuit will open
- **Trailer_Left_Turn_Lamp_High_Current** – This parameter sets the maximum fuse level for normal operation of the Trailer Left Turn Lamp. If the current draw exceeds this value, the circuit will open.
- **Trailer_Right_Turn_Lamp_High_Current** – This parameter sets the maximum fuse level for normal operation of the Trailer Right Turn Lamp. If the current draw exceeds this value, the circuit will open.
- **Trailer_Right_Turn_Lamp_Low_Current** – This parameter sets the minimum fuse level for normal operation of the Trailer Right Turn Lamp. If the current draw exceeds this value, the circuit will open
- **Trailer_Right_Turn_Lamp_OC_Current** – This parameter sets the minimum fuse level for the open circuit of the Trailer Right Turn Lamp. If the current draw is below this value, a fault will be set.

- **Trailer_Marker_Lamp_High_Current** – This parameter sets the maximum fuse level for normal operation of the Trailer Marker Lamp. If the current draw exceeds this value, the circuit will open.
- **Trailer_Marker_Lamp_Low_Current** – This parameter sets the minimum fuse level for normal operation of the Trailer Marker Lamp. If the current draw exceeds this value, the circuit will open
- **Trailer_Marker_Lamp_OC_Current** – This parameter sets the minimum fuse level for the open circuit of the Trailer Marker Lamp. If the current draw is below this value, a fault will be set.
- **Trailer_Tail_Lamp_High_Current** – This parameter sets the maximum fuse level for normal operation of the Trailer Tail Lamp. If the current draw exceeds this value, the circuit will open.
- **Trailer_Tail_Lamp_Low_Current** – This parameter sets the minimum fuse level for normal operation of the Trailer Tail Lamp. If the current draw exceeds this value, the circuit will open
- **Trailer_Tail_Lamp_OC_Current** – This parameter sets the minimum fuse level for the open circuit of the Trailer Tail Lamp. If the current draw is below this value, a fault will be set.

14.6. 08HAT: BODY BUILDER WIRING Includes Wires Installed through the Dash Panel and End in Engine Compartment, In Cab Wire Ends Will Have body controller Input Terminals, Engine Compartment Wire Ends will have Sealed Connectors.

Extended Description: Feature code 08HAT provides 8 wires from the cab through the 76-way pass-through connector located on the left (driver's) side of the dash extending into the engine compartment for ease of connecting accessory equipment in the engine compartment to the Body Controller. This feature provides these circuits from the Body Controller without compromising the cab seal or having to drill additional holes in the cab. The wires are terminated in a sealed connector in the engine compartment and the other ends have Body Controller input pin terminations inside the cab compartment. This will significantly reduce labor and material costs for the bodybuilder.

System Block Diagram:

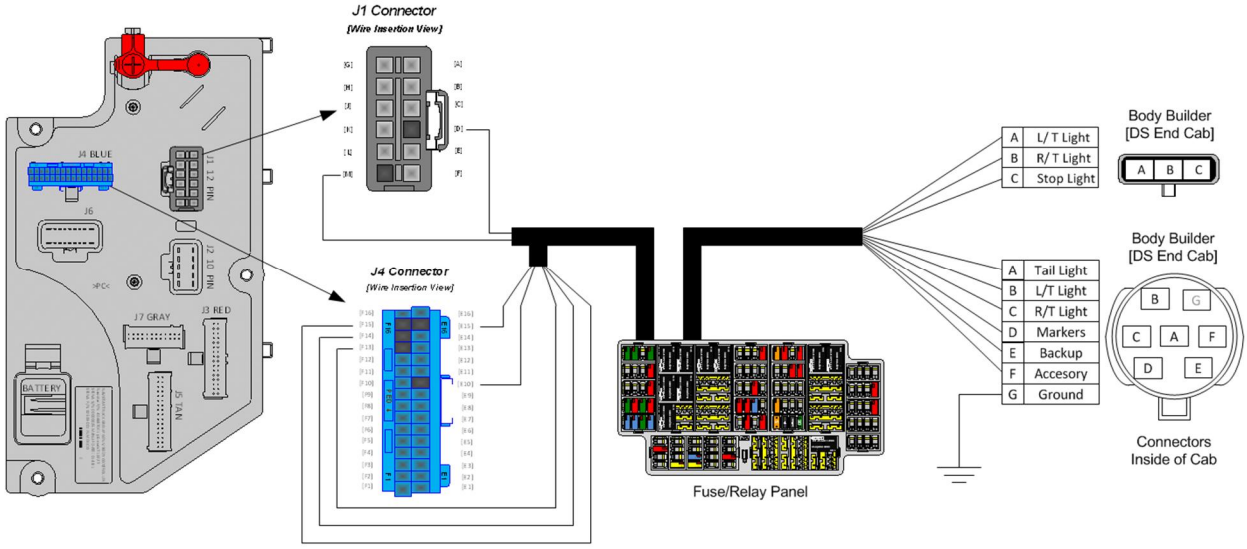


08HAT System Diagram

14.7. 08HAU: BODY BUILDER WIRING INSIDE CAB; Includes Sealed Connectors for Tail/Amber, Turn/Marker/Backup/Accessory, Power/Ground, and Stop/Turn.

Extended Description: This feature includes one 7-way and one 3-way sealed connector inside of the cab. The 7-way connector includes tail light, clearance, backup, stop/turn, accessory and ground circuits for the body builder to connect to in place of wiring into the chassis equipped end of frame light circuits. The 3-way connector includes circuits for separate stop and turn lights if needed.

System Block Diagram:



Body Controller Software Feature Codes:

- 597054 – BCM PROG, TRAILER LIGHTING

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
Trailer_Left_Turn_Lamp_OC_Current	3175	Trailer Left Lamp Open Circuit Detection Level value range	0	A	0	20	0.1
Trailer_Left_Turn_Lamp_Low_Current	3177	Trailer Left Lamp Low Current Detection Level value range	0	A	0	20	0.1
Trailer_Left_Turn_Lamp_High_Current	3178	Trailer Left Lamp High Current Detection Level value range	15	A	0	20	0.1
Trailer_Right_Turn_Lamp_High_Current	3179	Trailer Right Lamp High Current Detection Level value range	15	A	0	20	0.1
Trailer_Right_Turn_Lamp_Low_Current	3180	Trailer Left Lamp Low Current Detection Level value range	0	A	0	20	0.1
Trailer_Right_Turn_Lamp_OC_Current	3181	Trailer Left Lamp Open Circuit Detection Level value range	0	A	0	20	0.1

Trailer_Marker_Lamp_High_Current	3182	Trailer Marker Lamp High Current Detection Level value range	20	A	0	20	0.1
Trailer_Marker_Lamp_Low_Current	3183	Trailer Marker Lamp Low Current Detection Level value range	0	A	0	20	0.1
Trailer_Marker_Lamp_OC_Current	3184	Trailer Marker Lamp Open Circuit Detection Level value range	0	A	0	20	0.1
Trailer_Tail_Lamp_High_Current	3185	Trailer Tail Lamp High Current Detection Level value range	20	A	0	20	0.1
Trailer_Tail_Lamp_Low_Current	3186	Trailer Tail Lamp Low Current Detection Level value range	0	A	0	20	0.1
Trailer_Tail_Lamp_OC_Current	3187	Trailer Tail Lamp Open Circuit Detection Level value range	0	A	0	20	0.1

Parameter Definitions:

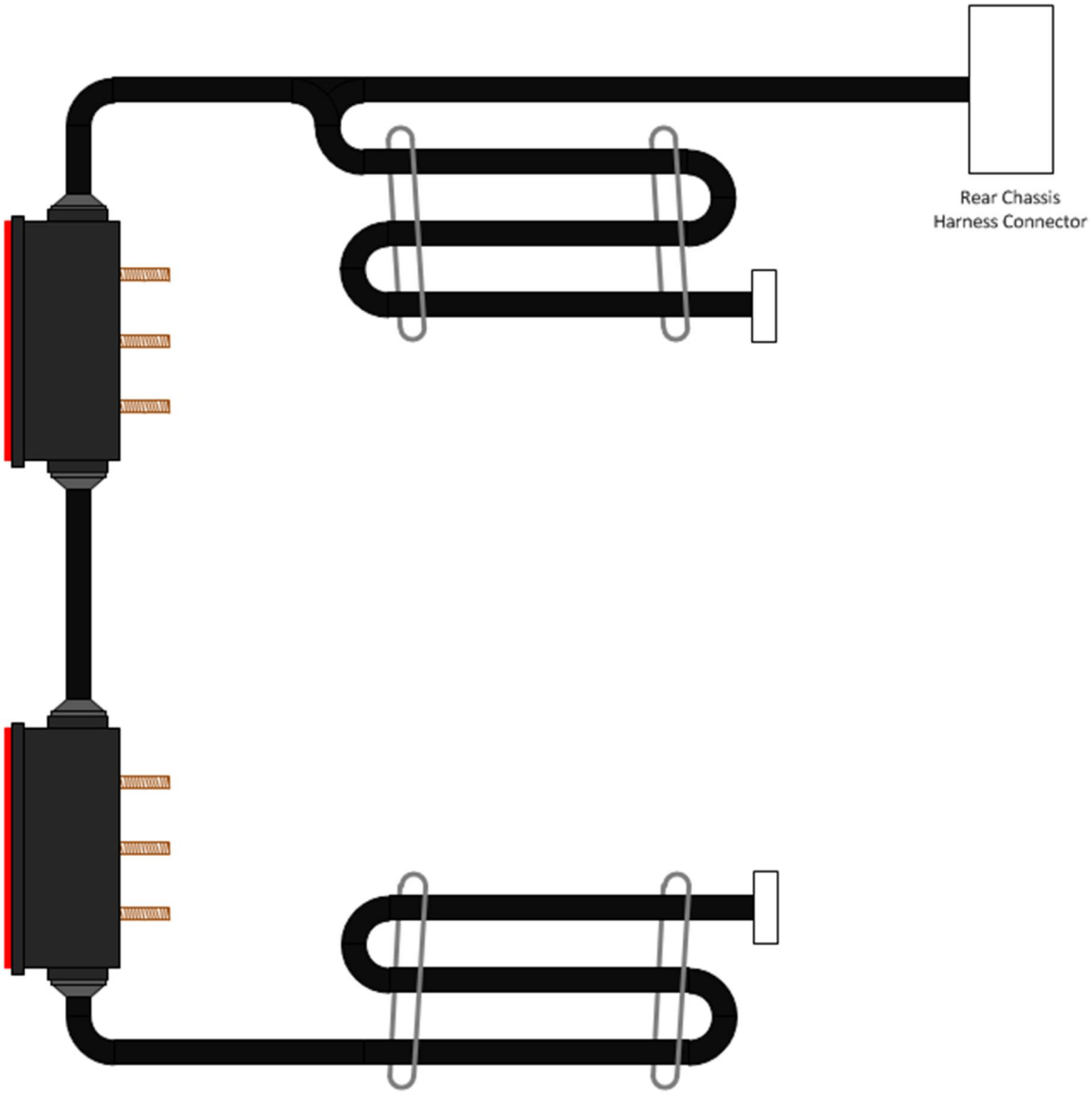
- **Trailer_Left_Turn_Lamp_OC_Current** – This parameter sets the minimum fuse level for the open circuit of the Trailer Left Turn Lamp. If the current draw is below this value, a fault will be set.
- **Trailer_Left_Turn_Lamp_Low_Current** – This parameter sets the minimum fuse level for normal operation of the Trailer Left Turn Lamp. If the current draw exceeds this value, the circuit will open
- **Trailer_Left_Turn_Lamp_High_Current** – This parameter sets the maximum fuse level for normal operation of the Trailer Left Turn Lamp. If the current draw exceeds this value, the circuit will open.
- **Trailer_Right_Turn_Lamp_High_Current** – This parameter sets the maximum fuse level for normal operation of the Trailer Right Turn Lamp. If the current draw exceeds this value, the circuit will open.
- **Trailer_Right_Turn_Lamp_Low_Current** – This parameter sets the minimum fuse level for normal operation of the Trailer Right Turn Lamp. If the current draw exceeds this value, the circuit will open
- **Trailer_Right_Turn_Lamp_OC_Current** – This parameter sets the minimum fuse level for the open circuit of the Trailer Right Turn Lamp. If the current draw is below this value, a fault will be set.
- **Trailer_Marker_Lamp_High_Current** – This parameter sets the maximum fuse level for normal operation of the Trailer Marker Lamp. If the current draw exceeds this value, the circuit will open.
- **Trailer_Marker_Lamp_Low_Current** – This parameter sets the minimum fuse level for normal operation of the Trailer Marker Lamp. If the current draw exceeds this value, the circuit will open
- **Trailer_Marker_Lamp_OC_Current** – This parameter sets the minimum fuse level for the open circuit of the Trailer Marker Lamp. If the current draw is below this value, a fault will be set.
- **Trailer_Tail_Lamp_High_Current** – This parameter sets the maximum fuse level for normal operation of the Trailer Tail Lamp. If the current draw exceeds this value, the circuit will open.
- **Trailer_Tail_Lamp_Low_Current** – This parameter sets the minimum fuse level for normal operation of the Trailer Tail Lamp. If the current draw exceeds this value, the circuit will open

- **Trailer_Tail_Lamp_OC_Current** – This parameter sets the minimum fuse level for the open circuit of the Trailer Tail Lamp. If the current draw is below this value, a fault will be set.

14.8. 08NAA: TAIL LIGHT WIRING MODIFIED Includes: Wiring for Standard Left & Right Tail Lights; Separate 8.0' of Extra Cable Wiring for Left & Right Body Mounted Tail Lights.

Extended Description: Feature code 08NAA provides eight additional feet of stop, turn, and tail light wiring to relocate the stop/turn lights provided with the vehicle. This feature is usually ordered for beverage body and other drop-frame vehicles that need the extra wiring length to extend the tail light wiring to body mounted locations.

System Block Diagram:

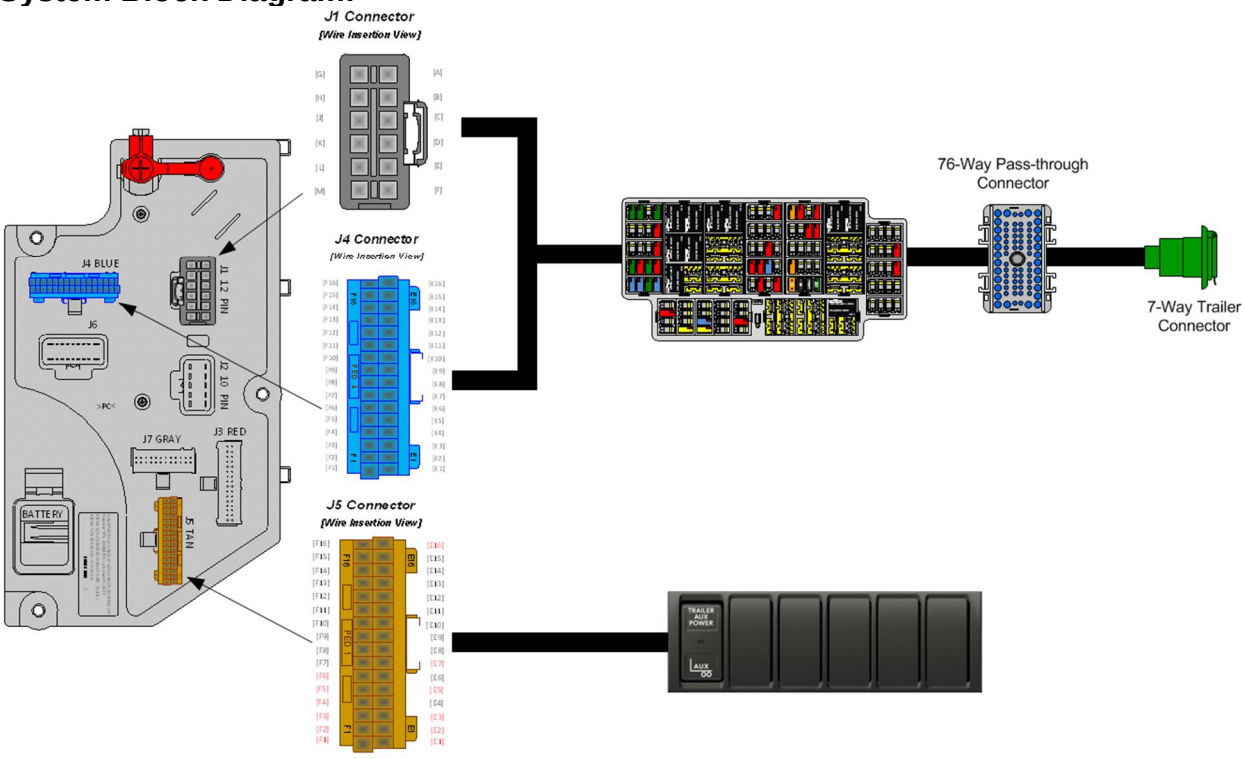


08NAA Harness Diagram

14.9. 08THG: AUX. TRAILER SOCKET 7-Way; With Battery Fed Circuit to Center Pin, with 25-AMP Fuse and Relay Controlled by Switch with Indicator Light on Instrument Panel (IP) Fed from Hot Battery Feed (Not Wired Thru Key Switch).

Extended Description: This feature provides wiring and a connector for the customer to connect auxiliary trailer lighting circuits to the vehicle. This feature includes a 7-way auxiliary trailer socket mounted at the back of cab (BOC) that includes a 25-Amp battery fused relay output controlled by a switch for the Center Pin power of the auxiliary trailer socket. This feature includes wiring for separate stop and tail light circuits. This feature is an option that can be ordered with tractor air brakes (4092) and trailer socket 08TMG.

System Block Diagram:



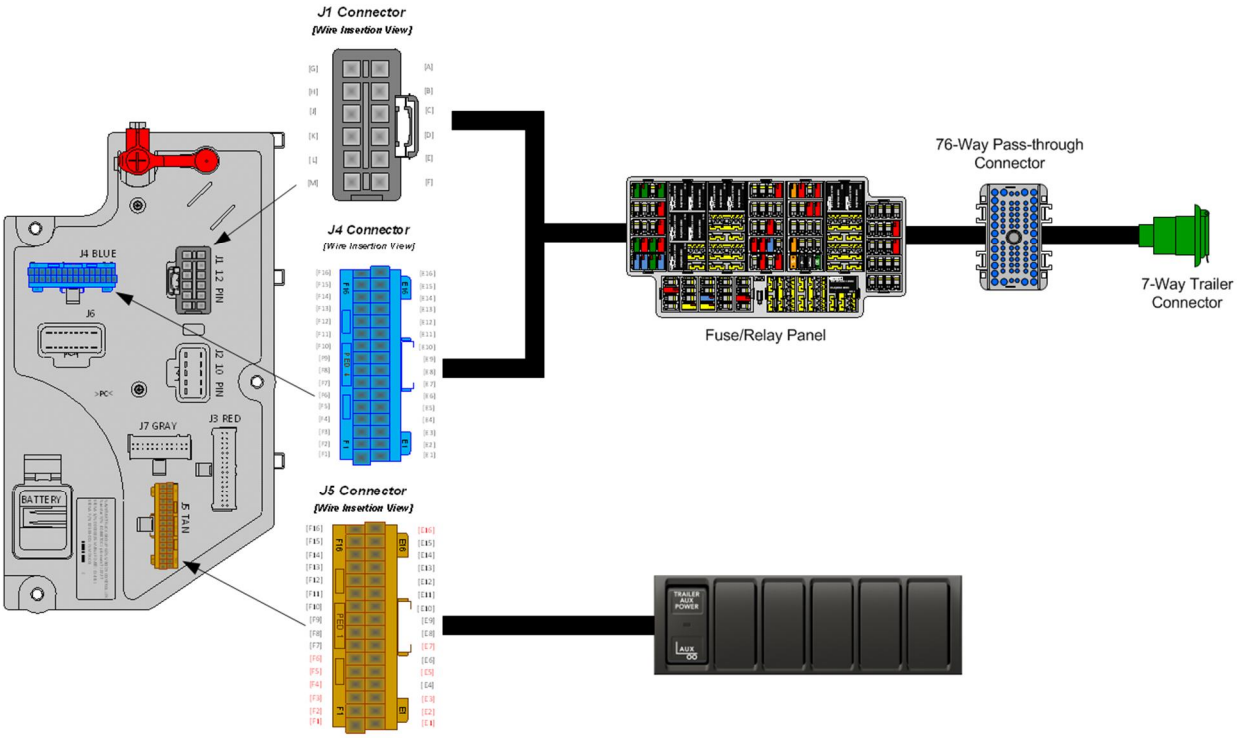
Body Controller Software Feature Codes:

- 597142 - BCM PROG, **TRAILER AUX CIRCUIT BATT POWER**
- 597143 - BCM PROG, **REMOTE TRAILER AUX CIRCUIT**
- Mutually exclusive

14.10. 08THH: AUX. TRAILER SOCKET 7-Way; With Battery Fed Circuit to Center Pin, with 25 AMP Fuse and Relay Controlled by Switch with Indicator Light Controlled by Accessory Side of Key Switch, Switch Mounted on IP.

Extended Description: This feature provides wiring and a connector for the customer to connect auxiliary trailer lighting circuits to the vehicle. This feature includes a 7-way auxiliary trailer socket mounted at the back of cab (BOC) that includes a 25-Amp battery fused relay output controlled by an Accessory controlled switch for the Center Pin power of the auxiliary trailer socket. This feature includes wiring for separate stop and tail light circuits. This feature is an option that can be ordered with tractor air brakes (4092) and trailer socket 08TMG.

System Block Diagram:



Body Controller Software Feature Codes:

- 597141 - BCM PROG, **TRAILER AUX CIRCUIT ACC POWER**

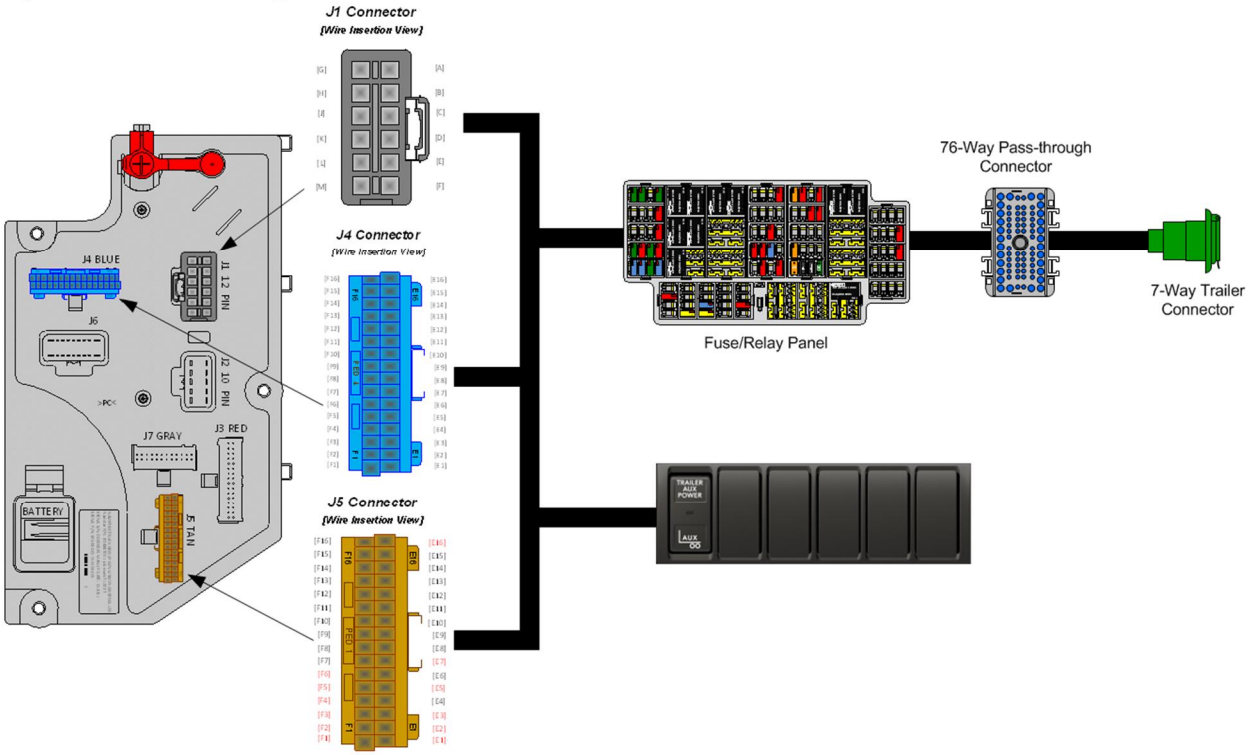
Note/s About Possible Software Feature Conflicts:

- Software feature code 597141 will conflict with software feature codes 597142 and 597143 - Only one of these three software feature codes can be used in a given vehicle configuration.

14.11. 08THU: TRAILER SOCKET 7-Way; With Battery Fed Circuit to Center Pin, with 30-Amp Fuse and Relay Controlled by Switch with Indicator Light on Instrument Panel Fed from Hot Battery Feed, When Parking Brake Is Applied, Not Wired Thru Key Switch.

Extended Description: This feature allows a customer to connect two trailer lighting circuits to the vehicle. This option provides a second 7-way socket next to the existing 7-way socket at the back of cab.

System Block Diagram:

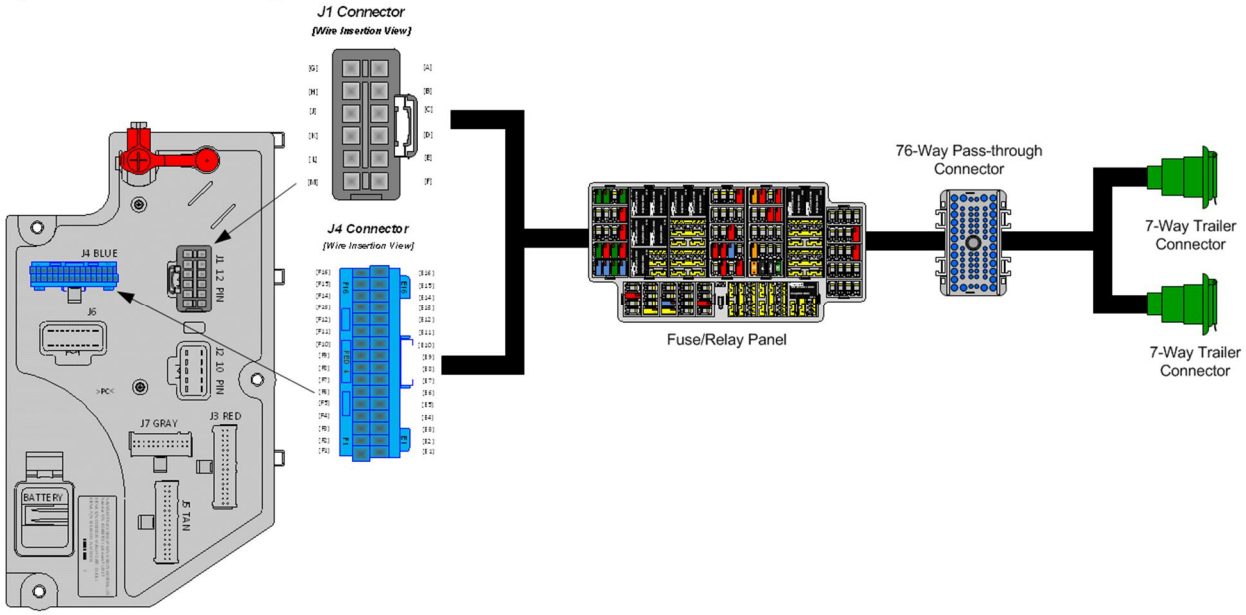


08THU System Diagram

14.12. 08TKK: TRAILER AUXILIARY FEED CIRCUIT for Electric Trailer Brake Accommodation/Air Trailer ABS; With 30-Amp Fuse and Relay, Controlled by Ignition Switch.

Extended Description: This feature when used with one of the optional electric trailer brake accommodation features enables a truck to be wired to accommodate multiple trailer sockets that will drive the electrical loads of either an air brake type trailer or a trailer with electric brakes. The 30-Amp feed may be used for air brake Trailer ABS Power or as a charging circuit for electric trailer brake batteries.

System Block Diagram:

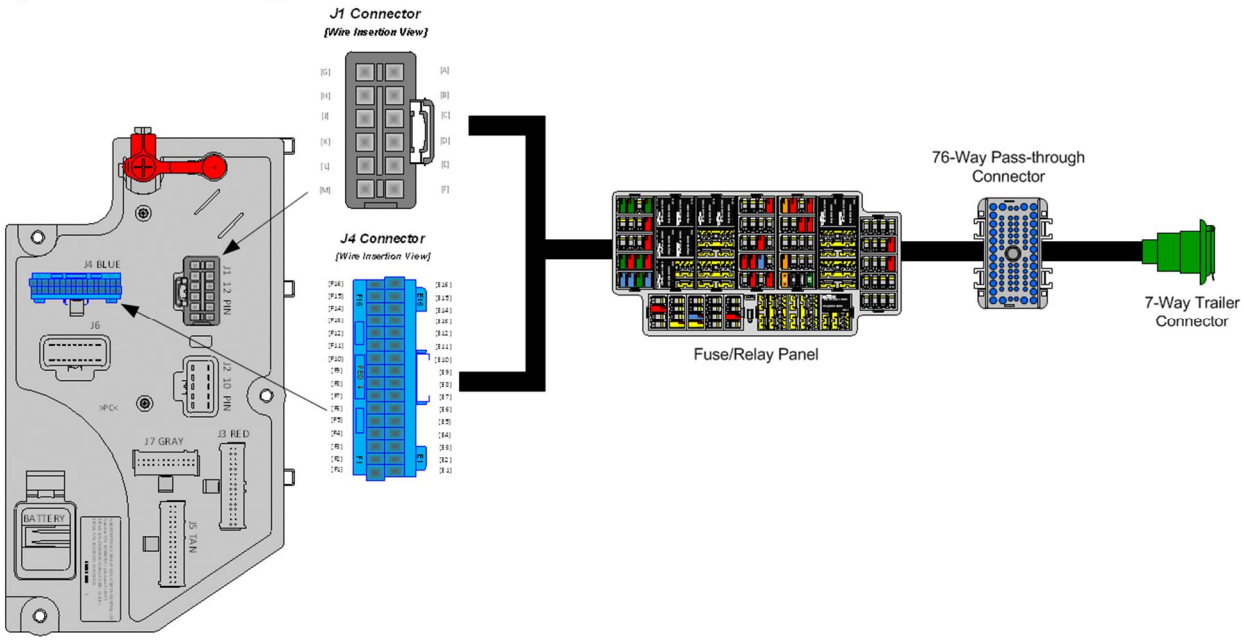


08TKK System Diagram

14.13. 08TME: TRAILER CONNECTION SOCKET 7-Way; Mounted at EOF, Wired for Turn Signals Independent of Stop, Compatible with Trailers That Have Amber or Side Lamps.

Extended Description: This feature is used to connect trailer lighting circuits to the vehicle. This option is for providing separate stop and turn signals and is located at the EOF. The 7-way socket provides an IGN-controlled fused 30-AMP center pin for trailer Antilock Brake Systems (ABS). Feature 08TME is designed for trailers with separate stop and turn lamps. With all trailer connection features, the socket is a standard SAE recommended socket used in the trucking industry. The circuit arrangement in the socket is also the same as SAE recommendation.

System Block Diagram:



Body Controller Software Feature Codes:

- 597054 – BCM PROG, TRAILER LIGHTING

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
Trailer_Left_Turn_Lamp_OC_Current	3175	Trailer Left Lamp Open Circuit Detection Level value range	0	A	0	20	0.1
Trailer_Left_Turn_Lamp_Low_Current	3177	Trailer Left Lamp Low Current Detection Level value range	0	A	0	20	0.1
Trailer_Left_Turn_Lamp_High_Current	3178	Trailer Left Lamp High Current Detection Level value range	15	A	0	20	0.1
Trailer_Right_Turn_Lamp_High_Current	3179	Trailer Right Lamp High Current Detection Level value range	15	A	0	20	0.1

Trailer_Right_Turn_Lamp_Low_Current	3180	Trailer Left Lamp Low Current Detection Level value range	0	A	0	20	0.1
Trailer_Right_Turn_Lamp_OC_Current	3181	Trailer Left Lamp Open Circuit Detection Level value range	0	A	0	20	0.1
Trailer_Marker_Lamp_High_Current	3182	Trailer Marker Lamp High Current Detection Level value range	20	A	0	20	0.1
Trailer_Marker_Lamp_Low_Current	3183	Trailer Marker Lamp Low Current Detection Level value range	0	A	0	20	0.1
Trailer_Marker_Lamp_OC_Current	3184	Trailer Marker Lamp Open Circuit Detection Level value range	0	A	0	20	0.1
Trailer_Tail_Lamp_High_Current	3185	Trailer Tail Lamp High Current Detection Level value range	20	A	0	20	0.1
Trailer_Tail_Lamp_Low_Current	3186	Trailer Tail Lamp Low Current Detection Level value range	0	A	0	20	0.1
Trailer_Tail_Lamp_OC_Current	3187	Trailer Tail Lamp Open Circuit Detection Level value range	0	A	0	20	0.1

Parameter Definitions:

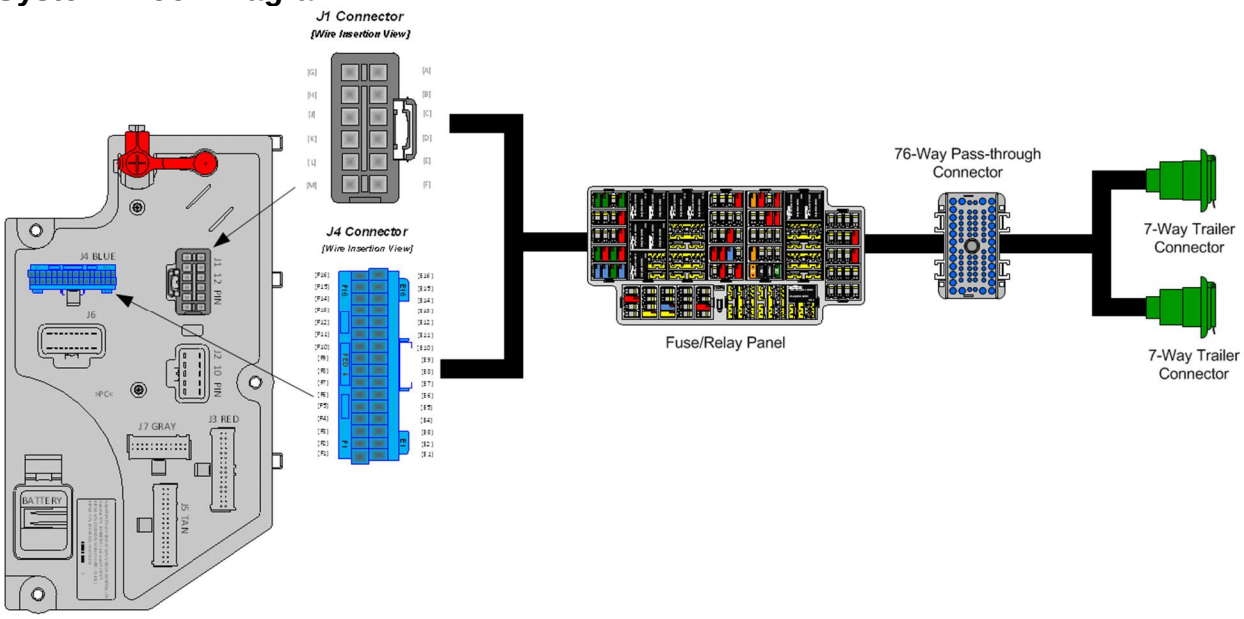
- **Trailer_Left_Turn_Lamp_OC_Current** – This parameter sets the minimum fuse level for the open circuit of the Trailer Left Turn Lamp. If the current draw is below this value, a fault will be set.
- **Trailer_Left_Turn_Lamp_Low_Current** – This parameter sets the minimum fuse level for normal operation of the Trailer Left Turn Lamp. If the current draw exceeds this value, the circuit will open
- **Trailer_Left_Turn_Lamp_High_Current** – This parameter sets the maximum fuse level for normal operation of the Trailer Left Turn Lamp. If the current draw exceeds this value, the circuit will open.
- **Trailer_Right_Turn_Lamp_High_Current** – This parameter sets the maximum fuse level for normal operation of the Trailer Right Turn Lamp. If the current draw exceeds this value, the circuit will open.
- **Trailer_Right_Turn_Lamp_Low_Current** – This parameter sets the minimum fuse level for normal operation of the Trailer Right Turn Lamp. If the current draw exceeds this value, the circuit will open
- **Trailer_Right_Turn_Lamp_OC_Current** – This parameter sets the minimum fuse level for the open circuit of the Trailer Right Turn Lamp. If the current draw is below this value, a fault will be set.
- **Trailer_Marker_Lamp_High_Current** – This parameter sets the maximum fuse level for normal operation of the Trailer Marker Lamp. If the current draw exceeds this value, the circuit will open.
- **Trailer_Marker_Lamp_Low_Current** – This parameter sets the minimum fuse level for normal operation of the Trailer Marker Lamp. If the current draw exceeds this value, the circuit will open
- **Trailer_Marker_Lamp_OC_Current** – This parameter sets the minimum fuse level for the open circuit of the Trailer Marker Lamp. If the current draw is below this value, a fault will be set.

- **Trailer_Tail_Lamp_High_Current** – This parameter sets the maximum fuse level for normal operation of the Trailer Tail Lamp. If the current draw exceeds this value, the circuit will open.
- **Trailer_Tail_Lamp_Low_Current** – This parameter sets the minimum fuse level for normal operation of the Trailer Tail Lamp. If the current draw exceeds this value, the circuit will open
- **Trailer_Tail_Lamp_OC_Current** – This parameter sets the minimum fuse level for the open circuit of the Trailer Tail Lamp. If the current draw is below this value, a fault will be set.

14.14. 08TMG: TRAILER CONNECTION SOCKET 7-Way; Mounted at EOF, Wired for Turn Signals Combines with Stop, Compatible with Trailers That Use Combined Stop, Tail, Turn Lamps.

Extended Description: This feature is used to connect trailer lighting circuits to the vehicle. This option is for providing combined stop and turn signals and is located at the EOF. The 7-way socket provides an IGN-controlled fused 30-AMP center pin for trailer Antilock Brake Systems (ABS). Feature 08TMG is designed for trailers with combined stop and turn lamps. With all trailer connection features, the socket is a standard SAE recommended socket used in the trucking industry. The circuit arrangement in the socket is also the same as SAE recommendation except that 08TMG provides combined stop and turn signals.

System Block Diagram:



Body Controller Software Feature Codes:

- 597054 – BCM PROG, TRAILER LIGHTING

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
Trailer_Left_Turn_Lamp_OC_Current	3175	Trailer Left Lamp Open Circuit Detection Level value range	0	A	0	20	0.1
Trailer_Left_Turn_Lamp_Low_Current	3177	Trailer Left Lamp Low Current Detection Level value range	0	A	0	20	0.1
Trailer_Left_Turn_Lamp_High_Current	3178	Trailer Left Lamp High Current Detection Level value range	15	A	0	20	0.1
Trailer_Right_Turn_Lamp_High_Current	3179	Trailer Right Lamp High Current Detection Level value range	15	A	0	20	0.1

Trailer_Right_Turn_Lamp_Low_Current	3180	Trailer Left Lamp Low Current Detection Level value range	0	A	0	20	0.1
Trailer_Right_Turn_Lamp_OC_Current	3181	Trailer Left Lamp Open Circuit Detection Level value range	0	A	0	20	0.1
Trailer_Marker_Lamp_High_Current	3182	Trailer Marker Lamp High Current Detection Level value range	20	A	0	20	0.1
Trailer_Marker_Lamp_Low_Current	3183	Trailer Marker Lamp Low Current Detection Level value range	0	A	0	20	0.1
Trailer_Marker_Lamp_OC_Current	3184	Trailer Marker Lamp Open Circuit Detection Level value range	0	A	0	20	0.1
Trailer_Tail_Lamp_High_Current	3185	Trailer Tail Lamp High Current Detection Level value range	20	A	0	20	0.1
Trailer_Tail_Lamp_Low_Current	3186	Trailer Tail Lamp Low Current Detection Level value range	0	A	0	20	0.1
Trailer_Tail_Lamp_OC_Current	3187	Trailer Tail Lamp Open Circuit Detection Level value range	0	A	0	20	0.1

Parameter Definitions:

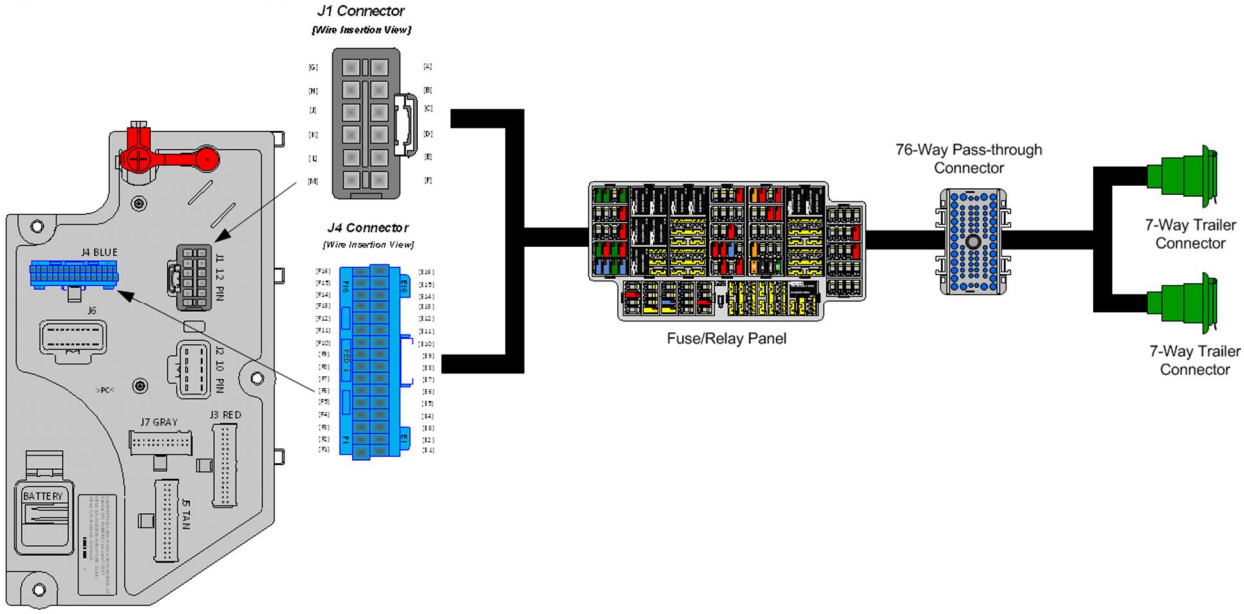
- **Trailer_Left_Turn_Lamp_OC_Current** – This parameter sets the minimum fuse level for the open circuit of the Trailer Left Turn Lamp. If the current draw is below this value, a fault will be set.
- **Trailer_Left_Turn_Lamp_Low_Current** – This parameter sets the minimum fuse level for normal operation of the Trailer Left Turn Lamp. If the current draw exceeds this value, the circuit will open
- **Trailer_Left_Turn_Lamp_High_Current** – This parameter sets the maximum fuse level for normal operation of the Trailer Left Turn Lamp. If the current draw exceeds this value, the circuit will open.
- **Trailer_Right_Turn_Lamp_High_Current** – This parameter sets the maximum fuse level for normal operation of the Trailer Right Turn Lamp. If the current draw exceeds this value, the circuit will open.
- **Trailer_Right_Turn_Lamp_Low_Current** – This parameter sets the minimum fuse level for normal operation of the Trailer Right Turn Lamp. If the current draw exceeds this value, the circuit will open
- **Trailer_Right_Turn_Lamp_OC_Current** – This parameter sets the minimum fuse level for the open circuit of the Trailer Right Turn Lamp. If the current draw is below this value, a fault will be set.
- **Trailer_Marker_Lamp_High_Current** – This parameter sets the maximum fuse level for normal operation of the Trailer Marker Lamp. If the current draw exceeds this value, the circuit will open.
- **Trailer_Marker_Lamp_Low_Current** – This parameter sets the minimum fuse level for normal operation of the Trailer Marker Lamp. If the current draw exceeds this value, the circuit will open
- **Trailer_Marker_Lamp_OC_Current** – This parameter sets the minimum fuse level for the open circuit of the Trailer Marker Lamp. If the current draw is below this value, a fault will be set.

- **Trailer_Tail_Lamp_High_Current** – This parameter sets the maximum fuse level for normal operation of the Trailer Tail Lamp. If the current draw exceeds this value, the circuit will open.
- **Trailer_Tail_Lamp_Low_Current** – This parameter sets the minimum fuse level for normal operation of the Trailer Tail Lamp. If the current draw exceeds this value, the circuit will open
- **Trailer_Tail_Lamp_OC_Current** – This parameter sets the minimum fuse level for the open circuit of the Trailer Tail Lamp. If the current draw is below this value, a fault will be set.

14.15. 08TMN: TRAILER CONNECTION SOCKET {Phillips STA-DRY} 7-Way; Equipped with ABS Feed, Mounted at BOC and End of Frame Locations.

Extended Description: This feature is used to connect trailer lighting circuits to the vehicle. This option provides two trailer sockets. One socket is located back of cab and the other is mounted at the end of frame. The feature provides separate stop and turn signals. Each 7-way socket provides an IGN-controlled fused 30-AMP center pin for trailer Antilock Brake Systems (ABS). Feature 08TMN is designed for trailers with separate stop and turn lamps. With all trailer connection features, the socket is a standard SAE recommended socket used in the trucking industry. The circuit arrangement in the socket is also the same as SAE recommendation.

System Block Diagram:



Body Controller Software Feature Codes:

- 597054 – BCM PROG, TRAILER LIGHTING

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
Trailer_Left_Turn_Lamp_OC_Current	3175	Trailer Left Lamp Open Circuit Detection Level value range	0	A	0	20	0.1
Trailer_Left_Turn_Lamp_Low_Current	3177	Trailer Left Lamp Low Current Detection Level value range	0	A	0	20	0.1
Trailer_Left_Turn_Lamp_High_Current	3178	Trailer Left Lamp High Current Detection Level value range	15	A	0	20	0.1
Trailer_Right_Turn_Lamp_High_Current	3179	Trailer Right Lamp High Current Detection Level value range	15	A	0	20	0.1

Trailer_Right_Turn_Lamp_Low_Current	3180	Trailer Left Lamp Low Current Detection Level value range	0	A	0	20	0.1
Trailer_Right_Turn_Lamp_OC_Current	3181	Trailer Left Lamp Open Circuit Detection Level value range	0	A	0	20	0.1
Trailer_Marker_Lamp_High_Current	3182	Trailer Marker Lamp High Current Detection Level value range	20	A	0	20	0.1
Trailer_Marker_Lamp_Low_Current	3183	Trailer Marker Lamp Low Current Detection Level value range	0	A	0	20	0.1
Trailer_Marker_Lamp_OC_Current	3184	Trailer Marker Lamp Open Circuit Detection Level value range	0	A	0	20	0.1
Trailer_Tail_Lamp_High_Current	3185	Trailer Tail Lamp High Current Detection Level value range	20	A	0	20	0.1
Trailer_Tail_Lamp_Low_Current	3186	Trailer Tail Lamp Low Current Detection Level value range	0	A	0	20	0.1
Trailer_Tail_Lamp_OC_Current	3187	Trailer Tail Lamp Open Circuit Detection Level value range	0	A	0	20	0.1

Parameter Definitions:

- **Trailer_Left_Turn_Lamp_OC_Current** – This parameter sets the minimum fuse level for the open circuit of the Trailer Left Turn Lamp. If the current draw is below this value, a fault will be set.
- **Trailer_Left_Turn_Lamp_Low_Current** – This parameter sets the minimum fuse level for normal operation of the Trailer Left Turn Lamp. If the current draw exceeds this value, the circuit will open
- **Trailer_Left_Turn_Lamp_High_Current** – This parameter sets the maximum fuse level for normal operation of the Trailer Left Turn Lamp. If the current draw exceeds this value, the circuit will open.
- **Trailer_Right_Turn_Lamp_High_Current** – This parameter sets the maximum fuse level for normal operation of the Trailer Right Turn Lamp. If the current draw exceeds this value, the circuit will open.
- **Trailer_Right_Turn_Lamp_Low_Current** – This parameter sets the minimum fuse level for normal operation of the Trailer Right Turn Lamp. If the current draw exceeds this value, the circuit will open
- **Trailer_Right_Turn_Lamp_OC_Current** – This parameter sets the minimum fuse level for the open circuit of the Trailer Right Turn Lamp. If the current draw is below this value, a fault will be set.
- **Trailer_Marker_Lamp_High_Current** – This parameter sets the maximum fuse level for normal operation of the Trailer Marker Lamp. If the current draw exceeds this value, the circuit will open.
- **Trailer_Marker_Lamp_Low_Current** – This parameter sets the minimum fuse level for normal operation of the Trailer Marker Lamp. If the current draw exceeds this value, the circuit will open
- **Trailer_Marker_Lamp_OC_Current** – This parameter sets the minimum fuse level for the open circuit of the Trailer Marker Lamp. If the current draw is below this value, a fault will be set.

- **Trailer_Tail_Lamp_High_Current** – This parameter sets the maximum fuse level for normal operation of the Trailer Tail Lamp. If the current draw exceeds this value, the circuit will open.
- **Trailer_Tail_Lamp_Low_Current** – This parameter sets the minimum fuse level for normal operation of the Trailer Tail Lamp. If the current draw exceeds this value, the circuit will open
- **Trailer_Tail_Lamp_OC_Current** – This parameter sets the minimum fuse level for the open circuit of the Trailer Tail Lamp. If the current draw is below this value, a fault will be set.

14.16. 08WEB: SPECIAL WIRING HARNESS, BODY for Chassis, with 6-feet of Additional Length to Accommodate Drop Frame Beverage Body Application.

Extended Description: Feature code 08WEB provides an additional 6-feet to the center chassis harness. This feature is to accommodate drop frame applications but may be specified when additional chassis harness length is desired.

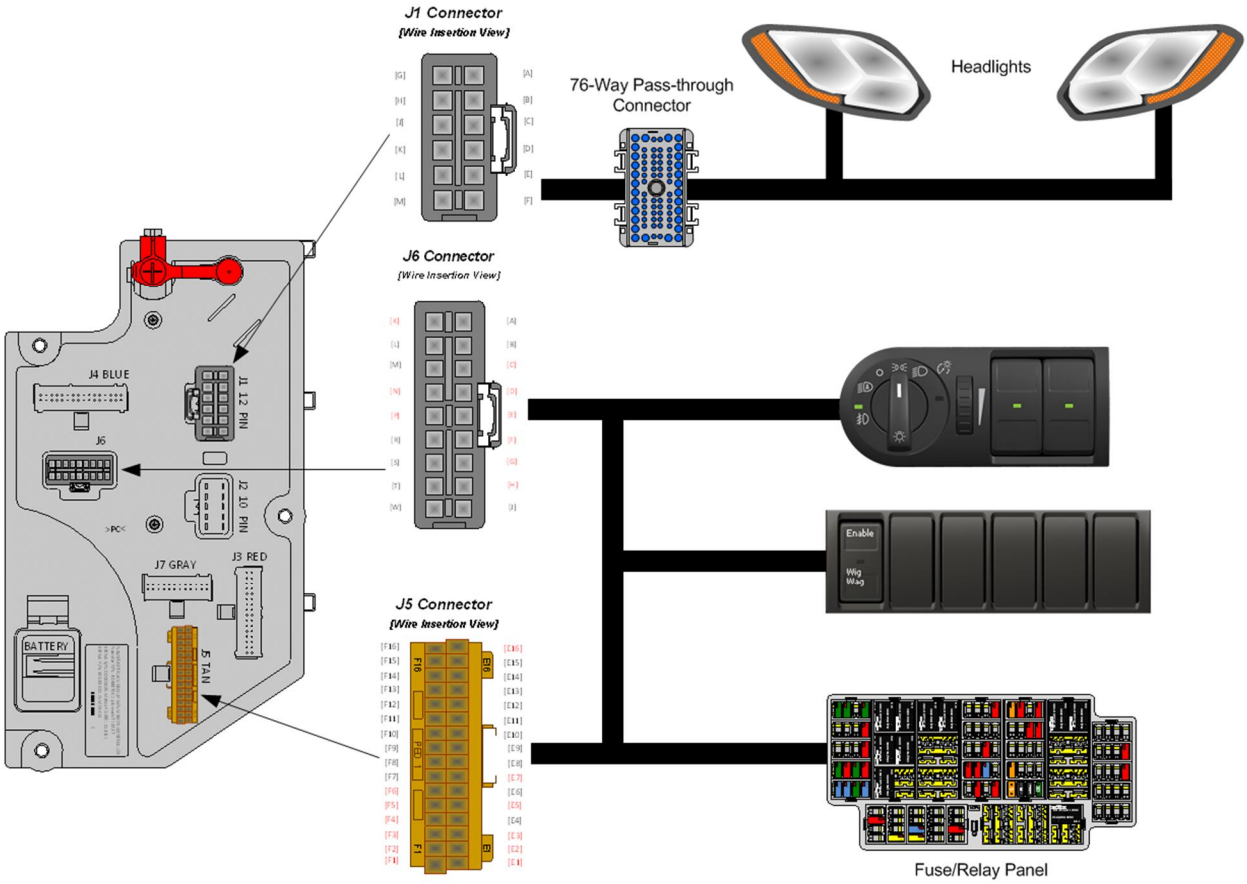
System Block Diagram:

08WEB Harness Diagram

14.17. 60AKK: BDY INTG, HEADLIGHTS, WIG WAG High Beam Wig Wag with Park Brake Interlock, Park Brake Disables Wig Wag.

Extended Description: 60AKK is the Wig Wag feature for use on emergency vehicles. This feature provides 13 different flash patterns for vehicle high beams. The different flash patterns can be selected by changing a parameter for the feature using Diamond Logic® Builder as detailed in the feature parameter section. The feature includes a two-position latching switch located in the instrument panel labeled Wig Wag. To enable the wig wag feature, the Wig Wag switch must be pressed to the Enable (UP) position. To disable the wig wag feature, the Wig Wag switch must be pressed to the DOWN position. High beams will only flash when the park brake is released. If high beams are requested from the headlight switch, the high beams will come on steady. The headlight switch has ultimate control.

System Block Diagram:



Body Controller Software Feature Codes:

- 597298 – BCM PROG, HEADLIGHTS WIG WAG with High beam

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max

Wig_Wag_Cad	2629	Determines the method of flashing for the wig wag headlights.	1	No Units	1	13

Parameter Definitions:

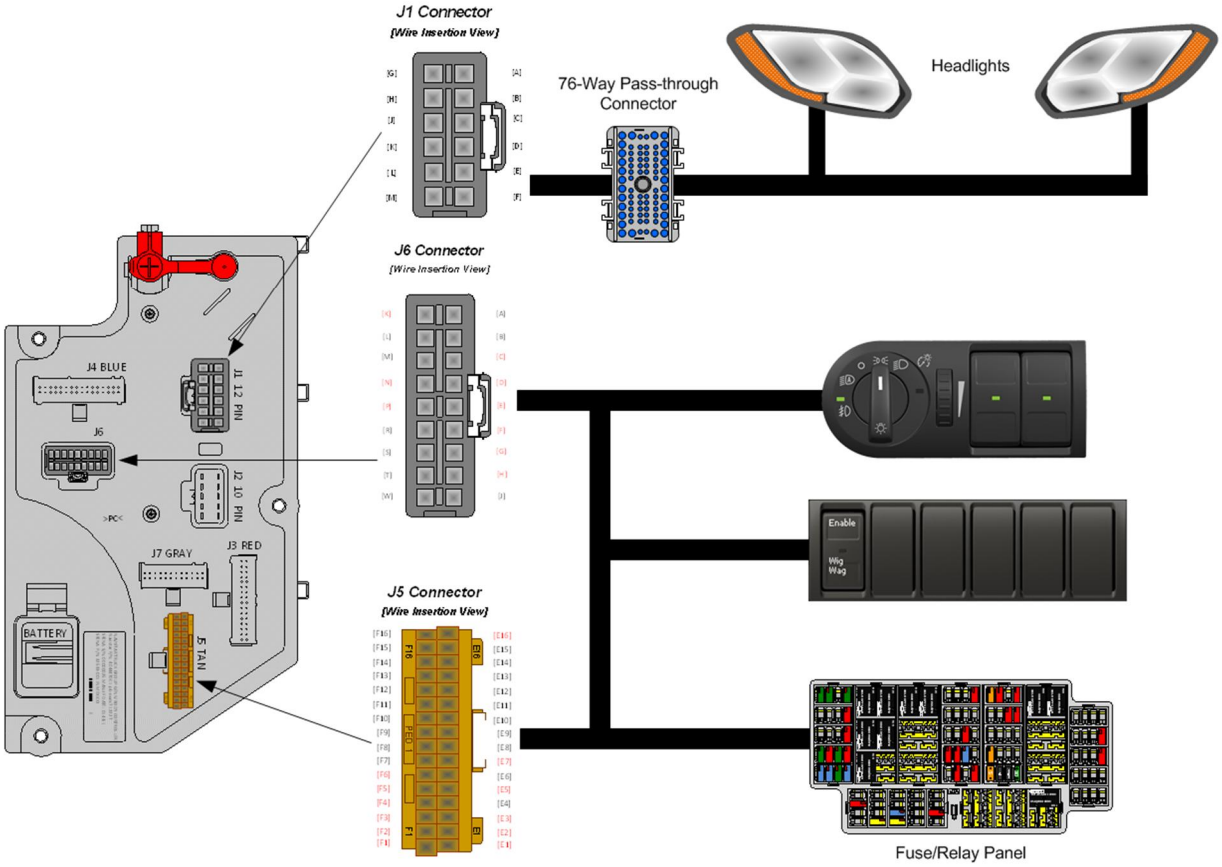
- **Wig_Wag_Cad** - This parameter specifies the Wig Wag pattern for the headlights. The following table indicates the pattern and timing for the headlights

Note/s About Possible Software Feature Conflicts:
597190

14.18. 60AKL: BDY INTG, HEADLIGHTS, WIG WAG High Beam Wig Wag with Park Brake Interlock, Park Brake Disables High Beam Wig Wag, Enables Low Beam Wig Wag.

Extended Description: 60AKL is the Wig Wag feature for non-emergency vehicles. This feature provides 13 different flash patterns for vehicle headlights. The different flash patterns can be selected by changing a parameter for the feature using Diamond Logic® Builder software as detailed in the feature parameter section. The feature includes a two-position latching switch located in the instrument panel labeled Wig Wag. To enable the wig wag feature, the Wig Wag switch must be pressed to the Enable (UP) position. To disable the wig wag feature, the Wig Wag switch must be pressed to the DOWN position. High beams will only flash when park brake is released. Low beams will flash whenever requested to. Headlight switch has ultimate control. When vehicle is moving, if high beams are selected, low beams will flash; if low beams are selected, high beams will flash.

System Block Diagram:



Body Controller Software Feature Codes:

- 597190 – BCM PROG, HEADLIGHTS WIG WAG with Low beam or High Beam Flash

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max
Wig_Wag_Cad	2629	Determines the method of flashing for the wig wag headlights.	1	No Units	1	13

Parameter Definitions:

- **Wig_Wag_Cad** - This parameter specifies the Wig Wag pattern for the headlights. The following table indicates the pattern and timing for the headlights

Note/s About Possible Software Feature Conflicts:

597298

15. CB and 2-Way Radio Accommodation Packages

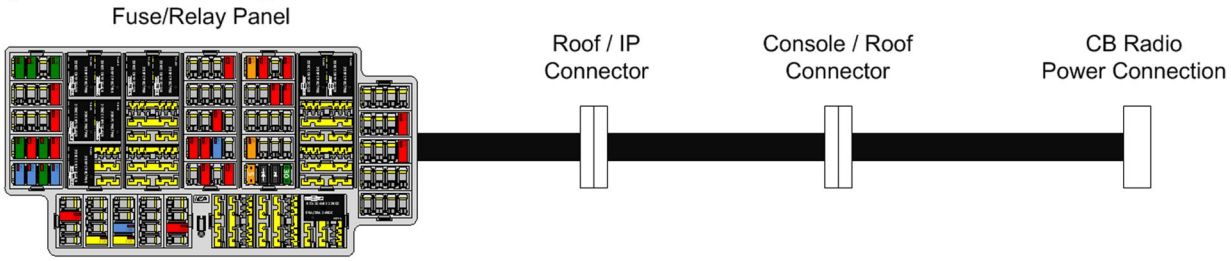
15.1. 08RBK: CB ANTENNA (2) {Pana-Pacific} Full Wave; 4.0' Length Includes "International" Name on Top.

Extended Description: This feature provides two 4’ long CB antennas. This feature should be ordered if dual antennas are needed in addition to one of the available two-way radio accommodation packages.

15.2. 08RCB: CB RADIO Accommodation Package; Header Mounted; Feeds from Accessory Side of Ignition Switch; Includes Power Source and Two Antenna Bases with Wiring.

Extended Description: When installing a CB radio, this feature provides the power circuits required for hook-up. This accommodation package includes a two-way connector with a 10-Amp accessory power feed and cab ground, dual CB antenna cables routed from the mirrors to the cab overhead console panel opening and two CB antenna mounts located at the top of each mirror. A strap is also provided in the header to mount the customer-supplied CB radio. The antennas are not provided with this code. If the two antennas are desired, 08RBK must be ordered.

System Block Diagram:

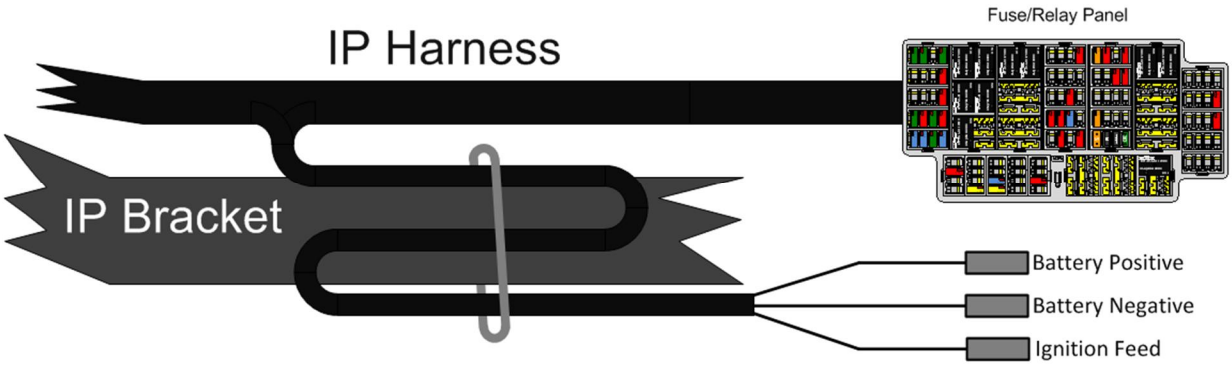


08RCB System Diagram

15.3. 08REA: 2-WAY RADIO Wiring Effects; Wiring with 20-Amp Fuse Protection, Includes Ignition Wire with 5-Amp Fuse, Wire Ends Heat Shrink and 10' Coil Taped to Base Harness.

Extended Description: This feature provides a 20-Amp fused battery feed, 5-Amp ignition feed and ground wire for applications requiring two-way radio communications. The three wires are taped to the cab harness behind the center dash instrument panel.

System Block Diagram:

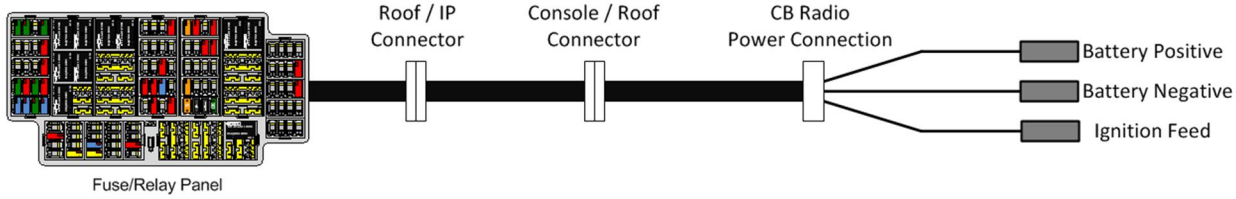


08REA Harness Diagarm

15.4. 08RGA: 2-WAY RADIO Wiring Effects; Wiring with 20-Amp Fuse Protection, Includes Ignition Wire with 5-Amp Fuse, Wire Ends Heat Shrink and Routed to Center of Header Console in Cab.

Extended Description: This feature provides a 20-Amp fused battery feed, 5-Amp fused ignition feed and ground wire for applications requiring two-way radio communications. The three wires are located in the center of the header console in the cab.

System Block Diagram:



08RGA System Diagram

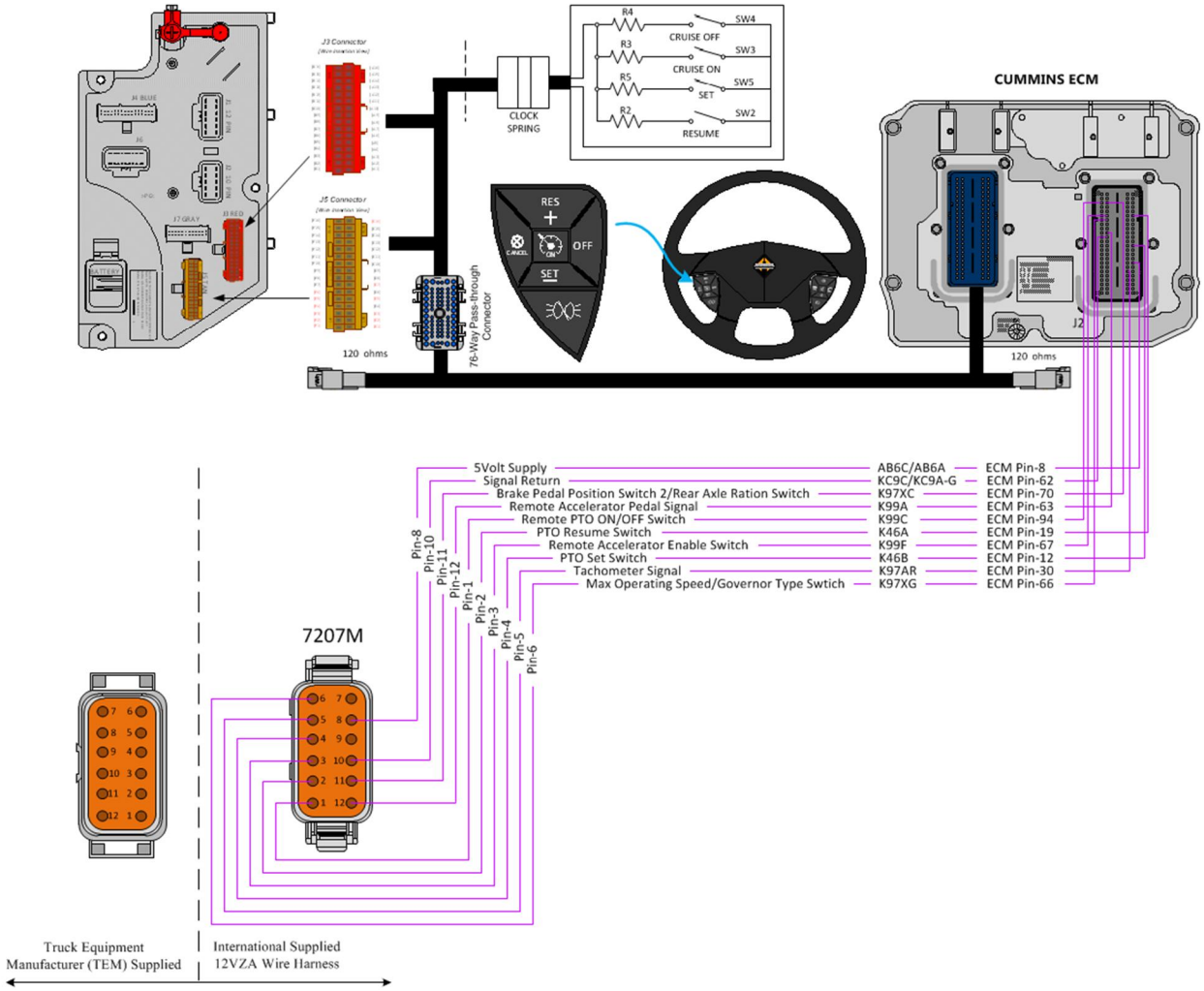
16. Engine Speed Control Features and Accommodation Packages

16.1. 12VGU: ENGINE CONTROL, REMOTE MOUNTED for Navistar A26, N13 and Cummins X15 Engines.

Extended Description: Feature code 12VGU provides an engine interface connector to facilitate remote engine speed control with X15 Cummins engines. The interface connector is a 12-way connector located in the engine compartment on the driver's side. Please reference circuit diagrams and additional service documentation on the correct pinout of the interface connector as it may vary based on truck model.

Note: This interface connector does not provide a Vehicle Speed Signal circuit. A vehicle Speed Signal is available at the TCM connector, on trucks with automatic transmissions. Refer to the circuit diagrams for connector and pin information. Feature code 12VYL may also be ordered on trucks with automatic transmissions. It provides a Vehicle Speed Signal circuit coiled behind the center of the instrument panel for body builder use. A separate Vehicle Speed Sensor or a sensor with 2-pigtails may need to be installed by the body builder on trucks with a manual transmission, if a Vehicle Speed Signal is required.

System Block Diagram:

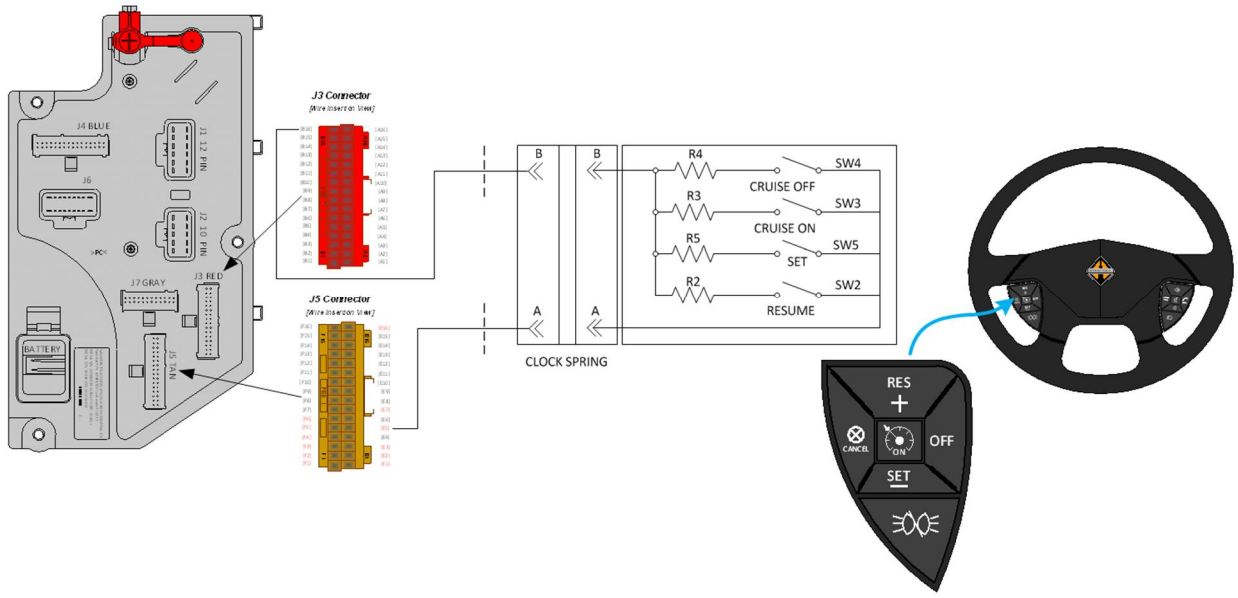


12VGU System Diagram

16.2. 12VXT: THROTTLE, HAND CONTROL Engine Speed Control; Electronic, Stationary, Variable Speed; Mounted on Steering Wheel.

Extended Description: Stationary Variable Speed feature 12VXT allows the equipment operator to feather engine speed up or down to make fine adjustments to engine speed to achieve the desired functionality. The vehicle must be in a stationary position.

System Block Diagram:

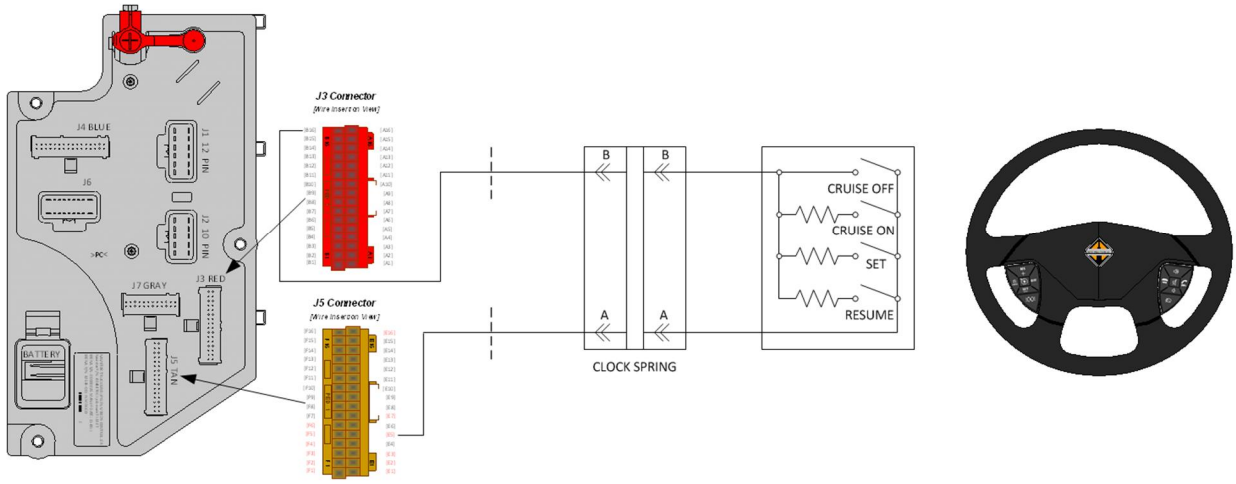


12VXT System Diagram

16.3. 12VXU: THROTTLE, HAND CONTROL Engine Speed Control for PTO; Electronic, Stationary Pre-Set, Two Speed Settings; Mounted on Steering Wheel

Extended Description: Stationary Preset Speed feature 12VXU allows the user to operate auxiliary equipment at two pre-determined engine speed settings while in a stationary position. Application examples are Garbage Packer, Recovery, Utility, and other applications that are meant to run at a set speed.

System Block Diagram:

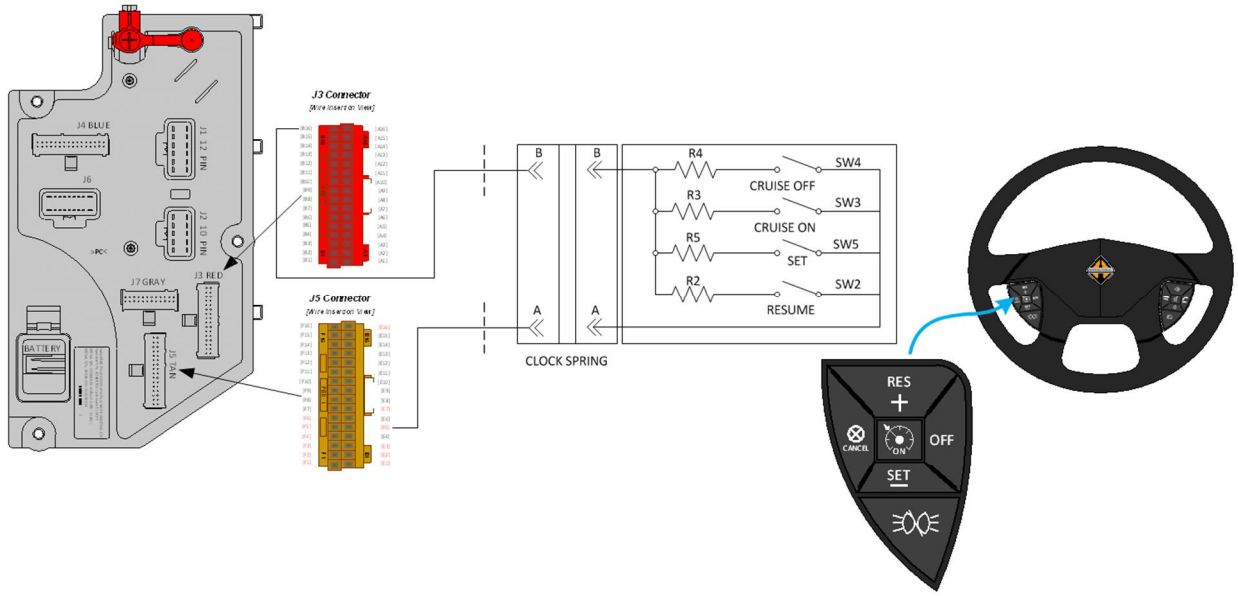


12VXU System Diagram

16.4. 12VXV: THROTTLE, HAND CONTROL Engine Speed Control for PTO; Electronic, Mobile (Range 2 to 20-MPH), Variable Speed; Mounted on Steering Wheel.

Extended Description: Mobile Variable Speed feature 12VXV allows the equipment operator to feather engine speed up or down to make fine adjustments to engine speed to achieve the desired functionality. The vehicle is moving; however, the accelerator pedal is inoperative. Speed is controlled through the steering wheel controls. If the brake pedal is depressed, mobile variable speed control is in standby mode until the operator uses the steering wheel controls again to adjust speed. Application examples are Concrete Mixer, Asphalt Spreader, Dump (dumping gravel, etc.), and other applications that require fine control of engine speed while the vehicle is moving.

System Block Diagram:

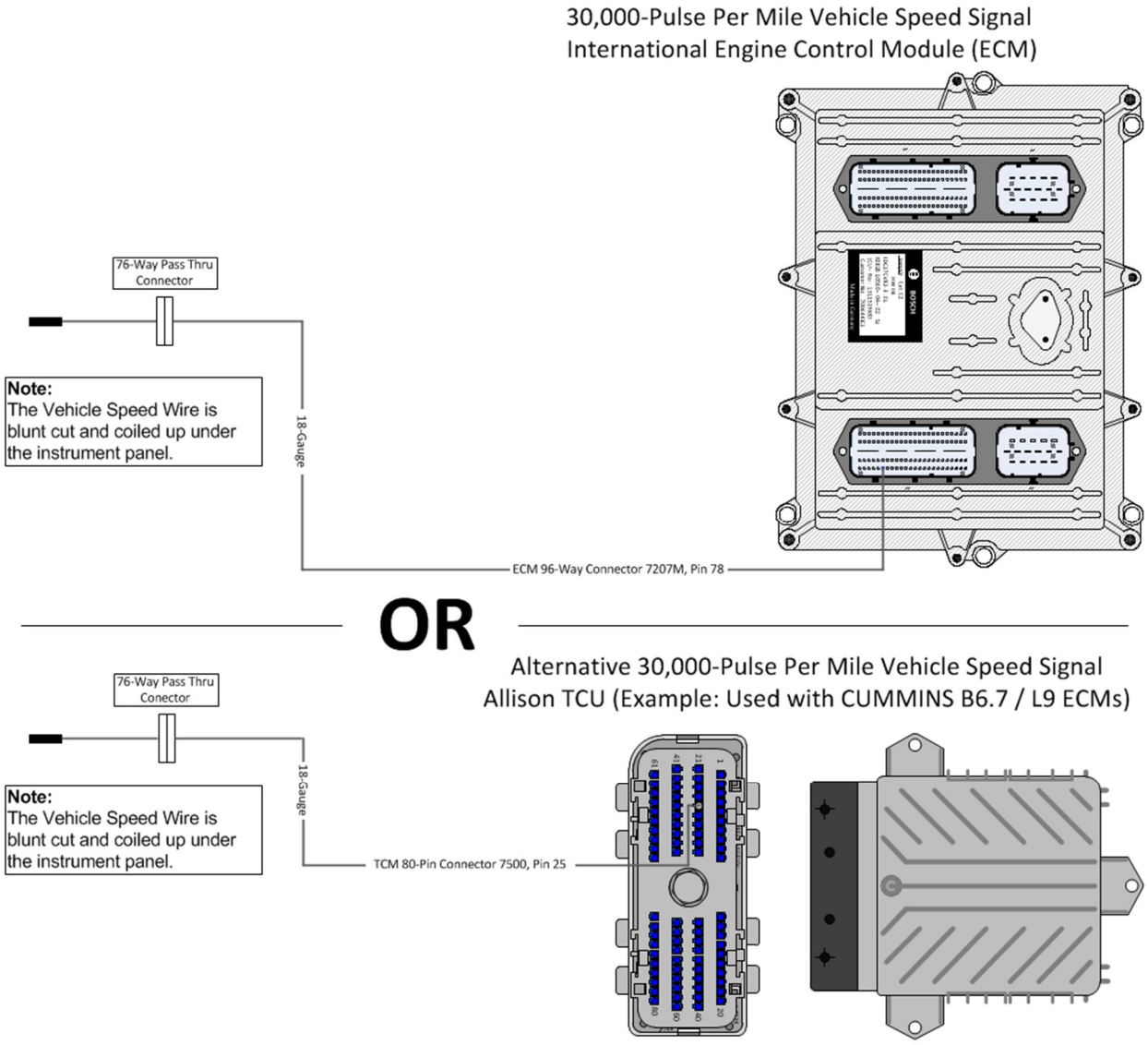


12VXV System Diagram

16.5. 12VYL: ACCESSORY WIRING, SPECIAL for Road Speed Wire Coiled Under Instrument Panel for Customer Use.

Extended Description: This feature provides a vehicle speed signal source from the engine ECM or Transmission TCM. This speedometer output is calibrated to 30,000 pulses per mile. The wire is coiled up behind the center instrument panel.

System Block Diagram:

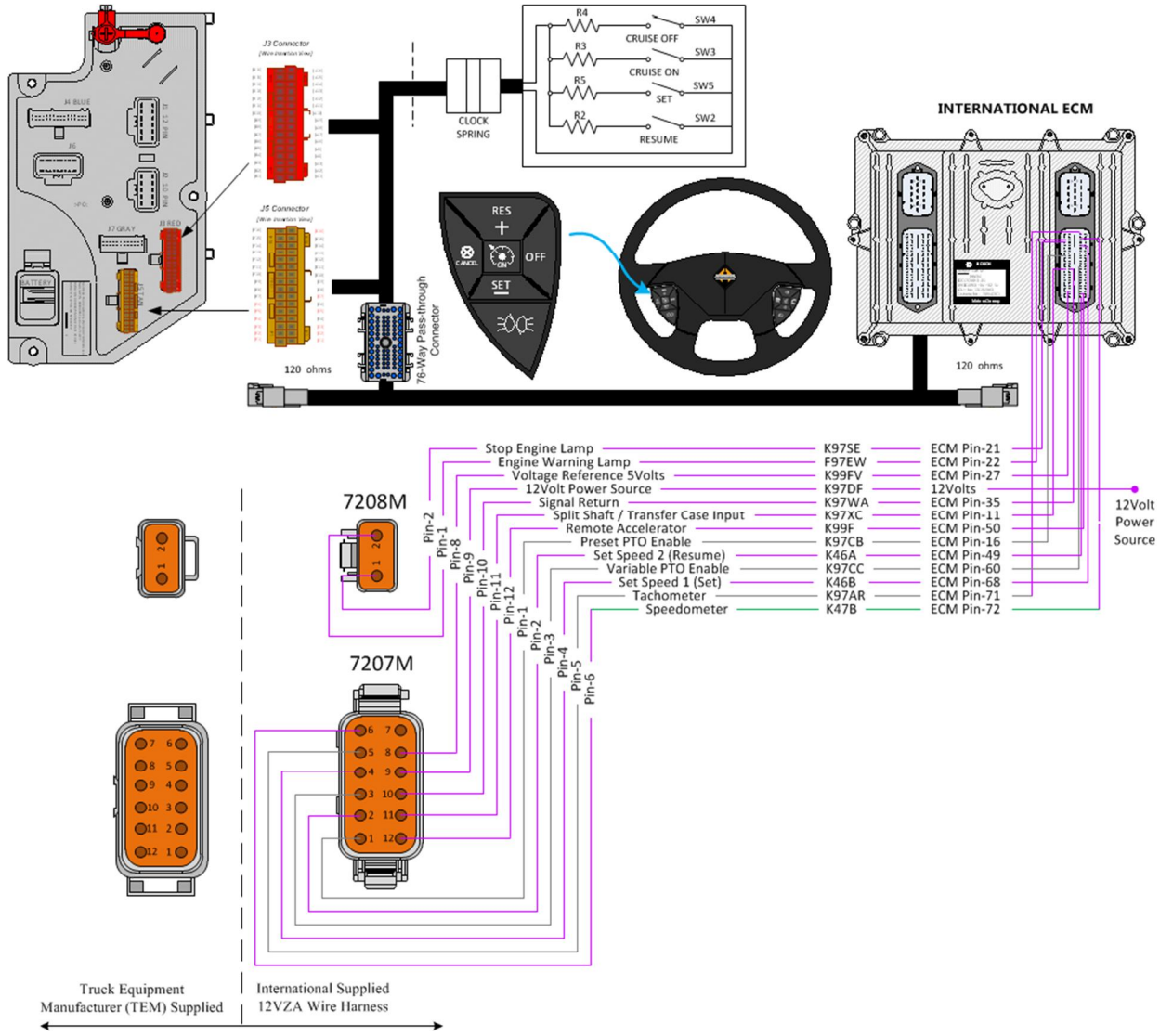


12VYL System Diagram

16.6. 12VZA: ENGINE CONTROL, REMOTE MOUNTED Provision for, Includes Wiring for Body Builder Installation of PTO Controls, With Ignition Switch Control for International® post 2007 Emissions Electronic Engines.

Extended Description: Feature 12VZA is for use with International N9, N10 and DT engines. This feature provides two connectors for the Truck Equipment Manufacturer (TEM) or body builder to connect to the engine hardwired interface for remote engine speed control and monitoring. The connectors are located in the engine compartment on the driver side near the firewall and include the mating connectors with plugs for the installer to replace desired cavity locations with terminated body wiring. With the proper wiring and appropriate engine parameter settings, the body builder can remotely control preset, variable, and remote pedal engine spee. The feature also includes interface wires for Transfer Case Feedback, Engine Warning Light (EWL), Tachometer, Vehicle Speed Pulse and Oil in Water LIGHT (OWL).

System Block Diagram:



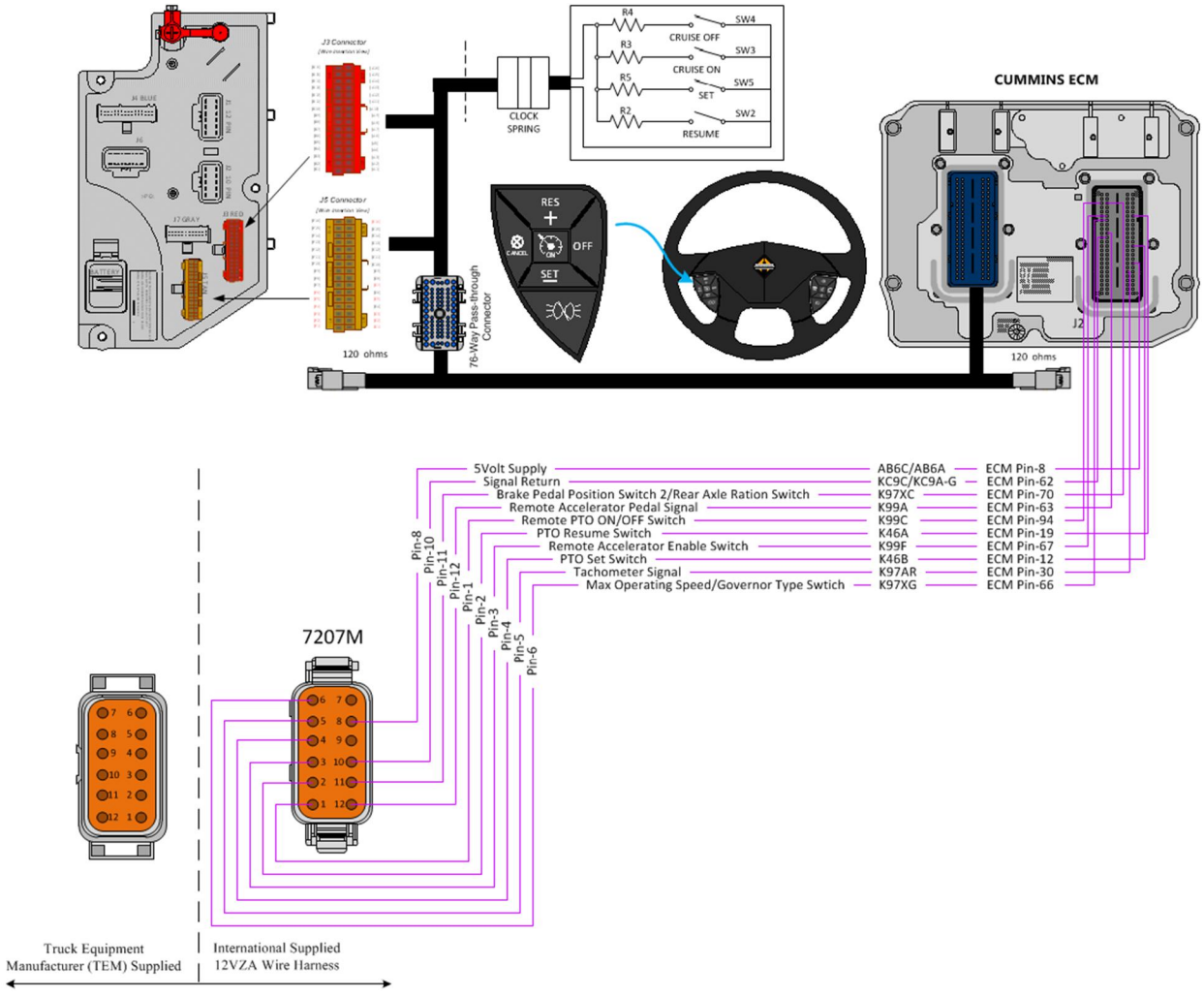
12VZA System Diagram

16.7. 12XAT: ENGINE CONTROL, REMOTE MOUNTED Provision for; Includes Wiring for Body Builder Installation of PTO Controls; with Ignition Switch Control for Cummins ISB/B6.7 or ISL/L9 Engines.

Extended Description: Feature code 12XAT provides an engine interface connector to facilitate remote engine speed control with ISB or B6.7 Cummins engines. The interface connector is a 12-way connector located in the engine compartment on the driver's side. Please reference circuit diagrams and additional service documentation on the correct pinout of the interface connector as it may vary based on truck model.

Note: This interface connector does not provide a Vehicle Speed Signal circuit. A vehicle Speed Signal is available at the TCM connector, on trucks with automatic transmissions. Refer to the circuit diagrams for connector and pin information. Feature code 12VYL may also be ordered on trucks with automatic transmissions. It provides a Vehicle Speed Signal circuit coiled behind the center of the instrument panel for body builder use. A separate Vehicle Speed Sensor or a sensor with 2 pigtails may need to be installed by the body builder on trucks with a manual transmission, if a Vehicle Speed Signal is required.

System Block Diagram:



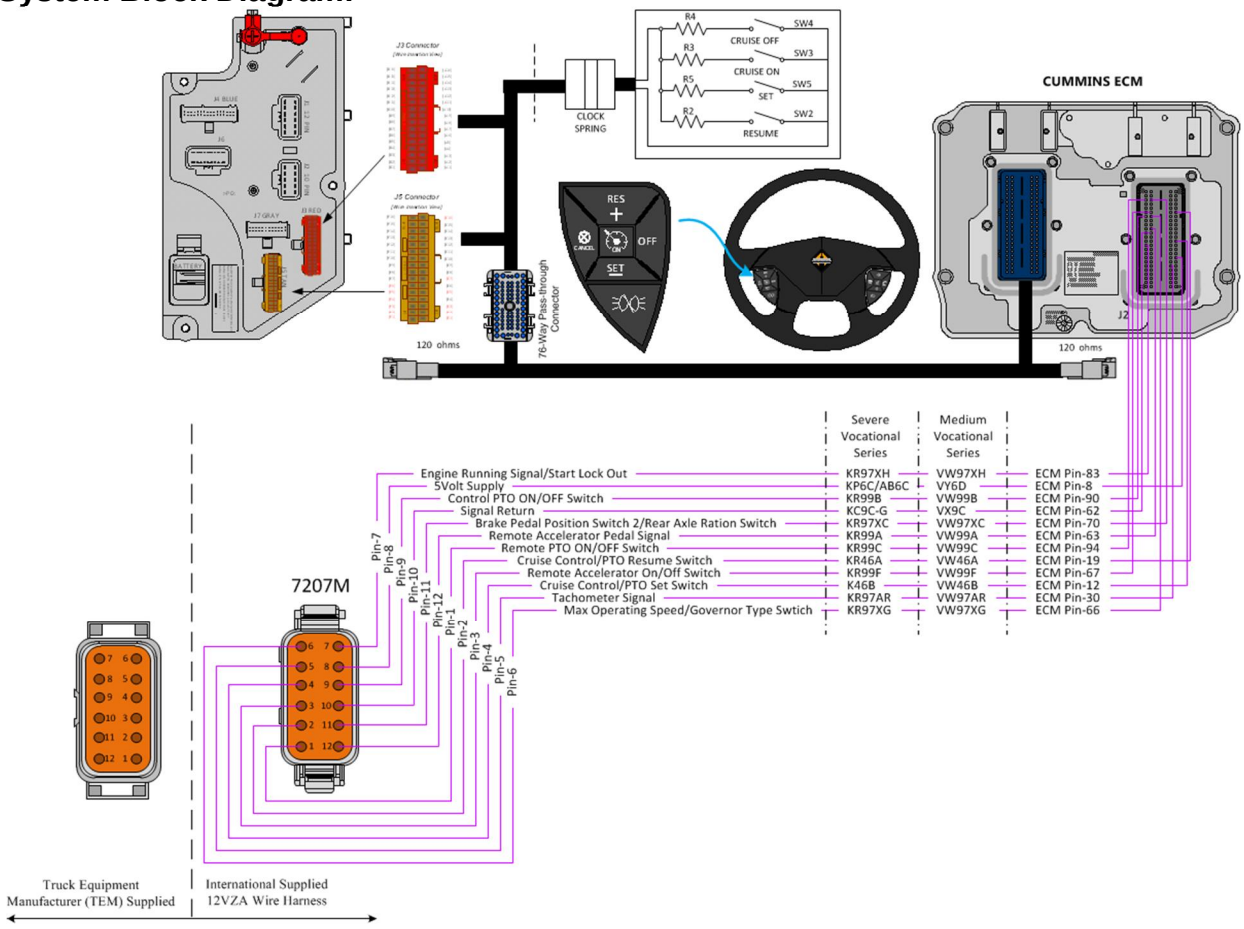
12XAT System Diagram

16.8. 12XBM: ENGINE CONTROL, REMOTE MOUNTED Provision for; Includes Wiring for Body Builder Installation of PTO Controls and Starter Lockout; with Ignition Switch Control for Cummins B6.7 and L9 Engines.

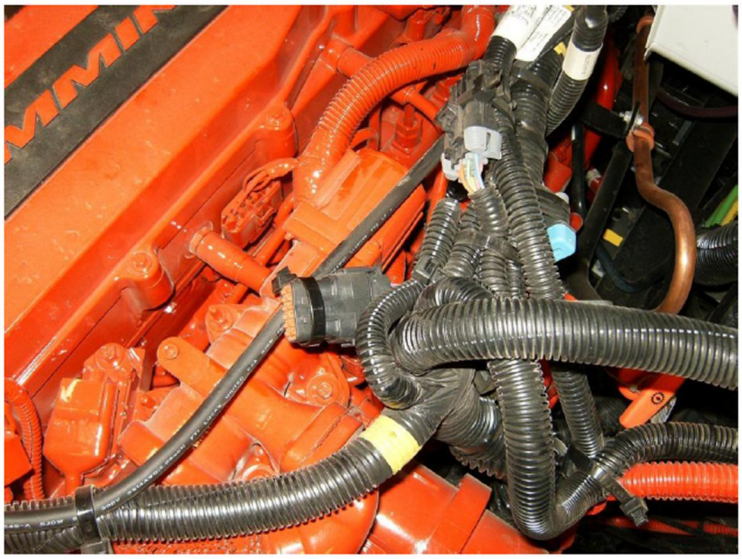
Extended Description: Feature code 12XBM provides an engine interface connector to facilitate remote engine speed control with B6.7 or L9 Cummins engines. The interface connector is a 12-way connector located in the engine compartment on the driver's side. Please reference circuit diagrams and additional service documentation on the correct pinout of the interface connector as it may vary based on truck model.

Note: This interface connector does not provide a Vehicle Speed Signal circuit. A vehicle Speed Signal is available at the TCM connector, on trucks with automatic transmissions. Refer to the circuit diagrams for connector and pin information. Feature code 12VYL may also be ordered on trucks with automatic transmissions. It provides a Vehicle Speed Signal circuit coiled behind the center of the instrument panel for body builder use. A separate Vehicle Speed Sensor or a sensor with 2 pigtails may need to be installed by the body builder on trucks with a manual transmission, if a Vehicle Speed Signal is required.

System Block Diagram:



12XBM System Diagram



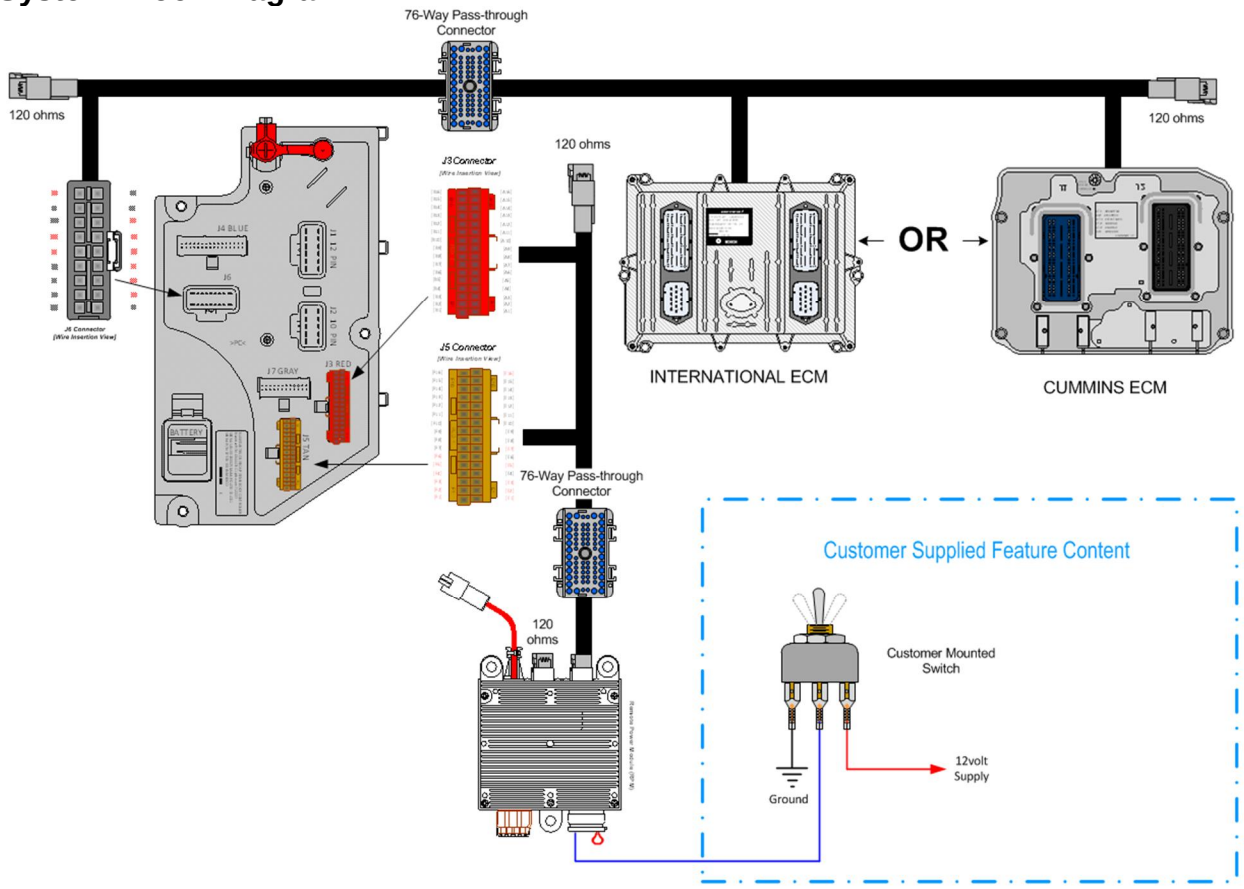
12-Way Connector (7207M) Center of Picture

16.9. 60AJA: BDY INTG, THROTTLE CONTROL Accommodation for Single Customer-Mounted External Engine Speed Control Switch, Programmable Mode for Various Switch Actions and Engine Speed Control Option; Useable Only While Vehicle is Stopped and the Park Brake is Applied (requires one Remote Power Module (RPM) input).

Extended Description: A Truck Equipment Manufacturer (TEM) or customer-mounted single remote center stable, momentary switch is used to control engine speed from a remote location. When the operator moves the switch to the up position, the switch should be wired to supply 12 volts to the RPM input to activate Remote engine speed control preset 1. When the operator returns the switch to the center position or stable position, the engine will remain at preset 1 until the operator moves the switch to the down position. In the down position, the switch is wired to supply a Ground (GND) to the RPM input to deactivate Remote engine speed control preset 1. When the operator returns the switch to the center position or stable position, the engine will remain at idle.

This feature is commonly used for the recovery application or any application that needs to remotely elevate engine speed to a single preset and maintain the engine speed until the operator brings the engine back to idle through a second action. Engine preset 1 must be programmed in the Engine Control Module (ECM) parameters with the appropriate service tool. This feature also requires that feature 12VXU be ordered on the vehicle or in-cab stationary Preset throttle control be set up with the appropriate engine service tool if feature 60AJA is installed in the field.

System Block Diagram:



Body Controller Software Feature Codes:

- 597322 - BCM PROG, EXTERNAL ENGINE SPD CONTROL

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
TEM_Ext_Eng_Speed_Control_Mode	2035	This parameter sets the mode of operation for the TEM External Engine Speed Control feature	1	List	0	3	1
TEM_Ext_Eng_Spd_Ctrl_PTO_Ilock	2036	If this parameter is a one, external engine speed controls will be interlocked to PTO request.	0	On/off	0	1	1
TEM_Ext_Eng_Spd_Ctrl_Active_State	2158	This is the active state for the external engine speed control switch	3	List	0	1	3

Parameter Definitions:

- **TEM_Ext_Eng_Speed_Control_Mode** – This parameter sets the mode of operation for the TEM External Engine Speed Control feature.
  0 – Remote engine speed control does not function
  1 – 12 Volts on the engine speed control input causes engine to ramp; ground causes engine to return to idle.

2 – Pulling the engine speed control input momentarily (pulled and released) to its active state causes the engine to ramp; Another momentary active state transition causes engine to return to idle
3 – Engine will ramp for only as long as the engine speed control input is held in its active state.

- **TEM_Ext_Eng_Spd_Ctrl_PTO_Ilock** – This parameter sets the optional PTO interlock mode ON or OFF. If set ON, the Remote engine speed control preset-1 will be interlocked to all International® pre-engineered PTO features that use a center panel switch. This means that the remote engine speed control will only be allowed to operate if the PTO is being requested to engage. If this parameter is not set, the engine speed control will operate regardless of the PTO request.
- **TEM_Ext_Eng_Spd_Ctrl_Active_State** – This is the active state for the external engine speed control switch.
  0 – RPM input floating (not grounded or at 12 Volts
  1 – RPM input grounded.
  2 – NOT USED
  3 - RPM input 12 Volts

Note/s About Possible Software Feature Conflicts:

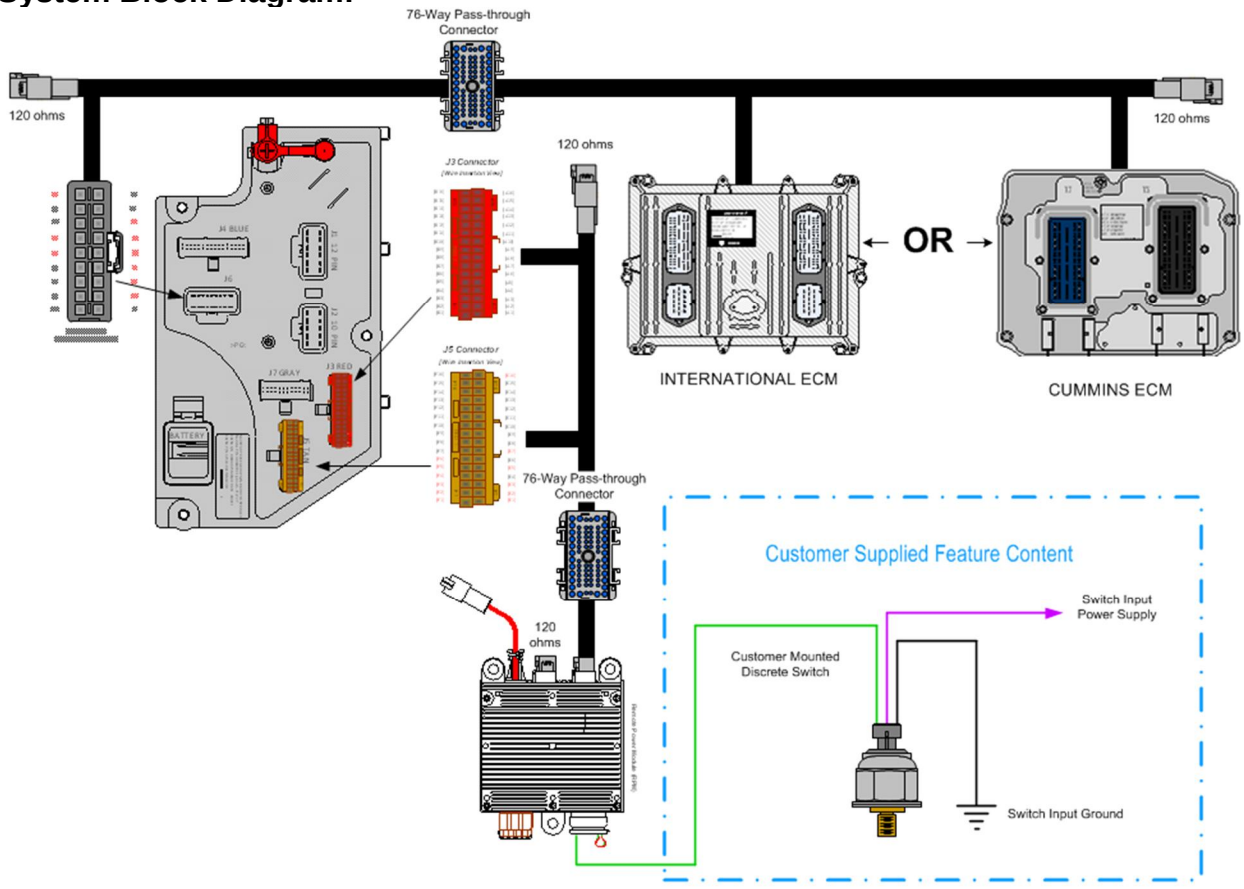
- Only ONE External engine speed feature can be configured on a single vehicle.

16.10. 60AJE: BDY INTG, THROTTLE CONTROL Accommodation for On Demand Engine Speed for Single Customer-Mounted Pressure Switch, Programmable Mode for Various Switch Actions, Useable Only While Vehicle is Stopped and the Park Brake is Applied (requires one RPM input).

Extended Description: A Truck Equipment Manufacturer (TEM) or customer-mounted single remote momentary or latched switch or normally open pressure switch is used to control engine speed from a remote location. When the operator moves the switch to the up position or the pressure switch closes, the switch supplies GND or 12-volts to the RPM input to activate Engine Preset 1 and ramp the engine to it. The engine will continue to ramp to Engine Speed Preset 1 as long as the switch continues to supply either GND or 12-volts to the RPM input. When the operator moves the switch to the down position or the switch opens, the switch removes the GND or 12-volts to the RPM input to deactivate engine speed control preset 1 returning the engine to idle.

This feature is used for various applications that need to remotely elevate engine speed to a single preset and maintain the engine speed until the operator or system brings the engine back to idle. Engine speed control is maintained on demand with this feature. Engine preset 1 must be programmed in the Engine Control Module (ECM) parameters with the appropriate service tool. This feature also requires that feature 12VXU be ordered on the vehicle or in-cab stationary Preset throttle control be set up with the appropriate engine service tool if feature 60AJE is installed in the field.

System Block Diagram:



Body Controller Software Feature Codes:

- 597321 - BCM PROG, EXT ENGINE SPD CONT'L for Demand Engine Speed with Utility Application

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
TEM_Ext_Eng_Speed_Control_Mode	2035	This parameter sets the mode of operation for the TEM External Engine Speed Control feature	3	List	0	3	1
TEM_Ext_Eng_Spd_Ctrl_PTO_Ilock	2036	If this parameter is a one, external engine speed controls will be interlocked to PTO request.	0	On/off	0	1	1
TEM_Ext_Eng_Spd_Ctrl_Active_State	2158	This is the active state for the external engine speed control switch	1	List	0	1	3

Parameter Definitions:

- **TEM_Ext_Eng_Speed_Control_Mode** – This parameter sets the mode of operation for the TEM External Engine Speed Control feature.

0 – Remote engine speed control does not function
1 – 12 Volts on the engine speed control input causes engine to ramp; ground causes engine to return to idle.
2 – Pulling the engine speed control input momentarily (pulled and released) to its active state causes the engine to ramp; Another momentary active state transition causes engine to return to idle
3 – Engine will ramp for only as long as the engine speed control input is held in its active state.

- **TEM_Ext_Eng_Spd_Ctrl_PTO_Ilock** – This parameter sets the optional PTO interlock mode ON or OFF. If set ON, the Remote engine speed control preset-1 will be interlocked to all International® pre-engineered PTO features that use a center panel switch. This means that the remote engine speed control will only be allowed to operate if the PTO is being requested to engage. If this parameter is not set, the engine speed control will operate regardless of the PTO request.
- **TEM_Ext_Eng_Spd_Ctrl_Active_State** – This is the active state for the external engine speed control switch.
  0 – RPM input floating (not grounded or at 12 Volts
  1 – RPM input grounded.
  2 – NOT USED
  3 - RPM input 12 Volts

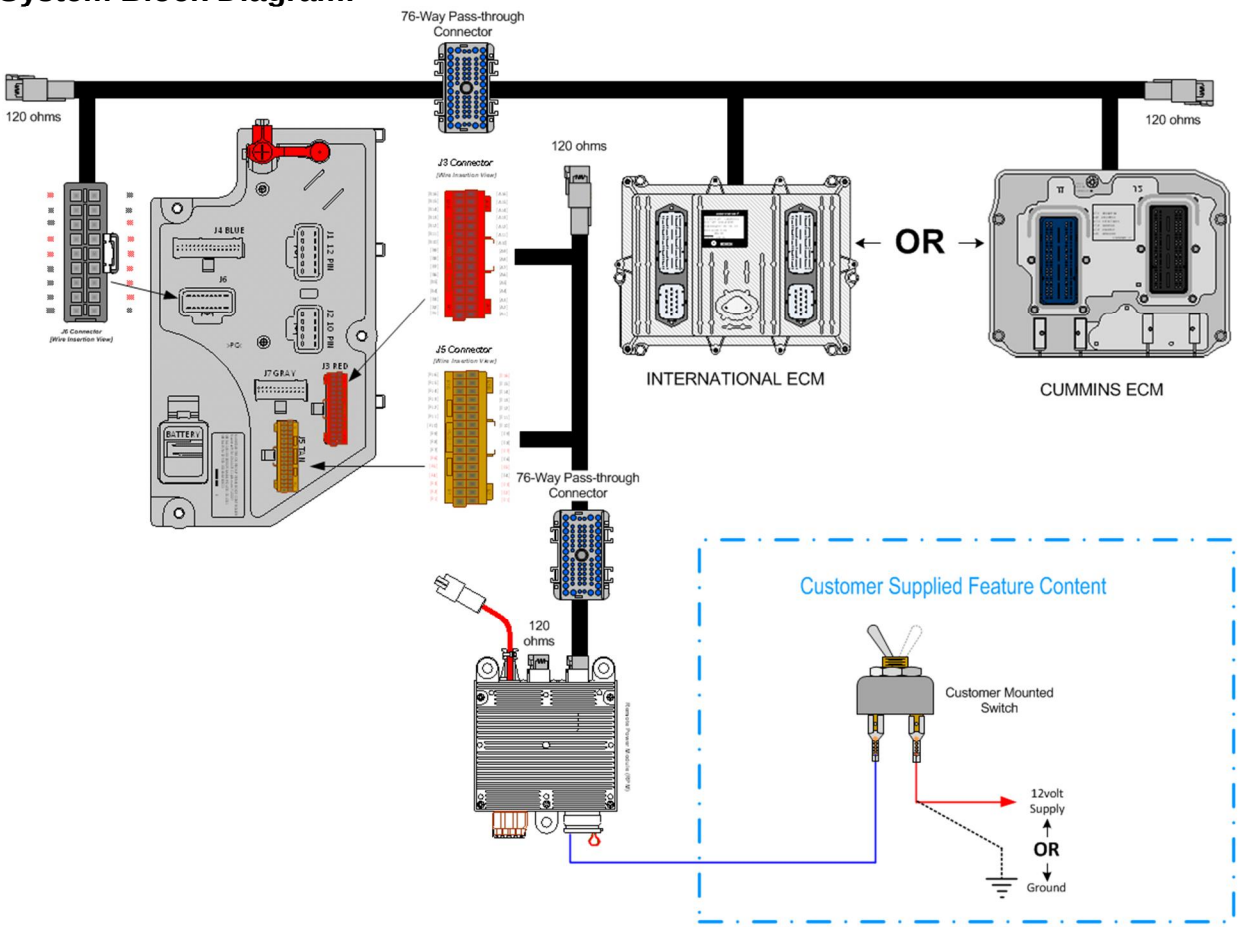
Note/s About Possible Software Feature Conflicts:
597265, 597322 or 597323 will conflict with 597321.
597324 may require 597321

16.11. 60AJG: BDY INTG, THROTTLE CONTROL Accommodation for Single Customer-Mounted External Engine Speed Control Switch, for Utility Applications, Programmable Mode for Various Switch Actions and Engine Speed Control Option, Only with Vehicle Stopped and Park Brake is Applied (requires one RPM input).

Extended Description: A Truck Equipment Manufacturer or customer-mounted single momentary switch is used to control engine speed from a remote location. When the operator moves the switch to the up position or the switch closes for the first time, the switch supplies GND or 12-volts to the RPM input which activates Engine Speed Preset 1. When the operator moves the switch to the down position or the switch opens, the engine will remain at Engine Speed Preset 1. When the operator moves the switch to the up position or the switch closes for the second time, engine speed control preset 1 is deactivated returning the engine to idle.

This feature is commonly used for the utility application to remotely elevate engine speed to a single preset and maintain the engine speed until the operator brings the engine back to idle through a second action. Engine preset 1 must be programmed in the Engine Control Module (ECM) parameters with the appropriate service tool. This feature also requires that feature 12VXU be ordered on the vehicle or in-cab stationary Preset throttle control be set up with the appropriate engine service tool if feature 60AJG is installed in the field.

System Block Diagram:



Body Controller Software Feature Codes:

- 597323 - BCM PROG, EXT ENGINE SPD CONT'L with Utility Application

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
TEM_Ext_Eng_Speed_Control_Mode	2035	This parameter sets the mode of operation for the TEM External Engine Speed Control feature	2	List	0	3	1
TEM_Ext_Eng_Spd_Ctrl_PTO_Ilock	2036	If this parameter is a one, external engine speed controls will be interlocked to PTO request.	0	On/off	0	1	1
TEM_Ext_Eng_Spd_Ctrl_Active_State	2158	This is the active state for the external engine speed control switch	1	List	0	1	3

Parameter Definitions:

- **TEM_Ext_Eng_Speed_Control_Mode** – This parameter sets the mode of operation for the TEM External Engine Speed Control feature.
  0 – Remote engine speed control does not function

1 – 12 Volts on the engine speed control input causes engine to ramp; ground causes engine to return to idle.
2 – Pulling the engine speed control input momentarily (pulled and released) to its active state causes the engine to ramp; Another momentary active state transition causes engine to return to idle
3 – Engine will ramp for only as long as the engine speed control input is held in its active state.

- **TEM_Ext_Eng_Spd_Ctrl_PTO_Ilock** – This parameter sets the optional PTO interlock mode ON or OFF. If set ON, the Remote engine speed control preset-1 will be interlocked to all International® pre-engineered PTO features that use a center panel switch. This means that the remote engine speed control will only be allowed to operate if the PTO is being requested to engage. If this parameter is not set, the engine speed control will operate regardless of the PTO request.
- **TEM_Ext_Eng_Spd_Ctrl_Active_State** – This is the active state for the external engine speed control switch.
  0 – RPM input floating (not grounded or at 12 Volts
  1 – RPM input grounded.
  2 – NOT USED
  3 - RPM input 12 Volts

Note/s About Possible Software Feature Conflicts:
597265, 597321 or 597322 will conflict with 597323.
597324 may require 597323

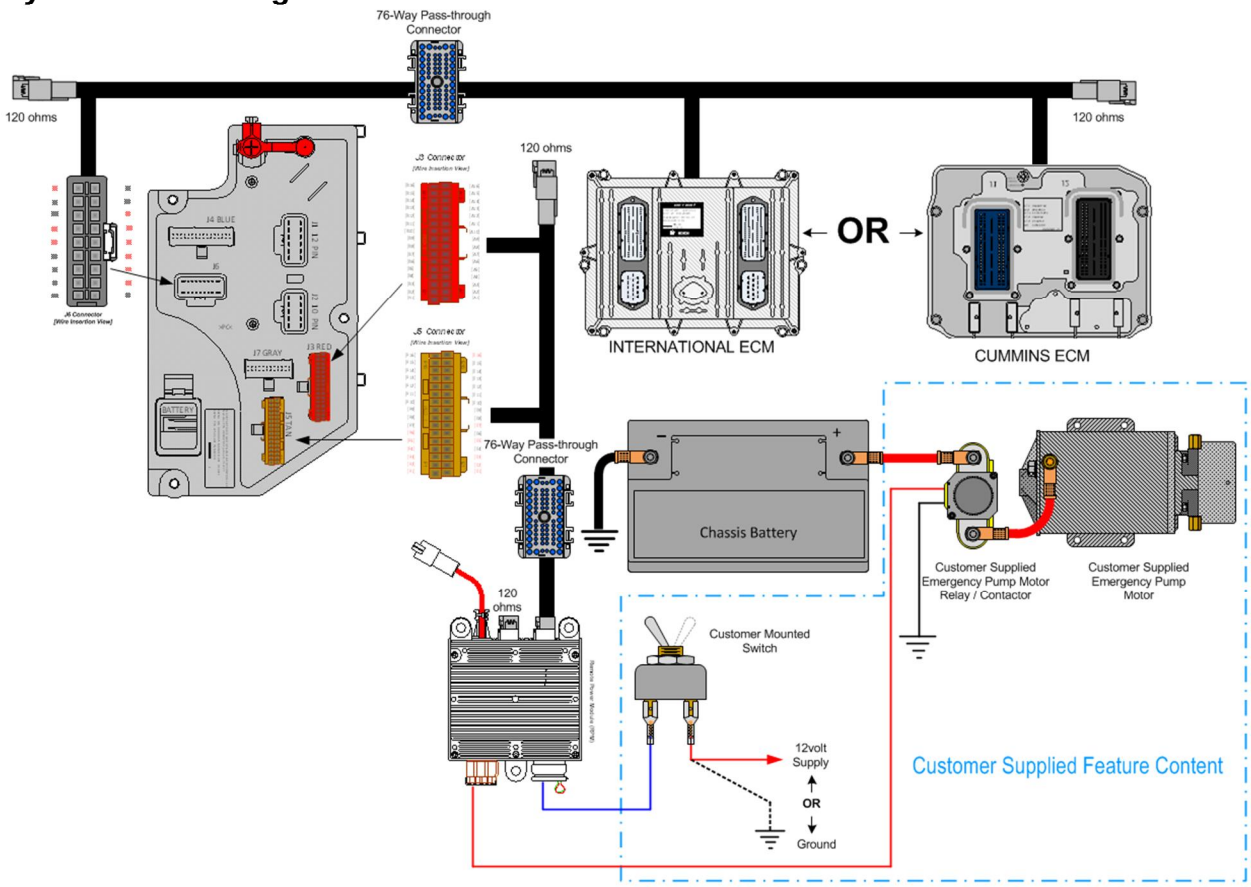
16.12. 60AJH: BDY INTG, THROTTLE CONTROL for Dual Function Input, for Utility Applications, Remote Throttle Control When Engine is Running, and Activating Output for Emergency Power When the Engine is Not Engaged; Useable Only When Vehicle is Stopped and Park Brake is Applied (requires one RPM input and output).

Extended Description: Stationary Remote engine speed control preset 1 is interlocked to park brake and transmission in neutral or park and vehicle speed and engine running or optional PTO interlock; when engine is not running, the GND input will turn on a 12-volt, 20-Ampere (AMP) RPM output used to control an emergency pump.

A Truck Equipment Manufacturer or customer-mounted single momentary switch is used to control engine speed from a remote location. When the operator moves the switch to the up position or the switch closes for the first time, the switch supplies GND or 12-volts to the RPM input which activates Engine Speed Preset 1. When the operator moves the switch to the down position or the switch opens, the engine will remain at Engine Speed Preset 1. When the operator moves the switch to the up position or the switch closes for the second time, engine speed control preset 1 is deactivated returning the engine to idle. When the engine is not running and the operator moves the switch to the up position and holds or the switch closes and holds, the switch will supply a GND signal to the RPM input which then turns on a 12-volt, 20-AMP RPM output used for emergency pump control.

This feature is commonly used for the utility application to remotely elevate engine speed to a single preset and maintain the engine speed until the operator brings the engine back to idle through a second action. This feature also provides an emergency pump control output from the Remote Power Module (RPM) when the engine is not running. Engine preset 1 must be programmed in the Engine Control Module (ECM) parameters with the appropriate service tool. This feature also requires that feature 12VXU be ordered on the vehicle or in-cab stationary Preset throttle control be set up with the appropriate engine service tool if feature 60AJH is installed in the field.

System Block Diagram:



Body Controller Software Feature Codes:

- 597323 - BCM PROG, EXT ENGINE SPD CONT'L with Utility Application
- 597324 - BCM PROG, EXT ENGINE SPD CONT'L for Emergency Power Output and Utility Application, for use with External Engine Speed Control

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
TEM_Ext_Eng_Speed_Control_Mode	2035	This parameter sets the mode of operation for the TEM External Engine Speed Control feature	2	List	0	3	1
TEM_Ext_Eng_Spd_Ctrl_PTO_Ilock	2036	If this parameter is a one, external engine speed controls will be interlocked to PTO request.	0	On/off	0	1	1
TEM_Emergency_Pump_Fuse	2060	Fusing value for the output driving the emergency pump in the combination RESC emergency pump feature.	20	amp	0	20	0.1
TEM_Ext_Eng_Spd_Ctrl_Active_State	2158	This is the active state for the external engine speed control switch	1	List	0	1	3

Parameter Definitions:

- **TEM_Ext_Eng_Speed_Control_Mode** – This parameter sets the mode of operation for the TEM External Engine Speed Control feature.
  0 – Remote engine speed control does not function
  1 – 12 Volts on the engine speed control input causes engine to ramp; ground causes engine to return to idle.
  2 – Pulling the engine speed control input momentarily (pulled and released) to its active state causes the engine to ramp; Another momentary active state transition causes engine to return to idle
  3 – Engine will ramp for only as long as the engine speed control input is held in its active state.
- **TEM_Ext_Eng_Spd_Ctrl_PTO_Ilock** – This parameter sets the optional PTO interlock mode ON or OFF. If set ON, the Remote engine speed control preset-1 will be interlocked to all International® pre-engineered PTO features that use a center panel switch. This means that the remote engine speed control will only be allowed to operate if the PTO is being requested to engage. If this parameter is not set, the engine speed control will operate regardless of the PTO request.
- **TEM_Emergency_Pump_Fuse** – This fusing value for the output driving the emergency pump in the combination remote engine speed control emergency pump feature.
- **TEM_Ext_Eng_Spd_Ctrl_Active_State** – This is the active state for the external engine speed control switch:
  0 – RPM input floating (not grounded or at 12 Volts
  1 – RPM input grounded.
  2 – NOT USED
  3 - RPM input 12 Volts

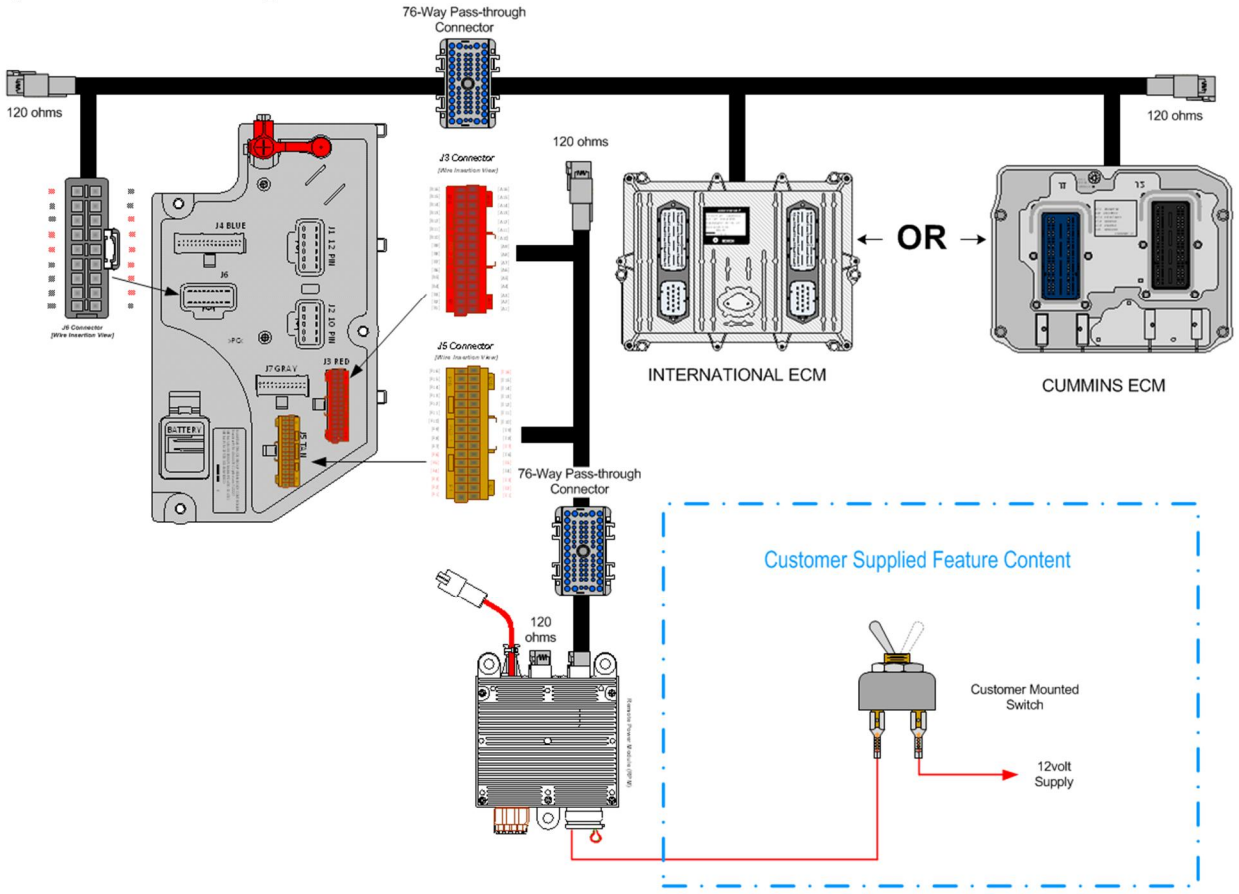
Note/s About Possible Software Feature Conflicts:
597265, 597321 or 597322 will conflict with 597323

16.13. 60AJJ: BDY INTG, THROTTLE CONTROL Accommodation for Single Customer-Mounted Momentary Switch, for Refuse Applications, Programmable Mode Various Switch Actions, Useable Only While Vehicle is Stopped and the Park Brake is Applied (requires one RPM input).

Extended Description: A Truck Equipment Manufacturer or customer-mounted single momentary switch is used to control engine speed from a remote location. When the operator moves the switch to the up position or the switch closes, the switch supplies 12-volts to the RPM input which activates Engine Speed Preset 1, the engine will stay at Engine Speed Preset 1 as long as the switch continues to supply 12-volts to the RPM input. When the operator moves the switch to the down position or the switch opens, 12-volts is removed from the RPM input to deactivate remote engine speed control preset 1 returning the engine to idle.

This feature is commonly used for the refuse application to remotely elevate engine speed to a single preset and maintain the engine speed until the remote input is deactivated. Engine preset 1 must be programmed in the Engine Control Module (ECM) parameters with the appropriate service tool. This feature also requires that feature 12VXU be ordered on the vehicle or in-cab stationary Preset throttle control be set up with the appropriate engine service tool if feature 60AJJ is installed in the field.

System Block Diagram:



Body Controller Software Feature Codes:

- 597265 - BCM PROG, EXT ENGINE SPD CONT'L on Demand Engine Speed for Refuse

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
TEM_Ext_Eng_Speed_Control_Mode	2035	This parameter sets the mode of operation for the TEM External Engine Speed Control feature	3	List	0	3	1
TEM_Ext_Eng_Spd_Ctrl_PTO_Ilock	2036	If this parameter is a one, external engine speed controls will be interlocked to PTO request.	0	On/off	0	1	1
TEM_Ext_Eng_Spd_Ctrl_Active_State	2158	This is the active state for the external engine speed control switch	3	List	0	1	3

Parameter Definitions:

- **TEM_Ext_Eng_Speed_Control_Mode** – This parameter sets the mode of operation for the TEM External Engine Speed Control feature.
  0 – Remote engine speed control does not function

1 – 12 Volts on the engine speed control input causes engine to ramp; ground causes engine to return to idle.
2 – Pulling the engine speed control input momentarily (pulled and released) to its active state causes the engine to ramp; Another momentary active state transition causes engine to return to idle
3 – Engine will ramp for only as long as the engine speed control input is held in its active state.

- **TEM_Ext_Eng_Spd_Ctrl_PTO_Ilock** – This parameter sets the optional PTO interlock mode ON or OFF. If set ON, the Remote engine speed control preset-1 will be interlocked to all International® pre-engineered PTO features that use a center panel switch. This means that the remote engine speed control will only be allowed to operate if the PTO is being requested to engage. If this parameter is not set, the engine speed control will operate regardless of the PTO request.
- **TEM_Ext_Eng_Spd_Ctrl_Active_State** – This is the active state for the external engine speed control switch:
  0 – RPM input floating (not grounded or at 12 Volts
  1 – RPM input grounded.
  2 – NOT USED
  3 - RPM input 12 Volts

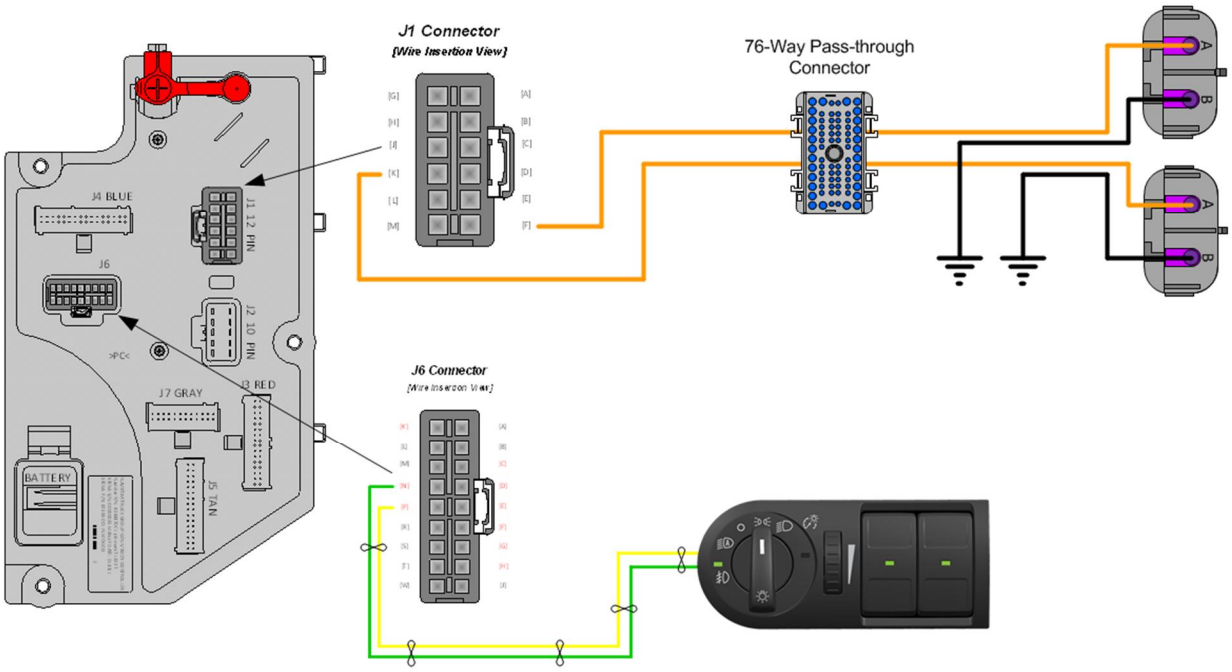
Note/s About Possible Software Feature Conflicts:
597321,597322 or 597323 will conflict with 597265.
597324 may require 597265

17. Fog, Plow and Guide Post Accommodation Packages

17.1. 8585: TOGGLE SWITCH, AUXILIARY and Wiring; For Driving Lights or Fog Lights Mounted by Customer.

Extended Description: Feature code 08585 comes with the fog light system dash switch and wiring only for customer furnished fog lights. 08585 operates as follows: to turn on the customer furnished fog lamps; the headlamps must be on and in the low beam position. The lamps will go off if the headlamps are switched to high beam. 08585 is available on MV models.

System Block Diagram:



Body Controller Software Feature Codes:

- 597011 - BCM PROG, FOG LIGHT (LCM)

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
Left_Fog_Light_ Hi_Current	2309	Left Fog Light High Current Detection Level (Amps)	10	A	0	10	0.1
Left_Fog_Light_ Lo_Current	2310	Left Fog Light Low Current Detection Level (Amps)	0.5	A	0	10	0.1
Left_Fog_Light_ OC_Current	2311	Left Fog Light Open Circuit Detection Level (Amps)	0.5	A	0	10	0.1
Right_Fog_Light _Hi_Current	2312	Right Fog Light High Current Detection Level (Amps)	10	A	0	10	0.1
Right_Fog_Light _Lo_Current	2313	Right Fog Light Low Current Detection Level (Amps)	0.5	A	0	10	0.1

Right_Fog_Light _OC_Current	2314	Right Fog Light Open Circuit Detection Level (Amps)	0.5	A	0	10	0.1

Parameter Definitions:

- **Left_Fog_Light_Hi_Current** - If the current in the left fog light circuit exceeds the level set by this parameter, the Body Controller (BC) will shut off the circuit and register a fault code.

- **Left_Fog_Light_Lo_Current** - If the current in the left fog light circuit falls below the level set by this parameter, the Body Controller (BC) will register a fault code.

- **Left_Fog_Light_OC_Current** - This parameter detects open circuit in the left fog light, the Body Controller (BC) will register a fault code

- **Right_Fog_Light_Hi_Current** - If the current in the right fog light circuit exceeds the level set by this parameter, the Body Controller (BC) will shut off the circuit and register a fault code.

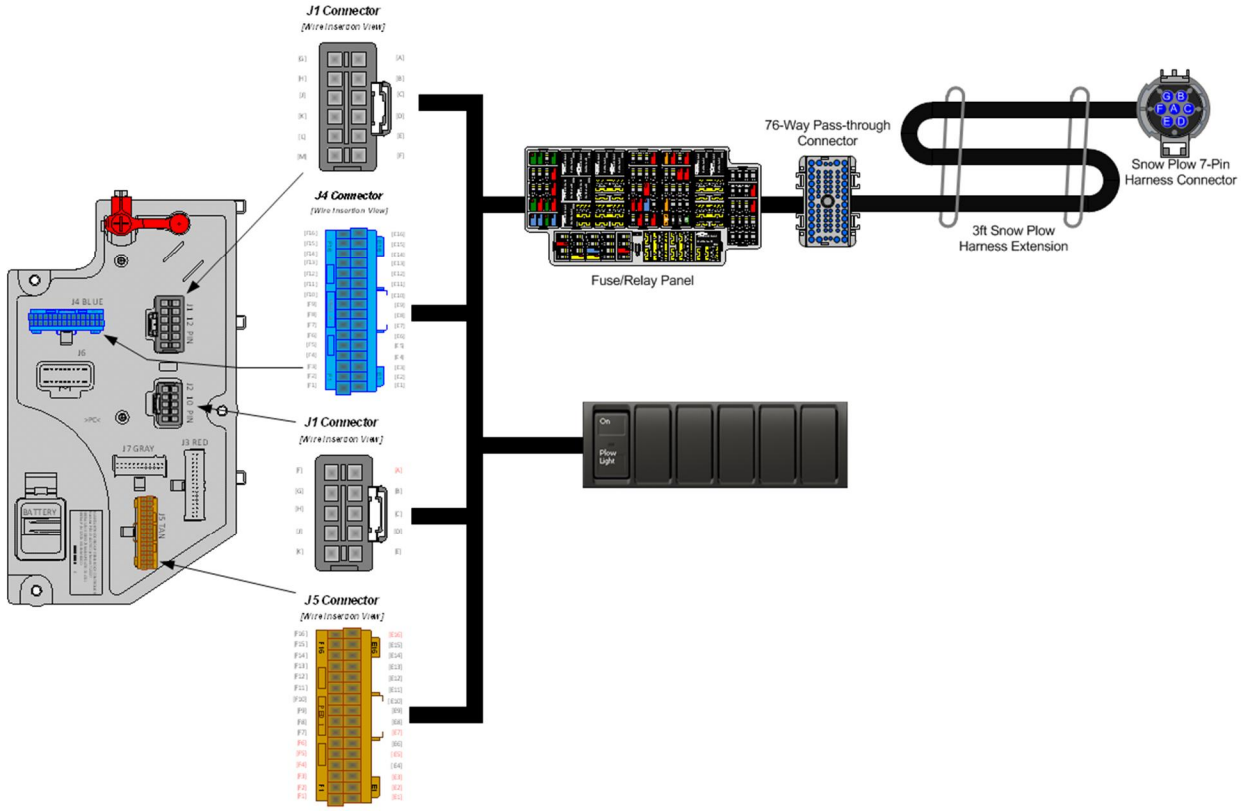
- **Right_Fog_Light_Lo_Current** - If the current in the right fog light circuit falls below the level set by this parameter, the Body Controller (BC) will register a fault code.

- **Right_Fog_Light_OC_Current** - This parameter detects open circuit in the right fog light, the Body Controller (BC) will register a fault code

17.2. 08THJ: AUXILIARY HARNESS 3.0’ for Auxiliary Front Headlights and Turn Signals for Front Plow Applications.

Extended Description: When front-mounted equipment blocks the vehicle headlamps and turn lamps, such as a snowplow, this feature code is available to connect additional lamps to be used in place of the normal headlamps. This feature provides a 3-foot extension harness with a sealed 7-way connector cap for front-mounted auxiliary headlights, park or identification, right turn signal, left turn signal and ground. The connector is located behind the driver’s side headlight under the hood.
The harness and connector provide a 15-Amp high and low beam feed, a 10-Amp right and left turn signal feed and a 20-Amp park light feed. The connector comes with a mating connector and sealing plugs pre-installed. The auxiliary park or identification, right and left turn signals are directly tied to the respective front lighting circuits. When the headlight switch is turned to the PARK or ON position, both the vehicle park and auxiliary park lights will come on. If the turn signal switch is activated, both the vehicle turn and auxiliary turn signal lights will come on.

System Block Diagram:



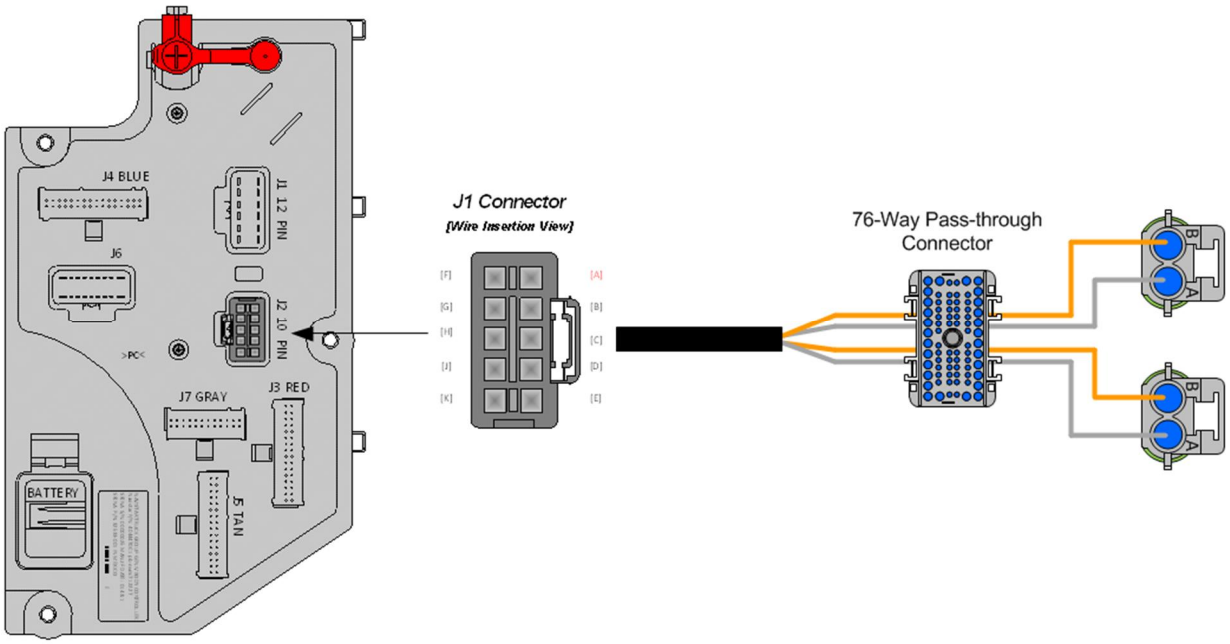
Body Controller Software Feature Codes:

- 597301 - BCM PROG, SNOW PLOW LIGHTS GEN 4

17.3. 08THV: DISCONNECT, FRONT HARNESS for Guide Post Lights; Connectors Located at Headlight Connection, for Customer Installation.

Extended Description: This feature provides two additional connectors located in the front wiring harness for front parking or identification lights. This feature is commonly used for customer or Body Builder added guidepost lights typically mounted at each end of the front bumper. These connectors come with mating connectors and sealing plugs pre-installed. The guide post light circuit is directly tied to the vehicle parking light system, so when the headlight switch is turned to the park or on position, these auxiliary lights will turn on with the standard vehicle lighting. This feature should be used in any application where operation in tight spaces requires constant identification of the vehicle's width.

System Block Diagram:

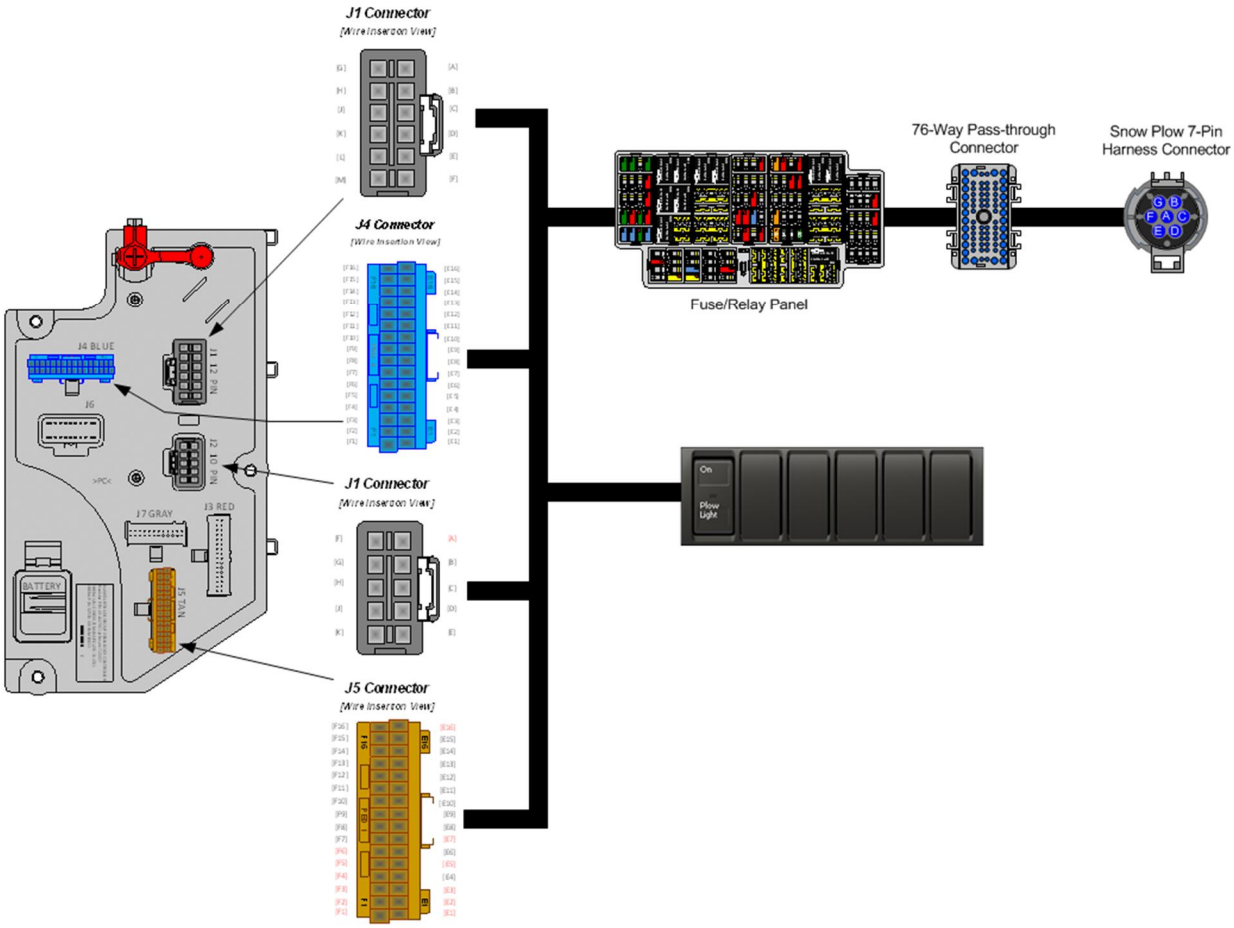


08THV System Diagram

17.4. 08TNP: AUXILIARY HARNESS 5.0’ for Auxiliary Front Headlights and Turn Signals for Front Plow Applications.

Extended Description: When front-mounted equipment blocks the vehicle headlamps and turn lamps, such as a snowplow, this feature code is available to connect additional lamps to be used in place of the normal headlamps. This feature provides a 5-foot extension harness with a sealed 7-way connector cap for front-mounted auxiliary headlights, park or identification, right turn signal, left turn signal and ground. The connector is located behind the driver’s side headlight under the hood.
The harness and connector provide a 15-Amp high and low beam feed, a 10-Amp right and left turn signal feed and a 20-Amp park light feed. The connector comes with a mating connector and sealing plugs pre-installed. The auxiliary park or identification, right and left turn signals are directly tied to the respective front lighting circuits. When the headlight switch is turned to the PARK or ON position, both the vehicle park and auxiliary park lights will come on. If the turn signal switch is activated, both the vehicle turn and auxiliary turn signal lights will come on.

System Block Diagram:



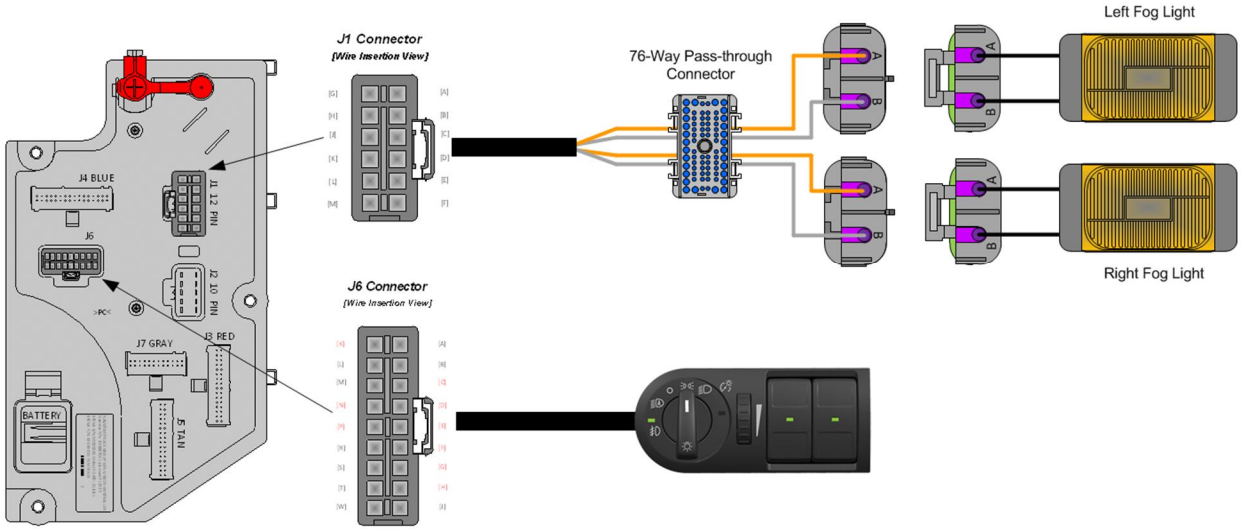
Body Controller Software Feature Codes:

- 597301 - BCM PROG, SNOW PLOW LIGHTS GEN 4

17.5. 08WLM: FOG LIGHTS {Peterson} Amber, Halogen, Rectangular.

Extended Description: Feature code 08WLN comes with the fog light system (wiring and fog lamps) completely installed. 08WLN operates as follows: to turn on the fog lamps; the headlamps must be on and in the low beam position. The lamps will go off if the headlamps are switched to high beam. 08WLN is available on HV models.

System Block Diagram:



Body Controller Software Feature Codes:

- 597011 - BCM PROG, FOG LIGHTS, Lighted Control Module (LCM)

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
Left_Fog_Light_ Hi_Current	2309	Left Fog Light High Current Detection Level (Amps)	10	A	0	10	0.1
Left_Fog_Light_ Lo_Current	2310	Left Fog Light Low Current Detection Level (Amps)	0.5	A	0	10	0.1
Left_Fog_Light_ OC_Current	2311	Left Fog Light Open Circuit Detection Level (Amps)	0.5	A	0	10	0.1
Right_Fog_Light _Hi_Current	2312	Right Fog Light High Current Detection Level (Amps)	10	A	0	10	0.1
Right_Fog_Light _Lo_Current	2313	Right Fog Light Low Current Detection Level (Amps)	0.5	A	0	10	0.1
Right_Fog_Light _OC_Current	2314	Right Fog Light Open Circuit Detection Level (Amps)	0.5	A	0	10	0.1

Parameter Definitions:

- **Left_Fog_Light_Hi_Current** - If the current in the left fog light circuit exceeds the level set by this parameter, the Body Controller (BC) will shut off the circuit and register a fault code.

- **Left_Fog_Light_Lo_Current** - If the current in the left fog light circuit falls below the level set by this parameter, the Body Controller (BC) will register a fault code.

- **Left_Fog_Light_OC_Current** - This parameter detects open circuit in the left fog light, the Body Controller (BC) will register a fault code

- **Right_Fog_Light_Hi_Current** - If the current in the right fog light circuit exceeds the level set by this parameter, the Body Controller (BC) will shut off the circuit and register a fault code.

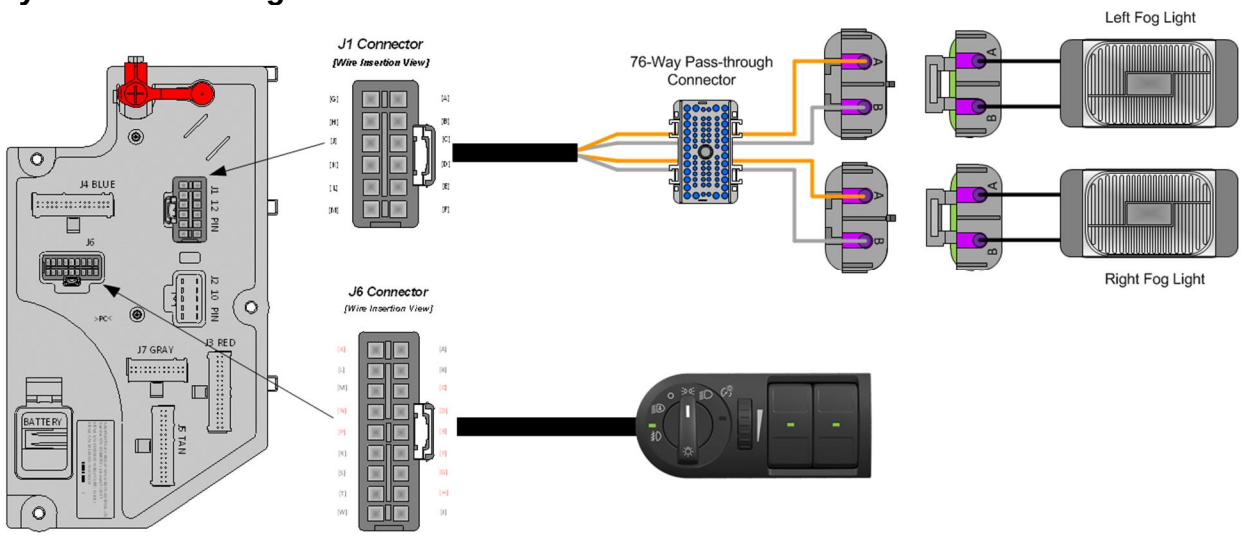
- **Right_Fog_Light_Lo_Current** - If the current in the right fog light circuit falls below the level set by this parameter, the Body Controller (BC) will register a fault code.

- **Right_Fog_Light_OC_Current** - This parameter detects open circuit in the right fog light, the Body Controller (BC) will register a fault code

17.6. 08WLN: FOG LIGHTS {Peterson} Clear, Halogen, Rectangular.

Extended Description: Feature code 08WLN comes with the fog light system (wiring and fog lamps) completely installed. 08WLN operates as follows: to turn on the fog lamps; the headlamps must be on and in the low beam position. The lamps will go off if the headlamps are switched to high beam. 08WLN is available on HV models.

System Block Diagram:



Body Controller Software Feature Codes:

- 597011 - BCM PROG, FOG LIGHTS, Lighted Control Module (LCM)

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
Left_Fog_Light_ Hi_Current	2309	Left Fog Light High Current Detection Level (Amps)	10	A	0	10	0.1
Left_Fog_Light_ Lo_Current	2310	Left Fog Light Low Current Detection Level (Amps)	0.5	A	0	10	0.1
Left_Fog_Light_ OC_Current	2311	Left Fog Light Open Circuit Detection Level (Amps)	0.5	A	0	10	0.1
Right_Fog_Light _Hi_Current	2312	Right Fog Light High Current Detection Level (Amps)	10	A	0	10	0.1
Right_Fog_Light _Lo_Current	2313	Right Fog Light Low Current Detection Level (Amps)	0.5	A	0	10	0.1
Right_Fog_Light _OC_Current	2314	Right Fog Light Open Circuit Detection Level (Amps)	0.5	A	0	10	0.1

Parameter Definitions:

- **Left_Fog_Light_Hi_Current** - If the current in the left fog light circuit exceeds the level set by this parameter, the Body Controller (BC) will shut off the circuit and register a fault code.

- **Left_Fog_Light_Lo_Current** - If the current in the left fog light circuit falls below the level set by this parameter, the Body Controller (BC) will register a fault code.

- **Left_Fog_Light_OC_Current** - This parameter detects open circuit in the left fog light, the Body Controller (BC) will register a fault code

- **Right_Fog_Light_Hi_Current** - If the current in the right fog light circuit exceeds the level set by this parameter, the Body Controller (BC) will shut off the circuit and register a fault code.

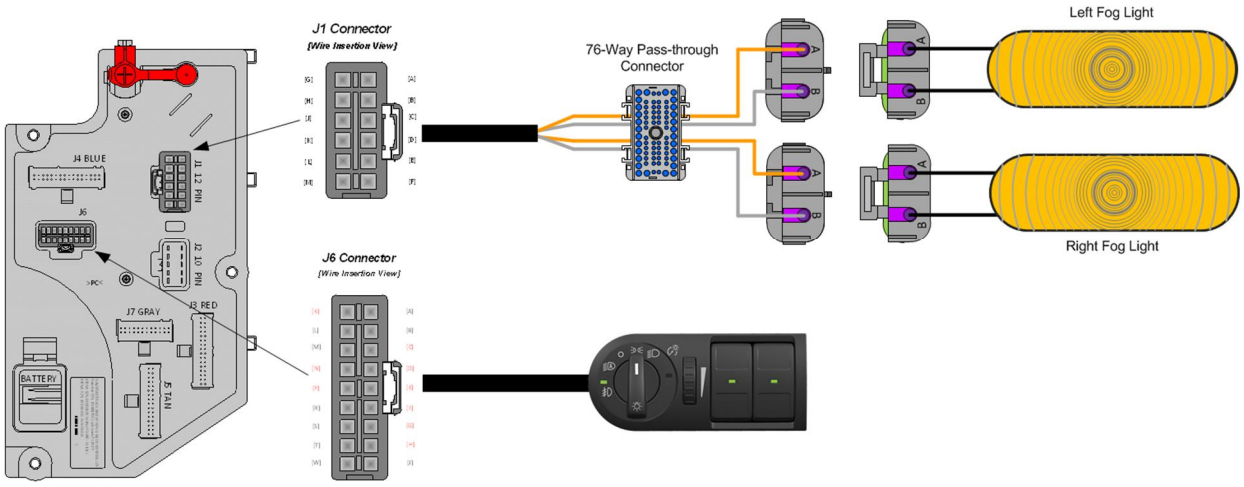
- **Right_Fog_Light_Lo_Current** - If the current in the right fog light circuit falls below the level set by this parameter, the Body Controller (BC) will register a fault code.

- **Right_Fog_Light_OC_Current** - This parameter detects open circuit in the right fog light, the Body Controller (BC) will register a fault code

17.7. 08WPL: FOG LIGHTS (2) Amber, Oval, With H355W Halogen Bulb.

Extended Description: Feature code 08WPL comes with the fog light system (wiring and fog lamps) completely installed. 08WPL operates as follows: to turn on the fog lamps; the headlamps must be on and in the low beam position. The lamps will go off if the headlamps are switched to high beam. 08WPL is available on MV models.

System Block Diagram:



Body Controller Software Feature Codes:

- 597011 - BCM PROG, FOG LIGHT (LCM)

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
Left_Fog_Light_ Hi_Current	2309	Left Fog Light High Current Detection Level (Amps)	10	A	0	10	0.1
Left_Fog_Light_ Lo_Current	2310	Left Fog Light Low Current Detection Level (Amps)	0.5	A	0	10	0.1
Left_Fog_Light_ OC_Current	2311	Left Fog Light Open Circuit Detection Level (Amps)	0.5	A	0	10	0.1
Right_Fog_Light _Hi_Current	2312	Right Fog Light High Current Detection Level (Amps)	10	A	0	10	0.1
Right_Fog_Light _Lo_Current	2313	Right Fog Light Low Current Detection Level (Amps)	0.5	A	0	10	0.1
Right_Fog_Light _OC_Current	2314	Right Fog Light Open Circuit Detection Level (Amps)	0.5	A	0	10	0.1

Parameter Definitions:

- **Left_Fog_Light_Hi_Current** - If the current in the left fog light circuit exceeds the level set by this parameter, the Body Controller (BC) will shut off the circuit and register a fault code.

- **Left_Fog_Light_Lo_Current** - If the current in the left fog light circuit falls below the level set by this parameter, the Body Controller (BC) will register a fault code.

- **Left_Fog_Light_OC_Current** - This parameter detects open circuit in the left fog light, the Body Controller (BC) will register a fault code

- **Right_Fog_Light_Hi_Current** - If the current in the right fog light circuit exceeds the level set by this parameter, the Body Controller (BC) will shut off the circuit and register a fault code.

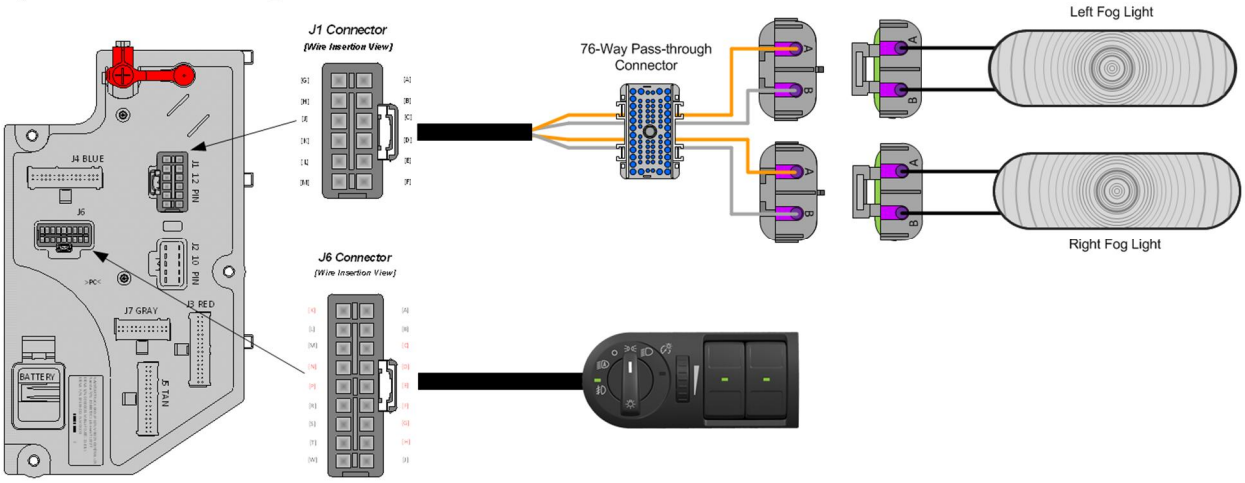
- **Right_Fog_Light_Lo_Current** - If the current in the right fog light circuit falls below the level set by this parameter, the Body Controller (BC) will register a fault code.

- **Right_Fog_Light_OC_Current** - This parameter detects open circuit in the right fog light, the Body Controller (BC) will register a fault code

17.8. 08WPM: FOG LIGHTS (2) Clear, Oval, With H355W Halogen Bulb

Extended Description: Feature code 08WPM comes with the fog light system (wiring and fog lamps) completely installed. 08WPM operates as follows: to turn on the fog lamps; the headlamps must be on and in the low beam position. The lamps will go off if the headlamps are switched to high beam. 08WPM is available on MV models.

System Block Diagram:



Body Controller Software Feature Codes: (Feature code and description goes below)

- 597011 - BCM PROG, FOG LIGHT (LCM)

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
Left_Fog_Light_ Hi_Current	2309	Left Fog Light High Current Detection Level (Amps)	10	A	0	10	0.1
Left_Fog_Light_ Lo_Current	2310	Left Fog Light Low Current Detection Level (Amps)	0.5	A	0	10	0.1
Left_Fog_Light_ OC_Current	2311	Left Fog Light Open Circuit Detection Level (Amps)	0.5	A	0	10	0.1
Right_Fog_Light _Hi_Current	2312	Right Fog Light High Current Detection Level (Amps)	10	A	0	10	0.1
Right_Fog_Light _Lo_Current	2313	Right Fog Light Low Current Detection Level (Amps)	0.5	A	0	10	0.1
Right_Fog_Light _OC_Current	2314	Right Fog Light Open Circuit Detection Level (Amps)	0.5	A	0	10	0.1

Parameter Definitions:

- **Left_Fog_Light_Hi_Current** - If the current in the left fog light circuit exceeds the level set by this parameter, the Body Controller (BC) will shut off the circuit and register a fault code.

- **Left_Fog_Light_Lo_Current** - If the current in the left fog light circuit falls below the level set by this parameter, the Body Controller (BC) will register a fault code.

- **Left_Fog_Light_OC_Current** - This parameter detects open circuit in the left fog light, the Body Controller (BC) will register a fault code

- **Right_Fog_Light_Hi_Current** - If the current in the right fog light circuit exceeds the level set by this parameter, the Body Controller (BC) will shut off the circuit and register a fault code.

- **Right_Fog_Light_Lo_Current** - If the current in the right fog light circuit falls below the level set by this parameter, the Body Controller (BC) will register a fault code.

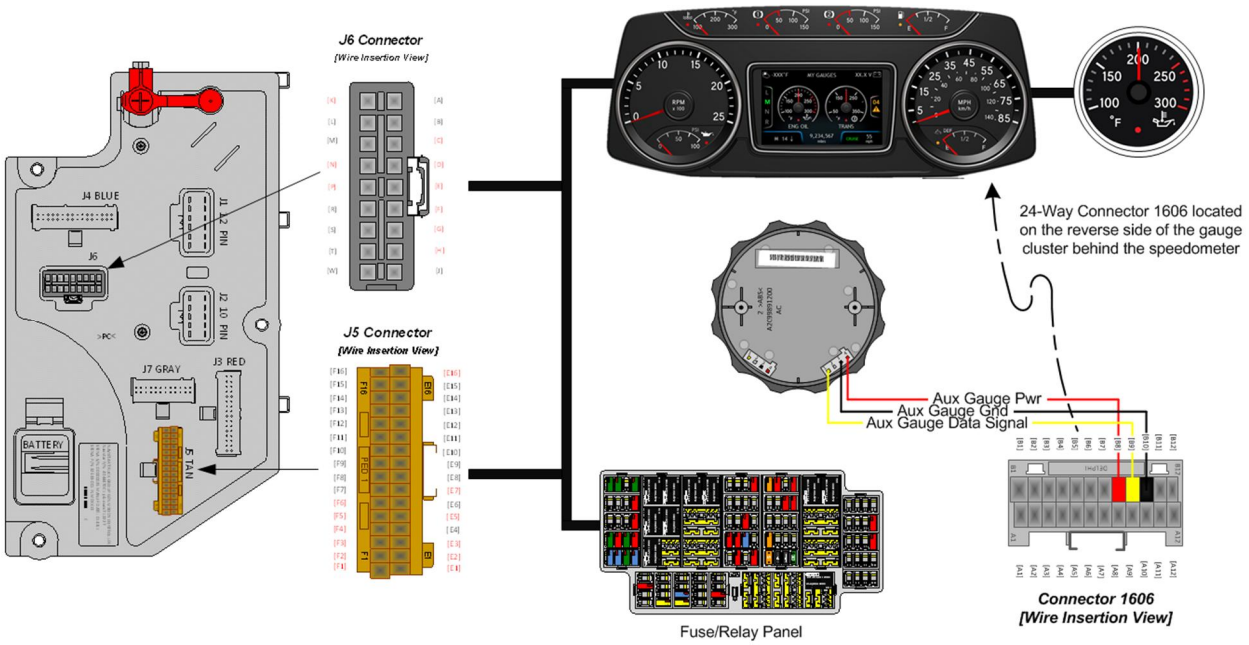
- **Right_Fog_Light_OC_Current** - This parameter detects open circuit in the right fog light, the Body Controller (BC) will register a fault code

18. Gauges and Fault Code Display

18.1. 16HGG: GAUGE, OIL TEMP, ENGINE

Extended Description: This feature provides an auxiliary gauge in the gauge cluster that displays engine oil temperature to the vehicle operator.

System Block Diagram:



Body Controller Software Feature Codes:

- 597121 - BCM PROG, ENGINE OIL TEMP ECM; AUX GA

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
Eng_Oil_Temp_Filter_Param	219	Engine oil temperature gauge update rate. A value of 1 is the slowest and 255 is the fastest update rate.	255	No Units	1	255	1
Eng_Oil_Temp_Max_WL	2274	Maximum set point for engine oil temperature in-gauge warning light	251	F	100	300	0.03125
Eng_Oil_Temp_Min_WL	2291	Minimum set point for engine oil temperature in-gauge warning light. The default of 3226 means no minimum warning light.	3226	F	100	300	0.03125
Eng_Oil_Temp_Alrm_Ty_Param	2354	Engine oil temperature gauge alarm type.	4	List	0	7	1

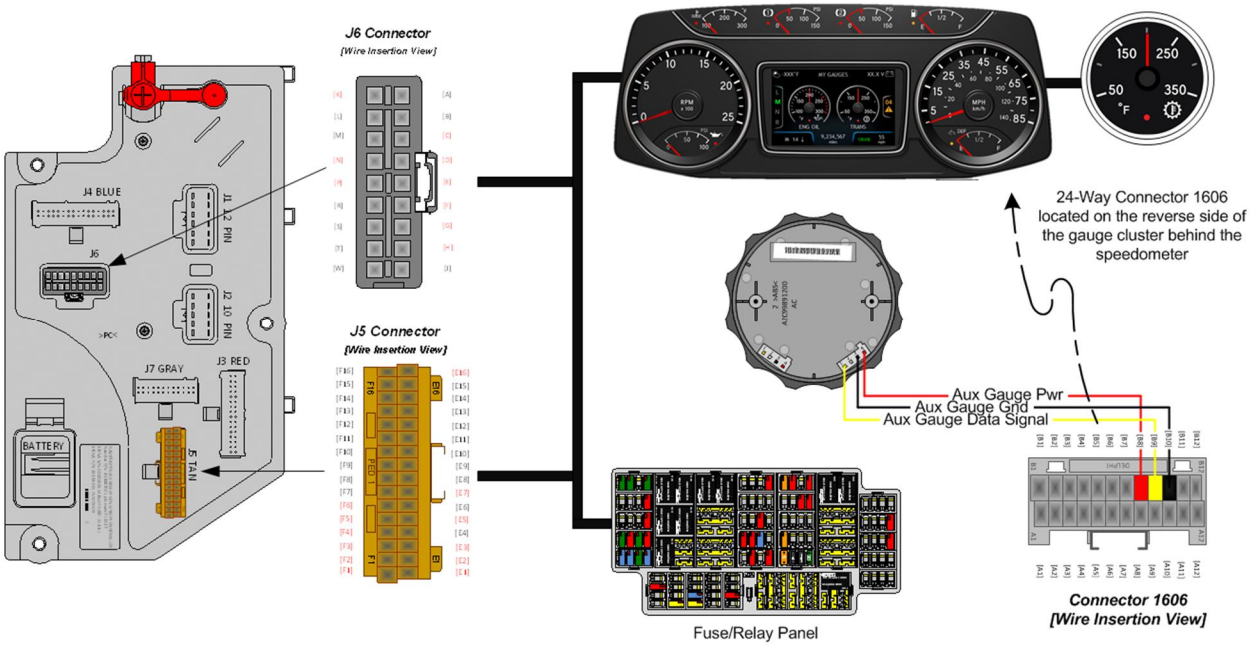
Parameter Definitions:

- **Eng_Oil_Temp_Filter_Param –** This parameter sets the engine oil temperature update rate. The higher the number is, the faster the update rate. 255 is the fastest update rate available, and 1 is the slowest update rate available
- **Eng_Oil_Temp_Max_WL** - This parameter sets the maximum point for engine oil temperature in-gauge warning light. When the oil temperature rises above this set parameter, the warning light in the gauge will illuminate.
- **Eng_Oil_Temp_Min_WL** - This parameter sets the minimum point for engine oil temperature in-gauge warning light. When the oil temperature falls below this set parameter, the warning light in the gauge will illuminate
- **Eng_Oil_Temp_Alrm_Ty_Param –** This parameter defines the number of beeps associated with the engine oil temperature alarm.

18.2. 16HGH: OIL TEMP GAUGE FOR AUTOMATIC TRANS

Extended Description: This feature provides an auxiliary gauge in the gauge cluster that displays the oil temperature of the automatic transmission to the vehicle operator.

System Block Diagram:



Body Controller Software Feature Codes:

- 597125 - BCM PROG, **TRANS OIL TEMP TCM; AUX GA**

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
Trans_Oil_Temp_Filter_Param	589	Transmission oil temperature gauge update rate. A value of 1 is the slowest and 255 is the fastest update rate.	255	No Units	1	255	1
Trans_Oil_Temp_Max_WL	2272	Maximum set point for transmission oil temperature in-gauge warning light	251	F	100	300	0.03125
Trans_Oil_Temp_Min_WL	2273	Minimum set point for transmission oil temperature in-gauge warning light. The default of 3226 means no minimum warning light.	3226	F	100	300	0.03125
Trans_Oil_Temp_Alrm_Ty_Param	2356	Transmission oil temperature gauge alarm type.	4	List	0	7	1

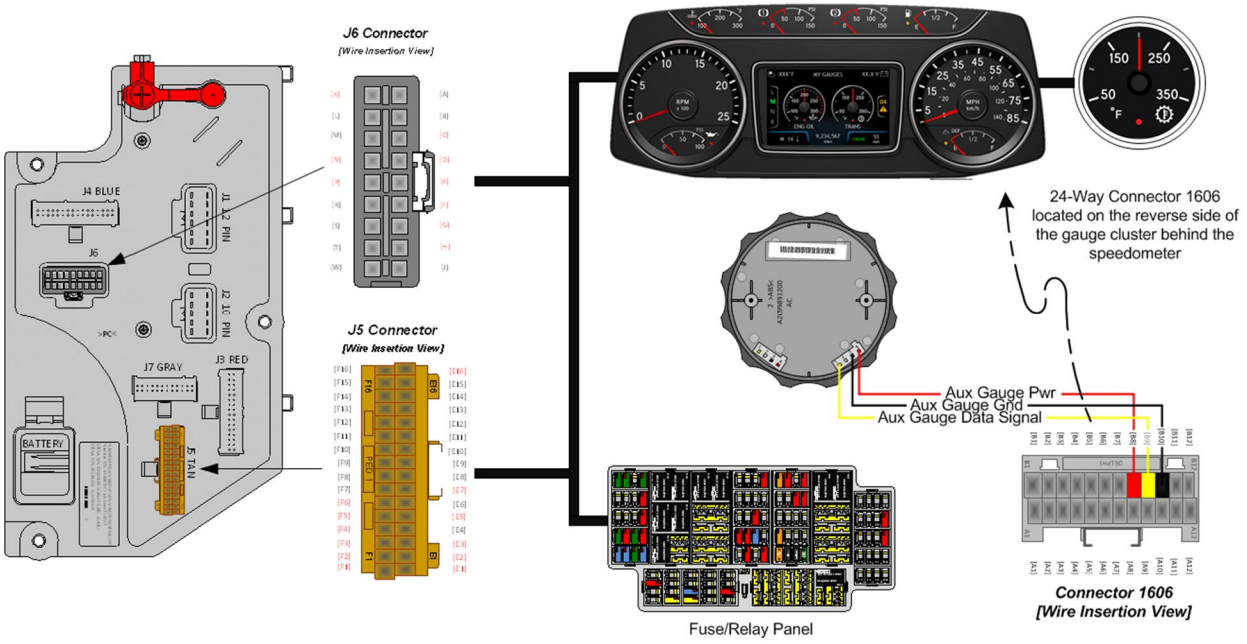
Parameter Definitions:

- **Trans_Oil_Temp_Filter_Param** – This parameter sets the transmission oil temperature update rate. The higher the number is, the faster the update rate. 255 is the fastest update rate available, and 1 is the slowest update rate available
- **Trans_Oil_Temp_Max_WL** - This parameter sets the maximum point for transmission oil temperature in-gauge warning light. When the oil temperature rises above this set parameter, the warning light in the gauge will illuminate.
- **Trans_Oil_Temp_Min_WL** - This parameter sets the minimum point for transmission oil temperature in-gauge warning light. When the oil temperature falls below this set parameter, the warning light in the gauge will illuminate
- **Trans_Oil_Temp_Alrm_Ty_Param** – This parameter defines the number of beeps associated with the transmission oil temperature alarm.

18.3. 16HGJ: GAUGE, OIL TEMP, MANUAL TRANSMISSION

Extended Description: This feature provides an auxiliary gauge in the gauge cluster that displays the oil temperature of the manual transmission to the vehicle operator.

System Block Diagram:



Body Controller Software Feature Codes:

- 597123 - BCM PROG, **TEMP GAUGE OIL MANUAL TRANS**

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
Trans_Oil_Temp_Filter_Param	589	Transmission oil temperature gauge update rate. A value of 1 is the slowest and 255 is the fastest update rate.	255	No Units	1	255	1
Trans_Oil_Temp_Max_WL	2272	Maximum set point for transmission oil temperature in-gauge warning light	251	F	100	300	0.03125
Trans_Oil_Temp_Min_WL	2273	Minimum set point for transmission oil temperature in-gauge warning light. The default of 3226 means no minimum warning light.	3226	F	100	300	0.03125
Trans_Oil_Temp_Alrm_Ty_Param	2356	Transmission oil temperature gauge alarm type.	4	List	0	7	1

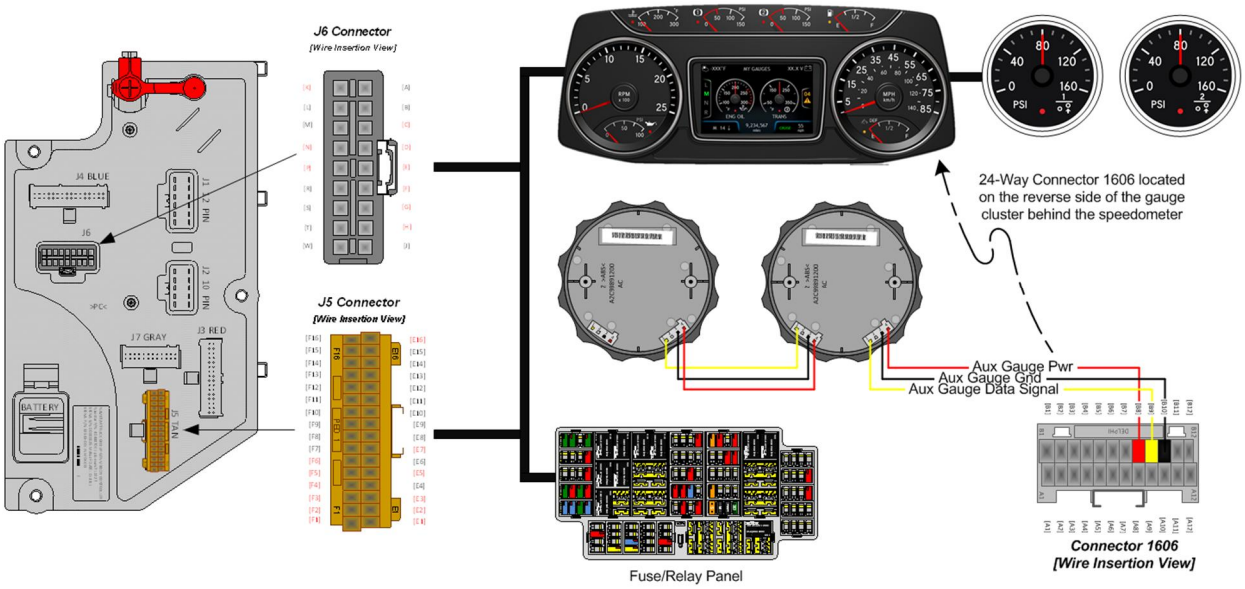
Parameter Definitions:

- **Trans_Oil_Temp_Filter_Param** – This parameter sets the transmission oil temperature update rate. The higher the number is, the faster the update rate. 255 is the fastest update rate available, and 1 is the slowest update rate available
- **Trans_Oil_Temp_Max_WL** - This parameter sets the maximum point for transmission oil temperature in-gauge warning light. When the oil temperature rises above this set parameter, the warning light in the gauge will illuminate.
- **Trans_Oil_Temp_Min_WL** - This parameter sets the minimum point for transmission oil temperature in-gauge warning light. When the oil temperature falls below this set parameter, the warning light in the gauge will illuminate
- **Trans_Oil_Temp_Alrm_Ty_Param** – This parameter defines the number of beeps associated with the transmission oil temperature alarm.

18.4. 16HGL: GAUGE, OIL TEMP, REAR AXLE

Extended Description: Provides rear axle operating information to the vehicle operator. Rear axle temperature should not exceed 240°F (115 °C).

System Block Diagram:



Body Controller Software Feature Codes:

- 597115 BCM PROG, AXLE TEMP FOR SGL AUX GA
- 597117 BCM PROG, AXLE TEMP FOR DUAL AUX GA

Body Controller Software Feature Code Parameters:

Parameter for Feature 597115							
Parameter	**ID**	**Description**	**Default**	**Units**	**Min**	**Max**	**Step**
Rear_RR_Axle_Temp_Filter_Param	519	Rear-rear axle temperature gauge update rate. A value of 1 is the slowest and 255 is the fastest update rate.	255	No Units	1	255	1
Rear_RR_Axle_Temp_Max_WL	2296	Maximum set point for rear-rear axle temperature in-gauge warning light	240.8	F	100	300	1
Rear_RR_Axle_Temp_Min_WL	2303	Minimum set point for rear-rear axle temperature in-gauge warning light. A value of 117923 means no minimum warning light.	117920	F	100	300	1
Rear_RR_Axle_Temp_Alrm_Ty_Param	2365	Rear-rear axle temperature gauge alarm type.	4	List	0	7	1

Parameter for Feature 597117

Parameter	ID	Description	Default	Units	Min	Max	Step
Rear_RR_Axle_Temp_Filter_Param	519	Rear-rear axle temperature gauge update rate. A value of 1 is the slowest and 255 is the fastest update rate.	255	No Units	1	255	1
Rear_RR_Axle_Temp_Max_WL	2296	Maximum set point for rear-rear axle temperature in-gauge warning light	240.8	F	100	300	1
Rear_RR_Axle_Temp_Min_WL	2303	Minimum set point for rear-rear axle temperature in-gauge warning light. A value of 117920 means no minimum warning light.	117920	F	100	300	1
Rear_RR_Axle_Temp_Alrm_Ty_Param	2365	Rear-rear axle temperature gauge alarm type.	4	List	0	7	1
FWD_RR_Axle_Temp_Filter_Param	277	FWD-rear axle temperature gauge update rate. A value of 1 is the slowest and 255 is the fastest update rate.	255	No Units	1	255	1
FWD_RR_Axle_Temp_Max_WL	2294	Maximum set point for FWD-rear axle temperature in-gauge warning light	240.8	F	100	300	1
FWD_RR_Axle_Temp_Min_WL	2295	Minimum set point for FWD-rear axle temperature in-gauge warning light. A value of 117920 means no minimum warning light.	117920	F	100	300	1
FWD_RR_Axle_Temp_Alrm_Ty_Param	2364	FWD-rear axle temperature gauge alarm type.	4	List	0	7	1

Parameter Definitions:

- **Rear_RR_Axle_Temp_Filter_Param** – This parameter sets the rear-rear axle temperature update rate. The higher the number is, the faster the update rate. 255 is the fastest update rate available, and 1 is the slowest update rate available
- **Rear_RR_Axle_Temp_Max_WL** - This parameter sets the maximum point for rear-rear axle temperature in-gauge warning light. When the rear-rear axle temperature rises above this set parameter, the warning light in the gauge will illuminate.

- **Rear_RR_Axle_Temp_Min_WL** - This parameter sets the minimum point for rear-rear axle temperature in-gauge warning light. When the rear-rear axle temperature falls below this set parameter, the warning light in the gauge will illuminate. A value of 117920 means no minimum warning light
- **Rear_RR_Axle_Temp_Alrm_Ty_Param** – This parameter defines the number of beeps associated with the rear-rear axle temperature alarm.
- **FWD_RR_Axle_Temp_Filter_Param** – This parameter sets the forward-rear axle temperature update rate. The higher the number is, the faster the update

rate. 255 is the fastest update rate available, and 1 is the slowest update rate available

- **FWD_RR_Axle_Temp_Max_WL** - This parameter sets the maximum point for forward-rear axle temperature in-gauge warning light. When the forward-rear axle temperature rises above this set parameter, the warning light in the gauge will illuminate.

- **FWD_RR_Axle_Temp_Min_WL** - This parameter sets the minimum point for forward-rear axle temperature in-gauge warning light. When the forward-rear axle temperature falls below this set parameter, the warning light in the gauge will illuminate. A value of 117920 means no minimum warning light
- **FWD_RR_Axle_Temp_Alrm_Ty_Param** – This parameter defines the number of beeps associated with the forward-rear axle temperature alarm.

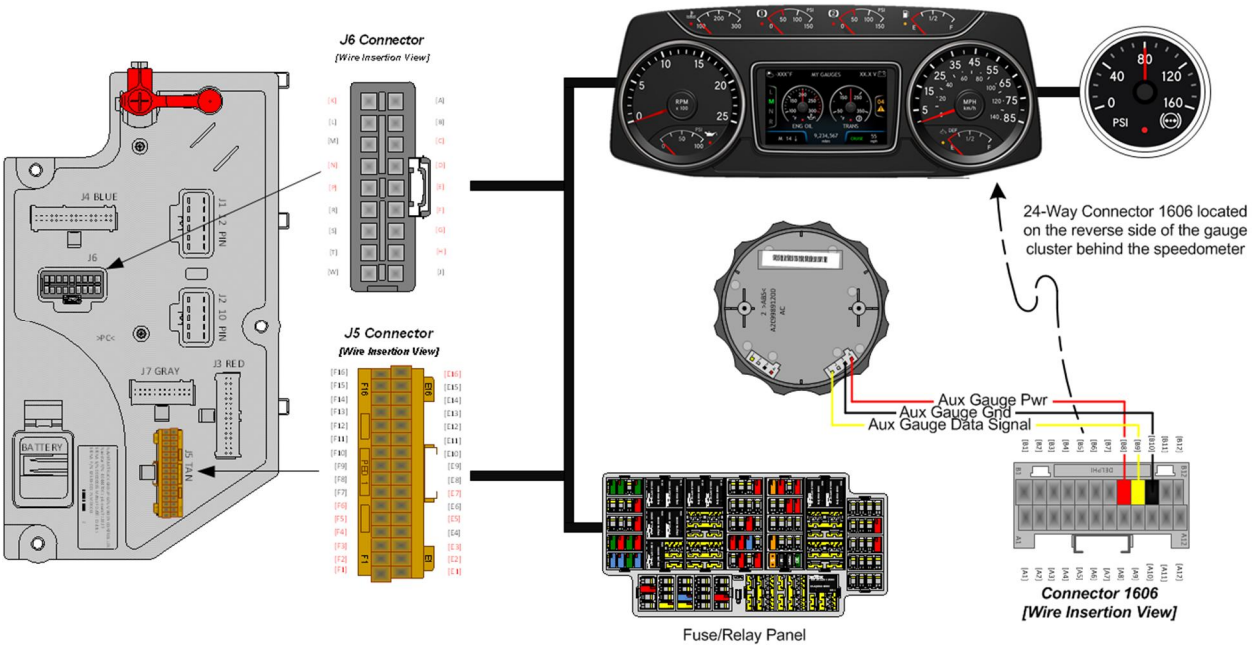
Note/s About Possible Software Feature Conflicts:

- Only one axle temperature software feature code may be used on a given vehicle as the two features are mutually exclusive.

18.5. 16HGN: GAUGE, AIR APPLICATION

Extended Description: This feature provides a gauge that displays the amount of pressure being applied to the brake pedal.

System Block Diagram:



Body Controller Software Feature Codes:

- 597113 - BCM PROG, **AIR APPLICATION AUX GAUGE**

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
Brake_App_Filter_Param	128	Brake application gauge update rate. A value of 1 is the slowest and 255 is the fastest update rate	255	No Units	1	255	1
Brake_App_Min_WL	2337	Minimum set point for brake application in-gauge warning light	38020	psi	0	150	0.5
Brake_App_Max_WL	2343	Maximum set point for brake application in-gauge warning light. A value of 38020 means no maximum warning light.	38020	psi	0	150	0.5
LH_Brake_App_Alrm_Ty_Param	2348	Brake application gauge alarm type.	0	List	0	7	1

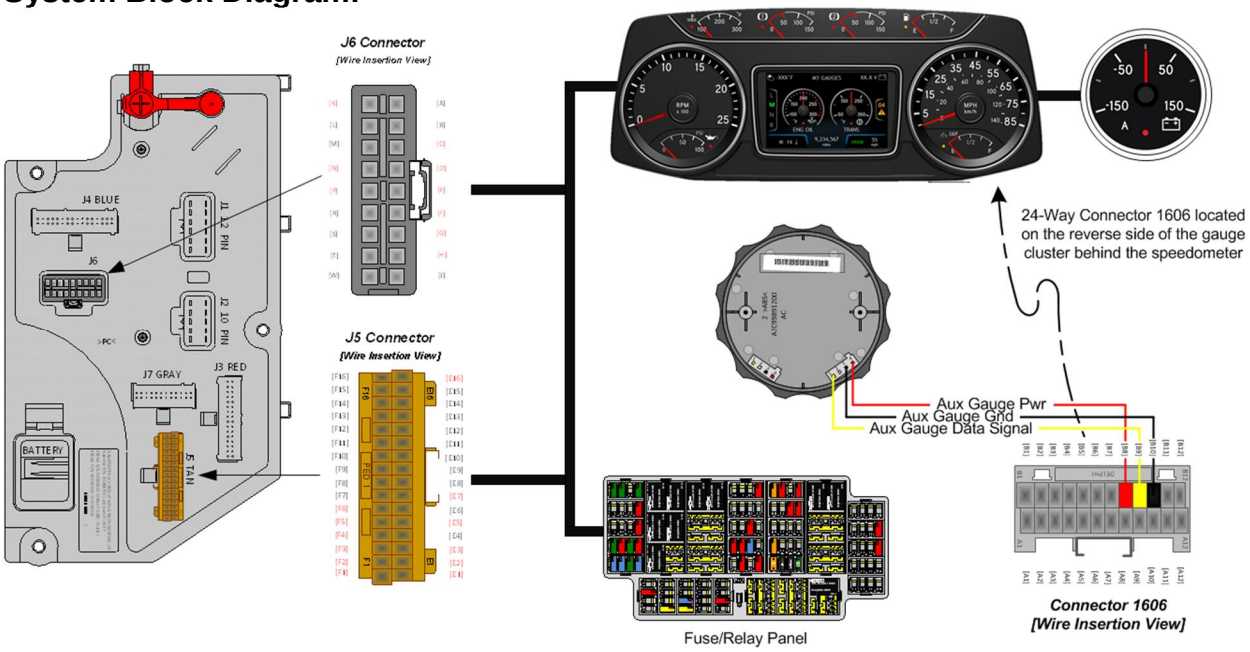
Parameter Definitions:

- **Brake_App_Filter_Param** – This parameter sets the brake application gauge update rate. The higher the number is, the faster the update rate. 255 is the fastest update rate available, and 1 is the slowest update rate available
- **Brake_App_Min_WL** - This parameter sets the minimum point for brake application in-gauge warning light. When the brake pressure falls below this set parameter, the warning light in the gauge will illuminate will illuminate.
- **Brake_App_Max_WL** - This parameter sets the maximum point for brake application in-gauge warning light. When the brake pressure rises above this set parameter, the warning light in the gauge will illuminate.
- **LH_Brake_App_Alrm_Ty_Param** – This parameter defines the number of beeps associated with the brake application alarm.

18.6. 16HHT: GAUGE, Ammeter 150-Ampere (AMP)

Extended Description: This feature provides a gauge that displays the amperage draw on the vehicle electrical system.

System Block Diagram:



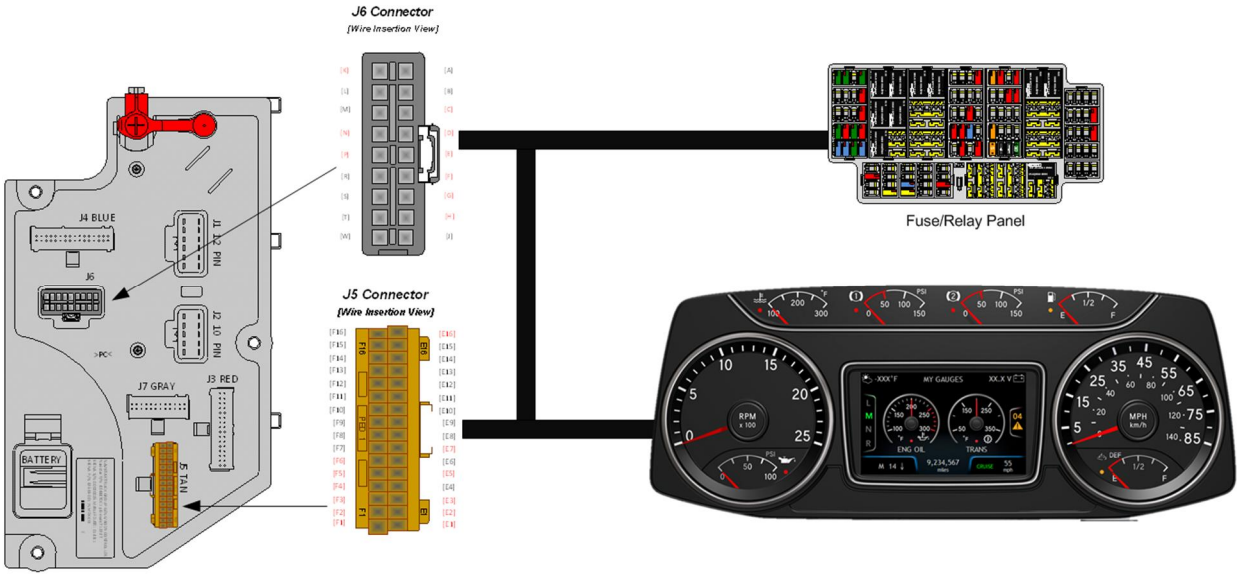
Body Controller Software Feature Codes:

- 597270 - BCM PROG, **AMMETER 150-AMP FOR AUX GAGUGE**

18.7. 16HKT: IP CLUSTER DISPLAY DIAGNOSTICS — Display on board diagnostics of fault codes in gauge cluster

Extended Description: This feature allows the retrieval of fault codes from the LCD display in the cluster. No hardware change is needed. This is a software configurable feature.

System Block Diagram:



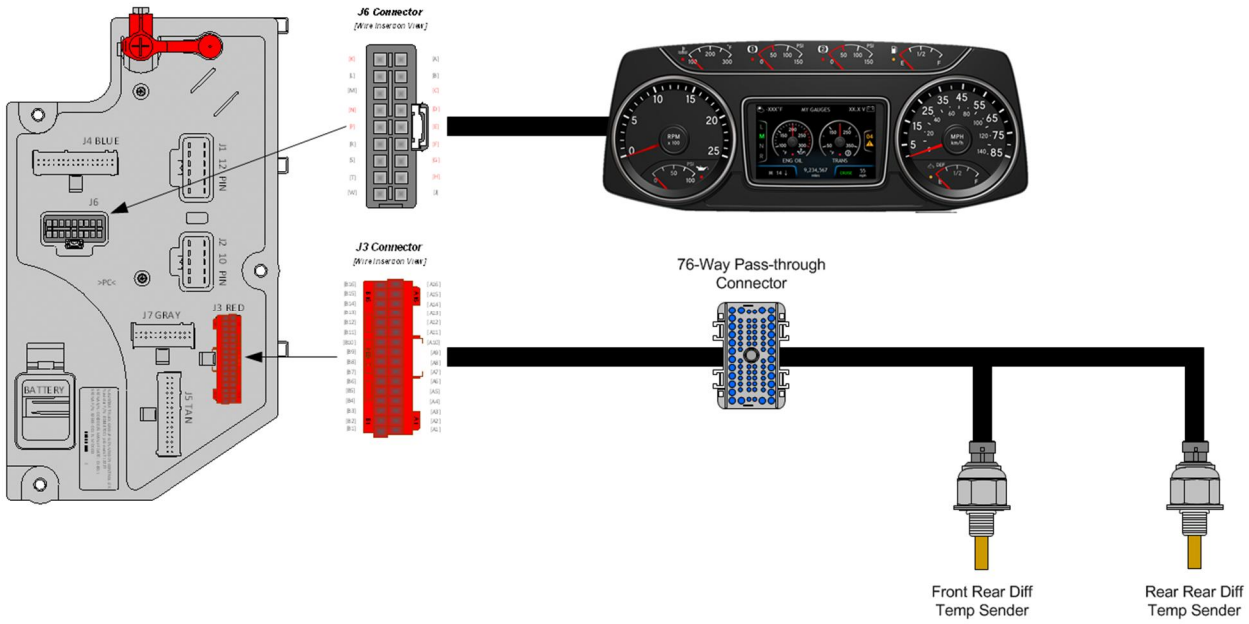
Body Controller Software Feature Codes:

- 597042 - BCM PROG, **AIR APPLICATION AUX GAUGE**

18.8. 16HLS: VIRTUAL GA, OIL TEMP, REAR AXLE Requires Premium Cluster.

Extended Description: Feature code 16HLS is a programmable virtual gauge to display the rear axle oil temperature in the center color display of the premium gauge cluster. The user can use the premium cluster display control switch to select this gauge for display in one of the corner selectable locations or one of the two centered virtual gauge locations. Feature code 16HLS requires that one of the premium gauge clusters, 16GDG, 16GDH, 16GDJ, 16GDS, 16GDT, 16GDU, 16GDV, 16GDW or 16GDX is ordered and installed in the vehicle. Feature code 16HLS can also be enabled in the body controller software through the use of Diamond Logic® Builder software by turning on the Body Controller software feature detailed below and installing any additional wiring and sensor(s) required for the feature.

System Block Diagram:



Body Controller Software Feature Codes:

- 597116 BCM PROG, AXLE TEMP GAUGE for Single Virtual Gauge
- 597118 BCM PROG, AXLE TEMP GAUGE for Dual Virtual Gauge

Body Controller Software Feature Code Parameters:

Parameter for Feature 597116							
Parameter	**ID**	**Description**	**Default**	**Units**	**Min**	**Max**	**Step**
Rear_RR_Axle_Temp_Filter_Param	519	Rear-rear axle temperature gauge update rate. A value of 1 is the slowest and 255 is the fastest update rate.	255	No_Units	1	255	1
Rear_RR_Axle_Temp_Max_WL	2296	Maximum set point for rear-rear axle temperature in-gauge warning light	240.8	F	100	300	1

Rear_RR_Axle _Temp_Min_WL	2303	Minimum set point for rear-rear axle temperature in-gauge warning light. A value of 117923 means no minimum warning light.	117920	F	100	300	1
Rear_RR_Axle _Temp_Alrm_Ty_Par am	2365	Rear-rear axle temperature gauge alarm type.	4	List	0	7	1

Parameter for Feature 597118							
Parameter	**ID**	**Description**	**Default**	**Units**	**Min**	**Max**	**Step**
Rear_RR_Axle_Temp _Filter_Param	519	Rear-rear axle temperature gauge update rate. A value of 1 is the slowest and 255 is the fastest update rate.	255	No_Units	1	255	1
Rear_RR_Axle_Temp _Max_WL	2296	Maximum set point for rear-rear axle temperature in-gauge warning light	240.8	F	100	300	1
Rear_RR_Axle _Temp_Min_WL	2303	Minimum set point for rear-rear axle temperature in-gauge warning light. A value of 117920 means no minimum warning light.	117920	F	100	300	1
Rear_RR_Axle _Temp_Alrm_Ty_Par am	2365	Rear-rear axle temperature gauge alarm type.	4	List	0	7	1
FWD_RR_Axle_Tem p_Filter_Param	277	FWD-rear axle temperature gauge update rate. A value of 1 is the slowest and 255 is the fastest update rate.	255	No_Units	1	255	1
FWD_RR_Axle_Tem p_Max_WL	2294	Maximum set point for FWD-rear axle temperature in-gauge warning light	240.8	F	100	300	1
FWD_RR_Axle _Temp_Min_WL	2295	Minimum set point for FWD-rear axle temperature in-gauge warning light. A value of 117920 means no minimum warning light.	117920	F	100	300	1
FWD_RR_Axle _Temp_Alrm_Ty_Par am	2364	FWD-rear axle temperature gauge alarm type.	4	List	0	7	1

Parameter Definitions:

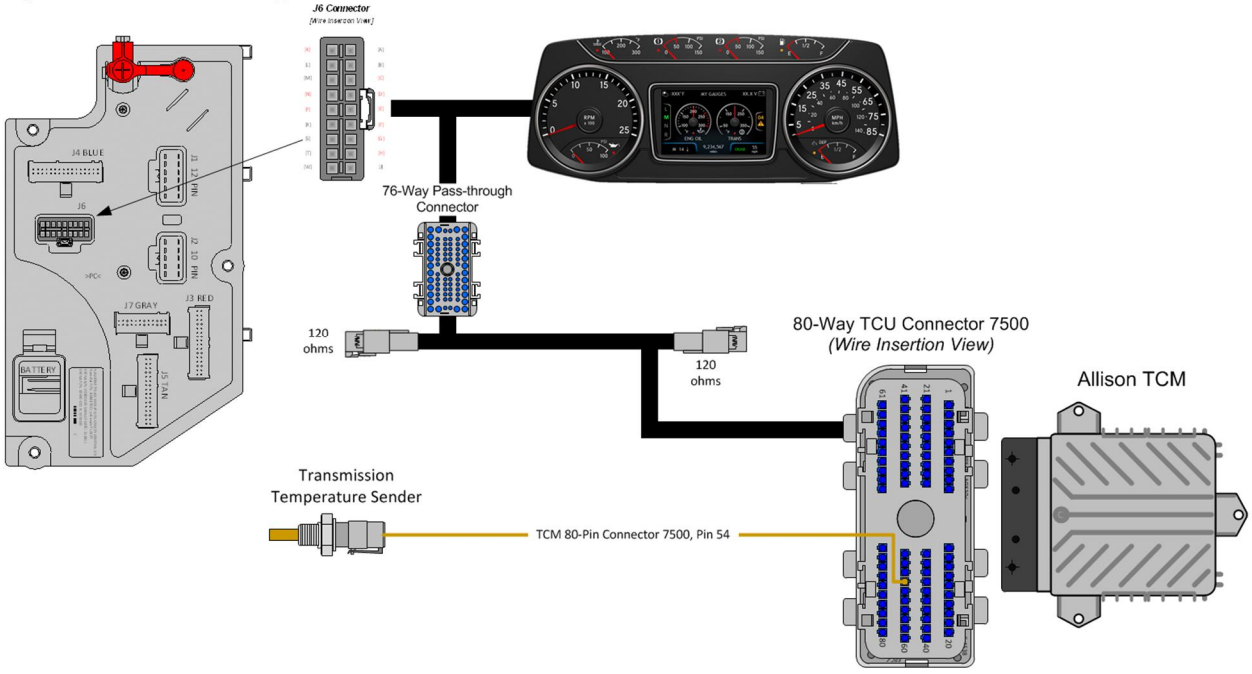
- **Rear_RR_Axle_Temp_Filter_Param –** This parameter sets the rear-rear axle temperature update rate. The higher the number is, the faster the update rate. 255 is the fastest update rate available, and 1 is the slowest update rate available
- **Rear_RR_Axle_Temp_Max_WL** - This parameter sets the maximum point for rear-rear axle temperature in-gauge warning light. When the rear-rear axle temperature rises above this set parameter, the warning light in the gauge will illuminate.

- **Rear_RR_Axle_Temp_Min_WL** - This parameter sets the minimum point for rear-rear axle temperature in-gauge warning light. When the rear-rear axle temperature falls below this set parameter, the warning light in the gauge will illuminate. A value of 117920 means no minimum warning light
- **Rear_RR_Axle_Temp_Alrm_Ty_Param** – This parameter defines the number of beeps associated with the rear-rear axle temperature alarm.
- **FWD_RR_Axle_Temp_Filter_Param** – This parameter sets the forward-rear axle temperature update rate. The higher the number is, the faster the update rate. 255 is the fastest update rate available, and 1 is the slowest update rate available
- **FWD_RR_Axle_Temp_Max_WL** - This parameter sets the maximum point for forward-rear axle temperature in-gauge warning light. When the forward-rear axle temperature rises above this set parameter, the warning light in the gauge will illuminate.
- **FWD_RR_Axle_Temp_Min_WL** - This parameter sets the minimum point for forward-rear axle temperature in-gauge warning light. When the forward-rear axle temperature falls below this set parameter, the warning light in the gauge will illuminate. A value of 117920 means no minimum warning light
- **FWD_RR_Axle_Temp_Alrm_Ty_Param** – This parameter defines the number of beeps associated with the forward-rear axle temperature alarm.

18.9. 16HLU: VIRTUAL GA, OIL TEMP, AUTO XMSN for Allison Transmission, Requires Premium Cluster.

Extended Description: Feature code 16HLU is a programmable virtual gauge to display the Allison automatic transmission oil temperature in the center color display of the premium gauge cluster. The user can use the premium cluster display control switch to select this gauge for display in one of the corner selectable locations or one of the two centered virtual gauge locations. Feature code 16HLU requires that one of the premium gauge clusters, 16GDG, 16GDH, 16GDJ, 16GDS, 16GDT, 16GDU, 16GDV, 16GDW or 16GDX is ordered and installed in the vehicle. Feature 16HLU also requires that the vehicle has an Allison automatic transmission. Feature code 16HLU can also be enabled in the body controller software through the use of Diamond Logic® Builder software by turning on the Body Controller software feature detailed below and installing any additional wiring and sensor(s) required for the feature.

System Block Diagram:



Body Controller Software Feature Codes:

- 597126 - BCM PROG, **TRANS OIL TEMP GAUGE, Through TCM; for Virtual Gauge**

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
Trans_Oil_Temp_Filter_Param	589	Transmission oil temperature gauge update rate. A value of 1 is the slowest and 255 is the fastest update rate.	255	No_Units	1	255	1

Trans_Oil_Temp_Max_WL	2272	Maximum set point for transmission oil temperature in-gauge warning light	251	F	100	300	0.03125
Trans_Oil_Temp_Min_WL	2273	Minimum set point for transmission oil temperature in-gauge warning light. The default of 3226 means no minimum warning light.	3226	F	100	300	0.03125
Trans_Oil_Temp_Alrm_Ty_Param	2356	transmission oil temperature gauge alarm type.	4	List	0	7	1

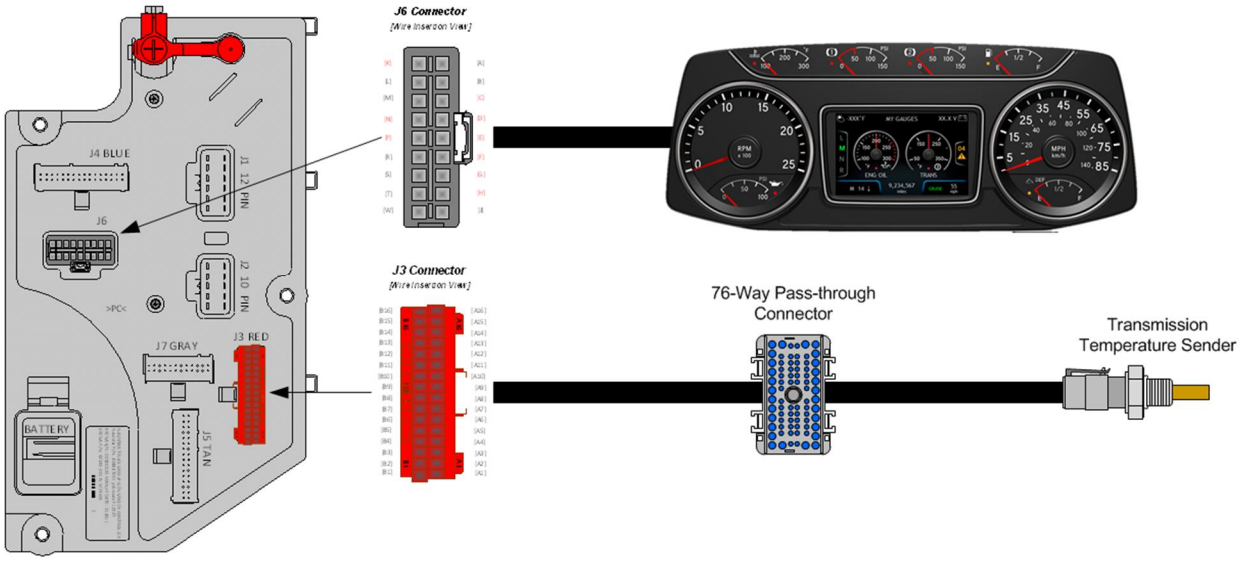
Parameter Definitions:

- **Trans_Oil_Temp_Filter_Param** – This parameter sets the transmission oil temperature update rate. The higher the number is, the faster the update rate. 255 is the fastest update rate available, and 1 is the slowest update rate available
- **Trans_Oil_Temp_Max_WL** - This parameter sets the maximum point for transmission oil temperature in-gauge warning light. When the oil temperature rises above this set parameter, the warning light in the gauge will illuminate.
- **Trans_Oil_Temp_Min_WL** - This parameter sets the minimum point for transmission oil temperature in-gauge warning light. When the oil temperature falls below this set parameter, the warning light in the gauge will illuminate
- **Trans_Oil_Temp_Alrm_Ty_Param** – This parameter defines the number of beeps associated with the transmission oil temperature alarm.

18.10. 16HLV: VIRTUAL GA, OIL TEMP, MANL XMSN for Manual Transmission, Requires Premium Cluster.

Extended Description: Feature code 16HLV is a programmable virtual gauge to display manual transmission oil temperature in the center color display of the premium gauge cluster. The user can use the premium cluster display control switch to select this gauge for display in one of the corner selectable locations or one of the two centered virtual gauge locations. Feature code 16HLV requires that one of the premium gauge clusters, 16GDG, 16GDH, 16GDJ, 16GDS, 16GDT, 16GDU, 16GDV, 16GDW or 16GDX is ordered and installed in the vehicle. Feature code 16HLV can also be enabled in the body controller software through the use of Diamond Logic® Builder software by turning on the Body Controller software feature detailed below and installing any additional wiring and sensor(s) required for the feature.

System Block Diagram:



Body Controller Software Feature Codes:

- 597282 - BCM PROG, PTO HOURMETER HRS DISPLATED IP *(Activates hourmeter and PTO warning light in cluster)*

Note: Requires one [but not both] of the following software features codes for the selection of the PTO feedback switch INPUT:

- 597279 - BCM PROG, PTO MONITOR INDICATOR *(Use with body controller INPUT – NO Remote Power Module)*
- 597283 - BCM PROG, PTO MONITOR INDICATOR & ALARM *(Use with remote power module INPUT)*

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
597279 - BCM PROG, PTO MONITOR INDICATOR							

ESC_PTO_Engaged_Param	2199	Active State for the PTO engagement feedback switch.	1	No_Units	1	1	1
597282 - BCM PROG, PTO HOURMETER HRS DISPLATED IP							
NONE							
597283 - BCM PROG, PTO MONITOR INDICATOR & ALARM							
TEM_PTO_PK_Brake_Alarms	2131	if this Parameter is 1, an alarm will sound if the PTO is engaged and the park brake is released	0	No_Units	0	1	1
TEM_PTO_Non_Neut_Alarms	2132	if this Parameter is 1, an alarm will sound if the PTO is engaged and transmission is taken out of neutral	0	No_Units	0	1	1
TEM_PTO_Veh_Spd_Alarms	2133	if this Parameter is 1, an alarm will sound if the PTO is engaged and the vehicle speed is over TEM_PTO_Veh_Spd_Alarm_Limit	1	No_Units	0	1	1
TEM_PTO_Veh_Spd_Alarm_Limit	2134	See TEM_PTO_Veh_Spd_Alarms	5	Mph	3	100	1
TEM_PTO_Eng_Spd_Alarms	2135	if this Parameter is 1, an alarm will sound if the PTO is engaged and the engine speed is over TEM_PTO_Eng_Spd_Alarm_Limit	1	No_Units	0	1	1
TEM_PTO_Eng_Spd_Alarm_Limit	2136	See TEM_PTO_Eng_Spd_Alarms	1400	RPM	0	5000	1
TEM_PTO_Eng_Run_Alarms	2137	if this Parameter is 1, an alarm will sound if the PTO is engaged and the engine is turned off	0	No_Units	0	1	1
TEM_PTO_Air_Pres_Alarms	2138	if this Parameter is 1, an alarm will sound if the primary air pressure is below TEM_PTO_Air_Pres_Alarm_Limit	0	No_Units	0	1	1
TEM_PTO_Air_Pres_Alarm_Limit	2139	See TEM_PTO_Air_Pres_Alarms	0	PSI	0	500	1
TEM_RPM_PTO_Engaged_Param	2147	Active State for the TEM PTO engagement feedback switch.	0	No_Units	0	3	1

Parameter Definitions:

- **ESC_PTO_Engaged_Param** – Active State for the PTO engagement feedback switch. Ground Input is only option with Body Controller input
- **TEM_PTO_PK_Brake_Alarms** – Activates an audible alarm that will sound if the PTO is engaged and the park brake is released.
- **TEM_PTO_Non_Neut_Alarms** – Activates an audible alarm that will sound if the PTO is engaged and the transmission is taken out of neutral
- **TEM_PTO_Veh_Spd_Alarms** – If this parameter is turned on, then an audible alarm will sound if the PTO is engaged and the vehicle speed is over the value set by TEM_PTO_Veh_Spd_Alarm_Limit. If this parameter is not activated the value in TEM_PTO_Veh_Spd_Alarm_Limit will not activate
- **TEM_PTO_Veh_Spd_Alarm_Limit** – This is the actual physical value required to sound the alarm for TEM_PTO_Veh_Spd_Alarms.

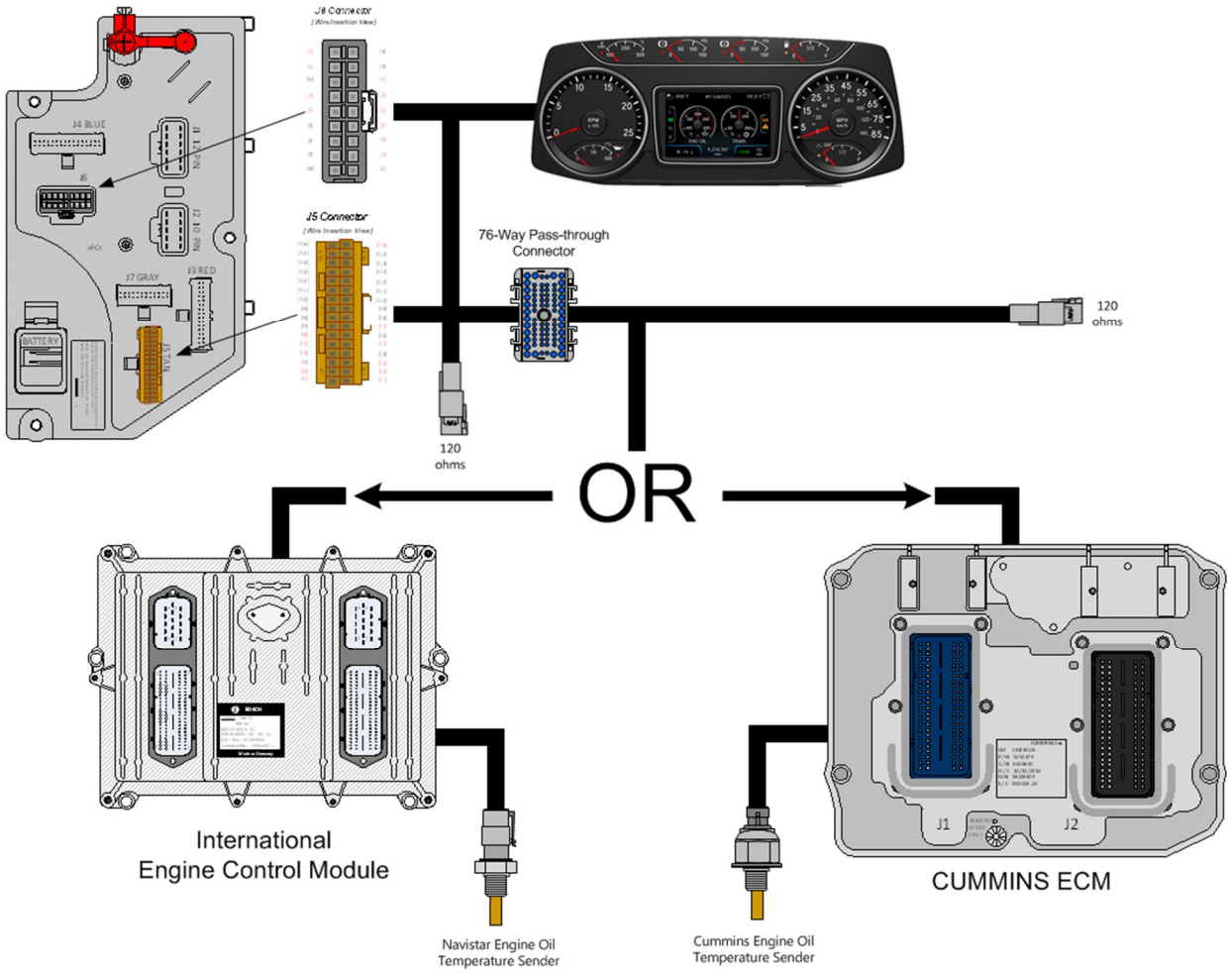
- **TEM_PTO_Eng_Spd_Alarms** – If this parameter is turned on, then an alarm will sound if the PTO is engaged and the engine speed is over the value set by TEM_PTO_Eng_Spd_Alarm_Limit. If this parameter is not activated the value in TEM_PTO_Eng_Spd_Alarm_Limit will not activate
- **TEM_PTO_Eng_Spd_Alarm_Limit** – This is the actual physical value required to sound the alarm for TEM_PTO_Eng_Spd_Alarms.
- **TEM_PTO_Eng_Run_Alarms** – If this parameter is turned on, then an audible alarm will sound if the PTO is engaged and the engine is turned off.
- **TEM_PTO_Air_Pres_Alarms** – If this parameter is turned on, then an audible alarm will sound in the cab if the primary air pressure drops below the value specified by TEM_PTO_Air_Pres_Alarm_Limit. If this parameter is not activated the value in TEM_PTO_Air_Pres_Alarm_Limit will not activate
- **TEM_PTO_Air_Pres_Alarm_Limit** – This is the actual physical value required to sound the alarm for TEM_PTO_Air_Pres_Alarms.
- **TEM_RPM_PTO_Engaged_Param** – This parameter indicates the state that the Body Controller (BC) will read as active for the TEM PTO feedback switch (as it goes into the BC input). This active state will be used to indicate when the PTO is engaged:
    - 0 = Input active when open circuit
    - 1 = Input active when grounded
    - 2 = not used
    - 3 = Input active when at 12V.

Note/s About Possible Software Feature Conflicts:
597279 and 597283 are mutually exclusive

18.11. 16HLW: VIRTUAL GAUGE, OIL TEMP, ENG Requires Premium Cluster.

Extended Description: Feature code 16HLW is a programmable virtual gauge to display engine oil temperature in the center color display of the premium gauge cluster. The user can use the premium cluster display control switch to select this gauge for display in one of the corner selectable locations or one of the two centered virtual gauge locations. Feature code 16HLW requires that one of the premium gauge clusters, 16GDG, 16GDH, 16GDJ, 16GDS, 16GDT, 16GDU, 16GDV, 16GDW or 16GDX is ordered and installed in the vehicle. Feature code 16HLW can also be enabled in the body controller software through the use of Diamond Logic® Builder software by turning on the Body Controller software feature detailed below and installing any additional wiring and sensor(s) required for the feature.

System Block Diagram:



Body Controller Software Feature Codes:

- 597122 - BCM PROG, ENG OIL TEMP GAUGE Through ECM; for Virtual Gauge

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
Eng_Oil_Temp_Filter_Param	219	Engine oil temperature gauge update rate. A value of 1 is the slowest and 255 is the fastest update rate.	255	No_Units	1	255	1
Eng_Oil_Temp_Max_WL	2274	Maximum set point for engine oil temperature in-gauge warning light	251	F	100	300	0.03125
Eng_Oil_Temp_Min_WL	2291	Minimum set point for engine oil temperature in-gauge warning light. The default of 3226 means no minimum warning light.	3226	F	100	300	0.03125
Eng_Oil_Temp_Alrm_Ty_Param	2354	Engine oil temperature gauge alarm type.	4	List	0	7	1

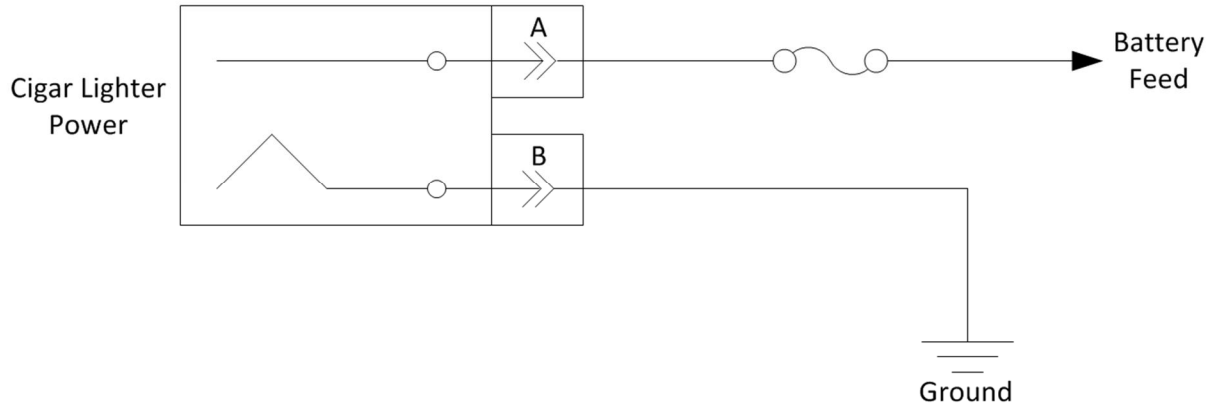
Parameter Definitions:

- **Eng_Oil_Temp_Filter_Param –** This parameter sets the engine oil temperature update rate. The higher the number is, the faster the update rate. 255 is the fastest update rate available, and 1 is the slowest update rate available
- **Eng_Oil_Temp_Max_WL** - This parameter sets the maximum point for engine oil temperature in-gauge warning light. When the oil temperature rises above this set parameter, the warning light in the gauge will illuminate.
- **Eng_Oil_Temp_Min_WL** - This parameter sets the minimum point for engine oil temperature in-gauge warning light. When the oil temperature falls below this set parameter, the warning light in the gauge will illuminate
- **Eng_Oil_Temp_Alrm_Ty_Param –** This parameter defines the number of beeps associated with the engine oil temperature alarm.

19. In Cab Battery Feed Power Source

19.1. 8518: CIGAR LIGHTER Includes Ash Cup.

Extended Description: This feature provides a cigar lighter in the center panel of the dash and includes an ash cup in the cup holder.
System Block Diagram:

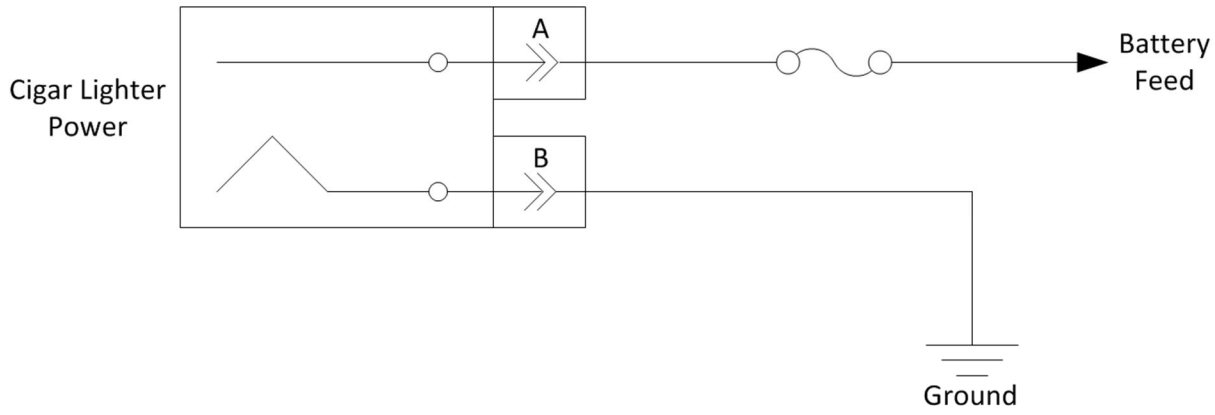


8518 System Diagram

19.2. 8718: POWER SOURCE Cigar Type Receptacle without Plug and Cord.

Extended Description: This feature provides a power source for customers who wish to use CB radios, hand held spotlights, trouble lights or other accessories that plug into the cigar type receptacle for 12-volt power.

System Block Diagram:

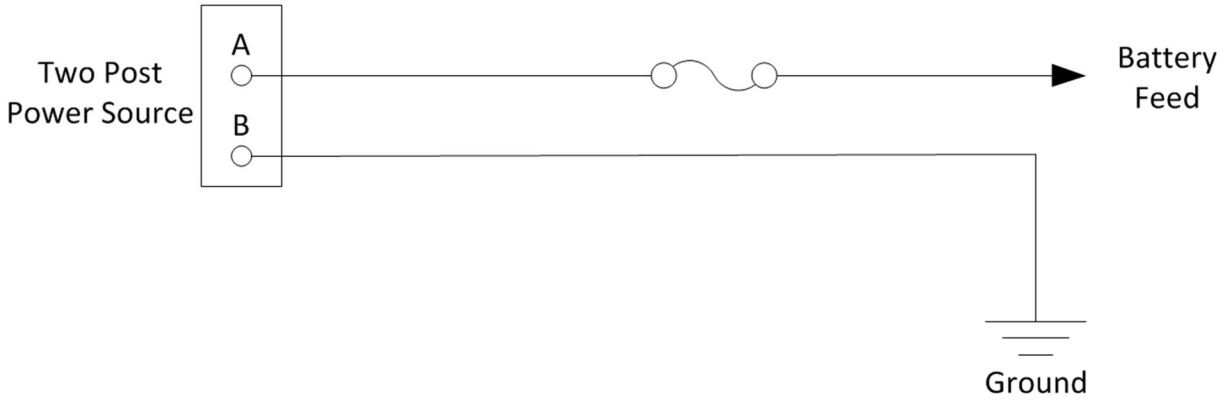


8718 System Diagram

19.3. 08WCK: POWER SOURCE, TERMINAL TYPE 2-Post.

Extended Description: Customers often desire the ability to power 12-volt accessories with the truck's electrical system. This option provides a power source for items equipped to receive power from post-type terminals.

System Block Diagram:



08WCK System Diagram

20. Indicator Lights and Alarms

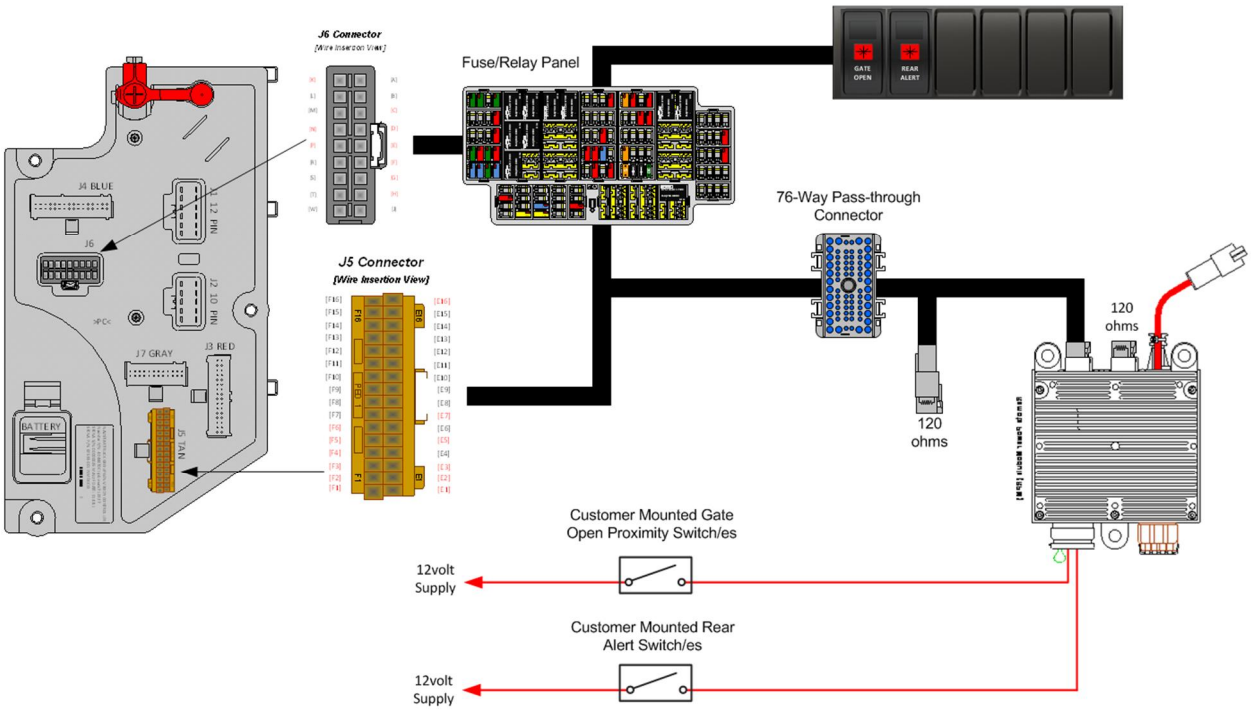
20.1. 60AJC: BDY INTG, INDICATOR LIGHTS (2) One for Gate Open and One for Rear Alert, Includes Audible Alarm, Programmable Mode for Various Switch Action (requires 2 Remote Power Module (RPM) inputs).

Extended Description: This feature provides a custom alarm package designed for the Refuse/Waste Applications. It provides both an audible and visual alarm for Gate Open and Rear Alert. Red indicator lights are located in prime viewing area of the driver in the switch pack. Audible alarm provides a second level of warning to the driver to indicate the status of these two equipment options.

The gate open indicator light is ON constant when the gate open input is active with the park brake set. If the park brake is released, with the gate open input active, the gate open indicator shall flash at 0.6-second intervals, accompanied by an audible alarm. Flexibility is provided through programmable parameters to establish whether the inputs are active high (12V) or active low (GND). See the Diamond Logic® Builder software to set programmable parameters and for pin location.

Rear Alert provides the operator the capability to communicate from the rear of the vehicle to the cab. A customer-mounted switch is wired into the RPM input connector (See the Diamond Logic® Builder software for pin location). The ignition (IGN) switch must be in “ignition” for this feature to function. Programmable Parameters allow the customer to establish whether the input is active at 12 volts or active at GND. When the operator activates the customer-mounted switch, the rear alert light in the gauge cluster illuminates and an audible alarm sounds.

System Block Diagram:



Body Controller Software Feature Codes:

- 597341 - BCM PROG, TAILGATE OPEN WARN Light and buzzer, with Reverse Input
- 597345 - BCM PROG, ALARM IN CAB with External Control

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
597341 - BCM PROG, TAILGATE OPEN WARN Light and buzzer							
TEM_Tail_Gate_Input_Active_State	2160	This parameter is used to set the voltage level that indicates when the tail gate alert should be active. 0 = Open, 1 = GND, 3 = 12V	3	No_Units	0	3	1
TEM_Tail_Gate_Park_Brake_Inhibit	2165	When set, the tail gate alert will only alert if the park brake is not set.	0	No_Units	0	1	1
TEM_Tail_Gate_Transmission_Interlock	2167	This parameter is used to determine how the tail gate alert acts based upon the transmission.	3	No_Units	0	3	1
TEM_Tail_Gate_Alarm_Period	2172	Once the audible alarm has stopped continuous beeping and the gate open indicator remains illuminated, this parameter determines the length of time between individual beeps of the audible alarm.	20	seconds	10	60	1
TEM_Tail_Gate_Alarm_Period	2175	This parameter determines the length of time that the audible alarm will beep continuously. If this parameter is set to 0, the audible alarm will beep continuously as	10	seconds	0	60	1

		long as the gate open indicator is illuminated.					
597345 - BCM PROG, ALARM IN CAB with External Control							
TEM_Rear_Alert_Input_Active_State	2168	This parameter is used to set the voltage level that indicates when the rear alert should be active. 0 = Open, 1 = GND, 3 = 12V	3	No_Units	0	3	1

Parameter Definitions:

- **597341 - BCM PROG, TAILGATE OPEN WARN Light and buzzer, with Reverse Input**
- **TEM_Tail_Gate_Input_Active_State** - This parameter indicates the state that the Body Controller (BC) will read as active for the customer-installed switch for the tail gate open function (as it goes into the Remote Power Module (RPM) input). This active state will be used to tell the BC when the tail gate has been opened:
  - 0 = Input active when open circuit
  - 1 = Input active when grounded
  - 2 = not used
  - 3 = Input active when at 12V
- **TEM_Tail_Gate_Park_Brake_Inhibit** – If parameter is turned ON, the tailgate alert will only alert when the Park Brake is released.
- **TEM_Tail_Gate_Transmission_Interlock** - This parameter indicates the activation of the tailgate alert based on transmission gear:
  - 0 = Ignores Gear
  - 1 = Alert will only activate if the transmission is NOT in reverse
  - 2 = Alert will only activate if transmission is in reverse
  - 3 = Alert will activate for the tailgate sensor or if the transmission is in reverse
- **TEM_Tail_Gate_Alarm_Period** - This parameter sets the interval time between individual beeps of the audible alarm, after the continuous time for alarm has expired.
- **TEM_Tail_Gate_Alarm_Timeout** - This parameter determines the length of time that the audible alarm will beep continuously after the gate is opened and the park brake is released. If this parameter is set to 0, the audible alarm will beep continuously as long as the gate open indicator is illuminated. Once the audible alarm has stopped continuous beeping (as set by TEM_Tail_Gate_Alarm_Timeout parameter) and the gate open indicator remains illuminated.

- **597345 - BCM PROG, ALARM IN CAB with External Control**

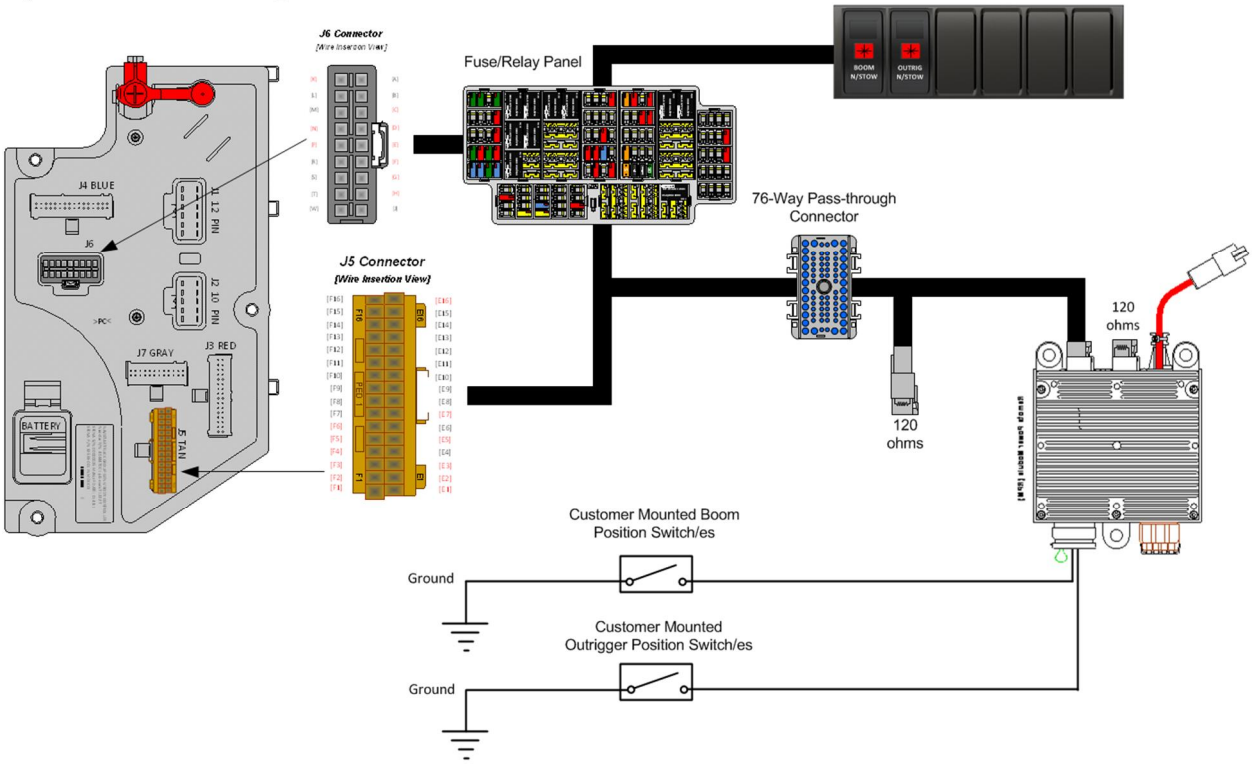
- **TEM_Rear_Alert_Input_Active_State** - This parameter indicates the state that the Body Controller (BC) will read as active for the customer-installed external switch for the purpose of driver alert:
    - 0 = Input active when open circuit
    - 1 = Input active when grounded
    - 2 = not used
    - 3 = Input active when at 12V

Note/s About Possible Software Feature Conflicts:
597341 and 597342 are mutually exclusive

20.2. 60AJD: BDY INTG, INDICATOR LIGHTS (2) One for Boom Out of Stow, One for Outriggers Deployed, Includes Audible Alarm and Interlock to Parking Brake, Programmable Mode for Various Switch Actions (requires 2 RPM inputs).

Extended Description: This feature provides a custom alarm package designed for the Utility Application. It provides both an audible and visual alarm for Boom Out of Stow and Outriggers Not Stowed. Red indicator lights are in viewing area of the driver in the switch pack. Audible alarm provides a second level of warning to the driver to indicate the status of these two equipment options. Indicator lights are ON constant when either the boom or outrigger inputs are active with the park brake set. If the park brake is released, with either input active, the respective indicator shall flash at 0.6-second intervals, accompanied by an audible alarm.

System Block Diagram:



Body Controller Software Feature Codes:

- 597343 - BCM PROG, OUTRIGGER WARN Light and Buzzer
- 597344 - BCM PROG, AERIAL BOOM WARN Light and Buzzer

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
597343 - BCM PROG, OUTRIGGER WARN Light and Buzzer							
TEM_Outrig_Deploy_ Alarm_Inhibit	2074	If this parameter is set, the audible alarm for the outriggers deployed warning light will be inhibited.	0	No_Units	0	1	1

TEM_Consol_Outrig_Deployed_Param	2151	Active state on the RPM input for the outriggers deployed warning light. 0 = Open, 1 = GND, 3 = 12V	1	No_Units	0	3	1
597344 - BCM PROG, AERIAL BOOM WARN Light and Buzzer							
TEM_Boom_Not_Stowed_Alarm_Inhibit	2061	If this parameter is set, the audible alarm for the boom-not-stowed warning light will be inhibited.	0	No_Units	0	1	1
TEM_Consol_Boom_Not_Stow_Param	2150	Active state for the RPM input connected to the Boom switch(es) 0 = Open, 1 = GND, 3 = 12V	1	No_Units	0	3	1

Parameter Definitions:

- **597343 - BCM PROG, OUTRIGGER WARN Light and Buzzer**
- **TEM_Outrig_Deploy_Alarm_Inhibit** – This parameter allows control of the outrigger audible alarm. When this parameter is ON the audible alarm only will be disabled. The default is OFF.
- **TEM_Consol_Outrig_Deployed_Param** – This parameter sets the active state of the Remote Power Module (RPM) input connected to the customer installed outrigger switch. This active state indicates when the outriggers are down:
  - 0 = Input active when open circuit
  - 1 = Input active when grounded
  - 2 = not used
  - 3 = Input active when at 12V

- **597344 - BCM PROG, AERIAL BOOM WARN Light and Buzzer**
- **TEM_Boom_Not_Stowed_Alarm_Inhibit** – This parameter allows control of the boom-not-stowed audible alarm. When this parameter is ON the audible alarm only will be disabled. The default is OFF.
- **TEM_Consol_Boom_Not_Stow_Param** – This parameter sets the active state of the Remote Power Module (RPM) input connected to the customer installed boom-stow switch. This active state indicates when the Boom is out of stow:
  - 0 = Input active when open circuit
  - 1 = Input active when grounded
  - 2 = not used
  - 3 = Input active when at 12V

20.3. 60AJK: INDICATOR LIGHTS (2), One for Body Up, One for Gate Open, Includes Audible Alarm, Programmable Mode for Various Switch Actions (Requires 2-RPM Inputs).

Extended Description: This feature provides the operator of Dump Box Applications with visual and audible warning indications for a raised dump box body and open dump gate using Body Builder-installed switches. The visual indications that are provided for this feature are a “Body Up” light and a “Gate Open” light. Red indicator lights are located in prime viewing area of the driver in the switch pack. Audible alarm provides a second level of warning to the driver to indicate the status of these two equipment options.

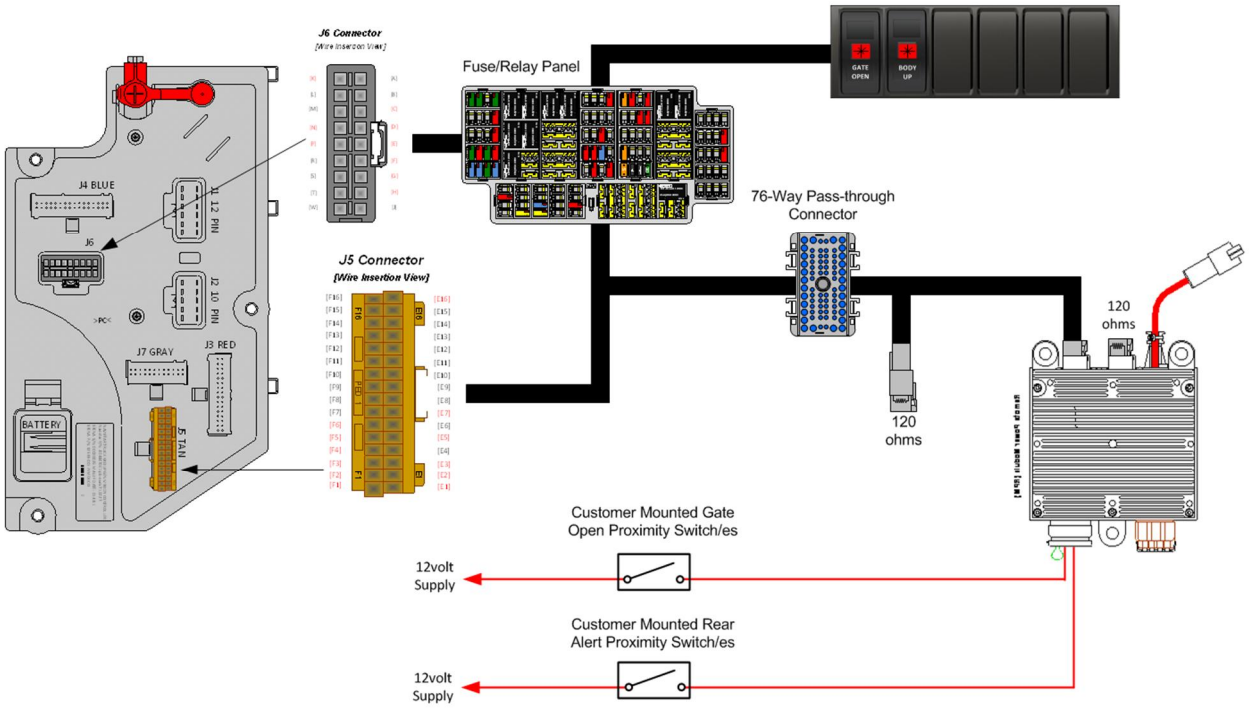
The “Gate Open” indicator light is on constant when the gate open input is active with the park brake set. If the park brake is released, with the gate open input active, the gate open indicator shall flash at 0.6 second intervals, accompanied by an audible alarm. Flexibility is provided through programmable parameters to establish whether the inputs are active high (12V) or active low (GND). See the Diamond Logic® Builder software to set programmable parameters.

For both the “BODY UP” and “GATE OPEN” indications, the associated light will illuminate continuously and the associated audible alarm (default off) will sound when the corresponding input has entered an active state on the condition that the park brake is set and the vehicle speed is less than or equal to 10-MPH.

For both the “BODY UP” and “GATE OPEN” indications, the associated light will illuminate in a slow flashing manner and the associated audible alarm (default of five fast beeps) will sound when the corresponding input is in an active state and either the park brake has been released or the vehicle speed has exceeded 10-MPH.

Both the “BODY UP” and “GATE OPEN” lights will be off when the RPM input is inactive.

System Block Diagram:



Body Controller Software Feature Codes:

- 597337 - BCM PROG, DUMP BODY UP WARN LT & BUZZ
- 597342 - BCM PROG, TAILGATE OPEN WARN LT & BUZZ

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
597337 - BCM PROG, DUMP BODY UP WARN LT & BUZZ							
TEM_Body_Up_Alarm_Beeper	2259	Allows the selection of one of four beeper cadences 0 = Off, 1 = 5 fast beeps, 2 = 3 slow beeps, 3 = continuous beeps	1	No_Units	0	3	1
TEM_Body_Up_Beeper	2260	Allows the selection of one of four beeper cadences 0 = Off, 1 = 5 fast beeps, 2 = 3 slow beeps, 3 = continuous beeps	0	No_Units	0	3	1
TEM_Body_Up_Input_Active_State	2261	This parameter selects the active state of the BODY UP RPM input. 0 = Open, 1 = GND, 3 = 12 Volts	3	No_Units	0	3	1
597342 - BCM PROG, TAILGATE OPEN WARN LT & BUZZ							
TEM_Tail_Gate_Input_Active_State	2160	This parameter is used to set the voltage level that indicates when the tail gate alert should be active. 0 = Open, 1 = GND, 3 = 12V	3	No_Units	0	3	1
TEM_Gate_Alarm_Beeper	2262	Allows the selection of one of four beeper cadences 0 = Off, 1 = 5 fast beeps, 2 = 3 slow beeps, 3 = continuous beeps	1	No_Units	0	3	1
TEM_Gate_Open_Beeper	2263	Allows the selection of one of four beeper cadences 0 = Off, 1 = 5 fast	0	No_Units	0	3	1

		beeps, 2 = 3 slow beeps, 3 = continuous beeps					

Parameter Definitions:

- **597337 - BCM PROG, DUMP BODY UP WARN LT & BUZZ**
- **TEM_Body_UP_Alarm_Beeper** – This parameter allows the customer to set the alarm type for the condition when the dump body has been raised (active) and either the park brake has been released or the vehicle speed has exceeded 10 MPH. The default alarm type is five fast beeps.
- **TEM_Body_UP_Beeper** - This parameter allows the customer to set the alarm type for the condition when the dump body has been raised (active) and both the park brake is set and the vehicle speed is equal to or less than 10 MPH. The default alarm type is OFF.
- **TEM_Body_UP_Input_Active_State** - This parameter indicates the state that the Body Controller (BC) will read as active for the customer-installed switch for the dump body up function (as it goes into the Remote Power Module (RPM) input). This active state will be used to tell the BC when the dump body has been raised up:
  - 0 = Input active when open circuit
  - 1 = Input active when grounded
  - 2 = not used
  - 3 = Input active when at 12V

- **597342 - BCM PROG, TAILGATE OPEN WARN LT & BUZZ**
- **TEM_Tail_Gate_Input_Active_State** - This parameter indicates the state that the Body Controller (BC) will read as active for the customer-installed switch for the dump gate open function (as it goes into the Remote Power Module (RPM) input). This active state will be used to tell the BC when the dump gate has been opened:
  - 0 = Input active when open circuit
  - 1 = Input active when grounded
  - 2 = not used
  - 3 = Input active when at 12V
- **TEM_Gate_Alarm_Beeper** – parameter allows the customer to set the alarm type for the condition when the dump gate has been opened (active) and either the park brake has been released or the vehicle speed has exceeded 10 MPH. The default alarm type is five fast beeps.
- **TEM_Gate_Open_Beeper** - This parameter allows the customer to set the alarm type for the condition when the dump gate has been opened (active) and both the park brake is set and the vehicle speed is equal to or less than 10 MPH. The default alarm type is OFF.

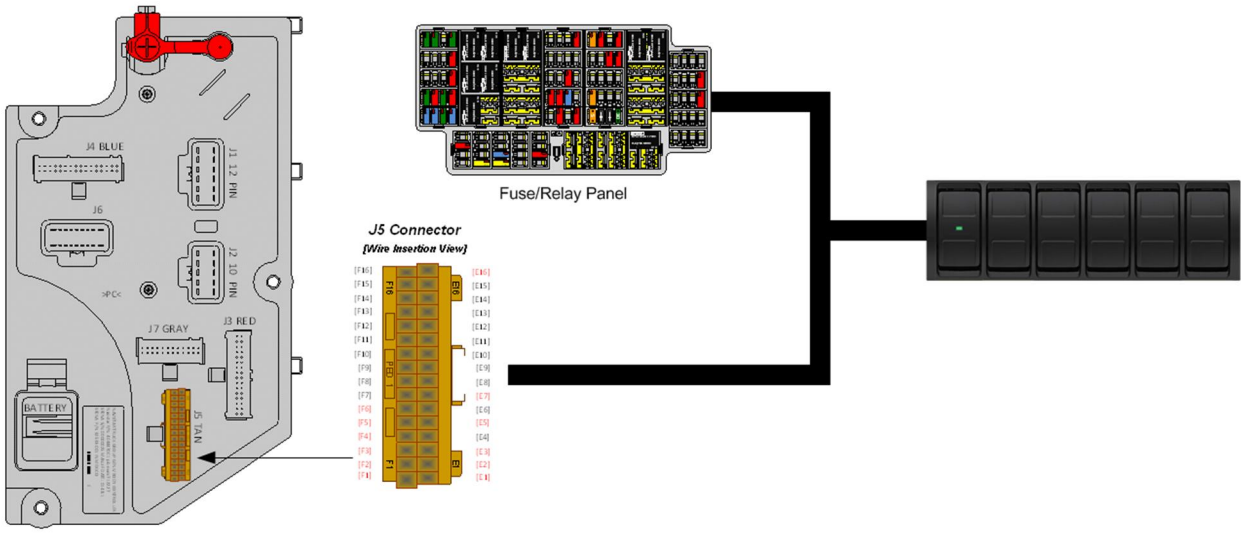
Note/s About Possible Software Feature Conflicts:

597341 and 597342 are mutually exclusive

20.4. 60AKY: BDY INTG, DASH IND LT TRICOLOR (1) for Optional Usage Customer to Program.

Extended Description: 60AKY includes one dash mounted tricolor indicator light located in one of the switch locations in the center panel switch housings for use with advanced logic. Each tricolor indicator light includes three base colors and the light is located in the center of the switch location used. Each tricolor indicator light color can be programmed in advanced logic through the use of the Diamond Logic® Builder software to illuminate up to seven different colors. The available colors include Red, Green, Blue, Cyan, Yellow, Magenta and White. Each tricolor indicator light includes a “windowed” location over the center of the switch location used to allow custom labeling of the indicator light function. An example of an indicator light is shown below.

System Block Diagram:

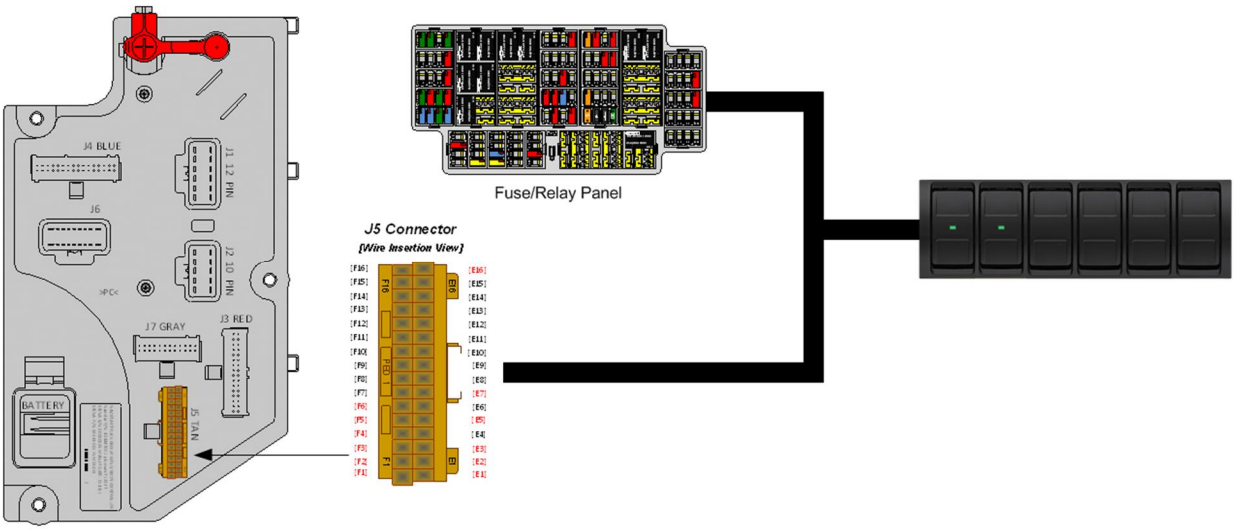


60AKY System Diagram

20.5. 60AKZ: BDY INTG, DASH IND LT TRICOLOR (2) for Optional Usage Customer to Program.

Extended Description: 60AKZ includes two dash mounted tricolor indicator lights located in switch locations in the center panel switch housings for use with advanced logic. Each tricolor indicator light includes three base colors and the light is located in the center of the switch location used. Each tricolor indicator light color can be programmed in advanced logic through the use of the Diamond Logic® Builder software to illuminate up to seven different colors. The available colors include Red, Green, Blue, Cyan, Yellow, Magenta and White. Each tricolor indicator light includes a “windowed” location over the center of the switch location used to allow custom labeling of the indicator light function. An example of an indicator light is shown below.

System Block Diagram:

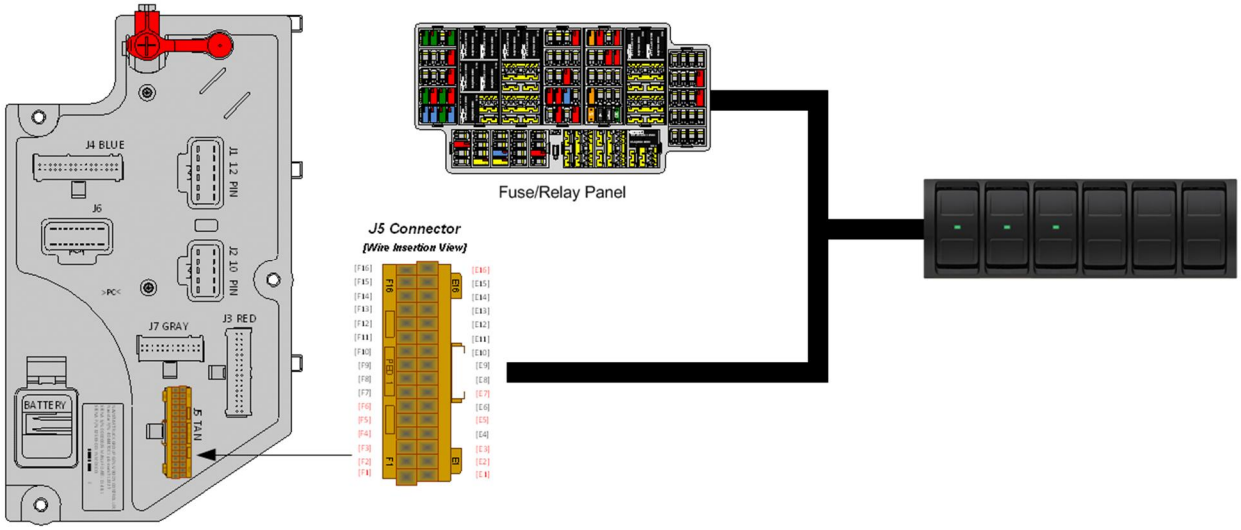


60AKZ System Diagram

20.6. 60ALA: BDY INTG, DASH IND LT TRICOLOR (3) for Optional Usage Customer to Program.

Extended Description: 60ALA includes three dash mounted tricolor indicator lights located in switch locations in the center panel switch housings for use with advanced logic. Each tricolor indicator light includes three base colors and the light is located in the center of the switch location used. Each tricolor indicator light color can be programmed in advanced logic through the use of the Diamond Logic® Builder software to illuminate up to seven different colors. The available colors include Red, Green, Blue, Cyan, Yellow, Magenta and White. Each tricolor indicator light includes a “windowed” location over the center of the switch location used to allow custom labeling of the indicator light function. An example of an indicator light is shown below.

System Block Diagram:

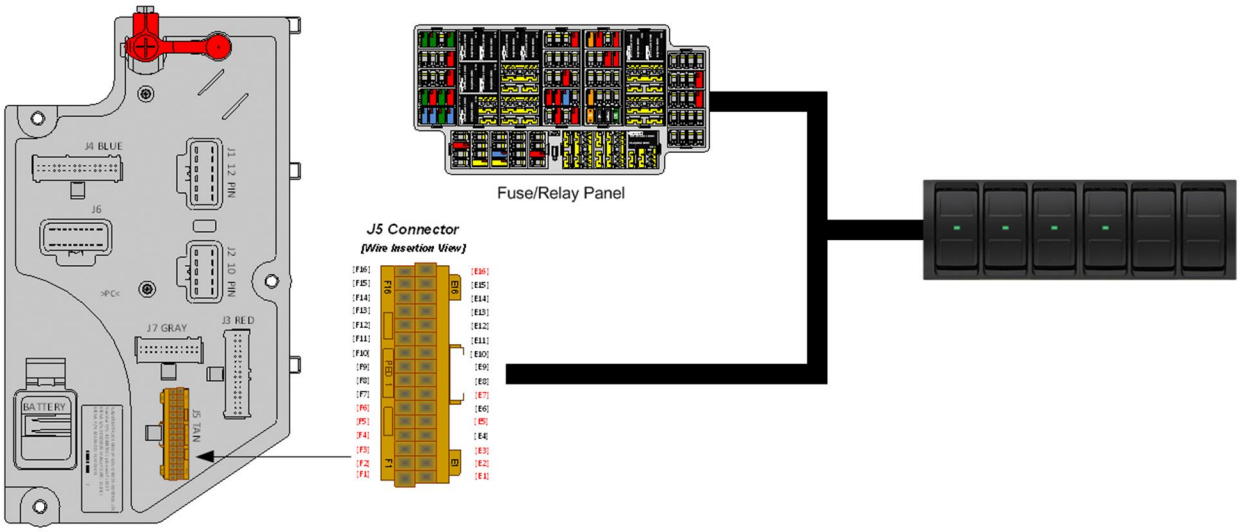


60ALA System Diagram

20.7. 60ALB: BDY INTG, DASH IND LT TRICOLOR (4) for Optional Usage Customer to Program.

Extended Description: 60ALB includes four dash mounted tricolor indicator lights located in switch locations in the center panel switch housings for use with advanced logic. Each tricolor indicator light includes three base colors and the light is located in the center of the switch location used. Each tricolor indicator light color can be programmed in advanced logic through the use of the Diamond Logic® Builder software to illuminate up to seven different colors. The available colors include Red, Green, Blue, Cyan, Yellow, Magenta and White. Each tricolor indicator light includes a “windowed” location over the center of the switch location used to allow custom labeling of the indicator light function. An example of an indicator light is shown below.

System Block Diagram:

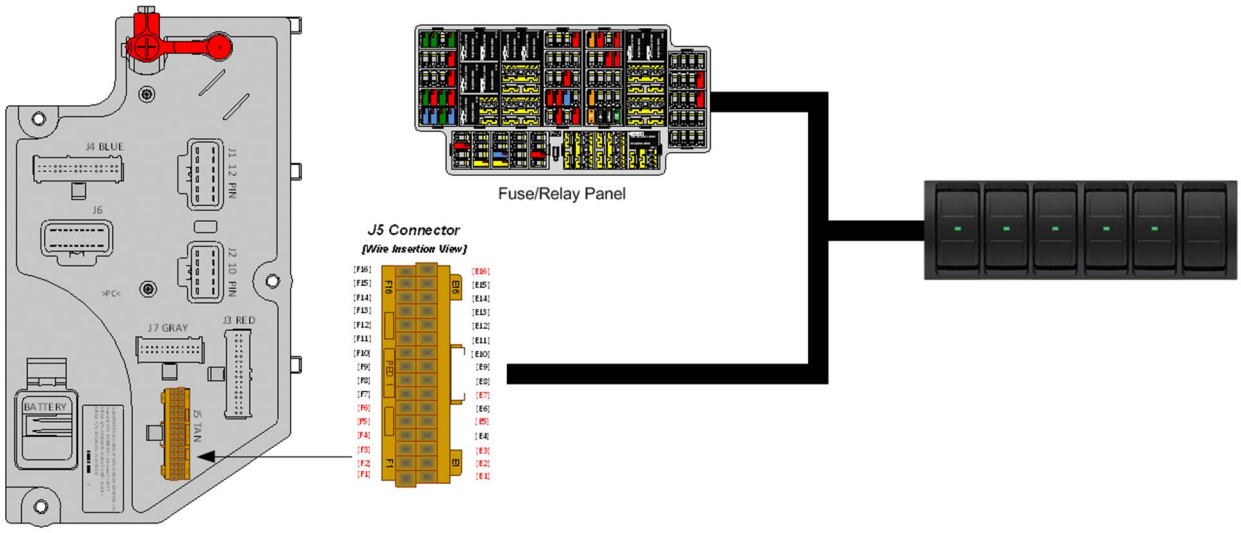


60ALB System Diagram

20.8. 60ALC: BDY INTG, DASH IND LT TRICOLOR (5) for Optional Usage Customer to Program.

Extended Description: 60ALC includes five dash mounted tricolor indicator lights located in switch locations in the center panel switch housings for use with advanced logic. Each tricolor indicator light includes three base colors and the light is located in the center of the switch location used. Each tricolor indicator light color can be programmed in advanced logic through the use of the Diamond Logic® Builder software to illuminate up to seven different colors. The available colors include Red, Green, Blue, Cyan, Yellow, Magenta and White. Each tricolor indicator light includes a “windowed” location over the center of the switch location used to allow custom labeling of the indicator light function. An example of an indicator light is shown below.

System Block Diagram:

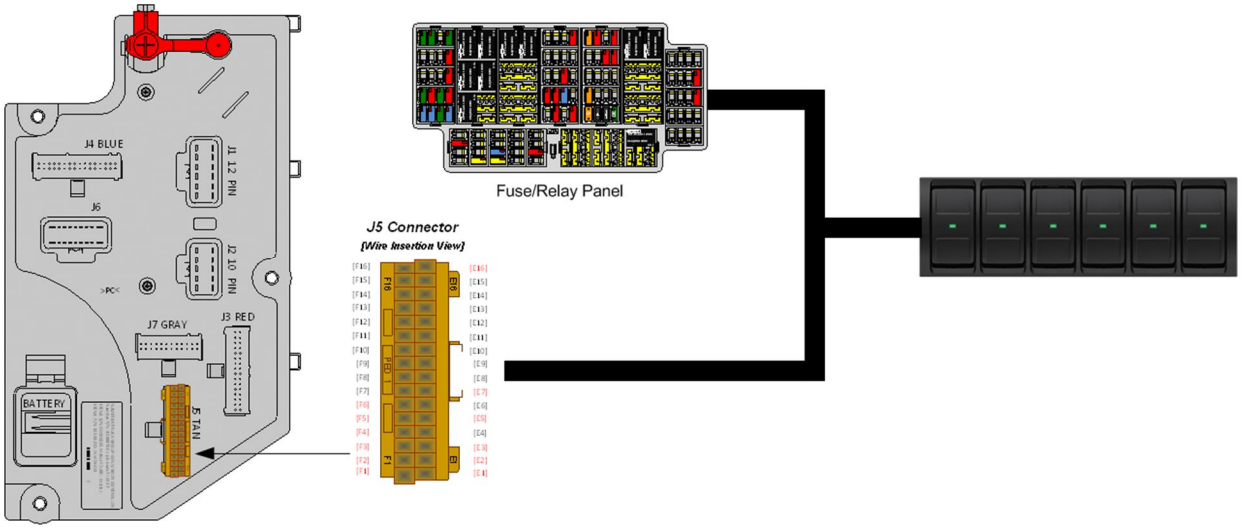


60ALC System Diagram

20.9. 60ALD: BDY INTG, DASH IND LT TRICOLOR (6) for Optional Usage Customer to Program.

Extended Description: 60ALD includes six dash mounted tricolor indicator lights located in switch locations in the center panel switch housings for use with advanced logic. Each tricolor indicator light includes three base colors and the light is located in the center of the switch location used. Each tricolor indicator light color can be programmed in advanced logic through the use of the Diamond Logic® Builder software to illuminate up to seven different colors. The available colors include Red, Green, Blue, Cyan, Yellow, Magenta and White. Each tricolor indicator light includes a "windowed" location over the center of the switch location used to allow custom labeling of the indicator light function. An example of an indicator light is shown below.

System Block Diagram:

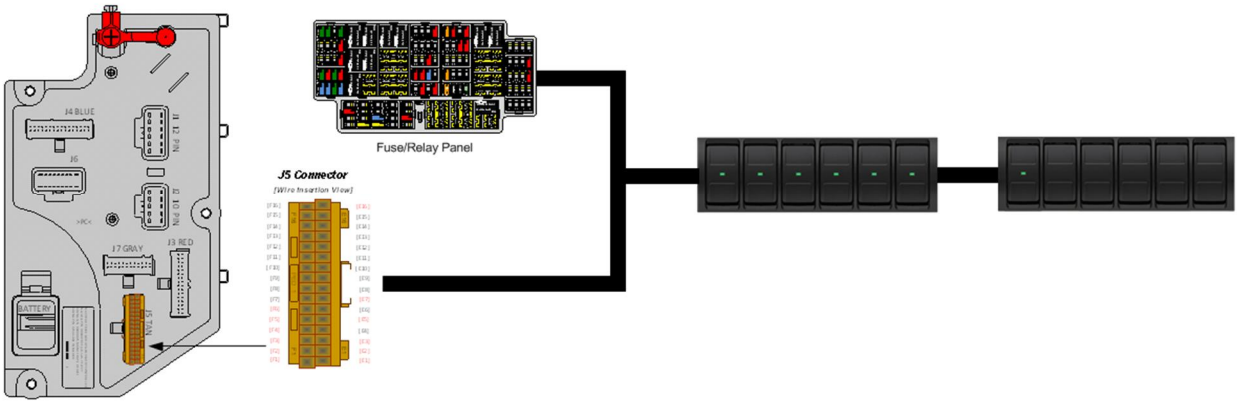


60ALD System Diagram

20.10. 60ALE: BDY INTG, DASH IND LT TRICOLOR (7) for Optional Usage Customer to Program.

Extended Description: 60ALE includes seven dash mounted tricolor indicator lights located in switch locations in the center panel switch housings for use with advanced logic. Each tricolor indicator light includes three base colors and the light is located in the center of the switch location used. Each tricolor indicator light color can be programmed in advanced logic through the use of the Diamond Logic® Builder software to illuminate up to seven different colors. The available colors include Red, Green, Blue, Cyan, Yellow, Magenta and White. Each tricolor indicator light includes a “windowed” location over the center of the switch location used to allow custom labeling of the indicator light function. An example of an indicator light is shown below.

System Block Diagram:

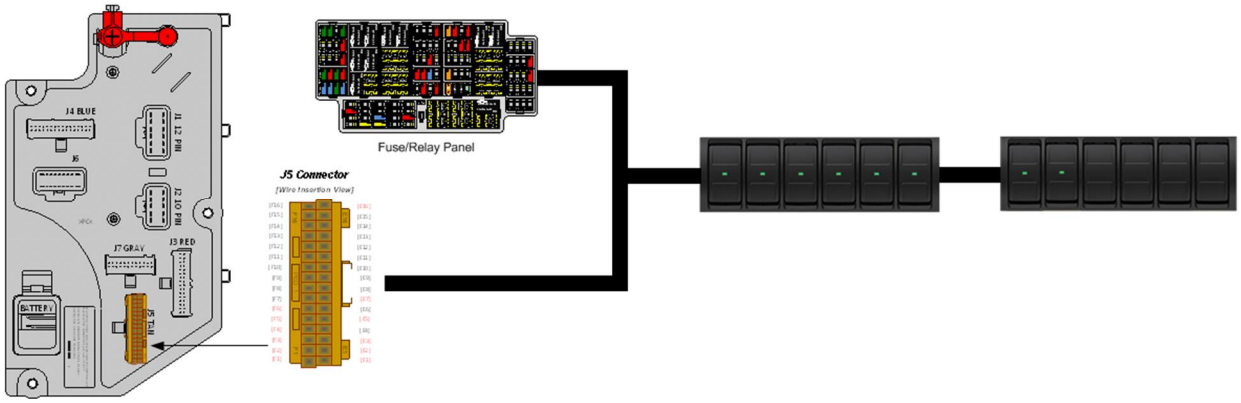


60ALE System Diagram

20.11. 60ALG: BDY INTG, DASH IND LT TRICOLOR (8) for Optional Usage Customer to Program.

Extended Description: 60ALG includes eight dash mounted tricolor indicator lights located in switch locations in the center panel switch housings for use with advanced logic. Each tricolor indicator light includes three base colors and the light is located in the center of the switch location used. Each tricolor indicator light color can be programmed in advanced logic through the use of the Diamond Logic® Builder software to illuminate up to seven different colors. The available colors include Red, Green, Blue, Cyan, Yellow, Magenta and White. Each tricolor indicator light includes a "windowed" location over the center of the switch location used to allow custom labeling of the indicator light function. An example of an indicator light is shown below.

System Block Diagram:

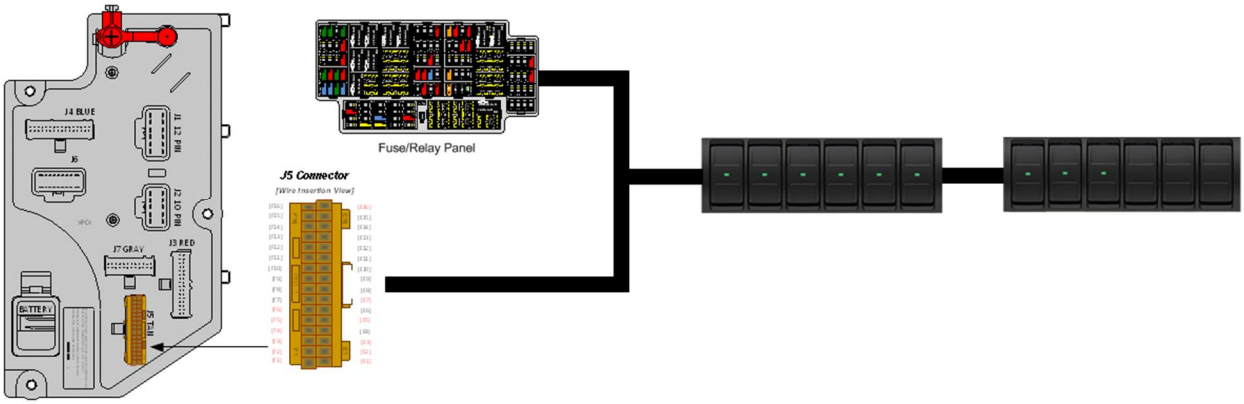


60ALG System Diagram

20.12. 60ALH: BDY INTG, DASH IND LT TRICOLOR (9) for Optional Usage Customer to Program.

Extended Description: 60ALH includes nine dash mounted tricolor indicator lights located in switch locations in the center panel switch housings for use with advanced logic. Each tricolor indicator light includes three base colors and the light is located in the center of the switch location used. Each tricolor indicator light color can be programmed in advanced logic through the use of the Diamond Logic® Builder software to illuminate up to seven different colors. The available colors include Red, Green, Blue, Cyan, Yellow, Magenta and White. Each tricolor indicator light includes a “windowed” location over the center of the switch location used to allow custom labeling of the indicator light function. An example of an indicator light is shown below.

System Block Diagram:

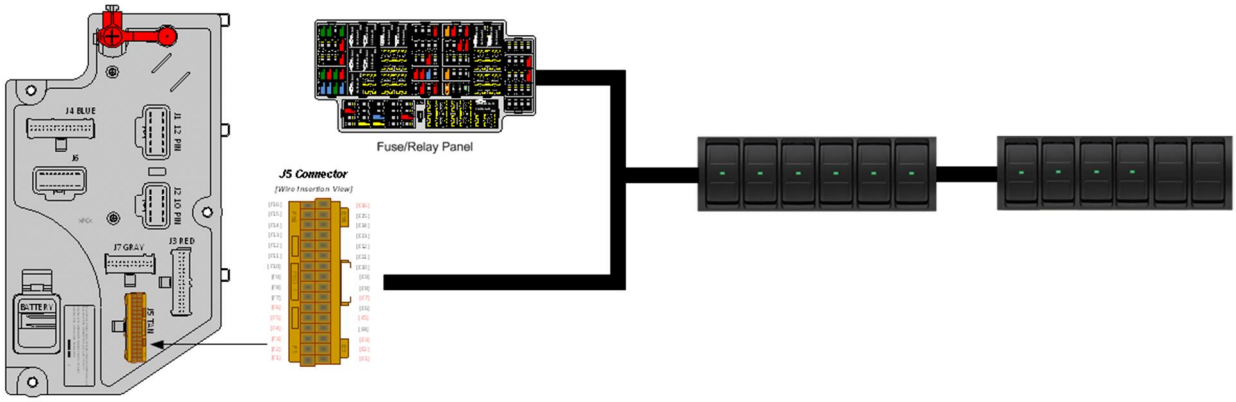


60ALH System Diagram

20.13. 60ALJ: BDY INTG, DASH IND LT TRICOLOR (10) for Optional Usage Customer to Program.

Extended Description: 60ALJ includes ten dash mounted tricolor indicator lights located in switch locations in the center panel switch housings for use with advanced logic. Each tricolor indicator light includes three base colors and the light is located in the center of the switch location used. Each tricolor indicator light color can be programmed in advanced logic through the use of the Diamond Logic® Builder software to illuminate up to seven different colors. The available colors include Red, Green, Blue, Cyan, Yellow, Magenta and White. Each tricolor indicator light includes a “windowed” location over the center of the switch location used to allow custom labeling of the indicator light function. An example of an indicator light is shown below.

System Block Diagram:

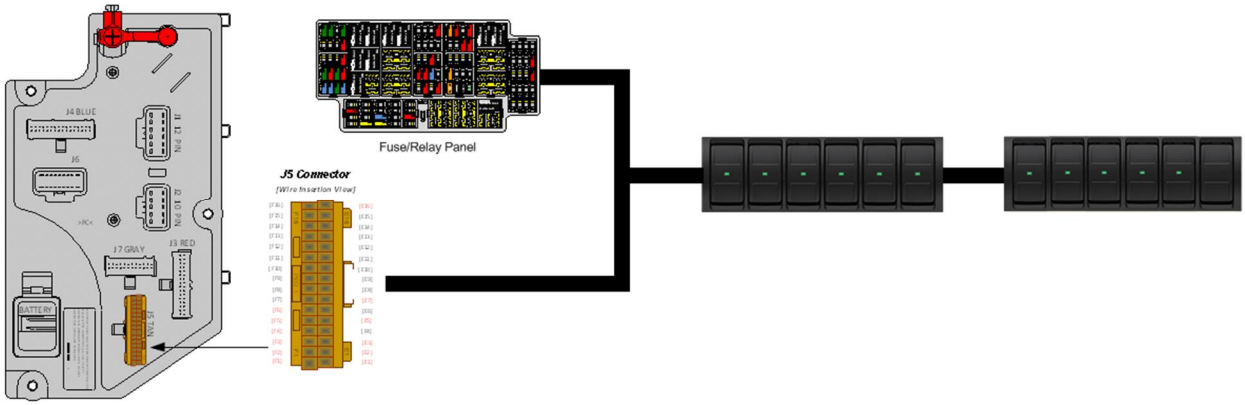


60ALJ System Diagram

20.14. 60ALK: BDY INTG, DASH IND LT TRICOLOR (11) for Optional Usage Customer to Program.

Extended Description: 60ALK includes eleven dash mounted tricolor indicator lights located in switch locations in the center panel switch housings for use with advanced logic. Each tricolor indicator light includes three base colors and the light is located in the center of the switch location used. Each tricolor indicator light color can be programmed in advanced logic through the use of the Diamond Logic® Builder software to illuminate up to seven different colors. The available colors include Red, Green, Blue, Cyan, Yellow, Magenta and White. Each tricolor indicator light includes a “windowed” location over the center of the switch location used to allow custom labeling of the indicator light function. An example of an indicator light is shown below.

System Block Diagram:

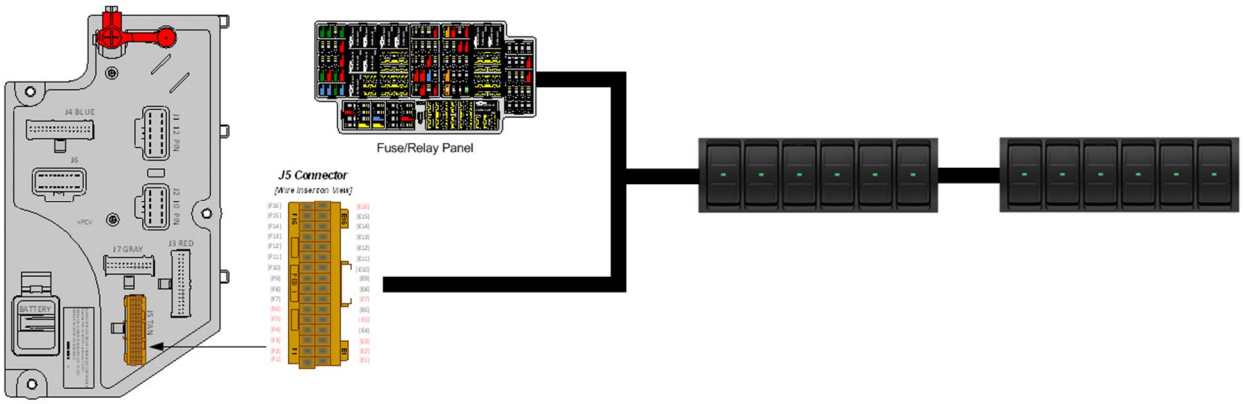


60ALK System Diagram

20.15. 60ALL: BDY INTG, DASH IND LT TRICOLOR (12) for Optional Usage Customer to Program.

Extended Description: 60ALL includes twelve dash mounted tricolor indicator lights located in switch locations in the center panel switch housings for use with advanced logic. Each tricolor indicator light includes three base colors and the light is located in the center of the switch location used. Each tricolor indicator light color can be programmed in advanced logic through the use of the Diamond Logic® Builder software to illuminate up to seven different colors. The available colors include Red, Green, Blue, Cyan, Yellow, Magenta and White. Each tricolor indicator light includes a “windowed” location over the center of the switch location used to allow custom labeling of the indicator light function. An example of an indicator light is shown below.

System Block Diagram:



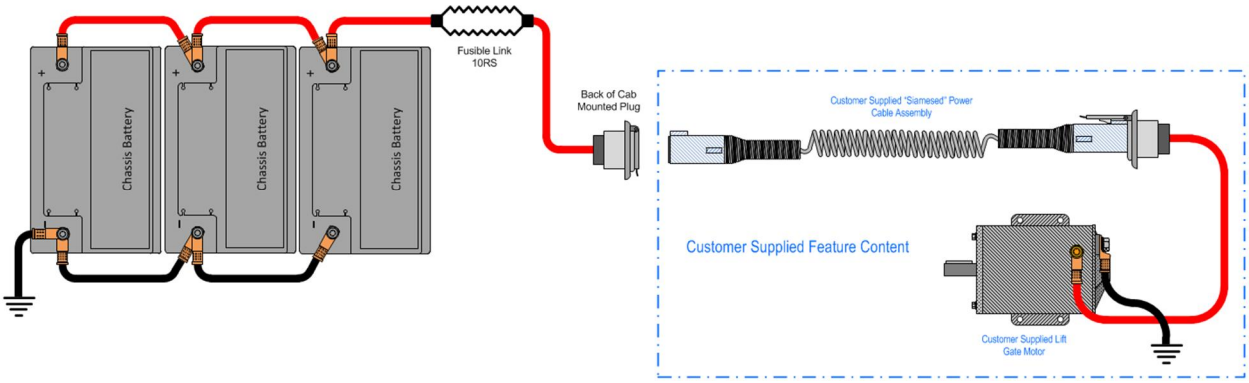
60ALL System Diagram

21. Liftgate Accommodation Package

21.1. 08WCM: POWER SOURCE, Special Socket; Single Terminal, for Power Lift Gate Feed, Battery Feed Thru 150-Amp Circuit Breaker, To Operate Lift Gate on Trailer, includes a 15-foot Power Cable Coiled in Cab.

Extended Description: 08WCM includes a 15-foot power cable coiled in the cab to provide power for operating a lift gate. This feature is battery fed through a chassis Power Distribution Module (PDM) located Back of Cab (BOC) on the passenger side frame rail. The feature includes a 150-Amp circuit breaker located in the chassis PDM.

System Block Diagram:

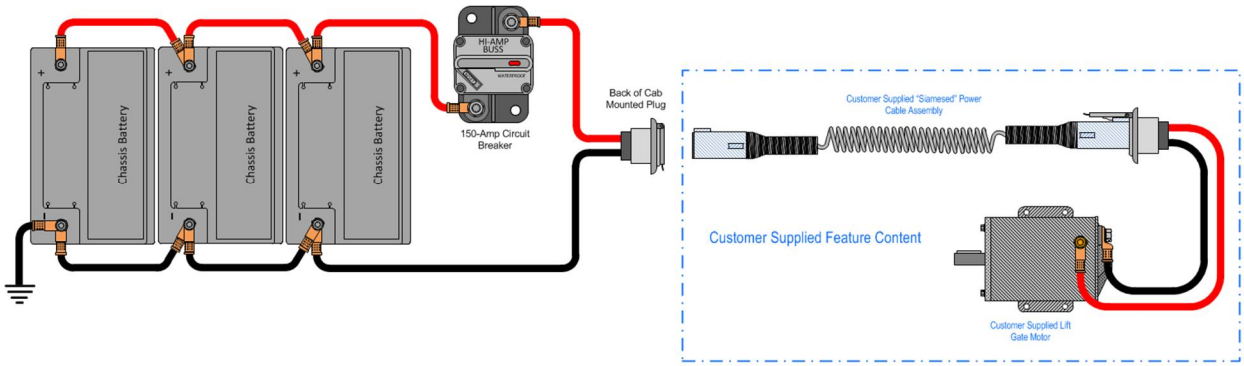


08WCM System Diagram

21.2. 08WJH: POWER SOURCE, SPECIAL - Special Socket; Dual Pole Terminal, for Power Lift Gate Feed, Battery Feed Thru 150-Amp Circuit Breaker to Operate Lift Gate on Trailer.

Extended Description: 08WJH includes a special dual pole trailer socket mounted back of cab to provide power for operating a lift gate. This feature is battery fed through a chassis Power Distribution Module (PDM) located Back of Cab (BOC) on the passenger side frame rail. The feature includes a 150-Amp circuit breaker located in the chassis PDM.

System Block Diagram:



08WJH System Diagram

22. Power Features using Remote Power Modules

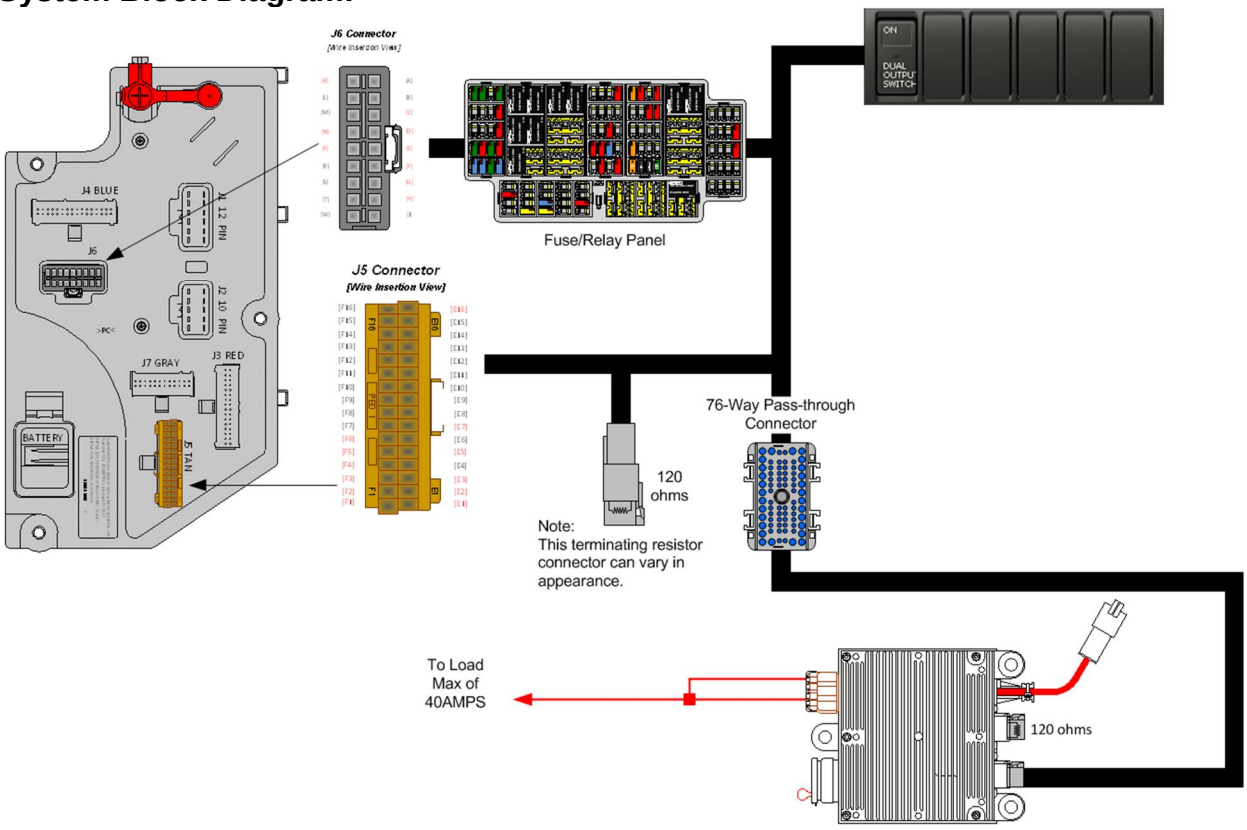
22.1. 60ACE: BDY INTG, SWITCH DUAL OUTPUT 2-Position Latched Rocker, Backlit, with “ON” Indicator Mounted on Dash, for 1; Auxiliary Load 40-AMP Maximum; Power Available Only in “Ignition (IGN)” or “Accessory” Position; Controls Two Remote Power Modules (RPMs) (requires two RPM outputs).

Extended Description: This feature provides one two-positioned latched rocker switch that controls one auxiliary load with a 40-AMP maximum. This feature was designed for owners who have a load that requires a RPM output of greater than 20-AMPS. Two RPM outputs are required, and power would only be available in IGN or accessory key-state.

Through programmable parameters, the amount of current desired to the two outputs can be adjusted. This allows the body builder to customize the amperage supplied to the RPM output based on their specific needs.

Please use the Diamond Logic® Builder software to determine pin locations for RPM inputs and outputs (refer to the CONNECTOR screen view) and to set programmable parameters (refer to the FEATURE screen view).

System Block Diagram:



Body Controller Software Feature Codes:

- 597201 - BCM PROG, DUAL OUTPUT AUX #1
    - Remote Power Module required

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
TEM_Dual1_Output1_Fuse_Param	1988	This is the maximum current Dual 1 Output 1 is allowed to source before the virtual fusing turns the output off.	20	A	0	20	0.01
TEM_Dual1_Output2_Fuse_Param	1989	This is the maximum current Dual 1 Output 2 is allowed to source before the virtual fusing turns the output off.	20	A	0	20	0.01
TEM_Dual_LoadShed_Level	3351	Loadshed level parameter for TEM_Dual1_Switch	1	No_Units	0	3	1

Parameter Definitions:

- **TEM_Dual1_Output1_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from Output #1 of Dual 1. If the current exceeds this specified amount, the virtual fusing shuts the output off.
- **TEM_Dual1_Output1_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from Output #2 of Dual 1. If the current exceeds this specified amount, the virtual fusing shuts the output off.
- **TEM_Dual_LoadShed_Level** – This is the level at which the Outputs for Dual 1 will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).

Note/s About Possible Software Feature Conflicts:
597187

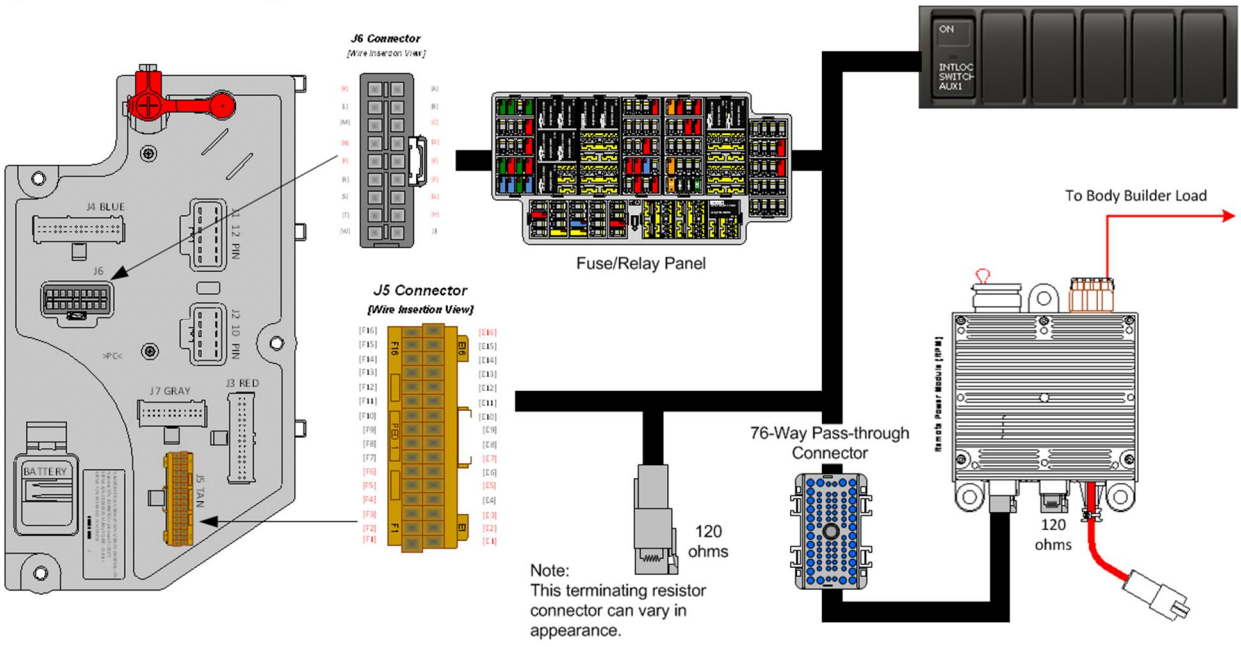
22.2. 60ACG: BDY INTG, SWITCH, INTERLOCKED 2-Position Latched Rocker, Backlit, with “ON” Indicator Mounted on Dash for 1; Auxiliary Load 20-Ampere (AMP) Maximum; Output will disengage when Vehicle Exceeds 30-MPH, Programmable; Power Available Only in “Ignition (IGN)” or “Accessory” Position (requires one Remote Power Module (RPM) output).

Extended Description: Feature 60ACG provides a 2-position latched rocker switch that controls one auxiliary load of 20-Amps maximum and requires one RPM output. Output will be defaulted to turn off when vehicle speed reaches 30-MPH. The output will only be available in IGN or accessory key-state. This feature is used for applications such as a rear shining light. If the operator forgets to turn the light off before he drives away, the light will shut off when the driver hits 30-MPH.

The body builder can interlock the switch with certain programmable conditions. These conditions can be set as programmable parameters using the Diamond Logic® Builder software. These parameters are listed and explained below.

Please use the Diamond Logic® Builder software to determine pin locations for RPM inputs and outputs (refer to the CONNECTOR screen view) and to set programmable parameters (refer to the FEATURE screen view).

System Block Diagram:



Body Controller Software Feature Codes:

- 597203 - BCM PROG, INTERLOCK AUX #1
    - Remote Power Module required

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
TEM_Aux1_Interlock_Latches_Off	2006	If this is set, when the output is turned off due to an interlock, it will remain off until the switch is recycled.	OFF	On/Off	n/a	n/a	n/a
TEM_Aux1_Speed_Interlock_Param	2007	The speed parameter for the TEM Aux #1 with Interlocks feature.	30	Mph	0	100	1
TEM_Aux1_Gear_Interlock_Param	2008	The transmission gear parameter for the TEM Aux #1 with Interlocks feature (124 is park, 125 is neutral, 126 is first, etc., 251 is park). The default value is 125 (neutral).	125	Number	0	250	1
TEM_Aux1_w_Ilock_Output_Fuse	2009	Fuse parameter for the TEM Single output with interlocks feature.	20	A	0	20	0.1
TEM_Aux1_Misc_Interlock_Param	2033	Miscellaneous or control parameter used for setting the interlock for the auxiliary 1 with interlocks.	10	List	n/a	n/a	n/a
TEM_Aux1_w_Int_LoadShed_Level	3345	Loadshed level parameter for TEM Aux1 with Interlocks	1	No_Units	0	3	1

Parameter Definitions:

- **TEM_Aux1_Interlock_Latches_Off** – Normally, if the output is deactivated because the interlocking condition is not met, the output will re-activate as soon as the interlocking condition is re-established if the switch is still on. If this behavior is not desirable, the parameter TEM_Aux1_Interlock_Latches_Off parameter can be set. When it is set and the output is deactivated because the interlocking condition is not met, the output will not reactivate when the interlocking condition is re-established even if the switch is
- **TEM_Aux1_Speed_Interlock_Param** – If TEM_Aux1_Misc_Interlock_Param is set to 9 or 10, the speed-interlock parameter (TEM_Aux1_Speed_Interlock_Param) must also be set. This parameter must be set to the actual speed to use in the condition selected by TEM_Aux1_Misc_Interlock_Param (default unit for this parameter is MPH). The speed parameter is only used if TEM_Aux1_Misc_Interlock_Param is set to 9 or 10.
  Example: If you want the output to only come on when the vehicle is traveling over 15 MPH, you would set TEM_Aux1_Misc_Interlock_Param to 9 and set TEM_Aux1_Speed_Interlock_Param to 15 MPH.
- **TEM_Aux1_Gear_Interlock_Param** – If TEM_Aux1_Misc_Interlock_Param is set to 13 or 14 and the vehicle has an automatic transmission, the gear-interlock parameter (TEM_Aux1_Gear_Interlock_Param) must also be set. This parameter must be set to the transmission gear to use in the condition selected by TEM_Aux1_Misc_Interlock_Param. The transmission gear is set as follows:

.

Setting	Transmission Gear

125	Transmission in Neutral
126	Transmission is in the 1st forward gear
127	Transmission is in the 2nd forward gear
128	Transmission is in the 3rd forward gear
125 + x	Transmission is in the xth forward gear
124	Transmission is in the 1st reverse gear
123	Transmission is in the 2nd reverse gear
125 – y	Transmission is in the yth reverse gear

The transmission gear parameter is only used if TEM_Aux1_Misc_Interlock_Param is set to 13 or 14.
Example: For the output to only come on when the vehicle transmission is in a reverse gear, set TEM_Aux1_Misc_Interlock_Param to 10 and TEM_Aux1_Gear_Interlock_Param to 125.

- **TEM_Aux1_w_Ilock_Output_Fuse** – This parameter sets the limit (in AMPS) of the current flowing from the output. If the current exceeds this specified amount, the virtual fusing shuts the output off.
- **TEM_Aux1_Misc_Interlock_Param** – This parameter (TEM_Aux1_Misc_Interlock_Param) is the master parameter for this feature. The setting for this parameter selects the interlocking condition for the output. The following table indicates which interlocking condition corresponds to which setting for the parameter. To select the interlocking condition simply set the value of this parameter to the corresponding setting on the table.

.

Setting	Interlocking Condition
0	Apply no interlocks to this output
1	Activate this output when the park brake is set AND the switch is on
2	Activate this output when the park brake is not set AND the switch is on
3	Activate this output when a door is open AND the switch is on
4	Activate this output when all doors are closed AND the switch is on
5	Activate this output when the PTO is engaged AND the switch is on (Requires a PTO feature)
6	Activate this output when the PTO is not engaged AND the switch is on (Requires a PTO feature)
7	Activate this output when the engine is running AND the switch is on
8	Activate this output when the engine is not running AND the switch is on
9	Activate this output when the vehicle speed exceeds the value set in TEM_Aux_1_Speed_Interlock_Param AND the switch is on
10	Activate this output when the vehicle speed is less than the value set in TEM_Aux_1_Speed_Interlock_Param AND the switch is on
11	Activate this output when the vehicle is stopped AND the switch is on
12	Activate this output when the vehicle is moving AND the switch is on
13	Activate this output when the transmission gear is higher than TEM_Aux1_Gear_Interlock_Param AND the switch is on (Requires Automatic Transmission)
14	Activate this output when the transmission gear is lower than TEM_Aux1_Gear_Interlock_Param AND the switch is on (Requires Automatic Transmission)
15	Activate this output when the transmission is in neutral AND the switch is on (Requires Automatic Transmission)
16	Activate this output when the transmission is not in neutral AND the switch is on (Requires Automatic Transmission)

- **TEM_Aux1_w_Int_LoadShed_Level** – This is the level at which the Output for TEM Aux1 will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).

22.3. 60ACH: BDY INTG, SWITCH, INTERLOCKED (2) 2-Position Latched Rockers, Backlit, with “ON” Indicator Mtd on Dash, for 2; Auxiliary Load each 20-AMP Maximum; Outputs will Disengage when Vehicle Exceeds 30-MPH, Programmable; Power Available Only in “IGN” or “Accessory” Position (requires two RPM outputs).

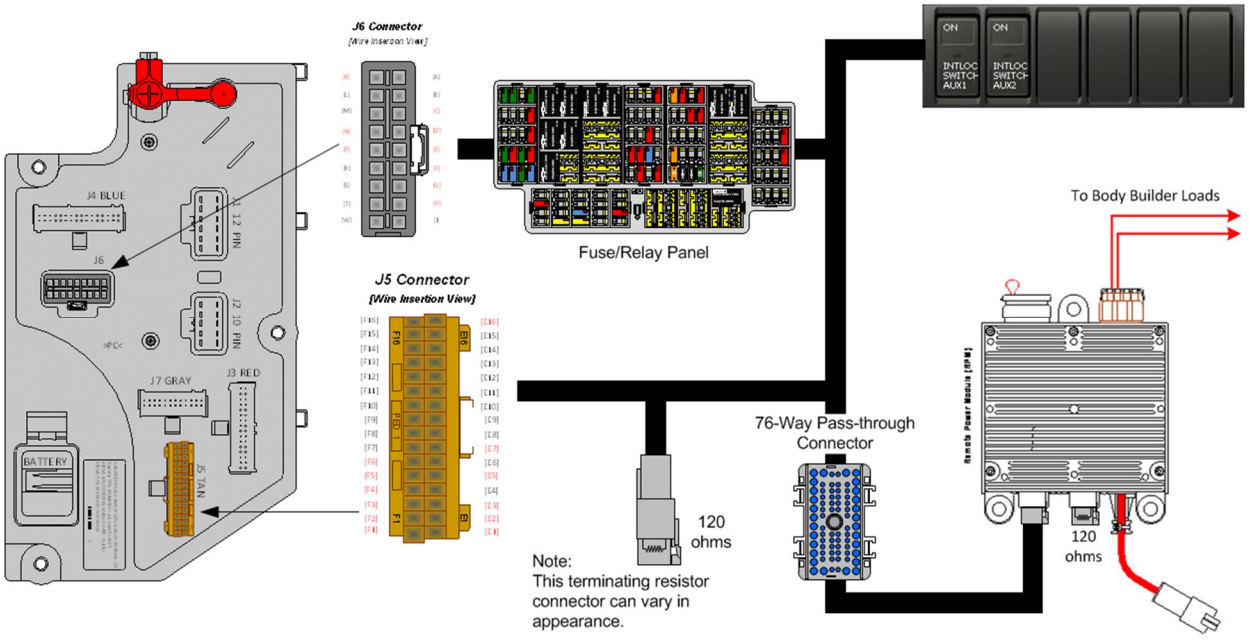
Extended Description: Feature 60ACH provides TWO 2-position Latched Rocker switches that control two auxiliary loads, each having a 20-Amp maximum and requiring a total of two RPM outputs. Outputs are defaulted to disengage when vehicle speed reaches 30-MPH. The outputs will only be available in IGN or accessory key-state. This feature is used for applications such as a rear work or scene light. If the operator forgets to turn the light off before he drives away, the light will shut off when the driver hits 30-MPH.

The body builder can interlock the switch with certain programmable conditions. These conditions can be set as programmable parameters using the Diamond Logic® Builder software. These parameters are listed and explained below.

This feature includes two copies of the functionality provided by 60ACG; e.g., two outputs with two switches. Each one of these outputs is exactly the same as that provided by 60ACG. The two outputs in this feature are completely autonomous (independent of each other). Each of the two outputs has its own set of five parameters as is mentioned in the description for 60ACG.

Please use the Diamond Logic® Builder software to determine pin locations for RPM inputs and outputs (refer to the CONNECTOR screen view) and to set programmable parameters (refer to the FEATURE screen view).

System Block Diagram:



Body Controller Software Feature Codes:

- 597203 - BCM PROG, INTERLOCK AUX #1
- 597204 - BCM PROG, INTERLOCK AUX #2
    - Remote Power Module required
    - Can be installed individually

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
597203 - BCM PROG, INTERLOCK AUX #1							
TEM_Aux1_Interlock_Latches_Off	2006	If this is set, when the output is turned off due to an interlock, it will remain off until the switch is recycled.	OFF	On/Off	n/a	n/a	n/a
TEM_Aux1_Speed_Interlock_Param	2007	The speed parameter for the TEM Aux #1 with Interlocks feature.	30	Mph	0	100	1
TEM_Aux1_Gear_Interlock_Param	2008	The transmission gear parameter for the TEM Aux #1 with Interlocks feature (124 is park, 125 is neutral, 126 is first, etc., 251 is park). The default value is 125 (neutral).	125	Number	0	250	1
TEM_Aux1_w_Ilock_Output_Fuse	2009	Fuse parameter for the TEM Single output with interlocks feature.	20	A	0	20	0.1
TEM_Aux1_Misc_Interlock_Param	2033	Miscellaneous or control parameter used for setting the interlock for the auxiliary 1 with interlocks.	10	List	n/a	n/a	n/a
TEM_Aux1_w_Int_LoadShed_Level	3345	Loadshed level parameter for TEM Aux1 with Interlocks	1	No_Units	0	3	1
597204 - BCM PROG, INTERLOCK AUX #2							
TEM_Aux2_Interlock_Latches_Off	2010	If this is set, when the output is turned off due to an interlock, it will remain off until the switch is recycled.	OFF	On/Off	n/a	n/a	n/a
TEM_Aux2_Speed_Interlock_Param	2011	The speed parameter for the TEM Aux #2 with Interlocks feature.	30	Mph	0	100	1
TEM_Aux2_Gear_Interlock_Param	2012	The transmission gear parameter for the TEM Aux #2 with Interlocks feature (124 is park, 125 is neutral, 126 is first, etc., 251 is park). The default value is 125 (neutral).	125	Number	0	250	1
TEM_Aux2_w_Ilock_Output_Fuse	2013	Fuse parameter for the TEM Single output with interlocks feature.	20	A	0	20	0.1
TEM_Aux2_Misc_Interlock_Param	2034	Miscellaneous or control parameter used for setting the interlock for the auxiliary 2 with interlocks.	10	List	n/a	n/a	n/a
TEM_Aux2_w_Int_LoadShed_Level	3346	Loadshed level parameter for TEM Aux2 with Interlocks	1	No_Units	0	3	1

Parameter Definitions:

- **TEM_Aux1_Interlock_Latches_Off** – Normally, if the output is deactivated because the interlocking condition is not met, the output will re-activate as soon as the interlocking condition is re-established as long as the switch is still on. If this behavior is not desirable, the parameter TEM_Aux1_Interlock_Latches_Off parameter can be set. When it is set and the output is deactivated because the interlocking condition is not met, the output will not reactivate when the interlocking condition is re-established even if the switch is
- **TEM_Aux1_Speed_Interlock_Param** – If TEM_Aux1_Misc_Interlock_Param is set to 9 or 10, the speed-interlock parameter (TEM_Aux1_Speed_Interlock_Param) must also be set. This parameter must be set to the actual speed to use in the condition selected by TEM_Aux1_Misc_Interlock_Param (default unit for this parameter is MPH). The speed parameter is only used if TEM_Aux1_Misc_Interlock_Param is set to 9 or 10.
  Example: If you want the output to only come on when the vehicle is traveling over 15 MPH, you would set TEM_Aux1_Misc_Interlock_Param to 9 and set TEM_Aux1_Speed_Interlock_Param to 15 MPH.
- **TEM_Aux1_Gear_Interlock_Param** – If TEM_Aux1_Misc_Interlock_Param is set to 13 or 14 and the vehicle has an automatic transmission, the gear-interlock parameter (TEM_Aux1_Gear_Interlock_Param) must also be set. This parameter must be set to the transmission gear to use in the condition selected by TEM_Aux1_Misc_Interlock_Param. The transmission gear is set as follows:

Setting	Transmission Gear
125	Transmission in Neutral
126	Transmission is in the 1st forward gear
127	Transmission is in the 2nd forward gear
128	Transmission is in the 3rd forward gear
125 + x	Transmission is in the xth forward gear
124	Transmission is in the 1st reverse gear
123	Transmission is in the 2nd reverse gear
125 – y	Transmission is in the yth reverse gear

  The transmission gear parameter is only used if TEM_Aux1_Misc_Interlock_Param is set to 13 or 14.
  Example: For the output to only come on when the vehicle transmission is in a reverse gear, set TEM_Aux1_Misc_Interlock_Param to 10 and TEM_Aux1_Gear_Interlock_Param to 125.
- **TEM_Aux1_w_Ilock_Output_Fuse** – This parameter sets the limit (in AMPS) of the current flowing from the output. If the current exceeds this specified amount, the virtual fusing shuts the output off.
- **TEM_Aux1_Misc_Interlock_Param** – This parameter (TEM_Aux1_Misc_Interlock_Param) is the master parameter for this feature. The setting for this parameter selects the interlocking condition for the output. The

following table indicates which interlocking condition corresponds to which setting for the parameter. To select the interlocking condition simply set the value of this parameter to the corresponding setting on the table.

.

Setting	Interlocking Condition
0	Apply no interlocks to this output
1	Activate this output when the park brake is set AND the switch is on
2	Activate this output when the park brake is not set AND the switch is on
3	Activate this output when a door is open AND the switch is on
4	Activate this output when all doors are closed AND the switch is on
5	Activate this output when the PTO is engaged AND the switch is on (Requires a PTO feature)
6	Activate this output when the PTO is not engaged AND the switch is on (Requires a PTO feature)
7	Activate this output when the engine is running AND the switch is on
8	Activate this output when the engine is not running AND the switch is on
9	Activate this output when the vehicle speed exceeds the value set in TEM_Aux_1_Speed_Interlock_Param AND the switch is on
10	Activate this output when the vehicle speed is less than the value set in TEM_Aux_1_Speed_Interlock_Param AND the switch is on
11	Activate this output when the vehicle is stopped AND the switch is on
12	Activate this output when the vehicle is moving AND the switch is on
13	Activate this output when the transmission gear is higher than TEM_Aux1_Gear_Interlock_Param AND the switch is on (Requires Automatic Transmission)
14	Activate this output when the transmission gear is lower than TEM_Aux1_Gear_Interlock_Param AND the switch is on (Requires Automatic Transmission)
15	Activate this output when the transmission is in neutral AND the switch is on (Requires Automatic Transmission)
16	Activate this output when the transmission is not in neutral AND the switch is on (Requires Automatic Transmission)

- **TEM_Aux1_w_Int_LoadShed_Level** – This is the level at which the Output for TEM Aux1 will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux2_Interlock_Latches_Off** – Normally, if the output is deactivated because the interlocking condition is not met, the output will re-activate as soon as the interlocking condition is re-established as long as the switch is still on. If this behavior is not desirable, the parameter TEM_Aux2_Interlock_Latches_Off parameter can be set. When it is set and the output is deactivated because the interlocking condition is not met, the output will not reactivate when the interlocking condition is re-established even if the switch is
- **TEM_Aux2_Speed_Interlock_Param** – If TEM_Aux2_Misc_Interlock_Param is set to 9 or 10, the speed-interlock parameter (TEM_Aux2_Speed_Interlock_Param) must also be set. This parameter must be set to the actual speed to use in the condition selected by TEM_Aux2_Misc_Interlock_Param (default unit for this parameter is MPH). The speed parameter is only used if TEM_Aux2_Misc_Interlock_Param is set to 9 or 10.
  Example: If you want the output to only come on when the vehicle is traveling over 15 MPH, you would set TEM_Aux2_Misc_Interlock_Param to 9 and set TEM_Aux2_Speed_Interlock_Param to 15 MPH.
- **TEM_Aux2_Gear_Interlock_Param** – If TEM_Aux2_Misc_Interlock_Param is set to 13 or 14 and the vehicle has an automatic transmission, the gear-interlock parameter (TEM_Aux2_Gear_Interlock_Param) must also be set. This parameter

must be set to the transmission gear to use in the condition selected by TEM_Aux2_Misc_Interlock_Param. The transmission gear is set as follows:

.

Setting	Transmission Gear
125	Transmission in Neutral
126	Transmission is in the 1st forward gear
127	Transmission is in the 2nd forward gear
128	Transmission is in the 3rd forward gear
125 + x	Transmission is in the xth forward gear
124	Transmission is in the 1st reverse gear
123	Transmission is in the 2nd reverse gear
125 – y	Transmission is in the yth reverse gear

The transmission gear parameter is only used if TEM_Aux2_Misc_Interlock_Param is set to 13 or 14.
Example: For the output to only come on when the vehicle transmission is in a reverse gear, set TEM_Aux2_Misc_Interlock_Param to 10 and TEM_Aux2_Gear_Interlock_Param to 125.

- **TEM_Aux2_w_Ilock_Output_Fuse** – This parameter sets the limit (in AMPS) of the current flowing from the output. If the current exceeds this specified amount, the virtual fusing shuts the output off.
- **TEM_Aux2_Misc_Interlock_Param** – This parameter (TEM_Aux2_Misc_Interlock_Param) is the master parameter for this feature. The setting for this parameter selects the interlocking condition for the output. The following table indicates which interlocking condition corresponds to which setting for the parameter. To select the interlocking condition simply set the value of this parameter to the corresponding setting on the table.

.

Setting	Interlocking Condition
0	Apply no interlocks to this output
1	Activate this output when the park brake is set AND the switch is on
2	Activate this output when the park brake is not set AND the switch is on
3	Activate this output when a door is open AND the switch is on
4	Activate this output when all doors are closed AND the switch is on
5	Activate this output when the PTO is engaged AND the switch is on (Requires a PTO feature)
6	Activate this output when the PTO is not engaged AND the switch is on (Requires a PTO feature)
7	Activate this output when the engine is running AND the switch is on
8	Activate this output when the engine is not running AND the switch is on
9	Activate this output when the vehicle speed exceeds the value set in TEM_Aux_1_Speed_Interlock_Param AND the switch is on
10	Activate this output when the vehicle speed is less than the value set in TEM_Aux_1_Speed_Interlock_Param AND the switch is on
11	Activate this output when the vehicle is stopped AND the switch is on
12	Activate this output when the vehicle is moving AND the switch is on
13	Activate this output when the transmission gear is higher than TEM_Aux1_Gear_Interlock_Param AND the switch is on (Requires Automatic Transmission)
14	Activate this output when the transmission gear is lower than TEM_Aux1_Gear_Interlock_Param AND the switch is on (Requires Automatic Transmission)
15	Activate this output when the transmission is in neutral AND the switch is on (Requires Automatic Transmission)
16	Activate this output when the transmission is not in neutral AND the switch is on (Requires Automatic Transmission)

- **TEM_Aux2_w_Int_LoadShed_Level** – This is the level at which the Output for TEM Aux 2 will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).

22.4. 60ACS: BDY INTG, SWITCH MOMNTRY 3POS Rocker, Backlit, with “ON” Indicator Mounted on Dash, Latching Software, for 1 Auxiliary Load 20-amp. Maximum; Power Available Only in “Ignition” or “Accessory” Position, Output Also Controlled by a Customer Remote Mounted Switch (requires 1 Remote Power Module input and 1output).

Extended Description: This feature provides a three-way switch control function for an RPM output. An in-cab, 3-position momentary switch is connected to an RPM output. In addition, a customer-supplied, remote-mounted momentary switch may be used to control the same RPM output. This switch must be active at 12-volts and must use Ground (GND) to deactivate the output. Thus, a three-way switch control action may be performed with these two switch inputs. The RPM output may be turned off or on from either switch; however, an off command from either switch takes precedence and will turn the RPM output off. This feature is useful when a lamp or other load requires control from both in the cab and from a remote location on the body.

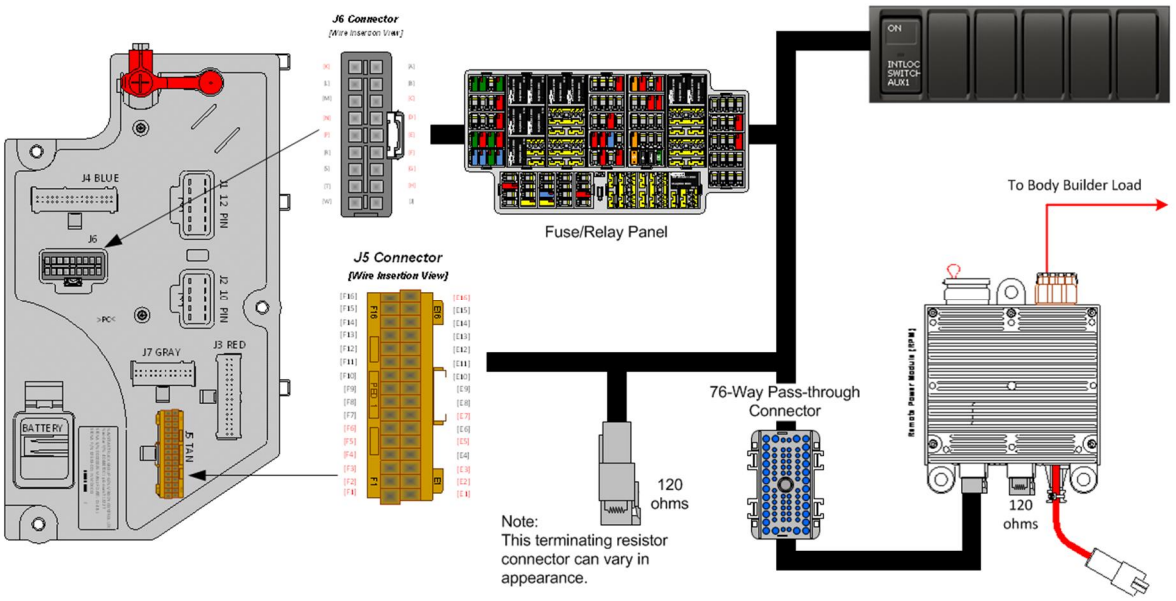
The in-cab switch provides a green lamp in the top section of the switch to indicate when the RPM output is on. The RPM provides a 12-Volt output that will source up to 20 Amps. The output current level may be limited through programmable parameters between .1 and 20-Amps in .1-Amp increments. This virtual fusing level is controlled in software and mimics the performance of an SAE Type 2 or 3 circuit breaker.

The RPM output may be activated with the in-cab switch provided that the IGN key is in the accessory or IGN position. The RPM output may also be activated with the remote switch input with IGN key off or on. It is important to turn off RPM outputs that have been enabled remotely before leaving a parked vehicle with the IGN key off. Otherwise, the system will remain active and drain the batteries.

60AAA, 60AAB, 60AAD, 60AAG, 60AAH, 60AAK, 60AAL, 60AAP, 60AJL OR 60AJM is a prerequisite feature that must be ordered along with 60ACS. 60ACS uses a single momentary switch in place of one of the latching switches that is provided with the above features. For example, instead of the six latching switches that are provided with 60AAA, a vehicle with 60ACS will have a switch pack of five latching switches and one momentary switch.

Please use the Diamond Logic® Builder software to determine pin locations for RPM inputs and outputs (refer to the CONNECTOR screen view) and to set programmable parameters (refer to the FEATURE screen view).

System Block Diagram:



Body Controller Software Feature Codes:

- 597205 - BCM PROG, DUAL CONTROL AUX #1 SW
    - Remote Power Module required (1 output, 1 input)

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
TEM_Aux1_w_Ext_Sw_Fuse_Level	1998	This is the level above which the RPM will fuse the TEM Auxiliary output with external switch	20	A	0	20	0.1
TEM_Aux1_w_Ext_Switch_Init_State	2032	This programmable parameter sets the init state of RPM channel used with TEM Auxiliary with external switch #1	OFF	No_Units	N/A	N/A	N/A
TEM_Aux1_Dual_Contrl_Loadshed_Level	3352	This is the level at which the TEM AUX1 Outputs will load shed.	1	No_Units	0	3	1

Parameter Definitions:

- **TEM_Aux1_w_Ext_Sw_Fuse_Level** – This parameter sets the limit (in AMPS) of the current flowing from TEM_Aux1. If the current exceeds this specified amount, the virtual fusing shuts the output off.
- **TEM_Aux1_w_Ext_Switch_Init_State** – This parameter determines the initial state of TEM_Aux1. The Default setting is OFF or zero; meaning output will be OFF at ignition key-on. When the box is checked the value is set to ON or ONE; the output will be ON at ignition key-on.
- **TEM_Aux1_Dual_Contrl_Loadshed_Level** – This is the level at which the TEM_Aux1 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).

22.5. 60ACT: BDY INTG, SWITCH MOMNTRY 3POS Rocker, Backlit, with “ON” Indicator Mounted on Dash, Latching Software, for 2; Auxiliary Load 20-AMP Maximum; Power Available Only in “IGN” or “Accessory” Position, Output Also Controlled by a Customer Remote-Mounted Switch (requires two RPM inputs and two outputs).

Extended Description: This feature provides three-way switch control function for two RPM outputs. Each RPM output is controlled by an in-cab, 3-position momentary switch and a 3-position momentary Body Builder-installed, remote-mounted switch. These customer-installed, remote-mounted switches must be active at 12-volts and must use GND to deactivate the output. Each in-cab, 3-position momentary switch is connected to an RPM output. In addition, each customer-supplied, remote-mounted momentary switch may be used to control the respective RPM outputs. Thus, three-way switch control action may be performed. The RPM outputs may be turned off or on from either the respective in-cab switch or the respective Body Builder switch; however, an off command from either switch takes precedence and will turn the RPM output off. This feature is useful when a lamp or other load requires control from both in the cab and from a remote location on the body.

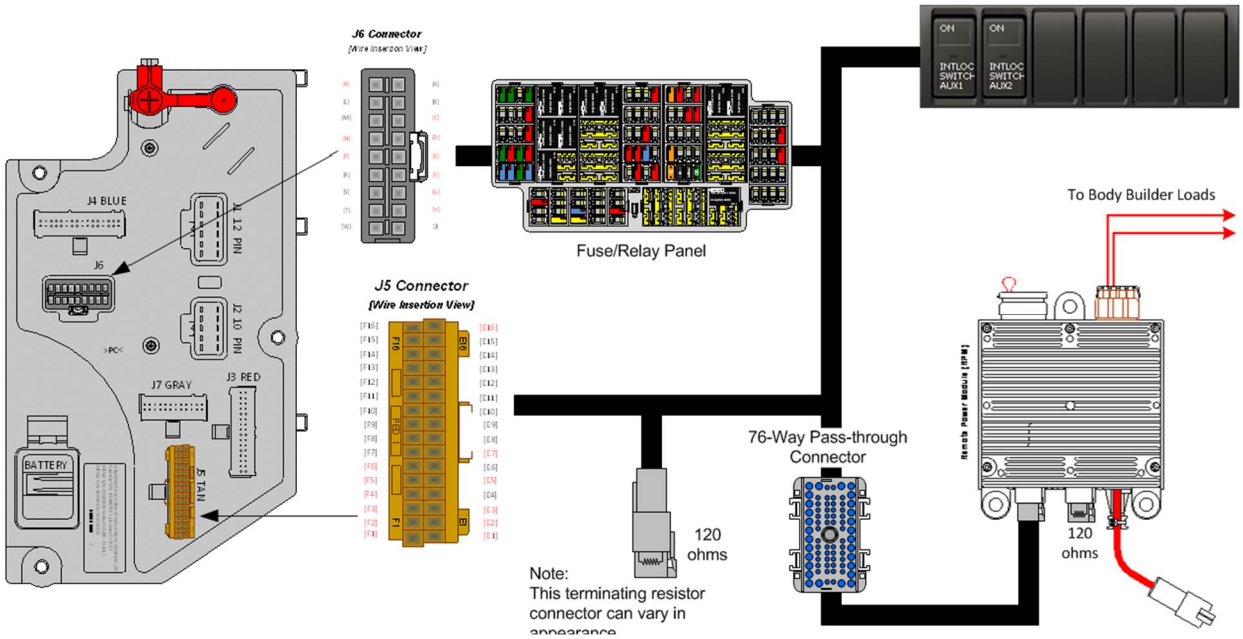
The in-cab switches provide green lamps in the top section of the switches to indicate when the RPM outputs are on. The RPM provides 12-Volt outputs that will source up to 20-Amps. The output current level may be limited through programmable parameters between .1 and 20-Amps in .1 Amp increments. This virtual fusing level is controlled in software and mimics the performance of an SAE Type 2 or 3 circuit breaker.

The RPM outputs may be activated with the respective in-cab switches provided that the IGN key is in the accessory or IGN position. The RPM outputs may also be activated with the remote switch inputs with IGN key off or on. It is important to turn off RPM outputs that have been enabled remotely before leaving a parked vehicle with the IGN key off. Otherwise, the system will remain active and drain the batteries.

60AAA, 60AAB, 60AAD, 60AAG, 60AAH, 60AAK, 60AAL, 60AAP, 60AJL OR 60AJM is a prerequisite feature that must be ordered along with 60ACS. 60ACS uses a single momentary switch in place of one of the latching switches that is provided with the above features. For example, instead of the six latching switches that are provided with 60AAA, a vehicle with 60ACT will have a switch pack of four latching switches and two momentary switches.

Please use the Diamond Logic® Builder software to determine pin locations for RPM inputs and outputs (refer to the CONNECTOR screen view) and to set programmable parameters (refer to the FEATURE screen view).

System Block Diagram:



Body Controller Software Feature Codes:

- 597206 - BCM PROG, DUAL CONTROL AUX #2 SW
  - Remote Power Module required (2-outputs, 2-inputs)

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
TEM_Aux1_w_Ext_Sw_Fuse_Level	1998	This is the level above which the RPM will fuse the TEM Auxiliary output with external switch	20	A	0	20	0.1
TEM_Aux1_w_Ext_Switch_Init_State	2032	This programmable parameter sets the init state of RPM channel used with TEM Auxiliary with external switch #1	OFF	No_Units	N/A	N/A	N/A
TEM_Aux1_Dual_Cntrl_Loadshed_Level	3352	This is the level at which the TEM AUX1 Outputs will load shed.	1	No_Units	0	3	1
TEM_Aux2_w_Ext_Sw_Fuse_Level	2106	This is the level above which the RPM will fuse the TEM Auxiliary output #2 with external switch	20	A	0	20	0.1
TEM_Aux2_w_Ext_Switch_Init_State	2142	This programmable parameter sets the init state of RPM channel used with TEM Auxiliary with external switch #2	OFF	No_Units	N/A	N/A	N/A
TEM_Aux2_Dual_Cntrl_Loadshed_Level	3353	This is the level at which the TEM AUX2 Outputs will load shed.	1	No_Units	0	3	1

Parameter Definitions:

- **TEM_Aux1_w_Ext_Sw_Fuse_Level** – This parameter sets the limit (in AMPS) of the current flowing from TEM_Aux1. If the current exceeds this specified amount, the virtual fusing shuts the output off.

- **TEM_Aux1_w_Ext_Switch_Init_State** – This parameter determines the initial state of TEM_Aux1. The Default setting is OFF or zero; meaning output will be OFF at ignition key-on. When the box is checked the value is set to ON or ONE; the output will be ON at ignition key-on.
- **TEM_Aux1_Dual_Contrl_Loadshed_Level** – This is the level at which the TEM_Aux1 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux2_w_Ext_Sw_Fuse_Level** – This parameter sets the limit (in AMPS) of the current flowing from TEM_Aux2. If the current exceeds this specified amount, the virtual fusing shuts the output off.
- **TEM_Aux2_w_Ext_Switch_Init_State** – This parameter determines the initial state of TEM_Aux2. The Default setting is OFF or zero; meaning output will be OFF at ignition key-on. When the box is checked the value is set to ON or ONE; the output will be ON at ignition key-on.
- **TEM_Aux2_Dual_Contrl_Loadshed_Level** – This is the level at which the TEM_Aux2 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).

22.6. 60ACU: BDY INTG, SWITCH MOMNTRY 3-POS (3) Rocker, Backlit, with “ON” Indicator Mounted on Dash, Latching Software, for 3; Auxiliary Load 20-AMP Maximum; Power Available Only in “IGN” or “Accessory” Position, Output Also Controlled by a Customer Remote-Mounted Switch (requires three RPM inputs and three outputs).

Extended Description: This feature provides three-way switch control function for three RPM outputs. Each RPM output is controlled by an in-cab, 3-position momentary switch and a 3-position momentary Body Builder-installed, remote-mounted switch. These customer-installed, remote-mounted switches must be active at 12-volts and must use GND to deactivate the output. Each in-cab, 3-position momentary switch is connected to an RPM output. In addition, each customer-supplied, remote-mounted momentary switch may be used to control the respective RPM outputs. Thus, three-way switch control action may be performed. The RPM outputs may be turned off or on from either the respective in-cab switch or the respective Body Builder switch; however, an off command from either switch takes precedence and will turn the RPM output off. This feature is useful when a lamp or other load requires control from both in the cab and from a remote location on the body.

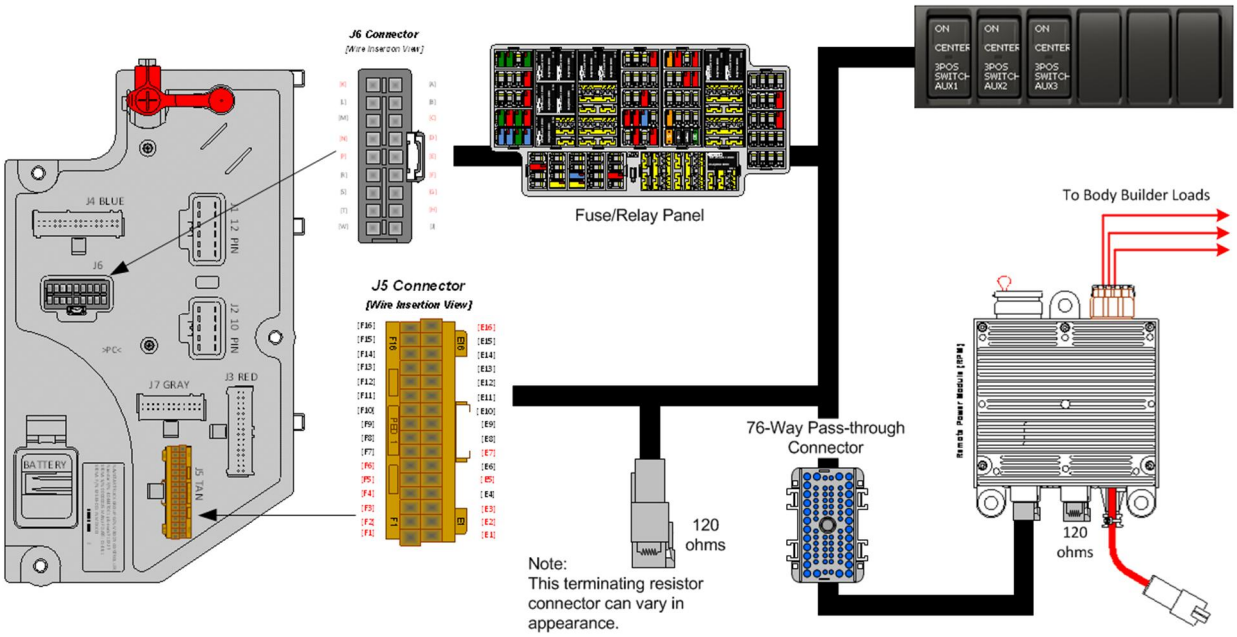
The in-cab switches provide green lamps in the top section of the switches to indicate when the RPM outputs are on. The RPM provides 12-Volt outputs that will source up to 20-Amps. The output current level may be limited through programmable parameters between .1 and 20-Amps in .1-Amp increments. This virtual fusing level is controlled in software and mimics the performance of an SAE Type 2 or 3 circuit breaker.

The RPM outputs may be activated with the respective in-cab switches provided that the IGN key is in the accessory or IGN position. The RPM outputs may also be activated with the remote switch inputs with IGN key off or on. It is important to turn off RPM outputs that have been enabled remotely before leaving a parked vehicle with the IGN key off. Otherwise, the system will remain active and drain the batteries.

60AAA, 60AAB, 60AAD, 60AAG, 60AAH, 60AAK, 60AAL, 60AAP, 60AJL OR 60AJM is a prerequisite feature that must be ordered along with 60ACS. 60ACS uses a single momentary switch in place of one of the latching switches that is provided with the above features. For example, instead of the six latching switches that are provided with 60AAA, a vehicle with 60ACU will have a switch pack of three latching switches and three momentary switches.

Please use the Diamond Logic® Builder software to determine pin locations for RPM inputs and outputs (refer to the CONNECTOR screen view) and to set programmable parameters (refer to the FEATURE screen view).

System Block Diagram:



Body Controller Software Feature Codes:

- 597207 - BCM PROG, DUAL CONTROL AUX #3 SW
  - Remote Power Module required (3 outputs, 3 inputs)

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
TEM_Aux1_w_Ext_Sw_Fuse_Level	1998	This is the level above which the RPM will fuse the TEM Auxiliary output with external switch	20	A	0	20	0.1
TEM_Aux1_w_Ext_Switch_Init_State	2032	This programmable parameter sets the init state of RPM channel used with TEM Auxiliary with external switch #1	OFF	No_Units	N/A	N/A	N/A
TEM_Aux1_Dual_Contrl_Loadshed_Level	3352	This is the level at which the TEM AUX1 Outputs will load shed.	1	No_Units	0	3	1
TEM_Aux2_w_Ext_Sw_Fuse_Level	2106	This is the level above which the RPM will fuse the TEM Auxiliary output #2 with external switch	20	A	0	20	0.1
TEM_Aux2_w_Ext_Switch_Init_State	2142	This programmable parameter sets the init state of RPM channel used with TEM Auxiliary with external switch #2	OFF	No_Units	N/A	N/A	N/A
TEM_Aux2_Dual_Contrl_Loadshed_Level	3353	This is the level at which the TEM AUX2 Outputs will load shed.	1	No_Units	0	3	1
TEM_Aux3_w_Ext_Sw_Fuse_Level	2107	This is the level above which the RPM will fuse the TEM Auxiliary output #3 with external switch	20	A	0	20	0.1
TEM_Aux3_w_Ext_Switch_Init_State	2143	This programmable parameter sets the init state of RPM channel used with TEM Auxiliary with external switch #3	OFF	No_Units	N/A	N/A	N/A
TEM_Aux3_Dual_Contrl_Loadshed_Level	3354	This is the level at which the TEM AUX3 Outputs will load shed.	1	No_Units	0	3	1

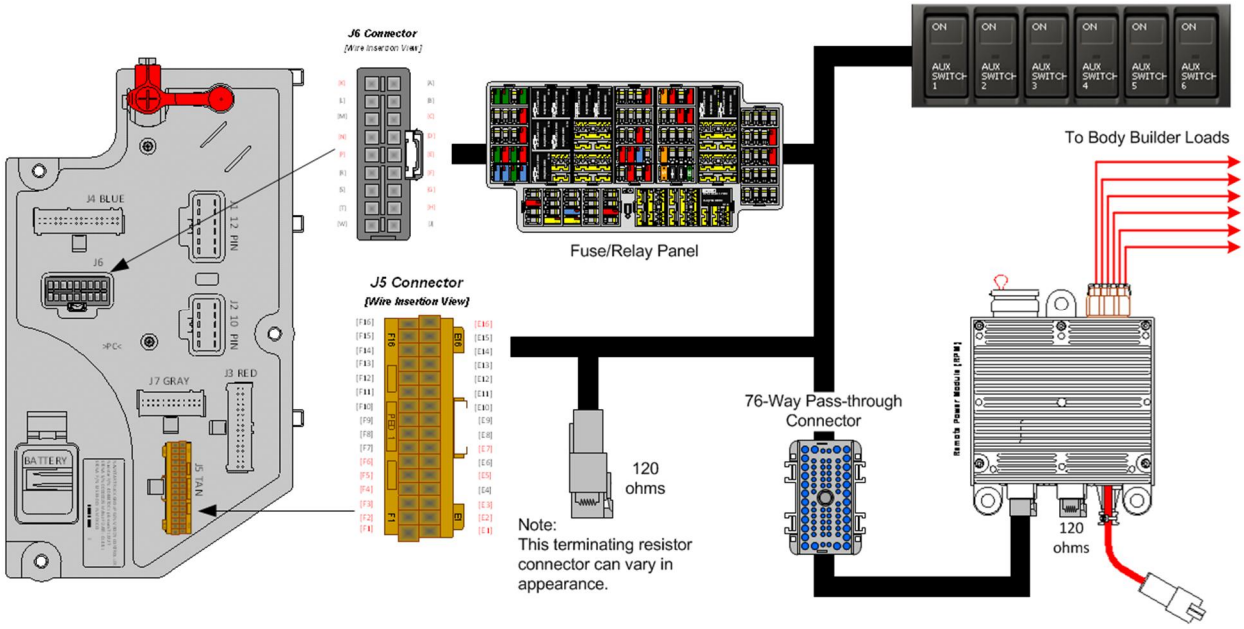
Parameter Definitions:

- **TEM_Aux1_w_Ext_Sw_Fuse_Level** – This parameter sets the limit (in AMPS) of the current flowing from TEM_Aux1. If the current exceeds this specified amount, the virtual fusing shuts the output off.
- **TEM_Aux1_w_Ext_Switch_Init_State** – This parameter determines the initial state of TEM_Aux1. The Default setting is OFF or zero; meaning output will be OFF at ignition key-on. When the box is checked the value is set to ON or ONE; the output will be ON at ignition key-on.
- **TEM_Aux1_Dual_Contrl_Loadshed_Level** – This is the level at which the TEM_Aux1 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux2_w_Ext_Sw_Fuse_Level** – This parameter sets the limit (in AMPS) of the current flowing from TEM_Aux2. If the current exceeds this specified amount, the virtual fusing shuts the output off.
- **TEM_Aux2_w_Ext_Switch_Init_State** – This parameter determines the initial state of TEM_Aux2. The Default setting is OFF or zero; meaning output will be OFF at ignition key-on. When the box is checked the value is set to ON or ONE; the output will be ON at ignition key-on.
- **TEM_Aux2_Dual_Contrl_Loadshed_Level** – This is the level at which the TEM_Aux2 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux3_w_Ext_Sw_Fuse_Level** – This parameter sets the limit (in AMPS) of the current flowing from TEM_Aux3. If the current exceeds this specified amount, the virtual fusing shuts the output off.
- **TEM_Aux3_w_Ext_Switch_Init_State** – This parameter determines the initial state of TEM_Aux3. The Default setting is OFF or zero; meaning output will be OFF at ignition key-on. When the box is checked the value is set to ON or ONE; the output will be ON at ignition key-on.
- **TEM_Aux3_Dual_Contrl_Loadshed_Level** – This is the level at which the TEM_Aux3 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).

22.7. 60AJL: BDY INTG, REMOTE POWER MODULE Mounted Inside Cab; Up to 6-Outputs & 6 Inputs, Max. 20-AMP per Channel, Max. 80-AMP Total; (Includes 1-Switch Pack with Latched Switches).

Extended Description: Feature 60AJL includes one Remote Power Module (RPM) mounted behind the passenger seat on HV models. Included with this feature are six two-position latched switches located in the Instrument Panel. Each RPM output can provide up to 20-Amps maximum with a total of 80-Amps maximum per module.

System Block Diagram:



Body Controller Software Feature Codes:

Note: Feature code 60AJL is configured by special unadvertised software feature codes. These codes are determined by the number of additional features that use the RPM resources. The following codes should be added after all other features are added to the vehicle.

60ACA = 597194 – This feature should be added if there are features already using five RPM inputs/outputs. (BCM PROG, AUXILIARY LOAD #1)

60ACB = 597195 – This feature should be added if there are features already using four RPM inputs/outputs. (BCM PROG, AUXILIARY LOAD 2 ROCKER SW)

60ACC = 597196 – This feature should be added if there are features already using three RPM inputs/outputs. (BCM PROG, AUXILIARY LOAD 3 ROCKER SW)

60ACD = 597197 – This feature should be added if there are features already using two RPM inputs/outputs. (BCM PROG, AUXILIARY LOAD 4 ROCKER SW)

60ACJ = 597198 – This feature should be added if there are features already using one RPM input/output. (BCM PROG, AUXILIARY LOAD 5 ROCKER SW)

60ACK = 597199 – This feature should be added if there no other features using any RPM inputs/outputs. (BCM PROG, AUXILIARY LOAD 6 ROCKER SW)

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
597194 - BCM PROG, AUXILIARY LOAD #1 For Rocker Switch							
TEM_Aux1_Output_Fuse_Param	1990	This is the maximum current Aux 1 Output is allowed to source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level	3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
597195 - BCM PROG, AUXILIARY LOAD For (2) Rocker Switch							
TEM_Aux1_Output_Fuse_Param	1990	This is the maximum current Aux 1 Output is allowed to source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux2_Output_Fuse_Param	1991	This is the maximum current Aux 2 Output is allowed to source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level	3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
TEM_Aux2_Loadshed_Level	3274	Loadshed level parameter for TEM Aux Switch 2	1	No_Units	0	3	1
597196 - BCM PROG, AUXILIARY LOAD For (3) Rocker Switch							
TEM_Aux1_Output_Fuse_Param	1990	This is the maximum current Aux 1 Output is allowed to source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux2_Output_Fuse_Param	1991	This is the maximum current Aux 2 Output is allowed to source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux3_Output_Fuse_Param	1992	This is the maximum current Aux 3 Output is allowed to source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level	3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
TEM_Aux2_Loadshed_Level	3274	Loadshed level parameter for TEM Aux Switch 2	1	No_Units	0	3	1
TEM_Aux3_Loadshed_Level	3275	Loadshed level parameter for TEM Aux Switch 3	1	No_Units	0	3	1
597197 - BCM PROG, AUXILIARY LOAD For (4) Rocker Switch							
TEM_Aux1_Output_Fuse_Param	1990	This is the maximum current Aux 1 Output is allowed to source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux2_Output_Fuse_Param	1991	This is the maximum current Aux 2 Output is allowed to source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux3_Output_Fuse_Param	1992	This is the maximum current Aux 3 Output is allowed to source before the virtual fusing turns the output off.	20	A	0	20	0.1

TEM_Aux4_Output_Fuse_Param	1995	This is the maximum current Aux 4 Output is allowed to source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level	3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
TEM_Aux2_Loadshed_Level	3274	Loadshed level parameter for TEM Aux Switch 2	1	No_Units	0	3	1
TEM_Aux3_Loadshed_Level	3275	Loadshed level parameter for TEM Aux Switch 3	1	No_Units	0	3	1
TEM_Aux4_Loadshed_Level	3276	Loadshed level parameter for TEM Aux Switch 4	1	No_Units	0	3	1
597198 - BCM PROG, AUXILIARY LOAD For (5) Rocker Switch							
TEM_Aux1_Output_Fuse_Param	1990	This is the maximum current Aux 1 Output is allowed to source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux2_Output_Fuse_Param	1991	This is the maximum current Aux 2 Output is allowed to source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux3_Output_Fuse_Param	1992	This is the maximum current Aux 3 Output is allowed to source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux4_Output_Fuse_Param	1995	This is the maximum current Aux 4 Output is allowed to source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux5_Output_Fuse_Param	1999	This is the maximum current Aux 5 Output is allowed to source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level	3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
TEM_Aux2_Loadshed_Level	3274	Loadshed level parameter for TEM Aux Switch 2	1	No_Units	0	3	1
TEM_Aux3_Loadshed_Level	3275	Loadshed level parameter for TEM Aux Switch 3	1	No_Units	0	3	1
TEM_Aux4_Loadshed_Level	3276	Loadshed level parameter for TEM Aux Switch 4	1	No_Units	0	3	1
TEM_Aux5_Loadshed_Level	3277	Loadshed level parameter for TEM Aux Switch 5	1	No_Units	0	3	1
597199 - BCM PROG, AUXILIARY LOAD For (6) Rocker Switch							
TEM_Aux1_Output_Fuse_Param	1990	This is the maximum current Aux 1 Output is allowed to source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux2_Output_Fuse_Param	1991	This is the maximum current Aux 2 Output is allowed to source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux3_Output_Fuse_Param	1992	This is the maximum current Aux 3 Output is allowed to source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux4_Output_Fuse_Param	1995	This is the maximum current Aux 4 Output is allowed to source before	20	A	0	20	0.1

		the virtual fusing turns the output off.					
TEM_Aux5_Output_Fuse_Param	1999	This is the maximum current Aux 5 Output is allowed to source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux6_Output_Fuse_Param	2000	This is the maximum current Aux 6 Output is allowed to source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level	3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
TEM_Aux2_Loadshed_Level	3274	Loadshed level parameter for TEM Aux Switch 2	1	No_Units	0	3	1
TEM_Aux3_Loadshed_Level	3275	Loadshed level parameter for TEM Aux Switch 3	1	No_Units	0	3	1
TEM_Aux4_Loadshed_Level	3276	Loadshed level parameter for TEM Aux Switch 4	1	No_Units	0	3	1
TEM_Aux5_Loadshed_Level	3277	Loadshed level parameter for TEM Aux Switch 5	1	No_Units	0	3	1
TEM_Aux6_Loadshed_Level	3278	Loadshed level parameter for TEM Aux Switch 6	1	No_Units	0	3	1

Parameter Definitions:

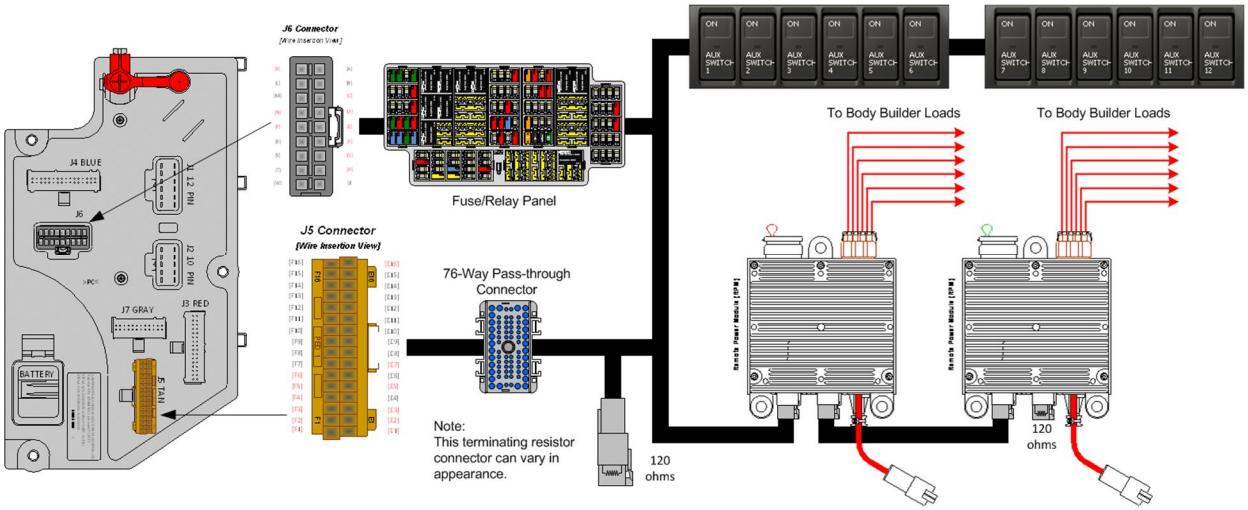
- **TEM_Aux1_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_1_Output of RPM #1. Default is set at 20 amps.
- **TEM_Aux2_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_2_Output of RPM #1. Default is set at 20 amps.
- **TEM_Aux3_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_3_Output of RPM #1. Default is set at 20 amps.
- **TEM_Aux4_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_4_Output of RPM #1. Default is set at 20 amps.
- **TEM_Aux5_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_5_Output of RPM #1. Default is set at 20 amps.
- **TEM_Aux6_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_6_Output of RPM #1. Default is set at 20 amps.
- **TEM_Aux1_LoadShed_Level** – This is the level at which the Aux1 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux2_LoadShed_Level** – This is the level at which the Aux2 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).

- **TEM_Aux3_LoadShed_Level** – This is the level at which the Aux3 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux4_LoadShed_Level** – This is the level at which the Aux4 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux5_LoadShed_Level** – This is the level at which the Aux5 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux6_LoadShed_Level** – This is the level at which the Aux6 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).

22.8. 60AJM: BDY INTG, REMOTE POWER MODULE (2) Mounted Inside Cab; Up to 6-Outputs & 6-Inputs each, Max. 20-AMP per Channel, Max. 80-AMP Total; (Includes Switch Packs with Latched Switches).

Extended Description: Feature 60AJM includes two Remote Power Modules (RPMs) mounted behind the passenger seat on HV models. Included with this feature are twelve two-position latched switches located in the Instrument Panel. Each RPM output is capable of providing up to 20-Amps maximum with a total of 80-Amps maximum per module.

System Block Diagram:



Body Controller Software Feature Codes:

Note: Feature code 60AJM is configured by special unadvertised software feature codes. These codes are determined by the number of additional features that use the RPM resources. The following codes should be added after all other features are added to the vehicle.

60ACA = 597194 – This feature should be added if there are features already using five RPM inputs/outputs. (BCM PROG, AUXILIARY LOAD #1)

60ACB = 597195 – This feature should be added if there are features already using four RPM inputs/outputs. (BCM PROG, AUXILIARY LOAD 2 ROCKER SW)

60ACC = 597196 – This feature should be added if there are features already using three RPM inputs/outputs. (BCM PROG, AUXILIARY LOAD 3 ROCKER SW)

60ACD = 597197 – This feature should be added if there are features already using two RPM inputs/outputs. (BCM PROG, AUXILIARY LOAD 4 ROCKER SW)

60ACJ = 597198 – This feature should be added if there are features already using one RPM input/output. (BCM PROG, AUXILIARY LOAD 5 ROCKER SW)

60ACK = 597199 – This feature should be added if there no other features using any RPM inputs/outputs. (BCM PROG, AUXILIARY LOAD 6 ROCKER SW)

60ACV = 597202 – This feature should be added to add the second RPM (60AAB). (BCM PROG, ADDITIONAL 6 AUXILIARY SW)

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
597194 - BCM PROG, AUXILIARY LOAD #1 For Rocker Switch							
TEM_Aux1_Output_Fuse_Param	1990	This is the maximum current Aux 1 Output is allowed to source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level	3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
597195 - BCM PROG, AUXILIARY LOAD For (2) Rocker Switch							
TEM_Aux1_Output_Fuse_Param	1990	This is the maximum current Aux 1 Output is allowed to source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux2_Output_Fuse_Param	1991	This is the maximum current Aux 2 Output is allowed to source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level	3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
TEM_Aux2_Loadshed_Level	3274	Loadshed level parameter for TEM Aux Switch 2	1	No_Units	0	3	1
597196 - BCM PROG, AUXILIARY LOAD For (3) Rocker Switch							
TEM_Aux1_Output_Fuse_Param	1990	This is the maximum current Aux 1 Output is allowed to source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux2_Output_Fuse_Param	1991	This is the maximum current Aux 2 Output is allowed to source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux3_Output_Fuse_Param	1992	This is the maximum current Aux 3 Output is allowed to source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level	3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
TEM_Aux2_Loadshed_Level	3274	Loadshed level parameter for TEM Aux Switch 2	1	No_Units	0	3	1
TEM_Aux3_Loadshed_Level	3275	Loadshed level parameter for TEM Aux Switch 3	1	No_Units	0	3	1
597197 - BCM PROG, AUXILIARY LOAD For (4) Rocker Switch							
TEM_Aux1_Output_Fuse_Param	1990	This is the maximum current Aux 1 Output is allowed to source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux2_Output_Fuse_Param	1991	This is the maximum current Aux 2 Output is allowed to source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux3_Output_Fuse_Param	1992	This is the maximum current Aux 3 Output is allowed to source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux4_Output_Fuse_Param	1995	This is the maximum current Aux 4 Output is allowed to source before the virtual fusing turns the output off.	20	A	0	20	0.1

TEM_Aux1_Loadshed_Level	3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
TEM_Aux2_Loadshed_Level	3274	Loadshed level parameter for TEM Aux Switch 2	1	No_Units	0	3	1
TEM_Aux3_Loadshed_Level	3275	Loadshed level parameter for TEM Aux Switch 3	1	No_Units	0	3	1
TEM_Aux4_Loadshed_Level	3276	Loadshed level parameter for TEM Aux Switch 4	1	No_Units	0	3	1
597198 - BCM PROG, AUXILIARY LOAD For (5) Rocker Switch							
TEM_Aux1_Output_Fuse_Param	1990	This is the maximum current Aux 1 Output is allowed to source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux2_Output_Fuse_Param	1991	This is the maximum current Aux 2 Output is allowed to source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux3_Output_Fuse_Param	1992	This is the maximum current Aux 3 Output is allowed to source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux4_Output_Fuse_Param	1995	This is the maximum current Aux 4 Output is allowed to source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux5_Output_Fuse_Param	1999	This is the maximum current Aux 5 Output is allowed to source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level	3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
TEM_Aux2_Loadshed_Level	3274	Loadshed level parameter for TEM Aux Switch 2	1	No_Units	0	3	1
TEM_Aux3_Loadshed_Level	3275	Loadshed level parameter for TEM Aux Switch 3	1	No_Units	0	3	1
TEM_Aux4_Loadshed_Level	3276	Loadshed level parameter for TEM Aux Switch 4	1	No_Units	0	3	1
TEM_Aux5_Loadshed_Level	3277	Loadshed level parameter for TEM Aux Switch 5	1	No_Units	0	3	1
597199 - BCM PROG, AUXILIARY LOAD For (6) Rocker Switch							
TEM_Aux1_Output_Fuse_Param	1990	This is the maximum current Aux 1 Output is allowed to source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux2_Output_Fuse_Param	1991	This is the maximum current Aux 2 Output is allowed to source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux3_Output_Fuse_Param	1992	This is the maximum current Aux 3 Output is allowed to source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux4_Output_Fuse_Param	1995	This is the maximum current Aux 4 Output is allowed to source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux5_Output_Fuse_Param	1999	This is the maximum current Aux 5 Output is allowed to source before	20	A	0	20	0.1

		the virtual fusing turns the output off.					
TEM_Aux6_Output_Fuse_Param	2000	This is the maximum current Aux 6 Output is allowed to source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level	3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
TEM_Aux2_Loadshed_Level	3274	Loadshed level parameter for TEM Aux Switch 2	1	No_Units	0	3	1
TEM_Aux3_Loadshed_Level	3275	Loadshed level parameter for TEM Aux Switch 3	1	No_Units	0	3	1
TEM_Aux4_Loadshed_Level	3276	Loadshed level parameter for TEM Aux Switch 4	1	No_Units	0	3	1
TEM_Aux5_Loadshed_Level	3277	Loadshed level parameter for TEM Aux Switch 5	1	No_Units	0	3	1
TEM_Aux6_Loadshed_Level	3278	Loadshed level parameter for TEM Aux Switch 6	1	No_Units	0	3	1
597202 – BCM PROG, ADDITIONAL 6 AUXILIARY SW							
TEM_Aux7_Output_Fuse_Param	2100	This is the maximum current Aux 7 Output is allowed to source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux8_Output_Fuse_Param	2101	This is the maximum current Aux 8 Output is allowed to source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux9_Output_Fuse_Param	2102	This is the maximum current Aux 9 Output is allowed to source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux10_Output_Fuse_Param	2103	This is the maximum current Aux 10 Output is allowed to source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux11_Output_Fuse_Param	2104	This is the maximum current Aux 11 Output is allowed to source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux12_Output_Fuse_Param	2105	This is the maximum current Aux 12 Output is allowed to source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux7_Loadshed_Level	3339	Loadshed level parameter for TEM Aux Switch 7	1	No_Units	0	3	1
TEM_Aux8_Loadshed_Level	3340	Loadshed level parameter for TEM Aux Switch 8	1	No_Units	0	3	1
TEM_Aux9_Loadshed_Level	3341	Loadshed level parameter for TEM Aux Switch 9	1	No_Units	0	3	1
TEM_Aux10_Loadshed_Level	3342	Loadshed level parameter for TEM Aux Switch 10	1	No_Units	0	3	1
TEM_Aux11_Loadshed_Level	3343	Loadshed level parameter for TEM Aux Switch 11	1	No_Units	0	3	1
TEM_Aux12_Loadshed_Level	3344	Loadshed level parameter for TEM Aux Switch 12	1	No_Units	0	3	1

Parameter Definitions:

- **TEM_Aux1_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_1_Output of RPM #1. Default is set at 20 amps.
- **TEM_Aux2_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_2_Output of RPM #1. Default is set at 20 amps.
- **TEM_Aux3_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_3_Output of RPM #1. Default is set at 20 amps.
- **TEM_Aux4_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_4_Output of RPM #1. Default is set at 20 amps.
- **TEM_Aux5_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_5_Output of RPM #1. Default is set at 20 amps.
- **TEM_Aux6_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_6_Output of RPM #1. Default is set at 20 amps.
- **TEM_Aux7_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_7_Output of RPM #2. Default is set at 20 amps.
- **TEM_Aux8_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_8_Output of RPM #2. Default is set at 20 amps.
- **TEM_Aux9_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_9_Output of RPM #2. Default is set at 20 amps.
- **TEM_Aux10_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_10_Output of RPM #2. Default is set at 20 amps.
- **TEM_Aux11_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_11_Output of RPM #2. Default is set at 20 amps.
- **TEM_Aux12_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_12_Output of RPM #2. Default is set at 20 amps.
- **TEM_Aux1_LoadShed_Level** – This is the level at which the Aux1 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux2_LoadShed_Level** – This is the level at which the Aux2 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).

- **TEM_Aux3_LoadShed_Level** – This is the level at which the Aux3 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux4_LoadShed_Level** – This is the level at which the Aux4 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux5_LoadShed_Level** – This is the level at which the Aux5 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux6_LoadShed_Level** – This is the level at which the Aux6 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux7_LoadShed_Level** – This is the level at which the Aux7 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux8_LoadShed_Level** – This is the level at which the Aux8 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux9_LoadShed_Level** – This is the level at which the Aux9 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux10_LoadShed_Level** – This is the level at which the Aux10 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux11_LoadShed_Level** – This is the level at which the Aux11 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux12_LoadShed_Level** – This is the level at which the Aux12 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).

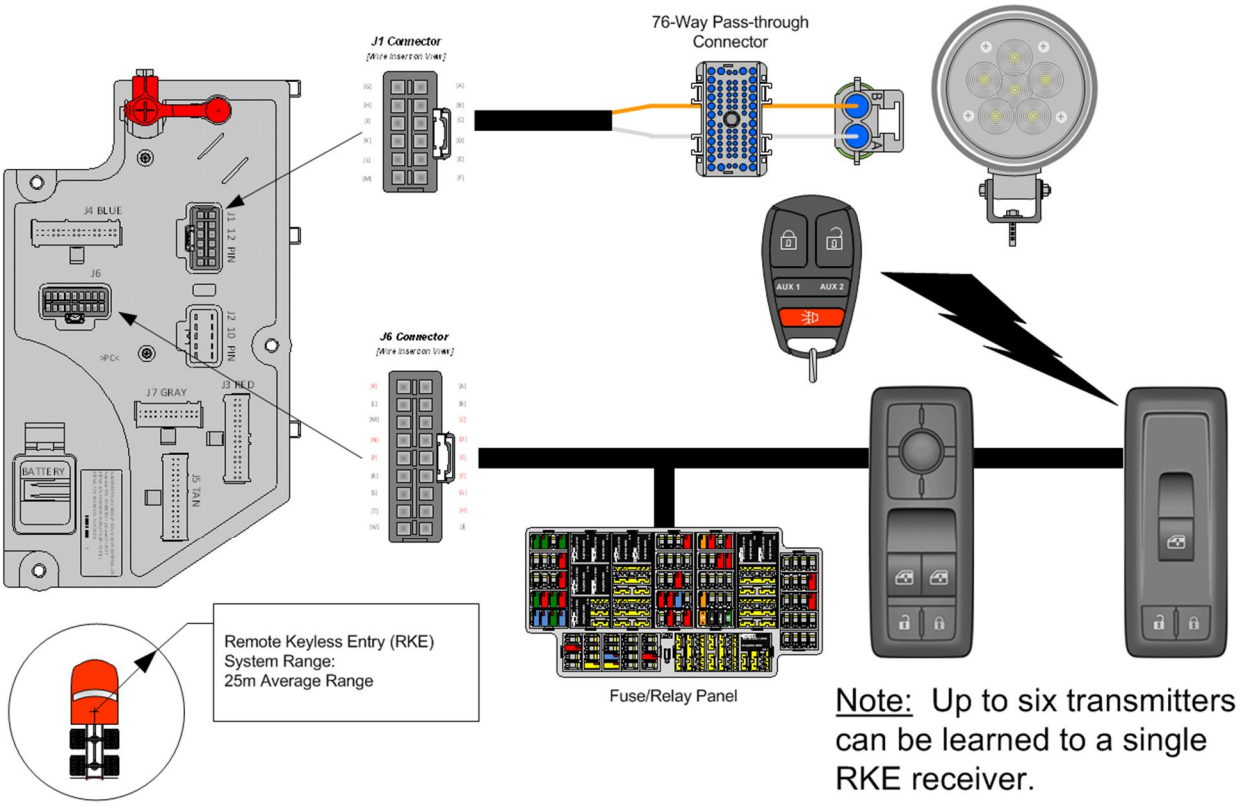
23. Power Window, Locks, Remote Keyless Entry

23.1. 16VCN: KEYLESS ENTRY SYSTEM REMOTE with Panic and Auxiliary Work Light Function, Includes One Key Fob (Transmitter).

Extended Description: Driver and passenger power windows and door locks are available. The driver switches are located on the driver door trim and can control all door windows and locks. The passenger switches are located on the passenger door trim and can control the passenger door window and all locks. Window express down is available for all window switches by momentarily depressing the window down switch. The driver can “lockout” all non-driver controllable window switches by momentarily depressing the lower left switch on the driver door control.

Feature 16VCN requires that feature 16WJU or 16WJV in addition to one of the available Work Light accommodation features be installed on the vehicle in order to operate correctly. This feature assigns the Aux button on the keyless entry remote to control the work light output from the Body Control Module. When this feature is installed on the vehicle, the work light can be turned “ON” and “OFF” using the AUX button on the key fob.

System Block Diagram:



Body Controller Software Feature Codes:

- 597103 - BCM PROG, KEYLESS ENTRY REMOTE
- 597107 - BCM PROG, REMOTE FOR WORKLIGHTS
    - Both features are required

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
Panic_Enable	644	Enable/disable the Panic Mode for the Keyless Remote. A value of 1 enables and a value of 0 disables the feature.	ON	No_Units	N/A	N/A	N/A
Chirp_Enable	647	Enable/disable the remote lock "chirp" for Keyless Remote. A value of 1 enables and a value of 0 disables the feature.	ON	No_Units	N/A	N/A	N/A

Parameter Definitions:

- **Panic_Enable –** When this parameter is set to ON. This enables the Panic Mode feature of the keyless remote. The panic function chirps the horn on/off in unison with the headlights and park lights for three minutes when the panic button on the key fob is pressed and the IGN switch is off. If the button is pressed prior to the time out period, the lights and horn will go off.

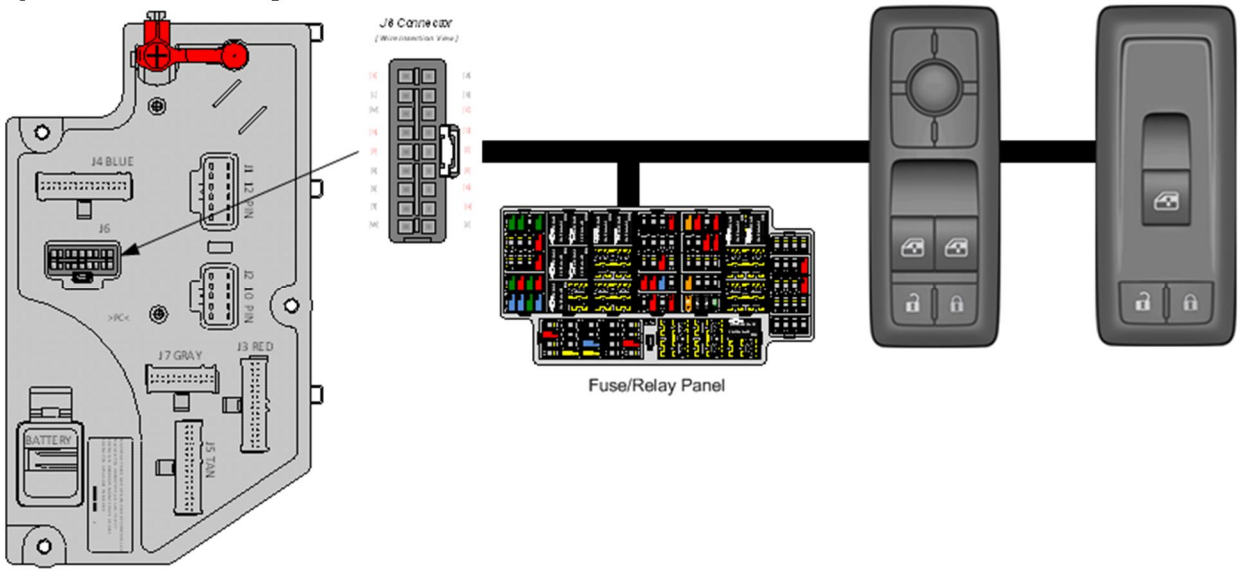
- **Chirp_Enable** - When this parameter is set to ON. This enables the Chirp feature for the keyless remote. The chirp feature results in a “chirping” sound when the truck is locked and unlocked.

23.2. 16WJU: WINDOW, POWER (2-Door) and Power Locks, Left and Right Doors.

Extended Description: Driver and passenger power windows and door locks are available. The driver switches are located on the driver door trim and can control all door windows and locks. The passenger switches are located on the passenger door trim and can control the passenger door window and all locks. Window express down is available for all window switches by momentarily depressing the window down switch. The driver can “lockout” all non-driver controllable window switches by momentarily depressing the lower left switch on the driver door control.

Feature 16WJU provides driver and passenger door pods for the control of power windows and locks for standard and extended cabs with two doors.

System Block Diagram:



Body Controller Software Feature Codes:

- 597061 - BCM PROG, POWER WINDOW/DR LOCK 2 DOORS

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
AutoLock_Speed	652	Autolock speed. The speed at which the vehicle doors will lock automatically (requires power locks); Setting this parameter to zero will disable Auto Door Locks.	15	MPH	0	155	1

Parameter Definitions:

- **AutoLock_Speed** – This parameter sets the vehicle speed at which the vehicle doors will lock automatically. A value of ZERO will disable the Auto Door Lock feature.

How to Add This Feature:
Remote Keyless Entry (RKE) feature can be added if power windows/power locks (16WJU / 16WJV) are already installed on the vehicle by replacing the standard front passenger side door pod with an RKE compatible door pod.

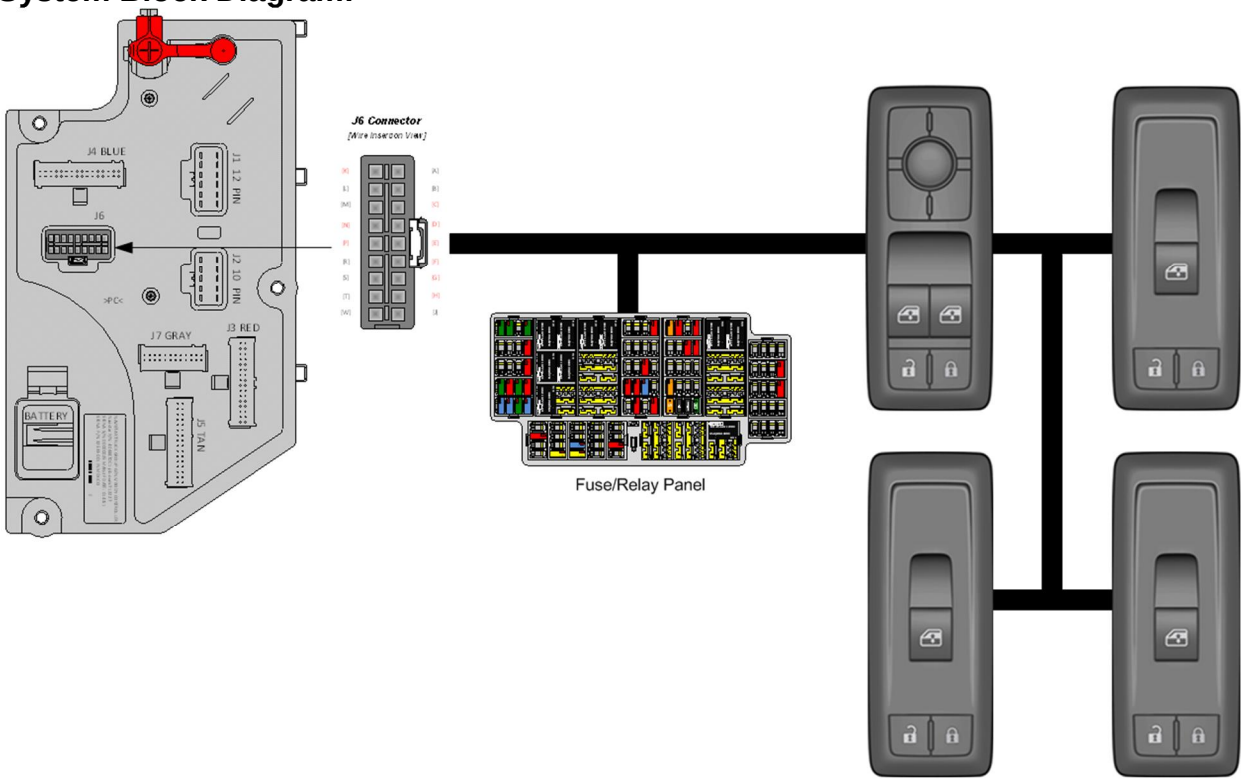
- Software feature code 597061 must be removed and software feature code 597103 be enabled on the vehicle using the Diamond Logic® Builder software (see local dealer).
- Remove the existing passenger side door pod and replace it with the RKE compatible pod, part number in table [below]. The desired quantity of remote key fobs, part number in table [below], must also be ordered.
- Set the applicable programmable parameters, chirp enable, panic enable - see above, using the Diamond Logic® Builder software (see local dealer). The auto lock with default vehicle speed option should already be set since power locks are installed.
- As noted above, additional wiring may be required if one or both of the Aux buttons on the key fob is to be utilized for the operation of a work light or other function/s.
- Program the RKE receiver to recognize the desired key fobs as described above.

23.3. 16WJV: WINDOW, POWER (4-Door) and Power Door Locks, Front and Rear Doors, Left and Right.

Extended Description: Driver and passenger power windows and door locks are available as well as power window control for rear cab doors on crew cabs. The driver switches are located on the driver door trim and can control all door windows and locks. The passenger switches are located on the passenger door trim and can control the passenger door window and all locks. Rear cab window controls are located on the left and right rear doors of the cab. Window express down is available for all window switches by momentarily depressing the window down switch. The driver can “lockout” all non-driver controllable window switches by momentarily depressing the lower left switch on the driver door control.

Feature 16WJV provides driver, passenger and rear passenger door pods for the control of power windows and locks for crew cabs with four doors.

System Block Diagram:



Body Controller Software Feature Codes:

- 597109 - BCM PROG, POWER WINDOW/DR LOCK 4 DOORS

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
AutoLock_Speed	652	Autolock speed. The speed at which the vehicle doors will lock	15	MPH	0	155	1

		automatically (requires power locks); Setting this parameter to zero will disable Auto Door Locks.					

Parameter Definitions:

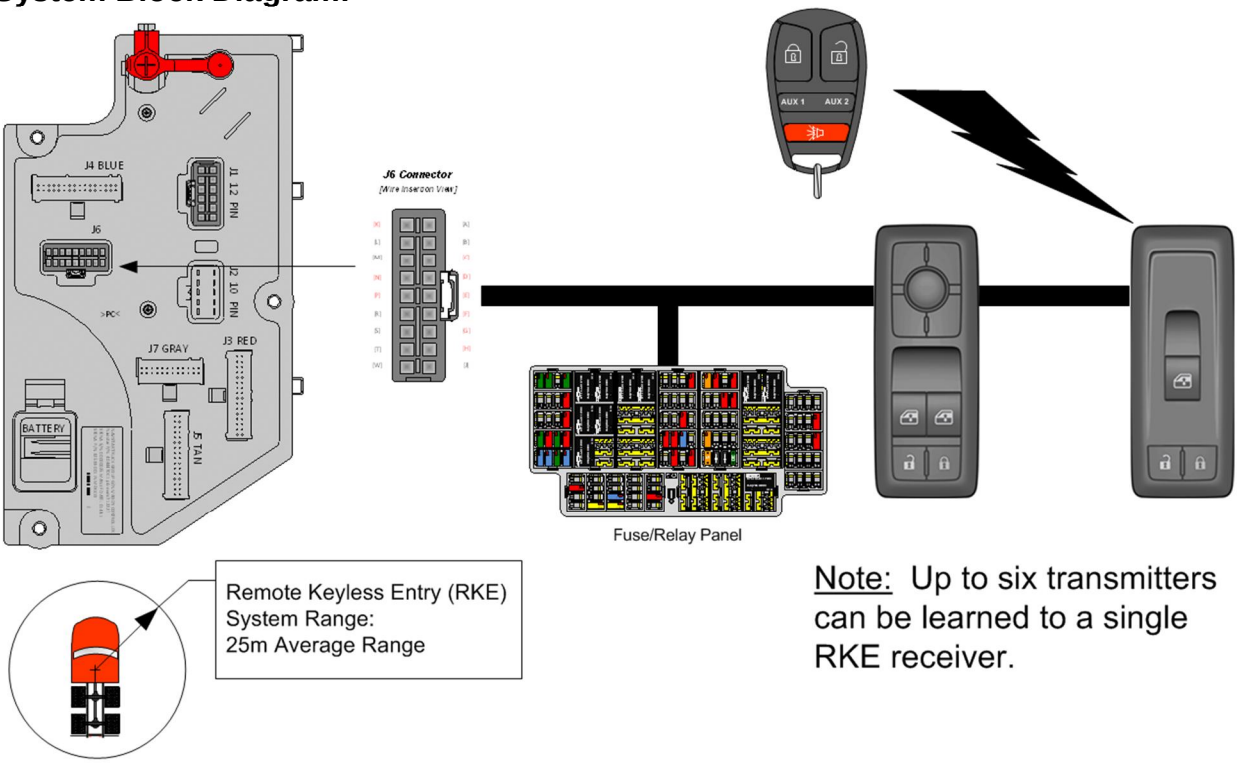
- **AutoLock_Speed** – This parameter sets the vehicle speed at which the vehicle doors will lock automatically. A value of ZERO will disable the Auto Door Lock feature.

23.4. 16WKZ: KEYLESS ENTRY SYSTEM REMOTE with Panic and Auxiliary Buttons, Includes One Key Fob (Transmitter).

Extended Description: Driver and passenger power windows and door locks are available as well as power window control for rear cab doors on crew cabs. The driver switches are located on the driver door trim and can control all door windows and locks. The passenger switches are located on the passenger door trim and can control the passenger door window and all locks. Rear cab window controls are located on the left and right rear doors of the cab. Window express down is available for all window switches by momentarily depressing the window down switch. The driver can “lockout” all non-driver controllable window switches by momentarily depressing the lower left switch on the driver door control.

Feature 16WKZ provides a key fob for remote keyless entry into the cab of the vehicle. The key fob includes buttons to lock/unlock the cab doors, a Panic alarm button to sound the city horn and an Auxiliary button that can be utilized with advanced logic programming for customer desired functionality. This feature requires 16WJU or 16WJV is also installed on the vehicle.

System Block Diagram:



Body Controller Software Feature Codes:

- 597103 - BCM PROG, KEYLESS ENTRY REMOTE

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
Panic_Enable	644	Enable/disable the Panic Mode for the Keyless Remote. A value of 1 enables and a value of 0 disables the feature.	ON	No_Units	N/A	N/A	N/A
Chirp_Enable	647	Enable/disable the remote lock "chirp" for Keyless Remote. A value of 1 enables and a value of 0 disables the feature.	ON	No_Units	N/A	N/A	N/A

Parameter Definitions:

- **Panic_Enable** – When this parameter is set to ON. This enables the Panic Mode feature of the keyless remote. The panic function chirps the horn on/off in unison with the headlights and park lights for three minutes when the panic button on the key fob is pressed and the IGN switch is off. If the button is pressed prior to the time out period, the lights and horn will go off.

- **Chirp_Enable** - When this parameter is set to ON. This enables the Chirp feature for the keyless remote. The chirp feature results in a “chirping” sound when the truck is locked and unlocked.

Parts Associated with This Feature:

Parts Associated with Remote Keyless Entry System

Transmitter Learning Process:

This is the “learning” process for teaching a remote entry transmitter (“Key fob”) to a passenger door pod mounted receiver.

The learning process begins by following the idiosyncratic steps delineate below:

- Step 1 – Simultaneously depress and hold both the lock and unlock buttons located in the passenger door pod.
- Step 2 – With both the lock and unlock buttons depressed, push down and release the passenger door pod’s window control switch actuator at least five times within a time interval of two seconds or less.
- Step 3 – Both lock and unlock buttons (located in the passenger door pod) can be released after completion of step 3.
- Step 4 – Depress any of the five buttons located on the RKE transmitter (Key fob).

Exiting the Transmitter “Learning” process:

- The door pod will exit the “learning” process once it enters the sleep state.
- Once the “learning” state has been successfully entered [Step 2] and there is no activity after 30-seconds the passenger door pod will automatically exit the RKE (Key fob) “learn” mode.

24. Productivity Features

24.1. 08THN: TURN SIGNAL SWITCH with Hazard Flasher Overrides Brake, to be done With Programming System Controller.

Extended Description: This feature is for vehicles with combination stop and turn lamps. This feature allows hazard flashers to continue flashing when service brakes are applied. This feature is used on bulk fuel transport where some states require hazard lamps to remain flashing when stopped at R/R crossings. When the Stop Override Hazard programmable parameter is turned on, this allows hazard flashers on the rear of the vehicle to stop flashing and stay illuminated as long as the brake pedal is depressed.
This feature can be enabled or disabled by using the Diamond Logic® Builder software

Body Controller Software Feature Codes:

- 597105 – BCM PROG, HAZARD OVERRIDE BRAKE LIGHTS
- This is an ordering code only. It is not visible in Diamond Logic Builder software.

Body Controller Software Feature Code Parameters:
There are no parameters available with 597105. There is one parameter associated with HAZARD OVERRIDE found in feature 597026

Parameter	ID	Description	Default	Units	Min	Max
Stop_Override_Hazard_Enabled	2317	Enable/disable stoplights override hazard lights. A value of 1 enables and a value of 0 disables the feature.	0	NONE	0	1

Parameter Definitions:

- **Stop_Override_Hazard_Enabled** - Activating this parameter means that the brake lights will override the hazard lights if both are activated at the same time.

24.2. 08WXB: HEADLIGHT WARNING BUZZER Sounds When Head Light Switch is on and Ignition Switch is in “Off” Position.

Extended Description: The purpose of the Headlight Warning Buzzer is to alert drivers if their headlights and/or park lights are still on when the vehicle is turned off. This feature can be enabled or disabled by using the Diamond Logic® Builder software.

Body Controller Software Feature Codes:

- 597089 – BCM PROG, HEADLIGHT REMINDER #2

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
Exterior_Lamp_Warn	2179	Use this parameter to enable exterior lamp reminder. A value of 1 will result in an audible warning when the vehicle is off and the lights are on. A value of 0 is used to deactivate the audible warning.	ON	On/Off	0	1	N/A

Parameter Definitions:

- **Exterior_Lamp_Warn** - Use this parameter to enable exterior lamp reminder. A value of 1 will result in an audible warning when the vehicle is off and the lights are on. A value of 0 is used to deactivate the audible warning.

24.3. 08WXD: ALARM, PARKING BRAKE Electric Horn Sounds in Repetitive Manner when Vehicle Park Brake is “NOT” Set, With Ignition (IGN) “OFF” and any Door Open.

Extended Description: The purpose of the parking brake alarm is to alert drivers if they fail to set the park brake before exiting the vehicle. For this feature to be activated, ALL the following conditions MUST occur:

- The IGN switch is in the off position.
- The parking brake is not set prior to the ignition key being turned to the “OFF” position.
- A cab door is open.

Once activated, the electric horn will sound for 60 seconds, which is the factory default setting for this
programmable parameter. To deactivate the parking brake alarm, press on the brake pedal to immediately quiet
the horn, and then make sure the IGN switch is in the run or accessory position and set the park brake.

Body Controller Software Feature Codes:

- 597057 – BCM PROG, PARK BRAKE ALARM

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
Park_Brake_Alarm_Duration	1951	The amount of time the horn will sound when alarm activated	60	S	0	180	1
Park_Brake_Alarm_Suspend	1952	Amount of time the alarm will suspend before brake is depressed	10	S	0	60	10
Park_Brake_Alarm_KeyOff_Enable	2457	Park brake alarm depends on Key=Off, or not	1	On/Off	0	1	1

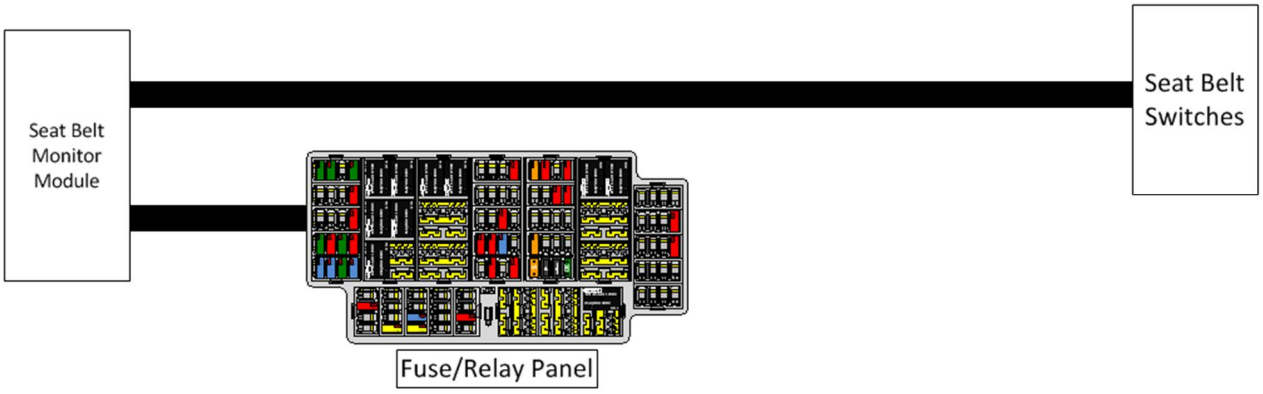
Parameter Definitions:

- **Park_Brake_Alarm_Duration** – This parameter determines the maximum amount of time the horn will sound when the alarm is triggered. The default time is set at 60 seconds, but the range is from 0 to 180-seconds.
- **Park_Brake_Alarm_Suspend** – This parameter determines the amount of time the alarm will suspend after the brake pedal is depressed in order to allow the driver to complete the steps to deactivate the park brake alarm. The default time is set at 10 seconds, but the range is from 0 to 60-seconds.
- **Park_Brake_Alarm_KeyOff_Enable** – This parameter allows for the selection of the park brake alarm to work in either key off or key on/off.

24.4. 16HCK: SEATBELT WARNING PREWIRE for 1 to 3 Belts.

Extended Description: This feature includes Seat Belt Switches and Seat Sensors for belted positions in the cab and a harness routed to the center of the dash for the aftermarket installation of a Data Recorder and Seat Belt Indicator System.

System Block Diagram:

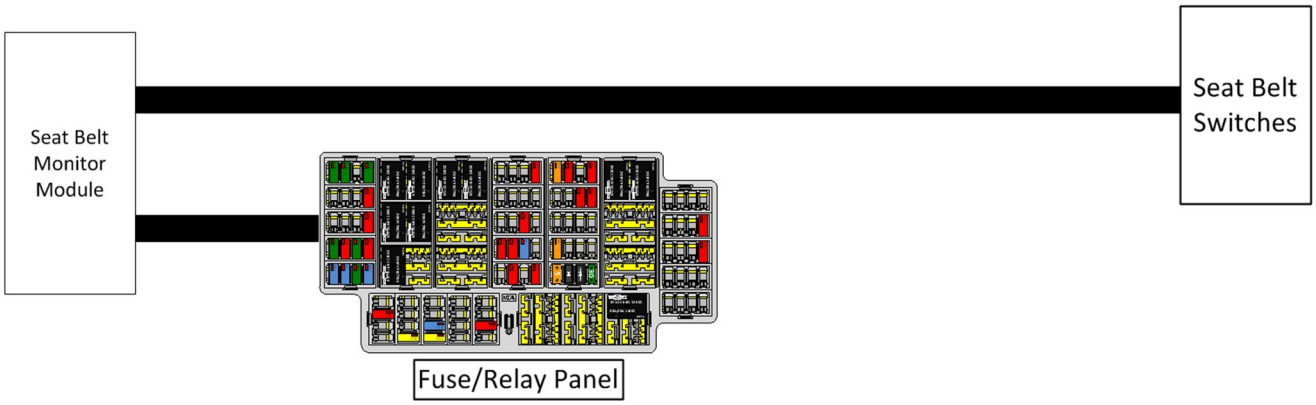


16HCK System Diagram

24.5. 16HCL: SEATBELT WARNING PREWIRE for 4 to 6-Belts.

Extended Description: This feature includes Seat Belt Switches and Seat Sensors for belted positions in the cab and a harness routed to the center of the dash for the aftermarket installation of a Data Recorder and Seat Belt Indicator System.

System Block Diagram:



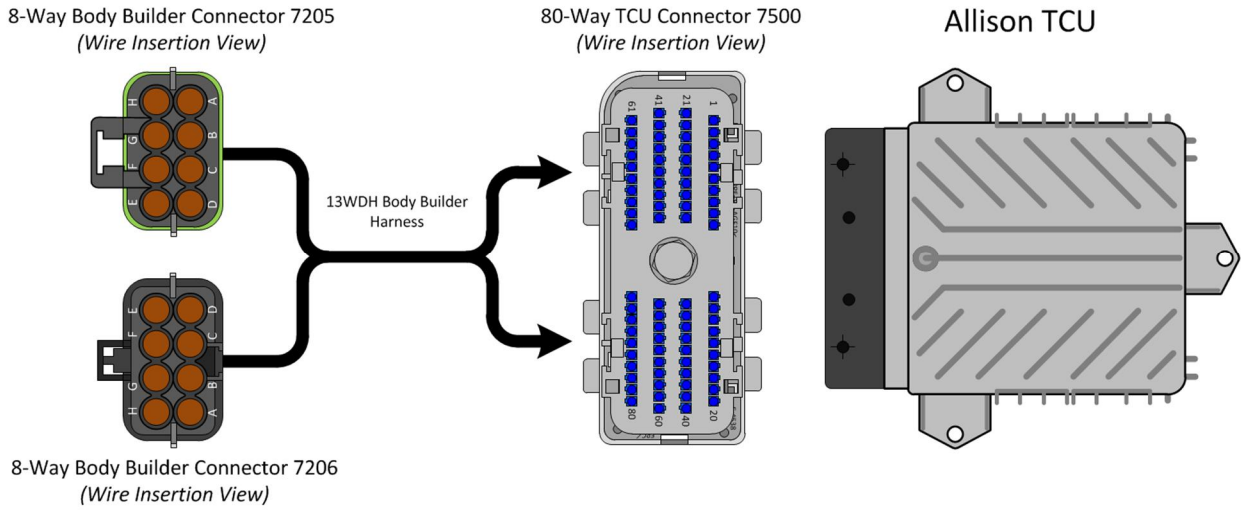
16HCL System Diagram

25. PTO (Power Take OFF) and PTO Hourmeter

25.1. 13WDH Description: WIRING, TRANS BODY BUILDER Installed Wiring for Transmission/PTO Controls, for Allison 2000, 2100, 2200, 2400, 2500 Series Transmission Only

Extended Description: Preprogrammed control functions that are designed to meet customer needs are available as optional equipment on Allison transmissions. The body builder Input/Output connectors will provide the appropriate wires needed for the vehicle to interface with the transmission. These connectors provide vehicle speed, sump/retarder temperature, PTO enable capability, range indicator, retarder indicator and various other inputs as required by application.

System Block Diagram:

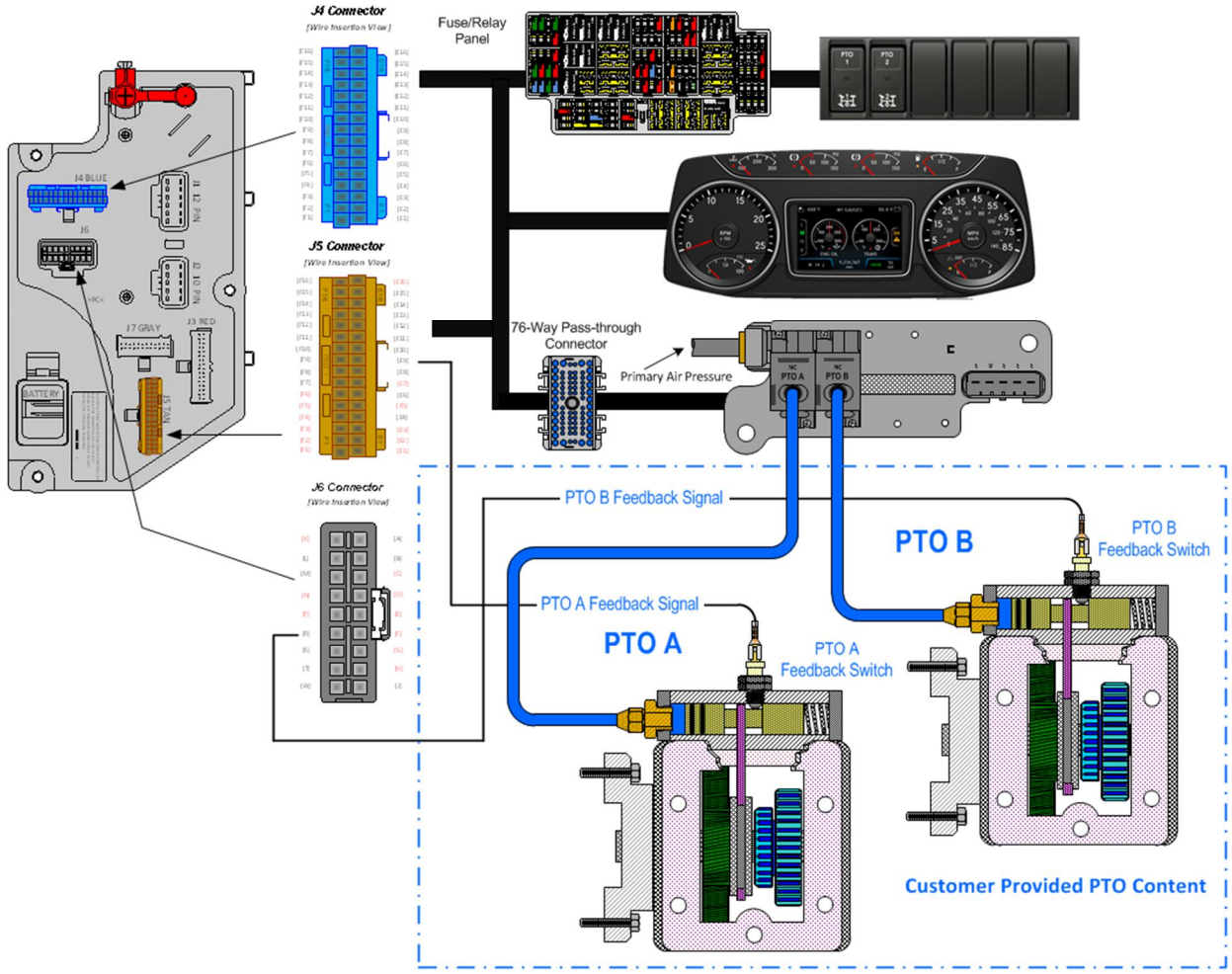


13WDH System Diagram

25.2. 13WDN: PTO CONTROL, DASH MOUNTED for Customer Provided PTO; Includes 2-Independent Illuminated Switches, 2-Electric/Air Solenoids, Piping and Wiring.

Extended Description: This feature provides the customer with the ability to control two customer-supplied PTOs with two in-dash switches and two air solenoids. This feature provides all the software and wiring to the air solenoids located inside the driver's side frame rail next to the transmission. Customer must supply and route air plumbing to the PTOs. Programmable parameters allow customers to customize the functionality of their PTOs.

System Block Diagram:



Note: It is important to insure the Power Take Off (PTO) internal shift mechanism has adequate pneumatic potential communication for the full engagement of the PTO coupling/decoupling mechanism. Full engagement is typically a function of the available pneumatic potential sourced from the chassis primary air pressure supply system which [can] limit the full power transmission capabilities of the PTO coupling and decoupling mechanism/s.

Body Controller Software Feature Codes:

- 597133 - BCM PROG, **TRANSMISSION PTO Dual**
  - **597133 is exclusive to LT and RH**
- 597306 - BCM PROG, **TRANSMISSION PTO Dual PTO, with 42 Parameters**
  - **597306 is exclusive to MV and HV**
- **Note: if Eaton Procision Transmission is being used add:**
  - **597276 – BCM PROG, PTO ENABLER J1939 Engagement Consent for Eaton Procision**

Body Controller Software Feature Code Parameters:

All Parameters below are exclusive to 597133							
On – Indicates a 1 is set for the parameter							
Off – Indicates a 0 is set in for this parameter							
Parameter	**ID**	**Description**	**Default**	**Units**	**Min**	**Max**	**Step**
PTOb_Clutch_Pedal	2017	Set to 0 to ignore the clutch pedal or if the vehicle does not have a clutch pedal. Set to 1 to ensure that the clutch pedal is depressed for engagement.	OFF	N/A	N/A	N/A	N/A
PTOb_Engine_Running	2018	Set to 0 to ignore the engine. Set to 1 to ensure that the engine is running to engage and disengage if the engine stops running.	ON	N/A	N/A	N/A	N/A
PTOb_Engine_Speed_Range	2019	Set to a speed that the engine must be below for the PTO to engage. The PTO will disengage if the engine speed becomes greater than the set value. If engine speed is required for PTO operation, please use PTOb_Engine_Speed_Enable to enable this interlock.	300	RPM	300	3000	10
PTOb_Transmission_Neutral	2020	NOTE, this parameter will only work for vehicles with automated manual transmissions. Set to 0 to ignore the transmission state. Set to 1 to ensure that the transmission is in neutral for engagement.	OFF	N/A	N/A	N/A	N/A
PTOb_Park_Brake	2021	Set to 0 to ignore the park brake. Set to 1 to ensure that the park brake is set for engage and disengage if the park brake is released.	ON	N/A	N/A	N/A	N/A
PTOb_Vehicle_Speed_Range	2031	Set to the speed that the vehicle must be below for the PTO to engage. The PTO will disengage if the vehicle speed becomes greater than the set value. If vehicle speed is required for PTO operation, please use PTOb_Vehicle_Speed_Enable parameter to enable this interlock.	3.00	MPH	1	100	1
PTOb_Engine_Speed_Enable	2050	Set to 0 to ignore the engine speed. Set to 1 to require the vehicle to be	OFF	N/A	N/A	N/A	N/A

		below a specified engine speed for the PTO to be engaged. Please use PTOb_Engine_Speed_Range to specify the appropriate engine speed if this parameter is set to 1.					
PTOb_Engine_Speed_Alarm_Enable	2051	Set to 0 to not have an alarm based on engine speed. Set to 1 to have a speed that an alarm will sound when the PTO is engaged and the engine speed is greater than the set value. Please use PTOb_Engine_Speed_Alarm_Range to specify the appropriate engine speed if this parameter is set to 1.	OFF	N/A	N/A	N/A	N/A
PTOb_Vehicle_Speed_Enable	2052	Set to 0 to ignore the vehicle speed. Set to 1 to require the vehicle to be below a specified vehicle speed for the PTO to engage. Please use PTOb_Vehicle_Speed_Range to specify the appropriate vehicle speed if this parameter is set to 1.	ON	N/A	N/A	N/A	N/A
PTOb_Vehicle_Speed_Alarm_Enable	2053	Set to 0 to not have an alarm based on vehicle speed. Set to 1 to have a speed limit that an alarm will sound when the PTO is engaged and the vehicle speed is greater than the set value. Please use PTOb_Vehicle_Speed_Alarm_Range to specify the appropriate vehicle speed if this parameter is set to 1.	OFF	N/A	N/A	N/A	N/A
PTOb_Engine_Speed_Alarm_Range	2140	Set to a speed that an alarm will sound when the PTO is engaged and the engine speed is greater than the set value. If an engine speed alarm is required for PTO operation, please use PTOb_Engine_Speed_Alarm_Enable parameter to enable this alarm.	300	RPM	300	3000	10
PTOb_Vehicle_Speed_Alarm_Range	2141	Set to a speed limit that an alarm will sound when the PTO is engaged and the vehicle speed is greater than the set value. If the vehicle alarm is required for PTO operation, please use PTOb_Vehicle_Speed_Alarm_Enable to enable this alarm.	3.00	MPH	1	100	1
PTOa_Vehicle_Speed_Enable	2242	Set to 0 to ignore the vehicle speed. Set to 1 to require the vehicle to be below a specified vehicle speed for the PTO to engage. Please use PTOa_Vehicle_Speed_Range to specify the appropriate vehicle speed if this parameter is set to 1.	ON	N/A	N/A	N/A	N/A
PTOa_Engine_Speed_Enable	2243	Set to 0 to ignore the engine speed. Set to 1 to require the vehicle to be below a specified engine speed for the PTO to be engaged. Please use PTOa_Engine_Speed_Range to specify the appropriate engine speed if this parameter is set to 1.	OFF	N/A	N/A	N/A	N/A

PTOa_Engine_Speed_Alarm_Enable	2244	Set to 0 to not have an alarm based on engine speed. Set to 1 to have a speed that an alarm will sound when the PTO is engaged and the engine speed is greater than the set value. Please use PTOa_Engine_Speed_Alarm_Range to specify the appropriate engine speed if this parameter is set to 1.	OFF	N/A	N/A	N/A	N/A
PTOa_Vehicle_Speed_Alarm_Enable	2267	Set to 0 to not have an alarm based on vehicle speed. Set to 1 to have a speed limit that an alarm will sound when the PTO is engaged and the vehicle speed is greater than the set value. Please use PTOa_Vehicle_Speed_Alarm_Range to specify the appropriate vehicle speed if this parameter is set to 1.	OFF	N/A	N/A	N/A	N/A
PTOa_Clutch_Pedal	2333	Set to 0 to ignore the clutch pedal or if the vehicle does not have a clutch pedal. Set to 1 to ensure that the clutch pedal is depressed for engagement.	OFF	N/A	N/A	N/A	N/A
PTOa_Engine_Running	2334	Set to 0 to ignore the engine. Set to 1 to ensure that the engine is running to engage and disengage if the engine stops running.	ON	N/A	N/A	N/A	N/A
PTOa_Engine_Speed_Range	2336	Set to a speed that the engine must be below for the PTO to engage. The PTO will disengage if the engine speed becomes greater than the set value. If engine speed is required for PTO operation, please use PTOa_Engine_Speed_Enable to enable this interlock.	300	RPM	300	3000	10
PTOa_Park_Brake	2338	Set to 0 to ignore the park brake. Set to 1 to ensure that the park brake is set for engage and disengage if the park brake is released.	ON	N/A	N/A	N/A	N/A
PTOa_Vehicle_Speed_Range	2339	Set to the speed that the vehicle must be below for the PTO to engage. The PTO will disengage if the vehicle speed becomes greater than the set value. If vehicle speed is required for PTO operation, please use PTOa_Vehicle_Speed_Enable parameter to enable this interlock.	3.00	MPH	1	100	1
PTOa_Engine_Speed_Alarm_Range	2340	Set to a speed that an alarm will sound when the PTO is engaged and the engine speed is greater than the set value. If an engine speed alarm is required for PTO operation, please use PTOa_Engine_Speed_Alarm_Enable parameter to enable this alarm.	300	RPM	300	3000	10
PTOa_Vehicle_Speed_Alarm_Range	2342	Set to a speed limit that an alarm will sound when the PTO is engaged and the vehicle speed is greater	3.00	MPH	1	100	1

		than the set value. If the vehicle alarm is required for PTO operation, please use PTOa_Vehicle_Speed_Alarm_Enable to enable this alarm.					
PTOa_Transmission_Neutral	2355	NOTE, this parameter will only work for vehicles with automated manual transmissions. Set to 0 to ignore the transmission state. Set to 1 to ensure that the transmission is in neutral for engagement.	OFF	N/A	N/A	N/A	N/A
All Parameters below are exclusive to 597306							
On – Indicates a 1 is set for the parameter							
Off – Indicates a 0 is set in for this parameter							
Parameters 2069-2149 all apply to PTO							
Parameter	**ID**	**Description**	**Default**	**Units**	**Min**	**Max**	**Step**
ENGAGEMENT PARAMETERS							
TEM_PTO_PK_Brake_Engmnt_Inhib	2087	If this Parameter is 1, the PTO will not be engaged if the Park Brake is not set.	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Non_Neut_Engmnt_Inhib	2088	If this Parameter is 1, the PTO will not be engaged if the Transmission is not in Neutral or Park	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Neut_Engmnt_Inhib	2089	If this Parameter is 1, the PTO will only be engaged if the Transmission is not in Neutral or Park	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_Engmnt_Inhib	2090	If this Parameter is 1, the PTO will not be engaged if the vehicle speed is over the value set in TEM_PTO_Veh_Spd_Engmnt_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_Engmnt_Limit	2091	See TEM_PTO_Veh_Spd_Engmnt_Inhib	3.00	MPH	1	100	1
TEM_PTO_Eng_Spd_Engmnt_Inhib	2092	If this Parameter is 1, the PTO will not be engaged if the engine speed is over the value set in TEM_PTO_Eng_Spd_Engmnt_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTO_Eng_Spd_Engmnt_Limit	2093	See TEM_PTO_Eng_Spd_Engmnt_Inhib	1000	RPM	100	5000	0.1
TEM_PTO_Cltch_Engmnt_Inhib	2094	If this Parameter is 1, the PTO will not be engaged if the clutch pedal is not depressed	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Brake_Engmnt_Inhib	2095	If this Parameter is 1, the PTO will not be engaged if the brake pedal is not depressed	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Eng_Run_Engmnt_Inhib	2096	If this Parameter is 1, the PTO will not be engaged if the engine is not running	ON	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_Engmnt_Inhib	2097	If this Parameter is 1, the PTO will not be engaged if the primary vehicle air pressure is below TEM_PTO_Air_Pres_Engmnt_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_Engmnt_Limit	2098	See TEM_PTO_Air_Pres_Engmnt_Inhib	90	PSI	1	500	1

TEM_PTO_Mast_Switch_Engmnt_Inhib	2099	If this Parameter is 1, the PTO will not be engaged if the vehicle master switch is not ON.	OFF	N/A	N/A	N/A	N/A
ESC_PTO_Engaged_Param	2199	Active State for the PTO engagement feedback switch.	1	No_Units	0	3	1
DISENGAGEMENT PARAMETERS							
TEM_PTO_Pk_Brake_Disengages	2108	if this Parameter is 1, the PTO will be disengaged if the Park Brake is released	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Non_Neut_Disengages	2109	if this Parameter is 1, the PTO will be disengaged if the transmission is taken out of neutral	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_Disengages	2110	if this Parameter is 1, the PTO will be disengaged if the vehicle speed is over the value set in TEM_PTO_Veh_Spd_DisEng_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_DisEng_Limit	2111	see TEM_PTO_Veh_Spd_Disengages	3	MPH	3	100	1
TEM_PTO_Eng_Spd_Disengages	2112	if this Parameter is 1, the PTO will be disengaged if the vehicle speed is over the value set in TEM_PTO_Eng_Spd_DisEng_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Eng_Spd_DisEng_Limit	2113	see TEM_PTO_Eng_Spd_Disengages	2000	RPM	0	5000	1
TEM_PTO_Eng_Run_Disengages	2114	If this Parameter is 1, the PTO will be disengaged if the engine is turned off	ON	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_Disengages	2115	if this Parameter is 1, the PTO will be disengaged if the primary air pressure is below the value set in TEM_PTO_Air_Pres_DisEng_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_DisEng_Limit	2116	see TEM_PTO_Air_Pres_Disengages	80	PSI	0	500	1
TEM_PTO_Ext_Input_Disengages	2117	if this Parameter is 1, the PTO will be disengaged if the external input designated for this purpose is active	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Mast_Switch_Disengages	2118	if this Parameter is 1, the PTO will be disengaged if the vehicle master switch is not ON	OFF	N/A	N/A	N/A	N/A
RE-ENGAGEMENT PARAMETERS							
TEM_PTO_Key_State_Allow_ReEng	2069	If this parameter is set, the PTO will be allowed to reengage when the key state is returned to run.	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_Allow_ReEng	2119	if this Parameter is 1, the PTO will be reengaged after a disengage due to vehicle overspeed when the vehicle speed is below TEM_PTO_Veh_Spd_Engmnt_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Eng_Spd_Allow_ReEng	2120	if this Parameter is 1, the PTO will be reengaged after a disengage due to engine overspeed when the engine speed is below TEM_PTO_Eng_Spd_Engmnt_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTO_Ext_Input_Allow_ReEng	2121	if this Parameter is 1, the PTO will be reengaged after a disengage due to the designated external input when the external input is no longer active	OFF	N/A	N/A	N/A	N/A

TEM_PTO_Eng_Run_Allow_ReEng	2122	if this Parameter is 1, the PTO will be reengaged after a disengage due to the engine stopping when the engine is restarted	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Mast_Swtch_Allow_ReEng	2123	if this Parameter is 1, the PTO will be reengaged after a disengage due to the master switch being turned off when the master switch is turned on again	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_Allow_ReEng	2124	if this Parameter is 1, the PTO will be reengaged after a disengage due to low vehicle air pressure when the primary air pressure is over TEM_PTO_Air_Pres_Engmnt_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Non_Neut_Allow_ReEng	2148	if this Parameter is 1, the PTO will be reengaged after a disengage due to transmission out of neutral when the transmission is placed back into neutral.	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Pk_Brake_Allow_ReEng	2149	if this Parameter is 1, the PTO will be reengaged after a disengage due to park brake released when the park brake is reapplied.	OFF	N/A	N/A	N/A	N/A
ALARMS PARAMETERS							
TEM_PTO_Pk_Brake_Alarms	2131	if this Parameter is 1, an alarm will sound if the PTO is engaged and the park brake is released	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Non_Neut_Alarms	2132	if this Parameter is 1, an alarm will sound if the PTO is engaged and transmission is taken out of neutral	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_Alarms	2133	if this Parameter is 1, an alarm will sound if the PTO is engaged and the vehicle speed is over TEM_PTO_Veh_Spd_Alarm_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_Alarm_Limit	2134	See TEM_PTO_Veh_Spd_Alarms	5	MPH	3	100	1
TEM_PTO_Eng_Spd_Alarms	2135	if this Parameter is 1, an alarm will sound if the PTO is engaged and the engine speed is over TEM_PTO_Eng_Spd_Alarm_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Eng_Spd_Alarm_Limit	2136	See TEM_PTO_Eng_Spd_Alarms	1400	RPM	0	5000	0.1
TEM_PTO_Eng_Run_Alarms	2137	if this Parameter is 1, an alarm will sound if the PTO is engaged and the engine is turned off	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_Alarms	2138	if this Parameter is 1, an alarm will sound if the primary air pressure is below TEM_PTO_Air_Pres_Alarm_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_Alarm_Limit	2139	See TEM_PTO_Air_Pres_Alarms	0	PSI	0	500	1
Parameters 2676-2772 all apply to PTOb							
ENGAGEMENT PARAMETERS							
TEM_PTOb_Brake_Engmnt_Inhib	2676	If this Parameter is 1, the PTOb will not be engaged if the brake pedal is not depressed	OFF	N/A	N/A	N/A	N/A

TEM_PTOb_Cltch_Engmnt_Inhib	2677	If this Parameter is 1, the PTOb will not be engaged if the clutch pedal is not depressed	OFF	N/A	N/A	N/A	N/A
TEM_PTOb_Eng_Run_Engmnt_Inhib	2678	If this Parameter is 1, the PTOb will not be engaged if the engine is not running	ON	N/A	N/A	N/A	N/A
TEM_PTOb_Eng_Spd_Engmnt_Inhib	2679	If this Parameter is 1, the PTOb will not be engaged if the engine speed is over the value set in TEM_PTOb_Eng_Spd_Engmnt_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTOb_Eng_Spd_Engmnt_Limit	2680	See TEM_PTOb_Eng_Spd_Engmnt_Inhib	1000	RPM	100	5000	0.1
TEM_PTOb_Neut_Engmnt_Inhib	2681	If this Parameter is 1, the PTOb will only be engaged if the Transmission is NOT in Neutral or Park	OFF	N/A	N/A	N/A	N/A
TEM_PTOb_Non_Neut_Engmnt_Inhib	2682	If this Parameter is 1, the PTOb will not be engaged if the Transmission is not in Neutral or Park	OFF	N/A	N/A	N/A	N/A
TEM_PTOb_PK_Brake_Engmnt_Inhib	2683	If this Parameter is 1, the PTOb will not be engaged if the Park Brake is not set.	OFF	N/A	N/A	N/A	N/A
TEM_PTOb_Veh_Spd_Engmnt_Inhib	2684	If this Parameter is 1, the PTOb will not be engaged if the vehicle speed is over the value set in TEM_PTOb_Veh_Spd_Engmnt_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTOb_Veh_Spd_Engmnt_Limit	2685	See TEM_PTOb_Veh_Spd_Engmnt_Inhib	3.00	MPH	1	100	1
TEM_PTOb_Air_Pres_Engmnt_Inhib	2711	If this Parameter is 1, the PTOb will not be engaged if the primary vehicle air pressure is below TEM_PTOb_Air_Pres_Engmnt_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTOb_Air_Pres_Engmnt_Limit	2712	See TEM_PTOb_Air_Pres_Engmnt_Inhib	90	PSI	1	500	1
TEM_PTOb_Mast_Swtch_Engmnt_Inhib	2714	If this Parameter is 1, the PTOb will not be engaged if the vehicle master switch is not ON.	OFF	N/A	N/A	N/A	N/A
ESC_PTOb_Engaged_Param	3357	Active State for the PTOb engagement feedback switch.	1	No_Units	0	3	1
DISENGAGEMENT PARAMETERS							
TEM_PTOb_Eng_Run_Disengages	2686	If this Parameter is 1, the PTOb will be disengaged if the engine is turned off	ON	N/A	N/A	N/A	N/A
TEM_PTOb_Eng_Spd_DisEng_Limit	2687	see TEM_PTOb_Eng_Spd_Disengages	2000	RPM	0	5000	1
TEM_PTOb_Eng_Spd_Disengages	2688	if this Parameter is 1, the PTOb will be disengaged if the vehicle speed is over the value set in TEM_PTO_Eng_Spd_DisEng_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTOb_Non_Neut_Disengages	2689	if this Parameter is 1, the PTOb will be disengaged if the transmission is taken out of neutral	OFF	N/A	N/A	N/A	N/A

TEM_PTOb_Pk_Brake_Disengages	2690	if this Parameter is 1, the PTOb will be disengaged if the Park Brake is released	OFF	N/A	N/A	N/A	N/A
TEM_PTOb_Veh_Spd_Disengages	2691	if this Parameter is 1, the PTOb will be disengaged if the vehicle speed is over the value set in TEM_PTOb_Veh_Spd_DisEng_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTOb_Veh_Spd_DisEng_Limit	2692	see TEM_PTOb_Veh_Spd_Disengages	3	MPH	3	100	1
TEM_PTOb_Mast_Swtch_Disengages	2718	if this Parameter is 1, the PTOb will be disengaged if the vehicle master switch is not ON	OFF	N/A	N/A	N/A	N/A
TEM_PTOb_Air_Pres_Disengages	2716	if this Parameter is 1, the PTOb will be disengaged if the primary air pressure is below the value set in TEM_PTOb_Air_Pres_DisEng_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTOb_Air_Pres_DisEng_Limit	2719	see TEM_PTOb_Air_Pres_Disengages	80	PSI	0	500	1
TEM_PTOb_Ext_Input_Disengages	2772	if this Parameter is 1, the PTOb will be disengaged if the external input designated for this purpose is active	OFF	N/A	N/A	N/A	N/A
RE-ENGAGEMENT PARAMETERS							
TEM_PTOb_Eng_Run_Allow_ReEng	2693	if this Parameter is 1, the PTOb will be reengaged after a disengage due to the engine stopping when the engine is restarted	OFF	N/A	N/A	N/A	N/A
TEM_PTOb_Eng_Spd_Allow_ReEng	2694	if this Parameter is 1, the PTOb will be reengaged after a disengage due to engine overspeed when the engine speed is below TEM_PTOb_Eng_Spd_Engmnt_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTOb_Key_State_Allow_ReEng	2696	If this parameter is set, the PTOb will be allowed to reengage when the key state is returned to run.	OFF	N/A	N/A	N/A	N/A
TEM_PTOb_Non_Neut_Allow_ReEng	2697	if this Parameter is 1, the PTOb will be reengaged after a disengage due to transmission out of neutral when the transmission is placed back into neutral.	OFF	N/A	N/A	N/A	N/A
TEM_PTOb_Pk_Brake_Allow_ReEng	2698	if this Parameter is 1, the PTOb will be reengaged after a disengage due to park brake released when the park brake is reapplied.	OFF	N/A	N/A	N/A	N/A
TEM_PTOb_Veh_Spd_Allow_ReEng	2699	if this Parameter is 1, the PTOb will be reengaged after a disengage due to vehicle overspeed when the vehicle speed is below TEM_PTOb_Veh_Spd_Engmnt_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTOb_Air_Pres_Allow_ReEng	2713	if this Parameter is 1, the PTOb will be reengaged after a disengage due to low vehicle air pressure when the primary air pressure is over TEM_PTOb_Air_Pres_Engmnt_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTOb_Mast_Swtch_Allow_ReEng	2715	if this Parameter is 1, the PTO will be reengaged after a disengage due	OFF	N/A	N/A	N/A	N/A

		to the master switch being turned off when the master switch is turned on again					
TEM_PTOb_Ext_Input_Allow_ReEng	2771	if this Parameter is 1, the PTOb will be reengaged after a disengage due to the designated external input when the external input is no longer active	OFF	N/A	N/A	N/A	N/A
ALARMS PARAMETERS							
TEM_PTOb_Air_Pres_Alarms	2700	if this Parameter is 1, an alarm will sound if the primary air pressure is below TEM_PTOb_Air_Pres_Alarm_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTOb_Air_Pres_Alarm_Limit	2701	See TEM_PTOb_Air_Pres_Alarms	0	PSI	0	500	1
TEM_PTOb_Eng_Run_Alarms	2702	if this Parameter is 1, an alarm will sound if the PTOb is engaged and the engine is turned off	OFF	N/A	N/A	N/A	N/A
TEM_PTOb_Eng_Spd_Alarm_Limit	2703	See TEM_PTOb_Eng_Spd_Alarms	1400	RPM	0	5000	0.1
TEM_PTOb_Eng_Spd_Alarms	2704	if this Parameter is 1, an alarm will sound if the PTOb is engaged and the engine speed is over TEM_PTOb_Eng_Spd_Alarm_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTOb_Non_Neut_Alarms	2705	if this Parameter is 1, an alarm will sound if the PTOb is engaged and transmission is taken out of neutral	OFF	N/A	N/A	N/A	N/A
TEM_PTOb_Pk_Brake_Alarms	2706	if this Parameter is 1, an alarm will sound if the PTOb is engaged and the park brake is released	OFF	N/A	N/A	N/A	N/A
TEM_PTOb_Veh_Spd_Alarms	2708	if this Parameter is 1, an alarm will sound if the PTOb is engaged and the vehicle speed is over TEM_PTOb_Veh_Spd_Alarm_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTOb_Veh_Spd_Alarm_Limit	2709	See TEM_PTOb_Veh_Spd_Alarms	5	MPH	3	100	1

Parameter Definitions:

Parameters exclusive to 597133

- **PTOb_Clutch_Pedal** – 2017 Set to 0 to ignore the clutch pedal or if the vehicle does not have a clutch pedal. Set to 1 to ensure that the clutch pedal is depressed for PTOb engagement.
- **PTOb_Engine_Running** – 2018 Set to 0 to ignore the engine. Set to 1 to ensure that the engine is running to engage and disengage if the engine stops running.
- **PTOb_Engine_Speed_Range** – 2019 Set to a speed that the engine must be below for the PTOb to engage. The PTOb will disengage if the engine speed becomes greater than the set value. If engine speed is required for PTO operation, please use PTOb_Engine_Speed_Enable to enable this interlock.
- **PTOb_Transmission_Neutral** – 2020 NOTE: this parameter will only work for vehicles with automated manual transmissions. Set to 0 to ignore the

transmission state. Set to 1 to ensure that the transmission is in neutral for engagement.

- **PTOb_Park_Brake** – 2021 Set to 0 to ignore the park brake. Set to 1 to ensure that the park brake is set for engage and disengage if the park brake is released.
- **PTOb_Vehicle_Speed_Range** – 2031 Set to the speed that the vehicle must be below for the PTOb to engage. The PTOb will disengage if the vehicle speed becomes greater than the set value. If vehicle speed is required for PTO operation, please use PTOb_Vehicle_Speed_Enable parameter to enable this interlock.
- **PTOb_Engine_Speed_Enable** – 2050 Set to 0 to ignore the engine speed. Set to 1 to require the vehicle to be below a specified engine speed for the PTOb to be engaged. Please use PTOb_Engine_Speed_Range to specify the appropriate engine speed if this parameter is set to 1.
- **PTOb_Engine_Speed_Alarm_Enable** – 2051 Set to 0 to not have an alarm based on engine speed. Set to 1 to have a speed that an alarm will sound when the PTOb is engaged and the engine speed is greater than the set value. Please use PTOb_Engine_Speed_Alarm_Range to specify the appropriate engine speed if this parameter is set to 1.
- **PTOb_Vehicle_Speed_Enable** – 2052 Set to 0 to ignore the vehicle speed. Set to 1 to require the vehicle to be below a specified vehicle speed for the PTO to engage. Please use PTOb_Vehicle_Speed_Range to specify the appropriate vehicle speed if this parameter is set to 1.
- **PTOb_Vehicle_Speed_Alarm_Enable** – 2053 Set to 0 to not have an alarm based on vehicle speed. Set to 1 to have a speed limit that an alarm will sound when the PTOb is engaged and the vehicle speed is greater than the set value. Please use PTOb_Vehicle_Speed_Alarm_Range to specify the appropriate vehicle speed if this parameter is set to 1.
- **PTOb_Engine_Speed_Alarm_Range** – 2140 Set to the speed that the vehicle must be below for the PTOb to engage. The PTOb will disengage if the vehicle speed becomes greater than the set value. If vehicle speed is required for PTOb operation, please use PTOb_Engine_Speed_Alarm_Enable parameter to enable this interlock.
- **PTOb_Vehicle_Speed_Alarm_Range** – 2141 Set to a speed limit that an alarm will sound when the PTOb is engaged and the vehicle speed is greater than the set value. If the vehicle alarm is required for PTOb operation, please use PTOb_Vehicle_Speed_Alarm_Enable to enable this alarm.
- **PTOa_Vehicle_Speed_Enable** – 2242 Set to 0 to ignore the vehicle speed. Set to 1 to require the vehicle to be below a specified vehicle speed for the PTOa to engage. Please use PTOa_Vehicle_Speed_Range to specify the appropriate vehicle speed if this parameter is set to 1.
- **PTOa_Engine_Speed_Enable** – 2243 Set to 0 to ignore the engine speed. Set to 1 to require the vehicle to be below a specified engine speed for the PTOa to be

engaged. Please use PTOa_Engine_Speed_Range to specify the appropriate engine speed if this parameter is set to 1.

- **PTOa_Engine_Speed_Alarm_Enable** – 2244 Set to 0 to not have an alarm based on engine speed. Set to 1 to have a speed that an alarm will sound when the PTOa is engaged and the engine speed is greater than the set value. Please use PTOa_Engine_Speed_Alarm_Range to specify the appropriate engine speed if this parameter is set to 1.
- **PTOa_Vehicle_Speed_Alarm_Enable** – 2267 Set to 0 to not have an alarm based on vehicle speed. Set to 1 to have a speed limit that an alarm will sound when the PTOa is engaged and the vehicle speed is greater than the set value. Please use PTOa_Vehicle_Speed_Alarm_Range to specify the appropriate vehicle speed if this parameter is set to 1.
- **PTOa_Clutch_Pedal** – 2333 Set to 0 to ignore the clutch pedal or if the vehicle does not have a clutch pedal. Set to 1 to ensure that the clutch pedal is depressed for PTOa engagement.
- **PTOa_Engine_Running** – 2334 Set to 0 to ignore the engine. Set to 1 to ensure that the engine is running to engage and disengage if the engine stops running.
- **PTOa_Engine_Speed_Range** – 2336 Set to a speed that the engine must be below for the PTOa to engage. The PTOa will disengage if the engine speed becomes greater than the set value. If engine speed is required for PTOa operation, please use PTOa_Engine_Speed_Enable to enable this interlock.
- **PTOa_Park_Brake** – 2338 Set to 0 to ignore the park brake. Set to 1 to ensure that the park brake is set for engage and disengage if the park brake is released.
- **PTOa_Vehicle_Speed_Range** – 2339 Set to the speed that the vehicle must be below for the PTOa to engage. The PTOa will disengage if the vehicle speed becomes greater than the set value. If vehicle speed is required for PTOa operation, please use PTOa_Vehicle_Speed_Enable parameter to enable this interlock.
- **PTOa_Engine_Speed_Alarm_Range** – 2340 Set to the speed that the vehicle must be below for the PTOa to engage. The PTOa will disengage if the vehicle speed becomes greater than the set value. If vehicle speed is required for PTOa operation, please use PTOa_Engine_Speed_Alarm_Enable parameter to enable this interlock.
- **PTOa_Vehicle_Speed_Alarm_Range** – 2342 Set to a speed limit that an alarm will sound when the PTOa is engaged and the vehicle speed is greater than the set value. If the vehicle alarm is required for PTOa operation, please use PTOa_Vehicle_Speed_Alarm_Enable to enable this alarm.
- **PTOa_Transmission_Neutral** – 2355 NOTE: this parameter will only work for vehicles with automated manual transmissions. Set to 0 to ignore the transmission state. Set to 1 to ensure that the transmission is in neutral for engagement.
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Parameters exclusive to 597306

- **ENGAGEMENT PARAMETERS**

  These parameters set rules that must be met for the PTO to be engaged.

  In Example

  If TEM_PTO_Air_Pres_Engmnt_Inhib parameter is turned on, the PTO cannot be engaged if the primary vehicle air pressure is below the programmable parameter set by TEM_PTO_Air_Pres_Engmnt_Limit. **for Dash Switch**

- **TEM_PTO_PK_Brake_Engmnt_Inhib** – 2087 If this parameter is turned on, then the brake pedal must be depressed for the PTO to engage.
- **TEM_PTO_Non_Neut_Engmnt_Inhib** – 2088 If this parameter is turned on, then the transmission must be in Neutral or Park for the PTO to be engaged.
- **TEM_PTO_Neut_Engmnt_Inhib** – 2089 If this parameter is turned on, then the PTO can only be engaged if the transmission is NOT in Neutral or Park.
- **TEM_PTO_Veh_Spd_Engmnt_Inhib** – 2090 If this parameter is turned on, then the PTO cannot be engaged if the vehicle speed is over the value prescribed by TEM_PTO_Veh_Spd_Engmnt_Limit.
- **TEM_PTO_Veh_Spd_Engmnt_Limit** – 2091 This parameter sets the physical value for the Vehicle Speed Inhibit.
- **TEM_PTO_Eng_Spd_Engmnt_Inhib** –2092 If this is parameter is turned on, then the PTO cannot be engaged if the engine speed is over a certain threshold, which is defined as a programmable parameter in TEM_PTO_Eng_Spd_Engmnt_Limit.
- **TEM_PTO_Eng_Spd_Engmnt_Limit** – 2093 This parameter sets the physical value for the Engine Speed Inhibit.
- **TEM_PTO_Cltch_Engmnt_Inhib** – 2094 If this parameter is turned on, then the clutch pedal must be depressed for the PTO to engage.
- **TEM_PTO_Brake_Engmnt_Inhib** – 2095 If this parameter is turned on, then the brake pedal must be depressed for the PTO to engage.
- **TEM_PTO_Eng_Run_Engmnt_Inhib** – 2096 If this parameter is turned on, then the engine must be running for the PTO to be engaged.
- **TEM_PTO_Air_Pres_Engmnt_Inhib** – 2097 If this parameter is turned on, the PTO cannot be engaged if the primary vehicle air pressure is below the programmable parameter set by TEM_PTO_Air_Pres_Engmnt_Limit.
- **TEM_PTO_Air_Pres_Engmnt_Limit** – 2098 This parameter sets the physical value for the Air Pressure Inhibit.
- **TEM_PTO_Mast_Swtch_Engmnt_Inhib** – 2099 If this parameter is turned on, then the PTO will not be engaged if the vehicle master switch is not ON.
- **ESC_PTO_Engaged_Param** – 2199 This parameter indicates the state that the Body Controller (BC) will read as active for the TEM PTO feedback switch (as it goes into the BC input). This active state will be used to indicate when the PTO is engaged:
  - 0 = Input active when open circuit

    - 1 = Input active when grounded
    - 2 = not used
    - 3 = Input active when at 12V.
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- **DISENGAGEMENT PARAMETERS**
  These parameters set the conditions under which the PTO will be disengaged.
- **TEM_PTO_Pk_Brake_Disengages** – 2108 If this parameter is turned on, then the PTO will be disengaged if the Park Brake is released.
- **TEM_PTO_Non_Neut_Disengages** – 2109 If this parameter is turned on, then the PTO will be disengaged if the transmission is taken out of neutral.
- **TEM_PTO_Veh_Spd_Disengages** – 2110 If this parameter is turned on, then the PTO will be disengaged if the vehicle speed is over the valued specified by TEM_PTO_Veh_Spd_DisEng_Limit.
- **TEM_PTO_Veh_Spd_DisEng_Limit** – 2111 This parameter sets the physical value for the Vehicle Speed disengagement.
- **TEM_PTO_Eng_Spd_Disengages** – 2112 If this parameter is turned on, then the PTO will be disengaged if the engine speed rises above the value set by TEM_PTO_Eng_Spd_DisEng_Limit.
- **TEM_PTO_Eng_Spd_DisEng_Limit** – 2113 This parameter sets the physical value for the Engine Speed disengagement.
- **TEM_PTO_Eng_Run_Disengages** – 2114 If this parameter is turned on, then the PTO will be disengaged if the engine is turned off.
- **TEM_PTO_Air_Pres_Disengages** – 2115 If this parameter is turned on, then the PTO will be disengaged if the primary air pressure is below the value set in TEM_PTO_Air_Pres_DisEng_Limit.
- **TEM_PTO_Air_Pres_DisEng_Limit** – 2116 This parameter sets the physical value for the Air Pressure disengagement.
- **TEM_PTO_Ext_Input_Disengages** – 2117 If this parameter is turned on, then the PTO will be disengaged if the external input designated for this purpose is active.
- **TEM_PTO_Mast_Swtch_Disengages** – 2118 If this parameter is turned on, then the PTO will be disengaged if the vehicle master switch is not ON.
- **Re-ENGAGEMENT PARAMETERS**
  These parameters set the conditions under which the PTO will be re-engaged due to a parameter disengagement.
- **TEM_PTO_Key_State_Allow_ReEng** – 2069 If this parameter is turned on, then the PTO will be allowed to reengage when the key state is returned to run.
- **TEM_PTO_Veh_Spd_Allow_ReEng** – 2119 If this parameter is turned on, then the PTO will be reengaged (after disengagement due to the vehicle being over the vehicle speed value) when the vehicle speed falls below TEM_PTO_Veh_Spd_Engmnt_Limit.

- **TEM_PTO_Eng_Spd_Allow_ReEng** – 2120 If this parameter is turned on, then the PTO will be reengaged (after disengagement due to engine overspeed) when the engine speed falls below TEM_PTO_Eng_Spd_Engmnt_Limit.
- **TEM_PTO_Ext_Input_Allow_ReEng** – 2121 If this parameter is turned on, then the PTO will be reengaged (after a disengage due to the designated external input being in active state) when the external input is no longer in active state.
- **TEM_PTO_Eng_Run_Allow_ReEng** – 2122 If this parameter is turned on, then the PTO will be reengaged (after disengagement due to engine stopping) when the engine is restarted.
- **TEM_PTO_Mast_Swtch_Allow_ReEng** – 2123 If is turned on, then the PTO will be reengaged after a disengage due to the master switch being turned off when the master switch is turned on again.
- **TEM_PTO_Air_Pres_Allow_ReEng** – 2124 If this parameter is turned on, then the PTO will be reengaged (after disengagement due to low air pressure) when the primary air pressure rises about the value specified by TEM_PTO_Air_Pres_Engmnt_Limit.
- **TEM_PTO_Non_Neut_Allow_ReEng** – 2148 If this parameter is turned on, then the PTO will be reengaged (after disengagement due to transmission out of neutral) when the transmission is placed back into neutral.
- **TEM_PTO_Pk_Brake_Allow_ReEng** – 2149 If this parameter is turned on, then the PTO will be reengaged (after disengagement due to park brake released) when the park brake is reapplied.
- **ALARM PARAMETERS**
  These parameters utilize the gauge cluster to sound an alarm to the driver when certain programmable parameters are violated.
- **TEM_PTO_Pk_Brake_Alarms** – 2131 If this parameter is turned on, then an audible alarm will sound in the cab if the PTO is engaged and the park brake is released.
- **TEM_PTO_Non_Neut_Alarms** – 2132 If this parameter is turned on, then an audible alarm will sound in the cab if the PTO is engaged and the transmission is taken out of neutral.
- **TEM_PTO_Veh_Spd_Alarms** – 2133 If this is turned on, then an audible alarm will sound if the PTO is engaged and the vehicle speed is over the value set by TEM_PTO_Veh_Spd_Alarm_Limit
- **TEM_PTO_Veh_Spd_Alarm_Limit** – 2134 This parameter sets the physical value for the Vehicle Speed Alarm.
- **TEM_PTO_Eng_Spd_Alarms** – 2135 If this is turned on, then an alarm will sound if the PTO is engaged and the engine speed is over the value set by TEM_PTO_Eng_Spd_Alarm_Limit
- **TEM_PTO_Eng_Spd_Alarm_Limit** – 2136 This parameter sets the physical value for the Engine Speed Alarm.

- **TEM_PTO_Eng_Run_Alarms** – 2137 If this parameter is turned on, then an audible alarm will sound in the cab if the PTO is engaged and the engine is turned off.
- **TEM_PTO_Air_Pres_Alarms** – 2138 If this parameter is turned on, then an audible alarm will sound in the cab if the primary air pressure drops below the value specified by TEM_PTO_Air_Pres_Alarm_Limit.
- **TEM_PTO_Air_Pres_Alarm_Limit** – 2139 This parameter sets the physical value for the Air Pressure Alarm.
- **PTOb specific parameters**
- **ENGAGEMENT PARAMETERS PTOb**
- **TEM_PTOb_Brake_Engmnt_Inhib** – 2676 If this parameter is turned on, then the brake pedal must be depressed for the PTOb to engage.
- **TEM_PTOb_Cltch_Engmnt_Inhib** – 2677 If this parameter is turned on, then the clutch pedal must be depressed for the PTOb to engage.
- **TEM_PTOb_Eng_Run_Engmnt_Inhib** – 2678 If this parameter is turned on, then the engine must be running for the PTOb to be engaged.
- **TEM_PTOb_Eng_Spd_Engmnt_Inhib** –2679 If this is parameter is turned on, then the PTOb cannot be engaged if the engine speed is over a certain threshold, which is defined as a programmable parameter in TEM_PTOb_Eng_Spd_Engmnt_Limit.
- **TEM_PTOb_Eng_Spd_Engmnt_Limit** – 2680 This parameter sets the physical value for the Engine Speed Inhibit.
- **TEM_PTOb_Neut_Engmnt_Inhib** – 2681 If this parameter is turned on, then the PTOb can only be engaged if the transmission is NOT in Neutral or Park**.**
- **TEM_PTOb_Non_Neut_Engmnt_Inhib** – 2682 If this parameter is turned on, then the transmission must be in Neutral or Park for the PTOb to be engaged.
- **TEM_PTOb_PK_Brake_Engmnt_Inhib** – 2683 If this parameter is turned on, then the brake pedal must be depressed for the PTOb to engage.
- **TEM_PTOb_Veh_Spd_Engmnt_Inhib** – 2684 If this parameter is turned on, then the PTOb cannot be engaged if the vehicle speed is over the value prescribed by TEM_PTO_Veh_Spd_Engmnt_Limit.
- **TEM_PTOb_Veh_Spd_Engmnt_Limit** – 2685 This parameter sets the physical value for the Vehicle Speed Inhibit.
- **TEM_PTOb_Air_Pres_Engmnt_Inhib** – 2711 If this parameter is turned on, the PTOb cannot be engaged if the primary vehicle air pressure is below the programmable parameter set by TEM_PTOb_Air_Pres_Engmnt_Limit.
- **TEM_PTOb_Air_Pres_Engmnt_Limit** – 2712 This parameter sets the physical value for the Air Pressure Inhibit for PTOb.
- **TEM_PTOb_Mast_Swtch_Engmnt_Inhib** – 2714 If this parameter is turned on, then the PTOb will not be engaged if the vehicle master switch is not ON.
- **ESC_PTOb_Engaged_Param** – 3357 This parameter indicates the state that the Body Controller (BC) will read as active for the TEM PTOb feedback switch (as it

goes into the BC input). This active state will be used to indicate when the PTOb is engaged:
    - 0 = Input active when open circuit
    - 1 = Input active when grounded
    - 2 = not used
    - 3 = Input active when at 12V.
-
- **DISENGAGEMENT PARAMETERS PTOb**
- **These parameters set the conditions under which the PTOb will be disengaged**
- **TEM_PTOb_Eng_Run_Disengages** – 2686 If this parameter is turned on, then the PTOb will be disengaged if the engine is turned off.
- **TEM_PTOb_Eng_Spd_DisEng_Limit** – 2687 This parameter sets the physical value for the Engine Speed disengagement.
- **TEM_PTOb_Eng_Spd_Disengages** – 2688 If this parameter is turned on, then the PTOb will be disengaged if the engine speed rises above the value set by TEM_PTOb_Eng_Spd_DisEng_Limit.
- **TEM_PTOb_Non_Neut_Disengages** – 2689 If this parameter is turned on, then the PTOb will be disengaged if the transmission is taken out of neutral.
- **TEM_PTOb_Pk_Brake_Disengages** – 2690 If this parameter is turned on, then the PTOb will be disengaged if the Park Brake is released.
- **TEM_PTOb_Veh_Spd_Disengages** – 2691 If this parameter is turned on, then the PTOb will be disengaged if the vehicle speed is over the valued specified by TEM_PTOb_Veh_Spd_DisEng_Limit.
- **TEM_PTOb_Veh_Spd_DisEng_Limit** – 2692 This parameter sets the physical value for the Vehicle Speed disengagement.
- **TEM_PTOb_Mast_Swtch_Disengages** – 2718 If this parameter is turned on, then the PTOb will be disengaged if the vehicle master switch is not ON.
- **TEM_PTOb_Air_Pres_Disengages** – 2716 If this parameter is turned on, then PTOb will be disengaged if the primary air pressure is below the value set in TEM_PTOb_Air_Pres_DisEng_Limit.
- **TEM_PTOb_Air_Pres_DisEng_Limit** – 2719 This parameter sets the physical value for the Air Pressure disengagement for PTOb.
- **TEM_PTOb_Ext_Input_Disengages** – 2772 If this parameter is turned on, then the PTOb will be disengaged if the external input designated for this purpose is active.
- **Re-ENGAGEMENT PARAMETERS PTOb**
  These parameters set the conditions under which the PTOb will be re-engaged due to a parameter disengagement.
- **TEM_PTOb_Eng_Run_Allow_ReEng** – 2693 If this parameter is turned on, then the PTOb will be reengaged (after disengagement due to engine stopping) when the engine is restarted.

- **TEM_PTOb_Eng_Spd_Allow_ReEng** – 2694 If this parameter is turned on, then the PTOb will be reengaged (after disengagement due to engine overspeed) when the engine speed falls below TEM_PTOb_Eng_Spd_Engmnt_Limit.
- **TEM_PTOb_Key_State_Allow_ReEng** – 2696 If this parameter is turned on, then the PTOb will be allowed to reengage when the key state is returned to run.
- **TEM_PTOb_Non_Neut_Allow_ReEng** – 2697 If this parameter is turned on, then the PTOb will be reengaged (after disengagement due to transmission out of neutral) when the transmission is placed back into neutral.
- **TEM_PTOb_Pk_Brake_Allow_ReEng** – 2698 If this parameter is turned on, then the PTOb will be reengaged (after disengagement due to park brake released) when the park brake is reapplied.
- **TEM_PTOb_Veh_Spd_Allow_ReEng** – 2699 If this parameter is turned on, then the PTOb will be reengaged (after disengagement due to the vehicle being over the vehicle speed value) when the vehicle speed falls below TEM_PTOb_Veh_Spd_Engmnt_Limit.
- **TEM_PTOb_Air_Pres_Allow_ReEng** – 2713 If this parameter is turned on, then the PTOb will be reengaged (after disengagement due to low air pressure) when the primary air pressure rises about the value specified by TEM_PTO_Air_Pres_Engmnt_Limit.
- **TEM_PTOb_Mast_Swtch_Allow_ReEng** – 2715 If is turned on, then the PTOb will be reengaged after a disengage due to the master switch being turned off when the master switch is turned on again.
- **TEM_PTOb_Ext_Input_Allow_ReEng** – 2771 If this parameter is turned on, then the PTOb will be reengaged (after a disengage due to the designated external input being in active state) when the external input is no longer in active state.
-
- **ALARM PARAMETERS PTOb**
  These parameters utilize the gauge cluster to sound an alarm to the driver when certain programmable parameters are violated.
- **TEM_PTOb_Air_Pres_Alarms** – 2700 If this parameter is turned on, then an audible alarm will sound in the cab if the primary air pressure drops below the value specified by TEM_PTOb_Air_Pres_Alarm_Limit.
- **TEM_PTOb_Air_Pres_Alarm_Limit** – 2701 This parameter sets the physical value for the Air Pressure Alarm.
- **TEM_PTOb_Eng_Run_Alarms** – 2702 If this parameter is turned on, then an audible alarm will sound in the cab if the PTOb is engaged and the engine is turned off.
- **TEM_PTOb_Eng_Spd_Alarm_Limit** – 2703 This parameter sets the physical value for the Engine Speed Alarm.
- **TEM_PTOb_Eng_Spd_Alarms** – 2704 If this is turned on, then an alarm will sound if the PTOb is engaged and the engine speed is over the value set by TEM_PTOb_Eng_Spd_Alarm_Limit

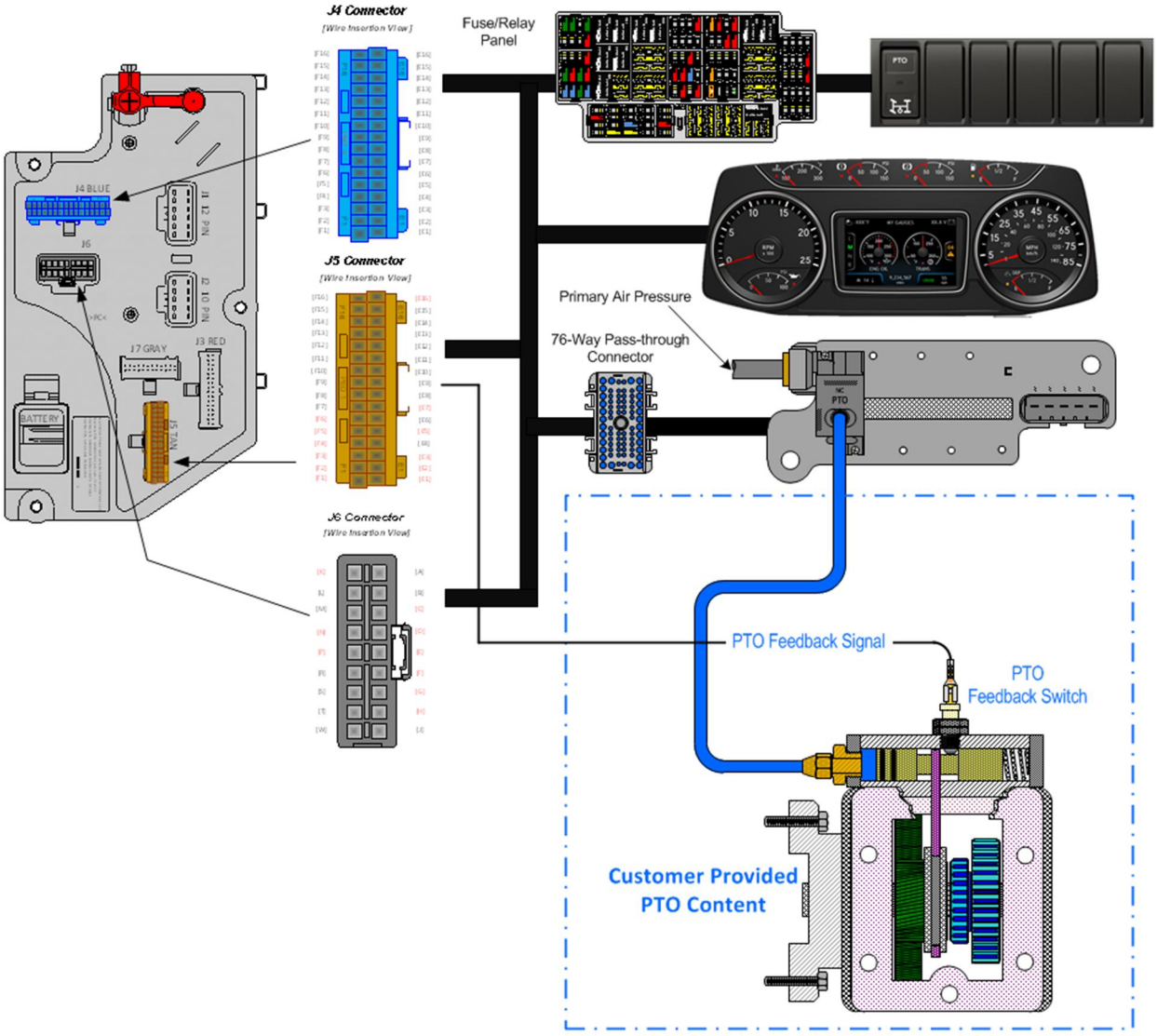
- **TEM_PTOb_Non_Neut_Alarms** – 2705 If this parameter is turned on, then an audible alarm will sound in the cab if the PTOb is engaged and the transmission is taken out of neutral.
- **TEM_PTOb_Pk_Brake_Alarms** – 2706 If this parameter is turned on, then an audible alarm will sound in the cab if the PTOb is engaged and the park brake is released.
- **TEM_PTOb_Veh_Spd_Alarms** – 2708 If this is turned on, then an audible alarm will sound if the PTOb is engaged and the vehicle speed is over the value set by TEM_PTOb_Veh_Spd_Alarm_Limit
- **TEM_PTOb_Veh_Spd_Alarm_Limit** – 2709 This parameter sets the physical value for PTOb Vehicle Speed Alarm.

Note/s About Possible Software Feature Conflicts:
Only one PTO feature is allowed with 597200.
597307 conflicts with 597132, 597264, 597277, 597278, 597280, 597281, 597304, 597306.
597283 conflicts with 597279
597279 conflicts with 597306

25.3. 13XAA: PTO CONTROL, DASH MOUNTED for Customer Provided PTO; Includes Switch, Electric/Air Solenoid, Piping and Wiring

Extended Description: This feature provides the customer with the ability to control a customer-supplied PTO with one 2-position latched switch located in the instrument panel and one air solenoid. This feature provides all the software and wiring to the air solenoid located inside the driver's side frame rail next to the transmission. Customer must supply and route air plumbing to the PTO. Programmable parameters allow customers to customize the functionality of their PTO.

System Block Diagram:



Note: It is important to insure the Power Take Off (PTO) internal shift mechanism has adequate pneumatic potential communication for the full engagement of the PTO coupling/decoupling mechanism. Full engagement is typically a function of the available

pneumatic potential sourced from the chassis primary air pressure supply system which [can] limit the full power transmission capabilities of the PTO coupling and decoupling mechanism/s.

Body Controller Software Feature Codes:

- 597200 - BCM PROG, **PTO CONTROL LOGIC for Dash Switch**
- 597278 - BCM PROG, **PTO SHIFT**
- **Note: if Eaton Procision Transmission is being used add:**
  - **597276 – BCM PROG, PTO ENABLER J1939 Engagement Consent for Eaton Procision**

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
On – Indicates a 1 is set for the parameter							
Off – Indicates a 0 is set in for this parameter							
ENGAGEMENT PARAMETERS							
TEM_PTO_PK_Brake_Engmnt_Inhib	2087	If this Parameter is 1, the PTO will not be engaged if the Park Brake is not set.	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Non_Neut_Engmnt_Inhib	2088	If this Parameter is 1, the PTO will not be engaged if the Transmission is not in Neutral or Park	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Neut_Engmnt_Inhib	2089	If this Parameter is 1, the PTO will only be engaged if the Transmission is not in Neutral or Park	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_Engmnt_Inhib	2090	If this Parameter is 1, the PTO will not be engaged if the vehicle speed is over the value set in TEM_PTO_Veh_Spd_Engmnt_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_Engmnt_Limit	2091	See TEM_PTO_Veh_Spd_Engmnt_Inhib	3.00	MPH	1	100	1
TEM_PTO_Eng_Spd_Engmnt_Inhib	2092	If this Parameter is 1, the PTO will not be engaged if the engine speed is over the value set in TEM_PTO_Eng_Spd_Engmnt_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTO_Eng_Spd_Engmnt_Limit	2093	See TEM_PTO_Eng_Spd_Engmnt_Inhib	1000	RPM	100	5000	0.1
TEM_PTO_Cltch_Engmnt_Inhib	2094	If this Parameter is 1, the PTO will not be engaged if the clutch pedal is not depressed	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Brake_Engmnt_Inhib	2095	If this Parameter is 1, the PTO will not be engaged if the brake pedal is not depressed	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Eng_Run_Engmnt_Inhib	2096	If this Parameter is 1, the PTO will not be engaged if the engine is not running	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_Engmnt_Inhib	2097	If this Parameter is 1, the PTO will not be engaged if the primary vehicle air pressure is below TEM_PTO_Air_Pres_Engmnt_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_Engmnt_Limit	2098	See TEM_PTO_Air_Pres_Engmnt_Inhib	90	PSI	1	500	1

TEM_PTO_Mast_Switch_Engmnt_Inhib	2099	If this Parameter is 1, the PTO will not be engaged if the vehicle master switch is not ON.	OFF	N/A	N/A	N/A	N/A
DISENGAGEMENT PARAMETERS							
TEM_PTO_Pk_Brake_Disengages	2108	if this Parameter is 1, the PTO will be disengaged if the Park Brake is released	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Non_Neut_Disengages	2109	if this Parameter is 1, the PTO will be disengaged if the transmission is taken out of neutral	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_Disengages	2110	if this Parameter is 1, the PTO will be disengaged if the vehicle speed is over the value set in TEM_PTO_Veh_Spd_DisEng_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_DisEng_Limit	2111	see TEM_PTO_Veh_Spd_Disengages	3	MPH	3	100	1
TEM_PTO_Eng_Spd_Disengages	2112	if this Parameter is 1, the PTO will be disengaged if the vehicle speed is over the value set in TEM_PTO_Eng_Spd_DisEng_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTO_Eng_Spd_DisEng_Limit	2113	see TEM_PTO_Eng_Spd_Disengages	1800	RPM	0	5000	1
TEM_PTO_Eng_Run_Disengages	2114	If this Parameter is 1, the PTO will be disengaged if the engine is turned off	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_Disengages	2115	if this Parameter is 1, the PTO will be disengaged if the primary air pressure is below the value set in TEM_PTO_Air_Pres_DisEng_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_DisEng_Limit	2116	see TEM_PTO_Air_Pres_Disengages	80	PSI	0	500	1
TEM_PTO_Ext_Input_Disengages	2117	if this Parameter is 1, the PTO will be disengaged if the external input designated for this purpose is active	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Mast_Switch_Disengages	2118	if this Parameter is 1, the PTO will be disengaged if the vehicle master switch is not ON	OFF	N/A	N/A	N/A	N/A
RE-ENGAGEMENT PARAMETERS							
TEM_PTO_Key_State_Allow_ReEng	2069	If this parameter is set, the PTO will be allowed to reengage when the key state is returned to run.	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_Allow_ReEng	2119	if this Parameter is 1, the PTO will be reengaged after a disengage due to vehicle overspeed when the vehicle speed is below TEM_PTO_Veh_Spd_Engmnt_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Eng_Spd_Allow_ReEng	2120	if this Parameter is 1, the PTO will be reengaged after a disengage due to engine overspeed when the engine speed is below TEM_PTO_Eng_Spd_Engmnt_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTO_Ext_Input_Allow_ReEng	2121	if this Parameter is 1, the PTO will be reengaged after a disengage due to the designated external input when the external input is no longer active	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Eng_Run_Allow_ReEng	2122	if this Parameter is 1, the PTO will be reengaged after a disengage due	OFF	N/A	N/A	N/A	N/A

		to the engine stopping when the engine is restarted					
TEM_PTO_Mast_Switch_Allow_ReEng	2123	if this Parameter is 1, the PTO will be reengaged after a disengage due to the master switch being turned off when the master switch is turned on again	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_Allow_ReEng	2124	if this Parameter is 1, the PTO will be reengaged after a disengage due to low vehicle air pressure when the primary air pressure is over TEM_PTO_Air_Pres_Engmnt_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Non_Neut_Allow_ReEng	2148	if this Parameter is 1, the PTO will be reengaged after a disengage due to transmission out of neutral when the transmission is placed back into neutral.	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Pk_Brake_Allow_ReEng	2149	if this Parameter is 1, the PTO will be reengaged after a disengage due to park brake released when the park brake is reapplied.	OFF	N/A	N/A	N/A	N/A
ALARMS PARAMETERS							
TEM_PTO_Pk_Brake_Alarms	2131	if this Parameter is 1, an alarm will sound if the PTO is engaged and the park brake is released	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Non_Neut_Alarms	2132	if this Parameter is 1, an alarm will sound if the PTO is engaged and transmission is taken out of neutral	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Eng_Run_Alarms	2137	if this Parameter is 1, an alarm will sound if the PTO is engaged and the engine is turned off	OFF	N/A	N/A	N/A	N/A

Parameter Definitions:

- **ENGAGEMENT PARAMETERS**

These parameters set rules that must be met for the PTO to be engaged.

In Example:

If TEM_PTO_Air_Pres_Engmnt_Inhib parameter is turned on, the PTO cannot be engaged if the primary vehicle air pressure is below the programmable parameter set by TEM_PTO_Air_Pres_Engmnt_Limit. **for Dash Switch**

- **TEM_PTO_PK_Brake_Engmnt_Inhib** – If this parameter is turned on, then the brake pedal must be depressed for the PTO to engage.
- **TEM_PTO_Non_Neut_Engmnt_Inhib** – If this parameter is turned on, then the transmission must be in Neutral or Park for the PTO to be engaged.
- **TEM_PTO_Neut_Engmnt_Inhib** – If this parameter is turned on, then the PTO can only be engaged if the transmission is NOT in Neutral or Park.
- **TEM_PTO_Veh_Spd_Engmnt_Inhib** – If this parameter is turned on, then the PTO cannot be engaged if the vehicle speed is over the value prescribed by TEM_PTO_Veh_Spd_Engmnt_Limit.
- **TEM_PTO_Veh_Spd_Engmnt_Limit** – This parameter sets the physical value for the Vehicle Speed Inhibit.

- **TEM_PTO_Eng_Spd_Engmnt_Inhib** – If this is parameter is turned on, then the PTO cannot be engaged if the engine speed is over a certain threshold, which is defined as a programmable parameter in TEM_PTO_Eng_Spd_Engmnt_Limit.
- **TEM_PTO_Eng_Spd_Engmnt_Limit** – This parameter sets the physical value for the Engine Speed Inhibit.
- **TEM_PTO_Cltch_Engmnt_Inhib** – If this parameter is turned on, then the clutch pedal must be depressed for the PTO to engage.
- **TEM_PTO_Brake_Engmnt_Inhib** – If this parameter is turned on, then the brake pedal must be depressed for the PTO to engage.
- **TEM_PTO_Eng_Run_Engmnt_Inhib** – If this parameter is turned on, then the engine must be running for the PTO to be engaged.
- **TEM_PTO_Air_Pres_Engmnt_Inhib** – If this parameter is turned on, the PTO cannot be engaged if the primary vehicle air pressure is below the programmable parameter set by TEM_PTO_Air_Pres_Engmnt_Limit.
- **TEM_PTO_Air_Pres_Engmnt_Limit** – This parameter sets the physical value for the Air Pressure Inhibit.
- **TEM_PTO_Mast_Swtch_Engmnt_Inhib** – If this parameter is turned on, then the PTO will not be engaged if the vehicle master switch is not ON.
- **DISENGAGEMENT PARAMETERS**
  These parameters set the conditions under which the PTO will be disengaged.
- **TEM_PTO_Pk_Brake_Disengages** – If this parameter is turned on, then the PTO will be disengaged if the Park Brake is released.
- **TEM_PTO_Non_Neut_Disengages** – If this parameter is turned on, then the PTO will be disengaged if the transmission is taken out of neutral.
- **TEM_PTO_Veh_Spd_Disengages** – If this parameter is turned on, then the PTO will be disengaged if the vehicle speed is over the valued specified by TEM_PTO_Veh_Spd_DisEng_Limit.
- **TEM_PTO_Veh_Spd_DisEng_Limit** – This parameter sets the physical value for the Vehicle Speed disengagement.
- **TEM_PTO_Eng_Spd_Disengages** – If this parameter is turned on, then the PTO will be disengaged if the engine speed rises above the value set by TEM_PTO_Eng_Spd_DisEng_Limit.
- **TEM_PTO_Eng_Spd_DisEng_Limit** – This parameter sets the physical value for the Engine Speed disengagement.
- **TEM_PTO_Eng_Run_Disengages** – If this parameter is turned on, then the PTO will be disengaged if the engine is turned off.
- **TEM_PTO_Air_Pres_Disengages** – If this parameter is turned on, then the PTO will be disengaged if the primary air pressure is below the value set in TEM_PTO_Air_Pres_DisEng_Limit,
- **TEM_PTO_Air_Pres_DisEng_Limit** – This parameter sets the physical value for the Air Pressure disengagement.

- **TEM_PTO_Ext_Input_Disengages** – If this parameter is turned on, then the PTO will be disengaged if the external input designated for this purpose is active.
- **TEM_PTO_Mast_Swtch_Disengages** – If this parameter is turned on, then the PTO will be disengaged if the vehicle master switch is not ON.
- **Re-ENGAGEMENT PARAMETERS**
  These parameters set the conditions under which the PTO will be re-engaged due to a parameter disengagement.
- **TEM_PTO_Key_State_Allow_ReEng** – If this parameter is turned on, then the PTO will be allowed to reengage when the key state is returned to run.
- **TEM_PTO_Veh_Spd_Allow_ReEng** – If this parameter is turned on, then the PTO will be reengaged (after disengagement due to the vehicle being over the vehicle speed value) when the vehicle speed falls below TEM_PTO_Veh_Spd_Engmnt_Limit.
- **TEM_PTO_Eng_Spd_Allow_ReEng** – If this parameter is turned on, then the PTO will be reengaged (after disengagement due to engine overspeed) when the engine speed falls below TEM_PTO_Eng_Spd_Engmnt_Limit.
- **TEM_PTO_Ext_Input_Allow_ReEng** – If this parameter is turned on, then the PTO will be reengaged (after a disengage due to the designated external input being in active state) when the external input is no longer in active state.
- **TEM_PTO_Eng_Run_Allow_ReEng** – If this parameter is turned on, then the PTO will be reengaged (after disengagement due to engine stopping) when the engine is restarted.
- **TEM_PTO_Mast_Swtch_Allow_ReEng** – If is turned on, then the PTO will be reengaged after a disengage due to the master switch being turned off when the master switch is turned on again.
- **TEM_PTO_Air_Pres_Allow_ReEng** – If this parameter is turned on, then the PTO will be reengaged (after disengagement due to low air pressure) when the primary air pressure rises about the value specified by TEM_PTO_Air_Pres_Engmnt_Limit.
- **TEM_PTO_Non_Neut_Allow_ReEng** – If this parameter is turned on, then the PTO will be reengaged (after disengagement due to transmission out of neutral) when the transmission is placed back into neutral.
- **TEM_PTO_Pk_Brake_Allow_ReEng** – If this parameter is turned on, then the PTO will be reengaged (after disengagement due to park brake released) when the park brake is reapplied.
- **ALARM PARAMETERS**
  These parameters utilize the gauge cluster to sound an alarm to the driver when certain programmable parameters are violated.
- **TEM_PTO_Pk_Brake_Alarms** – If this parameter is turned on, then an audible alarm will sound in the cab if the PTO is engaged and the park brake is released.

- **TEM_PTO_Non_Neut_Alarms** – If this parameter is turned on, then an audible alarm will sound in the cab if the PTO is engaged and the transmission is taken out of neutral.
- **TEM_PTO_Eng_Run_Alarms** – If this parameter is turned on, then an audible alarm will sound in the cab if the PTO is engaged and the engine is turned off.

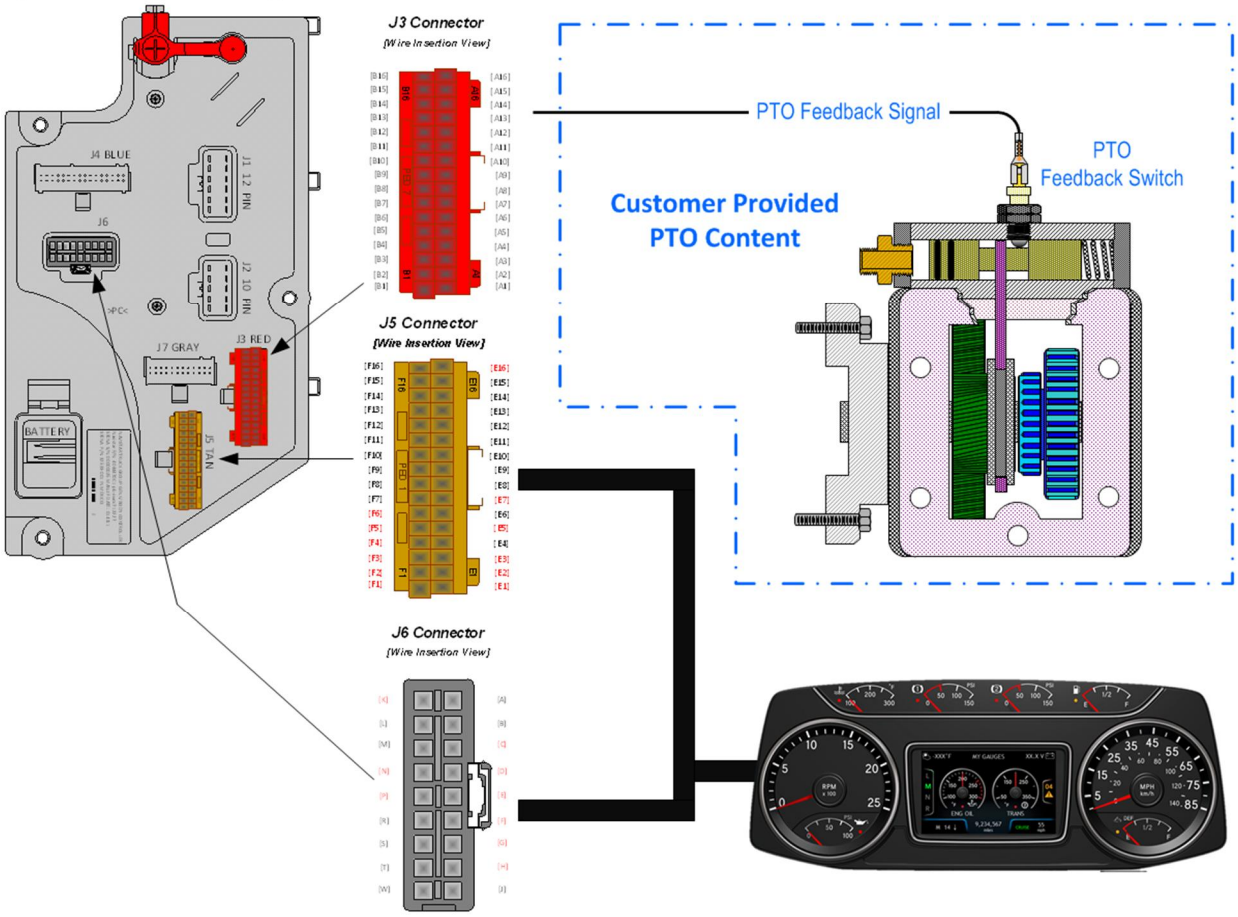
Note/s About Possible Software Feature Conflicts:
Only one PTO feature is allowed with 597200. 597278 with conflict with 597264, 597277, 597280, 597281, 597304

25.4. 16WLM: HOURMETER, PTO for Customer Provided PTO; Indicator Light and Hourmeter in Gauge Cluster Includes Return Wire for PTO Feedback Switch.

Extended Description: 16WLM provides the customer with a blunt cut wire located in the engine compartment to be wired into a body builder-installed PTO feedback switch. This feature can be ordered in addition to PTO accommodation features that do not utilize Remote Power Module outputs for the solenoid power source. Also included in this feature is a PTO indicator light in the gauge cluster and a PTO hourmeter, which allows the operator to measure stationary PTO hours for maintenance records and fuel tax purposes. To view the hourmeter, press the gauge cluster selection button momentarily until the text portion of the display indicates “PTO Hour”.

Note: The hourmeter functionality is included with PTO accommodation features that utilize Remote Power Module outputs for the solenoid power source and it is not necessary to order 16WLM.

System Block Diagram:



Body Controller Software Feature Codes:

- 597282 - BCM PROG, PTO HOURMETER HRS DISPLATED IP *(Activates hourmeter and PTO warning light in cluster)*

Note: Requires one [but not both] of the following software features codes for the selection of the PTO feedback switch INPUT:

- 597279 - BCM PROG, PTO MONITOR INDICATOR *(Use with body controller INPUT – NO Remote Power Module)*
- 597283 - BCM PROG, PTO MONITOR INDICATOR & ALARM *(Use with remote power module INPUT)*

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
597279 - BCM PROG, PTO MONITOR INDICATOR							
ESC_PTO_Engaged_Param	2199	Active State for the PTO engagement feedback switch.	1	No_Units	1	1	1
597282 - BCM PROG, PTO HOURMETER HRS DISPLATED IP							
NONE							
597283 - BCM PROG, PTO MONITOR INDICATOR & ALARM							
TEM_PTO_PK_Brake_Alarms	2131	if this Parameter is 1, an alarm will sound if the PTO is engaged and the park brake is released	0	No_Units	0	1	1
TEM_PTO_Non_Neut_Alarms	2132	if this Parameter is 1, an alarm will sound if the PTO is engaged and transmission is taken out of neutral	0	No_Units	0	1	1
TEM_PTO_Veh_Spd_Alarms	2133	if this Parameter is 1, an alarm will sound if the PTO is engaged and the vehicle speed is over TEM_PTO_Veh_Spd_Alarm_Limit	1	No_Units	0	1	1
TEM_PTO_Veh_Spd_Alarm_Limit	2134	See TEM_PTO_Veh_Spd_Alarms	5	Mph	3	100	1
TEM_PTO_Eng_Spd_Alarms	2135	if this Parameter is 1, an alarm will sound if the PTO is engaged and the engine speed is over TEM_PTO_Eng_Spd_Alarm_Limit	1	No_Units	0	1	1
TEM_PTO_Eng_Spd_Alarm_Limit	2136	See TEM_PTO_Eng_Spd_Alarms	1400	RPM	0	5000	1
TEM_PTO_Eng_Run_Alarms	2137	if this Parameter is 1, an alarm will sound if the PTO is engaged and the engine is turned off	0	No_Units	0	1	1
TEM_PTO_Air_Pres_Alarms	2138	if this Parameter is 1, an alarm will sound if the primary air pressure is below TEM_PTO_Air_Pres_Alarm_Limit	0	No_Units	0	1	1
TEM_PTO_Air_Pres_Alarm_Limit	2139	See TEM_PTO_Air_Pres_Alarms	0	PSI	0	500	1
TEM_RPM_PTO_Engaged_Param	2147	Active State for the TEM PTO engagement feedback switch.	0	No_Units	0	3	1

Parameter Definitions:

- **ESC_PTO_Engaged_Param** – Active State for the PTO engagement feedback switch. Ground Input is only option with Body Controller input
- **TEM_PTO_PK_Brake_Alarms** – Activates an audible alarm that will sound if the PTO is engaged and the park brake is released.
- **TEM_PTO_Non_Neut_Alarms** – Activates an audible alarm that will sound if the PTO is engaged and the transmission is taken out of neutral
- **TEM_PTO_Veh_Spd_Alarms** – If this parameter is turned on, then an audible alarm will sound if the PTO is engaged and the vehicle speed is over the value set by TEM_PTO_Veh_Spd_Alarm_Limit. If this parameter is not activated the value in TEM_PTO_Veh_Spd_Alarm_Limit will not activate
- **TEM_PTO_Veh_Spd_Alarm_Limit** – This is the actual physical value required to sound the alarm for TEM_PTO_Veh_Spd_Alarms.
- **TEM_PTO_Eng_Spd_Alarms** – If this parameter is turned on, then an alarm will sound if the PTO is engaged and the engine speed is over the value set by TEM_PTO_Eng_Spd_Alarm_Limit.. If this parameter is not activated the value in TEM_PTO_Eng_Spd_Alarm_Limit will not activate
- **TEM_PTO_Eng_Spd_Alarm_Limit** – This is the actual physical value required to sound the alarm for TEM_PTO_Eng_Spd_Alarms.
- **TEM_PTO_Eng_Run_Alarms** – If this parameter is turned on, then an audible alarm will sound if the PTO is engaged and the engine is turned off.
- **TEM_PTO_Air_Pres_Alarms** – If this parameter is turned on, then an audible alarm will sound in the cab if the primary air pressure drops below the value specified by TEM_PTO_Air_Pres_Alarm_Limit. If this parameter is not activated the value in TEM_PTO_Air_Pres_Alarm_Limit will not activate
- **TEM_PTO_Air_Pres_Alarm_Limit** – This is the actual physical value required to sound the alarm for TEM_PTO_Air_Pres_Alarms.
- **TEM_RPM_PTO_Engaged_Param** – This parameter indicates the state that the Body Controller (BC) will read as active for the TEM PTO feedback switch (as it goes into the BC input). This active state will be used to indicate when the PTO is engaged:
    - 0 = Input active when open circuit
    - 1 = Input active when grounded
    - 2 = not used
    - 3 = Input active when at 12V.

Note/s About Possible Software Feature Conflicts:
597279 and 597283 are mutually exclusive

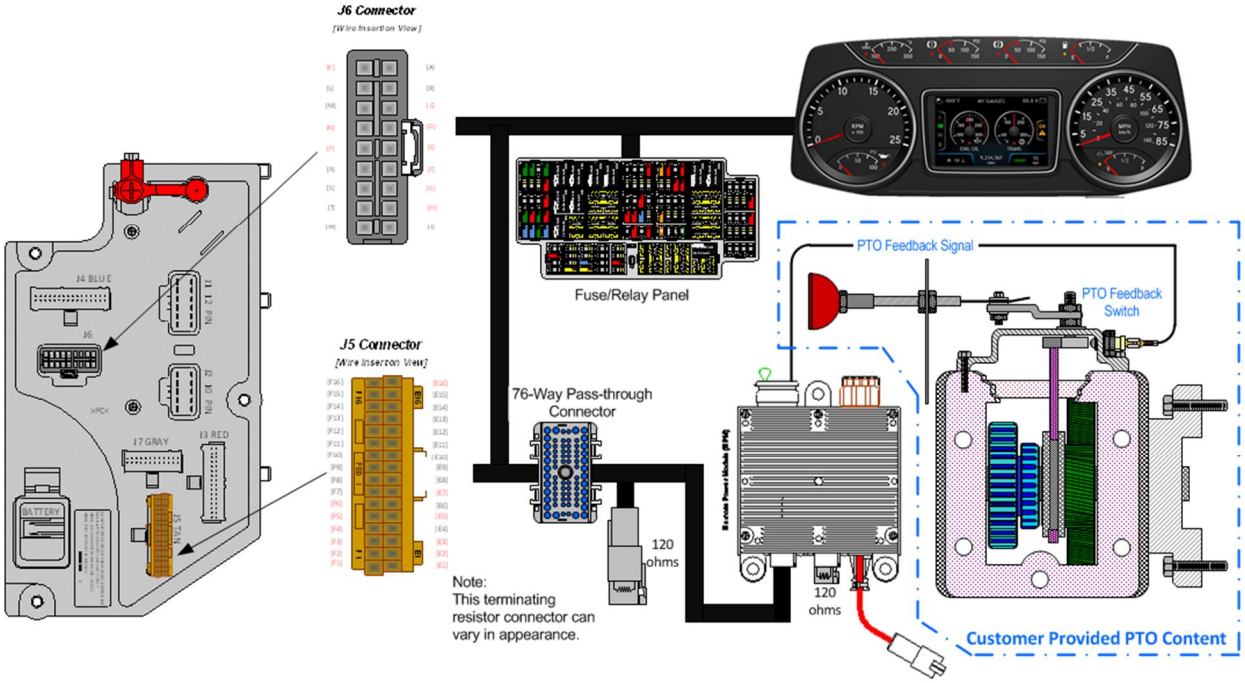
25.5. 60ABA: BDY INTG, PTO ACCOMMODATION for Monitoring Cable Shift Engaged PTO, With Indicator Light and Audible Alarm in Gauge Cluster (requires one Remote Power Module (RPM) input).

Extended Description: This feature utilizes a customer-mounted PTO feedback switch wired to an RPM input to drive an indicator light in the gauge cluster that allows the operator to determine that the PTO is engaged. An audible alarm is used to warn the operator when the PTO is engaged during unsafe vehicle operating conditions such as when the park brake is released or the engine speed is too high. Operating limits are established through programmable parameters that are set in the Body Controller (BC). The RPM input also drives a PTO hourmeter to allow the operator to measure stationary PTO hours for maintenance records and fuel tax purposes. To view the PTO hourmeter, press the gauge cluster display selector button momentarily until the text portion of the display indicates “PTO Hour.”

A Cable-Shifted PTO is a gear-to-gear engagement type mechanism. Very specific transmission operating modes are required to allow safe engagement of a Cable-Shifted PTO. The PTO gear in the transmission must be stopped before engagement of a Cable-Shifted PTO should be attempted. The clutch must be depressed with the vehicle parked to engage the PTO for a manual transmission. An automatic transmission must be in any driving gear with vehicle parked to engage a Cable-Shifted PTO.

The PTO alarms are controlled by programmable parameters set in the BC. Factory default settings for these programmable parameters are listed in the tables below. Please use the Diamond Logic® Builder software to determine pin locations for RPM inputs (refer to the CONNECTOR screen view) and to set programmable parameters (refer to the FEATURE screen view).

System Block Diagram:



Body Controller Software Feature Codes:

- Mechanical PTO control; programming only activates Hour Meter feature
- 597282 - BCM PROG, **PTO HOURMETER HRS DISPLAYED IP**
- 597283 - BCM PROG, **PTO MONITOR INDICATOR & ALARM**
- **Note: if Eaton Procision Transmission is being used add:**
    - **597276 – BCM PROG, PTO ENABLER J1939 Engagement Consent for Eaton Procision**

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
On – Indicates a 1 is set for the parameter							
Off – Indicates a 0 is set in for this parameter							
ENGAGEMENT PARAMETERS							
ALARMS PARAMETERS							
TEM_PTO_Pk_Brake_Alarms	2131	if this Parameter is 1, an alarm will sound if the PTO is engaged and the park brake is released	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Non_Neut_Alarms	2132	if this Parameter is 1, an alarm will sound if the PTO is engaged and transmission is taken out of neutral	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_Alarms	2133	if this Parameter is 1, an alarm will sound if the PTO is engaged and the vehicle speed is over TEM_PTO_Veh_Spd_Alarm_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_Alarm_Limit	2134	See TEM_PTO_Veh_Spd_Alarms	3	MPH	3	100	1

TEM_PTO_Eng_Spd_Alarms	2135	if this Parameter is 1, an alarm will sound if the PTO is engaged and the engine speed is over TEM_PTO_Eng_Spd_Alarm_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTO_Eng_Spd_Alarm_Limit	2136	See TEM_PTO_Eng_Spd_Alarms	1400	RPM	0	5000	0.1
TEM_PTO_Eng_Run_Alarms	2137	if this Parameter is 1, an alarm will sound if the PTO is engaged and the engine is turned off	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_Alarms	2138	if this Parameter is 1, an alarm will sound if the primary air pressure is below TEM_PTO_Air_Pres_Alarm_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_Alarm_Limit	2139	See TEM_PTO_Eng_Spd_Alarms	0	PSI	0	500	1
TEM_RPM_PTO_Engaged_Param	2147	Active State for the TEM PTO engagement feedback switch.	0	No_Units	0	3	1

Parameter Definitions:

- **ALARM PARAMETERS**
  These parameters utilize the gauge cluster to sound an alarm to the driver when certain programmable parameters are violated.
- **TEM_PTO_Pk_Brake_Alarms** – If this parameter is turned on, then an audible alarm will sound in the cab if the PTO is engaged and the park brake is released.
- **TEM_PTO_Non_Neut_Alarms** – If this parameter is turned on, then an audible alarm will sound in the cab if the PTO is engaged and the transmission is taken out of neutral.
- **TEM_PTO_Veh_Spd_Alarms** – If this is turned on, then an audible alarm will sound if the PTO is engaged and the vehicle speed is over the value set by TEM_PTO_Veh_Spd_Alarm_Limit
- **TEM_PTO_Veh_Spd_Alarm_Limit** – This parameter sets the physical value for the Vehicle Speed Alarm.
- **TEM_PTO_Eng_Spd_Alarms** – If this is turned on, then an alarm will sound if the PTO is engaged and the engine speed is over the value set by TEM_PTO_Eng_Spd_Alarm_Limit
- **TEM_PTO_Eng_Spd_Alarm_Limit** – This parameter sets the physical value for the Engine Speed Alarm.
- **TEM_PTO_Eng_Run_Alarms** – If this parameter is turned on, then an audible alarm will sound in the cab if the PTO is engaged and the engine is turned off.
- **TEM_PTO_Air_Pres_Alarms** – If this parameter is turned on, then an audible alarm will sound in the cab if the primary air pressure drops below the value specified by TEM_PTO_Air_Pres_Alarm_Limit.
- **TEM_PTO_Air_Pres_Alarm_Limit** – This parameter sets the physical value for the Air Pressure Alarm.
- **TEM_RPM_PTO_Engaged_Param** – This parameter indicates the active state that the body controller (BC) will read as active for the TEM PTO feedback switch

(as it goes into the RPM input). This active state will be used to indicate when the PTO is engaged:

- 0 = Input active when open circuit
- 1 = Input active when grounded
- 2 = not used
- 3 = Input active when at 12V.

Note/s About Possible Software Feature Conflicts:
597200, 597132, 597264, 597277, 597278, 597280, 597281, 597304, 597306, and 597307

25.6. 60ABB: BDY INTG, PTO ACCOMMODATION for Muncie Lectra-Shift PTO Engagement and Disengagement, With Switch Mounted on Dash; Includes Indicator Light and Audible Alarm in Gauge Cluster (requires one RPM input and one output).

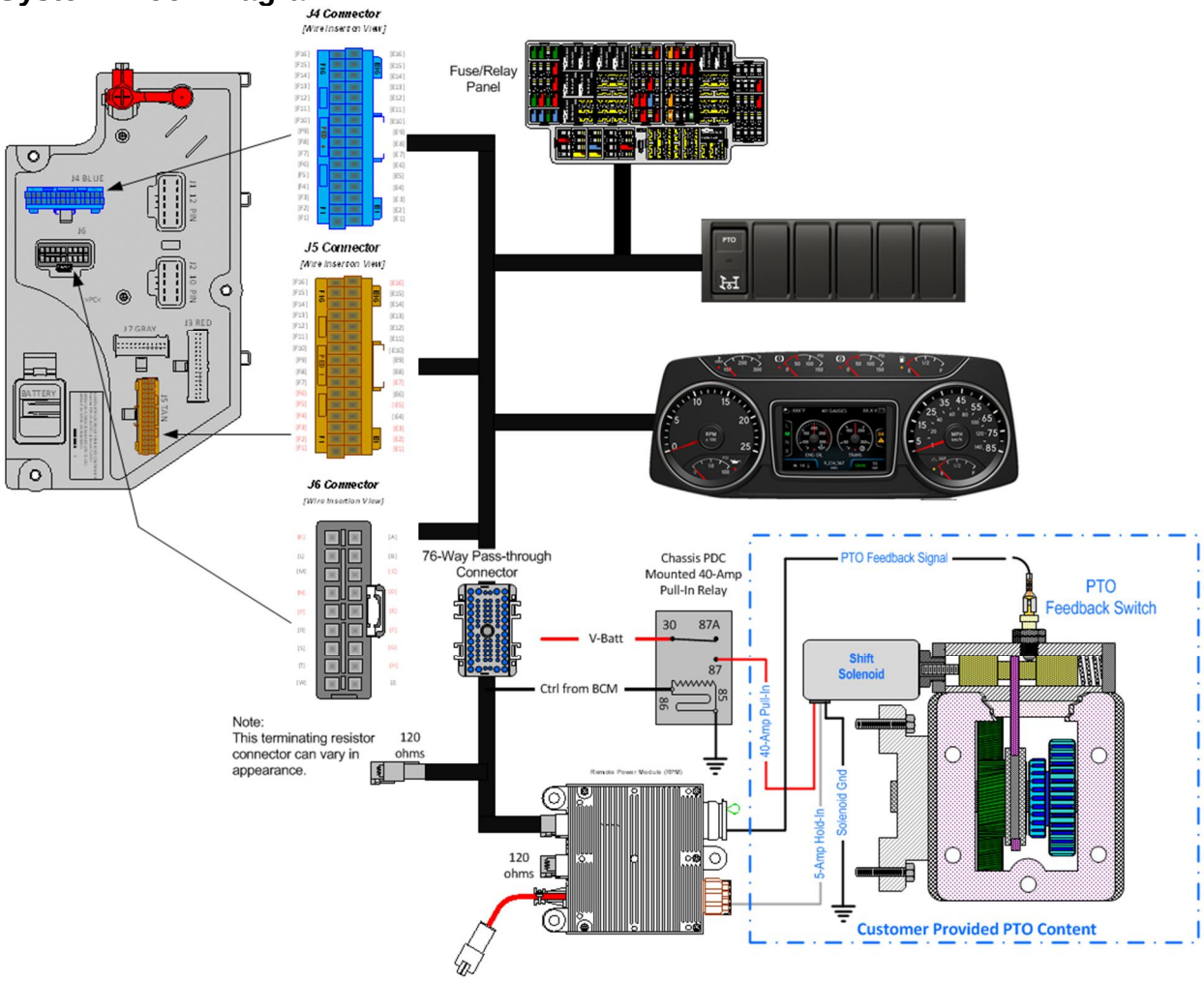
Extended Description: This feature provides a center stable, momentary rocker switch in a cab switch pack that drives an RPM output and a 40-Amp relay that are used to engage and disengage the Muncie® Lectra-Shift PTO. The high current relay output is engaged momentarily to shift in the PTO gear mechanism. Once engaged, the RPM output is activated to keep the PTO gear in the engaged position. This feature utilizes a customer-mounted PTO feedback switch wired to an RPM input to drive an indicator light in the gauge cluster that allows the operator to determine that the PTO is engaged.

An audible alarm is used to warn the operator when the PTO is engaged during unsafe vehicle operating conditions such as when the park brake is released or the engine speed is too high. Operating limits are established through programmable parameters that are set in the Body Controller (BC). The RPM input also drives a PTO hourmeter to allow the operator to measure stationary PTO hours for maintenance records and fuel tax purposes. To view the PTO hourmeter, press the gauge cluster display selector button momentarily until the text portion of the display indicates “PTO Hour.”

The Lectra-Shift is a gear-to-gear engagement PTO mechanism. Very specific transmission operating modes are required to allow safe engagement of a Lectra-Shift PTO. The PTO gear in the transmission must be stopped before engagement of the Lectra-Shift PTO should be attempted. The clutch must be depressed with the vehicle parked to engage the Lectra-Shift PTO for a manual transmission. An automatic transmission must be in any driving gear with vehicle parked to engage the Lectra-Shift PTO. Engagement, disengagement and re-engagement parameters should be set according to the type of transmission on which the Lectra-Shift is mounted.

The PTO alarms are controlled by programmable parameters set in the Body Controller (BC). Factory default settings for these programmable parameters are listed in the tables below. Through programmable parameters, the vehicle can be programmed to customize the number of times that an operator can request a PTO engagement per key cycle. The customer can also customize the maximum time allowed to engage the solenoid per attempt, and the length of time between a failed engagement attempt and the next time the operator can attempt to engage the PTO.
Please use the Diamond Logic® Builder software to determine pin locations for RPM inputs and outputs (refer to the CONNECTOR screen view) and to set programmable parameters (refer to the FEATURE screen view).

System Block Diagram:



Note: It is important to insure the Power Take Off (PTO) internal shift mechanism has adequate pneumatic potential communication for the full engagement of the PTO coupling/decoupling mechanism. Full engagement is typically a function of the available pneumatic potential sourced from the chassis primary air pressure supply system which [can] limit the full power transmission capabilities of the PTO coupling and decoupling mechanism/s.

Body Controller Software Feature Codes:

- 597200 - BCM PROG, **PTO CONTROL LOGIC for Dash Switch**
- 597281 - BCM PROG, **PTO SHIFT for Lectra Shift Control**
- 597282 - BCM PROG, **PTO HOURMETER HRS DISPLAYED IP**
- 597283 - BCM PROG, **PTO MONITOR INDICATOR & ALARM**
- **Note: Feature 16WLM is part of 60ABB**
- **Note: if Eaton Procision Transmission is being used add:**
    - **597276 – BCM PROG, PTO ENABLER J1939 Engagement Consent for Eaton Procision**

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
On – Indicates a 1 is set for the parameter							
Off – Indicates a 0 is set in for this parameter							
ENGAGEMENT PARAMETERS							
TEM_PTO_PK_Brake_Engmnt_Inhib	2087	If this Parameter is 1, the PTO will not be engaged if the Park Brake is not set.	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Non_Neut_Engmnt_Inhib	2088	If this Parameter is 1, the PTO will not be engaged if the Transmission is not in Neutral or Park	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Neut_Engmnt_Inhib	2089	If this Parameter is 1, the PTO will only be engaged if the Transmission is not in Neutral or Park	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_Engmnt_Inhib	2090	If this Parameter is 1, the PTO will not be engaged if the vehicle speed is over the value set in TEM_PTO_Veh_Spd_Engmnt_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_Engmnt_Limit	2091	See TEM_PTO_Veh_Spd_Engmnt_Inhib	3.00	MPH	1	100	1
TEM_PTO_Eng_Spd_Engmnt_Inhib	2092	If this Parameter is 1, the PTO will not be engaged if the engine speed is over the value set in TEM_PTO_Eng_Spd_Engmnt_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTO_Eng_Spd_Engmnt_Limit	2093	See TEM_PTO_Eng_Spd_Engmnt_Inhib	1000	RPM	100	5000	0.1
TEM_PTO_Cltch_Engmnt_Inhib	2094	If this Parameter is 1, the PTO will not be engaged if the clutch pedal is not depressed	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Brake_Engmnt_Inhib	2095	If this Parameter is 1, the PTO will not be engaged if the brake pedal is not depressed	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Eng_Run_Engmnt_Inhib	2096	If this Parameter is 1, the PTO will not be engaged if the engine is not running	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_Engmnt_Inhib	2097	If this Parameter is 1, the PTO will not be engaged if the primary vehicle air pressure is below TEM_PTO_Air_Pres_Engmnt_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_Engmnt_Limit	2098	See TEM_PTO_Air_Pres_Engmnt_Inhib	90	PSI	1	500	1
TEM_PTO_Mast_Swtch_Engmnt_Inhib	2099	If this Parameter is 1, the PTO will not be engaged if the vehicle master switch is not ON.	OFF	N/A	N/A	N/A	N/A
DISENGAGEMENT PARAMETERS							
TEM_PTO_Pk_Brake_Disengages	2108	if this Parameter is 1, the PTO will be disengaged if the Park Brake is released	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Non_Neut_Disengages	2109	if this Parameter is 1, the PTO will be disengaged if the transmission is taken out of neutral	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_Disengages	2110	if this Parameter is 1, the PTO will be disengaged if the vehicle speed is over the value set in TEM_PTO_Veh_Spd_DisEng_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_DisEng_Limit	2111	see TEM_PTO_Veh_Spd_Disengages	3	MPH	3	100	1

TEM_PTO_Eng_Spd_Disengages	2112	if this Parameter is 1, the PTO will be disengaged if the vehicle speed is over the value set in TEM_PTO_Eng_Spd_DisEng_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTO_Eng_Spd_DisEng_Limit	2113	see TEM_PTO_Eng_Spd_Disengages	1800	RPM	0	5000	1
TEM_PTO_Eng_Run_Disengages	2114	If this Parameter is 1, the PTO will be disengaged if the engine is turned off	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_Disengages	2115	if this Parameter is 1, the PTO will be disengaged if the primary air pressure is below the value set in TEM_PTO_Air_Pres_DisEng_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_DisEng_Limit	2116	see TEM_PTO_Air_Pres_Disengages	80	PSI	0	500	1
TEM_PTO_Ext_Input_Disengages	2117	if this Parameter is 1, the PTO will be disengaged if the external input designated for this purpose is active	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Mast_Swtch_Disengages	2118	if this Parameter is 1, the PTO will be disengaged if the vehicle master switch is not ON	OFF	N/A	N/A	N/A	N/A
RE-ENGAGEMENT PARAMETERS							
TEM_PTO_Key_State_Allow_ReEng	2069	If this parameter is set, the PTO will be allowed to reengage when the key state is returned to run.	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_Allow_ReEng	2119	if this Parameter is 1, the PTO will be reengaged after a disengage due to vehicle overspeed when the vehicle speed is below TEM_PTO_Veh_Spd_Engmnt_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Eng_Spd_Allow_ReEng	2120	if this Parameter is 1, the PTO will be reengaged after a disengage due to engine overspeed when the engine speed is below TEM_PTO_Eng_Spd_Engmnt_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTO_Ext_Input_Allow_ReEng	2121	if this Parameter is 1, the PTO will be reengaged after a disengage due to the designated external input when the external input is no longer active	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Eng_Run_Allow_ReEng	2122	if this Parameter is 1, the PTO will be reengaged after a disengage due to the engine stopping when the engine is restarted	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Mast_Swtch_Allow_ReEng	2123	if this Parameter is 1, the PTO will be reengaged after a disengage due to the master switch being turned off when the master switch is turned on again	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_Allow_ReEng	2124	if this Parameter is 1, the PTO will be reengaged after a disengage due to low vehicle air pressure when the primary air pressure is over TEM_PTO_Air_Pres_Engmnt_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Non_Neut_Allow_ReEng	2148	if this Parameter is 1, the PTO will be reengaged after a disengage due to transmission out of neutral when the transmission is placed back into neutral.	OFF	N/A	N/A	N/A	N/A

TEM_PTO_Pk_Brake_Allow_ReEng	2149	if this Parameter is 1, the PTO will be reengaged after a disengage due to park brake released when the park brake is reapplied.	OFF	N/A	N/A	N/A	N/A
ALARMS PARAMETERS							
TEM_PTO_Pk_Brake_Alarms	2131	if this Parameter is 1, an alarm will sound if the PTO is engaged and the park brake is released	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Non_Neut_Alarms	2132	if this Parameter is 1, an alarm will sound if the PTO is engaged and transmission is taken out of neutral	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_Alarms	2133	if this Parameter is 1, an alarm will sound if the PTO is engaged and the vehicle speed is over TEM_PTO_Veh_Spd_Alarm_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_Alarm_Limit	2134	See TEM_PTO_Veh_Spd_Alarms	3	MPH	3	100	1
TEM_PTO_Eng_Spd_Alarms	2135	if this Parameter is 1, an alarm will sound if the PTO is engaged and the engine speed is over TEM_PTO_Eng_Spd_Alarm_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTO_Eng_Spd_Alarm_Limit	2136	See TEM_PTO_Eng_Spd_Alarms	1400	RPM	0	5000	0.1
TEM_PTO_Eng_Run_Alarms	2137	if this Parameter is 1, an alarm will sound if the PTO is engaged and the engine is turned off	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_Alarms	2138	if this Parameter is 1, an alarm will sound if the primary air pressure is below TEM_PTO_Air_Pres_Alarm_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_Alarm_Limit	2139	See TEM_PTO_Air_Pres_Alarms	0	PSI	0	500	1
TEM_RPM_PTO_Engaged_Param	2147	Active State for the TEM PTO engagement feedback switch.	0	No_Units	0	3	1
Unique for 597281 - BCM PROG, **PTO SHIFT for Lectra Shift Control**							
TEM_PTO_Retaining_Solenoid_Fuse	2022	Fuse value for the TEM PTO Single Polarity engagement retaining solenoid power.	20	Amps	0	20	0.1
TEM_PTO_Allowed_Engagement_Time	2057	Time allowed for engagement of the Lectra shift PTO.	3	seconds	0	10	0.1
TEM_PTO_Lectra_Shift_Max_Retries	2058	The maximum number of times a PTO engagement request can be issued in a key cycle.	0	No_Units	0	65535	1
TEM_PTO_Lectra_Shift_Retry_Time	2059	Time frame for retry counting in lectra shift engagement algorithm.	600	seconds	0	600	1

Parameter Definitions:

- **ENGAGEMENT PARAMETERS**

  These parameters set rules that must be met for the PTO to be engaged.

  Example: If TEM_PTO_Air_Pres_Engmnt_Inhib parameter is turned on, the PTO cannot be engaged if the primary vehicle air pressure is below the programmable parameter set by TEM_PTO_Air_Pres_Engmnt_Limit.

  for Dash Switch

- **TEM_PTO_PK_Brake_Engmnt_Inhib –** 2087 If this parameter is turned on, then the brake pedal must be depressed for the PTO to engage.

- **TEM_PTO_Non_Neut_Engmnt_Inhib** – 2088 If this parameter is turned on, then the transmission must be in Neutral or Park for the PTO to be engaged.
- **TEM_PTO_Neut_Engmnt_Inhib** – 2089 If this parameter is turned on, then the PTO can only be engaged if the transmission is NOT in Neutral or Park.
- **TEM_PTO_Veh_Spd_Engmnt_Inhib** – 2090 If this parameter is turned on, then the PTO cannot be engaged if the vehicle speed is over the value prescribed by TEM_PTO_Veh_Spd_Engmnt_Limit.
- **TEM_PTO_Veh_Spd_Engmnt_Limit** – 2091 This parameter sets the physical value for the Vehicle Speed Inhibit.
- **TEM_PTO_Eng_Spd_Engmnt_Inhib** –2092 If this is parameter is turned on, then the PTO cannot be engaged if the engine speed is over a certain threshold, which is defined as a programmable parameter in TEM_PTO_Eng_Spd_Engmnt_Limit.
- **TEM_PTO_Eng_Spd_Engmnt_Limit** – 2093 This parameter sets the physical value for the Engine Speed Inhibit.
- **TEM_PTO_Cltch_Engmnt_Inhib** – 2094 If this parameter is turned on, then the clutch pedal must be depressed for the PTO to engage.
- **TEM_PTO_Brake_Engmnt_Inhib** – 2095 If this parameter is turned on, then the brake pedal must be depressed for the PTO to engage.
- **TEM_PTO_Eng_Run_Engmnt_Inhib** – 2096 If this parameter is turned on, then the engine must be running for the PTO to be engaged.
- **TEM_PTO_Air_Pres_Engmnt_Inhib** – 2097 If this parameter is turned on, the PTO cannot be engaged if the primary vehicle air pressure is below the programmable parameter set by TEM_PTO_Air_Pres_Engmnt_Limit.
- **TEM_PTO_Air_Pres_Engmnt_Limit** – 2098 This parameter sets the physical value for the Air Pressure Inhibit.
- **TEM_PTO_Mast_Swtch_Engmnt_Inhib** – 2099 If this parameter is turned on, then the PTO will not be engaged if the vehicle master switch is not ON.
- **DISENGAGEMENT PARAMETERS**

  These parameters set the conditions under which the PTO will be disengaged.
- **TEM_PTO_Pk_Brake_Disengages** – 2108 If this parameter is turned on, then the PTO will be disengaged if the Park Brake is released.
- **TEM_PTO_Non_Neut_Disengages** – 2109 If this parameter is turned on, then the PTO will be disengaged if the transmission is taken out of neutral.
- **TEM_PTO_Veh_Spd_Disengages** – 2110 If this parameter is turned on, then the PTO will be disengaged if the vehicle speed is over the valued specified by TEM_PTO_Veh_Spd_DisEng_Limit.
- **TEM_PTO_Veh_Spd_DisEng_Limit** – 2111 This parameter sets the physical value for the Vehicle Speed disengagement.
- **TEM_PTO_Eng_Spd_Disengages** – 2112 If this parameter is turned on, then the PTO will be disengaged if the engine speed rises above the value set by TEM_PTO_Eng_Spd_DisEng_Limit.

- **TEM_PTO_Eng_Spd_DisEng_Limit** – 2113 This parameter sets the physical value for the Engine Speed disengagement.
- **TEM_PTO_Eng_Run_Disengages** – 2114 If this parameter is turned on, then the PTO will be disengaged if the engine is turned off.
- **TEM_PTO_Air_Pres_Disengages** – 2115 If this parameter is turned on, then the PTO will be disengaged if the primary air pressure is below the value set in TEM_PTO_Air_Pres_DisEng_Limit.
- **TEM_PTO_Air_Pres_DisEng_Limit** – 2116 This parameter sets the physical value for the Air Pressure disengagement.
- **TEM_PTO_Ext_Input_Disengages** – 2117 If this parameter is turned on, then the PTO will be disengaged if the external input designated for this purpose is active.
- **TEM_PTO_Mast_Swtch_Disengages** – 2118 If this parameter is turned on, then the PTO will be disengaged if the vehicle master switch is not ON.
- **Re-ENGAGEMENT PARAMETERS**
  These parameters set the conditions under which the PTO will be re-engaged due to a parameter disengagement.
- **TEM_PTO_Key_State_Allow_ReEng** – 2069 If this parameter is turned on, then the PTO will be allowed to reengage when the key state is returned to run.
- **TEM_PTO_Veh_Spd_Allow_ReEng** – 2119 If this parameter is turned on, then the PTO will be reengaged (after disengagement due to the vehicle being over the vehicle speed value) when the vehicle speed falls below TEM_PTO_Veh_Spd_Engmnt_Limit.
- **TEM_PTO_Eng_Spd_Allow_ReEng** – 2120 If this parameter is turned on, then the PTO will be reengaged (after disengagement due to engine overspeed) when the engine speed falls below TEM_PTO_Eng_Spd_Engmnt_Limit.
- **TEM_PTO_Ext_Input_Allow_ReEng** – 2121 If this parameter is turned on, then the PTO will be reengaged (after a disengage due to the designated external input being in active state) when the external input is no longer in active state.
- **TEM_PTO_Eng_Run_Allow_ReEng** – 2122 If this parameter is turned on, then the PTO will be reengaged (after disengagement due to engine stopping) when the engine is restarted.
- **TEM_PTO_Mast_Swtch_Allow_ReEng** – 2123 If is turned on, then the PTO will be reengaged after a disengage due to the master switch being turned off when the master switch is turned on again.
- **TEM_PTO_Air_Pres_Allow_ReEng** – 2124 If this parameter is turned on, then the PTO will be reengaged (after disengagement due to low air pressure) when the primary air pressure rises about the value specified by TEM_PTO_Air_Pres_Engmnt_Limit.
- **TEM_PTO_Non_Neut_Allow_ReEng** – 2148 If this parameter is turned on, then the PTO will be reengaged (after disengagement due to transmission out of neutral) when the transmission is placed back into neutral.

- **TEM_PTO_Pk_Brake_Allow_ReEng** – 2149 If this parameter is turned on, then the PTO will be reengaged (after disengagement due to park brake released) when the park brake is reapplied.
- **ALARM PARAMETERS**
  These parameters utilize the gauge cluster to sound an alarm to the driver when certain programmable parameters are violated.
- **TEM_PTO_Pk_Brake_Alarms** – If this parameter is turned on, then an audible alarm will sound in the cab if the PTO is engaged and the park brake is released.
- **TEM_PTO_Non_Neut_Alarms** – 2132 If this parameter is turned on, then an audible alarm will sound in the cab if the PTO is engaged and the transmission is taken out of neutral.
- **TEM_PTO_Veh_Spd_Alarms** – 2133 If this is turned on, then an audible alarm will sound if the PTO is engaged and the vehicle speed is over the value set by TEM_PTO_Veh_Spd_Alarm_Limit
- **TEM_PTO_Veh_Spd_Alarm_Limit** – 2134 This parameter sets the physical value for the Vehicle Speed Alarm.
- **TEM_PTO_Eng_Spd_Alarms** – 2135 If this is turned on, then an alarm will sound if the PTO is engaged and the engine speed is over the value set by TEM_PTO_Eng_Spd_Alarm_Limit
- **TEM_PTO_Eng_Spd_Alarm_Limit** – 2136 This parameter sets the physical value for the Engine Speed Alarm.
- **TEM_PTO_Eng_Run_Alarms** – 2137 If this parameter is turned on, then an audible alarm will sound in the cab if the PTO is engaged and the engine is turned off.
- **TEM_PTO_Air_Pres_Alarms** – 2138 If this parameter is turned on, then an audible alarm will sound in the cab if the primary air pressure drops below the value specified by TEM_PTO_Air_Pres_Alarm_Limit.
- **TEM_PTO_Air_Pres_Alarm_Limit** – 2139 This parameter sets the physical value for the Air Pressure Alarm.
- **TEM_RPM_PTO_Engaged_Param** – 2147 This parameter indicates the active state that the body controller (BC) will read as active for the TEM PTO feedback switch (as it goes into the RPM input). This active state will be used to indicate when the PTO is engaged:
  - 0 = Input active when open circuit
  - 1 = Input active when grounded
  - 2 = not used
  - 3 = Input active when at 12V

- Parameters unique to 597281
- **TEM_PTO_Retaining_Solenoid_Fuse** – 2022 This parameter is the fusing value for the Remote Power Module output feeding the retaining coil that holds the

electric solenoid in the engaged position. If current exceeds this value, the BC will turn off the output.

- **TEM_PTO_Allowed_Engagement_Time –** 2057 This parameter sets the maximum time allowed for the solenoid to make one engagement attempt.
- **TEM_PTO_Lectra_Shift_Max_Retries –** 2058 This parameter allows the customer to establish the maximum number of times that the operator can request a PTO engagement per key cycle.
- **TEM_PTO_Lectra_Shift_Retry_Time –** 2059 This parameter sets the time between a failed engagement attempt and the time that the operator can attempt to engage the PTO again.

Note/s About Possible Software Feature Conflicts:
Only one PTO feature is allowed with 597200.
Also, 597281 conflicts with 597132, 597264, 597277, 597278, 597280, 597304, 597307
Additionally, 597283 conflicts with 597279

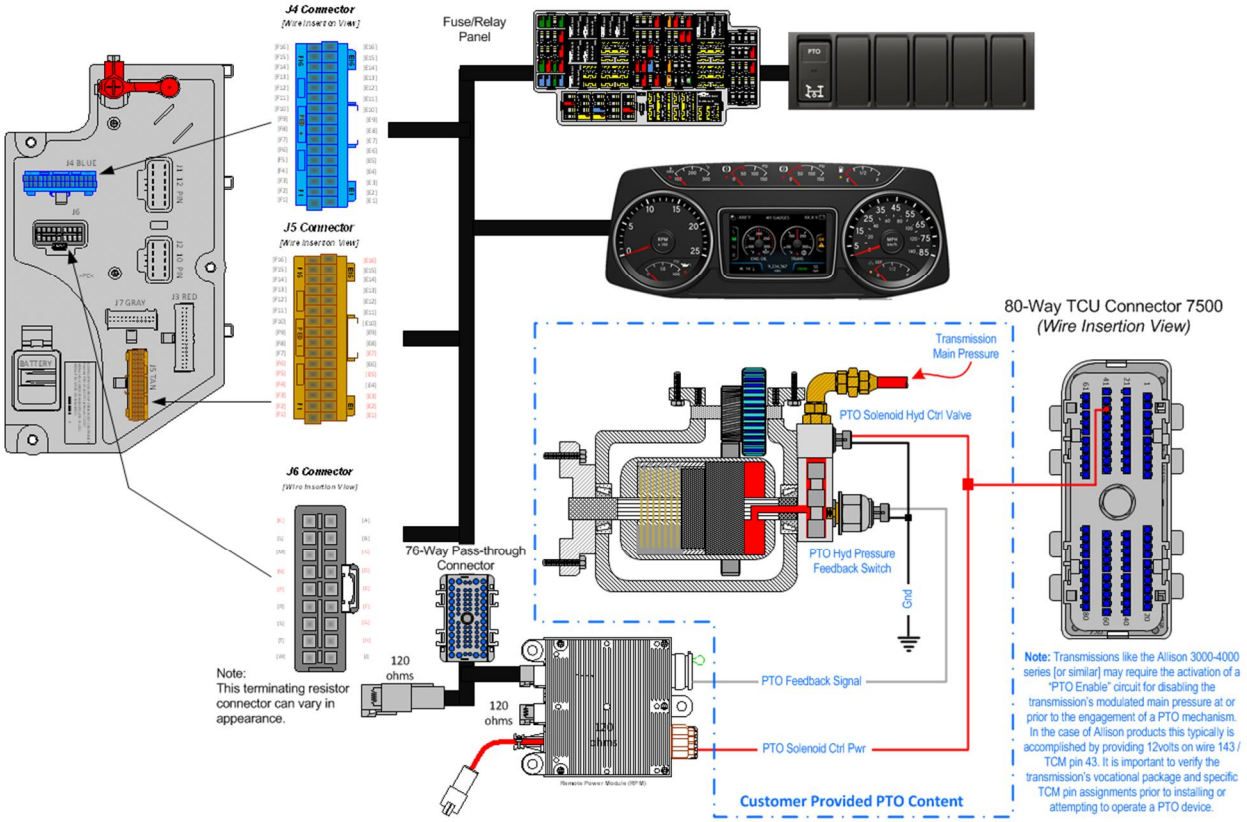
25.7. 60ABE: BDY INTG, PTO ACCOMMODATION for Electric over Hydraulic PTO, With Switch Mounted on Dash, Includes Audible Alarm and Indicator Light in Gauge Cluster (Requires one RPM input and one output). This feature does Not Include Solenoids.

Extended Description: This feature provides a 2-position, latched switch in a switch pack to drive one RPM output to engage an Electric Over Hydraulic PTO. This feature utilizes a customer-mounted PTO feedback switch wired to an RPM input to drive an indicator light in the gauge cluster that allows the operator to determine that the PTO is engaged. An audible alarm is used to warn the operator when the PTO is engaged during unsafe vehicle operating conditions such as when the park brake is released or the engine speed is too high. Operating limits are established through programmable parameters that are set in the Body Controller (BC). The RPM input also drives a PTO hourmeter to allow the operator to measure stationary PTO hours for maintenance records and fuel tax purposes. To view the PTO hourmeter, press the gauge cluster display selector button momentarily until the text portion of the display indicates “PTO Hour.”

The PTO alarms are controlled by programmable parameters set in the Body Controller (BC). Factory default settings for these programmable parameters are listed in the tables below.

Please use the Diamond Logic® Builder software to determine pin locations for RPM inputs and outputs (refer to the CONNECTOR screen view) and to set programmable parameters (refer to the FEATURE screen view).

System Block Diagram:



Note: Transmissions as the Allison automatic series [or similar] may require the activation of a "PTO Enable" circuit for disabling the transmission's modulated main pressure at or prior to the engagement of a PTO mechanism. In the case of Allison products this typically is accomplished by providing 12volts on wire 143 / TCM pin 43. It is important to verify the transmission's vocational package and specific TCM pin assignments prior to installing or attempting to operate a PTO device. It is important to insure the Power Take Off (PTO) internal shift mechanism has adequate hydraulic potential communication for the full engagement of the PTO coupling/decoupling mechanism. Full engagement is typically a function of the available hydraulic potential sourced from the transmission's main discharge pump [or equivalent] supply system which [can] limit the full power transmission capabilities of the PTO coupling and decoupling mechanism/s.

Software Feature Codes:

- 597200 - BCM PROG, **PTO CONTROL LOGIC for Dash Switch**
- 597304 - BCM PROG, **PTO SHIFT FOR HYD CLUTCH**
- 597282 - BCM PROG, **PTO HOURMETER HRS DISPLAYED IP**
- 597283 - BCM PROG, **PTO MONITOR INDICATOR & ALARM**
- **Note: Feature 16WLM is part of 60ABE**

- **Note: if Eaton Procision Transmission is being used add:**
  - **597276 – BCM PROG, PTO ENABLER J1939 Engagement Consent for Eaton Procision**

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
On – Indicates a 1 is set for the parameter							
Off – Indicates a 0 is set in for this parameter							
ENGAGEMENT PARAMETERS							
TEM_PTO_PK_Brake_Engmnt_Inhib	2087	If this Parameter is 1, the PTO will not be engaged if the Park Brake is not set.	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Non_Neut_Engmnt_Inhib	2088	If this Parameter is 1, the PTO will not be engaged if the Transmission is not in Neutral or Park	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Neut_Engmnt_Inhib	2089	If this Parameter is 1, the PTO will only be engaged if the Transmission is not in Neutral or Park	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_Engmnt_Inhib	2090	If this Parameter is 1, the PTO will not be engaged if the vehicle speed is over the value set in TEM_PTO_Veh_Spd_Engmnt_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_Engmnt_Limit	2091	See TEM_PTO_Veh_Spd_Engmnt_Inhib	3.00	MPH	1	100	1
TEM_PTO_Eng_Spd_Engmnt_Inhib	2092	If this Parameter is 1, the PTO will not be engaged if the engine speed is over the value set in TEM_PTO_Eng_Spd_Engmnt_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTO_Eng_Spd_Engmnt_Limit	2093	See TEM_PTO_Eng_Spd_Engmnt_Inhib	1000	RPM	100	5000	0.1
TEM_PTO_Cltch_Engmnt_Inhib	2094	If this Parameter is 1, the PTO will not be engaged if the clutch pedal is not depressed	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Brake_Engmnt_Inhib	2095	If this Parameter is 1, the PTO will not be engaged if the brake pedal is not depressed	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Eng_Run_Engmnt_Inhib	2096	If this Parameter is 1, the PTO will not be engaged if the engine is not running	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_Engmnt_Inhib	2097	If this Parameter is 1, the PTO will not be engaged if the primary vehicle air pressure is below TEM_PTO_Air_Pres_Engmnt_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_Engmnt_Limit	2098	See TEM_PTO_Air_Pres_Engmnt_Inhib	90	PSI	1	500	1
TEM_PTO_Mast_Swtch_Engmnt_Inhib	2099	If this Parameter is 1, the PTO will not be engaged if the vehicle master switch is not ON.	OFF	N/A	N/A	N/A	N/A
DISENGAGEMENT PARAMETERS							
TEM_PTO_Pk_Brake_Disengages	2108	if this Parameter is 1, the PTO will be disengaged if the Park Brake is released	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Non_Neut_Disengages	2109	if this Parameter is 1, the PTO will be disengaged if the transmission is taken out of neutral	OFF	N/A	N/A	N/A	N/A

TEM_PTO_Veh_Spd_Disengages	2110	if this Parameter is 1, the PTO will be disengaged if the vehicle speed is over the value set in TEM_PTO_Veh_Spd_DisEng_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_DisEng_Limit	2111	see TEM_PTO_Veh_Spd_Disengages	3	MPH	3	100	1
TEM_PTO_Eng_Spd_Disengages	2112	if this Parameter is 1, the PTO will be disengaged if the vehicle speed is over the value set in TEM_PTO_Eng_Spd_DisEng_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTO_Eng_Spd_DisEng_Limit	2113	see TEM_PTO_Eng_Spd_Disengages	1800	RPM	0	5000	1
TEM_PTO_Eng_Run_Disengages	2114	If this Parameter is 1, the PTO will be disengaged if the engine is turned off	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_Disengages	2115	if this Parameter is 1, the PTO will be disengaged if the primary air pressure is below the value set in TEM_PTO_Air_Pres_DisEng_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_DisEng_Limit	2116	see TEM_PTO_Air_Pres_Disengages	80	PSI	0	500	1
TEM_PTO_Ext_Input_Disengages	2117	if this Parameter is 1, the PTO will be disengaged if the external input designated for this purpose is active	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Mast_Swtch_Disengages	2118	if this Parameter is 1, the PTO will be disengaged if the vehicle master switch is not ON	OFF	N/A	N/A	N/A	N/A
RE-ENGAGEMENT PARAMETERS							
TEM_PTO_Key_State_Allow_ReEng	2069	If this parameter is set, the PTO will be allowed to reengage when the key state is returned to run.	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_Allow_ReEng	2119	if this Parameter is 1, the PTO will be reengaged after a disengage due to vehicle overspeed when the vehicle speed is below TEM_PTO_Veh_Spd_Engmnt_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Eng_Spd_Allow_ReEng	2120	if this Parameter is 1, the PTO will be reengaged after a disengage due to engine overspeed when the engine speed is below TEM_PTO_Eng_Spd_Engmnt_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTO_Ext_Input_Allow_ReEng	2121	if this Parameter is 1, the PTO will be reengaged after a disengage due to the designated external input when the external input is no longer active	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Eng_Run_Allow_ReEng	2122	if this Parameter is 1, the PTO will be reengaged after a disengage due to the engine stopping when the engine is restarted	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Mast_Swtch_Allow_ReEng	2123	if this Parameter is 1, the PTO will be reengaged after a disengage due to the master switch being turned off when the master switch is turned on again	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_Allow_ReEng	2124	if this Parameter is 1, the PTO will be reengaged after a disengage due to low vehicle air pressure when the primary air pressure is over TEM_PTO_Air_Pres_Engmnt_Limit	OFF	N/A	N/A	N/A	N/A

TEM_PTO_Non_Neut_Allow_ReEng	2148	if this Parameter is 1, the PTO will be reengaged after a disengage due to transmission out of neutral when the transmission is placed back into neutral.	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Pk_Brake_Allow_ReEng	2149	if this Parameter is 1, the PTO will be reengaged after a disengage due to park brake released when the park brake is reapplied.	OFF	N/A	N/A	N/A	N/A
ALARMS PARAMETERS							
TEM_PTO_Pk_Brake_Alarms	2131	if this Parameter is 1, an alarm will sound if the PTO is engaged and the park brake is released	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Non_Neut_Alarms	2132	if this Parameter is 1, an alarm will sound if the PTO is engaged and transmission is taken out of neutral	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_Alarms	2133	if this Parameter is 1, an alarm will sound if the PTO is engaged and the vehicle speed is over TEM_PTO_Veh_Spd_Alarm_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_Alarm_Limit	2134	See TEM_PTO_Veh_Spd_Alarms	3	MPH	3	100	1
TEM_PTO_Eng_Spd_Alarms	2135	if this Parameter is 1, an alarm will sound if the PTO is engaged and the engine speed is over TEM_PTO_Eng_Spd_Alarm_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTO_Eng_Spd_Alarm_Limit	2136	See TEM_PTO_Eng_Spd_Alarms	1400	RPM	0	5000	0.1
TEM_PTO_Eng_Run_Alarms	2137	if this Parameter is 1, an alarm will sound if the PTO is engaged and the engine is turned off	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_Alarms	2138	if this Parameter is 1, an alarm will sound if the primary air pressure is below TEM_PTO_Air_Pres_Alarm_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_Alarm_Limit	2139	See TEM_PTO_Air_Pres_Alarms	0	PSI	0	500	1
TEM_RPM_PTO_Engaged_Param	2147	Active State for the TEM PTO engagement feedback switch.	0	No_Units	0	3	1
Unique for 597304 - BCM PROG, **PTO SHIFT FOR HYD CLUTCH**							
TEM_Hyd_PTO_Engagement_Out_Param	1993	This is the fuse level of the Hydraulic PTO FET	20	Amps	0	20	0.1

Parameter Definitions:

- **ENGAGEMENT PARAMETERS**

  These parameters set rules that must be met for the PTO to be engaged.

  Example: If TEM_PTO_Air_Pres_Engmnt_Inhib parameter is turned on, the PTO cannot be engaged if the primary vehicle air pressure is below the programmable parameter set by TEM_PTO_Air_Pres_Engmnt_Limit. **for Dash Switch**

- **TEM_PTO_PK_Brake_Engmnt_Inhib** – 2087 If this parameter is turned on, then the brake pedal must be depressed for the PTO to engage.
- **TEM_PTO_Non_Neut_Engmnt_Inhib** – 2088 If this parameter is turned on, then the transmission must be in Neutral or Park for the PTO to be engaged.

- **TEM_PTO_Neut_Engmnt_Inhib** – 2089 If this parameter is turned on, then the PTO can only be engaged if the transmission is NOT in Neutral or Park.
- **TEM_PTO_Veh_Spd_Engmnt_Inhib** – 2090 If this parameter is turned on, then the PTO cannot be engaged if the vehicle speed is over the value prescribed by TEM_PTO_Veh_Spd_Engmnt_Limit.
- **TEM_PTO_Veh_Spd_Engmnt_Limit** – 2091 This parameter sets the physical value for the Vehicle Speed Inhibit.
- **TEM_PTO_Eng_Spd_Engmnt_Inhib** –2092 If this is parameter is turned on, then the PTO cannot be engaged if the engine speed is over a certain threshold, which is defined as a programmable parameter in TEM_PTO_Eng_Spd_Engmnt_Limit.
- **TEM_PTO_Eng_Spd_Engmnt_Limit** – 2093 This parameter sets the physical value for the Engine Speed Inhibit.
- **TEM_PTO_Cltch_Engmnt_Inhib** – 2094 If this parameter is turned on, then the clutch pedal must be depressed for the PTO to engage.
- **TEM_PTO_Brake_Engmnt_Inhib** – 2095 If this parameter is turned on, then the brake pedal must be depressed for the PTO to engage.
- **TEM_PTO_Eng_Run_Engmnt_Inhib** – 2096 If this parameter is turned on, then the engine must be running for the PTO to be engaged.
- **TEM_PTO_Air_Pres_Engmnt_Inhib** – 2097 If this parameter is turned on, the PTO cannot be engaged if the primary vehicle air pressure is below the programmable parameter set by TEM_PTO_Air_Pres_Engmnt_Limit.
- **TEM_PTO_Air_Pres_Engmnt_Limit** – 2098 This parameter sets the physical value for the Air Pressure Inhibit.
- **TEM_PTO_Mast_Swtch_Engmnt_Inhib** – 2099 If this parameter is turned on, then the PTO will not be engaged if the vehicle master switch is not ON.
- **DISENGAGEMENT PARAMETERS**
  These parameters set the conditions under which the PTO will be disengaged.
- **TEM_PTO_Pk_Brake_Disengages** – 2108 If this parameter is turned on, then the PTO will be disengaged if the Park Brake is released.
- **TEM_PTO_Non_Neut_Disengages** – 2109 If this parameter is turned on, then the PTO will be disengaged if the transmission is taken out of neutral.
- **TEM_PTO_Veh_Spd_Disengages** – 2110 If this parameter is turned on, then the PTO will be disengaged if the vehicle speed is over the valued specified by TEM_PTO_Veh_Spd_DisEng_Limit.
- **TEM_PTO_Veh_Spd_DisEng_Limit** – 2111 This parameter sets the physical value for the Vehicle Speed disengagement.
- **TEM_PTO_Eng_Spd_Disengages** – 2112 If this parameter is turned on, then the PTO will be disengaged if the engine speed rises above the value set by TEM_PTO_Eng_Spd_DisEng_Limit.
- **TEM_PTO_Eng_Spd_DisEng_Limit** – 2113 This parameter sets the physical value for the Engine Speed disengagement.

- **TEM_PTO_Eng_Run_Disengages** – 2114 If this parameter is turned on, then the PTO will be disengaged if the engine is turned off.
- **TEM_PTO_Air_Pres_Disengages** – 2115 If this parameter is turned on, then the PTO will be disengaged if the primary air pressure is below the value set in TEM_PTO_Air_Pres_DisEng_Limit.
- **TEM_PTO_Air_Pres_DisEng_Limit** – 2116 This parameter sets the physical value for the Air Pressure disengagement.
- **TEM_PTO_Ext_Input_Disengages** – 2117 If this parameter is turned on, then the PTO will be disengaged if the external input designated for this purpose is active.
- **TEM_PTO_Mast_Swtch_Disengages** – 2118 If this parameter is turned on, then the PTO will be disengaged if the vehicle master switch is not ON.
- **Re-ENGAGEMENT PARAMETERS**
  These parameters set the conditions under which the PTO will be re-engaged due to a parameter disengagement.
- **TEM_PTO_Key_State_Allow_ReEng** – 2069 If this parameter is turned on, then the PTO will be allowed to reengage when the key state is returned to run.
- **TEM_PTO_Veh_Spd_Allow_ReEng** – 2119 If this parameter is turned on, then the PTO will be reengaged (after disengagement due to the vehicle being over the vehicle speed value) when the vehicle speed falls below TEM_PTO_Veh_Spd_Engmnt_Limit.
- **TEM_PTO_Eng_Spd_Allow_ReEng** – 2120 If this parameter is turned on, then the PTO will be reengaged (after disengagement due to engine overspeed) when the engine speed falls below TEM_PTO_Eng_Spd_Engmnt_Limit.
- **TEM_PTO_Ext_Input_Allow_ReEng** – 2121 If this parameter is turned on, then the PTO will be reengaged (after a disengage due to the designated external input being in active state) when the external input is no longer in active state.
- **TEM_PTO_Eng_Run_Allow_ReEng** – 2122 If this parameter is turned on, then the PTO will be reengaged (after disengagement due to engine stopping) when the engine is restarted.
- **TEM_PTO_Mast_Swtch_Allow_ReEng** – 2123 If is turned on, then the PTO will be reengaged after a disengage due to the master switch being turned off when the master switch is turned on again.
- **TEM_PTO_Air_Pres_Allow_ReEng** – 2124 If this parameter is turned on, then the PTO will be reengaged (after disengagement due to low air pressure) when the primary air pressure rises about the value specified by TEM_PTO_Air_Pres_Engmnt_Limit.
- **TEM_PTO_Non_Neut_Allow_ReEng** – 2148 If this parameter is turned on, then the PTO will be reengaged (after disengagement due to transmission out of neutral) when the transmission is placed back into neutral.
- **TEM_PTO_Pk_Brake_Allow_ReEng** – 2149 If this parameter is turned on, then the PTO will be reengaged (after disengagement due to park brake released) when the park brake is reapplied.

- **ALARM PARAMETERS**

  These parameters utilize the gauge cluster to sound an alarm to the driver when certain programmable parameters are violated.
- **TEM_PTO_Pk_Brake_Alarms** – If this parameter is turned on, then an audible alarm will sound in the cab if the PTO is engaged and the park brake is released.
- **TEM_PTO_Non_Neut_Alarms** – 2132 If this parameter is turned on, then an audible alarm will sound in the cab if the PTO is engaged and the transmission is taken out of neutral.
- **TEM_PTO_Veh_Spd_Alarms** – 2133 If this is turned on, then an audible alarm will sound if the PTO is engaged and the vehicle speed is over the value set by TEM_PTO_Veh_Spd_Alarm_Limit
- **TEM_PTO_Veh_Spd_Alarm_Limit** – 2134 This parameter sets the physical value for the Vehicle Speed Alarm.
- **TEM_PTO_Eng_Spd_Alarms** – 2135 If this is turned on, then an alarm will sound if the PTO is engaged and the engine speed is over the value set by TEM_PTO_Eng_Spd_Alarm_Limit
- **TEM_PTO_Eng_Spd_Alarm_Limit** – 2136 This parameter sets the physical value for the Engine Speed Alarm.
- **TEM_PTO_Eng_Run_Alarms** – 2137 If this parameter is turned on, then an audible alarm will sound in the cab if the PTO is engaged and the engine is turned off.
- **TEM_PTO_Air_Pres_Alarms** – 2138 If this parameter is turned on, then an audible alarm will sound in the cab if the primary air pressure drops below the value specified by TEM_PTO_Air_Pres_Alarm_Limit.
- **TEM_PTO_Air_Pres_Alarm_Limit** – 2139 This parameter sets the physical value for the Air Pressure Alarm.
- **TEM_RPM_PTO_Engaged_Param** – 2147 This parameter indicates the active state that the body controller (BC) will read as active for the TEM PTO feedback switch (as it goes into the RPM input). This active state will be used to indicate when the PTO is engaged:
  - 0 = Input active when open circuit
  - 1 = Input active when grounded
  - 2 = not used
  - 3 = Input active when at 12V

- **Parameters unique to 597304 - PTO SHIFT FOR HYD CLUTCH**
- **TEM_Hyd_PTO_Engagement_Out_Param** – 1993 This parameter sets the current at which the Body Controller will fuse the Remote Power Module output that drives the engagement of the PTO. This is used to define the maximum amount of current that can flow through the Remote Power Module output.

Note/s About Possible Software Feature Conflicts:

Only one PTO feature is allowed with 597200.
Also, 597304 conflicts with 597132, 597264, 597277, 597278, 597280, 597281, 597307
Additionally, 597283 conflicts with 597279

25.8. 60ABK: BDY INTG, PTO ACCOMMODATION. Accommodation for Electric over Air, Non-Clutched PTO Engagement and Disengagement, does not Include Air Solenoid, With Switch Mounted on Dash, Includes Audible Alarm and Indicator Light in Gauge Cluster (requires one RPM input and one output).

Extended Description: This feature provides a momentary switch in the in-cab switch pack to drive an RPM output to engage an Electric over Air, Non-Clutched PTO. A RPM input is used to drive an indicator light in the gauge cluster to indicate when the PTO is engaged. An audible alarm sounds when certain programmable parameters are violated. The RPM input also drives a PTO hourmeter to allow the operator to measure stationary PTO hours for maintenance records and fuel tax purposes. To view the hourmeter, press the gauge cluster selection button momentarily until the text portion of the display indicates “PTO Hour.”

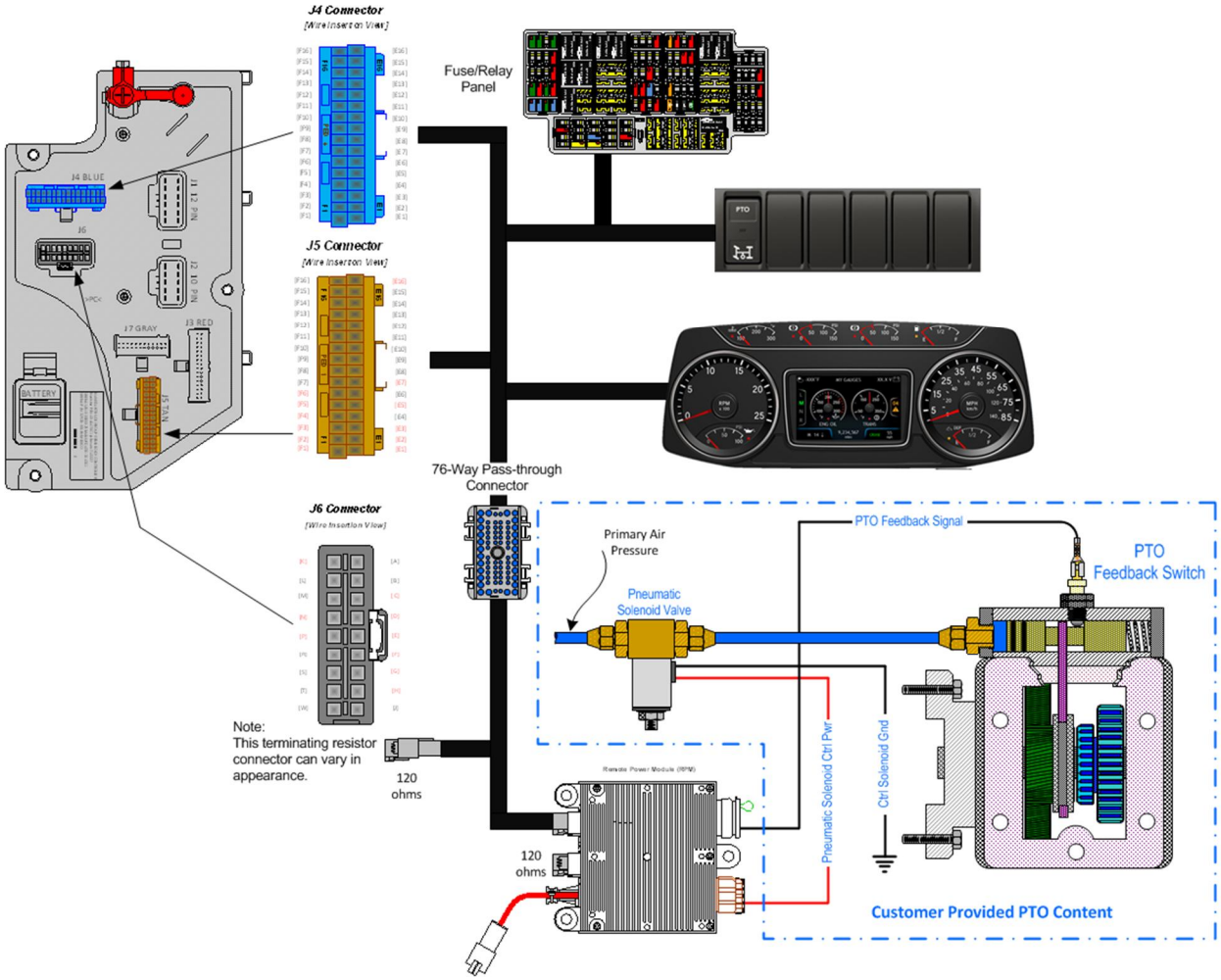
The Non-Clutched air-shifted PTO is a gear-to-gear engagement mechanism. Very specific transmission operating modes are required to allow safe engagement of the PTO. The PTO gear in the transmission must be stopped before engagement of the PTO should be attempted. The clutch must be depressed with the vehicle parked to engage the PTO for a manual transmission. An automatic transmission must be in any driving gear with vehicle parked to engage the PTO. Engagement, disengagement, and re-engagement parameters should be set according to the type of transmission where the Non-Clutched PTO is mounted.

The PTO alarms are controlled by programmable parameters set in the BCM. Through these programmable parameters, the vehicle owner can customize the functionality of the PTO. Factory default settings for these programmable parameters are listed in the tables below.

Please use the Diamond Logic® Builder software to determine pin locations for RPM inputs and outputs (refer to the CONNECTOR screen view) and to set programmable parameters (refer to the FEATURE screen view).

All re-engagement parameters for Non-Clutched PTOs are defaulted OFF. These parameters are defaulted to OFF because reengaging a Non-Clutched PTO automatically (after it has disengaged) could cause the gears to grind and damage the PTO.

System Block Diagram:



Note: It is important to insure the Power Take Off (PTO) internal shift mechanism has adequate pneumatic potential communication for the full engagement of the PTO coupling/decoupling mechanism. Full engagement is typically a function of the available pneumatic potential sourced from the chassis primary air pressure supply system which [can] limit the full power transmission capabilities of the PTO coupling and decoupling mechanism/s.

Body Controller Software Feature Codes:

- 597200 - BCM PROG, **PTO CONTROL LOGIC for Dash Switch**
- 597280 - BCM PROG, **PTO SHIFT with Pneumatic Non-Clutch Engagement**
- 597282 - BCM PROG, **PTO HOURMETER HRS DISPLAYED IP**
- 597283 - BCM PROG, **PTO MONITOR INDICATOR & ALARM**
- **Note: Feature 16WLM is part of 60ABK**
- **Note: if Eaton Procision Transmission is being used add:**
    - **597276 – BCM PROG, PTO ENABLER J1939 Engagement Consent for Eaton Procision**

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
On – Indicates a 1 is set for the parameter							
Off – Indicates a 0 is set in for this parameter							
ENGAGEMENT PARAMETERS							
TEM_PTO_PK_Brake_Engmnt_Inhib	2087	If this Parameter is 1, the PTO will not be engaged if the Park Brake is not set.	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Non_Neut_Engmnt_Inhib	2088	If this Parameter is 1, the PTO will not be engaged if the Transmission is not in Neutral or Park	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Neut_Engmnt_Inhib	2089	If this Parameter is 1, the PTO will only be engaged if the Transmission is not in Neutral or Park	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_Engmnt_Inhib	2090	If this Parameter is 1, the PTO will not be engaged if the vehicle speed is over the value set in TEM_PTO_Veh_Spd_Engmnt_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_Engmnt_Limit	2091	See TEM_PTO_Veh_Spd_Engmnt_Inhib	3.00	MPH	1	100	1
TEM_PTO_Eng_Spd_Engmnt_Inhib	2092	If this Parameter is 1, the PTO will not be engaged if the engine speed is over the value set in TEM_PTO_Eng_Spd_Engmnt_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTO_Eng_Spd_Engmnt_Limit	2093	See TEM_PTO_Eng_Spd_Engmnt_Inhib	1000	RPM	100	5000	0.1
TEM_PTO_Cltch_Engmnt_Inhib	2094	If this Parameter is 1, the PTO will not be engaged if the clutch pedal is not depressed	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Brake_Engmnt_Inhib	2095	If this Parameter is 1, the PTO will not be engaged if the brake pedal is not depressed	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Eng_Run_Engmnt_Inhib	2096	If this Parameter is 1, the PTO will not be engaged if the engine is not running	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_Engmnt_Inhib	2097	If this Parameter is 1, the PTO will not be engaged if the primary vehicle air pressure is below TEM_PTO_Air_Pres_Engmnt_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_Engmnt_Limit	2098	See TEM_PTO_Air_Pres_Engmnt_Inhib	90	PSI	1	500	1
TEM_PTO_Mast_Swtch_Engmnt_Inhib	2099	If this Parameter is 1, the PTO will not be engaged if the vehicle master switch is not ON.	OFF	N/A	N/A	N/A	N/A
DISENGAGEMENT PARAMETERS							
TEM_PTO_Pk_Brake_Disengages	2108	if this Parameter is 1, the PTO will be disengaged if the Park Brake is released	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Non_Neut_Disengages	2109	if this Parameter is 1, the PTO will be disengaged if the transmission is taken out of neutral	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_Disengages	2110	if this Parameter is 1, the PTO will be disengaged if the vehicle speed is over the value set in TEM_PTO_Veh_Spd_DisEng_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_DisEng_Limit	2111	see TEM_PTO_Veh_Spd_Disengages	3	MPH	3	100	1

TEM_PTO_Eng_Spd_Disengages	2112	if this Parameter is 1, the PTO will be disengaged if the vehicle speed is over the value set in TEM_PTO_Eng_Spd_DisEng_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTO_Eng_Spd_DisEng_Limit	2113	see TEM_PTO_Eng_Spd_Disengages	1800	RPM	0	5000	1
TEM_PTO_Eng_Run_Disengages	2114	If this Parameter is 1, the PTO will be disengaged if the engine is turned off	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_Disengages	2115	if this Parameter is 1, the PTO will be disengaged if the primary air pressure is below the value set in TEM_PTO_Air_Pres_DisEng_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_DisEng_Limit	2116	see TEM_PTO_Air_Pres_Disengages	80	PSI	0	500	1
TEM_PTO_Ext_Input_Disengages	2117	if this Parameter is 1, the PTO will be disengaged if the external input designated for this purpose is active	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Mast_Swtch_Disengages	2118	if this Parameter is 1, the PTO will be disengaged if the vehicle master switch is not ON	OFF	N/A	N/A	N/A	N/A
RE-ENGAGEMENT PARAMETERS							
TEM_PTO_Key_State_Allow_ReEng	2069	If this parameter is set, the PTO will be allowed to reengage when the key state is returned to run.	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_Allow_ReEng	2119	if this Parameter is 1, the PTO will be reengaged after a disengage due to vehicle overspeed when the vehicle speed is below TEM_PTO_Veh_Spd_Engmnt_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Eng_Spd_Allow_ReEng	2120	if this Parameter is 1, the PTO will be reengaged after a disengage due to engine overspeed when the engine speed is below TEM_PTO_Eng_Spd_Engmnt_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTO_Ext_Input_Allow_ReEng	2121	if this Parameter is 1, the PTO will be reengaged after a disengage due to the designated external input when the external input is no longer active	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Eng_Run_Allow_ReEng	2122	if this Parameter is 1, the PTO will be reengaged after a disengage due to the engine stopping when the engine is restarted	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Mast_Swtch_Allow_ReEng	2123	if this Parameter is 1, the PTO will be reengaged after a disengage due to the master switch being turned off when the master switch is turned on again	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_Allow_ReEng	2124	if this Parameter is 1, the PTO will be reengaged after a disengage due to low vehicle air pressure when the primary air pressure is over TEM_PTO_Air_Pres_Engmnt_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Non_Neut_Allow_ReEng	2148	if this Parameter is 1, the PTO will be reengaged after a disengage due to transmission out of neutral when the transmission is placed back into neutral.	OFF	N/A	N/A	N/A	N/A

TEM_PTO_Pk_Brake_Allow_ReEng	2149	if this Parameter is 1, the PTO will be reengaged after a disengage due to park brake released when the park brake is reapplied.	OFF	N/A	N/A	N/A	N/A
ALARMS PARAMETERS							
TEM_PTO_Pk_Brake_Alarms	2131	if this Parameter is 1, an alarm will sound if the PTO is engaged and the park brake is released	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Non_Neut_Alarms	2132	if this Parameter is 1, an alarm will sound if the PTO is engaged and transmission is taken out of neutral	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_Alarms	2133	if this Parameter is 1, an alarm will sound if the PTO is engaged and the vehicle speed is over TEM_PTO_Veh_Spd_Alarm_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_Alarm_Limit	2134	See TEM_PTO_Veh_Spd_Alarms	3	MPH	3	100	1
TEM_PTO_Eng_Spd_Alarms	2135	if this Parameter is 1, an alarm will sound if the PTO is engaged and the engine speed is over TEM_PTO_Eng_Spd_Alarm_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTO_Eng_Spd_Alarm_Limit	2136	See TEM_PTO_Eng_Spd_Alarms	1400	RPM	0	5000	0.1
TEM_PTO_Eng_Run_Alarms	2137	if this Parameter is 1, an alarm will sound if the PTO is engaged and the engine is turned off	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_Alarms	2138	if this Parameter is 1, an alarm will sound if the primary air pressure is below TEM_PTO_Air_Pres_Alarm_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_Alarm_Limit	2139	See TEM_PTO_Air_Pres_Alarms	0	PSI	0	500	1
TEM_RPM_PTO_Engaged_Param	2147	Active State for the TEM PTO engagement feedback switch.	0	No_Units	0	3	1
• Unique for 597280 - BCM PROG, **PTO SHIFT with Pneumatic Non Clutch Engage**							
TEM_Hyd_PTO_Engagement_Out_Param	1993	This is the fuse level of the Hydraulic PTO FET	20	Amps	0	20	0.1

Parameter Definitions:

- **ENGAGEMENT PARAMETERS**

  These parameters set rules that must be met for the PTO to be engaged.

  In Example

  If TEM_PTO_Air_Pres_Engmnt_Inhib parameter is turned on, the PTO cannot be engaged if the primary vehicle air pressure is below the programmable parameter set by TEM_PTO_Air_Pres_Engmnt_Limit. **for Dash Switch**

- **TEM_PTO_PK_Brake_Engmnt_Inhib –** 2087 If this parameter is turned on, then the brake pedal must be depressed for the PTO to engage.
- **TEM_PTO_Non_Neut_Engmnt_Inhib –** 2088 If this parameter is turned on, then the transmission must be in Neutral or Park for the PTO to be engaged.

- **TEM_PTO_Neut_Engmnt_Inhib** – 2089 If this parameter is turned on, then the PTO can only be engaged if the transmission is NOT in Neutral or Park.
- **TEM_PTO_Veh_Spd_Engmnt_Inhib** – 2090 If this parameter is turned on, then the PTO cannot be engaged if the vehicle speed is over the value prescribed by TEM_PTO_Veh_Spd_Engmnt_Limit.
- **TEM_PTO_Veh_Spd_Engmnt_Limit** – 2091 This parameter sets the physical value for the Vehicle Speed Inhibit.
- **TEM_PTO_Eng_Spd_Engmnt_Inhib** –2092 If this is parameter is turned on, then the PTO cannot be engaged if the engine speed is over a certain threshold, which is defined as a programmable parameter in TEM_PTO_Eng_Spd_Engmnt_Limit.
- **TEM_PTO_Eng_Spd_Engmnt_Limit** – 2093 This parameter sets the physical value for the Engine Speed Inhibit.
- **TEM_PTO_Cltch_Engmnt_Inhib** – 2094 If this parameter is turned on, then the clutch pedal must be depressed for the PTO to engage.
- **TEM_PTO_Brake_Engmnt_Inhib** – 2095 If this parameter is turned on, then the brake pedal must be depressed for the PTO to engage.
- **TEM_PTO_Eng_Run_Engmnt_Inhib** – 2096 If this parameter is turned on, then the engine must be running for the PTO to be engaged.
- **TEM_PTO_Air_Pres_Engmnt_Inhib** – 2097 If this parameter is turned on, the PTO cannot be engaged if the primary vehicle air pressure is below the programmable parameter set by TEM_PTO_Air_Pres_Engmnt_Limit.
- **TEM_PTO_Air_Pres_Engmnt_Limit** – 2098 This parameter sets the physical value for the Air Pressure Inhibit.
- **TEM_PTO_Mast_Swtch_Engmnt_Inhib** – 2099 If this parameter is turned on, then the PTO will not be engaged if the vehicle master switch is not ON.
- **DISENGAGEMENT PARAMETERS**
  These parameters set the conditions under which the PTO will be disengaged.
- **TEM_PTO_Pk_Brake_Disengages** – 2108 If this parameter is turned on, then the PTO will be disengaged if the Park Brake is released.
- **TEM_PTO_Non_Neut_Disengages** – 2109 If this parameter is turned on, then the PTO will be disengaged if the transmission is taken out of neutral.
- **TEM_PTO_Veh_Spd_Disengages** – 2110 If this parameter is turned on, then the PTO will be disengaged if the vehicle speed is over the valued specified by TEM_PTO_Veh_Spd_DisEng_Limit.
- **TEM_PTO_Veh_Spd_DisEng_Limit** – 2111 This parameter sets the physical value for the Vehicle Speed disengagement.
- **TEM_PTO_Eng_Spd_Disengages** – 2112 If this parameter is turned on, then the PTO will be disengaged if the engine speed rises above the value set by TEM_PTO_Eng_Spd_DisEng_Limit.
- **TEM_PTO_Eng_Spd_DisEng_Limit** – 2113 This parameter sets the physical value for the Engine Speed disengagement.

- **TEM_PTO_Eng_Run_Disengages** – 2114 If this parameter is turned on, then the PTO will be disengaged if the engine is turned off.
- **TEM_PTO_Air_Pres_Disengages** – 2115 If this parameter is turned on, then the PTO will be disengaged if the primary air pressure is below the value set in TEM_PTO_Air_Pres_DisEng_Limit.
- **TEM_PTO_Air_Pres_DisEng_Limit** – 2116 This parameter sets the physical value for the Air Pressure disengagement.
- **TEM_PTO_Ext_Input_Disengages** – 2117 If this parameter is turned on, then the PTO will be disengaged if the external input designated for this purpose is active.
- **TEM_PTO_Mast_Swtch_Disengages** – 2118 If this parameter is turned on, then the PTO will be disengaged if the vehicle master switch is not ON.
- **Re-ENGAGEMENT PARAMETERS**
  These parameters set the conditions under which the PTO will be re-engaged due to a parameter disengagement.
- **TEM_PTO_Key_State_Allow_ReEng** – 2069 If this parameter is turned on, then the PTO will be allowed to reengage when the key state is returned to run.
- **TEM_PTO_Veh_Spd_Allow_ReEng** – 2119 If this parameter is turned on, then the PTO will be reengaged (after disengagement due to the vehicle being over the vehicle speed value) when the vehicle speed falls below TEM_PTO_Veh_Spd_Engmnt_Limit.
- **TEM_PTO_Eng_Spd_Allow_ReEng** – 2120 If this parameter is turned on, then the PTO will be reengaged (after disengagement due to engine overspeed) when the engine speed falls below TEM_PTO_Eng_Spd_Engmnt_Limit.
- **TEM_PTO_Ext_Input_Allow_ReEng** – 2121 If this parameter is turned on, then the PTO will be reengaged (after a disengage due to the designated external input being in active state) when the external input is no longer in active state.
- **TEM_PTO_Eng_Run_Allow_ReEng** – 2122 If this parameter is turned on, then the PTO will be reengaged (after disengagement due to engine stopping) when the engine is restarted.
- **TEM_PTO_Mast_Swtch_Allow_ReEng** – 2123 If is turned on, then the PTO will be reengaged after a disengage due to the master switch being turned off when the master switch is turned on again.
- **TEM_PTO_Air_Pres_Allow_ReEng** – 2124 If this parameter is turned on, then the PTO will be reengaged (after disengagement due to low air pressure) when the primary air pressure rises about the value specified by TEM_PTO_Air_Pres_Engmnt_Limit.
- **TEM_PTO_Non_Neut_Allow_ReEng** – 2148 If this parameter is turned on, then the PTO will be reengaged (after disengagement due to transmission out of neutral) when the transmission is placed back into neutral.
- **TEM_PTO_Pk_Brake_Allow_ReEng** – 2149 If this parameter is turned on, then the PTO will be reengaged (after disengagement due to park brake released) when the park brake is reapplied.

- **ALARM PARAMETERS**

  These parameters utilize the gauge cluster to sound an alarm to the driver when certain programmable parameters are violated.
- **TEM_PTO_Pk_Brake_Alarms** – If this parameter is turned on, then an audible alarm will sound in the cab if the PTO is engaged and the park brake is released.
- **TEM_PTO_Non_Neut_Alarms** – 2132 If this parameter is turned on, then an audible alarm will sound in the cab if the PTO is engaged and the transmission is taken out of neutral.
- **TEM_PTO_Veh_Spd_Alarms** – 2133 If this is turned on, then an audible alarm will sound if the PTO is engaged and the vehicle speed is over the value set by TEM_PTO_Veh_Spd_Alarm_Limit
- **TEM_PTO_Veh_Spd_Alarm_Limit** – 2134 This parameter sets the physical value for the Vehicle Speed Alarm.
- **TEM_PTO_Eng_Spd_Alarms** – 2135 If this is turned on, then an alarm will sound if the PTO is engaged and the engine speed is over the value set by TEM_PTO_Eng_Spd_Alarm_Limit
- **TEM_PTO_Eng_Spd_Alarm_Limit** – 2136 This parameter sets the physical value for the Engine Speed Alarm.
- **TEM_PTO_Eng_Run_Alarms** – 2137 If this parameter is turned on, then an audible alarm will sound in the cab if the PTO is engaged and the engine is turned off.
- **TEM_PTO_Air_Pres_Alarms** – 2138 If this parameter is turned on, then an audible alarm will sound in the cab if the primary air pressure drops below the value specified by TEM_PTO_Air_Pres_Alarm_Limit.
- **TEM_PTO_Air_Pres_Alarm_Limit** – 2139 This parameter sets the physical value for the Air Pressure Alarm.
- **TEM_RPM_PTO_Engaged_Param** – 2147 This parameter indicates the active state that the body controller (BC) will read as active for the TEM PTO feedback switch (as it goes into the RPM input). This active state will be used to indicate when the PTO is engaged:
  - 0 = Input active when open circuit
  - 1 = Input active when grounded
  - 2 = not used
  - 3 = Input active when at 12V

- **Parameters Unique to 597280 - PTO SHIFT with Pneumatic Non-Clutch**
- **TEM_Hyd_PTO_Engagement_Out_Param** – 1993 This parameter sets the current at which the Body Controller will fuse the Remote Power Module output that drives the engagement of the PTO. This is used to define the maximum amount of current that can flow through the Remote Power Module output.

Note/s About Possible Software Feature Conflicts:

Only one PTO feature is allowed with 597200.

Also, 597280 conflicts with 597132, 597264, 597277, 597278, 597281, 597304, 597307
Additionally, 597283 conflicts with 597279

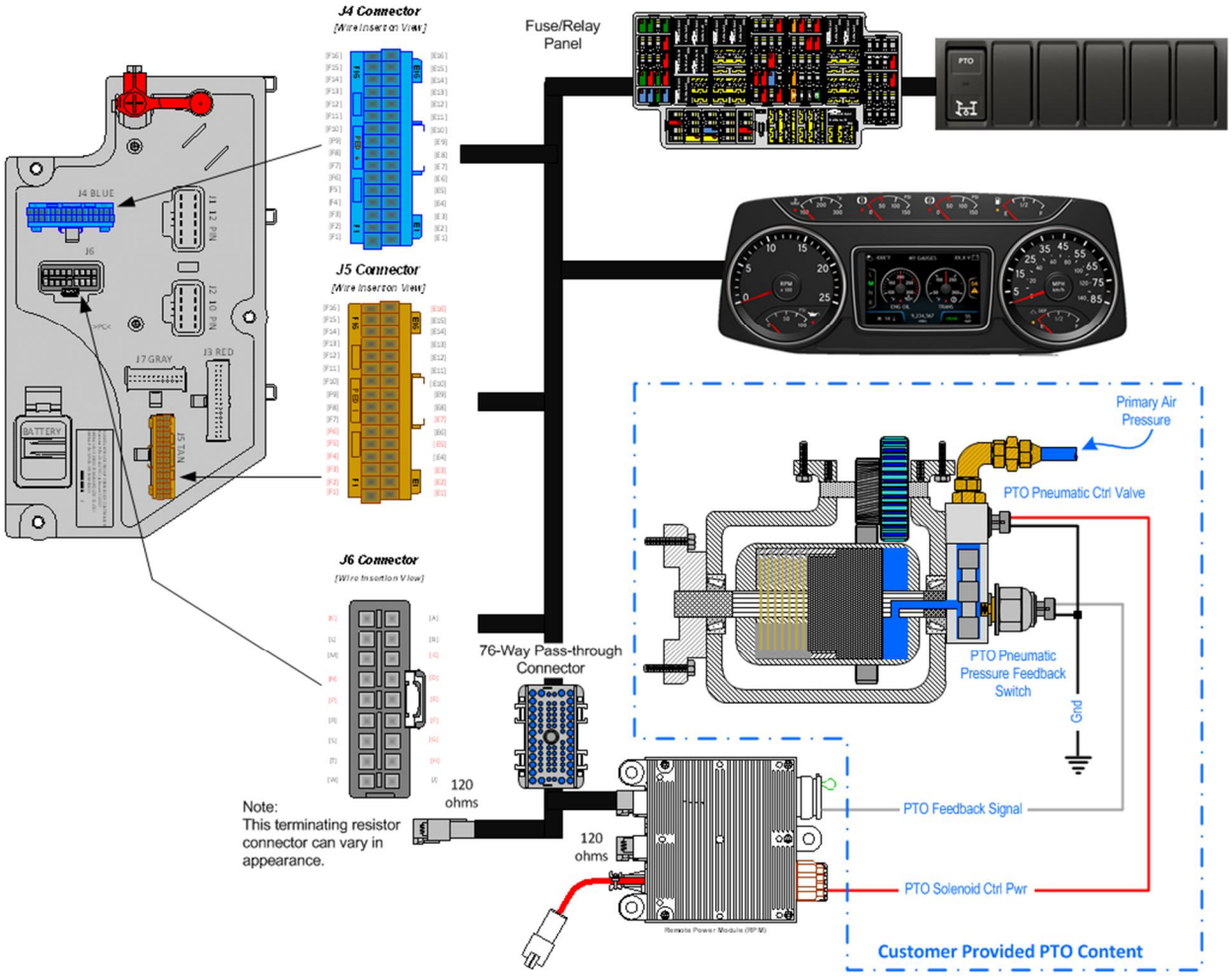
25.9. 60ABL: BDY INTG, PTO ACCOMMODATION. Accommodation for Electric over Air, Clutched PTO Engagement and Disengagement, does not Include Air Solenoid, With Switch Mounted on Dash, Includes Audible Alarm and Indicator Light in Gauge Cluster (requires one RPM input and one output).

Extended Description: This feature provides a latched switch in the in-cab switch pack to drive an RPM output that provides power to engage and disengage the Electric over Air, Clutched PTO. A RPM input is used to drive an indicator light in the gauge cluster, allowing the operator to discern if the PTO is engaged. An audible alarm sounds when certain programmable parameters are violated. The RPM input also drives a PTO hourmeter to allow the operator to measure stationary PTO hours for maintenance records and fuel tax purposes. To view the hourmeter, press the gauge cluster selection button momentarily until the text portion of the display indicates “PTO Hour.”

This PTO feature is a rule-based option. The operation of the PTO is governed by rules of engagement, disengagement, re-engagement, and alarms. These rules are defined through programmable parameters. Through these programmable parameters, the vehicle owner can customize the functionality of the PTO. Factory default settings for these programmable parameters are listed in the tables below.

Please use the Diamond Logic® Builder software to determine pin locations for RPM inputs and outputs (refer to the CONNECTOR screen view) and to set programmable parameters (refer to the FEATURE screen view).

System Block Diagram:



Note: It is important to insure the Power Take Off (PTO) internal shift mechanism has adequate pnuematic potential communication for the full engagement of the PTO coupling/decoupling mechanism. Full engagement is typically a function of the available pnuematic potential sourced from the chassis' primary air supply system which [can] limit the full power transmission capabilities of the PTO coupling and decoupling mechanism/s.

Body Controller Software Feature Codes:

- 597200 - BCM PROG, **PTO CONTROL LOGIC for Dash Switch**
- 597264 - BCM PROG, **PTO SHIFT with Pneumatic Engagement Electric Over Air**
- 597282 - BCM PROG, **PTO HOURMETER HRS DISPLAYED IP**
- 597283 - BCM PROG, **PTO MONITOR INDICATOR & ALARM**
- **Note: Feature 16WLM is part of 60ABL**
- **Note: if Eaton Procision Transmission is being used add:**

- **597276 – BCM PROG, PTO ENABLER J1939 Engagement Consent for Eaton Procision**

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
On – Indicates a 1 is set for the parameter							
Off – Indicates a 0 is set in for this parameter							
ENGAGEMENT PARAMETERS							
TEM_PTO_PK_Brake_Engmnt_Inhib	2087	If this Parameter is 1, the PTO will not be engaged if the Park Brake is not set.	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Non_Neut_Engmnt_Inhib	2088	If this Parameter is 1, the PTO will not be engaged if the Transmission is not in Neutral or Park	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Neut_Engmnt_Inhib	2089	If this Parameter is 1, the PTO will only be engaged if the Transmission is not in Neutral or Park	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_Engmnt_Inhib	2090	If this Parameter is 1, the PTO will not be engaged if the vehicle speed is over the value set in TEM_PTO_Veh_Spd_Engmnt_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_Engmnt_Limit	2091	See TEM_PTO_Veh_Spd_Engmnt_Inhib	3.00	MPH	1	100	1
TEM_PTO_Eng_Spd_Engmnt_Inhib	2092	If this Parameter is 1, the PTO will not be engaged if the engine speed is over the value set in TEM_PTO_Eng_Spd_Engmnt_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTO_Eng_Spd_Engmnt_Limit	2093	See TEM_PTO_Eng_Spd_Engmnt_Inhib	1000	RPM	100	5000	0.1
TEM_PTO_Cltch_Engmnt_Inhib	2094	If this Parameter is 1, the PTO will not be engaged if the clutch pedal is not depressed	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Brake_Engmnt_Inhib	2095	If this Parameter is 1, the PTO will not be engaged if the brake pedal is not depressed	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Eng_Run_Engmnt_Inhib	2096	If this Parameter is 1, the PTO will not be engaged if the engine is not running	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_Engmnt_Inhib	2097	If this Parameter is 1, the PTO will not be engaged if the primary vehicle air pressure is below TEM_PTO_Air_Pres_Engmnt_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_Engmnt_Limit	2098	See TEM_PTO_Air_Pres_Engmnt_Inhib	90	PSI	1	500	1
TEM_PTO_Mast_Swtch_Engmnt_Inhib	2099	If this Parameter is 1, the PTO will not be engaged if the vehicle master switch is not ON.	OFF	N/A	N/A	N/A	N/A
DISENGAGEMENT PARAMETERS							
TEM_PTO_Pk_Brake_Disengages	2108	if this Parameter is 1, the PTO will be disengaged if the Park Brake is released	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Non_Neut_Disengages	2109	if this Parameter is 1, the PTO will be disengaged if the transmission is taken out of neutral	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_Disengages	2110	if this Parameter is 1, the PTO will be disengaged if the vehicle speed	OFF	N/A	N/A	N/A	N/A

		is over the value set in TEM_PTO_Veh_Spd_DisEng_Limit					
TEM_PTO_Veh_Spd_DisEng_Limit	2111	see TEM_PTO_Veh_Spd_Disengages	3	MPH	3	100	1
TEM_PTO_Eng_Spd_Disengages	2112	if this Parameter is 1, the PTO will be disengaged if the vehicle speed is over the value set in TEM_PTO_Eng_Spd_DisEng_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTO_Eng_Spd_DisEng_Limit	2113	see TEM_PTO_Eng_Spd_Disengages	1800	RPM	0	5000	1
TEM_PTO_Eng_Run_Disengages	2114	If this Parameter is 1, the PTO will be disengaged if the engine is turned off	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_Disengages	2115	if this Parameter is 1, the PTO will be disengaged if the primary air pressure is below the value set in TEM_PTO_Air_Pres_DisEng_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_DisEng_Limit	2116	see TEM_PTO_Air_Pres_Disengages	80	PSI	0	500	1
TEM_PTO_Ext_Input_Disengages	2117	if this Parameter is 1, the PTO will be disengaged if the external input designated for this purpose is active	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Mast_Swtch_Disengages	2118	if this Parameter is 1, the PTO will be disengaged if the vehicle master switch is not ON	OFF	N/A	N/A	N/A	N/A
RE-ENGAGEMENT PARAMETERS							
TEM_PTO_Key_State_Allow_ReEng	2069	If this parameter is set, the PTO will be allowed to reengage when the key state is returned to run.	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_Allow_ReEng	2119	if this Parameter is 1, the PTO will be reengaged after a disengage due to vehicle overspeed when the vehicle speed is below TEM_PTO_Veh_Spd_Engmnt_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Eng_Spd_Allow_ReEng	2120	if this Parameter is 1, the PTO will be reengaged after a disengage due to engine overspeed when the engine speed is below TEM_PTO_Eng_Spd_Engmnt_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTO_Ext_Input_Allow_ReEng	2121	if this Parameter is 1, the PTO will be reengaged after a disengage due to the designated external input when the external input is no longer active	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Eng_Run_Allow_ReEng	2122	if this Parameter is 1, the PTO will be reengaged after a disengage due to the engine stopping when the engine is restarted	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Mast_Swtch_Allow_ReEng	2123	if this Parameter is 1, the PTO will be reengaged after a disengage due to the master switch being turned off when the master switch is turned on again	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_Allow_ReEng	2124	if this Parameter is 1, the PTO will be reengaged after a disengage due to low vehicle air pressure when the primary air pressure is over TEM_PTO_Air_Pres_Engmnt_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Non_Neut_Allow_ReEng	2148	if this Parameter is 1, the PTO will be reengaged after a disengage due	OFF	N/A	N/A	N/A	N/A

		to transmission out of neutral when the transmission is placed back into neutral.					
TEM_PTO_Pk_Brake_Allow_ReEng	2149	if this Parameter is 1, the PTO will be reengaged after a disengage due to park brake released when the park brake is reapplied.	OFF	N/A	N/A	N/A	N/A
ALARMS PARAMETERS							
TEM_PTO_Pk_Brake_Alarms	2131	if this Parameter is 1, an alarm will sound if the PTO is engaged and the park brake is released	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Non_Neut_Alarms	2132	if this Parameter is 1, an alarm will sound if the PTO is engaged and transmission is taken out of neutral	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_Alarms	2133	if this Parameter is 1, an alarm will sound if the PTO is engaged and the vehicle speed is over TEM_PTO_Veh_Spd_Alarm_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_Alarm_Limit	2134	See TEM_PTO_Veh_Spd_Alarms	3	MPH	3	100	1
TEM_PTO_Eng_Spd_Alarms	2135	if this Parameter is 1, an alarm will sound if the PTO is engaged and the engine speed is over TEM_PTO_Eng_Spd_Alarm_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTO_Eng_Spd_Alarm_Limit	2136	See TEM_PTO_Eng_Spd_Alarms	1400	RPM	0	5000	0.1
TEM_PTO_Eng_Run_Alarms	2137	if this Parameter is 1, an alarm will sound if the PTO is engaged and the engine is turned off	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_Alarms	2138	if this Parameter is 1, an alarm will sound if the primary air pressure is below TEM_PTO_Air_Pres_Alarm_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_Alarm_Limit	2139	See TEM_PTO_Air_Pres_Alarms	0	PSI	0	500	1
TEM_RPM_PTO_Engaged_Param	2147	Active State for the TEM PTO engagement feedback switch.	0	No_Units	0	3	1
Unique for 597264 - BCM PROG, **PTO SHIFT w Pneumatic Engagement Electric Over Air**							
TEM_Hyd_PTO_Engagement_Out_Param	1993	This is the fuse level of the Hydraulic PTO FET	20	Amps	0	20	0.1

Parameter Definitions:

- **ENGAGEMENT PARAMETERS**

  These parameters set rules that must be met for the PTO to be engaged.

  In Example

  If TEM_PTO_Air_Pres_Engmnt_Inhib parameter is turned on, the PTO cannot be engaged if the primary vehicle air pressure is below the programmable parameter set by TEM_PTO_Air_Pres_Engmnt_Limit. **for Dash Switch**

- **TEM_PTO_PK_Brake_Engmnt_Inhib –** 2087 If this parameter is turned on, then the brake pedal must be depressed for the PTO to engage.

- **TEM_PTO_Non_Neut_Engmnt_Inhib** – 2088 If this parameter is turned on, then the transmission must be in Neutral or Park for the PTO to be engaged.
- **TEM_PTO_Neut_Engmnt_Inhib** – 2089 If this parameter is turned on, then the PTO can only be engaged if the transmission is NOT in Neutral or Park.
- **TEM_PTO_Veh_Spd_Engmnt_Inhib** – 2090 If this parameter is turned on, then the PTO cannot be engaged if the vehicle speed is over the value prescribed by TEM_PTO_Veh_Spd_Engmnt_Limit.
- **TEM_PTO_Veh_Spd_Engmnt_Limit** – 2091 This parameter sets the physical value for the Vehicle Speed Inhibit.
- **TEM_PTO_Eng_Spd_Engmnt_Inhib** –2092 If this is parameter is turned on, then the PTO cannot be engaged if the engine speed is over a certain threshold, which is defined as a programmable parameter in TEM_PTO_Eng_Spd_Engmnt_Limit.
- **TEM_PTO_Eng_Spd_Engmnt_Limit** – 2093 This parameter sets the physical value for the Engine Speed Inhibit.
- **TEM_PTO_Cltch_Engmnt_Inhib** – 2094 If this parameter is turned on, then the clutch pedal must be depressed for the PTO to engage.
- **TEM_PTO_Brake_Engmnt_Inhib** – 2095 If this parameter is turned on, then the brake pedal must be depressed for the PTO to engage.
- **TEM_PTO_Eng_Run_Engmnt_Inhib** – 2096 If this parameter is turned on, then the engine must be running for the PTO to be engaged.
- **TEM_PTO_Air_Pres_Engmnt_Inhib** – 2097 If this parameter is turned on, the PTO cannot be engaged if the primary vehicle air pressure is below the programmable parameter set by TEM_PTO_Air_Pres_Engmnt_Limit.
- **TEM_PTO_Air_Pres_Engmnt_Limit** – 2098 This parameter sets the physical value for the Air Pressure Inhibit.
- **TEM_PTO_Mast_Swtch_Engmnt_Inhib** – 2099 If this parameter is turned on, then the PTO will not be engaged if the vehicle master switch is not ON.
- **DISENGAGEMENT PARAMETERS**

  These parameters set the conditions under which the PTO will be disengaged.
- **TEM_PTO_Pk_Brake_Disengages** – 2108 If this parameter is turned on, then the PTO will be disengaged if the Park Brake is released.
- **TEM_PTO_Non_Neut_Disengages** – 2109 If this parameter is turned on, then the PTO will be disengaged if the transmission is taken out of neutral.
- **TEM_PTO_Veh_Spd_Disengages** – 2110 If this parameter is turned on, then the PTO will be disengaged if the vehicle speed is over the valued specified by TEM_PTO_Veh_Spd_DisEng_Limit.
- **TEM_PTO_Veh_Spd_DisEng_Limit** – 2111 This parameter sets the physical value for the Vehicle Speed disengagement.
- **TEM_PTO_Eng_Spd_Disengages** – 2112 If this parameter is turned on, then the PTO will be disengaged if the engine speed rises above the value set by TEM_PTO_Eng_Spd_DisEng_Limit.

- **TEM_PTO_Eng_Spd_DisEng_Limit** – 2113 This parameter sets the physical value for the Engine Speed disengagement.
- **TEM_PTO_Eng_Run_Disengages** – 2114 If this parameter is turned on, then the PTO will be disengaged if the engine is turned off.
- **TEM_PTO_Air_Pres_Disengages** – 2115 If this parameter is turned on, then the PTO will be disengaged if the primary air pressure is below the value set in TEM_PTO_Air_Pres_DisEng_Limit.
- **TEM_PTO_Air_Pres_DisEng_Limit** – 2116 This parameter sets the physical value for the Air Pressure disengagement.
- **TEM_PTO_Ext_Input_Disengages** – 2117 If this parameter is turned on, then the PTO will be disengaged if the external input designated for this purpose is active.
- **TEM_PTO_Mast_Swtch_Disengages** – 2118 If this parameter is turned on, then the PTO will be disengaged if the vehicle master switch is not ON.
- **Re-ENGAGEMENT PARAMETERS**
  These parameters set the conditions under which the PTO will be re-engaged due to a parameter disengagement.
- **TEM_PTO_Key_State_Allow_ReEng** – 2069 If this parameter is turned on, then the PTO will be allowed to reengage when the key state is returned to run.
- **TEM_PTO_Veh_Spd_Allow_ReEng** – 2119 If this parameter is turned on, then the PTO will be reengaged (after disengagement due to the vehicle being over the vehicle speed value) when the vehicle speed falls below TEM_PTO_Veh_Spd_Engmnt_Limit.
- **TEM_PTO_Eng_Spd_Allow_ReEng** – 2120 If this parameter is turned on, then the PTO will be reengaged (after disengagement due to engine overspeed) when the engine speed falls below TEM_PTO_Eng_Spd_Engmnt_Limit.
- **TEM_PTO_Ext_Input_Allow_ReEng** – 2121 If this parameter is turned on, then the PTO will be reengaged (after a disengage due to the designated external input being in active state) when the external input is no longer in active state.
- **TEM_PTO_Eng_Run_Allow_ReEng** – 2122 If this parameter is turned on, then the PTO will be reengaged (after disengagement due to engine stopping) when the engine is restarted.
- **TEM_PTO_Mast_Swtch_Allow_ReEng** – 2123 If is turned on, then the PTO will be reengaged after a disengage due to the master switch being turned off when the master switch is turned on again.
- **TEM_PTO_Air_Pres_Allow_ReEng** – 2124 If this parameter is turned on, then the PTO will be reengaged (after disengagement due to low air pressure) when the primary air pressure rises about the value specified by TEM_PTO_Air_Pres_Engmnt_Limit.
- **TEM_PTO_Non_Neut_Allow_ReEng** – 2148 If this parameter is turned on, then the PTO will be reengaged (after disengagement due to transmission out of neutral) when the transmission is placed back into neutral.

- **TEM_PTO_Pk_Brake_Allow_ReEng** – 2149 If this parameter is turned on, then the PTO will be reengaged (after disengagement due to park brake released) when the park brake is reapplied.
- **ALARM PARAMETERS**
  These parameters utilize the gauge cluster to sound an alarm to the driver when certain programmable parameters are violated.
- **TEM_PTO_Pk_Brake_Alarms** – If this parameter is turned on, then an audible alarm will sound in the cab if the PTO is engaged and the park brake is released.
- **TEM_PTO_Non_Neut_Alarms** – 2132 If this parameter is turned on, then an audible alarm will sound in the cab if the PTO is engaged and the transmission is taken out of neutral.
- **TEM_PTO_Veh_Spd_Alarms** – 2133 If this is turned on, then an audible alarm will sound if the PTO is engaged and the vehicle speed is over the value set by TEM_PTO_Veh_Spd_Alarm_Limit
- **TEM_PTO_Veh_Spd_Alarm_Limit** – 2134 This parameter sets the physical value for the Vehicle Speed Alarm.
- **TEM_PTO_Eng_Spd_Alarms** – 2135 If this is turned on, then an alarm will sound if the PTO is engaged and the engine speed is over the value set by TEM_PTO_Eng_Spd_Alarm_Limit
- **TEM_PTO_Eng_Spd_Alarm_Limit** – 2136 This parameter sets the physical value for the Engine Speed Alarm.
- **TEM_PTO_Eng_Run_Alarms** – 2137 If this parameter is turned on, then an audible alarm will sound in the cab if the PTO is engaged and the engine is turned off.
- **TEM_PTO_Air_Pres_Alarms** – 2138 If this parameter is turned on, then an audible alarm will sound in the cab if the primary air pressure drops below the value specified by TEM_PTO_Air_Pres_Alarm_Limit.
- **TEM_PTO_Air_Pres_Alarm_Limit** – 2139 This parameter sets the physical value for the Air Pressure Alarm.
- **TEM_RPM_PTO_Engaged_Param** – 2147 This parameter indicates the active state that the body controller (BC) will read as active for the TEM PTO feedback switch (as it goes into the RPM input). This active state will be used to indicate when the PTO is engaged:
  - 0 = Input active when open circuit
  - 1 = Input active when grounded
  - 2 = not used
  - 3 = Input active when at 12V

- **Parameters Unique to 597264 - PTO SHIFT w Pneumatic Engagement Electric Over Air**
- **TEM_Hyd_PTO_Engagement_Out_Param** – 1993 This parameter sets the current at which the Body Controller will fuse the Remote Power Module output

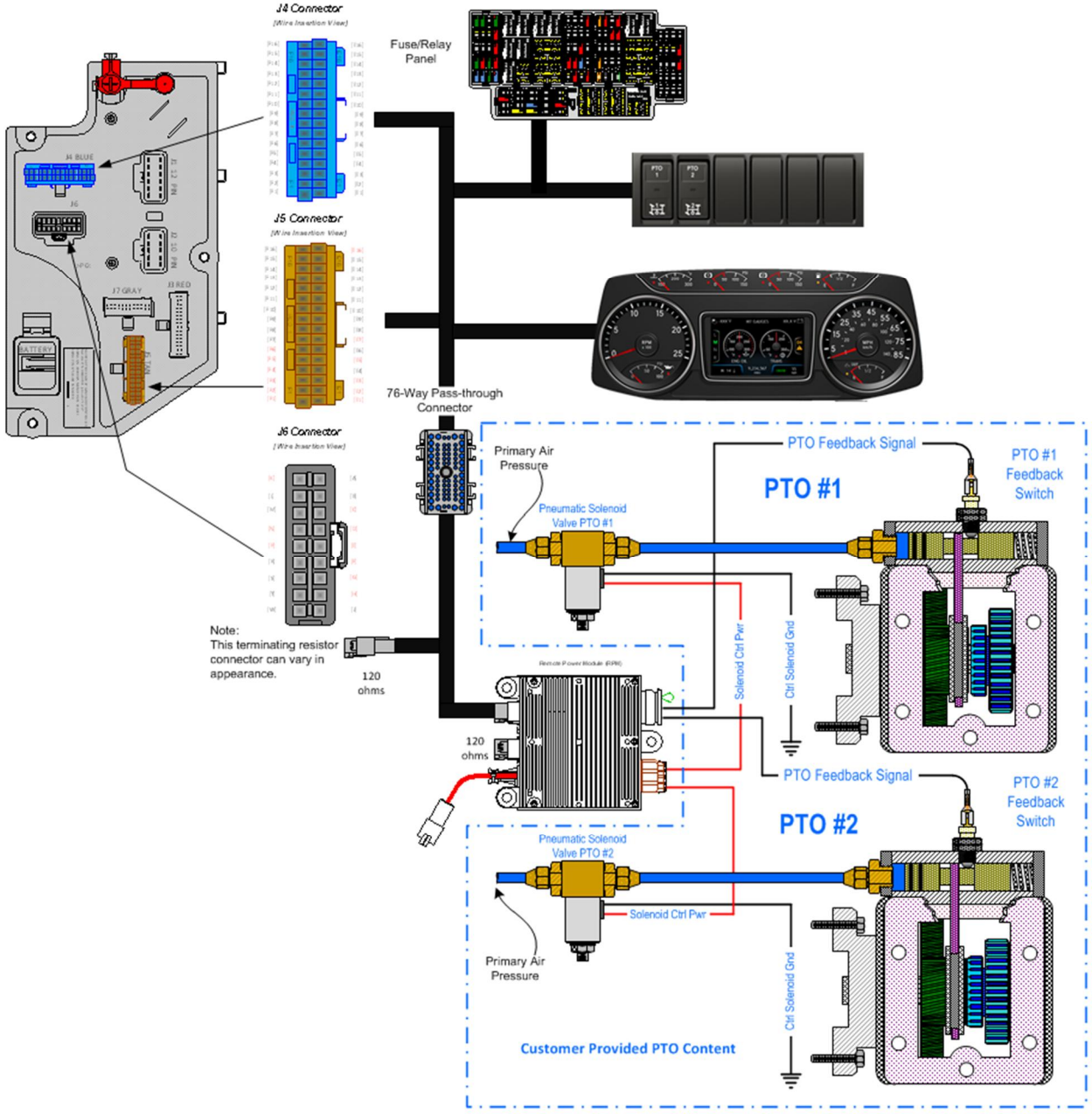
that drives the engagement of the PTO. This is used to define the maximum amount of current that can flow through the Remote Power Module output.

Note/s About Possible Software Feature Conflicts:
Only one PTO feature is allowed with 597200.
Also, 597264 conflicts with 597132, 597277, 597278, 597280, 597281, 597304, 597307
Additionally, 597283 conflicts with 597279

25.10. 60ABR: BDY INTG, PTO ACCOMMODATION for Electric over Air, Non-Clutched PTO Engagement and Disengagement, does not Include Air Solenoid, with 2-Latched Switches Mounted on Dash, Includes Audible Alarm and Indicator Light in Gauge Cluster (requires 2 Remote Input Power Module Inputs & 2 Outputs).

Extended Description: Feature 60ABR provides accommodations for two independently actuated electric over air, non-clutched PTO's with engagement feedback and includes a separate hour meter for each PTO that is viewable in the gauge cluster. The accommodation also includes an audible alarm and indicator light in the gauge cluster. Each PTO accommodation in 60ABR includes a two-position latching switch located in the center panel. Each switch controls a separate Remote Power Module output to provide power to the PTO solenoid and accepts a separate PTO feedback switch Remote Power Module input. Both PTO accommodations have a set of separate programmable parameters to customize operation. These parameters include engagement, disengagement and re-engagement as well as customizing audible and visual alarms. Please use the Diamond Logic® Builder software to determine switch locations and pin locations for Remote Power Module inputs and outputs and to set programmable parameters.

System Block Diagram:



Note: It is important to insure each Power Take Off (PTO) internal shift mechanism has adequate pneumatic potential communication for the full engagement of the PTO coupling/decoupling mechanisms. Full engagement is typically a function of the available pneumatic potential sourced from the chassis primary air pressure supply system which [can] limit the full power transmission capabilities of the PTO coupling and decoupling mechanism/s.

Body Controller Software Feature Codes:

- 597307 - BCM PROG, **TRANSMISSION PTO Dual, Over J1939, with 42 Parameters**
- 597282 - BCM PROG, **PTO HOURMETER HRS DISPLAYED IP**
- **Note: if Eaton Procision Transmission is being used add:**
    - **597276 – BCM PROG, PTO ENABLER J1939 Engagement Consent for Eaton Procision**

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
On – Indicates a 1 is set for the parameter							
Off – Indicates a 0 is set in for this parameter							
Parameters 2069-2149 all apply to PTOa							
ENGAGEMENT PARAMETERS							
TEM_PTO_PK_Brake_Engmnt_Inhib	2087	If this Parameter is 1, the PTO will not be engaged if the Park Brake is not set.	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Non_Neut_Engmnt_Inhib	2088	If this Parameter is 1, the PTO will not be engaged if the Transmission is not in Neutral or Park	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Neut_Engmnt_Inhib	2089	If this Parameter is 1, the PTO will only be engaged if the Transmission is not in Neutral or Park	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_Engmnt_Inhib	2090	If this Parameter is 1, the PTO will not be engaged if the vehicle speed is over the value set in TEM_PTO_Veh_Spd_Engmnt_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_Engmnt_Limit	2091	See TEM_PTO_Veh_Spd_Engmnt_Inhib	3.00	MPH	1	100	1
TEM_PTO_Eng_Spd_Engmnt_Inhib	2092	If this Parameter is 1, the PTO will not be engaged if the engine speed is over the value set in TEM_PTO_Eng_Spd_Engmnt_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTO_Eng_Spd_Engmnt_Limit	2093	See TEM_PTO_Eng_Spd_Engmnt_Inhib	1000	RPM	100	5000	0.1
TEM_PTO_Cltch_Engmnt_Inhib	2094	If this Parameter is 1, the PTO will not be engaged if the clutch pedal is not depressed	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Brake_Engmnt_Inhib	2095	If this Parameter is 1, the PTO will not be engaged if the brake pedal is not depressed	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Eng_Run_Engmnt_Inhib	2096	If this Parameter is 1, the PTO will not be engaged if the engine is not running	ON	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_Engmnt_Inhib	2097	If this Parameter is 1, the PTO will not be engaged if the primary vehicle air pressure is below TEM_PTO_Air_Pres_Engmnt_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_Engmnt_Limit	2098	See TEM_PTO_Air_Pres_Engmnt_Inhib	90	PSI	1	500	1
TEM_PTO_Mast_Swtch_Engmnt_Inhib	2099	If this Parameter is 1, the PTO will not be engaged if the vehicle master switch is not ON.	OFF	N/A	N/A	N/A	N/A
DISENGAGEMENT PARAMETERS							

TEM_PTO_Pk_Brake_Disengages	2108	if this Parameter is 1, the PTO will be disengaged if the Park Brake is released	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Non_Neut_Disengages	2109	if this Parameter is 1, the PTO will be disengaged if the transmission is taken out of neutral	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_Disengages	2110	if this Parameter is 1, the PTO will be disengaged if the vehicle speed is over the value set in TEM_PTO_Veh_Spd_DisEng_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_DisEng_Limit	2111	see TEM_PTO_Veh_Spd_Disengages	3	MPH	3	100	1
TEM_PTO_Eng_Spd_Disengages	2112	if this Parameter is 1, the PTO will be disengaged if the vehicle speed is over the value set in TEM_PTO_Eng_Spd_DisEng_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Eng_Spd_DisEng_Limit	2113	see TEM_PTO_Eng_Spd_Disengages	2000	RPM	0	5000	1
TEM_PTO_Eng_Run_Disengages	2114	If this Parameter is 1, the PTO will be disengaged if the engine is turned off	ON	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_Disengages	2115	if this Parameter is 1, the PTO will be disengaged if the primary air pressure is below the value set in TEM_PTO_Air_Pres_DisEng_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_DisEng_Limit	2116	see TEM_PTO_Air_Pres_Disengages	80	PSI	0	500	1
TEM_PTO_Ext_Input_Disengages	2117	if this Parameter is 1, the PTO will be disengaged if the external input designated for this purpose is active	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Mast_Swtch_Disengages	2118	if this Parameter is 1, the PTO will be disengaged if the vehicle master switch is not ON	OFF	N/A	N/A	N/A	N/A
RE-ENGAGEMENT PARAMETERS							
TEM_PTO_Key_State_Allow_ReEng	2069	If this parameter is set, the PTO will be allowed to reengage when the key state is returned to run.	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_Allow_ReEng	2119	if this Parameter is 1, the PTO will be reengaged after a disengage due to vehicle overspeed when the vehicle speed is below TEM_PTO_Veh_Spd_Engmnt_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Eng_Spd_Allow_ReEng	2120	if this Parameter is 1, the PTO will be reengaged after a disengage due to engine overspeed when the engine speed is below TEM_PTO_Eng_Spd_Engmnt_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTO_Ext_Input_Allow_ReEng	2121	if this Parameter is 1, the PTO will be reengaged after a disengage due to the designated external input when the external input is no longer active	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Eng_Run_Allow_ReEng	2122	if this Parameter is 1, the PTO will be reengaged after a disengage due to the engine stopping when the engine is restarted	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Mast_Swtch_Allow_ReEng	2123	if this Parameter is 1, the PTO will be reengaged after a disengage due to the master switch being turned off	OFF	N/A	N/A	N/A	N/A

		when the master switch is turned on again					
TEM_PTO_Air_Pres_Allow_ReEng	2124	if this Parameter is 1, the PTO will be reengaged after a disengage due to low vehicle air pressure when the primary air pressure is over TEM_PTO_Air_Pres_Engmnt_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Non_Neut_Allow_ReEng	2148	if this Parameter is 1, the PTO will be reengaged after a disengage due to transmission out of neutral when the transmission is placed back into neutral.	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Pk_Brake_Allow_ReEng	2149	if this Parameter is 1, the PTO will be reengaged after a disengage due to park brake released when the park brake is reapplied.	OFF	N/A	N/A	N/A	N/A
ALARMS PARAMETERS							
TEM_PTO_Pk_Brake_Alarms	2131	if this Parameter is 1, an alarm will sound if the PTO is engaged and the park brake is released	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Non_Neut_Alarms	2132	if this Parameter is 1, an alarm will sound if the PTO is engaged and transmission is taken out of neutral	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_Alarms	2133	if this Parameter is 1, an alarm will sound if the PTO is engaged and the vehicle speed is over TEM_PTO_Veh_Spd_Alarm_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_Alarm_Limit	2134	See TEM_PTO_Veh_Spd_Alarms	5	MPH	3	100	1
TEM_PTO_Eng_Spd_Alarms	2135	if this Parameter is 1, an alarm will sound if the PTO is engaged and the engine speed is over TEM_PTO_Eng_Spd_Alarm_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Eng_Spd_Alarm_Limit	2136	See TEM_PTO_Eng_Spd_Alarms	1400	RPM	0	5000	0.1
TEM_PTO_Eng_Run_Alarms	2137	if this Parameter is 1, an alarm will sound if the PTO is engaged and the engine is turned off	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_Alarms	2138	if this Parameter is 1, an alarm will sound if the primary air pressure is below TEM_PTO_Air_Pres_Alarm_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_Alarm_Limit	2139	See TEM_PTO_Air_Pres_Alarms	0	PSI	0	500	1
Parameters 2676-2772 all apply to PTOb							
ENGAGEMENT PARAMETERS							
TEM_PTOb_Brake_Engmnt_Inhib	2676	If this Parameter is 1, the PTOb will not be engaged if the brake pedal is not depressed	OFF	N/A	N/A	N/A	N/A
TEM_PTOb_Cltch_Engmnt_Inhib	2677	If this Parameter is 1, the PTOb will not be engaged if the clutch pedal is not depressed	OFF	N/A	N/A	N/A	N/A
TEM_PTOb_Eng_Run_Engmnt_Inhib	2678	If this Parameter is 1, the PTOb will not be engaged if the engine is not running	ON	N/A	N/A	N/A	N/A
TEM_PTOb_Eng_Spd_Engmnt_Inhib	2679	If this Parameter is 1, the PTOb will not be engaged if the engine speed is over the value set in	ON	N/A	N/A	N/A	N/A

		TEM_PTOb_Eng_Spd_Engmnt_Limit					
TEM_PTOb_Eng_Spd_Engmnt_Limit	2680	See TEM_PTOb_Eng_Spd_Engmnt_Inhib	1000	RPM	100	5000	0.1
TEM_PTOb_Neut_Engmnt_Inhib	2681	If this Parameter is 1, the PTOb will only be engaged if the Transmission is NOT in Neutral or Park	OFF	N/A	N/A	N/A	N/A
TEM_PTOb_Non_Neut_Engmnt_Inhib	2682	If this Parameter is 1, the PTOb will not be engaged if the Transmission is not in Neutral or Park	OFF	N/A	N/A	N/A	N/A
TEM_PTOb_PK_Brake_Engmnt_Inhib	2683	If this Parameter is 1, the PTOb will not be engaged if the Park Brake is not set.	OFF	N/A	N/A	N/A	N/A
TEM_PTOb_Veh_Spd_Engmnt_Inhib	2684	If this Parameter is 1, the PTOb will not be engaged if the vehicle speed is over the value set in TEM_PTOb_Veh_Spd_Engmnt_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTOb_Veh_Spd_Engmnt_Limit	2685	See TEM_PTOb_Veh_Spd_Engmnt_Inhib	3.00	MPH	1	100	1
TEM_PTOb_Air_Pres_Engmnt_Inhib	2711	If this Parameter is 1, the PTOb will not be engaged if the primary vehicle air pressure is below TEM_PTOb_Air_Pres_Engmnt_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTOb_Air_Pres_Engmnt_Limit	2712	See TEM_PTOb_Air_Pres_Engmnt_Inhib	90	PSI	1	500	1
TEM_PTOb_Mast_Swtch_Engmnt_Inhib	2714	If this Parameter is 1, the PTOb will not be engaged if the vehicle master switch is not ON.	OFF	N/A	N/A	N/A	N/A
DISENGAGEMENT PARAMETERS							
TEM_PTOb_Eng_Run_Disengages	2686	If this Parameter is 1, the PTOb will be disengaged if the engine is turned off	ON	N/A	N/A	N/A	N/A
TEM_PTOb_Eng_Spd_DisEng_Limit	2687	see TEM_PTOb_Eng_Spd_Disengages	2000	RPM	0	5000	1
TEM_PTOb_Eng_Spd_Disengages	2688	if this Parameter is 1, the PTOb will be disengaged if the vehicle speed is over the value set in TEM_PTO_Eng_Spd_DisEng_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTOb_Non_Neut_Disengages	2689	if this Parameter is 1, the PTOb will be disengaged if the transmission is taken out of neutral	OFF	N/A	N/A	N/A	N/A
TEM_PTOb_Pk_Brake_Disengages	2690	if this Parameter is 1, the PTOb will be disengaged if the Park Brake is released	OFF	N/A	N/A	N/A	N/A
TEM_PTOb_Veh_Spd_Disengages	2691	if this Parameter is 1, the PTOb will be disengaged if the vehicle speed is over the value set in TEM_PTOb_Veh_Spd_DisEng_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTOb_Veh_Spd_DisEng_Limit	2692	see TEM_PTOb_Veh_Spd_Disengages	3	MPH	3	100	1

TEM_PTOb_Mast_Swtch_Disengages	2718	if this Parameter is 1, the PTOb will be disengaged if the vehicle master switch is not ON	OFF	N/A	N/A	N/A	N/A
TEM_PTOb_Air_Pres_Disengages	2716	if this Parameter is 1, the PTOb will be disengaged if the primary air pressure is below the value set in TEM_PTOb_Air_Pres_DisEng_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTOb_Air_Pres_DisEng_Limit	2719	see TEM_PTOb_Air_Pres_Disengages	80	PSI	0	500	1
TEM_PTOb_Ext_Input_Disengages	2772	if this Parameter is 1, the PTOb will be disengaged if the external input designated for this purpose is active	OFF	N/A	N/A	N/A	N/A
RE-ENGAGEMENT PARAMETERS							
TEM_PTOb_Eng_Run_Allow_ReEng	2693	if this Parameter is 1, the PTOb will be reengaged after a disengage due to the engine stopping when the engine is restarted	OFF	N/A	N/A	N/A	N/A
TEM_PTOb_Eng_Spd_Allow_ReEng	2694	if this Parameter is 1, the PTOb will be reengaged after a disengage due to engine overspeed when the engine speed is below TEM_PTOb_Eng_Spd_Engmnt_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTOb_Key_State_Allow_ReEng	2696	If this parameter is set, the PTOb will be allowed to reengage when the key state is returned to run.	OFF	N/A	N/A	N/A	N/A
TEM_PTOb_Non_Neut_Allow_ReEng	2697	if this Parameter is 1, the PTOb will be reengaged after a disengage due to transmission out of neutral when the transmission is placed back into neutral.	OFF	N/A	N/A	N/A	N/A
TEM_PTOb_Pk_Brake_Allow_ReEng	2698	if this Parameter is 1, the PTOb will be reengaged after a disengage due to park brake released when the park brake is reapplied.	OFF	N/A	N/A	N/A	N/A
TEM_PTOb_Veh_Spd_Allow_ReEng	2699	if this Parameter is 1, the PTOb will be reengaged after a disengage due to vehicle overspeed when the vehicle speed is below TEM_PTOb_Veh_Spd_Engmnt_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTOb_Air_Pres_Allow_ReEng	2713	if this Parameter is 1, the PTOb will be reengaged after a disengage due to low vehicle air pressure when the primary air pressure is over TEM_PTOb_Air_Pres_Engmnt_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTOb_Mast_Swtch_Allow_ReEng	2715	if this Parameter is 1, the PTO will be reengaged after a disengage due to the master switch being turned off when the master switch is turned on again	OFF	N/A	N/A	N/A	N/A
TEM_PTOb_Ext_Input_Allow_ReEng	2771	if this Parameter is 1, the PTOb will be reengaged after a disengage due to the designated external input when the external input is no longer active	OFF	N/A	N/A	N/A	N/A

ALARMS PARAMETERS							
TEM_PTOb_Air_Pres_Alarms	2700	if this Parameter is 1, an alarm will sound if the primary air pressure is below TEM_PTOb_Air_Pres_Alarm_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTOb_Air_Pres_Alarm_Limit	2701	See TEM_PTOb_Air_Pres_Alarms	0	PSI	0	500	1
TEM_PTOb_Eng_Run_Alarms	2702	if this Parameter is 1, an alarm will sound if the PTOb is engaged and the engine is turned off	OFF	N/A	N/A	N/A	N/A
TEM_PTOb_Eng_Spd_Alarm_Limit	2703	See TEM_PTOb_Eng_Spd_Alarms	1400	RPM	0	5000	0.1
TEM_PTOb_Eng_Spd_Alarms	2704	if this Parameter is 1, an alarm will sound if the PTOb is engaged and the engine speed is over TEM_PTOb_Eng_Spd_Alarm_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTOb_Non_Neut_Alarms	2705	if this Parameter is 1, an alarm will sound if the PTOb is engaged and transmission is taken out of neutral	OFF	N/A	N/A	N/A	N/A
TEM_PTOb_Pk_Brake_Alarms	2706	if this Parameter is 1, an alarm will sound if the PTOb is engaged and the park brake is released	OFF	N/A	N/A	N/A	N/A
TEM_PTOb_Veh_Spd_Alarms	2708	if this Parameter is 1, an alarm will sound if the PTOb is engaged and the vehicle speed is over TEM_PTOb_Veh_Spd_Alarm_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTOb_Veh_Spd_Alarm_Limit	2709	See TEM_PTOb_Veh_Spd_Alarms	5	MPH	3	100	1
PTO Fuse Levels							
PTOa_RPM_Solenoid_Param	3166	This is the fuse level of the RPM output for PTOa_RPM_Solenoid_Cmd	20	Amps	0	20	0.1
PTOb_RPM_Solenoid_Param	3167	This is the fuse level of the RPM output for PTOb_RPM_Solenoid_Cmd	20	Amps	0	20	0.1

Parameter Definitions:

- **ENGAGEMENT PARAMETERS**

  These parameters set rules that must be met for the PTO to be engaged.

  In Example

  If TEM_PTO_Air_Pres_Engmnt_Inhib parameter is turned on, the PTO cannot be engaged if the primary vehicle air pressure is below the programmable parameter set by TEM_PTO_Air_Pres_Engmnt_Limit. **for Dash Switch**

- **TEM_PTO_PK_Brake_Engmnt_Inhib** – 2087 If this parameter is turned on, then the brake pedal must be depressed for the PTO to engage.
- **TEM_PTO_Non_Neut_Engmnt_Inhib** – 2088 If this parameter is turned on, then the transmission must be in Neutral or Park for the PTO to be engaged.
- **TEM_PTO_Neut_Engmnt_Inhib** – 2089 If this parameter is turned on, then the PTO can only be engaged if the transmission is NOT in Neutral or Park.

- **TEM_PTO_Veh_Spd_Engmnt_Inhib** – 2090 If this parameter is turned on, then the PTO cannot be engaged if the vehicle speed is over the value prescribed by TEM_PTO_Veh_Spd_Engmnt_Limit.
- **TEM_PTO_Veh_Spd_Engmnt_Limit** – 2091 This parameter sets the physical value for the Vehicle Speed Inhibit.
- **TEM_PTO_Eng_Spd_Engmnt_Inhib** –2092 If this is parameter is turned on, then the PTO cannot be engaged if the engine speed is over a certain threshold, which is defined as a programmable parameter in TEM_PTO_Eng_Spd_Engmnt_Limit.
- **TEM_PTO_Eng_Spd_Engmnt_Limit** – 2093 This parameter sets the physical value for the Engine Speed Inhibit.
- **TEM_PTO_Cltch_Engmnt_Inhib** – 2094 If this parameter is turned on, then the clutch pedal must be depressed for the PTO to engage.
- **TEM_PTO_Brake_Engmnt_Inhib** – 2095 If this parameter is turned on, then the brake pedal must be depressed for the PTO to engage.
- **TEM_PTO_Eng_Run_Engmnt_Inhib** – 2096 If this parameter is turned on, then the engine must be running for the PTO to be engaged.
- **TEM_PTO_Air_Pres_Engmnt_Inhib** – 2097 If this parameter is turned on, the PTO cannot be engaged if the primary vehicle air pressure is below the programmable parameter set by TEM_PTO_Air_Pres_Engmnt_Limit.
- **TEM_PTO_Air_Pres_Engmnt_Limit** – 2098 This parameter sets the physical value for the Air Pressure Inhibit.
- **TEM_PTO_Mast_Swtch_Engmnt_Inhib** – 2099 If this parameter is turned on, then the PTO will not be engaged if the vehicle master switch is not ON.
- **DISENGAGEMENT PARAMETERS**
  These parameters set the conditions under which the PTO will be disengaged.
- **TEM_PTO_Pk_Brake_Disengages** – 2108 If this parameter is turned on, then the PTO will be disengaged if the Park Brake is released.
- **TEM_PTO_Non_Neut_Disengages** – 2109 If this parameter is turned on, then the PTO will be disengaged if the transmission is taken out of neutral.
- **TEM_PTO_Veh_Spd_Disengages** – 2110 If this parameter is turned on, then the PTO will be disengaged if the vehicle speed is over the valued specified by TEM_PTO_Veh_Spd_DisEng_Limit.
- **TEM_PTO_Veh_Spd_DisEng_Limit** – 2111 This parameter sets the physical value for the Vehicle Speed disengagement.
- **TEM_PTO_Eng_Spd_Disengages** – 2112 If this parameter is turned on, then the PTO will be disengaged if the engine speed rises above the value set by TEM_PTO_Eng_Spd_DisEng_Limit.
- **TEM_PTO_Eng_Spd_DisEng_Limit** – 2113 This parameter sets the physical value for the Engine Speed disengagement.
- **TEM_PTO_Eng_Run_Disengages** – 2114 If this parameter is turned on, then the PTO will be disengaged if the engine is turned off.

- **TEM_PTO_Air_Pres_Disengages** – 2115 If this parameter is turned on, then the PTO will be disengaged if the primary air pressure is below the value set in TEM_PTO_Air_Pres_DisEng_Limit.
- **TEM_PTO_Air_Pres_DisEng_Limit** – 2116 This parameter sets the physical value for the Air Pressure disengagement.
- **TEM_PTO_Ext_Input_Disengages** – 2117 If this parameter is turned on, then the PTO will be disengaged if the external input designated for this purpose is active.
- **TEM_PTO_Mast_Swtch_Disengages** – 2118 If this parameter is turned on, then the PTO will be disengaged if the vehicle master switch is not ON.
- **Re-ENGAGEMENT PARAMETERS**
  These parameters set the conditions under which the PTO will be re-engaged due to a parameter disengagement.
- **TEM_PTO_Key_State_Allow_ReEng** – 2069 If this parameter is turned on, then the PTO will be allowed to reengage when the key state is returned to run.
- **TEM_PTO_Veh_Spd_Allow_ReEng** – 2119 If this parameter is turned on, then the PTO will be reengaged (after disengagement due to the vehicle being over the vehicle speed value) when the vehicle speed falls below TEM_PTO_Veh_Spd_Engmnt_Limit.
- **TEM_PTO_Eng_Spd_Allow_ReEng** – 2120 If this parameter is turned on, then the PTO will be reengaged (after disengagement due to engine overspeed) when the engine speed falls below TEM_PTO_Eng_Spd_Engmnt_Limit.
- **TEM_PTO_Ext_Input_Allow_ReEng** – 2121 If this parameter is turned on, then the PTO will be reengaged (after a disengage due to the designated external input being in active state) when the external input is no longer in active state.
- **TEM_PTO_Eng_Run_Allow_ReEng** – 2122 If this parameter is turned on, then the PTO will be reengaged (after disengagement due to engine stopping) when the engine is restarted.
- **TEM_PTO_Mast_Swtch_Allow_ReEng** – 2123 If is turned on, then the PTO will be reengaged after a disengage due to the master switch being turned off when the master switch is turned on again.
- **TEM_PTO_Air_Pres_Allow_ReEng** – 2124 If this parameter is turned on, then the PTO will be reengaged (after disengagement due to low air pressure) when the primary air pressure rises about the value specified by TEM_PTO_Air_Pres_Engmnt_Limit.
- **TEM_PTO_Non_Neut_Allow_ReEng** – 2148 If this parameter is turned on, then the PTO will be reengaged (after disengagement due to transmission out of neutral) when the transmission is placed back into neutral.
- **TEM_PTO_Pk_Brake_Allow_ReEng** – 2149 If this parameter is turned on, then the PTO will be reengaged (after disengagement due to park brake released) when the park brake is reapplied.
- **ALARM PARAMETERS**

These parameters utilize the gauge cluster to sound an alarm to the driver when certain programmable parameters are violated.

- **TEM_PTO_Pk_Brake_Alarms** – 2131 If this parameter is turned on, then an audible alarm will sound in the cab if the PTO is engaged and the park brake is released.
- **TEM_PTO_Non_Neut_Alarms** – 2132 If this parameter is turned on, then an audible alarm will sound in the cab if the PTO is engaged and the transmission is taken out of neutral.
- **TEM_PTO_Veh_Spd_Alarms** – 2133 If this is turned on, then an audible alarm will sound if the PTO is engaged and the vehicle speed is over the value set by TEM_PTO_Veh_Spd_Alarm_Limit
- **TEM_PTO_Veh_Spd_Alarm_Limit** – 2134 This parameter sets the physical value for the Vehicle Speed Alarm.
- **TEM_PTO_Eng_Spd_Alarms** – 2135 If this is turned on, then an alarm will sound if the PTO is engaged and the engine speed is over the value set by TEM_PTO_Eng_Spd_Alarm_Limit
- **TEM_PTO_Eng_Spd_Alarm_Limit** – 2136 This parameter sets the physical value for the Engine Speed Alarm.
- **TEM_PTO_Eng_Run_Alarms** – 2137 If this parameter is turned on, then an audible alarm will sound in the cab if the PTO is engaged and the engine is turned off.
- **TEM_PTO_Air_Pres_Alarms** – 2138 If this parameter is turned on, then an audible alarm will sound in the cab if the primary air pressure drops below the value specified by TEM_PTO_Air_Pres_Alarm_Limit.
- **TEM_PTO_Air_Pres_Alarm_Limit** – 2139 This parameter sets the physical value for the Air Pressure Alarm.
- **PTOb specific parameters**
- **ENGAGEMENT PARAMETERS PTOb**
- **TEM_PTOb_Brake_Engmnt_Inhib** – 2676 If this parameter is turned on, then the brake pedal must be depressed for the PTOb to engage.
- **TEM_PTOb_Cltch_Engmnt_Inhib** – 2677 If this parameter is turned on, then the clutch pedal must be depressed for the PTOb to engage.
- **TEM_PTOb_Eng_Run_Engmnt_Inhib** – 2678 If this parameter is turned on, then the engine must be running for the PTOb to be engaged.
- **TEM_PTOb_Eng_Spd_Engmnt_Inhib** –2679 If this is parameter is turned on, then the PTOb cannot be engaged if the engine speed is over a certain threshold, which is defined as a programmable parameter in TEM_PTOb_Eng_Spd_Engmnt_Limit.
- **TEM_PTOb_Eng_Spd_Engmnt_Limit** – 2680 This parameter sets the physical value for the Engine Speed Inhibit.
- **TEM_PTOb_Neut_Engmnt_Inhib** – 2681 If this parameter is turned on, then the PTOb can only be engaged if the transmission is NOT in Neutral or Park**.**

- **TEM_PTOb_Non_Neut_Engmnt_Inhib** – 2682 If this parameter is turned on, then the transmission must be in Neutral or Park for the PTOb to be engaged.
- **TEM_PTOb_PK_Brake_Engmnt_Inhib** – 2683 If this parameter is turned on, then the brake pedal must be depressed for the PTOb to engage.
- **TEM_PTOb_Veh_Spd_Engmnt_Inhib** – 2684 If this parameter is turned on, then the PTOb cannot be engaged if the vehicle speed is over the value prescribed by TEM_PTO_Veh_Spd_Engmnt_Limit.
- **TEM_PTOb_Veh_Spd_Engmnt_Limit** – 2685 This parameter sets the physical value for the Vehicle Speed Inhibit.
- **TEM_PTOb_Air_Pres_Engmnt_Inhib** – 2711 If this parameter is turned on, the PTOb cannot be engaged if the primary vehicle air pressure is below the programmable parameter set by TEM_PTOb_Air_Pres_Engmnt_Limit.
- **TEM_PTOb_Air_Pres_Engmnt_Limit** – 2712 This parameter sets the physical value for the Air Pressure Inhibit for PTOb.
- **TEM_PTOb_Mast_Swtch_Engmnt_Inhib** – 2714If this parameter is turned on, then the PTOb will not be engaged if the vehicle master switch is not ON.
- **DISENGAGEMENT PARAMETERS PTOb**
- **These parameters set the conditions under which the PTOb will be disengaged**
- **TEM_PTOb_Eng_Run_Disengages** – 2686 If this parameter is turned on, then the PTOb will be disengaged if the engine is turned off.
- **TEM_PTOb_Eng_Spd_DisEng_Limit** – 2687 This parameter sets the physical value for the Engine Speed disengagement.
- **TEM_PTOb_Eng_Spd_Disengages** – 2688 If this parameter is turned on, then the PTOb will be disengaged if the engine speed rises above the value set by TEM_PTOb_Eng_Spd_DisEng_Limit.
- **TEM_PTOb_Non_Neut_Disengages** – 2689 If this parameter is turned on, then the PTOb will be disengaged if the transmission is taken out of neutral.
- **TEM_PTOb_Pk_Brake_Disengages** – 2690 If this parameter is turned on, then the PTOb will be disengaged if the Park Brake is released.
- **TEM_PTOb_Veh_Spd_Disengages** – 2691 If this parameter is turned on, then the PTOb will be disengaged if the vehicle speed is over the valued specified by TEM_PTOb_Veh_Spd_DisEng_Limit.
- **TEM_PTOb_Veh_Spd_DisEng_Limit** – 2692 This parameter sets the physical value for the Vehicle Speed disengagement.
- **TEM_PTOb_Mast_Swtch_Disengages** – 2718 If this parameter is turned on, then the PTOb will be disengaged if the vehicle master switch is not ON.
- **TEM_PTOb_Air_Pres_Disengages** – 2716 If this parameter is turned on, then PTOb will be disengaged if the primary air pressure is below the value set in TEM_PTOb_Air_Pres_DisEng_Limit.
- **TEM_PTOb_Air_Pres_DisEng_Limit** – 2719 This parameter sets the physical value for the Air Pressure disengagement for PTOb.

- **TEM_PTOb_Ext_Input_Disengages** – 2772 If this parameter is turned on, then the PTOb will be disengaged if the external input designated for this purpose is active.
- **Re-ENGAGEMENT PARAMETERS PTOb**
  These parameters set the conditions under which the PTOb will be re-engaged due to a parameter disengagement.
- **TEM_PTOb_Eng_Run_Allow_ReEng** – 2693 If this parameter is turned on, then the PTOb will be reengaged (after disengagement due to engine stopping) when the engine is restarted.
- **TEM_PTOb_Eng_Spd_Allow_ReEng** – 2694 If this parameter is turned on, then the PTOb will be reengaged (after disengagement due to engine overspeed) when the engine speed falls below TEM_PTOb_Eng_Spd_Engmnt_Limit.
- **TEM_PTOb_Key_State_Allow_ReEng** – 2696 If this parameter is turned on, then the PTOb will be allowed to reengage when the key state is returned to run.
- **TEM_PTOb_Non_Neut_Allow_ReEng** – 2697 If this parameter is turned on, then the PTOb will be reengaged (after disengagement due to transmission out of neutral) when the transmission is placed back into neutral.
- **TEM_PTOb_Pk_Brake_Allow_ReEng** – 2698 If this parameter is turned on, then the PTOb will be reengaged (after disengagement due to park brake released) when the park brake is reapplied.
- **TEM_PTOb_Veh_Spd_Allow_ReEng** – 2699 If this parameter is turned on, then the PTOb will be reengaged (after disengagement due to the vehicle being over the vehicle speed value) when the vehicle speed falls below TEM_PTOb_Veh_Spd_Engmnt_Limit.
- **TEM_PTOb_Air_Pres_Allow_ReEng** – 2713 If this parameter is turned on, then the PTOb will be reengaged (after disengagement due to low air pressure) when the primary air pressure rises about the value specified by TEM_PTO_Air_Pres_Engmnt_Limit.
- **TEM_PTOb_Mast_Swtch_Allow_ReEng** – 2715 If is turned on, then the PTOb will be reengaged after a disengage due to the master switch being turned off when the master switch is turned on again.
- **TEM_PTOb_Ext_Input_Allow_ReEng** – 2771 If this parameter is turned on, then the PTOb will be reengaged (after a disengage due to the designated external input being in active state) when the external input is no longer in active state.
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- **ALARM PARAMETERS PTOb**
  These parameters utilize the gauge cluster to sound an alarm to the driver when certain programmable parameters are violated.
- **TEM_PTOb_Air_Pres_Alarms** – 2700 If this parameter is turned on, then an audible alarm will sound in the cab if the primary air pressure drops below the value specified by TEM_PTOb_Air_Pres_Alarm_Limit.

- **TEM_PTOb_Air_Pres_Alarm_Limit** – 2701 This parameter sets the physical value for the Air Pressure Alarm.
- **TEM_PTOb_Eng_Run_Alarms** – 2702 If this parameter is turned on, then an audible alarm will sound in the cab if the PTOb is engaged and the engine is turned off.
- **TEM_PTOb_Eng_Spd_Alarm_Limit** – 2703 This parameter sets the physical value for the Engine Speed Alarm.
- **TEM_PTOb_Eng_Spd_Alarms** – 2704 If this is turned on, then an alarm will sound if the PTOb is engaged and the engine speed is over the value set by TEM_PTOb_Eng_Spd_Alarm_Limit
- **TEM_PTOb_Non_Neut_Alarms** – 2705 If this parameter is turned on, then an audible alarm will sound in the cab if the PTOb is engaged and the transmission is taken out of neutral.
- **TEM_PTOb_Pk_Brake_Alarms** – 2706 If this parameter is turned on, then an audible alarm will sound in the cab if the PTOb is engaged and the park brake is released.
- **TEM_PTOb_Veh_Spd_Alarms** – 2708 If this is turned on, then an audible alarm will sound if the PTOb is engaged and the vehicle speed is over the value set by TEM_PTOb_Veh_Spd_Alarm_Limit
- **TEM_PTOb_Veh_Spd_Alarm_Limit** – 2709 This parameter sets the physical value for PTOb Vehicle Speed Alarm.
- **PTO Fuse Level setting**
- **PTOa_RPM_Solenoid_Param** – 3166 This parameter sets the current at which the Body Controller will fuse the Remote Power Module output that drives the engagement of the PTOa. This is used to define the maximum amount of current that can flow through the Remote Power Module output.
- **PTOb_RPM_Solenoid_Param** – 3167 This parameter sets the current at which the Body Controller will fuse the Remote Power Module output that drives the engagement of the PTOb. This is used to define the maximum amount of current that can flow through the Remote Power Module output.

Note/s About Possible Software Feature Conflicts:
Only one PTO feature is allowed with 597200.
597307 conflicts with 597132, 597264, 597277, 597278, 597280, 597281, 597304, 597306.
597283 conflicts with 597279
597279 conflicts with 597307

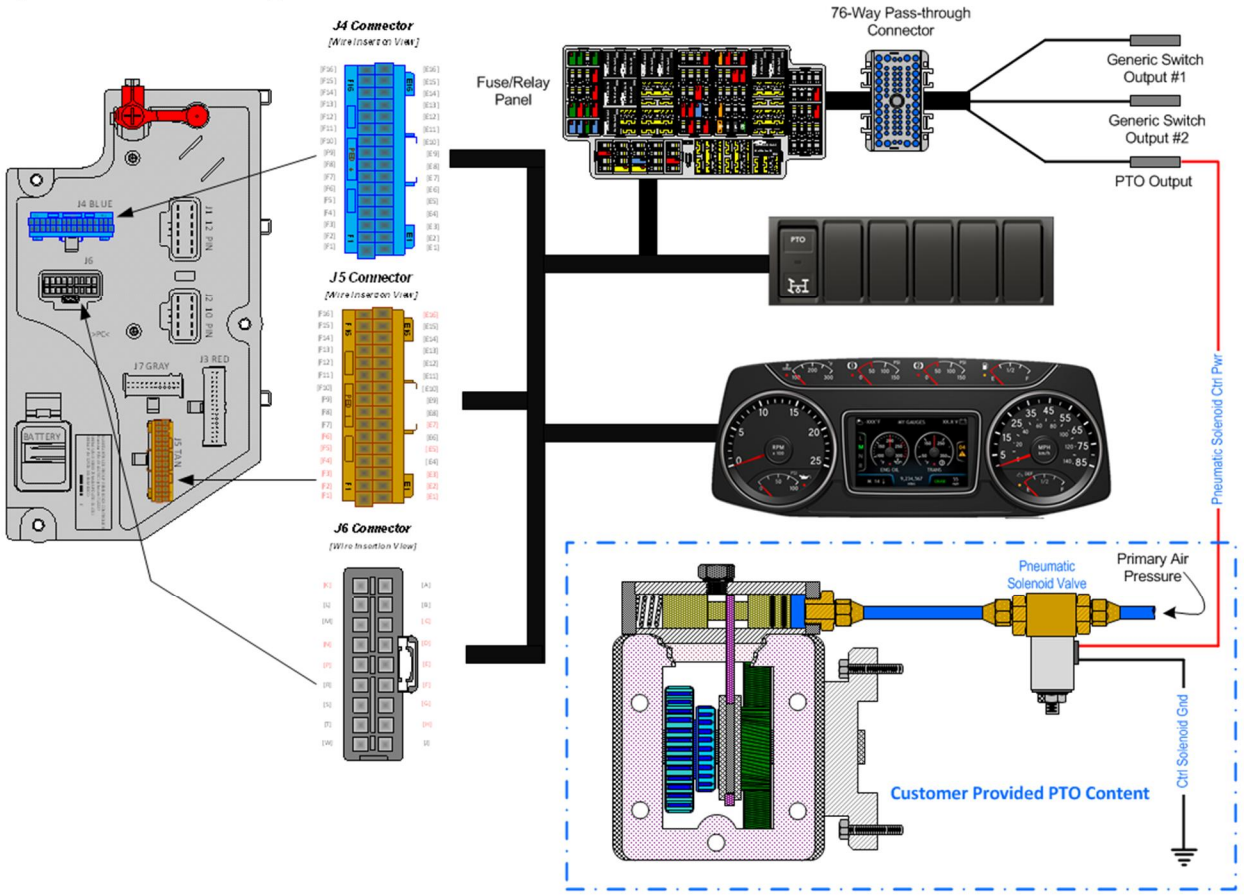
25.11. 60AKG: BDY INTG, PTO ACCOMMODATION for (3) Latched Rocker Switches, (1) PTO Switch, (2) Generic Switches to Control (3) 30-amp relays, with Programmable Interlocks, for Body Builder Hook up in the Engine Compartment Left Side, Recommended for Automatic Transmissions.

Extended Description: This feature provides two 2-position Latched Rocker switches that control two auxiliary loads requiring a total of two Body Controller relay driver outputs driving fused 30-amp relays. Outputs are defaulted to disengage when vehicle speed reaches 30-MPH. The outputs will only be available in IGN or accessory key-state. This feature is used for applications such as a rear work or scene light. If the operator forgets to turn the light off before driving away, the light will shut off when the driver hits 30-MPH.

The switches can be interlocked with certain programmable conditions. These conditions can be set as programmable parameters using the Diamond Logic® Builder software. These parameters are listed and explained below. Each of the two outputs has its' own set of parameters. Blunt cut wires are provided in the engine compartment for the body builder to connect to. Please refer to the circuit diagram manual for additional information on wiring.

This feature also provides the customer with the ability to control a customer-supplied PTO with an in-dash switch. The PTO switch also utilizes a Body Controller relay driver output to control a fused 30-amp relay located in the cab power distribution panel. A blunt cut wire is provided in the engine compartment to provide power to the PTO solenoid. Programmable parameters allow customers to customize the functionality of their PTO. Please use the Diamond Logic® Builder software to determine pin and switch locations for Body Controller outputs and to set programmable parameters (refer to Feature, Connector and Center Panel section).

System Block Diagram:



Note: It is important to insure the Power Take Off (PTO) internal shift mechanism has adequate pneumatic potential communication for the full engagement of the PTO coupling/decoupling mechanism. Full engagement is typically a function of the available pneumatic potential sourced from the chassis primary air pressure supply system which [can] limit the full power transmission capabilities of the PTO coupling and decoupling mechanism/s.

Body Controller Software Feature Codes:

- 597200 - BCM PROG, **PTO CONTROL LOGIC for Dash Switch**
- 597277 - BCM PROG, **PTO SHIFT for (1) Dash Mounted Switch with 30-amp Relay, for Customer Provided PTO, with Programmable Parameters**
- 597338 - BCM PROG, **AUXILIARY LOAD #7 for (2) Rocker Switches and (2) Relays**
- **Note: if Eaton Procision Transmission is being used add:**
    - **597276 – BCM PROG, PTO ENABLER J1939 Engagement Consent for Eaton Procision**

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
Parameters Specific for PTO Operation							
On – Indicates a 1 is set for the parameter							
Off – Indicates a 0 is set in for this parameter							
ENGAGEMENT PARAMETERS							
TEM_PTO_PK_Brake_Engmnt_Inhib	2087	If this Parameter is 1, the PTO will not be engaged if the Park Brake is not set.	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Non_Neut_Engmnt_Inhib	2088	If this Parameter is 1, the PTO will not be engaged if the Transmission is not in Neutral or Park	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Neut_Engmnt_Inhib	2089	If this Parameter is 1, the PTO will only be engaged if the Transmission is not in Neutral or Park	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_Engmnt_Inhib	2090	If this Parameter is 1, the PTO will not be engaged if the vehicle speed is over the value set in TEM_PTO_Veh_Spd_Engmnt_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_Engmnt_Limit	2091	See TEM_PTO_Veh_Spd_Engmnt_Inhib	3.00	MPH	1	100	1
TEM_PTO_Eng_Spd_Engmnt_Inhib	2092	If this Parameter is 1, the PTO will not be engaged if the engine speed is over the value set in TEM_PTO_Eng_Spd_Engmnt_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTO_Eng_Spd_Engmnt_Limit	2093	See TEM_PTO_Eng_Spd_Engmnt_Inhib	1000	RPM	100	5000	0.1
TEM_PTO_Cltch_Engmnt_Inhib	2094	If this Parameter is 1, the PTO will not be engaged if the clutch pedal is not depressed	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Brake_Engmnt_Inhib	2095	If this Parameter is 1, the PTO will not be engaged if the brake pedal is not depressed	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Eng_Run_Engmnt_Inhib	2096	If this Parameter is 1, the PTO will not be engaged if the engine is not running	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_Engmnt_Inhib	2097	If this Parameter is 1, the PTO will not be engaged if the primary vehicle air pressure is below TEM_PTO_Air_Pres_Engmnt_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_Engmnt_Limit	2098	See TEM_PTO_Air_Pres_Engmnt_Inhib	90	PSI	1	500	1
TEM_PTO_Mast_Swtch_Engmnt_Inhib	2099	If this Parameter is 1, the PTO will not be engaged if the vehicle master switch is not ON.	OFF	N/A	N/A	N/A	N/A
DISENGAGEMENT PARAMETERS							
TEM_PTO_Pk_Brake_Disengages	2108	if this Parameter is 1, the PTO will be disengaged if the Park Brake is released	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Non_Neut_Disengages	2109	if this Parameter is 1, the PTO will be disengaged if the transmission is taken out of neutral	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_Disengages	2110	if this Parameter is 1, the PTO will be disengaged if the vehicle speed is over the value set in TEM_PTO_Veh_Spd_DisEng_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_DisEng_Limit	2111	see TEM_PTO_Veh_Spd_Disengages	3	MPH	3	100	1

TEM_PTO_Eng_Spd_Disengages	2112	if this Parameter is 1, the PTO will be disengaged if the vehicle speed is over the value set in TEM_PTO_Eng_Spd_DisEng_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTO_Eng_Spd_DisEng_Limit	2113	see TEM_PTO_Eng_Spd_Disengages	1800	RPM	0	5000	1
TEM_PTO_Eng_Run_Disengages	2114	If this Parameter is 1, the PTO will be disengaged if the engine is turned off	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_Disengages	2115	if this Parameter is 1, the PTO will be disengaged if the primary air pressure is below the value set in TEM_PTO_Air_Pres_DisEng_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_DisEng_Limit	2116	see TEM_PTO_Air_Pres_Disengages	80	PSI	0	500	1
TEM_PTO_Ext_Input_Disengages	2117	if this Parameter is 1, the PTO will be disengaged if the external input designated for this purpose is active	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Mast_Swtch_Disengages	2118	if this Parameter is 1, the PTO will be disengaged if the vehicle master switch is not ON	OFF	N/A	N/A	N/A	N/A
RE-ENGAGEMENT PARAMETERS							
TEM_PTO_Key_State_Allow_ReEng	2069	If this parameter is set, the PTO will be allowed to reengage when the key state is returned to run.	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Veh_Spd_Allow_ReEng	2119	if this Parameter is 1, the PTO will be reengaged after a disengage due to vehicle overspeed when the vehicle speed is below TEM_PTO_Veh_Spd_Engmnt_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Eng_Spd_Allow_ReEng	2120	if this Parameter is 1, the PTO will be reengaged after a disengage due to engine overspeed when the engine speed is below TEM_PTO_Eng_Spd_Engmnt_Limit	ON	N/A	N/A	N/A	N/A
TEM_PTO_Ext_Input_Allow_ReEng	2121	if this Parameter is 1, the PTO will be reengaged after a disengage due to the designated external input when the external input is no longer active	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Eng_Run_Allow_ReEng	2122	if this Parameter is 1, the PTO will be reengaged after a disengage due to the engine stopping when the engine is restarted	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Mast_Swtch_Allow_ReEng	2123	if this Parameter is 1, the PTO will be reengaged after a disengage due to the master switch being turned off when the master switch is turned on again	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Air_Pres_Allow_ReEng	2124	if this Parameter is 1, the PTO will be reengaged after a disengage due to low vehicle air pressure when the primary air pressure is over TEM_PTO_Air_Pres_Engmnt_Limit	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Non_Neut_Allow_ReEng	2148	if this Parameter is 1, the PTO will be reengaged after a disengage due to transmission out of neutral when the transmission is placed back into neutral.	OFF	N/A	N/A	N/A	N/A

TEM_PTO_Pk_Brake_Allow_ReEng	2149	if this Parameter is 1, the PTO will be reengaged after a disengage due to park brake released when the park brake is reapplied.	OFF	N/A	N/A	N/A	N/A
ALARMS PARAMETERS							
TEM_PTO_Pk_Brake_Alarms	2131	if this Parameter is 1, an alarm will sound if the PTO is engaged and the park brake is released	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Non_Neut_Alarms	2132	if this Parameter is 1, an alarm will sound if the PTO is engaged and transmission is taken out of neutral	OFF	N/A	N/A	N/A	N/A
TEM_PTO_Eng_Run_Alarms	2137	if this Parameter is 1, an alarm will sound if the PTO is engaged and the engine is turned off	OFF	N/A	N/A	N/A	N/A
597338 - BCM PROG, **AUXILIARY LOAD #7 for (2) Rocker Switches and (2) Relays**							
TEM_Aux1_Interlock_Latches_Off	2006	If this is set, when the output is turned off due to an interlock, it will remain off until the switch is recycled.	OFF	On/Off	n/a	n/a	n/a
TEM_Aux1_Speed_Interlock_Param	2007	The speed parameter for the TEM Aux #1 with Interlocks feature.	30	Mph	0	100	1
TEM_Aux1_Gear_Interlock_Param	2008	The transmission gear parameter for the TEM Aux #1 with Interlocks feature (124 is park, 125 is neutral, 126 is first, etc., 251 is park). The default value is 125 (neutral).	125	Number	0	250	1
TEM_Aux1_Misc_Interlock_Param	2033	Miscellaneous or control parameter used for setting the interlock for the auxiliary 1 with interlocks.	10	List	n/a	n/a	n/a
TEM_Aux2_Interlock_Latches_Off	2010	If this is set, when the output is turned off due to an interlock, it will remain off until the switch is recycled.	OFF	On/Off	n/a	n/a	n/a
TEM_Aux2_Speed_Interlock_Param	2011	The speed parameter for the TEM Aux #2 with Interlocks feature.	30	Mph	0	100	1
TEM_Aux2_Gear_Interlock_Param	2012	The transmission gear parameter for the TEM Aux #2 with Interlocks feature (124 is park, 125 is neutral, 126 is first, etc., 251 is park). The default value is 125 (neutral).	125	Number	0	250	1
TEM_Aux2_Misc_Interlock_Param	2034	Miscellaneous or control parameter used for setting the interlock for the auxiliary 2 with interlocks.	10	List	n/a	n/a	n/a

Parameter Definitions:

- **ENGAGEMENT PARAMETERS**

  These parameters set rules that must be met for the PTO to be engaged.

  In Example

  If TEM_PTO_Air_Pres_Engmnt_Inhib parameter is turned on, the PTO cannot be engaged if the primary vehicle air pressure is below the programmable parameter set by TEM_PTO_Air_Pres_Engmnt_Limit. **for Dash Switch**

- **TEM_PTO_PK_Brake_Engmnt_Inhib** – 2087 If this parameter is turned on, then the brake pedal must be depressed for the PTO to engage.

- **TEM_PTO_Non_Neut_Engmnt_Inhib** – 2088 If this parameter is turned on, then the transmission must be in Neutral or Park for the PTO to be engaged.
- **TEM_PTO_Neut_Engmnt_Inhib** – 2089 If this parameter is turned on, then the PTO can only be engaged if the transmission is NOT in Neutral or Park.
- **TEM_PTO_Veh_Spd_Engmnt_Inhib** – 2090 If this parameter is turned on, then the PTO cannot be engaged if the vehicle speed is over the value prescribed by TEM_PTO_Veh_Spd_Engmnt_Limit.
- **TEM_PTO_Veh_Spd_Engmnt_Limit** – 2091 This parameter sets the physical value for the Vehicle Speed Inhibit.
- **TEM_PTO_Eng_Spd_Engmnt_Inhib** –2092 If this is parameter is turned on, then the PTO cannot be engaged if the engine speed is over a certain threshold, which is defined as a programmable parameter in TEM_PTO_Eng_Spd_Engmnt_Limit.
- **TEM_PTO_Eng_Spd_Engmnt_Limit** – 2093 This parameter sets the physical value for the Engine Speed Inhibit.
- **TEM_PTO_Cltch_Engmnt_Inhib** – 2094 If this parameter is turned on, then the clutch pedal must be depressed for the PTO to engage.
- **TEM_PTO_Brake_Engmnt_Inhib** – 2095 If this parameter is turned on, then the brake pedal must be depressed for the PTO to engage.
- **TEM_PTO_Eng_Run_Engmnt_Inhib** – 2096 If this parameter is turned on, then the engine must be running for the PTO to be engaged.
- **TEM_PTO_Air_Pres_Engmnt_Inhib** – 2097 If this parameter is turned on, the PTO cannot be engaged if the primary vehicle air pressure is below the programmable parameter set by TEM_PTO_Air_Pres_Engmnt_Limit.
- **TEM_PTO_Air_Pres_Engmnt_Limit** – 2098 This parameter sets the physical value for the Air Pressure Inhibit.
- **TEM_PTO_Mast_Swtch_Engmnt_Inhib** – 2099 If this parameter is turned on, then the PTO will not be engaged if the vehicle master switch is not ON.
- **DISENGAGEMENT PARAMETERS**

  These parameters set the conditions under which the PTO will be disengaged.
- **TEM_PTO_Pk_Brake_Disengages** – 2108 If this parameter is turned on, then the PTO will be disengaged if the Park Brake is released.
- **TEM_PTO_Non_Neut_Disengages** – 2109 If this parameter is turned on, then the PTO will be disengaged if the transmission is taken out of neutral.
- **TEM_PTO_Veh_Spd_Disengages** – 2110 If this parameter is turned on, then the PTO will be disengaged if the vehicle speed is over the valued specified by TEM_PTO_Veh_Spd_DisEng_Limit.
- **TEM_PTO_Veh_Spd_DisEng_Limit** – 2111 This parameter sets the physical value for the Vehicle Speed disengagement.
- **TEM_PTO_Eng_Spd_Disengages** – 2112 If this parameter is turned on, then the PTO will be disengaged if the engine speed rises above the value set by TEM_PTO_Eng_Spd_DisEng_Limit.

- **TEM_PTO_Eng_Spd_DisEng_Limit** – 2113 This parameter sets the physical value for the Engine Speed disengagement.
- **TEM_PTO_Eng_Run_Disengages** – 2114 If this parameter is turned on, then the PTO will be disengaged if the engine is turned off.
- **TEM_PTO_Air_Pres_Disengages** – 2115 If this parameter is turned on, then the PTO will be disengaged if the primary air pressure is below the value set in TEM_PTO_Air_Pres_DisEng_Limit.
- **TEM_PTO_Air_Pres_DisEng_Limit** – 2116 This parameter sets the physical value for the Air Pressure disengagement.
- **TEM_PTO_Ext_Input_Disengages** – 2117 If this parameter is turned on, then the PTO will be disengaged if the external input designated for this purpose is active.
- **TEM_PTO_Mast_Swtch_Disengages** – 2118 If this parameter is turned on, then the PTO will be disengaged if the vehicle master switch is not ON.
- **Re-ENGAGEMENT PARAMETERS**
  These parameters set the conditions under which the PTO will be re-engaged due to a parameter disengagement.
- **TEM_PTO_Key_State_Allow_ReEng** – 2069 If this parameter is turned on, then the PTO will be allowed to reengage when the key state is returned to run.
- **TEM_PTO_Veh_Spd_Allow_ReEng** – 2119 If this parameter is turned on, then the PTO will be reengaged (after disengagement due to the vehicle being over the vehicle speed value) when the vehicle speed falls below TEM_PTO_Veh_Spd_Engmnt_Limit.
- **TEM_PTO_Eng_Spd_Allow_ReEng** – 2120 If this parameter is turned on, then the PTO will be reengaged (after disengagement due to engine overspeed) when the engine speed falls below TEM_PTO_Eng_Spd_Engmnt_Limit.
- **TEM_PTO_Ext_Input_Allow_ReEng** – 2121 If this parameter is turned on, then the PTO will be reengaged (after a disengage due to the designated external input being in active state) when the external input is no longer in active state.
- **TEM_PTO_Eng_Run_Allow_ReEng** – 2122 If this parameter is turned on, then the PTO will be reengaged (after disengagement due to engine stopping) when the engine is restarted.
- **TEM_PTO_Mast_Swtch_Allow_ReEng** – 2123 If is turned on, then the PTO will be reengaged after a disengage due to the master switch being turned off when the master switch is turned on again.
- **TEM_PTO_Air_Pres_Allow_ReEng** – 2124 If this parameter is turned on, then the PTO will be reengaged (after disengagement due to low air pressure) when the primary air pressure rises about the value specified by TEM_PTO_Air_Pres_Engmnt_Limit.
- **TEM_PTO_Non_Neut_Allow_ReEng** – 2148 If this parameter is turned on, then the PTO will be reengaged (after disengagement due to transmission out of neutral) when the transmission is placed back into neutral.

- **TEM_PTO_Pk_Brake_Allow_ReEng** – 2149 If this parameter is turned on, then the PTO will be reengaged (after disengagement due to park brake released) when the park brake is reapplied.
- **ALARM PARAMETERS**
  These parameters utilize the gauge cluster to sound an alarm to the driver when certain programmable parameters are violated.
- **TEM_PTO_Pk_Brake_Alarms** – 2131 If this parameter is turned on, then an audible alarm will sound in the cab if the PTO is engaged and the park brake is released.
- **TEM_PTO_Non_Neut_Alarms** – 2132 If this parameter is turned on, then an audible alarm will sound in the cab if the PTO is engaged and the transmission is taken out of neutral.
- **TEM_PTO_Eng_Run_Alarms** – 2137 If this parameter is turned on, then an audible alarm will sound in the cab if the PTO is engaged and the engine is turned off.
- **PARAMETERS SPECIFIC FOR AUXILLARY SWITCHES**
- **TEM_Aux1_Interlock_Latches_Off** – 2006 Normally, if the output is deactivated because the interlocking condition is not met, the output will re-activate as soon as the interlocking condition is re-established if the switch is still on. If this behavior is not desirable, the parameter TEM_Aux1_Interlock_Latches_Off parameter can be set. When it is set and the output is deactivated because the interlocking condition is not met, the output will not reactivate when the interlocking condition is re-established even if the switch is
- **TEM_Aux1_Speed_Interlock_Param** – 2007 If TEM_Aux1_Misc_Interlock_Param is set to 9 or 10, the speed-interlock parameter (TEM_Aux1_Speed_Interlock_Param) must also be set. This parameter must be set to the actual speed to use in the condition selected by TEM_Aux1_Misc_Interlock_Param (default unit for this parameter is MPH). The speed parameter is only used if TEM_Aux1_Misc_Interlock_Param is set to 9 or 10.
  Example: If you want the output to only come on when the vehicle is traveling over 15 MPH, you would set TEM_Aux1_Misc_Interlock_Param to 9 and set TEM_Aux1_Speed_Interlock_Param to 15 MPH.
- **TEM_Aux1_Gear_Interlock_Param** – 2008 If TEM_Aux1_Misc_Interlock_Param is set to 13 or 14 and the vehicle has an automatic transmission, the gear-interlock parameter (TEM_Aux1_Gear_Interlock_Param) must also be set. This parameter must be set to the transmission gear to use in the condition selected by TEM_Aux1_Misc_Interlock_Param. The transmission gear is set as follows:

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Setting	Transmission Gear
125	Transmission in Neutral
126	Transmission is in the 1st forward gear
127	Transmission is in the 2nd forward gear

128	Transmission is in the 3rd forward gear
125 + x	Transmission is in the xth forward gear
124	Transmission is in the 1st reverse gear
123	Transmission is in the 2nd reverse gear
125 – y	Transmission is in the yth reverse gear

The transmission gear parameter is only used if TEM_Aux1_Misc_Interlock_Param is set to 13 or 14.
Example: For the output to only come on when the vehicle transmission is in a reverse gear, set TEM_Aux1_Misc_Interlock_Param to 10 and TEM_Aux1_Gear_Interlock_Param to 125.

- **TEM_Aux1_Misc_Interlock_Param** – 2033 This parameter (TEM_Aux1_Misc_Interlock_Param) is the master parameter for this feature. The setting for this parameter selects the interlocking condition for the output. The following table indicates which interlocking condition corresponds to which setting for the parameter. To select the interlocking condition simply set the value of this parameter to the corresponding setting on the table.

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Setting	Interlocking Condition
0	Apply no interlocks to this output
1	Activate this output when the park brake is set AND the switch is on
2	Activate this output when the park brake is not set AND the switch is on
3	Activate this output when a door is open AND the switch is on
4	Activate this output when all doors are closed AND the switch is on
5	Activate this output when the PTO is engaged AND the switch is on (Requires a PTO feature)
6	Activate this output when the PTO is not engaged AND the switch is on (Requires a PTO feature)
7	Activate this output when the engine is running AND the switch is on
8	Activate this output when the engine is not running AND the switch is on
9	Activate this output when the vehicle speed exceeds the value set in TEM_Aux_1_Speed_Interlock_Param AND the switch is on
10	Activate this output when the vehicle speed is less than the value set in TEM_Aux_1_Speed_Interlock_Param AND the switch is on
11	Activate this output when the vehicle is stopped AND the switch is on
12	Activate this output when the vehicle is moving AND the switch is on
13	Activate this output when the transmission gear is higher than TEM_Aux1_Gear_Interlock_Param AND the switch is on (Requires Automatic Transmission)
14	Activate this output when the transmission gear is lower than TEM_Aux1_Gear_Interlock_Param AND the switch is on (Requires Automatic Transmission)
15	Activate this output when the transmission is in neutral AND the switch is on (Requires Automatic Transmission)
16	Activate this output when the transmission is not in neutral AND the switch is on (Requires Automatic Transmission)

- **TEM_Aux2_Interlock_Latches_Off** – 2010 Normally, if the output is deactivated because the interlocking condition is not met, the output will re-activate as soon as the interlocking condition is re-established if the switch is still on. If this behavior is not desirable, the parameter TEM_Aux2_Interlock_Latches_Off parameter can be set. When it is set and the output is deactivated because the interlocking condition is not met, the output will not reactivate when the interlocking condition is re-established even if the switch is
- **TEM_Aux2_Speed_Interlock_Param** – 2011 If TEM_Aux2_Misc_Interlock_Param is set to 9 or 10, the speed-interlock parameter (TEM_Aux2_Speed_Interlock_Param) must also be set. This

parameter must be set to the actual speed to use in the condition selected by TEM_Aux2_Misc_Interlock_Param (default unit for this parameter is MPH). The speed parameter is only used if TEM_Aux2_Misc_Interlock_Param is set to 9 or 10.

Example: If you want the output to only come on when the vehicle is traveling over 15 MPH, you would set TEM_Aux2_Misc_Interlock_Param to 9 and set TEM_Aux2_Speed_Interlock_Param to 15 MPH.

- **TEM_Aux2_Gear_Interlock_Param** – 2012 If TEM_Aux2_Misc_Interlock_Param is set to 13 or 14 and the vehicle has an automatic transmission, the gear-interlock parameter (TEM_Aux2_Gear_Interlock_Param) must also be set. This parameter must be set to the transmission gear to use in the condition selected by TEM_Aux2_Misc_Interlock_Param. The transmission gear is set as follows:

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Setting	Transmission Gear
125	Transmission in Neutral
126	Transmission is in the 1st forward gear
127	Transmission is in the 2nd forward gear
128	Transmission is in the 3rd forward gear
125 + x	Transmission is in the xth forward gear
124	Transmission is in the 1st reverse gear
123	Transmission is in the 2nd reverse gear
125 – y	Transmission is in the yth reverse gear

The transmission gear parameter is only used if TEM_Aux2_Misc_Interlock_Param is set to 13 or 14.

Example: For the output to only come on when the vehicle transmission is in a reverse gear, set TEM_Aux2_Misc_Interlock_Param to 10 and TEM_Aux2_Gear_Interlock_Param to 125.

- **TEM_Aux2_Misc_Interlock_Param** – 2034 This parameter (TEM_Aux2_Misc_Interlock_Param) is the master parameter for this feature. The setting for this parameter selects the interlocking condition for the output. The following table indicates which interlocking condition corresponds to which setting for the parameter. To select the interlocking condition simply set the value of this parameter to the corresponding setting on the table.

.

Setting	Interlocking Condition
0	Apply no interlocks to this output
1	Activate this output when the park brake is set AND the switch is on
2	Activate this output when the park brake is not set AND the switch is on
3	Activate this output when a door is open AND the switch is on
4	Activate this output when all doors are closed AND the switch is on
5	Activate this output when the PTO is engaged AND the switch is on (Requires a PTO feature)
6	Activate this output when the PTO is not engaged AND the switch is on (Requires a PTO feature)
7	Activate this output when the engine is running AND the switch is on
8	Activate this output when the engine is not running AND the switch is on
9	Activate this output when the vehicle speed exceeds the value set in TEM_Aux_1_Speed_Interlock_Param AND the switch is on
10	Activate this output when the vehicle speed is less than the value set in TEM_Aux_1_Speed_Interlock_Param AND the switch is on

11	Activate this output when the vehicle is stopped AND the switch is on
12	Activate this output when the vehicle is moving AND the switch is on
13	Activate this output when the transmission gear is higher than TEM_Aux1_Gear_Interlock_Param AND the switch is on (Requires Automatic Transmission)
14	Activate this output when the transmission gear is lower than TEM_Aux1_Gear_Interlock_Param AND the switch is on (Requires Automatic Transmission)
15	Activate this output when the transmission is in neutral AND the switch is on (Requires Automatic Transmission)
16	Activate this output when the transmission is not in neutral AND the switch is on (Requires Automatic Transmission)

Note/s About Possible Software Feature Conflicts:

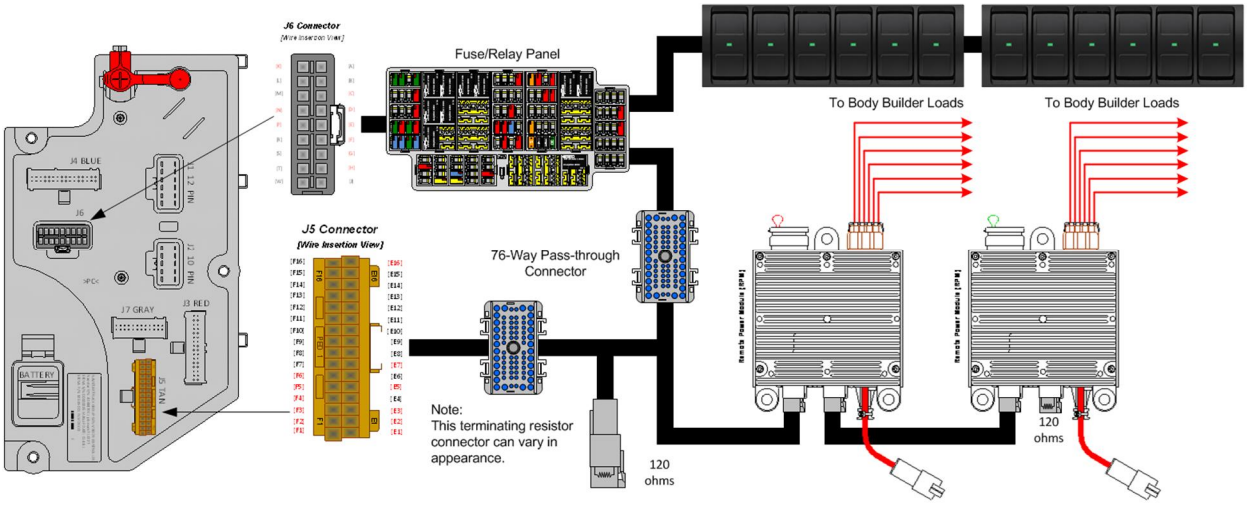
Only one PTO feature is allowed with 597200.
597277 conflicts with 597132, 597264, 597278, 597280, 597281, 597304, 597307.
597338 conflicts with 597203 and 597204

26. Remote Power Modules

26.1. 08SAJ: SWITCH, BODY CIRCUITS, MID for Body Builder; 12-Momentary Switches in IP, With Two Power Modules with Six Channels, 20-AMP Max. per Channel, 80-AMP Max. Output, Switch Control Power Modules through Multiplex Wiring, Mounted on Battery Box, BOC.

Extended Description: Feature 08SAJ includes two Remote Power Modules (RPMs) mounted behind the battery box on MV or on a bracket under cab on HV. Included with this feature are twelve 3-position momentary switches located in the Instrument Panel. Each RPM output can provide up to 20-Amps maximum with a total of 80-Amps maximum per module.

System Block Diagram:



Body Controller Software Feature Codes:

- 597137 - BCM PROG, REMOTE POWER MOD #1
- 597138 - BCM PROG, REMOTE POWER MOD #2
    - Both features are required

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
597137 - BCM PROG, REMOTE POWER MOD #1							
PwrMod1_Fuse_Level1_Param	392	Current Limit in amps for Output #1 of Remote Power Module #1	20	A	0	20	0.1
PwrMod1_Fuse_Level2_Param	393	Current Limit in amps for Output #2 of Remote Power Module #1	20	A	0	20	0.1
PwrMod1_Fuse_Level3_Param	394	Current Limit in amps for Output #3 of Remote Power Module #1	20	A	0	20	0.1
PwrMod1_Fuse_Level4_Param	395	Current Limit in amps for Output #4 of Remote Power Module #1	20	A	0	20	0.1
PwrMod1_Fuse_Level5_Param	396	Current Limit in amps for Output #5 of Remote Power Module #1	20	A	0	20	0.1

PwrMod1_Fuse_Level6_Param	397	Current Limit in amps for Output #6 of Remote Power Module #1	20	A	0	20	0.1
PwrMod1_Init_State1_Param	398	If this parameter is set to 1, Output #1 of Remote Power Module #1 will be turned on at ignition key-on, if set to 0 output will be off at key-on.	OFF	No_Units	N/A	N/A	N/A
PwrMod1_Init_State2_Param	399	If this parameter is set to 1, Output #2 of Remote Power Module #1 will be turned on at ignition key-on, if set to 0 output will be off at key-on.	OFF	No_Units	N/A	N/A	N/A
PwrMod1_Init_State3_Param	400	If this parameter is set to 1, Output #3 of Remote Power Module #1 will be turned on at ignition key-on, if set to 0 output will be off at key-on.	OFF	No_Units	N/A	N/A	N/A
PwrMod1_Init_State4_Param	401	If this parameter is set to 1, Output #4 of Remote Power Module #1 will be turned on at ignition key-on, if set to 0 output will be off at key-on.	OFF	No_Units	N/A	N/A	N/A
PwrMod1_Init_State5_Param	402	If this parameter is set to 1, Output #5 of Remote Power Module #1 will be turned on at ignition key-on, if set to 0 output will be off at key-on.	OFF	No_Units	N/A	N/A	N/A
PwrMod1_Init_State6_Param	403	If this parameter is set to 1, Output #6 of Remote Power Module #1 will be turned on at ignition key-on, if set to 0 output will be off at key-on.	OFF	No_Units	N/A	N/A	N/A
RPM1_Channel1_Loadshed_Level	3326	This is the level at which the RPM1 channel 1 Output will load shed.	1	No_Units	0	3	1
RPM1_Channel2_Loadshed_Level	3327	This is the level at which the RPM1 channel 2 Output will load shed.	1	No_Units	0	3	1
RPM1_Channel3_Loadshed_Level	3328	This is the level at which the RPM1 channel 3 Output will load shed.	1	No_Units	0	3	1
RPM1_Channel4_Loadshed_Level	3329	This is the level at which the RPM1 channel 4 Output will load shed.	1	No_Units	0	3	1
RPM1_Channel5_Loadshed_Level	3330	This is the level at which the RPM1 channel 5 Output will load shed.	1	No_Units	0	3	1
RPM1_Channel6_Loadshed_Level	3331	This is the level at which the RPM1 channel 6 Output will load shed.	1	No_Units	0	3	1
597138 - BCM PROG, REMOTE POWER MOD #2							
PwrMod2_Fuse_Level1_Param	035	Current Limit in amps for Output #1 of Remote Power Module #2	20	A	0	20	0.1
PwrMod2_Fuse_Level2_Param	036	Current Limit in amps for Output #2 of Remote Power Module #2	20	A	0	20	0.1
PwrMod2_Fuse_Level3_Param	037	Current Limit in amps for Output #3 of Remote Power Module #2	20	A	0	20	0.1
PwrMod2_Fuse_Level4_Param	038	Current Limit in amps for Output #4 of Remote Power Module #2	20	A	0	20	0.1
PwrMod2_Fuse_Level5_Param	039	Current Limit in amps for Output #5 of Remote Power Module #2	20	A	0	20	0.1
PwrMod2_Fuse_Level6_Param	040	Current Limit in amps for Output #6 of Remote Power Module #2	20	A	0	20	0.1
PwrMod2_Init_State1_Param	041	If this parameter is set to 1, Output #1 of Remote Power Module #2 will be turned on at ignition key-on, if set to 0 output will be off at key-on.	OFF	No_Units	N/A	N/A	N/A
PwrMod2_Init_State2_Param	042	If this parameter is set to 1, Output #2 of Remote Power Module #2 will be turned on at ignition key-on, if set to 0 output will be off at key-on.	OFF	No_Units	N/A	N/A	N/A

PwrMod2_Init_State3_Param	043	If this parameter is set to 1, Output #3 of Remote Power Module #2 will be turned on at ignition key-on, if set to 0 output will be off at key-on.	OFF	No_Units	N/A	N/A	N/A
PwrMod2_Init_State4_Param	044	If this parameter is set to 1, Output #4 of Remote Power Module #2 will be turned on at ignition key-on, if set to 0 output will be off at key-on.	OFF	No_Units	N/A	N/A	N/A
PwrMod2_Init_State5_Param	045	If this parameter is set to 1, Output #5 of Remote Power Module #2 will be turned on at ignition key-on, if set to 0 output will be off at key-on.	OFF	No_Units	N/A	N/A	N/A
PwrMod2_Init_State6_Param	046	If this parameter is set to 1, Output #6 of Remote Power Module #2 will be turned on at ignition key-on, if set to 0 output will be off at key-on.	OFF	No_Units	N/A	N/A	N/A
RPM2_Channel1_Loadshed_Level	3333	This is the level at which the RPM2 channel 1 Output will load shed.	1	No_Units	0	3	1
RPM2_Channel2_Loadshed_Level	3334	This is the level at which the RPM2 channel 2 Output will load shed.	1	No_Units	0	3	1
RPM2_Channel3_Loadshed_Level	3335	This is the level at which the RPM2 channel 3 Output will load shed.	1	No_Units	0	3	1
RPM2_Channel4_Loadshed_Level	3336	This is the level at which the RPM2 channel 4 Output will load shed.	1	No_Units	0	3	1
RPM2_Channel5_Loadshed_Level	3337	This is the level at which the RPM2 channel 5 Output will load shed.	1	No_Units	0	3	1
RPM2_Channel6_Loadshed_Level	3338	This is the level at which the RPM2 channel 6 Output will load shed.	1	No_Units	0	3	1

Parameter Definitions:

- **PwrMod1_Fuse_Level1_Param** – This parameter sets the limit (in AMPS) of the current flowing from Output #1 of RPM #1.
- **PwrMod1_Fuse_Level2_Param** – This parameter sets the limit (in AMPS) of the current flowing from Output #2 of RPM #1.
- **PwrMod1_Fuse_Level3_Param** – This parameter sets the limit (in AMPS) of the current flowing from Output #3 of RPM #1.
- **PwrMod1_Fuse_Level4_Param** – This parameter sets the limit (in AMPS) of the current flowing from Output #4 of RPM #1.
- **PwrMod1_Fuse_Level5_Param** – This parameter sets the limit (in AMPS) of the current flowing from Output #5 of RPM #1.
- **PwrMod1_Fuse_Level6_Param** – This parameter sets the limit (in AMPS) of the current flowing from Output #6 of RPM #1.
- **PwrMod1_Init_State1_Param** – This parameter determines the initial state of RPM#1, Output #1. The Default setting is OFF or zero; meaning output will be OFF at ignition key-on. When the box is checked the value is set to ON or ONE; the output will be ON at ignition key-on.
- **PwrMod1_Init_State2_Param** – This parameter determines the initial state of RPM#1, Output #2. The Default setting is OFF or zero; meaning output will be OFF at ignition key-on. When the box is checked the value is set to ON or ONE; the output will be ON at ignition key-on.

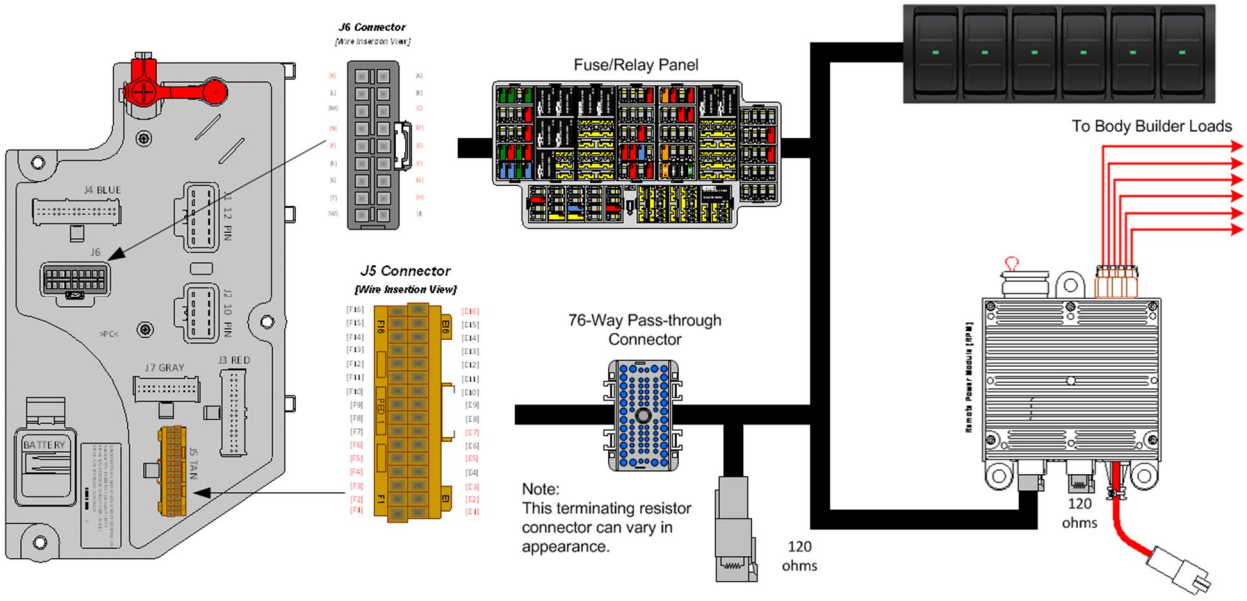
- **PwrMod1_Init_State3_Param** – This parameter determines the initial state of RPM#1, Output #3. The Default setting is OFF or zero; meaning output will be OFF at ignition key-on. When the box is checked the value is set to ON or ONE; the output will be ON at ignition key-on.
- **PwrMod1_Init_State4_Param** – This parameter determines the initial state of RPM#1, Output #4. The Default setting is OFF or zero; meaning output will be OFF at ignition key-on. When the box is checked the value is set to ON or ONE; the output will be ON at ignition key-on.
- **PwrMod1_Init_State5_Param** – This parameter determines the initial state of RPM#1, Output #5. The Default setting is OFF or zero; meaning output will be OFF at ignition key-on. When the box is checked the value is set to ON or ONE; the output will be ON at ignition key-on.
- **PwrMod1_Init_State6_Param** – This parameter determines the initial state of RPM#1, Output #6. The Default setting is OFF or zero; meaning output will be OFF at ignition key-on. When the box is checked the value is set to ON or ONE; the output will be ON at ignition key-on.
- **RPM1_Channel1_LoadShed_Level** – This is the level at which the RPM1 channel 1 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **RPM1_Channel2_LoadShed_Level** – This is the level at which the RPM1 channel 2 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **RPM1_Channel3_LoadShed_Level** – This is the level at which the RPM1 channel 3 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **RPM1_Channel4_LoadShed_Level** – This is the level at which the RPM1 channel 4 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **RPM1_Channel5_LoadShed_Level** – This is the level at which the RPM1 channel 5 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **RPM1_Channel6_LoadShed_Level** – This is the level at which the RPM1 channel 6 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
-
- **PwrMod2_Fuse_Level1_Param** – This parameter sets the limit (in AMPS) of the current flowing from Output #1 of RPM #2.
- **PwrMod2_Fuse_Level2_Param** – This parameter sets the limit (in AMPS) of the current flowing from Output #2 of RPM #2.
- **PwrMod2_Fuse_Level3_Param** – This parameter sets the limit (in AMPS) of the current flowing from Output #3 of RPM #2.
- **PwrMod2_Fuse_Level4_Param** – This parameter sets the limit (in AMPS) of the current flowing from Output #4 of RPM #2.
- **PwrMod2_Fuse_Level5_Param** – This parameter sets the limit (in AMPS) of the current flowing from Output #5 of RPM #2.

- **PwrMod2_Fuse_Level6_Param** – This parameter sets the limit (in AMPS) of the current flowing from Output #6 of RPM #2.
- **PwrMod2_Init_State1_Param** – This parameter determines the initial state of RPM#2, Output #1. The Default setting is OFF or zero; meaning output will be OFF at ignition key-on. When the box is checked the value is set to ON or ONE; the output will be ON at ignition key-on.
- **PwrMod2_Init_State2_Param** – This parameter determines the initial state of RPM#2, Output #2. The Default setting is OFF or zero; meaning output will be OFF at ignition key-on. When the box is checked the value is set to ON or ONE; the output will be ON at ignition key-on.
- **PwrMod2_Init_State3_Param** – This parameter determines the initial state of RPM#2, Output #3. The Default setting is OFF or zero; meaning output will be OFF at ignition key-on. When the box is checked the value is set to ON or ONE; the output will be ON at ignition key-on.
- **PwrMod2_Init_State4_Param** – This parameter determines the initial state of RPM#2, Output #4. The Default setting is OFF or zero; meaning output will be OFF at ignition key-on. When the box is checked the value is set to ON or ONE; the output will be ON at ignition key-on.
- **PwrMod2_Init_State5_Param** – This parameter determines the initial state of RPM#2, Output #5. The Default setting is OFF or zero; meaning output will be OFF at ignition key-on. When the box is checked the value is set to ON or ONE; the output will be ON at ignition key-on.
- **PwrMod2_Init_State6_Param** – This parameter determines the initial state of RPM#2, Output #6. The Default setting is OFF or zero; meaning output will be OFF at ignition key-on. When the box is checked the value is set to ON or ONE; the output will be ON at ignition key-on.
- **RPM2_Channel1_LoadShed_Level** – This is the level at which the RPM2 channel 1 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **RPM2_Channel2_LoadShed_Level** – This is the level at which the RPM2 channel 2 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **RPM2_Channel3_LoadShed_Level** – This is the level at which the RPM2 channel 3 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **RPM2_Channel4_LoadShed_Level** – This is the level at which the RPM2 channel 4 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **RPM2_Channel5_LoadShed_Level** – This is the level at which the RPM2 channel 5 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **RPM2_Channel6_LoadShed_Level** – This is the level at which the RPM2 channel 6 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).

26.2. 08VZR: SWITCH, BODY CIRCUITS, MID for Bodybuilder, 6-Switches in Instrument Panel; One Power Module with 6 Channels, 20-Amp Max. Per Channel, 80 Amp Max Output, Switches Control Power Module Through Multiplex Wiring, Mounted in Cab Behind Driver Seat.

Extended Description: Feature 08VZR includes one Remote Power Module (RPM) mounted in the cab behind the driver seat. Included with this feature are six 3-position momentary switches located in the Instrument Panel. Each RPM output can provide up to 20-Amps maximum with a total of 80-Amps maximum per module.

System Block Diagram:



Body Controller Software Feature Codes:

- 597137 - BCM PROG, REMOTE POWER MOD #1

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
597137 - BCM PROG, REMOTE POWER MOD #1							
PwrMod1_Fuse_Level1_Param	392	Current Limit in amps for Output #1 of Remote Power Module #1	20	A	0	20	0.1
PwrMod1_Fuse_Level2_Param	393	Current Limit in amps for Output #2 of Remote Power Module #1	20	A	0	20	0.1
PwrMod1_Fuse_Level3_Param	394	Current Limit in amps for Output #3 of Remote Power Module #1	20	A	0	20	0.1
PwrMod1_Fuse_Level4_Param	395	Current Limit in amps for Output #4 of Remote Power Module #1	20	A	0	20	0.1
PwrMod1_Fuse_Level5_Param	396	Current Limit in amps for Output #5 of Remote Power Module #1	20	A	0	20	0.1
PwrMod1_Fuse_Level6_Param	397	Current Limit in amps for Output #6 of Remote Power Module #1	20	A	0	20	0.1
PwrMod1_Init_State1_Param	398	If this parameter is set to 1, Output #1 of Remote Power Module #1 will	OFF	No_Units	N/A	N/A	N/A

		be turned on at ignition key-on, if set to 0 output will be off at key-on.					
PwrMod1_Init_State2_Param	399	If this parameter is set to 1, Output #2 of Remote Power Module #1 will be turned on at ignition key-on, if set to 0 output will be off at key-on.	OFF	No_Units	N/A	N/A	N/A
PwrMod1_Init_State3_Param	400	If this parameter is set to 1, Output #3 of Remote Power Module #1 will be turned on at ignition key-on, if set to 0 output will be off at key-on.	OFF	No_Units	N/A	N/A	N/A
PwrMod1_Init_State4_Param	401	If this parameter is set to 1, Output #4 of Remote Power Module #1 will be turned on at ignition key-on, if set to 0 output will be off at key-on.	OFF	No_Units	N/A	N/A	N/A
PwrMod1_Init_State5_Param	402	If this parameter is set to 1, Output #5 of Remote Power Module #1 will be turned on at ignition key-on, if set to 0 output will be off at key-on.	OFF	No_Units	N/A	N/A	N/A
PwrMod1_Init_State6_Param	403	If this parameter is set to 1, Output #6 of Remote Power Module #1 will be turned on at ignition key-on, if set to 0 output will be off at key-on.	OFF	No_Units	N/A	N/A	N/A
RPM1_Channel1_Loadshed_Level	3326	This is the level at which the RPM1 channel 1 Output will load shed.	1	No_Units	0	3	1
RPM1_Channel2_Loadshed_Level	3327	This is the level at which the RPM1 channel 2 Output will load shed.	1	No_Units	0	3	1
RPM1_Channel3_Loadshed_Level	3328	This is the level at which the RPM1 channel 3 Output will load shed.	1	No_Units	0	3	1
RPM1_Channel4_Loadshed_Level	3329	This is the level at which the RPM1 channel 4 Output will load shed.	1	No_Units	0	3	1
RPM1_Channel5_Loadshed_Level	3330	This is the level at which the RPM1 channel 5 Output will load shed.	1	No_Units	0	3	1
RPM1_Channel6_Loadshed_Level	3331	This is the level at which the RPM1 channel 6 Output will load shed.	1	No_Units	0	3	1

Parameter Definitions:

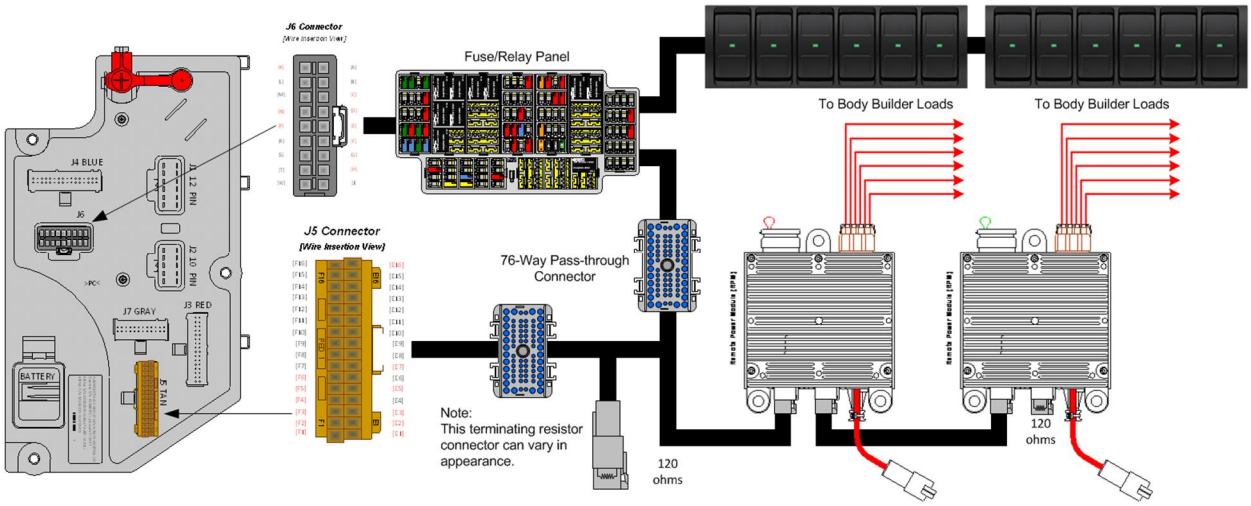
- **PwrMod1_Fuse_Level1_Param** – This parameter sets the limit (in AMPS) of the current flowing from Output #1 of RPM #1.
- **PwrMod1_Fuse_Level2_Param** – This parameter sets the limit (in AMPS) of the current flowing from Output #2 of RPM #1.
- **PwrMod1_Fuse_Level3_Param** – This parameter sets the limit (in AMPS) of the current flowing from Output #3 of RPM #1.
- **PwrMod1_Fuse_Level4_Param** – This parameter sets the limit (in AMPS) of the current flowing from Output #4 of RPM #1.
- **PwrMod1_Fuse_Level5_Param** – This parameter sets the limit (in AMPS) of the current flowing from Output #5 of RPM #1.
- **PwrMod1_Fuse_Level6_Param** – This parameter sets the limit (in AMPS) of the current flowing from Output #6 of RPM #1.
- **PwrMod1_Init_State1_Param** – This parameter determines the initial state of RPM#1, Output #1. The Default setting is OFF or zero; meaning output will be OFF at ignition key-on. When the box is checked the value is set to ON or ONE; the output will be ON at ignition key-on.

- **PwrMod1_Init_State2_Param** – This parameter determines the initial state of RPM#1, Output #2. The Default setting is OFF or zero; meaning output will be OFF at ignition key-on. When the box is checked the value is set to ON or ONE; the output will be ON at ignition key-on.
- **PwrMod1_Init_State3_Param** – This parameter determines the initial state of RPM#1, Output #3. The Default setting is OFF or zero; meaning output will be OFF at ignition key-on. When the box is checked the value is set to ON or ONE; the output will be ON at ignition key-on.
- **PwrMod1_Init_State4_Param** – This parameter determines the initial state of RPM#1, Output #4. The Default setting is OFF or zero; meaning output will be OFF at ignition key-on. When the box is checked the value is set to ON or ONE; the output will be ON at ignition key-on.
- **PwrMod1_Init_State5_Param** – This parameter determines the initial state of RPM#1, Output #5. The Default setting is OFF or zero; meaning output will be OFF at ignition key-on. When the box is checked the value is set to ON or ONE; the output will be ON at ignition key-on.
- **PwrMod1_Init_State6_Param** – This parameter determines the initial state of RPM#1, Output #6. The Default setting is OFF or zero; meaning output will be OFF at ignition key-on. When the box is checked the value is set to ON or ONE; the output will be ON at ignition key-on.
- **RPM1_Channel1_LoadShed_Level** – This is the level at which the RPM1 channel 1 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **RPM1_Channel2_LoadShed_Level** – This is the level at which the RPM1 channel 2 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **RPM1_Channel3_LoadShed_Level** – This is the level at which the RPM1 channel 3 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **RPM1_Channel4_LoadShed_Level** – This is the level at which the RPM1 channel 4 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **RPM1_Channel5_LoadShed_Level** – This is the level at which the RPM1 channel 5 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **RPM1_Channel6_LoadShed_Level** – This is the level at which the RPM1 channel 6 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).

26.3. 08VZS: SWITCH, BODY CIRCUITS, MID for Bodybuilder, 12-Switches in Instrument Panel; Two Power Modules with 6 Channels, 20-Amp Max. Per Channel, 80-Amp Max Output, Switches Control Power Module Through Multiplex Wiring, Mounted in Cab Behind Driver Seat.

Extended Description: Feature 08VZS includes two Remote Power Modules (RPMs) mounted in the cab behind the driver seat. Included with this feature are twelve 3-position momentary switches located in the Instrument Panel. Each RPM output can provide up to 20-Amps maximum with a total of 80-Amps maximum per module.

System Block Diagram:



Body Controller Software Feature Codes:

- 597137 - BCM PROG, REMOTE POWER MOD #1
- 597138 - BCM PROG, REMOTE POWER MOD #2
  - Both features are required

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
597137 - BCM PROG, REMOTE POWER MOD #1							
PwrMod1_Fuse_Level1_Param	392	Current Limit in amps for Output #1 of Remote Power Module #1	20	A	0	20	0.1
PwrMod1_Fuse_Level2_Param	393	Current Limit in amps for Output #2 of Remote Power Module #1	20	A	0	20	0.1
PwrMod1_Fuse_Level3_Param	394	Current Limit in amps for Output #3 of Remote Power Module #1	20	A	0	20	0.1
PwrMod1_Fuse_Level4_Param	395	Current Limit in amps for Output #4 of Remote Power Module #1	20	A	0	20	0.1
PwrMod1_Fuse_Level5_Param	396	Current Limit in amps for Output #5 of Remote Power Module #1	20	A	0	20	0.1
PwrMod1_Fuse_Level6_Param	397	Current Limit in amps for Output #6 of Remote Power Module #1	20	A	0	20	0.1
PwrMod1_Init_State1_Param	398	If this parameter is set to 1, Output #1 of Remote Power Module #1 will be turned on at ignition key-on, if set to 0 output will be off at key-on.	OFF	No_Units	N/A	N/A	N/A

PwrMod1_Init_State2_Param	399	If this parameter is set to 1, Output #2 of Remote Power Module #1 will be turned on at ignition key-on, if set to 0 output will be off at key-on.	OFF	No_Units	N/A	N/A	N/A
PwrMod1_Init_State3_Param	400	If this parameter is set to 1, Output #3 of Remote Power Module #1 will be turned on at ignition key-on, if set to 0 output will be off at key-on.	OFF	No_Units	N/A	N/A	N/A
PwrMod1_Init_State4_Param	401	If this parameter is set to 1, Output #4 of Remote Power Module #1 will be turned on at ignition key-on, if set to 0 output will be off at key-on.	OFF	No_Units	N/A	N/A	N/A
PwrMod1_Init_State5_Param	402	If this parameter is set to 1, Output #5 of Remote Power Module #1 will be turned on at ignition key-on, if set to 0 output will be off at key-on.	OFF	No_Units	N/A	N/A	N/A
PwrMod1_Init_State6_Param	403	If this parameter is set to 1, Output #6 of Remote Power Module #1 will be turned on at ignition key-on, if set to 0 output will be off at key-on.	OFF	No_Units	N/A	N/A	N/A
RPM1_Channel1_Loadshed_Level	3326	This is the level at which the RPM1 channel 1 Output will load shed.	1	No_Units	0	3	1
RPM1_Channel2_Loadshed_Level	3327	This is the level at which the RPM1 channel 2 Output will load shed.	1	No_Units	0	3	1
RPM1_Channel3_Loadshed_Level	3328	This is the level at which the RPM1 channel 3 Output will load shed.	1	No_Units	0	3	1
RPM1_Channel4_Loadshed_Level	3329	This is the level at which the RPM1 channel 4 Output will load shed.	1	No_Units	0	3	1
RPM1_Channel5_Loadshed_Level	3330	This is the level at which the RPM1 channel 5 Output will load shed.	1	No_Units	0	3	1
RPM1_Channel6_Loadshed_Level	3331	This is the level at which the RPM1 channel 6 Output will load shed.	1	No_Units	0	3	1
597138 - BCM PROG, REMOTE POWER MOD #2							
PwrMod2_Fuse_Level1_Param	035	Current Limit in amps for Output #1 of Remote Power Module #2	20	A	0	20	0.1
PwrMod2_Fuse_Level2_Param	036	Current Limit in amps for Output #2 of Remote Power Module #2	20	A	0	20	0.1
PwrMod2_Fuse_Level3_Param	037	Current Limit in amps for Output #3 of Remote Power Module #2	20	A	0	20	0.1
PwrMod2_Fuse_Level4_Param	038	Current Limit in amps for Output #4 of Remote Power Module #2	20	A	0	20	0.1
PwrMod2_Fuse_Level5_Param	039	Current Limit in amps for Output #5 of Remote Power Module #2	20	A	0	20	0.1
PwrMod2_Fuse_Level6_Param	040	Current Limit in amps for Output #6 of Remote Power Module #2	20	A	0	20	0.1
PwrMod2_Init_State1_Param	041	If this parameter is set to 1, Output #1 of Remote Power Module #2 will be turned on at ignition key-on, if set to 0 output will be off at key-on.	OFF	No_Units	N/A	N/A	N/A
PwrMod2_Init_State2_Param	042	If this parameter is set to 1, Output #2 of Remote Power Module #2 will be turned on at ignition key-on, if set to 0 output will be off at key-on.	OFF	No_Units	N/A	N/A	N/A
PwrMod2_Init_State3_Param	043	If this parameter is set to 1, Output #3 of Remote Power Module #2 will be turned on at ignition key-on, if set to 0 output will be off at key-on.	OFF	No_Units	N/A	N/A	N/A
PwrMod2_Init_State4_Param	044	If this parameter is set to 1, Output #4 of Remote Power Module #2 will	OFF	No_Units	N/A	N/A	N/A

		be turned on at ignition key-on, if set to 0 output will be off at key-on.					
PwrMod2_Init_State5_Param	045	If this parameter is set to 1, Output #5 of Remote Power Module #2 will be turned on at ignition key-on, if set to 0 output will be off at key-on.	OFF	No_Units	N/A	N/A	N/A
PwrMod2_Init_State6_Param	046	If this parameter is set to 1, Output #6 of Remote Power Module #2 will be turned on at ignition key-on, if set to 0 output will be off at key-on.	OFF	No_Units	N/A	N/A	N/A
RPM2_Channel1_Loadshed_Level	3333	This is the level at which the RPM2 channel 1 Output will load shed.	1	No_Units	0	3	1
RPM2_Channel2_Loadshed_Level	3334	This is the level at which the RPM2 channel 2 Output will load shed.	1	No_Units	0	3	1
RPM2_Channel3_Loadshed_Level	3335	This is the level at which the RPM2 channel 3 Output will load shed.	1	No_Units	0	3	1
RPM2_Channel4_Loadshed_Level	3336	This is the level at which the RPM2 channel 4 Output will load shed.	1	No_Units	0	3	1
RPM2_Channel5_Loadshed_Level	3337	This is the level at which the RPM2 channel 5 Output will load shed.	1	No_Units	0	3	1
RPM2_Channel6_Loadshed_Level	3338	This is the level at which the RPM2 channel 6 Output will load shed.	1	No_Units	0	3	1

Parameter Definitions:

- **PwrMod1_Fuse_Level1_Param** – This parameter sets the limit (in AMPS) of the current flowing from Output #1 of RPM #1.
- **PwrMod1_Fuse_Level2_Param** – This parameter sets the limit (in AMPS) of the current flowing from Output #2 of RPM #1.
- **PwrMod1_Fuse_Level3_Param** – This parameter sets the limit (in AMPS) of the current flowing from Output #3 of RPM #1.
- **PwrMod1_Fuse_Level4_Param** – This parameter sets the limit (in AMPS) of the current flowing from Output #4 of RPM #1.
- **PwrMod1_Fuse_Level5_Param** – This parameter sets the limit (in AMPS) of the current flowing from Output #5 of RPM #1.
- **PwrMod1_Fuse_Level6_Param** – This parameter sets the limit (in AMPS) of the current flowing from Output #6 of RPM #1.
- **PwrMod1_Init_State1_Param** – This parameter determines the initial state of RPM#1, Output #1. The Default setting is OFF or zero; meaning output will be OFF at ignition key-on. When the box is checked the value is set to ON or ONE; the output will be ON at ignition key-on.
- **PwrMod1_Init_State2_Param** – This parameter determines the initial state of RPM#1, Output #2. The Default setting is OFF or zero; meaning output will be OFF at ignition key-on. When the box is checked the value is set to ON or ONE; the output will be ON at ignition key-on.
- **PwrMod1_Init_State3_Param** – This parameter determines the initial state of RPM#1, Output #3. The Default setting is OFF or zero; meaning output will be OFF at ignition key-on. When the box is checked the value is set to ON or ONE; the output will be ON at ignition key-on.

- **PwrMod1_Init_State4_Param** – This parameter determines the initial state of RPM#1, Output #4. The Default setting is OFF or zero; meaning output will be OFF at ignition key-on. When the box is checked the value is set to ON or ONE; the output will be ON at ignition key-on.
- **PwrMod1_Init_State5_Param** – This parameter determines the initial state of RPM#1, Output #5. The Default setting is OFF or zero; meaning output will be OFF at ignition key-on. When the box is checked the value is set to ON or ONE; the output will be ON at ignition key-on.
- **PwrMod1_Init_State6_Param** – This parameter determines the initial state of RPM#1, Output #6. The Default setting is OFF or zero; meaning output will be OFF at ignition key-on. When the box is checked the value is set to ON or ONE; the output will be ON at ignition key-on.
- **RPM1_Channel1_LoadShed_Level** – This is the level at which the RPM1 channel 1 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **RPM1_Channel2_LoadShed_Level** – This is the level at which the RPM1 channel 2 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **RPM1_Channel3_LoadShed_Level** – This is the level at which the RPM1 channel 3 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **RPM1_Channel4_LoadShed_Level** – This is the level at which the RPM1 channel 4 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **RPM1_Channel5_LoadShed_Level** – This is the level at which the RPM1 channel 5 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **RPM1_Channel6_LoadShed_Level** – This is the level at which the RPM1 channel 6 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
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- **PwrMod2_Fuse_Level1_Param** – This parameter sets the limit (in AMPS) of the current flowing from Output #1 of RPM #2.
- **PwrMod2_Fuse_Level2_Param** – This parameter sets the limit (in AMPS) of the current flowing from Output #2 of RPM #2.
- **PwrMod2_Fuse_Level3_Param** – This parameter sets the limit (in AMPS) of the current flowing from Output #3 of RPM #2.
- **PwrMod2_Fuse_Level4_Param** – This parameter sets the limit (in AMPS) of the current flowing from Output #4 of RPM #2.
- **PwrMod2_Fuse_Level5_Param** – This parameter sets the limit (in AMPS) of the current flowing from Output #5 of RPM #2.
- **PwrMod2_Fuse_Level6_Param** – This parameter sets the limit (in AMPS) of the current flowing from Output #6 of RPM #2.
- **PwrMod2_Init_State1_Param** – This parameter determines the initial state of RPM#2, Output #1. The Default setting is OFF or zero; meaning output will be

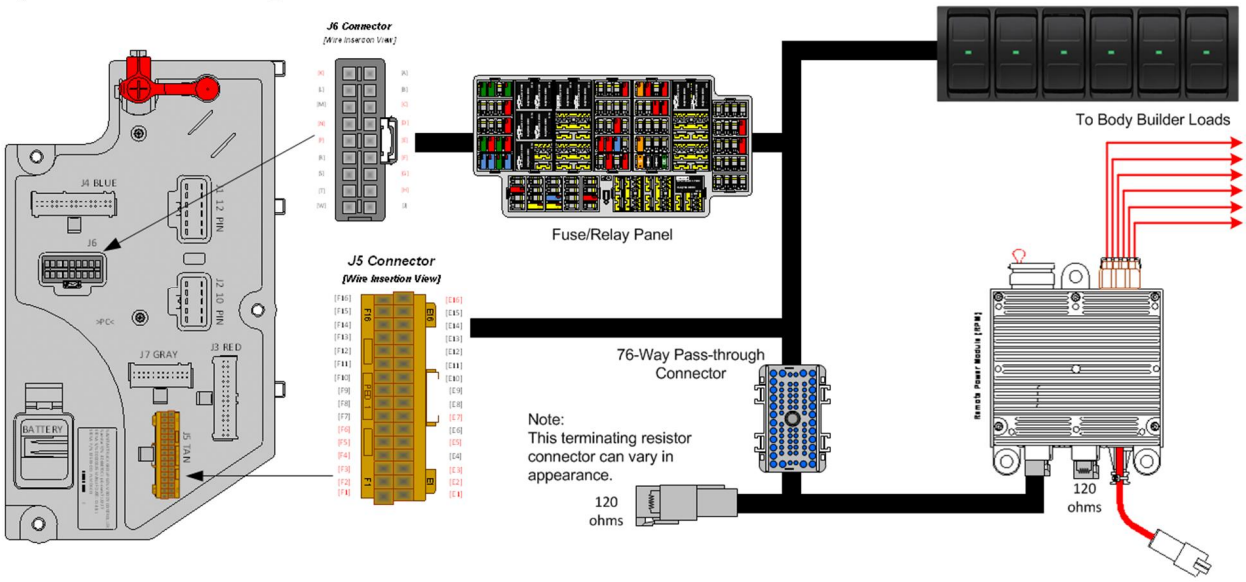
OFF at ignition key-on. When the box is checked the value is set to ON or ONE; the output will be ON at ignition key-on.

- **PwrMod2_Init_State2_Param** – This parameter determines the initial state of RPM#2, Output #2. The Default setting is OFF or zero; meaning output will be OFF at ignition key-on. When the box is checked the value is set to ON or ONE; the output will be ON at ignition key-on.
- **PwrMod2_Init_State3_Param** – This parameter determines the initial state of RPM#2, Output #3. The Default setting is OFF or zero; meaning output will be OFF at ignition key-on. When the box is checked the value is set to ON or ONE; the output will be ON at ignition key-on.
- **PwrMod2_Init_State4_Param** – This parameter determines the initial state of RPM#2, Output #4. The Default setting is OFF or zero; meaning output will be OFF at ignition key-on. When the box is checked the value is set to ON or ONE; the output will be ON at ignition key-on.
- **PwrMod2_Init_State5_Param** – This parameter determines the initial state of RPM#2, Output #5. The Default setting is OFF or zero; meaning output will be OFF at ignition key-on. When the box is checked the value is set to ON or ONE; the output will be ON at ignition key-on.
- **PwrMod2_Init_State6_Param** – This parameter determines the initial state of RPM#2, Output #6. The Default setting is OFF or zero; meaning output will be OFF at ignition key-on. When the box is checked the value is set to ON or ONE; the output will be ON at ignition key-on.
- **RPM2_Channel1_LoadShed_Level** – This is the level at which the RPM2 channel 1 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **RPM2_Channel2_LoadShed_Level** – This is the level at which the RPM2 channel 2 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **RPM2_Channel3_LoadShed_Level** – This is the level at which the RPM2 channel 3 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **RPM2_Channel4_LoadShed_Level** – This is the level at which the RPM2 channel 4 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **RPM2_Channel5_LoadShed_Level** – This is the level at which the RPM2 channel 5 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **RPM2_Channel6_LoadShed_Level** – This is the level at which the RPM2 channel 6 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).

26.4. 08WSK: SWITCH, BODY CIRCUITS, REAR for Body Builder; With Six Momentary Switches in Instrument Panel (IP); One Power Module, With Six Channels, 20-Ampere (AMP) per Channel and 80 AMP Max. Output, Switches Control the Power Modules through Multiplex Wiring, Mounted at Rear on Frame.

Extended Description: Feature 08WSK includes one Remote Power Module (RPM) mounted at the End of Frame (EOF). Included with this feature are six 3-position momentary switches located in the Instrument Panel. Each RPM output can provide up to 20-Amps maximum with a total of 80-Amps maximum per module.

System Block Diagram:



Body Controller Software Feature Codes:

- 597139 - BCM PROG, REMOTE POWER MOD #4

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
597139 - BCM PROG, REMOTE POWER MOD #4							
PwrMod4_Fuse_Level1_Param	454	Current Limit in amps for Output #1 of Remote Power Module #4	20	A	0	20	0.1
PwrMod4_Fuse_Level2_Param	455	Current Limit in amps for Output #2 of Remote Power Module #4	20	A	0	20	0.1
PwrMod4_Fuse_Level3_Param	456	Current Limit in amps for Output #3 of Remote Power Module #4	20	A	0	20	0.1
PwrMod4_Fuse_Level4_Param	457	Current Limit in amps for Output #4 of Remote Power Module #4	20	A	0	20	0.1
PwrMod4_Fuse_Level5_Param	458	Current Limit in amps for Output #5 of Remote Power Module #4	20	A	0	20	0.1
PwrMod4_Fuse_Level6_Param	459	Current Limit in amps for Output #6 of Remote Power Module #4	20	A	0	20	0.1
PwrMod4_Init_State1_Param	460	If this parameter is set to 1, Output #1 of Remote Power Module #4 will	OFF	No_Units	N/A	N/A	N/A

		be turned on at ignition key-on, if set to 0 output will be off at key-on.					
PwrMod4_Init_State2_Param	461	If this parameter is set to 1, Output #2 of Remote Power Module #4 will be turned on at ignition key-on, if set to 0 output will be off at key-on.	OFF	No_Units	N/A	N/A	N/A
PwrMod4_Init_State3_Param	462	If this parameter is set to 1, Output #3 of Remote Power Module #4 will be turned on at ignition key-on, if set to 0 output will be off at key-on.	OFF	No_Units	N/A	N/A	N/A
PwrMod4_Init_State4_Param	463	If this parameter is set to 1, Output #4 of Remote Power Module #4 will be turned on at ignition key-on, if set to 0 output will be off at key-on.	OFF	No_Units	N/A	N/A	N/A
PwrMod4_Init_State5_Param	464	If this parameter is set to 1, Output #5 of Remote Power Module #4 will be turned on at ignition key-on, if set to 0 output will be off at key-on.	OFF	No_Units	N/A	N/A	N/A
PwrMod4_Init_State6_Param	465	If this parameter is set to 1, Output #6 of Remote Power Module #4 will be turned on at ignition key-on, if set to 0 output will be off at key-on.	OFF	No_Units	N/A	N/A	N/A
RPM4_Channel1_Loadshed_Level	3320	This is the level at which the RPM4 channel 1 Output will load shed.	1	No_Units	0	3	1
RPM4_Channel2_Loadshed_Level	3321	This is the level at which the RPM4 channel 2 Output will load shed.	1	No_Units	0	3	1
RPM4_Channel3_Loadshed_Level	3322	This is the level at which the RPM4 channel 3 Output will load shed.	1	No_Units	0	3	1
RPM4_Channel4_Loadshed_Level	3323	This is the level at which the RPM4 channel 4 Output will load shed.	1	No_Units	0	3	1
RPM4_Channel5_Loadshed_Level	3324	This is the level at which the RPM4 channel 5 Output will load shed.	1	No_Units	0	3	1
RPM4_Channel6_Loadshed_Level	3325	This is the level at which the RPM4 channel 6 Output will load shed.	1	No_Units	0	3	1

Parameter Definitions:

- **PwrMod4_Fuse_Level1_Param** – This parameter sets the limit (in AMPS) of the current flowing from Output #1 of RPM #4.
- **PwrMod4_Fuse_Level2_Param** – This parameter sets the limit (in AMPS) of the current flowing from Output #2 of RPM #4.
- **PwrMod4_Fuse_Level3_Param** – This parameter sets the limit (in AMPS) of the current flowing from Output #3 of RPM #4.
- **PwrMod4_Fuse_Level4_Param** – This parameter sets the limit (in AMPS) of the current flowing from Output #4 of RPM #4.
- **PwrMod4_Fuse_Level5_Param** – This parameter sets the limit (in AMPS) of the current flowing from Output #5 of RPM #4.
- **PwrMod4_Fuse_Level6_Param** – This parameter sets the limit (in AMPS) of the current flowing from Output #6 of RPM #4.
- **PwrMod4_Init_State1_Param** – This parameter determines the initial state of RPM#4, Output #1. The Default setting is OFF or zero; meaning output will be OFF at ignition key-on. When the box is checked the value is set to ON or ONE; the output will be ON at ignition key-on.

- **PwrMod4_Init_State2_Param** – This parameter determines the initial state of RPM#4, Output #2. The Default setting is OFF or zero; meaning output will be OFF at ignition key-on. When the box is checked the value is set to ON or ONE; the output will be ON at ignition key-on.
- **PwrMod4_Init_State3_Param** – This parameter determines the initial state of RPM#4, Output #3. The Default setting is OFF or zero; meaning output will be OFF at ignition key-on. When the box is checked the value is set to ON or ONE; the output will be ON at ignition key-on.
- **PwrMod4_Init_State4_Param** – This parameter determines the initial state of RPM#4, Output #4. The Default setting is OFF or zero; meaning output will be OFF at ignition key-on. When the box is checked the value is set to ON or ONE; the output will be ON at ignition key-on.
- **PwrMod4_Init_State5_Param** – This parameter determines the initial state of RPM#4, Output #5. The Default setting is OFF or zero; meaning output will be OFF at ignition key-on. When the box is checked the value is set to ON or ONE; the output will be ON at ignition key-on.
- **PwrMod4_Init_State6_Param** – This parameter determines the initial state of RPM#4, Output #6. The Default setting is OFF or zero; meaning output will be OFF at ignition key-on. When the box is checked the value is set to ON or ONE; the output will be ON at ignition key-on.
- **RPM4_Channel1_LoadShed_Level** – This is the level at which the RPM4 channel 1 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **RPM4_Channel2_LoadShed_Level** – This is the level at which the RPM4 channel 2 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **RPM4_Channel3_LoadShed_Level** – This is the level at which the RPM4 channel 3 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **RPM4_Channel4_LoadShed_Level** – This is the level at which the RPM4 channel 4 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **RPM4_Channel5_LoadShed_Level** – This is the level at which the RPM4 channel 5 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **RPM4_Channel6_LoadShed_Level** – This is the level at which the RPM4 channel 6 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
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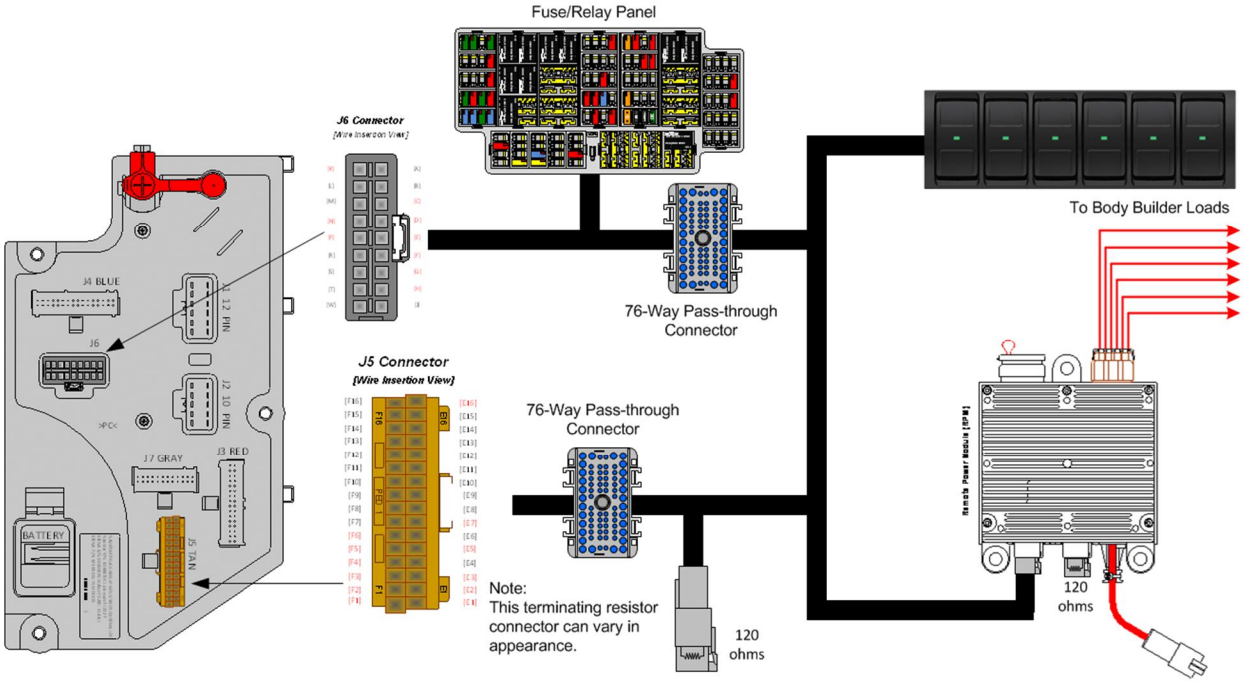
Note/s About Possible Software Feature Conflicts:
597252

26.5. 08WSM: SWITCH, BODY CIRCUITS, MID for Body Builder, With Six Momentary Switches in IP; One Power Module with Six Channel, 20-AMP Max. per Channel and 80 AMP Max. Output, Switches Control the Power Module through Multiplex Wiring, Mounted Battery Box, Back of Cab (BOC).

Extended Description: Feature 08WSM includes one Remote Power Module (RPM) mounted behind the battery box on MV or on a bracket under the cab on HV at the Back of Cab (BOC). Included with this feature are six 3-position momentary switches located in the Instrument Panel. Each RPM output can provide up to 20-Amps maximum with a total of 80-Amps maximum per module.

System Block Diagram:



Body Controller Software Feature Codes:

- 597137 - BCM PROG, REMOTE POWER MOD #1

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
597137 - BCM PROG, REMOTE POWER MOD #1							
PwrMod1_Fuse_Level1_Param	392	Current Limit in amps for Output #1 of Remote Power Module #1	20	A	0	20	0.1
PwrMod1_Fuse_Level2_Param	393	Current Limit in amps for Output #2 of Remote Power Module #1	20	A	0	20	0.1
PwrMod1_Fuse_Level3_Param	394	Current Limit in amps for Output #3 of Remote Power Module #1	20	A	0	20	0.1
PwrMod1_Fuse_Level4_Param	395	Current Limit in amps for Output #4 of Remote Power Module #1	20	A	0	20	0.1
PwrMod1_Fuse_Level5_Param	396	Current Limit in amps for Output #5 of Remote Power Module #1	20	A	0	20	0.1

PwrMod1_Fuse_Level6_Param	397	Current Limit in amps for Output #6 of Remote Power Module #1	20	A	0	20	0.1
PwrMod1_Init_State1_Param	398	If this parameter is set to 1, Output #1 of Remote Power Module #1 will be turned on at ignition key-on, if set to 0 output will be off at key-on.	OFF	No_Units	N/A	N/A	N/A
PwrMod1_Init_State2_Param	399	If this parameter is set to 1, Output #2 of Remote Power Module #1 will be turned on at ignition key-on, if set to 0 output will be off at key-on.	OFF	No_Units	N/A	N/A	N/A
PwrMod1_Init_State3_Param	400	If this parameter is set to 1, Output #3 of Remote Power Module #1 will be turned on at ignition key-on, if set to 0 output will be off at key-on.	OFF	No_Units	N/A	N/A	N/A
PwrMod1_Init_State4_Param	401	If this parameter is set to 1, Output #4 of Remote Power Module #1 will be turned on at ignition key-on, if set to 0 output will be off at key-on.	OFF	No_Units	N/A	N/A	N/A
PwrMod1_Init_State5_Param	402	If this parameter is set to 1, Output #5 of Remote Power Module #1 will be turned on at ignition key-on, if set to 0 output will be off at key-on.	OFF	No_Units	N/A	N/A	N/A
PwrMod1_Init_State6_Param	403	If this parameter is set to 1, Output #6 of Remote Power Module #1 will be turned on at ignition key-on, if set to 0 output will be off at key-on.	OFF	No_Units	N/A	N/A	N/A
RPM1_Channel1_Loadshed_Level	3326	This is the level at which the RPM1 channel 1 Output will load shed.	1	No_Units	0	3	1
RPM1_Channel2_Loadshed_Level	3327	This is the level at which the RPM1 channel 2 Output will load shed.	1	No_Units	0	3	1
RPM1_Channel3_Loadshed_Level	3328	This is the level at which the RPM1 channel 3 Output will load shed.	1	No_Units	0	3	1
RPM1_Channel4_Loadshed_Level	3329	This is the level at which the RPM1 channel 4 Output will load shed.	1	No_Units	0	3	1
RPM1_Channel5_Loadshed_Level	3330	This is the level at which the RPM1 channel 5 Output will load shed.	1	No_Units	0	3	1
RPM1_Channel6_Loadshed_Level	3331	This is the level at which the RPM1 channel 6 Output will load shed.	1	No_Units	0	3	1

Parameter Definitions:

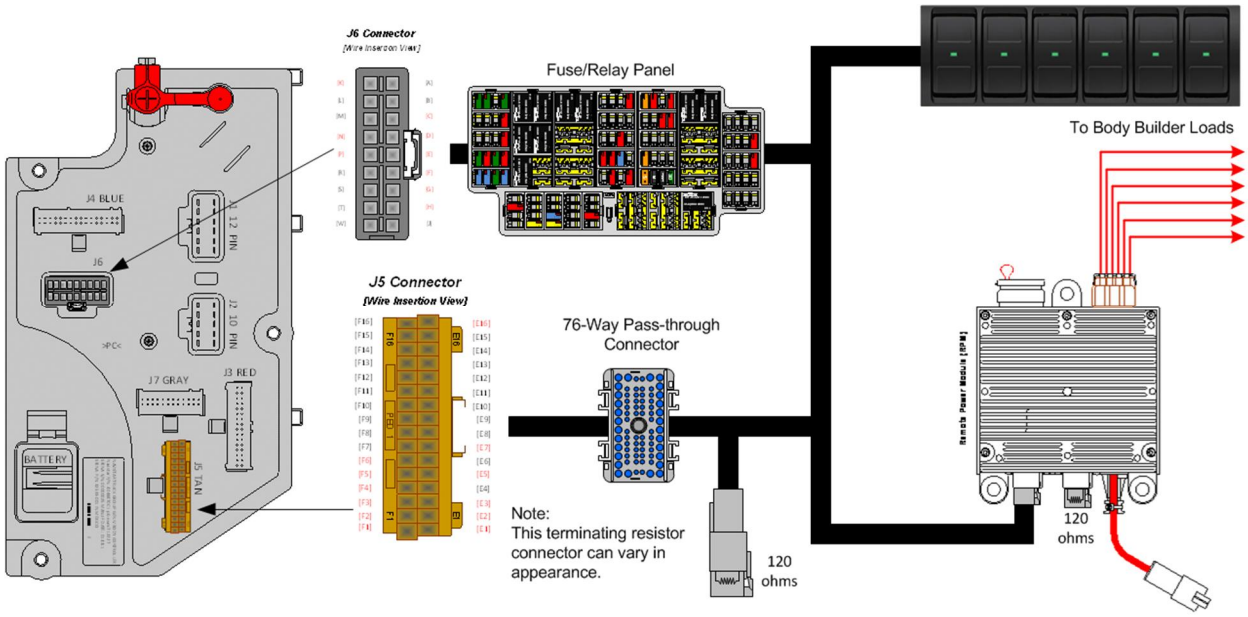
- **PwrMod1_Fuse_Level1_Param** – This parameter sets the limit (in AMPS) of the current flowing from Output #1 of RPM #1.
- **PwrMod1_Fuse_Level2_Param** – This parameter sets the limit (in AMPS) of the current flowing from Output #2 of RPM #1.
- **PwrMod1_Fuse_Level3_Param** – This parameter sets the limit (in AMPS) of the current flowing from Output #3 of RPM #1.
- **PwrMod1_Fuse_Level4_Param** – This parameter sets the limit (in AMPS) of the current flowing from Output #4 of RPM #1.
- **PwrMod1_Fuse_Level5_Param** – This parameter sets the limit (in AMPS) of the current flowing from Output #5 of RPM #1.
- **PwrMod1_Fuse_Level6_Param** – This parameter sets the limit (in AMPS) of the current flowing from Output #6 of RPM #1.

- **PwrMod1_Init_State1_Param** – This parameter determines the initial state of RPM#1, Output #1. The Default setting is OFF or zero; meaning output will be OFF at ignition key-on. When the box is checked the value is set to ON or ONE; the output will be ON at ignition key-on.
- **PwrMod1_Init_State2_Param** – This parameter determines the initial state of RPM#1, Output #2. The Default setting is OFF or zero; meaning output will be OFF at ignition key-on. When the box is checked the value is set to ON or ONE; the output will be ON at ignition key-on.
- **PwrMod1_Init_State3_Param** – This parameter determines the initial state of RPM#1, Output #3. The Default setting is OFF or zero; meaning output will be OFF at ignition key-on. When the box is checked the value is set to ON or ONE; the output will be ON at ignition key-on.
- **PwrMod1_Init_State4_Param** – This parameter determines the initial state of RPM#1, Output #4. The Default setting is OFF or zero; meaning output will be OFF at ignition key-on. When the box is checked the value is set to ON or ONE; the output will be ON at ignition key-on.
- **PwrMod1_Init_State5_Param** – This parameter determines the initial state of RPM#1, Output #5. The Default setting is OFF or zero; meaning output will be OFF at ignition key-on. When the box is checked the value is set to ON or ONE; the output will be ON at ignition key-on.
- **PwrMod1_Init_State6_Param** – This parameter determines the initial state of RPM#1, Output #6. The Default setting is OFF or zero; meaning output will be OFF at ignition key-on. When the box is checked the value is set to ON or ONE; the output will be ON at ignition key-on.
- **RPM1_Channel1_LoadShed_Level** – This is the level at which the RPM1 channel 1 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **RPM1_Channel2_LoadShed_Level** – This is the level at which the RPM1 channel 2 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **RPM1_Channel3_LoadShed_Level** – This is the level at which the RPM1 channel 3 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **RPM1_Channel4_LoadShed_Level** – This is the level at which the RPM1 channel 4 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **RPM1_Channel5_LoadShed_Level** – This is the level at which the RPM1 channel 5 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **RPM1_Channel6_LoadShed_Level** – This is the level at which the RPM1 channel 6 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).

26.6. 60AAA: BDY INTG, RPM Mounted Under Cab; Up to Six Outputs and Six Inputs, Max. 20-AMP per Channel, Max. 80-AMP Total (Includes One Switch Pack with Latched Switches) Mounted on Battery Box, BOC.

Extended Description: Feature 60AAA includes one Remote Power Module (RPM) mounted behind the battery box on MV or on a bracket under cab on HV at Back of Cab (BOC). Included with this feature are six 2-position latched switches located in the Instrument Panel. Each RPM output can provide up to 20-Amps maximum with a total of 80-Amps maximum per module.

System Block Diagram:



Body Controller Software Feature Codes:

Note: Feature code 60AAA is configured by special unadvertised software feature codes. These codes are determined by the number of additional features that use the RPM resources. The following codes should be added after all other features are added to the vehicle.

60ACA = 597194 – This feature should be added if there are features already using five RPM inputs/outputs. (BCM PROG, AUXILIARY LOAD #1)

60ACB = 597195 – This feature should be added if there are features already using four RPM inputs/outputs. (BCM PROG, AUXILIARY LOAD 2 ROCKER SW)

60ACC = 597196 – This feature should be added if there are features already using three RPM inputs/outputs. (BCM PROG, AUXILIARY LOAD 3 ROCKER SW)

60ACD = 597197 – This feature should be added if there are features already using two RPM inputs/outputs. (BCM PROG, AUXILIARY LOAD 4 ROCKER SW)

60ACJ = 597198 – This feature should be added if there are features already using one RPM input/output. (BCM PROG, AUXILIARY LOAD 5 ROCKER SW)

60ACK = 597199 – This feature should be added if there no other features using any RPM inputs/outputs. (BCM PROG, AUXILIARY LOAD 6 ROCKER SW)

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
597194 - BCM PROG, AUXILIARY LOAD #1 For Rocker Switch							
TEM_Aux1_Output_Fuse_Param	1990	This is the maximum current Aux 1 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level	3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
597195 - BCM PROG, AUXILIARY LOAD For (2) Rocker Switch							
TEM_Aux1_Output_Fuse_Param	1990	This is the maximum current Aux 1 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux2_Output_Fuse_Param	1991	This is the maximum current Aux 2 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level	3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
TEM_Aux2_Loadshed_Level	3274	Loadshed level parameter for TEM Aux Switch 2	1	No_Units	0	3	1
597196 - BCM PROG, AUXILIARY LOAD For (3) Rocker Switch							
TEM_Aux1_Output_Fuse_Param	1990	This is the maximum current Aux 1 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux2_Output_Fuse_Param	1991	This is the maximum current Aux 2 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux3_Output_Fuse_Param	1992	This is the maximum current Aux 3 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level	3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
TEM_Aux2_Loadshed_Level	3274	Loadshed level parameter for TEM Aux Switch 2	1	No_Units	0	3	1
TEM_Aux3_Loadshed_Level	3275	Loadshed level parameter for TEM Aux Switch 3	1	No_Units	0	3	1
597197 - BCM PROG, AUXILIARY LOAD For (4) Rocker Switch							
TEM_Aux1_Output_Fuse_Param	1990	This is the maximum current Aux 1 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux2_Output_Fuse_Param	1991	This is the maximum current Aux 2 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux3_Output_Fuse_Param	1992	This is the maximum current Aux 3 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux4_Output_Fuse_Param	1995	This is the maximum current Aux 4 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level	3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
TEM_Aux2_Loadshed_Level	3274	Loadshed level parameter for TEM Aux Switch 2	1	No_Units	0	3	1
TEM_Aux3_Loadshed_Level	3275	Loadshed level parameter for TEM Aux Switch 3	1	No_Units	0	3	1
TEM_Aux4_Loadshed_Level	3276	Loadshed level parameter for TEM Aux Switch 4	1	No_Units	0	3	1

597198 - BCM PROG, AUXILIARY LOAD For (5) Rocker Switch							
TEM_Aux1_Output_Fuse_Param	1990	This is the maximum current Aux 1 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux2_Output_Fuse_Param	1991	This is the maximum current Aux 2 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux3_Output_Fuse_Param	1992	This is the maximum current Aux 3 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux4_Output_Fuse_Param	1995	This is the maximum current Aux 4 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux5_Output_Fuse_Param	1999	This is the maximum current Aux 5 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level	3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
TEM_Aux2_Loadshed_Level	3274	Loadshed level parameter for TEM Aux Switch 2	1	No_Units	0	3	1
TEM_Aux3_Loadshed_Level	3275	Loadshed level parameter for TEM Aux Switch 3	1	No_Units	0	3	1
TEM_Aux4_Loadshed_Level	3276	Loadshed level parameter for TEM Aux Switch 4	1	No_Units	0	3	1
TEM_Aux5_Loadshed_Level	3277	Loadshed level parameter for TEM Aux Switch 5	1	No_Units	0	3	1
597199 - BCM PROG, AUXILIARY LOAD For (6) Rocker Switch							
TEM_Aux1_Output_Fuse_Param	1990	This is the maximum current Aux 1 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux2_Output_Fuse_Param	1991	This is the maximum current Aux 2 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux3_Output_Fuse_Param	1992	This is the maximum current Aux 3 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux4_Output_Fuse_Param	1995	This is the maximum current Aux 4 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux5_Output_Fuse_Param	1999	This is the maximum current Aux 5 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux6_Output_Fuse_Param	2000	This is the maximum current Aux 6 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level	3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
TEM_Aux2_Loadshed_Level	3274	Loadshed level parameter for TEM Aux Switch 2	1	No_Units	0	3	1
TEM_Aux3_Loadshed_Level	3275	Loadshed level parameter for TEM Aux Switch 3	1	No_Units	0	3	1
TEM_Aux4_Loadshed_Level	3276	Loadshed level parameter for TEM Aux Switch 4	1	No_Units	0	3	1
TEM_Aux5_Loadshed_Level	3277	Loadshed level parameter for TEM Aux Switch 5	1	No_Units	0	3	1
TEM_Aux6_Loadshed_Level	3278	Loadshed level parameter for TEM Aux Switch 6	1	No_Units	0	3	1

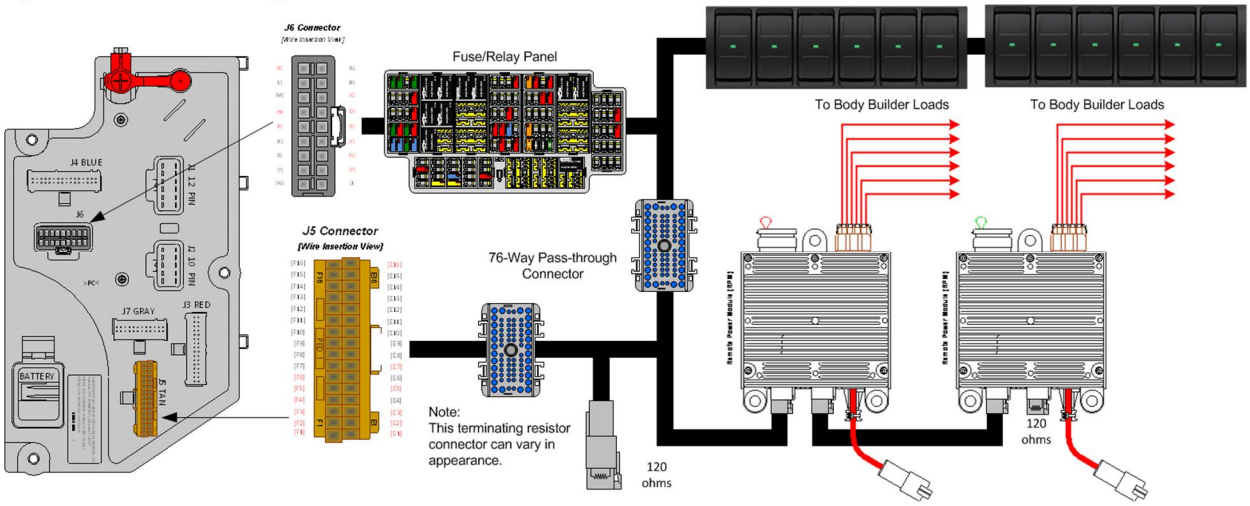
Parameter Definitions:

- **TEM_Aux1_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_1_Output of RPM #1. Default is set at 20 amps.
- **TEM_Aux2_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_2_Output of RPM #1. Default is set at 20 amps.
- **TEM_Aux3_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_3_Output of RPM #1. Default is set at 20 amps.
- **TEM_Aux4_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_4_Output of RPM #1. Default is set at 20 amps.
- **TEM_Aux5_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_5_Output of RPM #1. Default is set at 20 amps.
- **TEM_Aux6_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_6_Output of RPM #1. Default is set at 20 amps.
- **TEM_Aux1_LoadShed_Level** – This is the level at which the Aux1 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux2_LoadShed_Level** – This is the level at which the Aux2 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux3_LoadShed_Level** – This is the level at which the Aux3 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux4_LoadShed_Level** – This is the level at which the Aux4 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux5_LoadShed_Level** – This is the level at which the Aux5 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux6_LoadShed_Level** – This is the level at which the Aux6 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).

26.7. 60AAB: BDY INTG, RPM (2) Mounted Under Cab; Up to Six Outputs and Six Inputs Each, Max. 20 AMP per Channel, Max. 80 AMP Total per Power Module (Includes Switch Packs with Latched Switches) Mounted on Battery Box, BOC.

Extended Description: Feature 60AAB includes two Remote Power Modules (RPMs) mounted behind the battery box on MV or on a bracket under cab on HV at Back of Cab (BOC). Included with this feature are twelve 2-position latched switches located in the Instrument Panel. Each RPM output can provide up to 20-Amps maximum with a total of 80-Amps maximum per module.

System Block Diagram:



Body Controller Software Feature Codes:

Note: Feature code 60AAB is configured by special unadvertised software feature codes. These codes are determined by the number of additional features that use the RPM resources. The following codes should be added after all other features are added to the vehicle.

60ACA = 597194 – This feature should be added if there are features already using five RPM inputs/outputs. (BCM PROG, AUXILIARY LOAD #1)

60ACB = 597195 – This feature should be added if there are features already using four RPM inputs/outputs. (BCM PROG, AUXILIARY LOAD 2 ROCKER SW)

60ACC = 597196 – This feature should be added if there are features already using three RPM inputs/outputs. (BCM PROG, AUXILIARY LOAD 3 ROCKER SW)

60ACD = 597197 – This feature should be added if there are features already using two RPM inputs/outputs. (BCM PROG, AUXILIARY LOAD 4 ROCKER SW)

60ACJ = 597198 – This feature should be added if there are features already using one RPM input/output. (BCM PROG, AUXILIARY LOAD 5 ROCKER SW)

60ACK = 597199 – This feature should be added if there no other features using any RPM inputs/outputs. (BCM PROG, AUXILIARY LOAD 6 ROCKER SW)

60ACV = 597202 – This feature should be added to add the second RPM (60AAB). (BCM PROG, ADDITIONAL 6 AUXILIARY SW)

Body Controller Software Feature Code Parameters:

Parameter		ID	Description	Default	Units	Min	Max	Step
597194 - BCM PROG, AUXILIARY LOAD #1 For Rocker Switch								
TEM_Aux1_Output_Fuse_Param		1990	This is the maximum current Aux 1 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level		3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
597195 - BCM PROG, AUXILIARY LOAD For (2) Rocker Switch								
TEM_Aux1_Output_Fuse_Param		1990	This is the maximum current Aux 1 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux2_Output_Fuse_Param		1991	This is the maximum current Aux 2 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level		3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
TEM_Aux2_Loadshed_Level		3274	Loadshed level parameter for TEM Aux Switch 2	1	No_Units	0	3	1
597196 - BCM PROG, AUXILIARY LOAD For (3) Rocker Switch								
TEM_Aux1_Output_Fuse_Param		1990	This is the maximum current Aux 1 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux2_Output_Fuse_Param		1991	This is the maximum current Aux 2 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux3_Output_Fuse_Param		1992	This is the maximum current Aux 3 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level		3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
TEM_Aux2_Loadshed_Level		3274	Loadshed level parameter for TEM Aux Switch 2	1	No_Units	0	3	1
TEM_Aux3_Loadshed_Level		3275	Loadshed level parameter for TEM Aux Switch 3	1	No_Units	0	3	1
597197 - BCM PROG, AUXILIARY LOAD For (4) Rocker Switch								
TEM_Aux1_Output_Fuse_Param		1990	This is the maximum current Aux 1 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux2_Output_Fuse_Param		1991	This is the maximum current Aux 2 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux3_Output_Fuse_Param		1992	This is the maximum current Aux 3 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux4_Output_Fuse_Param		1995	This is the maximum current Aux 4 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level		3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
TEM_Aux2_Loadshed_Level		3274	Loadshed level parameter for TEM Aux Switch 2	1	No_Units	0	3	1
TEM_Aux3_Loadshed_Level		3275	Loadshed level parameter for TEM Aux Switch 3	1	No_Units	0	3	1
TEM_Aux4_Loadshed_Level		3276	Loadshed level parameter for TEM Aux Switch 4	1	No_Units	0	3	1

	597198 - BCM PROG, AUXILIARY LOAD For (5) Rocker Switch							
TEM_Aux1_Output_Fuse_Param		1990	This is the maximum current Aux 1 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux2_Output_Fuse_Param		1991	This is the maximum current Aux 2 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux3_Output_Fuse_Param		1992	This is the maximum current Aux 3 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux4_Output_Fuse_Param		1995	This is the maximum current Aux 4 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux5_Output_Fuse_Param		1999	This is the maximum current Aux 5 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level		3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
TEM_Aux2_Loadshed_Level		3274	Loadshed level parameter for TEM Aux Switch 2	1	No_Units	0	3	1
TEM_Aux3_Loadshed_Level		3275	Loadshed level parameter for TEM Aux Switch 3	1	No_Units	0	3	1
TEM_Aux4_Loadshed_Level		3276	Loadshed level parameter for TEM Aux Switch 4	1	No_Units	0	3	1
TEM_Aux5_Loadshed_Level		3277	Loadshed level parameter for TEM Aux Switch 5	1	No_Units	0	3	1
	597199 - BCM PROG, AUXILIARY LOAD For (6) Rocker Switch							
TEM_Aux1_Output_Fuse_Param		1990	This is the maximum current Aux 1 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux2_Output_Fuse_Param		1991	This is the maximum current Aux 2 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux3_Output_Fuse_Param		1992	This is the maximum current Aux 3 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux4_Output_Fuse_Param		1995	This is the maximum current Aux 4 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux5_Output_Fuse_Param		1999	This is the maximum current Aux 5 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux6_Output_Fuse_Param		2000	This is the maximum current Aux 6 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level		3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
TEM_Aux2_Loadshed_Level		3274	Loadshed level parameter for TEM Aux Switch 2	1	No_Units	0	3	1
TEM_Aux3_Loadshed_Level		3275	Loadshed level parameter for TEM Aux Switch 3	1	No_Units	0	3	1
TEM_Aux4_Loadshed_Level		3276	Loadshed level parameter for TEM Aux Switch 4	1	No_Units	0	3	1
TEM_Aux5_Loadshed_Level		3277	Loadshed level parameter for TEM Aux Switch 5	1	No_Units	0	3	1
TEM_Aux6_Loadshed_Level		3278	Loadshed level parameter for TEM Aux Switch 6	1	No_Units	0	3	1
	597202 – BCM PROG, ADDITIONAL 6 AUXILIARY SW							

TEM_Aux7_Output_Fuse_Param		2100	This is the maximum current Aux 7 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux8_Output_Fuse_Param		2101	This is the maximum current Aux 8 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux9_Output_Fuse_Param		2102	This is the maximum current Aux 9 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux10_Output_Fuse_Param		2103	This is the maximum current Aux 10 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux11_Output_Fuse_Param		2104	This is the maximum current Aux 11 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux12_Output_Fuse_Param		2105	This is the maximum current Aux 12 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux7_Loadshed_Level		3339	Loadshed level parameter for TEM Aux Switch 7	1	No_Units	0	3	1
TEM_Aux8_Loadshed_Level		3340	Loadshed level parameter for TEM Aux Switch 8	1	No_Units	0	3	1
TEM_Aux9_Loadshed_Level		3341	Loadshed level parameter for TEM Aux Switch 9	1	No_Units	0	3	1
TEM_Aux10_Loadshed_Level		3342	Loadshed level parameter for TEM Aux Switch 10	1	No_Units	0	3	1
TEM_Aux11_Loadshed_Level		3343	Loadshed level parameter for TEM Aux Switch 11	1	No_Units	0	3	1
TEM_Aux12_Loadshed_Level		3344	Loadshed level parameter for TEM Aux Switch 12	1	No_Units	0	3	1

Parameter Definitions:

- **TEM_Aux1_Output_Fuse_Param –** This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_1_Output of RPM #1. Default is set at 20 amps.
- **TEM_Aux2_Output_Fuse_Param –** This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_2_Output of RPM #1. Default is set at 20 amps.
- **TEM_Aux3_Output_Fuse_Param –** This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_3_Output of RPM #1. Default is set at 20 amps.
- **TEM_Aux4_Output_Fuse_Param –** This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_4_Output of RPM #1. Default is set at 20 amps.
- **TEM_Aux5_Output_Fuse_Param –** This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_5_Output of RPM #1. Default is set at 20 amps.
- **TEM_Aux6_Output_Fuse_Param –** This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_6_Output of RPM #1. Default is set at 20 amps.

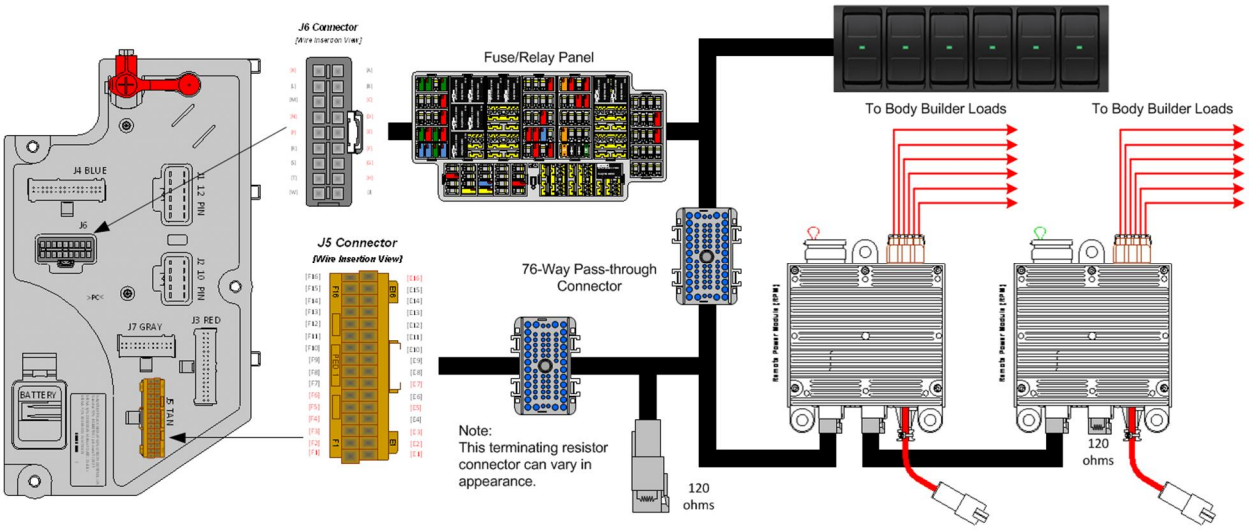
- **TEM_Aux7_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_7_Output of RPM #2. Default is set at 20 amps.
- **TEM_Aux8_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_8_Output of RPM #2. Default is set at 20 amps.
- **TEM_Aux9_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_9_Output of RPM #2. Default is set at 20 amps.
- **TEM_Aux10_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_10_Output of RPM #2. Default is set at 20 amps.
- **TEM_Aux11_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_11_Output of RPM #2. Default is set at 20 amps.
- **TEM_Aux12_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_12_Output of RPM #2. Default is set at 20 amps.
- **TEM_Aux1_LoadShed_Level** – This is the level at which the Aux1 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux2_LoadShed_Level** – This is the level at which the Aux2 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux3_LoadShed_Level** – This is the level at which the Aux3 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux4_LoadShed_Level** – This is the level at which the Aux4 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux5_LoadShed_Level** – This is the level at which the Aux5 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux6_LoadShed_Level** – This is the level at which the Aux6 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux7_LoadShed_Level** – This is the level at which the Aux7 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux8_LoadShed_Level** – This is the level at which the Aux8 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux9_LoadShed_Level** – This is the level at which the Aux9 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).

- **TEM_Aux10_LoadShed_Level** – This is the level at which the Aux10 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux11_LoadShed_Level** – This is the level at which the Aux11 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux12_LoadShed_Level** – This is the level at which the Aux12 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).

26.8. 60AAD: BDY INTG, RPM (2) {SPECIAL} Mounted Under Cab or on Battery Box; Max. 20-AMP per Channel, Max. 80-AMP Total per Power Module; Includes One Module with Switch Pack Containing Six Latched Switches and One Module with Hardware Only.

Extended Description: Feature 60AAD includes two Remote Power Modules (RPMs) mounted behind the battery box on MV or on a bracket under cab on HV at Back of Cab (BOC). Included with this feature are six 2-position latched switches located in the Instrument Panel with software to control the outputs on RPM 1. RPM 2 includes the RPM only and associated wiring for use with custom logic. Each RPM output can provide up to 20-Amps maximum with a total of 80-Amps maximum per module.

System Block Diagram:



Body Controller Software Feature Codes:

Note: Feature code 60AAD is configured by special unadvertised software feature codes. These codes are determined by the number of additional features that use the RPM resources. The following codes should be added after all other features are added to the vehicle.

60ACA = 597194 – This feature should be added if there are features already using five RPM inputs/outputs. (BCM PROG, AUXILIARY LOAD #1)

60ACB = 597195 – This feature should be added if there are features already using four RPM inputs/outputs. (BCM PROG, AUXILIARY LOAD 2 ROCKER SW)

60ACC = 597196 – This feature should be added if there are features already using three RPM inputs/outputs. (BCM PROG, AUXILIARY LOAD 3 ROCKER SW)

60ACD = 597197 – This feature should be added if there are features already using two RPM inputs/outputs. (BCM PROG, AUXILIARY LOAD 4 ROCKER SW)

60ACJ = 597198 – This feature should be added if there are features already using one RPM input/output. (BCM PROG, AUXILIARY LOAD 5 ROCKER SW)

60ACK = 597199 – This feature should be added if there no other features using any RPM inputs/outputs. (BCM PROG, AUXILIARY LOAD 6 ROCKER SW)

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
597194 - BCM PROG, AUXILIARY LOAD #1 For Rocker Switch							
TEM_Aux1_Output_Fuse_Param	1990	This is the maximum current Aux 1 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level	3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
597195 - BCM PROG, AUXILIARY LOAD For (2) Rocker Switch							
TEM_Aux1_Output_Fuse_Param	1990	This is the maximum current Aux 1 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux2_Output_Fuse_Param	1991	This is the maximum current Aux 2 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level	3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
TEM_Aux2_Loadshed_Level	3274	Loadshed level parameter for TEM Aux Switch 2	1	No_Units	0	3	1
597196 - BCM PROG, AUXILIARY LOAD For (3) Rocker Switch							
TEM_Aux1_Output_Fuse_Param	1990	This is the maximum current Aux 1 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux2_Output_Fuse_Param	1991	This is the maximum current Aux 2 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux3_Output_Fuse_Param	1992	This is the maximum current Aux 3 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level	3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
TEM_Aux2_Loadshed_Level	3274	Loadshed level parameter for TEM Aux Switch 2	1	No_Units	0	3	1
TEM_Aux3_Loadshed_Level	3275	Loadshed level parameter for TEM Aux Switch 3	1	No_Units	0	3	1
597197 - BCM PROG, AUXILIARY LOAD For (4) Rocker Switch							
TEM_Aux1_Output_Fuse_Param	1990	This is the maximum current Aux 1 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux2_Output_Fuse_Param	1991	This is the maximum current Aux 2 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux3_Output_Fuse_Param	1992	This is the maximum current Aux 3 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux4_Output_Fuse_Param	1995	This is the maximum current Aux 4 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level	3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
TEM_Aux2_Loadshed_Level	3274	Loadshed level parameter for TEM Aux Switch 2	1	No_Units	0	3	1
TEM_Aux3_Loadshed_Level	3275	Loadshed level parameter for TEM Aux Switch 3	1	No_Units	0	3	1

TEM_Aux4_Loadshed_Level	3276	Loadshed level parameter for TEM Aux Switch 4	1	No_Units	0	3	1
597198 - BCM PROG, AUXILIARY LOAD For (5) Rocker Switch							
TEM_Aux1_Output_Fuse_Param	1990	This is the maximum current Aux 1 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux2_Output_Fuse_Param	1991	This is the maximum current Aux 2 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux3_Output_Fuse_Param	1992	This is the maximum current Aux 3 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux4_Output_Fuse_Param	1995	This is the maximum current Aux 4 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux5_Output_Fuse_Param	1999	This is the maximum current Aux 5 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level	3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
TEM_Aux2_Loadshed_Level	3274	Loadshed level parameter for TEM Aux Switch 2	1	No_Units	0	3	1
TEM_Aux3_Loadshed_Level	3275	Loadshed level parameter for TEM Aux Switch 3	1	No_Units	0	3	1
TEM_Aux4_Loadshed_Level	3276	Loadshed level parameter for TEM Aux Switch 4	1	No_Units	0	3	1
TEM_Aux5_Loadshed_Level	3277	Loadshed level parameter for TEM Aux Switch 5	1	No_Units	0	3	1
597199 - BCM PROG, AUXILIARY LOAD For (6) Rocker Switch							
TEM_Aux1_Output_Fuse_Param	1990	This is the maximum current Aux 1 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux2_Output_Fuse_Param	1991	This is the maximum current Aux 2 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux3_Output_Fuse_Param	1992	This is the maximum current Aux 3 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux4_Output_Fuse_Param	1995	This is the maximum current Aux 4 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux5_Output_Fuse_Param	1999	This is the maximum current Aux 5 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux6_Output_Fuse_Param	2000	This is the maximum current Aux 6 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level	3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
TEM_Aux2_Loadshed_Level	3274	Loadshed level parameter for TEM Aux Switch 2	1	No_Units	0	3	1
TEM_Aux3_Loadshed_Level	3275	Loadshed level parameter for TEM Aux Switch 3	1	No_Units	0	3	1
TEM_Aux4_Loadshed_Level	3276	Loadshed level parameter for TEM Aux Switch 4	1	No_Units	0	3	1
TEM_Aux5_Loadshed_Level	3277	Loadshed level parameter for TEM Aux Switch 5	1	No_Units	0	3	1
TEM_Aux6_Loadshed_Level	3278	Loadshed level parameter for TEM Aux Switch 6	1	No_Units	0	3	1

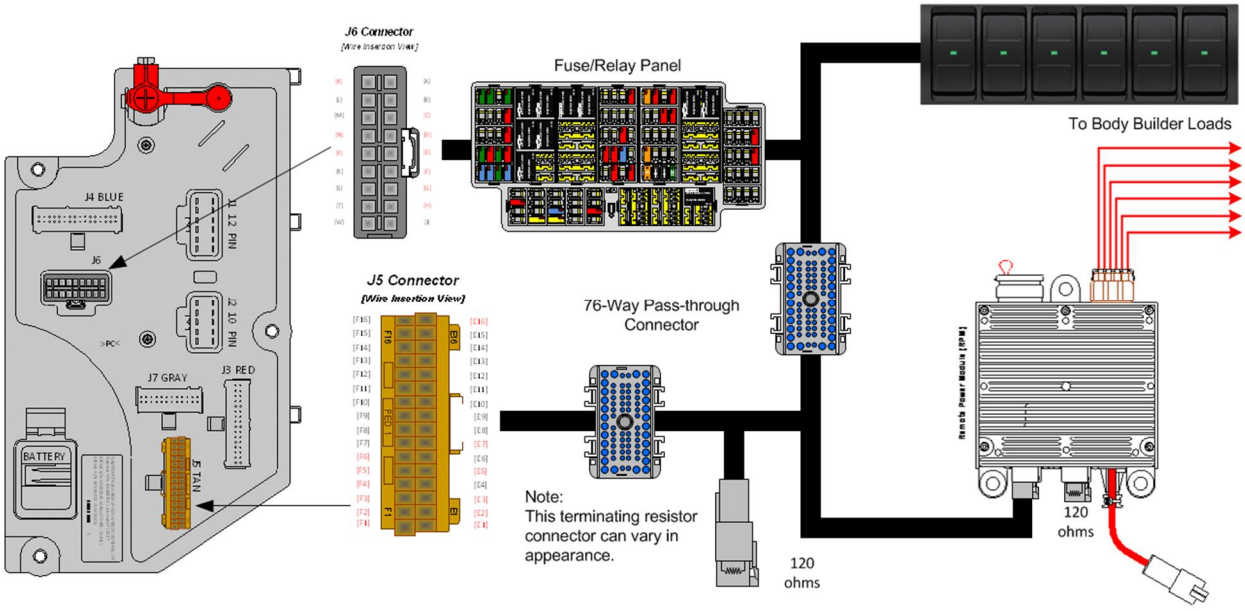
Parameter Definitions:

- **TEM_Aux1_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_1_Output of RPM #1. Default is set at 20-amps.
- **TEM_Aux2_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_2_Output of RPM #1. Default is set at 20-amps.
- **TEM_Aux3_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_3_Output of RPM #1. Default is set at 20-amps.
- **TEM_Aux4_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_4_Output of RPM #1. Default is set at 20-amps.
- **TEM_Aux5_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_5_Output of RPM #1. Default is set at 20-amps.
- **TEM_Aux6_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_6_Output of RPM #1. Default is set at 20-amps.
- **TEM_Aux1_LoadShed_Level** – This is the level at which the Aux1 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux2_LoadShed_Level** – This is the level at which the Aux2 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux3_LoadShed_Level** – This is the level at which the Aux3 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux4_LoadShed_Level** – This is the level at which the Aux4 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux5_LoadShed_Level** – This is the level at which the Aux5 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux6_LoadShed_Level** – This is the level at which the Aux6 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).

26.9. 60AAG: BDY INTG, RPM Mounted Inside Cab behind Driver Seat; Max. 20-AMP per Channel, Max. 80-AMP Total; Includes One Module with Switch Pack Containing Latched Switches.

Extended Description: Feature 60AAG includes one Remote Power Module (RPM) mounted in the cab behind the driver seat. Included with this feature are six 2-position latched switches located in the Instrument Panel. Each RPM output can provide up to 20-Amps maximum with a total of 80-Amps maximum per module.

System Block Diagram:



Body Controller Software Feature Codes:

Note: Feature code 60AAG is configured by special unadvertised software feature codes. These codes are determined by the number of additional features that use the RPM resources. The following codes should be added after all other features are added to the vehicle.

60ACA = 597194 – This feature should be added if there are features already using five RPM inputs/outputs. (BCM PROG, AUXILIARY LOAD #1)

60ACB = 597195 – This feature should be added if there are features already using four RPM inputs/outputs. (BCM PROG, AUXILIARY LOAD 2 ROCKER SW)

60ACC = 597196 – This feature should be added if there are features already using three RPM inputs/outputs. (BCM PROG, AUXILIARY LOAD 3 ROCKER SW)

60ACD = 597197 – This feature should be added if there are features already using two RPM inputs/outputs. (BCM PROG, AUXILIARY LOAD 4 ROCKER SW)

60ACJ = 597198 – This feature should be added if there are features already using one RPM input/output. (BCM PROG, AUXILIARY LOAD 5 ROCKER SW)

60ACK = 597199 – This feature should be added if there no other features using any RPM inputs/outputs. (BCM PROG, AUXILIARY LOAD 6 ROCKER SW)

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
597194 - BCM PROG, AUXILIARY LOAD #1 For Rocker Switch							
TEM_Aux1_Output_Fuse_Param	1990	This is the maximum current Aux 1 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level	3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
597195 - BCM PROG, AUXILIARY LOAD For (2) Rocker Switch							
TEM_Aux1_Output_Fuse_Param	1990	This is the maximum current Aux 1 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux2_Output_Fuse_Param	1991	This is the maximum current Aux 2 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level	3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
TEM_Aux2_Loadshed_Level	3274	Loadshed level parameter for TEM Aux Switch 2	1	No_Units	0	3	1
597196 - BCM PROG, AUXILIARY LOAD For (3) Rocker Switch							
TEM_Aux1_Output_Fuse_Param	1990	This is the maximum current Aux 1 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux2_Output_Fuse_Param	1991	This is the maximum current Aux 2 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux3_Output_Fuse_Param	1992	This is the maximum current Aux 3 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level	3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
TEM_Aux2_Loadshed_Level	3274	Loadshed level parameter for TEM Aux Switch 2	1	No_Units	0	3	1
TEM_Aux3_Loadshed_Level	3275	Loadshed level parameter for TEM Aux Switch 3	1	No_Units	0	3	1
597197 - BCM PROG, AUXILIARY LOAD For (4) Rocker Switch							
TEM_Aux1_Output_Fuse_Param	1990	This is the maximum current Aux 1 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux2_Output_Fuse_Param	1991	This is the maximum current Aux 2 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux3_Output_Fuse_Param	1992	This is the maximum current Aux 3 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux4_Output_Fuse_Param	1995	This is the maximum current Aux 4 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level	3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
TEM_Aux2_Loadshed_Level	3274	Loadshed level parameter for TEM Aux Switch 2	1	No_Units	0	3	1
TEM_Aux3_Loadshed_Level	3275	Loadshed level parameter for TEM Aux Switch 3	1	No_Units	0	3	1
TEM_Aux4_Loadshed_Level	3276	Loadshed level parameter for TEM Aux Switch 4	1	No_Units	0	3	1

597198 - BCM PROG, AUXILIARY LOAD For (5) Rocker Switch							
TEM_Aux1_Output_Fuse_Param	1990	This is the maximum current Aux 1 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux2_Output_Fuse_Param	1991	This is the maximum current Aux 2 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux3_Output_Fuse_Param	1992	This is the maximum current Aux 3 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux4_Output_Fuse_Param	1995	This is the maximum current Aux 4 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux5_Output_Fuse_Param	1999	This is the maximum current Aux 5 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level	3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
TEM_Aux2_Loadshed_Level	3274	Loadshed level parameter for TEM Aux Switch 2	1	No_Units	0	3	1
TEM_Aux3_Loadshed_Level	3275	Loadshed level parameter for TEM Aux Switch 3	1	No_Units	0	3	1
TEM_Aux4_Loadshed_Level	3276	Loadshed level parameter for TEM Aux Switch 4	1	No_Units	0	3	1
TEM_Aux5_Loadshed_Level	3277	Loadshed level parameter for TEM Aux Switch 5	1	No_Units	0	3	1
597199 - BCM PROG, AUXILIARY LOAD For (6) Rocker Switch							
TEM_Aux1_Output_Fuse_Param	1990	This is the maximum current Aux 1 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux2_Output_Fuse_Param	1991	This is the maximum current Aux 2 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux3_Output_Fuse_Param	1992	This is the maximum current Aux 3 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux4_Output_Fuse_Param	1995	This is the maximum current Aux 4 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux5_Output_Fuse_Param	1999	This is the maximum current Aux 5 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux6_Output_Fuse_Param	2000	This is the maximum current Aux 6 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level	3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
TEM_Aux2_Loadshed_Level	3274	Loadshed level parameter for TEM Aux Switch 2	1	No_Units	0	3	1
TEM_Aux3_Loadshed_Level	3275	Loadshed level parameter for TEM Aux Switch 3	1	No_Units	0	3	1
TEM_Aux4_Loadshed_Level	3276	Loadshed level parameter for TEM Aux Switch 4	1	No_Units	0	3	1
TEM_Aux5_Loadshed_Level	3277	Loadshed level parameter for TEM Aux Switch 5	1	No_Units	0	3	1
TEM_Aux6_Loadshed_Level	3278	Loadshed level parameter for TEM Aux Switch 6	1	No_Units	0	3	1

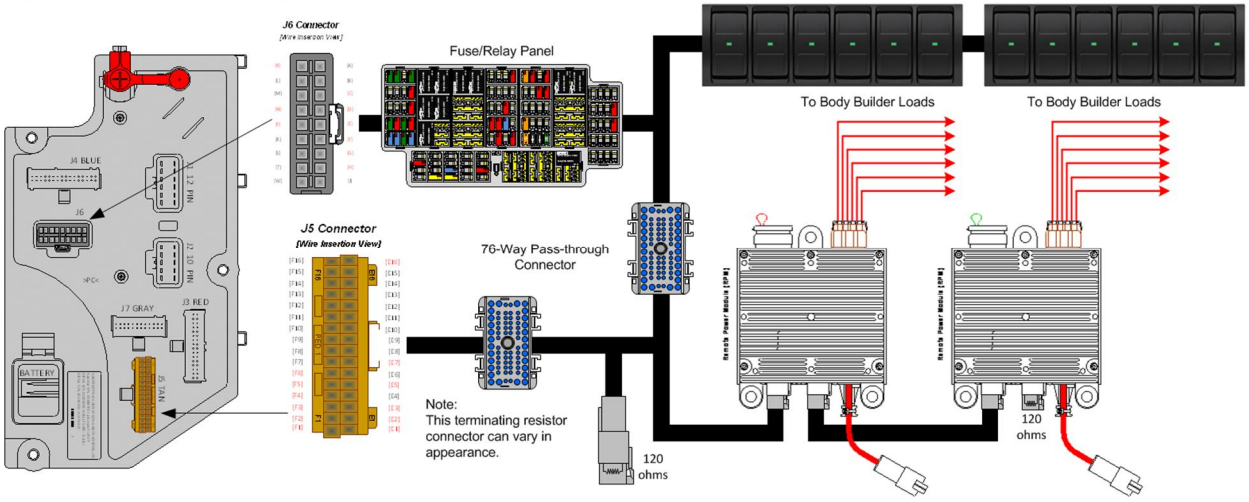
Parameter Definitions:

- **TEM_Aux1_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_1_Output of RPM #1. Default is set at 20-amps.
- **TEM_Aux2_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_2_Output of RPM #1. Default is set at 20-amps.
- **TEM_Aux3_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_3_Output of RPM #1. Default is set at 20-amps.
- **TEM_Aux4_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_4_Output of RPM #1. Default is set at 20-amps.
- **TEM_Aux5_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_5_Output of RPM #1. Default is set at 20-amps.
- **TEM_Aux6_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_6_Output of RPM #1. Default is set at 20-amps.
- **TEM_Aux1_LoadShed_Level** – This is the level at which the Aux1 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux2_LoadShed_Level** – This is the level at which the Aux2 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux3_LoadShed_Level** – This is the level at which the Aux3 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux4_LoadShed_Level** – This is the level at which the Aux4 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux5_LoadShed_Level** – This is the level at which the Aux5 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux6_LoadShed_Level** – This is the level at which the Aux6 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).

26.10. 60AAH: BDY INTG, RPM (2) Mounted Inside Cab behind Driver Seat; Max. 20-AMP per Channel, Max. 80-AMP Total; Includes Two Modules with 2-Switch Packs Containing Latched Switches.

Extended Description: Feature 60AAH includes two Remote Power Module (RPMs) mounted in the cab behind the driver seat. Included with this feature are twelve 2-position latched switches located in the Instrument Panel. Each RPM output can provide up to 20-Amps maximum with a total of 80-Amps maximum per module.

System Block Diagram:



Body Controller Software Feature Codes:

Note: Feature code 60AAH is configured by special unadvertised software feature codes. These codes are determined by the number of additional features that use the RPM resources. The following codes should be added after all other features are added to the vehicle.

60ACA = 597194 – This feature should be added if there are features already using five RPM inputs/outputs. (BCM PROG, AUXILIARY LOAD #1)

60ACB = 597195 – This feature should be added if there are features already using four RPM inputs/outputs. (BCM PROG, AUXILIARY LOAD 2 ROCKER SW)

60ACC = 597196 – This feature should be added if there are features already using three RPM inputs/outputs. (BCM PROG, AUXILIARY LOAD 3 ROCKER SW)

60ACD = 597197 – This feature should be added if there are features already using two RPM inputs/outputs. (BCM PROG, AUXILIARY LOAD 4 ROCKER SW)

60ACJ = 597198 – This feature should be added if there are features already using one RPM input/output. (BCM PROG, AUXILIARY LOAD 5 ROCKER SW)

60ACK = 597199 – This feature should be added if there no other features using any RPM inputs/outputs. (BCM PROG, AUXILIARY LOAD 6 ROCKER SW)

60ACV = 597202 – This feature should be added to add the second RPM (60AAB). (BCM PROG, ADDITIONAL 6 AUXILIARY SW)

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
597194 - BCM PROG, AUXILIARY LOAD #1 For Rocker Switch							
TEM_Aux1_Output_Fuse_Param	1990	This is the maximum current Aux 1 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level	3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
597195 - BCM PROG, AUXILIARY LOAD For (2) Rocker Switch							
TEM_Aux1_Output_Fuse_Param	1990	This is the maximum current Aux 1 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux2_Output_Fuse_Param	1991	This is the maximum current Aux 2 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level	3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
TEM_Aux2_Loadshed_Level	3274	Loadshed level parameter for TEM Aux Switch 2	1	No_Units	0	3	1
597196 - BCM PROG, AUXILIARY LOAD For (3) Rocker Switch							
TEM_Aux1_Output_Fuse_Param	1990	This is the maximum current Aux 1 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux2_Output_Fuse_Param	1991	This is the maximum current Aux 2 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux3_Output_Fuse_Param	1992	This is the maximum current Aux 3 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level	3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
TEM_Aux2_Loadshed_Level	3274	Loadshed level parameter for TEM Aux Switch 2	1	No_Units	0	3	1
TEM_Aux3_Loadshed_Level	3275	Loadshed level parameter for TEM Aux Switch 3	1	No_Units	0	3	1
597197 - BCM PROG, AUXILIARY LOAD For (4) Rocker Switch							
TEM_Aux1_Output_Fuse_Param	1990	This is the maximum current Aux 1 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux2_Output_Fuse_Param	1991	This is the maximum current Aux 2 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux3_Output_Fuse_Param	1992	This is the maximum current Aux 3 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux4_Output_Fuse_Param	1995	This is the maximum current Aux 4 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level	3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
TEM_Aux2_Loadshed_Level	3274	Loadshed level parameter for TEM Aux Switch 2	1	No_Units	0	3	1
TEM_Aux3_Loadshed_Level	3275	Loadshed level parameter for TEM Aux Switch 3	1	No_Units	0	3	1
TEM_Aux4_Loadshed_Level	3276	Loadshed level parameter for TEM Aux Switch 4	1	No_Units	0	3	1
597198 - BCM PROG, AUXILIARY LOAD For (5) Rocker Switch							

TEM_Aux1_Output_Fuse_Param	1990	This is the maximum current Aux 1 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux2_Output_Fuse_Param	1991	This is the maximum current Aux 2 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux3_Output_Fuse_Param	1992	This is the maximum current Aux 3 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux4_Output_Fuse_Param	1995	This is the maximum current Aux 4 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux5_Output_Fuse_Param	1999	This is the maximum current Aux 5 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level	3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
TEM_Aux2_Loadshed_Level	3274	Loadshed level parameter for TEM Aux Switch 2	1	No_Units	0	3	1
TEM_Aux3_Loadshed_Level	3275	Loadshed level parameter for TEM Aux Switch 3	1	No_Units	0	3	1
TEM_Aux4_Loadshed_Level	3276	Loadshed level parameter for TEM Aux Switch 4	1	No_Units	0	3	1
TEM_Aux5_Loadshed_Level	3277	Loadshed level parameter for TEM Aux Switch 5	1	No_Units	0	3	1
597199 - BCM PROG, AUXILIARY LOAD For (6) Rocker Switch							
TEM_Aux1_Output_Fuse_Param	1990	This is the maximum current Aux 1 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux2_Output_Fuse_Param	1991	This is the maximum current Aux 2 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux3_Output_Fuse_Param	1992	This is the maximum current Aux 3 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux4_Output_Fuse_Param	1995	This is the maximum current Aux 4 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux5_Output_Fuse_Param	1999	This is the maximum current Aux 5 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux6_Output_Fuse_Param	2000	This is the maximum current Aux 6 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level	3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
TEM_Aux2_Loadshed_Level	3274	Loadshed level parameter for TEM Aux Switch 2	1	No_Units	0	3	1
TEM_Aux3_Loadshed_Level	3275	Loadshed level parameter for TEM Aux Switch 3	1	No_Units	0	3	1
TEM_Aux4_Loadshed_Level	3276	Loadshed level parameter for TEM Aux Switch 4	1	No_Units	0	3	1
TEM_Aux5_Loadshed_Level	3277	Loadshed level parameter for TEM Aux Switch 5	1	No_Units	0	3	1
TEM_Aux6_Loadshed_Level	3278	Loadshed level parameter for TEM Aux Switch 6	1	No_Units	0	3	1
597202 – BCM PROG, ADDITIONAL 6 AUXILIARY SW							

TEM_Aux7_Output_Fuse_Param	2100	This is the maximum current Aux 7 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux8_Output_Fuse_Param	2101	This is the maximum current Aux 8 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux9_Output_Fuse_Param	2102	This is the maximum current Aux 9 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux10_Output_Fuse_Param	2103	This is the maximum current Aux 10 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux11_Output_Fuse_Param	2104	This is the maximum current Aux 11 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux12_Output_Fuse_Param	2105	This is the maximum current Aux 12 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux7_Loadshed_Level	3339	Loadshed level parameter for TEM Aux Switch 7	1	No_Units	0	3	1
TEM_Aux8_Loadshed_Level	3340	Loadshed level parameter for TEM Aux Switch 8	1	No_Units	0	3	1
TEM_Aux9_Loadshed_Level	3341	Loadshed level parameter for TEM Aux Switch 9	1	No_Units	0	3	1
TEM_Aux10_Loadshed_Level	3342	Loadshed level parameter for TEM Aux Switch 10	1	No_Units	0	3	1
TEM_Aux11_Loadshed_Level	3343	Loadshed level parameter for TEM Aux Switch 11	1	No_Units	0	3	1
TEM_Aux12_Loadshed_Level	3344	Loadshed level parameter for TEM Aux Switch 12	1	No_Units	0	3	1

Parameter Definitions:

- **TEM_Aux1_Output_Fuse_Param –** This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_1_Output of RPM #1. Default is set at 20 amps.
- **TEM_Aux2_Output_Fuse_Param –** This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_2_Output of RPM #1. Default is set at 20 amps.
- **TEM_Aux3_Output_Fuse_Param –** This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_3_Output of RPM #1. Default is set at 20 amps.
- **TEM_Aux4_Output_Fuse_Param –** This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_4_Output of RPM #1. Default is set at 20 amps.
- **TEM_Aux5_Output_Fuse_Param –** This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_5_Output of RPM #1. Default is set at 20 amps.
- **TEM_Aux6_Output_Fuse_Param –** This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_6_Output of RPM #1. Default is set at 20 amps.

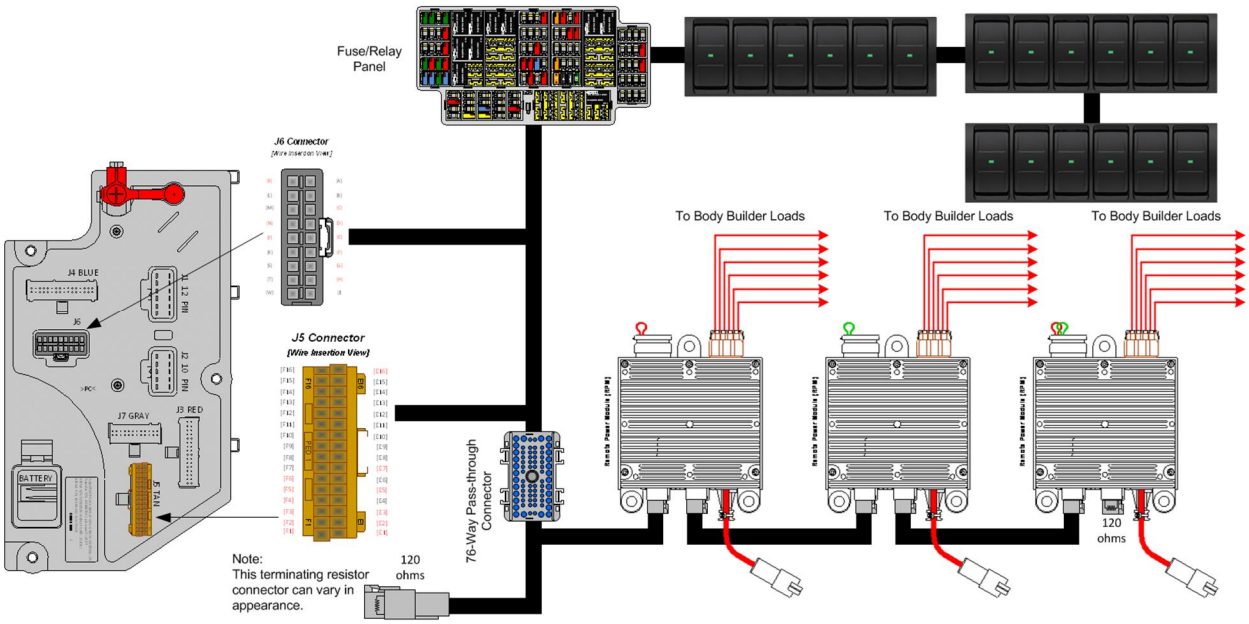
- **TEM_Aux7_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_7_Output of RPM #2. Default is set at 20 amps.
- **TEM_Aux8_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_8_Output of RPM #2. Default is set at 20 amps.
- **TEM_Aux9_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_9_Output of RPM #2. Default is set at 20 amps.
- **TEM_Aux10_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_10_Output of RPM #2. Default is set at 20 amps.
- **TEM_Aux11_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_11_Output of RPM #2. Default is set at 20 amps.
- **TEM_Aux12_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_12_Output of RPM #2. Default is set at 20 amps.
- **TEM_Aux1_LoadShed_Level** – This is the level at which the Aux1 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux2_LoadShed_Level** – This is the level at which the Aux2 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux3_LoadShed_Level** – This is the level at which the Aux3 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux4_LoadShed_Level** – This is the level at which the Aux4 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux5_LoadShed_Level** – This is the level at which the Aux5 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux6_LoadShed_Level** – This is the level at which the Aux6 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux7_LoadShed_Level** – This is the level at which the Aux7 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux8_LoadShed_Level** – This is the level at which the Aux8 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux9_LoadShed_Level** – This is the level at which the Aux9 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).

- **TEM_Aux10_LoadShed_Level** – This is the level at which the Aux10 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux11_LoadShed_Level** – This is the level at which the Aux11 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux12_LoadShed_Level** – This is the level at which the Aux12 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).

26.11. 60AAJ: BDY INTG, RPM (3) Mounted Inside Cab behind Driver Seat; Max. 20-AMP per Channel, Max. 80-AMP Total; Includes Three Modules with 3-Switch Packs Containing Latched Switches.

Extended Description: Feature 60AAJ includes three Remote Power Modules (RPMs) mounted in the cab behind the driver seat. Included with this feature are eighteen 2-position latched switches located in the Instrument Panel. Each RPM output can provide up to 20-Amps maximum with a total of 80-Amps maximum per module.

System Block Diagram:



Body Controller Software Feature Codes:

- 597252 - BCM PROG, REMOTE POWER MOD #4 WITH LATCHED SWITCHES

Feature code 60AAJ (597252) installs the number 4 Remote Power Module (RPM) and switches 13-18.
The feature can be installed alone or in conjunction with other RPMs.
When used with other RPMs, switches 1-12 are added and configured by special unadvertised software feature codes. These codes are determined by the number of additional features that use the RPM resources.
The following codes should be added after all other features are added to the vehicle.
60ACA = 597194 – This feature should be added if there are features already using five RPM inputs/outputs. (BCM PROG, AUXILIARY LOAD #1)
60ACB = 597195 – This feature should be added if there are features already using four RPM inputs/outputs. (BCM PROG, AUXILIARY LOAD 2 ROCKER SW)
60ACC = 597196 – This feature should be added if there are features already using three RPM inputs/outputs. (BCM PROG, AUXILIARY LOAD 3 ROCKER SW)

60ACD = 597197 – This feature should be added if there are features already using two RPM inputs/outputs. (BCM PROG, AUXILIARY LOAD 4 ROCKER SW)
60ACJ = 597198 – This feature should be added if there are features already using one RPM input/output. (BCM PROG, AUXILIARY LOAD 5 ROCKER SW)
60ACK = 597199 – This feature should be added if there no other features using any RPM inputs/outputs. (BCM PROG, AUXILIARY LOAD 6 ROCKER SW)
60ACV = 597202 – This feature should be added to add the second RPM (60AAB). (BCM PROG, ADDITIONAL 6 AUXILIARY SW)

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
597194 - BCM PROG, AUXILIARY LOAD #1 For Rocker Switch							
TEM_Aux1_Output_Fuse_Param	1990	This is the maximum current Aux 1 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level	3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
597195 - BCM PROG, AUXILIARY LOAD For (2) Rocker Switch							
TEM_Aux1_Output_Fuse_Param	1990	This is the maximum current Aux 1 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux2_Output_Fuse_Param	1991	This is the maximum current Aux 2 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level	3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
TEM_Aux2_Loadshed_Level	3274	Loadshed level parameter for TEM Aux Switch 2	1	No_Units	0	3	1
597196 - BCM PROG, AUXILIARY LOAD For (3) Rocker Switch							
TEM_Aux1_Output_Fuse_Param	1990	This is the maximum current Aux 1 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux2_Output_Fuse_Param	1991	This is the maximum current Aux 2 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux3_Output_Fuse_Param	1992	This is the maximum current Aux 3 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level	3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
TEM_Aux2_Loadshed_Level	3274	Loadshed level parameter for TEM Aux Switch 2	1	No_Units	0	3	1
TEM_Aux3_Loadshed_Level	3275	Loadshed level parameter for TEM Aux Switch 3	1	No_Units	0	3	1
597197 - BCM PROG, AUXILIARY LOAD For (4) Rocker Switch							
TEM_Aux1_Output_Fuse_Param	1990	This is the maximum current Aux 1 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux2_Output_Fuse_Param	1991	This is the maximum current Aux 2 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux3_Output_Fuse_Param	1992	This is the maximum current Aux 3 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1

TEM_Aux4_Output_Fuse_Param	1995	This is the maximum current Aux 4 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level	3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
TEM_Aux2_Loadshed_Level	3274	Loadshed level parameter for TEM Aux Switch 2	1	No_Units	0	3	1
TEM_Aux3_Loadshed_Level	3275	Loadshed level parameter for TEM Aux Switch 3	1	No_Units	0	3	1
TEM_Aux4_Loadshed_Level	3276	Loadshed level parameter for TEM Aux Switch 4	1	No_Units	0	3	1
597198 - BCM PROG, AUXILIARY LOAD For (5) Rocker Switch							
TEM_Aux1_Output_Fuse_Param	1990	This is the maximum current Aux 1 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux2_Output_Fuse_Param	1991	This is the maximum current Aux 2 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux3_Output_Fuse_Param	1992	This is the maximum current Aux 3 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux4_Output_Fuse_Param	1995	This is the maximum current Aux 4 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux5_Output_Fuse_Param	1999	This is the maximum current Aux 5 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level	3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
TEM_Aux2_Loadshed_Level	3274	Loadshed level parameter for TEM Aux Switch 2	1	No_Units	0	3	1
TEM_Aux3_Loadshed_Level	3275	Loadshed level parameter for TEM Aux Switch 3	1	No_Units	0	3	1
TEM_Aux4_Loadshed_Level	3276	Loadshed level parameter for TEM Aux Switch 4	1	No_Units	0	3	1
TEM_Aux5_Loadshed_Level	3277	Loadshed level parameter for TEM Aux Switch 5	1	No_Units	0	3	1
597199 - BCM PROG, AUXILIARY LOAD For (6) Rocker Switch							
TEM_Aux1_Output_Fuse_Param	1990	This is the maximum current Aux 1 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux2_Output_Fuse_Param	1991	This is the maximum current Aux 2 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux3_Output_Fuse_Param	1992	This is the maximum current Aux 3 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux4_Output_Fuse_Param	1995	This is the maximum current Aux 4 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux5_Output_Fuse_Param	1999	This is the maximum current Aux 5 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux6_Output_Fuse_Param	2000	This is the maximum current Aux 6 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level	3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1

TEM_Aux2_Loadshed_Level	3274	Loadshed level parameter for TEM Aux Switch 2	1	No_Units	0	3	1
TEM_Aux3_Loadshed_Level	3275	Loadshed level parameter for TEM Aux Switch 3	1	No_Units	0	3	1
TEM_Aux4_Loadshed_Level	3276	Loadshed level parameter for TEM Aux Switch 4	1	No_Units	0	3	1
TEM_Aux5_Loadshed_Level	3277	Loadshed level parameter for TEM Aux Switch 5	1	No_Units	0	3	1
TEM_Aux6_Loadshed_Level	3278	Loadshed level parameter for TEM Aux Switch 6	1	No_Units	0	3	1
597202 – BCM PROG, ADDITIONAL 6 AUXILIARY SW							
TEM_Aux7_Output_Fuse_Param	2100	This is the maximum current Aux 7 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux8_Output_Fuse_Param	2101	This is the maximum current Aux 8 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux9_Output_Fuse_Param	2102	This is the maximum current Aux 9 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux10_Output_Fuse_Param	2103	This is the maximum current Aux 10 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux11_Output_Fuse_Param	2104	This is the maximum current Aux 11 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux12_Output_Fuse_Param	2105	This is the maximum current Aux 12 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux7_Loadshed_Level	3339	Loadshed level parameter for TEM Aux Switch 7	1	No_Units	0	3	1
TEM_Aux8_Loadshed_Level	3340	Loadshed level parameter for TEM Aux Switch 8	1	No_Units	0	3	1
TEM_Aux9_Loadshed_Level	3341	Loadshed level parameter for TEM Aux Switch 9	1	No_Units	0	3	1
TEM_Aux10_Loadshed_Level	3342	Loadshed level parameter for TEM Aux Switch 10	1	No_Units	0	3	1
TEM_Aux11_Loadshed_Level	3343	Loadshed level parameter for TEM Aux Switch 11	1	No_Units	0	3	1
TEM_Aux12_Loadshed_Level	3344	Loadshed level parameter for TEM Aux Switch 12	1	No_Units	0	3	1
597252 - BCM PROG, REMOTE POWER MOD #4							
TEM_Aux13_Output_Fuse_Param	2215	This is the maximum current Aux 13 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux14_Output_Fuse_Param	2216	This is the maximum current Aux 14 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux15_Output_Fuse_Param	2217	This is the maximum current Aux 15 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux16_Output_Fuse_Param	2218	This is the maximum current Aux 16 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux17_Output_Fuse_Param	2219	This is the maximum current Aux 17 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1

TEM_Aux18_Output_Fuse_Param	2220	This is the maximum current Aux 18 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
RPM4_Channel13_Loadshed_Level	3272	This is the level at which the RPM4 channel 13 Output will load shed.	1	No_Units	0	3	1
RPM4_Channel14_Loadshed_Level	3315	This is the level at which the RPM4 channel 14 Output will load shed.	1	No_Units	0	3	1
RPM4_Channel15_Loadshed_Level	3316	This is the level at which the RPM4 channel 15 Output will load shed.	1	No_Units	0	3	1
RPM4_Channel16_Loadshed_Level	3317	This is the level at which the RPM4 channel 16 Output will load shed.	1	No_Units	0	3	1
RPM4_Channel17_Loadshed_Level	3318	This is the level at which the RPM4 channel 18 Output will load shed.	1	No_Units	0	3	1
RPM4_Channel18_Loadshed_Level	3319	This is the level at which the RPM4 channel 19 Output will load shed.	1	No_Units	0	3	1

Parameter Definitions:

- **TEM_Aux1_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_1_Output of RPM #1. Default is set at 20-amps.
- **TEM_Aux2_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_2_Output of RPM #1. Default is set at 20-amps.
- **TEM_Aux3_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_3_Output of RPM #1. Default is set at 20-amps.
- **TEM_Aux4_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_4_Output of RPM #1. Default is set at 20-amps.
- **TEM_Aux5_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_5_Output of RPM #1. Default is set at 20-amps.
- **TEM_Aux6_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_6_Output of RPM #1. Default is set at 20-amps.
- **TEM_Aux7_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_7_Output of RPM #2. Default is set at 20-amps.
- **TEM_Aux8_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_8_Output of RPM #2. Default is set at 20-amps.
- **TEM_Aux9_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_9_Output of RPM #2. Default is set at 20-amps.
- **TEM_Aux10_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_10_Output of RPM #2. Default is set at 20-amps.

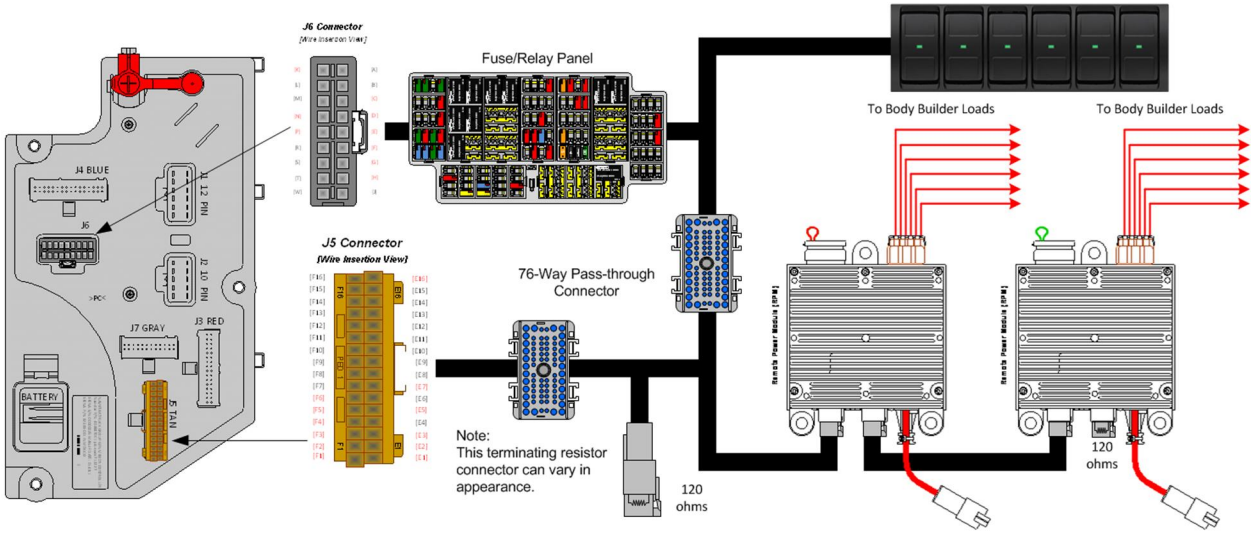
- **TEM_Aux11_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_11_Output of RPM #2. Default is set at 20-amps.
- **TEM_Aux12_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_12_Output of RPM #2. Default is set at 20-amps.
- **TEM_Aux13_Output_Fuse_Param** – This is the maximum current Aux 13 Output can source before the virtual fusing turns the output off. Default is 20-amps
- **TEM_Aux14_Output_Fuse_Param** – This is the maximum current Aux 14 Output can source before the virtual fusing turns the output off. Default is 20-amps.
- **TEM_Aux15_Output_Fuse_Param** – This is the maximum current Aux 15 Output can source before the virtual fusing turns the output off. Default is 20-amps.
- **TEM_Aux16_Output_Fuse_Param** – This is the maximum current Aux 16 Output can source before the virtual fusing turns the output off. Default is 20-amps.
- **TEM_Aux17_Output_Fuse_Param** – This is the maximum current Aux 17 Output can source before the virtual fusing turns the output off. Default is 20-amps
- **TEM_Aux18_Output_Fuse_Param** – This is the maximum current Aux 18 Output can source before the virtual fusing turns the output off. Default is 20-amps
- **TEM_Aux1_LoadShed_Level** – This is the level at which the Aux1 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux2_LoadShed_Level** – This is the level at which the Aux2 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux3_LoadShed_Level** – This is the level at which the Aux3 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux4_LoadShed_Level** – This is the level at which the Aux4 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux5_LoadShed_Level** – This is the level at which the Aux5 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux6_LoadShed_Level** – This is the level at which the Aux6 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux7_LoadShed_Level** – This is the level at which the Aux7 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).

- **TEM_Aux8_LoadShed_Level** – This is the level at which the Aux8 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux9_LoadShed_Level** – This is the level at which the Aux9 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux10_LoadShed_Level** – This is the level at which the Aux10 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux11_LoadShed_Level** – This is the level at which the Aux11 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux12_LoadShed_Level** – This is the level at which the Aux12 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **RPM4_Channel13_LoadShed_Level** – This is the level at which the RPM4 channel 13 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **RPM4_Channel14_LoadShed_Level** – This is the level at which the RPM4 channel 14 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **RPM4_Channel15_LoadShed_Level** – This is the level at which the RPM4 channel 15 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **RPM4_Channel16_LoadShed_Level** – This is the level at which the RPM4 channel 16 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **RPM4_Channel17_LoadShed_Level** – This is the level at which the RPM4 channel 17 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **RPM4_Channel18_LoadShed_Level** – This is the level at which the RPM4 channel 18 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).

26.12. 60AAK: BDY INTG, RPM (2) {SPECIAL} Mounted Inside Cab behind Driver Seat; Max. 20-AMP per Channel, Max. 80-AMP Total; Includes One Module with Switch Pack Containing Six Latched Switches and One Module with Hardware Only.

Extended Description: Feature 60AAK includes two Remote Power Module (RPMs) mounted in the cab behind the driver seat. Included with this feature are six 2-position latched switches located in the Instrument Panel for control of the outputs on RPM 1. RPM 2 is included with wiring and hardware only. Each RPM output can provide up to 20-Amps maximum with a total of 80-Amps maximum per module.

System Block Diagram:



Body Controller Software Feature Codes:

Note: Feature code 60AAK is configured by special unadvertised software feature codes. These codes are determined by the number of additional features that use the RPM resources. The following codes should be added after all other features are added to the vehicle.

60ACA = 597194 – This feature should be added if there are features already using five RPM inputs/outputs. (BCM PROG, AUXILIARY LOAD #1)

60ACB = 597195 – This feature should be added if there are features already using four RPM inputs/outputs. (BCM PROG, AUXILIARY LOAD 2 ROCKER SW)

60ACC = 597196 – This feature should be added if there are features already using three RPM inputs/outputs. (BCM PROG, AUXILIARY LOAD 3 ROCKER SW)

60ACD = 597197 – This feature should be added if there are features already using two RPM inputs/outputs. (BCM PROG, AUXILIARY LOAD 4 ROCKER SW)

60ACJ = 597198 – This feature should be added if there are features already using one RPM input/output. (BCM PROG, AUXILIARY LOAD 5 ROCKER SW)

60ACK = 597199 – This feature should be added if there no other features using any RPM inputs/outputs. (BCM PROG, AUXILIARY LOAD 6 ROCKER SW)

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
597194 - BCM PROG, AUXILIARY LOAD #1 For Rocker Switch							
TEM_Aux1_Output_Fuse_Param	1990	This is the maximum current Aux 1 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level	3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
597195 - BCM PROG, AUXILIARY LOAD For (2) Rocker Switch							
TEM_Aux1_Output_Fuse_Param	1990	This is the maximum current Aux 1 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux2_Output_Fuse_Param	1991	This is the maximum current Aux 2 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level	3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
TEM_Aux2_Loadshed_Level	3274	Loadshed level parameter for TEM Aux Switch 2	1	No_Units	0	3	1
597196 - BCM PROG, AUXILIARY LOAD For (3) Rocker Switch							
TEM_Aux1_Output_Fuse_Param	1990	This is the maximum current Aux 1 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux2_Output_Fuse_Param	1991	This is the maximum current Aux 2 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux3_Output_Fuse_Param	1992	This is the maximum current Aux 3 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level	3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
TEM_Aux2_Loadshed_Level	3274	Loadshed level parameter for TEM Aux Switch 2	1	No_Units	0	3	1
TEM_Aux3_Loadshed_Level	3275	Loadshed level parameter for TEM Aux Switch 3	1	No_Units	0	3	1
597197 - BCM PROG, AUXILIARY LOAD For (4) Rocker Switch							
TEM_Aux1_Output_Fuse_Param	1990	This is the maximum current Aux 1 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux2_Output_Fuse_Param	1991	This is the maximum current Aux 2 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux3_Output_Fuse_Param	1992	This is the maximum current Aux 3 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux4_Output_Fuse_Param	1995	This is the maximum current Aux 4 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level	3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
TEM_Aux2_Loadshed_Level	3274	Loadshed level parameter for TEM Aux Switch 2	1	No_Units	0	3	1
TEM_Aux3_Loadshed_Level	3275	Loadshed level parameter for TEM Aux Switch 3	1	No_Units	0	3	1
TEM_Aux4_Loadshed_Level	3276	Loadshed level parameter for TEM Aux Switch 4	1	No_Units	0	3	1

597198 - BCM PROG, AUXILIARY LOAD For (5) Rocker Switch							
TEM_Aux1_Output_Fuse_Param	1990	This is the maximum current Aux 1 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux2_Output_Fuse_Param	1991	This is the maximum current Aux 2 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux3_Output_Fuse_Param	1992	This is the maximum current Aux 3 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux4_Output_Fuse_Param	1995	This is the maximum current Aux 4 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux5_Output_Fuse_Param	1999	This is the maximum current Aux 5 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level	3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
TEM_Aux2_Loadshed_Level	3274	Loadshed level parameter for TEM Aux Switch 2	1	No_Units	0	3	1
TEM_Aux3_Loadshed_Level	3275	Loadshed level parameter for TEM Aux Switch 3	1	No_Units	0	3	1
TEM_Aux4_Loadshed_Level	3276	Loadshed level parameter for TEM Aux Switch 4	1	No_Units	0	3	1
TEM_Aux5_Loadshed_Level	3277	Loadshed level parameter for TEM Aux Switch 5	1	No_Units	0	3	1
597199 - BCM PROG, AUXILIARY LOAD For (6) Rocker Switch							
TEM_Aux1_Output_Fuse_Param	1990	This is the maximum current Aux 1 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux2_Output_Fuse_Param	1991	This is the maximum current Aux 2 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux3_Output_Fuse_Param	1992	This is the maximum current Aux 3 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux4_Output_Fuse_Param	1995	This is the maximum current Aux 4 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux5_Output_Fuse_Param	1999	This is the maximum current Aux 5 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux6_Output_Fuse_Param	2000	This is the maximum current Aux 6 Output can source before the virtual fusing turns the output off.	20	A	0	20	0.1
TEM_Aux1_Loadshed_Level	3273	Loadshed level parameter for TEM Aux Switch 1	1	No_Units	0	3	1
TEM_Aux2_Loadshed_Level	3274	Loadshed level parameter for TEM Aux Switch 2	1	No_Units	0	3	1
TEM_Aux3_Loadshed_Level	3275	Loadshed level parameter for TEM Aux Switch 3	1	No_Units	0	3	1
TEM_Aux4_Loadshed_Level	3276	Loadshed level parameter for TEM Aux Switch 4	1	No_Units	0	3	1
TEM_Aux5_Loadshed_Level	3277	Loadshed level parameter for TEM Aux Switch 5	1	No_Units	0	3	1
TEM_Aux6_Loadshed_Level	3278	Loadshed level parameter for TEM Aux Switch 6	1	No_Units	0	3	1

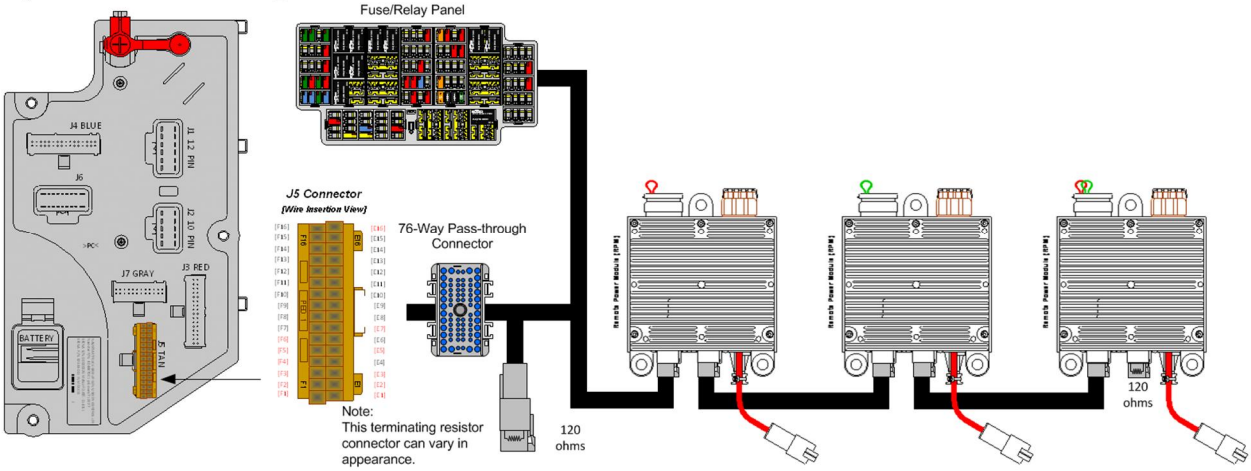
Parameter Definitions:

- **TEM_Aux1_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_1_Output of RPM #1. Default is set at 20-amps.
- **TEM_Aux2_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_2_Output of RPM #1. Default is set at 20-amps.
- **TEM_Aux3_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_3_Output of RPM #1. Default is set at 20-amps.
- **TEM_Aux4_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_4_Output of RPM #1. Default is set at 20-amps.
- **TEM_Aux5_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_5_Output of RPM #1. Default is set at 20-amps.
- **TEM_Aux6_Output_Fuse_Param** – This parameter sets the limit (in AMPS) of the current flowing from the output labeled Aux_Switch_6_Output of RPM #1. Default is set at 20-amps.
- **TEM_Aux1_LoadShed_Level** – This is the level at which the Aux1 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux2_LoadShed_Level** – This is the level at which the Aux2 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux3_LoadShed_Level** – This is the level at which the Aux3 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux4_LoadShed_Level** – This is the level at which the Aux4 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux5_LoadShed_Level** – This is the level at which the Aux5 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).
- **TEM_Aux6_LoadShed_Level** – This is the level at which the Aux6 Output will load shed. A value of ZERO (0) disables load shed. A value of ONE (1) is least priority (sheds first), a value of 3 highest priority (sheds last).

26.13. 60AAL: BDY INTG, RPM {SPECIAL} Mounted Inside Cab behind Driver Seat; Max. 20-AMP per Channel, Max. 80-AMP Total; Includes Three Modules with Hardware Only.

Extended Description: Feature 60AAL includes three Remote Power Module (RPMs) mounted in the cab behind the driver seat. Included with this feature are wiring and hardware only for all three RPMs for use with custom logic. Each RPM output can provide up to 20-Amps maximum with a total of 80-Amps maximum per module.

System Block Diagram:

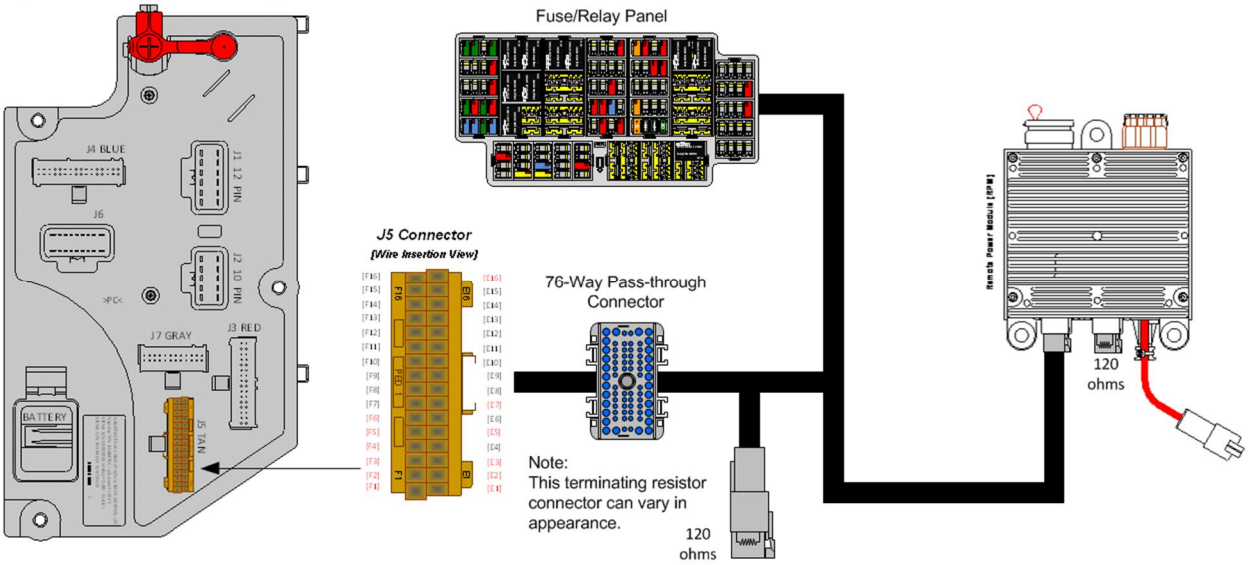


60AAL System Diagram

26.14. 60AAM: BDY INTG, RPM AUX Mounted on the Driver's Side Frame Rail at Rear of Frame; Up to 6-Outputs and 6-Inputs, Max. 20-AMP per Channel, Max. 80-AMP Total.

Extended Description: Feature 60AAM includes one Remote Power Module (RPM) mounted on the driver side frame rail at rear of frame. Included with this feature are wiring and hardware only for the RPM for use with custom logic. Each RPM output can provide up to 20-Amps maximum with a total of 80-Amps maximum per module.

System Block Diagram:

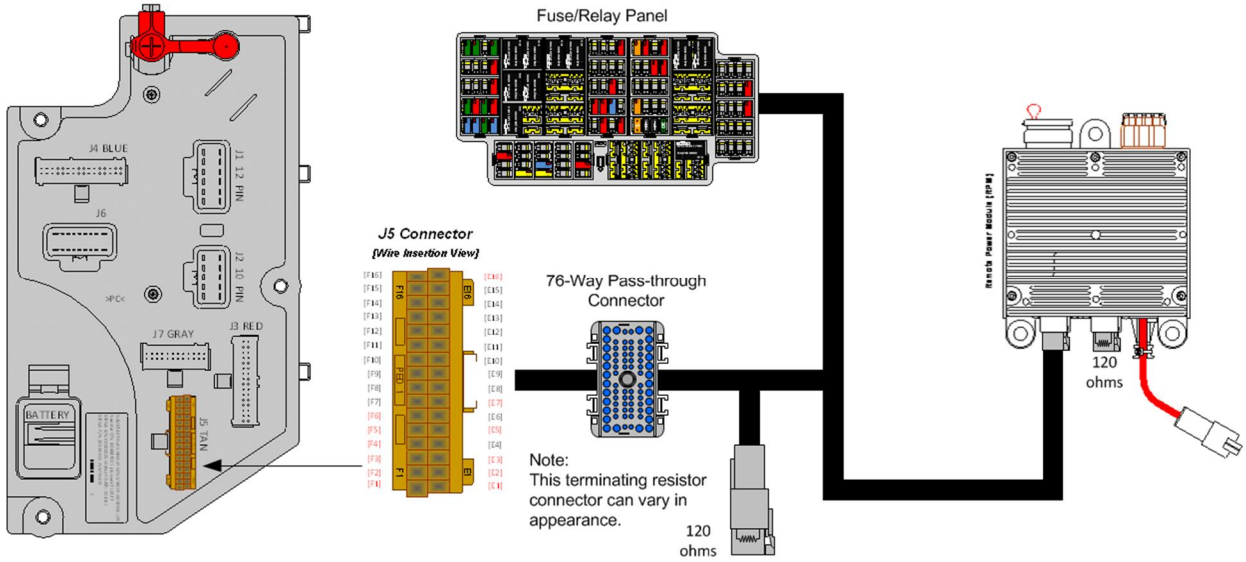


60AAM System Diagram

26.15. 60AAN: BDY INTG, RPM AUX Mounted Back of Cab; Up to 6-Outputs and Inputs, Max. 20-AMP per Channel, Max. 80-AMP Total, “(No switches included)”.

Extended Description: Feature 60AAN includes one Remote Power Module (RPM) mounted on the battery box on MV or on a bracket under cab on HV at Back of Cab (BOC). Included with this feature are wiring and hardware only for the RPM for use with custom logic. Each RPM output can provide up to 20-Amps maximum with a total of 80-Amps maximum per module.

System Block Diagram:



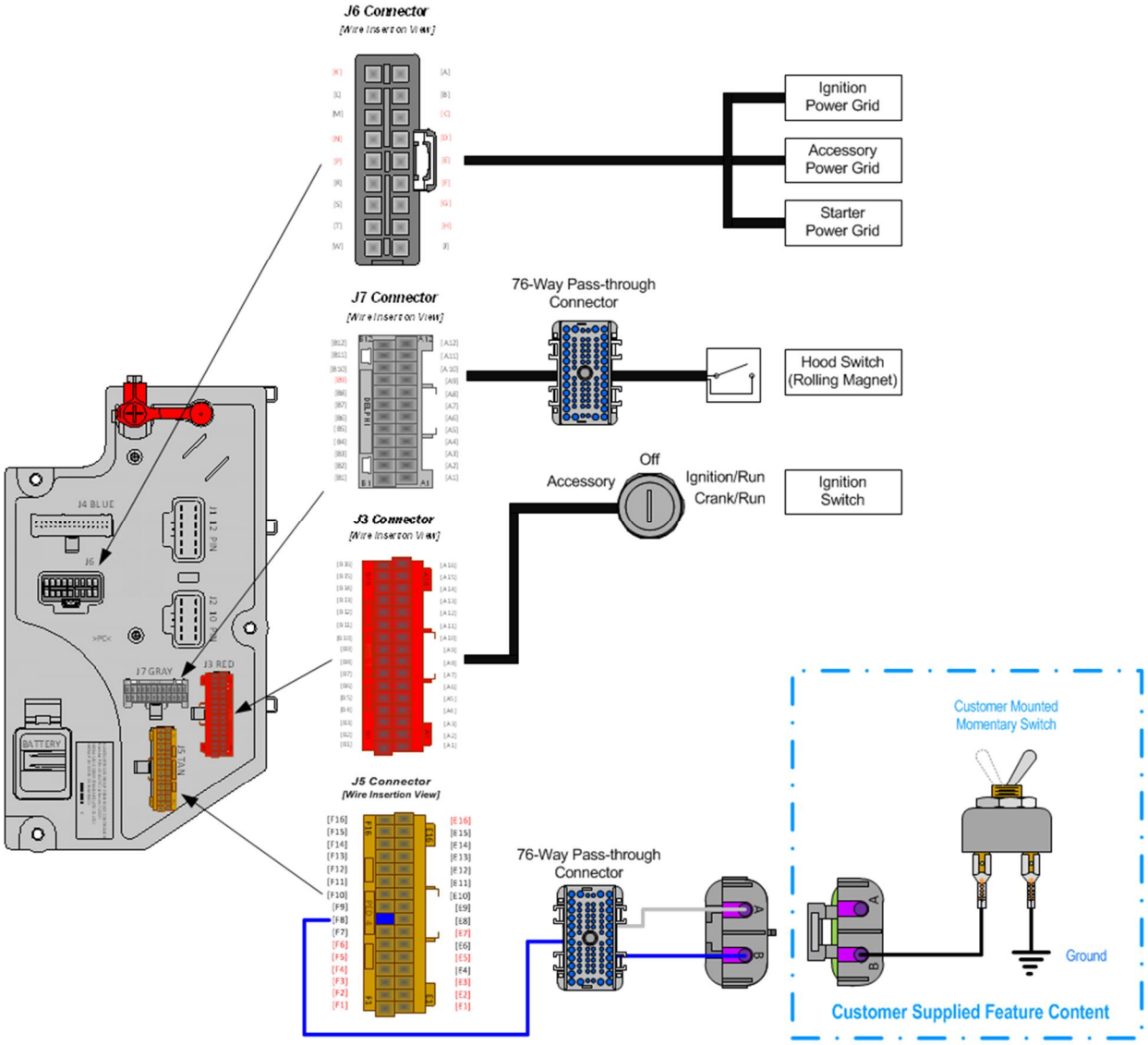
60AAN System Diagram

27. Remote Start/Stop Features

27.1. 60ABC: BDY INTG, REMOTE START/STOP to Start and Stop Vehicle Engine.

Extended Description: The Remote Start/Stop feature provides the operator with the ability to remotely start or stop the engine from a single ground (GND) active switch closure located on the vehicle body equipment. The vehicle park brake must be set, and the hood of the vehicle must be closed. The vehicle must also be equipped with an automatic transmission and must be in neutral. This feature requires the customer to provide the GND active switch as well as the wiring from that switch into the Remote Start/Stop connector located in the middle of the chassis. The customer will also provide the terminals and seals for the International®-provided connector.

System Block Diagram:



Body Controller Software Feature Codes:

- 597187 - BCM PROG, REMOTE START/STOP without Emergency Pump Motor Functionality
- 597069 - BCM PROG, HOOD SWITCH

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
TEM_Rem_Start_Stop_PTO_Ilock	2192	If this parameter is set, the remote start/stop functionality will not function unless the PTO switch is in the on position.	OFF	No/Off	N/A	N/A	N/A

Parameter Definitions:

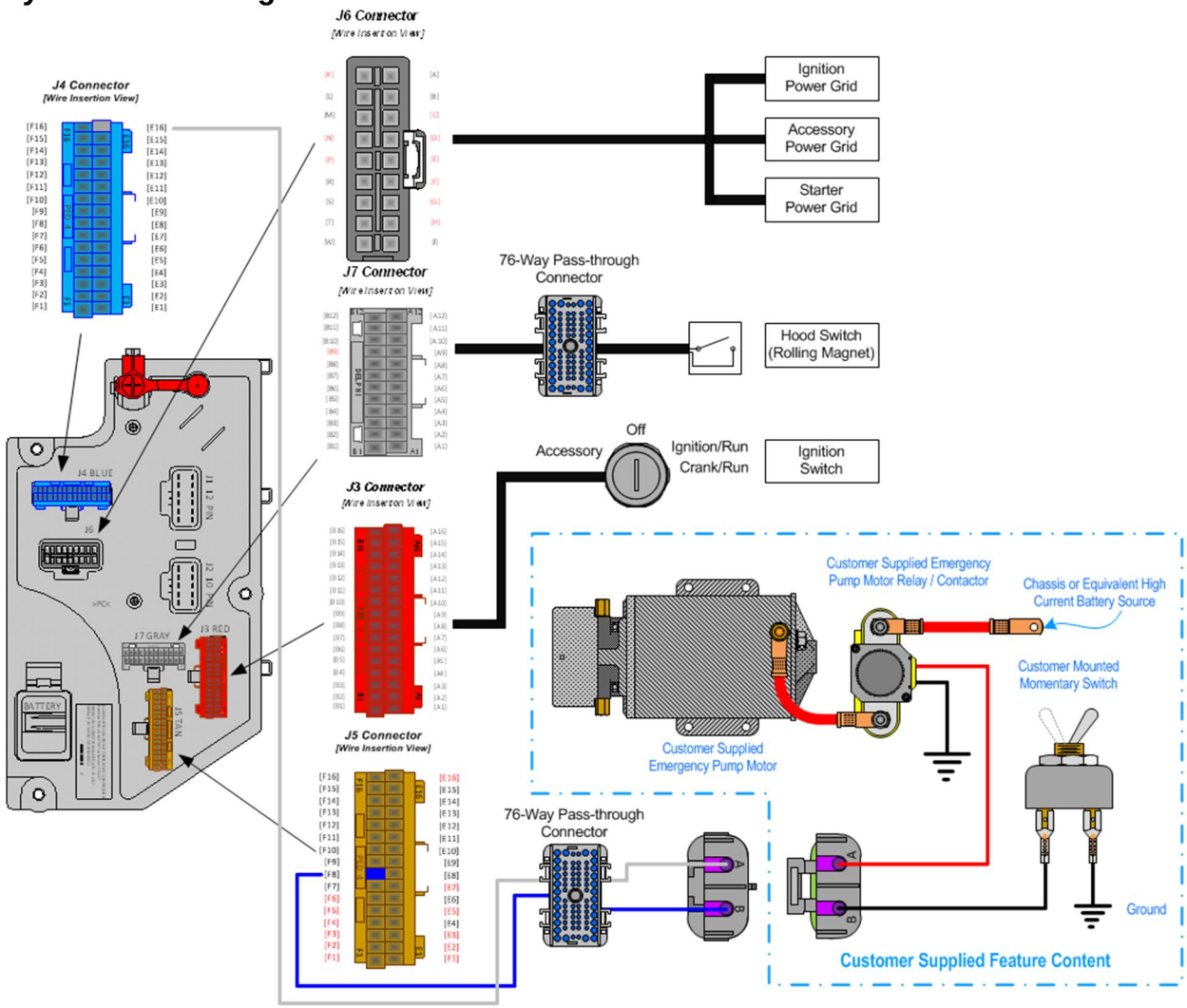
- **TEM_Rem_Start_Stop_PTO_Ilock –** When this parameter is set to ON. Then the operator can only use Remote Start/Stop when the in-cab, International® PTO switch is in the ON position. The PTO must be a 597-feature driven switch.

Note/s About Possible Software Feature Conflicts: 597186

27.2. 60ABD: BDY INTG, REMOTE START/STOP Too Start and Stop Vehicle Engine, Will Start Emergency Pump Motor, Programmable Time Intervals.

Extended Description: The Remote Start/Stop feature provides the ability to remotely start or stop the engine from a single GND active switch closure located on the vehicle body equipment. This feature operates in two modes, namely the remote start/stop mode and the emergency pump mode. The vehicle park brake must be set and the hood of the vehicle must be closed. The vehicle must also be equipped with an automatic transmission and must be in neutral. The user may engage the same switch to control an emergency pump solenoid/motor combination, if the vehicle engine cannot be restarted.

System Block Diagram:



Body Controller Software Feature Codes:

- 597186 - BCM PROG, REMOTE START/STOP with Emergency Pump Motor Functionality
- 597069 - BCM PROG, HOOD SWITCH

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
TEM_Remote_Engine_Stop_Time	2072	Time allotted to stop the engine for the remote engine start stop with emergency pump feature.	5	S	-	60	0.01
TEM_Rem_Start_Stop_PTO_Ilock	2192	If this parameter is set, the remote start/stop functionality will not function unless the PTO switch is in the on position.	OFF	No/Off	N/A	N/A	N/A

Parameter Definitions:

- **TEM_Rem_Start_Stop_PTO_Ilock –** When this parameter is set to ON. Then the operator can only use Remote Start/Stop when the in-cab, International® PTO switch is in the ON position. The PTO must be a 597-feature driven switch.
- **TEM_Rem_Start_Stop_PTO_Ilock –** When this parameter is set to ON. Then the operator can only use Remote Start/Stop when the in-cab, International® PTO switch is in the ON position. The PTO must be a 597-feature driven switch.

Note/s About Possible Software Feature Conflicts: 597187

28. Standard electrical Offerings

28.1. 08WRB: HEADLIGHTS ON W/WIPERS Headlights Will Automatically Turn on if Windshield Wipers are turned on. There are two functions, Lights on With Wipers (LOWW) and Day Time Running Lights (DTRL), available with this sales code.

Extended Description: Function (LOWW): The Lights On with Wipers (LOWW) function turns on the low beam headlights (tail, marker & clearance lights are also turned on with low beam headlights) whenever the windshield wipers are ON steady or intermittent. The headlights will not be enabled in washer mode. When the wipers are turned OFF, headlights will remain ON until the key is turned OFF or the headlight switch is cycled from OFF to ON to OFF. This feature may be enabled or disabled by using Diamond Logic® Builder programming software.

Body Controller Software Feature Codes:

- 597079 – BCM PROG, HEADLIGHT ON W/WIPERS

29. Theft Deterrent

29.1. 60ACX: BODY INTG, THEFT DETERRENT SYS Includes one (1) Switch Pack of Six Switches.

Extended Description: The International® Theft Deterrent system provides a means to help control the mobility of a vehicle. Once the vehicle has been started, the driver is required to enter a pre-programmed code (theft deterrent code). The theft deterrent code must also be entered when driving is resumed after the vehicle is at idle with the park brake set. The theft deterrent feature is effective in preventing a vehicle from being driven by unauthorized individuals.

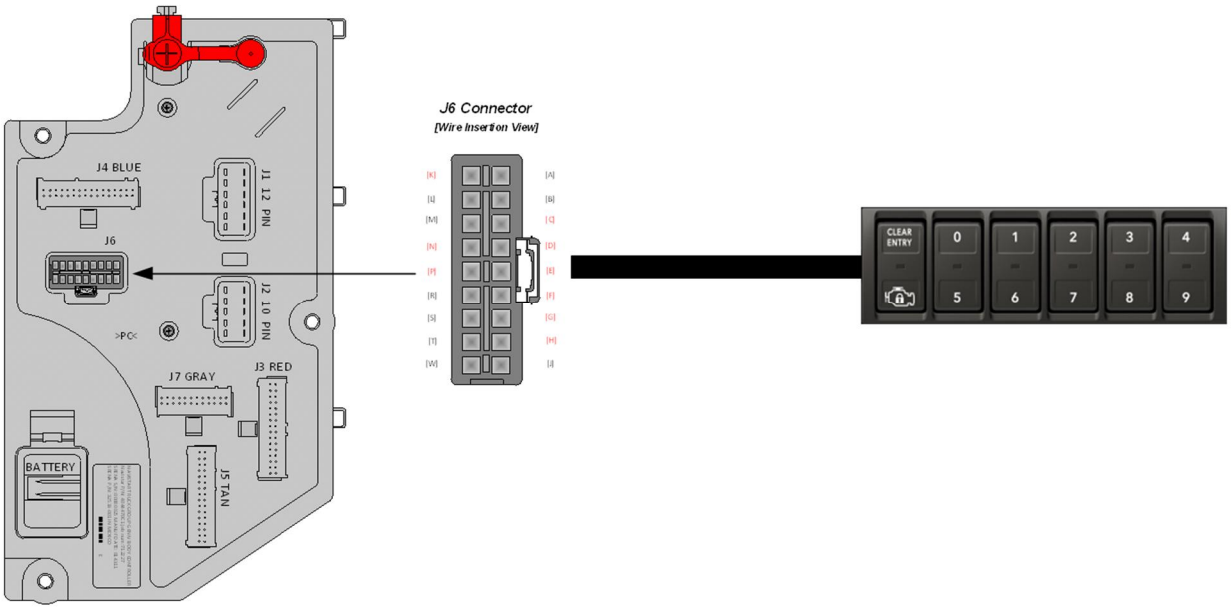
THEFT DETERRENT CODE
The theft deterrent code is any combination of one to eight digits (between 1 and 99999999) selected by the customer. The Theft Deterrent system will come from the factory disabled. The dealer will be responsible for enabling the system and programming the desired theft deterrent code during the regular dealer Pre-Delivery Inspection (PDI). This is not included in the normal PDI reimbursement and is not a warranty expense.

THEFT DETERRENT SWITCHES
Six switches located in the Instrument Panel (IP) provide the functions of the Theft Deterrent system. Five of the switches are dual digit switches (3-position, center stable momentary switches) numbered 0 to 9. The remaining switch is the ENGINE STOP/CLEAR ENTRY switch, which is a combination switch indicator and a standard momentary switch (see the illustration below).

The red ENGINE STOP indicator of the ENGINE STOP/CLEAR ENTRY switch flashes to alert the driver that the theft deterrent code must be entered (within the pre-programmed time delay or the engine will shut down). The momentary CLEAR ENTRY position is pressed whenever the driver needs to clear a failed code so that the correct code can be re-entered.

NOTE: If the operator enters the wrong security code, the vehicle must be stopped and the park brake must be set/engaged before the system will clear the previous theft deterrent code entry.

System Block Diagram:



Body Controller Software Feature Codes:

- 597106 - BCM PROG, THEFT DETERRENT SYS

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
Anti_Theft_Enable	2222	Enables and disables the anti-theft feature	0	ON / OFF	0	1	1
Anti_Theft_Code_Master_Lo	2224	The lower word of the code	2345	No_Units	0	9999	1
Anti_Theft_Code_Master_Hi	2226	The upper word of the code	0001	No_Units	0	9999	1
Anti_Theft_Active_Min	2227	The minimum amount of time the truck is disabled once it enters shutdown mode.	10	seconds	10	60	1
Anti_Theft_Warning_Time	2245	The amount of time after the park brake has been released or the vehicle starts moving until the vehicle enters shutdown mode	10	seconds	1	655	1
Anti_Theft_Code_Length	2257	The number representing the code length in terms of number of digits	5	No_Units	1	8	1
Anti_Theft_Ignore_Park_Brake	3200	When this parameter is True, Anti-Theft features do not reset the Access Code each time the Park Brake is set.	0	ON / OFF	0	1	1

Parameter Definitions:

- **Anti_Theft_Enable** – Parameter to enable or disable the theft deterrent feature.
- **Anti_Theft_Code_Master_Lo** – Lower 4 digits of the numerical theft deterrent code to be entered by the driver.
- **Anti_Theft_Code_Master_Hi** – Upper 4 digits of the numerical theft deterrent code to be entered by the driver.

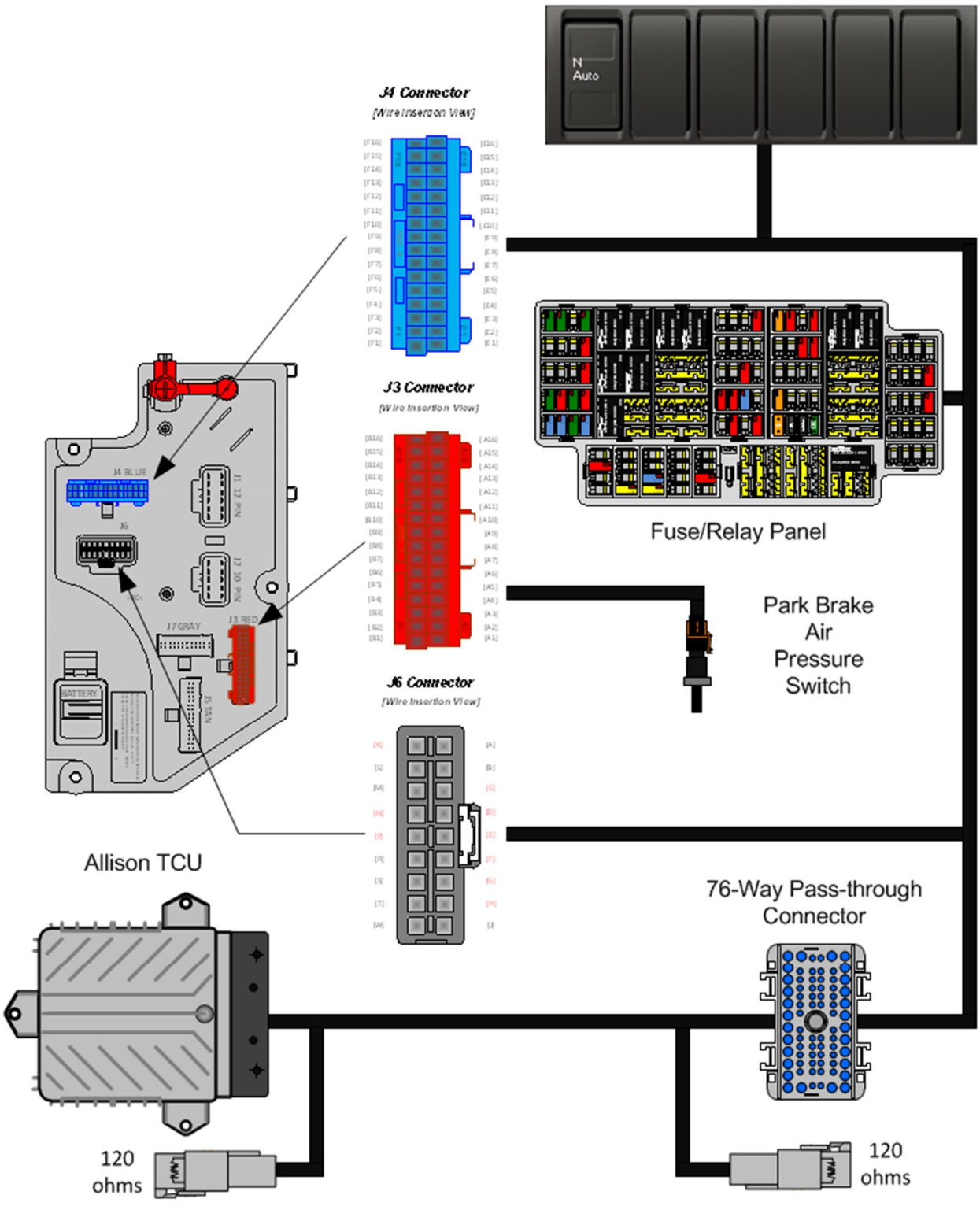
- **Anti_Theft_Active_Min** – Length of time the engine is shut down.
- **Anti_Theft_Warning_Time** – The amount of time after the park brake has been released or the vehicle starts moving until the vehicle enters shutdown mode
- **Anti_Theft_Code_Length** – Number of digits in the theft deterrent code
- **Anti_Theft_Ignore_Park_Brake** – When this parameter is True, Anti-Theft features do not reset the Access Code each time the Park Brake is set.

30. Transmission Spare Input/Output (I/O) and Transmission Codes

30.1. 13WEH: AUTOMATIC NEUTRAL Allison WT Transmission Shifts to Neutral When Parking Brake is Engaged and Remains in Neutral When Parking Brake is Disengaged, without On/Off Switch.

Extended Description: 13WEH is available for applications other than refuse that require the transmission to shift to neutral any time the park brake is engaged. The transmission will remain in neutral when the park brake is disengaged requiring the operator to shift the transmission into a forward or reverse gear. Feature 13WEH does NOT include a switch in the center panel to allow the operator to enable/disable auto neutral functionality.

System Block Diagram:



Body Controller Software Feature Codes:

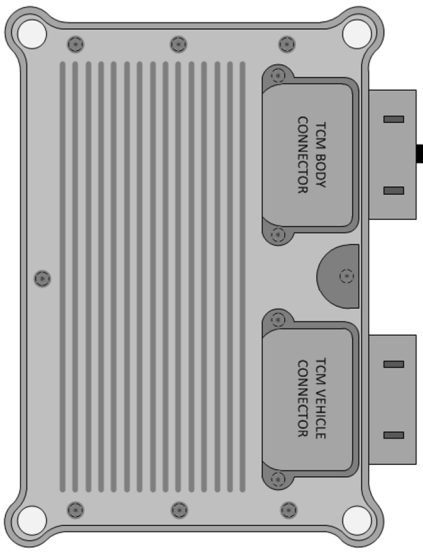
- 597189 - BCM PROG, **AUTO NEUTRAL without On/Off Switch, Confirmation Indicator in Switch Pack**

Note/s About Possible Software Feature Conflicts:
597188

30.2. 13WEP: WIRING, TRANS, BODY BUILDER Installed Wiring and Connector for Transmission/PTO Controls, for Eaton Procision Transmission.

Extended Description: Preprogrammed control functions that are designed to meet customer needs are available as optional equipment on the Eaton Procision transmission. The body builder Input/Output connector will provide the appropriate wires needed for the vehicle to interface with the transmission. This connector provides PTO enable capability as required by the application.

System Block Diagram:



7208 — Transmission Input / Output Connector

	EATON Procision (EPS)		
Circuit Number	7208 Connector Cavity	Trans ECM Pin Location	Function (Description)
KR99C	A	94	Remote PTO ON/OFF Switch
KR46A (KY46A)	B	19	Cruise Control/PTO Resume Switch
KR99F (KY97XG)	C	67	Remote Accelerator ON/OFF Switch
KR46B (KY46B)	D	12	Cruise Control/PTO Set Switch
KR97AR (KY97AR)	E	30	Tachometer Siganl
KR97XG (KY9B-G)	F	66	Max Operating Speed / Governor Type Switch
AH6C (KF97XH)	G	83	Engine Running Siganl
AB6C (KP6C)	H	8	5 Volt Supply

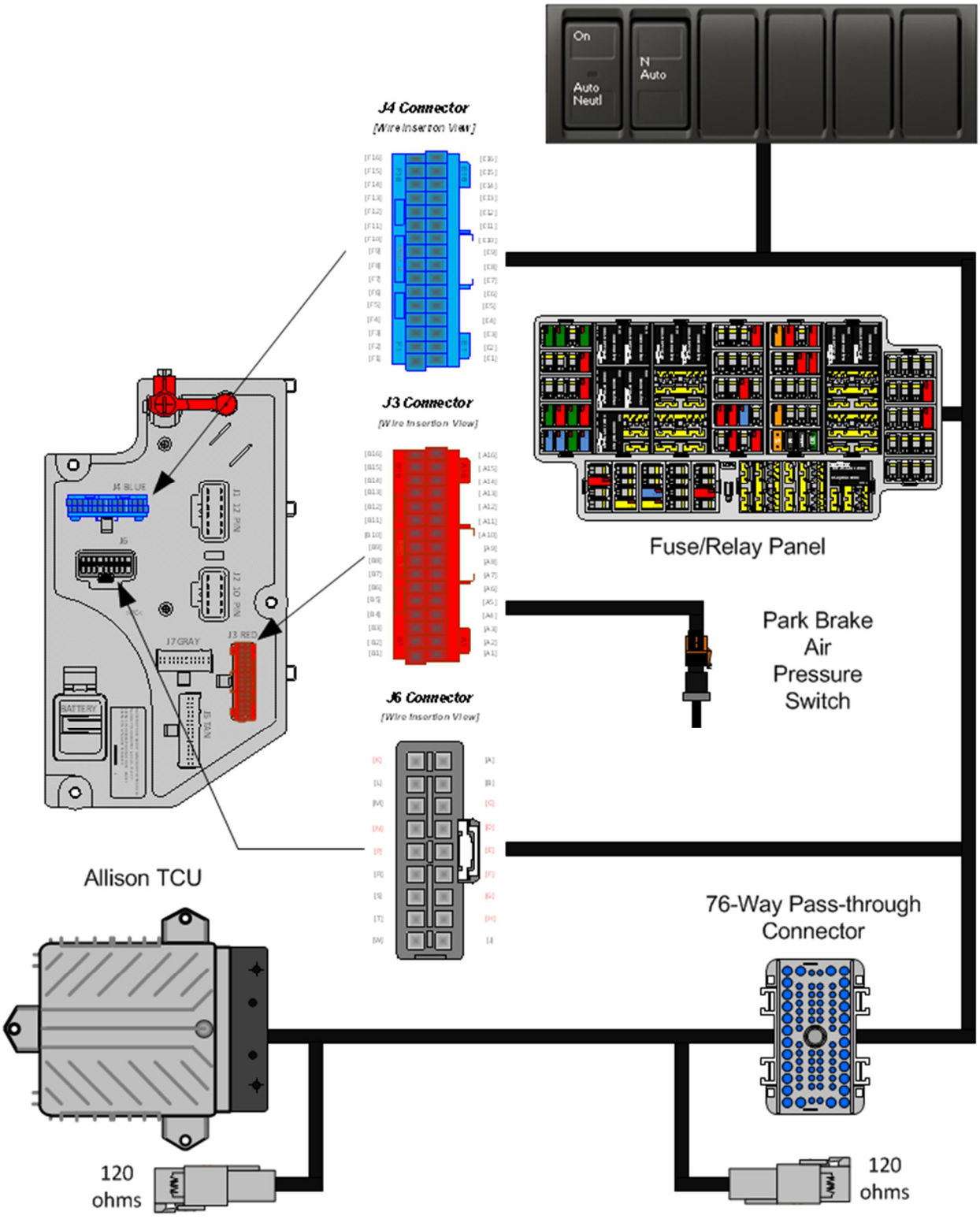
How to Test This Feature:

Review this entry carefully, and choose the transmission and optional electrical interface feature that is right for the particular equipment application. Reference Allison's software tool and chassis model circuit diagram manual as programming and diagnostic resource.

30.3. 13WUA: ALLISON NEUTRAL Allison WT Transmission Shifts to Neutral When Parking Brake is Engaged and Remains on Neutral When Park Brake is Disengaged.

Extended Description: 13WUA is available for applications other than refuse that require the transmission to shift to neutral any time the park brake is engaged. The transmission will remain in neutral when the park brake is disengaged requiring the operator to shift the transmission into a forward or reverse gear.

System Block Diagram:



Body Controller Software Feature Codes:

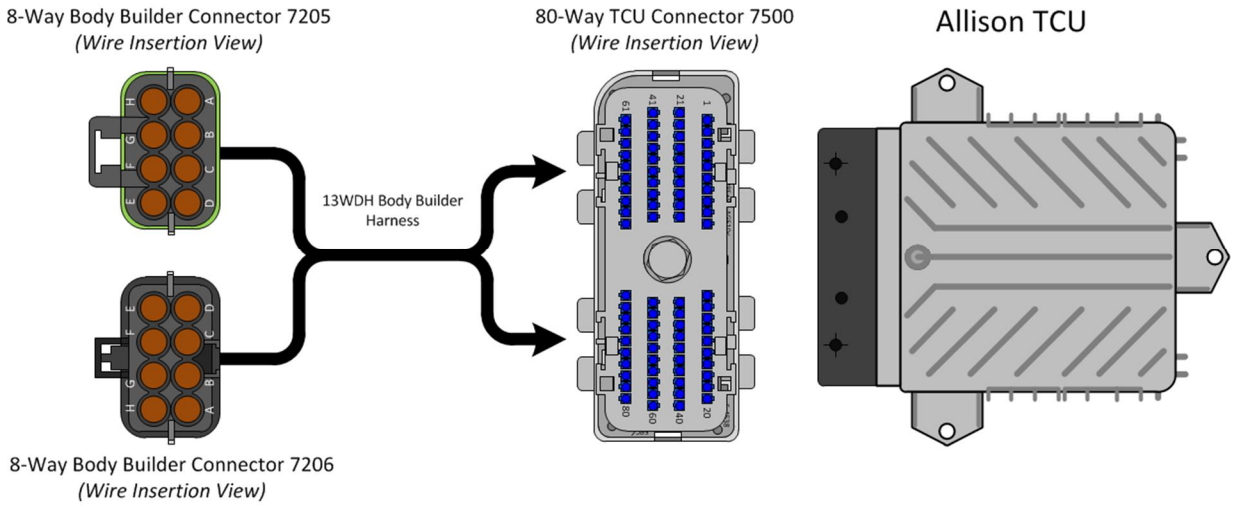
- 597188 - BCM PROG, **AUTO NEUTRAL with On/Off Switch, Confirmation Indicator in Switch Pack**

Note/s About Possible Software Feature Conflicts:
597189

30.4. 13WUB: ALLISON SPARE INPUT/OUTPUT for Highway Series (HS); General Purpose Trucks.

Extended Description: Preprogrammed control functions that are designed to meet customer needs are available as optional equipment on Allison transmissions. The body builder Input/Output connectors will provide the appropriate wires needed for the vehicle to interface with the transmission. These connectors provide vehicle speed, sump/retarder temperature, PTO enable capability, range indicator, retarder indicator and various other inputs as required by application. 13WUB provides Allison's 5th generation I/O package 223 and is for Highway Series (HS) vocations.

System Block Diagram:

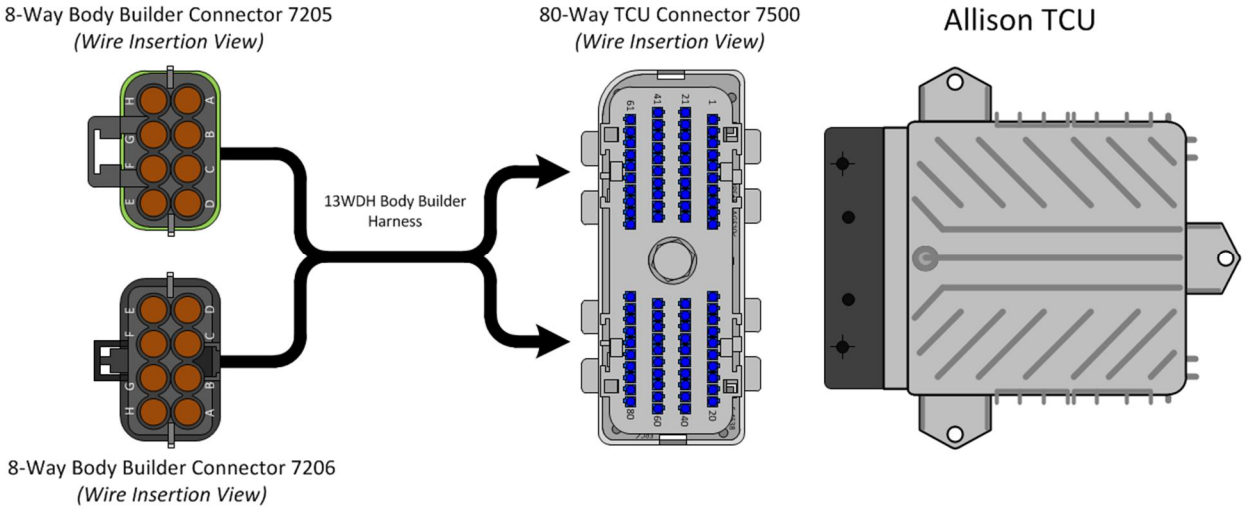


13WUB System Diagram

30.5. 13WUC: ALLISON SPARE INPUT/OUTPUT for Rugged Duty Series (RDS); General Purpose Trucks, Construction.

Extended Description: Preprogrammed control functions that are designed to meet customer needs are available as optional equipment on Allison transmissions. The body builder Input/Output connectors will provide the appropriate wires needed for the vehicle to interface with the transmission. These connectors provide vehicle speed, sump/retarder temperature, PTO enable capability, range indicator, retarder indicator and various other inputs as required by application. 13WUC provides Allison's 5th generation I/O package 223 and is for Rugged Duty Series (RDS) vocations.

System Block Diagram:

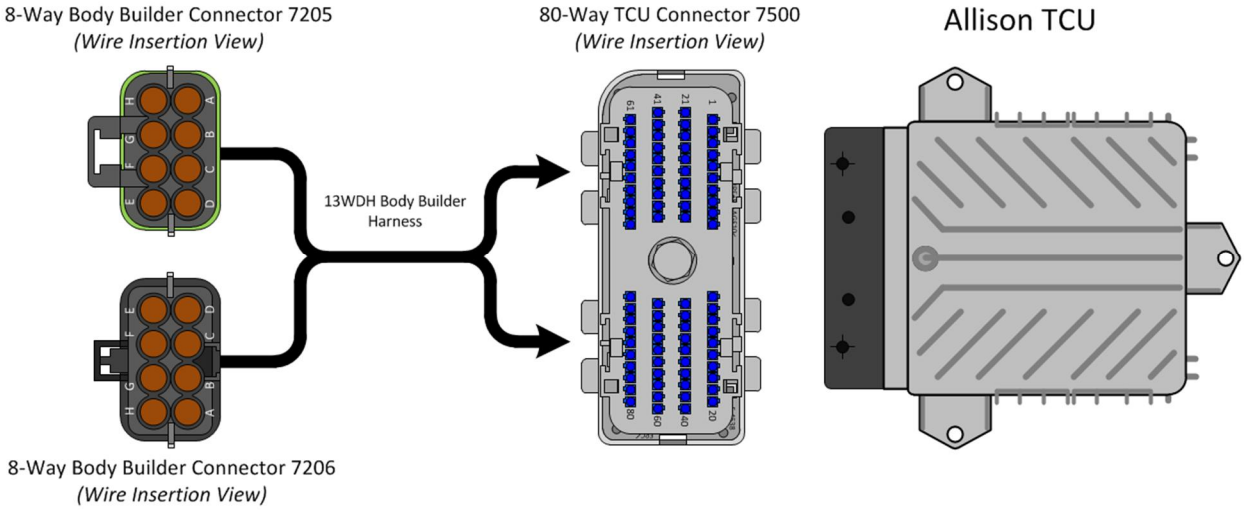


13WUC System Diagram

30.6. 13WUD: ALLISON SPARE INPUT/OUTPUT for Emergency Vehicle Series (EVS); Rescue, Ambulance.

Extended Description: Preprogrammed control functions that are designed to meet customer needs are available as optional equipment on Allison transmissions. The body builder Input/Output connectors will provide the appropriate wires needed for the vehicle to interface with the transmission. These connectors provide vehicle speed, sump/retarder temperature, PTO enable capability, range indicator, retarder indicator and various other inputs as required by application. 13WUD provides Allison's 5th generation I/O package 170 and is for Emergency Vehicle Series (EVS) vocations.

System Block Diagram:

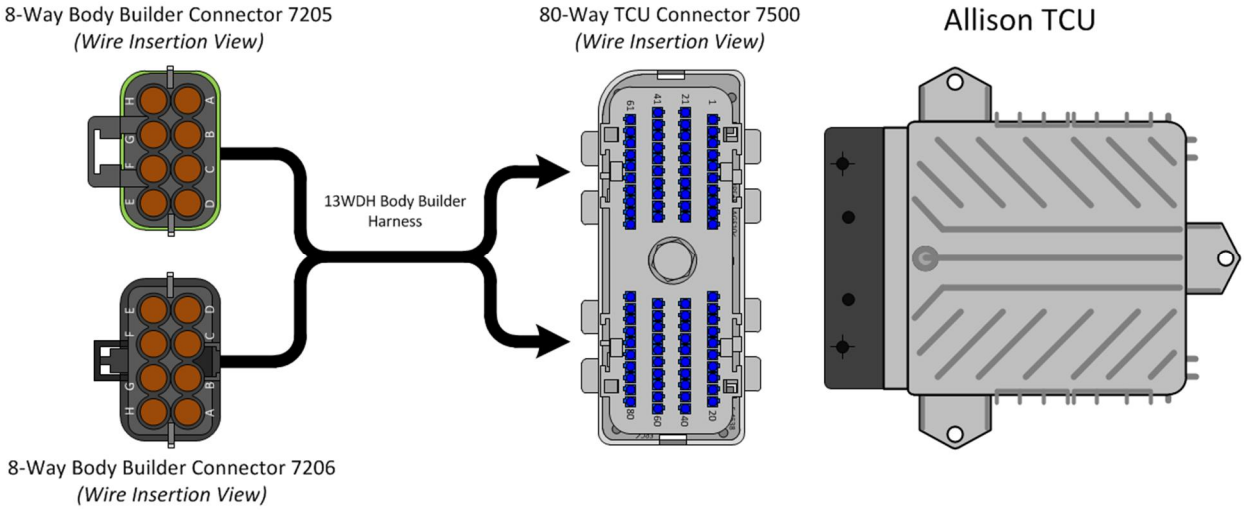


13WUD System Diagram

30.7. 13WUE: ALLISON SPARE INPUT/OUTPUT for Emergency Vehicle Series (EVS); Fire/Pumper, Tank, Aerial/Ladder.

Extended Description: Preprogrammed control functions that are designed to meet customer needs are available as optional equipment on Allison transmissions. The body builder Input/Output connectors will provide the appropriate wires needed for the vehicle to interface with the transmission. These connectors provide vehicle speed, sump/retarder temperature, PTO enable capability, range indicator, retarder indicator and various other inputs as required by application. 13WUE provides Allison's 5th generation I/O package 198 and is for Emergency Vehicle Series (EVS) vocations.

System Block Diagram:

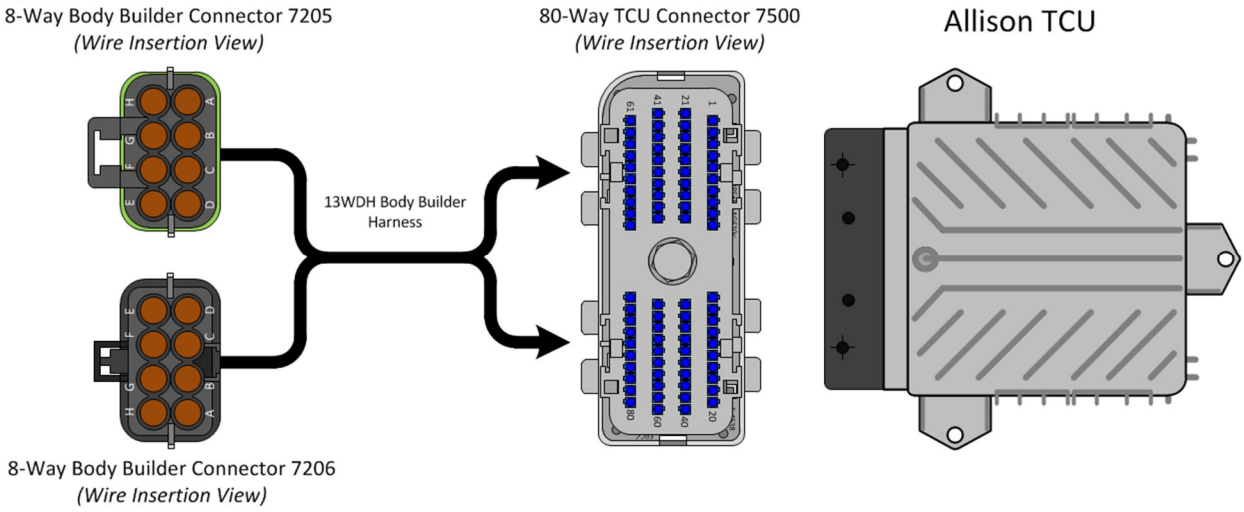


13WUE System Diagram

30.8. 13WUG: ALLISON SPARE INPUT/OUTPUT for Truck Recreational Vehicle (TRV).

Extended Description: Preprogrammed control functions that are designed to meet customer needs are available as optional equipment on Allison transmissions. The body builder Input/Output connectors will provide the appropriate wires needed for the vehicle to interface with the transmission. These connectors provide vehicle speed, sump/retarder temperature, PTO enable capability, range indicator, retarder indicator and various other inputs as required by application. 13WUG provides Allison's 5th generation I/O package 223 and is for Truck Recreational Vehicle (TRV) vocations.

System Block Diagram:

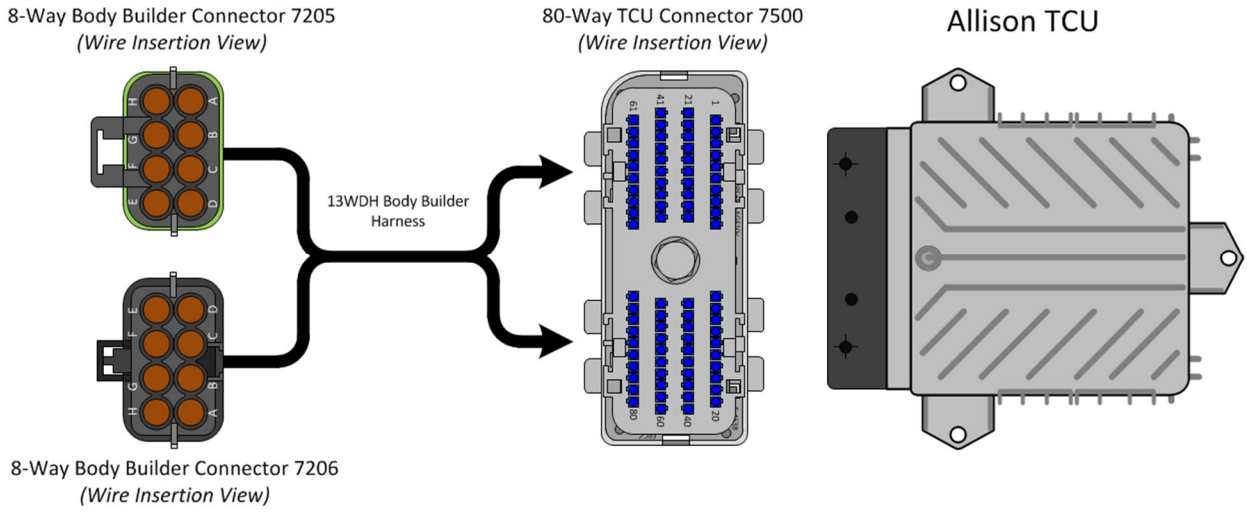


13WUG System Diagram

30.9. 13WUH: ALLISON SPARE INPUT/OUTPUT for Rugged Duty Series (RDS); Airport Refueler, Sewer Evac.

Extended Description: Preprogrammed control functions that are designed to meet customer needs are available as optional equipment on Allison transmissions. The body builder Input/Output connectors will provide the appropriate wires needed for the vehicle to interface with the transmission. These connectors provide vehicle speed, sump/retarder temperature, PTO enable capability, range indicator, retarder indicator and various other inputs as required by application. 13WUH provides Allison's 5th generation I/O package 149 0r 150 and is for the Rugged Duty Series (RDS) vocations Airport Refueler and Sewer Evacuation.

System Block Diagram:

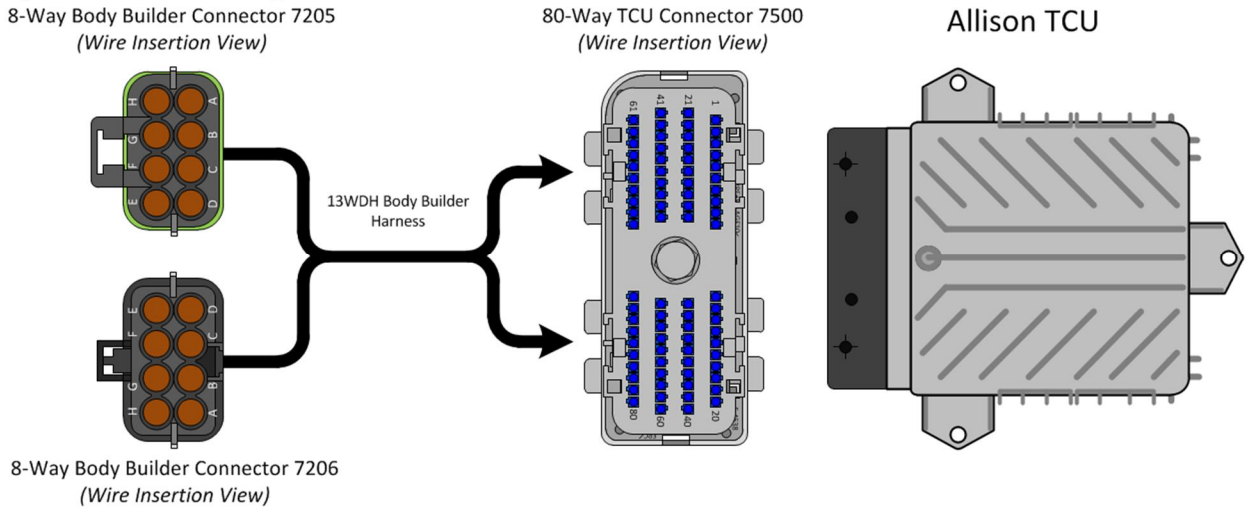


13WUH System Diagram

30.10. 13WUJ: ALLISON SPARE INPUT/OUTPUT for Rugged Duty Series (RDS); Front Loaders, Rear Loaders, Recycling/Packer Trucks.

Extended Description: Preprogrammed control functions that are designed to meet customer needs are available as optional equipment on Allison transmissions. The body builder Input/Output connectors will provide the appropriate wires needed for the vehicle to interface with the transmission. These connectors provide vehicle speed, sump/retarder temperature, PTO enable capability, range indicator, retarder indicator and various other inputs as required by application. 13WUJ provides Allison's 5th generation I/O package 142 and is for the Rugged Duty Series (RDS) vocations Front Loaders, Rear Loaders and Recycling Trucks.

System Block Diagram:

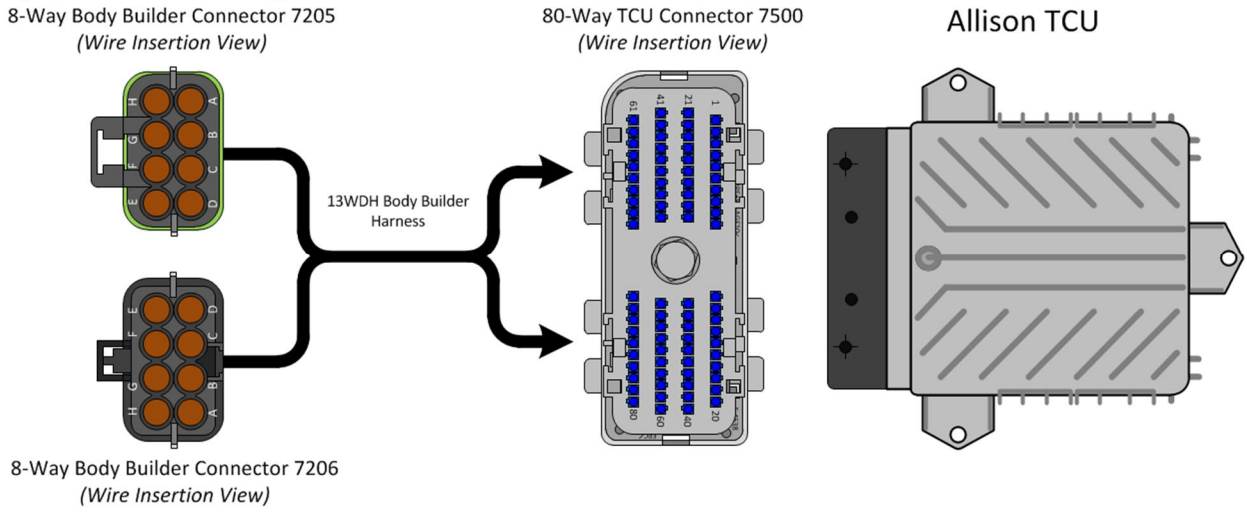


13WUJ System Diagram

30.11. 13WUK: ALLISON SPARE INPUT/OUTPUT for Rugged Duty Series (RDS); Side Loaders.

Extended Description: Preprogrammed control functions that are designed to meet customer needs are available as optional equipment on Allison transmissions. The body builder Input/Output connectors will provide the appropriate wires needed for the vehicle to interface with the transmission. These connectors provide vehicle speed, sump/retarder temperature, PTO enable capability, range indicator, retarder indicator and various other inputs as required by application. 13WUK provides Allison's 5th generation I/O package 170 and is for the Rugged Duty Series (RDS) vocation Side Loaders.

System Block Diagram:

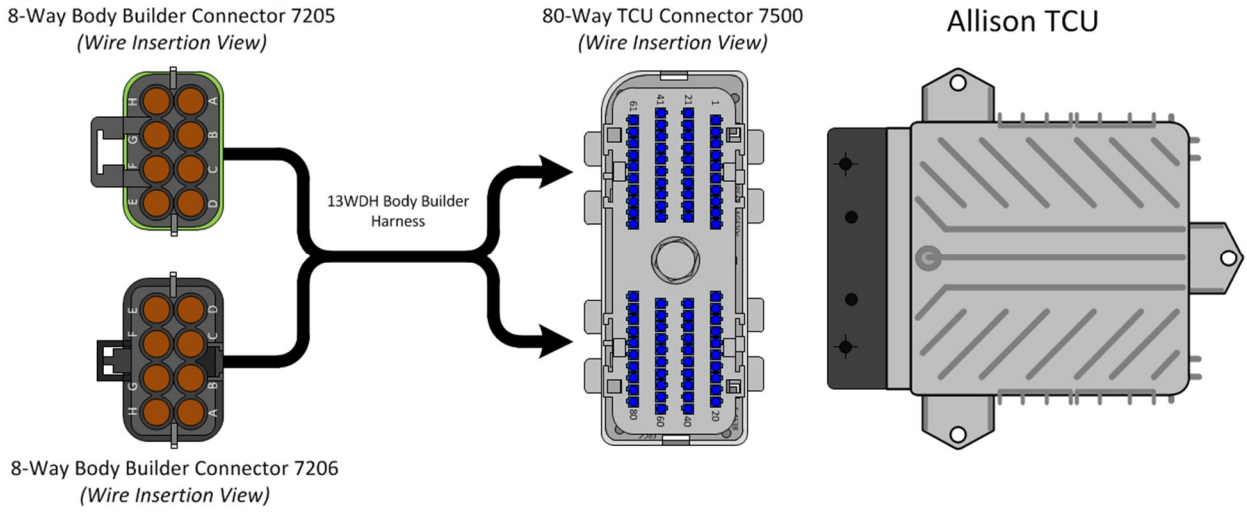


13WUK System Diagram

30.12. 13WUL: ALLISON SPARE INPUT/OUTPUT for Rugged Duty Series (RDS); Street Sweeper.

Extended Description: Preprogrammed control functions that are designed to meet customer needs are available as optional equipment on Allison transmissions. The body builder Input/Output connectors will provide the appropriate wires needed for the vehicle to interface with the transmission. These connectors provide vehicle speed, sump/retarder temperature, PTO enable capability, range indicator, retarder indicator and various other inputs as required by application. 13WUL provides Allison's 5th generation I/O package 167 and is for the Rugged Duty Series (RDS) vocation Street Sweeper.

System Block Diagram:

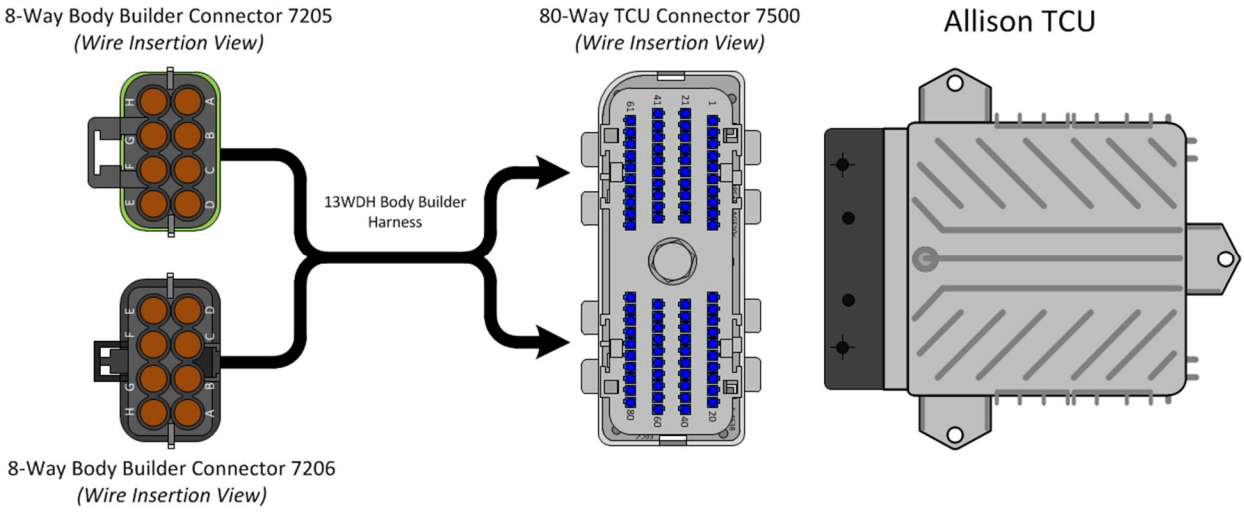


13WUL System Diagram

30.13. 13WUM: ALLISON SPARE INPUT/OUTPUT for Pupil Transportation Series (PTS).

Extended Description: Preprogrammed control functions that are designed to meet customer needs are available as optional equipment on Allison transmissions. The body builder Input/Output connectors will provide the appropriate wires needed for the vehicle to interface with the transmission. These connectors provide vehicle speed, sump/retarder temperature, PTO enable capability, range indicator, retarder indicator and various other inputs as required by application. 13WUM provides Allison's 5th generation I/O package 148 and is for the Pupil Transportation Series (PTS) vocation.

System Block Diagram:

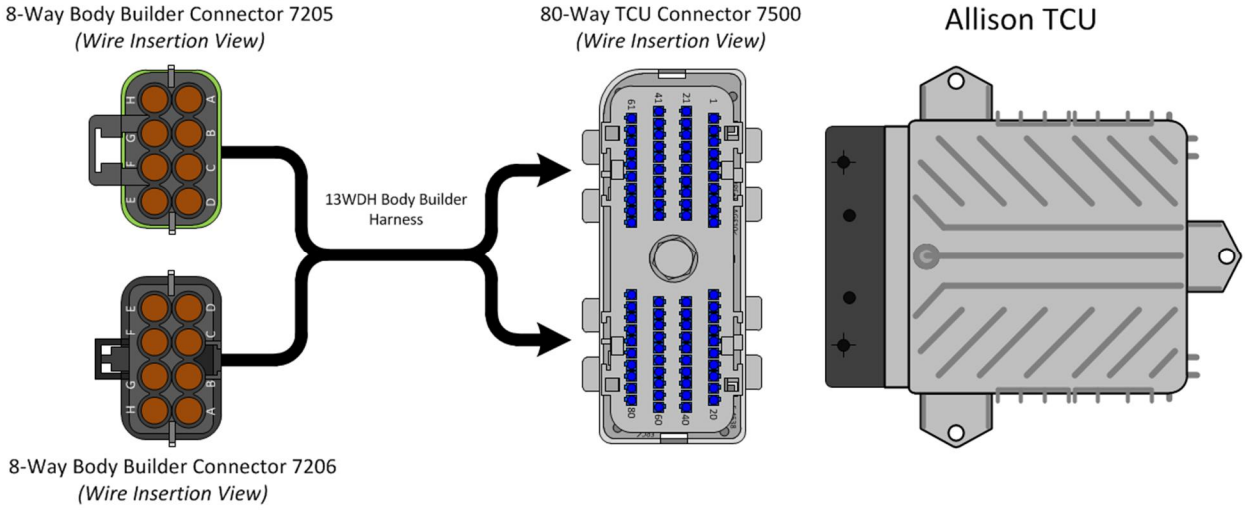


13WUM System Diagram

30.14. 13WUP: ALLISON SPARE INPUT/OUTPUT for Bus Series (B).

Extended Description: Preprogrammed control functions that are designed to meet customer needs are available as optional equipment on Allison transmissions. The body builder Input/Output connectors will provide the appropriate wires needed for the vehicle to interface with the transmission. These connectors provide vehicle speed, sump/retarder temperature, PTO enable capability, range indicator, retarder indicator and various other inputs as required by application. 13WUP provides Allison's 5th generation I/O package 148 and is for the Bus Series (B) vocation.

System Block Diagram:

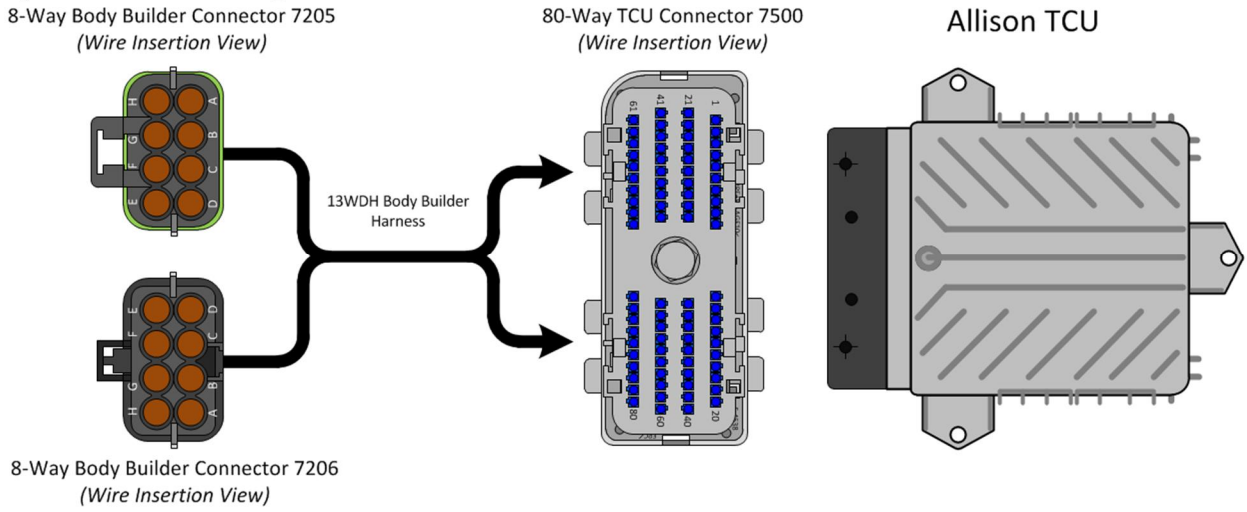


13WUP System Diagram

30.15. 13WUR: ALLISON SPARE INPUT/OUTPUT for Dump/Construction with Two-Speed Axle or Auxiliary Transmission (RDS).

Extended Description: Preprogrammed control functions that are designed to meet customer needs are available as optional equipment on Allison transmissions. The body builder Input/Output connectors will provide the appropriate wires needed for the vehicle to interface with the transmission. These connectors provide vehicle speed, sump/retarder temperature, PTO enable capability, range indicator, retarder indicator and various other inputs as required by application. 13WUR provides Allison's 5th generation I/O package 146 and is for the Rugged Duty Series (RDS) vocations Construction/Dump with two-speed axles or auxiliary transmissions.

System Block Diagram:

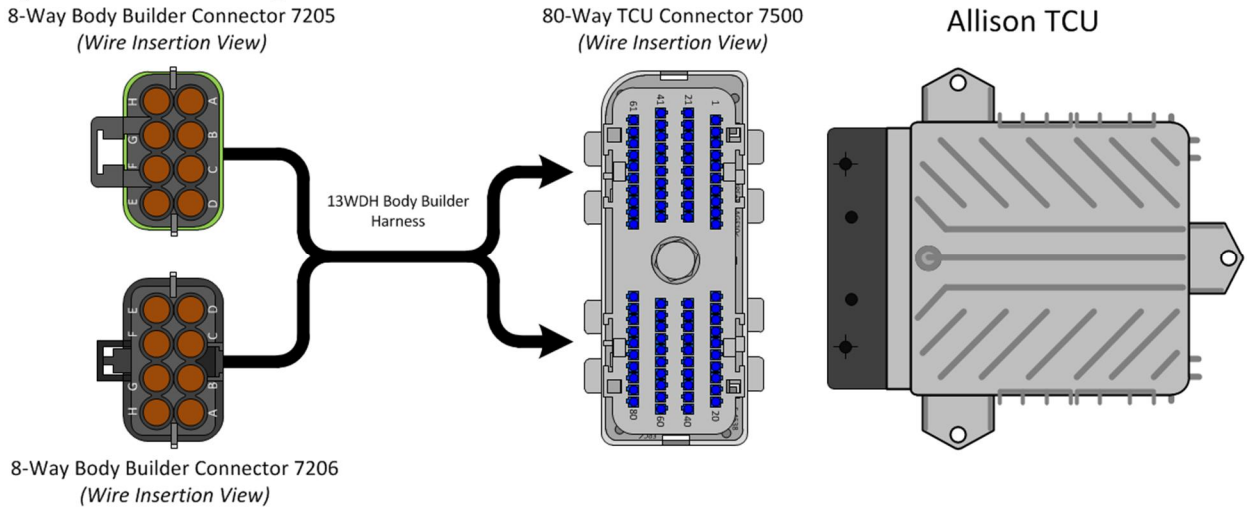


13WUR System Diagram

30.16. 13WUS: ALLISON SPARE INPUT/OUTPUT for Rugged Duty Series (RDS); General Purpose Trucks Modified for Single Input Auto Neutral.

Extended Description: Preprogrammed control functions that are designed to meet customer needs are available as optional equipment on Allison transmissions. The body builder Input/Output connectors will provide the appropriate wires needed for the vehicle to interface with the transmission. These connectors provide vehicle speed, sump/retarder temperature, PTO enable capability, range indicator, retarder indicator and various other inputs as required by application. 13WUS provides Allison's 5th generation I/O package 223 and is for the Rugged Duty Series (RDS) vocations requiring Single Input Auto Neutral enabled in the package.

System Block Diagram:

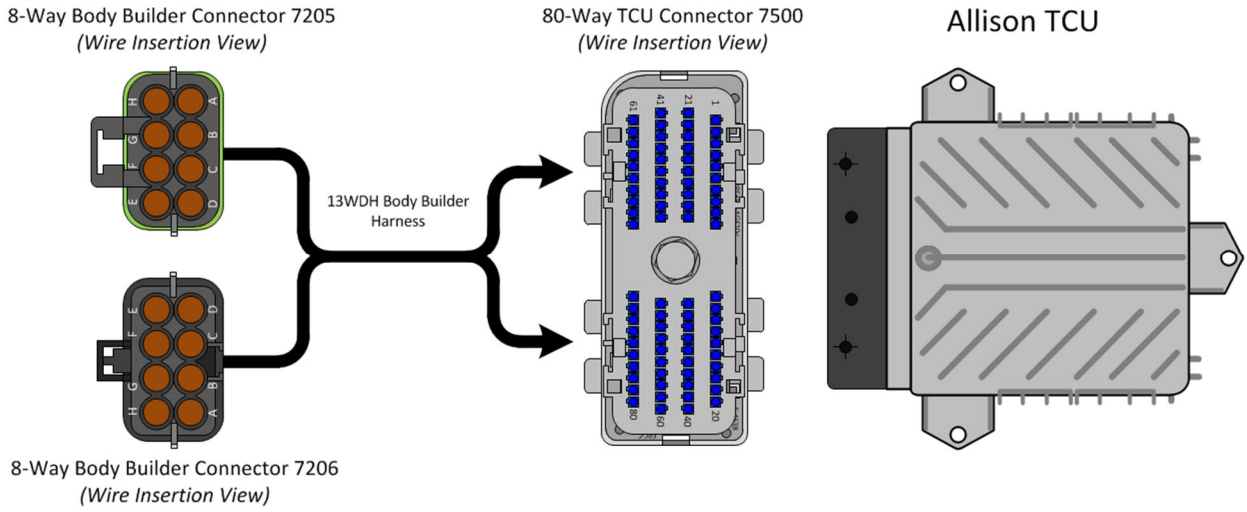


13WUS System Diagram

30.17. 13WUT: ALLISON SPARE INPUT/OUTPUT for Emergency Vehicle Series (EVS); Without Split Shaft PTO.

Extended Description: Preprogrammed control functions that are designed to meet customer needs are available as optional equipment on Allison transmissions. The body builder Input/Output connectors will provide the appropriate wires needed for the vehicle to interface with the transmission. These connectors provide vehicle speed, sump/retarder temperature, PTO enable capability, range indicator, retarder indicator and various other inputs as required by application. 13WUT provides Allison's 5th generation I/O package 227 and is for the Emergency Vehicle Series (EVS) vocations without Split Shaft PTO.

System Block Diagram:

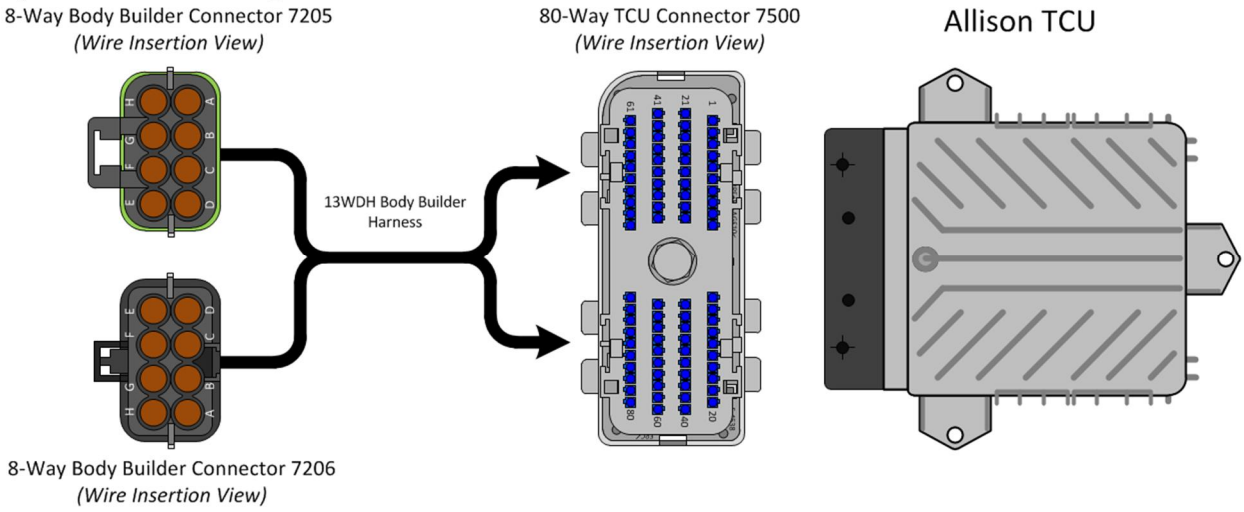


13WUT System Diagram

30.18. 13WUU: ALLISON SPARE INPUT/OUTPUT for Specialty Transmission Series (SP).

Extended Description: Preprogrammed control functions that are designed to meet customer needs are available as optional equipment on Allison transmissions. The body builder Input/Output connectors will provide the appropriate wires needed for the vehicle to interface with the transmission. These connectors provide vehicle speed, sump/retarder temperature, PTO enable capability, range indicator, retarder indicator and various other inputs as required by application. 13WUU provides Allison's 5th generation I/O package 237 and is for the Specialty (SP) vocations.

System Block Diagram:

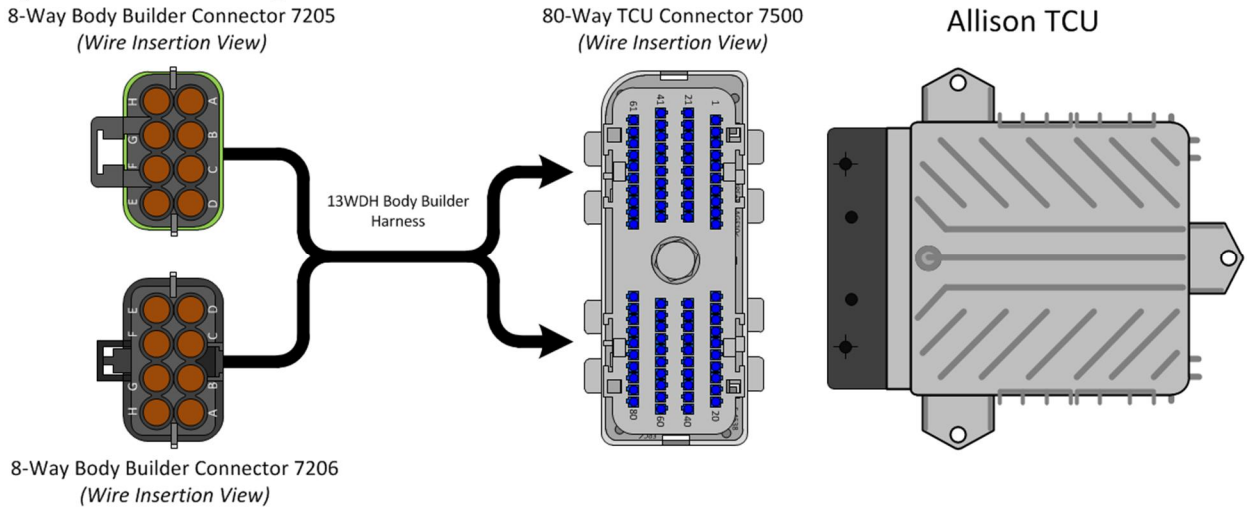


13WUU System Diagram

30.19. 13WUV: ALLISON SPARE INPUT/OUTPUT for Highway Series (HS); General Purpose Trucks Modified for Single Input Auto Neutral.

Extended Description: Preprogrammed control functions that are designed to meet customer needs are available as optional equipment on Allison transmissions. The body builder Input/Output connectors will provide the appropriate wires needed for the vehicle to interface with the transmission. These connectors provide vehicle speed, sump/retarder temperature, PTO enable capability, range indicator, retarder indicator and various other inputs as required by application. 13WUV provides Allison's 5th generation I/O package 226 and is for Highway Series (HS) vocation requiring Single Input Auto Neutral enabled in the package.

System Block Diagram:

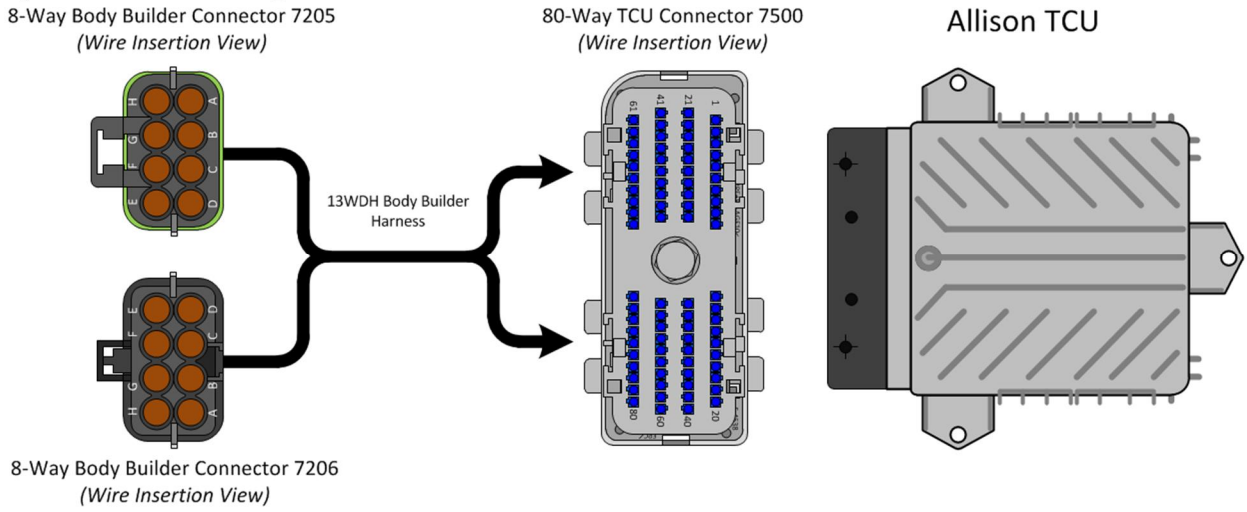


13WUV System Diagram

30.20. 13WUZ: ALLISON SPARE INPUT/OUTPUT for Emergency Vehicle Series (EVS), 127/198 includes J1939 Based Auto Neutral; Fire/Pumper, Tank, Aerial/Ladder.

Extended Description: Preprogrammed control functions that are designed to meet customer needs are available as optional equipment on Allison transmissions. The body builder Input/Output connectors will provide the appropriate wires needed for the vehicle to interface with the transmission. These connectors provide vehicle speed, sump/retarder temperature, PTO enable capability, range indicator, retarder indicator and various other inputs as required by application. 13WUZ provides Allison's 5th generation I/O package 198 and is for Emergency Vehicle Series (EVS) vocations requiring J1939 based Auto Neutral enabled in the package.

System Block Diagram:

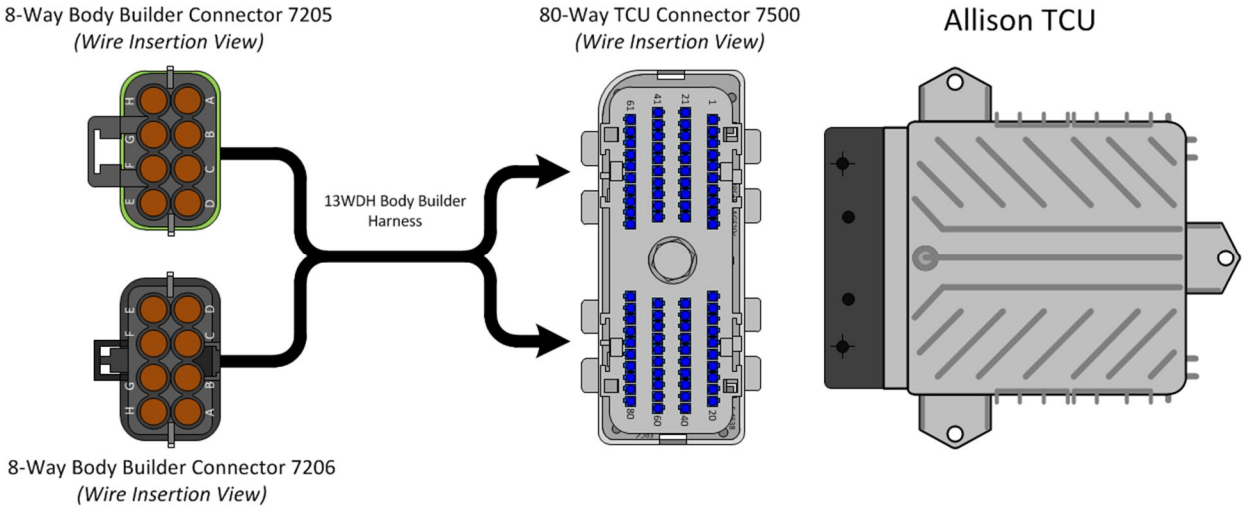


13WUZ System Diagram

30.21. 13WVA: ALLISON SPARE INPUT/OUTPUT for Emergency Vehicle Series (EVS), 303/360 Includes J1939 Based Auto Neutral; Fire/Pumper, Tank, Aerial/Ladder.

Extended Description: 13WVA is for Allison 1000/2000 series transmissions. The feature includes two eight-way connectors populated with associated wiring and with mating connectors and cavity plugs located in the engine compartment on the driver's side near the window wiper motor. It is available for emergency vehicle applications that require the transmission to shift to neutral any time the park brake is engaged. The transmission will remain in neutral when the park brake is disengaged requiring the operator to shift the transmission into a forward or reverse gear. The feature also includes the capability to enable 3rd gear lock up for split shaft pump operation. Allison DOC software must be used by the equipment installer to enable the 3rd gear lockup feature after the split shaft pump is installed. The Allison 5th generation controls reference this feature as package 360. Reference Allison documentation for wire assignments available in the package.

System Block Diagram:

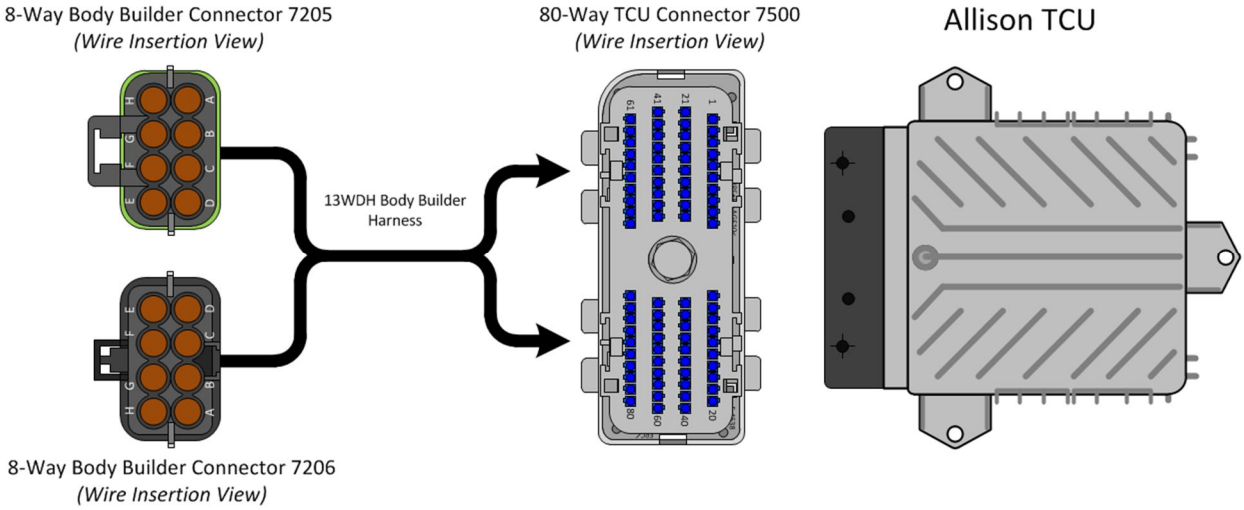


13WVA System Diagram

30.22. 13WVB: ALLISON SPARE INPUT/OUTPUT for Emergency Vehicle Series (EVS), 108/174 Includes J1939 Based Auto Neutral; Rescue, Ambulance.

Extended Description: 13WVB is for Allison 3000/4000 series transmissions. The feature includes two eight-way connectors populated with associated wiring and with mating connectors and cavity plugs located in the engine compartment on the driver's side near the window wiper motor. It is available for emergency vehicle applications that require the transmission to shift to neutral any time the park brake is engaged. The transmission will remain in neutral when the park brake is disengaged requiring the operator to shift the transmission into a forward or reverse gear. The Allison 5th generation controls reference this feature as package 170. Reference Allison documentation for wire assignments available in the package.

System Block Diagram:

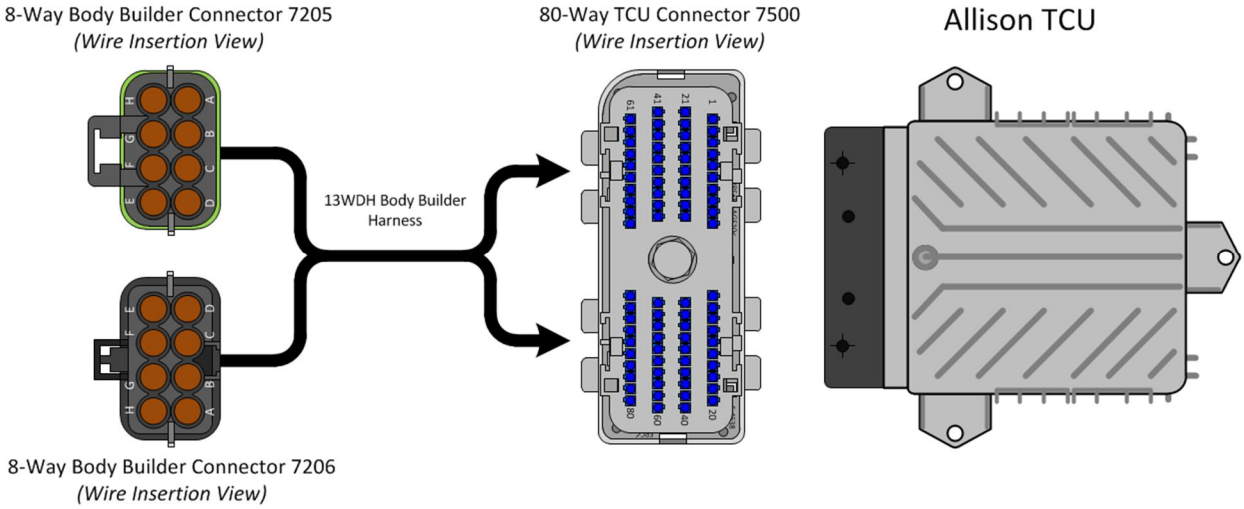


13WVB System Diagram

30.23. 13XAC: ALLISON SPARE INPUT/OUTPUT LCT, for Rugged Duty Series (RDS); General Purpose Trucks Modified for Single Input Auto Neutral.

Extended Description: 13XAC is for Allison 1000/2000 series transmissions. This feature enables the single input Auto Neutral feature in the transmission control system. This feature requires either feature 13WEH or 13WUA to be included in the vehicle configuration. For operation of the auto neutral feature, please refer to 13WEH or 13WUA.

System Block Diagram:



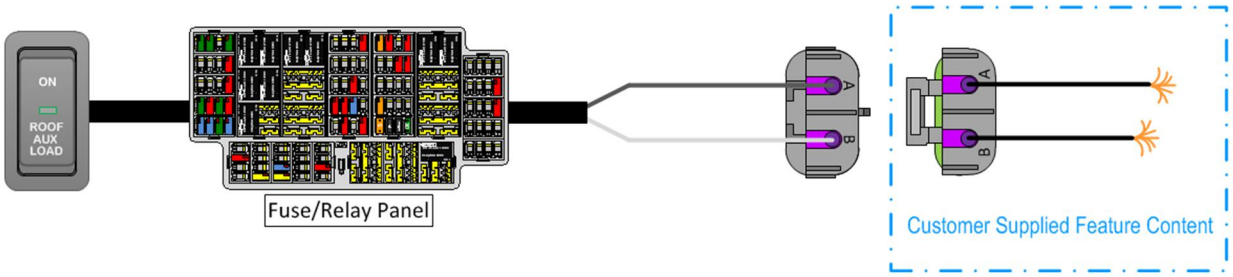
13XAC System Diagram

31. Worklight and Outside Cab Power Features

31.1. 08TMH: SWITCH, AUXILIARY Accessory Control; for Wiring in Roof, With Maximum of 20 AMP Load with Switches in the Instrument Panel.

Extended Description: This feature consists of a switch mounted in the center panel with wiring that is routed up the right “A” pillar. The circuit is protected with a 20-AMP fuse.

System Block Diagram:



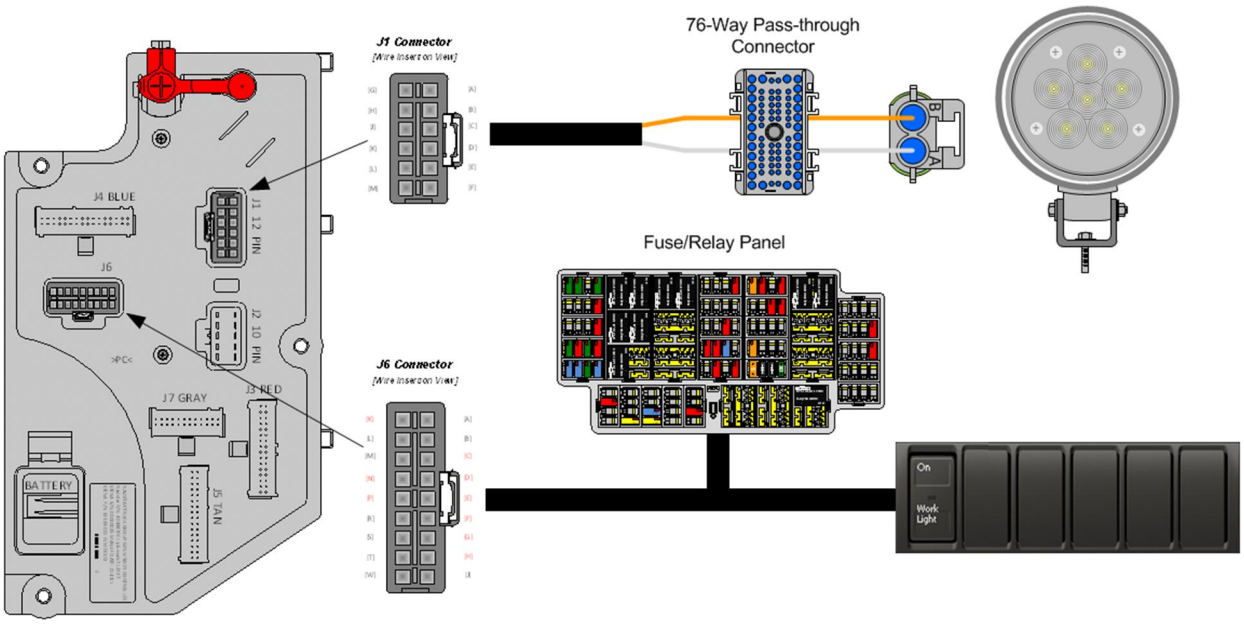
08TMH System Diagram

31.2. 08WAA: WORK LIGHT (LED); Pedestal Mounted with Switch on Instrument Panel (Truck Lite 81 Series).

Extended Description: With the International®-installed work light 08WAA, nighttime trailer hook-ups are made easier with a work light mounted at the Back of Cab (BOC) on tractors. This light illuminates the fifth wheel area of the vehicle. This feature includes a switch in the Instrument Panel (IP). The switch will illuminate when the switch is on. This feature provides an output from the Body Controller (BC) and includes the wiring and work light mounted at the Back of Cab (BOC).

If the engine is off, there is a time out feature, which is factory set at 120-minutes. The time out period can be changed through the Diamond Logic® Builder software (see local dealer if not owned). If the vehicle is running, the work light will not time out after 120-minutes. If the work light is left on when the vehicle is moving, the green indicator light in the work light switch will flash.

System Block Diagram:



Body Controller Software Feature Codes:

- 597008 - BCM PROG, WORK LIGHT Rocker Switch
  - (If there is the desire to turn off the work light feature's diagnostics each parameter setting will need to be set to zero).

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
Work_Light_Hi_ Current	1899	Work Light High Current Detection Level (Amps)	10	A	0	10	0.1

Work_Light_Lo_Current	1898	Work Light Low Current Detection Level (Amps)	0.5	A	0	10	0.1
Work_Light_OC_Current	1900	Work Light Open Circuit Detection Level (Amps)	0.5	A	0	10	0.1
Work_Light_Off_Speed	2568	This parameter is required to turn off the work light if the vehicle's speed is greater than the work light off speed parameter	2	Mph	1	90	2
Work_Light_Timeout_Enable	640	This parameter sets the amount of time that the work light will remain on after the ignition is turned to off.	2	Hours	0.16	24	0.16

Parameter Definitions:

- **Work_Light_Hi_Current** - If the current in the work light circuit exceeds the level set by this parameter, the Body Controller (BC) will shut off the circuit and register a fault code.

- **Work_Light_Lo_Current** - If the current in the work light circuit falls below the level set by this parameter, the Body Controller (BC) will register a fault code.

- **Work_Light_OC_Current** - This parameter should be left at its factory default of zero.

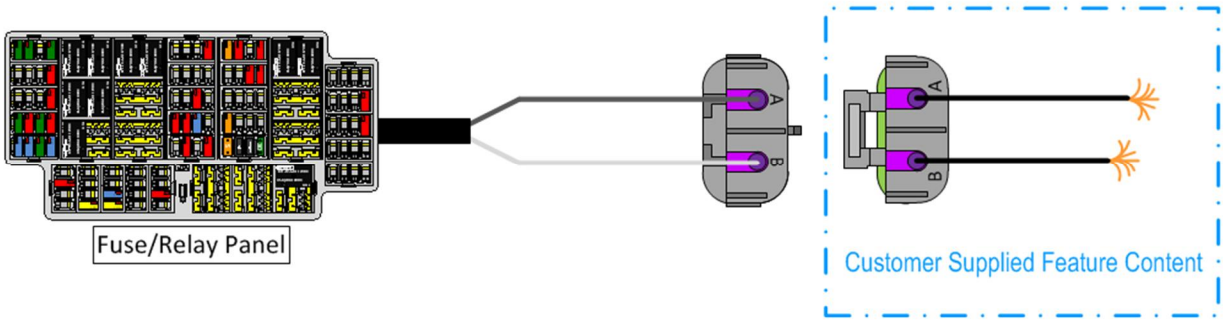
- **Work_Light_Off_Speed** – This is a programmable parameter for vehicle speed. Once this value is achieved the body controller will turn off the work light.

- **Work_Light_Timeout_Enable** – This parameter is used to set the amount of time that the customer desires the work light to remain on after the IGN key is turned off. This parameter is for customers who desire to have their work light. time out after a specified length of time so that the light does not drain the battery(s) in case the operator forgets to turn the work light off.

31.3. 08WEX: AUXILIARY HARNESS for Auxiliary Power Source; 30-Amp, Key Switched, 2-Pin Connector, Located on Floor Between Seats.

Extended Description: This feature consists of an ignition key switched wiring that is routed up the right “A” pillar to the back of cab to a coil that when stretched out can reach between the seats. The circuit is protected with a 30-AMP fuse. This feature is only available on the HV models.

System Block Diagram:



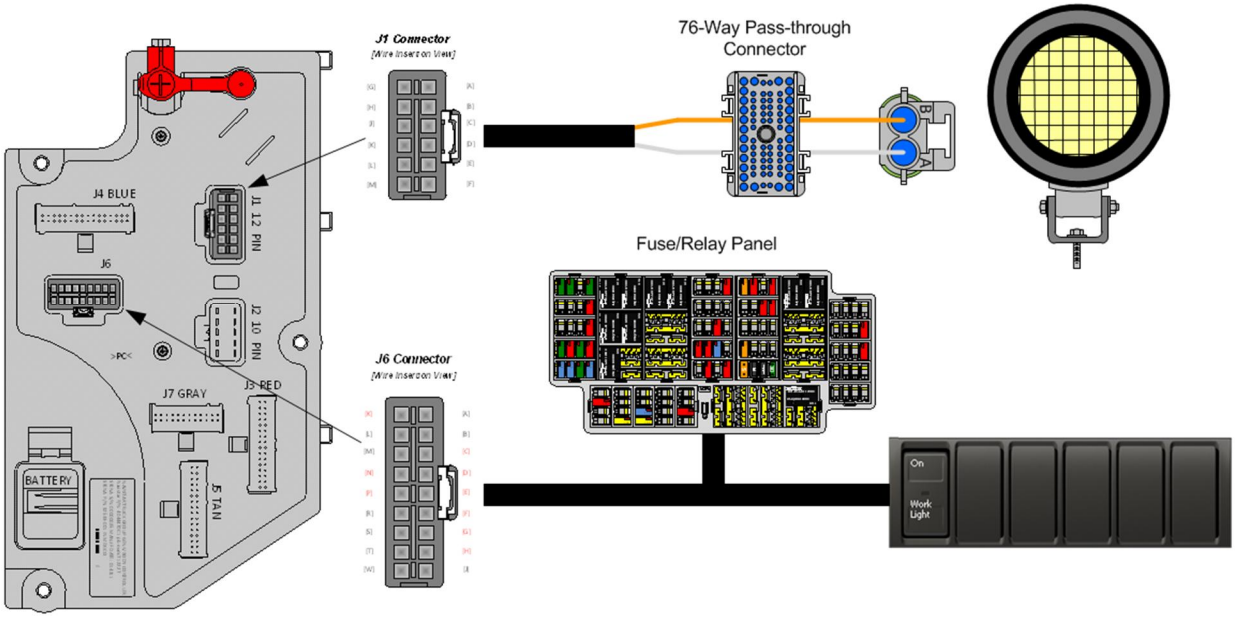
08WEX System Diagram

31.4. 08WLL: WORK LIGHT; Pedestal Mounted with Switch on Instrument Panel (Truck Lite 81 Series).

Extended Description: With the International®-installed work light 08WLL nighttime trailer hook-ups are made easier with a work light mounted at the Back of Cab (BOC) on tractors. This light illuminates the fifth wheel area of the vehicle. This feature includes a switch in the Instrument Panel (IP). The switch will illuminate when the switch is on. This feature provides an output from the Body Controller (BC) and includes the wiring and work light pedestal mounted at the Back of Cab (BOC).

If the engine is off, there is a time out feature, which is factory set at 120-minutes. The time out period can be changed through the Diamond Logic® Builder software (see local dealer if not owned). If the vehicle is running, the work light will not time out after 120-minutes. If the work light is left on when the vehicle is moving, the green indicator light in the work light switch will flash.

System Block Diagram:



Body Controller Software Feature Codes:

- 597008 - BCM PROG, WORK LIGHT Rocker Switch or Push Button B
  - (If there is the desire to turn off the work light feature's diagnostics each parameter setting will need to be set to zero).

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
Work_Light_Hi_ Current	1899	Work Light High Current Detection Level (Amps)	10	A	0	10	0.1

Work_Light_Lo_Current	1898	Work Light Low Current Detection Level (Amps)	0.5	A	0	10	0.1
Work_Light_OC_Current	1900	Work Light Open Circuit Detection Level (Amps)	0.5	A	0	10	0.1
Work_Light_Off_Speed	2568	This parameter is required to turn off the work light if the vehicle's speed is greater than the work light off speed parameter	2	Mph	1	90	2
Work_Light_Timeout_Enable	640	This parameter sets the amount of time that the work light will remain on after the ignition is turned to off.	2	Hours	0.16	24	0.16

Parameter Definitions:

- **Work_Light_Hi_Current** - If the current in the work light circuit exceeds the level set by this parameter, the Body Controller (BC) will shut off the circuit and register a fault code.

- **Work_Light_Lo_Current** - If the current in the work light circuit falls below the level set by this parameter, the Body Controller (BC) will register a fault code.

- **Work_Light_OC_Current** - This parameter should be left at its factory default of zero.

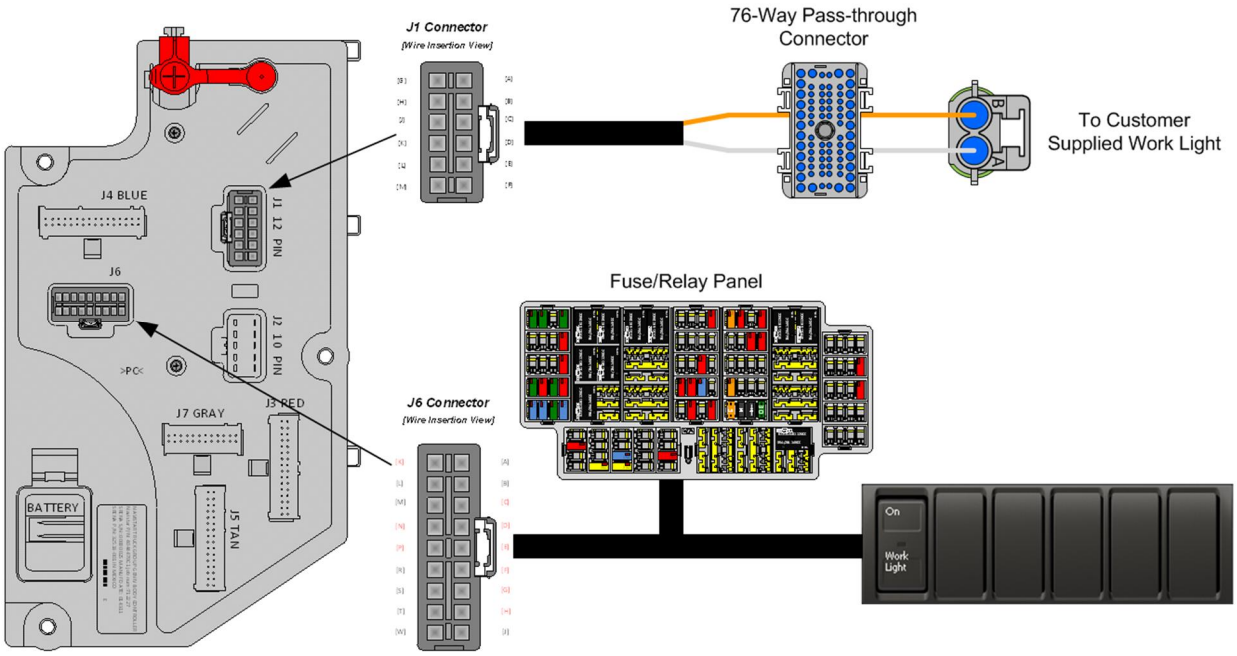
- **Work_Light_Off_Speed** – This is a programmable parameter for vehicle speed. Once this value is achieved the body controller will turn off the work light.

  Work_Light_Timeout_Enable – This parameter is used to set the amount of time that the customer desires the work light to remain on after the IGN key is turned off. This parameter is for customers who desire to have their work light. time out after a specified length of time so that the light does not drain the battery(s) in case the operator forgets to turn the work light off.

31.5. 08WMA: SWITCH, TOGGLE, FOR WORK LIGHT Lighted; on Instrument Panel and Wiring Effects for Customer Furnished Back of Cab Light.

Extended Description: This feature includes a switch in the Instrument Panel (IP). The switch will illuminate when the switch is on. The feature provides an output from the Body Controller (BC) and provides wiring to the back of cab which includes power and ground. This can be used to satisfy any number of electrical needs such as lights inside dry van boxes, small pumps and illumination to aid in various job functions.
If the engine is off, there is a time out parameter, which is factory set at 120-minutes. If the vehicle is running, the work light will not time out. If the work light is left on when the vehicle is moving, the work light will turn off when the vehicle speed exceeds the work light off speed parameter. This parameter is factory set at 2-MPH. Both parameters can be changed through the Diamond Logic® Builder software.

System Block Diagram:



Body Controller Software Feature Codes:

- 597008 - BCM PROG, WORK LIGHT Rocker Switch
  - (If there is the desire to turn off the work light feature's diagnostics each parameter setting will need to be set to zero).

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
Work_Light_Hi_ Current	1899	Work Light High Current Detection Level (Amps)	10	A	0	10	0.1
Work_Light_Lo_ Current	1898	Wore Light Low Current Detection Level (Amps)	0.5	A	0	10	0.1

Work_Light_OC_Current	1900	Work Light Open Circuit Detection Level (Amps)	0.5	A	0	10	0.1
Work_Light_Off_Speed	2568	This parameter is required to turn off the work light if the vehicle's speed is greater than the work light off speed parameter	2	Mph	1	90	2
Work_Light_Timeout_Enable	640	This parameter sets the amount of time that the work light will remain on after the ignition is turned to off.	2	Hours	0.16	24	0.16

Parameter Definitions:

- **Work_Light_Hi_Current** - If the current in the work light circuit exceeds the level set by this parameter, the Body Controller (BC) will shut off the circuit and register a fault code.

- **Work_Light_Lo_Current** - If the current in the work light circuit falls below the level set by this parameter, the Body Controller (BC) will register a fault code.

- **Work_Light_OC_Current** - This parameter should be left at its factory default of zero.

- **Work_Light_Off_Speed** – This is a programmable parameter for vehicle speed. Once this value is achieved the body controller will turn off the work light.

- **Work_Light_Timeout_Enable** – This parameter is used to set the amount of time that the customer desires the work light to remain on after the IGN key is turned off. This parameter is for customers who desire to have their work light. time out after a specified length of time so that the light does not drain the battery(s) in case the operator forgets to turn the work light off.

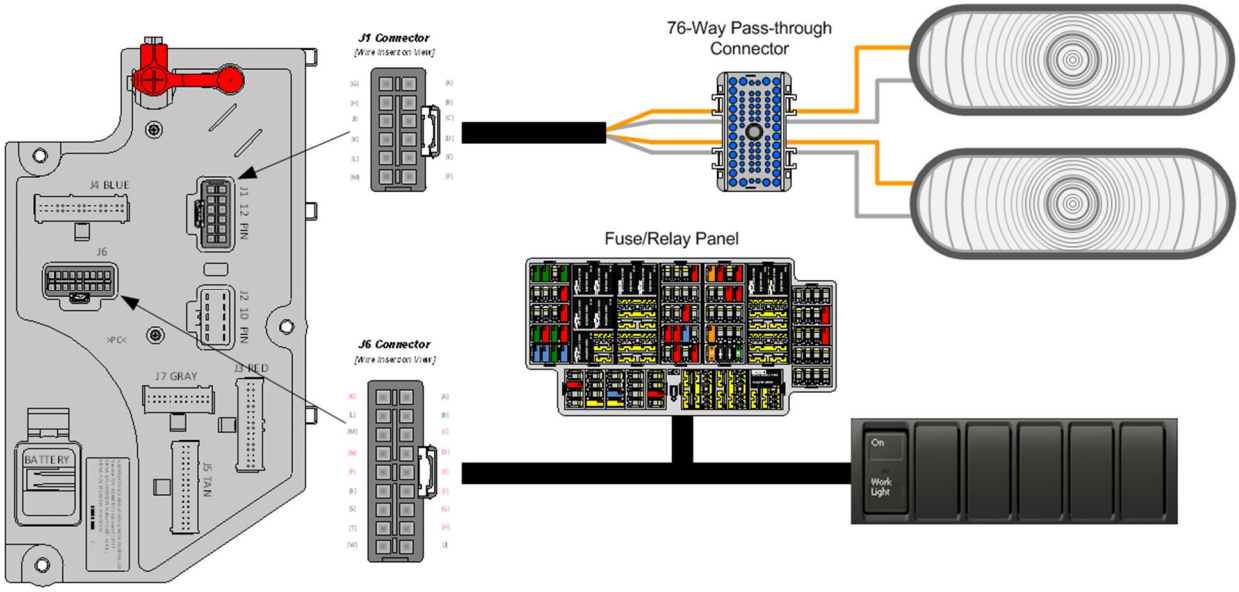
Arrow Indicates Location of Work Light Connector (Straight Truck)

31.6. 08WXN: WORK LIGHT (2) (Grote) 60 Series, Mounted Under Hood One Each Side.

Extended Description: Feature 08WXN includes two engine compartment work lights mounted under hood, one on each side of the engine. This feature includes a switch in the Instrument Panel (IP). The switch will illuminate when the switch is on. This feature provides an output from the Body Controller (BC) and includes the wiring and work lights mounted under hood to provide illumination of the engine compartment.

If the engine is off, there is a time out feature, which is factory set at 120-minutes. The time out period can be changed through the Diamond Logic® Builder software (see local dealer if not owned). If the vehicle is running, the work light will not time out after 120-minutes. If the work light is left on when the vehicle is moving, the green indicator light in the work light switch will flash.

System Block Diagram:



Body Controller Software Feature Codes:

- 597008 - BCM PROG, WORK LIGHT Rocker Switch or Push Button B
  - (If there is the desire to turn off the work light feature's diagnostics each parameter setting will need to be set to zero).

Body Controller Software Feature Code Parameters:

Parameter	ID	Description	Default	Units	Min	Max	Step
Work_Light_Hi_ Current	1899	Work Light High Current Detection Level (Amps)	10	A	0	10	0.1
Work_Light_Lo_ Current	1898	Work Light Low Current Detection Level (Amps)	0.5	A	0	10	0.1
Work_Light_OC_ Current	1900	Work Light Open Circuit Detection Level (Amps)	0.5	A	0	10	0.1

Work_Light_Off_Speed	2568	This parameter is required to turn off the work light if the vehicle's speed is greater than the work light off speed parameter	2	Mph	1	90	2
Work_Light_Timeout_Enable	640	This parameter sets the amount of time that the work light will remain on after the ignition is turned to off.	2	Hours	0.16	24	0.16

Parameter Definitions:

- **Work_Light_Hi_Current** - If the current in the work light circuit exceeds the level set by this parameter, the Body Controller (BC) will shut off the circuit and register a fault code.

- **Work_Light_Lo_Current** - If the current in the work light circuit falls below the level set by this parameter, the Body Controller (BC) will register a fault code.

- **Work_Light_OC_Current** - This parameter should be left at its factory default of zero.

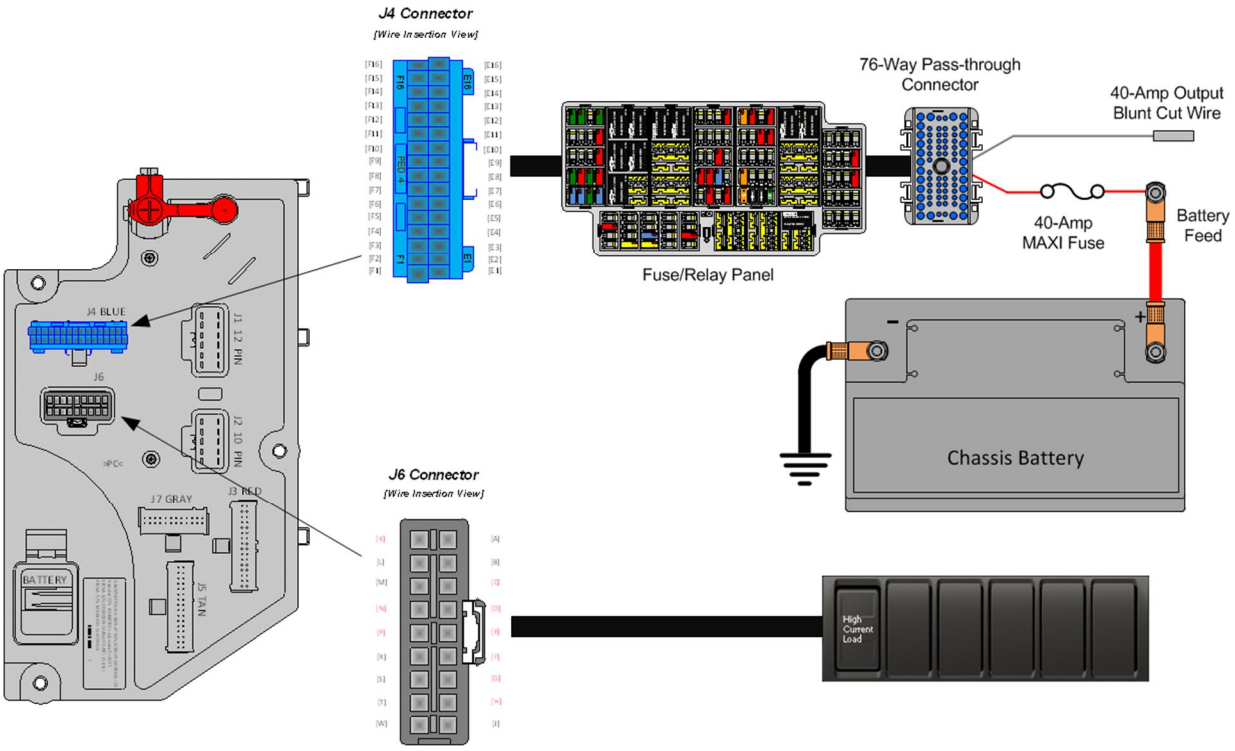
- **Work_Light_Off_Speed** – This is a programmable parameter for vehicle speed. Once this value is achieved the body controller will turn off the work light.

- **Work_Light_Timeout_Enable** – This parameter is used to set the amount of time that the customer desires the work light to remain on after the IGN key is turned off. This parameter is for customers who desire to have their work light. time out after a specified length of time so that the light does not drain the battery(s) in case the operator forgets to turn the work light off.

31.7. 08XBK: SWITCH, AUXILIARY Switch 40-AMP Circuit for Customer Use; Includes Wiring Connection in the engine compartment near the mega-fuse.

Extended Description: Feature code 08XBK provides a 40-Amp accessory feed for customer use. An in-cab rocker switch controls the circuit. A blank windowed two position latching switch is provided with this feature along with a graphic overlay kit that allows custom labeling of the switch function.

System Block Diagram:



Body Controller Software Feature Codes:
597310 - BCM PROG, SWITCH AUX 40-AMP