

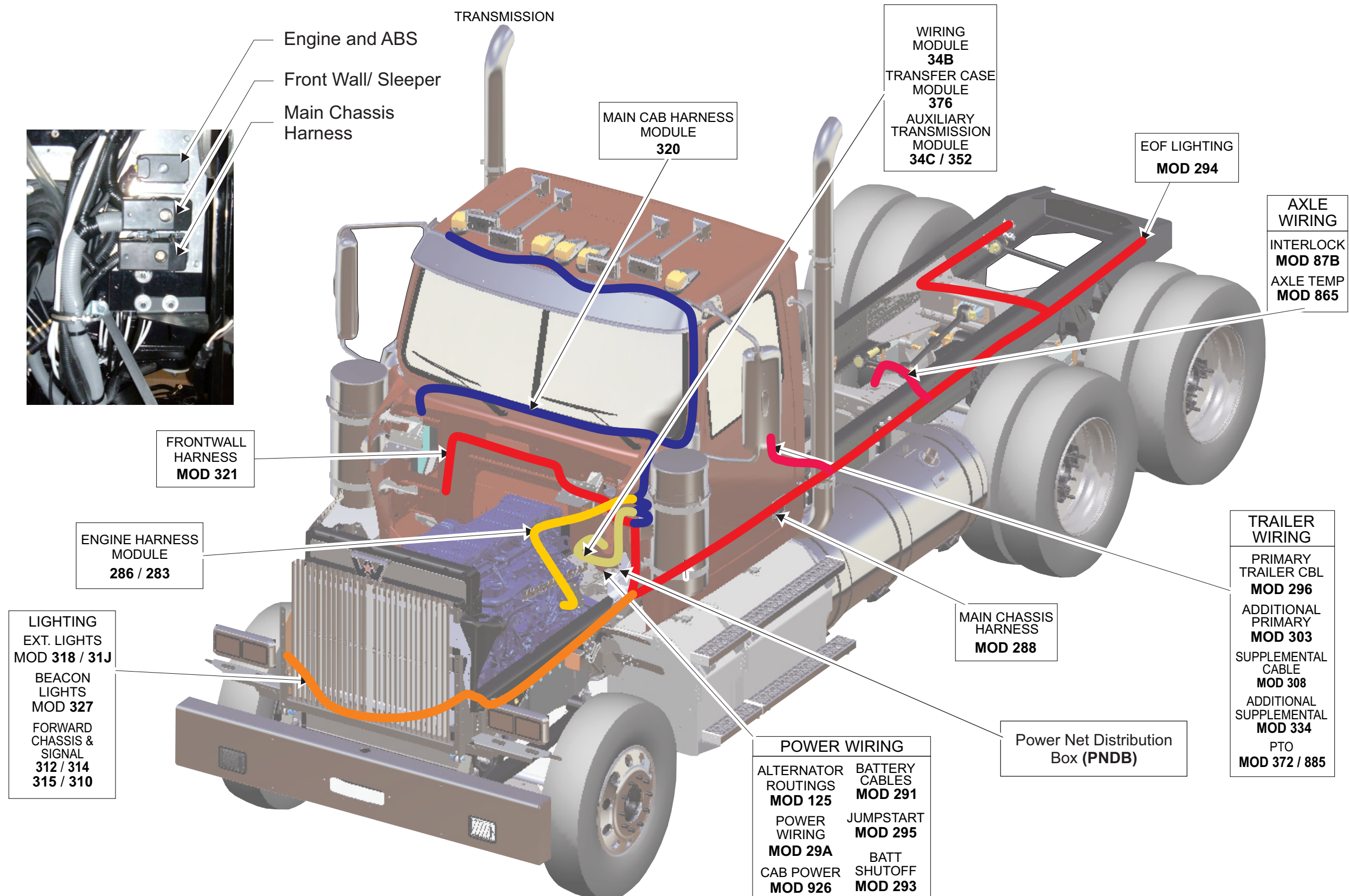


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This guide is to be used as a reference document only.  
Please consult your Western Star CAE representative on  
specific spec'ing needs as the information contained in  
this document can change without notice.





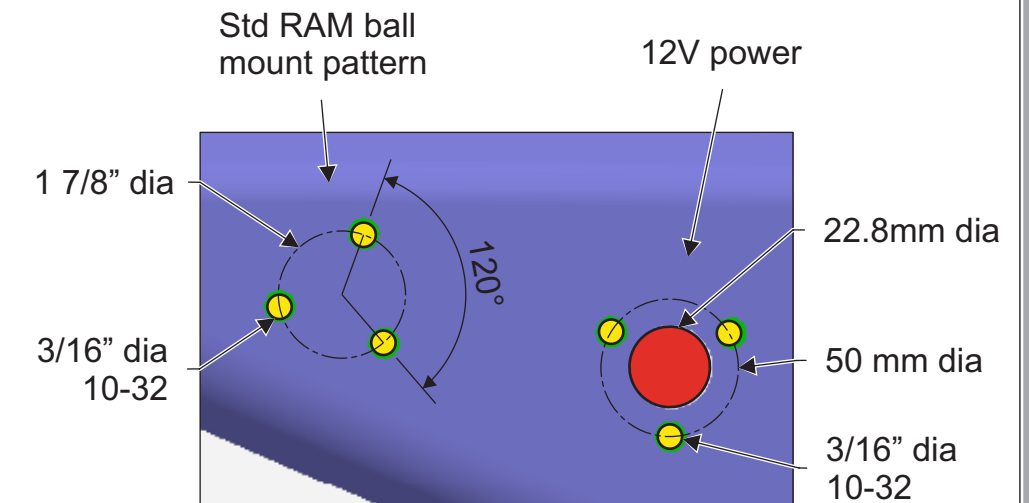
### Top of dash navigation prep with power and ground

#### 1U1-001 - Dash Mount Device Prep

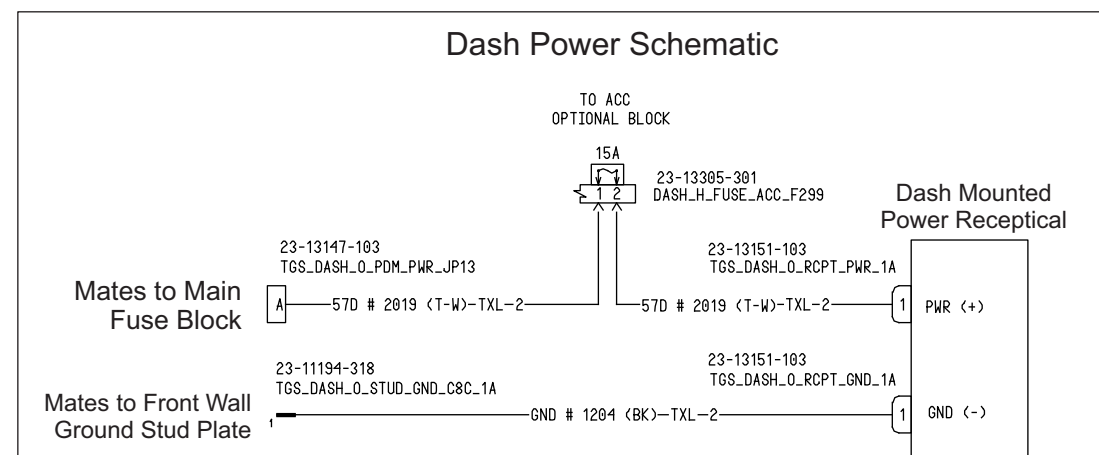
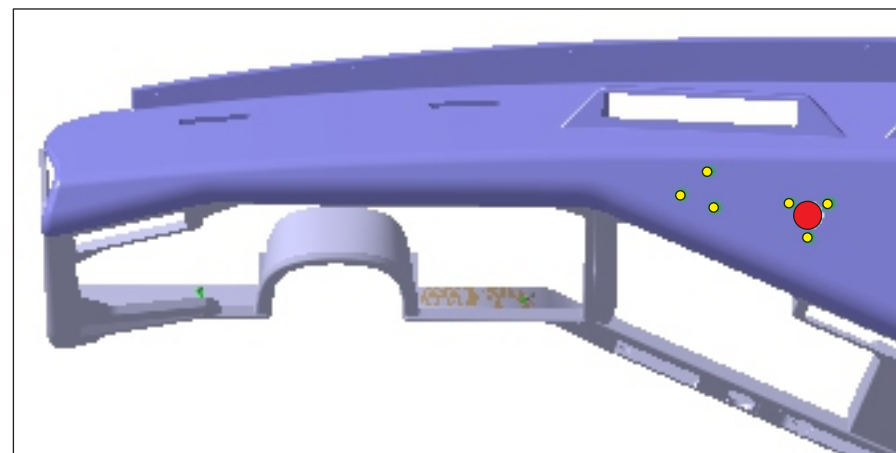
Western Star now offers a Top dash mount Navigation Prep. This new option provides a standard bolt pattern in the dash for a 1" RAM ball mount system or other camera mount equipment. These mountings allow customers to quickly mount a variety of electrical devices ranging from navigation systems to cell phone holders in a road legal and easily accessible location without drilling the dash. Mounting solutions for most devices can be found on the RAM website. Navigation and Camera systems can be consistently mounted to factory installed mounts with no cab modifications. This industry leading solution allows customers to easily upgrade to new systems as fast as they become available to the market. The Nav prep system is superior to in dash navigation as it allows owners or drivers to easily add their own devices such as iPhones for hands free and navigation or full navigation and backup systems. Today's technology is moving quicker than in dash systems can keep up with. Using the Western Star Navigation prep your equipment can be easily upgraded to the latest hardware in minutes.



Nav System Mounted using RAM Mounting Adapters Shown Below



AWTI Camera Mounted using common mounting pattern



RAM B-201CHU



RAM B-202CHU



RAM B-201



RAM B-202U

### Camera and Radar Systems

Western Star now offers factory PDI installed camera and radar packages for improved safety and efficiency on the job site. Chose from three different systems using the data codes below or custom order your own configuration from Daimler Custom Truck. All camera systems have built in looping DVR recorders that constantly record drivers actions and surrounding environment. Radar systems use proximity radar and tell operator how close the object is and giv an audible alarm if objects move in to path without the drivers notice.

**73H-004** PDI Installed AWTI 1 Back Up Camera With Radar System

**73H-005** PDI Installed AWTI 3 Camera System ( 1 backup and 2 side cameras)

**73H-006** PDI Installed AWTI 4 Camera With Radar System ( 1 Forward 1 backup and 2 side cameras)

\*Note used in combination with **1U1-001**to provide mounting for backup camera.



#### AWT07MLEDSD Dash Monitor

– 7" Heavy Duty Built-in SD Card  
DVR recorder ( up to 32GB)  
LED Monitor – Quad Screen Capable



#### AWT5000HCR-20 Radar/Camera

– 4" Grommet Hybrid  
Radar w/integrated Camera  
(fits in standard 4" light cutout)



#### AWT1020T Front or Rear Camera

– Heavy Duty Universal Color Camera  
- 1/3" Sony CCD color camera w/IR for Night Vision  
– 150° Lens Angle



#### AWT2149SC36 Side Camera

– Adjustable Side Mount Color Camera  
– 1/4" Sony CCD Color Camera w/IR



42' / 10' Cable: Co-Ax Cable  
(both sides threaded)  
can be used for extension



### Positive Disconnect Switch

The disconnect switch system for 2010 has been reconfigured to provide better application coverage and provide for two levels of power disconnect based on the options ordered with the truck.

In-cab disconnect switches are offered in “locking” or “non-locking” configuration.

Exterior battery mounted switches will be offered in the locking configuration only.

Cutoff switches are equipped with red LED lights, which are illuminated when power is on.

Trucks equipped with the body builder auxiliary power system will have an additional LED light on the switch.

**Note:**

- Both PNDB units will be deactivated when the switch is in the off position.
- Positive disconnect switches do not isolate the starter.

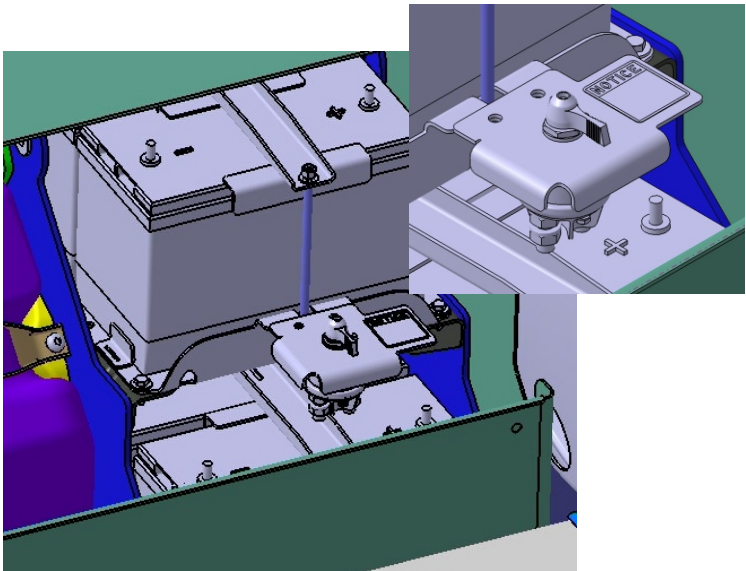
### Negative Disconnect Switch

The negative disconnect switch option is for use in emergency and dangerous goods applications only. This option provides a battery box disconnect between the starter and the batteries. This option is currently only available with Detroit Diesel engine configurations.

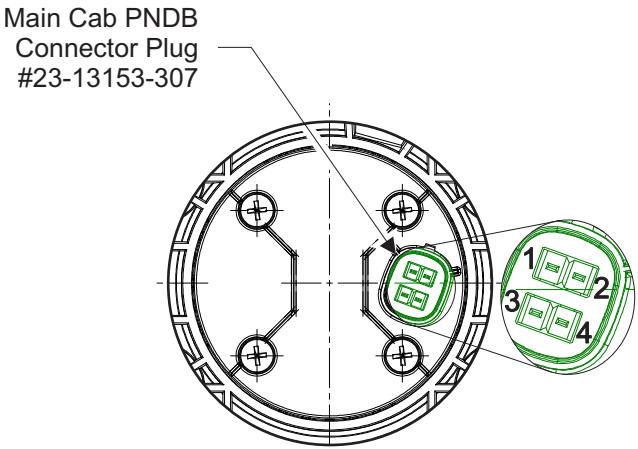
293-058	POSITIVE LOAD DISCONNECT W/CAB MOUNTED CONTROL SWITCH MOUNTED OUTBOARD DR SEAT
293-060	POSITIVE LOAD DISCONNECT W/CAB MTD CONTROL SW W/LOCKING PROVISION MOUNTED OUTBOARD DR SEAT
293-061	POSITIVE LOAD DISCONNECT W/BATTERY BOX CONTROL SWITCH WITH LOCKING PROVISION
293-057	NEGATIVE LOAD DISCONNECT FOR DDC ENGINES WITH BATTERY BOX DISCONNECT SWITCH



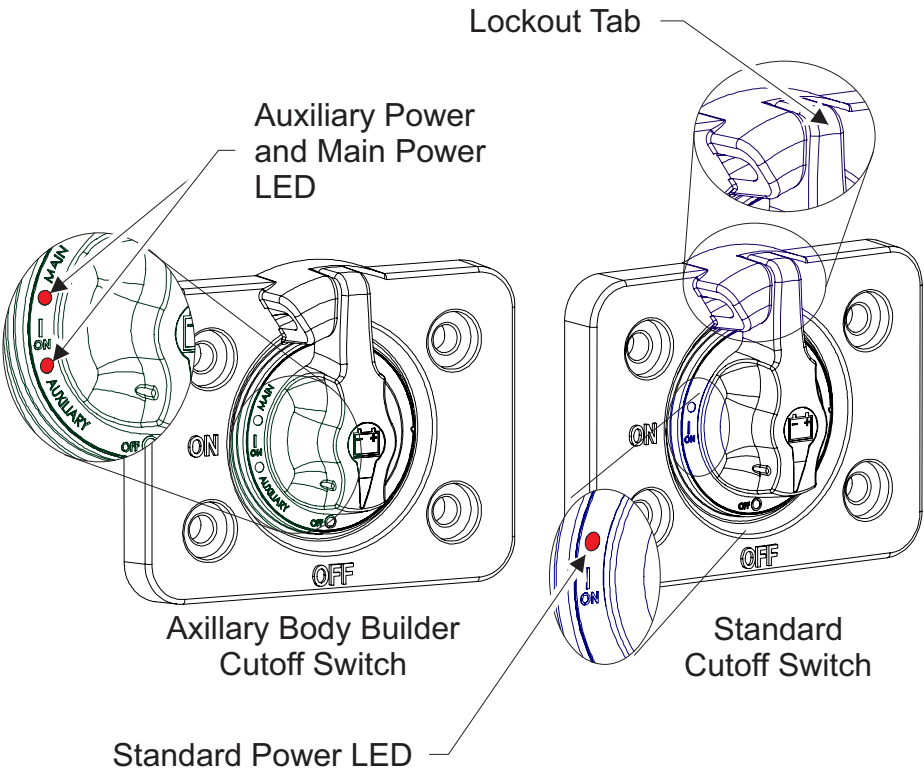
293-058/-060/-061 Positive Disconnect Switch



293-057 Negative Battery Box Switch



CONNECTOR	PIN	DESCRIPTION
X1, Main PNDB	1	ON SIGNAL
	2	RETURN SIGNAL
	3	LED INDICATOR
	4	OFF SIGNAL

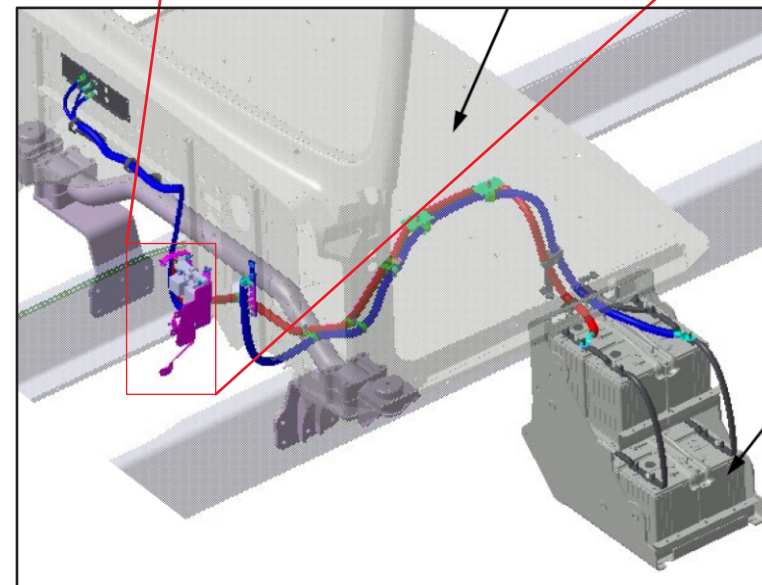


### Power Net Distribution Box (PNDB)

The PNDB is a new power delivery system for the WST and is designed to deliver more consistent and better protected battery power to the other components on the truck.

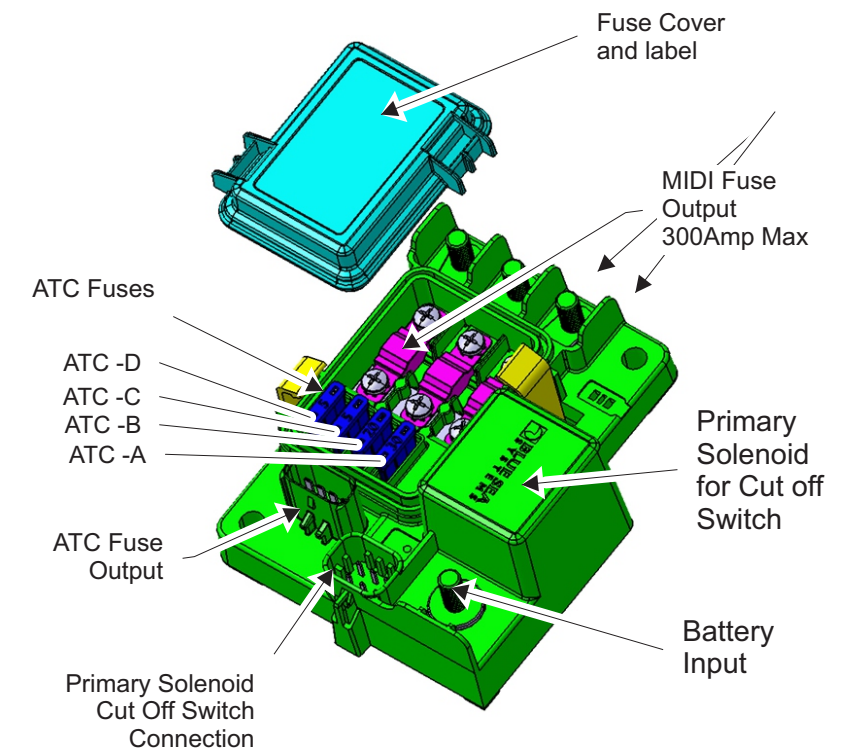
The PNDB also has protected “keep alive” circuits that will maintain power even with the cutoff switch in the off position. The primary reason for this change is to provide power to the 2010 DEF purge system which drains urea from the delivery system and prevents the system from freezing during cold conditions.

The PNDB located at the lower LH front wall area is equipped with three MIDI fuses which supply power to the Main Power Distribution Module. These fuse connections have been relocated from the battery in 2010 to prevent corrosion and improve the trucks reliability in severe conditions.

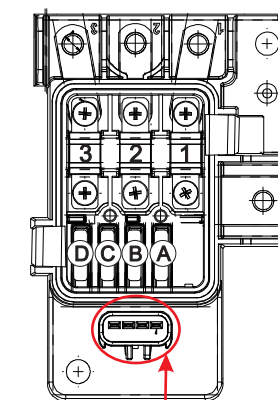


CONNECTOR	PIN	DESCRIPTION
<b>X2</b> KEEP ALIVE CIRCUIT	1	AFTER TREATMENT ECU
	2	EMERGENCY POWER
	3	RADIO AND CLOCK
	4	ALTERNATOR REMOTE SENSE
<b>X1</b> Disconnect through solenoid control	A	GROUND
	B	SIGNAL OFF
	C	LED INDICATOR
	D	SIGNAL ON
	E	SIGNAL RETURN
	F	GROUND

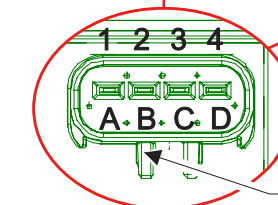
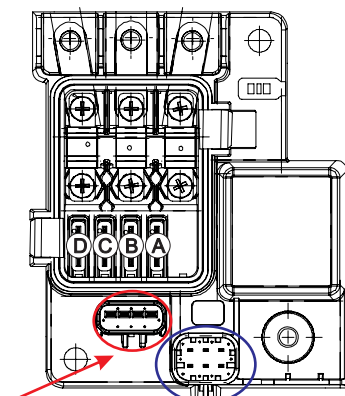
Fuse	Description	Function	Rating	Max. Fuse Allowed
ATC-A	Keep Alive Power	After Treatment ECU	30 AMPS	30 AMPS
ATC-B	Keep Alive Power	Emergency Power	20 AMPS	30 AMPS
ATC-C	Keep Alive Power	Radio and Clock	5 AMPS	30 AMPS
ATC-D	Keep Alive Power	Alternator Remote Sense	5 AMPS	30 AMPS
MIDI-1 (Fuse 1)	High AMP Fuse		175 AMPS	200 AMPS
MIDI-2 (Fuse 2)	High AMP Fuse		125 AMPS	200 AMPS
MIDI-3 (Fuse 3)	High AMP Fuse		125 AMPS	200 AMPS



#### INSTALLATION WITHOUT DISCONNECT SWITCH

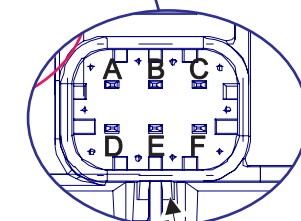


#### INSTALLATION WITH DISCONNECT SWITCH



**X2**  
ATC Fuse output  
keeps power on  
after disconnect

Mating connector  
23-13153-410



**X1**  
Solenoid  
Control



# Power Train - Power Distribution Module

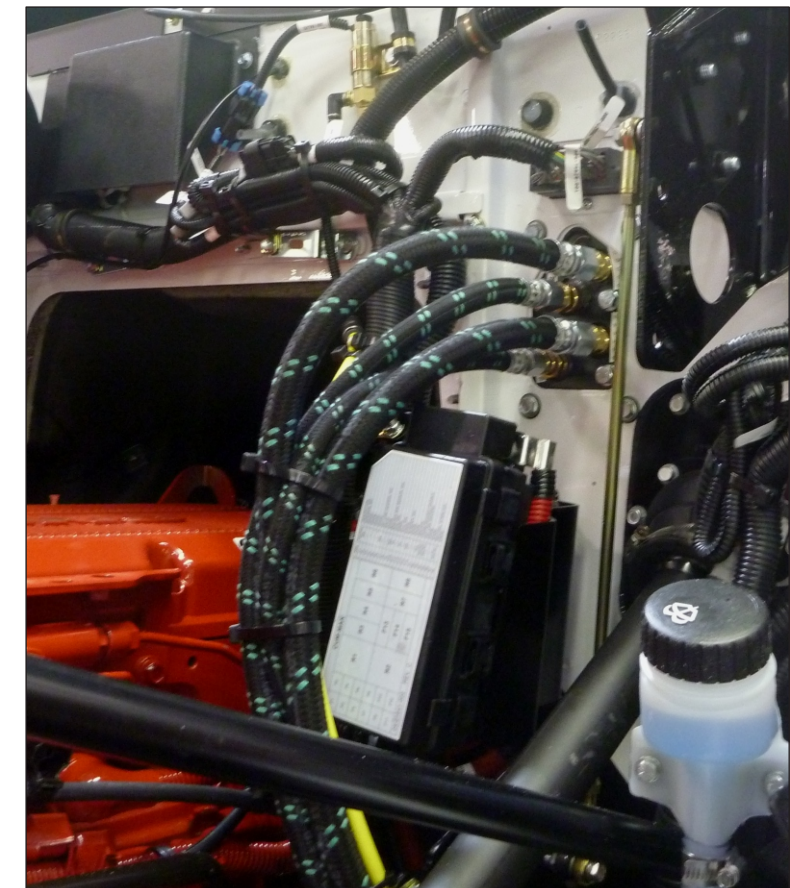
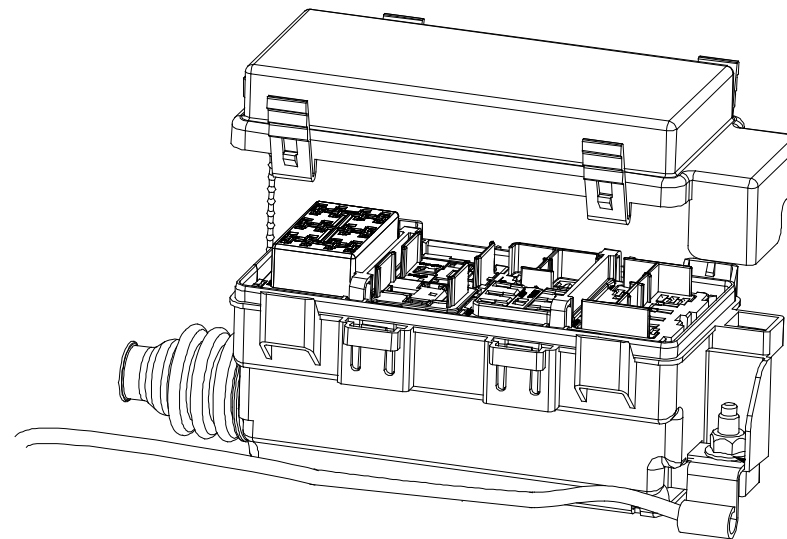
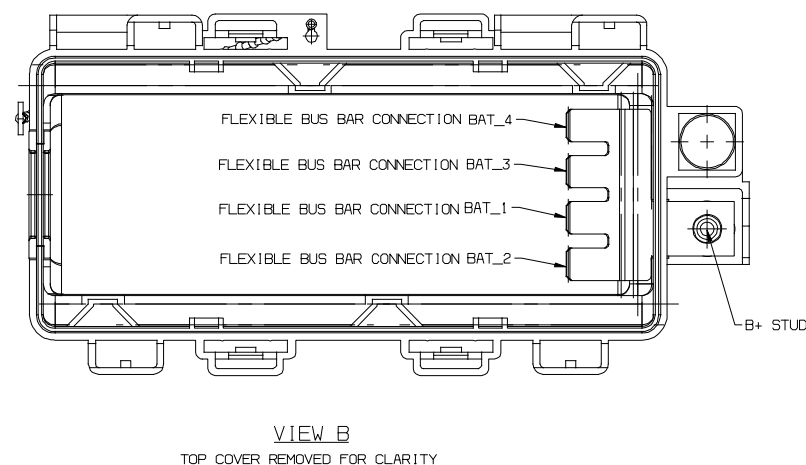
## Power Train (PT-PDM) Module 286

The PT-PDM holds all of the power train related fuses and relays.

- All engine fuses/relays
- All transmission fuses/relays
- All after treatment fuses/relays except DCU main battery feed (located in PNDB)
- Sleeper power

The power which supplies the PT-PDM is sourced from the Power Net Distribution Box (PNDB). This power is protected by a 175A fuse. It is important to note that the PNDB holds the bi-stable relay, which disconnects the battery when the relay is turned off power at the PNDB output. PT-PDM power is not maintained by the alternator if the disconnect switch is "thrown". Therefore the engine ignition relay, in the PT-PDM will fall out and the engine will turn off.

The source of the ignition signal, on a WST, is Fuse F33\_LD which is in the optional fuse block in the dash of the Western Star. The sole purpose of this line is to turn on the PT-PDM relay which then powers ignition for all the engine related ignition circuits.



### WST Star Gauge System

Beginning in April 2005, the PX and PX-A modules were replaced by air lines that are routed to each individual Star Gauge. These gauges convert the air pressure into an electrical signal. The Star Gauge databus supplies power, ground, and backlighting information for these gauges.

Beginning with EPA10 vehicles, the engine controller no longer offers a J1587 databus. The engine, transmission, ABS, and most of the other optional electronic devices on the vehicle now communicate using J1939 protocol.

### The EPA10 RX module

This new redesigned module, incorporates the functions of the earlier RX and PX modules in one unit that also performs a gateway function. The EPA10 RX module performs the following functions.

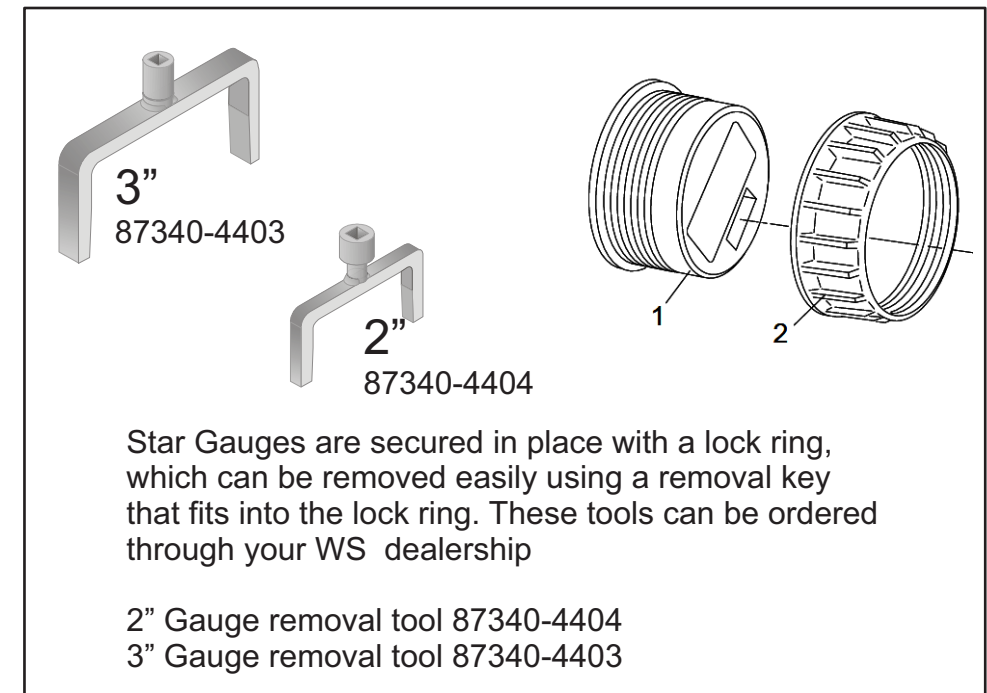
- Converts sensor and voltage inputs into J1587 (PI bus) data.
- Converts four air pressure inputs into J1587 (PI bus) data.
- Gateway Function converts J1939 data that is required for the DataStar and the Star Gauges into J1587 protocol (PI bus) data.

NOTE: The J1587 data network is also called the PI bus in some instances. The speedometer uses the J1587 data from the RX module as the source of data for the Star Gauges.

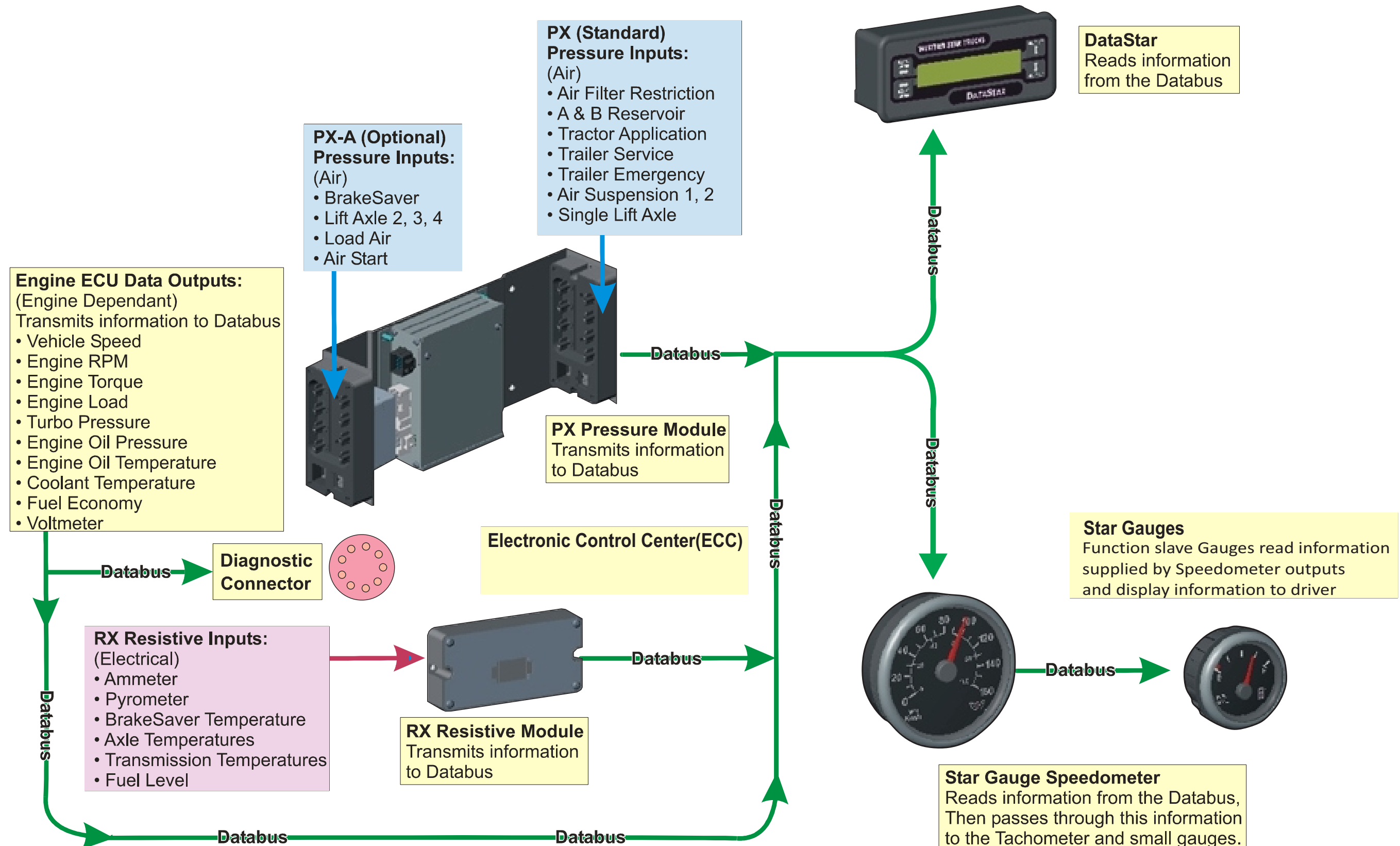
The Datastar is also on the J1587 (PI bus) network and uses this data. The RX gateway module is located on the underside of the cab below the steering shaft, near the clutch linkage.

#### 24 to 12 Volt Converter

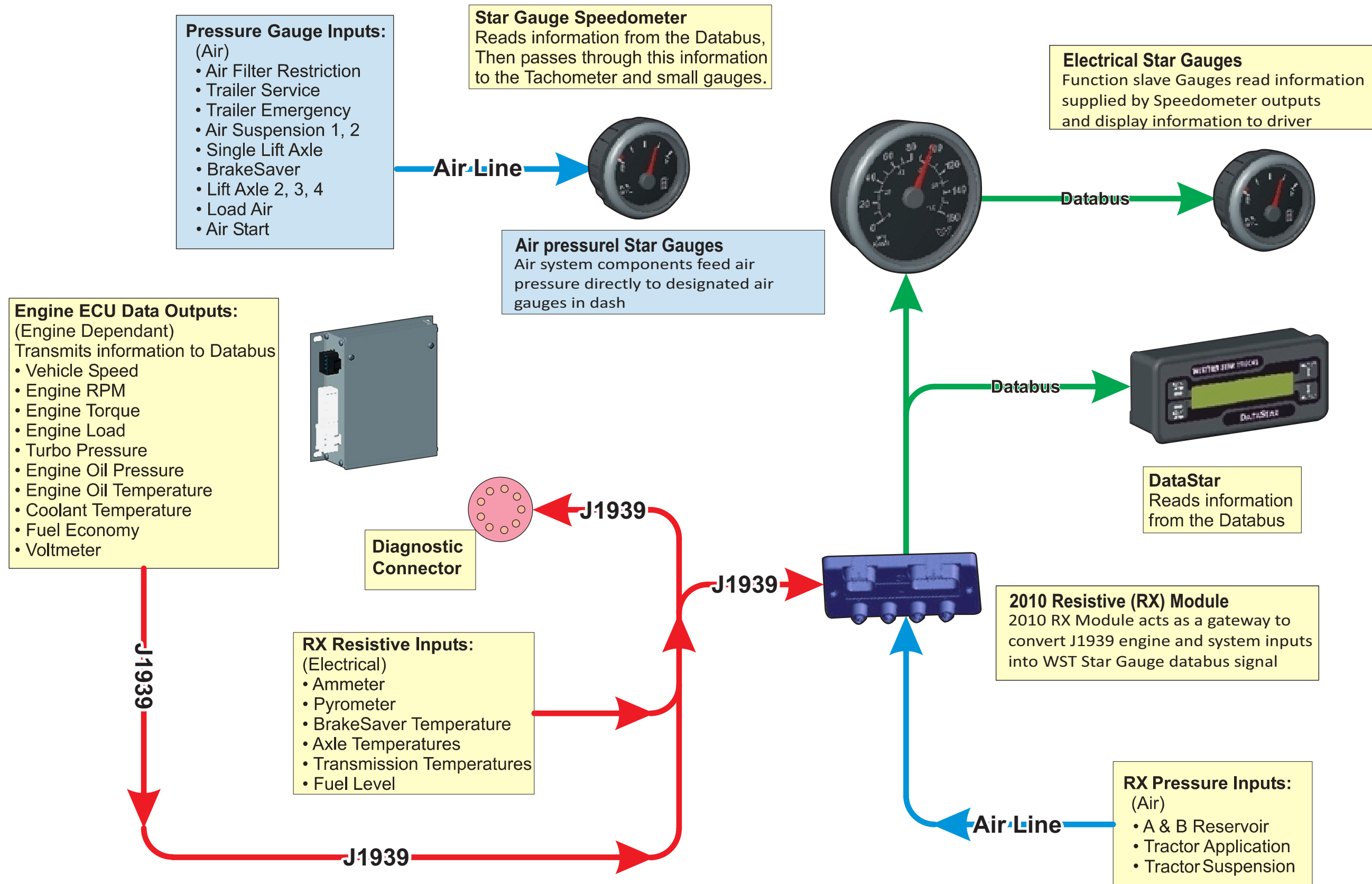
The 24 to 12 volt converter is used on vehicles with 24 volt electrical systems. It is connected between the speedometer and the dash wiring harness and reduces voltage to 13.5 volts which is needed by the Stargauge and Datastar system.



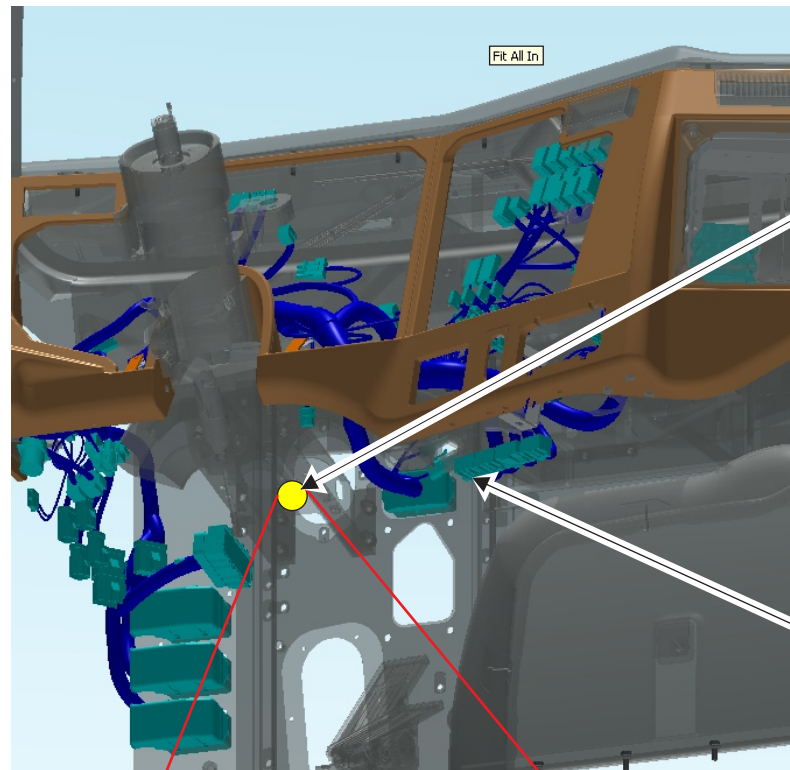




# 2010 Star Gauge System All LHD Models



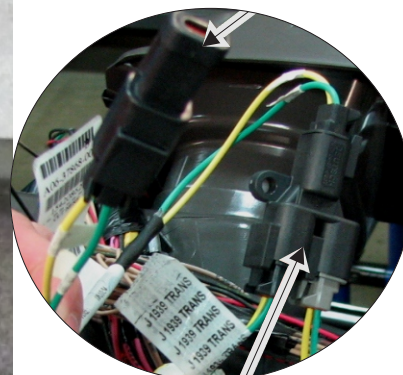
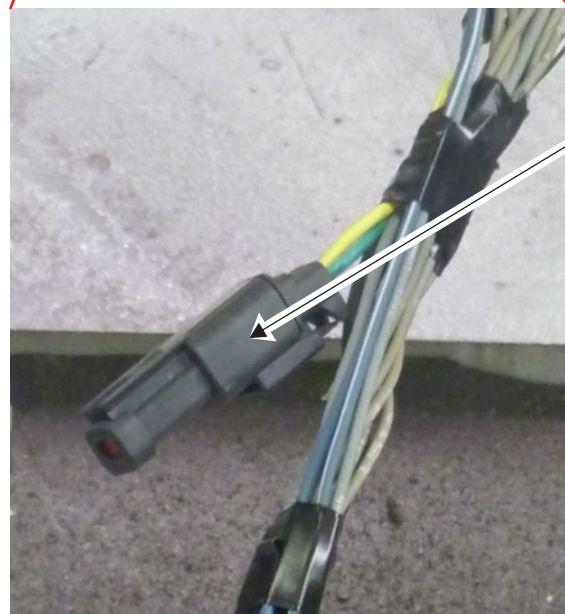




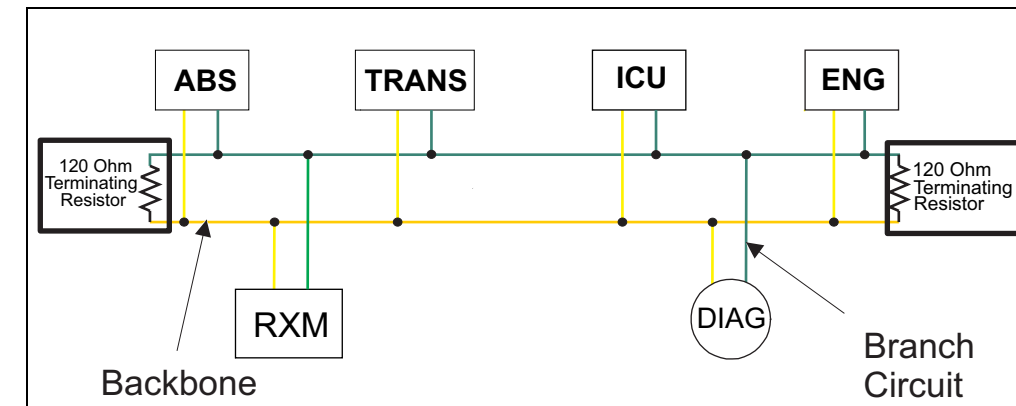
Cab resistor  
located in dash  
10" back from frontwall  
engine connection

Front Wall  
Engine connection  
40 pin 48/49/6900  
76 pin 4700

Resistor Receptor  
Part FTL# 23-13303-902  
Deutsch # DTM04 - 2P - EP10



### The J1939 Datalink



WST J1939 System Connections

### J1939 Connections

Tying into the J1939 backbone is accomplished by tapping into the system using the terminating resistor tee's located at each end of the backbone.

The Chassis terminating resistor is located in a tee along the left frame rail, usually behind the cab.

The cab terminating resistor is located in the dash tapped 10" back from the Front Wall engine plug harness under the dash (shown on the left). The correct datalink resistance measured at any device, or at the diagnostic plug should be 60 ohms with the battery disconnected.

**2015** and older western star units have a 250kb data rate interface at both the diagnostic plug and the center tie in points.

**2016** and newer units have a new 500kb J1939 interface for the diagnostic plug and main engine/transmission signals. A 250kb gateway is provided for connecting to the system and is located at the center of the dash console near the RH side of the steering column.

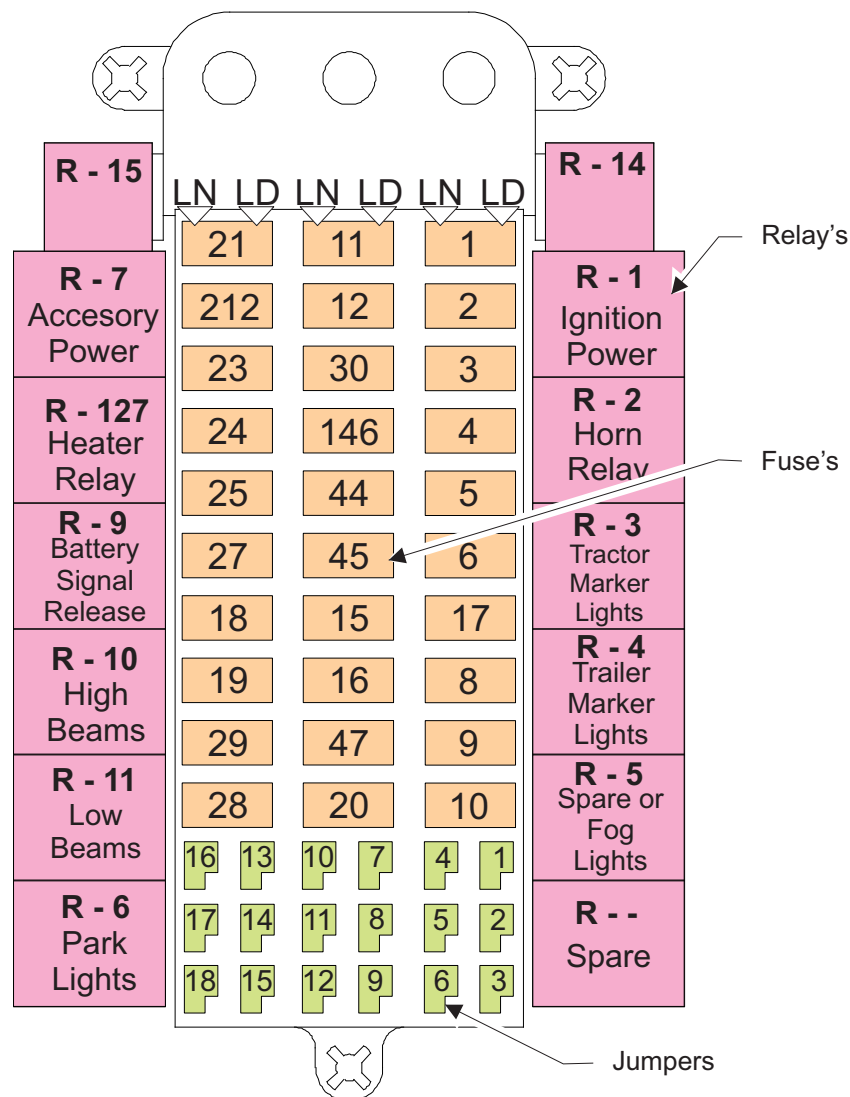
#### IMPORTANT:

- It is essential that both terminating resistors remain connected to the ends of the J1939 backbone to dampen feedback signals. Numerous J1939 problems can be attributed to terminated resistors are missing or disconnected.
- If connections under dash become disconnected. Connections should never be reconnected back together directly IE ABS with ABS as this creates an independent circuit in the system that is not connected to the backbone.

### J1939 Connections for Body Builders

To connect easily to J1939 at dash location order the following parts:

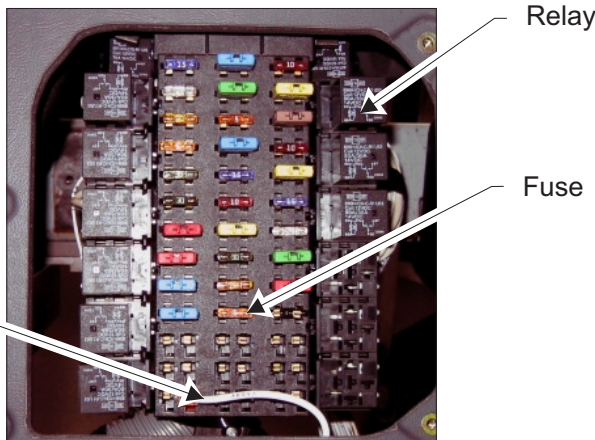
- (1) Tee and Jumper FTL# A06-37868-000
- (1) Jumper Plug # DUFDTM06 2S E004
- (2) Female Pins DUFWM2SB



**Main Fuse/Relay Panel**

### WST Fuse panel

The WST Fuse panel is equipped with 30 fuses, 14 relays and 18 power jumpers. The fuse and relay locations are standard as shown but may be changed by engineering to accommodate new designs. Refer to the 'Main Cab Harness' schematic in Mod 320 to find the specific information on these items. The fuse panel jumper slots provide for 18 additional power jumpers; which provide power.



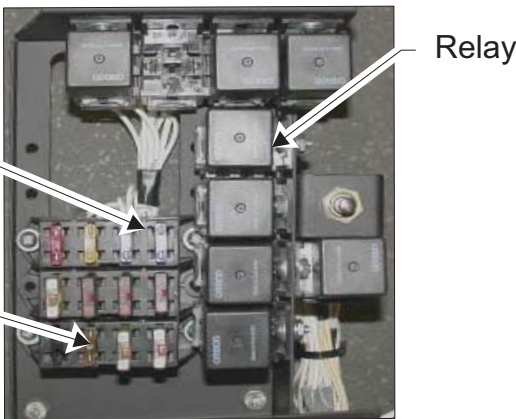
**Main Fuse Panel**

### Optional Fuse/Relay Panel

Optional fuse panels are used to support additional switches and other custom options. The WST system is designed to support up to 20 Fuses and 11 relays. Additional fuse blocks and switches can be ordered for customer use, see the Switch page for more information.

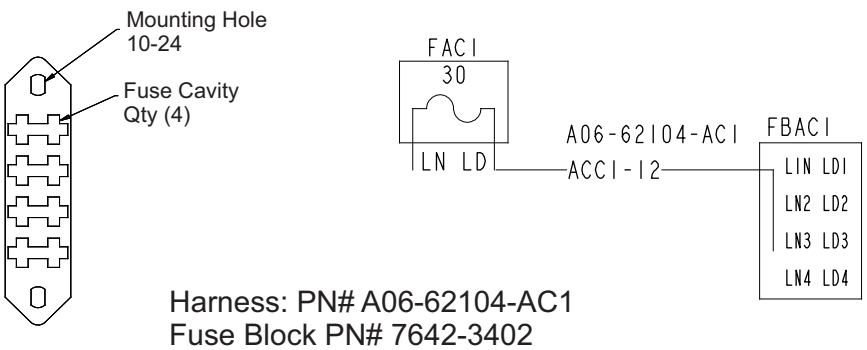
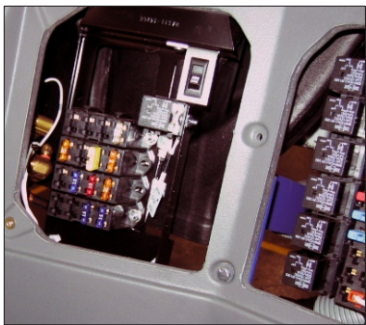
Fuse block quantity will change based on the amount of extra switches ordered

Fuse max 20A



**Optional Fuse Panel**

Fuse Location	Fuze Rating	Wire Code LN	Function
F1	10A	BA3H-10	Start Switch
F2	20A	Bus Bar	Par Lights
F3	8A	BA03Y-10	Headlight Switch
F4	10A	BA03K-10	Radio
F5	20A	BA03N-10	ECC Flasher
F6	20A	BA03K-10	Interior Lights
F7	20A	BA03N-10	Wiper Motor
F8	30A	BA03U-10	Brake Light
F9	10A	BA25A-12	Electric Horn
F10	30A	BA03T-10	Option Battery Fuse
F11	15A	BA03U-10	Tractor Markers
F12	30A	BA03B-10	Trailer Markers
F30	5A	Bus Bar	ECC Battery
F146	15A	Bus Bar	DRL Power
F44	15A	BA25A-12	ABS ECU Batt Power
F45	10A	IG03H-10	ABS ECU Ign Power
F15	20A	IG03K-10	Backup Lamp
F16	30A	IG03B-10	Option Ing Power
F47	20A	IG03H-10	Air Dryer
F20	5A	IG03J-12	ECC Lightbar
F21	15A	AC02A-10	Radio
F212	25A	Bus Bar	Sleeper
F23	20A	AC02B-10	Htd Mirror/lighter
F24	5A	Bus Bar	Wiper Switch
F25	20A	AC02B-10	Opt Accessory Fus
F27	30A	Bus Bar	Cab Heater
F18	10A	Bus Bar	RHS Low Beam
F19	10A	Bus Bar	LHS Low Beam
F29	15A	Bus Bar	RHS High Beam
F28	15A	Bus Bar	LHS High Beam



Harness: PN# A06-62104-AC1  
Fuse Block PN# 7642-3402

Additional Jumpers can be added to the Option Panel



# 4700 In Cab Body Builder Connections

## In Cab Body Builder PDM

- Dedicated raceway to route wiring for body install
- Floor Tray accommodates (6) 1/2" bundles
- Raceway system provides access cover to route wires
- Cab access through access floor plate 4" pass-thru in cab floor
- In-cab body builder fuse and relay system isolates body controls from truck system for a simple and more reliable truck and Body integration operation

Body Builder PDM is Mandatory with the following high amperage switch options the PDM unit can be omitted in certain cases with these combinations where the body builder is supplying their own PDM (engineering review required)

- 329-068** - (4) 20 amp switches wired behind passenger seat  
**329-072** - (6) 20 amp switches wired behind passenger seat  
**329-076** - (10) 20 amp switches wired behind passenger seat

- 353-060** - Body lighting interface blunt cut wiring with fuse panel wire mounted between driver and passenger seats  
**353-061** - Body lighting interface blunt cut wiring with fuse panel wire mounted between driver and passenger seats with additional 150 amp service  
**353-062** - 150 amp service for body builder installed components driver and passenger seats



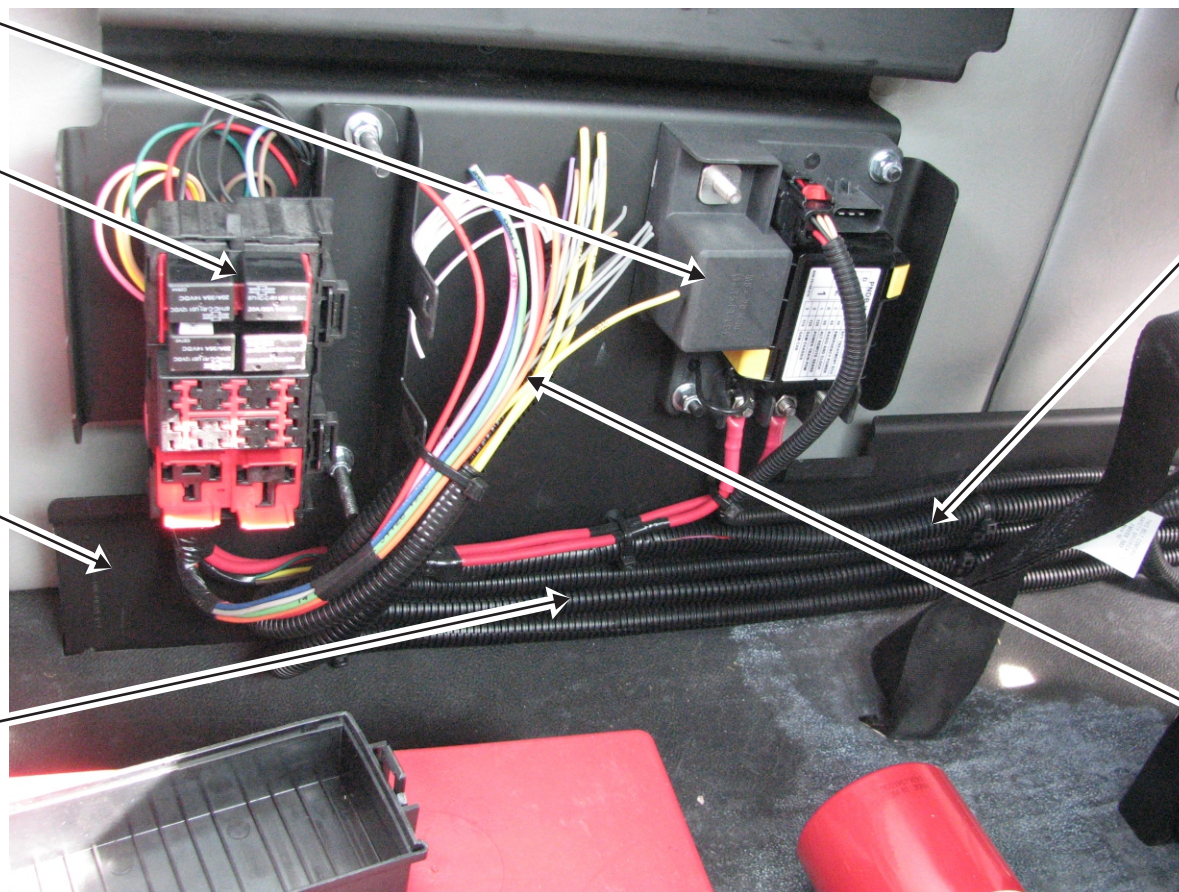
Note: The fuze panel option is not required in cases where Body Upfitters are installing their own PDM systems. If you are in doubt call ahead and check before ordering.  
 If a PDM system will be installed order the

AUXILIARY PNDB  
Module **33P**

Body Lighting PDM  
Module **353**

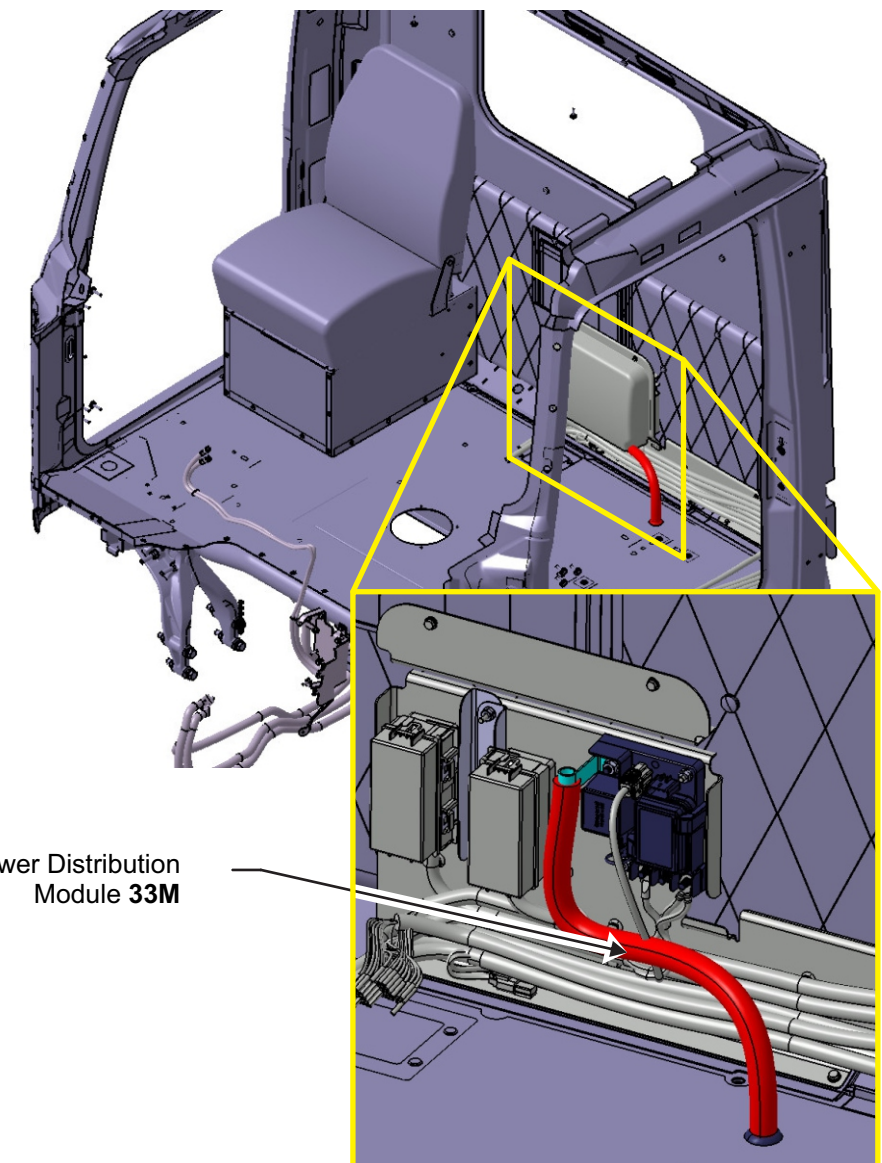
Mounting Bracket  
Module **33M**

Cab Aux  
Power Cable  
Module **33M**



Cab Floor Harness  
Module **287**

Blunt cut switch connections  
Pre wired to dash switches and  
lighting PDM see schematic  
Section 1 Page (1-31)  
Module **329**



Power Distribution  
Module **33M**



# 4700 SF/SB Cab Passthrough & Floor Track

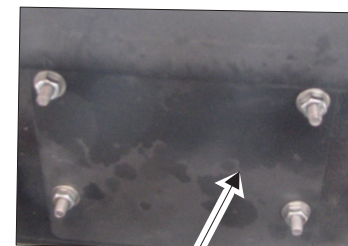
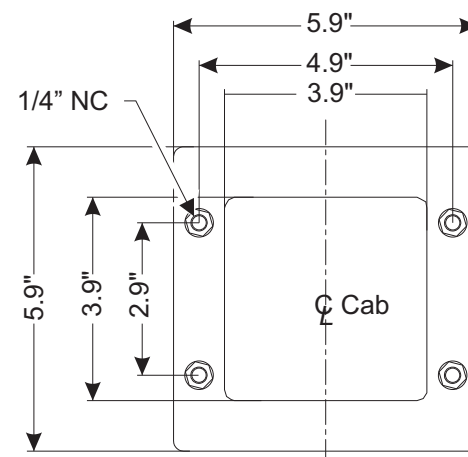
Included with 329-1AU, 329-1AV, 329-1AW, 329-1AX, 329-064  
329-068, 329-072, 329-076 and 353-060 Options

**\*\*See section 1B page 1B-17 for installtion tips and schematics\*\***

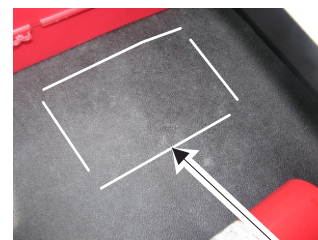


Easy access  
electrical tray makes  
adding cab harnesses  
easy in the field

In Floor Tray Cover

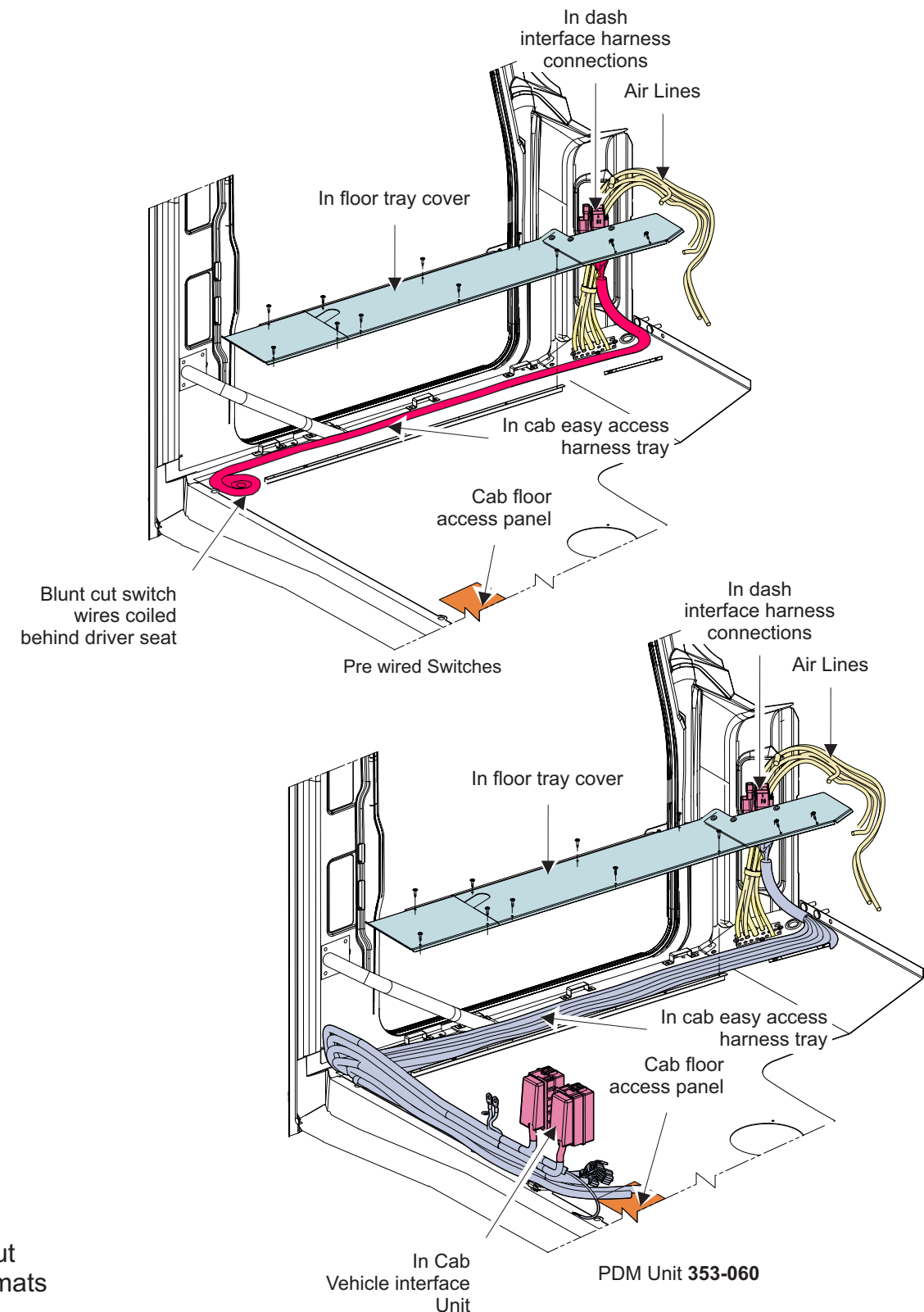


Easy Access  
Floor Plate



Cab Floor access

Pre cut  
floor mats



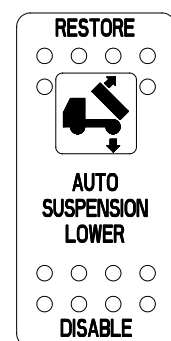


## Durable and Flexible Marine Grade Switches

Western Star dash switches are designed for the long haul and all weather conditions these marine grade switches provide long term durability and dependability for customers and flexibility to body builders. Switch faces can be easily replaced and we have many custom options set up for you to create the finished professional operator controls.

## Pre Labeled Additional Switch Options

- WST offers many customized switch options to help the body builder add functionality and body controls.
- Western Star marine grade high current switches are designed for long term duty cycles under severe conditions.
- Listed to the right are some of the common switch options available that provide pre installed dash switches and wiring depending on the option selected.
- Switches are designed with a separate facing that attaches to the switch body.
- Custom switch facings can be selected and factory installed using the following switch label pages.
- Wiring schematics for these options are also located in this chapter see Index.



Complex Switch  
with Icon

### Custom Switch Facing

New solutions can be created for multiple order units. If you do not see what you are looking for in the next few pages or need more information contact your WST Dealer Sales contact and we can work with you to create a custom solution.



For detailed switch option Information see Section 1D

### Specific Switch Types

Mod 329 optional switch packages (p. can be customized with the following predefined switch bodies by adding a line note to the sales order.

#### Step 1

Select the 329-XXX option to drive the number of extra switches you require

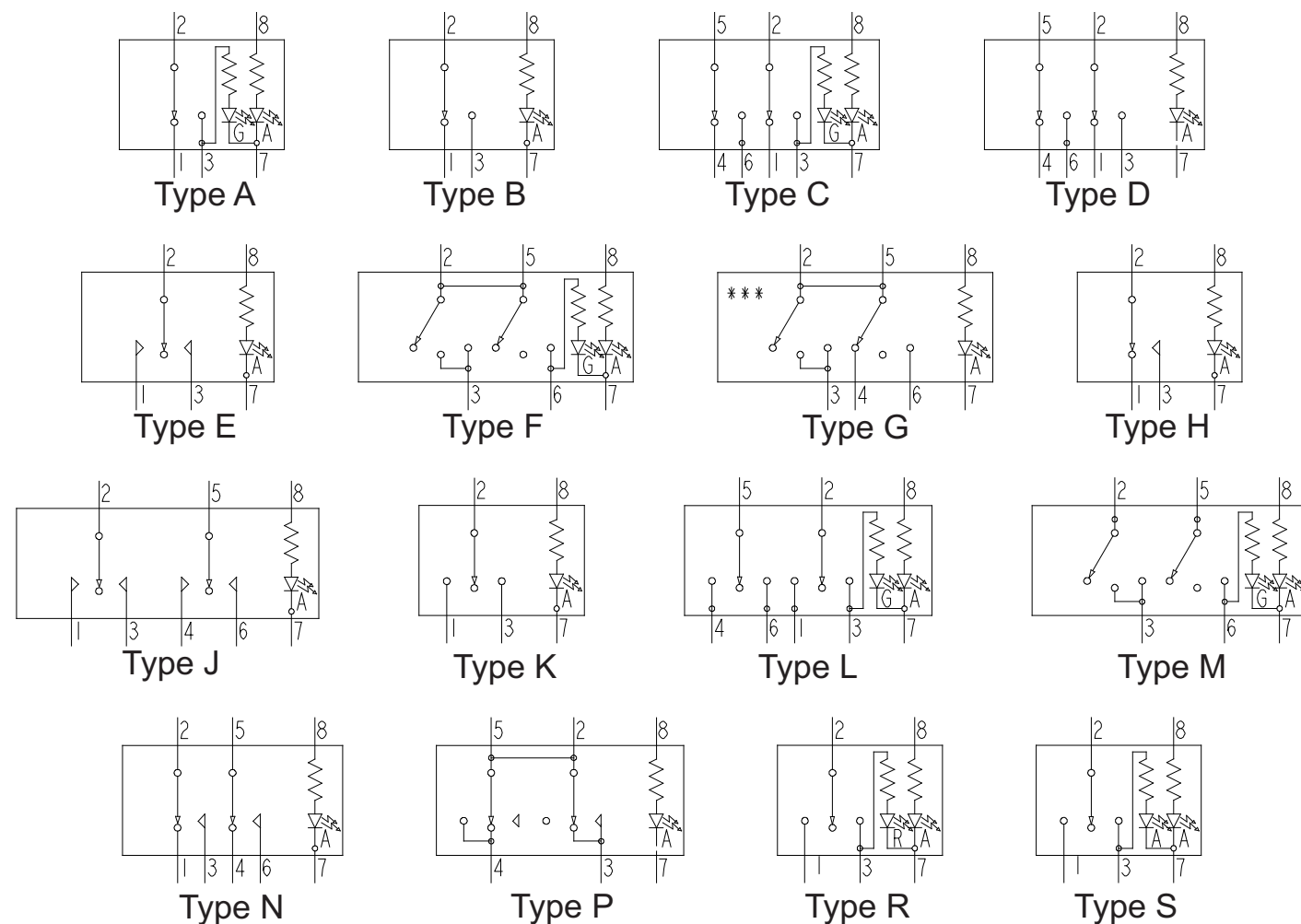
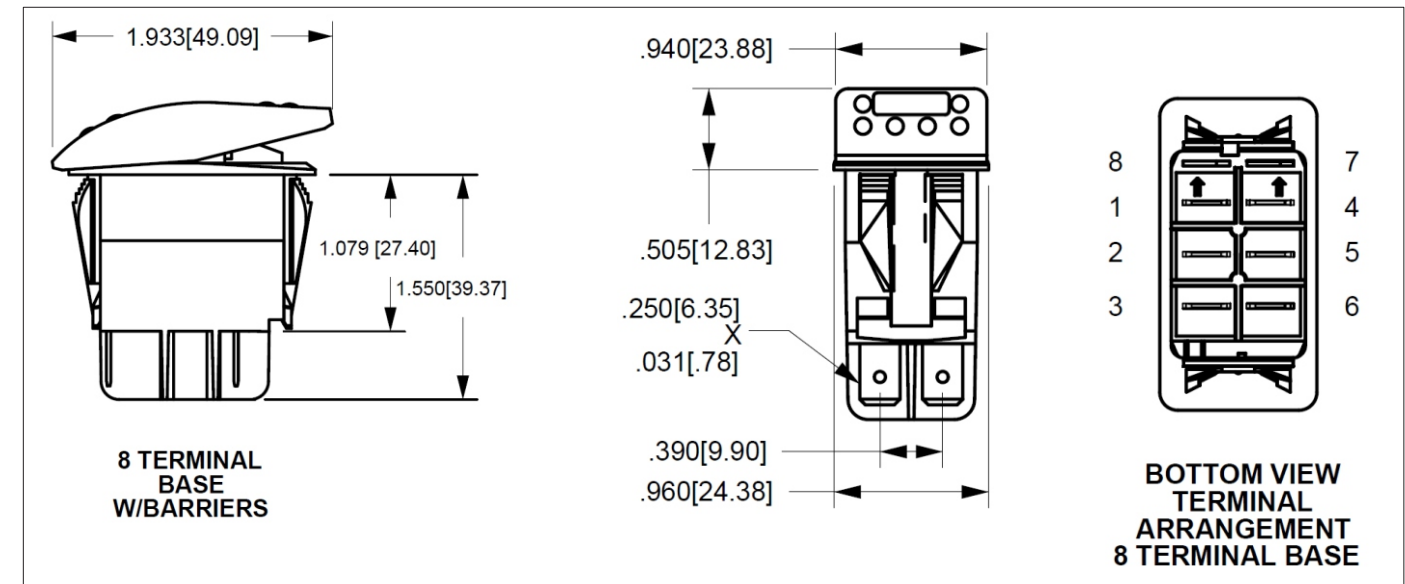
#### Step 2

Have the dealer salesmen add the part numbers for the spare switch types from the choices on the this page that you would like pre installed.

The addition of the line note will drive a demand and the factory will install the corresponding switch bodies in lieu of standard switch normally installed in the truck.

#### Note:

Switches will come pre-wired as per the current optional switch data codes but will not be pre-wired to the locations defined by the switch label.



12V Switches									
WST PART NUMBER	CARLINGSWITCH PART NUMBER	TYPE	POS	FUNCTION	LED COLOUR		Type	VOLTS	
					1	2			
<b>7530-3476</b>	VCH999-167816001			SOCKET					
<b>7805-3416</b>	VMP390-09002-001			CAVITY PLUG					
<b>7805-3404</b>	V4DI7NHB-00000	SPDT	2	ON NONE ON	AMBER	GREEN	<b>A</b>	12V	
<b>7805-3405</b>	V4DI7NTB-00000	SPDT	2	ON NONE ON	AMBER	RED	<b>A</b>	12V	
<b>7805-3406</b>	V4DI1NOB-00000	SPDT	2	ON NONE ON	AMBER	-	<b>B</b>	12V	
<b>7805-3407</b>	VDDI7NHB-00000	DPDT	2	ON NONE ON	AMBER	GREEN	<b>C</b>	12V	
<b>7805-3408</b>	VDDI7NTB-00000	DPDT	2	ON NONE ON	AMBER	RED	<b>C</b>	12V	
<b>7805-3409</b>	VDDI1NOB-00000	DPDT	2	ON NONE ON	AMBER	-	<b>D</b>	12V	
<b>7805-3410</b>	V8DI1NOB-00000	SPDT	3	(ON) OFF (ON)	AMBER	-	<b>E</b>	12V	
<b>7805-3411</b>	VGDJXNHB-00000-000XWTI	DPDT	3	OFF ON ON	AMBER	GREEN	<b>F</b>	12V	
<b>7805-3412</b>	VXDJ1NOB-00000-XWSI	DPDT	3	OFF ON ON	AMBER	-	<b>G</b>	12V	
<b>7805-3413</b>	VXDI1NOB-00000-XWZI	SPDT	2	(ON) NONE ON	AMBER	-	<b>H</b>	12V	
<b>7805-3417</b>	VLDI1NOB-00000	DPDT	3	(ON) OFF (ON)	AMBER	-	<b>J</b>	12V	
<b>7805-3420</b>	V6DI1NOB-00000	SPDT	3	ON OFF ON	AMBER	-	<b>K</b>	12V	
<b>7805-3422</b>	VJDI7NHB-00000	DPDT	3	ON OFF ON	AMBER	GREEN	<b>L</b>	12V	
<b>7805-3423</b>	VGDI1NHB-00000-000XWTI	DPDT	3	OFF ON ON	AMBER	GREEN	<b>M</b>	12V	
<b>7805-3424</b>	VXDI1NOB-00000-XWTI	DPDT	2	(ON) NONE ON	AMBER	-	<b>N</b>	12V	





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## Switch Options - All Models

### Specific Switch Labels - Actuators

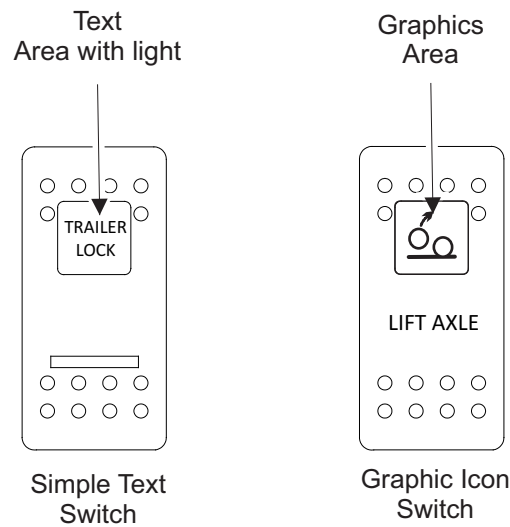
Mod 329 optional switch packages can be customized with the following predefined switch labels by adding a line note to the sales order.

**Step 1**  
Select the 329-XXX option to drive the number of extra switches you require

**Step 2**  
Have the dealer salesmen add the part numbers for the spare switches from the choices on the this page that you would like pre installed.

The addition of the line note will drive a demand and the factory will install the corresponding switch facing in lieu of standard OPT switches in the truck.

**Note:**  
Switches will come pre-wired as per the current optional switch data codes but will not be pre-wired to the locations defined by the switch label.



Part Number	Label Description	Indicat or Light	Switch Type	Graphics yes/No	type
7830-3454	MOBILE PHONE	Yes	2	N	Cab/sleeper
06-77236-000	BACKUP CAMERA	Yes	2	N	Cab/sleeper
7830-7030	FAN HIGH/OFF/LOW	No	3	N	Cab/sleeper
7830-3555	REAR CAM	Yes	2	N	Cab/sleeper
7830-3449	SPARE	Yes	2	N	Spare
7830-3563	SPARE #1	Yes	2	N	Spare
7830-3564	SPARE#2	Yes	2	N	Spare
7830-3516	#1	Yes	2	N	Spare
7830-3517	#2	Yes	2	N	Spare
7830-3529	ACC 1	Yes	2	N	Spare
7830-3530	ACC 2	Yes	2	N	Spare
7830-3443	AUX	Yes	2	N	Spare
7830-3507	AUX #2	Yes	2	N	Spare
7830-3421	BLANK	Yes	2	N	Spare
7830-3427	BLANK	No	2	N	Spare
7830-3525	MISC	Yes		N	Spare
7830-3548	AXLE1	Yes	2	N	Suspension
7830-3549	AXLE2	Yes	2	N	Suspension
06-69691-000	AXLE3	Yes	2	N	Suspension
7830-7055	FRONT AXLE	Yes	2	N	Suspension
7830-3540	TRAILER	Yes	2	N	Trailer
7830-3490	TRAILER AUX	Yes	2	N	Trailer
7830-3448	TRAILER BACKUP	Yes	2	N	Trailer
7830-7032	TRAILER DOOR	Yes	2	N	Trailer
7830-3457	TRAILER DUMP	Yes	2	N	Trailer
7830-3444	TRAILER GATE	Yes	2	N	Trailer
7830-7036	TRAILER LOCK	Yes	2	N	Trailer
7830-3484	TRAILER PIN	Yes	2	N	Trailer
06-74626-000	TRAILER POWER	Yes	2	N	Trailer
06-71939-000	TRAILER POWER FRONT	Yes	2	N	Trailer
06-71940-000	TRAILER POWER REAR	Yes	2	N	Trailer
7830-7034	TRAILER SUSP	Yes	2	N	Trailer
7830-7056	TRAILER AXLE 1	Yes	2	N	Trailer
7830-7057	TRAILER AXLE 2	Yes	2	N	Trailer
7830-7059	HOIST TRAILER UP/DOWN	No	2	N	Trailer

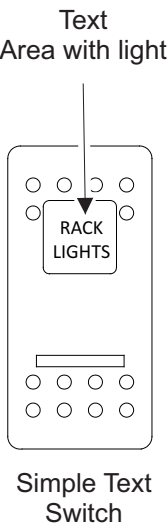
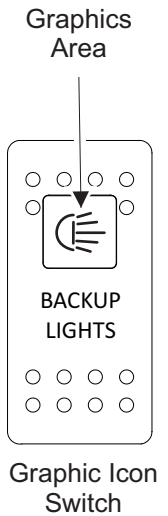
Part Number	Label Description	Indicat or Light	Switch Type	Graphics yes/No	type
7830-3518	FRIDGE	Yes	2		Cab/sleeper
7830-3461	QUALCOM	Yes	2		Cab/sleeper
7830-3524	LIFT AXLE	Yes	2		Suspension
7830-3534	LIFT AXLE A	Yes	2		Suspension
7830-3535	LIFT AXLE B	Yes	2		Suspension
7830-7027	PUP LIFT AXLE	No			Suspension
7830-7009	PUSHER AXLE	Yes	2		Suspension
7830-7010	TAG AXLE	Yes	2		Suspension
7830-3597	AUTO SUSP LOWER REST/DISBL	No	3		Suspension
7830-3430	TRAILER 3RD AXLE LIFT	Yes	2		Trailer
7830-3481	TRAILER 4TH AXLE LIFT	Yes	2		Trailer
7830-7049	TRAILER LIFT AXLE	Yes	2		Trailer



# Western Star Bodybuilder Book: Revision 3.1

## Switch Options - All Models

### Specific Switch Labels - Lighting



Part Number	Label Description	Indicator Light	Switch Type	Graphics Yes/No	Type
7830-3552	REAR BEACON	Yes	2	N	Light
7830-3551	FRONT BEACON	Yes	2	N	Light
7830-3522	BACKUP LIGHT #1	Yes	2	N	Light
7830-3523	BACKUP LIGHT #2	Yes	2	N	Light
06-69939-000	BLADE LIGHT	Yes	2	N	Light
7830-3558	BLUE FLASHER	Yes	2	N	Light
7830-3466	BODY LIGHTS	Yes	2	N	Light
7830-3476	BOOM LIGHTS	Yes	2	N	Light
06-69940-000	BOX LIGHT	Yes	2	N	Light
7830-3546	BUD LIGHTS	Yes	2	N	Light
06-74094-000	BUMPER LIGHTS	Yes	2	N	Light
7830-7048	CL LIGHTS	Yes	2	N	Light
7830-3562	DECK LIGHTS	Yes	2	N	Light
7830-3520	DOCK LIGHTS	Yes	2	N	Light
7830-3589	EXIT LIGHTS	Yes	2	N	Light
7830-3527	EXTRA LIGHTS	Yes	2	N	Light
7830-7042	FLOOD LIGHT	Yes	2	N	Light
7830-7047	ID LIGHTS	Yes	2	N	Light
7830-3532	LEFT LIGHT	Yes	2	N	Light
7830-7012	LOADER LIGHTS	Yes	2	N	Light
7830-3550	NEON	Yes	2	N	Light
7830-3456	O/O LIGHTS	Yes	2	N	Light
7830-3542	OD LIGHT	Yes	2	N	Light
7830-7054	OFF ROAD LIGHTS	Yes	2	N	Light
7830-3526	PICKER LIGHTS	Yes	2	N	Light
7830-3559	PLOW LIGHTS	Yes	2	N	Light
7830-3446	RACK LIGHTS	Yes	2	N	Light
7830-3469	REAR FLOOD LTS	Yes	2	N	Light
7830-3533	RIGHT LIGHT	Yes	2	N	Light
7830-3553	SANDER LIGHT	Yes	2	N	Light
7830-7016	SANDER LIGHT FRONT	Yes	2	N	Light
7830-7017	SANDER LIGHT REAR	Yes	2	N	Light
7830-3554	SCRAPER LIGHT	Yes	2	N	Light
7830-3560	SPINNER LIGHT	Yes	2	N	Light
7830-3437	TANK LIGHTS	Yes	2	N	Light
7830-7040	TIRE LIGHTS	Yes	2	N	Light
7830-7033	TRAILER LIGHT	Yes	2	N	Light
7830-3556	WINCH LIGHTS	Yes	2	N	Light
7830-7050	TOOL LIGHTS	Yes	2	N	Light
7830-3545	WING LIGHTS	Yes	2	N	Light
7830-3561	YELLOW FLASHER	Yes	2	N	Light
7830-3539	CRTSY	Yes	2	N	Light
7830-3543	DAYTIME	Yes	2	N	Light
7830-3451	FENDER MARKER	Yes	2	N	Light
7830-3504	FLASH	Yes	2	N	Light
7830-3478	FLOOD	Yes	2	N	Light
7830-7045	FRONT	Yes	2	N	Light
7830-3471	FRONT TARP	Yes	2	N	Light
7830-3479	MARKER	Yes	2	N	Light
7830-3538	MOOSE	Yes	2	N	Light
7830-3472	REAR TARP	Yes	2	N	Light
7830-3510	TOOL BOX	Yes	2	N	Light
7830-3541	TRUCK	Yes	2	N	Light
06-73290-000	UTILITY	Yes	2	N	Light
7830-3460	WIDE LOAD	Yes	2	N	Light

Part Number	Label Description	Indicator Light	Switch Type	Graphics Yes/No	Type
7830-7038	MIRROR BACKUP LIGHTS	Yes	2		Light
7830-3422	BEACON	Yes	2		Light
7830-3509	BEACON #2	Yes	2		Light
7830-3406	BACKUP LIGHTS	Yes	2		Light
7830-3584	BACKUP LIGHTS STEP	Yes	2		Light
7830-3595	ALTERN FLASHERS	Yes	2		Light
7830-3492	BULL LIGHTS	Yes	2		Light
7830-3594	CARGO BOX LIGHT	Yes	2		Light
7830-3547	CHAINUP LIGHTS	Yes	2		Light
7830-3402	CL / ID LIGHTS	Yes	2		Light
7830-3404	DRIVING LIGHTS	Yes	2		Light
7830-3528	EXT. LIGHTS	Yes	2		Light
7830-3405	FOG LIGHTS	Yes	2		Light
7830-7043	FRONT STROBE	Yes	2		Light
7830-3497	FRONT WORK LAMPS	Yes	2		Light
7830-3496	HEADLAMP REMOTE NORMAL	Yes	2		Light
7830-3503	HOOK UP LIGHTS	Yes	2		Light
7830-3583	HOPPER LIGHT	Yes	2		Light

Part Number	Label Description	Indicator Light	Switch Type	Graphics Yes/No	Type
7830-3439	LOAD LIGHT	Yes	2		Light
7830-3498	REAR WORK LAMPS	Yes	2		Light
7830-3431	SPOT LIGHT	Yes	2		Light
7830-7022	STROBE	No	2		Light
7830-3567	TRAILER LOAD LIGHT	Yes	2		Light
7830-3566	TRUCK LOAD LIGHT	Yes	2		Light
7830-3596	UNDERBODY LIGHT	Yes	2		Light
7830-7039	UTILITY LIGHTS	Yes	2		Light
7830-7044	TOP STROBE	Yes	2		Light
7830-3582	WING MARKER LIGHT	Yes	2		Light
7830-3438	WORK LIGHTS	Yes	2		Light
7830-3512	FRONT FLOOD	Yes	2		Light
7830-3414	HI/LOW	No	2		Light
7830-3413	HI/MED/LOW	No	2		Light
7830-3513	REAR FLOOD	Yes	2		Light
7830-3515	REAR STROBE	Yes	2		Light
7830-3565	TRUCK BACK-UP	Yes	2		Light
7830-3511	SIDE FLOOD	Yes	2		Light





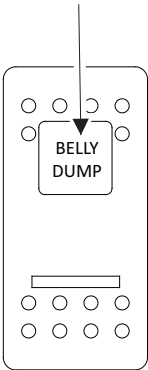
# Western Star Bodybuilder Book: Revision 3.1

## Switch Options - All Models

### Specific Switch Labels - Body

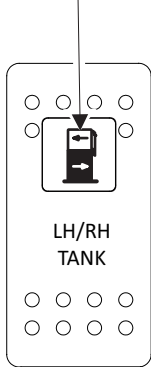
Part Number	Label Description	Indicator Light	Switch Type	Graphics yes/No	type
7830-3418	LH/RH TANK	No	2		Body
7830-3436	POWER TAKE OFF	No	2		Body
06-74457-000	SHUTDOWN OVERRIDE	No	2		Body
7830-7007	TRANSFER CASE LOCK	Yes	2		Body
7830-3485	VIBRATOR	Yes	2		Body

Text  
Area with light



Simple Text  
Switch

Graphics  
Area

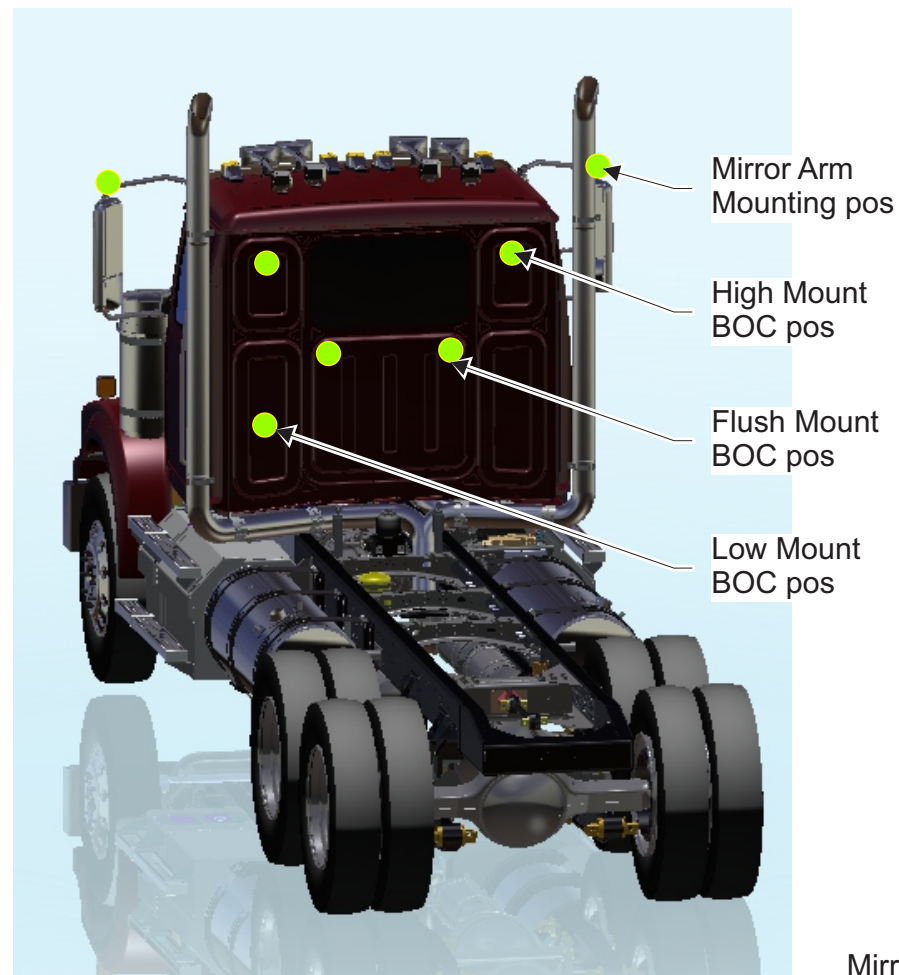


Graphic Icon  
Switch

Part Number	Label Description	Indicator Light	Switch Type	Graphics yes/No	type
7830-7003	BED	Yes	2	N	Body
7830-3455	ALARM	Yes	2	N	Body
7830-3477	BACKUP ALARM	Yes	2	N	Body
7830-7051	BOOM UP/DOWN	No	2	N	Body
06-77769-000	AIR GATE	Yes	2	N	Body
06-77770-000	AIR TARP	Yes	2	N	Body
7830-3598	AUX RANGE HIGH/LOW	Yes	2	N	Body
7830-3486	BELLY DUMP	Yes	2	N	Body
7830-3465	BLOWER	Yes	2	N	Body
7830-3569	BOOM	Yes	2	N	Body
7830-7052	BOOM IN/OUT	No	2	N	Body
7830-7014	CHAIN	Yes	2	N	Body
7830-7015	CHAIN 2-SPEED	Yes	2	N	Body
7830-3577	CHUTE RAISE/LOWER	No	2	N	Body
7830-7006	CHUTE UNLOCK/LOCK/REMOTE	Yes	3	N	Body
7830-3531	CONTROL	Yes	2	N	Body
7830-3489	CRANE	Yes	2	N	Body
7830-3508	DIVERTER	Yes	2	N	Body
7830-3467	DIVIDER BOX	Yes	2	N	Body
7830-3570	DOLLY	Yes	2	N	Body
7830-7035	DOLLY LOCK	Yes	2	N	Body
7830-3475	DUMP	Yes	2	N	Body
06-73288-000	DUMP FRONT	Yes	2	N	Body
06-73289-000	DUMP REAR	Yes	2	N	Body
7830-3572	FRONT/REAR THROTTLE CONTRL	Yes	2	N	Body
7830-3590	GATE ONE	Yes	2	N	Body
7830-3591	GATE TWO	Yes	2	N	Body
7830-3470	GENERATOR	Yes	2	N	Body
7830-7041	GROUND SPEED	Yes	2	N	Body
7830-3494	SANDER FRONT	Yes	2	N	Body
7830-3495	SANDER REAR	Yes	2	N	Body

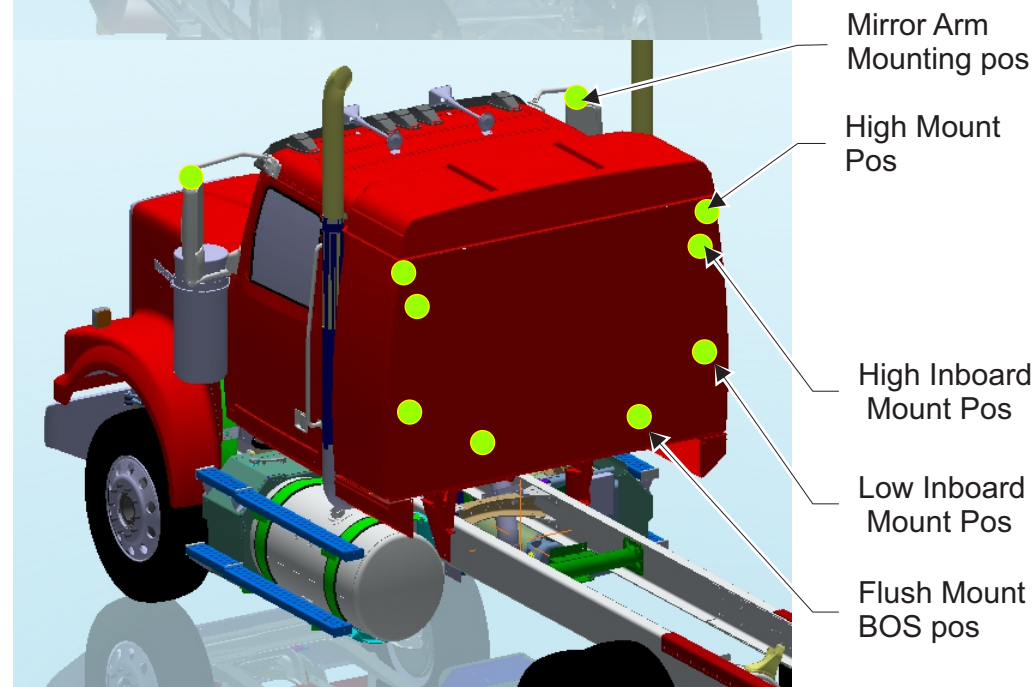
Part Number	Label Description	Indicator Light	Switch Type	Graphics yes/No	type
7830-7058	HOIST TRUCK UP/DOWN	No	2	N	Body
7830-3579	HOPPER UP/DOWN/REMOTE	Yes	3	N	Body
7830-3499	HYD COOLER	Yes	2	N	Body
7830-7028	HYD FAN	No	2	N	Body
7830-3468	HYD. PUMP	Yes	2	N	Body
7830-3441	LOADER	Yes	2	N	Body
7830-3502	MASTER	Yes	2	N	Body
7830-3574	MIXER MIX/DISCHARGE	No	2	N	Body
7830-3576	MIXER STOP/RESUME/REMOTE	No	3	N	Body
7830-3442	PIN LOCK	Yes	2	N	Body
7830-3544	PLOW	Yes	2	N	Body
06-73287-000	POWER	Yes	2	N	Body
7830-3580	PTO	Yes	2	N	Body
06-77891-000	PUMP	Yes	2	N	Body
7830-3447	PUP PIN	Yes	2	N	Body
7830-7025	PUP T/GATE	No	2	N	Body
7830-7023	PUP TARP	No	2	N	Body
7830-3440	RACK	Yes	2	N	Body
7830-3571	REAR	Yes	2	N	Body
7830-3500	REMOTE	Yes	2	N	Body
7830-7013	SANDER DOOR	Yes	2	N	Body
7830-3557	SENSOR	Yes	2	N	Body
7830-3483	SHUTDOWN	Yes	2	N	Body
7830-3474	TAIL GATE	Yes	2	N	Body
7830-7019	TARP	No	2	N	Body
7830-7029	TARP	Yes	2	N	Body
7830-7053	TILT UP/DOWN	No	2	N	Body
7830-3453	TIRE CHAINS	Yes	2	N	Body
7830-7026	TRUCK T/GATE	No	2	N	Body
7830-7024	TRUCK TARP	No	2	N	Body
7830-7060	TURNTBL LOCK IN/OUT	Yes	2	N	Body

# Utility Lights - Model Specific Availability



## Std. Incandescent Lighting

Incandescent	Package Description
<b>31K-1A1</b>	(2) Chrome incandescent utility lights with stainless steel anti-glare shields mounted on <b>mirror arms</b>
<b>318-1BY</b>	(2) Chrome swivel incandescent utility lights mounted LH and RH <b>high</b> on painted brackets back of cab
<b>318-096</b>	(2) Chrome swivel incandescent utility lights mounted <b>low inboard</b> on side extenders
<b>318-1B0</b>	(2) Chrome swivel incandescent utility lights mounted LH and RH <b>high</b> on stainless steel brackets back of sleeper
<b>318-052</b>	(2) Chrome swivel incandescent utility lights mounted <b>high inboard</b> on side extenders
<b>318-085</b>	(2) Swivel incandescent utility lights <b>high inboard</b> on side extenders and (2) <b>flush</b> mounted <b>incandescent</b> back of cab/sleeper
<b>318-1AB</b>	(2) Chrome swivel incandescent utility lights mounted <b>low inboard</b> on side extenders and (2) <b>flush</b> incandescent utility lights mounted back of cab/sleeper
<b>318-1CG</b>	(4) Utility lights: (2) chrome swivel incandescent mounted LH and RH <b>high</b> on stainless steel brackets back of sleeper and (2) flush mounted <b>incandescent</b> back of sleeper
<b>318-1BX</b>	(3) Chrome swivel incandescent utility lights: (2) mounted <b>high</b> on painted brackets LH and RH back of cab and (1) incandescent mounted low on painted bracket back of cab LH side
<b>318-1CK</b>	(1) Chrome swivel incandescent utility light mounted LH <b>high</b> on painted bracket back of cab
<b>318-1CR</b>	(1) Chrome swivel incandescent utility light mounted RH <b>high</b> on painted bracket back of cab
<b>318-003</b>	(1) <b>Flush</b> utility light mounted LH back of cab/sleeper
<b>318-004</b>	(2) <b>Flush</b> utility lights mounted back of cab/sleeper



## LED Lighting

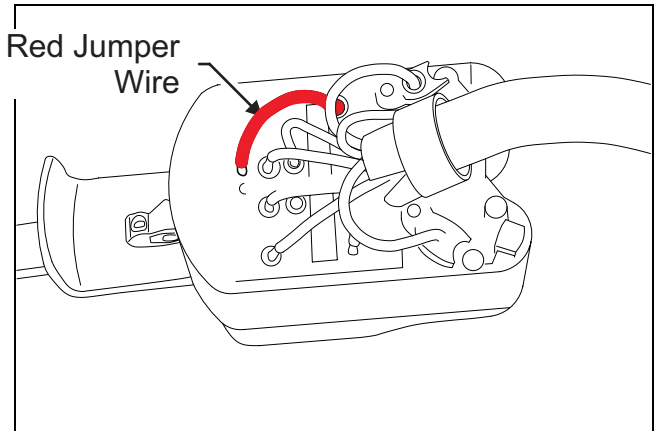
New LED	Package Description
<b>31K-001</b>	(2) Chrome <b>LED</b> utility lights with stainless steel anti-glare shields mounted on <b>mirror arms</b>
<b>318-1D9</b>	(2) Chrome swivel <b>LED</b> utility lights mounted LH and RH <b>high</b> on painted brackets back of cab
<b>318-1E0</b>	(2) Chrome swivel <b>LED</b> utility lights mounted <b>low inboard</b> on side extenders
<b>318-1E1</b>	(2) Chrome swivel <b>LED</b> utility lights mounted LH and RH <b>high</b> on stainless steel brackets back of sleeper
<b>318-1E2</b>	(2) Chrome swivel <b>LED</b> utility lights mounted <b>high inboard</b> on side extenders
<b>318-1E3</b>	(2) Swivel <b>LED</b> utility lights <b>high inboard</b> on side extenders and (2) <b>flush</b> mounted back of cab/sleeper
<b>318-1E4</b>	(2) Chrome swivel <b>LED</b> utility lights mounted <b>low inboard</b> on side extenders and (2) <b>flush incandescent</b> utility lights mounted back of cab/sleeper
<b>318-1E5</b>	(4) Utility lights: (2) chrome swivel <b>LED</b> mounted LH and RH <b>high</b> on stainless steel brackets back of sleeper and (2) <b>flush</b> mounted <b>incandescent</b> back of sleeper
<b>318-1E6</b>	(3) Chrome swivel <b>LED</b> utility lights: (2) mounted <b>high</b> on painted brackets LH and RH back of cab and (1) mounted <b>low</b> on painted bracket back of cab LH side
<b>318-1E7</b>	(1) Chrome swivel <b>LED</b> utility light mounted LH <b>high</b> on painted bracket back of cab
<b>318-1E8</b>	(1) Chrome swivel <b>LED</b> utility light mounted RH <b>high</b> on painted bracket back of cab



# Lighting Mods and Harness Repair - All Models

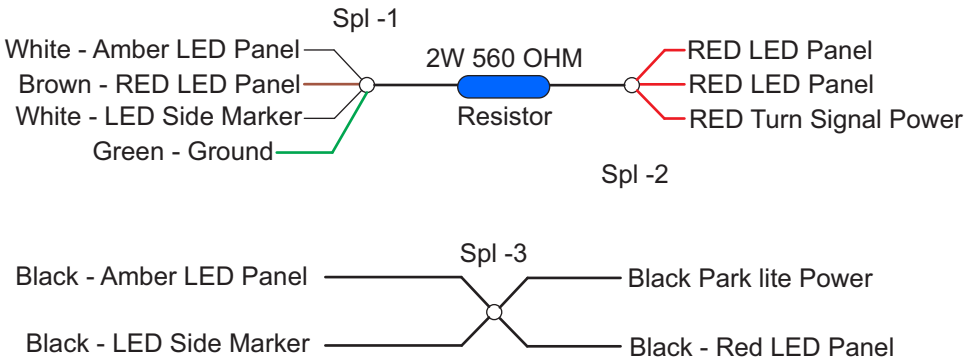
### Turn Signal and Brake Override Circuit Elimination

Western Star Trucks turn signal switches are equipped with a brake override circuit. This circuit is designed to deactivate the 4-way flashers when the brakes are applied. In some vocations, customers prefer that the 4-way flashers remain flashing during use of the service brakes. To disable this feature, the red jumper wire located in the turn signal switch housing, used to activate this circuit needs simply to be cut and the ends taped or heat shrunk to remove this function. Both methods of wiring comply fully with Canada and USA regulations.



### Installing Aftermarket LED Tail lights

Adding LED Tail Lights requires the addition of a 2 W 560 OHM resistor to ensure that the system consumes enough amperage for the system to function properly. Use the splice instructions below for installation of the aftermarket resistor.



### Guidline For Repairing or Replacing a Harness

Repair	Replace
Less than 20% of the harness is damaged. If the wire damage is greater than 6 inches (15 cm), an overlay harness can be added to replace the section of damaged wire.	More than 20% of the harness is damaged.
Wire is smaller than 12-gauge.	Wire is 12-gauge or larger.
The harness is not readily available, or shipping will take longer than one week.	The harness can be obtained in less than a week.
Wire insulation is cracked due to excessive heat from an external source. Repair is recommended if the damage is isolated to one section of the wire.  There is a clean cut to the wire, corrosion is wicked no more than 1 inch (2.5 cm) from the terminal end. If the damaged area is over 6 inches (15 cm), the harness can be repaired by adding overlay wiring over the damaged area.  <b>NOTE:</b> If damage exceeds 1 inch (2.5 cm) from the terminal end, a quality repair may require adding a jumper wire to end, a quality repair may require adding a jumper wire to create enough slack in the wire. If adding extra splices stretches the wire too tightly it can degrade the integrity of the harness.	Wire insulation is cracked due to age, or damage is extensive and spread throughout the wire.
Two harnesses are affected. For example, M2 24 pin lever lock connector (23-13144-010 and 23-13144-009) is corroded on both sides. Also, if the harness has minimal corrosion wicked up the wire, the connectors can be re-pinned	The harness is proprietary, such as a datalink with sheathing over a twisted pair, or a WABCO sensor and solenoid wiring.
If the damaged area is over 6 inches (15 cm), the harness can be repaired by adding overlay wiring over the damaged area.	Extensive damage to the harness caused by foreign material such as DEF fluid, diesel fuel, or road/deicer fluid.

For complete information see Guidelines for Repairing or Replacing an Electrical Harness - Service Bulletin **54-61** in the western Star Service Manual

# Daytime Running Lights - Discon/Recon

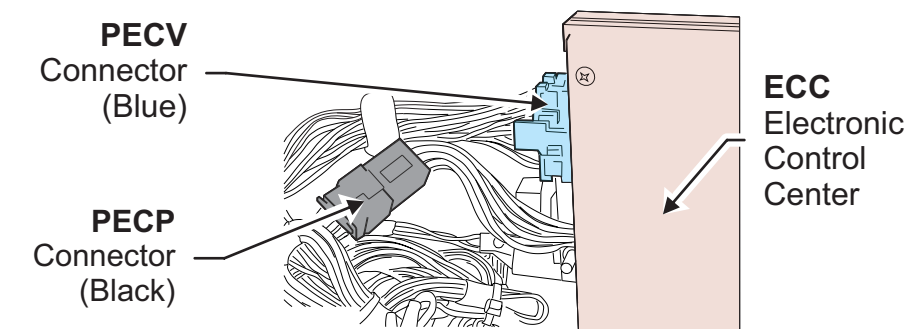
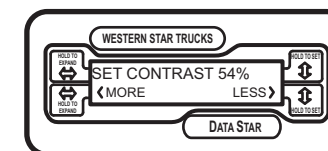
## General Information

Western Star vehicles are built with DRLs enabled. If the vehicle is ordered with data code **311-998 (NO DAYTIME RUNNING LIGHTS)**, the DRLs are disabled during assembly. In most cases, wires are removed from the connector cavities to allow for future connection.

**NOTE:** Daytime Running Lights (DRLs) are required by law in Canada. Daimler Trucks North America recommends keeping DRLs operational in all locations, even where not required by law. The following instructions can be used to enable or disable DRLs where it is permissible to operate without day time running lights. **IMPORTANT:** If disabling the DRLs, do not cut the wires. Fold back and tape the wires to allow for connection in the future.

### Vehicles without Star Gauge Dash, Built Prior to February 2002

1. Shut down the engine, set the parking brake, and chock the tires.
2. Disconnect the negative leads from the batteries.
3. Remove the four screws that secure the instrument panel, then pull the top of the panel forward to access instrument panel wiring. On vehicles with fixed steering columns, remove the bolts that hold the steering column to the dash assembly to lower the steering column for access.
4. Disconnect the blue **PECV** connector from the left-hand side of the Electronic Control Center (**ECC**).
5. Note the cavity location of wire **LB08A**, then tag the wire with that location so that the daytime running lights can be easily connected, if necessary.
6. If connecting the **DRLs**, locate wire **LB08A**; the wire should be folded back and taped off in the harness. Remove the tape and install the wire into its tagged location, then continue with step 8. If the location is not tagged and the vehicle uses harness **873b1-3570**, install wire **LB08A** into **cavity D1**, and continue with **step 8**.
7. If disconnecting the **DRLs**, remove wire **LB08A** from the connector, wrap the terminal end of the wire with electrical tape to prevent unintended connection, then secure the wire back to the harness with a tie-strap.
8. Connect the blue **PECV** connector to the **ECC**.
9. Disconnect the black **PECP** connector from the pigtail on the left-hand side of the **ECC**. The **ECC** pigtail to the black **PECP** connector has colored wires and mates to a headlamp harness connector with white wires.
10. On the white-wire headlamp harness side of the connector, note the cavity location of wire **HL08 (B, E, or G)**, then tag the wire with that location for possible future installation.
11. If connecting the **DRLs**, locate wire **HL08 (B, E, or G)**; the wire should be folded back and taped off in the harness. Remove the tape and install it into its tagged location. Continue with **step 13**. If the location is not tagged, and the vehicle uses harness **873b1-3570**, install wire **HL08 (B, E, or G)** into **cavity C**. Continue with **step 13**.
12. If disconnecting the **DRLs**, remove the wire from the connector, wrap the terminal of the wire with electrical tape to prevent unintended connection, then secure the wire back to the harness with a tie-strap.
13. Connect the **PECP** connectors.
14. Position the instrument panel and install the screws. If the steering column was lowered, position it into place, and tighten the steering column capscrews **17 lbf·ft (23 N·m)**.
15. Connect the batteries.
16. Verify correct operation of the lights.



### Vehicles with Star Gauge Dash, Built Since February 2002

1. Shut down the engine, set the parking brake, and chock the tires.
2. Disconnect the negative leads from the batteries.
3. Remove the four screws that secure the instrument panel, then pull the top of the panel forward to access instrument panel wiring. On vehicles with fixed steering columns, remove the bolts that hold the steering column to the dash assembly to lower the steering column for access.
4. Disconnect the light **gray PECV connector** from the left-hand side of the Electronic Control Center (**ECC**).
5. Find wire **LB08A** in **cavity A10**, then tag the wire with that location for possible future installation.
6. If connecting the **DRLs**, locate wire **LB08A**; the wire should be folded back and taped off in the harness. Remove the tape and install wire **LB08A** into **cavity A10**. Continue with **step 8**.
7. If disconnecting the **DRL**, remove the wire from the connector, wrap the terminal end of the wire with electrical tape to prevent unintended connection, then secure the wire back to the harness with a tie-strap.
8. Connect the **PECV** connector to the left-hand side of the **ECC**.
9. Disconnect the dark gray **PECP** connector from the left-hand side of the **ECC**.
10. Find wire **HL08H** (this wire may be **HL05B** in later models) in **cavity G**, then tag the wire with that location for future installation, if desired.
11. If connecting **DRLs**, locate wire **HL05H** (this wire may be **HL05B** in later models); the wire should be folded back and taped off in the harness. Remove the tape and install wire **HL05H** or **HL05B** into **cavity G**. Continue with **step 13**.
12. If disconnecting the **DRLs**, remove the wire from the connector, wrap the terminal of the wire with electrical tape to prevent unintended connection, then secure the wire back to the harness with a tie-strap.
13. Connect the **PECP** connector to the left-hand side of the **ECC**.
14. Position the instrument panel and install the screws. If the steering column was lowered, position it into place, and tighten the steering column capscrews **17 lbf·ft (23 N·m)**.
15. Reconnect the batteries.
16. Verify correct operation of the lights.

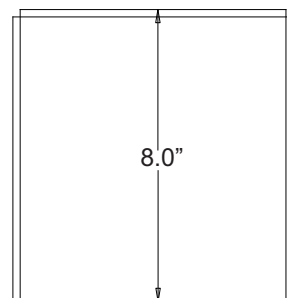
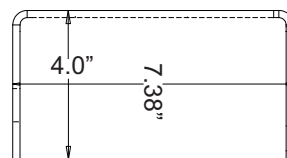
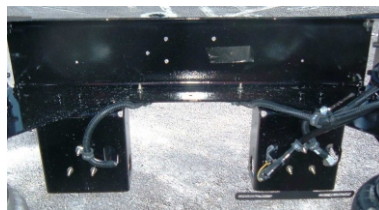


# 4800/4900/6900 Tail Light Configurations

## Partially protected Single Unit Tail lights mounted Under Frame

Taillight units are protected on three sides by a simple open box housing  
Mounted under the end of frame

**294-040** - Boxed tail light (stop/tail/backup) mounted below the rails



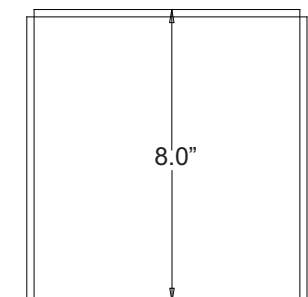
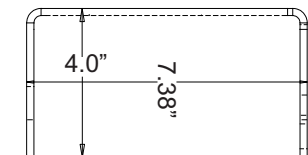
## Partially protected Single Unit Tail lights mounted Outside of Frame

Taillight units are protected on three sides by a simple open box housing mounted on the outside of the frame

**294-049** - Boxed tail lights (stop/tail/backup) mounted outboard of rails

**294-052** - Vsm dual sealed inboard of rail mounted stop/tail/turn/backup lights

**294-1AC** - Boxed tail light assembly (stop/tail/backup) mounted outboard of rails and inset 4" from end of frame



## Unprotected Single Unit Tail lights

Taillight units are unprotected and mounted off brackets located on end of from crossmember

**294-032** - Flush mounted stop/tail/backup lights mounted below rear most crossmember

**294-1AJ** - Boxed tail light assembly with LED stop/tail/license plate lights and incandescent backup lights mounted below rear most Crossmember

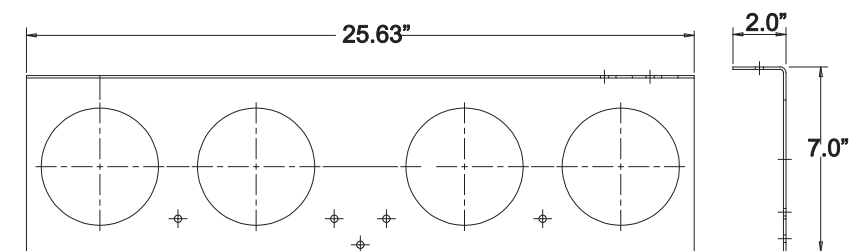


## Partially Protected Single Unit Tail Lights Under Frame

Taillight units are supported from a simple angle plate mounted under end of from crossmember.

**294-060** - LED stop/tail with separate backup lights mounted on polished aluminum plate end of frame

**294-063** - Vsm dual sealed polished aluminum plate mounted stop/tail/turn/backup lights



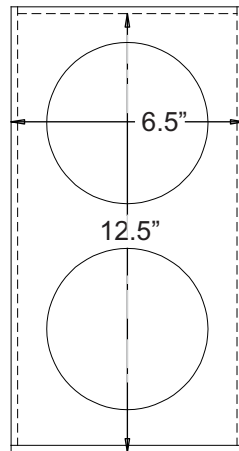
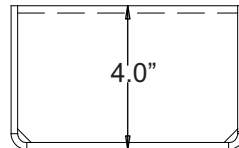
### Fully Protected Tail lights Mounted Outside of Frame

Taillight units are fully boxed in on all sides by a simple sturdy box housing mounted on the outside of the frame

**294-053** - Vsm dual sealed outboard of rail mounted stop/tail/turn/backup lights

**294-057** - Grote torsion mount sealed stop/tail/turn lights in boxes outside of frame

**294-079** - LED stop/tail with separate backup lights mounted in boxes outboard of rail

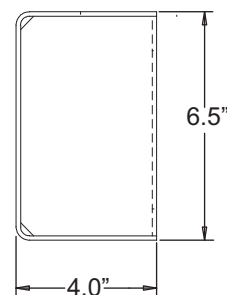
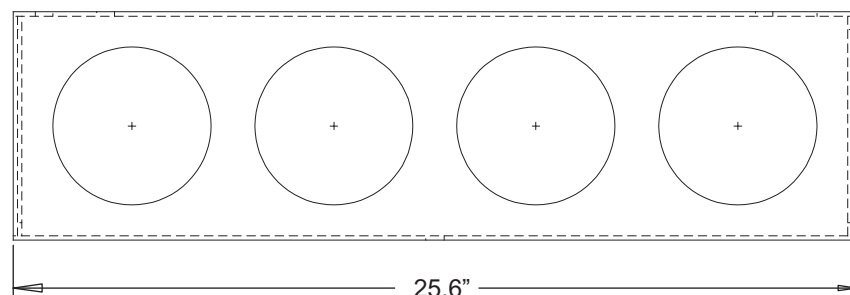


### Fully Protected Separate Tail Lights Mounted Outside of Frame

Taillight units are fully boxed in on all sides by a simple sturdy box housing and mounted under the end of frame

**294-082** - LED stop/tail with separate backup lights mounted in box under end of frame

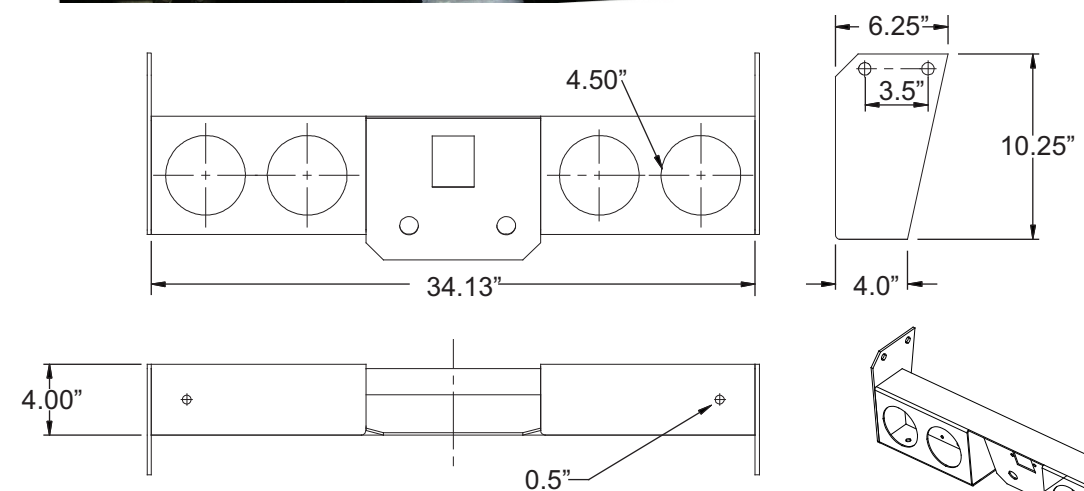
**294-055** - Grote torsion mount sealed stop/tail/turn lights in box below tear crossmember



### Protected Under Frame Vocational Tail lights

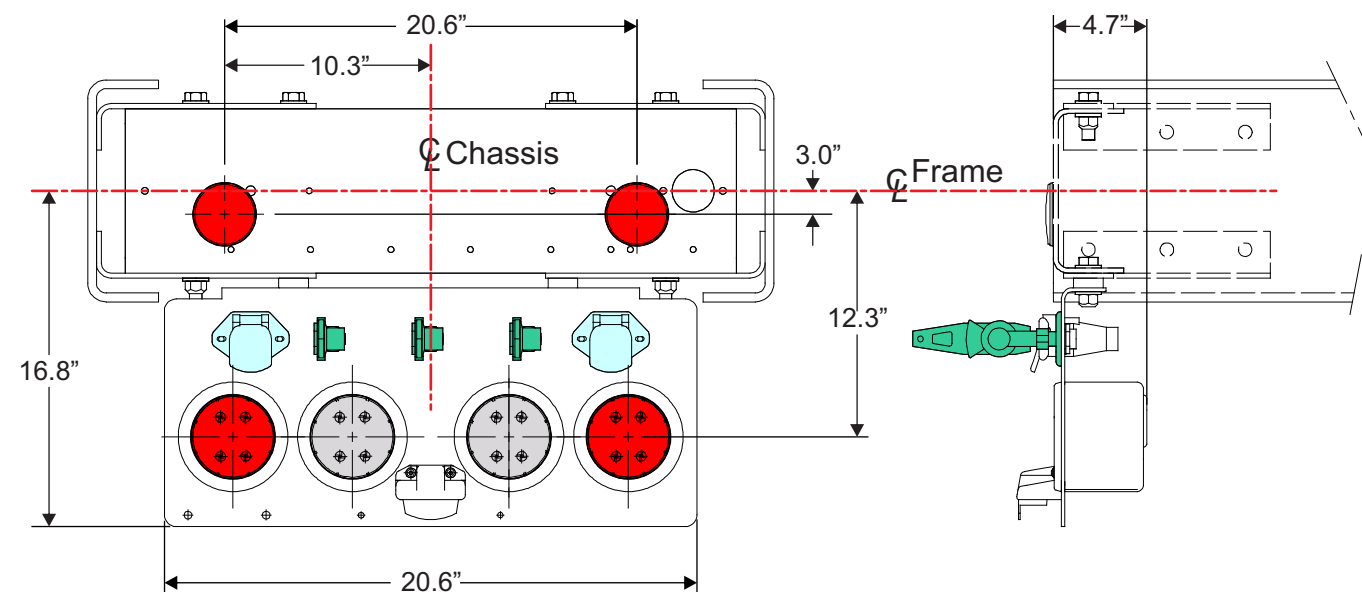
Taillight units are well protected and mounted under end of from crossmember

**294-054** - Vsm dual sealed logger light bar mounted stop/tail/turn/backup lights

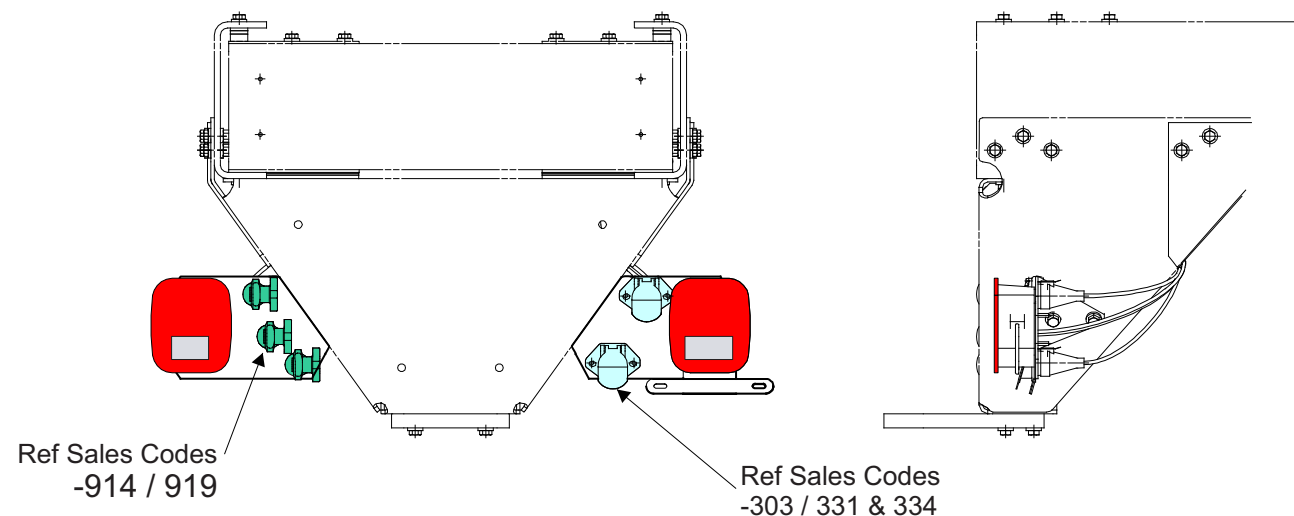




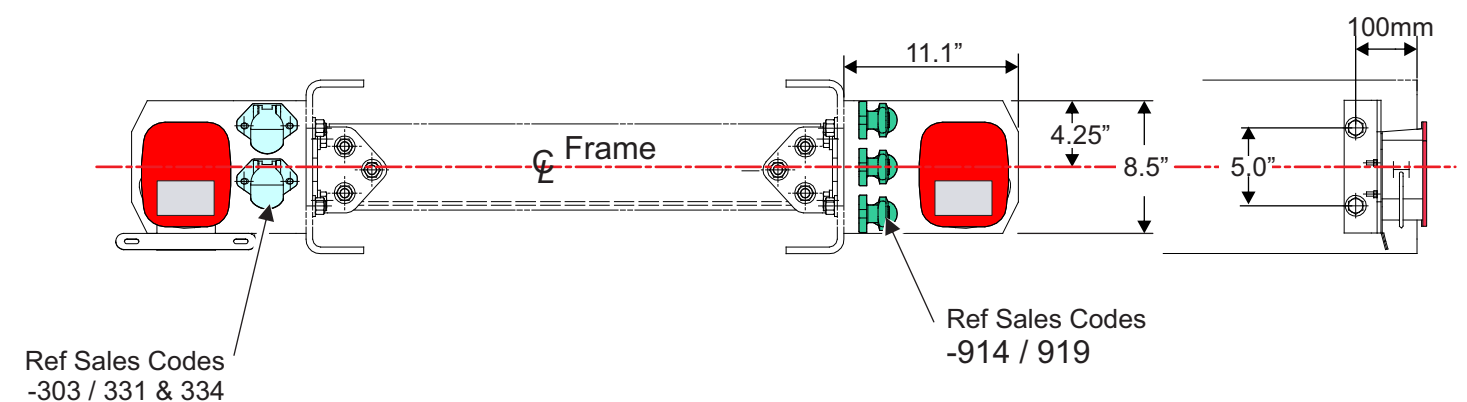
**294-1AV** - LED stop/tail with separate led backup lights mounted on painted steel plate end of frame



**294-001** - Integral stop / tail / backup lights with Deep V EOF

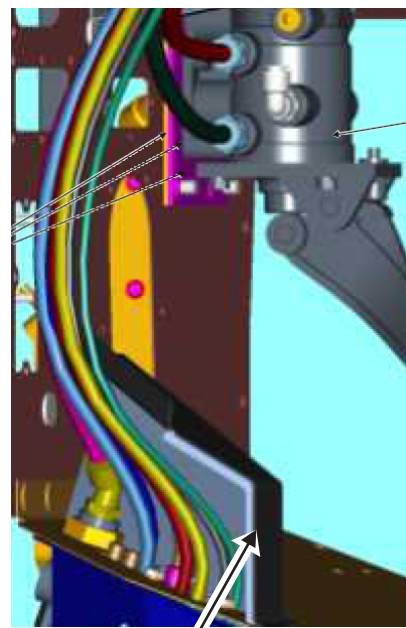
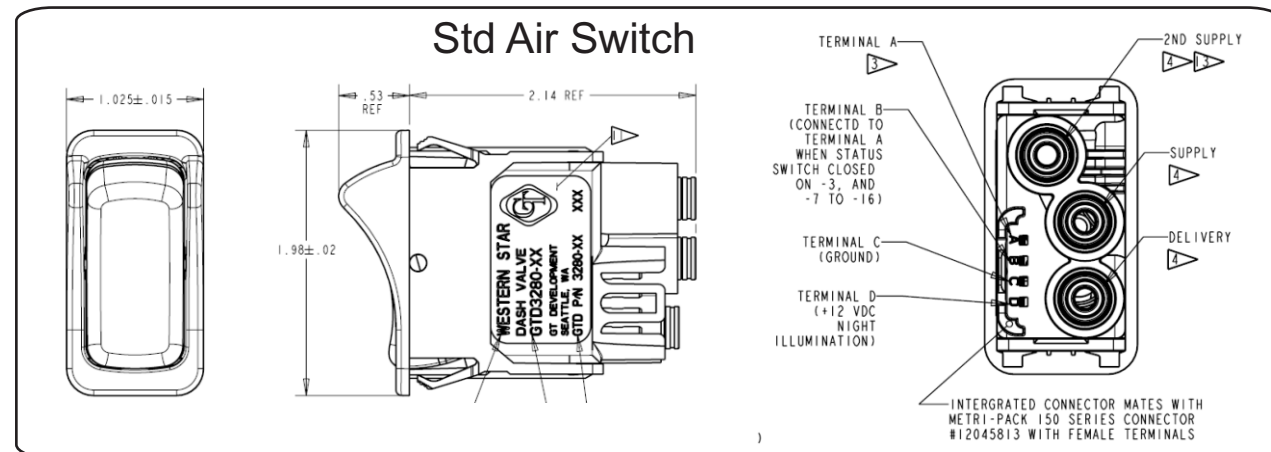


**294-001** - Integral stop / tail / backup lights with STD EOF

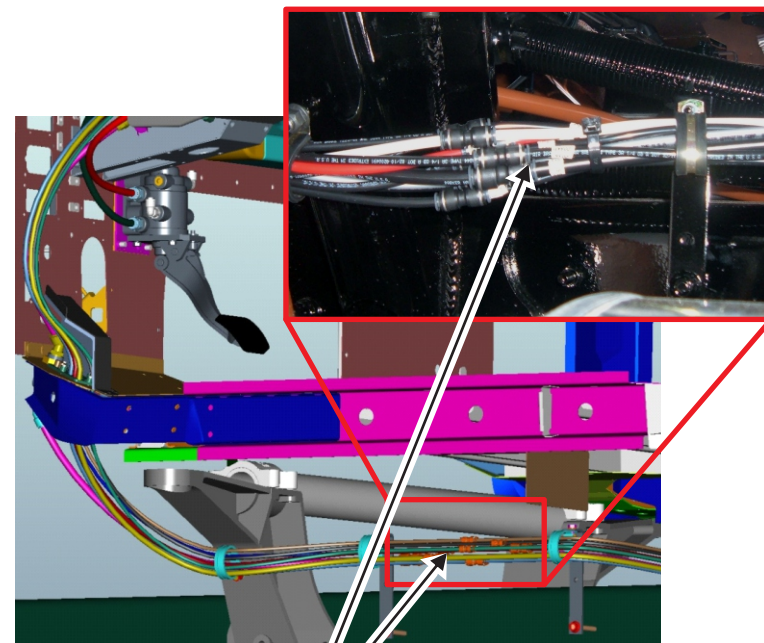


### WST Air System

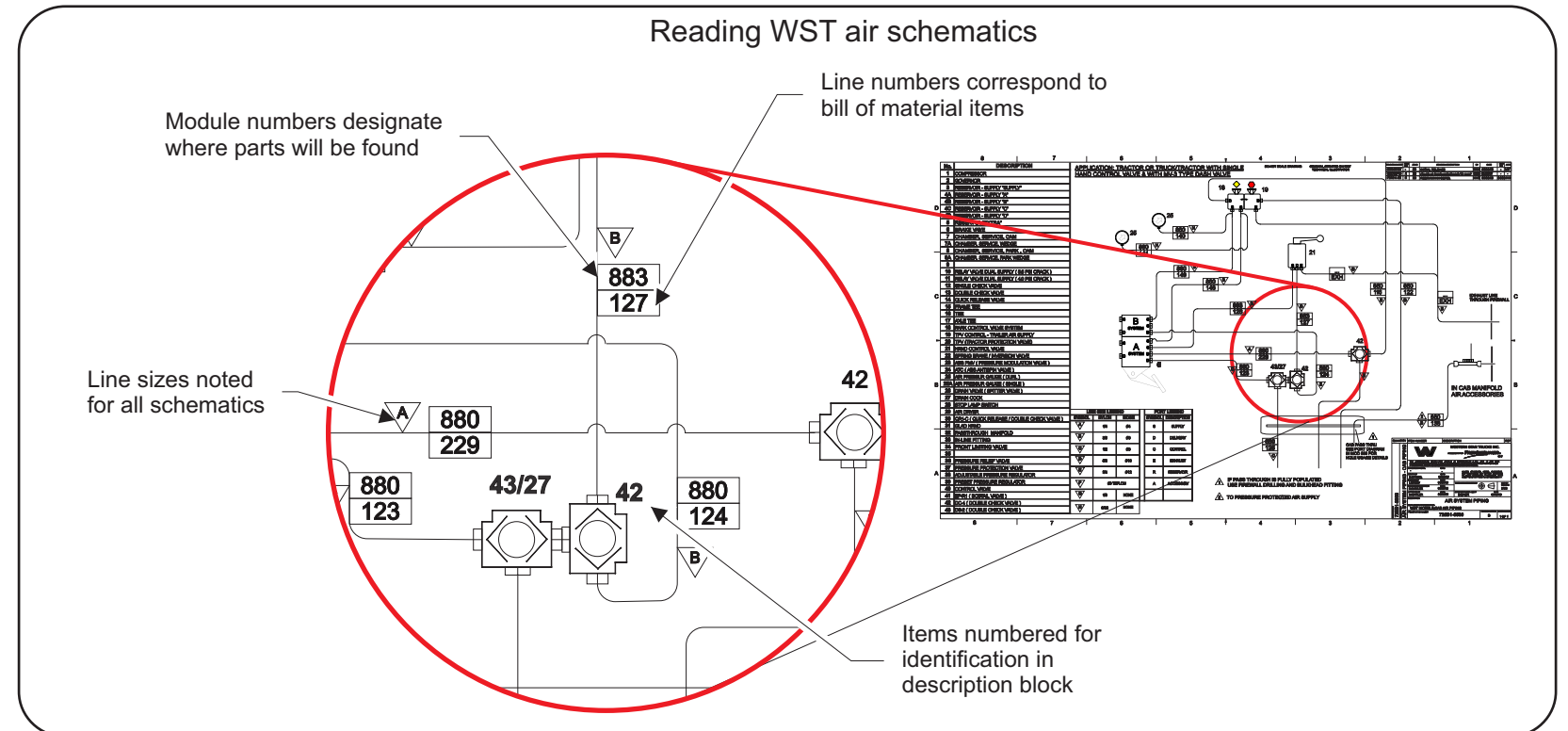
- The Western Star air system is designed for easy access and adaptability after delivery.
- In line air connections to all chassis components are located conveniently under driver's door cab skirt.
- To aid Body Builder connection access, the floor pass through has extra ports in various sizes. This pass through is located under the dead pedal as shown.
- Primary supply air is also available by tapping into the supply manifold located under the dash or by using a jumper as show below.



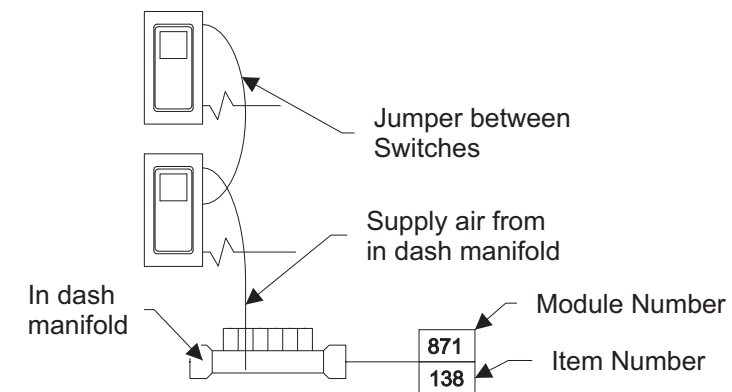
Airlines and cab pass through are located under the drivers dead pedal



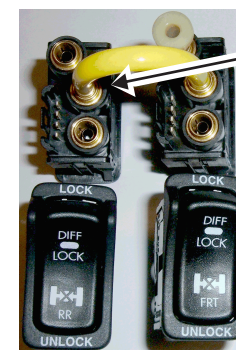
In line connections under cab allow for greater flexibility when connecting or changing air control systems



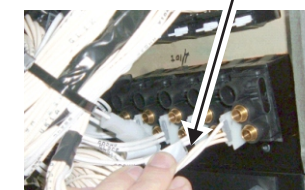
### Common air switch plumbing



WST three port air switch utilizes a jumper for air common air supply between option switches which cuts the air lines required for dash plumbing in half



Lighting Harness

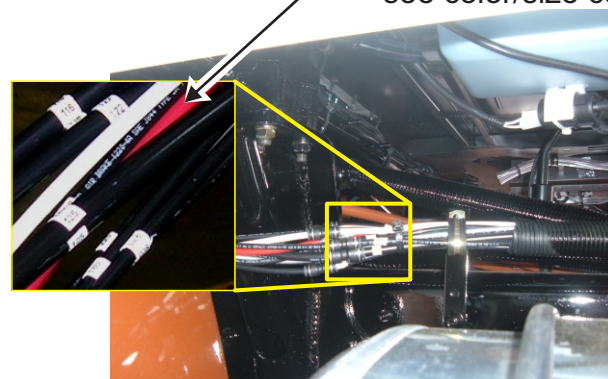




### 4800/4900/6900 Airline Numbering Circuits 1 to 100

The WST air system assigns separate line numbers for each connection line in the air system design. Most air lines are black but some air lines have been assigned colors and sizes for some common routing and as such the colored air lines will have no number labels. Where a black line is used number labels are used to identify which lines go to different places on the chassis these numbers correspond to the circuit numbers in the schematic drawings. All black and wire braid lines connecting to the cab will be labeled with a line number on both the cab sides and the chassis line in an area where no paint or over spray will cover them up.

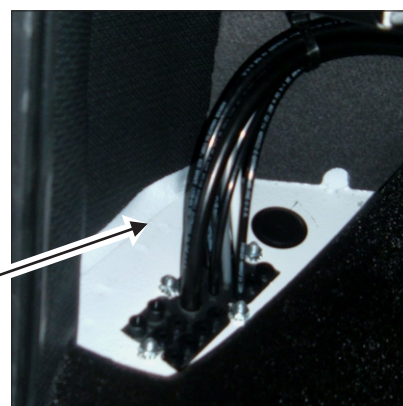
Color designated Lines  
will not have line numbers  
see color/size column for more information



Airline numbers  
on black lines

Under cab line connections

Additional air line  
ports are provided  
for easy addition  
of body builder  
controls



Cab pass through manifold  
located behind driver side  
dead pedal

Circuit	From	To	Line Color	Size	Area
116	Park Valve-Trac Del	Park Brake-DCV (42)	Black	3/8"	Cab
116	Park Brake-DCV (42)	Floor Pass-Thru	Black	3/8"	Cab
122	Park Valve-Trlr Del	Floor Pass-Thru	Orange	3/8"	Cab
123	Foot Valve	Trailer Brake-DCV (43/28)	Green	1/2"	Cab
124	Foot Valve	Hand Valve-DCV (42)	Red	1/2"	Cab
125	Trailer Brake-DCV (43/28)	Floor Pass-Thru	Black	1/2"	Cab
126	Foot Valve	Hand Valve-Supply	Green	3/8"	Cab
127	Hand Valve-Delivery	Hand Valve-DCV (42)	Blue	3/8"	Cab
138	Accessory Manifold	Floor Pass-Thru	Yellow	3/8"	Cab
140	Park Valve-Sec Supply	Pressure Gauge-Sec	Red	5/32"	Cab
141	Park Valve-Pri Supply	Pressure Gauge-Pri	Green	5/32"	Cab
148	Foot Valve	Park Valve-Pri Supply	Green	3/8"	Cab
149	Foot Valve	Park Valve-Sec Supply	Red	3/8"	Cab
229	Foot Valve	Park Brake-DCV (42)	Green	1/4"	Cab
EXH	Park Valve-Exhaust	Pass-Thru Manifold	Silver	3/8"	Cab
EXH	Hand Valve-Exhaust	Pass-Thru Manifold	Silver	3/8"	Cab
100	Air Dryer	Supply Resvr	Black	5/8"	Charging System
112	Supply Resvr	Governor	Black	1/4"	Charging System
253	Air Dryer	Governor	Silver	1/4"	Charging System
101	Supply Resvr	'A' Reservoir II	Green	5/8"	Chassis
102	Supply Resvr	'B' Reservoir	Red	5/8"	Chassis
103	'A' Reservoir	Foot Valve	Green	5/8"	Chassis
104	'B' Reservoir	Foot Valve	Red	5/8"	Chassis
105	Foot Valve	Rear Combo-Control	Green	3/8"	Chassis
106	Foot Valve	Front Combo-Control	Red	1/2"	Chassis
107	'A' Reservoir	Rear Combo-Supply	Green	3/4"	Chassis
111	Front Combo-Delivery	Bulkhead Fittings	Red	1/2"	Chassis
116	Floor Pass-Thru	Park Relay-Control	Black	3/8"	Chassis
117	Park Relay-Delivery	Frame Tee	Black	1/2"	Chassis
122	Floor Pass-Thru	TPV-Supply	Orange	3/8"	Chassis
125	Floor Pass-Thru	TPV-Delivery	Black	1/2"	Chassis
134	'A' Reservoir	Park System DCV	Green	1/2"	Chassis
138	Floor Pass-Thru	PPV @ 'B' Reservoir	Yellow	3/8"	Chassis
144	Park System DCV	Park Relay-Supply	Black	1/2"	Chassis
249	Undercab Manifold	PPV @ 'B' Reservoir	Yellow	3/8"	Chassis
NYL	Fan Drive	Fan Soleniod	White	1/4"	Fan Soleniod
6642	Cab Manifold	Air Horn Valve	Yellow	3/8"	Air Horn
6641	Air Horn Valve	Air Horn Inlet	Yellow	1/4"	Air Horn
025	Interaxle Lock Switch	Floor Pass-Thru	White	1/4"	Interaxle & DCDL
25B	DCDL Switch	Floor Pass-Thru	Red	1/4"	Interaxle & DCDL
271	Accessory Air Manifold	Switch Supply	Yellow	1/4"	Interaxle & DCDL
025	Floor Pass-Thru	Interaxle Lock Frame Tee	White	1/4"	Interaxle & DCDL
25B	Floor Pass-Thru	Diff Lock Frame Tee	Red	1/4"	Interaxle & DCDL
180	Susp Dump Switch	Floor Pass-Thru	Blue	1/4"	Suspension Leveling
084	Leveling Valve-Delivery	RH Forward Air Bag	Blue	3/8"	Suspension Leveling
085	RH Forward Air Bag	RH Aft Air Bag	Blue	3/8"	Suspension Leveling
086	LH Forward Air Bag	LH Aft Air Bag	Blue	3/8"	Suspension Leveling
087	Leveling Valve-Delivery	LH Forward Air Bag	Blue	3/8"	Suspension Leveling
180	Floor Pass-Thru	Leveling Valve-Dump	Blue	1/4"	Suspension Leveling
181	Press Protection Valve	Leveling Valve-Supply	Blue	3/8"	Suspension Leveling
028	Air Slide 5th Wheel Switch	Floor Pass-Thru	Green	1/4"	Air Slide Fifth Wheel
028	Floor Pass-Thru	Air Slide 5th Wheel	Green	1/4"	Air Slide Fifth Wheel

No.	DESCRIPTION
1	COMPRESSOR
2	GOVERNOR
3	RESERVOIR - SUPPLY "SUPPLY"
4A	RESERVOIR - SUPPLY "A"
4B	RESERVOIR - SUPPLY "B"
4C	RESERVOIR - SUPPLY "C"
4D	RESERVOIR - SUPPLY "D"
5	RESERVOIR "EXTRA"
6	BRAKE VALVE
7	CHAMBER, SERVICE, CAM
7A	CHAMBER, SERVICE, WEDGE
8	CHAMBER, SERVICE, PARK , CAM
8A	CHAMBER, SERVICE, PARK WEDGE
9	
10	RELAY VALVE DUAL SUPPLY ( 5.5 PSI CRACK )
11	RELAY VALVE DUAL SUPPLY ( 4.0 PSI CRACK )
12	SINGLE CHECK VALVE
13	DOUBLE CHECK VALVE
14	QUICK RELEASE VALVE
15	FRAME TEE
16	TEE
17	AXLE TEE
18	PARK CONTROL VALVE SYSTEM
19	TPV CONTROL - TRAILER AIR SUPPLY
20	TPV (TRACTOR PROTECTION VALVE)
21	HAND CONTROL VALVE
22	SPRING BRAKE / INVERSION VALVE
23	ABS PMV ( PRESSURE MODULATION VALVE )
24	ATC ( ABS ANTISPIN VALVE )
25	AIR PRESSUR GAUGE ( DUAL )
25A	AIR PRESSUR GAUGE ( SINGLE )
26	DRAIN VALVE ( SPITTER VALVE )
27	DRAIN COCK
28	STOP LAMP SWITCH
29	AIR DRYER
30	QR1-C ( QUICK RELEASE / DBLE CHECK VALVE )
31	GLAD HAND
32	PASSTHROUGH MANIFOLD
33	IN-LINE FITTING
34	FRONT LIMITING VALVE
35	
36	PRESSURE RELIEF VALVE
37	PRESSURE PROTECTION VALVE
38	ADJUSTABLE PRESSURE REGULATOR
39	PRESET PRESSURE REGULATOR
40	CONTROL VALVE
41	BP-R1 ( BOBTAIL VALVE )
42	DC-4 ( DOUBLE CHECK VALVE )
43	DS-2 ( DOUBLE CHECK VALVE )

Air systems schematics are located in Mod 880 and 883.  
Refer to individual serial numbers for specific truck information systems using your dealer or service link.

Basic Air System for Dual Hand Control Dash Valve

