Q-190R3

SVE BULLETIN

SPECIAL VEHICLE ENGINEERING – BODY BUILDERS ADVISORY SERVICE

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Separating Stop and Turn Signals

Models Affected: 2011 Model Year and later F250/350/450/550.

Background

To separate stop and turn signal circuits, it may be required to reconfigure the Body Control Module (BCM). You will need to install two 18awg wires to the BCM and connect the other end of the wires to the rear turn lamps and may need to install two relays to power the separate turn lamps. The stop lamps must be connected to the CHMSL circuit CLS52 BN 22awg on pin 2 of connector C904.

Configuration

Ford dealers have a Special Service Message (SSM) 21369 providing instructions for reconfiguration of the BCM to separate stop and turn signal circuits. Alternatively, Final Stage Manufacturers can reconfigure the BCM to separate stop and turn signal circuits with a laptop computer by obtaining their own IDS Kit (Integrated Diagnostic Software) sold by Ford. Below are two areas of the Motorcraft® Technical Resource Access website for the description and ordering of tools and kits.

Diagnostic Tool Support (product detail in left hand navigation menu):
http://www.motorcraftservice.com/vdirs/retail/default.asp?pageid=wds_retail&gutsid=wds&menuIndex1=8

Tools & Equipment (how to order):
http://www.motorcraftservice.com/vdirs/retail/default.asp?pageid=pubs_rotunda&gutsid=pubs_rotunda

Up-fitters will be asked to call **1-800-ROTUNDA Option #1** to order the kits. Another option is through the Ford Fleet website, www.fleet.ford.com, if they have a FIN Code.

Once the service laptop has been obtained, and IDS installed, the following are the basic steps to separate stop and turn signal circuits:

Lamp Outage Programming (see Fig 5a, 5b, 5c for screenshots)

1. Ensure that the IDS is updated to 67.03 Database	**4. Select "Exterior Lighting"**
2. Select "Module Programming"	**5. Select "Lamp Outage"**
3. Select "Programmable Parameters"	**6. Select "Lamp Outage Turned Off"**

NOTE: Incomplete Vehicles built after 5-10-10 are configured with "Lamp outage turned off" therefore do not require reconfiguration of the BCM to accommodate separating stop and turn signal circuits without lamp outage fast flash

Notes: 1. Reconfiguration of the BCM to accommodate separating stop and turn signal circuits is not covered by Ford warranty.
2. FMVSS 108 / CMVSS 108 compliance (with specific regard to the turn signal bulb outage requirement per this bulletin) is the responsibility of the Final Stage Manufacturer.

Wiring

After the configuration is complete, the stop and turn lamps will need to be properly wired:

- FOR VEHICLES **WITHOUT** TURN SIGNALS IN EXTERIOR REAR VIEW MIRRORS: This requires the installation of two terminals with 18awg wire in cavities 14 (TURN LAMP LEFT REAR) and 15 (TURN LAMP RIGHT REAR) of the J3 connector that plugs into the BCM. Route the 18awg wires from the cabin to the turn lamps in rear of the vehicle. Wire the stop lamps to the CHMSL BN 22AWG circuit running to pin 2 of connector C904.

- FOR VEHICLES **WITH** TURN SIGNALS IN EXTERIOR REVIEW MIRRORS: Splice into the existing wires in cavities 14 (TURN LAMP LEFT REAR) and 15 (TURN LAMP RIGHT REAR) of the J3 connector that plugs into the BCM. If the current draw of the turn lamps you are installing is 0.7amps or greater, you will need to install a relay to power the left turn lamp and another relay to power the right turn lamp. Use the newly spliced wires to control the respective relay. Route the power circuit from the new relays to the turn lamps in the rear of the vehicle. Wire the stop lamps to the CHMSL BN 22AWG circuit running to pin 2 of the connector C904.

The terminals are Tyco PN: 2035334-1 (20-22awg) and 2035334-2 (18awg) and can be obtained through: Maggie Westcott (mwestcott@powersignal.com) Phone number 720-273-1265 at www.powerandsignal.com

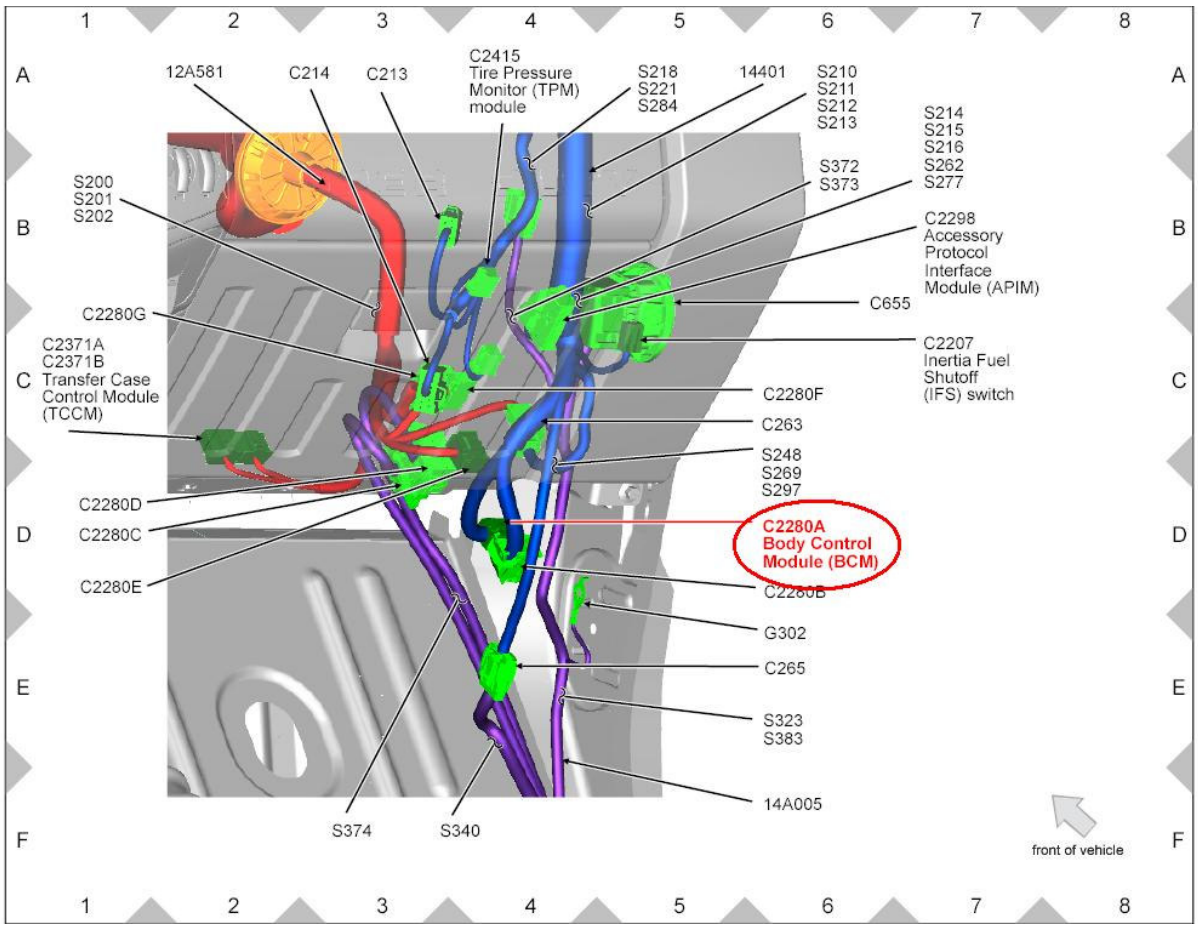


Fig 1: Body Control Module (BCM) Location (in cab, behind RH side kick panel)

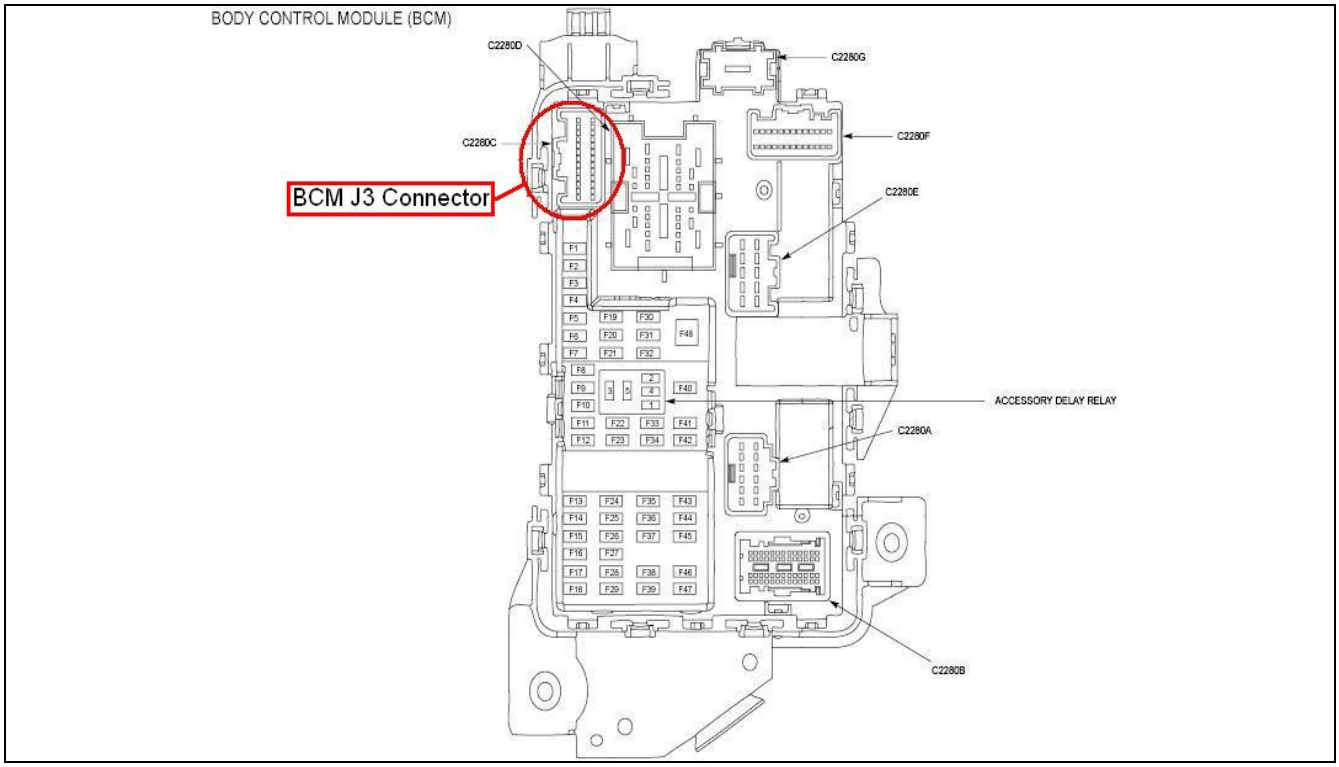
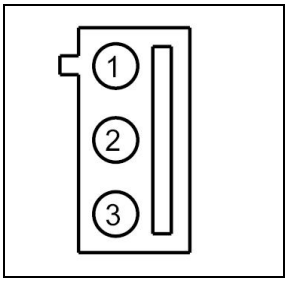
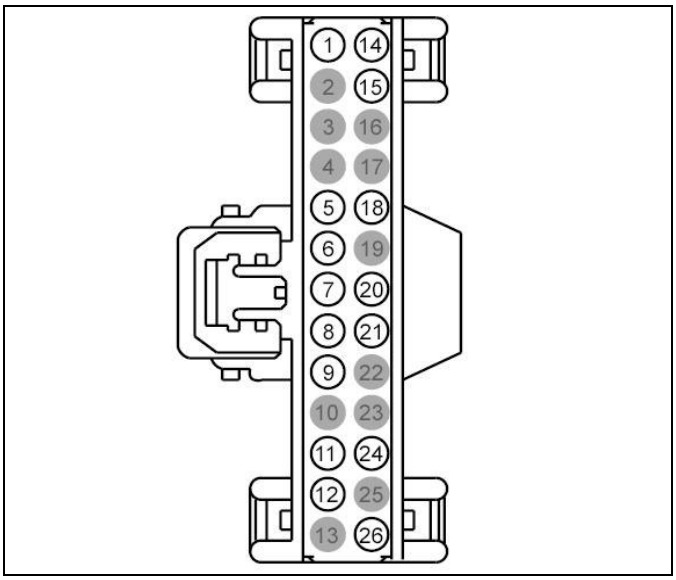


Fig 2: Body Control Module (BCM) J3 Connector (C2280C)



Pin	Circuit	Gauge	Circuit Function
1	GD137(BK-WH)	22	GROUND- PILLAR A LEFT #5TH STUD
2	CLS52 (BN)	22	CTRL MOD.- CHMSL
3	VLN33 (GY-VT)	20	INTERIOR/COURTESY LAMP DIMMING (THEATRE)

Fig 3: Harness side end view of CHMSL connector (C904) and pinout



Pin	Circuit	Gauge	Function
1	CLN25 (VT)	20	RELAY-PUDDLE LAMPS (KERB. ILLUM.)
2	-	-	Not Used
3	-	-	Not Used
4	-	-	Not Used
5	CPL31 (WH)	22	SWITCH-LATCH PASSENGER#AJAR
6	CPK19 (BU-GN)	22	SWITCH-LOCK DRIVER
7	CMC25 (WH-VT)	22	SWITCH-PARKING BRAKE
8	CPK23 (YE-VT)	22	SWITCH-UNLOCK DRIVER
9	CPL26 (GN-VT)	22	SWITCH-LATCH DRIVER#AJAR
10	-	-	Not Used
11	CPK31 (YE-GN)	22	SWITCH-KEYLESS KEYPAD LINE C
12	VDN03 (GY-VT)	22	CTRL MOD.-LIN BUS#SPDJB3
13	-	-	Not Used
14	**CLS23 (GY-OG)**	**22**	**CTRL MOD.-TURN LAMP LEFT REAR**
15	**CLS27 (GN-OG)**	**22**	**CTRL MOD.-TURN LAMP RIGHT REAR**
16	-	-	Not Used
17	-	-	Not Used
18	CPK30 (VT-GN)	22	SWITCH-KEYLESS KEYPAD LINE B
19	-	-	Not Used
20	CPL36 (GN)	22	SWITCH-LATCH REAR DRIVER SIDE#AJAR
21	CPL39 (YE)	22	SWITCH-LATCH REAR PASSENGER SIDE#AJAR
22	-	-	Not Used
23	-	-	Not Used
24	CPK29 (GY-BU)	22	SWITCH-KEYLESS KEYPAD LINE A
25	-	-	Not Used
26	CPK28 (WH-GN)	22	CTRL MOD.-SWITCH KEYLESS KEYPAD ILLUMINATION

Fig 4: Harness side connector end view of BCM J3 Connector (C2280C) and pinout

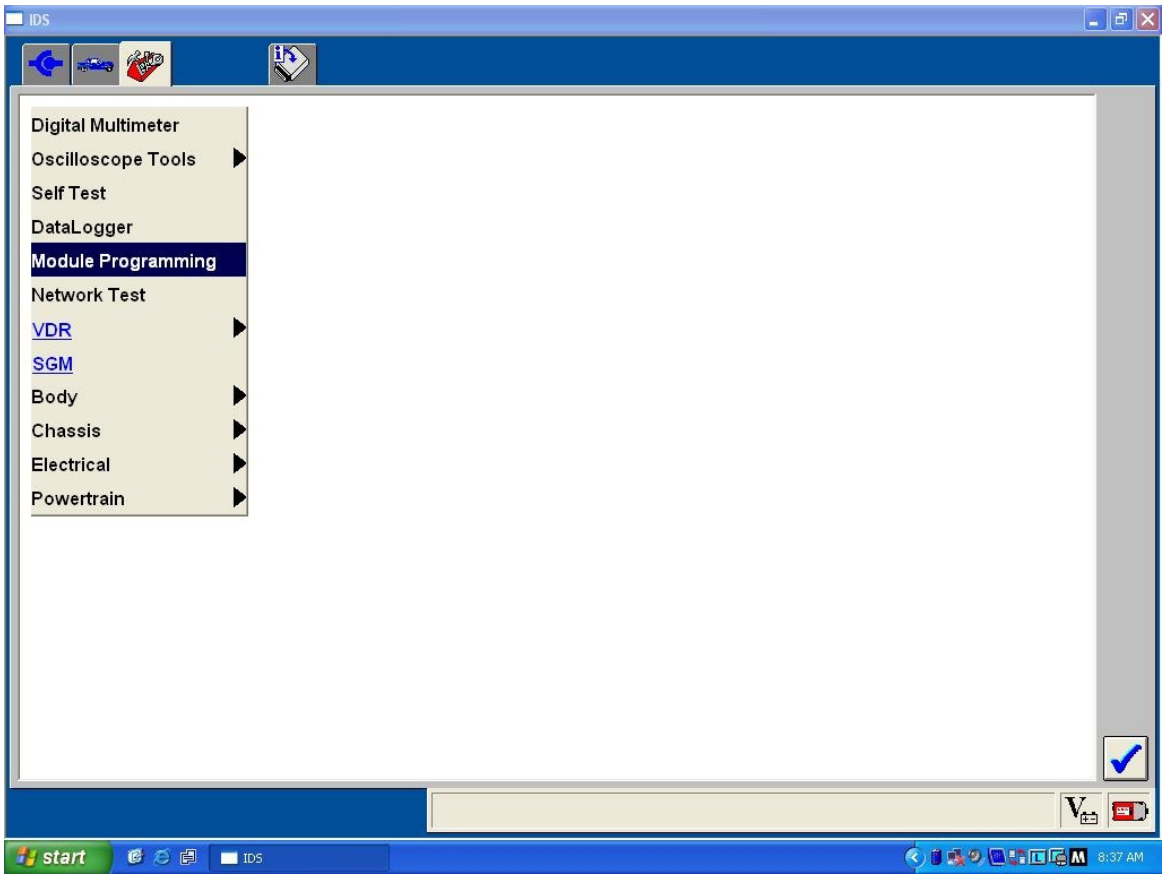


Fig 5a: IDS tool screenshots of Lamp Outage reprogramming

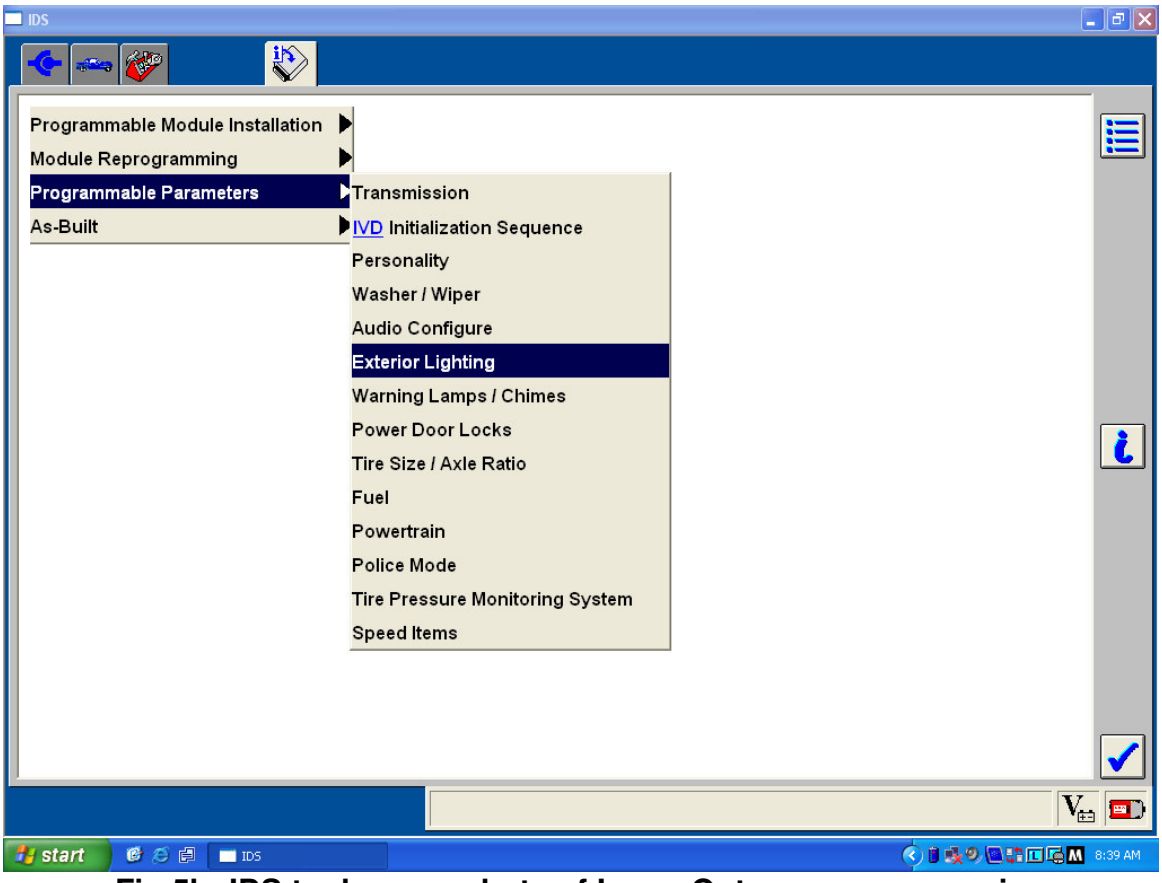


Fig 5b: IDS tool screenshots of Lamp Outage reprogramming

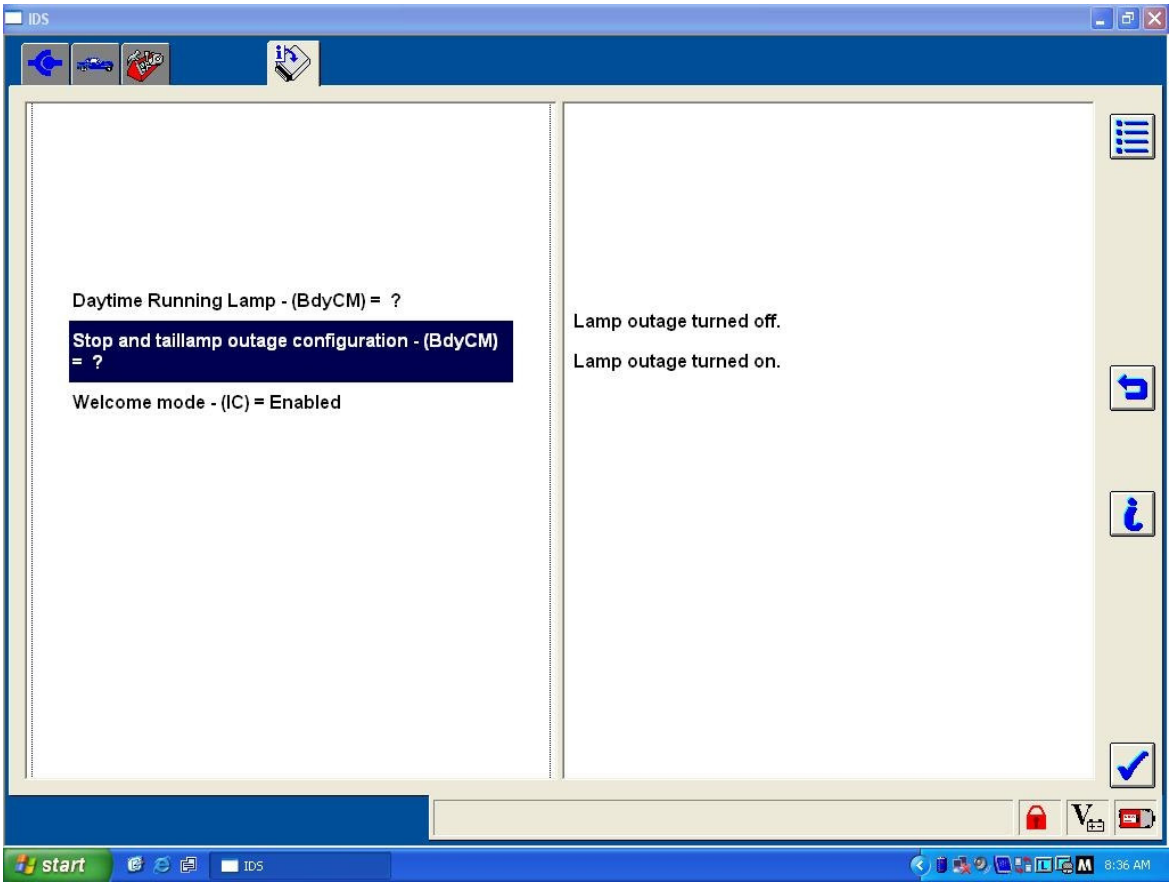


Fig 5c: IDS tool screenshots of Lamp Outage reprogramming

INSTALLATION OF ADDITIONAL REVERSE LAMPS

In 2011MY Super Duty vehicles, the reverse lamp circuit is monitored for over-current conditions. If the Body Control Module (BCM) detects current draw that exceeds design parameters, it will trigger a Diagnostic Trouble Code (DTC) and disable the reverse lamp circuit.

When installing additional reverse lamps you may encounter this situation. To remedy this, use the trailer tow wiring reverse lamp circuit (CAT16, gray with brown stripe) found in the blunt cut wires at the end of frame. If your vehicle is equipped with the trailer tow connector, the reverse lamp circuit (CAT16, gray with brown stripe) is found on pin 7 of the 7-way connector.

Alternately a relay may be installed to provide power to additional reverse lamps or LED-style reverse lamps may be used provided they do not trigger a DTC.

If you have any questions, please contact the Ford Truck Body Builders Advisory Service as shown in the header of this bulletin.