A-BOM753-A
Black Out Module
2025 RAM 2500 DJ

Contact InterMotive for additional applications

Introduction

The Black Out Module is intended to provide 2025 Ram 2500 DJ with the ability to eliminate all exterior lighting to aid in covert operations. When activated, it will eliminate the parking lamps, reverse lights, and Service Brake lights. Maximum speed can be set between 5-20 mph to automatically return brake lights for safety purposes.

NOTE: If the brake pedal is pressed when exiting Black Out Mode the tail lights will not illuminate. The brake pedal must not be pressed for 0.5s after exiting Black Out Mode to regain illumination.

Installation Instructions

Disconnect vehicle battery before proceeding with installation.

IMPORTANT - READ BEFORE INSTALLATION

It is the installer's responsibility to route and secure all wiring harnesses where they cannot be damaged by sharp objects, mechanical moving parts and high heat sources. Failure to do so could result in damage to the system or vehicle and create possible safety concerns for the operator and passengers.

It is important to avoid placing the module where it could encounter strong magnetic fields from high current cabling connected to motors, solenoids, etc. Also avoid radio frequency energy from antenna's or inverters next to the module. Finally, avoid high voltage spikes in vehicle wiring by always using diode clamped relays when installing upfitter circuits.

A-BOM753-A Module

Remove the lower dash panel below the steering column area and find a suitable location to mount the A-BOM753-A module. If equipped, also remove the VISM module to provide more access to below the steering column. Locate the module in an area away from any external heat sources (engine heat, heater ducts, etc.). Do not actually mount the module until all wire harnesses are routed and secure. The last step will be to mount the module.

840-00435

840-00437

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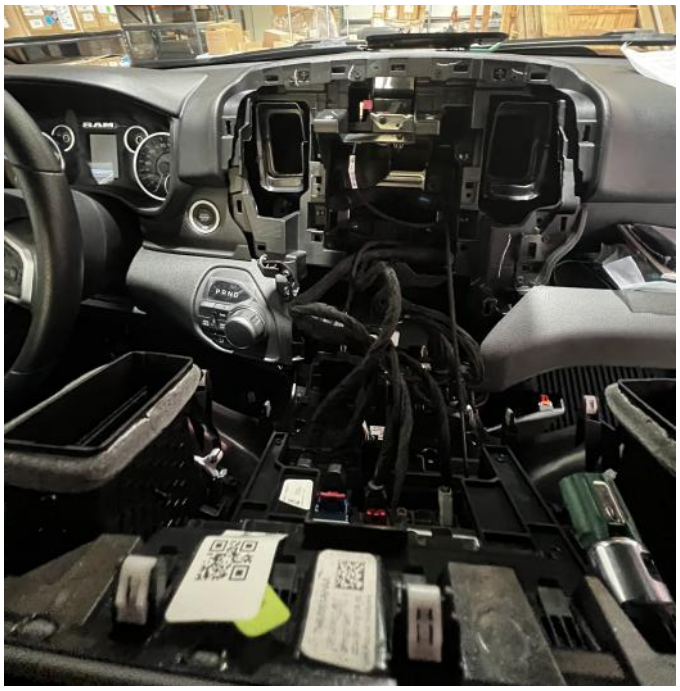
2025 Ram 2500 (DJ)

Data Link Harness Installation

The Data Link Harness has connections behind the radio and at the shifter module.

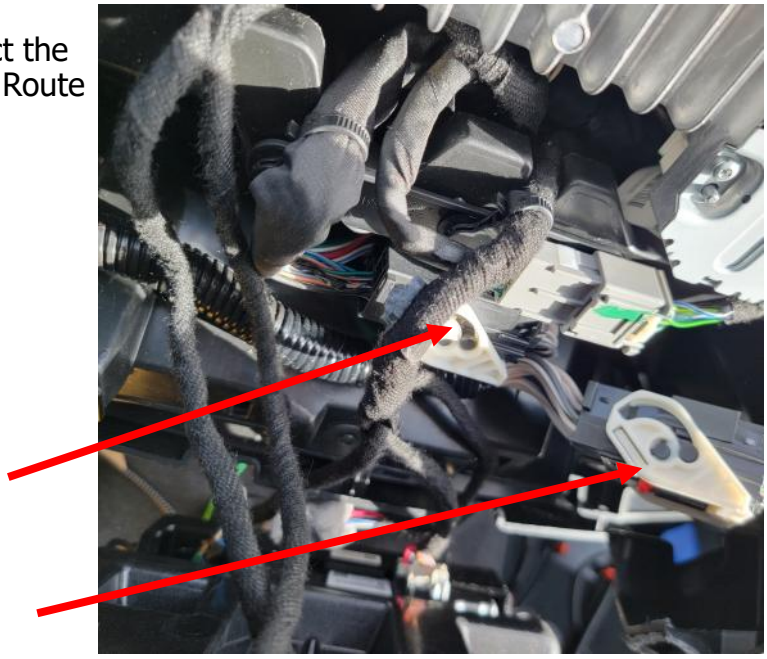
- On top of the radio there are 2 screws that need to be removed.



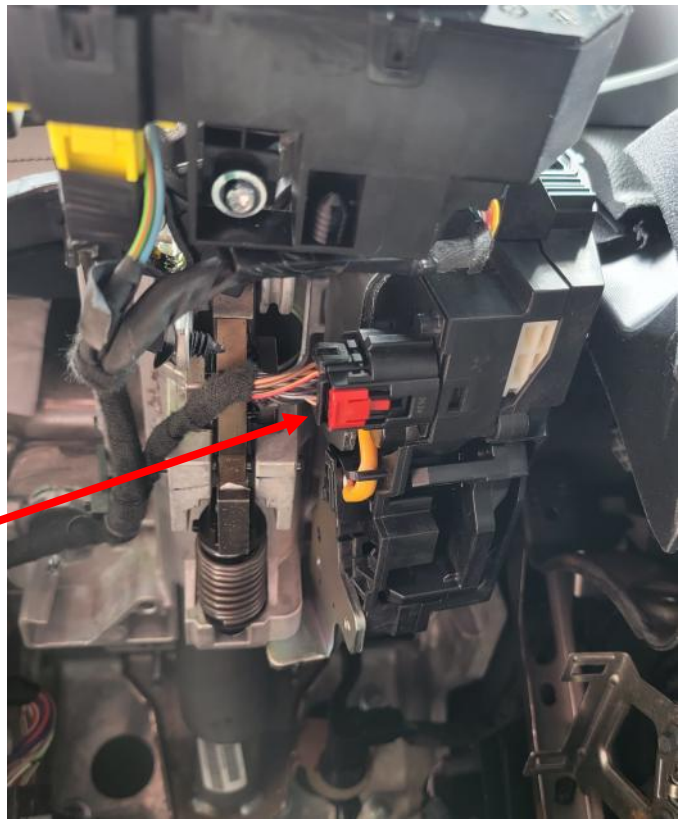
- Remove the center stack bezel using a plastic trim tool by pulling outward. There are only clips holding it in. Disconnect the connectors from the stack and set it aside. This will expose the 30w black connector in the next step.

2025 Ram 2500 (DJ) Continued

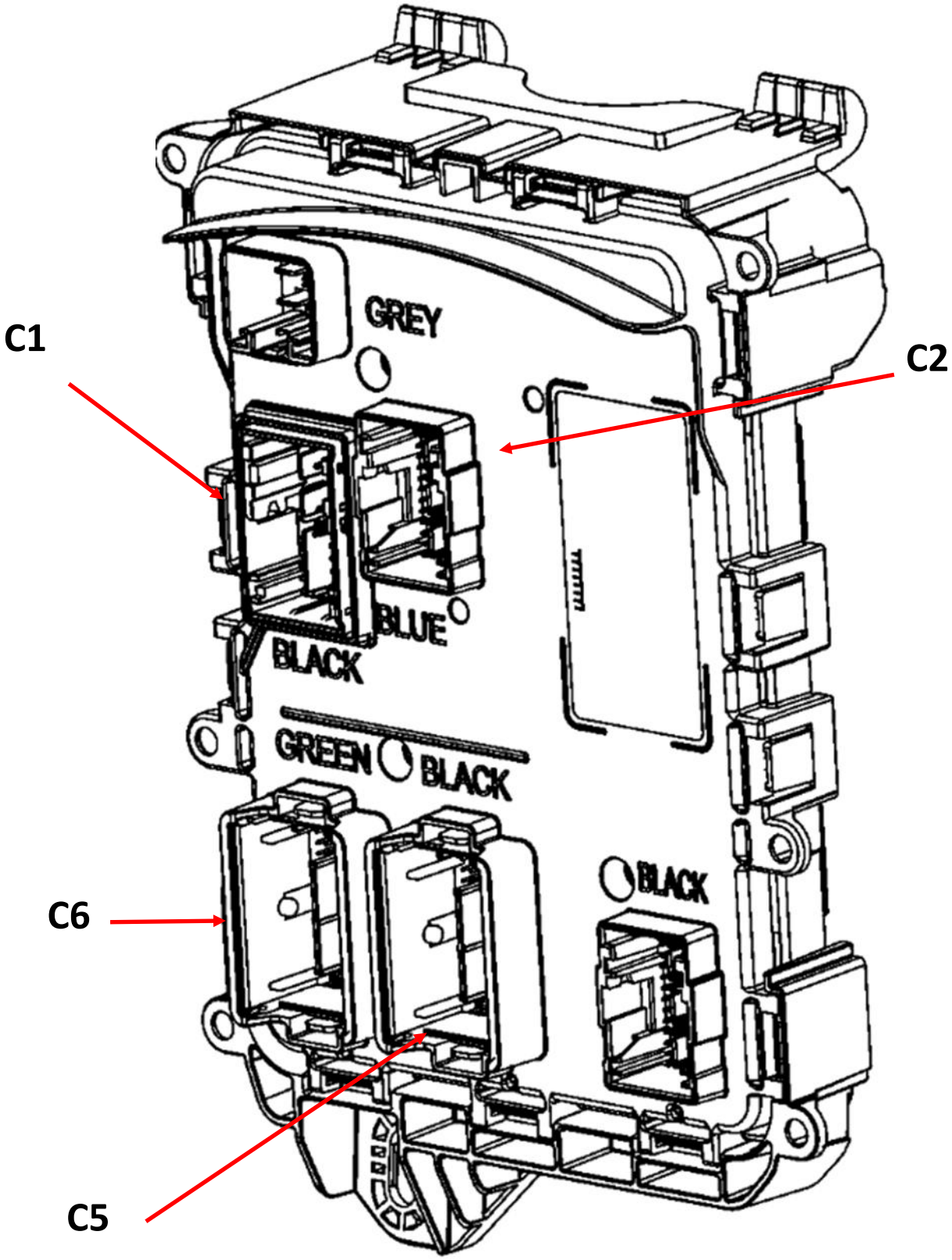
• Disconnect the 30w black connector and connect the mating connectors from the InterMotive harness. Route the harness towards the steering wheel and the mounting location for the BOM753 modules.



- Reconnect the connectors to the center stack and reinstall it.
- Tilt the steering wheel all of the way up and locate the black 10w connector for the shift module. It is located on the bottom of the steering column at the back of the shroud. Route the section of the InterMotive harness with the 10w connectors to this location and plug them in.
- Route the (2) 6w Molex connectors to the mounting location for the BOM753 modules.



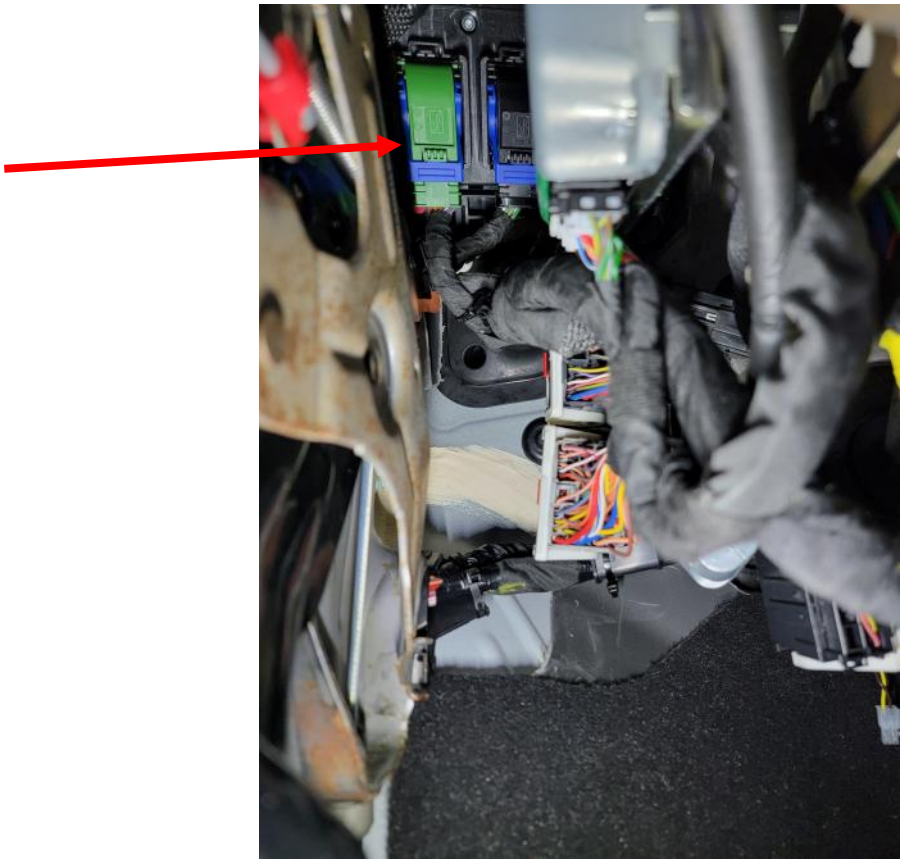
BODY CONTROL MODULE (BCM)

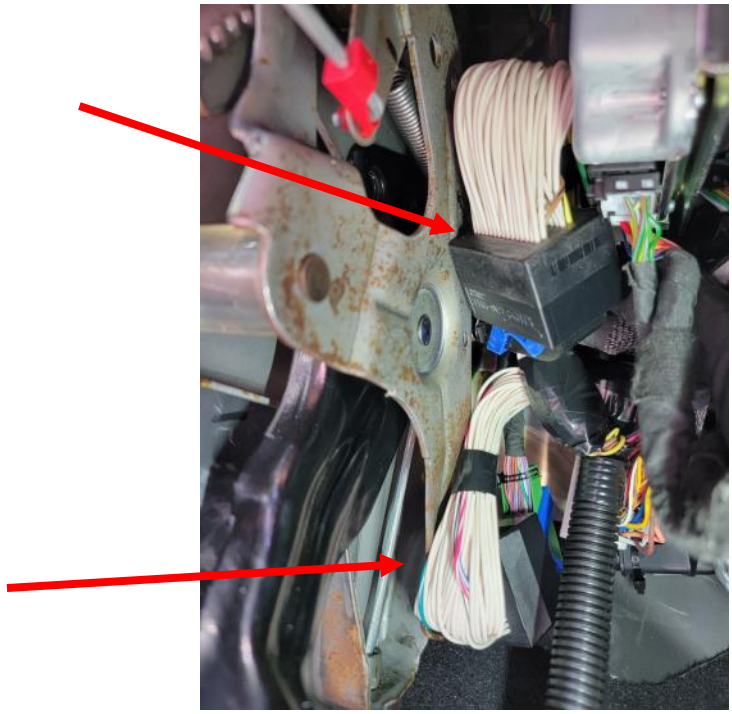


BOM753 Main Harness Installation

- Locate the BCM. It is mounted near the bulkhead on the left side of the Driver's side footwell. It is behind some other modules and harnesses. There are (2) 60w connectors to disconnect, one Green and the other Black. Press in the tab and flip up the blue lever lock all of the way to release the connectors. Using a long, flat tool can be helpful as space is limited around the connectors.
- The Green connector is on the left and should be removed first. The Black connector is to the right of the Green connector and has a harness routed in front of it.
- With the connectors removed, install the Black 60w connector on the InterMotive harness first into the BCM. Ensure the connector is **FULLY** seated in the BCM. The blue lever lock will have some resistance to it when locking it if the connector is fully seated.
- Install the OEM Black 60w connector into the mating Male Black 60w 3D printed connector on the same breakout. It will only fit one way. **NOTE: It's essential that the OEM 60w connectors are plugged into the correct mating connector.**
- Install the Green 60w connector on the InterMotive harness into the BCM. Ensure the connector is **FULLY** seated in the BCM. The blue lever lock will have some resistance to it when locking it if the connector is fully seated.
- Install the OEM Green 60w connector into the mating Male Black 60w 3D printed connector on the same breakout. It will only fit one way. **NOTE: It's essential that the OEM 60w connectors are plugged into the correct mating connector.**
- **NOTE: If the OEM 60w connectors are plugged into the incorrect Male connectors, the vehicle will go into an error state when power is reapplied. The wipers will be stuck on, the ignition switch will be inoperable, and various warnings will appear on the cluster. If this happens, disconnect the battery and swap the OEM connectors at the InterMotive Male connectors.**

Installation images are on the next page





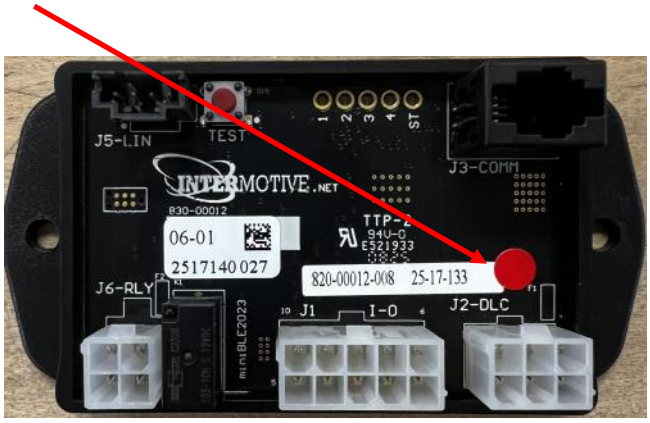
BOM753 Main Harness Installation

- Remove the panel the houses the headlight switch. It is held in with clips.

- Route the section of harness with (2) 10w connectors up to the headlight switch. Plug in the mating connectors.
- Reinstall the headlight switch panel.

2025 Ram 2500 (DJ) Continued

- The black 4w, white 4w, and white 10w connectors plug into the module with the RED sticker. Plug the 6w molex with the RED tape into the BOM753 Module with the RED sticker



BOM753A Module

- Plug the 6w molex with the BLUE tape into the BOM752 Module with the BLUE sticker

BOM753B Module

Reconnect the Battery

J1 10-Pin Connector

Pin #1 - n/c

Pin #2 - n/c

Pin #3 - Brown - (Pitch Black Dongle)

Pin #4 - n/c

Pin #5 - n/c

Pin #6 - n/c

Pin #7 - n/c

Pin #8 - n/c

Pin #9 - Gray - Connects to headlight switch connector

Pin #10 - Green - (Pitch Black Dongle)

J5 4-Pin Black Connector Pin-Out Definition

Connector J5 contains the Twilight output and Rear Wig/Wag activation.

- Pin #1 - n/c
- Pin #2 - n/c
- Pin #3 - n/c
- Pin #4 - Pink - Twilight Output

J6 4-Pin BOM Relay Connector Pin-Out Definition

Connector J6 contains the Pitch Black output.

The 4 fused relay output pins on connector J6 are defined as follows:

- Pin #1 - Red - jump to pin 3
- Pin #2 - Violet - Pitch Black Output
- Pin #3 - Red - jump to pin 1
- Pin #4 - N/A

BOM1 relay 12-Pin molex connectors.

Pin #1 - Orange/Black - to 10w headlight switch connector

Pin #2 - Black - GND eyelet

Pin #3 - Orange - to 10w headlight switch connector

Pin #8 - White/Black - Harness side of CHMSL circuit

Pin #9 - White - BCM side of CHSML circuit

Pin #10 - Tan - BCM side of Hitch light circuit

Pin #12 - Tan/Black - Harness side of hitch light circuit

BOM2 relay 12-Pin molex connectors.

Pin #1 - Red/White - Harness side of Left Reverse circuit

Pin #3 - Red - BCM side of Left Reverse circuit

Pin #4 - Violet - BCM side of Right reverse circuit

Pin #8 - Green/White - Harness side of Right brake light circuit

Pin #9 - Green - BCM side of Right brake light circuit

Pin #10 - Yellow - BCM side of Left brake light circuit

Pin #11 - Violet/White - Harness side of Right reverse circuit

Pin #12 - Yellow/Black - Harness side of Left brake light circuit

Post Installation / Check List

The following checks must be made after installation of the system, to ensure correct and safe operation. If any of the checks do not pass, do not deliver the vehicle. Recheck all connections per the installation instructions.

1. Turn ignition key on. (to "Run")
2. Apply the Parking Brake and Turn Off all lights. (High Beams, Low Beams, and Parking Lights)
3. Ensure Fog Lights and Cargo Lights are off.
4. Press the Adaptive Cruise Control Increase Distance button to engage Black Out Mode.
5. Manually dim the cluster.
6. Hold Service Brake and verify the Brake lights are disabled.
7. Release Service Brake and turn on Low Beams, this will disable Black Out mode.
8. Hold Service Brake and verify the Brake Lights are lit.
9. Turn Off all lights. (High Beams, Low Beams, and Parking Lights)
10. Press the Adaptive Cruise Control Increase Distance button to engage Black Out Mode.
11. Place transmission in Reverse and verify the reverse lights are not lit.
12. Turn on Low Beams and Pitch Black LED will turn off.
13. Verify that the Reverse Lights are On.

DO NOT PUT VEHICLE IN SERVICE IF IT DOES NOT PASS ALL OF THE ABOVE TESTS

Contact InterMotive at 530-823-1048 for technical assistance

Diagnostics

Diagnostic mode is entered by pressing the test button on the module. The module provides diagnostic LEDs which illuminate according to the following table. There are multiple pages of diagnostics and the page can be determined by the Status LED. Pressing the test button will cycle through the different pages.

STATUS LED	1-1	2-2	3-3
LED 1	Chimes Enabled	Pitch Black Active	Internal Use
LED 2	Dark Car Control	Armed Enabled	Pitch Black Dongle Connected
LED 3	Not Used	VSS < Max speed	Internal Use
LED 4	Not Used	Headlamp Switch OFF	Internal Use

Twilight Feature

Twilight mode will allow the user to disable the parking lights, headlights, interior cluster and center stack radio. The Brake and Reverse lights will still be active in this mode. Twilight mode can be entered by pressing the Adaptive Cruise Control Increase Distance button.

<u>Twilight Mode Operating Instructions:</u>

- Key must be in the run position
- **Pitch Black Dongle must not be connected to harness**
- Speed must be below configured maximum speed (5-20 mph).
- Press the ACC increase distance button on the steering wheel to enter Twilight Mode.
- Once engaged the following will be disabled:
    - Instrument Cluster
    - Center Stack Radio
    - Headlights
    - Parking lights
- Twilight Status Output will be +12v when twilight mode is engaged.

To exit Twilight Mode either:

- Press ACC increase distance button.
- Drive vehicle above configured speed.

Pitch Black Feature

Pitch Black mode will allow the user to disable the brake lights, reverse lights, parking lights, headlights, interior cluster and center stack radio. Pitch Black mode can be entered by pressing the Adaptive Cruise Control Increase Distance button with the Pitch Black Dongle installed (840-00394).

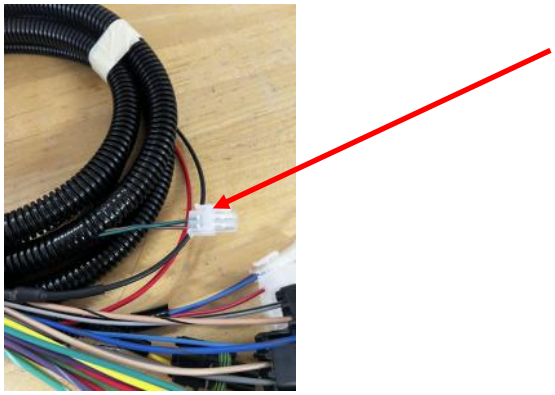
Pitch Black Mode Operating Instructions:

- Key must be in the run position
- Pitch Black Dongle must be connected to harness
- Speed must be below configured maximum speed (5-20 mph).
- Press the ACC increase distance button on the steering wheel to enter Pitch Black Mode.
- Once engaged the following will be disabled:
    - Brake Lights
    - Reverse Lights
    - Instrument Cluster
    - Center Stack Radio
    - Headlights
    - Parking lights
- Pitch Black Status Output will be +12v when Pitch Black mode is engaged.

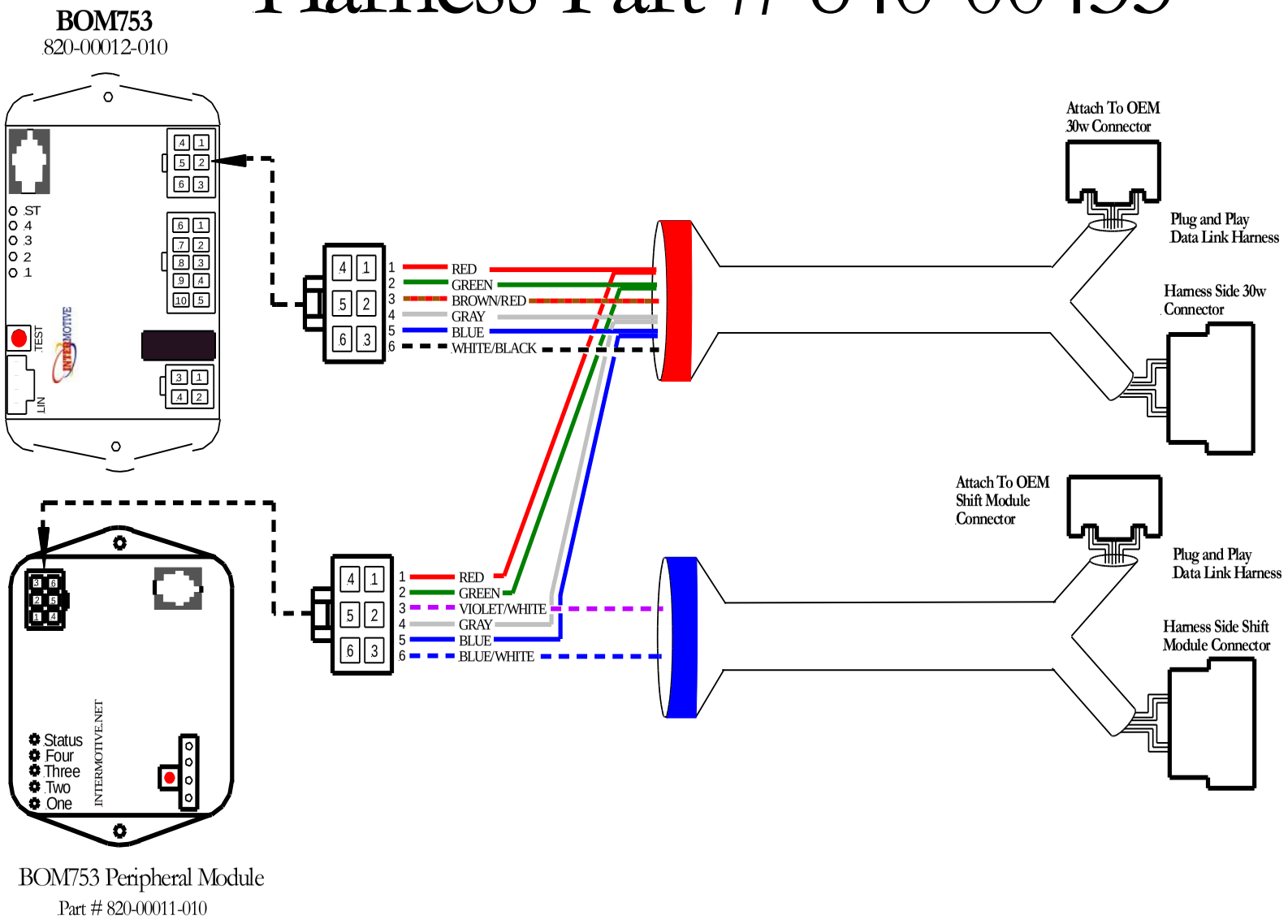
To exit Pitch Black Mode either:

- Press ACC increase distance button.
- Drive vehicle above configured speed.

Pitch Black Dongle (840-00394) is a 2pin molex connector that plugs into the main 840-00437 harness which will disable the brake and reverse lights when the ACC increase distance button is pressed.



Harness Part # 840-00435



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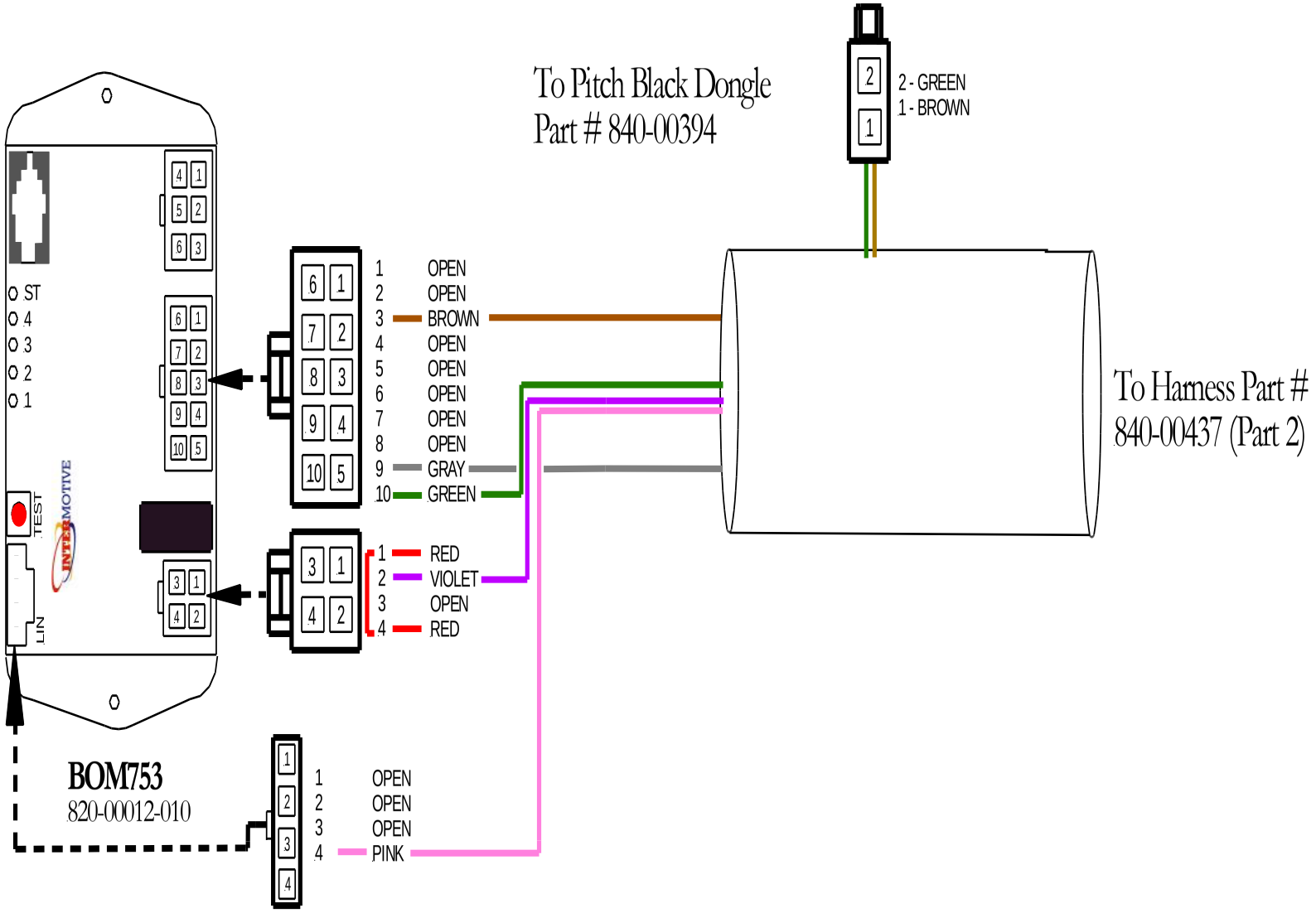
If the A-BOM753-A fails any step in the Post Installation Test, review the installation instructions and check all connections.

Harness Part # 840-00437 (Part 1)



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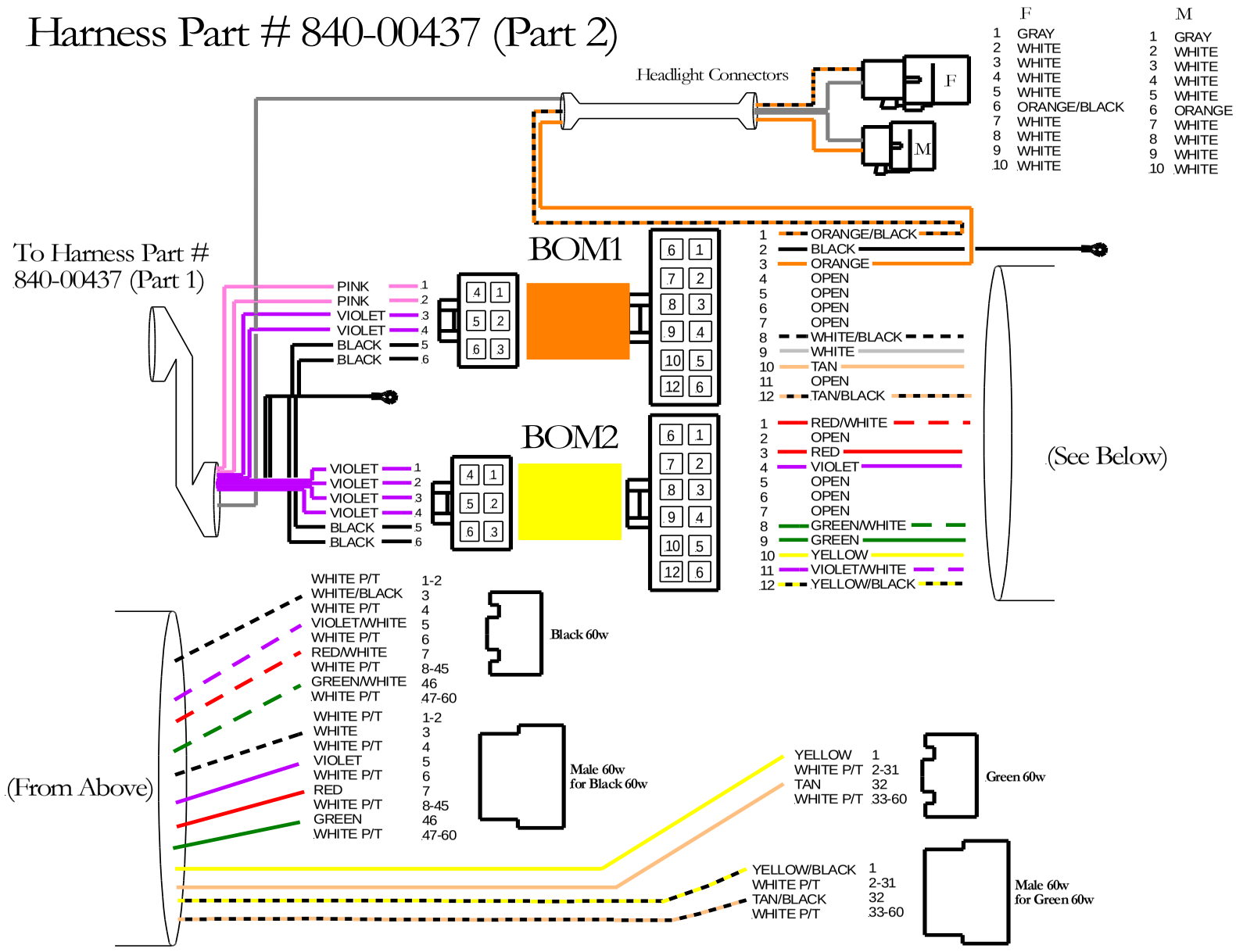
Harness Part # 840-00437 (Part 2)



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