A-PIMB752-A
Pitch Black Module
2025 RAM 1500 DT

Contact InterMotive for additional applications

Introduction

The Police Interface Module is intended to provide 2025 Ram 1500DT with multiple desired functions within a single module. The features will include Twilight mode, Pitch Black mode, Front Wig-Wag and Rear Wig-Wag.

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-PIMB752-A Module

Remove the lower dash panel below the steering column area and find a suitable location to mount the A-PIMB752-A module. 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.

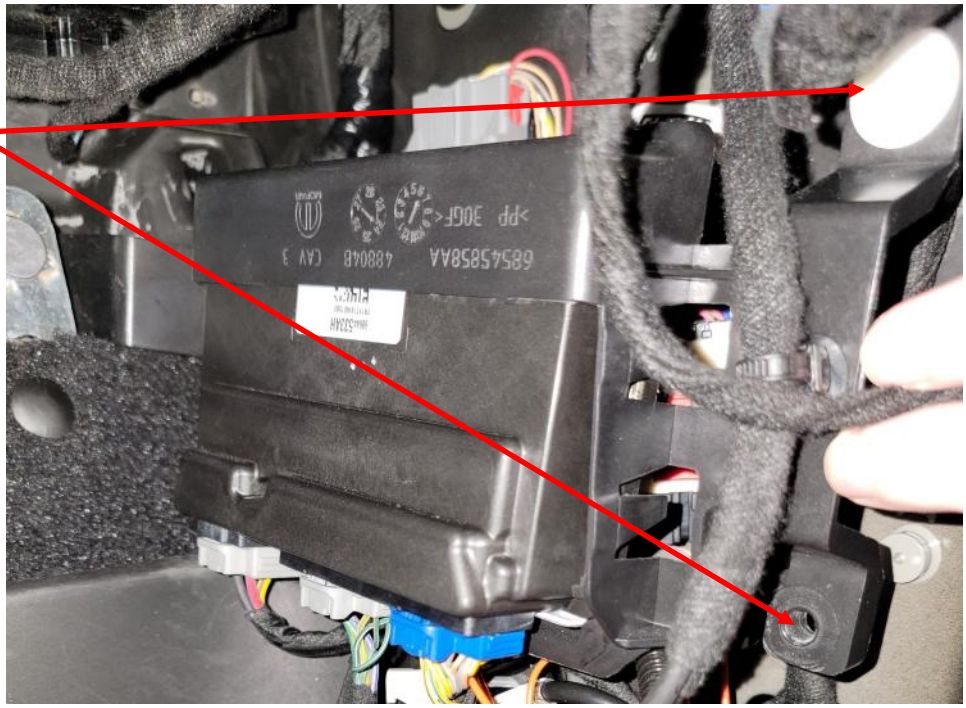
2025 Ram 1500 (DT)

The Dodge Ram 1500 DT has three vehicle connections, two in the passenger foot well and one behind the radio.



- Remove the passenger side dash lower trim panel below the glove box
- Remove the glove box.

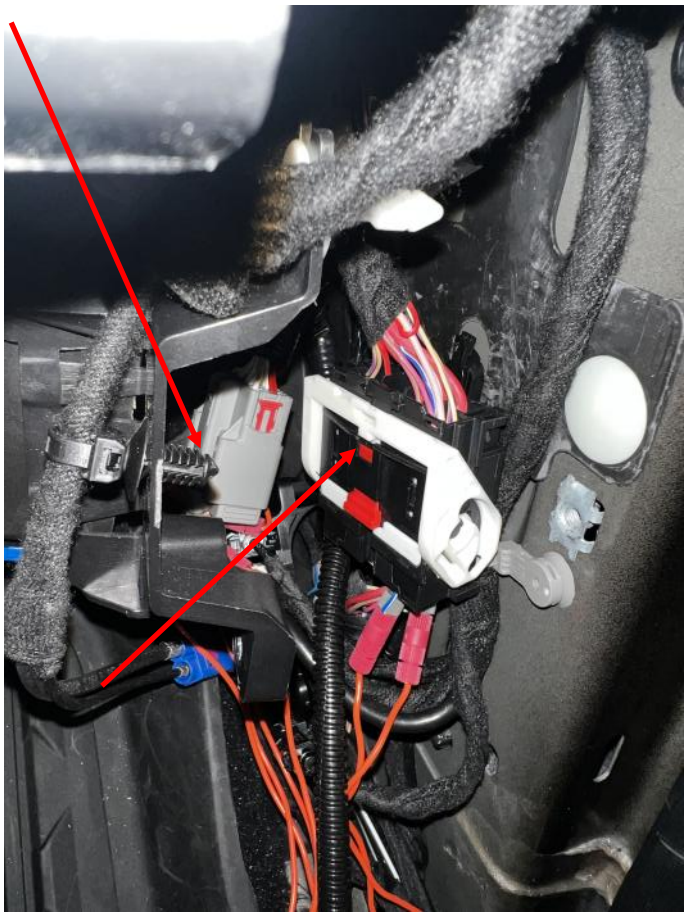
- Remove the front passenger side door sill trim panel.
- Unscrew the bolt on the bottom right of the bracket and pull the top right corner to release the white pin.



2025 Ram 1500 (DT) Continued

- Locate the gray connector behind the module and bracket. Plug the mating ends of the harness into the factory connectors.
- Locate the black connector behind the module and bracket. Plug the mating ends of the harness into the factory connectors.





- Connect the ring terminal on the black wire from the 840-00382 harness to a bare metal connection on the chassis. One possible location is a stud below the gray connector (mentioned above) under the carpet.



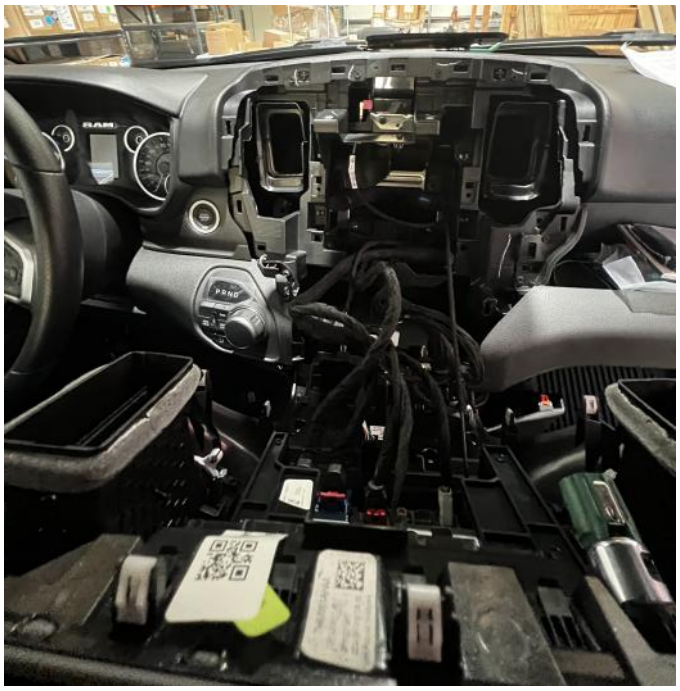
2025 Ram 1500 (DT) Continued

Data Link Harness Installation

The Blue connector is located behind the radio.



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

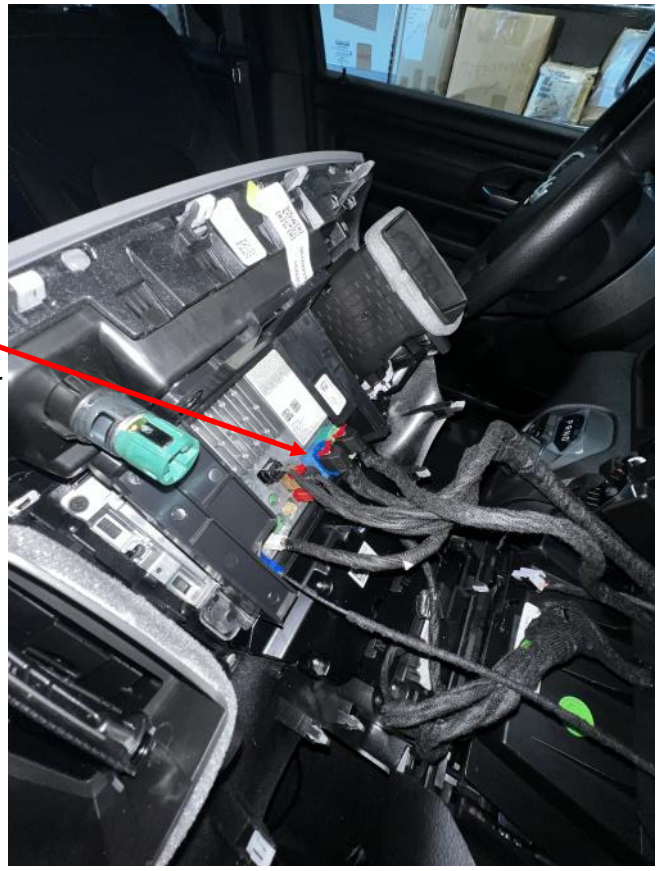


- Remove the center stack bezel using a plastic trim tool by pulling outward. There are only clips holding it in.

2025 Ram 1500 (DT) Continued

Data Link Harness Installation

The Blue connector is located behind the radio.



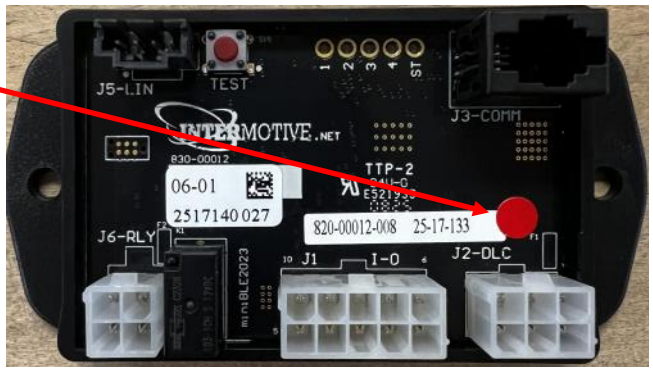
- Unplug the blue connector and connect the blue connector from the Intemotive harness.



- Route the blue connector through the gap to pointed out by the red arrow to get behind the radio.
- Plug the 6w molex with the RED tape into the PIMB752 Module
- Plug the 6w molex with the Blue tape into the BOM752 Module.

2025 Ram 1500 (DT) Continued

- Plug the 6w molex with the RED tape into the PIMB752 Module with the RED sticker



PIMB752 Module

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



BOM752 Module

J1 10-Pin Connector

Pin #1 - Red - Front Wig/Wag output

Pin #2 - Red/Black - Front Wig/Wag output

Pin #3 - Brown - (Pitch Black Dongle)

Pin #4 - n/c

Pin #5 - n/c

Pin #6 - Yellow - Front Wig/Wag Activation (GND)

Pin #7 - Blue - Rear Wig/Wag output

Pin #8 - Blue/White - Rear Wig/Wag Output

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 - Brown/Red - Rear Wig/Wag activation (GND)
- Pin #4 - Pink - Twilight Output

Connect the outputs to the vehicle equipment as indicated in the following pages.

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

Connect the outputs to the vehicle equipment as indicated in the following pages.

BOM1 relay 12-Pin molex connectors.

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

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 - Light Green - BCM side of Hitch light circuit

Pin #12 - Brown/Light Green - Harness side of hitch light circuit

BOM2 relay 12-Pin molex connectors.

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

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

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

Pin #8 - Green/Black - jumper to Wig Wag Relay

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 - Jumper to Wig Wag Relay

Wig Wag relay 12-Pin molex connectors.

Pin #1 - Tan - BCM side of Right high beam circuit

Pin #2 - Red

Pin #3 - Tan/Black - Harness side of Right high beam circuit

Pin #4 - Gray/Black - Harness side of Left high beam circuit

Pin #5 - Red

Pin #6 - Red

Pin #7 - Red

Pin #8 - Green/Black - jumper to Wig Wag Relay

Pin #9 - Green/White - harness side of Right brake light circuit

Pin #10 - Yellow/Green - harness side of Left brake light circuit

Pin #11 - Gray - BCM side of Left high beam circuit

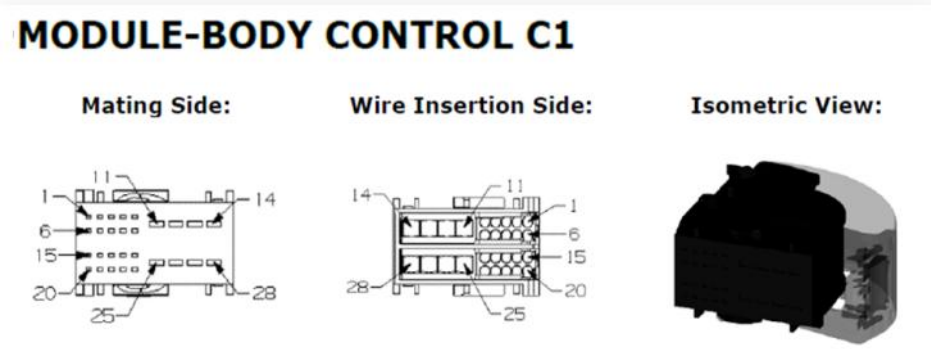
Pin #12 - Yellow/Black - Jumper to Wig Wag Relay

BCM C1 Connections

Locate the BCM near the driver side compartment. C1 is the black connector directly to the left of the blue connector. See page 16

Note: Performing one step at a time, attach the correct wire to the appropriate wire.

Disconnect C1 from the BCM and locate the following circuits. Removing the slide in will make it easier to see the pin numbers.

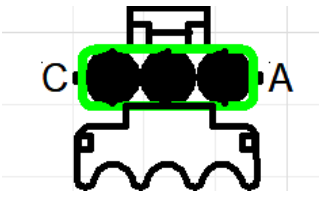


Right High Beam Circuit

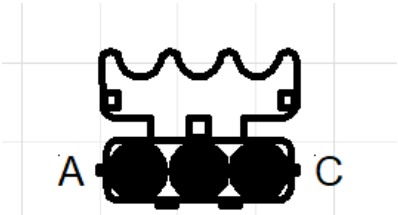
1. Locate Pin #24 White/Gray wire of the connector.
2. Verify with a DVM that there is 12V on the White/Gray wire when the high beams are on and 0V when the high beams are off.
3. Cut the White/Gray wire, pin #24 about 3 inches from the connector.
4. Apply the female weather pack terminal (18-20 awg) to the BCM side of the wire.
5. Insert female terminal to position B of the 3 pin male weather pack connector.
6. Apply the male weather pack terminal (18-20 awg) to the harness side of the wire.
7. Insert male terminal to position B of the 3 pin female weather pack connector.

Left High Beam Circuit

1. Locate Pin #20 White/Green wire of the connector.
2. Verify with a DVM that there is 12V on the White/Green wire when the high beams are on and 0V when the high beams are off.
3. Cut the White/Green wire, pin #20 about 3 inches from the connector.
4. Apply the female weather pack terminal (18-20 awg) to the BCM side of the wire.
5. Insert female terminal to position A of the 3 pin male weather pack connector.
6. Apply the male weather pack terminal (18-20 awg) to the harness side of the wire.
7. Insert male terminal to position A of the 3 pin female weather pack connector.



Male Connector
Wire side



Female Connector
Wire side

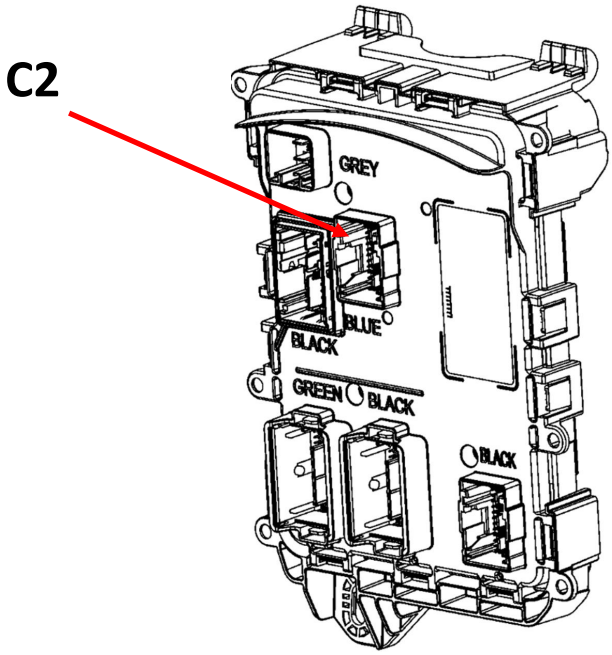
BCM C2 Connections

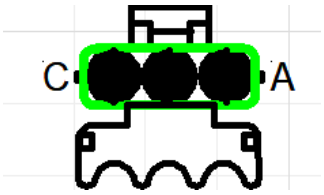
Locate C2 the Blue connector on the BCM. See below

Disconnect C2 from the BCM and locate the following circuits. Removing the slide in will make it easier to see the pin numbers.

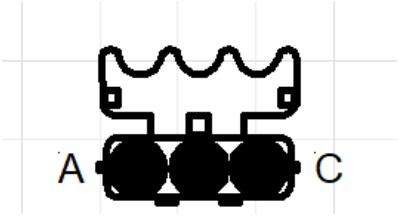
Horn Circuit

1. Locate 52-pin Blue connector on the BCM (Body Control C2)
2. Locate the Green/White (wire on pin 10).Cut the Green/White wire, pin #10 about 3 inches from the connector.
3. Apply the female weather pack terminal (22 awg) to the BCM side of the wire.
4. Insert female terminal to position C of the 3 pin male weather pack connector.
5. Apply the male weather pack terminal(22 awg) to the harness side of the wire.
6. Insert male terminal to position C of the 3 pin female weather pack connector.





Male Connector
Wire side



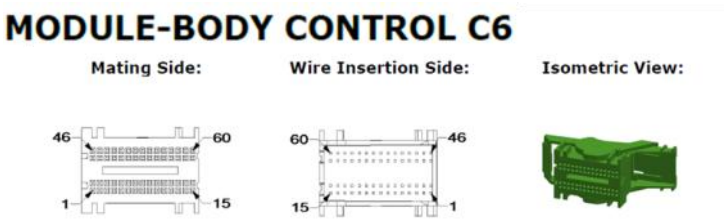
Female Connector
Wire side

BCM C6 Connections

Locate C6 the Green connector on the BCM. See page 16

Note: Performing one step at a time, attach the correct wire to the appropriate wire.

Disconnect C6 from the BCM and locate the following circuits. Removing the slide in will make it easier to see the pin numbers.

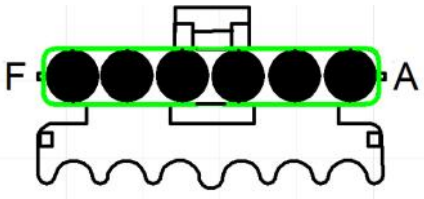


Left Brake Circuit

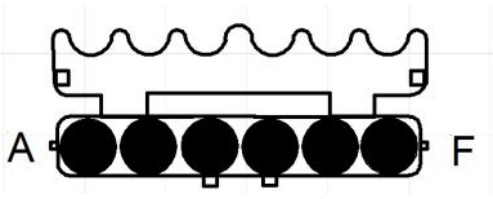
1. Locate Pin #1 Yellow wire of the connector.
2. Verify with a DVM that there is 12V on the Yellow wire when the brakes are pressed and 0V when the brakes are released.
3. Cut the Yellow wire, pin #1 about 3 inches from the connector.
4. Apply the female weather pack terminal (18-20 awg) to the BCM side of the wire.
5. Insert female terminal to position A of the 6 pin male weather pack connector.
6. Apply the male weather pack terminal (18-20 awg) to the harness side of the wire.
7. Insert male terminal to position A of the 6 pin female weather pack connector.

Rear Hitch Light Circuit

1. Locate Pin #32 White/Gray wire of the connector.
2. Verify with a DVM that there is 12V on the White/Gray wire when in Reverse and 0V when vehicle is not in Reverse.
3. Cut the White/Gray wire, pin #32 about 3 inches from the connector.
4. Apply the female weather pack terminal (18-20 awg) to the BCM side of the wire.
5. Insert female terminal to position F of the 6 pin male weather pack connector.
6. Apply the male weather pack terminal (18-20 awg) to the harness side of the wire.
7. Insert male terminal to position F of the 6 pin female weather pack connector



Male Connector
Wire side



Female Connector
Wire side

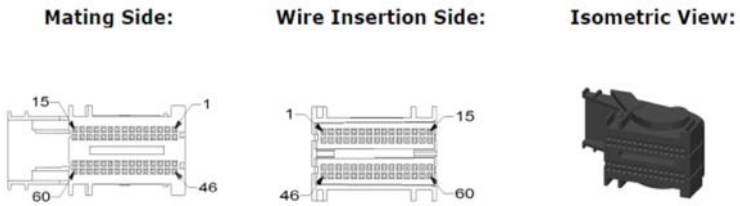
BCM C5 Connections

Locate C5 the Black connector directly to the right of the green connector on the BCM. See page 16

Note: Performing one step at a time, attach the correct wire to the appropriate wire.

Disconnect C5 from the BCM and locate the following circuits. Removing the slide in will make it easier to see the pin numbers.

MODULE-BODY CONTROL C5

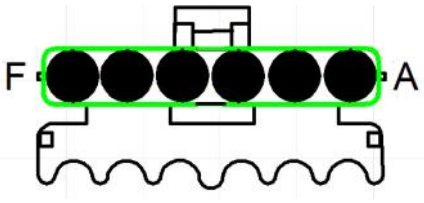


Center High Mounted Stop Light Circuit

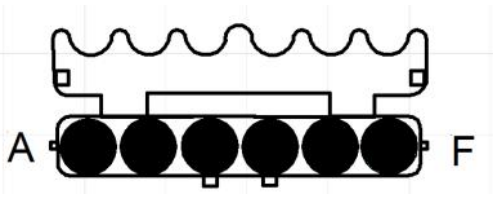
1. Locate Pin #4 White/Green wire of the connector.
2. Verify with a DVM that there is 12V on the White/Green wire when the brakes are pressed and 0V when the brakes are released.
3. Cut the White/Green wire, pin #4 about 3 inches from the connector.
4. Apply the female weather pack terminal (18-20 awg) to the BCM side of the wire.
5. Insert female terminal to position E of the 6 pin male weather pack connector.
6. Apply the male weather pack terminal (18-20 awg) to the harness side of the wire.
7. Insert male terminal to position E of the 6 pin female weather pack connector

Right Brake Light Circuit

1. Locate Pin #46 Green wire of the connector.
2. Verify with a DVM that there is 12V on the Green wire when the brakes are pressed and 0V when the brakes are released.
3. Cut the Green wire, pin #46 about 3 inches from the connector.
4. Apply the female weather pack terminal (18-20 awg) to the BCM side of the wire.
5. Insert female terminal to position B of the 6 pin male weather pack connector.
6. Apply the male weather pack terminal (18-20 awg) to the harness side of the wire.
7. Insert male terminal to position B of the 6 pin female weather pack connector

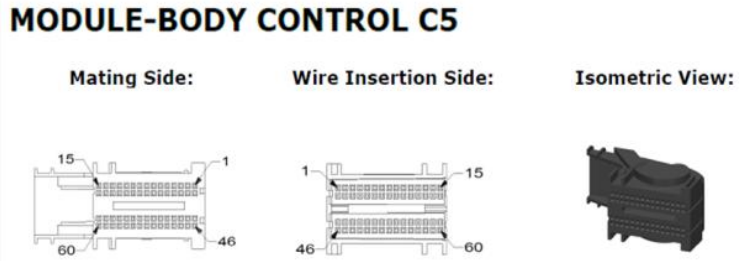


Male Connector
Wire side



Female Connector
Wire side

BCM C5 Connections continued

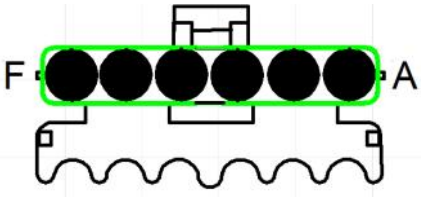


Left Reverse Light Circuit

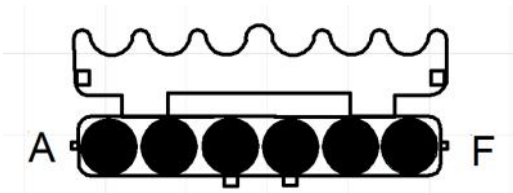
1. Locate Pin #7 White/Beige wire of the connector.
2. Verify with a DVM that there is 12V on the White/Beige wire when in Reverse and 0V when vehicle is not in Reverse.
3. Cut the White/Beige wire, pin #7 about 3 inches from the connector.
4. Apply the female weather pack terminal (18-20 awg) to the BCM side of the wire.
5. Insert female terminal to position C of the 6 pin male weather pack connector.
6. Apply the male weather pack terminal (18-20 awg) to the harness side of the wire.
7. Insert male terminal to position C of the 6 pin female weather pack connector

Right Reverse Light Circuit

1. Locate Pin #5 White/Purple wire of the connector.
2. Verify with a DVM that there is 12V on the White/Purple wire when in Reverse and 0V when vehicle is not in Reverse.
3. Cut the White/Purple wire, pin #5 about 3 inches from the connector.
4. Apply the female weather pack terminal (18-20 awg) to the BCM side of the wire.
5. Insert female terminal to position D of the 6 pin male weather pack connector.
6. Apply the male weather pack terminal (18-20 awg) to the harness side of the wire.
7. Insert male terminal to position D of the 6 pin female weather pack connector



Male Connector
Wire side



Female Connector
Wire side

Headlight connector

Locate the headlight switch on the left side of the steering wheel.

To get to the connector use plastic pry tolls to remove the headlight switch bezel from the panel.

Unplug 10pin connector from the switch and plug in the 10w Intermotive Plug and Play connector on Harness 840-00389



Headlight Switch

Idle-Lock Harness

1. Pull back the radio and route the harness to the ignition button.
2. Unplug the ignition button. Connect the 6-pin connector of the InterMotive Idle-Lock harness in the place of the OEM connector.
3. Connect the Harness board to the OEM 6-pin connector.
4. Route harness to an accessible location and:

   A) If only installing PIMB752, secure harness away from moving objects;

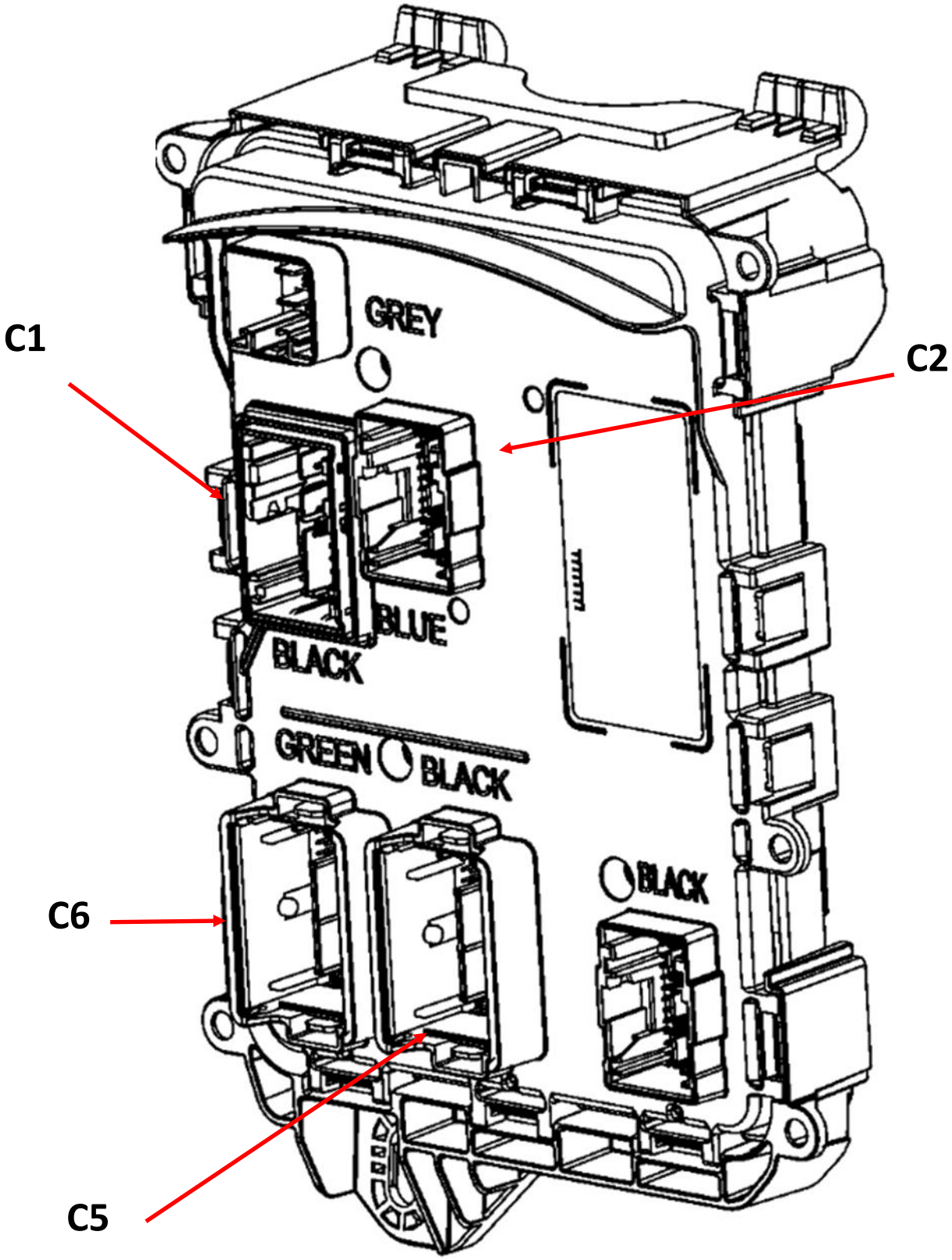
or

   B) If also installing an UIMP752, connect the 2-pin and 4-pin connectors of the InterMotive Idle-Lock harness (840-00379) to their mating connectors on the UIMP module.



Reconnect the vehicle battery

BODY CONTROL MODULE (BCM)



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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. Arm vehicle. (if necessary)
4. Press the momentary push button, Pitch Black LED will turn on.
5. Manually dim the cluster.
6. Hold Service Brake and verify the Brake lights are disabled.
7. Turn on Low Beams, this will disable Pitch Black 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 momentary push button, Pitch Black LED turns on.
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	Front Wig Wag active
LED 2	Dark Car Control	Armed Enabled	Pitch Black Dongle Connected
LED 3	Not Used	VSS < Max speed	Rear Wig Wag active
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.

Wig-Wag Feature

The PIM752B has the ability to Wig-Wag the headlights and brake lights independently. When the input is grounded the selected lights will wig-wag at a rate of 80hz. If the rear Wig-Wags are enabled the service brakes will have priority over the Wig-Wag.

Front Wig-Wag Input– Yellow wire on the 10pin molex connector on J1 on the PIM752B module

Rear Wig-Wag Input– Brown/Red wire on the 4pin black connector on J5 on the PIM752B module

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).



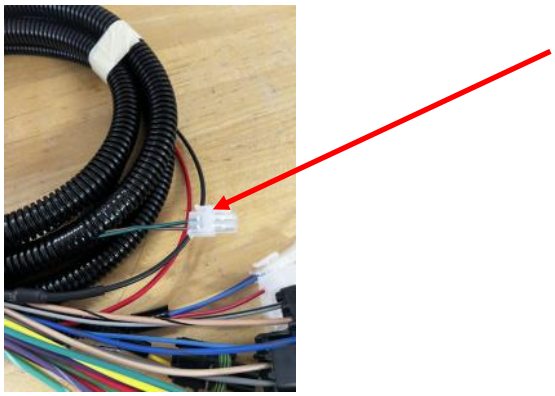
Pitch Black Mode Operating Instructions:

- 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.

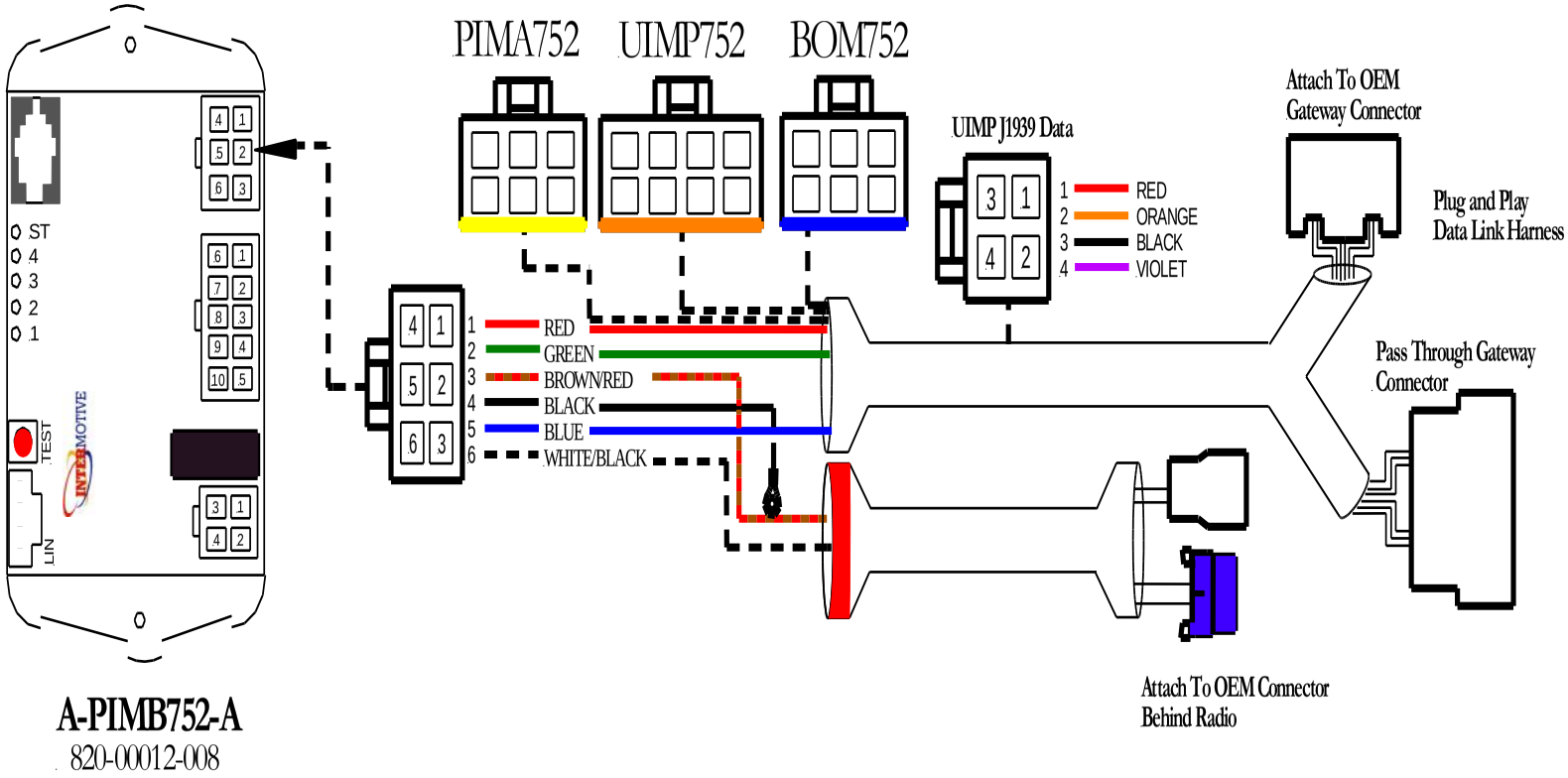
To exit Pitch Black Mode either:

- 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 840-00389 harness which will disable the brake and reverse lights when the ACC increase distance button is pressed.



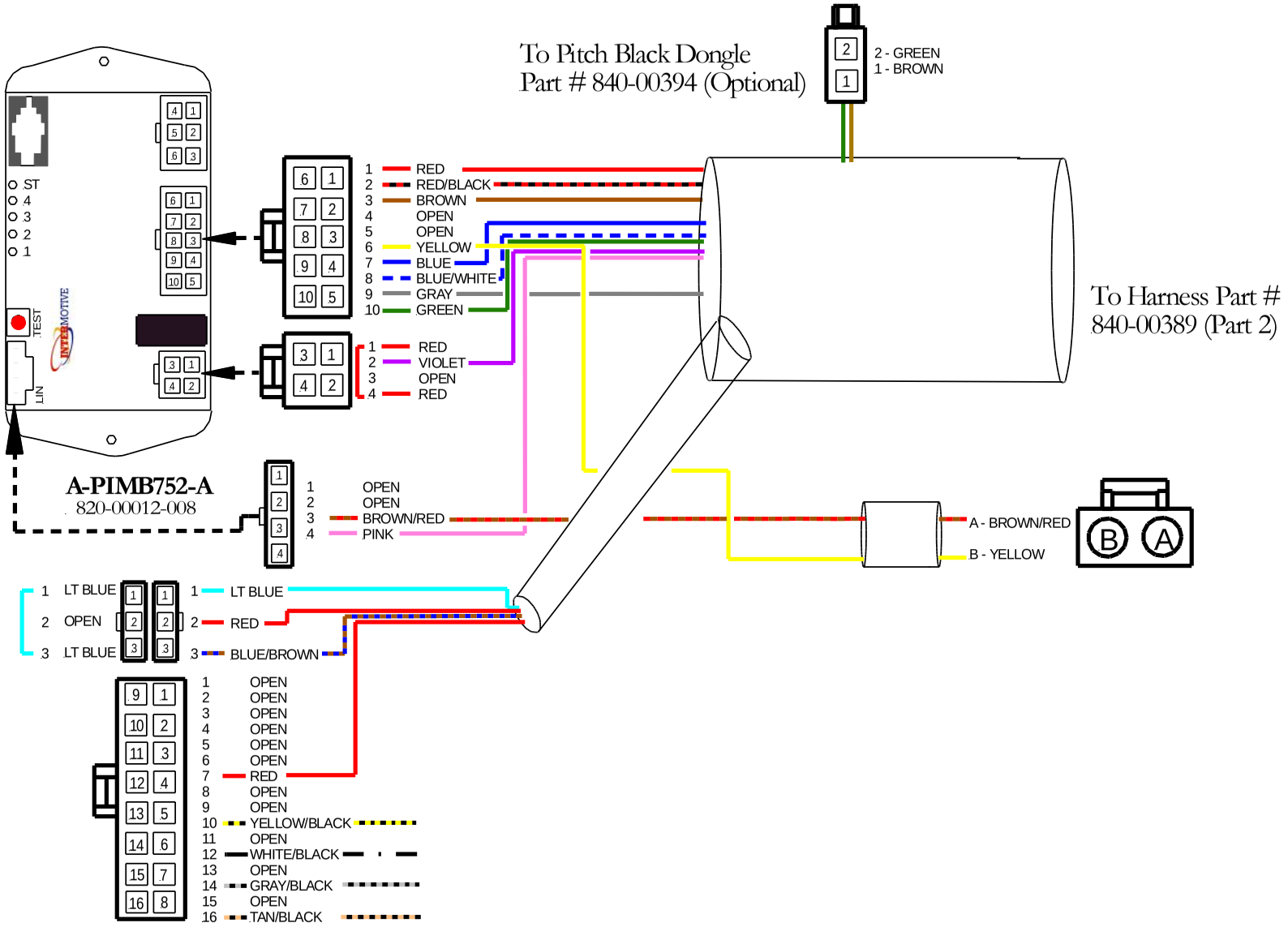
Harness Part # 840-00382



Submit product registration at www.intermotive.net

If the A-PIMB752-A fails any step in the Post Installation Test, review the installation instructions and check all connections.

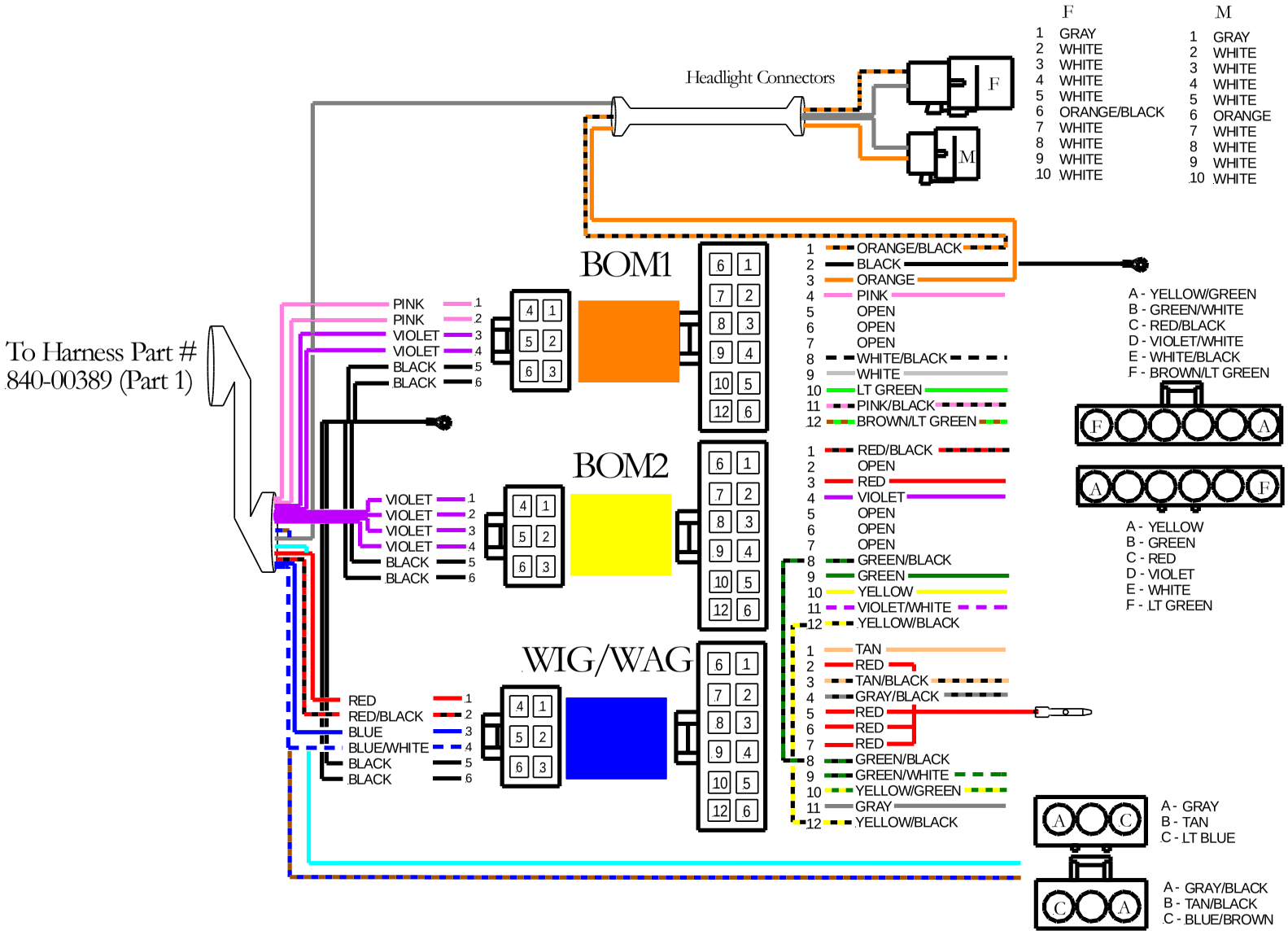
Harness Part # 840-00389 (Part 1)



Submit product registration at www.intermotive.net

If the A-PIMB752-A fails any step in the Post Installation Test, review the installation instructions and check all connections.

Harness Part # 840-00389 (Part 2)



Submit product registration at www.intermotive.net

If the A-PIMB752-A fails any step in the Post Installation Test, review the installation instructions and check all connections.