C-BOM750-B (Blackout Module)
2018-2019 RAM 1500-5500

Introduction

The C-BOM750 module is used for Police RAM Trucks and has the ability to eliminate all exterior lighting to aid in covert operations. When activated, it will eliminate the parking lamps, reverse lights, and the Service Brake lights. Maximum speed can be set between 5-20 mph to automatically return brake lights for safety purposes.

Installation Instructions

Disconnect vehicle battery before proceeding with the installation.

WARNING Disconnect the battery to prevent setting a check engine light.

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.

InterMotive Inc.
12840 Earhart Ave.
Auburn, CA 95602

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Fax: (530) 823-1516
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Data Link Harness

The 2018-2019 Ram has a "Gateway" module connected to the OBDII connector. The module is located behind the OEM Radio. The C-BOM Data Link harness T's into an 8-pin and 12-pin connector on this gateway module.

Follow the steps below to access the Gateway module.

1. Remove the upper (1) center bezel tray liner.
2. If equipped with the 115 V power outlet (4), remove the lower right (3) center bezel tray liner.

3. Remove the two fasteners (1) to the upper tray.

4. If equipped with the 115 V power outlet (2), remove the fastener (1) inside the lower right tray above the outlet.

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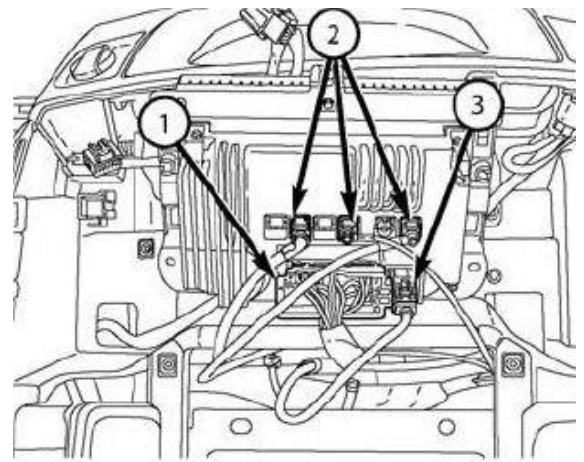products@intermotive.net
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5. Using a trim removal tool, disengage the retainer clips (2) that secure the instrument panel center bezel to the instrument panel.

6. Disconnect the wire harness connectors (1) and remove the center bezel from the vehicle.
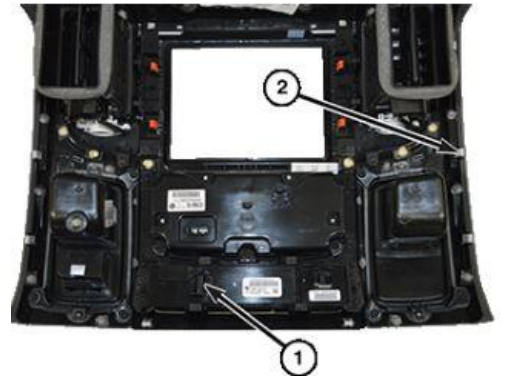
7. Remove the four fasteners (1) securing the Radio Receiver Module (RRM) (2) to the instrument panel.

8. Pull the RRM out far enough to access the back of the RRM.
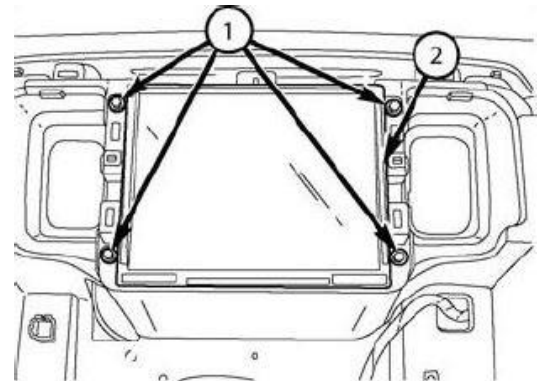
9. Disconnect the antennas (2), and electrical connector (1).

10. If equipped, disconnect the USB connector (3).

11. Remove the RRM from the instrument panel.

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12. Remove the 2 bolts (1).

13. Disconnect the Gateway Module wire harness connectors (1).

14. Remove the Gateway Module from the vehicle.

15. Plug in the 12-pin and 8-pin connectors from the S-H107FBX harness into the Gateway Module. Plug the OEM 12-pin and 8-pin connectors into the mating connectors on the S-H107FBX harness.

16. Plug the 4-pin connector on the S-H107FBX harness into the mating 4-pin connector on the C-BOM750-B module.
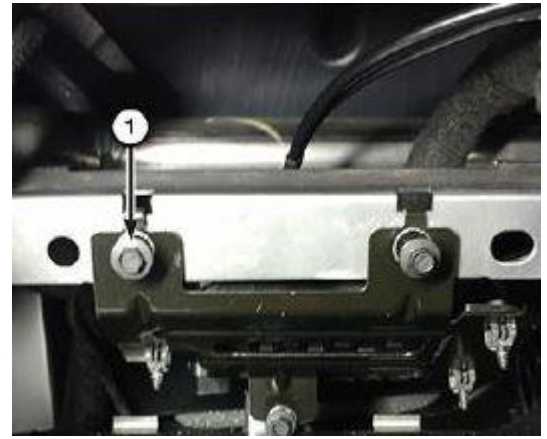
Momentary Push Button (S-H84FX)

The Pink/Black wire (Pin 8 of the 8-pin connector on S-H43EX) is used to enable Blackout Mode. The input requires a momentary push button (included on S-H84FX) connected to Ground.

1. Drill a 16mm (0.630") hole in the desired mounting location.

2. Route the harness through the hole to mount the switch in the hole:

    A. Remove lock nut from switch

    B. Do not dis-assemble the switch to install

    C. Pull the harness through the hole

3. Slide the lock nut onto the harness and snug it down onto the back of the switch.

4. Connect the bullet connector to the mating bullet connector on the S-H43EX harness. Connect the other wire to Ground

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BOM Module

Locate the module in an area away from any external heat sources (engine heat, heater ducts, etc.). Do not mount the module until all post installation testing is complete and wire harnesses are routed and secure.
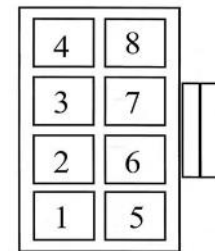
Blackout Input
- The Pink/Black wire (Pin 8 of the 8-pin connector on S-H43EX) is the input used to enable Blackout Mode. The input requires a momentary push button (included on S-H84FX) connected to Ground.

Blackout Status Output
- The Blue wire (Pin 1 of the 8-pin connector on S-H43EX) will be +12 volts when Blackout mode is active. Connect to an LED (not included).

8-pin connector pin out definition
- Pin #1 - BLUE - Black Out LED Output (12V)
- Pin #2 - N/C
- Pin #3 - N/C
- Pin #4 - N/C
- Pin #5 - N/C
- Pin #6 - N/C
- Pin #7 - N/C
- Pin #8 - PINK/BLACK - Black Out Input (Ground)

Back of Connector

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Blackout Mode

Introduction

- The Blackout module has the ability to eliminate all exterior lighting to aid in covert operations. This includes parking lamps, reverse lights, and Service Brake lights. Its intended use is for Police RAM Trucks. A maximum speed can be set to automatically return brake lights for safety purposes.

Blackout Input

- The Pink/Black wire (Pin 8 of the 8-pin connector on S-H43EX) is the input used to enable Blackout Mode. The input requires a momentary push button (included on S-H84FX) connected to Ground.

Blackout Status Output

- The Blue wire (Pin 1 of the 8-pin connector on S-H43EX) will be +12 volts when Blackout mode is active. Connect to an LED.

Blackout Mode Operating Instructions:

To enter Blackout Mode. ALL preconditions must be met.

- Set headlight switch to either parking lamps or low beams.
- Cluster Brightness must be turned Off.
- Speed must be below configured maximum speed (5-20).
- Momentarily apply Ground to Pink/Black wire to enter Blackout Mode (press momentary button).

Blackout Status Output will be +12 volts when Blackout Mode is active.

To exit Blackout Mode any condition may be applied:

- Turn on High Beams.
- Cluster Level not in the off position.
- Vehicle is moving above maximum speed.
- Momentarily apply ground to Pink/Black wire to exit Blackout Mode (press momentary button).

Chime Mute

This will silence the following chimes from the interior of the vehicle:

- Lights-on reminder.
- Ignition or accessory on chime.

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How to turn OFF Cluster Backlighting

Set switch to Parking or Low Beams.

Rotate the dimmer control to the extreme left position.

Black Out Input Sense Active High or Active Low

The default input sense for the Pink/Black wire, pin 8 on the C-BOM750 module is active Low. If an active High input sense is desired, the following procedure must be performed:

1. Put the Key in the **RUN** position.

2. Short the two test pads together on the module to enter diagnostics mode. Verify the Status LED Flashes

3. Apply the Park Brake.

4. Apply and hold the Service Brake.

5. Put the transmission in **REVERSE.**

6. Cycle the High Beams On/Off 3 times within 5 seconds.

7. All LED's will flash once for confirmation.

Repeating this procedure will toggle between an active High or Low input sense.

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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 of the lift. 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
3. Set headlamp switch to low beams and turn cluster to lowest level.
4. Ground Blackout mode input (Pink/Black).
5. Verify blackout output (Blue) is +12 Volts
6. Verify All exterior lights are disabled.
7. Hold Service Brake and verify the Brake lights are disabled.
8. Place transmission in Reverse and verify lights are disabled
9. Apply Blackout mode input to exit Blackout mode (Pink/Black).
10. Verify all lights are functioning properly.

**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 momentarily grounding the mounting pad labeled "Test" on the module. This can be done with a simple jumper wire by holding one end to chassis ground, while touching the other end to the "Test" pad. The module provides diagnostic LEDs which illuminate according to the following table. To exit this mode simply cycle the key or momentarily ground the "Test" pad again.
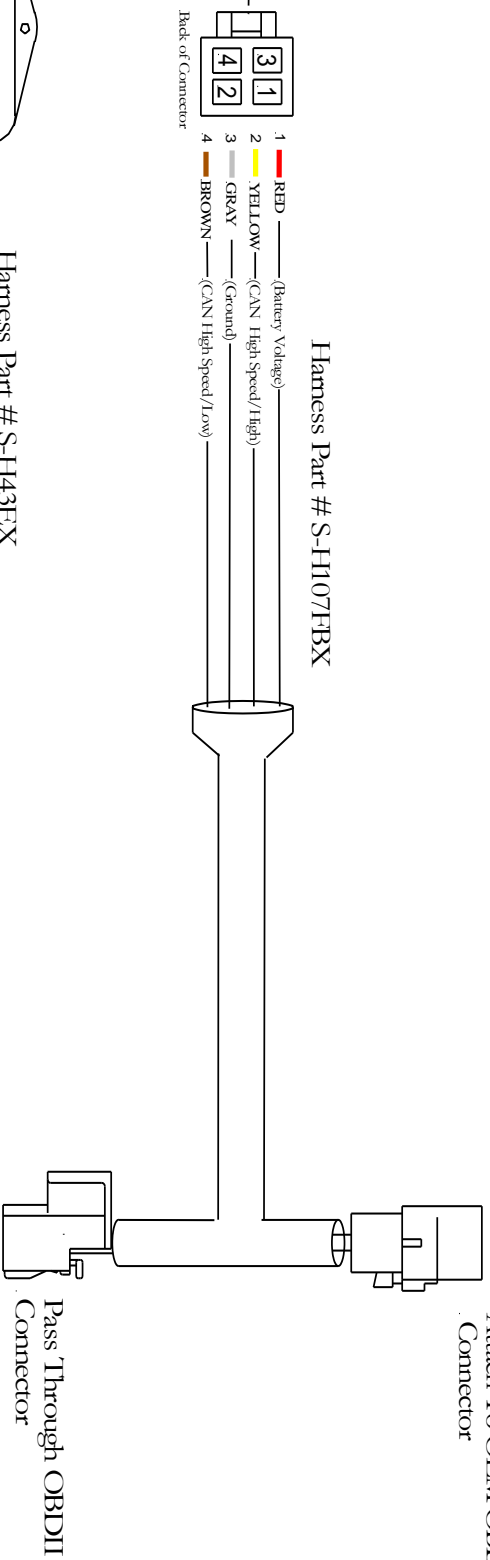
BOM Status Codes

Status Codes provide the current status of the system. The on-board "Status" LED will flash a 2 digit code as shown in the table. The first digit will flash, wait one second, flash the second digit, then wait four seconds before the next code. The Status Codes continue to flash until the module is reset (cycle key), or the test input is momentarily grounded again.
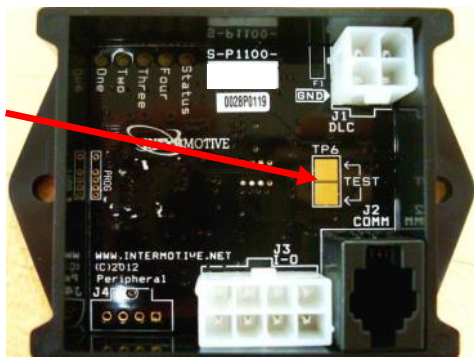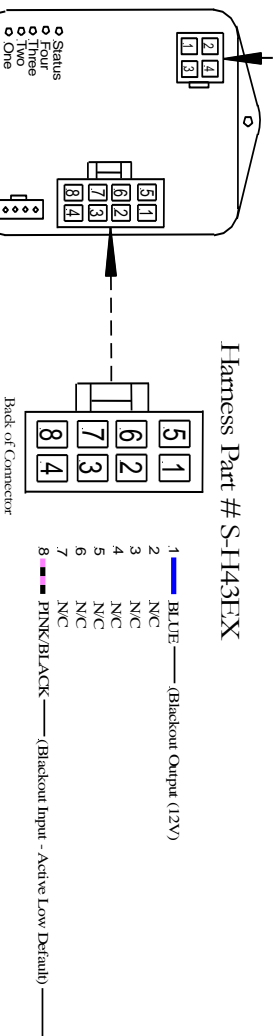

BOM Status Codes	
Status Code	**Description**
1-1	Ready for Black Out
2-4	High Beams On
2-5	Vehicle Speed > Exit Speed
2-7	Cluster Level OFF

U.S. Patent #9,469,261

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BOM750
Part # S-M1100-85

Status
Four
Three
Two
One

Harness Part # S-H107FBX

Back of Connector

1 RED ——— (Battery Voltage)
2 YELLOW ——— (CAN High Speed/High)
3 GRAY ——— (Ground)
4 BROWN ——— (CAN High Speed/Low)

Harness Part # S-H43EX

Back of Connector

1 BLUE ——— (Blackout Output (12V))
2 NC
3 NC
4 NC
5 NC
6 NC
7 NC
8 PINK/BLACK ——— (Blackout Input - Active Low Default)

Data Link Harness-
Attach To OEM OBDII
Connector

Pass Through OBDII
Connector

Part # S-H84FX

Momentary
Button

Connect to Chassis GND

Male Bullet
Female Bullet