A-BOM620-D Black Out Module

2017-2020 Chevy Silverado SSV & non SSV (U.S. Vehicles Only)

2017-2020 Chevy Tahoe PPV & SSV (U.S. Vehicles Only)

Contact InterMotive for additional applications

Introduction

The BOM620 module has the ability to eliminate all exterior lighting to aid in covert operations while operating the vehicle at very slow speeds. When activated, it will eliminate the Brake lights, backup lights, parking lamps (front, rear, mirror), interior door open dome lights, and instrument cluster back lighting.

Installation Instructions

Disconnect vehicle battery before proceeding with installation.

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

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.

BOM620 Module

Remove the lower dash panel below the steering column area and find a suitable location to mount the BOM620 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.

Data Link Harness

1. Locate the vehicle OBDII Data Link Connector. It will be mounted below the lower left dash panel.
2. Remove the mounting screws for the OBDII connector. Plug the Red connector from the BOM620 Data Link Harness into the vehicle's OBDII connector. Ensure the connection is fully seated and secure the connectors together with the supplied wire tie.

3. Mount the Black pass-through connector from the BOM620 Data Link Harness in the former location of the vehicle's OBDII connector.
4. Secure the BOM620 Data Link harness so that it does not hang below the lower dash panel.
5. Plug the free end of the Data Link harness into the mating 6-pin connector on the BOM620 module.

16-Pin BOM Relay Connector

The 16 Pin Molex connector will be used to connect the harness side of the rear light circuits.

Pin #3 - Black, connect female bullet to male bullet from the included momentary push button (see photo on the following page).

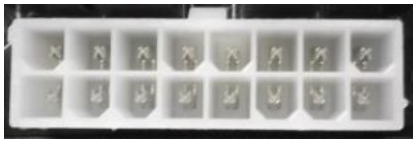
See detailed instructions on pages 7 and 8 for BCM connections below:

Pin #9 - Violet, connect to the BCM side of Center High Mounted Brake Lamp Circuit.

Pin #11 - Dark Blue, connect to the BCM side of Reverse Lamp Circuit.

Pin #13 - Brown, connect to the BCM side of Right Rear Brake Lamp Circuit.

Pin #15 - Yellow, connect to the BCM side of Left Rear Brake Lamp Circuit.



16 Pin Molex

4-Pin (Sabre Connector) BOM Relay Connector Pin-Out Definition

Connector J8 contains the 4 BOM fused relay output pins. These 4 fused output pins are connected to 4 relay outputs. Each relay output is capable of 10A maximum.

Pin # 1 2 3 4

4 Pin Output

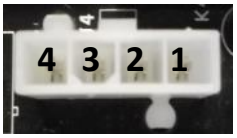
See detailed instructions on pages 7 and 8 for BCM connections below:

- Pin #1 - Violet/White, connect to the harness side of the Center High Mounted Brake Lamp Circuit.
- Pin #2 - Dark Blue/Brown, connect to the harness side of the Reverse Lamp Circuit.
- Pin #3 - Brown/Light Green, connect to the harness side of the Right Rear Brake Lamp Circuit.
- Pin #4 - Yellow/Dark Blue, connect to the harness side of the Left Rear Brake Lamp Circuit.

4-Pin (Single Row) BOM Input Connector Definition

Connector J4 contains the BOM's Blackout Input.

The input pins on connector J4 are defined as follows:



4 Pin Input

- Pin #2 - Active Low Blackout Input, Violet/White wire, momentary low to activate the Blackout Module. Connect the female bullet to the male bullet from the included momentary push button (photo below).
- Pin #4 - Active High Blackout Input, Red/White wire, momentary high to activate the Blackout Module. This is an **optional** connection and should only be used if an active high input is desired.

Momentary Push Button (S-H84JX)

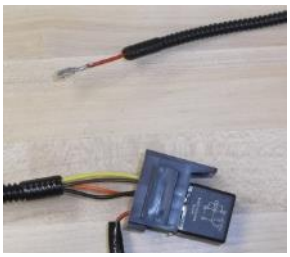
A switch with LED is provided in the kit which is used for Black Out Input.

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 connectors to the mating bullet connectors from the BOM620 module.

Relay Definition

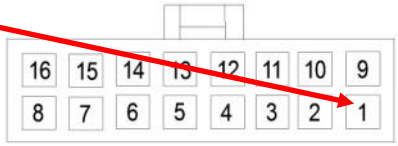
The included relay has a Black and a Red wire that must be installed in the following locations.



Black Wire:

Plug the Molex terminal in pin #1 of the 16 pin connector (840-00281).

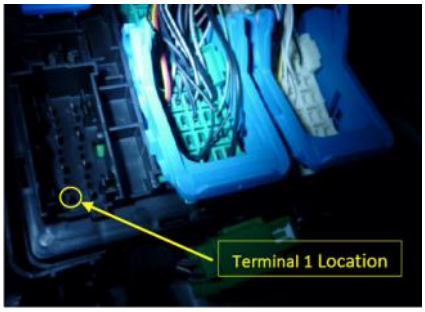
Red Wire:



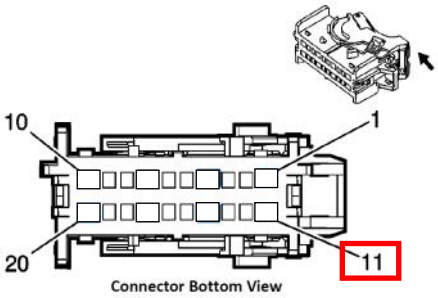
Back of the Connector

1. Locate the LH IP Junction Block (IECM (X61A). If the junction block is not present, connect the Red wire to a Hot in Run source and proceed to the next step.

2. Remove the cover and unplug connector X61A.



3. Plug the terminal on the end of the Red wire into pin 11 of the X61A connector. If the cavity is already populated, cut the terminal off of the Red wire, strip a small amount of insulation off of the existing wire from pin 11, and connect the Red wire using solder and heat shrink. Plug connector X61A back into the IECM and replace the cover.



Connector Bottom View

4W (Dual Row) Pin-out Definition

This 4-pin connector contains the BOM's Blackout output (Dark Green wire).

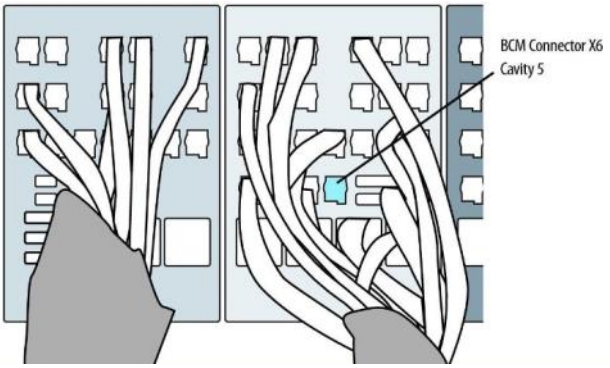
See the next page for detailed information.

4 Pin Output

BOM Output 2017-2018 Silverado SSV* ONLY

The BOM output must be hooked up to the Silverado Surveillance feature which disables exterior and interior lighting.

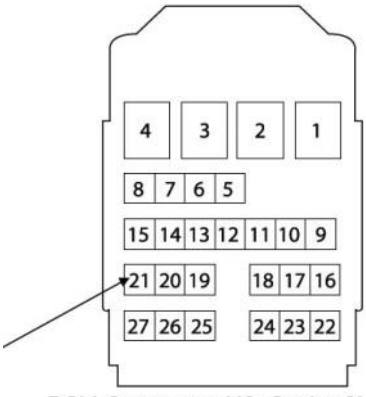
1. Locate and unplug the X6 connector (Light Purple) at the BCM.
2. Take the Dark Green wire included in the kit and place it in cavity 5 as shown below. Before inserting the terminal in the cavity, pull down the white locking tab of the connector.
3. Ground the wire and verify the cluster dims.
4. Securely route the wire to the Blackout Output Pin 2 on the 4 pin Molex connector.



BOM Output 2019-2020 Silverado SSV* ONLY

The BOM output must be hooked up to the Silverado Surveillance feature which disables exterior and interior lighting.

1. Locate and unplug the X6 connector (Pink) at the BCM.
2. Take the Dark Green wire included in the kit and place it in cavity 21 as shown. Before inserting the terminal in the cavity, pull down the white locking tab of the connector.
3. Ground the wire and verify the cluster dims.
4. Securely route the wire to the Blackout Output Pin 2 on the 4 pin Molex connector.

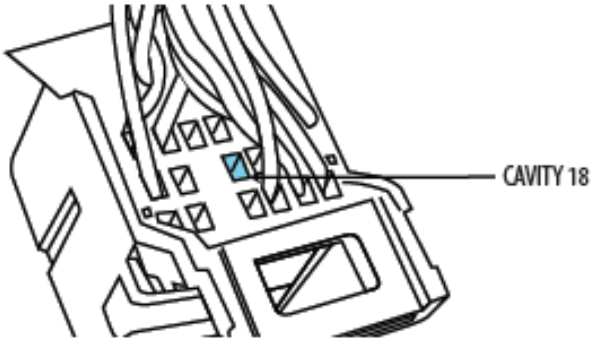


BCM Connector X6, Cavity 21

BOM Output Tahoe SSV and PPV ONLY

The BOM output must be hooked up to the Tahoe Surveillance feature which disables exterior and interior lighting.

1. Locate and unplug the X2 connector (Light Blue) at the BCM.
2. Take the Dark Green wire included in the kit and place it in cavity 18 as shown below. Before inserting the terminal in the cavity, pull down the white locking tab of the connector.
3. Ground the wire and verify the cluster dims.
4. Securely route the wire to the Blackout Output Pin 2 on the 4 pin Molex connector.



* Non-SSV or vehicles will not have a wire populated in the cavity shown. For these vehicles, the instrument cluster will need to be manually dimmed before the system will activate Black Out Mode.

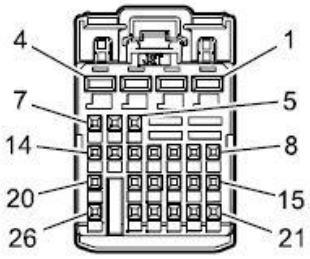
BCM Connections

- Locate the BCM under the instrument panel to the left side of the steering column. Locate the connector X4 (**Black connector**) plugged into the BCM and disconnect it. Note the Pin Numbers on the connector. The supplied white 4-pin pigtails will be tapping into several of these wires.

Note: Performing one step at a time, attach the correct wire to the appropriate 4-pin pigtail wire. These connections must be made using solder and the supplied heat shrink tubing. Cut the tubing to 1" lengths for this purpose.

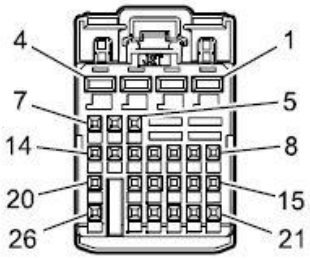
Right Rear Brake Lamp Circuit

1. Locate Pin #4 Brown/Light Green wire.
2. Verify with a DVM that there is 12V on the Brown/Light Green wire when the Service Brake is depressed and 0V when the Service Brake is *not* depressed.
3. Cut the Brown/Light Green wire, pin #4 about 3 inches from the connector.
4. Attach the BCM side of the Brown/Light Green wire, to the **male** 4-pin connector Brown/Light Green wire.
5. Attach the harness side of the Brown/Green wire, to the **female** 4-pin connector, Brown wire.



Center High Mounted Brake Lamp Circuit

1. Locate Pin #11 Violet/White wire on connector X4 (**Black Connector**).
2. Verify with a DVM that there is 12V on the Violet/White wire when the Service Brake is depressed and 0V when the Service Brake is *not* depressed.
3. Cut the Violet/White wire, pin #11 about 3 inches from the connector.
4. Attach the BCM side of the Violet/White wire, pin 11 to the **male** 4-pin connector, Violet/White wire.
5. Attach the harness side of the Violet/White wire, pin 11 to the **female** 4-pin connector, Violet wire.
6. Plug connector X4 back into the BCM



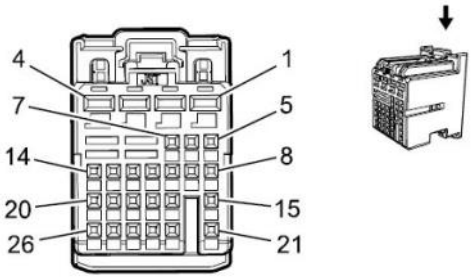
Continue to next page.

BCM Connections (cont.)

- Locate the connector X5 (**Brown connector**) plugged into the BCM and disconnect it. Note the Pin Numbers on the connector. The supplied white 4-pin pigtails will be tapping into several of these wires.

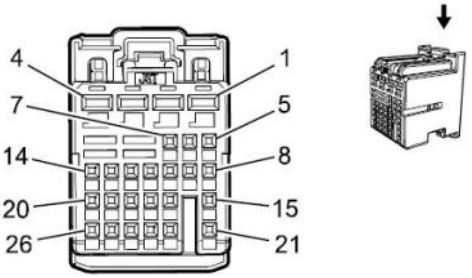
Left Rear Brake Lamp Circuit

1. Locate Pin #1 Yellow/Dark Blue wire.
2. Verify with a DVM that there is 12V on the Yellow/Dark Blue wire when the Service Brake is depressed and 0V when the Service Brake is *not* depressed.
3. Cut the Yellow/Dark Blue wire, pin #1 about 3 inches from the connector.
4. Attach the BCM side of the Yellow/Dark Blue wire, to the **male** 4 -pin connector Yellow/Dark Blue wire.
5. Attach the harness side of the Yellow/Dark Blue wire, to the **female** 4-pin connector, Yellow wire.



Reverse Lamp Circuit

1. Locate Pin #26 Dark Blue/Brown wire on connector X5 (**Brown Connector**).
2. Verify with a DVM that there is 12V on the Dark Blue/Brown wire when the transmission is in reverse and 0V when the transmission is in any other gear besides reverse.
3. Cut the Dark Blue/Brown wire, pin #26 about 3 inches from the connector.
4. Attach the BCM side of the Dark Blue/Brown wire, to the **male** 4-pin connector Dark Blue/Brown wire.
5. Attach the harness side of the Dark Blue/Brown, to the **female** 4-pin connector, Brown.



Connect the 4 pin connectors to their mating connectors

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. Manually dim the instrument cluster (**Silverado Non-SSV Only**).
4. Apply the Black Out Input (Violet/White Pin 2).
5. Verify Instrument Cluster turns OFF.
6. Hold Service Brake and verify the Brake lights are disabled.
7. Turn on Low Beams to disable Blackout.
8. Hold Service Brake and verify the Brake Lights are on.
9. Verify Instrument Cluster backlighting comes on (**Except Silverado Non-SSV**).
10. Turn Off all lights (High Beams, Low Beams, and Parking Lights).
11. Apply the Black Out Input, place transmission in reverse and verify the reverse lights are not on.
12. Turn on Low Beams and 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	4-4
LED 1	Park	Internal use	Low Beams Off	Blackout Disabled
LED 2	Service Brake	Internal use	High Beams Off	Blackout Enabled
LED 3	Internal Use	Internal use	VSS < Max Speed	Not used
LED 4	Internal use	Internal use	Speed Cancel	Not used

Leave in vehicle

Operating Instructions A-BOM620-D

2017-2020 Chevy Silverado SSV & non SSV (U.S. Vehicles Only)
2017-2020 Chevy Tahoe PPV & SSV (U.S. Vehicles Only)

System Operation

The BOM620 module has the ability to eliminate all exterior lighting to aid in covert operations. When activated it will eliminate the parking lamps, reverse lights, service Brake lights, and the daytime running lights.

Black Out Preconditions:

- Parking lights must be OFF.
- Headlights must be OFF.
- Vehicle speed must be less than exit speed. (configurable)
- Manually dim the instrument cluster (**Silverado Non-SSV Only**).
- Momentarily apply Black Out input.

Once in Black Out mode, the stop lamps and reverse lamps are inactive. The module will also dim the instrument panel cluster to its lowest level.

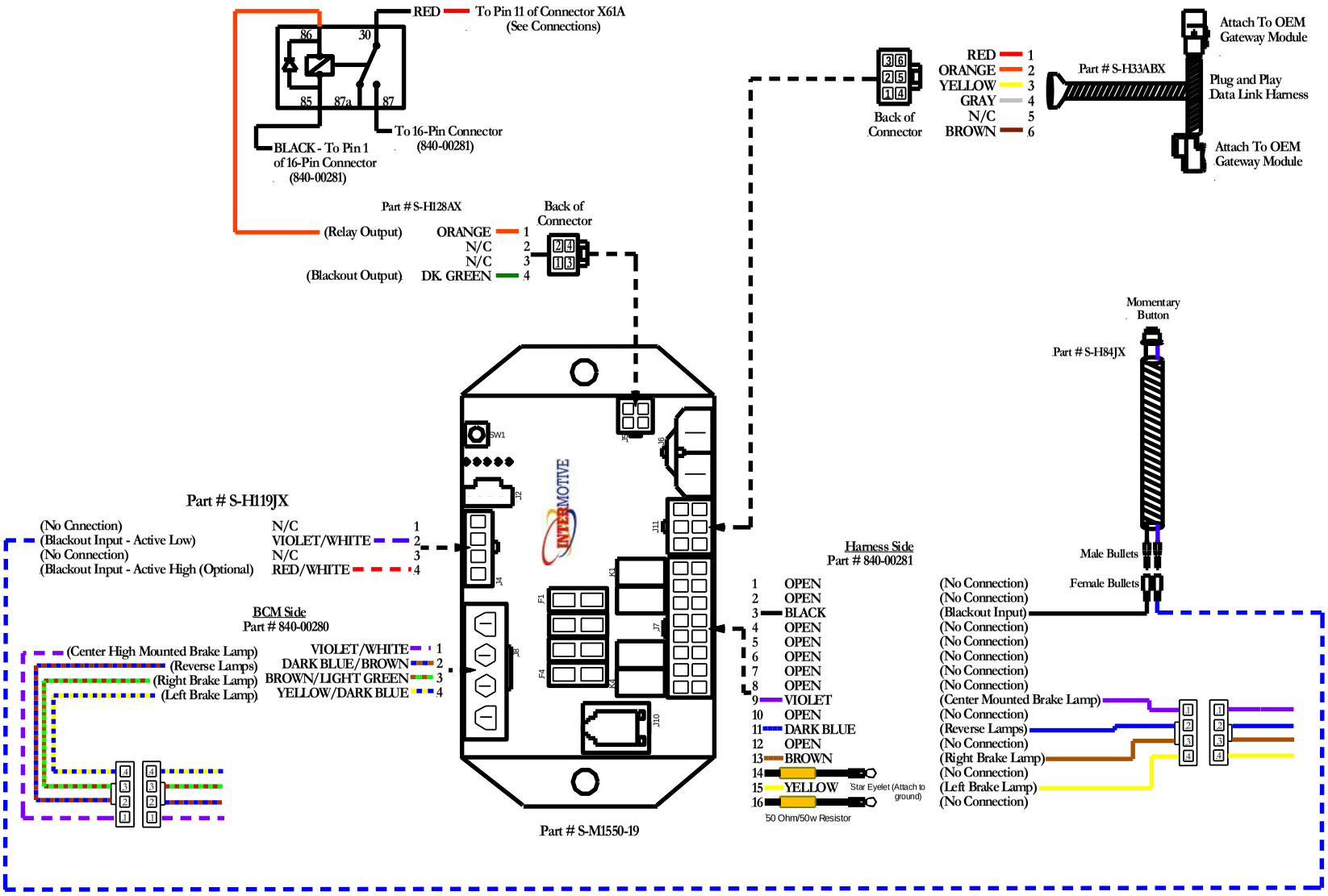
To disable Black Out, apply one of the following:

- Momentarily apply Black Out input.
- Turn ON parking lights.
- Turn ON Headlights.
- Vehicle speed goes over exit speed.

To bypass the “exit speed”, hold the Black Out input while driving and the module will keep the tail lights inactive.

Speed Override

The configurable Exit Speed is used for safety purposes and the speed can be set between 5-20 MPH. To bypass the Exit Speed, enter Black Out Mode by momentarily applying the Black Out Input. Once entered, hold the Black Out input and the module will keep the lights disabled at any speed as long as the input is continuously pressed.



Submit product registration at www.intermotive.net

If the BOM620 fails any step in the Post Installation Test, review the installation instructions and check all connections.
If necessary, call InterMotive Technical Support at (530) 823-1048.