

BOM621-A Black Out Module
2021-2023 Chevy Tahoe PPV & SSV
2021-2024 Chevy Silverado 1500
2024 Chevy Silverado 2500, 3500
Push to start Ignition



Contact InterMotive for additional applications

Introduction

The BOM621 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.

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.

BOM621 Module

Remove the lower dash panel below the steering column area and find a suitable location to mount the BOM621 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.

Installation Instructions (Continued)

Data Link Harness (BOM621)

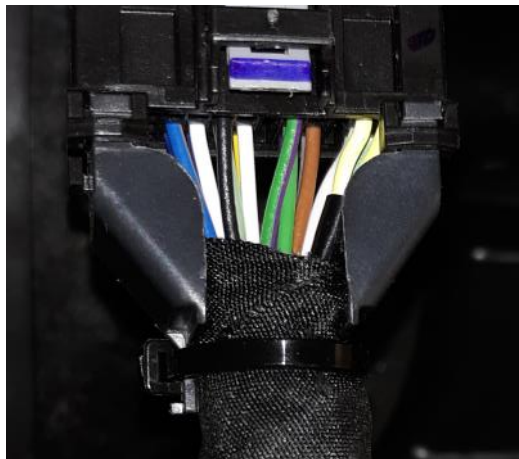
1. Locate the Gateway module that is located under the dash and above the accelerator pedal.



2. Locate the 30-pin connector, X1 labeled "BLK" on the module.



3. Remove the connector from the Gateway module, and plug it into the mating connector on 840-00179 rev 2 harness. Plug the male connector from the harness into the OEM Gateway module (X1).



Data Link Harness BOM621 (Continued)

13. Secure the InterMotive Data Link harness so that it does not hang below the lower dash panel.
14. Plug the free end of the Data Link harness into the mating 6-pin connector on the InterMotive module.
15. Reconnect the battery to the vehicle.

16-Pin BOM Relay Connector

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

Pin #1 - 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 - Brown, connect to the Harness side of Center High Mounted Brake Lamp Circuit.

Pin #11 - Green, connect to the Harness side of Reverse Lamp Circuit.

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

Pin #15 - Gray, connect to the Harness 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.

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

- Pin #1 - Brown/White, connect to the BCM side of the Center High Mounted Brake Lamp Circuit.
- Pin #2 - Green/White, connect to the BCM side of the Reverse Lamp Circuit.
- Pin #3 - White/Black, connect to the BCM side of the Right Rear Brake Lamp Circuit.
- Pin #4 - Gray/White, connect to the BCM side of the Left Rear Brake Lamp Circuit.

Pin # 1 2 3 4

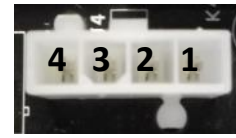


4 Pin Output

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)

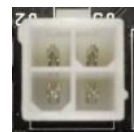
A switch with LED is provided in the kit which is used for Black Out Input.

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.



4W (Dual Row) Pin-out Definition

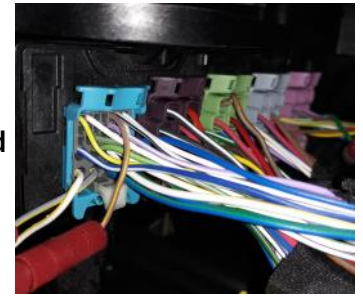
This 4-pin connector contains the BOM's Blackout output (Blue wire). The wire will provide a Ground output when Blackout mode is active.



4 Pin Output

Chevy Tahoe BCM Connections

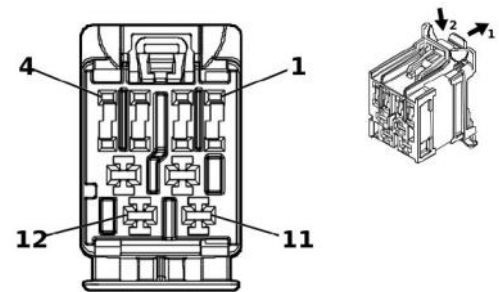
- Locate the BCM under the instrument panel to the left side of the steering column. Locate the connector X1 (Light Purple connector) plugged into the BCM and disconnect it. Note the Pin Numbers on the connector. The supplied white 4-pin pigtails will be tapping into several of these wires.



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.

Reverse Lamp Circuit

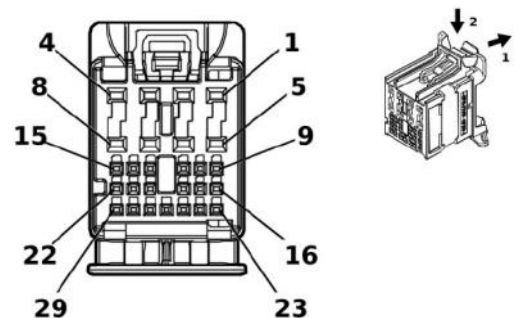
1. Locate Pin #6 Green/White wire.
2. Verify with a DVM that there is 12V on the Green/White wire when the transmission is in reverse and 0V when the transmission is in any other gear besides reverse.
3. Cut the Green/White wire, pin #6 about 3 inches from the connector.
4. Attach the BCM side of the Green/White wire, to the female 4-pin connector **Green/White** wire.
5. Attach the harness side of the Green/White wire, to the male 4-pin connector, **Green** wire.
6. Plug connector X1 back into the BCM



- Locate the connector X5 (Blue 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.

Center High Mounted Brake Lamp Circuit

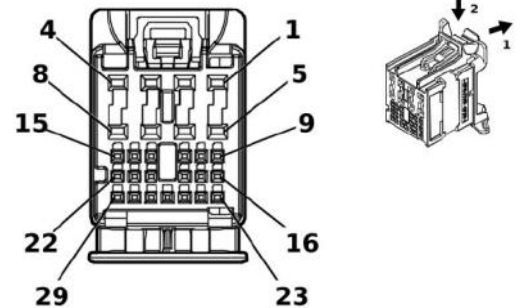
1. Locate Pin #25 Brown/Yellow wire on connector X5 (Blue Connector).
2. Verify with a DVM that there is 12V on the Brown/Yellow wire when the Service Brake is depressed and 0V when the Service Brake is *not* depressed.
3. Cut the Brown/Yellow wire, pin #25 about 3 inches from the connector.
4. Attach the BCM side of the Brown/Yellow wire, pin 25 to the female 4-pin connector, **Brown/White** wire.
5. Attach the harness side of the Brown/Yellow wire, pin 25 to the male 4-pin connector, **Brown** wire.
6. Continue to next page.



Chevy Tahoe BCM Connections (continued)

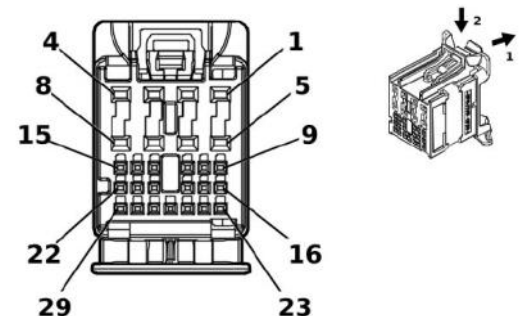
Left Rear Brake Lamp Circuit

1. Locate Pin #3 Gray/Yellow wire on connector X5 (**Blue Connector**).
2. Verify with a DVM that there is 12V on the Gray/Yellow wire when the Service Brake is depressed and 0V when the Service Brake is *not* depressed.
3. Cut the Gray/Yellow wire, pin #3 about 3 inches from the connector.
4. Attach the BCM side of the Gray/Yellow wire, to the female 4-pin connector **Gray/white** wire.
5. Attach the harness side of the Gray/Yellow wire, to the male 4-pin connector, **Gray** wire.



Right Rear Brake Lamp Circuit

1. Locate Pin #4 White/Yellow wire on connector X5 (**Blue Connector**).
2. Verify with a DVM that there is 12V on the White/Yellow wire when the Service Brake is depressed and 0V when the Service Brake is *not* depressed.
3. Cut the White/Yellow wire, pin #4 about 3 inches from the connector.
4. Attach the BCM side of the White/Yellow wire, to the female 4-pin connector **White/Black** wire.
5. Attach the harness side of the White/Yellow, to the male 4-pin connector, **White** wire.
6. Plug connector X5 back into the BCM



Connect the 4 pin connectors to their mating connectors

Silverado BCM Connections

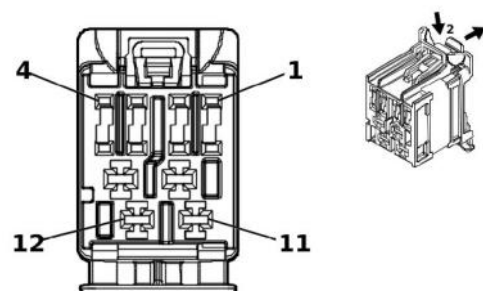
- Locate the BCM under the instrument panel to the left side of the steering column. Locate the connector X1 (Light Purple connector) plugged into the BCM and disconnect it. Note the Pin Numbers on the connector. The supplied white 4-pin pigtails will be tapping into several of these wires.



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.

Reverse Lamp Circuit

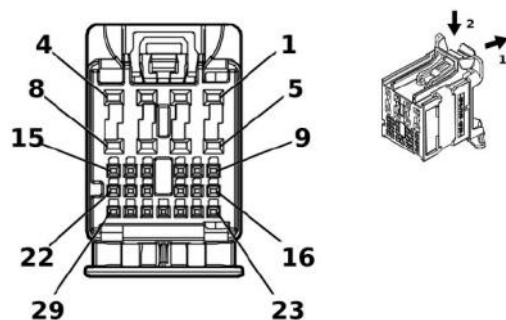
1. Locate Pin #3 Green/White wire.
2. Verify with a DVM that there is 12V on the Green/White wire when the transmission is in reverse and 0V when the transmission is in any other gear besides reverse.
3. Cut the Green/White wire, pin #3 about 3 inches from the connector.
4. Attach the BCM side of the Green/White wire, to the female 4-pin connector **Green/White** wire.
5. Attach the harness side of the Green/White wire, to the male 4-pin connector, **Green** wire.
6. Plug connector X1 back into the BCM



- Locate the connector X5 (Blue 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.

Center High Mounted Brake Lamp Circuit

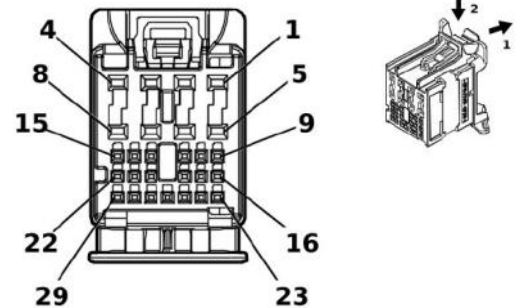
1. Locate Pin #25 Brown/Yellow wire on connector X5 (Blue Connector).
2. Verify with a DVM that there is 12V on the Brown/Yellow wire when the Service Brake is depressed and 0V when the Service Brake is *not* depressed.
3. Cut the Brown/Yellow wire, pin #25 about 3 inches from the connector.
4. Attach the BCM side of the Brown/Yellow wire, pin 25 to the female 4-pin connector, **Brown/white** wire.
5. Attach the harness side of the Brown/Yellow wire, pin 25 to the male 4-pin connector, **Brown** wire.
6. Continue to next page.



Silverado BCM Connections (continued)

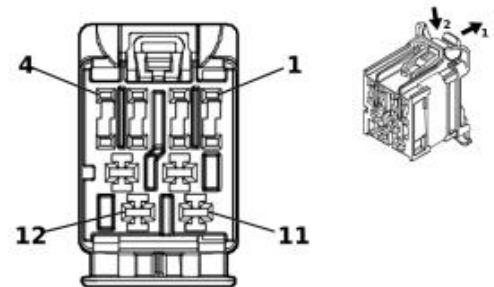
Left Rear Brake Lamp Circuit

1. Locate Pin #8 Blue/White wire on connector X5 (**Blue Connector**).
2. Verify with a DVM that there is 12V on the Blue/White wire when the Service Brake is depressed and 0V when the Service Brake is *not* depressed.
3. Cut the Blue/White wire, pin #8 about 3 inches from the connector.
4. Attach the BCM side of the Blue/White wire, to the female 4-pin connector **Gray/White** wire.
5. Attach the harness side of the Blue/White wire, to the male 4-pin connector, **Gray** wire.



Right Rear Brake Lamp Circuit

1. Locate Pin #6 Blue/Violet wire on connector X3 (**Green Connector**).
2. Verify with a DVM that there is 12V on the Blue/Violet wire when the Service Brake is depressed and 0V when the Service Brake is *not* depressed.
3. Cut the Blue/Violet wire, pin #6 about 3 inches from the connector.
4. Attach the BCM side of the Blue/Violet wire, to the female 4-pin connector **White/Black** wire.
5. Attach the harness side of the Blue/Violet wire, to the male 4-pin connector, **White** wire.
6. Plug connector X5 back into the BCM



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. Manually dim instrument cluster
3. Apply the Parking Brake and Turn Off all lights (High Beams, Low Beams, and Parking Lights).
4. Turn off Auto Lights by rotating the headlight switch to the left.
5. Apply the Black Out Input (Violet/White Pin 2).
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. Turn Off all lights (High Beams, Low Beams, and Parking Lights).
10. Apply the Black Out Input, place transmission in reverse and verify the reverse lights are not on.
11. 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
LED 1	Blackout Enabled	DRL's ON
LED 2	Park Lamps ON	VSS < max speed
LED 3	High Beams ON	Internal use
LED 4	Auto Lamps ON	Internal use



Leave in vehicle
Operating Instructions BOM621-A
2021-2023 Chevy Tahoe PPV & SSV
2021-2024 Chevy Silverado 1500
2024 Chevy Silverado 2500, 3500
Push to start Ignition

System Operation

The BOM621 module has the ability to eliminate all exterior lighting to aid in covert operations. When activated it will eliminate the reverse lights, service Brake lights.

Black Out Preconditions:

- Parking lights must be OFF.
- Headlights must be OFF.
- Auto lamps must be OFF
- Vehicle speed must be less than exit speed. (configurable)
- Manually dim the instrument cluster.
- Momentarily apply Black Out input.

Once in Black Out mode, the stop lamps and reverse lamps are inactive.

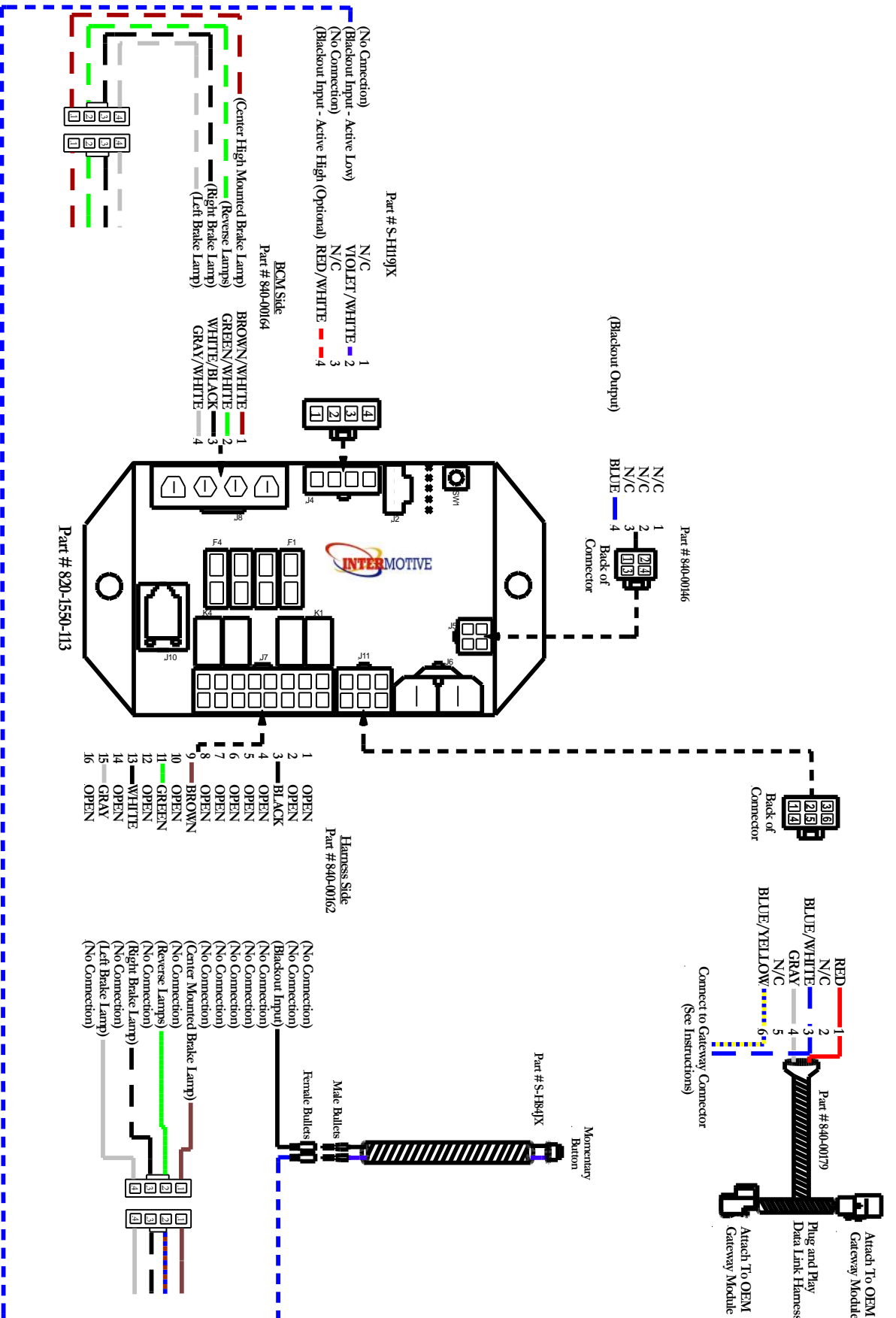
To disable Black Out, apply one of the following:

- 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 BOM621 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.