Document ID: 3421884 Page 1 of 9

## Remote Control Door Lock, Theft Deterrent, and Remote Start Transmitter Package Installation (Instruction ID: 22901614)

Installation Instructions Part Number

22901614

## Kit Usage

This kit adds remote start to vehicles without option BTV. The vehicle must also have AQQ and an Automatic Transmission. Both can be verified by using GM Vehicle Inquiry System (GMVIS). For proper operation of the remote vehicle start system, a hood status-switch equipped hood latch is required. For 2014 to 2016 light duty trucks only, a jumper harness addition is also required in order to complete circuit 109, Hood Status Signal to the Body Control Module. Adding remote vehicle start also requires programming of the vehicle. This is done using the Service Programming System. The installer must call TCSC to obtain a VCI number. United States and Canada (English) 1-800-828-6860 Canada (French) 1-800-503-3222. The TCSC will provide a Vehicle Configuration Index (VCI). The VCI is good for only one specific Vehicle Identification Number (VIN). You must have the vehicle's VIN that will be upgraded and the Authorization Code from the label on the Installation Instruction Sheet included with the kit. This will allow you to access the software to enable the remote vehicle start option.

Programming of vehicles that do not have Keyless Entry (AQQ) will require additional calibrations to be updated to add the Keyless Entry feature so that the Remote Start feature will work properly. TCSC can provide the software reconfiguration to add keyless entry to the vehicle. There is a reconfiguration fee associated with this change.

## Kit Contents

Qty	Description
1	Set of Transmitter Key Fobs (2 in total)
1	Hood Latch Assembly (with switch pigtail)
1	Jumper Harness Assembly, including strap clip attached with blue tape (2014 to 2016 Light Duty kits ONLY)
10	Tie Straps (2014 to 2016 Light Duty kits ONLY)
1	Installation Instructions (including Authorization Code Label)

Note: Due to wire routing requirements on Light Duty Pickups, please review this entire procedure before trying to perform it.

Note: When calling the TCSC, you must use the Authorization Code from the kit and have the VIN available.

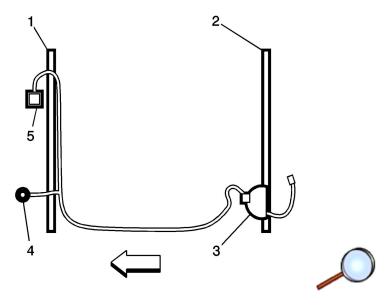
Special Tools, Equipment and Chemicals Required

Scan Tool (with capability of communicating on GMLAN)
 © 2018 General Motors. All rights reserved.

5/16/2018

- Service Programming System (SPS TIS2WEB, or equivalent)
- J-46079 Tire Pressure Monitor Diagnostic Tool
- GM Glass Cleaner or Cleaner-9M905449 (US) or 00992727 (Canada) or equivalent (2014 to 2016 ONLY)
- Silicone RTV 12378479 US or 88861419 Canada or equivalent (2014 to 2016 ONLY)
- 8" (20cm) ¼" diameter steel brake tube with ends cut a 45 degree bevel for feeding wire through grommet (2014 to 2016 ONLY)
- J-38125-22 wiring connector tool (2014 to 2016 ONLY)

Diagram for 2014 to 2016 LD PU Harness Only



This diagram outlines scope of the Jumper harness for Remote Vehicle Start accessory:

Front of vehicle (1)

Plenum (2)

Plenum Grommet (3)

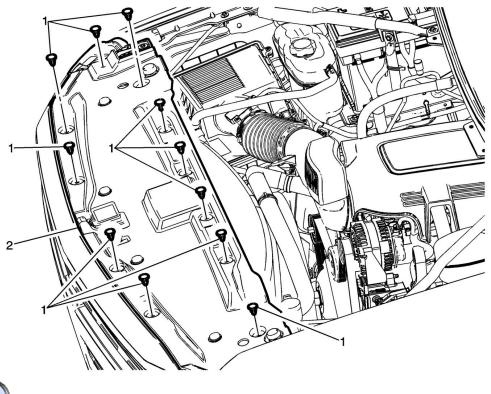
Harness Ground (4)

Hood Latch (5)

## **Procedure**

For (2014 to 2016 Light Duty Only) and Heavy Duty Trucks

Document ID: 3421884 Page 3 of 9

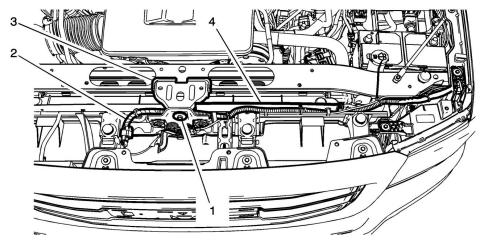




- 1. Remove the front compartment front sight shield push-in retainers (1).
- 2. Remove the front compartment front sight shield (2).

Updating the Hood Latch – Required for all 2014 to 2016 non-UTJ Pickups

Harness is For 2014 to 2016 Light Duty Trucks Only



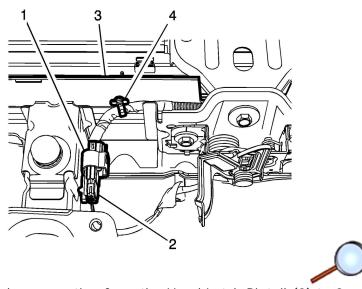


Route 3-way connector jumper harness branch (2) along front of vehicle, in preparation for routing under Grille Mount Panel Bolt (1) and Bracket (3). Be sure to route in front of air baffle (4). As a general guideline (after driver side of the hood latch) route alongside the Hood Release Cable up to the Driver Side Hood Bumper located on the Tie Bar.

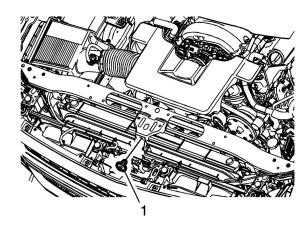
For (2014 to 2016 Light Duty Only) and Heavy Duty Trucks

1. Remove and replace hood primary and secondary latch. Refer to <u>Hood Primary and Secondary</u> Latch Replacement.

© 2018 General Motors. All rights reserved.



- 2. Make connection from the Hood Latch Pigtail (2) to 3-way forward lamp harness connector (1) (or Jumper Connector for Light Duty Trucks.)
- 3. Ensure that the connection is securely fastened in the positioning locator for the connector. Refer to <u>B55 Hood Ajar Switch</u>.
- 4. This Step is For 2014 to 2016 Light Duty Trucks ONLY:
  Remove the 6.35mm hole clip with strap, which is taped to the harness (blue tape) and fasten harness (4) to the air Baffle (3) 6.35mm hole approx 4" (10cm) away from connector. Tighten strap clip and cut to length.



5. Remove and replace grille mount panel bolt (1). Tighten

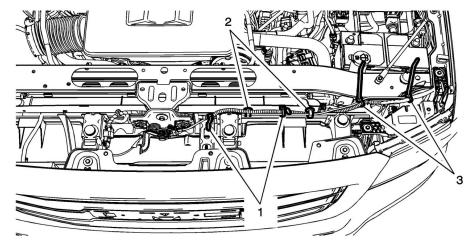
Tighten bolt to 25 N.m (18 lb ft).

Note: Ensure the bolt does not pinch the jumper harness conduit when fastening.

Installation of the Hood Latch Status Signal Jumper Harness (For 2014 to 2016 Light Duty Pickup ONLY)

Document ID: 3421884 Page 5 of 9

Routing the 3-way Connector Branch of the Harness (2014 to 2016 Light Duty Pickup ONLY)

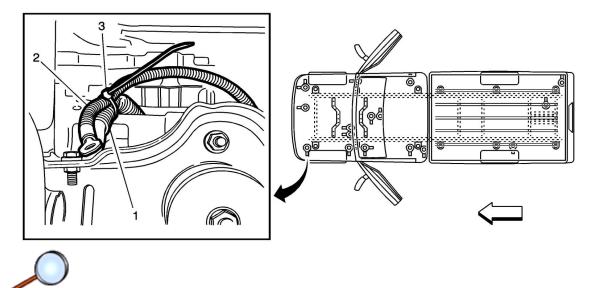




Note: Use a tie strap, part number 11509086 (10 total in kit) to secure the harness to the hood latch release cable, after the hood latch, and before the hood bumper. Cut all tie straps to length.

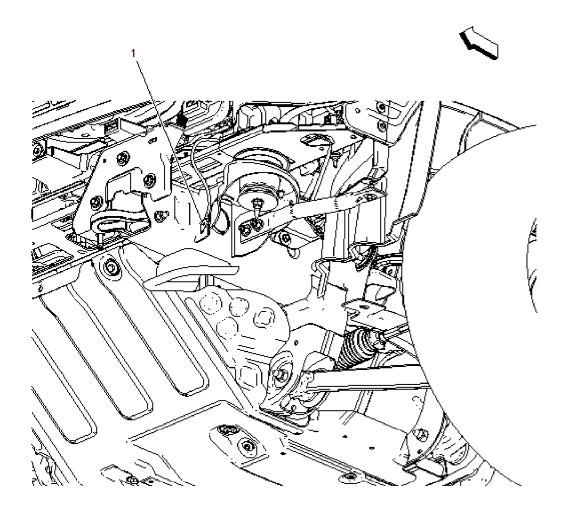
Fasten the jumper harness to the Hood Latch Release Cable in one location along air baffle, using tie straps (1) P/N 11509086 from the kit. (midway between the two hood cable clips (2). Secure harness along hood release cable using two additional tie straps (3) P/N 11509086. Approx distance between tie straps should be 20cm. Cut all tie straps to length.

Routing the Ground Branch of the Harness (2014 to 2016 Light Duty Pickup ONLY)



1. Route the ground ring branch of the harness along the washer bottle tube and fasten using a tie strap P/N 11509086, to the forward lamp harness head lamp connector branch. Continue to route in front of the bottle and in front of the fog lamp bracket. Accessing from underneath the vehicle, continue to route behind the front fender and fasten to the upper end of the downward branch (2) of the forward lamp harness (1) using tie strap (3) P/N 11509086.

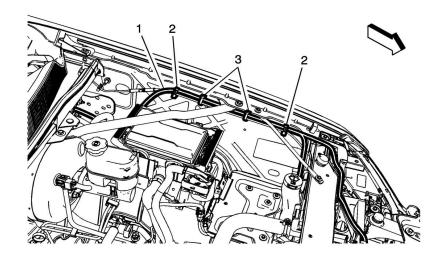
5/16/2018





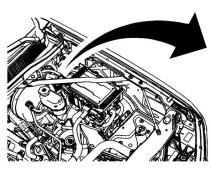
2. Continue along down to the ground stud G101 (1). Remove the ground stud and fasten using BOLT/SCREW-FORWARD LAMP WIRING HARNESS GROUND, tighten to 9 N.m for ground ring, noting there may also be an existing ground from the forward lamp harness. Cut all tie straps to length.

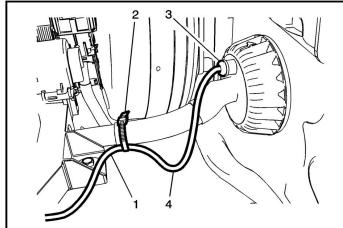
Underhood Routing of the Hood Latch Status Signal Wire (2014 to 2016 Light Duty Pickup ONLY)





- 1. Following hood latch cable, route the signal length of the harness (1), inserting the harness into the C-clips (2), in two locations.
- 2. Using tie strap (3), P/N 11509086, fasten in two locations between C-clips, maintaining approximately 20cm between fastening points. Cut tie straps to length.

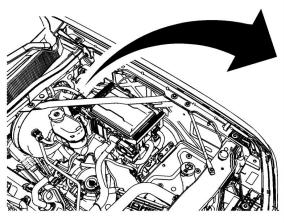


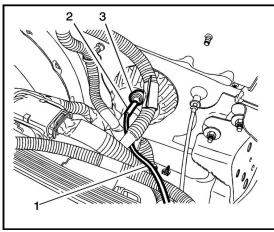




- 3. Fasten to the third hood latch cable C-clip and branch away and toward the body harness before the grommet (3). Fasten the jumper harness (1) to the body harness using two tie straps (2) P/N 11509086 evenly spaced approximately 20 cm alternating with clips. Cut to length.
- 4. Route the signal wire conduit to the body harness grommet, ensuring to create a 3" diameter drip loop (4) before positioning the taped conduit end at the grommet for entry to the interior of the vehicle.
- 5. using a utility knife, cut an 1/8" slit in the grommet (3) to prepare the entry for the bare signal wire.

Routing Wire through Grommet to the Body Control Module (2014 to 2016 Light Duty Pickup ONLY)







1. From inside the vehicle, remove the fasteners and position aside the instrument panel wiring harness junction block.

Note: Junction block connector removal is not required.

2. Using a utility knife, cut an 1/8" slit in the thin hole of the grommet opposite of the exterior side. From inside the vehicle, insert the ¼" brake tube (2) through the back piece of the grommet (3).

Note: Grommet removal should not be required.

- 3. From inside the vehicle, carefully push the tubing through to the front of the grommet, exiting at the exterior end of grommet.
- 4. From the under side of hood, insert and feed the signal wire (1) and terminal through the tubing (2) to the inside of the vehicle.
  - Be sure to maintain the conduit drip loop just before the grommet entry. Verify that the grommet end does not collapse.
- 5. Remove the steel tubing (2) and clean both the entry and exit surfaces of the grommet using cleaner P/N 9M905449 (US), 00992727 (Canada), or equivalent.
- 6. Apply silicone to the grommet at both wire entry and exit, using silicone P/N 12378479 (US), 88861419 (Canada), or equivalent. Leave to dry while completing the remainder of this procedure.
- 7. Using J-38125-22 tool, remove any wiring in K9 BCM X4 26-way connector pin 24 (BN/L-GN) and tape back onto the body harness, if applicable. Insert the GN (green) jumper harness signal wire connector into pin 24 on the K9 BCM X4 26-way connector. Refer to K9 Body Control Module X4. Reinstall all connectors.
- 8. Reinstall the instrument panel wiring harness junction block to the floor studs and install the fasteners.

Programming the Vehicle (All Vehicles)

Note: For North America vehicles, the installation of accessory remote start requires BCM programming. This is done with a Service Programming System. The installer needs to call the Techline Customer Support Center (1-800-828-6860). The Techline Customer Support Center will provide programming instructions and changes to the vehicles calibration settings. You must provide the vehicle identification number (VIN) of the vehicle to be programmed and the authorization code provided with the accessory, when calling.

Reprogram BCM. Refer to <u>Body Control Module Programming and Setup</u> and follow Reprogram Control Module Instructions.

 $\ensuremath{\mathbb{C}}$  2018 General Motors. All rights reserved.

Document ID: 3421884 Page 9 of 9

Learning Transmitters to Vehicle

Reprogram remote control door lock transmitters. Refer to Remote Control Door Lock Transmitter Learn

Reinstall all removed components.

5/16/2018

© 2018 General Motors. All rights reserved.