READ ME FIRST

TECHNICAL SUPPORT
1-800-FORD-KEY
CANADIAN DEALERS
BILINGUAL FRENCH/ENGLISH
TECHNICAL SUPPORT
(514)973-2846

For convenience this document uses short names when referring to a particular system or kit. The list below identifies the short names used herein:
Remote Start System —>**RKE/VSS/RMST**

Navigating this document can be accomplished by: 1) using the buttons in the Acrobat toolbar or 2) clicking on the bookmark links in the bookmark pane to the left. (Clicking on the (+) symbols next to a bookmark will expand that bookmark, revealing additional selections).

This installation instruction covers the installation of all Remote Start Kits.

Vehicle wiring is subject to change. All possible efforts have been taken to ensure that the information contained herein is accurate as of the revision dates indicated. As such, it is critical that vehicle circuits are tested prior to making any connections, to ensure that the proper vehicle circuit has been located.

Prior to beginning this installation it is recommended that you lower the driver's door window to prevent locking the keys in the vehicle.
Prior to beginning your first installation of this product it is recommended that you:

1   Thoroughly review and print out the instructions;
2   Review the reference section to become acquainted with the additional information that is available.
3   Go through the vehicle specific wiring and use as a reference during the installation.
4   Review the installation video on the Ford Genuine Accessory website that is located with the RMST Installation Instructions.

SK9L2J-19G364-AA

Ford Accessory Vehicle Security, Keyless Entry and Remote Start
Warranty Return Procedures

<u>DO NOT</u> CLAIM PARTS WARRANTY ON FORM 1863

Parts Warranty Processing:

Lifetime limited coverage to original purchaser on all components against defects and workmanship. (For complete Warranty details, please refer to the warranty section found at the rear of each Security or Remote Start systems Owners Manual) Contact the warrantor, Code Systems for return authorization/replacement approval for failed components at no charge by the manufacturer. Return of Components to Code Systems requires the following:

1. Dealer/FAD representative must call the Ford Vehicle Security System Dealer Warranty Department at 1-800-FORDKEY (1-800-367-3539) to obtain generic claim form.
2. Fill out claim form and identify the defective component, **not the entire kit,** and fax to 1-631-231-5785.
3. Dealer/FAD will receive via fax the claim form with RA number authorizing the return of defective components.
4. Dealer/FAD is to box the defective component (including a copy of the claim form) with the claim number clearly written on the package(s) and ship them freight pre-paid to:

<div align="center">

Ford Service Parts
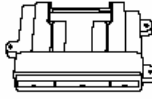180 Marcus Blvd.
Hauppauge, NY 11788

</div>

Note: If the package is sent without a claim number/claim number visible on the outside of the package, the shipment will be refused and returned at sender's expense.

5. Once a tracking number for the returning component has been issued to Code Systems, replacement components will be shipped within 24 hours via regular UPS ground transportation.
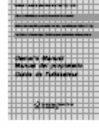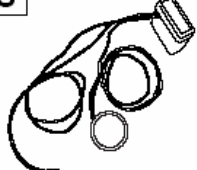6. Dealer/FAD is responsible for service parts not returned/received by the Warranty Service Center within 30 days of the original claim date. Post the 60 days; the Dealer/FAD will be liable for all non-returned components at service part pricing.

Removal and reinstallation labor may be reimbursable under the New Vehicle Limited Warranty or 12-month/12,000 mile warranty (which ever is greater) and must be submitted by filling a warranty claim through ACES II.

REFERENCE SECTION

KIT CONTENTS

A PC-14 - 7L2J-19G367-AA PC-34 - 7L3J-19G367-AA	**B** RKE/VSS/RMST - 7L3J-19A498-AA RMST - 7L2J-19A498-AA VSS - 7L3J-19A498-BA	**C** 7L2J-15K601-AA	**E** TYPE "A" 7L2J-14B504-AA
F TYPE "B" 7L5J-14B504-AA	**G** TYPE "C" 7W3J-14B504-AA	**M** 2W7J-19G366-AA	**N** 2W7J15603-AA
P	**Q**	**R**	**S** 7L2Z-19G365-AA
T YL3Z-19G390-AA			

PARTS BAG CONTENTS

NOTE: Part bag contents are not available as service items

T 750 OHM 1X	**U** 1800 OHM 1X	**V** 2X	**W** 6X
X 2X	**Y** 5X	**Z** 10X	**AA** 1X
BB 2X	**CC** 7X	**DD** FUSE BAG CONTENTS 5A 1X	**EE** 15A PC-14 - 4X PC-34 - 7X

Splicing Procedures

NOTE:

Refer to applicable wiring diagrams for circuit information.

NOTE:

This procedure contains multiple splicing techniques.

NOTE:

Review splicing procedures prior to performing any cutting/soldering/splicing.

2-Wire Solder "Center Splice" With No Wire Cutting

NOTE:

Follow this procedure when a wire can be spliced without cutting the wire in half.

1. Strip approximately two inches of insulation from the wire to be installed in the vehicle.

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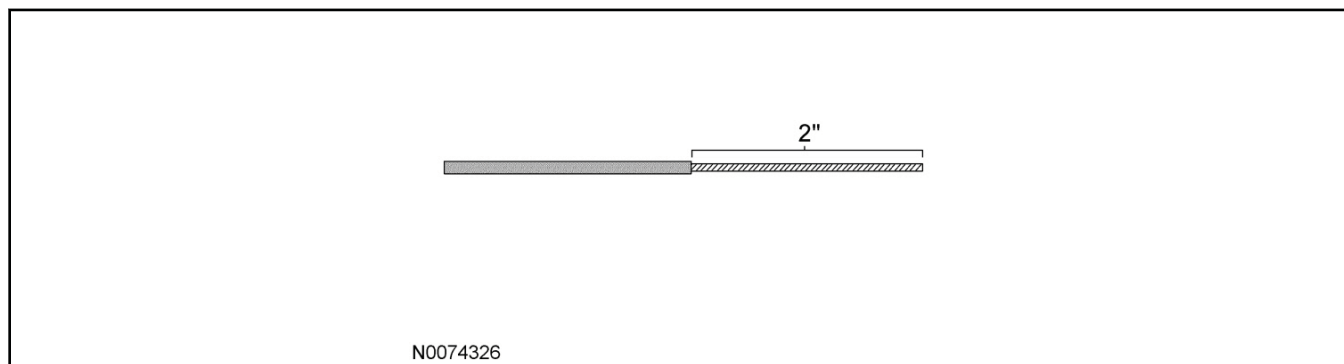
2. On the vehicle wire to be spliced into, strip one inch of insulation from the wire.

N0074327
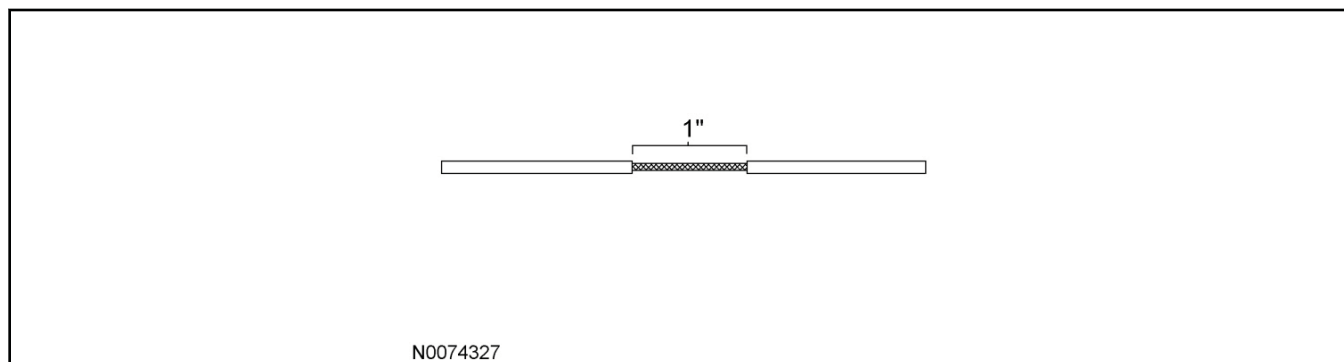
3. On the vehicle wire to be spliced into, separate the strands to allow the new wire to be placed.

N0074328
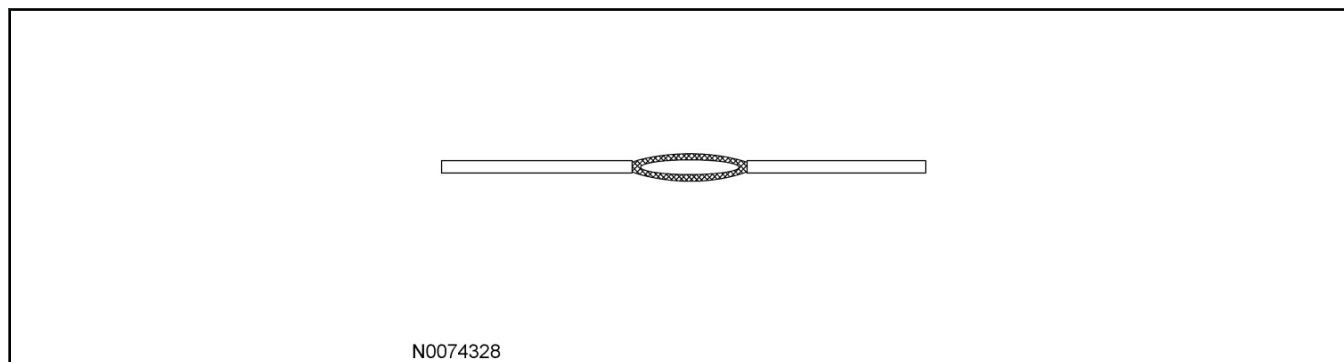
4. Insert the new wire between the parted strands. If more than one wire is being spliced, wrap them in opposite directions.

N0074329
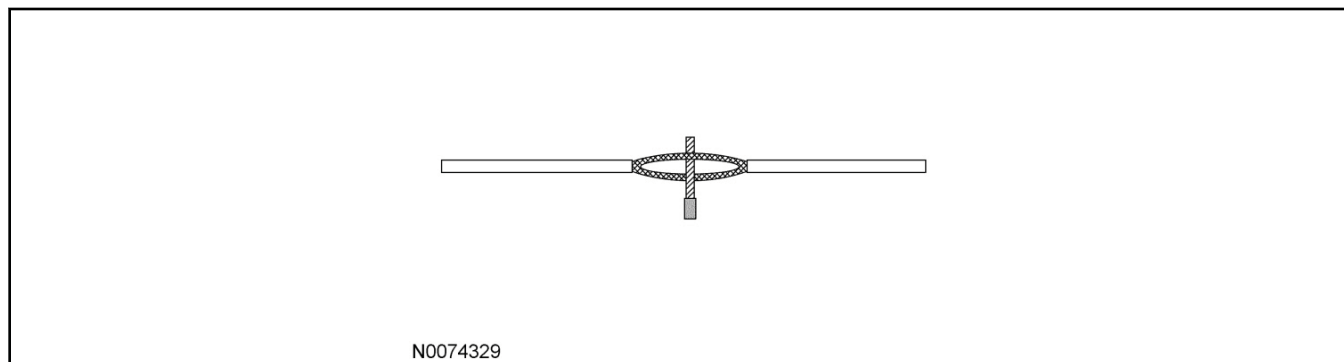
NOTE:
Use Rosin Core Mildly-Activated (RMA) Solder. Do not use Acid Core Solder.

NOTE:
Wait for solder to cool before moving wires.

5. Wrap the new wire around one side of the split strands, then wrap it around the other side.

    • Solder the connection.

N0074330
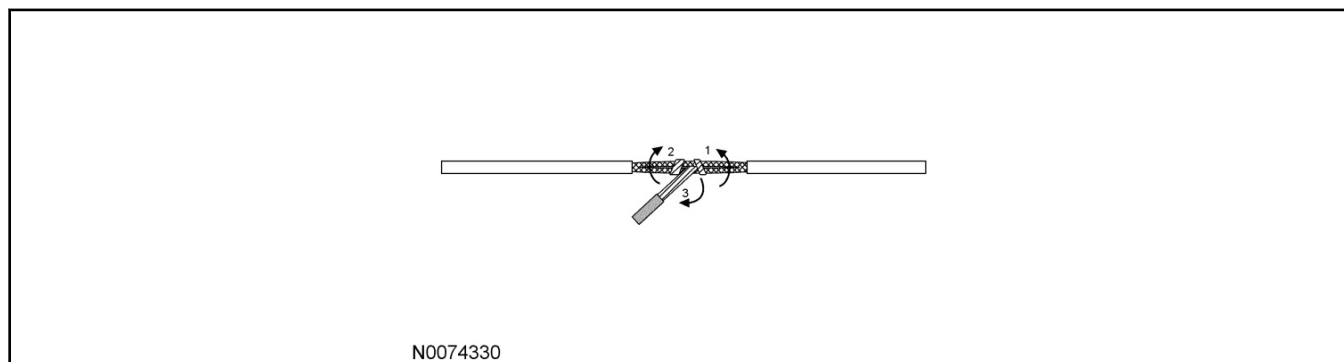
6. Wrap the connection with electrical tape so the tape covers the wires approximately two inches on either side of the connection.

    • Tape the wires together as shown in the illustration.

Electrical Tape

N0074331
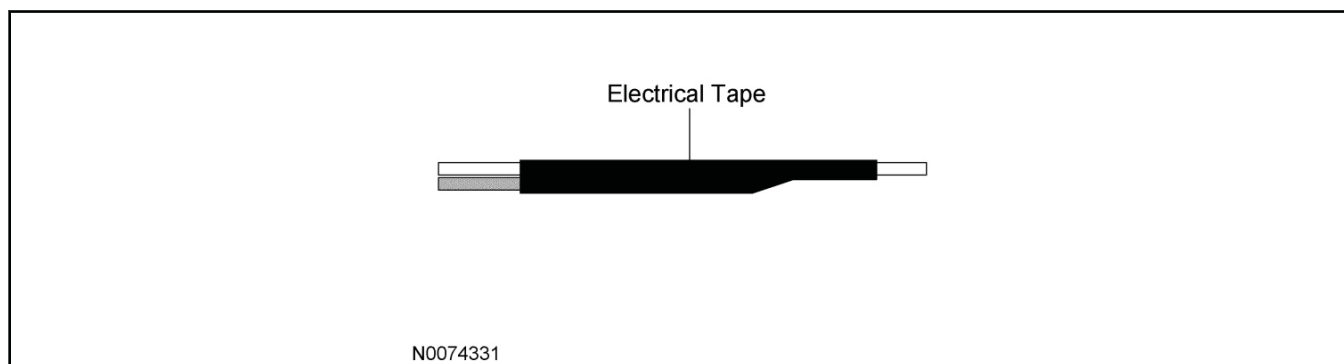
2-Wire Solder Splice/Ratcheting Crimp Tool Splice Procedure

NOTE:
For 10-14 AWG Use The following "Ratcheting Crimp Tool Splice Procedure".

NOTE:
For Splicing Procedure Use Wire Splice Tool Kit (164-R5903).

7. **NOTE:**
    The strip length will vary depending on the butt splice and wire in harness. Longer strip lengths are required when the wire needs to be folded to mate with the butt splice. Refer to chart for strip lengths and folding techniques.

    Strip 1/4" (6.35 mm) of insulation from pigtail wire end once the wire lengths are sized so repairs can be staggered. Take care not to nick or cut wire strands. Pull wire straight from stripper. If wire is pulled at an angle, wire strands may be cut off. If more than one (1) strand is cut off during stripping, cut off the end and re-strip. Slide heat shrink tubing onto one (1) of the wire ends to be crimped, must be at least 1" (25.4mm) away from the stripped end.
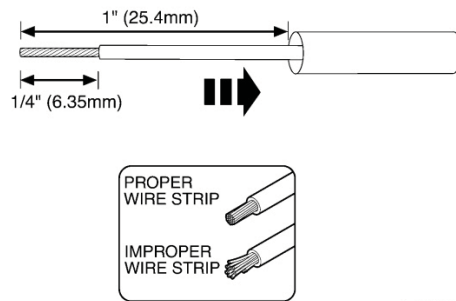
8. Identify the appropriate crimping chamber of the Rotunda 164-R5901 Pro-Crimper (or equivalent) by matching the wire size on the dies with the wire size stamped on the butt splice. Hold the crimping tool so the identified wire sizes are facing you. Squeeze tool handles together until the ratchet releases, then allow the jaws of the tool to open fully.
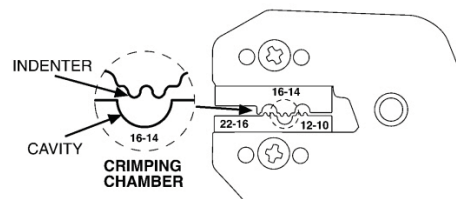
9. Center one (1) end of the butt splice on the appropriate crimping chamber. If visible, be sure to place the brazed seam of the butt splice toward the indenter. Hold the butt splice in place and squeeze the tool handles together until the ratchet engages sufficiently to hold the butt splice in position (typically one (1) or two (2) clicks). DO NOT deform the butt splice. Insert stripped wire into the butt splice, making sure the insulation on wire does not enter the butt splice.
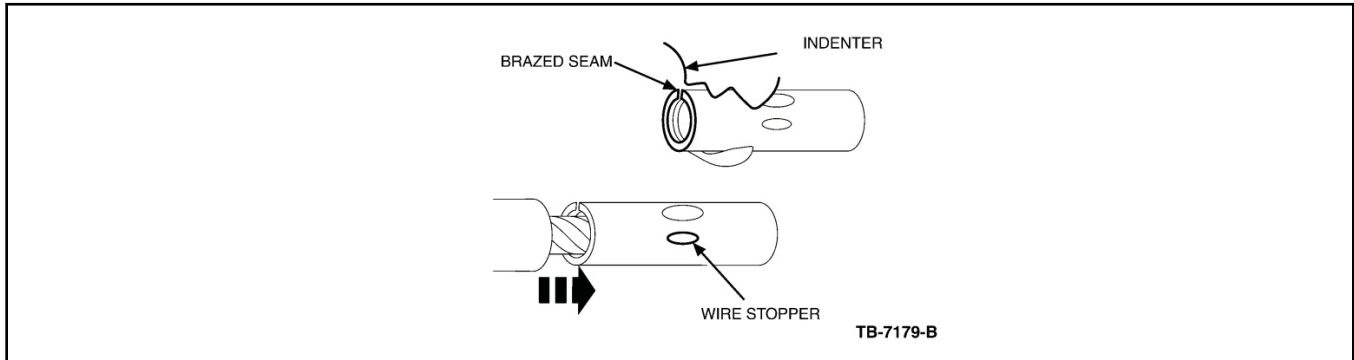
10. Holding the wire in place, squeeze tool handles together until ratchet releases. Allow tool handles to open, then remove crimped butt splice.
To crimp the other half of the splice, reposition the un-crimped wire barrel in the same crimping chamber, and repeat the crimping procedure. If splice cannot be turned for crimping the other half, turn the tool around.
Check for acceptable crimp.

- Crimp should be centered on each end of the butt splice. It is acceptable for crimp to be slightly off center, but not off the end of the butt splice (A).

- Wire insulation does not enter butt splice. Wire is flush with or extends slightly beyond end of butt splice (B).

- Wire is visible through inspection hole of splices (C).
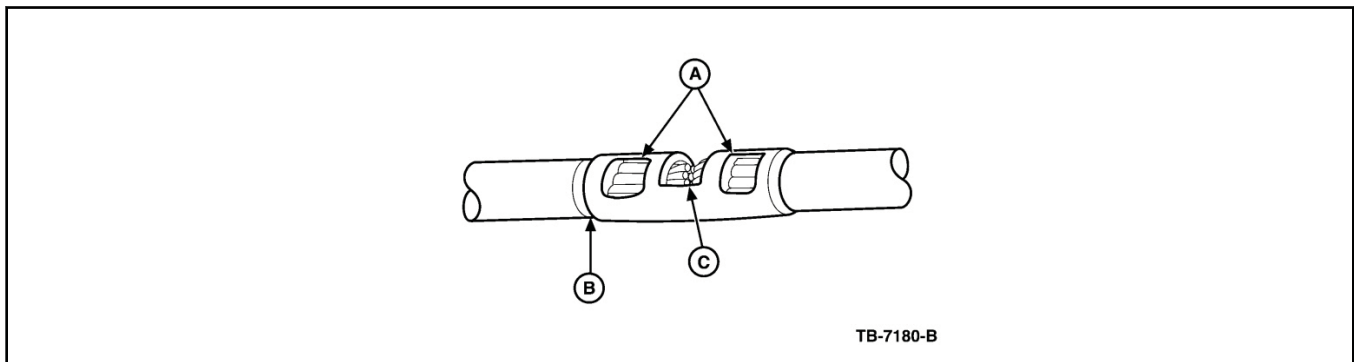
11. **NOTE:**
Overlap heat shrink tubing on both wires.

NOTE:
The hot melt forms an adhesive seal between the wire insulation and the heat shrink tubing, which prevents air and moisture from entering the solder point.

NOTE:
Durability of a heat shrink tubing splice is dependent on the hot melt that will appear from both ends of the tube.

Evenly position heat shrink tubing over wire repair. Use a shielded heat gun to heat the entire length of the heat shrink tubing until the hot melt appears from both ends of the tubing.

Wire Stripping Lengths and Application Techniques.

Wire Gauge Size

Butt Splice as stamped	10	12	14	16	18	20	22	24
22-18	■	1/4" strip, cut 9 strands	1/4" strip, cut 2 strands	1/4" strip, no fold	1/4" strip, no fold	1/4" strip, no fold	5/8" strip, fold 2x dia.	1" strip, fold 3x dia.
16-14	1/4" strip, cut 7 strands	1/4" strip, no fold	1/4" strip, no fold	1/4" strip, no fold	5/8" strip, fold 2x dia.	1" strip, fold 3x dia.	1 1/4" strip, fold 4x dia.	■
12-10	1/4" strip, no fold	1/4" strip, no fold	5/8" strip, fold 2x dia.	1" strip, fold 3x dia.	1 1/4" strip, fold 4x dia.	■	■	■

☐ Pigtail Only

■ Both Pigtal and Wire Harness

☐ Wire Harness Only

2X CROSS SECTION — 5/8"
3X CROSS SECTION — 1"
4X CROSS SECTION — 1-1/4"

TB-7176 -C

For 16-22 AWG wire use either the above "Ratcheting Crimp Procedure" or the following "2 Wire Solder Splice Procedure".

12. Strip 1 1/2" (37.2 mm) of insulation from Wire #1 and 3/4" (19.5mm) of insulation from Wire #2, taking care not to nick or cut wire strands. Pull wire straight from stripper. If wire is pulled at an angle, wire strands may be cut off during stripping. Cut off the end and re-strip.

WIRE 1 — 37.2mm (1-1/2")
WIRE 2 — 19.5mm (3/4")
PROPER WIRE STRIP
IMPROPER WIRE STRIP
TB-7173-B
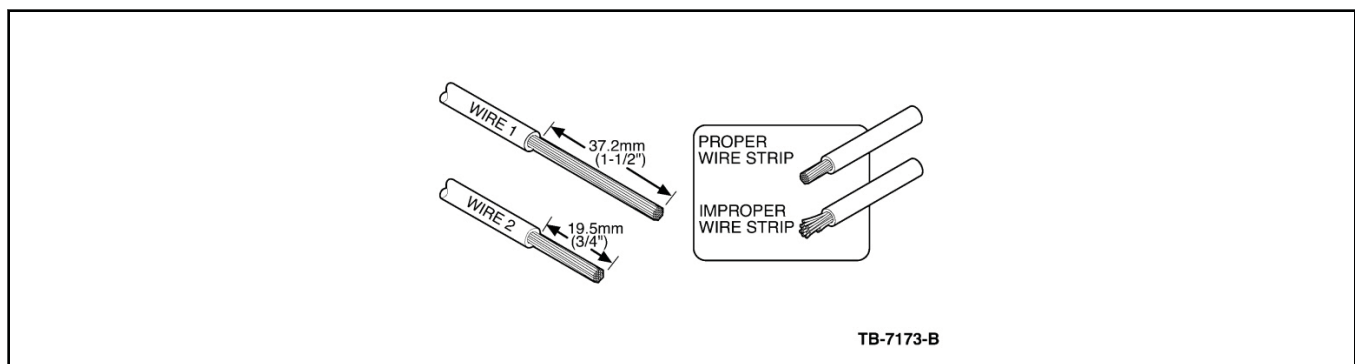
13. **NOTE:**
Use rosin core mildly activated (RMS) solder. do not use acid core solder for wire repair.

NOTE:
Overlap tubing on both wires and wait for solder to cool before moving the wires.

NOTE:
Durability of a heat shrink tubing splice is dependent on the hot melt that will appear from both ends of the tube.
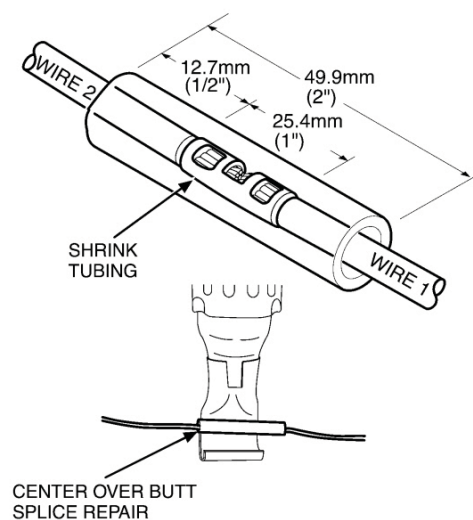
NOTE:
The hot melt forms an adhesive seal between the wire insulation and the heat shrink tubing, which prevents air and moisture from entering the solder point.

Install heat shrink tubing at least 1" (26 mm) away from one of the stripped ends being spliced. Twist the wires together. Solder wires together. Bend Wire #1 back in a straight line for sealing. Inspect solder joint bond. Evenly position heat shrink tubing over wire repair. Use a shielded heat gun to heat the entire length of the heat shrink tubing until the hot melt appears from both ends of the tubing.
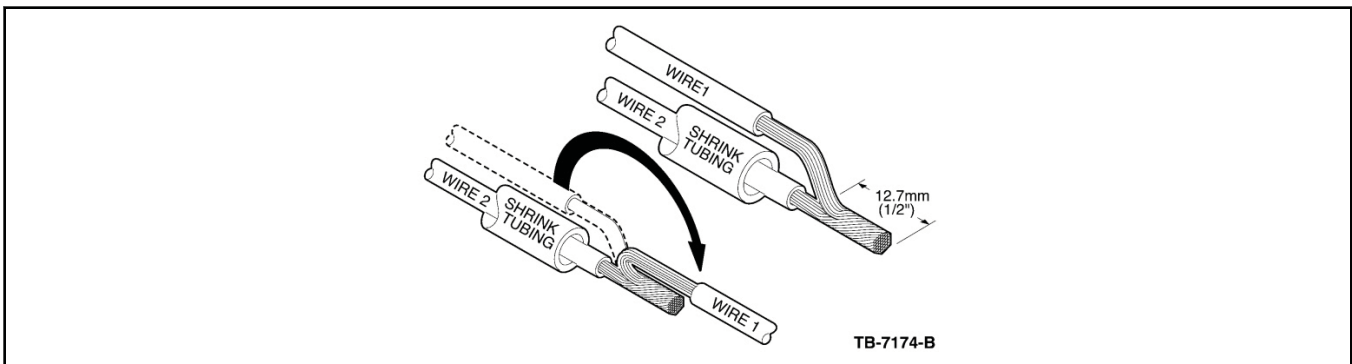
3-Wire Solder Splice Procedure

14. Strip 1 1/2" (37.2 mm) of insulation from both sides of Wire #1 and 3/4" (19 mm) of insulation from Wire #2, taking care not to nick or cut wire strands. Pull wire straight from stripper. If wire is pulled at an angle, wire strands may be cut off during stripping. Cut off the end and re-strip.

15. **NOTE:**
    Wait for solder to cool before moving wires.

    Apply heat shrink tubing to Wire #2. Twist both ends of Wire #1 around Wire #2. Solder wires together.

N0148446

16. Bend Wire #1 back over the twisted wires for sealing. Inspect solder joint bond.

N0148447

17. Evenly position heat shrink tubing over wire repair.

N0148448

18. **NOTE:**

    Durability of a heat shrink tubing splice is dependent on the hot melt that will appear from both ends of the tube.

    NOTE:
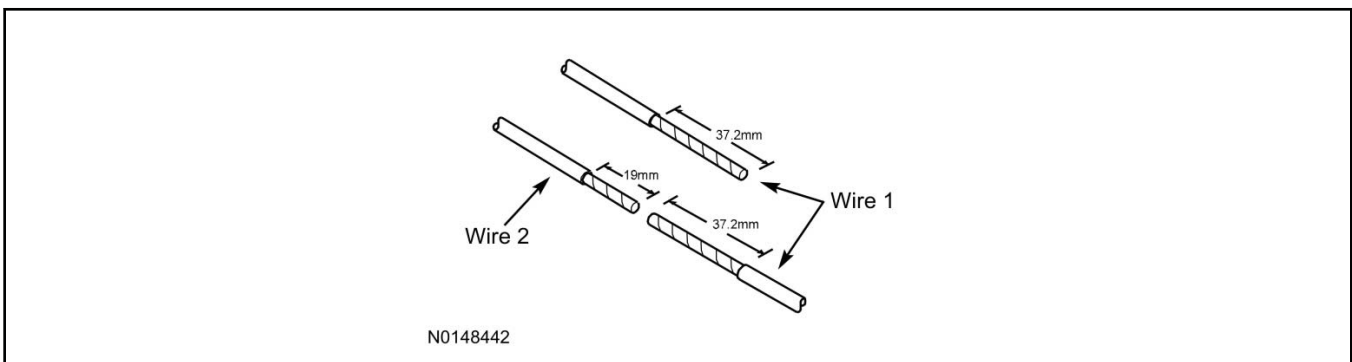
    The hot melt forms an adhesive seal between the wire insulation and the heat shrink tubing, which prevents air and moisture from entering the solder point.

    Use a shielded heat gun to heat the entire length of the heat shrink tubing until the hot melt appears from both ends of the tubing.

N0148450
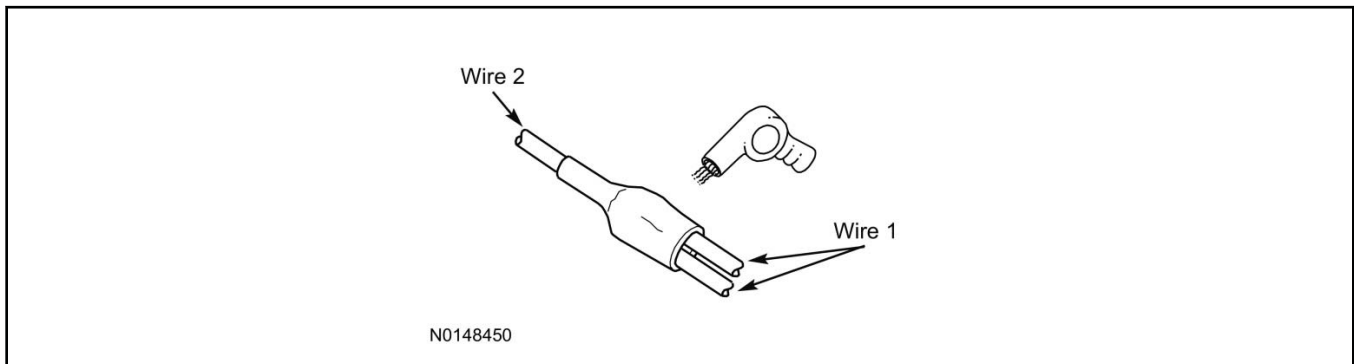
User Preferences

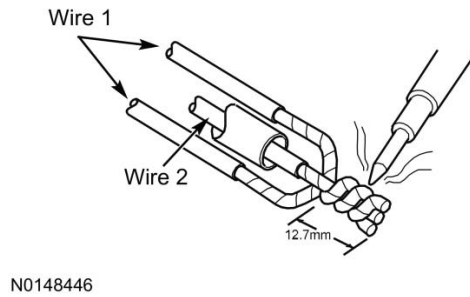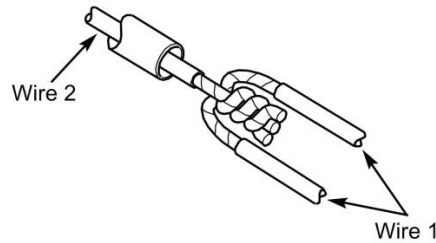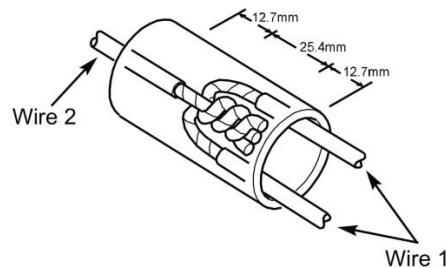## Adding 2-Way Remote Controls to Your System

NOTE:
The system has the ability to operate from up to eight (8) 2-way remote controls. Follow these instructions to add a remote control to your system.

NOTE:
The vehicle should be in "park" while performing this procedure.

1. Open the driver's door and enter the vehicle.

2. Press and hold the brake pedal.

3. Turn the vehicle ignition to the ON position and then to the OFF position 6 times, ending in the ON position (On, Off, On, Off, On, Off, On, Off, On, Off, On, Off, On).
The horn will chirp three (3) times. This indicates that the unit has entered the remote control programming mode.

4. Release the brake pedal.

5. Press the start button on the 2-way remote control to be programmed. The horn will sound once, indicating that the system has "learned" that remote control.

6. Repeat step 5 for any additional remote controls.

7. Turn the vehicle ignition off to exit the programming mode. Test all 2-way remote controls to ensure that they work properly.

Optional Activation Methods - Single Press & Hold / Double Press

NOTE:
The 2-Way Remote Start and Vehicle Security System comes pre-programmed to start the vehicle when the start button on the 2-way remote transmitter is pressed 2 times. The 2-Way Remote Start and Vehicle Security System may be programmed to activate by pressing and holding the start button on the 2-way remote transmitter by following these instructions.

1. Open the driver's door and enter the vehicle, close driver's door.

2. Ensure vehicle is in Park and the brake pedal is not depressed.

3. Turn the vehicle ignition to the ON position.

4. Press the start button on the 2-way transmitter 3 times within 5 seconds. The horn will chirp 1 time, indicating that the remote start system will now start with a "Press and Hold".

5. Turn the vehicle ignition to the OFF position to exit the programming mode.

6. Repeat steps 1 - 5 to return the vehicle to the factory setting.

   - 1 chirp = Press and Hold to start.

   - 2 chirps = Double Press to start.

GENERAL PROCEDURES

Shock Sensor Setting

Remote Start with Keyless Entry and Security System

NOTE: Control modules with an alarm feature contain one internal shock sensor with a Lite Touch and Full Shock settings. When the vehicle is armed, the force which sounds the horn due to impact is determined by the Lite Touch setting. When the vehicle is armed, the force at which sounds the alarm due to impact is determined by the Full Shock setting.

NOTE: The Full Shock Level should always be less sensitive than the Lite Touch Level.

1. Close the driver door and turn the ignition key to the ON position.

2. Press and hold the override button until the horn honks.

3. Press and hold the override button until the horn honks four times. This is option bank 1.

4. Select the first option in option bank 1, which is the Lite Touch adjustment programming option. Press button 3 on the key fob.

5. To test and adjust the current sensitivity level, start by tapping on the outer rim of the steering wheel with the palm of your hand, gradually increase the force of the taps until the horn honk is detected. this should be set to honk at a light to medium impact level. To adjust the level, press Unlock on the key fob to decrease the sensitivity or press Lock to increase the sensitivity.

6. Turn the ignition key to the OFF position.

7. Arm the system and check the new settings.

RMST/VSS Remote Start System Installation

CONTENTS

INSTALLATION

Remote Start System/Vehicle Security

Remote Start System/Vehicle Security (RMST/VSS) Components

N0126677

Hood Switch Kit - SE Vehicles Only

N0122208
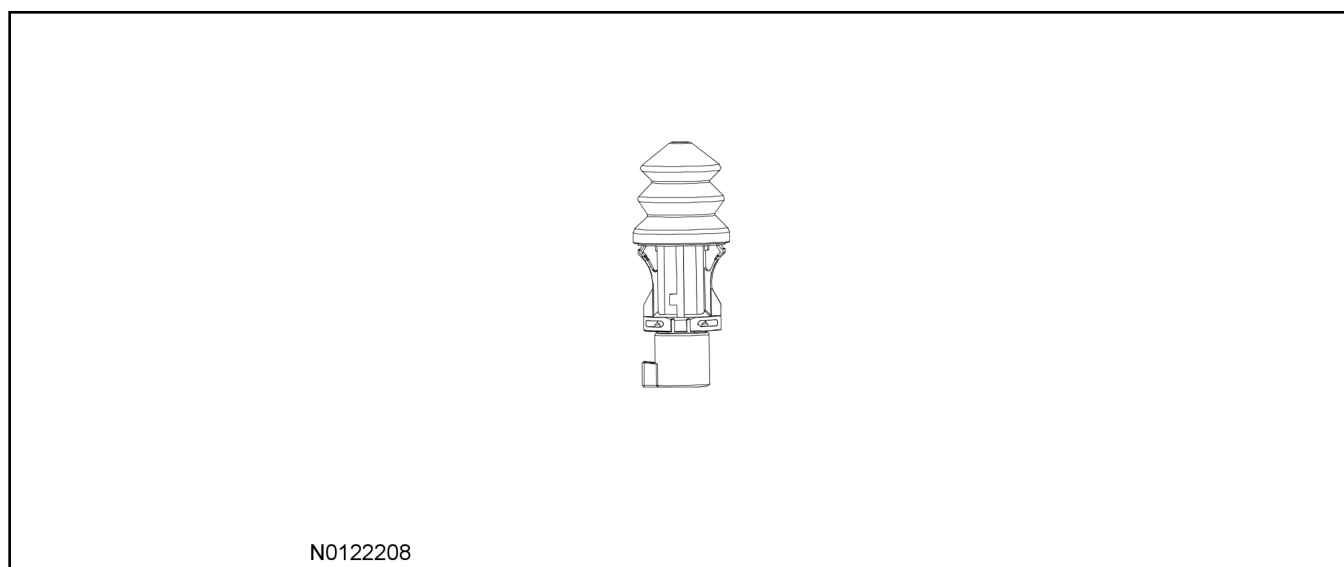
INSTALLATION (Continued)

Hood Switch Wire Harness Kit - SE Vehicles Only

N0143443
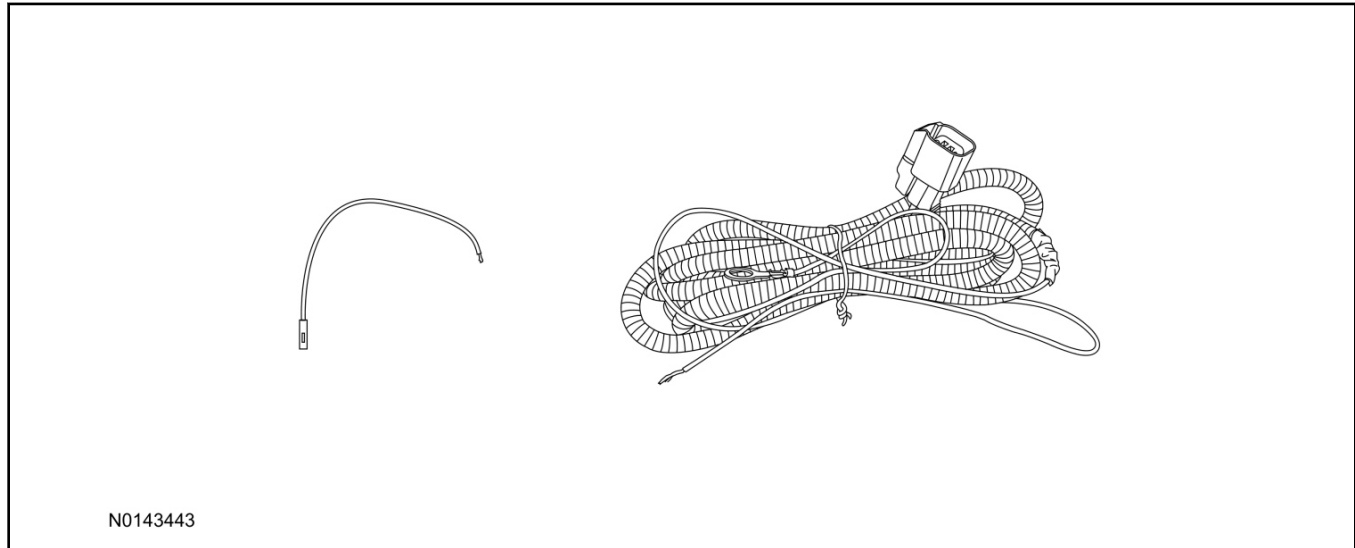
Explorer

1. Verify correct kit number.

Review The Remote Start System/Vehicle Security (RMST/VSS) Installation Kit Contents

2. Review the RMST/VSS kit contents.

Remote Start System/Vehicle Security (RMST/VSS) kit

QUANTITY	DESCRIPTION
1	Bi-directional Key Fob
1	Remote Start Module
1	Bi-directional Antenna
1	Remote Function Actuator (RFA) Module T-Harness
1	Shock Sensor
1	LED

Review Hood Switch Kit Contents

3. Review the Hood Switch kit contents.

Hood Switch Kit

QUANTITY	DESCRIPTION
1	Hood Switch Assembly

Review Hood Switch Wire Harness Kit Contents

4. Review the Hood Switch kit contents.

INSTALLATION (Continued)

Hood Switch Wire Harness Kit

QUANTITY	DESCRIPTION
1	Body Control Module (BCM) Terminal Wire
1	Hood Switch Wire Harness

Vehicle Preparation

5. Verify that the vehicle is equipped with a hood switch, and hood switch wire harness.

    • If the vehicle is not equipped with a hood switch wire harness, refer to "Hood Switch Wire Harness Installation" within this procedure.

    • If the vehicle is not equipped with a OE hood switch, refer to "Hood Switch Installation" within this procedure.

Hood Switch Wire Harness Installation

NOTE:
This procedure is only required if the vehicle is not equipped with a hood switch wire harness.

6. Remove the fender bolt and install the hood switch ground wire, using the previously removed bolt.

    • Tighten to 12 Nm (106 lb-in).

N0145113
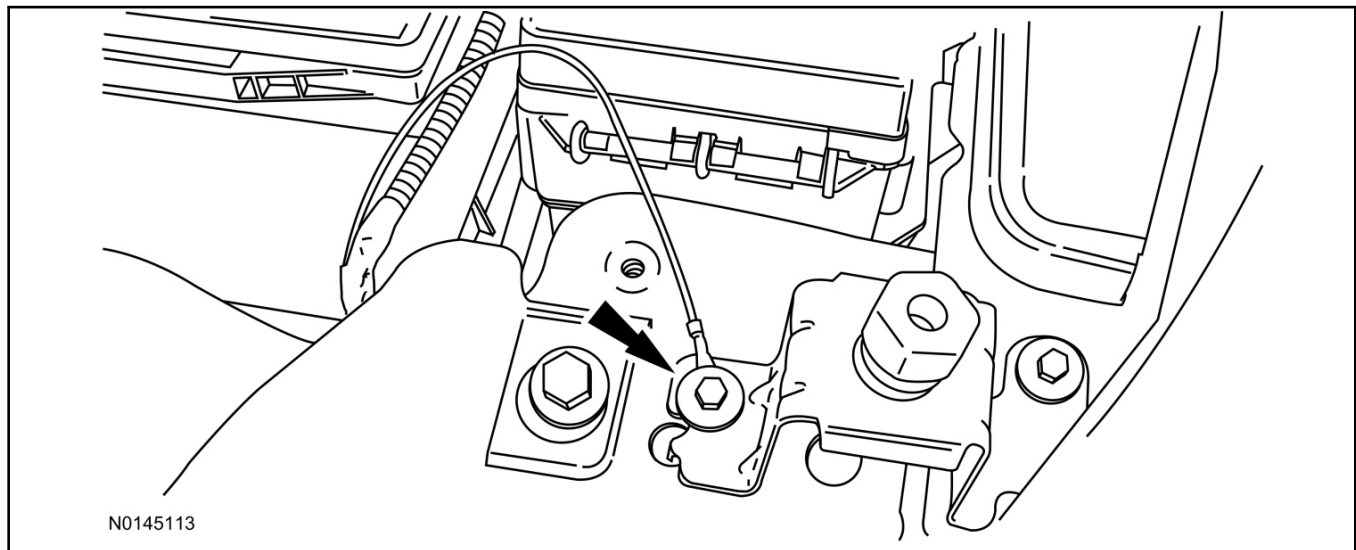
7. Route the hood switch wire harness into the vehicle through the bulkhead grommet.

    • Secure the hood switch wire harness with zip-ties.

8. Disconnect Body Control Module (BCM) connector C2280F.

INSTALLATION (Continued)

N0141956
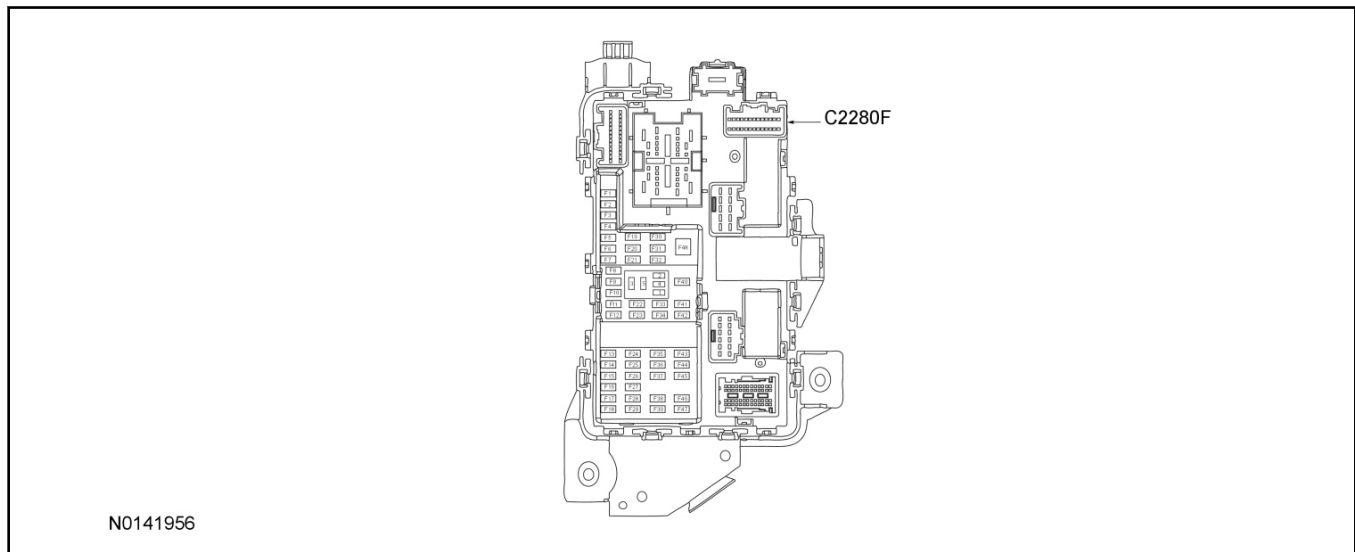
9. If equipped, remove the pin plug from BCM connector C2280F Pin 2.

    • If the vehicle is not equipped with a hood switch wire harness from the factory C2280F will not
      have a wire at the Pin 2 location.

10. *NOTICE:*
    **Check that the all wire pins are attached firmly and properly positioned/secured within the
    connector shell, after performing this step.**

    Insert the BCM terminal wire from the hood switch wire harness kit into BCM connector C2280F
    Pin 2.

    • Some disassembly of BCM connector C2280F may be required to perform this step.

11. Connect BCM connector C2280F.

NOTICE:
Refer to "Proper Wire Splicing Techniques" before proceeding.

12. Connect the hood switch wire harness wire to the BCM Terminal Wire.

    • Secure the wire harness assembly with zip-ties.

Hood Switch Installation

NOTE:
Hood switch installation is only required if the vehicle is not currently equipped with a hood switch.

13. Locate the vehicle's existing "OE" hood switch wire harness, located on the LH side of the vehicle
    below the radiator core support.

    • If required remove the vehicle's air cleaner assembly, to access the vehicles "OE" hood switch
      wire harness. For additional information, refer to Workshop Manual (WSM), Section 303-12.

INSTALLATION (Continued)

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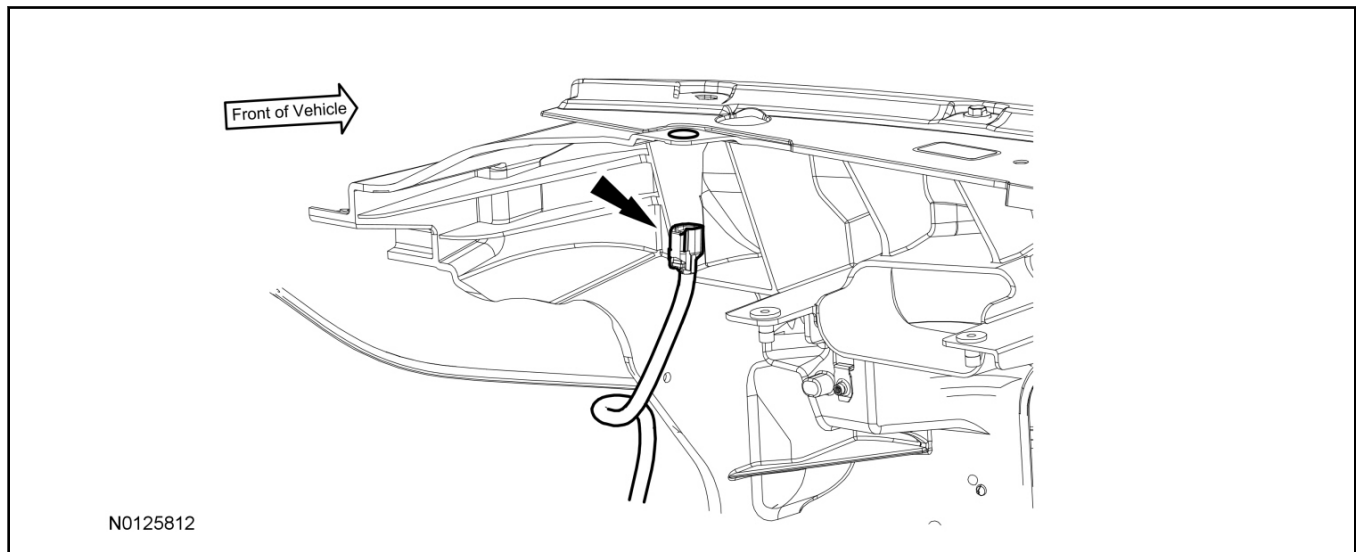
14. Install the OE hood switch assembly to the existing hood switch mounting location, on the LH side of the upper radiator core support as shown.

  • If equipped, remove the dummy plug from the upper radiator core support.

  • Position the flat spot on the hood switch to the flat spot on the radiator core support.

  • Connect the electrical connector to the hood switch.

N0125813
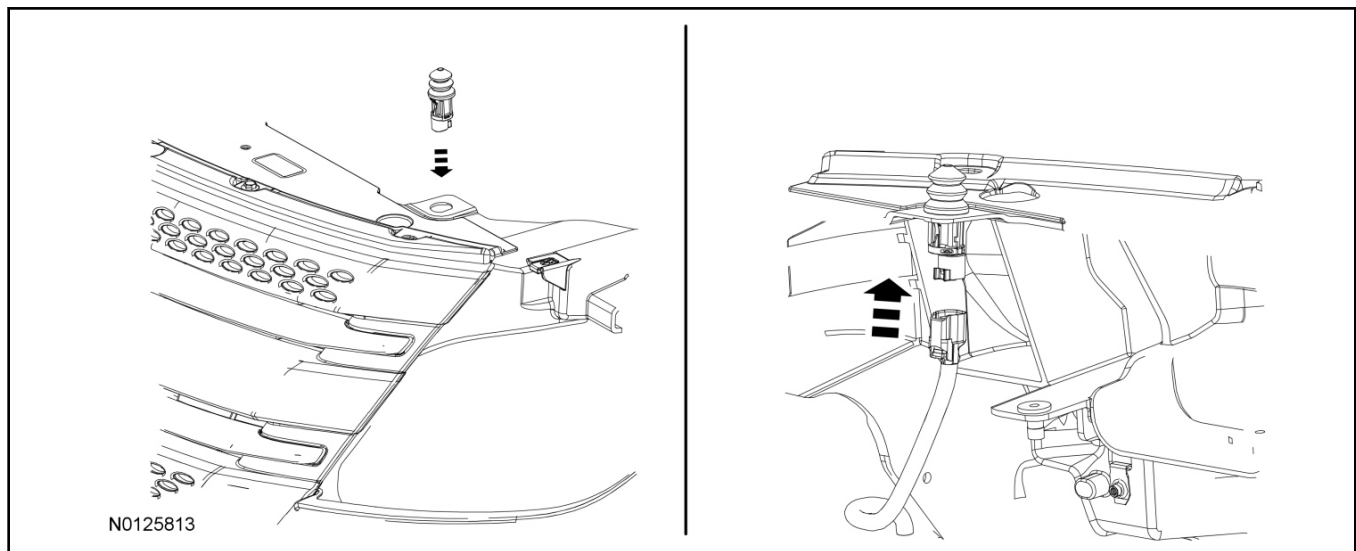
INSTALLATION (Continued)

Remove Trim

15. Position the RH front door weatherstrip away from the A-pillar trim panel.

16. ***NOTICE:***

 The A-Pillar assist handle bolt covers have a tether attaching them to the assist handle and do not come off the assist handle.

 Remove the RH A-pillar trim panel.

 1 Remove the 2 A-pillar assist handle bolt covers.

 2 Remove the 2 A-pillar assist handle bolts and the A-pillar assist handle.

 3 Pull outward on the A-pillar trim panel to release the clips and remove the trim panel.

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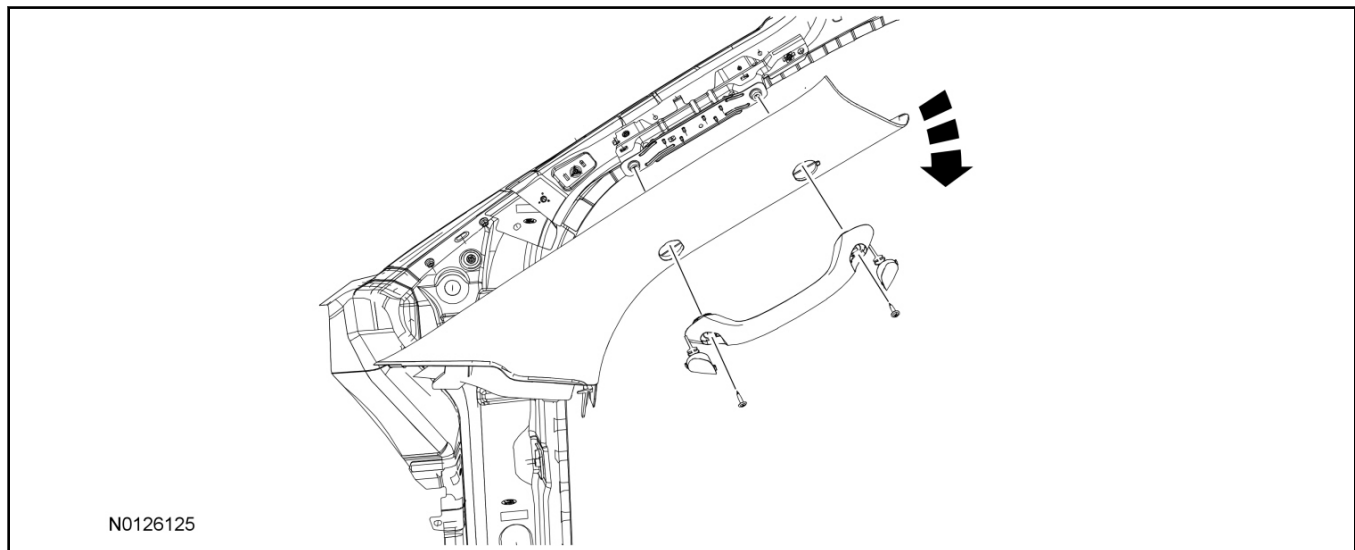
17. Remove the glove compartment opening door, For additional information, refer to Workshop Manual (WSM), Section 501-12.

18. Detach the RH floor console side trim panel from the floor console.

N0126128
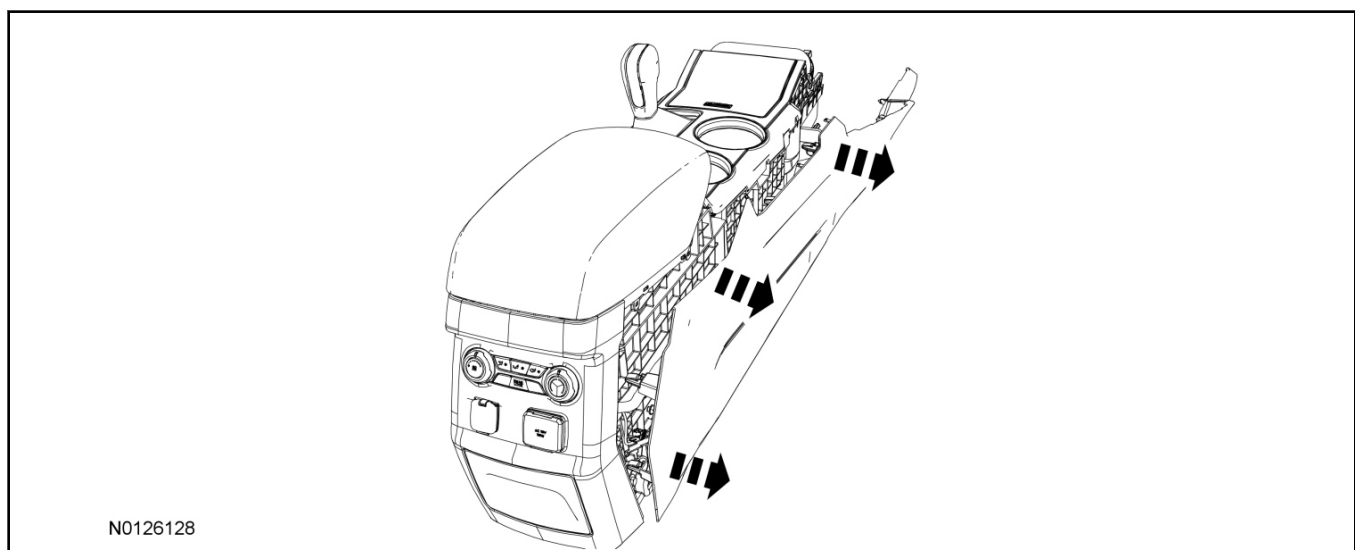
INSTALLATION (Continued)

19. Detach the floor console rear trim panel from the floor console.

N0126130
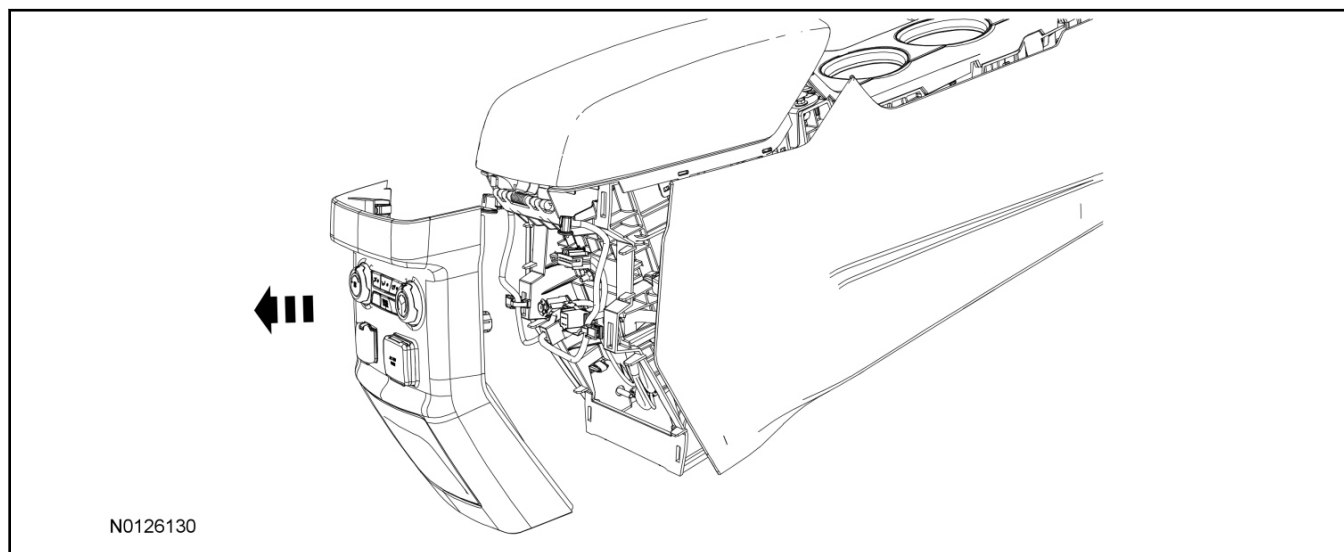
20. Locate the Tire Pressure Monitor (TPM) Module.

N0126134
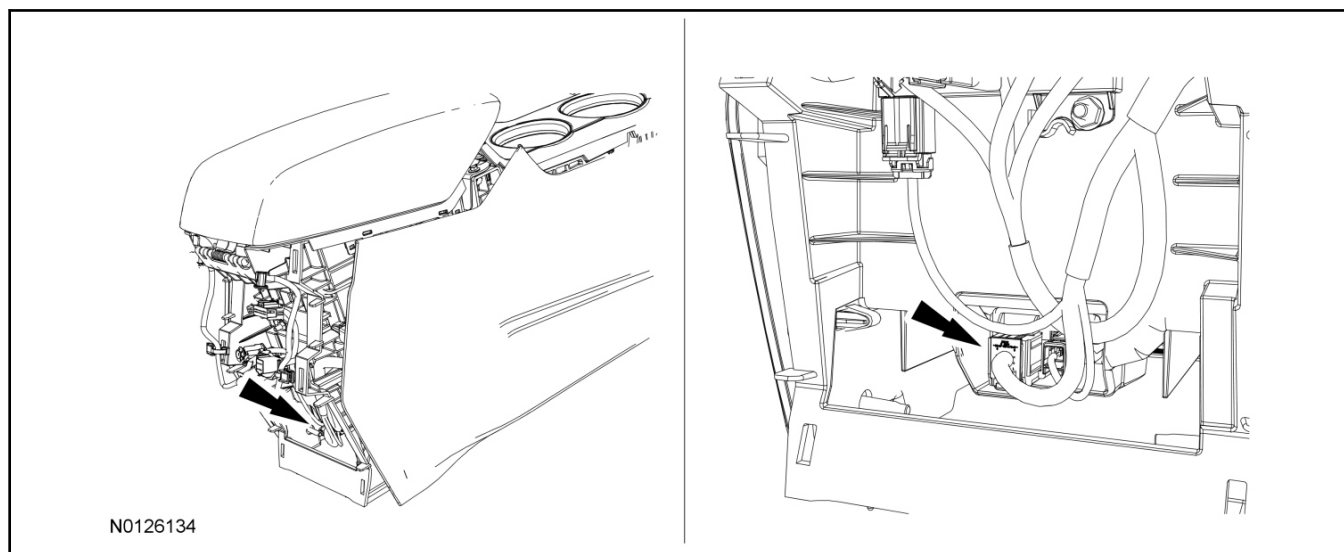
21. **NOTE:**

    Floor console removed for clarity.

    Disconnect the TPM module.

INSTALLATION (Continued)

N0124231

Bi-directional Antenna Mounting

NOTE:
For good range of operation, the bi-directional antenna must be installed correctly.

NOTE:
Keep these points in mind when selecting a location and mounting the antenna.

- Do not mount the bi-directional antenna behind or on any metal film or window tinting on the windshield.
- Do not mount the bi-directional antenna so that one of the bi-directional antenna elements touches or crosses any vehicle wiring and/or metal.
- On vehicles without metal film in the windshield around the rear view mirror, mount the bi-directional antenna between the headliner and the rear view mirror.
- On vehicles equipped with an electronic mirror, or on vehicles with metal film around the rearview mirror, mount the bi-directional antenna approximately 3 inches below the mirror attachment point to the windshield and/or mirror electronics.

22. Choose a suitable bi-directional antenna mounting location based on the guidelines above.

Install The Bi-directional Antenna

23. Clean the mounting surface using an alcohol base solution and a clean cloth.

NOTE:
Do not touch the adhesive, reduced adhesion may result.

NOTE:
Make sure that the long wire on the bi-directional antenna is pointing towards the top of the windshield since this wire will be routed along the headliner.

NOTE:
The bi-directional antenna electrical connector will be attached to the control module later in this procedure.

INSTALLATION (Continued)

24. Remove the protective backing from the adhesive on the bi-directional antenna and firmly press the body of the bi-directional antenna to the windshield.

N0120255
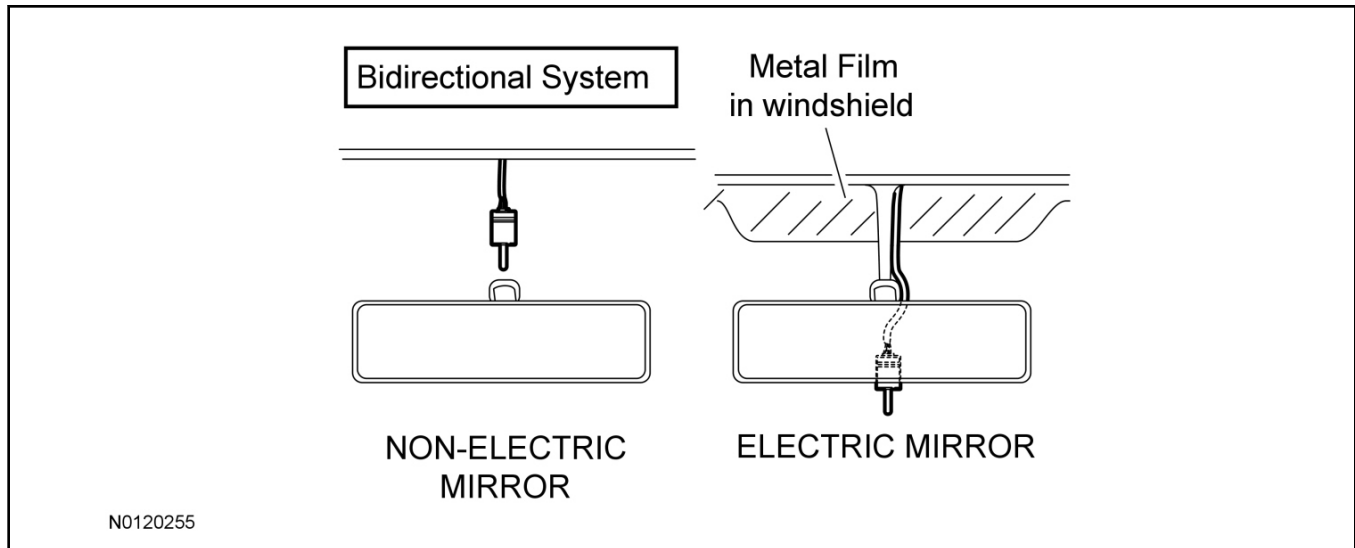
25. Route the bi-directional antenna cable.

- Route inside the headliner to the A-pillar.

- Route down the A-pillar, behind the side air bag. Secure as required with tie-straps.

- Continue routing into the RH instrument panel side trim area and inside the instrument panel, coming out of the glove box.

N0120256
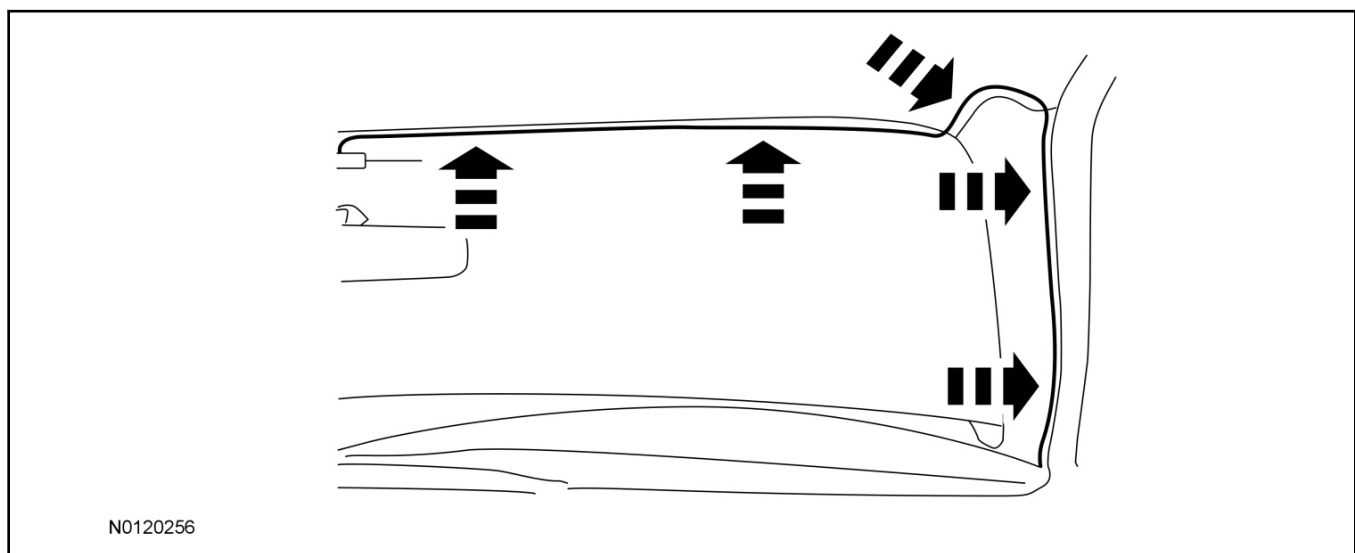
INSTALLATION (Continued)

Install T-Harness

26. Connect the female end of the 8-pin T-harness to the TPM module.
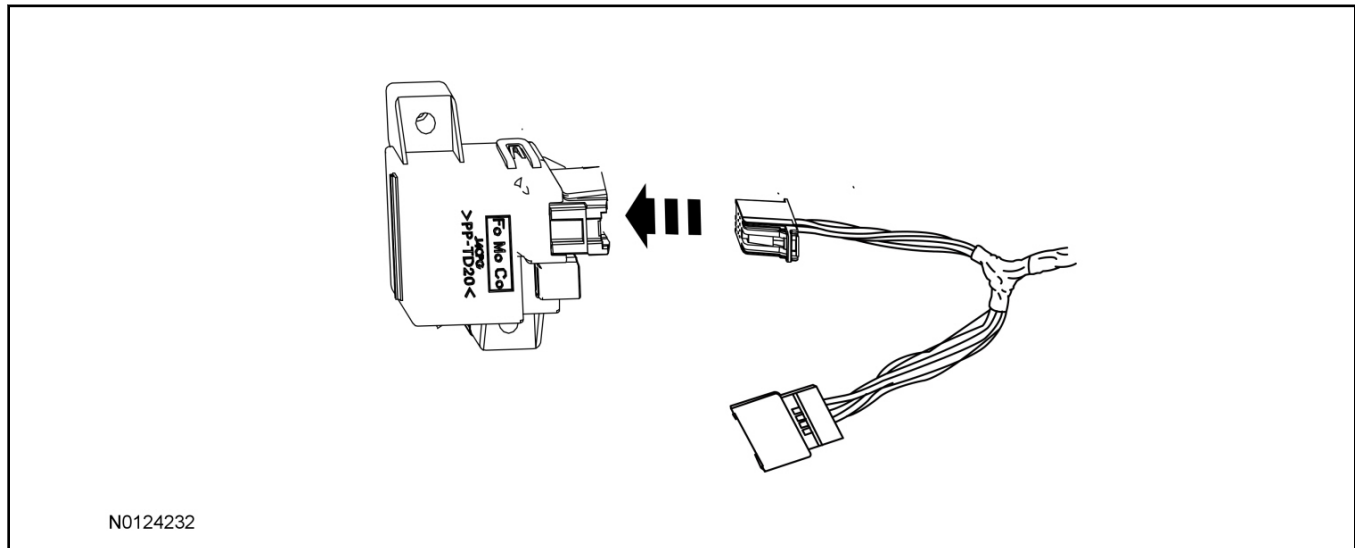
N0124232

27. Connect the male end of the 8-pin T-harness to the vehicle's existing TPM module harness.

N0124233
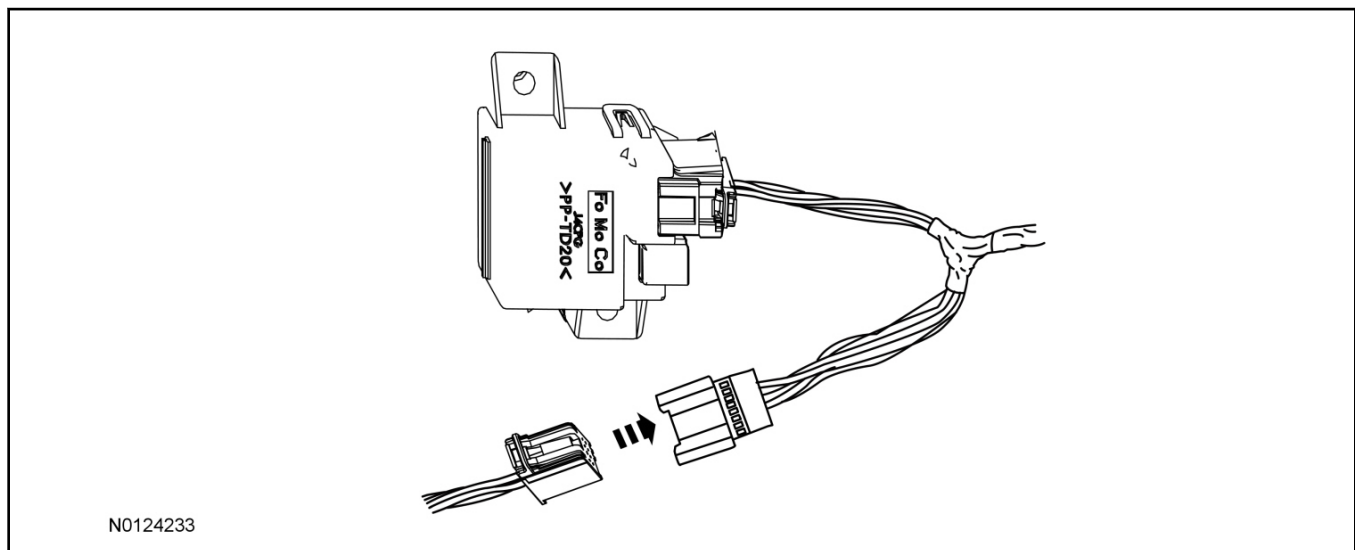
28. Route the T-harness along the floor console, from the TPM module to the glove box opening.

- Secure the T-harness with tie-straps.

Shock Sensor Mounting

29. Mount the Shock Sensor onto the instrument panel frame.

- Secure with tie-straps.

INSTALLATION (Continued)

N0126551
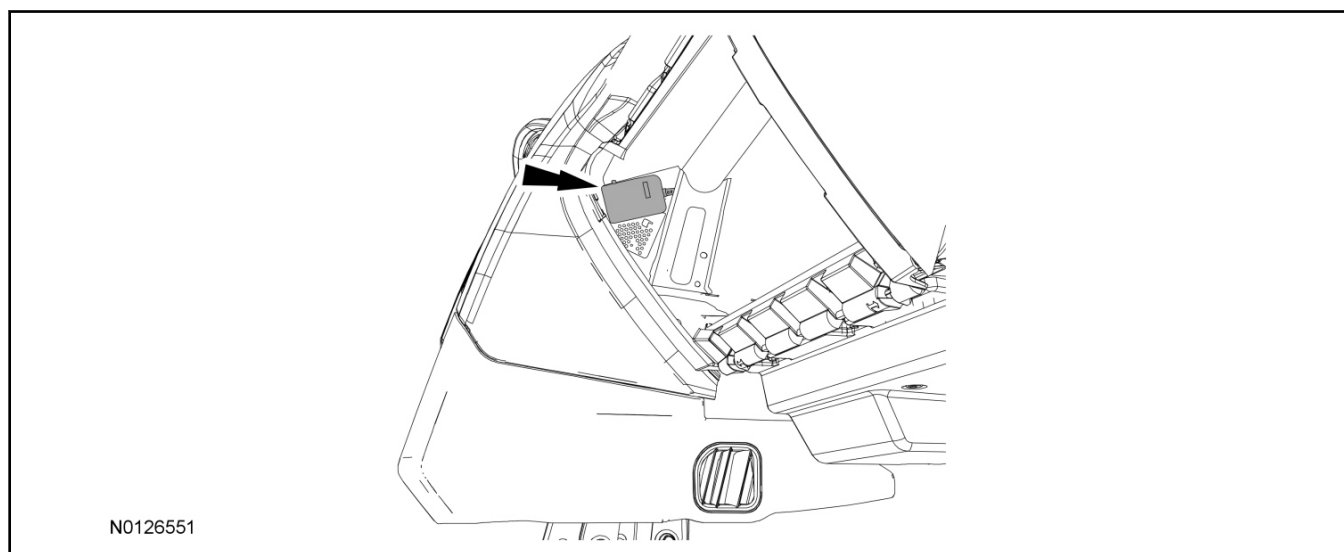
Install CGEA Module

30. Position the CGEA module into the glove box opening. Secure the CGEA module to the glove box frame with tie-straps.

N0126556
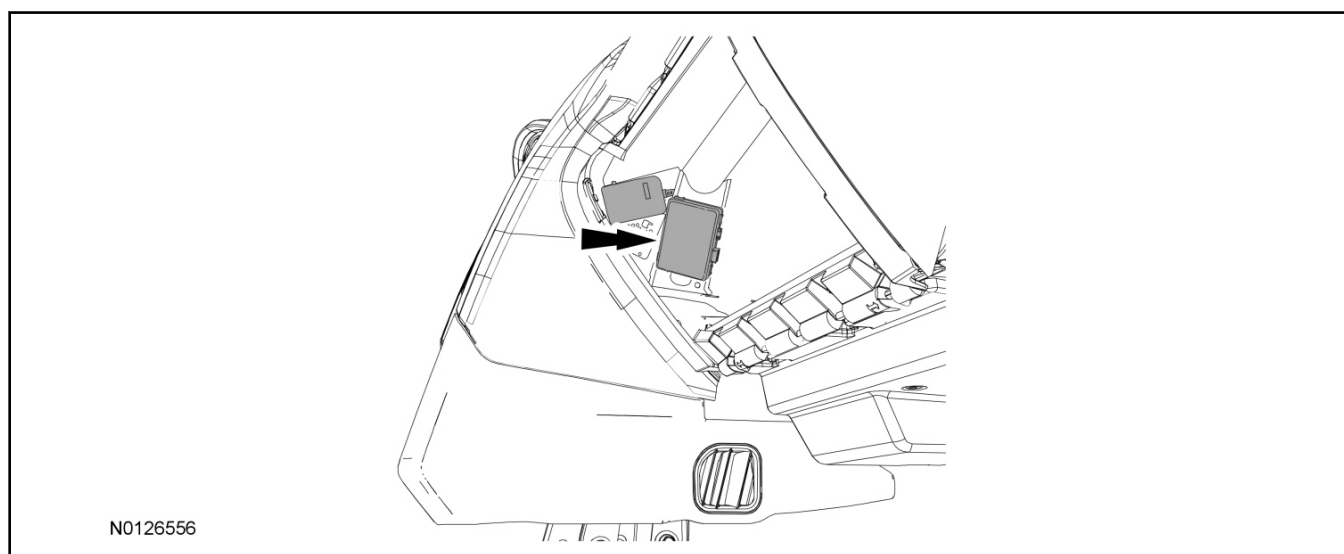
31. Connect the bi-directional antenna to the CGEA module.

  • Secure the bi-directional antenna harness with tie-straps.

INSTALLATION (Continued)

N0120260
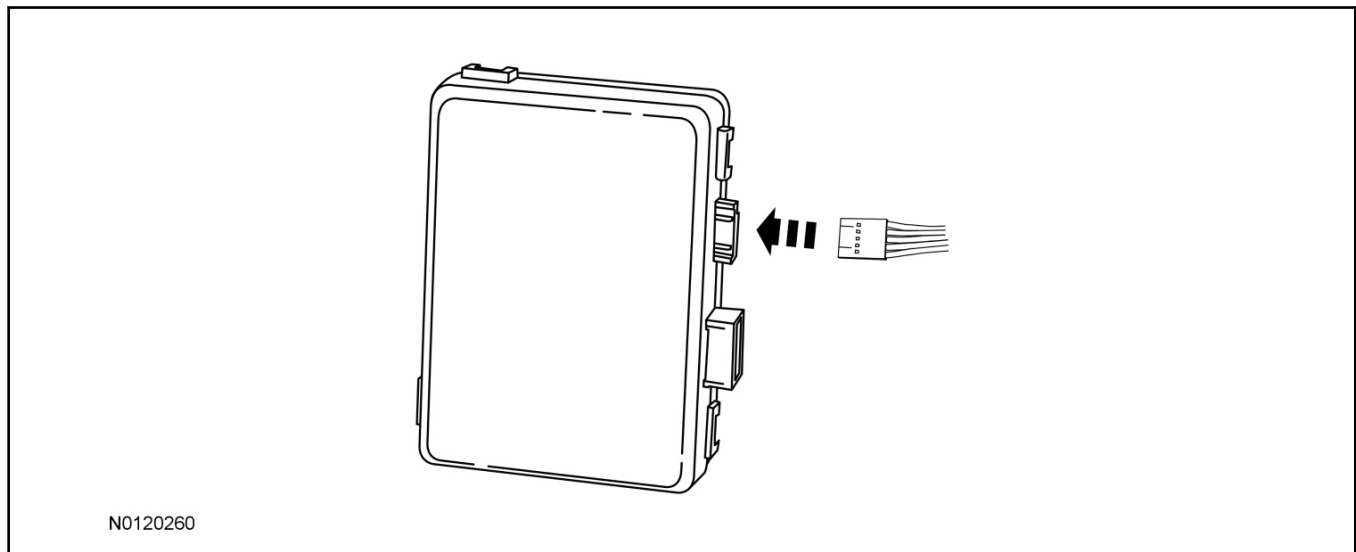
32. Connect the T-harness to the CGEA module.

N0120266
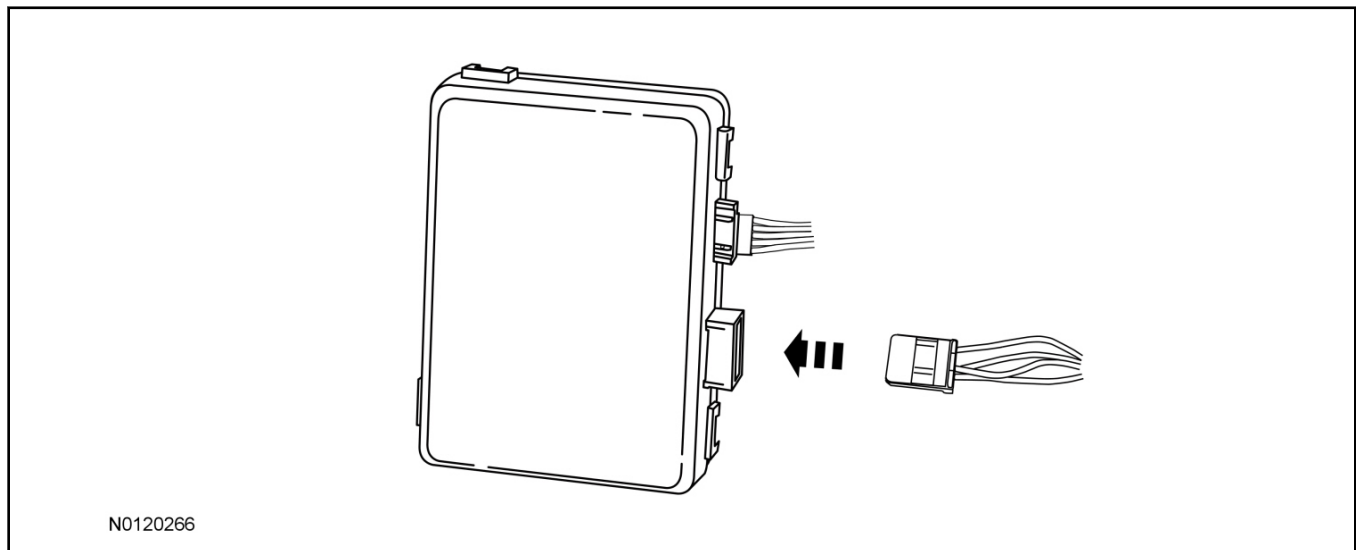
LED Mounting

33. Route the LED harness through the instrument panel to the driver side of the vehicle.

34. Using the following guidelines select a mounting location for the LED on the driver's side of the vehicle.

  • Have at least 3/4" clearance behind any trim panel for the wiring harness to be routed.

  • Be clearly visible from the driver's side window.

  • Do not mount the LED on trim panels that cover air bags.

35. Mount the LED at an appropriate location on the driver's side of the vehicle using the guidelines listed above.

  • Drill a 9/32" hole into the selected location, for the LED to mount in.

36. Secure the LED wire harness with tie-straps.

INSTALLATION (Continued)

Remote Start/Vehicle Security Harness - Programming Button

37. Use the following guidelines when securing the programming button.

    - Secure on the passenger side of the vehicle.

    - Must be hidden from view.

    - Must be accessible without removing trim.

    - Secure with tie-straps.

Install Trim

38. Install the floor console rear trim panel to the floor console.

39. Attach the RH floor console side trim panel, to the floor console.

40. Install the glove compartment opening door, For additional information, refer to WSM, Section 501-12.

NOTE:
Check the routing of the bi-directional antenna wire to make sure it will not interfere with A-pillar trim panel installation.

41. Install the RH A-pillar trim panel.

    1 Install the A-pillar assist handle and the 2 A-pillar assist handle bolts.

       ▪ Tighten to 9 Nm (80 lb-in).

    2 Install the 2 A-pillar assist handle bolt covers.

42. Position the RH front door weatherstrip back around the A-pillar trim panel.

Remote Start Activation

43. Verify that the IDS is updated to the most current version.

44. Connect IDS.

    - Follow the prompts to select new vehicle session.

    - Enter VIN.

45. Activate the remote start using the IDS.

    - Select the Tool Box icon.

    - Select Body.

    - Select Security.

    - Select Remote Start.

    - Verify that the information on the IDS screen is correct and all procedures have been followed.

    - Select Yes. This will enable the remote start function on the vehicle.

INSTALLATION (Continued)

46. For vehicles equipped with standard message center, verify that the remote start option now appears.

   • Using the Select and Arrow buttons on the steering wheel, select Settings.

   • Select Convenience.

   • Select Remote Start.

   • Select System.

   • Verify that the remote start system is checked.

47. For vehicles equipped with advanced message center, verify that the remote start option now appears.

   • Using the Select and Arrow buttons on the steering wheel, select Settings.

   • Select Vehicle Settings.

   • Select Vehicle.

   • Select Remote Start System.

   • Verify that the remote start system is enabled.

Programming the Panic/Car Finder Button

NOTE:
Make sure the brake pedal is not depressed during this sequence.

48. Press the vehicle's unlock button located on the driver's door. Make sure all doors are unlocked.

49. Put the key in the ignition.

50. Cycle eight times rapidly (within 10 seconds) between the 1 (OFF/LOCK) position and 3 (ON) position.

   • The eighth turn must end in the 3 (ON) position. The doors will lock, then unlock, to confirm that the programming mode has been activated.

51. Wait for 10 seconds and the remote start module will program itself to the system.

   • After 20 seconds, you will automatically exit the programming mode. The doors will lock, then unlock, to confirm that the programming mode has been exited.

52. Press and release the Panic/Car Finder button on the remote start keyfob to confirm that the button has been programmed. The vehicle should honk 4-6 times.

Vehicle Security System Activation

53. Cycle the vehicle ignition from OFF to ON.

54. Wait 10 seconds.

55. Press and hold the Program Override Button for 3 seconds. The LED will turn ON for 5 seconds. The parking lights will flash, and the horn will honk once to confirm Vehicle Security activation.

56. Turn OFF the vehicle ignition.

INSTALLATION (Continued)

Functional Test

57. The Shock Sensor sensitivity setting defaults to maximum sensitivity (fully clockwise). This level can be reduced by turning the knob on the sensor counter clockwise to the desired sensitivity.

    - With the Vehicle Security System armed, a light tap of the Shock Sensor should trigger the warnng chirp.

    - With the Vehicle Security System armed, a hard tap of the Shock Sensor should trigger the vehicle panic alarm.

NOTE:
Do not put a key in the ignition for the following steps.

58. Make sure the shift lever is in PARK and the ignition is in the OFF position. Remove all keys from the vehicle.

59. Close the hood.

60. Close all of the vehicle doors.

61. Start the vehicle by pressing the remote start button 2 times on the bi-directional key fob.

BI-DIRECTIONAL KEY FOB

N0122258

62. Confirm the remote start works with the vehicle in park and with the hood and doors closed.

63. Enter the vehicle and confirm that the vehicle shuts down when attempting to shift out of park.

64. Open the hood.

65. **NOTE:**
    Vehicle doors should be closed while performing this step.

    Confirm that the vehicle will not start with the hood open.
    Please contact Ford Hotline with any issues regarding remote start functionality.
    Please contact 1-800-FORD-KEY with any issues regarding hardware or kit contents.

RMST/VSS Remote Start System Installation

CONTENTS

INSTALLATION

Remote Start System/Vehicle Security

Remote Start System/Vehicle Security (RMST/VSS) Components

N0126554

Hood Switch Kit Components - Sold separately if needed

N0122208
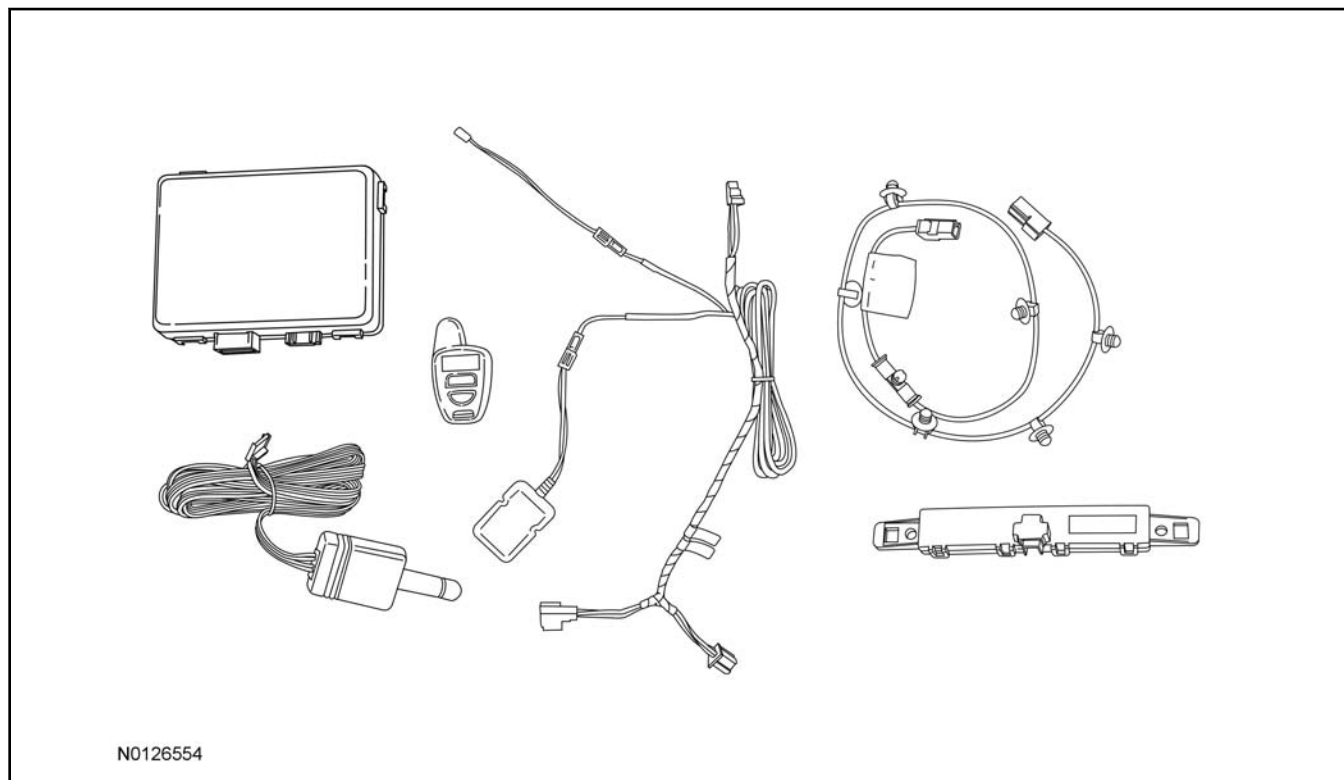
Edge

1. Verify correct kit number.

INSTALLATION (Continued)

Review The Remote Start System/Vehicle Security (RMST/VSS) Installation Kit Contents

2. Review the RMST/VSS kit contents.

    Remote Start System/Vehicle Security (RMST/VSS) kit

QUANTITY	DESCRIPTION
1	Bi-directional Key Fob
1	Antenna Jumper Wire
1	Antenna Module
1	Remote Start Module
1	Bi-directional Antenna
1	RFA Module T-Harness
1	Shock Sensor
1	LED

Review Hood Switch Kit Contents

3. Review the Hood Switch kit contents.

    Hood Switch Kit

QUANTITY	DESCRIPTION
1	Hood Switch Assembly

Vehicle Preparation

4. Verify that an OE hood switch is installed.

    • If the vehicle is not equipped with an OE hood switch, refer to Hood Switch Installation in this procedure.

Hood Switch Installation

5. Disconnect the existing hood switch electrical connector from the insulator cap, located on the RH side of the radiator core support.

N0122168
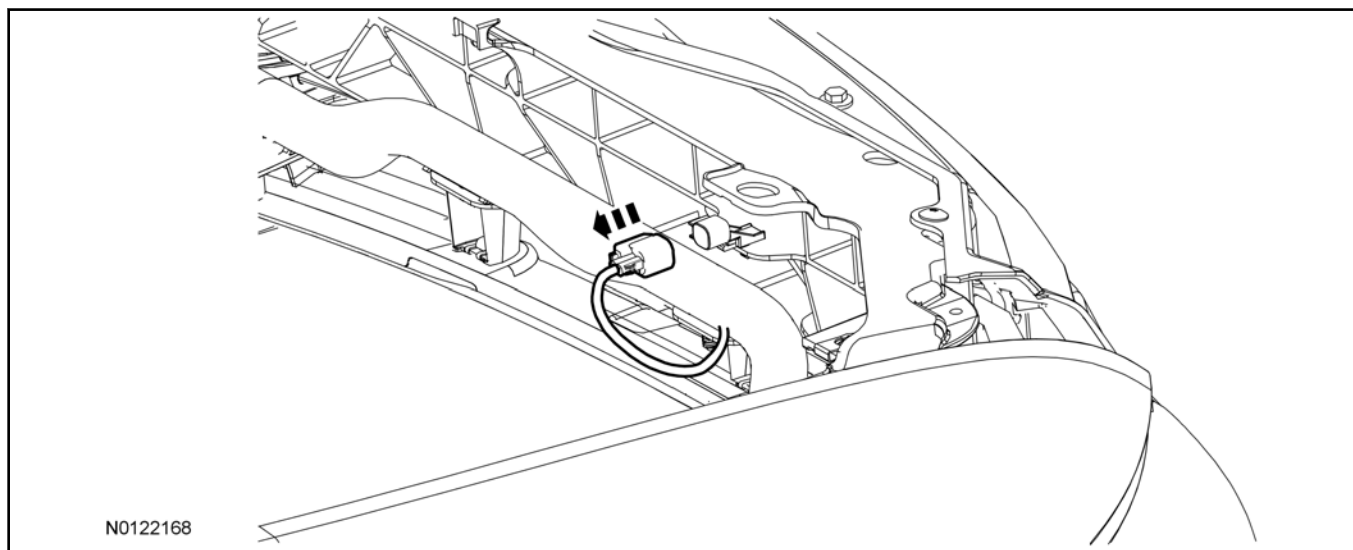
INSTALLATION (Continued)

6. Install the OE hood switch assembly to the existing hood switch mounting location, on the upper radiator core support as shown.

   • Position the flat spot on the hood switch with the flat spot on the radiator core support.

N0122172
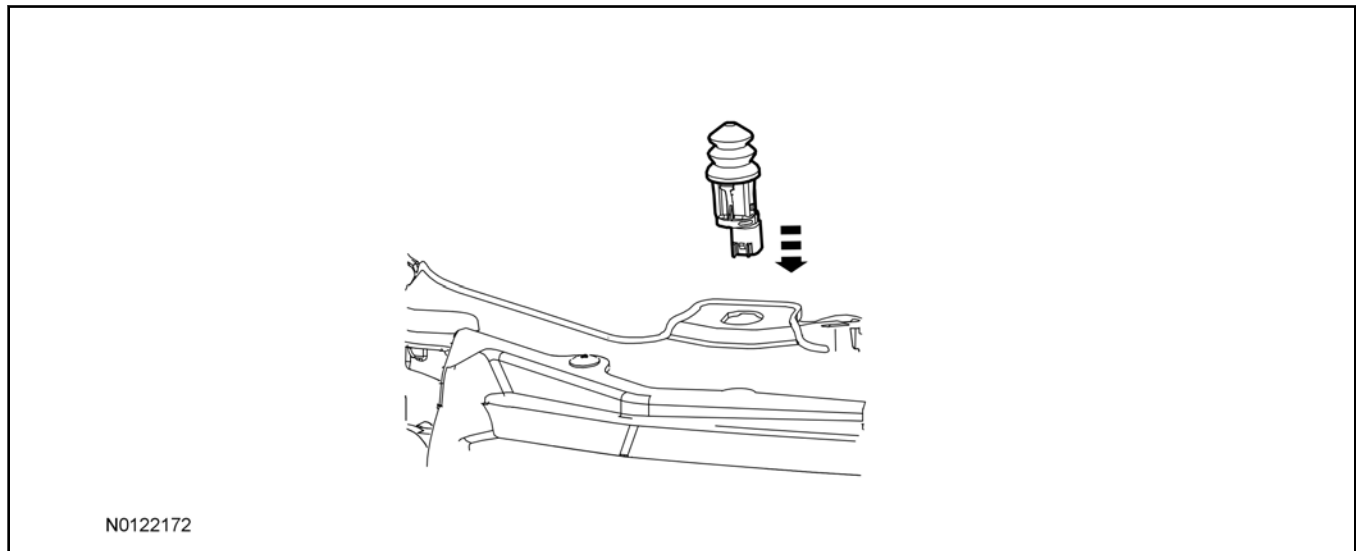
7. Connect the electrical connector to the hood switch.

Remove Power Liftgate Motor

8. Open the liftgate.

9. If equipped, remove the power liftgate motor assembly.

   1 Remove the LH quarter trim panel access cover.

   2 Disconnect the power liftgate motor from the power liftgate motor mounts.

   3 Disconnect the power liftgate motor electrical connector and remove the power liftgate motor assembly.

N0122123
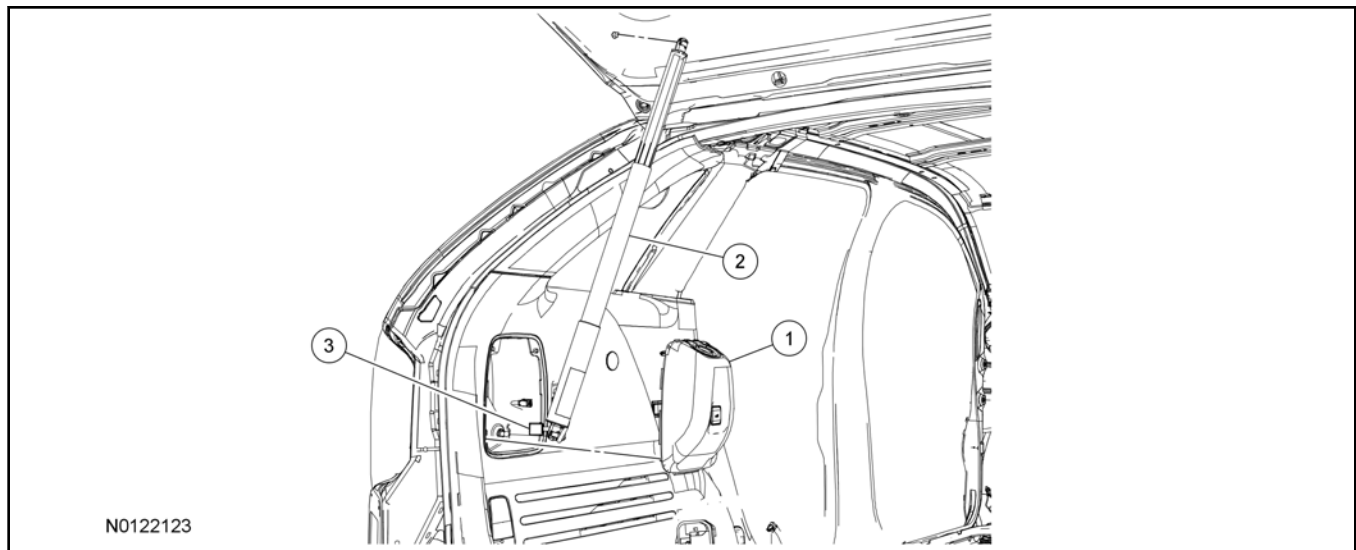
INSTALLATION (Continued)

Position Aside LH Quarter Trim Panel

10. Remove the rear cargo load area.
    - Remove the foam blocks from the spare tire well.

11. Remove the LH safety belt lower anchor bolt cover and remove the LH safety belt lower anchor bolt.

12. If equipped, remove the cargo net hook.

13. **NOTE:**
    Make sure the pushpin retainers are removed with the quarter trim panel.

    Detach the push pin retainers and position the LH quarter trim panel aside to access the Tire Pressure Monitor (TPM).

Remove LH C-Pillar Trim Panel

14. Remove the LH rear safety belt D-ring cover and remove the safety belt bolt.

15. Remove the LH C-pillar trim panel screw cover.

16. Remove the LH C-pillar trim panel screw.

17. Remove the C-pillar trim panel.
    - Pull outward and downward to remove the C-pillar trim panel.

Antenna Module Installation

18. Position the antenna module into the vehicle and secure with tie straps.

N0122203
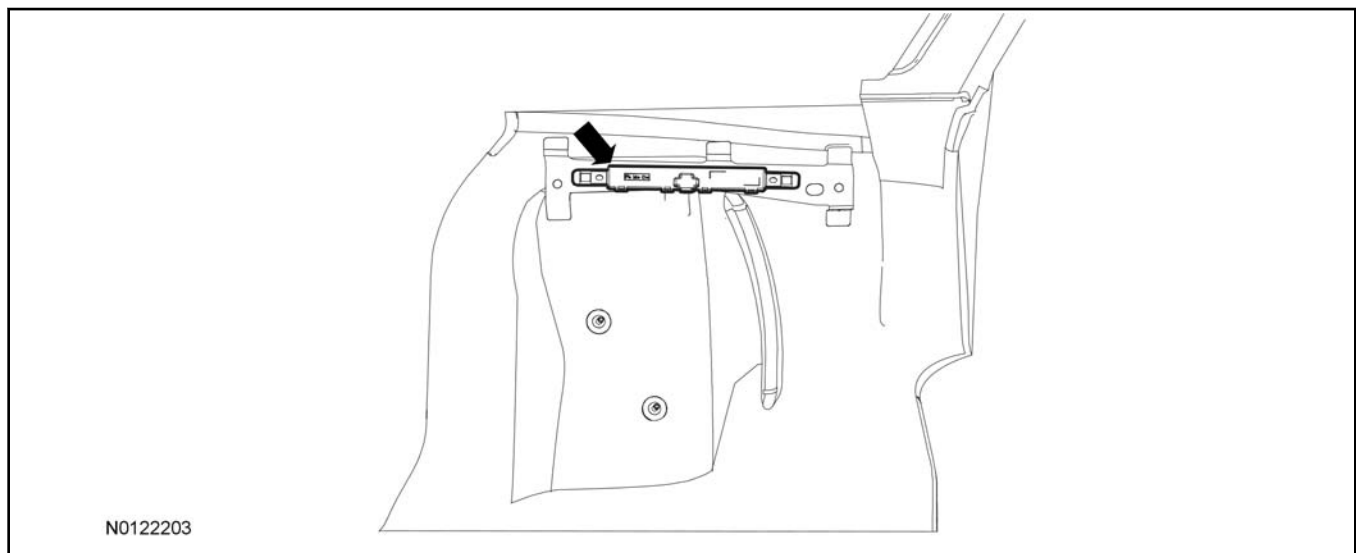
19. **NOTE:**
    LH quarter trim panel removed for clarity.

    Install the antenna jumper wire to the vehicle.
    - Connect to the antenna module and to the TPM module.
    - Secure with tie straps.
    - The push pins on the antenna jumper wire are not used for this application.

INSTALLATION (Continued)

N0122207
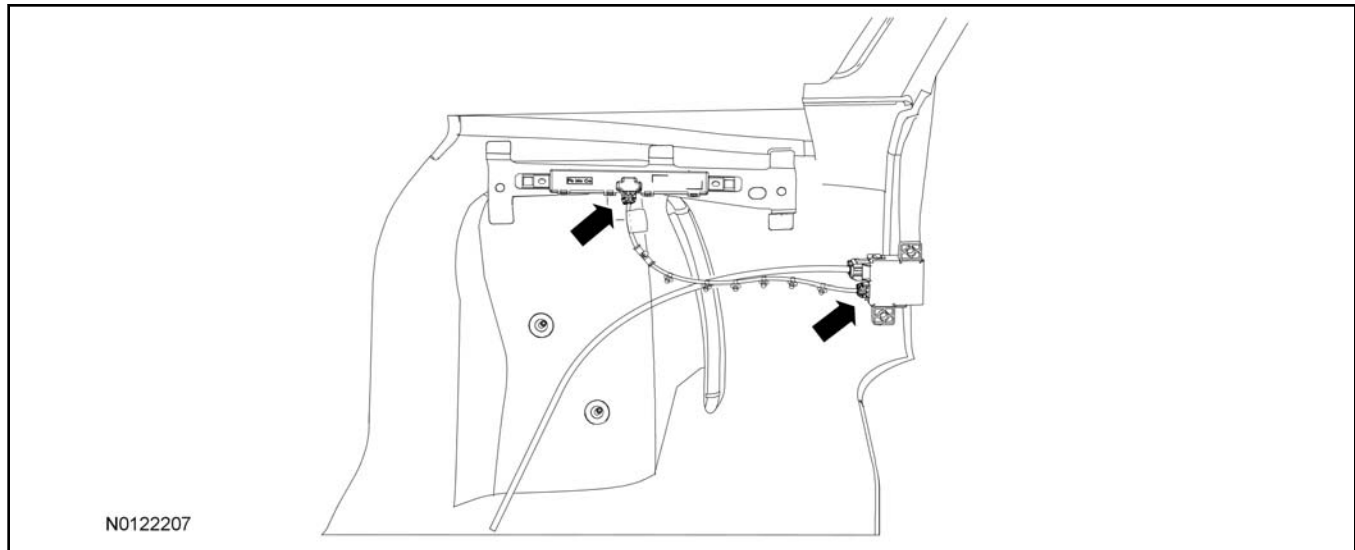
Install the Antenna

20. Clean the mounting surface using an alcohol based solution and a clean cloth.

NOTE:
Do not touch the adhesive, reduced adhesion may result.

NOTE:
The wire harness will be connected to the control module later in this procedure.

21. Remove the protective backing from the adhesive on the antenna and firmly press the body of the antenna to the LH rear quarter window glass.

   • Route the antenna cable down the C-pillar to the quarter panel where the remote start module will be mounted.

   • Secure the antenna wire harness with tie straps.

N0122232
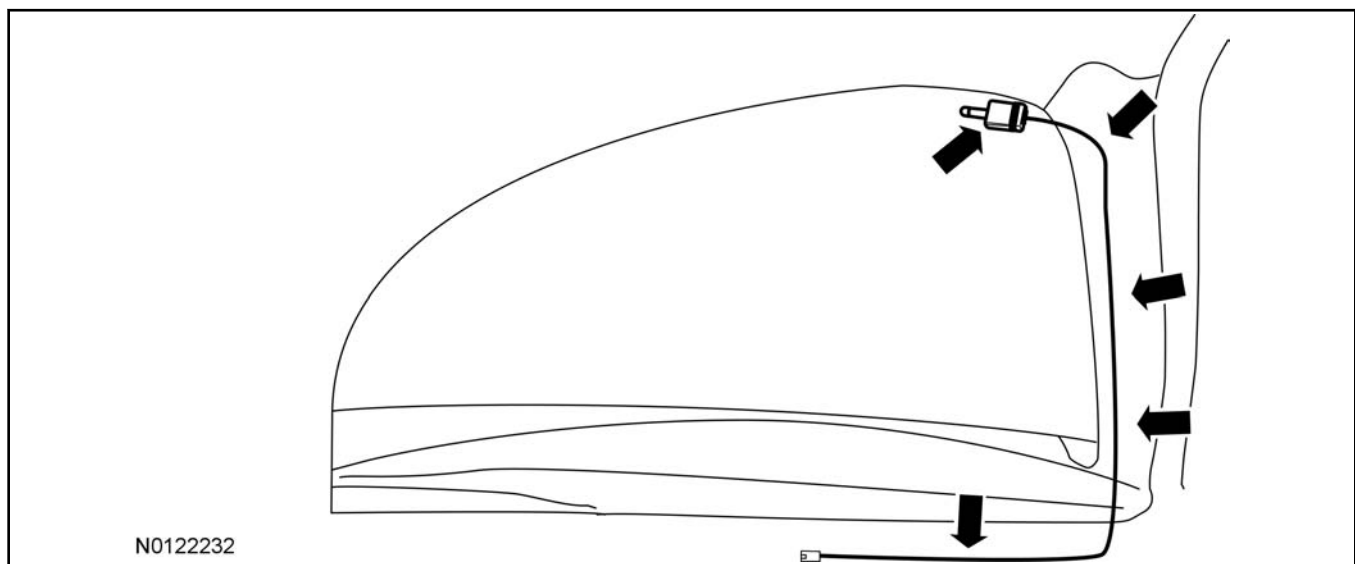
INSTALLATION (Continued)

Install CGEA module

22. Remove the protective backing from the 3m Dual Lock™ strips and install the remote start module to the vehicle.

   • Mount to a flat metal surface on the vehicle's LH quarter panel.

N0122233
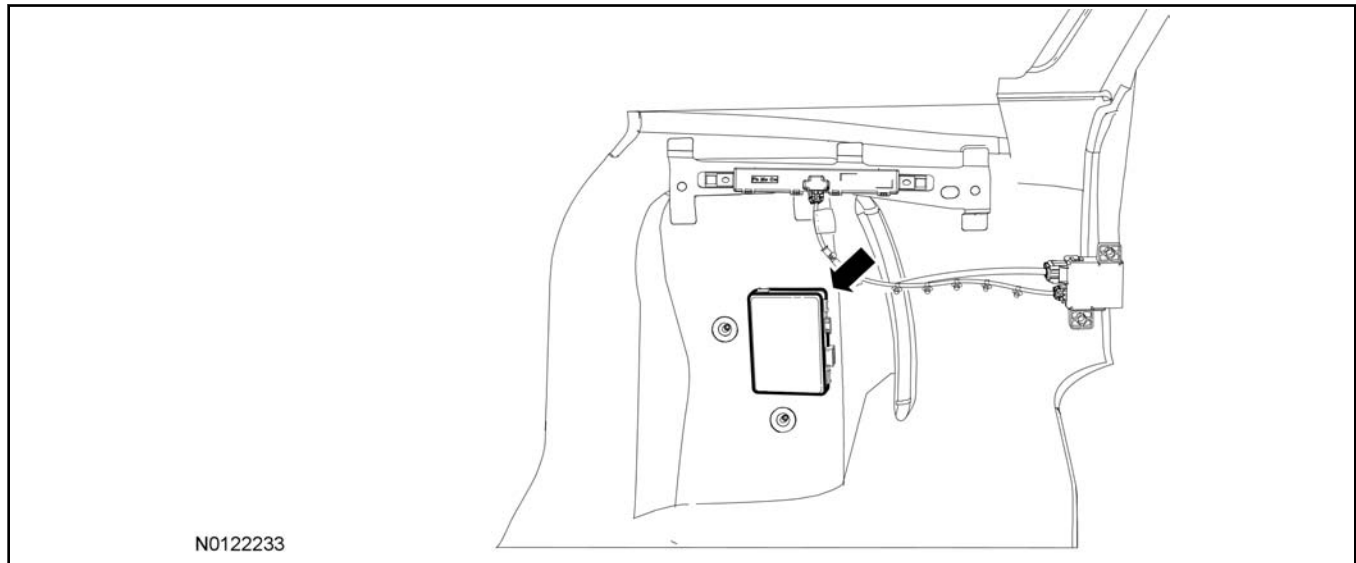
23. Connect the bi-directional antenna to the remote start module.

   • Secure the bi-directional antenna harness with tie-straps.

N0120260
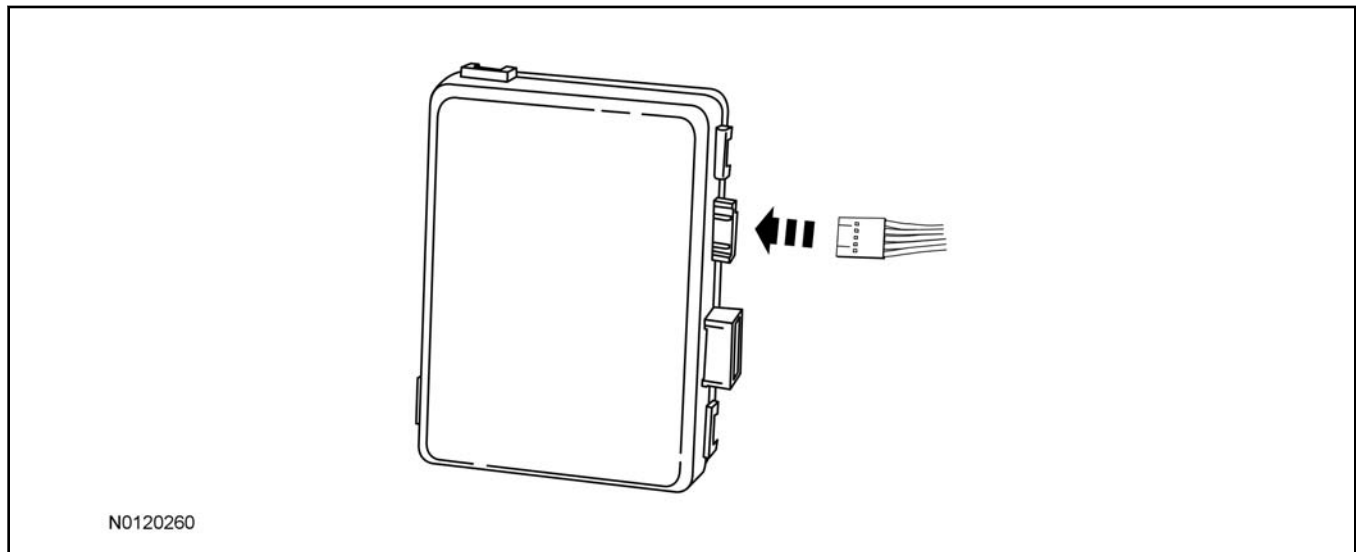
24. Connect the T-harness to the remote start module.

INSTALLATION (Continued)
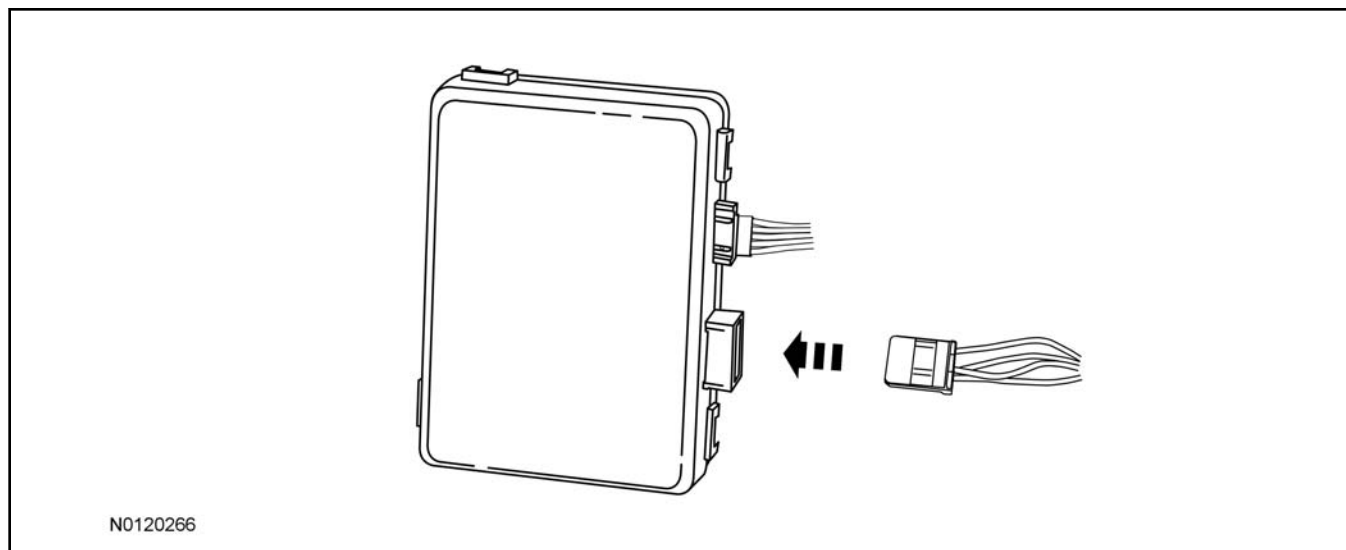
N0120266

25. Route the female end of the T-harness to the TPM module.

   • Secure the harness with tie-straps.

26. Connect the female end of the 8-pin T-harness to the TPM module.

N0122237

27. Connect the male end of the 8-pin T-harness to the vehicle's existing TPM module harness.

INSTALLATION (Continued)

N0122236
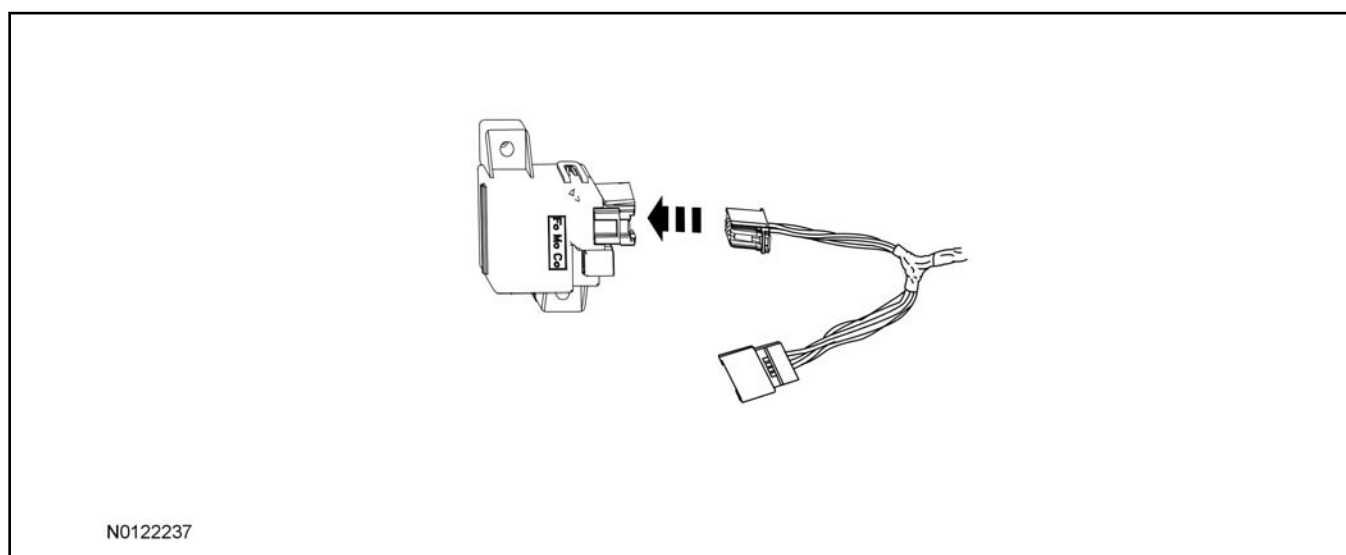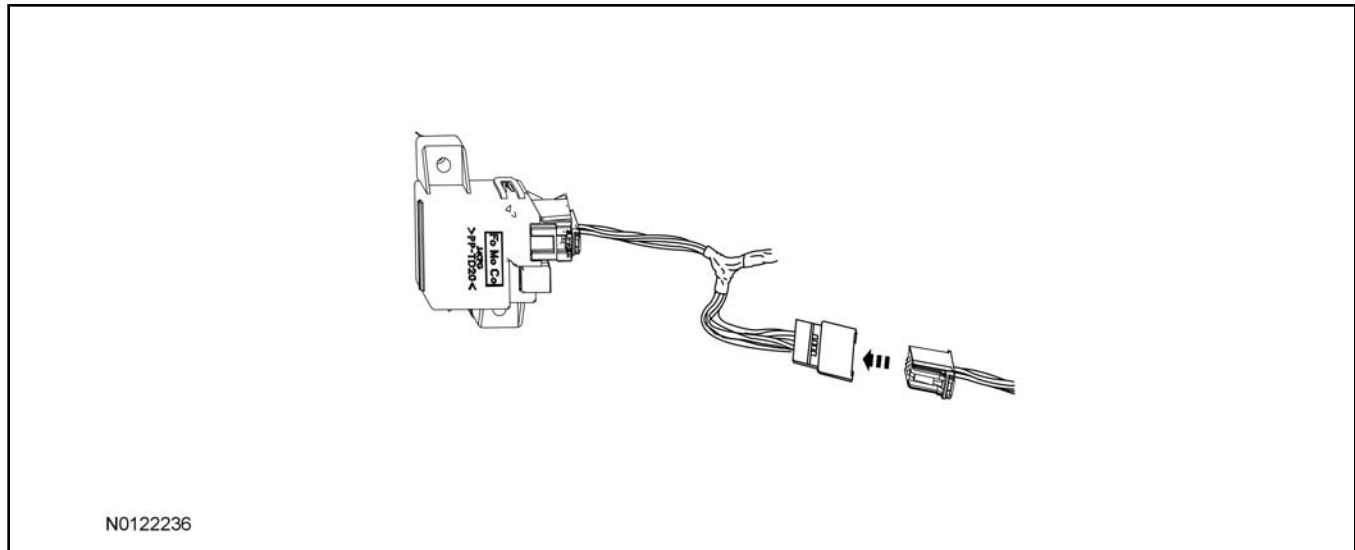
Shock Sensor Mounting

28. Mount the Shock Sensor onto the antenna module.

   • Secure with tie-straps.

N0127070
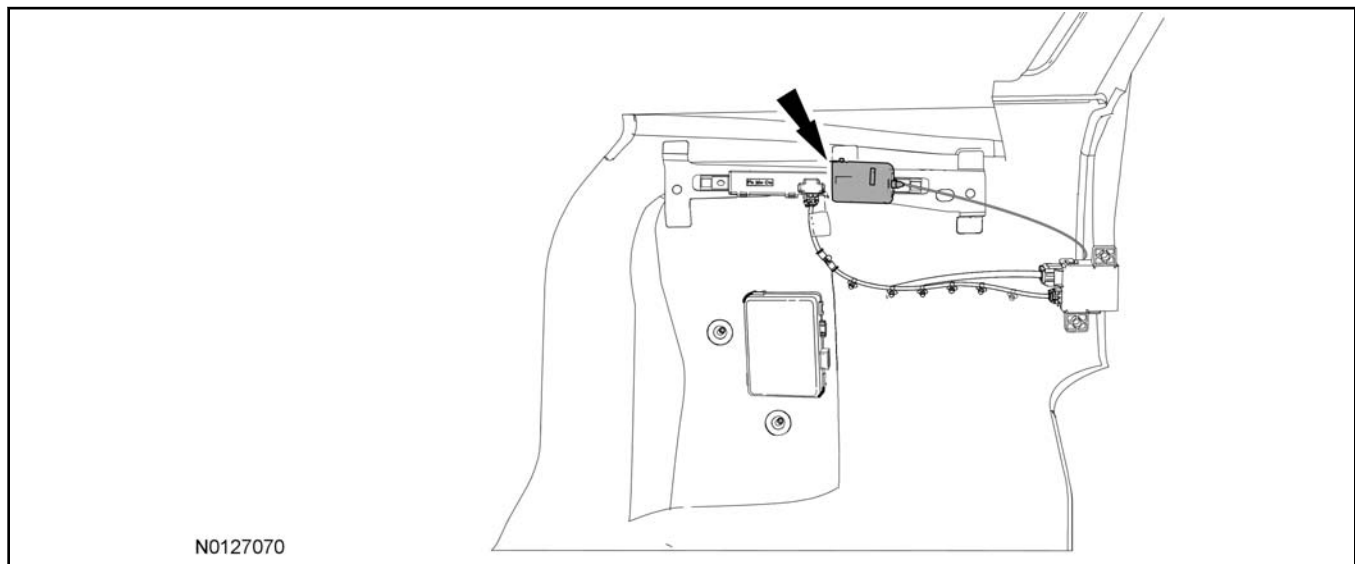
LED Mounting

NOTE:
For LED wire harness routing, removal of the LH front door scuff plate trim panel is not required.

29. Remove the LH rear door scuff plate trim panel by lifting on the rear inside lip of the scuff plate trim panel and lift the scuff plate trim panel enough to release the rear retaining clip from the body. Lift the front inside lip of the scuff plate trim panel and lift the scuff plate trim panel to release the front retaining clip. Remove the scuff plate trim panel.

INSTALLATION (Continued)

N0099027
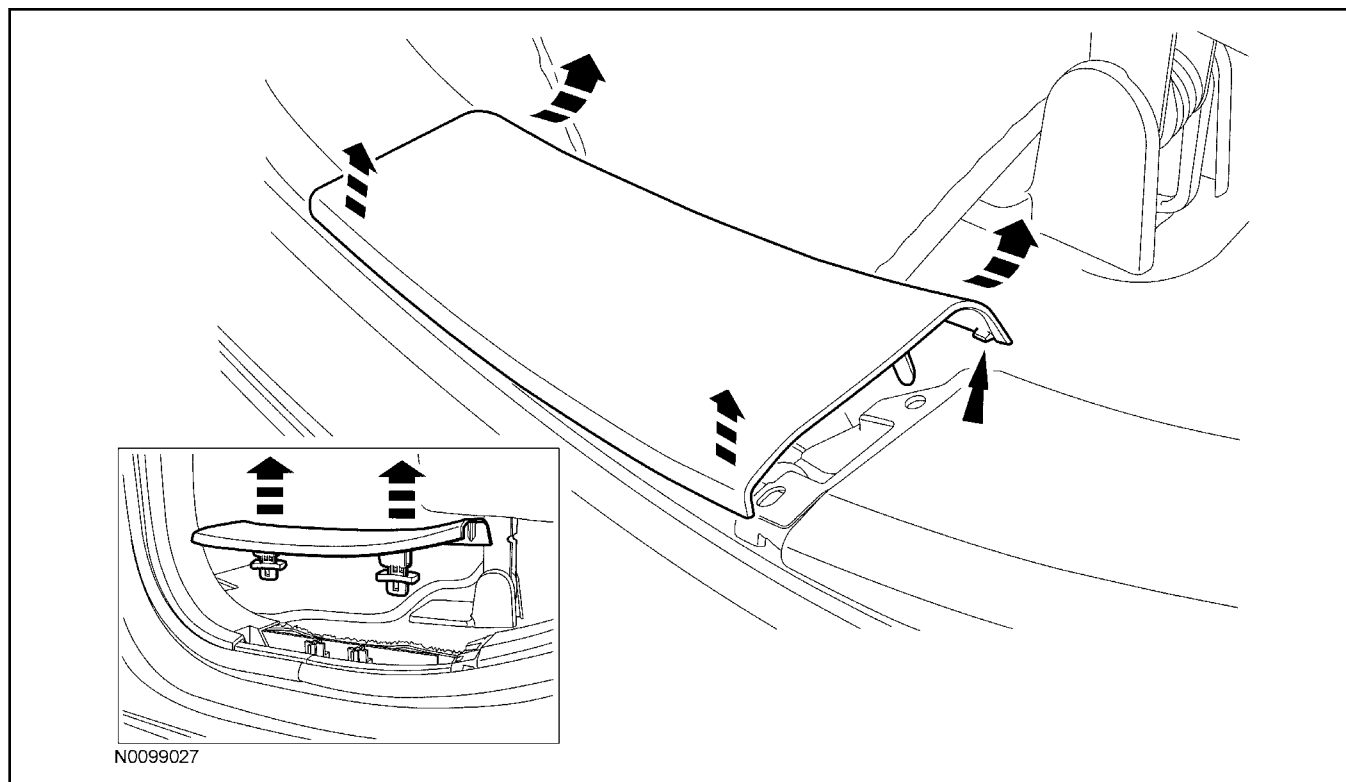
NOTICE:

To avoid damage to the scuff plate trim panel, remove any retaining clips from the body and attach them to the scuff plate trim panel before installation.

30. If any of the scuff plate trim panel retaining clips stay attached to the body, release the retaining clip from the body. Attach the retaining clip to the scuff plate trim panel before installation.

INSTALLATION (Continued)

N0100604
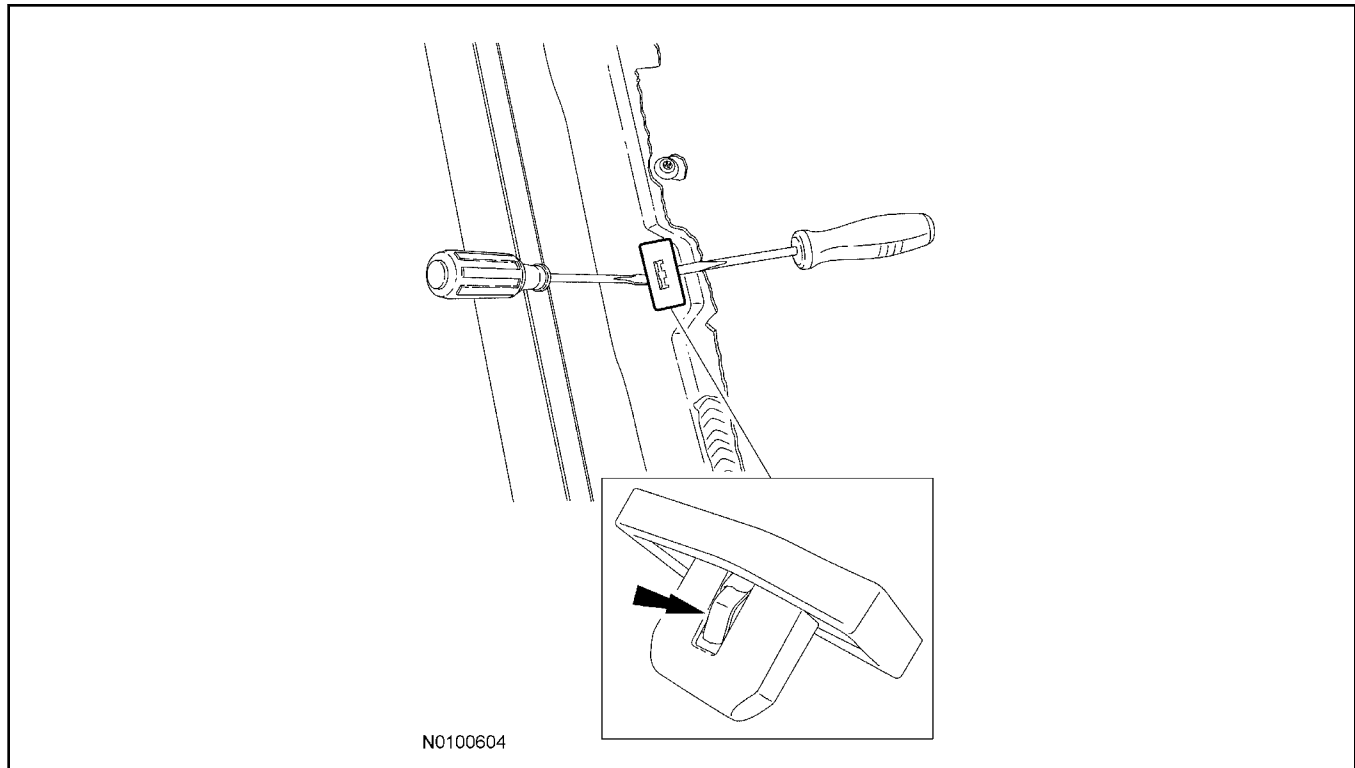
31. Route the LED harness to the front driver side of the vehicle.

   • Hide the wire harness by tucking it under the B-pillar and LH door trim panels.

32. Using the following guidelines select a mounting location for the LED on the driver's side of the vehicle.

   • Have at least 3/4" clearance behind any trim panel for the wiring harness to be routed.

   • Be clearly visible from the driver's side window.

   • Do not mount the LED on trim panels that cover air bags.

33. Mount the LED at an appropriate location on the driver's side of the vehicle using the guidelines listed above.

   • Drill a 9/32" hole into the selected location, for the LED to mount in.

34. Secure the LED wire harness with tie-straps.

NOTICE:
When installing the LH rear door scuff plate trim panel be sure that the LED wire harness does not get pinched.

35. Install the LH scuff plate trim panel, reverse removal procedure.

Install LH C-Pillar Trim Panel

36. Install the LH C-pillar trim panel.

37. Install the LH C-pillar trim panel screw.

   • Tighten to 9 Nm (80 lb-in).

INSTALLATION (Continued)

38. Install the LH C-pillar trim panel screw cover.

NOTE:
Inspect the safety belt D-ring cover for damage. If the safety belt D-ring cover does not remain in place, install a new cover.

39. Install the safety belt bolt and install the safety belt D-ring cover.

    • Tighten to 54 Nm (40 lb-ft).

Install LH Quarter Trim Panel

40. Position the LH quarter trim panel back.

    • Engage push pin retainers.

41. If equipped, install the cargo net hook.

    • Tighten to 3 Nm (27 lb-in).

42. Install the LH rear safety belt lower anchor bolt.

    • Tighten to 54 Nm (40 lb-ft).

43. **NOTE:**
    Inspect the safety belt lower anchor bolt cover for damage. If the safety belt lower anchor bolt cover does not remain in place, install a new cover.

    Install the LH safety belt lower anchor bolt cover.

44. Install the rear cargo load area.

    • Install the foam blocks into the spare tire well.

Install Power Liftgate Motor

45. If equipped, install the power liftgate motor assembly.

    1 Install the power liftgate motor assembly and connect the power liftgate motor electrical connector.

    2 Connect the power liftgate motor to the power liftgate motor mounts.

    3 Install the LH quarter trim panel access cover.

Remote Start Activation

46. Verify that the IDS is updated to the most current version.

47. Connect IDS.

    • Follow the prompts to select new vehicle session.

    • Enter VIN.

48. Activate the remote start using the IDS.

    • Select the Tool Box icon.

    • Select Body.

    • Select Security.

INSTALLATION (Continued)

- Select Remote Start.

- Verify that the information on the IDS screen is correct and all procedures have been followed.

- Select Yes. This will enable the remote start function on the vehicle.

49. For vehicles equipped with standard message center, verify that the remote start option now appears.

   - Using the Select and Arrow buttons on the steering wheel, select Settings.

   - Select Convenience.

   - Select Remote Start.

   - Select System.

   - Verify that the remote start system is checked.

50. For vehicles equipped with advanced message center, verify that the remote start option now appears.

   - Using the Select and Arrow buttons on the steering wheel, select Settings.

   - Select Vehicle Settings.

   - Select Vehicle.

   - Select Remote Start System.

   - Verify that the remote start system is enabled.

Programming the Panic/Car Finder Button

NOTE:
Make sure the brake pedal is not depressed during this sequence.

51. Press the vehicle's unlock button located on the driver's door. Make sure all doors are unlocked.

52. Put the key in the ignition.

53. Cycle eight times rapidly (within 10 seconds) between the 1 (OFF/LOCK) position and 3 (ON) position.

   - The eighth turn must end in the 3 (ON) position. The doors will lock, then unlock, to confirm that the programming mode has been activated.

54. Wait for 10 seconds and the remote start module will program itself to the system.

   - After 20 seconds, you will automatically exit the programming mode. The doors will lock, then unlock, to confirm that the programming mode has been exited.

55. Press and release the Panic/Car Finder button on the remote start keyfob to confirm that the button has been programmed. The vehicle should honk 4-6 times.

Vehicle Security System Activation

56. Cycle the vehicle ignition from OFF to ON.

57. Wait 10 seconds.

INSTALLATION (Continued)

58. Press and hold the Program Override Button for 3 seconds. The LED will turn ON for 5 seconds. The parking lights will flash, and the horn will honk once to confirm Vehicle Security activation.

59. Turn OFF the vehicle ignition.

Functional Test

60. The Shock Sensor sensitivity setting defaults to maximum sensitivity (fully clockwise). This level can be reduced by turning the knob on the sensor counter clockwise to the desired sensitivity.

    • With the Vehicle Security System armed, a light tap of the Shock Sensor should trigger the warnng chirp.

    • With the Vehicle Security System armed, a hard tap of the Shock Sensor should trigger the vehicle panic alarm.

NOTE:
Do not put a key in the ignition for the following steps.

61. Make sure the shift lever is in park and the ignition is in the off position. Remove all keys from the vehicle.

62. Close the hood.

63. Close all of the vehicle doors.

64. Start the vehicle by pressing the remote start button 2 times on the bi-directional key fob.

BI-DIRECTIONAL KEY FOB

N0122258

65. Confirm the remote start works with the vehicle in park and with the hood and doors closed.

66. Enter the vehicle and confirm that the vehicle shuts down when attempting to shift out of park.

67. Open the hood.

68. **NOTE:**
    Vehicle doors should be closed while performing this step.

    Confirm that the vehicle will not start with the hood open.
    Please contact Ford Hotline with any issues regarding remote start functionality.
    Please contact 1-800-FORD-KEY with any issues regarding hardware or kit contents.
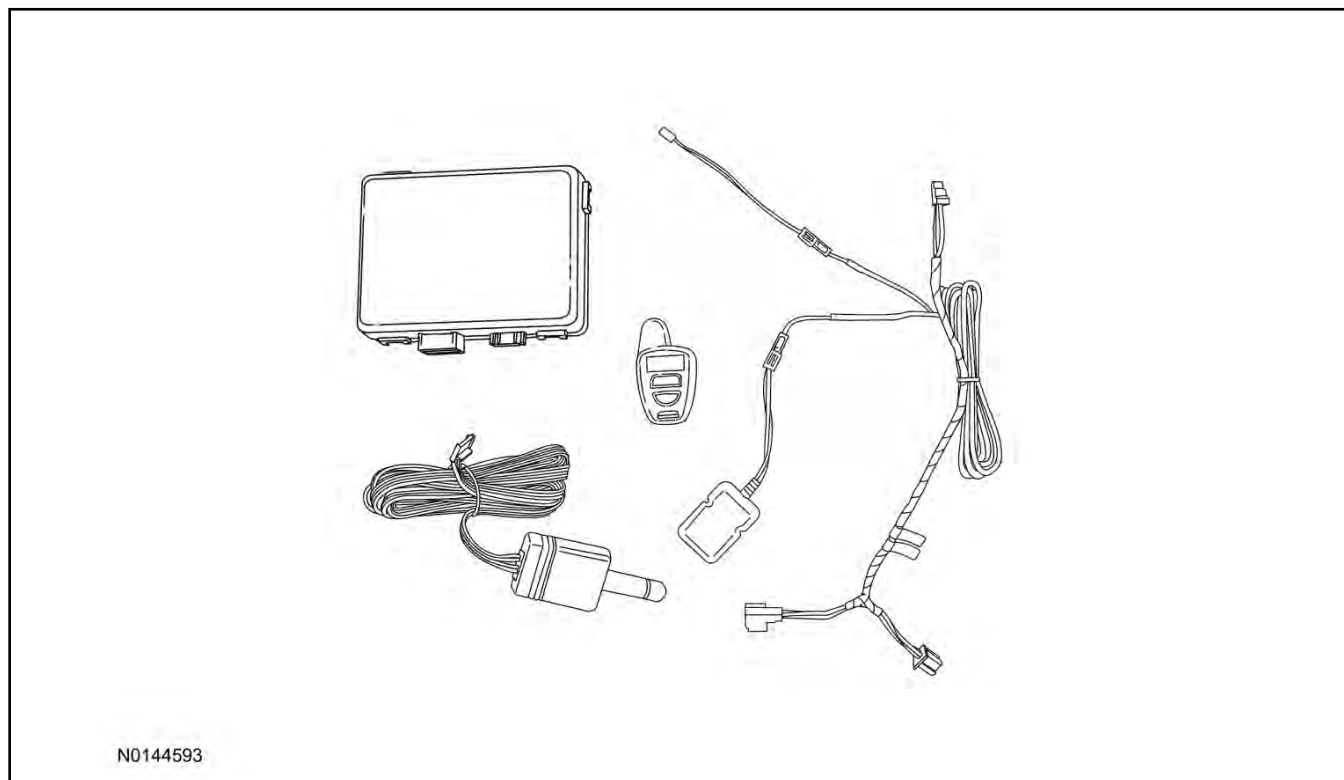
RMST/VSS Remote Start System Installation
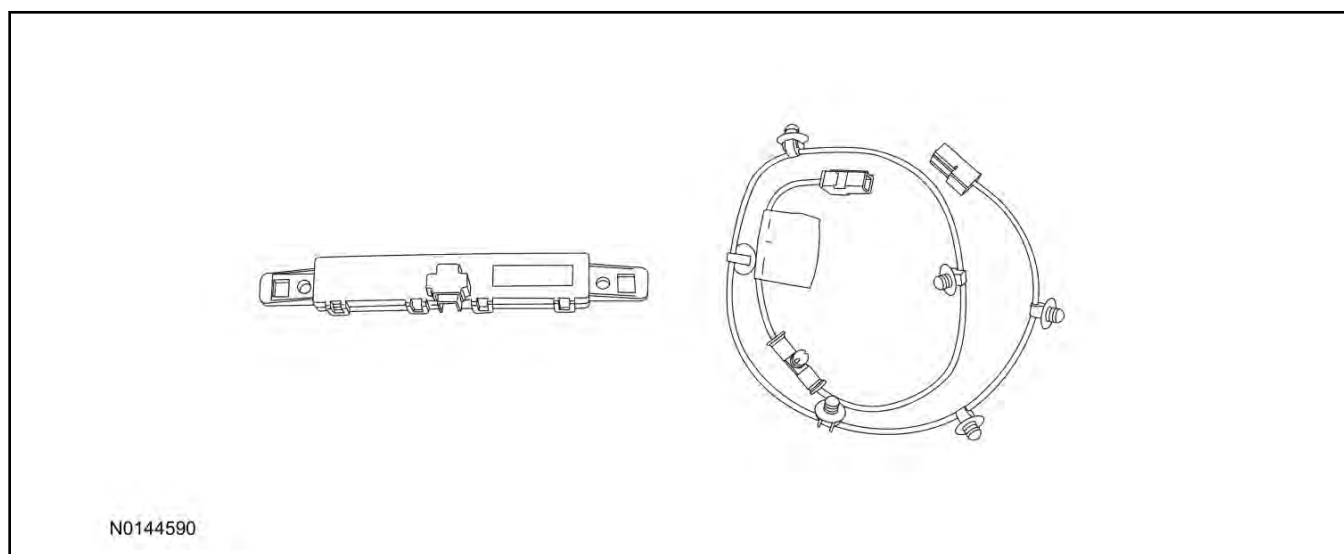
CONTENTS

INSTALLATION

Remote Start System/Vehicle Security (RMST/VSS)

Remote Start System/Vehicle Security (RMST/VSS) Components

N0144593

TPM Antenna Kit Components

N0144590

Flex - Key Start

1.   Verify correct kit number.

INSTALLATION (Continued)

Review The RMST/VSS Installation Kit Contents

2. Review the RMST/VSS kit contents.

RMST/VSS kit

QUANTITY	DESCRIPTION
3	Dk/f kgevkqpcn"Mg{ "Hqd
1	Remote Start Module
1	Bi-directional Antenna
1	TPM Module T-harness
1	Shock Sensor
1	LED

TPM Antenna Kit Components

3. Review the TPM antenna kit contents.

TPM Antenna Kit

QUANTITY	DESCRIPTION
1	Antenna Module
1	Antenna Jumper Wire
1	2-sided Tape (not shown)

Vehicle Preparation

4. Remove the RH A-Pillar and RH B-pillar trim panels. For additional information, refer to Workshop Manual (WSM), Section 501-05.

5. If equipped, remove the DVD entertainment system. For additional information, refer to WSM, Section 415-00.

6. Remove the RH sun visor retainer screws and lower the RH sun visor.

N0082915
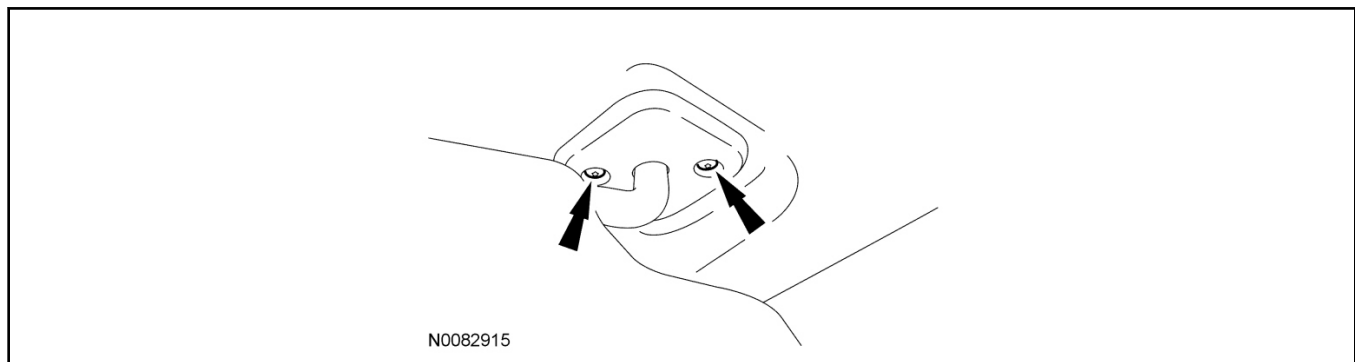
7. Remove the RH sun visor clip retainer screws and remove the sun visor clip.

INSTALLATION (Continued)

N0082907
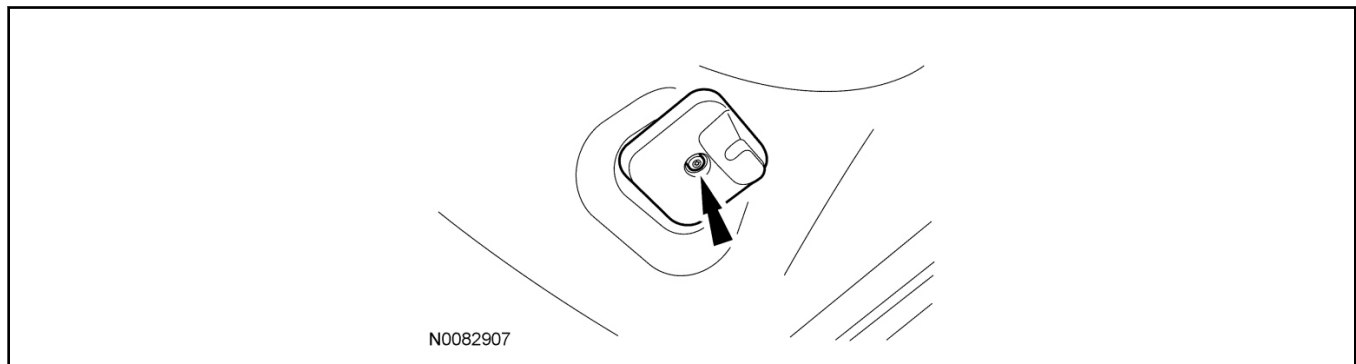
8. Open the RH front assist handle screw covers.

N0082900
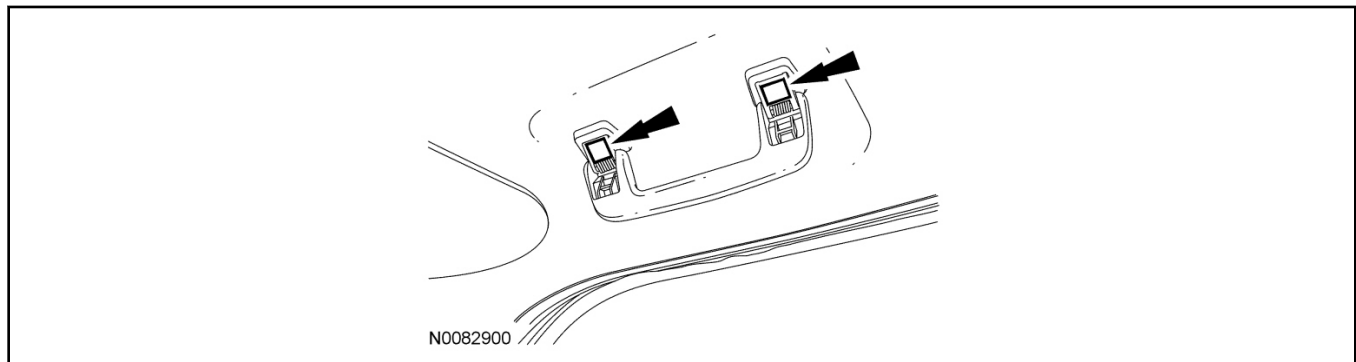
9. Remove the RH front assist handle screws and remove the front assist handle.

    • If equipped, disconnect the assist handle lamp electrical connector.

N0082924
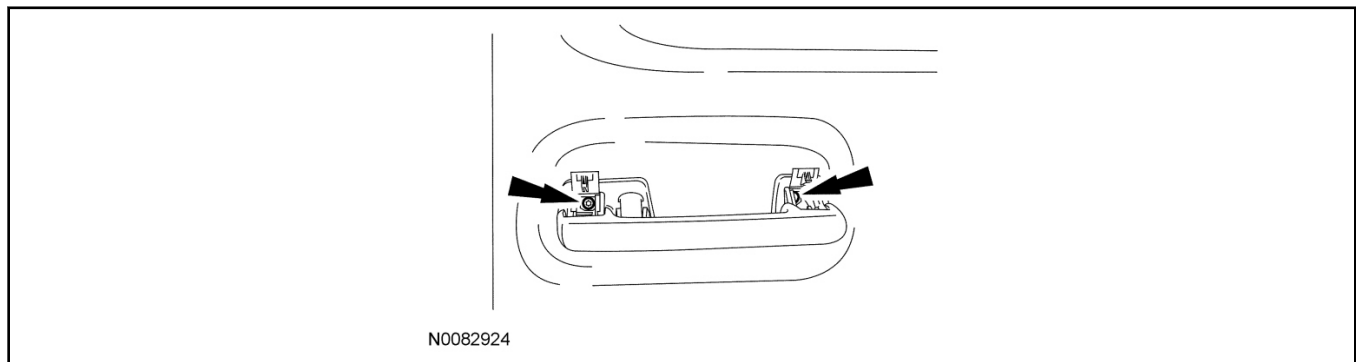
10. Pull downward on the overhead console to release the retainer clips.

N0082905
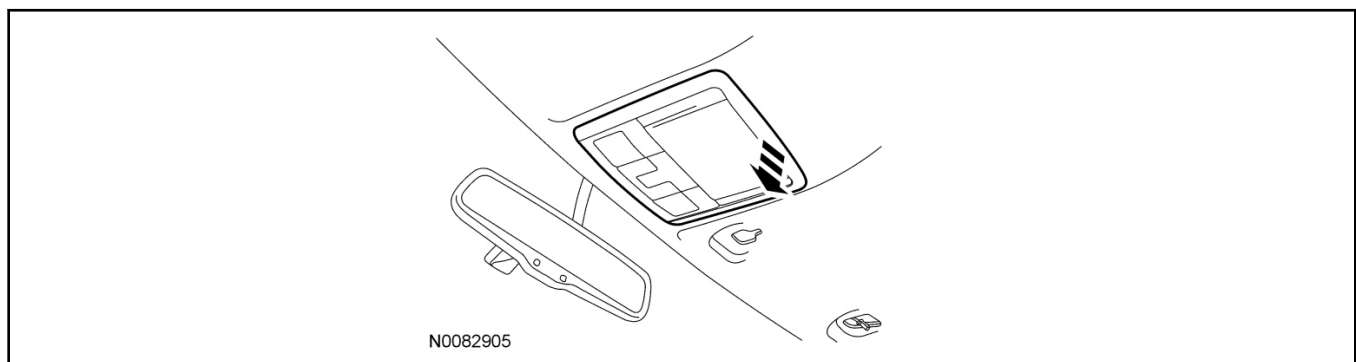
11. Disconnect the overhead console electrical connector(s) and remove the overhead console.

INSTALLATION (Continued)

N0082904
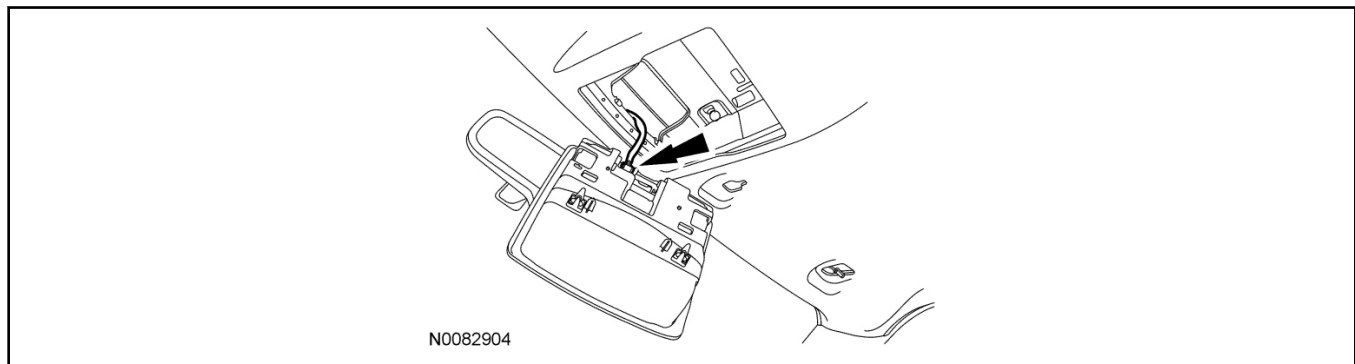
12. Remove the headliner push pin retainer.

N0144806
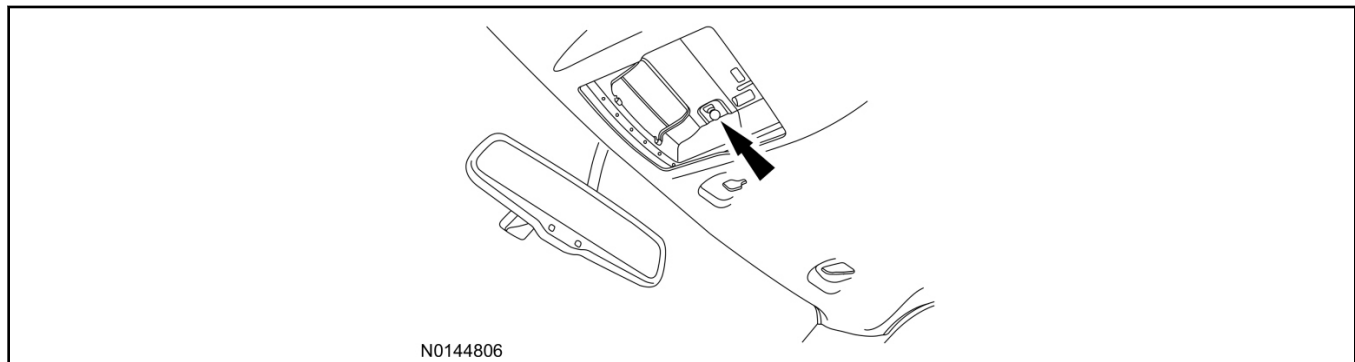
13. *NOTICE:*
Use caution not to over extend the headliner as creases and/or damage to the headliner may occur.

Position the RH front portion of the headliner downward slightly to access the Tire Pressure Monitor (TPM) module.

N0144240
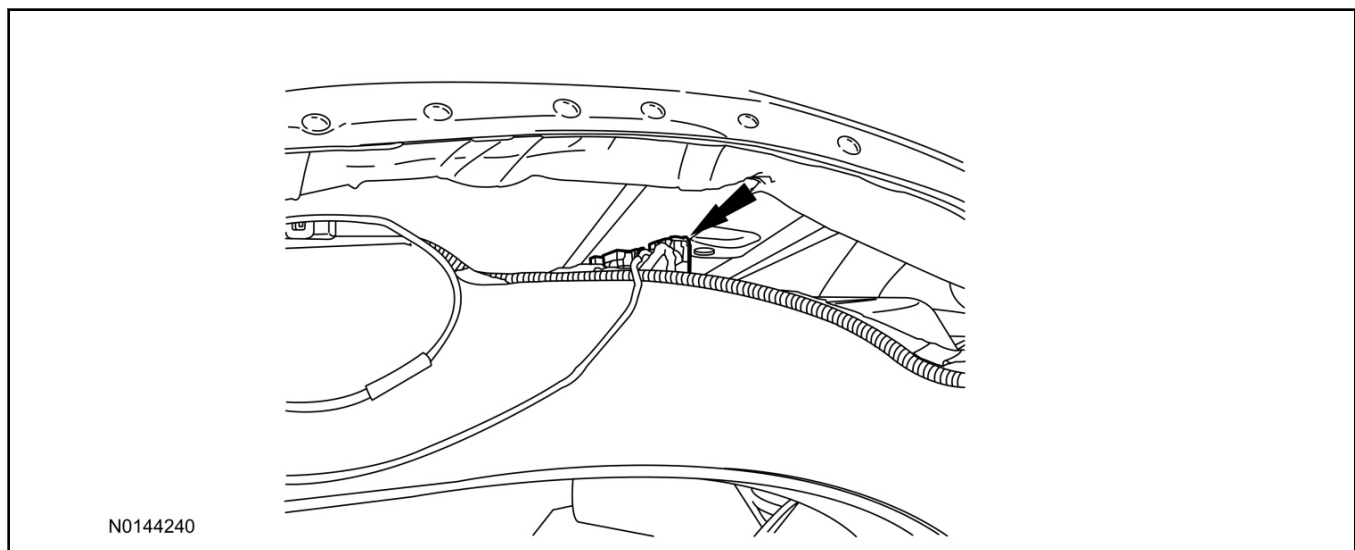
14. **NOTE:**
Headliner removed for clarity.

Disconnect the TPM module 8-pin connector.

INSTALLATION (Continued)

N0124231

15. Fully lower the glove compartment in the following sequence.

   1 Open the glove compartment and press the 2 upper corner tabs.

   2 Lower the door.

      ▪ Detach the glove compartment dampener.

16. Remove the RH side IP side trim panel.

Antenna Mounting

NOTE:
For good range of operation, the antenna must be installed correctly.

NOTE:
Keep these points in mind when selecting a location and mounting the antenna.

- Do not mount the antenna behind or on any metal film or window tinting on the windshield.
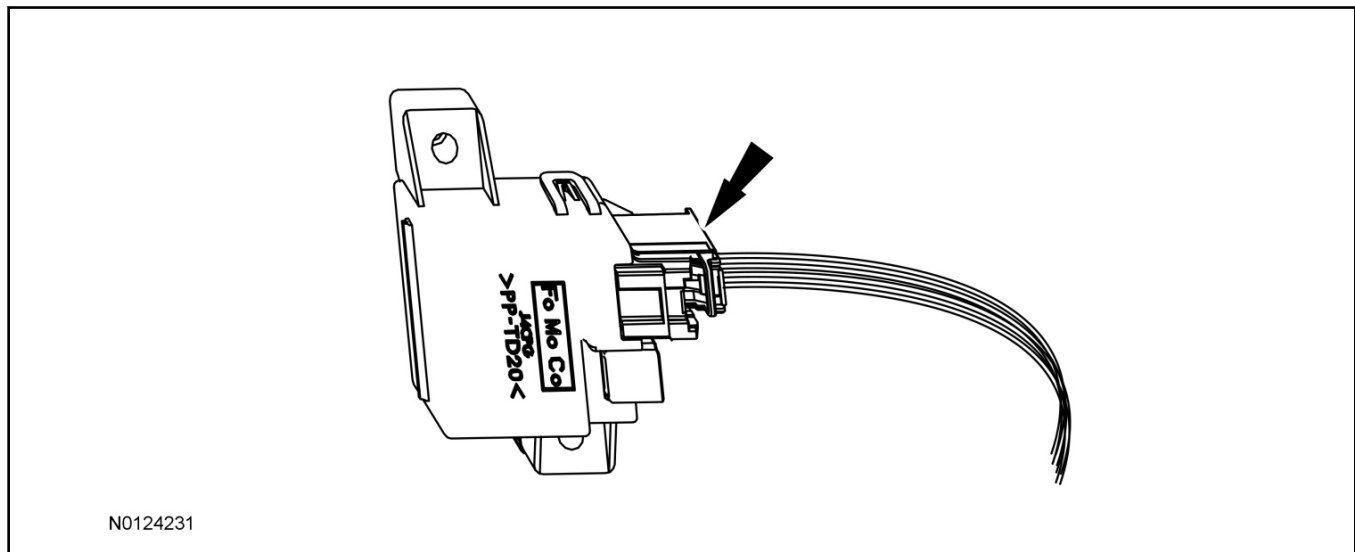- Do not mount the antenna so that one of the antenna elements touches or crosses any vehicle wiring and/or metal.
- On vehicles without metal film in the windshield around the rear view mirror, mount the antenna between the headliner and the rear view mirror.
- On vehicles equipped with an electronic mirror, or on vehicles with metal film around the rearview mirror, mount the antenna approximately 3 inches below the mirror attachment point to the windshield and/or mirror electronics.

17. Choose a suitable antenna mounting location based on the guidelines above.

Install The Antenna

18. Clean the mounting surface using an alcohol base solution and a clean cloth.

NOTE:
Do not touch the adhesive, reduced adhesion may result.

INSTALLATION (Continued)

NOTE:
Make sure that the long wire on the antenna is pointing towards the top of the windshield since this wire will be routed along the headliner.

NOTE:
The antenna electrical connector will be attached to the control module later in this procedure.

19. Remove the protective backing from the adhesive on the antenna and firmly press the body of the antenna to the windshield.
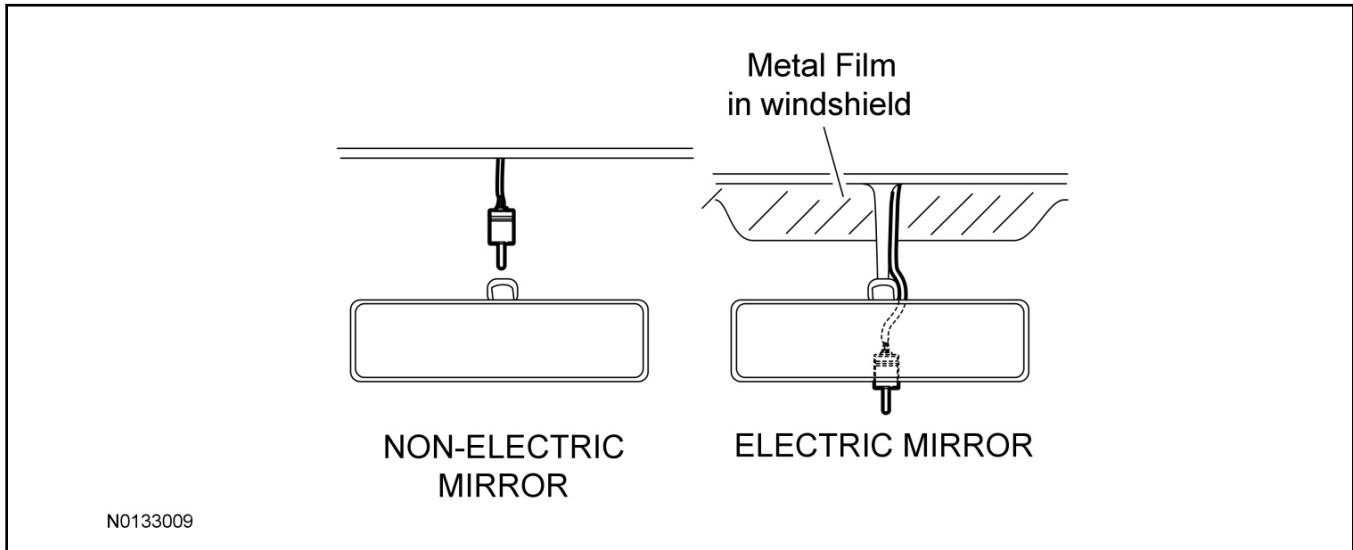
20. Route the antenna cable.

   • Route inside the headliner to the A-pillar.

   • Route down the A-pillar, behind the side air bag. Secure as required with tie-straps.

   • Continue routing into the RH instrument panel side trim area and inside the instrument panel, coming out of the glove box.
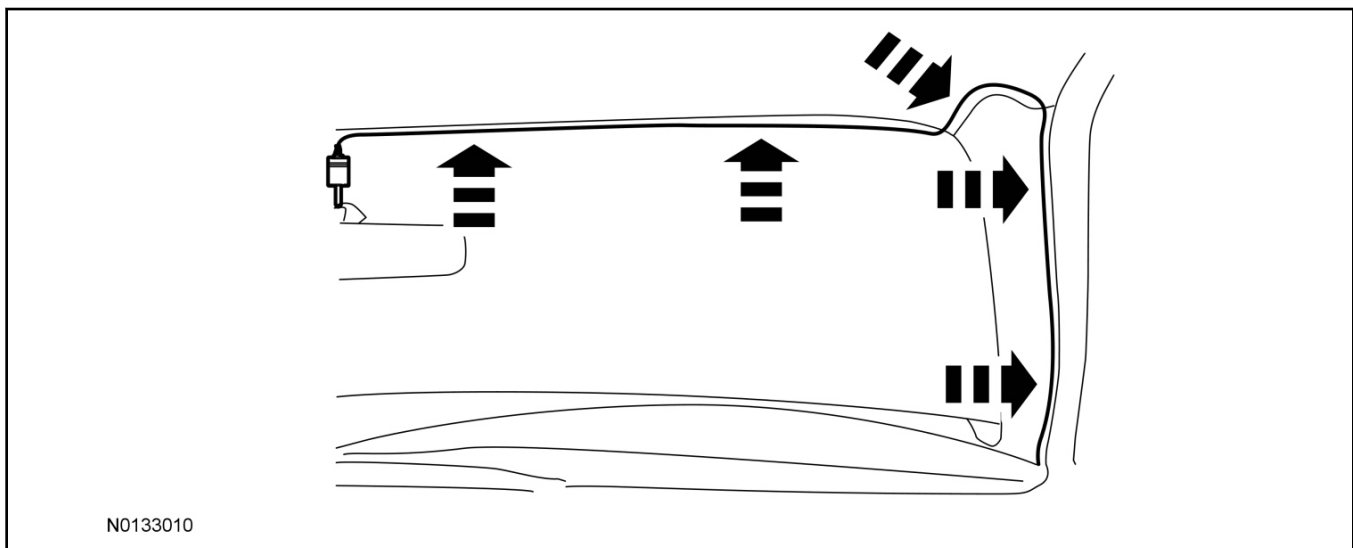
Installation

21. Connect the female end of the 8-pin T-harness to the TPM module.

INSTALLATION (Continued)

N0124232
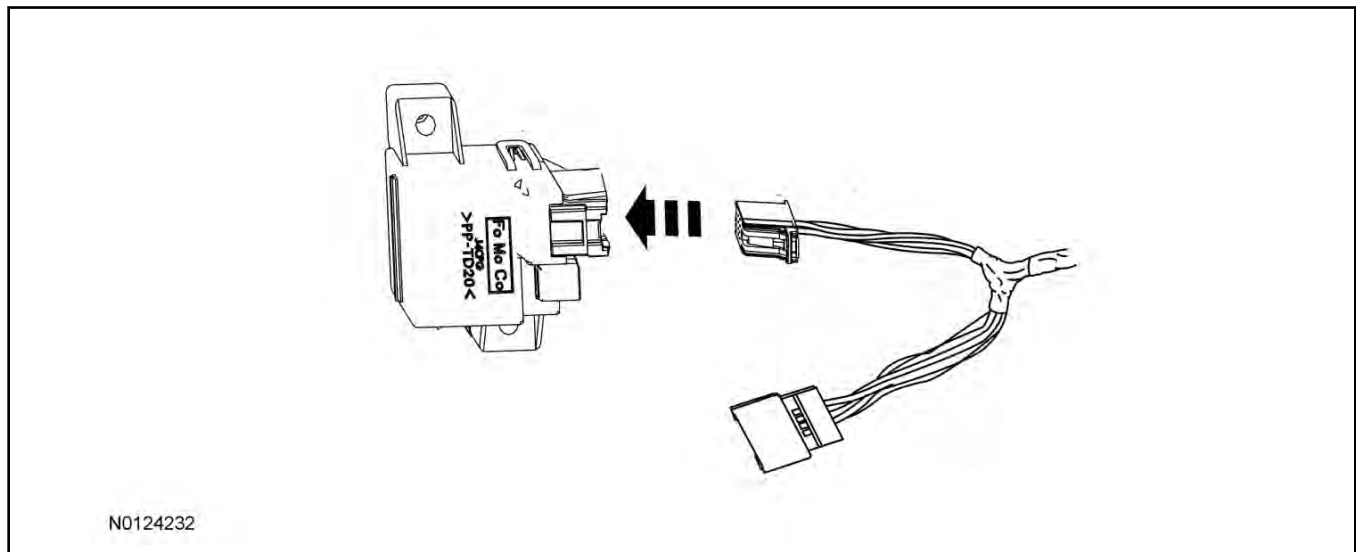
22. Connect the male end of the 8-pin T-harness to the 8-pin TPM module electrical connector.

N0124233
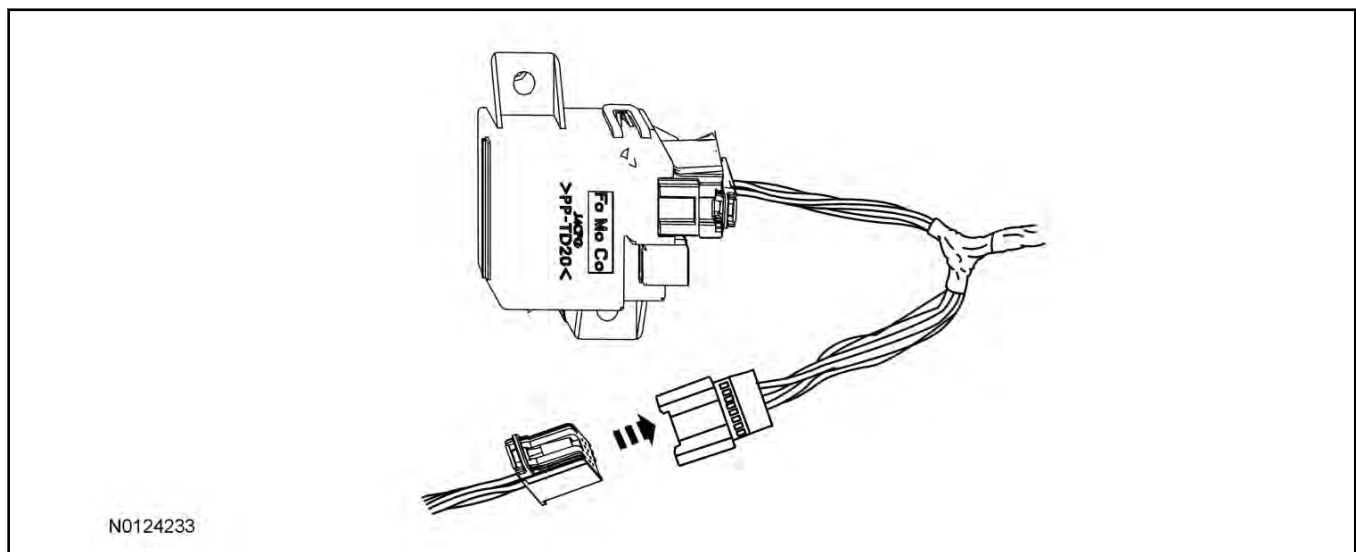
23. Route the T-harness from the headliner down along the A-Pillar and into the Instrument Panel (IP) / glove compartment area.

24. Connect the antenna to the CGEA module.

INSTALLATION (Continued)

N0120260
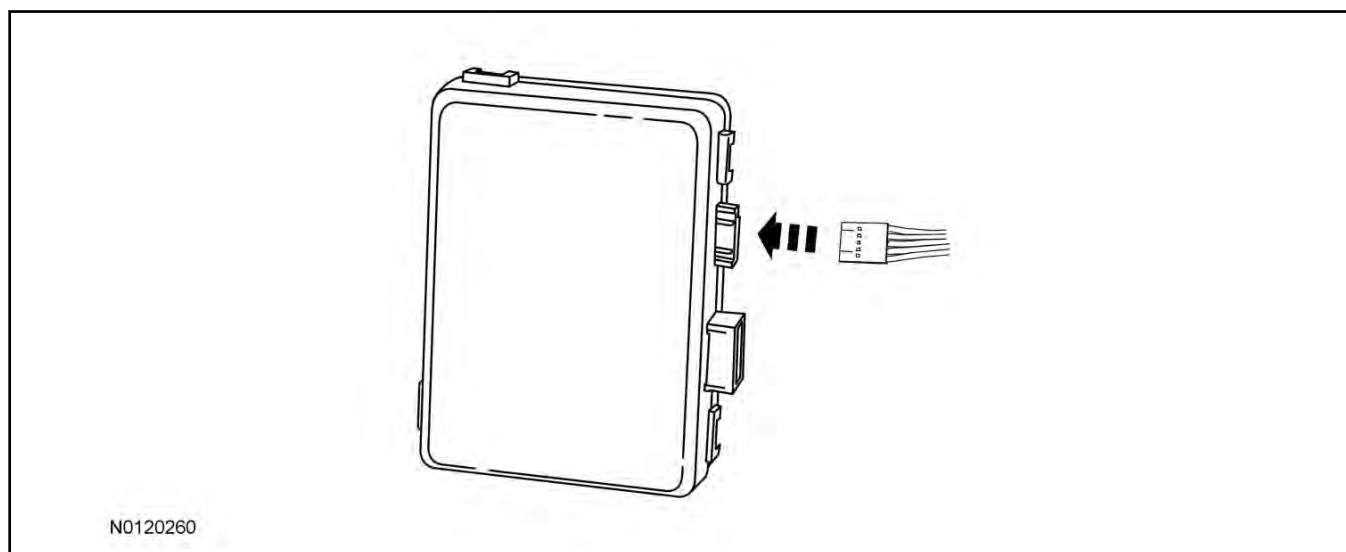
25. Connect the T-harness to the CGEA module.

N0120266
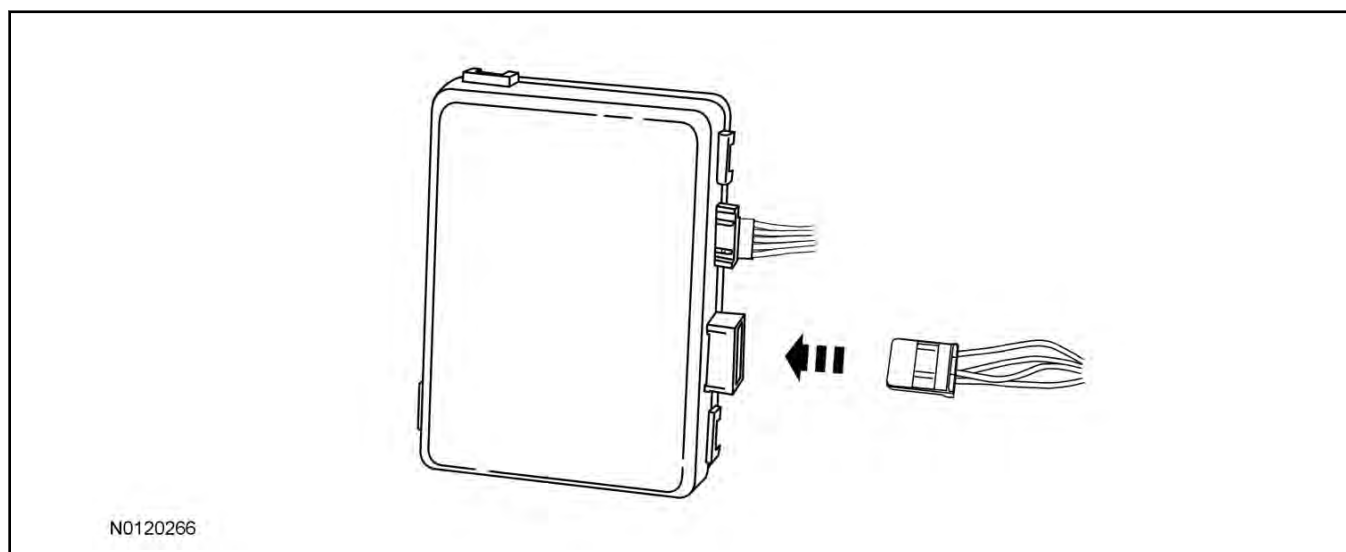
26. **NOTE:**

   When the CGEA module is properly positioned it should not come in contact with the glove compartment.

   Position the CGEA module into the glove box opening.

   • Secure the CGEA module with 3M™ Dual Lock™ strips or zip-ties.

INSTALLATION (Continued)

N0143670
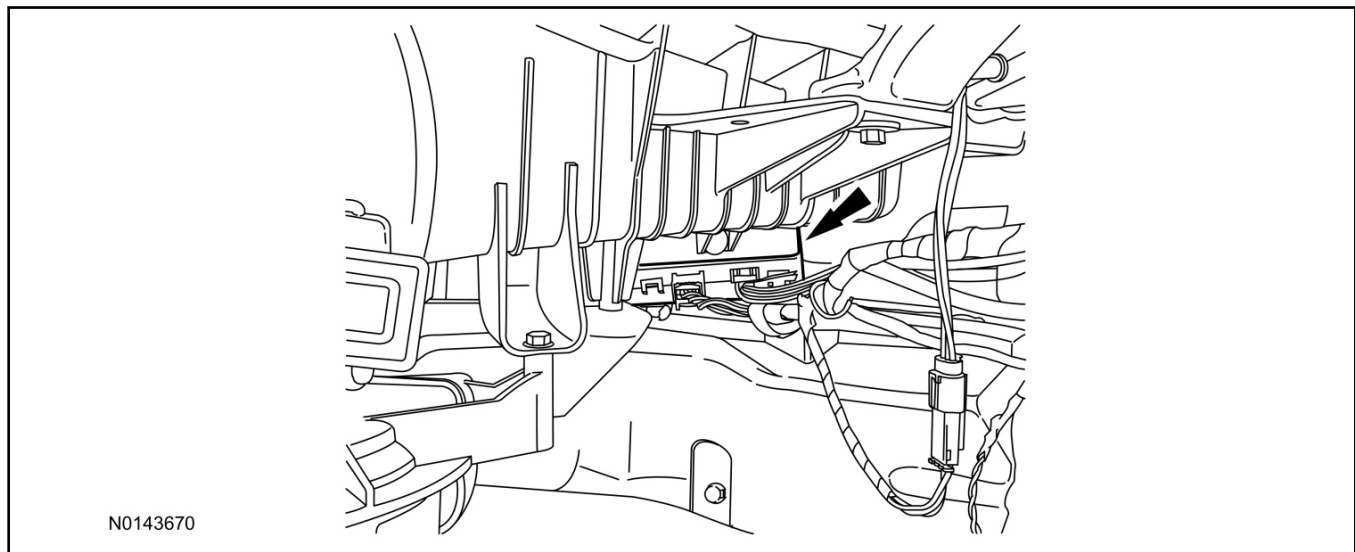
27. Secure the T-harness with zip-ties.

28. Connect the antenna jumper wire to the TPM module.

N0124234
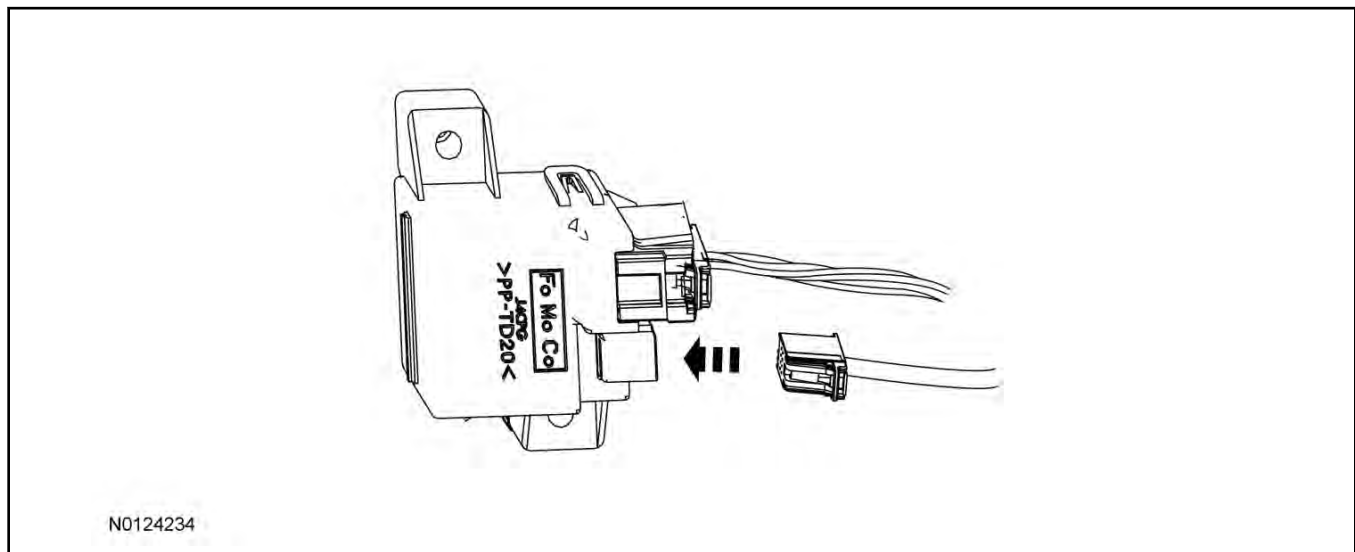
29. Connect the antenna jumper wire connector to the antenna module.

   • The push pins on the antenna jumper wire are not used for this application.

30. **NOTE:**
    View is top of headliner.

    Secure the antenna module to the headliner using a suitable adhesive.

   • Alternatively 2-sided tape may be used to secure the antenna module to the headliner.

INSTALLATION (Continued)
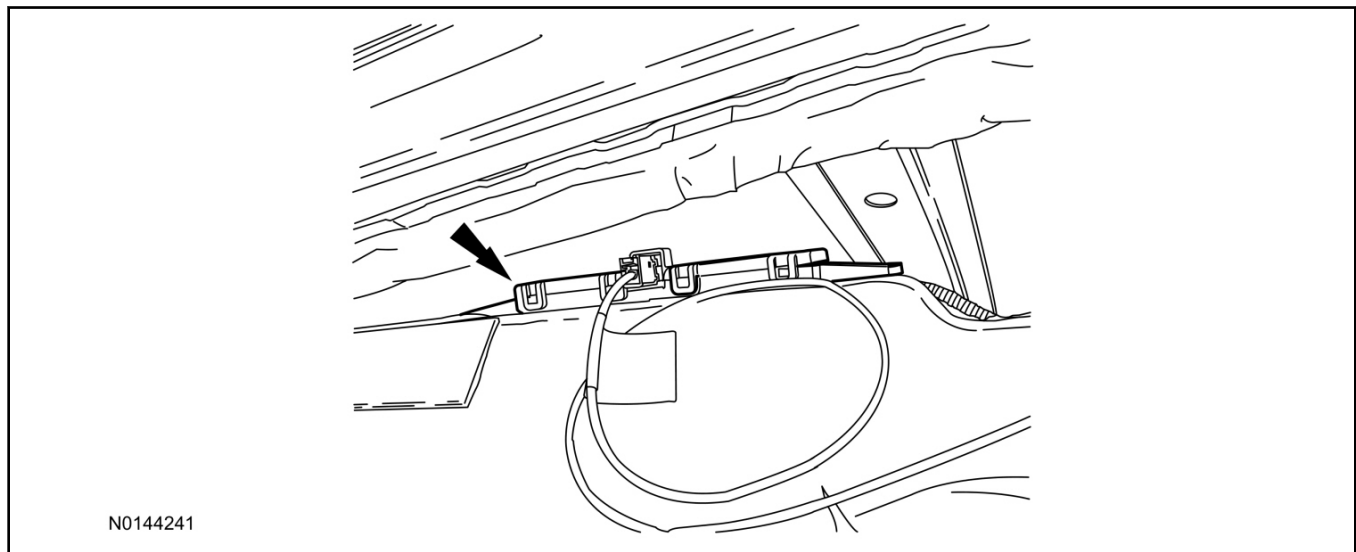
N0144241

Shock Sensor Mounting

31. Mount the Shock Sensor onto the instrument panel wire harness, located inside the glove compartment opening.

   • Secure with tie-straps.

N0144243
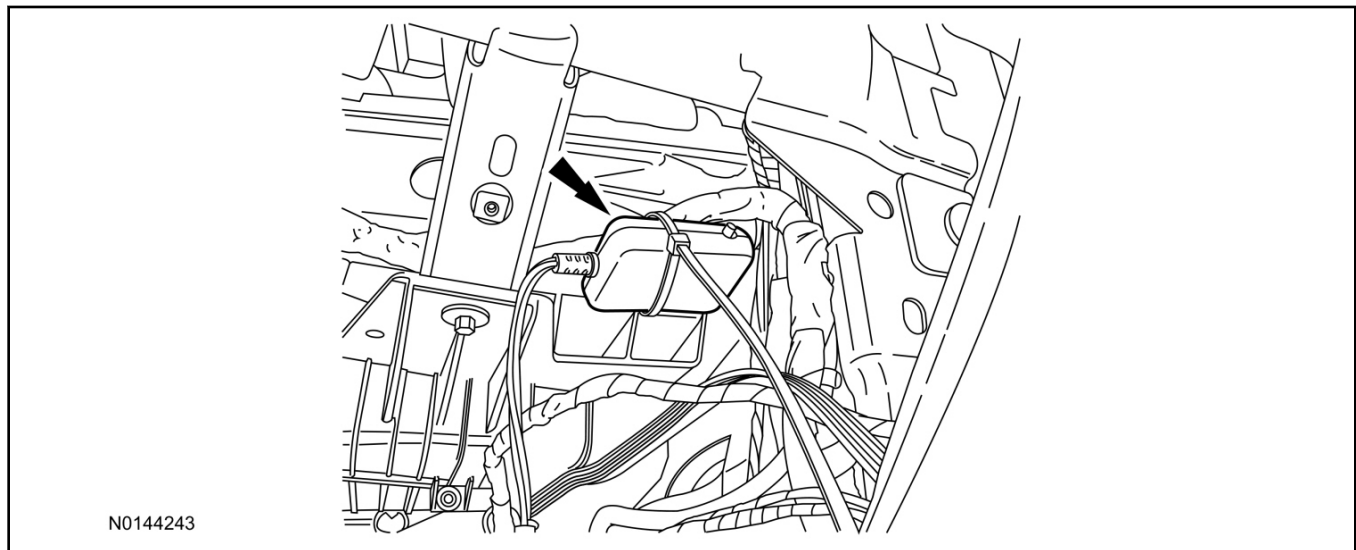
LED Mounting

32. Route the LED harness though the IP to the driver's side of the vehicle.

33. Using the following guidelines select a mounting location for the LED on the driver's side of the vehicle.

   • The LED and LED wire harness should have at least 3/4" clearance behind any trim panel for routing.

   • The LED should be clearly visible from the driver's side window.

   • Do not mount the LED on trim panels that cover air bags.

INSTALLATION (Continued)

34. Mount the LED at an appropriate location on the driver's side of the vehicle using the guidelines listed above.

    • Drill a 9/32" hole into the selected location, for the LED to mount in.

35. Connect LED to the LED wire harness and secure the with zip-ties.

Remote Start/Vehicle Security Harness - Programming Button

36. Use the following guidelines when securing the programming button.

    • Secure on the driver's side of the vehicle.

    • Must be hidden from view.

    • Must be accessible without removing trim.

    • Secure with zip-ties.

Install Trim

37. Install the headliner push pin retainer.

38. Connect the overhead console electrical connector(s) and install the overhead console.

39. Install the RH front assist handle and screws.

    • If equipped, connect the assist handle lamp electrical connector.

40. Close the assist handle screw covers.

41. Install the sun visor clips and the sun visor clip retainer screws.

42. Position the RH sun visor and install the retainer screws.

43. Install the RH A-Pillar and RH B-pillar trim panels. For additional information, refer to WSM, Section 501-05.

44. If equipped, install the DVD entertainment system. For additional information, refer to WSM, Section 415-00.

45. Close the glove compartment.

    • Attach the glove compartment dampener.

46. Install the RH side IP side trim panel.

Remote Start Activation

47. Verify that the IDS is updated to the most current version.

48. Connect IDS.

    • Follow the prompts to select new vehicle session.

    • Enter VIN.

49. Activate the remote start using the IDS.

    • Select the Tool Box icon.

    • Select Body.

    • Select Security.

INSTALLATION (Continued)

- Select Remote Start.

- Verify that the information on the IDS screen is correct and all procedures have been followed.

- Select Yes. This will enable the remote start function on the vehicle.

50. For vehicles equipped with standard message center, verify that the remote start option now appears.

   - Using the Select and Arrow buttons on the steering wheel, select Settings.

   - Select Convenience.

   - Select Remote Start.

   - Select System.

   - Verify that the remote start system is checked.

51. For vehicles equipped with advanced message center, verify that the remote start option now appears.

   - Using the Select and Arrow buttons on the steering wheel, select Settings.

   - Select Vehicle Settings.

   - Select Vehicle.

   - Select Remote Start System.

   - Verify that the remote start system is enabled.

Programming the Panic/Car Finder Button

NOTE:
Make sure the brake pedal is not depressed during this sequence.

52. Press the vehicle's unlock button located on the driver's door. Make sure all doors are unlocked.

53. Put the key in the ignition.

54. Cycle eight times rapidly (within 10 seconds) between the 1 (OFF/LOCK) position and 3 (ON) position.

   - The eighth turn must end in the 3 (ON) position. The doors will lock, then unlock, to confirm that the programming mode has been activated.

55. Wait for 10 seconds and the remote start module will program itself to the system.

   - After 20 seconds, you will automatically exit the programming mode. The doors will lock, then unlock, to confirm that the programming mode has been exited.

56. Press and release the Panic/Car Finder button on the remote start keyfob to confirm that the button has been programmed. The vehicle should honk 4-6 times.

Vehicle Security System Activation

57. Cycle the vehicle ignition from OFF to ON.

58. Wait 10 seconds.

INSTALLATION (Continued)

59. Press and hold the Program Override Button for 3 seconds. The LED will turn ON for 5 seconds. The parking lights will flash, and the horn will honk once to confirm Vehicle Security activation.

60. Turn OFF the vehicle ignition.

Functional Test

61. The Shock Sensor sensitivity setting defaults to maximum sensitivity (fully clockwise). This level can be reduced by turning the knob on the sensor counter clockwise to the desired sensitivity.

    • With the Vehicle Security System armed, a light tap of the Shock Sensor should trigger the warning chirp.

    • With the Vehicle Security System armed, a hard tap of the Shock Sensor should trigger the vehicle panic alarm.

NOTE:
Do not put a key in the ignition for the following steps.

62. Make sure the shift lever is in PARK and the ignition is in the OFF position. Remove all keys from the vehicle.

63. Close the hood.

64. Close all of the vehicle doors.

65. Start the vehicle by pressing the remote start button 2 times on the bi-directional key fob.

BI-DIRECTIONAL KEY FOB

N0122258

66. Confirm the remote start works with the vehicle in park and with the hood and doors closed.

67. Enter the vehicle and confirm that the vehicle shuts down when attempting to shift out of park.

68. Open the hood.

69. **NOTE:**
    Vehicle doors should be closed while performing this step.

    Confirm that the vehicle will not start with the hood open.
    Please contact Ford Hotline with any issues regarding remote start functionality.
    Please contact 1-800-FORD-KEY with any issues regarding hardware or kit contents.

RKE/VSS/REMOTE START SYSTEM INSTALLATION
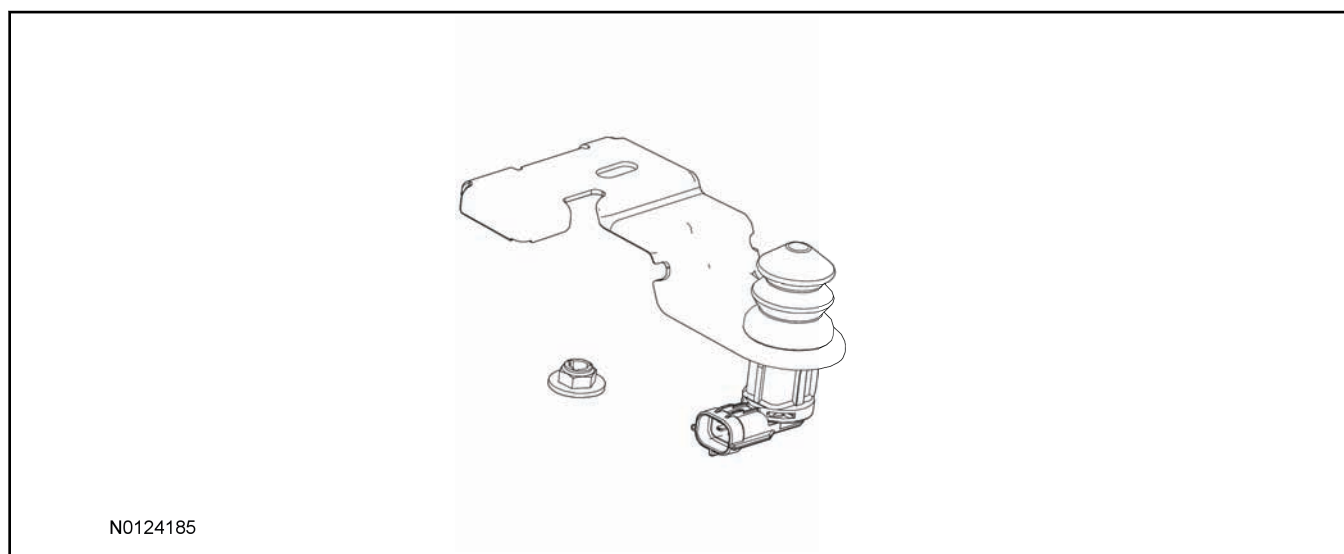
CONTENTS

INSTALLATION

Remote Start System/Vehicle Security - F-150

Remote Start System/Vehicle Security (RMST/VSS) Components

N0126554

Hood Switch Kit Components - Sold separately if needed

N0124185

F-150

1. Verify correct kit number.

INSTALLATION (Continued)

Review The Remote Start System/Vehicle Security (RMST/VSS) Installation Kit Contents

2. Review the RMST/VSS kit contents.

Remote Start System/Vehicle Security (RMST/VSS) kit

QUANTITY	DESCRIPTION
1	Bi-directional Key Fob
1	Antenna Jumper Wire
1	Antenna Module
1	Remote Start Module
1	Bi-directional Antenna
1	TPM Module T-harness
1	Shock Sensor
1	LED

Review Hood Switch Kit Contents

3. Review the Hood Switch kit contents.

Hood Switch Kit

QUANTITY	DESCRIPTION
1	Nut
1	Hood Switch Assembly

4. Verify that an OE hood switch is installed.

    • If the vehicle is not equipped with an OE hood switch see hood switch installation in this procedure.

Hood Switch Installation

5. Locate the hood switch electrical connector located on the coolant reservoir.

    • Disconnect the hood switch electrical connector from the coolant reservoir retainer plug.

6. Install the Hood switch assembly.

    • Install the nut.

    • Tighten to 6 Nm (53 lb-in).

INSTALLATION (Continued)

N0124184
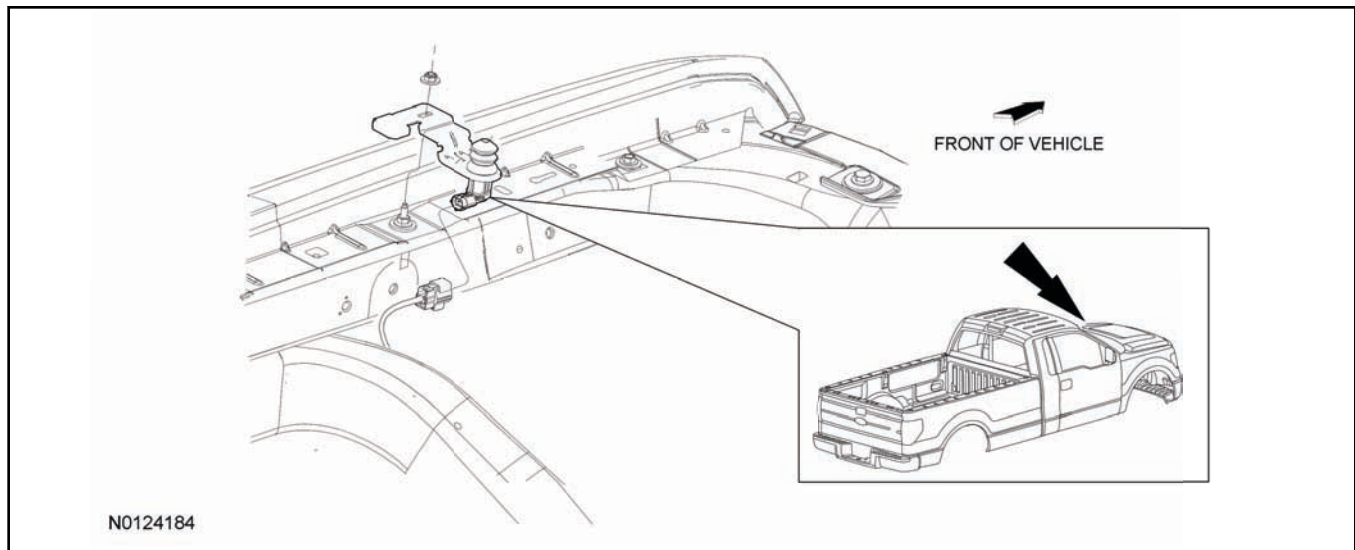
7. Connect the electrical connector to the hood switch.

Vehicle preparation

8. Remove the RH instrument panel side finish panel.

N0124207
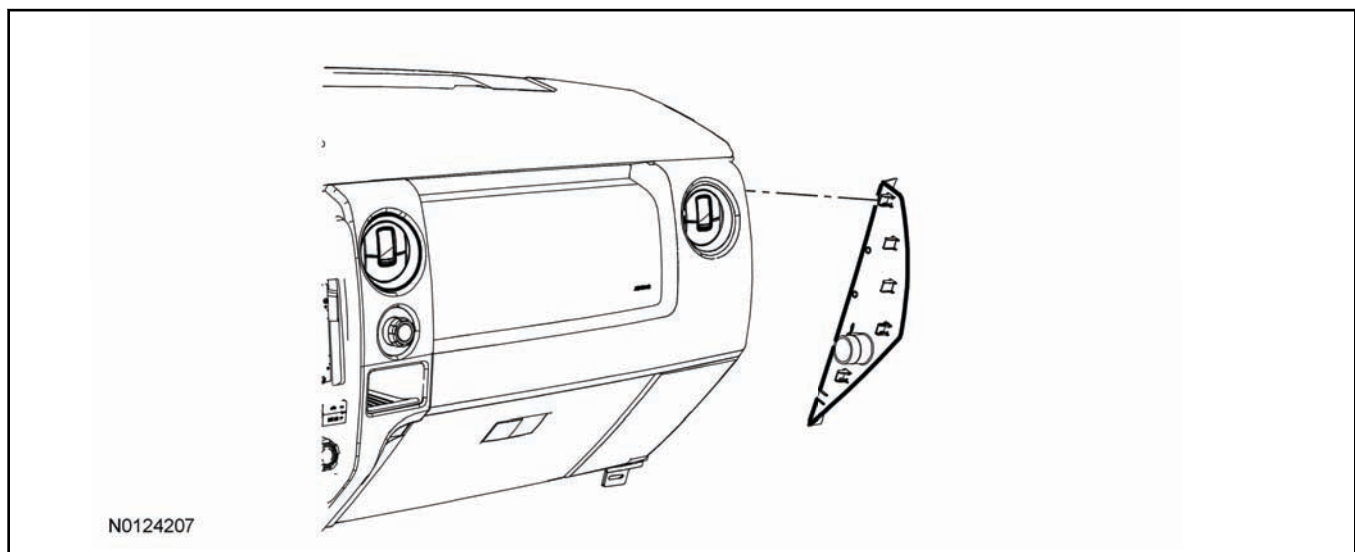
9. *NOTICE:*
    Use a non-marring flat-blade tool and start on the inside edge of the covers. Covers are equipped with a tether. Failure to follow this direction may result in damage to the component.

    Remove the passenger side assist handle bolt covers.

INSTALLATION (Continued)

N0080779

10. Remove the assist handle bolts.
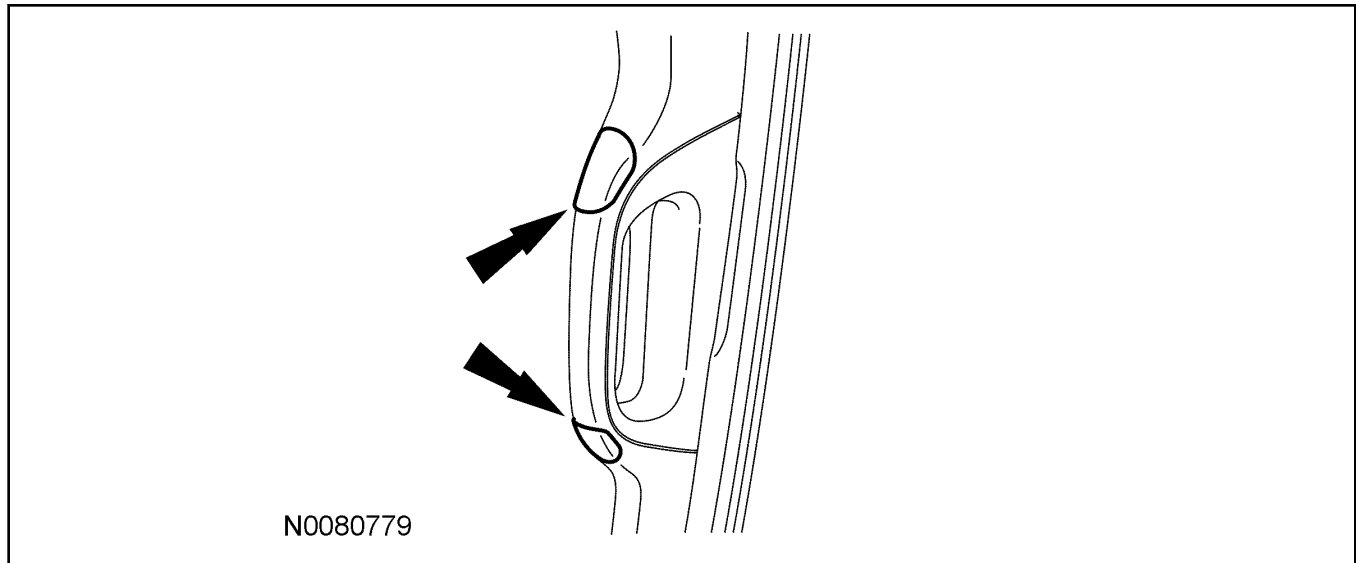
11. If equipped with a speaker in the A-pillar trim panel, disconnect the speaker electrical connector.

12. Remove the RH A-pillar trim panel.

    • Pull outward to release the retainer clip.

13. Open the glove compartment and empty the contents.

14. Push in the 2 side tabs and fully lower the glove compartment.

15. Locate the Tire Pressure Monitor (TPM) Module.

Tire Pressure Monitor
(TPM) Module

N0124230
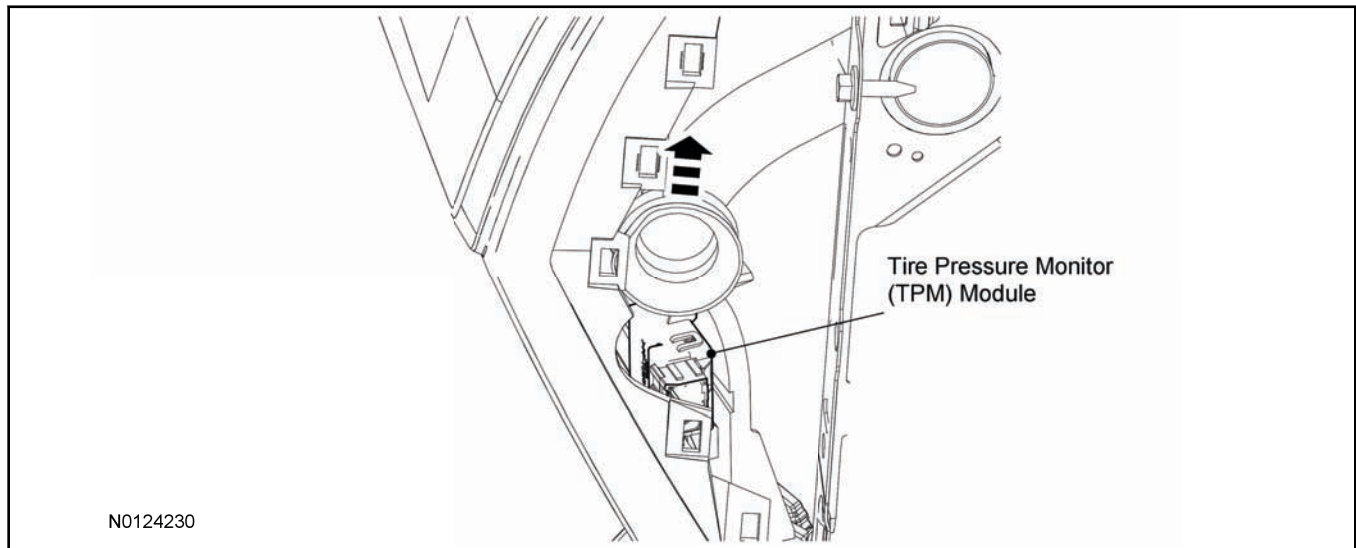
16. Position the A/C duct to access the TPM module electrical connectors.

INSTALLATION (Continued)

N0124215
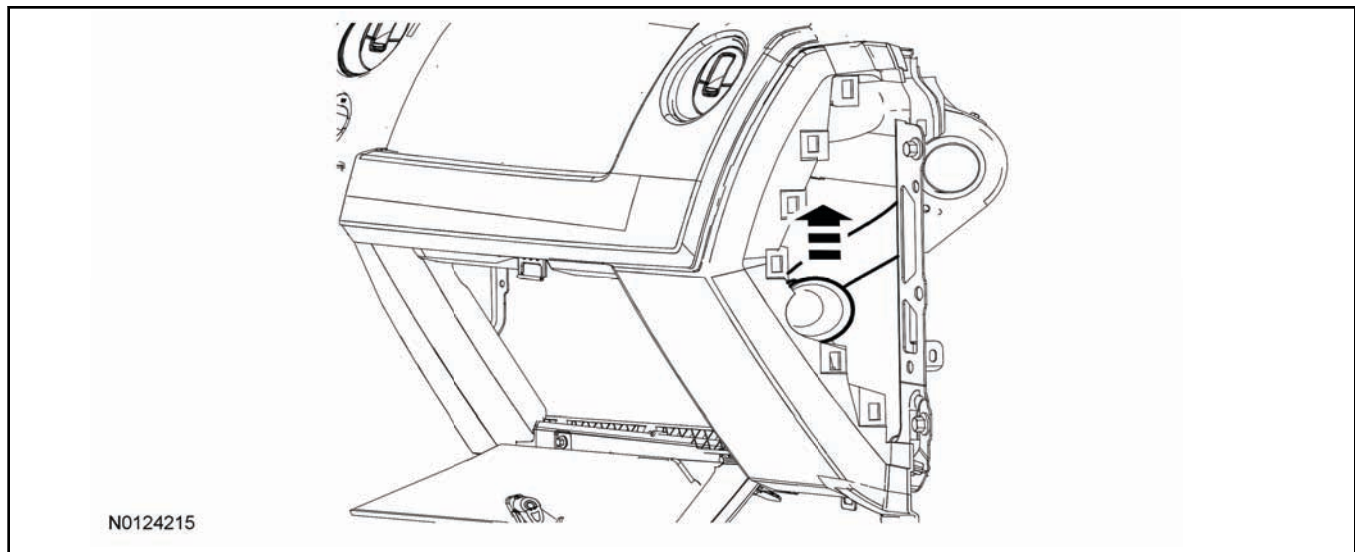
17. **NOTE:**
Instrument panel removed for clarity.
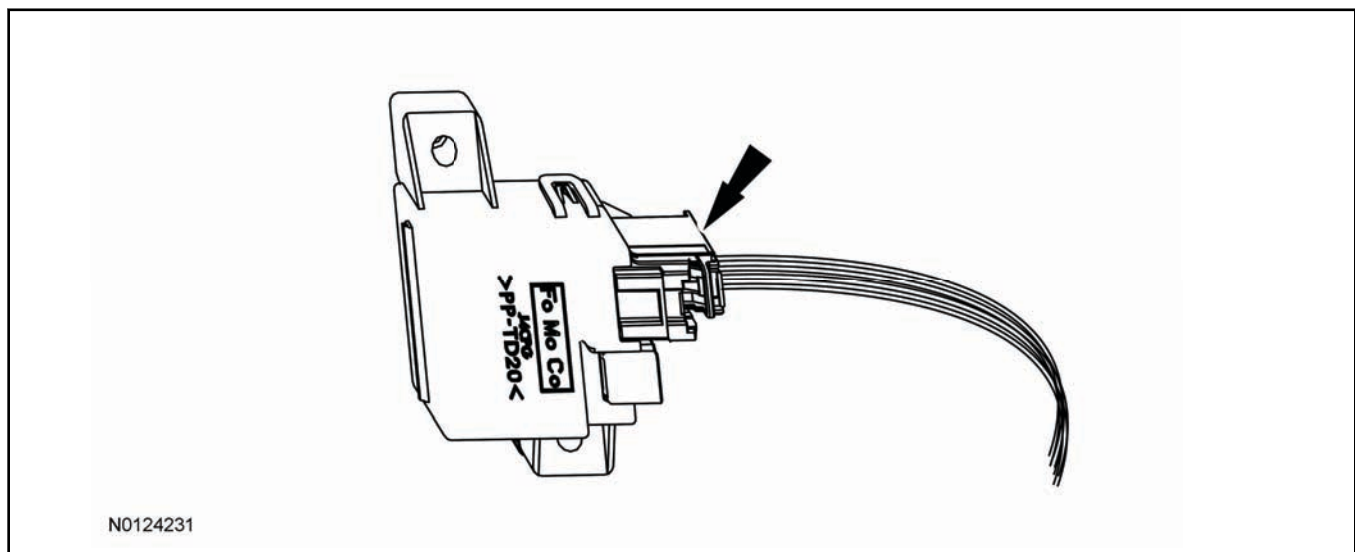
Disconnect the TPM module.

N0124231

Bi-directional Antenna Mounting

NOTE:
For good range of operation, the bi-directional antenna must be installed correctly.

NOTE:
Keep these points in mind when selecting a location and mounting the antenna.

- Do not mount the bi-directional antenna behind or on any metal film or window tinting on the windshield.
- Do not mount the bi-directional antenna so that one of the bi-directional antenna elements touches or crosses any vehicle wiring and/or metal.
- On vehicles without metal film in the windshield around the rear view mirror, mount the bi-directional antenna between the headliner and the rear view mirror.

INSTALLATION (Continued)

• On vehicles equipped with an electronic mirror, or on vehicles with metal film around the rearview mirror, mount the bi-directional antenna approximately 3 inches below the mirror attachment point to the windshield and/or mirror electronics.

18. Choose a suitable bi-directional antenna mounting location based on the guidelines above.

Install The Bi-directional Antenna

19. Clean the mounting surface using an alcohol base solution and a clean cloth.

NOTE:
Do not touch the adhesive, reduced adhesion may result.

NOTE:
Make sure that the long wire on the bi-directional antenna is pointing towards the top of the windshield since this wire will be routed along the headliner.

NOTE:
The bi-directional antenna electrical connector will be attached to the control module later in this procedure.

20. Remove the protective backing from the adhesive on the bi-directional antenna and firmly press the body of the bi-directional antenna to the windshield.
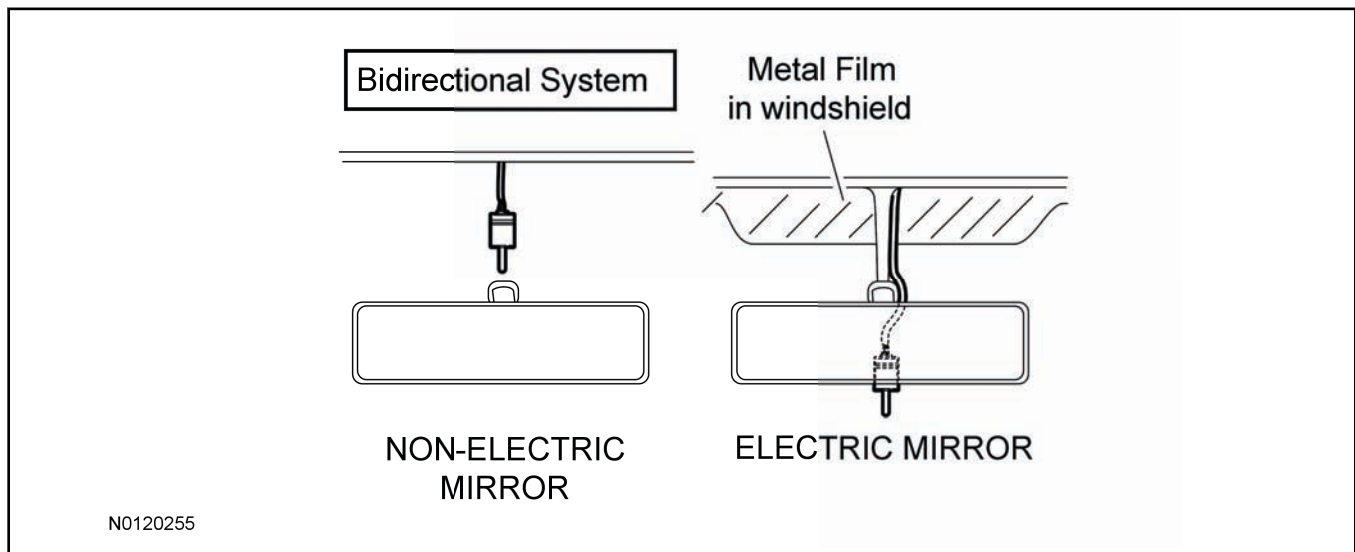
21. Route the bi-directional antenna cable.

• Route inside the headliner to the A-pillar.

• Route down the A-pillar, behind the side air bag. Secure as required with tie-straps.

• Continue routing into the RH instrument panel side trim area and inside the instrument panel, coming out of the glove box.

INSTALLATION (Continued)

N0120256
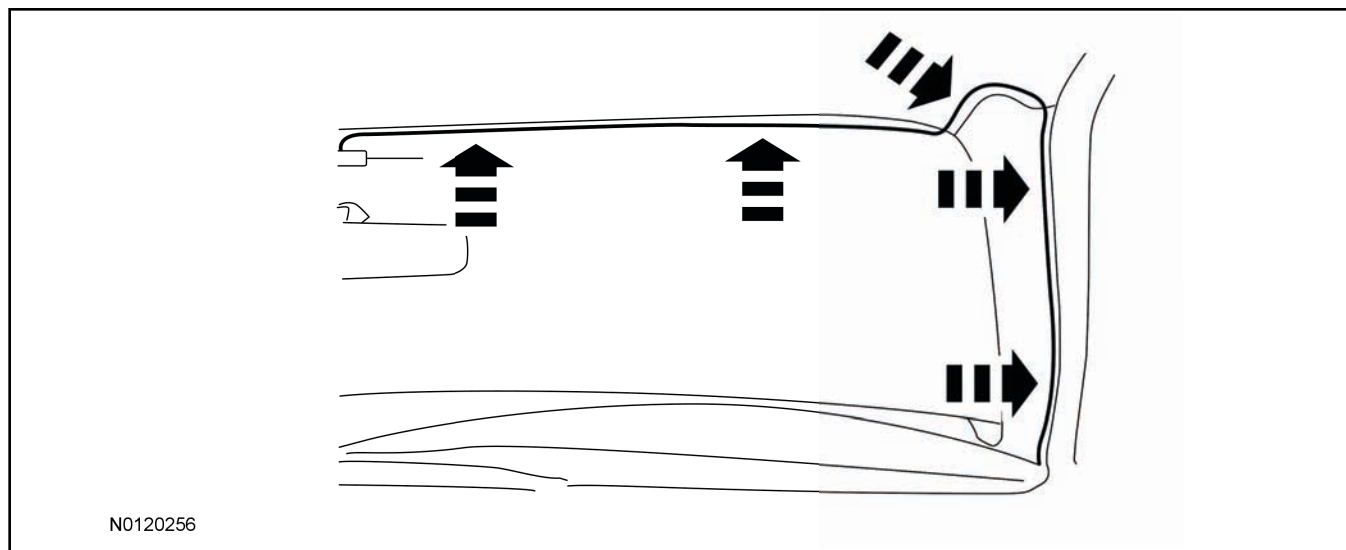
Installation

22. Connect the bi-directional antenna to the CGEA module.

- Secure the bi-directional antenna harness with tie-straps.

N0120260
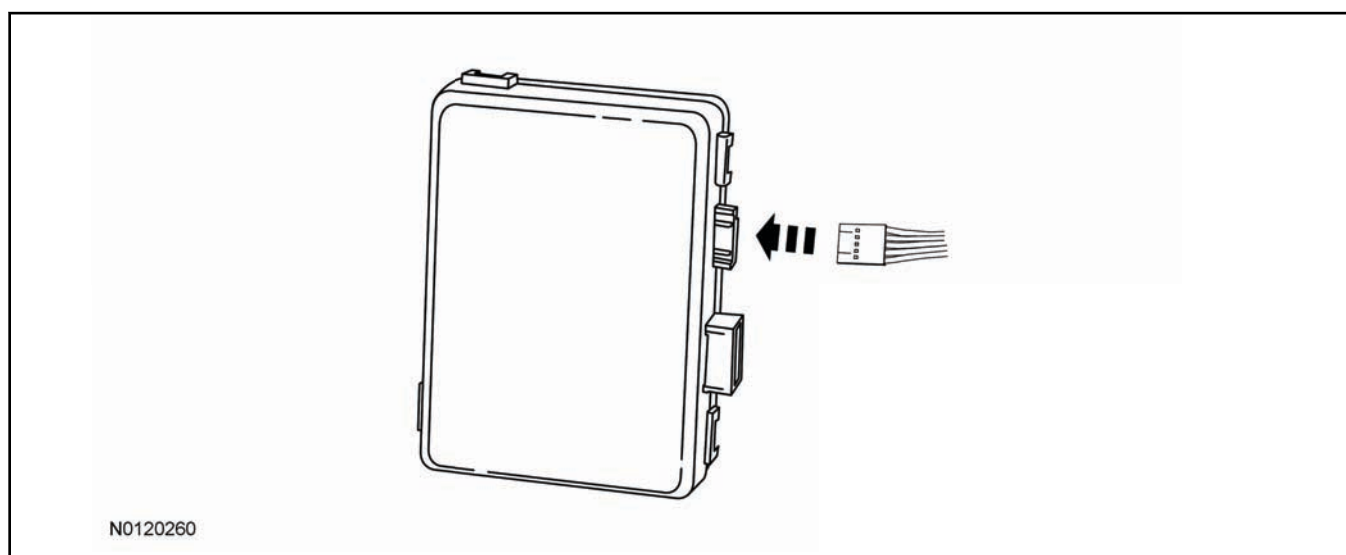
23. Connect the T-harness to the CGEA module.

INSTALLATION (Continued)

N0120266
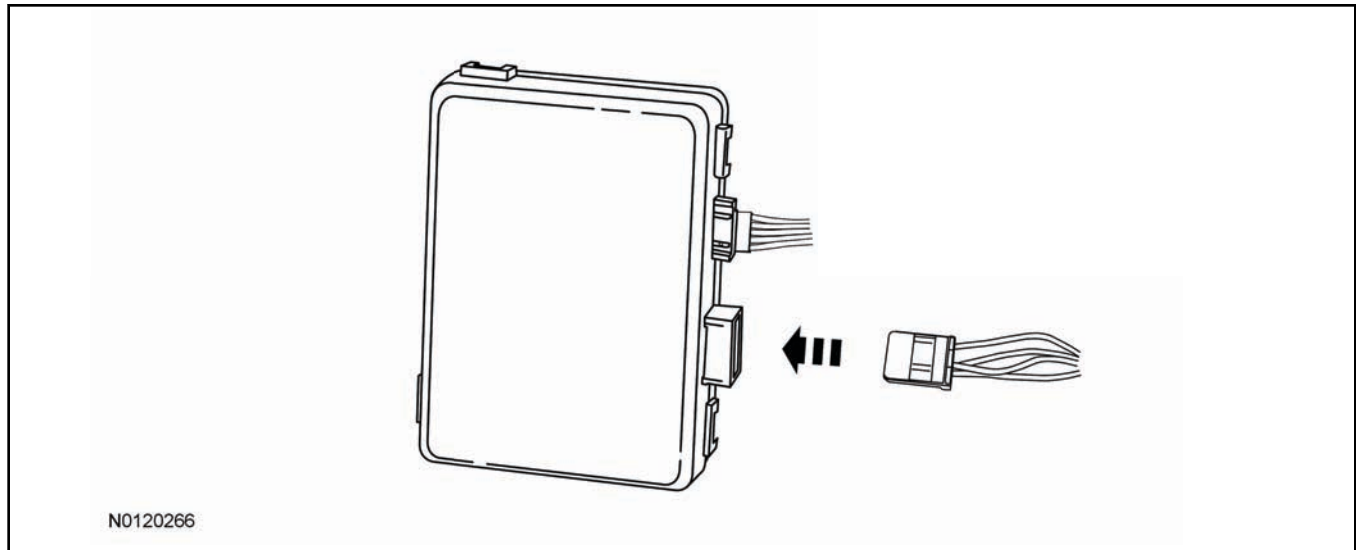
24. Position the CGEA module into the glove box opening. Secure the CGEA module to the air duct with tie-straps.

   • Alternatively, the CGEA module can be mounted to the bulkhead metal surface behind the glove compartment opening.

25. Route the female end of the T-harness to the TPM module.

   • Secure the harness with tie-straps.

26. Connect the female end of the 8-pin T-harness to the TPM module.

N0124232

27. Connect the male end of the 8-pin T-harness to the vehicle's existing TPM module harness.

INSTALLATION (Continued)

N0124233

28. Connect the antenna jumper wire to the TPM module.

N0124234
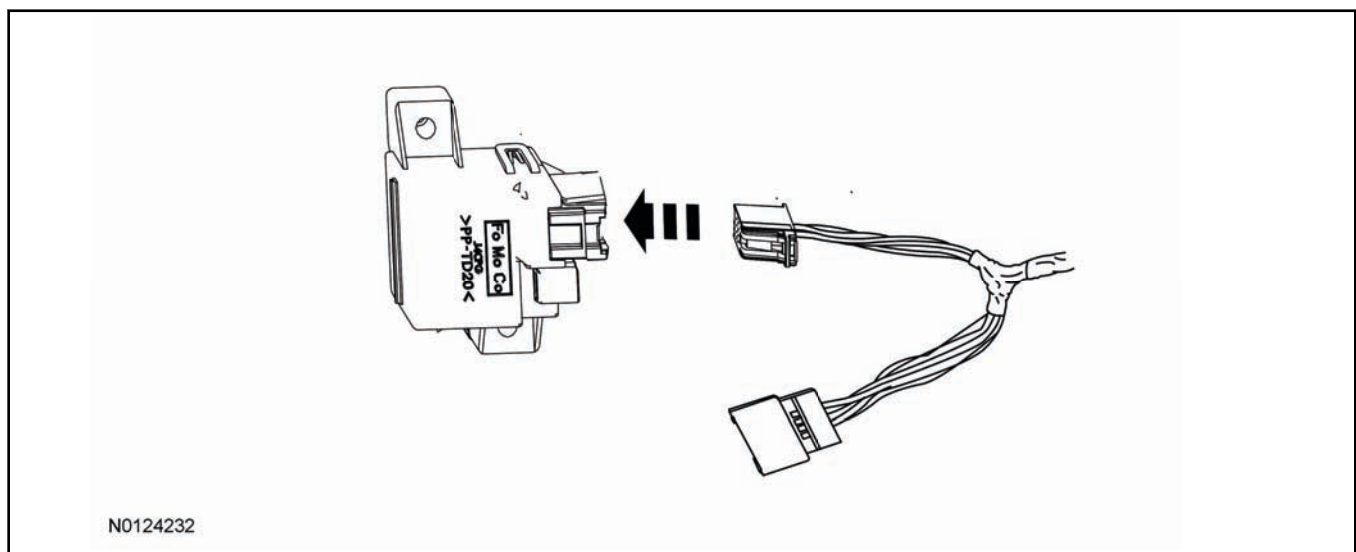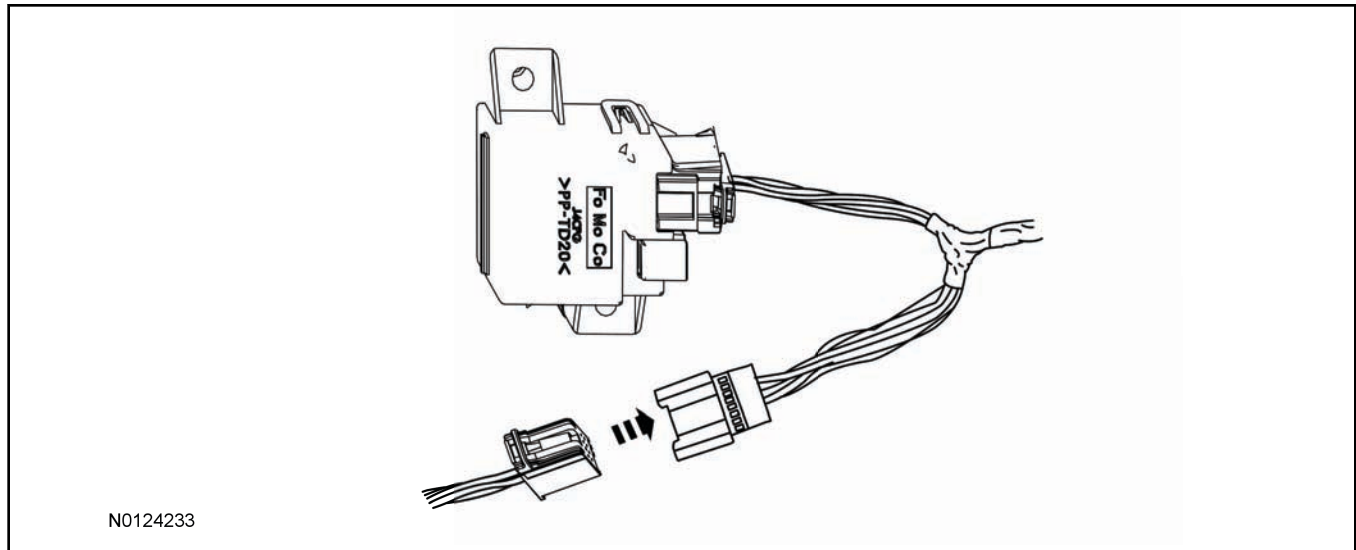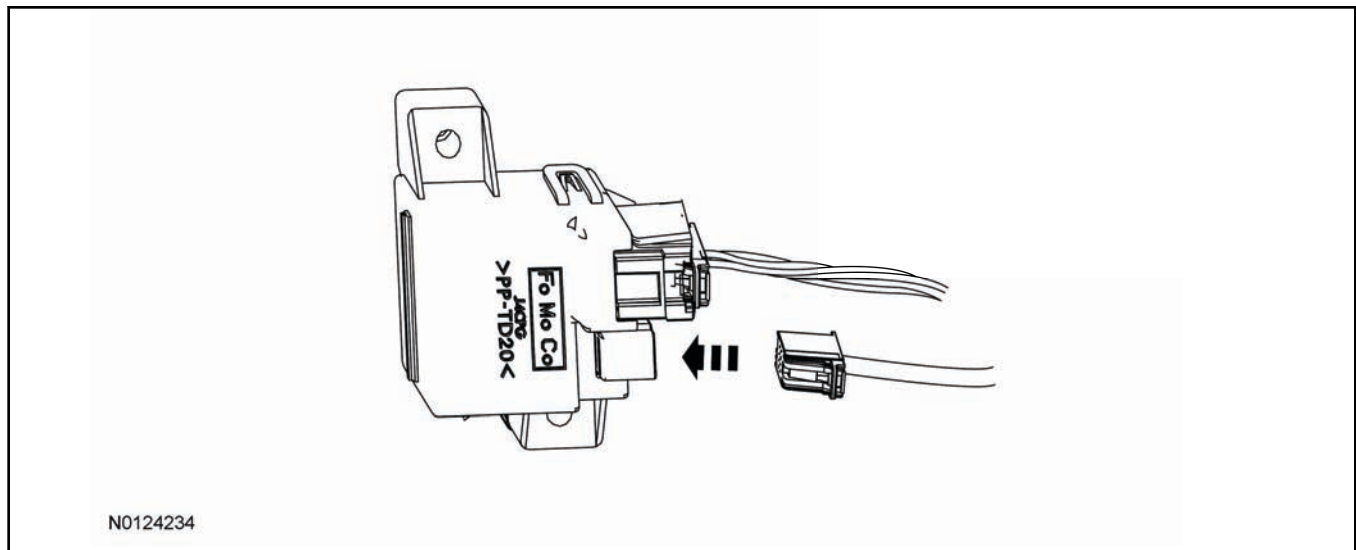
29. **NOTE:**
   View is from inside the instrument panel glove box area.

   Secure the antenna module to the glove box frame on top of the existing antenna module brackets.

   • Secure the antenna module with tie straps though the existing bracket holes.

INSTALLATION (Continued)

Glove compartment frame
Marco de la guantera
Armature de compartiment de gant

N0124237
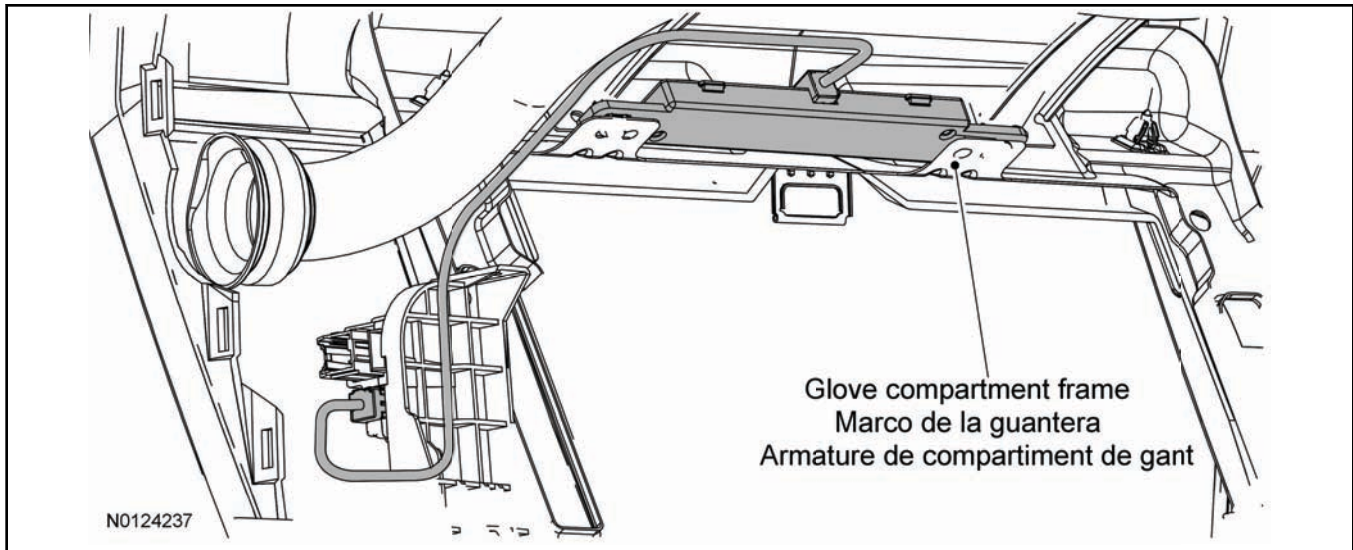
30. Connect the antenna jumper wire connector to the antenna module.

   • Secure with tie straps.

   • The push pins on the antenna jumper wire are not used for this application.

Shock Sensor Mounting

31. Mount the Shock Sensor onto the instrument panel wire harness, located between the TPM module and the bulkhead.

   • Secure with tie-straps.
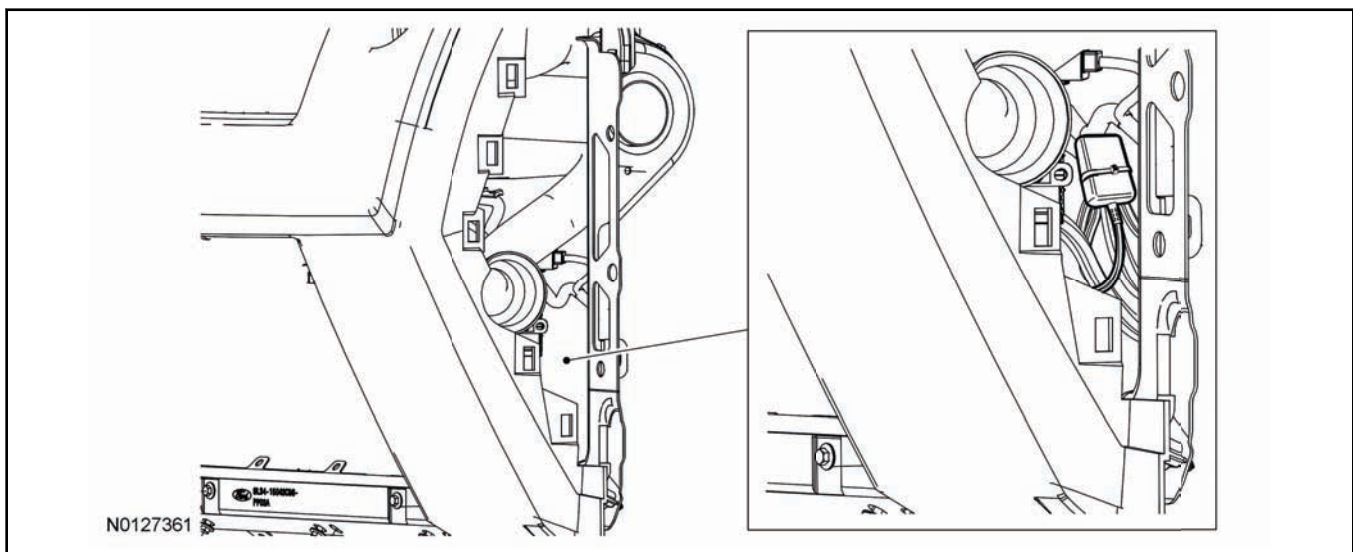
N0127361

LED Mounting

32. Route the LED harness through the instrument panel to the driver side of the vehicle.

33. Using the following guidelines select a mounting location for the LED on the driver's side of the vehicle.

   • Have at least 3/4" clearance behind any trim panel for the wiring harness to be routed.

   • Be clearly visible from the driver's side window.

INSTALLATION (Continued)

- Do not mount the LED on trim panels that cover air bags.

34. Mount the LED at an appropriate location on the driver's side of the vehicle using the guidelines listed above.

    - Drill a 9/32" hole into the selected location, for the LED to mount in.

35. Secure the LED wire harness with tie-straps.

Install Trim

36. *NOTICE:*
    While closing the glove compartment make sure that the TPM harness and antenna harness do not come in contact with the glove compartment door.

    Close the glove compartment.

37. Install the RH A-pillar trim panel.

38. If equipped with a speaker in the A-pillar trim panel, connect the speaker electrical connector.

39. Install the assist handle bolts.

    - Tighten to 8 Nm (71 lb-in).

40. Install the passenger side assist handle bolt covers.

41. Install the RH Instrument panel side finish panel.

Remote Start Activation

42. Verify that the IDS is updated to the most current version.

43. Connect IDS.

    - Follow the prompts to select new vehicle session.
    - Confirm VIN.

44. Activate the remote start using the IDS.

    - Select the Tool box icon.
    - Select Body.
    - Select Security.
    - Select Remote Start.
    - Verify that the information on the IDS screen is correct and all procedures have been followed.
    - Select Yes, this will enable the Remote Start function on the vehicle.

45. For vehicles equipped with standard message center, verify that the remote start option now appears.

    - Using the select button on the LH side of the steering wheel, cycle though the options and verify that the remote start option appears.
    - Select ok and verify that the remote start system is enabled.

46. For vehicles equipped with advanced message center, verify that the remote start option now appears.

INSTALLATION (Continued)

- Using the select and arrow buttons on the LH side of the steering wheel, select settings.

- Select vehicle.

- Select remote start.

- Select duration.

- Verify that the remote start system is set to 10 minutes.

Programming the Panic/Car Finder button

NOTE:
Ensure the brake pedal is not depressed during this sequence.

47. Press the vehicles unlock button located on the drivers door, make sure all doors are unlocked.

48. Put the key in the ignition.

49. Cycle eight times rapidly (within 10 seconds) between the 1 (OFF/LOCK) position and 3 (ON).

- The eighth turn must end in the 3 (ON) position. The doors will lock, then unlock, to confirm that the programming mode has been activated.

50. Press the panic button on the bi-directional keyfob once, and the door locks should cycle to signal that the remote start system has been programmed.

- After 20 seconds, you will automatically exit the programming mode. The doors will lock, then unlock, to confirm that the programming mode has been exited.

51. Press and release the Panic/Car Finder button on the Remote Start key fob to confirm that the button has been programmed. The vehicle should honk 4-6 times.

Vehicle Security System Activation

52. Cycle the vehicle ignition from OFF to ON.

53. Wait 10 seconds.

54. Press and hold the Program Override Button for 3 seconds. The LED will turn ON for 5 seconds. The parking lights will flash, and the horn will honk once to confirm Vehicle Security activation.

55. Turn OFF the vehicle ignition.

Functional Test

56. The Shock Sensor sensitivity setting defaults to maximum sensitivity (fully clockwise). This level can be reduced by turning the knob on the sensor counter clockwise to the desired sensitivity.

- With the Vehicle Security System armed, a light tap of the Shock Sensor should trigger the warning chirp.

- With the Vehicle Security System armed, a hard tap of the Shock Sensor should trigger the vehicle panic alarm.
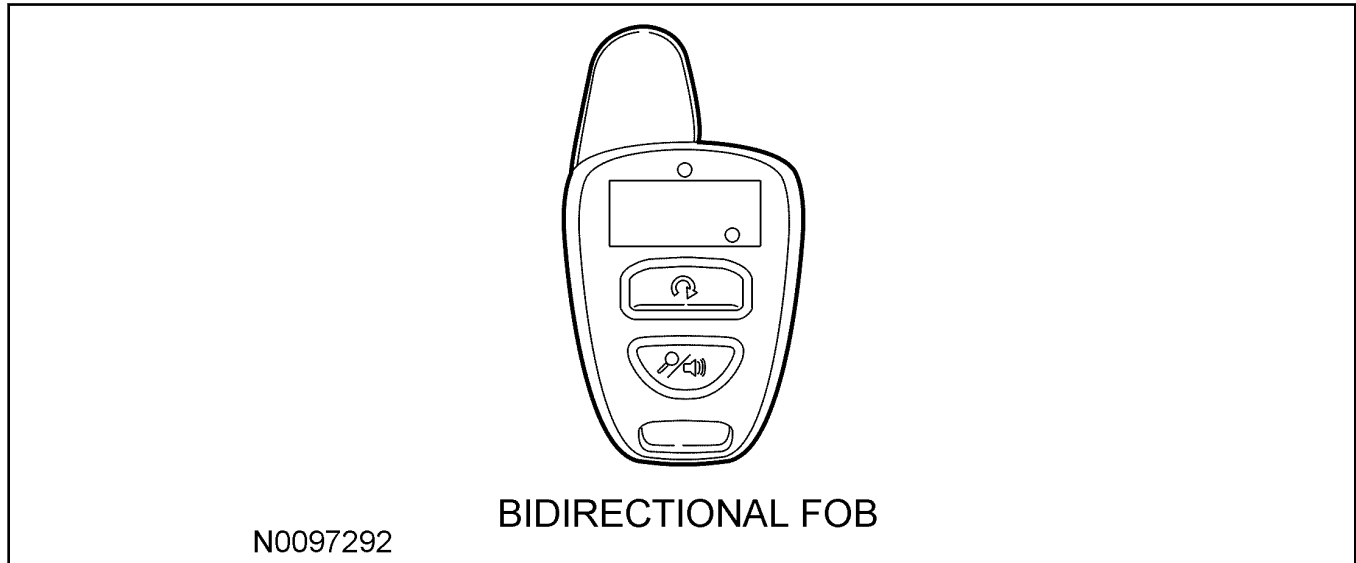
NOTE:
Do not put a key in the ignition for the following steps.

57. Make sure the ignition is in "park" and the ignition is in the "off" position, remove all keys from the vehicle.

INSTALLATION (Continued)

58. Close the hood.

59. Close all of the vehicle doors.

60. Start the vehicle by pressing the remote start button 2 times on the bi-directional key fob.

BIDIRECTIONAL FOB

N0097292

61. Confirm the remote start works with the vehicle in park and with the hood and doors closed.

62. Enter the vehicle and confirm that it cannot shift out of park. The engine will remain running as long as the transmission stays in park.

63. Open the hood.

64. **NOTE:**
Vehicle doors should be closed while performing this step.

Confirm that the vehicle will not start with the hood open.
Please contact Ford Hotline with any issues regarding remote start functionality.
Please contact 1-800-FORD-KEY with any issues regarding hardware or kit contents.

RKE/VSS/REMOTE START SYSTEM INSTALLATION
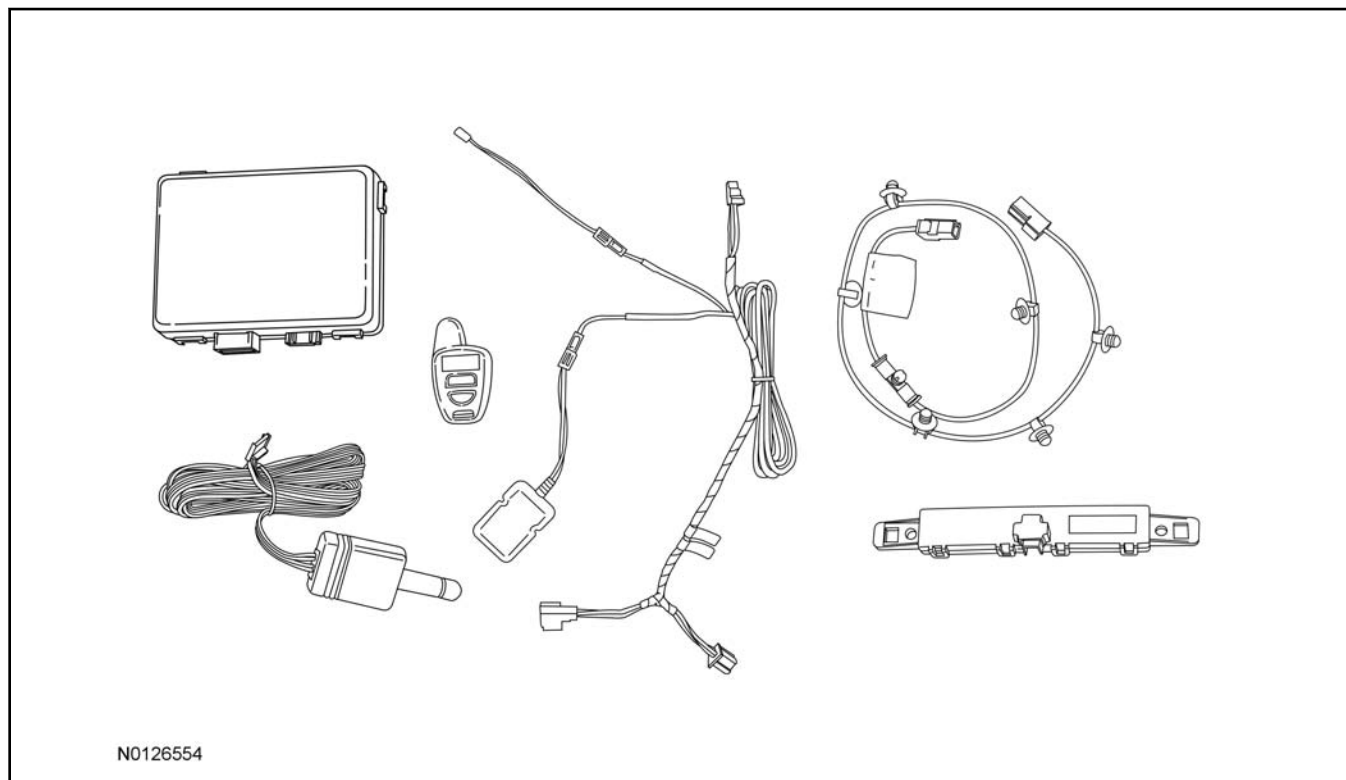
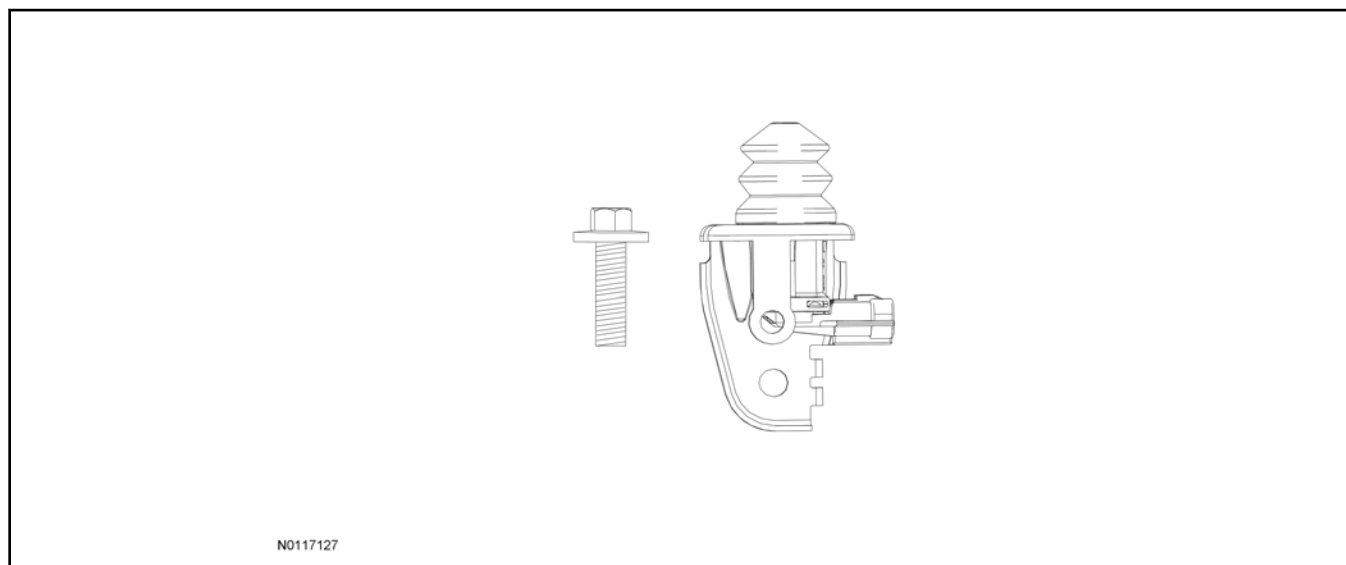CONTENTS

INSTALLATION

Remote Start System/Vehicle Security — F-Super Duty

Remote Start System/Vehicle Security (RMST/VSS) Components

N0126554

Hood Switch Kit Components - Sold separately if needed

N0117127

F-Super Duty

1. Verify correct kit number.

INSTALLATION (Continued)

Review The Remote Start System/Vehicle Security (RMST/VSS) Installation Kit Contents

2. Review the RMST/VSS kit contents.

Remote Start System/Vehicle Security (RMST/VSS) kit

QUANTITY	DESCRIPTION
1	Bi-directional Key Fob
1	Antenna Jumper Wire
1	Antenna Module
1	Remote Start Module
1	Bi-directional Antenna
1	TPM Module T-harness
1	Shock Sensor
1	LED

Review Hood Switch Kit Contents

3. Review the Hood Switch kit contents.

Hood Switch OE Kit

QUANTITY	DESCRIPTION
1	Bolt
1	Hood Switch Assembly

Hood Switch Installation (If Required)

4. Verify that an OE hood switch is installed.

   • If the vehicle is not equipped with an OE hood switch see hood switch installation in this procedure.

5. Locate the hood switch harness located on the LH side of the upper radiator core support.

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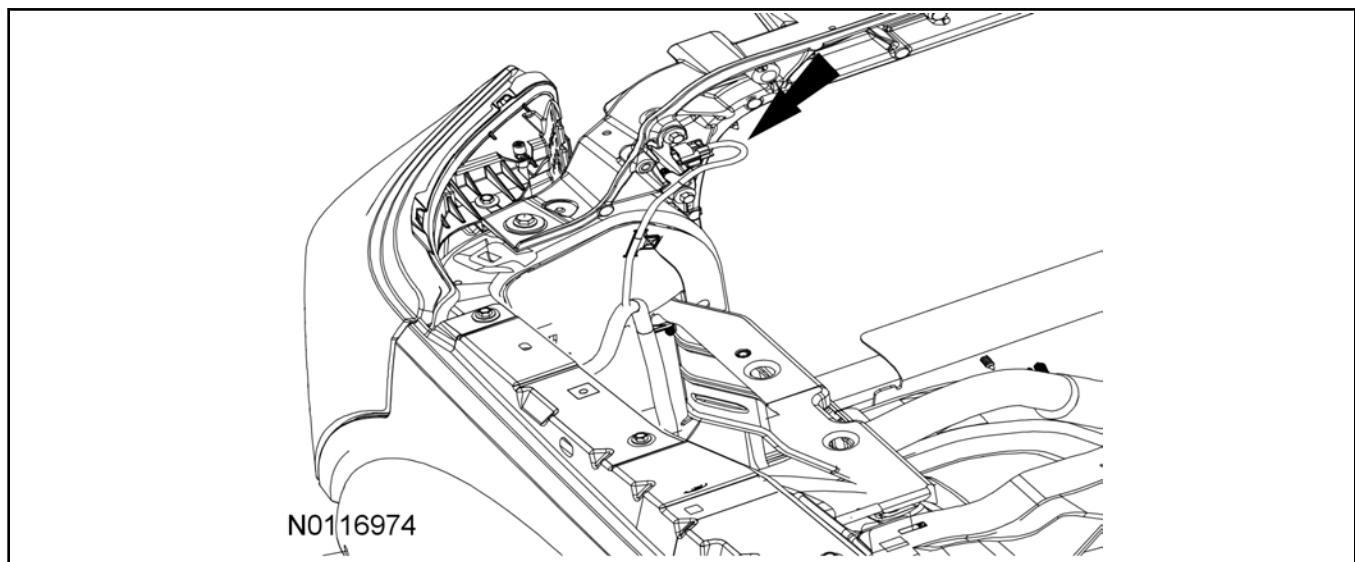
6. Install the Hood switch assembly to the existing hood switch mounting on the upper radiator core support as shown.
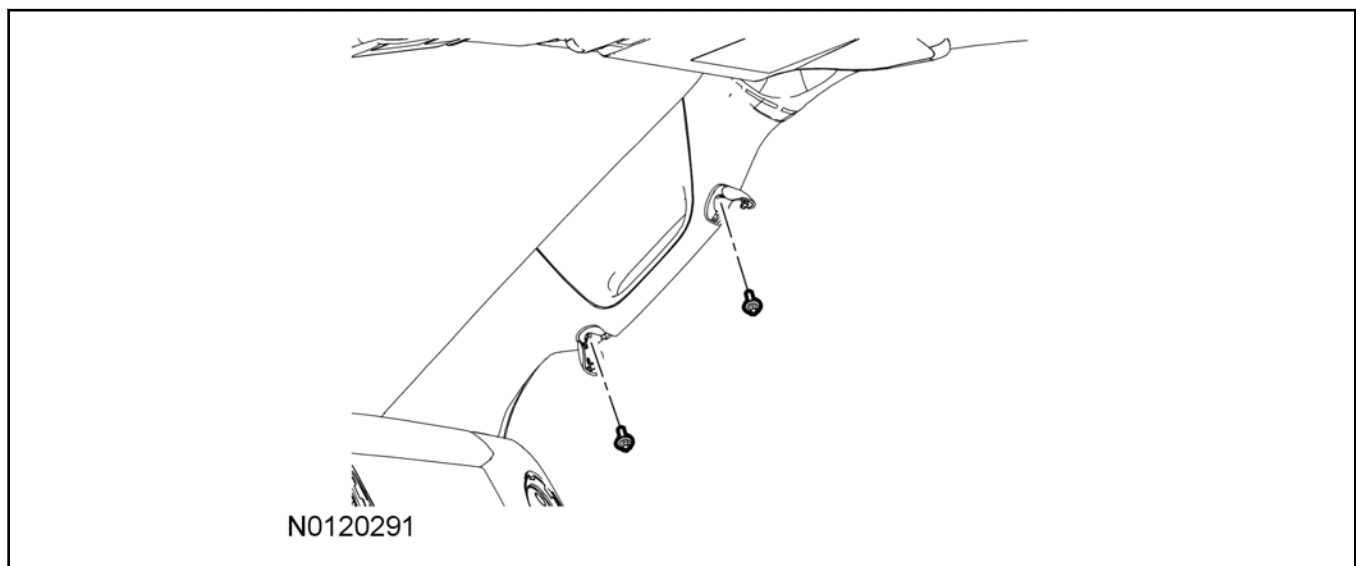
INSTALLATION (Continued)

- Install the bolt.

- Tighten to 10 Nm (89 lb-in).

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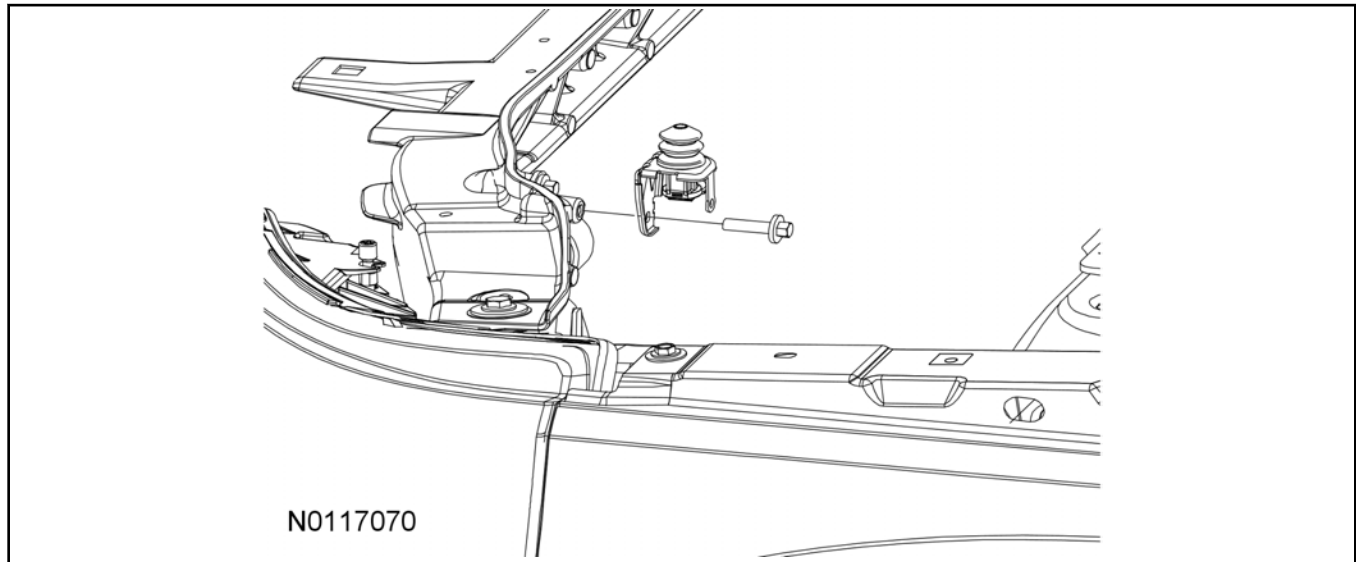
7. Connect the electrical connector to the hood switch.

8. Install the hood switch wire harness push pin retainer to the hood switch bracket.

Vehicle preparation

9. Remove the RH instrument panel side trim.

10. Open the RH A-pillar trim panel bolt covers.

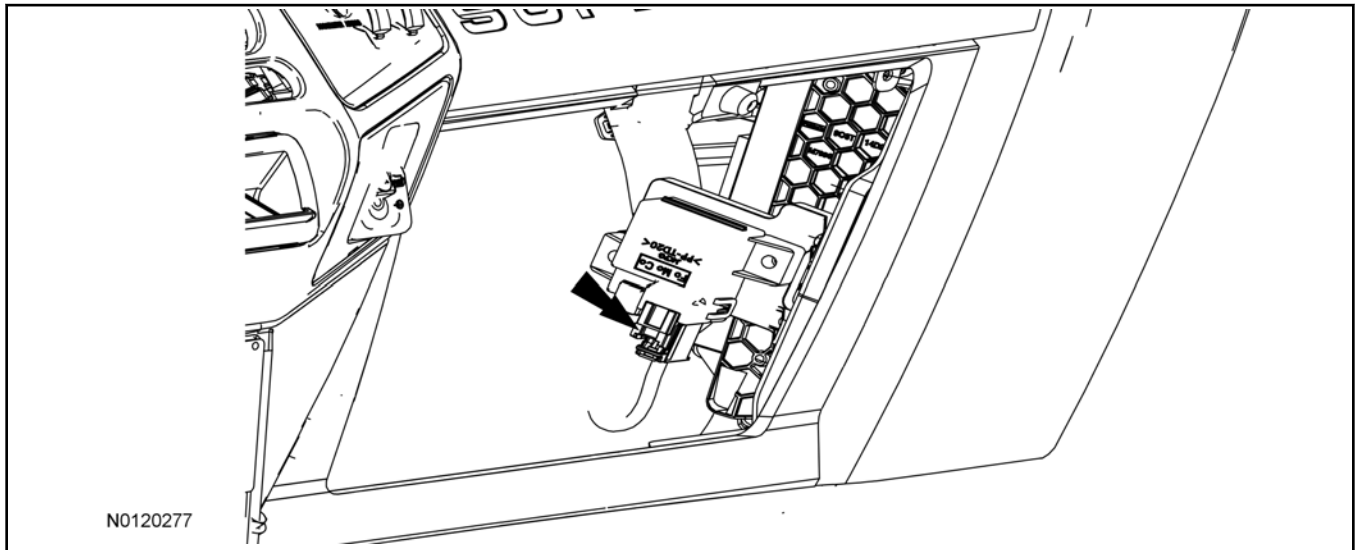11. Loosen the RH A-pillar trim panel bolts.

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NOTE:
Carefully rotate the A-pillar trim panel during this step.

12. Remove the RH A-pillar trim panel.

13. Open the glove compartment and empty the contents.

INSTALLATION (Continued)

14. Push in the 2 side tabs and fully lower the glove compartment.

15. Disconnect the TPM module.

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Bi-directional Antenna Mounting

NOTE:
For good range of operation, the bi-directional antenna must be installed correctly.

NOTE:
Keep these points in mind when selecting a location and mounting the antenna.

- Do not mount the bi-directional antenna behind or on any metal film or window tinting on the windshield.
- Do not mount the bi-directional antenna so that one of the bi-directional antenna elements touches or crosses any vehicle wiring and/or metal.
- On vehicles without metal film in the windshield around the rear view mirror, mount the bi-directional antenna between the headliner and the rear view mirror.
- On vehicles equipped with an electronic mirror, or on vehicles with metal film around the rearview mirror, mount the bi-directional antenna approximately 3 inches below the mirror attachment point to the windshield and/or mirror electronics.

16. Choose a suitable bi-directional antenna mounting location based on the guidelines above.

Install The Bi-directional Antenna

17. Clean the mounting surface using an alcohol base solution and a clean cloth.

NOTE:
Do not touch the adhesive, reduced adhesion may result.

NOTE:
Make sure that the long wire on the bi-directional antenna is pointing towards the top of the windshield since this wire will be routed along the headliner.
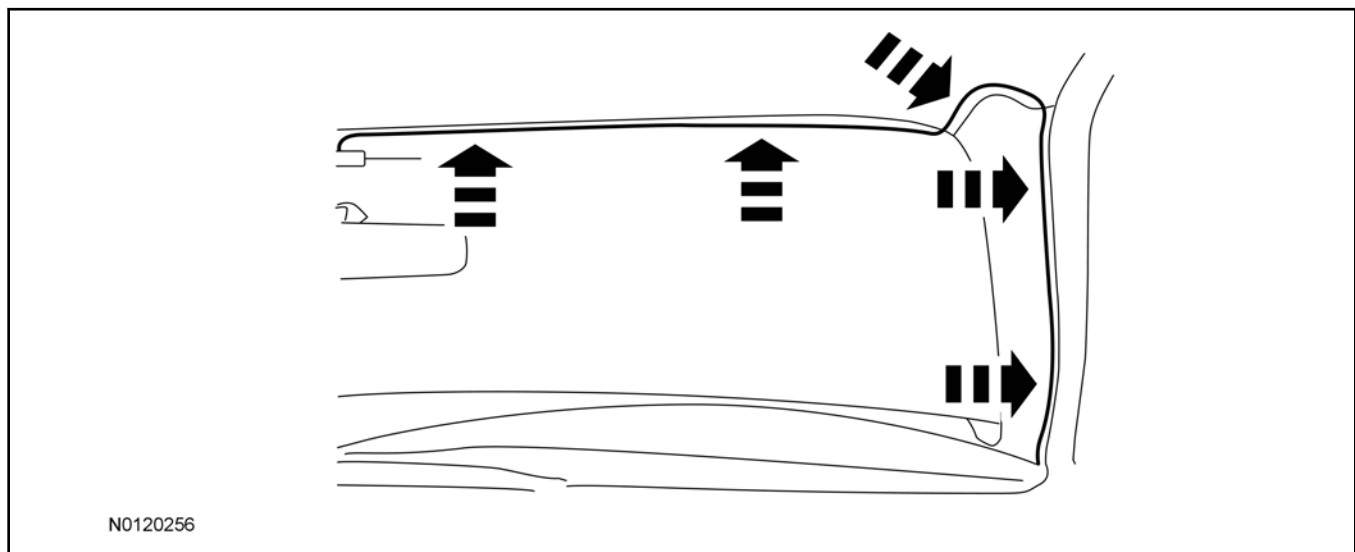
INSTALLATION (Continued)

NOTE:

The bi-directional antenna electrical connector will be attached to the control module later in this procedure.

18. Remove the protective backing from the adhesive on the bi-directional antenna and firmly press the body of the bi-directional antenna to the windshield.
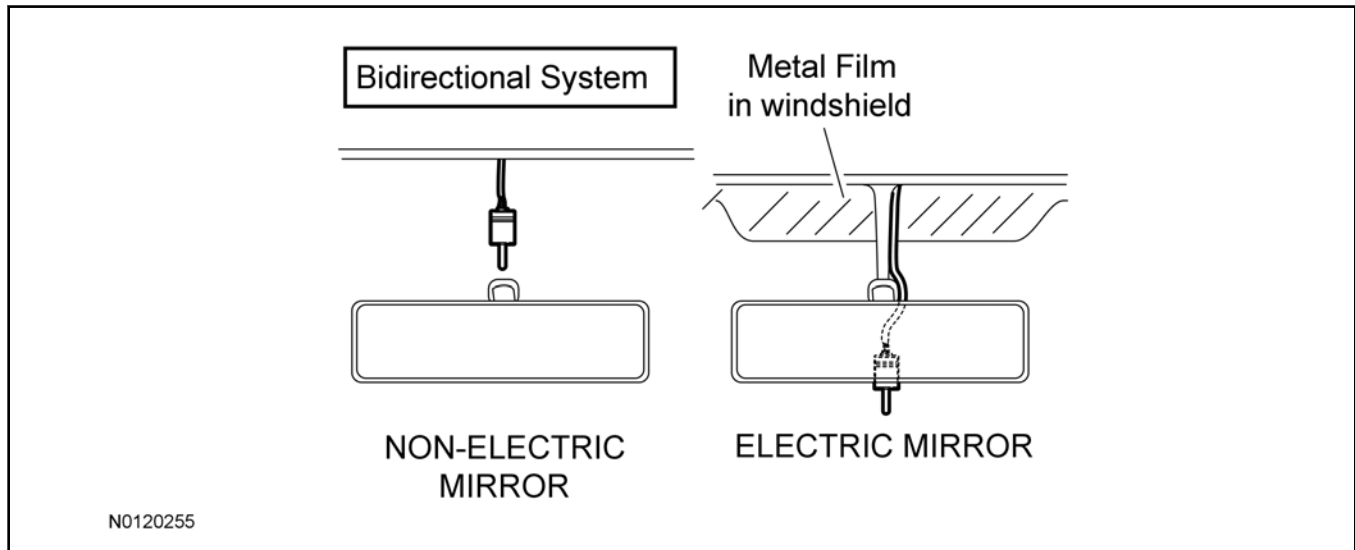
19. Route the bi-directional antenna cable.

   • Route inside the headliner to the A-pillar.

   • Route down the A-pillar, behind the side air bag. Secure as required with tie-straps.

   • Continue routing into the RH instrument panel side trim area and inside the instrument panel, coming out of the glove box.

Installation

20. Install the CGEA module to the vehicle.

   • Mount to the bulkhead metal surface behind and to the right of the TPM module.

21. Connect the bi-directional antenna to the CGEA module.

INSTALLATION (Continued)

- Secure the bi-directional antenna harness with tie-straps.

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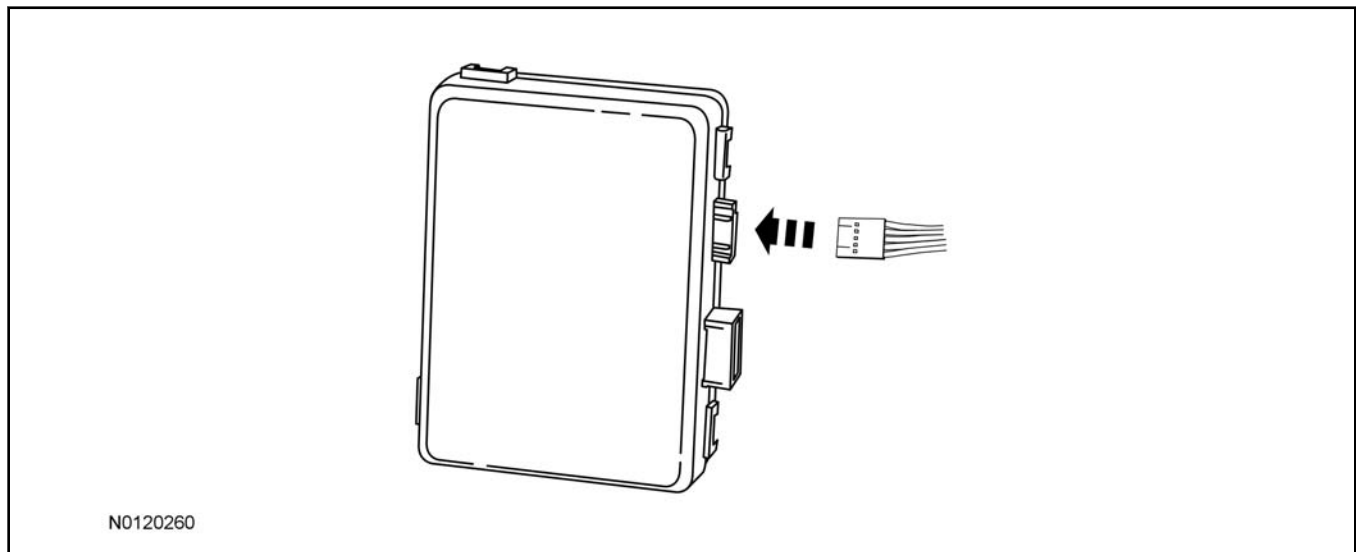
22. Connect the T-harness to the remote start module.

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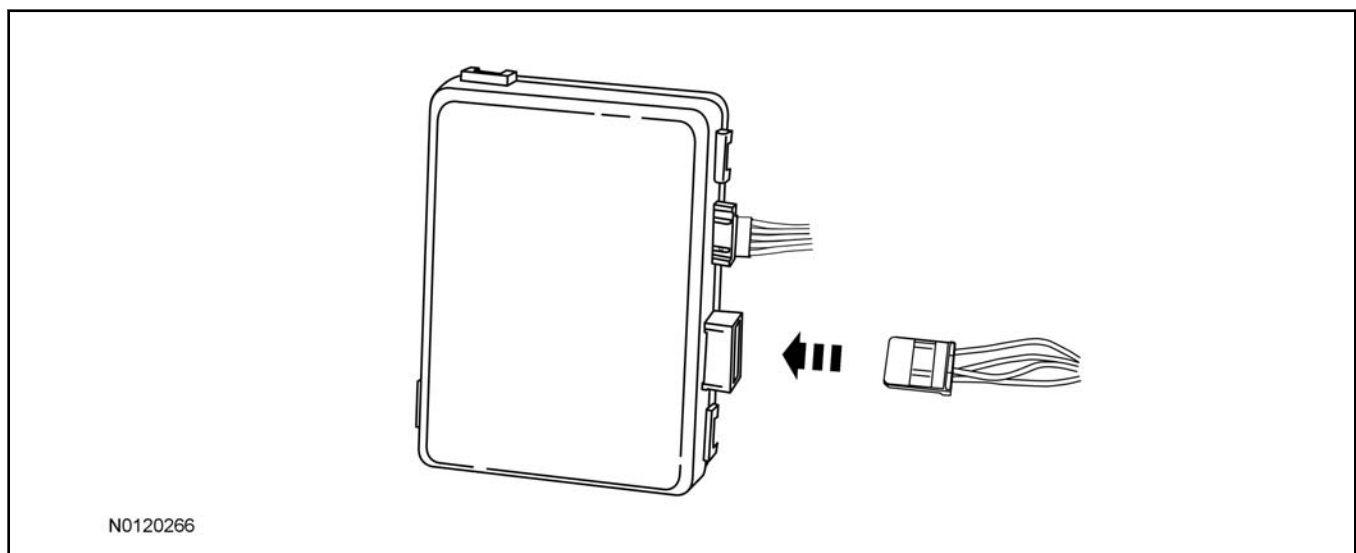
23. Route the female end of the T-harness to the TPM module.

- Secure the harness with tie-straps.

24. Connect the female end of the 8-pin T-harness to the TPM module.

INSTALLATION (Continued)

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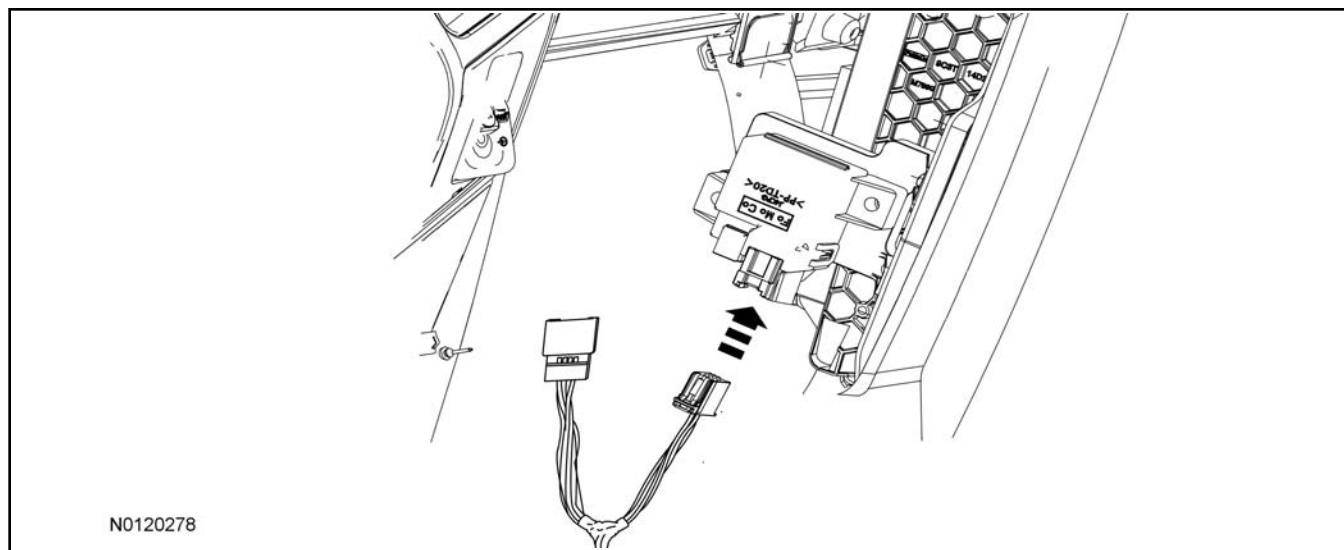
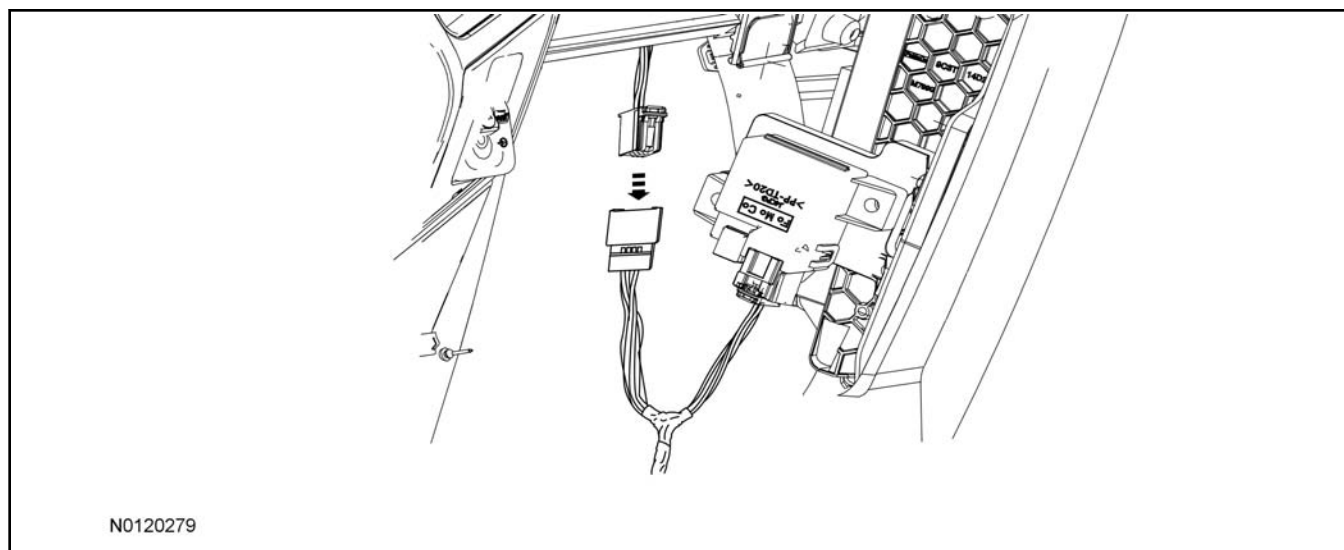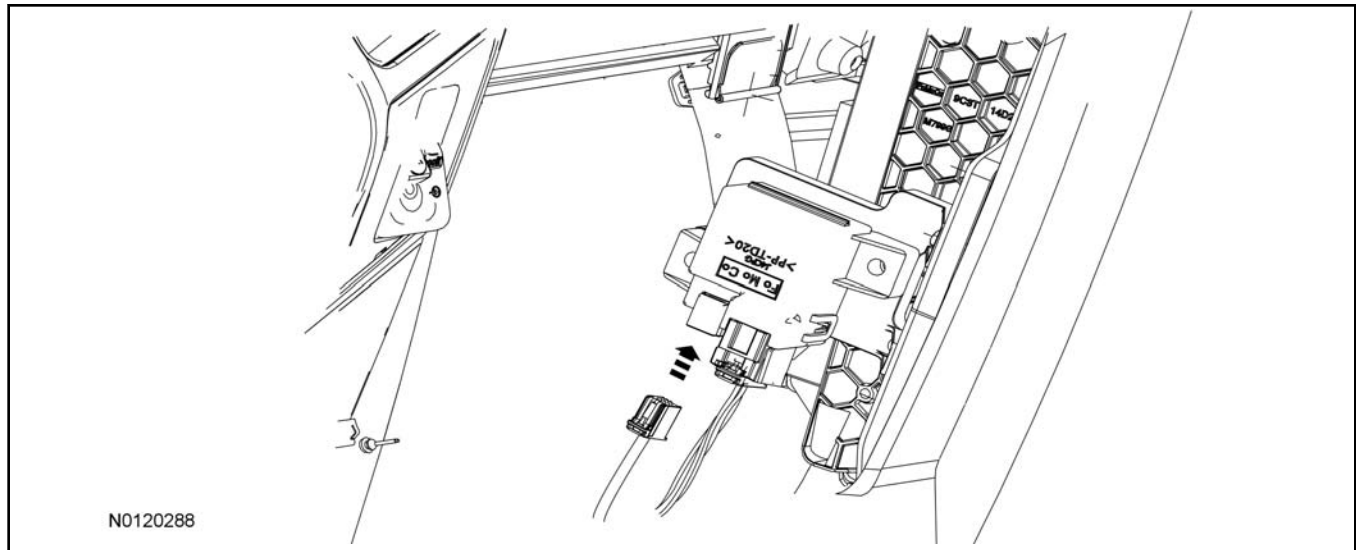25. Connect the male end of the 8-pin T-harness to the vehicle's existing TPM module harness.

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26. Connect the antenna jumper wire to the TPM module.

INSTALLATION (Continued)

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27. **NOTE:**
    View is from inside the instrument panel glove box area.

    NOTE:
    The white push-pin attaches to the back of the TPM module bracket.

    Route the TPM antenna jumper wire along the glove compartment frame as shown, using the existing push pin holes.

Glove compartment frame
Marco de la guantera
Armature de compartiment de gant

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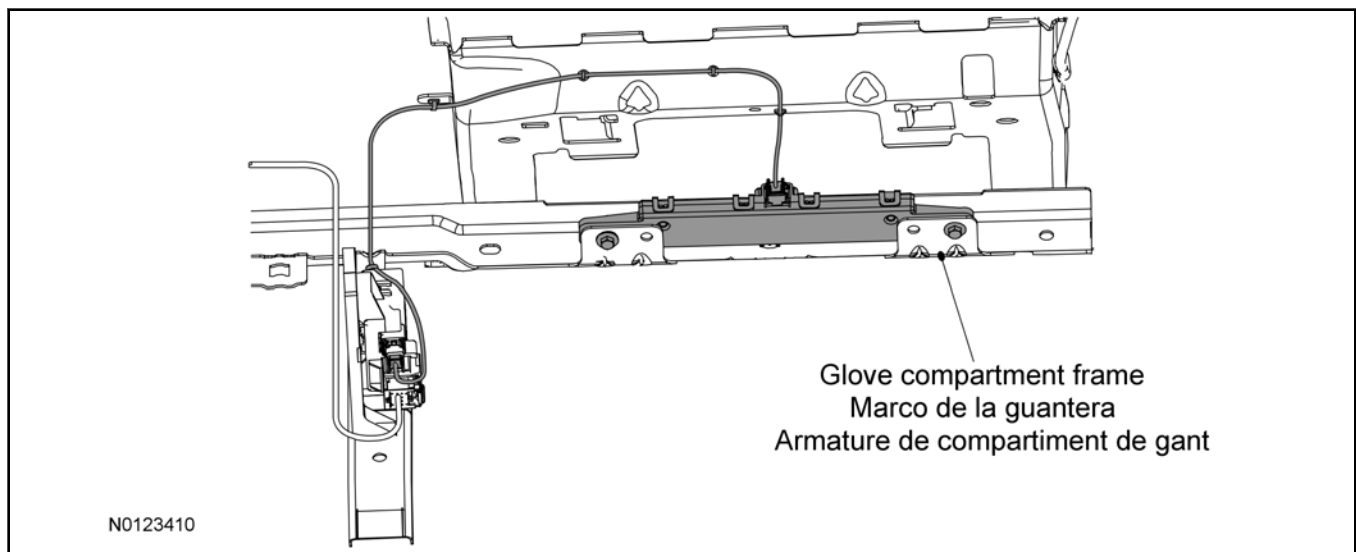
28. Secure the antenna module to the glove box frame on top of the existing antenna module brackets.

    • Secure the antenna module with tie straps though the existing bracket holes.

29. Connect the antenna jumper wire connector to the antenna module.

INSTALLATION (Continued)
Shock Sensor Mounting

30. Mount the Shock Sensor onto the Accessory Protocol Interface Module (APIM).

    1 Remove the RH Instrument panel side trim panel.

    2 Postion the Shock Sensor onto the APIM.

    3 Secure with a tie-strap.
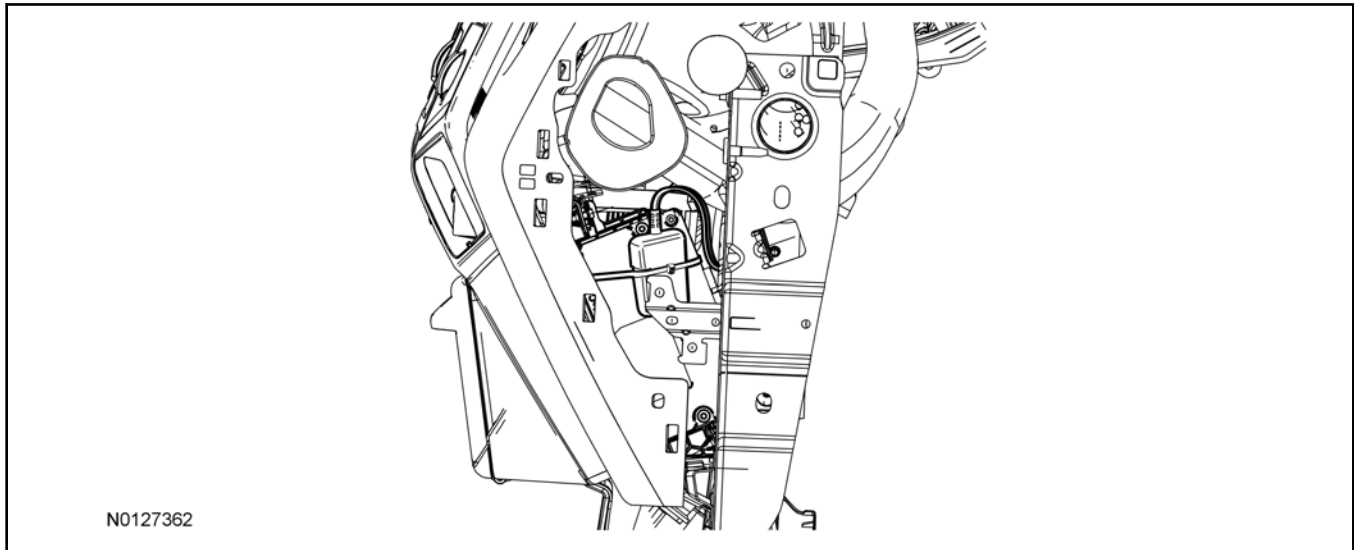
    4 Install the RH Instrument panel side trim panel.

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LED Mounting

31. Route the LED harness through the instrument panel to the driver side of the vehicle.

32. Using the following guidelines select a mounting location for the LED on the driver's side of the vehicle.

    • Have at least 3/4" clearance behind any trim panel for the wiring harness to be routed.

    • Be clearly visible from the driver's side window.

    • Do not mount the LED on trim panels that cover air bags.

33. Mount the LED at an appropriate location on the driver's side of the vehicle using the guidelines listed above.

    • Drill a 9/32" hole into the selected location, for the LED to mount in.

34. Secure the LED wire harness with tie-straps.

Install Trim

35. *NOTICE:*
    While closing the glove compartment make sure that the TPM harness and antenna harness do not come in contact with the glove compartment door.

    Close the glove compartment.

36. Install the RH A-pillar trim panel.

37. Tighten the RH A-pillar trim panel bolts.

    • Tighten to 8 Nm (71 lb-in).

INSTALLATION (Continued)

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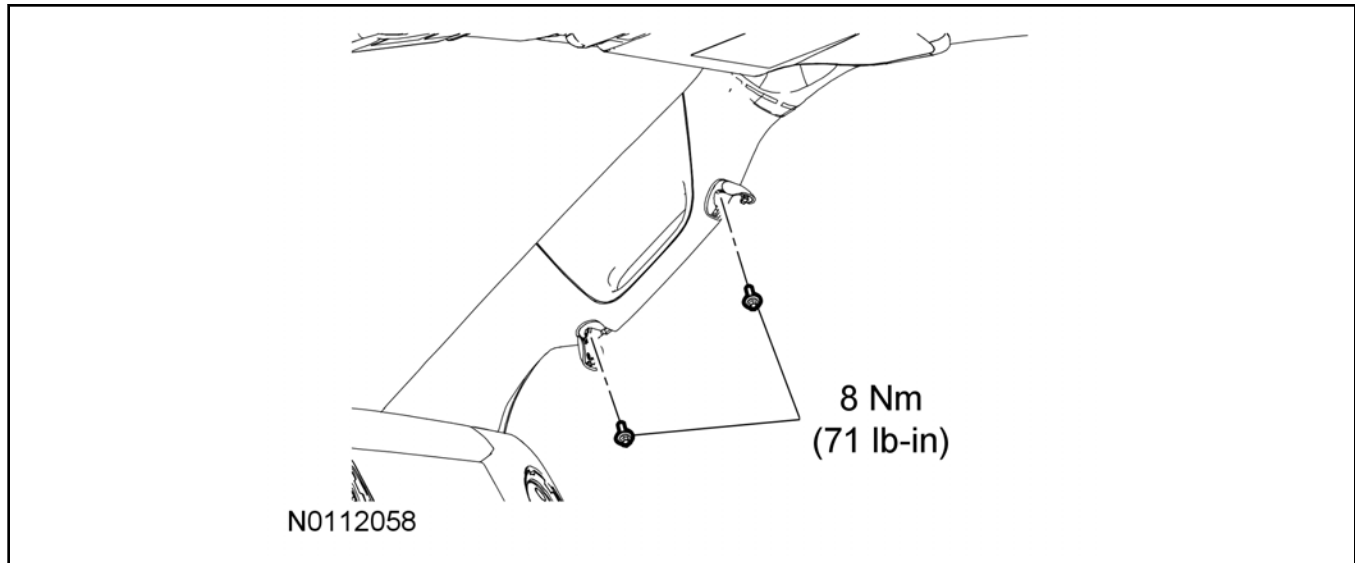
38. Close the RH A-pillar trim panel bolt covers.

39. Install the RH instrument panel side trim.

Remote Start Activation

40. Verify that the IDS is updated to the most current version.

41. Connect IDS.

    • Follow the prompts to select new vehicle session.

    • Enter VIN.

42. Activate the remote start using the IDS.

    • Select the Tool box icon.

    • Select Body.

    • Select Security.

    • Select Remote Start.

    • Verify that the information on the IDS screen is correct and all procedures have been followed.

    • Select Yes, this will enable the Remote Start function on the vehicle.

43. For vehicles equipped with standard message center, verify that the remote start option now appears.

    • Using the select button on the LH side of the steering wheel, cycle though the options and verify that the remote start option appears.

    • Select ok and verify that the remote start system is enabled.

44. For vehicles equipped with advanced message center, verify that the remote start option now appears.

    • Using the select and arrow buttons on the LH side of the steering wheel, select settings.

    • Select vehicle.

INSTALLATION (Continued)

- Select remote start.

- Select system.

- Verify that the remote start system is enabled.

Programming the Panic/Car Finder button

NOTE:
Ensure the brake pedal is not depressed during this sequence.

45. Press the vehicles unlock button located on the drivers door, make sure all doors are unlocked.

46. Put the key in the ignition.

47. Cycle eight times rapidly (within 10 seconds) between the 1 (OFF/LOCK) position and 3 (ON).

    - The eighth turn must end in the 3 (ON) position. The doors will lock, then unlock, to confirm that the programming mode has been activated.

48. Wait for 10 seconds and the Remote Start Module will program itself to the system.

    - After 20 seconds, you will automatically exit the programming mode. The doors will lock, then unlock, to confirm that the programming mode has been exited.

49. Press and release the Panic/Car Finder button on the Remote Start keyfob to confirm that the button has been programmed. The vehicle should honk 4-6 times.

Vehicle Security System Activation

50. Cycle the vehicle ignition from OFF to ON.

51. Wait 10 seconds.

52. Press and hold the Program Override Button for 3 seconds. The LED will turn ON for 5 seconds. The parking lights will flash, and the horn will honk once to confirm Vehicle Security activation.

53. Turn OFF the vehicle ignition.

Functional Test

54. The Shock Sensor sensitivity setting defaults to maximum sensitivity (fully clockwise). This level can be reduced by turning the knob on the sensor counter clockwise to the desired sensitivity.

    - With the Vehicle Security System armed, a light tap of the Shock Sensor should trigger the warnng chirp.

    - With the Vehicle Security System armed, a hard tap of the Shock Sensor should trigger the vehicle panic alarm.

NOTE:
Do not put a key in the ignition for the following steps.

55. Make sure the ignition is in "park" and the ignition is in the "off" position, remove all keys from the vehicle.

56. Close the hood.

57. Close all of the vehicle doors.

58. Start the vehicle by pressing the remote start button 2 times on the bi-directional key fob.

INSTALLATION (Continued)
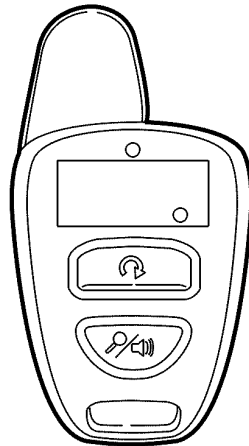
BIDIRECTIONAL FOB

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59. Confirm the remote start works with the vehicle in park and with the hood and doors closed.

60. Enter the vehicle and confirm that the vehicle shuts down when attempting to shift out of park.

61. Open the hood.

62. **NOTE:**
Vehicle doors should be closed while performing this step.

Confirm that the vehicle will not start with the hood open.
Please contact Ford Hotline with any issues regarding remote start functionality.
Please contact 1-800-FORD-KEY with any issues regarding hardware or kit contents.