

## **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 —> **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.

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

### **DO NOT 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:

Ford Service Parts  
180 Marcus Blvd.  
Hauppauge, NY 11788

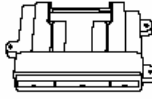









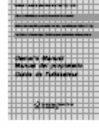
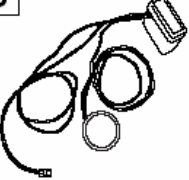

**Note:** If the package is sent without a claim number/claim number visible on the outside of the package, the shipment will be refused and returned at sender's expense.

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

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

### PARTS BAG CONTENTS

NOTE: Part bag contents are not available as service items

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

### Remote Start System Kit (RMST) - TYPE "A"

REF	DESCRIPTION	QTY
A	PC-14 MODULE ASSEMBLY	1
B	RMST DNA ASSEMBLY	1
C	1 BUTTON POWERCODE TRANSMITTER	2
E	TYPE "A" CUSTOM WIRING HARNESS	1
N	DIPOLE ANTENNA	1
M	HOOD SAFETY SWITCH ASSEMBLY	1
T - CC	INSTALLATION PARTS BAG	1
DD, EE	FUSE PARTS BAG	1
R	OPERATORS INSTRUCTION	1
Q	OPERATORS QUICK REFERENCE WALLET CARD	1
P	UNDERHOOD WARNING LABEL	1
S	PIK-4 PATS INTERFACE KIT	1
T	RELAY (7L2J-19G364-CA KIT ONLY)	2

### Remote Start System Kit (RMST) - TYPE "B"

REF	DESCRIPTION	QTY
A	PC-34 MODULE ASSEMBLY	1
B	RMST DNA ASSEMBLY	1
C	1 BUTTON POWERCODE TRANSMITTER	2
F	TYPE "B" CUSTOM WIRING HARNESS	1
N	DIPOLE ANTENNA	1
M	HOOD SAFETY SWITCH ASSEMBLY	1
T - CC	INSTALLATION PARTS BAG	1
DD, EE	FUSE PARTS BAG	1
R	OPERATORS INSTRUCTION	1
Q	OPERATORS QUICK REFERENCE WALLET CARD	1
P	UNDERHOOD WARNING LABEL	1
T	RELAY	2
S	PIK-4 PATS INTERFACE KIT	1

### Remote Start System Kit (RMST) - TYPE "C"

REF	DESCRIPTION	QTY
A	PC-34 MODULE ASSEMBLY	1
B	RMST DNA ASSEMBLY	1
C	1 BUTTON POWERCODE TRANSMITTER	2
G	TYPE "C" CUSTOM WIRING HARNESS	1
N	DIPOLE ANTENNA	1
M	HOOD SAFETY SWITCH ASSEMBLY	1
T - CC	INSTALLATION PARTS BAG	1
DD, EE	FUSE PARTS BAG	1
R	OPERATORS INSTRUCTION	1
Q	OPERATORS QUICK REFERENCE WALLET CARD	1
P	UNDERHOOD WARNING LABEL	1
T	RELAY	2
S	PIK-4 PATS INTERFACE KIT	1



## Splicing Procedures

**NOTE:**

Refer to applicable wiring diagrams for circuit information.

**NOTE:**

This procedure contains multiple splicing techniques.

**NOTE:**

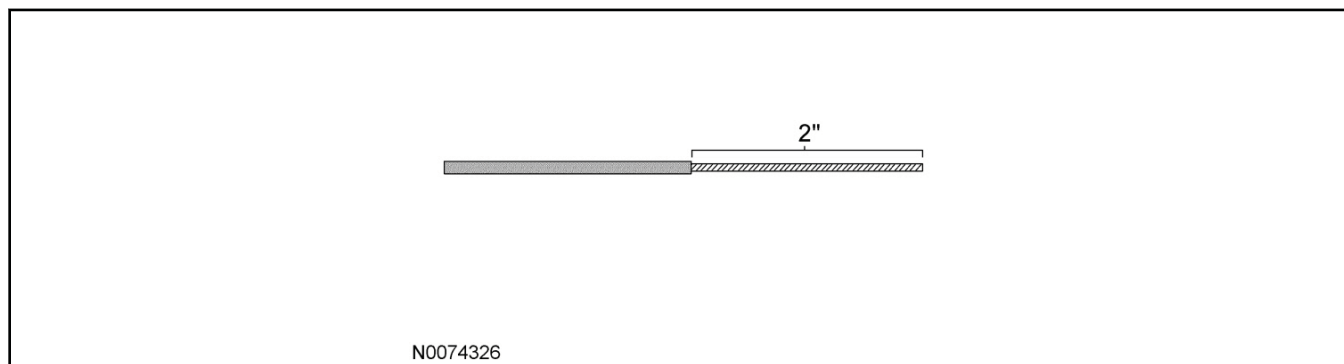
Review splicing procedures prior to performing any cutting/soldering/splicing.

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

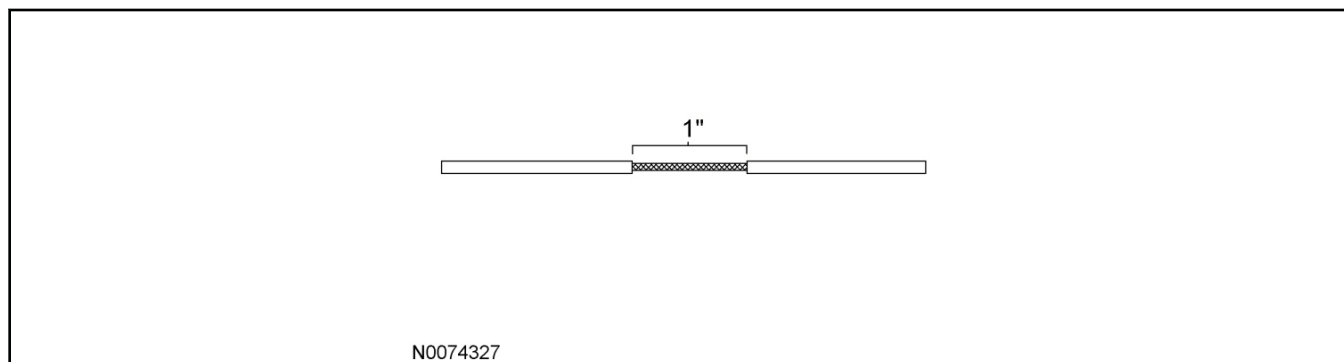
**NOTE:**

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

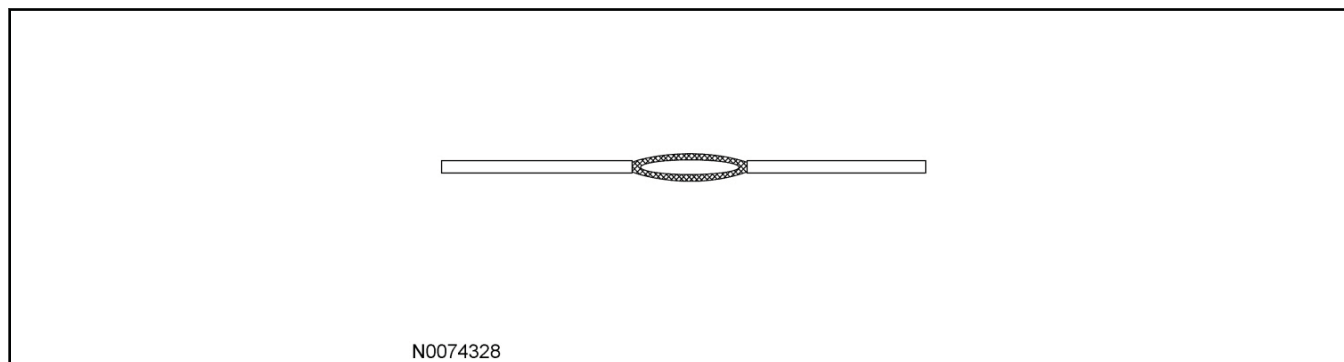
1. Strip approximately two inches of insulation from the wire to be installed in the vehicle.



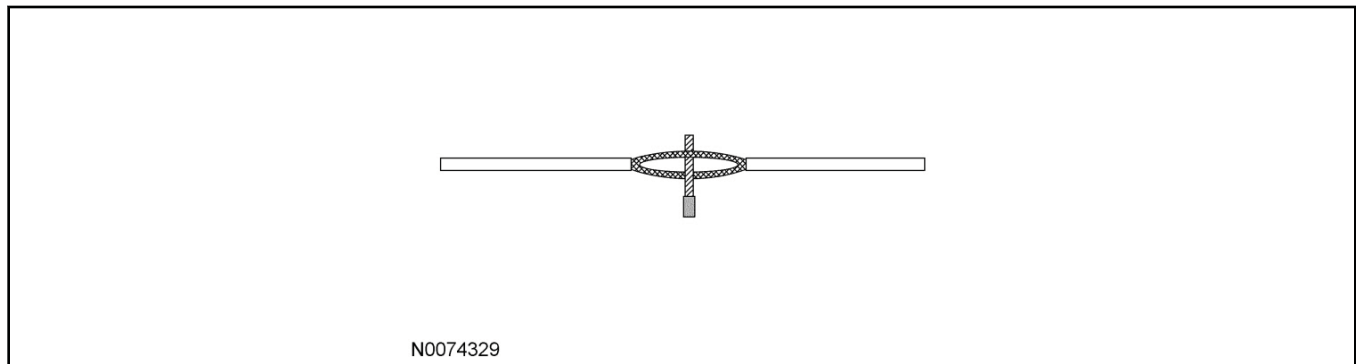
2. On the vehicle wire to be spliced into, strip one inch of insulation from the wire.



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



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

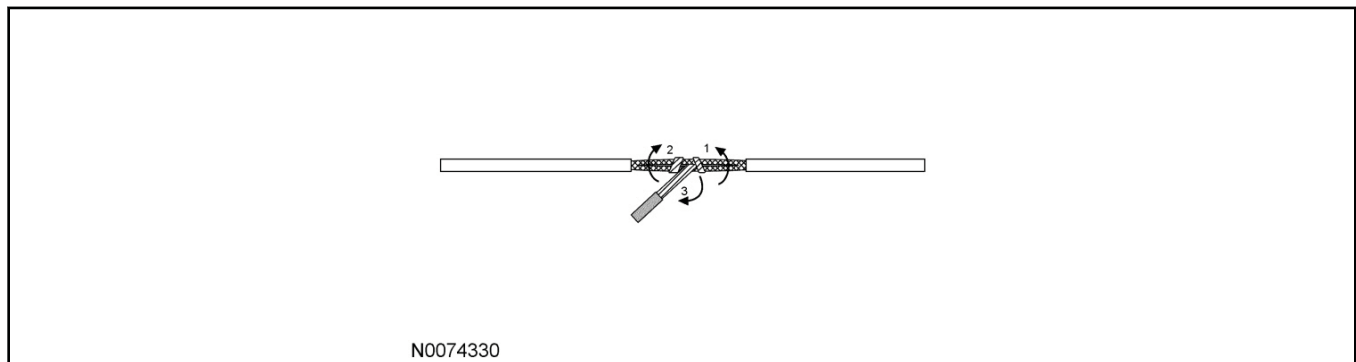
**NOTE:**

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

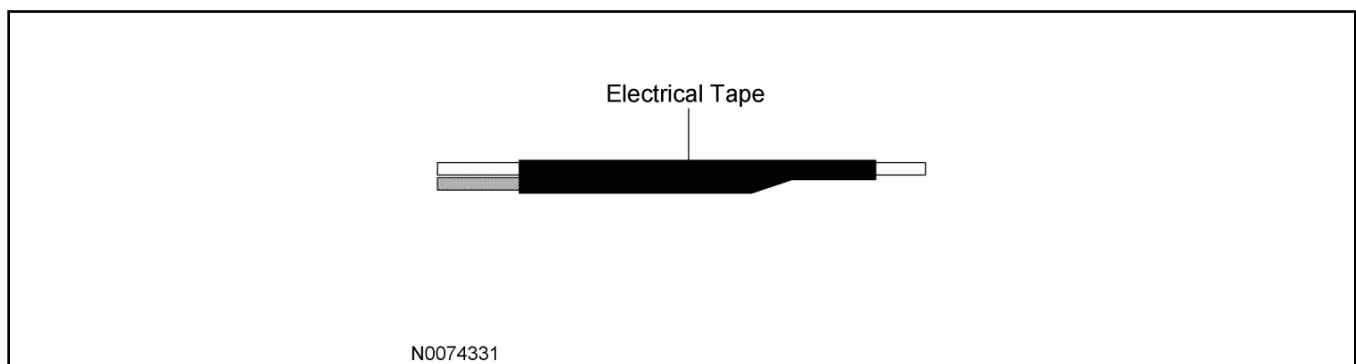
**NOTE:**

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.



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.



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

### NOTE:

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

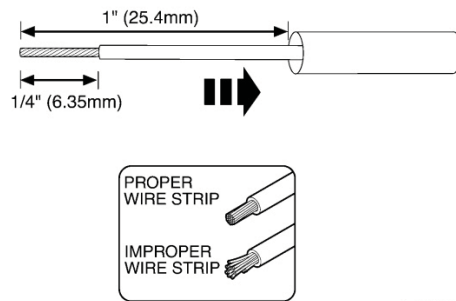
### NOTE:

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

### 7. NOTE:

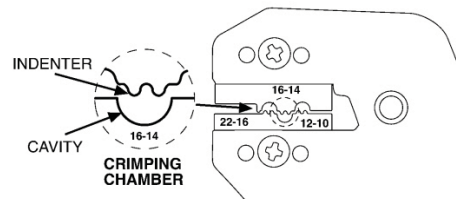
The strip length will vary depending on the butt splice and wire in harness. Longer strip lengths are required when the wire needs to be folded to mate with the butt splice. Refer to chart for strip lengths and folding techniques.

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.



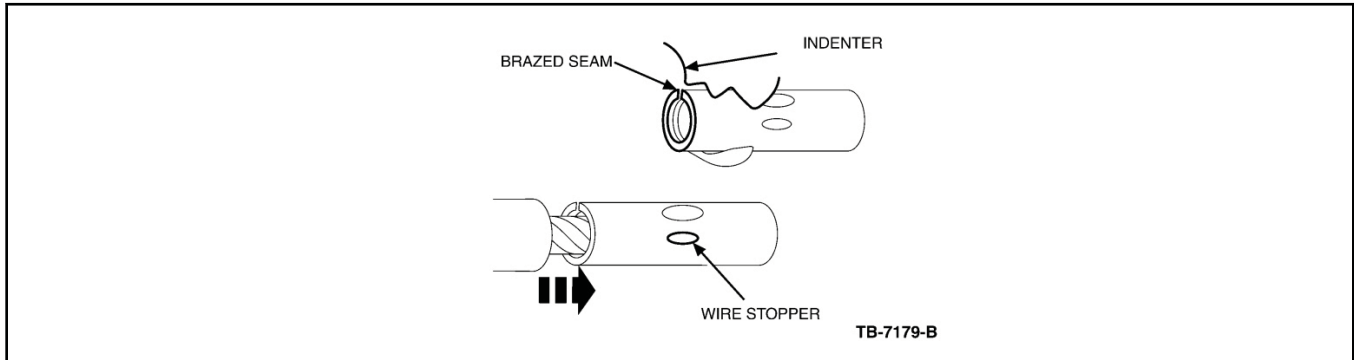
TB-7177-B

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.



TB-7178-C

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.

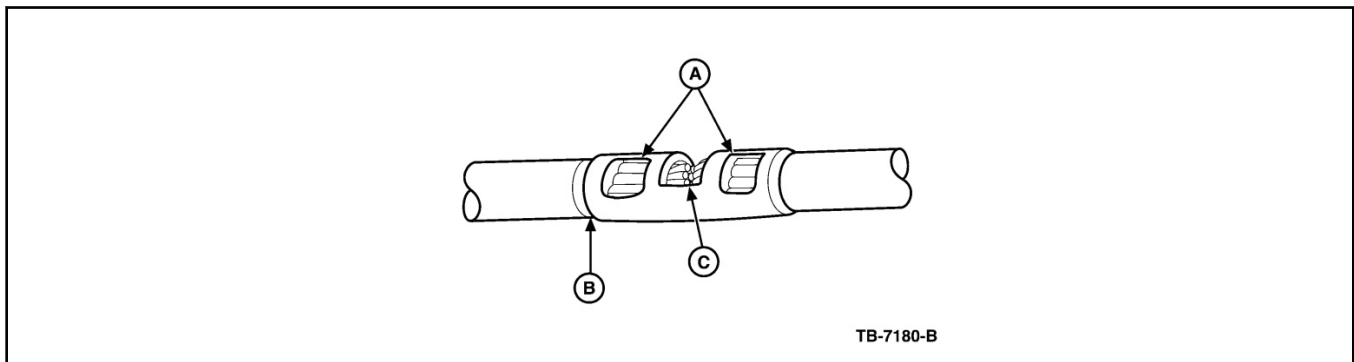


10. Holding the wire in place, squeeze tool handles together until ratchet releases. Allow tool handles to open, then remove crimped butt splice.

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.

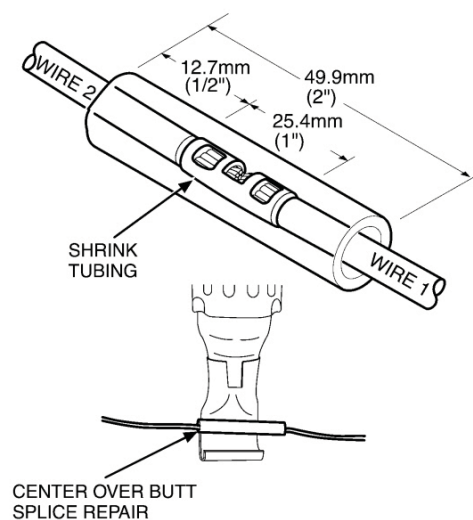
**NOTE:**

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.



TB-7175-D

## Wire Stripping Lengths and Application Techniques.

Wire Gauge Size		10	12	14	16	18	20	22	24	<input type="checkbox"/> Pigtail Only <input type="checkbox"/> Both Pigtail and Wire Harness <input type="checkbox"/> Wire Harness Only
Butt Splice as stamped	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.				

2X CROSS SECTION

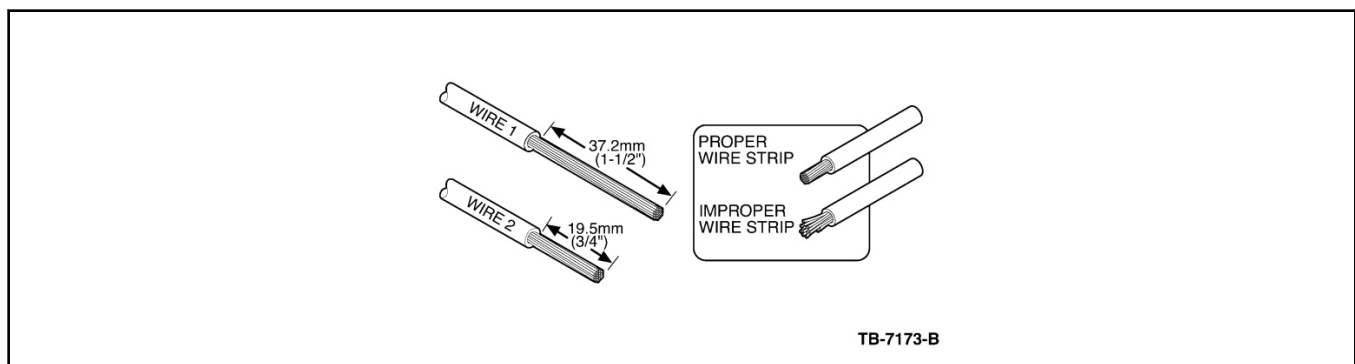
3X CROSS SECTION

4X CROSS SECTION

TB-7176 -C

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

- 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.



**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.

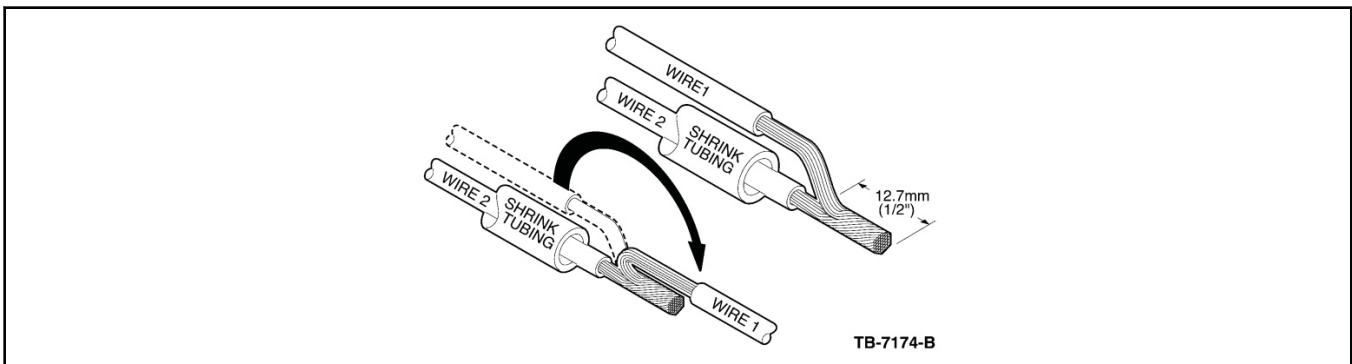
**NOTE:**

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.

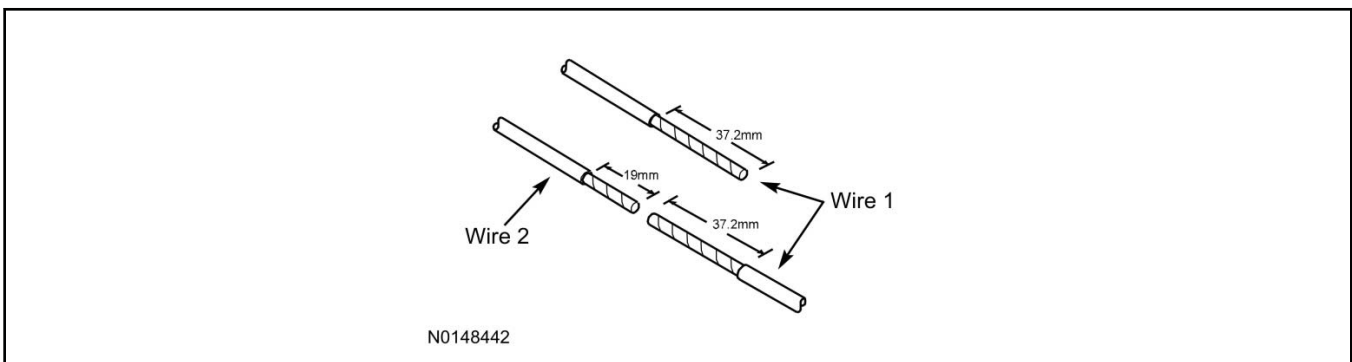
Install heat shrink tubing at least 1" (26 mm) away from one of the stripped ends being spliced.

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**

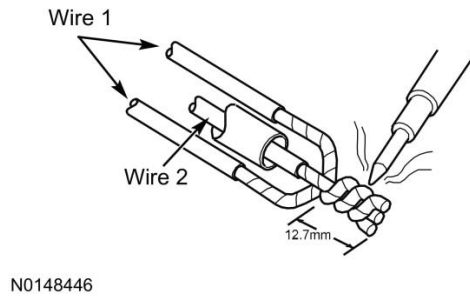
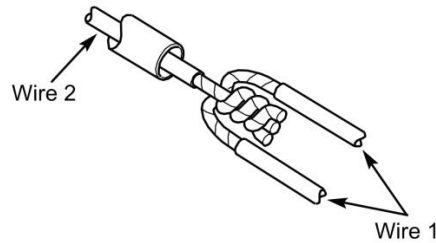
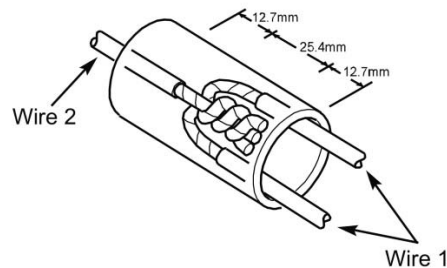
14. Strip 1 1/2" (37.2 mm) of insulation from both sides of Wire #1 and 3/4" (19 mm) of insulation from Wire #2, taking care not to nick or cut wire strands. Pull wire straight from stripper. If wire is pulled at an angle, wire strands may be cut off during stripping. Cut off the end and re-strip.



**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.

**16. Bend Wire #1 back over the twisted wires for sealing. Inspect solder joint bond.****17. Evenly position heat shrink tubing over wire repair.**



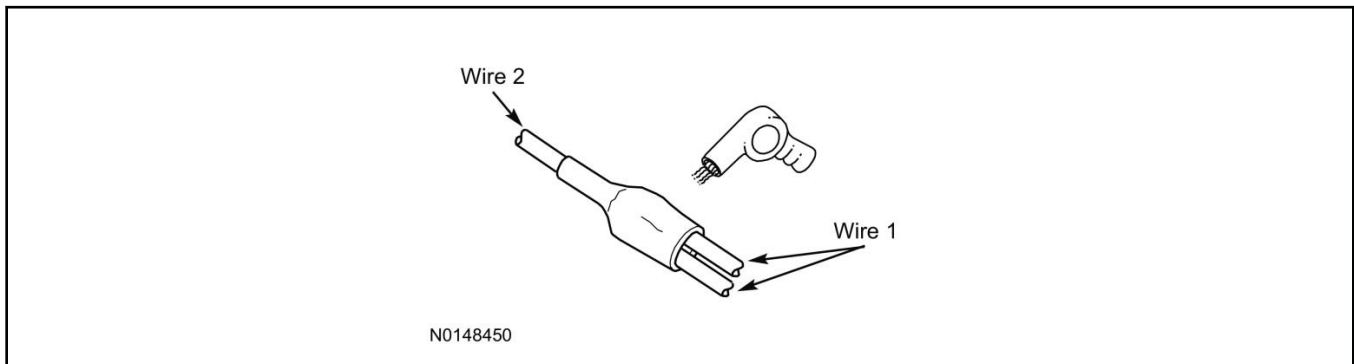
**18. NOTE:**

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.



# C6> @E6 DE2 CE DJ DE6> :? DE2 ==2 E:@?

## CONTENTS

### INSTALLATION

[Remote Start](#)

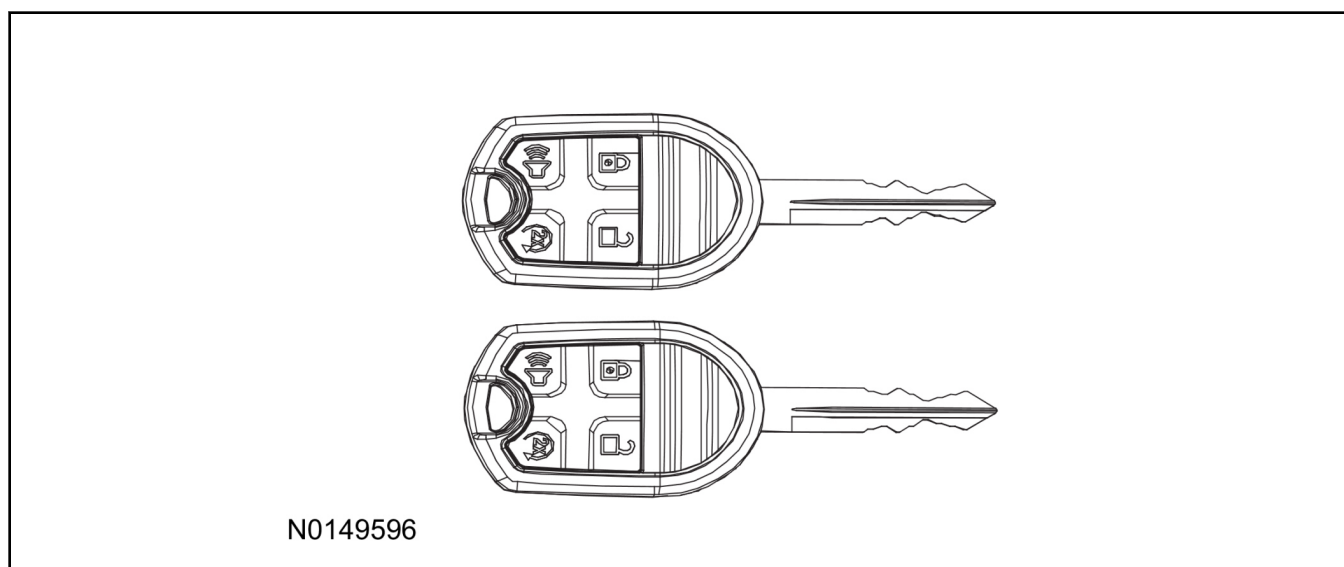
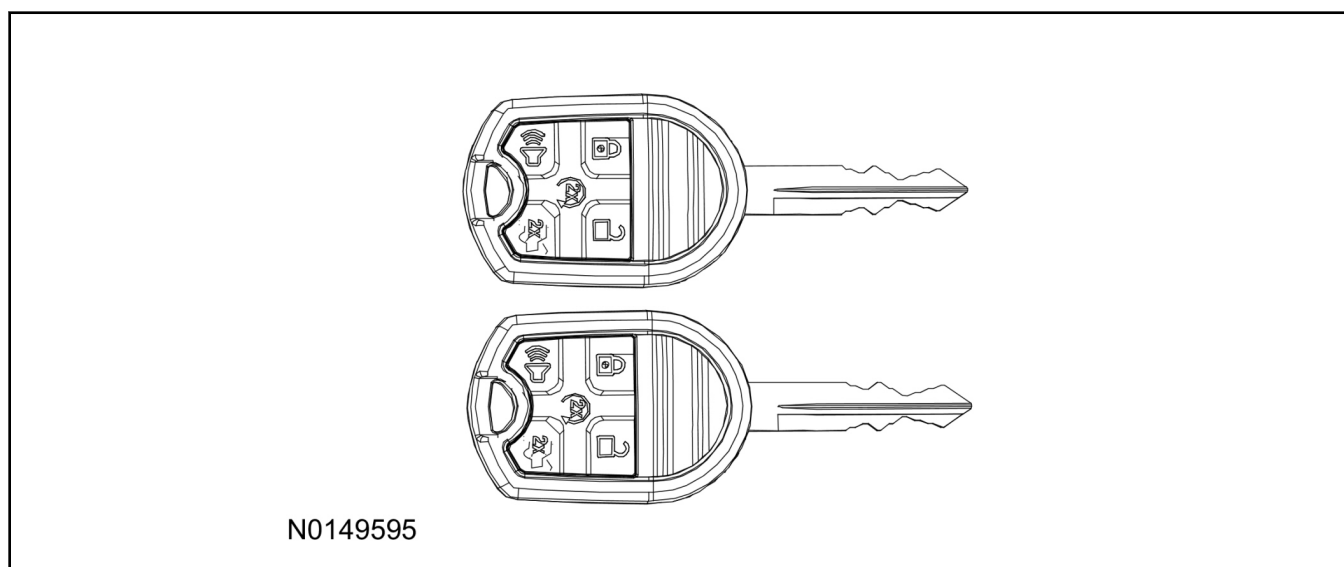
[Hood Switch Kit Installation](#)

[Spare Key Programming](#)

### GENERAL PROCEDURES

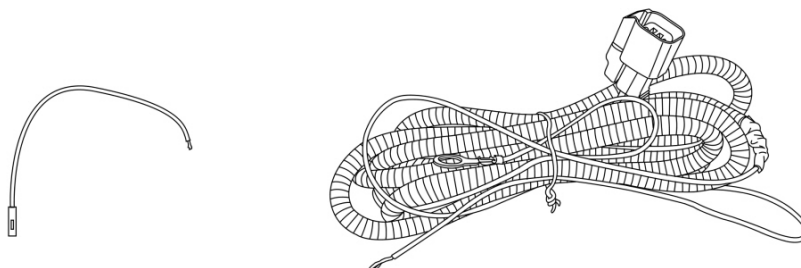
[Remote Start System Activation](#)

[Functional Test](#)

**INSTALLATION****Remote Start****Vehicles Not Equipped with Power Liftgate - (4-Button) Remote Start System (RMST) Components****Vehicles Equipped with Power Liftgate - (5-Button) RMST Components**

**INSTALLATION (Continued)****Hood Switch Kit (19G366) - SE Vehicles Only**

N0122208

**Hood Switch Wire Harness Kit (14B504) - SE Vehicles Only**

N0143443

**Explorer****NOTE:**

The OE Remote Start System (RMST) kit is only applicable on vehicles that have power locks.

1. Verify correct RMST kit number.

**Vehicles Not Equipped with Power Liftgate - RMST Installation Kit Contents**

2. Review the RMST kit contents.

**RMST Kit**

QUANTITY	DESCRIPTION
2	Key (4 Button)

**INSTALLATION (Continued)****Vehicles Equipped with Power Liftgate - RMST Installation Kit Contents**

3. Review the RMST kit contents.

**RMST Kit**

QUANTITY	DESCRIPTION
2	Key (5 Button)

**Review Hood Switch Kit Contents**

4. Review the Hood Switch kit contents.

**Hood Switch Kit**

QUANTITY	DESCRIPTION
1	Hood Switch Assembly

**Review Hood Switch Wire Harness Kit Contents**

5. Review the Hood Switch kit contents.

**Hood Switch Wire Harness Kit**

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

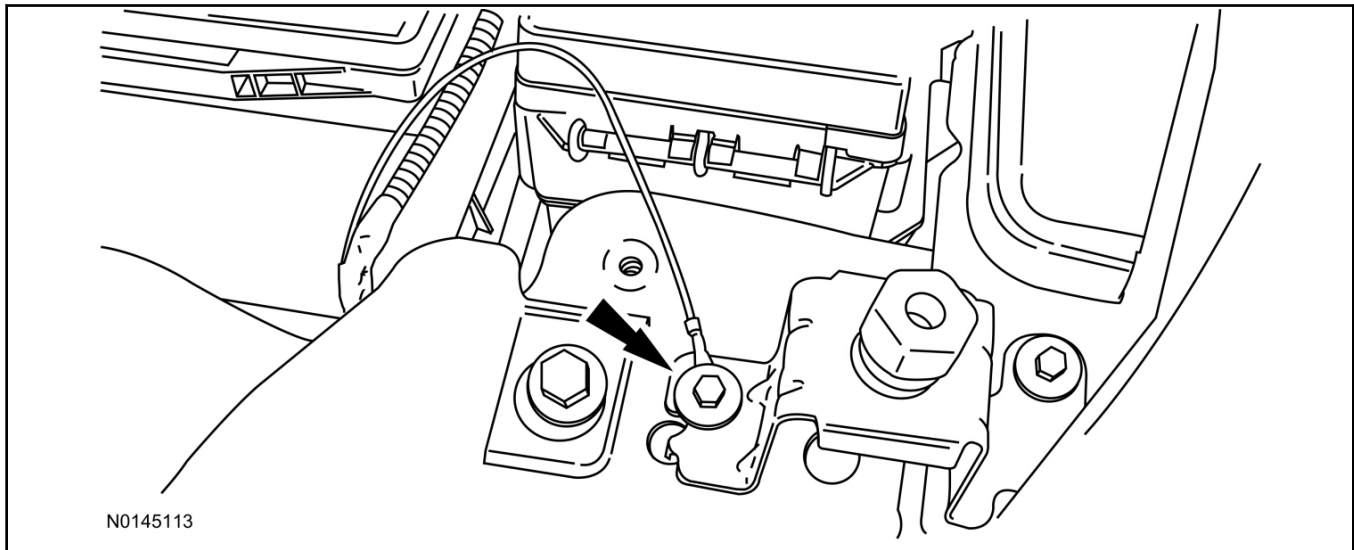
**Vehicle Preparation**

6. 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.

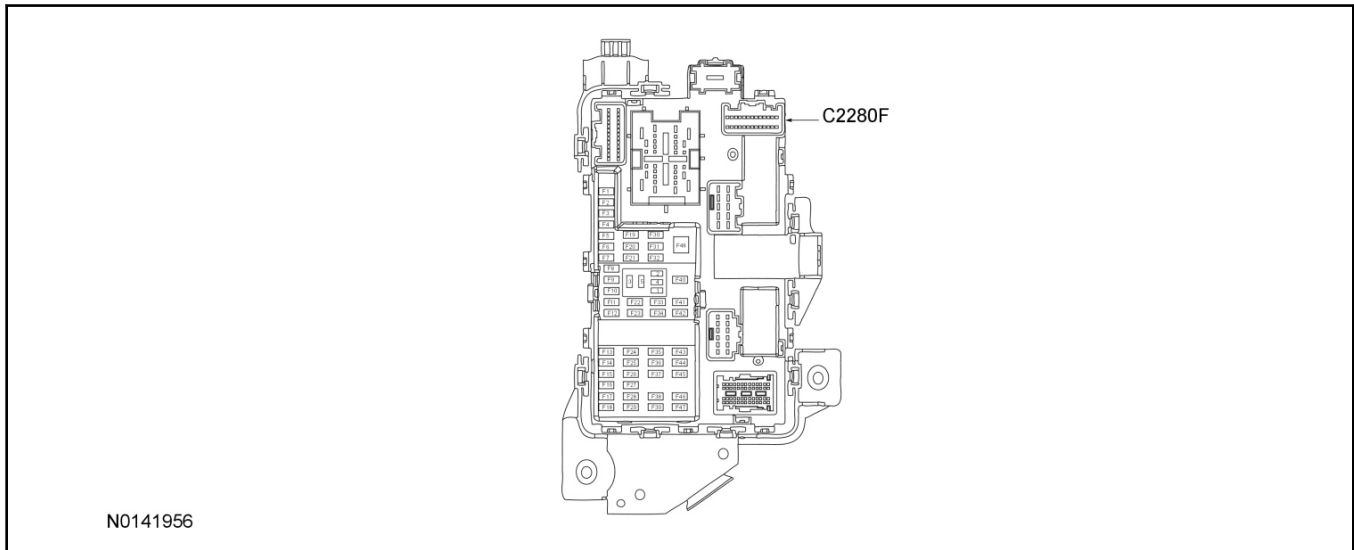
**Hood Switch Wire Harness Installation****NOTE:**

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

7. Remove the fender bolt and install the hood switch ground wire, using the previously removed bolt.
- Tighten to 12 Nm (106 lb-in).

**INSTALLATION (Continued)**

8. Route the hood switch wire harness into the vehicle through the bulkhead grommet.
  - Secure the hood switch wire harness with zip-ties.
9. Disconnect Body Control Module (BCM) connector C2280F.



10. 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.
11. **NOTICE:**  
**Check that 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.
12. Connect BCM connector C2280F.

**INSTALLATION (Continued)****NOTICE:**

Refer to "Proper Wire Splicing Techniques" before proceeding.

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

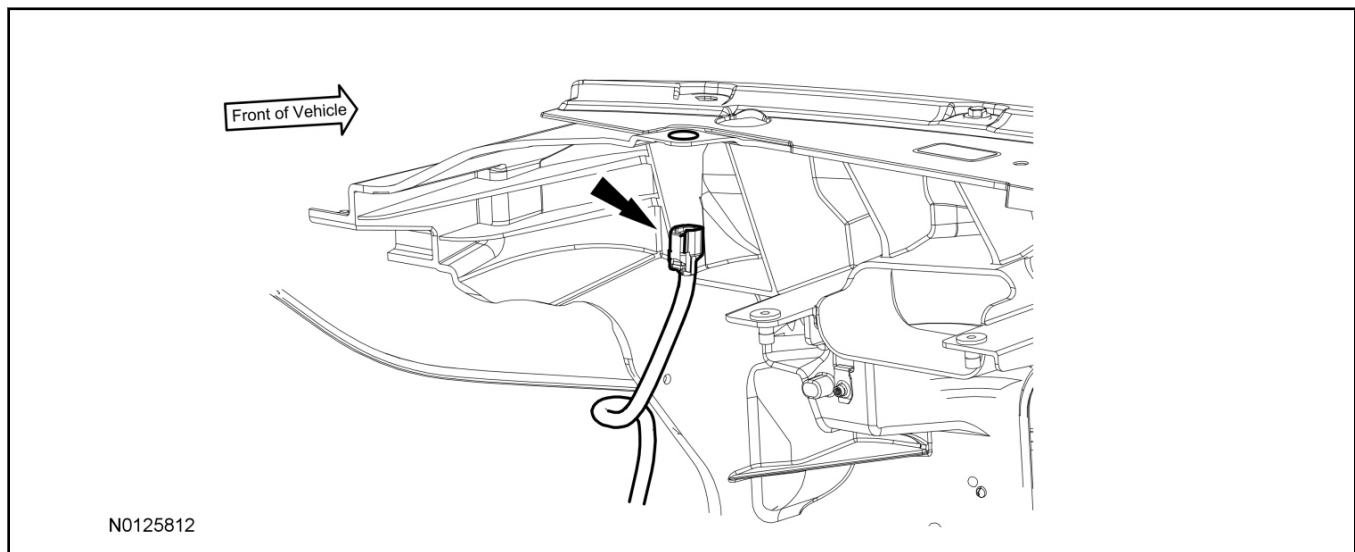
- Secure the wire harness assembly with zip-ties.

**Hood Switch Installation****NOTE:**

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

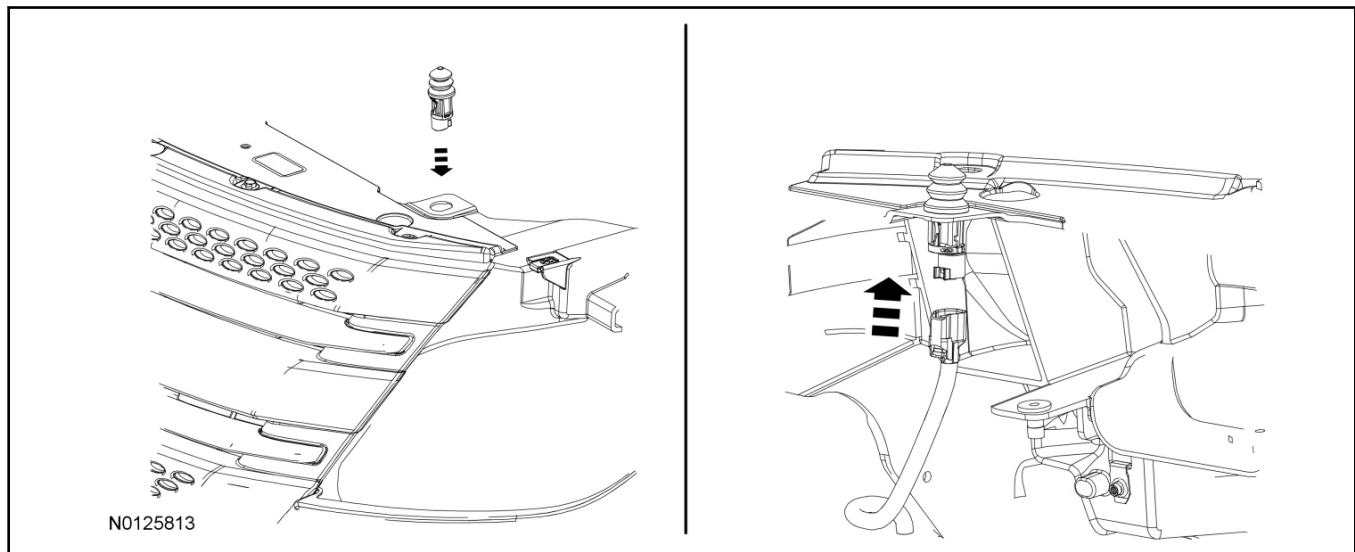
14. Locate the vehicle's existing "OE" hood switch wire harness, located on the LH side of the vehicle below the radiator core support.

- 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.



15. 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.

**INSTALLATION (Continued)****Spare Key Programming****NOTE:**

Verify no related DTCs are present before beginning this procedure.

**NOTE:**

This procedure works only if 2 or more programmed keys are available. If 2 programmed keys are not available, alternate programming methods in the workshop manual can be found at [www.fordtechservice.dealerconnection.com](http://www.fordtechservice.dealerconnection.com).

**NOTE:**

This procedure works only if the customer spare key programming is enabled. If customer spare key programming is disabled, refer to Key Programming — Enable/Disable Spare Key or Key Programming Using Diagnostic Equipment in the workshop manual located at [www.fordtechservice.dealerconnection.com](http://www.fordtechservice.dealerconnection.com).

16. Cut the keys that are going to be programmed to match the existing keys.
17. Insert the first programmed Passive Anti-Theft System (PATS) key into the ignition and turn the key from the OFF position to the RUN position (maintain the key in the RUN position for approximately 3 seconds).
18. Turn the first key to the OFF position and remove the key from the ignition.
19. Within 10 seconds of turning the key to the OFF position, insert a second programmed PATS key into the ignition and turn the key from the OFF position to the RUN position (maintain the key in the RUN position for approximately 3 seconds).
20. Turn the second key to the OFF position and remove the key from the ignition.



**INSTALLATION (Continued)**

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**21. NOTE:**

The doors lock and then unlock to confirm that each Integrated Key Transmitter (IKT) is programmed.

Within 10 seconds of turning the second key to the OFF position, insert the new, unprogrammed PATS key into the ignition and turn the key from the OFF position to the RUN position (maintain the key in the RUN position for approximately 3 seconds).

22. If it is desired to program additional key(s) (up to a total of 4 keys can be programmed), repeat the Spare Key Programming procedure for each additional key.

**Remote Start Activation**

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

24. Connect IDS.

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

25. 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.

26. 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.

27. 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.

**INSTALLATION (Continued)****Functional Test****NOTE:**

Do not put a key in the ignition while performing the following steps.

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

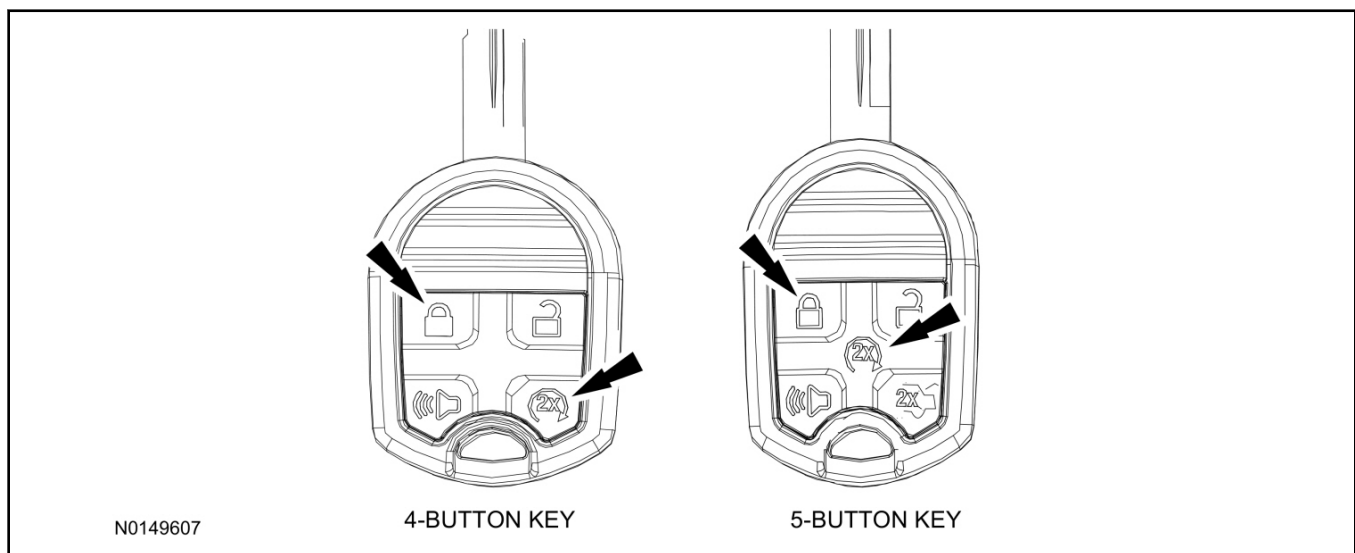
29. Close the hood.

30. Close all of the vehicle doors.

31. **NOTE:**

Verify that all of the newly programmed keys function properly.

Start the vehicle by pressing the lock button once, then the remote start button 2 times on the newly programmed key.



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

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

34. Open the hood.

35. **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.**

# REMOTE START SYSTEM INSTALLATION

## CONTENTS

### VEHICLE PREPARATION

[Hood Switch Kit Installation](#)

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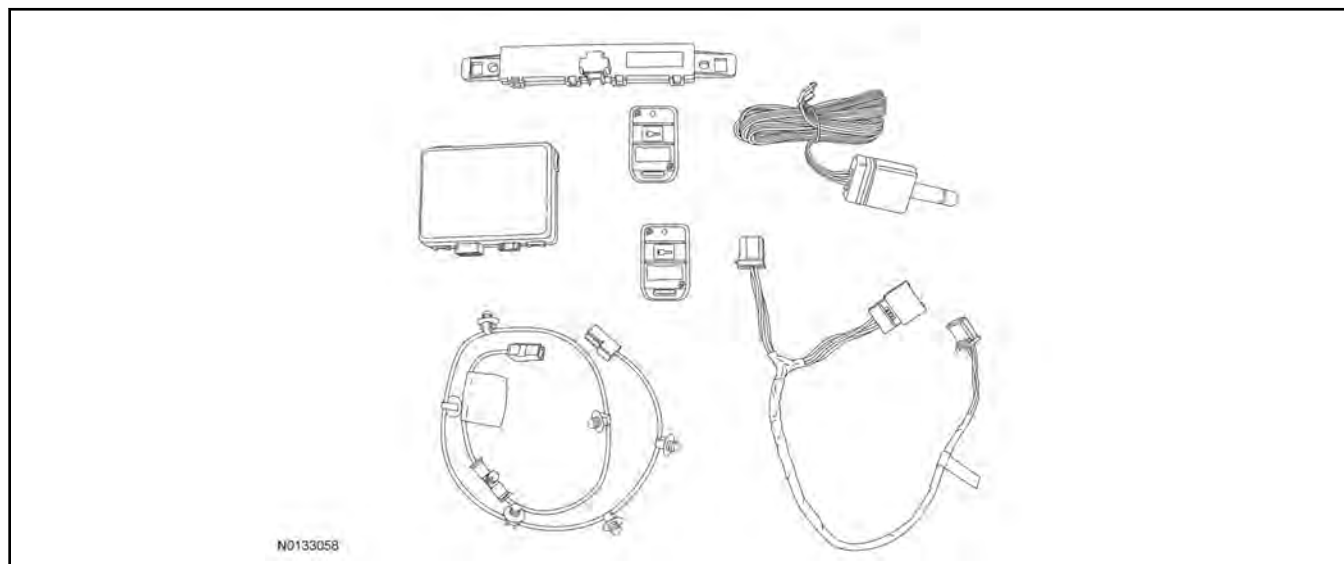
[Standard RMST - Functional Test](#)

[Bi-directional RMST - Functional Test](#)

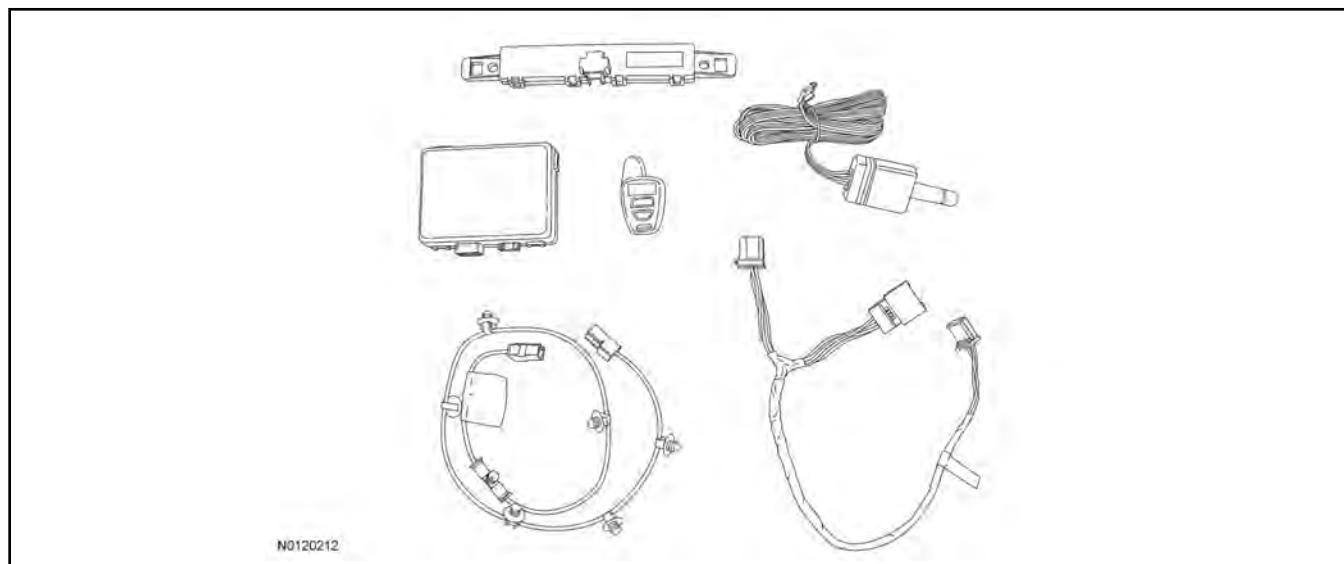
## INSTALLATION

### Remote Start

#### Standard Remote Start System (RMST) Components



#### Bi-directional Remote Start System (RMST) Components



**INSTALLATION (Continued)****Hood Switch Kit Components - Sold separately if needed**

N0122208

**Edge - Key Start**

1. Verify correct kit number.

**Review Standard RMST Kit Contents**

2. Review the Standard RMST kit contents.

**Standard RMST Kit**

QUANTITY	DESCRIPTION
2	Standard 1 Button Key Fob
1	Antenna Jumper Wire
1	Antenna Module
1	Remote Start Module
1	Standard Antenna
1	T-harness

**Review Bi-directional RMST Kit Contents**

3. Review Bi-directional RMST Kit Contents

**Bi-directional RMST Kit**

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

**INSTALLATION (Continued)****Review Hood Switch Kit Contents**

4. Review the Hood Switch kit contents.

**Hood Switch OE Kit**

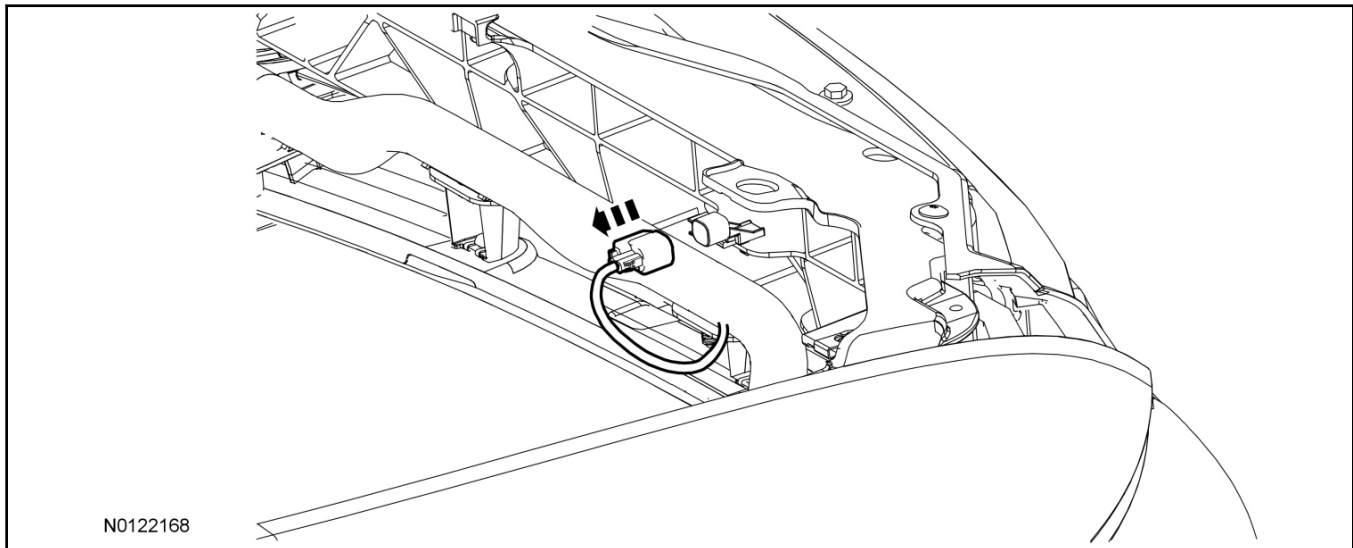
QUANTITY	DESCRIPTION
1	Hood Switch Assembly

**Vehicle Preparation**

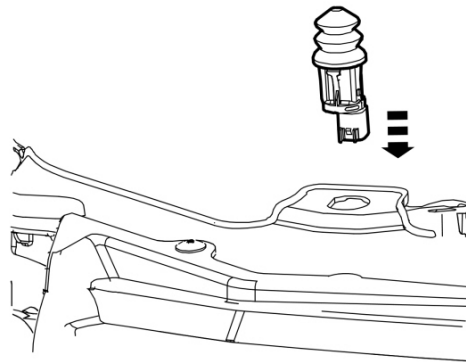
5. Verify that an OE hood switch is installed.
- If the vehicle is not equipped with an OE hood switch, refer to Hood Switch Installation in this procedure.

**Hood Switch Installation**

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



7. 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.

**INSTALLATION (Continued)**

N0122172

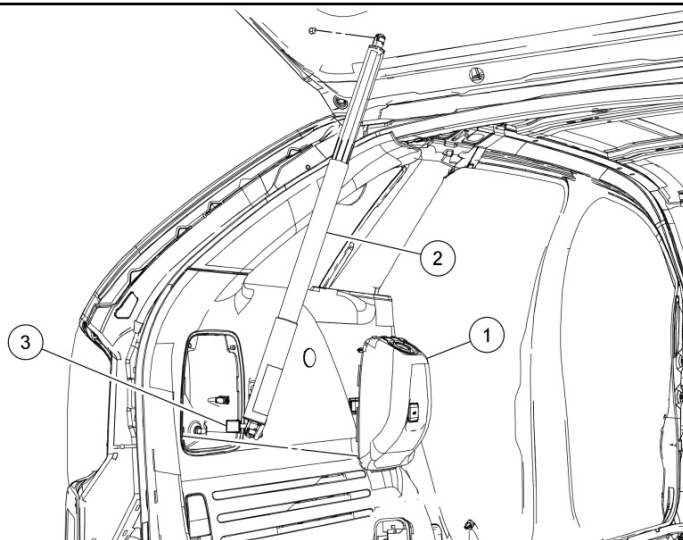
8. Connect the electrical connector to the hood switch.

**Vehicle Preparation**

9. Open the liftgate.

**Remove Power Liftgate Motor**

10. 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

**Position Aside LH Quarter Trim Panel**

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

**INSTALLATION (Continued)**

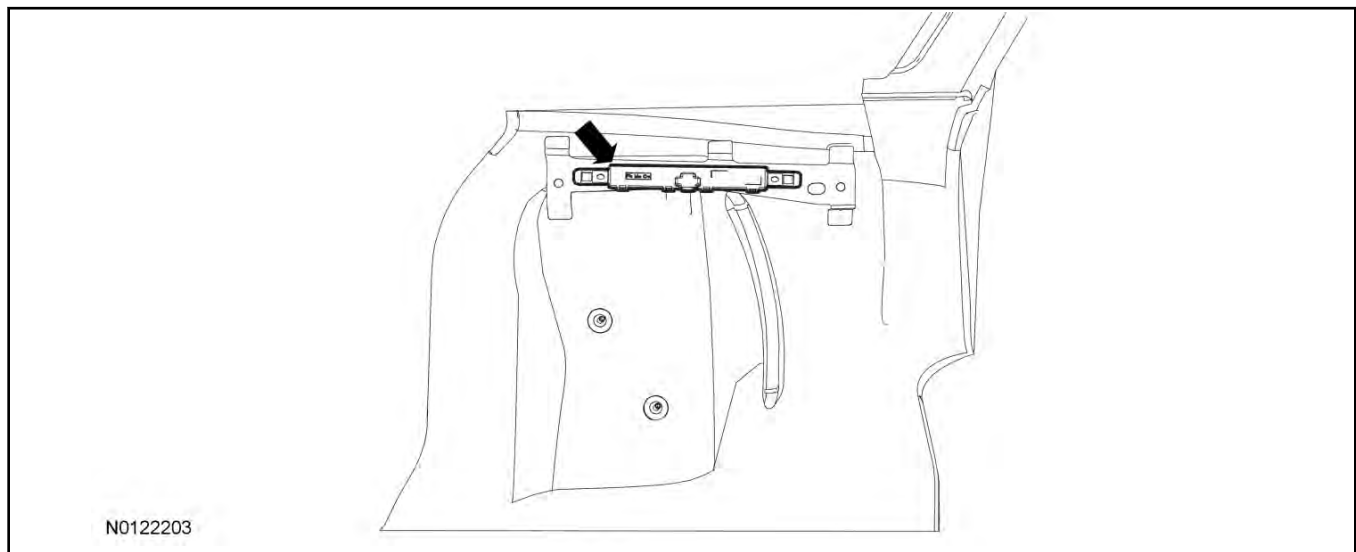
12. Remove the LH safety belt lower anchor bolt cover and remove the LH safety belt lower anchor bolt.
13. If equipped, remove the cargo net hook.
14. **NOTE:**  
Make sure the pushpin retainers are removed with the quarter trim panel.  
  
Detach the push pin retainers and position the LH quarter trim panel aside to access the Tire Pressure Monitor (TPM).

**Remove LH C-Pillar Trim Panel**

15. Remove the LH rear safety belt D-ring cover and remove the safety belt bolt.
16. Remove the LH C-pillar trim panel screw cover.
17. Remove the LH C-pillar trim panel screw.
18. Remove the C-pillar trim panel.
  - Pull outward and downward to remove the C-pillar trim panel.

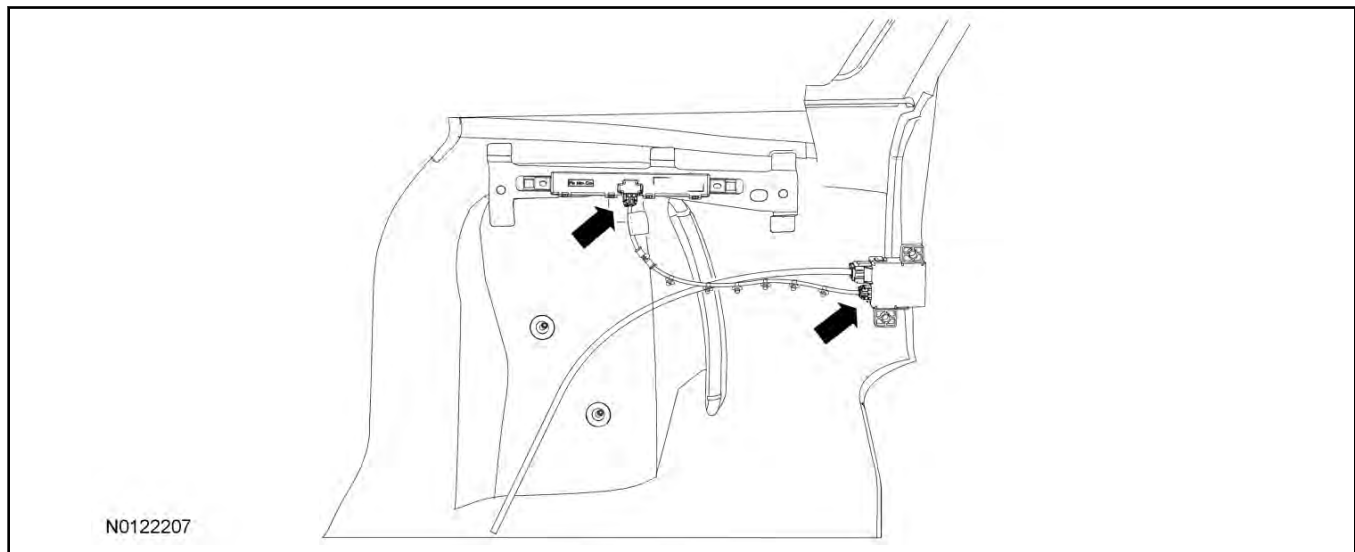
**Antenna Module Installation**

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



20. **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)****Install the Antenna**

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

**NOTE:**

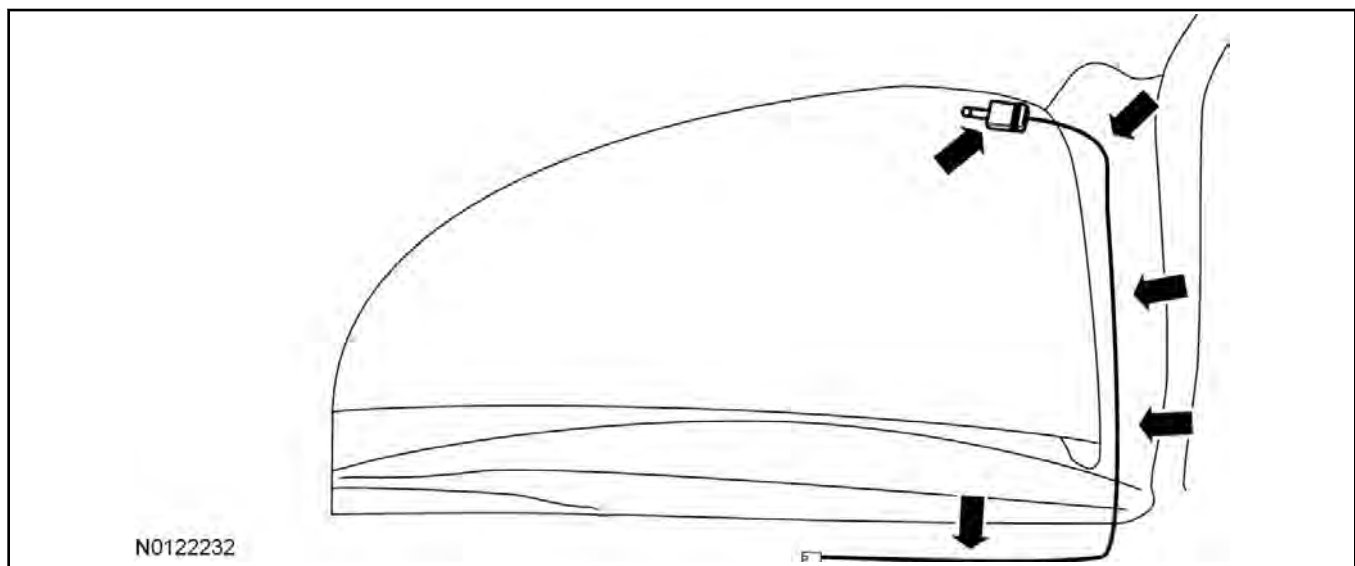
Do not touch the adhesive, reduced adhesion may result.

**NOTE:**

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

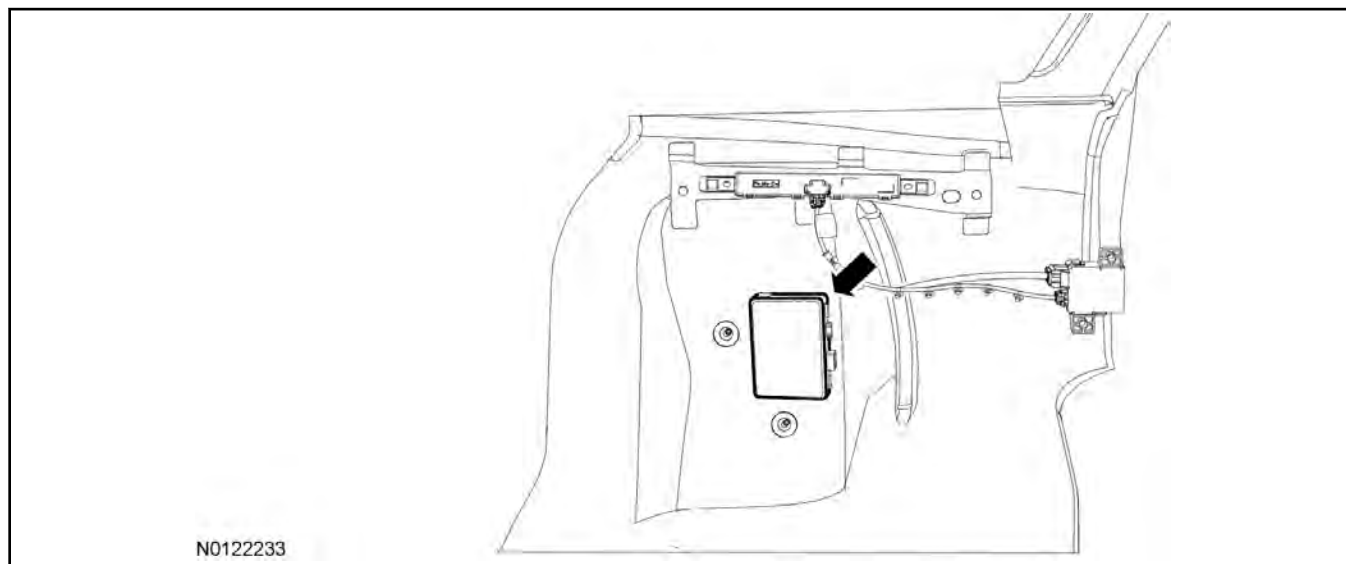
22. Remove the protective backing from the adhesive on the antenna and firmly press the body of the antenna to the LH rear quarter window glass.

- 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.

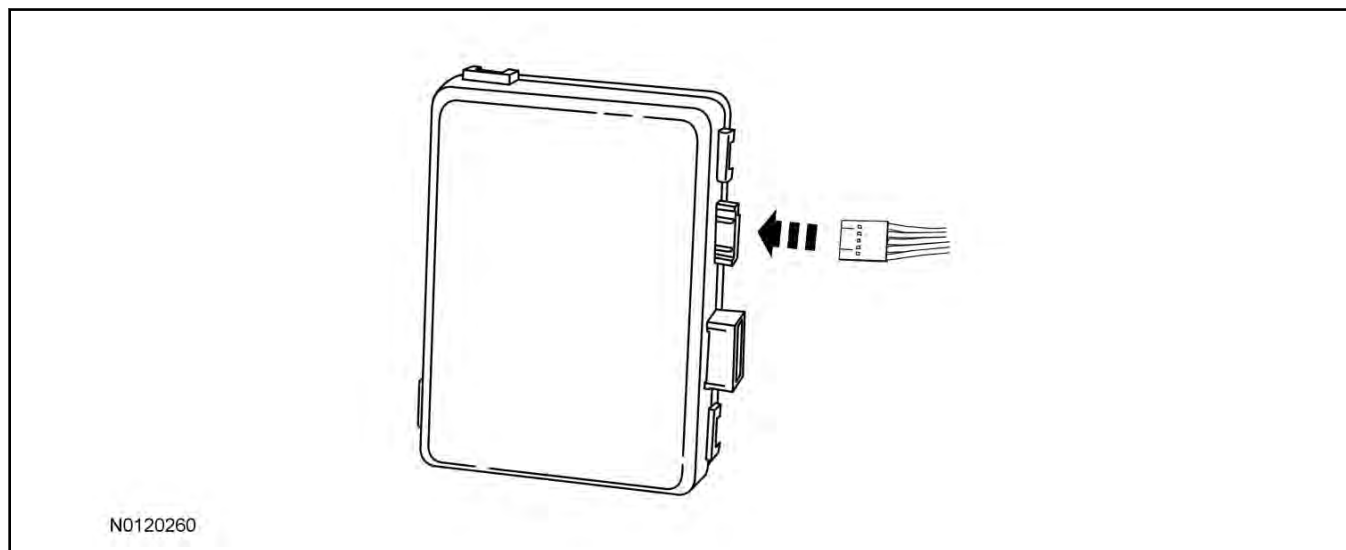


**INSTALLATION (Continued)****Install CGEA module**

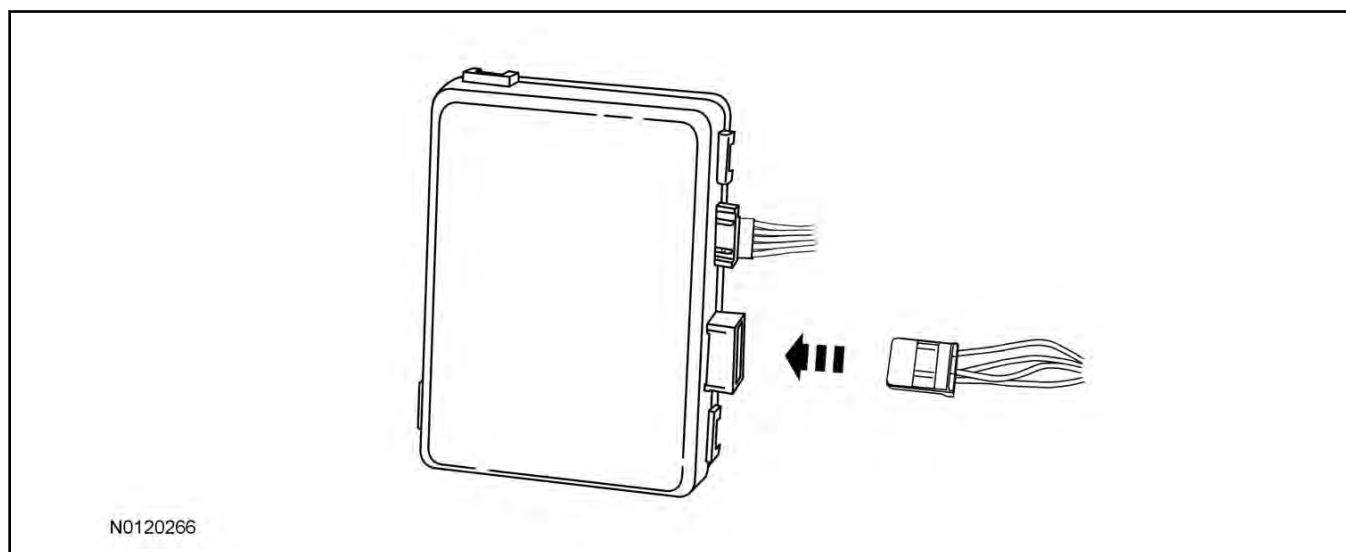
23. Remove the protective backing from the 3m Dual Lock™ strips and install the remote start module to the vehicle.
- Mount to a flat metal surface on the vehicle's LH quarter panel.



24. Connect the antenna to the remote start module.
- Secure the antenna harness with tie-straps.



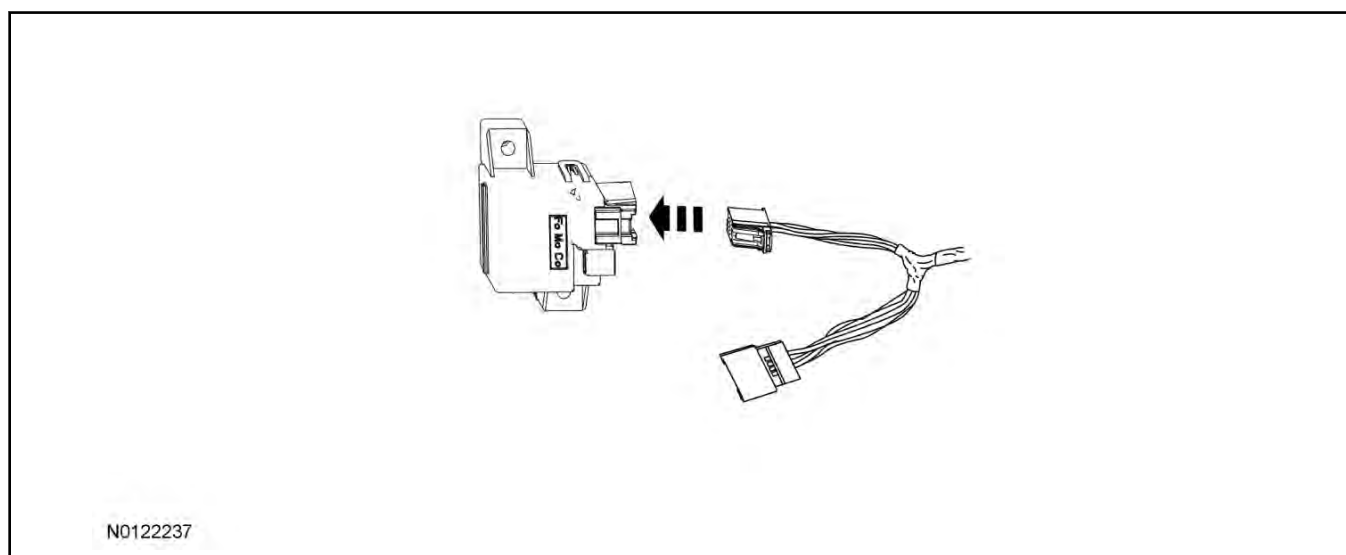
25. Connect the T-harness to the remote start module.

**INSTALLATION (Continued)**

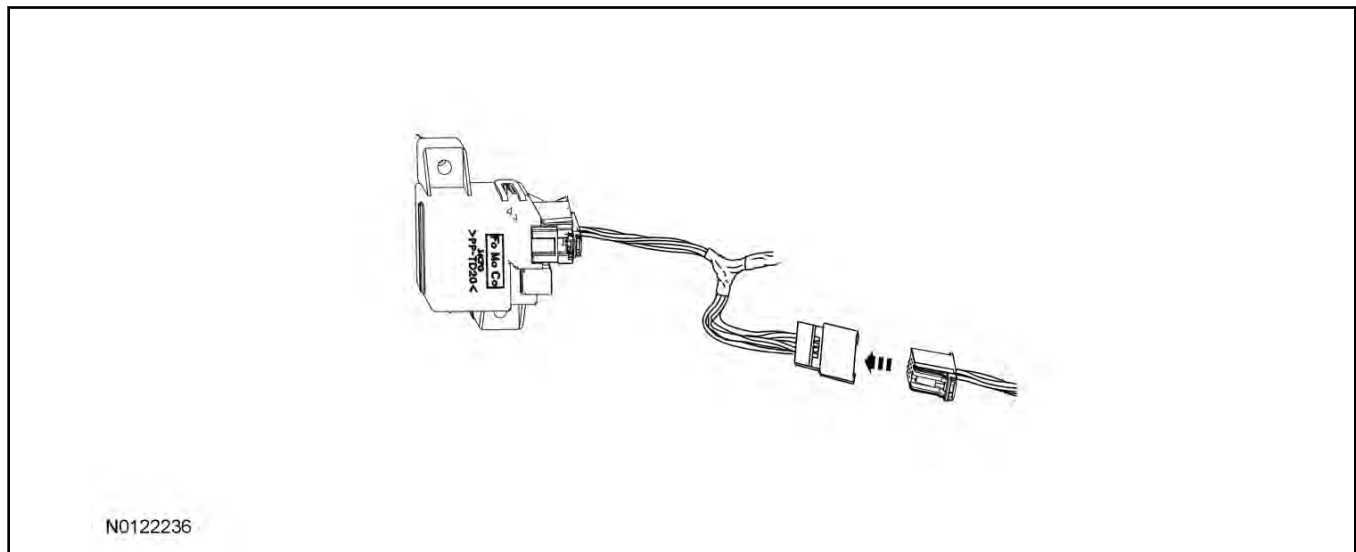
26. Route the female end of the T-harness to the TPM module.

- Secure the harness with tie-straps.

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



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

**INSTALLATION (Continued)****Install LH C-Pillar Trim Panel**

29. Install the LH C-pillar trim panel.
30. Install the LH C-pillar trim panel screw.
  - Tighten to 9 Nm (80 lb-in).
31. 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.

32. 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**

33. Position the LH quarter trim panel back.
  - Engage push pin retainers.
34. If equipped, install the cargo net hook.
  - Tighten to 3 Nm (27 lb-in).
35. Install the LH rear safety belt lower anchor bolt.
  - Tighten to 54 Nm (40 lb-ft).

**36. 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.

37. Install the rear cargo load area.
  - Install the foam blocks into the spare tire well.

**INSTALLATION (Continued)**

---

**Install Power Liftgate Motor**

38. 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**

39. Verify that the IDS is updated to the most current version.
40. Connect IDS.
- Follow the prompts to select new vehicle session.
  - Enter VIN.
41. 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.
42. 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.
43. 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.

**INSTALLATION (Continued)****Learn Remote Start System to Vehicle****NOTE:**

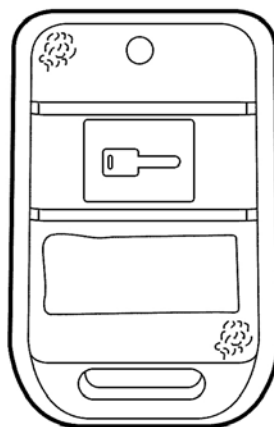
Make sure the brake pedal is not depressed during this sequence.

44. Press the vehicle's unlock button located on the driver's door. Make sure all doors are unlocked.
45. Put the key in the ignition.
46. 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.
47. 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.

**Standard RMST Functional Test****NOTE:**

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

48. Make sure the shift lever is in park and the ignition is in the off position. Remove all keys from the vehicle.
49. Close the hood.
50. Close all of the vehicle doors.
51. Start the vehicle by pressing and holding the remote start button on the remote start key fob for more than 2 seconds.



**STANDARD RMST FOB**

N0097291

52. Confirm the remote start works with the vehicle in park and with the hood and doors closed.
53. Enter the vehicle and confirm that the vehicle shuts down when attempting to shift out of park.
54. Open the hood.

**INSTALLATION (Continued)****55. 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.**

**Bi-directional RMST Functional Test****NOTE:**

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

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.



57. Make sure the shift lever is in park and the ignition is in the off position. Remove all keys from the vehicle.
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.
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 the vehicle shuts down when attempting to shift out of 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.**

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[Spare Key Programming](#)

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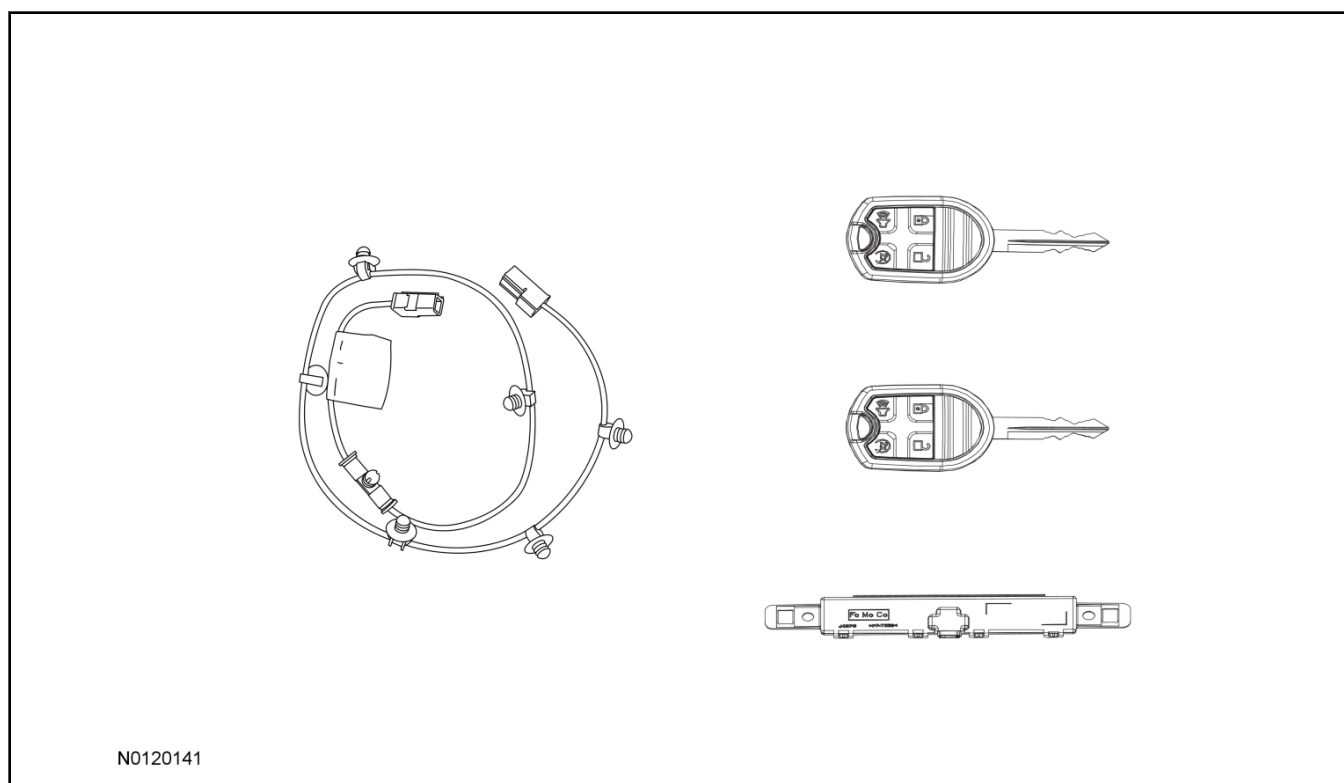
[Functional Test](#)



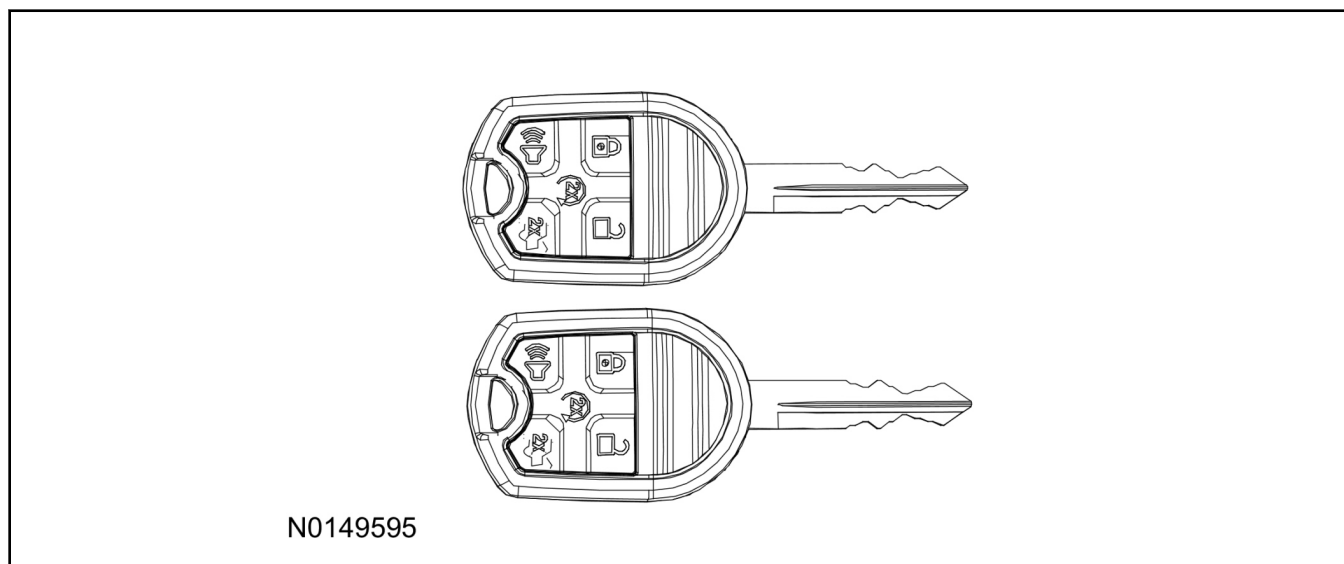
## INSTALLATION

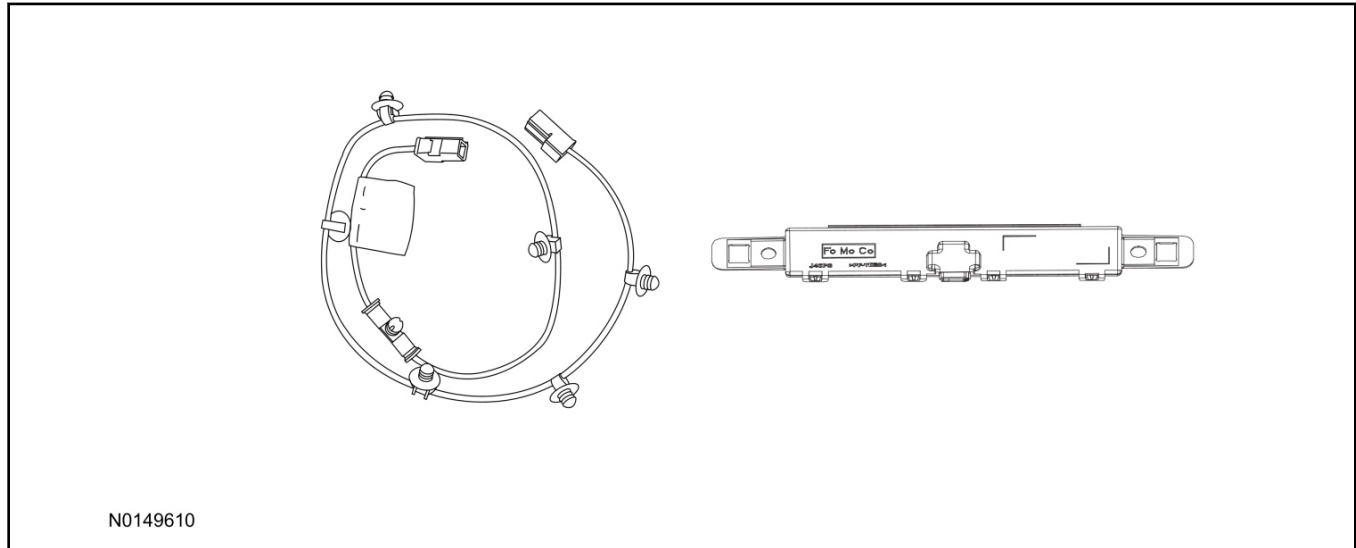
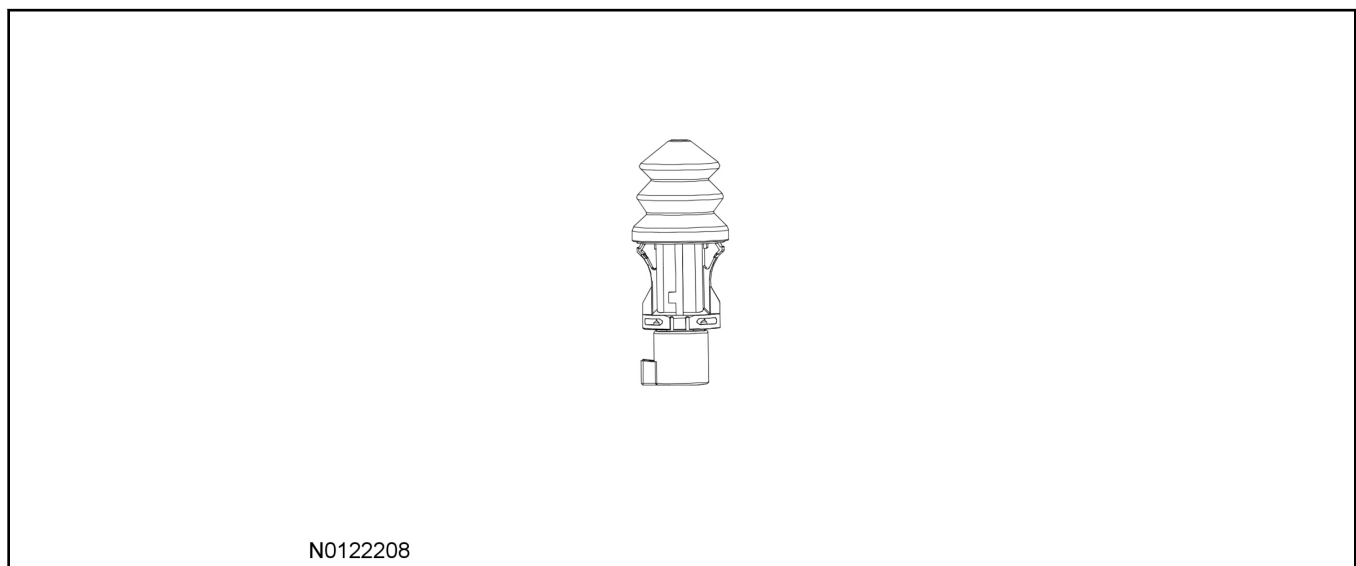
### Remote Start

#### Vehicles Not Equipped with Power Liftgate - (4-Button) Remote Start System (RMST) Components



#### Vehicles Equipped with Power Liftgate - (5-Button) RMST Components



**INSTALLATION (Continued)****Vehicles Equipped with Power Liftgate - Antenna Kit (15603 - Sold separately)****Hood Switch Kit Components (19G366 - Sold separately if needed)****Edge - Key Start****NOTE:**

If installing the 5-button kit, the antenna kit - 15603 will also need to be installed.

**NOTE:**

The OE RMST kit is only applicable on vehicles that have power locks.

1. Verify correct kit number.

**INSTALLATION (Continued)****Vehicles Not Equipped with Power Liftgate - RMST Installation Kit Contents**

2. Review the RMST kit contents.

**RMST Kit**

QUANTITY	DESCRIPTION
2	Key (4 Button)
1	Antenna Jumper Wire
1	Antenna Module

**Vehicles Equipped with Power Liftgate - RMST Installation Kit Contents**

3. Review the RMST kit contents.

**RMST Kit**

QUANTITY	DESCRIPTION
2	Key (5 Button)

**Antenna Kit Contents (Sold separately if needed)**

4. Review the Antenna Kit contents.

**Antenna Kit**

QUANTITY	DESCRIPTION
1	Antenna Jumper Wire
1	Antenna Module

**Review Hood Switch Kit Contents**

5. Review the Hood Switch Kit contents.

**Hood Switch Kit**

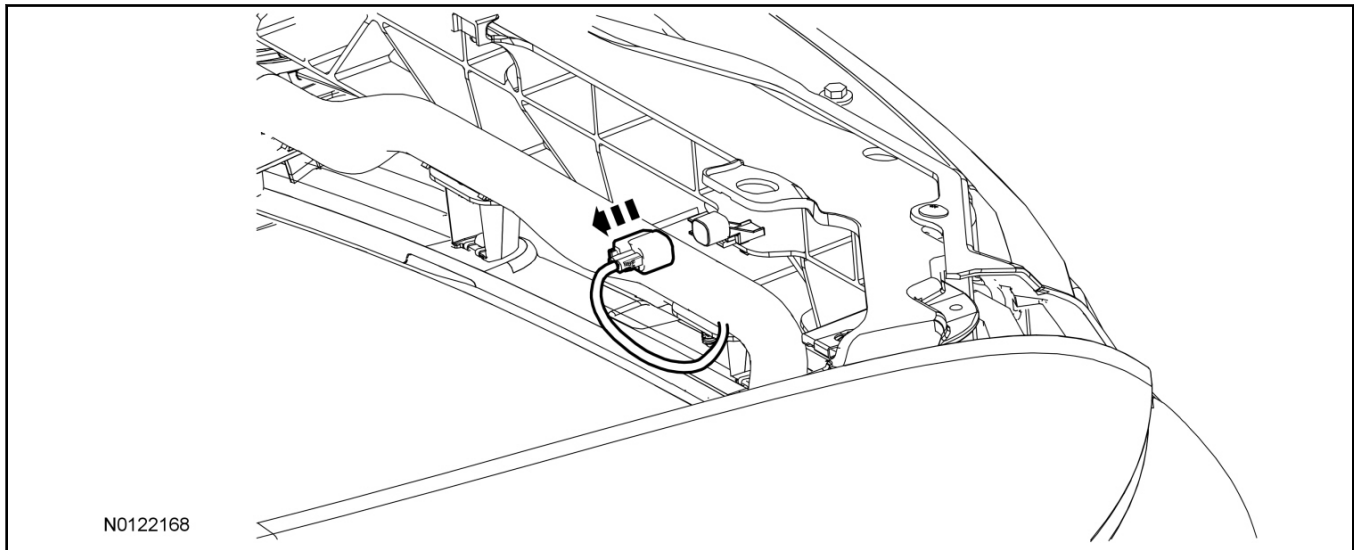
QUANTITY	DESCRIPTION
1	Hood Switch Assembly

**Vehicle Preparation**

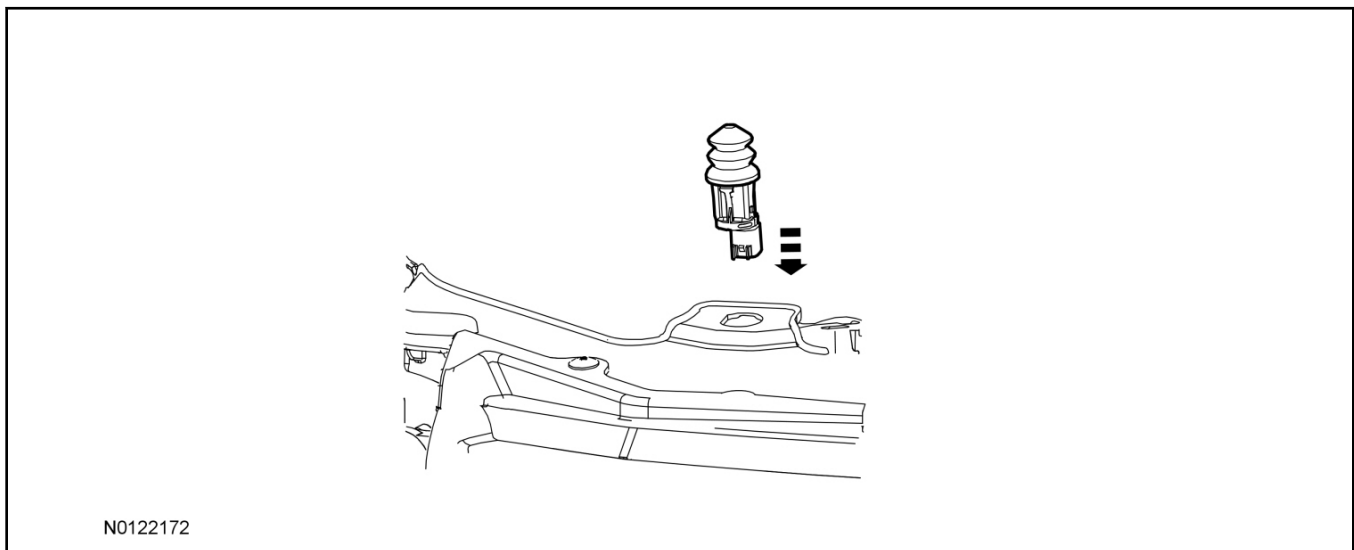
6. Verify that an OE hood switch, is installed.
  - If the vehicle is not equipped with an OE hood switch, refer to Hood Switch Installation in this procedure.

**Hood Switch Installation**

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

**INSTALLATION (Continued)****NOTE:**

8. 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 to the flat spot on the radiator core support.



9. Connect the electrical connector to the hood switch.

**Spare Key Programming****NOTE:**

The hood switch is required for remote start activation.

**NOTE:**

Verify no related DTCs are present before beginning this procedure.

**INSTALLATION (Continued)**

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**NOTE:**

This procedure works only if 2 or more programmed keys are available. If 2 programmed keys are not available, alternate programming methods in the workshop manual can be found at [www.fordtechservice.dealerconnection.com](http://www.fordtechservice.dealerconnection.com).

**NOTE:**

This procedure works only if the customer spare key programming is enabled. If customer spare key programming is disabled, refer to Key Programming — Enable/Disable Spare Key or Key Programming Using Diagnostic Equipment in the workshop manual located at [www.fordtechservice.dealerconnection.com](http://www.fordtechservice.dealerconnection.com).

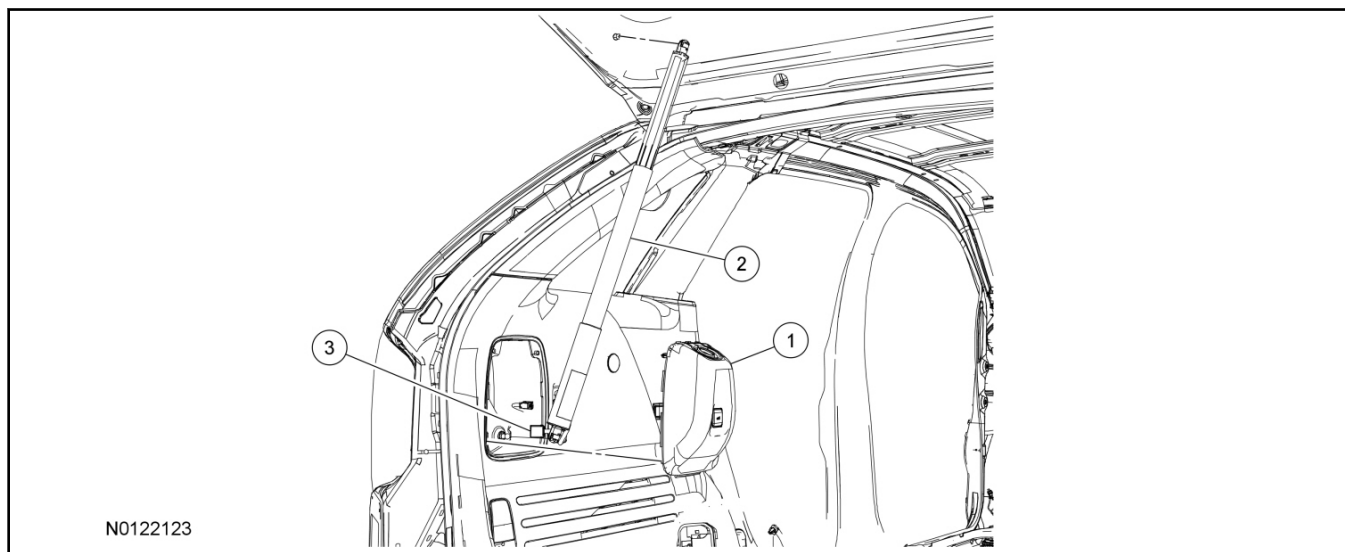
10. Cut the keys that are going to be programmed to match the existing keys.
11. Insert the first programmed Passive Anti-Theft System (PATS) key into the ignition and turn the key from the OFF position to the RUN position (maintain the key in the RUN position for approximately 3 seconds).
12. Turn the first key to the OFF position and remove the key from the ignition.
13. Within 10 seconds of turning the key to the OFF position, insert a second programmed PATS key into the ignition and turn the key from the OFF position to the RUN position (maintain the key in the RUN position for approximately 3 seconds).
14. Turn the second key to the OFF position and remove the key from the ignition.
15. **NOTE:**  
The doors lock and then unlock to confirm that each Integrated Key Transmitter (IKT) is programmed.  
  
Within 10 seconds of turning the second key to the OFF position, insert the new, unprogrammed PATS key into the ignition and turn the key from the OFF position to the RUN position (maintain the key in the RUN position for approximately 3 seconds).
16. If it is desired to program additional key(s) (up to a total of 4 keys can be programmed), repeat the Spare Key Programming procedure for each additional key.

**Vehicle Preparation**

17. Open the liftgate.

**Remove Power Liftgate Motor**

18. 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.

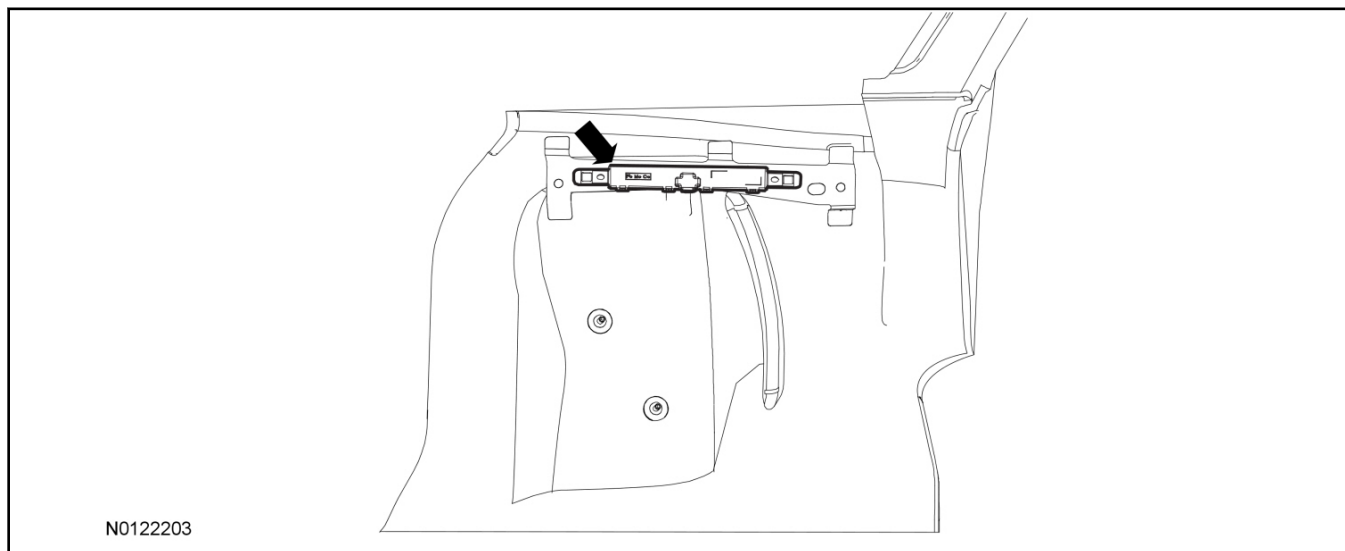
**INSTALLATION (Continued)****Position Aside LH Quarter Trim Panel**

19. Remove the rear cargo load area.
  - Remove the foam blocks from the spare tire well.
20. Remove the LH safety belt lower anchor bolt cover and remove the LH safety belt lower anchor bolt.
21. If equipped, remove the cargo net hook.
22. **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).

**Antenna Module Installation**

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



**INSTALLATION (Continued)****24. NOTE:**

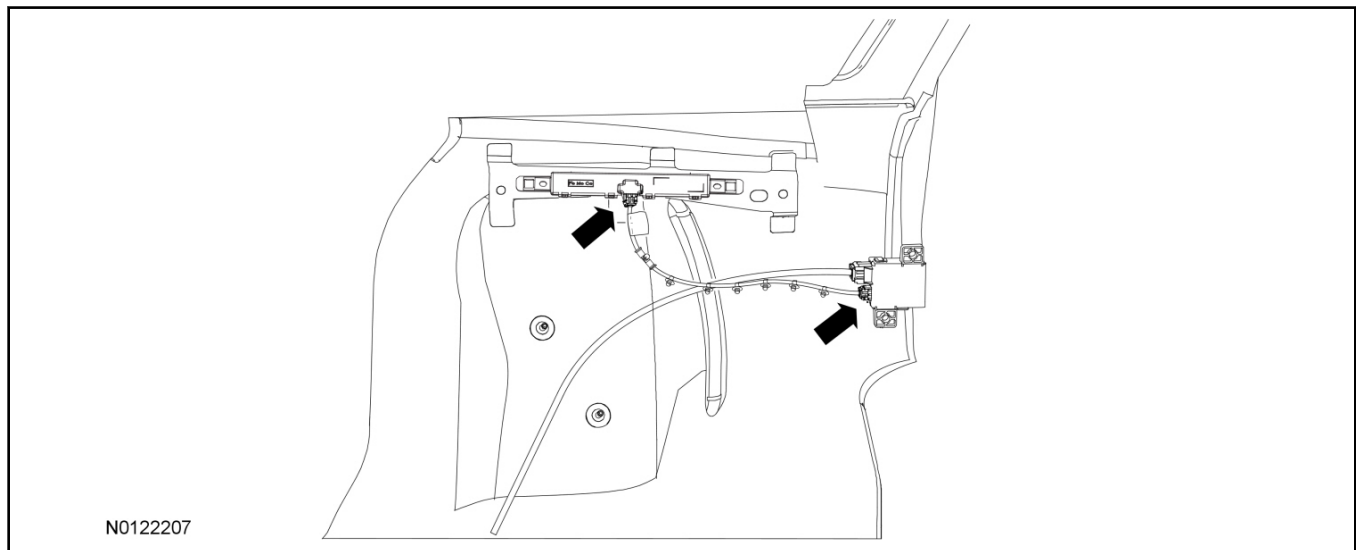
LH quarter trim panel removed for clarity.

**NOTE:**

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

Install the antenna jumper wire to the vehicle.

- Connect to the antenna module and to the TPM module.
- Secure with tie straps.

**Install LH Quarter Trim Panel**

25. Position the LH quarter trim panel back.

- Engage push pin retainers.

26. If equipped, install the cargo net hook.

- Tighten to 3 Nm (27 lb-in).

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

- Tighten to 54 Nm (40 lb-ft).

**28. 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.

29. Install the rear cargo load area.

- Install the foam blocks into the spare tire well.

**INSTALLATION (Continued)**

---

**Install Power Liftgate Motor**

30. 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**

31. Verify that the IDS is updated to the most current version.
32. Connect IDS.
  - Follow the prompts to select new vehicle session.
  - Enter VIN.
33. 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.
34. 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.
35. 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.



**INSTALLATION (Continued)****Functional Test****NOTE:**

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

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

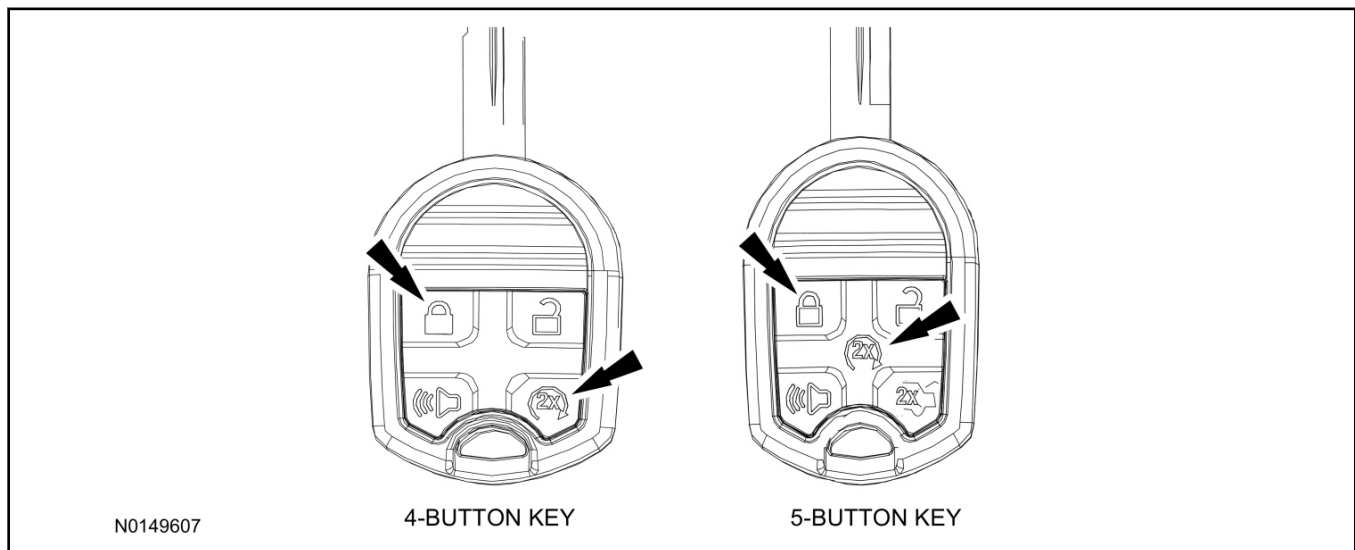
37. Close the hood.

38. Close all of the vehicle doors.

39. **NOTE:**

Verify that all of the newly programmed keys function properly.

Start the vehicle by pressing the lock button once, then the remote start button 2 times on the newly programmed key.



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

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

42. Open the hood.

43. **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.**

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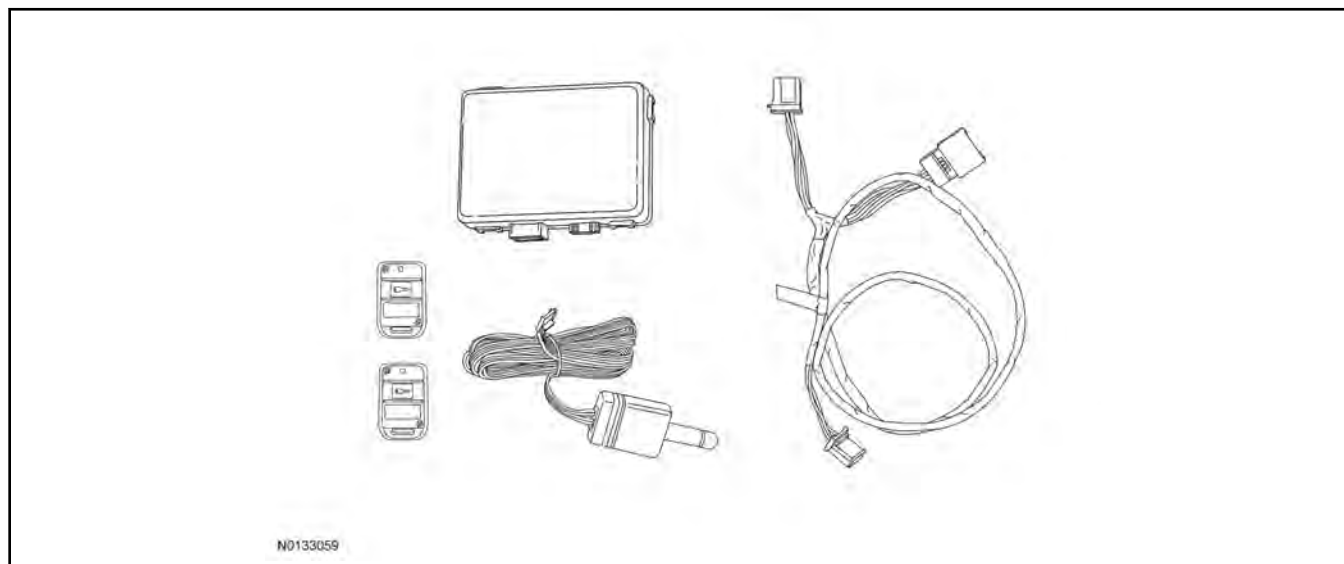
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[Bi-directional RMST - Functional Test](#)

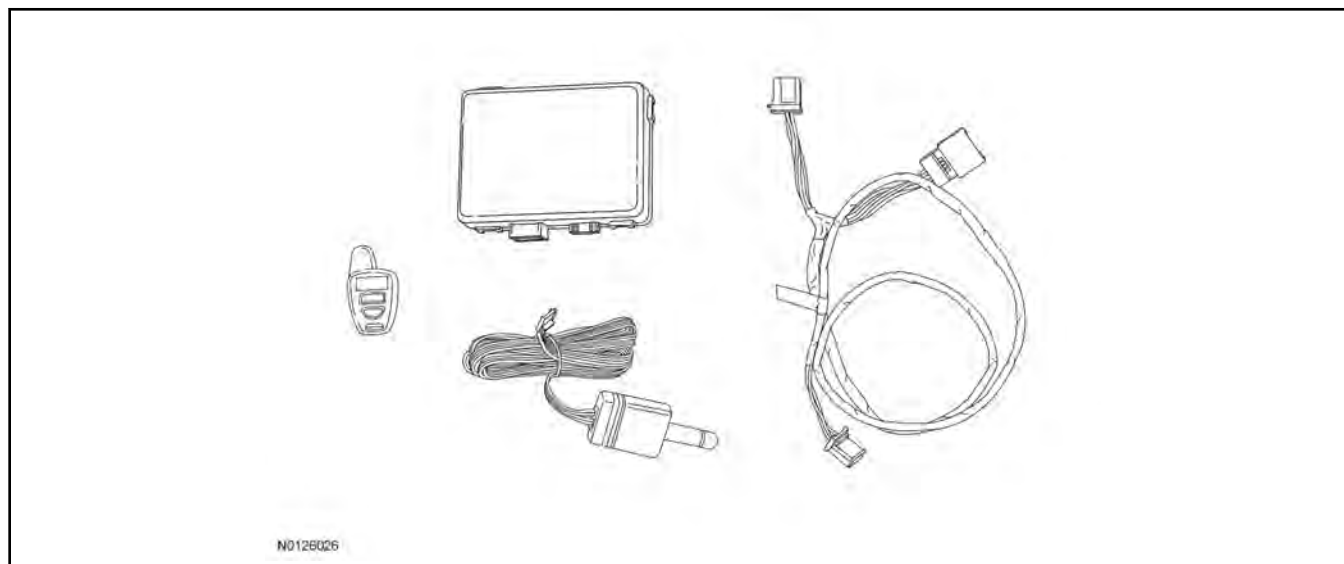
## INSTALLATION

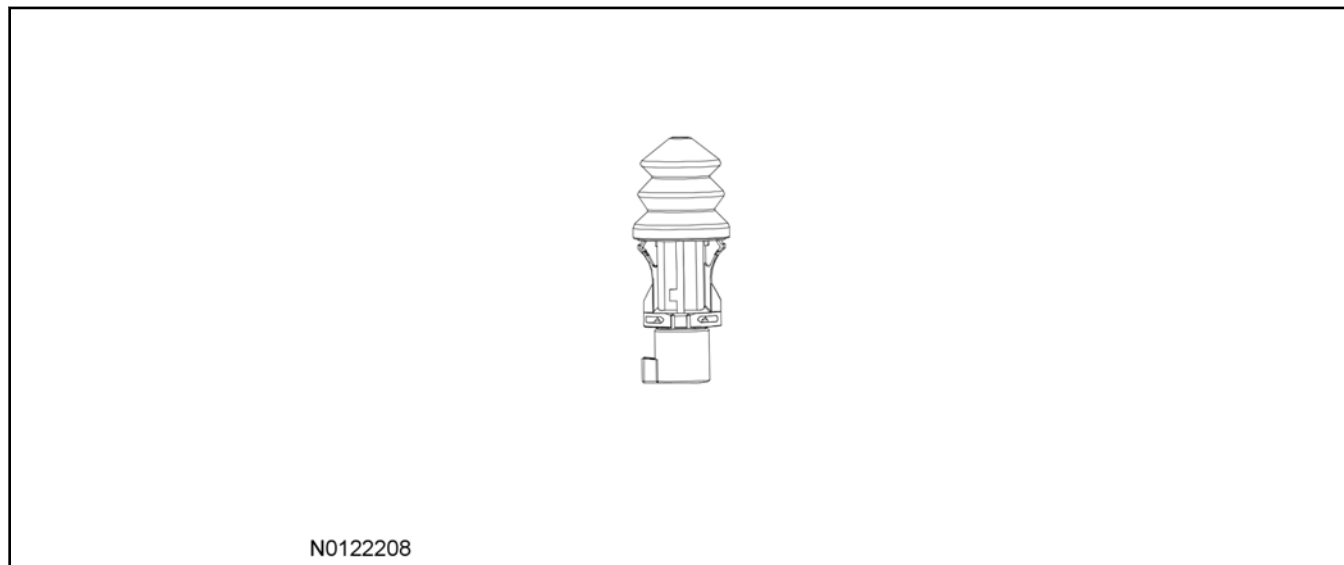
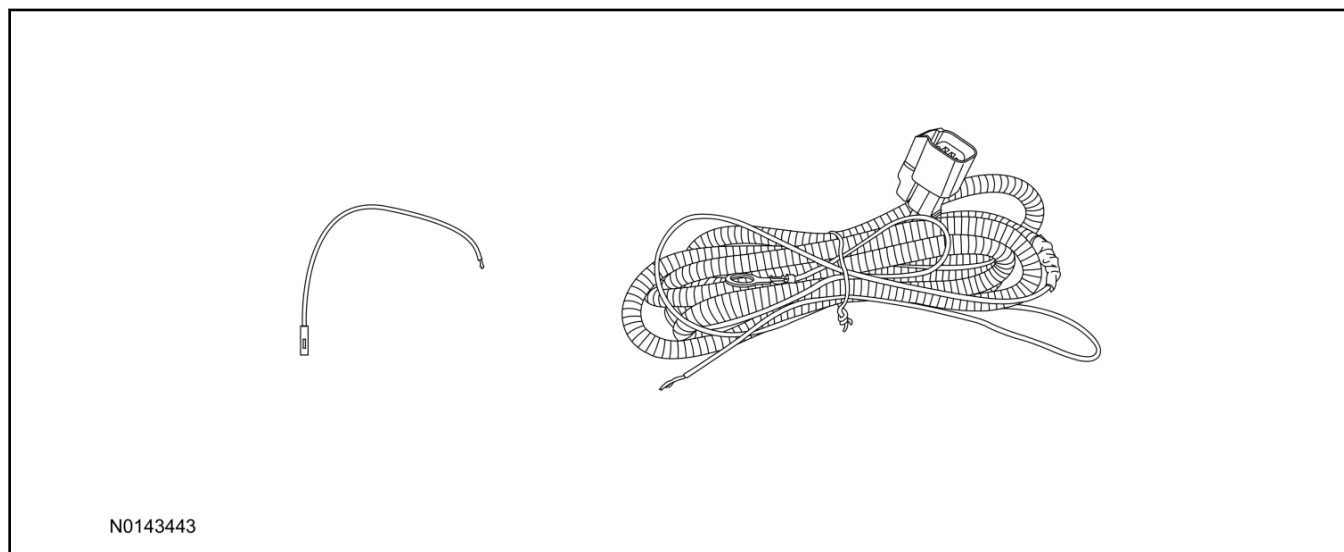
### Remote Start

#### Standard Remote Start System (RMST) Components



#### Bi-directional Remote Start System (RMST) Components



**INSTALLATION (Continued)****Hood Switch Kit - SE Vehicles Only****Hood Switch Wire Harness Kit - SE Vehicles Only****Explorer - Key Start**

1. Verify correct kit number.

**Review Standard RMST Kit Contents**

2. Review the Standard RMST kit contents.

**Standard RMST Kit**

QUANTITY	DESCRIPTION
2	Standard 1 Button Key Fob
1	Remote Start Module
1	Standard Antenna

**INSTALLATION (Continued)****Standard RMST Kit(Continued)**

<b>QUANTITY</b>	<b>DESCRIPTION</b>
2	Standard 1 Button Key Fob
1	T-harness

**Review Bi-directional RMST Kit Contents**

## 3. Review Bi-directional RMST Kit Contents

**Bi-directional RMST Kit**

<b>QUANTITY</b>	<b>DESCRIPTION</b>
1	Bi-directional Key Fob
1	Remote Start Module
1	Bi-directional Antenna
1	T-harness

**Review Hood Switch Kit Contents**

## 4. Review the Hood Switch kit contents.

**Hood Switch Kit**

<b>QUANTITY</b>	<b>DESCRIPTION</b>
1	Hood Switch Assembly

**Review Hood Switch Wire Harness Kit Contents**

## 5. Review the Hood Switch kit contents.

**Hood Switch Wire Harness Kit**

<b>QUANTITY</b>	<b>DESCRIPTION</b>
1	Body Control Module (BCM) Terminal Wire
1	Hood Switch Wire Harness

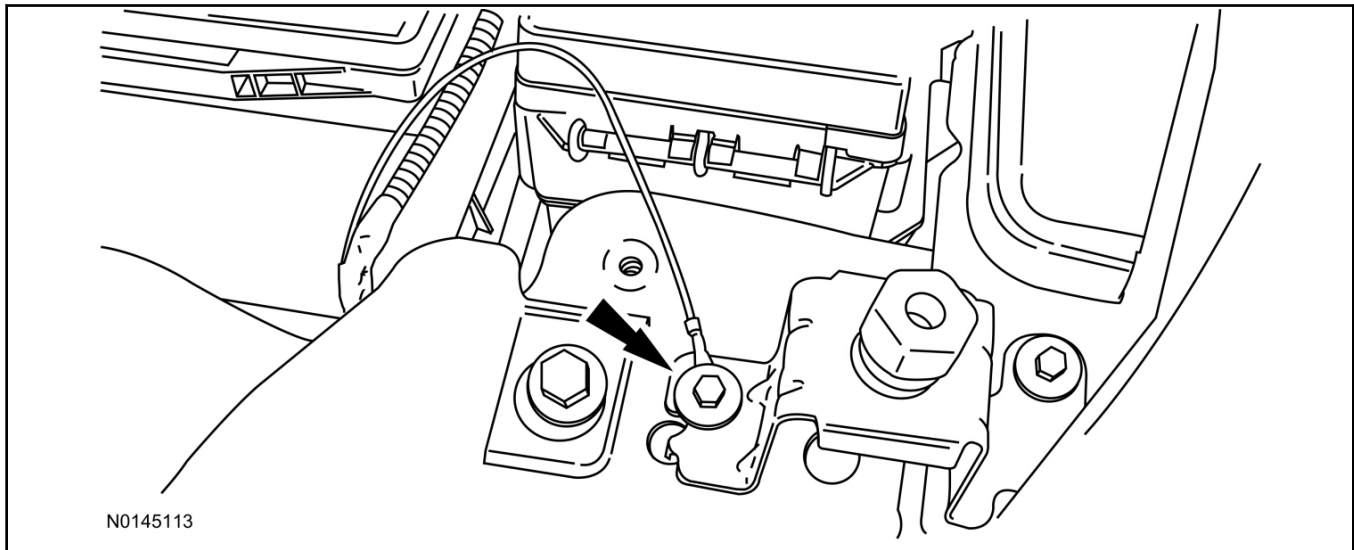
**Vehicle Preparation**

6. 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.

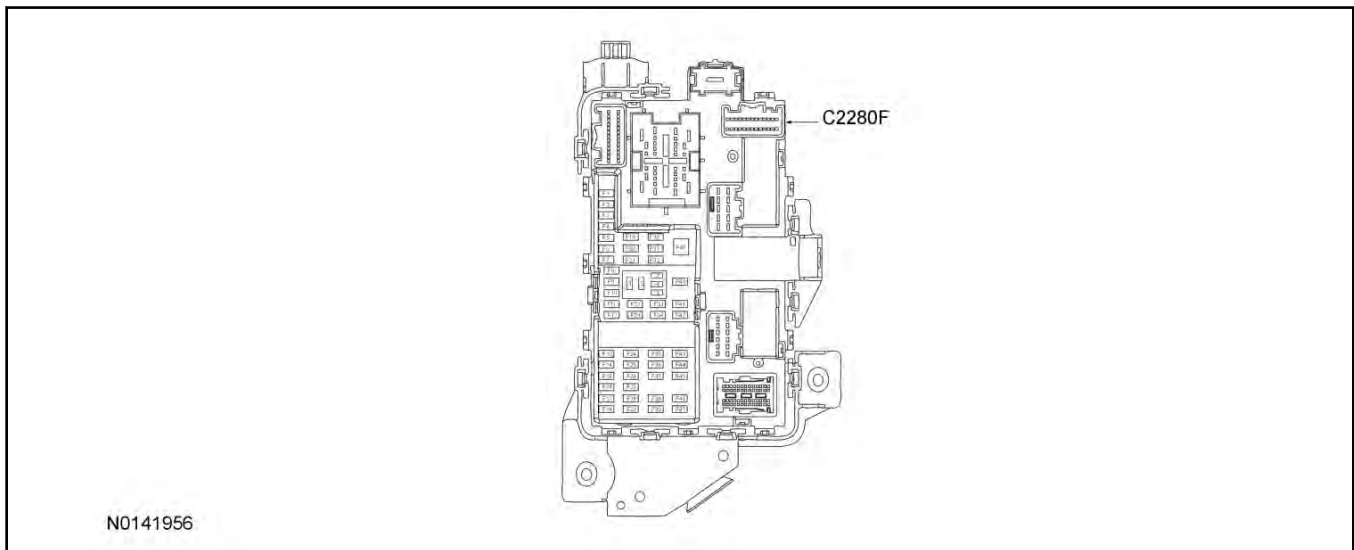
**Hood Switch Wire Harness Installation****NOTE:**

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

7. Remove the fender bolt and install the hood switch ground wire, using the previously removed bolt.
- Tighten to 12 Nm (106 lb-in).

**INSTALLATION (Continued)**

8. Route the hood switch wire harness into the vehicle through the bulkhead grommet.
  - Secure the hood switch wire harness with zip-ties.
9. Disconnect Body Control Module (BCM) connector C2280F.



10. 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.
11. **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.
12. Connect BCM connector C2280F.

**INSTALLATION (Continued)****NOTICE:**

Refer to "Proper Wire Splicing Techniques" before proceeding.

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

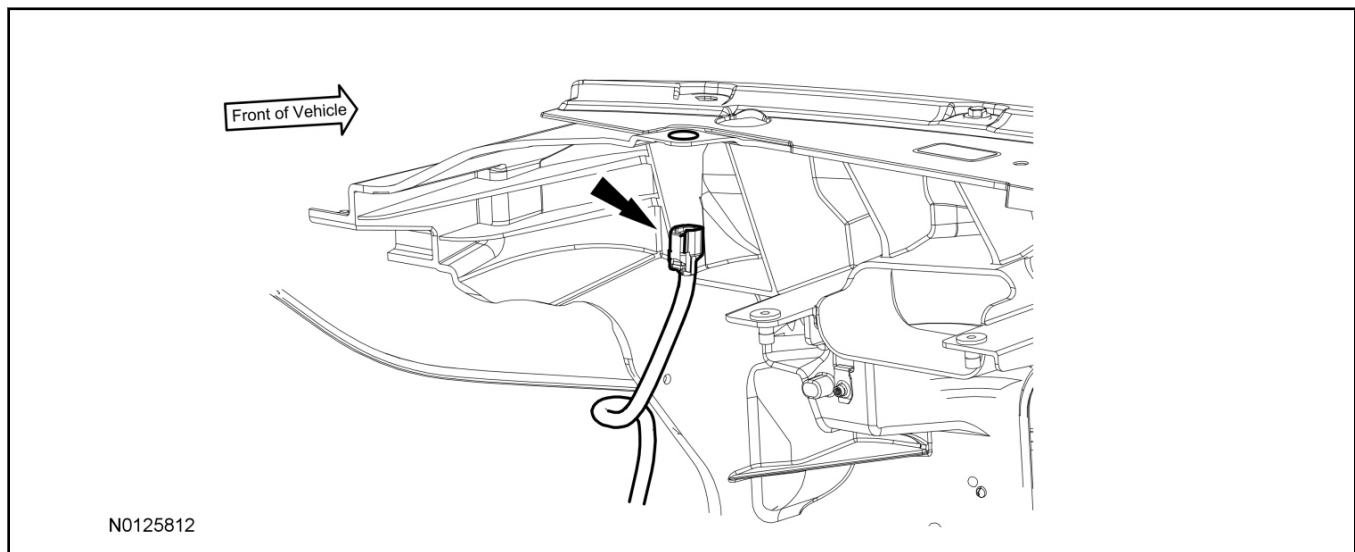
- Secure the wire harness assembly with zip-ties.

**Hood Switch Installation****NOTE:**

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

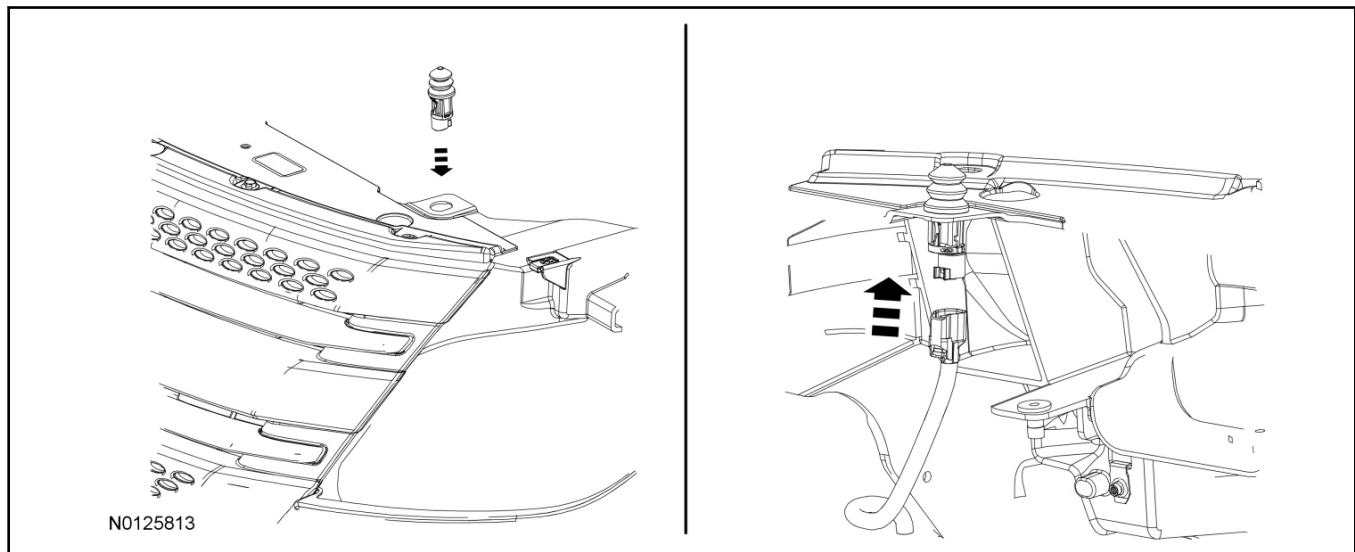
14. Locate the vehicle's existing "OE" hood switch wire harness, located on the LH side of the vehicle below the radiator core support.

- 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.



15. 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.

**INSTALLATION (Continued)****Remove Trim**

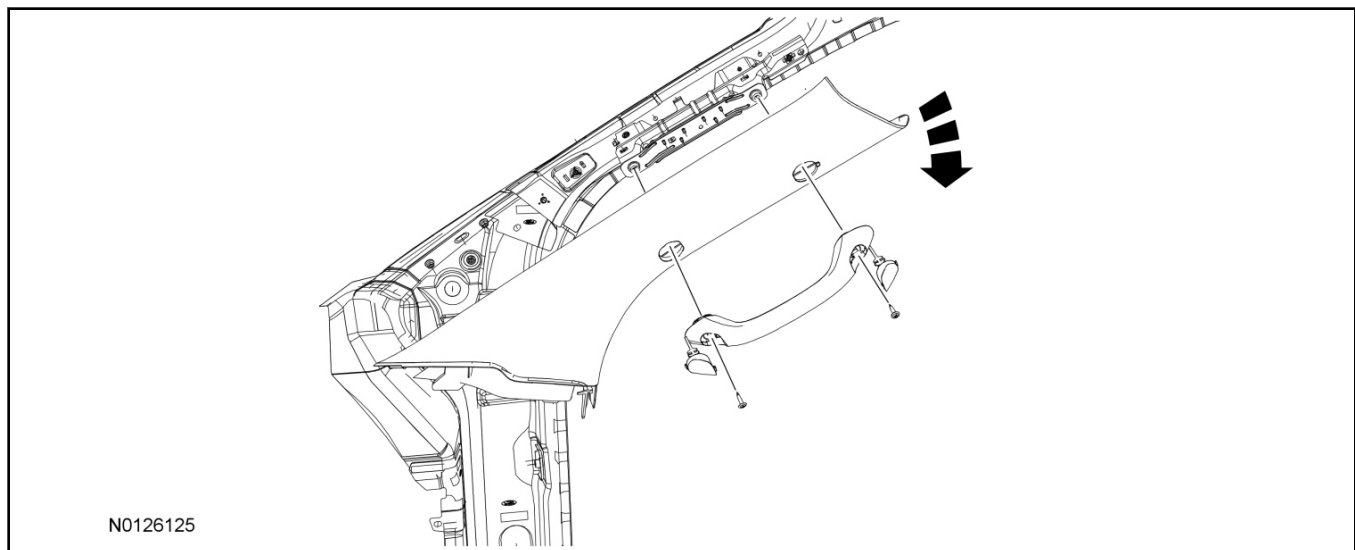
16. Position the RH front door weatherstrip away from the A-pillar trim panel.

17. **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.

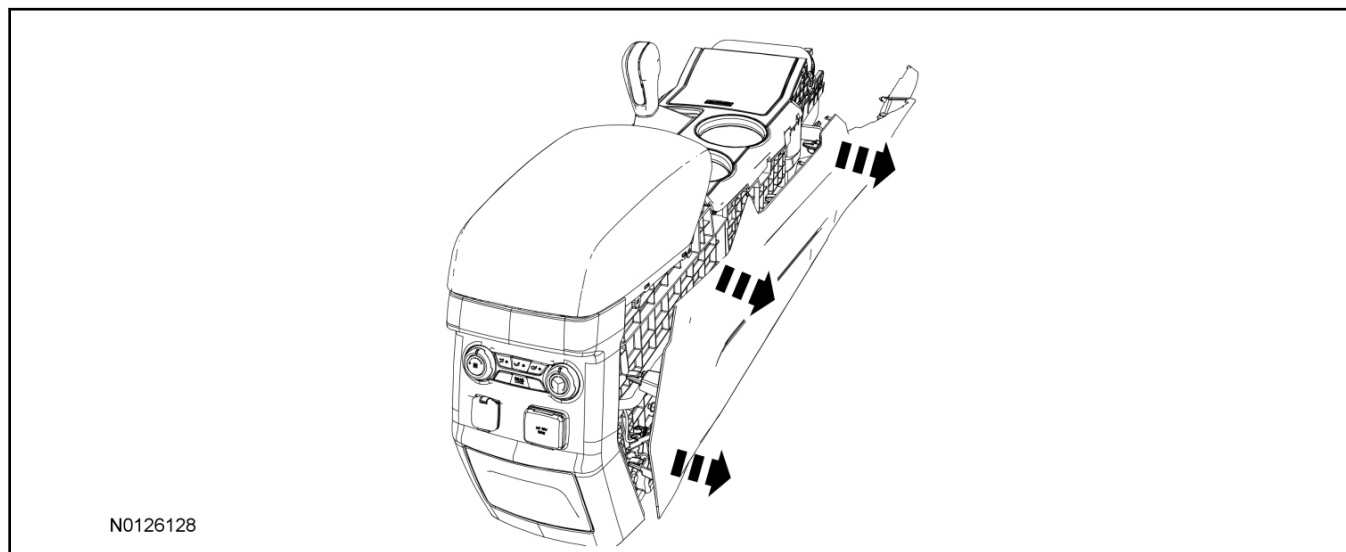
- 1 Remove the 2 A-pillar assist handle bolt covers.
- 2 Remove the 2 A-pillar assist handle bolts and the A-pillar assist handle.
- 3 Pull outward on the A-pillar trim panel to release the clips and remove the trim panel.



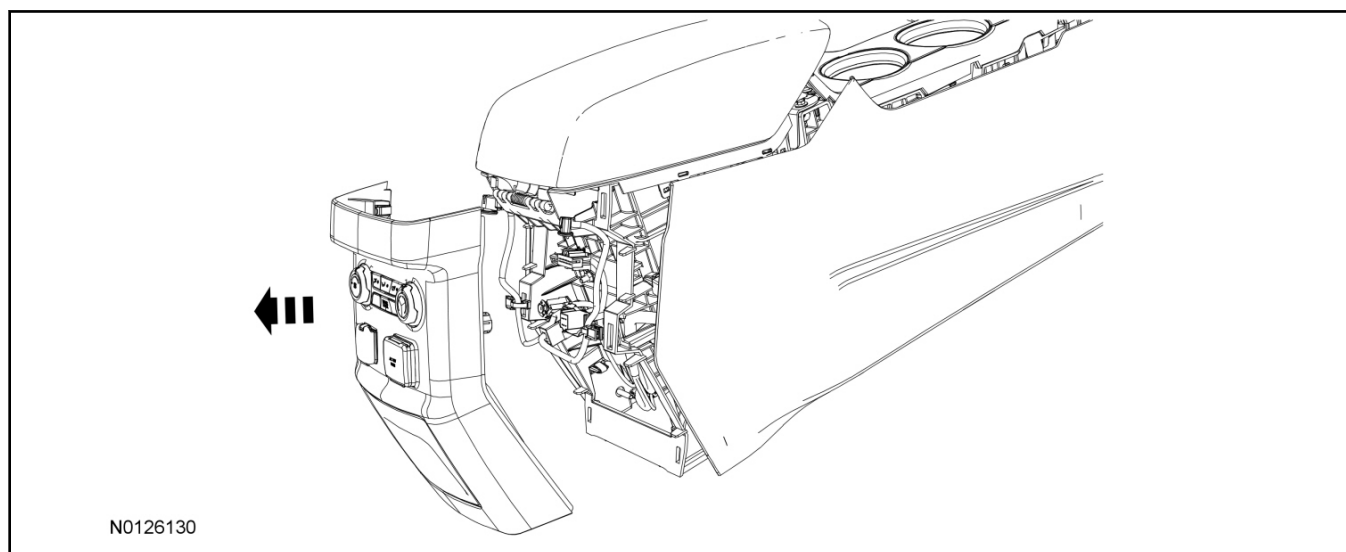
18. Remove the glove compartment opening door, For additional information, refer to Workshop Manual (WSM), Section 501-12.

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

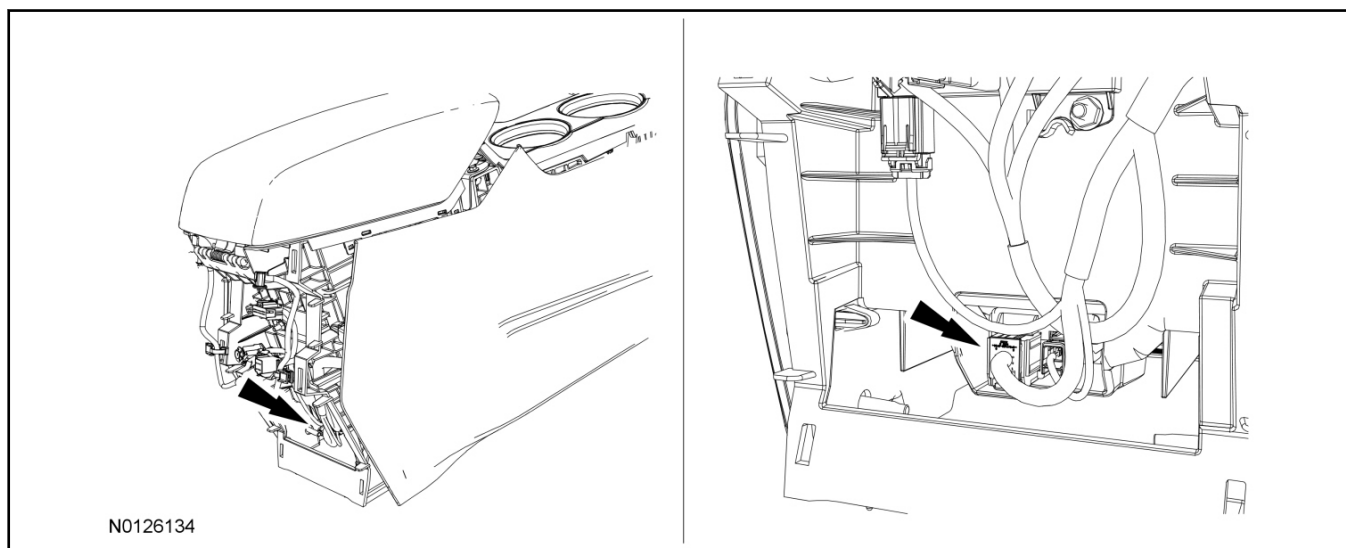




20. Detach the floor console rear trim panel from the floor console.



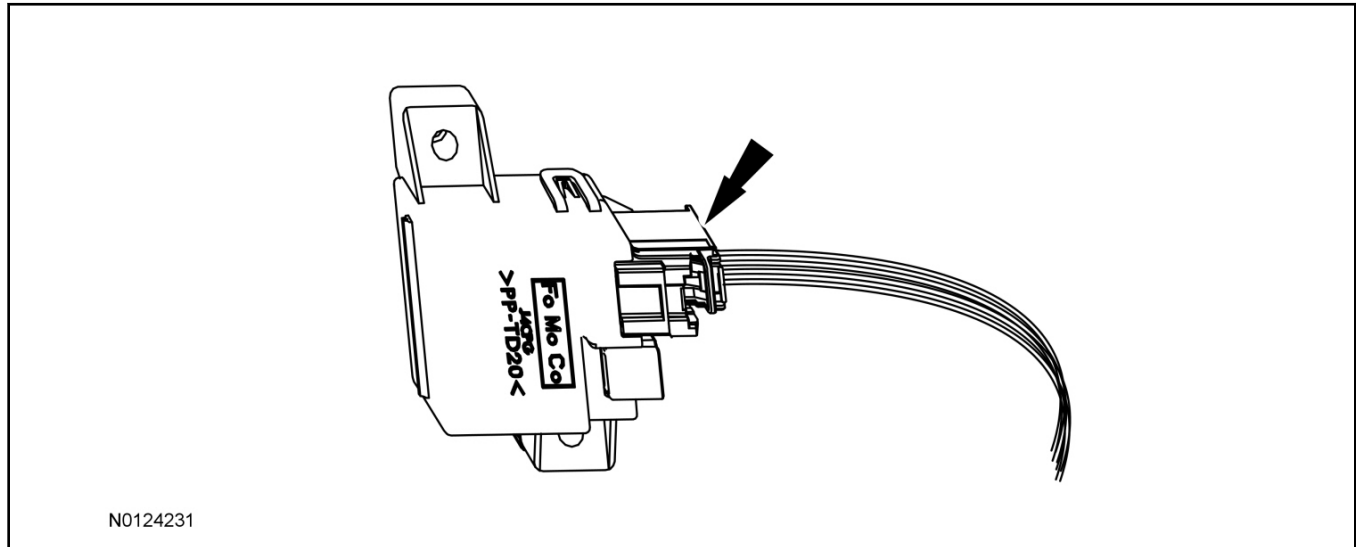
21. Locate the Tire Pressure Monitor (TPM) Module.



**INSTALLATION (Continued)****22. NOTE:**

Floor console removed for clarity.

Disconnect the TPM module.

**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.

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

**Install The Antenna**

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

**NOTE:**

Do not touch the adhesive, reduced adhesion may result.

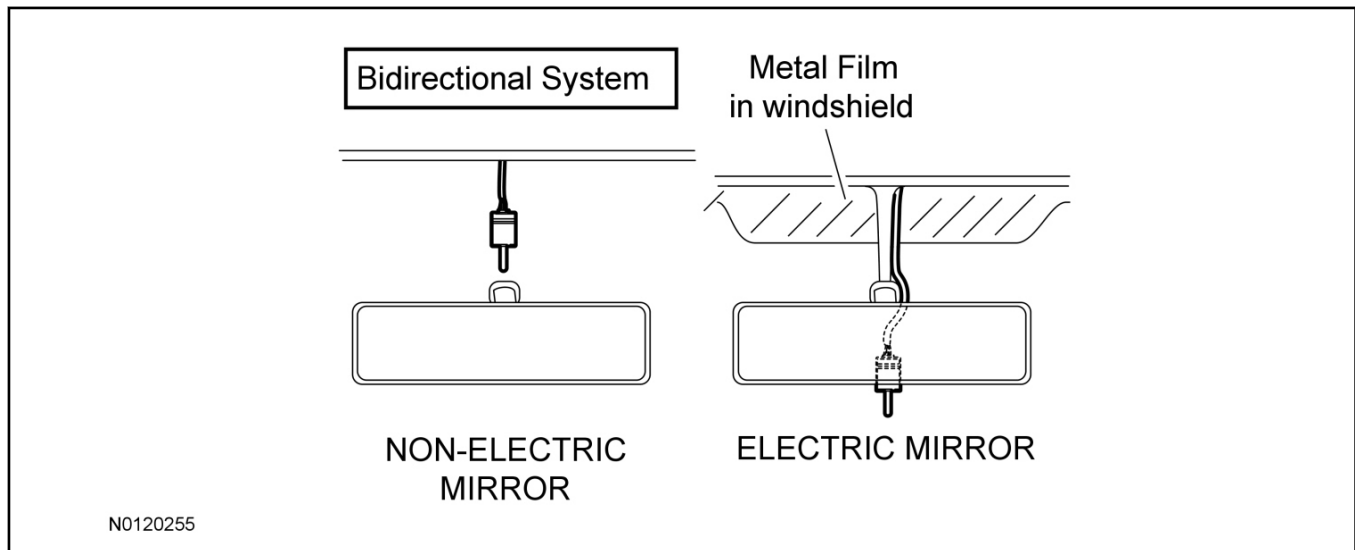
**NOTE:**

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

**INSTALLATION (Continued)****NOTE:**

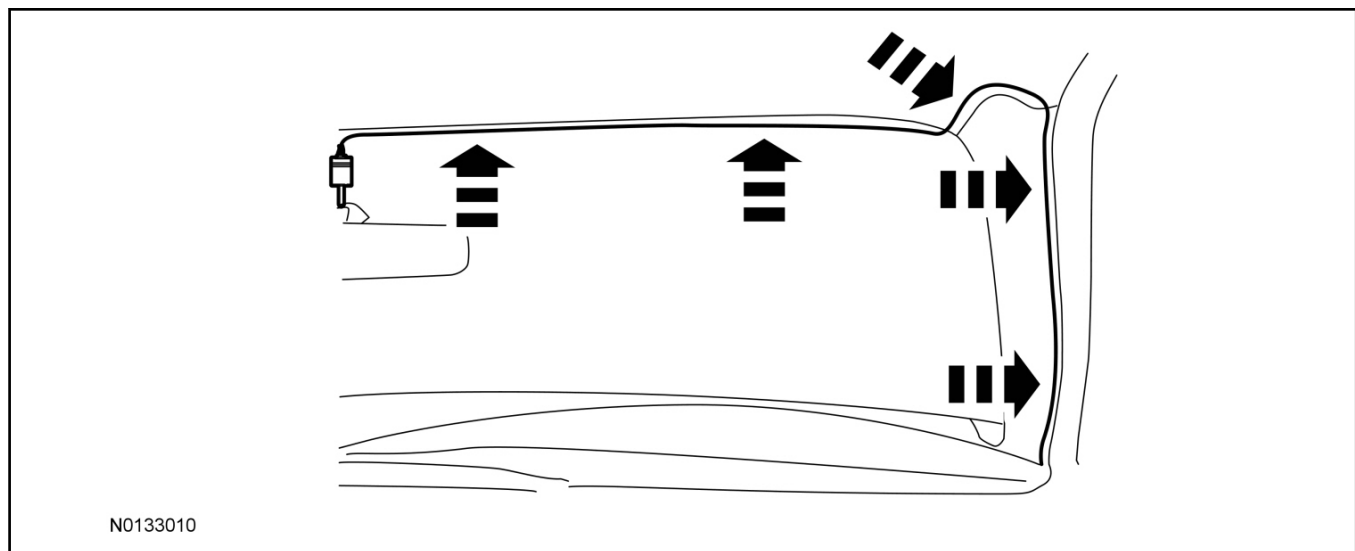
The antenna electrical connector will be attached to the control module later in this procedure.

25. Remove the protective backing from the adhesive on the antenna and firmly press the body of the antenna to the windshield.



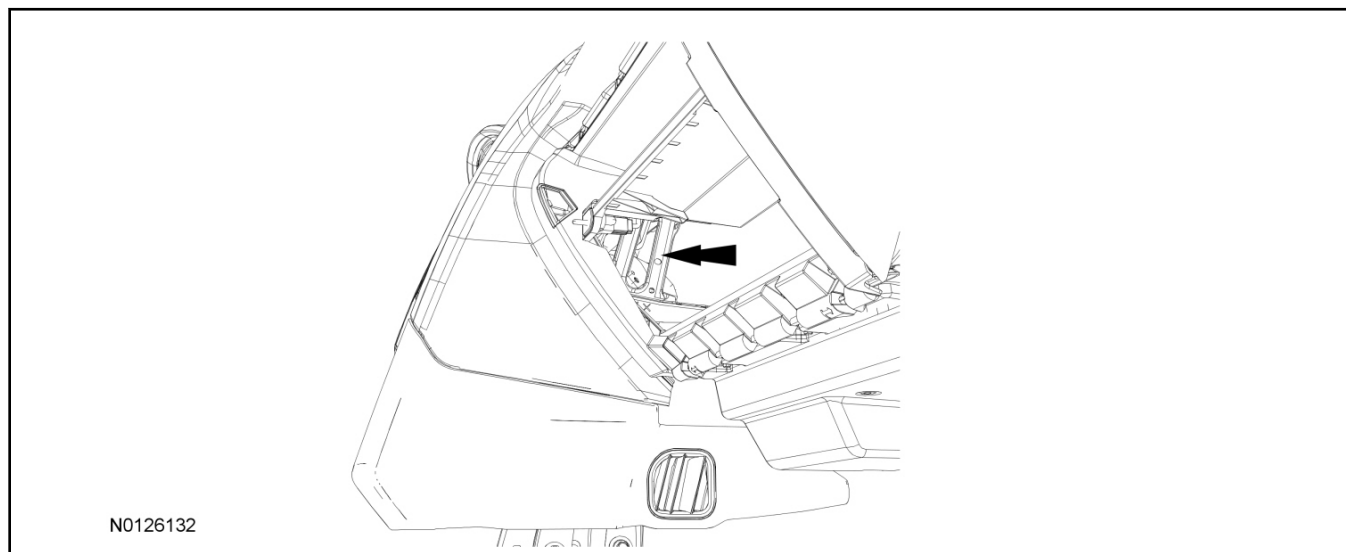
26. Route the antenna cable.

- 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.

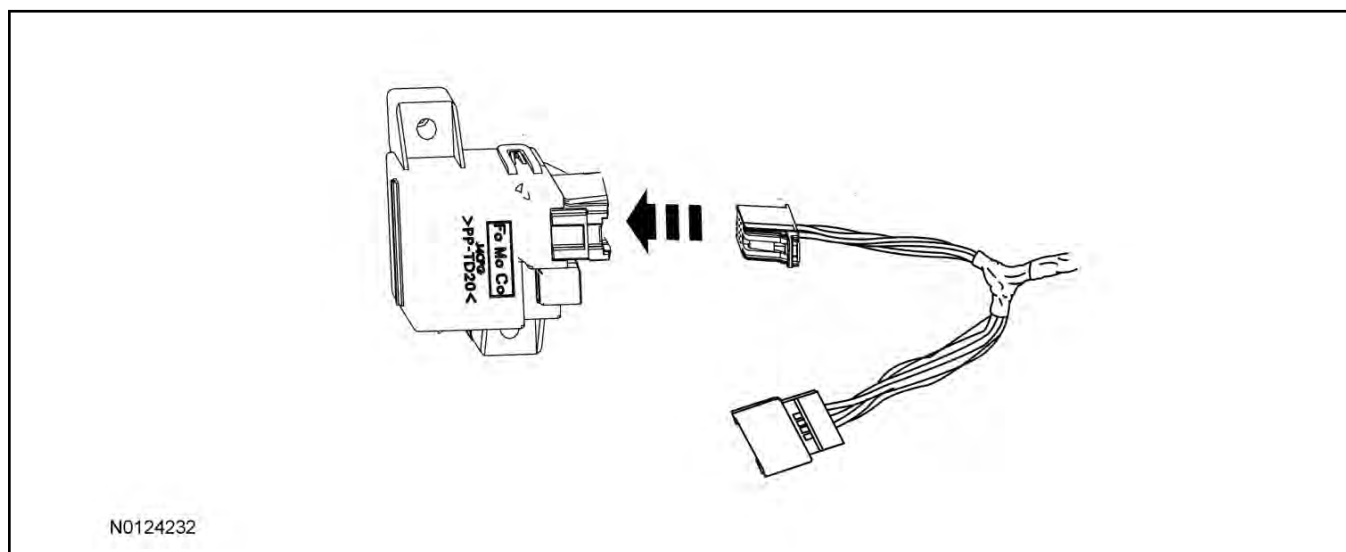


**INSTALLATION (Continued)****Install CGEA module**

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

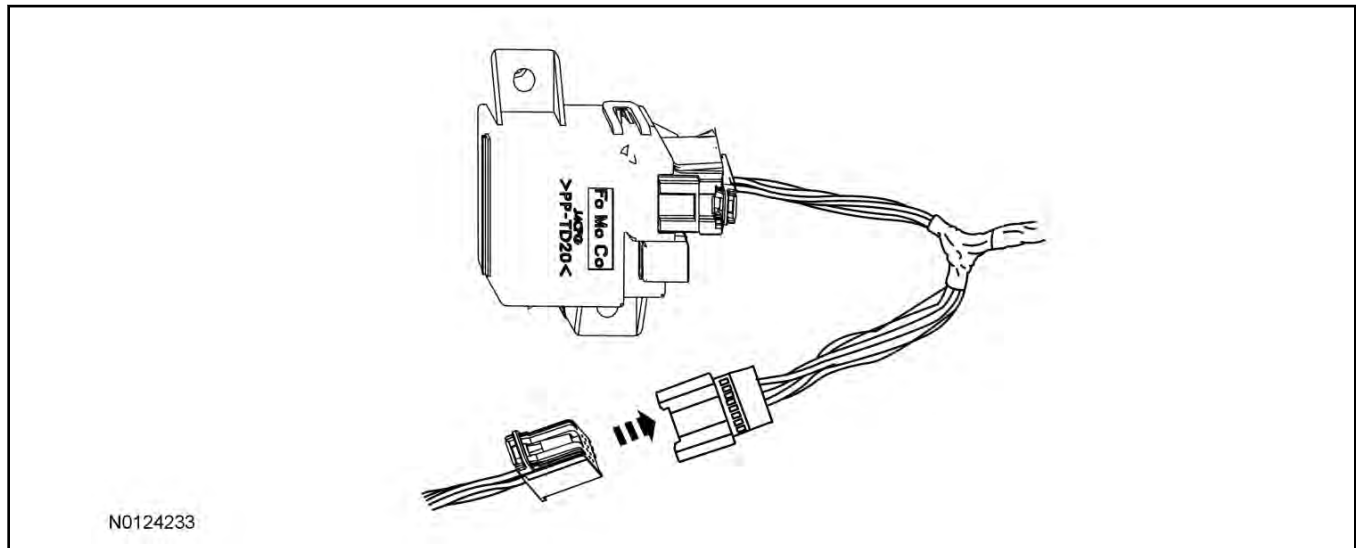


28. Connect the female end of the 8-pin T-harness to the TPM module.



**INSTALLATION (Continued)**

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

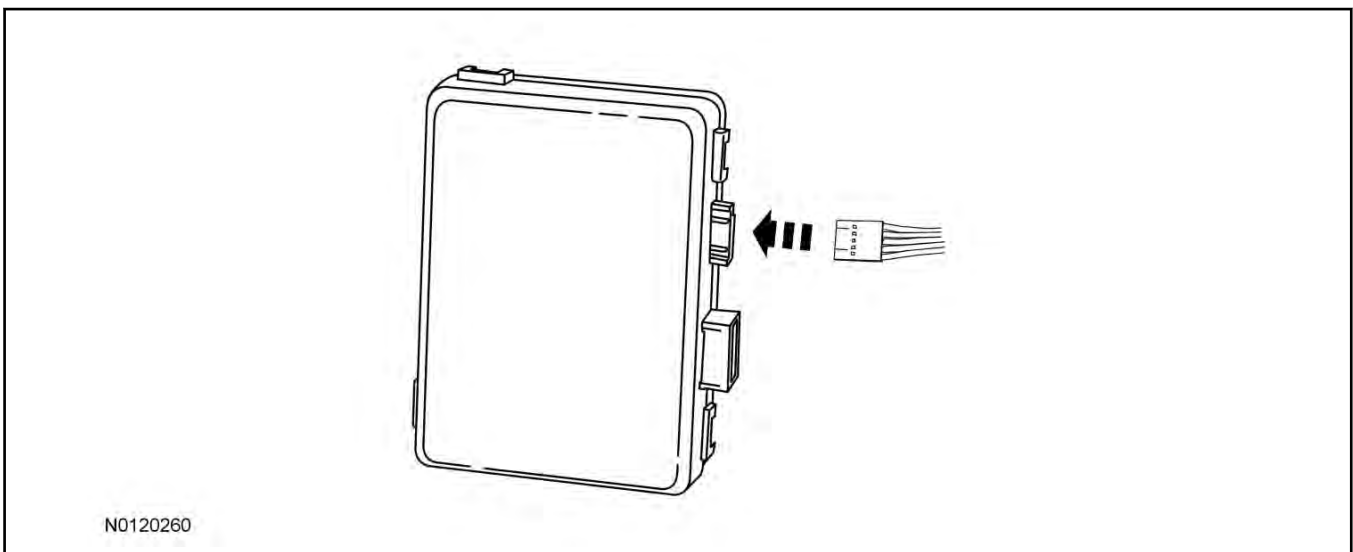


30. Route the T-harness along the floor console, from the TPM module to the CGEA module, located in the glove box .

- Secure the T-harness with tie-straps.

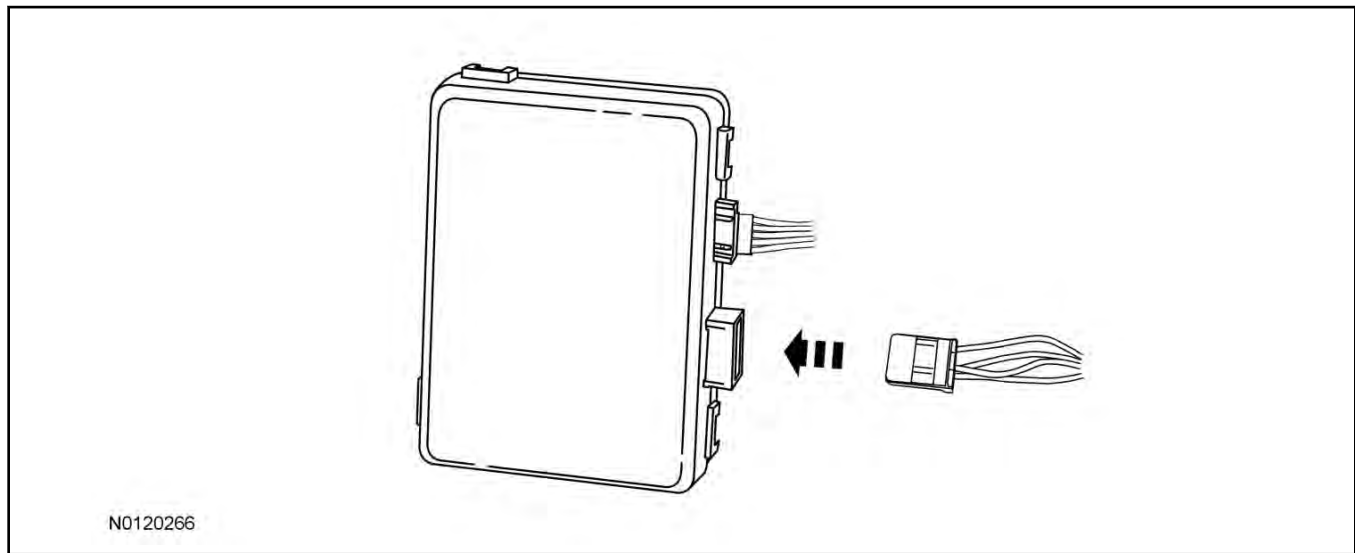
31. Connect the antenna to the CGEA module.

- Secure the antenna harness with tie-straps.



**INSTALLATION (Continued)**

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

**Install Trim**

33. Install the floor console rear trim panel to the floor console.
34. Attach the RH floor console side trim panel, to the floor console.
35. Install the glove compartment opening door, For additional information, refer to WSM, Section 501-12.

**NOTE:**

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

36. 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.
37. Position the RH front door weatherstrip back around the A-pillar trim panel.

**INSTALLATION (Continued)**

---

**Remote Start Activation**

38. Verify that the IDS is updated to the most current version.
39. Connect IDS.
  - Follow the prompts to select new vehicle session.
  - Enter VIN.
40. 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.
41. 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.
42. 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.

**Learn Remote Start System to Vehicle****NOTE:**

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

43. Press the vehicle's unlock button located on the driver's door. Make sure all doors are unlocked.
44. Put the key in the ignition.

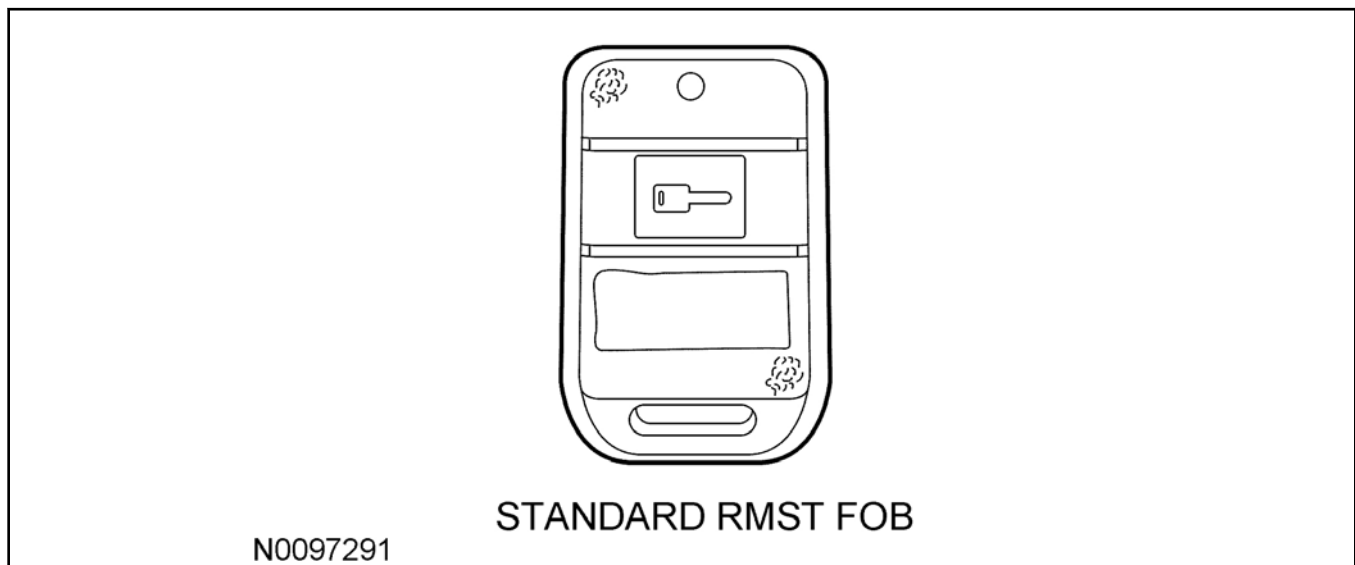
**INSTALLATION (Continued)**

45. 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.
46. 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.

**Standard RMST Functional Test****NOTE:**

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

47. Make sure the shift lever is in PARK and the ignition is in the OFF position. Remove all keys from the vehicle.
48. Close the hood.
49. Close all of the vehicle doors.
50. Start the vehicle by pressing and holding the remote start button on the remote start key fob for more than 2 seconds.



51. Confirm the remote start works with the vehicle in park and with the hood and doors closed.
52. Enter the vehicle and confirm that the vehicle shuts down when attempting to shift out of park.
53. Open the hood.
54. **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.**



**INSTALLATION (Continued)****Bi-directional RMST Functional Test****NOTE:**

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

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.



56. Make sure the shift lever is in PARK and the ignition is in the OFF position. Remove all keys from the vehicle.
57. Close the hood.
58. Close all of the vehicle doors.
59. Start the vehicle by pressing the remote start button 2 times on the bi-directional key fob.
60. Confirm the remote start works with the vehicle in park and with the hood and doors closed.
61. Enter the vehicle and confirm that the vehicle shuts down when attempting to shift out of park.
62. Open the hood.
63. **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.**

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# REMOTE START SYSTEM INSTALLATION

## CONTENTS

### [VEHICLE PREPARATION](#)

### [INSTALLATION](#)

#### [Remote Start](#)

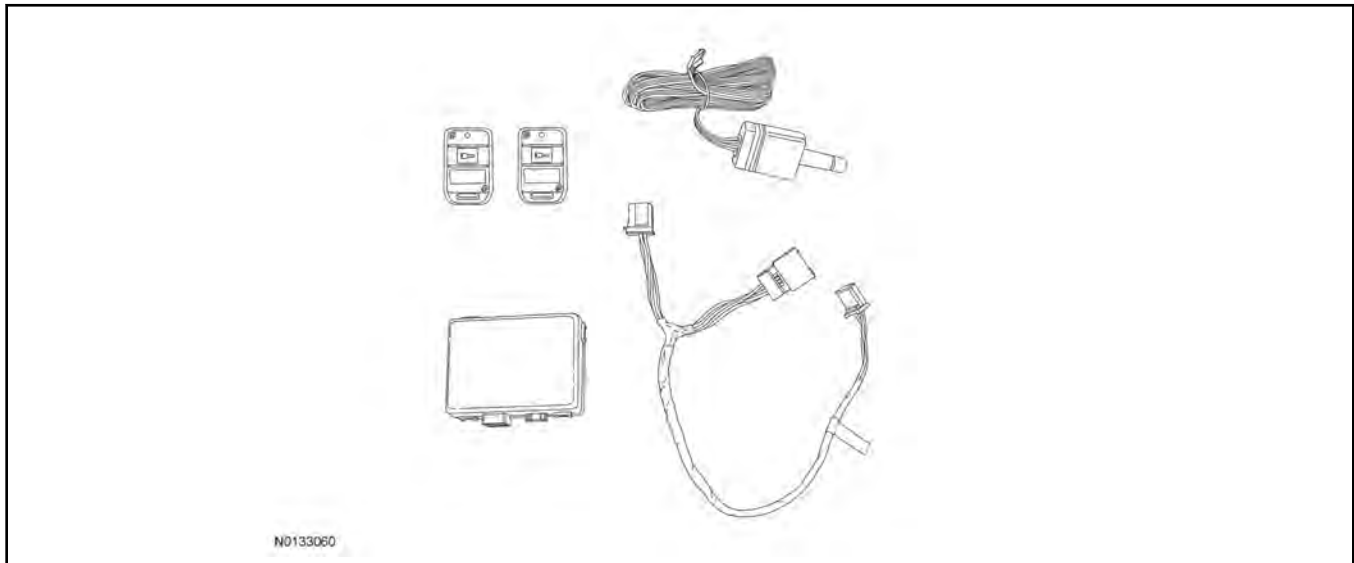
### [GENERAL PROCEDURES](#)

#### [Functional Test](#)

## INSTALLATION

### Remote Start System (RMST)

#### RMST Components



#### Edge/MKX - Push Button Start

1. Verify correct kit number.

#### Review RMST Kit Contents

2. Review the RMST kit contents.

##### RMST Kit

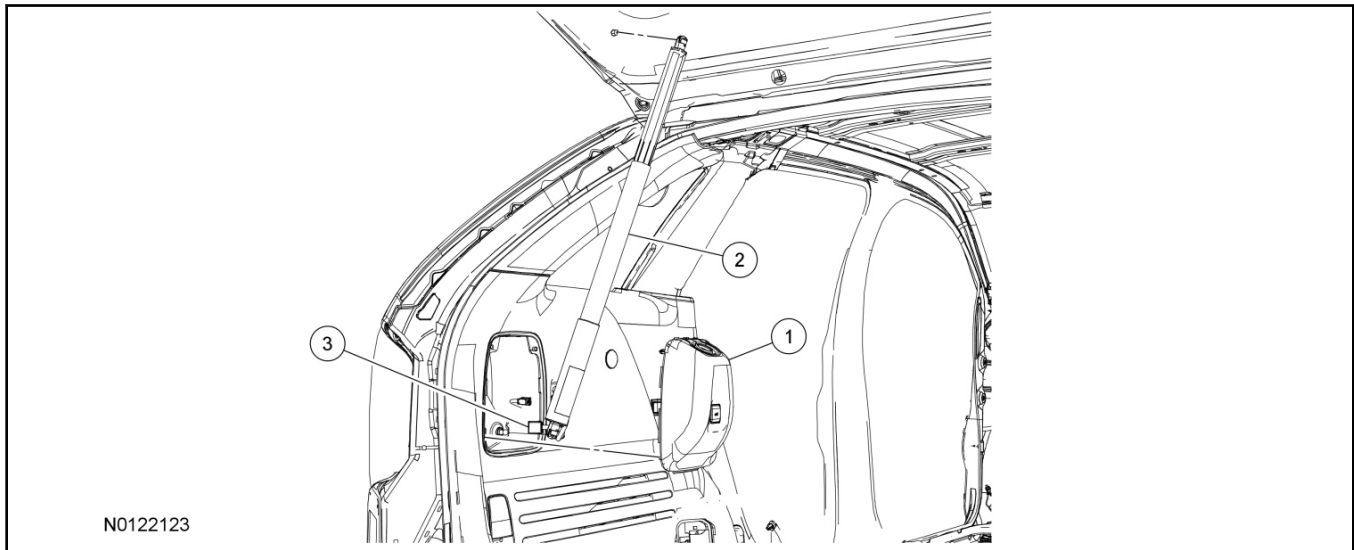
QUANTITY	DESCRIPTION
2	1 Button Key Fob
1	Remote Start Module
1	Antenna
1	T-harness

#### Vehicle Preparation

3. Open the liftgate.

#### Remove Power Liftgate Motor

4. 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.

**INSTALLATION (Continued)****Position Aside LH Quarter Trim Panel**

5. Remove the rear cargo load area.
  - Remove the foam blocks from the spare tire well.
6. Remove the LH safety belt lower anchor bolt cover and remove the LH safety belt lower anchor bolt.
7. If equipped, remove the cargo net hook.
8. **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**

9. Remove the LH rear safety belt D-ring cover and remove the safety belt bolt.
10. Remove the LH C-pillar trim panel screw cover.
11. Remove the LH C-pillar trim panel screw.
12. Remove the C-pillar trim panel.
  - Pull outward and downward to remove the C-pillar trim panel.

**Install the Antenna**

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

**NOTE:**

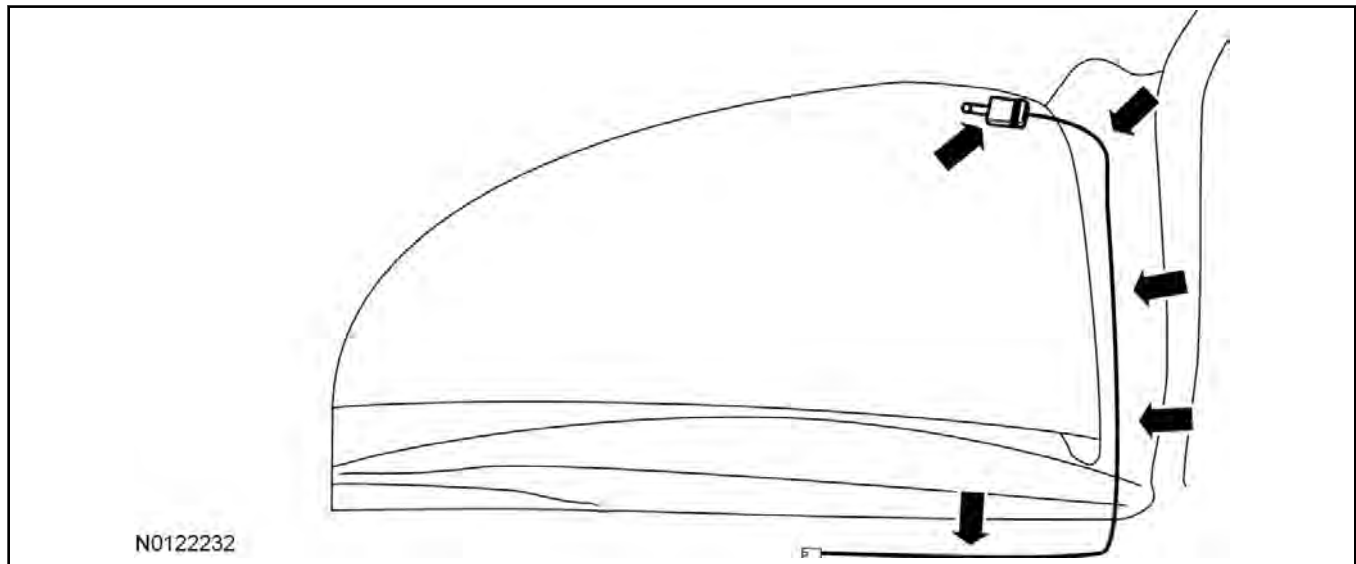
Do not touch the adhesive, reduced adhesion may result.

**NOTE:**

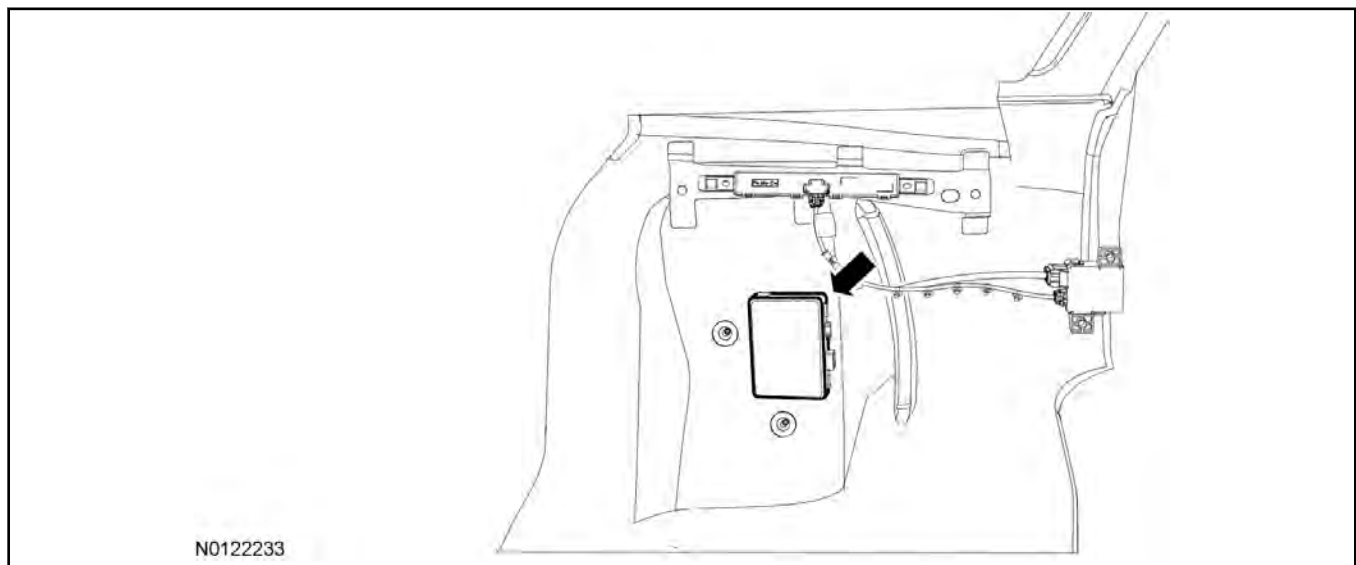
The wire harness will be connected to the control module later in this procedure.

**INSTALLATION (Continued)**

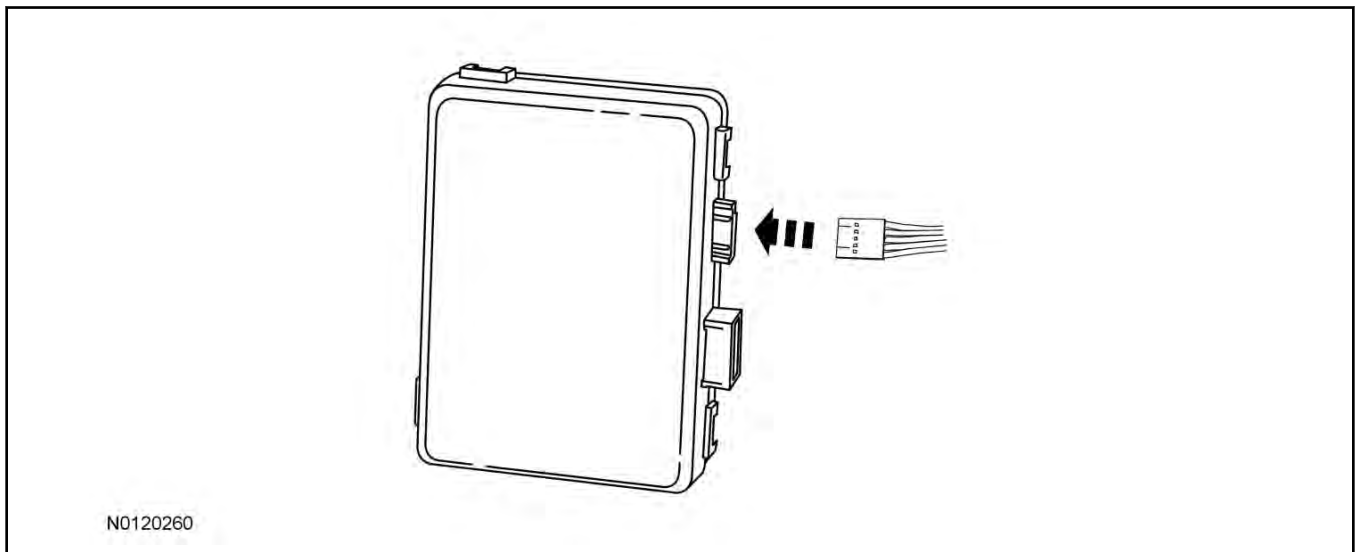
14. Remove the protective backing from the adhesive on the antenna and firmly press the body of the antenna to the LH rear quarter window glass.
- Route the antenna cable down the C-pillar to the quarter panel where the remote start module will be mounted.
  - Secure the antenna wire harness with tie straps.

**Install CGEA module**

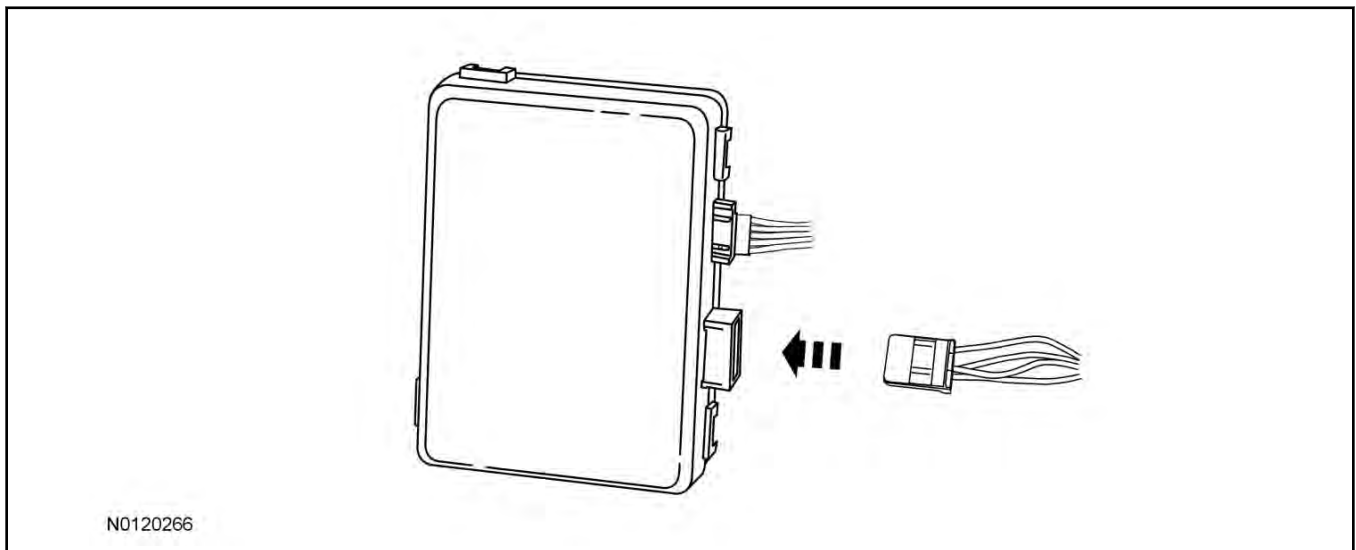
15. Remove the protective backing from the 3m Dual Lock™ strips and install the remote start module to the vehicle.
- Mount to a flat metal surface on the vehicle's LH quarter panel.



16. Connect the antenna to the remote start module.
- Secure the antenna harness with tie-straps.

**INSTALLATION (Continued)**

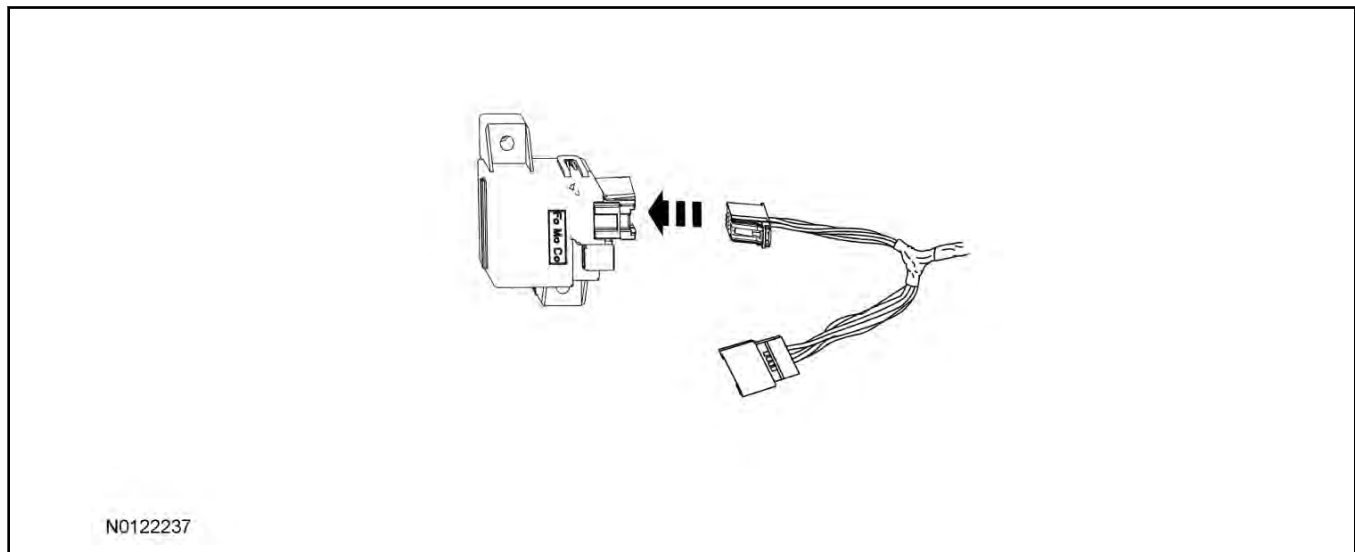
17. Connect the T-harness to the remote start module.



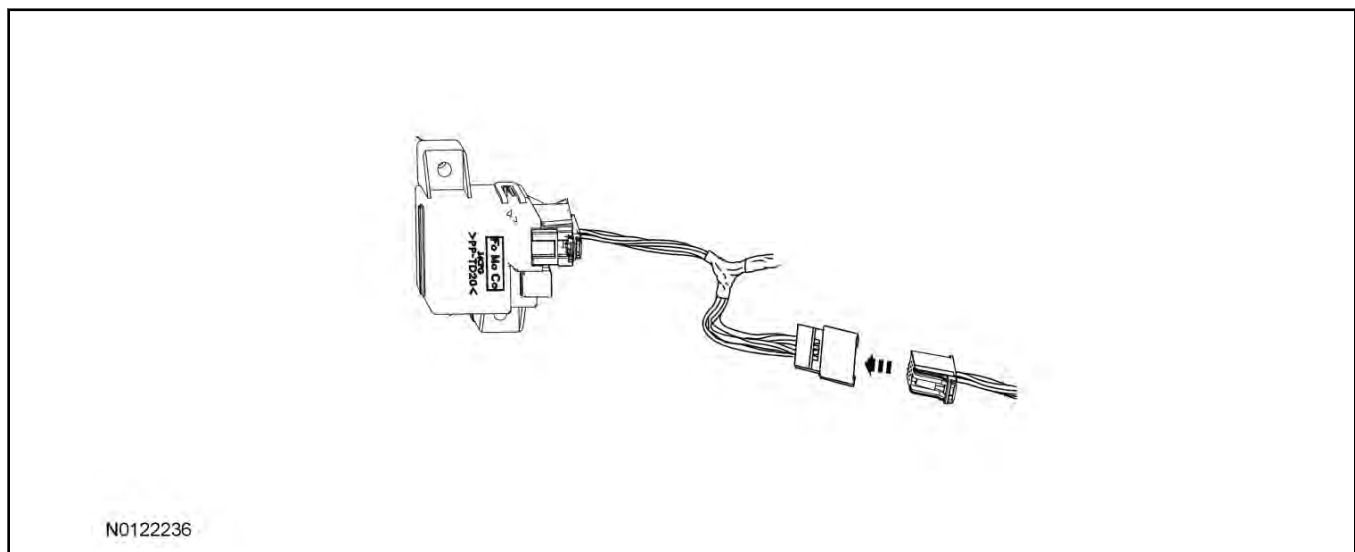
18. Route the female end of the T-harness to the TPM module.

- Secure the harness with tie-straps.

19. Disconnect the 8-pin TPM module electrical connector and connect the female end of the T-harness to the TPM module.

**INSTALLATION (Continued)**

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

**Install LH C-Pillar Trim Panel**

21. Install the LH C-pillar trim panel.
22. Install the LH C-pillar trim panel screw.
  - Tighten to 9 Nm (80 lb-in).
23. 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.

24. Install the safety belt bolt and install the safety belt D-ring cover.
  - Tighten to 54 Nm (40 lb-ft).

**INSTALLATION (Continued)**

---

**Install LH Quarter Trim Panel**

25. Position the LH quarter trim panel back.

- Engage push pin retainers.

26. If equipped, install the cargo net hook.

- Tighten to 3 Nm (27 lb-in).

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

- Tighten to 54 Nm (40 lb-ft).

28. **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.

29. Install the rear cargo load area.

- Install the foam blocks into the spare tire well.

**Install Power Liftgate Motor**

30. 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.

**RMST Functional Test**

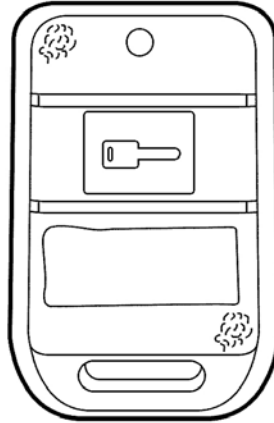
31. Make sure the shift lever is in park and the engine is off. Remove all Intelligent Access (IA) Keys from the vehicle.

32. Close the hood.

33. Close all vehicle doors.

34. Start the vehicle by pressing and holding the remote start button on the remote start key fob for more than 2 seconds.



**INSTALLATION (Continued)****STANDARD RMST FOB**

N0097291

35. Confirm the remote start works with the vehicle in park and with the hood and doors closed.
36. Enter the vehicle and confirm that the vehicle shuts down when attempting to shift out of park.
37. Open the hood.
38. **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.**

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# REMOTE START SYSTEM INSTALLATION

## CONTENTS

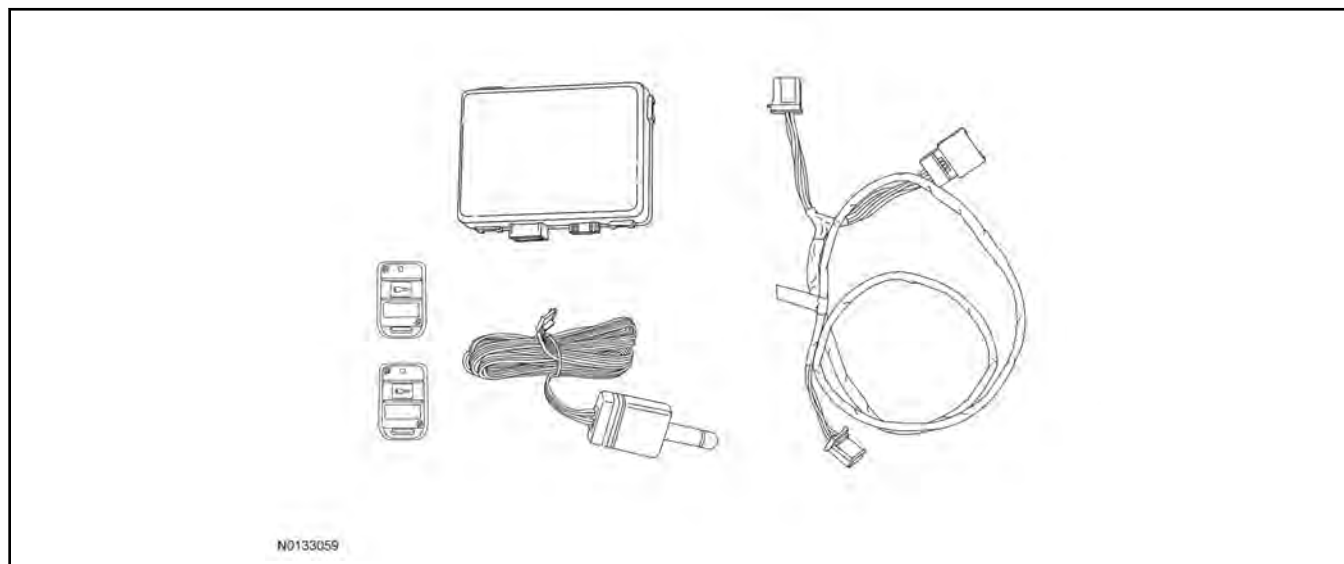
### [VEHICLE PREPARATION INSTALLATION](#)

[Remote Start](#)

### [GENERAL PROCEDURES Functional Test](#)

## INSTALLATION

### Remote Start System (RMST) Components



### Explorer - Push Button Start

1. Verify correct kit number.

### Review RMST Kit Contents

2. Review the RMST kit contents.

#### RMST Kit

QUANTITY	DESCRIPTION
2	1 Button Key Fob
1	Remote Start Module
1	Antenna
1	T-harness

### Vehicle Preparation

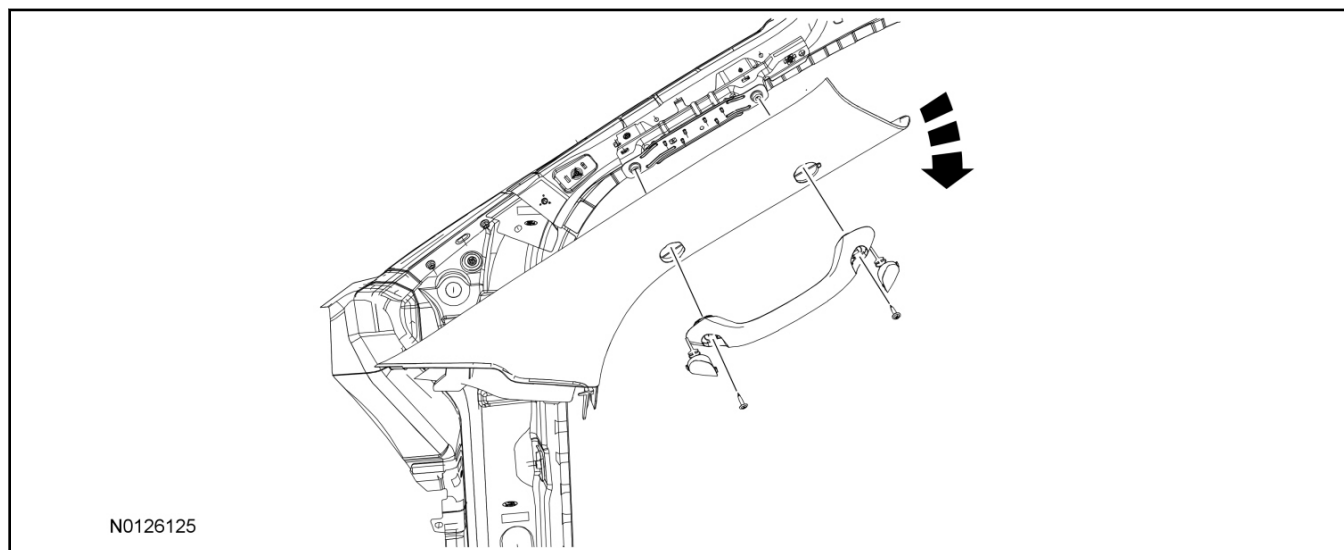
3. Position the RH front door weatherstrip away from the A-pillar trim panel.
4. **NOTICE:**  
**The A-Pillar assist handle bolt covers have a tether attaching them to the assist handle and do not come off the assist handle.**

Remove the RH A-pillar trim panel.

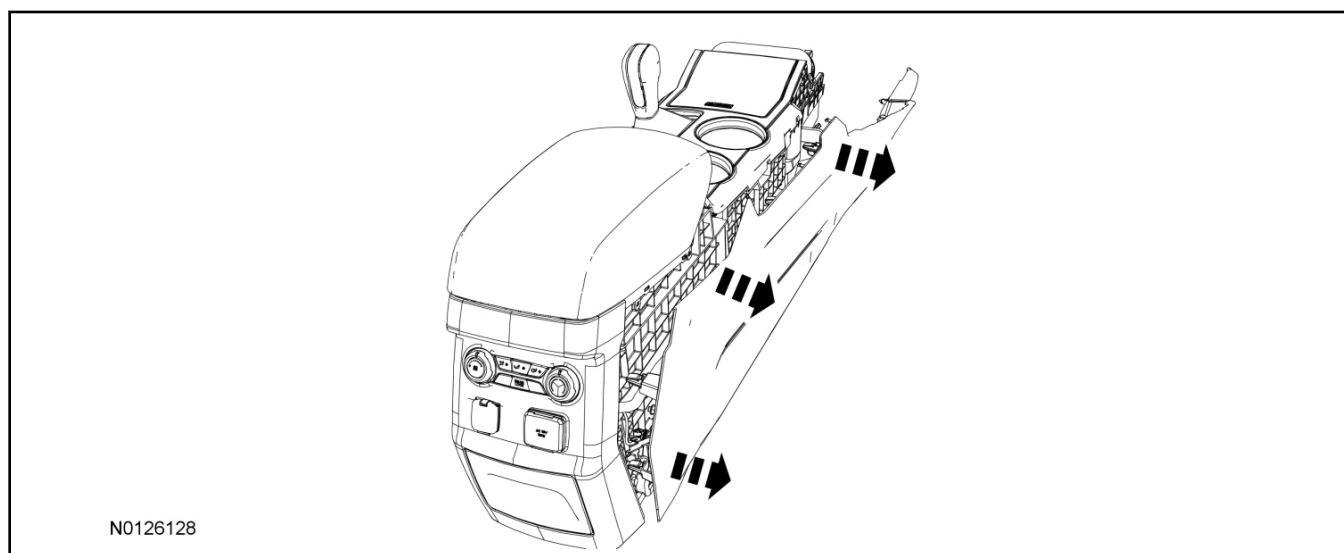
- 1 Remove the 2 A-pillar assist handle bolt covers.
- 2 Remove the 2 A-pillar assist handle bolts and the A-pillar assist handle.

**INSTALLATION (Continued)**

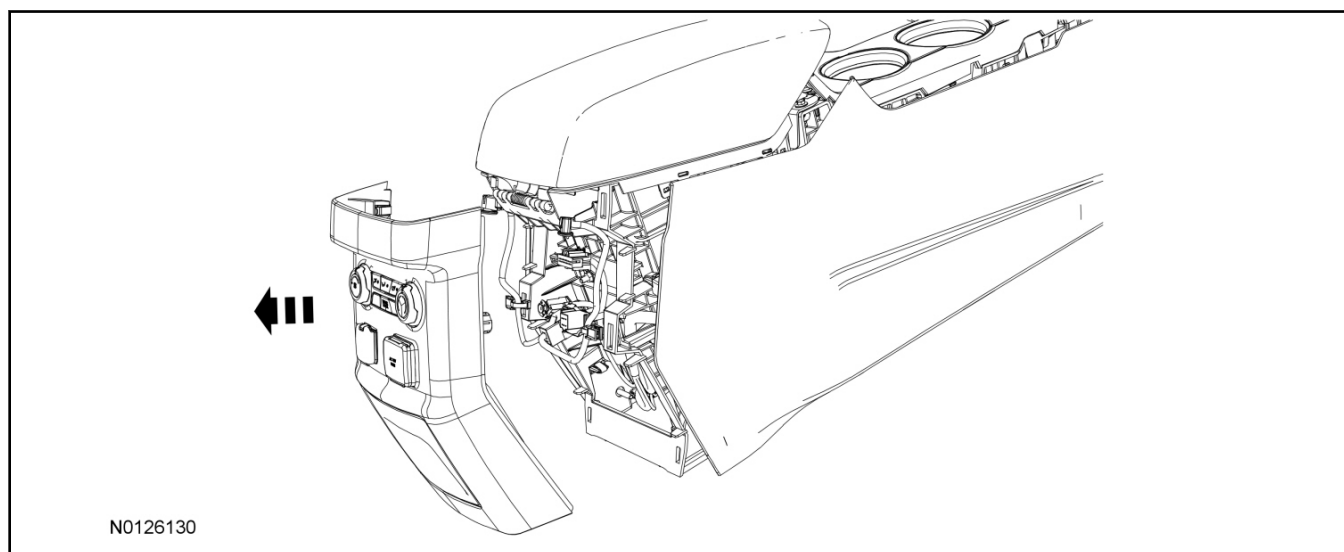
- 3 Pull outward on the A-pillar trim panel to release the clips and remove the trim panel.



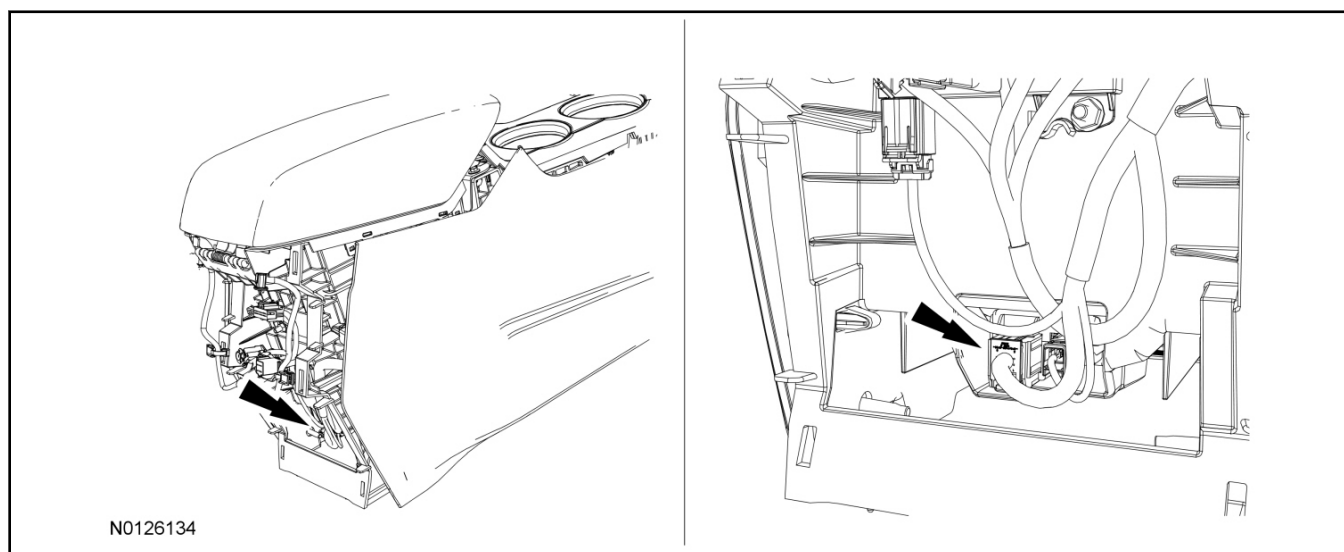
5. Remove the glove compartment opening door, For additional information, refer to Workshop Manual (WSM), Section 501-12.
6. Detach the RH floor console side trim panel from the floor console.



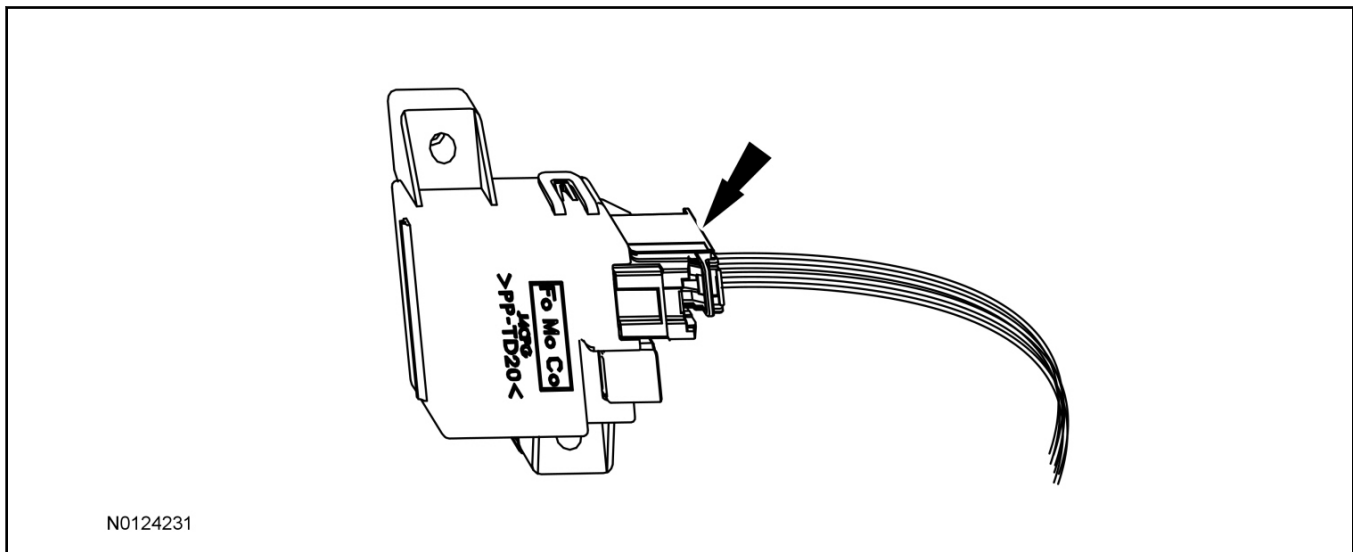
7. Detach the floor console rear trim panel from the floor console.



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



9. **NOTE:**  
Floor console removed for clarity.  
Disconnect the TPM module.

**INSTALLATION (Continued)****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.

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

**Install The Antenna**

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

**NOTE:**

Do not touch the adhesive, reduced adhesion may result.

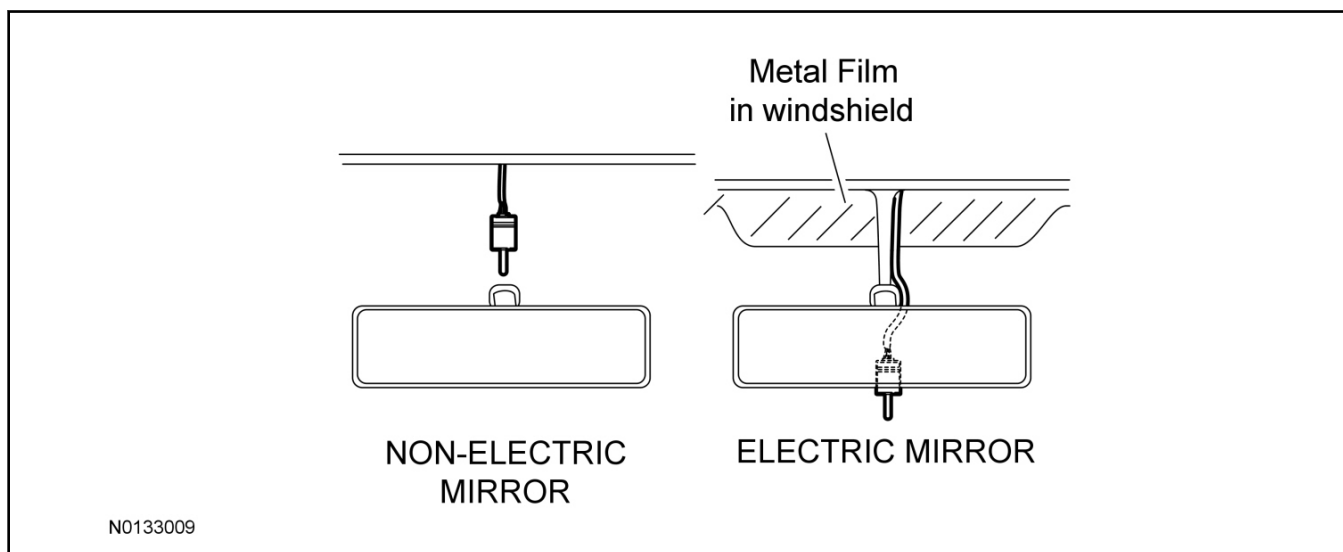
**NOTE:**

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

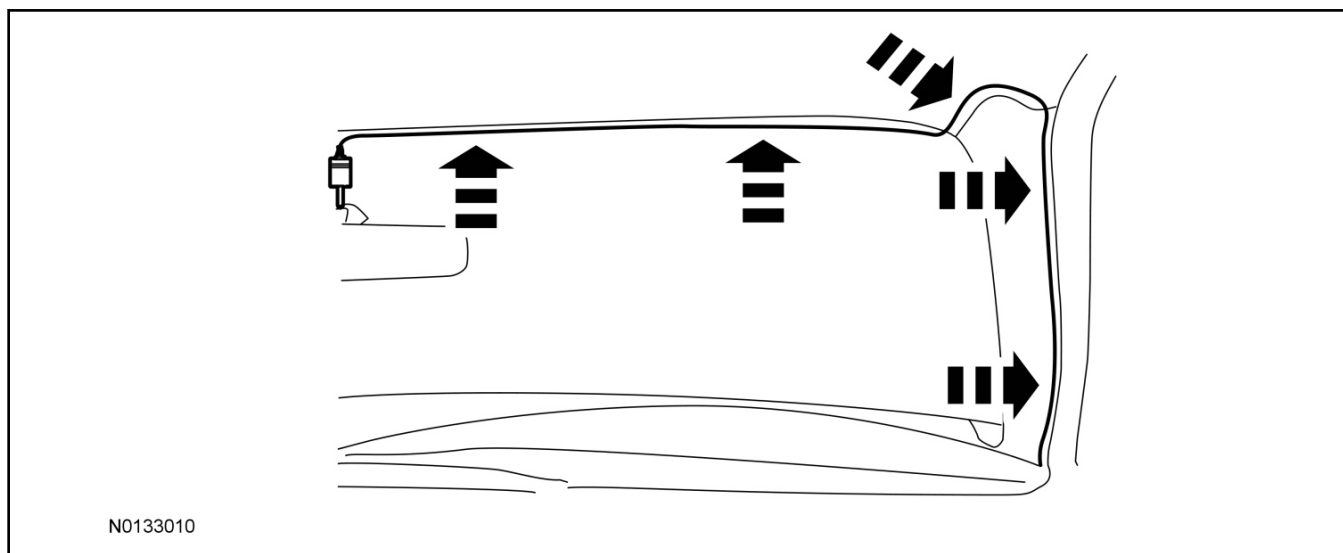
**NOTE:**

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

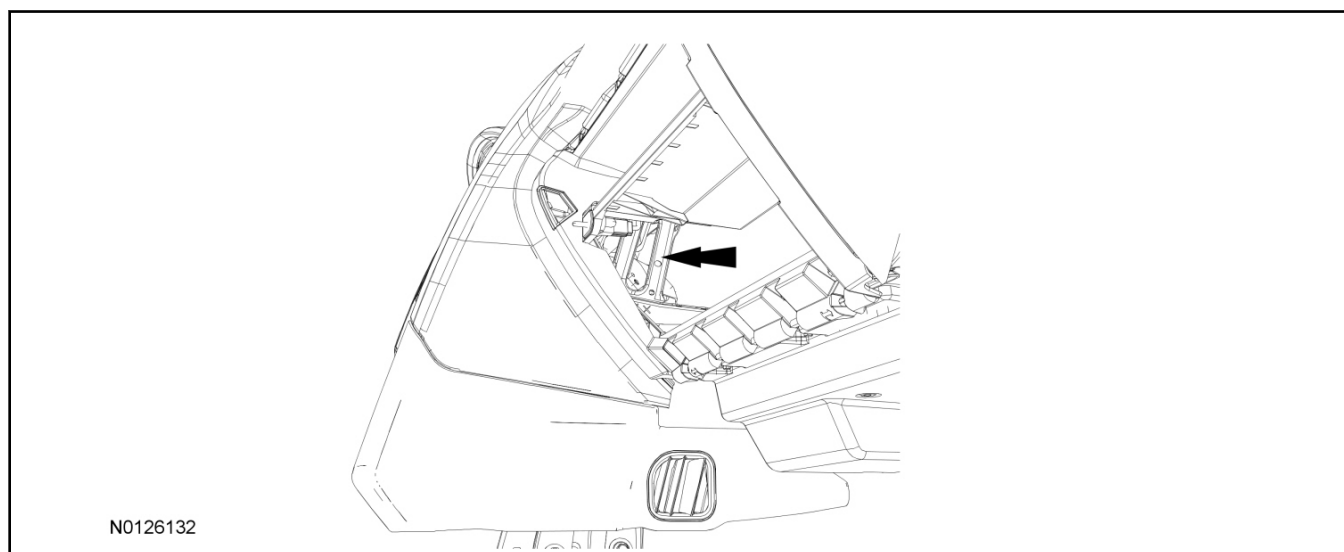
12. Remove the protective backing from the adhesive on the antenna and firmly press the body of the antenna to the windshield.

**INSTALLATION (Continued)****13. Route the antenna cable.**

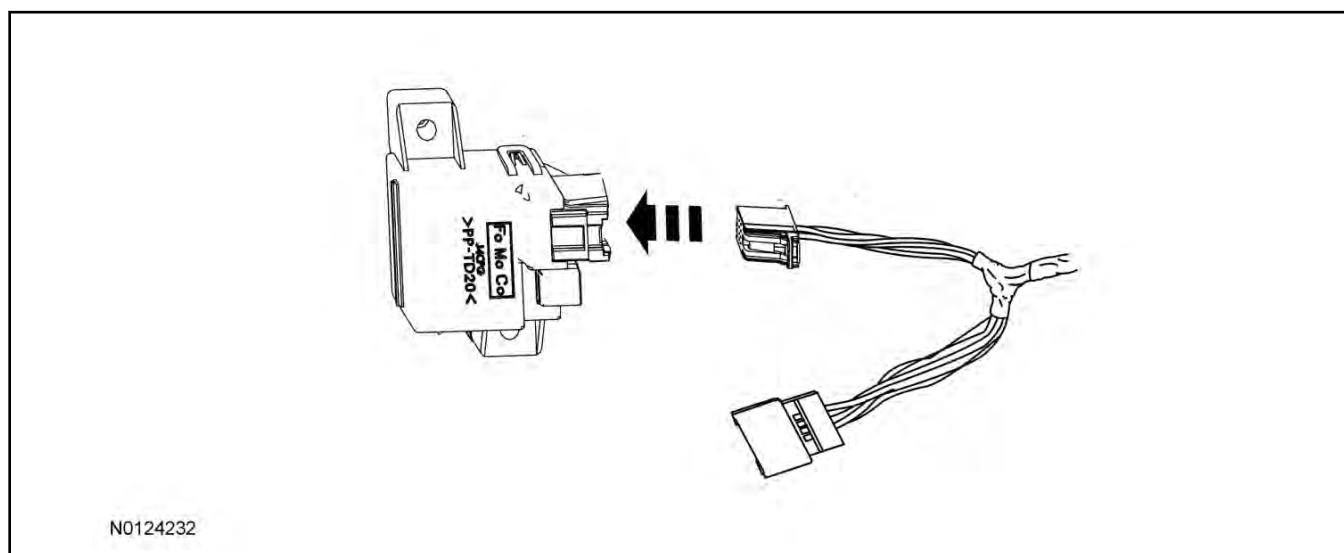
- Route inside the headliner to the A-pillar.
- Route down the A-pillar, behind the side air bag. Secure as required with tie-straps.
- Continue routing into the RH instrument panel side trim area and inside the instrument panel, coming out of the glove box.

**Install CGEA module**

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

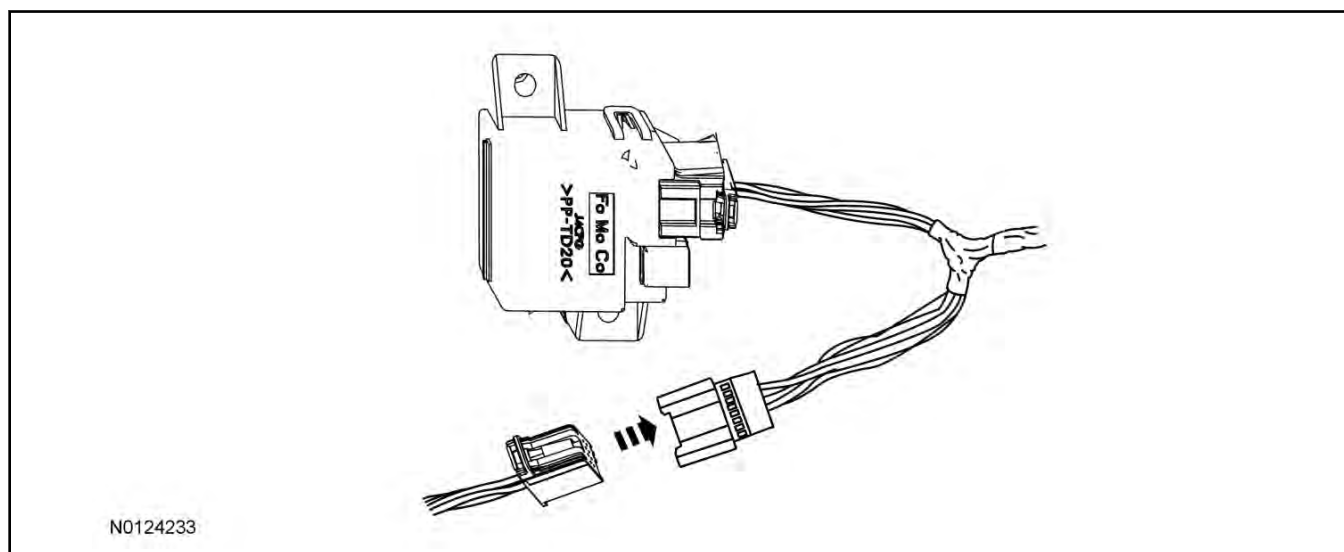
**INSTALLATION (Continued)**

15. Disconnect the 8-pin TPM module electrical connector and connect the female end of the T-harness to the TPM module.

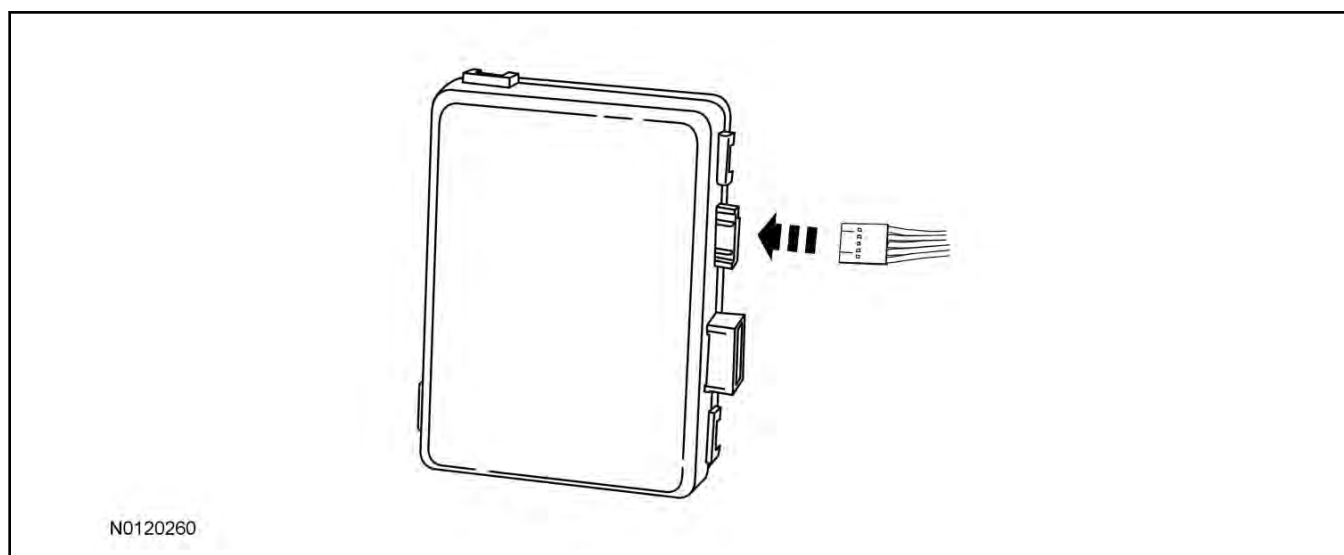


16. Connect the male end of the 8-pin T-harness to the 8-pin TPM module electrical connector.

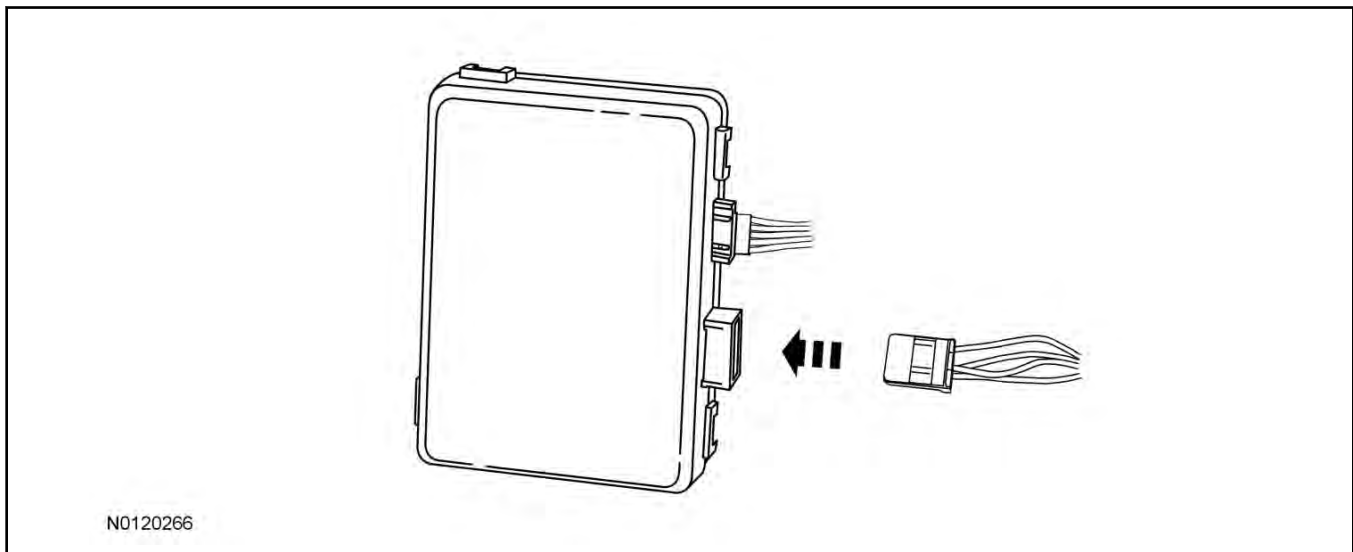


**INSTALLATION (Continued)**

17. Route the T-harness along the floor console, from the TPM module to the CGEA module, located in the glove box .
  - Secure the T-harness with tie-straps.
18. Connect the antenna to the CGEA module.
  - Secure the antenna harness with tie-straps.



19. Connect the T-harness to the CGEA module.

**INSTALLATION (Continued)****Assemble Trim**

20. Install the floor console rear trim panel to the floor console.
21. Attach the RH floor console side trim panel, to the floor console.
22. Install the glove compartment opening door, For additional information, refer to WSM, Section 501-12.

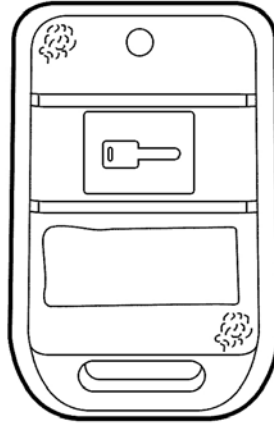
**NOTE:**

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

23. 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.
24. Position the RH front door weatherstrip back around the A-pillar trim panel.

**RMST Functional Test**

25. Make sure the shift lever is in park and the engine is off. Remove all Intelligent Access (IA) Keys from the vehicle.
26. Close the hood.
27. Close all vehicle doors.
28. Start the vehicle by pressing and holding the remote start button on the remote start key fob for more than 2 seconds.

**INSTALLATION (Continued)****STANDARD RMST FOB**

N0097291

29. Confirm the remote start works with the vehicle in park and with the hood and doors closed.
30. Enter the vehicle and confirm that the vehicle shuts down when attempting to shift out of park.
31. Open the hood.
32. **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.**

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# REMOTE START SYSTEM INSTALLATION

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### INSTALLATION

[Remote Start](#)

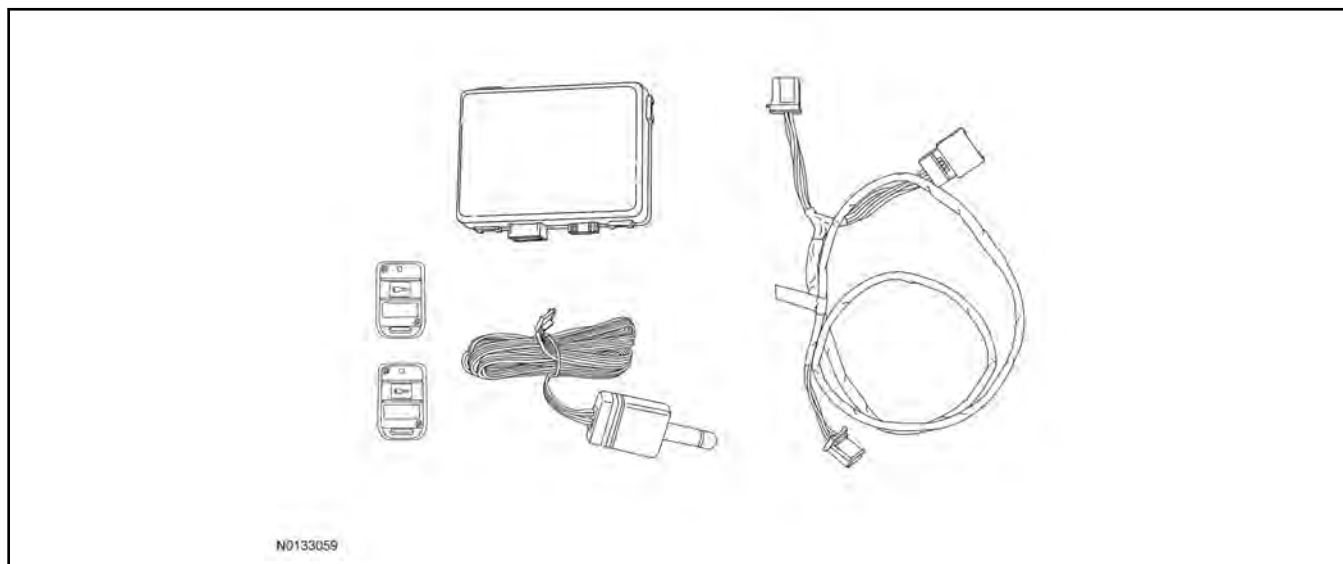
### GENERAL PROCEDURES

[Functional Test](#)

## INSTALLATION

### Remote Start

#### Remote Start System (RMST) Components



### MKT

1. Verify correct kit number.

#### Review RMST Kit Contents

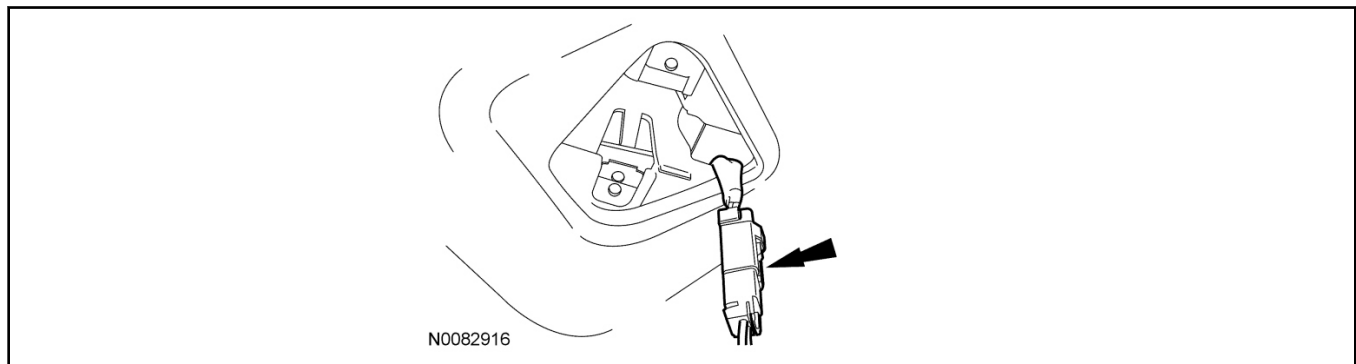
2. Review the RMST kit contents.

##### RMST Kit

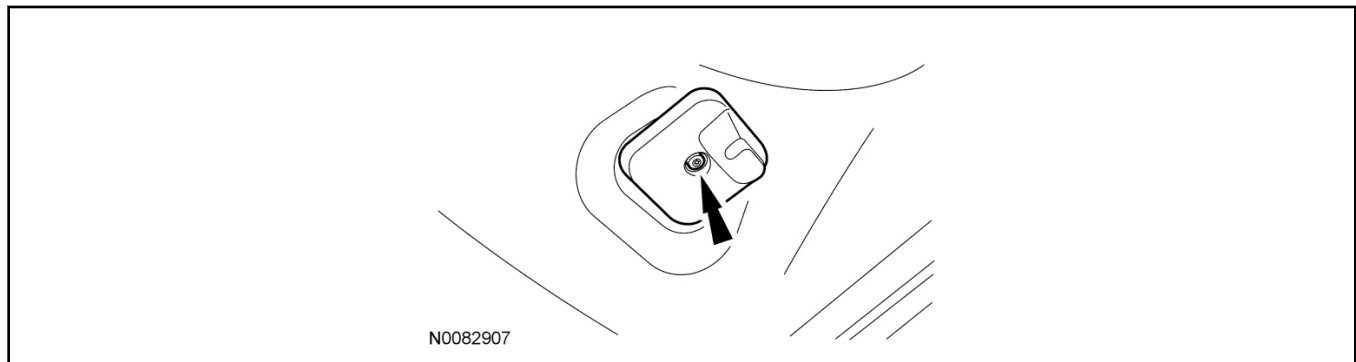
QUANTITY	DESCRIPTION
2	1 Button Key Fob
1	Remote Start Module
1	Antenna
1	T-harness

#### Vehicle Preparation

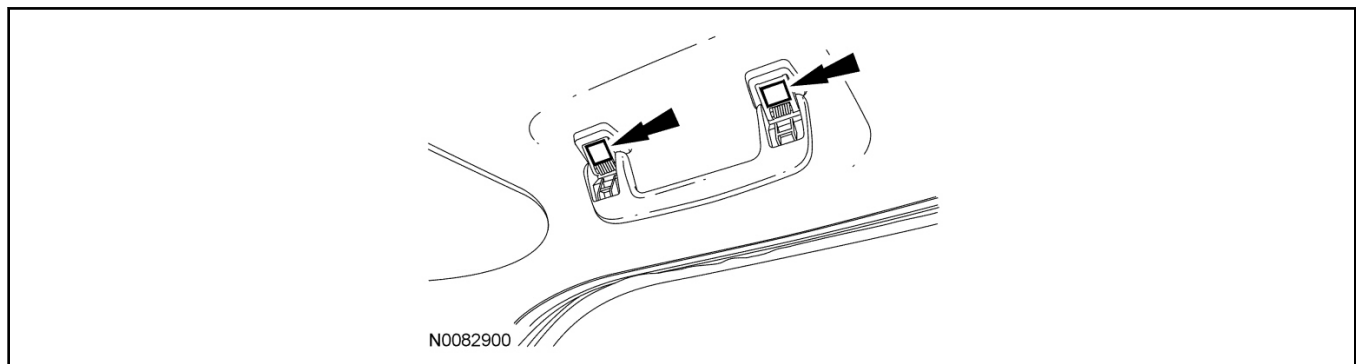
3. Remove the RH A-Pillar and RH B-pillar trim panels. For additional information, refer to Workshop Manual (WSM), Section 501-05.
4. If equipped, remove the DVD entertainment system. For additional information, refer to WSM, Section 415-00.
5. Remove the RH sun visor retainer screw covers and remove the retaining screws.
6. Disconnect the RH sun visor electrical connector and remove the sun visor.

**INSTALLATION (Continued)**

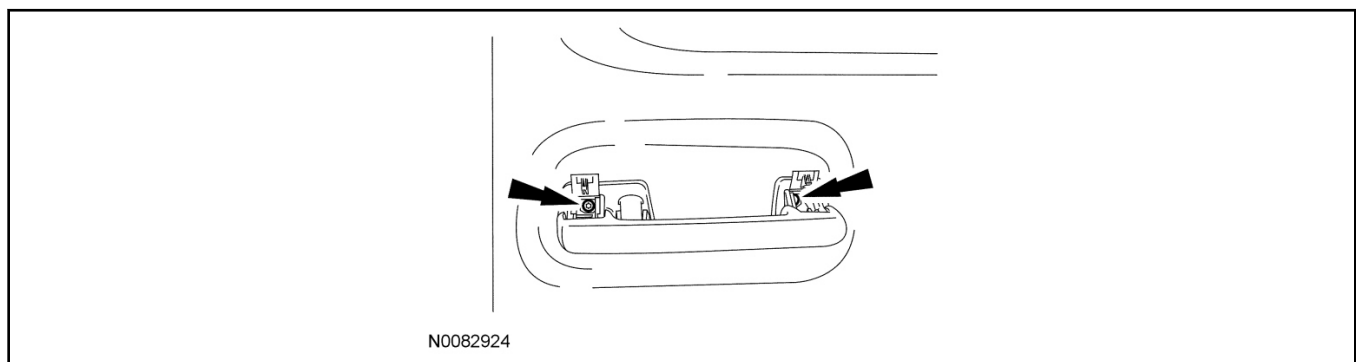
7. Remove the RH sun visor clip retainer screws and remove the sun visor clip.



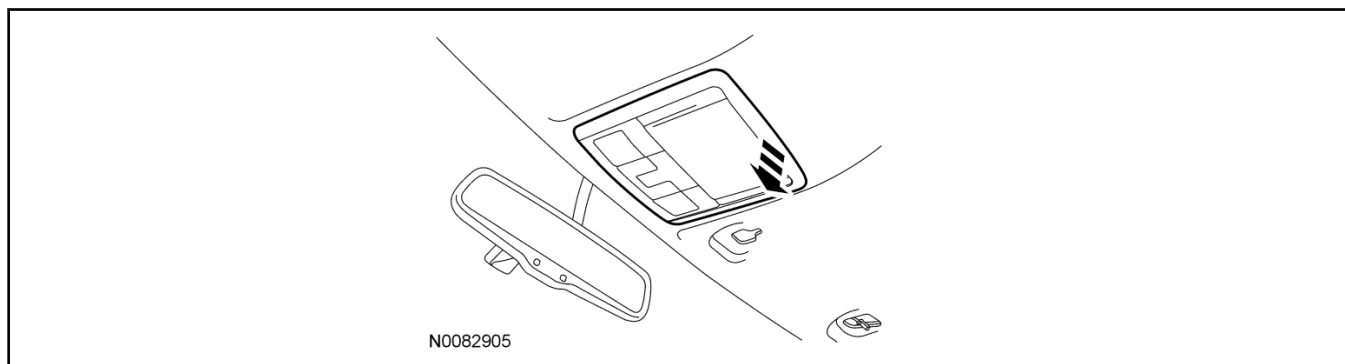
8. Open the RH front assist handle screw covers.



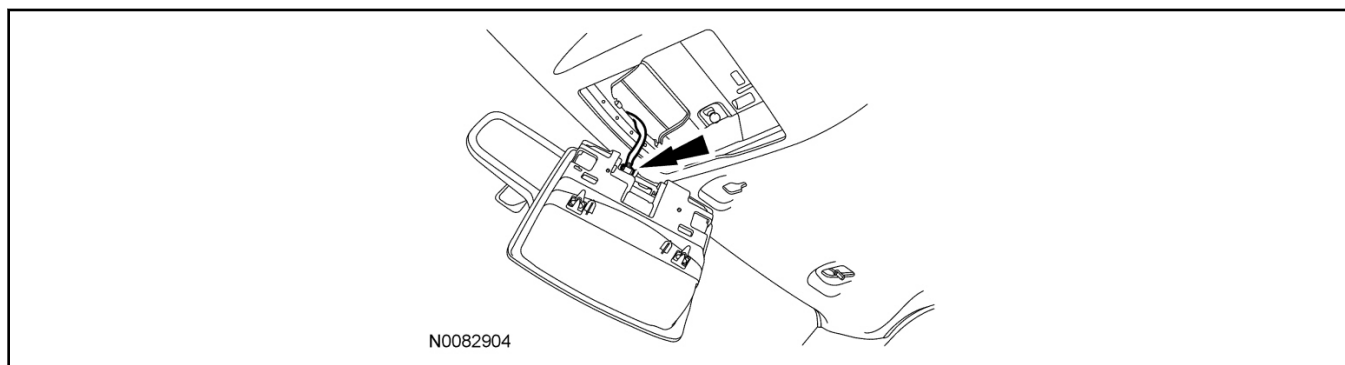
9. Remove the RH front assist handle screws and remove the front assist handle.
- If equipped, disconnect the assist handle ambient lighting electrical connector.



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

**INSTALLATION (Continued)**

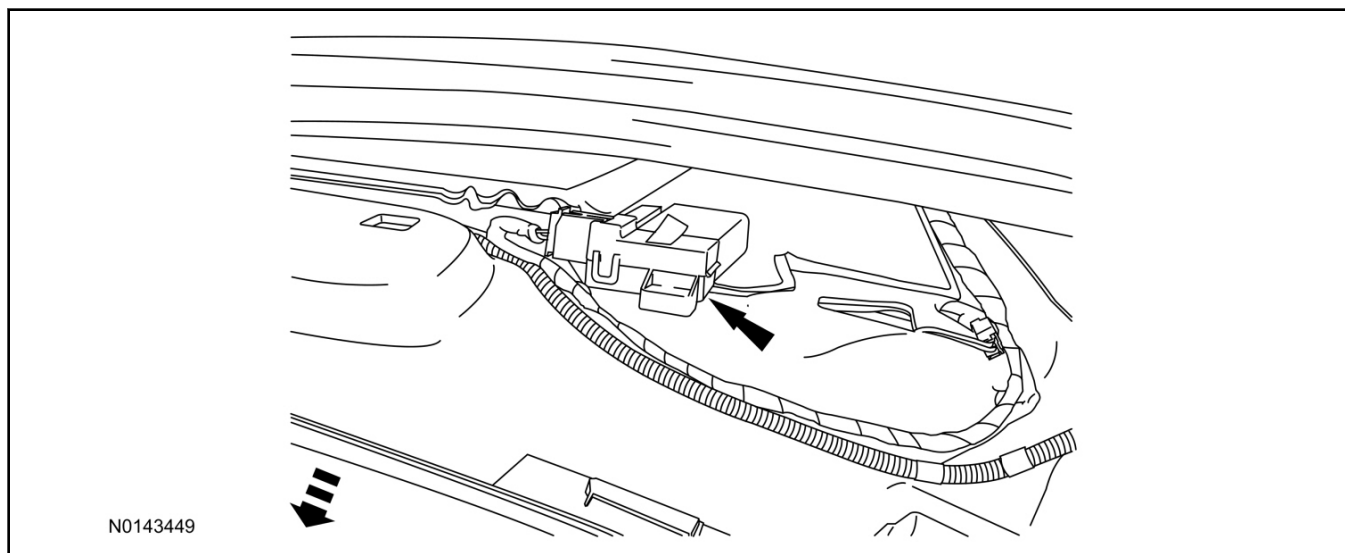
11. Disconnect the overhead console electrical connector(s) and remove the overhead console.



12. **NOTICE:**

Use caution not to over extend the headliner as creases and/or damage to the headliner may occur.

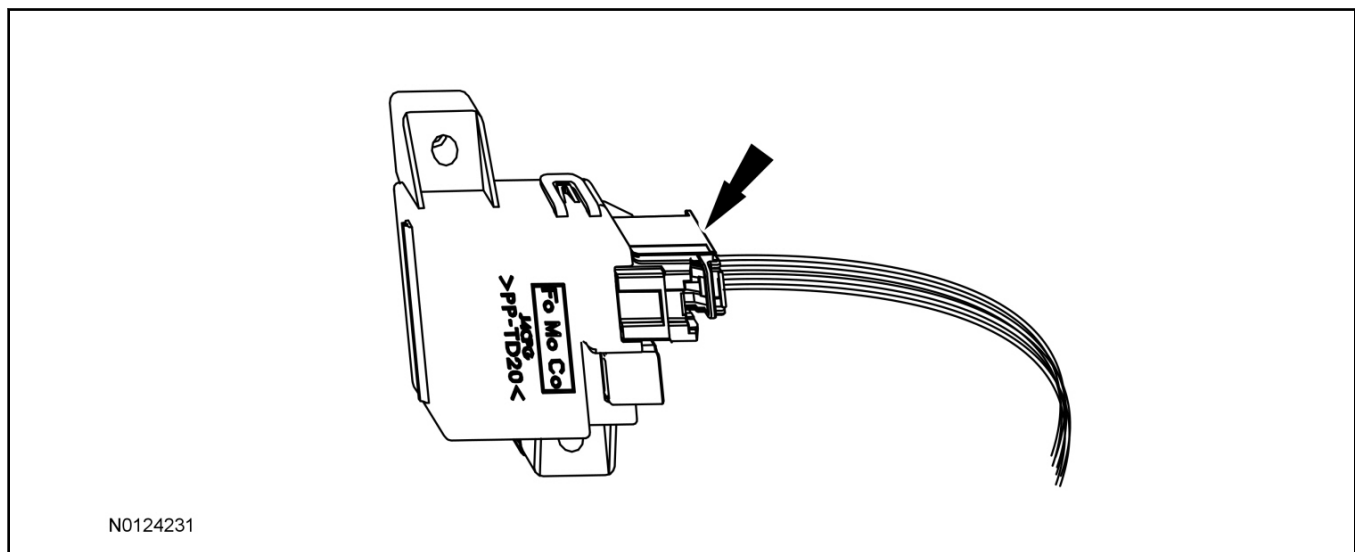
Position the RH front portion of the headliner downward slightly to access the Tire Pressure Monitor (TPM) module.



13. **NOTE:**

Headliner removed for clarity.

Disconnect the TPM module 8-pin connector.

**INSTALLATION (Continued)**

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

- 1 Open the glove compartment and press the 2 upper corner tabs up.
- 2 Lower the door.
  - Detach the glove compartment dampener.

**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.

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

**Install The Antenna**

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

**NOTE:**

Do not touch the adhesive, reduced adhesion may result.

**NOTE:**

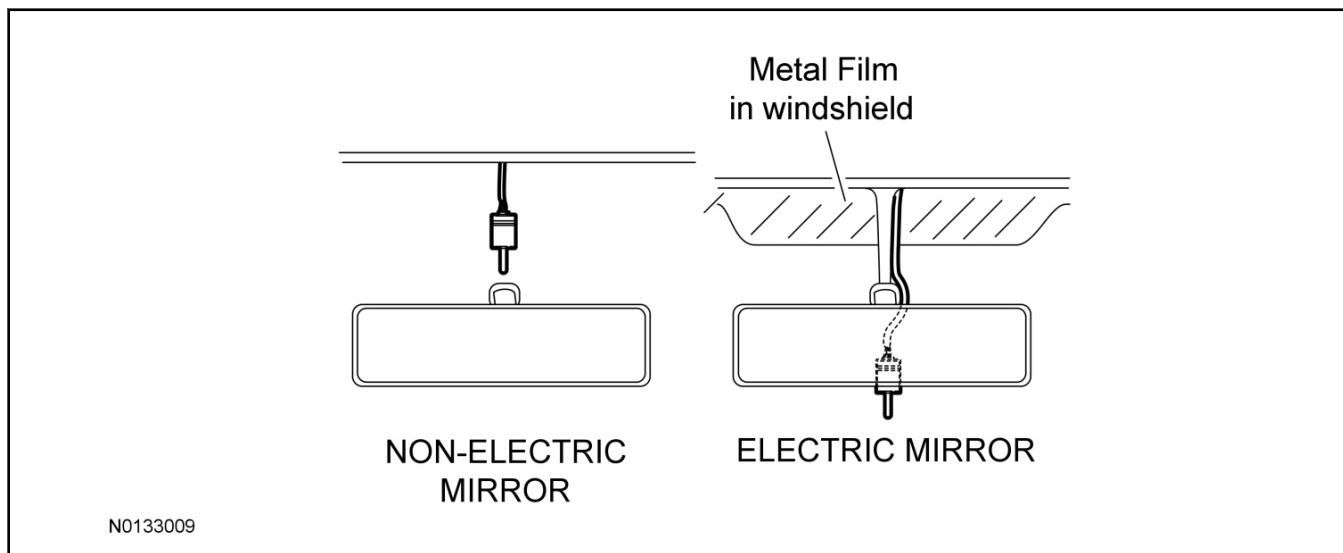
Make sure that the long wire on the antenna is pointing towards the top of the windshield since this wire will be routed along the headliner.



**INSTALLATION (Continued)****NOTE:**

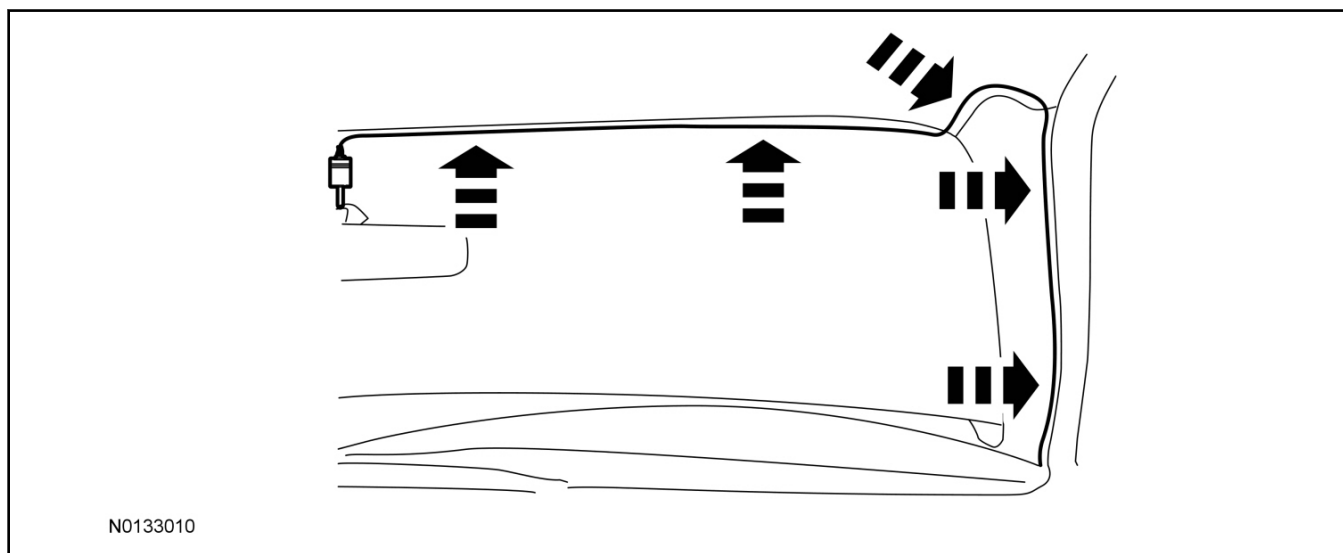
The antenna electrical connector will be attached to the control module later in this procedure.

17. Remove the protective backing from the adhesive on the antenna and firmly press the body of the antenna to the windshield.



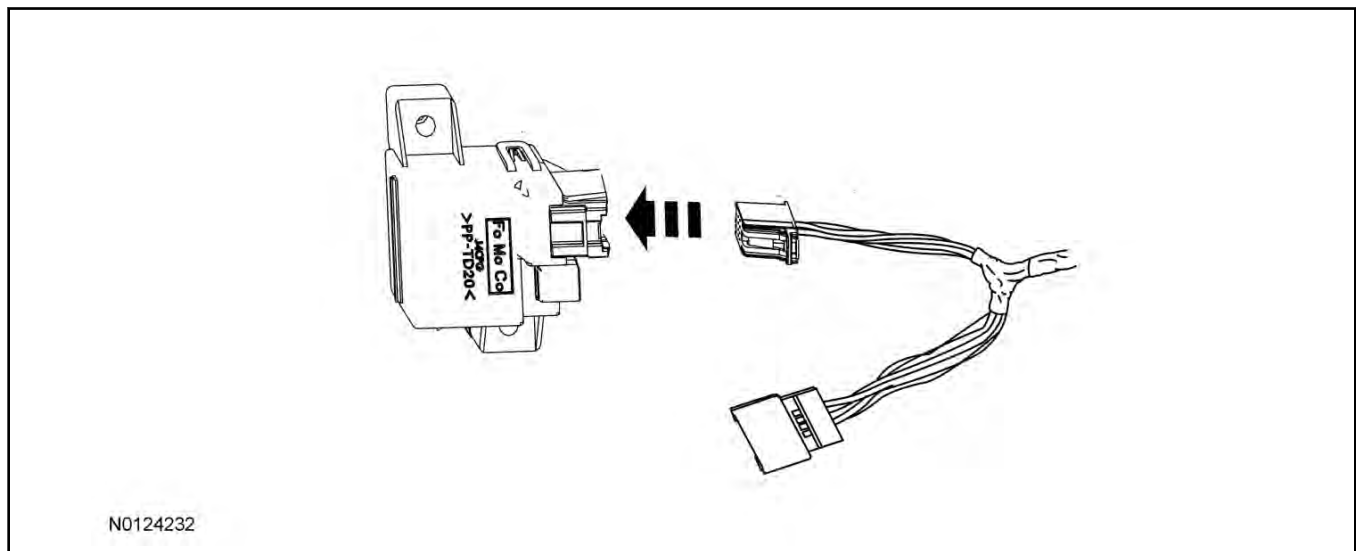
18. Route the antenna cable.

- 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.

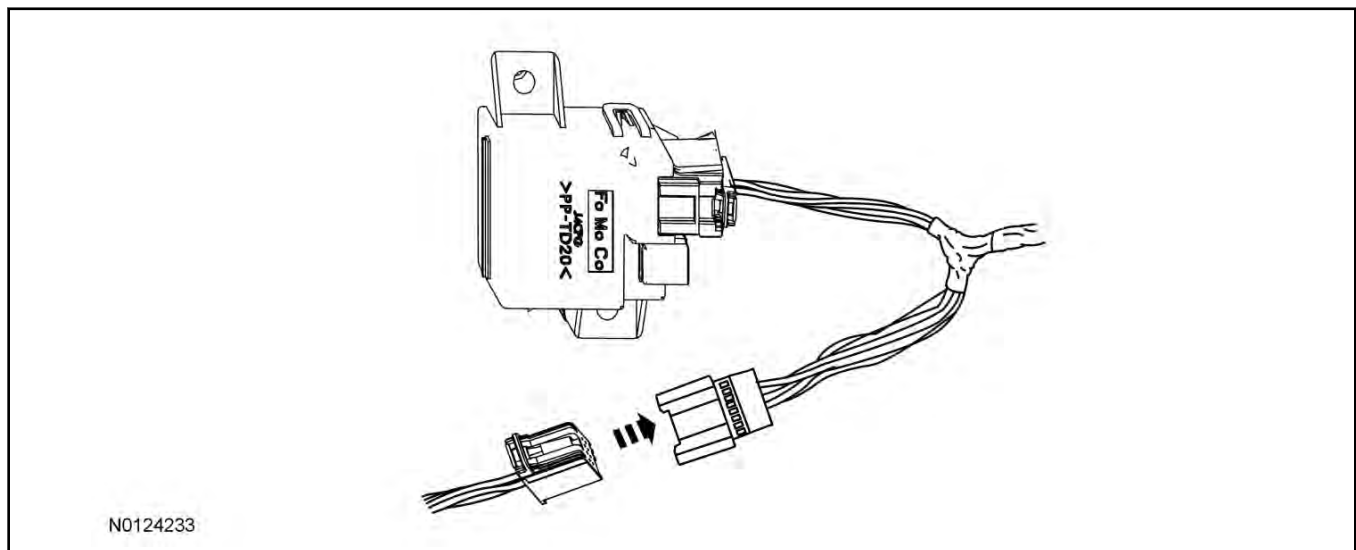


**INSTALLATION (Continued)****Install CGEA module**

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

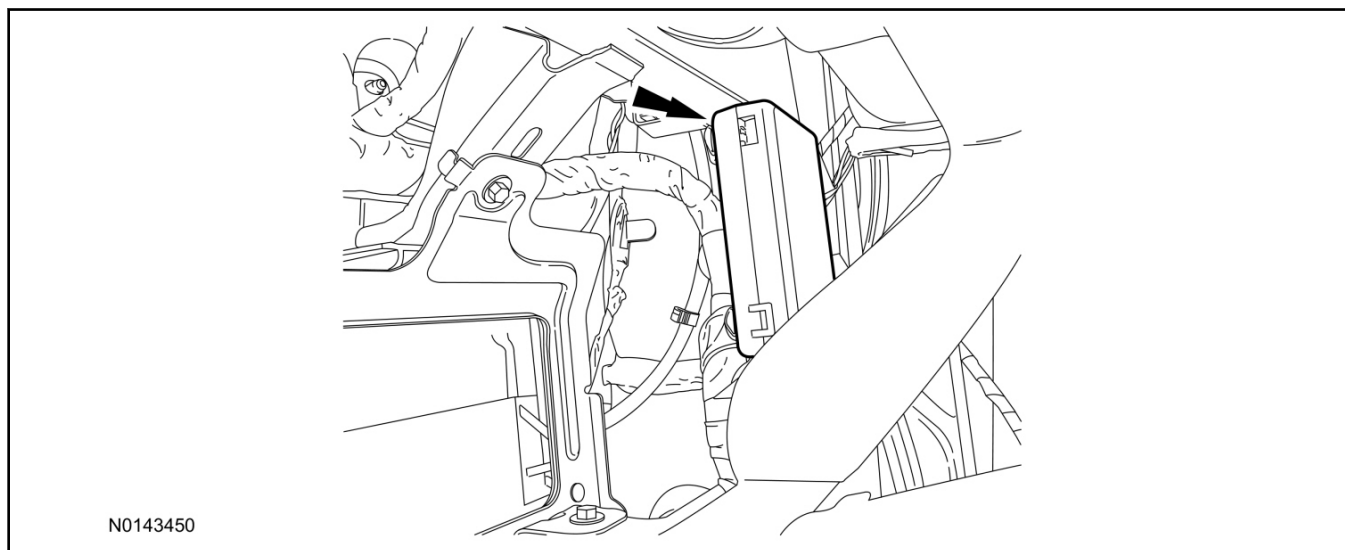


20. Connect the male end of the 8-pin T-harness to the 8-pin TPM module electrical connector.

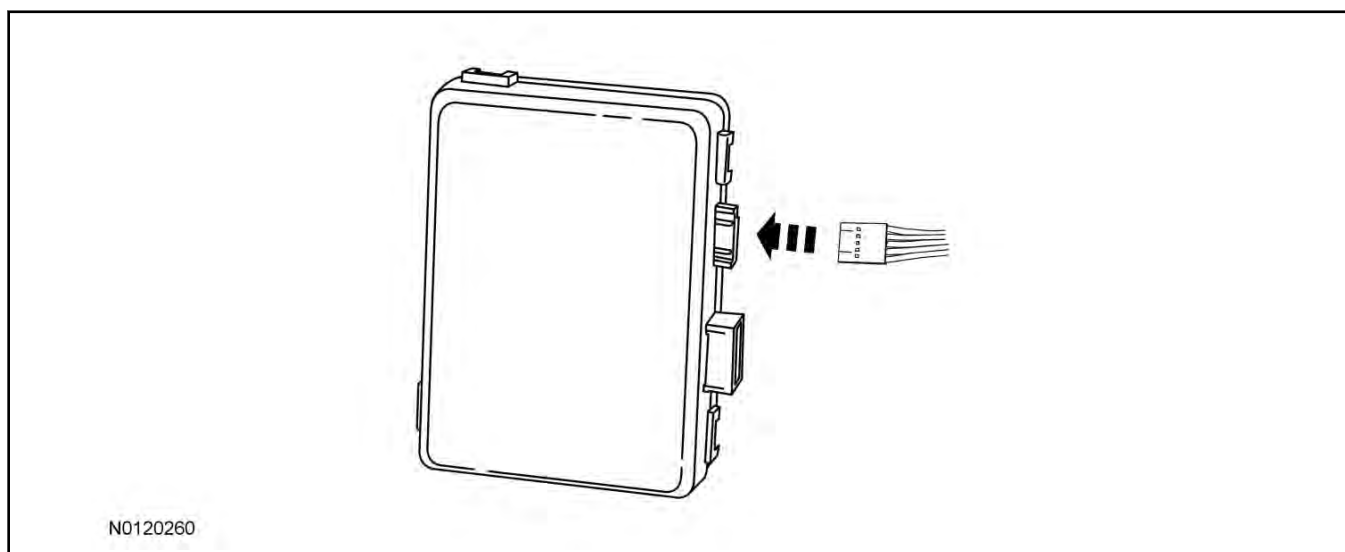


21. Route the T-harness from the headliner down along the A-Pillar and into the instrument panel (IP) / glove compartment area.
22. **NOTE:**  
When the CGEA module is properly positioned it should not come in contact with the glove compartment.

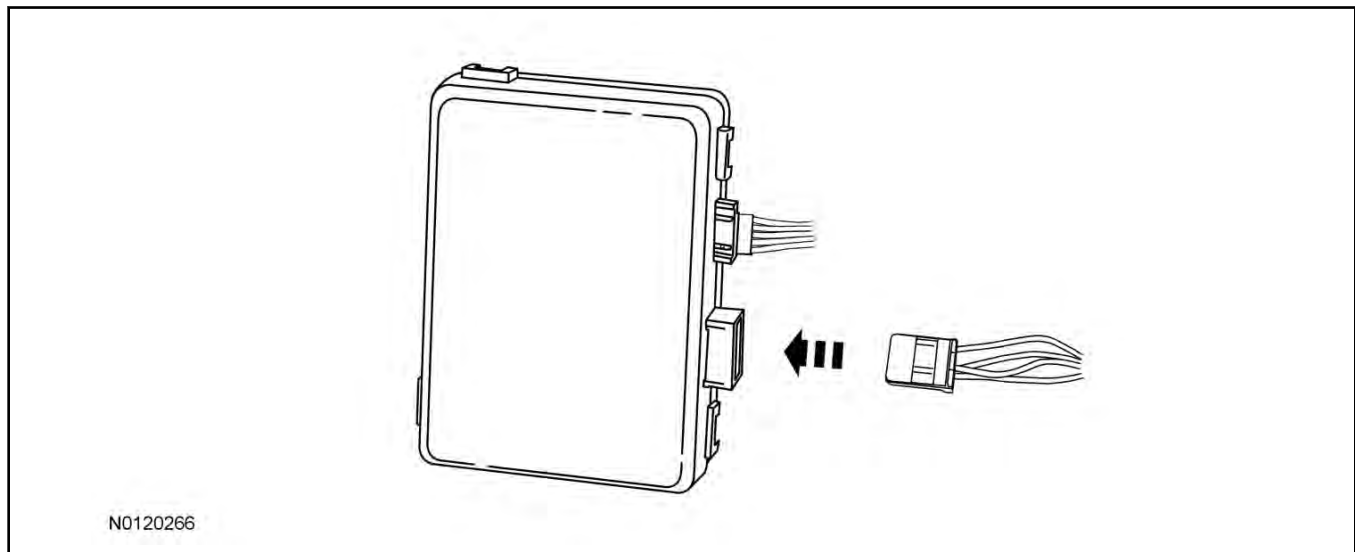
Position the CGEA module into the glove box opening.

**INSTALLATION (Continued)**

23. Connect the antenna to the CGEA module.



24. Connect the T-harness to the CGEA module.

**INSTALLATION (Continued)**

25. Secure the CGEA module and T-harness with zip-ties.

**Install Trim**

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

27. Install the RH front assist handle and screws.

- If equipped, connect the assist handle ambient lighting electrical connector.

28. Close the assist handle screw covers.

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

30. Position the RH sun visor and connect the sun visor electrical connector.

31. Install the RH sun visor retainer screws and screw covers.

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

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

34. Close the glove compartment.

- Attach the glove compartment dampener.

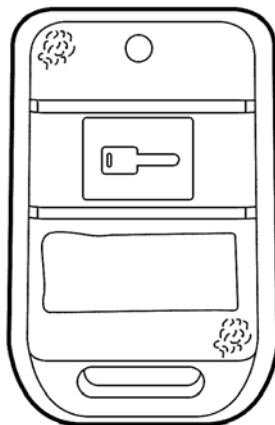
**RMST Functional Test**

35. Make sure the shift lever is in park and the engine is off. Remove all Intelligent Access (IA) Keys from the vehicle.

36. Close the hood.

37. Close all vehicle doors.

38. Start the vehicle by pressing and holding the remote start button on the remote start key fob for more than 2 seconds.

**INSTALLATION (Continued)****STANDARD RMST FOB**

N0097291

39. Confirm the remote start works with the vehicle in park and with the hood and doors closed.
40. Enter the vehicle and confirm that the vehicle shuts down when attempting to shift out of park.
41. Open the hood.
42. **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.**

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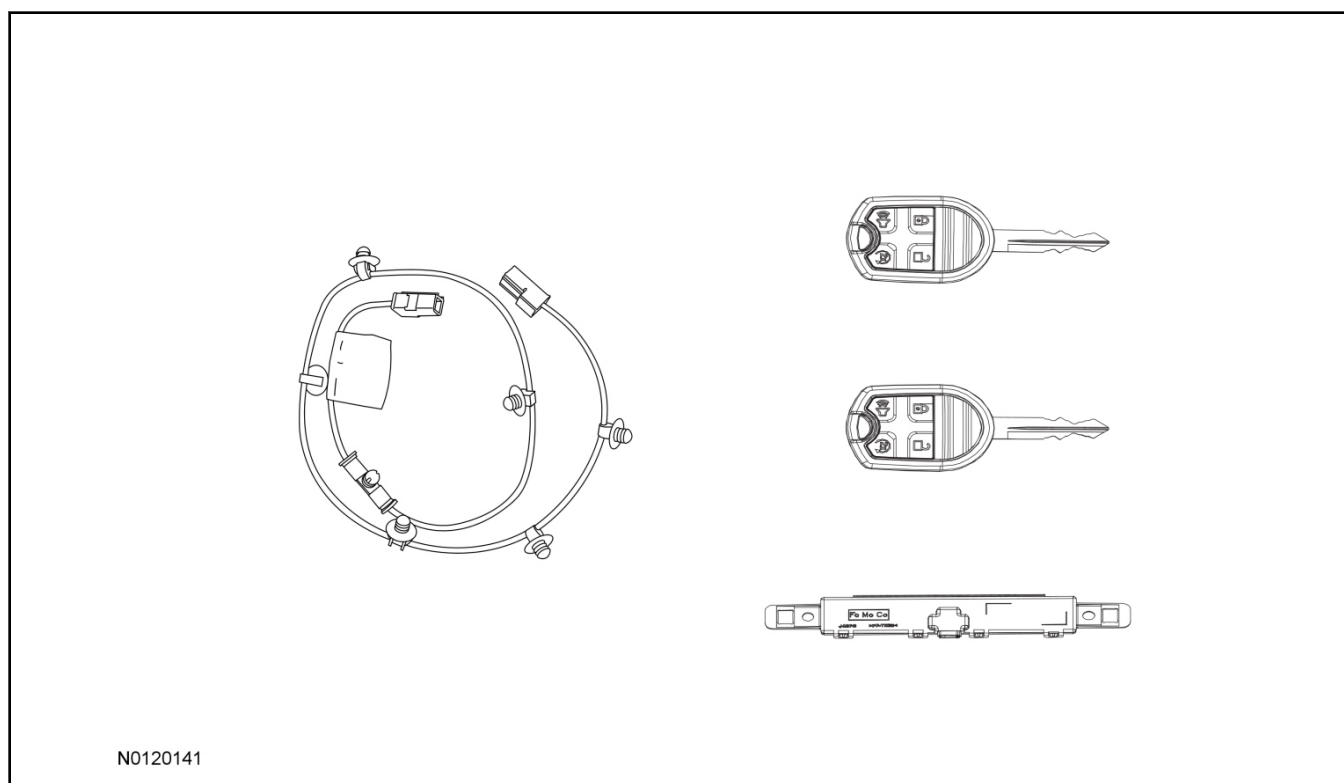
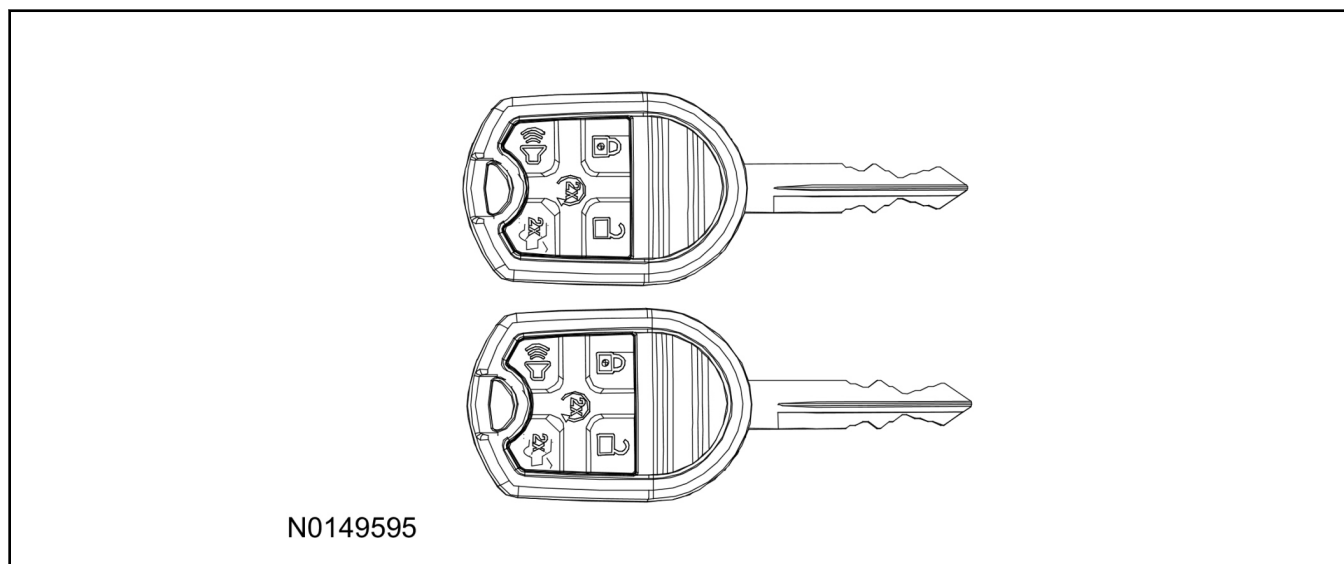
[Remote Start](#)

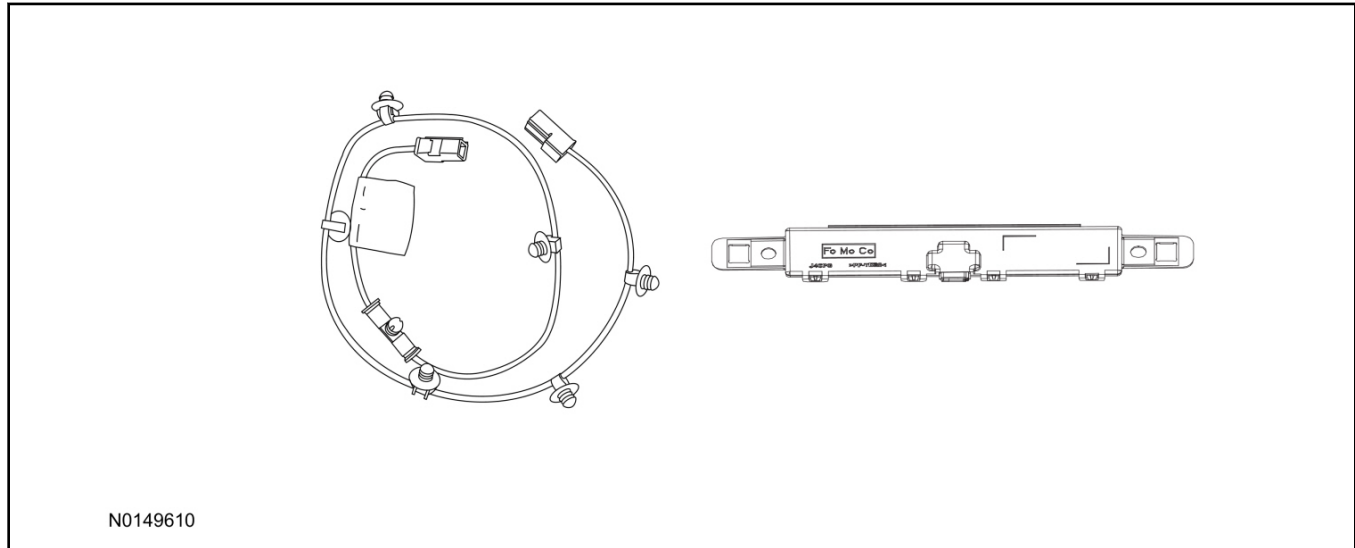
[Spare Key Programming](#)

### GENERAL PROCEDURES

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[Functional Test](#)

**INSTALLATION****Remote Start****Vehicles Not Equipped with Power Liftgate - (4-Button) Remote Start System (RMST) Components****Vehicles Equipped with Power Liftgate - (5-Button) RMST Components**

**INSTALLATION (Continued)****Vehicles Equipped with Power Liftgate - Antenna Kit (15603 - Sold separately)****Flex - Key Start****NOTE:**

If installing the 5-button kit, the antenna kit - 15603 will also need to be installed.

**NOTE:**

The OE RMST kit is only applicable on vehicles that have power locks.

1. Verify correct kit number.

**Vehicles Not Equipped with Power Liftgate - RMST Installation Kit Contents**

2. Review the RMST kit contents.

**RMST Kit**

QUANTITY	DESCRIPTION
2	Key (4 Button)
1	Antenna Jumper Wire
1	Antenna Module

**Vehicles Equipped with Power Liftgate - RMST Installation Kit Contents**

3. Review the RMST kit contents.

**RMST Kit**

QUANTITY	DESCRIPTION
2	Key (5 Button)



**INSTALLATION (Continued)****Antenna Kit Contents (Sold separately if needed)**

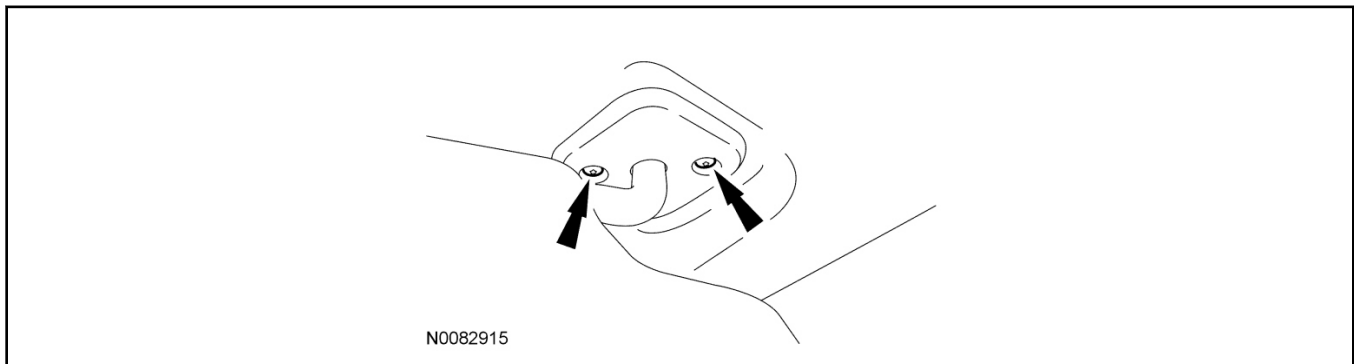
4. Review the Antenna Kit contents.

**Antenna Kit**

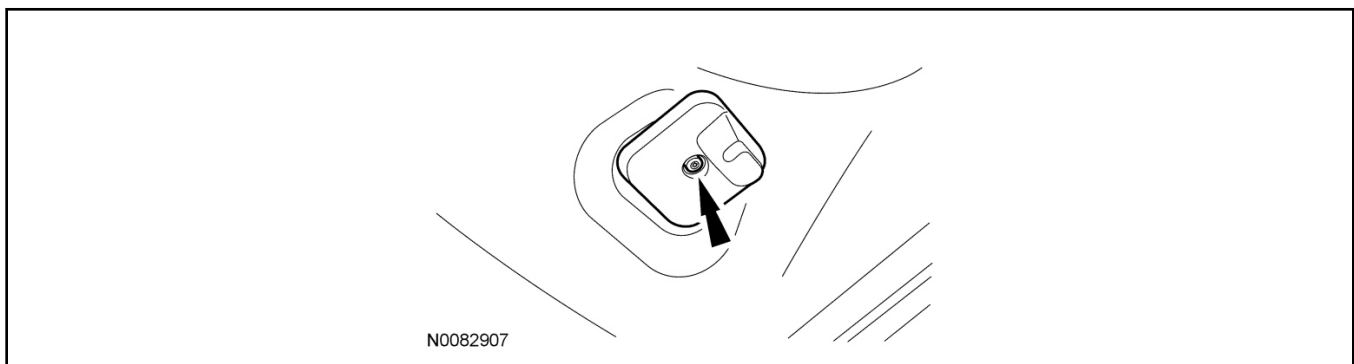
QUANTITY	DESCRIPTION
1	Antenna Jumper Wire
1	Antenna Module

**Vehicle Preparation**

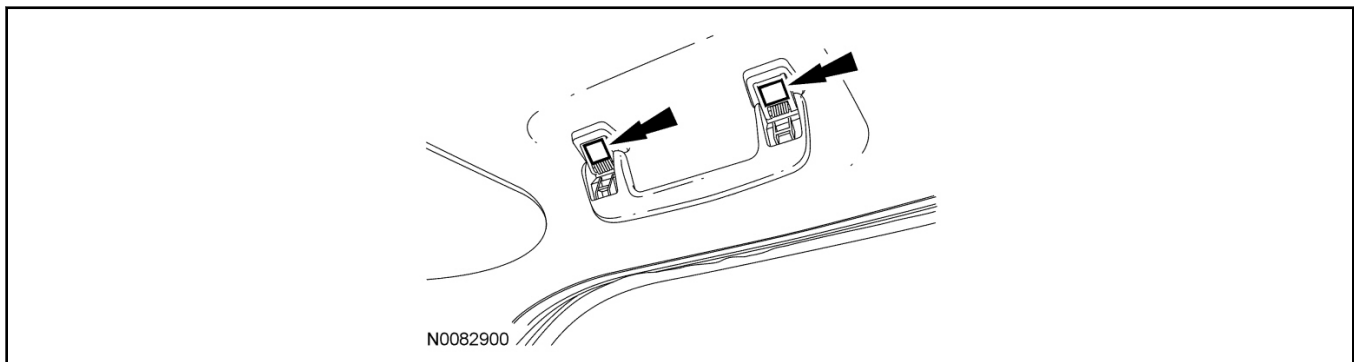
5. Remove the RH A-Pillar and RH B-pillar trim panels. For additional information, refer to WSM, Section 501-05.
6. If equipped, remove the DVD entertainment system. For additional information, refer to WSM, Section 415-00.
7. Remove the RH sun visor retainer screws and lower the RH sun visor.



8. Remove the RH sun visor clip retainer screws and remove the sun visor clip.

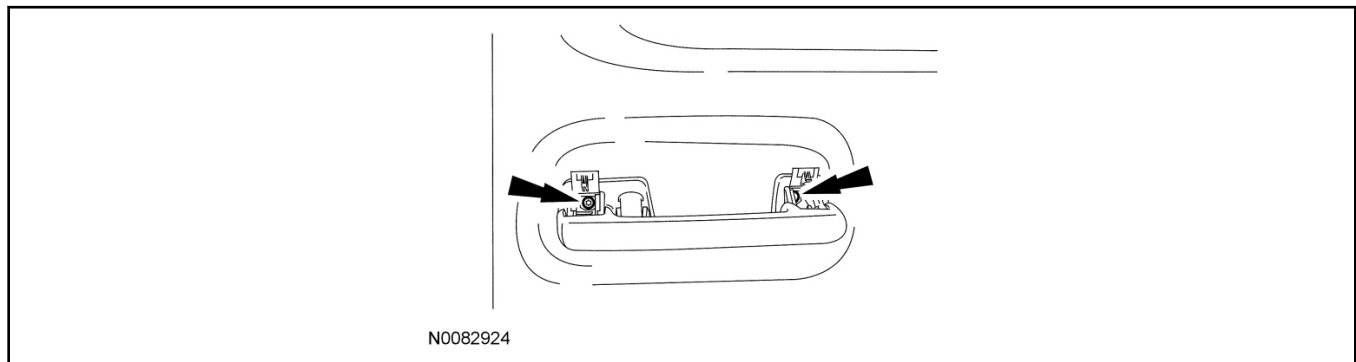


9. Open the RH front assist handle screw covers.

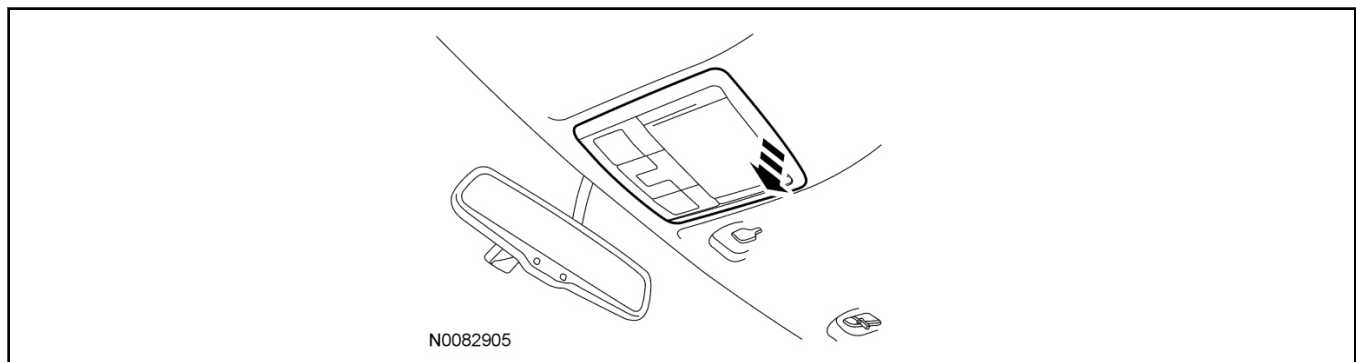


**INSTALLATION (Continued)**

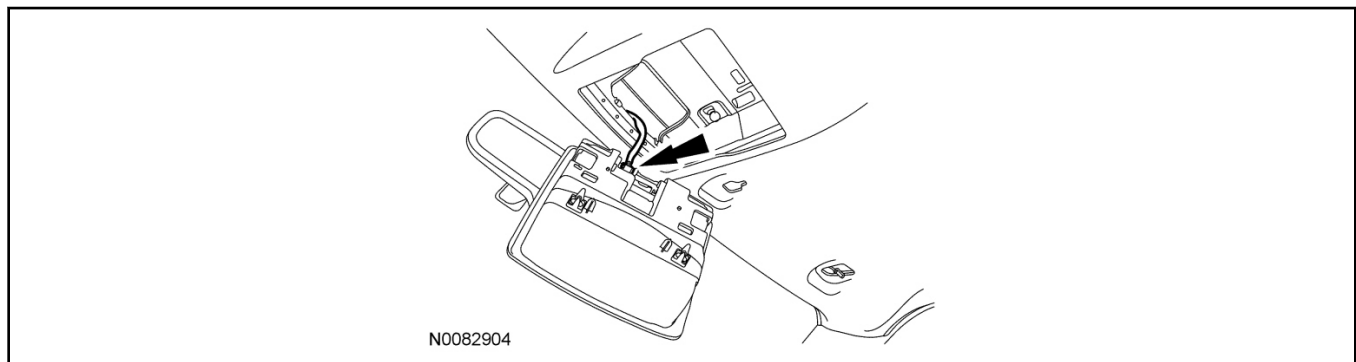
10. Remove the RH front assist handle screws and remove the front assist handle.
- If equipped, disconnect the assist handle lamp electrical connector.



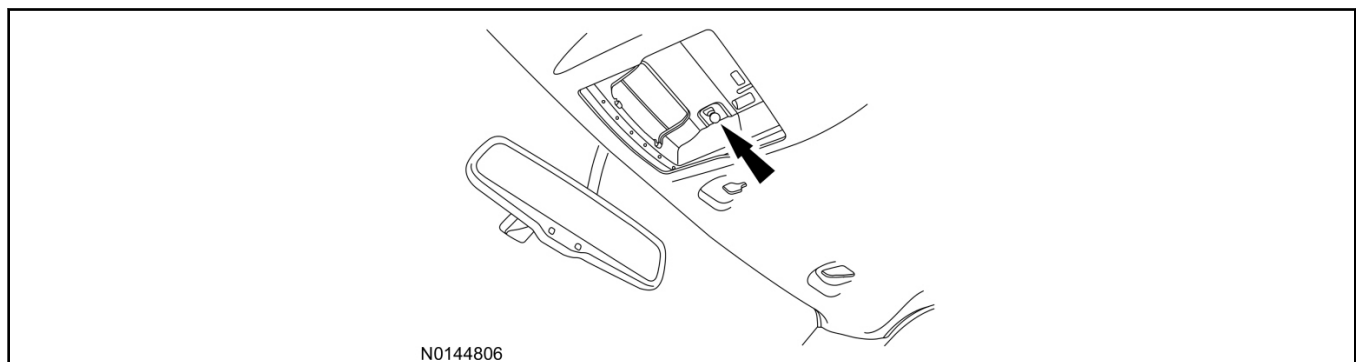
11. Pull downward on the overhead console to release the retainer clips.



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



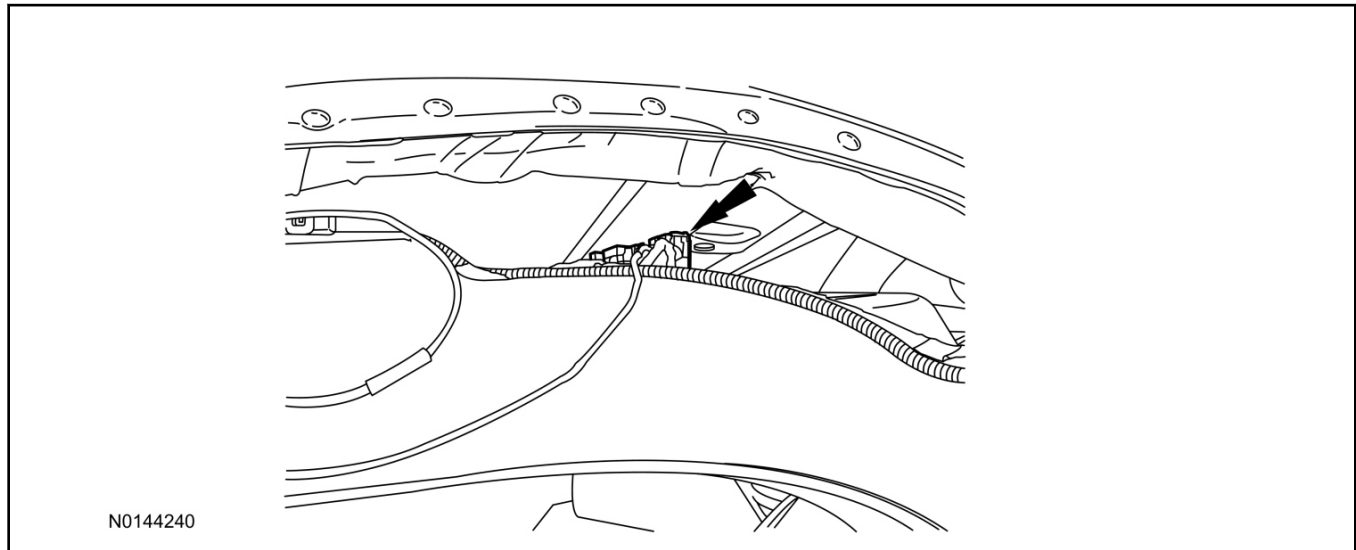
13. Remove the headliner push pin retainer.



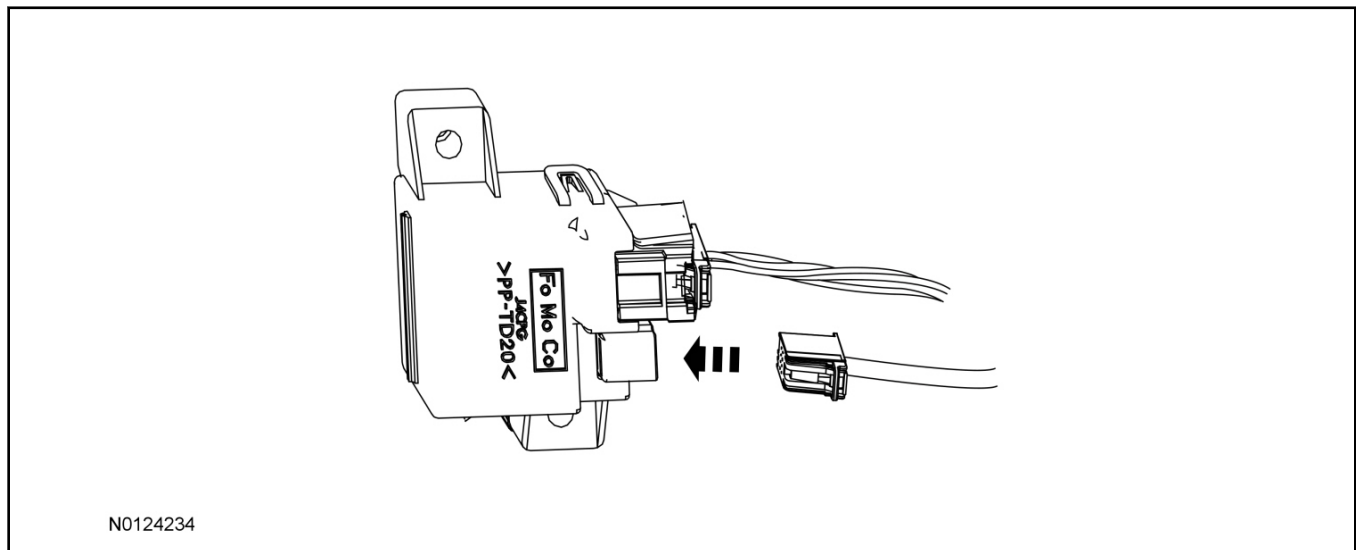
**INSTALLATION (Continued)****14. NOTICE:**

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.

**Antenna Module Installation**

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



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

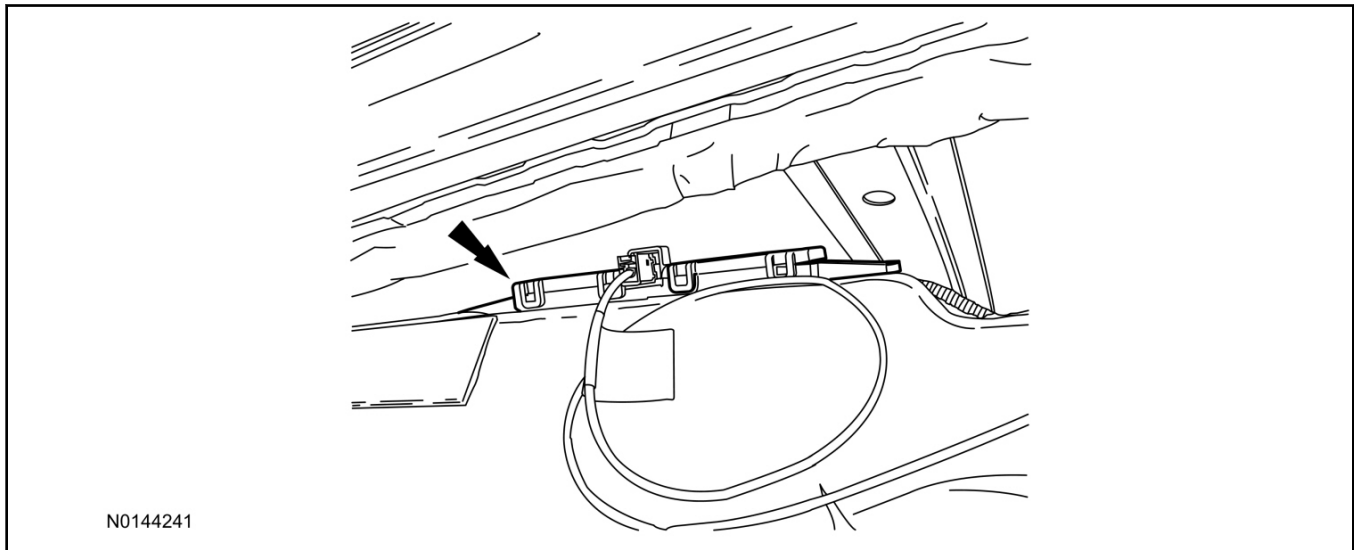
- The push pins on the antenna jumper wire are not used for this application.

**17. 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)****Install Trim**

18. Install the headliner push pin retainer.
19. Connect the overhead console electrical connector(s) and install the overhead console.
20. Install the RH front assist handle and screws.
  - If equipped, connect the assist handle lamp electrical connector.
21. Close the assist handle screw covers.
22. Install the sun visor clips and the sun visor clip retainer screws.
23. Position the RH sun visor and install the retainer screws.
24. Install the RH A-Pillar and RH B-pillar trim panels. For additional information, refer to WSM, Section 501-05.
25. If equipped, install the DVD entertainment system. For additional information, refer to WSM, Section 415-00.

**Spare Key Programming****NOTE:**

Verify no related DTCs are present before beginning this procedure.

**NOTE:**

This procedure works only if 2 or more programmed keys are available. If 2 programmed keys are not available, alternate programming methods in the workshop manual can be found at [www.fordtechservice.dealerconnection.com](http://www.fordtechservice.dealerconnection.com).

**NOTE:**

This procedure works only if the customer spare key programming is enabled. If customer spare key programming is disabled, refer to Key Programming — Enable/Disable Spare Key or Key Programming Using Diagnostic Equipment in the workshop manual located at [www.fordtechservice.dealerconnection.com](http://www.fordtechservice.dealerconnection.com).

**INSTALLATION (Continued)**

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26. Cut the keys that are going to be programmed to match the existing keys.
27. Insert the first programmed Passive Anti-Theft System (PATS) key into the ignition and turn the key from the OFF position to the RUN position (maintain the key in the RUN position for approximately 3 seconds).
28. Turn the first key to the OFF position and remove the key from the ignition.
29. Within 10 seconds of turning the key to the OFF position, insert a second programmed PATS key into the ignition and turn the key from the OFF position to the RUN position (maintain the key in the RUN position for approximately 3 seconds).
30. Turn the second key to the OFF position and remove the key from the ignition.
31. **NOTE:**  
The doors lock and then unlock to confirm that each Integrated Key Transmitter (IKT) is programmed.  
  
Within 10 seconds of turning the second key to the OFF position, insert the new, unprogrammed PATS key into the ignition and turn the key from the OFF position to the RUN position (maintain the key in the RUN position for approximately 3 seconds).
32. If it is desired to program additional key(s) (up to a total of 4 keys can be programmed), repeat the Spare Key Programming procedure for each additional key.

**Remote Start Activation**

33. Verify that the IDS is updated to the most current version.
34. Connect IDS.
  - Follow the prompts to select new vehicle session.
  - Enter VIN.
35. 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.
36. 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.

**INSTALLATION (Continued)**

37. 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.

**Functional Test****NOTE:**

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

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

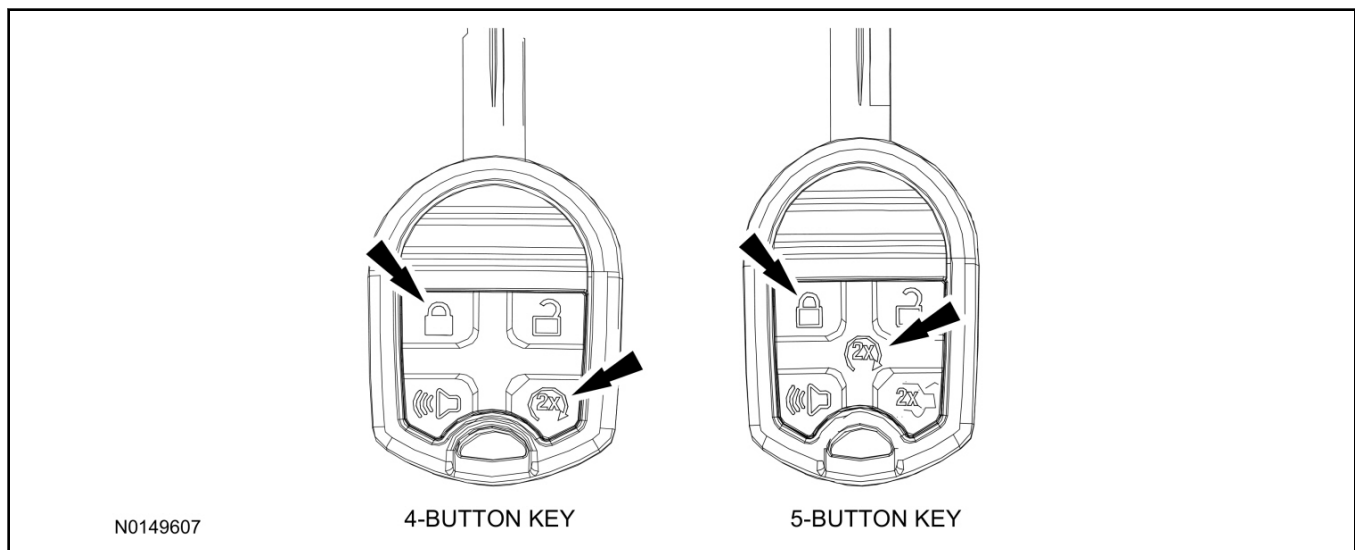
39. Close the hood.

40. Close all of the vehicle doors.

41. **NOTE:**

Verify that all of the newly programmed keys function properly.

Start the vehicle by pressing the lock button once, then the remote start button 2 times on the newly programmed key.



---

**INSTALLATION (Continued)**

42. Confirm the remote start works with the vehicle in park and with the hood and doors closed.
43. Enter the vehicle and confirm that the vehicle shuts down when attempting to shift out of park.
44. Open the hood.
45. **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.**

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# REMOTE START SYSTEM INSTALLATION

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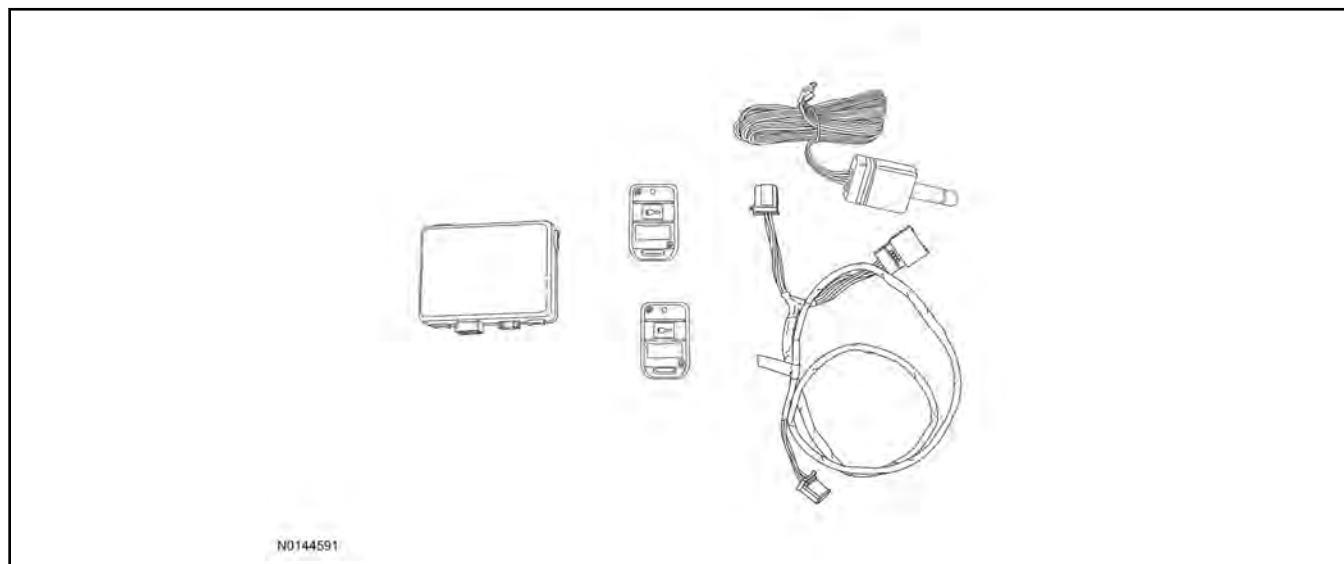
[Bi-directional RMST - Functional Test](#)



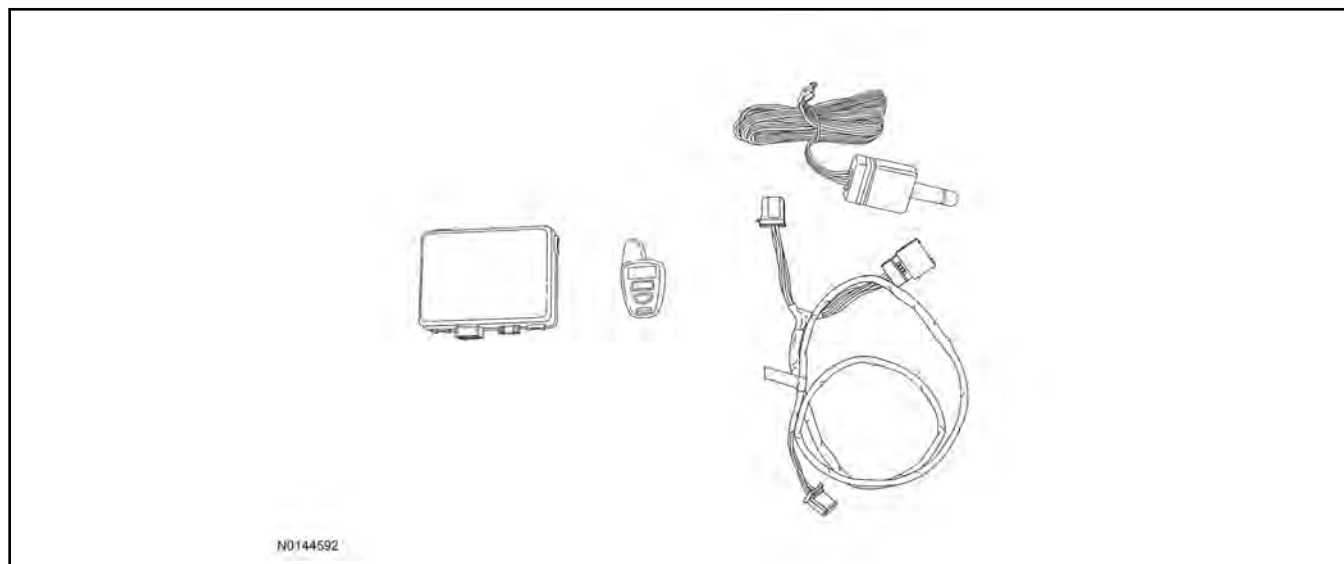
## INSTALLATION

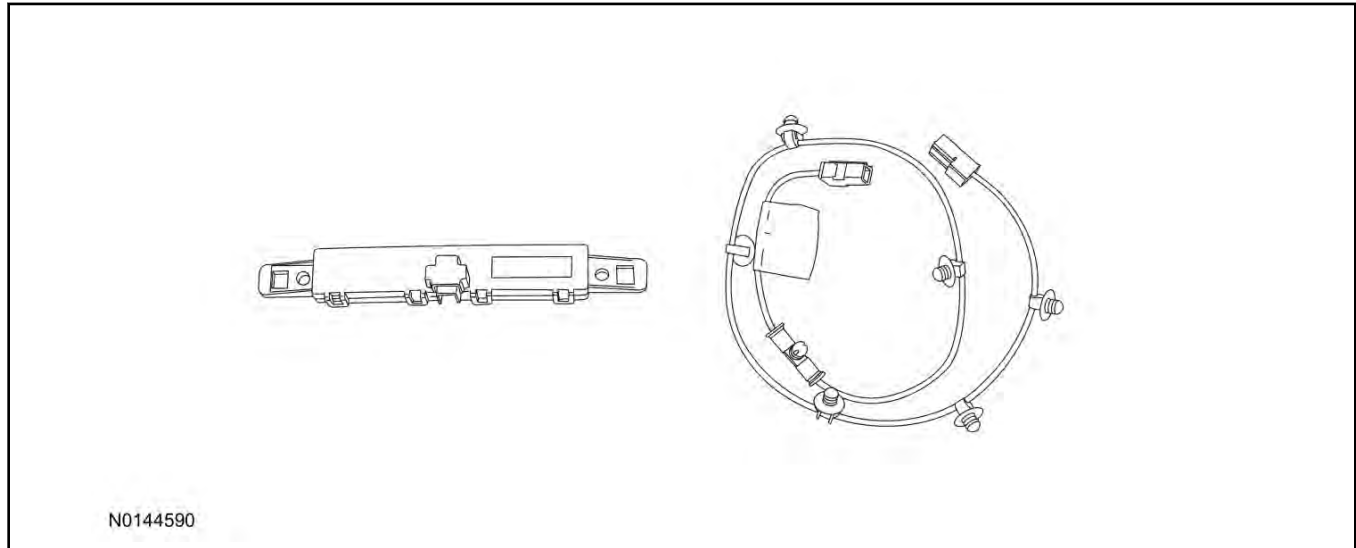
### Remote Start

#### Standard Remote Start System (RMST) Components



#### Bi-directional Remote Start System (RMST) Components



**INSTALLATION (Continued)****TPM Antenna Kit Components****Flex - Key Start**

1. Verify correct kit number.

**Review Standard RMST Kit Contents**

2. Review the Standard RMST kit contents.

**Standard RMST Kit**

QUANTITY	DESCRIPTION
2	Standard 1 Button Key Fob
1	Remote Start Module
1	Standard Antenna
1	T-harness

**Review Bi-directional RMST Kit Contents**

3. Review Bi-directional RMST Kit Contents

**Bi-directional RMST Kit**

QUANTITY	DESCRIPTION
1	Bi-directional Key Fob
1	Remote Start Module
1	Bi-directional Antenna
1	T-harness

**TPM Antenna Kit Components**

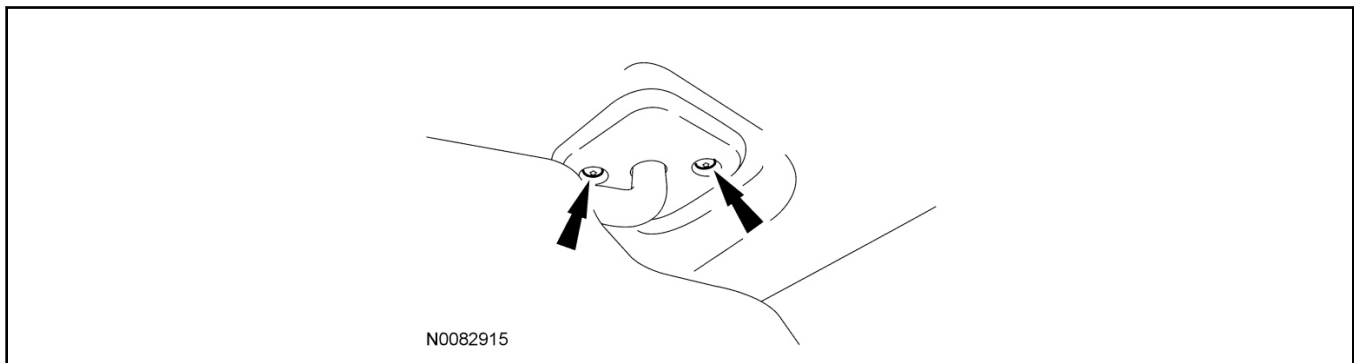
4. Review the TPM antenna kit contents.

**INSTALLATION (Continued)****TPM Antenna Kit**

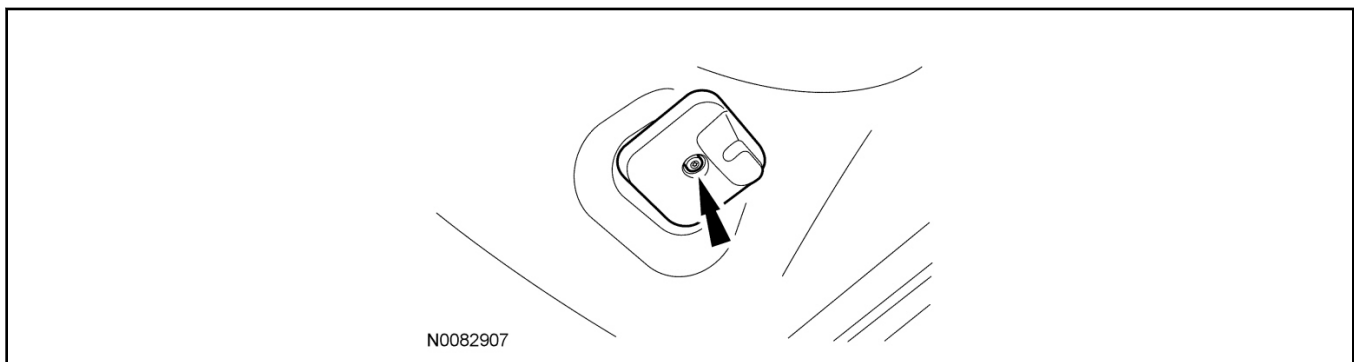
QUANTITY	DESCRIPTION
1	Antenna Module
1	Antenna Jumper Wire
1	2-sided Tape (not shown)

**Vehicle Preparation**

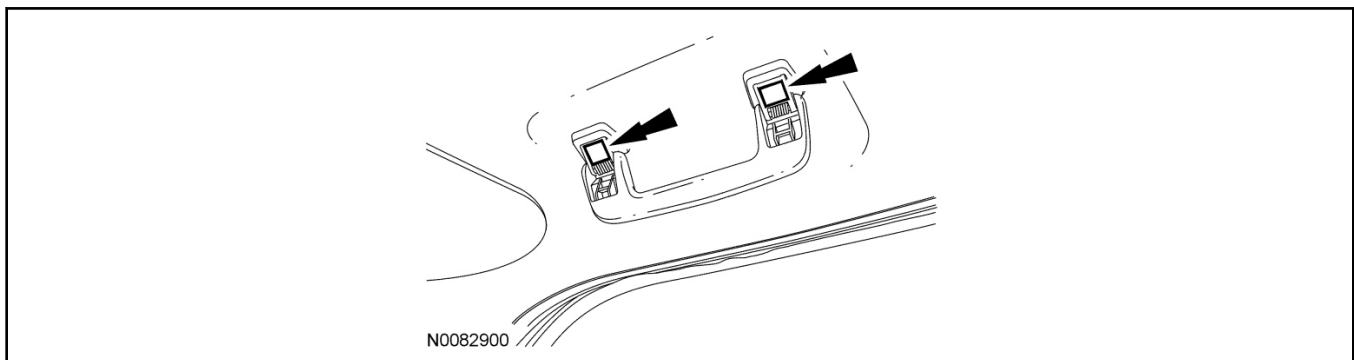
5. Remove the RH A-Pillar and RH B-pillar trim panels. For additional information, refer to Workshop Manual (WSM), Section 501-05.
6. If equipped, remove the DVD entertainment system. For additional information, refer to WSM, Section 415-00.
7. Remove the RH sun visor retainer screws and lower the RH sun visor.



8. Remove the RH sun visor clip retainer screws and remove the sun visor clip.

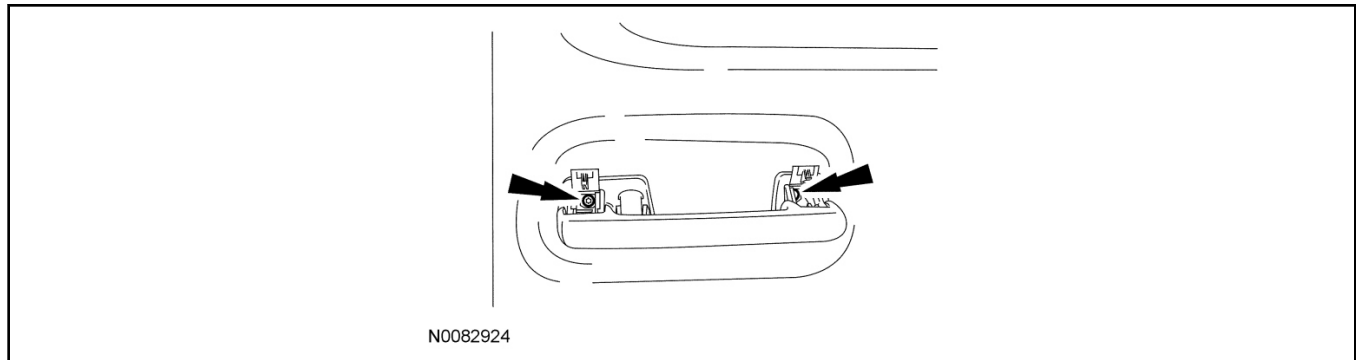


9. Open the RH front assist handle screw covers.

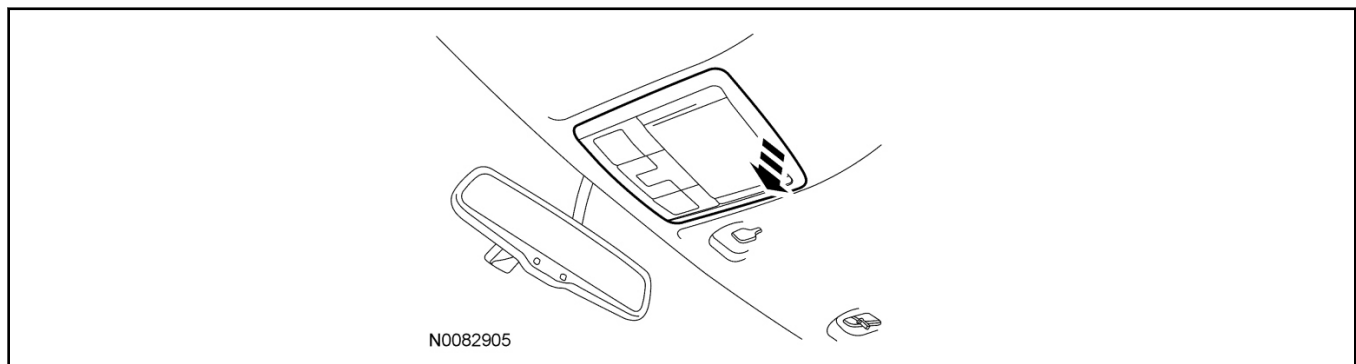


**INSTALLATION (Continued)**

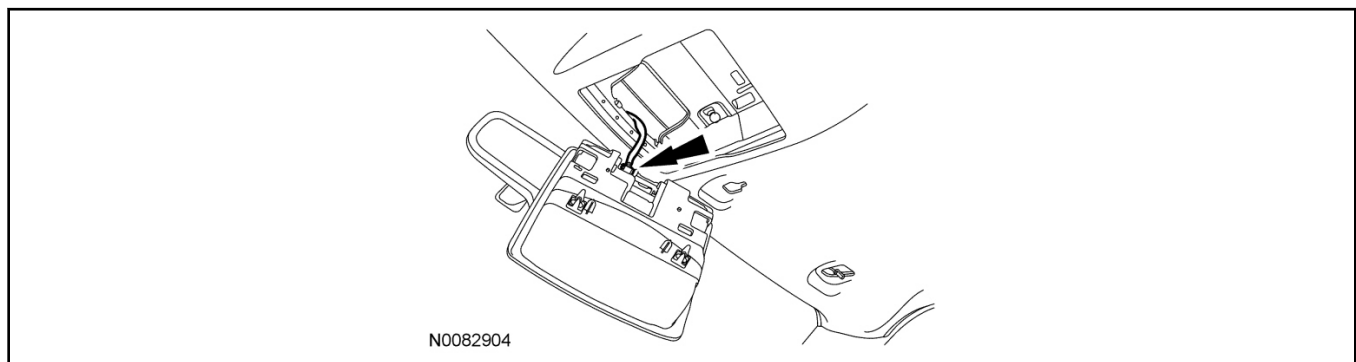
10. Remove the RH front assist handle screws and remove the front assist handle.
- If equipped, disconnect the assist handle lamp electrical connector.



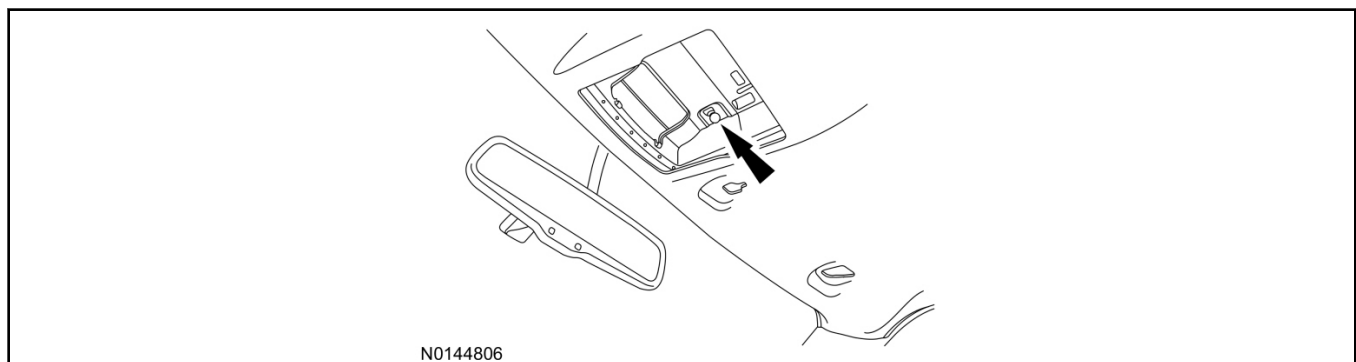
11. Pull downward on the overhead console to release the retainer clips.



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



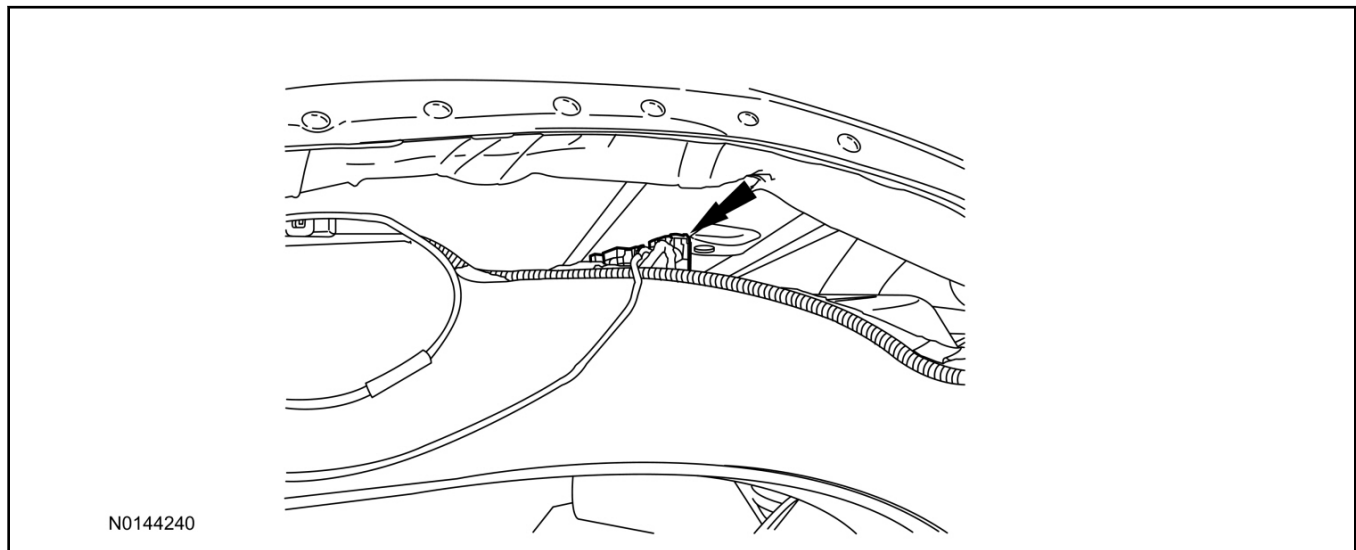
13. Remove the headliner push pin retainer.



**INSTALLATION (Continued)****14. NOTICE:**

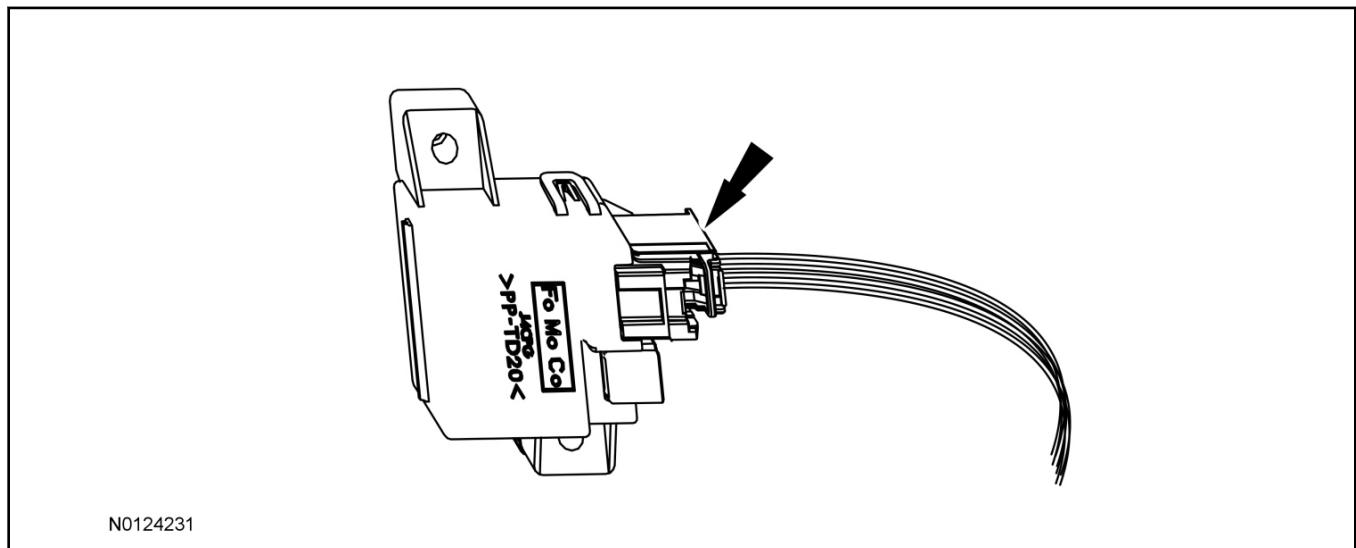
Use caution not to over extend the headliner as creases and/or damage to the headliner may occur.

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

**15. NOTE:**

Headliner removed for clarity.

Disconnect the TPM module 8-pin connector.



16. 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.

17. Remove the RH side IP side trim panel.

**INSTALLATION (Continued)****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.

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

**Install The 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.

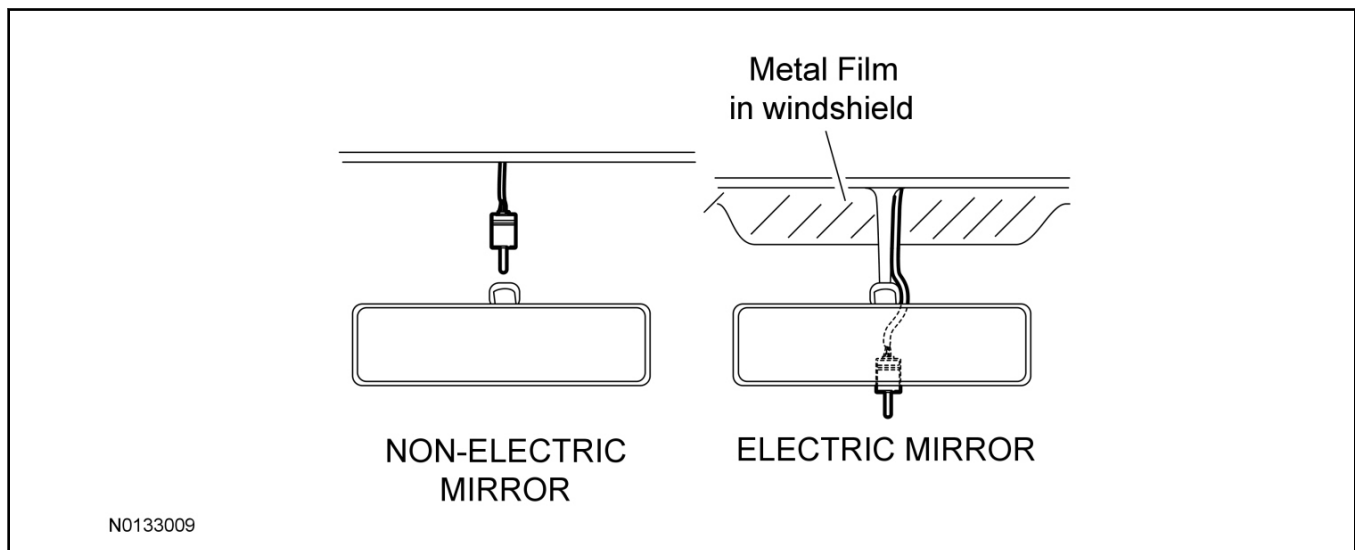
**NOTE:**

Make sure that the long wire on the 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.

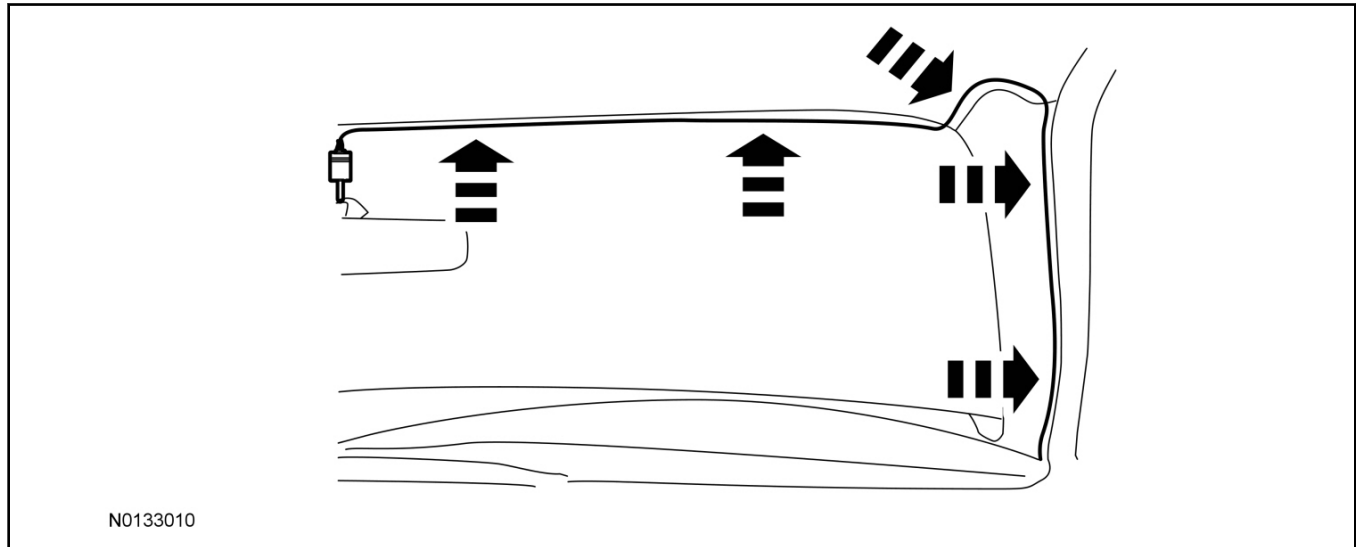
20. Remove the protective backing from the adhesive on the antenna and firmly press the body of the antenna to the windshield.



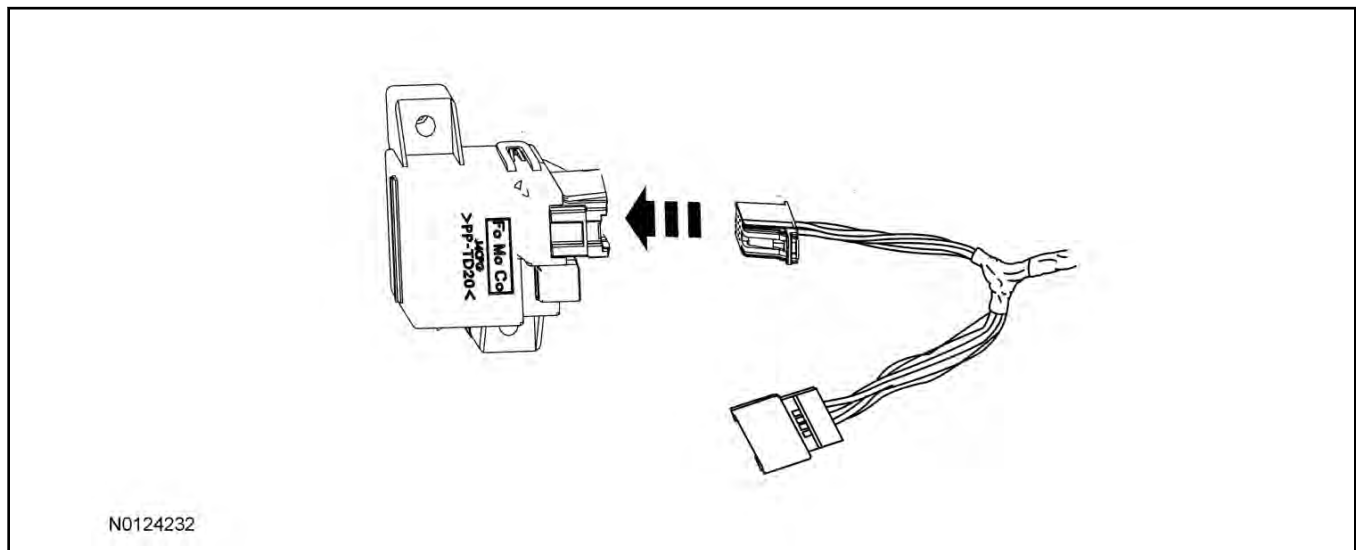
**INSTALLATION (Continued)**

21. Route the antenna cable.

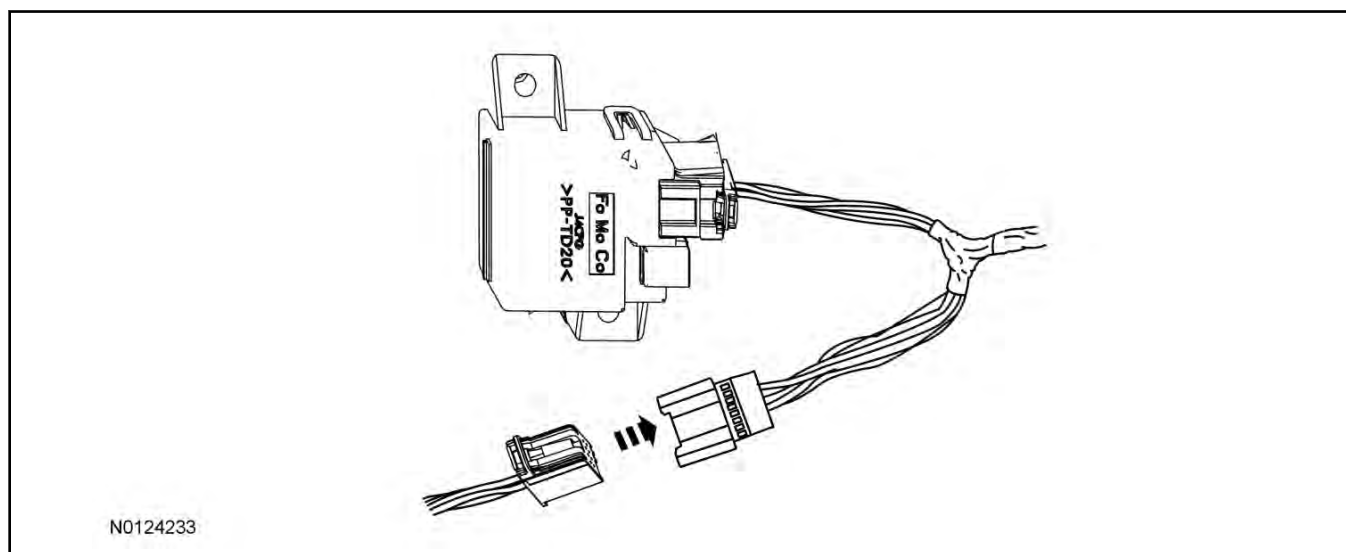
- Route inside the headliner to the A-pillar.
- Route down the A-pillar, behind the side air bag. Secure as required with tie-straps.
- Continue routing into the RH instrument panel side trim area and inside the instrument panel, coming out of the glove box.

**Installation**

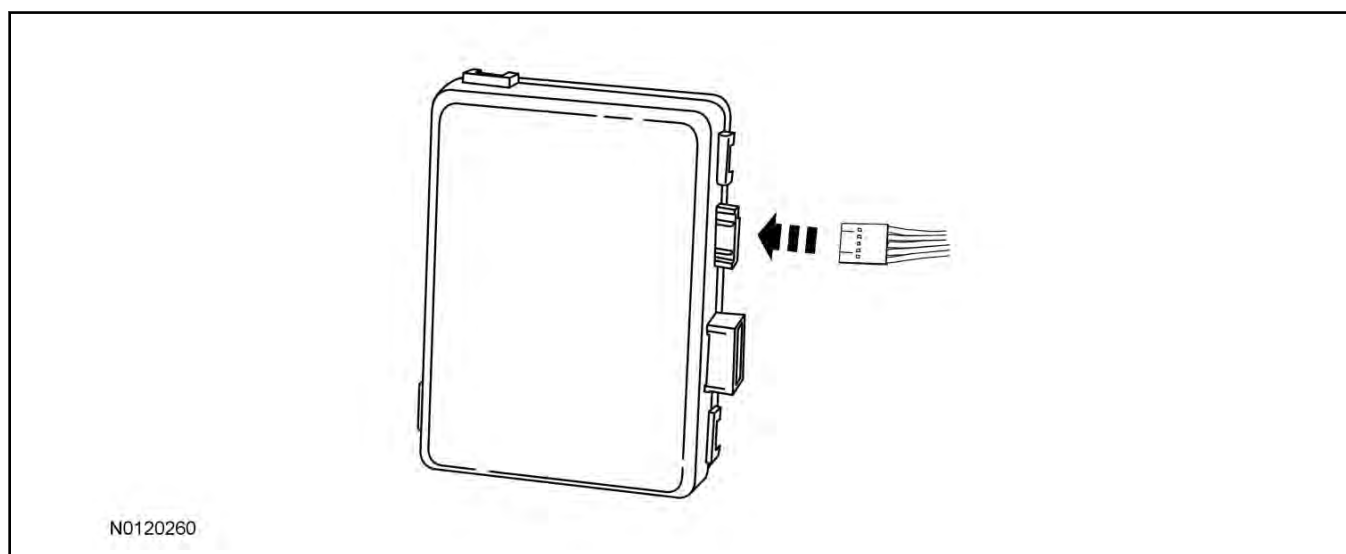
22. Connect the female end of the 8-pin T-harness to the TPM module.



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

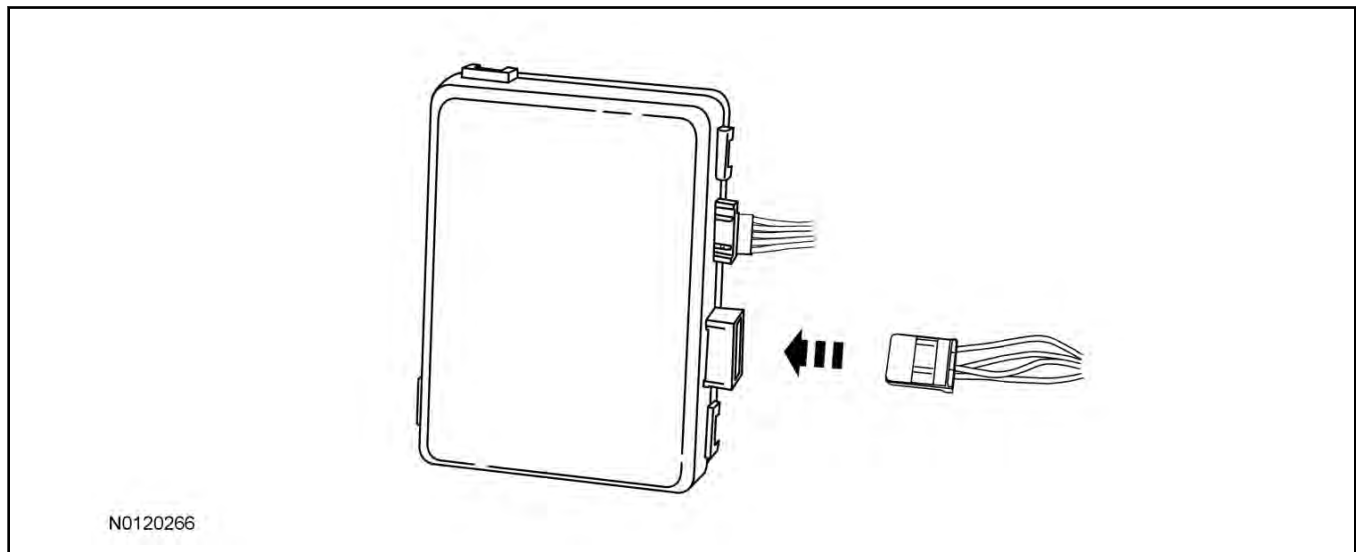
**INSTALLATION (Continued)**

24. Route the T-harness from the headliner down along the A-Pillar and into the Instrument Panel (IP) / glove compartment area.
25. Connect the antenna to the CGEA module.



26. Connect the T-harness to the CGEA module.

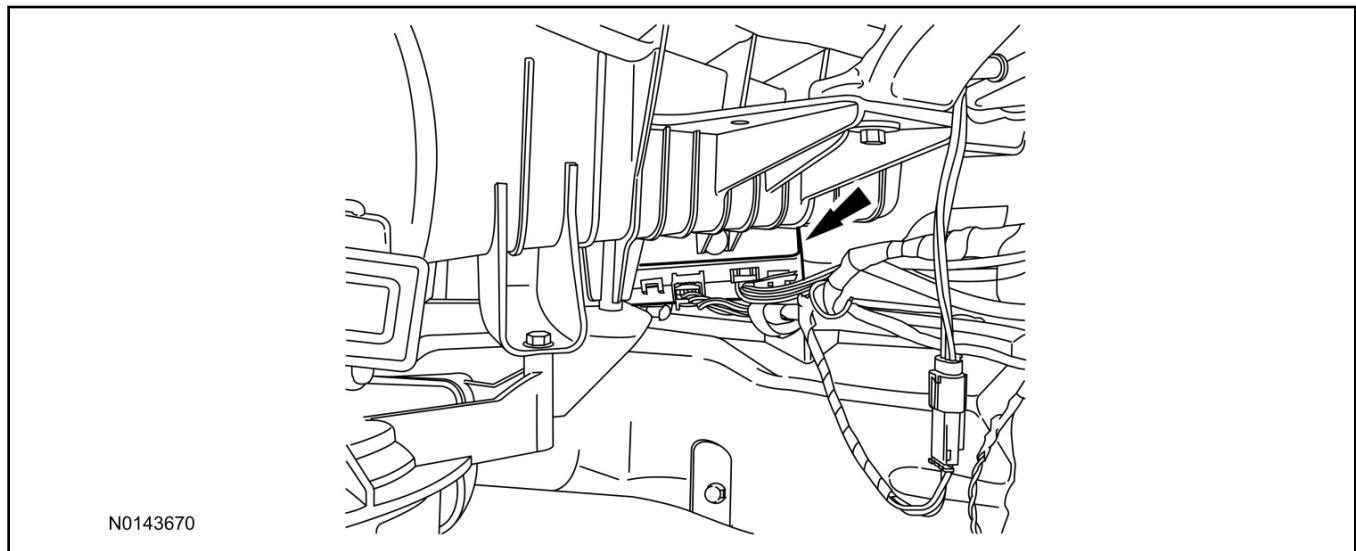


**INSTALLATION (Continued)****27. NOTE:**

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

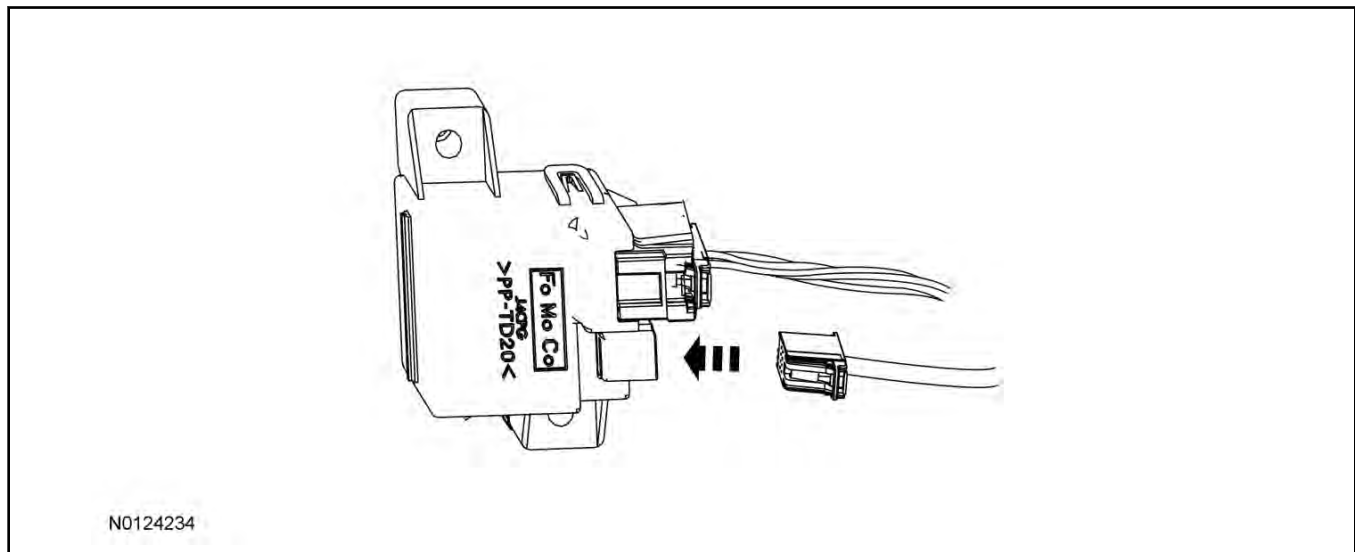
Position the CGEA module into the glove box opening.

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



28. Secure the T-harness with zip-ties.

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

**INSTALLATION (Continued)**

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

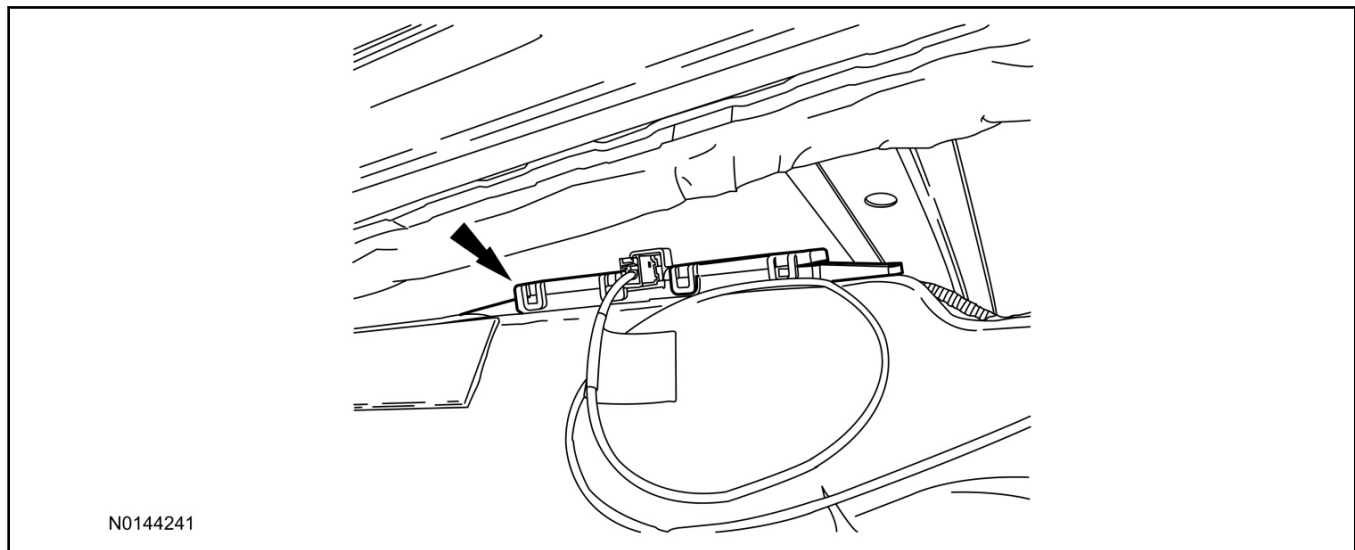
- The push pins on the antenna jumper wire are not used for this application.

31. **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.

**Install Trim**

32. Install the headliner push pin retainer.

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

34. Install the RH front assist handle and screws.

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

35. Close the assist handle screw covers.

**INSTALLATION (Continued)**

36. Install the sun visor clips and the sun visor clip retainer screws.
37. Position the RH sun visor and install the retainer screws.
38. Install the RH A-Pillar and RH B-pillar trim panels. For additional information, refer to WSM, Section 501-05.
39. If equipped, install the DVD entertainment system. For additional information, refer to WSM, Section 415-00.
40. Close the glove compartment.
  - Attach the glove compartment dampener.
41. Install the RH side IP side trim 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.
  - Enter 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 and Arrow buttons on the steering wheel, select Settings.
  - Select Convenience.
  - Select Remote Start.
  - Select System.
  - Verify that the remote start system is checked.
46. 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.

**INSTALLATION (Continued)****Learn Remote Start System to Vehicle****NOTE:**

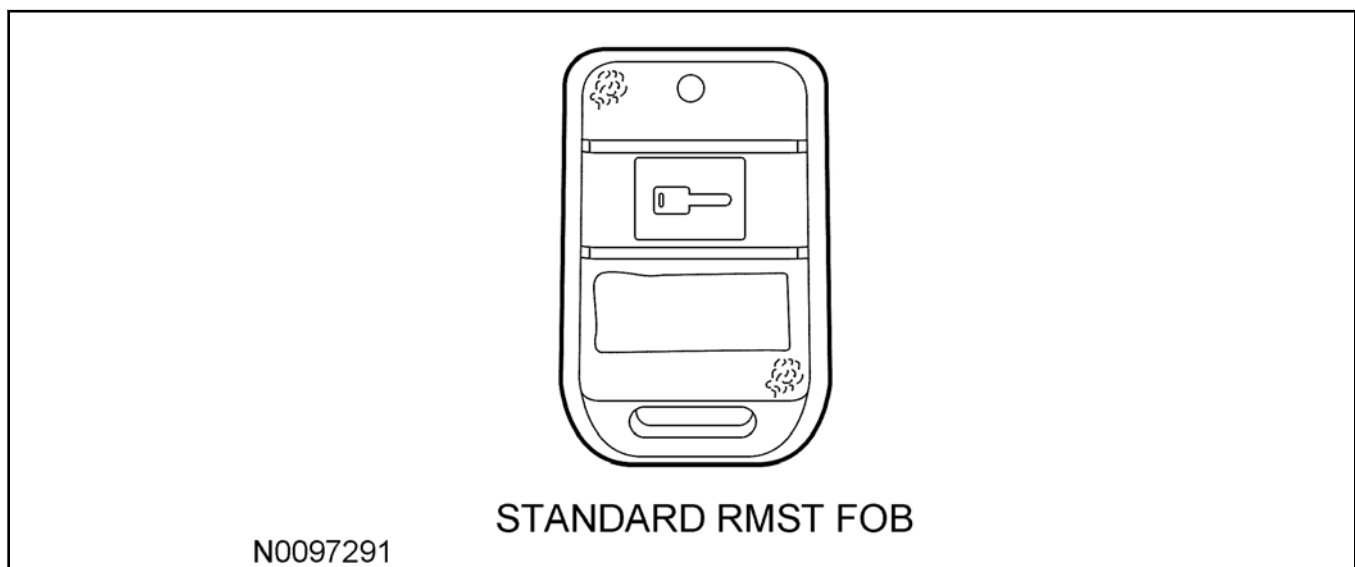
Make sure the brake pedal is not depressed during this sequence.

47. Press the vehicle's unlock button located on the driver's 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) 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.
50. 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.

**Standard RMST Functional Test****NOTE:**

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

51. Make sure the shift lever is in PARK and the ignition is in the OFF position. Remove all keys from the vehicle.
52. Close the hood.
53. Close all of the vehicle doors.
54. Start the vehicle by pressing and holding the remote start button on the remote start key fob for more than 2 seconds.



55. Confirm the remote start works with the vehicle in park and with the hood and doors closed.
56. Enter the vehicle and confirm that the vehicle shuts down when attempting to shift out of park.

**INSTALLATION (Continued)**

57. Open the hood.

58. **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.**

**Bi-directional RMST Functional Test**

**NOTE:**

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

59. 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.



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

61. Close the hood.

62. Close all of the vehicle doors.

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

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

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

66. Open the hood.

67. **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.**

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# REMOTE START SYSTEM INSTALLATION

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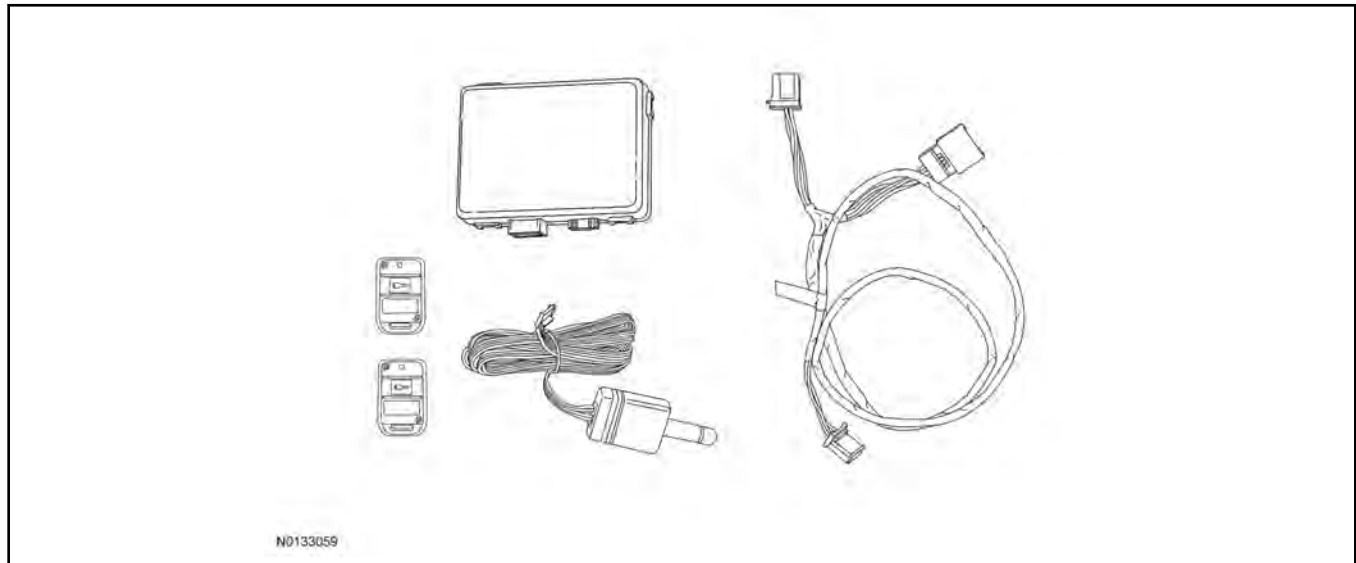
[GENERAL PROCEDURES](#)

[Functional Test](#)

## INSTALLATION

### Remote Start

#### Remote Start System (RMST) Components



#### Flex - Push Button Start

1. Verify correct kit number.

#### Review RMST Kit Contents

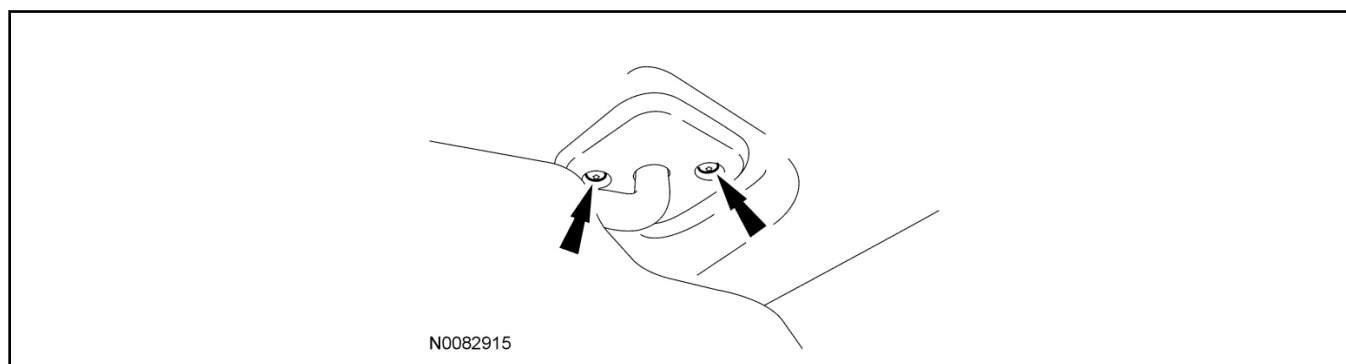
2. Review the RMST kit contents.

##### RMST Kit

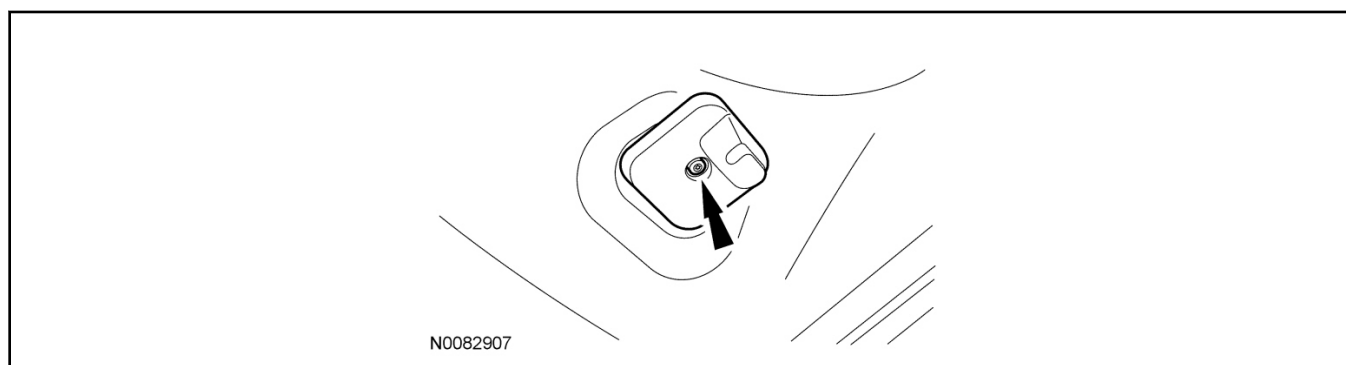
QUANTITY	DESCRIPTION
2	1 Button Key Fob
1	Remote Start Module
1	Antenna
1	T-harness

#### Vehicle Preparation

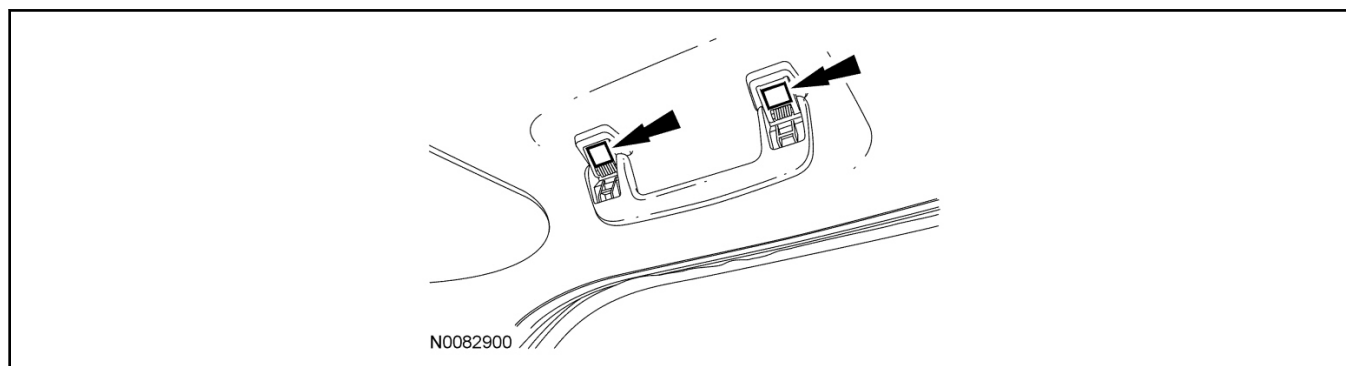
3. Remove the RH A-Pillar and RH B-pillar trim panels. For additional information, refer to Workshop Manual (WSM), Section 501-05.
4. If equipped, remove the DVD entertainment system. For additional information, refer to WSM, Section 415-00.
5. Remove the RH sun visor retainer screws and lower the RH sun visor.

**INSTALLATION (Continued)**

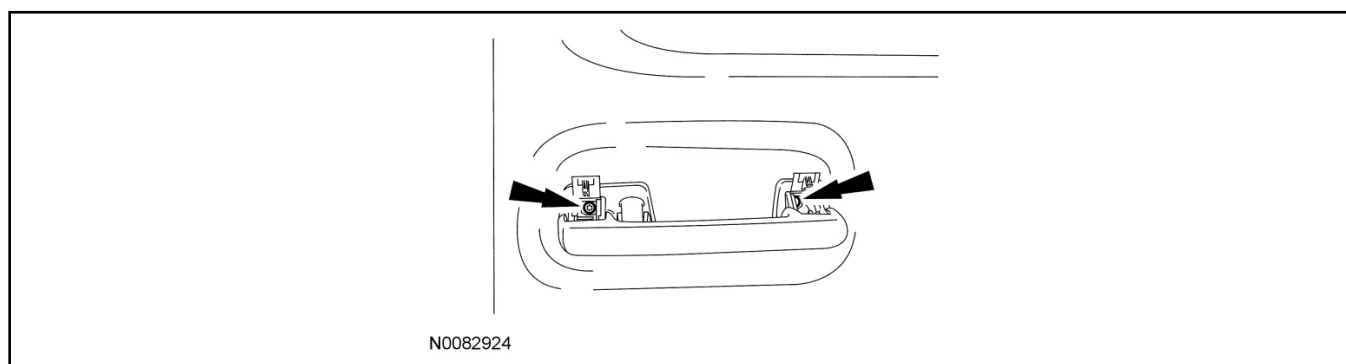
6. Remove the RH sun visor clip retainer screws and remove the sun visor clip.



7. Open the RH front assist handle screw covers.



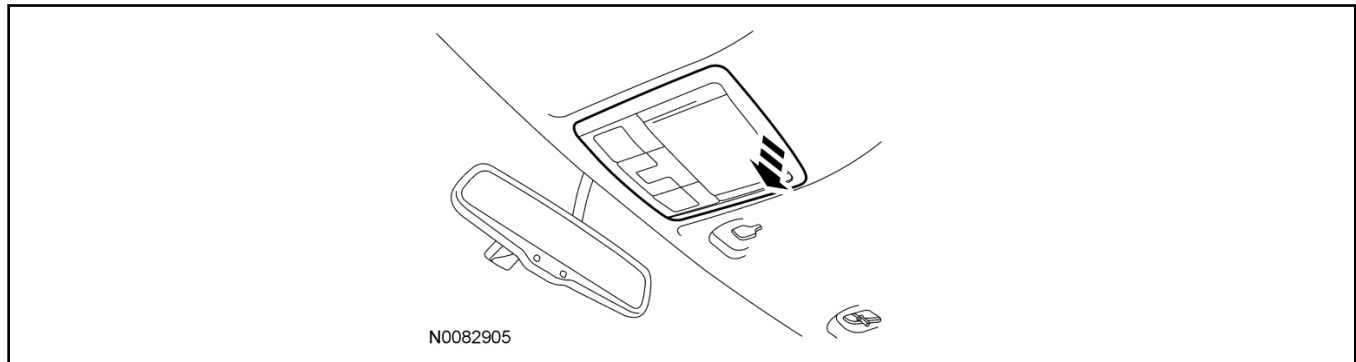
8. Remove the RH front assist handle screws and remove the front assist handle.
- If equipped, disconnect the assist handle lamp electrical connector.



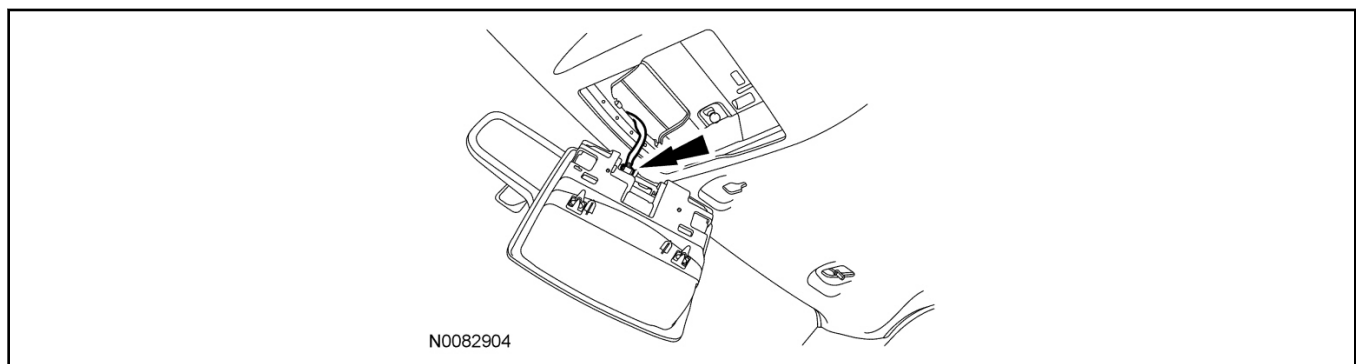


**INSTALLATION (Continued)**

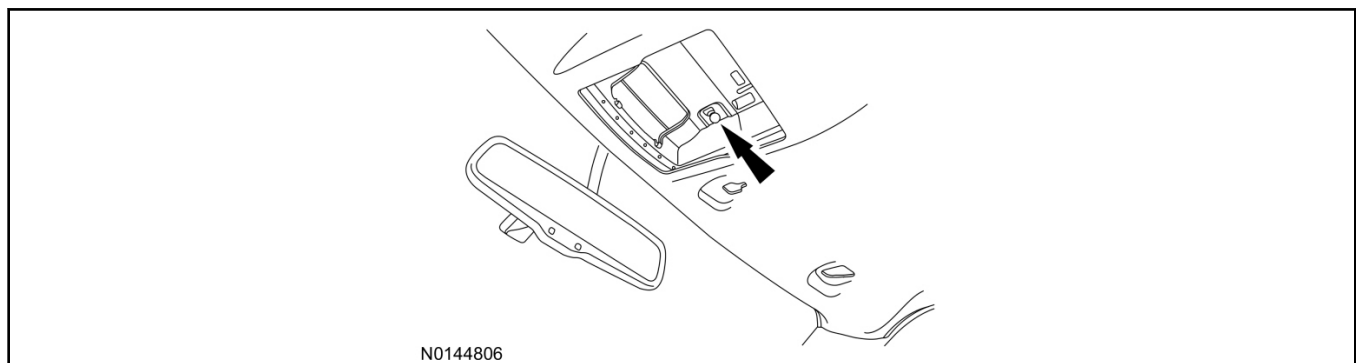
9. Pull downward on the overhead console to release the retainer clips.



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



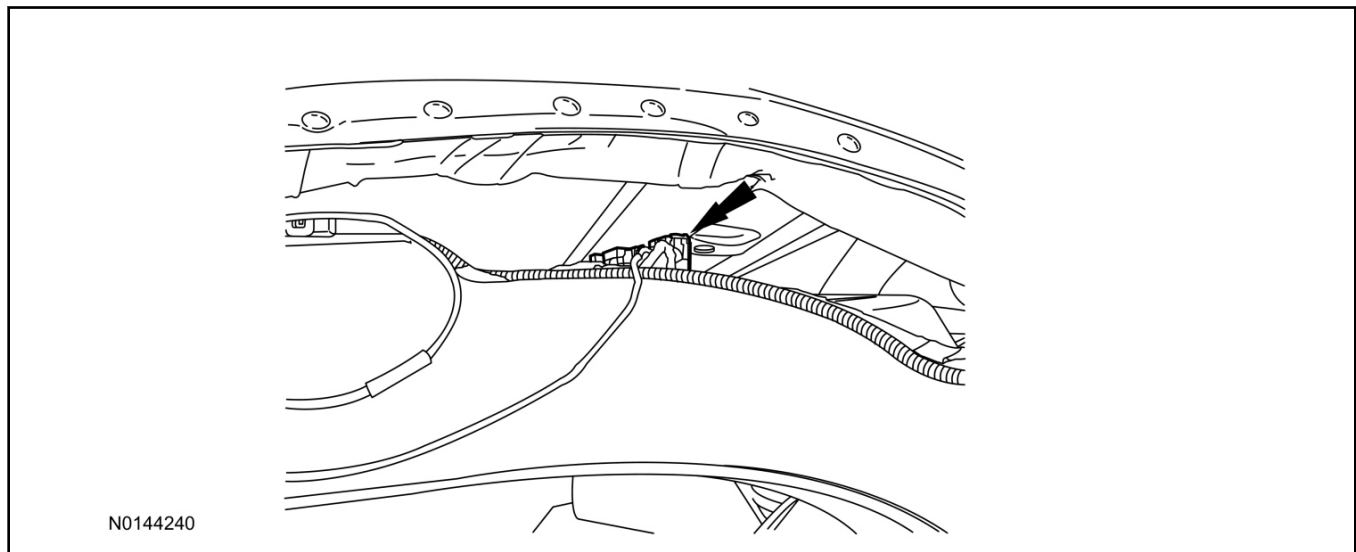
11. Remove the headliner push pin retainer.



12. **NOTICE:**

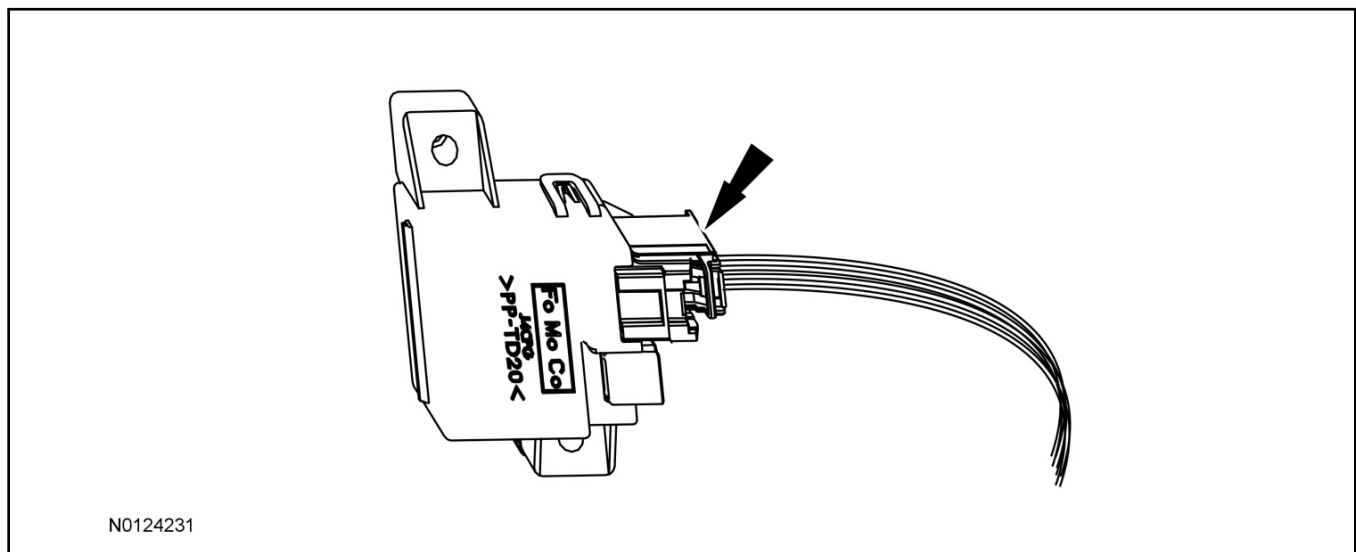
**Use caution not to over extend the headliner as creases and/or damage to the headliner may occur.**

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

**INSTALLATION (Continued)****13. NOTE:**

Headliner removed for clarity.

Disconnect the TPM module 8-pin connector.

**14. 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.

**15. Remove the RH side IP side trim panel.****Antenna Mounting****NOTE:**

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

**INSTALLATION (Continued)****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.

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

**Install The 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.

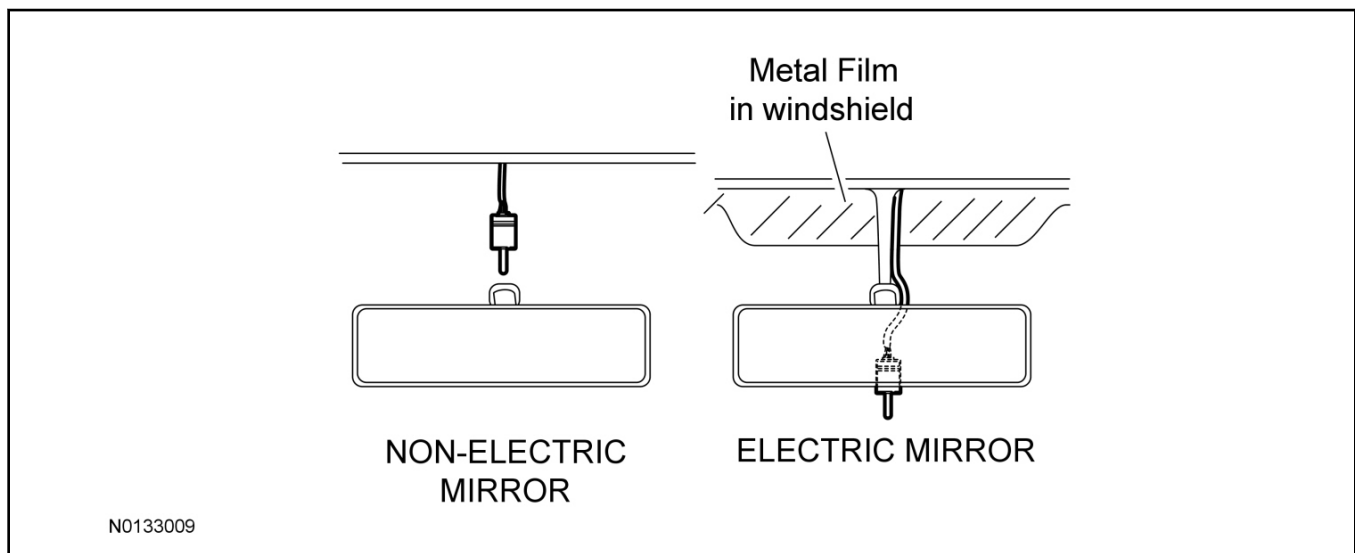
**NOTE:**

Make sure that the long wire on the 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.

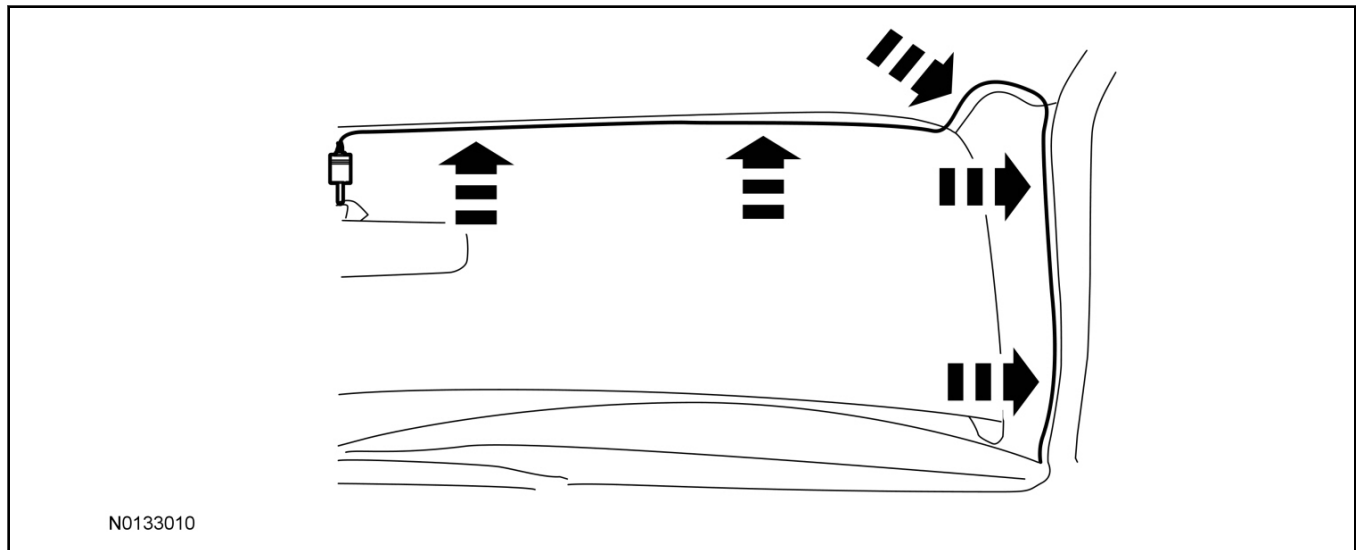
18. Remove the protective backing from the adhesive on the antenna and firmly press the body of the antenna to the windshield.



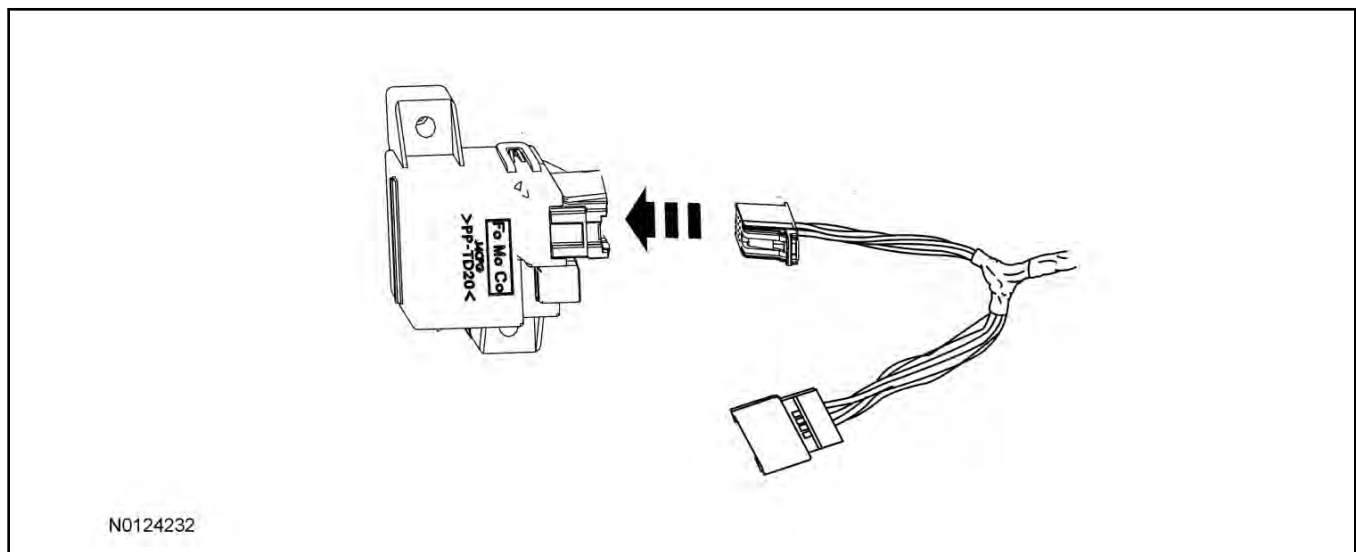
**INSTALLATION (Continued)**

19. Route the antenna cable.

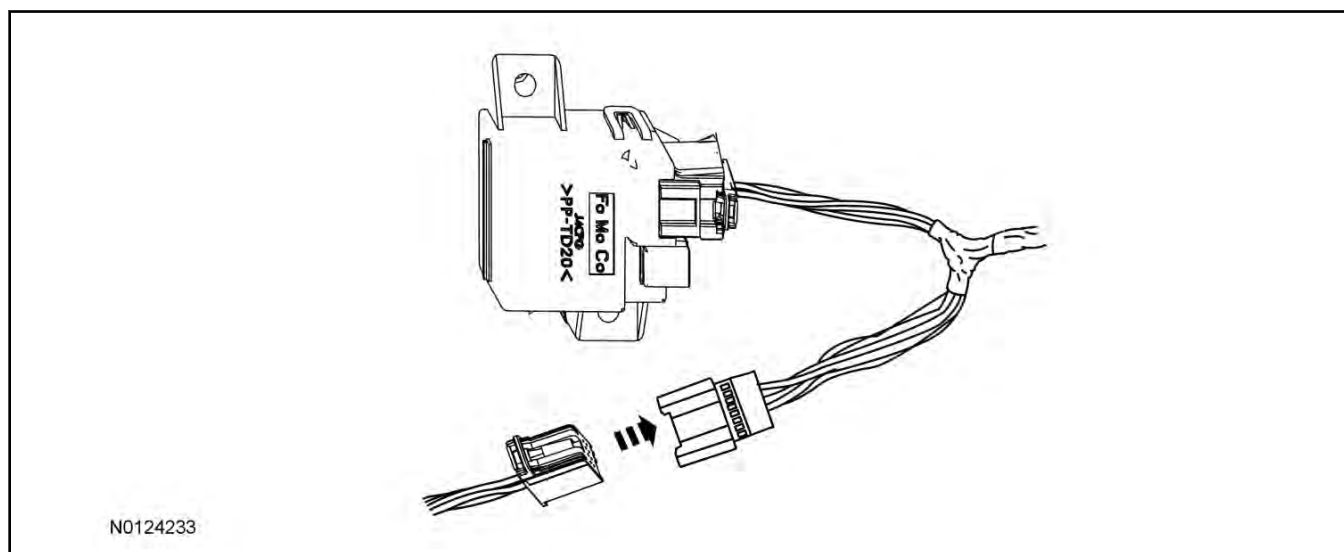
- Route inside the headliner to the A-pillar.
- Route down the A-pillar, behind the side air bag. Secure as required with tie-straps.
- Continue routing into the RH instrument panel side trim area and inside the instrument panel, coming out of the glove box.

**Install CGEA module**

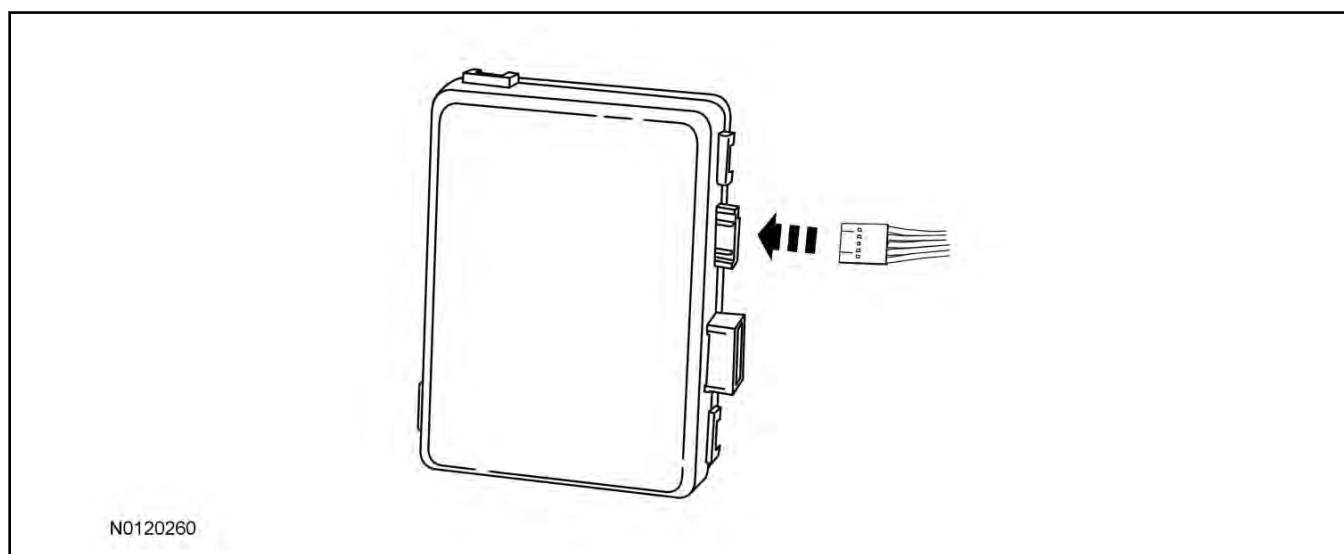
20. Connect the female end of the 8-pin T-harness to the TPM module.



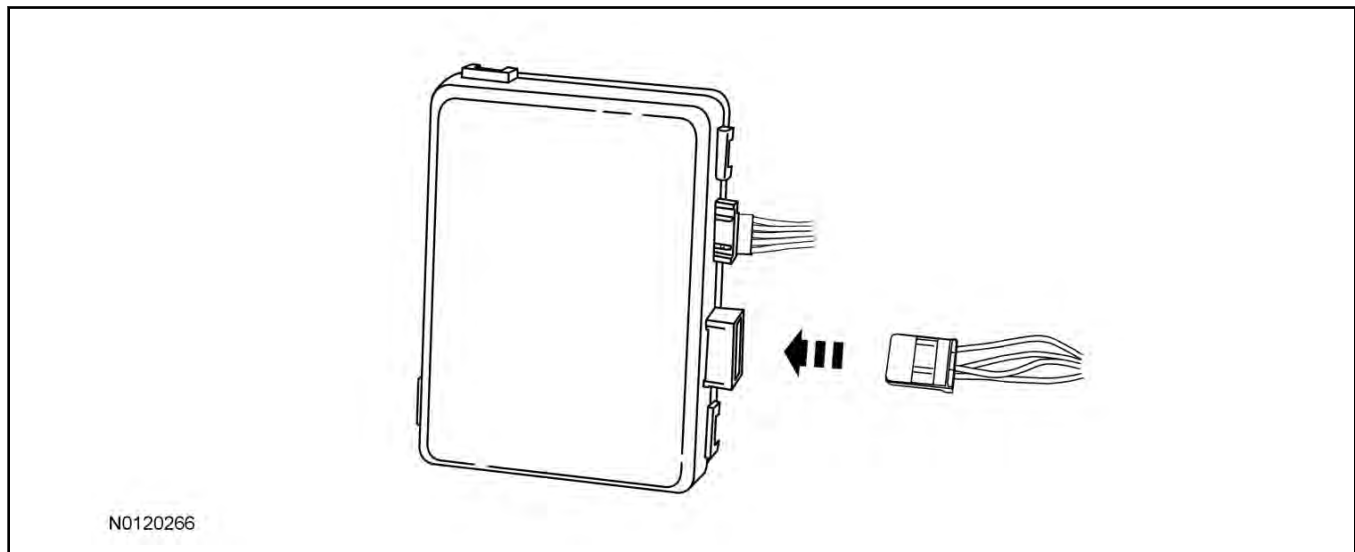
21. Connect the male end of the 8-pin T-harness to the 8-pin TPM module electrical connector.

**INSTALLATION (Continued)**

22. Route the T-harness from the headliner down along the A-Pillar and into the Instrument Panel (IP) / glove compartment area.
23. Connect the antenna to the CGEA module.



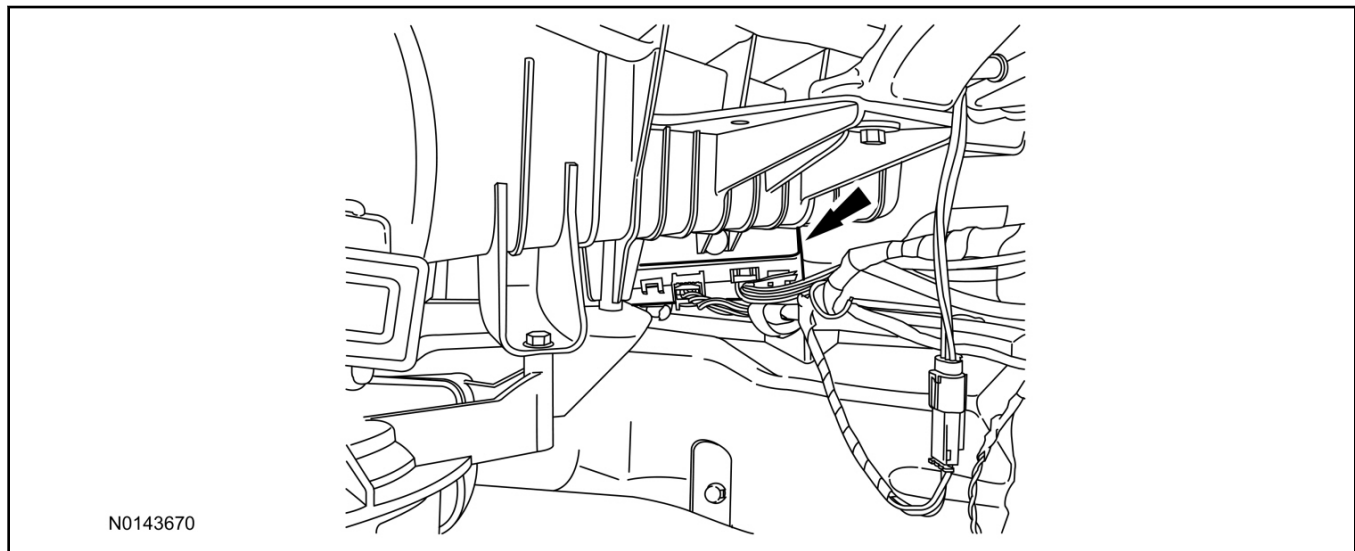
24. Connect the T-harness to the CGEA module.

**INSTALLATION (Continued)****25. 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.



26. Secure the T-harness with zip-ties.

**Install Trim**

27. Install the headliner push pin retainer.

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

29. Install the RH front assist handle and screws.

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

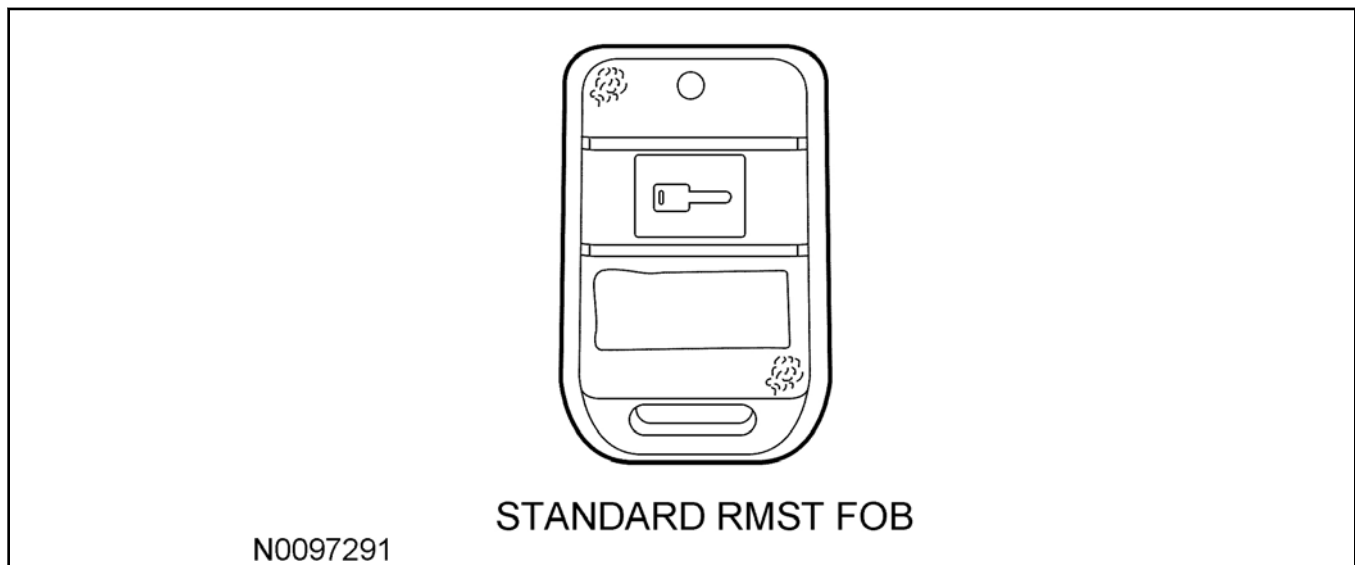
30. Close the assist handle screw covers.

**INSTALLATION (Continued)**

31. Install the sun visor clips and the sun visor clip retainer screws.
32. Position the RH sun visor and install the retainer screws.
33. Install the RH A-Pillar and RH B-pillar trim panels. For additional information, refer to WSM, Section 501-05.
34. If equipped, install the DVD entertainment system. For additional information, refer to WSM, Section 415-00.
35. Close the glove compartment.
  - Attach the glove compartment dampener.
36. Install the RH side IP side trim panel.

**RMST Functional Test**

37. Make sure the shift lever is in park and the engine is off. Remove all Intelligent Access (IA) Keys from the vehicle.
38. Close the hood.
39. Close all vehicle doors.
40. Start the vehicle by pressing and holding the remote start button on the remote start key fob for more than 2 seconds.



41. Confirm the remote start works with the vehicle in park and with the hood and doors closed.
42. Enter the vehicle and confirm that the vehicle shuts down when attempting to shift out of park.
43. Open the hood.
44. **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.**

# REMOTE START SYSTEM INSTALLATION

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[Functional Test - Bi-Directional](#)

[Troubleshooting](#)

### **WIRING DIAGRAMS**

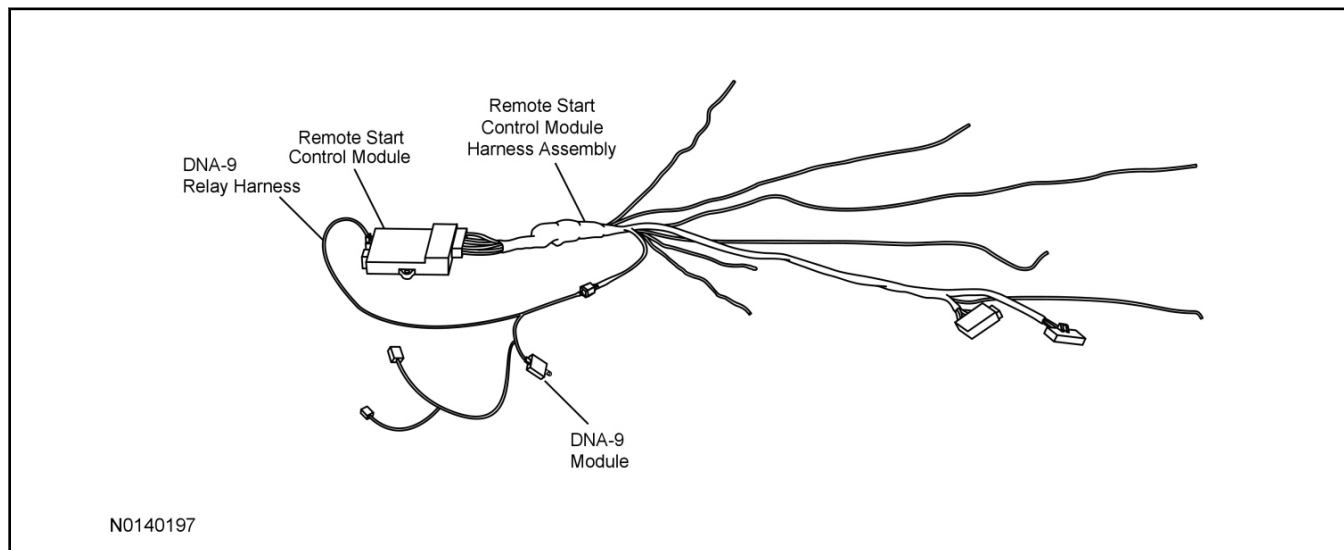
[Vehicle Specific Wiring Diagrams](#)



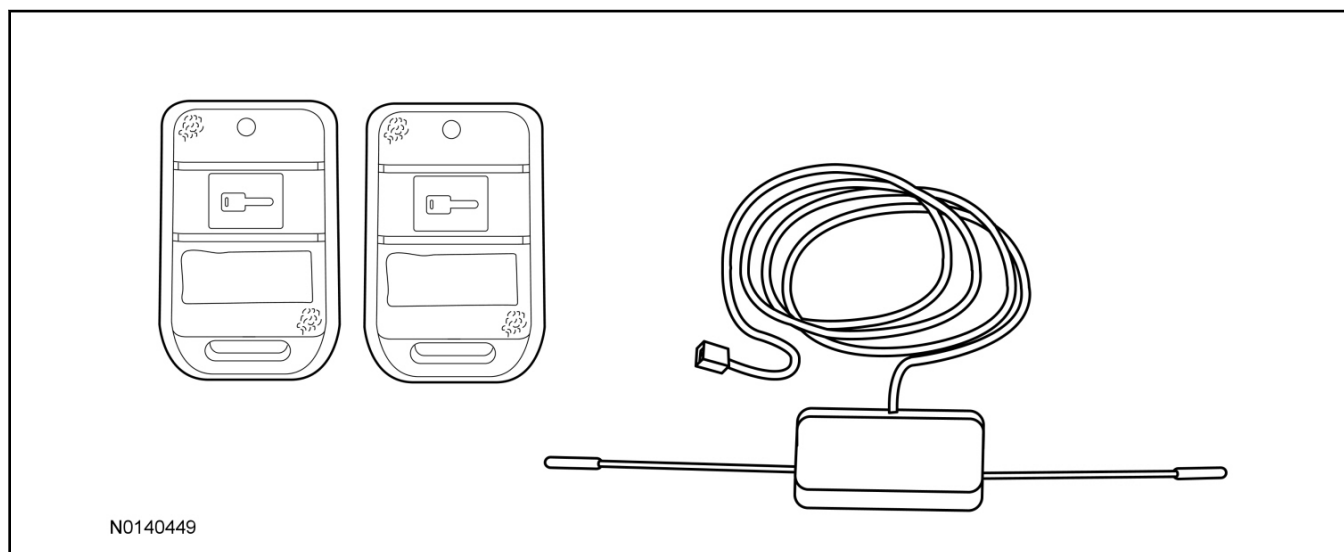
## INSTALLATION

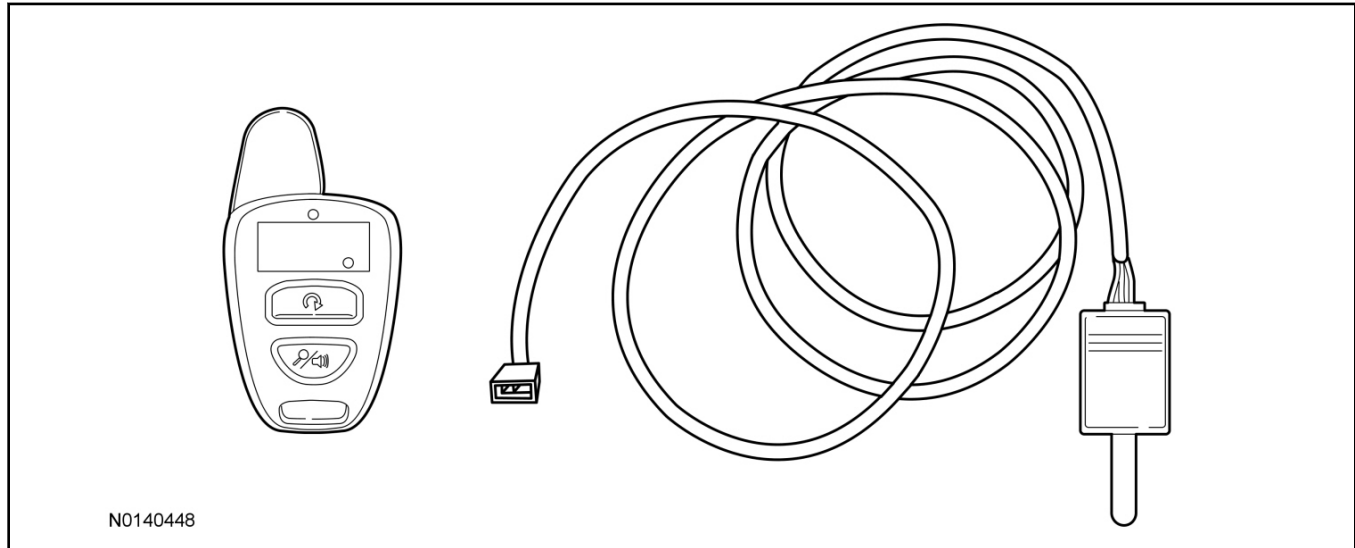
### Remote Start

#### RMST System Components



#### Additional "Standard RMST" Components



**INSTALLATION (Continued)****Additional "Bi-directional RMST" Components****Escape - Key Start****NOTICE:**

**RMST systems are only applicable to vehicles with automatic transmissions.**

1. Verify correct kit number.

**Review RMST Installation Kit Contents****NOTE:**

Kits are vehicle specific and are not interchangeable.

2. Review the RMST kit contents.

**RMST System Standard Kit Type - "A"**

Quantity	Description
1	Type - "A" Module Assembly
1	RMST Software Cartridge Assembly
2	1 Button Power Code Transmitter
1	Type - "A" Custom Wiring Harness
1	Antenna
1	Hood Safety Switch Assembly
1	Installation Parts Bag
1	Fuse Parts Bag
1	Operators Instructions
1	Underhood Warning Label
1	DNA-9 Module
1	DNA-9 Relay Harness

**INSTALLATION (Continued)****RMST System Standard Kit Type - "A"(Continued)**

1	Wire Harness Label
---	--------------------

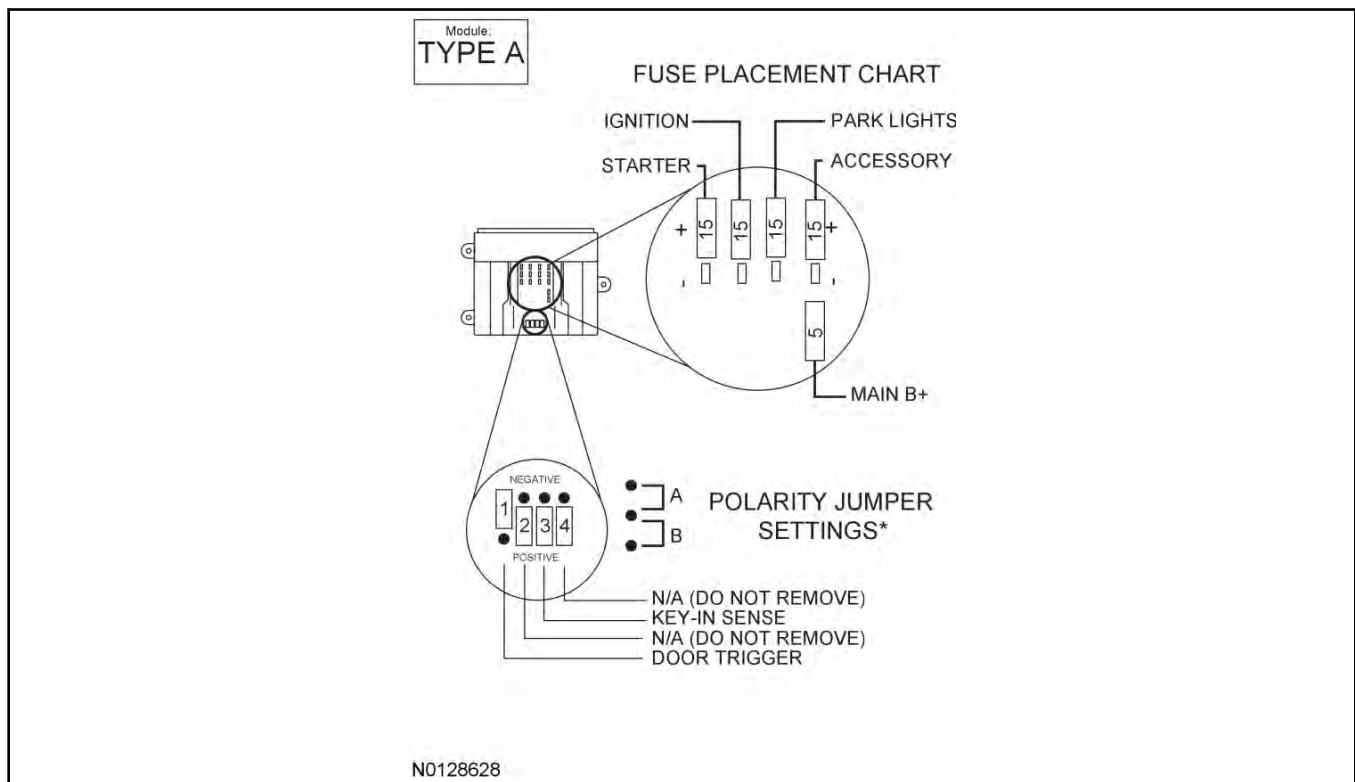
3. Review the RMST bidirectional kit contents.

**RMST System Bidirectional Kit Type - "A"**

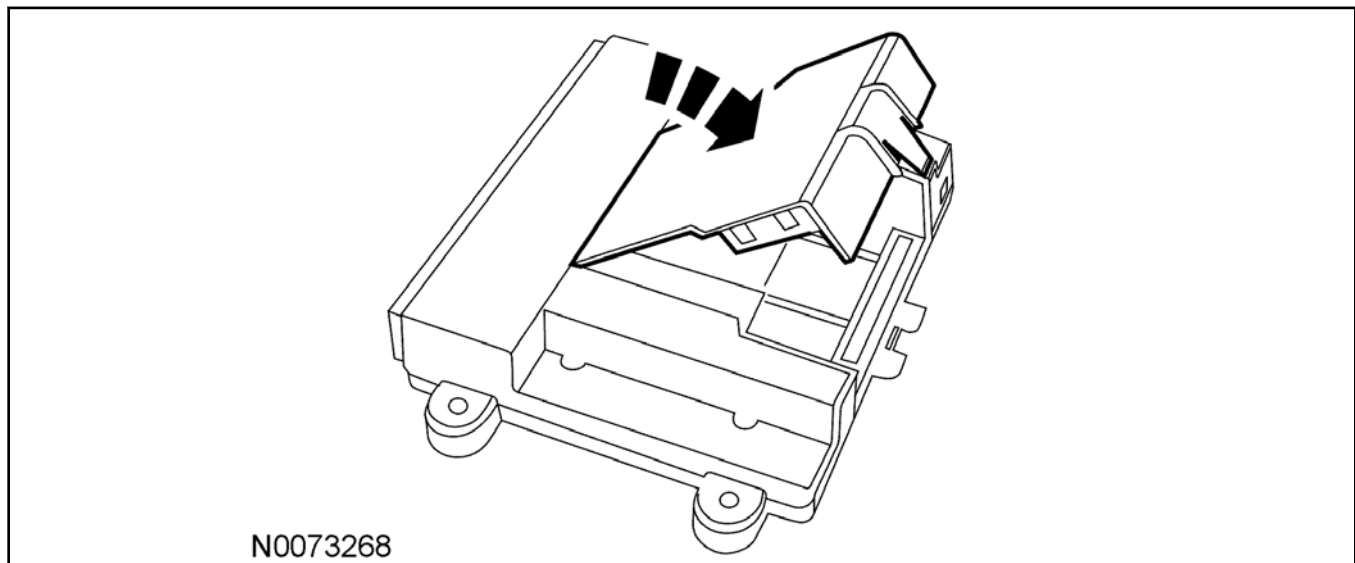
<b>Quantity</b>	<b>Description</b>
1	Type - "A" Module Assembly
1	RMST Software Cartridge Assembly
1	2 Button Power Code Transmitter
1	Type - "A" Custom Wiring Harness
1	Antenna
1	Antenna Harness
1	Hood Safety Switch Assembly
1	Installation Parts Bag
1	Fuse Parts Bag
1	Operators Instructions
1	Underhood Warning Label
1	DNA-9 Module
1	DNA-9 Relay Harness
1	Wire Harness Label

**Module Preparation**

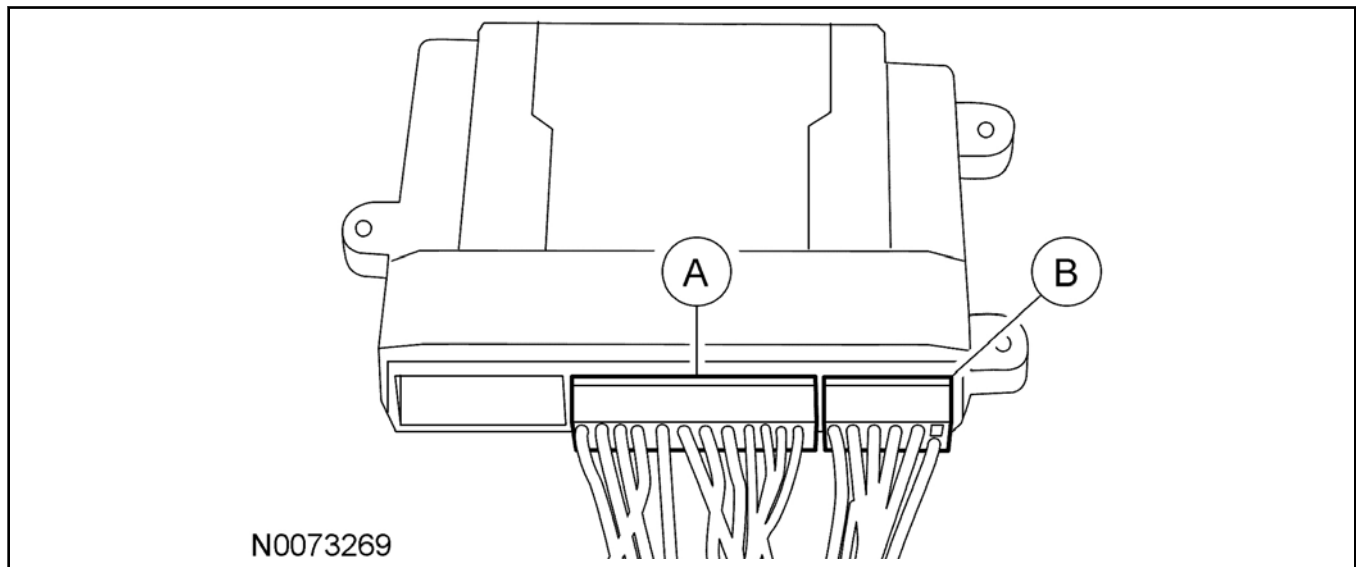
4. Place the supplied fuses into the power distribution block on the remote start control module.
- Move the polarity jumpers to their proper locations on the control module. Refer to the following illustration.

**INSTALLATION (Continued)**

5. Place the software cartridge onto the RMST control module.



6. Plug the wiring harness(es) into the module.
- A - Harness: 24-way, used on all systems.
  - B - Harness: 10-way, used on all systems with RMST.

**INSTALLATION (Continued)****7. NOTE:**

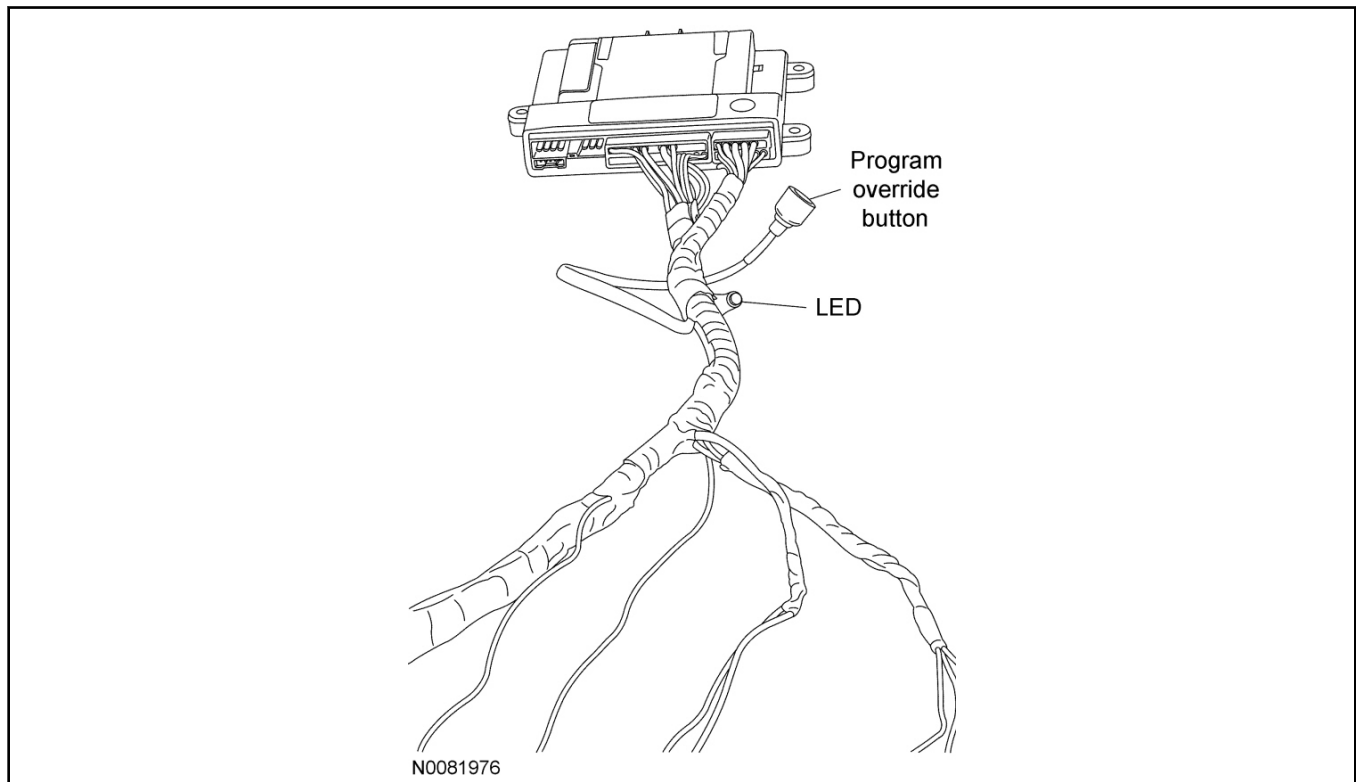
Do not cut the override programming button from the harness, it is used for all installations.

**NOTE:**

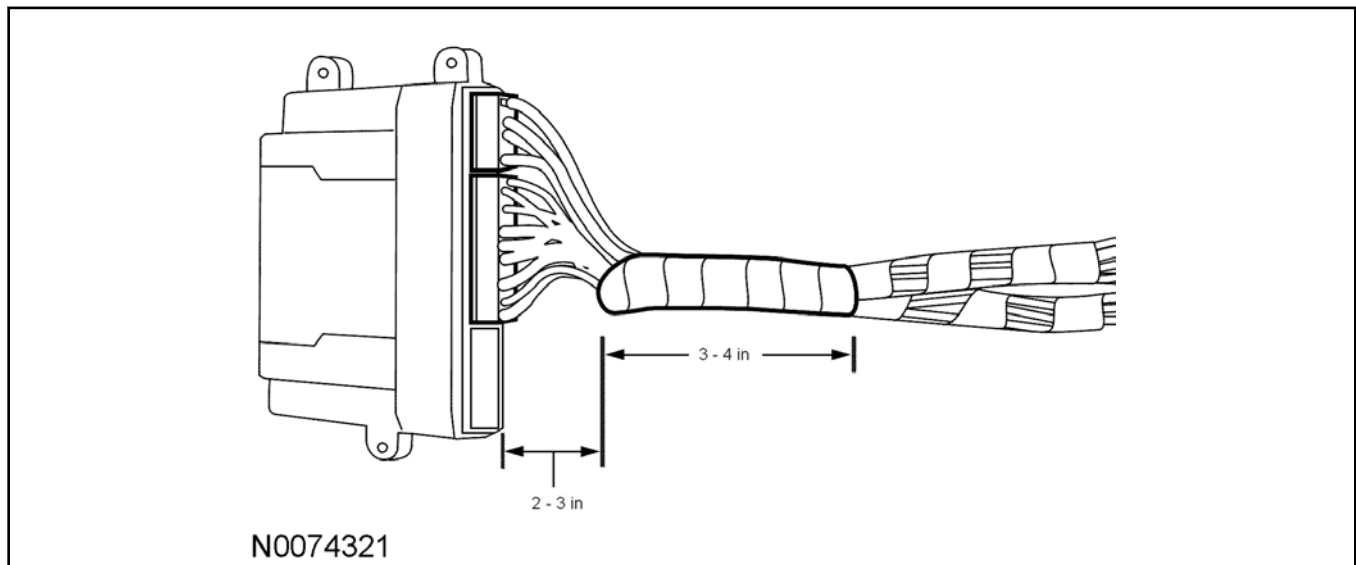
Review the vehicle specific wiring diagram(s) before proceeding.

Referring to the vehicle specific wiring section for the system being installed, gather all individual wires that will be routed to the same areas of the vehicle into groups. Cover each wire group with electrical tape for approximately 18". Depending on the vehicle, there will be 2 to 5 different wire groups.

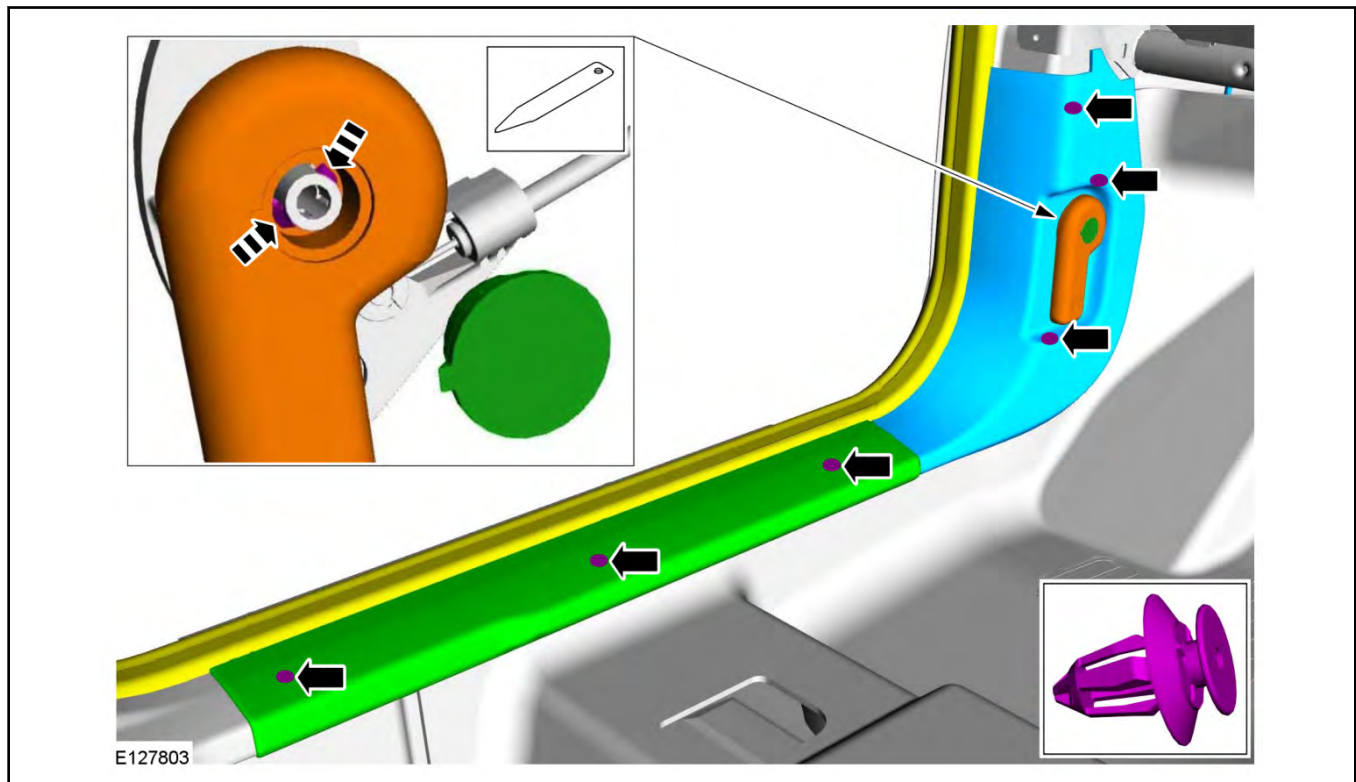
Trim the unused wires approximately 6 - 8" from the module.

**INSTALLATION (Continued)**

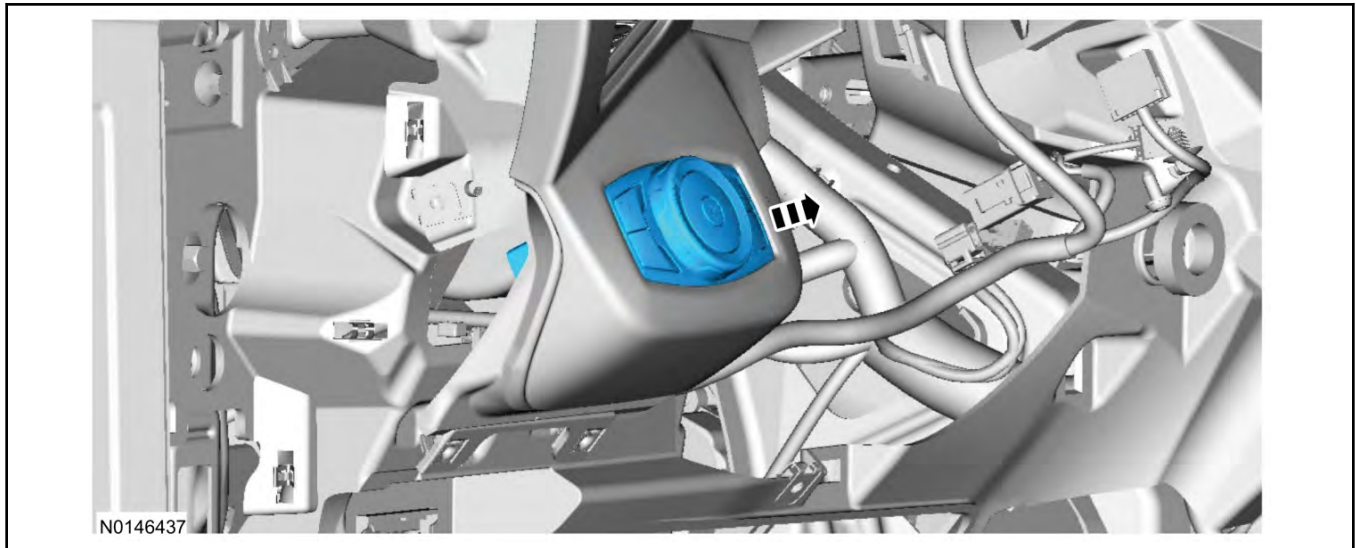
8. Tape the harness sections together, making sure to cover all of the unused wires.

**Vehicle Preparation**

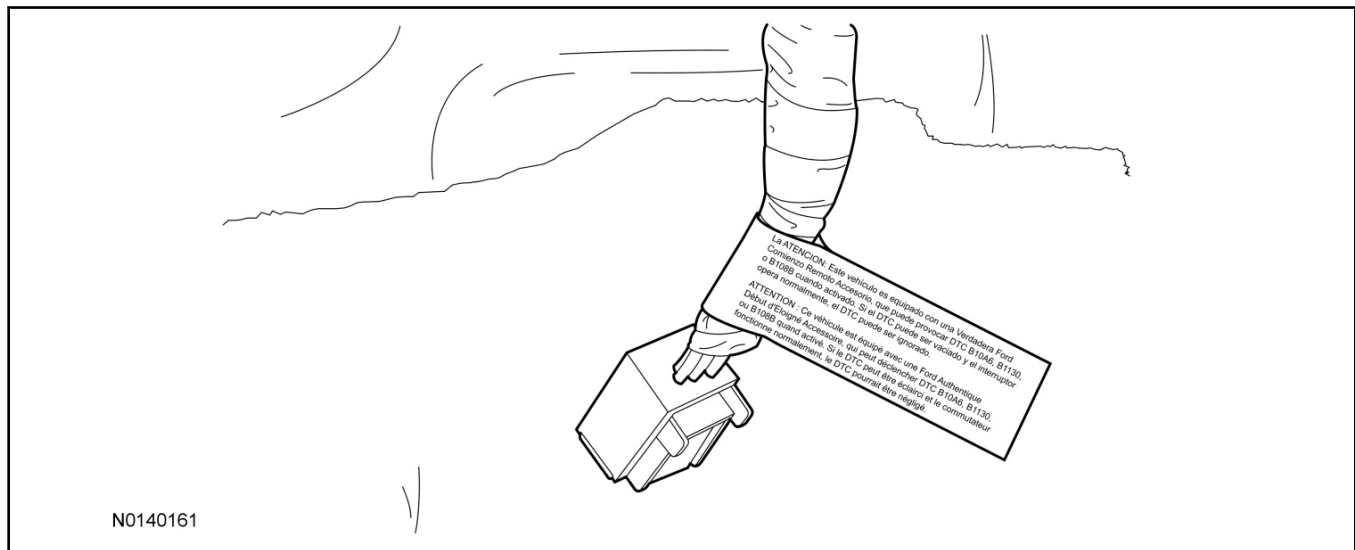
9. Remove the steering column shrouds. For additional information, refer to Workshop Manual (WSM), Section 211-04.
10. Position the weather strip aside and remove the LH side lower cowl trim panel and scuff plate.

**INSTALLATION (Continued)**

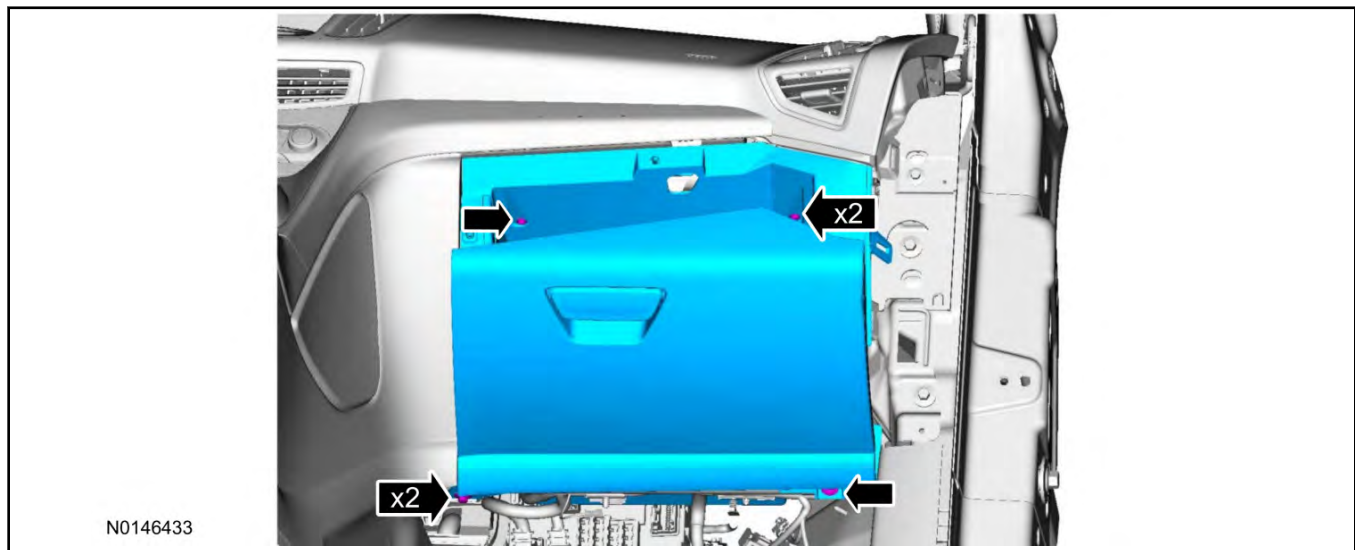
11. Using a suitable non-marring tool, work around the outer edge of the headlamp switch to release the clips and pull the switch out through the front of the finish panel.
- Disconnect the electrical connector.



12. Install the supplied wire harness label to the headlamp switch harness.
- If required, fish the headlamp switch wire harness out of the instrument panel.

**INSTALLATION (Continued)**

13. Remove the 4 glove compartment screws and the glove compartment.

**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.
- Do not mount the antenna close to RF devices, (EZ Pass, etc), that are installed on the windshield.
- On vehicles without metal film in the windshield around the rear view mirror, mount the 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 antenna approximately 3 inches below the mirror attachment point to the windshield and/or mirror electronics.

14. Choose a suitable mounting location based on the guidelines above.

**Install The Antenna**

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

**16. NOTE:**

Do not touch the adhesive, reduced adhesion may result.

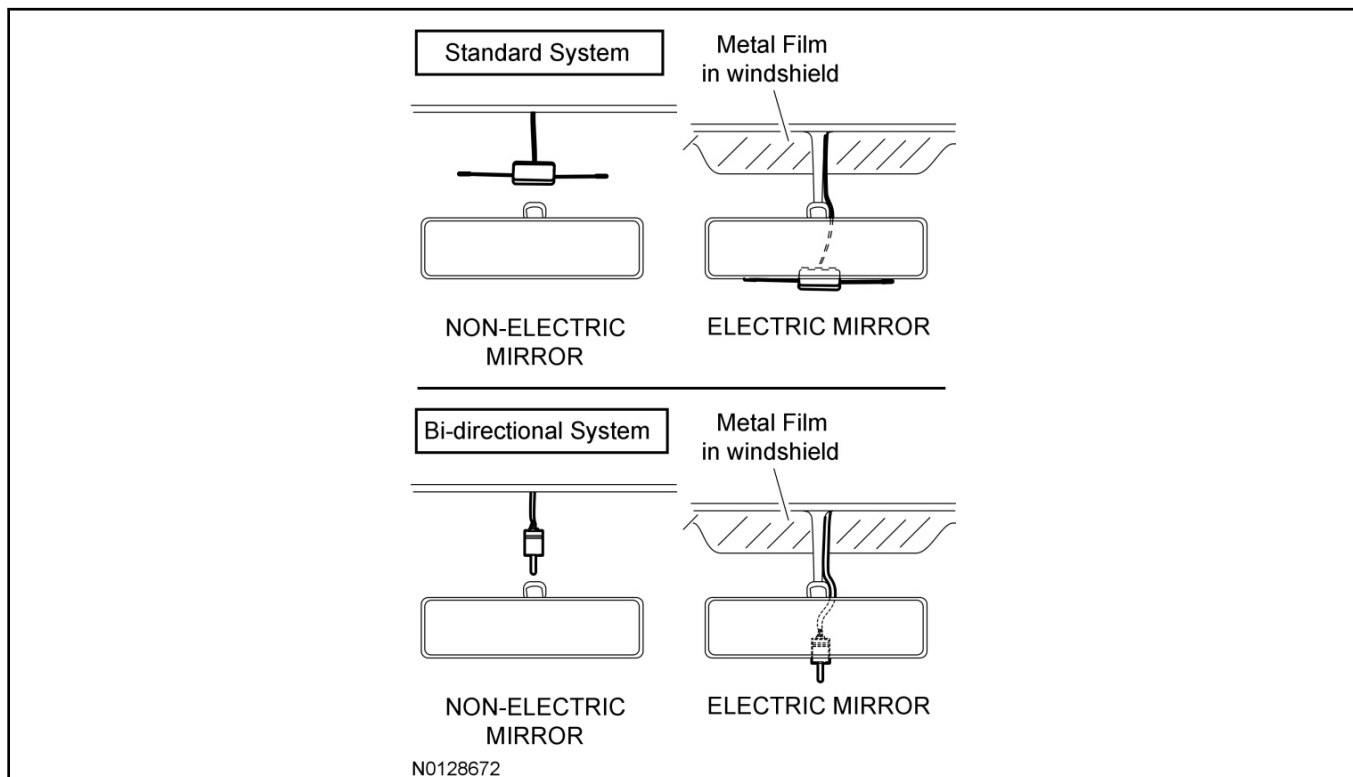
**NOTE:**

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 wire will be attached to the control module later in this procedure.

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

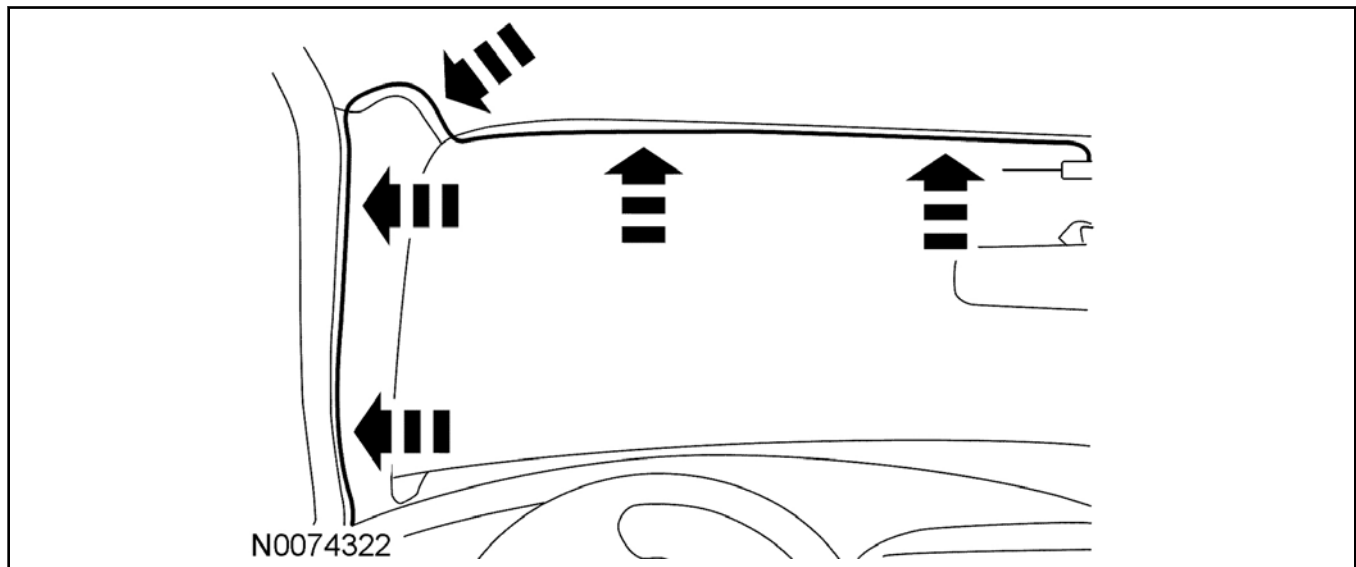


17. If necessary, position the A-pillar trim slightly outward to provide access to route the antenna wire.

**NOTE:**

Do not route the antenna wire over the top of the air bag.

18. Route the antenna cable along the headliner and down the A-pillar towards the floor.

**INSTALLATION (Continued)**

19. Reposition the A-pillar trim panel back, if necessary.

**Install the Remote Start Control Module and Harness Assembly**

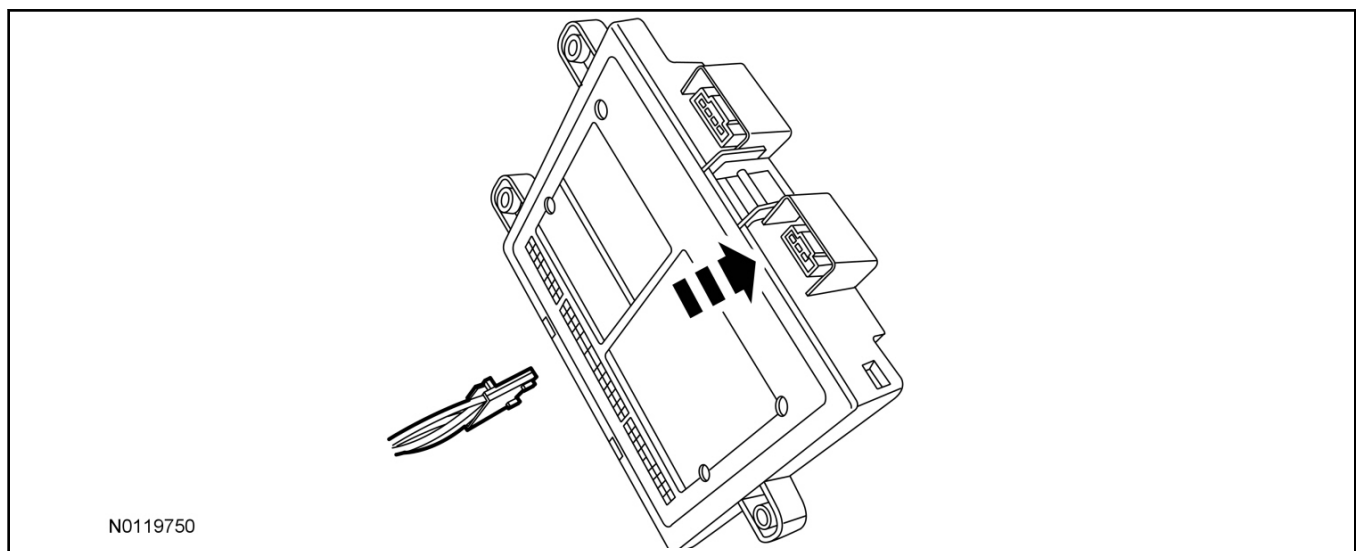
20. Place the remote start module and harness assembly on the floor of the vehicle.

**Install the DNA-9 Relay Harness and Module**

21. Disconnect the Passive Anti-Theft System (PATS) transceiver electrical connector.

22. Connect the DNA-9 relay harness to the PATS transceiver electrical connector and to the vehicle harness.

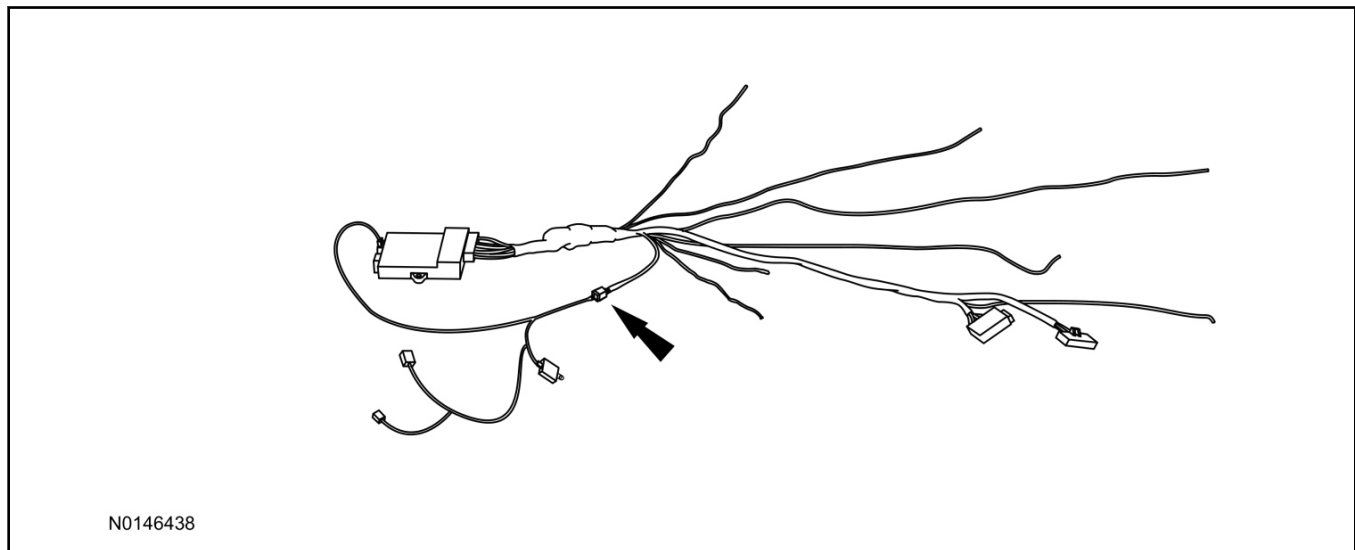
23. Connect the DNA-9 relay harness to the remote start module.



24. Connect the DNA-9 Module to the relay harness.

- Secure to the steering column wire harness with tie-straps.

25. Connect the DNA-9 relay harness to the 2-pin connector on the remote start module harness.

**INSTALLATION (Continued)****Identify Circuit Wires For Connections****NOTE:**

It is recommended to identify all vehicle wires that will be connected before making any permanent connections. If all wires cannot be located, call 1-800-FORDKEY.

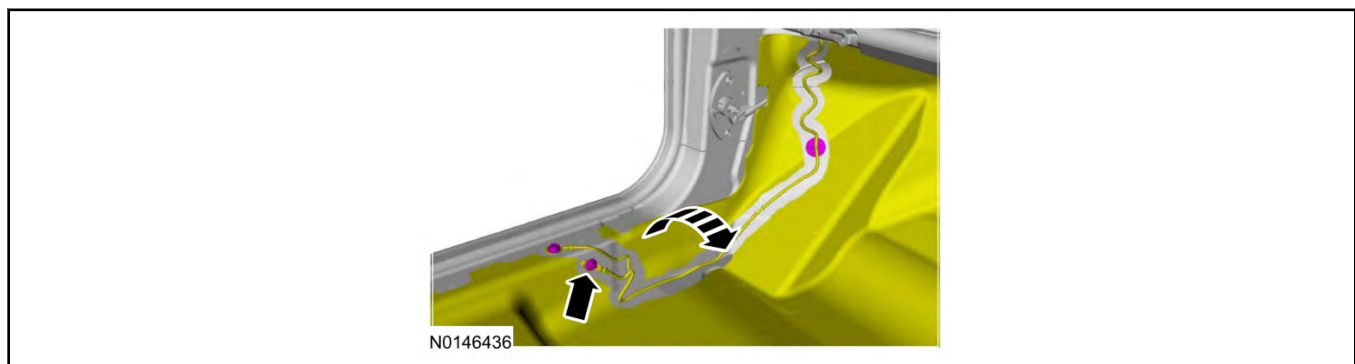
**NOTE:**

Review the vehicle specific wiring diagram(s) before proceeding.

**NOTE:**

Review the proper wire splicing techniques before proceeding.

26. Position aside the driver's side carpet and connect the Black ground wire from the remote start module harness to the chassis ground point.



27. Disconnect the ignition switch electrical connector.
28. Connect the remote start harness hard shell connectors to the ignition switch and ignition switch connector.
29. **NOTE:**  
A DVOM connected to the correct wire will show ~12V, then show ~0V when the horn button is held.  
A logic probe will show power on the correct wire, then show ground when the horn button is held.  
Identify the Brown horn circuit wire in the steering column harness.

**INSTALLATION (Continued)**

30. Connect the Brown/Black wire from the remote start module harness to the Brown horn circuit wire in the steering column harness.

31. **NOTE:**

A DVOM connected to the correct wire will show ~0V, then show ~12V while depressing the brake pedal.

A logic probe will show ground on the correct wire, then show power while depressing the brake pedal.

Identify the Violet/White brake switch circuit wire at the BCM connector C2280A pin 16.

32. Connect the Brown wire from the remote start module harness to the Violet/White brake switch circuit wire at the BCM connector C2280A pin 16.

33. **NOTE:**

A DVOM connected to the correct wire will show ~0V with the vehicle door(s) open and the dome light ON, then show ~12V with the vehicle door(s) closed and the dome light OFF.

**NOTE:**

A logic probe connected to the correct wire will show ground with the vehicle door(s) open and the dome light ON, then show power with the vehicle door(s) closed and the dome light OFF.

**NOTE:**

Be sure that the dome light has timed out and is OFF before performing the door closed test.

Be sure that the dome lamp is illuminated before performing the door open test.

Identify the Gray/Violet dome light circuit wire at the BCM connector C2280H pin 11.

34. Connect the Green/Violet wire from the remote start module harness to the Gray/Violet dome light circuit wire at the BCM connector C2280H pin 11.

**Relay Harness**

35. Remove the circuit 87 Yellow wire and terminal from the relay harness connector.

- Release the locking tab and pull the wire and terminal from the connector.
- Discard the Yellow wire, it will not be used for this application.

36. Install a suitable insulated crimp terminal eyelet to the White interrupt relay wire. Attach the White relay wire to a suitable grounding location.

37. Connect the White wire from the remote start module harness to the black wire at the relay harness.

38. Identify the Green/Violet headlamp switch wire at the headlamp switch.

39. **NOTE:**

Be sure to leave enough wire at each end of the cut wire to properly splice the relay wire to the headlamp switch harness.

Cut the Green/Violet headlamp switch wire at the headlamp switch.

- Connect the Blue wire from the relay harness to the feed side of the Green/Violet headlamp switch wire at the headlamp switch.

**INSTALLATION (Continued)**

- Connect the Red wire from the relay harness to the load side of the Green/Violet headlamp switch wire at the headlamp switch.

40. Connect the relay to the relay harness.

41. Secure the relay and relay harness to the steering column harness.

**Install The Hood Safety Switch**

42. **NOTE:**

Route the hood safety switch wire carefully avoiding any moving parts or components that can produce excessive heat.

**NOTE:**

Using a piece of convolute adds to the appearance of the installation.

**NOTE:**

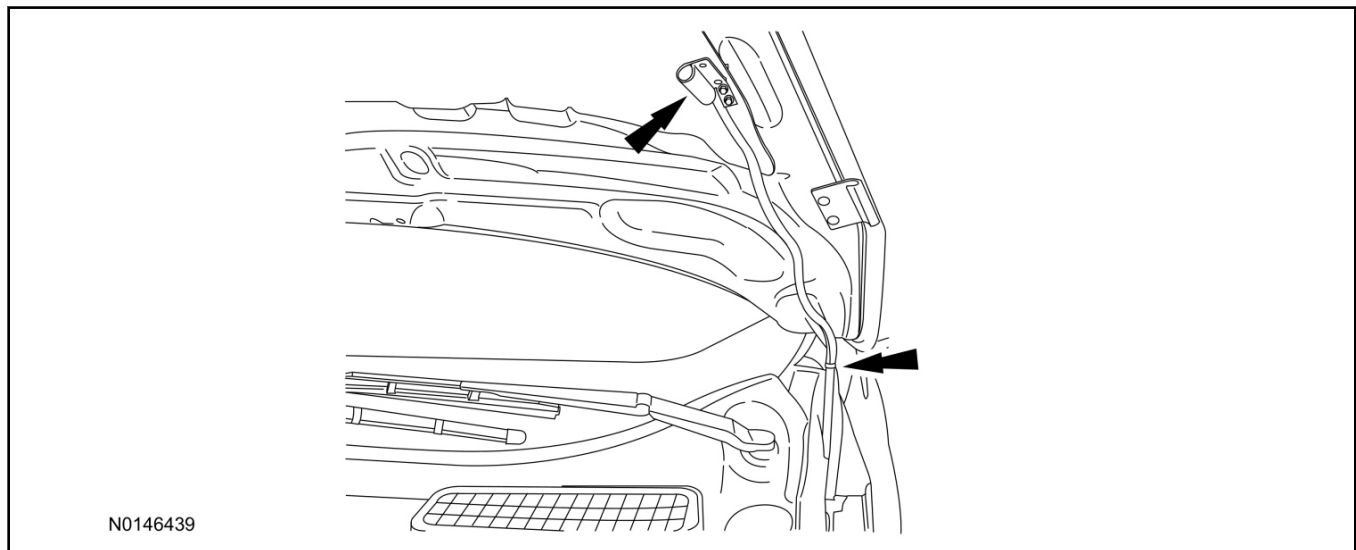
The switch should be positioned about 30 degrees below parallel to the ground to accommodate for parking on inclines.

Failure to position the switch properly could result in one of the following:

- False alarm trips
- Non-remote start events
- Inadvertent shutdown during remote start

Install the hood safety switch using the supplied metal screws.

- Apply rustproofing compound PM-13A to the screw holes.
- Tighten the screws to 1 Nm (10 lb-in).
- Secure the harness with tie-straps.

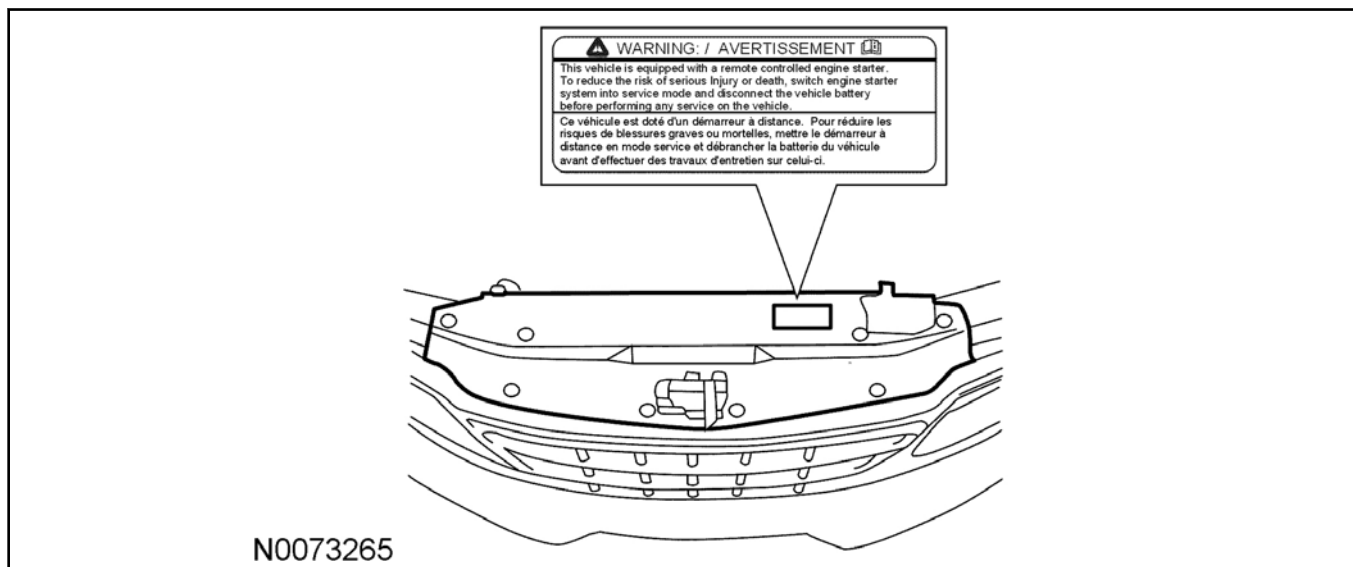


43. Connect the hood switch ground wire to a suitable location.

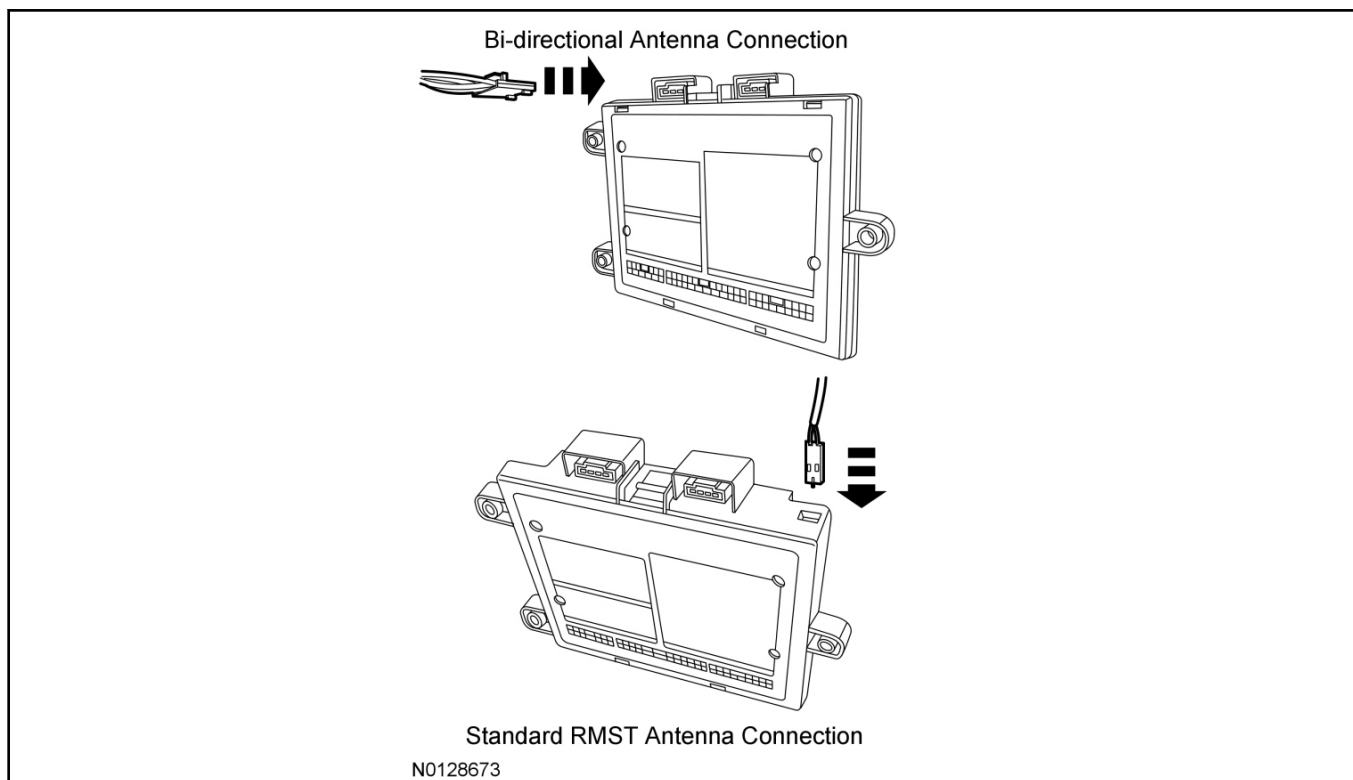
44. **NOTE:**

Place the label on the radiator fan shroud or similar area.

Install the underhood warning label.

**INSTALLATION (Continued)**

45. Route the Gray hood safety switch wire through the bulkhead into the engine compartment and attach to the hood safety switch.
46. Connect the antenna to the RMST control module.

**Program The RMST System**

47. Refer to the RMST programming section for this vehicle.

**Secure RMST Harness and Control Module**

48. Use the supplied tie wraps to secure the RMST harness wires.

**INSTALLATION (Continued)****49. NOTE:**

Do not mount the control module in the knee bolster area.  
Secure the control module at three points to the vehicle.

Use the supplied long tie wraps to mount the RMST control module at a suitable location under the IP.

**Install Trim**

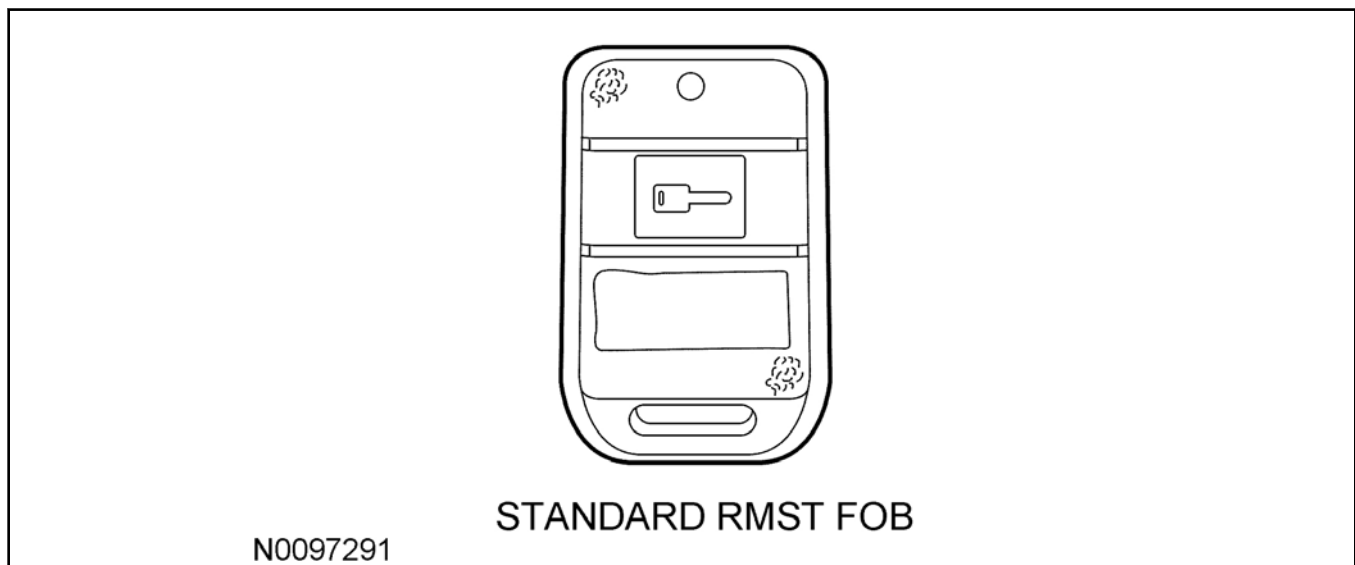
50. Install the glove compartment and the 4 screws.

- Tighten to 2 Nm (18 lb-in).

51. Connect and install the headlamp switch.

52. Install the LH side lower cowl trim panel and scuff plate and position the weather strip back.

53. Install the steering column shrouds. For additional information, refer to WSM, Section 211-04.

**Programming - Standard Remote Start**

54. Use the following guidelines for programming the RMST system.

- If the remote start options (Key-in sense polarity, door ajar polarity, or tach mode) are not programmed correctly, vehicle will not remote start or operate properly.
- Make sure that the hood and doors are closed before proceeding.
- The LED on the remote start harness must be visible to complete module programming.
- The remote start override button must be accessible.

**Programming Options: Entering Programming Mode**

55. See chart below for programming information.

**Program Bank 2 Chart (5 Honks)**

BANK	OPTIONS	DESCRIPTION	LED
2	1	TACHLESS MODE	ON

56. Press and hold the brake pedal.

**INSTALLATION (Continued)**

57. Turn the ignition key to the RUN position.
  - The dome light will turn off.
58. Press and hold the remote start system override button for at least 10 seconds. After 10 seconds the horn will honk 3 times, indicating the system is now in the learn mode. Release the brake pedal and the RMST override button.
59. Press and release the override button. The horn will honk 4 times indicating the system has entered the first program bank. If not, check the following:
  - Brake pedal switch wire solder connection
  - Hood closed and Grey hood safety switch wire solder connection
  - All doors closed and dome light circuit wire solder connections
  - The key is in the RUN position
  - The software cartridge is firmly seated in the RMST module
  - The RMST harness connections are firmly seated in the RMST module

**NOTE:**

If you require additional assistance, CALL 1-800-FORD KEY.

60. Press and release the override button again. The horn will honk 5 times indicating the system has entered the second program bank.
61. Press and release the brake pedal.
  - The horn will honk 1 time indicating the system has entered option 1 of the second program bank.

**NOTICE:**

**When turning LED on or off using remote start fob button, quickly press and immediately release the remote start button. Failure to quickly release the remote start fob button will result in system defaulting to the factory options.**

62. The LED must be on for option 1. If the LED is illuminated, no action is required. If the LED is not illuminated press the remote start fob button and verify the LED illuminates.

**NOTE:**

If the remote start fob button is held for more than 3 seconds, the system will chirp the horn 4 times, indicating the system has returned to factory default settings. If this occurs, return to step 1 of the programming section and reprogram the remote start module.

**NOTE:**

The remote start module is now programmed.

63. Remove the ignition key.

**Programming the DNA-9****NOTE:**

Two PATS keys are required to program the DNA-9.



**INSTALLATION (Continued)**

---

**NOTE:**

**IMPORTANT:** Each of the following steps should be completed with no more than a 5 second delay between steps.

64. Insert the first ignition key and turn to the RUN position.

- Watch for the PATS light to turn off. Remove the first key.

65. Insert the second ignition key and turn to the RUN position.

- Watch for the PATS light to turn off. Remove the second key.

66. Press and hold the remote start button for 3 seconds.

- The PATS light should stay on for 3-5 seconds before turning off, which means that the DNA-9 was successfully programmed.

**NOTE:**

If the PATS light blinks rapidly, repeat steps 1-3 to retry programming the SECURILOCK.

**NOTE:**

The engine will start if the Remote Start kit has been installed correctly, the brake is not depressed, and the hood and doors are closed.

**Functional Test - Standard Remote Start****NOTE:**

If during any of the steps of the functional test, the remote start system or vehicle doesn't react or perform accordingly, please refer to the remote start troubleshooting guide.

67. Make sure all doors are closed but hood is open and windows are down (doors will be locking).

68. Press and hold the Start button on the remote control key fob for 2-3 seconds - horn should honk once indicating receipt of the start request.

69. The remote start systems should turn on the ignition, but then honk the horn twice and shut down indicating the hood is open.

70. Close the hood, and insert a key into the ignition switch.

71. Attempt to re-start the vehicle again using the key fob.

72. The remote start systems should turn on the ignition, but then honk the horn five times and shut down indicating a key is in the ignition switch.

73. Remove the key and open a door.

74. Attempt to re-start the vehicle again using the key fob.

75. The remote start systems should start the vehicle, then it will detect that a door is open and shut down.

76. Close the door.

77. Attempt to re-start the vehicle again using the key fob.

**NOTE:**

The doors will not be automatically locked by the remote start system.

**INSTALLATION (Continued)**

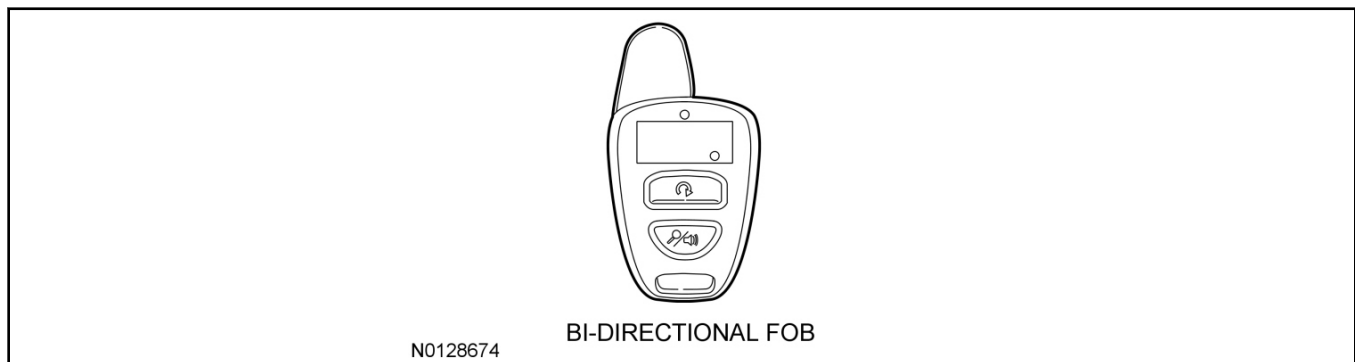
78. Once the vehicle starts, verify that all heat and A/C functions operate normally.
79. Once all systems have been checked, open the door, or press the brake pedal - the remote start systems should shut down.

**Troubleshooting****80. NOTE:**

When attempting to remote start the vehicle, the system has several safety checks that it performs. If any of these inputs are present that should not be, the system will respond back with several horn "chirps" to help identify which input is present. These "chirps" will occur after initiating a start sequence with the transmitter. The system will turn on the ignition, but then respond back with several horn "chirps" and abort the starting process.

**Example:** Depress the remote start fob button for 3 seconds and then release. The vehicle horn will "chirp" one time to indicate that RMST signal was received. If the vehicle does not start and the horn "chirps" 3 times, there is a fault - "Vehicle Door is Open"

CHIRPS	PROBLEM
1 Chirp	DNA-9 not programmed correctly, or the DNA-9 harness is damaged.
2 Chirps	BRAKE is being pressed, or the HOOD is open.
3 Chirps	One of the vehicle DOORS is open.
4 Chirps	TACH not programmed.
5 Chirps	The KEY is in the ignition.
6 Chirps	The remote start system is in SERVICE/VALET mode.

**Programming Bi-directional Remote Start**

81. Use the following guidelines for programming the RMST system.

- If the remote start options (Key-in sense polarity, door ajar polarity, or tach mode) are not programmed correctly, vehicle will not remote start or operate properly.
- Make sure that the hood and doors are closed before proceeding.
- The LED on the remote start harness must be visible to complete module programming.
- The remote start override button must be accessible.

**INSTALLATION (Continued)****Programming Options: Entering Programming Mode**

82. See chart below for programming information.

**Program Bank 2 Chart (5 Honks)**

<b>BANK</b>	<b>OPTIONS</b>	<b>DESCRIPTION</b>	<b>LED</b>
2	1	TACHLESS MODE	ON

83. Press and hold the brake pedal.

84. Turn the ignition key to the RUN position.  
The dome light will turn off.

85. Press and hold the remote start system override button for at least 10 seconds.  
After 10 seconds the horn will honk 3 times, indicating the system is now in the learn mode.  
Release the brake pedal and the RMST override button.

86. Press and release the override button. The horn will honk 4 times indicating the system has entered the first program bank.

If not, check the following:

- Brake pedal switch wire solder connection
- Hood closed and Grey hood safety switch wire solder connection
- All doors closed and dome light circuit wire solder connections
- The key is in the RUN position
- The software cartridge is firmly seated in the RMST module
- The RMST harness connections are firmly seated in the RMST module

**NOTE:**

If you require additional assistance, CALL 1-800-FORD KEY.

87. Press and release the override button again. The horn will honk 5 times indicating the system has entered the second program bank.

88. Press and release the brake pedal.  
The horn will honk 1 time indicating the system has entered option 1 of the second program bank.

**NOTICE:**

**When turning LED on or off using remote start fob button, quickly press and immediately release the remote start button. Failure to quickly release the remote start fob button will result in system defaulting to the factory options.**

89. The LED must be on for option 1. If the LED is illuminated, no action is required. If the LED is not illuminated, press the remote start fob button and verify the LED illuminates.

**NOTE:**

If the remote start fob button is held for more than 3 seconds, the system will chirp the horn 4 times, indicating the system has returned to factory default settings. If this occurs, return to step 1 of the programming section and reprogram the remote start module.

**INSTALLATION (Continued)**

---

**NOTE:**

The remote start module is now programmed.

90. Remove the ignition key.

**Programming the DNA-9****NOTE:**

Two PATS keys are required to program the DNA-9.

**NOTE:**

**IMPORTANT:** Each of the following steps should be completed with no more than a 5 second delay between steps.

91. Insert the first ignition key and turn to the RUN position.

- Watch for the PATS light to turn off. Remove the first key.

92. Insert the second ignition key and turn to the RUN position.

- Watch for the PATS light to turn off. Remove the second key.

**NOTE:**

If the PATS light blinks rapidly, repeat steps 1-3 to retry programming the DNA-9.

**NOTE:**

The engine will start if the Remote Start kit has been installed correctly, the brake is not depressed, and the hood and doors are closed.

93. Press the remote start button key icon twice within 3 seconds.

The PATS light should stay on for 3-5 seconds before turning off, which means that the DNA-9 was successfully programmed.

**Functional Test - Bi-directional Remote Start****NOTE:**

If during any of the steps of the functional test the remote start system or vehicle doesn't react or perform accordingly, please refer to the remote start troubleshooting guide.

94. Make sure all doors are closed but hood is open and windows are down (doors will be locking).

95. Press the Start button on the remote control key fob twice within 3 seconds - horn should honk once indicating receipt of the start request.

96. The remote start systems should start the vehicle, then it will detect that a door is open and shut down.

97. Close the hood, and insert a key into the ignition switch.

98. Attempt to re-start the vehicle again using the key fob.

99. The remote start systems should turn on the ignition, but then honk the horn five times and shut down indicating a key is in the ignition.

100. Remove the key and open a door.

**INSTALLATION (Continued)**

101. Attempt to re-start the vehicle again using the key fob.
102. The remote start systems should turn on the ignition, but then honk the horn three times and shut down indicating a door is open.
103. Close the door.
104. Attempt to re-start the vehicle again using the key fob.

**NOTE:**

The doors will not be automatically locked by the remote start system.

105. Once the vehicle starts, verify that all heat and A/C functions operate normally.
106. Once all systems have been checked, open the door or press the brake pedal - the remote start systems should shut down.

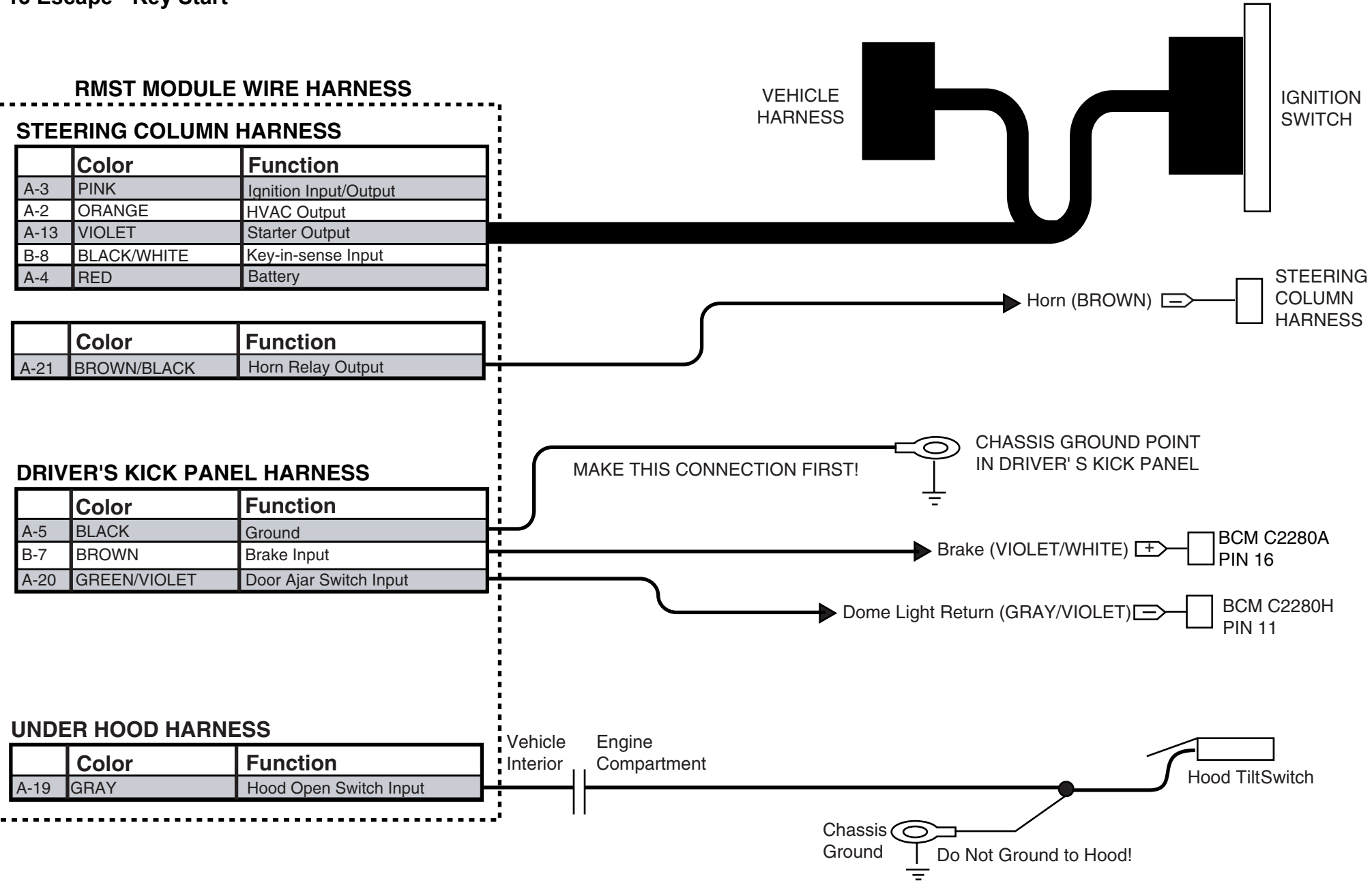
**Troubleshooting****107. NOTE:**

When attempting to remote start the vehicle, the system has several safety checks that it performs. If any of these inputs are present that should not be, the system will respond back with several horn "chirps" to help identify which input is present. These "chirps" will occur after initiating a start sequence with the transmitter. The system will turn on the ignition, but then respond back with several horn "chirps" and abort the starting process.

**Example:** Depress the remote start fob button for 3 seconds and then release. The vehicle horn will "chirp" one time to indicate that RMST signal was received. If the vehicle does not start and the horn "chirps" 3 times, there is a fault - "Vehicle Door is Open"

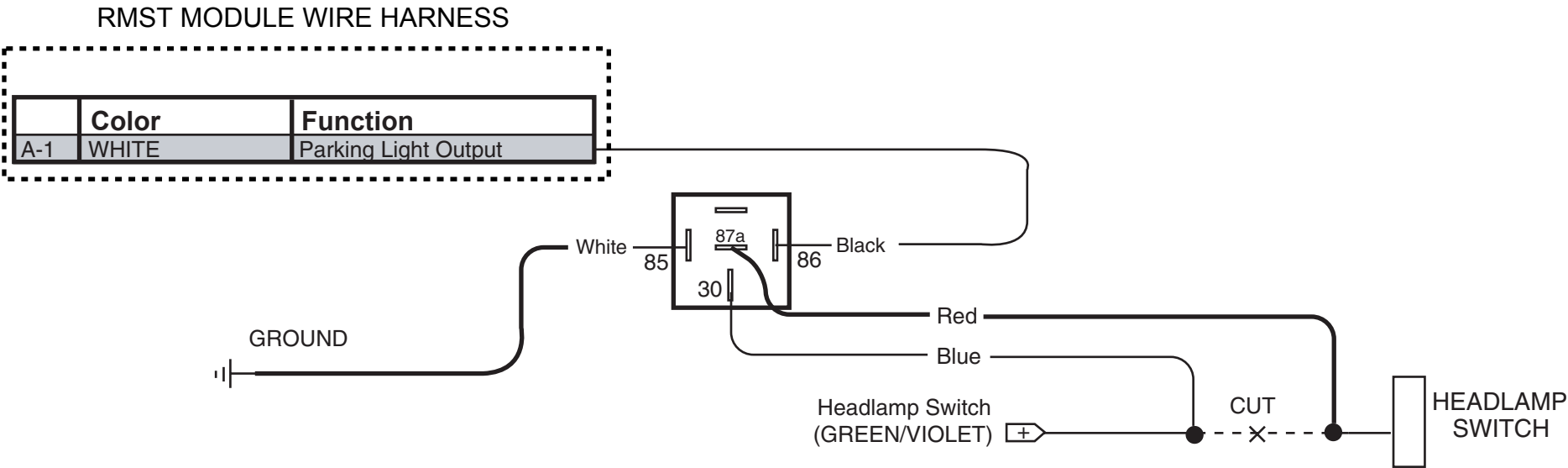
<b>CHIRPS</b>	<b>PROBLEM</b>
1 Chirp	DNA-9 not programmed correctly, or the DNA-9 harness is damaged.
2 Chirps	BRAKE is being pressed, or the HOOD is open.
3 Chirps	One of the vehicle DOORS is open.
4 Chirps	TACH not programmed.

'13 Escape - Key Start



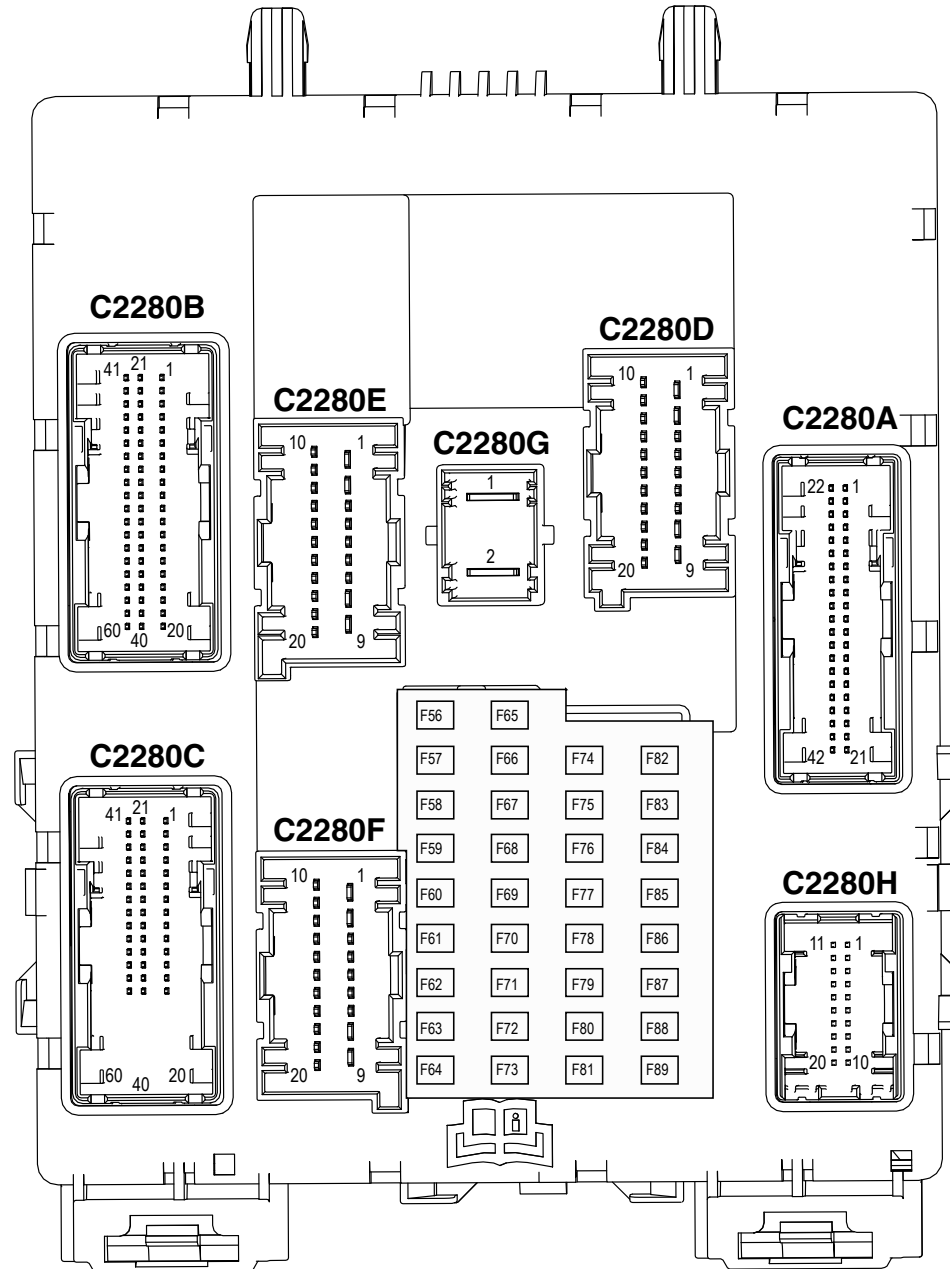
'13 Escape - Key Start

INTERRUPT RELAY



NOTE: REMOVE THE YELLOW WIRE AND TERMINAL FROM THE RELAY SOCKET

# BCM Connector Locations





[Manual Table of Contents](#)

# REMOTE START SYSTEM INSTALLATION

## Expedition W/O SYNC ONLY

### CONTENTS

#### INSTALLATION

[Remote Start](#)

#### GENERAL PROCEDURES

[Proper Splicing Techniques](#)

[Programming - Standard Remote Start](#)

[Functional Test - Standard Remote Start](#)

[Programming - Bidirectional Remote Start](#)

[Functional Test - Bidirectional Remote Start](#)

[Troubleshooting](#)

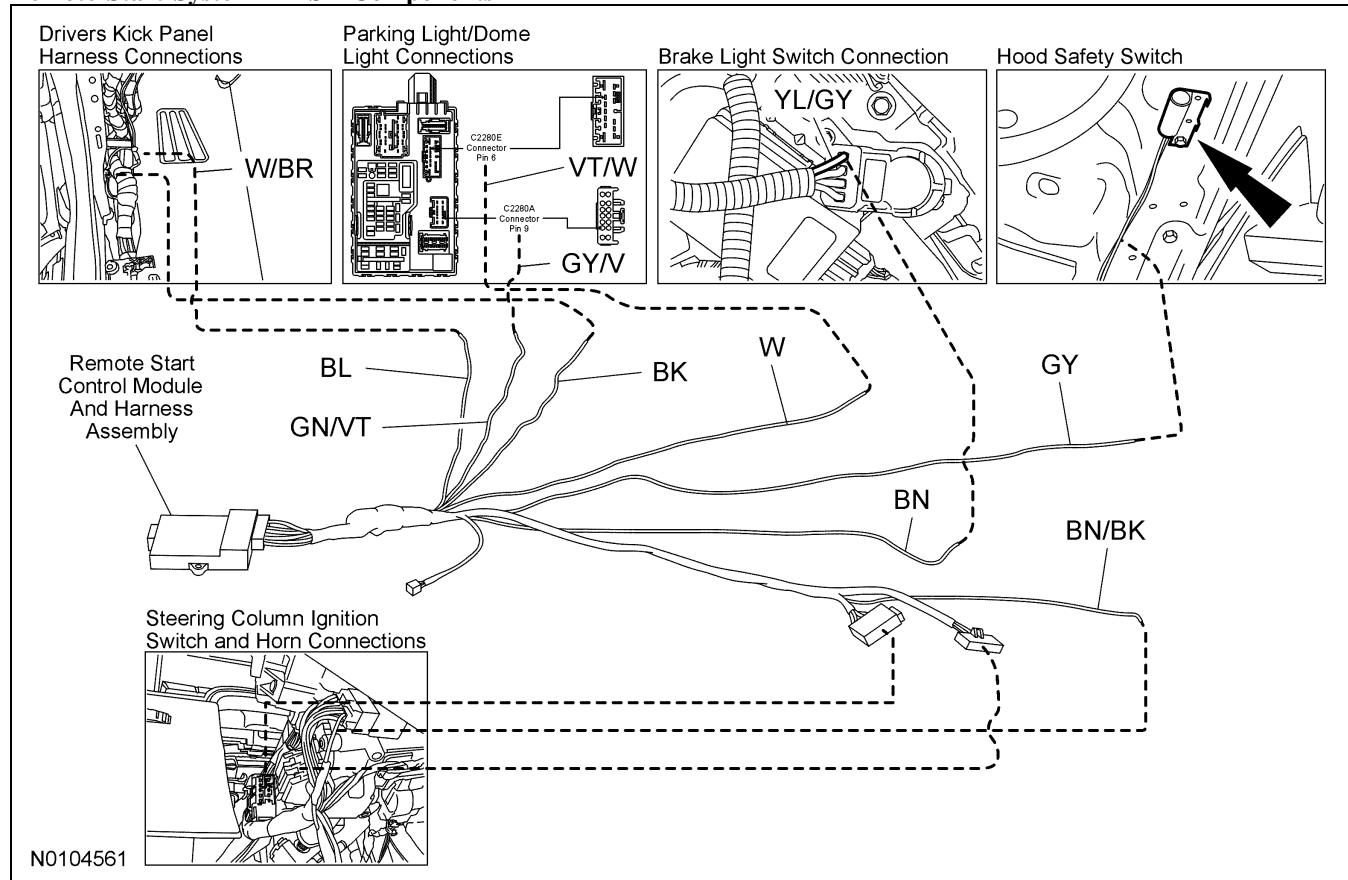
#### WIRING DIAGRAMS

[Vehicle Specific Wiring Diagrams](#)

## INSTALLATION

### Remote Start - Exped/Nav W/O SYNC

#### Remote Start System RMST Components



#### Expedition/Navigator W/O SYNC

**NOTICE:** Remote start systems are only applicable to vehicles with automatic transmissions.

**NOTE:** Both original keys are required for all remote start systems on vehicles equipped with SECURILOCK.

1. Verify correct kit number.

**INSTALLATION (Continued)****Review Remote Start Installation Kit Contents**

**NOTE:** Kits are vehicle specific and are not interchangeable.

- Review the RMST kit contents.

**Remote Start System Standard Kit (RMST) Type - "C"**

QUANTITY	DESCRIPTION
1	TYPE - "C" MODULE ASSEMBLY
1	RMST SOFTWARE CARTRIDGE ASSEMBLY
2	1 BUTTON POWERCODE TRANSMITTER
1	TYPE - "C" CUSTOM WIRING HARNESS
1	ANTENNA
1	HOOD SAFETY SWITCH ASSEMBLY
1	INSTALLATION PARTS BAG
1	FUSE PARTS BAG
1	OPERATORS INSTRUCTIONS
1	OPERATORS QUICK REFERENCE WALLET CARD
1	UNDERHOOD WARNING LABEL
1	SECURILOCK INTERFACE KIT (SOLD SEPARATELY AND REQUIRED FOR VEHICLES W/PATS)

- Review the RMST bidirectional kit contents.

**Remote Start System Bidirectional Kit (RMST) Type - "C"**

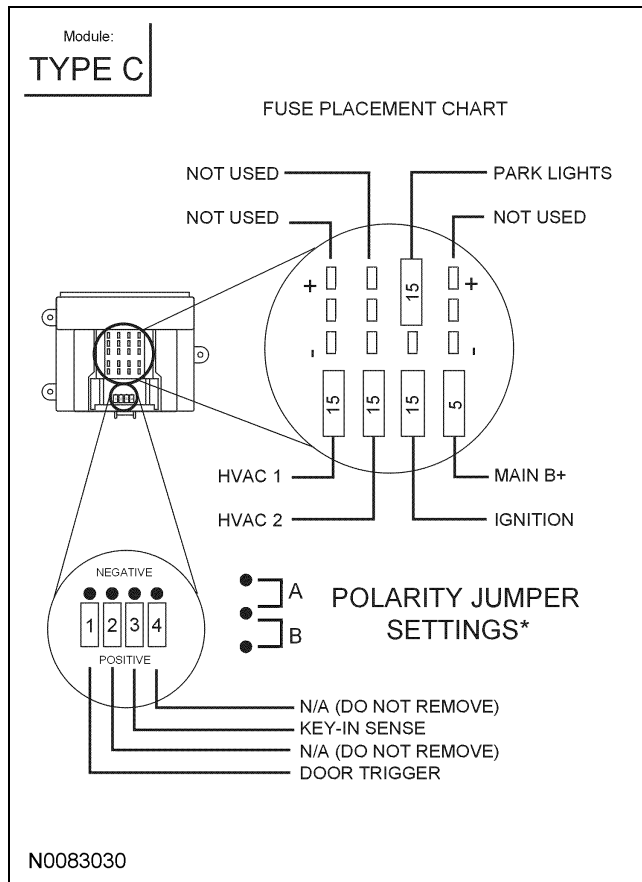
QUANTITY	DESCRIPTION
1	TYPE - "C" MODULE ASSEMBLY
1	RMST SOFTWARE CARTRIDGE ASSEMBLY

**Remote Start System Bidirectional Kit (RMST) Type - "C" (Continued)**

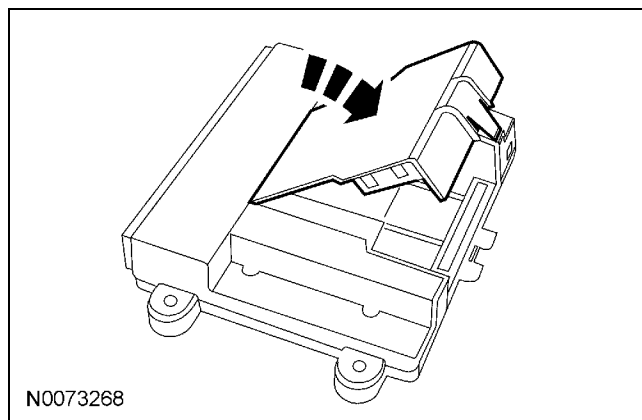
QUANTITY	DESCRIPTION
1	2 BUTTON POWERCODE TRANSMITTER
1	TYPE - "C" CUSTOM WIRING HARNESS
1	ANTENNA
1	ANTENNA HARNESS
1	HOOD SAFETY SWITCH ASSEMBLY
1	INSTALLATION PARTS BAG
1	FUSE PARTS BAG
1	OPERATORS INSTRUCTIONS
1	OPERATORS QUICK REFERENCE WALLET CARD
1	UNDERHOOD WARNING LABEL
1	SECURILOCK INTERFACE KIT (SOLD SEPARATELY AND REQUIRED FOR VEHICLES W/PATS)

**Module Preparation**

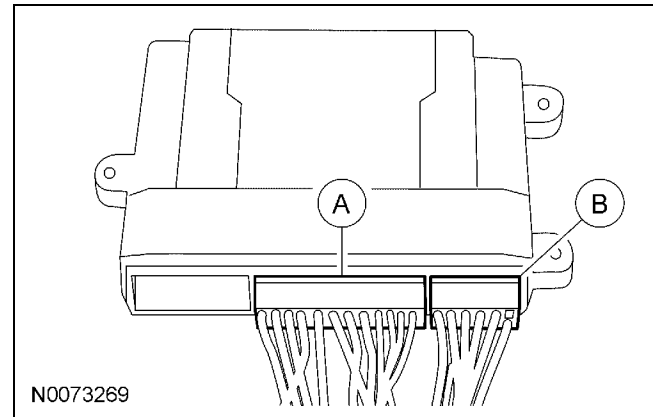
- Place the supplied fuses into the power distribution block on the remote start control module.
  - Move the polarity jumpers to their proper locations on the control module, see illustration.

**INSTALLATION (Continued)**

5. Place the software cartridge onto the RMST control module.



6. Plug the wiring harness(es) into the module.
- A - Harness: 24-way, used on all systems.
  - B - Harness: 10-way, used on all systems with RMST.

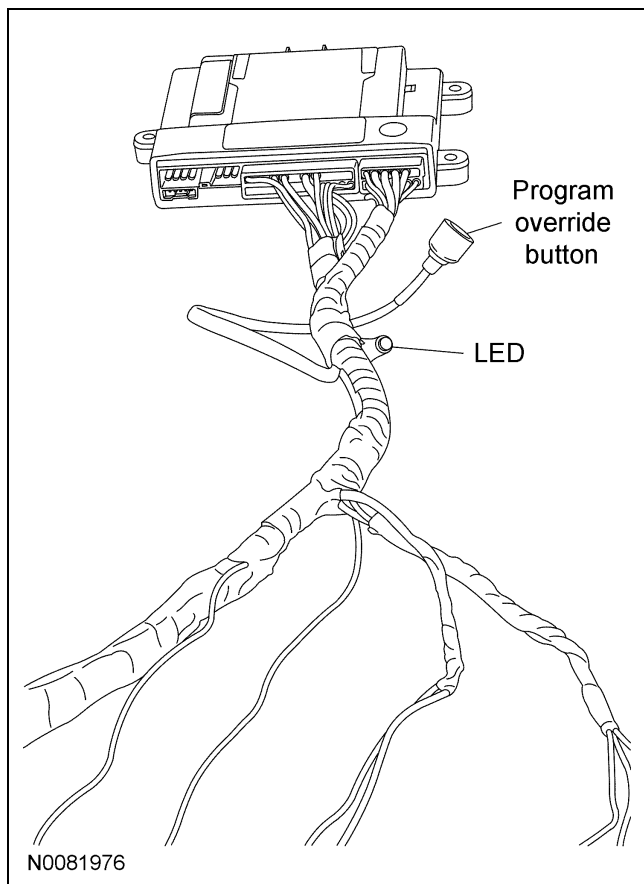


7. **NOTE:** Do not cut the override programming button off of the harness, it is used for all installations.

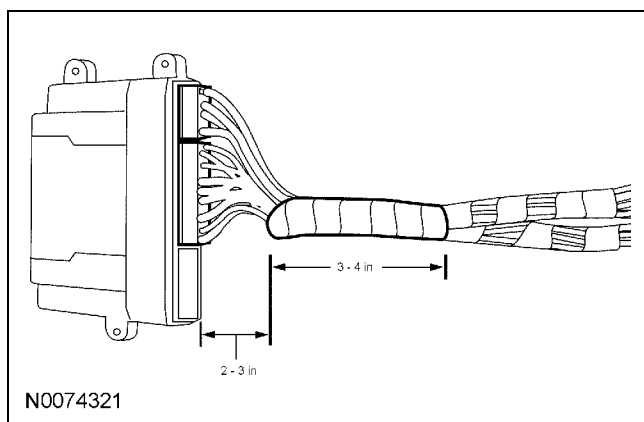
**NOTE:** For vehicle specific wiring diagram(s) [click here](#).

Referring to the vehicle specific wiring section for the system being installed, gather all individual wires that will be routed to the same areas of the vehicle into groups. Cover each wire group with electrical tape for approximately 18". Depending on the vehicle, there will be 2 to 5 different wire groups.

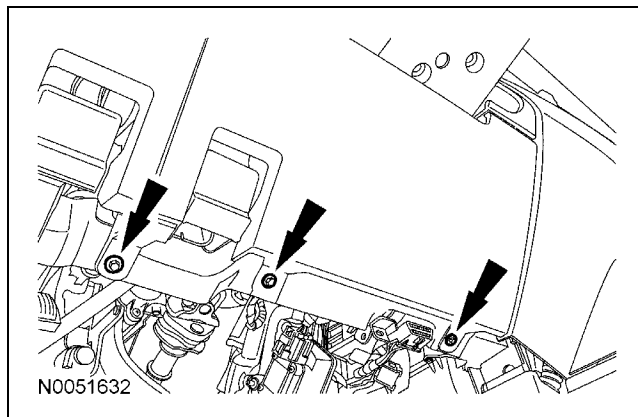
Trim the unused wires approximately 6 - 8" from the module.

**INSTALLATION (Continued)**

8. Tape the harness sections together, making sure to cover all of the unused wires.

**Vehicle Preparation - All Vehicles**

9. Remove the 3 screws, pull out to release the top retaining clips and remove the lower steering column opening cover.

**Vehicles With Power Tilt**

10. Remove the 3 screws and the upper and lower steering column shrouds.

Disconnect the power tilt electrical connector switch from the lower shroud.

**Vehicles With Manual Tilt**

11. If equipped, release the tabs and slide the gear selector cover away from the steering column shrouds.

12. Remove the 3 screws and the upper and lower steering column shrouds.

**All Vehicles**

13. Remove the left hand scuff plate and cowl 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.

## INSTALLATION (Continued)

- 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.

- Choose a suitable mounting location following the guidelines above.

### Install The Antenna

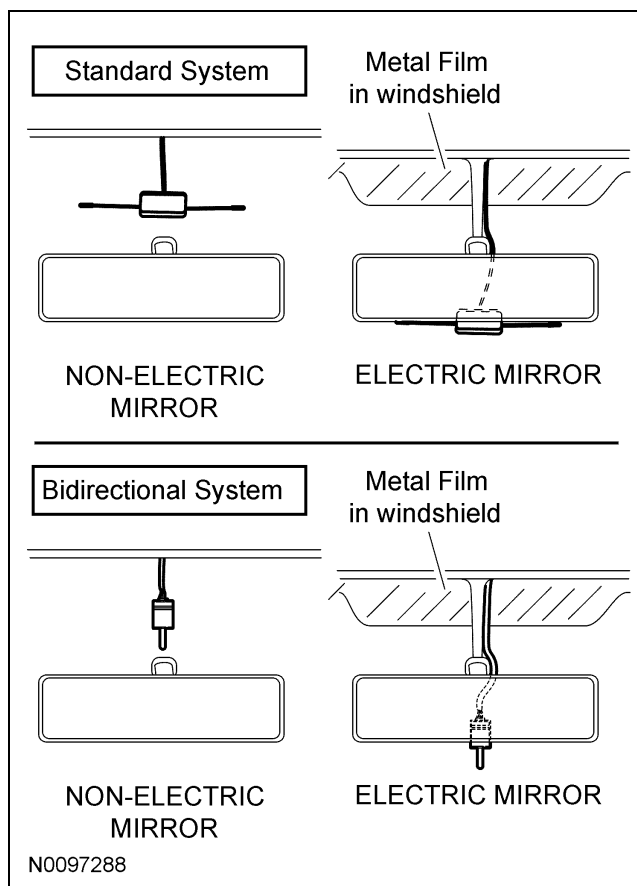
- Clean the mounting surface using an alcohol base solution and a clean cloth.

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

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

**NOTE:** The wire will be attached to the control module later in this procedure.

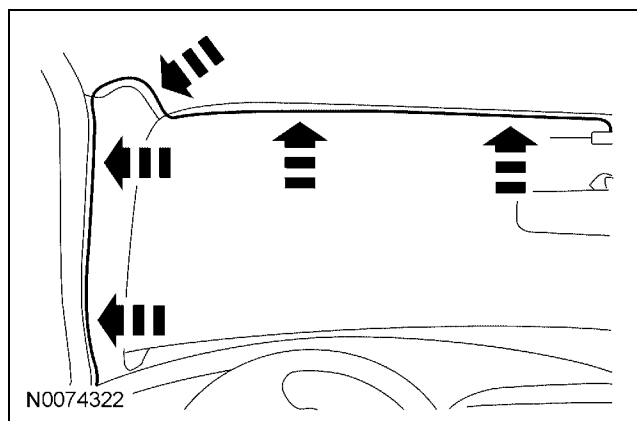
Remove the protective backing from the adhesive on the antenna and firmly press the body of the antenna to the windshield.



- If necessary, position the A pillar trim slightly outward to provide access to route the antenna wire.

**NOTE:** Do not route the antenna wire over the top of the air bag.

- Route the antenna cable along the headliner and down the A pillar towards the floor.

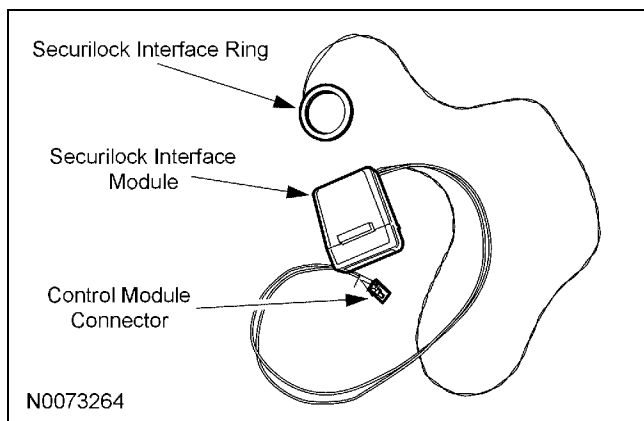


- Reposition the A pillar trim panel.

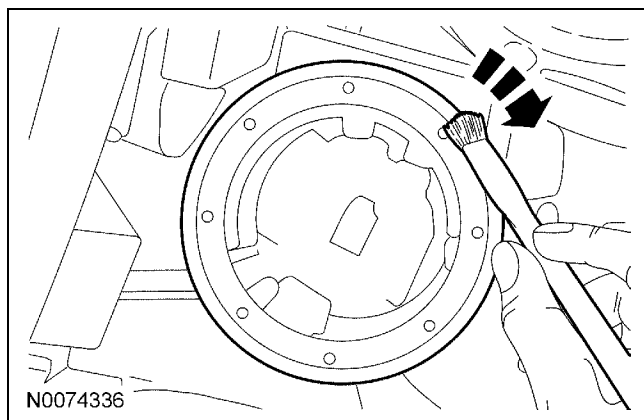
## INSTALLATION (Continued)

### Install The Securilock Interface Kit

20. Route the ring of the SECURILOCK interface antenna lead up along the steering column to the PATS transceiver location.



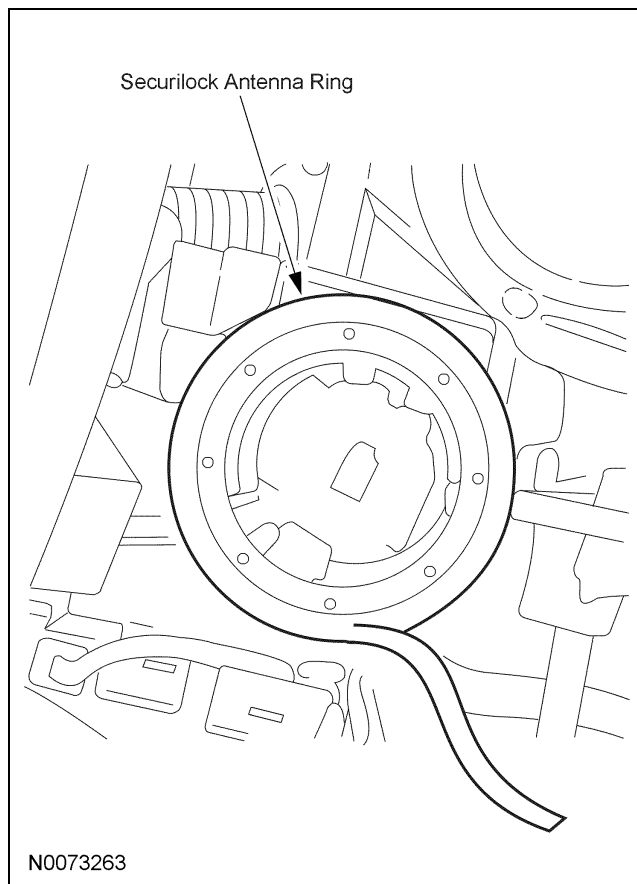
21. Following the directions on the supplied tube of adhesive primer, apply a thin coating around the transceiver antenna coil and allow to dry for approximately 5 minutes.



22. **NOTICE:** Do not damage the transceiver ring during installation or while installing the steering column shroud.

**A damaged transceiver ring will result in an inoperable remote start system.**

Remove the protective backing from the SECURILOCK antenna ring. Place the SECURILOCK ring over the PATS transceiver and press firmly in place.



### Install The Securilock Interface Module

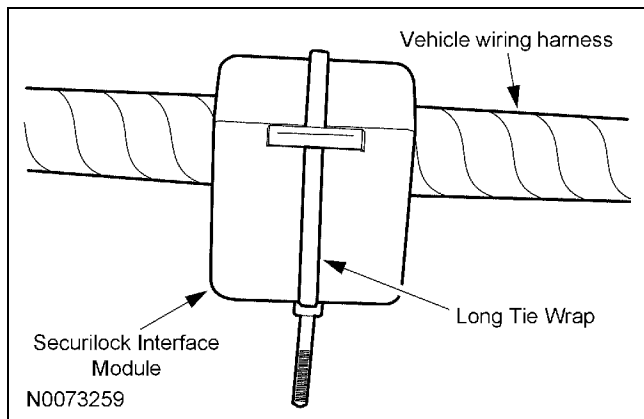
23. **NOTE:** Do Not mount the SECURILOCK Interface Module to or within 3'' of a metal surface, including any underdash brackets, or in the knee bolster area.

Mount the SECURILOCK Interface Module to an underdash wiring harness using one of the supplied long tie wraps.

## INSTALLATION (Continued)

24. **NOTICE:** Do not attach the harness to the steering column.

Route the harness and connector to the module mounting location.



### Install the Remote Start Control Module and Harness Assembly

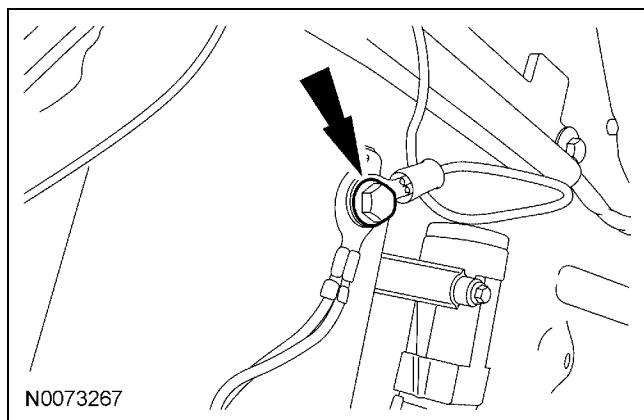
25. Place the remote start module and harness assembly on the floor of the vehicle.

### Identify Circuit Wires For Connections

**NOTE:** For vehicle specific wiring diagram(s) click [here](#).

**NOTE:** For proper wire splicing techniques click [here](#).

26. Connect the Black ground wire from the remote start module harness to the chassis ground point at the driver kick panel.



27. Disconnect the ignition switch electrical connector.

28. Connect the remote start harness hard shell connectors to the ignition switch and ignition switch connector.

29. **NOTE:** A DVOM connected to the correct wire will show 12V, then show 0V when the horn button is held.

A logic probe will show power on the correct wire, then show ground when the horn button is held.

Identify the Yellow/Red horn circuit wire in the steering column harness.

30. Connect the Brown/Black wire from the remote start module harness to the Yellow/Red horn circuit wire in the steering column harness.

31. **NOTE:** A DVOM connected to the correct wire will show 12V, then show 0V when the door lock switch is pressed.

A logic probe will show open on the correct wire, then show ground when the door lock switch is pressed.

Identify the White/Brown power door lock circuit wire at the driver kick panel harness.

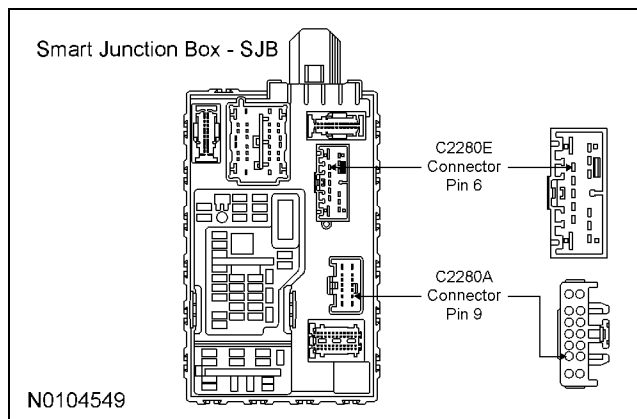
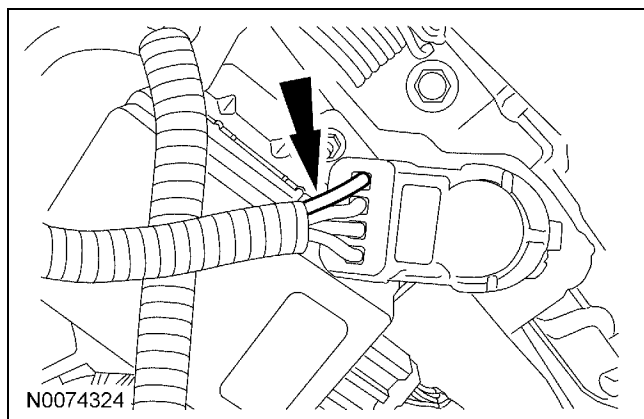
32. Connect the Blue wire from the remote start module harness to the White/Brown power door lock circuit at the driver kick panel harness.

33. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V while depressing the brake pedal.

A logic probe will show open on the correct wire, then show power while depressing the brake pedal.

Identify the Yellow/Gray brake switch circuit wire at the brake switch.



**INSTALLATION (Continued)**

34. Connect the Brown wire from the remote start module harness to the Yellow/Grey brake switch circuit wire at the brake switch.

35. **NOTE:** A DVOM connected to the correct wire will show 12V with the vehicle door(s) open and the dome light ON, then show 0V with the vehicle door(s) closed and the dome light OFF.

**NOTE:** A logic probe connected to the correct wire will show power with the vehicle door(s) open and the dome light ON, then show ground with the vehicle door(s) closed and the dome light OFF.

**NOTE:** Be sure that the dome light has timed out and is OFF before performing the door closed test.

Be sure that the dome lamp is illuminated before performing the door open test.

Identify the Grey/Violet dome light circuit wire at the passenger kick panel Smart Junction Box (SJB) C2280A Connector Pin 9.

36. Connect the Green/Violet wire from the remote start module harness to the Grey/Violet dome light circuit wire at the passenger kick panel SJB C2280A Connector Pin 9.

37. **NOTE:** A DVOM connected to the correct wire will show 12V, when the headlight switch is ON, then show 0V when the headlight switch is OFF.

A logic probe will show power on the correct wire when the headlight switch is ON, then show ground when the headlight switch is OFF.

Identify the Violet/White parking light circuit wire at the SJB C2280E Connector Pin 6.

38. Connect the White wire from the remote start module harness to the Violet/White parking light circuit wire at the SJB C2280E Connector Pin 6.

**Install The Hood Safety Switch**

39. **NOTE:** Route the hood safety switch wire carefully avoiding any moving parts or components that can produce excessive heat.

**NOTE:** Using a piece of convolute adds in the appearance of the installation.

**NOTE:** The switch should be positioned about 30 degrees below parallel to the ground to accommodate for parking on inclines.

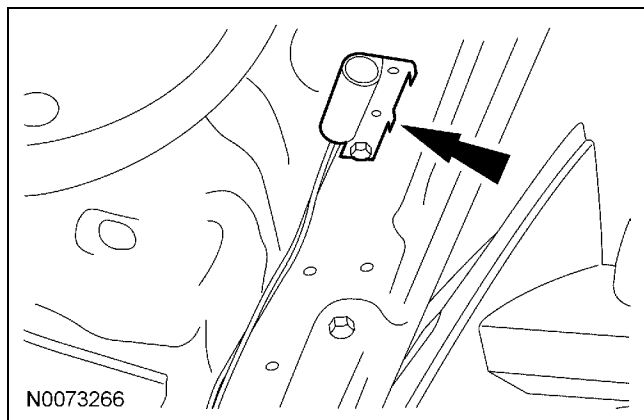
Failure to position the switch properly could result in one of the following:

- False alarm trips
- Non-Remote Start events
- Inadvertent shutdown during Remote Start

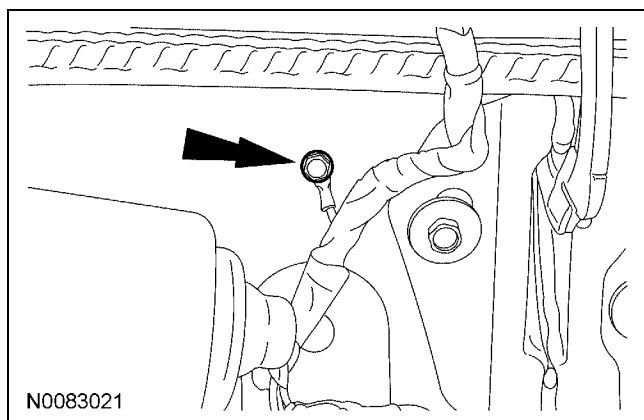
Locate an easy to access area near the driver side hood hinge and install the hood safety switch using the supplied metal screws.

**INSTALLATION (Continued)**

40. Apply rustproofing compound (PM-13-A) to the drilled hole and torque the screw to 1.00 Nm (10 lb-in).

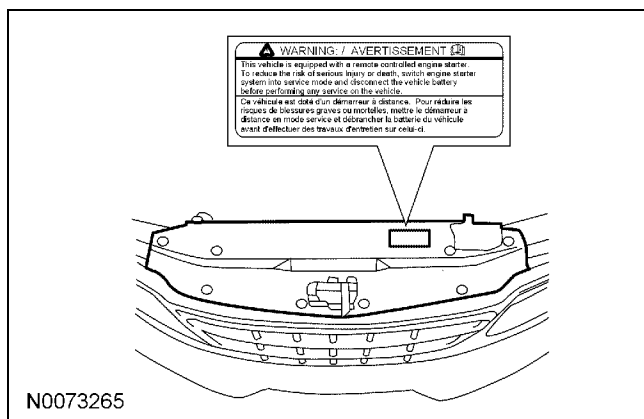


41. Connect hood switch ground wire to a suitable location on the bulkhead.



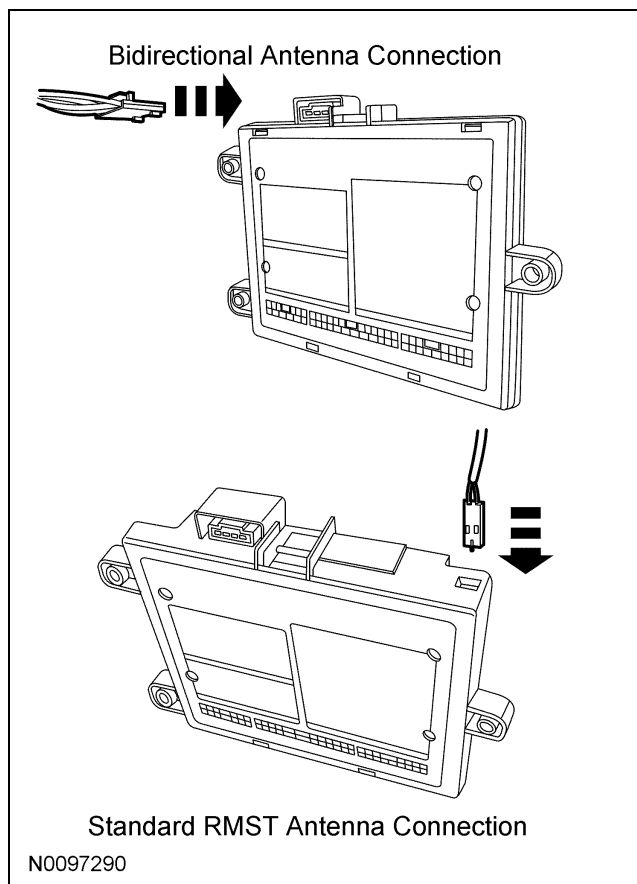
42. **NOTE:** Place the label on the radiator fan shroud or similar area.

Install the underhood warning label



43. Route the Grey hood safety switch wire through the bulkhead into the engine compartment and attach to the hood safety switch.

44. Connect the antenna to the RMST control module.



45. Connect the SECURILOCK interface module to the RMST control module.

**Program The RMST System**

46. Refer to the [RMST programming section for this vehicle \(click here\)](#).

**Secure RMST Harness and Control Module**

47. Use the supplied tie wraps to secure the RMST harness wires.

---

**INSTALLATION (Continued)**

48. **NOTE:** Do not mount the control module in the knee bolster area.

Secure the control module at three points to the vehicle.

Use the supplied long tie wraps to mount the RMST control module to the underdash wiring harness.

**All Vehicles**

49. Install the left hand scuff plate and cowl trim panel.

**Vehicles With Manual Tilt**

50. Install the upper and lower steering column shrouds.

Install the 3 screws.

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**Vehicles With Power Tilt**

51. Connect the power tilt electrical connector switch on the lower shroud.

52. Install the upper and lower steering column shrouds.

Install the 3 screws.

**All Vehicles**

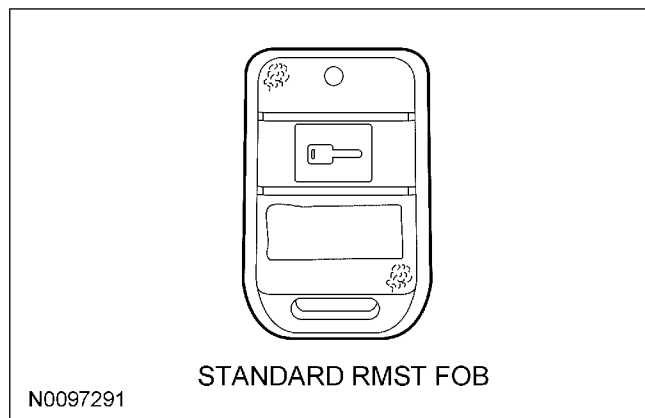
53. Install the lower steering column opening cover.

Install the 3 screws.

## GENERAL PROCEDURES

### Programming - Standard Remote Start

#### Programming the Module



- NOTE:** If the remote start options (Key-in sense polarity, door ajar polarity, or tach mode) are not programmed correctly, vehicle will not remote start or operate properly.

**NOTE:** Make sure that the hood and doors are closed before proceeding.

**NOTE:** The LED on the remote start harness must be visible to complete module programming.

**NOTE:** The remote start override button must be accessible.

#### Programming Options: Entering Programming Mode

- See chart below for programming information.

##### Program Bank 2 Chart (5 Honks)

BANK	OPTIONS	DESCR	LED
2	1	TACHLESS MODE	ON

- Press and hold the brake pedal.
- Turn the ignition key to the RUN position.  
The dome light will turn off.

- Press and hold the remote start system override button for at least 10 seconds.

After 10 seconds the horn will honk 3 times, indicating the system is now in the learn mode.

Release the brake pedal and the RMST override button.

- Press and release the override button. The horn will honk 4 times indicating the system has entered the first program bank.

If not, please check the following:

- Brake pedal switch wire solder connection.
- Hood closed and Grey hood safety switch wire solder connection.
- All doors closed and dome light circuit wire solder connections.
- The key is in the RUN position.
- The software cartridge is firmly seated in the RMST module.
- The RMST harness connections are firmly seated in the RMST module.

**NOTE:** If you require additional assistance: CALL 1-800-FORD KEY.

- Press and release the override button again. The horn will honk 5 times indicating the system has entered the second program bank.
- Press and release the brake pedal.  
The horn will honk 1 time indicating the system has entered the option 1 of the second program bank.

**NOTICE:** When turning LED on or off using remote start fob button quickly press and immediately release the remote start button.

**Failure to quickly release the remote start fob button will result in system defaulting to the factory options.**

- The LED must be on for option 1. If the LED is illuminated no action is required. If the LED is not illuminated press the remote start fob button and verify the LED illuminates.

## GENERAL PROCEDURES (Continued)

**NOTE:** If the remote start fob button is held for more than 3 seconds the system will chirp the horn 4 times, indicating the system has returned to factory default settings. If this occurs return to step 1 of the programming section and reprogram the remote start module.

**NOTE:** The remote start module is now programmed.

10. Remove the ignition key.

### Programming the SECURILOCK

**NOTE:** Two PATS keys are required to program the SECURILOCK.

**NOTE: IMPORTANT:** Each of the following steps should be completed with no more than 5 seconds delay between steps.

11. Insert the first ignition key and turn to the run position.

Watch for the PATS light to turn off. Remove the first key.

---

12. Insert the second ignition key and turn to the run position.

Watch for the PATS light to turn off. Remove the second key.

13. Press and hold the remote start button



for 3 seconds.  
The PATS light should stay on for 3-5 seconds before turning off, which means that the SECURILOCK was successfully programmed.

**NOTE:** If the PATS light blinks rapidly, repeat steps 1-3 to retry programming the SECURILOCK.

**NOTE:** The engine will start if the Remote Start kit has been installed correctly, the brake is not depressed, and the hood and doors are closed.

## GENERAL PROCEDURES

### Functional Test - Standard Remote Start

**NOTE:** If during any of the steps of the functional test, the remote start system or vehicle doesn't react or perform accordingly, please refer to the remote start troubleshooting guide.

**NOTE:** For remote start troubleshooting guide click [here](#).

1. Make sure all doors are closed but hood is open and windows are down (doors will be locking).
2. Press and hold the Start button on the remote control key fob for 2-3 seconds - Horn should honk once indicating receipt of the start request.
3. The remote start systems should turn on the ignition, but then honk the horn twice and shut down indicating the hood is open.
4. Close the hood, and insert a key into the ignition switch.
5. Attempt to re-start the vehicle again using the key fob.
6. The remote start systems should turn on the ignition, but then honk the horn five times and shut down indicating a key is in the ignition switch.
7. Remove the key and open a door.
8. Attempt to re-start the vehicle again using the key fob.
9. The remote start systems should turn on the ignition, but then honk the horn three times and shut down indicating a door is open.
10. Close the door.
11. Attempt to re-start the vehicle again using the key fob.

12. Once the vehicle starts, verify that all heat and A/C functions operate normally and that the doors have locked.
13. On vehicles equipped with power window interrupt, Attempt to close windows to check power window interrupt function.
14. Once all systems have been checked, open the door\*, or press the brake pedal - the remote start systems should shut down.

**NOTE:** \*MyKey vehicle remote start systems will shut down upon vehicle entry. Please see vehicle owner's guide or remote start owner's manual for more information.

### Troubleshooting

15. **NOTE:** When attempting to remote start your vehicle, the system has several safety checks that it performs. If any of these inputs are present that should not be, the system will respond back to you with several horn "chirps" to help you identify which input is present. These "chirps" will occur after initiating a start sequence with the transmitter, the system will turn on the ignition, but then respond back with several horn "chirps" and abort the starting process.

**Example:** Depress the remote start fob button for 3 seconds and then release. The vehicle horn will "chirp" one time to indicate that RMST signal was received. If the vehicle doesn't start and the horn "chirps" 3 times, there is a fault - "Vehicle Door is Open"

CHIRPS	PROBLEM
1 Chirp	SECURILOCK not programmed correctly, or the SECURILOCK antenna ring is damaged.
2 Chirps	BRAKE is being pressed, or the HOOD is open.
3 Chirps	One of the vehicles DOORS are open.
4 Chirps	TACH not programmed.

**GENERAL PROCEDURES (Continued)**

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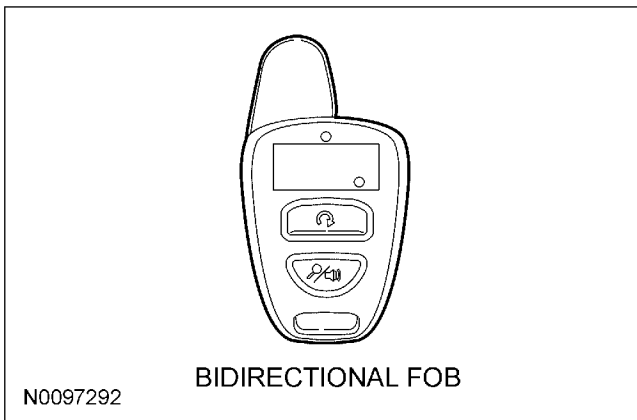
<b>CHIRPS</b>	<b>PROBLEM</b>
5 Chirps	The KEY is in the ignition.
6 Chirps	The remote start system is in SERVICE/VALET mode.

---

## GENERAL PROCEDURES

### Programming - Bidirectional Remote Start

#### Programming the Module



- NOTE:** If the remote start options (Key-in sense polarity, door ajar polarity, or tach mode) are not programmed correctly, vehicle will not remote start or operate properly.

**NOTE:** Make sure that the hood and doors are closed before proceeding.

**NOTE:** The LED on the remote start harness must be visible to complete module programming.

**NOTE:** The remote start override button must be accessible.

#### Programming Options: Entering Programming Mode

- See chart below for programming information.

##### Program Bank 2 Chart (5 Honks)

BANK	OPTIONS	DESCR	LED
2	1	TACHLESS MODE	ON

- Press and hold the brake pedal.
- Turn the ignition key to the RUN position.  
The dome light will turn off.

- Press and hold the remote start system override button for at least 10 seconds.

After 10 seconds the horn will honk 3 times, indicating the system is now in the learn mode.

Release the brake pedal and the RMST override button.

- Press and release the override button. The horn will honk 4 times indicating the system has entered the first program bank.

If not, please check the following:

- Brake pedal switch wire solder connection.
- Hood closed and Grey hood safety switch wire solder connection.
- All doors closed and dome light circuit wire solder connections.
- The key is in the RUN position.
- The software cartridge is firmly seated in the RMST module.
- The RMST harness connections are firmly seated in the RMST module.

**NOTE:** If you require additional assistance: CALL 1-800-FORD KEY.

- Press and release the override button again. The horn will honk 5 times indicating the system has entered the second program bank.
- Press and release the brake pedal.  
The horn will honk 1 time indicating the system has entered the option 1 of the second program bank.

**NOTICE:** When turning LED on or off using remote start fob button quickly press and immediately release the remote start button.

**Failure to quickly release the remote start fob button will result in system defaulting to the factory options.**

- The LED must be on for option 1. If the LED is illuminated no action is required. If the LED is not illuminated press the remote start fob button and verify the LED illuminates.



## GENERAL PROCEDURES (Continued)

**NOTE:** If the remote start fob button is held for more than 3 seconds the system will chirp the horn 4 times, indicating the system has returned to factory default settings. If this occurs return to step 1 of the programming section and reprogram the remote start module.

**NOTE:** The remote start module is now programmed.

10. Remove the ignition key.

### Programming the SECURILOCK

**NOTE:** Two PATS keys are required to program the SECURILOCK.

**NOTE: IMPORTANT:** Each of the following steps should be completed with no more than 5 seconds delay between steps.


11. Insert the first ignition key and turn to the run position.

Watch for the PATS light to turn off. Remove the first key.

---

12. Insert the second ignition key and turn to the run position.

Watch for the PATS light to turn off. Remove the second key.

13. Press the remote start button  twice within 3 seconds.

The PATS light should stay on for 3-5 seconds before turning off, which means that the SECURILOCK was successfully programmed.

**NOTE:** If the PATS light blinks rapidly, repeat steps 1-3 to retry programming the SECURILOCK.

**NOTE:** The engine will start if the Remote Start kit has been installed correctly, the brake is not depressed, and the hood and doors are closed.

## GENERAL PROCEDURES

### Functional Test - Bidirectional Remote Start

**NOTE:** If during any of the steps of the functional test, the remote start system or vehicle doesn't react or perform accordingly, please refer to the remote start troubleshooting guide.

**NOTE:** For remote start troubleshooting guide click [here](#).

1. Make sure all doors are closed but hood is open and windows are down (doors will be locking).
2. Press the Start button on the remote control key fob twice within 3 seconds - Horn should honk once indicating receipt of the start request.
3. The remote start systems should turn on the ignition, but then honk the horn twice and shut down indicating the hood is open.
4. Close the hood, and insert a key into the ignition switch.
5. Attempt to re-start the vehicle again using the key fob.
6. The remote start systems should turn on the ignition, but then honk the horn five times and shut down indicating a key is in the ignition switch.
7. Remove the key and open a door.
8. Attempt to re-start the vehicle again using the key fob.
9. The remote start systems should turn on the ignition, but then honk the horn three times and shut down indicating a door is open.
10. Close the door.
11. Attempt to re-start the vehicle again using the key fob.

12. Once the vehicle starts, verify that all heat and A/C functions operate normally and that the doors have locked.
13. On vehicles equipped with power window interrupt, Attempt to close windows to check power window interrupt function.
14. Once all systems have been checked, open the door\*, or press the brake pedal - the remote start systems should shut down.

**NOTE:** \*MyKey vehicle remote start systems will shut down upon vehicle entry. Please see vehicle owner's guide or remote start owner's manual for more information.

### Troubleshooting

15. **NOTE:** When attempting to remote start your vehicle, the system has several safety checks that it performs. If any of these inputs are present that should not be, the system will respond back to you with several horn "chirps" to help you identify which input is present. These "chirps" will occur after initiating a start sequence with the transmitter, the system will turn on the ignition, but then respond back with several horn "chirps" and abort the starting process.

**Example:** Depress the remote start fob button for 3 seconds and then release. The vehicle horn will "chirp" one time to indicate that RMST signal was received. If the vehicle doesn't start and the horn "chirps" 3 times, there is a fault - "Vehicle Door is Open"

CHIRPS	PROBLEM
1 Chirp	SECURILOCK not programmed correctly, or the SECURILOCK antenna ring is damaged.
2 Chirps	BRAKE is being pressed, or the HOOD is open.
3 Chirps	One of the vehicles DOORS are open.
4 Chirps	TACH not programmed.

# '13 Expedition W/O SYNC

## TYPE "C" CUSTOM WIRE HARNESS

### RMST MODULE WIRE HARNESS

#### STEERING COLUMN HARNESS

	Color	Function
A-7	PINK	Ignition Input/Output
B-3	PINK/WHITE	Ignition 2 Output
B-4	ORANGE	HVAC 1 Output
B-5	ORANGE/WHITE	HVAC 2 Output
A-6	VIOLET	Starter Interrupt (Key Side)
A-8	VIOLET	Starter Interrupt (Motor Side)
A-4	RED	Battery
B-2	RED	Battery
B-1	BLUE	Battery
B-8	BLACK/WHITE	Key-In Sense Input

	Color	Function
A-21	BROWN/BLACK	Horn Relay Output

#### DRIVER'S KICK PANEL HARNESS

	Color	Function
A-5	BLACK	Ground
A-24	BLUE	Door Lock Output
B-7	BROWN	Brake Input
A-20	GREEN/VIOLET	Door Ajar Switch Input

#### PARKING LIGHT HARNESS

	Color	Function
A-1	WHITE	Parking Light Output

\*\* VIOLET/WHITE ALSO FOUND IN REAR DRIVER'S SILL PLATE IN HARNESS COMING FROM UNDER DRIVER'S SEAT AND HEADING TO REAR OF VEHICLE.

#### UNDER HOOD HARNESS

	Color	Function
A-19	GRAY	Hood Open Switch Input

VEHICLE HARNESS

IGNITION SWITCH

Horn (YELLOW/RED)

STEERING COLUMN HARNESS

MAKE THIS CONNECTION FIRST!

CHASSIS GROUND POINT IN DRIVER'S KICK PANEL



Door Lock (WHITE/BROWN)

DRIVERS SIDE KICK PANEL

Brake (YELLOW/GRAY)

BRAKE SWITCH

Dome Light (GRAY/VIOLET)

SPDJB C2280A PIN 9

Parking Lights On (VIOLET/WHITE)

PASSENGER KICK PANEL IN SPDJB C2280E PIN 6

Vehicle Interior

Engine Compartment

Hood Tilt Switch

Chassis Ground

Do Not Ground to Hood!



[Manual Table of Contents](#)

# REMOTE START SYSTEM INSTALLATION

## Expedition/Navigator W/SYNC ONLY

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[Remote Start](#)

#### GENERAL PROCEDURES

[Proper Splicing Techniques](#)

[Programming the SECURILOCK - Standard Remote Start](#)

[Functional Test - Standard Remote Start](#)

[Programming the SECURILOCK - Bidirectional Remote Start](#)

[Functional Test - Bidirectional Remote Start](#)

[Troubleshooting](#)

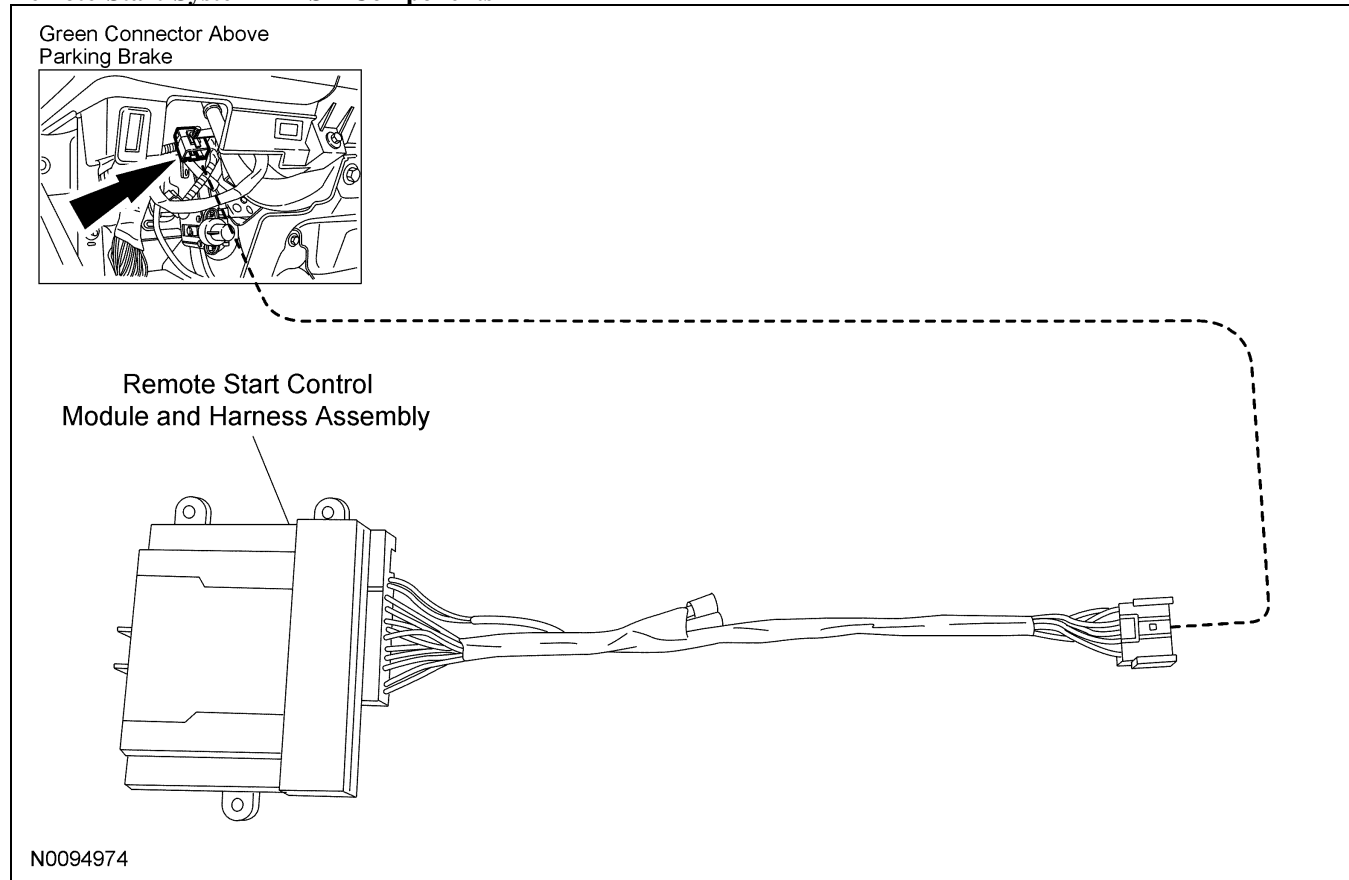
#### WIRING DIAGRAMS

[Vehicle Specific Wiring Diagrams](#)

## INSTALLATION

### Remote Start - Exped/Nav W/SYNC ONLY

#### Remote Start System RMST Components



#### Expedition/Navigator W/SYNC ONLY

**NOTICE:** Remote start systems are only applicable to vehicles with automatic transmissions.

**NOTE:** Both original keys are required for all remote start systems on vehicles equipped with SECURILOCK.

1. Verify correct kit number.

## INSTALLATION (Continued)

### Review Remote Start Installation Kit Contents

**NOTE:** Kits are vehicle specific and are not interchangeable.

- Review the RMST kit contents.

### Remote Start System Standard Kit (RMST) Type - "C"

QUANTITY	DESCRIPTION
1	TYPE - "C" MODULE ASSEMBLY
2	1 BUTTON POWERCODE TRANSMITTER
1	EXPED/NAV CUSTOM WIRING HARNESS
1	ANTENNA
1	OPERATORS INSTRUCTIONS
1	OPERATORS QUICK REFERENCE WALLET CARD
1	UNDERHOOD WARNING LABEL
1	SECURILOCK INTERFACE KIT (SOLD SEPARATELY AND REQUIRED FOR VEHICLES W/PATS)

- Review the RMST Bidirectional kit contents.

### Remote Start System Bidirectional Kit (RMST) Type - "C"

QUANTITY	DESCRIPTION
1	TYPE - "C" MODULE ASSEMBLY
1	2 BUTTON POWERCODE TRANSMITTER
1	EXPED/NAV CUSTOM WIRING HARNESS
1	ANTENNA
1	ANTENNA HARNESS
1	OPERATORS INSTRUCTIONS

### Remote Start System Bidirectional Kit (RMST) Type - "C" (Continued)

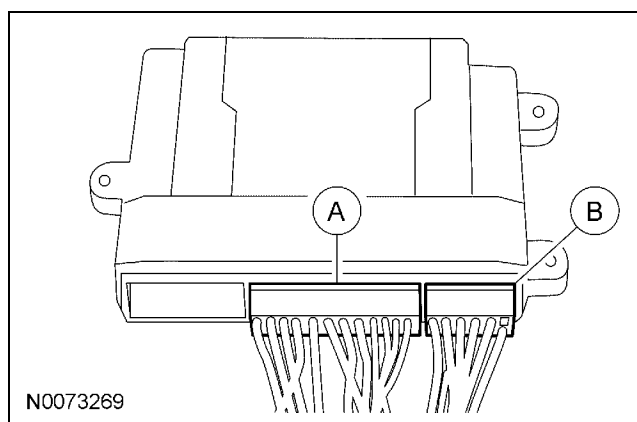
QUANTITY	DESCRIPTION
1	OPERATORS QUICK REFERENCE WALLET CARD
1	UNDERHOOD WARNING LABEL
1	SECURILOCK INTERFACE KIT (SOLD SEPARATELY AND REQUIRED FOR VEHICLES W/PATS)

### Module Preparation

- Plug the wiring harness(es) into the module.
  - A - Harness: 24-way, used on all systems.
  - B - Harness: 10-way, used on all systems with RMST.

**NOTE:** Do not cut the override programming button off of the harness, it is used for all installations.

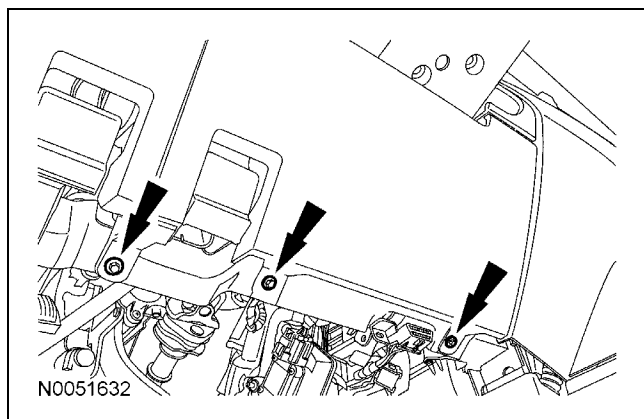
**NOTE:** For vehicle specific wiring diagram(s) [click here](#).



### Vehicle Preparation - All Vehicles

- Remove the 3 screws, pull out to release the top retaining clips and remove the lower steering column opening cover.

## INSTALLATION (Continued)



### Vehicles With Power Tilt

6. Remove the 3 screws and the upper and lower steering column shrouds.

Disconnect the power tilt electrical connector switch from the lower shroud.

### Vehicles With Manual Tilt

7. If equipped, release the tabs and slide the gear selector cover away from the steering column shrouds.
8. Remove the 3 screws and the upper and lower steering column shrouds.

### 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.

9. Choose a suitable mounting location following the guidelines above.

### Install The Antenna

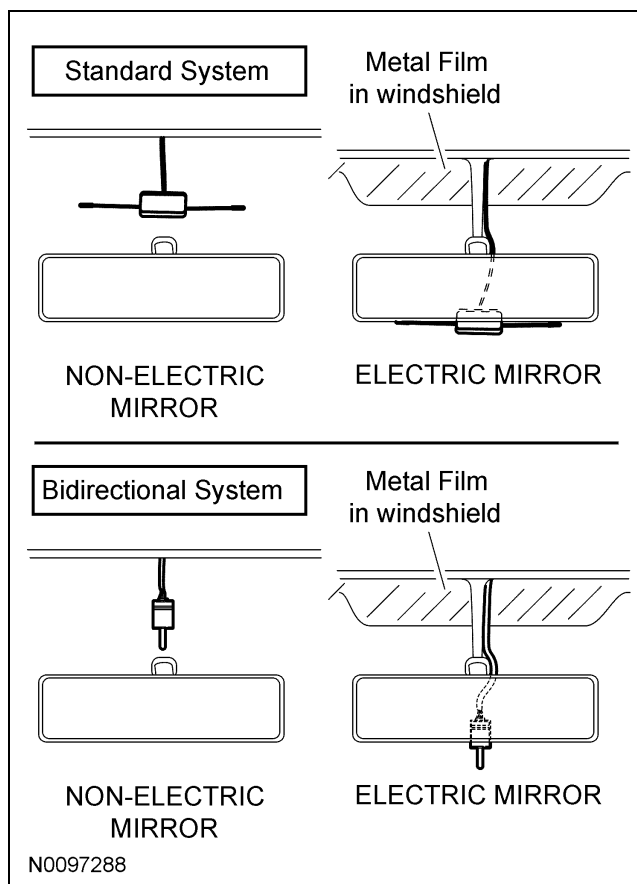
10. Clean the mounting surface using an alcohol base solution and a clean cloth.

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

**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 wire will be attached to the control module later in this procedure.

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

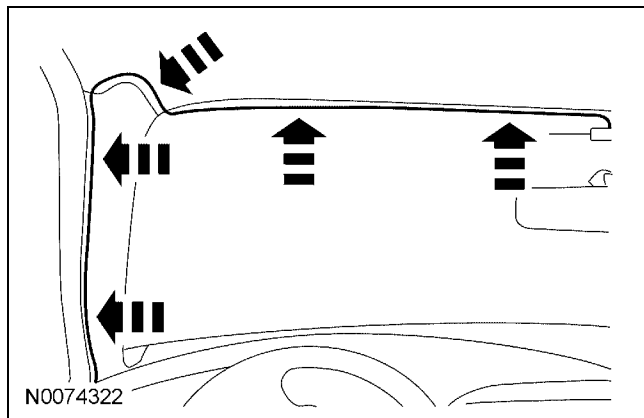


12. If necessary, position the A pillar trim slightly outward to provide access to route the antenna wire.

## INSTALLATION (Continued)

**NOTE:** Do not route the antenna wire over the top of the air bag.

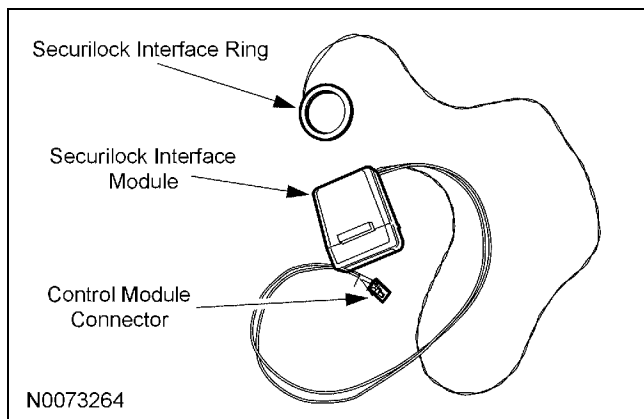
13. Route the antenna cable along the headliner and down the A pillar towards the floor.



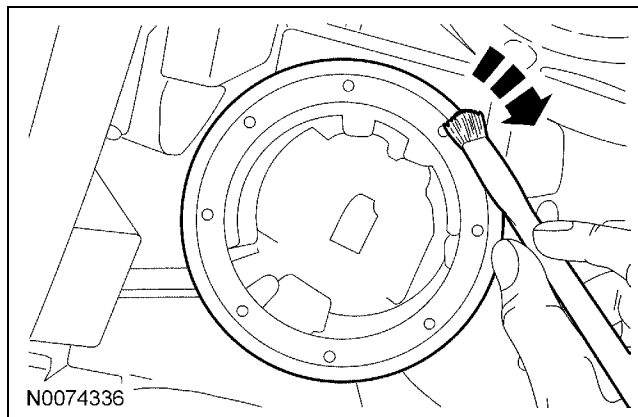
14. Reposition the A pillar trim panel.

### Install The Securilock Interface Kit

15. Route the ring of the SECURILOCK interface antenna lead up along the steering column to the PATS transceiver location.



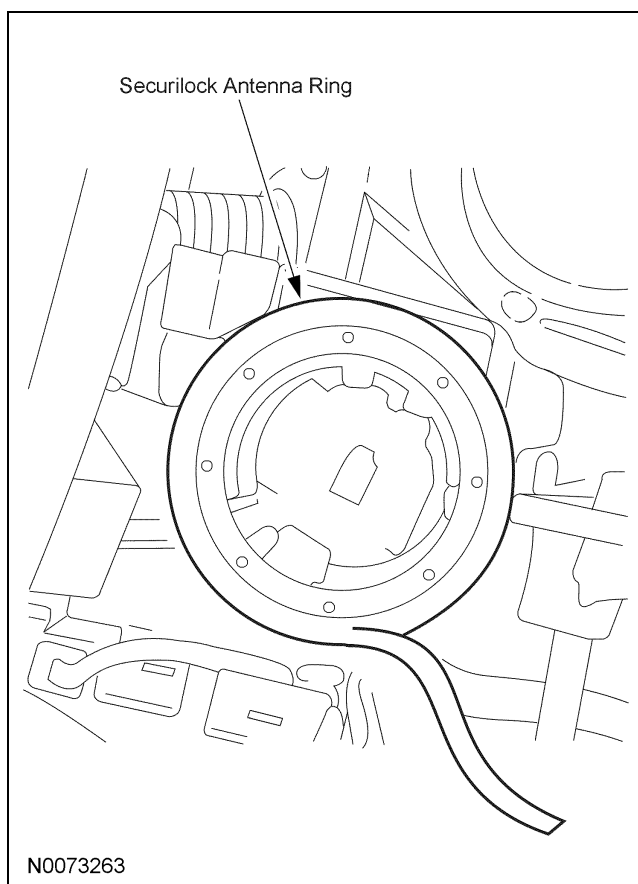
16. Following the directions on the supplied tube of adhesive primer, apply a thin coating around the transceiver antenna coil and allow to dry for approximately 5 minutes.



17. **NOTICE:** Do not damage the transceiver ring during installation or while installing the steering column shroud.

**A damaged transceiver ring will result in an inoperable remote start system.**

Remove the protective backing from the SECURILOCK antenna ring. Place the SECURILOCK ring over the PATS transceiver and press firmly in place.





## INSTALLATION (Continued)

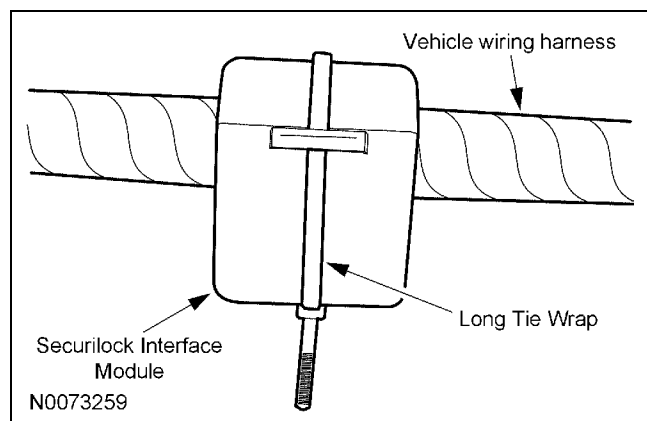
### Install The Securilock Interface Module

18. **NOTE:** Do Not mount the SECURILOCK Interface Module to or within 3'' of a metal surface, including any underdash brackets, or in the knee bolster area.

Mount the SECURILOCK Interface Module to an underdash wiring harness using one of the supplied long tie wraps.

19. **NOTICE:** Do not attach the harness to the steering column.

Route the harness and connector to the module mounting location.



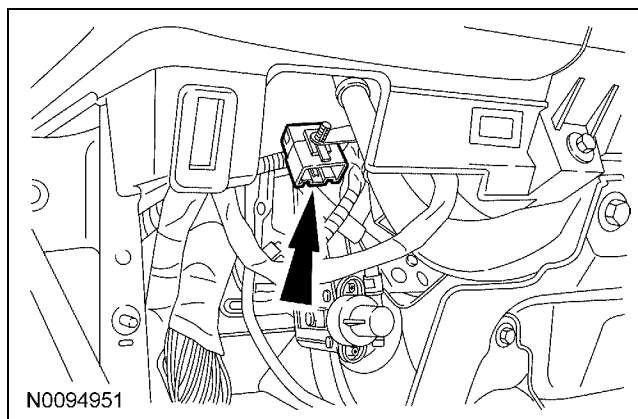
### Install the Remote Start Control Module and Harness Assembly

20. Place the remote start module and harness assembly on the floor of the vehicle.

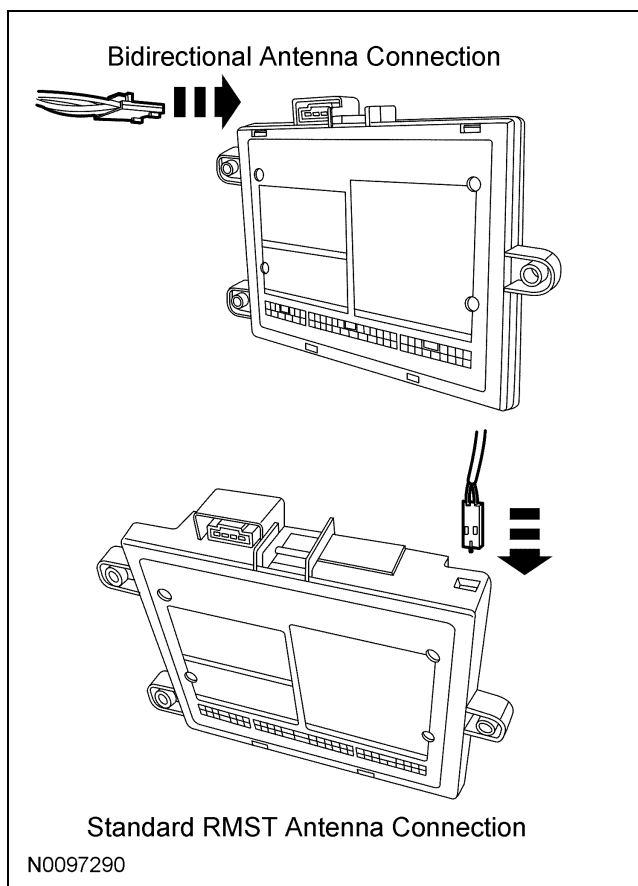
### Identify The Remote Start Connector

**NOTE:** For vehicle specific wiring diagram(s) click [here](#).

21. Identify the Green remote start connector above the parking brake behind the knee bolster.
- Connect the Green connector from the remote start module harness to the Green remote start connector above the parking brake behind the knee bolster.



22. Connect the antenna to the RMST control module.



23. Connect the SECURILOCK interface module to the RMST control module.

### Program The SECURILOCK

24. Refer to the SECURILOCK programming section for this vehicle. ([click here](#))

## INSTALLATION (Continued)

### Secure RMST Harness and Control Module

25. Use the supplied tie wraps to secure the RMST harness wires.

26. **NOTE:** Do not mount the control module in the knee bolster area.

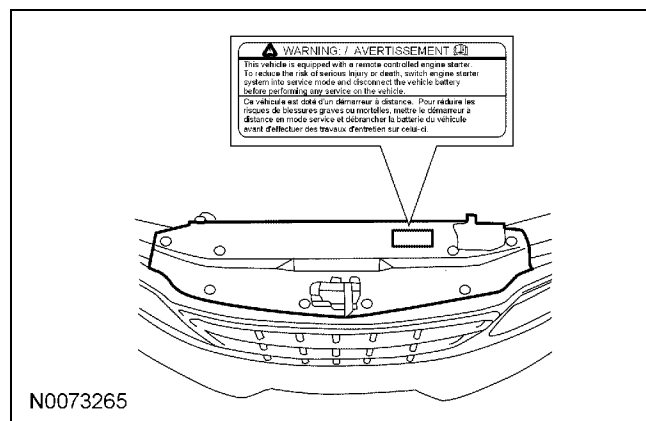
Secure the control module at three points to the vehicle.

Use the supplied long tie wraps to mount the RMST control module to the underdash wiring harness.

### Install The Underhood Warning Label

27. **NOTE:** Place the label on the radiator fan shroud or similar area.

Install the underhood warning label



### Vehicles With Manual Tilt

28. Install the upper and lower steering column shrouds.

Install the 3 screws.

### Vehicles With Power Tilt

29. Connect the power tilt electrical connector switch on the lower shroud.

30. Install the upper and lower steering column shrouds.

Install the 3 screws.

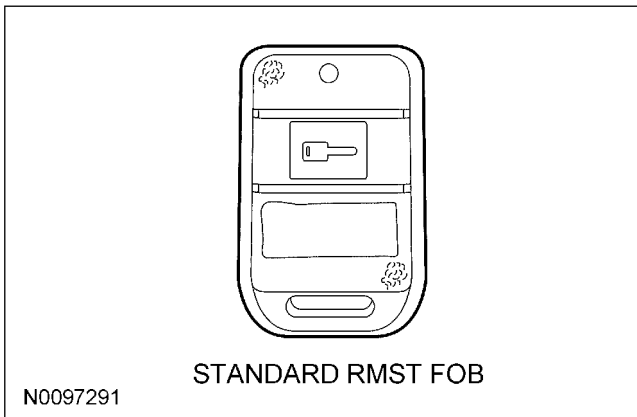
### All Vehicles

31. Install the lower steering column opening cover.

Install the 3 screws.

## GENERAL PROCEDURES

### Programming the SECURILOCK - Standard Remote Start



**NOTE:** Two PATS keys are required to program the SECURILOCK.

**NOTE: IMPORTANT:** Each of the following steps should be completed with no more than 5 seconds delay between steps.

1. Insert the first ignition key and turn to the run position.

Watch for the PATS light to turn off. Remove the first key.

2. Insert the second ignition key and turn to the run position.

Watch for the PATS light to turn off. Remove the second key.

3. Press and hold the remote start button for 3 seconds.



The PATS light should stay on for 3-5 seconds before turning off, which means that the SECURILOCK was successfully programmed.

**NOTE:** If the PATS light blinks rapidly, repeat steps 1-3 to retry programming the SECURILOCK.

**NOTE:** The engine will start if the Remote Start kit has been installed correctly, the brake is not depressed, and the hood and doors are closed.

## GENERAL PROCEDURES

### Functional Test - Standard Remote Start

**NOTE:** If during any of the steps of the functional test, the remote start system or vehicle doesn't react or perform accordingly, please refer to the remote start troubleshooting guide.

**NOTE:** For remote start troubleshooting guide click [here](#).

1. Make sure all doors are closed but hood is open and windows are down (doors will be locking).
2. Press and hold the Start button on the remote control key fob for 2-3 seconds - Horn should honk once indicating receipt of the start request.
3. The remote start systems should turn on the ignition, but then honk the horn twice and shut down indicating the hood is open.
4. Close the hood, and insert a key into the ignition switch.
5. Attempt to re-start the vehicle again using the key fob.
6. The remote start systems should turn on the ignition, but then honk the horn five times and shut down indicating a key is in the ignition switch.
7. Remove the key and open a door.
8. Attempt to re-start the vehicle again using the key fob.
9. The remote start systems should turn on the ignition, but then honk the horn three times and shut down indicating a door is open.
10. Close the door.
11. Attempt to re-start the vehicle again using the key fob.

12. Once the vehicle starts, verify that all heat and A/C functions operate normally and that the doors have locked.
13. On vehicles equipped with power window interrupt, Attempt to close windows to check power window interrupt function.
14. Once all systems have been checked, open the door\*, or press the brake pedal - the remote start systems should shut down.

**NOTE:** \*MyKey vehicle remote start systems will shut down upon vehicle entry. Please see vehicle owner's guide or remote start owner's manual for more information.

### Troubleshooting

15. **NOTE:** When attempting to remote start your vehicle, the system has several safety checks that it performs. If any of these inputs are present that should not be, the system will respond back to you with several horn "chirps" to help you identify which input is present. These "chirps" will occur after initiating a start sequence with the transmitter, the system will turn on the ignition, but then respond back with several horn "chirps" and abort the starting process.

**Example:** Depress the remote start fob button for 3 seconds and then release. The vehicle horn will "chirp" one time to indicate that RMST signal was received. If the vehicle doesn't start and the horn "chirps" 3 times, there is a fault - "Vehicle Door is Open"

CHIRPS	PROBLEM
1 Chirp	SECURILOCK not programmed correctly, or the SECURILOCK antenna ring is damaged.
2 Chirps	BRAKE is being pressed, or the HOOD is open.
3 Chirps	One of the vehicles DOORS are open.
4 Chirps	TACH not programmed.

**GENERAL PROCEDURES (Continued)**

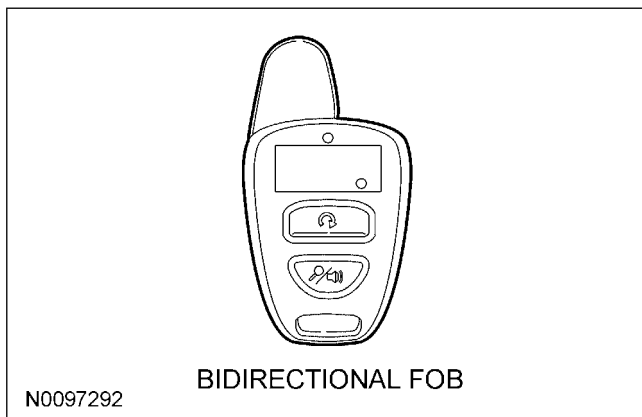
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<b>CHIRPS</b>	<b>PROBLEM</b>
5 Chirps	The KEY is in the ignition.
6 Chirps	The remote start system is in SERVICE/VALET mode.

---

## GENERAL PROCEDURES

### Programming the SECURILOCK - Bidirectional Remote Start



**NOTE:** Two PATS keys are required to program the SECURILOCK.


**NOTE: IMPORTANT:** Each of the following steps should be completed with no more than 5 seconds delay between steps.

1. Insert the first ignition key and turn to the run position.

Watch for the PATS light to turn off. Remove the first key.

2. Insert the second ignition key and turn to the run position.

Watch for the PATS light to turn off. Remove the second key.

3. Press the remote start button  twice within 3 seconds.

The PATS light should stay on for 3-5 seconds before turning off, which means that the SECURILOCK was successfully programmed.

**NOTE:** If the PATS light blinks rapidly, repeat steps 1-3 to retry programming the SECURILOCK.

**NOTE:** The engine will start if the Remote Start kit has been installed correctly, the brake is not depressed, and the hood and doors are closed.

## GENERAL PROCEDURES

### Functional Test - Bidirectional Remote Start

**NOTE:** If during any of the steps of the functional test, the remote start system or vehicle doesn't react or perform accordingly, please refer to the remote start troubleshooting guide.

**NOTE:** For remote start troubleshooting guide click [here](#).

1. Make sure all doors are closed but hood is open and windows are down (doors will be locking).
2. Press the Start button on the remote control key fob twice within 3 seconds - Horn should honk once indicating receipt of the start request.
3. The remote start systems should turn on the ignition, but then honk the horn twice and shut down indicating the hood is open.
4. Close the hood, and insert a key into the ignition switch.
5. Attempt to re-start the vehicle again using the key fob.
6. The remote start systems should turn on the ignition, but then honk the horn five times and shut down indicating a key is in the ignition switch.
7. Remove the key and open a door.
8. Attempt to re-start the vehicle again using the key fob.
9. The remote start systems should turn on the ignition, but then honk the horn three times and shut down indicating a door is open.
10. Close the door.
11. Attempt to re-start the vehicle again using the key fob.

12. Once the vehicle starts, verify that all heat and A/C functions operate normally and that the doors have locked.
13. On vehicles equipped with power window interrupt, Attempt to close windows to check power window interrupt function.
14. Once all systems have been checked, open the door\*, or press the brake pedal - the remote start systems should shut down.

**NOTE:** \*MyKey vehicle remote start systems will shut down upon vehicle entry. Please see vehicle owner's guide or remote start owner's manual for more information.

### Troubleshooting

15. **NOTE:** When attempting to remote start your vehicle, the system has several safety checks that it performs. If any of these inputs are present that should not be, the system will respond back to you with several horn "chirps" to help you identify which input is present. These "chirps" will occur after initiating a start sequence with the transmitter, the system will turn on the ignition, but then respond back with several horn "chirps" and abort the starting process.


**Example:** Depress the remote start fob button for 3 seconds and then release. The vehicle horn will "chirp" one time to indicate that RMST signal was received. If the vehicle doesn't start and the horn "chirps" 3 times, there is a fault - "Vehicle Door is Open"

CHIRPS	PROBLEM
1 Chirp	SECURILOCK not programmed correctly, or the SECURILOCK antenna ring is damaged.
2 Chirps	BRAKE is being pressed, or the HOOD is open.
3 Chirps	One of the vehicles DOORS are open.
4 Chirps	TACH not programmed.

EXPEDITION / NAVIGATOR CUSTOM WIRE HARNESS

**RMST MODULE WIRE HARNESS**

	Color	Function
A-1	WHITE	Parking Light Output
A-2	ORANGE	Run/Acc
A-3	PINK	Run/Start
A-4	RED	Battery
A-5	BLACK	Ground
A-7	PINK	Ignition Input/Output
A-12	GRAY/BLACK	Hood Closed Switch Input
A-13	VIOLET	Starter
A-19	GRAY	Hood Open Switch Input
A-20	GREEN/VIOLET	Door Ajar Switch Input
A-21	TAN/BLACK	Horn Relay Output
A-24	BLUE	Door Lock Output
B-7	DARK BROWN	Brake Input
B-8	BLACK/WHITE	Key-In Sense Input



A thick black line representing the wire harness originates from the right side of the table, extends horizontally to the right, then curves upwards and to the left, ending at a black rectangular connector. To the right of the connector is a vertical white rectangle representing the parking brake lever.

GREEN  
CONNECTOR  
ABOVE  
PARKING  
BRAKE



[Manual Table of Contents](#)

# REMOTE START SYSTEM INSTALLATION

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### **INSTALLATION**

[Remote Start](#)

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[Programming - Standard](#)

[Functional Test - Standard](#)

[Programming - Bi-Directional](#)

[Functional Test - Bi-Directional](#)

[Troubleshooting](#)

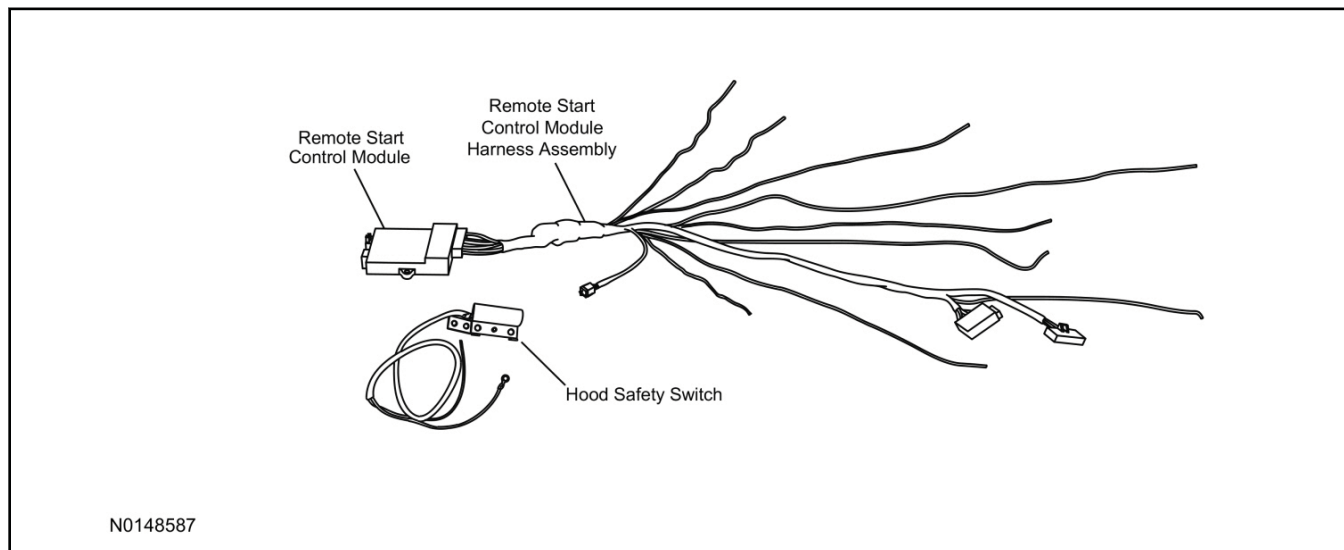
### **WIRING DIAGRAMS**

[Vehicle Specific Wiring Diagrams](#)

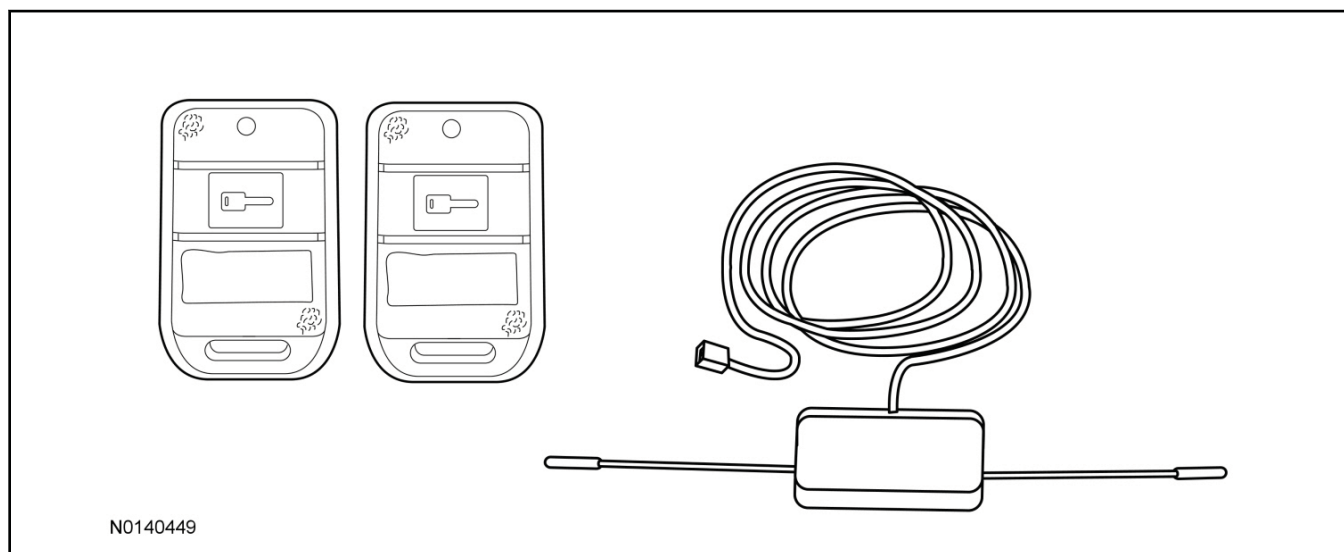
## INSTALLATION

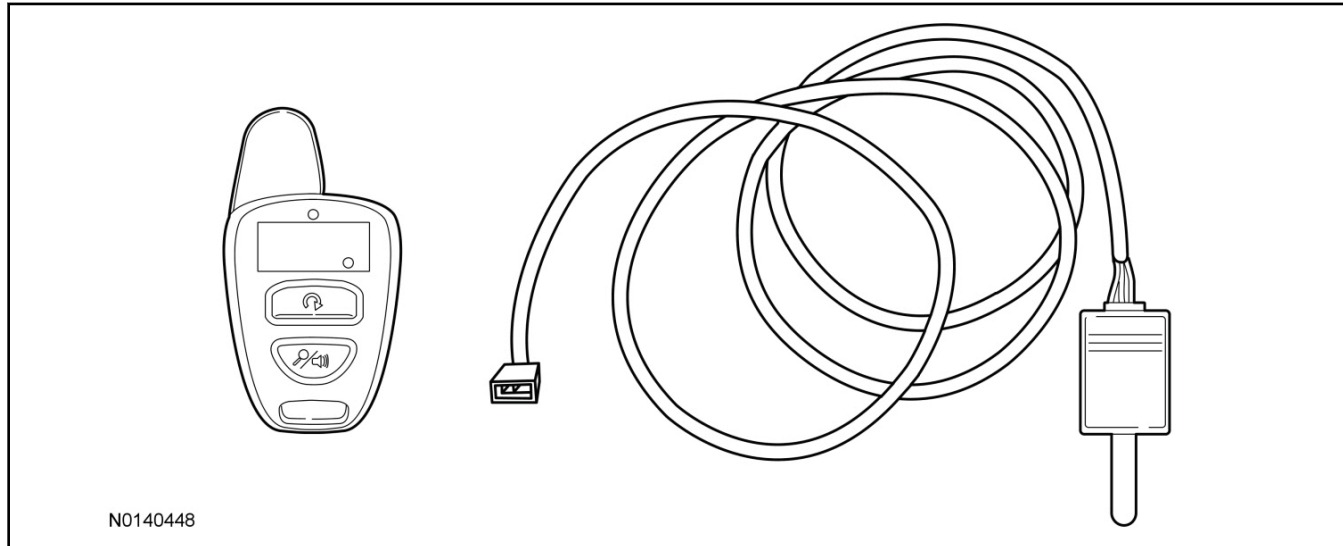
### Remote Start (RMST)

#### RMST System Components



#### Additional "Standard RMST" Components



**INSTALLATION (Continued)****Additional "Bi-directional RMST" Components****E-Series****NOTICE:**

Remote start systems are only applicable to vehicles with automatic transmissions.

1. Verify correct kit number.

**Review RMST Installation Kit Contents****NOTE:**

Kits are vehicle specific and are not interchangeable.

2. Review the RMST kit contents.

**RMST System Standard Kit Type - "B"**

QUANTITY	DESCRIPTION
1	RMST Module Assembly
2	1 Button Power Code Transmitter
1	RMST Custom Wiring Harness
1	Antenna
1	Hood Safety Switch Assembly
1	Installation Parts Bag
1	Operators Instructions
1	Operators Quick Reference Wallet Card
1	Underhood Warning Label
1	Securilock Interface Kit (Sold Separately And Required For Vehicles W/Pats)
1	Relay

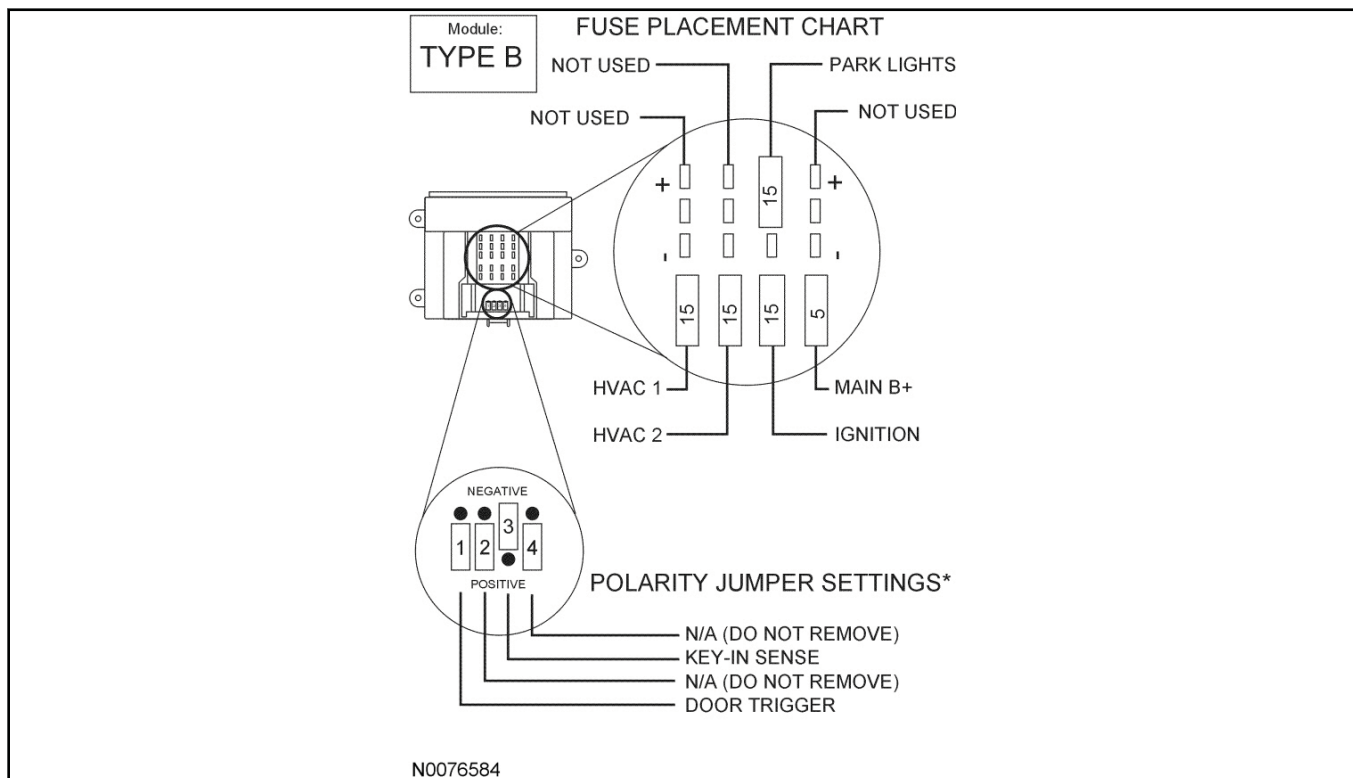
3. Review the RMST bidirectional kit contents.

**INSTALLATION (Continued)****RMST System Bidirectional Kit Type - "B"**

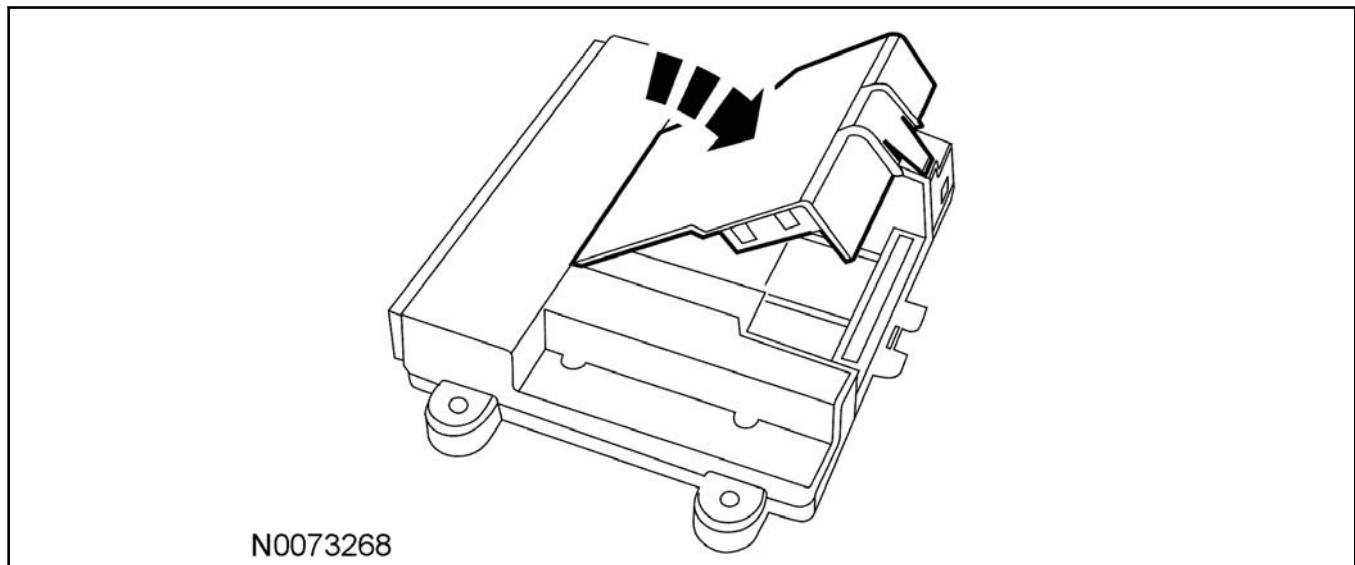
QUANTITY	DESCRIPTION
1	RMST Module Assembly
1	2 Button Power Code Transmitter
1	RMST Custom Wiring Harness
1	Antenna
1	Antenna Harness
1	Hood Safety Switch Assembly
1	Installation Parts Bag
1	Operators Instructions
1	Operators Quick Reference Wallet Card
1	Underhood Warning Label
1	Securilock Interface Kit (Sold Separately and Required for Vehicles W/PATs)
1	Relay

**Module Preparation**

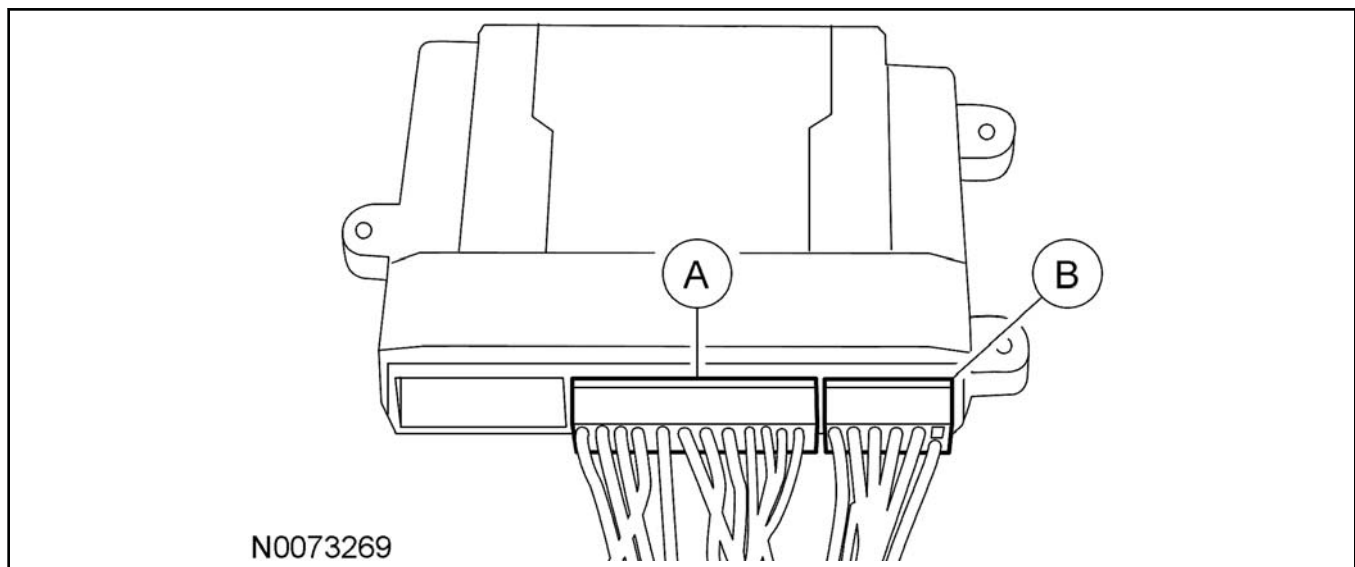
4. Remove the software cartridge from the RMST module and verify that the fuses are properly installed into the RMST control module. See Illustration.
  - If required, move the polarity jumpers to their proper locations on the control module.



5. Place the software cartridge onto the RMST control module.

**INSTALLATION (Continued)**

6. Plug the wiring harness(es) into the module.
- A - Harness: 24-way, used on all systems.
  - B - Harness: 10-way, used on all systems with RMST.

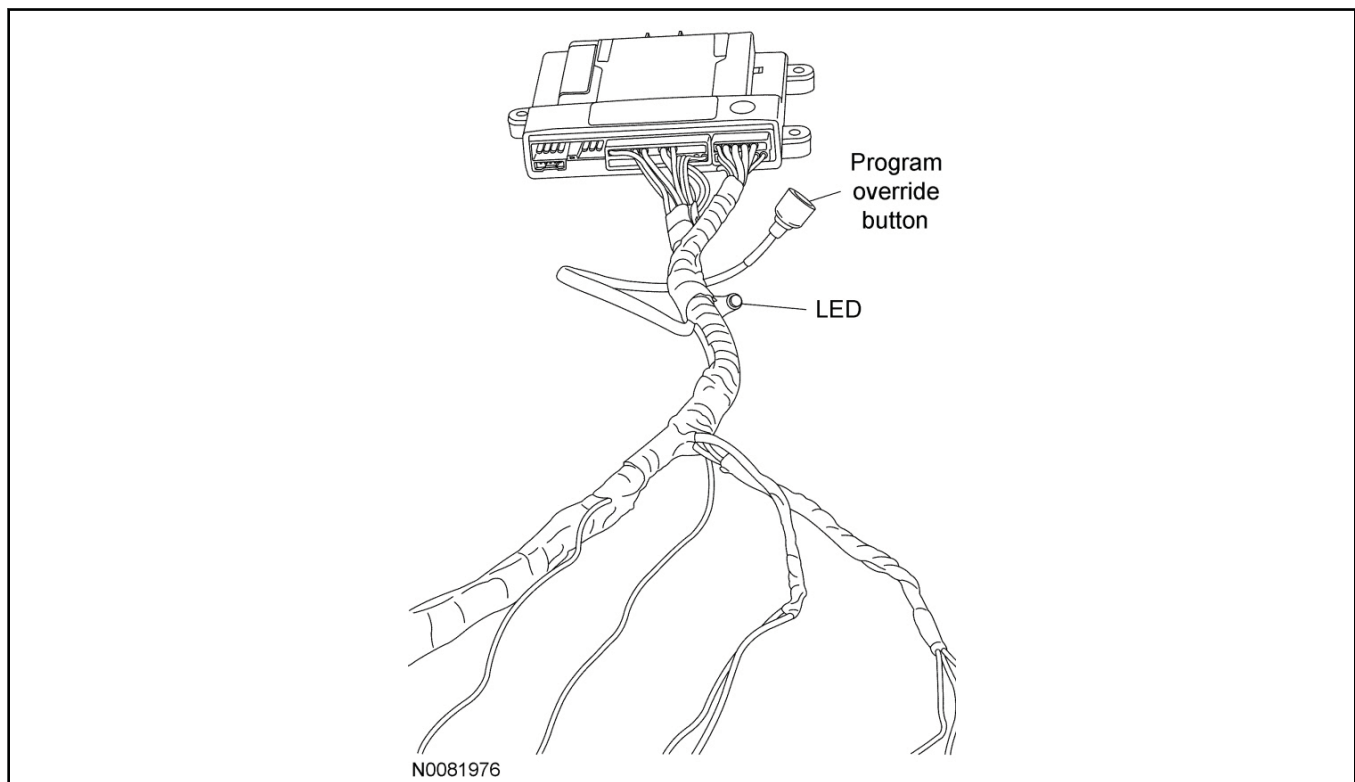


7. **NOTE:**  
Do not cut the override programming button from the harness, it is used for all installations.

**NOTE:**  
Review the vehicle specific wiring diagram(s).

Referring to the vehicle specific wiring section for the system being installed, gather all individual wires that will be routed to the same areas of the vehicle into groups. Cover each wire group with electrical tape for approximately 18". Depending on the vehicle, there will be 2 to 5 different wire groups.

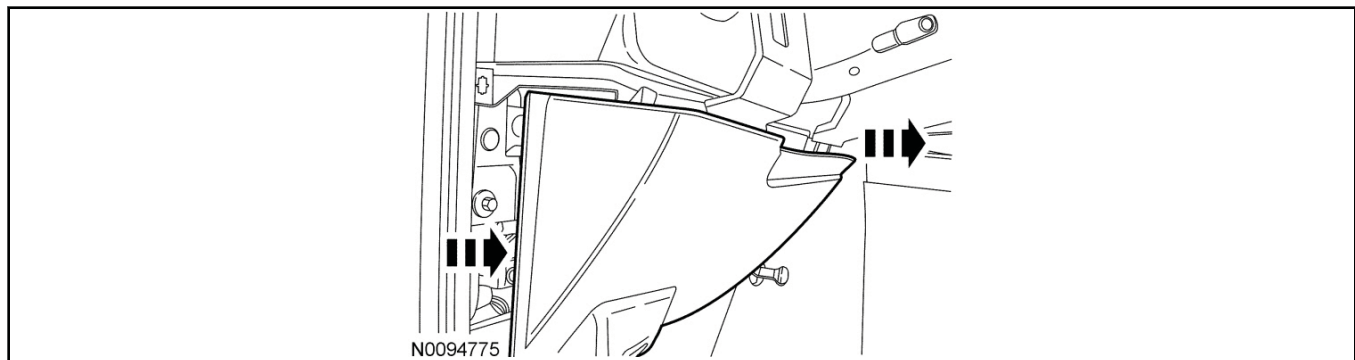
Trim all unused wires.

**INSTALLATION (Continued)**

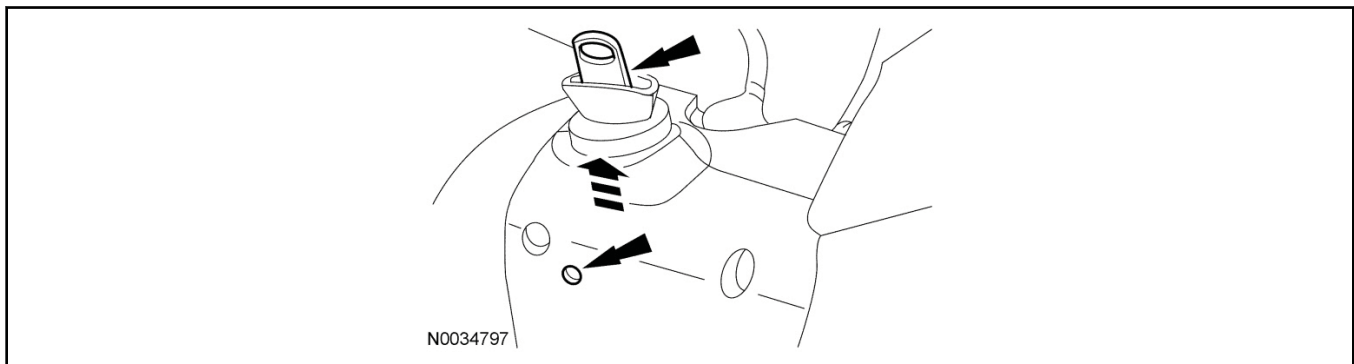
8. Tape the harness sections together, making sure to cover all of the unused wires.

**Vehicle Preparation**

9. Pull the steering column opening cover off the lower instrument panel.



10. Remove the lower steering column shroud.
11. Remove the left hand scuff plate and cowl trim panel.
12. Remove the ignition switch lock cylinder.
- Insert the ignition key into the lock cylinder and turn the ignition switch to the RUN position.
  - Push the ignition switch lock cylinder release tab with a punch while pulling out the ignition switch lock cylinder.

**INSTALLATION (Continued)**

13. If equipped, remove the tilt release lever handle.
14. Remove the (3) screws and the steering column shrouds.

**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.
- Do not mount the antenna close to RF devices, (EZ Pass, etc), that are installed on the windshield.
- 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.

15. Choose a suitable mounting location based on the guidelines above.

**Install The Antenna**

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

**17. NOTE:**

Do not touch the adhesive, reduced adhesion may result.

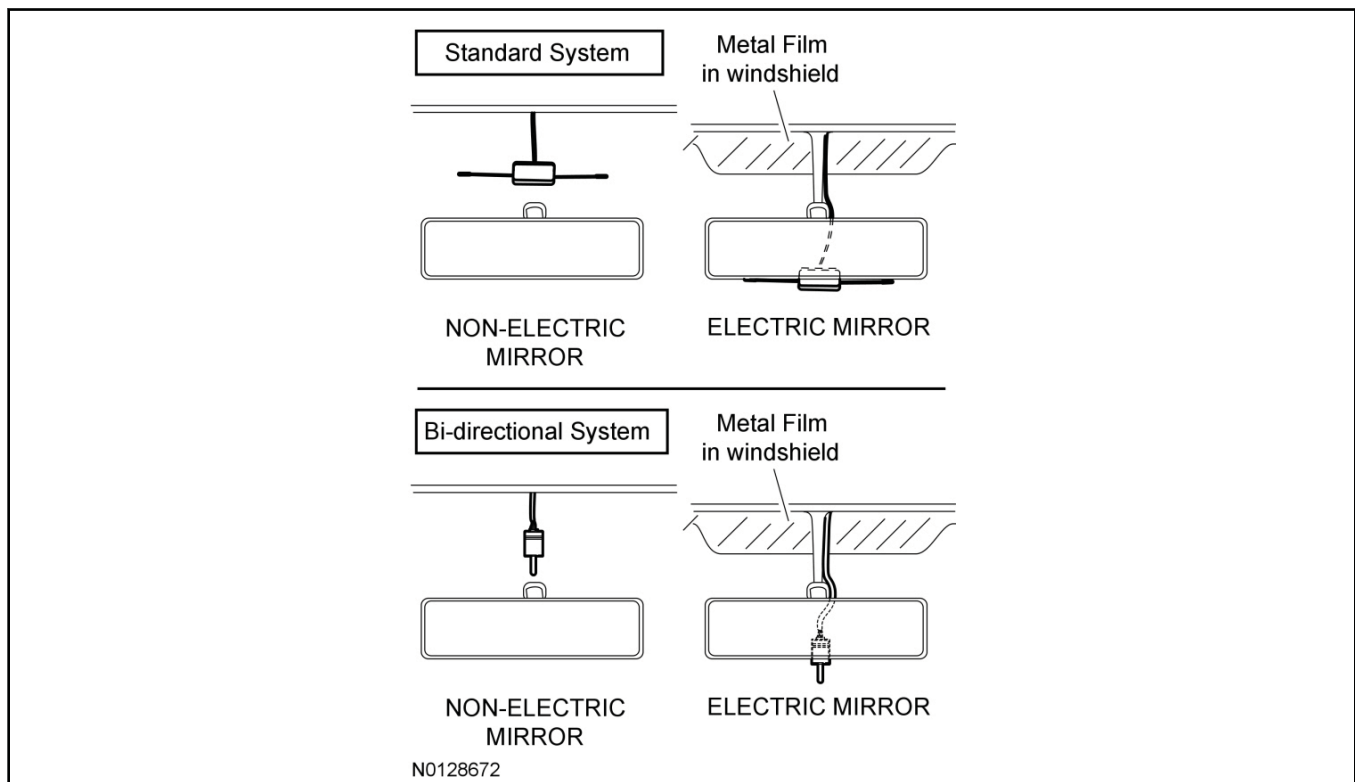
**NOTE:**

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 wire will be attached to the control module later in this procedure.

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

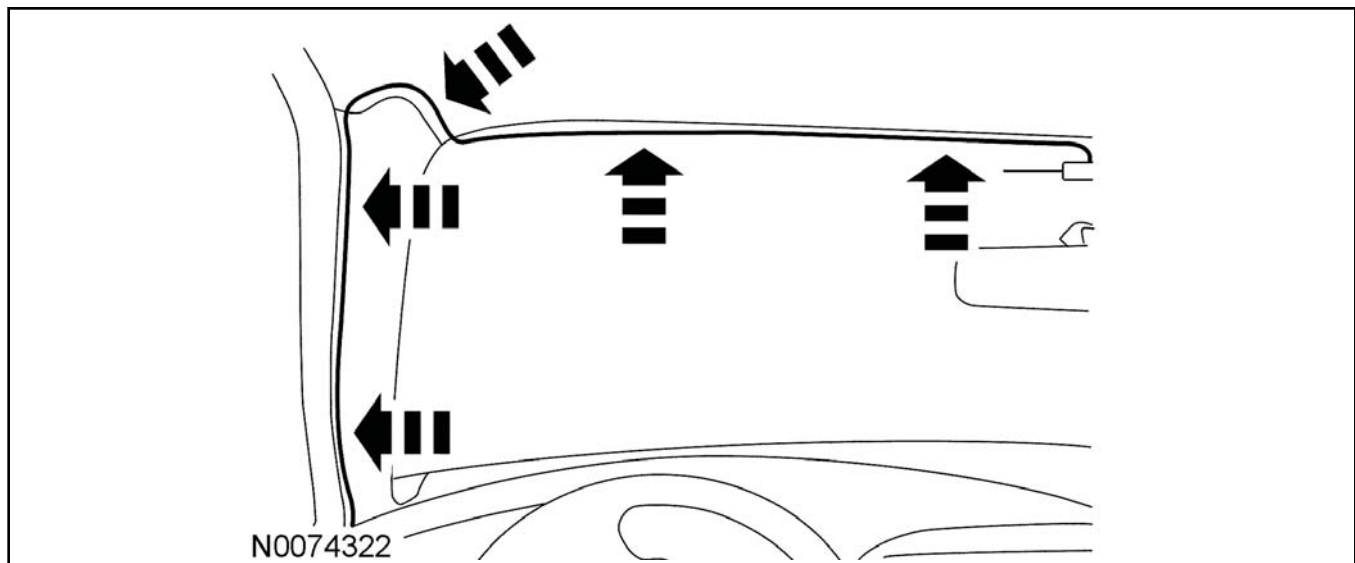
**INSTALLATION (Continued)**

18. If necessary, position the A-pillar trim slightly outward to provide access to route the antenna wire.

**NOTE:**

Do not route the antenna wire over the top of the air bag.

19. Route the antenna cable along the headliner and down the A-pillar towards the floor.



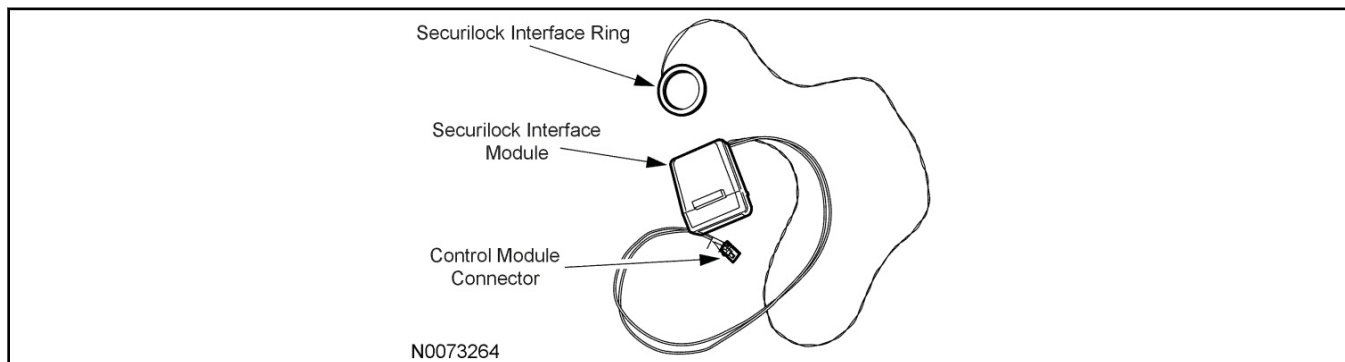


**INSTALLATION (Continued)**

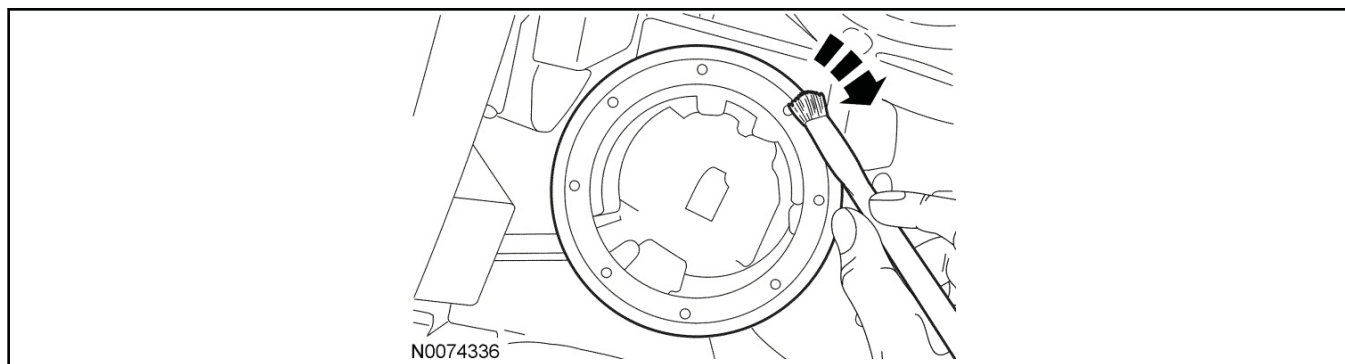
20. Reposition the A-pillar trim panel back, if necessary.

**Install the SECURILOCK Interface Kit**

21. Route the ring of the PATS interface antenna lead up along the steering column to the transceiver antenna coil location.



22. Following the directions on the supplied tube of adhesive primer, apply a thin coating around the transceiver antenna coil and allow to dry for approximately 5 minutes.

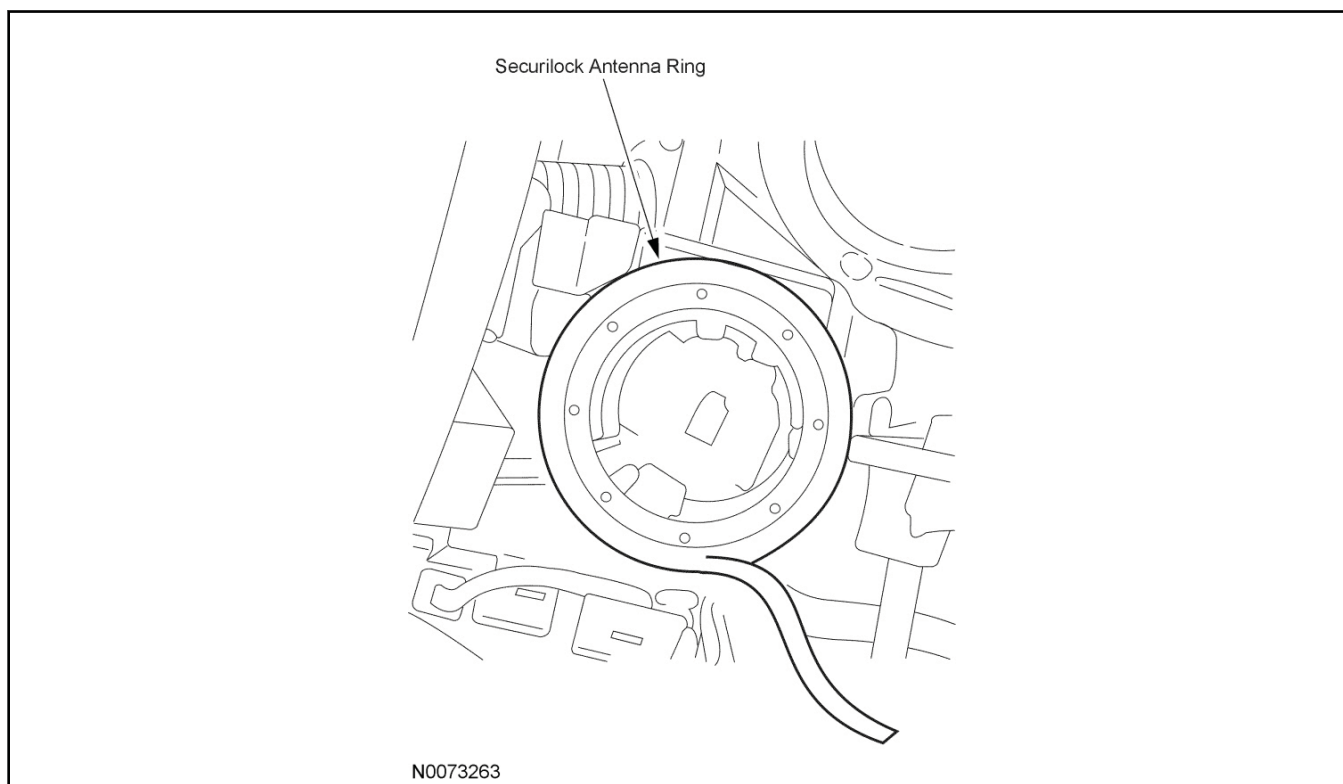


23. **NOTICE:**

**Do not damage the transceiver ring during installation or while installing the steering column shrouds.**

**A damaged transceiver ring will result in an inoperable remote start system.**

Remove the protective backing from the adhesive on the antenna ring, place the ring over the PATS transceiver and press firmly in place.

**INSTALLATION (Continued)****Install The SECURILOCK Interface Module****24. NOTE:**

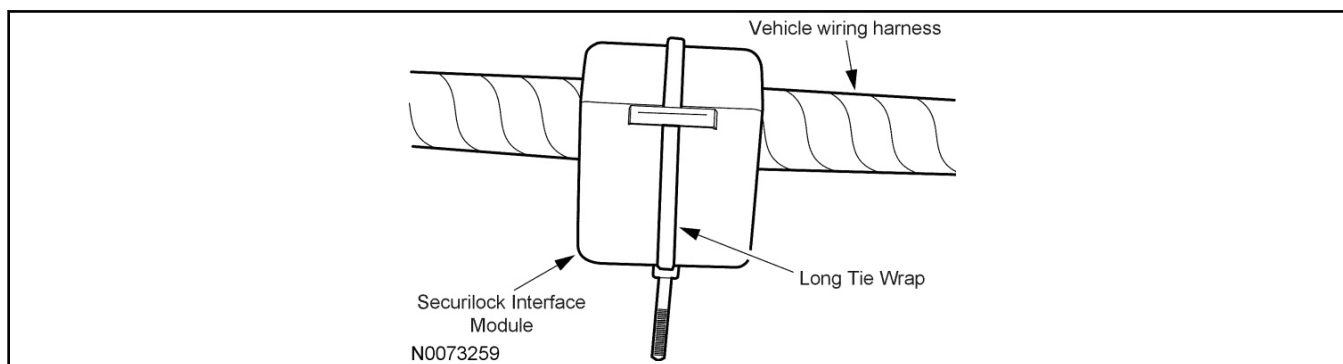
Do not mount the SECURILOCK Interface Module to or within 3" of a metal surface, including any underdash brackets, or in the knee bolster area.

Mount the SECURILOCK Interface Module to and underdash wiring harness using one of the supplied long tie wraps.

**25. NOTICE:**

**Do not attach the harness to the steering column.**

Route the harness and connector to the module mounting location.

**Install the Remote Start Control Module and Harness Assembly**

26. Install the ignition lock cylinder.

27. Place the remote start module and harness assembly in the vehicle.

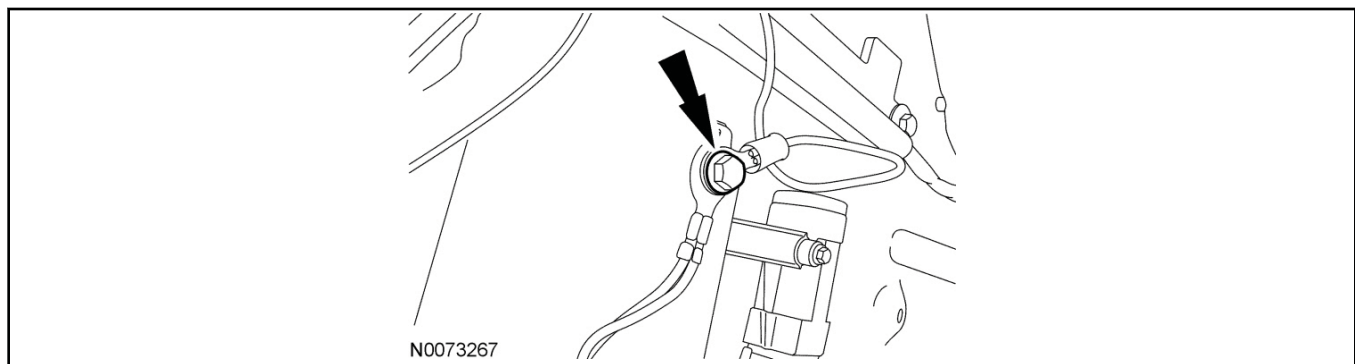
**INSTALLATION (Continued)****Identify Circuit Wires For Connections****NOTE:**

Review the vehicle specific wiring diagram(s).

**NOTE:**

Review the proper splicing techniques prior to proceeding.

28. Connect the Black ground wire from the remote start module harness to the chassis ground point in the driver kick panel.
29. Disconnect the ignition switch electrical connector.
30. Connect the hard shell harness connectors at the ignition switch and ignition switch connector.

**31. NOTE:**

A DVOM connected to the correct wire will show 12V, then show 0V when the horn button is held. A logic probe will show power on the correct wire, then show ground when the horn button is held.

Identify the Blue/White horn circuit wire at the Brown connector at the right side of the steering column.

32. Connect the Brown/Black wire from the remote start module harness to the Blue/White horn circuit wire at the Brown connector at the right side of the steering column.

**33. NOTE:**

A DVOM connected to the correct wire will show 12V with the key removed, then show 0V when the key is installed.

A logic probe will show power on the correct wire when the key is removed, then show ground when the key is installed.

Identify the Blue/Gray Key-in-Sense circuit wire at the Brown connector at the right side of the steering column.

34. Connect the Black/White wire from the remote start module harness to the Blue/Gray Key-in-Sense circuit wire at the Brown connector at the right side of the steering column.

**INSTALLATION (Continued)**

---

**35. NOTE:**

A DVOM connected to the correct wire will show 12V with the vehicle door(s) open and the dome light on, then show 0V with the vehicle door(s) closed and the dome light off.

**NOTE:**

A logic probe connected to the correct wire will show power with the vehicle door(s) open and the dome light on, then show ground with the vehicle door(s) closed and the dome light off.

**NOTE:**

Be sure that the dome light has timed out and is off before performing the door closed test.  
Be sure that the dome lamp is illuminated before performing the door open test.

Identify the Gray/Violet dome light circuit wire at the driver kick panel.

36. Connect the Green/Violet wire from the remote start module harness to the Gray/Violet dome light circuit wire at the driver kick panel.

**37. NOTE:**

A DVOM connected to the correct wire will show 12V, then show 0V when the door lock switch is pressed.

A logic probe will show power on the correct wire, then show ground when the door lock switch is pressed.

Identify the Gray/Yellow power door lock circuit wire at the driver kick panel harness.

38. Connect the Blue wire from the remote start module harness to the Gray/Yellow power door lock circuit at the driver kick panel harness.

**39. NOTE:**

A DVOM connected to the correct wire will show 0V with the switch in the OFF position and 12V with the switch in the parking lights ON position.

A logic probe connected to the correct wire will show ground with the switch in the OFF position and power with the switch in the parking lights ON position.

Identify the Violet/White parking lights on circuit wire at the driver kick panel harness.

40. Connect the White wire from the remote start module harness to the Violet/White parking lights on circuit wire at the driver kick panel harness.

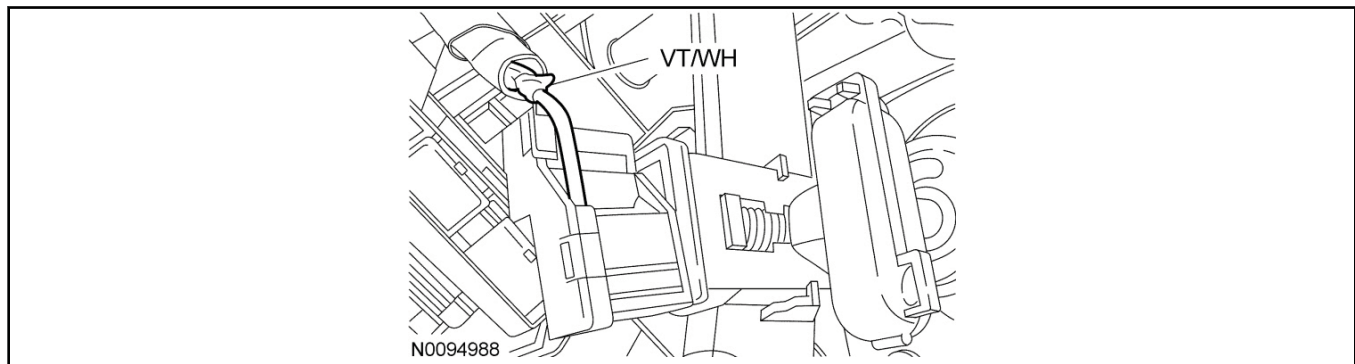
**41. NOTE:**

A DVOM connected to the correct wire will show 0V, then show 12V while depressing the brake pedal.

A logic probe will show ground on the correct wire, then show power while depressing the brake pedal.

Identify the Violet/White brake switch circuit wire at the brake switch.

42. Connect the Brown wire from the remote start module harness to the Violet/White brake switch circuit wire at the brake switch.

**INSTALLATION (Continued)****Install The Hood Safety Switch****43. NOTE:**

Route the hood safety switch wire carefully avoiding any moving parts or components that can produce excessive heat.

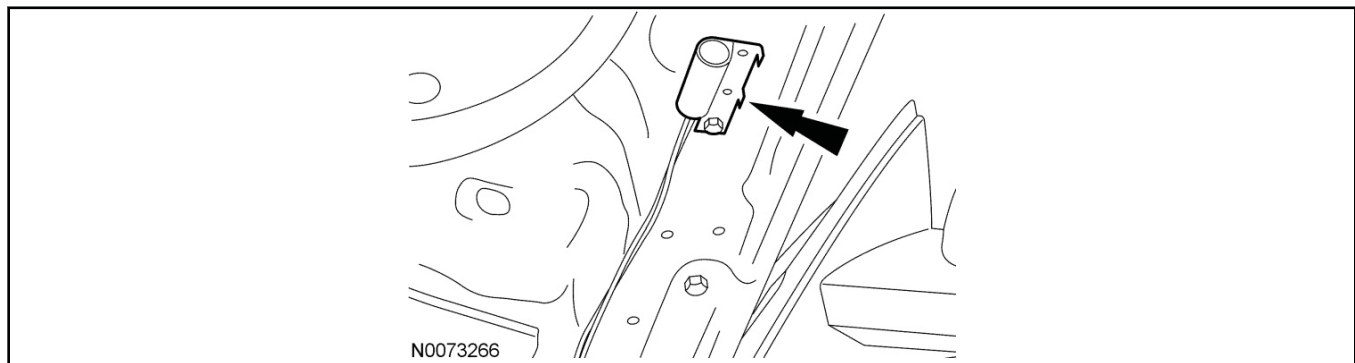
**NOTE:**

The switch should be positioned about 30 degrees below parallel to the ground to accommodate for parking on inclines.

Failure to position the switch properly could result in one of the following:

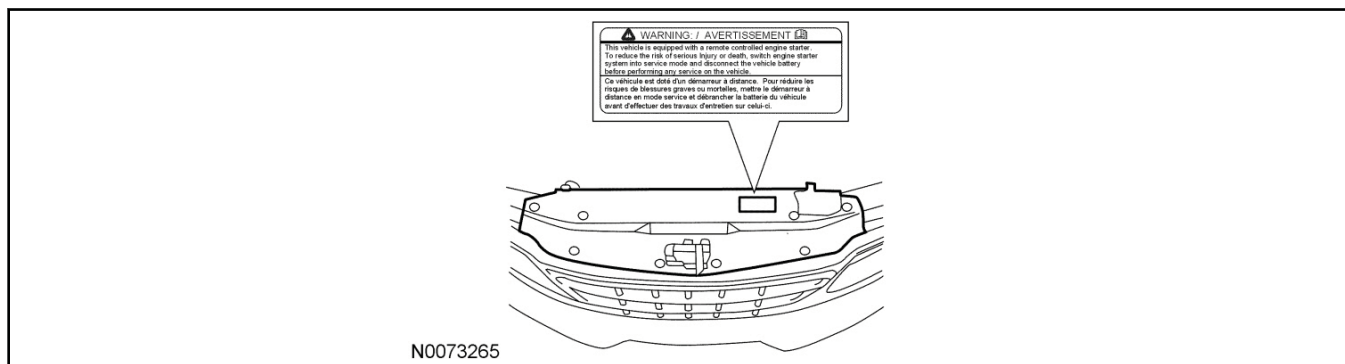
- False alarm trips
- Non-Remote Start events
- Inadvertent shutdown during Remote Start

Locate an easy to access area near the driver side hood hinge and install the hood safety switch using the supplied metal screws.

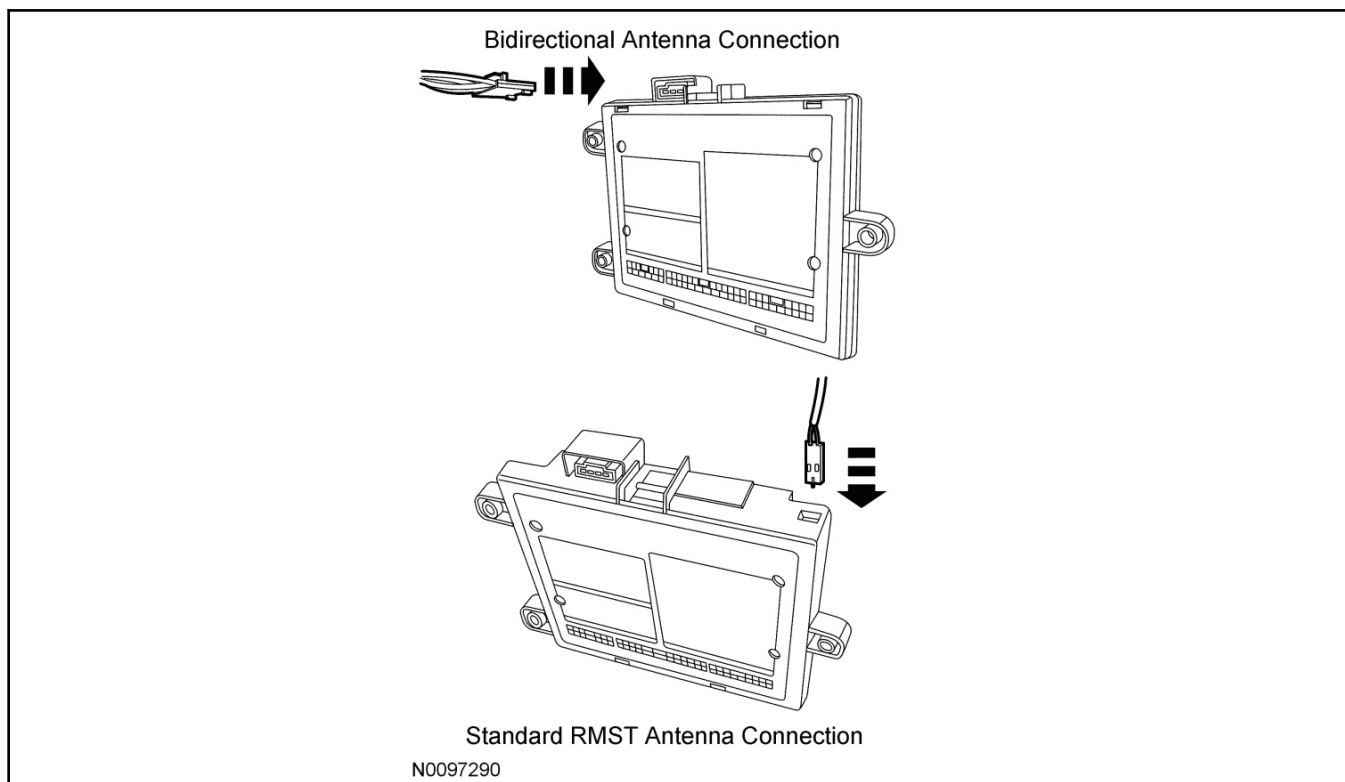
**44. Apply rustproofing compound to the drilled hole and torque the screw to 1.00 Nm (10 lb-in).****45. NOTE:**

Place the label on the radiator fan shroud or similar area.

Install the underhood warning label

**INSTALLATION (Continued)**

46. Route the Gray hood safety switch wire through the bulkhead into the engine compartment and attach to the RMST control module.
47. Connect the antenna to the RMST control module.



48. Connect the SECURILOCK interface module to the RMST control module.

**Program The RMST System**

49. Refer to the RMST programming section for this vehicle.

**Secure RMST Harness and Control Module**

50. Use the supplied tie wraps to secure the RMST harness wires.

**INSTALLATION (Continued)****51. NOTE:**

Do not mount the control module in the knee bolster area.

To ensure the best performance of the built-in shock sensor, secure the control module at three points to the vehicle.

Use the supplied long tie wraps to mount the RMST control module to the underdash wiring harness.

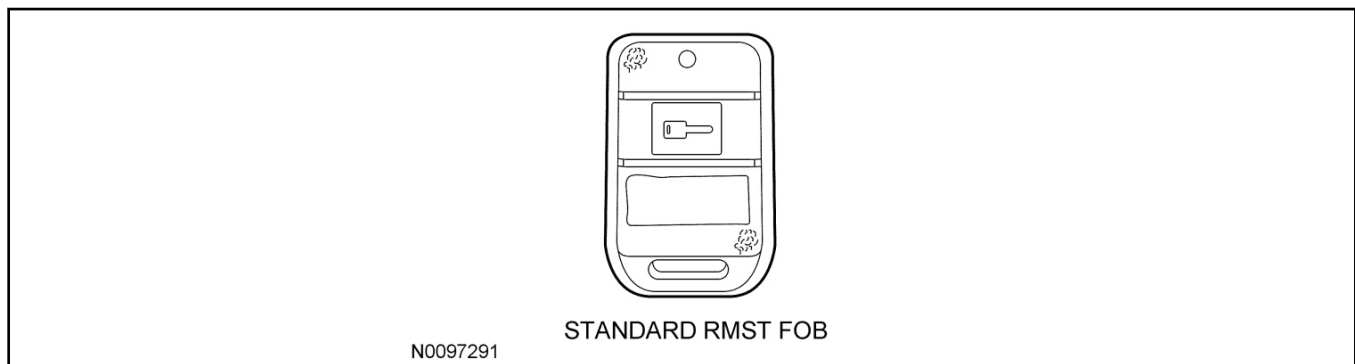
**Install Trim**

52. Install the (3) screws and the steering column shroud.

53. If equipped, install the tilt release lever handle.

54. Install the lower instrument panel steering column cover.

55. Install the left hand scuff plate and cowl trim panel.

**Programming - Standard Remote Start****56. NOTE:**

If the remote start module options (Key-in sense polarity, door ajar polarity, or tach mode) are not programmed correctly, vehicle will not remote start or operate properly.

**NOTE:**

Make sure that the hood and doors are closed before proceeding.

**NOTE:**

The LED on the remote start harness must be visible to complete module programming.

**NOTE:**

The remote start override button must be accessible.

**Programming Options: Entering Programming Mode**

57. See chart below for programming information.

**Gas Engine Only: Program Bank 1 Chart (4 Honks)**

BANK	OPTIONS	DESCR	LED
1	2	DOOR AJAR INVERT	ON
1	3	KEY-IN SENSE INVERT	ON

**INSTALLATION (Continued)****Gas Engine Only: Program Bank 2 Chart (5 Honks)**

<b>BANK</b>	<b>OPTIONS</b>	<b>DESCR</b>	<b>LED</b>
2	1	TACHLESS MODE	ON

**Diesel Engine Only: Program Bank 1 Chart (4 Honks)**

<b>BANK</b>	<b>OPTIONS</b>	<b>DESCR</b>	<b>LED</b>
1	2	DOOR AJAR INVERT	ON
1	3	KEY-IN SENSE	ON

**Diesel Engine Only: Program Bank 2 Chart (5 Honks)**

<b>BANK</b>	<b>OPTIONS</b>	<b>DESCR</b>	<b>LED</b>
2	1	TACHLESS MODE	ON
2	5	DIESEL TIMER	ON

58. Press and hold the brake pedal.
59. Turn the ignition key to the RUN position. The dome light will turn off.
60. Press and hold the remote start system override button for at least 10 seconds.  
After 10 seconds the horn will honk 3 times, indicating the system is now in the learn mode.  
Release the brake pedal and the RMST override button.
61. If you do not get 3 confirmation chirps, check the following items.
  - Brake pedal switch wire solder connection.
  - Hood closed and Grey hood safety switch wire solder connection.
  - All doors closed and dome light circuit wire solder connections.
  - The key is in the RUN position.
  - The software cartridge is firmly seated in the RMST module.
  - The RMST harness connections are firmly seated in the RMST module.

**NOTE:**

If you require additional assistance: CALL 1-800-FORD KEY.

62. Press and release the override button. The horn will honk 4 times indicating the system has entered the first program bank.
63. Press and release the brake pedal.  
The horn will honk 2 times indicating the system has entered the option 2 of the first program bank.

**NOTICE:**

**When turning the LED on or off using the remote start fob button, press and immediately release the remote start button.**

64. The LED must be on for option 2. If the LED is illuminated no action is required. If the LED is not illuminated, press and release the remote start fob button and verify the LED illuminates.



**INSTALLATION (Continued)****NOTE:**

When programming the remote start module, if the remote start fob button is held for more than 3 seconds, the horn will chirp 4 times indicating the system returned to the factory default settings. If this occurs, return to the first step of the programming section to reprogram the remote start module.

65. Press and release the brake pedal.

The horn will honk 3 times indication the system has entered the option 3 of the first program bank.

66. The LED must be on for option 3. If the LED is illuminated no action is required. If the LED is not illuminated press the remote start fob button and verify the LED illuminates.

67. Press and release the override button. The horn will honk 5 times indicating the system has entered the second option bank.

68. Press and release the brake pedal.

The horn will honk 1 time indication the system has entered the option 1 of the second program bank.

69. The LED must be ON for option 1. If the LED is illuminated ON, action is required. If the LED is not illuminated press the remote start fob and verify the LED illuminates.

**NOTE:**

Vehicles equipped with a diesel engine go to the next step. Vehicles equipped with a gas engine skip this step.

70. Press and release the brake pedal until the horn honks 5 times.

The LED must be ON for option 5. If the LED is ON no action is required. If the LED is OFF, press the remote start fob button to verify that the LED is OFF.

**NOTE:**

The remote start module is now programmed.

71. Remove the ignition key.

**Programming the SECURILOCK****NOTE:**

Two PATS keys are required to program the SECURILOCK.

**NOTE:**

**IMPORTANT:** Each of the following steps should be completed with no more than 5 seconds delay between steps.

72. Insert the first ignition key and turn to the run position.

Watch for the PATS light to turn off. Remove the first key.

73. Insert the second ignition key and turn to the run position.

Watch for the PATS light to turn off. Remove the second key.

74. Press and hold the remote start button key pic for 3 seconds.

The PATS light should stay on for 3-5 seconds before turning off, which means that the SECURILOCK was successfully programmed.

**INSTALLATION (Continued)****NOTE:**

If the PATS light blinks rapidly, repeat steps to retry programming the SECURILOCK.

**NOTE:**

The engine will start if the Remote Start kit has been installed correctly, the brake is not depressed, and the hood and doors are closed.

**Functional Test - Standard Remote Start****NOTE:**

If during any of the steps of the functional test, the remote start system or vehicle doesn't react or perform accordingly, please refer to the remote start troubleshooting guide.

75. Make sure all doors are closed but hood is open and windows are down (doors will be locking).
76. Press and hold the Start button on the remote control key fob for 2-3 seconds - Horn should honk once indicating receipt of the start request.
77. The remote start systems should turn on the ignition, but then honk the horn twice and shut down indicating the hood is open.
78. Close the hood, and insert a key into the ignition switch.
79. Attempt to re-start the vehicle again using the key fob.
80. The remote start systems should turn on the ignition, but then honk the horn five times and shut down indicating a key is in the ignition switch.
81. Remove the key and open a door.
82. Attempt to re-start the vehicle again using the key fob.
83. The remote start systems should turn on the ignition, but then honk the horn three times and shut down indicating a door is open.
84. Close the door.
85. Attempt to re-start the vehicle again using the key fob.
86. Once the vehicle starts, verify that all heat and A/C functions operate normally and that the doors have locked.
87. Once all systems have been checked, press the brake pedal - the remote start systems should shut down.

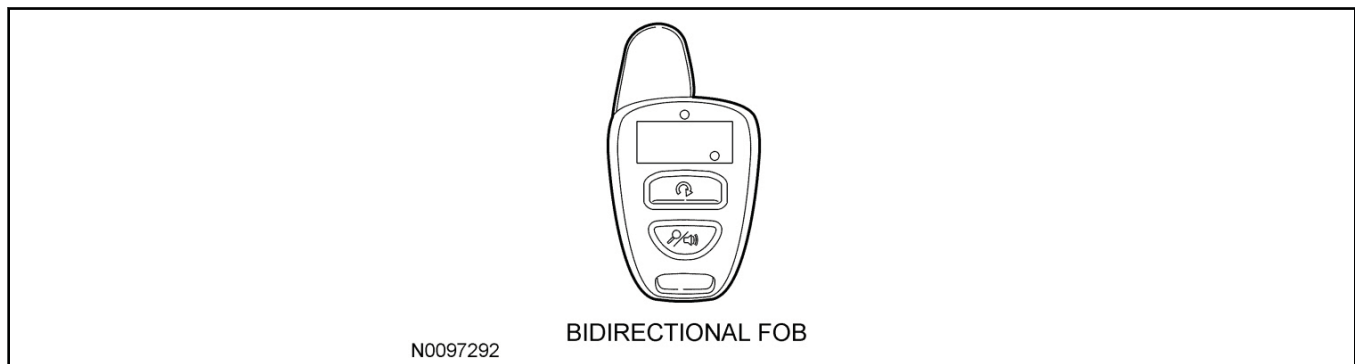
**Troubleshooting****88. NOTE:**

When attempting to remote start your vehicle, the system has several safety checks that it performs. If any of these inputs are present that should not be, the system will respond back to you with several horn "chirps" to help you identify which input is present. These "chirps" will occur after initiating a start sequence with the transmitter, the system will turn on the ignition, but then respond back with several horn "chirps" and abort the starting process.

**Example:** Depress the remote start fob button for 3 seconds and then release. The vehicle horn will "chirp" one time to indicate that RMST signal was received. If the vehicle doesn't start and the horn "chirps" 3 times, there is a fault - "Vehicle Door is Open"

**INSTALLATION (Continued)**

<b>CHIRPS</b>	<b>PROBLEM</b>
1 Chirp	SECURILOCK not programmed correctly, or the SECURILOCK antenna ring is damaged.
2 Chirps	BRAKE is being pressed, or the HOOD is open.
3 Chirps	One of the vehicles DOORS are open.
4 Chirps	TACH not programmed.
5 Chirps	The KEY is in the ignition.
6 Chirps	The remote start system is in SERVICE/VALET mode.

**Programming - Bi-directional Remote Start****89. NOTE:**

If the remote start module options (Key-in sense polarity, door ajar polarity, or tach mode) are not programmed correctly, vehicle will not remote start or operate properly.

**NOTE:**

Make sure that the hood and doors are closed before proceeding.

**NOTE:**

The LED on the remote start harness must be visible to complete module programming.

**NOTE:**

The remote start override button must be accessible.

**Programming Options: Entering Programming Mode**

90. See chart below for programming information.

**Gas Engine Only: Program Bank 1 Chart (4 Honks)**

<b>BANK</b>	<b>OPTIONS</b>	<b>DESCR</b>	<b>LED</b>
1	2	DOOR AJAR INVERT	ON
1	3	KEY-IN SENSE INVERT	ON

**INSTALLATION (Continued)****Gas Engine Only: Program Bank 2 Chart (5 Honks)**

<b>BANK</b>	<b>OPTIONS</b>	<b>DESCR</b>	<b>LED</b>
2	1	TACHLESS MODE	ON

**Diesel Engine Only: Program Bank 1 Chart (4 Honks)**

<b>BANK</b>	<b>OPTIONS</b>	<b>DESCR</b>	<b>LED</b>
1	2	DOOR AJAR INVERT	ON
1	3	KEY-IN SENSE	ON

**Diesel Engine Only: Program Bank 2 Chart (5 Honks)**

<b>BANK</b>	<b>OPTIONS</b>	<b>DESCR</b>	<b>LED</b>
2	1	TACHLESS MODE	ON
2	5	DIESEL TIMER	ON

91. Press and hold the brake pedal.
92. Turn the ignition key to the RUN position. The dome light will turn off.
93. Press and hold the remote start system override button for at least 10 seconds.  
After 10 seconds the horn will honk 3 times, indicating the system is now in the learn mode.  
Release the brake pedal and the RMST override button.
94. If you do not get 3 confirmation chirps, check the following items.
  - Brake pedal switch wire solder connection.
  - Hood closed and Grey hood safety switch wire solder connection.
  - All doors closed and dome light circuit wire solder connections.
  - The key is in the RUN position.
  - The software cartridge is firmly seated in the RMST module.
  - The RMST harness connections are firmly seated in the RMST module.

**NOTE:**

If you require additional assistance: CALL 1-800-FORD KEY.

95. Press and release the override button. The horn will honk 4 times indicating the system has entered the first program bank.
96. Press and release the brake pedal.  
The horn will honk 2 times indicating the system has entered the option 2 of the first program bank.

**NOTICE:**

**When turning the LED on or off using the remote start fob button, press and immediately release the remote start button.**

97. The LED must be on for option 2. If the LED is illuminated no action is required. If the LED is not illuminated, press and release the remote start fob button and verify the LED illuminates.

**INSTALLATION (Continued)**

---

**NOTE:**

When programming the remote start module, if the remote start fob button is held for more than 3 seconds, the horn will chirp 4 times indicating the system returned to the factory default settings. If this occurs, return to the first step of the programming section to reprogram the remote start module.

98. Press and release the brake pedal.

The horn will honk 3 times indication the system has entered the option 3 of the first program bank.

99. The LED must be on for option 3. If the LED is illuminated no action is required. If the LED is not illuminated press the remote start fob button and verify the LED illuminates.

100. Press and release the override button. The horn will honk 5 times indicating the system has entered the second option bank.

101. Press and release the brake pedal.

The horn will honk 1 time indication the system has entered the option 1 of the second program bank.

102. The LED must be ON for option 1. If the LED is illuminated ON, action is required. If the LED is not illuminated press the remote start fob and verify the LED illuminates.

**NOTE:**

Vehicles equipped with a diesel engine go to the next step. Vehicles equipped with a gas engine skip step this step.

103. Press and release the brake pedal until the horn honks 5 times.

The LED must be ON for option 5. If the LED is ON no action is required. If the LED is OFF, press the remote start fob button to verify that the LED is OFF.

**NOTE:**

The remote start module is now programmed.

104. Remove the ignition key.

**Programming the SECURILOCK****NOTE:**

Two PATS keys are required to program the SECURILOCK.

**NOTE:**

**IMPORTANT:** Each of the following steps should be completed with no more than 5 seconds delay between steps.

105. Insert the first ignition key and turn to the run position.

Watch for the PATS light to turn off. Remove the first key.

106. Insert the second ignition key and turn to the run position.

Watch for the PATS light to turn off. Remove the second key.

**INSTALLATION (Continued)**

---

107. Press and hold the remote start button key pic twice within 3 seconds.

The PATS light should stay on for 3-5 seconds before turning off, which means that the SECURILOCK was successfully programmed.

**NOTE:**

If the PATS light blinks rapidly, repeat steps to retry programming the SECURILOCK.

**NOTE:**

The engine will start if the Remote Start kit has been installed correctly, the brake is not depressed, and the hood and doors are closed.

**Functional Test - Bi-directional Remote Start****NOTE:**

If during any of the steps of the functional test, the remote start system or vehicle doesn't react or perform accordingly, please refer to the remote start troubleshooting guide.

108. Make sure all doors are closed but hood is open and windows are down (doors will be locking).

109. Press and hold the Start button on the remote control key fob for 2-3 seconds - Horn should honk once indicating receipt of the start request.

110. The remote start systems should turn on the ignition, but then honk the horn twice and shut down indicating the hood is open.

111. Close the hood, and insert a key into the ignition switch.

112. Attempt to re-start the vehicle again using the key fob.

113. The remote start systems should turn on the ignition, but then honk the horn five times and shut down indicating a key is in the ignition switch.

114. Remove the key and open a door.

115. Attempt to re-start the vehicle again using the key fob.

116. The remote start systems should turn on the ignition, but then honk the horn three times and shut down indicating a door is open.

117. Close the door.

118. Attempt to re-start the vehicle again using the key fob.

119. Once the vehicle starts, verify that all heat and A/C functions operate normally and that the doors have locked.

120. Once all systems have been checked, press the brake pedal - the remote start systems should shut down.

**INSTALLATION (Continued)****Troubleshooting****121.NOTE:**

When attempting to remote start your vehicle, the system has several safety checks that it performs. If any of these inputs are present that should not be, the system will respond back to you with several horn "chirps" to help you identify which input is present. These "chirps" will occur after initiating a start sequence with the transmitter, the system will turn on the ignition, but then respond back with several horn "chirps" and abort the starting process.

**Example:** Depress the remote start fob button for 3 seconds and then release. The vehicle horn will "chirp" one time to indicate that RMST signal was received. If the vehicle doesn't start and the horn "chirps" 3 times, there is a fault - "Vehicle Door is Open".

<b>CHIRPS</b>	<b>PROBLEM</b>
1 Chirp	SECURILOCK not programmed correctly, or the SECURILOCK antenna ring is damaged.
2 Chirps	BRAKE is being pressed, or the HOOD is open.
3 Chirps	One of the vehicles DOORS are open.
4 Chirps	TACH not programmed.
5 Chirps	The KEY is in the ignition.
6 Chirps	The remote start system is in SERVICE/VALET mode.

## TYPE "B" CUSTOM WIRE HARNESS

## RMST MODULE WIRE HARNESS

## STEERING COLUMN HARNESS

	Color	Function
A-7	PINK	Ignition Input/Output
B-3	PINK/WHITE	Ignition 2 Output
B-4	ORANGE	HVAC 1 Output
B-5	ORANGE/WHITE	HVAC 2 Output
A-8	VIOLET	Starter Output
A-4	RED	Battery
B-2	RED	Battery
B-1	BLUE	Battery

## DRIVER'S KICK PANEL HARNESS

	Color	Function
A-21	BROWN/BLACK	Horn Relay Output
B-8	BLACK/WHITE	Key-in-sense Input


## DRIVER'S KICK PANEL HARNESS


	Color	Function
A-5	BLACK	Ground
A-20	GREEN/VIOLET	Door Ajar Switch Input
A-24	BLUE	Door Lock Output
A-1	WHITE	Parking Light Output
B-7	BROWN	Brake Input

## UNDER HOOD HARNESS

	Color	Function
A-19	GRAY	Hood Open Switch Input

VEHICLE  
HARNESSIGNITION  
SWITCH

Horn (BLUE/WHITE) 

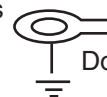
Key-in Sense (BLUE/GRAY) 

BROWN CONNECTOR  
RIGHTSIDE OF  
STEERING  
COLUMN

MAKE THIS CONNECTION FIRST!

CHASSIS GROUND POINT  
IN DRIVER'S KICK PANELDome Light (GRAY/VIOLET) Door Lock (GRAY/YELLOW) Parking Lights(VIOLET/WHITE) DRIVER'S  
KICK PANELBrake (VIOLET/WHITE) BRAKE  
SWITCH\*\*Vehicle  
InteriorEngine  
Compartment

Hood Tilt Switch

Chassis  
Ground

Do Not Ground to Hood!

\*\* Alternate color and location: LT. GREEN located in Driver's Side Kick Panel



# REMOTE START SYSTEM INSTALLATION

## CONTENTS

### [VEHICLE PREPARATION](#)

#### [Hood Switch Kit Installation](#)

### [INSTALLATION](#)

#### [Remote Start](#)

### [GENERAL PROCEDURES](#)

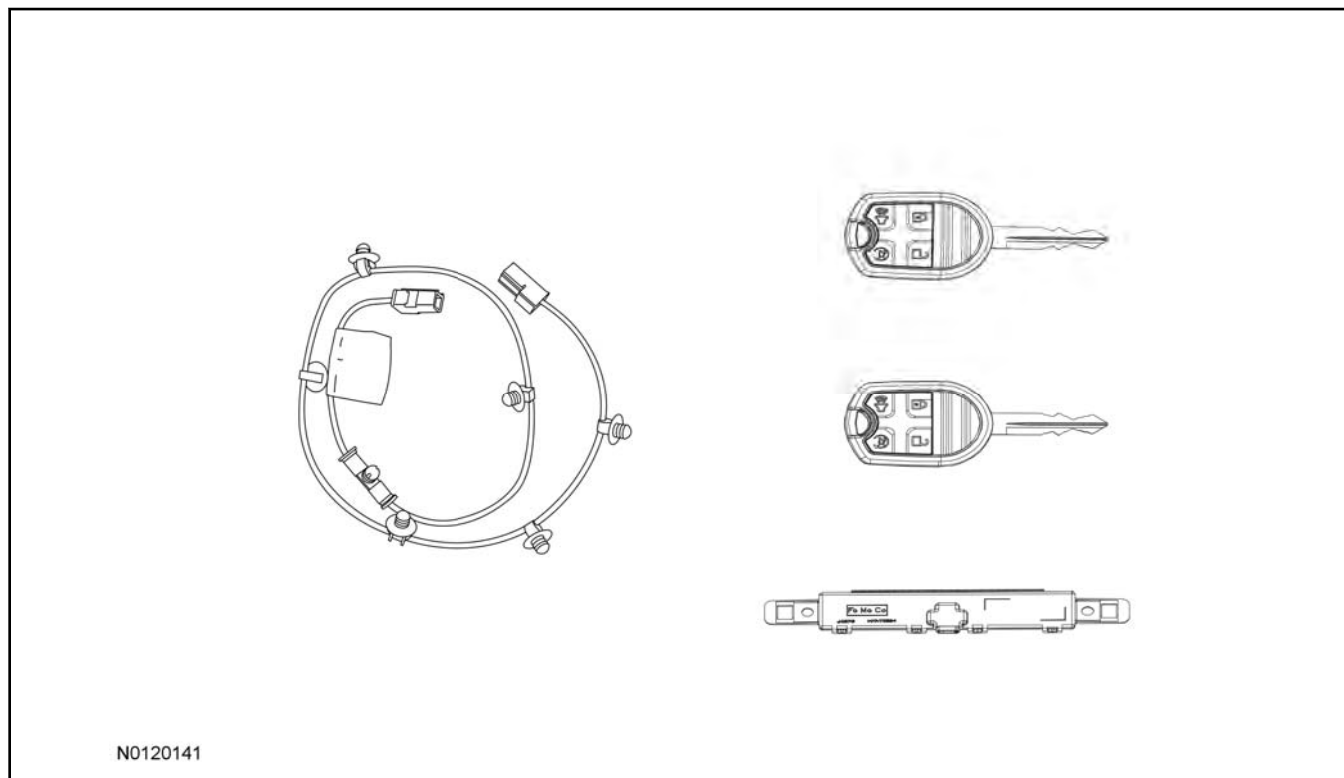
#### [Remote Start System Activation](#)

#### [Functional Test](#)

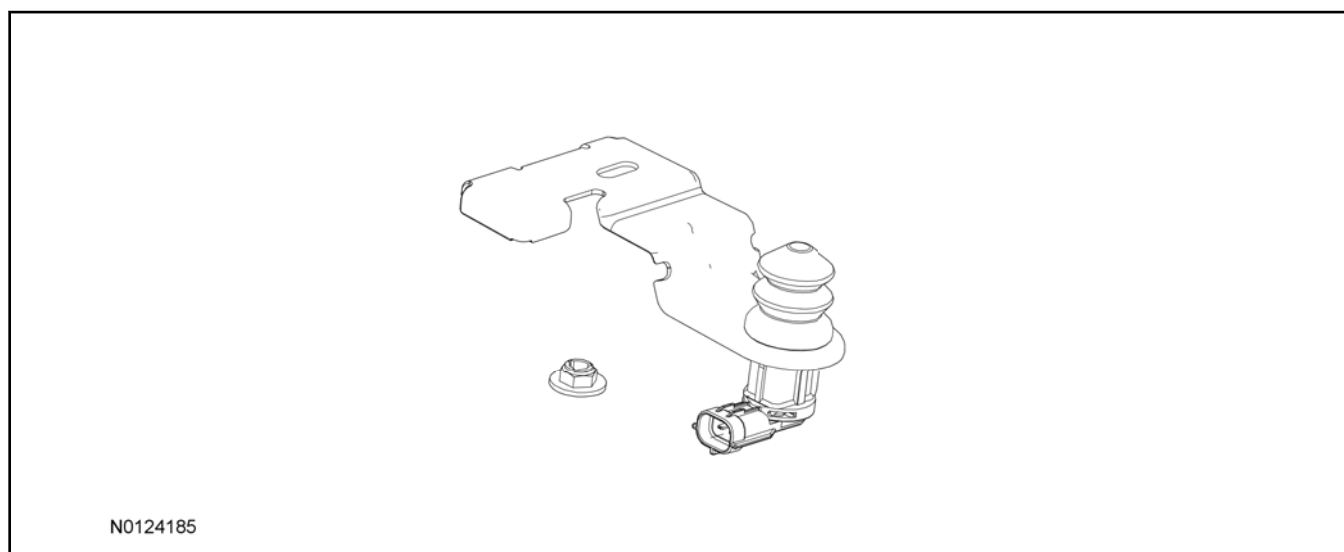
## INSTALLATION

### Remote Start

#### Remote Start System RMST Components



#### Hood switch Kit Components - Sold separately if needed



### F-150

#### NOTE:

The OE Remote Start kit is only applicable on vehicles that have power locks.

**INSTALLATION (Continued)**

1. Verify correct kit number.

**Review Remote Start Installation Kit Contents**

2. Review the RMST kit contents.

**Remote Start System OE Kit (RMST)**

QUANTITY	DESCRIPTION
2	Key (4 Button)
1	Antenna Jumper Wire
1	Antenna Module

**Review Hood Switch Kit Contents**

3. Review the Hood Switch kit contents.

**Hood Switch OE Kit**

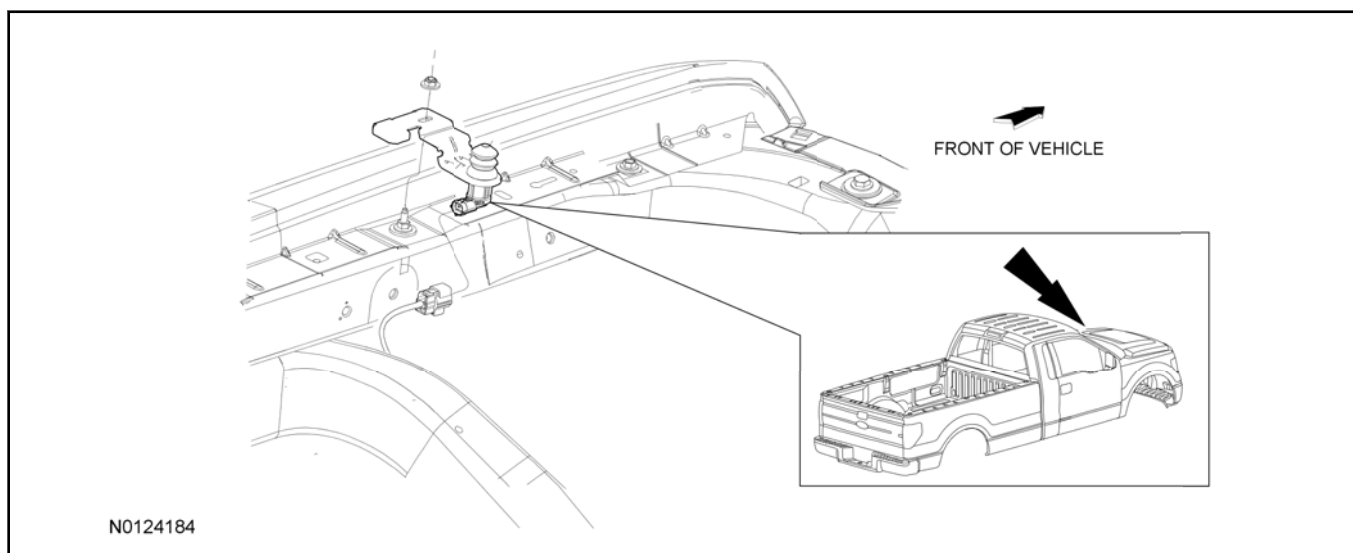
QUANTITY	DESCRIPTION
1	Bolt
1	Hood Switch Assembly

**Vehicle preparation**

4. If the vehicle is not equipped with a 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).



7. Connect the electrical connector to the hood switch.

**INSTALLATION (Continued)****Spare Key Programming****NOTE:**

The hood switch is required for remote start activation.

**NOTE:**

Verify no related DTCs are present before beginning this procedure.

**NOTE:**

This procedure works only if 2 or more programmed keys are available. If 2 programmed keys are not available alternate programming methods in the workshop manual can be found at [www.fordtechservice.dealerconnection.com](http://www.fordtechservice.dealerconnection.com).

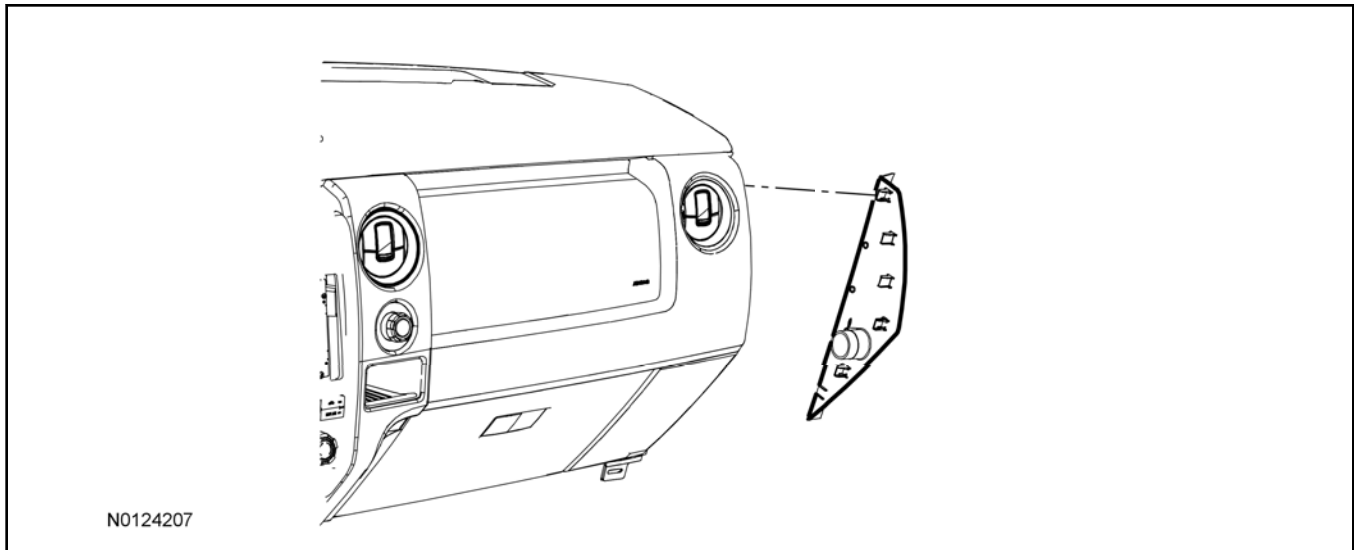
**NOTE:**

This procedure works only if the customer spare key programming is enabled. If customer spare key programming is disabled, refer to Key Programming — Enable/Disable Spare Key or Key Programming Using Diagnostic Equipment in the workshop manual located at [www.fordtechservice.dealerconnection.com](http://www.fordtechservice.dealerconnection.com).

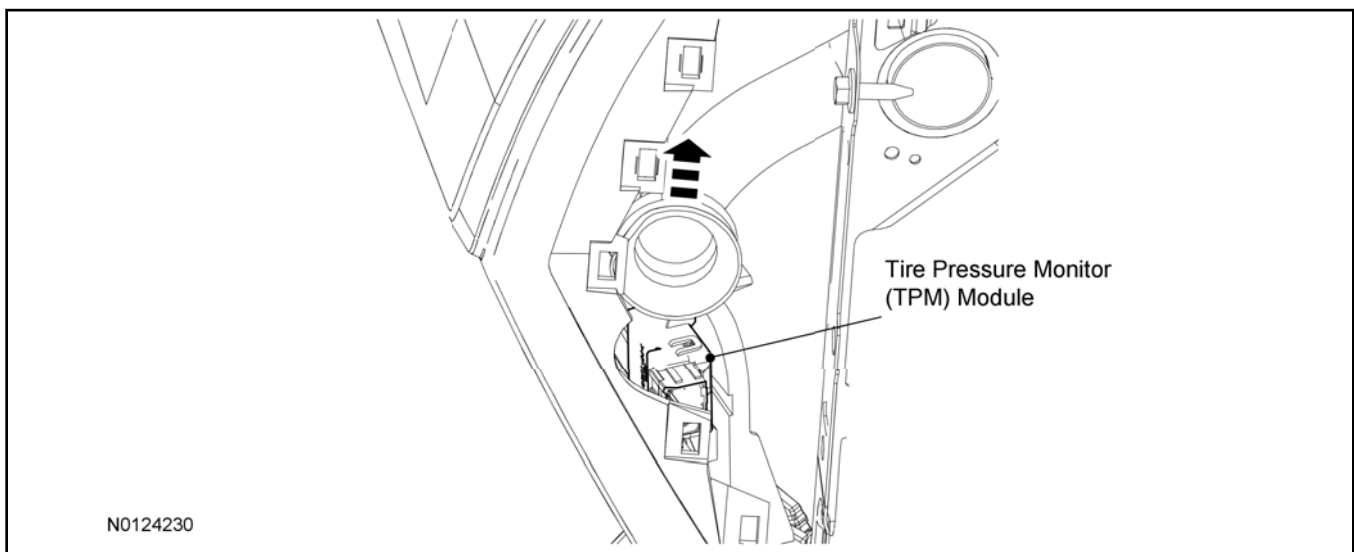
8. Cut the provided 4-button keys, that are going to be programmed to match the existing keys.
9. Insert the first programmed Passive Anti-Theft System (PATS) key into the ignition and turn the key from the OFF position to the RUN position (maintain the key in the RUN position for approximately 3 seconds).
10. Turn the first key to the OFF position and remove the key from the ignition.
11. Within 10 seconds of turning the key to the OFF position, insert a second programmed PATS key into the ignition and turn the key from the OFF position to the RUN position (maintain the key in the RUN position for approximately 3 seconds).
12. Turn the second key to the OFF position and remove the key from the ignition.
13. **NOTE:**  
The doors lock and then unlock to confirm that each Integrated Key Transmitter (IKT) is programmed.  
  
Within 10 seconds of turning the second key to the OFF position, insert the new, unprogrammed PATS key into the ignition and turn the key from the OFF position to the RUN position (maintain the key in the RUN position for approximately 3 seconds).
14. If it is desired to program additional key(s) (up to a total of 4 keys can be programmed), repeat Steps 1 - 5 for each additional key.

**Installation**

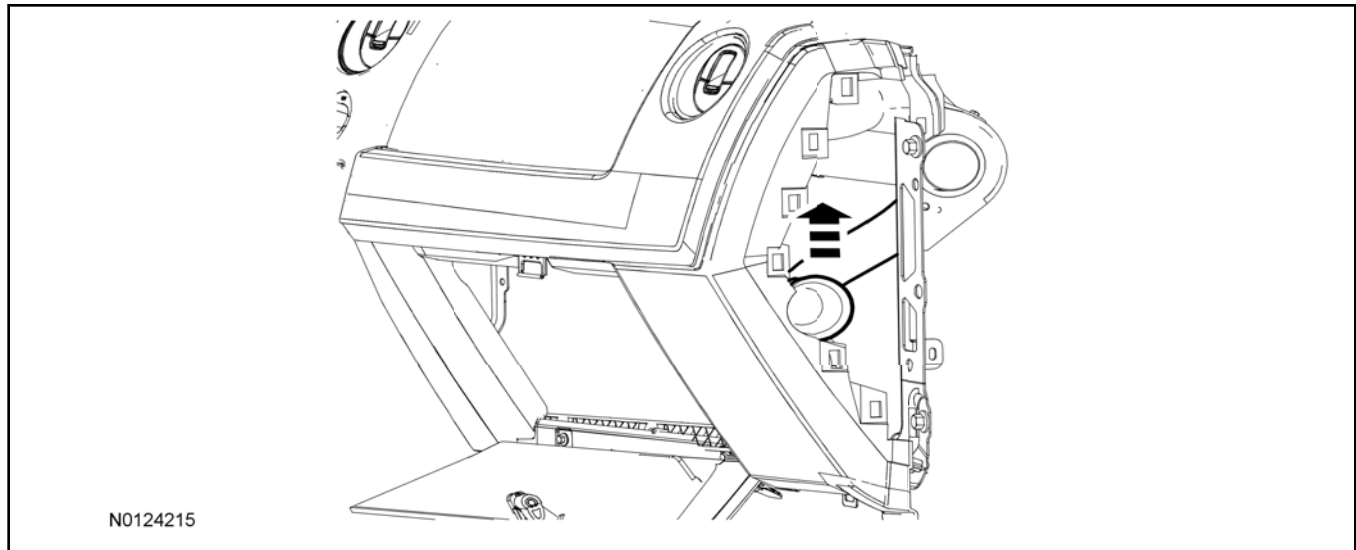
15. Remove the RH instrument panel side finish panel.

**INSTALLATION (Continued)**

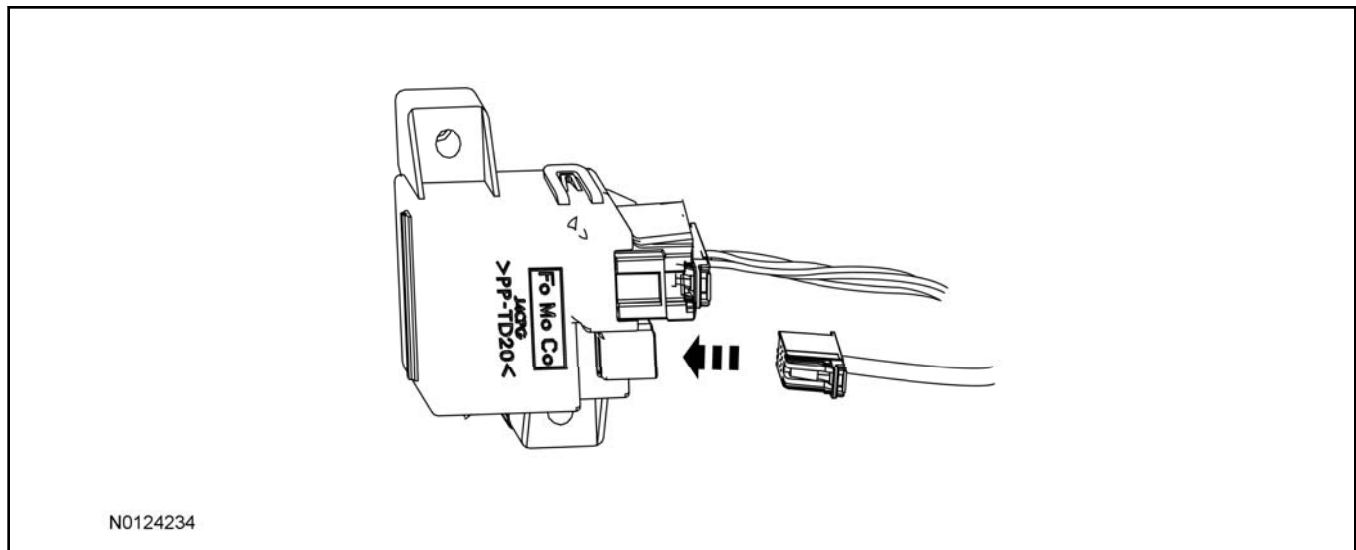
16. Open the glove compartment and empty the contents.
17. Push in the 2 side tabs and fully lower the glove compartment.
18. Locate the Tire Pressure Monitor (TPM) Module.



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

**INSTALLATION (Continued)**

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

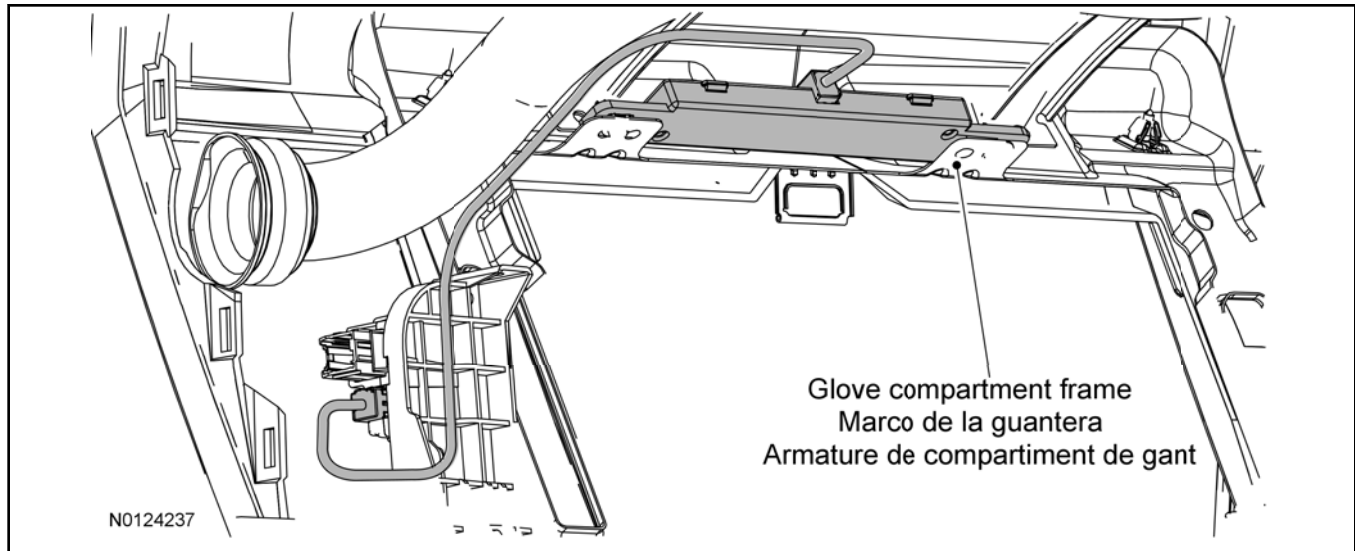


21. **NOTE:**

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 through the existing bracket holes.

**INSTALLATION (Continued)**

22. 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.

23. **NOTICE:**

**While closing the glove compartment make sure that the antenna and antenna module do not come in contact with the glove compartment door.**

Close the glove compartment.

24. Install the RH Instrument panel side finish panel.

**Remote Start Activation**

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

26. Connect IDS.

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

27. 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.

28. 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 through the options and verify that the remote start option appears.
- Select ok and verify that the remote start system is enabled.

**INSTALLATION (Continued)**

29. 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.
- Select remote start.
- Select duration
- Verify that the remote start system is set to 10 minutes

**Functional Test****NOTE:**

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

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

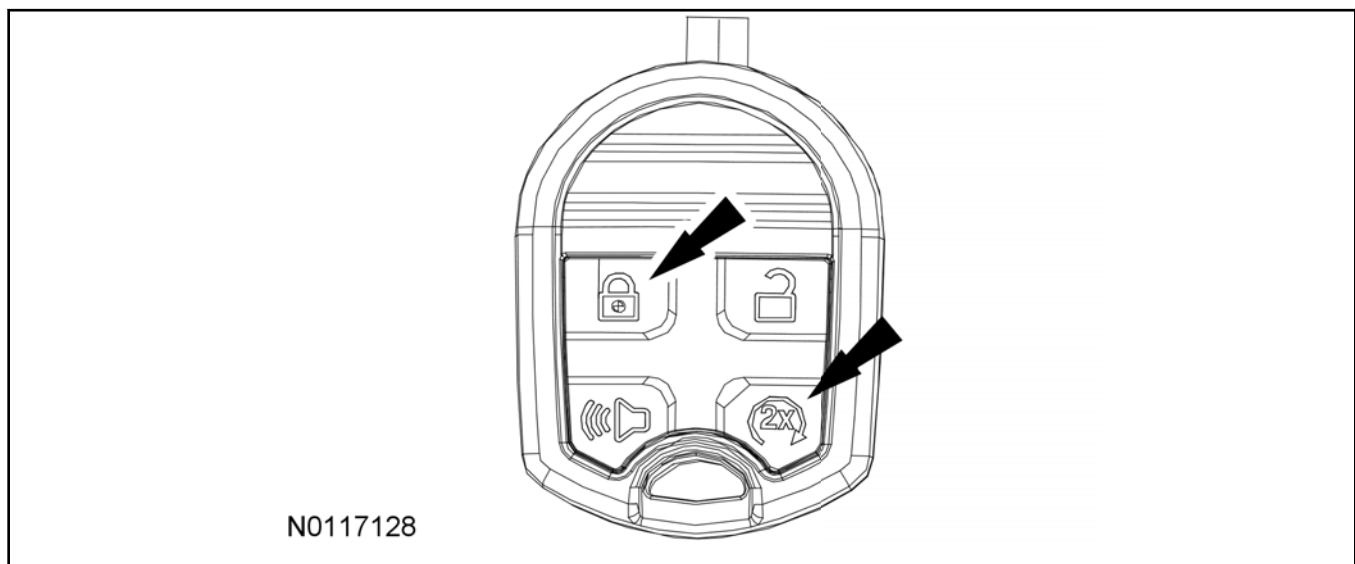
31. Close the hood.

32. Close all of the vehicle doors.

33. **NOTE:**

Verify that all of the newly programmed keys function properly.

Start the vehicle by pressing the lock button once, then the remote start button 2 times on the newly programmed key.



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

35. Enter the vehicle and confirm that it cannot shift out of park.

36. Open the hood.

37. **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.**



# REMOTE START SYSTEM INSTALLATION

## CONTENTS

### [VEHICLE PREPARATION](#)

[Hood Switch Kit Installation](#)

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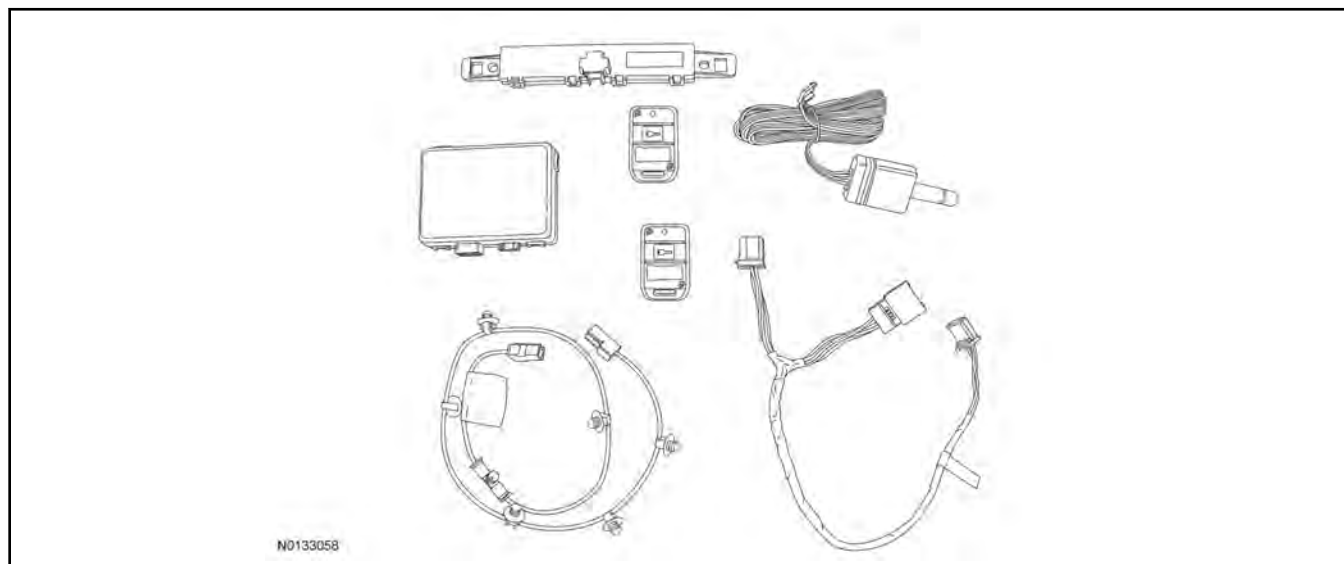
[Standard RMST - Functional Test](#)

[Bi-directional RMST - Functional Test](#)

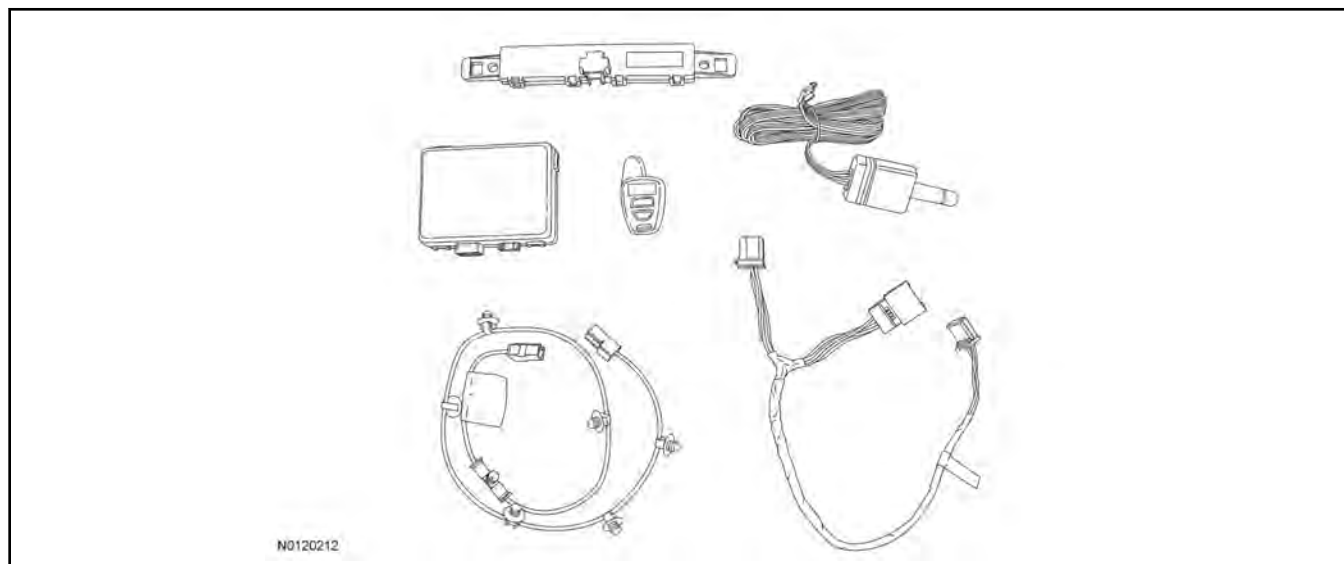
## INSTALLATION

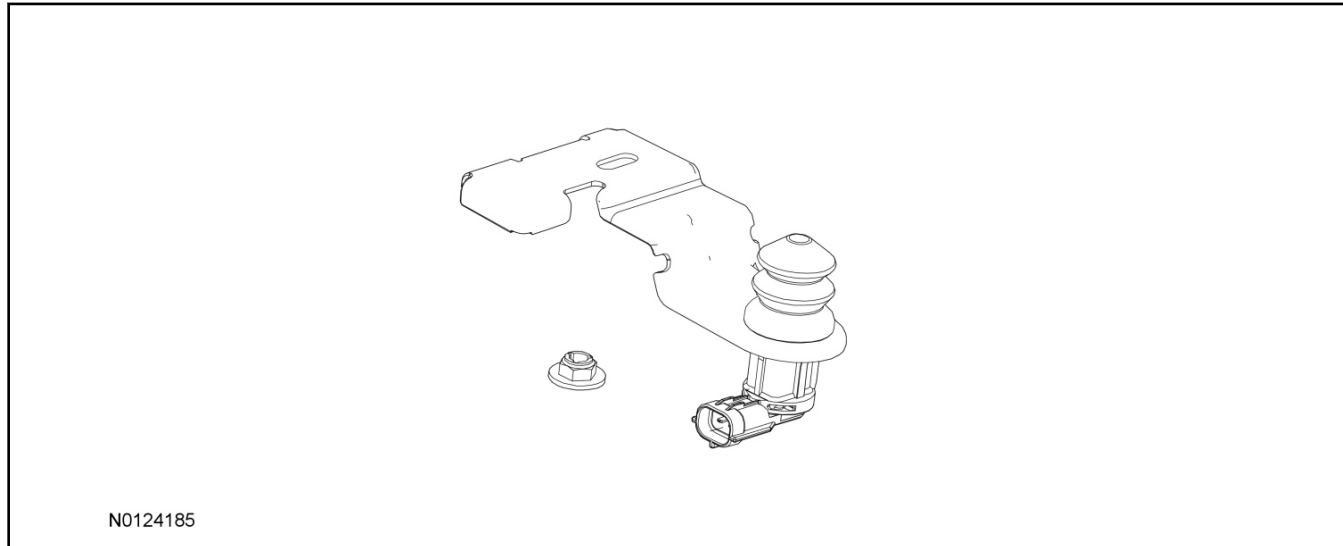
### Remote Start

#### Standard Remote Start System (RMST) Components



#### Bi-directional Remote Start System (RMST) Components



**INSTALLATION (Continued)****Hood switch Kit Components - Sold separately if needed****F-150**

1. Verify correct kit number.

**Review Standard RMST Kit Contents**

2. Review the Standard RMST kit contents.

**Standard RMST Kit**

QUANTITY	DESCRIPTION
4	Ucpf ctf '3'Dwwqp'Mg{ 'Hqd
1	Antenna Jumper Wire
1	Antenna Module
1	Remote Start Module
1	Standard Antenna
1	T-harness

**Review Bi-directional RMST Kit Contents**

3. Review Bi-directional RMST Kit Contents

**Bi-directional RMST Kit**

QUANTITY	DESCRIPTION
3	Dk/f kt ge vk qp cti Mg{ 'Hqd
1	Antenna Jumper Wire
1	Antenna Module
1	Remote Start Module
1	Bi-directional Antenna
1	T-harness

**INSTALLATION (Continued)****Review Hood Switch Kit Contents**

4. Review the Hood Switch kit contents.

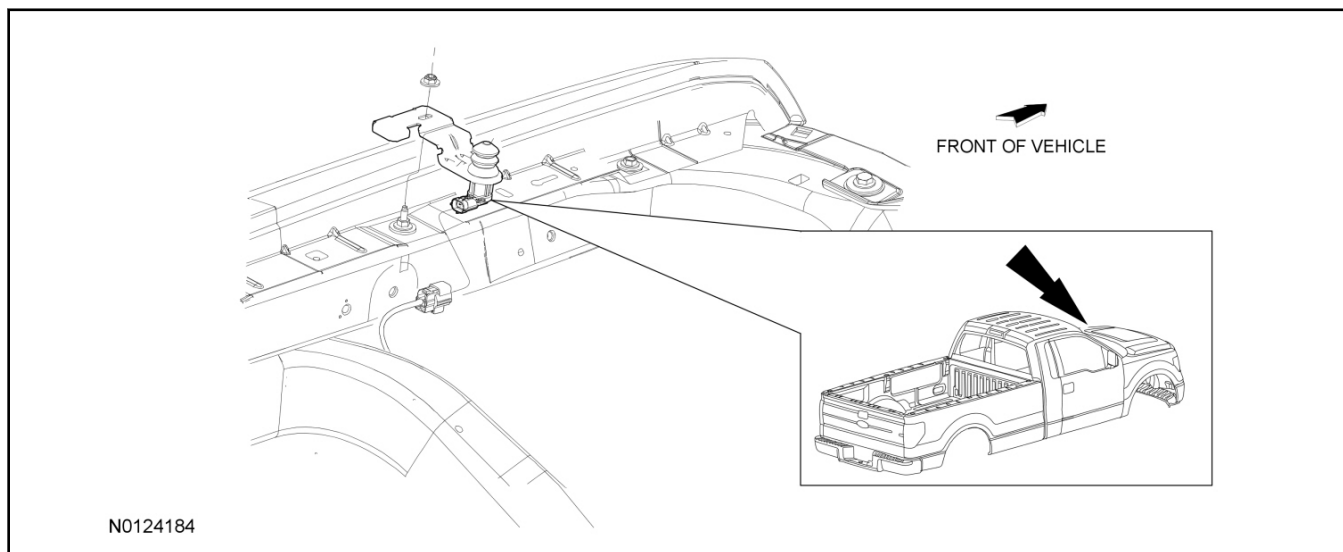
**Hood Switch OE Kit**

QUANTITY	DESCRIPTION
3	Dqrw
1	Hood Switch Assembly

5. 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**

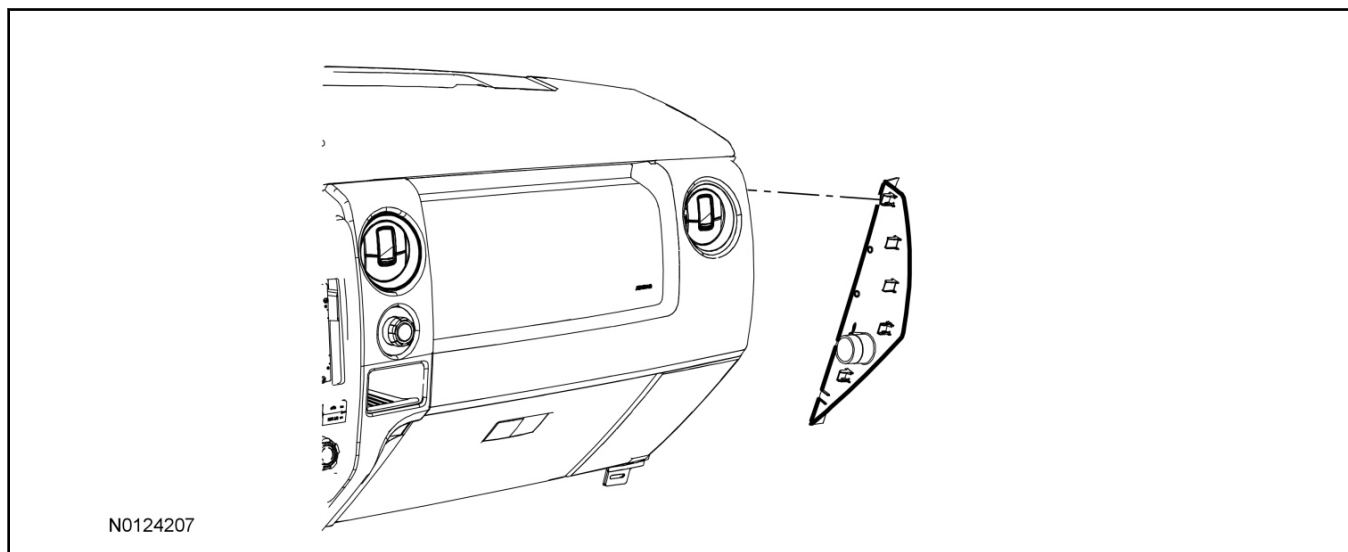
6. Locate the hood switch electrical connector located on the coolant reservoir.
- Disconnect the hood switch electrical connector from the coolant reservoir retainer plug.
7. Install the Hood switch assembly.
- Install the nut.
  - Tighten to 6 Nm (53 lb-in).



8. Connect the electrical connector to the hood switch.

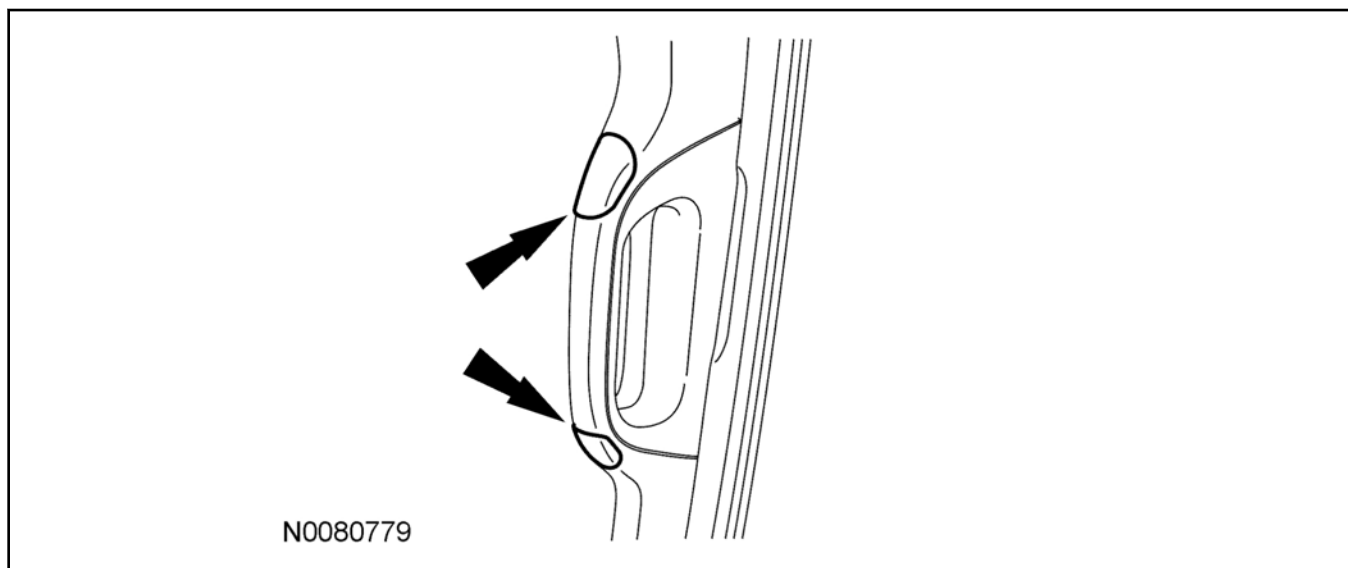
**Vehicle preparation**

9. Remove the RH instrument panel side finish panel.

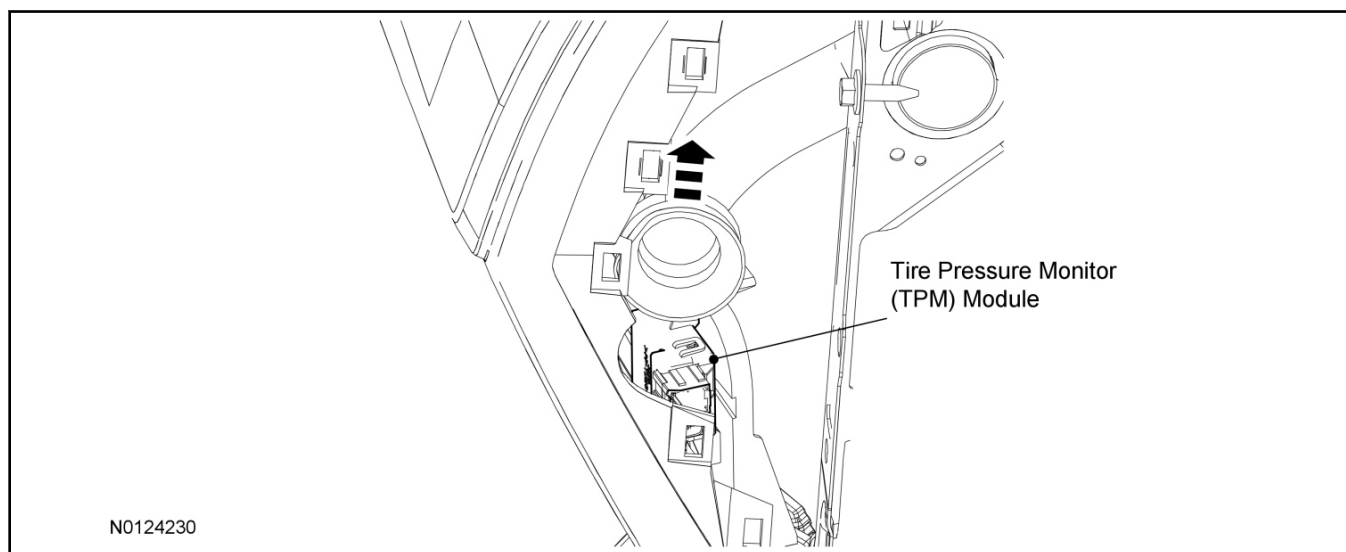
**INSTALLATION (Continued)****10. NOTICE:**

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.

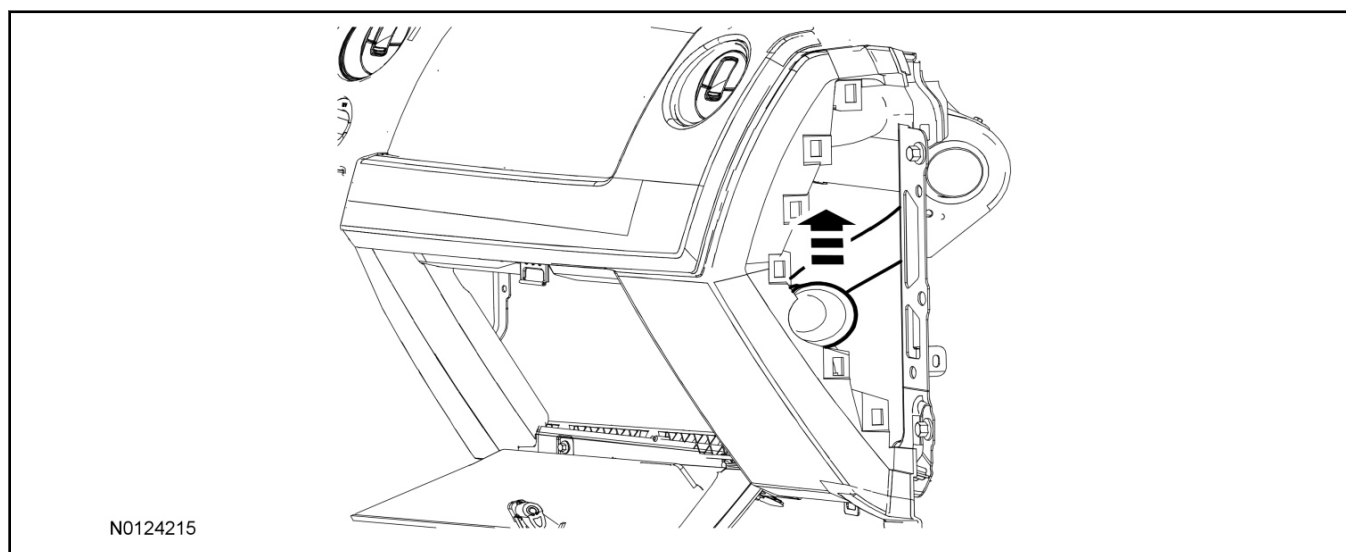
Remove the passenger side assist handle bolt covers.



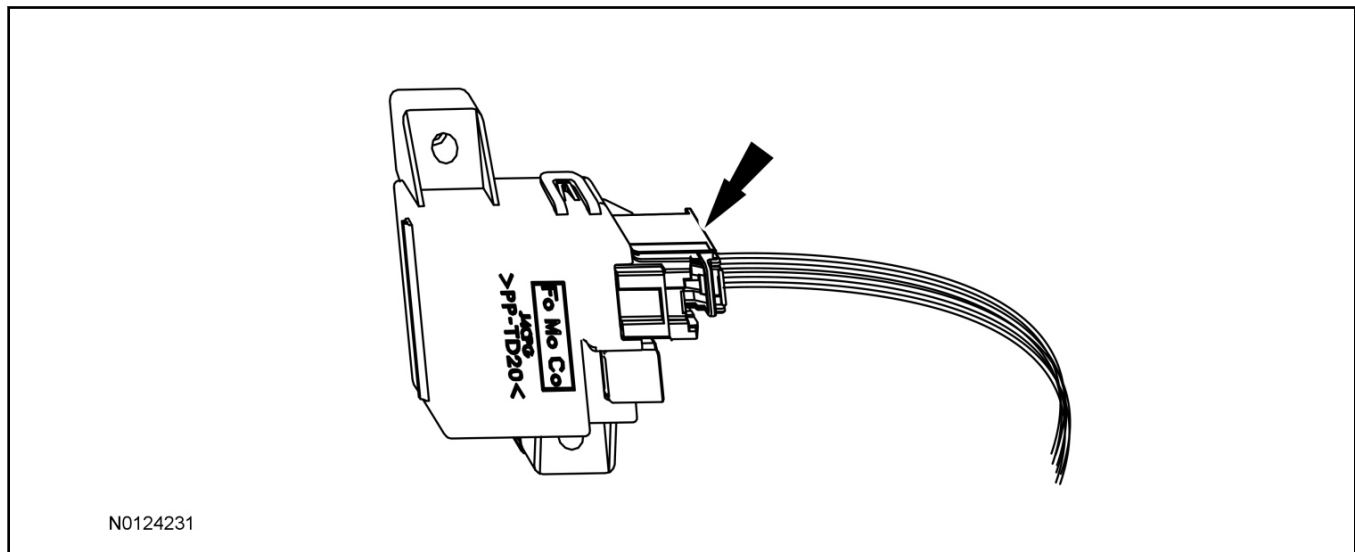
11. Remove the assist handle bolts.
12. If equipped with a speaker in the A-pillar trim panel, disconnect the speaker electrical connector.
13. Remove the RH A-pillar trim panel.
  - Pull outward to release the retainer clip.
14. Open the glove compartment and empty the contents.
15. Push in the 2 side tabs and fully lower the glove compartment.
16. Locate the Tire Pressure Monitor (TPM) Module.

**INSTALLATION (Continued)**

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



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

**INSTALLATION (Continued)****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.

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

**Install The Antenna**

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

**NOTE:**

Do not touch the adhesive, reduced adhesion may result.

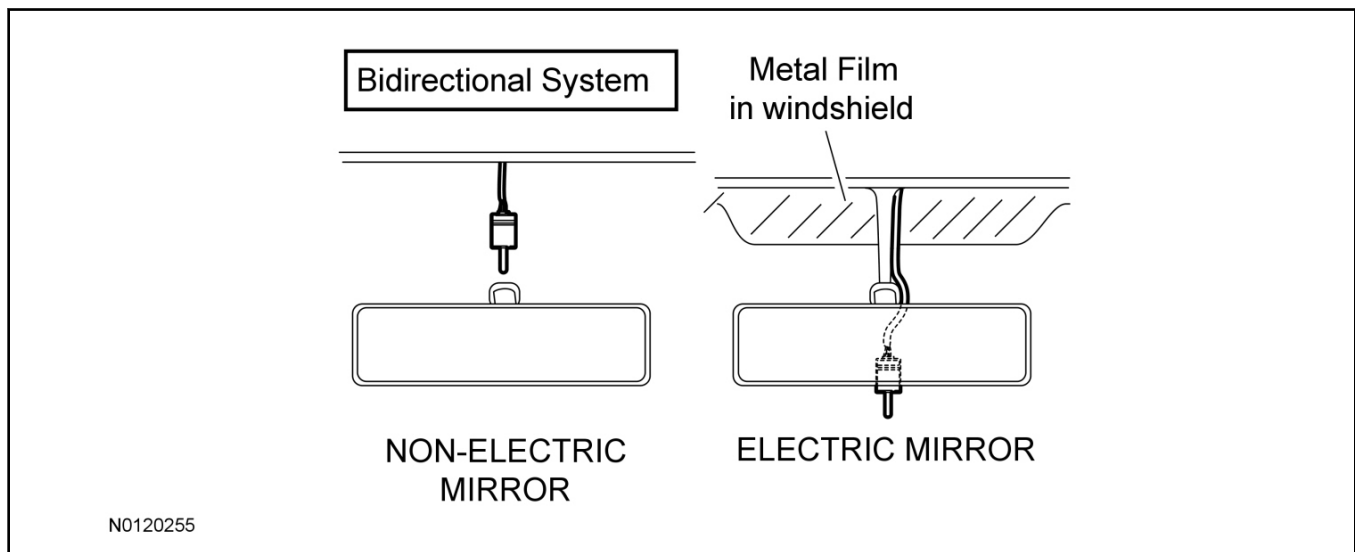
**NOTE:**

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

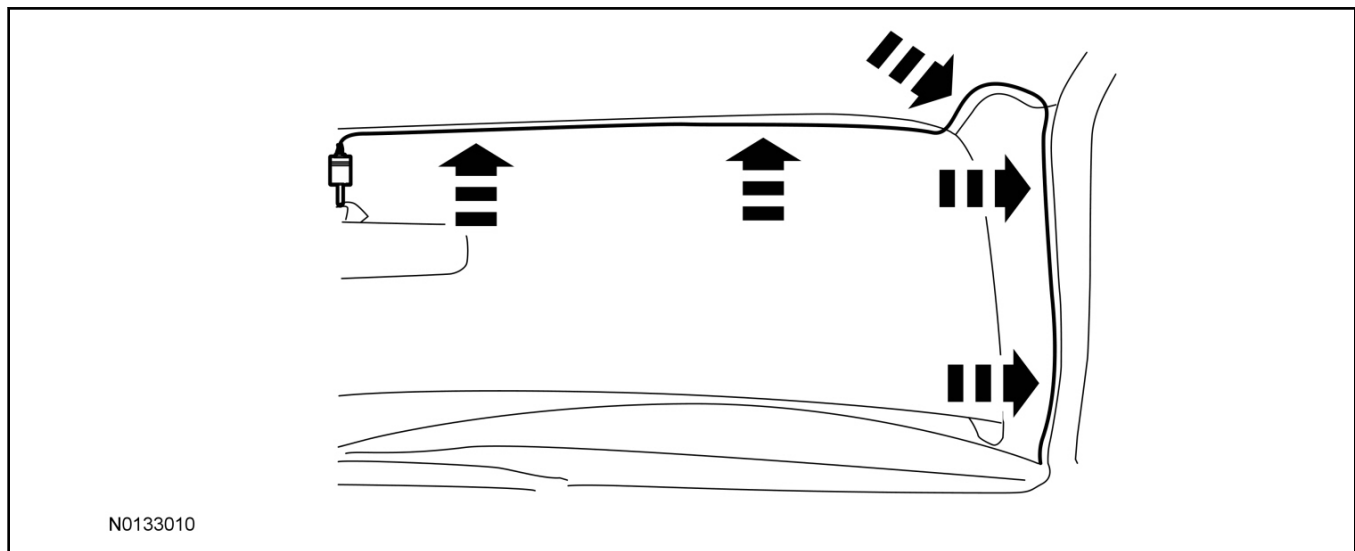
**NOTE:**

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

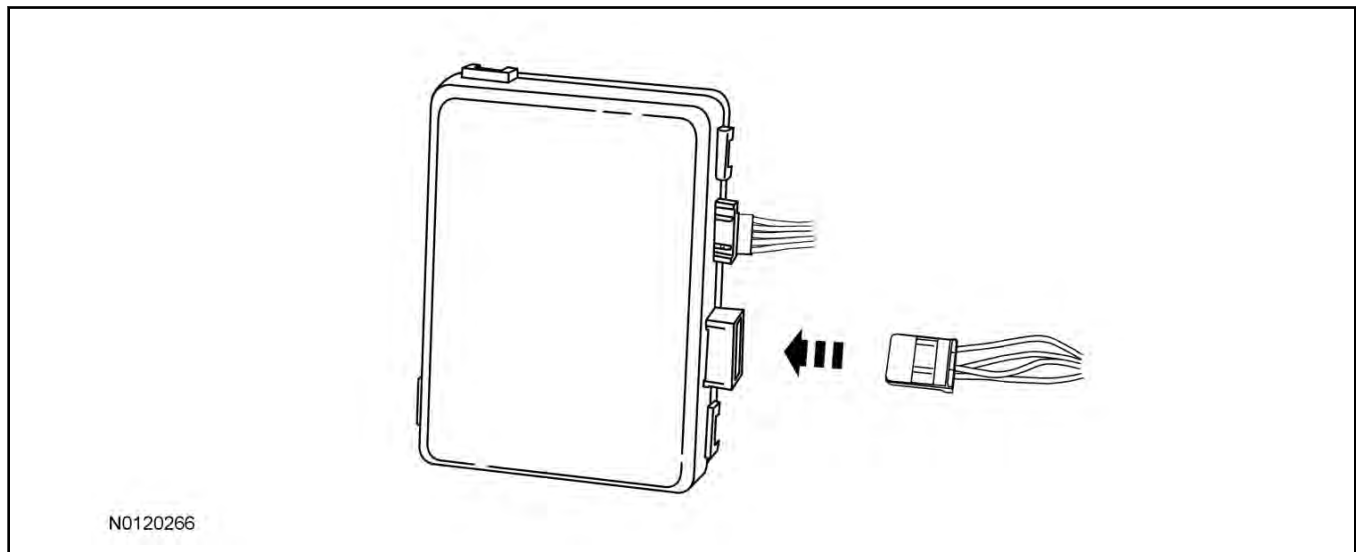
21. Remove the protective backing from the adhesive on the antenna and firmly press the body of the antenna to the windshield.

**INSTALLATION (Continued)****22. 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.

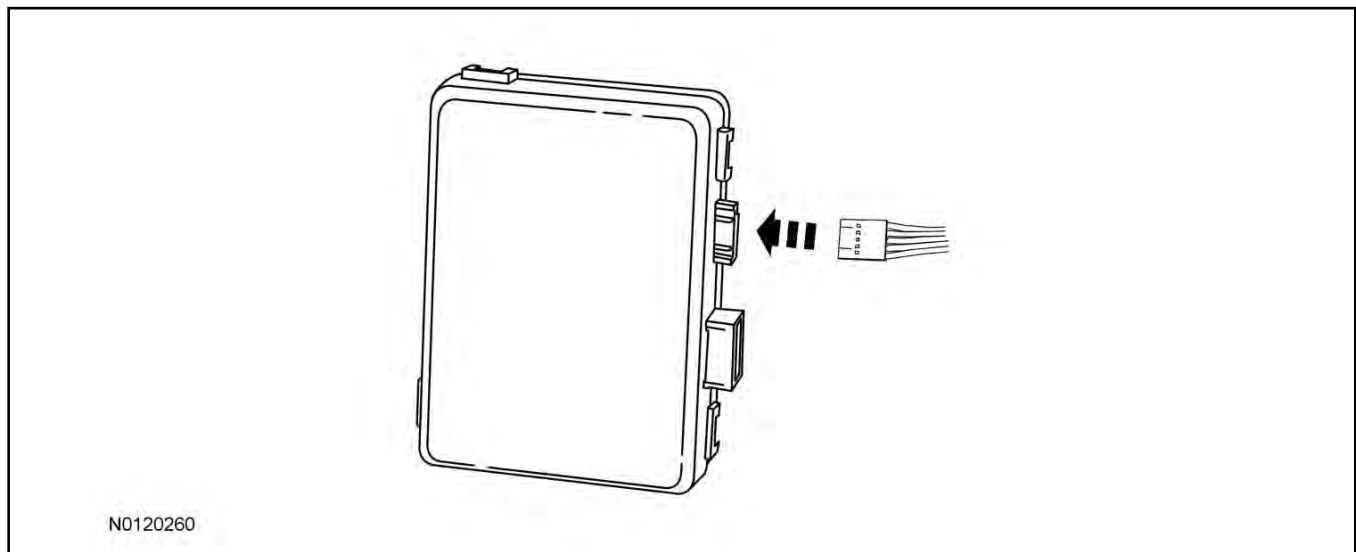
**Installation****23. Connect the T-harness to the CGEA module.**



**INSTALLATION (Continued)**

24. Connect the antenna to the CGEA module.

- Secure the antenna harness with tie-straps.



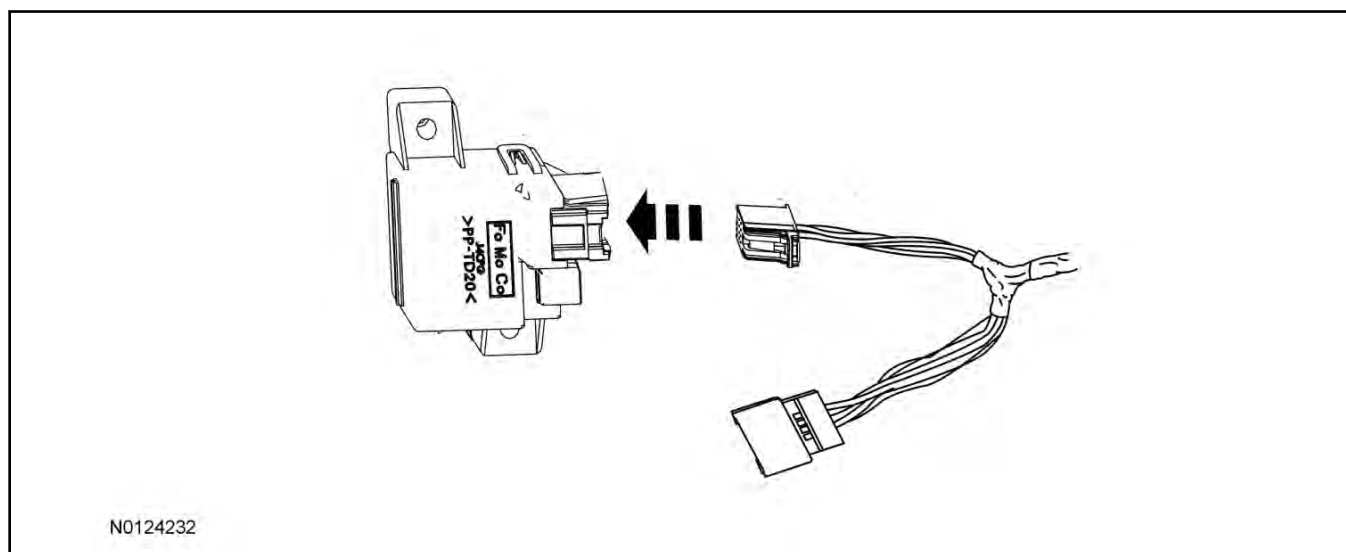
25. Position the CGEA module into the glove box opening. Secure the CGEA module to the air duct with tie-straps.

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

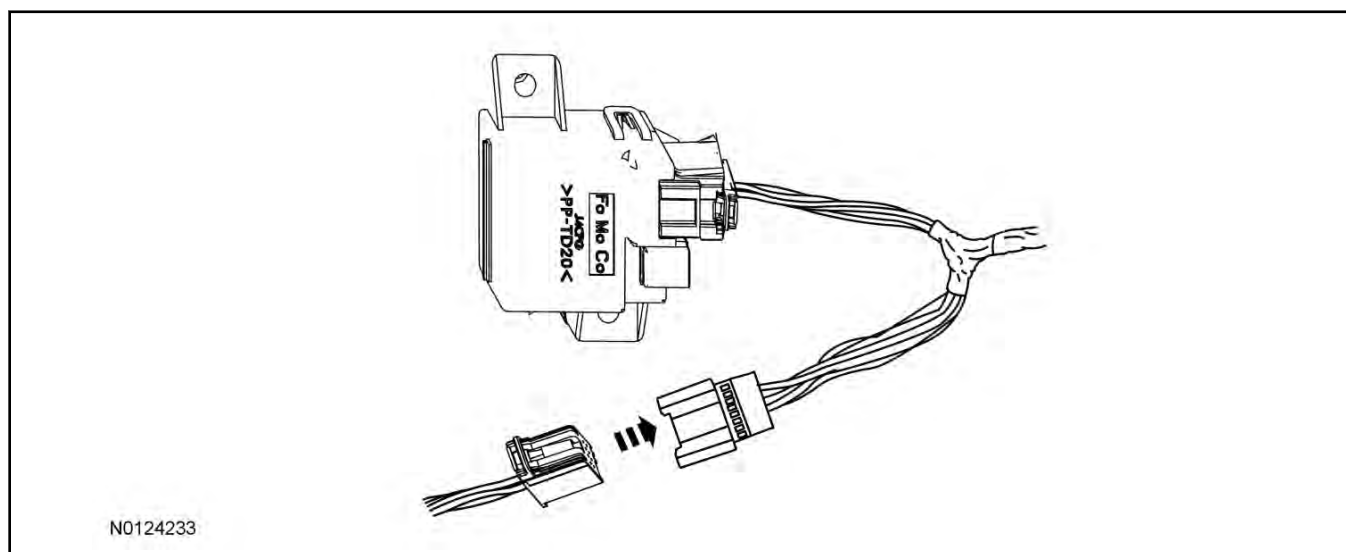
26. Route the female end of the T-harness to the TPM module.

- Secure the harness with tie-straps.

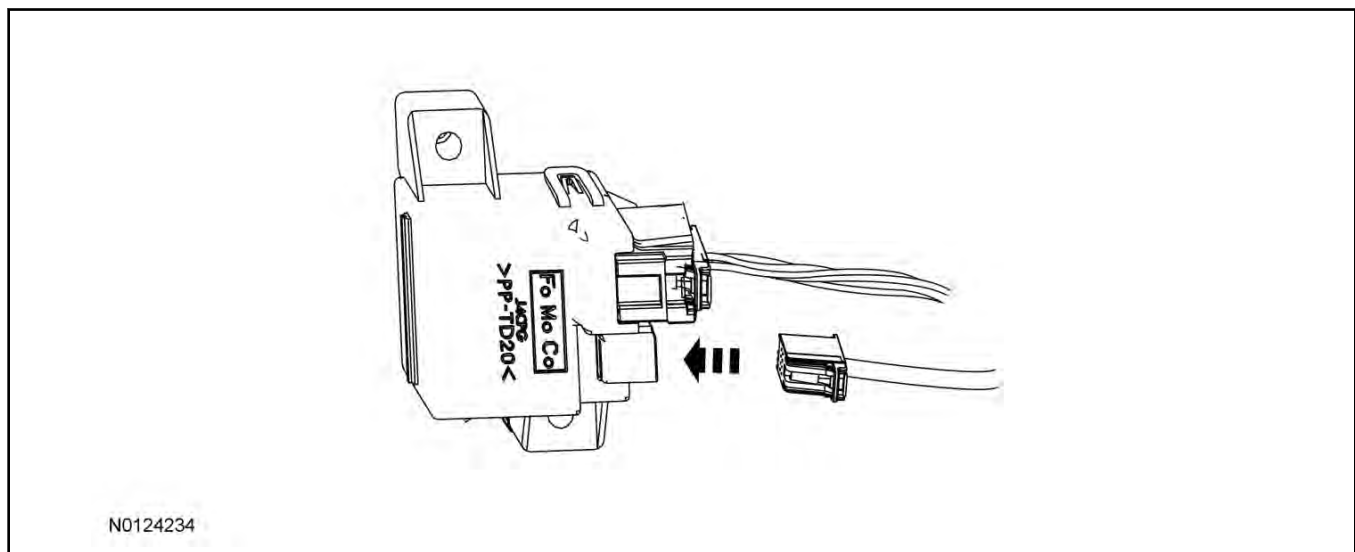
27. Connect the female end of the 8-pin T-harness to the TPM module.

**INSTALLATION (Continued)**

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



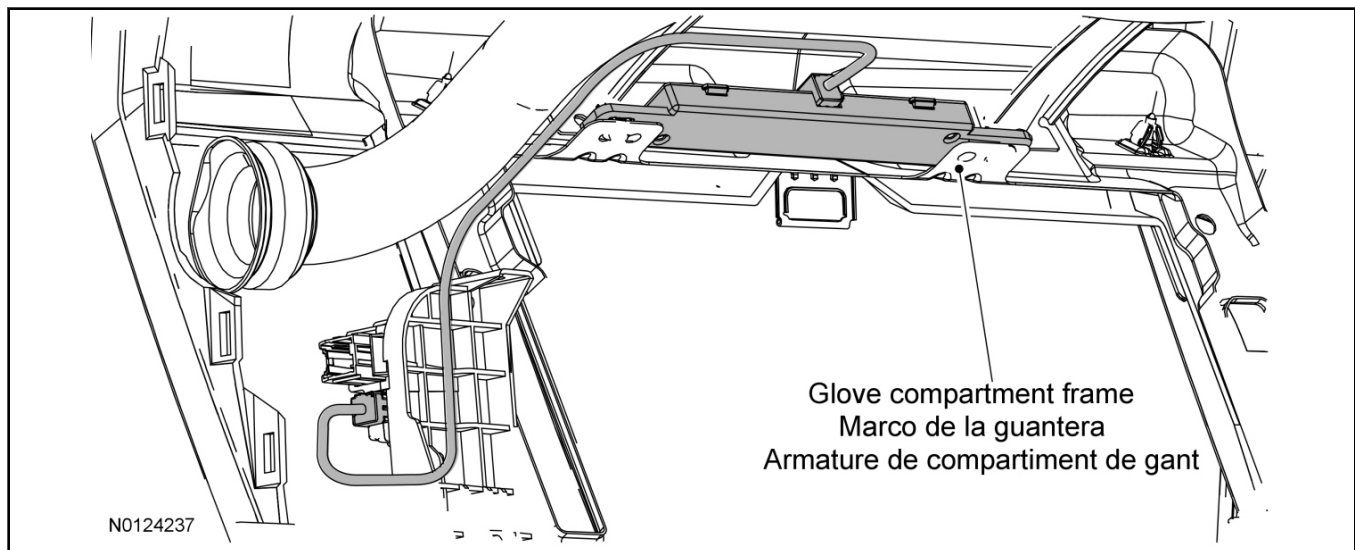
29. Connect the antenna jumper wire to the TPM module.

**INSTALLATION (Continued)****30. 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 through the existing bracket holes.

**31. 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.

**32. 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.

**33. Install the RH A-pillar trim panel.**

**INSTALLATION (Continued)**

34. If equipped with a speaker in the A-pillar trim panel, connect the speaker electrical connector.
35. Install the assist handle bolts.
  - Tighten to 8 Nm (71 lb-in).
36. Install the passenger side assist handle bolt covers.
37. Install the RH Instrument panel side finish panel.

**Remote Start Activation**

38. Verify that the IDS is updated to the most current version.
39. Connect IDS.
  - Follow the prompts to select new vehicle session.
  - Confirm VIN.
40. 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.
41. 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 through the options and verify that the remote start option appears.
  - Select ok and verify that the remote start system is enabled.
42. 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.
  - Select remote start.
  - Select duration.
  - Verify that the remote start system is set to 10 minutes.

**Learn Remote Start System to Vehicle****NOTE:**

Ensure the brake pedal is not depressed during this sequence.

43. Press the vehicles unlock button located on the drivers door, make sure all doors are unlocked.
44. Put the key in the ignition.

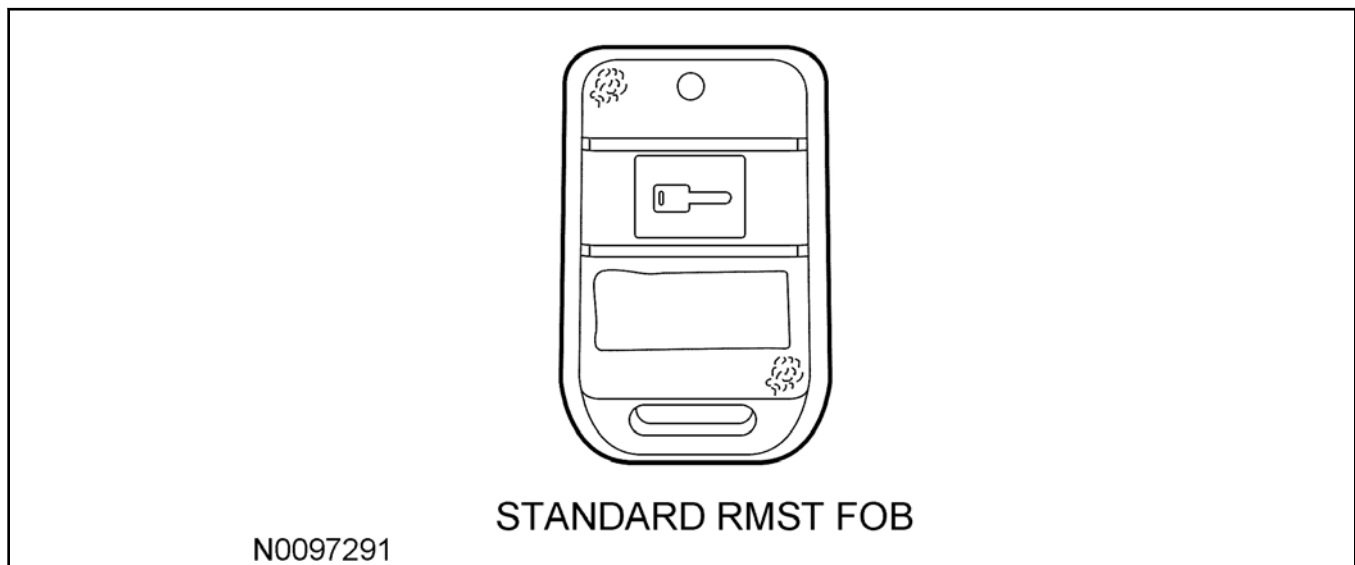
**INSTALLATION (Continued)**

45. 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.
46. Press the panic button on the 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.

**Standard RMST Functional Test****NOTE:**

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

47. Make sure the ignition is in "park" and the ignition is in the "off" position, remove all keys from the vehicle.
48. Close the hood.
49. Close all of the vehicle doors.
50. Start the vehicle by pressing and holding the remote start button on the remote start key fob for more than 2 seconds.



51. Confirm the remote start works with the vehicle in park and with the hood and doors closed.
52. 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.
53. Open the hood.
54. **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.**

**INSTALLATION (Continued)****Bi-directional RMST Functional Test****NOTE:**

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

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.



56. Make sure the ignition is in "park" and the ignition is in the "off" position, remove all keys from the vehicle.
57. Close the hood.
58. Close all of the vehicle doors.
59. Start the vehicle by pressing the remote start button 2 times on the bi-directional key fob.
60. Confirm the remote start works with the vehicle in park and with the hood and doors closed.
61. 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.
62. Open the hood.
63. **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.**

# **QG'REMOTE START SYSTEM INSTALLATION**

## **CONTENTS**

### **VEHICLE PREPARATION**

[Hood Switch Kit Installation](#)

[Spare Key Programming](#)

### **INSTALLATION**

[Remote Start](#)

### **GENERAL PROCEDURES**

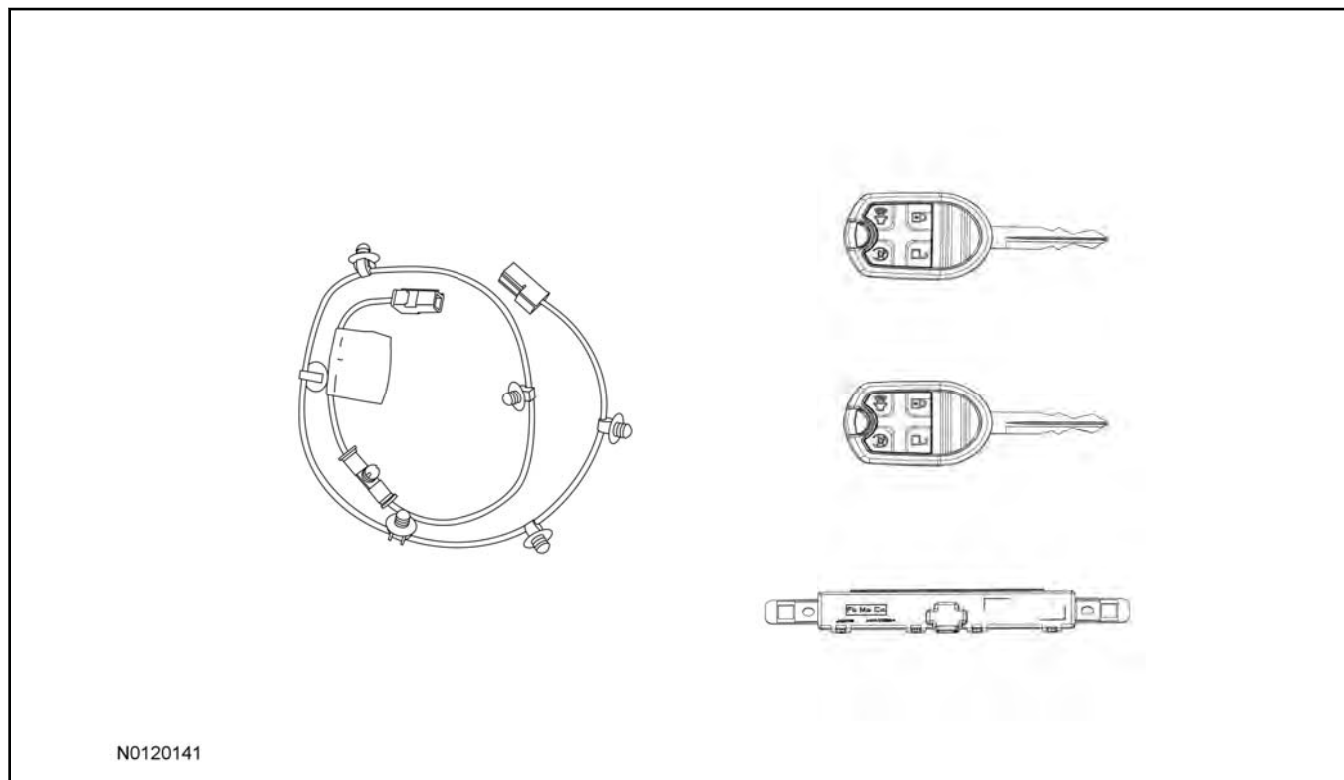
[Remote Start System Activation](#)

[Functional Test](#)

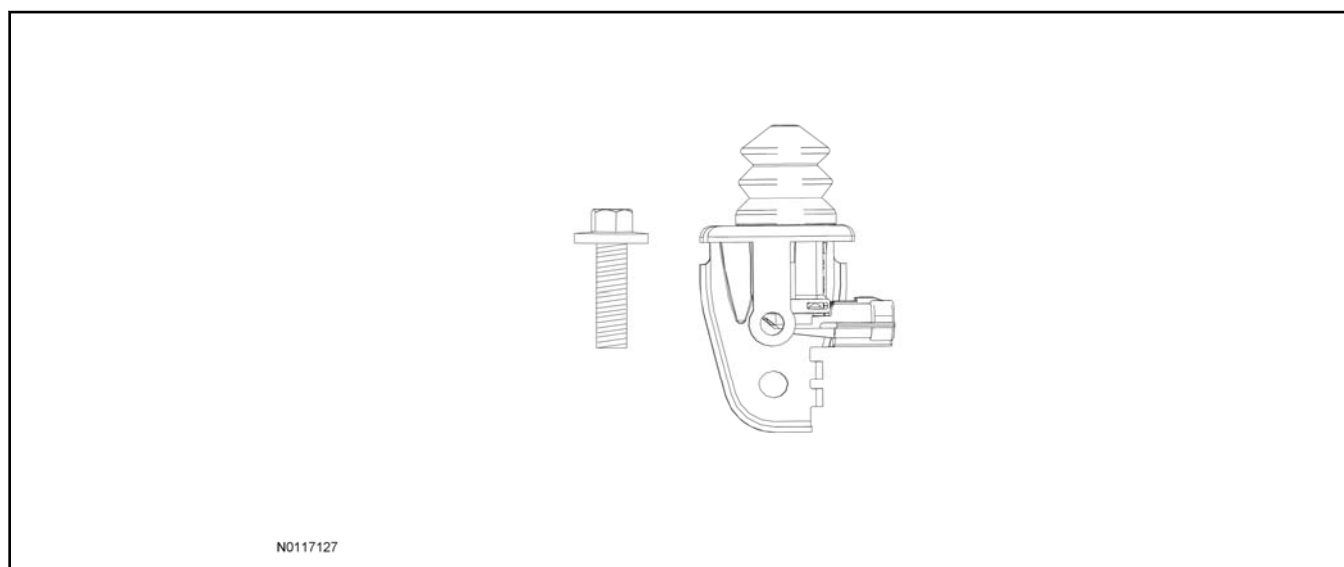
## INSTALLATION

### Remote Start

#### Remote Start System RMST Components



#### Hood switch Kit Components - Sold separately if needed



### F-Super Duty

NOTE: The OE Remote Start kit is only applicable on vehicles that have power locks.

1. Verify correct kit number.



**INSTALLATION (Continued)****Review Remote Start Installation Kit Contents**

2. Review the RMST kit contents.

**Remote Start System OE Kit (RMST)**

QUANTITY	DESCRIPTION
2	Key (4 Button)
1	Antenna Jumper Wire
1	Antenna Module

**Review Hood Switch Kit Contents**

3. Review the Hood Switch kit contents.

**Hood Switch OE Kit**

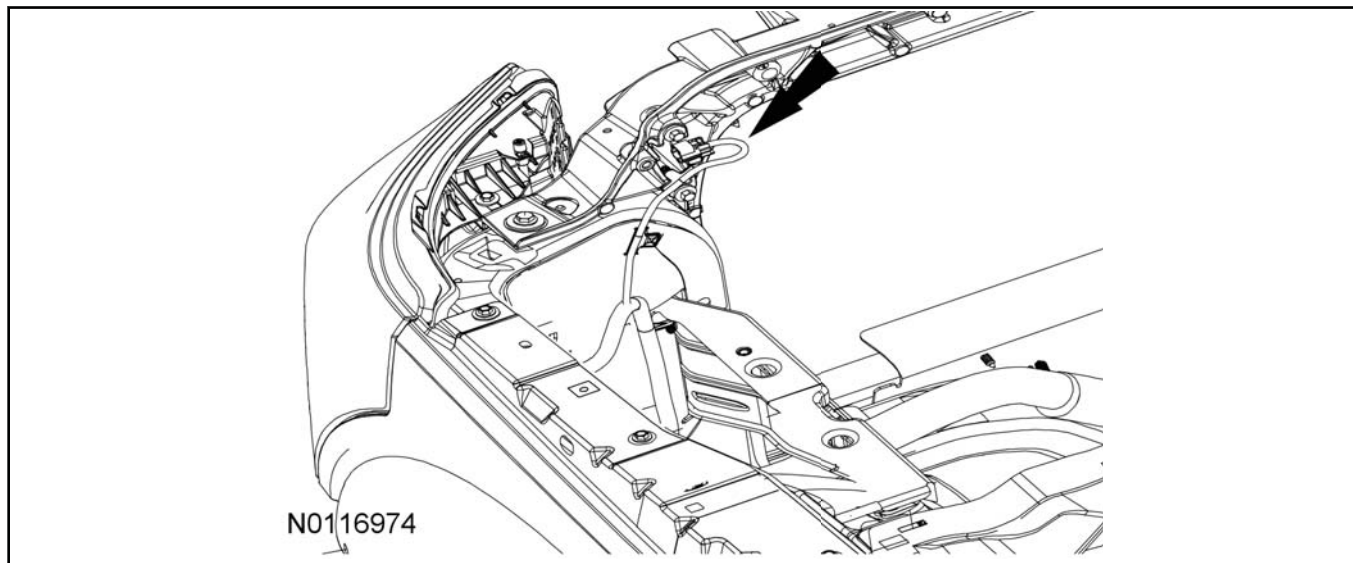
QUANTITY	DESCRIPTION
1	Bolt
1	Hood Switch Assembly

**Vehicle preparation**

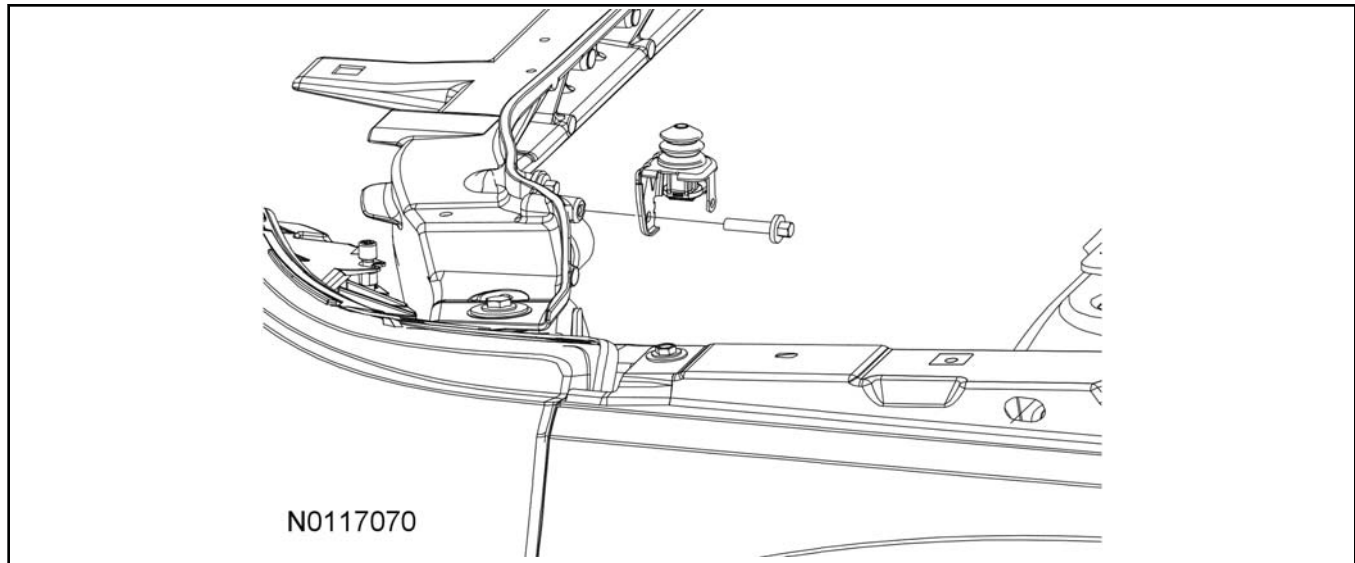
4. Verify that a OE hood switch is installed.
- If the vehicle is not equipped with a OE hood switch see hood switch installation in this procedure.

**Hood Switch Installation**

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



6. Install the Hood switch assembly to the existing hood switch mounting on the upper radiator core support as shown.
- Install the bolt.
  - Tighten to 10 Nm (89 lb-in).

**INSTALLATION (Continued)**

7. Connect the electrical connector to the hood switch.
8. Install the hood switch wire harness push pin retainer to the hood switch bracket.

**Spare Key Programming****NOTE:**

The hood switch is required for remote start activation.

**NOTE:**

Verify no related DTCs are present before beginning this procedure.

**NOTE:**

This procedure works only if 2 or more programmed keys are available. If 2 programmed keys are not available alternate programming methods in the workshop manual can be found at [www.fordtechservice.dealerconnection.com](http://www.fordtechservice.dealerconnection.com).

**NOTE:**

This procedure works only if the customer spare key programming is enabled. If customer spare key programming is disabled, refer to Key Programming — Enable/Disable Spare Key or Key Programming Using Diagnostic Equipment in the workshop manual located at [www.fordtechservice.dealerconnection.com](http://www.fordtechservice.dealerconnection.com).

9. Cut the provided 4-button keys, that are going to be programmed to match the existing keys.
10. Insert the first programmed Passive Anti-Theft System (PATS) key into the ignition and turn the key from the OFF position to the RUN position (maintain the key in the RUN position for approximately 3 seconds).
11. Turn the first key to the OFF position and remove the key from the ignition.
12. Within 10 seconds of turning the key to the OFF position, insert a second programmed PATS key into the ignition and turn the key from the OFF position to the RUN position (maintain the key in the RUN position for approximately 3 seconds).
13. Turn the second key to the OFF position and remove the key from the ignition.

**INSTALLATION (Continued)****14. NOTE:**

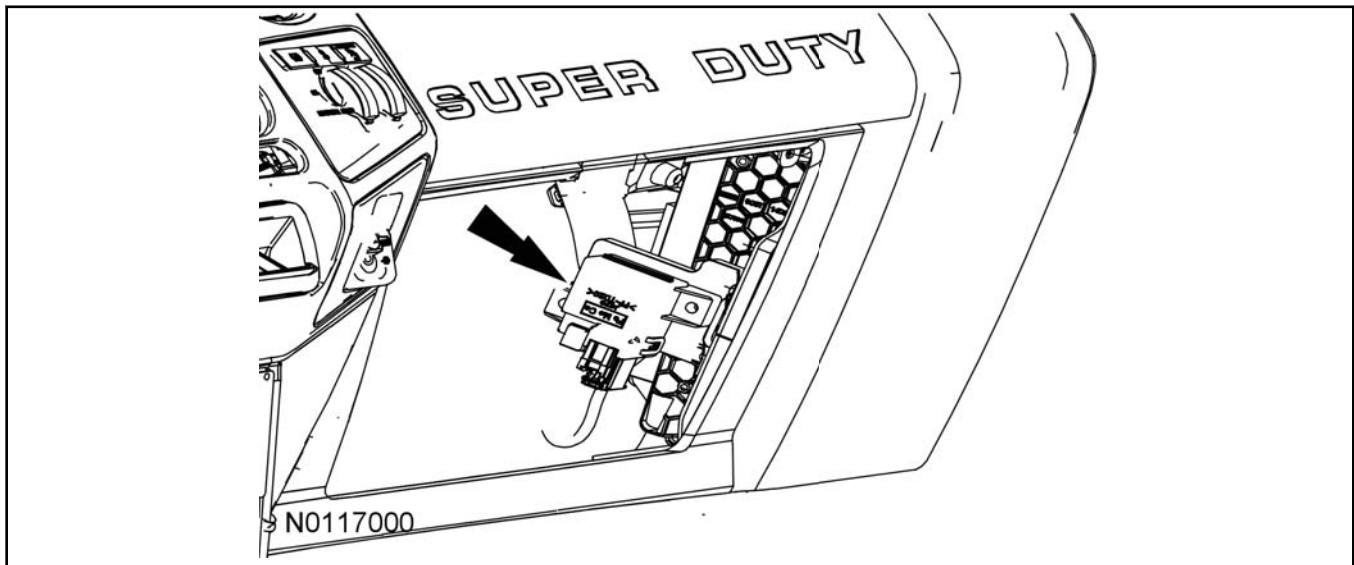
The doors lock and then unlock to confirm that each Integrated Key Transmitter (IKT) is programmed.

Within 10 seconds of turning the second key to the OFF position, insert the new, unprogrammed PATS key into the ignition and turn the key from the OFF position to the RUN position (maintain the key in the RUN position for approximately 3 seconds).

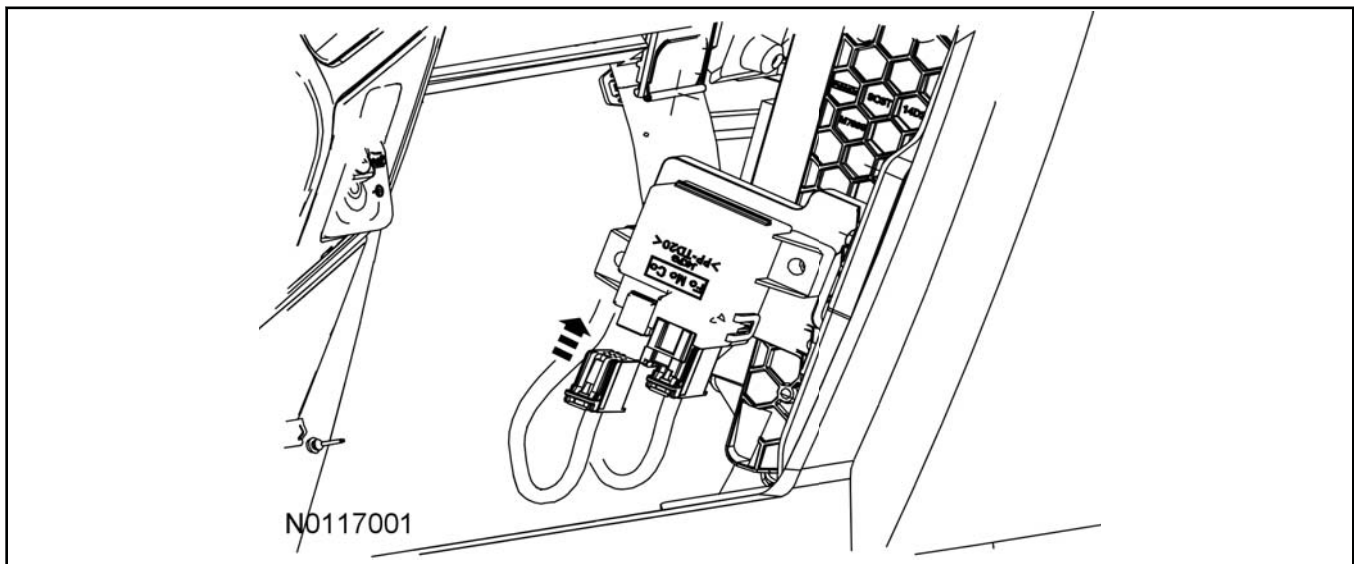
15. If it is desired to program additional key(s) (up to a total of 4 keys can be programmed), repeat Steps 1 - 5 for each additional key.

**Installation**

16. Open the glove compartment and empty the contents.
17. Push in the 2 side tabs and fully lower the glove compartment.
18. Locate the TPM module.



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



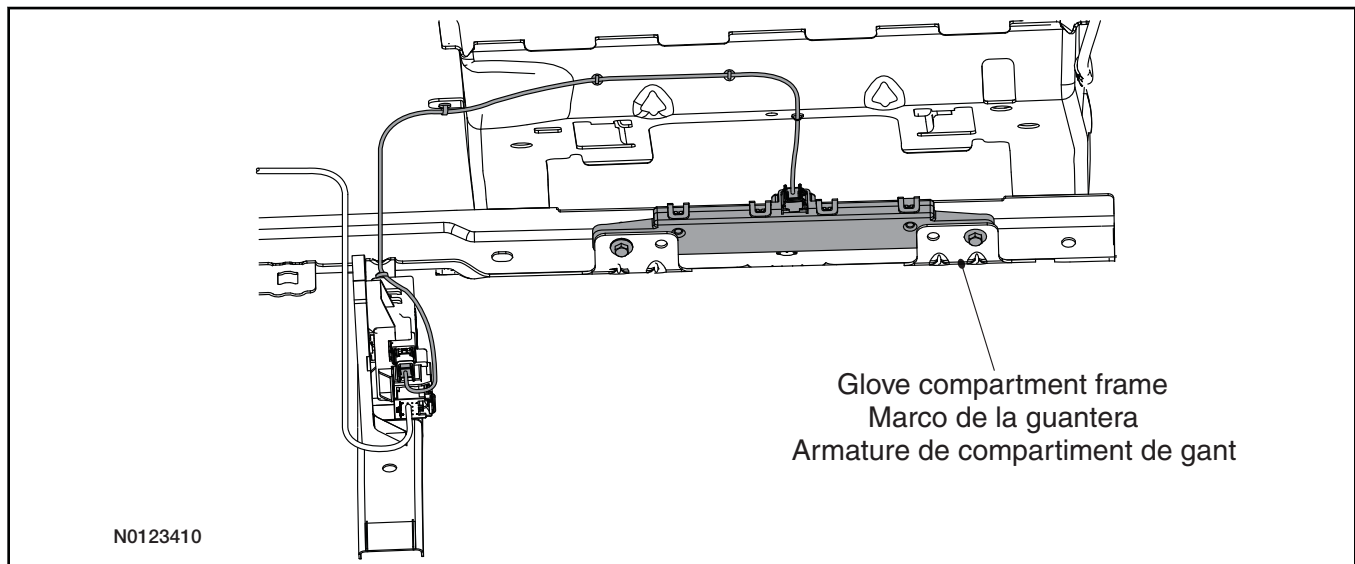
**INSTALLATION (Continued)****20. NOTE:**

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.



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

- Secure the antenna module with tie straps through the existing bracket holes.

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

**23. NOTICE:**

**While closing the glove compartment make sure that the antenna and antenna module do not come in contact with the glove compartment door.**

Close the glove compartment.

**Remote Start Activation**

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

25. Connect IDS.

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

26. 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.

**INSTALLATION (Continued)**

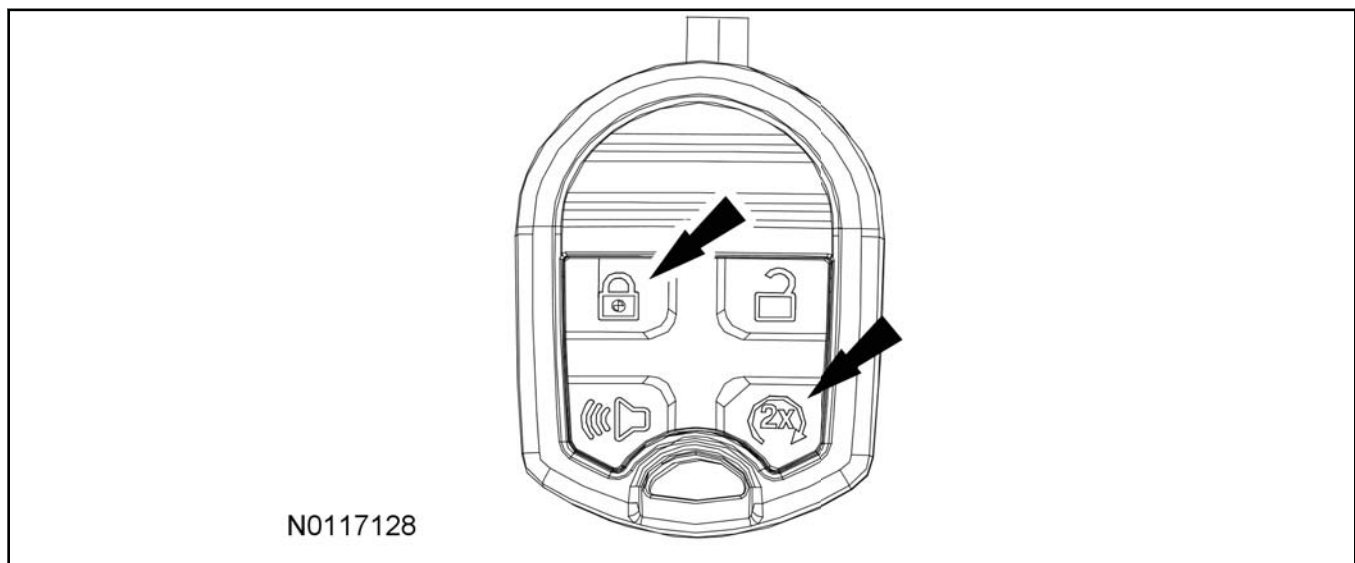
- Select Yes, this will enable the Remote Start function on the vehicle.
27. For vehicles equipped with standard message center, verify that the remote start option now appears.
- Using the select button on the LH side of the steering wheel, cycle through the options and verify that the remote start option appears.
  - Select ok and verify that the remote start system is enabled.
28. 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.
  - Select remote start.
  - Select system.
  - Verify that the remote start system is enabled.

**Functional Test****NOTE:**

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

29. Make sure the ignition is in "park" and the ignition is in the "off" position, remove all keys from the vehicle.
30. Close the hood.
31. Close all of the vehicle doors.
32. **NOTE:**  
Verify that all of the newly programmed keys function properly.

Start the vehicle by pressing the lock button once, then the remote start button 2 times on the newly programmed key.



---

**INSTALLATION (Continued)**

33. Confirm the remote start works with the vehicle in park and with the hood and doors closed.
34. Enter the vehicle and confirm that the vehicle shuts down when attempting to shift out of park.
35. Open the hood.

36. **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.**

# REMOTE START SYSTEM INSTALLATION

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### VEHICLE PREPARATION

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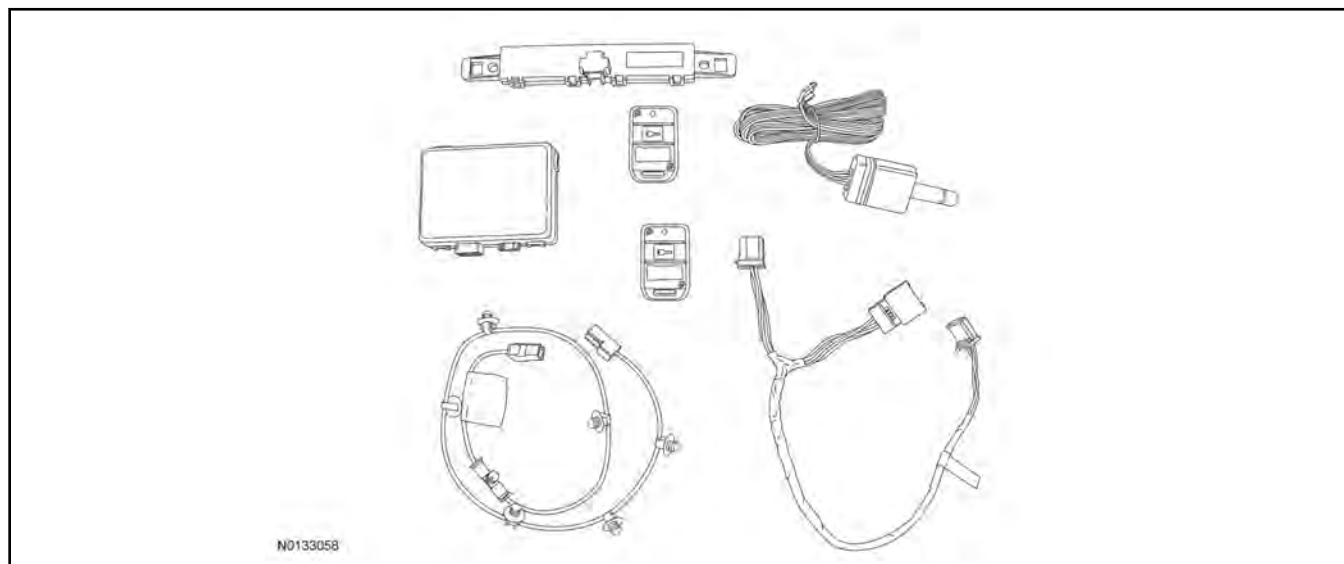
[Standard RMST - Functional Test](#)

[Bi-directional RMST - Functional Test](#)

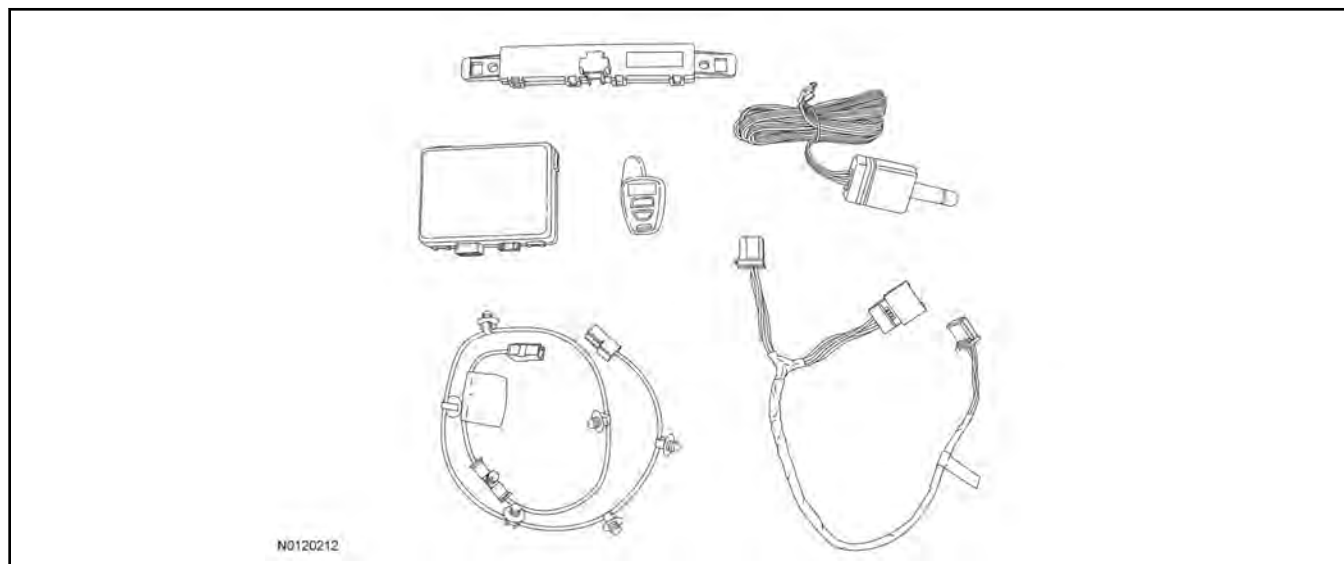
## INSTALLATION

### Remote Start

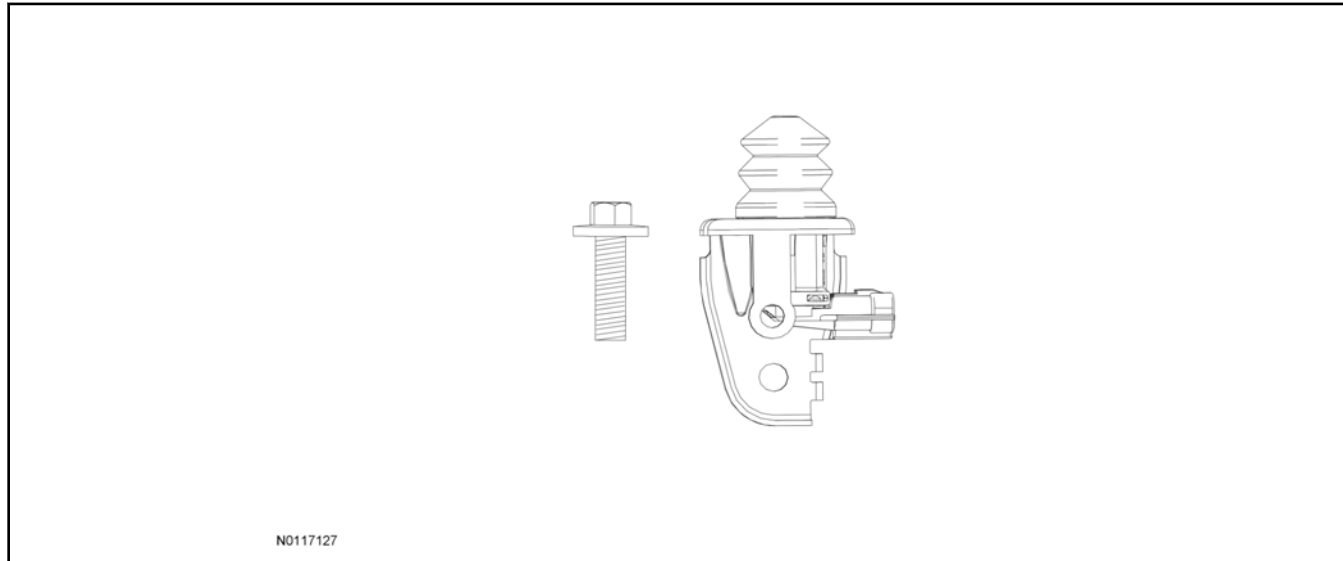
#### Standard Remote Start System (RMST) Components



#### Bi-directional Remote Start System (RMST) Components





**INSTALLATION (Continued)****Hood switch Kit Components - Sold separately if needed****F-Super Duty**

1. Verify correct kit number.

**Review Standard RMST Kit Contents**

2. Review the Standard RMST kit contents.

**Standard RMST Kit**

QUANTITY	DESCRIPTION
4	Ucpf ctf "3"Dwwqp"Mg{ 'Hqd
1	Antenna Jumper Wire
1	Antenna Module
1	Remote Start Module
1	Standard Antenna
1	T-harness

**Review Bi-directional RMST Kit Contents**

3. Review Bi-directional RMST Kit Contents

**Bi-directional RMST Kit**

QUANTITY	DESCRIPTION
3	Dk/f k ge v qp cnl Mg{ 'Hqd
1	Antenna Jumper Wire
1	Antenna Module
1	Remote Start Module
1	Bi-directional Antenna

**INSTALLATION (Continued)****Bi-directional RMST Kit(Continued)**

QUANTITY	DESCRIPTION
3	Dk f k ge v k p c n M g { ' H q d
1	T-harness

**Review Hood Switch Kit Contents**

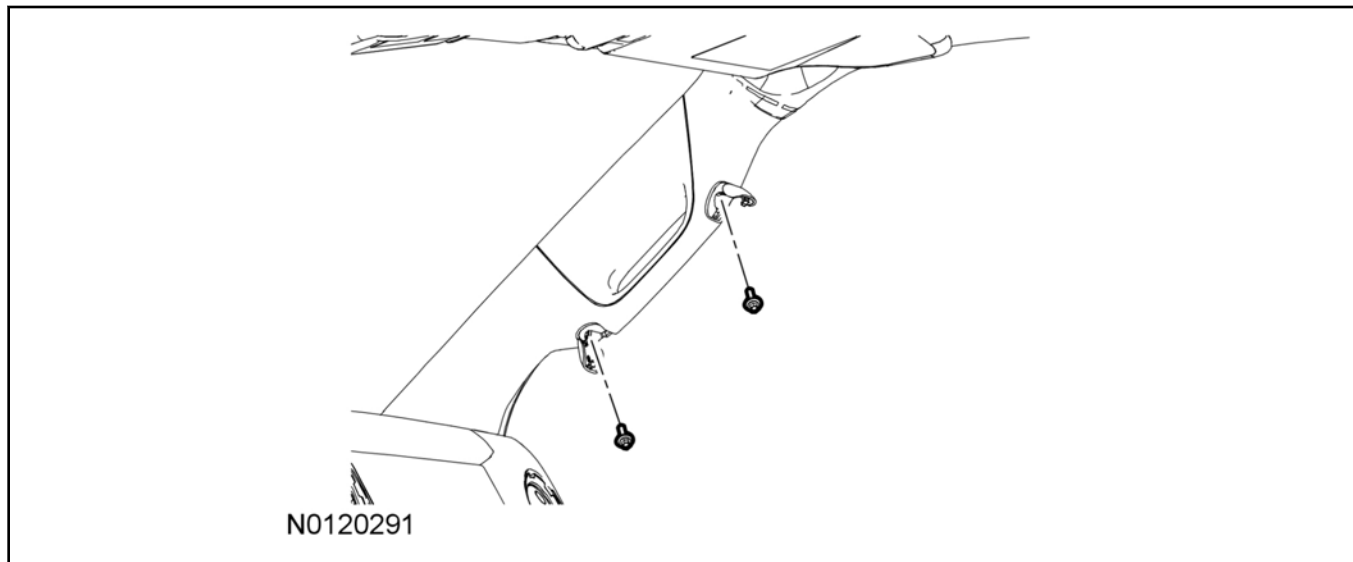
- Review the Hood Switch kit contents.

**Hood Switch OE Kit**

QUANTITY	DESCRIPTION
3	Dqrv
1	Hood Switch Assembly

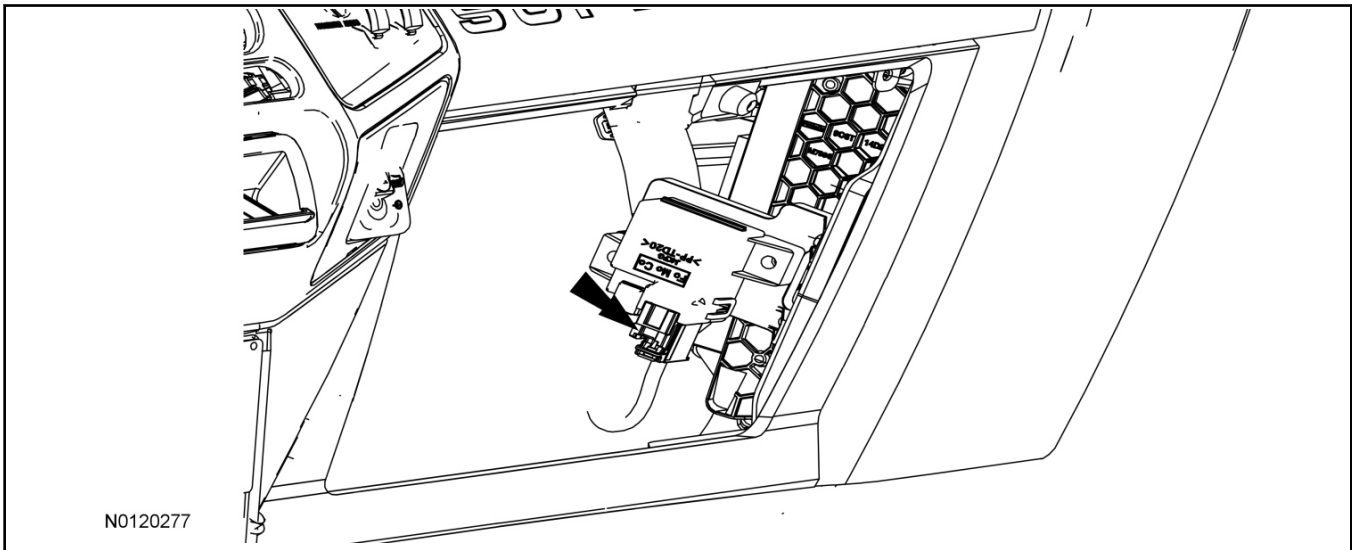
**Vehicle preparation**

- 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.
- Remove the RH instrument panel side trim.
- Open the RH A-pillar trim panel bolt covers.
- Loosen the RH A-pillar trim panel bolts.

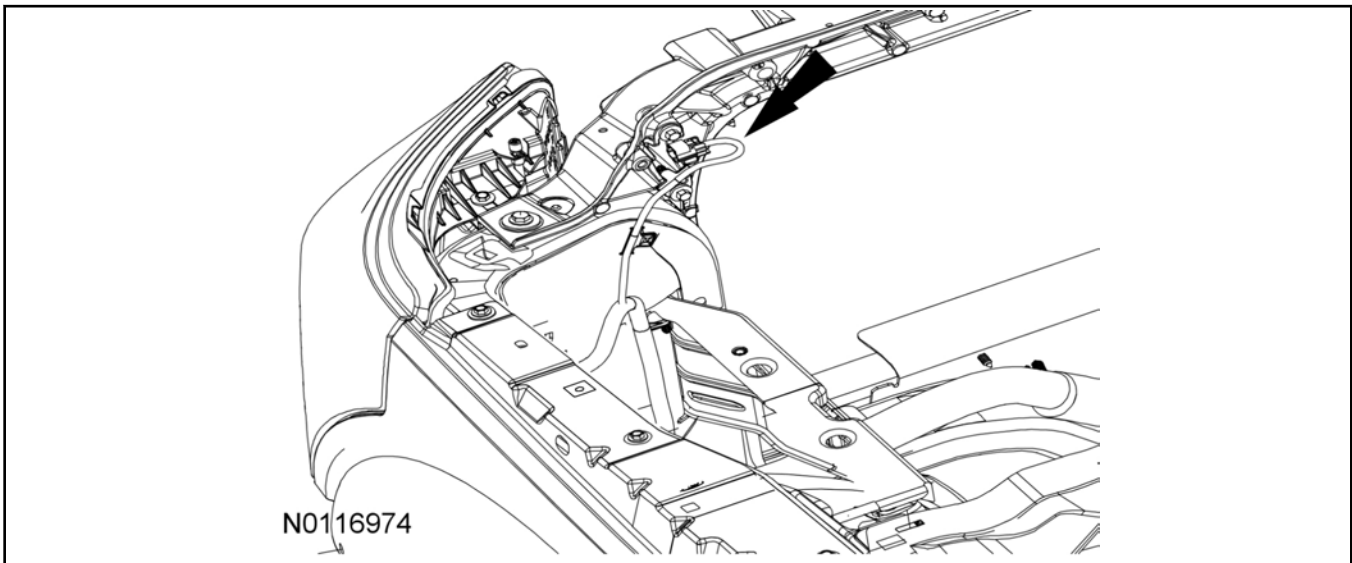
**NOTE:**

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

- Remove the RH A-pillar trim panel.
- Open the glove compartment and empty the contents.
- Push in the 2 side tabs and fully lower the glove compartment.
- Disconnect the TPM module.

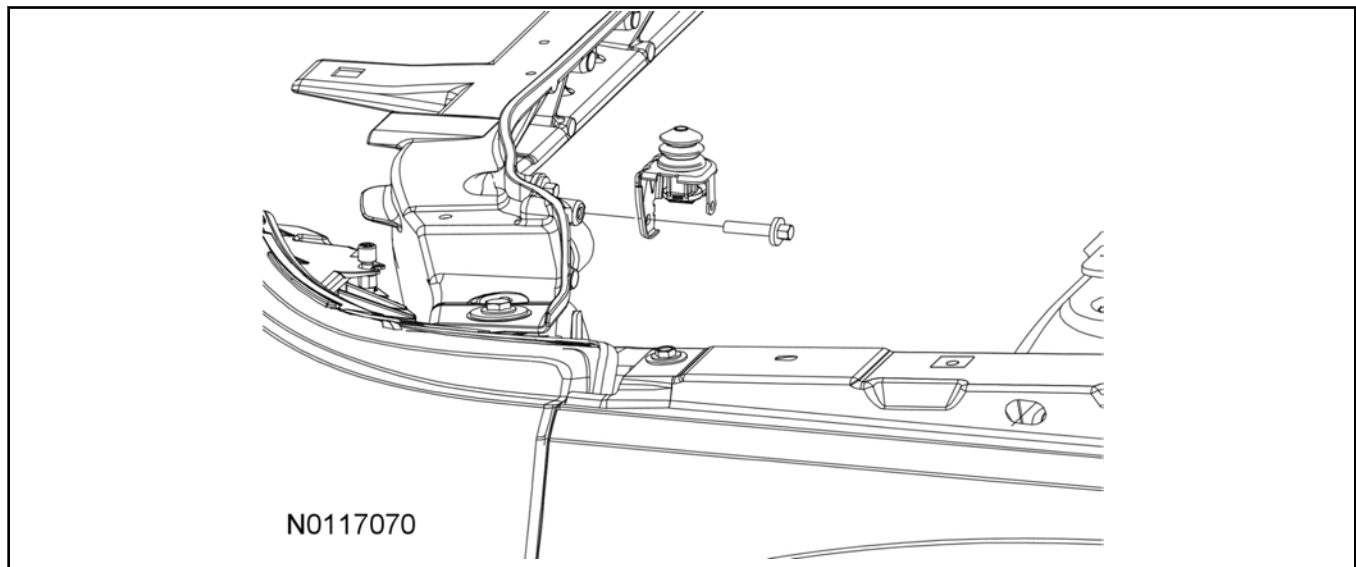
**INSTALLATION (Continued)****Hood Switch Installation (If Required)**

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



14. Install the Hood switch assembly to the existing hood switch mounting on the upper radiator core support as shown.

- Install the bolt.
- Tighten to 10 Nm (89 lb-in).

**INSTALLATION (Continued)**

15. Connect the electrical connector to the hood switch.
16. Install the hood switch wire harness push pin retainer to the hood switch bracket.

**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.

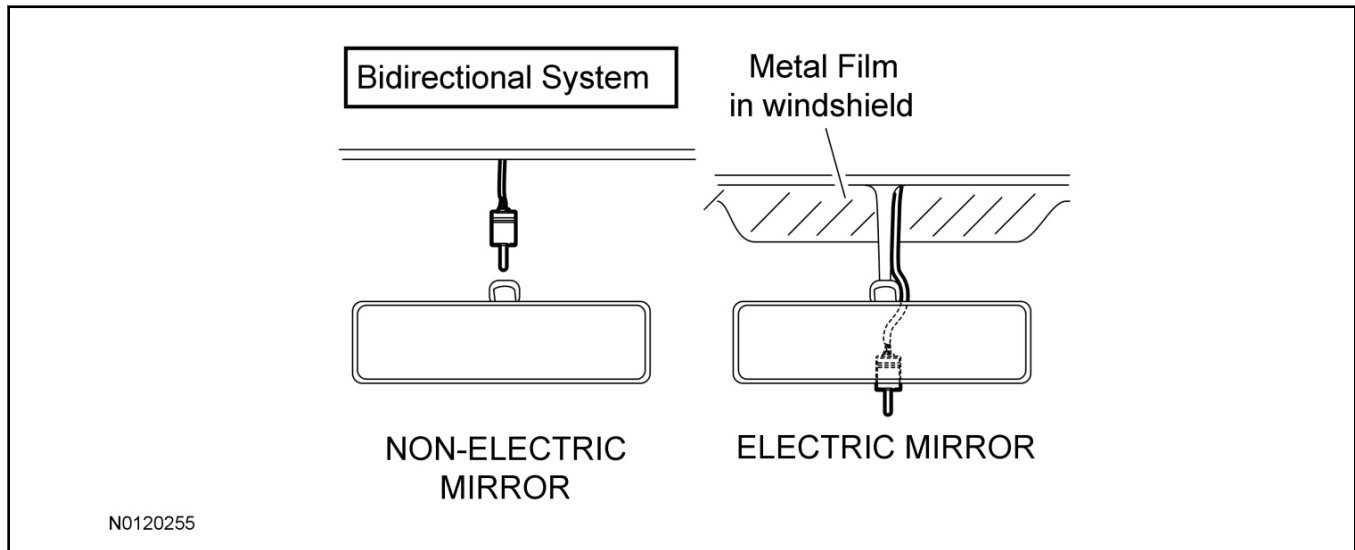
**NOTE:**

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.

**INSTALLATION (Continued)****NOTE:**

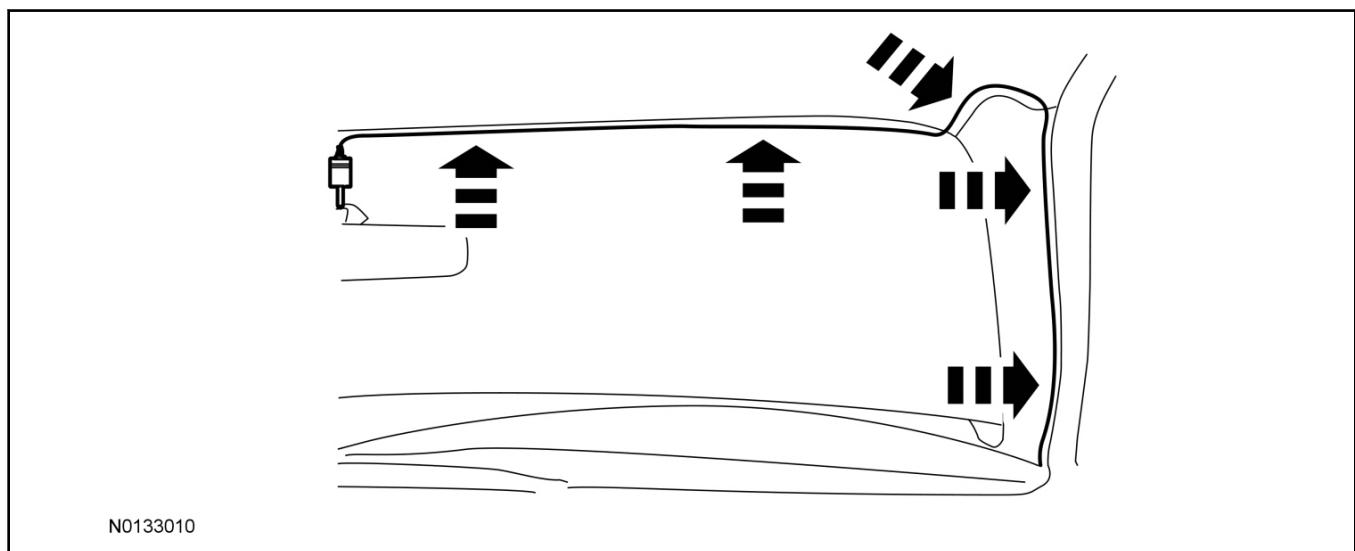
The wire will be attached to the control module later in this procedure.

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 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.

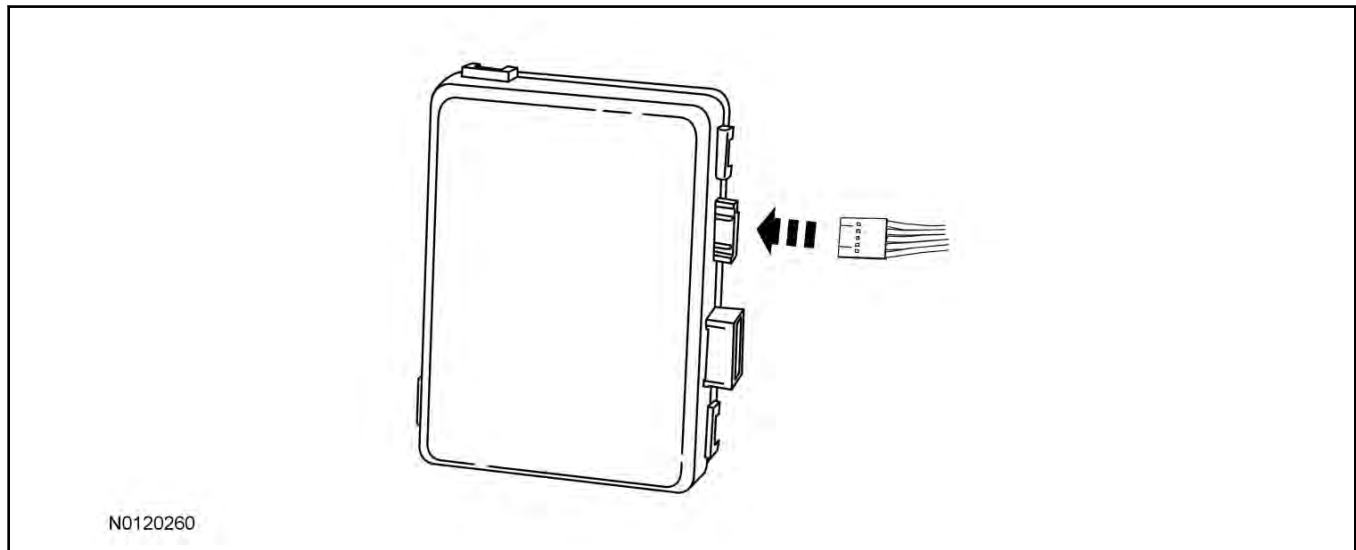
**Installation**

21. Install the CGEA module to the vehicle.

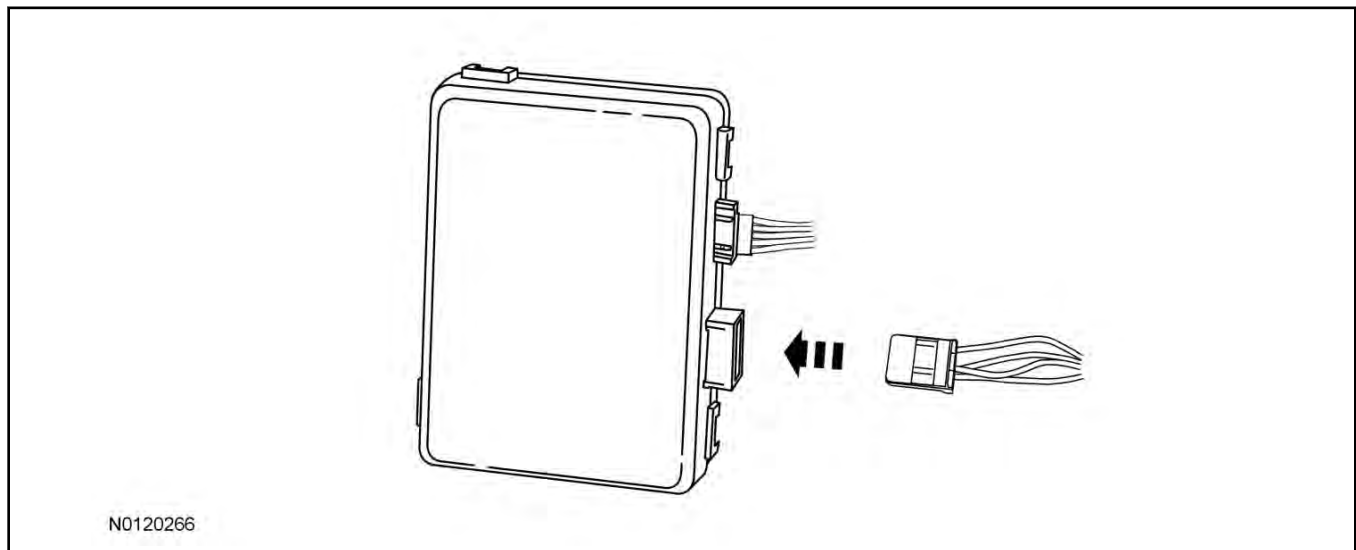
- Mount to the bulkhead metal surface behind and to the right of the TPM module.

**INSTALLATION (Continued)**

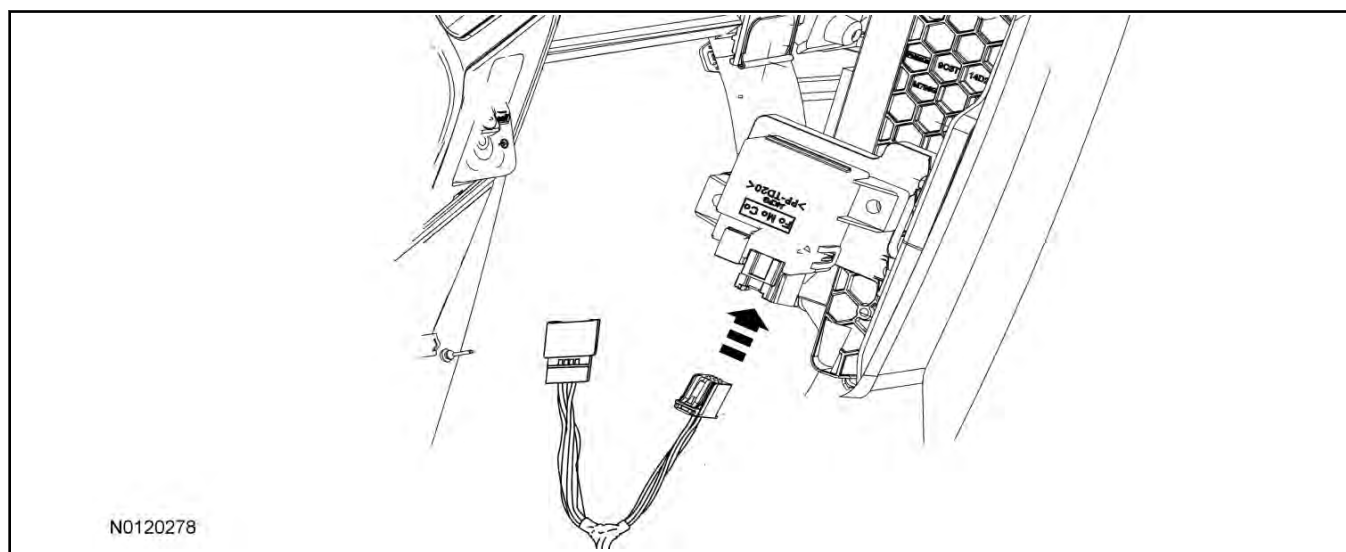
22. Connect the antenna to the CGEA module.
- Secure the antenna harness with tie-straps.



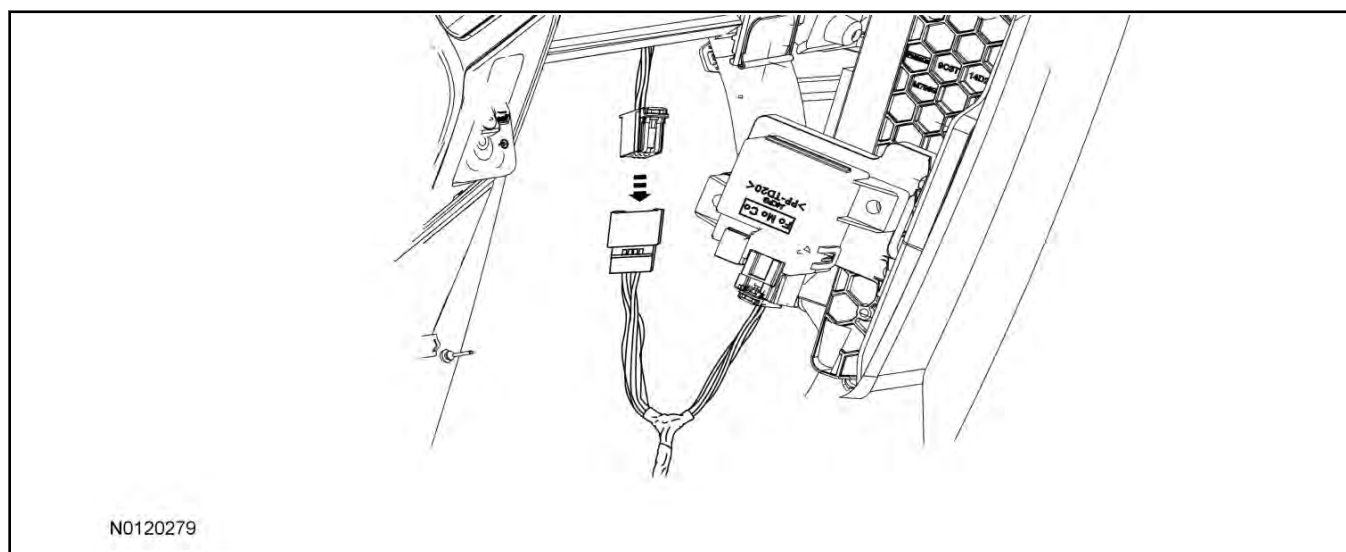
23. Connect the T-harness to the remote start module.



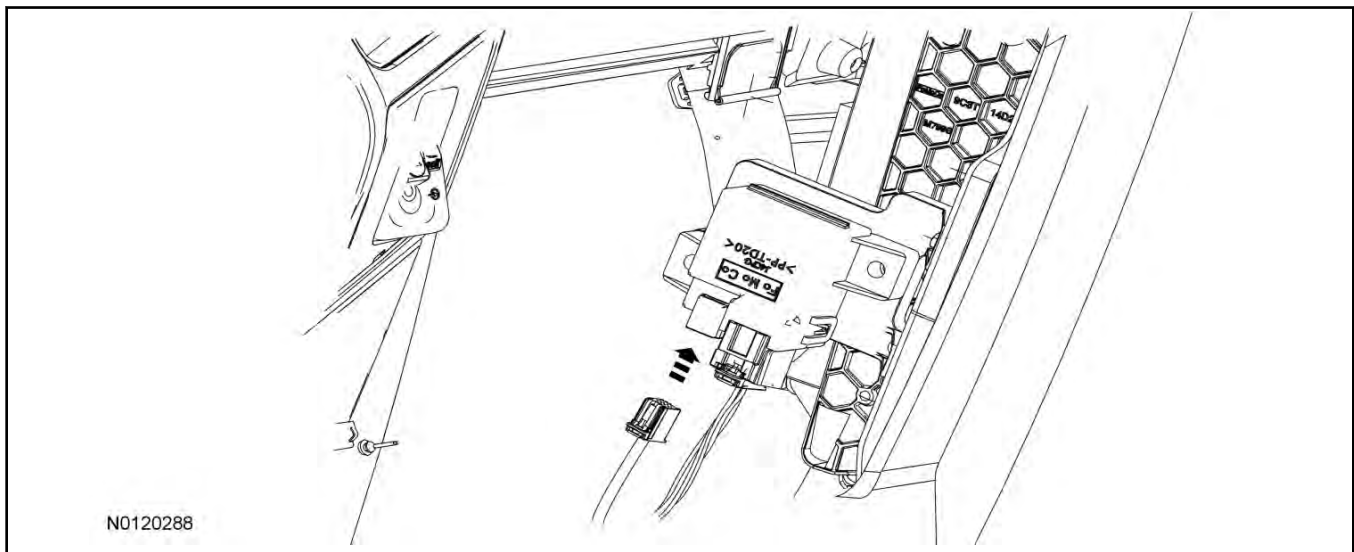
24. Route the female end of the T-harness to the TPM module.
- Secure the harness with tie-straps.
25. Connect the female end of the 8-pin T-harness to the TPM module.

**INSTALLATION (Continued)**

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



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

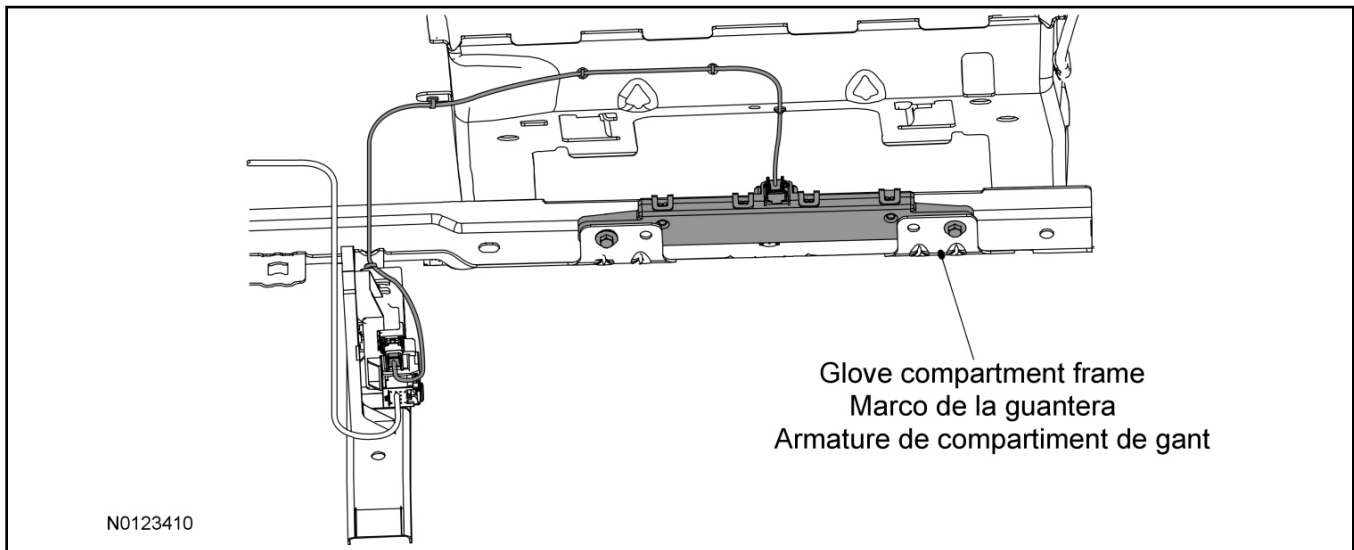
**INSTALLATION (Continued)****28. NOTE:**

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.



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

- Secure the antenna module with tie straps through the existing bracket holes.

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

**31. NOTICE:**

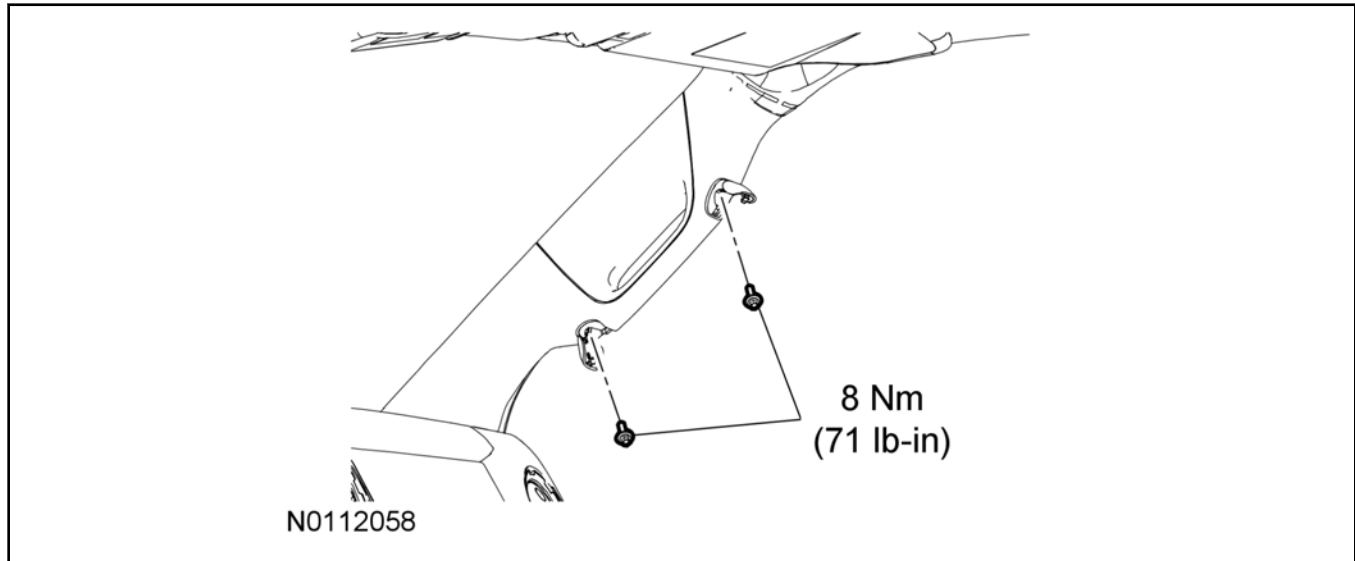
**While closing the glove compartment make sure that the TPM harness and antenna harness do not come in contact with the glove compartment door.**

Close the glove compartment.



**INSTALLATION (Continued)**

32. Install the RH A-pillar trim panel.
33. Tighten the RH A-pillar trim panel bolts.
  - Tighten to 8 Nm (71 lb-in).



34. Close the RH A-pillar trim panel bolt covers.
35. Install the RH instrument panel side trim.

**Remote Start Activation**

36. Verify that the IDS is updated to the most current version.
37. Connect IDS.
  - Follow the prompts to select new vehicle session.
  - Enter VIN.
38. 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.
39. 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 through the options and verify that the remote start option appears.
  - Select ok and verify that the remote start system is enabled.

**INSTALLATION (Continued)**

---

40. 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.
- Select remote start.
- Select system.
- Verify that the remote start system is enabled.

**Learn Remote Start System to Vehicle****NOTE:**

Ensure the brake pedal is not depressed during this sequence.

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

42. Put the key in the ignition.

43. 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.

44. 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.

**Standard RMST Functional Test****NOTE:**

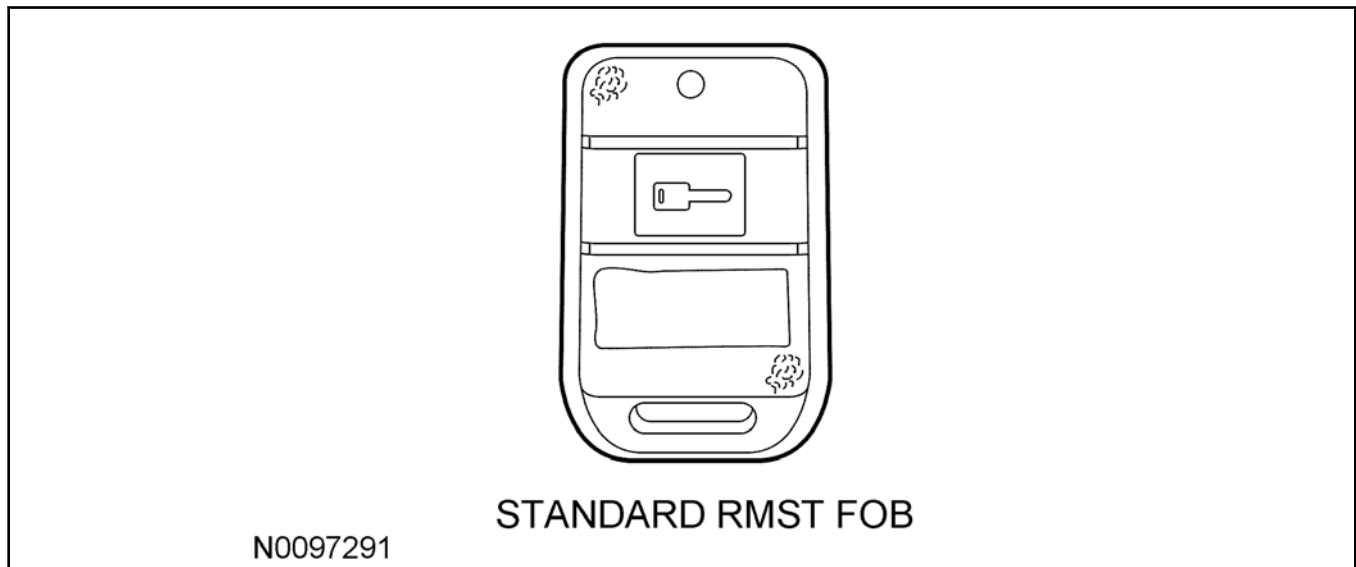
Do not put a key in the ignition for the following steps.

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

46. Close the hood.

47. Close all of the vehicle doors.

48. Start the vehicle by pressing and holding the remote start button on the remote start key fob for more than 2 seconds.

**INSTALLATION (Continued)**

49. Confirm the remote start works with the vehicle in park and with the hood and doors closed.
50. Enter the vehicle and confirm that the vehicle shuts down when attempting to shift out of park.
51. Open the hood.
52. **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.**

**Bi-directional RMST Functional Test****NOTE:**

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

53. 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.

**INSTALLATION (Continued)**

54. Make sure the ignition is in "park" and the ignition is in the "off" position, remove all keys from the vehicle.
55. Close the hood.
56. Close all of the vehicle doors.
57. Start the vehicle by pressing the remote start button 2 times on the bi-directional key fob.
58. Confirm the remote start works with the vehicle in park and with the hood and doors closed.
59. Enter the vehicle and confirm that the vehicle shuts down when attempting to shift out of park.
60. Open the hood.
61. **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.**

# REMOTE START SYSTEM INSTALLATION

## CONTENTS

### INSTALLATION

[Remote Start](#)

### GENERAL PROCEDURES

[Proper Wire Splicing Techniques](#)

[Programming - Standard](#)

[Functional Test - Standard](#)

[Programming - Bi-Directional](#)

[Functional Test - Bi-Directional](#)

[Troubleshooting](#)

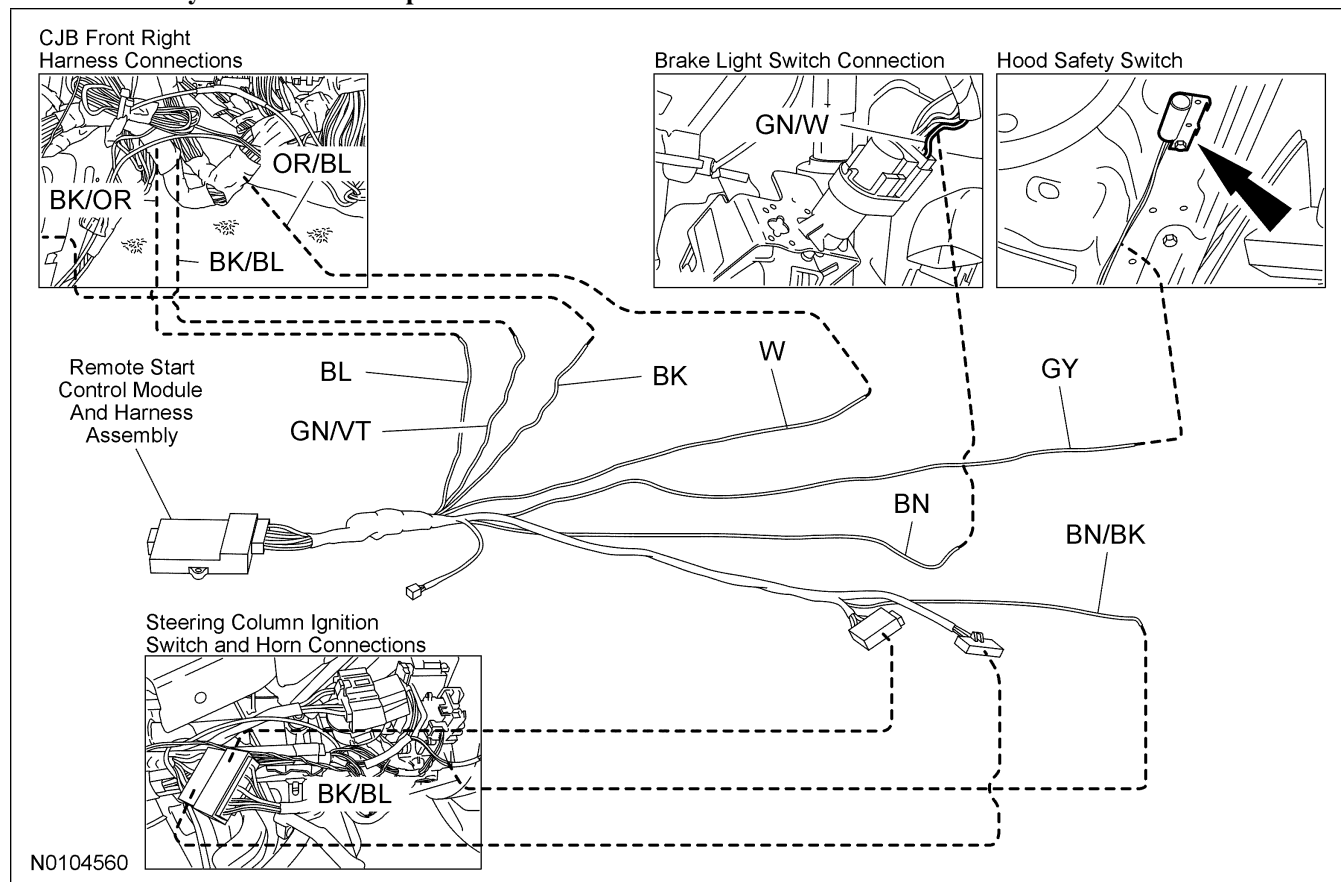
### WIRING DIAGRAMS

[Vehicle Specific Wiring Diagrams](#)

## INSTALLATION

### Remote Start

#### Remote Start System RMST Components



### Transit Connect

**NOTICE:** Remote start systems are only applicable to vehicles with automatic transmissions.

**NOTE:** Both original keys are required for all remote start systems on vehicles equipped with SECURILOCK.

1. Verify correct kit number.

**INSTALLATION (Continued)****Review Remote Start Installation Kit Contents**

**NOTE:** Kits are vehicle specific and are not interchangeable.

- Review the RMST kit contents.

**Remote Start System Standard Kit (RMST) Type - "A"**

QUANTITY	DESCRIPTION
1	TYPE - "A" MODULE ASSEMBLY
1	RMST SOFTWARE CARTRIDGE ASSEMBLY
2	1 BUTTON POWERCODE TRANSMITTER
1	TYPE - "A" CUSTOM WIRING HARNESS
1	ANTENNA
1	HOOD SAFETY SWITCH ASSEMBLY
1	INSTALLATION PARTS BAG
1	FUSE PARTS BAG
1	OPERATORS INSTRUCTIONS
1	OPERATORS QUICK REFERENCE WALLET CARD
1	UNDERHOOD WARNING LABEL
1	SECURILOCK INTERFACE KIT

- Review the RMST bidirectional kit contents.

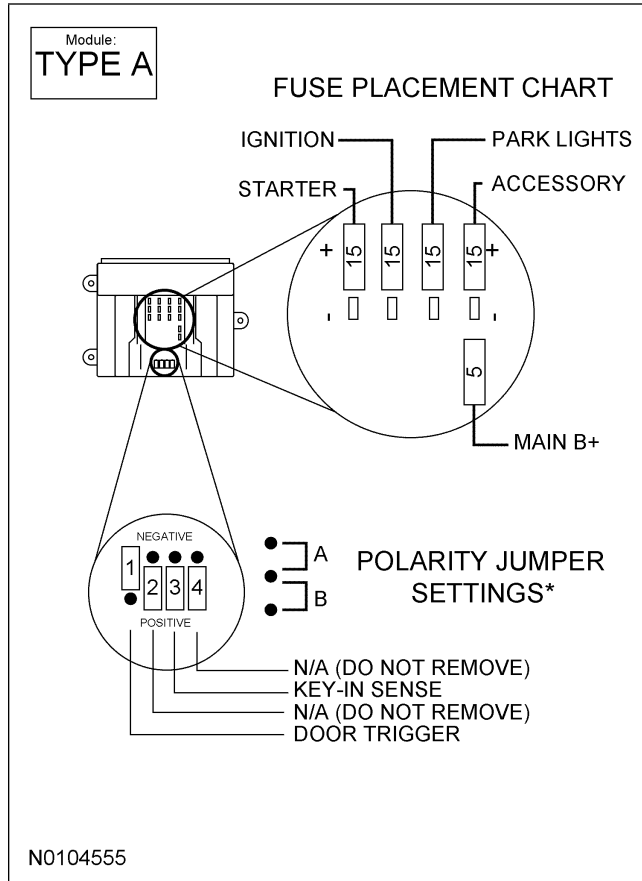
**Remote Start System Bidirectional Kit (RMST) Type - "A"**

QUANTITY	DESCRIPTION
1	TYPE - "A" MODULE ASSEMBLY
1	RMST SOFTWARE CARTRIDGE ASSEMBLY
1	2 BUTTON POWERCODE TRANSMITTER
1	TYPE - "A" CUSTOM WIRING HARNESS
1	ANTENNA
1	ANTENNA HARNESS
1	HOOD SAFETY SWITCH ASSEMBLY
1	INSTALLATION PARTS BAG
1	FUSE PARTS BAG
1	OPERATORS INSTRUCTIONS
1	OPERATORS QUICK REFERENCE WALLET CARD
1	UNDERHOOD WARNING LABEL
1	SECURILOCK INTERFACE KIT

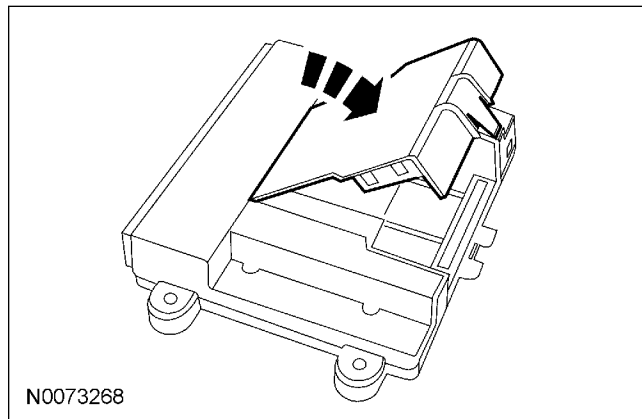
**Module Preparation**

- Place the supplied fuses into the power distribution block on the remote start control module.
  - Move the polarity jumpers to their proper locations on the control module, see illustration.

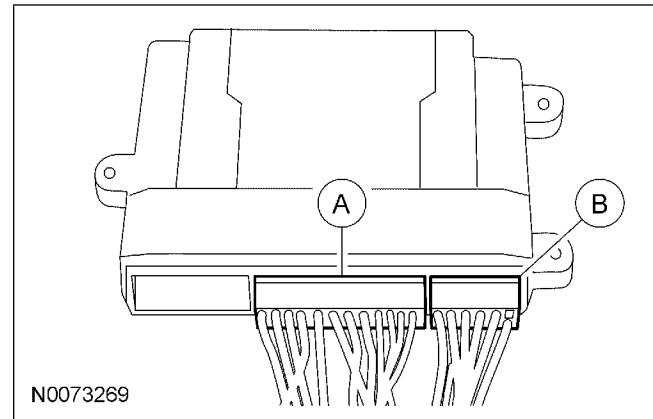
## INSTALLATION (Continued)



5. Place the software cartridge onto the RMST control module.



6. Plug the wiring harness(es) into the module.
- A - Harness: 24-way, used on all systems.
  - B - Harness: 10-way, used on all systems with RMST.



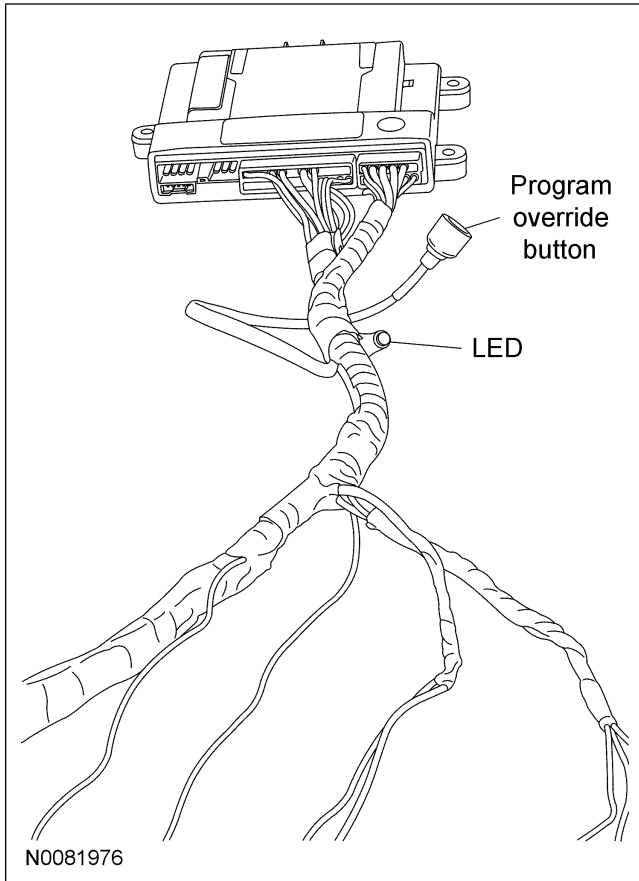
7. **NOTE:** Do not cut the override programming button off of the harness, it is used for all installations.

**NOTE:** For vehicle specific wiring diagram(s) [click here](#).

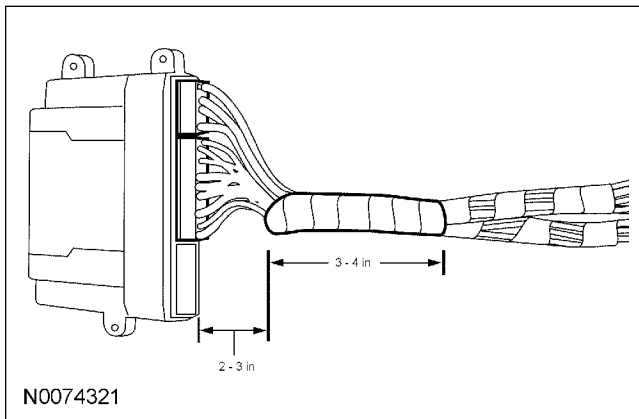
Referring to the vehicle specific wiring section for the system being installed, gather all individual wires that will be routed to the same areas of the vehicle into groups. Cover each wire group with electrical tape for approximately 18". Depending on the vehicle, there will be 2 to 5 different wire groups.

Trim the unused wires approximately 6 - 8" from the module.



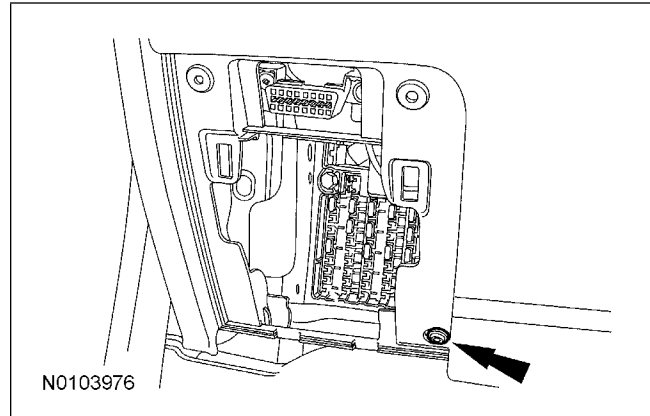
**INSTALLATION (Continued)**

8. Tape the harness sections together, making sure to cover all of the unused wires.

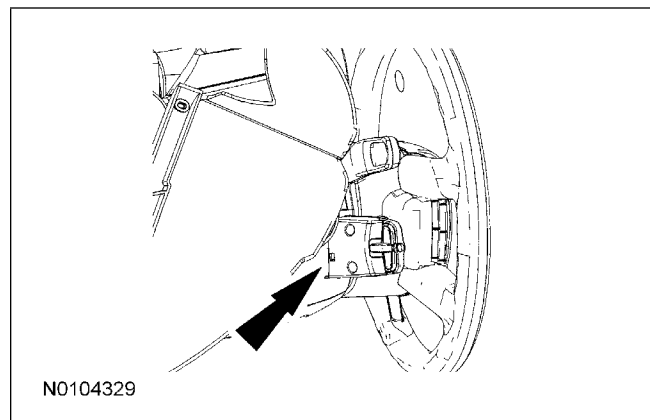
**Vehicle Preparation**

9. Remove the LH scuff plate and cowl trim panel.
10. Remove the fuse box cover.
- Open the fuse box cover, pull upward and remove the fuse box cover from the steering column opening trim panel finish panel.

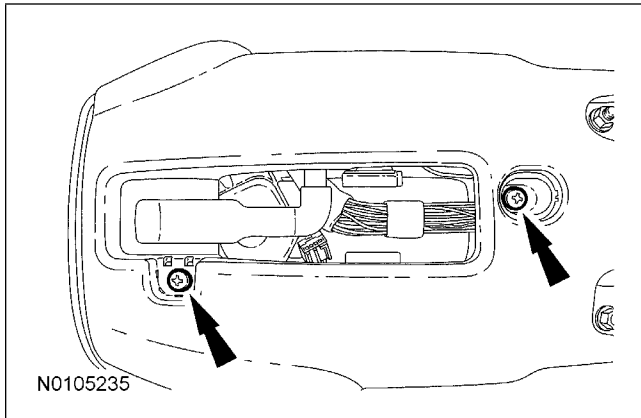
11. Remove the steering column opening trim panel screw, pull the steering column opening trim panel downward releasing the retaining clips.



12. Remove the steering column opening trim panel reinforcement.
13. If equipped, remove the steering wheel audio control switch.
- Using a suitable tool (such as a 90-degree pick), release the tab at the back of the steering wheel controls by pressing it straight in.



14. Remove the steering wheel controls by pulling them straight out of the steering column.
- Disconnect the electrical connector.
15. Release the steering column lever and move the steering column to the full outward and upward position.
16. Remove the 2 lower steering column shroud screws.

**INSTALLATION (Continued)**

17. Remove the lower steering column shroud.

**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.

18. Choose a suitable mounting location following the guidelines above.

**Install The Antenna**

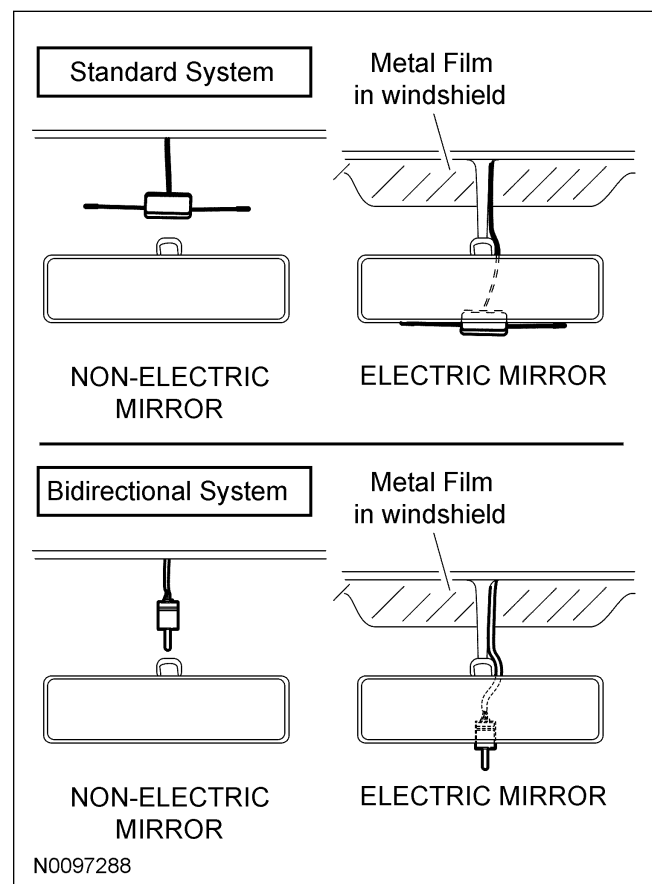
19. Clean the mounting surface using an alcohol base solution and a clean cloth.

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

**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 wire will be attached to the control module later in this procedure.

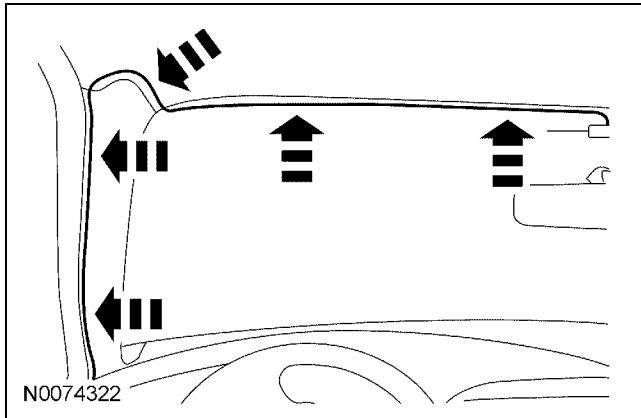
Remove the protective backing from the adhesive on the antenna and firmly press the body of the antenna to the windshield.



21. If necessary, position the A pillar trim slightly outward to provide access to route the antenna wire.

**NOTE:** Do not route the antenna wire over the top of the air bag.

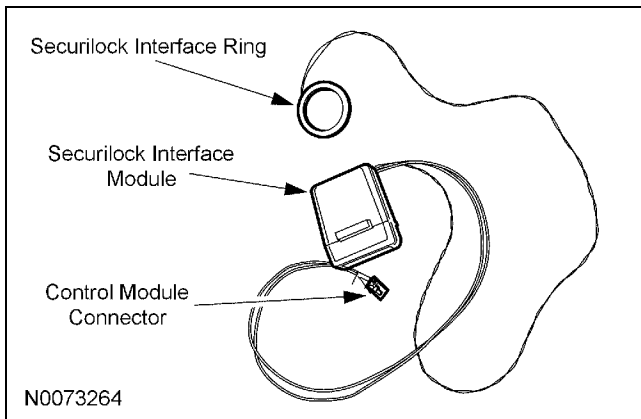
22. Route the antenna cable along the headliner and down the A pillar towards the floor.

**INSTALLATION (Continued)**

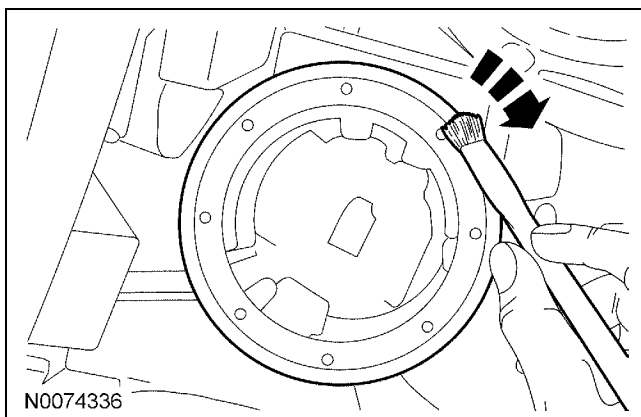
23. Reposition the A pillar trim panel.

**Install The Securilock Interface Kit**

24. Route the ring of the SECURILOCK interface antenna lead up along the steering column to the PATS transceiver location.



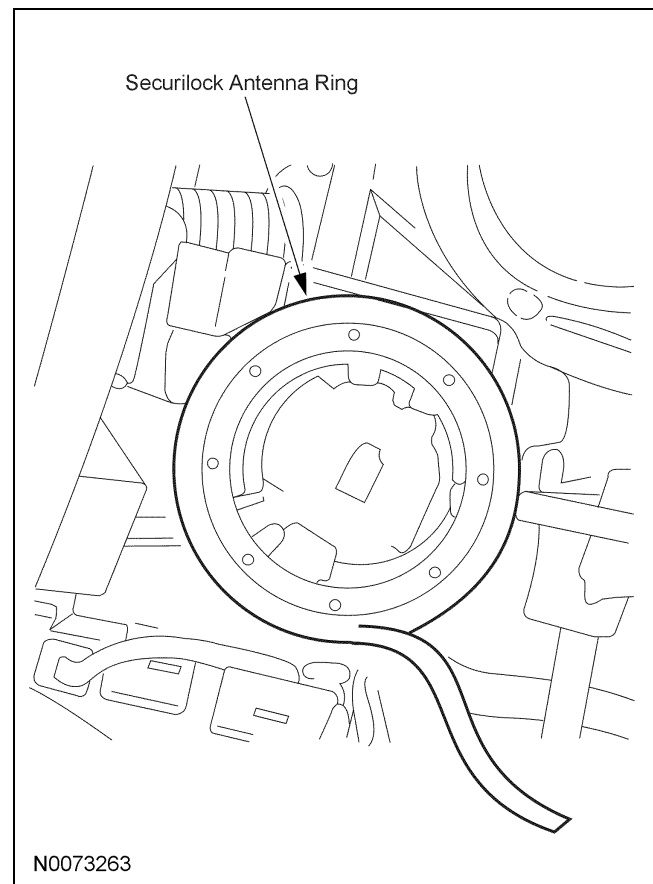
25. Following the directions on the supplied tube of adhesive primer, apply a thin coating around the transceiver antenna coil and allow to dry for approximately 5 minutes.



26. **NOTICE:** Do not damage the transceiver ring during installation or while installing the steering column shrouds.

**A damaged transceiver ring will result in an inoperable remote start system.**

Remove the protective backing from the SECURILOCK antenna ring. Place the SECURILOCK ring over the PATS transceiver and press firmly in place.

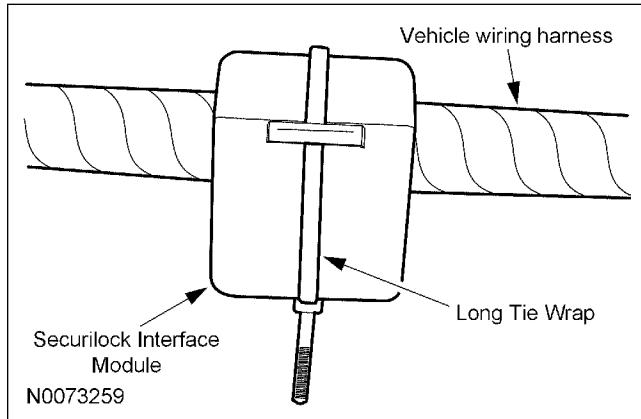
**Install The Securilock Interface Module**

27. **NOTE:** Do Not mount the SECURILOCK Interface Module to or within 3" of a metal surface, including any underdash brackets, or in the knee bolster area.

Mount the SECURILOCK Interface Module to an underdash wiring harness using one of the supplied long tie wraps.

**INSTALLATION (Continued)**

28. **NOTICE:** Do not attach the harness to the steering column.  
Route the harness and connector to the module mounting location.

**Install the Remote Start Control Module and Harness Assembly**

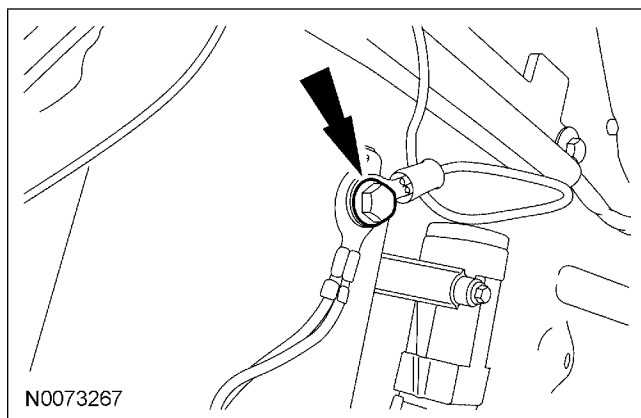
29. Place the remote start module and harness assembly on the floor of the vehicle.

**Identify Circuit Wires For Connections**

**NOTE:** For vehicle specific wiring diagram(s) click [here](#).

**NOTE:** For proper wire splicing techniques click [here](#).

30. Connect the Black ground wire from the remote start module harness to the chassis ground point at the driver kick panel.



31. Disconnect the ignition switch electrical connector.

32. Connect the remote start harness hard shell connectors to the ignition switch and ignition switch connector.

33. **NOTE:** A DVOM connected to the correct wire will show 12V, then show 0V when the horn button is held.

A logic probe will show power on the correct wire, then show ground when the horn button is held.

Identify the Black/Blue horn circuit wire in the steering column harness.

34. Connect the Brown/Black wire from the remote start module harness to the Black/Blue horn circuit wire in the steering column harness.

35. **NOTE:** A DVOM connected to the correct wire will show 12V, then show 0V when the door lock switch is pressed.

A logic probe will show open on the correct wire, then show ground when the door lock switch is pressed.

Identify the Black/Orange power door lock circuit wire at the Central Junction Box (CJB) connector C201C Pin 10.

36. Connect the Blue wire from the remote start module harness to the Black/Orange power door lock circuit at the CJB connector C201C Pin 10..

37. **NOTE:** A DVOM connected to the correct wire will show 0V with the vehicle door(s) open and the dome light ON, then show 12V with the vehicle door(s) closed and the dome light OFF.

**NOTE:** A logic probe connected to the correct wire will show ground with the vehicle door(s) open and the dome light ON, then show power with the vehicle door(s) closed and the dome light OFF.

**NOTE:** Be sure that the dome light has timed out and is OFF before performing the door closed test.

Be sure that the dome lamp is illuminated before performing the door open test.

Identify the Black/Blue door ajar circuit wire at the CJB connector C201E Pin 19..

38. Connect the Green/Violet wire from the remote start module harness to the Black/Blue door ajar circuit wire at CJB connector C201E Pin 19.

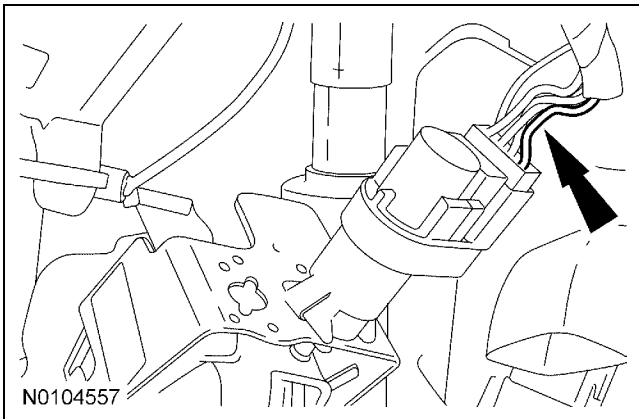
**INSTALLATION (Continued)**

39. **NOTE:** A DVOM connected to the correct wire will show 0V, when the headlight switch is OFF, then show 12V when the headlight switch is ON.

**NOTE:** A logic probe will show ground on the correct wire when the headlight switch is ON, then show power when the headlight switch is OFF.

Identify the Orange/Blue parking light on circuit wire at the CJB front right harness.

40. Connect the White wire from the remote start module harness to the Orange/Blue parking light on circuit at the CJB front right harness.
41. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V while depressing the brake pedal.
- A logic probe will show open when on the correct wire, then show power while depressing the brake pedal.
- Identify the Green/White brake switch circuit wire at the brake switch connector pin 4.
42. Connect the Brown wire from the remote start module harness to the Green/White brake switch circuit wire at the brake switch connector pin 4.

**Install The Hood Safety Switch**

43. **NOTE:** Route the hood safety switch wire carefully avoiding any moving parts or components that can produce excessive heat.

**NOTE:** Using a piece of convolute adds in the appearance of the installation.

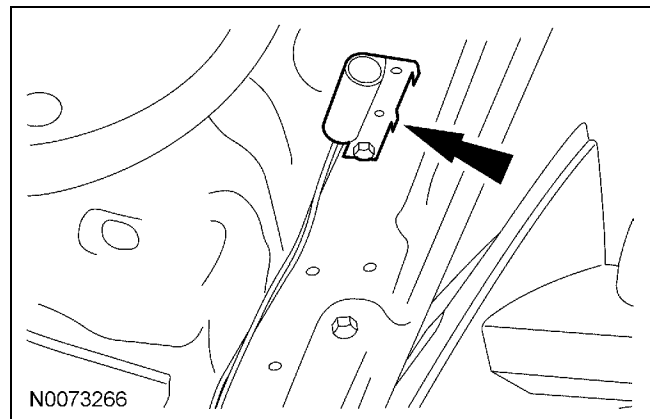
**NOTE:** The switch should be positioned about 30 degrees below parallel to the ground to accommodate for parking on inclines.

Failure to position the switch properly could result in one of the following:

- False alarm trips
- Non-Remote Start events
- Inadvertent shutdown during Remote Start

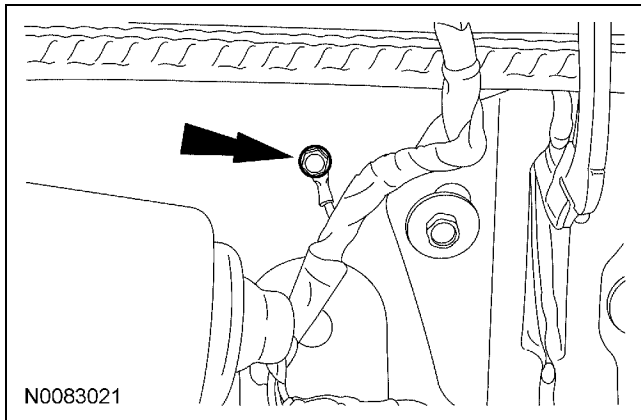
Locate an easy to access area near the driver side hood hinge and install the hood safety switch using the supplied metal screws.

44. Apply rustproofing compound (PM-13-A) to the drilled hole and torque the screw to 1.00 Nm (10 lb-in).



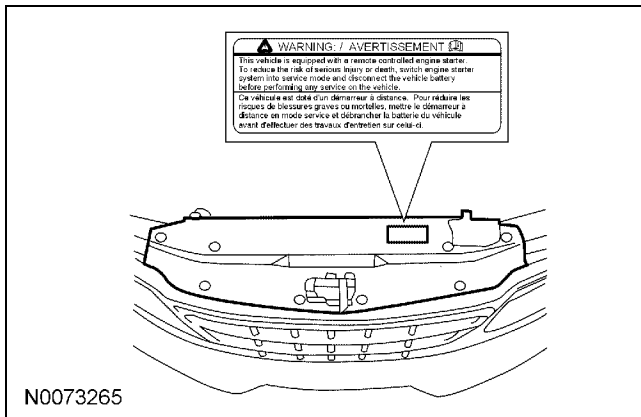
**INSTALLATION (Continued)**

45. Connect hood switch ground wire to a suitable location on the bulkhead.

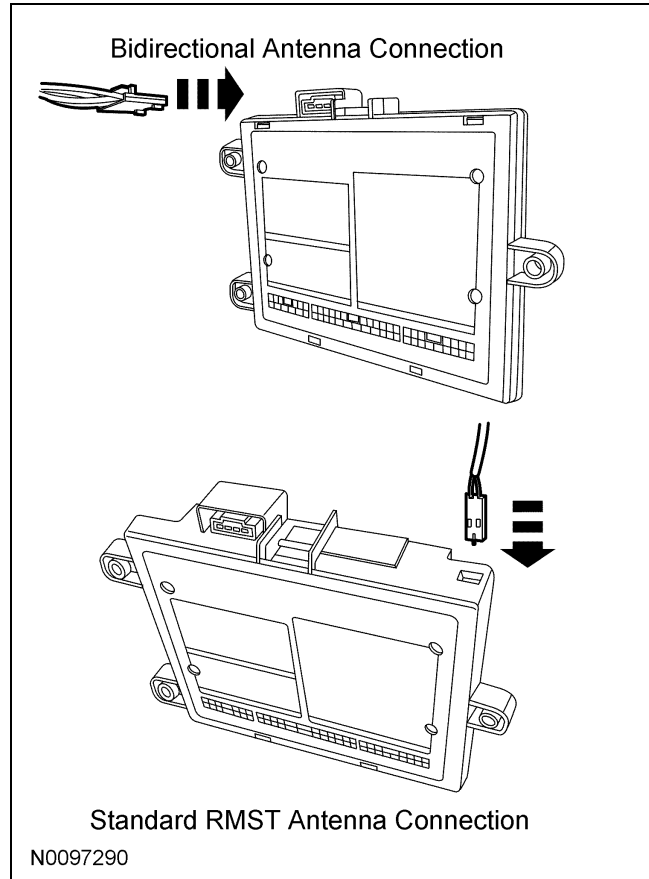


46. **NOTE:** Place the label on the radiator fan shroud or similar area.

Install the underhood warning label



47. Route the Grey hood safety switch wire through the bulkhead into the engine compartment and attach to the hood safety switch.
48. Connect the antenna to the RMST control module.



49. Connect the SECURILOCK interface module to the RMST control module.

**Program The RMST System**

50. [Refer to the RMST programming section for this vehicle \(click here\).](#)

**Secure RMST Harness and Control Module**

51. Use the supplied tie wraps to secure the RMST harness wires.
52. **NOTE:** Do not mount the control module in the knee bolster area.
- Secure the control module at three points to the vehicle.
- Use the supplied long tie wraps to mount the RMST control module to the underdash wiring harness.

**Install Trim**

53. Install the lower steering column shroud.

**INSTALLATION (Continued)**

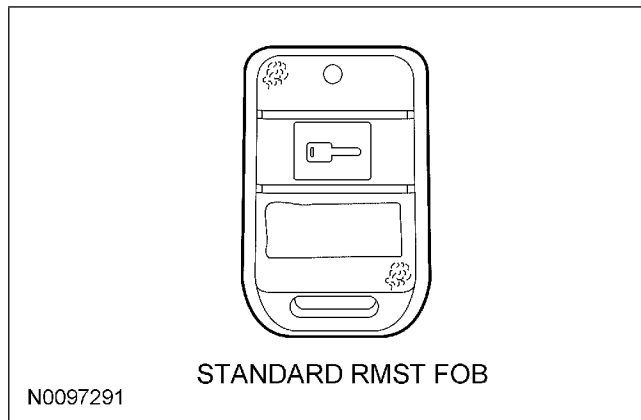
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- |  |   |
|--|---|
| <p>54. Install the 2 lower steering column shroud screws.</p> <p>55. If Equipped, Connect the electrical connector and install the steering wheel audio controls by pushing them straight into the steering column.</p> <p>56. Install the steering column opening trim panel reinforcement.</p> <ul style="list-style-type: none"><li>• Tighten to 9 Nm (80 lb-in).</li></ul> | <p>57. Install the steering column opening trim panel.</p> <ul style="list-style-type: none"><li>• Install the steering column opening trim panel screw.</li></ul> <p>58. Install the fuse box cover.</p> <p>59. Install the left hand cowl trim panel and scuff plate.</p> |
|--|---|
-

## GENERAL PROCEDURES

### Programming - Standard Remote Start

#### Programming the Module



- NOTE:** If the remote start options (Key-in sense polarity, door ajar polarity, or tach mode) are not programmed correctly, vehicle will not remote start or operate properly.

**NOTE:** Make sure that the hood and doors are closed before proceeding.

**NOTE:** The LED on the remote start harness must be visible to complete module programming.

**NOTE:** The remote start override button must be accessible.

#### Programming Options: Entering Programming Mode

- See chart below for programming information.

##### Program Bank 2 Chart (5 Honks)

BANK	OPTIONS	DESCR	LED
2	1	TACHLESS MODE	ON

- Press and hold the brake pedal.
- Turn the ignition key to the RUN position.  
The dome light will turn off.

- Press and hold the remote start system override button for at least 10 seconds.

After 10 seconds the horn will honk 3 times, indicating the system is now in the learn mode.

Release the brake pedal and the RMST override button.

- Press and release the override button. The horn will honk 4 times indicating the system has entered the first program bank.

If not, please check the following:

- Brake pedal switch wire solder connection.
- Hood closed and Grey hood safety switch wire solder connection.
- All doors closed and dome light circuit wire solder connections.
- The key is in the RUN position.
- The software cartridge is firmly seated in the RMST module.
- The RMST harness connections are firmly seated in the RMST module.

**NOTE:** If you require additional assistance: CALL 1-800-FORD KEY.

- Press and release the override button again. The horn will honk 5 times indicating the system has entered the second program bank.
- Press and release the brake pedal.  
The horn will honk 1 time indicating the system has entered the option 1 of the second program bank.

**NOTICE:** When turning LED on or off using remote start fob button quickly press and immediately release the remote start button.

**Failure to quickly release the remote start fob button will result in system defaulting to the factory options.**

- The LED must be on for option 1. If the LED is illuminated no action is required. If the LED is not illuminated press the remote start fob button and verify the LED illuminates.



**GENERAL PROCEDURES (Continued)**

**NOTE:** If the remote start fob button is held for more than 3 seconds the system will chirp the horn 4 times, indicating the system has returned to factory default settings. If this occurs return to step 1 of the programming section and reprogram the remote start module.

**NOTE:** The remote start module is now programmed.

10. Remove the ignition key.

**Programming the SECURILOCK**

**NOTE:** Two PATS keys are required to program the SECURILOCK.

**NOTE: IMPORTANT:** Each of the following steps should be completed with no more than 5 seconds delay between steps.

11. Insert the first ignition key and turn to the run position.

Watch for the PATS light to turn off. Remove the first key.

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12. Insert the second ignition key and turn to the run position.

Watch for the PATS light to turn off. Remove the second key.

13. Press and hold the remote start button



for 3 seconds.  
The PATS light should stay on for 3-5 seconds before turning off, which means that the SECURILOCK was successfully programmed.

**NOTE:** If the PATS light blinks rapidly, repeat steps 1-3 to retry programming the SECURILOCK.

**NOTE:** The engine will start if the Remote Start kit has been installed correctly, the brake is not depressed, and the hood and doors are closed.

## GENERAL PROCEDURES

### Functional Test - Standard Remote Start

**NOTE:** If during any of the steps of the functional test, the remote start system or vehicle doesn't react or perform accordingly, please refer to the remote start troubleshooting guide.

**NOTE:** For remote start troubleshooting guide click [here](#).

1. Make sure all doors are closed but hood is open and windows are down (doors will be locking).
2. Press and hold the Start button on the remote control key fob for 2-3 seconds - Horn should honk once indicating receipt of the start request.
3. The remote start systems should turn on the ignition, but then honk the horn twice and shut down indicating the hood is open.
4. Close the hood, and insert a key into the ignition switch.
5. Attempt to re-start the vehicle again using the key fob.
6. The remote start systems should turn on the ignition, but then honk the horn five times and shut down indicating a key is in the ignition switch.
7. Remove the key and open a door.
8. Attempt to re-start the vehicle again using the key fob.
9. The remote start systems should turn on the ignition, but then honk the horn three times and shut down indicating a door is open.
10. Close the door.
11. Attempt to re-start the vehicle again using the key fob.
12. Once the vehicle starts, verify that all heat and A/C functions operate normally and that the doors have locked.
13. On vehicles equipped with power window interrupt, Attempt to close windows to check power window interrupt function.
14. Once all systems have been checked, press the brake pedal - the remote start systems should shut down.

### Troubleshooting

15. **NOTE:** When attempting to remote start your vehicle, the system has several safety checks that it performs. If any of these inputs are present that should not be, the system will respond back to you with several horn "chirps" to help you identify which input is present. These "chirps" will occur after initiating a start sequence with the transmitter, the system will turn on the ignition, but then respond back with several horn "chirps" and abort the starting process.

**Example:** Depress the remote start fob button for 3 seconds and then release. The vehicle horn will "chirp" one time to indicate that RMST signal was received. If the vehicle doesn't start and the horn "chirps" 3 times, there is a fault - "Vehicle Door is Open"

CHIRPS	PROBLEM
1 Chirp	SECURILOCK not programmed correctly, or the SECURILOCK antenna ring is damaged.
2 Chirps	BRAKE is being pressed, or the HOOD is open.
3 Chirps	One of the vehicles DOORS are open.
4 Chirps	TACH not programmed.

**GENERAL PROCEDURES (Continued)**

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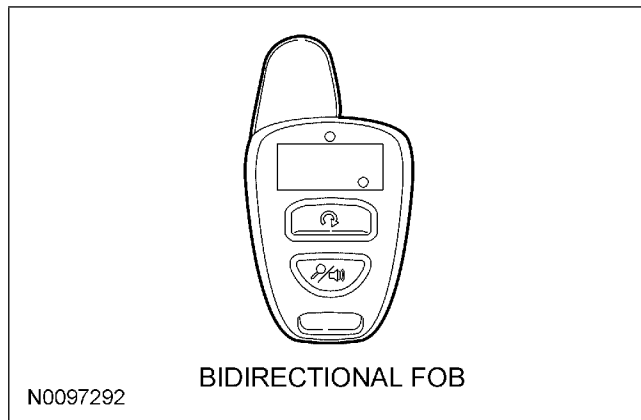
<b>CHIRPS</b>	<b>PROBLEM</b>
5 Chirps	The KEY is in the ignition.
6 Chirps	The remote start system is in SERVICE/VALET mode.

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## GENERAL PROCEDURES

### Programming - Bidirectional Remote Start

#### Programming the Module



- NOTE:** If the remote start options (Key-in sense polarity, door ajar polarity, or tach mode) are not programmed correctly, vehicle will not remote start or operate properly.

**NOTE:** Make sure that the hood and doors are closed before proceeding.

**NOTE:** The LED on the remote start harness must be visible to complete module programming.

**NOTE:** The remote start override button must be accessible.

#### Programming Options: Entering Programming Mode

- See chart below for programming information.

**Program Bank 2 Chart (5 Honks)**

BANK	OPTIONS	DESCR	LED
2	1	TACHLESS MODE	ON

- Press and hold the brake pedal.
- Turn the ignition key to the RUN position.  
The dome light will turn off.

- Press and hold the remote start system override button for at least 10 seconds.

After 10 seconds the horn will honk 3 times, indicating the system is now in the learn mode.

Release the brake pedal and the RMST override button.

- Press and release the override button. The horn will honk 4 times indicating the system has entered the first program bank.

If not, please check the following:

- Brake pedal switch wire solder connection.
- Hood closed and Grey hood safety switch wire solder connection.
- All doors closed and dome light circuit wire solder connections.
- The key is in the RUN position.
- The software cartridge is firmly seated in the RMST module.
- The RMST harness connections are firmly seated in the RMST module.

**NOTE:** If you require additional assistance: CALL 1-800-FORD KEY.

- Press and release the override button again. The horn will honk 5 times indicating the system has entered the second program bank.
- Press and release the brake pedal.  
The horn will honk 1 time indicating the system has entered the option 1 of the second program bank.

**NOTICE:** When turning LED on or off using remote start fob button quickly press and immediately release the remote start button.

**Failure to quickly release the remote start fob button will result in system defaulting to the factory options.**

- The LED must be on for option 1. If the LED is illuminated no action is required. If the LED is not illuminated press the remote start fob button and verify the LED illuminates.

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**GENERAL PROCEDURES (Continued)**

**NOTE:** If the remote start fob button is held for more than 3 seconds the system will chirp the horn 4 times, indicating the system has returned to factory default settings. If this occurs return to step 1 of the programming section and reprogram the remote start module.

**NOTE:** The remote start module is now programmed.

10. Remove the ignition key.

**Programming the SECURILOCK**

**NOTE:** Two PATS keys are required to program the SECURILOCK.

**NOTE: IMPORTANT:** Each of the following steps should be completed with no more than 5 seconds delay between steps.


11. Insert the first ignition key and turn to the run position.

Watch for the PATS light to turn off. Remove the first key.

---

12. Insert the second ignition key and turn to the run position.

Watch for the PATS light to turn off. Remove the second key.

13. Press the remote start button  twice within 3 seconds.

The PATS light should stay on for 3-5 seconds before turning off, which means that the SECURILOCK was successfully programmed.

**NOTE:** If the PATS light blinks rapidly, repeat steps 1-3 to retry programming the SECURILOCK.

**NOTE:** The engine will start if the Remote Start kit has been installed correctly, the brake is not depressed, and the hood and doors are closed.

## GENERAL PROCEDURES

### Functional Test - Bidirectional Remote Start

**NOTE:** If during any of the steps of the functional test, the remote start system or vehicle doesn't react or perform accordingly, please refer to the remote start troubleshooting guide.

**NOTE:** For remote start troubleshooting guide click [here](#).

1. Make sure all doors are closed but hood is open and windows are down (doors will be locking).
2. Press the Start button on the remote control key fob twice within 3 seconds - Horn should honk once indicating receipt of the start request.
3. The remote start systems should turn on the ignition, but then honk the horn twice and shut down indicating the hood is open.
4. Close the hood, and insert a key into the ignition switch.
5. Attempt to re-start the vehicle again using the key fob.
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14. Once all systems have been checked, press the brake pedal - the remote start systems should shut down.

### Troubleshooting

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**Example:** Depress the remote start fob button for 3 seconds and then release. The vehicle horn will "chirp" one time to indicate that RMST signal was received. If the vehicle doesn't start and the horn "chirps" 3 times, there is a fault - "Vehicle Door is Open"

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4 Chirps	TACH not programmed.
5 Chirps	The KEY is in the ignition.
6 Chirps	The remote start system is in SERVICE/VALET mode.

201' Transit Connect

