

Splicing Procedures

NOTE:

Refer to applicable wiring diagrams for circuit information.

NOTE:

This procedure contains multiple splicing techniques.

NOTE:

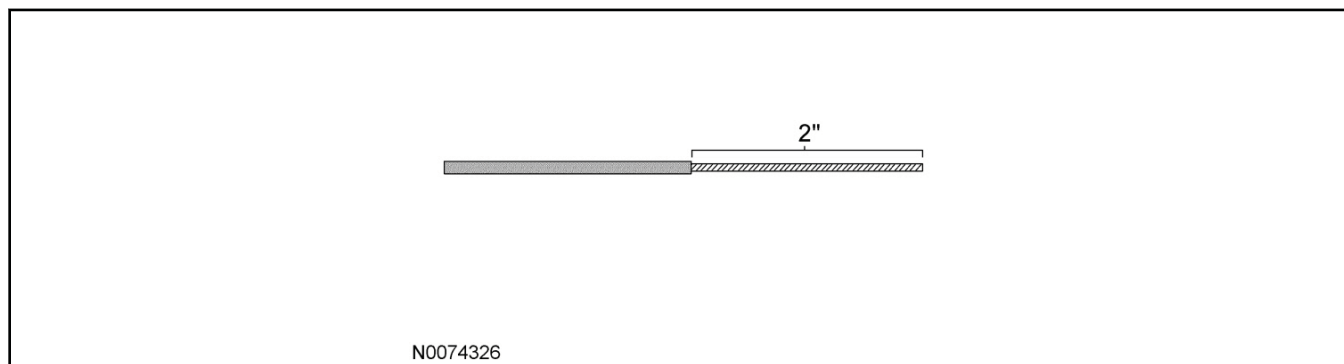
Review splicing procedures prior to performing any cutting/soldering/splicing.

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

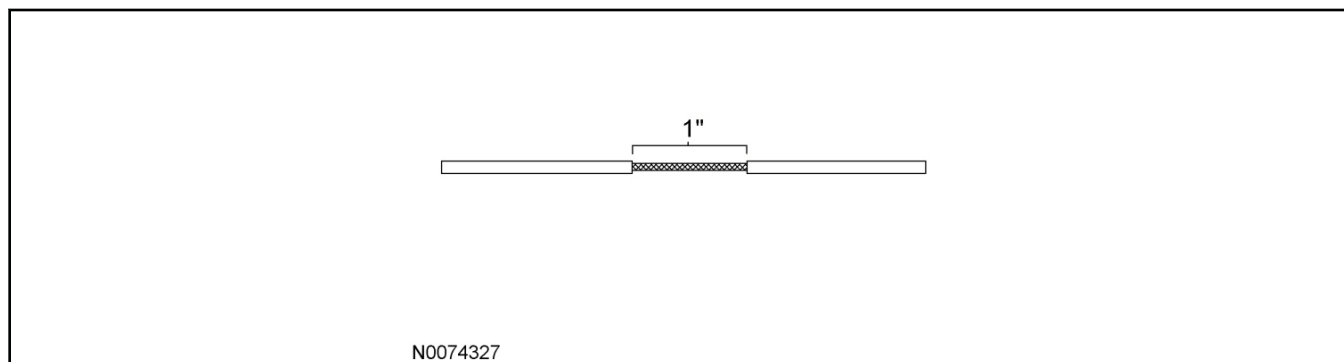
NOTE:

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

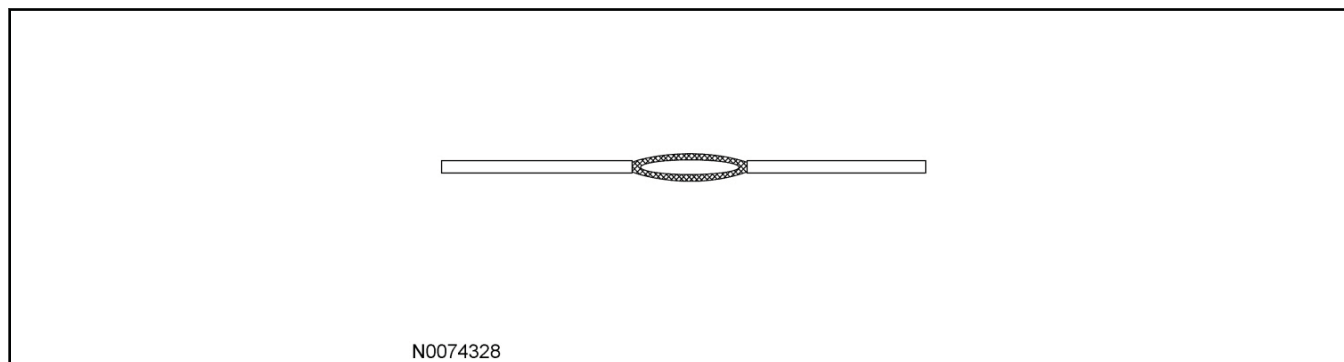
1. Strip approximately two inches of insulation from the wire to be installed in the vehicle.



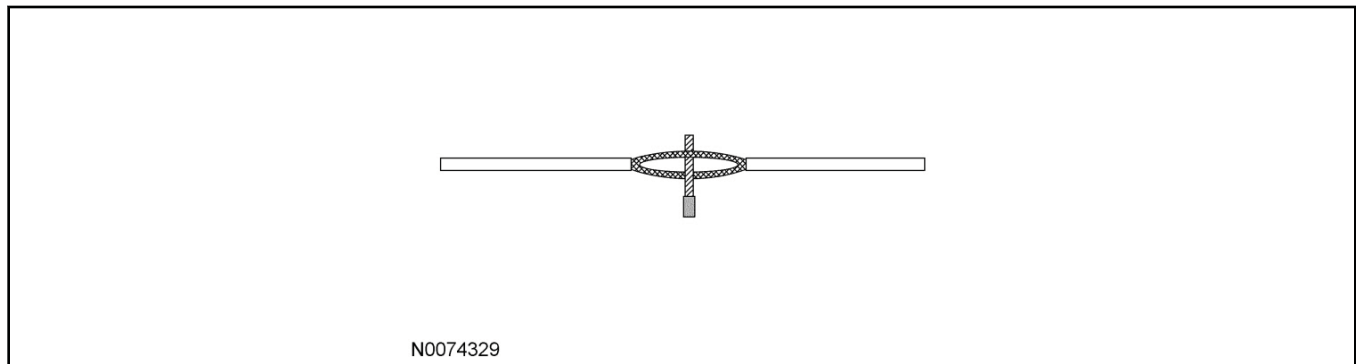
2. On the vehicle wire to be spliced into, strip one inch of insulation from the wire.



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.

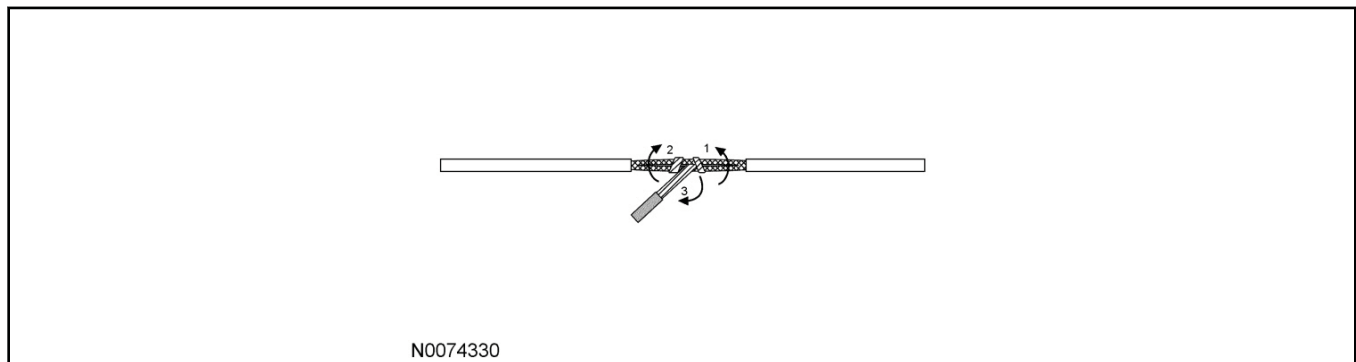
**NOTE:**

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

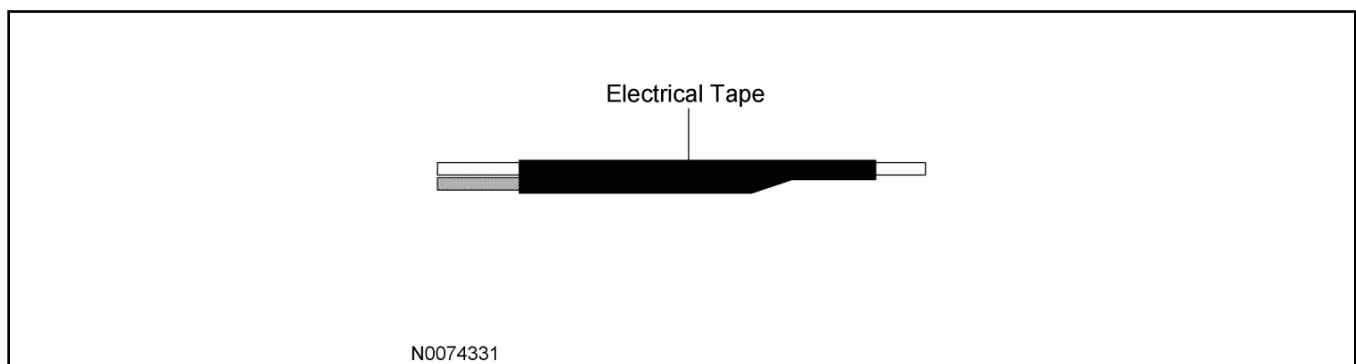
NOTE:

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".

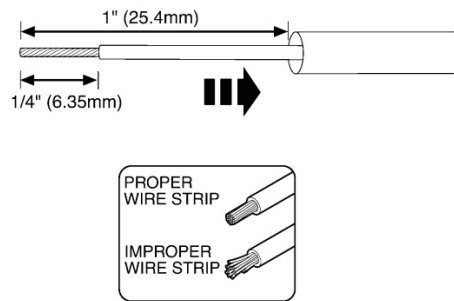
NOTE:

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

7. NOTE:

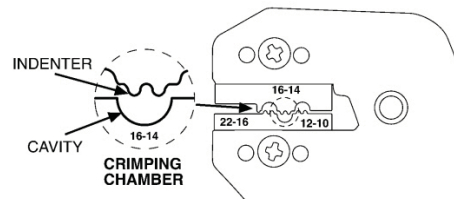
The strip length will vary depending on the butt splice and wire in harness. Longer strip lengths are required when the wire needs to be folded to mate with the butt splice. Refer to chart for strip lengths and folding techniques.

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.



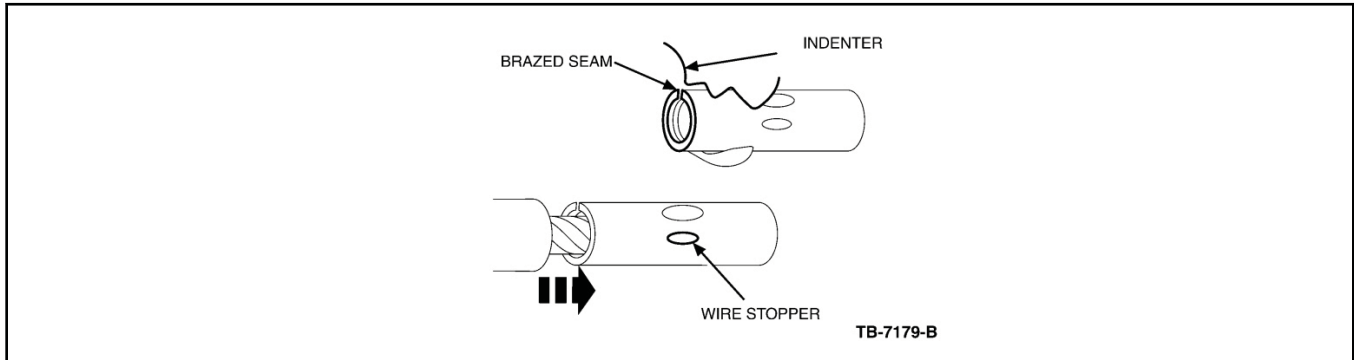
TB-7177-B

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.

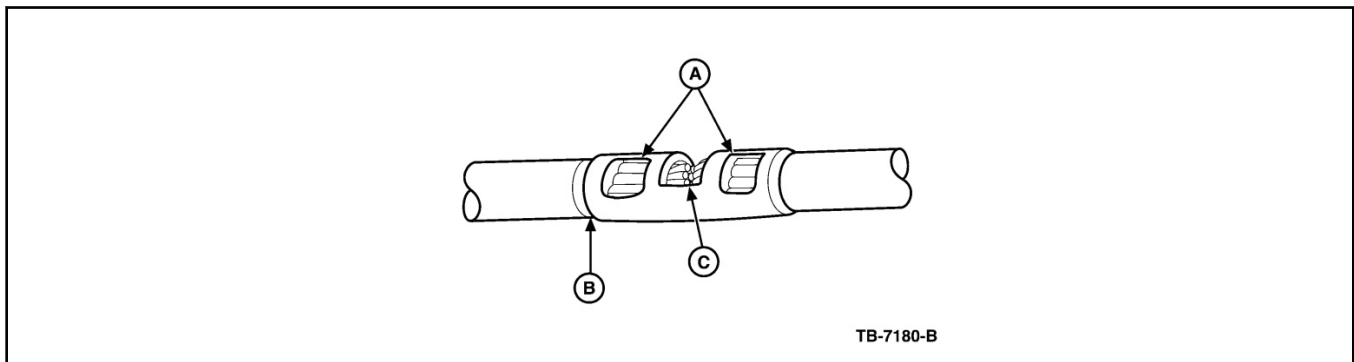


10. Holding the wire in place, squeeze tool handles together until ratchet releases. Allow tool handles to open, then remove crimped butt splice.

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.

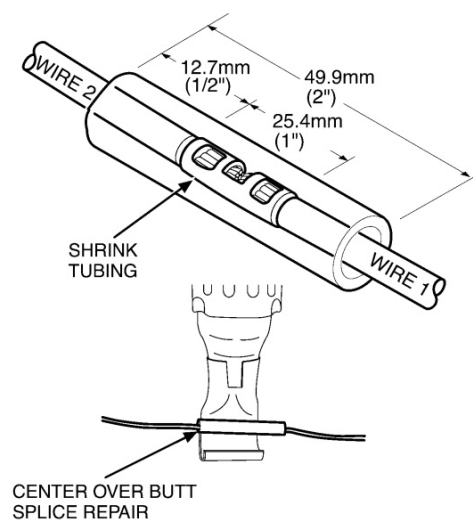
NOTE:

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

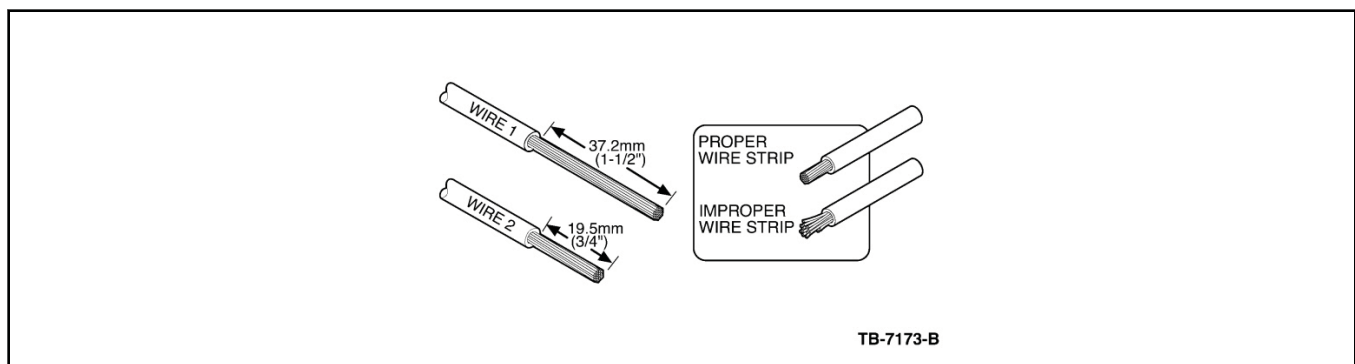
3X CROSS SECTION

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.

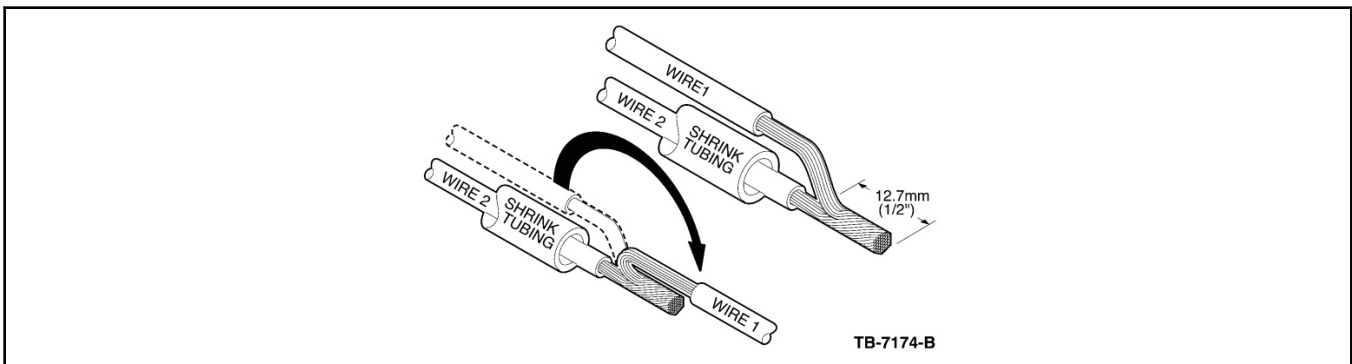
NOTE:

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.

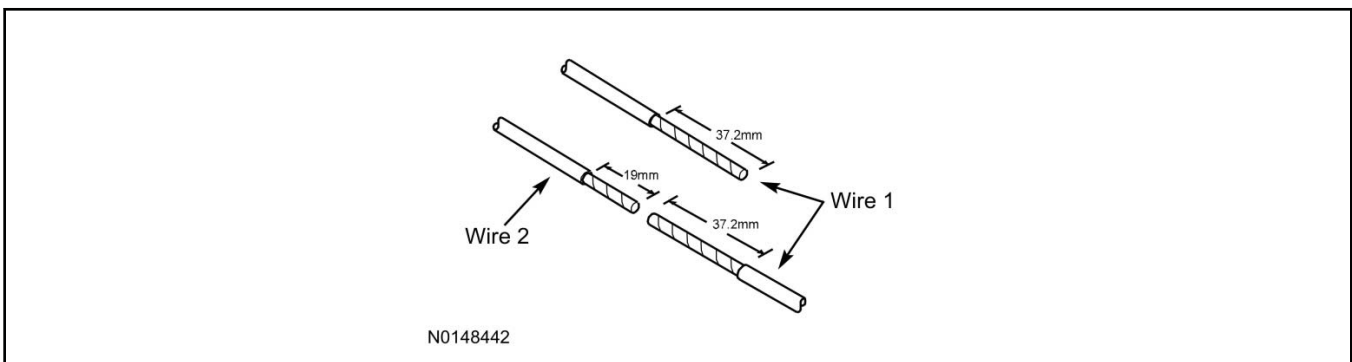
Install heat shrink tubing at least 1" (26 mm) away from one of the stripped ends being spliced.

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**

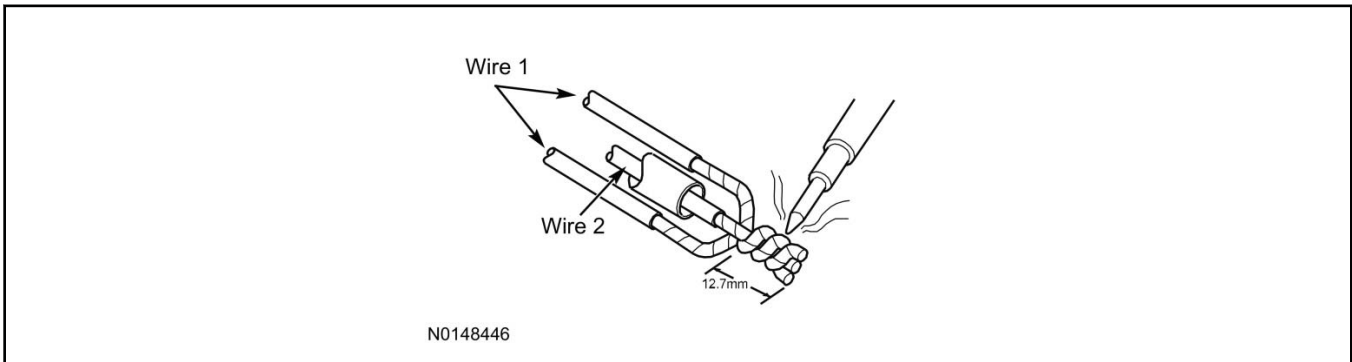
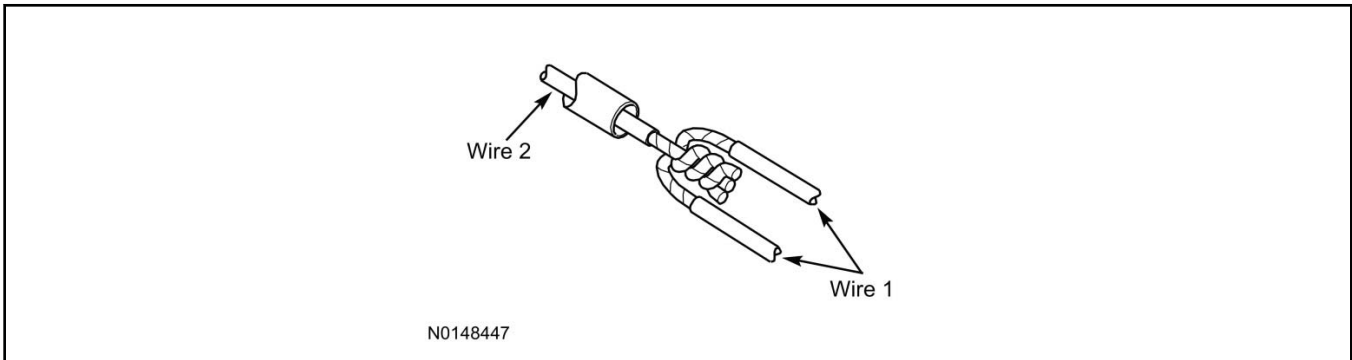
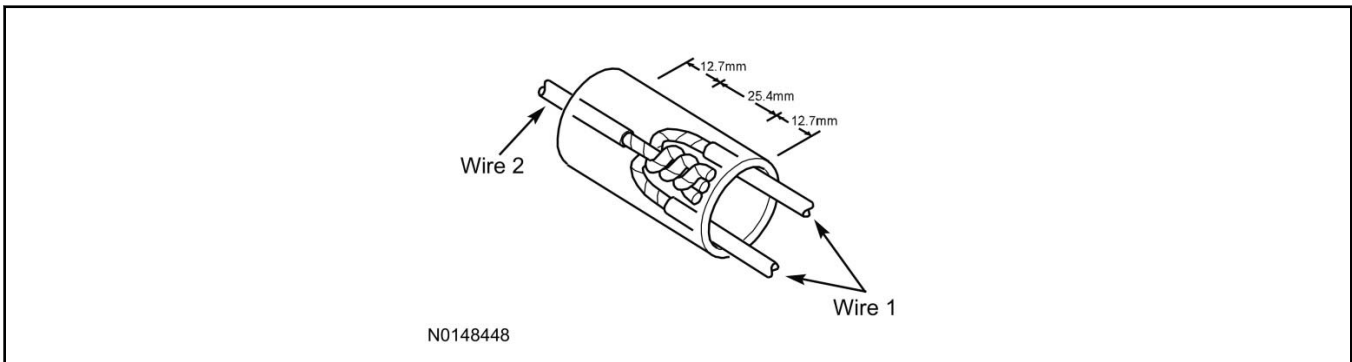
14. Strip 1 1/2" (37.2 mm) of insulation from both sides of Wire #1 and 3/4" (19 mm) of insulation from Wire #2, taking care not to nick or cut wire strands. Pull wire straight from stripper. If wire is pulled at an angle, wire strands may be cut off during stripping. Cut off the end and re-strip.



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.**

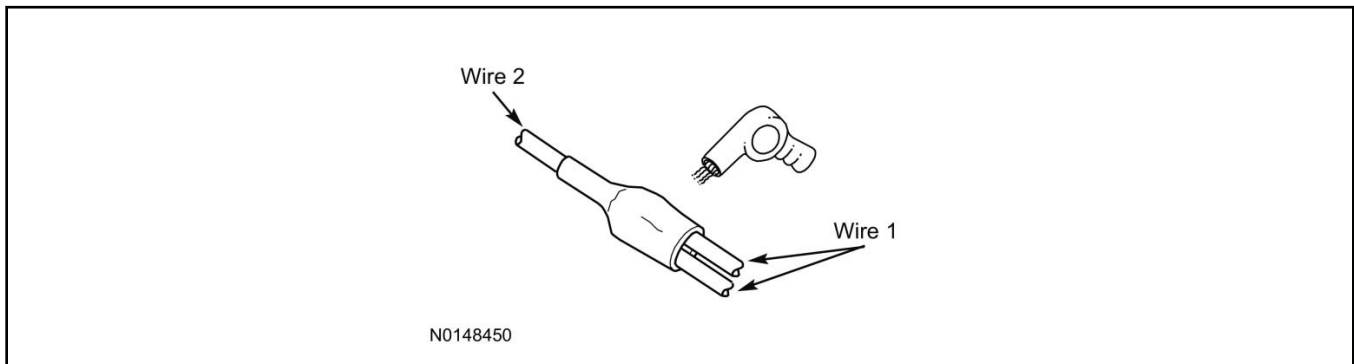
18. NOTE:

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.



Vehicle Security / Remote Start / Remote Access System Installation

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INSTALLATION

RMST system installation

Security Indicator LED Mounting

RMST Kit Antenna Installation

RMU Module Installation

GENERAL PROCEDURES

Learn VSS to vehicle

Shock Sensor Sensitivity Adjustment

Standard Remote Start Activation

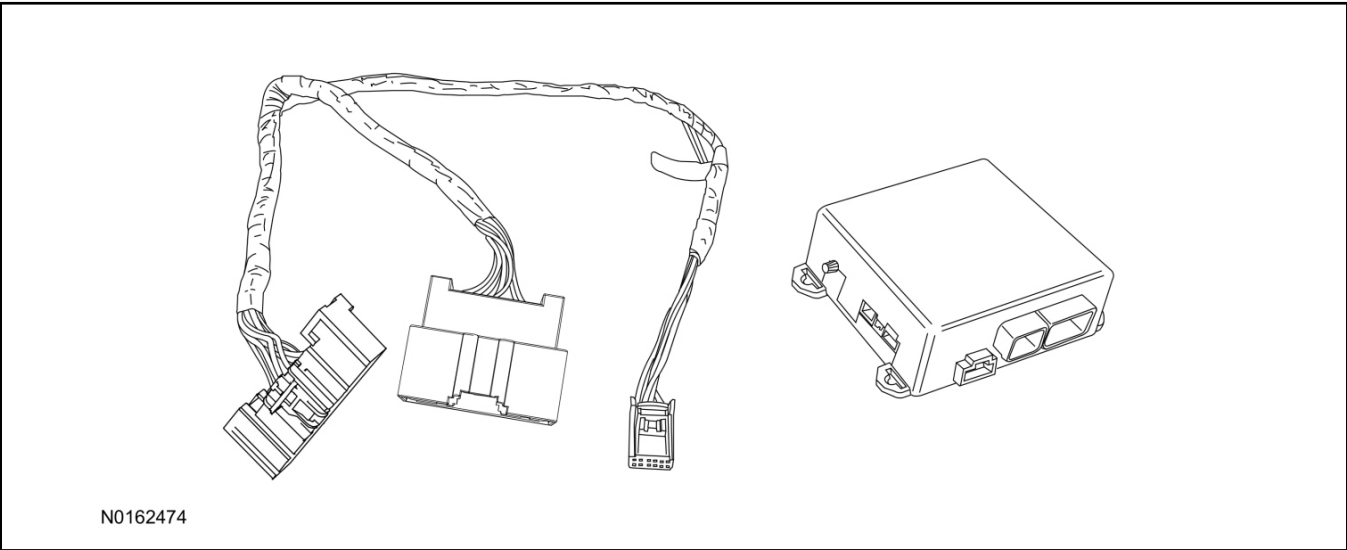
RMU Remote Start Activation

RMU Activation

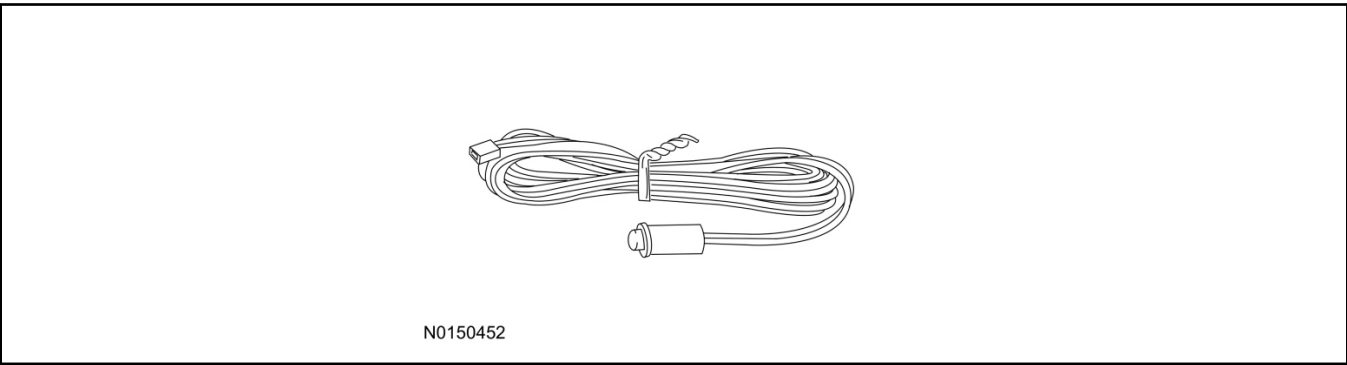
INSTALLATION

Vehicle Security / Remote Start / Remote Access - Fusion/MKZ

VSS System Components



Security Indicator LED (19D596) "Optional"



Fusion

1. Verify correct kit number.

Review VSS Kit Contents

NOTE:

Kits are vehicle specific and are not interchangeable.

2. Review the VSS kit contents.

Vehicle Security System (VSS) Kit

QUANTITY	DESCRIPTION
1	VSS Module
1	T-harness

INSTALLATION (Continued)**Vehicle Security System (VSS) Kit(Continued)**

6	Tie-straps
1	Owner's Manual

Security Indicator LED Kit Contents "Optional"

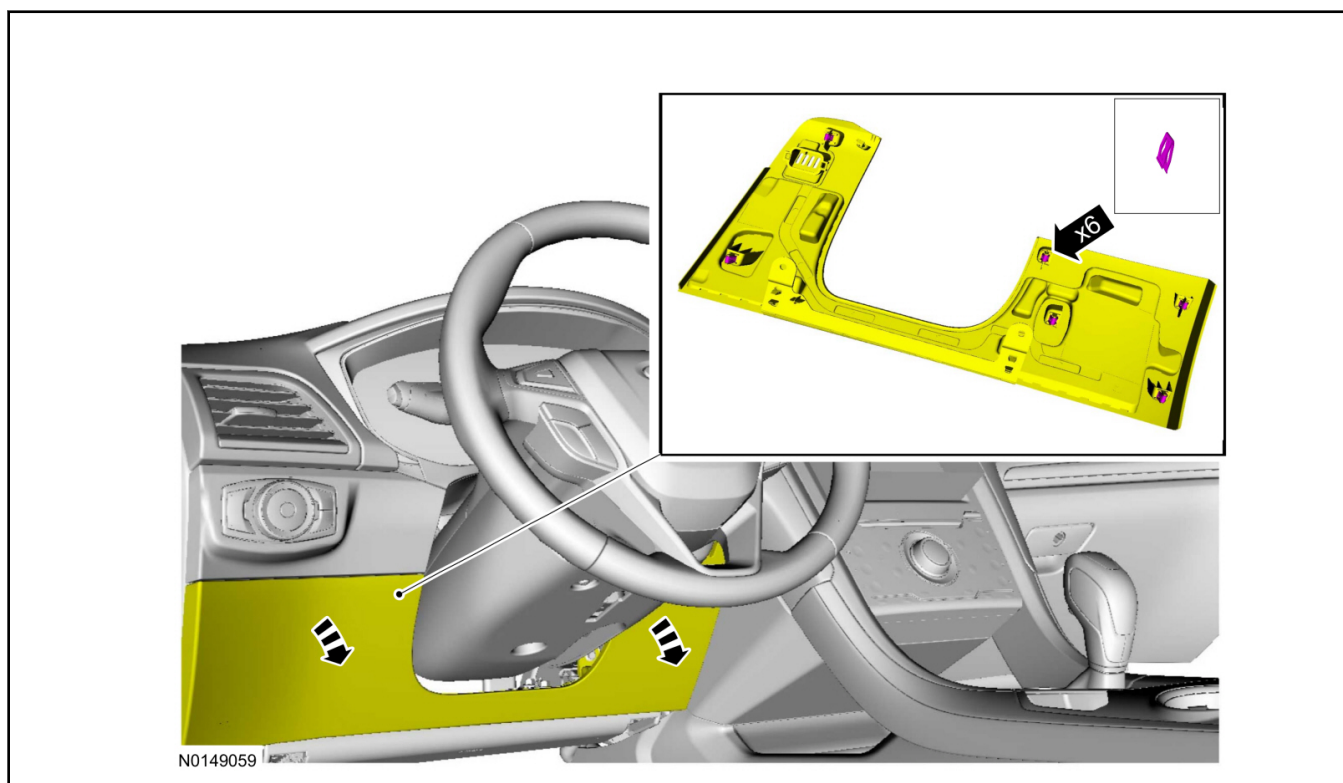
3. Review the Security Indicator LED kit contents.

Security Indicator LED Kit

QUANTITY	DESCRIPTION
1	Security Indicator LED

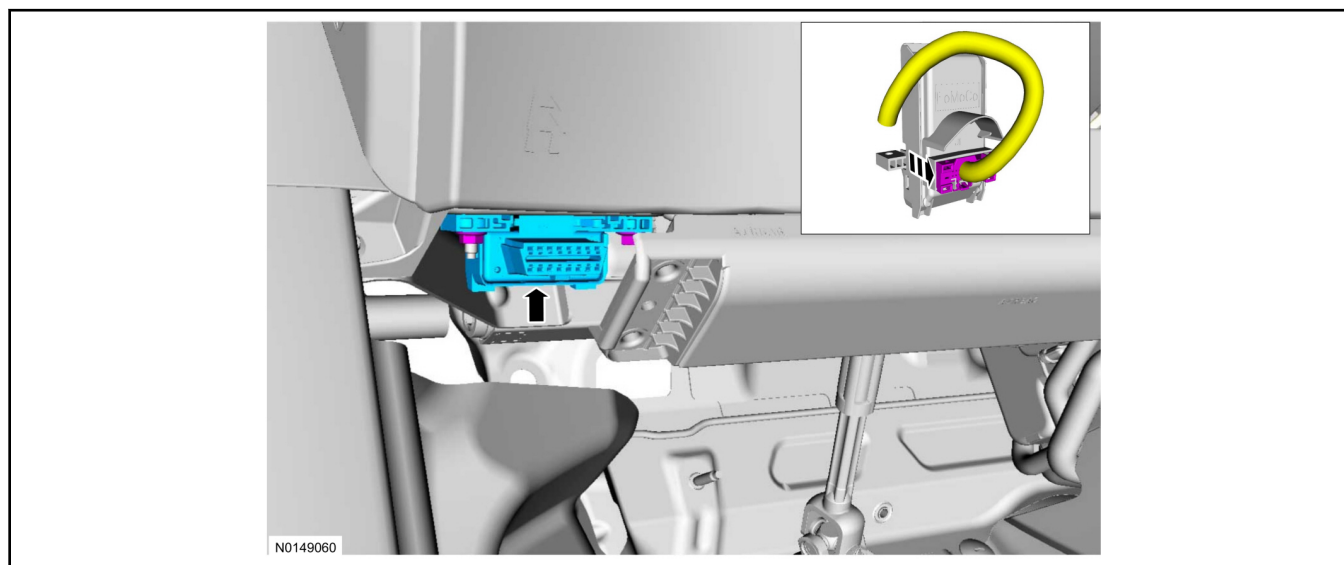
Trim Removal

4. If the vehicle is equipped with factory remote start, test its operation by pressing the Lock button one time and the Remote Start button two times.
 - If the vehicle remote starts, stop the engine by pressing the Remote Start button one time.
 - If the vehicle does not remote start, diagnose the concern.
5. Disconnect the vehicle battery negative terminal. For additional information, refer to Workshop Manual (WSM) Section 414-01.
6. Position the steering column opening trim panel down.

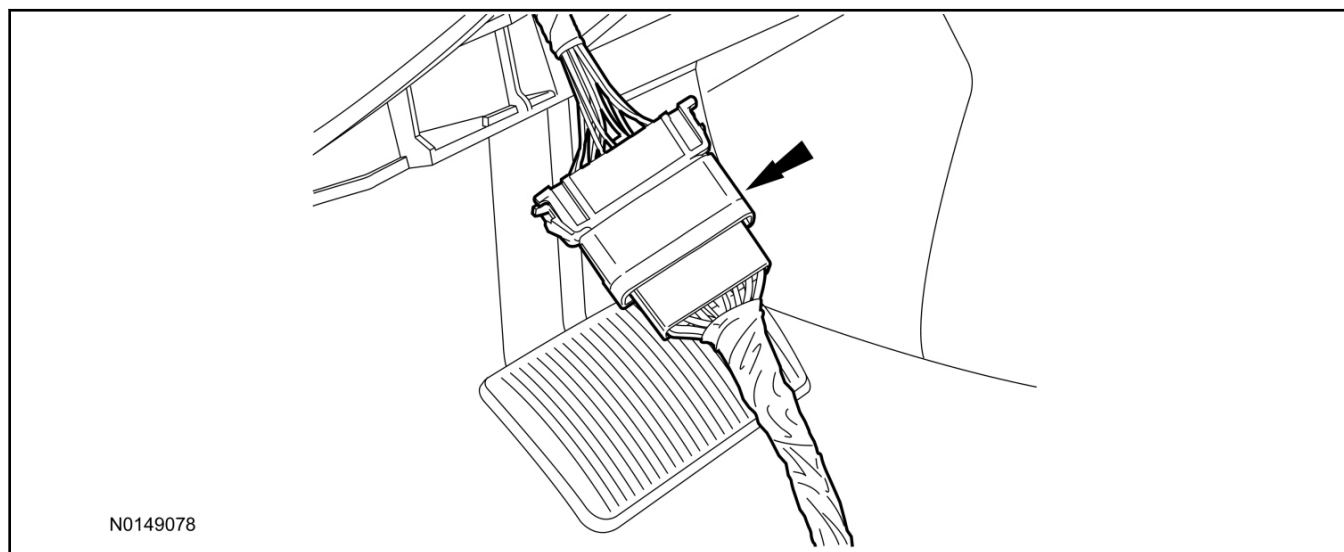


INSTALLATION (Continued)**I. RMST System Installation**

7. Disconnect the electrical connector from the back of the gateway module.

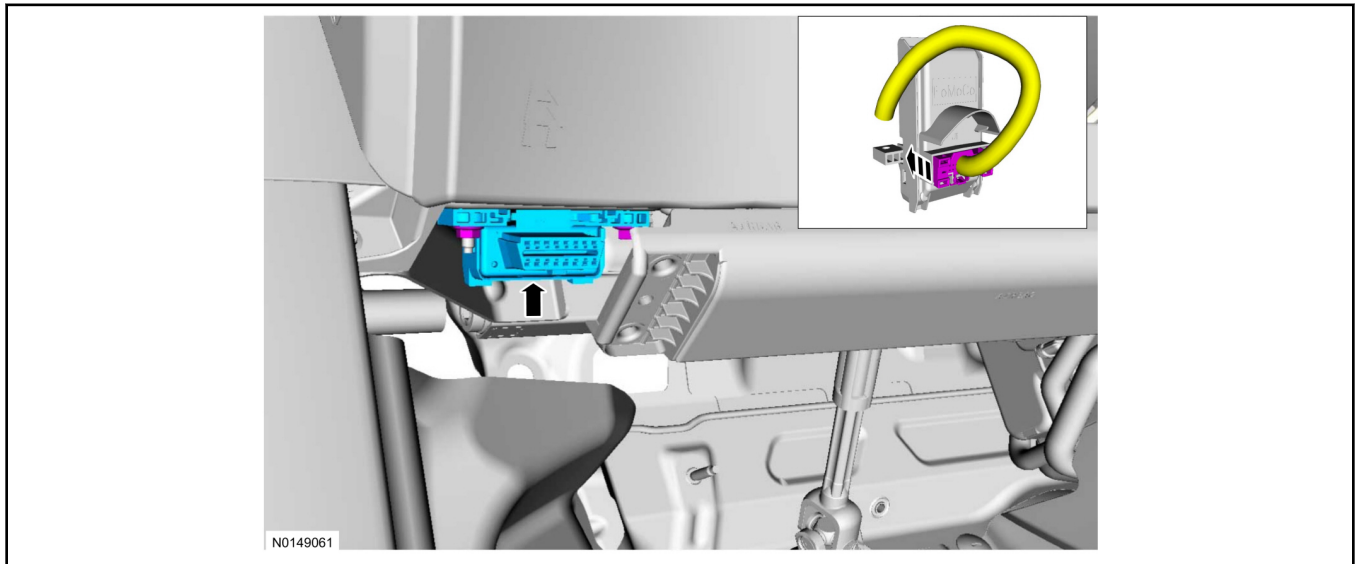


8. Connect the T-harness to the gateway module electrical connector.



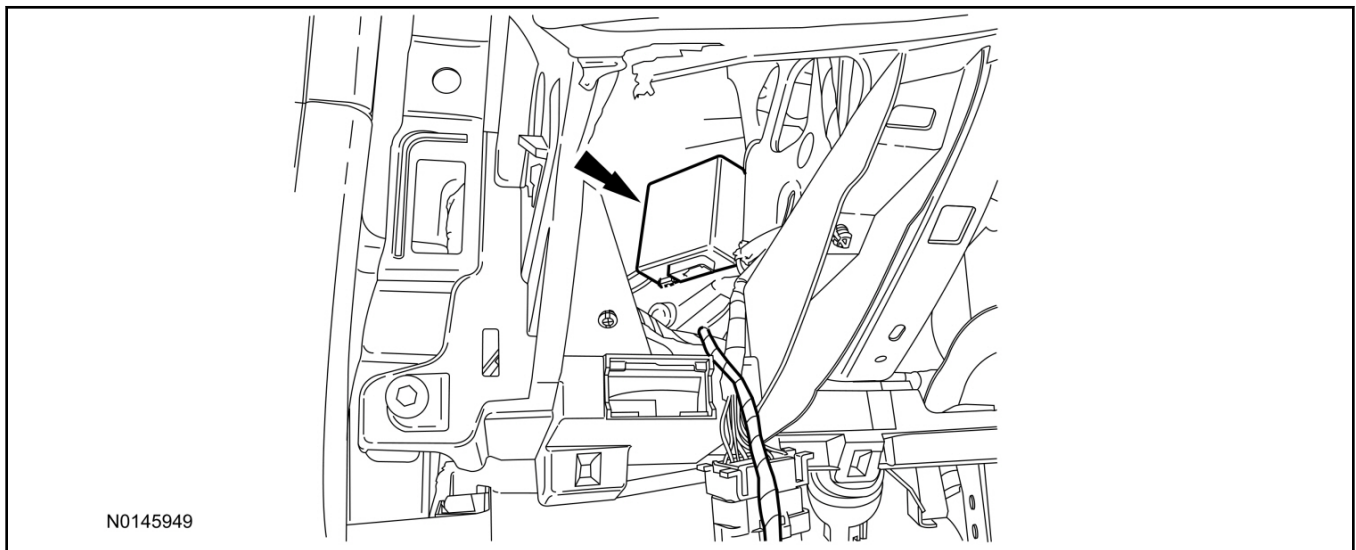
INSTALLATION (Continued)

9. Connect T-harness to the back of the gateway module.



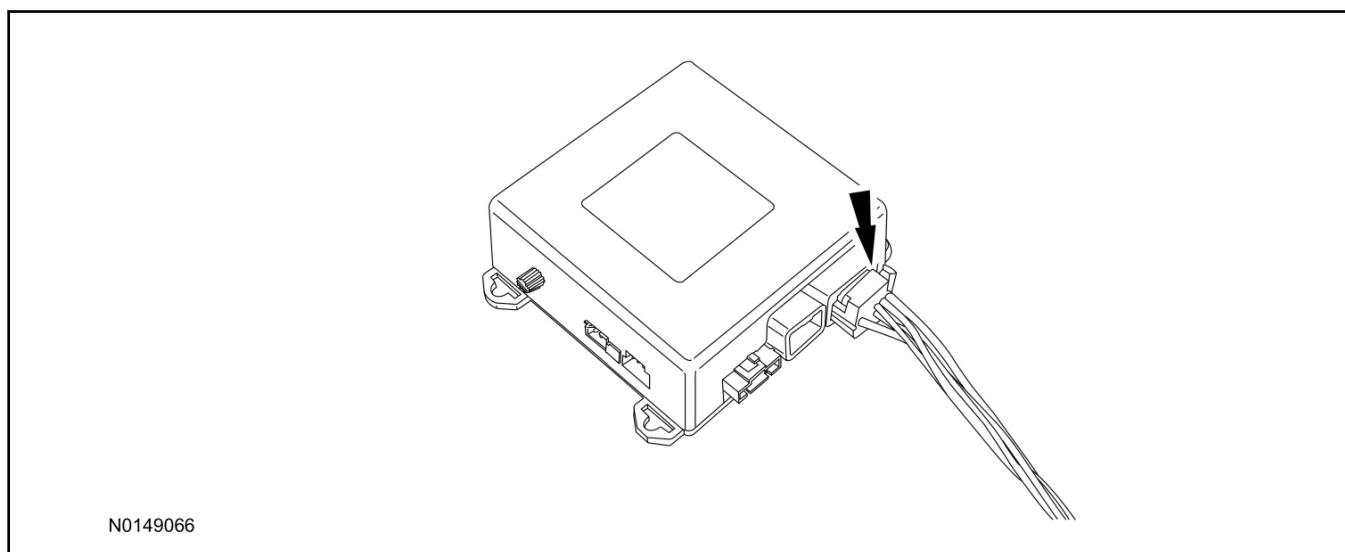
10. Install the VSS module to the Instrument Panel (IP) frame.

- Secure with zip-ties.



INSTALLATION (Continued)

11. Position the T-harness inside the IP.
12. Connect the T-harness to the VSS module.

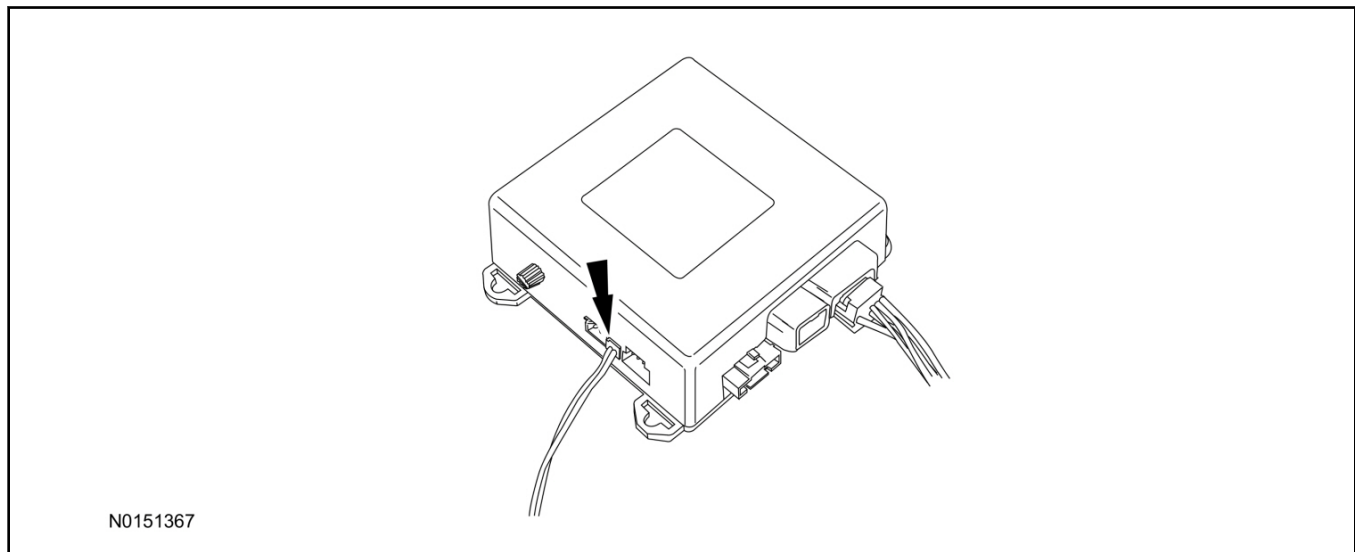


13. Connect the vehicle battery negative terminal. For additional information, refer to WSM Section 414-01.

Optional Security Indicator LED Mounting**CAUTION:**

Carefully route and secure module and harnesses so that they do not interfere with moving parts or linkages.

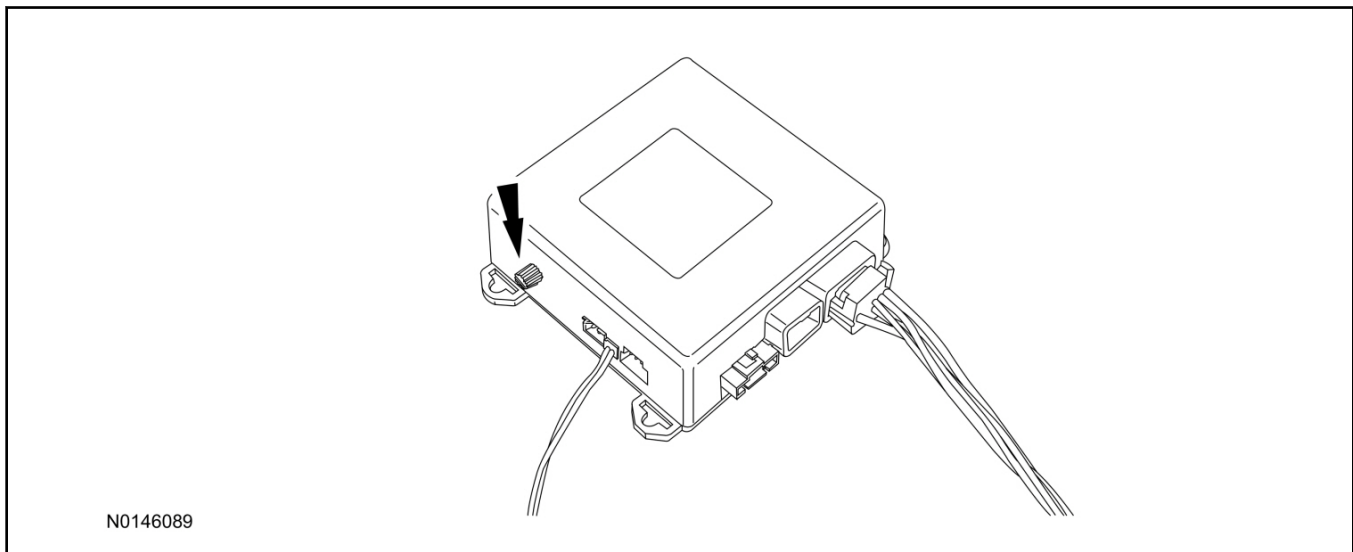
14. Keep the following points in mind when routing or positioning the LED for mounting:
 - Have at least 3/4" clearance behind trim panels for the wiring harness to be routed.
 - The LED should be clearly visible from the driver's side window when mounted.
 - Do not mount the LED on trim panels that cover air bags.
15. Mount the LED at an appropriate location on the upper steering column shroud, using the guidelines listed above.
 - Drill a 9/32" hole into the selected location, for the LED to mount in.
16. Route the LED wire harness to the VSS module.
17. Connect the LED wire harness to the VSS module 2-pin white connector.
 - Secure the LED wire harness with tie-straps.

INSTALLATION (Continued)**Learn VSS to Vehicle**

18. Cycle ignition OFF, ON, OFF one time to learn VSS to the vehicle.
19. Use IDS to clear continuous DTCs.
20. If the vehicle is equipped with factory remote start, test its operation by pressing the Lock button one time and the Remote Start button two times.
 - If the vehicle remote starts, stop the engine by pressing the Remote Start button one time.
 - If the vehicle does not remote start, disconnect the vehicle battery negative terminal, wait five minutes and then reconnect the battery negative terminal. For additional information, refer to Workshop Manual (WSM) Section 414-01.
 - Retest the factory remote start.
 - If the vehicle does not remote start, diagnose the concern.

Shock Sensor Sensitivity Adjustment**NOTE:**

The VSS module is equipped with an internal dual zone Shock Sensor. The VSS system will activate a single horn honk/single light flash anytime a light to moderate impact is detected, and a "panic" type 30 second horn honk/light flash sequence when a heavy impact is detected while the VSS system is armed. Adjustment of both zones is accomplished through a single adjustment knob on the VSS module. Rotating the knob clockwise will increase sensitivity and rotating the knob counter-clockwise will decrease sensitivity. Sensitivity adjustment must be completed with the module securely mounted and the adjustment knob accessible.

INSTALLATION (Continued)

21. Starting with the adjustment knob in approximately the halfway position, lower the driver's window and exit the vehicle.
22. Press the LOCK button on the vehicle's RKE fob to arm the VSS system. The LED will light solid for 20 seconds and then begin to flash a steady on/off sequence to indicate the system is armed.
23. Using a closed fist, impact the steering wheel with moderate force to simulate a light impact on the vehicle. If the impact is detected, the horn will honk and the lights will flash 1 time to indicate the warning impact was detected.
24. Using a closed fist, impact the steering wheel with heavy force to simulate a hard impact (i.e. glass breakage) on the vehicle. If the impact is detected, the horn will honk and the lights will flash a steady on off sequence to indicate the heavy or full shock trigger was detected.
25. Increase (rotate clockwise) or decrease (rotate counter-clockwise) the adjustment knob as necessary to achieve desired sensitivity, repeat the previous steps to test, and verify adjustment.

VSS Functional Test**NOTE:**

If installed, observe the LED while performing these tests.

26. Lower the driver's door window, then close all doors, hood, and trunk/hatch and press lock on the keyfob. The LED should stay lit for 20 seconds while the VSS system pre-arms, after which it will flash every 3-4 seconds in fully armed mode.
27. Reach inside the window hit the door unlock trim switch. The LED should continue to flash, indicating that the vehicle is still armed. Use the inside driver's door handle to open the door. The alarm should sound, indicating perimeter breach. Turn the alarm off by turning the ignition to "On".
 - If equipped with OE perimeter security, there will be a 12 second interior chime prior to alarm sounding. For vehicles not equipped with OE perimeter security, there will be a 12 second delay with no interior chime prior to alarm sounding.
 - For push button start vehicles, the Intelligent Access (IA) key must be away from the vehicle, otherwise the security system may disarm immediately upon trigger.

INSTALLATION (Continued)

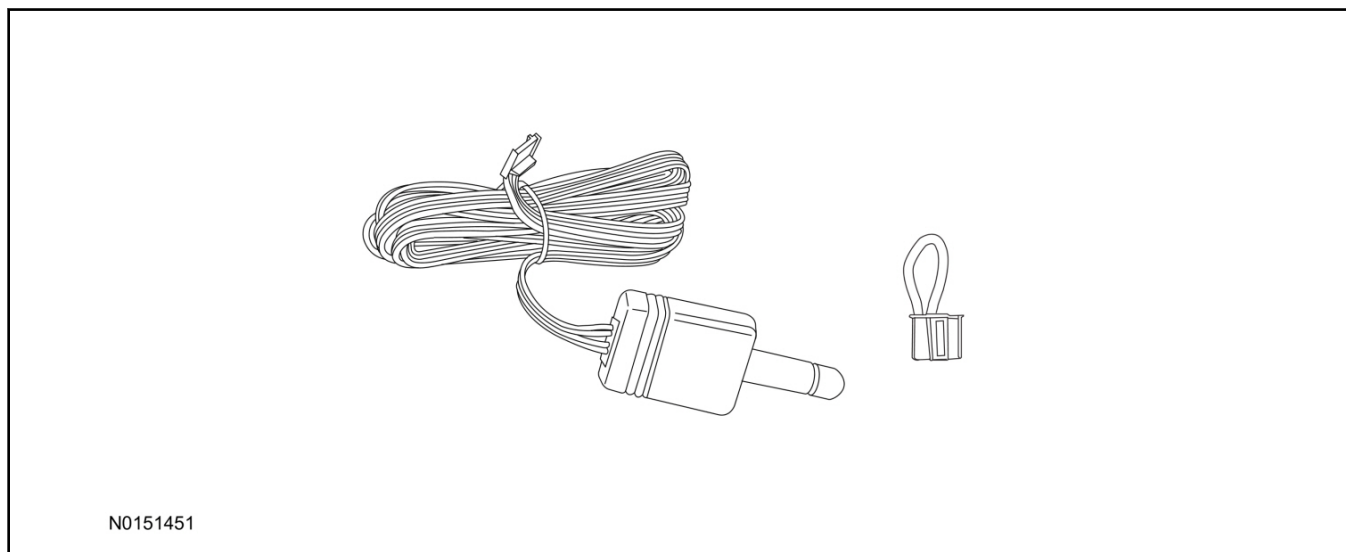
28. Exit the vehicle and arm it again, this time leaving the driver's door open. The vehicle should arm itself, ignoring the open door but monitoring the rest. Once the vehicle is armed, shut the driver's door and reopen it after a few seconds. The alarm should sound. Turn the alarm off by hitting unlock on the keyfob.
- For push button start vehicles, the Intelligent Access (IA) key must be away from the vehicle, otherwise the security system may disarm immediately upon trigger.
29. Test all other vehicle doors, the hood and the trunk in the same manner, by setting off the alarm and disarming with the keyfob.
30. **Please contact 1-800-FORD-KEY with any issues regarding hardware or kit contents.**

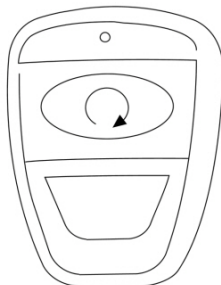
II. Remote Start (RMST) Upgrade - Antenna Kit "Sold Separately"**⚠ CAUTION:**

Carefully route and secure module and harnesses so that they do not interfere with moving parts or linkages.

NOTE:

Verify that the vehicle has a hood switch Installed. If the vehicle is not equipped with a hood switch refer to **"Hood Switch Kit - Sold Separately"**.



INSTALLATION (Continued)**Standard Key Fob (15K601) "Sold Separately"**

N0151499

Bi-directional Key Fob (15K601) "Sold Separately"

N0162473

Optional RMST Upgrade Components "Sold Separately"

31. Review the RMST Upgrade components.

Remote Start (RMST) Upgrade - Antenna Kit "Sold Separately"

QUANTITY	DESCRIPTION
1	Bi-directional Antenna
1	Security Jumper

Standard Key Fob (15K601) "Sold Separately"

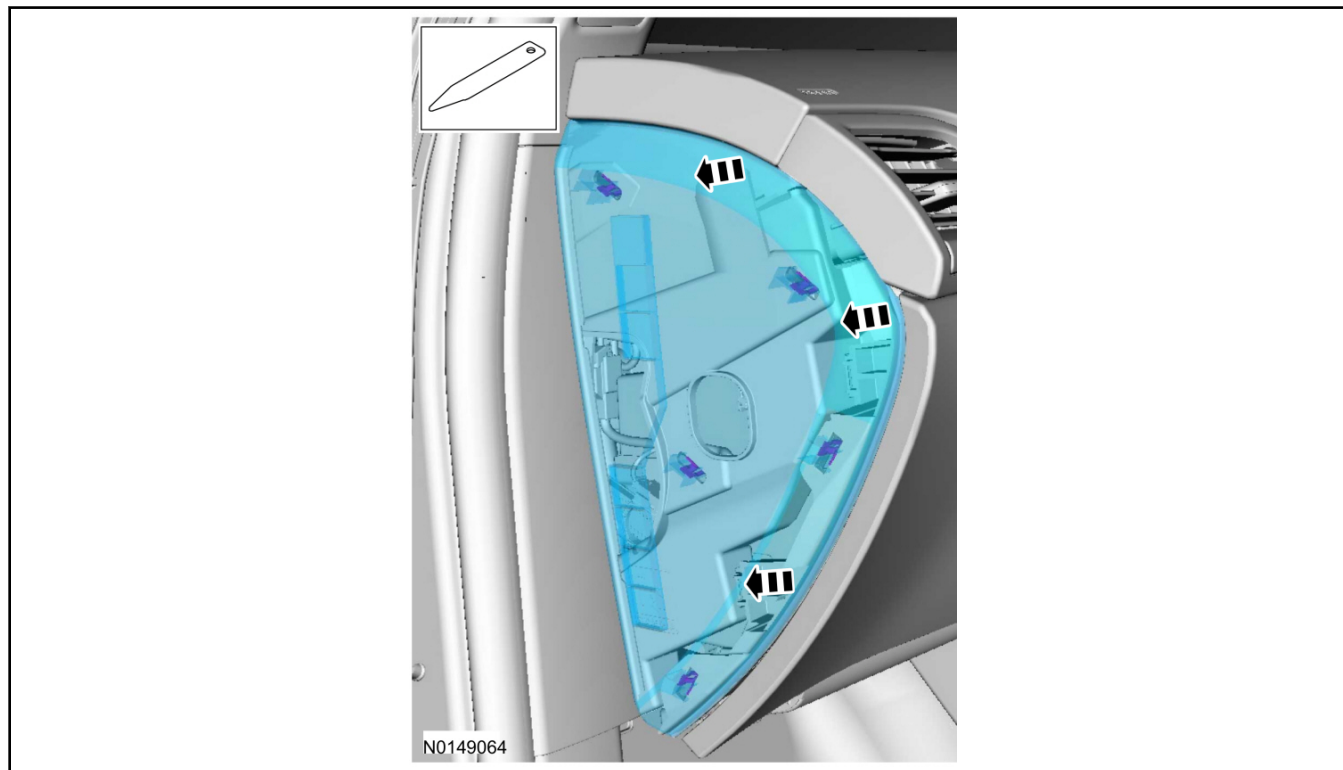
QUANTITY	DESCRIPTION
1	Standard Key Fob (15K601)

INSTALLATION (Continued)**Bi-directional Key Fob (15K601) "Sold Separately"**

QUANTITY	DESCRIPTION
1	Bi-directional Key Fob (15K601)

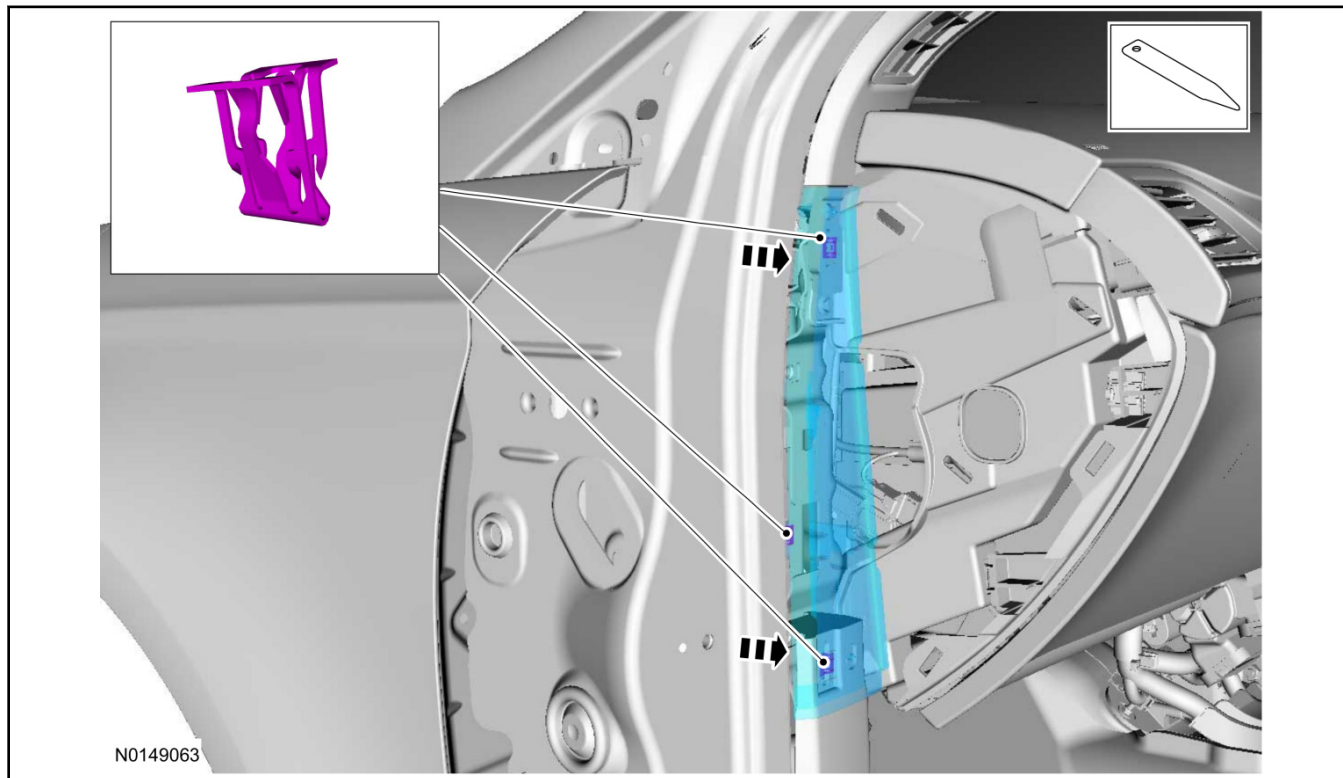
RMST Kit Antenna Installation

32. Position aside the LH weather strip and remove the LH IP side trim panel.



INSTALLATION (Continued)

33. Remove the upper cowl side trim panel.



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

35. **NOTE:**

Do not touch the adhesive, reduced adhesion may result.

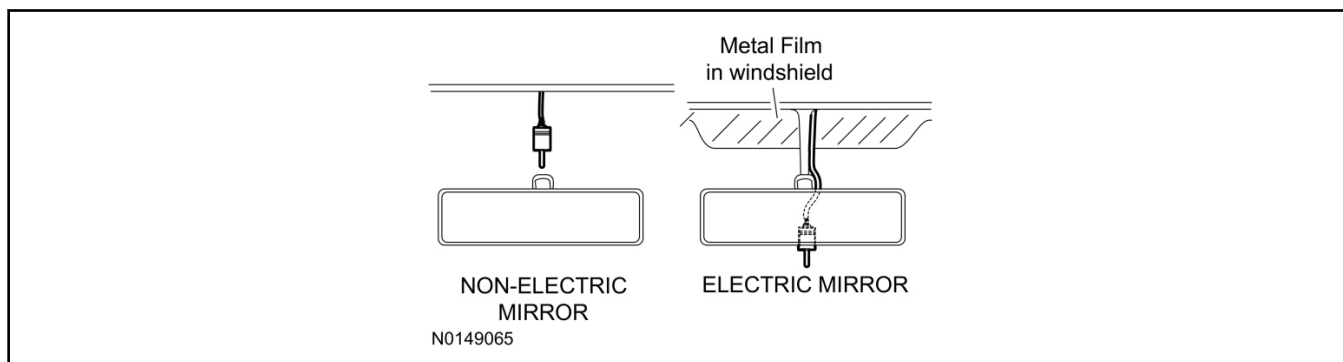
NOTE:

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 onto the mounting surface.



INSTALLATION (Continued)

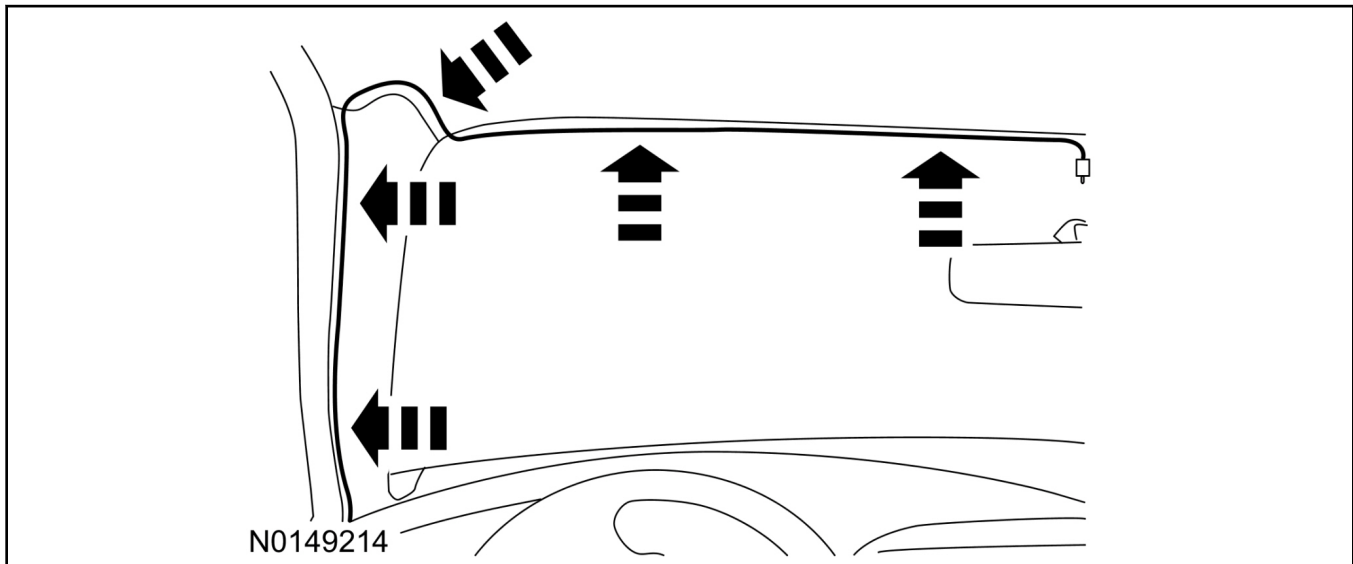
36. If necessary, position the A-pillar trim slightly outward to provide access to route the antenna wire.

NOTE:

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

37. Route the antenna cable along the headliner and down the A-pillar towards the floor. Continue routing the wire into the IP towards the VSS module.

- Secure with tie-straps.



38. Connect the antenna connector to the VSS module.

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

40. Install the upper cowl side trim panel.

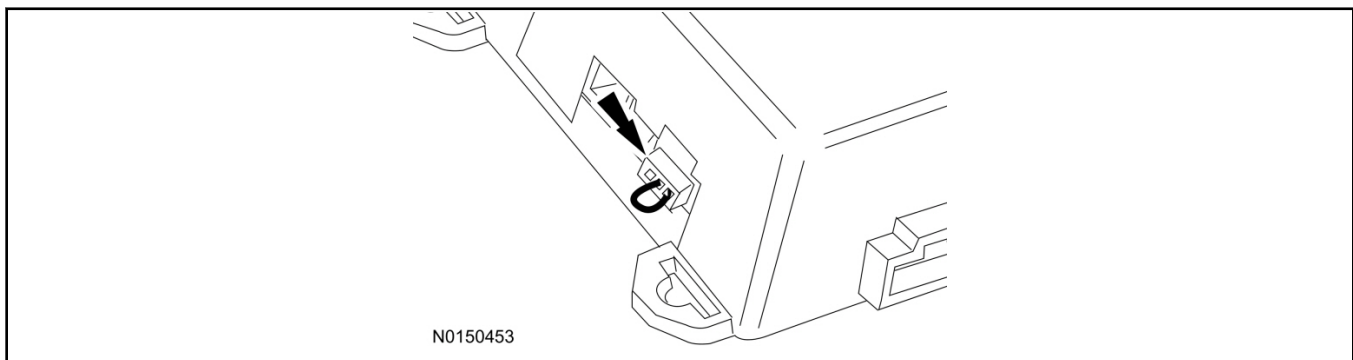
41. Install the LH IP side trim panel and position the LH weather strip back.

VSS Module - Optional Vehicle Security Features

42. Enable/Disable Vehicle Security Features:

Locate the security jumper supplied in the kit.

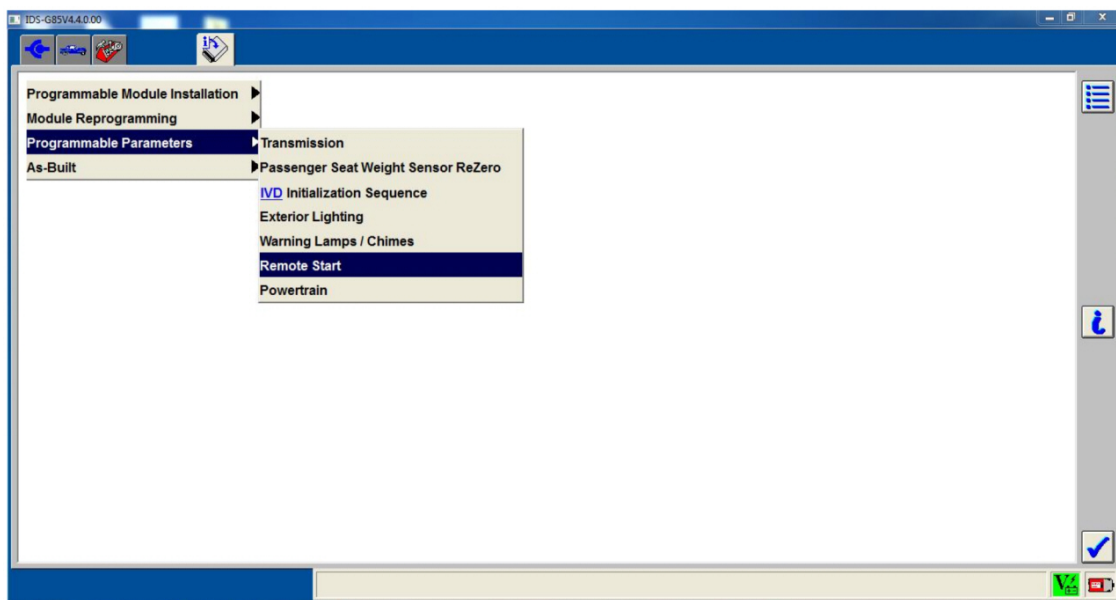
- Install the jumper to the VSS module if the vehicle security features are to be **disabled**.
- Not installing and/or removing the jumper from the VSS module will keep the vehicle security features **enabled**.



INSTALLATION (Continued)**RMST Activation - Vehicles Without Factory Remote Start Only****NOTE:**

For vehicles equipped with factory remote start, proceed to "Push Button Start Vehicle" section within the "Programming Key Fobs" section of this manual.

43. Cycle ignition OFF, ON, OFF one time to learn RMST to the vehicle.
44. Verify that the IDS is updated to the most current version.
45. Connect IDS.
 - Follow the prompts to select new vehicle session.
 - Enter VIN.
46. Activate the remote start using the IDS.
 - Select the Tool Box icon.
 - Select Module Programming.
 - Select Programmable Parameters.
 - Select Remote Start.

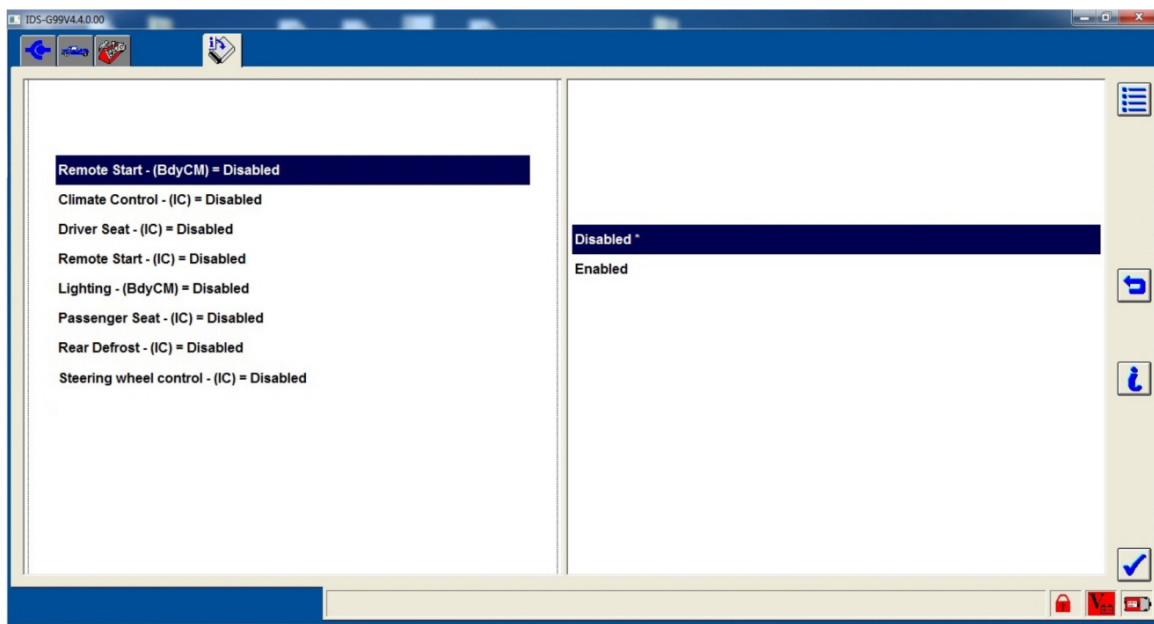


N0151675

INSTALLATION (Continued)

47. Verify that the instructions on the IDS screen have been completed and continue until you reach the screen below.
- From this screen, you must select the feature and then select the "Enabled" text (to the right) for these items:
 - Remote Start - (BdyCM)
 - Lighting - (BdyCM) [2017 model year and newer]
 - Climate Control - (IC)
 - Remote Start (IC)
 - Select the feature and then select the "Enabled" text (to the right) for these items if the vehicle includes the optional feature:
 - Driver Seat - (IC)
 - Passenger Seat - (IC)
 - Rear Defrost - (IC)
 - **NOTE:**
The Steering Wheel Control item refers to the heated steering wheel feature.
The Driver Seat and Passenger Seat items refer to climate controlled seating.

Steering Wheel Control - (IC)
 - Once all appropriate items have been enabled, select the Tick button to direct IDS to enable the remote start option on the vehicle.



N0167888

INSTALLATION (Continued)

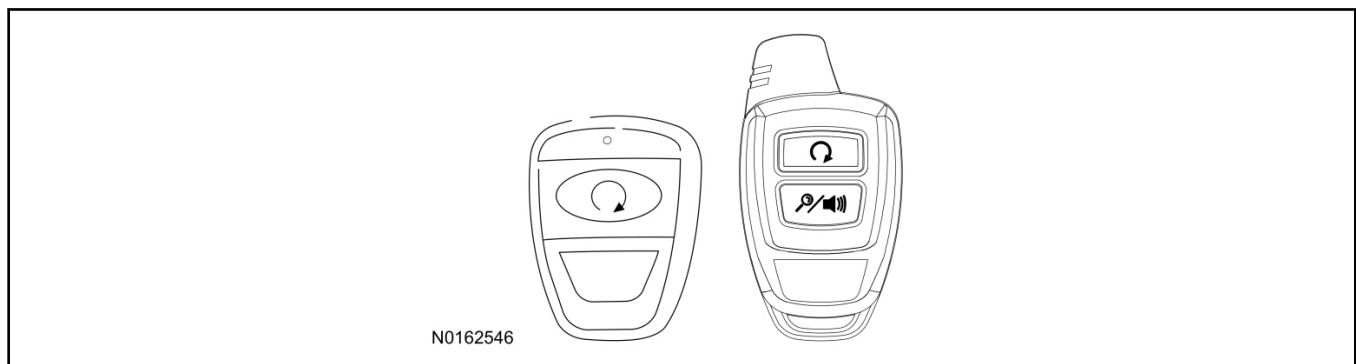
48. For vehicles equipped with standard message center, verify that the remote start option now appears.
- Using the Select and Arrow buttons on the steering wheel, select Settings.
 - Select Vehicle.
 - Select Remote Start.
 - Select System.
 - Verify that the remote start system is checked.
49. For 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.

50. **NOTE:**

This step applies to both standard and advanced message centers.

While in the message center menu:

- 1 Change the remote start running duration from the default 10 minute setting to 15 minutes.
- 2 Reprogram the Front Control Interface Module (FCIM) to the latest calibration using IDS release 90.02 and higher.

Programming Key Fobs

51. **Key Start Vehicles:**

NOTE:

These steps must be performed with the VSS module security jumper removed if previously installed. For additional information refer to "VSS Module - Optional Vehicle Security Features".

INSTALLATION (Continued)

- 1 Start with doors unlocked
- 2 Driver's door open (remaining open throughout)
- 3 Verify that the gearshift lever is in the "PARK" position.
- 4 Depress and hold brake pedal.
- 5 Start with ignition key OFF.
- 6 Cycle ignition key to the ON then OFF position 5 times, then back to the ON position a 6th time.
 - The horn will honk 3 times to indicate transmitter learn mode access.
- 7 Press the START button on each transmitter you wish to program. The horn will honk 1 time each time the START button is pressed to indicated the transmitter has been learned.
- 8 Cycle ignition key to the OFF position to exit transmitter learn mode.

9 NOTE:

If the security jumper is installed the vehicle security features are disabled.

If previously removed, reinstall the VSS module security jumper. For additional information, refer to "VSS Module - Optional Vehicle Security Features".

52. Push Button Start Vehicles:**NOTE:**

These steps must be performed with the VSS module security jumper removed if previously installed. For additional information refer to "VSS Module - Optional Vehicle Security Features".

NOTE:

The following steps must be performed with the driver door open.

- 1 Open door and press unlock.
- 2 Enter the vehicle with the vehicle key(s) and key fobs you wish to program.
- 3 Depress and hold brake pedal.
- 4 Press the start/stop button.
- 5 After the vehicle starts, press the start/stop button to shut down.
- 6 Repeat steps 3 and 4 an additional five times, ending in ignition ON, engine ON.
- 7 Release the brake pedal, the horn should honk 3 times.
- 8 Press the start/stop button on each fob you wish to program. The horn should honk each time the button is pressed to indicate the transmitter has been programmed.
- 9 Cycle ignition to the OFF position to exit transmitter learn mode.

10 NOTE:

If the security jumper is installed the vehicle security features are disabled.

If previously removed, reinstall the VSS module security jumper. For additional information, refer to "VSS Module - Optional Vehicle Security Features".

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

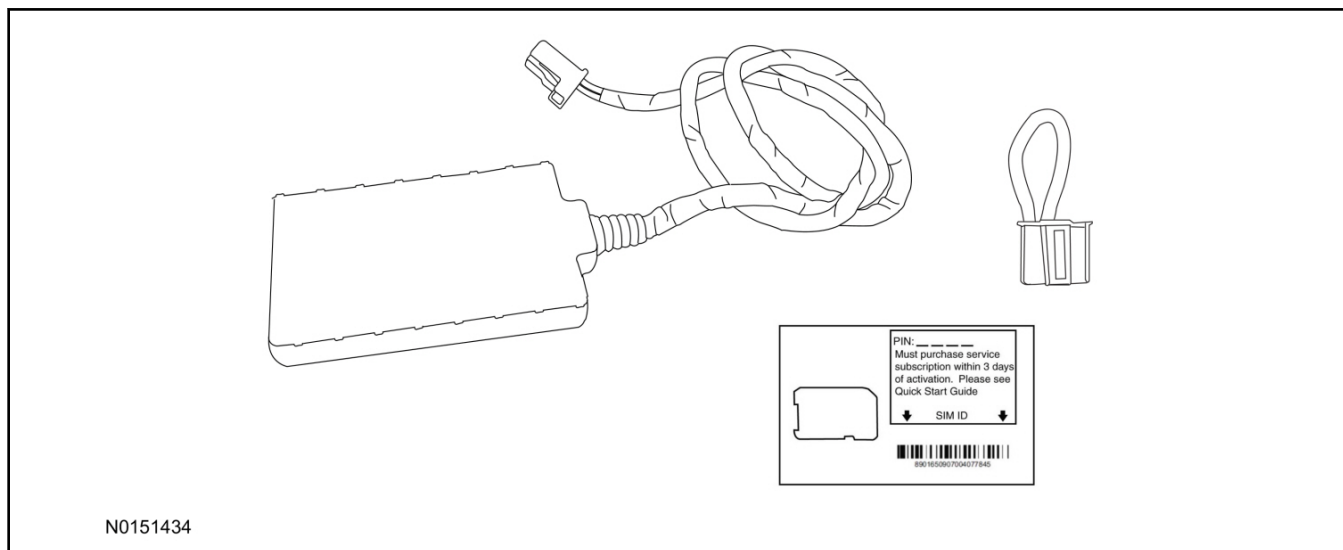
Do not put a key in the ignition for the following steps.

53. Make sure the shift lever is in PARK and the ignition is in the OFF position. Remove all keys from the vehicle.
54. Close the hood.
55. Close all of the vehicle doors.
56. Start the vehicle by pressing the remote start button twice on the remote start key fob.
57. Confirm the remote start works with the vehicle in park and with the hood and doors closed.
58. Open the hood.
59. **NOTE:**
Vehicle doors should be closed while performing this step.

Confirm that the vehicle will not start with the hood open.

Please contact 1-800-FORD-KEY with any issues regarding hardware or kit contents.

60. See the Scalable Remote Start System Diagnosis Guide to resolve issues identified by the functional test.

III. Remote Access (RMU) Upgrade "Sold Separately"

61. Review the RMU upgrade components.

Optional Components — Remote Access (RMU) Upgrade "Sold Separately"

QUANTITY	DESCRIPTION
1	Remote Messaging Unit (RMU)
1	SIM Card Carrier
1	Security Jumper

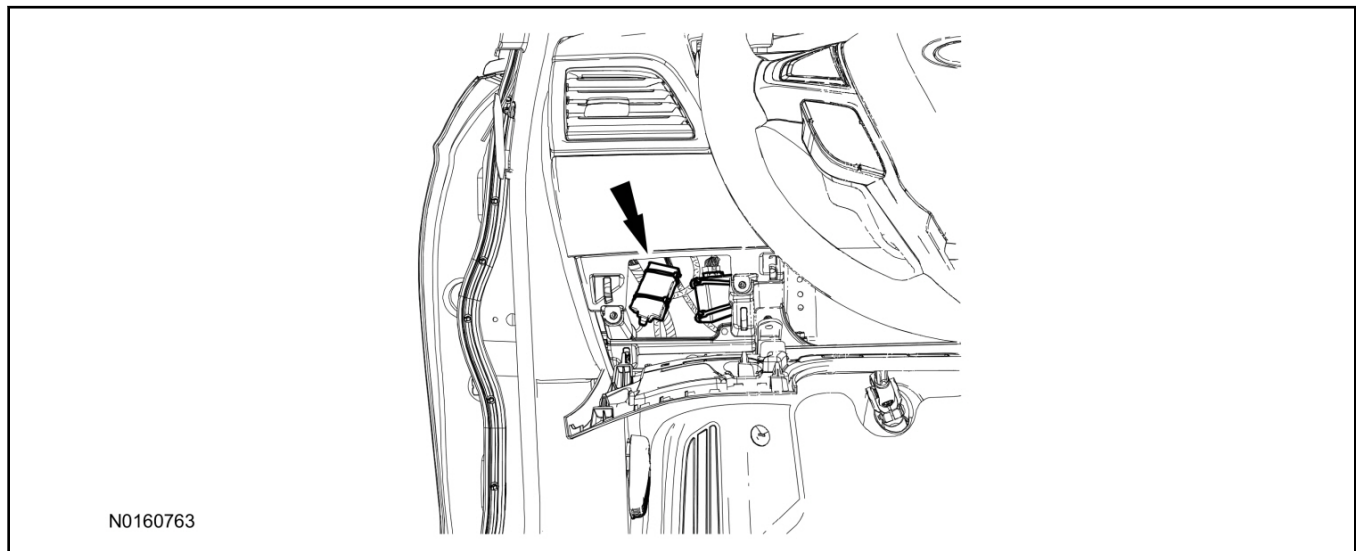
INSTALLATION (Continued)**CAUTION:**

Carefully route and secure module and harnesses so that they do not interfere with moving parts or linkages.

NOTE:

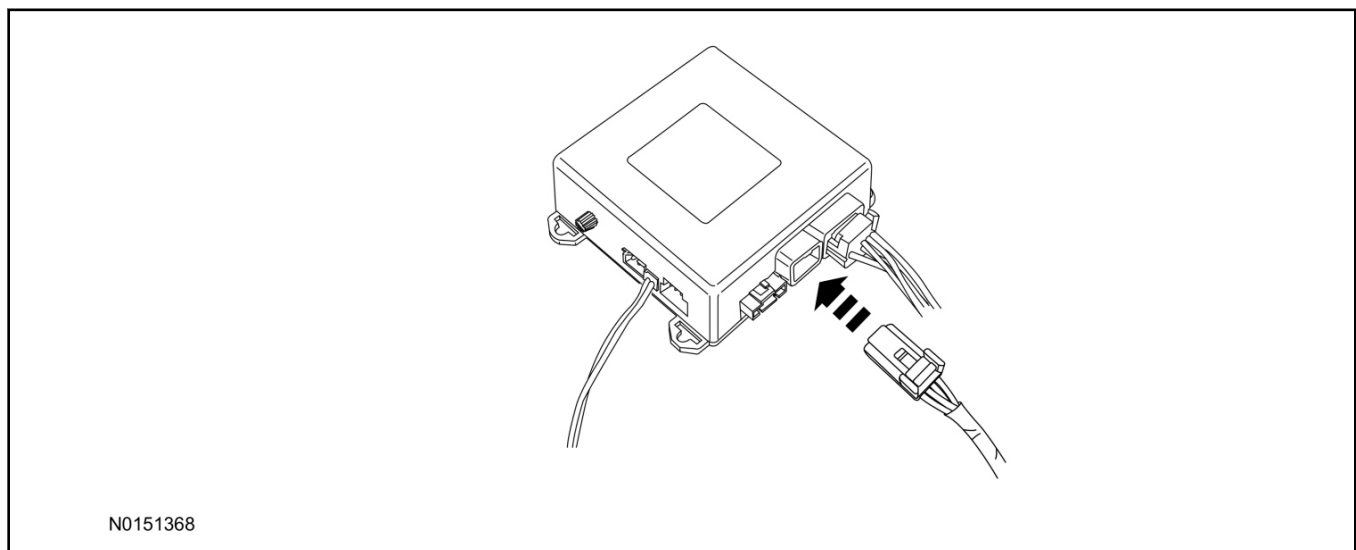
For proper range of operation, the RMU must be installed as shown in the diagram below.

62. Using tie-straps secure the RMU to the IP harness above the previously installed VSS module.



63. Connect the RMU electrical connector to the VSS module.

- Secure the harness with tie-straps.

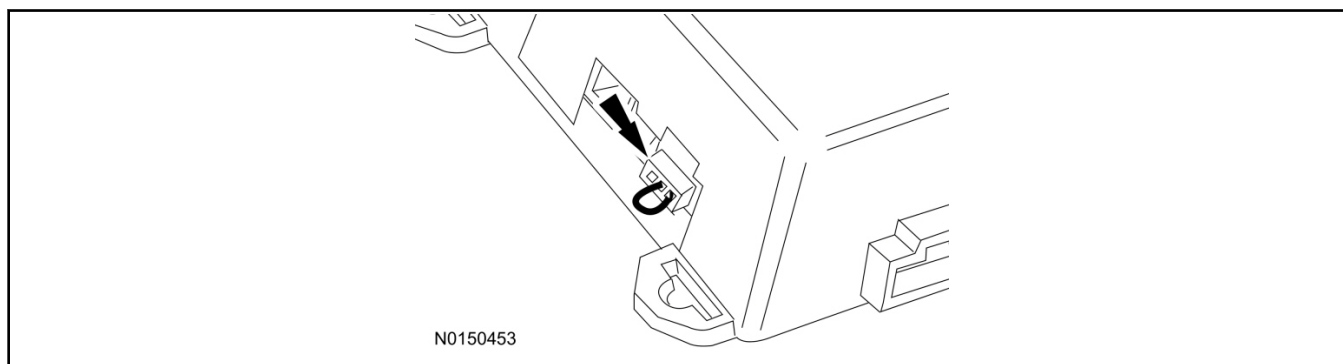


INSTALLATION (Continued)**VSS Module - Optional Vehicle Security Features**

64. Enable/Disable Vehicle Security Features:

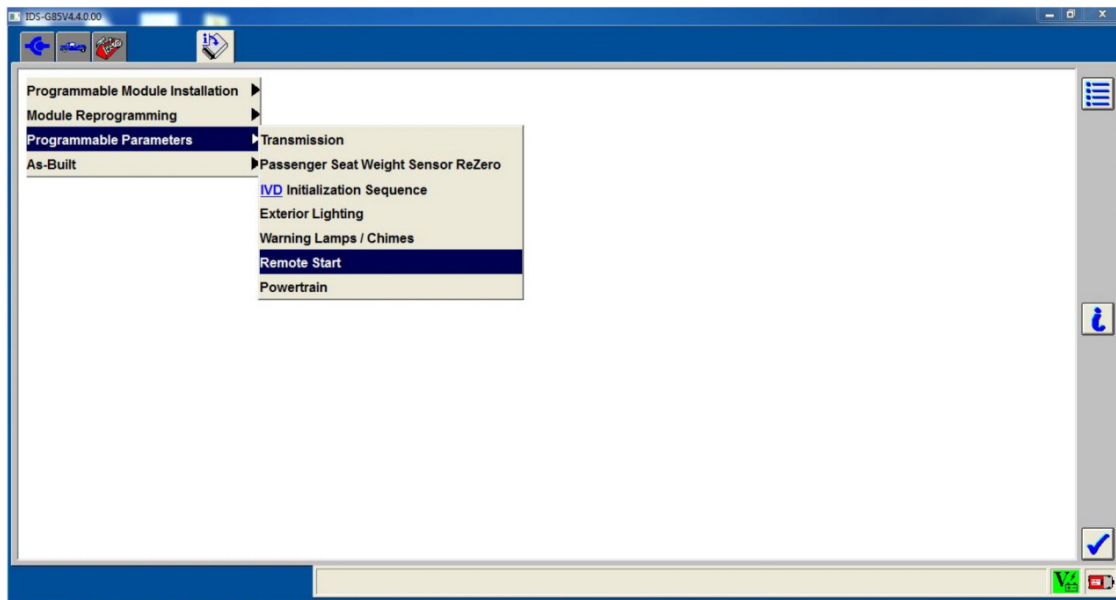
Locate the security jumper supplied in the kit.

- Install the jumper to the VSS module if the vehicle security features are to be **disabled**.
- Not installing and/or removing the jumper from the VSS module will keep the vehicle security features **enabled**.

**RMST Activation - Vehicles Without Factory Remote Start Only****NOTE:**

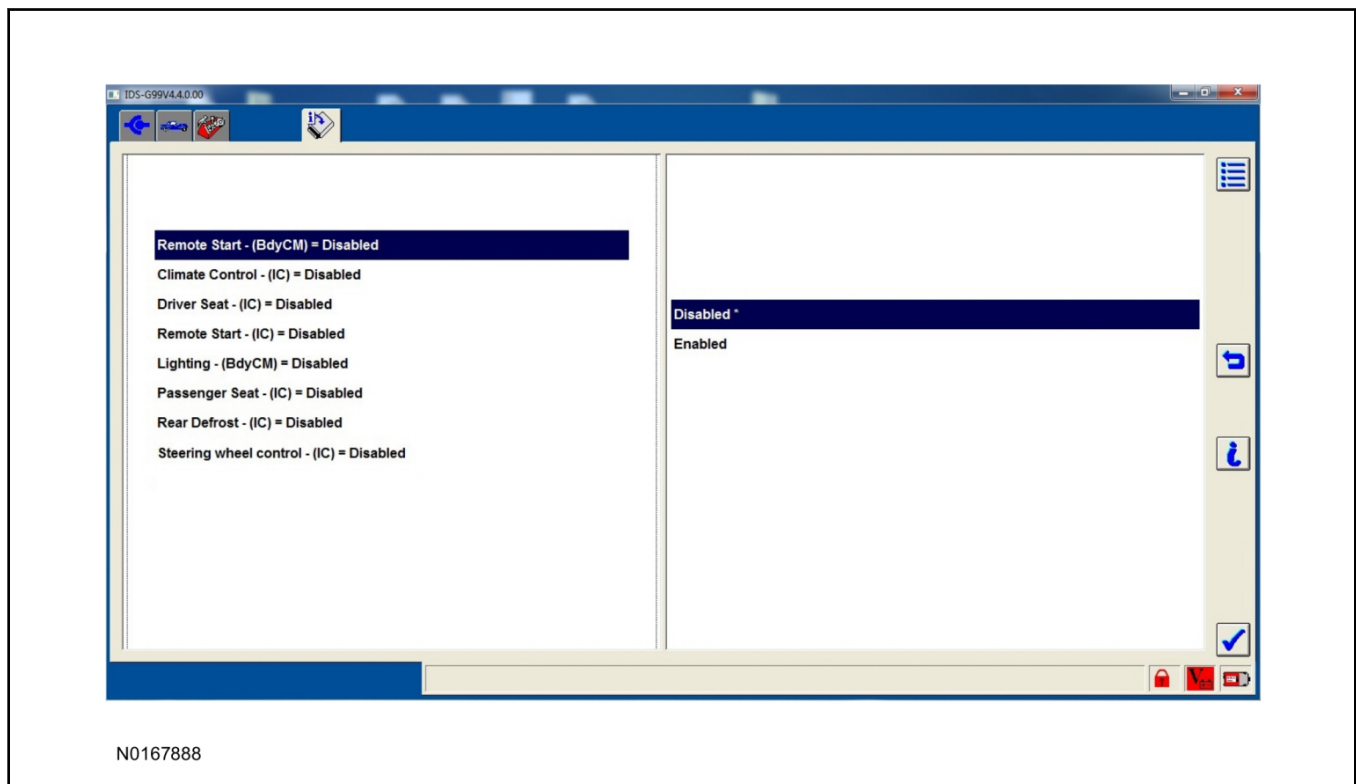
For vehicles equipped with factory remote start, proceed to "Push Button Start Vehicle" section within the "Programming Key Fobs" section of this manual.

65. Cycle ignition OFF, ON, OFF one time to learn RMST to the vehicle.
66. Verify that the IDS is updated to the most current version.
67. Connect IDS.
 - Follow the prompts to select new vehicle session.
 - Enter VIN.
68. Activate the remote start using the IDS.
 - Select the Tool Box icon.
 - Select Module Programming.
 - Select Programmable Parameters.
 - Select Remote Start.

INSTALLATION (Continued)

N0151675

69. Verify that the instructions on the IDS screen have been completed and continue until you reach the screen below.
- From this screen, you must select the feature and then select the "Enabled" text (to the right) for these items:
 - Remote Start - (BdyCM)
 - Lighting - (BdyCM) [2017 model year and newer]
 - Climate Control - (IC)
 - Remote Start (IC)
 - Select the feature and then select the "Enabled" text (to the right) for these items if the vehicle includes the optional feature:
 - Driver Seat - (IC)
 - Passenger Seat - (IC)
 - Rear Defrost - (IC)
 - NOTE:**
The Steering Wheel Control item refers to the heated steering wheel feature.
The Driver Seat and Passenger Seat items refer to climate controlled seating.
Steering Wheel Control - (IC)
 - Once all appropriate items have been enabled, select the Tick button to direct IDS to enable the remote start option on the vehicle.

INSTALLATION (Continued)

70. 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 Vehicle.
 - Select Remote Start.
 - Select System.
 - Verify that the remote start system is checked.
71. 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.
72. **NOTE:**
This step applies to both standard and advanced message centers.
- While in the message center menu:
- 1 Change the remote start running duration from the default 10 minute setting to 15 minutes.

INSTALLATION (Continued)

- 2 Reprogram the Front Control Interface Module (FCIM) to the latest calibration using IDS release 90.02 and higher.

RMU Activation**NOTE:**

Please note that the Remote Access application that is used to start the vehicle for this RMST kit will only work with iPhone and Android phones.

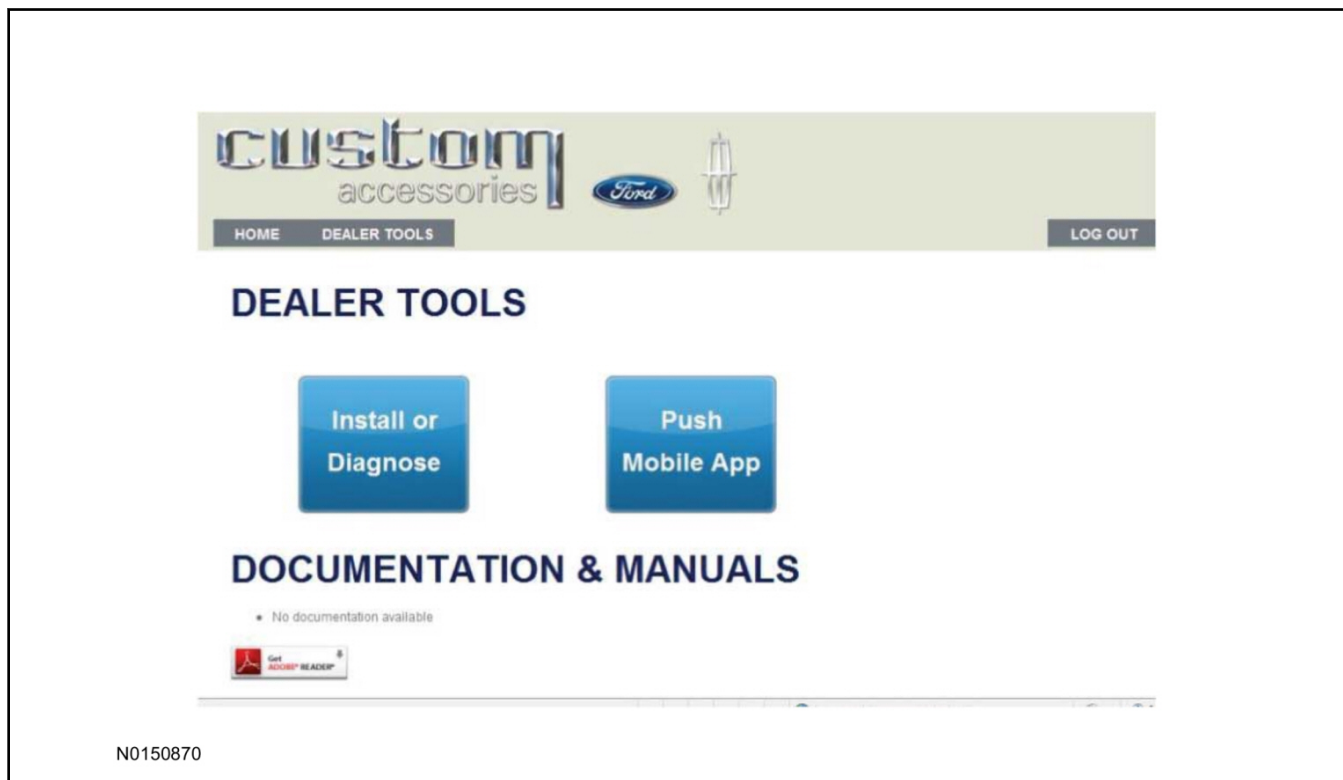
NOTE:

Once the VSS and RMU modules have been installed, cycle ignition from OFF to ON to OFF one time to learn VSS to the vehicle.

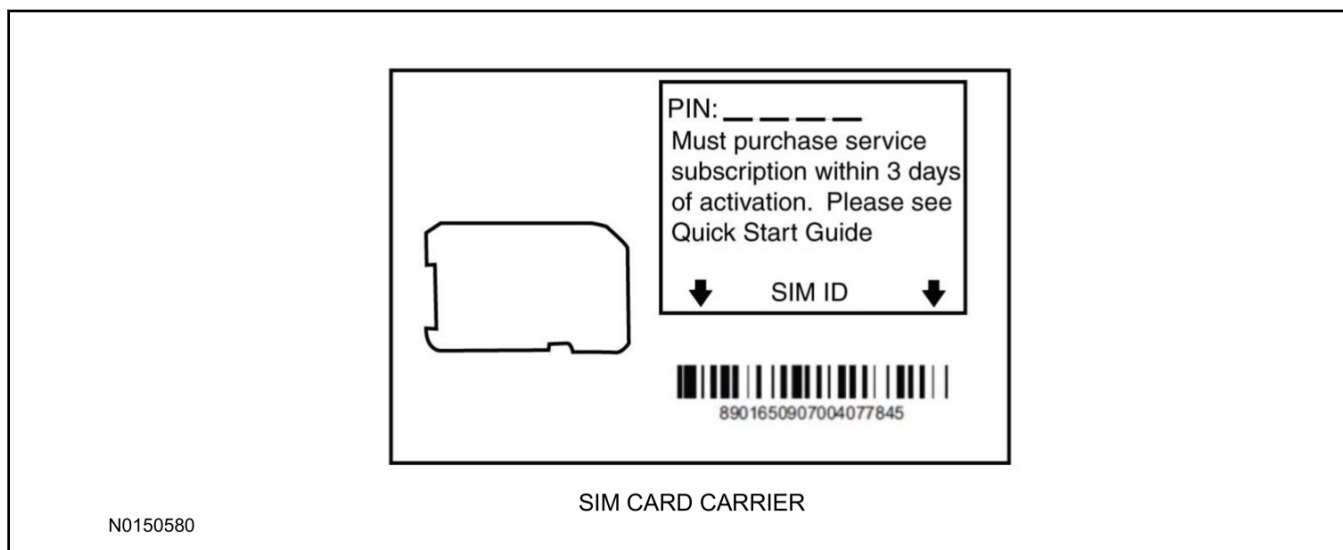
73. For RMU activation the following information from the customer is recommended to provide them with electronic notification for app retrieval:
 - 1 Email Address
 - 2 Cell Phone Number
 - 3 Cell Phone Carrier Company
74. Log on to your Professional Technician Society (PTS) account and enter the vehicle information.
 - 1 Select "Vehicle Id".
 - 2 Select "By Year & Model"
 - 3 Choose the year & model of the vehicle and then select "GO".
 - 4 Hover over the "Workshop" tab.
 - 5 Select the "Accessory Installation" menu item.
 - 6 Under the "Electrical" heading, select the "Remote Access Activation" link (first time users will need to agree to terms & conditions).
 - 7 Select the "Install or Diagnose" link.

INSTALLATION (Continued)**NOTE:**

If you are not directed to the screen shown below (or user agreement screen for first time users), make sure your internet browser zone settings are set to medium. This setting can be found in your browsers "internet options" under the "privacy" tab.

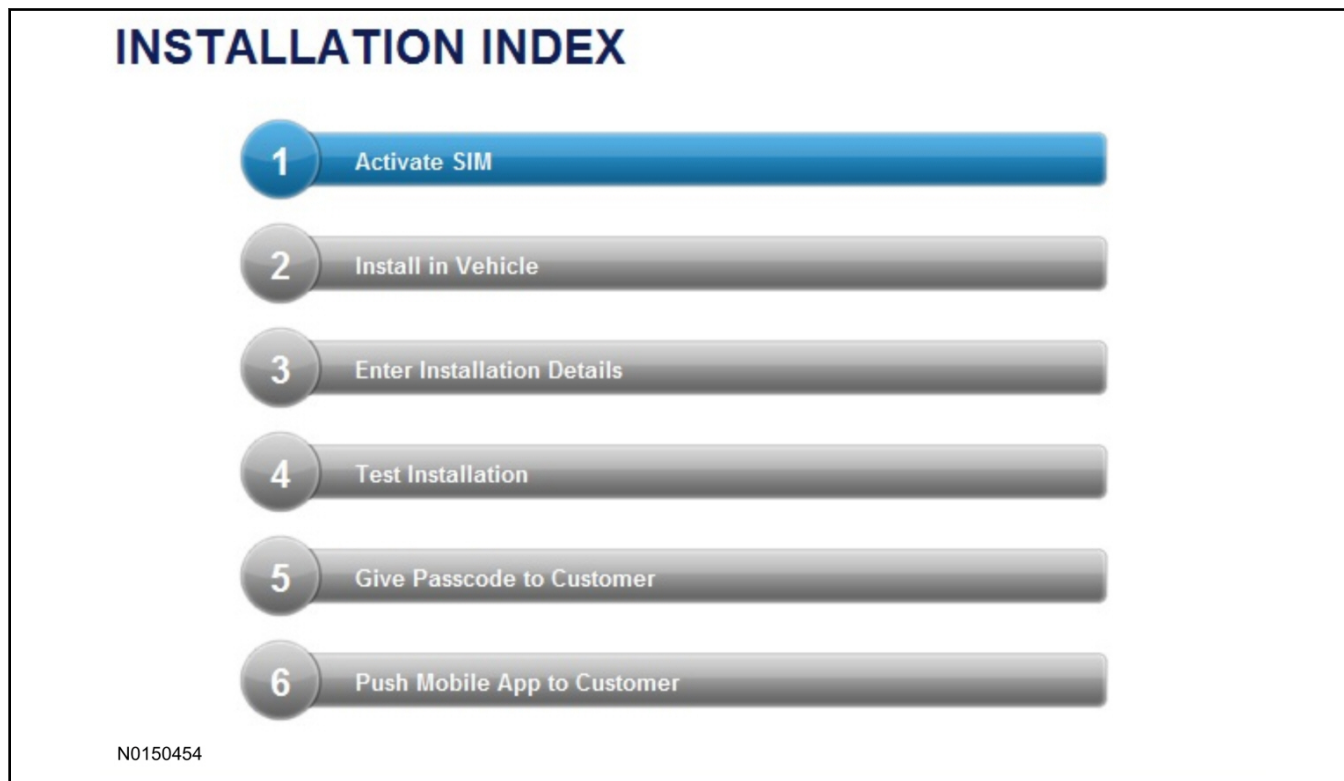


75. Once on the "Install" page, enter the SIM ID code that was provided with the RMST kit. Select "Begin or Continue Installation".



INSTALLATION (Continued)

76. Click on the "On screen steps 1-6", and follow the on screen instructions to complete the installation.



INSTALLATION (Continued)**NOTE:**

The following step will complete the activation process, when you are directed to a screen similar to the one below ensure the correct vehicle brand is selected and that all applicable features are enabled.

NOTE:

The "perimeter" and "shock" settings below are optional features and should only be selected when security features are enabled.

Installation Details

Brand

Security Features

☒ Start

☒ Stop

☒ Lock

☒ Unlock

☒ Car Finder

☒ Perimeter

☒ Shock

N0150305

77. Perform a functional check of the system by testing each of the available features.

- Start/Stop function
- Lock/Unlock function
- Car finder
- Signal (for troubleshooting only)

INSTALLATION (Continued)

Installation Test

Session Status	✓	Yes
Network Connection	✓	Yes
IP Assigned	✓	10.64.17.233
Comm Established	✓	Yes
Received IMEI	✓	358901041730422
Received ESN	✓	1663000117

Your install has been tested successfully. If you would like to test the physical functions of the module, you can do so below.

N0150677

NOTE:

All tests above must be completed in order to move to the next step. If any of the listed functions fail, move the vehicle to an outside location and retest.

78. For Key Start Vehicles:

- In the event start or stop fail, refer to the "Remote Start Activation" section in this manual.
- In the event lock/unlock or car find fail, refer to the "Learn Remote Start System to Vehicle" section in this manual.

79. Once the hardware installation and RMU activation process is complete, record the 4-digit PIN on the SIM card carrier. Provide the SIM card carrier to the customer so they can add this system to their Remote Access Account. Customer must have both the 4-digit PIN and SIM ID to activate/add their vehicle to their Remote Access Account.

80. If the customer agrees, you may push the mobile application to the customer. You will need the customer's phone number and cellular carrier. If the customer opts to install the application themselves, they can locate it in their mobile app store.

Please contact 1-800-FORD-KEY with any issues regarding hardware or kit contents.

Trim Installation

81. To install the trim, reverse the removal procedure.

Vehicle Security / Remote Start / Remote Access System Installation

CONTENTS

INSTALLATION

VSS Module Installation

Security Indicator LED Mounting

RMST Kit Antenna Installation

RMU Module Installation

GENERAL PROCEDURES

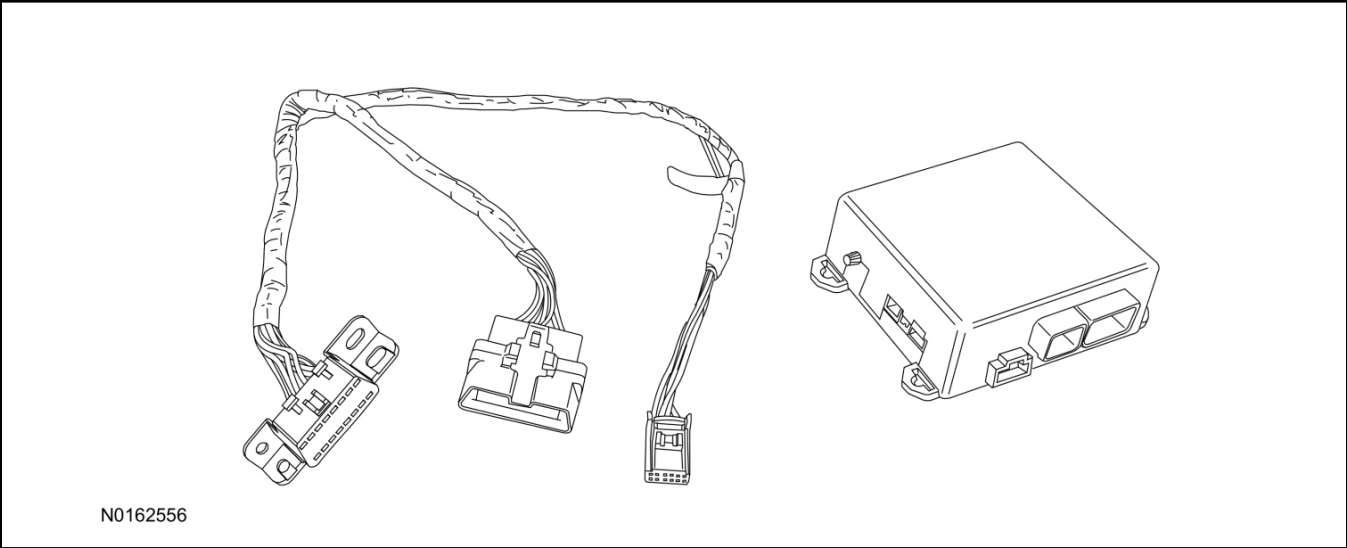
Shock Sensor Sensitivity Adjustment

RMU Activation

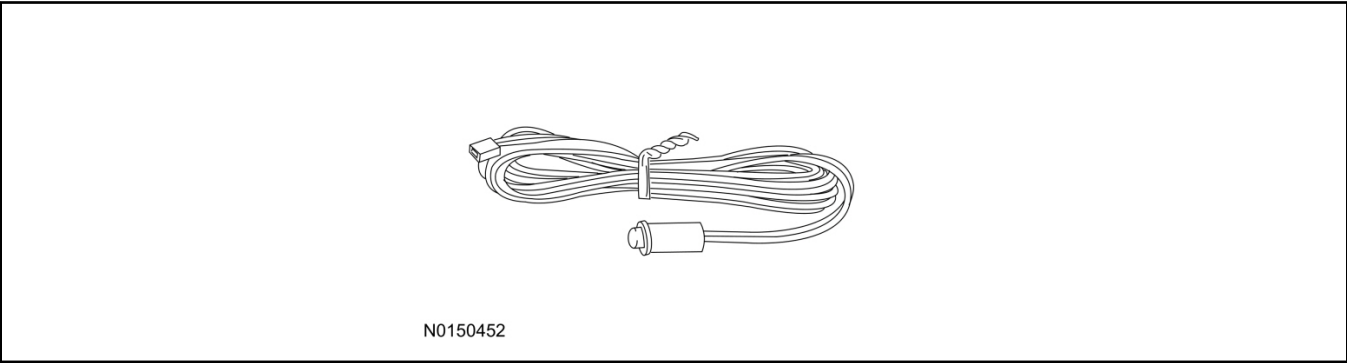
INSTALLATION

Vehicle Security / Remote Start / Remote Access - MKS

VSS System Components



Security Indicator LED (19D596) "Optional"



MKS

1. Verify correct kit number.

Review VSS Kit Contents

NOTE:

Kits are vehicle specific and are not interchangeable.

2. Review the VSS kit contents.

Vehicle Security System (VSS) Kit

QUANTITY	DESCRIPTION
1	VSS Module
1	T-harness

INSTALLATION (Continued)**Vehicle Security System (VSS) Kit(Continued)**

6	Tie-straps
1	Owner's Manual

Security Indicator LED Kit Contents "Optional"

3. Review the Security Indicator LED kit contents.

Security Indicator LED Kit

QUANTITY	DESCRIPTION
1	Security Indicator LED

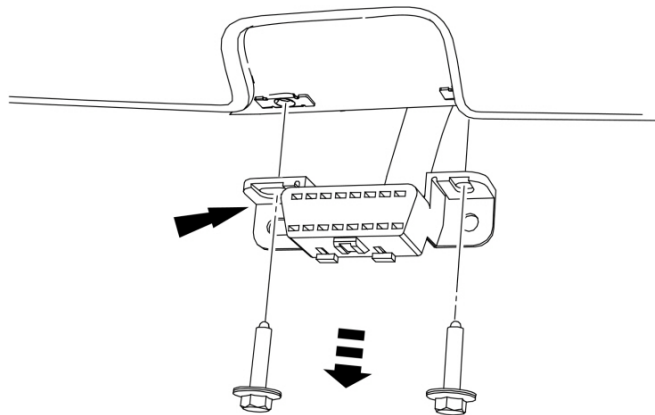
I. VSS System Installation**⚠ CAUTION:**

Carefully route and secure module and harnesses so that they do not interfere with moving parts or linkages.

NOTE:

If the VSS kit was installed previously and the vehicle is being upgraded, proceed to the "RMST" or "RMU" upgrade section(s).

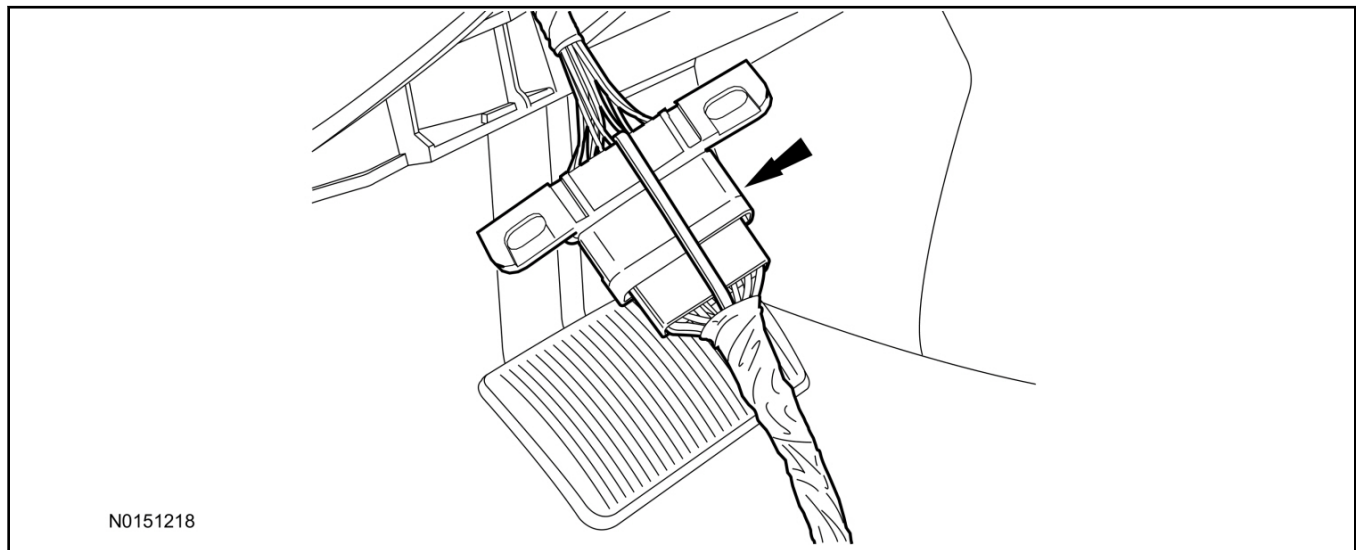
4. Remove the LH lower Instrument Panel (IP) insulator.
5. Remove the 2 bolts and remove the OBD II port from the IP frame.



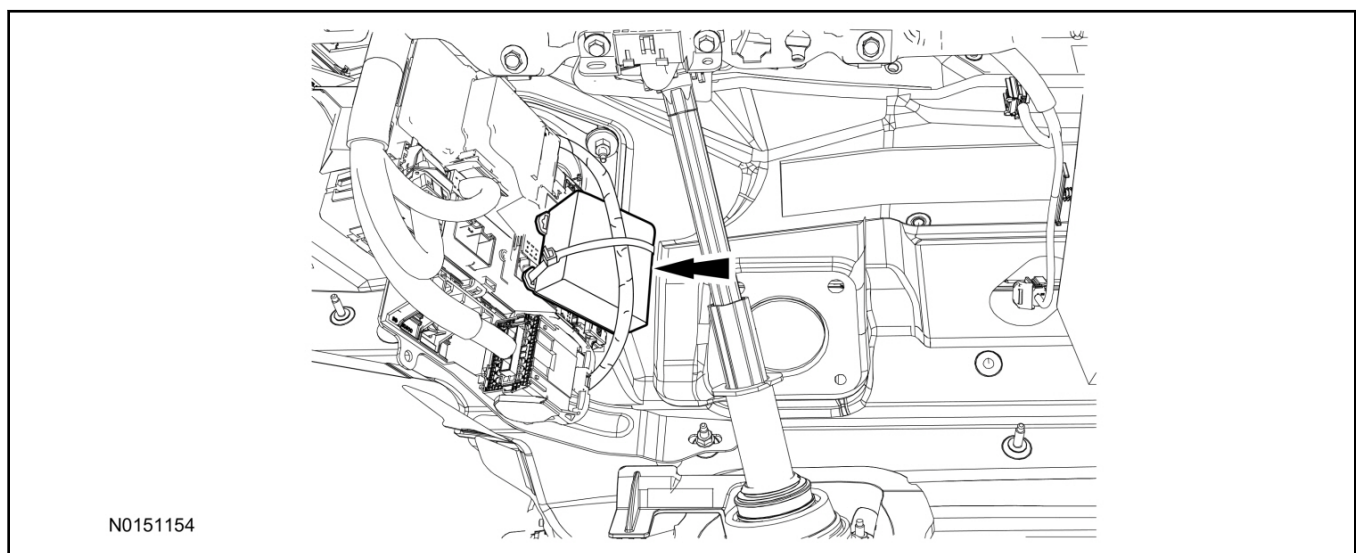
N0151222

INSTALLATION (Continued)

6. Connect the VSS T-harness to the OBD II port.
 - Secure the T-harness to the OBD II port using a tie-strap.



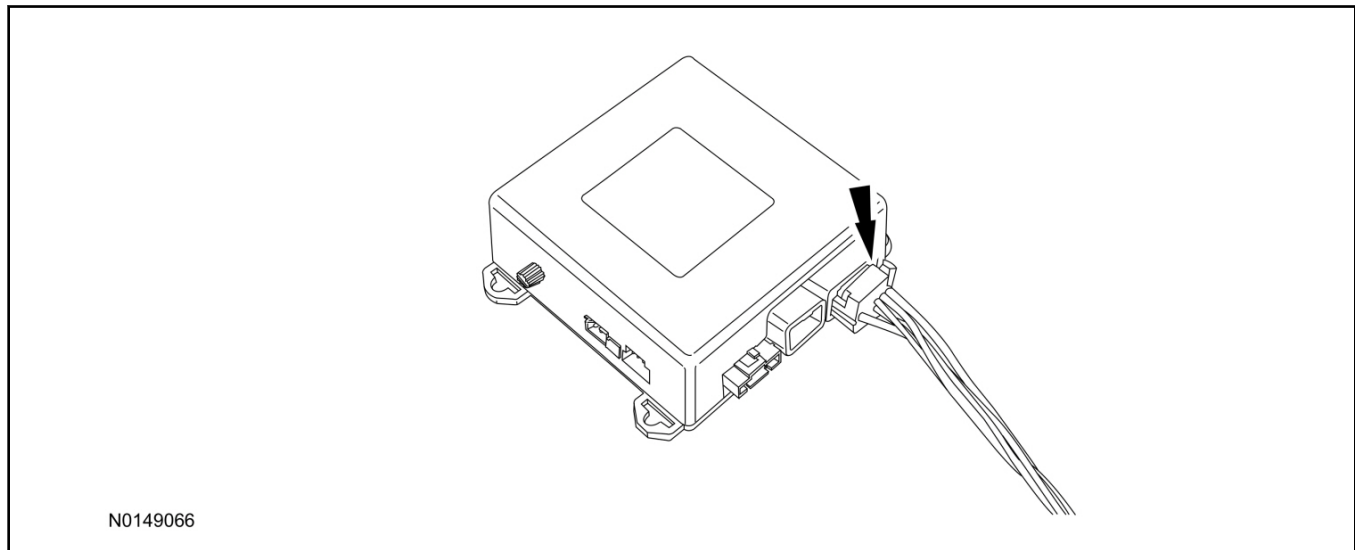
7. Position the VSS harness inside the IP being careful to avoid sharp edges and moving parts.
8. Install the new VSS harness OBD II port to the IP frame and install the bolts.
 - Do not over tighten.
9. Position the VSS module on top of the Body Control Module (BCM) and secure to wire harness with tie-straps.
 - Ensure the VSS module is positioned so the shock sensor adjustment knob can be accessed for later use.
 - Ensure the tie-strap is routed through the VSS module loops at opposite corners.



INSTALLATION (Continued)

10. Connect the VSS harness to the VSS module.

- Secure the VSS harness with tie-straps.

**Optional Security Indicator LED Mounting****CAUTION:**

Carefully route and secure module and harnesses so that they do not interfere with moving parts or linkages.

11. Keep the following points in mind when routing or positioning the LED for mounting:

- Have at least 3/4" clearance behind trim panels for the wiring harness to be routed.
- The LED should be clearly visible from the driver's side window when mounted.
- Do not mount the LED on trim panels that cover air bags.

12. Mount the LED at an appropriate location on the upper steering column shroud, using the guidelines listed above.

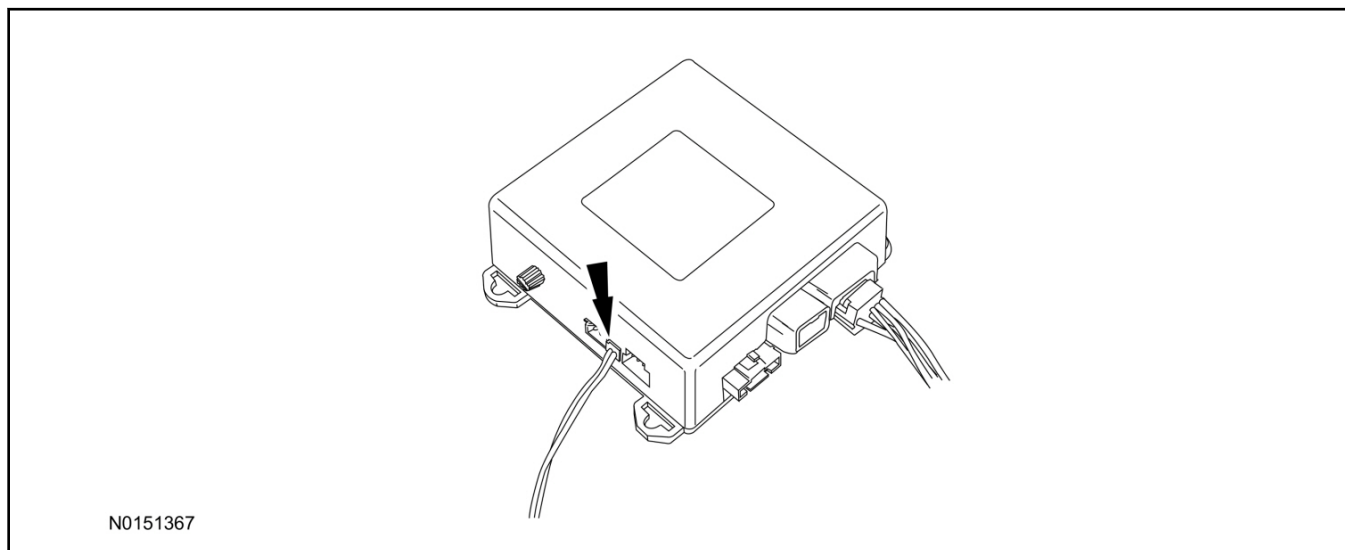
- Drill a 9/32" hole into the selected location, for the LED to mount in.

13. Route the LED wire harness to the VSS module.

INSTALLATION (Continued)

14. Connect the LED wire harness to the VSS module 2-pin white connector.

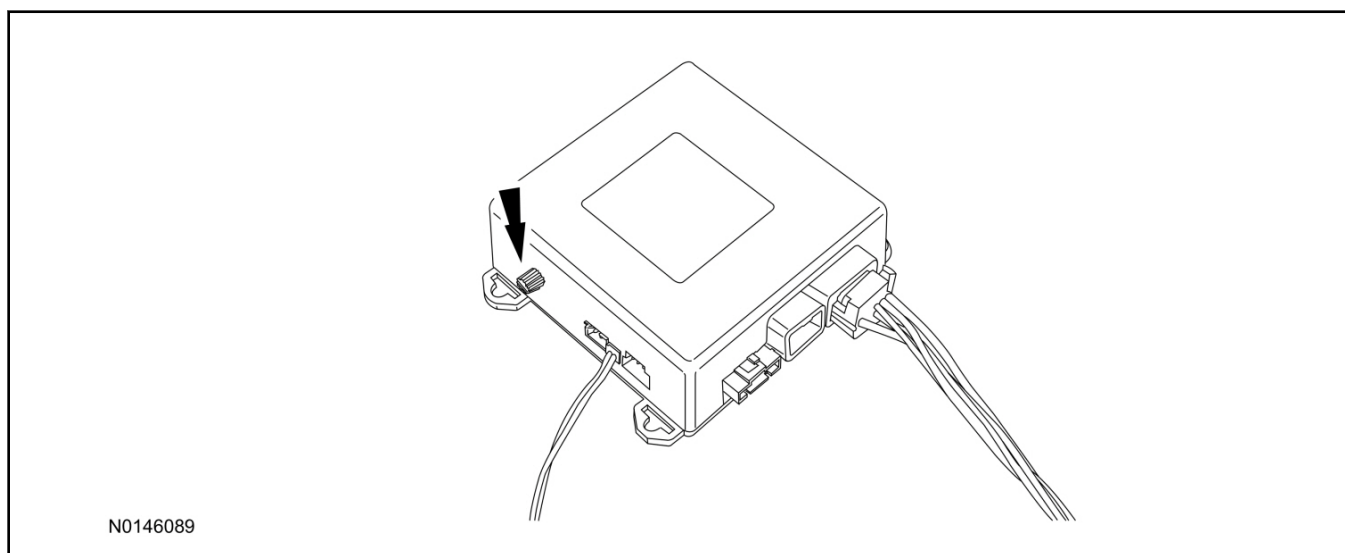
- Secure the LED wire harness with tie-straps.

**Learn VSS to Vehicle**

15. Cycle door locks at trim switch four times to learn remote start keyless functions.

Shock Sensor Sensitivity Adjustment**NOTE:**

The VSS module is equipped with an internal dual zone Shock Sensor. The VSS system will activate a single horn honk/single light flash anytime a light to moderate impact is detected, and a "panic" type 30 second horn honk/light flash sequence when a heavy impact is detected while the VSS system is armed. Adjustment of both zones is accomplished through a single adjustment knob on the VSS module. Rotating the knob clockwise will increase sensitivity and rotating the knob counter-clockwise will decrease sensitivity. Sensitivity adjustment must be completed with the module securely mounted and the adjustment knob accessible.



INSTALLATION (Continued)

16. Starting with the adjustment knob in approximately the halfway position, lower the driver's window and exit the vehicle.
17. Press the LOCK button on the vehicle's RKE fob to arm the VSS system. The LED will light solid for 20 seconds and then begin to flash a steady on/off sequence to indicate the system is armed.
18. Using a closed fist, impact the steering wheel with moderate force to simulate a light impact on the vehicle. If the impact is detected, the horn will honk and the lights will flash 1 time to indicate the warning impact was detected.
19. Using a closed fist, impact the steering wheel with heavy force to simulate a hard impact (i.e. glass breakage) on the vehicle. If the impact is detected, the horn will honk and the lights will flash a steady on off sequence to indicate the heavy or full shock trigger was detected.
20. Increase (rotate clockwise) or decrease (rotate counter-clockwise) the adjustment knob as necessary to achieve desired sensitivity, repeat the previous steps to test, and verify adjustment.

VSS Functional Test**NOTE:**

If installed, observe the LED while performing these tests.

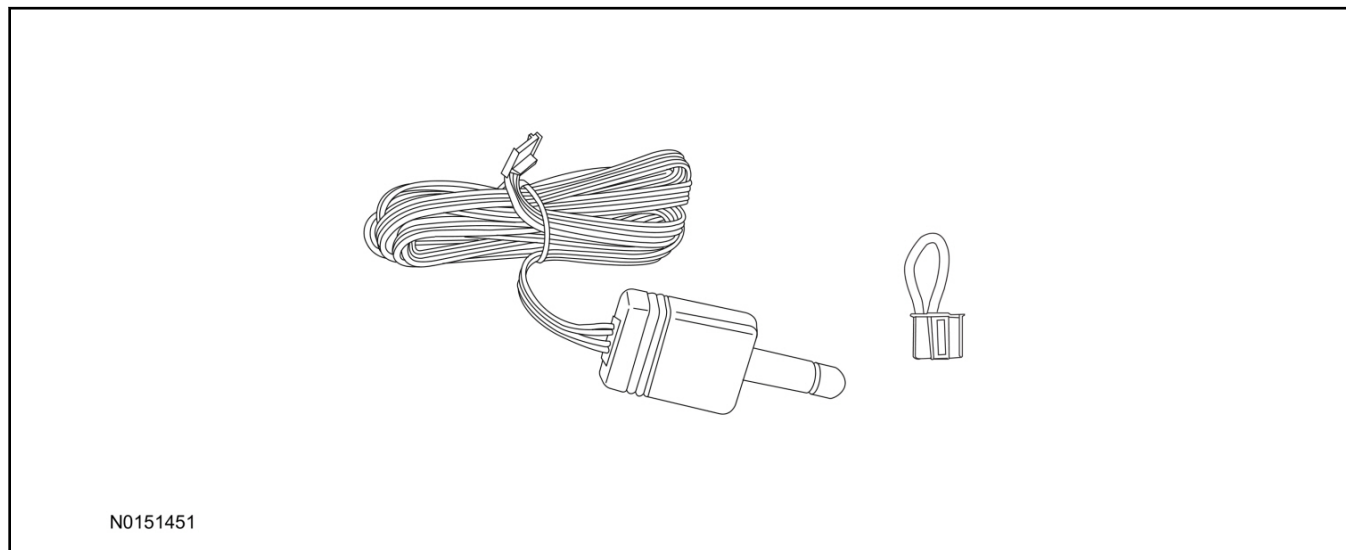
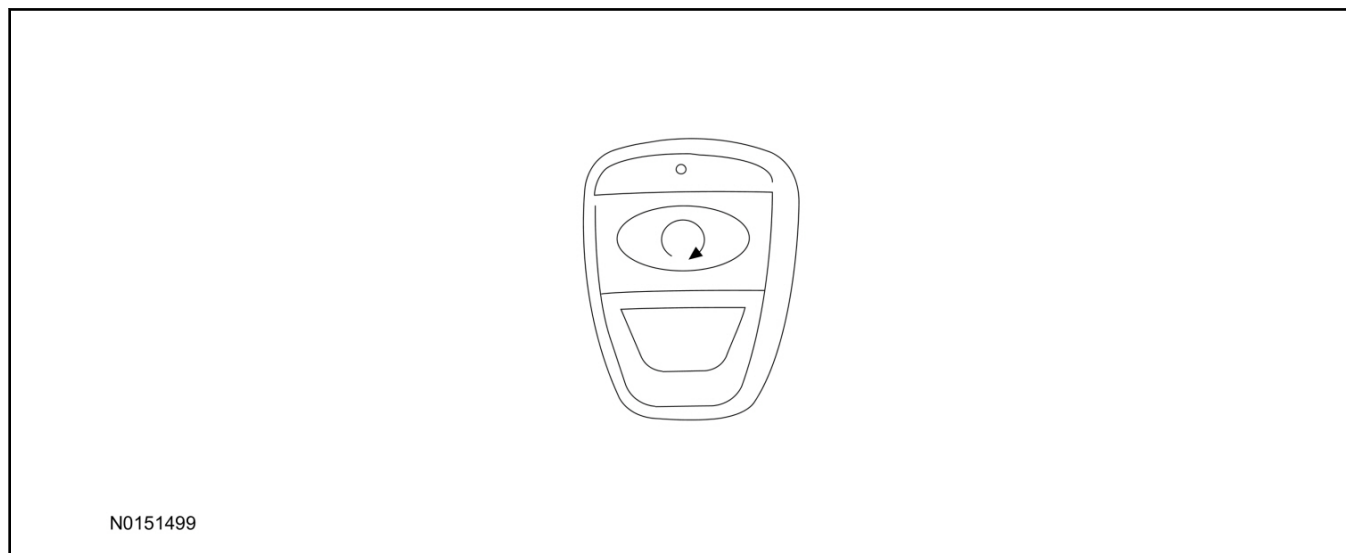
21. Lower the driver's door window, then close all doors, hood, and trunk/hatch and press lock on the keyfob. The LED should stay lit for 20 seconds while the VSS system pre-arms, after which it will flash every 3-4 seconds in fully armed mode.
22. Reach inside the window hit the door unlock trim switch. The LED should continue to flash, indicating that the vehicle is still armed. Use the inside driver's door handle to open the door. The alarm should sound, indicating perimeter breach. Turn the alarm off by turning the ignition to "On".
 - If equipped with OE perimeter security, there will be a 12 second interior chime prior to alarm sounding. For vehicles not equipped with OE perimeter security, there will be a 12 second delay with no interior chime prior to alarm sounding.
 - For push button start vehicles, the Intelligent Access (IA) key must be away from the vehicle, otherwise the security system may disarm immediately upon trigger.
23. Exit the vehicle and arm it again, this time leaving the driver's door open. The vehicle should arm itself, ignoring the open door but monitoring the rest. Once the vehicle is armed, shut the driver's door and reopen it after a few seconds. The alarm should sound. Turn the alarm off by hitting unlock on the keyfob.
 - For push button start vehicles, the Intelligent Access (IA) key must be away from the vehicle, otherwise the security system may disarm immediately upon trigger.
24. Test all other vehicle doors, the hood and the trunk in the same manner, by setting off the alarm and disarming with the keyfob.
25. If the VSS kit will not be upgraded to RMST/RMU functions at this time, install the LH lower IP insulator.

Please contact 1-800-FORD-KEY with any issues regarding hardware or kit contents.

INSTALLATION (Continued)**II. Remote Start (RMST) Upgrade - Antenna Kit "Sold Separately"**

⚠ **CAUTION:**

Carefully route and secure module and harnesses so that they do not interfere with moving parts or linkages.

**Standard Key Fob (15K601) "Sold Separately"**

INSTALLATION (Continued)**Bi-directional Key Fob (15K601) "Sold Separately"****Optional RMST Upgrade Components "Sold Separately"**

26. Review the RMST Upgrade components.

Remote Start (RMST) Upgrade - Antenna Kit "Sold Separately"

QUANTITY	DESCRIPTION
1	Bi-directional Antenna (TBD)
1	Security Jumper (TBD)

Standard Key Fob (15K601) "Sold Separately"

QUANTITY	DESCRIPTION
1	Standard Key Fob (15K601)

Bi-directional Key Fob (15K601) "Sold Separately"

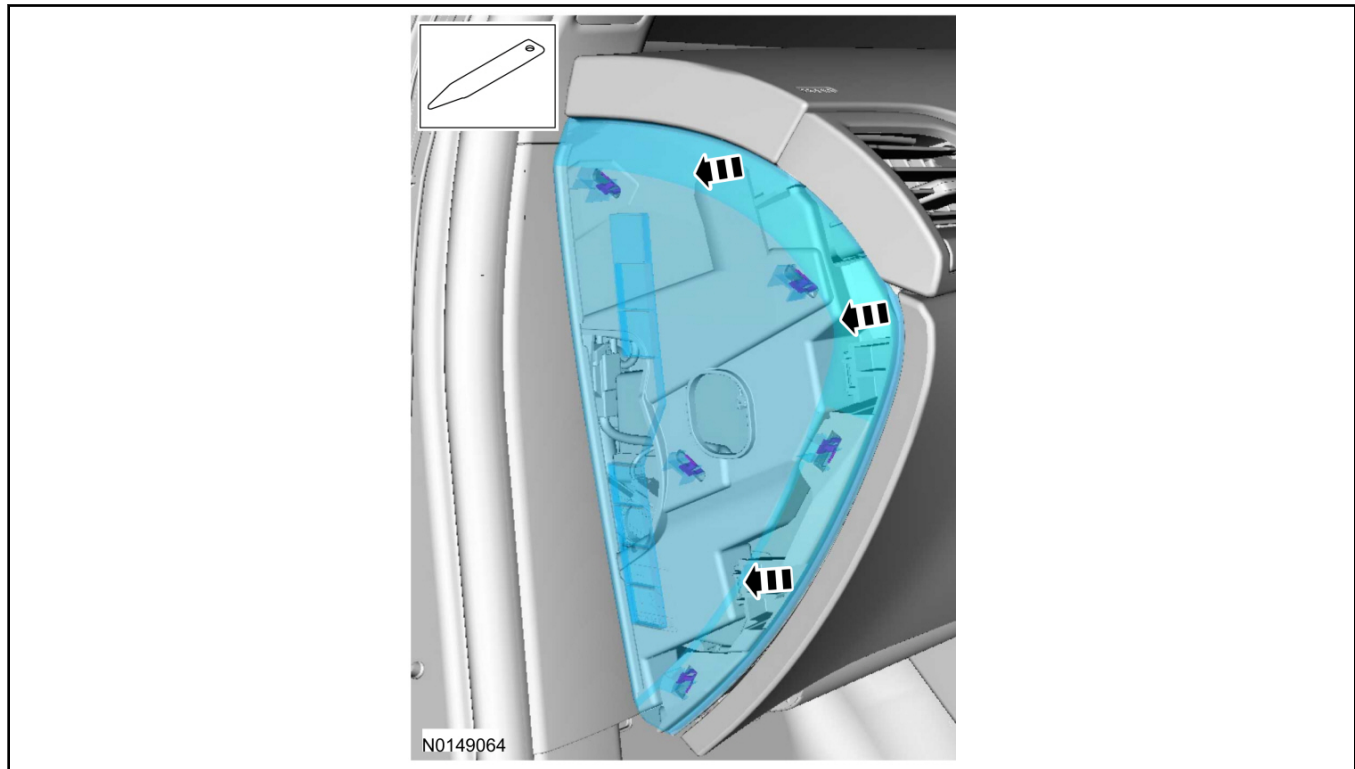
QUANTITY	DESCRIPTION
1	Bi-directional Key Fob (15K601)

RMST Kit Antenna Installation

27. If previously installed, remove the LH lower IP insulator.
28. Position the top portion of the LH kick panel aside to allow for removal of the IP side finish panel.

INSTALLATION (Continued)

29. Position the weather strip aside and remove the LH IP side finish panel.



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

31. **NOTE:**

Do not touch the adhesive, reduced adhesion may result.

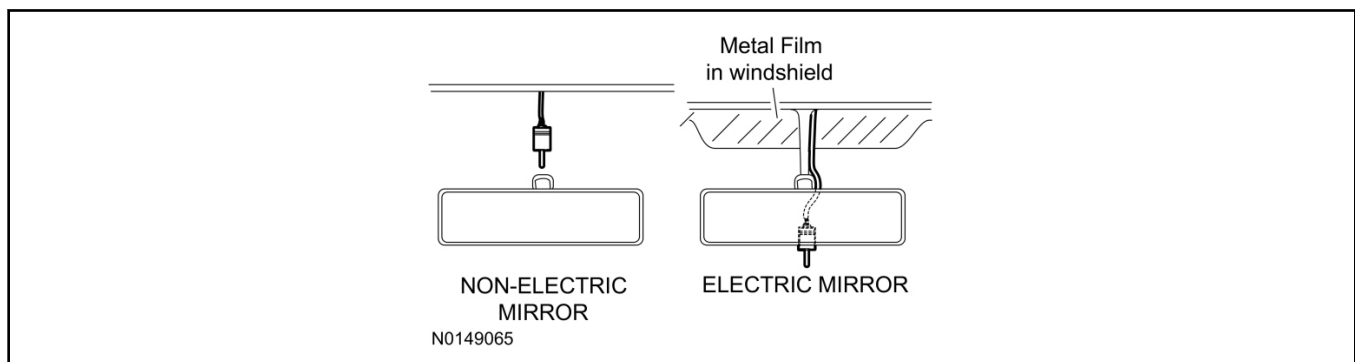
NOTE:

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 onto the mounting surface.



INSTALLATION (Continued)

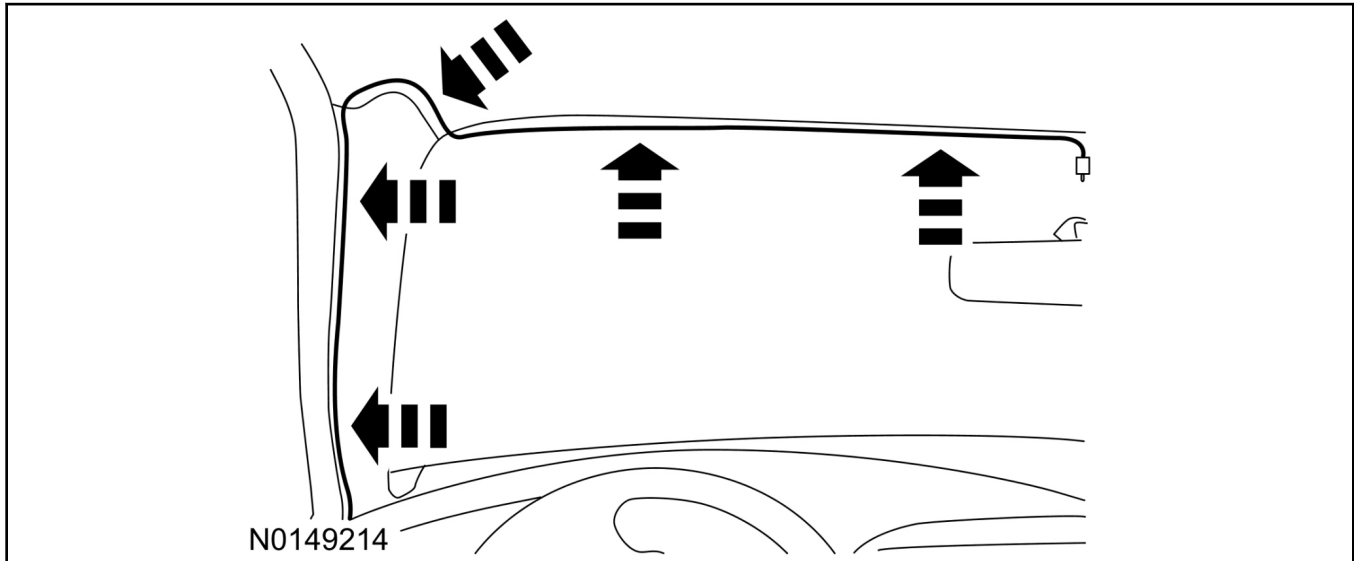
32. If necessary, position the A-pillar trim slightly outward to provide access to route the antenna wire.

NOTE:

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

33. Route the antenna cable along the headliner and down the A-pillar towards the floor. Continue routing the wire into the IP towards the VSS module.

- Secure with tie-straps.



34. Connect the antenna connector to the VSS module.

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

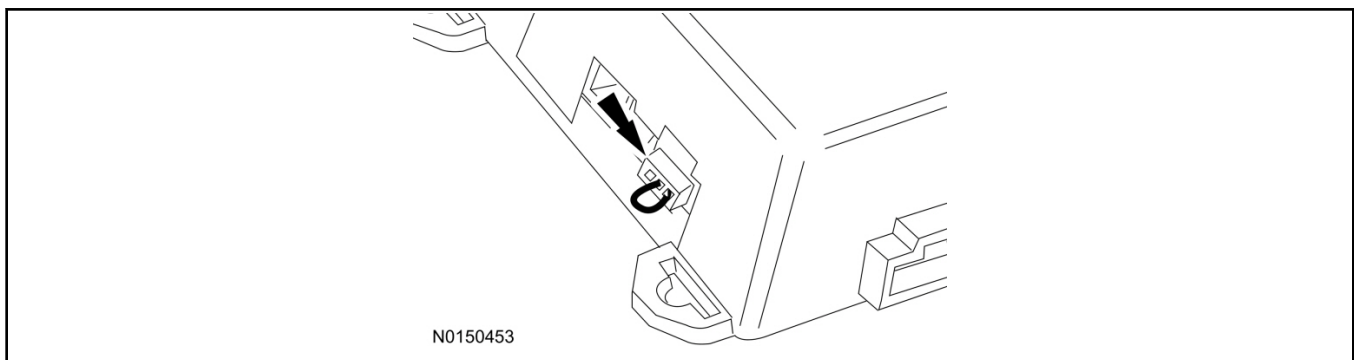
36. Install the LH IP side finish panel. Position the weatherstrip and LH kick panel back.

VSS Module - Optional Vehicle Security Features

37. Enable/Disable Vehicle Security Features:

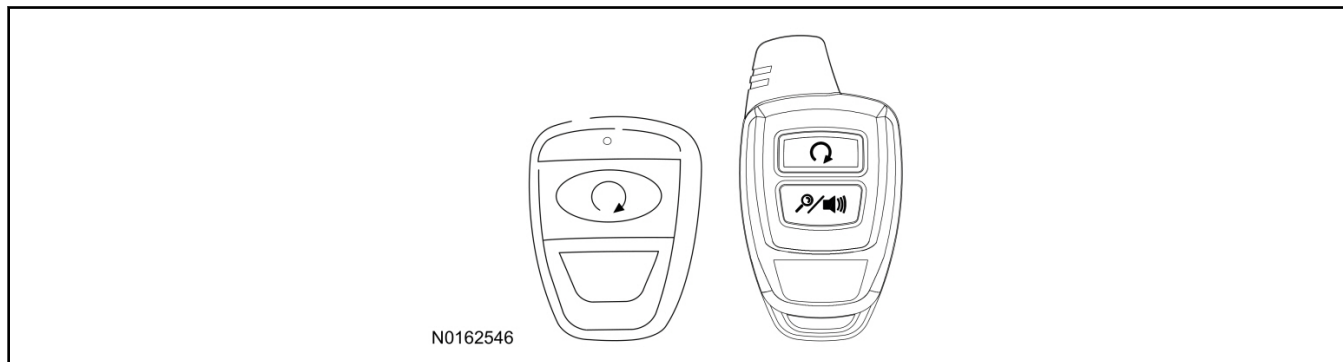
Locate the security jumper supplied in the kit.

- Install the jumper to the VSS module if the vehicle security features are to be **disabled**.
- Not installing and/or removing the jumper from the VSS module will keep the vehicle security features **enabled**.



INSTALLATION (Continued)**Learn Remote Start to Vehicle**

38. Cycle door locks at trim switch four times to learn remote start keyless functions.

Programming Key Fobs**39. NOTE:**

These steps must be performed with the VSS module security jumper removed if previously installed. For additional information refer to "VSS Module - Optional Vehicle Security Features".

NOTE:

The following steps must be performed with the driver door open.

- 1 Enter the vehicle with the vehicle key(s) and key fobs you wish to program.
- 2 Depress and hold brake pedal.
- 3 Press the start/stop button.
- 4 After the vehicle starts press the start/stop button to shut down.
- 5 Repeat steps 3 and 4 an additional four times, ending in ignition on, engine off.
- 6 Release the brake pedal.
- 7 Press the vehicle start/stop button twice to turn ignition on.
 - The horn will honk 3 times to indicate transmitter learn mode access.
- 8 Press the start stop button on each fob you wish to program.
- 9 Cycle ignition to the OFF position to exit transmitter learn mode.

10 NOTE:

If the security jumper is installed the vehicle security features are disabled.

If previously removed, reinstall the VSS module security jumper. For additional information, refer to "VSS Module - Optional Vehicle Security Features".

40. If the RMST kit will not be upgraded to RMU functions at this time, install the LH lower IP insulator.

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

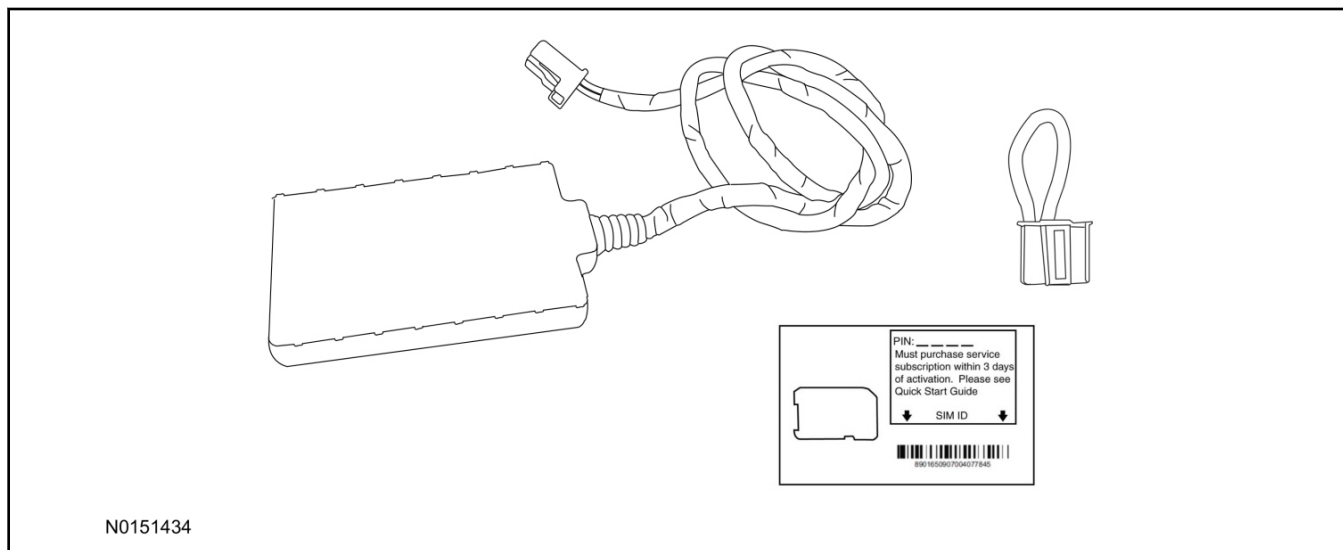
Do not put a key in the ignition for the following steps.

41. Make sure the shift lever is in PARK and the ignition is in the OFF position. Remove all keys from the vehicle.
42. Close the hood.
43. Close all of the vehicle doors.
44. Start the vehicle by pressing the remote start button twice on the remote start key fob.
45. Confirm the remote start works with the vehicle in park and with the hood and doors closed.
46. Open the hood.
47. **NOTE:**
Vehicle doors should be closed while performing this step.

Confirm that the vehicle will not start with the hood open.

Please contact 1-800-FORD-KEY with any issues regarding hardware or kit contents.

48. See the Scalable Remote Start System Diagnosis Guide to resolve issues identified by the functional test.

III. Remote Access (RMU) Upgrade "Sold Separately"

49. Review the RMU upgrade components.

Optional Components — Remote Access (RMU) Upgrade "Sold Separately"

QUANTITY	DESCRIPTION
1	Remote Messaging Unit (RMU)
1	SIM Card Carrier
1	Security Jumper

50. If previously installed, remove the LH lower IP insulator.

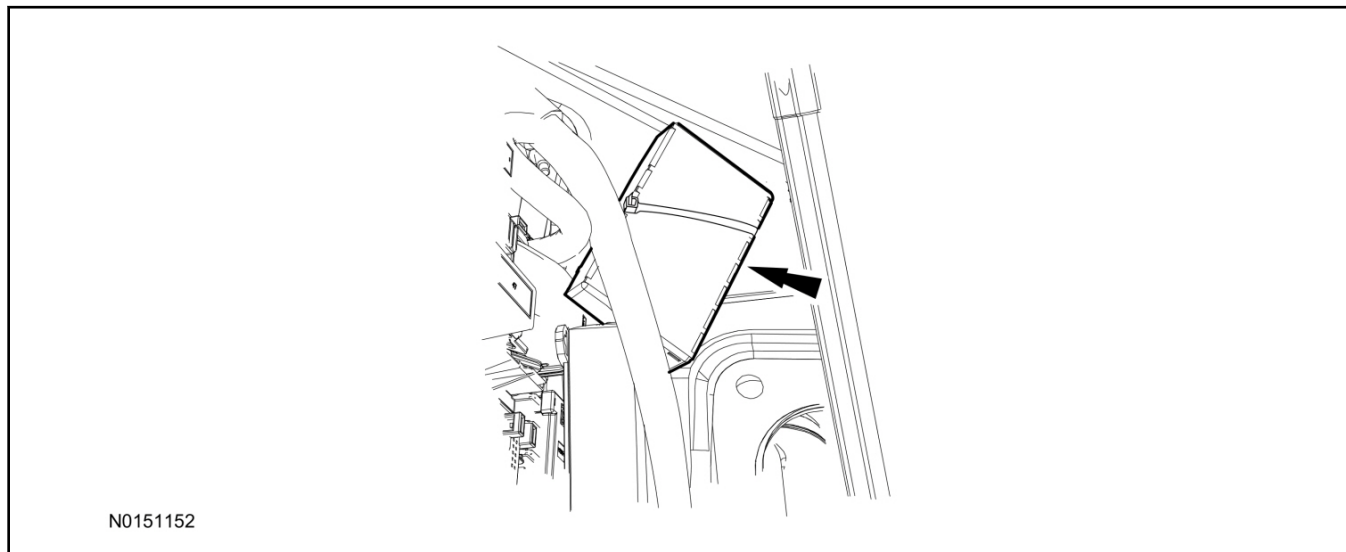
INSTALLATION (Continued)**CAUTION:**

Carefully route and secure module and harnesses so that they do not interfere with moving parts or linkages.

NOTE:

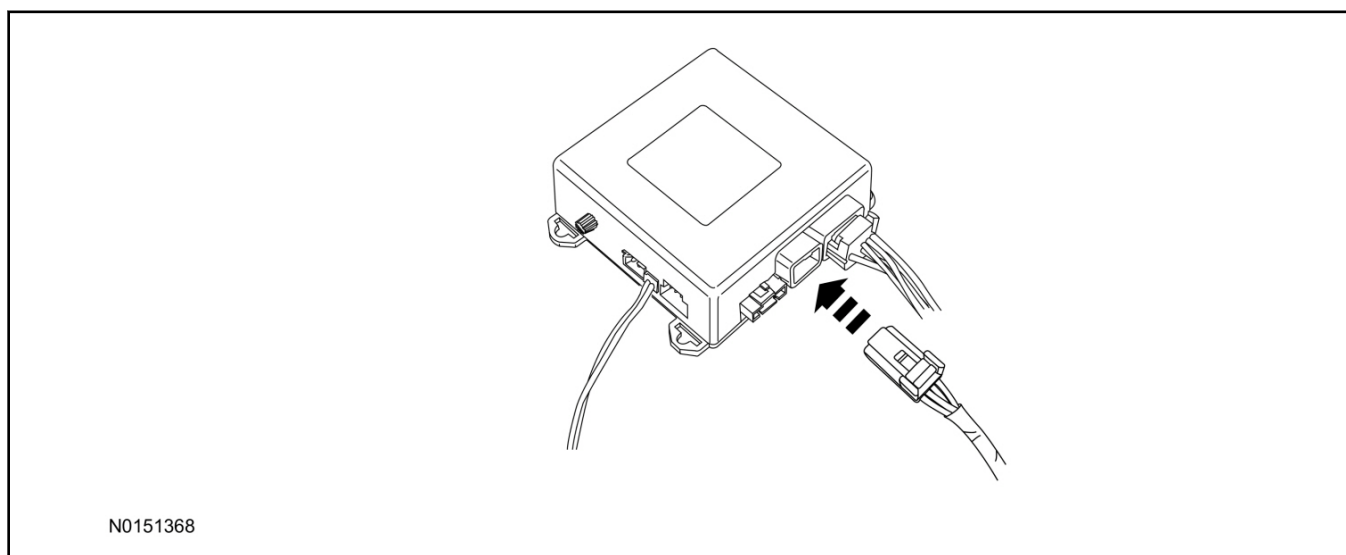
For proper range of operation, the RMU must be installed as shown in the diagram below.

51. Using tie-straps secure the RMU to the IP harness above the previously installed VSS module.



52. Connect the RMU electrical connector to the VSS module.

- Secure the harness with tie-straps.

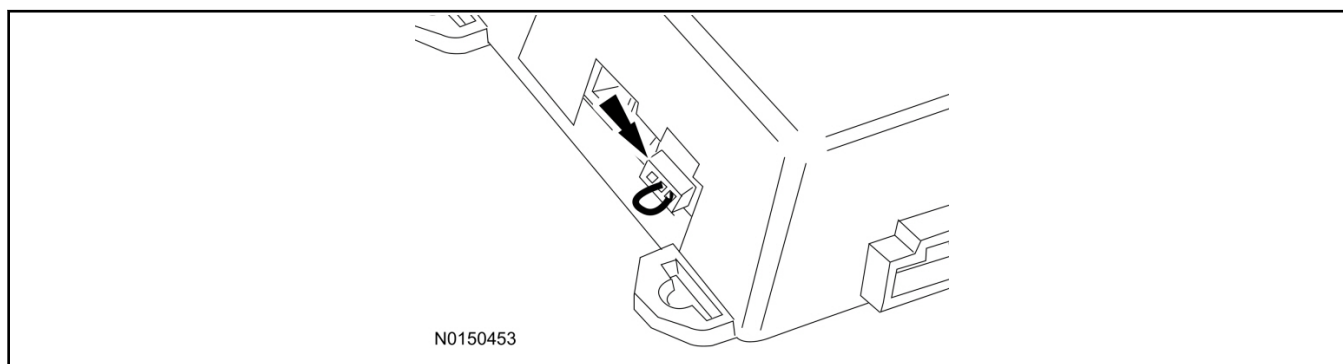


INSTALLATION (Continued)**VSS Module - Optional Vehicle Security Features**

53. Enable/Disable Vehicle Security Features:

Locate the security jumper supplied in the kit.

- Install the jumper to the VSS module if the vehicle security features are to be **disabled**.
- Not installing and/or removing the jumper from the VSS module will keep the vehicle security features **enabled**.



54. Install the LH lower IP insulator.

Learn Remote Start to Vehicle

55. Cycle door locks at trim switch four times to learn remote start keyless functions.

RMU Activation**NOTE:**

Please note that the Remote Access application that is used to start the vehicle for this RMST kit will only work with iPhone and Android phones.

56. For RMU activation the following information from the customer is recommended to provide them with electronic notification for app retrieval:

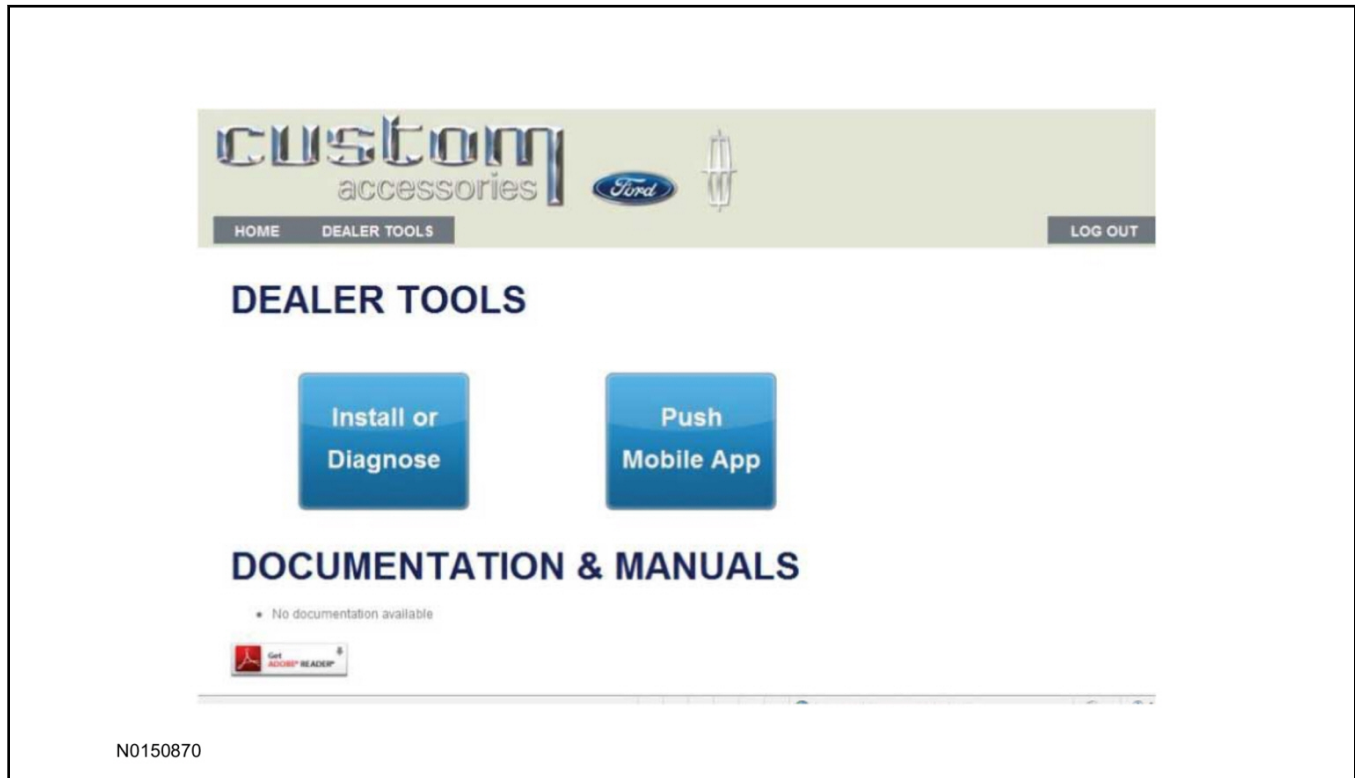
- 1 Email Address
- 2 Cell Phone Number
- 3 Cell Phone Carrier Company

57. Log on to your Professional Technician Society (PTS) account and enter the vehicle information.

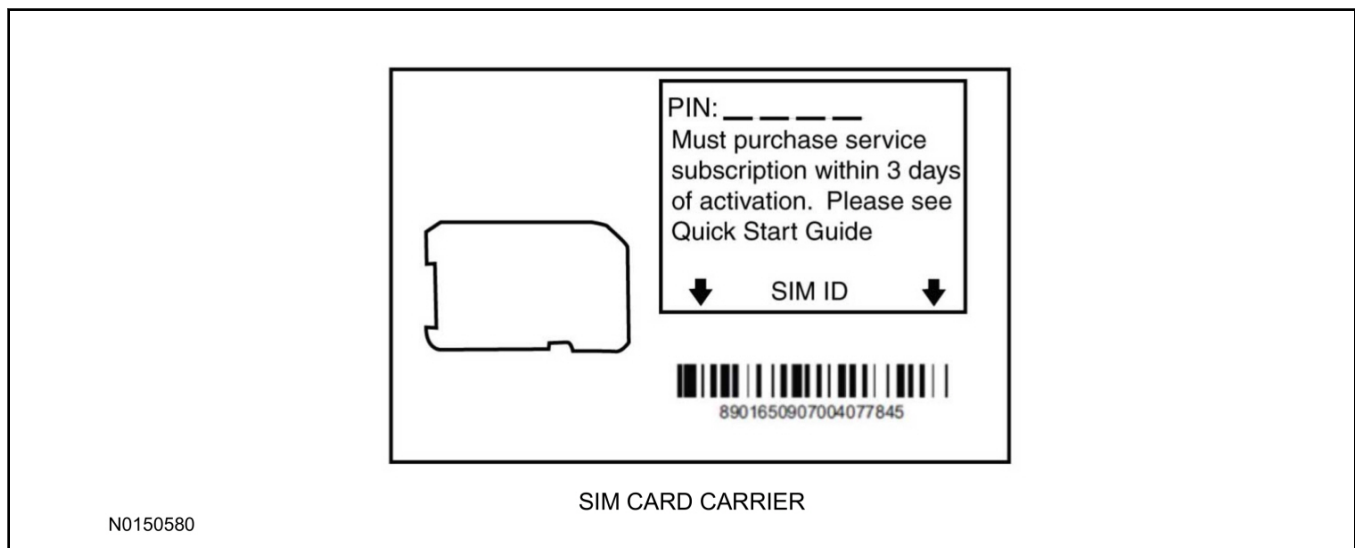
- 1 Select "Vehicle Id".
- 2 Select "By Year & Model"
- 3 Choose the year & model of the vehicle and then select "GO".
- 4 Hover over the "Workshop" tab.
- 5 Select the "Accessory Installation" menu item.
- 6 Under the "Electrical" heading, select the "Remote Access Activation" link (first time users will need to agree to terms & conditions).
- 7 Select the "Install or Diagnose" link.

INSTALLATION (Continued)**NOTE:**

If you are not directed to the screen shown below (or user agreement screen for first time users), make sure your internet browser zone settings are set to medium. This setting can be found in your browsers "internet options" under the "privacy" tab.

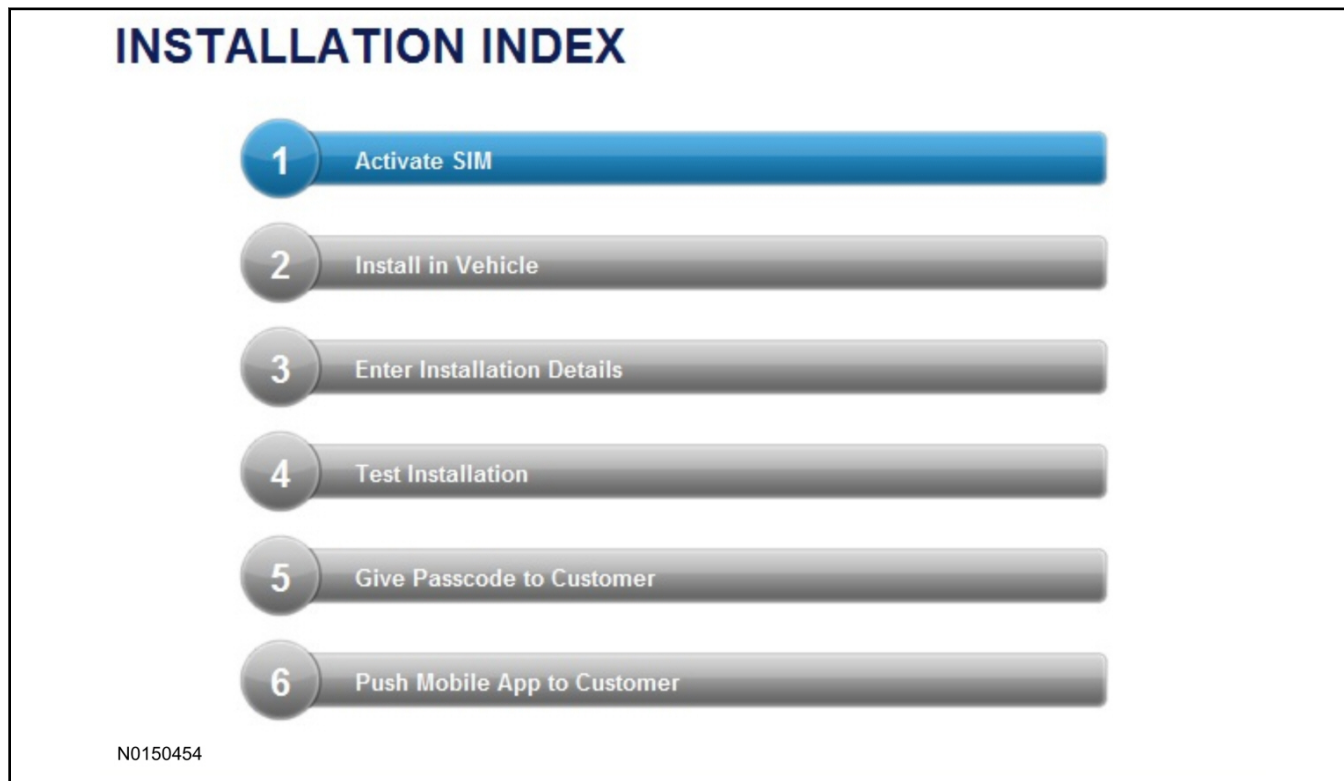


58. Once on the "Install" page, enter the SIM ID code that was provided with the RMST kit. Select "Begin or Continue Installation".



INSTALLATION (Continued)

59. Click on the "On screen steps 1-6", and follow the on screen instructions to complete the installation.

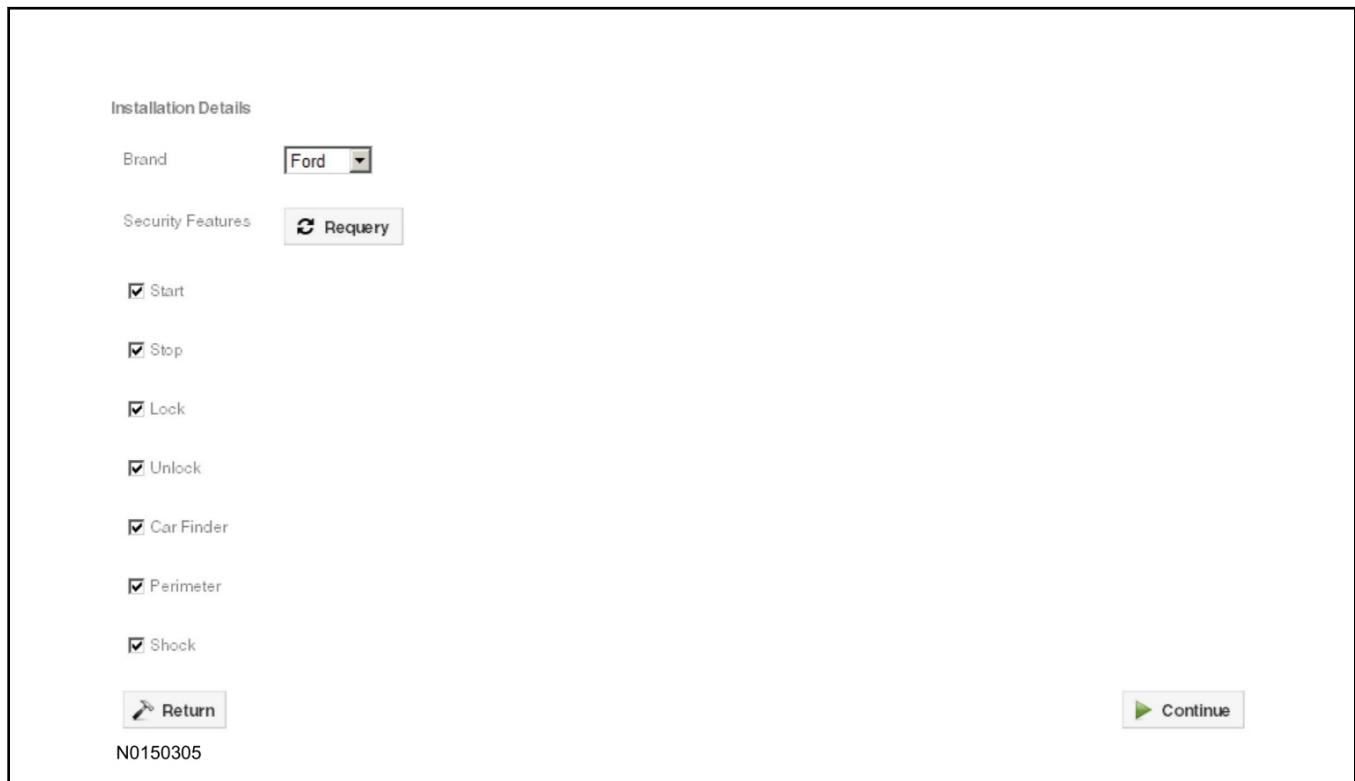


INSTALLATION (Continued)**NOTE:**

The following step will complete the activation process, when you are directed to a screen similar to the one below ensure the correct vehicle brand is selected and that all applicable features are enabled.

NOTE:

The "perimeter" and "shock" settings below are optional features and should only be selected when security features are enabled.



The screenshot shows a web-based interface for vehicle security installation. It features a 'Brand' dropdown menu set to 'Ford', a 'Security Features' section with a 'Requery' button, and a list of features with checkboxes: Start, Stop, Lock, Unlock, Car Finder, Perimeter, and Shock. At the bottom, there are 'Return' and 'Continue' buttons, and a reference code 'N0150305'.

Installation Details

Brand

Security Features

☒ Start

☒ Stop

☒ Lock

☒ Unlock

☒ Car Finder

☒ Perimeter

☒ Shock

N0150305

INSTALLATION (Continued)

60. Perform a functional check of the system by testing each of the available features.

- Start/Stop function
- Lock/Unlock function
- Car finder
- Signal (for troubleshooting only)

Installation Test

Session Status	✓	Yes
Network Connection	✓	Yes
IP Assigned	✓	10.64.17.233
Comm Established	✓	Yes
Received IMEI	✓	358901041730422
Received ESN	✓	1663000117

Your install has been tested successfully. If you would like to test the physical functions of the module, you can do so below.

N0150677

NOTE:

All tests above must be completed in order to move to the next step. If any of the listed functions fail, move the vehicle to an outside location and retest.

61. Once the hardware installation and RMU activation process is complete, record the 4-digit PIN on the SIM card carrier. Provide the SIM card carrier to the customer so they can add this system to their Remote Access Account. Customer must have both the 4-digit PIN and SIM ID to activate/add their vehicle to their Remote Access Account.
62. If the customer agrees, you may push the mobile application to the customer. You will need the customer's phone number and cellular carrier. If the customer opts to install the application themselves, they can locate it in their mobile app store.
- Please contact 1-800-FORD-KEY with any issues regarding hardware or kit contents.**

Vehicle Security / Remote Start / Remote Access System Installation

CONTENTS

VEHICLE PREPARATION

Hood Switch Installation

INSTALLATION

VSS Module Installation

Security Indicator LED Mounting

RMST Kit Antenna Installation

RMU Module Installation

GENERAL PROCEDURES

Learn VSS to vehicle

Shock Sensor Sensitivity Adjustment

Standard Remote Start Activation

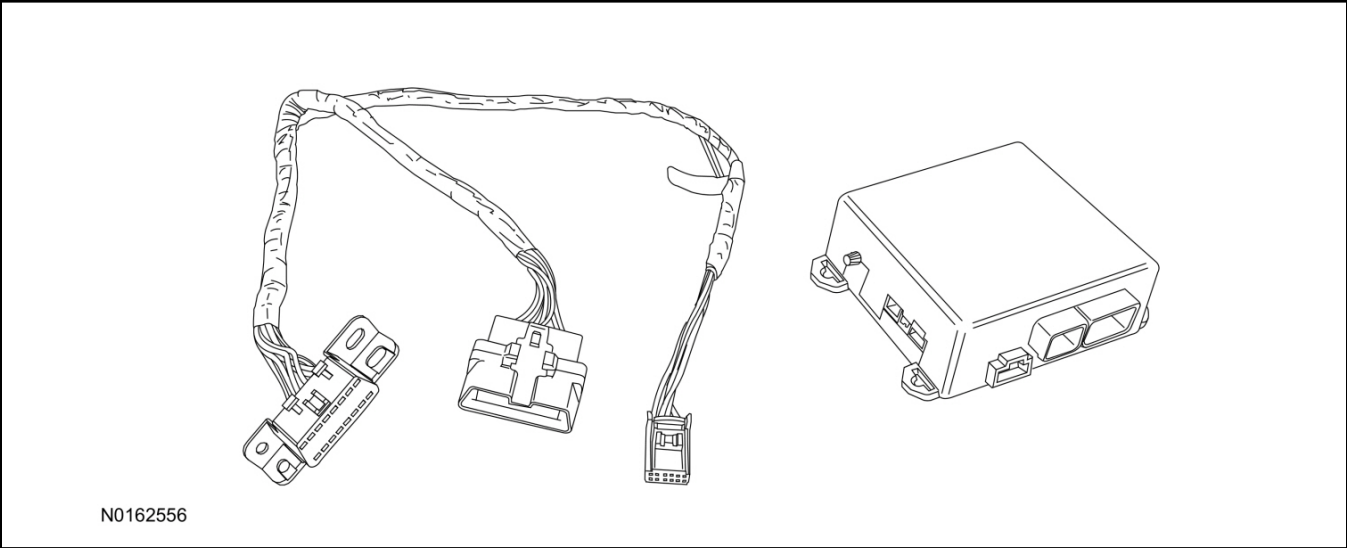
RMU Remote Start Activation

RMU Activation

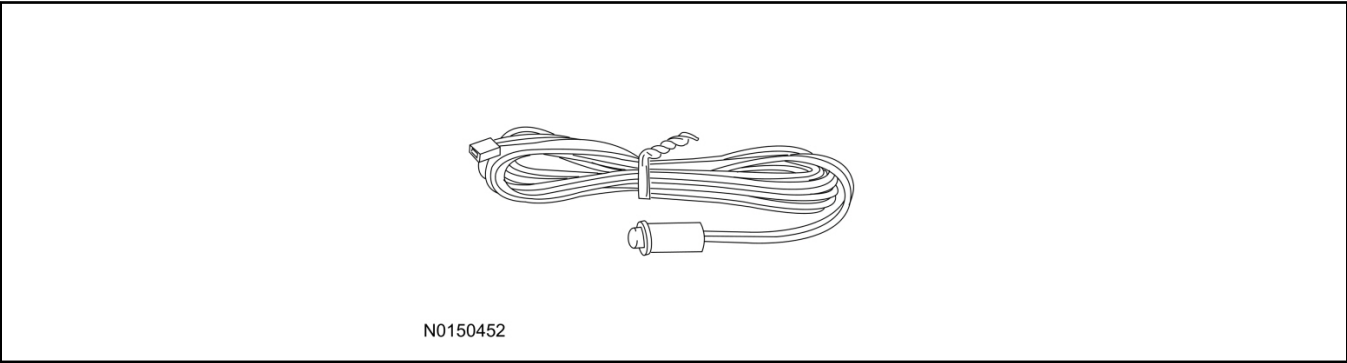
Proper Wire Splicing Techniques

INSTALLATION

Vehicle Security / Remote Start / Remote Access - Taurus
VSS System Components



Security Indicator LED (19D596) "Optional"



Taurus

1. Verify correct kit number.

Review VSS Kit Contents

NOTE:

Kits are vehicle specific and are not interchangeable.

2. Review the VSS kit contents.

Vehicle Security System (VSS) Kit

QUANTITY	DESCRIPTION
1	VSS Module
1	T-harness

INSTALLATION (Continued)**Vehicle Security System (VSS) Kit(Continued)**

6	Tie-straps
1	Owner's Manual

Security Indicator LED Kit Contents "Optional"

3. Review the Security Indicator LED kit contents.

Security Indicator LED Kit

QUANTITY	DESCRIPTION
1	Security Indicator LED

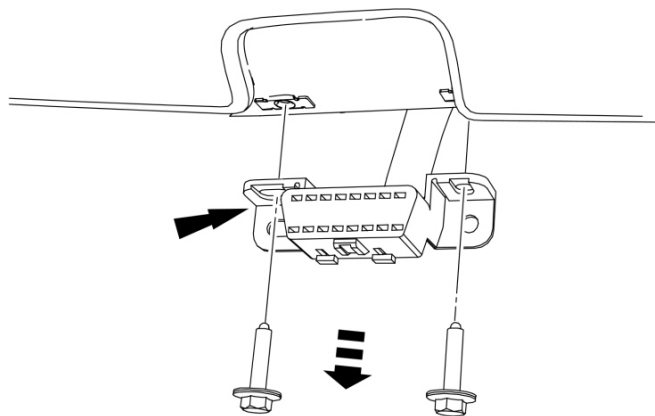
I. VSS System Installation**⚠ CAUTION:**

Carefully route and secure module and harnesses so that they do not interfere with moving parts or linkages.

NOTE:

If the VSS kit was installed previously and the vehicle is being upgraded, proceed to the "RMST" or "RMU" upgrade section(s).

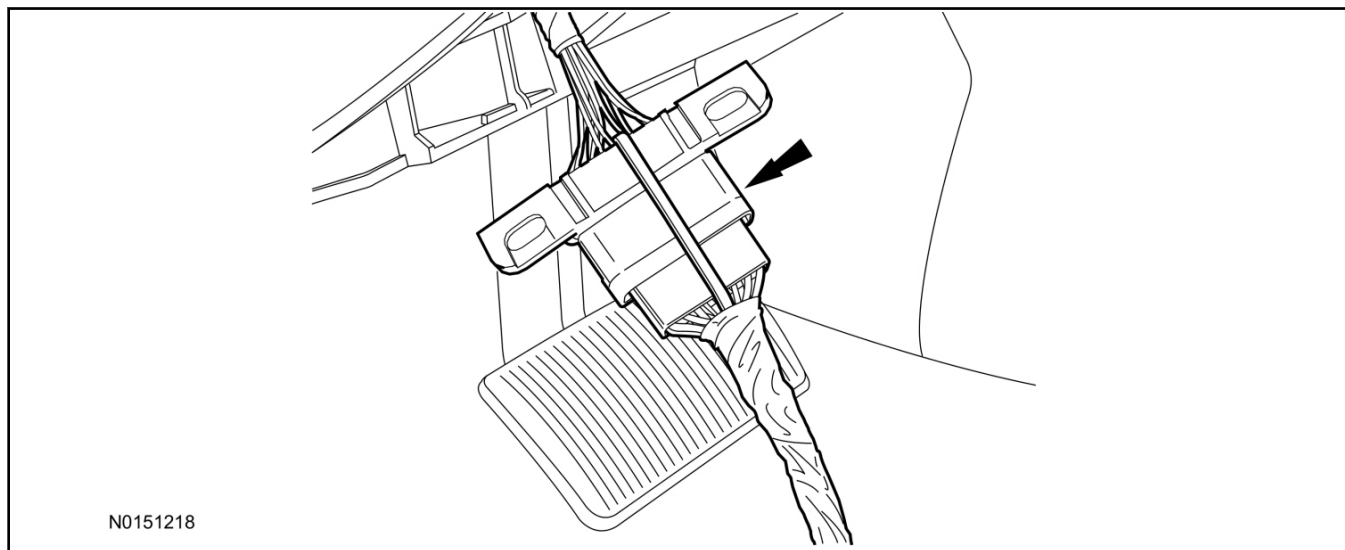
4. Remove the 2 bolts and remove the OBD II port from the IP frame.



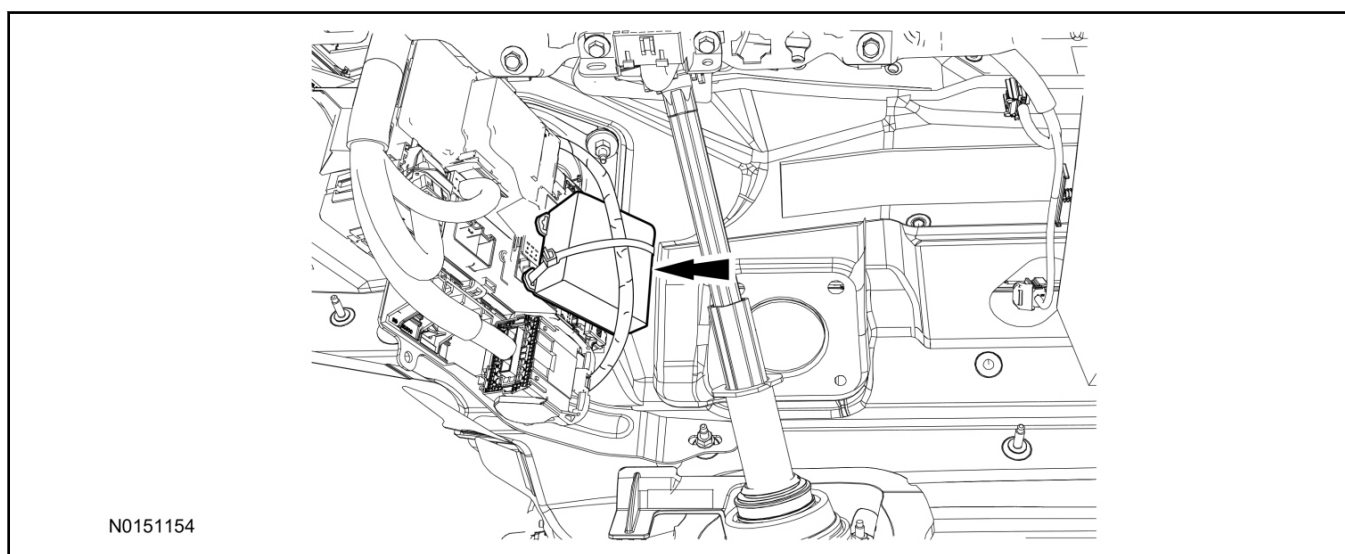
N0151222

INSTALLATION (Continued)

5. Connect the VSS T-harness to the OBD II port.
 - Secure the T-harness to the OBD II port using a tie-strap.

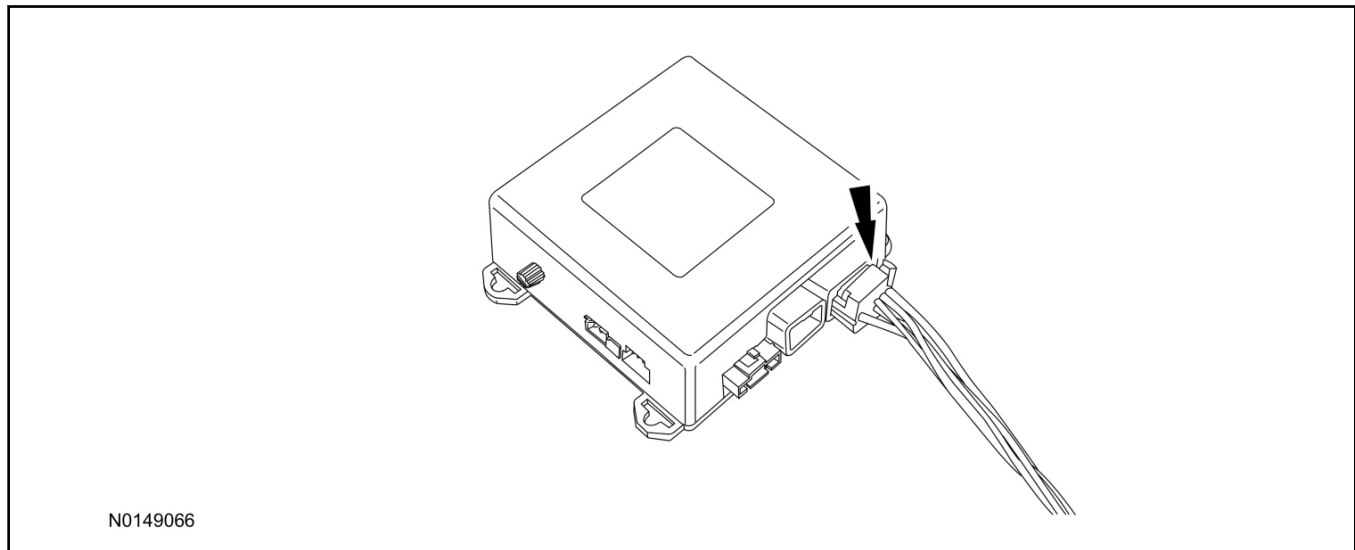


6. Position the VSS harness inside the IP being careful to avoid sharp edges and moving parts.
7. Install the new VSS harness OBD II port to the IP frame and install the bolts.
 - Do not over tighten.
8. Position the VSS module on top of the Body Control Module (BCM) and secure to wire harness with tie-straps.
 - Ensure the VSS module is positioned so the shock sensor adjustment knob can be accessed for later use.
 - Ensure the tie-strap is routed through the VSS module loops at opposite corners.



INSTALLATION (Continued)

9. Connect the VSS harness to the VSS module.
 - Secure the VSS harness with tie-straps.

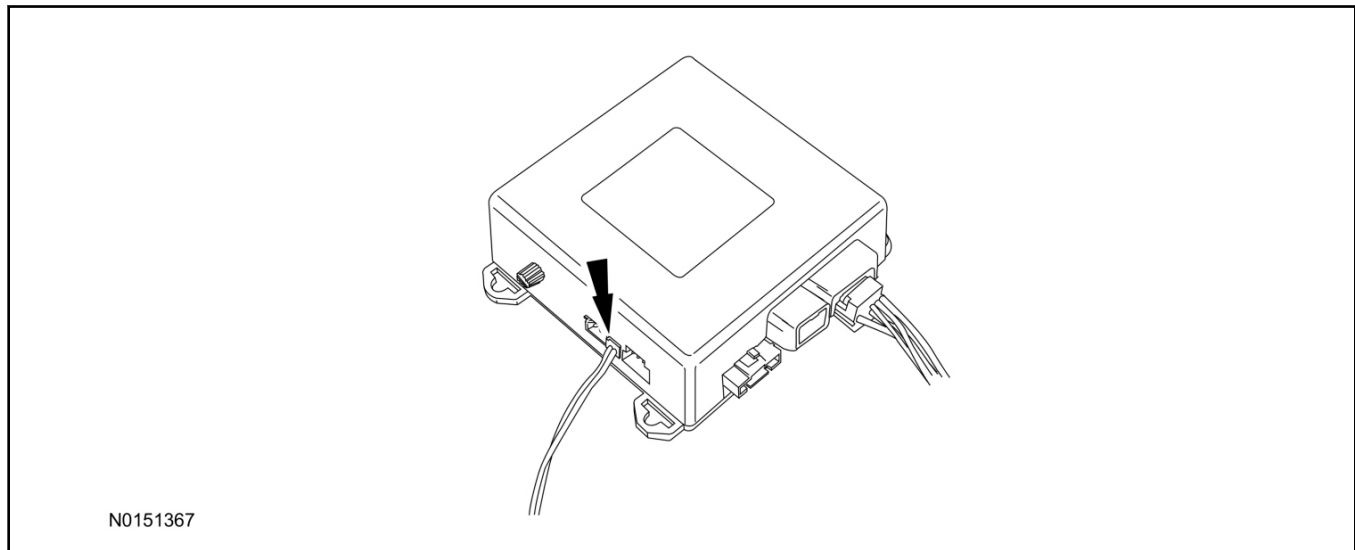
**Optional Security Indicator LED Mounting****CAUTION:**

Carefully route and secure module and harnesses so that they do not interfere with moving parts or linkages.

10. Keep the following points in mind when routing or positioning the LED for mounting:
 - Have at least 3/4" clearance behind trim panels for the wiring harness to be routed.
 - The LED should be clearly visible from the driver's side window when mounted.
 - Do not mount the LED on trim panels that cover air bags.
11. Mount the LED at an appropriate location on the upper steering column shroud, using the guidelines listed above.
 - Drill a 9/32" hole into the selected location, for the LED to mount in.
12. Route the LED wire harness to the VSS module.

INSTALLATION (Continued)

13. Connect the LED wire harness to the VSS module 2-pin white connector.
 - Secure the LED wire harness with tie-straps.

**Learn VSS to Vehicle (Push Button Start Vehicles Only)**

14. Cycle door locks at trim switch four times to learn remote start keyless functions.

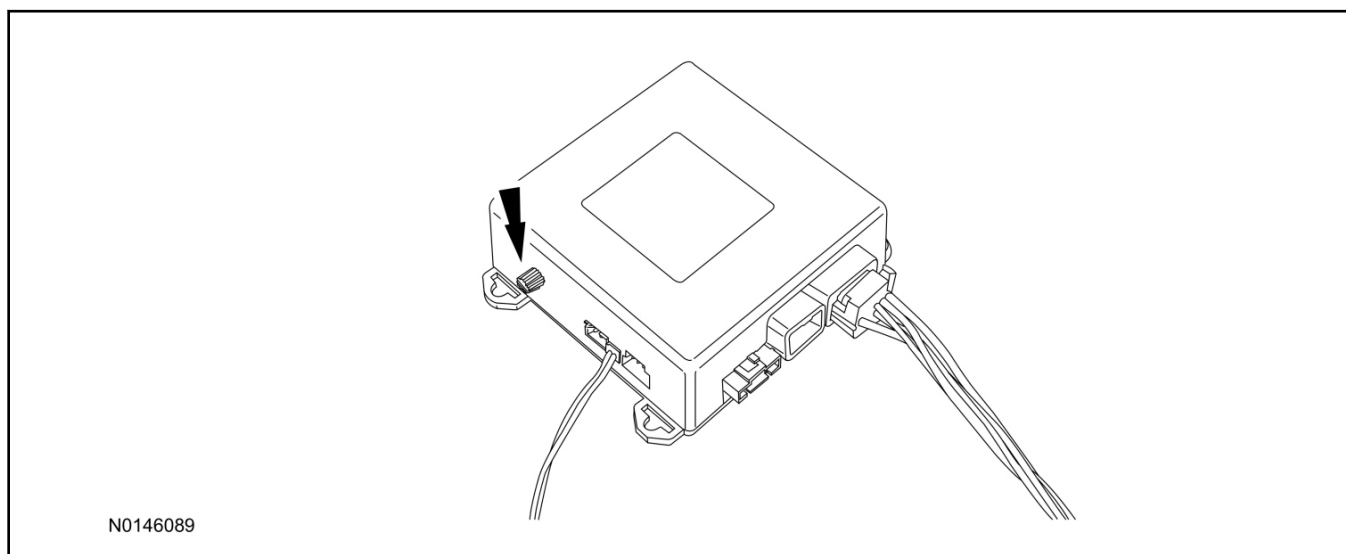
Learn VSS to Vehicle (Key Start Vehicles Only)**NOTE:**

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

15. Press the vehicle's unlock button located on the driver's door. Make sure all doors are unlocked.
16. Put the key in the ignition.
17. 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.
18. 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.
19. If equipped with additional accessories (i.e. RF keypad), verify that they maintain all functionality post installation.

INSTALLATION (Continued)**Shock Sensor Sensitivity Adjustment****NOTE:**

The VSS module is equipped with an internal dual zone Shock Sensor. The VSS system will activate a single horn honk/single light flash anytime a light to moderate impact is detected, and a "panic" type 30 second horn honk/light flash sequence when a heavy impact is detected while the VSS system is armed. Adjustment of both zones is accomplished through a single adjustment knob on the VSS module. Rotating the knob clockwise will increase sensitivity and rotating the knob counter-clockwise will decrease sensitivity. Sensitivity adjustment must be completed with the module securely mounted and the adjustment knob accessible.



20. Starting with the adjustment knob in approximately the halfway position, lower the driver's window and exit the vehicle.
21. Press the LOCK button on the vehicle's RKE fob to arm the VSS system. The LED will light solid for 20 seconds and then begin to flash a steady on/off sequence to indicate the system is armed.
22. Using a closed fist, impact the steering wheel with moderate force to simulate a light impact on the vehicle. If the impact is detected, the horn will honk and the lights will flash 1 time to indicate the warning impact was detected.
23. Using a closed fist, impact the steering wheel with heavy force to simulate a hard impact (i.e. glass breakage) on the vehicle. If the impact is detected, the horn will honk and the lights will flash a steady on off sequence to indicate the heavy or full shock trigger was detected.
24. Increase (rotate clockwise) or decrease (rotate counter-clockwise) the adjustment knob as necessary to achieve desired sensitivity, repeat the previous steps to test, and verify adjustment.

VSS Functional Test**NOTE:**

If installed, observe the LED while performing these tests.

25. Lower the driver's door window, then close all doors, hood, and trunk/hatch and press lock on the keyfob. The LED should stay lit for 20 seconds while the VSS system pre-arms, after which it will flash every 3-4 seconds in fully armed mode.

INSTALLATION (Continued)

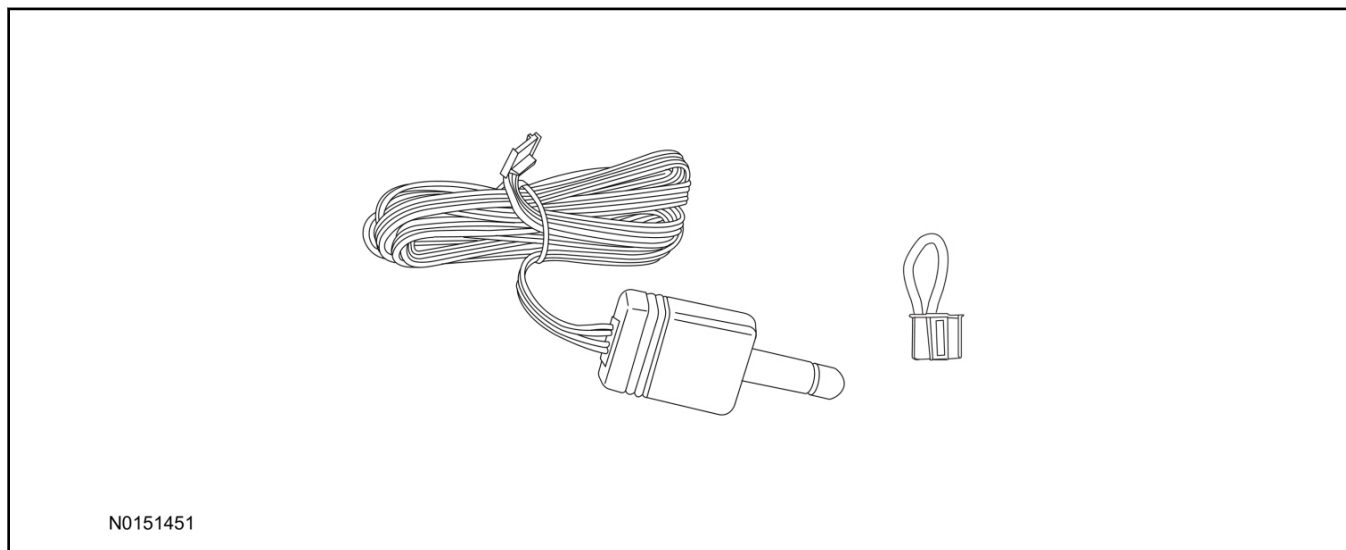
26. Reach inside the window hit the door unlock trim switch. The LED should continue to flash, indicating that the vehicle is still armed. Use the inside driver's door handle to open the door. The alarm should sound, indicating perimeter breach. Turn the alarm off by turning the ignition to "On".
- If equipped with OE perimeter security, there will be a 12 second interior chime prior to alarm sounding. For vehicles not equipped with OE perimeter security, there will be a 12 second delay with no interior chime prior to alarm sounding.
 - For push button start vehicles, the Intelligent Access (IA) key must be away from the vehicle, otherwise the security system may disarm immediately upon trigger.
27. Exit the vehicle and arm it again, this time leaving the driver's door open. The vehicle should arm itself, ignoring the open door but monitoring the rest. Once the vehicle is armed, shut the driver's door and reopen it after a few seconds. The alarm should sound. Turn the alarm off by hitting unlock on the keyfob.
- For push button start vehicles, the Intelligent Access (IA) key must be away from the vehicle, otherwise the security system may disarm immediately upon trigger.
28. Test all other vehicle doors, the hood and the trunk in the same manner, by setting off the alarm and disarming with the keyfob.
29. **Please contact 1-800-FORD-KEY with any issues regarding hardware or kit contents.**

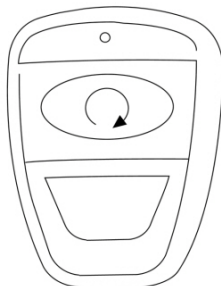
II. Remote Start (RMST) Upgrade - Antenna Kit "Sold Separately"**CAUTION:**

Carefully route and secure module and harnesses so that they do not interfere with moving parts or linkages.

NOTE:

Verify that the vehicle has a hood switch Installed. If the vehicle is not equipped with a hood switch refer to "**Hood Switch Kit - Sold Separately**".



INSTALLATION (Continued)**Standard Key Fob (15K601) "Sold Separately"**

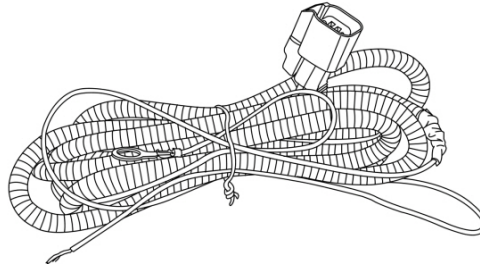
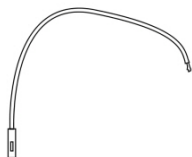
N0151499

Bi-directional Key Fob (15K601) "Sold Separately"

N0162473

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

N0122208

Optional Components - Hood Switch Wire Harness Kit (14B504) - SE Vehicles Only "Sold Separately"

N0143443

Optional RMST Upgrade Components "Sold Separately"

30. Review the RMST Upgrade components.

Remote Start (RMST) Upgrade - Antenna Kit "Sold Separately"

QUANTITY	DESCRIPTION
1	Bi-directional Antenna (TBD)
1	Security Jumper (TBD)

Standard Key Fob (15K601) "Sold Separately"

QUANTITY	DESCRIPTION
1	Standard Key Fob (15K601)

INSTALLATION (Continued)**Bi-directional Key Fob (15K601) "Sold Separately"**

QUANTITY	DESCRIPTION
1	Bi-directional Key Fob (15K601)

Hood Switch Kit Contents (if required) "Sold Separately"

31. Review the Hood Switch kit contents.

Hood Switch Kit "Sold Separately"

QUANTITY	DESCRIPTION
1	Hood Switch Assembly

Review Hood Switch Wire Harness Kit Contents (if required) "Sold Separately"

32. Review the Hood Switch kit contents.

Hood Switch Wire Harness Kit "Sold Separately"

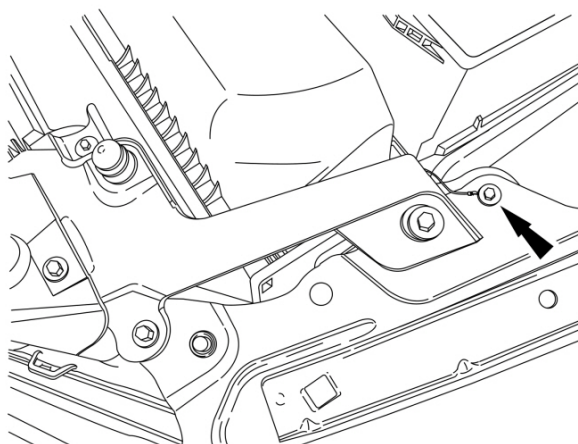
QUANTITY	DESCRIPTION
1	Body Control Module (BCM) Terminal Wire
1	Hood Switch Wire Harness

Hood Switch Kit - "Sold Separately"**NOTE:**

Hood switch installation is optional for VSS installation and required if the vehicle is being upgraded to RMST/RMU and is not currently equipped with a hood switch.

33. Remove the fender bolt and install the hood switch ground wire.

- Tighten to 12 Nm (106 lb-in).

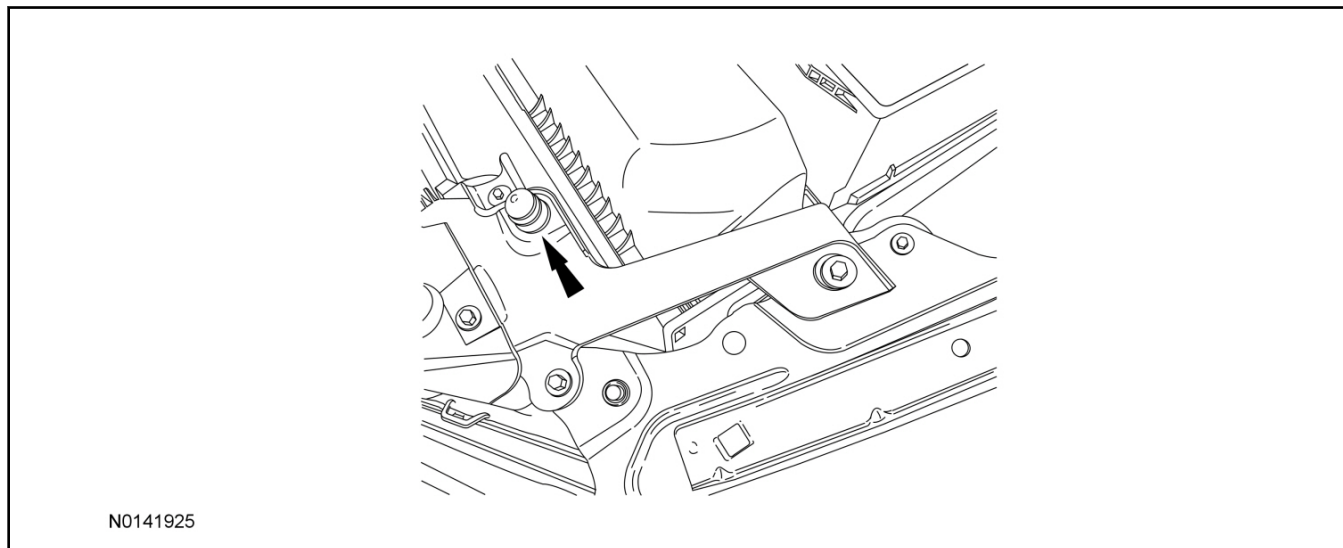


N0141960

INSTALLATION (Continued)

34. Install the hood switch.

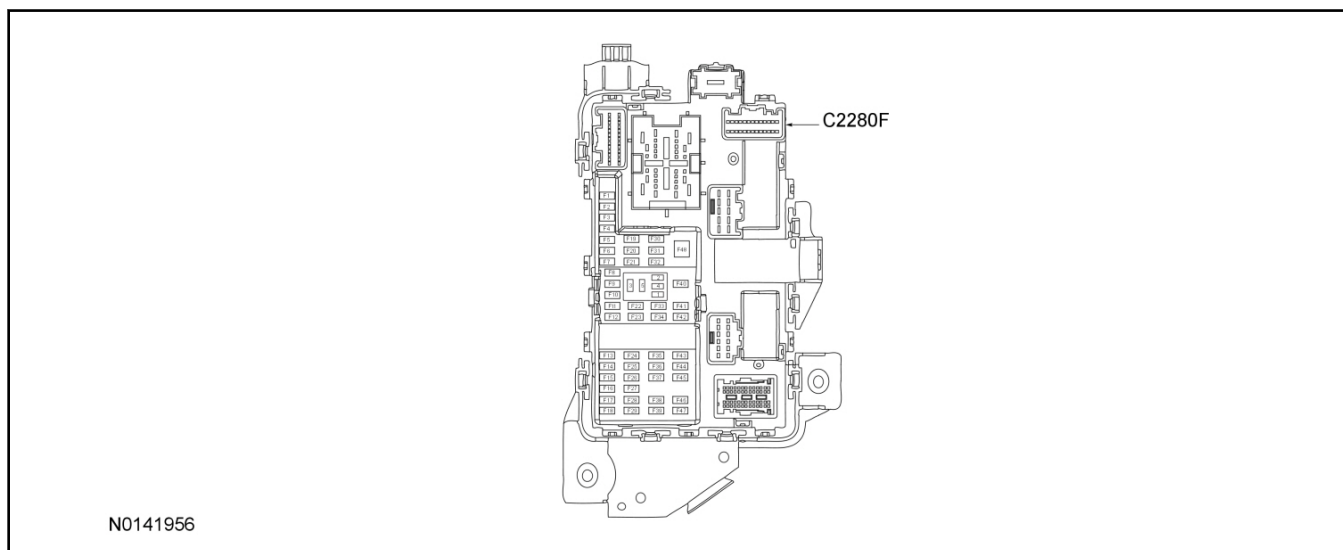
- Connect the electrical connector.



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

- Secure the hood switch wire harness with tie-straps.

36. Disconnect BCM connector C2280F.



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

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

38. **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.

INSTALLATION (Continued)

39. Connect BCM connector C2280F.

NOTICE:

Refer to "Proper Wire Splicing Techniques" before proceeding.

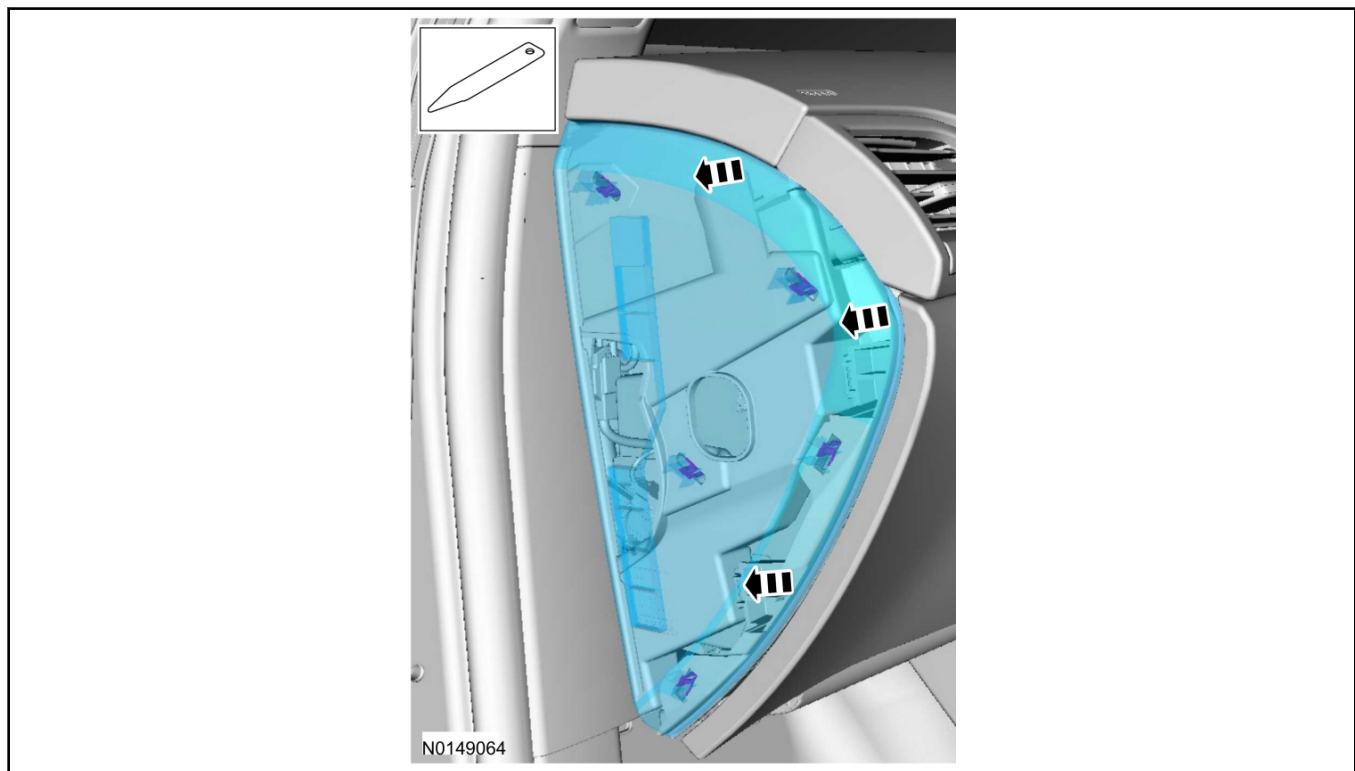
40. Connect the hood switch wire harness wire to the BCM Terminal Wire.

- Secure the wire harness assembly with tie-straps.

RMST Kit Antenna Installation

41. Position the top portion of the LH kick panel aside to allow for removal of the IP side finish panel.

42. Position the weather strip aside and remove the LH IP side finish panel.



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

NOTE:

Do not touch the adhesive, reduced adhesion may result.

NOTE:

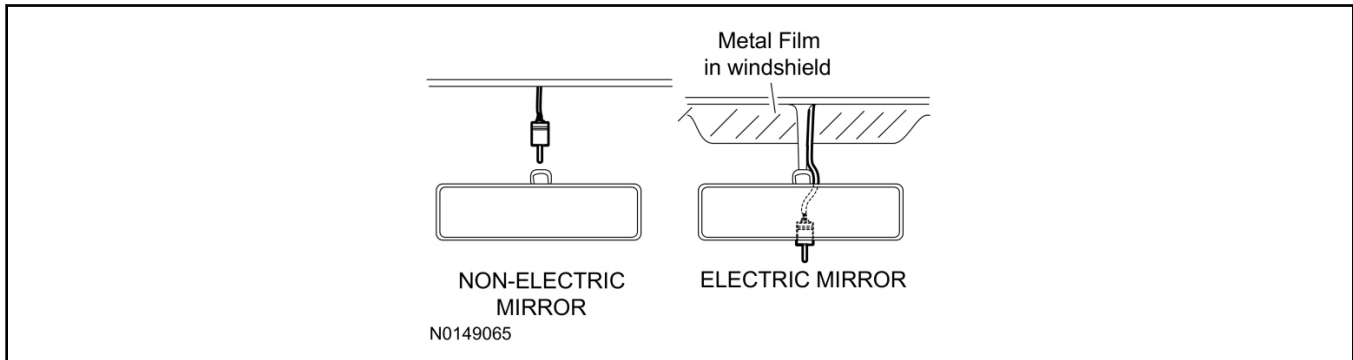
Make sure that the long wire on the antenna is pointing towards the top of the windshield since this wire will be routed along the headliner.

NOTE:

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

INSTALLATION (Continued)

Remove the protective backing from the adhesive on the antenna and firmly press the body of the antenna onto the mounting surface.



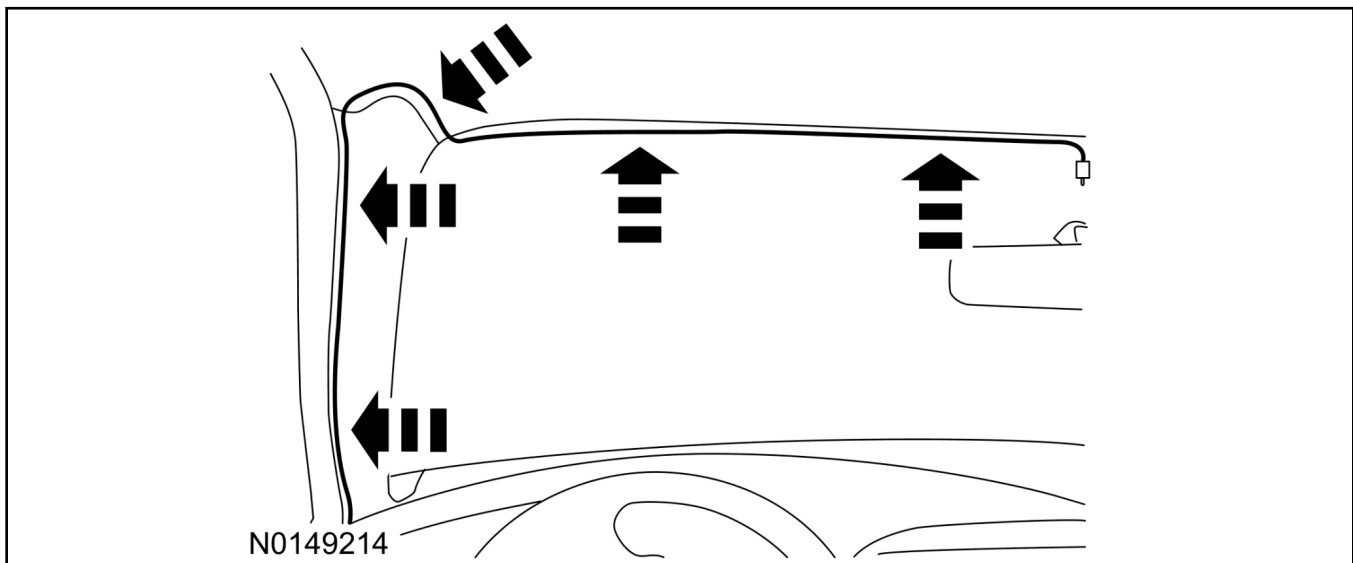
45. If necessary, position the A-pillar trim slightly outward to provide access to route the antenna wire.

NOTE:

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

46. Route the antenna cable along the headliner and down the A-pillar towards the floor. Continue routing the wire into the IP towards the VSS module.

- Secure with tie-straps.



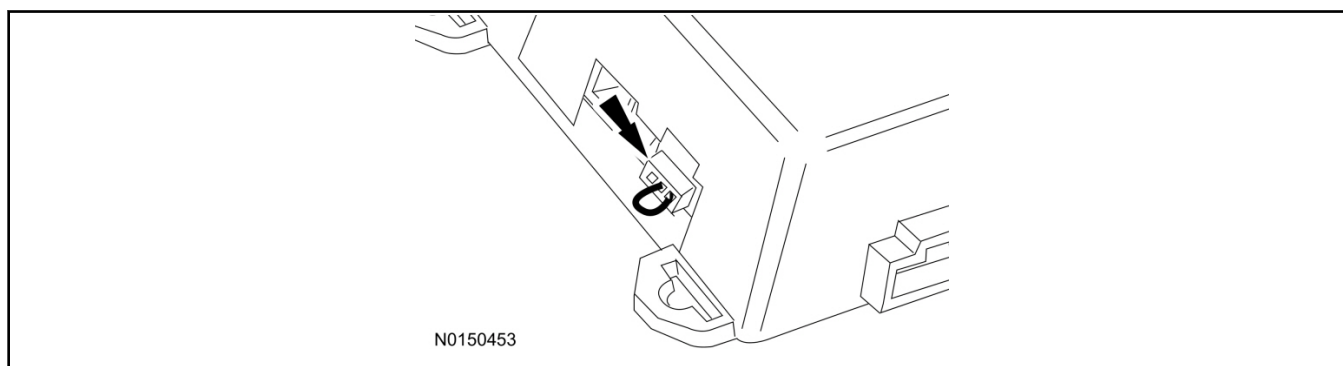
47. Connect the antenna connector to the VSS module.
48. Reposition the A-pillar trim panel back, if necessary.
49. Install the LH IP side finish panel. Position the weatherstrip and LH kick panel back.

VSS Module - Optional Vehicle Security Features

50. Enable/Disable Vehicle Security Features:

Locate the security jumper supplied in the kit.

- Install the jumper to the VSS module if the vehicle security features are to be **disabled**.
- Not installing and/or removing the jumper from the VSS module will keep the vehicle security features **enabled**.

INSTALLATION (Continued)**RMST Activation - Key Start Only****NOTE:**

For vehicles equipped with push button start, proceed to Step 63 within the "Programming Key Fobs" section of this manual.

51. Verify that the IDS is updated to the most current version.
52. Connect IDS.
 - Follow the prompts to select new vehicle session.
 - Enter VIN.
53. 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.
54. 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.
55. 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.

INSTALLATION (Continued)

- Select Remote Start System.
- Verify that the remote start system is enabled.

Learn Remote Start to Vehicle (Push Button Start Vehicles Only)

56. Cycle door locks at trim switch four times to learn remote start keyless functions.

Learn Remote Start to Vehicle (Key Start Vehicles Only)**NOTE:**

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

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

58. Put the key in the ignition.

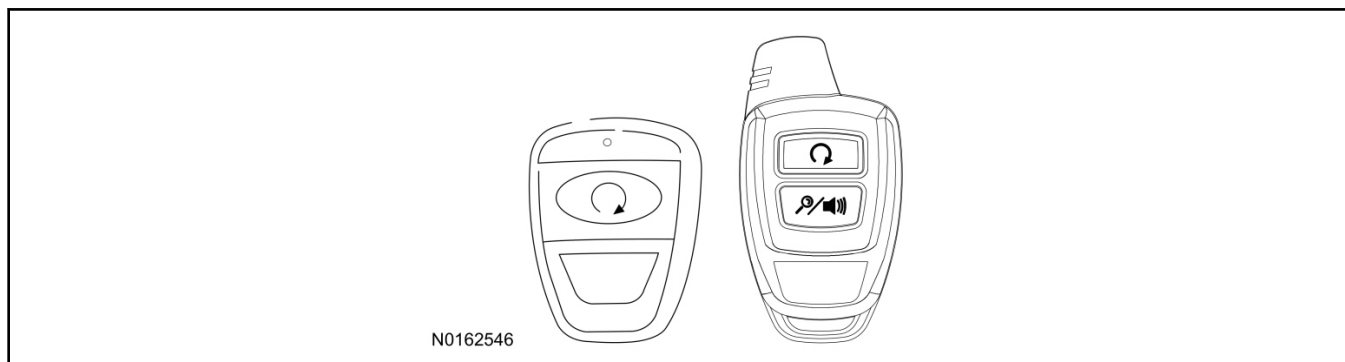
59. Cycle eight times rapidly (within 10 seconds) between the 1 (OFF/LOCK) position and 3 (ON) position.

- 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.

60. 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.

61. If equipped with additional accessories (i.e. RF keypad), verify that they maintain all functionality post installation.

Programming Key Fobs**62. Key Start Vehicles:****NOTE:**

These steps must be performed with the VSS module security jumper removed if previously installed. For additional information refer to "VSS Module - Optional Vehicle Security Features".

- 1 Start with doors unlocked
- 2 Driver's door open (remaining open throughout)
- 3 Verify that the gearshift lever is in the "PARK" position.
- 4 Depress and hold brake pedal.

INSTALLATION (Continued)

- 5 Start with ignition key OFF.
- 6 Cycle ignition key to the ON then OFF position 5 times, then back to the ON position a 6th time.
 - The horn will honk 3 times to indicate transmitter learn mode access.
- 7 Press the START button on each transmitter you wish to program. The horn will honk 1 time each time the START button is pressed to indicated the transmitter has been learned.
- 8 Cycle ignition key to the OFF position to exit transmitter learn mode.

9 NOTE:

If the security jumper is installed the vehicle security features are disabled.

If previously removed, reinstall the VSS module security jumper. For additional information, refer to "VSS Module - Optional Vehicle Security Features".

63. Push Button Start Vehicles:**NOTE:**

These steps must be performed with the VSS module security jumper removed if previously installed. For additional information refer to "VSS Module - Optional Vehicle Security Features".

NOTE:

The following steps must be performed with the driver door open.

- 1 Enter the vehicle with the vehicle key(s) and key fobs you wish to program.
- 2 Depress and hold brake pedal.
- 3 Press the start/stop button.
- 4 After the vehicle starts press the start/stop button to shut down.
- 5 Repeat steps 3 and 4 an additional four times, ending in ignition on, engine off.
- 6 Release the brake pedal.
- 7 Press the vehicle start/stop button twice to turn ignition on.
 - The horn will honk 3 times to indicate transmitter learn mode access.
- 8 Press the start stop button on each fob you wish to program.
- 9 Cycle ignition to the OFF position to exit transmitter learn mode.

10 NOTE:

If the security jumper is installed the vehicle security features are disabled.

If previously removed, reinstall the VSS module security jumper. For additional information, refer to "VSS Module - Optional Vehicle Security Features".

RMST Functional Test**NOTE:**

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

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

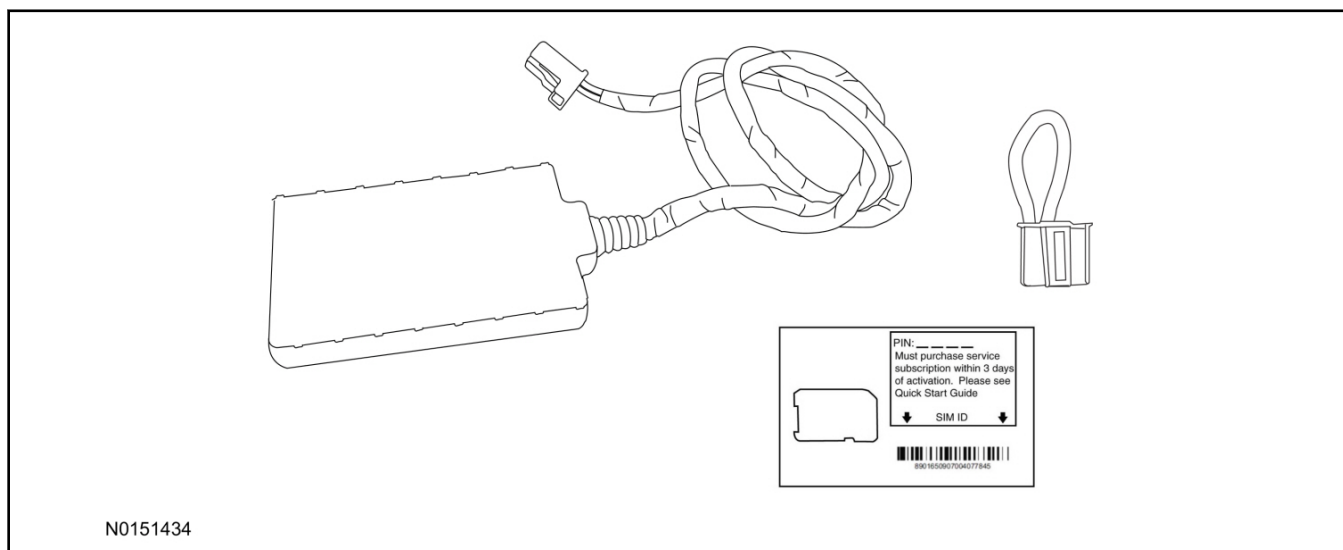
INSTALLATION (Continued)

65. Close the hood.
66. Close all of the vehicle doors.
67. Start the vehicle by pressing the remote start button twice on the remote start key fob.
68. Confirm the remote start works with the vehicle in park and with the hood and doors closed.
69. Open the hood.
70. **NOTE:**
Vehicle doors should be closed while performing this step.

Confirm that the vehicle will not start with the hood open.

Please contact 1-800-FORD-KEY with any issues regarding hardware or kit contents.

71. See the Scalable Remote Start System Diagnosis Guide to resolve issues identified by the functional test.

III. Remote Access (RMU) Upgrade "Sold Separately"

72. Review the RMU upgrade components.

Optional Components — Remote Access (RMU) Upgrade "Sold Separately"

QUANTITY	DESCRIPTION
1	Remote Messaging Unit (RMU)
1	SIM Card Carrier
1	Security Jumper

⚠ CAUTION:

Carefully route and secure module and harnesses so that they do not interfere with moving parts or linkages.

NOTE:

For proper range of operation, the RMU must be installed as shown in the diagram below.

73. Using tie-straps secure the RMU to the IP harness above the previously installed VSS module.

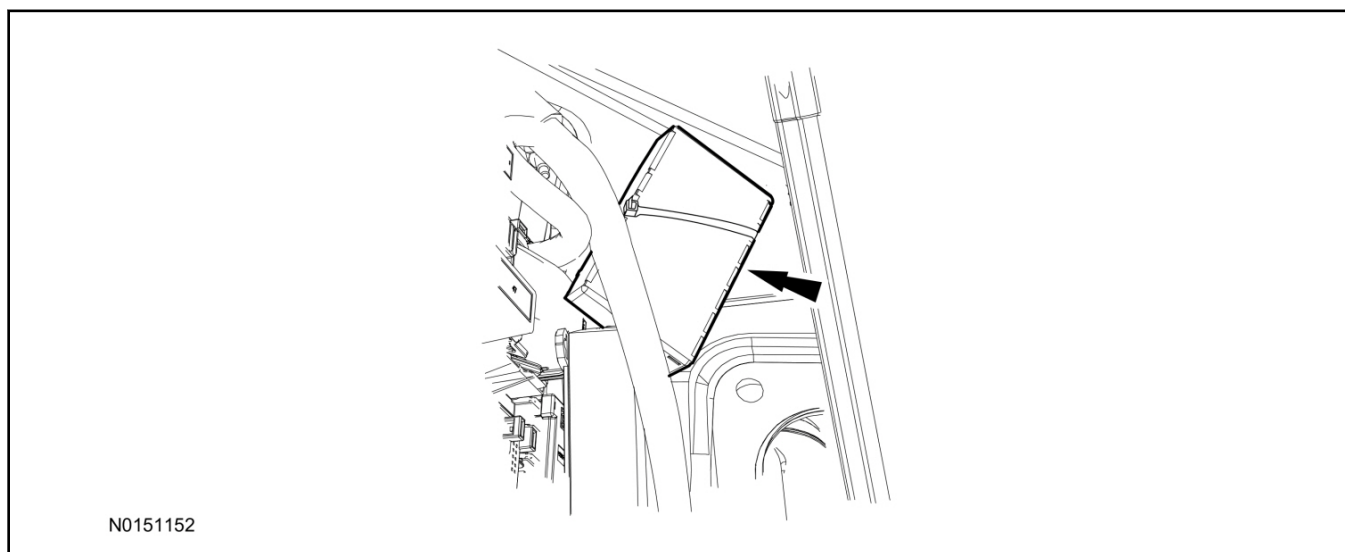
INSTALLATION (Continued)**CAUTION:**

Carefully route and secure module and harnesses so that they do not interfere with moving parts or linkages.

NOTE:

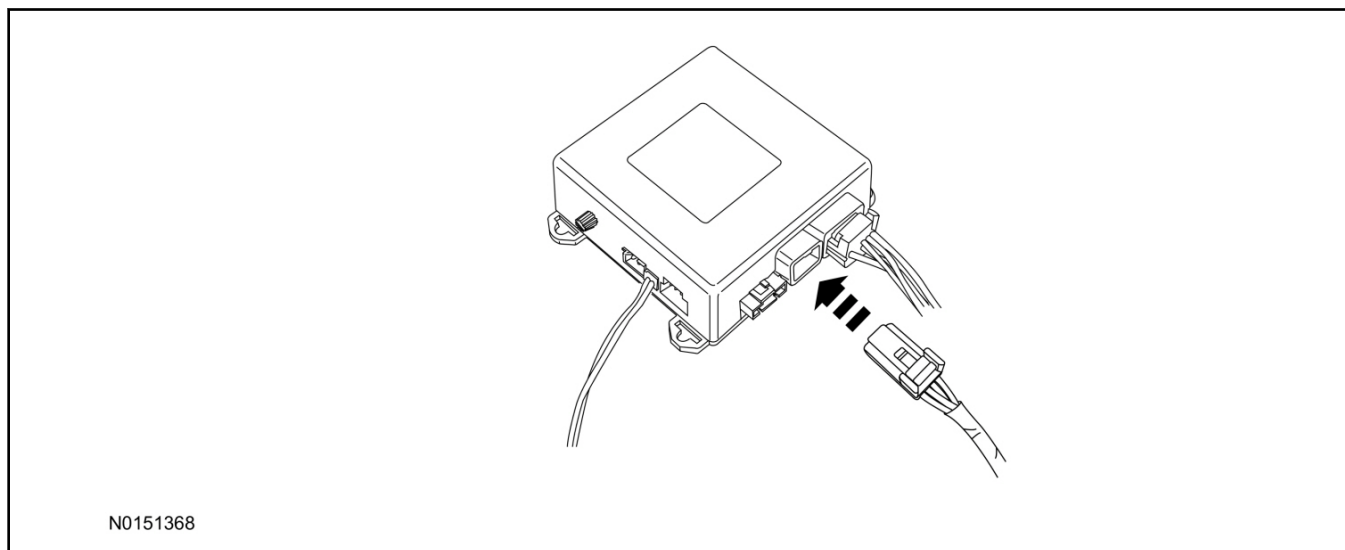
For proper range of operation, the RMU must be installed as shown in the diagram below.

74. Using tie-straps secure the RMU to the IP harness above the previously installed VSS module.



75. Connect the RMU electrical connector to the VSS module.

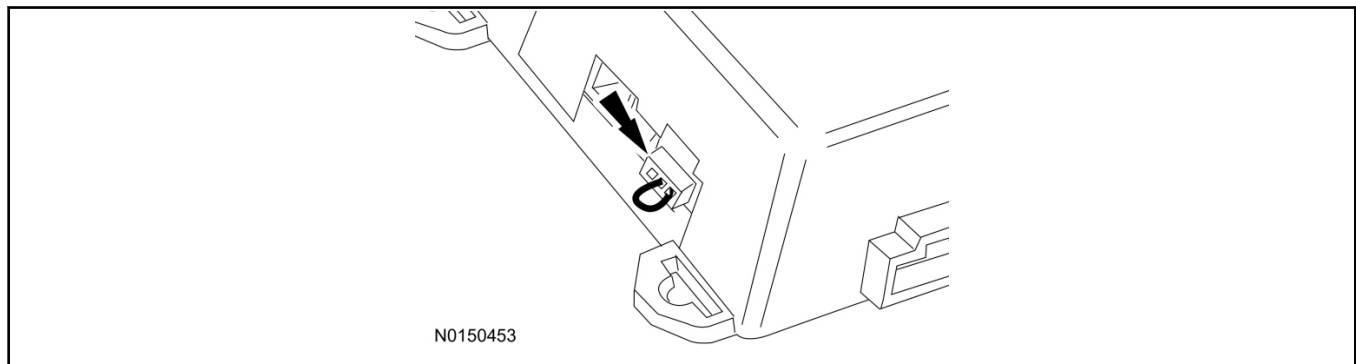
- Secure the harness with tie-straps.

**VSS Module - Optional Vehicle Security Features**

76. Enable/Disable Vehicle Security Features:

Locate the security jumper supplied in the kit.

- Install the jumper to the VSS module if the vehicle security features are to be **disabled**.
- Not installing and/or removing the jumper from the VSS module will keep the vehicle security features **enabled**.

INSTALLATION (Continued)**Remote Start Activation - Key Start Vehicles (Without Factory Remote Start)**

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

78. Connect IDS.

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

79. 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.

80. 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.

81. 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 to Vehicle (Push Button Start Vehicles Only)**

82. Cycle door locks at trim switch four times to learn remote start keyless functions.

Learn Remote Start to Vehicle (Key Start Vehicles Only)**NOTE:**

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

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

84. Put the key in the ignition.

85. 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.

86. 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.

87. If equipped with additional accessories (i.e. RF keypad), verify that they maintain all functionality post installation.

RMU Activation**NOTE:**

Please note that the Remote Access application that is used to start the vehicle for this RMST kit will only work with iPhone and Android phones.

88. For RMU activation the following information from the customer is recommended to provide them with electronic notification for app retrieval:

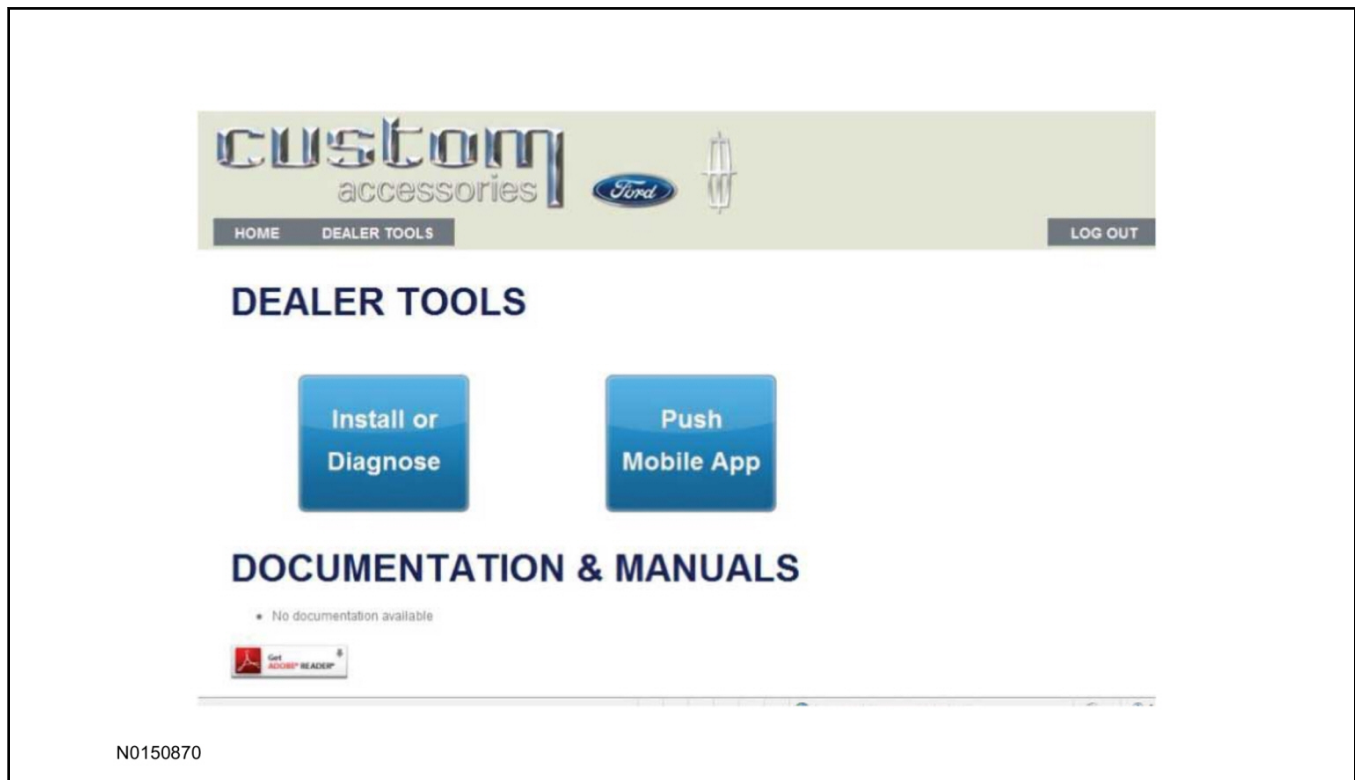
- 1 Email Address
- 2 Cell Phone Number
- 3 Cell Phone Carrier Company

89. Log on to your Professional Technician Society (PTS) account and enter the vehicle information.

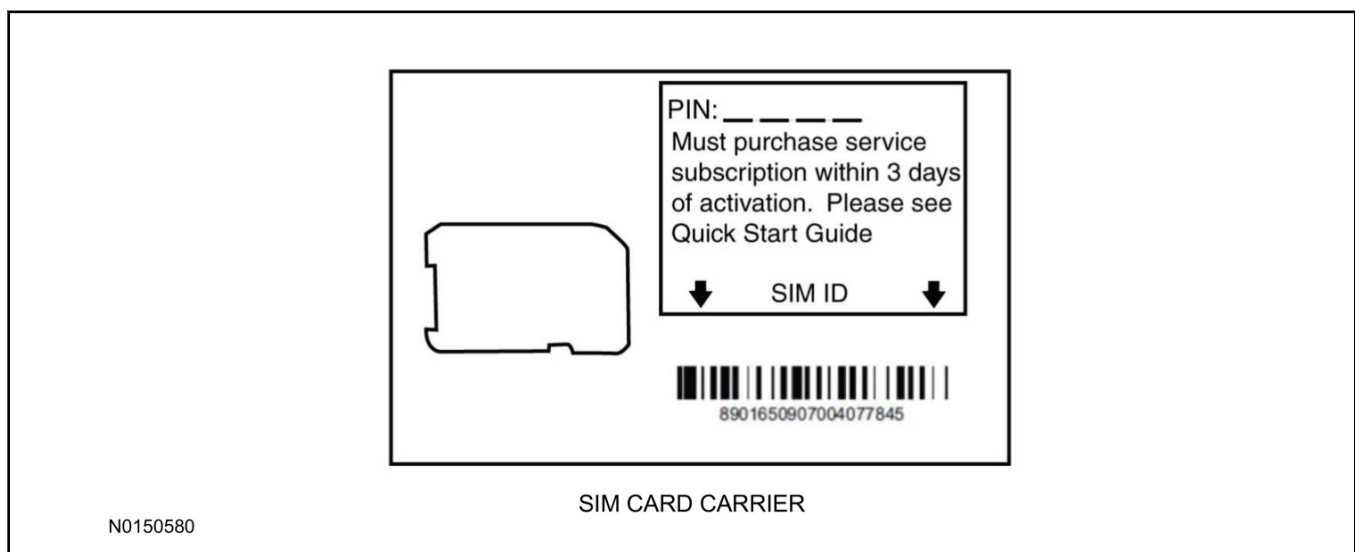
- 1 Select "Vehicle Id".
- 2 Select "By Year & Model"
- 3 Choose the year & model of the vehicle and then select "GO".
- 4 Hover over the "Workshop" tab.
- 5 Select the "Accessory Installation" menu item.
- 6 Under the "Electrical" heading, select the "Remote Access Activation" link (first time users will need to agree to terms & conditions).
- 7 Select the "Install or Diagnose" link.

INSTALLATION (Continued)**NOTE:**

If you are not directed to the screen shown below (or user agreement screen for first time users), make sure your internet browser zone settings are set to medium. This setting can be found in your browsers "internet options" under the "privacy" tab.



90. Once on the "Install" page, enter the SIM ID code that was provided with the RMST kit. Select "Begin or Continue Installation".



INSTALLATION (Continued)

91. Click on the "On screen steps 1-6", and follow the on screen instructions to complete the installation.

INSTALLATION INDEX

- 1 Activate SIM
- 2 Install in Vehicle
- 3 Enter Installation Details
- 4 Test Installation
- 5 Give Passcode to Customer
- 6 Push Mobile App to Customer

N0150454

INSTALLATION (Continued)**NOTE:**

The following step will complete the activation process, when you are directed to a screen similar to the one below ensure the correct vehicle brand is selected and that all applicable features are enabled.

NOTE:

The "perimeter" and "shock" settings below are optional features and should only be selected when security features are enabled.

The screenshot displays a software installation window titled "Installation Details". It contains the following elements:

- Brand:** A dropdown menu currently showing "Ford".
- Security Features:** A button with a circular arrow icon and the text "Requery".
- Feature List:** A vertical list of features, each preceded by a checked checkbox:
 - Start
 - Stop
 - Lock
 - Unlock
 - Car Finder
 - Perimeter
 - Shock
- Navigation:** Two buttons at the bottom: "Return" (with a left-pointing arrow) and "Continue" (with a right-pointing arrow).
- Identifier:** The alphanumeric code "N0150305" is located at the bottom left of the window.

INSTALLATION (Continued)

92. Perform a functional check of the system by testing each of the available features.

- Start/Stop function
- Lock/Unlock function
- Car finder
- Signal (for troubleshooting only)

Installation Test

Session Status	✓	Yes
Network Connection	✓	Yes
IP Assigned	✓	10.64.17.233
Comm Established	✓	Yes
Received IMEI	✓	358901041730422
Received ESN	✓	1663000117

Your install has been tested successfully. If you would like to test the physical functions of the module, you can do so below.

Start

Stop

Lock

Unlock

Car Finder

Signal

Return

Continue

N0150677

INSTALLATION (Continued)

NOTE:

All tests above must be completed in order to move to the next step. If any of the listed functions fail, move the vehicle to an outside location and retest.

Key Start Vehicles Only**NOTE:**

In the event start or stop fail, refer to the "Remote Start Activation" section in this manual.

NOTE:

In the event lock/unlock or car find fail, refer to the "Learn Remote Start System to Vehicle" section in this manual.

All Vehicles

93. Once the hardware installation and RMU activation process is complete, record the 4-digit PIN on the SIM card carrier. Provide the SIM card carrier to the customer so they can add this system to their Remote Access Account. Customer must have both the 4-digit PIN and SIM ID to activate/add their vehicle to their Remote Access Account.
94. If the customer agrees, you may push the mobile application to the customer. You will need the customer's phone number and cellular carrier. If the customer opts to install the application themselves, they can locate it in their mobile app store.

Please contact 1-800-FORD-KEY with any issues regarding hardware or kit contents.

Vehicle Security / Remote Start / Remote Access System Installation

CONTENTS

INSTALLATION

VSS Module Installation

Security Indicator LED Mounting

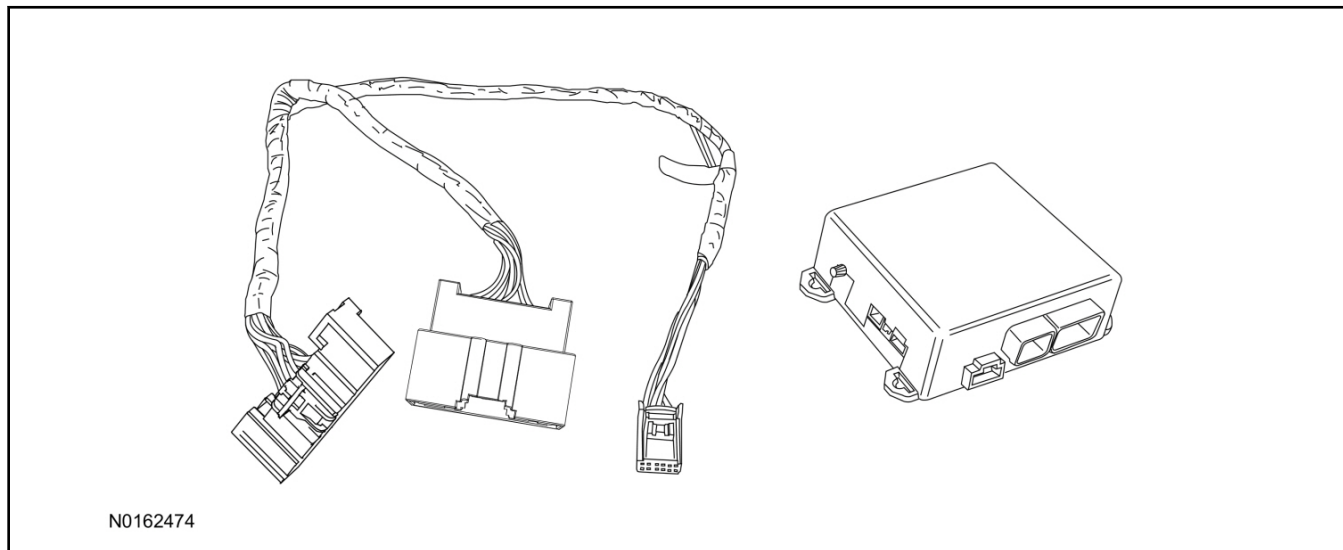
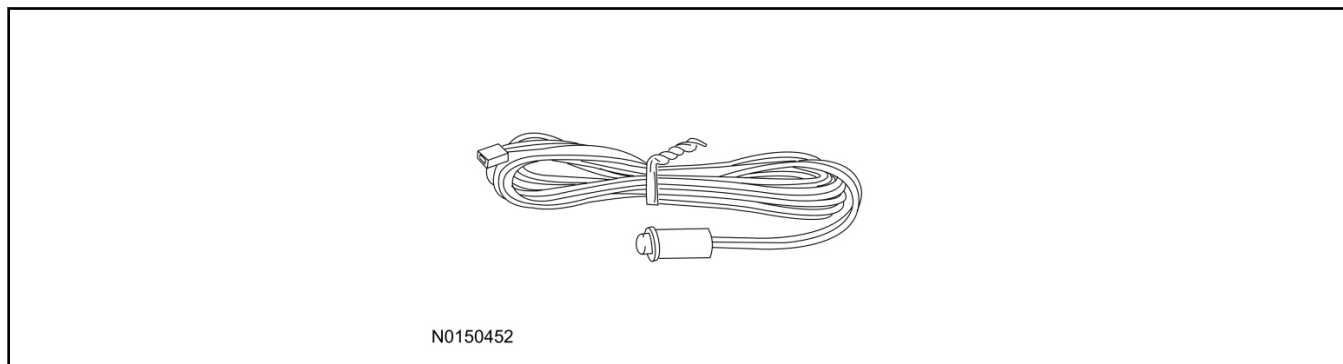
RMST Kit Antenna Installation

RMU Module Installation

GENERAL PROCEDURES

Shock Sensor Sensitivity Adjustment

RMU Activation

INSTALLATION**Vehicle Security / Remote Start / Remote Access - Mustang****VSS System Components****Security Indicator LED (19D596) "Optional"****Mustang**

1. Verify correct kit number.

Review VSS Kit Contents**NOTE:**

Kits are vehicle specific and are not interchangeable.

2. Review the VSS kit contents.

Vehicle Security System (VSS) Kit

QUANTITY	DESCRIPTION
1	VSS Module
1	T-harness

INSTALLATION (Continued)**Vehicle Security System (VSS) Kit(Continued)**

6	Tie-straps (not shown)
1	Owner's Manual (not shown)

Security Indicator LED Kit Contents "Optional"

- Review the Security Indicator LED kit contents.

Security Indicator LED Kit

QUANTITY	DESCRIPTION
1	Security Indicator LED

I. VSS System Installation**CAUTION:**

Carefully route and secure module and harnesses so that they do not interfere with moving parts or linkages.

NOTE:

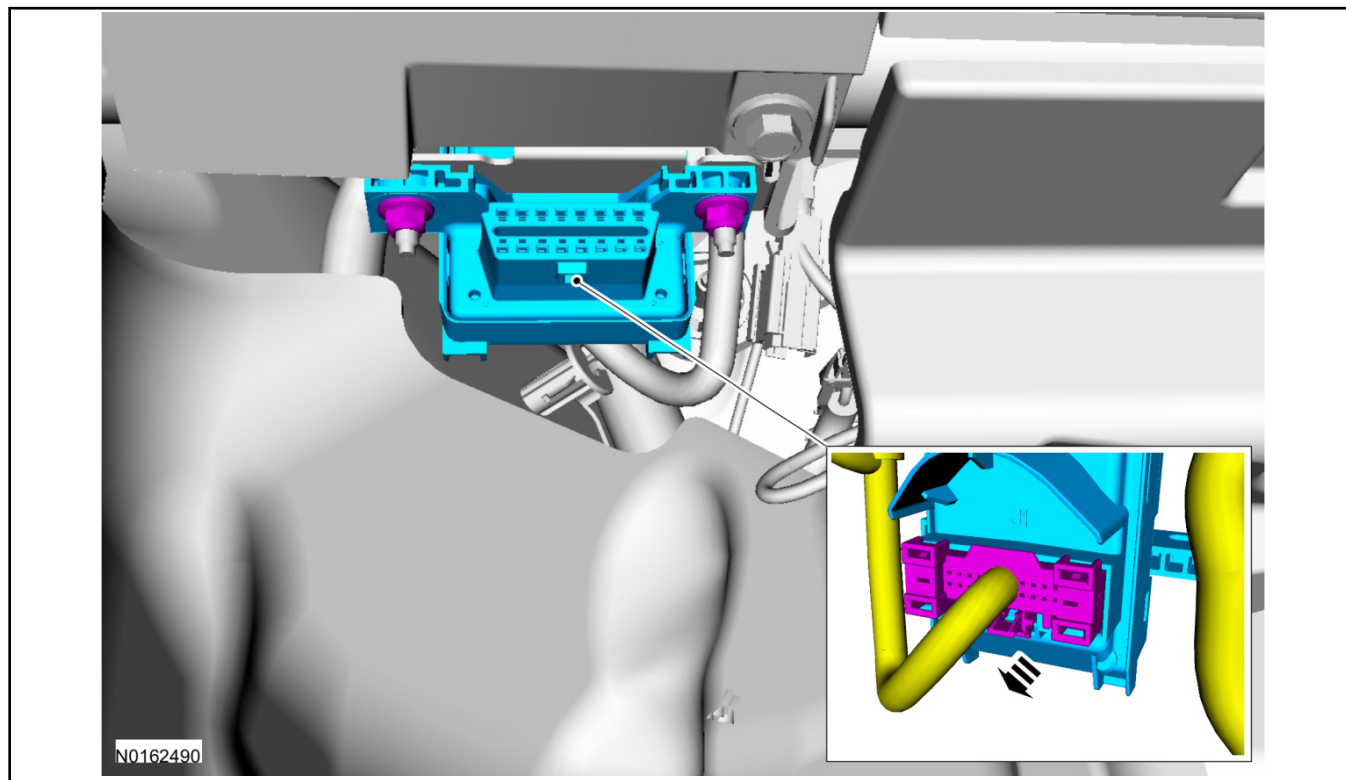
Accessory Remote Start / Remote Access is not available on vehicles equipped with enhanced security.

NOTE:

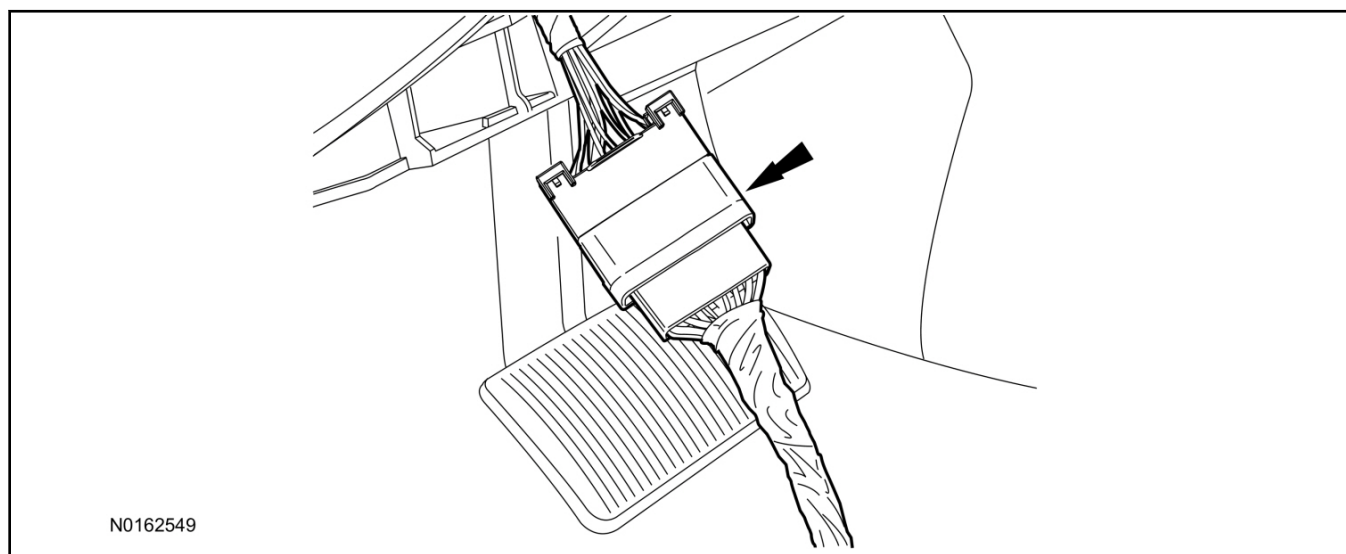
If the VSS kit was installed previously and the vehicle is being upgraded, proceed to the "RMST" or "RMU" upgrade section(s).

- If the vehicle is equipped with factory remote start, test its operation by pressing the Lock button one time and the Remote Start button two times.
 - If the vehicle remote starts, stop the engine by pressing the Remote Start button one time.
 - If the vehicle does not remote start, diagnose the concern.
- Disconnect the vehicle battery negative terminal. For additional information, refer to Workshop Manual (WSM) Section 414-01.

6. Disconnect the electrical connector from the back of the gateway module.

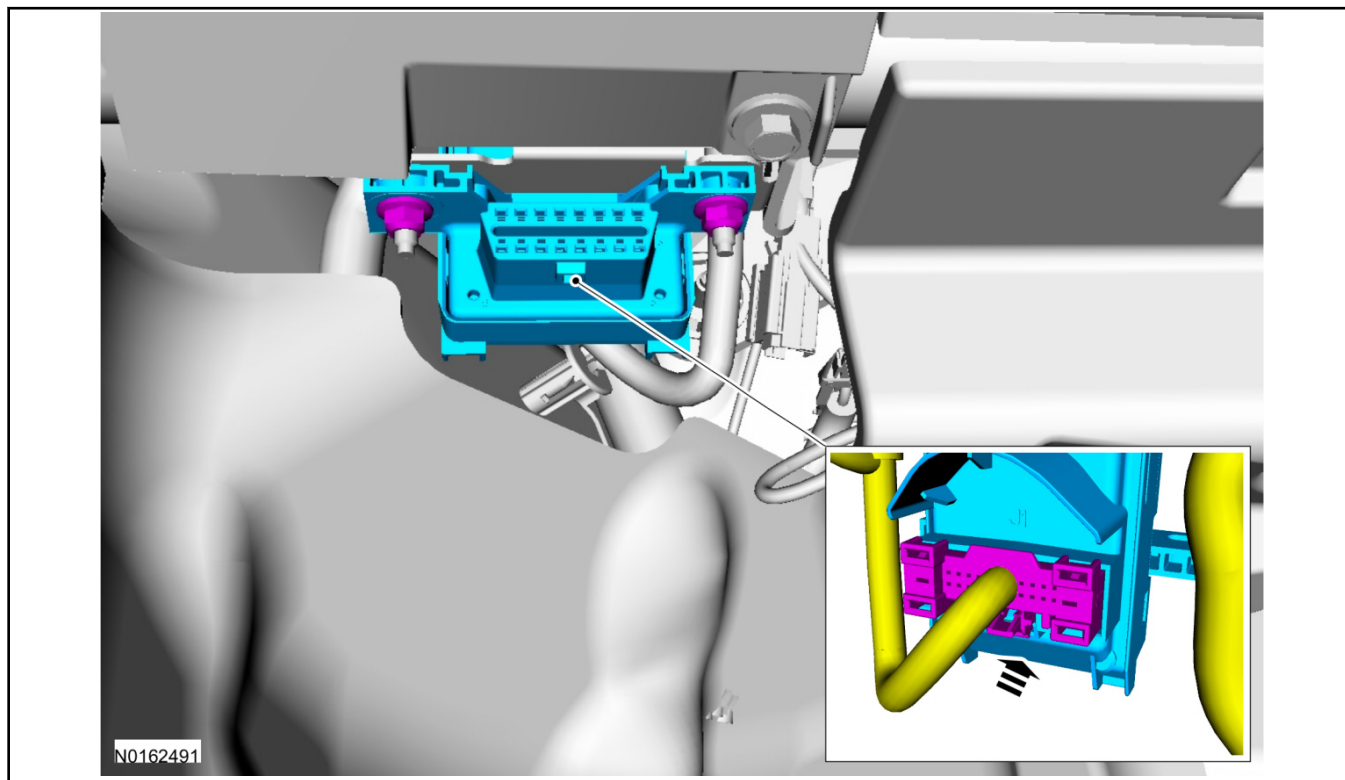


7. Connect the T-harness to the gateway module electrical connector.

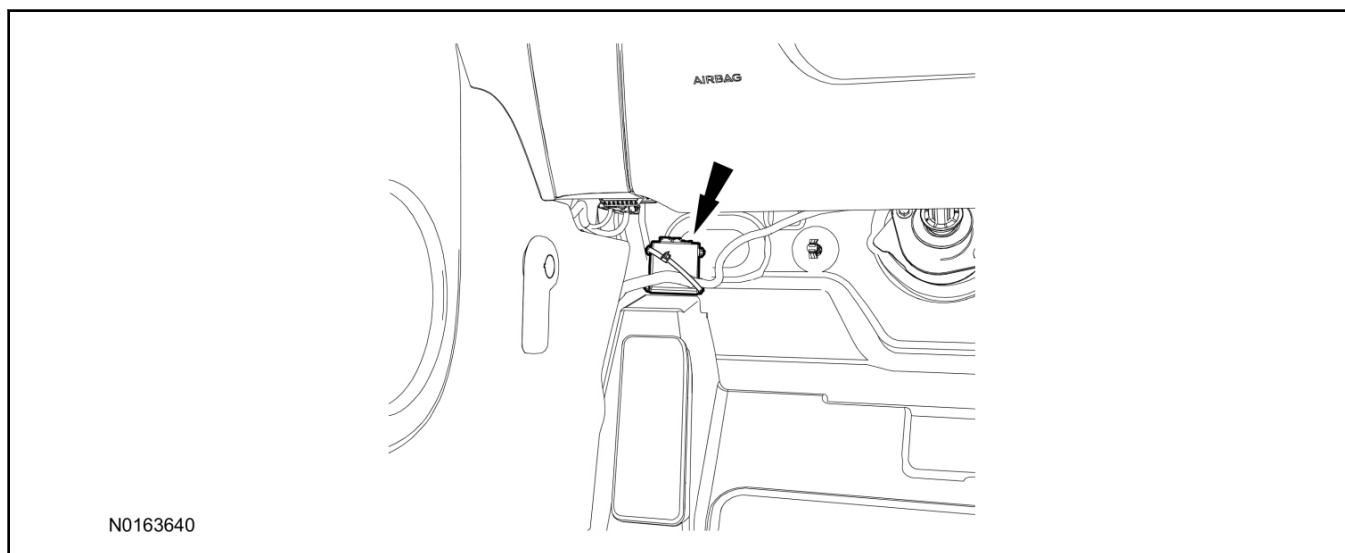


INSTALLATION (Continued)

8. Connect T-harness to the back of the gateway module.



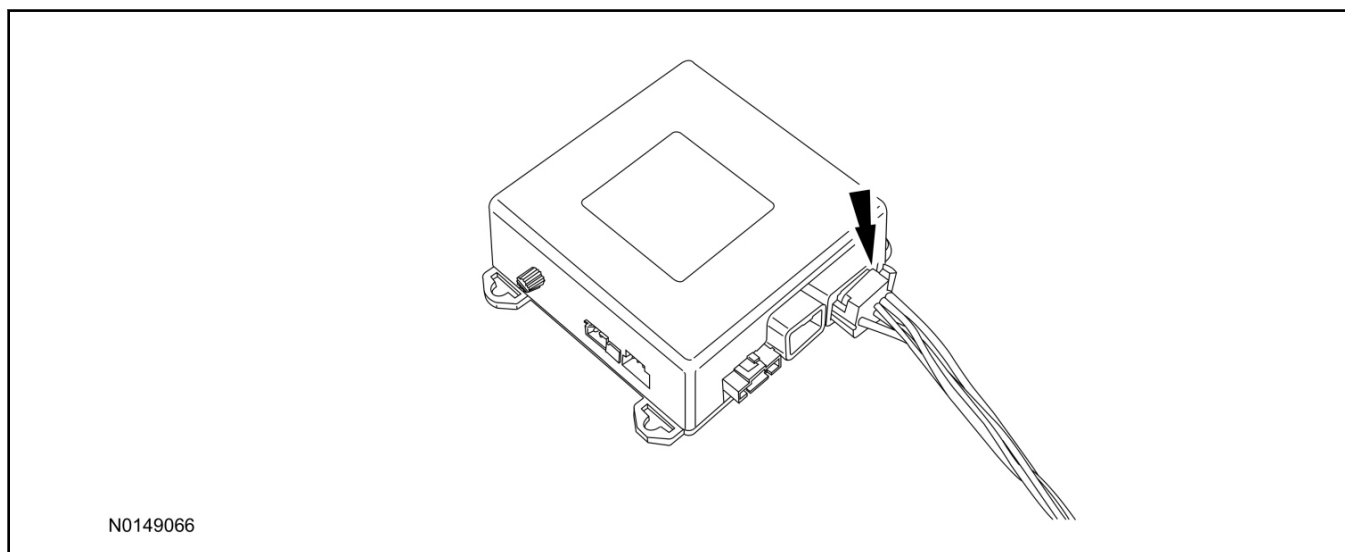
9. Position the T-harness inside the IP being careful to avoid sharp edges and moving parts.
- Secure with zip-ties.
10. Position the VSS module as shown above the driver foot rest and secure with a zip tie to the wiring harness above the foot rest.
- Ensure the VSS module is positioned so the shock sensor adjustment knob can be accessed for later use.
 - Ensure the tie-strap is routed through the VSS module loops at opposite corners.



INSTALLATION (Continued)

11. Connect the T-harness to the VSS module.

- Secure the VSS harness with tie-straps.



12. Connect the vehicle battery negative terminal. For additional information, refer to WSM Section 414-01.

Optional Security Indicator LED Mounting

CAUTION:

Carefully route and secure LED harness so that it does not interfere with moving parts or linkages.

13. Keep the following points in mind when routing or positioning the LED for mounting:

- Have at least 3/4" clearance behind trim panels for the wiring harness to be routed.
- The LED should be clearly visible from the driver's side window when mounted.
- Do not mount the LED on trim panels that cover air bags.

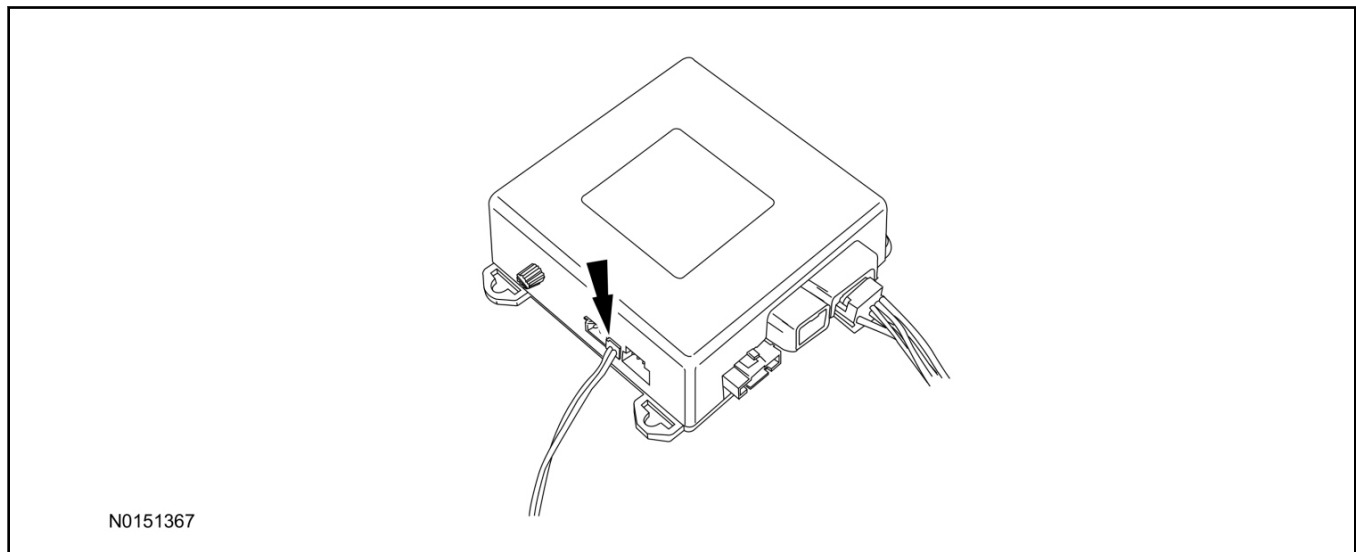
14. Mount the LED at an appropriate location on the upper steering column shroud, using the guidelines listed above.

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

15. Route the LED wire harness to the VSS module.

16. Connect the LED wire harness to the VSS module 2-pin white connector.

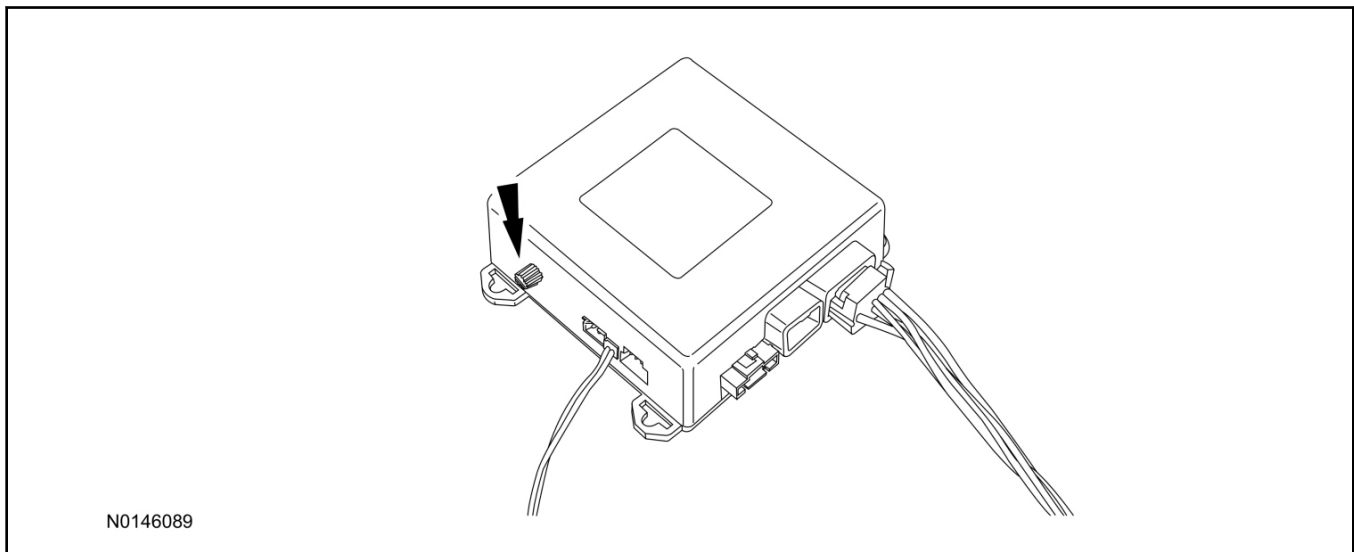
- Secure the LED wire harness with tie-straps.

INSTALLATION (Continued)

17. If the vehicle is equipped with factory remote start, test its operation by pressing the Lock button one time and the Remote Start button two times.
- If the vehicle remote starts, stop the engine by pressing the Remote Start button one time.
 - If the vehicle does not remote start, disconnect the vehicle battery negative terminal, wait five minutes and then reconnect the battery negative terminal. For additional information, refer to Workshop Manual (WSM) Section 414-01.
 - Retest the factory remote start.
 - If the vehicle does not remote start, diagnose the concern.

Shock Sensor Sensitivity Adjustment**NOTE:**

The VSS module is equipped with an internal dual zone Shock Sensor. The VSS system will activate a single horn honk/single light flash anytime a light to moderate impact is detected, and a "panic" type 30 second horn honk/light flash sequence when a heavy impact is detected while the VSS system is armed. Adjustment of both zones is accomplished through a single adjustment knob on the VSS module. Rotating the knob clockwise will increase sensitivity and rotating the knob counter-clockwise will decrease sensitivity. Sensitivity adjustment must be completed with the module securely mounted and the adjustment knob accessible.

INSTALLATION (Continued)

18. Starting with the adjustment knob in approximately the halfway position, lower the driver's window and exit the vehicle.
19. Press the LOCK button on the vehicle's RKE fob to arm the VSS system. If equipped, the LED will light solid for 20 seconds and then begin to flash a steady on/off sequence to indicate the system is armed.
20. Using a closed fist, impact the steering wheel with moderate force to simulate a light impact on the vehicle. If the impact is detected, the horn will honk and the lights will flash 1 time to indicate the warning impact was detected.
21. Using a closed fist, impact the steering wheel with heavy force to simulate a hard impact (i.e. glass breakage) on the vehicle. If the impact is detected, the horn will honk and the lights will flash a steady on off sequence to indicate the heavy or full shock trigger was detected.
22. Increase (rotate clockwise) or decrease (rotate counter-clockwise) the adjustment knob as necessary to achieve desired sensitivity, repeat the previous steps to test, and verify adjustment.

VSS Functional Test**NOTE:**

Cycle ignition OFF, ON, OFF before testing.

NOTE:

If installed, observe the LED while performing these tests.

23. Lower the driver's door window, then close all doors, hood, and trunk/hatch and press lock on the keyfob. The LED should stay lit for 20 seconds while the VSS system pre-arms, after which it will flash every 3-4 seconds in fully armed mode.
24. Reach inside the window hit the door unlock trim switch. The LED should continue to flash, indicating that the vehicle is still armed. Use the inside driver's door handle to open the door. The alarm should sound, indicating perimeter breach. Turn the alarm off by turning the ignition to "On".

INSTALLATION (Continued)

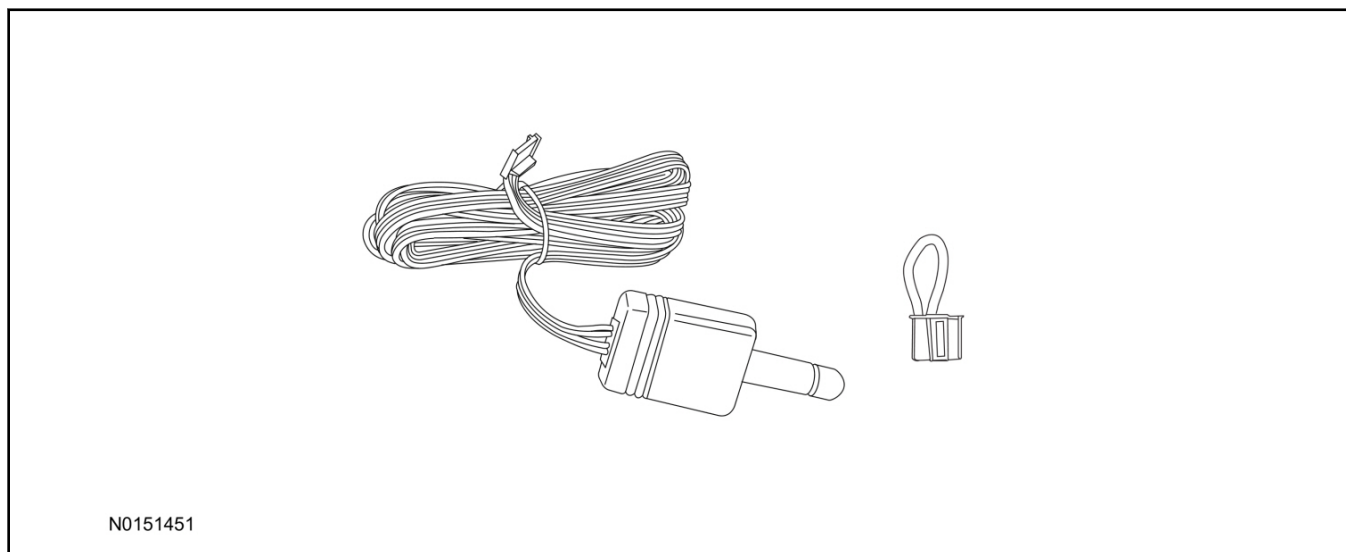
- If equipped with OE perimeter security, there will be a 12 second interior chime prior to alarm sounding. For vehicles not equipped with OE perimeter security, there will be a 12 second delay with no interior chime prior to alarm sounding.
 - For push button start vehicles, the Intelligent Access (IA) key must be away from the vehicle, otherwise the security system may disarm immediately upon trigger.
25. Exit the vehicle and arm it again, this time leaving the driver's door open. The vehicle should arm itself, ignoring the open door but monitoring the rest. Once the vehicle is armed, shut the driver's door and reopen it after a few seconds. The alarm should sound. Turn the alarm off by hitting unlock on the keyfob.
26. Test all other vehicle doors, the hood and the trunk in the same manner, by setting off the alarm and disarming with the keyfob.
27. **Please contact 1-800-FORD-KEY with any issues regarding hardware or kit contents.**

II. Remote Start (RMST) Upgrade - Antenna Kit "Sold Separately"**⚠ CAUTION:**

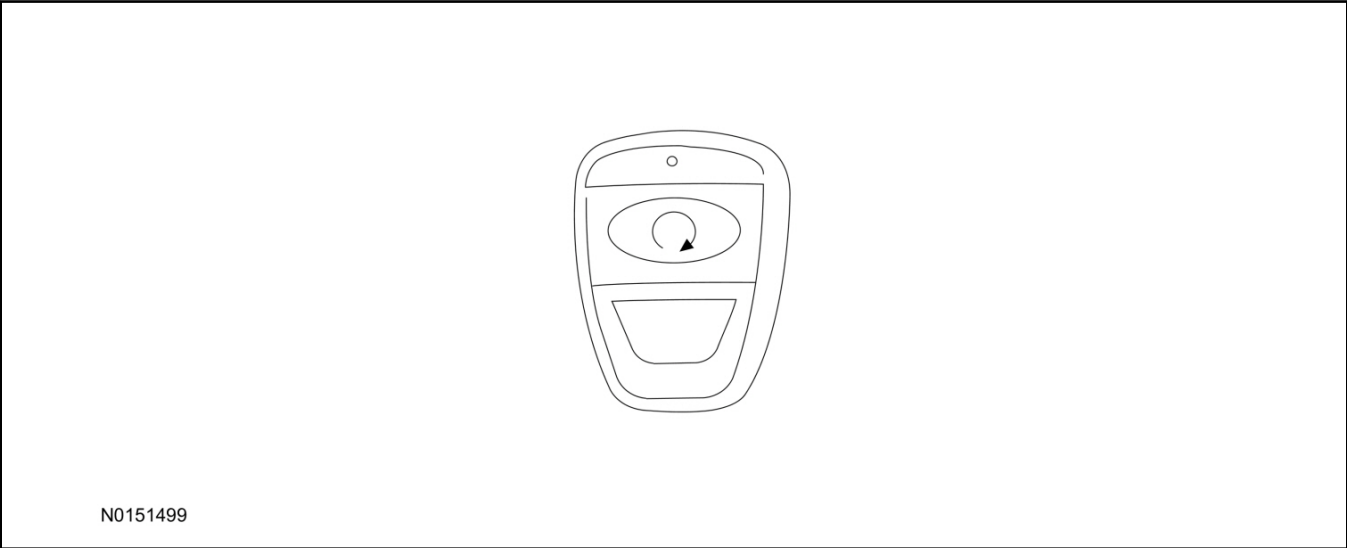
Carefully route and secure antenna and harness so that they do not interfere with moving parts or linkages.

NOTE:

Accessory Remote Start / Remote Access is not available on vehicles equipped with enhanced security.



Standard Key Fob (15K601) "Sold Separately"



Bi-directional Key Fob (15K601) "Sold Separately"



Optional RMST Upgrade Components "Sold Separately"

28. Review the RMST Upgrade components.

Remote Start (RMST) Upgrade - Antenna Kit "Sold Separately"

QUANTITY	DESCRIPTION
1	Bi-directional Antenna (15603)
1	Security Jumper (15603)

Standard Key Fob (15K601) "Sold Separately"

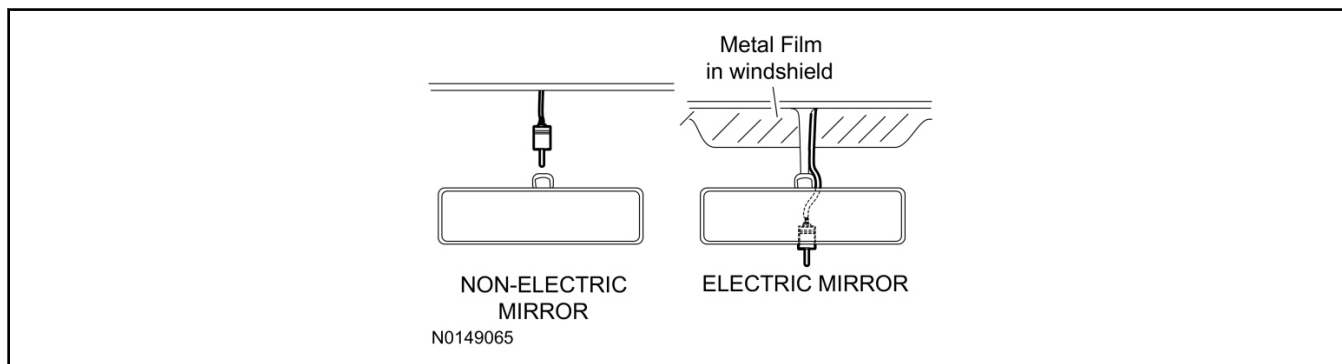
QUANTITY	DESCRIPTION
1	Standard Key Fob (15K601)

INSTALLATION (Continued)**Bi-directional Key Fob (15K601) "Sold Separately"**

QUANTITY	DESCRIPTION
1	Bi-directional Key Fob (15K601)

RMST Kit Antenna Installation

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



30. **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 onto the mounting surface.

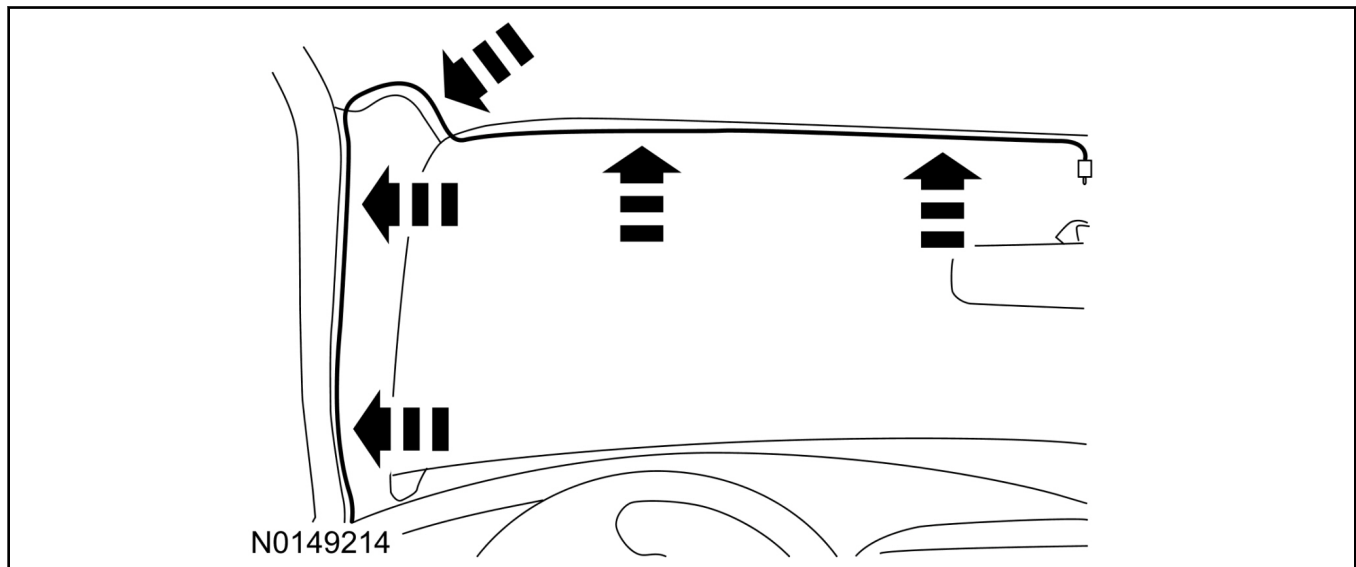
31. If necessary, position the A-pillar trim slightly outward to provide access to route the antenna wire.

NOTE:

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

32. Route the antenna cable along the headliner and down the A-pillar towards the floor. Continue routing the wire into the IP towards the VSS module.

- Secure with tie-straps.

INSTALLATION (Continued)

33. Connect the antenna connector to the VSS module.

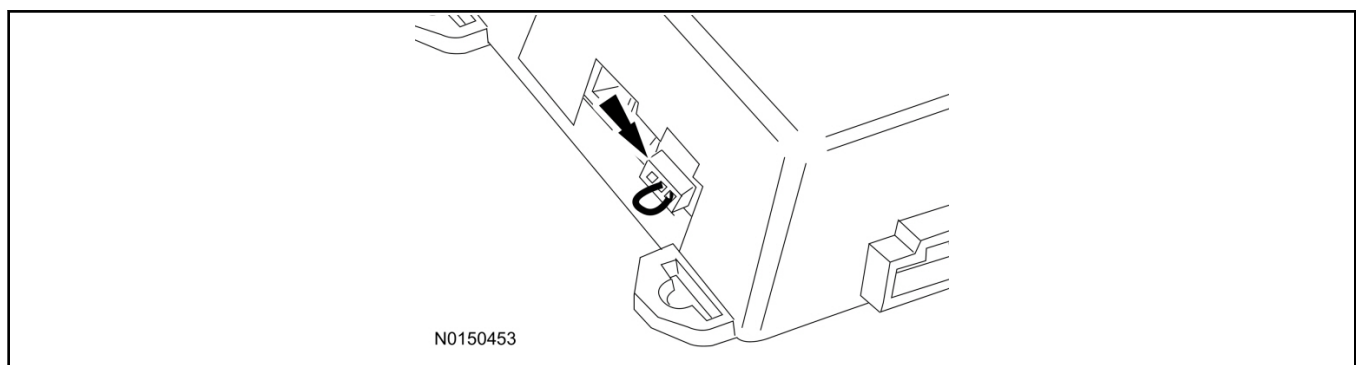
34. Reposition the A-pillar trim panel back, if necessary.

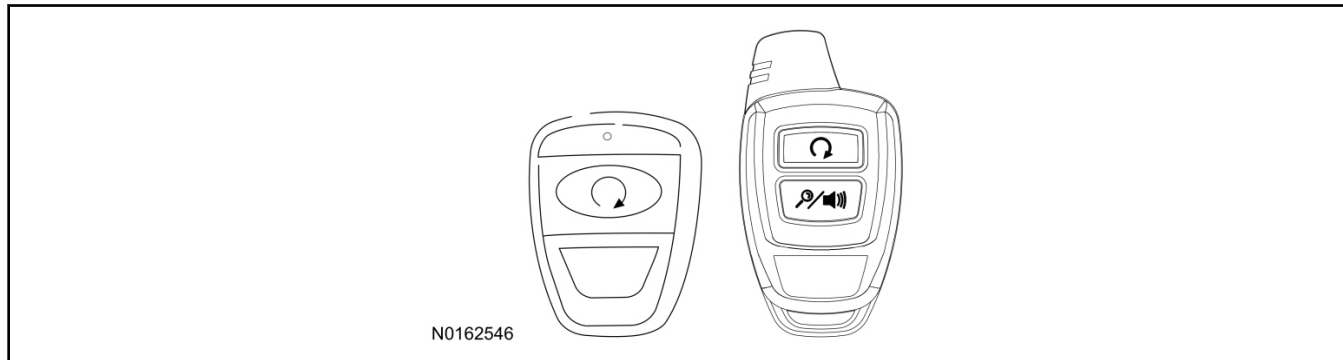
VSS Module - Optional Vehicle Security Features

35. Enable/Disable Vehicle Security Features:

Locate the security jumper supplied in the kit.

- Install the jumper to the VSS module if the vehicle security features are to be **disabled**.
- Not installing and/or removing the jumper from the VSS module will keep the vehicle security features **enabled**.



INSTALLATION (Continued)**Programming Key Fobs****36. NOTE:**

These steps must be performed with the VSS module security jumper removed if previously installed. For additional information refer to "VSS Module - Optional Vehicle Security Features".

NOTE:

The following steps must be performed with the driver door open.

- 1 Open door and press unlock.
- 2 Enter the vehicle with the vehicle key(s) and key fobs you wish to program.
- 3 Depress and hold brake pedal.
- 4 Press the start/stop button.
- 5 After the vehicle starts press the start/stop button to shut down.
- 6 Repeat steps 3 and 4 an additional four times, ending in ignition ON, engine ON.
- 7 Release the brake pedal, the horn should honk 3 times.
- 8 Press the start/stop button on each fob you wish to program. The horn should honk each time the button is pressed to indicate the transmitter has been programmed.
- 9 Cycle ignition to the OFF position to exit transmitter learn mode.

10 NOTE:

If the security jumper is installed the vehicle security features are disabled.

If previously removed, reinstall the VSS module security jumper. For additional information, refer to "VSS Module - Optional Vehicle Security Features".

RMST Functional Test

37. Make sure the shift lever is in PARK and the ignition is in the OFF position. Remove all keys from the vehicle.
38. Close the hood.
39. Close all of the vehicle doors.
40. Start the vehicle by pressing the remote start button twice on the remote start key fob.
41. Confirm the remote start works with the vehicle in park and with the hood and doors closed.

INSTALLATION (Continued)

42. If remote start fails to work make sure the vehicle is not equipped with the enhanced security option.

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.

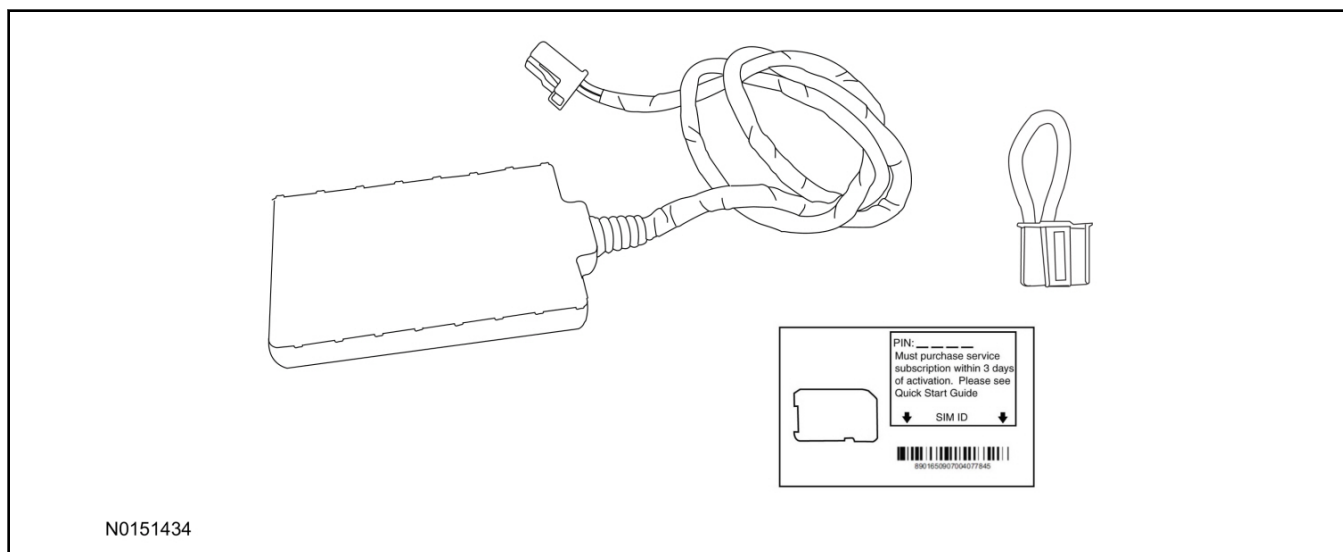
Please contact 1-800-FORD-KEY with any issues regarding hardware or kit contents.

45. See the Scalable Remote Start System Diagnosis Guide to resolve issues identified by the functional test.

III. Remote Access (RMU) Upgrade "Sold Separately"

NOTE:

Accessory Remote Start / Remote Access is not available on vehicles equipped with enhanced security.



46. Review the RMU upgrade components.

Optional Components — Remote Access (RMU) Upgrade "Sold Separately"

QUANTITY	DESCRIPTION
1	Remote Messaging Unit (RMU)
1	SIM Card Carrier
1	Security Jumper
5	Tie Wraps (not shown)

⚠ CAUTION:

Carefully route and secure module and harnesses so that they do not interfere with moving parts or linkages.

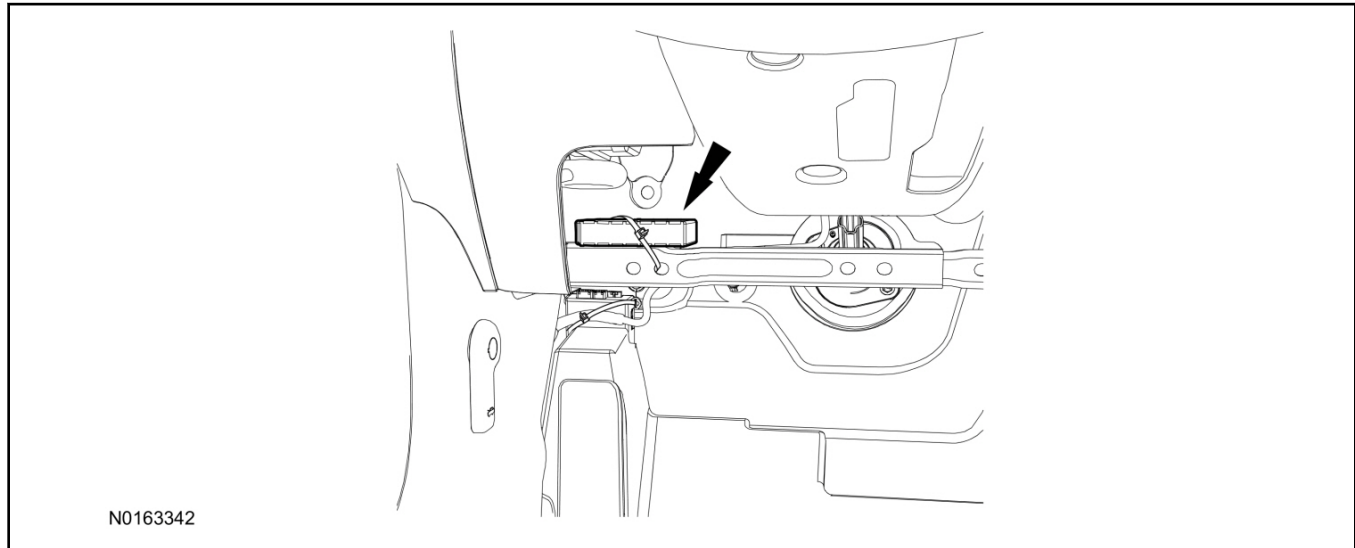
INSTALLATION (Continued)**NOTE:**

For proper range of operation, the RMU must be installed as shown in the diagram below.

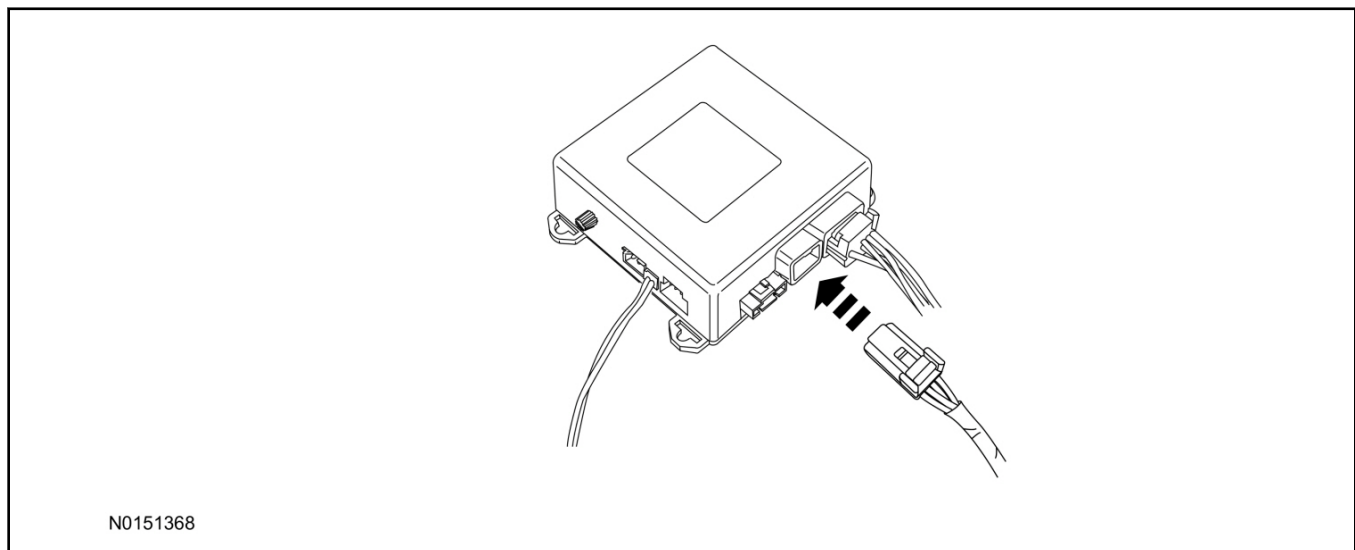
47. NOTE:

Airbag module removed for clarity.

Using tie-straps, secure the RMU to the IP frame near the gateway module.

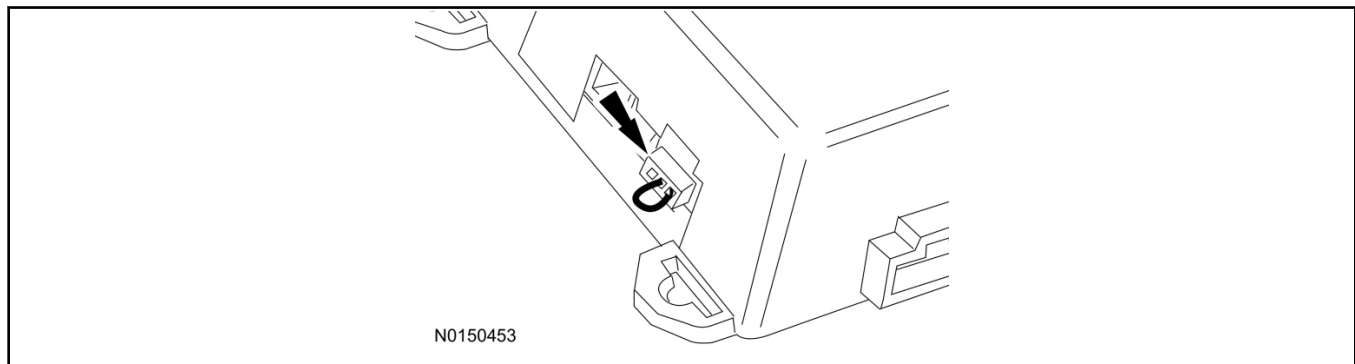
**48. Connect the RMU electrical connector to the VSS module.**

- Secure the harness with tie-straps.

**VSS Module - Optional Vehicle Security Features****49. Enable/Disable Vehicle Security Features:**

Locate the security jumper supplied in the kit.

- Install the jumper to the VSS module if the vehicle security features are to be **disabled**.
- Not installing and/or removing the jumper from the VSS module will keep the vehicle security features **enabled**.

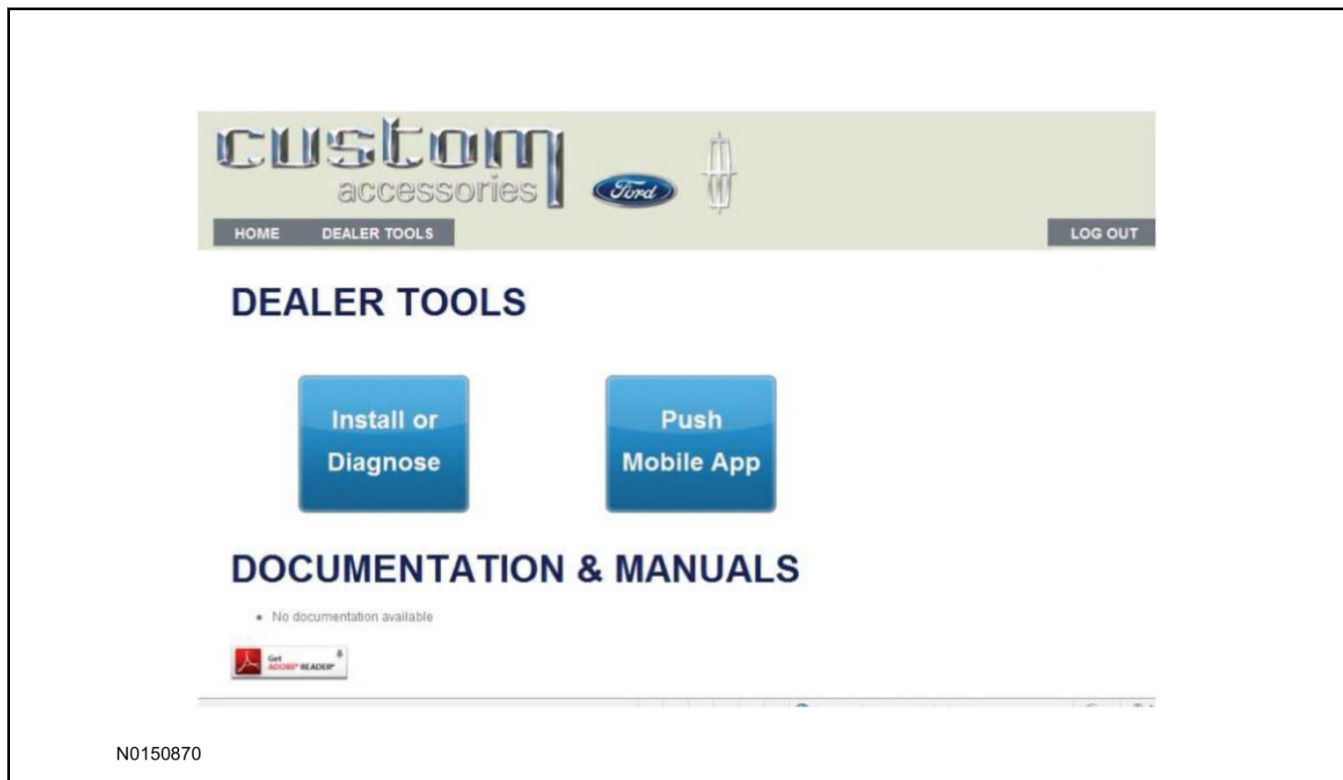
INSTALLATION (Continued)**RMU Activation****NOTE:**

Please note that the Remote Access application that is used to start the vehicle for this RMST kit will only work with iPhone and Android phones.

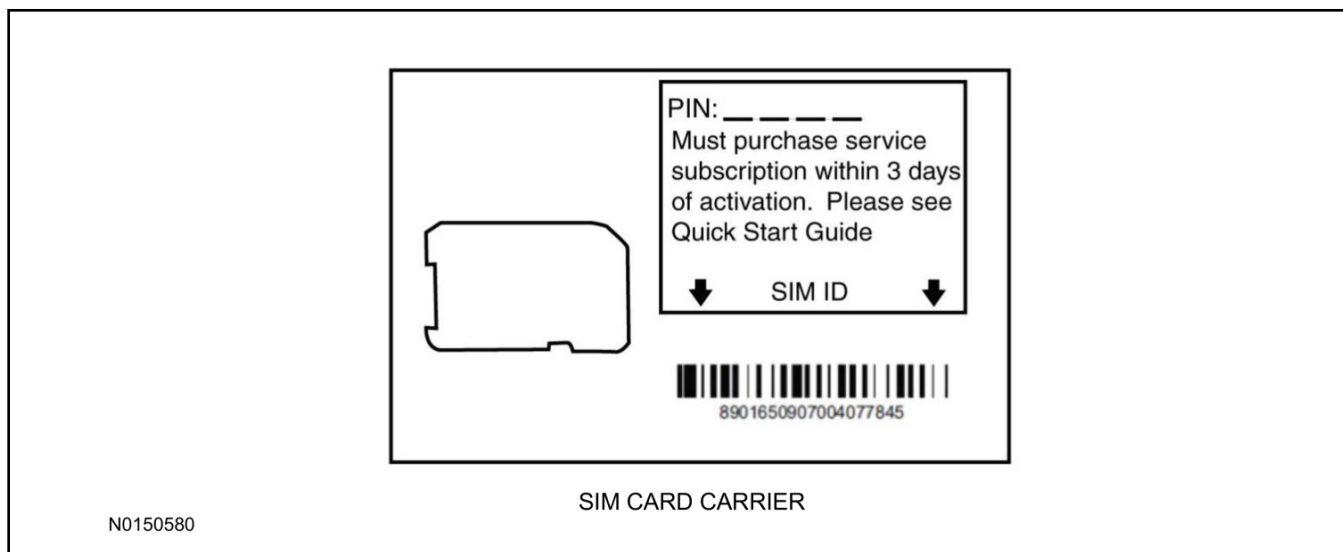
50. For RMU activation the following information from the customer is recommended to provide them with electronic notification for app retrieval:
 - 1 Email Address
 - 2 Cell Phone Number
 - 3 Cell Phone Carrier Company
51. Log on to your Professional Technician Society (PTS) account and enter the vehicle information.
 - 1 Select "Vehicle Id".
 - 2 Select "By Year & Model"
 - 3 Choose the year & model of the vehicle and then select "GO".
 - 4 Hover over the "Workshop" tab.
 - 5 Select the "Accessory Installation" menu item.
 - 6 Under the "Electrical" heading, select the "Remote Access Activation" link (first time users will need to agree to terms & conditions).
 - 7 Select the "Install or Diagnose" link.

INSTALLATION (Continued)**NOTE:**

If you are not directed to the screen shown below (or user agreement screen for first time users), make sure your internet browser zone settings are set to medium. This setting can be found in your browsers "internet options" under the "privacy" tab.

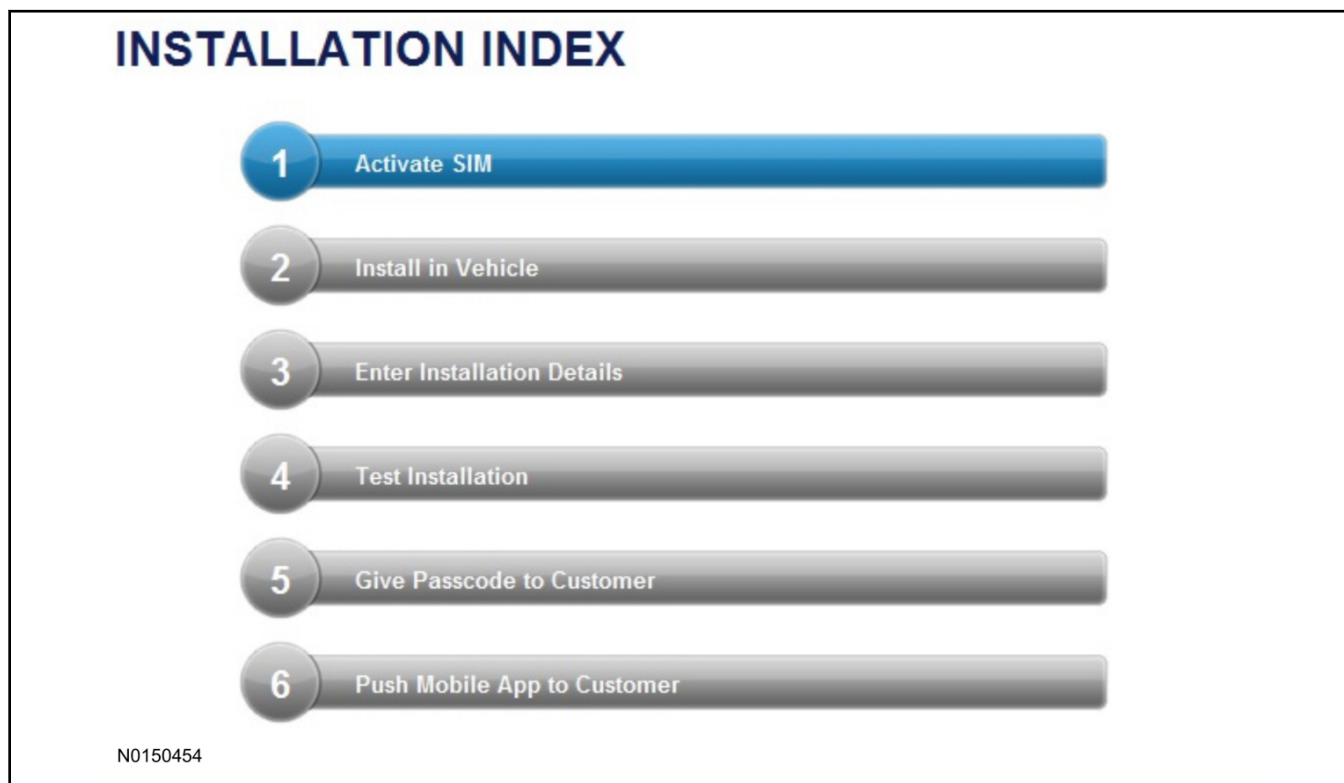


52. Once on the "Install" page, enter the SIM ID code that was provided with the RMST kit. Select "Begin or Continue Installation".



INSTALLATION (Continued)

53. Click on the "On screen steps 1-6", and follow the on screen instructions to complete the installation.



INSTALLATION (Continued)**NOTE:**

The following step will complete the activation process, when you are directed to a screen similar to the one below ensure the correct vehicle brand is selected and that all applicable features are enabled.

NOTE:

The "perimeter" and "shock" settings below are optional features and should only be selected when security features are enabled.

NOTE:

On screen Step 3 shown below.

Installation Details

Brand Ford

Security Features Requery

☒ Start

☒ Stop

☒ Lock

☒ Unlock

☒ Car Finder

☒ Perimeter

☒ Shock

Return Continue

N0150305

INSTALLATION (Continued)**54. NOTE:**

On screen Step 4 shown below.

Perform a functional check of the system by testing each of the available features.

- Start/Stop function
- Lock/Unlock function
- Car finder
- Signal (for troubleshooting only)

Installation Test

Session Status	✓	Yes
Network Connection	✓	Yes
IP Assigned	✓	10.64.17.233
Comm Established	✓	Yes
Received IMEI	✓	358901041730422
Received ESN	✓	1663000117

Your install has been tested successfully. If you would like to test the physical functions of the module, you can do so below.

N0150677

NOTE:

All tests above must be completed in order to move to the next step. If any of the listed functions fail, move the vehicle to an outside location and retest.

55. Once the hardware installation and RMU activation process is complete, record the 4-digit PIN on the SIM card carrier. Provide the SIM card carrier to the customer so they can add this system to their Remote Access Account. Customer must have both the 4-digit PIN and SIM ID to activate/add their vehicle to their Remote Access Account.
56. If the customer agrees, you may push the mobile application to the customer. You will need the customer's phone number and cellular carrier. If the customer opts to install the application themselves, they can locate it in their mobile app store.
- Please contact 1-800-FORD-KEY with any issues regarding hardware or kit contents.**