Vehicle Security / Remote Start / Remote Access System Installation

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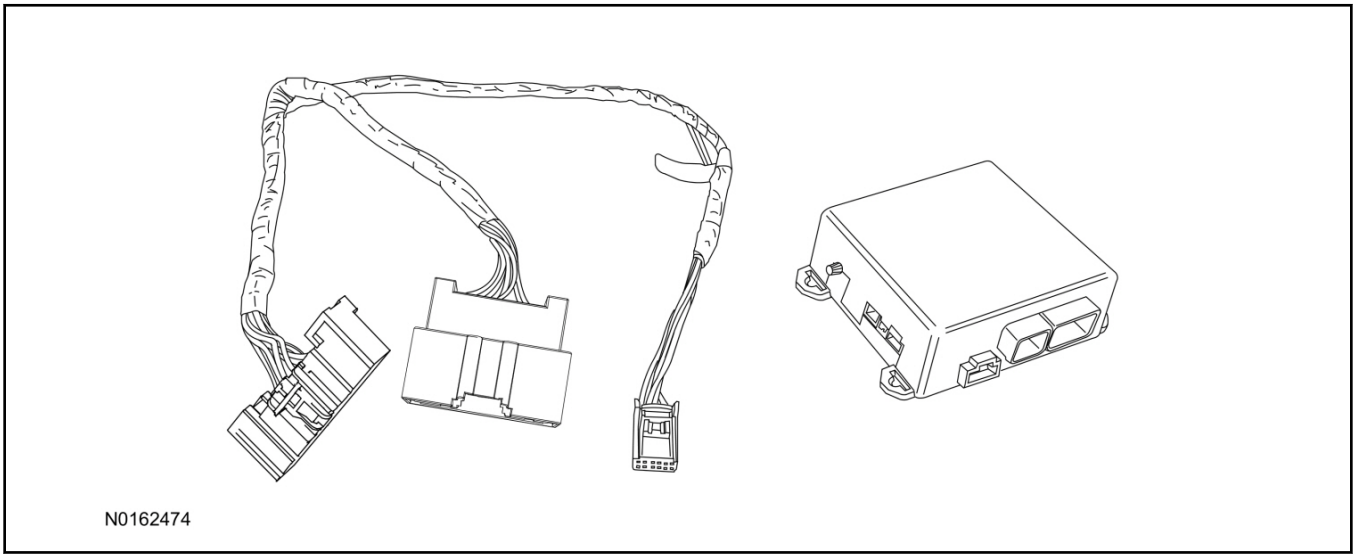
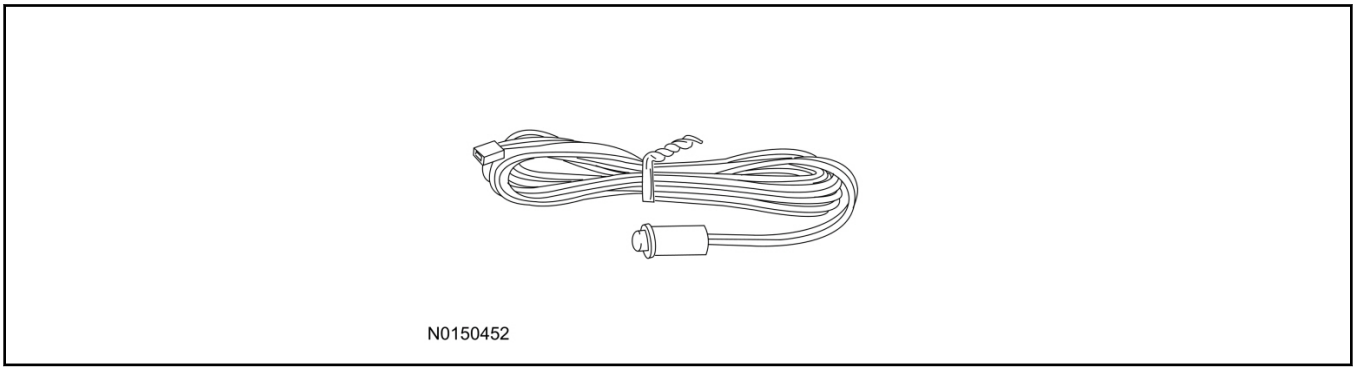
INSTALLATION

Vehicle Security / Remote Start / Remote Access - Explorer

VSS System Components



Security Indicator LED (19D596) "Optional"



Explorer

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

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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).

NOTE:
If the hood switch is not installed, complete the Hood Switch Kit installation.

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. Remove the LH lower IP insulator.

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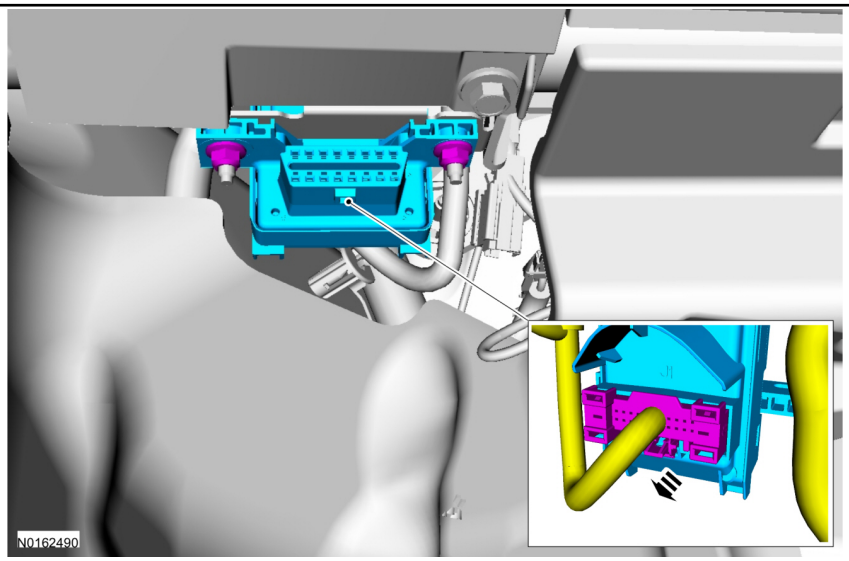
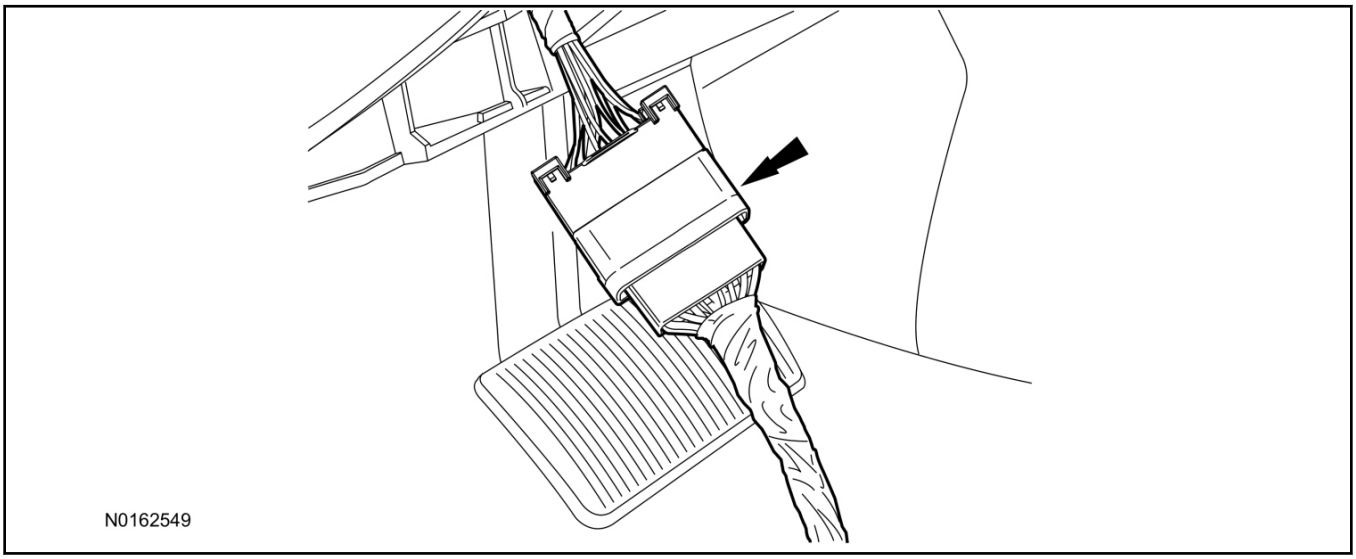
INSTALLATION (Continued)

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



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



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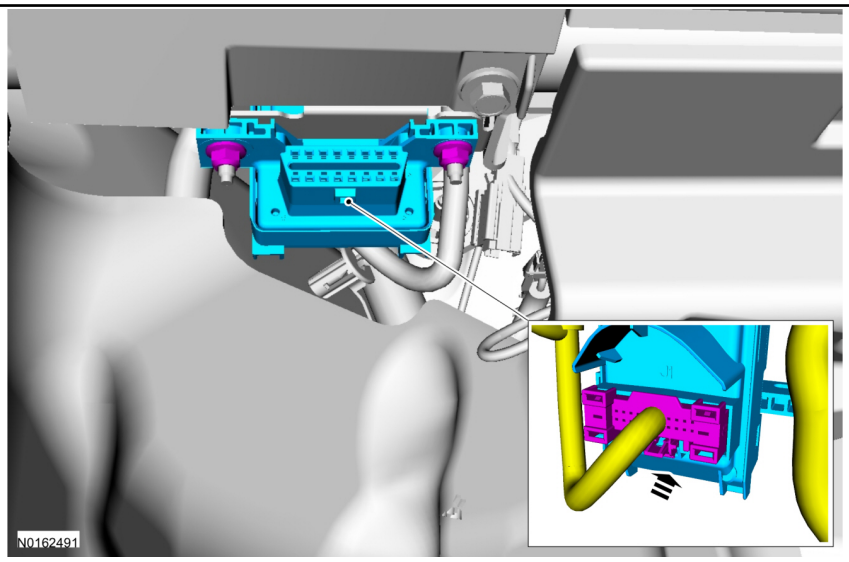
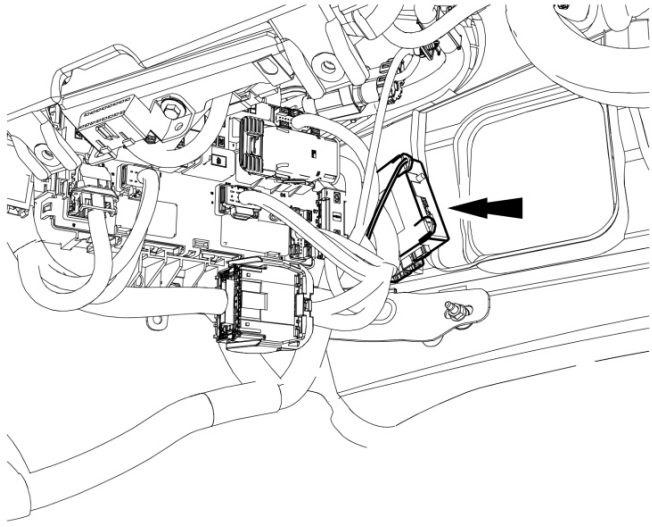
INSTALLATION (Continued)

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



10. Position the T-harness inside the IP being careful to avoid sharp edges and moving parts.
    - Secure with zip-ties.
11. Position the VSS module behind the BCM (Body Control Module) and secure it to a 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.



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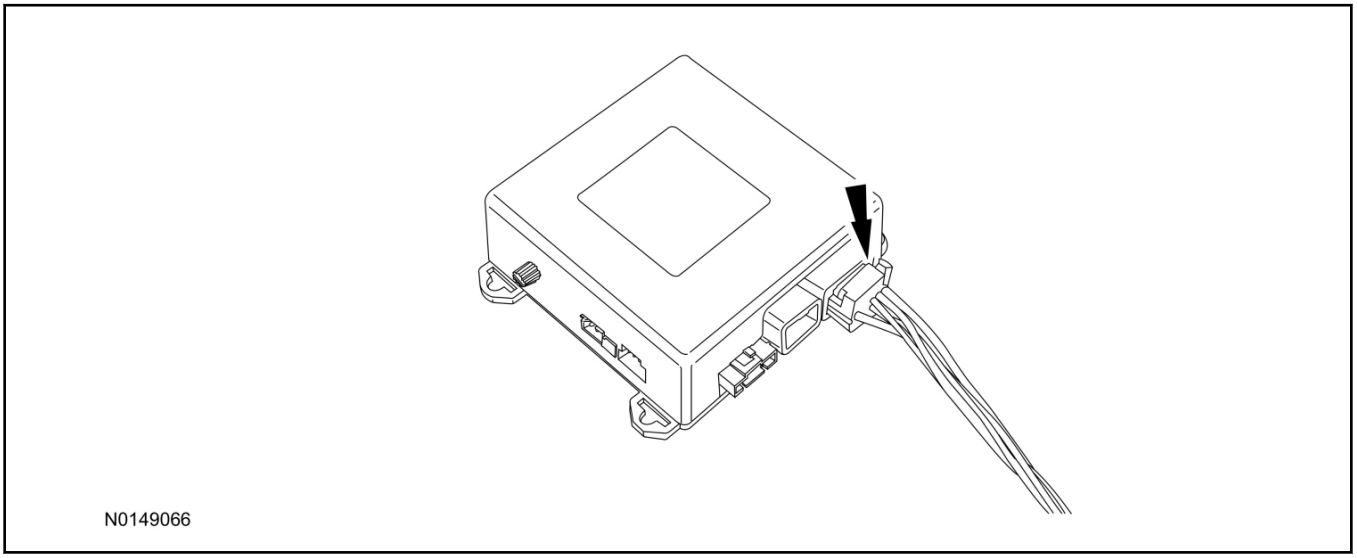
INSTALLATION (Continued)

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



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.

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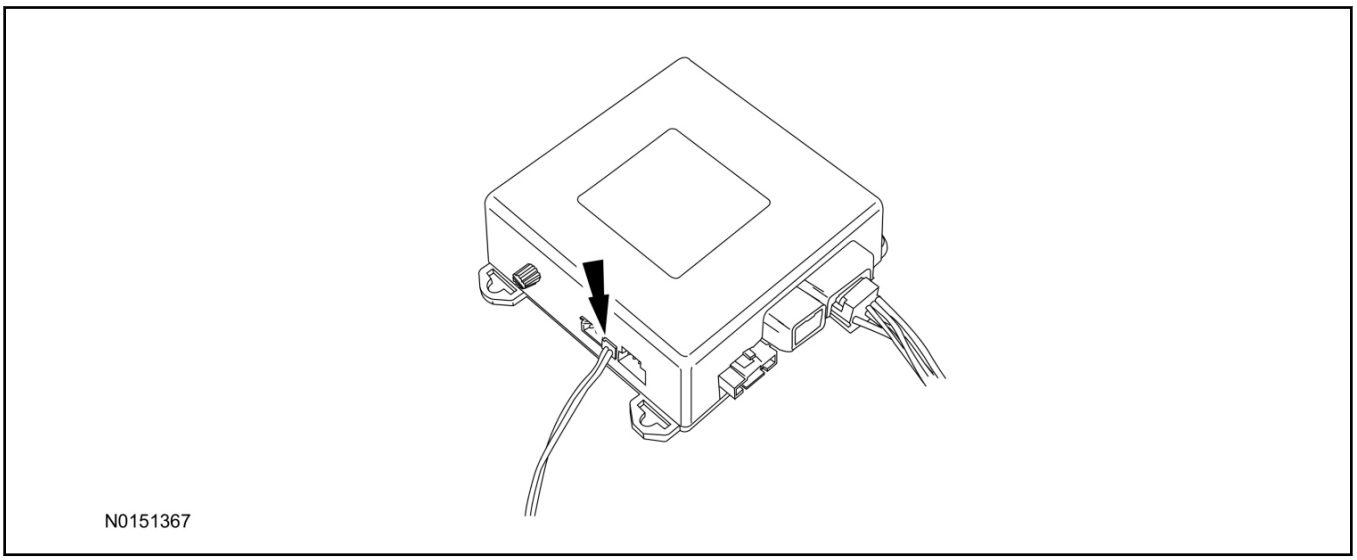
INSTALLATION (Continued)



Perimeter Alarm Activation - Vehicles Without Factory Installed Perimeter Alarm

18. Verify that the IDS is updated to the most current version.
19. Connect IDS.
    - Follow the prompts to select new vehicle session.
    - Enter VIN.
20. Activate the perimeter alarm using the IDS.
    - Select the Tool Box icon.
    - Select Body.
    - Select Security.
    - Select Perimeter Alarm.
    - Verify that the information on the IDS screen is correct and all procedures have been followed.
    - Select Yes. This will enable the perimeter alarm function on the vehicle.

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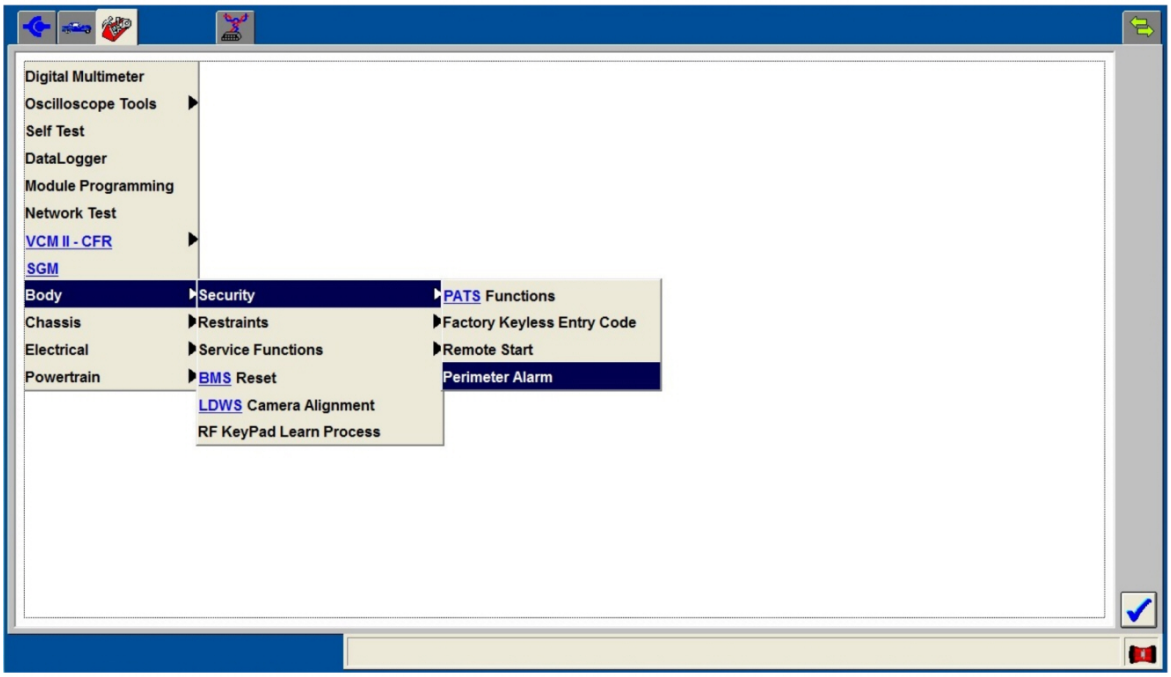
INSTALLATION (Continued)



Learn VSS to Vehicle (Key Start Vehicles Only)

21. Cycle ignition OFF, ON, OFF one time to learn VSS to the vehicle.
22. Use IDS to clear continuous DTCs.
23. 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.

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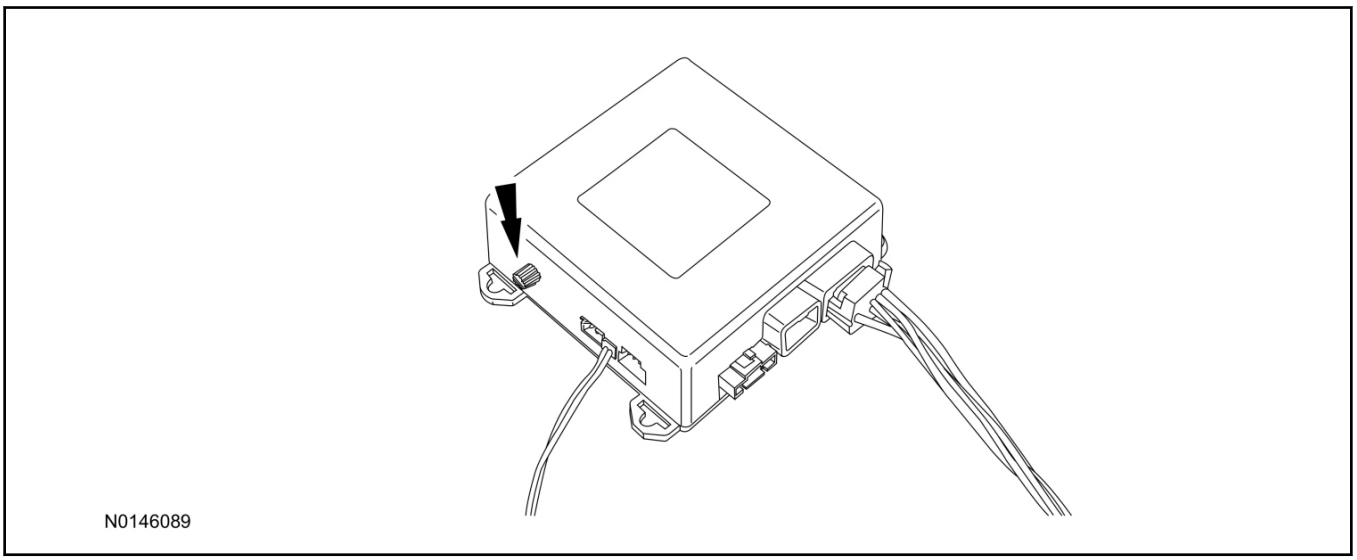
INSTALLATION (Continued)



24. Starting with the adjustment knob in approximately the halfway position, lower the driver's window and exit the vehicle.
25. 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.
26. 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.
27. 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.
28. 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.

NOTE:
Cycle ignition OFF, ON, OFF before testing.

29. 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.
30. Reach inside the window and use the inside driver's door handle to open the door. The LED should continue to flash, indicating that the vehicle is still armed. 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.

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INSTALLATION (Continued)

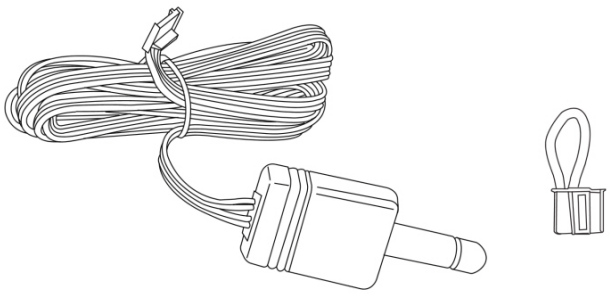
- For push button start vehicles, the Intelligent Access (IA) key must be away from the vehicle, otherwise the security system may disarm immediately upon trigger.

31. 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.
32. Test all other vehicle doors, the hood and the trunk in the same manner, by setting off the alarm and disarming with the keyfob.
33. 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.**

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"**.



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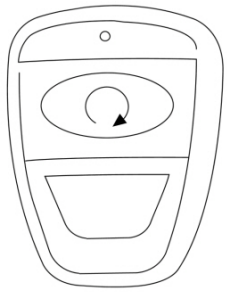
INSTALLATION (Continued)

Standard Key Fob (15K601) "Sold Separately"



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

N0162473

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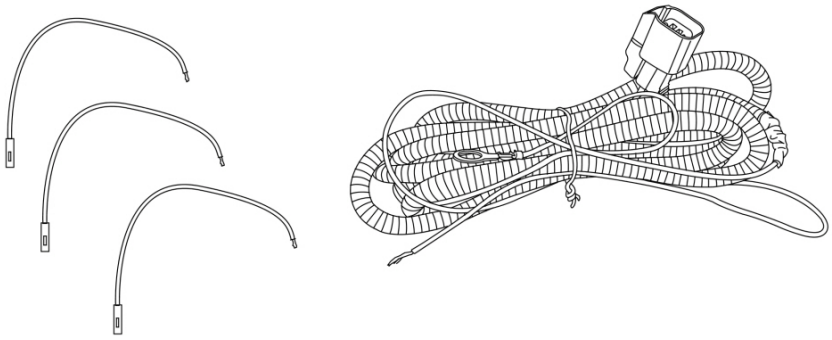
INSTALLATION (Continued)

Hood Switch Kit (19G366) - Base Vehicles Only "Sold Separately"

N0122208

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



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Optional RMST Upgrade Components "Sold Separately"

34. Review the RMST Upgrade components.

Remote Start (RMST) Upgrade - Antenna Kit (15603) "Sold Separately"

QUANTITY	DESCRIPTION
1	Bi-directional Antenna
1	Security Jumper

Standard Key Fob (15K601) "Sold Separately"

QUANTITY	DESCRIPTION
1	Standard Key Fob (15K601)

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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"

35. 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"

36. Review the Hood Switch kit contents.

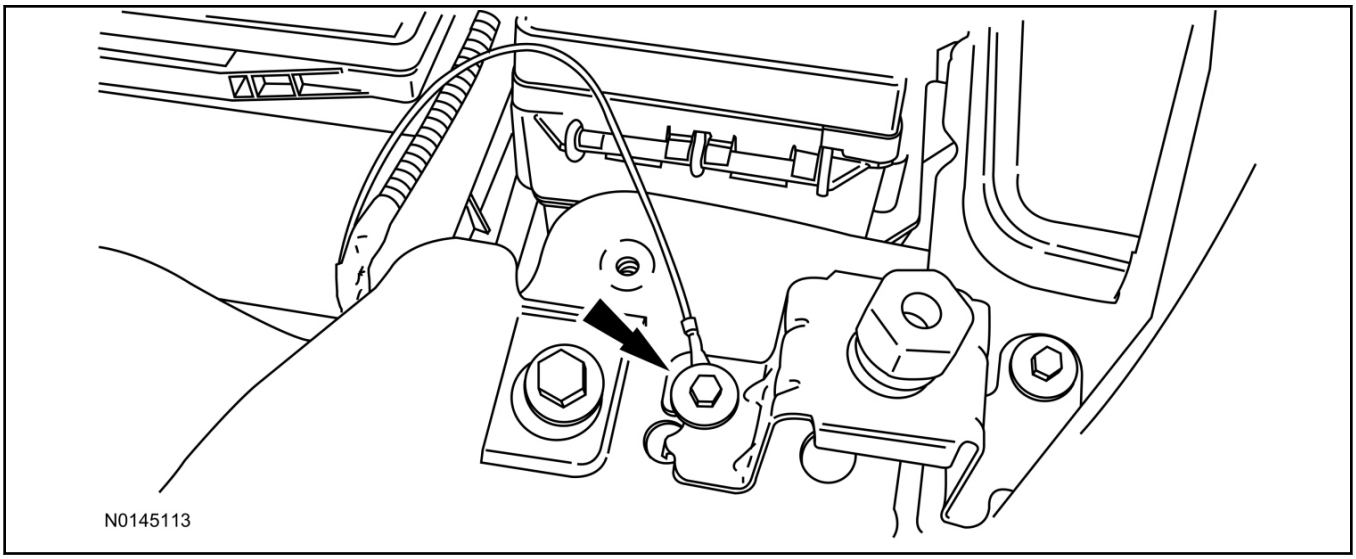
Hood Switch Wire Harness Kit "Sold Separately"

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

Hood Switch Kit - "Sold Separately"

NOTE:
Hood switch installation is required for VSS/RMST/RMU installation if the vehicle is not currently equipped with a hood switch.

37. If previously installed, remove the LH lower IP insulator.
38. Remove the fender bolt and install the hood switch ground wire, using the previously removed bolt.
    - Tighten to 12 Nm (106 lb-in).



39. Route the hood switch wire harness into the vehicle through the bulkhead grommet.
    - Secure the hood switch wire harness with zip-ties.

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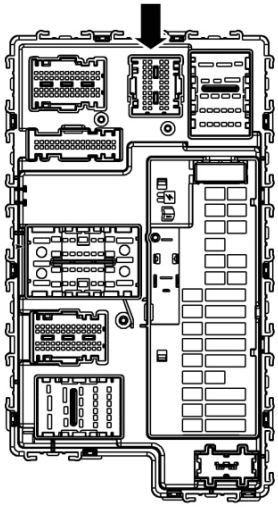
INSTALLATION (Continued)

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



41. If equipped, remove the pin plug from BCM connector C2280F Pin 14.
    - If the vehicle is not equipped with a hood switch wire harness from the factory C2280F will not have a wire at the Pin 14 location.
42. ***NOTICE:***
    Check that the all wire pins are attached firmly and properly positioned/secured within the connector shell, after performing this step.

    NOTE:
    Use terminal wire labeled #3 (Orange).

    Insert the BCM terminal wire from the hood switch wire harness kit into BCM connector C2280F Pin 14.
    - Some disassembly of BCM connector C2280F may be required to perform this step.
43. Connect BCM connector C2280F.

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

44. Connect the hood switch wire harness wire to the BCM Terminal Wire.
    - Secure the wire harness assembly with zip-ties.

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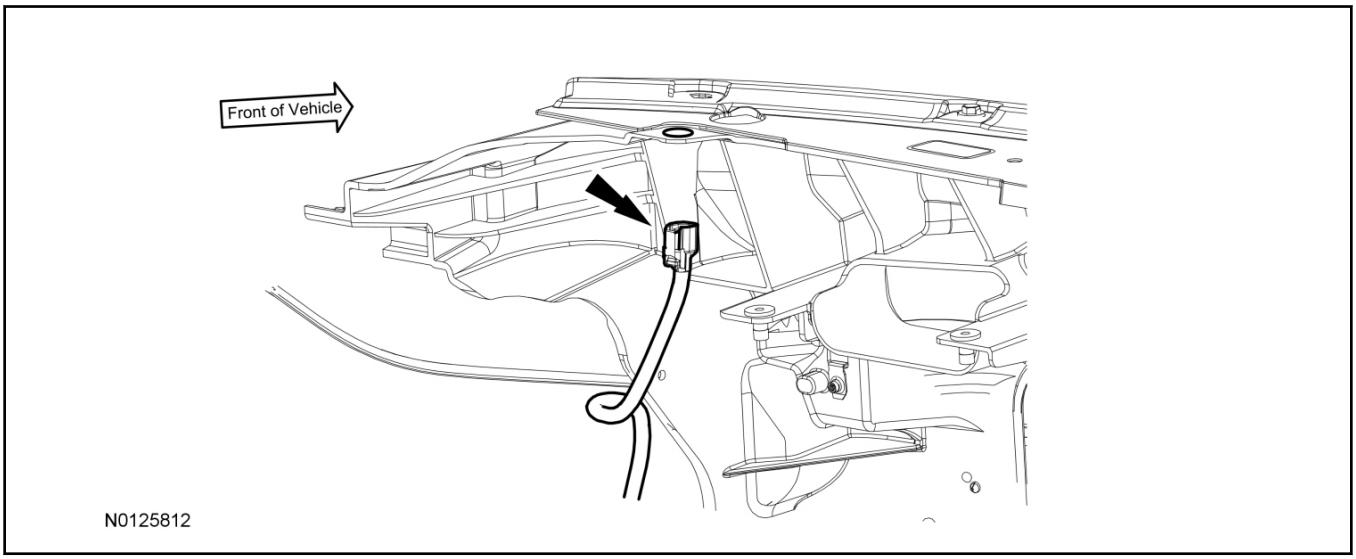
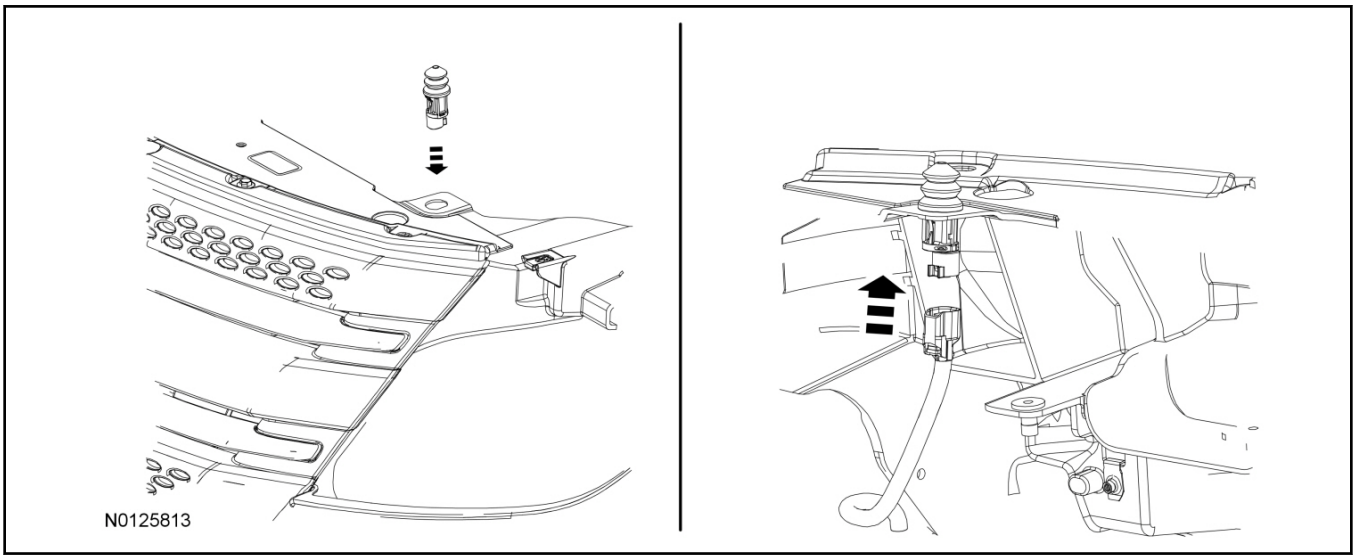
INSTALLATION (Continued)

45. Locate the vehicle's existing "OE" hood switch wire harness, located on the LH side of the vehicle below the radiator core support.
    - If required remove the vehicle's air cleaner assembly, to access the vehicles "OE" hood switch wire harness. For additional information, refer to WSM, Section 303-12.



46. Install the OE hood switch assembly to the existing hood switch mounting location, on the LH side of the upper radiator core support as shown.
    - If equipped, remove the dummy plug from the upper radiator core support.
    - Position the flat spot on the hood switch to the flat spot on the radiator core support.
    - Connect the electrical connector to the hood switch.



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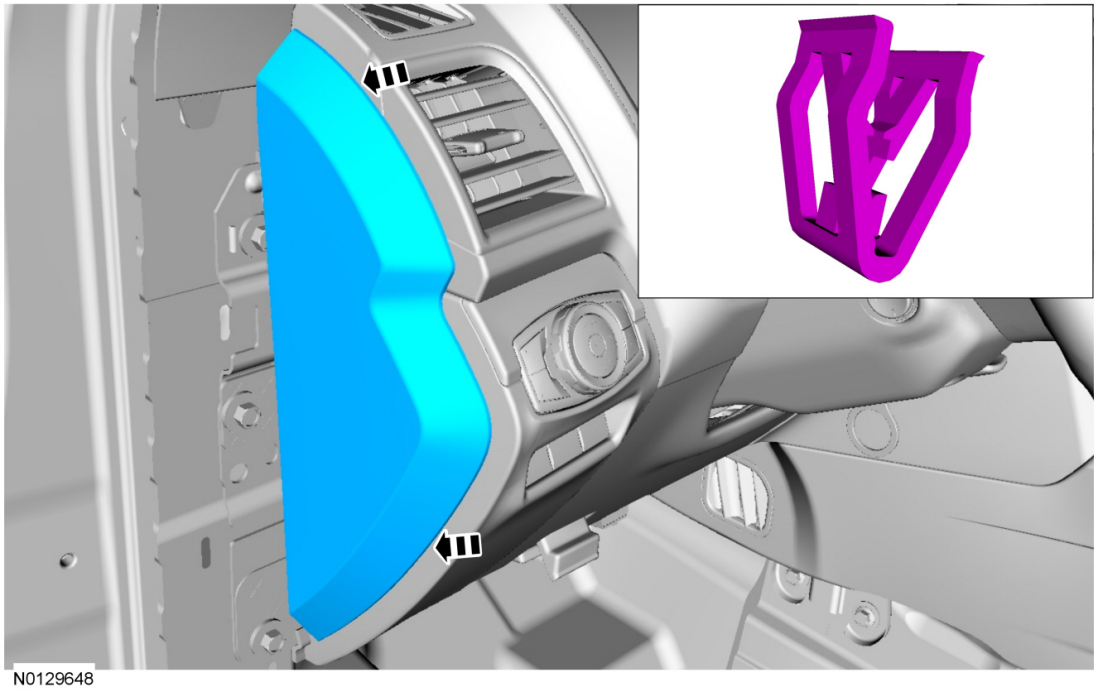
INSTALLATION (Continued)

RMST Kit Antenna Installation

47. Remove the LH IP side finish panel.



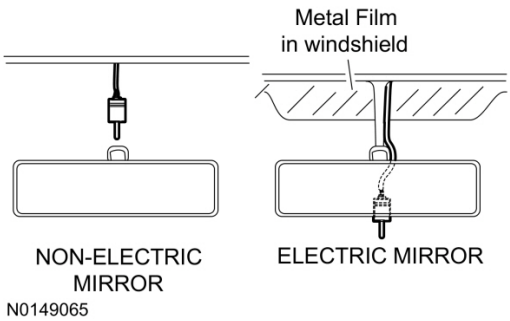
48. Clean the antenna mounting surface using an alcohol base solution and a clean cloth.

49. **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.



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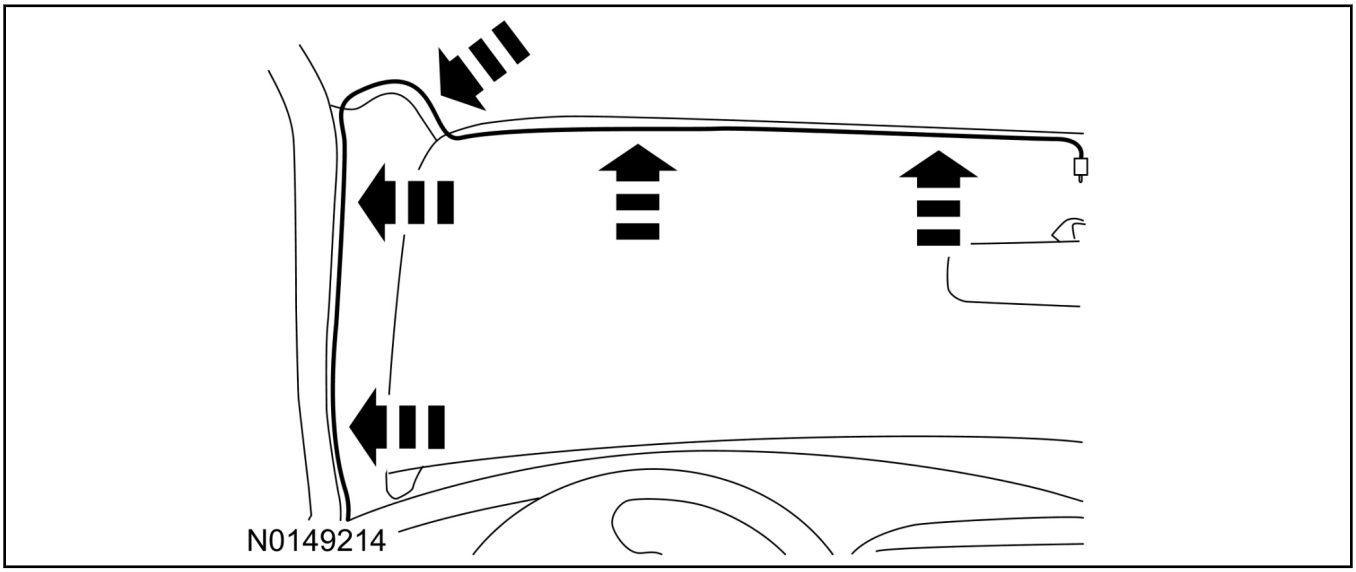
INSTALLATION (Continued)

50. If necessary, position the LH 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.

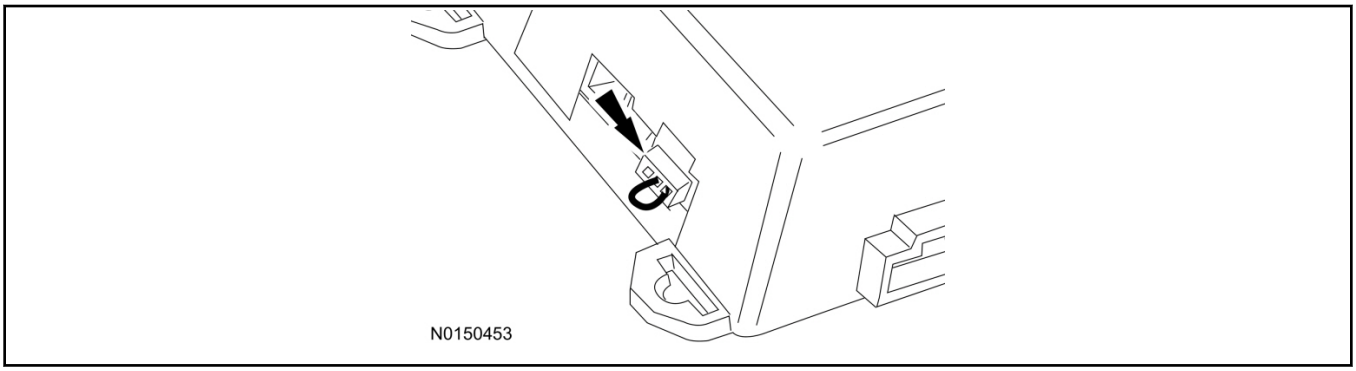
51. Route the antenna cable along the headliner and down the LH A-pillar towards the floor. Continue routing the wire Into the IP towards the VSS module.
    - Secure with tie-straps.



52. Connect the antenna connector to the VSS module.
53. Reposition the A-pillar trim panel back, if necessary.
54. Install the LH IP side finish panel.

VSS Module - Optional Vehicle Security Features

55. Enable/Disable Vehicle Shock Sensor:
    Locate the security jumper supplied in the kit.
    - Install the jumper to the VSS module if the shock sensor is to be **disabled**.
    - Not installing and/or removing the jumper from the VSS module will keep the shock sensor feature **enabled**.



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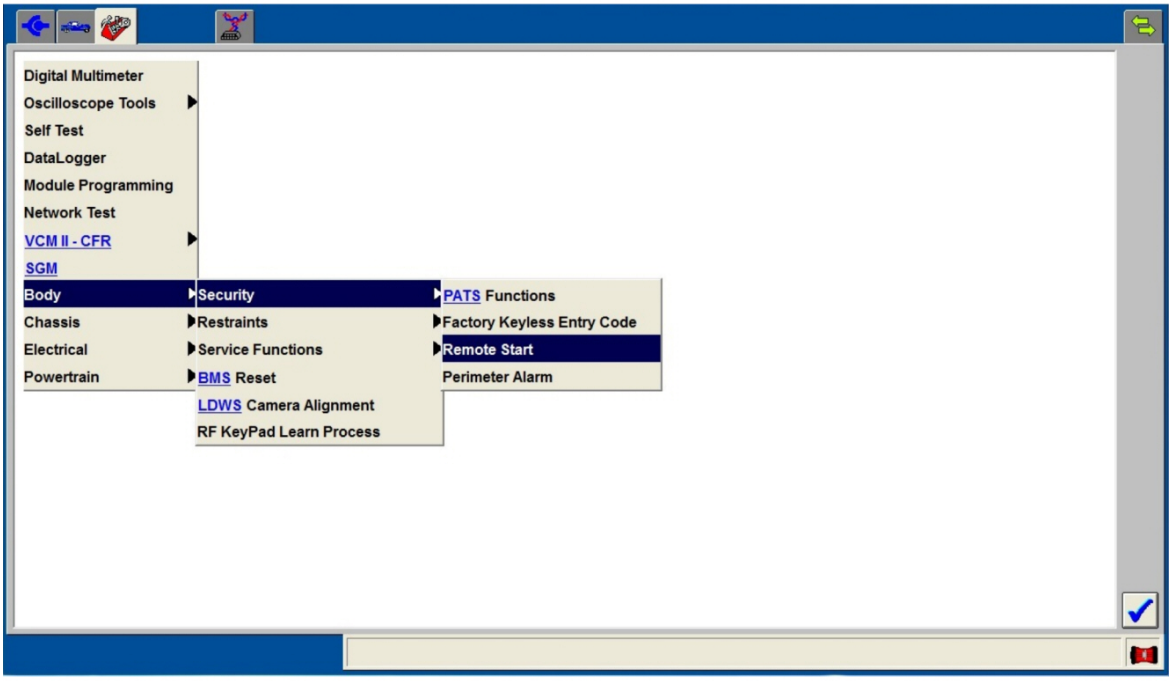
INSTALLATION (Continued)

RMST Activation - Key Start Only

NOTE:

For vehicles equipped with push button start, proceed to Step 62 within the "Programming Key Fobs" section of this manual.

56. Verify that the IDS is updated to the most current version.
57. Connect IDS.
    - Follow the prompts to select new vehicle session.
    - Enter VIN.
58. 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.



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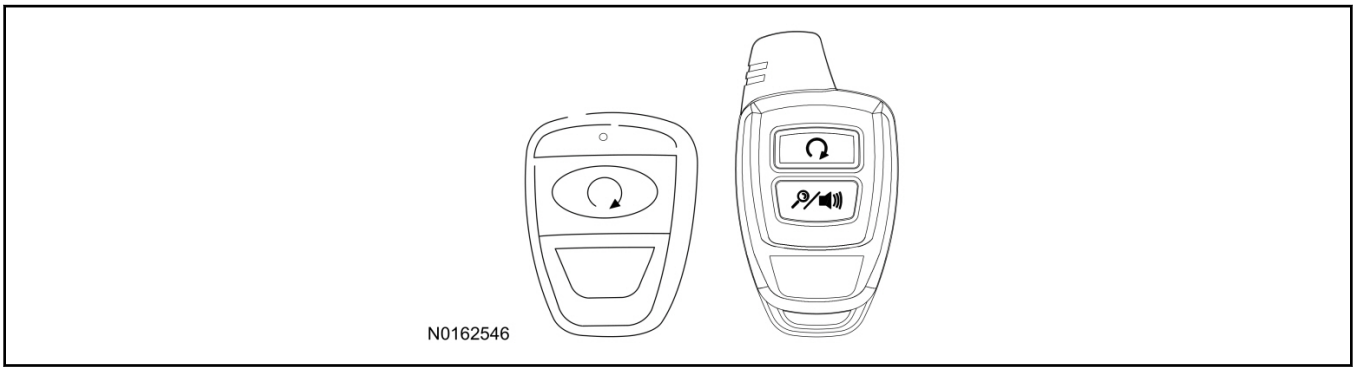
INSTALLATION (Continued)

59. 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.
60. For vehicles equipped with advanced message center, verify that the remote start option now appears.
    - Using the Select and Arrow buttons on the steering wheel, select Settings.
    - Select Vehicle Settings.
    - Select Vehicle.
    - Select Remote Start System.
    - Verify that the remote start system is enabled.

Programming Key Fobs



61. **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.

    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.

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INSTALLATION (Continued)

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".

62. **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 4 and 5 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".

RMST Functional Test

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

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

64. Close the hood.

65. Close all of the vehicle doors.

66. Start the vehicle by pressing the remote start button twice on the remote start key fob.

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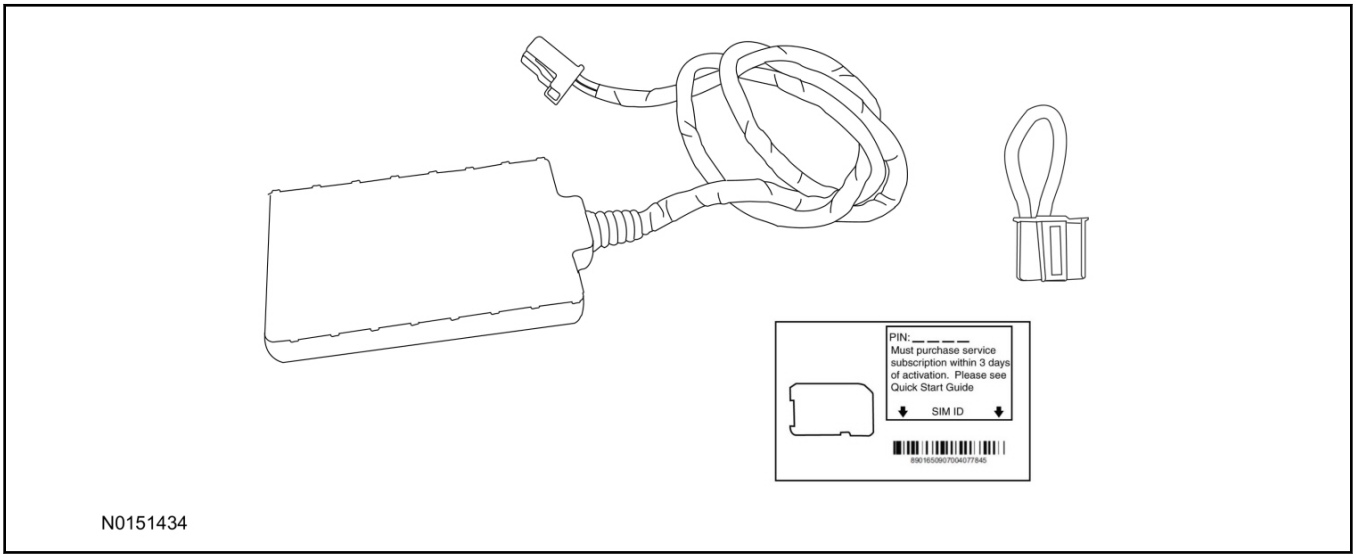
INSTALLATION (Continued)

67. Confirm the remote start works with the vehicle in park and with the hood and doors closed.
68. Open the hood.
69. Confirm the engine shuts off.
70. **NOTE:**
    Vehicle doors should be closed while performing this step.

    Attempt to remote start with the hood open. 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

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

⚠ **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 near the previously installed VSS module.

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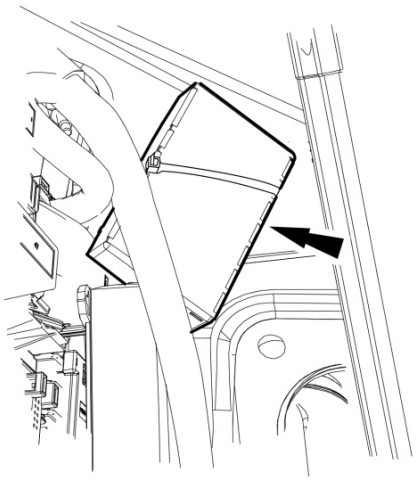
INSTALLATION (Continued)



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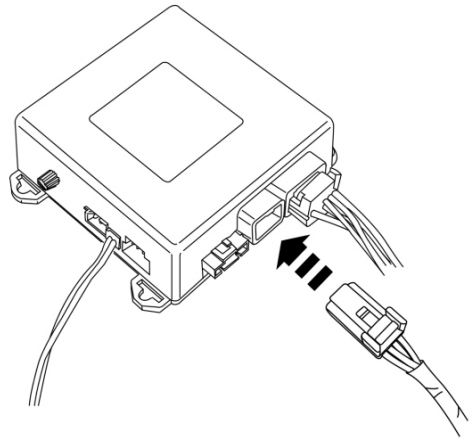
75. Connect the RMU electrical connector to the VSS module.
    - Secure the harness with tie-straps.



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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**.

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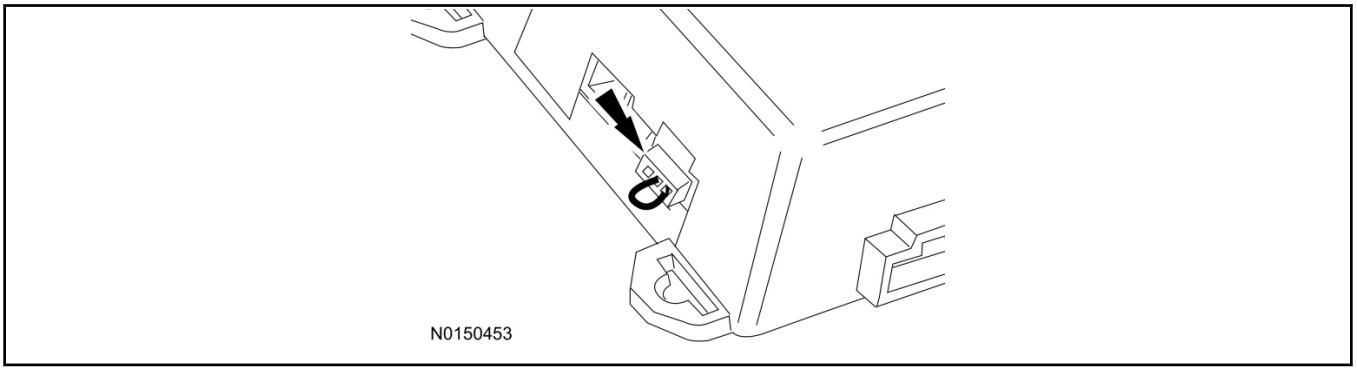
INSTALLATION (Continued)



77. Install the LH lower IP insulator.

Remote Start Activation - Key Start Vehicles (Without Factory Remote Start)

78. Cycle ignition OFF, ON, OFF one time to learn RMST to the vehicle.
79. Verify that the IDS is updated to the most current version.
80. Connect IDS.
    - Follow the prompts to select new vehicle session.
    - Enter VIN.
81. 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.

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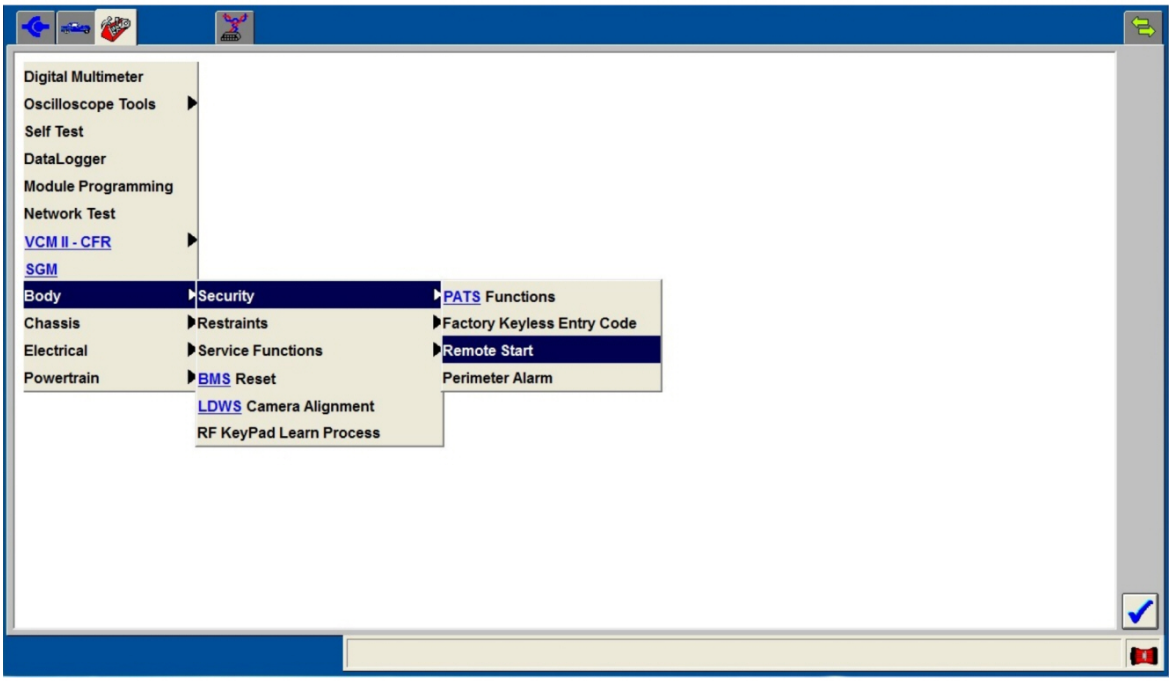
INSTALLATION (Continued)



82. 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.
83. 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.

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.

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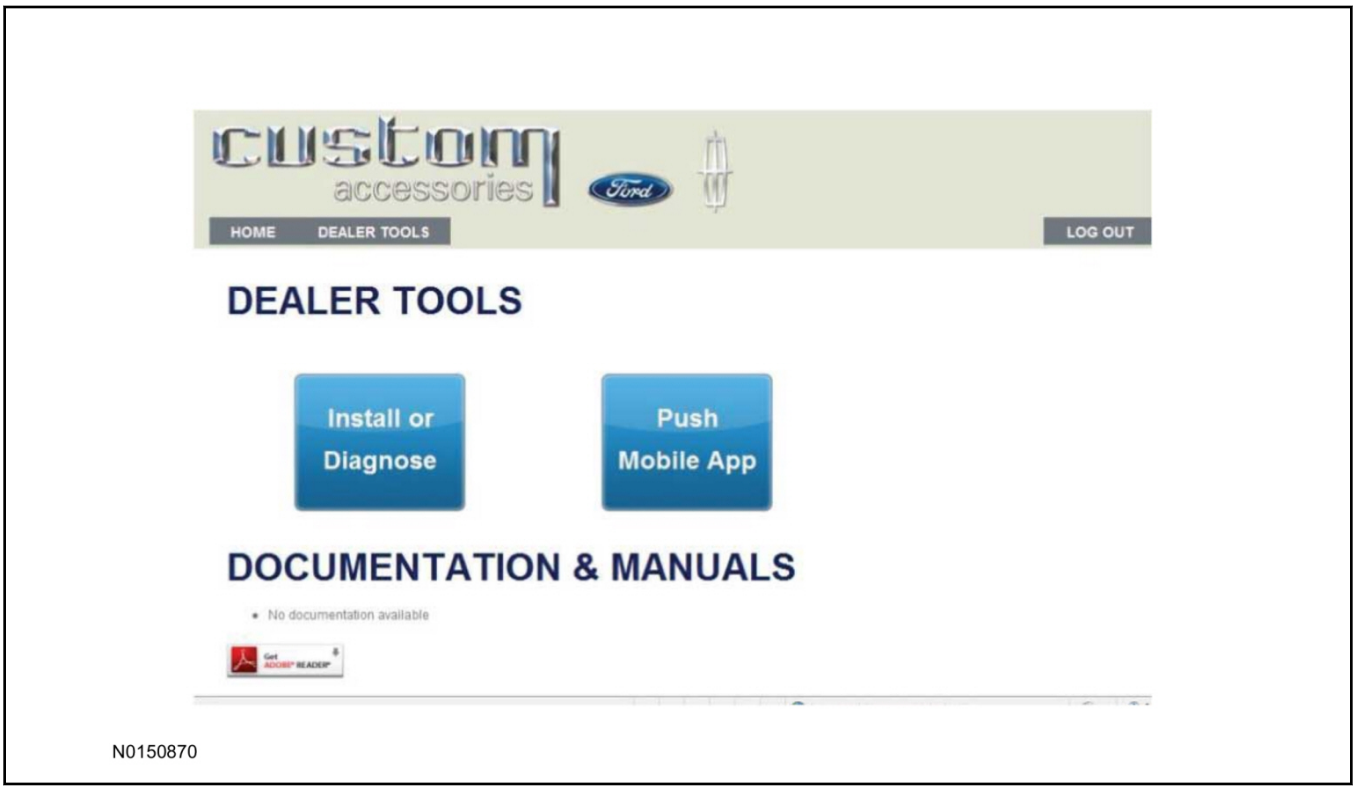
INSTALLATION (Continued)

84. 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
85. 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.

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.



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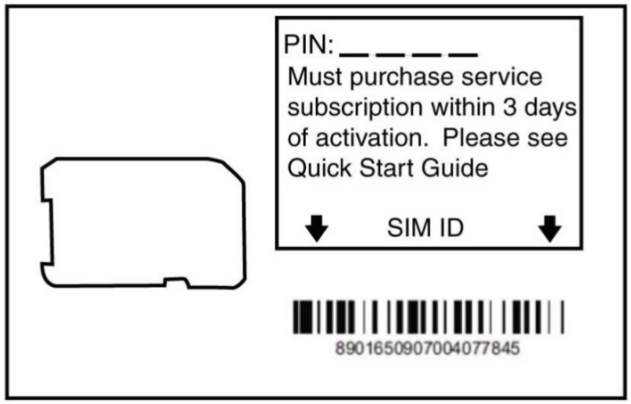
INSTALLATION (Continued)

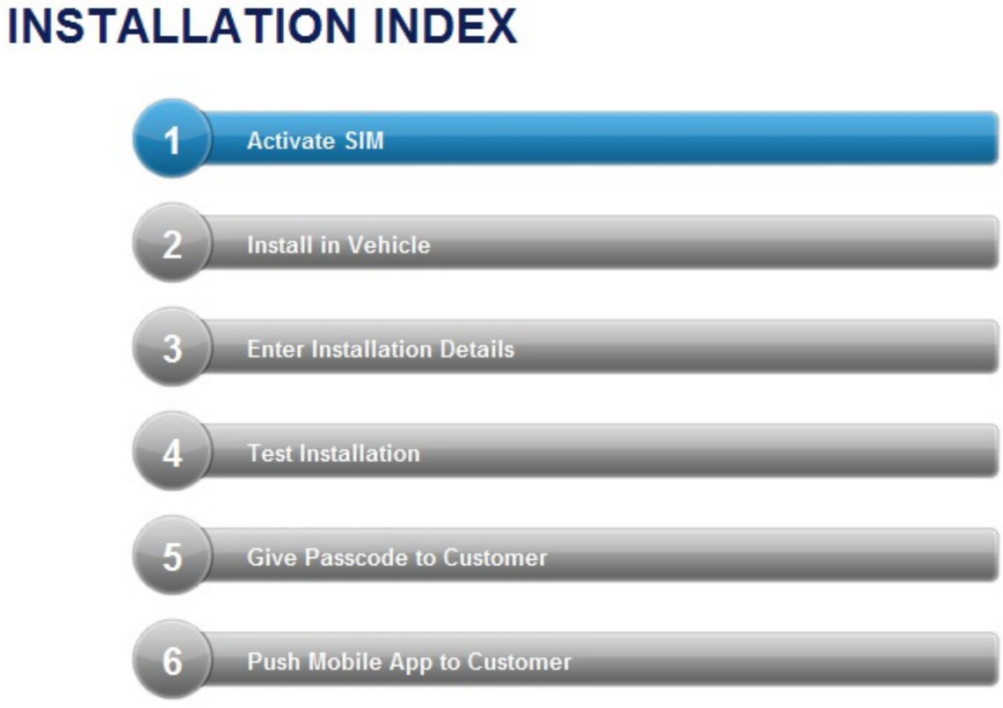
86. Once on the "Install" page, enter the SIM ID code that was provided with the RMST kit. Select "Begin or Continue Installation".



SIM CARD CARRIER

N0150580

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



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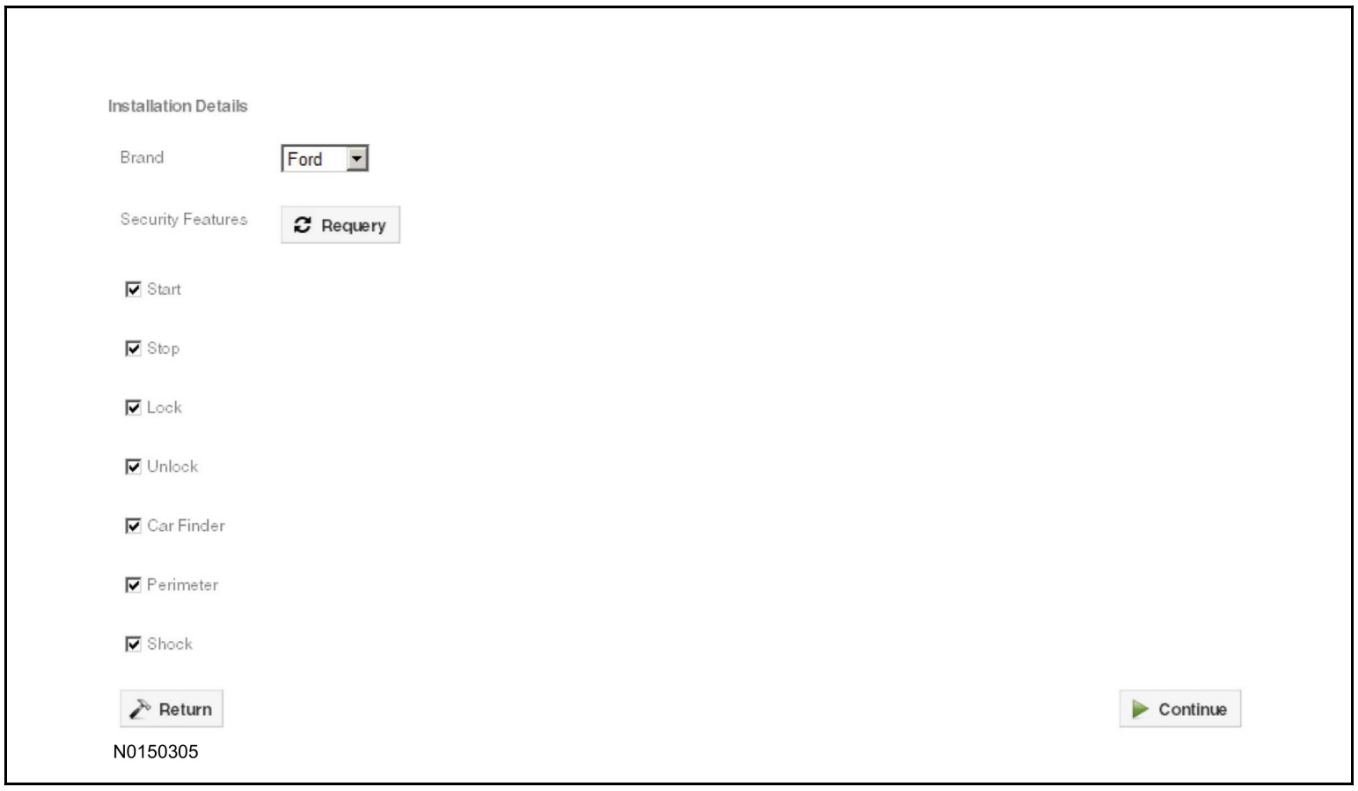
INSTALLATION (Continued)

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.



88. **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)

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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 VSS to Vehicle" section in this manual.

All Vehicles

89. 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.
90. 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.

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