

Vehicle Security / Remote Start / Remote Access System Installation

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- RMU Module Installation

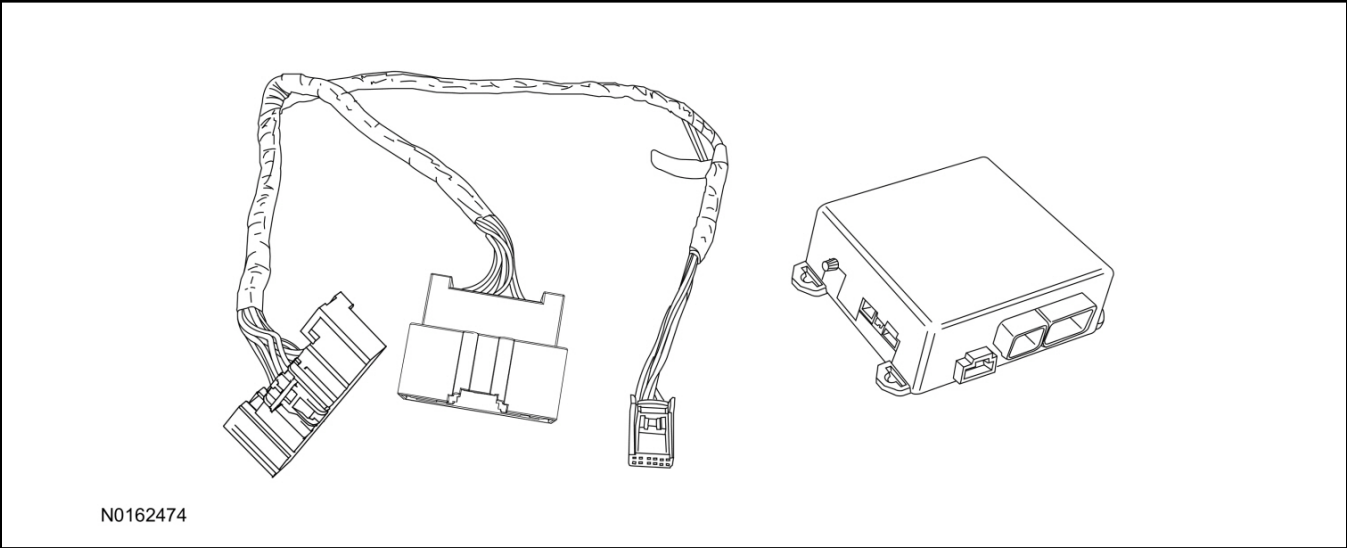
GENERAL PROCEDURES

- Learn VSS to vehicle
- Shock Sensor Sensitivity Adjustment
- Standard Remote Start Activation
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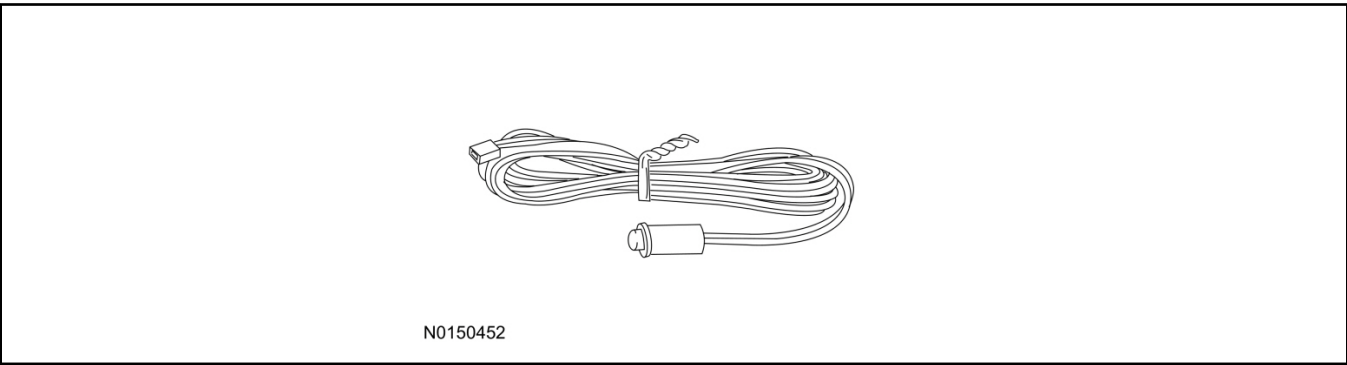
INSTALLATION

Vehicle Security / Remote Start / Remote Access - F-150

VSS System Components



Security Indicator LED (19D596) "Optional"



F-150

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.

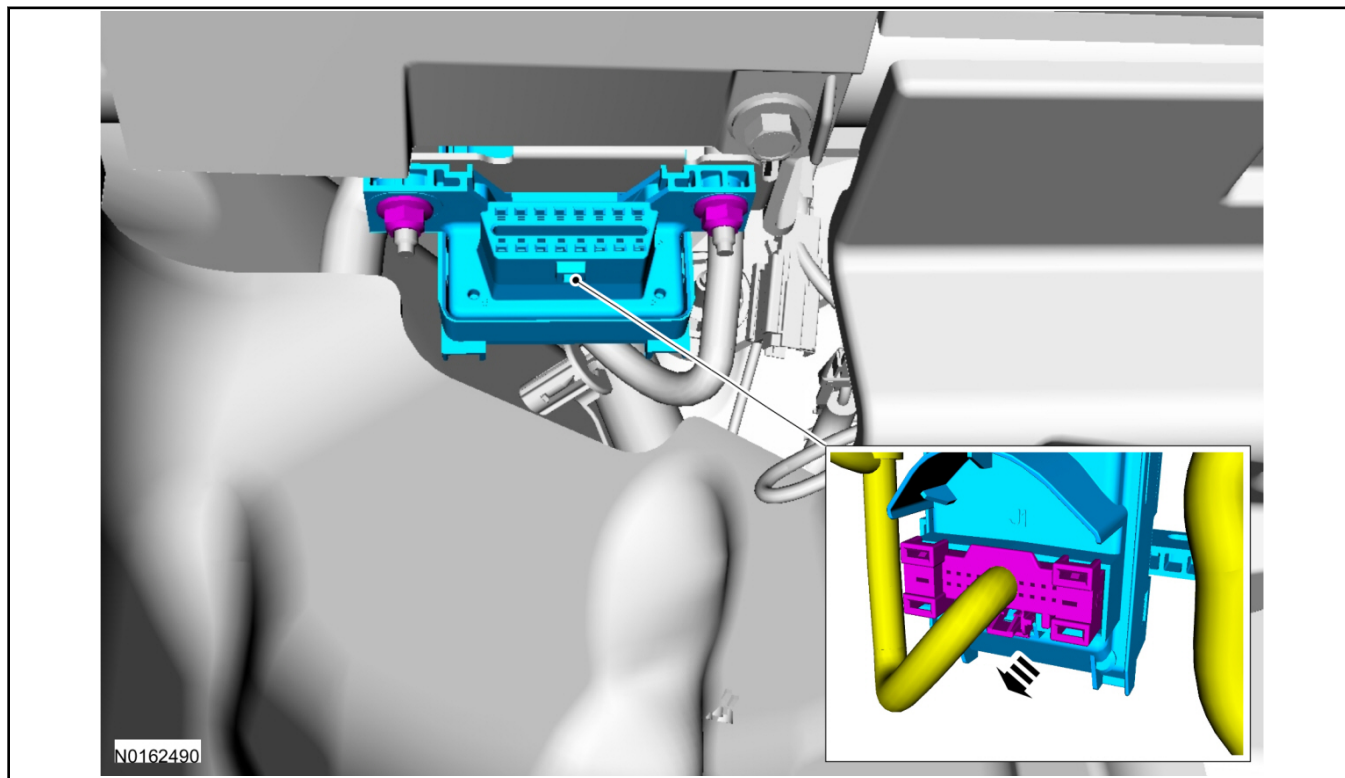
NOTE:

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

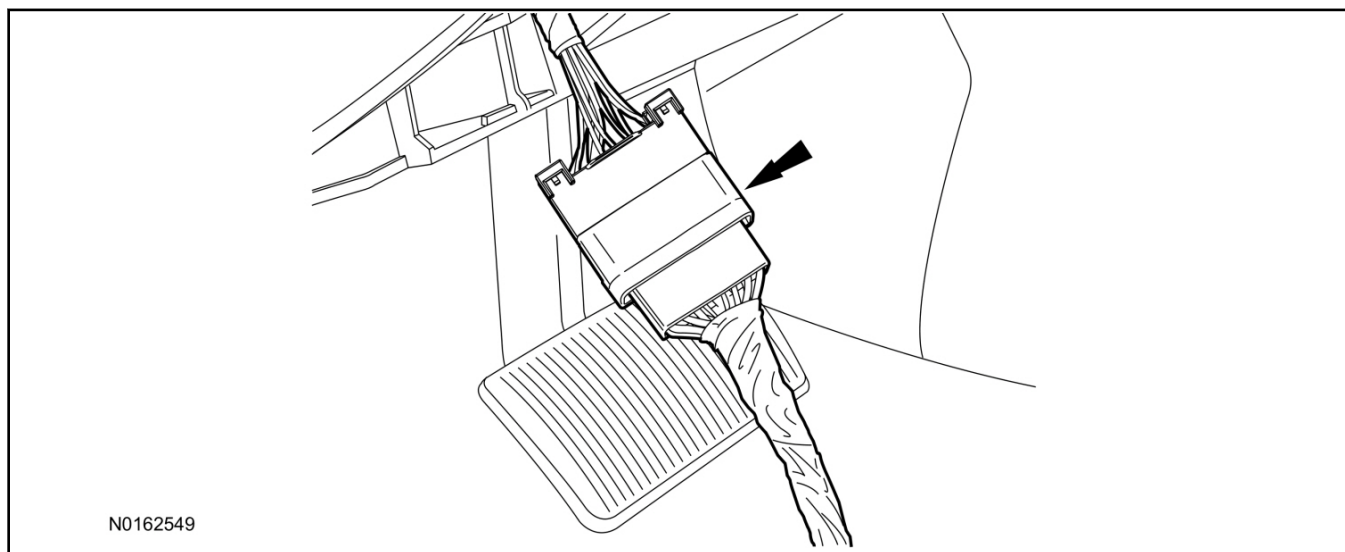
- If the vehicle is equipped with factory remote start, test its operation by pressing the Lock button one time and the Remote Start button two times.
 - If the vehicle remote starts, stop the engine by pressing the Remote Start button one time.
 - If the vehicle does not remote start, diagnose the concern.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

INSTALLATION (Continued)

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

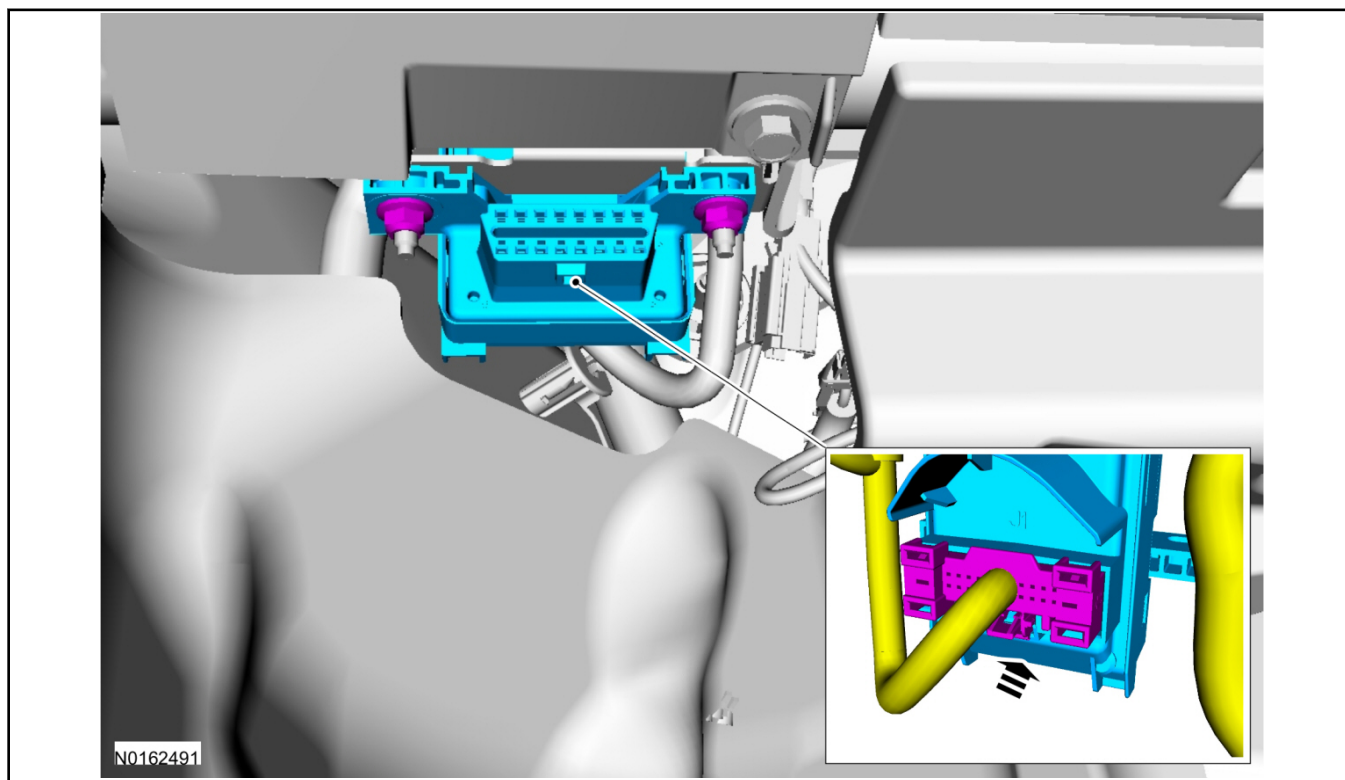


7. Connect the T-harness to the gateway module electrical connector.

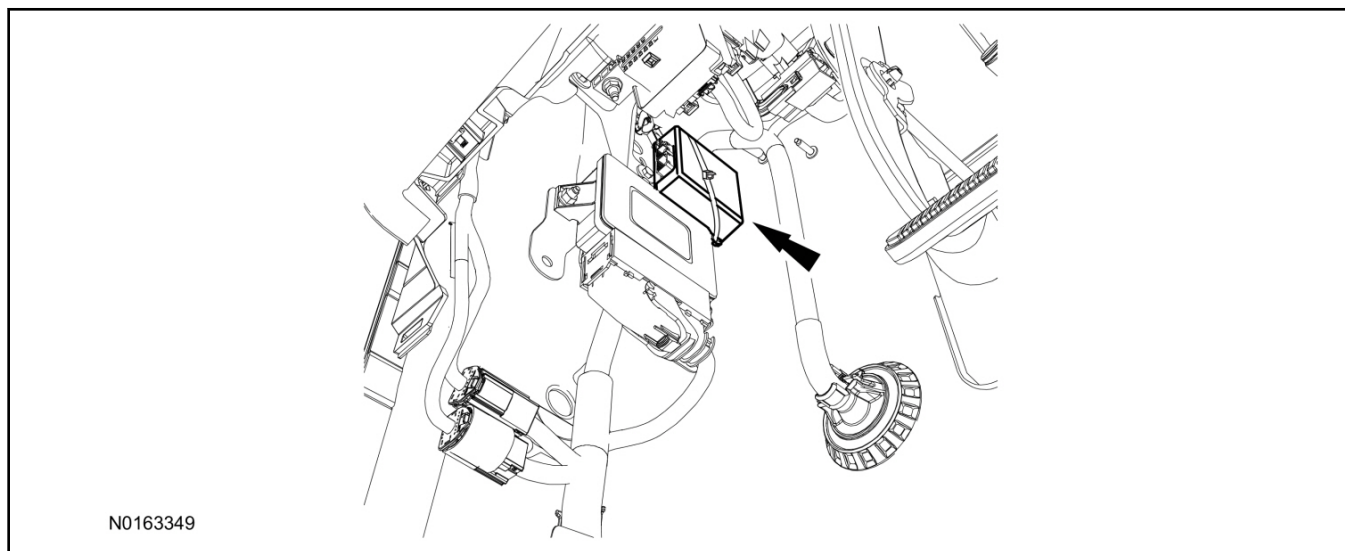


INSTALLATION (Continued)

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

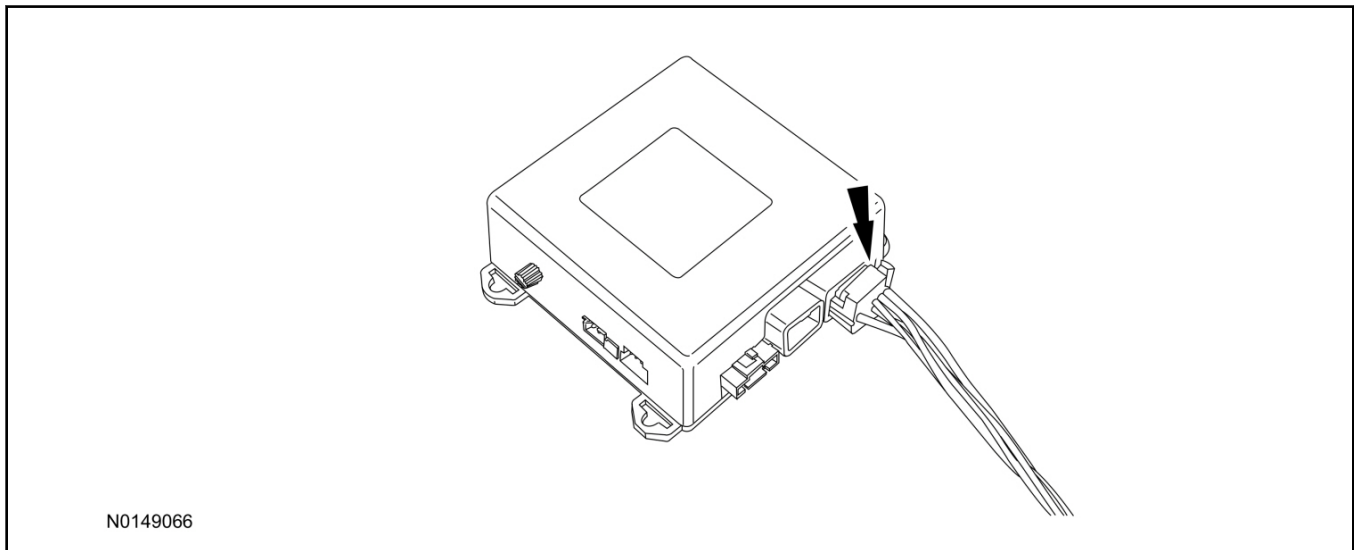


9. Position the T-harness inside the IP being careful to avoid sharp edges and moving parts.
- Secure with zip-ties.
10. Using a tie-strap, secure the VSS module to the wire harness located above the electronic parking brake module in the upper left corner of the IP.
- Ensure the VSS module is positioned 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:**

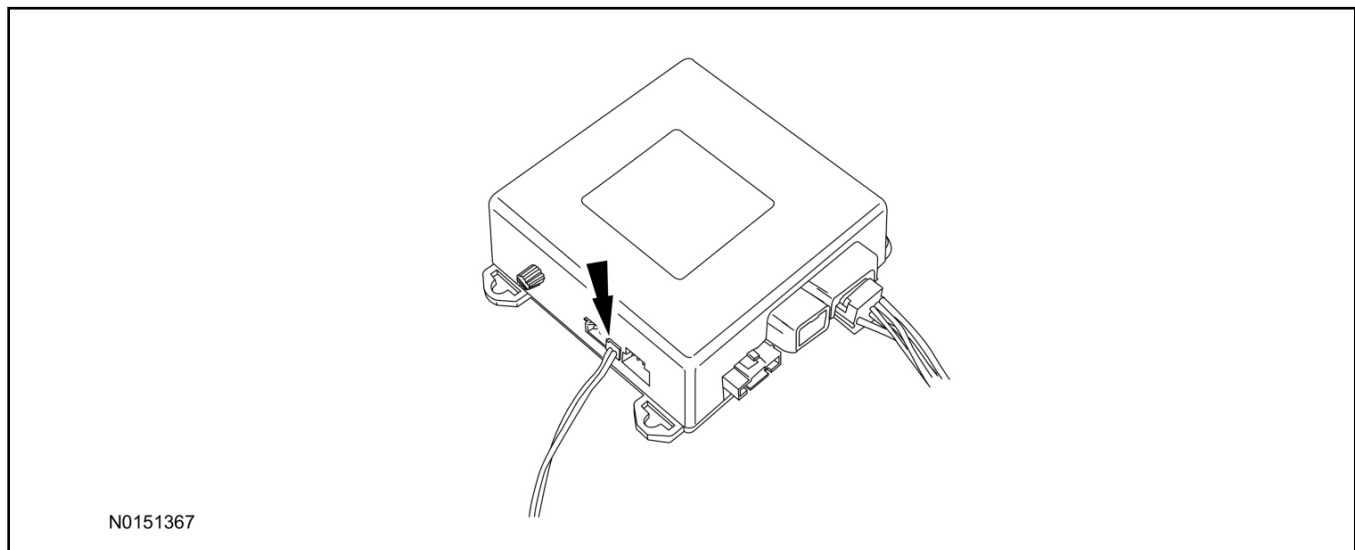
Carefully route and secure LED harness so that it does not interfere with moving parts or linkages.

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.

INSTALLATION (Continued)

16. 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 (Key Start Vehicles Only)**

17. Cycle ignition OFF, ON, OFF one time to learn VSS to the vehicle.

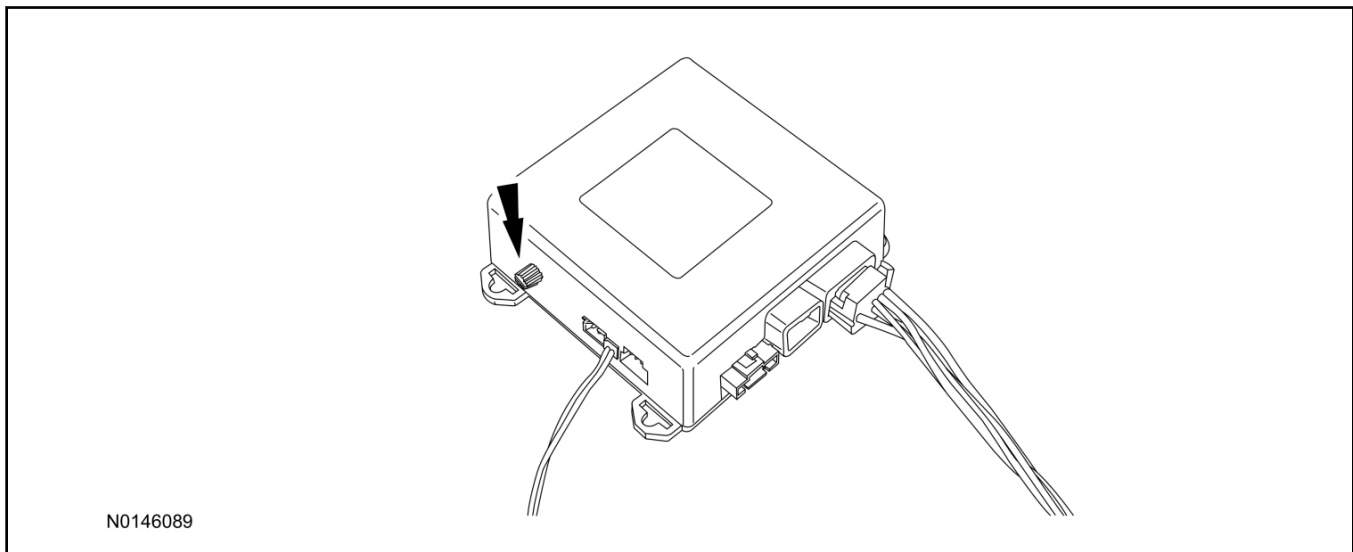
18. Use IDS to clear continuous DTCs.

19. 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)

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.

NOTE:

Cycle ignition OFF, ON, OFF before testing.

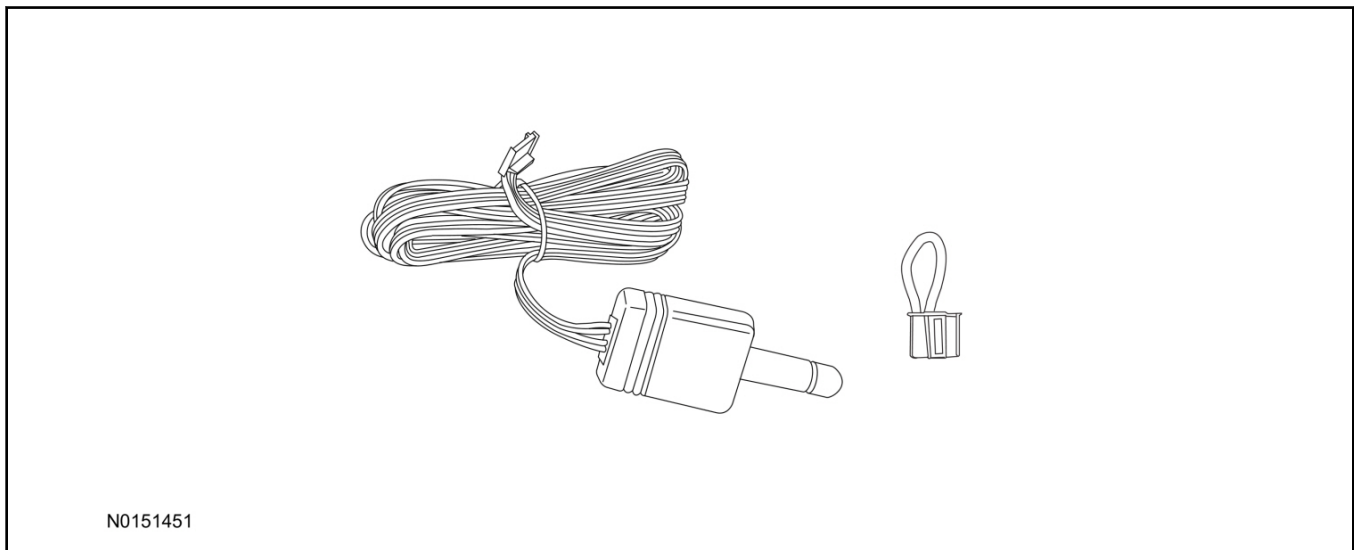
25. Lower the driver's door window, then close all doors, hood, and trunk/hatch and press lock on the keyfob. The LED should stay lit for 20 seconds while the VSS system pre-arms, after which it will flash every 3-4 seconds in fully armed mode.
26. Use the inside driver's door handle to open the door.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

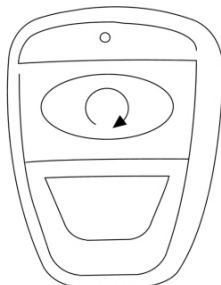
INSTALLATION (Continued)

- 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.
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 antenna and harness so that they do not interfere with moving parts or linkages.



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

N0151499

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

N0162473

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 (15603)
1	Security Jumper (15603)

Standard Key Fob (15K601) "Sold Separately"

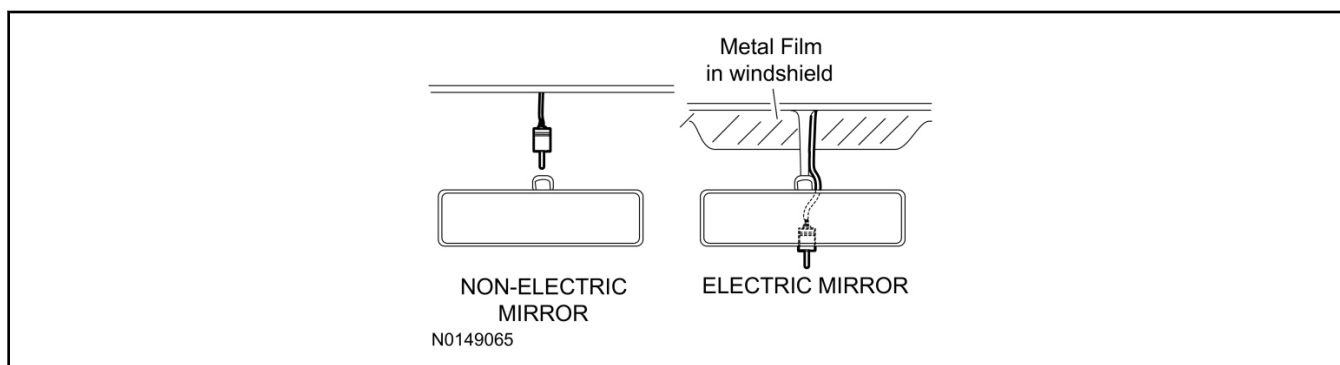
QUANTITY	DESCRIPTION
1	Standard Key Fob (15K601)

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

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

RMST Kit Antenna Installation

31. Remove the LH IP side finish panel.
32. Clean the antenna mounting surface using an alcohol base solution and a clean cloth.



33. **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.

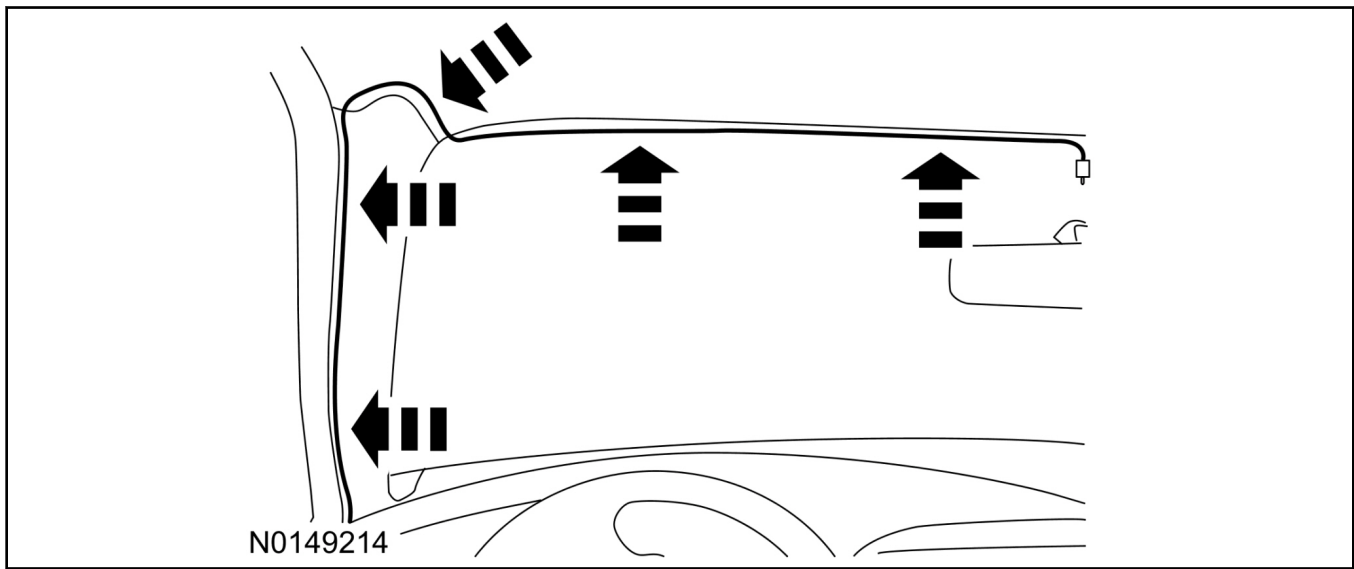
34. If necessary, position the A-pillar trim slightly outward to provide access to route the antenna wire.

NOTE:

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

35. 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.

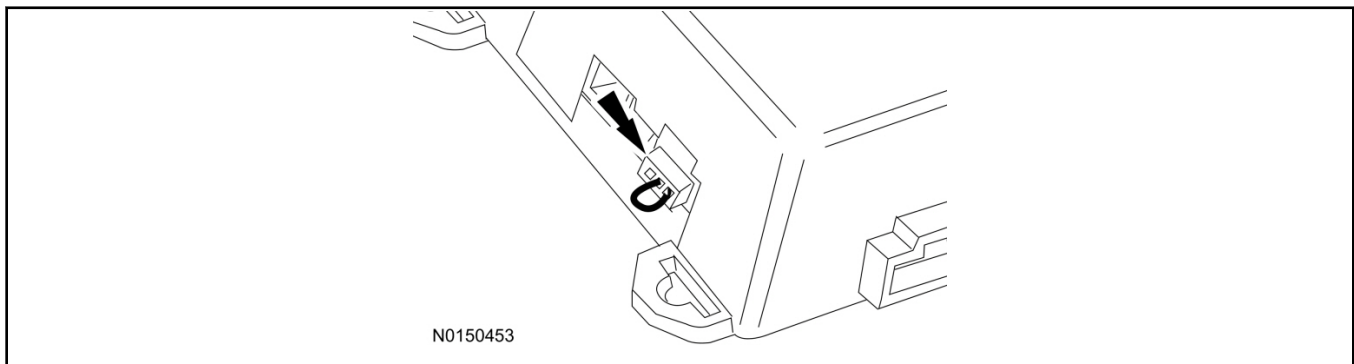
- Secure with tie-straps.

INSTALLATION (Continued)

36. Connect the antenna connector to the VSS module.
37. Reposition the A-pillar trim panel back, if necessary.
38. Install the LH IP side finish panel.

VSS Module - Optional Vehicle Security Features

39. 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 - Key Start Only****NOTE:**

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

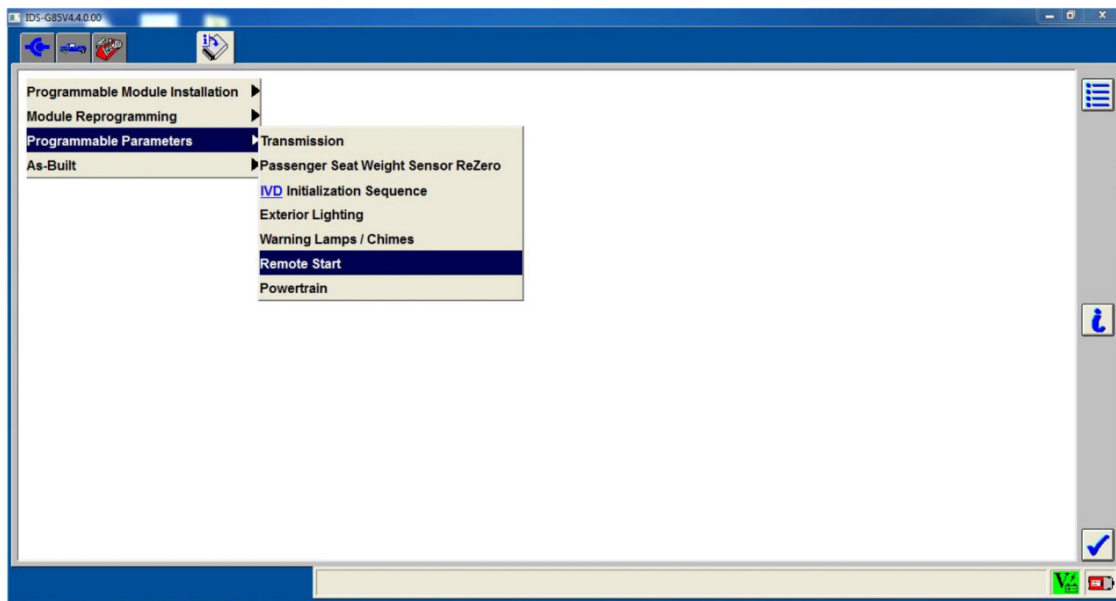
40. Cycle ignition OFF, ON, OFF one time to learn RMST to the vehicle.
41. Verify that the IDS is updated to the most current version.
42. Connect IDS.

INSTALLATION (Continued)

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

43. Activate the remote start using the IDS.

- Select the Tool Box icon.
- Select Module Programming.
- Select Programmable Parameters.
- Select Remote Start.



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44. 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)
 - 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)

INSTALLATION (Continued)

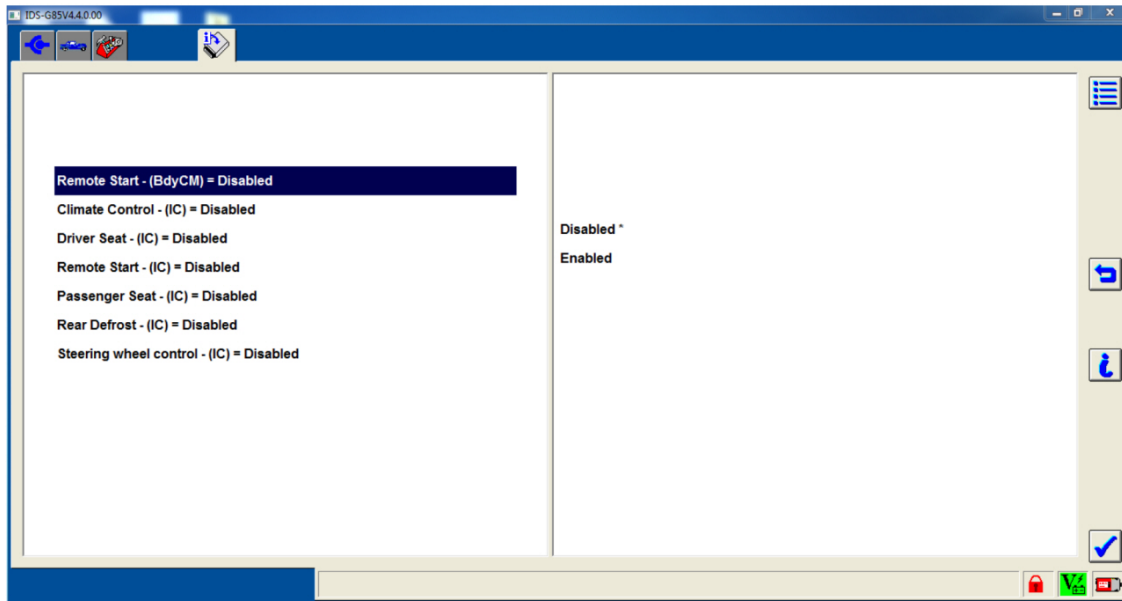
- Steering Wheel Control - (IC)

NOTE:

The Steering Wheel Control item refers to the heated steering wheel feature.

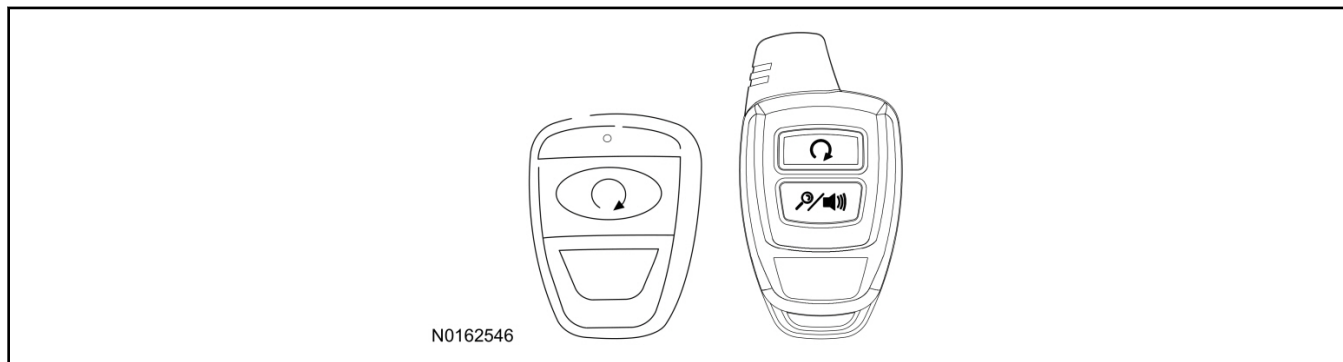
The Driver Seat and Passenger Seat items refer to climate controlled seating.

- Once all appropriate items have been enabled, select the Tick button to direct IDS to enable the remote start option on the vehicle.



N0151674

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

INSTALLATION (Continued)**Programming Key Fobs****47. 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.
- 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".

48. 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.

INSTALLATION (Continued)

- 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".

RMST Functional Test**NOTE:**

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

49. Make sure the shift lever is in PARK and the ignition is in the OFF position. Remove all keys from the vehicle.
50. Close the hood.
51. Close all of the vehicle doors.
52. Start the vehicle by pressing the remote start button twice on the remote start key fob.
53. Confirm the remote start works with the vehicle in park and with the hood and doors closed.
54. Open the hood.
55. Confirm the engine shuts off.

56. NOTE:

Vehicle doors should be closed while performing this step.

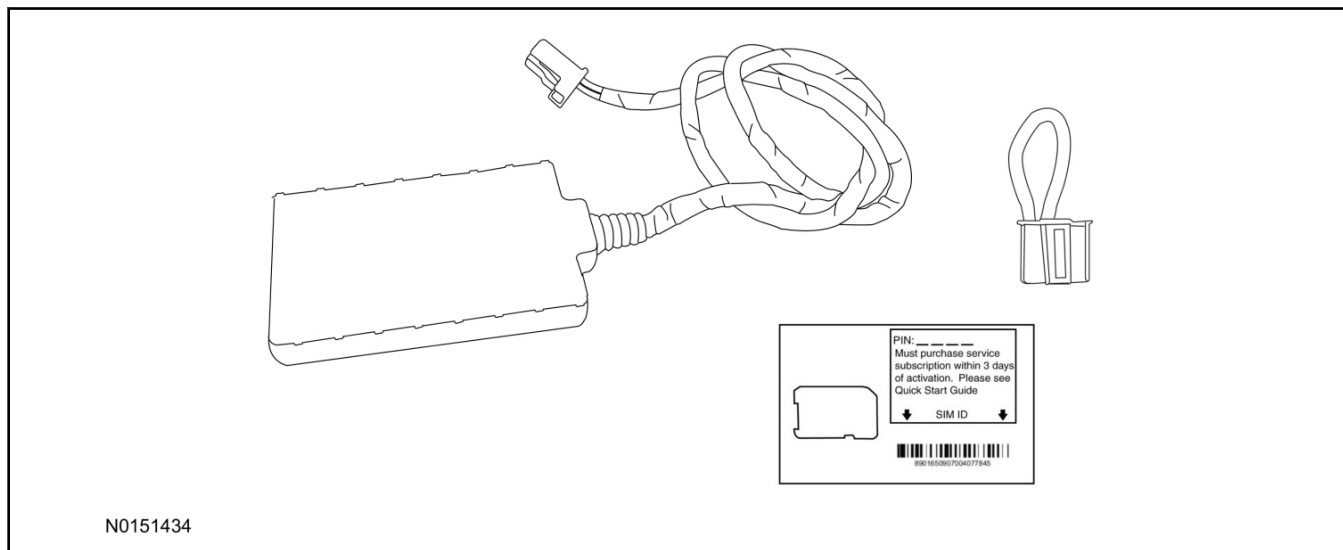
Attempt to remote start with the hood open. Confirm that the vehicle will not start with the hood open.

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

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

INSTALLATION (Continued)**III. Remote Access (RMU) Upgrade "Sold Separately"****NOTE:**

VSS must be learned to vehicle prior to installing remote access on key start equipped vehicles.



58. 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)

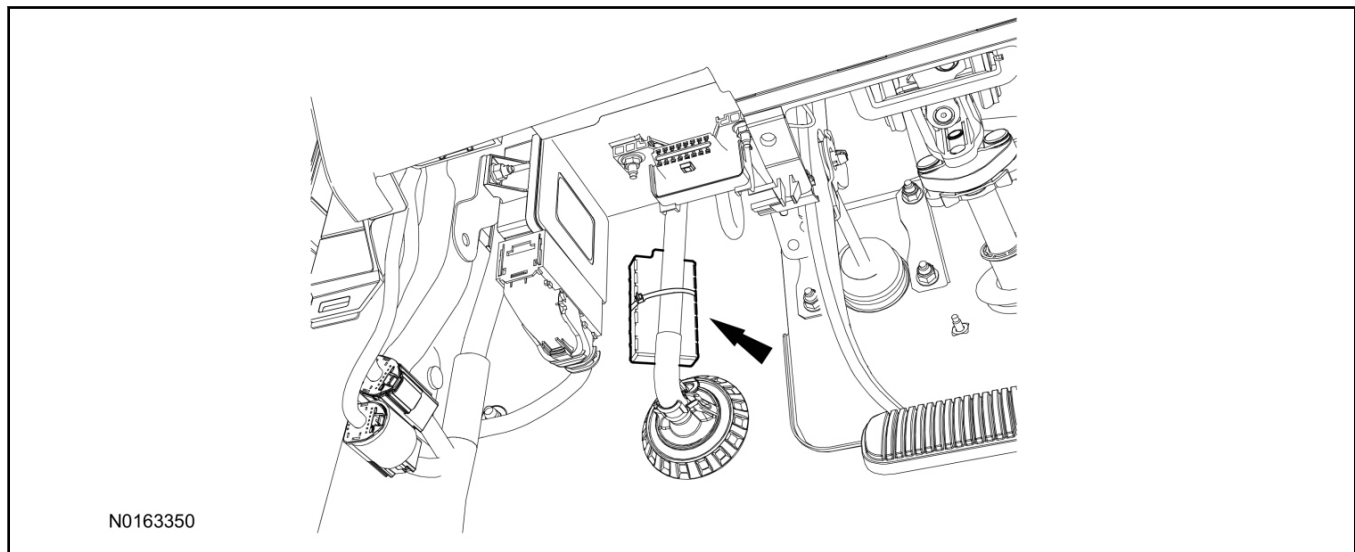
⚠ CAUTION:

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

NOTE:

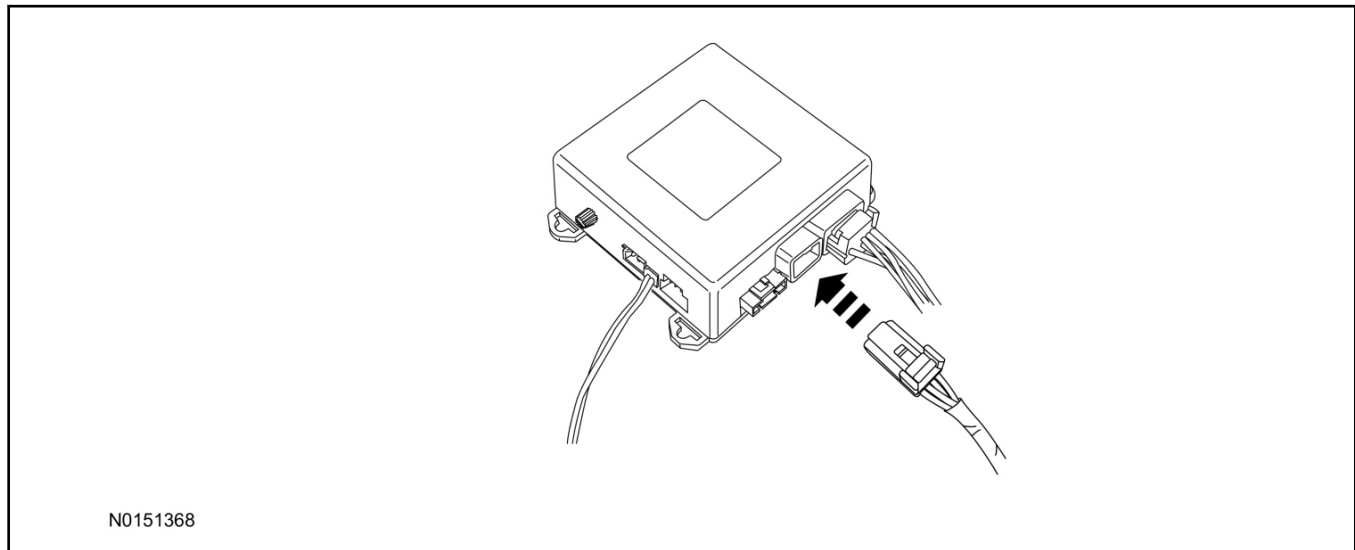
For proper range of operation, the RMU must be installed as shown in the diagram below.

59. Using a tie-strap secure the RMU to the main bulkhead wire harness.

INSTALLATION (Continued)

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

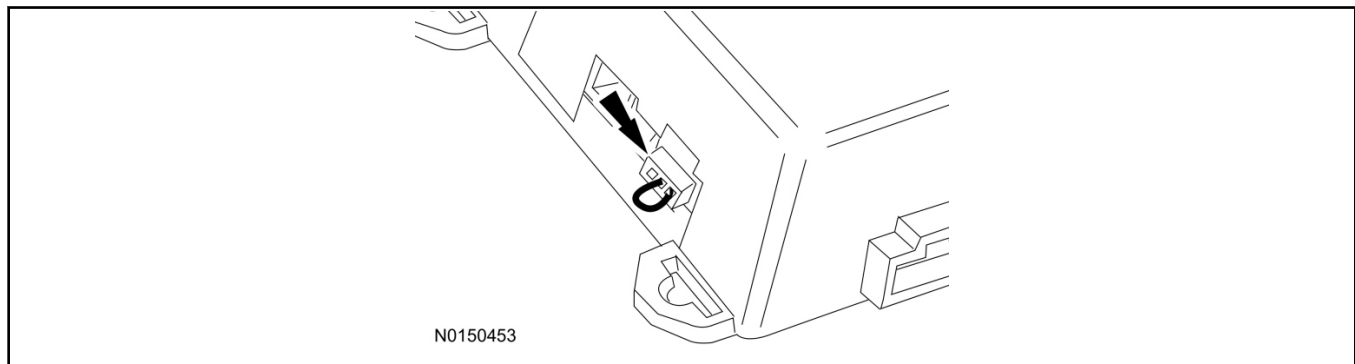
- Secure the harness with tie-straps.

**VSS Module - Optional Vehicle Security Features**

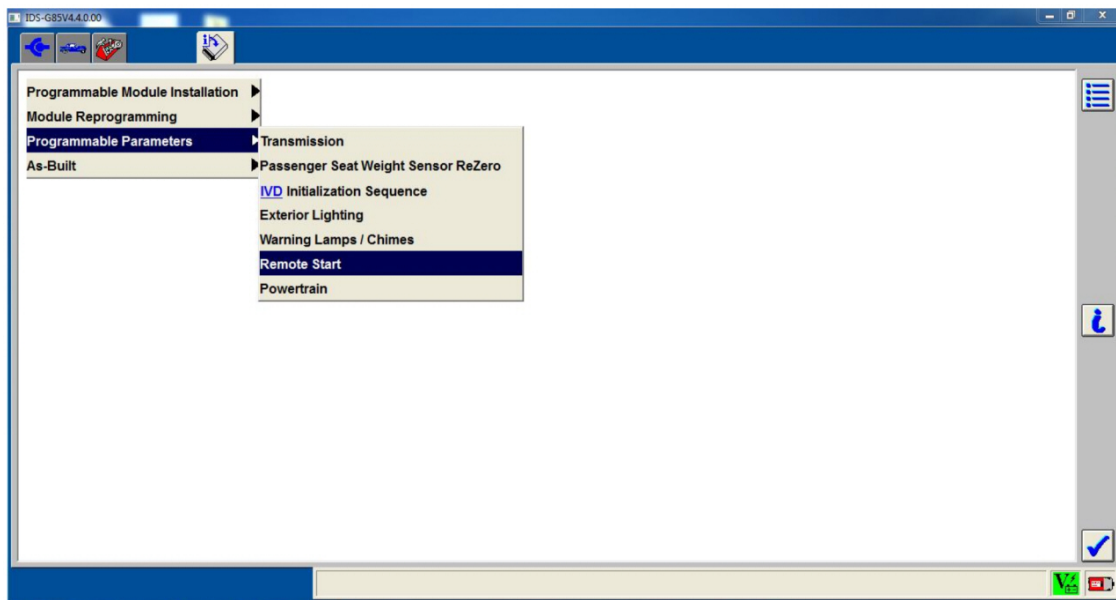
61. Enable/Disable Vehicle Security Features:

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)**

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



INSTALLATION (Continued)

66. Verify that the instructions on the IDS screen have been completed and continue until you reach the screen below.

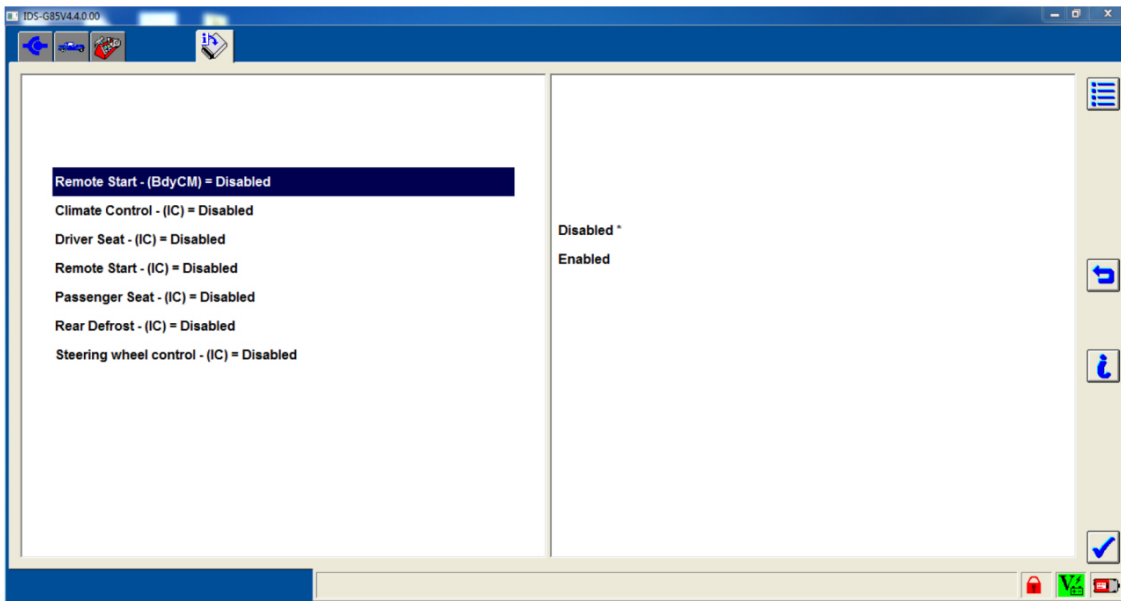
- From this screen, you must select the feature and then select the "Enabled" text (to the right) for these items:
 - Remote Start - (BdyCM)
 - Climate Control - (IC)
 - Remote Start (IC)
- Select the feature and then select the "Enabled" text (to the right) for these items if the vehicle includes the optional feature:
 - Driver Seat - (IC)
 - Passenger Seat - (IC)
 - Rear Defrost - (IC)
 - Steering Wheel Control - (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.

- Once all appropriate items have been enabled, select the Tick button to direct IDS to enable the remote start option on the vehicle.



N0151674

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

INSTALLATION (Continued)

- Using the Select and Arrow buttons on the steering wheel, select Settings.
 - Select Advanced Settings.
 - Select Vehicle.
 - Select Remote Start.
 - Verify that the Remote Start system is checked.
68. 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.

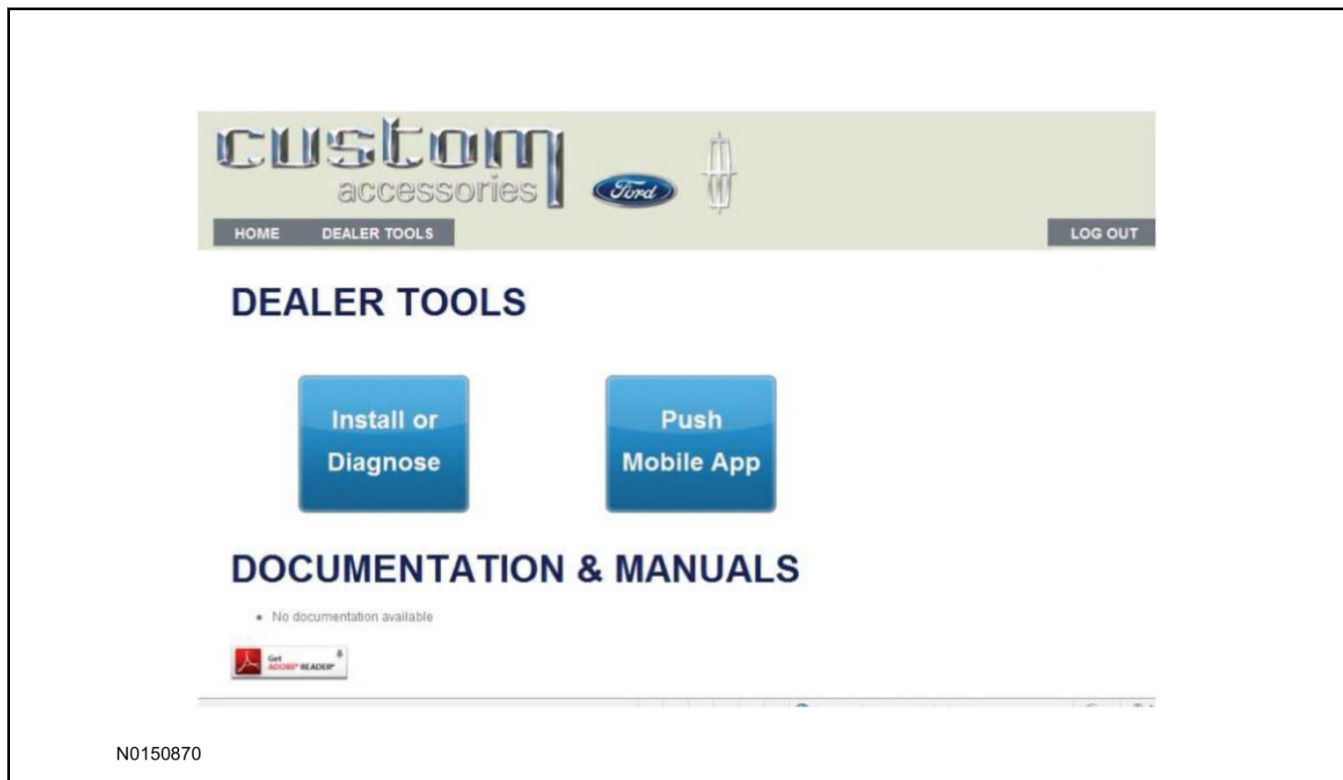
RMU Activation**NOTE:**

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.

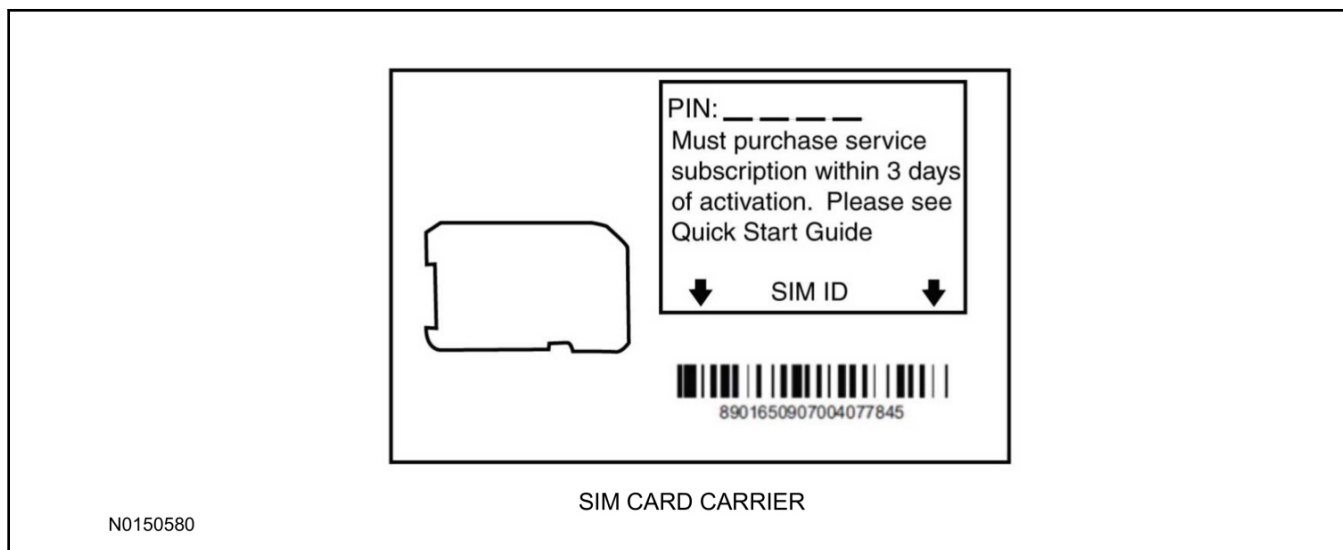
69. For RMU activation the following information from the customer is recommended to provide them with electronic notification for app retrieval:
- 1 Email Address
 - 2 Cell Phone Number
 - 3 Cell Phone Carrier Company
70. Log on to your Professional Technician Society (PTS) account and enter the vehicle 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.

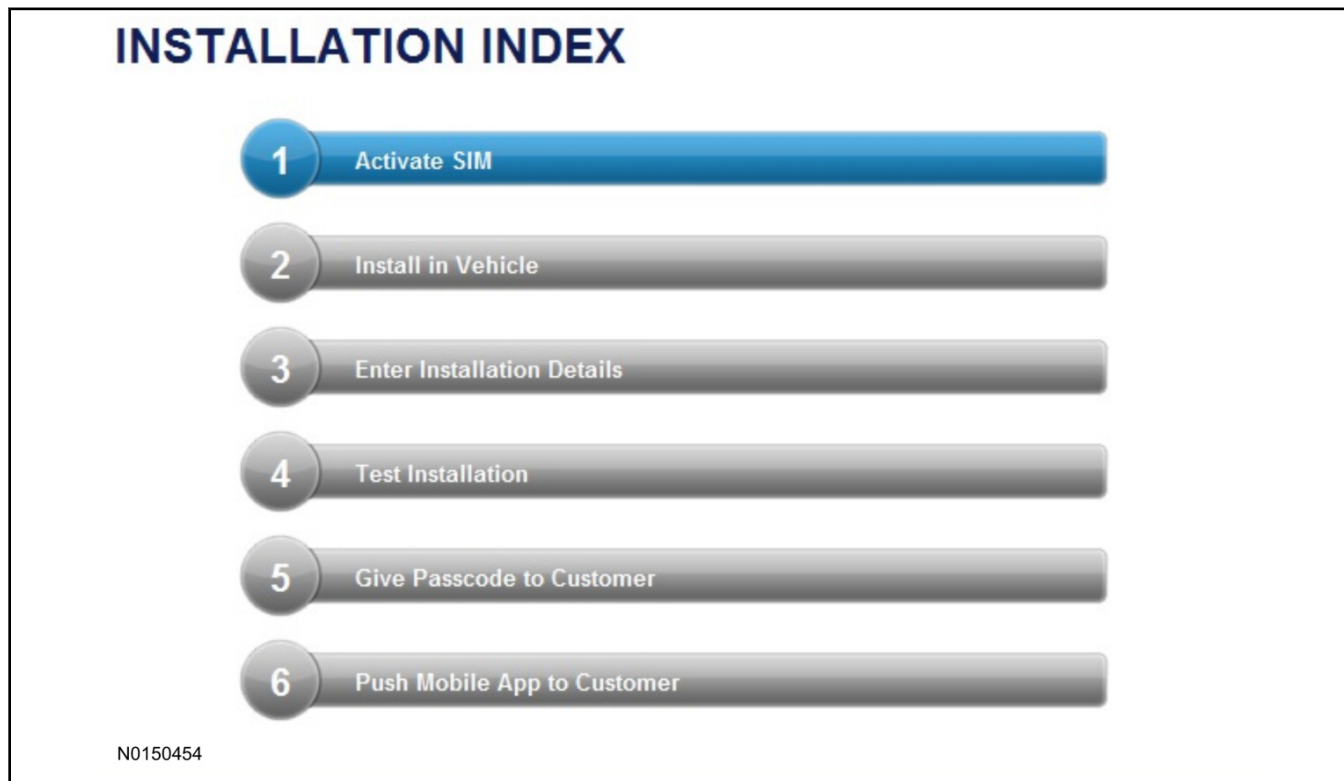


71. Once on the "Install" page, enter the SIM ID code that was provided with the RMST kit. Select "Begin or Continue Installation".



INSTALLATION (Continued)

72. 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.

The screenshot displays a software interface titled "Installation Details". It includes a "Brand" dropdown menu set to "Ford". Below this is a "Security Features" section with a "Requery" button. A list of features with checkboxes is shown: Start, Stop, Lock, Unlock, Car Finder, Perimeter, and Shock, all of which are checked. At the bottom left is a "Return" button with a back arrow icon, and at the bottom right is a "Continue" button with a right arrow icon. The identifier "N0150305" is located at the bottom left of the screen.

73. 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 (Continued)

The screenshot displays the 'Installation Test' results. It lists six items, each with a green checkmark icon and a status: 'Session Status' is 'Yes', 'Network Connection' is 'Yes', 'IP Assigned' is '10.64.17.233', 'Comm Established' is 'Yes', 'Received IMEI' is '358901041730422', and 'Received ESN' is '1663000117'. Below this list is a message: 'Your install has been tested successfully. If you would like to test the physical functions of the module, you can do so below.' Under the message is a row of six buttons: 'Start', 'Stop', 'Lock', 'Unlock', 'Car Finder', and 'Signal'. At the bottom left is a 'Return' button with a back arrow icon, and at the bottom right is a 'Continue' button with a right arrow icon. The identifier 'N0150677' is located at the bottom left of the screen.

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

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

74. 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.
75. 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.