

READ ME FIRST

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

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

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

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

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

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

Prior to beginning your first installation of this product it is recommended that you:

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

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

DO NOT CLAIM PARTS WARRANTY ON FORM 1863

Parts Warranty Processing:

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

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

Ford Service Parts
180 Marcus Blvd.
Hauppauge, NY 11788

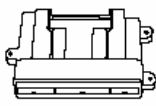
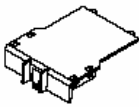









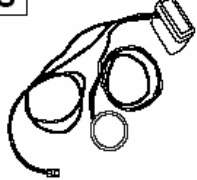

Note: If the package is sent without a claim number/claim number visible on the outside of the package, the shipment will be refused and returned at sender's expense.

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

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













REFERENCE SECTION

KIT CONTENTS

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

PARTS BAG CONTENTS

NOTE: Part bag contents are not available as service items

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

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

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

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

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

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

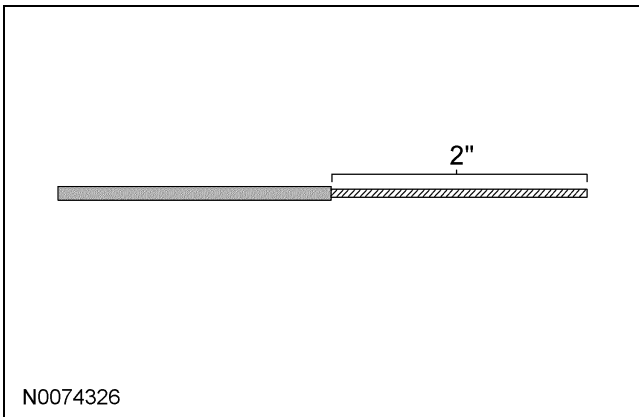
REF	DESCRIPTION	QTY
A	PC-34 MODULE ASSEMBLY	1
B	RMST DNA ASSEMBLY	1
C	1 BUTTON POWERCODE TRANSMITTER	2
G	TYPE "C" CUSTOM WIRING HARNESS	1
N	DIPOLE ANTENNA	1
M	HOOD SAFETY SWITCH ASSEMBLY	1
T - CC	INSTALLATION PARTS BAG	1
DD, EE	FUSE PARTS BAG	1
R	OPERATORS INSTRUCTION	1
Q	OPERATORS QUICK REFERENCE WALLET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

GENERAL PROCEDURES

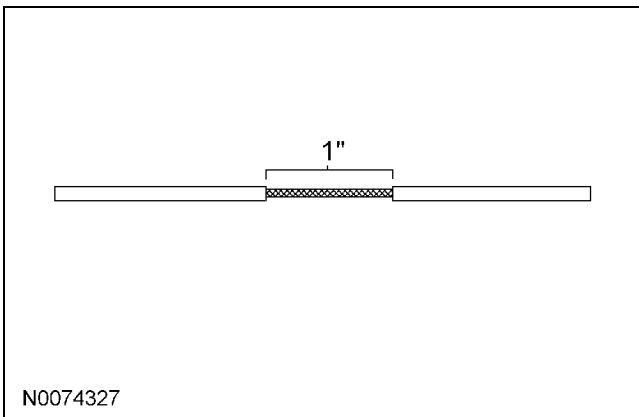
Proper Splicing Techniques

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

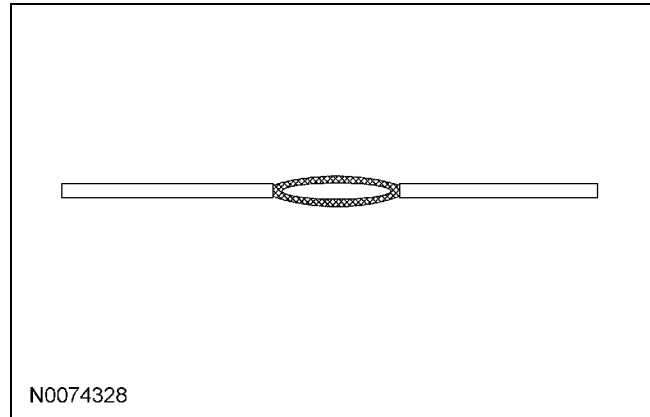
1. Strip approximately two inches of insulation from the wire to be installed in the vehicle.



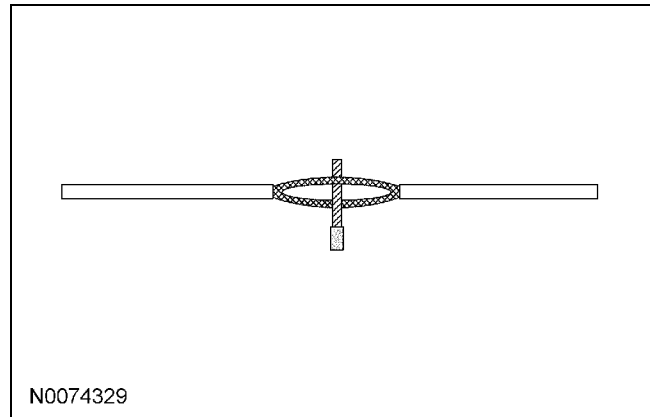
2. On the vehicle wire to be spliced into, strip one inch of insulation from the wire.



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

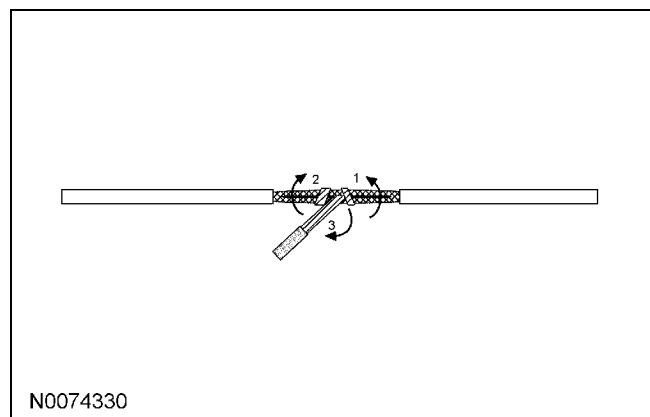


4. Insert the new wire between the parted strands. If more than one wire is being spliced, wrap them in opposite directions.



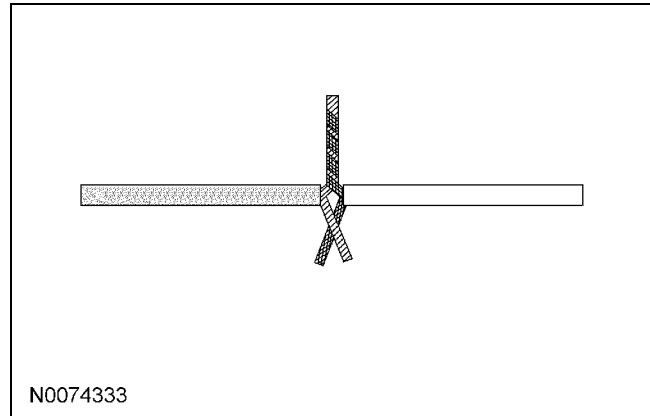
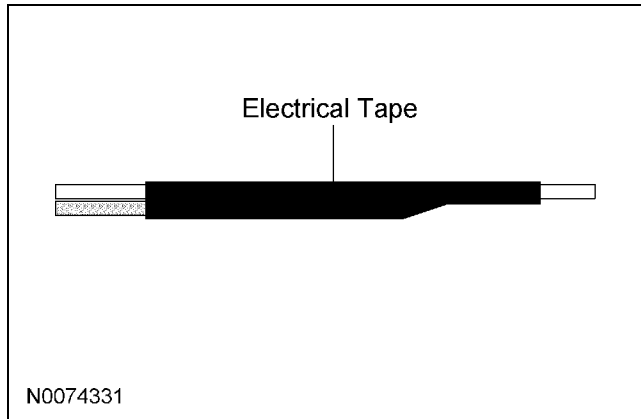
NOTE: Use Rosin Core Mildly-Activated (RMA) Solder. Do not use Acid Core Solder.

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



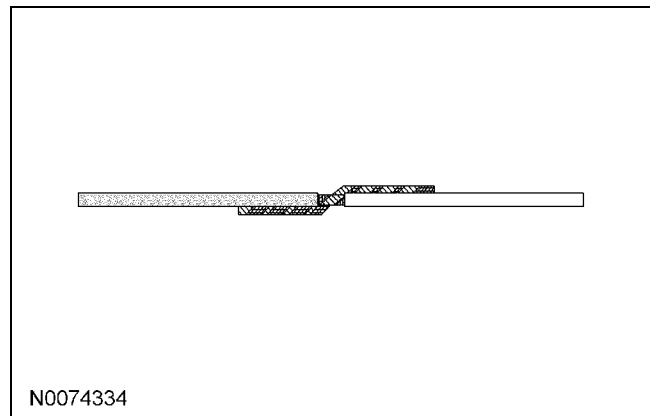
GENERAL PROCEDURES (Continued)

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.



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

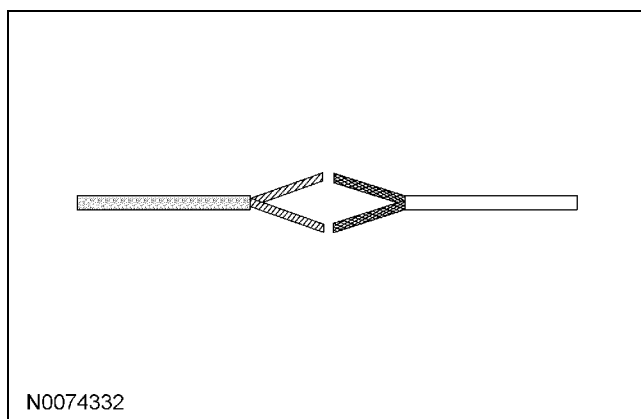
3. Lay the upper strand of wire to one side, then lay the lower strand of wire to the other side as shown in the illustration.
 - Solder the wires together.



NOTE: When both ends of the wire are cut, use the end to end wire splicing procedure.

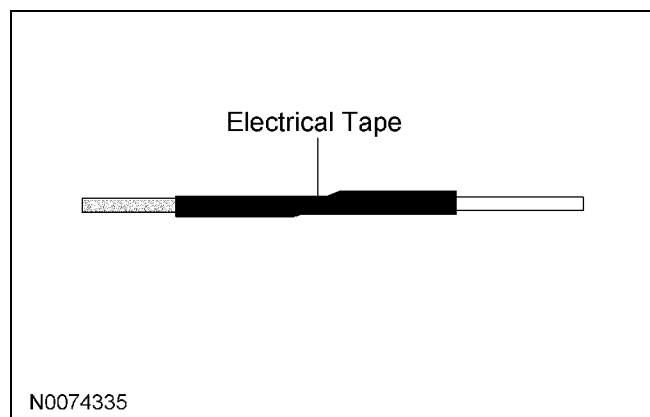
NOTE: Follow the steps below for end to end wire splicing.

1. To make an end to end connection, start by stripping one inch of insulation from each of the wires. Part each wire into equal strands as shown in the illustration.



2. Place the wires next to each other and twist the upper and lower strands together as shown.

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



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REMOTE START SYSTEM INSTALLATION

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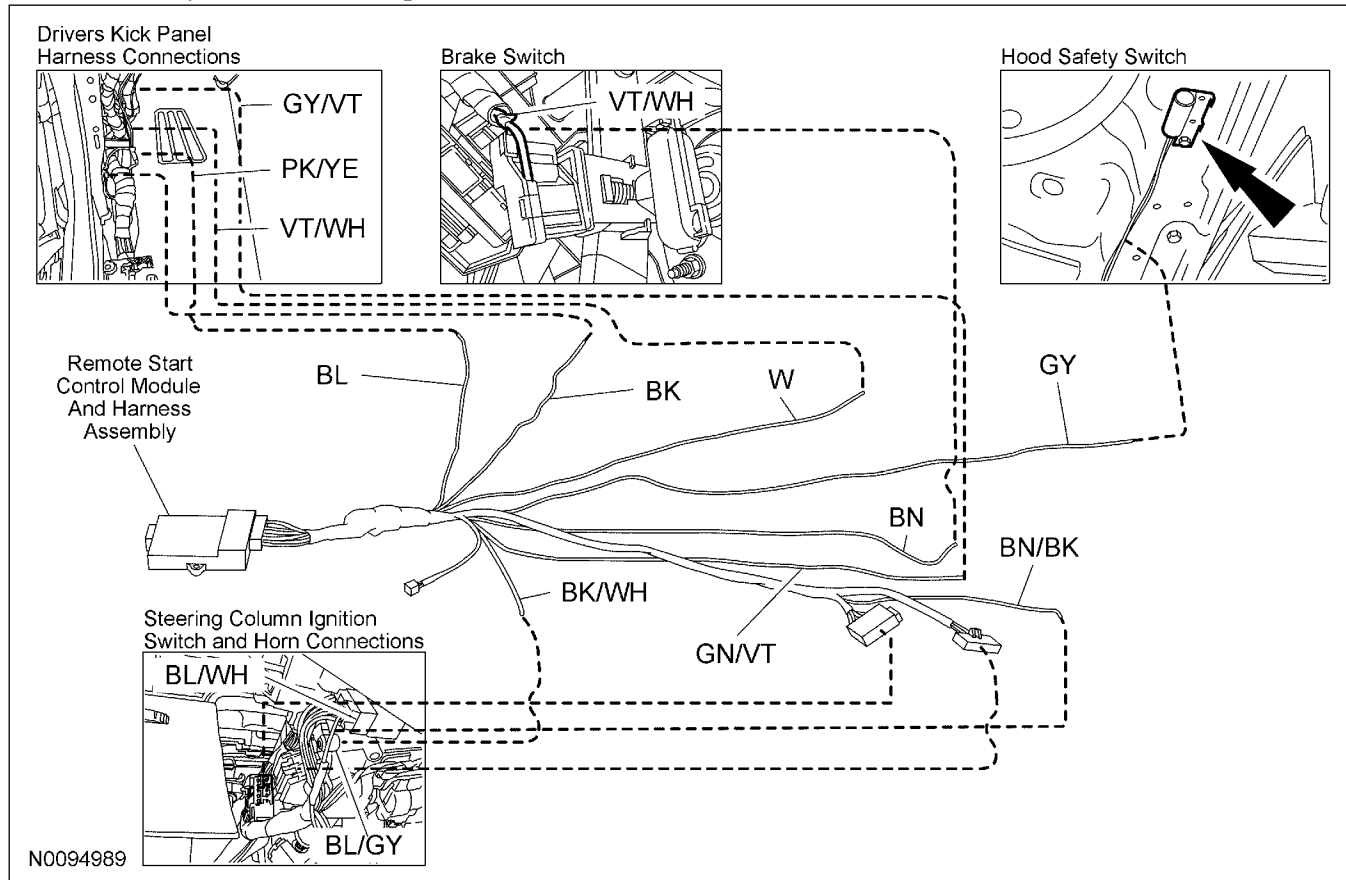
WIRING DIAGRAMS

[Vehicle Specific Wiring Diagrams](#)

INSTALLATION

Remote Start

Remote Start System RMST Components



Econoline

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

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

1. Verify correct kit number.

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

NOTE: Use kit number 8L5J-19G364-AA (with PATS) (FIA), 8L5J-19G364-AC (with PATS) (FIA) or 7L5Z-19G364-AA (GFA) REMOTE START SYSTEM.

9L5Z-19G364-A (GFA) BIDIRECTIONAL REMOTE START SYSTEM.

NOTE: Kits are vehicle specific and are not interchangeable.

- Review the RMST kit contents.

Remote Start System Standard Kit (RMST) Type - "B"

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

- Review the RMST bidirectional kit contents.

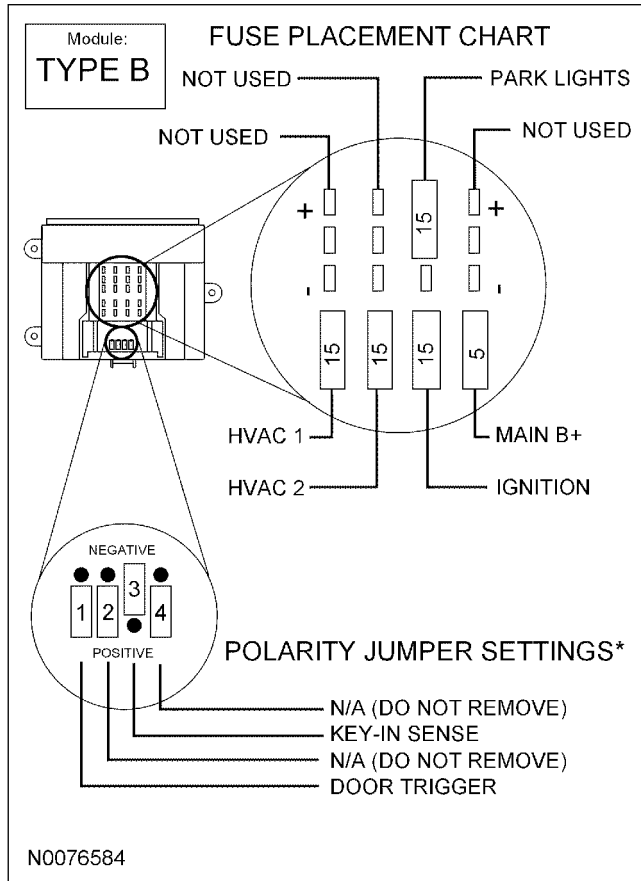
Remote Start System Bidirectional Kit (RMST) Type - "B"

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

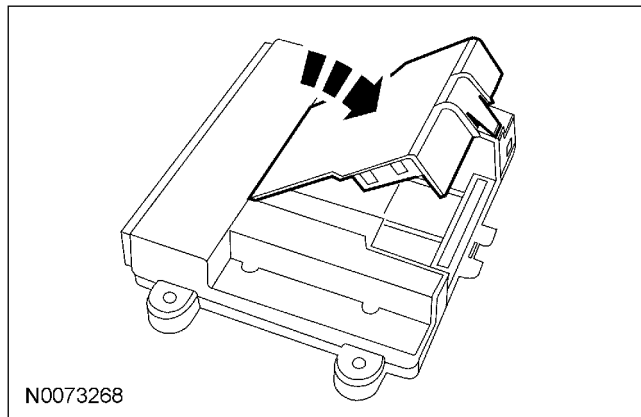
Module Preparation

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

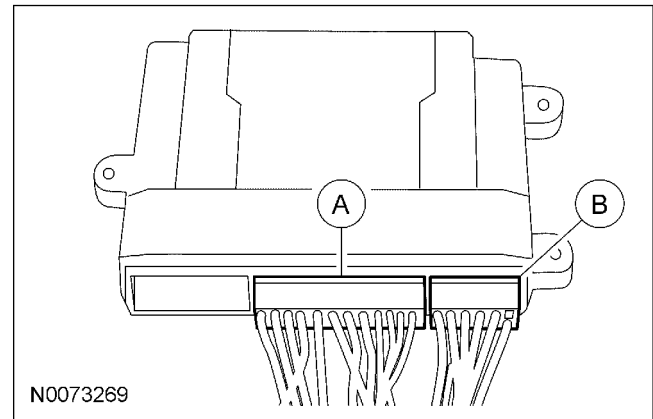
INSTALLATION (Continued)



- Place the software cartridge onto the RMST control module.



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

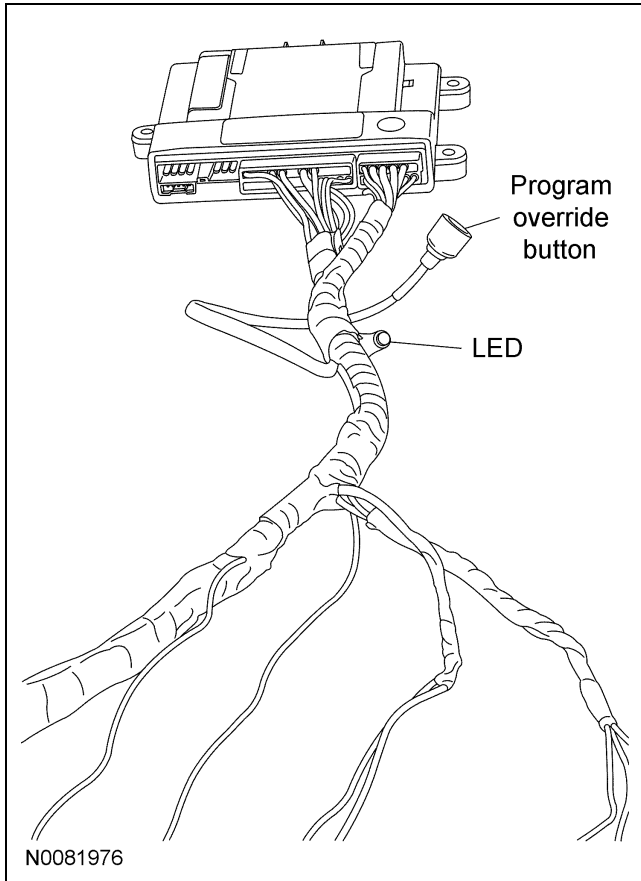


- NOTE:** Do not cut the override programming button off of the harness, it is used for all installations.

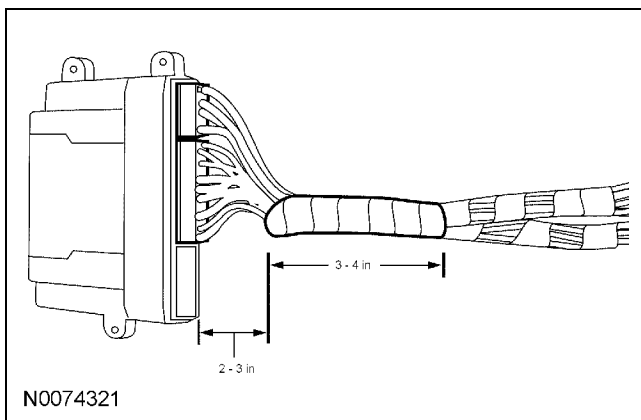
NOTE: For vehicle specific wiring diagram(s) [click here](#).

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

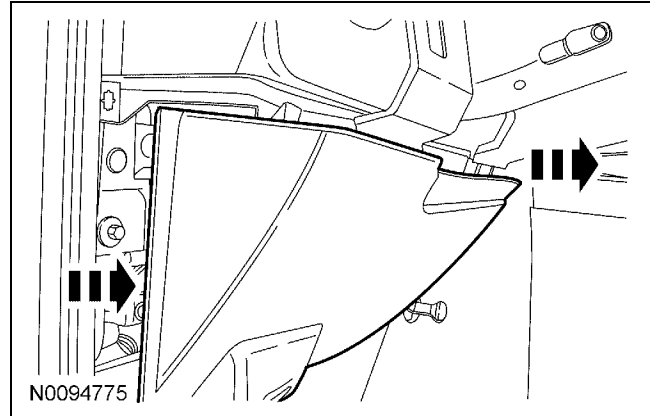
Trim the unused wires approximately 6 - 8" from the module.

INSTALLATION (Continued)

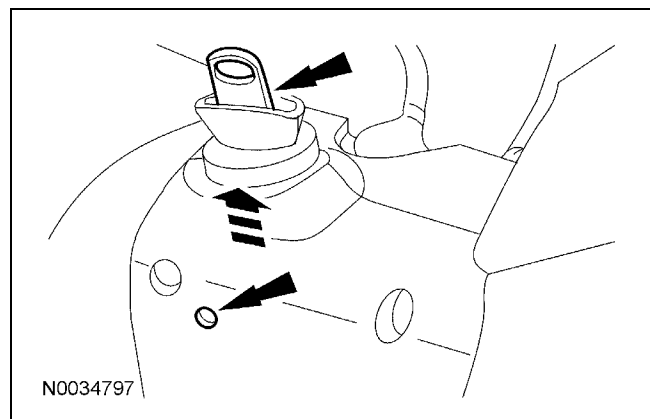
8. Tape the harness sections together, making sure to cover all of the unused wires.

**Vehicle Preparation**

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



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



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

INSTALLATION (Continued)

Antenna Mounting

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

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

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

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

Install The Antenna

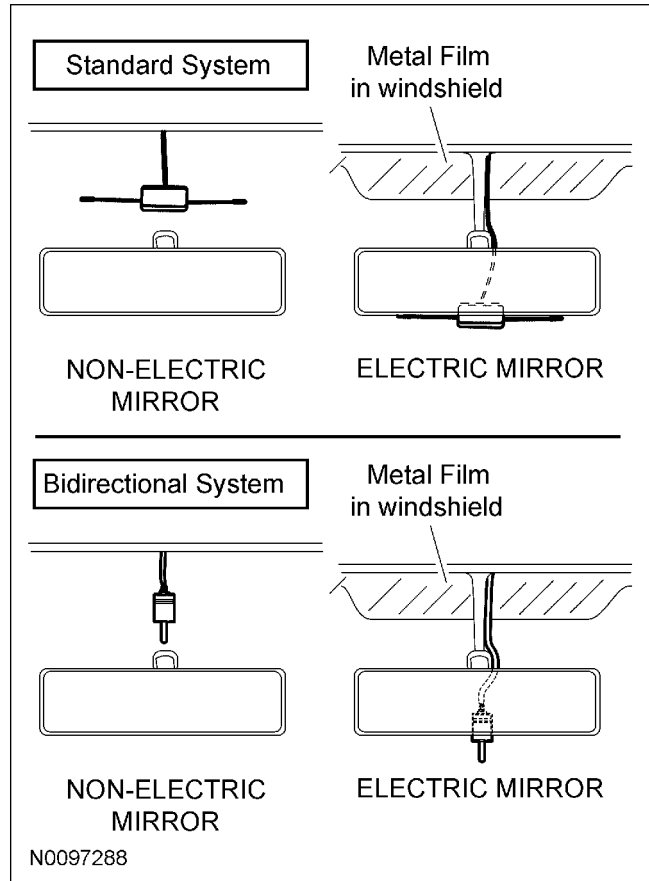
16. Clean the mounting surface using an alcohol base solution and a clean cloth.

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

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

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

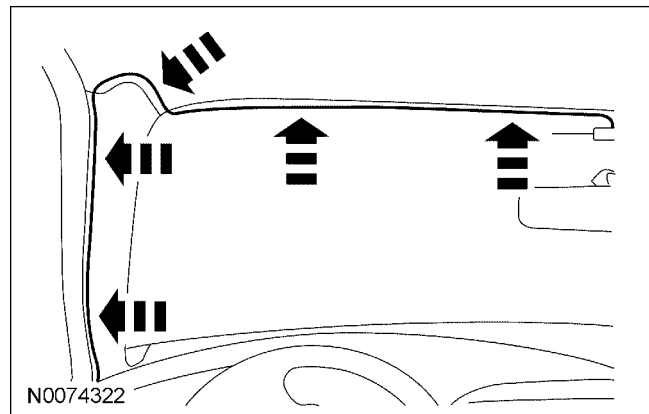
Remove the protective backing from the adhesive on the antenna and firmly press the body of the antenna to the windshield.



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

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

19. Route the antenna cable along the headliner and down the A pillar towards the RMST control module.

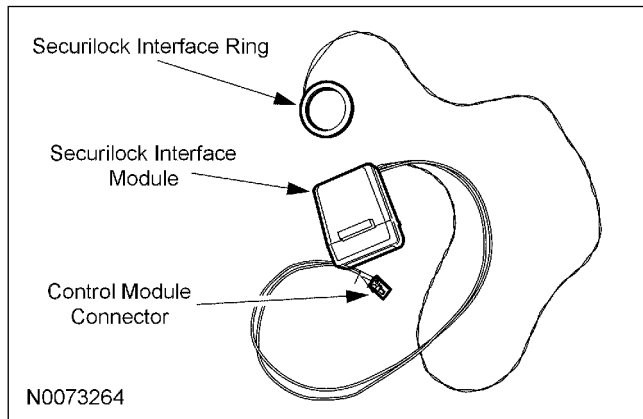


20. Reposition the A pillar trim panel.

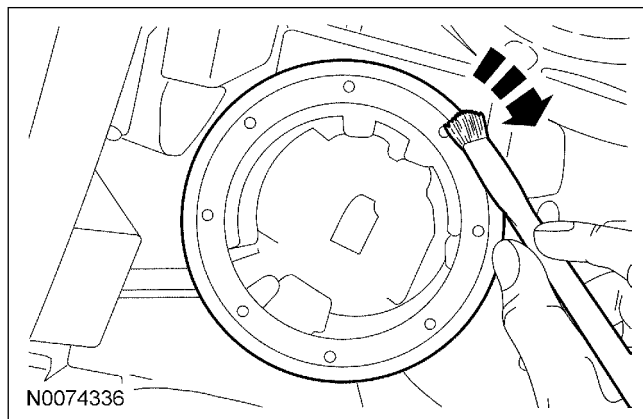
INSTALLATION (Continued)

Install The Securilock Interface Kit

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



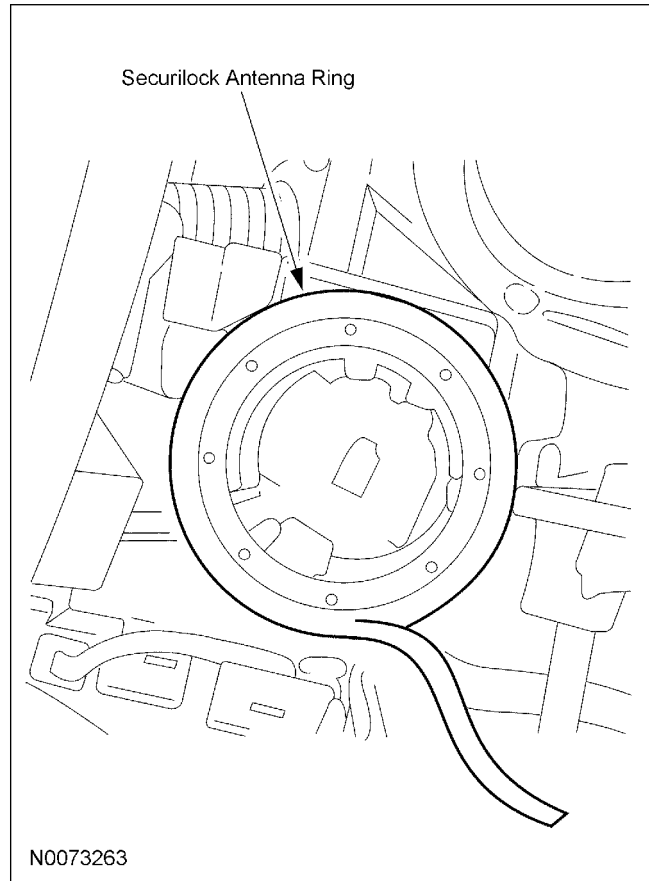
22. Following the directions on the supplied tube of adhesive primer, apply a thin coating around the transceiver antenna coil and allow to dry for approximately 5 minutes.



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

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

Remove the protective backing from the adhesive on the antenna ring, place the ring over the PATS transceiver and press firmly in place.



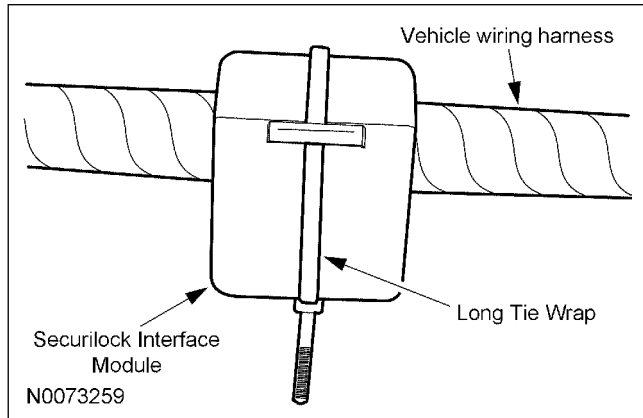
Install The Securilock Interface Module

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

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

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

Route the harness and connector to the module mounting location.

INSTALLATION (Continued)**Install the Remote Start Control Module and Harness Assembly**

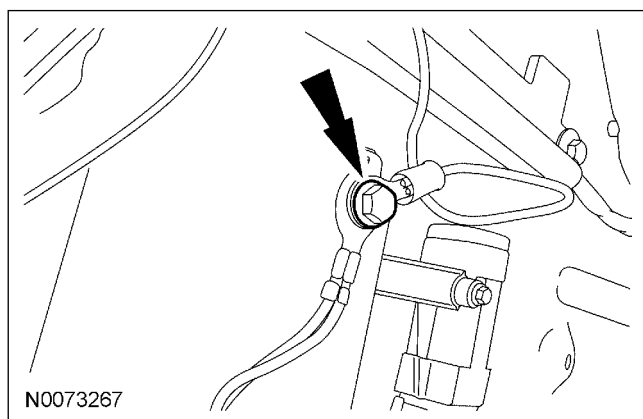
26. Install the ignition lock cylinder.
27. Place the remote start module and harness assembly in the vehicle.

Identify Circuit Wires For Connections

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

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

28. Connect the Black ground wire from the remote start module harness to the chassis ground point in the driver kick panel.
29. Disconnect the ignition switch electrical connector.
30. Connect the hard shell harness connectors at the ignition switch and ignition switch connector.



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

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

Identify the Blue/White horn circuit wire at the Brown connector at the right side of the steering column.

32. Connect the Brown/Black wire from the remote start module harness to the Blue/White horn circuit wire at the Brown connector at the right side of the steering column.

33. **NOTE:** A DVOM connected to the correct wire will show 12V with the key removed, then show 0V when the key is installed.

A logic probe will show power on the correct wire when the key is removed, then show ground when the key is installed.

Identify the Blue/Gray Key-in-Sense circuit wire at the Brown connector at the right side of the steering column.

34. Connect the Black/White wire from the remote start module harness to the Blue/Gray Key-in-Sense circuit wire at the Brown connector at the right side of the steering column.

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

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

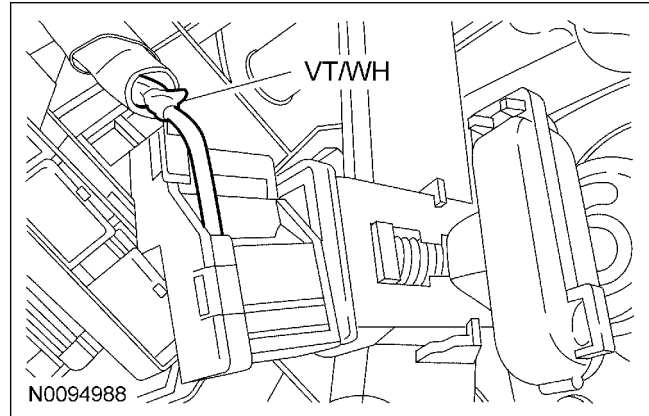
NOTE: Be sure that the dome light has timed out and is off before performing the door closed test.

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

Identify the Gray/Violet dome light circuit wire at the driver kick panel.

INSTALLATION (Continued)

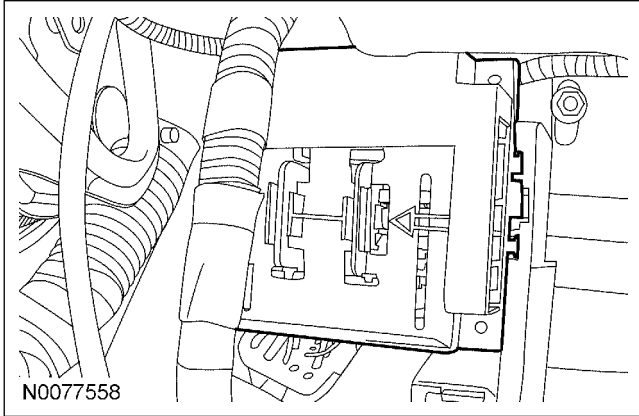
36. Connect the Green/Violet wire from the remote start module harness to the Gray/Violet dome light circuit wire at the driver kick panel.
37. **NOTE:** A DVOM connected to the correct wire will show 12V, then show 0V when the door lock switch is pressed.
A logic probe will show power on the correct wire, then show ground when the door lock switch is pressed.
Identify the Pink/Yellow power door lock circuit wire at the driver kick panel harness.
38. Connect the Blue wire from the remote start module harness to the Pink/Yellow power door lock circuit at the driver kick panel harness.
39. **NOTE:** A DVOM connected to the correct wire will show 0V with the switch in the OFF position and 12V with the switch in the parking lights ON position.
A logic probe connected to the correct wire will show ground with the switch in the OFF position and power with the switch in the parking lights ON position.
Identify the Violet/White parking lights on circuit wire at the driver kick panel harness.
40. Connect the White wire from the remote start module harness to the Violet/White parking lights on circuit wire at the driver kick panel harness.
41. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V while depressing the brake pedal.
A logic probe will show ground on the correct wire, then show power while depressing the brake pedal.
Identify the Violet/White brake switch circuit wire at the brake switch.
42. Connect the Brown wire from the remote start module harness to the Violet/White brake switch circuit wire at the brake switch.

**Install The Power Window Interrupt Relay**

43. Prepare the harness.

NOTE: Vehicles with manual windows, skip this section and continue to the hood safety switch installation.

44. Remove circuit 87 Yellow wires and terminals from the relay harness connectors.
- Release the locking tab and pull the wire and terminal from the connector.
45. Connect the White wire from the power window, interrupt relay to the Blue/Black circuit wire from the remote start module harness.
46. **NOTE:** A DVOM connected to the correct wire will show 12V with the key in the ON position and 0V in the OFF position.
A logic probe connect to the correct wire will show power with the key in the ON position and ground with the key in the OFF position.
Identify the Pink/Light Green ignition wire at the ignition switch harness.
47. Connect the Black wire from the power window interrupt relay to the Pink/Light Green battery wire at the ignition switch harness.
48. Position the Smart Junction Box (SJB) down to gain access to the SJB wire harness.
49. Identify the Red/Light Blue power window power supply circuit wire at the SJB fuse # 42.

INSTALLATION (Continued)

50. Cut the Red/Light Blue power window power supply circuit wire at the SJB fuse # 42.

- Connect the Blue wire from the power window interrupt relay to the feed side of the Red/Light Blue power window power supply circuit wire at the SJB fuse # 42.
- Connect the Red wire from the power window interrupt relay to the switch side of the Red/Light Blue power window power supply circuit wire at the SJB fuse # 42.

51. Position back the SJB.

Install The Hood Safety Switch

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

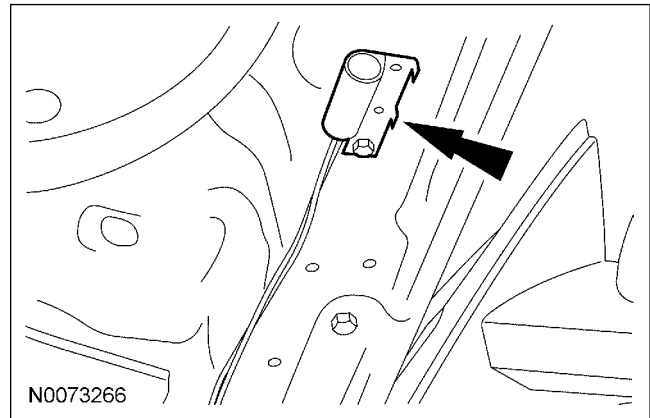
NOTE: The switch should be positioned about 30 degrees below parallel to the ground to accommodate for parking on inclines.

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

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

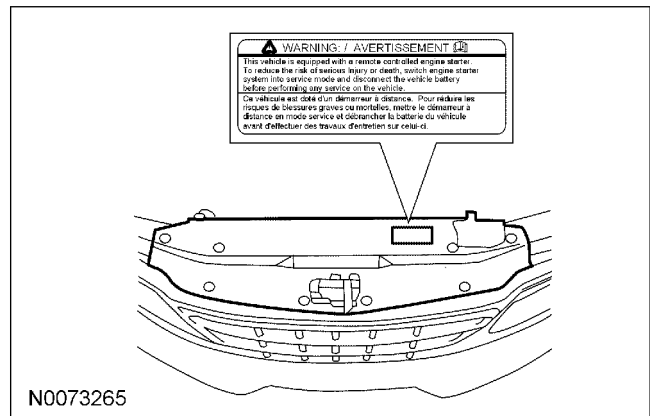
Locate an easy to access area near the driver side hood hinge and install the hood safety switch using the supplied metal screws.

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



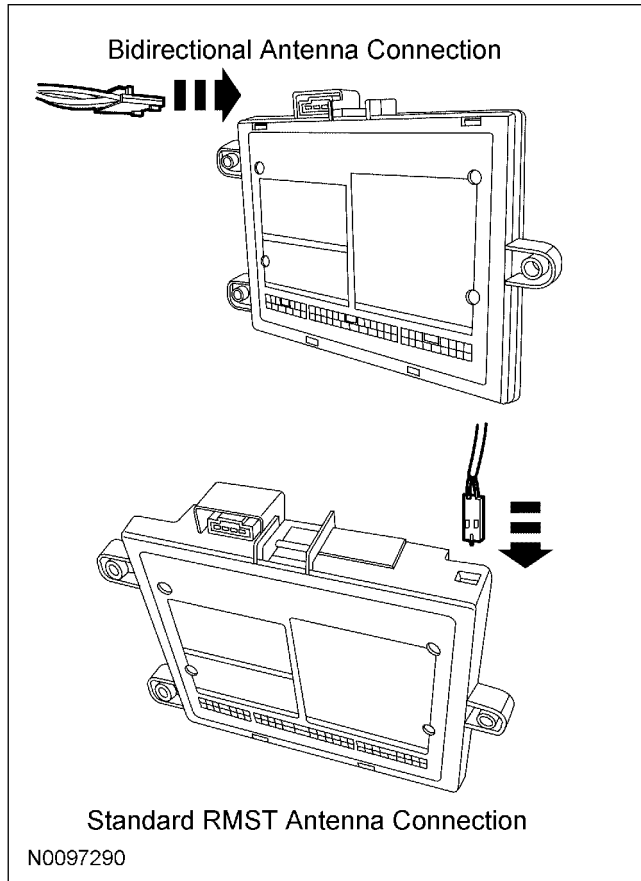
54. **NOTE:** Place the label on the radiator fan shroud or similar area.

Install the underhood warning label



55. Route the Gray hood safety switch wire through the bulkhead into the engine compartment and attach to the hood safety switch.

56. Connect the antenna to the RMST control module.

INSTALLATION (Continued)

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

Program The RMST System

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

Secure RMST Harness and Control Module

59. Use the supplied tie wraps to secure the RMST harness wires.
60. **NOTE:** Do not mount the control module in the knee bolster area.
- To ensure the best performance of the built-in shock sensor, secure the control module at three points to the vehicle.
- Use the supplied long tie wraps to mount the RMST control module to the underdash wiring harness.

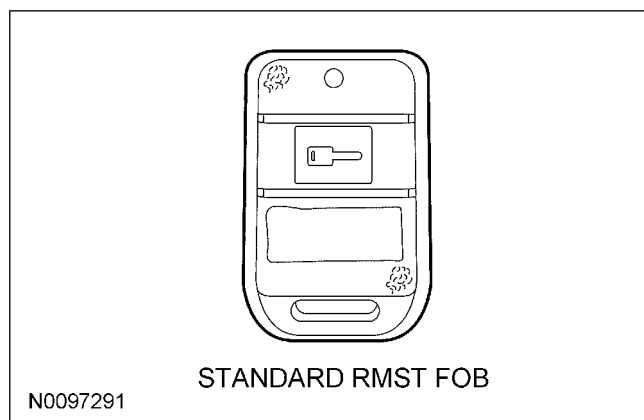
Install Trim

61. Install the (3) screws and the steering column shroud.
62. If equipped, install the tilt release lever handle.
63. Install the lower instrument panel steering column cover.
64. Install the left hand scuff plate and cowl trim panel.

GENERAL PROCEDURES

Programming - Standard Remote Start

Programming the Module



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

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

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

NOTE: The remote start override button must be accessible.

Programming Options: Entering Programming Mode

- See chart below for programming information.

Gas Engine Only: Program Bank 1 Chart (4 Honks)

BANK	OPTIONS	DESCR	LED
1	2	DOOR AJAR INVERT	ON
1	3	KEY-IN SENSE INVERT	ON

Gas Engine Only: Program Bank 2 Chart (5 Honks)

BANK	OPTIONS	DESCR	LED
2	1	TACHLESS MODE	ON

Diesel Engine Only: Program Bank 1 Chart (4 Honks)

BANK	OPTIONS	DESCR	LED
1	2	DOOR AJAR INVERT	ON
1	3	KEY-IN SENSE	ON

Diesel Engine Only: Program Bank 2 Chart (5 Honks)

BANK	OPTIONS	DESCR	LED
2	1	TACHLESS MODE	ON
2	5	DIESEL TIMER	ON

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

GENERAL PROCEDURES (Continued)

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

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

8. Press and release the brake pedal.

The horn will honk 2 times indicating the system has entered the option 2 of the first program bank.

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

9. The LED must be on for option 2. If the LED is illuminated no action is required. If the LED is not illuminated, press and release the remote start fob button and verify the LED illuminates.

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

10. Press and release the brake pedal.

The horn will honk 3 times indication the system has entered the option 3 of the first program bank.

11. The LED must be on for option 3. If the LED is illuminated no action is required. If the LED is not illuminated press the remote start fob button and verify the LED illuminates.

12. Press and release the override button. The horn will honk 5 times indicating the system has entered the second option bank.

13. Press and release the brake pedal.

The horn will honk 1 time indication the system has entered the option 1 of the second program bank.

14. The LED must be ON for option 1. If the LED is illuminated ON, action is required. If the LED is not illuminated press the remote start fob and verify the LED illuminates.

NOTE: Vehicles equipped with a diesel engine go to the next step. Vehicles equipped with a gas engine skip step 15 and proceed to step 16.

15. Press and release the brake pedal until the horn honks 5 times.

The LED must be ON for option 5. If the LED is ON no action is required. If the LED is OFF, press the remote start fob button to verify that the LED is OFF.

NOTE: The remote start module is now programmed.

16. Remove the ignition key.

Programming the SECURILOCK

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

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

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

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

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

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

19. Press and hold the remote start button



for 3 seconds.

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

GENERAL PROCEDURES (Continued)

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

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

20. Place a key in the ignition and turn to the RUN position.

Depress the brake pedal and place the transmission selector lever in gear.

The vehicle should run without interruption.

GENERAL PROCEDURES

Functional Test - Standard Remote Start

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

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

1. Make sure all doors are closed but hood is open and windows are down (doors will be locking).
2. Press and hold the Start button on the remote control key fob for 2-3 seconds - Horn should honk once indicating receipt of the start request.
3. The remote start systems should turn on the ignition, but then honk the horn twice and shut down indicating the hood is open.
4. Close the hood, and insert a key into the ignition switch.
5. Attempt to re-start the vehicle again using the key fob.
6. The remote start systems should turn on the ignition, but then honk the horn five times and shut down indicating a key is in the ignition switch.
7. Remove the key and open a door.
8. Attempt to re-start the vehicle again using the key fob.
9. The remote start systems should turn on the ignition, but then honk the horn three times and shut down indicating a door is open.
10. Close the door.
11. Attempt to re-start the vehicle again using the key fob.
12. Once the vehicle starts, verify that all heat and A/C functions operate normally and that the doors have locked.
13. On vehicles equipped with power window interrupt, Attempt to close windows to check power window interrupt function.
14. Once all systems have been checked, press the brake pedal - the remote start systems should shut down.

Troubleshooting

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

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

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

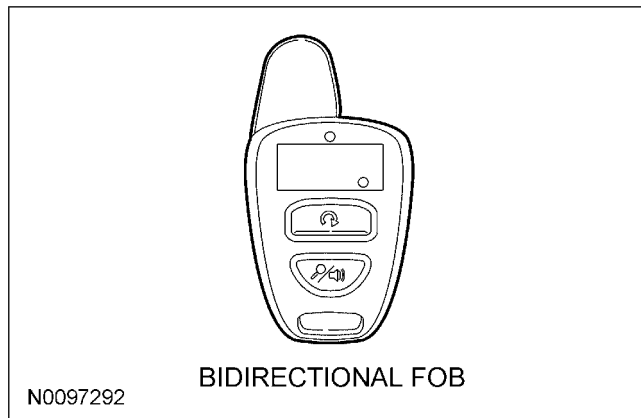
GENERAL PROCEDURES (Continued)

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

GENERAL PROCEDURES

Programming - Bidirectional Remote Start

Programming the Module



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

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

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

NOTE: The remote start override button must be accessible.

Programming Options: Entering Programming Mode

- See chart below for programming information.

Gas Engine Only: Program Bank 1 Chart (4 Honks)

BANK	OPTIONS	DESCR	LED
1	2	DOOR AJAR INVERT	ON
1	3	KEY-IN SENSE INVERT	ON

Gas Engine Only: Program Bank 2 Chart (5 Honks)

BANK	OPTIONS	DESCR	LED
2	1	TACHLESS MODE	ON

Diesel Engine Only: Program Bank 1 Chart (4 Honks)

BANK	OPTIONS	DESCR	LED
1	2	DOOR AJAR INVERT	ON
1	3	KEY-IN SENSE	ON

Diesel Engine Only: Program Bank 2 Chart (5 Honks)

BANK	OPTIONS	DESCR	LED
2	1	TACHLESS MODE	ON
2	5	DIESEL TIMER	ON

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

GENERAL PROCEDURES (Continued)

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

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

8. Press and release the brake pedal.

The horn will honk 2 times indicating the system has entered the option 2 of the first program bank.

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

9. The LED must be on for option 2. If the LED is illuminated no action is required. If the LED is not illuminated, press and release the remote start fob button and verify the LED illuminates.

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

10. Press and release the brake pedal.

The horn will honk 3 times indication the system has entered the option 3 of the first program bank.

11. The LED must be on for option 3. If the LED is illuminated no action is required. If the LED is not illuminated press the remote start fob button and verify the LED illuminates.

12. Press and release the override button. The horn will honk 5 times indicating the system has entered the second option bank.

13. Press and release the brake pedal.

The horn will honk 1 time indication the system has entered the option 1 of the second program bank.

14. The LED must be ON for option 1. If the LED is illuminated ON, action is required. If the LED is not illuminated press the remote start fob and verify the LED illuminates.

NOTE: Vehicles equipped with a diesel engine go to the next step. Vehicles equipped with a gas engine skip step 15 and proceed to step 16.

15. Press and release the brake pedal until the horn honks 5 times.

The LED must be ON for option 5. If the LED is ON no action is required. If the LED is OFF, press the remote start fob button to verify that the LED is OFF.

NOTE: The remote start module is now programmed.

16. Remove the ignition key.

Programming the SECURILOCK

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


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

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

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

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

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

19. Press and hold the remote start button  twice within 3 seconds.

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

GENERAL PROCEDURES (Continued)

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

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

20. Place a key in the ignition and turn to the RUN position.

Depress the brake pedal and place the transmission selector lever in gear.

The vehicle should run without interruption.

GENERAL PROCEDURES

Functional Test - Bidirectional Remote Start

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

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

1. Make sure all doors are closed but hood is open and windows are down (doors will be locking).
2. Press the Start button on the remote control key fob twice within 3 seconds - Horn should honk once indicating receipt of the start request.
3. The remote start systems should turn on the ignition, but then honk the horn twice and shut down indicating the hood is open.
4. Close the hood, and insert a key into the ignition switch.
5. Attempt to re-start the vehicle again using the key fob.
6. The remote start systems should turn on the ignition, but then honk the horn five times and shut down indicating a key is in the ignition switch.
7. Remove the key and open a door.
8. Attempt to re-start the vehicle again using the key fob.
9. The remote start systems should turn on the ignition, but then honk the horn three times and shut down indicating a door is open.
10. Close the door.
11. Attempt to re-start the vehicle again using the key fob.
12. Once the vehicle starts, verify that all heat and A/C functions operate normally and that the doors have locked.
13. On vehicles equipped with power window interrupt, Attempt to close windows to check power window interrupt function.
14. Once all systems have been checked, press the brake pedal - the remote start systems should shut down.

Troubleshooting

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

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

CHIRPS	PROBLEM
1 Chirp	SECURILOCK not programmed correctly, or the SECURILOCK antenna ring is damaged.
2 Chirps	BRAKE is being pressed, or the HOOD is open.
3 Chirps	One of the vehicles DOORS are open.
4 Chirps	TACH not programmed.
5 Chirps	The KEY is in the ignition.
6 Chirps	The remote start system is in SERVICE/VALET mode.

TYPE "B" CUSTOM WIRE HARNESS

RMST MODULE WIRE HARNESS

STEERING COLUMN HARNESS

	Color	Function
A-7	PINK	Ignition Input/Output
B-3	PINK/WHITE	Ignition 2 Output
B-4	ORANGE	HVAC 1 Output
B-5	ORANGE/WHITE	HVAC 2 Output
A-8	VIOLET	Starter Output
A-4	RED	Battery
B-2	RED	Battery
B-1	BLUE	Battery

DRIVER'S KICK PANEL HARNESS

	Color	Function
A-21	BROWN/BLACK	Horn Relay Output
B-8	BLACK/WHITE	Key-in-sense Input

DRIVER'S KICK PANEL HARNESS



	Color	Function
A-5	BLACK	Ground
A-20	GREEN/VIOLET	Door Ajar Switch Input
A-24	BLUE	Door Lock Output
A-1	WHITE	Parking Light Output
B-7	BROWN	Brake Input

UNDER HOOD HARNESS

	Color	Function
A-19	GRAY	Hood Open Switch Input

VEHICLE HARNESS

IGNITION SWITCH



Horn (BLUE/WHITE) 
Key-in Sense (BLUE/GRAY) 
BROWN CONNECTOR RIGHT SIDE OF STEERING COLUMN

MAKE THIS CONNECTION FIRST!

CHASSIS GROUND POINT IN DRIVER'S KICK PANEL



Dome Light (GRAY/VIOLET) 
Door Lock (PINK/YELLOW) 
DRIVER'S KICK PANEL

Parking Lights(VIOLET/WHITE) 
Brake (VIOLET/WHITE) 
BRAKE SWITCH**

Vehicle Interior

Engine Compartment

Hood Tilt Switch

Chassis Ground



Do Not Ground to Hood!

** Alternate color and location: LT. GREEN located in Driver's Side Kick Panel

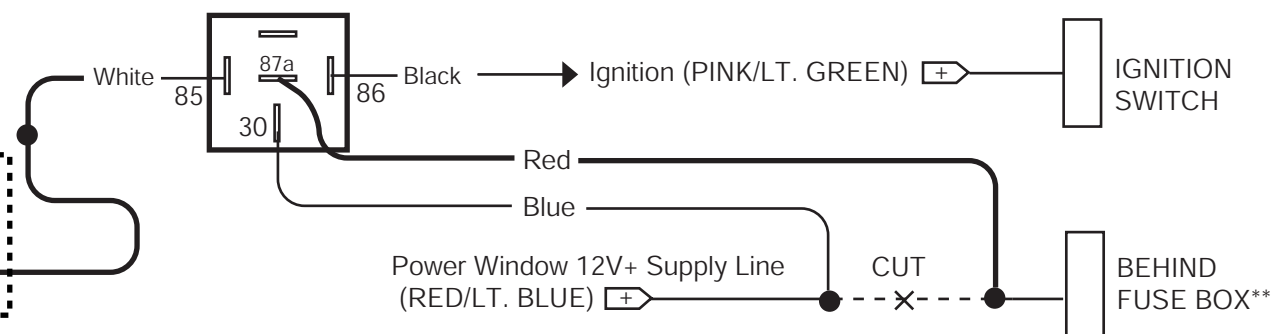
POWER WINDOW INTERRUPT

Relays shown are not supplied in kit. Relays are available by ordering Ford part number YL3Z-19G390-AA (Single) or YL3Z-19G390-BA (10 pack).

RMST MODULE WIRE HARNESS

POWER WINDOW INTERRUPT

	Color	Function
B-10	BLUE/BLACK	Active Output



**Fuse box must be removed by unclipping and sliding back to access the RED/LT. BLUE wire located behind fuse #42 on the right side.

CAUTION: REMOVE YELLOW WIRE AND TERMINAL FROM RELAY SOCKETS

REMOTE START SYSTEM INSTALLATION

CONTENTS

INSTALLATION

[Remote Start](#)

GENERAL PROCEDURES

[Proper Splicing Techniques](#)

[Programming - Standard Remote Start](#)

[Functional Test - Standard Remote Start](#)

[Programming - Bidirectional Remote Start](#)

[Functional Test - Bidirectional Remote Start](#)

[Troubleshooting](#)

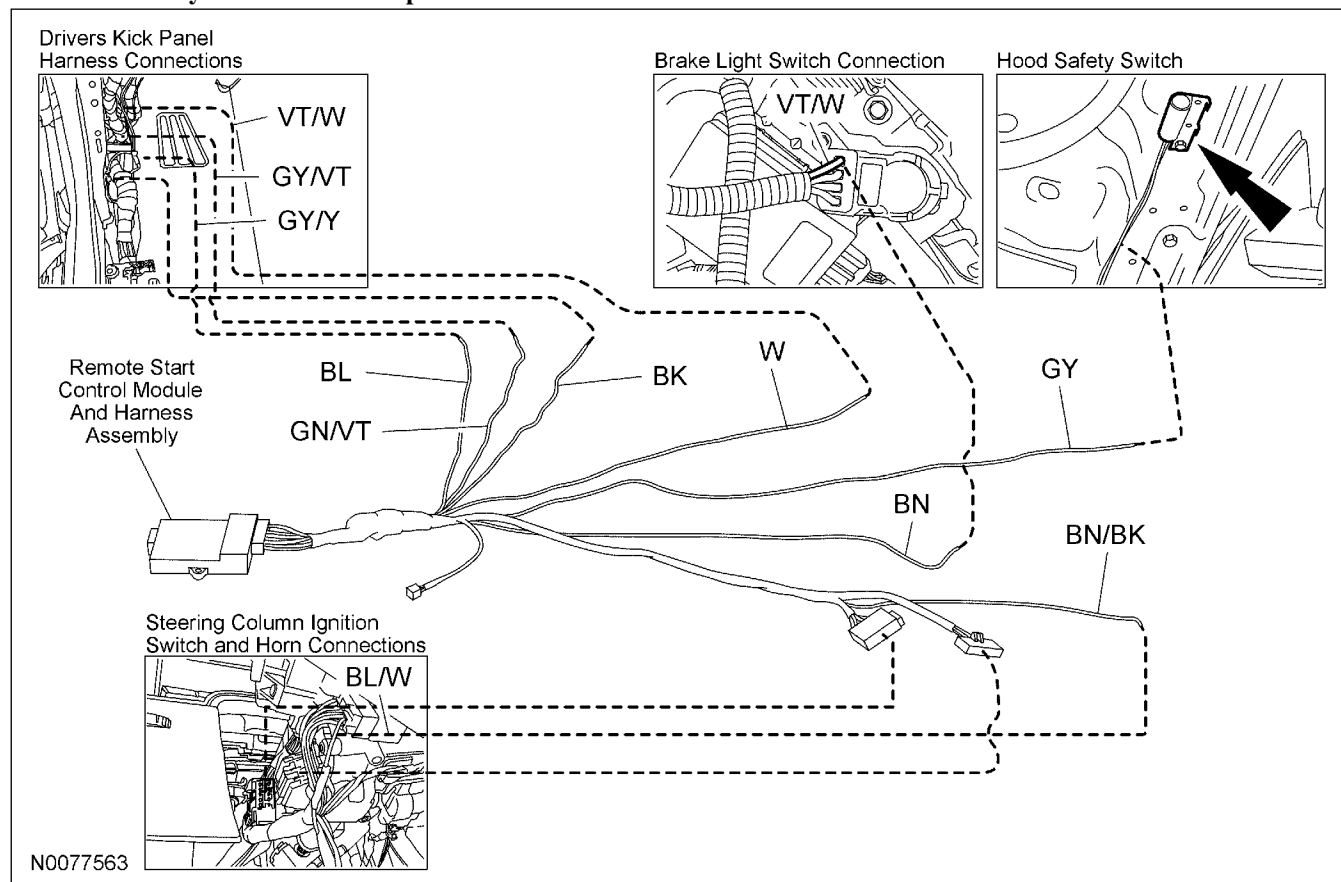
WIRING DIAGRAMS

[Vehicle Specific Wiring Diagrams](#)

REMOVAL AND INSTALLATION

Remote Start

Remote Start System RMST Components



Edge/MKX

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

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

1. Verify correct kit number.

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

NOTE: Use kit number 7L2Z-19G364-AA (GFA) REMOTE START SYSTEM

9G1Z-19G364-A (GFA) BIDIRECTIONAL REMOTE START SYSTEM.

NOTE: Kits are vehicle specific and are not interchangeable.

2. Review the RMST kit contents.

Remote Start System Standard Kit (RMST) Type - "A"

QUANTITY	DESCRIPTION
1	TYPE - "A" MODULE ASSEMBLY
1	RMST SOFTWARE CARTRIDGE ASSEMBLY
2	1 BUTTON POWERCODE TRANSMITTER
1	TYPE - "A" CUSTOM WIRING HARNESS
1	ANTENNA
1	HOOD SAFETY SWITCH ASSEMBLY
1	INSTALLATION PARTS BAG
1	FUSE PARTS BAG
1	OPERATORS INSTRUCTIONS
1	OPERATORS QUICK REFERENCE WALLET CARD
1	UNDERHOOD WARNING LABEL
1	SECURILOCK INTERFACE KIT

3. Review the RMST bidirectional kit contents.

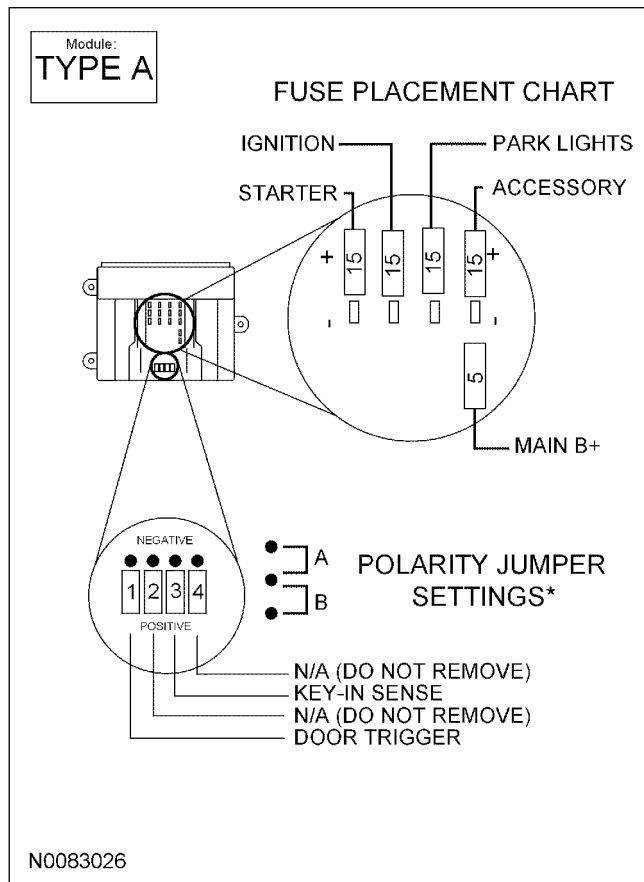
Remote Start System Bidirectional Kit (RMST) Type - "A"

QUANTITY	DESCRIPTION
1	TYPE - "A" MODULE ASSEMBLY
1	RMST SOFTWARE CARTRIDGE ASSEMBLY
1	2 BUTTON POWERCODE TRANSMITTER
1	TYPE - "A" CUSTOM WIRING HARNESS
1	ANTENNA
1	ANTENNA HARNESS
1	HOOD SAFETY SWITCH ASSEMBLY
1	INSTALLATION PARTS BAG
1	FUSE PARTS BAG
1	OPERATORS INSTRUCTIONS
1	OPERATORS QUICK REFERENCE WALLET CARD
1	UNDERHOOD WARNING LABEL
1	SECURILOCK INTERFACE KIT

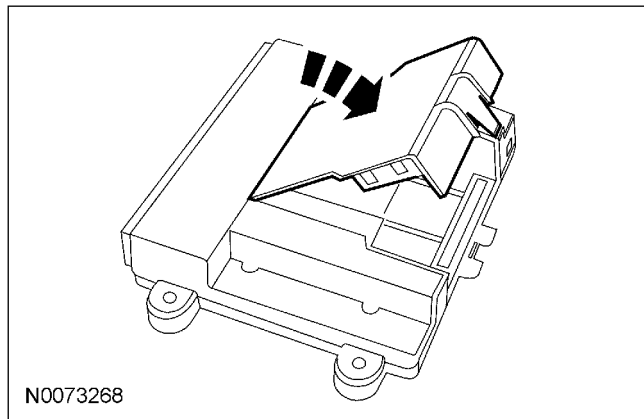
Module Preparation

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

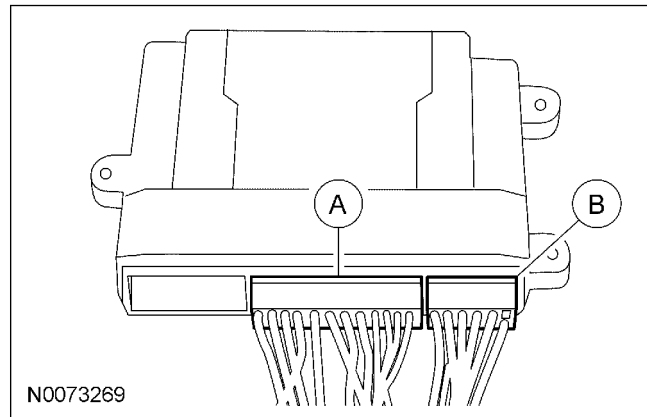
INSTALLATION (Continued)



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



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

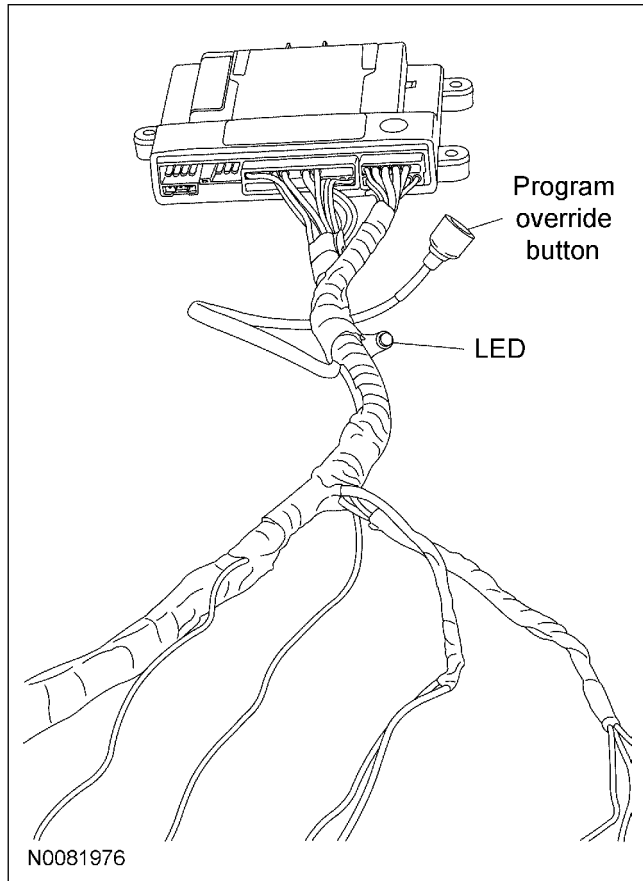


7. **NOTE:** Do not cut the override programming button off of the harness, it is used for all installations.

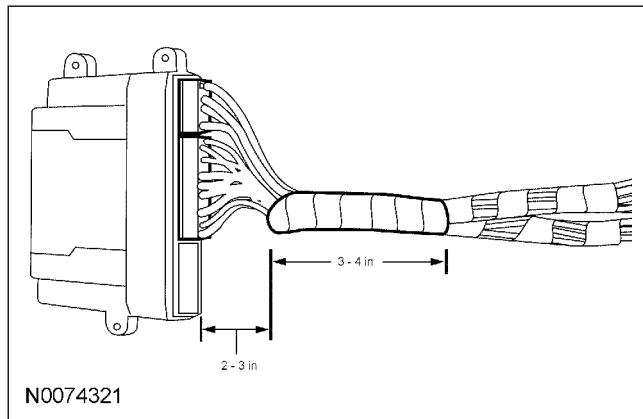
NOTE: For vehicle specific wiring diagram(s) [click here](#).

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

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

INSTALLATION (Continued)

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

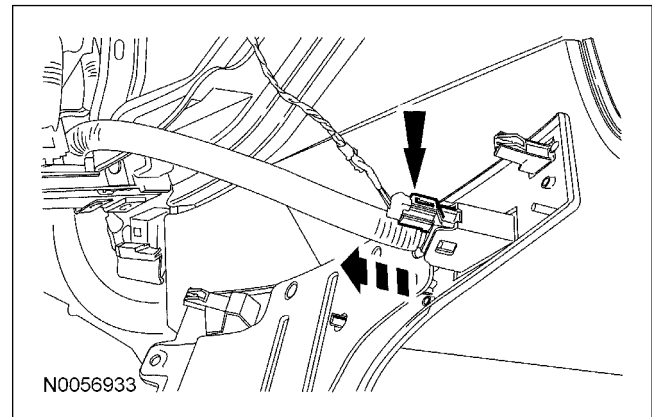
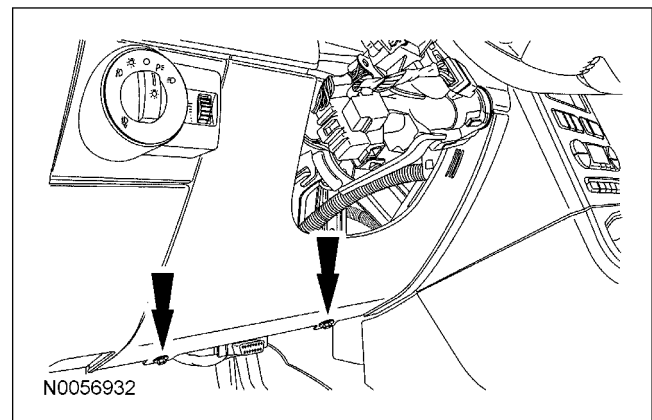
**Vehicle Preparation**

NOTE: Release the upper steering column shroud by pressing inward on the sides and lifting upwards.

9. Remove the upper steering column shroud.
10. Release the tilt lever, remove the 3 screws and then remove the lower steering column shroud.

NOTE: The top of the instrument panel steering column cover is held in by tabs that clip into the instrument panel.

11. Remove the 2 instrument panel steering column cover screws.
- Detach the instrument panel steering column cover by pulling straight outward.
12. If equipped, disconnect the electrical connector and hose from the temperature sensor.
- Remove the instrument panel steering column cover.



13. Remove the left hand scuff plate and cowl trim panel.

Antenna Mounting

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

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

REMOVAL AND INSTALLATION (Continued)

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

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

Install The Antenna

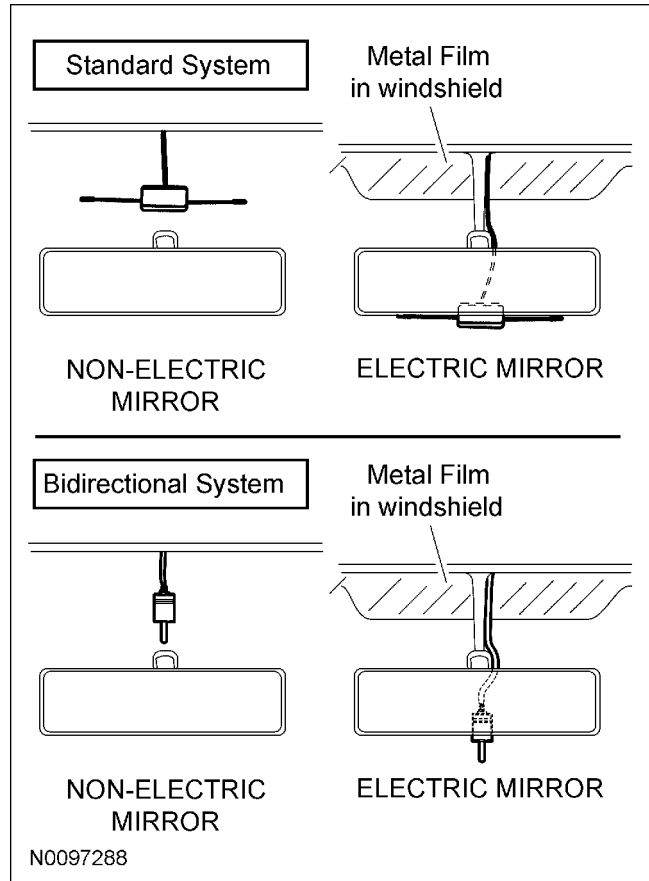
15. Clean the mounting surface using an alcohol base solution and a clean cloth.

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

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

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

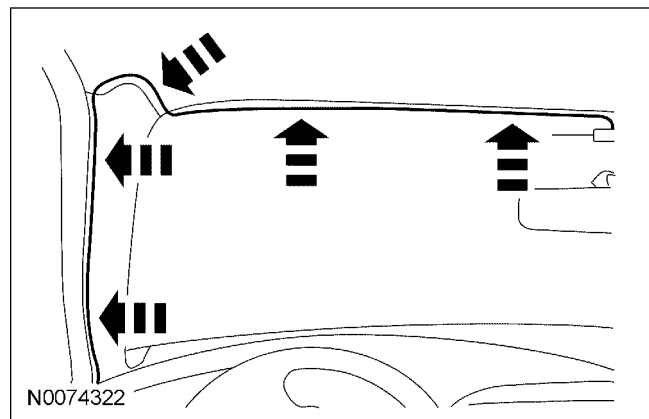
Remove the protective backing from the adhesive on the antenna and firmly press the body of the antenna to the windshield.



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

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

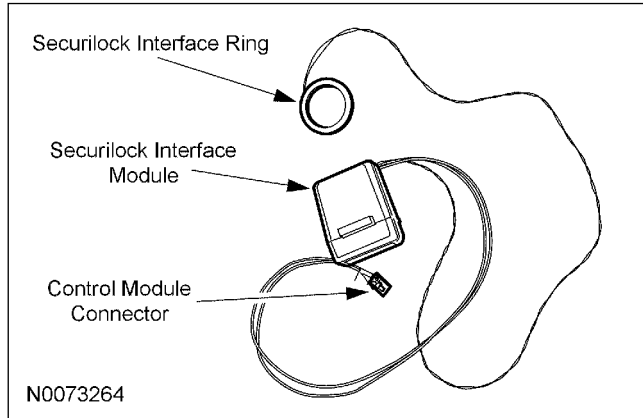
18. Route the antenna cable along the headliner and down the A pillar towards the floor.



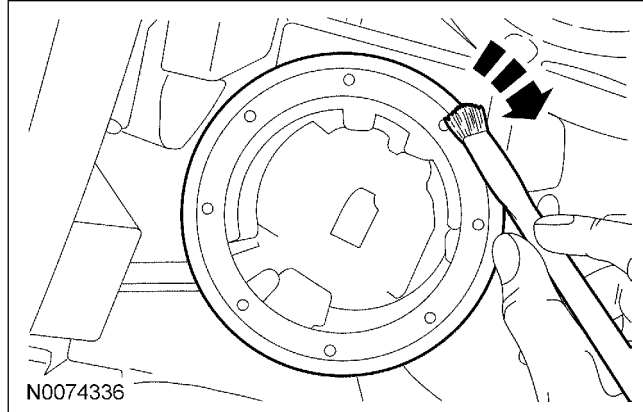
19. Reposition the A pillar trim panel.

INSTALLATION (Continued)**Install The Securilock Interface Kit**

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



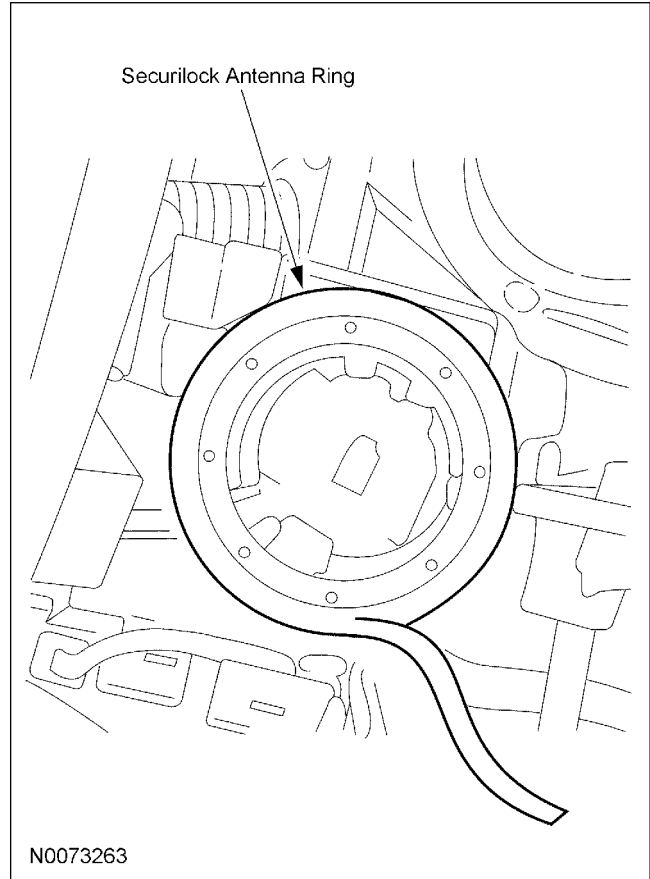
21. Following the directions on the supplied tube of adhesive primer, apply a thin coating around the transceiver antenna coil and allow to dry for approximately 5 minutes.



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

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

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

**Install The Securilock Interface Module**

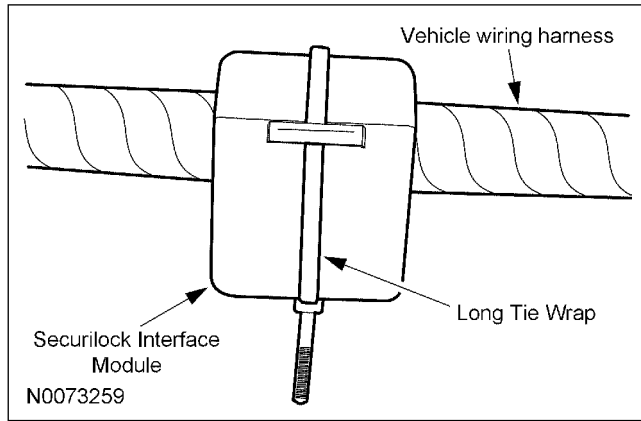
23. **NOTE:** Do Not mount the SECURILOCK Interface Module to or within 3" of a metal surface, including any underdash brackets, or in the knee bolster area.

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

INSTALLATION (Continued)

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

Route the harness and connector to the module mounting location.

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

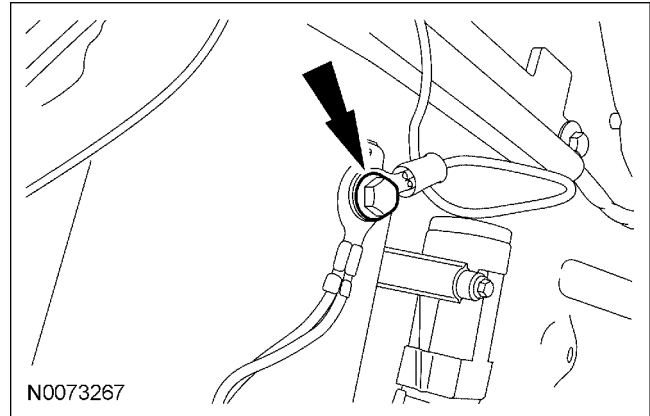
25. Place the remote start module and harness assembly on the floor of the vehicle.

Identify Circuit Wires For Connections

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

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

26. Connect the Black ground wire from the remote start module harness to the chassis ground point at the driver kick panel.
27. Disconnect the ignition switch electrical connector.
28. Connect the remote start harness hard shell connectors to the ignition switch and ignition switch connector.



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

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

Identify the Blue/White horn circuit wire in the steering column harness.

30. Connect the Brown/Black wire from the remote start module harness to the Blue/White horn circuit wire in the steering column harness.
31. **NOTE:** A DVOM connected to the correct wire will show 12V, then show 0V when the door lock switch is pressed.
- A logic probe will show open on the correct wire, then show ground when the door lock switch is pressed.
- Identify the Gray/Yellow power door lock circuit wire at the driver kick panel harness.
32. Connect the Blue wire from the remote start module harness to the Gray/Yellow power door lock circuit at the driver kick panel harness.

INSTALLATION (Continued)

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

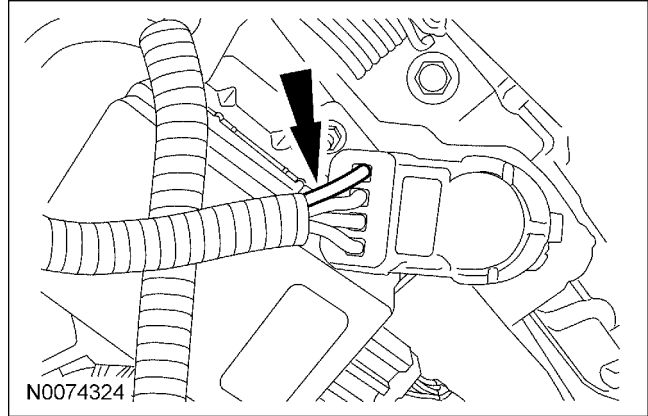
NOTE: A logic probe connected to the correct wire will show power with the vehicle door(s) open and the dome light ON, then show ground with the vehicle door(s) closed and the dome light OFF.

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

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

Identify the Grey/Violet dome light circuit wire at the driver kick panel.

34. Connect the Green/Violet wire from the remote start module harness to the Grey/Violet dome light circuit wire at the driver kick panel.
35. **NOTE:** A DVOM connected to the correct wire will show 0V, when the headlight switch is ON, then show 12V when the headlight switch is OFF.
- NOTE:** A logic probe will show ground on the correct wire when the headlight switch is ON, then show power when the headlight switch is OFF.
- Identify the Violet/White parking light on circuit wire at the driver kick panel.
36. Connect the White wire from the remote start module harness to the Violet/White parking light on circuit at the driver kick panel.
37. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V while depressing the brake pedal.
- A logic probe will show open when on the correct wire, then show power while depressing the brake pedal.
- Identify the Violet/White brake switch circuit wire at the brake switch.



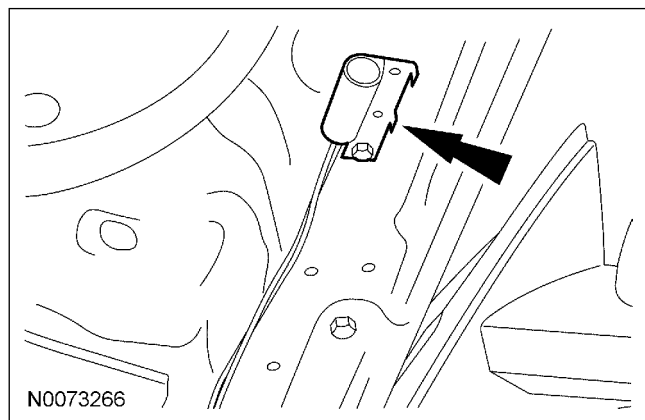
38. Connect the Brown wire from the remote start module harness to the Violet/White brake switch circuit wire at the brake switch.

Install The Hood Safety Switch

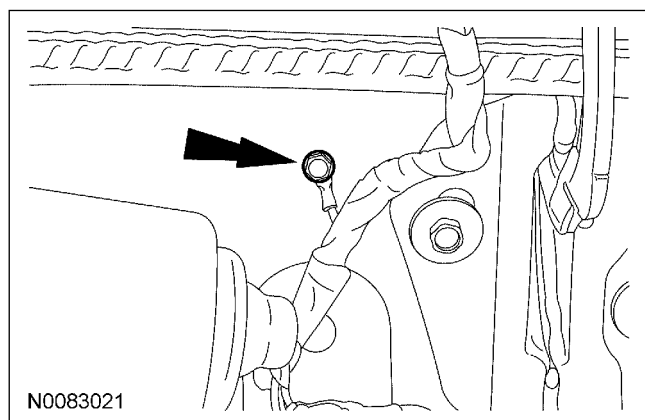
39. **NOTE:** Route the hood safety switch wire carefully avoiding any moving parts or components that can produce excessive heat.
- NOTE:** Using a piece of convolute adds in the appearance of the installation.
- NOTE:** The switch should be positioned about 30 degrees below parallel to the ground to accommodate for parking on inclines.
- Failure to position the switch properly could result in one of the following:
- False alarm trips
 - Non-Remote Start events
 - Inadvertent shutdown during Remote Start
- Locate an easy to access area near the driver side hood hinge and install the hood safety switch using the supplied metal screws.

INSTALLATION (Continued)

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

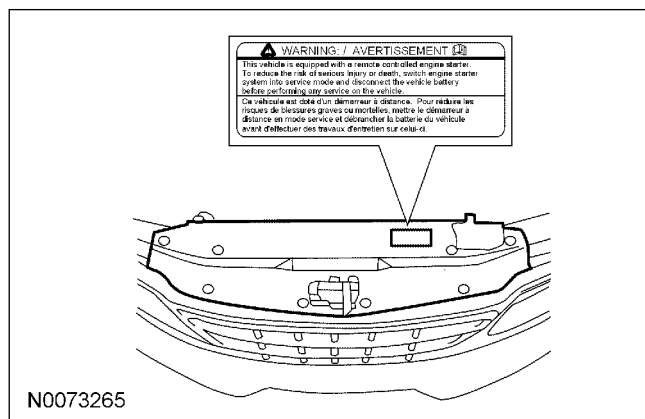


41. Connect hood switch ground wire to a suitable location on the bulkhead.



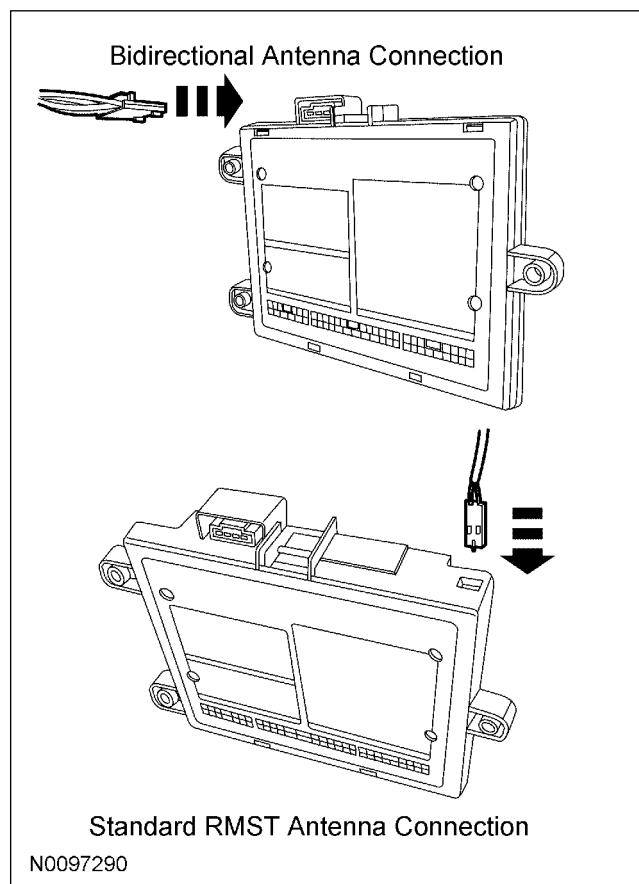
42. **NOTE:** Place the label on the radiator fan shroud or similar area.

Install the underhood warning label



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

44. Connect the antenna to the RMST control module.



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

Program The RMST System

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

Secure RMST Harness and Control Module

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

INSTALLATION (Continued)

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

Secure the control module at three points to the vehicle.

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

Install Trim

49. Install the left hand cowl trim panel.

- 1 Install the cowl trim panel.
- 2 Install the scuff plate.

50. If equipped, connect the electrical connector and hose to the temperature sensor.

- Install the instrument panel steering column cover.

51. Install the 2 instrument panel steering column cover screws.

- Attach the instrument panel steering column cover by pushing straight inward.

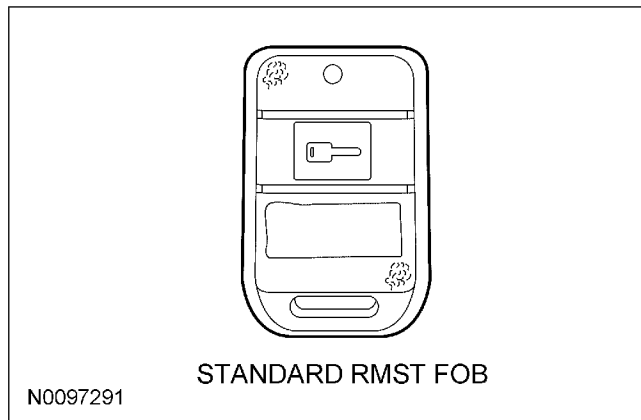
52. Install the lower steering column shroud, install the 3 screws.

53. Install the upper steering column shroud.
-

GENERAL PROCEDURES

Programming - Standard Remote Start

Programming the Module



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

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

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

NOTE: The remote start override button must be accessible.

Programming Options: Entering Programming Mode

- See chart below for programming information.

Program Bank 2 Chart (5 Honks)

BANK	OPTIONS	DESCR	LED
2	1	TACHLESS MODE	ON

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

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

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

Release the brake pedal and the RMST override button.

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

If not, please check the following:

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

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

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

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

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

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

GENERAL PROCEDURES (Continued)

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

NOTE: The remote start module is now programmed.

10. Remove the ignition key.

Programming the SECURILOCK

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

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

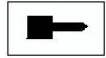
11. Insert the first ignition key and turn to the run position.

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

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

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

13. Press and hold the remote start button



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

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

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

14. Place a key in the ignition and turn to the RUN position.

Depress the brake pedal and place the transmission selector lever in gear.

The vehicle should run without interruption.

GENERAL PROCEDURES

Functional Test - Standard Remote Start

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

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

1. Make sure all doors are closed but hood is open and windows are down (doors will be locking).
2. Press and hold the Start button on the remote control key fob for 2-3 seconds - Horn should honk once indicating receipt of the start request.
3. The remote start systems should turn on the ignition, but then honk the horn twice and shut down indicating the hood is open.
4. Close the hood, and insert a key into the ignition switch.
5. Attempt to re-start the vehicle again using the key fob.
6. The remote start systems should turn on the ignition, but then honk the horn five times and shut down indicating a key is in the ignition switch.
7. Remove the key and open a door.
8. Attempt to re-start the vehicle again using the key fob.
9. The remote start systems should turn on the ignition, but then honk the horn three times and shut down indicating a door is open.
10. Close the door.
11. Attempt to re-start the vehicle again using the key fob.
12. Once the vehicle starts, verify that all heat and A/C functions operate normally and that the doors have locked.
13. On vehicles equipped with power window interrupt, Attempt to close windows to check power window interrupt function.
14. Once all systems have been checked, press the brake pedal - the remote start systems should shut down.

Troubleshooting

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

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

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

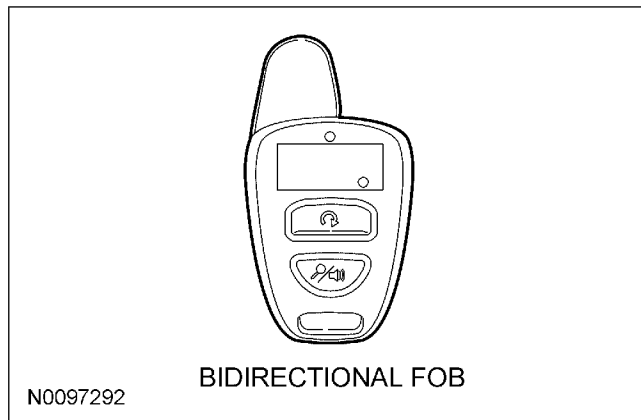
GENERAL PROCEDURES (Continued)

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

GENERAL PROCEDURES

Programming - Bidirectional Remote Start

Programming the Module



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

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

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

NOTE: The remote start override button must be accessible.

Programming Options: Entering Programming Mode

- See chart below for programming information.

Program Bank 2 Chart (5 Honks)

BANK	OPTIONS	DESCR	LED
2	1	TACHLESS MODE	ON

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

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

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

Release the brake pedal and the RMST override button.

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

If not, please check the following:

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

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

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

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

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

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

GENERAL PROCEDURES (Continued)

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

NOTE: The remote start module is now programmed.

10. Remove the ignition key.

Programming the SECURILOCK

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


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

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

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

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

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

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

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

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

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

14. Place a key in the ignition and turn to the RUN position.

Depress the brake pedal and place the transmission selector lever in gear.

The vehicle should run without interruption.

GENERAL PROCEDURES

Functional Test - Bidirectional Remote Start

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

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

1. Make sure all doors are closed but hood is open and windows are down (doors will be locking).
2. Press the Start button on the remote control key fob twice within 3 seconds - Horn should honk once indicating receipt of the start request.
3. The remote start systems should turn on the ignition, but then honk the horn twice and shut down indicating the hood is open.
4. Close the hood, and insert a key into the ignition switch.
5. Attempt to re-start the vehicle again using the key fob.
6. The remote start systems should turn on the ignition, but then honk the horn five times and shut down indicating a key is in the ignition switch.
7. Remove the key and open a door.
8. Attempt to re-start the vehicle again using the key fob.
9. The remote start systems should turn on the ignition, but then honk the horn three times and shut down indicating a door is open.
10. Close the door.
11. Attempt to re-start the vehicle again using the key fob.
12. Once the vehicle starts, verify that all heat and A/C functions operate normally and that the doors have locked.
13. On vehicles equipped with power window interrupt, Attempt to close windows to check power window interrupt function.
14. Once all systems have been checked, press the brake pedal - the remote start systems should shut down.

Troubleshooting

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

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

CHIRPS	PROBLEM
1 Chirp	SECURILOCK not programmed correctly, or the SECURILOCK antenna ring is damaged.
2 Chirps	BRAKE is being pressed, or the HOOD is open.
3 Chirps	One of the vehicles DOORS are open.
4 Chirps	TACH not programmed.
5 Chirps	The KEY is in the ignition.
6 Chirps	The remote start system is in SERVICE/VALET mode.

'09 Edge/MKX

TYPE "A" CUSTOM WIRE HARNESS

RKE MODULE WIRE HARNESS

STEERING COLUMN HARNESS

	Color	Function
A-3	PINK	Ignition Input/Output
A-2	ORANGE	HVAC Output
A-13	VIOLET	Starter Output
B-8	BLACK/WHITE	Key-in-sense Input
A-4	RED	Battery

	Color	Function
A-21	BROWN/BLACK	Horn Relay Output

DRIVER'S KICK PANEL HARNESS

	Color	Function
A-5	BLACK	Ground
A-24	BLUE	Door Lock Output
A-20	GREEN/VIOLET	Door Ajar Switch Input
A-1	WHITE	Parking Light Output
B-7	BROWN	Brake Input

UNDER HOOD HARNESS

	Color	Function
A-19	GRAY	Hood Open Switch Input

VEHICLE HARNESS

IGNITION SWITCH

Horn (BLUE/WHITE)

STEERING COLUMN HARNESS

MAKE THIS CONNECTION FIRST!

CHASSIS GROUND POINT
IN DRIVER'S KICK PANEL

Door Lock (GRAY/YELLOW)

DRIVERS KICK PANEL

Dome Light (GRAY/VIOLET)

DRIVERS KICK PANEL
OR
SJB C4-20

Parking Lights On (VIOLET/WHITE)

Brake (VIOLET/WHITE)

BRAKE SWITCH

Hood Tilt Switch

Chassis Ground

Do Not Ground to Hood!

[Manual Table of Contents](#)

REMOTE START SYSTEM INSTALLATION

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[Proper Splicing Techniques](#)

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[Functional Test - Standard Remote Start](#)

[Programming - Bidirectional Remote Start](#)

[Functional Test - Bidirectional Remote Start](#)

[Troubleshooting](#)

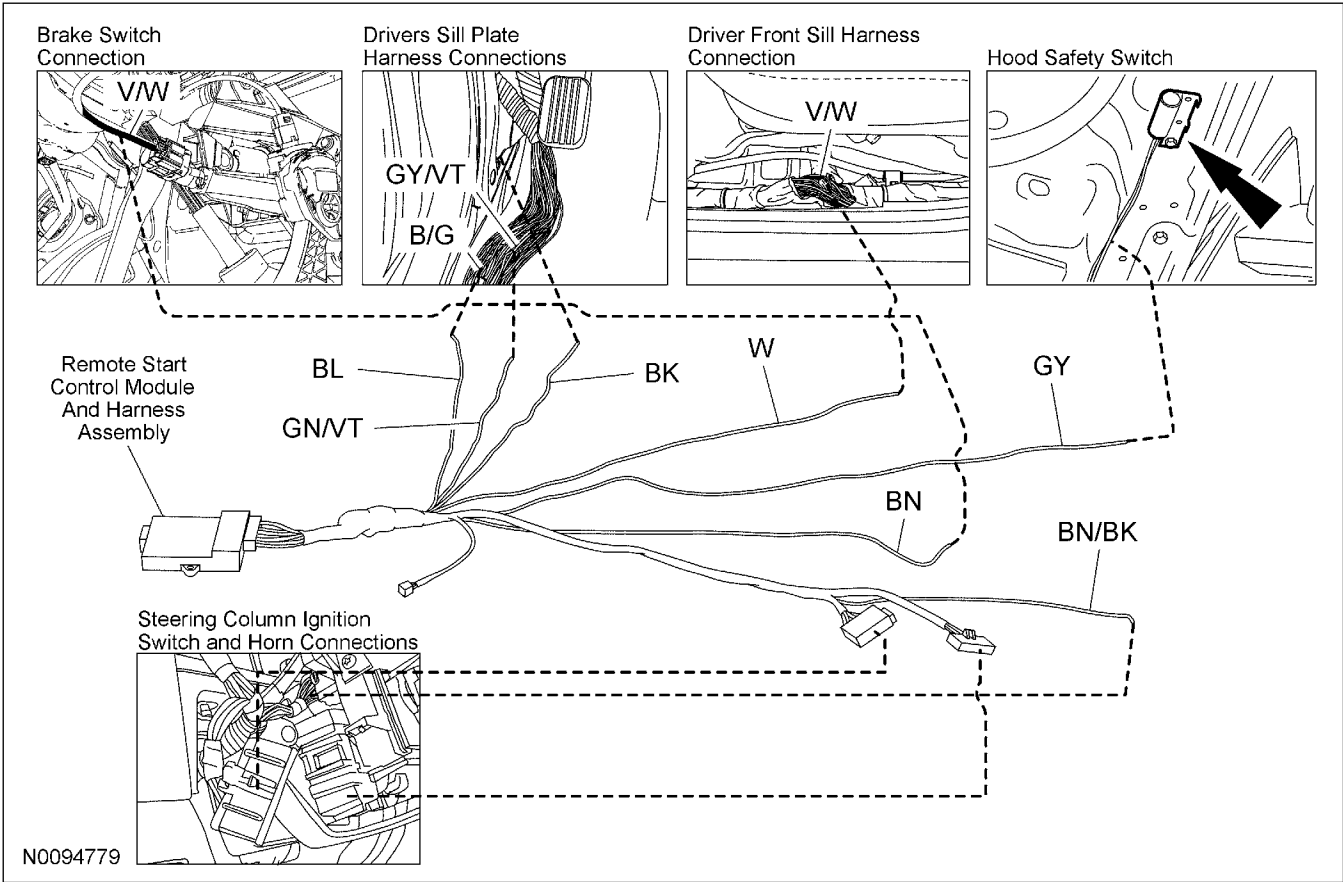
WIRING DIAGRAMS

[Vehicle Specific Wiring Diagrams](#)

INSTALLATION

Remote Start

Remote Start System RMST Components



Escape/Mariner/Hybrid

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

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

- 1. Verify correct kit number.
- 2. Review the RMST kit contents.

Review Remote Start Installation Kit Contents

NOTE: Use kit number 7L2J-19G364-CC (FIA), or 7L2Z-19G364-AA (GFA) REMOTE START SYSTEM.
9G1Z-19G364-A (GFA) BIDIRECTIONAL REMOTE START SYSTEM.

NOTE: Kits are vehicle specific and are not interchangeable.

Remote Start System Standard Kit (RMST) Type - "A"

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

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

QUANTITY	DESCRIPTION
2	1 BUTTON POWERCODE TRANSMITTER
1	TYPE - "A" CUSTOM WIRING HARNESS
1	ANTENNA
1	HOOD SAFETY SWITCH ASSEMBLY
1	INSTALLATION PARTS BAG
1	FUSE PARTS BAG
1	OPERATORS INSTRUCTIONS
1	OPERATORS QUICK REFERENCE WALLET CARD
1	UNDERHOOD WARNING LABEL
1	SECURILOCK INTERFACE KIT

3. Review the RMST bidirectional kit contents.

Remote Start System Bidirectional Kit (RMST) Type - "A"

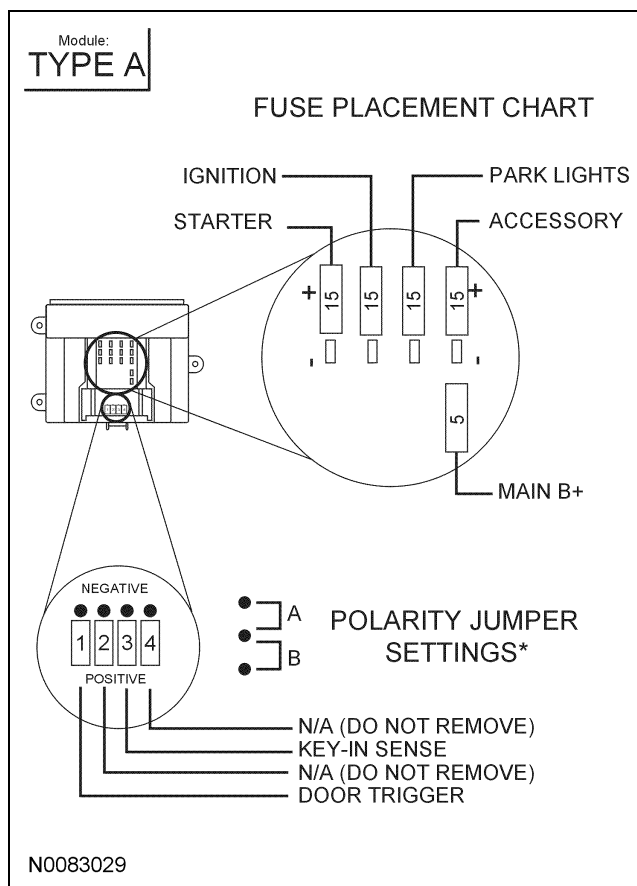
QUANTITY	DESCRIPTION
1	TYPE - "A" MODULE ASSEMBLY
1	RMST SOFTWARE CARTRIDGE ASSEMBLY
1	2 BUTTON POWERCODE TRANSMITTER
1	TYPE - "A" CUSTOM WIRING HARNESS
1	ANTENNA
1	ANTENNA HARNESS
1	HOOD SAFETY SWITCH ASSEMBLY
1	INSTALLATION PARTS BAG
1	FUSE PARTS BAG
1	OPERATORS INSTRUCTIONS

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

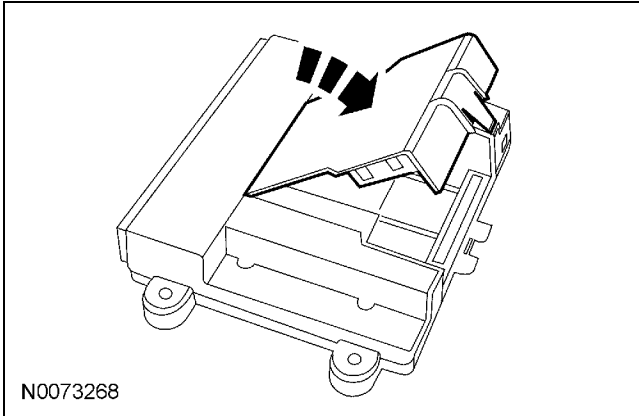
QUANTITY	DESCRIPTION
1	OPERATORS QUICK REFERENCE WALLET CARD
1	UNDERHOOD WARNING LABEL
1	SECURILOCK INTERFACE KIT

Module Preparation

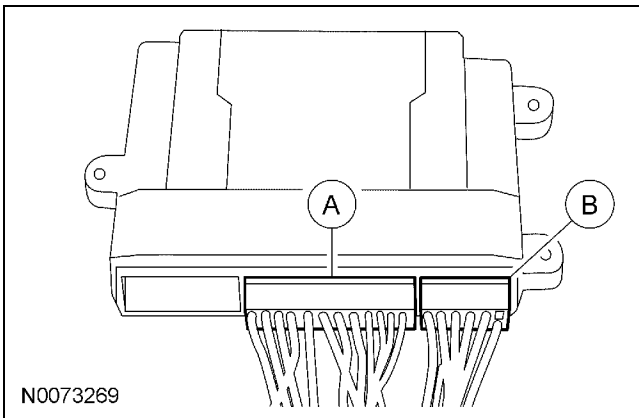
4. Place the supplied fuses into the power distribution block on the remote start control module.
- Move the polarity jumpers to their proper locations on the control module, see illustration.



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

INSTALLATION (Continued)

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

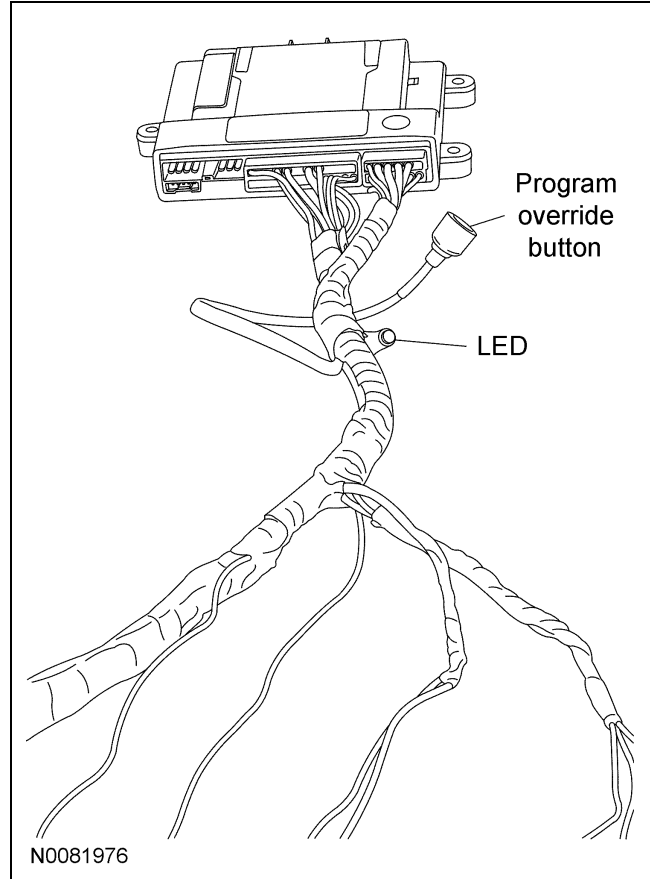


7. **NOTE:** Do not cut the override programming button off of the harness, it is used for all installations.

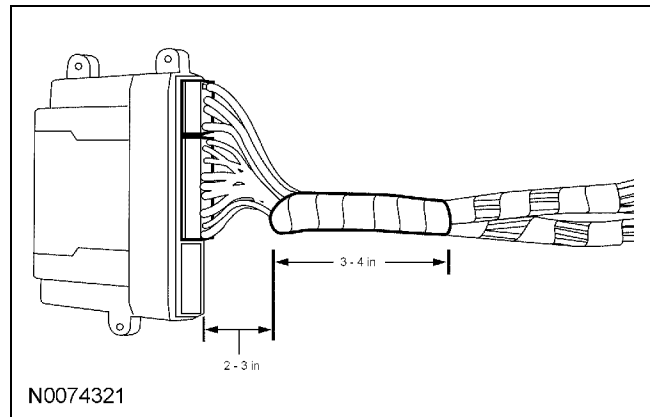
NOTE: For vehicle specific wiring diagram(s) [click here](#).

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

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



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

**Vehicle Preparation**

9. Remove the steering column opening trim.
10. Remove the 3 lower steering column shroud screws.
11. Remove the upper and lower steering column shrouds.

INSTALLATION (Continued)

12. Remove the left hand scuff plate and cowl trim panel.

Antenna Mounting

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

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

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

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

Install The Antenna

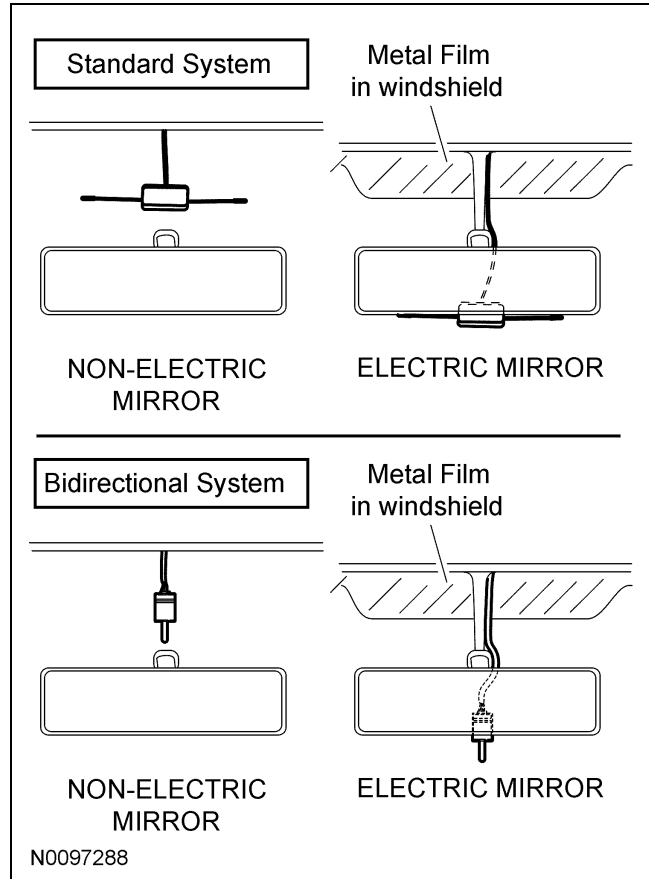
14. Clean the mounting surface using an alcohol base solution and a clean cloth.

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

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

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

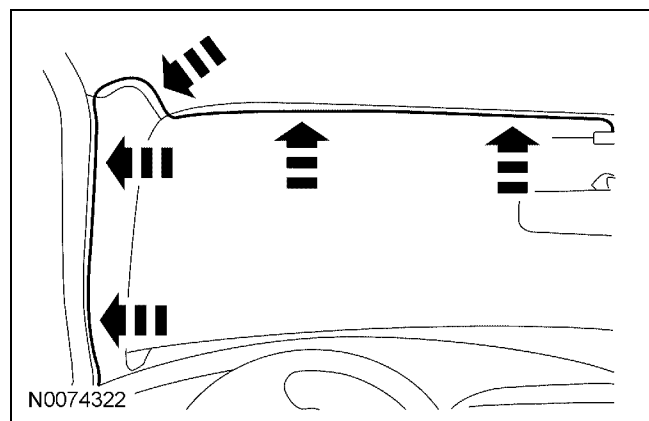
Remove the protective backing from the adhesive on the antenna and firmly press the body of the antenna to the windshield.



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

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

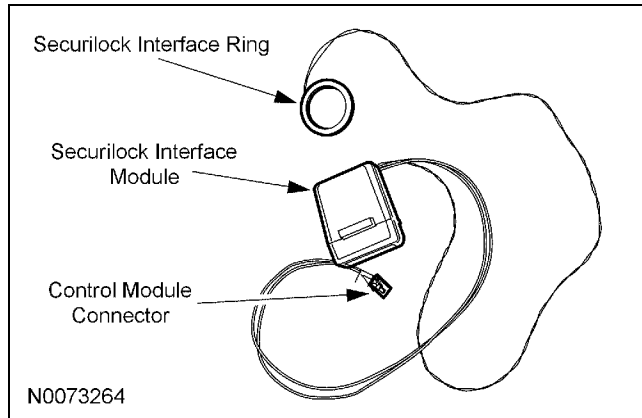
17. Route the antenna cable along the headliner and down the A pillar towards the floor.



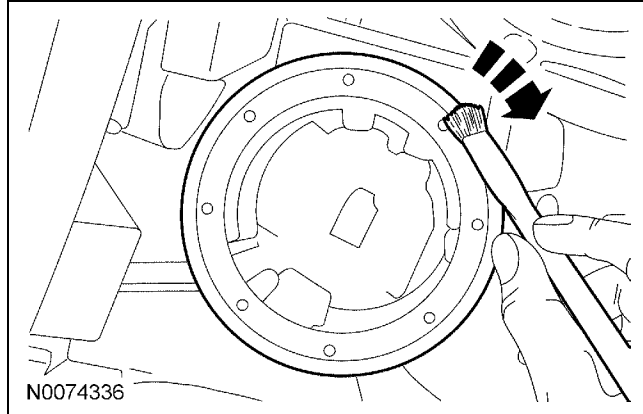
18. Reposition the A pillar trim panel.

INSTALLATION (Continued)**Install The Securilock Interface Kit**

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



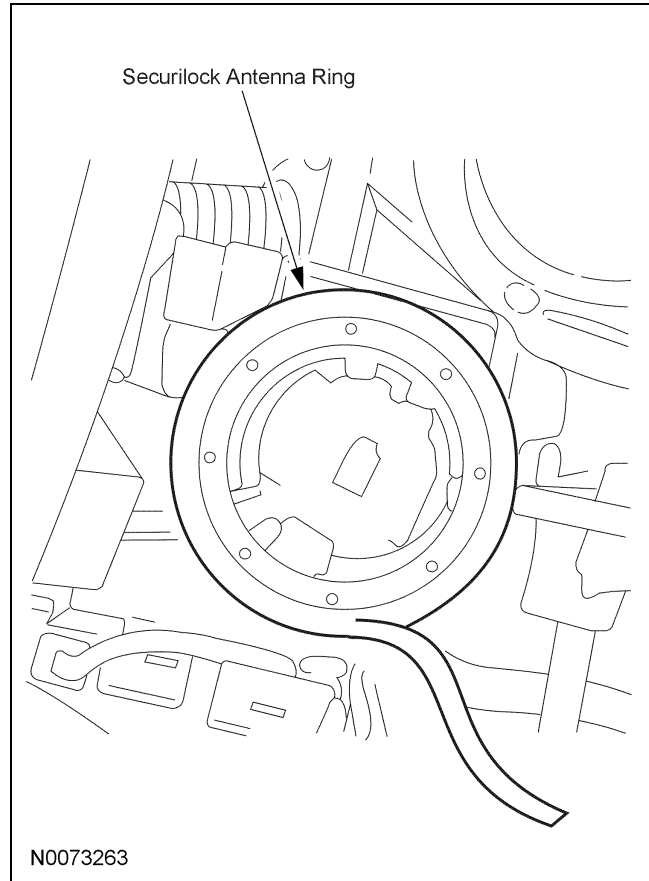
20. Following the directions on the supplied tube of adhesive primer, apply a thin coating around the transceiver antenna coil and allow to dry for approximately 5 minutes.



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

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

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

**Install The Securilock Interface Module**

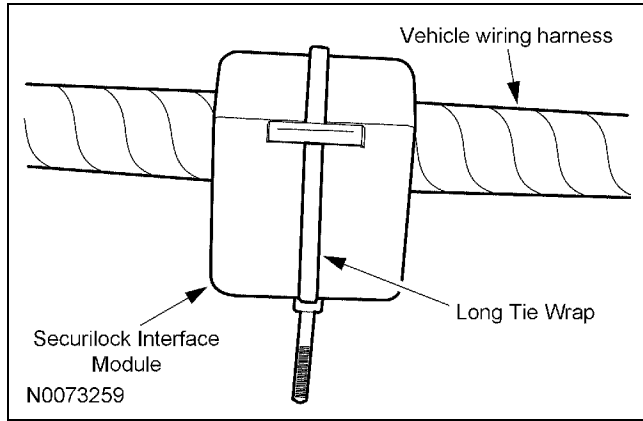
22. **NOTE:** Do Not mount the SECURILOCK Interface Module to or within 3" of a metal surface, including any underdash brackets, or in the knee bolster area.

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

INSTALLATION (Continued)

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

Route the harness and connector to the module mounting location.

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

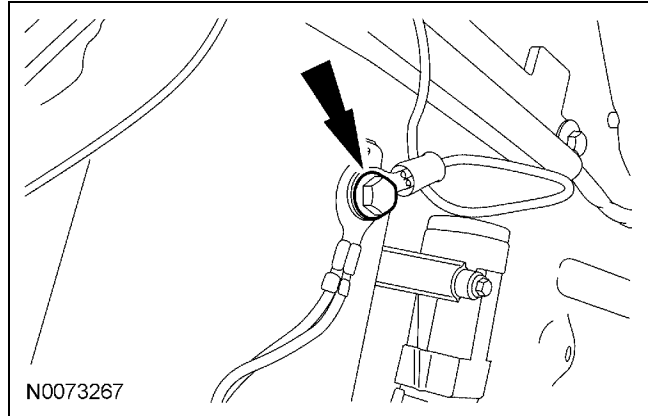
24. Place the remote start module and harness assembly on the floor of the vehicle.

Identify Circuit Wires For Connections

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

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

25. Connect the Black ground wire from the remote start module harness to the chassis ground point at the driver kick panel.
26. Disconnect the ignition switch electrical connector.
27. Connect the remote start harness hard shell connectors to the ignition switch and ignition switch connector.



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

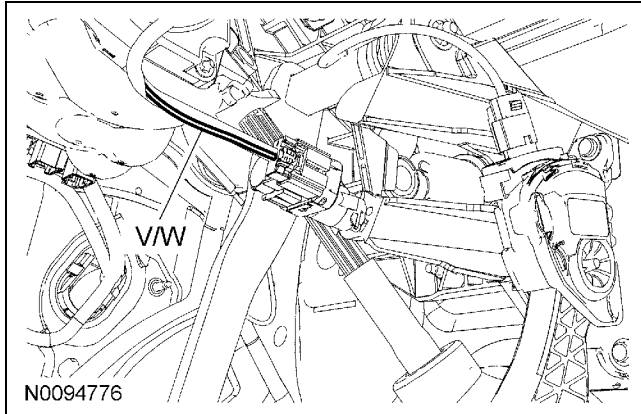
A logic probe will show power on the correct wire, then show ground when the horn button is held.

Identify the Brown horn circuit wire in the steering column harness.

29. Connect the Brown/Black wire from the remote start module harness to the Brown horn circuit wire in the steering column harness.
30. **NOTE:** A DVOM connected to the correct wire will show 12V, then show 0V when the door lock switch is pressed.
- A logic probe will show open on the correct wire, then show ground when the door lock switch is pressed.
- Identify the Blue/Green power door lock circuit wire at the driver kick panel for the.
31. Connect the Blue wire from the remote start module harness to the Blue/Green power door lock circuit at the driver kick panel harness location.
32. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V while depressing the brake pedal.
- A logic probe will show open on the correct wire, then show power while depressing the brake pedal.
- Identify the Violet/White brake output circuit wire at the brake switch.

INSTALLATION (Continued)

33. Connect the Brown wire from the remote start module harness to the Violet/White brake output circuit wire at the brake switch.



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

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

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

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

Identify the Grey/Violet dome light circuit wire at the driver kick panel.

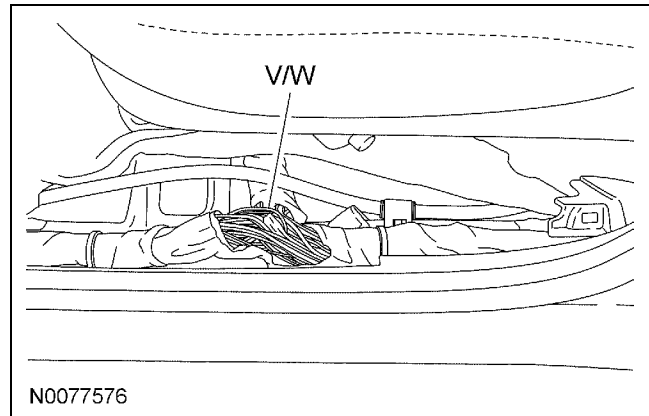
35. Connect the Green/Violet wire from the remote start module harness to the Grey/Violet dome light circuit wire at the driver kick panel.

36. **NOTE:** A DVOM connected to the correct wire will show 0V with the switch in the OFF position and 12V with the switch in the parking lights ON position.

A logic probe connected to the correct wire will show ground with the switch in the OFF position and power with the switch in the parking lights ON position.

Identify the Violet/White parking lights on circuit wire at the driver sill plate harness coming from passenger side heading toward rear.

37. Connect the White wire from the remote start module harness to the Violet/White parking lights on circuit wire at the driver sill plate harness coming from passenger side heading toward rear.

**Install The Hood Safety Switch**

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

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

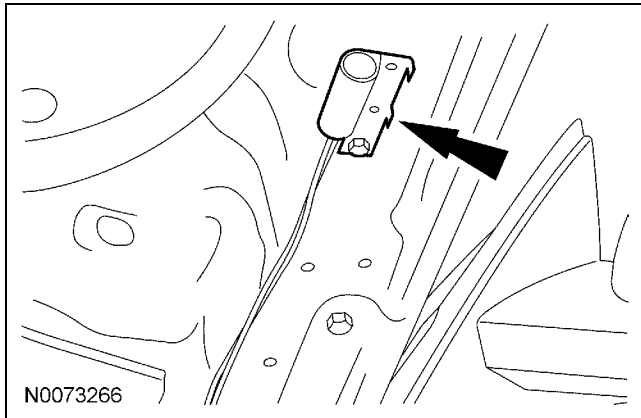
Failure to position the switch properly could result in one of the following:

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

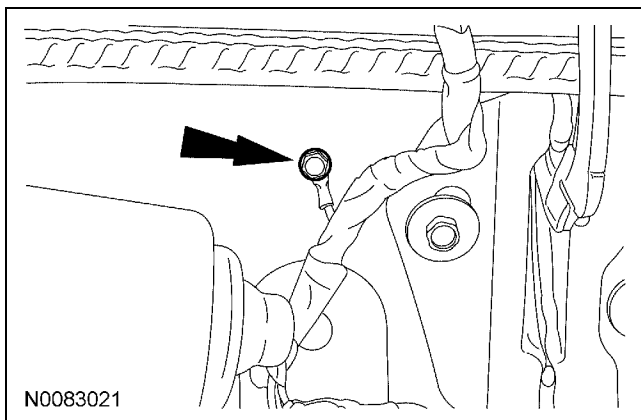
Locate an easy to access area near the driver side hood hinge and install the hood safety switch using the supplied metal screws.

INSTALLATION (Continued)

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

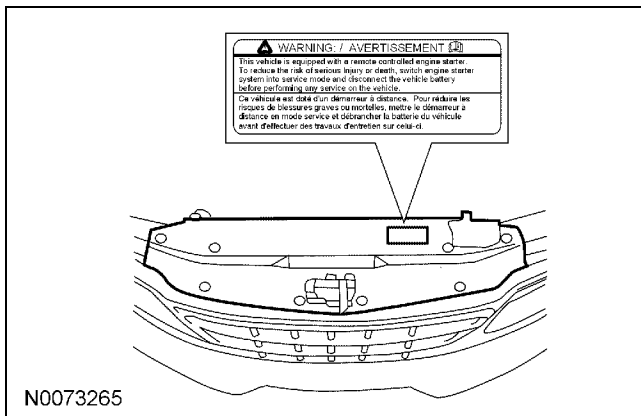


40. Connect hood switch ground wire to a suitable location on the bulkhead.



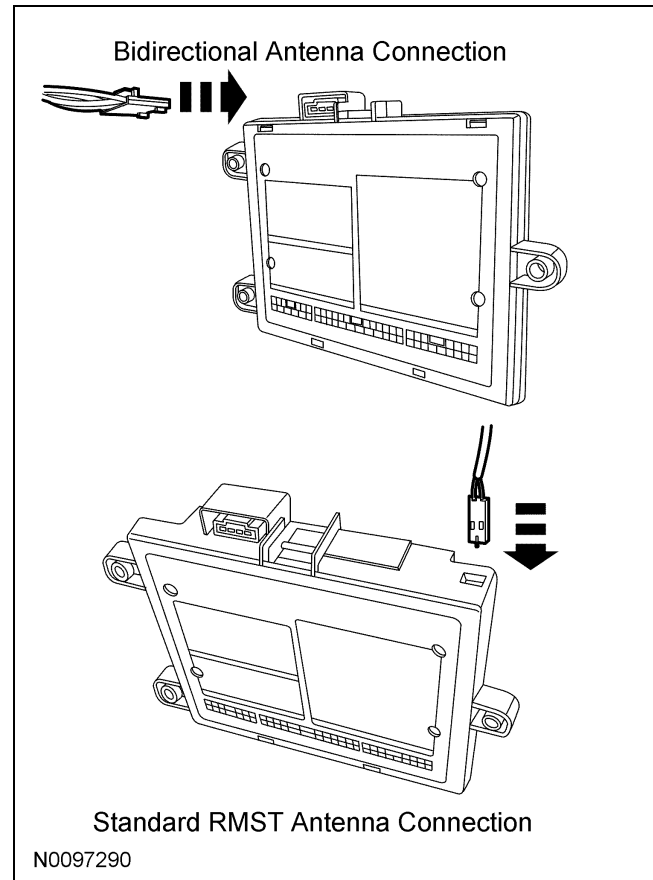
41. **NOTE:** Place the label on the radiator fan shroud or similar area.

Install the underhood warning label



42. Route the Gray hood safety switch wire through the bulkhead into the engine compartment and attach to the hood safety switch.

43. Connect the antenna to the RMST control module.



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

Program The RMST System

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

Secure RMST Harness and Control Module

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

INSTALLATION (Continued)

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

Secure the control module at three points to the vehicle.

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

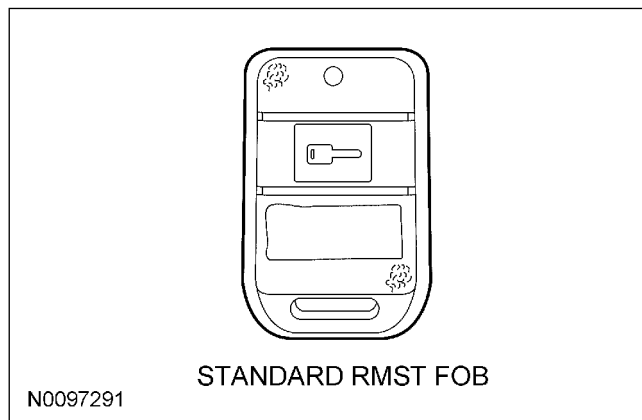
Install Trim

48. Install the left hand cowl trim panel.
- 1 Install the cowl trim panel.
 - 2 Install the scuff plate.
49. Install the upper and lower steering column shrouds.
- Install the 3 screws.
50. Install the steering column opening trim.
-

GENERAL PROCEDURES

Programming - Standard Remote Start

Programming the Module



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

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

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

NOTE: The remote start override button must be accessible.

Programming Options: Entering Programming Mode

- See chart below for programming information.

Program Bank 2 Chart (5 Honks)

BANK	OPTIONS	DESCR	LED
2	1	TACHLESS MODE	ON

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

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

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

Release the brake pedal and the RMST override button.

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

If not, please check the following:

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

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

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

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

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

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

GENERAL PROCEDURES (Continued)

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

NOTE: The remote start module is now programmed.

10. Remove the ignition key.

Programming the SECURILOCK

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

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

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

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

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

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

13. Press and hold the remote start button



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

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

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

14. Place a key in the ignition and turn to the RUN position.

Depress the brake pedal and place the transmission selector lever in gear.

The vehicle should run without interruption.

GENERAL PROCEDURES

Functional Test - Standard Remote Start

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

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

1. Make sure all doors are closed but hood is open and windows are down (doors will be locking).
2. Press and hold the Start button on the remote control key fob for 2-3 seconds - Horn should honk once indicating receipt of the start request.
3. The remote start systems should turn on the ignition, but then honk the horn twice and shut down indicating the hood is open.
4. Close the hood, and insert a key into the ignition switch.
5. Attempt to re-start the vehicle again using the key fob.
6. The remote start systems should turn on the ignition, but then honk the horn five times and shut down indicating a key is in the ignition switch.
7. Remove the key and open a door.
8. Attempt to re-start the vehicle again using the key fob.
9. The remote start systems should turn on the ignition, but then honk the horn three times and shut down indicating a door is open.
10. Close the door.
11. Attempt to re-start the vehicle again using the key fob.
12. Once the vehicle starts, verify that all heat and A/C functions operate normally and that the doors have locked.
13. On vehicles equipped with power window interrupt, Attempt to close windows to check power window interrupt function.
14. Once all systems have been checked, press the brake pedal - the remote start systems should shut down.

Troubleshooting

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

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

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

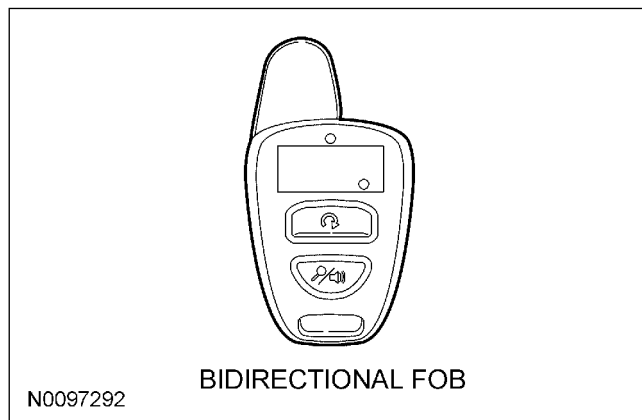
GENERAL PROCEDURES (Continued)

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

GENERAL PROCEDURES

Programming - Bidirectional Remote Start

Programming the Module



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

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

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

NOTE: The remote start override button must be accessible.

Programming Options: Entering Programming Mode

- See chart below for programming information.

Program Bank 2 Chart (5 Honks)

BANK	OPTIONS	DESCR	LED
2	1	TACHLESS MODE	ON

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

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

After 10 seconds the horn will honk 3 times, indicating the system is now in the learn mode. Release the brake pedal and the RMST override button.

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

If not, please check the following:

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

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

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

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

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

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

GENERAL PROCEDURES (Continued)

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

NOTE: The remote start module is now programmed.

10. Remove the ignition key.

Programming the SECURILOCK

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


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

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

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

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

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

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

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

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

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

14. Place a key in the ignition and turn to the RUN position.

Depress the brake pedal and place the transmission selector lever in gear.

The vehicle should run without interruption.

GENERAL PROCEDURES

Functional Test - Bidirectional Remote Start

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

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

1. Make sure all doors are closed but hood is open and windows are down (doors will be locking).
2. Press the Start button on the remote control key fob twice within 3 seconds - Horn should honk once indicating receipt of the start request.
3. The remote start systems should turn on the ignition, but then honk the horn twice and shut down indicating the hood is open.
4. Close the hood, and insert a key into the ignition switch.
5. Attempt to re-start the vehicle again using the key fob.
6. The remote start systems should turn on the ignition, but then honk the horn five times and shut down indicating a key is in the ignition switch.
7. Remove the key and open a door.
8. Attempt to re-start the vehicle again using the key fob.
9. The remote start systems should turn on the ignition, but then honk the horn three times and shut down indicating a door is open.
10. Close the door.
11. Attempt to re-start the vehicle again using the key fob.
12. Once the vehicle starts, verify that all heat and A/C functions operate normally and that the doors have locked.
13. On vehicles equipped with power window interrupt, Attempt to close windows to check power window interrupt function.
14. Once all systems have been checked, press the brake pedal - the remote start systems should shut down.

Troubleshooting

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

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

CHIRPS	PROBLEM
1 Chirp	SECURILOCK not programmed correctly, or the SECURILOCK antenna ring is damaged.
2 Chirps	BRAKE is being pressed, or the HOOD is open.
3 Chirps	One of the vehicles DOORS are open.
4 Chirps	TACH not programmed.
5 Chirps	The KEY is in the ignition.
6 Chirps	The remote start system is in SERVICE/VALET mode.

'09 Escape/Mariner/Hybrid

TYPE "A" CUSTOM WIRE HARNESS

RMST MODULE WIRE HARNESS

STEERING COLUMN HARNESS

	Color	Function
A-3	PINK	Ignition Input/Output
A-2	ORANGE	HVAC Output
A-13	VIOLET	Starter Output
B-8	BLACK/WHITE	Key-in-sense Input
A-4	RED	Battery

	Color	Function
A-21	BROWN/BLACK	Horn Relay Output

DRIVER'S KICK PANEL HARNESS

	Color	Function
A-5	BLACK	Ground
A-24	BLUE	Door Lock Output
A-20	GREEN/VIOLET	Door Ajar Switch Input
B-7	BROWN	Brake Input
A-1	WHITE	Parking Light Output

VEHICLE HARNESS

IGNITION SWITCH

MAKE THIS CONNECTION FIRST!

Horn (BROWN)

CHASSIS GROUND POINT
IN DRIVER' S KICK PANEL

Door Lock (BLUE/GREEN)

Dome Light (GRAY/VIOLET)

Brake Output (VIOLET/WHITE)

Parking Lights On(VIOLET/WHITE)

STEERING
COLUMN
HARNESS

DRIVERS
KICK PANEL

BRAKE
SWITCH

DRIVERS SILL
PLATE IN
HARNESS
COMING FROM
PASSENGER
SIDE HEADING
TOWARD REAR

UNDER HOOD HARNESS

	Color	Function
A-19	GRAY	Hood Open Switch Input

Vehicle
Interior

Engine
Compartment

Chassis
Ground

Do Not Ground to Hood!

Hood Tilt Switch

REMOTE START SYSTEM INSTALLATION

CONTENTS

INSTALLATION

[Remote Start](#)

GENERAL PROCEDURES

[Proper Splicing Techniques](#)

[Programming - Standard Remote Start](#)

[Functional Test - Standard Remote Start](#)

[Programming - Bidirectional Remote Start](#)

[Functional Test - Bidirectional Remote Start](#)

[Troubleshooting](#)

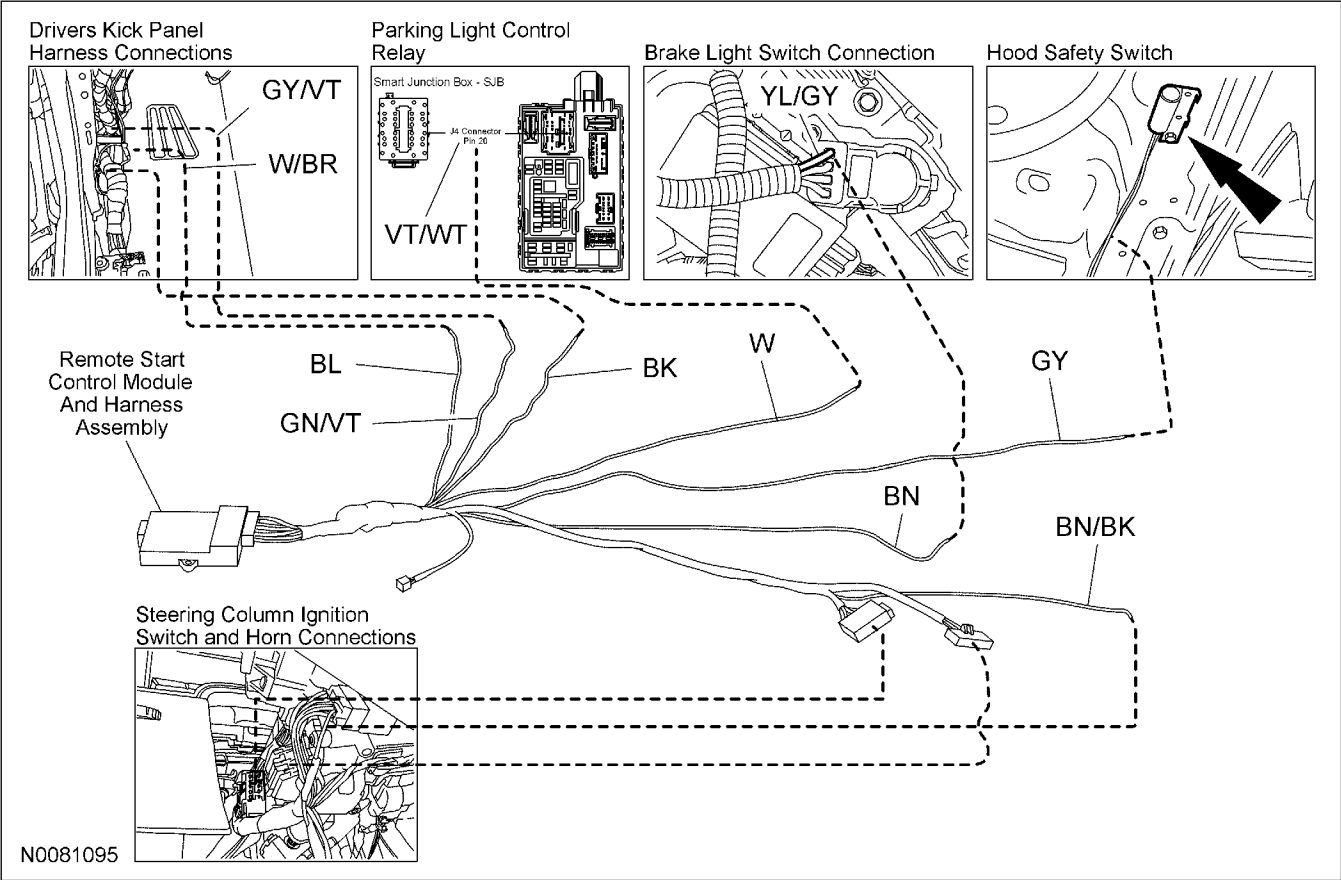
WIRING DIAGRAMS

[Vehicle Specific Wiring Diagrams](#)

INSTALLATION

Remote Start

Remote Start System RMST Components



Expedition/Navigator

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

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

1. Verify correct kit number.

2. Review the RMST kit contents.

Review Remote Start Installation Kit Contents

NOTE: Use kit number 7L1J-19G364-AB (FIA), 8L1J-19G364-AA (FIA) or 7W3Z-19G364-AA (GFA) REMOTE START SYSTEM. 9C3Z-19G364-A (GFA) BIDIRECTIONAL REMOTE START SYSTEM.

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

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

NOTE: Kits are vehicle specific and are not interchangeable.

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

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

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

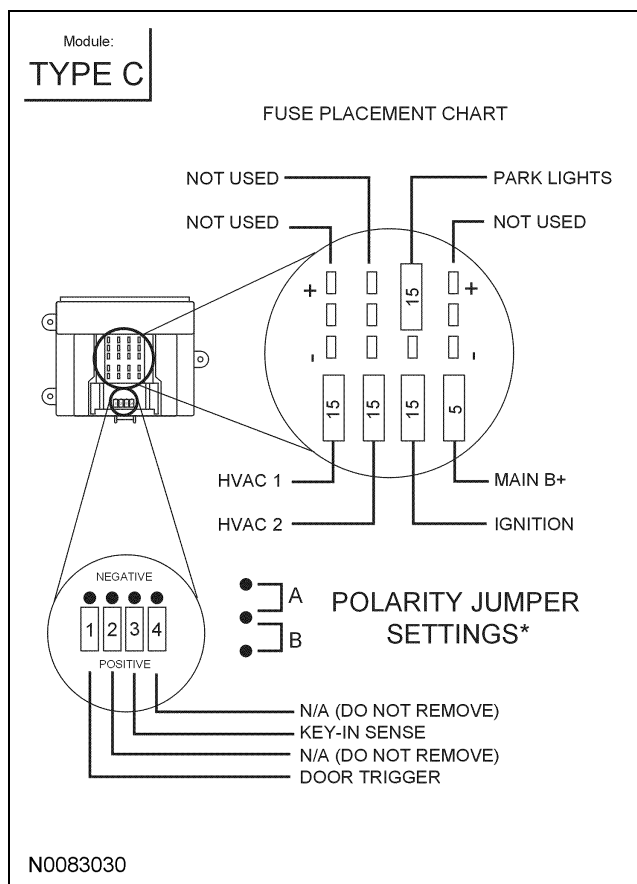
Module Preparation

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

- Review the RMST bidirectional kit contents.

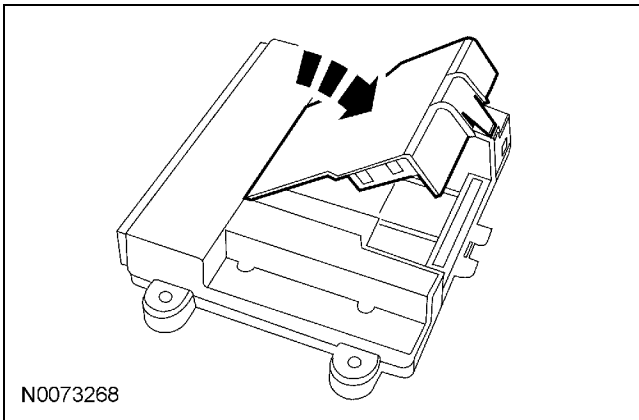
Remote Start System Bidirectional Kit (RMST) Type - "C"

QUANTITY	DESCRIPTION
1	TYPE - "C" MODULE ASSEMBLY
1	RMST SOFTWARE CARTRIDGE ASSEMBLY
1	2 BUTTON POWERCODE TRANSMITTER
1	TYPE - "C" CUSTOM WIRING HARNESS
1	ANTENNA
1	ANTENNA HARNESS
1	HOOD SAFETY SWITCH ASSEMBLY
1	INSTALLATION PARTS BAG
1	FUSE PARTS BAG

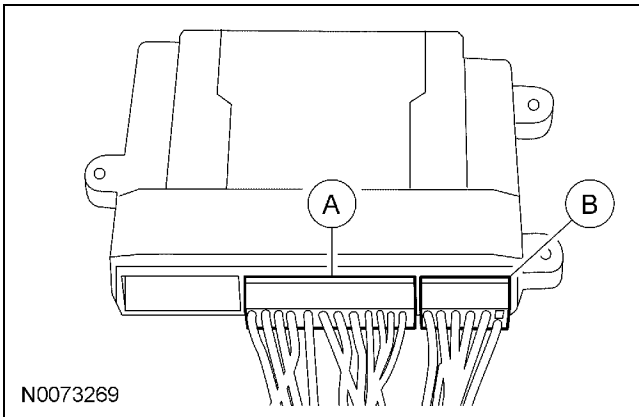


INSTALLATION (Continued)

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



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

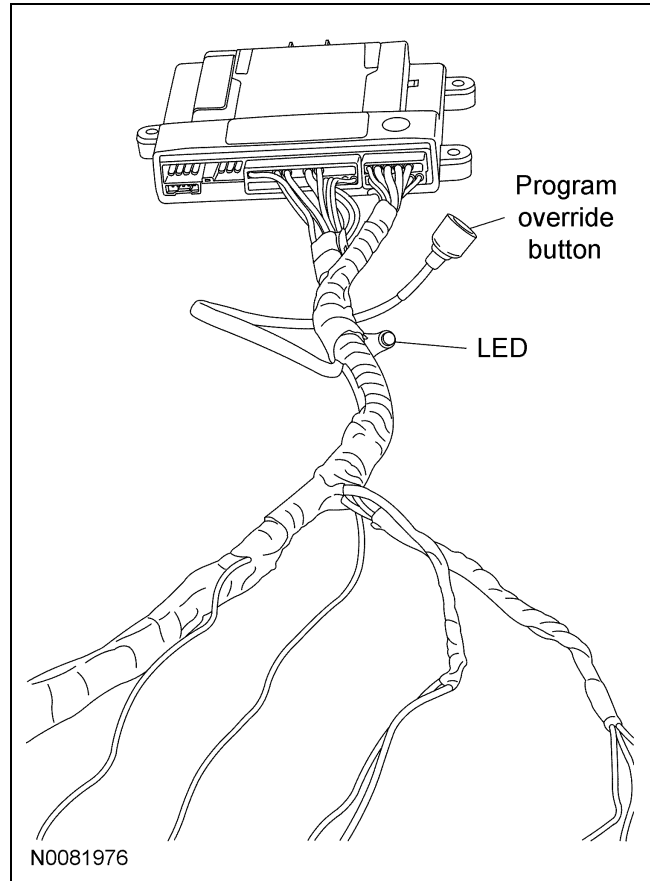


7. **NOTE:** Do not cut the override programming button off of the harness, it is used for all installations.

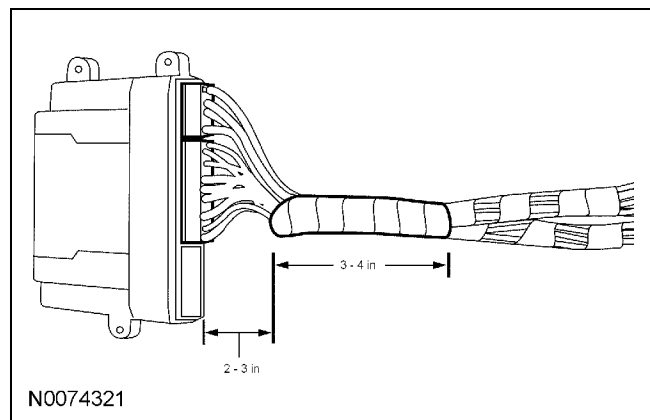
NOTE: For vehicle specific wiring diagram(s) [click here](#).

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

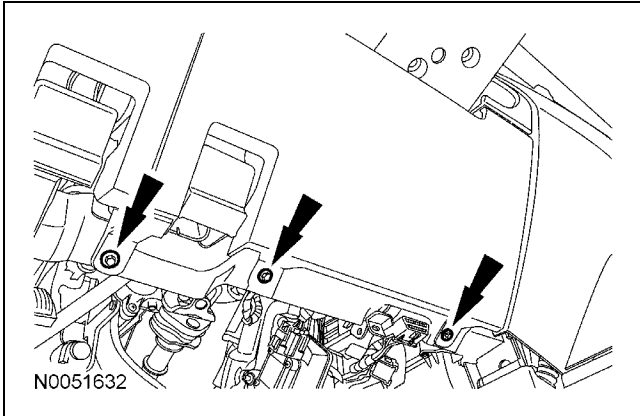
Trim the unused wires approximately 6 - 8" from the module.



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

**Vehicle Preparation - All Vehicles**

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

INSTALLATION (Continued)**Vehicles With Power Tilt**

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

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

Vehicles With Manual Tilt

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

All Vehicles

13. Remove the left hand scuff plate and cowl trim panel.

Antenna Mounting

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

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

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

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

Install The Antenna

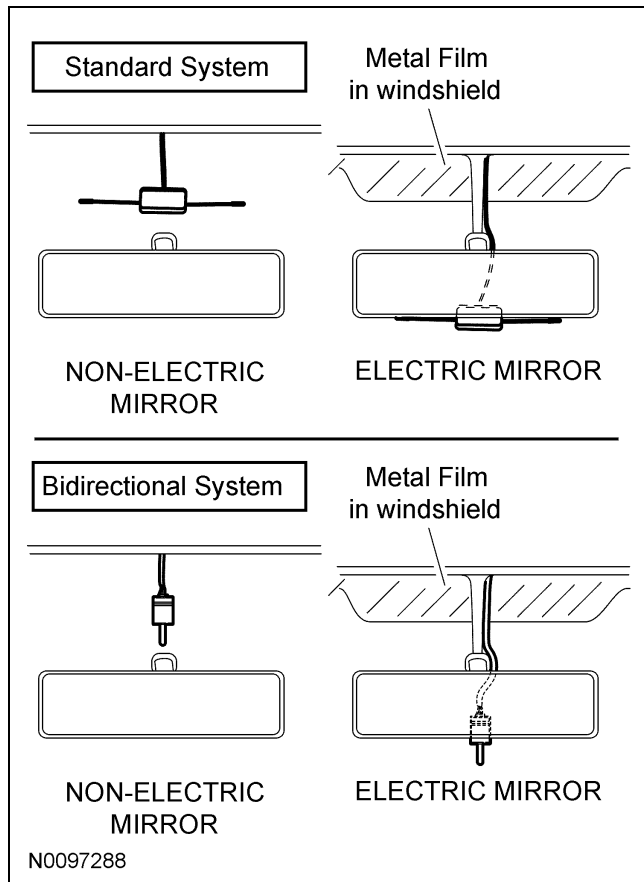
15. Clean the mounting surface using an alcohol base solution and a clean cloth.

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

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

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

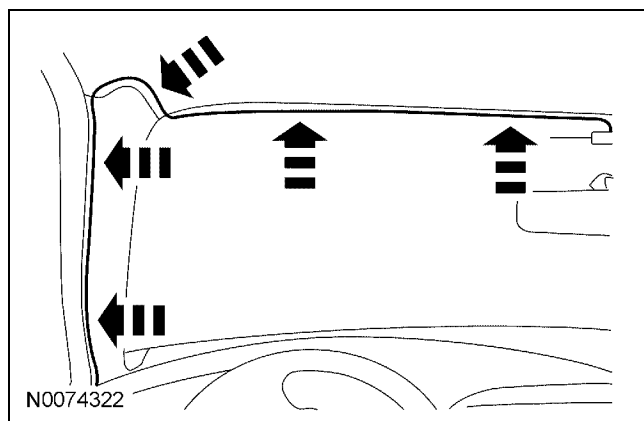
Remove the protective backing from the adhesive on the antenna and firmly press the body of the antenna to the windshield.

INSTALLATION (Continued)

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

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

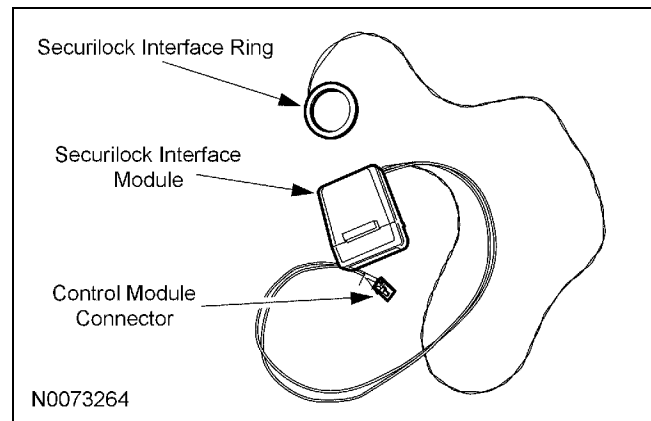
18. Route the antenna cable along the headliner and down the A pillar towards the floor.



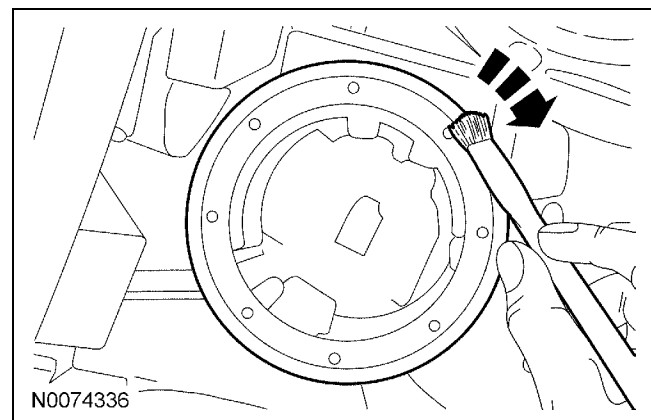
19. Reposition the A pillar trim panel.

Install The Securilock Interface Kit

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



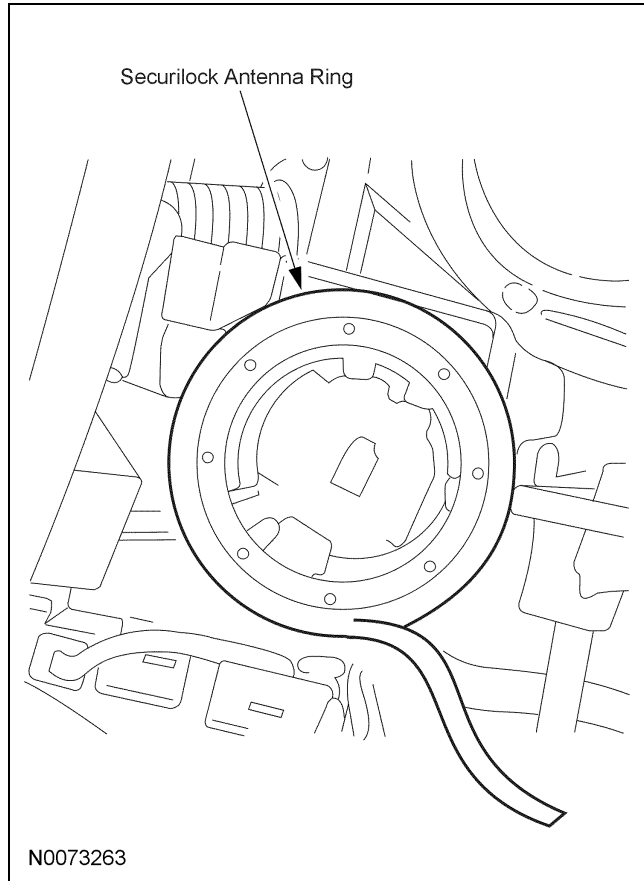
21. Following the directions on the supplied tube of adhesive primer, apply a thin coating around the transceiver antenna coil and allow to dry for approximately 5 minutes.



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

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

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

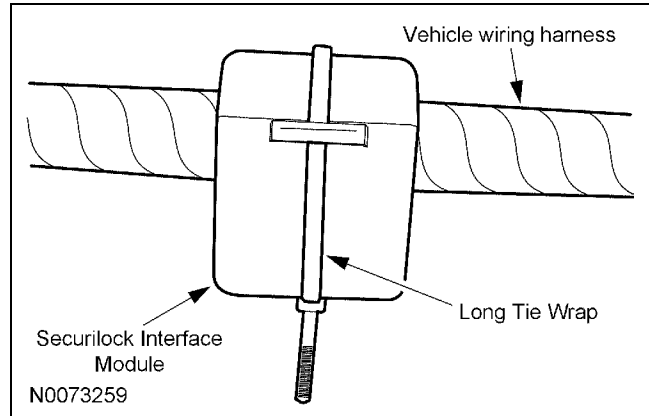
INSTALLATION (Continued)**Install The Securilock Interface Module**

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

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

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

Route the harness and connector to the module mounting location.

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

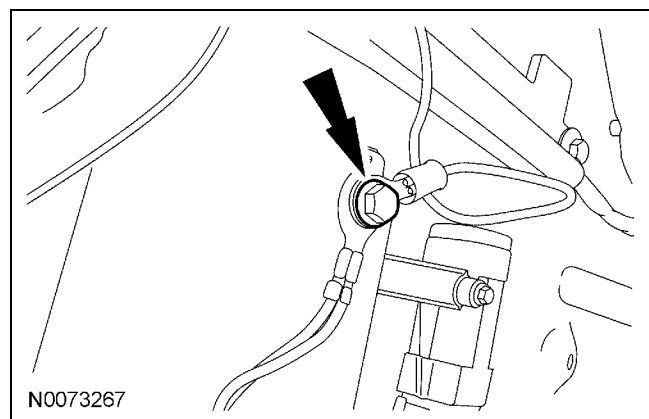
25. Place the remote start module and harness assembly on the floor of the vehicle.

Identify Circuit Wires For Connections

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

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

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



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

INSTALLATION (Continued)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

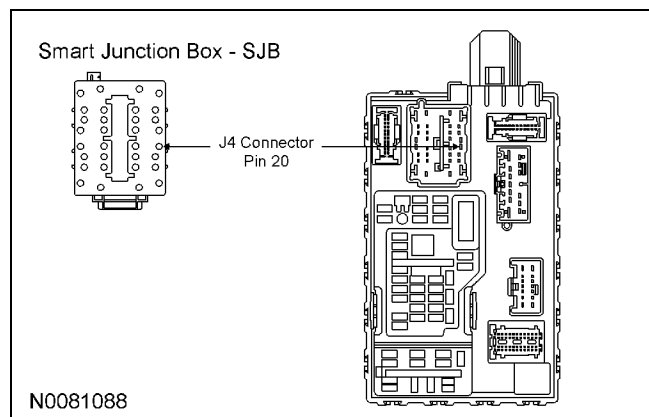
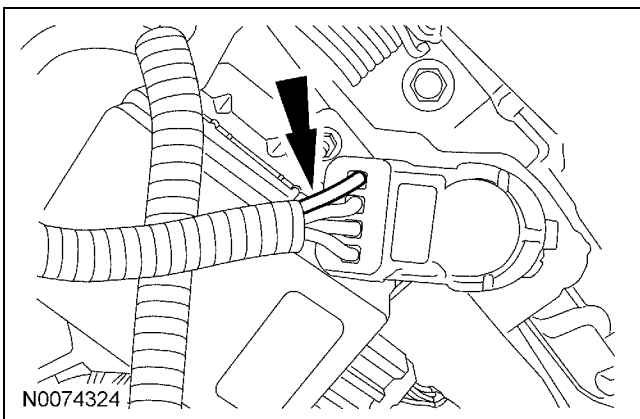
Identify the Grey/Violet dome light circuit wire at the driver kick panel.

36. Connect the Green/Violet wire from the remote start module harness to the Grey/Violet dome light circuit wire at the driver kick panel.

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

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

Identify the Violet/White parking light circuit wire at the Smart Junction Box SJB J4 Connector Pin 20.



INSTALLATION (Continued)

38. Connect the White wire from the remote start module harness to the Violet/White parking light circuit wire at the SJB J4 Connector Pin 20.

Install The Hood Safety Switch

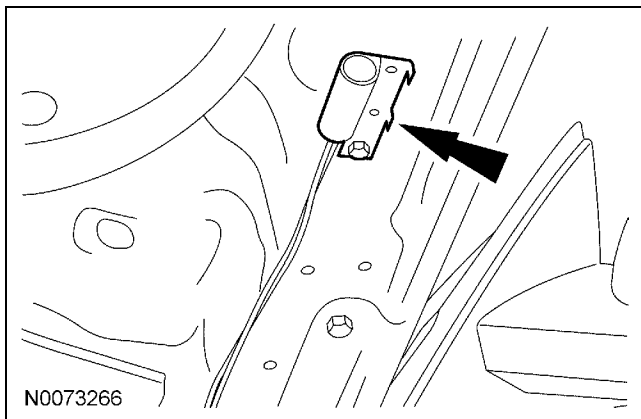
39. **NOTE:** Route the hood safety switch wire carefully avoiding any moving parts or components that can produce excessive heat.
- NOTE:** Using a piece of convolute adds in the appearance of the installation.
- NOTE:** The switch should be positioned about 30 degrees below parallel to the ground to accommodate for parking on inclines.

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

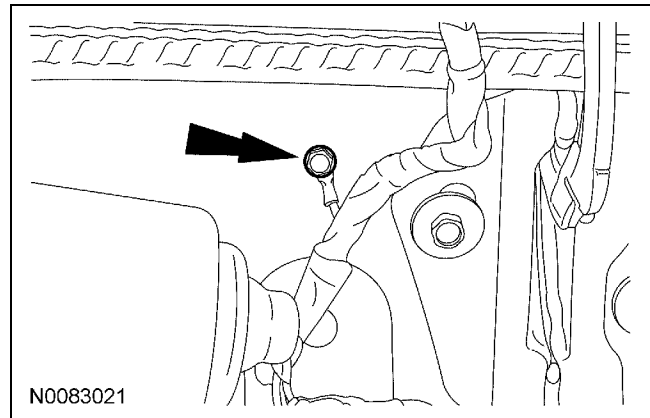
- False alarm trips
- Non-Remote Start events
- Inadvertent shutdown during Remote Start

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

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

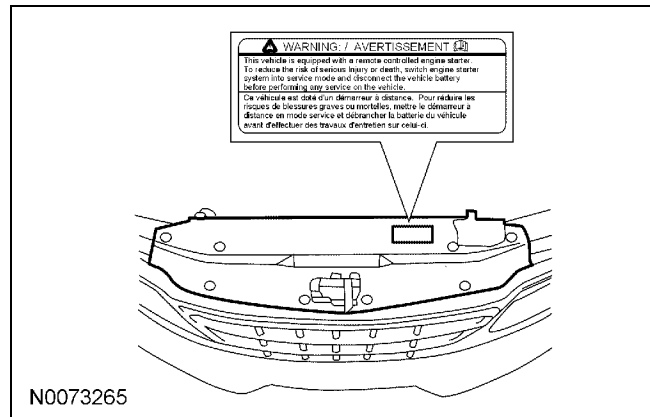


41. Connect hood switch ground wire to a suitable location on the bulkhead.

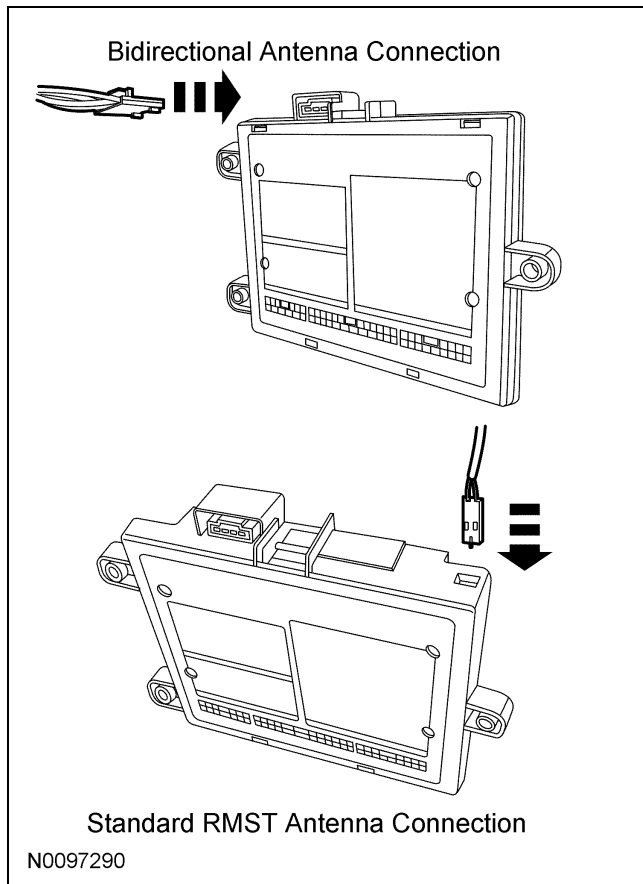


42. **NOTE:** Place the label on the radiator fan shroud or similar area.

Install the underhood warning label



43. Route the Grey hood safety switch wire through the bulkhead into the engine compartment and attach to the hood safety switch.
44. Connect the antenna to the RMST control module.

INSTALLATION (Continued)

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

Program The RMST System

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

Secure RMST Harness and Control Module

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

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

Secure the control module at three points to the vehicle.

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

All Vehicles

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

Vehicles With Manual Tilt

50. Install the upper and lower steering column shrouds.

Install the 3 screws.

Vehicles With Power Tilt

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

52. Install the upper and lower steering column shrouds.

Install the 3 screws.

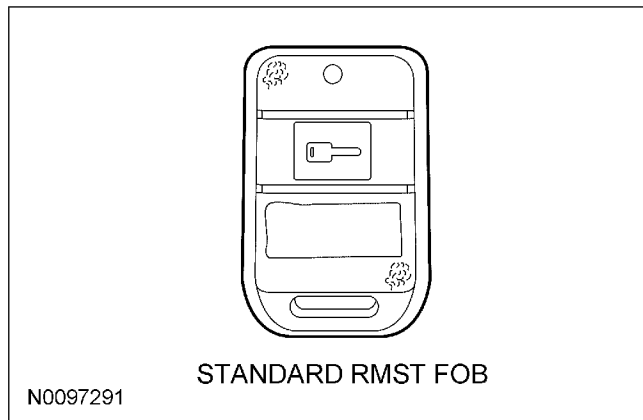
All Vehicles

53. Install the lower steering column opening cover.
Install the 3 screws.

GENERAL PROCEDURES

Programming - Standard Remote Start

Programming the Module



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

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

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

NOTE: The remote start override button must be accessible.

Programming Options: Entering Programming Mode

2. See chart below for programming information.

Program Bank 2 Chart (5 Honks)

BANK	OPTIONS	DESCR	LED
2	1	TACHLESS MODE	ON

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

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

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

Release the brake pedal and the RMST override button.

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

If not, please check the following:

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

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

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

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

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

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

GENERAL PROCEDURES (Continued)

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

NOTE: The remote start module is now programmed.

10. Remove the ignition key.

Programming the SECURILOCK

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

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

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

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

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

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

13. Press and hold the remote start button



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

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

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

14. Place a key in the ignition and turn to the RUN position.

Depress the brake pedal and place the transmission selector lever in gear.

The vehicle should run without interruption.

GENERAL PROCEDURES

Functional Test - Standard Remote Start

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

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

1. Make sure all doors are closed but hood is open and windows are down (doors will be locking).
2. Press and hold the Start button on the remote control key fob for 2-3 seconds - Horn should honk once indicating receipt of the start request.
3. The remote start systems should turn on the ignition, but then honk the horn twice and shut down indicating the hood is open.
4. Close the hood, and insert a key into the ignition switch.
5. Attempt to re-start the vehicle again using the key fob.
6. The remote start systems should turn on the ignition, but then honk the horn five times and shut down indicating a key is in the ignition switch.
7. Remove the key and open a door.
8. Attempt to re-start the vehicle again using the key fob.
9. The remote start systems should turn on the ignition, but then honk the horn three times and shut down indicating a door is open.
10. Close the door.
11. Attempt to re-start the vehicle again using the key fob.
12. Once the vehicle starts, verify that all heat and A/C functions operate normally and that the doors have locked.
13. On vehicles equipped with power window interrupt, Attempt to close windows to check power window interrupt function.
14. Once all systems have been checked, press the brake pedal - the remote start systems should shut down.

Troubleshooting

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

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

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

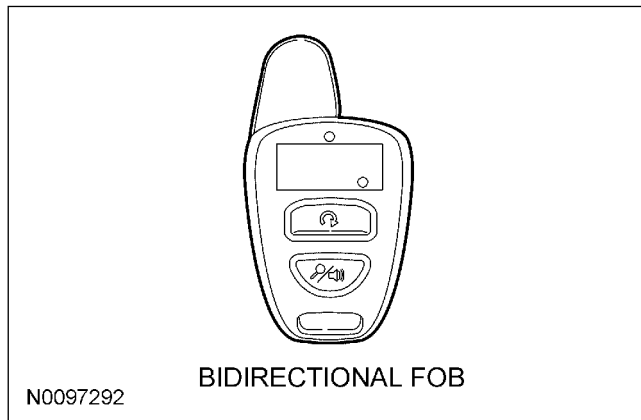
GENERAL PROCEDURES (Continued)

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

GENERAL PROCEDURES

Programming - Bidirectional Remote Start

Programming the Module



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

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

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

NOTE: The remote start override button must be accessible.

Programming Options: Entering Programming Mode

- See chart below for programming information.

Program Bank 2 Chart (5 Honks)

BANK	OPTIONS	DESCR	LED
2	1	TACHLESS MODE	ON

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

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

After 10 seconds the horn will honk 3 times, indicating the system is now in the learn mode. Release the brake pedal and the RMST override button.

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

If not, please check the following:

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

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

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

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

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

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

GENERAL PROCEDURES (Continued)

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

NOTE: The remote start module is now programmed.

10. Remove the ignition key.

Programming the SECURILOCK

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


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

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

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

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

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

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

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

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

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

14. Place a key in the ignition and turn to the RUN position.

Depress the brake pedal and place the transmission selector lever in gear.

The vehicle should run without interruption.

GENERAL PROCEDURES

Functional Test - Bidirectional Remote Start

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

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

1. Make sure all doors are closed but hood is open and windows are down (doors will be locking).
2. Press the Start button on the remote control key fob twice within 3 seconds - Horn should honk once indicating receipt of the start request.
3. The remote start systems should turn on the ignition, but then honk the horn twice and shut down indicating the hood is open.
4. Close the hood, and insert a key into the ignition switch.
5. Attempt to re-start the vehicle again using the key fob.
6. The remote start systems should turn on the ignition, but then honk the horn five times and shut down indicating a key is in the ignition switch.
7. Remove the key and open a door.
8. Attempt to re-start the vehicle again using the key fob.
9. The remote start systems should turn on the ignition, but then honk the horn three times and shut down indicating a door is open.
10. Close the door.
11. Attempt to re-start the vehicle again using the key fob.
12. Once the vehicle starts, verify that all heat and A/C functions operate normally and that the doors have locked.
13. On vehicles equipped with power window interrupt, Attempt to close windows to check power window interrupt function.
14. Once all systems have been checked, press the brake pedal - the remote start systems should shut down.

Troubleshooting

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

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

CHIRPS	PROBLEM
1 Chirp	SECURILOCK not programmed correctly, or the SECURILOCK antenna ring is damaged.
2 Chirps	BRAKE is being pressed, or the HOOD is open.
3 Chirps	One of the vehicles DOORS are open.
4 Chirps	TACH not programmed.
5 Chirps	The KEY is in the ignition.
6 Chirps	The remote start system is in SERVICE/VALET mode.

'09 Expedition/Navigator

TYPE "C" CUSTOM WIRE HARNESS

RMST MODULE WIRE HARNESS

STEERING COLUMN HARNESS

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

	Color	Function
A-21	BROWN/BLACK	Horn Relay Output

DRIVER'S KICK PANEL HARNESS

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

PARKING LIGHT HARNESS

	Color	Function
A-1	WHITE	Parking Light Output

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

UNDER HOOD HARNESS

	Color	Function
A-19	GRAY	Hood Open Switch Input

VEHICLE HARNESS

IGNITION SWITCH

Horn (YELLOW/RED)

STEERING COLUMN HARNESS

MAKE THIS CONNECTION FIRST!

CHASSIS GROUND POINT IN DRIVER'S KICK PANEL

Door Lock (WHITE/BROWN)

DRIVERS SIDE KICK PANEL

Brake (YELLOW/GRAY)

BRAKE SWITCH

Dome Light (GRAY/VIOLET)

DRIVERS SIDE KICK PANEL

Parking Lights On (VIOLET/WHITE)

PASSENGER KICK PANEL IN SPDJB C4-20**

Hood Tilt Switch

Chassis Ground

Do Not Ground to Hood!

[Manual Table of Contents](#)

REMOTE START SYSTEM INSTALLATION - FIA KIT ONLY (9L1J-19G364-AA)

CONTENTS

INSTALLATION

[Remote Start](#)

GENERAL PROCEDURES

[Programming Securilock](#)

[Functional Test](#)

[Troubleshooting](#)

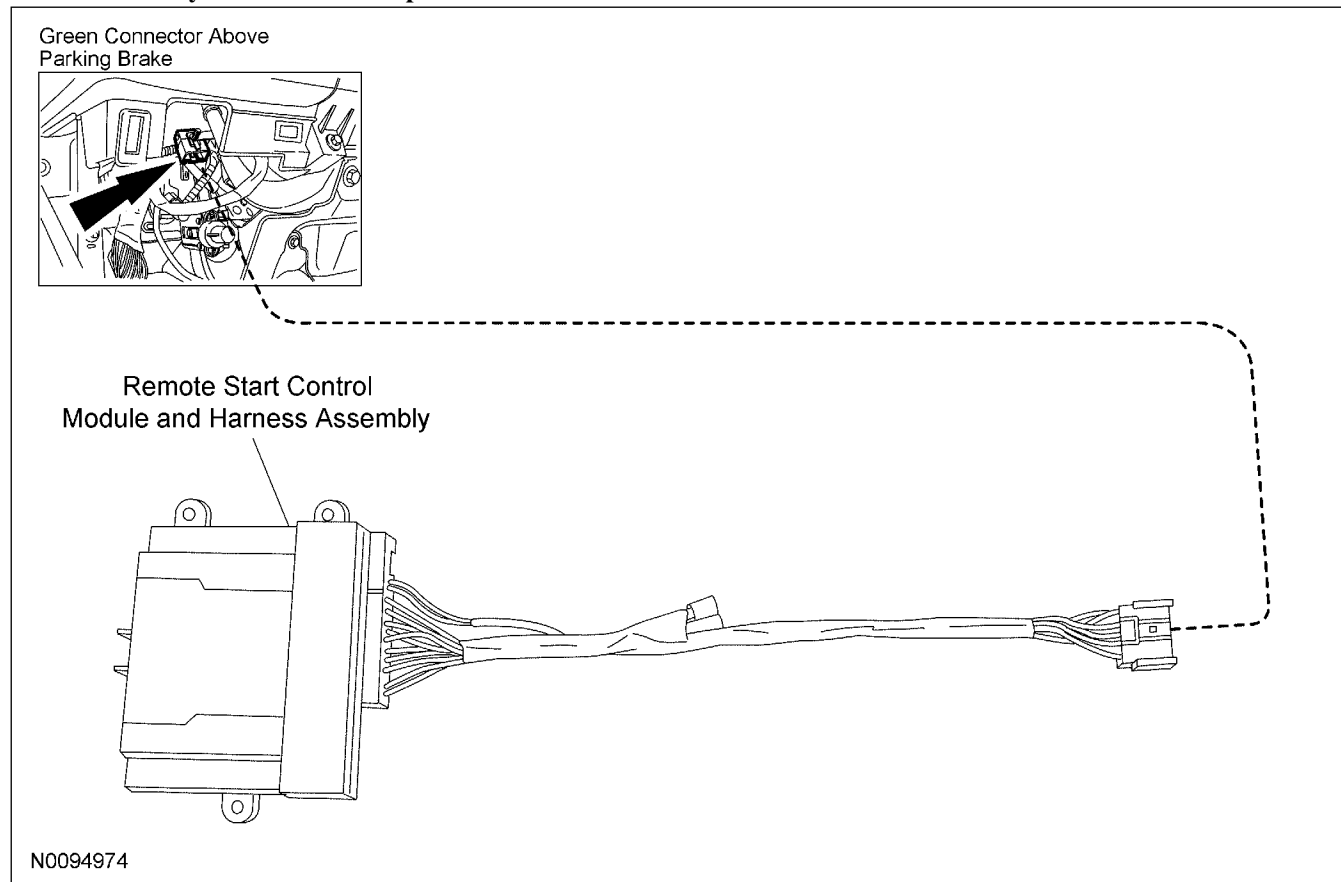
WIRING DIAGRAMS

[Vehicle Specific Wiring Diagrams](#)

INSTALLATION

Remote Start

Remote Start System RMST Components



Expedition/Navigator FIA KIT ONLY

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

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

1. Verify correct kit number.

2. Review the RMST kit contents.

Review Remote Start Installation Kit Contents

NOTE: Use kit number 9L1J-19G364-AA (FIA) REMOTE START SYSTEM.

NOTE: Kits are vehicle specific and are not interchangeable.

Remote Start System (RMST) Type - "C"

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

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

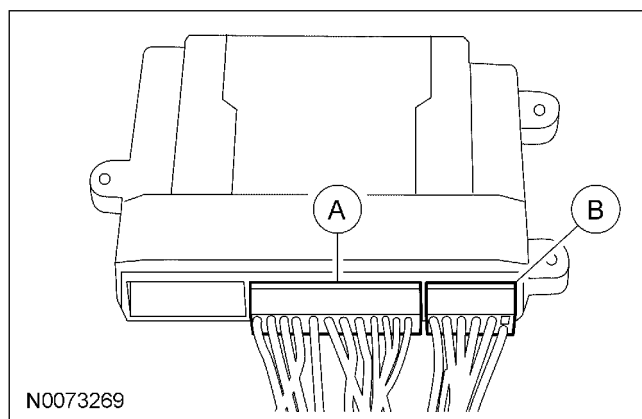
QUANTITY	DESCRIPTION
1	ANTENNA
1	OPERATORS INSTRUCTIONS
1	OPERATORS QUICK REFERENCE WALLET CARD
1	UNDERHOOD WARNING LABEL
1	SECURILOCK INTERFACE KIT (SOLD SEPARATELY AND REQUIRED FOR VEHICLES W/PATS)

Module Preparation

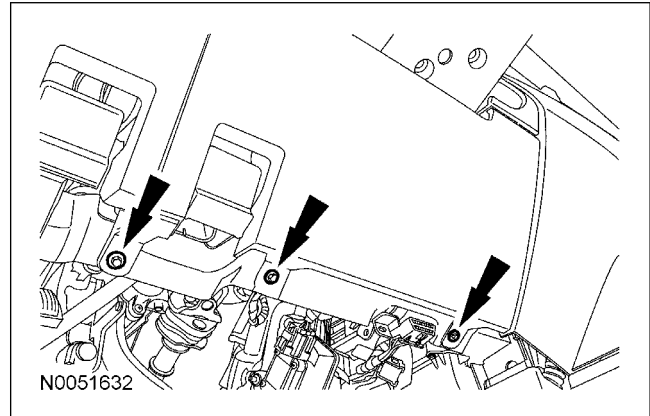
3. Plug the wiring harness(es) into the module.
 - A - Harness: 24-way, used on all systems.
 - B - Harness: 10-way, used on all systems with RMST.

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

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

**Vehicle Preparation - All Vehicles**

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

**Vehicles With Power Tilt**

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

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

Vehicles With Manual Tilt

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

Antenna Mounting

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

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

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

INSTALLATION (Continued)

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

Install The Antenna

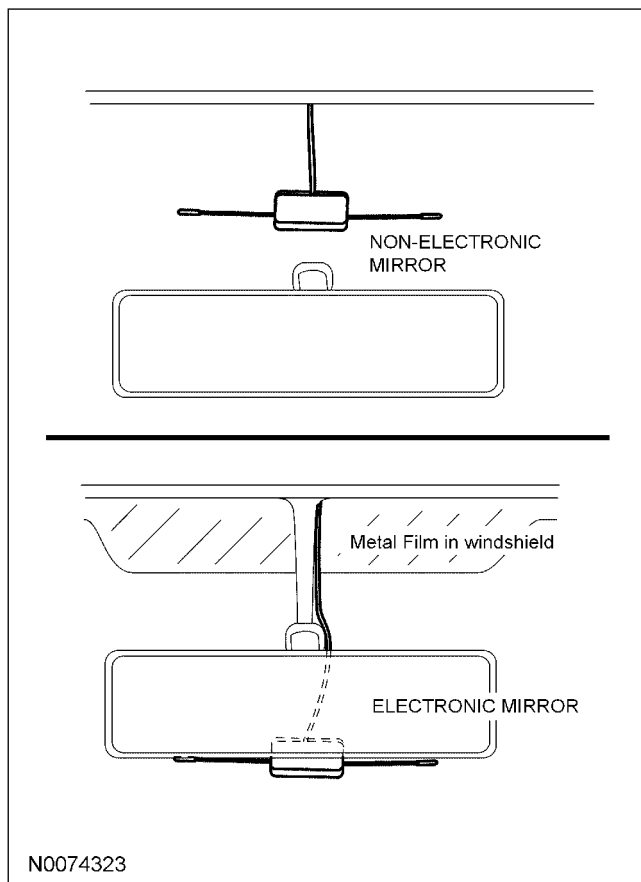
9. Clean the mounting surface using an alcohol base solution and a clean cloth.

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

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

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

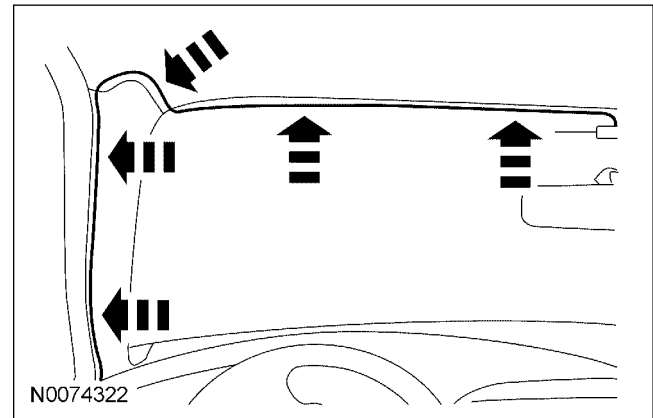
Remove the protective backing from the adhesive on the antenna and firmly press the body of the antenna to the windshield.



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

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

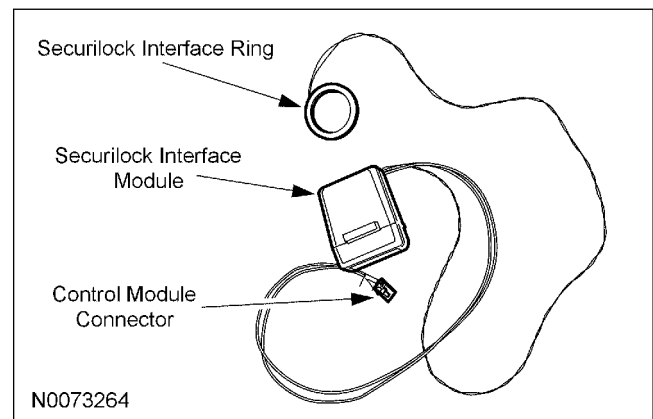
12. Route the antenna cable along the headliner and down the A pillar towards the floor.



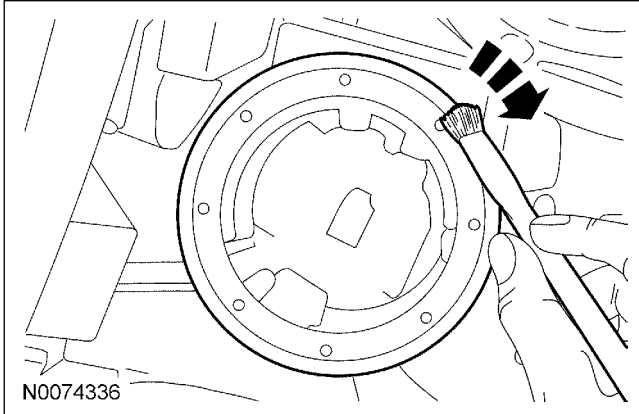
13. Reposition the A pillar trim panel.

Install The Securilock Interface Kit

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



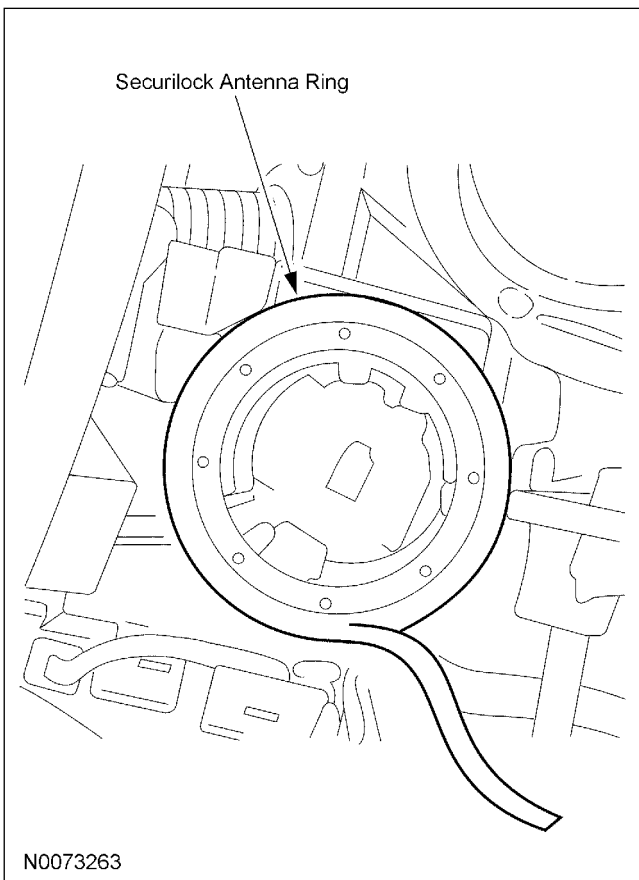
15. Following the directions on the supplied tube of adhesive primer, apply a thin coating around the transceiver antenna coil and allow to dry for approximately 5 minutes.

INSTALLATION (Continued)

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

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

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

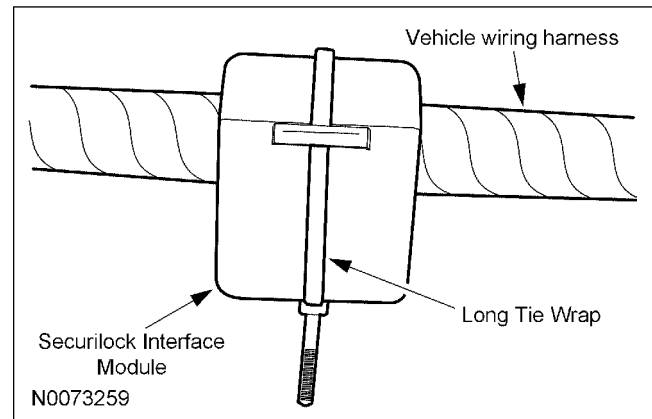
**Install The Securilock Interface Module**

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

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

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

Route the harness and connector to the module mounting location.

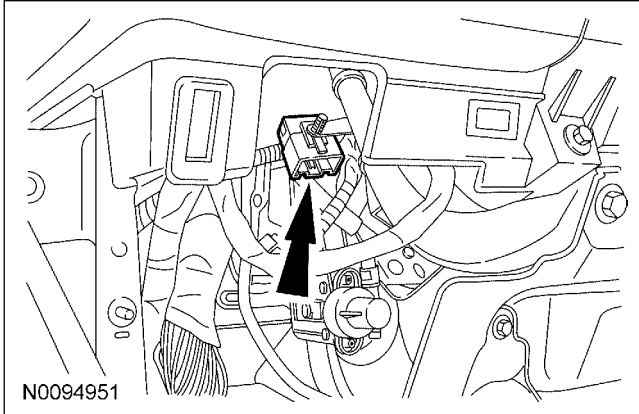
**Install the Remote Start Control Module and Harness Assembly**

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

Identify The Remote Start Connector

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

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

INSTALLATION (Continued)

21. Connect the antenna to the RMST control module.
22. Connect the SECURILOCK interface module to the RMST control module.

Program The SECURILOCK

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

Secure RMST Harness and Control Module

24. Use the supplied tie wraps to secure the RMST harness wires.
25. **NOTE:** Do not mount the control module in the knee bolster area.

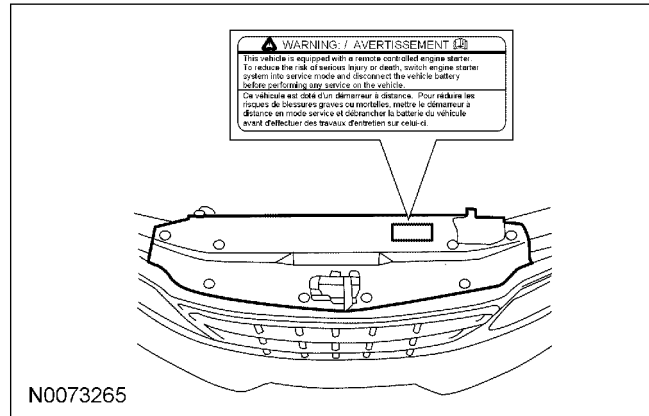
Secure the control module at three points to the vehicle.

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

Install The Underhood Warning Label

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

Install the underhood warning label

**Vehicles With Manual Tilt**

27. Install the upper and lower steering column shrouds.
Install the 3 screws.

Vehicles With Power Tilt

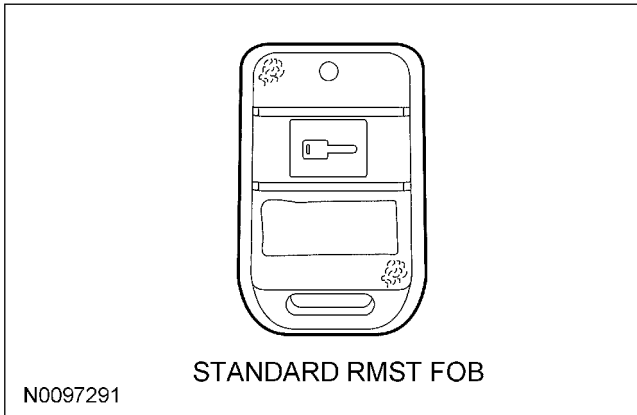
28. Connect the power tilt electrical connector switch on the lower shroud.
29. Install the upper and lower steering column shrouds.
Install the 3 screws.

All Vehicles

30. Install the lower steering column opening cover.
Install the 3 screws.

GENERAL PROCEDURES

Programming the SECURILOCK



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

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

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

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

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

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

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



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

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

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

4. Place a key in the ignition and turn to the RUN position.

Depress the brake pedal and place the transmission selector lever in gear.

The vehicle should run without interruption.

GENERAL PROCEDURES

Functional Test

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

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

1. Make sure all doors are closed but hood is open and windows are down (doors will be locking).
2. Press and hold the Start button on the remote control key fob for 2-3 seconds - Horn should honk once indicating receipt of the start request.
3. The remote start systems should turn on the ignition, but then honk the horn twice and shut down indicating the hood is open.
4. Close the hood, and insert a key into the ignition switch.
5. Attempt to re-start the vehicle again using the key fob.
6. The remote start systems should turn on the ignition, but then honk the horn five times and shut down indicating a key is in the ignition switch.
7. Remove the key and open a door.
8. Attempt to re-start the vehicle again using the key fob.
9. The remote start systems should turn on the ignition, but then honk the horn three times and shut down indicating a door is open.
10. Close the door.
11. Attempt to re-start the vehicle again using the key fob.
12. Once the vehicle starts, verify that all heat and A/C functions operate normally and that the doors have locked.
13. On vehicles equipped with power window interrupt, Attempt to close windows to check power window interrupt function.
14. Once all systems have been checked, press the brake pedal - the remote start systems should shut down.

Troubleshooting

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

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

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

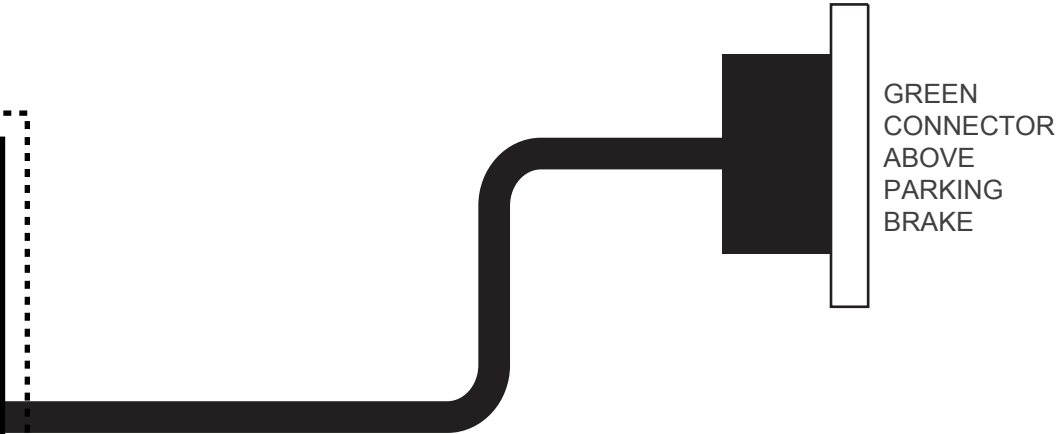
GENERAL PROCEDURES (Continued)

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

EXPEDITION / NAVIGATOR CUSTOM WIRE HARNESS

RMST MODULE WIRE HARNESS

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



GREEN
CONNECTOR
ABOVE
PARKING
BRAKE

REMOTE START SYSTEM INSTALLATION

CONTENTS

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[Remote Start](#)

GENERAL PROCEDURES

[Proper Splicing Techniques](#)

[Programming - Standard Remote Start](#)

[Functional Test - Standard Remote Start](#)

[Programming - Bidirectional Remote Start](#)

[Functional Test - Bidirectional Remote Start](#)

[Troubleshooting](#)

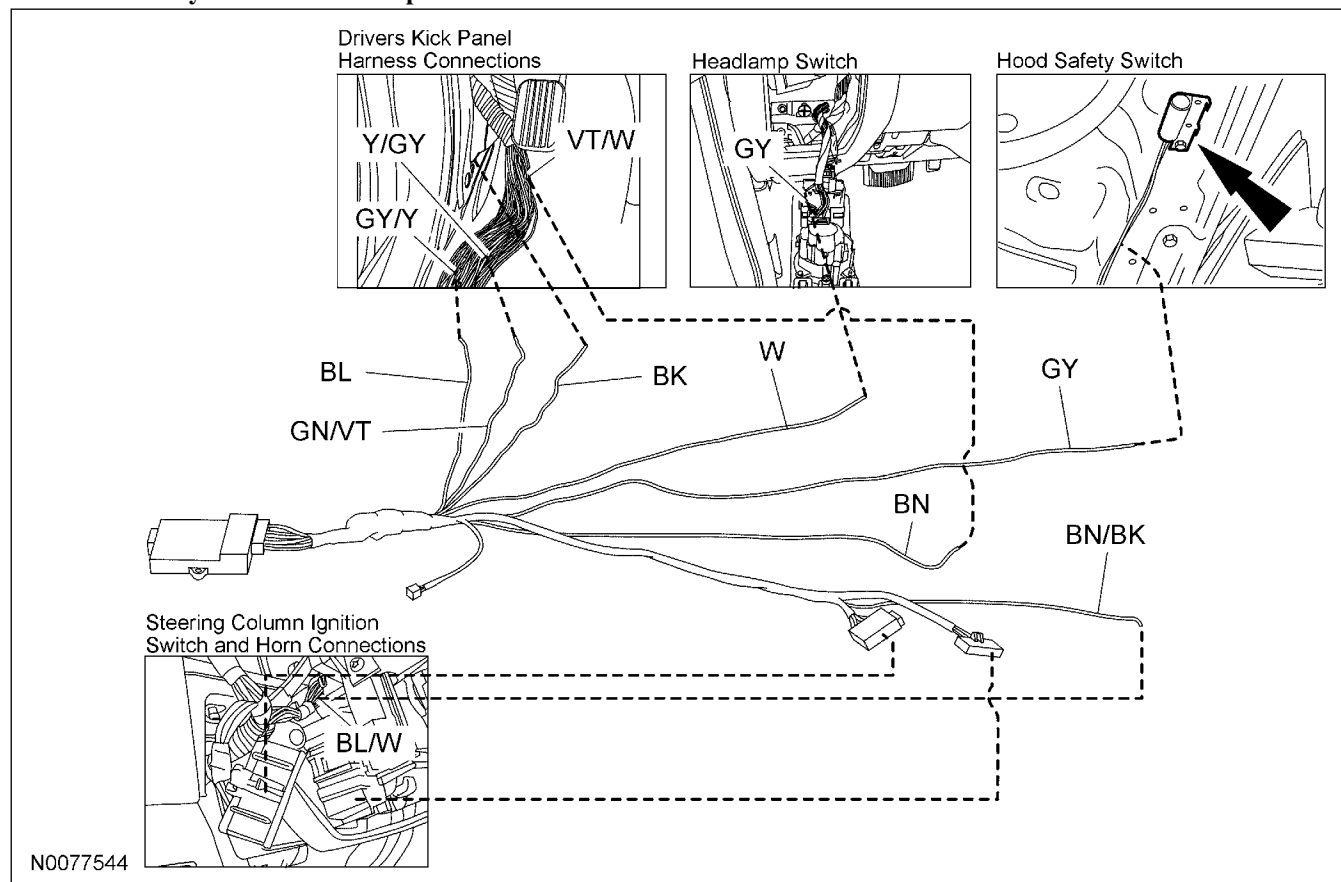
WIRING DIAGRAMS

[Vehicle Specific Wiring Diagrams](#)

INSTALLATION

Remote Start

Remote Start System RMST Components



Explorer/Mountaineer/Sport Trac

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

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

1. Verify correct kit number.

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

NOTE: Use kit number 7L2J-19G364-CA (FIA), 7L2J-19G364-CC (FIA) or 7L2Z-19G364-AA (GFA) REMOTE START SYSTEM.

9G1Z-19G364-A (GFA) BIDIRECTIONAL REMOTE START SYSTEM.

NOTE: Kits are vehicle specific and are not interchangeable.

- Review the RMST kit contents.

Remote Start System Standard Kit (RMST) Type - "A"

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

- Review the RMST bidirectional kit contents.

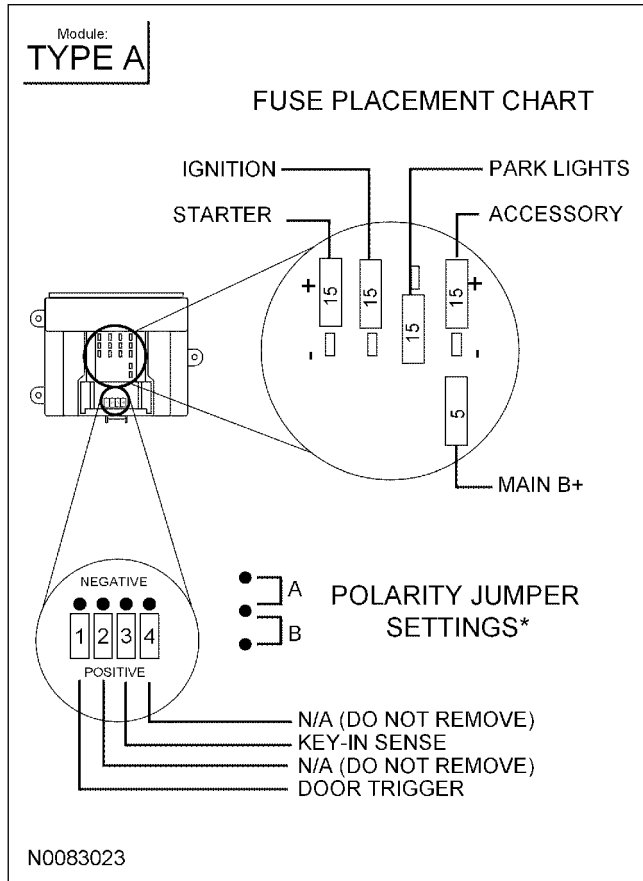
Remote Start System Bidirectional Kit (RMST) Type - "A"

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

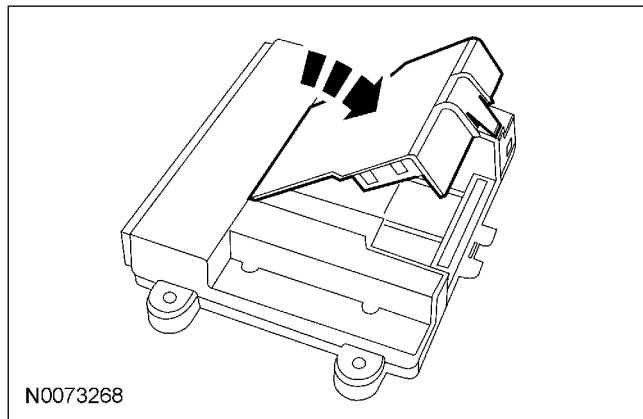
Module Preparation

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

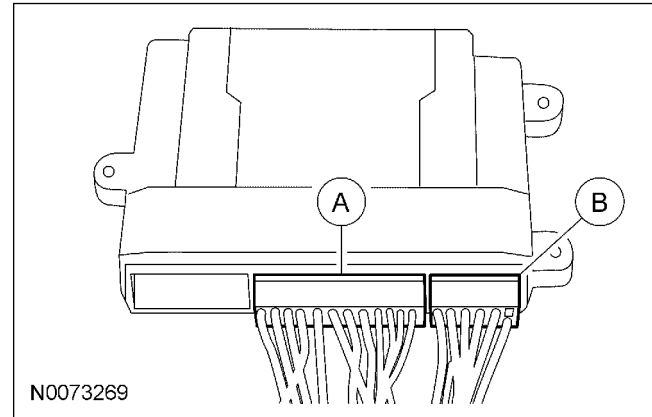
INSTALLATION (Continued)



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



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

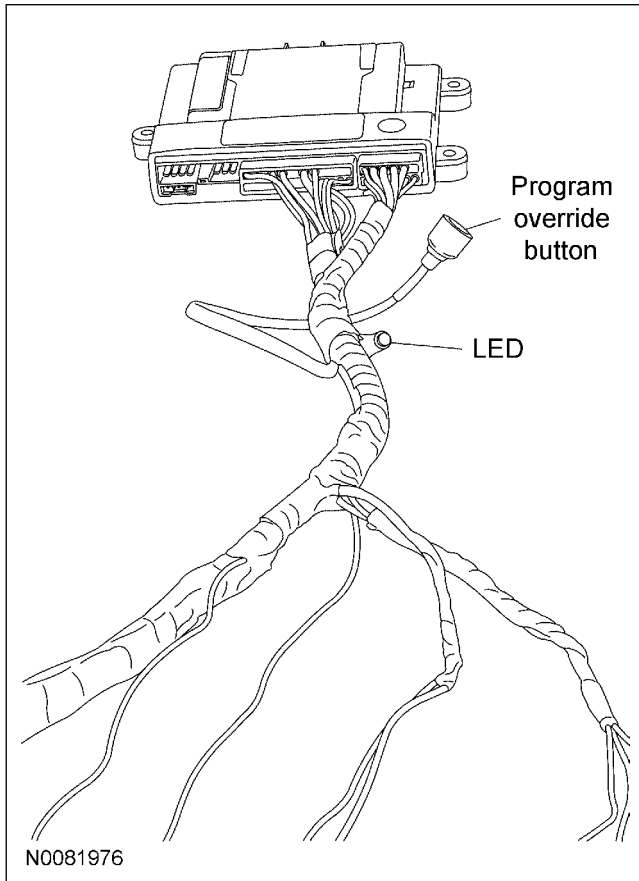


7. **NOTE:** Do not cut the override programming button off of the harness, it is used for all installations.

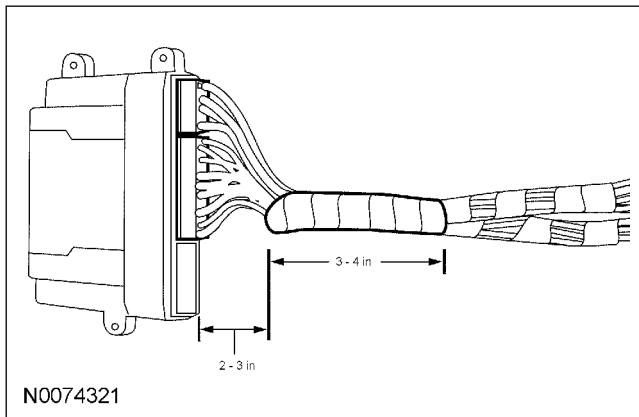
NOTE: For vehicle specific wiring diagram(s) [click here](#).

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

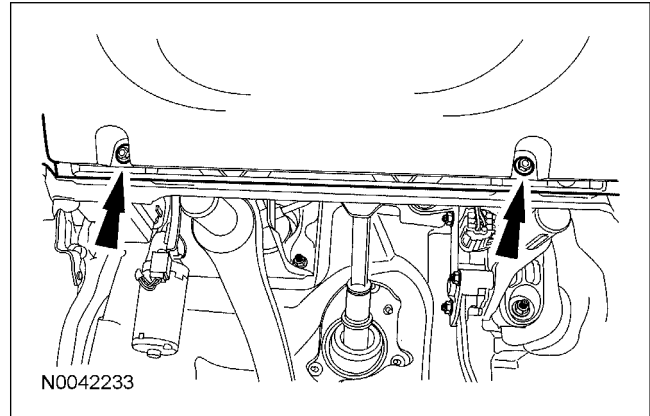
Trim the unused wires approximately 6 - 8" from the module.

INSTALLATION (Continued)

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

**Vehicle Preparation**

9. Remove the 2 screws and the steering column opening cover.



10. Remove the 3 screws and the upper and lower steering column shrouds.
11. Remove the left hand scuff plate and cowl trim panel.

Antenna Mounting

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

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

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

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

Install The Antenna

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

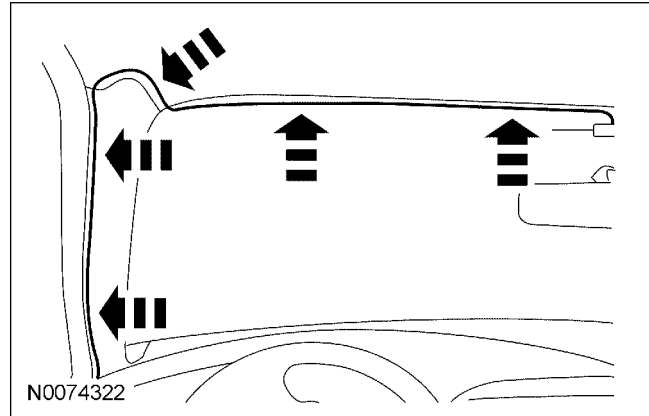
INSTALLATION (Continued)

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

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

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

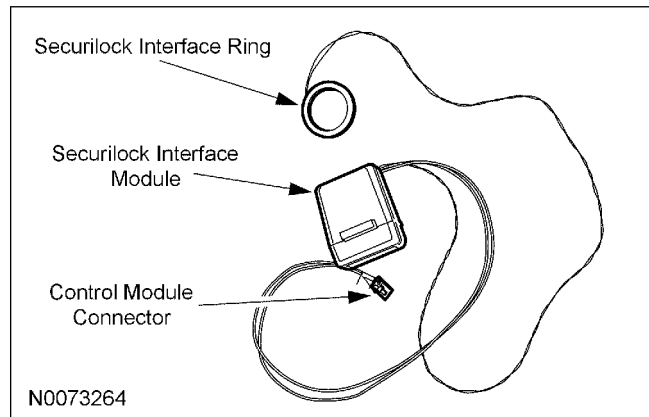
Remove the protective backing from the adhesive on the antenna and firmly press the body of the antenna to the windshield.



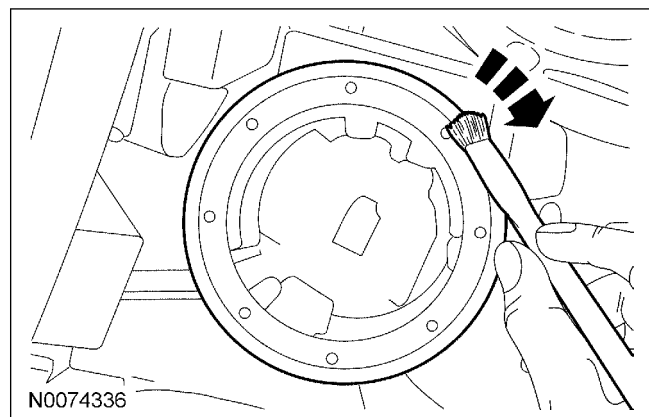
17. Reposition the A pillar trim panel.

Install The Securilock Interface Kit

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



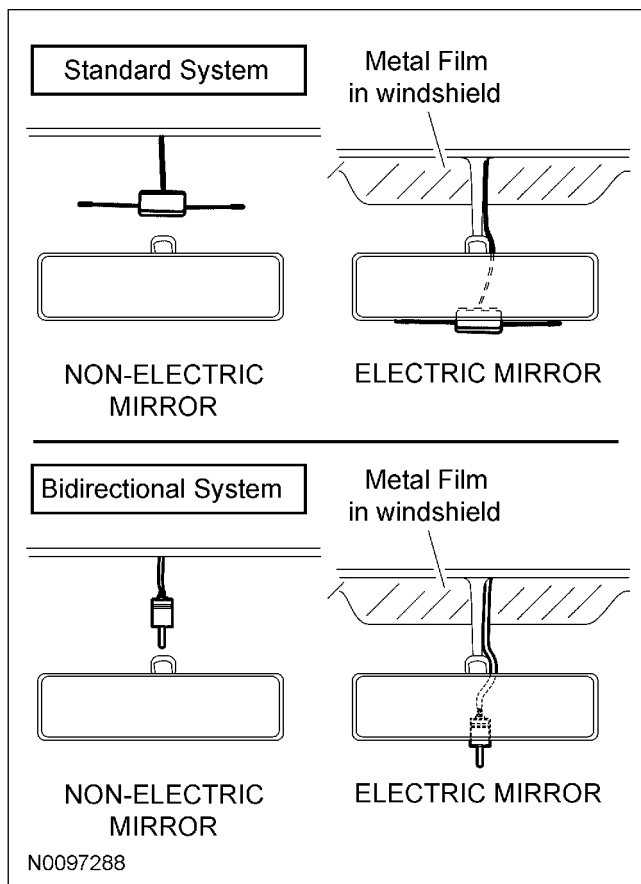
19. Following the directions on the supplied tube of adhesive primer, apply a thin coating around the transceiver antenna coil and allow to dry for approximately 5 minutes.



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

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

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

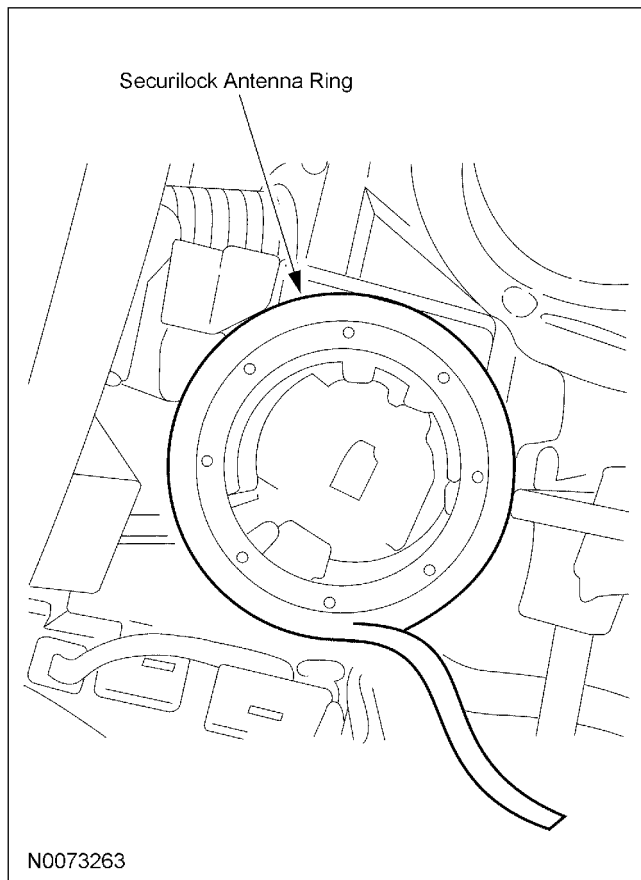


INSTALLATION (Continued)

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

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

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

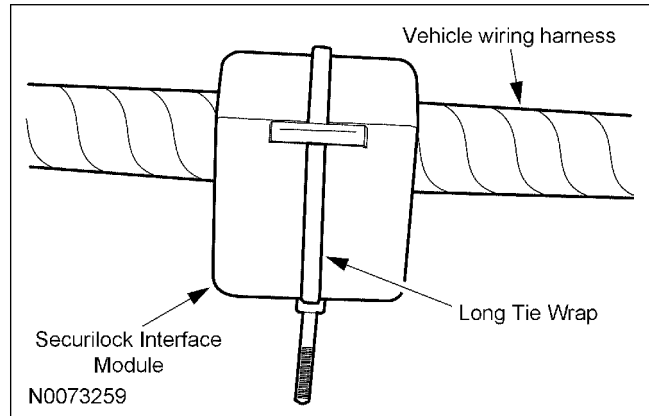
**Install The Securilock Interface Module**

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

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

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

Route the harness and connector to the module mounting location.

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

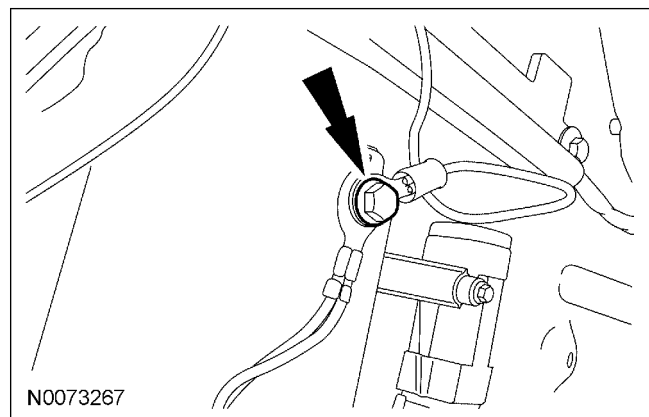
23. Place the remote start module and harness assembly on the floor of the vehicle.

Identify Circuit Wires For Connections

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

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

24. Connect the Black ground wire from the remote start module harness to the chassis ground point in the driver kick panel.
25. Disconnect the ignition switch electrical connector.
26. Connect the remote start harness hard shell connectors at the ignition switch and ignition switch connector.



INSTALLATION (Continued)

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

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

Identify the Blue/White horn circuit wire in the steering column harness.

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

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

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

Identify the Grey/Yellow power door lock circuit wire at the driver's kick panel harness.

30. Connect the Blue wire from the remote start module harness to the Grey/Yellow power door lock circuit at the driver's kick panel harness.

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

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

Identify the Violet/White brake switch circuit wire at the driver kick panel harness.

32. Connect the Brown wire from the remote start module harness to the Violet/White brake switch circuit wire at the driver kick panel harness.

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

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

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

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

Identify the Yellow/Grey dome light circuit wire at the driver's kick panel harness.

34. Connect the Green/Violet wire from the remote start module harness to the Yellow/Grey dome light circuit wire at the driver's kick panel harness.

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

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

Identify the Grey parking light circuit wire at the headlight switch.

36. Connect the White wire from the remote start module harness to the Grey parking light circuit wire at the headlight switch

INSTALLATION (Continued)**Install The Hood Safety Switch**

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

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

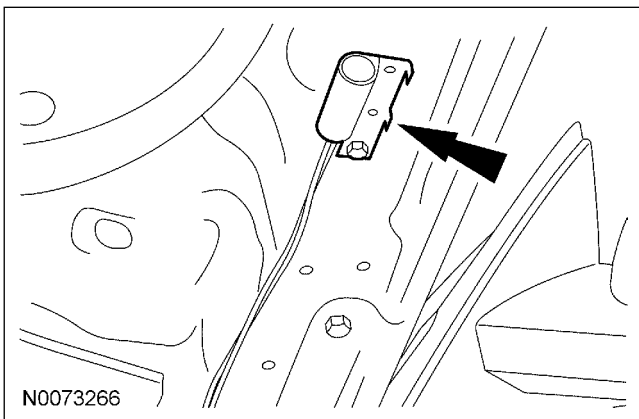
NOTE: The switch should be positioned about 30 degrees below parallel to the ground to accommodate for parking on inclines.

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

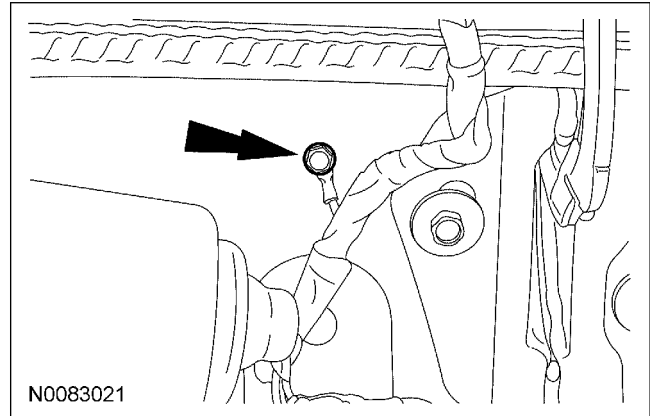
- False alarm trips
- Non-Remote Start events
- Inadvertent shutdown during Remote Start

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

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

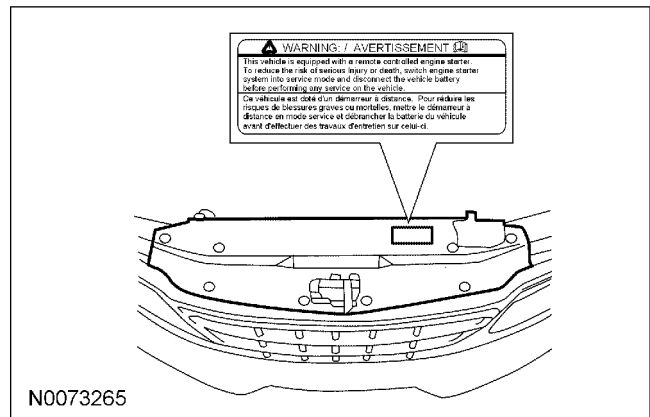


39. Connect hood switch ground wire to a suitable location on the bulkhead.

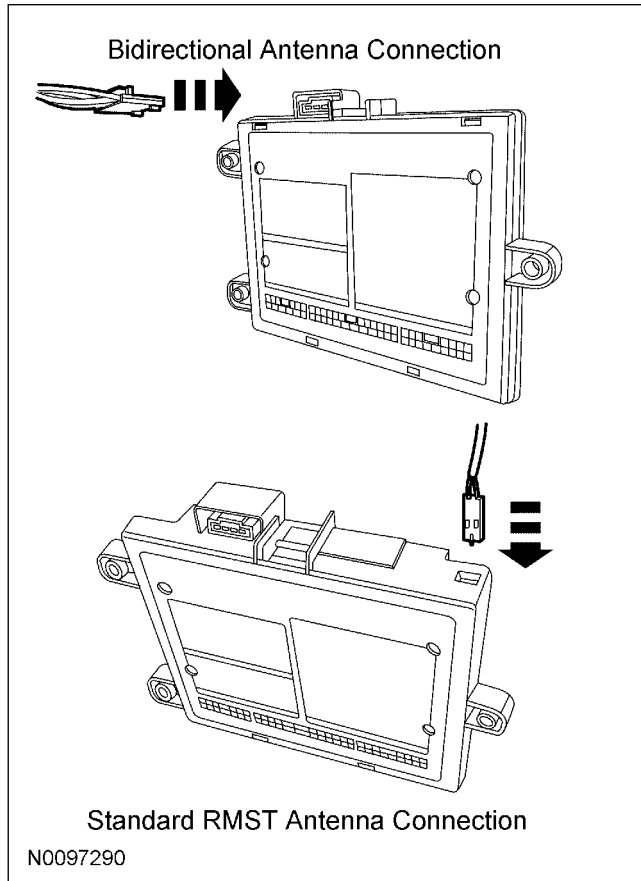


40. **NOTE:** Place the label on the radiator fan shroud or similar area.

Install the underhood warning label



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

INSTALLATION (Continued)

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

Program The RMST System

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

Secure RMST Harness and Control Module

45. Use the supplied tie wraps to secure the RMST harness wires.
46. **NOTE:** Do not mount the control module in the knee bolster area.
- Secure the control module at three points to the vehicle.
- Use the supplied long tie wraps to mount the RMST control module to the underdash wiring harness.

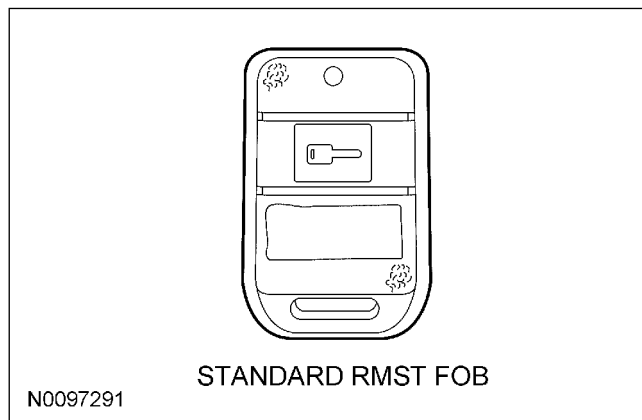
Install Trim

47. Install the left hand cowl trim panel.
- 1 Install the cowl trim panel.
 - 2 Install the scuff plate.
48. Install the upper and lower steering column shrouds.
- Install the 3 screws.
49. Install the steering column opening cover.
- Install the 2 screws.

GENERAL PROCEDURES

Programming - Standard Remote Start

Programming the Module



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

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

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

NOTE: The remote start override button must be accessible.

Programming Options: Entering Programming Mode

2. See chart below for programming information.

Program Bank 2 Chart (5 Honks)

BANK	OPTIONS	DESCR	LED
2	1	TACHLESS MODE	ON

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

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

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

Release the brake pedal and the RMST override button.

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

If not, please check the following:

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

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

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

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

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

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

GENERAL PROCEDURES (Continued)

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

NOTE: The remote start module is now programmed.

10. Remove the ignition key.

Programming the SECURILOCK

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

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

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

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

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

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

13. Press and hold the remote start button



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

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

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

14. Place a key in the ignition and turn to the RUN position.

Depress the brake pedal and place the transmission selector lever in gear.

The vehicle should run without interruption.

GENERAL PROCEDURES

Functional Test - Standard Remote Start

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

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

1. Make sure all doors are closed but hood is open and windows are down (doors will be locking).
2. Press and hold the Start button on the remote control key fob for 2-3 seconds - Horn should honk once indicating receipt of the start request.
3. The remote start systems should turn on the ignition, but then honk the horn twice and shut down indicating the hood is open.
4. Close the hood, and insert a key into the ignition switch.
5. Attempt to re-start the vehicle again using the key fob.
6. The remote start systems should turn on the ignition, but then honk the horn five times and shut down indicating a key is in the ignition switch.
7. Remove the key and open a door.
8. Attempt to re-start the vehicle again using the key fob.
9. The remote start systems should turn on the ignition, but then honk the horn three times and shut down indicating a door is open.
10. Close the door.
11. Attempt to re-start the vehicle again using the key fob.
12. Once the vehicle starts, verify that all heat and A/C functions operate normally and that the doors have locked.
13. On vehicles equipped with power window interrupt, Attempt to close windows to check power window interrupt function.
14. Once all systems have been checked, press the brake pedal - the remote start systems should shut down.

Troubleshooting

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

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

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

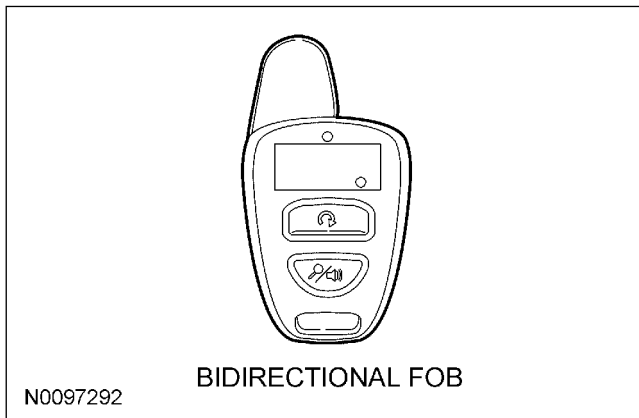
GENERAL PROCEDURES (Continued)

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

GENERAL PROCEDURES

Programming - Bidirectional Remote Start

Programming the Module



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

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

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

NOTE: The remote start override button must be accessible.

Programming Options: Entering Programming Mode

2. See chart below for programming information.

Program Bank 2 Chart (5 Honks)

BANK	OPTIONS	DESCR	LED
2	1	TACHLESS MODE	ON

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

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

After 10 seconds the horn will honk 3 times, indicating the system is now in the learn mode. Release the brake pedal and the RMST override button.

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

If not, please check the following:

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

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

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

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

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

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

GENERAL PROCEDURES (Continued)

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

NOTE: The remote start module is now programmed.

10. Remove the ignition key.

Programming the SECURILOCK

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


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

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

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

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

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

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

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

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

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

14. Place a key in the ignition and turn to the RUN position.

Depress the brake pedal and place the transmission selector lever in gear.

The vehicle should run without interruption.

GENERAL PROCEDURES

Functional Test - Bidirectional Remote Start

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

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

1. Make sure all doors are closed but hood is open and windows are down (doors will be locking).
2. Press the Start button on the remote control key fob twice within 3 seconds - Horn should honk once indicating receipt of the start request.
3. The remote start systems should turn on the ignition, but then honk the horn twice and shut down indicating the hood is open.
4. Close the hood, and insert a key into the ignition switch.
5. Attempt to re-start the vehicle again using the key fob.
6. The remote start systems should turn on the ignition, but then honk the horn five times and shut down indicating a key is in the ignition switch.
7. Remove the key and open a door.
8. Attempt to re-start the vehicle again using the key fob.
9. The remote start systems should turn on the ignition, but then honk the horn three times and shut down indicating a door is open.
10. Close the door.
11. Attempt to re-start the vehicle again using the key fob.
12. Once the vehicle starts, verify that all heat and A/C functions operate normally and that the doors have locked.
13. On vehicles equipped with power window interrupt, Attempt to close windows to check power window interrupt function.
14. Once all systems have been checked, press the brake pedal - the remote start systems should shut down.

Troubleshooting

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

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

CHIRPS	PROBLEM
1 Chirp	SECURILOCK not programmed correctly, or the SECURILOCK antenna ring is damaged.
2 Chirps	BRAKE is being pressed, or the HOOD is open.
3 Chirps	One of the vehicles DOORS are open.
4 Chirps	TACH not programmed.
5 Chirps	The KEY is in the ignition.
6 Chirps	The remote start system is in SERVICE/VALET mode.

'09 Explorer/Mountaineer/Sport Trac

TYPE "A" CUSTOM WIRE HARNESS

RMST MODULE WIRE HARNESS

STEERING COLUMN HARNESS

	Color	Function
A-3	PINK	Ignition Input/Output
A-2	ORANGE	HVAC Output
A-13	VIOLET	Starter Output
B-8	BLACK/WHITE	Key-in-sense Input
A-4	RED	Battery

	Color	Function
A-21	BROWN/BLACK	Horn Relay Output
A-1	WHITE	Parking Light Output

DRIVER'S KICK PANEL HARNESS

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

UNDER HOOD HARNESS

	Color	Function
A-19	GRAY	Hood Open Switch Input

VEHICLE HARNESS

IGNITION SWITCH

Horn (BLUE/WHITE)  STEERING COLUMN HARNESS


Parking Lights (GRAY)  HEADLIGHT SWITCH

MAKE THIS CONNECTION FIRST!

CHASSIS GROUND POINT
IN DRIVER'S KICK PANEL

Door Lock (GRAY/YELLOW) 

Brake (VIOLET/WHITE) 

Dome Light Return (YELLOW/GRAY) 

DRIVERS
SIDE KICK
PANEL

Vehicle
Interior

Engine
Compartment

Hood Tilt Switch

Chassis
Ground

Do Not Ground to Hood!

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REMOTE START SYSTEM INSTALLATION

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[Troubleshooting](#)

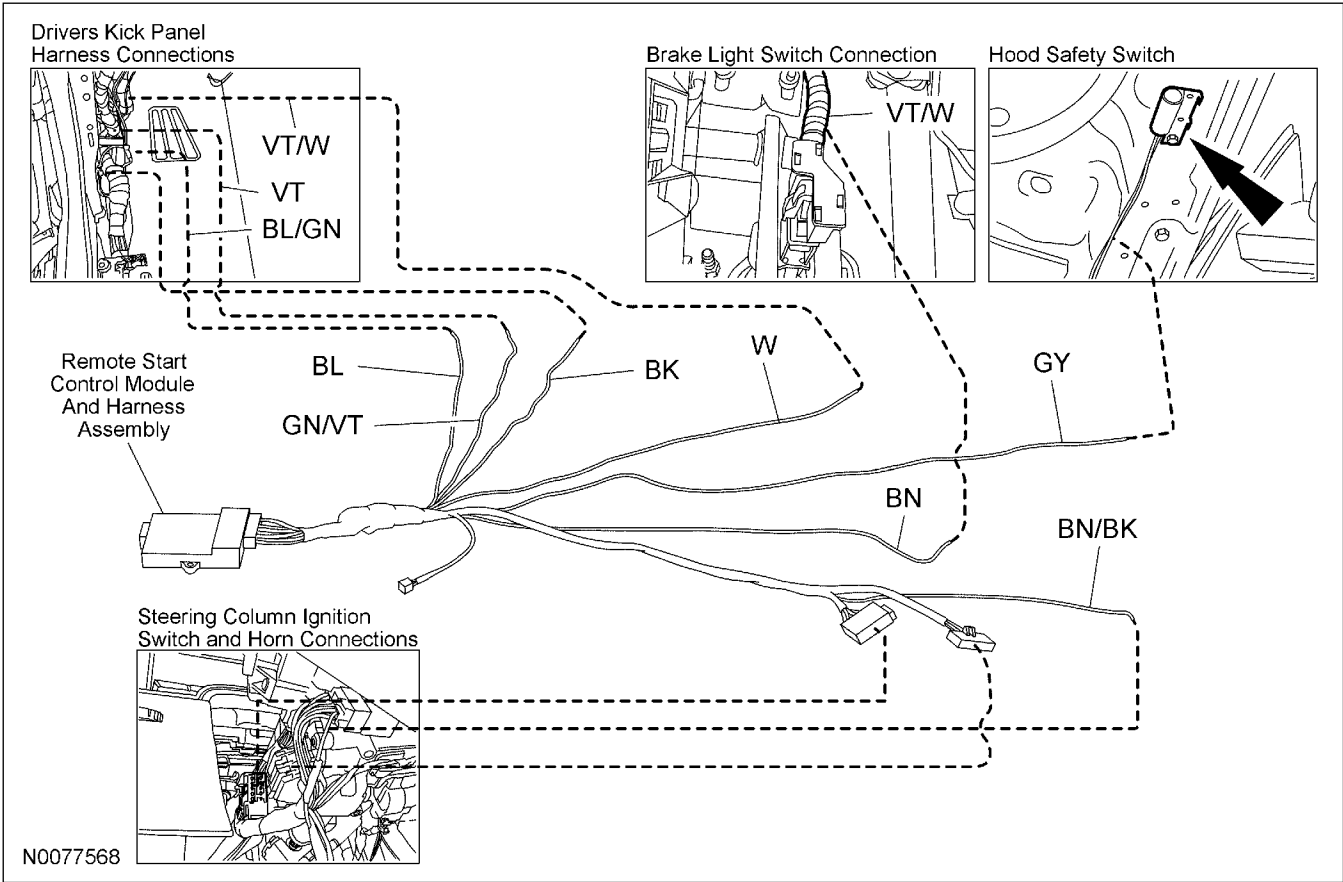
WIRING DIAGRAMS

[Vehicle Specific Wiring Diagrams](#)

INSTALLATION

Remote Start

Remote Start System RMST Components



F-150

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

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

- 1. Verify correct kit number.
- 2. Review the RMST kit contents.

Review Remote Start Installation Kit Contents

NOTE: Use kit number 7W3Z-19G364-AA (GFA) REMOTE START SYSTEM
9C3Z-19G364-A (GFA) BIDIRECTIONAL REMOTE START SYSTEM.

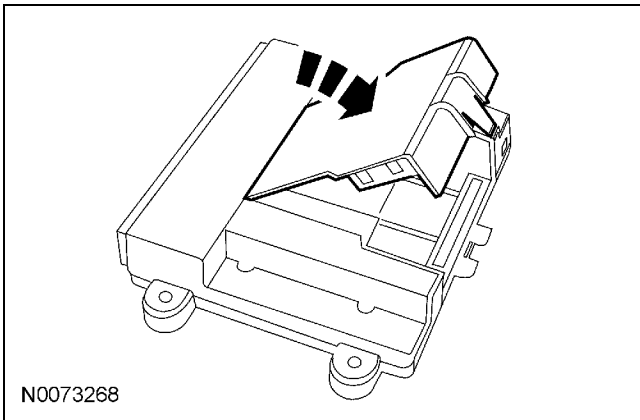
NOTE: Kits are vehicle specific and are not interchangeable.

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

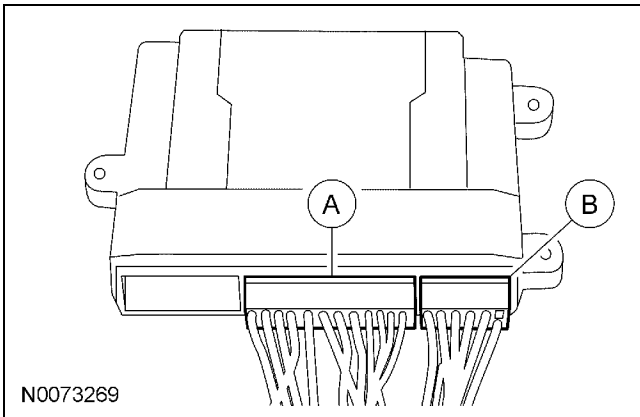
QUANTITY	DESCRIPTION
1	TYPE - "C" MODULE ASSEMBLY
1	RMST SOFTWARE CARTRIDGE ASSEMBLY

INSTALLATION (Continued)

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



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

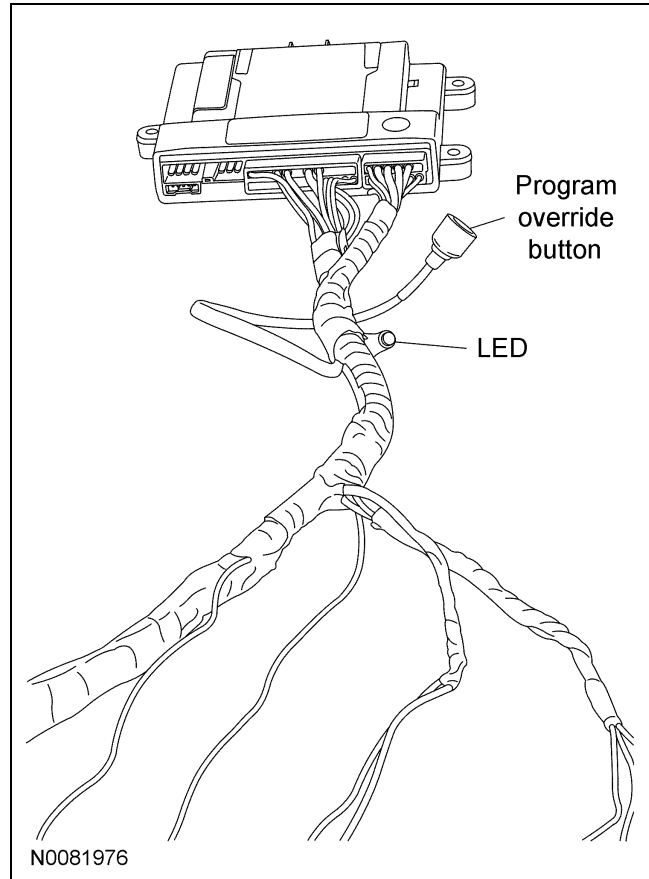


7. **NOTE:** Do not cut the override programming button off of the harness, it is used for all installations.

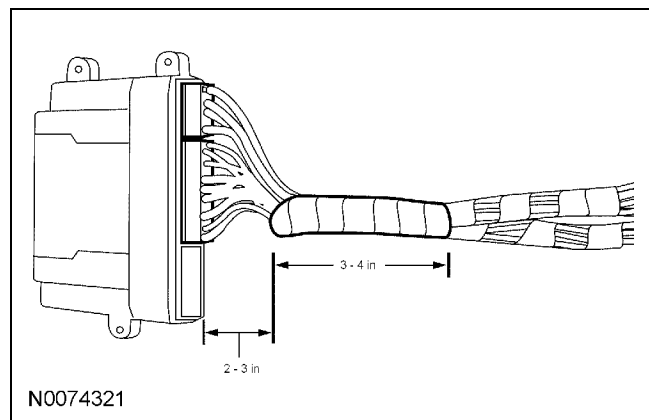
NOTE: For vehicle specific wiring diagram(s) [click here](#).

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

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



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

**Vehicle Preparation**

9. Remove the steering column opening trim.
10. Remove the 3 screws and the upper and lower steering column shrouds.
11. Remove the driver side scuff plate and cowl trim panel.

INSTALLATION (Continued)

Antenna Mounting

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

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

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

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

Install The Antenna

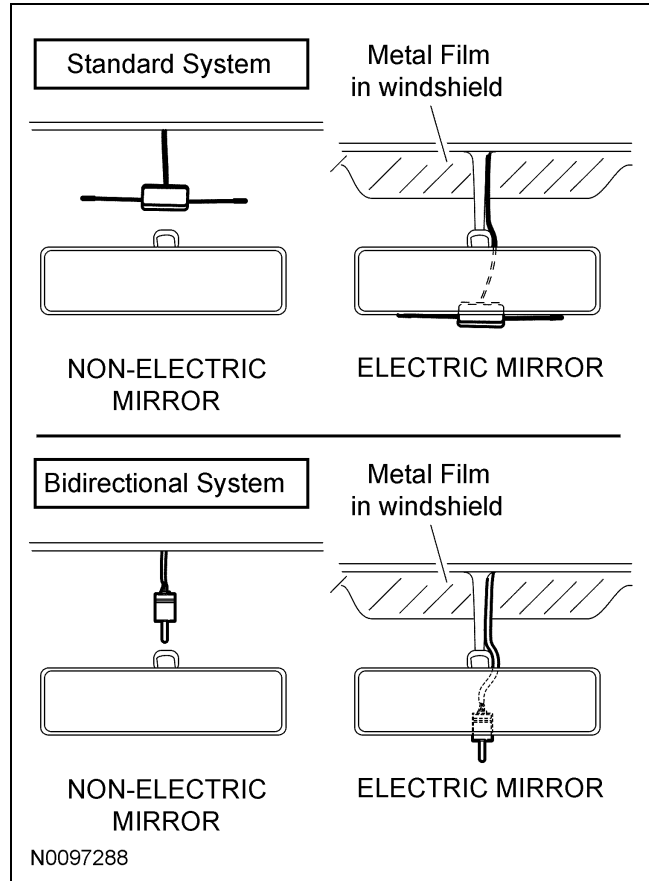
13. Clean the mounting surface using an alcohol base solution and a clean cloth.

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

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

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

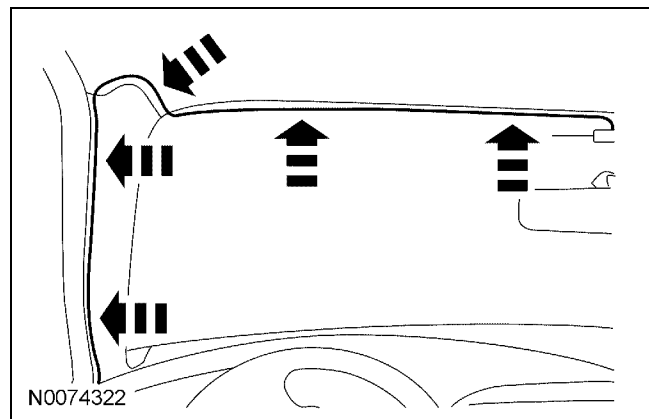
Remove the protective backing from the adhesive on the antenna and firmly press the body of the antenna to the windshield.



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

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

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

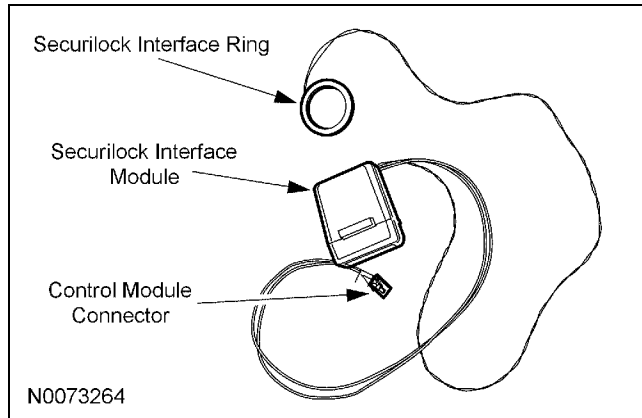


17. Reposition the A pillar trim panel.

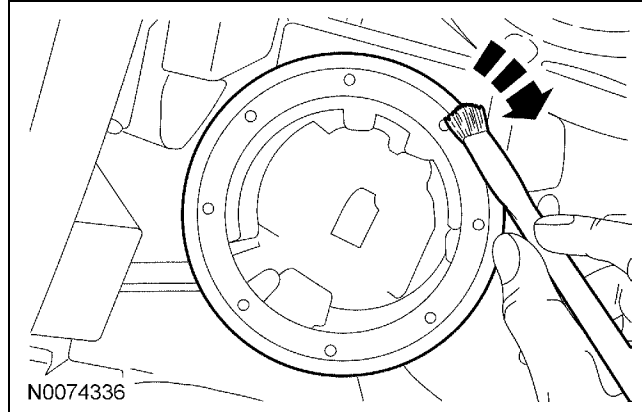
INSTALLATION (Continued)

Install The Securilock Interface Kit

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



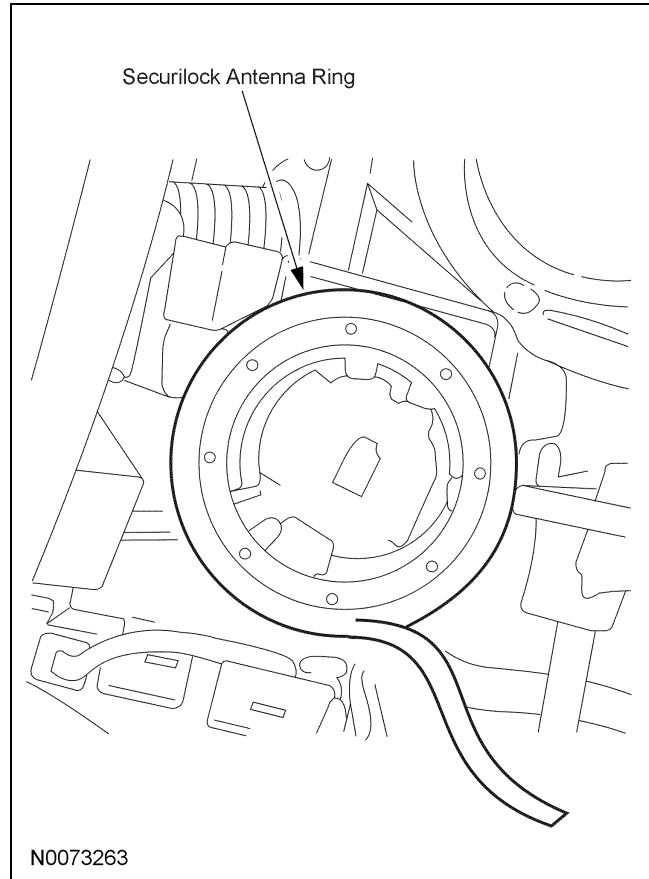
19. Following the directions on the supplied tube of adhesive primer, apply a thin coating around the transceiver antenna coil and allow to dry for approximately 5 minutes.



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

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

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



Install The Securilock Interface Module

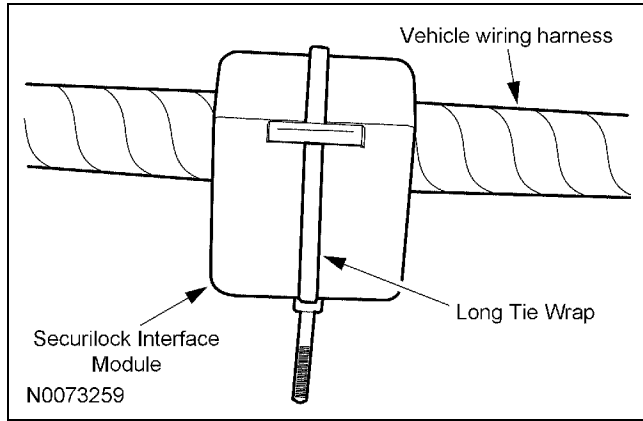
21. **NOTE:** Do Not mount the SECURILOCK Interface Module to or within 3'' of a metal surface, including any underdash brackets, or in the knee bolster area.

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

INSTALLATION (Continued)

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

Route the harness and connector to the module mounting location.

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

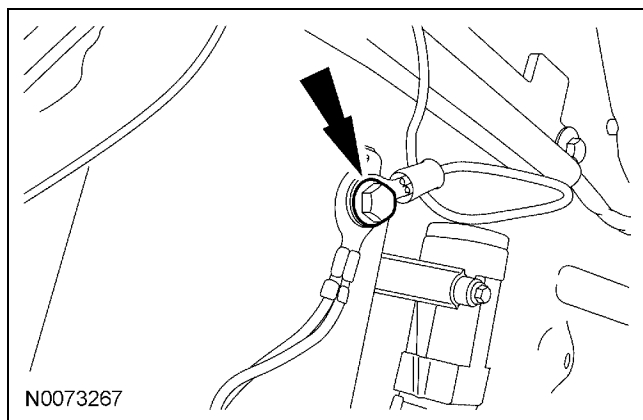
23. Place the remote start module and harness assembly in the vehicle.

Identify Circuit Wires For Connections

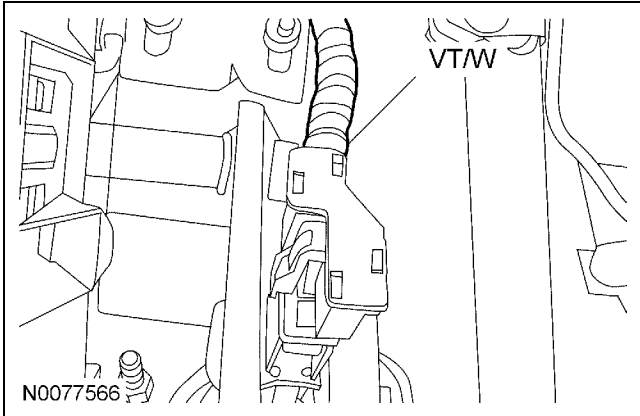
NOTE: For vehicle specific wiring diagram(s) click [here](#).

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

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



25. Disconnect the ignition switch electrical connector.
26. Connect the remote start harness hard shell connectors at the ignition switch and ignition switch connector.
27. **NOTE:** A DVOM connected to the correct wire will show 12V, then show 0V when the horn button is held.
A logic probe will show power on the correct wire, then show ground when the horn button is held.
Identify the Blue/White horn circuit wire in the steering column harness.
28. Connect the Brown/Black wire from the remote start module harness to the Blue/White horn circuit wire in the steering column harness.
29. **NOTE:** A DVOM connected to the correct wire will show 12V, then show 0V when the door lock switch is pressed.
A logic probe will show open on the correct wire, then show ground when the door lock switch is pressed.
Identify the Gray/Yellow power door lock circuit wire at the driver kick panel harness.
30. Connect the Blue wire from the remote start module harness to the Gray/Yellow power door lock circuit at the driver kick panel harness.
31. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V while depressing the brake pedal.
A logic probe will show open on the correct wire, then show power while depressing the brake pedal.
Identify the Violet/White brake switch circuit wire at the brake switch.

INSTALLATION (Continued)

32. Connect the Brown wire from the remote start module harness to the Violet/White brake switch circuit wire at the brake switch.
33. **NOTE:** A DVOM connected to the correct wire will show 12V with the vehicle door(s) open and the dome light ON, then show 0V with the vehicle door(s) closed and the dome light OFF.
- NOTE:** A logic probe connected to the correct wire will show power with the vehicle door(s) open and the dome light ON, then show ground with the vehicle door(s) closed and the dome light OFF.
- NOTE:** Be sure that the dome light has timed out and is OFF before performing the door closed test.
- Be sure that the dome lamp is illuminated before performing the door open test.
- Identify the Gray/Violet dome light circuit wire at the Smart Junction Box (SJB) C2280A connector Pin 9.
- Wires can be routed between the bulkhead and the HVAC to the SJB.
 - Wire may need to be extended to reach the SJB.
34. Connect the Green/Violet wire from the remote start module harness to the Gray/Violet dome light circuit wire at the SJB C2280A connector Pin 9.

35. **NOTE:** A DVOM connected to the correct wire will show 12V with the switch in the ON position and 0V with the switch in the parking lights OFF position.

A logic probe connected to the correct wire will show ground with the switch in the OFF position and power with the switch in the parking lights ON position.

Identify the Violet/White parking lights on circuit wire at the SJB C2280E connector Pin 6.

36. Connect the White wire from the remote start module harness to the Violet/White parking lights on circuit wire at the SJB C2280E connector Pin 6.

Install The Hood Safety Switch

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

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

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

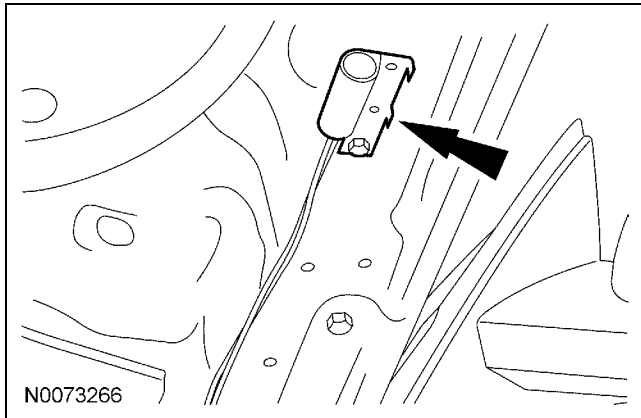
Failure to position the switch properly could result in one of the following:

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

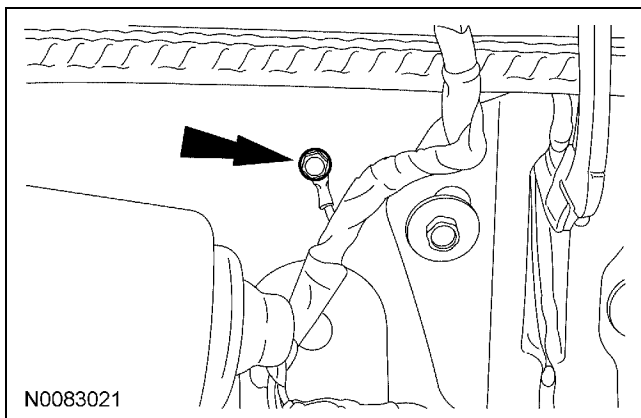
Locate an easy to access area near the driver side hood hinge and install the hood safety switch using the supplied metal screws.

INSTALLATION (Continued)

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

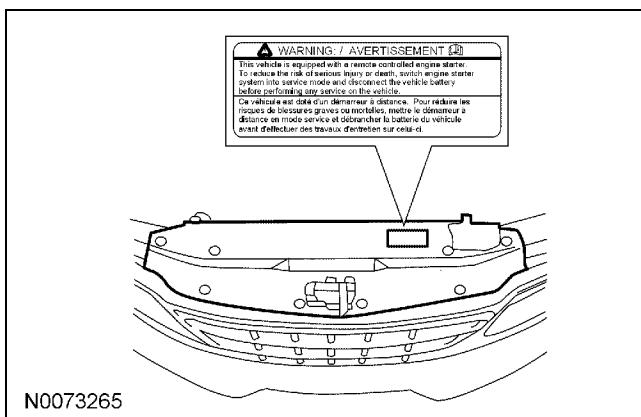


39. Connect hood switch ground wire to a suitable location on the bulkhead.



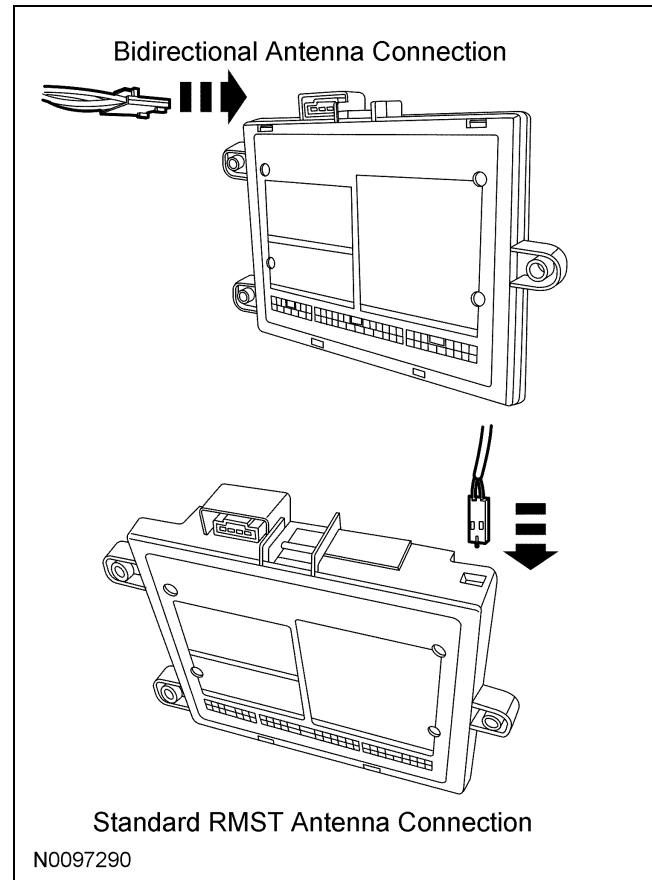
40. **NOTE:** Place the label on the radiator fan shroud or similar area.

Install the underhood warning label



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

42. Connect the antenna to the RMST control module.



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

Program The RMST System

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

Secure RMST Harness and Control Module

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

INSTALLATION (Continued)

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

Secure the control module at three points to the vehicle.

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

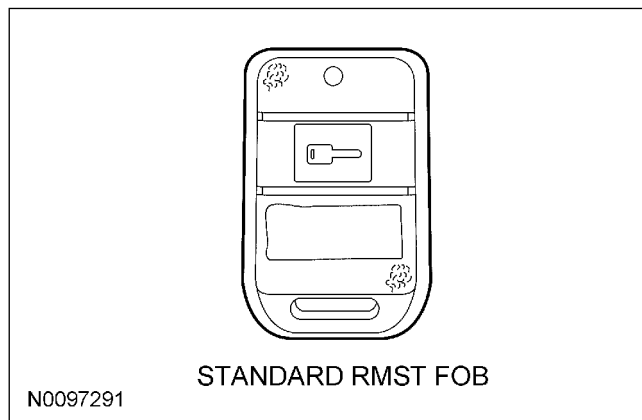
Install Trim

47. Install the left hand cowl trim panel.
- 1 Install the cowl trim panel.
 - 2 Install the scuff plate.
48. Install the upper and lower steering column shrouds.
- Install the 3 screws.
49. Install the lower steering column opening cover.
- Install the 3 screws.
-

GENERAL PROCEDURES

Programming - Standard Remote Start

Programming the Module



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

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

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

NOTE: The remote start override button must be accessible.

Programming Options: Entering Programming Mode

- See chart below for programming information.

Program Bank 2 Chart (5 Honks)

BANK	OPTIONS	DESCR	LED
2	1	TACHLESS MODE	ON

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

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

After 10 seconds the horn will honk 3 times, indicating the system is now in the learn mode. Release the brake pedal and the RMST override button.

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

If not, please check the following:

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

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

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

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

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

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

GENERAL PROCEDURES (Continued)

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

NOTE: The remote start module is now programmed.

10. Remove the ignition key.

Programming the SECURILOCK

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

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

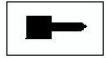
11. Insert the first ignition key and turn to the run position.

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

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

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

13. Press and hold the remote start button



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

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

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

14. Place a key in the ignition and turn to the RUN position.

Depress the brake pedal and place the transmission selector lever in gear.

The vehicle should run without interruption.

GENERAL PROCEDURES

Functional Test - Standard Remote Start

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

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

1. Make sure all doors are closed but hood is open and windows are down (doors will be locking).
2. Press and hold the Start button on the remote control key fob for 2-3 seconds - Horn should honk once indicating receipt of the start request.
3. The remote start systems should turn on the ignition, but then honk the horn twice and shut down indicating the hood is open.
4. Close the hood, and insert a key into the ignition switch.
5. Attempt to re-start the vehicle again using the key fob.
6. The remote start systems should turn on the ignition, but then honk the horn five times and shut down indicating a key is in the ignition switch.
7. Remove the key and open a door.
8. Attempt to re-start the vehicle again using the key fob.
9. The remote start systems should turn on the ignition, but then honk the horn three times and shut down indicating a door is open.
10. Close the door.
11. Attempt to re-start the vehicle again using the key fob.
12. Once the vehicle starts, verify that all heat and A/C functions operate normally and that the doors have locked.
13. On vehicles equipped with power window interrupt, Attempt to close windows to check power window interrupt function.
14. Once all systems have been checked, press the brake pedal - the remote start systems should shut down.

Troubleshooting

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

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

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

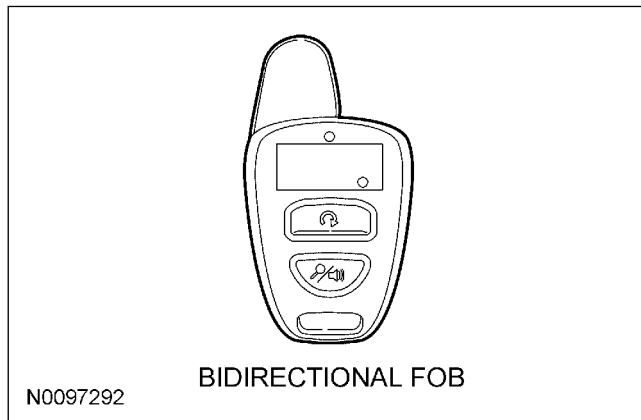
GENERAL PROCEDURES (Continued)

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

GENERAL PROCEDURES

Programming - Bidirectional Remote Start

Programming the Module



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

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

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

NOTE: The remote start override button must be accessible.

Programming Options: Entering Programming Mode

- See chart below for programming information.

Program Bank 2 Chart (5 Honks)

BANK	OPTIONS	DESCR	LED
2	1	TACHLESS MODE	ON

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

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

After 10 seconds the horn will honk 3 times, indicating the system is now in the learn mode. Release the brake pedal and the RMST override button.

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

If not, please check the following:

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

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

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

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

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

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

GENERAL PROCEDURES (Continued)

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

NOTE: The remote start module is now programmed.

10. Remove the ignition key.

Programming the SECURILOCK

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


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

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

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

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

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

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

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

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

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

14. Place a key in the ignition and turn to the RUN position.

Depress the brake pedal and place the transmission selector lever in gear.

The vehicle should run without interruption.

GENERAL PROCEDURES

Functional Test - Bidirectional Remote Start

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

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

1. Make sure all doors are closed but hood is open and windows are down (doors will be locking).
2. Press the Start button on the remote control key fob twice within 3 seconds - Horn should honk once indicating receipt of the start request.
3. The remote start systems should turn on the ignition, but then honk the horn twice and shut down indicating the hood is open.
4. Close the hood, and insert a key into the ignition switch.
5. Attempt to re-start the vehicle again using the key fob.
6. The remote start systems should turn on the ignition, but then honk the horn five times and shut down indicating a key is in the ignition switch.
7. Remove the key and open a door.
8. Attempt to re-start the vehicle again using the key fob.
9. The remote start systems should turn on the ignition, but then honk the horn three times and shut down indicating a door is open.
10. Close the door.
11. Attempt to re-start the vehicle again using the key fob.
12. Once the vehicle starts, verify that all heat and A/C functions operate normally and that the doors have locked.
13. On vehicles equipped with power window interrupt, Attempt to close windows to check power window interrupt function.
14. Once all systems have been checked, press the brake pedal - the remote start systems should shut down.

Troubleshooting

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

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

CHIRPS	PROBLEM
1 Chirp	SECURILOCK not programmed correctly, or the SECURILOCK antenna ring is damaged.
2 Chirps	BRAKE is being pressed, or the HOOD is open.
3 Chirps	One of the vehicles DOORS are open.
4 Chirps	TACH not programmed.
5 Chirps	The KEY is in the ignition.
6 Chirps	The remote start system is in SERVICE/VALET mode.

'09 F-150

TYPE "C" CUSTOM WIRE HARNESS

RMST MODULE WIRE HARNESS

STEERING COLUMN HARNESS

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

	Color	Function
A-21	BROWN/BLACK	Horn Relay Output

DRIVER'S KICK PANEL HARNESS

	Color	Function
A-5	BLACK	Ground
A-24	BLUE	Door Lock Output
B-7	BROWN	Brake Input
A-20	GREEN/VIOLET	Door Ajar Switch Input
A-1	WHITE	Parking Light Output

UNDER HOOD HARNESS

	Color	Function
A-19	GRAY	Hood Open Switch Input

VEHICLE
HARNESS

IGNITION
SWITCH

Horn (BLUE/WHITE)

STEERING
COLUMN
HARNESS

MAKE THIS CONNECTION FIRST!

CHASSIS GROUND POINT
IN DRIVER' S KICK PANEL

Door Lock (GRAY/YELLOW)

DRIVERS SIDE
KICK PANEL

Brake (VIOLET/WHITE)

BRAKE SWITCH

Dome Light (GRAY/VIOLET)

SJB C2280A
Pin 9

Parking Lights On (VIOLET/WHITE)

SJB C2280E Pin 6

Vehicle
Interior

Engine
Compartment

Chassis
Ground

Do Not Ground to Hood!

Hood Tilt Switch

[Manual Table of Contents](#)

REMOTE START SYSTEM INSTALLATION

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[Troubleshooting](#)

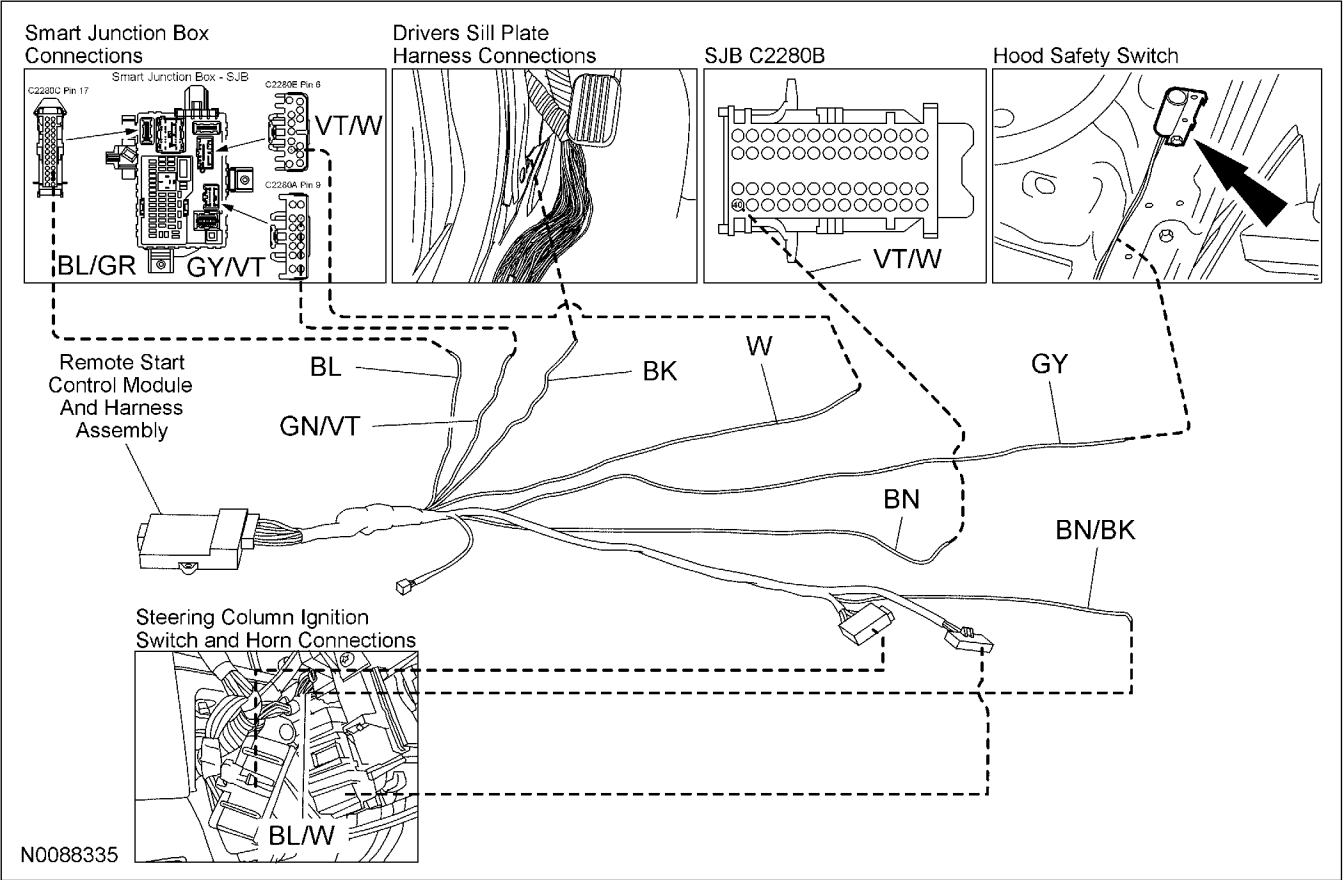
WIRING DIAGRAMS

[Vehicle Specific Wiring Diagrams](#)

INSTALLATION

Remote Start

Remote Start System RMST Components



Flex

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

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

1. Verify correct kit number.
2. Review the RMST kit contents.

Review Remote Start Installation Kit Contents

NOTE: Use kit number 7L2Z-19G364-AA (GFA) REMOTE START SYSTEM
9G1Z-19G364-A (GFA) BIDIRECTIONAL REMOTE START SYSTEM.

NOTE: Kits are vehicle specific and are not interchangeable.

Remote Start System Standard Kit (RMST) Type - "A"

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

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

QUANTITY	DESCRIPTION
2	1 BUTTON POWERCODE TRANSMITTER
1	TYPE - "A" CUSTOM WIRING HARNESS
1	ANTENNA
1	HOOD SAFETY SWITCH ASSEMBLY
1	INSTALLATION PARTS BAG
1	FUSE PARTS BAG
1	OPERATORS INSTRUCTIONS
1	OPERATORS QUICK REFERENCE WALLET CARD
1	UNDERHOOD WARNING LABEL
1	SECURILOCK INTERFACE KIT

3. Review the RMST bidirectional kit contents.

Remote Start System Bidirectional Kit (RMST) Type - "A"

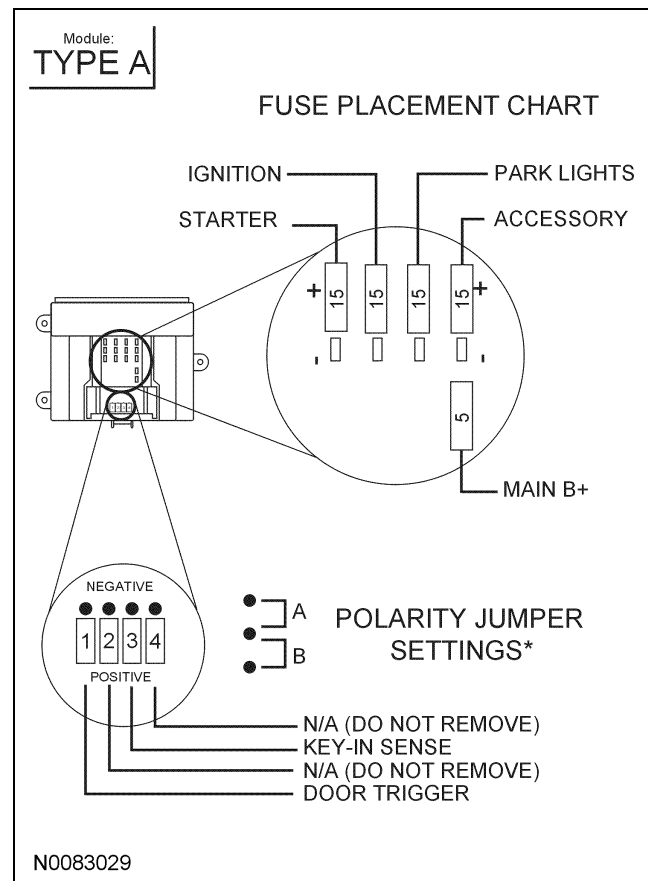
QUANTITY	DESCRIPTION
1	TYPE - "A" MODULE ASSEMBLY
1	RMST SOFTWARE CARTRIDGE ASSEMBLY
1	2 BUTTON POWERCODE TRANSMITTER
1	TYPE - "A" CUSTOM WIRING HARNESS
1	ANTENNA
1	ANTENNA HARNESS
1	HOOD SAFETY SWITCH ASSEMBLY
1	INSTALLATION PARTS BAG
1	FUSE PARTS BAG
1	OPERATORS INSTRUCTIONS

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

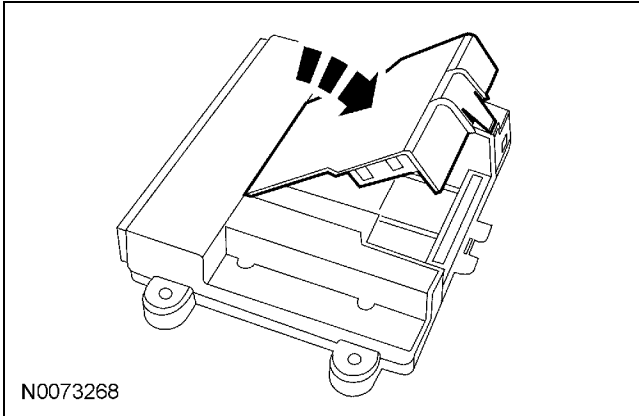
QUANTITY	DESCRIPTION
1	OPERATORS QUICK REFERENCE WALLET CARD
1	UNDERHOOD WARNING LABEL
1	SECURILOCK INTERFACE KIT

Module Preparation

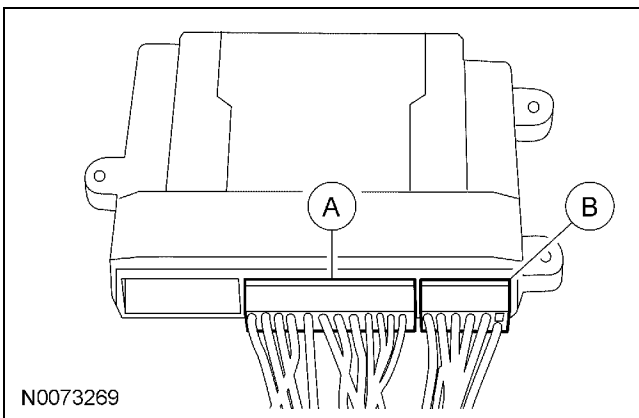
4. Place the supplied fuses into the power distribution block on the remote start control module.
- Move the polarity jumpers to their proper locations on the control module, see illustration.



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

INSTALLATION (Continued)

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

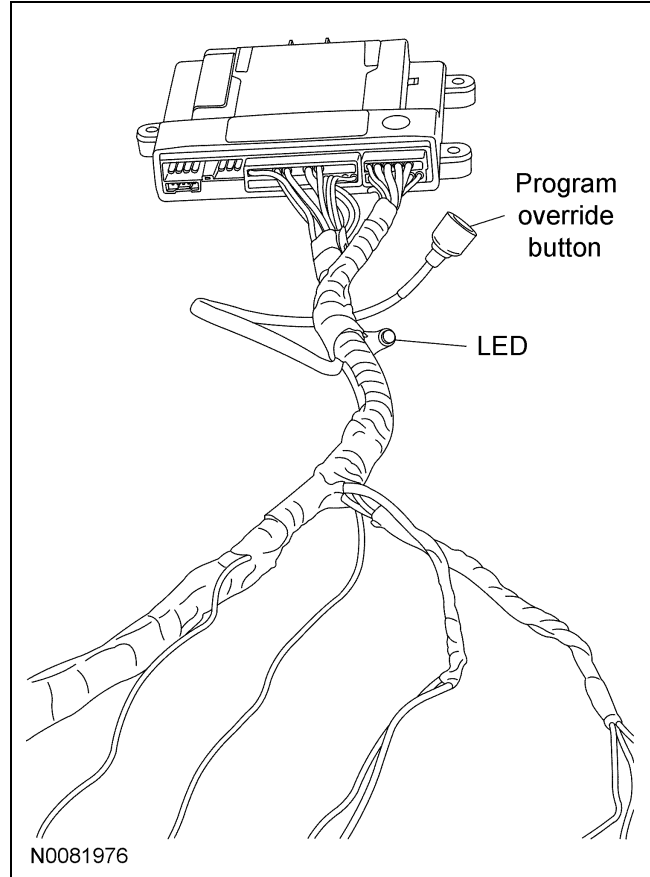


7. **NOTE:** Do not cut the override programming button off of the harness, it is used for all installations.

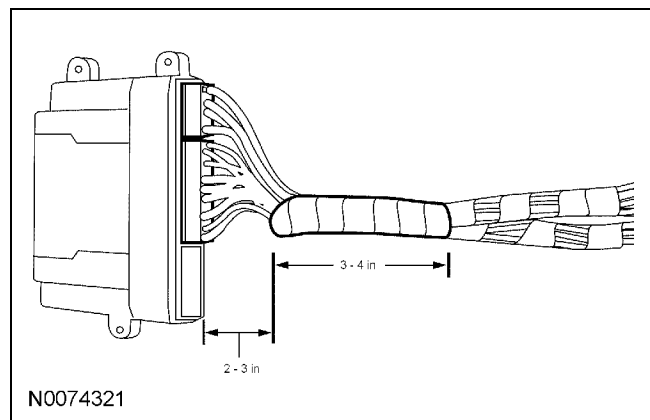
NOTE: For vehicle specific wiring diagram(s) [click here](#).

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

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



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

**Vehicle Preparation**

9. Remove the 3 lower instrument panel steering column cover screws and the cover.
10. Remove the 3 screws and the upper and lower steering column shrouds.

INSTALLATION (Continued)

11. Remove the left hand scuff plate and cowl trim panel.

Antenna Mounting

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

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

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

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

Install The Antenna

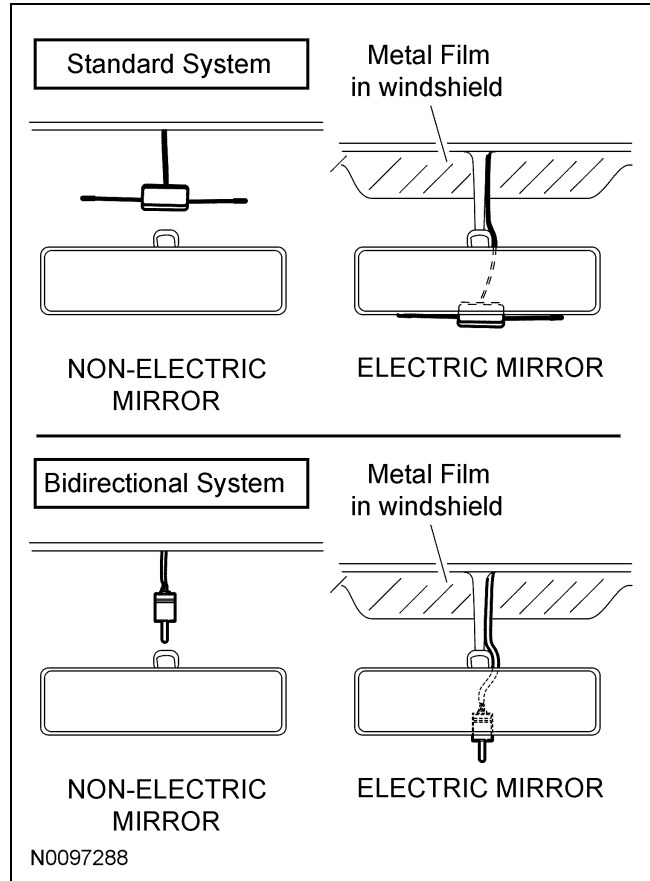
13. Clean the mounting surface using an alcohol base solution and a clean cloth.

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

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

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

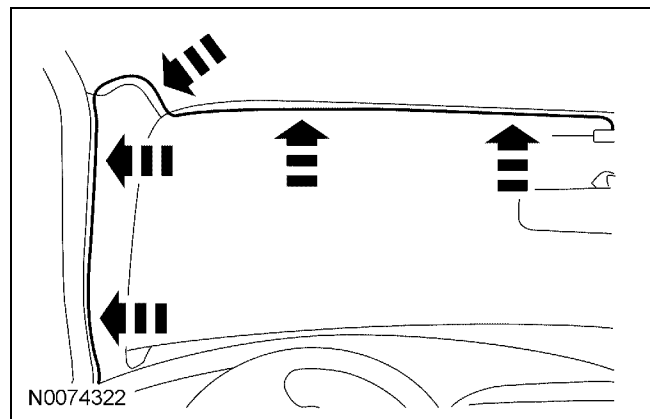
Remove the protective backing from the adhesive on the antenna and firmly press the body of the antenna to the windshield.



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

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

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

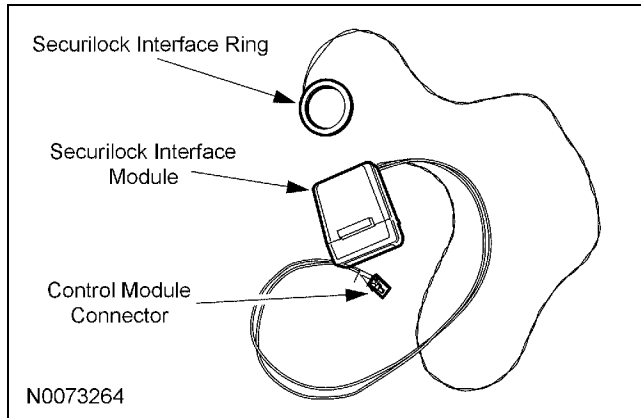


17. Reposition the A pillar trim panel.

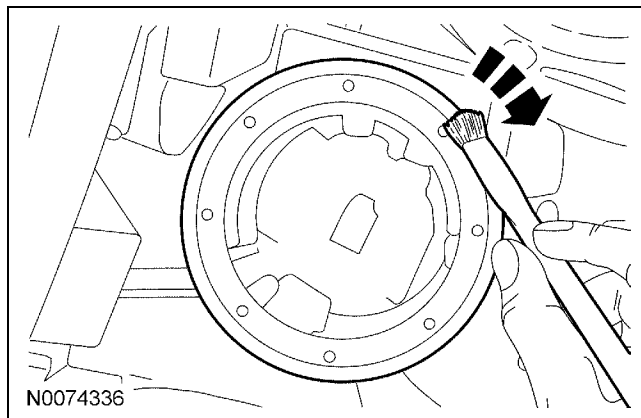
INSTALLATION (Continued)

Install The Securilock Interface Kit

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



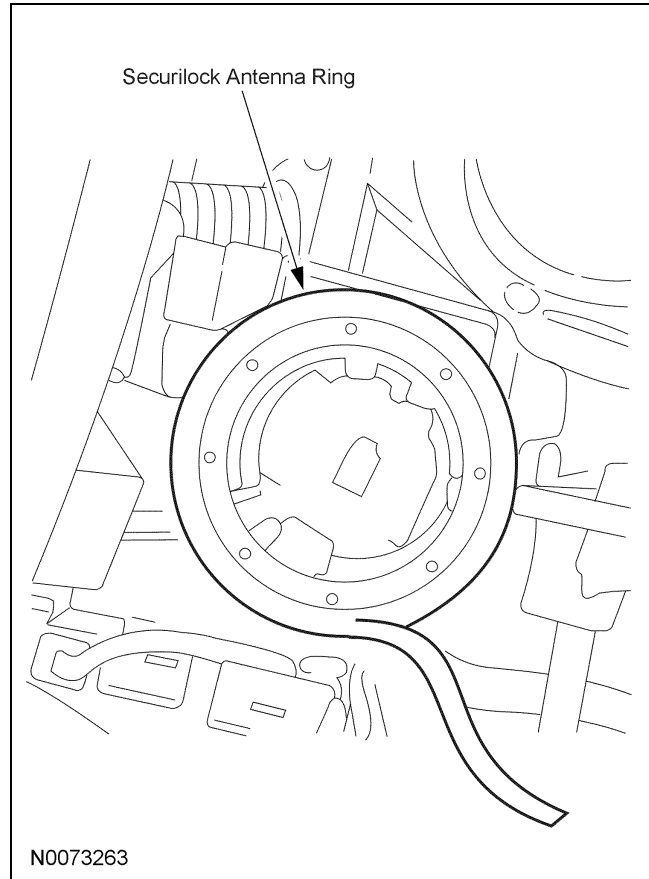
19. Following the directions on the supplied tube of adhesive primer, apply a thin coating around the transceiver antenna coil and allow to dry for approximately 5 minutes.



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

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

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



Install The Securilock Interface Module

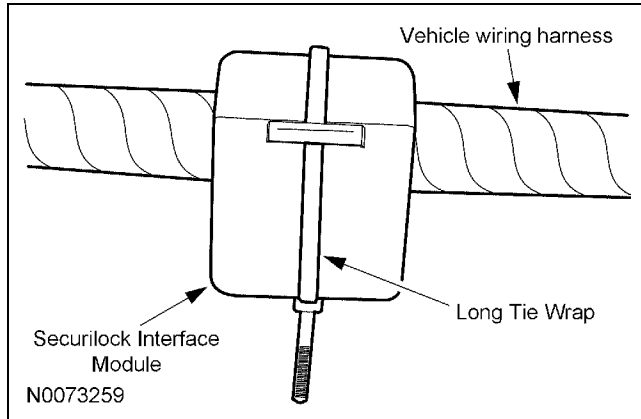
21. **NOTE:** Do Not mount the SECURILOCK Interface Module to or within 3'' of a metal surface, including any underdash brackets, or in the knee bolster area.

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

INSTALLATION (Continued)

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

Route the harness and connector the to module mounting location.

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

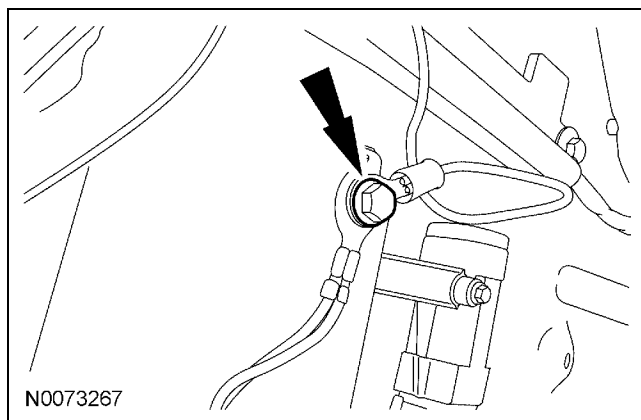
23. Place the remote start module and harness assembly on the floor of the vehicle.

Identify Circuit Wires For Connections

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

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

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



25. Disconnect the ignition switch electrical connector.

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

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

A logic probe will show power on the correct wire, then show ground when the horn button is held.

Identify the Blue/White horn circuit wire in the steering column harness.

28. Connect the Brown/Black wire from the remote start module harness to the Blue/White horn circuit wire in the steering column harness.

29. **NOTE:** A DVOM connected to the correct wire will show 12V, then show 0V when the door lock switch is pressed.

A logic probe will show power on the correct wire, then show ground when the door lock switch is pressed.

Identify the Blue/Green power door lock circuit wire at the Smart Junction Box (SJB) Connector C2280C Pin 17.

30. Connect the Blue wire from the remote start module harness to the Blue/Green wire at the SJB Connector C2280C Pin 17.

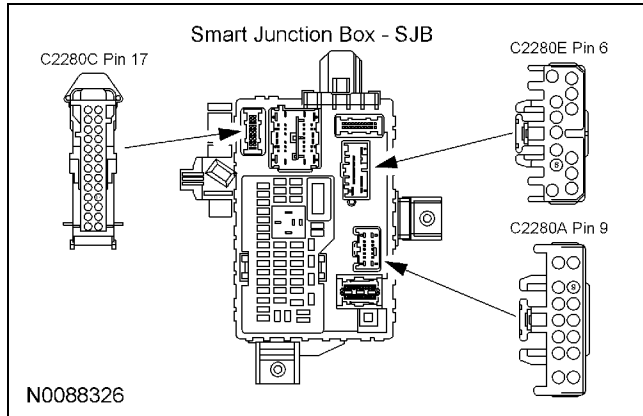
31. **NOTE:** A DVOM connected to the correct wire will show 12V, when the headlight switch is ON, then show 0V when the headlight switch is OFF.

A logic probe will show power on the correct wire when the headlight switch is ON, then show ground when the headlight switch is OFF.

Identify the Violet/White parking light circuit wire at the SJB Connector C2280E Pin 6.

32. Connect the White wire from the remote start module harness to the Violet/White parking light circuit wire at the SJB Connector C2280E Pin 6.

INSTALLATION (Continued)

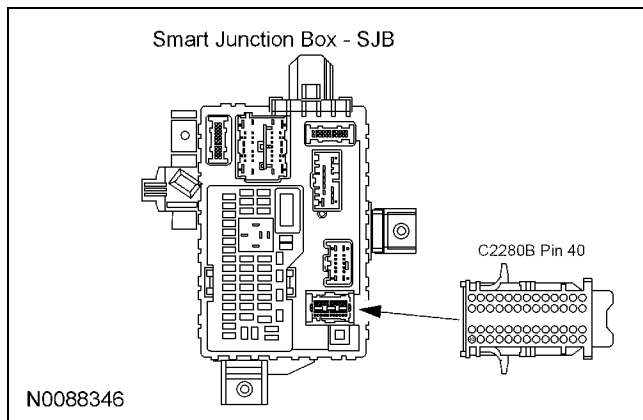


33. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V while depressing the brake pedal.

A logic probe will show ground on the correct wire, then show power while depressing the brake pedal.

Identify the Violet/White brake switch circuit wire at the SJB Connector C2280B Pin 40.

34. Connect the Brown wire from the remote start module harness to the Violet/White brake switch circuit wire at the SJB Connector C2280B Pin 40.



35. **NOTE:** A DVOM connected to the correct wire will show 12V with the vehicle door(s) open and the dome light on, then show 0V with the vehicle door(s) closed and the dome light off.

NOTE: A logic probe connected to the correct wire will show power with the vehicle door(s) open and the dome light on, then show ground with the vehicle door(s) closed and the dome light off.

NOTE: Be sure that the dome light has timed out and is off before performing the door closed test.

Be sure that the dome lamp is illuminated before performing the door open test.

Identify the Grey/Violet dome light circuit wire at the SJB Connector C2280A Pin 9.

36. Connect the Green/Violet wire from the remote start module harness to the Grey/Violet dome light circuit wire at the SJB Connector C2280A Pin 9.

Install The Hood Safety Switch

37. **NOTE:** Route the hood safety switch wire carefully avoiding any moving parts or components that can produce excessive heat.

NOTE: Using a piece of convolute adds in the appearance of the installation.

NOTE: The switch should be positioned about 30 degrees below parallel to the ground to accommodate for parking on inclines.

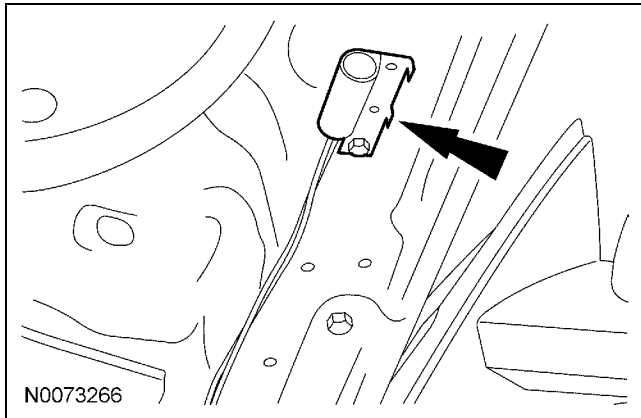
Failure to position the switch properly could result in one of the following:

- False alarm trips
- Non-Remote Start events
- Inadvertent shutdown during Remote Start

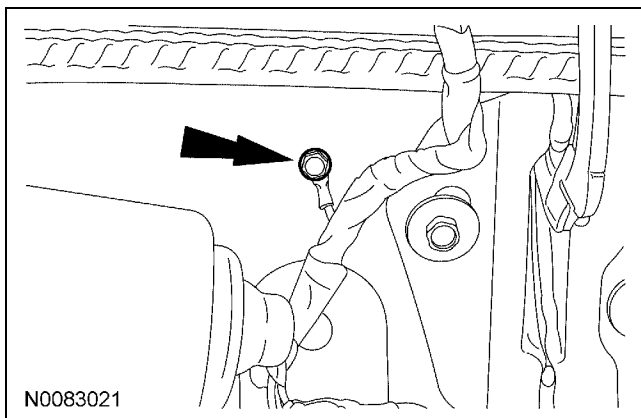
Locate an easy to access area near the driver side hood hinge and install the hood safety switch using the supplied metal screws.

INSTALLATION (Continued)

38. Apply rustproofing compound (PM-13-A) to the drilled hole and torque the screw to 1.00 Nm (10 lb-in).

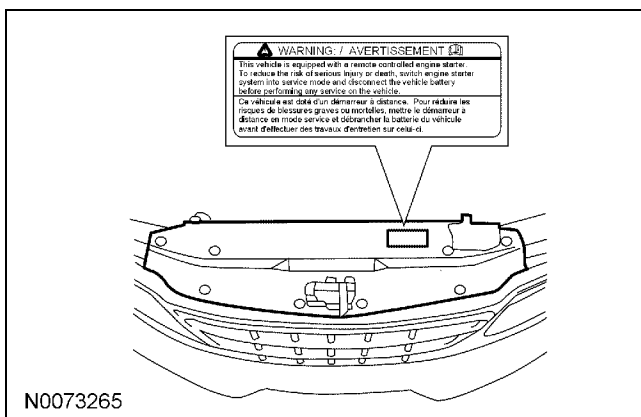


39. Connect hood switch ground wire to a suitable location on the bulkhead.



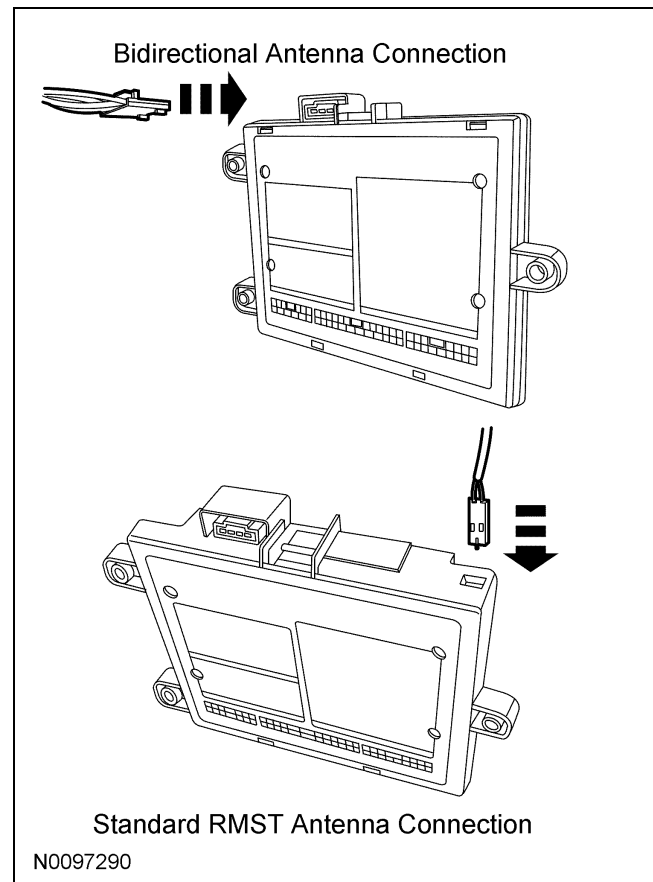
40. **NOTE:** Place the label on the radiator fan shroud or similar area.

Install the underhood warning label



41. Route the Gray hood safety switch wire through the bulkhead into the engine compartment and attach to the hood safety switch.

42. Connect the antenna to the RMST control module.



43. Connect the SECURILOCK interface module to the RMST control module.

Program The RMST System

44. Refer to the [RMST programming section for this vehicle click here.](#)

Secure RMST Harness and Control Module

45. Use the supplied tie wraps to secure the RMST harness wires.

INSTALLATION (Continued)

46. **NOTE:** Do not mount the control module in the knee bolster area.

Secure the control module at three points to the vehicle.

Use the supplied long tie wraps to mount the RMST control module to the underdash wiring harness.

48. Install the upper and lower steering column shrouds.

Install the 3 screws.

49. Install the lower steering column opening cover.

Install the 3 screws.

- Tighten to 2.5 Nm (22 lb-in).

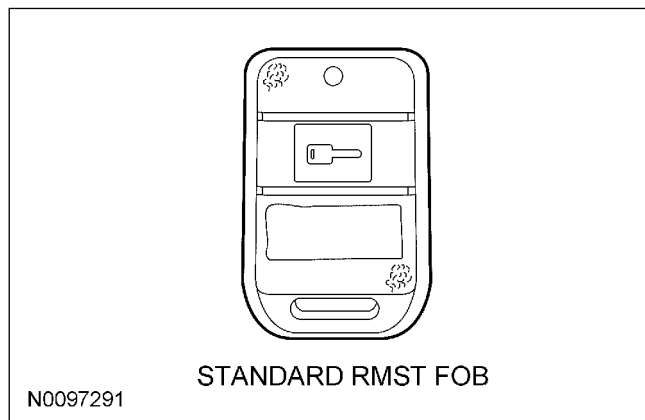
Install Trim

47. Install the left hand scuff plate and cowl trim panel.
-

GENERAL PROCEDURES

Programming - Standard Remote Start

Programming the Module



- NOTE:** If the remote start options (Key-in sense polarity, door ajar polarity, or tach mode) are not programmed correctly, vehicle will not remote start or operate properly.

NOTE: Make sure that the hood and doors are closed before proceeding.

NOTE: The LED on the remote start harness must be visible to complete module programming.

NOTE: The remote start override button must be accessible.

Programming Options: Entering Programming Mode

- See chart below for programming information.

Program Bank 2 Chart (5 Honks)

BANK	OPTIONS	DESCR	LED
2	1	TACHLESS MODE	ON

- Press and hold the brake pedal.
- Turn the ignition key to the RUN position.
The dome light will turn off.

- Press and hold the remote start system override button for at least 10 seconds.

After 10 seconds the horn will honk 3 times, indicating the system is now in the learn mode.

Release the brake pedal and the RMST override button.

- Press and release the override button. The horn will honk 4 times indicating the system has entered the first program bank.

If not, please check the following:

- Brake pedal switch wire solder connection.
- Hood closed and Grey hood safety switch wire solder connection.
- All doors closed and dome light circuit wire solder connections.
- The key is in the RUN position.
- The software cartridge is firmly seated in the RMST module.
- The RMST harness connections are firmly seated in the RMST module.

NOTE: If you require additional assistance: CALL 1-800-FORD KEY.

- Press and release the override button again. The horn will honk 5 times indicating the system has entered the second program bank.
- Press and release the brake pedal.
The horn will honk 1 time indicating the system has entered the option 1 of the second program bank.

NOTICE: When turning LED on or off using remote start fob button quickly press and immediately release the remote start button.

Failure to quickly release the remote start fob button will result in system defaulting to the factory options.

- The LED must be on for option 1. If the LED is illuminated no action is required. If the LED is not illuminated press the remote start fob button and verify the LED illuminates.

GENERAL PROCEDURES (Continued)

NOTE: If the remote start fob button is held for more than 3 seconds the system will chirp the horn 4 times, indicating the system has returned to factory default settings. If this occurs return to step 1 of the programming section and reprogram the remote start module.

NOTE: The remote start module is now programmed.

10. Remove the ignition key.

Programming the SECURILOCK

NOTE: Two PATS keys are required to program the SECURILOCK.

NOTE: IMPORTANT: Each of the following steps should be completed with no more than 5 seconds delay between steps.

11. Insert the first ignition key and turn to the run position.

Watch for the PATS light to turn off. Remove the first key.

12. Insert the second ignition key and turn to the run position.

Watch for the PATS light to turn off. Remove the second key.

13. Press and hold the remote start button



for 3 seconds.
The PATS light should stay on for 3-5 seconds before turning off, which means that the SECURILOCK was successfully programmed.

NOTE: If the PATS light blinks rapidly, repeat steps 1-3 to retry programming the SECURILOCK.

NOTE: The engine will start if the Remote Start kit has been installed correctly, the brake is not depressed, and the hood and doors are closed.

14. Place a key in the ignition and turn to the RUN position.

Depress the brake pedal and place the transmission selector lever in gear.

The vehicle should run without interruption.

GENERAL PROCEDURES

Functional Test - Standard Remote Start

NOTE: If during any of the steps of the functional test, the remote start system or vehicle doesn't react or perform accordingly, please refer to the remote start troubleshooting guide.

NOTE: For remote start troubleshooting guide click [here](#).

1. Make sure all doors are closed but hood is open and windows are down (doors will be locking).
2. Press and hold the Start button on the remote control key fob for 2-3 seconds - Horn should honk once indicating receipt of the start request.
3. The remote start systems should turn on the ignition, but then honk the horn twice and shut down indicating the hood is open.
4. Close the hood, and insert a key into the ignition switch.
5. Attempt to re-start the vehicle again using the key fob.
6. The remote start systems should turn on the ignition, but then honk the horn five times and shut down indicating a key is in the ignition switch.
7. Remove the key and open a door.
8. Attempt to re-start the vehicle again using the key fob.
9. The remote start systems should turn on the ignition, but then honk the horn three times and shut down indicating a door is open.
10. Close the door.
11. Attempt to re-start the vehicle again using the key fob.
12. Once the vehicle starts, verify that all heat and A/C functions operate normally and that the doors have locked.
13. On vehicles equipped with power window interrupt, Attempt to close windows to check power window interrupt function.
14. Once all systems have been checked, press the brake pedal - the remote start systems should shut down.

Troubleshooting

15. **NOTE:** When attempting to remote start your vehicle, the system has several safety checks that it performs. If any of these inputs are present that should not be, the system will respond back to you with several horn "chirps" to help you identify which input is present. These "chirps" will occur after initiating a start sequence with the transmitter, the system will turn on the ignition, but then respond back with several horn "chirps" and abort the starting process.

Example: Depress the remote start fob button for 3 seconds and then release. The vehicle horn will "chirp" one time to indicate that RMST signal was received. If the vehicle doesn't start and the horn "chirps" 3 times, there is a fault - "Vehicle Door is Open"

CHIRPS	PROBLEM
1 Chirp	SECURILOCK not programmed correctly, or the SECURILOCK antenna ring is damaged.
2 Chirps	BRAKE is being pressed, or the HOOD is open.
3 Chirps	One of the vehicles DOORS are open.
4 Chirps	TACH not programmed.

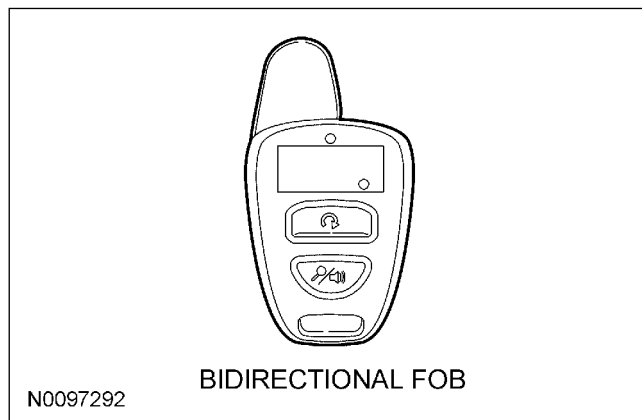
GENERAL PROCEDURES (Continued)

CHIRPS	PROBLEM
5 Chirps	The KEY is in the ignition.
6 Chirps	The remote start system is in SERVICE/VALET mode.

GENERAL PROCEDURES

Programming - Bidirectional Remote Start

Programming the Module



- NOTE:** If the remote start options (Key-in sense polarity, door ajar polarity, or tach mode) are not programmed correctly, vehicle will not remote start or operate properly.

NOTE: Make sure that the hood and doors are closed before proceeding.

NOTE: The LED on the remote start harness must be visible to complete module programming.

NOTE: The remote start override button must be accessible.

Programming Options: Entering Programming Mode

- See chart below for programming information.

Program Bank 2 Chart (5 Honks)

BANK	OPTIONS	DESCR	LED
2	1	TACHLESS MODE	ON

- Press and hold the brake pedal.
- Turn the ignition key to the RUN position.
The dome light will turn off.

- Press and hold the remote start system override button for at least 10 seconds.

After 10 seconds the horn will honk 3 times, indicating the system is now in the learn mode. Release the brake pedal and the RMST override button.

- Press and release the override button. The horn will honk 4 times indicating the system has entered the first program bank.

If not, please check the following:

- Brake pedal switch wire solder connection.
- Hood closed and Grey hood safety switch wire solder connection.
- All doors closed and dome light circuit wire solder connections.
- The key is in the RUN position.
- The software cartridge is firmly seated in the RMST module.
- The RMST harness connections are firmly seated in the RMST module.

NOTE: If you require additional assistance: CALL 1-800-FORD KEY.

- Press and release the override button again. The horn will honk 5 times indicating the system has entered the second program bank.
- Press and release the brake pedal.
The horn will honk 1 time indicating the system has entered the option 1 of the second program bank.

NOTICE: When turning LED on or off using remote start fob button quickly press and immediately release the remote start button.

Failure to quickly release the remote start fob button will result in system defaulting to the factory options.

- The LED must be on for option 1. If the LED is illuminated no action is required. If the LED is not illuminated press the remote start fob button and verify the LED illuminates.

GENERAL PROCEDURES (Continued)

NOTE: If the remote start fob button is held for more than 3 seconds the system will chirp the horn 4 times, indicating the system has returned to factory default settings. If this occurs return to step 1 of the programming section and reprogram the remote start module.

NOTE: The remote start module is now programmed.

10. Remove the ignition key.

Programming the SECURILOCK

NOTE: Two PATS keys are required to program the SECURILOCK.


NOTE: IMPORTANT: Each of the following steps should be completed with no more than 5 seconds delay between steps.

11. Insert the first ignition key and turn to the run position.

Watch for the PATS light to turn off. Remove the first key.

12. Insert the second ignition key and turn to the run position.

Watch for the PATS light to turn off. Remove the second key.

13. Press the remote start button  twice within 3 seconds.

The PATS light should stay on for 3-5 seconds before turning off, which means that the SECURILOCK was successfully programmed.

NOTE: If the PATS light blinks rapidly, repeat steps 1-3 to retry programming the SECURILOCK.

NOTE: The engine will start if the Remote Start kit has been installed correctly, the brake is not depressed, and the hood and doors are closed.

14. Place a key in the ignition and turn to the RUN position.

Depress the brake pedal and place the transmission selector lever in gear.

The vehicle should run without interruption.

GENERAL PROCEDURES

Functional Test - Bidirectional Remote Start

NOTE: If during any of the steps of the functional test, the remote start system or vehicle doesn't react or perform accordingly, please refer to the remote start troubleshooting guide.

NOTE: For remote start troubleshooting guide click [here](#).

1. Make sure all doors are closed but hood is open and windows are down (doors will be locking).
2. Press the Start button on the remote control key fob twice within 3 seconds - Horn should honk once indicating receipt of the start request.
3. The remote start systems should turn on the ignition, but then honk the horn twice and shut down indicating the hood is open.
4. Close the hood, and insert a key into the ignition switch.
5. Attempt to re-start the vehicle again using the key fob.
6. The remote start systems should turn on the ignition, but then honk the horn five times and shut down indicating a key is in the ignition switch.
7. Remove the key and open a door.
8. Attempt to re-start the vehicle again using the key fob.
9. The remote start systems should turn on the ignition, but then honk the horn three times and shut down indicating a door is open.
10. Close the door.
11. Attempt to re-start the vehicle again using the key fob.
12. Once the vehicle starts, verify that all heat and A/C functions operate normally and that the doors have locked.
13. On vehicles equipped with power window interrupt, Attempt to close windows to check power window interrupt function.
14. Once all systems have been checked, press the brake pedal - the remote start systems should shut down.

Troubleshooting

15. **NOTE:** When attempting to remote start your vehicle, the system has several safety checks that it performs. If any of these inputs are present that should not be, the system will respond back to you with several horn "chirps" to help you identify which input is present. These "chirps" will occur after initiating a start sequence with the transmitter, the system will turn on the ignition, but then respond back with several horn "chirps" and abort the starting process.

Example: Depress the remote start fob button for 3 seconds and then release. The vehicle horn will "chirp" one time to indicate that RMST signal was received. If the vehicle doesn't start and the horn "chirps" 3 times, there is a fault - "Vehicle Door is Open"

CHIRPS	PROBLEM
1 Chirp	SECURILOCK not programmed correctly, or the SECURILOCK antenna ring is damaged.
2 Chirps	BRAKE is being pressed, or the HOOD is open.
3 Chirps	One of the vehicles DOORS are open.
4 Chirps	TACH not programmed.
5 Chirps	The KEY is in the ignition.
6 Chirps	The remote start system is in SERVICE/VALET mode.

TYPE "A" CUSTOM WIRE HARNESS

RMST MODULE WIRE HARNESS

STEERING COLUMN HARNESS

	Color	Function
A-3	PINK	Ignition Input/Output
A-2	ORANGE	HVAC Output
A-13	VIOLET	Starter Output
B-8	BLACK/WHITE	Key-in-sense Input
A-4	RED	Battery

	Color	Function
A-21	BROWN/BLACK	Horn Relay Output

VEHICLE HARNESS

IGNITION SWITCH

Horn (BLUE/WHITE)

STEERING COLUMN HARNESS

ROUTED TO SJB LOCATION

DRIVER'S KICK PANEL HARNESS

	Color	Function
A-5	BLACK	Ground
A-24	BLUE	Door Lock Output
B-7	BROWN	Brake Input
A-20	GREEN/VIOLET	Door Ajar Switch Input

HEADLAMP SWITCH HARNESS

	Color	Function
A-1	WHITE	Parking Light Output

UNDER HOOD HARNESS

	Color	Function
A-19	GRAY	Hood Open Switch Input

MAKE THIS CONNECTION FIRST!

CHASSIS GROUND POINT
IN DRIVER'S KICK PANEL

Door Lock ((BLUE/GREEN)

SJB C2280C
PIN 17

Brake Switch (VIOLET/WHITE)

SJB C2280B
PIN 40

Dome Light (GRAY/VIOLET)

SJB C2280A
PIN 9

Parking Lights On
(VIOLET/WHITE)

SJB C2280E
PIN 6

Hood Tilt Switch

Chassis Ground

Do Not Ground to Hood

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REMOTE START SYSTEM INSTALLATION

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[Troubleshooting](#)

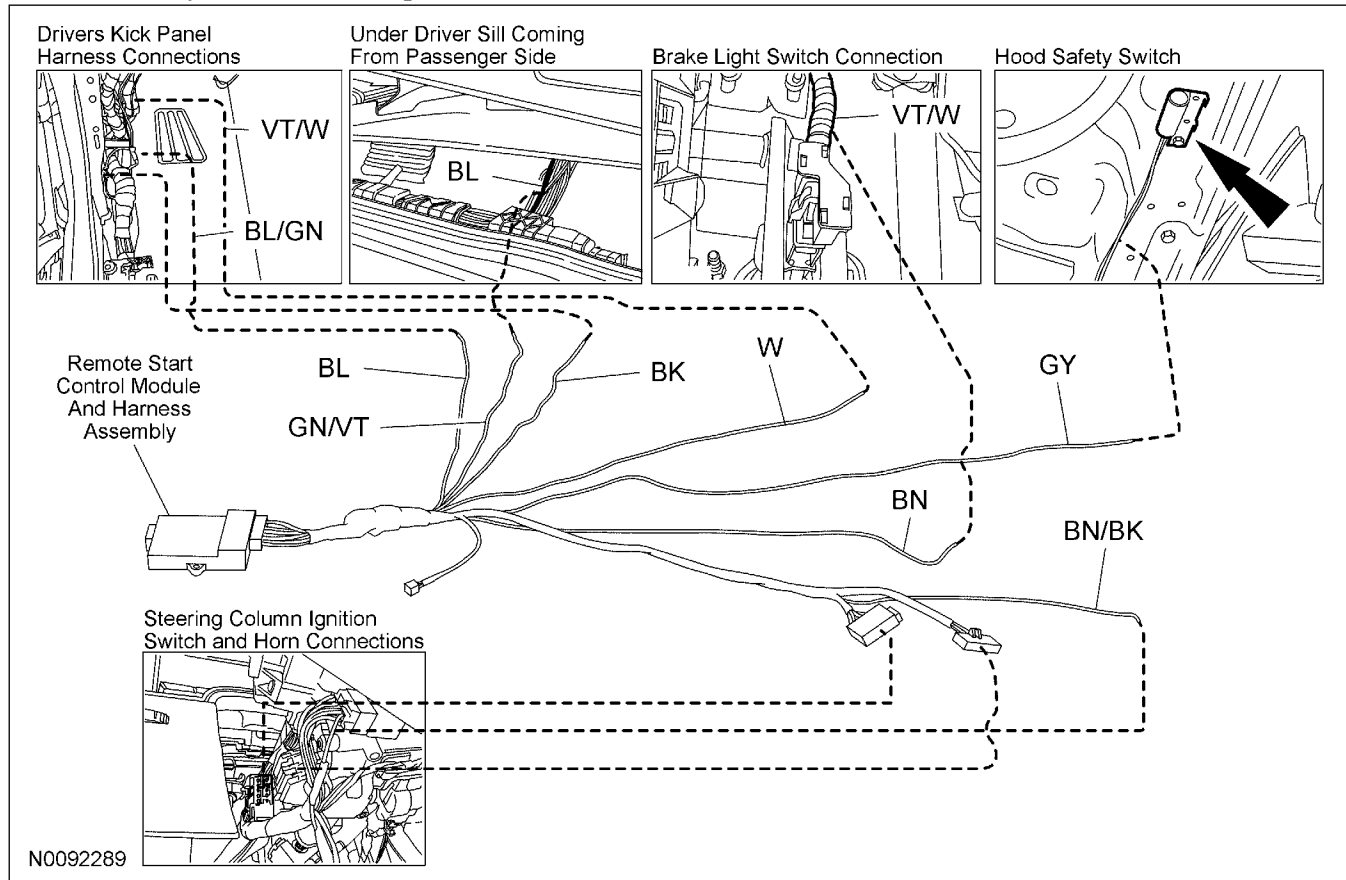
WIRING DIAGRAMS

[Vehicle Specific Wiring Diagrams](#)

INSTALLATION

Remote Start

Remote Start System RMST Components



F-Super Duty

NOTICE: Remote start systems are only applicable to vehicles with automatic transmissions.

NOTE: Both original keys are required for all remote start systems on vehicles equipped with SECURILOCK.

1. Verify correct kit number.

INSTALLATION (Continued)**Review Remote Start Installation Kit Contents**

NOTE: Use kit number 7W3Z-19G364-AA (GFA) REMOTE START SYSTEM

9C3Z-19G364-A (GFA) BIDIRECTIONAL REMOTE START SYSTEM.

NOTE: Kits are vehicle specific and are not interchangeable.

2. Review the RMST kit contents.

Remote Start System Standard Kit (RMST) Type - "C"

QUANTITY	DESCRIPTION
1	TYPE - "C" MODULE ASSEMBLY
1	RMST SOFTWARE CARTRIDGE ASSEMBLY
2	1 BUTTON POWERCODE TRANSMITTER
1	TYPE - "C" CUSTOM WIRING HARNESS
1	ANTENNA
1	HOOD SAFETY SWITCH ASSEMBLY
1	INSTALLATION PARTS BAG
1	FUSE PARTS BAG
1	OPERATORS INSTRUCTIONS
1	OPERATORS QUICK REFERENCE WALLET CARD
1	UNDERHOOD WARNING LABEL
1	SECURILOCK INTERFACE KIT (SOLD SEPARATELY AND REQUIRED FOR VEHICLES W/PATS)

3. Review the RMST bidirectional kit contents.

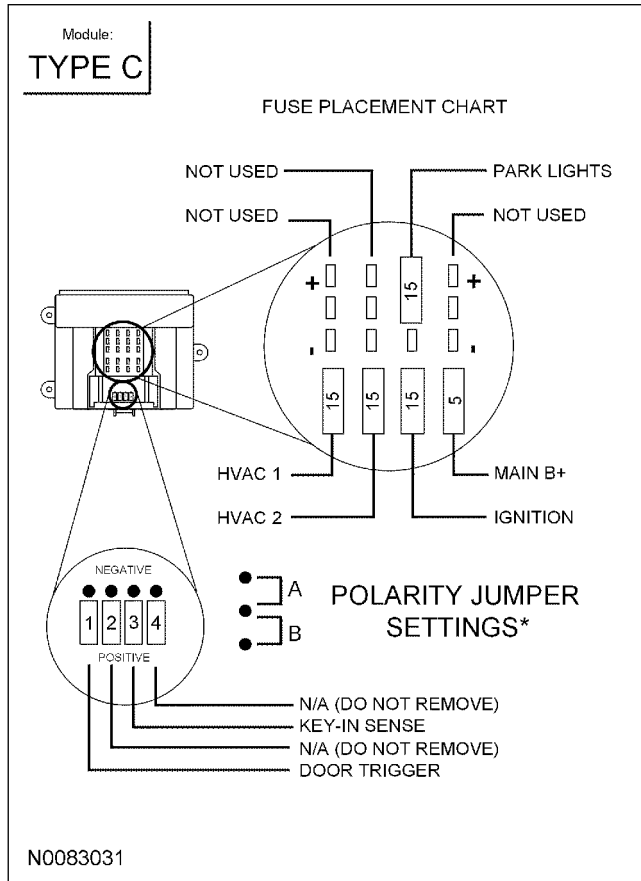
Remote Start System Bidirectional Kit (RMST) Type - "C"

QUANTITY	DESCRIPTION
1	TYPE - "C" MODULE ASSEMBLY
1	RMST SOFTWARE CARTRIDGE ASSEMBLY
1	2 BUTTON POWERCODE TRANSMITTER
1	TYPE - "C" CUSTOM WIRING HARNESS
1	ANTENNA
1	ANTENNA HARNESS
1	HOOD SAFETY SWITCH ASSEMBLY
1	INSTALLATION PARTS BAG
1	FUSE PARTS BAG
1	OPERATORS INSTRUCTIONS
1	OPERATORS QUICK REFERENCE WALLET CARD
1	UNDERHOOD WARNING LABEL
1	SECURILOCK INTERFACE KIT (SOLD SEPARATELY AND REQUIRED FOR VEHICLES W/PATS)

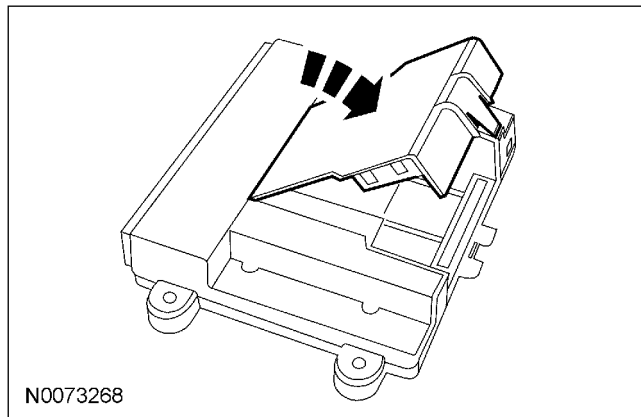
Module Preparation

- Place the supplied fuses into the power distribution block on the remote start control module.
 - Move the polarity jumpers to their proper locations on the control module, see illustration.

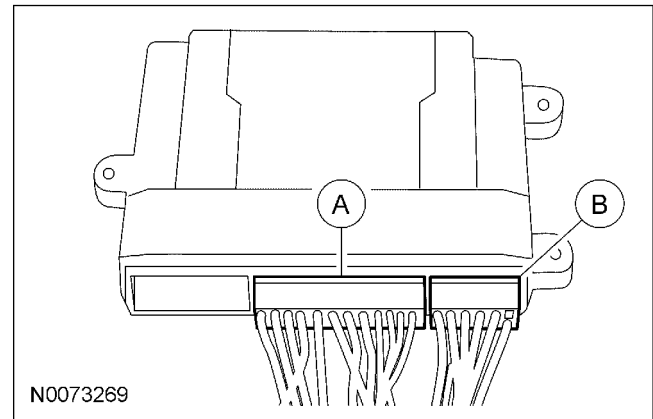
REMOVAL AND INSTALLATION (Continued)



5. Place the software cartridge onto the RMST control module.



6. Plug the wiring harness(es) into the module.
- A - Harness: 24-way, used on all systems.
 - B - Harness: 10-way, used on all systems with RMST.

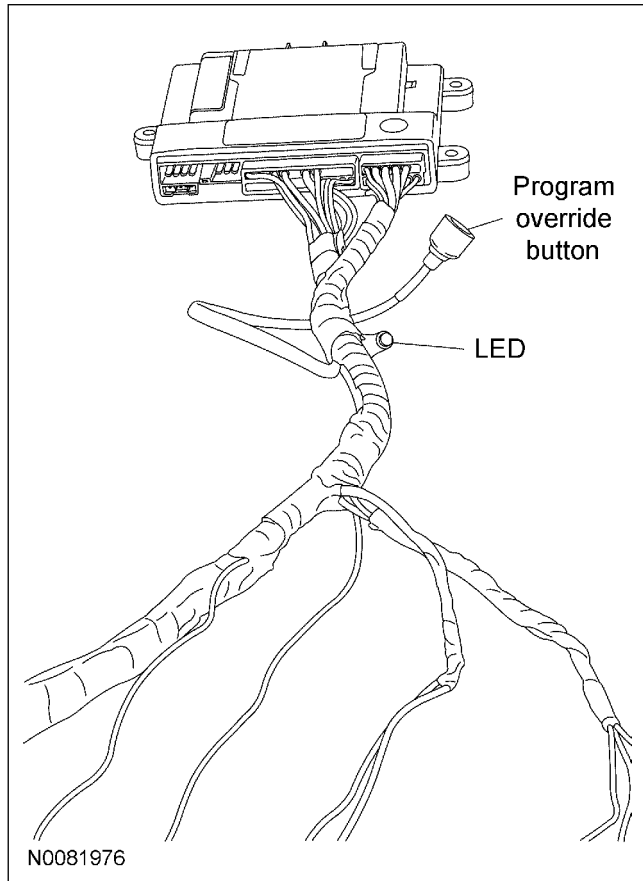


7. **NOTE:** Do not cut the override programming button off of the harness, it is used for all installations.

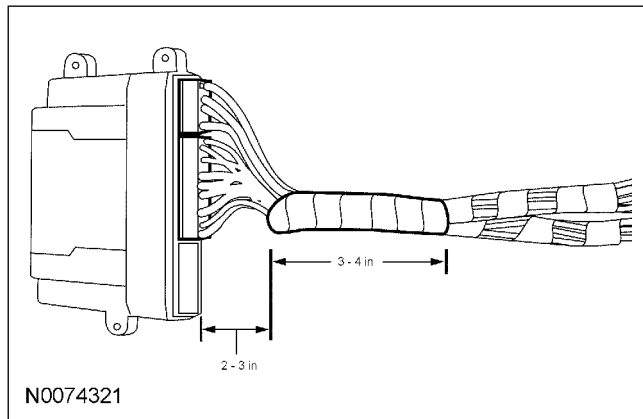
NOTE: For vehicle specific wiring diagram(s) [click here](#).

Referring to the vehicle specific wiring section for the system being installed, gather all individual wires that will be routed to the same areas of the vehicle into groups. Cover each wire group with electrical tape for approximately 18". Depending on the vehicle, there will be 2 to 5 different wire groups.

Trim the unused wires approximately 6 - 8" from the module.

INSTALLATION (Continued)

8. Tape the harness sections together, making sure to cover all of the unused wires.

**Vehicle Preparation**

9. Remove the steering column opening trim.
10. Remove the tilt lever dust boot.
11. Remove the screw and the tilt lever.

12. Remove the 3 screws and the upper and lower steering column shrouds.
13. Remove the left hand scuff plate and cowl trim panel.

Antenna Mounting

NOTE: For good range of operation, the antenna must be installed correctly.

NOTE: Keep these points in mind when selecting a location and mounting the antenna.

- Do not mount the antenna behind or on any metal film or window tinting on the windshield.
- Do not mount the antenna so that one of the antenna elements touches or crosses any vehicle wiring and/or metal.
- On vehicles without metal film in the windshield around the rear view mirror, mount the antenna between the headliner and the rear view mirror.
- On vehicles equipped with an electronic mirror, or on vehicles with metal film around the rearview mirror, mount the antenna approximately 3 inches below the mirror attachment point to the windshield and/or mirror electronics.

14. Choose a suitable mounting location following the guidelines above.

Install The Antenna

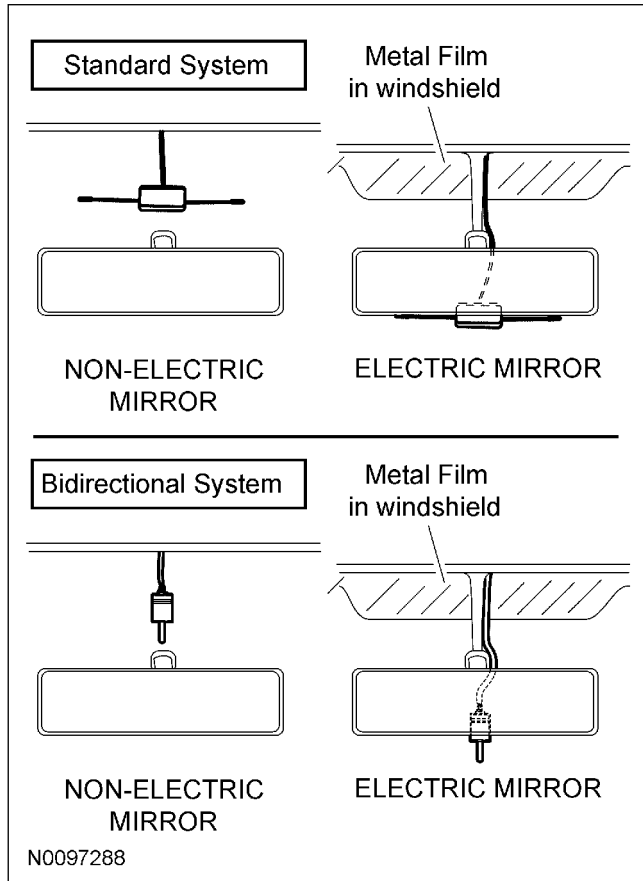
15. Clean the mounting surface using an alcohol base solution and a clean cloth.

16. **NOTE:** Do not touch the adhesive, reduced adhesion may result.

NOTE: Make sure that the long wire on the antenna is pointing towards the top of the windshield since this wire will be routed along the headliner.

NOTE: The wire will be attached to the control module later in this procedure.

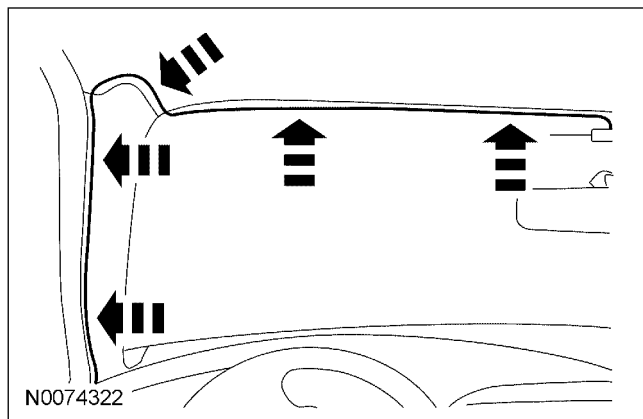
Remove the protective backing from the adhesive on the antenna and firmly press the body of the antenna to the windshield.

INSTALLATION (Continued)

17. If necessary, position the A pillar trim slightly outward to provide access to route the antenna wire.

NOTE: Do not route the antenna wire over the top of the air bag.

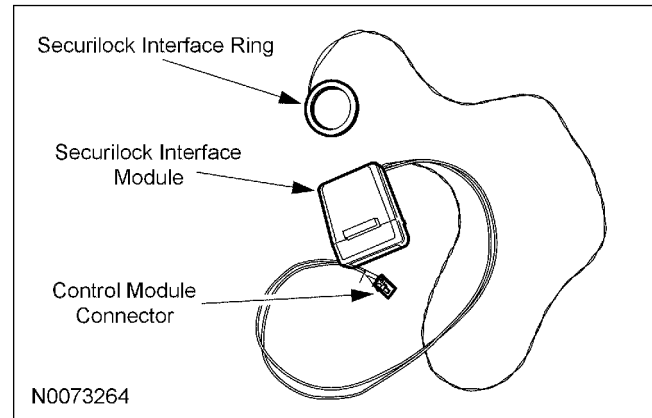
18. Route the antenna cable along the headliner and down the A pillar towards the floor.



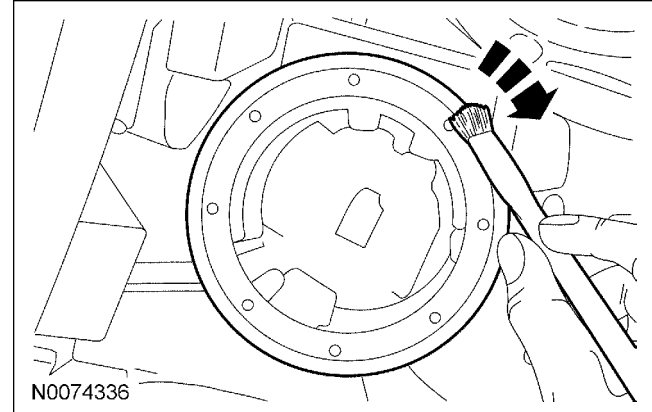
19. Reposition the A pillar trim panel.

Install The Securilock Interface Kit

20. Route the ring of the SECURILOCK interface antenna lead up along the steering column to the PATS transceiver location.



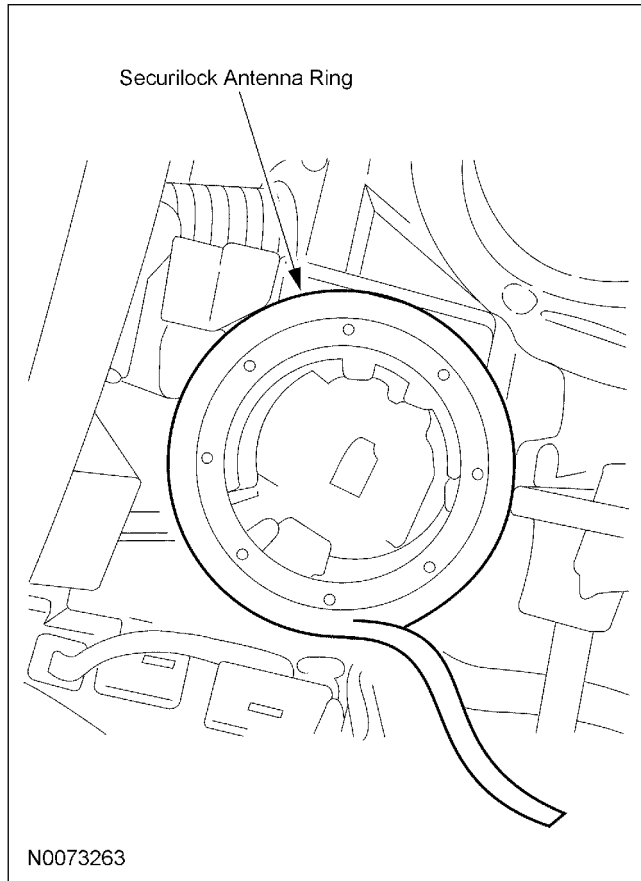
21. Following the directions on the supplied tube of adhesive primer, apply a thin coating around the transceiver antenna coil and allow to dry for approximately 5 minutes.



22. **NOTICE:** Do not damage the transceiver ring during installation or while installing the steering column shrouds.

A damaged transceiver ring will result in an inoperable remote start system.

Remove the protective backing from the SECURILOCK antenna ring. Place the SECURILOCK ring over the PATS transceiver and press firmly in place.

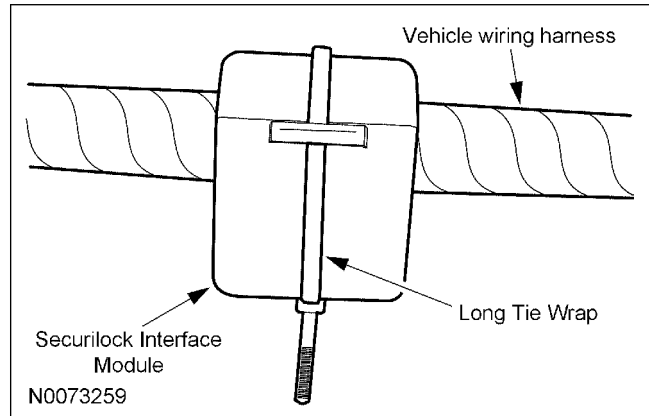
INSTALLATION (Continued)**Install The Securilock Interface Module**

23. **NOTE:** Do Not mount the SECURILOCK Interface Module to or within 3'' of a metal surface, including any underdash brackets, or in the knee bolster area.

Mount the SECURILOCK Interface Module to an underdash wiring harness using one of the supplied long tie wraps.

24. **NOTICE:** Do not attach the harness to the steering column.

Route the harness and connector to the module mounting location.

**Install the Remote Start Control Module and Harness Assembly**

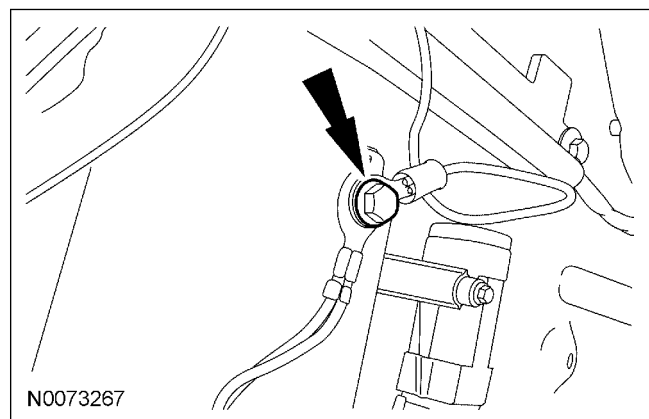
25. Place the remote start module and harness assembly in the vehicle.

Identify Circuit Wires For Connections

NOTE: For vehicle specific wiring diagram(s) click [here](#).

NOTE: For proper wire splicing techniques click [here](#).

26. Connect the Black ground wire from the remote start module harness to the chassis ground point in the driver kick panel.



27. Disconnect the ignition switch electrical connector.
28. Connect the remote start harness hard shell connectors at the ignition switch and ignition switch connector.

INSTALLATION (Continued)

29. **NOTE:** A DVOM connected to the correct wire will show 12V, then show 0V when the horn button is held.

A logic probe will show power on the correct wire, then show ground when the horn button is held.

Identify the Yellow/Red horn circuit wire in the steering column harness.

30. Connect the Brown/Black wire from the remote start module harness to the Yellow/Red horn circuit wire in the steering column harness.

31. **NOTE:** A DVOM connected to the correct wire will show 12V, then show 0V when the door lock switch is pressed.

A logic probe will show open on the correct wire, then show ground when the door lock switch is pressed.

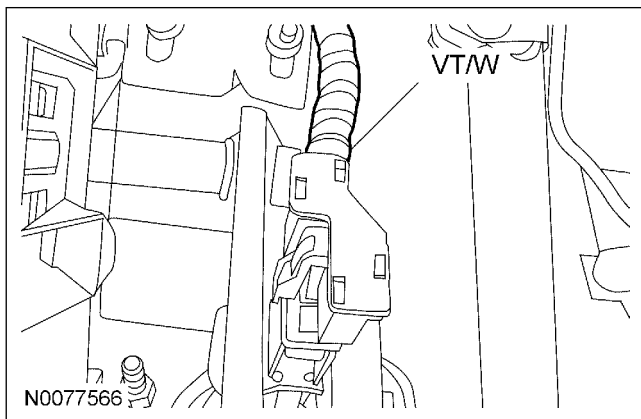
Identify the Blue/Green power door lock circuit wire at the driver kick panel harness.

32. Connect the Blue wire from the remote start module harness to the Blue/Green power door lock circuit at the driver kick panel harness.

33. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V while depressing the brake pedal.

A logic probe will show open on the correct wire, then show power while depressing the brake pedal.

Identify the Violet/White brake switch circuit wire at the brake switch.



34. Connect the Brown wire from the remote start module harness to the Violet/White brake switch circuit wire at the brake switch.

35. **NOTE:** A DVOM connected to the correct wire will show 12V with the vehicle door(s) open and the dome light ON, then show 0V with the vehicle door(s) closed and the dome light OFF.

NOTE: A logic probe connected to the correct wire will show power with the vehicle door(s) open and the dome light ON, then show ground with the vehicle door(s) closed and the dome light OFF.

NOTE: Be sure that the dome light has timed out and is OFF before performing the door closed test.

Be sure that the dome lamp is illuminated before performing the door open test.

Identify the Blue Cargo High Mounted Stoplamp (CHMSL) circuit wire under the driver sill in the harness coming from the passenger side.

36. Connect the Green/Violet wire from the remote start module harness to the Blue Cargo High Mounted Stoplamp (CHMSL) circuit wire under the driver sill in the harness coming from the passenger side.

37. **NOTE:** A DVOM connected to the correct wire will show 12V with the switch in the ON position and 0V with the switch in the parking lights OFF position.

A logic probe connected to the correct wire will show ground with the switch in the OFF position and power with the switch in the parking lights ON position.

Identify the Violet/White parking lights on circuit wire at the driver kick panel harness.

38. Connect the White wire from the remote start module harness to the Violet/White parking lights on circuit wire at the driver side kick panel.

INSTALLATION (Continued)**Install The Hood Safety Switch**

39. **NOTE:** Route the hood safety switch wire carefully avoiding any moving parts or components that can produce excessive heat.

NOTE: Using a piece of convolute adds in the appearance of the installation.

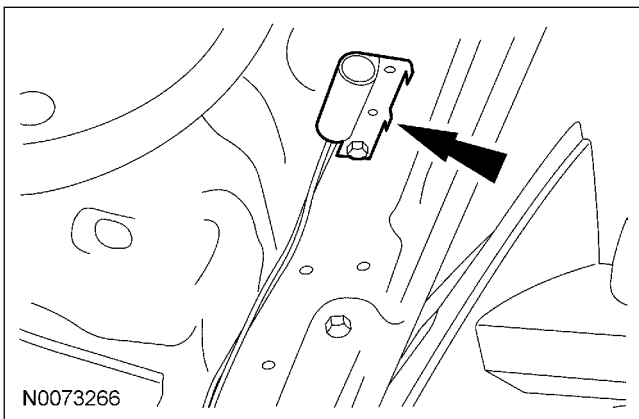
NOTE: The switch should be positioned about 30 degrees below parallel to the ground to accommodate for parking on inclines.

Failure to position the switch properly could result in one of the following:

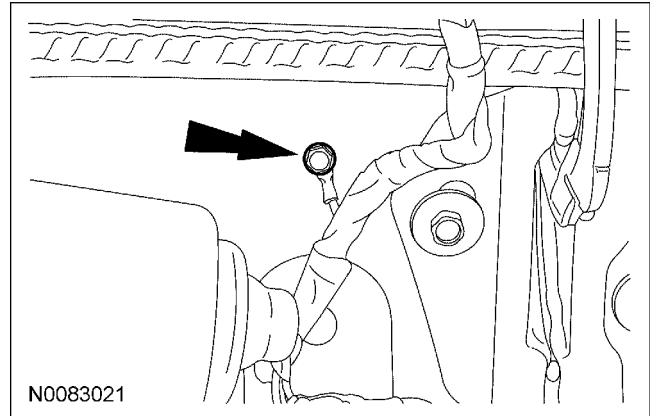
- False alarm trips
- Non-Remote Start events
- Inadvertent shutdown during Remote Start

Locate an easy to access area near the driver side hood hinge and install the hood safety switch using the supplied metal screws.

40. Apply rustproofing compound (PM-13-A) to the drilled hole and torque the screw to 1.00 Nm (10 lb-in).

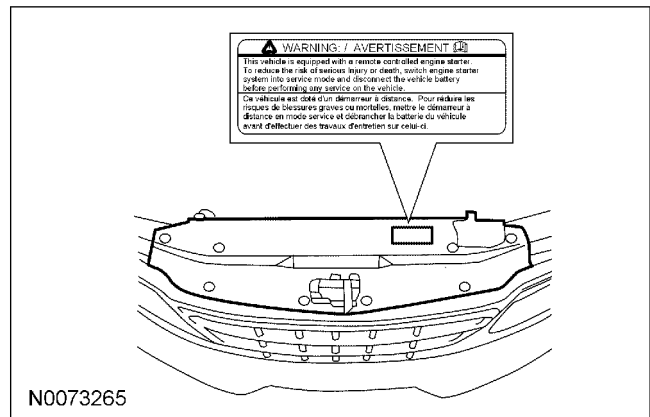


41. Connect hood switch ground wire to a suitable location on the bulkhead.



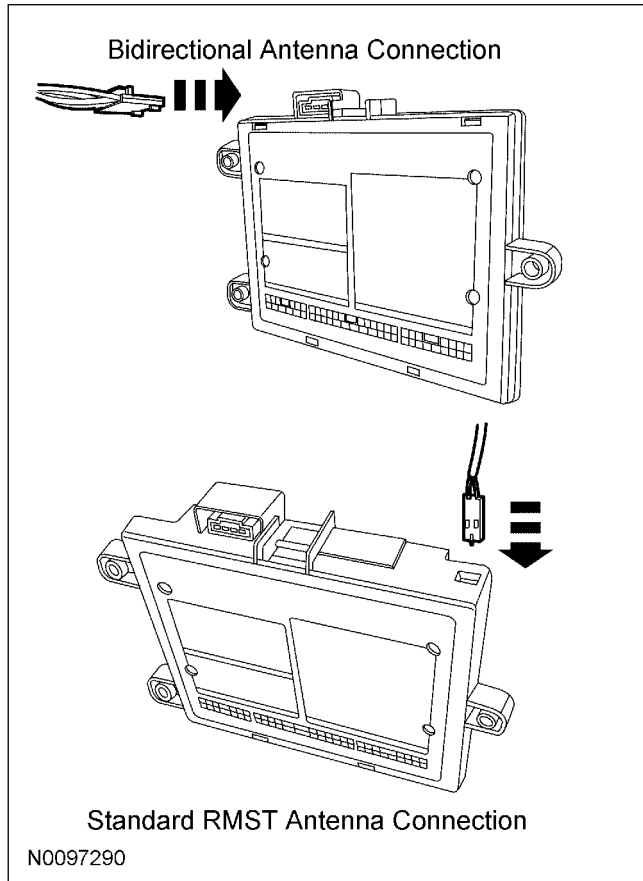
42. **NOTE:** Place the label on the radiator fan shroud or similar area.

Install the underhood warning label



43. Route the Grey hood safety switch wire through the bulkhead into the engine compartment and attach to the hood safety switch.

44. Connect the antenna to the RMST control module.

INSTALLATION (Continued)**Program The RMST System**

45. [Refer to the RMST programming section for this vehicle click here.](#)
46. Connect the SECURILOCK interface module to the RMST control module.

Secure RMST Harness and Control Module

47. Use the supplied tie wraps to secure the RMST harness wires.
48. **NOTE:** Do not mount the control module in the knee bolster area.
Secure the control module at three points to the vehicle.
Use the supplied long tie wraps to mount the RMST control module to the underdash wiring harness.

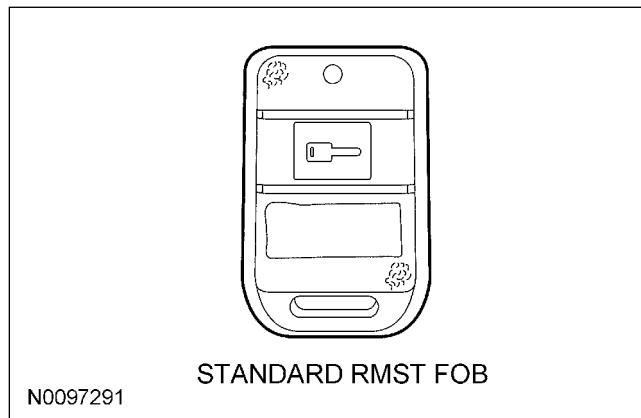
Install Trim

49. Install the left hand cowl trim panel.
 - 1 Install the cowl trim panel.
 - 2 Install the scuff plate.
50. Install the upper and lower steering column shrouds.
Install the 3 screws.
51. Install the tilt lever.
Install the screw.
 - Tighten to 6 Nm (53 lb-in).
52. Install the tilt lever dust boot.
53. Install the lower steering column opening cover.
Install the 3 screws.

GENERAL PROCEDURES

Programming - Standard Remote Start

Programming the Module



- NOTE:** If the remote start module options (Key-in sense polarity, door ajar polarity, or tach mode) are not programmed correctly, vehicle will not remote start or operate properly.

NOTE: Make sure that the hood and doors are closed before proceeding.

NOTE: The LED on the remote start harness must be visible to complete module programming.

NOTE: The remote start override button must be accessible.

Programming Options: Entering Programming Mode

- See chart below for programming information.

Gas Engine Only: Program Bank 1 Chart (4 Honks)

BANK	OPTIONS	DESCR	LED
1	2	DOOR AJAR INVERT	ON
1	3	KEY-IN SENSE INVERT	ON

Gas Engine Only: Program Bank 2 Chart (5 Honks)

BANK	OPTIONS	DESCR	LED
2	1	TACHLESS MODE	ON

Diesel Engine Only: Program Bank 1 Chart (4 Honks)

BANK	OPTIONS	DESCR	LED
1	2	DOOR AJAR INVERT	ON
1	3	KEY-IN SENSE	ON

Diesel Engine Only: Program Bank 2 Chart (5 Honks)

BANK	OPTIONS	DESCR	LED
2	1	TACHLESS MODE	ON
2	5	DIESEL TIMER	ON

- Press and hold the brake pedal.
- Turn the ignition key to the RUN position. The dome light will turn off.
- Press and hold the remote start system override button for at least 10 seconds.
After 10 seconds the horn will honk 3 times, indicating the system is now in the learn mode.
Release the brake pedal and the RMST override button.
- If you do not get 3 confirmation chirps, check the following items.
 - Brake pedal switch wire solder connection.
 - Hood closed and Grey hood safety switch wire solder connection.
 - All doors closed and dome light circuit wire solder connections.
 - The key is in the RUN position.
 - The software cartridge is firmly seated in the RMST module.
 - The RMST harness connections are firmly seated in the RMST module.

GENERAL PROCEDURES (Continued)

NOTE: If you require additional assistance: CALL 1-800-FORD KEY.

7. Press and release the override button. The horn will honk 4 times indicating the system has entered the first program bank.

8. Press and release the brake pedal.

The horn will honk 2 times indicating the system has entered the option 2 of the first program bank.

NOTICE: When turning the LED on or off using the remote start fob button, press and immediately release the remote start button.

9. The LED must be on for option 2. If the LED is illuminated no action is required. If the LED is not illuminated, press and release the remote start fob button and verify the LED illuminates.

NOTE: When programming the remote start module, if the remote start fob button is held for more than 3 seconds, the horn will chirp 4 times indicating the system returned to the factory default settings. If this occurs, return to step 1 of the programming section to reprogram the remote start module.

10. Press and release the brake pedal.

The horn will honk 3 times indication the system has entered the option 3 of the first program bank.

11. The LED must be on for option 3. If the LED is illuminated no action is required. If the LED is not illuminated press the remote start fob button and verify the LED illuminates.

12. Press and release the override button. The horn will honk 5 times indicating the system has entered the second option bank.

13. Press and release the brake pedal.

The horn will honk 1 time indication the system has entered the option 1 of the second program bank.

14. The LED must be ON for option 1. If the LED is illuminated ON, action is required. If the LED is not illuminated press the remote start fob and verify the LED illuminates.

NOTE: Vehicles equipped with a diesel engine go to the next step. Vehicles equipped with a gas engine skip step 15 and proceed to step 16.

15. Press and release the brake pedal until the horn honks 5 times.

The LED must be ON for option 5. If the LED is ON no action is required. If the LED is OFF, press the remote start fob button to verify that the LED is OFF.

NOTE: The remote start module is now programmed.

16. Remove the ignition key.

Programming the SECURILOCK

NOTE: Two PATS keys are required to program the SECURILOCK.

NOTE: IMPORTANT: Each of the following steps should be completed with no more than 5 seconds delay between steps.

17. Insert the first ignition key and turn to the run position.

Watch for the PATS light to turn off. Remove the first key.

18. Insert the second ignition key and turn to the run position.

Watch for the PATS light to turn off. Remove the second key.

19. Press and hold the remote start button



for 3 seconds.

The PATS light should stay on for 3-5 seconds before turning off, which means that the SECURILOCK was successfully programmed.

GENERAL PROCEDURES (Continued)

NOTE: If the PATS light blinks rapidly, repeat steps 1-3 to retry programming the SECURILOCK.

NOTE: The engine will start if the Remote Start kit has been installed correctly, the brake is not depressed, and the hood and doors are closed.

20. Place a key in the ignition and turn to the RUN position.

Depress the brake pedal and place the transmission selector lever in gear.

The vehicle should run without interruption.

GENERAL PROCEDURES

Functional Test - Standard Remote Start

NOTE: If during any of the steps of the functional test, the remote start system or vehicle doesn't react or perform accordingly, please refer to the remote start troubleshooting guide.

NOTE: For remote start troubleshooting guide click [here](#).

1. Make sure all doors are closed but hood is open and windows are down (doors will be locking).
2. Press and hold the Start button on the remote control key fob for 2-3 seconds - Horn should honk once indicating receipt of the start request.
3. The remote start systems should turn on the ignition, but then honk the horn twice and shut down indicating the hood is open.
4. Close the hood, and insert a key into the ignition switch.
5. Attempt to re-start the vehicle again using the key fob.
6. The remote start systems should turn on the ignition, but then honk the horn five times and shut down indicating a key is in the ignition switch.
7. Remove the key and open a door.
8. Attempt to re-start the vehicle again using the key fob.
9. The remote start systems should turn on the ignition, but then honk the horn three times and shut down indicating a door is open.
10. Close the door.
11. Attempt to re-start the vehicle again using the key fob.
12. Once the vehicle starts, verify that all heat and A/C functions operate normally and that the doors have locked.
13. On vehicles equipped with power window interrupt, Attempt to close windows to check power window interrupt function.
14. Once all systems have been checked, press the brake pedal - the remote start systems should shut down.

Troubleshooting

15. **NOTE:** When attempting to remote start your vehicle, the system has several safety checks that it performs. If any of these inputs are present that should not be, the system will respond back to you with several horn "chirps" to help you identify which input is present. These "chirps" will occur after initiating a start sequence with the transmitter, the system will turn on the ignition, but then respond back with several horn "chirps" and abort the starting process.

Example: Depress the remote start fob button for 3 seconds and then release. The vehicle horn will "chirp" one time to indicate that RMST signal was received. If the vehicle doesn't start and the horn "chirps" 3 times, there is a fault - "Vehicle Door is Open"

CHIRPS	PROBLEM
1 Chirp	SECURILOCK not programmed correctly, or the SECURILOCK antenna ring is damaged.
2 Chirps	BRAKE is being pressed, or the HOOD is open.
3 Chirps	One of the vehicles DOORS are open.
4 Chirps	TACH not programmed.

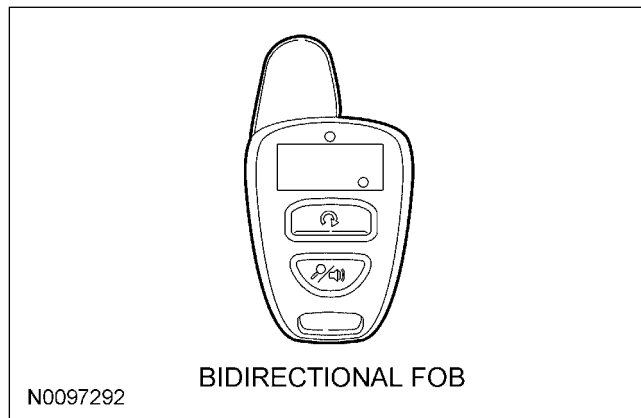
GENERAL PROCEDURES (Continued)

CHIRPS	PROBLEM
5 Chirps	The KEY is in the ignition.
6 Chirps	The remote start system is in SERVICE/VALET mode.

GENERAL PROCEDURES

Programming - Bidirectional Remote Start

Programming the Module



- NOTE:** If the remote start module options (Key-in sense polarity, door ajar polarity, or tach mode) are not programmed correctly, vehicle will not remote start or operate properly.

NOTE: Make sure that the hood and doors are closed before proceeding.

NOTE: The LED on the remote start harness must be visible to complete module programming.

NOTE: The remote start override button must be accessible.

Programming Options: Entering Programming Mode

- See chart below for programming information.

Gas Engine Only: Program Bank 1 Chart (4 Honks)

BANK	OPTIONS	DESCR	LED
1	2	DOOR AJAR INVERT	ON
1	3	KEY-IN SENSE INVERT	ON

Gas Engine Only: Program Bank 2 Chart (5 Honks)

BANK	OPTIONS	DESCR	LED
2	1	TACHLESS MODE	ON

Diesel Engine Only: Program Bank 1 Chart (4 Honks)

BANK	OPTIONS	DESCR	LED
1	2	DOOR AJAR INVERT	ON
1	3	KEY-IN SENSE	ON

Diesel Engine Only: Program Bank 2 Chart (5 Honks)

BANK	OPTIONS	DESCR	LED
2	1	TACHLESS MODE	ON
2	5	DIESEL TIMER	ON

- Press and hold the brake pedal.
- Turn the ignition key to the RUN position. The dome light will turn off.
- Press and hold the remote start system override button for at least 10 seconds.
After 10 seconds the horn will honk 3 times, indicating the system is now in the learn mode.
Release the brake pedal and the RMST override button.
- If you do not get 3 confirmation chirps, check the following items.
 - Brake pedal switch wire solder connection.
 - Hood closed and Grey hood safety switch wire solder connection.
 - All doors closed and dome light circuit wire solder connections.
 - The key is in the RUN position.
 - The software cartridge is firmly seated in the RMST module.
 - The RMST harness connections are firmly seated in the RMST module.

GENERAL PROCEDURES (Continued)

NOTE: If you require additional assistance: CALL 1-800-FORD KEY.

7. Press and release the override button. The horn will honk 4 times indicating the system has entered the first program bank.

8. Press and release the brake pedal.

The horn will honk 2 times indicating the system has entered the option 2 of the first program bank.

NOTICE: When turning the LED on or off using the remote start fob button, press and immediately release the remote start button.

9. The LED must be on for option 2. If the LED is illuminated no action is required. If the LED is not illuminated, press and release the remote start fob button and verify the LED illuminates.

NOTE: When programming the remote start module, if the remote start fob button is held for more than 3 seconds, the horn will chirp 4 times indicating the system returned to the factory default settings. If this occurs, return to step 1 of the programming section to reprogram the remote start module.

10. Press and release the brake pedal.

The horn will honk 3 times indication the system has entered the option 3 of the first program bank.

11. The LED must be on for option 3. If the LED is illuminated no action is required. If the LED is not illuminated press the remote start fob button and verify the LED illuminates.

12. Press and release the override button. The horn will honk 5 times indicating the system has entered the second option bank.

13. Press and release the brake pedal.

The horn will honk 1 time indication the system has entered the option 1 of the second program bank.

14. The LED must be ON for option 1. If the LED is illuminated ON, action is required. If the LED is not illuminated press the remote start fob and verify the LED illuminates.

NOTE: Vehicles equipped with a diesel engine go to the next step. Vehicles equipped with a gas engine skip step 15 and proceed to step 16.

15. Press and release the brake pedal until the horn honks 5 times.

The LED must be ON for option 5. If the LED is ON no action is required. If the LED is OFF, press the remote start fob button to verify that the LED is OFF.

NOTE: The remote start module is now programmed.

16. Remove the ignition key.

Programming the SECURILOCK

NOTE: Two PATS keys are required to program the SECURILOCK.


NOTE: IMPORTANT: Each of the following steps should be completed with no more than 5 seconds delay between steps.

17. Insert the first ignition key and turn to the run position.

Watch for the PATS light to turn off. Remove the first key.

18. Insert the second ignition key and turn to the run position.

Watch for the PATS light to turn off. Remove the second key.

19. Press and hold the remote start button  twice within 3 seconds.

The PATS light should stay on for 3-5 seconds before turning off, which means that the SECURILOCK was successfully programmed.

GENERAL PROCEDURES (Continued)

NOTE: If the PATS light blinks rapidly, repeat steps 1-3 to retry programming the SECURILOCK.

NOTE: The engine will start if the Remote Start kit has been installed correctly, the brake is not depressed, and the hood and doors are closed.

20. Place a key in the ignition and turn to the RUN position.

Depress the brake pedal and place the transmission selector lever in gear.

The vehicle should run without interruption.

GENERAL PROCEDURES

Functional Test - Bidirectional Remote Start

NOTE: If during any of the steps of the functional test, the remote start system or vehicle doesn't react or perform accordingly, please refer to the remote start troubleshooting guide.

NOTE: For remote start troubleshooting guide click [here](#).

1. Make sure all doors are closed but hood is open and windows are down (doors will be locking).
2. Press the Start button on the remote control key fob twice within 3 seconds - Horn should honk once indicating receipt of the start request.
3. The remote start systems should turn on the ignition, but then honk the horn twice and shut down indicating the hood is open.
4. Close the hood, and insert a key into the ignition switch.
5. Attempt to re-start the vehicle again using the key fob.
6. The remote start systems should turn on the ignition, but then honk the horn five times and shut down indicating a key is in the ignition switch.
7. Remove the key and open a door.
8. Attempt to re-start the vehicle again using the key fob.
9. The remote start systems should turn on the ignition, but then honk the horn three times and shut down indicating a door is open.
10. Close the door.
11. Attempt to re-start the vehicle again using the key fob.
12. Once the vehicle starts, verify that all heat and A/C functions operate normally and that the doors have locked.
13. On vehicles equipped with power window interrupt, Attempt to close windows to check power window interrupt function.
14. Once all systems have been checked, press the brake pedal - the remote start systems should shut down.

Troubleshooting

15. **NOTE:** When attempting to remote start your vehicle, the system has several safety checks that it performs. If any of these inputs are present that should not be, the system will respond back to you with several horn "chirps" to help you identify which input is present. These "chirps" will occur after initiating a start sequence with the transmitter, the system will turn on the ignition, but then respond back with several horn "chirps" and abort the starting process.

Example: Depress the remote start fob button for 3 seconds and then release. The vehicle horn will "chirp" one time to indicate that RMST signal was received. If the vehicle doesn't start and the horn "chirps" 3 times, there is a fault - "Vehicle Door is Open"

CHIRPS	PROBLEM
1 Chirp	SECURILOCK not programmed correctly, or the SECURILOCK antenna ring is damaged.
2 Chirps	BRAKE is being pressed, or the HOOD is open.
3 Chirps	One of the vehicles DOORS are open.
4 Chirps	TACH not programmed.
5 Chirps	The KEY is in the ignition.
6 Chirps	The remote start system is in SERVICE/VALET mode.

TYPE "C" CUSTOM WIRE HARNESS

RMST MODULE WIRE HARNESS

STEERING COLUMN HARNESS

	Color	Function
A-7	PINK	Ignition Input/Output
B-3	PINK/WHITE	Ignition 2 Output
B-4	ORANGE	HVAC 1 Output
B-5	ORANGE/WHITE	HVAC 2 Output
A-6	VIOLET	Starter Interrupt (Key Side)
A-8	VIOLET	Starter Interrupt (Motor Side)
A-4	RED	Battery
B-2	RED	Battery
B-1	BLUE	Battery
B-8	BLACK/WHITE	Key-In Sense Input

	Color	Function
A-21	BROWN/BLACK	Horn Relay Output

DRIVER'S KICK PANEL HARNESS

	Color	Function
A-5	BLACK	Ground
A-24	BLUE	Door Lock Output
B-7	BROWN	Brake Input
A-20	GREEN/VIOLET	Door Ajar Switch Input
A-1	WHITE	Parking Light Output

UNDER HOOD HARNESS

	Color	Function
A-19	GRAY	Hood Open Switch Input

VEHICLE HARNESS

IGNITION SWITCH

Horn (YELLOW/RED)

STEERING COLUMN HARNESS

MAKE THIS CONNECTION FIRST!

CHASSIS GROUND POINT IN DRIVER'S KICK PANEL

Door Lock (BLUE/GREEN)

DRIVERS SIDE KICK PANEL

Brake (VIOLET/WHITE)

BRAKE SWITCH

Cargo High Mounted Stoplamp (BLUE)

UNDER DRIVER'S SILL IN HARNESS COMING FROM PASSENGER SIDE

Parking Lights On (VIOLET/WHITE)

DRIVERS SIDE KICK PANEL

Vehicle Interior

Engine Compartment

Chassis Ground

Do Not Ground to Hood!

Hood Tilt Switch

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REMOTE START SYSTEM INSTALLATION

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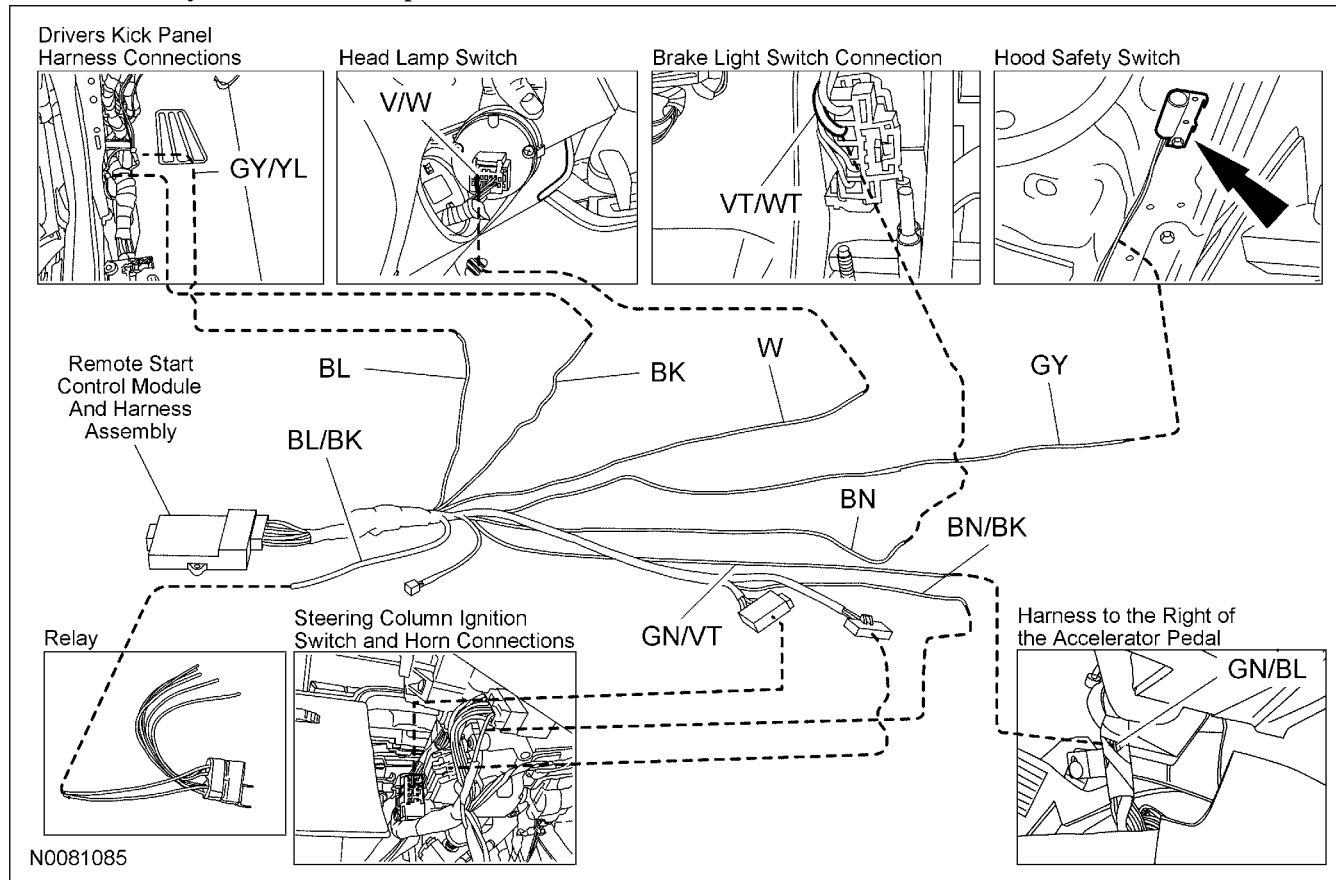
WIRING DIAGRAMS

[Vehicle Specific Wiring Diagrams](#)

INSTALLATION

Remote Start

Remote Start System RMST Components



Ranger

NOTICE: Remote start systems are only applicable to vehicles with automatic transmissions.

NOTE: Both original keys are required for all remote start systems on vehicles equipped with SECURILOCK.

1. Verify correct kit number.

2. Review the RMST kit contents.

Review Remote Start Installation Kit Contents

NOTE: Use kit number 8L5J-19G364-AA (FIA), 8L5J-19G364-AC (FIA) or 7L5Z-19G364-AA (GFA) REMOTE START SYSTEM.

9L5Z-19G364-A (GFA) BIDIRECTIONAL REMOTE START SYSTEM.

NOTE: Kits are vehicle specific and are not interchangeable.

Remote Start System Kit (RMST) Type - "B"

QUANTITY	DESCRIPTION
1	TYPE - "B" MODULE ASSEMBLY
1	RMST SOFTWARE CARTRIDGE ASSEMBLY

INSTALLATION (Continued)**Remote Start System Kit (RMST) Type - "B" (Continued)**

QUANTITY	DESCRIPTION
2	1 BUTTON POWERCODE TRANSMITTER
1	TYPE - "B" CUSTOM WIRING HARNESS
1	ANTENNA
1	HOOD SAFETY SWITCH ASSEMBLY
1	INSTALLATION PARTS BAG
1	FUSE PARTS BAG
1	OPERATORS INSTRUCTIONS
1	OPERATORS QUICK REFERENCE WALLET CARD
1	UNDERHOOD WARNING LABEL
1	SECURILOCK INTERFACE KIT (SOLD SEPARATELY AND REQUIRED FOR VEHICLES W/PATS)

3. Review the RMST bidirectional kit contents.

Remote Start System Bidirectional Kit (RMST) Type - "B"

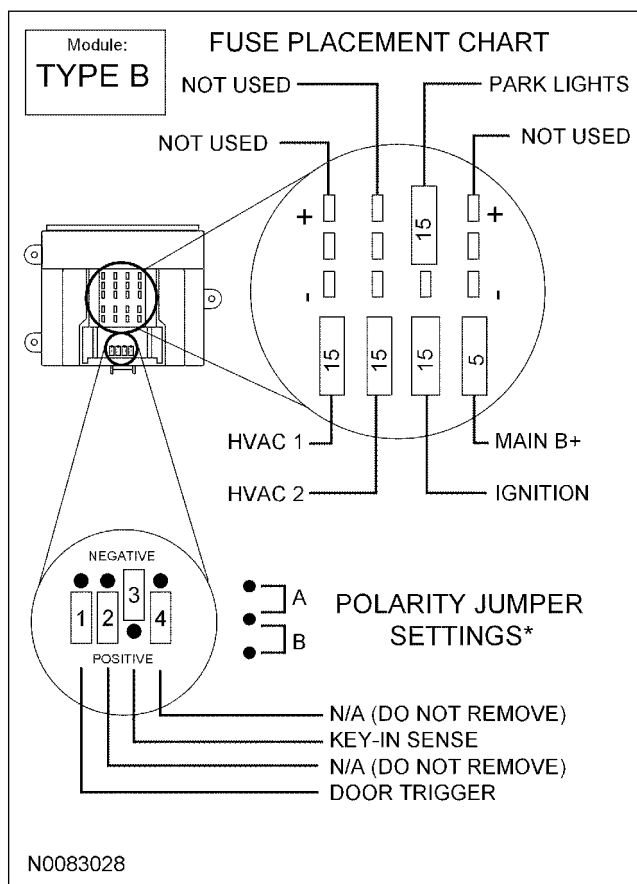
QUANTITY	DESCRIPTION
1	TYPE - "B" MODULE ASSEMBLY
1	RMST SOFTWARE CARTRIDGE ASSEMBLY
1	2 BUTTON POWERCODE TRANSMITTER
1	TYPE - "B" CUSTOM WIRING HARNESS
1	ANTENNA
1	ANTENNA HARNESS
1	HOOD SAFETY SWITCH ASSEMBLY
1	INSTALLATION PARTS BAG
1	FUSE PARTS BAG

Remote Start System Bidirectional Kit (RMST) Type - "B" (Continued)

QUANTITY	DESCRIPTION
1	OPERATORS INSTRUCTIONS
1	OPERATORS QUICK REFERENCE WALLET CARD
1	UNDERHOOD WARNING LABEL
1	SECURILOCK INTERFACE KIT (SOLD SEPARATELY AND REQUIRED FOR VEHICLES W/PATS)

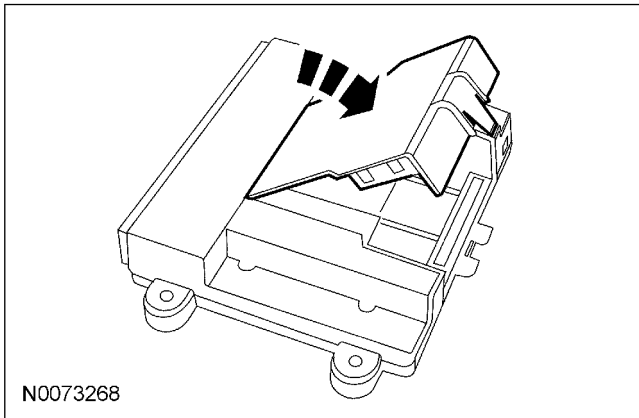
Module Preparation

- Place the supplied fuses into the power distribution block on the remote start control module.
 - Move the polarity jumpers to their proper locations on the control module, see illustration.

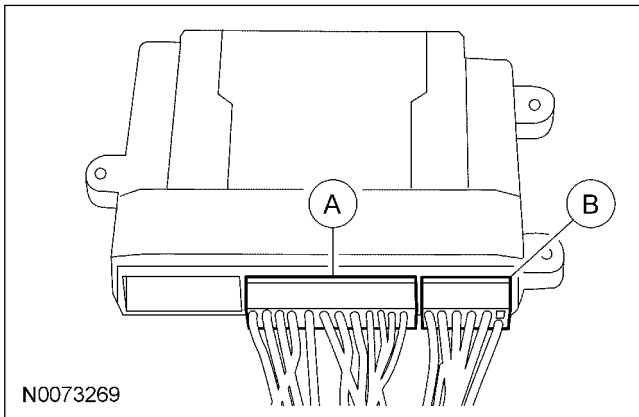


INSTALLATION (Continued)

5. Place the software cartridge onto the RMST control module.



6. Plug the wiring harness(es) into the module.
- A - Harness: 24-way, used on all systems.
 - B - Harness: 10-way, used on all systems with RMST.

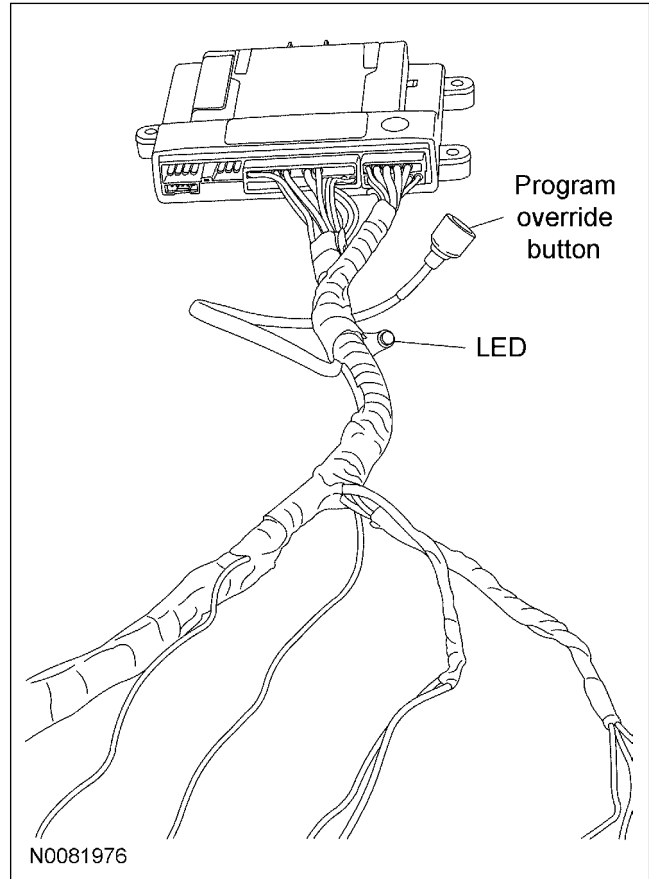


7. **NOTE:** Do not cut the override programming button off of the harness, it is used for all installations.

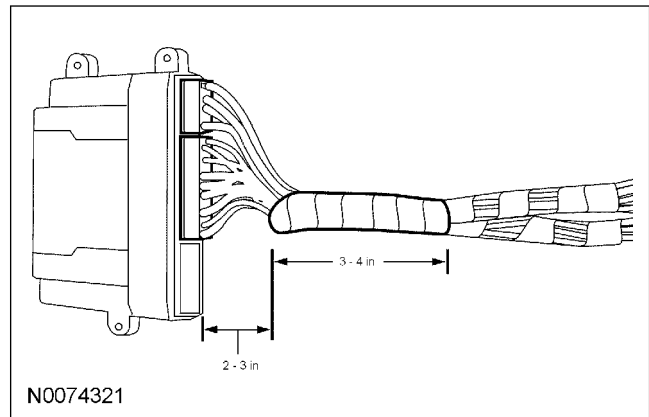
NOTE: For vehicle specific wiring diagram(s) [click here](#).

Referring to the vehicle specific wiring section for the system being installed, gather all individual wires that will be routed to the same areas of the vehicle into groups. Cover each wire group with electrical tape for approximately 18". Depending on the vehicle, there will be 2 to 5 different wire groups.

Trim the unused wires approximately 6 - 8" from the module.



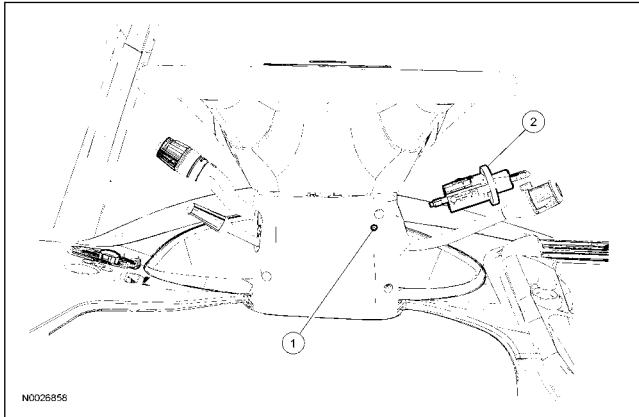
8. Tape the harness sections together, making sure to cover all of the unused wires.

**Vehicle Preparation**

9. Remove the 2 bolts and position the hood latch release handle aside.
10. Remove the screws and the lower instrument panel steering column cover.

INSTALLATION (Continued)

11. Remove the 3 instrument panel steering column opening cover reinforcement bolts and the reinforcement panel.
12. Insert the ignition key and turn to the RUN position.
13. Press the ignition lock cylinder release pin and remove the ignition lock cylinder.



14. Remove the steering column shroud.
 - 1 Remove the tilt shank.
 - 2 Remove the shroud.
15. Remove the left hand scuff plate and cowl trim panel.

Antenna Mounting

NOTE: For good range of operation, the antenna must be installed correctly.

NOTE: Keep these points in mind when selecting a location and mounting the antenna.

- Do not mount the antenna behind or on any metal film or window tinting on the windshield.
- Do not mount the antenna so that one of the antenna elements touches or crosses any vehicle wiring and/or metal.
- On vehicles without metal film in the windshield around the rear view mirror, mount the antenna between the headliner and the rear view mirror.
- On vehicles equipped with an electronic mirror, or on vehicles with metal film around the rearview mirror, mount the antenna approximately 3 inches below the mirror attachment point to the windshield and/or mirror electronics.

16. Choose a suitable mounting location following the guidelines above.

Install The Antenna

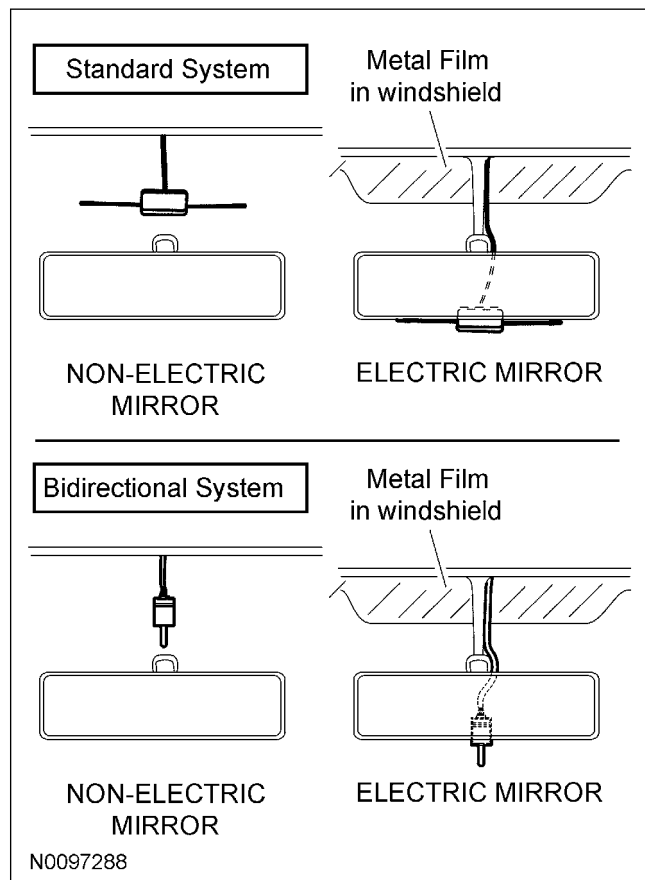
17. Clean the mounting surface using an alcohol base solution and a clean cloth.

18. **NOTE:** Do not touch the adhesive, reduced adhesion may result.

NOTE: Make sure that the long wire on the antenna is pointing towards the top of the windshield since this wire will be routed along the headliner.

NOTE: The wire will be attached to the control module later in this procedure.

Remove the protective backing from the adhesive on the antenna and firmly press the body of the antenna to the windshield.

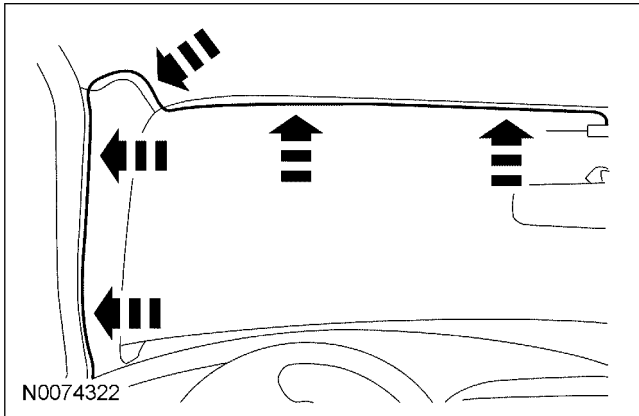


19. If necessary, position the A pillar trim slightly outward to provide access to route the antenna wire.

INSTALLATION (Continued)

NOTE: Do not route the antenna wire over the top of the air bag.

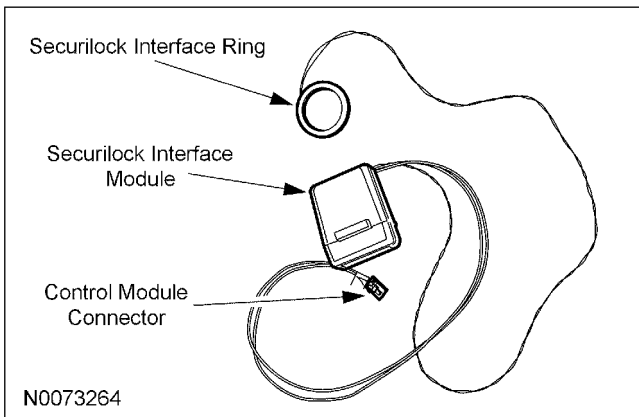
20. Route the antenna cable along the headliner and down the A pillar towards the floor.



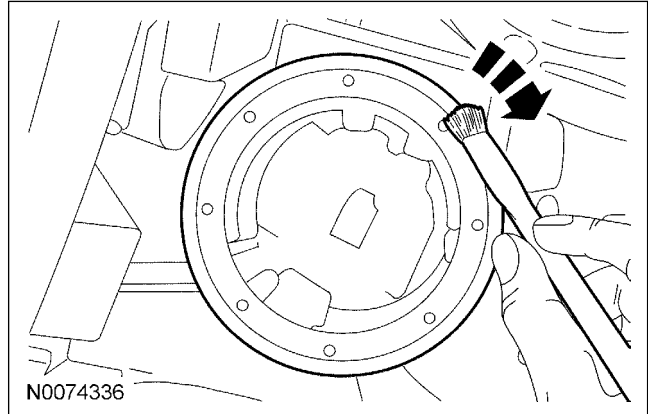
21. Reposition the A pillar trim panel.

Install The Securilock Interface Kit

22. Route the ring of the SECURILOCK interface antenna lead up along the steering column to the PATS transceiver location.



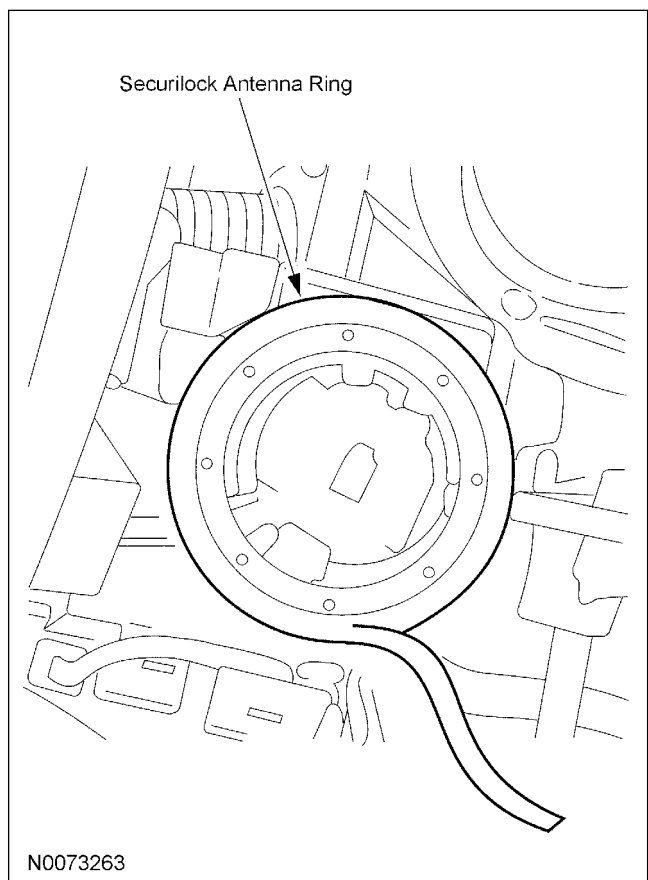
23. Following the directions on the supplied tube of adhesive primer, apply a thin coating around the transceiver antenna coil and allow to dry for approximately 5 minutes.



24. **NOTICE:** Do not damage the transceiver ring during installation or while installing the steering column shroud.

A damaged transceiver ring will result in an inoperable remote start system.

Remove the protective backing from the SECURILOCK antenna ring. Place the SECURILOCK ring over the PATS transceiver and press firmly in place.



INSTALLATION (Continued)

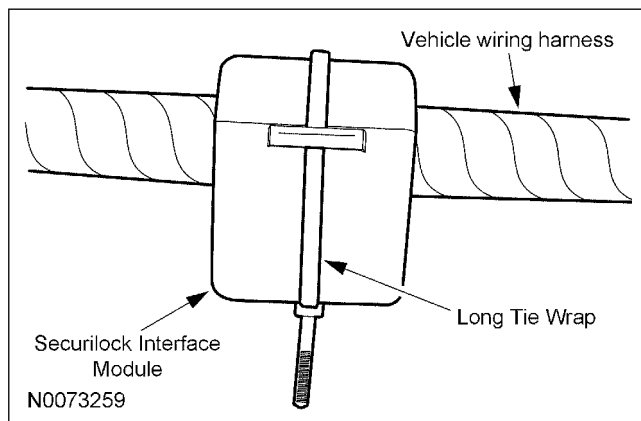
Install The Securilock Interface Module

25. **NOTE:** Do Not mount the SECURILOCK Interface Module to or within 3'' of a metal surface, including any underdash brackets, or in the knee bolster area.

Mount the SECURILOCK Interface Module to an underdash wiring harness using one of the supplied long tie wraps.

26. **NOTICE:** Do not attach the harness to the steering column.

Route the harness and connector the to module mounting location.



Install the Remote Start Control Module and Harness Assembly

27. Install the ignition lock cylinder.
28. Place the remote start module and harness assembly on the floor of the vehicle.

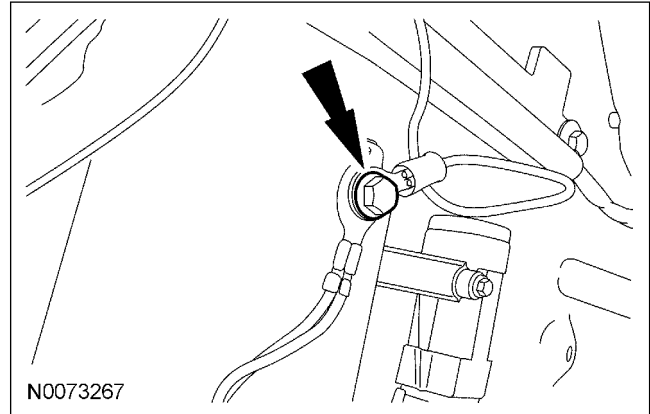
Identify Circuit Wires For Connections

NOTE: For vehicle specific wiring diagram(s) [click here](#).

NOTE: For proper wire splicing techniques [click here](#).

29. Connect the black ground wire from the remote start module harness to the chassis ground point in the driver kick panel.
30. Disconnect the ignition switch electrical connector.

31. Connect the remote start harness hard shell connectors to the ignition switch and ignition switch connector.



32. **NOTE:** A DVOM connected to the correct wire will show 12V, then show 0V when the horn button is held.

A logic probe will show power on the correct wire, then show ground when the horn button is held.

Identify the Yellow/Red horn circuit wire in the steering column harness.

33. Connect the Brown/Black wire from the remote start module harness to the Yellow/Red horn circuit wire in the steering column harness.
34. **NOTE:** A DVOM connected to the correct wire will show 12V when the key is removed, then 0V when the key is in the lock cylinder.
- A logic probe will show power on the correct wire, then show ground when the key is inserted into the lock cylinder.
- NOTE:** The wire changes color from Blue/Grey (Pin 10) on the male side of the connector to Black/Pink on the female side of the connector.
- Identify the Blue/Grey key in sense circuit wire in the steering column harness.
35. Connect the Black/White wire from the remote start module harness to the Blue/Gray key in sense circuit wire in the steering column harness.

INSTALLATION (Continued)

36. **NOTE:** Be sure that the dome light has timed out and is off before performing the door closed test.

Be sure that the dome lamp is illuminated before performing the door open test.

NOTE: A DVOM connected to the correct wire will show 12V with the doors open and the dome lamps on, then show 0V with the doors closed and the dome lamps off.

A logic probe will show power on the correct wire, then show ground when the doors are closed and the dome lamps off.

Identify the Green/Blue door ajar switch circuit wire in the harness to the right of the accelerator pedal.

37. Connect the Green/Violet wire from the remote start module harness to the Green/Blue door ajar switch circuit wire in the harness to the right of the accelerator pedal.

38. **NOTE:** A DVOM connected to the correct wire will show 12V, then show 0V when the door lock switch is pressed.

A logic probe will show open on the correct wire, then show ground when the door lock switch is pressed.

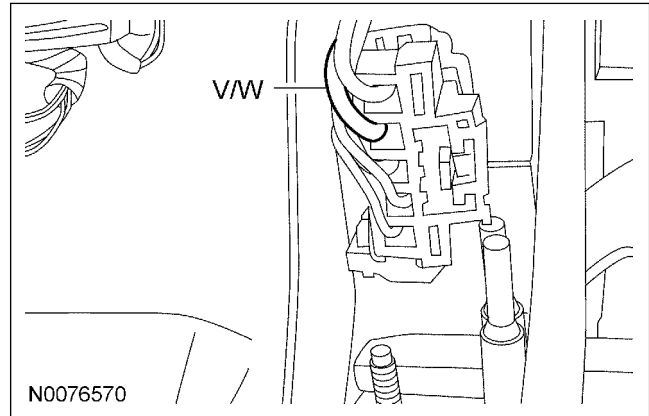
Identify the Gray/Yellow power door lock circuit wire at the driver's door jamb boot.

39. Connect the Blue wire from the remote start module harness to the Gray/Yellow power door lock circuit at the driver's door jamb boot harness.

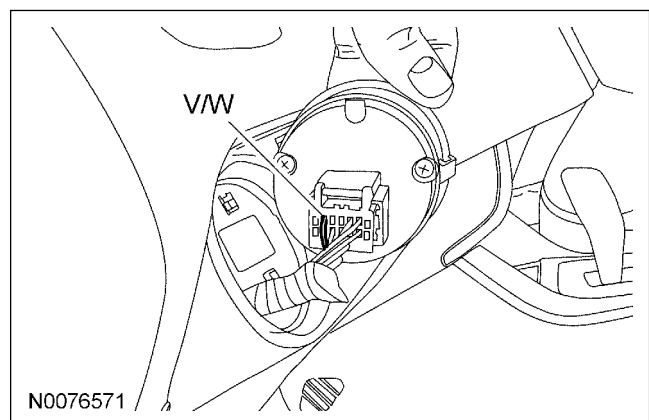
40. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V while depressing the brake pedal.

A logic probe will show open on the correct wire, then show power while depressing the brake pedal.

Identify the Violet/White brake switch circuit wire at the brake switch.



41. Connect the Brown wire from the remote start module harness to the Violet/White brake switch circuit wire at the brake switch.
42. **NOTE:** A DVOM connected to the correct wire will show 0V with the switch in the OFF position, then show 12V with the switch in the parking lamps ON position.
- A logic probe connected to the correct wire will show ground with the switch in the OFF position, then power with the switch in the parking lamps ON position.
43. Identify the Violet/White parking light circuit wire at the headlight switch.
44. Connect the White wire from the remote start module harness to the Violet/White parking light circuit wire at the headlight switch.

**Install The Power Window, Slider and Moonroof Interrupt Relays**

45. Prepare the relay harnesses.

INSTALLATION (Continued)**Vehicles With Power Windows**

NOTE: Two relays and two harnesses are required.

NOTE: Vehicles with manual windows, skip this section and continue to hood safety switch installation.

46. Remove circuit 87 yellow wires and terminals from the relay harness connectors.
 - Release the locking tab and pull the wire and terminal from the connector.
47. Connect the White wires from the power window, interrupt relays to the Blue/Black circuit wire from the remote start module harness.
48. **NOTE:** A DVOM connected to the correct wire will show 12V with the key in the ON position, will show 0V with the key in the OFF position. A logic probe connect to the correct wire will show power with the key in the ON position, will show ground with the key in the OFF position.
Identify the White/Orange battery wire at the ignition switch harness.
49. Connect the Black wires from the power window, interrupt relays to the White/Orange battery wire at the ignition switch harness.
50. **NOTE:** Relay one is for the driver power window.
Identify the Gray/Yellow driver power window 12V supply circuit wire at the driver kick panel.
51. Cut the Gray/Yellow driver power window 12V supply circuit wire at the driver kick panel.
 - Connect the Blue wire from the power window, slider and moonroof interrupt relay one to the feed side of the Gray/Yellow driver power window 12V supply circuit wire at the driver kick panel.
 - Connect the Red wire from the power window, slider and moonroof interrupt relay one to the load side of the Gray/Yellow driver power window 12V supply circuit wire at the driver kick panel.

52. **NOTE:** Relay two is for the passenger power window.

Identify the Violet/White passenger power window 12V supply circuit wire at the passenger kick panel.

53. Cut the Violet/White passenger power window 12V supply circuit wire at the passenger kick panel.
 - Connect the Blue wire from the power window, slider and moonroof interrupt relay two to the feed side of the Violet/White passenger power window 12V supply circuit wire at the passenger kick panel.
 - Connect the Red wire from the power window, slider and moonroof interrupt relay two to the load side of the Violet/White passenger power window 12V supply circuit wire at the passenger kick panel.

All Vehicles, Install The Hood Safety Switch

54. **NOTE:** Route the hood safety switch wire carefully avoiding any moving parts or components that can produce excessive heat.

NOTE: The switch should be positioned about 30 degrees below parallel to the ground to accommodate for parking on inclines.

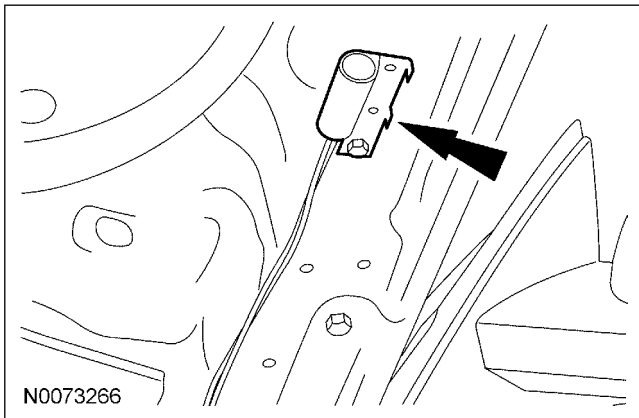
Failure to position the switch properly could result in one of the following:

- False alarm trips
- Non-Remote Start events
- Inadvertent shutdown during Remote Start

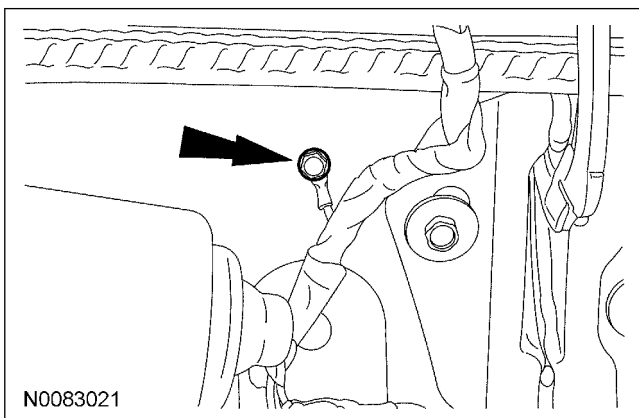
Locate an easy to access area near the drivers side hood hinge and install the hood safety switch using the supplied metal screws.

INSTALLATION (Continued)

55. Apply rustproofing compound (PM-13-A) to the drilled hole and torque the screw to 1.00 Nm (10 lb-in).

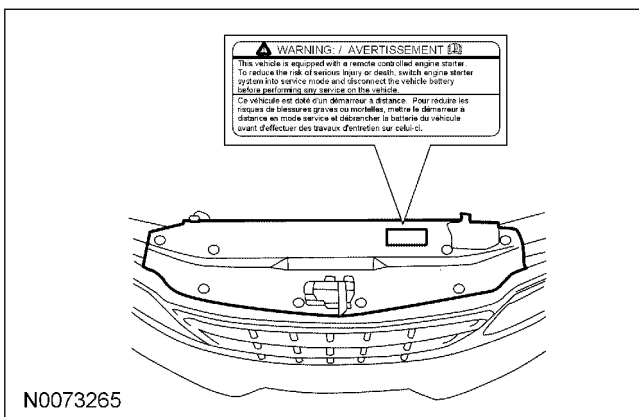


56. Connect hood switch ground wire to a suitable location on the bulkhead.



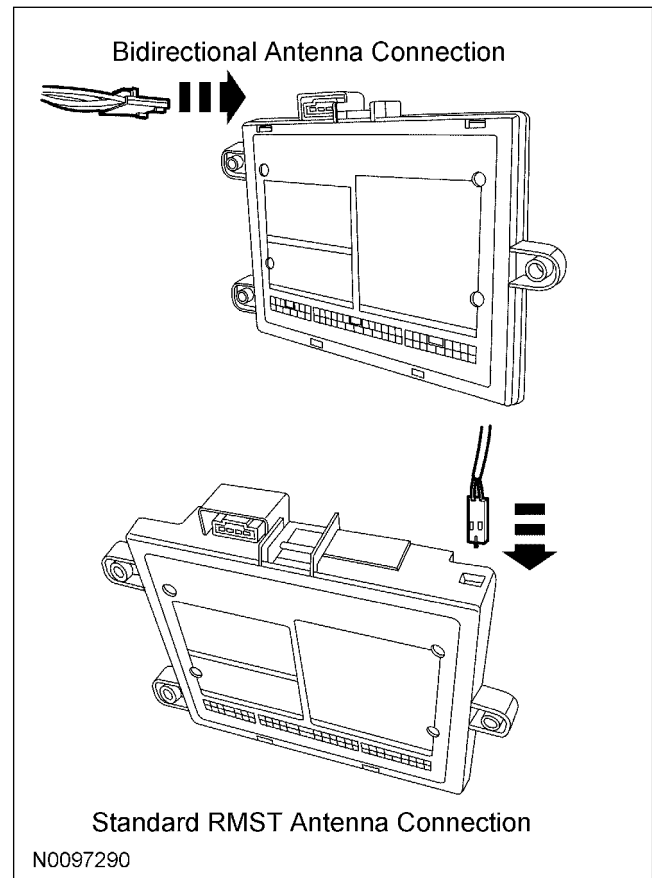
57. **NOTE:** Place the label on the radiator fan shroud or similar area.

Install the underhood warning label



58. Route the Gray hood safety switch wire through the bulkhead into the engine compartment and attach to the hood safety switch.

59. Connect the antenna to the RMST control module.



60. Connect the SECURILOCK interface module to the RMST control module.

Program The RMST System

61. [Refer to the RMST programming section for this vehicle \(click here\).](#)

Secure RMST Harness and Control Module

62. Use the supplied tie wraps to secure the RMST harness wires.

INSTALLATION (Continued)

63. **NOTE:** Do not mount the control module in the knee bolster area.

To ensure the best performance of the built-in shock sensor, secure the control module at three points to the vehicle.

Use the supplied long tie wraps to mount the RMST control module to the underdash wiring harness.

Install Trim

64. Install the steering column shroud.

65. Install the reinforcement panel and install the 3 instrument panel steering column opening cover reinforcement bolts.

- Tighten to 7 Nm (62 lb-in).

66. Install the lower instrument panel steering column cover and the screws.

67. Position back the hood latch release handle and install the 2 bolts.

- Tighten to 7 Nm (62 lb-in).

68. Install the left hand cowl trim panel.

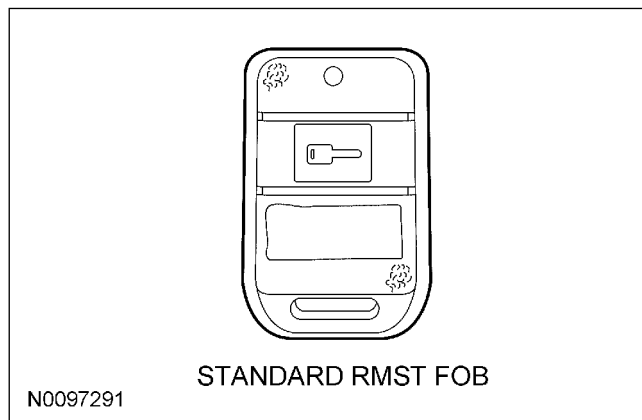
- 1 Install the cowl trim panel.

- 2 Install the scuff plate.
-

GENERAL PROCEDURES

Programming — Standard Remote Start

Programming the Module



- NOTE:** If the remote start module options (Key-in sense polarity, door ajar polarity, or tach mode) are not programmed correctly, vehicle will not remote start or operate properly.

NOTE: Make sure that the hood and doors are closed before proceeding.

NOTE: The LED on the remote start harness must be visible to complete module programming.

NOTE: The remote start override button must be accessible.

Programming Options: Entering Programming Mode

NOTE: The horn will not honk until option 4 of bank 1 is programmed.

- See chart below for programming information.

Program Bank 1 Chart (4 Honks)

BANK	OPTIONS	DESCR	LED
1	2	DOOR AJAR INVERT	ON
1	3	KEY-IN SENSE INVERT	ON
1	4	EXTENDED HORN HONK	ON

Program Bank 2 Chart (5 Honks)

BANK	OPTIONS	DESCR	LED
2	1	TACHLESS MODE	ON

- Press and hold the brake pedal.
- Turn the ignition key to the RUN position. The dome light will turn off.
- Press and hold the remote start system override button for at least 10 seconds.
After 10 seconds the horn will honk 3 times, indicating the system is now in the learn mode. Release the brake pedal and the RMST override button.
- If you do not get 3 confirmation chirps, check the following items.
 - Brake pedal switch wire solder connection.
 - Hood closed and Grey hood safety switch wire solder connection.
 - All doors closed and dome light circuit wire solder connections.
 - The key is in the RUN position.
 - The software cartridge is firmly seated in the RMST module.
 - The RMST harness connections are firmly seated in the RMST module.

GENERAL PROCEDURES (Continued)

NOTE: If you require additional assistance: CALL 1-800-FORD KEY.

7. Press and release the override button. The horn will honk 4 times indicating the system has entered the first program bank.
8. Press and release the brake pedal.
The horn will honk 2 times indicating the system has entered the option 2 of the first program bank.

NOTICE: When turning the LED on or off using the remote start fob button, press and immediately release the remote start button.

Failure to quickly release the remote start fob button will result in system defaulting to the factory options.

9. The LED must be on for option 2. If the LED is illuminated, no action is required. If the LED is not illuminated, press the remote start fob button and verify the LED illuminates.

NOTE: When programming the remote start module, if the remote start fob button is held for more than 3 seconds, the horn will chirp 4 times, indicating the system returned to factory default settings. If this occurs return to step 1 of the programming section to reprogram the remote start module.

10. Press and release the brake pedal.
The horn will honk 3 times indication the system has entered the option 3 of the first program bank.
11. The LED must be on for option 3. If the LED is illuminated no action is required. If the LED is not illuminated press the remote start fob button and verify the LED illuminates.
12. Press and release the brake pedal. The horn will honk 4 times indicating the system has entered option 4 of the first program bank.
13. The LED must be ON for option 4. If the LED is illuminated no action is required. If the LED is not illuminated press the remote start fob button to verify that the LED illuminates.

14. Press and release the override button. The horn will honk 5 times indicating the system has entered the second option bank.
15. Press and release the brake pedal.
The horn will honk 1 time indication the system has entered the option 1 of the second program bank.
16. The LED must be on for option 1. If the LED is illuminated no action is required. If the LED is not illuminated press the remote start fob and verify the LED illuminates.


NOTE: The remote start module is now programmed.

17. Remove the ignition key.

Programming the SECURILOCK

NOTE: Two PATS keys are required to program the SECURILOCK.

NOTE: IMPORTANT: Each of the following steps should be completed with no more than 5 seconds delay between steps.

18. Insert the first ignition key and turn to the run position.
Watch for the PATS light to turn off. Remove the first key.
19. Insert the second ignition key and turn to the run position.
Watch for the PATS light to turn off. Remove the second key.
20. Press and hold the remote start button  for 3 seconds.
The PATS light should stay on for 3-5 seconds before turning off, which means that the SECURILOCK was successfully programmed.

GENERAL PROCEDURES (Continued)

NOTE: If the PATS light blinks rapidly, repeat steps 1-3 to retry programming the SECURILOCK.

NOTE: The engine will start if the Remote Start kit has been installed correctly, the brake is not depressed, and the hood and doors are closed.

21. Place a key in the ignition and turn to the RUN position.

Depress the brake pedal and place the transmission selector lever in gear.

The vehicle should run without interruption.

GENERAL PROCEDURES

Functional Test - Standard Remote Start

NOTE: If during any of the steps of the functional test, the remote start system or vehicle doesn't react or perform accordingly, please refer to the remote start troubleshooting guide.

NOTE: For remote start troubleshooting guide click [here](#).

1. Make sure all doors are closed but hood is open and windows are down (doors will be locking).
2. Press and hold the Start button on the remote control key fob for 2-3 seconds - Horn should honk once indicating receipt of the start request.
3. The remote start systems should turn on the ignition, but then honk the horn twice and shut down indicating the hood is open.
4. Close the hood, and insert a key into the ignition switch.
5. Attempt to re-start the vehicle again using the key fob.
6. The remote start systems should turn on the ignition, but then honk the horn five times and shut down indicating a key is in the ignition switch.
7. Remove the key and open a door.
8. Attempt to re-start the vehicle again using the key fob.
9. The remote start systems should turn on the ignition, but then honk the horn three times and shut down indicating a door is open.
10. Close the door.
11. Attempt to re-start the vehicle again using the key fob.
12. Once the vehicle starts, verify that all heat and A/C functions operate normally and that the doors have locked.
13. On vehicles equipped with power window interrupt, Attempt to close windows to check power window interrupt function.
14. Once all systems have been checked, press the brake pedal - the remote start systems should shut down.

Troubleshooting

15. **NOTE:** When attempting to remote start your vehicle, the system has several safety checks that it performs. If any of these inputs are present that should not be, the system will respond back to you with several horn "chirps" to help you identify which input is present. These "chirps" will occur after initiating a start sequence with the transmitter, the system will turn on the ignition, but then respond back with several horn "chirps" and abort the starting process.

Example: Depress the remote start fob button for 3 seconds and then release. The vehicle horn will "chirp" one time to indicate that RMST signal was received. If the vehicle doesn't start and the horn "chirps" 3 times, there is a fault - "Vehicle Door is Open"

CHIRPS	PROBLEM
1 Chirp	SECURILOCK not programmed correctly, or the SECURILOCK antenna ring is damaged.
2 Chirps	BRAKE is being pressed, or the HOOD is open.
3 Chirps	One of the vehicles DOORS are open.
4 Chirps	TACH not programmed.

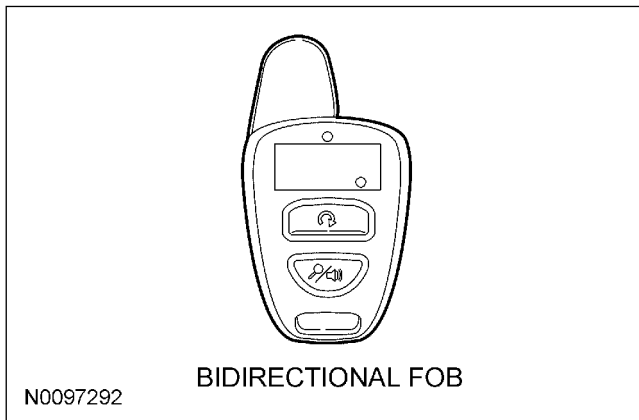
GENERAL PROCEDURES (Continued)

CHIRPS	PROBLEM
5 Chirps	The KEY is in the ignition.
6 Chirps	The remote start system is in SERVICE/VALET mode.

GENERAL PROCEDURES

Programming - Bidirectional Remote Start

Programming the Module



- NOTE:** If the remote start module options (Key-in sense polarity, door ajar polarity, or tach mode) are not programmed correctly, vehicle will not remote start or operate properly.

NOTE: Make sure that the hood and doors are closed before proceeding.

NOTE: The LED on the remote start harness must be visible to complete module programming.

NOTE: The remote start override button must be accessible.

Programming Options: Entering Programming Mode

NOTE: The horn will not honk until option 4 of bank 1 is programmed.

- See chart below for programming information.

Program Bank 1 Chart (4 Honks)

BANK	OPTIONS	DESCR	LED
1	2	DOOR AJAR INVERT	ON
1	3	KEY-IN SENSE INVERT	ON
1	4	EXTENDED HORN HONK	ON

Program Bank 2 Chart (5 Honks)

BANK	OPTIONS	DESCR	LED
2	1	TACHLESS MODE	ON

- Press and hold the brake pedal.
- Turn the ignition key to the RUN position. The dome light will turn off.
- Press and hold the remote start system override button for at least 10 seconds.
After 10 seconds the horn will honk 3 times, indicating the system is now in the learn mode. Release the brake pedal and the RMST override button.
- If you do not get 3 confirmation chirps, check the following items.
 - Brake pedal switch wire solder connection.
 - Hood closed and Grey hood safety switch wire solder connection.
 - All doors closed and dome light circuit wire solder connections.
 - The key is in the RUN position.
 - The software cartridge is firmly seated in the RMST module.
 - The RMST harness connections are firmly seated in the RMST module.

GENERAL PROCEDURES (Continued)

NOTE: If you require additional assistance: CALL 1-800-FORD KEY.

7. Press and release the override button. The horn will honk 4 times indicating the system has entered the first program bank.
8. Press and release the brake pedal.
The horn will honk 2 times indicating the system has entered the option 2 of the first program bank.

NOTICE: When turning the LED on or off using the remote start fob button, press and immediately release the remote start button.

Failure to quickly release the remote start fob button will result in system defaulting to the factory options.

9. The LED must be on for option 2. If the LED is illuminated, no action is required. If the LED is not illuminated, press the remote start fob button and verify the LED illuminates.

NOTE: When programming the remote start module, if the remote start fob button is held for more than 3 seconds, the horn will chirp 4 times, indicating the system returned to factory default settings. If this occurs return to step 1 of the programming section to reprogram the remote start module.

10. Press and release the brake pedal.
The horn will honk 3 times indication the system has entered the option 3 of the first program bank.
11. The LED must be on for option 3. If the LED is illuminated no action is required. If the LED is not illuminated press the remote start fob button and verify the LED illuminates.
12. Press and release the brake pedal. The horn will honk 4 times indicating the system has entered option 4 of the first program bank.
13. The LED must be ON for option 4. If the LED is illuminated no action is required. If the LED is not illuminated press the remote start fob button to verify that the LED illuminates.

14. Press and release the override button. The horn will honk 5 times indicating the system has entered the second option bank.
15. Press and release the brake pedal.
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19. Insert the second ignition key and turn to the run position.
Watch for the PATS light to turn off. Remove the second key.
20. Press and hold the remote start button  twice within 3 seconds.
The PATS light should stay on for 3-5 seconds before turning off, which means that the SECURILOCK was successfully programmed.

GENERAL PROCEDURES (Continued)

NOTE: If the PATS light blinks rapidly, repeat steps 1-3 to retry programming the SECURILOCK.

NOTE: The engine will start if the Remote Start kit has been installed correctly, the brake is not depressed, and the hood and doors are closed.

21. Place a key in the ignition and turn to the RUN position.

Depress the brake pedal and place the transmission selector lever in gear.

The vehicle should run without interruption.

GENERAL PROCEDURES

Functional Test - Bidirectional Remote Start

NOTE: If during any of the steps of the functional test, the remote start system or vehicle doesn't react or perform accordingly, please refer to the remote start troubleshooting guide.

NOTE: For remote start troubleshooting guide click [here](#).

1. Make sure all doors are closed but hood is open and windows are down (doors will be locking).
2. Press the Start button on the remote control key fob twice within 3 seconds - Horn should honk once indicating receipt of the start request.
3. The remote start systems should turn on the ignition, but then honk the horn twice and shut down indicating the hood is open.
4. Close the hood, and insert a key into the ignition switch.
5. Attempt to re-start the vehicle again using the key fob.
6. The remote start systems should turn on the ignition, but then honk the horn five times and shut down indicating a key is in the ignition switch.
7. Remove the key and open a door.
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12. Once the vehicle starts, verify that all heat and A/C functions operate normally and that the doors have locked.
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14. Once all systems have been checked, press the brake pedal - the remote start systems should shut down.

Troubleshooting

15. **NOTE:** When attempting to remote start your vehicle, the system has several safety checks that it performs. If any of these inputs are present that should not be, the system will respond back to you with several horn "chirps" to help you identify which input is present. These "chirps" will occur after initiating a start sequence with the transmitter, the system will turn on the ignition, but then respond back with several horn "chirps" and abort the starting process.

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CHIRPS	PROBLEM
1 Chirp	SECURILOCK not programmed correctly, or the SECURILOCK antenna ring is damaged.
2 Chirps	BRAKE is being pressed, or the HOOD is open.
3 Chirps	One of the vehicles DOORS are open.
4 Chirps	TACH not programmed.
5 Chirps	The KEY is in the ignition.
6 Chirps	The remote start system is in SERVICE/VALET mode.

'09 Ranger

TYPE "B" CUSTOM WIRE HARNESS

RMST MODULE WIRE HARNESS

STEERING COLUMN HARNESS

	Color	Function
A-7	PINK	Ignition Input/Output
B-3	PINK/WHITE	Ignition 2 Output
B-4	ORANGE	HVAC 1 Output
B-5	ORANGE/WHITE	HVAC 2 Output
A-8	VIOLET	Starter Output
A-4	RED	Battery
B-2	RED	Battery
B-1	BLUE	Battery

DRIVER'S KICK PANEL HARNESS

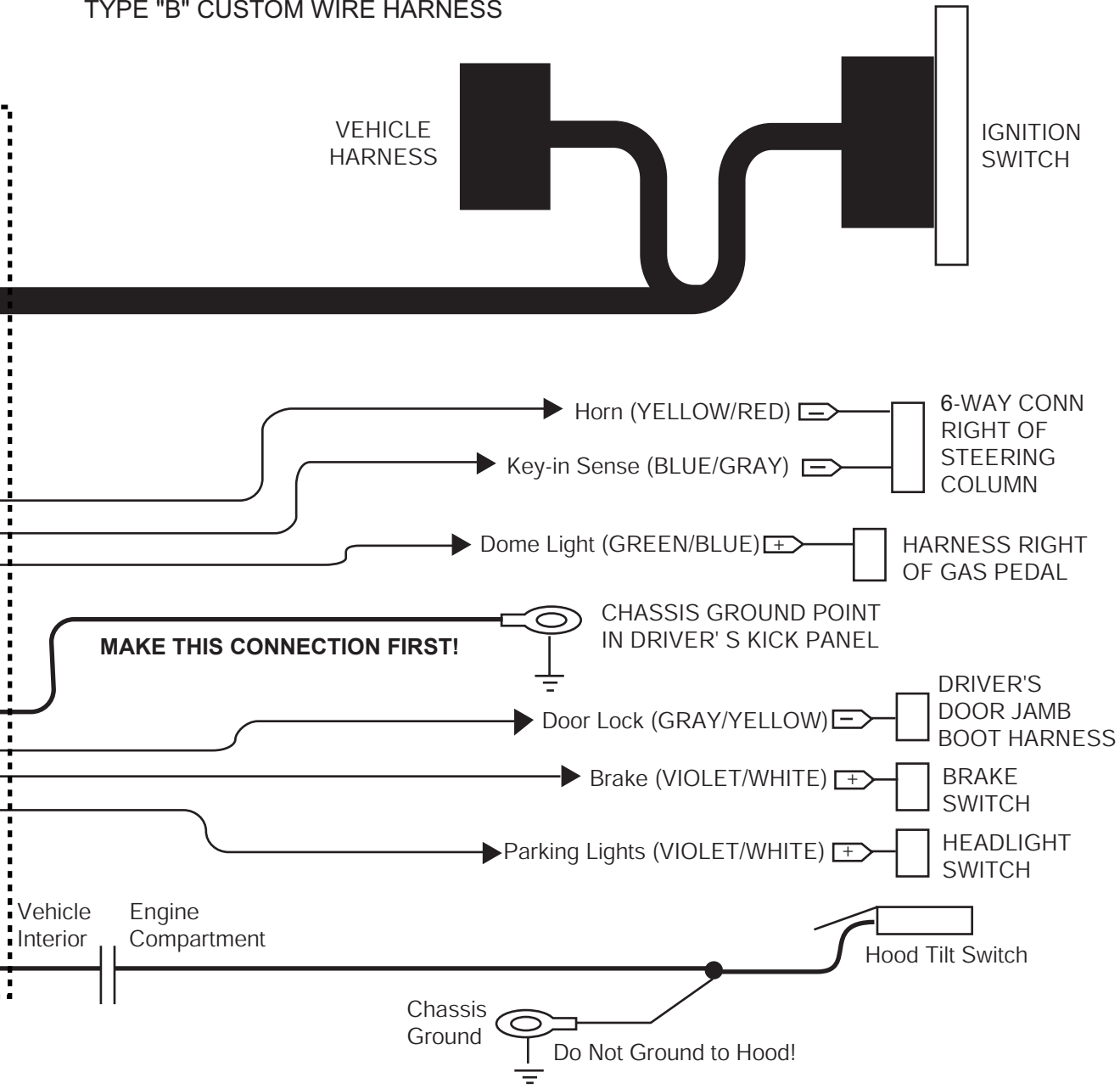
	Color	Function
A-21	BROWN/BLACK	Horn Relay Output
B-8	BLACK/WHITE	Key-in-sense Input
A-20	GREEN/VIOLET	Door Ajar Switch Input

DRIVER'S KICK PANEL HARNESS

	Color	Function
A-5	BLACK	Ground
A-24	BLUE	Door Lock Output
B-7	BROWN	Brake Input
A-1	WHITE	Parking Light Output

UNDER HOOD HARNESS

	Color	Function
A-19	GRAY	Hood Open Switch Input



POWER WINDOW, SLIDER & MOONROOF INTERRUPT RELAYS

