

# **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 —>**RKE/VSS/RMST**

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

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

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

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

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

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

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

### **DO NOT CLAIM PARTS WARRANTY ON FORM 1863**

#### Parts Warranty Processing:

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

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

Ford Service Parts  
180 Marcus Blvd.  
Hauppauge, NY 11788

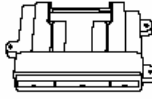









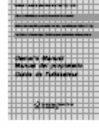
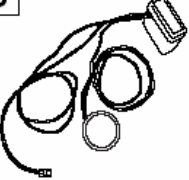

**Note:** If the package is sent without a claim number/claim number visible on the outside of the package, the shipment will be refused and returned at sender's expense.

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

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













## REFERENCE SECTION

### KIT CONTENTS

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

### PARTS BAG CONTENTS

NOTE: Part bag contents are not available as service items

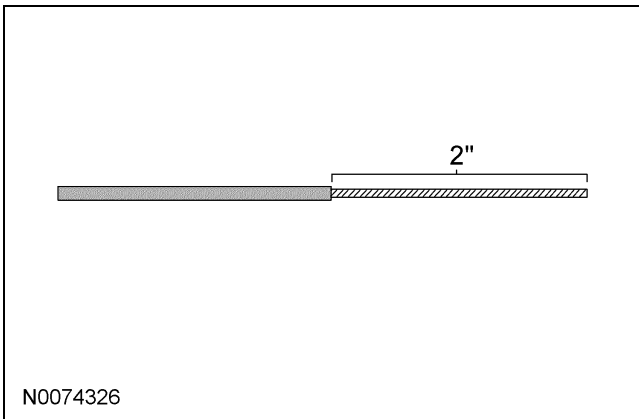
<b>T</b> 750 OHM  1X	<b>U</b> 1800 OHM  1X	<b>V</b>  2X	<b>W</b>  6X
<b>X</b>  2X	<b>Y</b>  5X	<b>Z</b>  10X	<b>AA</b>  1X
<b>BB</b>  2X	<b>CC</b>  7X	<b>DD</b> FUSE BAG CONTENTS 5A  1X	<b>EE</b> 15A  PC-14 - 4X PC-34 - 7X

## GENERAL PROCEDURES

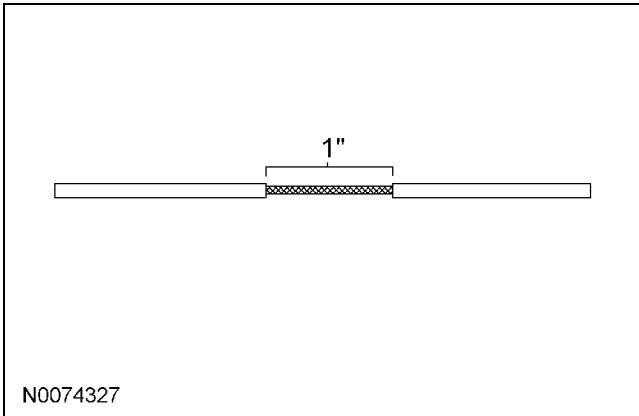
### Proper Splicing Techniques

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

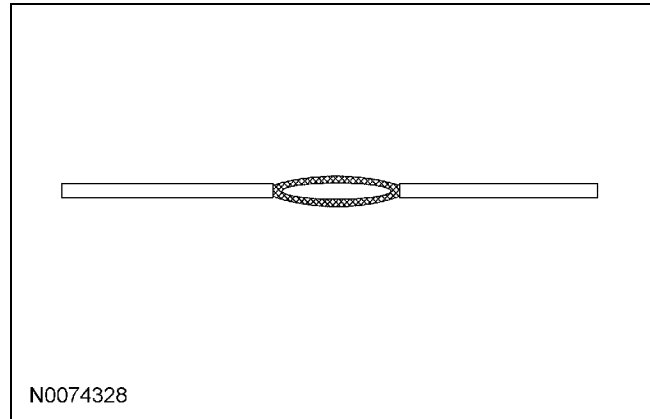
1. Strip approximately two inches of insulation from the wire to be installed in the vehicle.



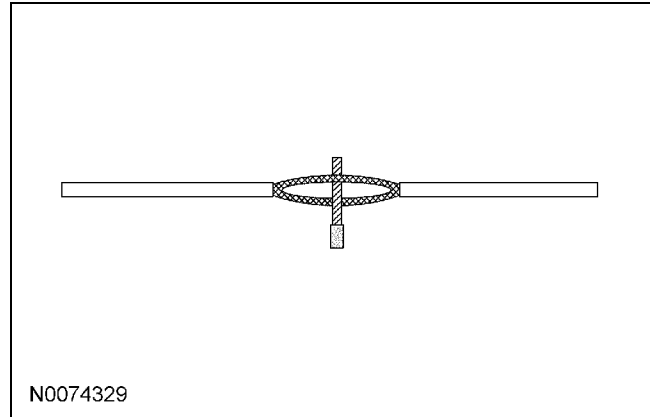
2. On the vehicle wire to be spliced into, strip one inch of insulation from the wire.



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.

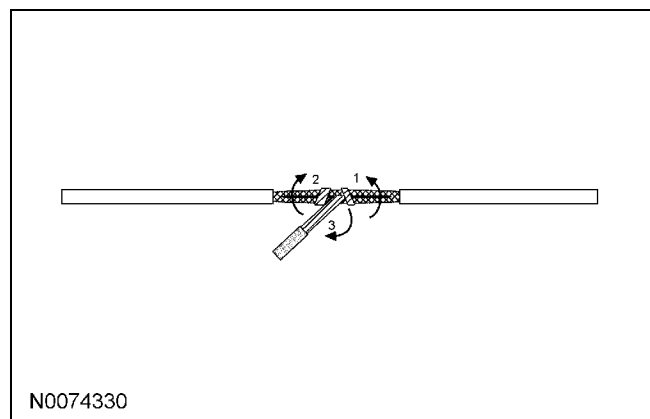


4. Insert the new wire between the parted strands. If more than one wire is being spliced, wrap them in opposite directions.



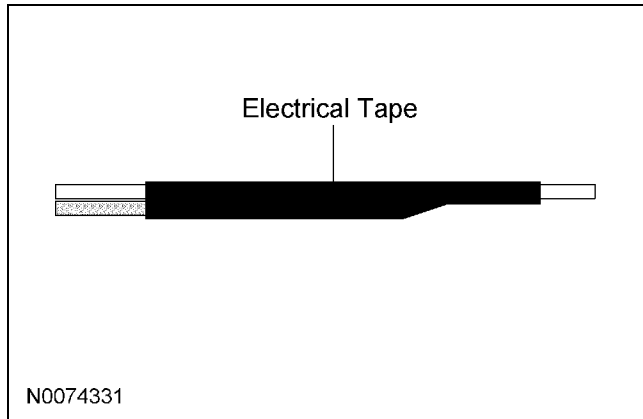
**NOTE:** Use Rosin Core Mildly-Activated (RMA) Solder. Do not use Acid Core Solder.

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)**

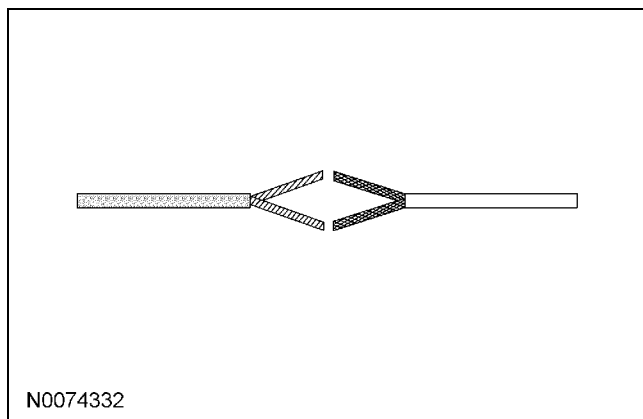
6. Wrap the connection with electrical tape so the tape covers the wires approximately two inches on either side of the connection.
  - Tape the wires together as shown in the illustration.

**Splicing End to End Connections**

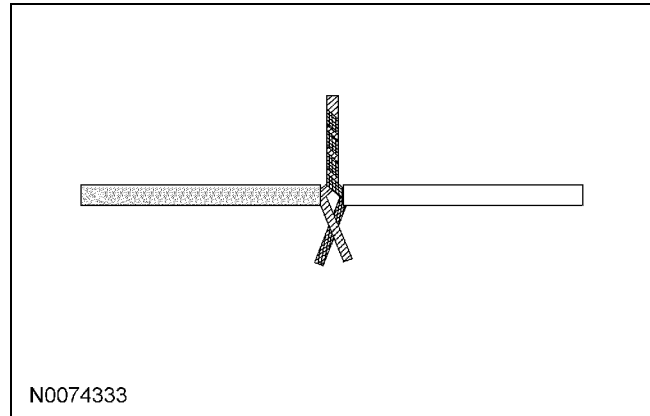
**NOTE:** When both ends of the wire are cut, use the end to end wire splicing procedure.

**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.

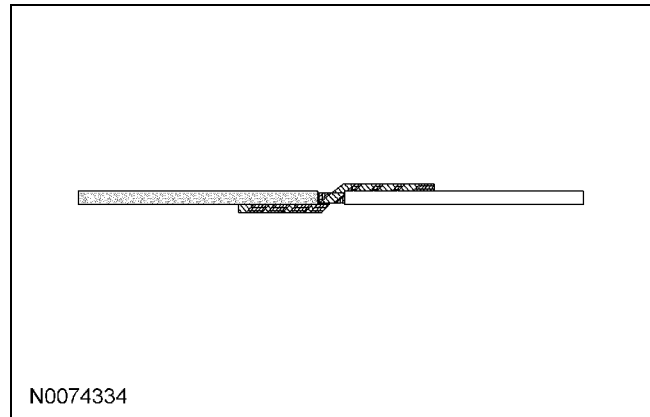


2. Place the wires next to each other and twist the upper and lower strands together as shown.

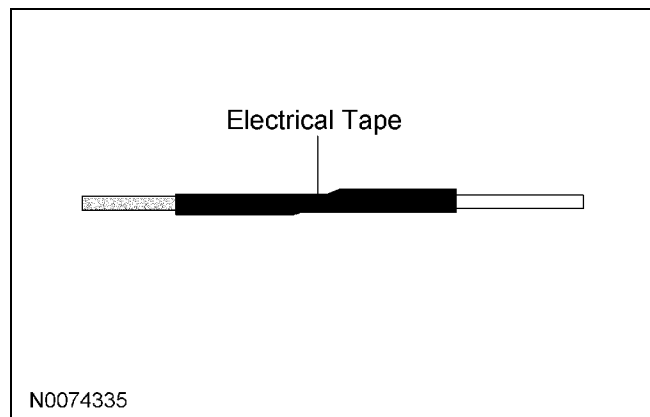


**NOTE:** Use Rosin Core Mildly-Activated (RMA) Solder. Do not use Acid Core Solder.

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.



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



## GENERAL PROCEDURES

### Shock Sensor Setting

#### Remote Start with Keyless Entry and Security System

**NOTE:** Control modules with an alarm feature contain one internal shock sensor with a Lite Touch and Full Shock settings. When the vehicle is armed, the force which sounds the horn due to impact is determined by the Lite Touch setting. When the vehicle is armed, the force at which sounds the alarm due to impact is determined by the Full Shock setting.

**NOTE:** The Full Shock Level should always be less sensitive than the Lite Touch Level.

1. Close the driver door and turn the ignition key to the ON position.
  2. Press and hold the override button until the horn honks.
  3. Press and hold the override button until the horn honks four times. This is option bank 1.
  4. Select the first option in option bank 1, which is the Lite Touch adjustment programming option. Press button 3 on the key fob.
  5. To test and adjust the current sensitivity level, start by tapping on the outer rim of the steering wheel with the palm of your hand, gradually increase the force of the taps until the horn honk is detected. this should be set to honk at a light to medium impact level. To adjust the level, press Unlock on the key fob to decrease the sensitivity or press Lock to increase the sensitivity.
  6. Turn the ignition key to the OFF position.
  7. Arm the system and check the new settings.
-

[Manual Table of Content](#)

# RKE/VSS/REMOTE START SYSTEM INSTALLATION

## CONTENTS

### INSTALLATION

[RKE/VSS/Remote Start](#)

### GENERAL PROCEDURES

[Proper Splicing Techniques](#)

[Programming](#)

[Functional Test](#)

[Troubleshooting](#)

[Shock Sensor Setting](#)

### WIRING DIAGRAMS

[Vehicle Specific Wiring Diagrams](#)

## INSTALLATION

### Remote Start

#### E-Series

**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.

#### Review RKE/VSS/RMST Installation Kit Contents

**NOTE:** Use kit number 7L3Z-19G364-AA  
REMOTE START SYSTEM

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

2. Review the RKE/VSS/RMST kit contents.

#### Remote Keyless Entry/ Vehicle Security System/ReMote STart (RKE/VSS/RMST) System Kit

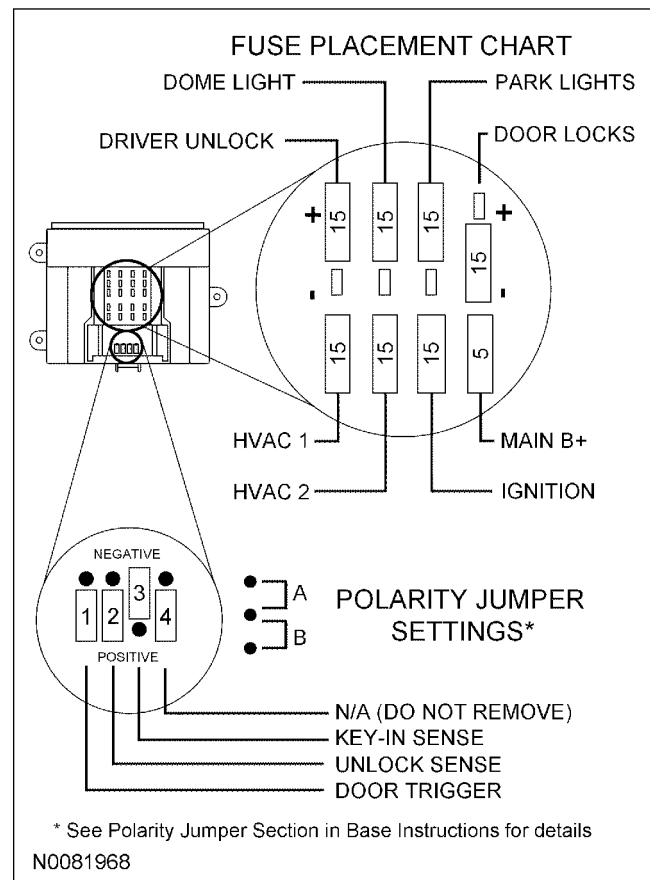
QUANTITY	DESCRIPTION
1	MODULE ASSEMBLY
1	RKE/VSS/RMST SOFTWARE CARTRIDGE ASSEMBLY
2	6 BUTTON POWERCODE TRANSMITTER
3	WIRING HARNESS ASSEMBLIES
1	DIPOLE ANTENNA
1	HOOD SAFETY SWITCH ASSEMBLY
1	INSTALLATION PARTS BAG
1	FUSE PARTS BAG
1	OPERATORS INSTRUCTIONS

#### Remote Keyless Entry/ Vehicle Security System/ReMote STart (RKE/VSS/RMST) System Kit (Continued)

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

#### Module Preparation

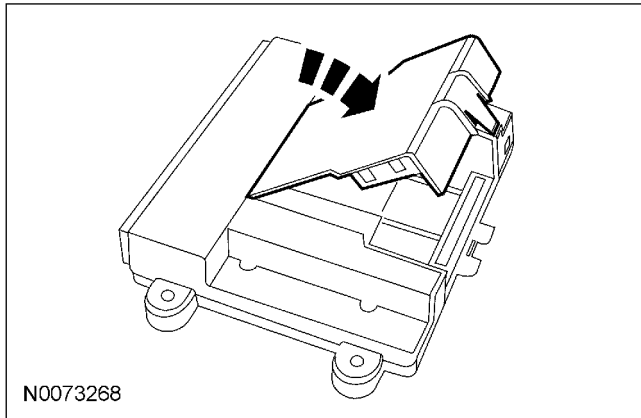
3. Place the supplied fuses into the power distribution block on the remote start control module.
  - Move the polarity jumpers to their proper locations on the control module, see illustration.



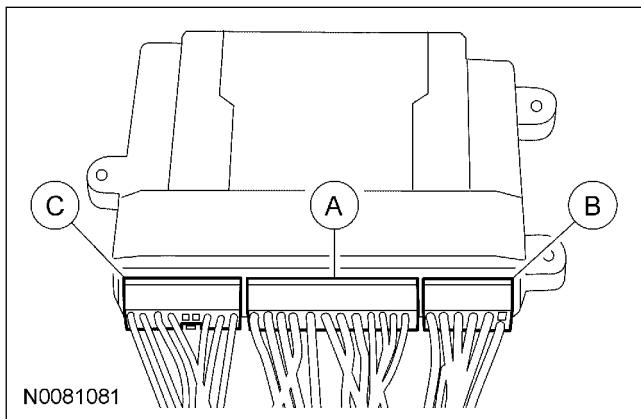


**INSTALLATION (Continued)**

4. Place the software cartridge onto the control module.



5. 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 RKE/VSS/RMST.
  - C - Harness: 16-way, used on all systems with RKE/VSS/RMST.

**Vehicles With Factory RKE**

6. **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](#).

Connect the following wire to the A-20 Green/Violet wire in the A connector of the control module approximately 8 inches from the connector

- A-3 Black/White wire in the A connector.

7. **NOTE:** Skip this step if Optional/Feature - Driver Priority unlock is installed.

Connect the following wire to the A-9 Brown wire in the A connector of the control module approximately 8 inches from the connector

- A-24 Blue/Green wire in the A connector.

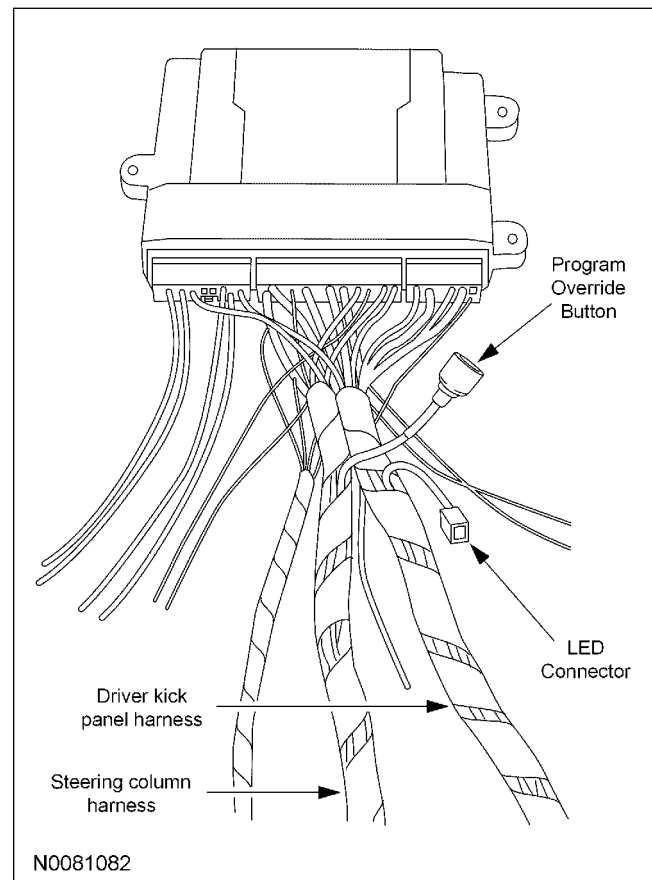
8. **NOTE:** Skip this step if Optional/Feature - Headlight Illumination is installed

Cut and tape off Red/White headlight output wire C-10 located in the C connector.

**All Vehicles**

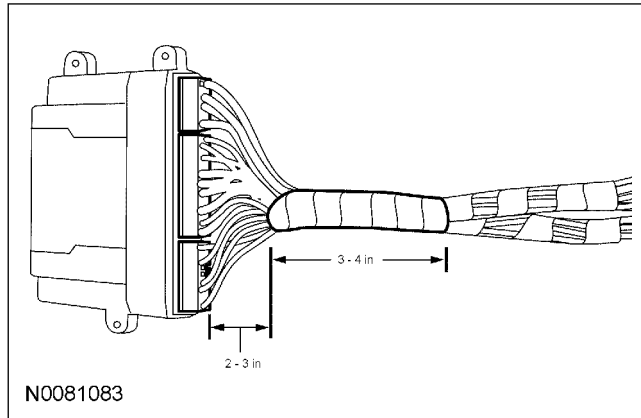
9. Referring to the vehicle specific wiring section for the system being installed, gather all individual wires that will be routed to the same areas of the vehicle into groups. Cover each wire group with electrical tape for approximately 18". Depending on the vehicle, there will be 2 to 5 different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

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



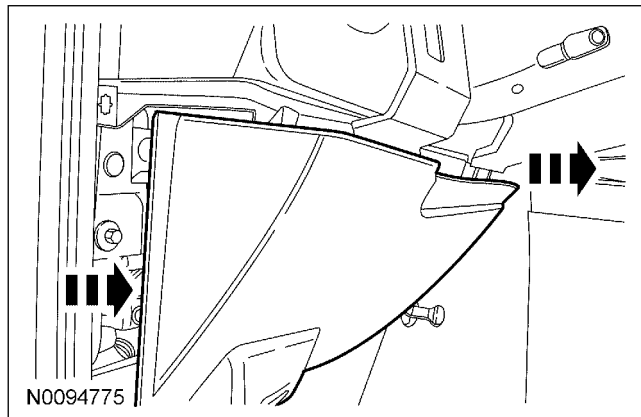
## INSTALLATION (Continued)

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

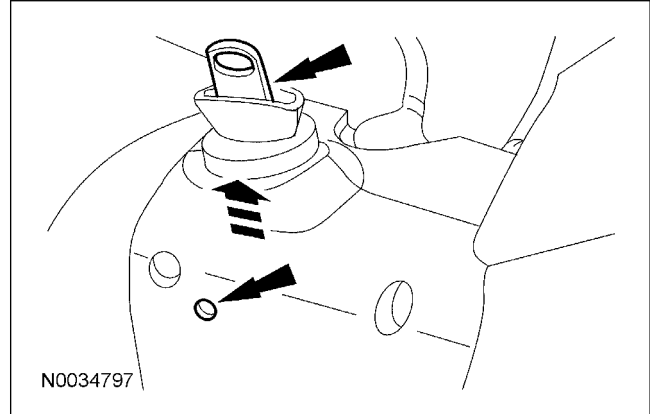


### Vehicle Preparation

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



12. Remove the lower steering column shroud.
13. Remove the left hand scuff plate and cowl trim panel.
14. 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.



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

### Dipole Antenna Mounting

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

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

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

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

### Install The Dipole Antenna

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

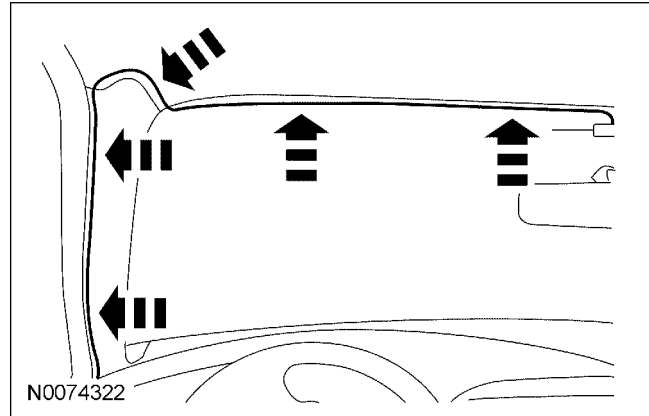
**INSTALLATION (Continued)**

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

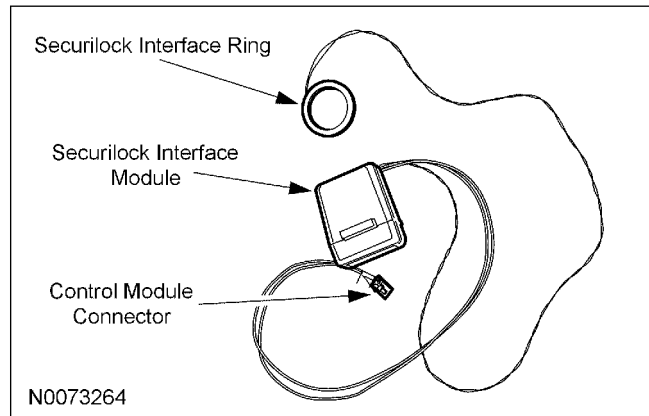
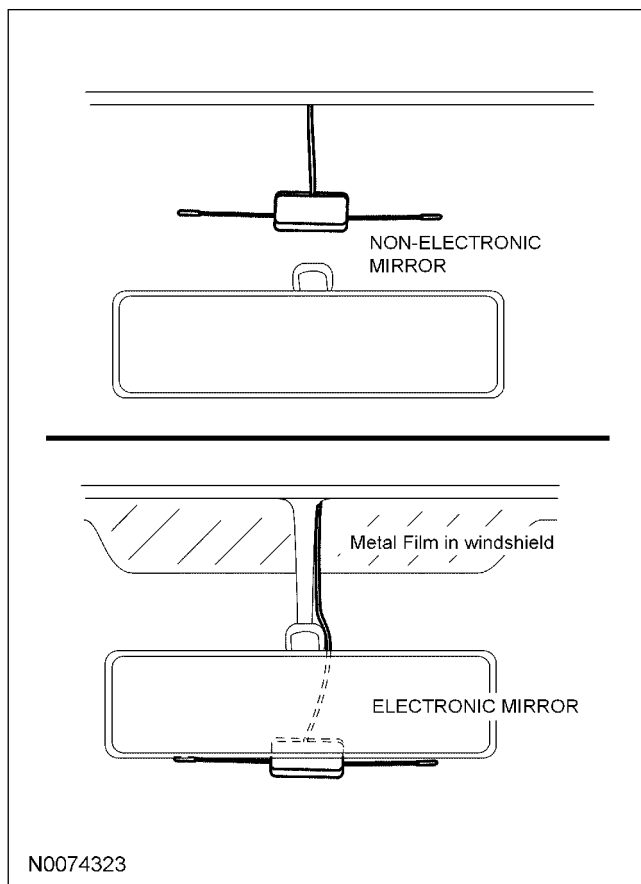
**NOTE:** Make sure that the long wire on the antenna is pointing toward the top of the windshield since this wire will be routed along the headliner.

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

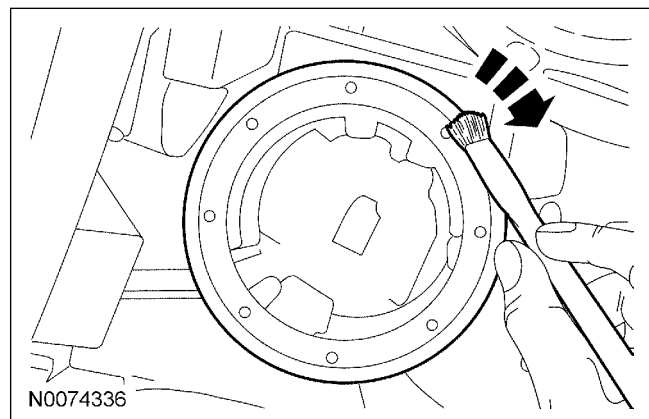
Remove the protective backing from the adhesive on the antenna and firmly press the body of the antenna to the windshield.



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



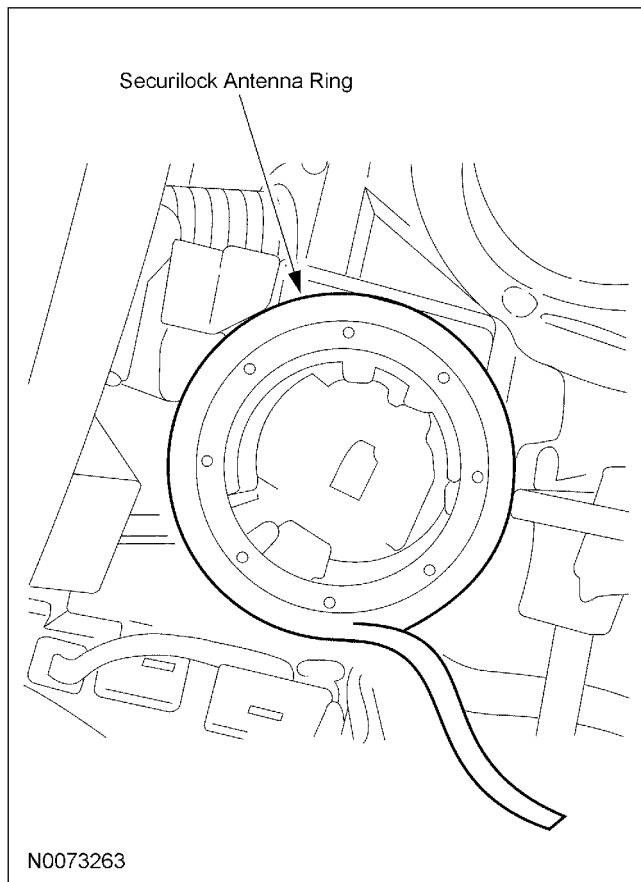
20. Route the dipole antenna cable along the headliner and down the A pillar toward the floor. The wire can be tucked behind the headliner without removing or loosening any of the trim panels.

## INSTALLATION (Continued)

23. **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.



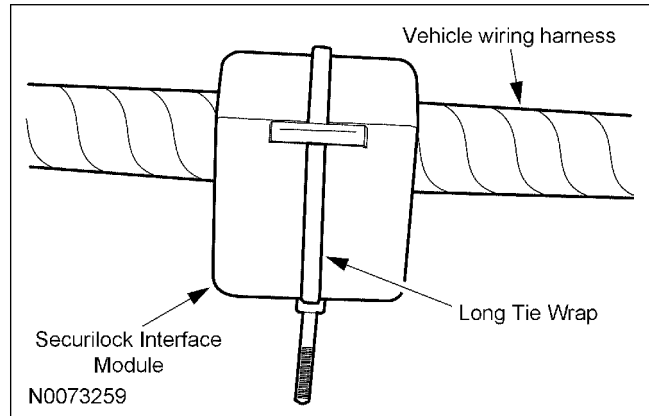
### Install The Securilock Interface Module

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 the underdash wiring harness using one of the supplied long tie wraps.

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

Route the harness and connector to the module mounting location.



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

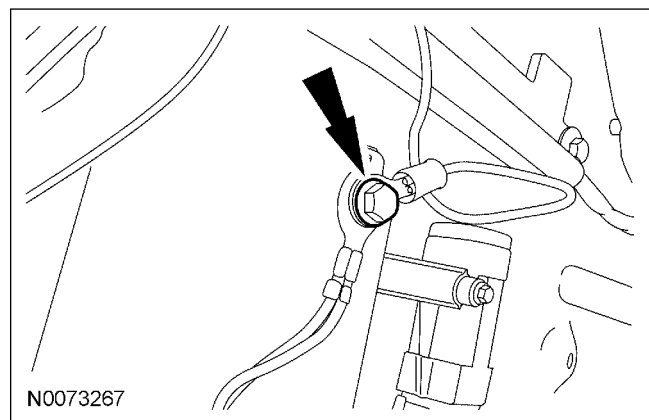
26. Install the ignition lock cylinder.
27. Place the remote start module and harness assembly in the vehicle.

### 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 control module to the chassis ground point in the driver kick panel.



**INSTALLATION (Continued)**

29. **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.
30. Connect the Green/Violet wire from the remote start module harness to the Gray/Violet dome light circuit wire at the driver kick panel.
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.
32. Connect the Blue wire from the control module to the Gray/Yellow power door lock circuit at the driver kick panel.
33. **NOTE:** A DVOM connected to the correct wire will show 12V, then show 0V when the door unlock switch is pressed.
- A logic probe will show open on the correct wire, then show ground when the door unlock switch is pressed.
- Identify the Violet/Gray power door unlock circuit wire at the driver kick panel.
34. Connect the Green wire from the control module to the Violet/Gray power door unlock circuit at the driver kick panel.
35. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V while depressing the door lock switch.
- A logic probe will show ground on the correct wire, then show power while depressing the door lock switch.
- Identify the Gray/Brown lock motor circuit wire at the driver kick panel.
36. Connect the White/Blue wire from the control module harness to the Gray/Brown lock motor circuit wire at the driver kick panel.
37. **NOTE:** Skip this step if Optional/Feature - Driver Priority unlock is installed.
- NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V while depressing the door unlock switch.
- A logic probe will show ground on the correct wire, then show power while depressing the door unlock switch.
- Identify the Blue/Green driver door unlock motor circuit wire at the driver kick panel.
38. Connect the Brown wire from the control module harness to the Blue/Green driver door unlock motor circuit wire at the driver kick panel.
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.
40. Connect the White wire from the control module to the Violet/White parking lights on circuit wire at the driver kick panel.

**INSTALLATION (Continued)**

41. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V while depressing the door unlock switch.
- A logic probe will show ground on the correct wire, then show power while depressing the door unlock switch.
- Identify the Violet/Gray door unlock circuit wire under the passenger door sill plate.
42. Connect the Light Green wire from the control module harness to the Violet/Gray door unlock circuit wire under the passenger door sill plate.
43. **NOTE:** A DVOM connected to the correct wire will show 12V, then show 0V with headlights ON.
- A logic probe will show power on the correct wire, then show ground with headlights ON.
- Identify the Green/Brown flash-to-pass circuit wire at the multifunction switch.
44. Connect the Red/White wire from the control module harness to the Green/Brown flash-to-pass circuit wire at the multifunction switch.
45. **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 Green/Blue dome light circuit wire at the dimmer switch.
46. Connect the Black/White wire from the remote start module harness to the Green/Blue dome light circuit wire at the dimmer switch.
47. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V when the Ignition Switch is in the RUN and START positions.
- A logic probe will show ground on the correct wire, then show power when the Ignition Switch is in the RUN and START positions.
- Identify the White/Orange ignition circuit wire at the Ignition Switch.
48. Connect the Pink wire from the control module harness to the White/Orange ignition circuit wire at the Ignition Switch.
49. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V when the Ignition Switch is in the RUN position.
- A logic probe will show ground on the correct wire, then show power when the Ignition Switch is in the RUN position.
- Identify the Violet/Green heater circuit wire at the Ignition Switch.
50. Connect the Orange wire from the control module harness to the Violet/Green heater circuit wire at the Ignition Switch.
51. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V when the Ignition Switch is in the RUN position.
- A logic probe will show ground on the correct wire, then show power when the Ignition Switch is in the RUN position.
- Identify the Brown/Yellow heater 2 circuit wire at the ignition switch harness.
52. Connect the Orange/White wire from the control module harness to the Brown/Yellow heater 2 circuit wire at the ignition switch harness.
53. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V when the Ignition Switch is in the START position.
- A logic probe will show ground on the correct wire, then show power when the Ignition Switch is in the START position.
- Identify the Blue/White starter circuit wire at the Ignition Switch.

**INSTALLATION (Continued)**

54. Connect the Violet wire from the control module harness to the harness Blue/White starter circuit wire at the Ignition Switch.
55. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V when the key is in the ignition lock cylinder.  
A logic probe will show ground on the correct wire, then show power when the key is in the ignition lock cylinder.  
Identify the Blue/Gray Key-in-Sense circuit wire at the Brown connector on the right side of the steering column.
56. Connect the Black/White wire from the control module to the Blue/Gray Key-in-Sense circuit wire at the Brown connector on the right side of the steering column.
57. **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 on the right side of the steering column.
58. Connect the Brown/Black wire from the control module to the Blue/White horn circuit wire at the Brown connector on the right side of the steering column.
59. **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.  
**NOTE:** Alternate color and location: Light Green located in the driver kick panel.  
Identify the Violet/White brake switch circuit wire at the brake switch.
60. Connect the Brown wire from the control module to the Violet/White brake switch circuit wire at the brake switch.

**Vehicles W/O Factory RKE**

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

61. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V when the driver door lock switch is pressed.  
A logic probe will show ground on the correct wire, then show power when the driver door lock switch is pressed.  
Identify the Gray/Yellow driver power door lock motor circuit wire at the driver kick panel harness.
62. Cut the Gray/Yellow driver door lock motor circuit wire at the driver kick panel harness.
63. Connect the Blue/Black wire from the control module harness to the cut Gray/Yellow driver door lock motor circuit wire going toward the front of the vehicle.
64. Connect the Blue wire from the control module harness to the cut Gray/Yellow driver door lock motor circuit wire going toward the back of the vehicle.
65. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V when the driver door unlock switch is pressed.  
A logic probe will show ground on the correct wire, then show power when the driver door unlock switch is pressed.  
Identify the Violet/Grey driver power door unlock motor circuit wire at the driver kick panel harness.
66. Cut the Violet/Grey driver door unlock motor circuit wire at the driver kick panel harness.
67. Connect the Green/Black wire from the control module harness to the cut Violet/Grey driver door unlock motor circuit wire going toward the front of the vehicle.
68. Connect the Green/Black wire from the control module harness to the cut Violet/Grey driver door unlock motor circuit wire going toward the back of the vehicle.

**INSTALLATION (Continued)****Optional Connections / Features Driver Door Priority Unlock**

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

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

A logic probe will show ground on the correct wire, then show power when the driver door unlock switch is pressed.

Identify the Violet/Grey driver power door unlock motor circuit wire at the driver kick panel harness.

70. Cut the Violet/Grey driver door unlock motor circuit wire at the driver kick panel harness.
71. Connect the Tan/Red wire from the control module harness to the cut Violet/Grey driver door unlock motor circuit wire going toward the back of the vehicle.
72. Connect the Tan wire from the control module harness to the cut Violet/Grey driver door unlock motor circuit wire going toward the front of the vehicle.
73. Connect the Brown wire from the control module harness to the cut Violet/Grey driver door unlock motor circuit wire going toward the back of the vehicle.

**Install The Hood Safety Switch**

74. **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.

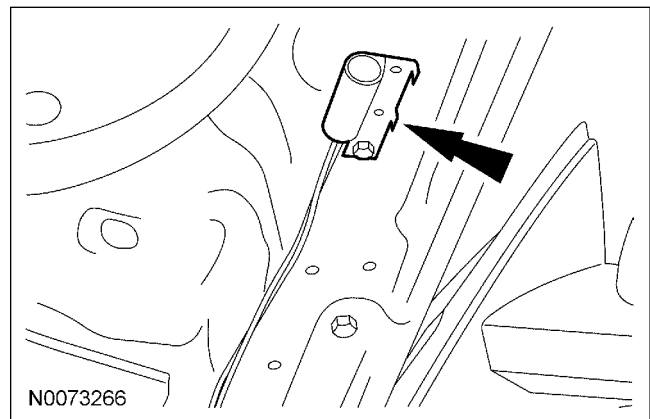
**NOTE:** The switch should be positioned about 30 degrees below parallel to the ground to accommodate for parking on inclines.

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.

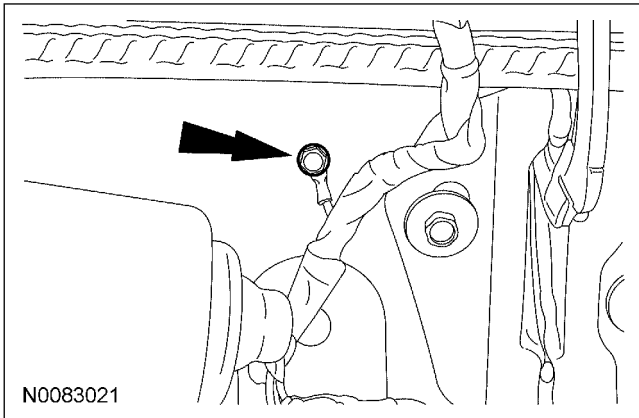
75. Apply rustproofing compound to the drilled hole and torque the screw to 1.00 Nm (10 lb-in).





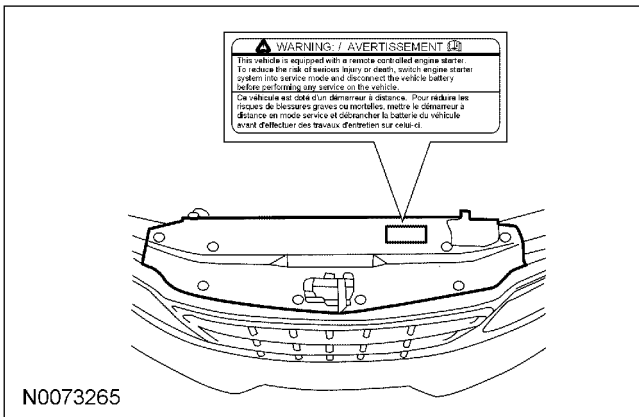
**INSTALLATION (Continued)**

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



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

Install the underhood warning label



78. Route the Grey hood safety switch wire from the RKE/VSS/RMST control module through the bulkhead into the engine compartment and attach to the hood safety switch.
79. Connect the dipole antenna to the RKE/VSS/RMST control module.
80. Connect the SECURILOCK interface module to the RKE/VSS/RMST control module.

**Power Connection**

81. **NOTE:** A DVOM connected to the correct wire will show 12V with the key in any position. A logic probe will show power on the correct wire with the key in any position. Identify two Blue/Red Battery circuit wires in the ignition switch.
82. Connect the one Red wire from the control module harness to the one Blue/Red battery circuit wire in the ignition switch.
83. Connect the remaining Red wire from the control module harness to the remaining Blue/Red battery circuit wire in the ignition switch.

**Program The RKE/VSS/RMST System**

84. [Refer to the RKE/VSS/RMST programming section for this vehicle \(click here\).](#)

**Secure RKE/VSS/RMST Harness and Control Module**

85. Use the supplied tie wraps to secure the RKE/VSS/RMST harness wires.
86. **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 RKE/VSS/RMST control module to the underdash wiring harness.

**Install Trim**

87. Install the (3) screws and the steering column shroud.
88. If equipped, install the tilt release lever handle.
89. Install the lower instrument panel steering column cover.

---

**REMOVAL AND INSTALLATION (Continued)**

90. Install the left hand scuff plate and cowl trim panel.
-

## GENERAL PROCEDURES

### Programming

#### Programming the Module

- NOTE:** If the vehicle 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 is 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.

##### Option Bank - 1 Chart (4 - Honks)

BANK	OPTIONS	DESCR	LED
1	1	LITE TOUCH ADJUST	NOTE 1
1	2	FULL SHOCK ADJUST	NOTE 1
1	4	DOOR AJAR INVERT	ON
1	5	UNLOCK SENSE INVERT	ON
1	6	KEY-IN SENSE INVERT	ON

##### Option Bank - 2 Chart (5 - Honks)

BANK	OPTIONS	DESCR	LED
2	1	STARTER INTERRUPT	OFF

##### Option Bank - 2 Chart (5 - Honks) (Continued)

BANK	OPTIONS	DESCR	LED
2	8	DRIVER UNLOCK RELAY	NOTE 2

##### Option Bank - 3 Chart (6 - Honks)

BANK	OPTIONS	DESCR	LED
3	1	DRIVER PRIORITY UNLOCK	NOTE 2

##### Option Bank - 4 Chart (7 - Honks)

BANK	OPTIONS	DESCR	LED
4	1	TACHLESS MODE	ON

**NOTE:** 1. Perform proper adjustments following the “Shock Sensor Setting”, refer to General Procedures [click here](#).

**NOTE:** 2. See the Optional Connections/Features, refer to Vehicle Specific Wiring Diagram(s) [click here](#).

- Open the driver door.  
All other doors should remain closed.
- Turn the ignition key to the RUN position.
- 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.

**GENERAL PROCEDURES (Continued)**

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.
- 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 remote start fob panic button 4 times.

The horn will honk 4 times indicating the system has entered the option 4 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.

8. 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 lock button and verify the LED illuminates.

**NOTE:** When programming the remote start module, if the remote start fob unlock button is pressed, 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.

9. Press and release the remote start fob panic button.

The horn will honk 5 times indication the system has entered the option 5 of the first program bank.

10. The LED must be ON for option 5. If the LED is illuminated no action is required. If the LED is not illuminated press the remote start fob lock button and verify the LED illuminates.

11. Press and release the remote start fob panic button.

The horn will honk 6 times indication the system has entered the option 6 of the first program bank.

12. The LED must be ON for option 6. If the LED is illuminated no action is required. If the LED is not illuminated press the remote start fob lock button and verify the LED illuminates.

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

14. Press and release the remote start fob panic button.

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

15. 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 lock button and verify the LED illuminates.

16. Press and release the override button 2 times. The horn will honk 7 times indicating the system has entered the fourth option bank.

17. Press and release the remote start fob panic button.

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

18. 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 lock button and verify the LED illuminates.

19. **NOTE:** Vehicles equipped with a diesel engine go to the next step. Vehicles equipped with a gas engine skip step 19 and proceed to step 21. Press and release the remote start fob panic button 4 times.

The horn will honk 5 times indication the system has entered the option 5 of the fourth program bank.

**GENERAL PROCEDURES (Continued)**

20. The LED must be ON for option 5. 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:** The remote start module is now programmed.


21. **NOTE:** Immediately after programming the remote start module, program the SECURILOCK.

**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.

22. Insert the first ignition key and turn to the run position.  
Watch for the PATS light to turn off. Remove the first key.

23. Insert the second ignition key and turn  run position.

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

24. 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.

25. 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)**

---

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

---

# '09 E-Series

## RKE/VSS/RMST MODULE WIRE HARNESS

### DRIVERS SIDE KICK PANEL HARNESS

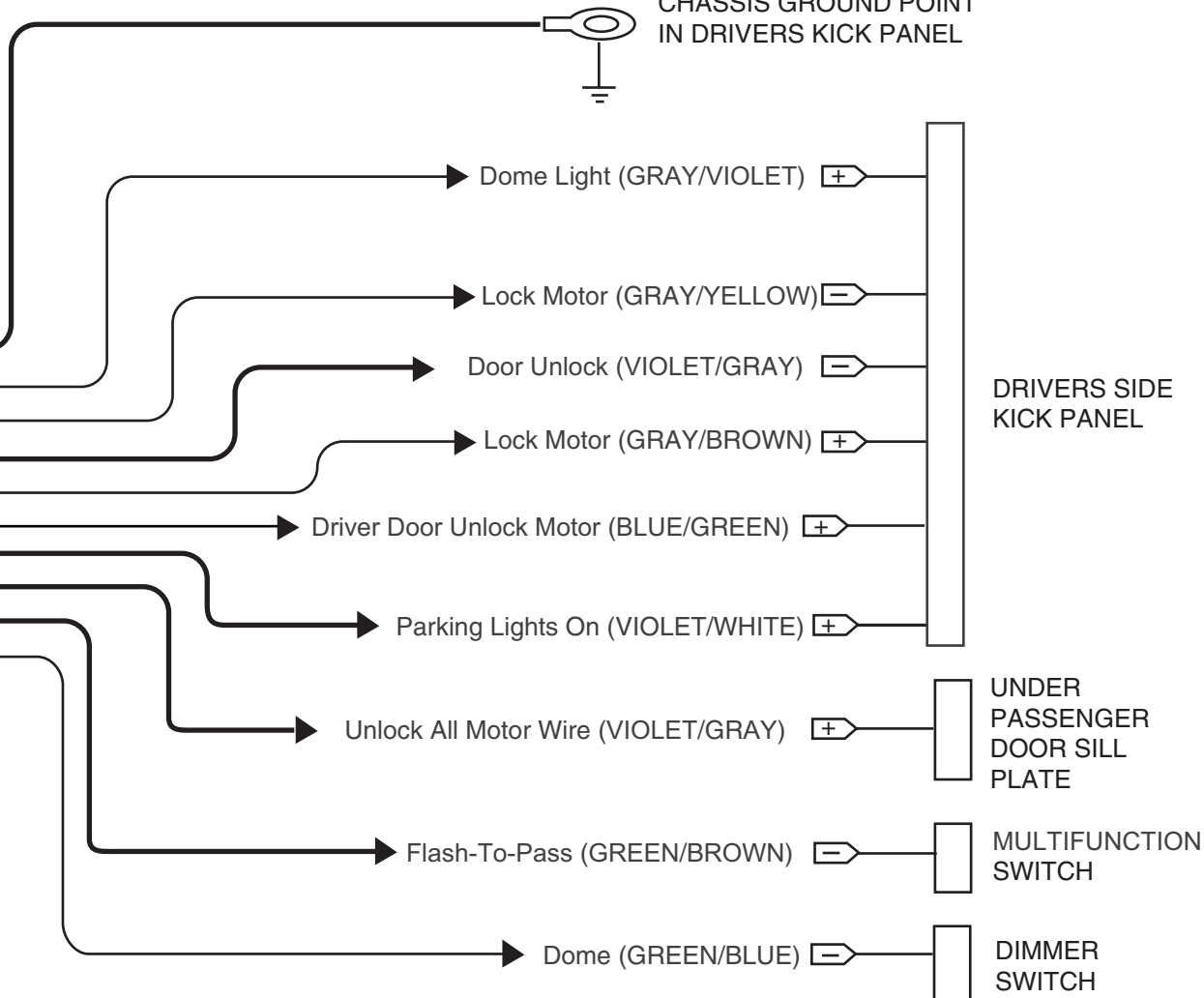
	Color	Function
A-5	BLACK	Ground
A-20	GREEN/VIOLET	Door Ajar Switch Input
A-2	BLUE	Door Lock Output
A-14	GREEN	Door Unlock Output
A-11	WHITE/BLUE	Arm Input
A-9	BROWN	Disarm Input
A-1	WHITE	Parking Light Output
A-12	LT GREEN	Unlock Switch Sense
C-10	RED/WHITE	Headlight Output
A-3	BLACK/WHITE	Domelight Output

### UNDER HOOD HARNESS

	Color	Function
A-19	GRAY	Hood Open Switch Input

MAKE THIS CONNECTION FIRST!

CHASSIS GROUND POINT  
IN DRIVERS KICK PANEL



Vehicle  
Interior

Engine  
Compartment

Chassis  
Ground

Do Not Ground to Hood!

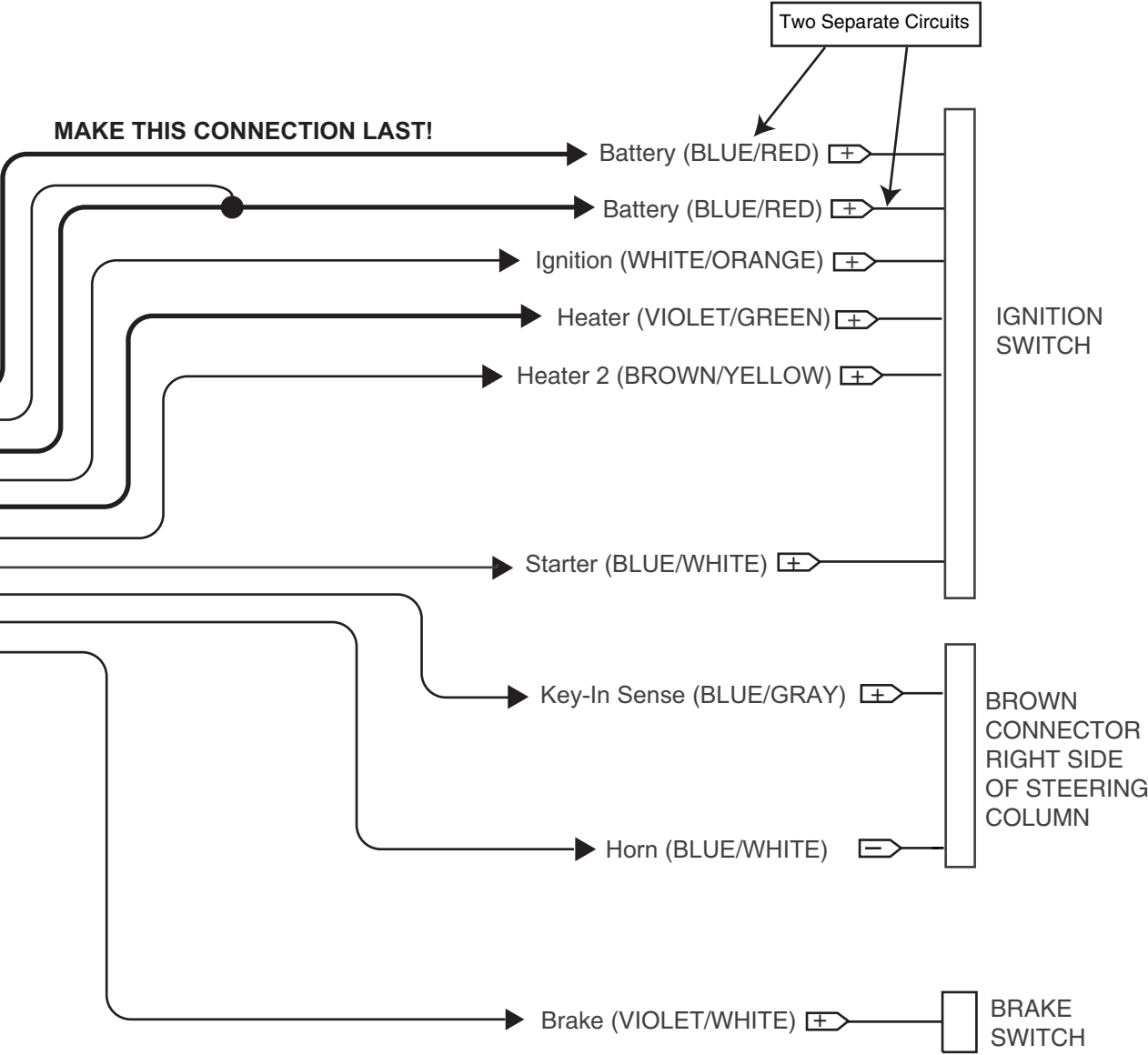
Hood Tilt Switch



RKE/VSS/RMST MODULE WIRE HARNESS

STEERING COLUMN HARNESS

	Color	Function
A-4	RED	Battery
B-1	BLUE	HVAC2 Feed
B-2	RED	HVAC 1 Battery Feed
A-7	PINK	Ignition 1 Input/Output
B-4	ORANGE	HVAC 1 Output
B-5	ORANGE/WHITE	HVAC 2 Output
A-8	VIOLET	Starter Output
B-8	BLACK/WHITE	Key-in-sense Input
A-21	BROWN/BLACK	Horn Relay Output
B-7	BROWN	Brake Input



MAKE THIS CONNECTION FIRST!

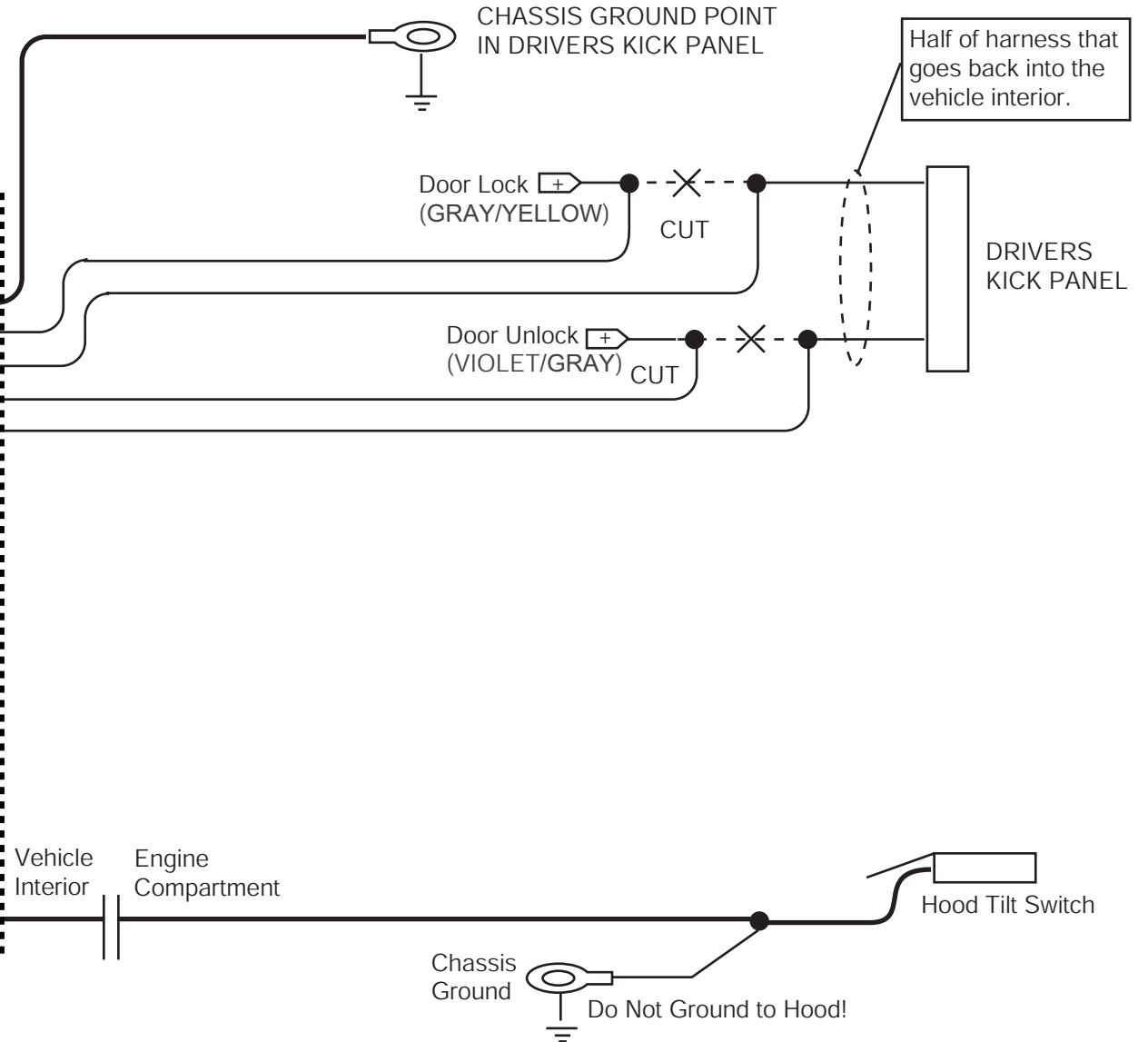
RKE/VSS/RMST MODULE WIRE HARNESS

DRIVERS SIDE KICK PANEL HARNESS

	Color	Function
A-5	BLACK	Ground
C-1	BLUE/BLACK	Door Lock Switch Side
A-2	BLUE	Door Lock Output
C-3	GREEN/BLACK	Door Unlock Switch Side
A-14	GREEN	Door Unlock Output

UNDER HOOD HARNESS

	Color	Function
A-19	GRAY	Hood Open Switch Input



OPTIONAL CONNECTIONS / FEATURES

OPTION PROGRAMMING REQUIREMENTS

BANK	OPTION	DESCRIPTION	LED
2	8	DRIVER UNLOCK RELAY	ON
3	1	DRIVER PRIORITY UNLOCK	ON

RKE/VSS/RMST MODULE WIRE HARNESS

DRIVER'S DOOR PRIORITY UNLOCK

	Color	Function
C-9	TAN/RED	Driver Door Unlock Switch
A-13	TAN	Driver Door Unlock Motor
A-9	BROWN	Disarm Input

w/Factory RKE only

To Driver Door Unlock Motor  
(VIOLET/GRAY)

CUT

DRIVERS  
KICK PANEL  
HARNESS

Connect to the half of  
the wire going to the  
back of the vehicle

[Manual Table of Contents](#)

# RKE/VSS/REMOTE START SYSTEM INSTALLATION

## CONTENTS

### INSTALLATION

[RKE/VSS/Remote Start](#)

### GENERAL PROCEDURES

[Proper Splicing Techniques](#)

[Programming](#)

[Functional Test](#)

[Troubleshooting](#)

[Shock Sensor Setting](#)

### WIRING DIAGRAMS

[Vehicle Specific Wiring Diagrams](#)

## INSTALLATION

### Remote Start

#### Edge

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

**NOTE:** IMPORTANT: This Series 200 kit is NOT recommended for installation on this vehicle because the alarm system will trigger if the Integrated Key fob (if equipped) is used to open the trunk/liftgate without disarming the Series 200 system first. Therefore, it is highly recommended to install the Series 100 system (7L2Z-19G364-AA) instead, which is not equipped with perimeter security.

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

1. Verify correct kit number.

#### Review RKE/VSS/RMST Installation Kit Contents

**NOTE:** Use kit number 7L3Z-19G364-AA REMOTE START SYSTEM

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

2. Review the RKE/VSS/RMST kit contents.

#### Remote Keyless Entry/ Vehicle Security System/ReMote STart (RKE/VSS/RMST) System Kit

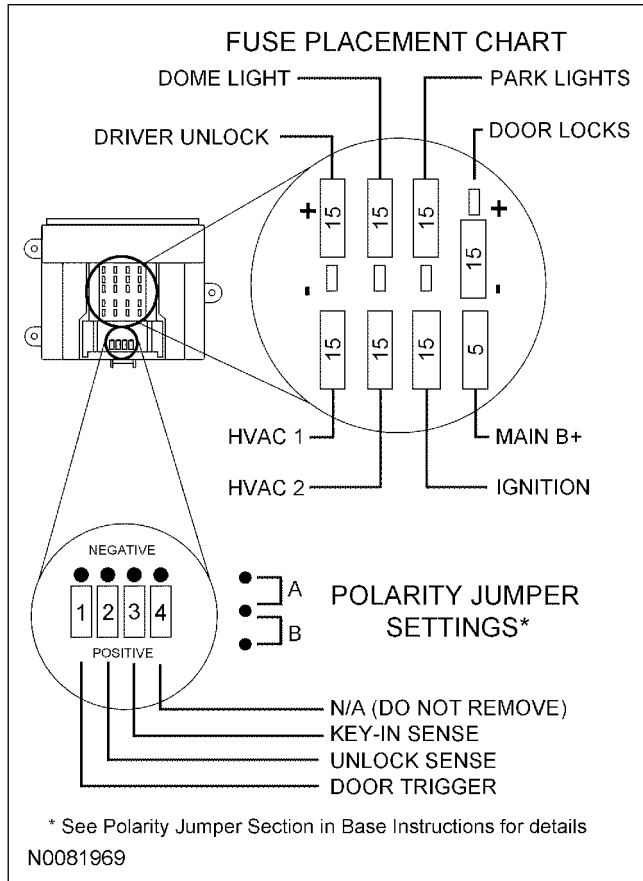
QUANTITY	DESCRIPTION
1	MODULE ASSEMBLY
1	RKE/VSS/RMST SOFTWARE CARTRIDGE ASSEMBLY
2	6 BUTTON POWERCODE TRANSMITTER

#### Remote Keyless Entry/ Vehicle Security System/ReMote STart (RKE/VSS/RMST) System Kit (Continued)

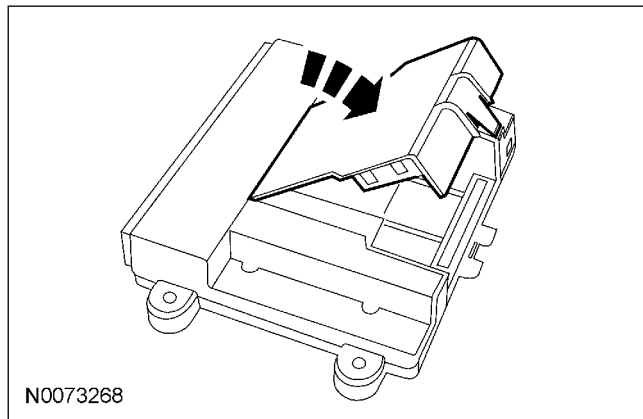
QUANTITY	DESCRIPTION
3	WIRING HARNESS ASSEMBLIES
1	DIPOLE ANTENNA
1	HOOD SAFETY SWITCH ASSEMBLY
1	INSTALLATION PARTS BAG
1	FUSE PARTS BAG
1	OPERATORS INSTRUCTIONS
1	OPERATORS QUICK REFERENCE WALLET CARD
1	UNDERHOOD WARNING LABEL
1	SECURILOCK INTERFACE KIT (SOLD SEPARATELY AND REQUIRED FOR VEHICLES W/PATS)

#### Module Preparation

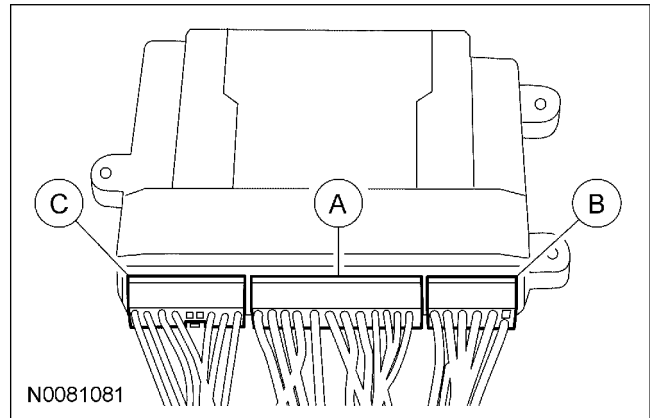
3. Place the supplied fuses into the power distribution block on the RKE/VSS/RMST control module.
  - Move the polarity jumpers to their proper locations on the control module, see illustration.

**INSTALLATION (Continued)**

4. Place the software cartridge onto the control module.



5. 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.
  - C - Harness: 16-way, used on all systems with RKE/VSS/RMST.



6. **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](#).

Splice the following wires to the A-4 Red wire in the A connector of the control module approximately 8 inches from the connector

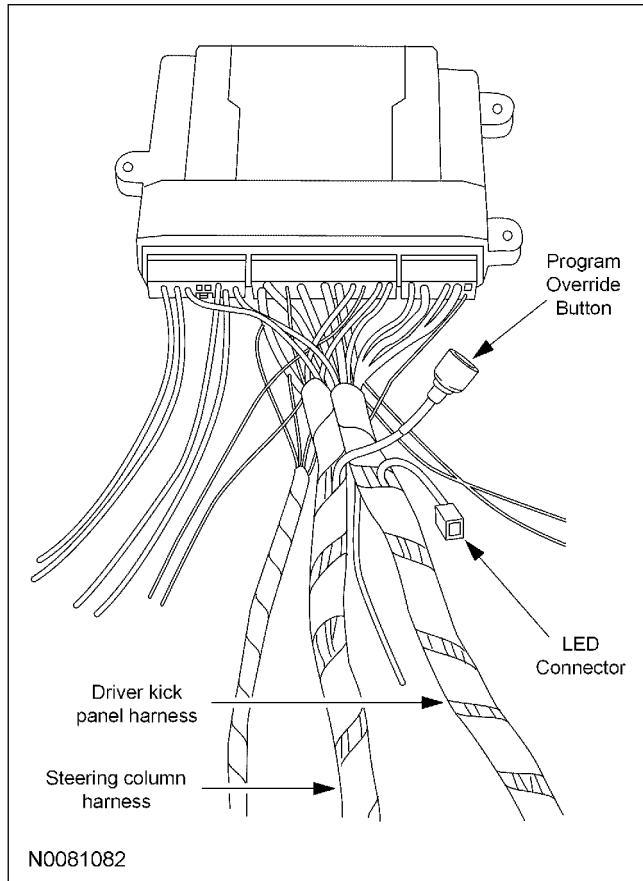
- B-2 Red wire in the B connector.

7. Splice the following wires to the A-20 Green/Violet wire in the A connector of the control module approximately 8 inches from the connector

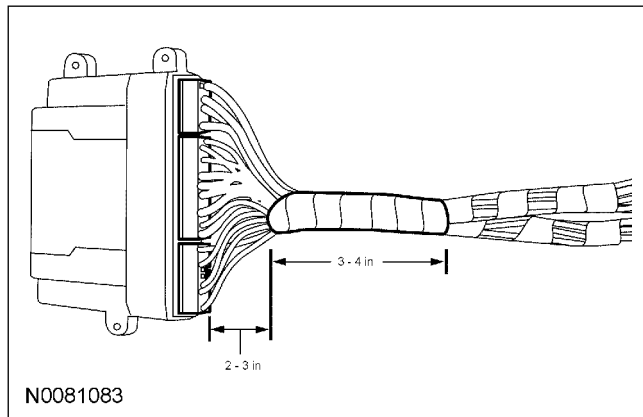
- A-3 Black/White wire in the A connector.

8. 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)**

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

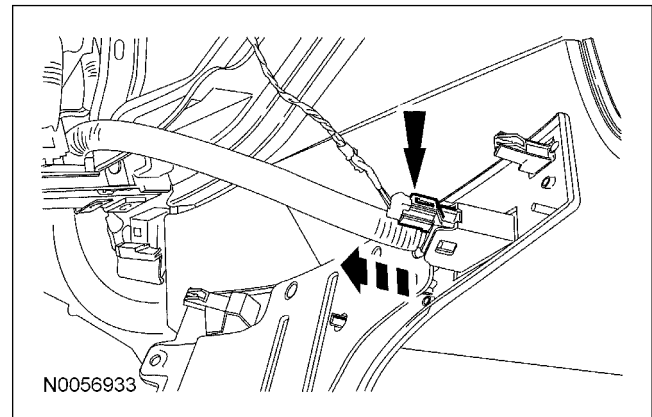
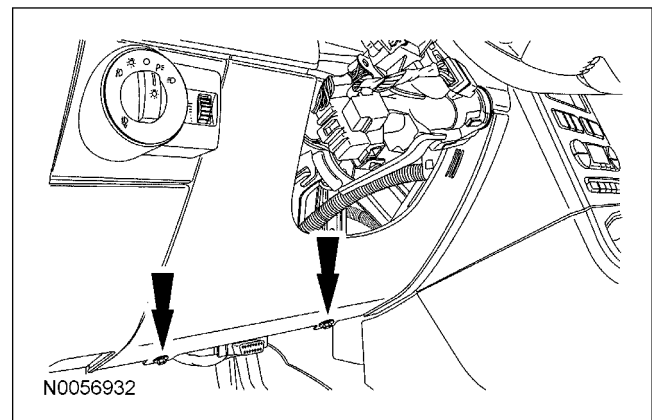
**Vehicle Preparation**

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

10. Remove the upper steering column shroud.
11. 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.

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



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

**Dipole Antenna Mounting**

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

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

## 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.

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

### Install The Dipole Antenna

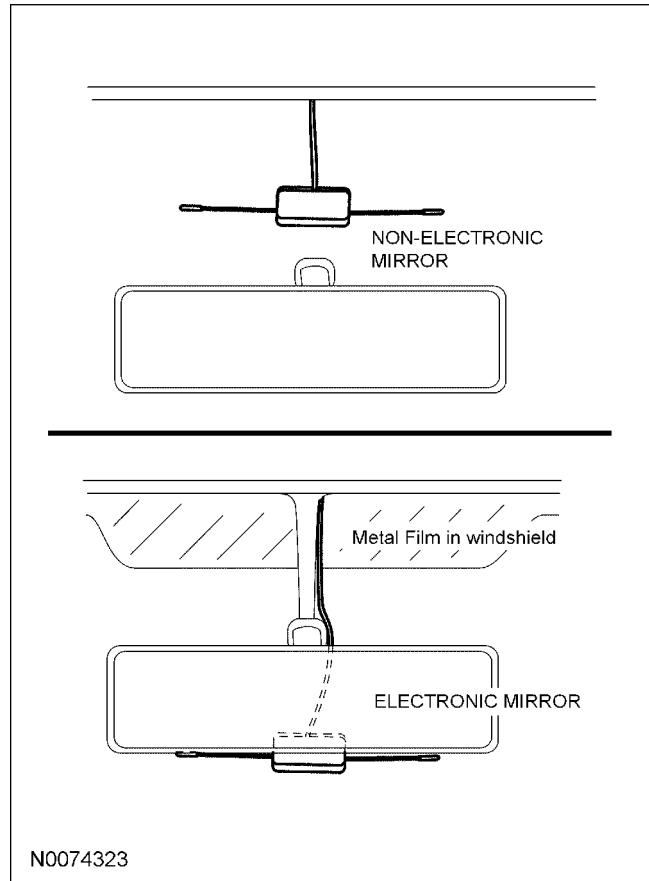
16. Clean the mounting surface using an alcohol base solution and a clean cloth.

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

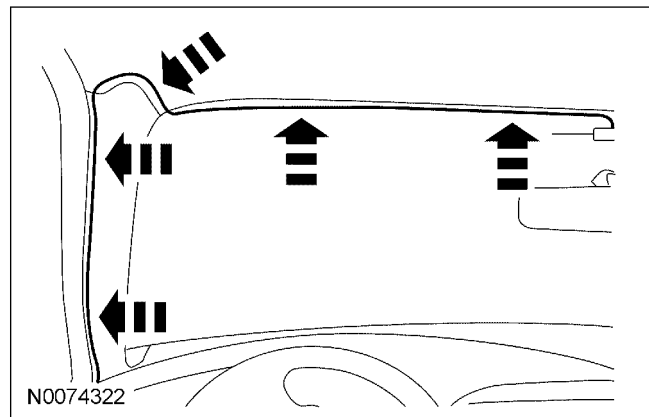
**NOTE:** Make sure that the long wire on the antenna is pointing toward the top of the windshield since this wire will be routed along the headliner.

**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. Route the dipole antenna cable along the headliner and down the A pillar toward the floor. The wire can be tucked behind the headliner without removing or loosening any of the trim panels.

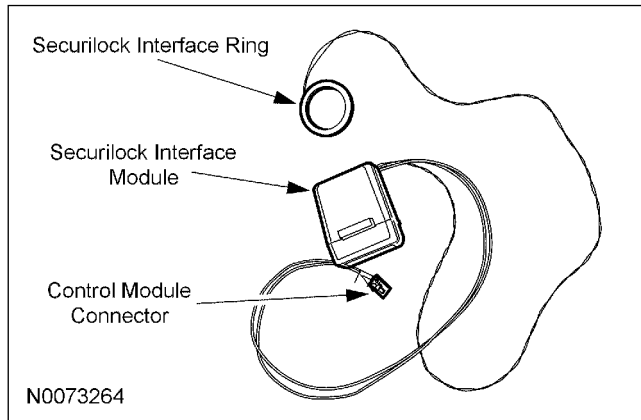




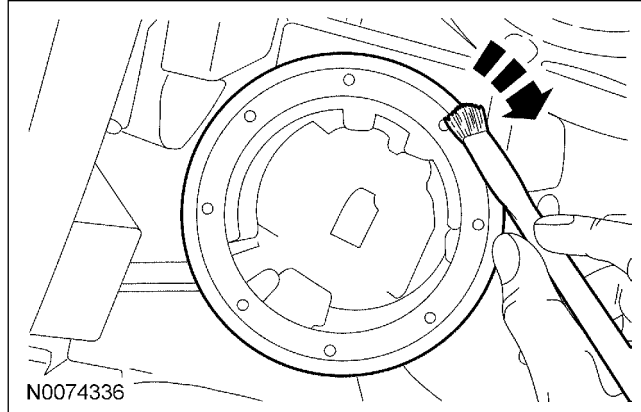
## INSTALLATION (Continued)

### 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.



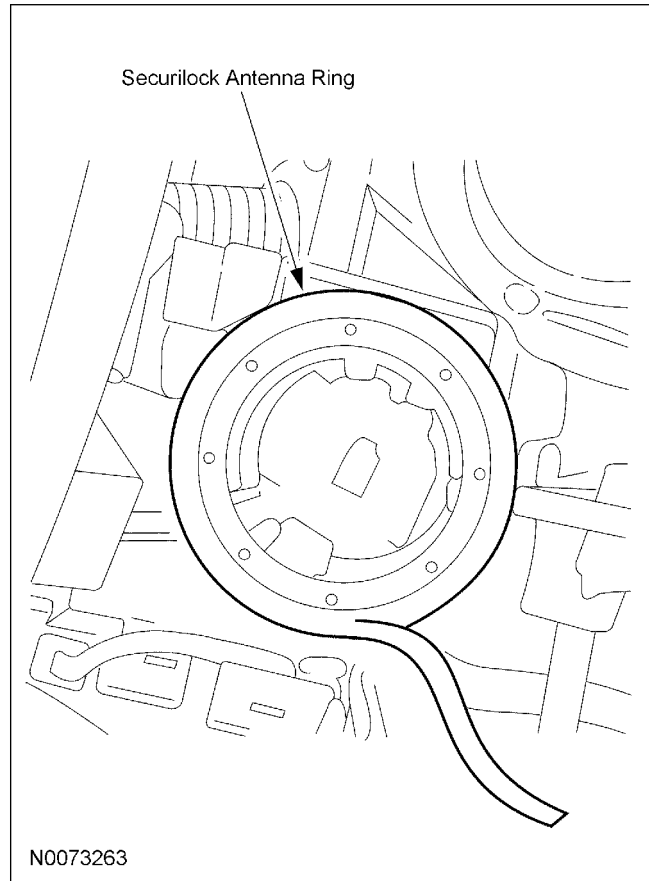
20. Following the directions on the supplied tube of adhesive primer, apply a thin coating around the transceiver antenna coil and allow to dry for approximately 5 minutes.



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

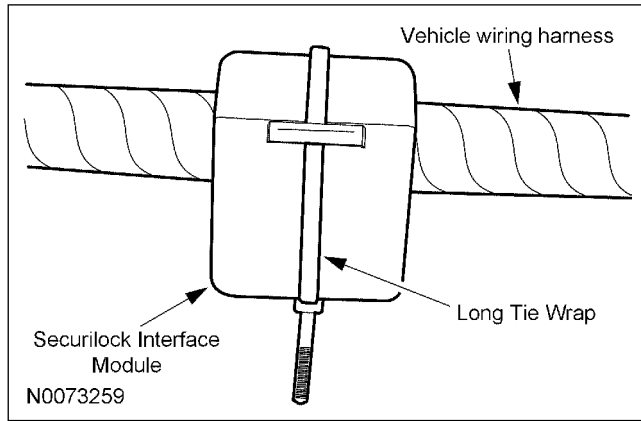
22. **NOTE:** Do Not mount the SECURILOCK Interface Module to or within 3'' of a metal surface, including any underdash brackets, or in the knee bolster area.

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 Control Module and Harness Assembly**

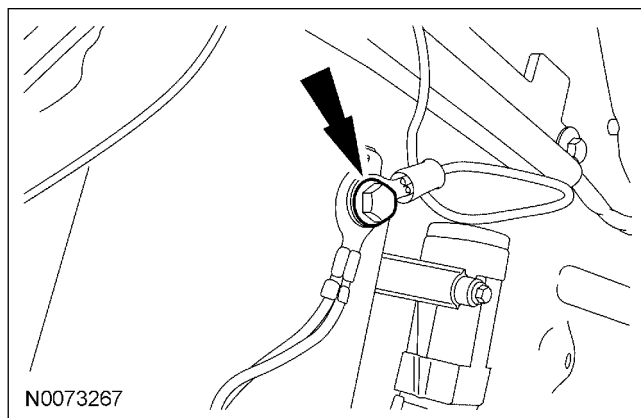
24. Place the control module and harness assembly in the vehicle.

**Identify Circuit Wires For Connections**

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

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

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



26. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V when the Ignition Switch is in the RUN/START position.

A logic probe will show ground on the correct wire, then show power when the Ignition Switch is in the RUN/START position.

Identify the White/Orange ignition circuit wire at the ignition switch harness.

27. Connect the Pink wire from the control module harness to the White/Orange ignition circuit wire at the ignition switch harness.

28. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V when the Ignition Switch is in the RUN/ACC position.

A logic probe will show ground on the correct wire, then show power when the Ignition Switch is in the RUN/ACC position.

Identify the Violet/Green run/acc circuit wire at the ignition switch harness.

29. Connect the Orange wire from the control module harness to the Violet/Green run/acc circuit wire at the ignition switch harness.

30. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V when the key is in the ignition lock cylinder.

A logic probe will show ground on the correct wire, then show power when the key is in the ignition lock cylinder.

Identify the Blue/Grey key-in-sense circuit wire at the ignition switch harness.

31. Connect the Black/White wire from the control module harness to the Blue/Grey key-in-sense circuit wire at the ignition switch harness.

32. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V when the Ignition Switch is in the START position.

A logic probe will show ground on the correct wire, then show power when the Ignition Switch is in the START position.

Identify the Blue/White starter circuit wire at the ignition switch harness.

**INSTALLATION (Continued)**

33. Connect the Violet wire from the control module harness to the Blue/White starter circuit wire at the ignition switch harness.

34. **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.

**NOTE:** Wire is located inside wire loom running to black connector but does not terminate. Wire can be found 4" from connector on the side heading toward the rear of the vehicle in a looped fashion underneath bright green tape.

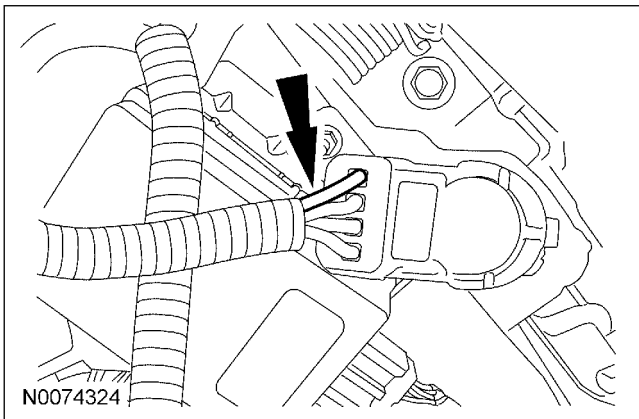
Identify the Blue/White horn circuit wire at the steering column harness.

35. Connect the Brown/Black wire from the control module harness to the Blue/White horn circuit wire at the steering column harness.

36. **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 driver kick panel harness.



37. Connect the Brown wire from the control module harness to the Violet/White brake switch circuit wire at the driver kick panel harness.

38. **NOTE:** A DVOM connected to the correct wire will show 12V, when the Headlight Switch is in the park lamp position, then show 0V when the Headlight Switch is OFF.

A logic probe will show power on the correct wire when the Headlight Switch is in the park lamp position, then show ground when the Headlight Switch is OFF.

Identify the Violet/White parking light on circuit wire at the driver kick panel.

39. Connect the White wire from the control module harness to the Violet/White parking light circuit at the driver kick panel.

40. **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.

41. Connect the Green/Violet wire from the control module harness to the Grey/Violet dome light circuit at the driver kick panel harness.

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

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

Identify the Grey/Brown power door lock motor circuit wire at the driver kick panel.

43. Connect the White/Blue wire from the control module harness to the Grey/Brown power door lock motor circuit at the driver kick panel.

**INSTALLATION (Continued)**

44. **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.

45. Connect the Blue wire from the control module harness to the Gray/Yellow power door lock circuit at the driver kick panel.

46. **NOTE:** A DVOM connected to the correct wire will show 12V, then show 0V while the door unlock switch is pressed.

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

Identify the Violet/Grey door unlock circuit wire at the driver kick panel.

47. Connect the Green wire from the control module harness to the Violet/Grey door unlock circuit wire at the driver kick panel.

48. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V while the door unlock switch is pressed.

A logic probe will show ground on the correct wire, then show power while the door unlock switch is pressed.

Identify the Violet/Grey all door unlock motor circuit wire at the driver kick panel.

49. Connect the Light Green wire from the control module harness to the Violet/Grey all door unlock motor circuit wire at the driver kick panel.

50. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V when the remote unlock switch is pressed.

A logic probe will show ground on the correct wire, then show power when the remote unlock switch is pressed.

Identify the Blue/Green driver door unlock motor circuit wire at the driver kick panel.

51. Connect the Brown wire from the control module harness to the Blue/Green driver door unlock motor circuit wire at the driver kick panel.

52. **NOTE:** Only on factory alarm equipped vehicles.

**NOTE:** A DVOM connected to the correct wire will show 12V, then show 0V when the factory disarm switch is activated.

A logic probe will show power on the correct wire, then show ground when the factory disarm switch is activated.

Identify the Violet/Brown factory disarm circuit wire at the driver kick panel.

53. Connect the Light Green/Black wire from the control module harness to the Violet/Brown factory disarm circuit wire at the driver kick panel.

54. **NOTE:** A DVOM connected to the correct wire will show 12V, then show 0V when the hatch release switch is pressed.

A logic probe will show power on the correct wire, then show ground when the hatch release switch is pressed. .

Identify the Gray/Yellow hatch release circuit wire at the instrument panel liftgate switch.

55. Connect the Blue/Green wire from the control module harness to the Gray/Yellow hatch release circuit wire at the instrument panel liftgate switch.

**Optional Connections/Features - Driver Door Priority Unlock**

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

56. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V when the remote unlock switch is pressed.

A logic probe will show ground on the correct wire, then show power when the remote unlock switch is pressed.

Identify the Blue/Green driver door unlock motor circuit wire at the driver kick panel.

**INSTALLATION (Continued)**

57. Cut the Blue/Green driver door unlock motor circuit wire at the driver kick panel.
58. Connect the Brown wire from the control module harness to the cut Blue/Green driver door unlock motor circuit wire going to back towards the Smart Junction Box SJB at the driver kick panel.
59. Splice the Tan wire from the control module harness to the cut Blue/Green driver door unlock motor circuit wire going forward away from the Smart Junction Box SJB at the driver kick panel at the driver kick panel

**Optional Connections Headlight Output Control Relay**

60. **NOTE:** A DVOM connected to the correct wire will show 12V, then show 0V when the headlights ON.

A logic probe will show power on the correct wire, then show ground when the headlights ON.

Identify the Green/Brown flash-to-pass circuit wire at the multifunction switch.

61. Connect the Red/White wire from the control module harness to the Green/Brown flash-to-pass circuit wire at the multifunction switch.

**Install The Hood Safety Switch**

62. **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.

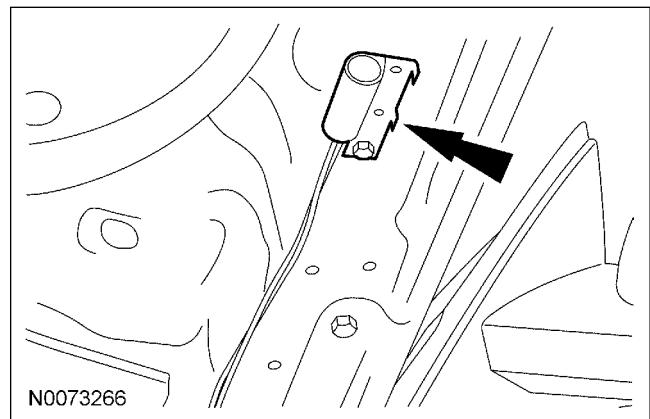
**NOTE:** The switch should be positioned about 30 degrees below parallel to the ground to accommodate for parking on inclines.

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

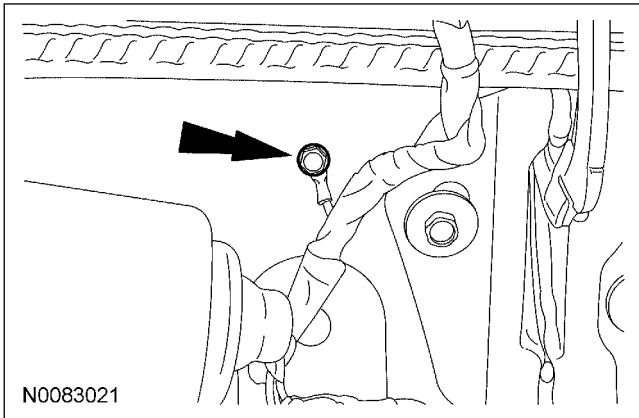
Locate an easy to access area near the driver side hood hinge and install the hood safety switch using the supplied metal screws.

63. Apply rustproofing compound (PM-12-A) to the drilled hole and torque the screw to 1.00 Nm (10 lb-in).



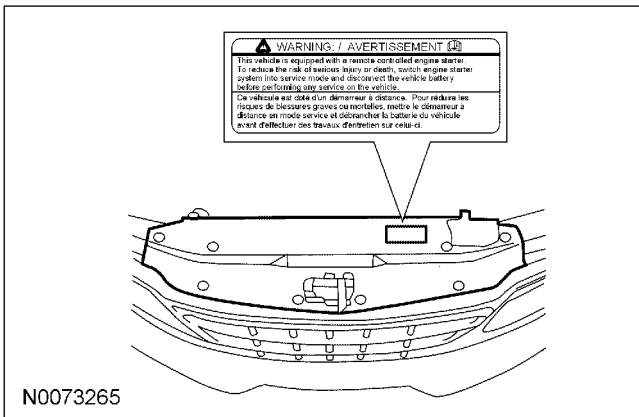
**INSTALLATION (Continued)**

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



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

Install the underhood warning label



66. Route the Grey hood safety switch wire from the RKE/VSS/RMST control module through the bulkhead into the engine compartment and attach to the hood safety switch.
67. Connect the dipole antenna to the RKE/VSS/RMST control module.
68. Connect the SECURILOCK interface module to the RKE/VSS/RMST control module.

**Power Connection**

69. **NOTE:** A DVOM connected to the correct wire will show 12V with the key in any position. A logic probe will show power on the correct wire with the key in any position. Identify the Blue/Red Battery circuit wire in the ignition switch harness.
70. Connect the Red wire from the remote start module harness to the Blue/Red Battery circuit wire in the ignition switch harness.

**Program The RKE/VSS/RMST System**

71. [Refer to the RKE/VSS/RMST programming section for this vehicle \(click here\).](#)

**Secure RKE/VSS/RMST Harness and Control Module**

72. Use the supplied tie wraps to secure the RKE/VSS/RMST harness wires.
73. **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 RKE/VSS/RMST control module to the underdash wiring harness.

**Install Trim**

74. Install the left hand scuff plate and cowl trim panel.
75. If equipped, connect the electrical connector and hose to the temperature sensor.
- Install the instrument panel steering column cover.
76. Install the 2 instrument panel steering column cover screws.
- Attach the instrument panel steering column cover by pushing straight inward.

---

**INSTALLATION (Continued)**

77. Install the lower steering column shroud, install the 3 screws.
78. Install the upper steering column shroud.
-

## GENERAL PROCEDURES

### Programming

#### Programming the Module

- NOTE:** If the vehicle 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 is 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.

##### Option Bank - 1 Chart (4 - Honks)

BANK	OPTIONS	DESCR	LED
1	1	LITE TOUCH ADJUST	NOTE 1
1	2	FULL SHOCK ADJUST	NOTE 1
1	4	DOOR AJAR INVERT	ON
1	5	UNLOCK SENSE INVERT	ON
1	6	KEY-IN SENSE INVERT	ON

##### Option Bank - 2 Chart (5 - Honks)

BANK	OPTIONS	DESCR	LED
2	1	STARTER INTERRUPT	OFF
2	8	DRIVER UNLOCK RELAY	NOTE 2

##### Option Bank - 3 Chart (6 - Honks)

BANK	OPTIONS	DESCR	LED
3	1	DRIVER PRIORITY UNLOCK	NOTE 2

##### Option Bank - 4 Chart (7 - Honks)

BANK	OPTIONS	DESCR	LED
4	1	TACHLESS MODE	ON

**NOTE:** 1. Perform proper adjustments following the “Shock Sensor Setting”, refer to General Procedures [click here](#).

**NOTE:** 2. See the Optional Connections/Features, refer to Vehicle Specific Wiring Diagram(s) [click here](#).

- Open the driver door.  
All other doors should remain closed.
- Turn the ignition key to the RUN position.
- 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.
- 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.
  - 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 remote start fob panic button 4 times.

The horn will honk 4 times indicating the system has entered the option 4 of the first program bank.

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

8. 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 lock button and verify the LED illuminates.

**NOTE:** When programming the remote start module, if the remote start fob unlock button is pressed, 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.

9. Press and release the remote start fob panic button.

The horn will honk 5 times indication the system has entered the option 5 of the first program bank.

10. The LED must be ON for option 5. If the LED is illuminated no action is required. If the LED is not illuminated press the remote start fob lock button and verify the LED illuminates.

11. Press and release the remote start fob panic button.

The horn will honk 6 times indication the system has entered the option 6 of the first program bank.

12. The LED must be ON for option 6. If the LED is illuminated no action is required. If the LED is not illuminated press the remote start fob lock button and verify the LED illuminates.

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

14. Press and release the remote start fob panic button.

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

15. The LED must be OFF for option 1. If the LED is not illuminated no action is required. If the LED is illuminated press the remote start fob lock button and verify the LED does not illuminate.

16. Press and release the override button 2 times. The horn will honk 7 times indicating the system has entered the fourth option bank.

17. Press and release the remote start fob panic button.

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

18. 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 lock button and verify the LED illuminates.

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

19. **NOTE:** Immediately after programming the remote start module, program the SECURILOCK.

**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.

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

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

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

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

**GENERAL PROCEDURES (Continued)**

22. 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.

---

23. 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)**

---

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

---

RKE/VSS/RMST MODULE WIRE HARNESS

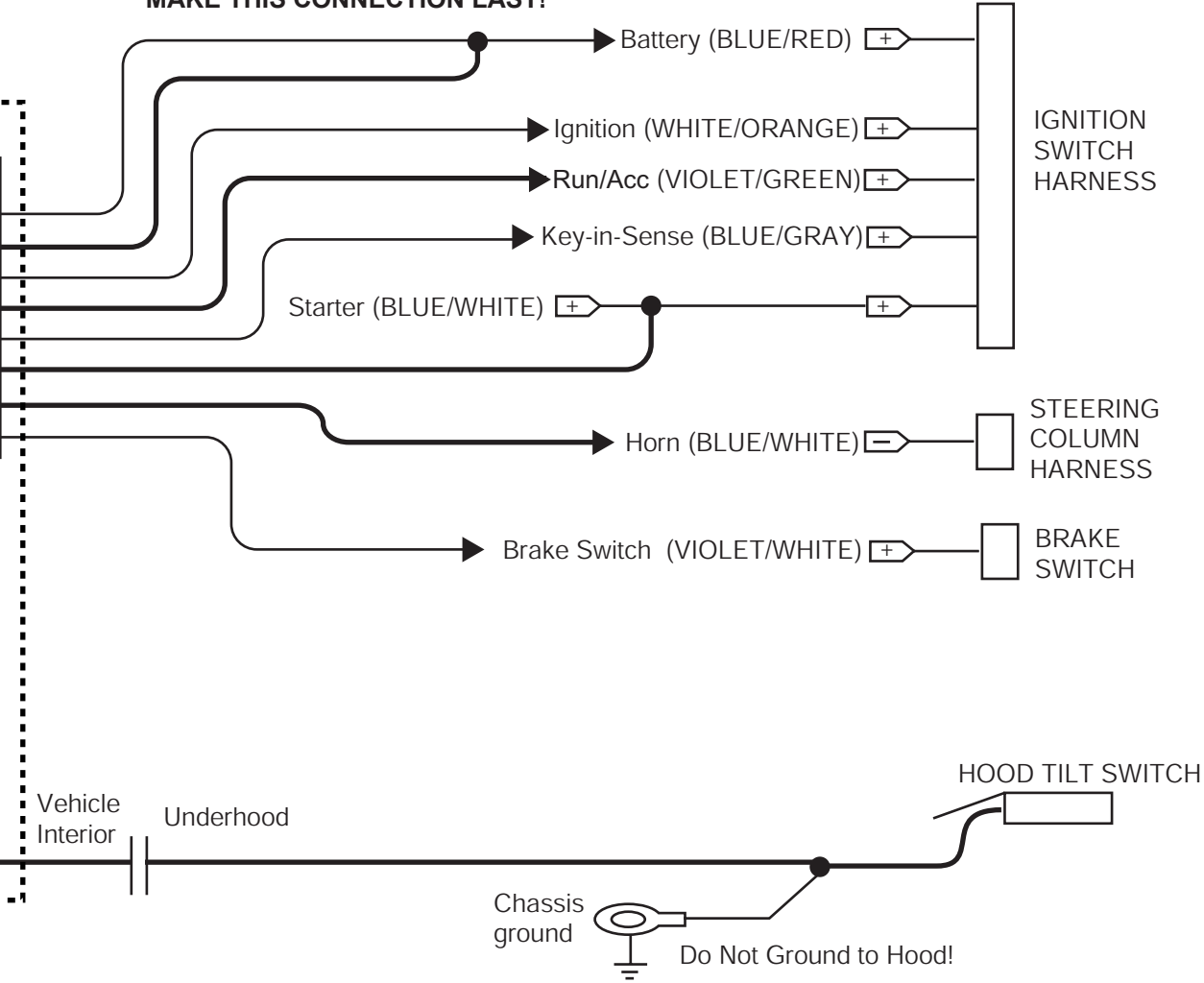
STEERING COLUMN HARNESS

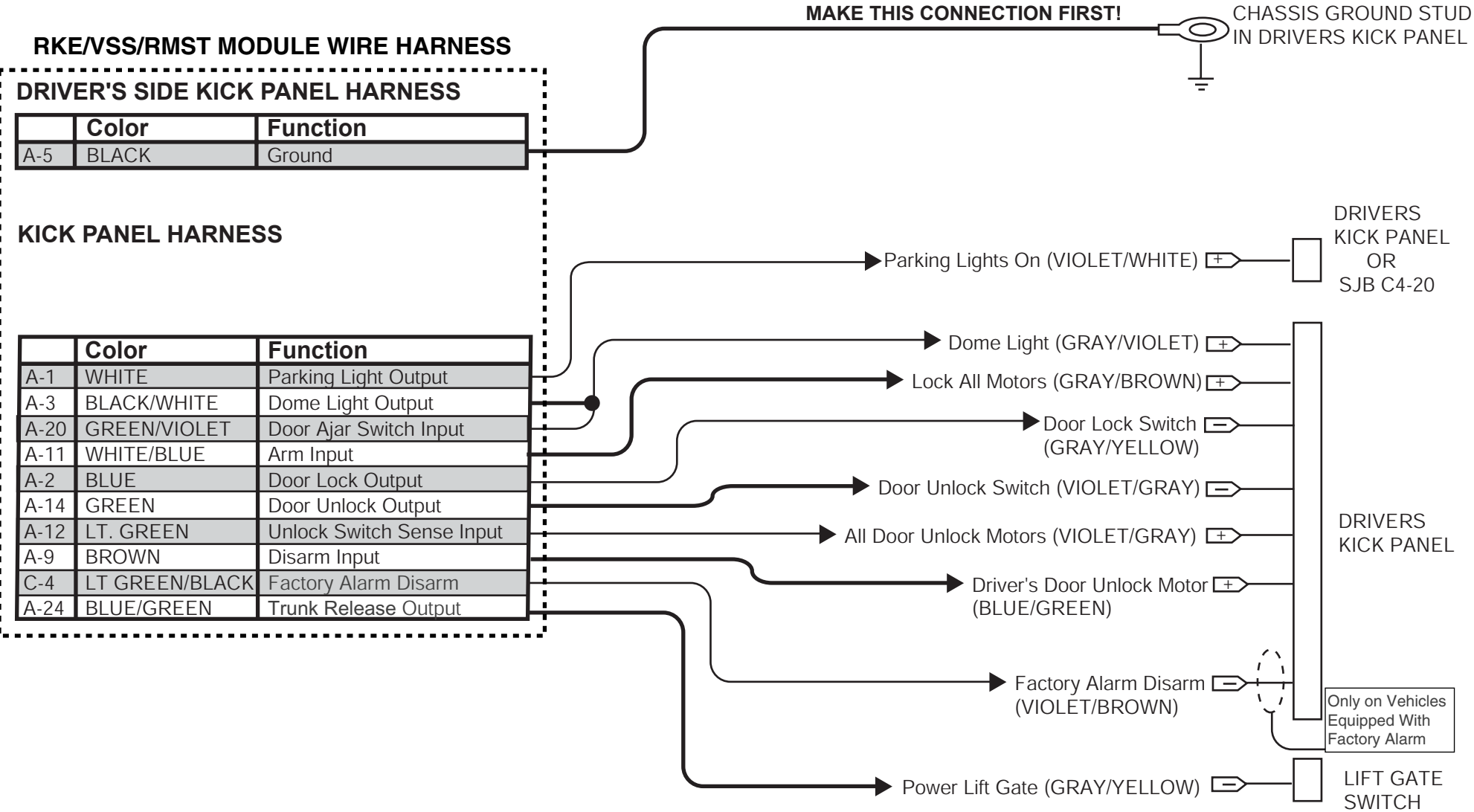
	Color	Function
A-4	RED	Battery
B-2	RED	HVAC1 Battery Feed
A-7	PINK	Ignition 1 Input/Output
B-4	ORANGE	HVAC1 Output
B-8	BLACK/WHITE	Key-in-sense Input
A-8	VIOLET	Starter Interrupt Motor Side
A-21	BROWN/BLACK	Horn Relay Output
B-7	BROWN	Brake Input

UNDERHOOD HARNESS

	Color	Function
A-19	GRAY	Hood Open Switch Input

MAKE THIS CONNECTION LAST!





OPTIONAL CONNECTIONS / FEATURES

OPTION PROGRAMMING REQUIREMENTS

BANK	OPTION	DESCRIPTION	LED
2	8	DRIVER UNLOCK RELAY	ON
3	1	DRIVER PRIORITY UNLOCK	ON

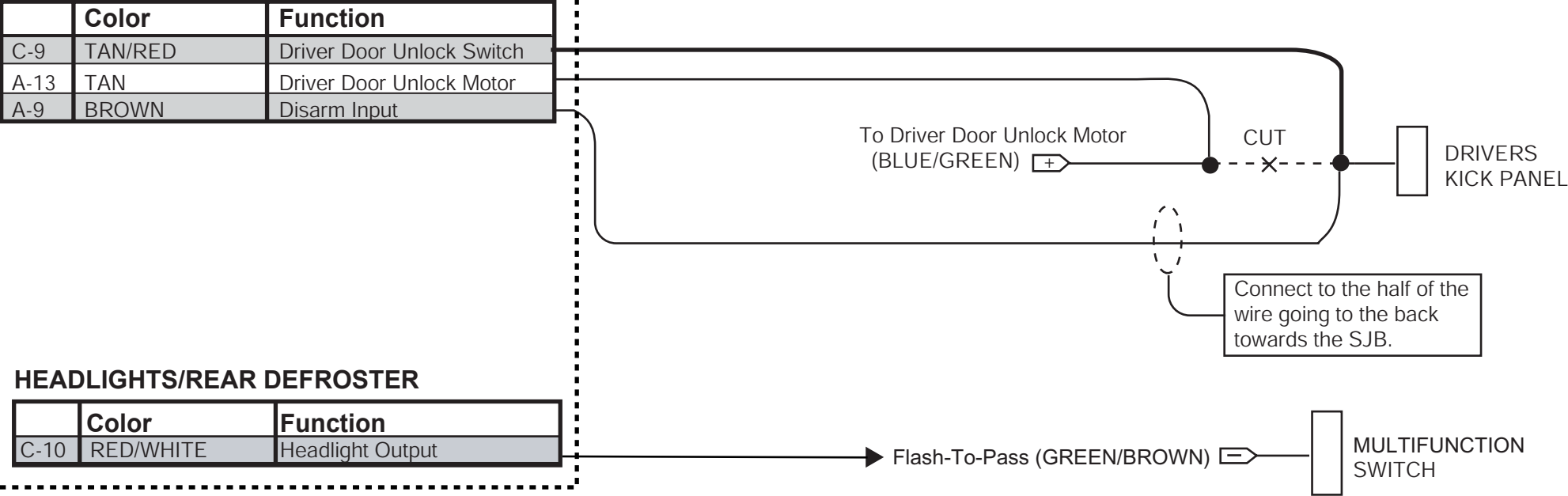
RKE/VSS/RMST MODULE WIRE HARNESS

DRIVER'S DOOR PRIORITY UNLOCK

	Color	Function
C-9	TAN/RED	Driver Door Unlock Switch
A-13	TAN	Driver Door Unlock Motor
A-9	BROWN	Disarm Input

HEADLIGHTS/REAR DEFROSTER

	Color	Function
C-10	RED/WHITE	Headlight Output



[Manual Table of Contents](#)

# RKE/VSS/REMOTE START SYSTEM INSTALLATION

## CONTENTS

### INSTALLATION

[RKE/VSS/Remote Start](#)

### GENERAL PROCEDURES

[Proper Splicing Techniques](#)

[Programming](#)

[Functional Test](#)

[Troubleshooting](#)

[Shock Sensor Setting](#)

### WIRING DIAGRAMS

[Vehicle Specific Wiring Diagrams](#)



## INSTALLATION

### Remote Start

#### Escape/Mariner

**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.

#### Review RKE/VSS/RMST Installation Kit Contents

**NOTE:** Use kit number 7L3Z-19G364-AA REMOTE START SYSTEM

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

2. Review the RKE/VSS/RMST kit contents.

#### Remote Keyless Entry/ Vehicle Security System/ReMoTe STart (RKE/VSS/RMST) System Kit

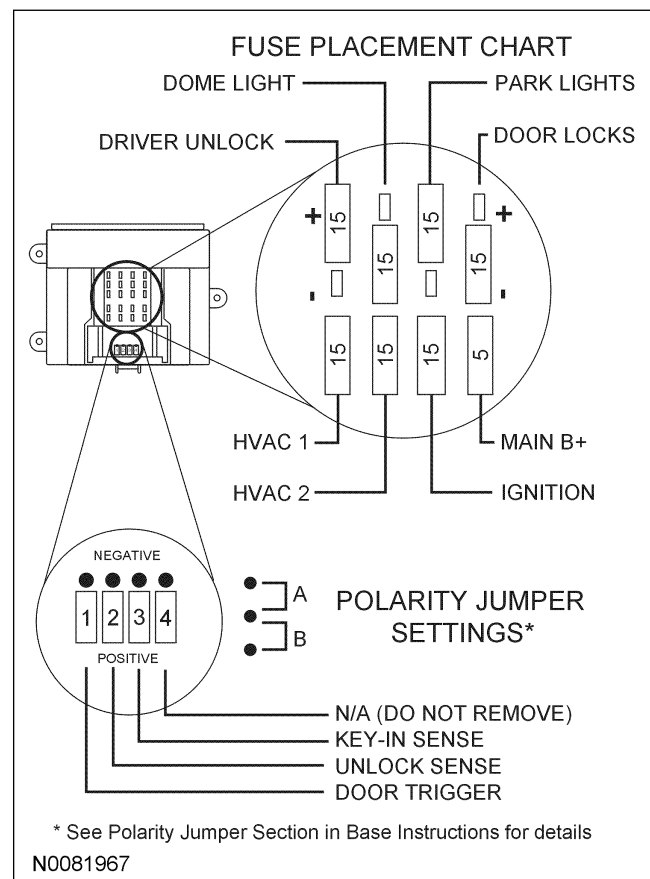
QUANTITY	DESCRIPTION
1	MODULE ASSEMBLY
1	RKE/VSS/RMST SOFTWARE CARTRIDGE ASSEMBLY
2	6 BUTTON POWERCODE TRANSMITTER
3	WIRING HARNESS ASSEMBLIES
1	DIPOLE ANTENNA
1	HOOD SAFETY SWITCH ASSEMBLY
1	INSTALLATION PARTS BAG
1	FUSE PARTS BAG
1	OPERATORS INSTRUCTIONS

#### Remote Keyless Entry/ Vehicle Security System/ReMoTe STart (RKE/VSS/RMST) System Kit (Continued)

QUANTITY	DESCRIPTION
1	OPERATORS QUICK REFERENCE WALLET CARD
1	UNDERHOOD WARNING LABEL
1	RELAY (YL3Z-19G390-AA)
1	SECURILOCK INTERFACE KIT (SOLD SEPARATELY AND REQUIRED FOR VEHICLES W/PATS)

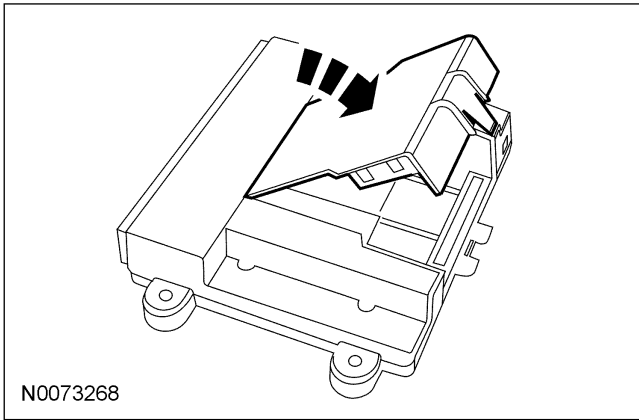
#### Module Preparation

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

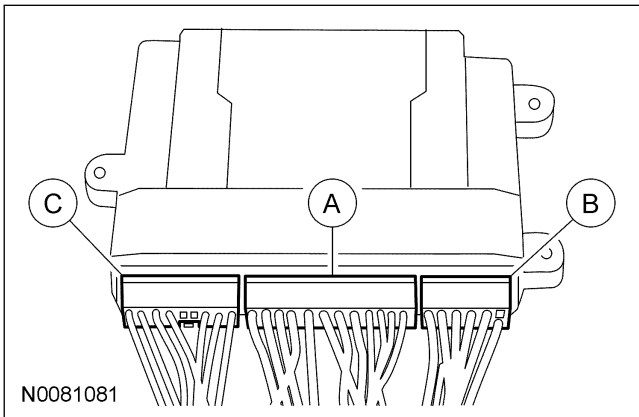


**INSTALLATION (Continued)**

4. Place the software cartridge onto the RKE/VSS/RMST control module.



5. 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.
  - C - Harness: 16-way, used on all systems with RKE/VSS/RMST.



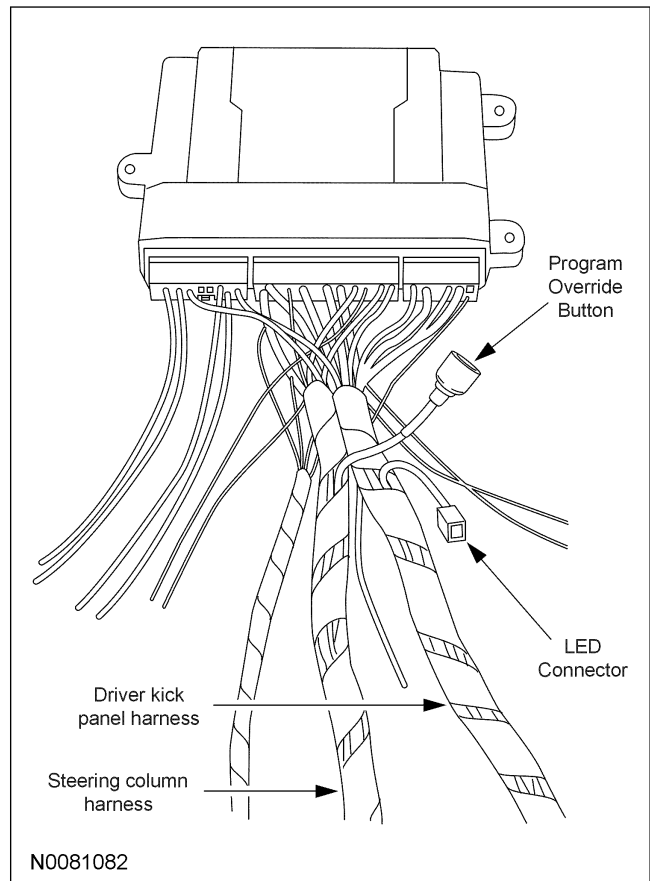
6. **NOTE:** Do not cut the override programming button off of the harness, it is used for all installations.

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

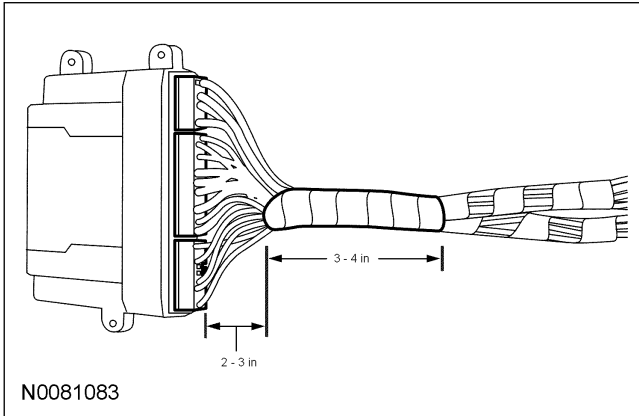
Splice the following wires to the A-4 Red wire in the A connector of the control module approximately 8 inches from the connector

- B-2 Red wire in the B connector.

7. 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.

**INSTALLATION (Continued)****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.
12. Remove the left hand scuff plate and cowl trim panel.

**Dipole Antenna Mounting**

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

**NOTE:** Keep these points in mind when selecting a location and mounting the dipole 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 Dipole Antenna**

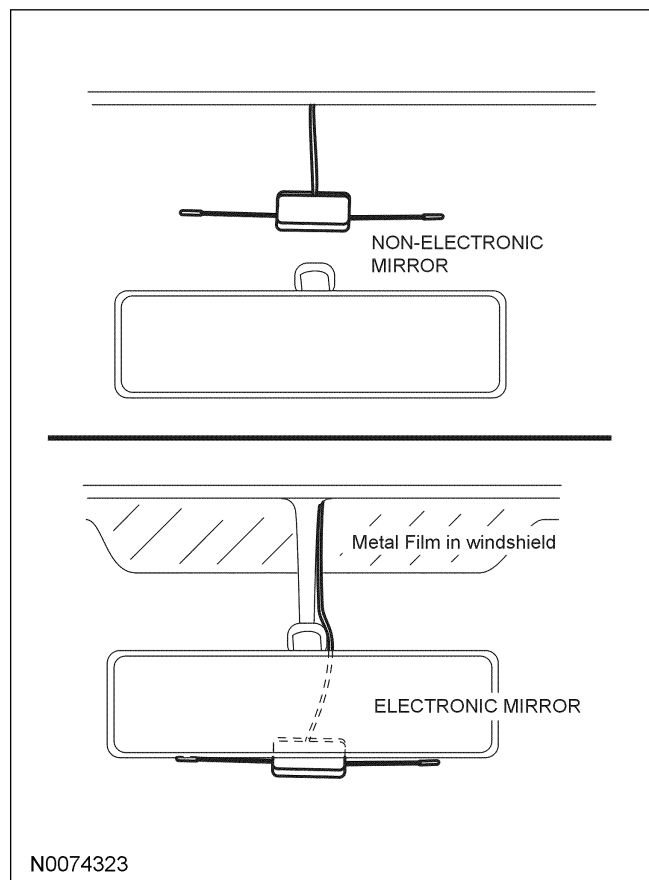
14. Clean the mounting surface using an alcohol base solution and a clean cloth.

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

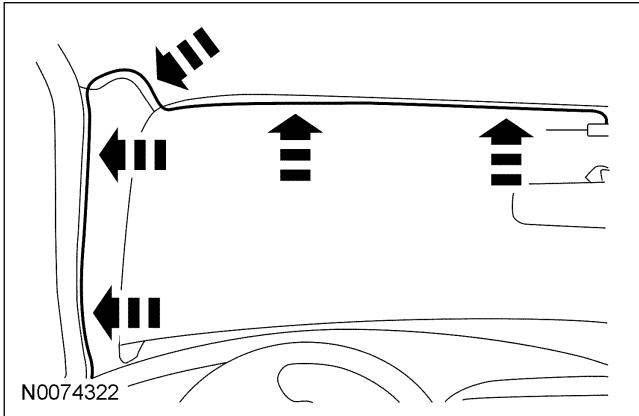
**NOTE:** Make sure that the long wire on the antenna is pointing toward the top of the windshield since this wire will be routed along the headliner.

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

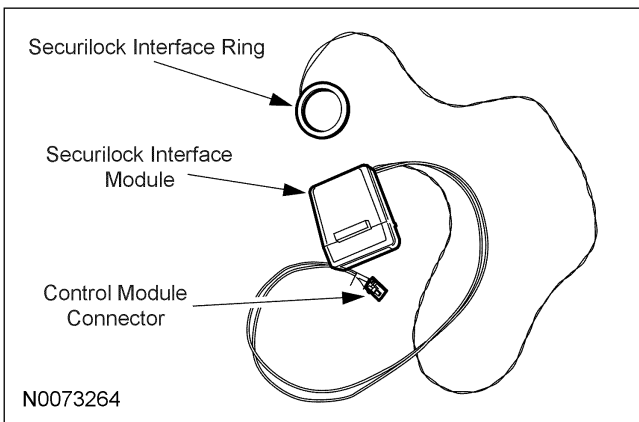
Remove the protective backing from the adhesive on the antenna and firmly press the body of the antenna to the windshield.



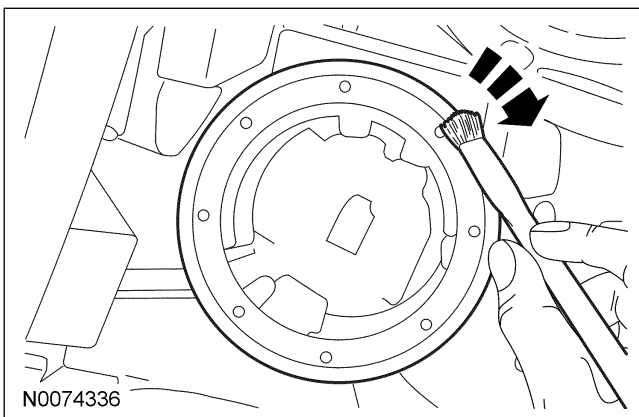
16. Route the dipole antenna cable along the headliner and down the A pillar toward the floor. The wire can be tucked behind the headliner without removing or loosening any of the trim panels.

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

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



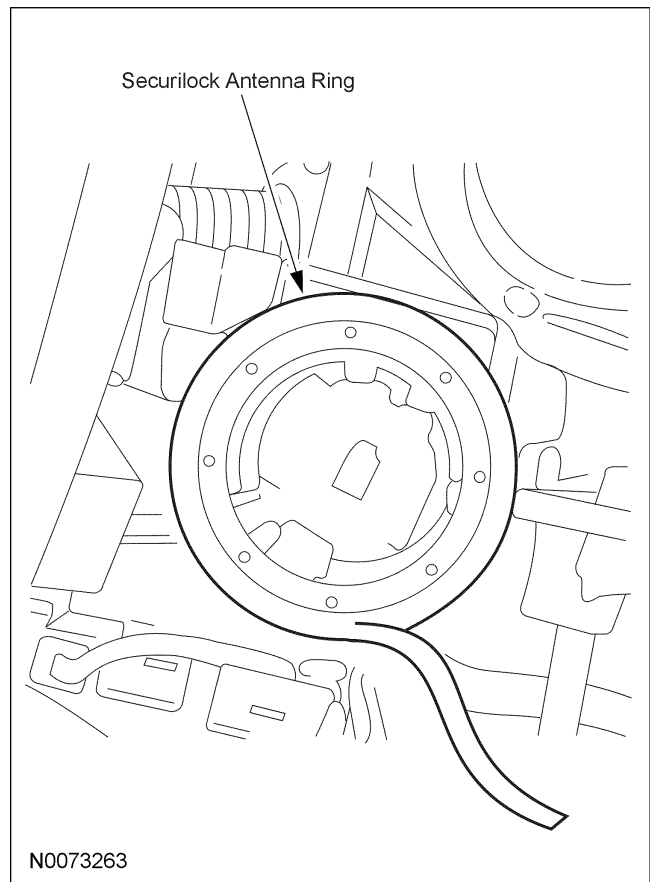
18. Following the directions on the supplied tube of adhesive primer, apply a thin coating around the transceiver antenna coil and allow to dry for approximately 5 minutes.



19. **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**

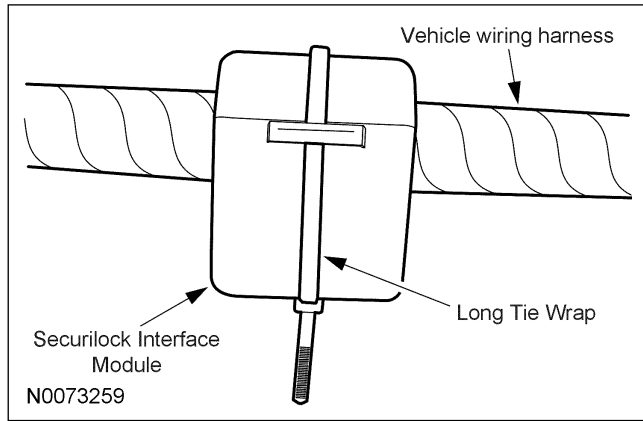
20. **NOTE:** Do Not mount the SECURILOCK Interface Module to or within 3" of a metal surface, including any underdash brackets, or in the knee bolster area.

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

**INSTALLATION (Continued)**

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

Route the harness and connector to the module mounting location.

**Install the RKE/VSS/RMST Control Module and Harness Assembly**

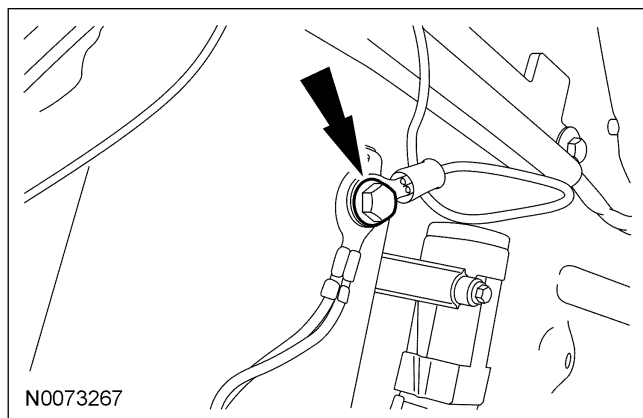
22. Place the RKE/VSS/RMST Control Module and Harness Assembly in the vehicle.

**Identify Circuit Wires For Connections**

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

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

23. Connect the Black ground wire from the control module harness to the chassis ground point in the driver kick panel.



24. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V when the Ignition switch is in the RUN/START position.

A logic probe will show ground on the correct wire, then show power when the Ignition switch is in the RUN/START position.

Identify the White/Orange ignition circuit wire at the ignition switch harness.

25. Connect the Pink wire from the control module harness to the White/Orange ignition circuit wire at the ignition switch harness.

26. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V when the Ignition switch is in the RUN/ACC position.

A logic probe will show ground on the correct wire, then show power when the Ignition switch is in the RUN/ACC position.

Identify the Violet/Green heater circuit wire at the ignition switch harness.

27. Connect the Orange wire from the control module harness to the Violet/Green heater circuit wire at the ignition switch harness.

28. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V when the key is in the ignition lock cylinder.

A logic probe will show ground on the correct wire, then show power when the key is in the ignition lock cylinder.

Identify the Blue/Gray key-in-sense circuit wire at the ignition switch harness.

29. Connect the Black/White wire from the control module harness to the Blue/Gray key-in-sense circuit wire at the ignition switch harness.

30. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V when the ignition is in the START position.

A logic probe will show ground on the correct wire, then show power when the ignition is in the START position.

Identify the Blue/White starter circuit wire at the ignition switch harness.

**INSTALLATION (Continued)**

31. Connect the Violet wire from the control module harness to the harness Blue/White starter circuit wire at the ignition switch harness.
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 open on the correct wire, then show ground when the horn button is held.  
Identify the Brown horn circuit wire in the steering column harness.
33. Connect the Brown/Black wire from the control module harness to the Brown horn circuit wire in the steering column harness.
34. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V when the brake pedal is pressed.  
A logic probe will show ground on the correct wire, then show power when the brake pedal is pressed.  
Identify the Violet/White brake output circuit wire at the brake switch location.
35. Connect the Brown wire from the control module harness to the Violet/White brake output circuit wire at the brake switch location.
36. **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 harness location.
37. Connect the Green/Violet wire from the control module harness to the Gray/Violet dome light circuit wire at the driver kick panel harness location.
38. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V when the lock all switch is pressed.  
A logic probe will show ground on the correct wire, then show power when the lock all switch is pressed.  
Identify the Gray/Brown lock all motors circuit wire at the driver kick panel harness location.
39. Connect the White/Blue wire from the control module harness to the Gray/Brown lock all motors circuit wire at the driver kick panel harness location.
40. **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 door lock circuit wire at the driver kick panel harness location.
41. Connect the Blue wire from the control module harness to the Blue/Green door lock circuit wire at the driver kick panel harness location.
42. **NOTE:** A DVOM connected to the correct wire will show 12V, then show 0V when the door unlock switch is pressed.  
A logic probe will show open on the correct wire, then show ground when the door unlock switch is pressed.  
Identify the Yellow/Violet door unlock circuit wire at the driver kick panel harness location.
43. Connect the Green wire from the control module harness to the Yellow/Violet door unlock circuit wire at the driver kick panel harness location.

**INSTALLATION (Continued)**

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

A logic probe will show ground on the correct wire, then show power when the driver door unlock switch is pressed.

Identify the Blue/Green driver door unlock motor circuit wire at the driver kick panel harness location.

45. Connect the Brown wire from the control module harness to the Blue/Green driver door unlock motor circuit wire at the driver kick panel harness location.

46. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V when the unlock all doors switch is pressed.

A logic probe will show ground on the correct wire, then show power when the unlock all doors switch is pressed.

Identify the Violet/Gray unlock all doors motor circuit wire at the driver side rear sill plate harness location.

47. Connect the Light Green wire from the control module harness to the Violet/Gray unlock all doors motor circuit wire at the driver side rear sill plate harness location.

48. **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.

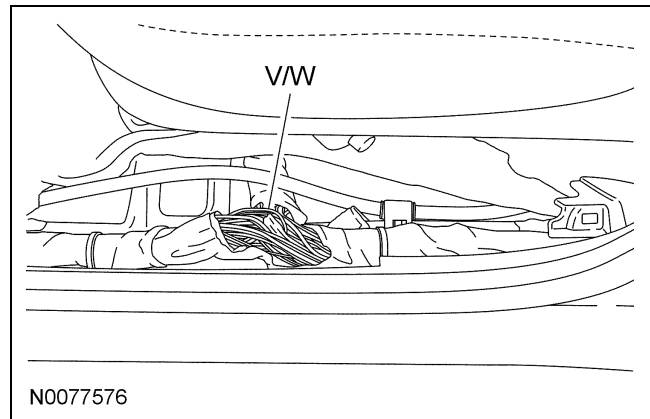
Identify the Brown dome light circuit wire at the dimmer switch.

49. Connect the Black/White wire from the control module harness to the Brown dome light circuit wire at the dimmer switch.

50. **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 the passenger side heading rearward.



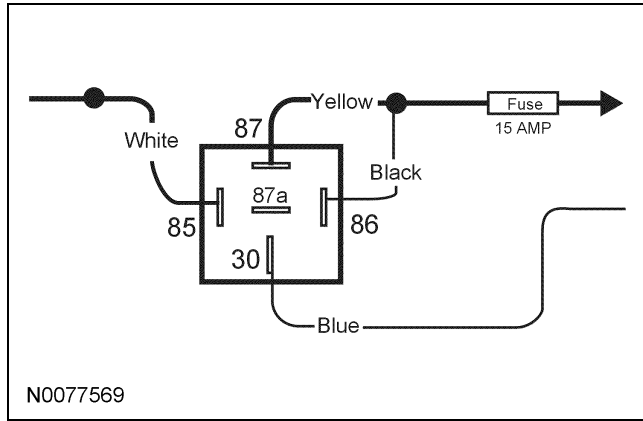
51. Connect the White wire from the control module harness to the Violet/White parking lights on circuit wire at the driver sill plate harness location.

**Install The Lift Glass Release Relay**

52. Prepare the relay harness.

**INSTALLATION (Continued)**

53. Remove the circuit 87a Red wire and terminal from the relay harness connector.
- Release the locking tab and pull the wire and terminal from the connector.



54. Connect the circuit 87 Yellow wire to the circuit 86 Black wire.
55. Attach a 15 amp in-line fuse holder assembly to the circuit 86 Black wire.
56. **NOTE:** A DVOM connected to the correct wire will show 12V with the key in any position.  
A logic probe connected to the correct wire will show power with the key in any position.  
This circuit is always hot.  
Identify the Blue/Red ignition wire at the ignition switch harness.
57. Connect the circuit 86 Black wire to the Blue/Red ignition wire at the ignition switch harness.
58. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V when the liftgate release switch is pressed.  
A logic probe will show ground on the correct wire, then show power when the liftgate release switch is pressed.  
Identify the Brown/Blue lift glass release circuit wire at the rear drivers sill panel harness location.
59. Connect the circuit 30 Blue wire from the door lock relay harness to the Brown/Blue lift glass release circuit wire at the rear drivers sill panel harness location.

60. Connect the circuit 85 White wire from the door lock relay harness to the Blue/Green lift glass release wire from the control module harness.

**Install The Hood Safety Switch**

61. **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.

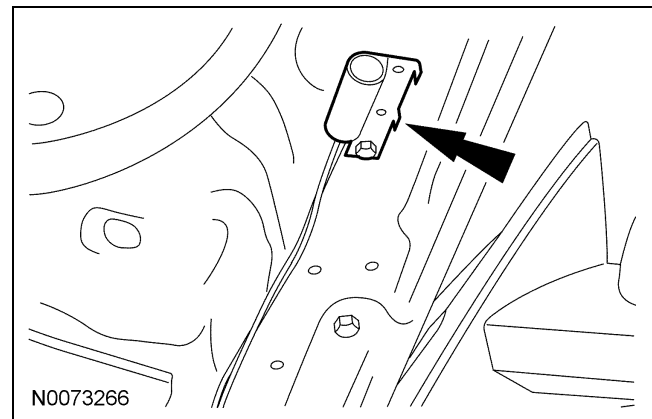
**NOTE:** The switch should be positioned about 30 degrees below parallel to the ground to accommodate for parking on inclines.

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.

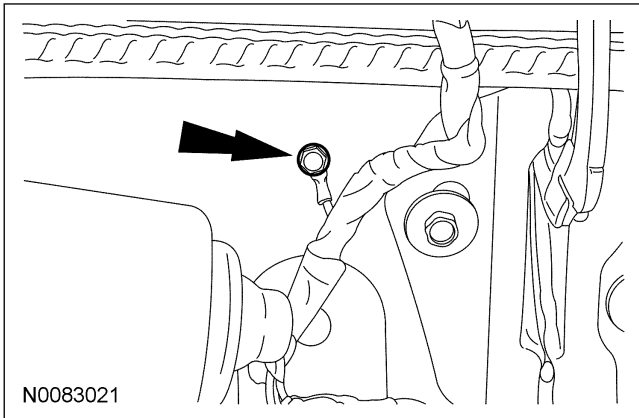
62. Apply rustproofing compound (PM-12-A) to the drilled hole and torque the screw to 1.00 Nm (10 lb-in).



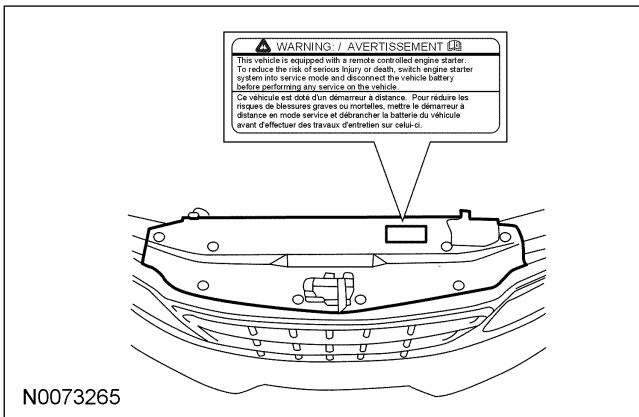


**INSTALLATION (Continued)**

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



64. **NOTE:** Place the label on the radiator fan shroud or similar area.  
Install the underhood warning label



65. Route the Grey hood safety switch wire from the RKE/VSS/RMST control module through the bulkhead into the engine compartment and attach to the hood safety switch.
66. Connect the dipole antenna to the RKE/VSS/RMST control module.
67. Connect the SECURILOCK interface module to the RKE/VSS/RMST control module.

**Optional Connections/Features - Driver Door Priority Unlock**

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

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

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

Identify the Blue/Green power door unlock motor circuit wire at the driver kick panel harness.

69. Cut the Blue/Green power door unlock motor circuit wire at the driver kick panel harness
70. Connect the Tan wire from the control module harness to the cut Blue/Green driver door unlock motor circuit wire going toward the front of the vehicle.
71. Connect the following wires to the cut Blue/Green driver door unlock motor circuit wire going toward the back of the vehicle
- Tan/Red wire from the control module harness.
  - Brown wire from the control module harness.

**Optional Connections/Features - Headlights**

72. **NOTE:** A DVOM connected to the correct wire will show 12V, then show 0V when the headlights ON.

A logic probe will show power on the correct wire, then show ground when the headlights ON.

Identify the Green/Brown Flash-To-Pass circuit wire at the multifunction switch.

73. Connect the Red/White wire from the control module harness to the Green/Brown Flash-To-Pass circuit wire at the multifunction switch.

---

**INSTALLATION (Continued)****Power Connection**

74. **NOTE:** A DVOM connected to the correct wire will show 12V with the key in any position.

A logic probe will show power on the correct wire with the key in any position.

Identify the Blue/Red Battery circuit wire in the ignition switch harness.

75. Connect the two Red wires from the control module harness A-4 and B-2 to the Blue/Red Battery circuit wire in the ignition switch harness.

**Program The RKE/VSS/RMST System**

76. [Refer to the RKE/VSS/RMST programming section for this vehicle \(click here\).](#)

**Secure RKE/VSS/RMST Harness and Control Module**

77. Use the supplied tie wraps to secure the RKE/VSS/RMST harness wires.
- 

78. **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 RKE/VSS/RMST control module to the underdash wiring harness.

**Install Trim**

79. Install the left hand scuff plate and cowl trim panel.
80. Install the upper and lower steering column shrouds.
- Install the 3 screws.
81. Install the steering column opening trim.

## GENERAL PROCEDURES

### Programming

#### Programming the Module

- NOTE:** If the vehicle 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 is 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.

##### Option Bank - 1 Chart (4 - Honks)

BANK	OPTIONS	DESCR	LED
1	1	LITE TOUCH ADJUST	NOTE 1
1	2	FULL SHOCK ADJUST	NOTE 1
1	4	DOOR AJAR INVERT	ON
1	5	UNLOCK SENSE INVERT	ON
1	6	KEY-IN SENSE INVERT	ON

##### Option Bank - 2 Chart (5 - Honks)

BANK	OPTIONS	DESCR	LED
2	1	STARTER INTERRUPT	OFF
2	8	DRIVER UNLOCK RELAY	NOTE 2

##### Option Bank - 3 Chart (6 - Honks)

BANK	OPTIONS	DESCR	LED
3	1	DRIVER PRIORITY UNLOCK	NOTE 2

##### Option Bank - 4 Chart (7 - Honks)

BANK	OPTIONS	DESCR	LED
4	1	TACHLESS MODE	ON

**NOTE:** 1. Perform proper adjustments following the “Shock Sensor Setting”, refer to General Procedures [click here](#).

**NOTE:** 2. See the Optional Connections/Features, refer to Vehicle Specific Wiring Diagram(s) [click here](#).

- Open the driver door.  
All other doors should remain closed.
- Turn the ignition key to the RUN position.
- 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.
- 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.
  - 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 remote start fob panic button 4 times.

The horn will honk 4 times indicating the system has entered the option 4 of the first program bank.

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

8. 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 lock button and verify the LED illuminates.

**NOTE:** When programming the remote start module, if the remote start fob unlock button is pressed, 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.

9. Press and release the remote start fob panic button.

The horn will honk 5 times indication the system has entered the option 5 of the first program bank.

10. The LED must be ON for option 5. If the LED is illuminated no action is required. If the LED is not illuminated press the remote start fob lock button and verify the LED illuminates.

11. Press and release the remote start fob panic button.

The horn will honk 6 times indication the system has entered the option 6 of the first program bank.

12. The LED must be ON for option 6. If the LED is illuminated no action is required. If the LED is not illuminated press the remote start fob lock button and verify the LED illuminates.

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

14. Press and release the remote start fob panic button.

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

15. The LED must be OFF for option 1. If the LED is not illuminated no action is required. If the LED is illuminated press the remote start fob lock button and verify the LED does not illuminate.

16. Press and release the override button 2 times. The horn will honk 7 times indicating the system has entered the fourth option bank.

17. Press and release the remote start fob panic button.

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

18. 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 lock button and verify the LED illuminates.

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

19. **NOTE:** Immediately after programming the remote start module, program the SECURILOCK.

**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.

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

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

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

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

**GENERAL PROCEDURES (Continued)**

22. 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.

---

23. 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)**

---

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

---

# '09 Escape/Mariner/Hybrid

## RKE/VSS/RMST MODULE WIRE HARNESS

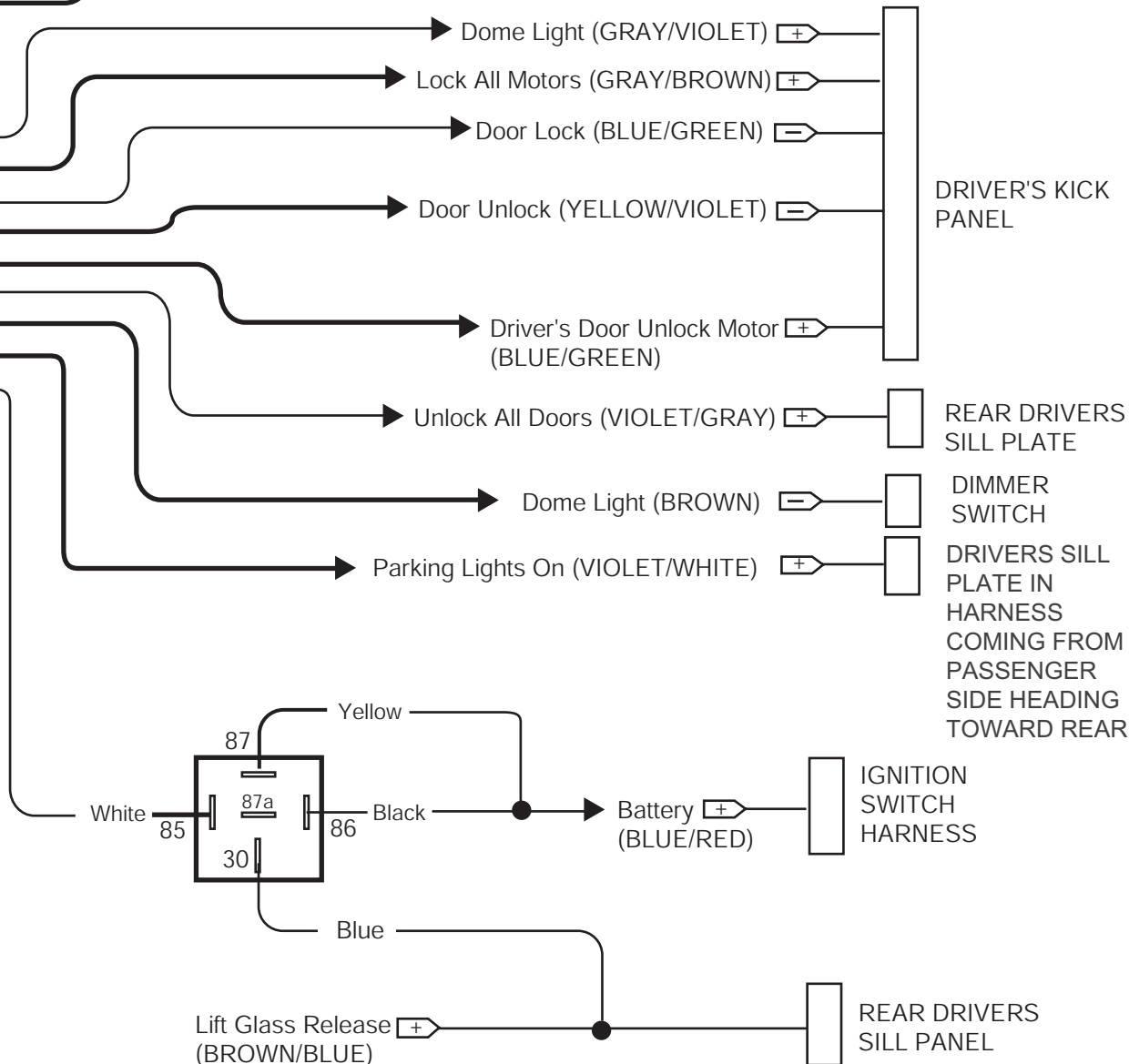
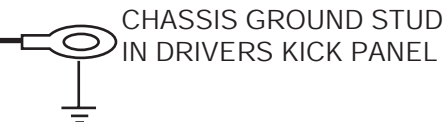
### DRIVER'S SIDE KICK PANEL HARNESS

	Color	Function
A-5	BLACK	Ground

### KICK PANEL HARNESS

	Color	Function
A-20	GREEN/VIOLET	Door Ajar Switch Input
A-11	WHITE/BLUE	Arm Input
A-2	BLUE	Door Lock Output
A-14	GREEN	Door Unlock Output
A-9	BROWN	Disarm Input
A-12	LT. GREEN	Unlock Switch Sense Input
A-3	BLACK/WHITE	Dome Light Output
A-1	WHITE	Parking Light Output
A-24	BLUE/GREEN	Trunk Release Output

**MAKE THIS CONNECTION FIRST!**





'09 Escape/Mariner/Hybrid

RKE/VSS/RMST MODULE WIRE HARNESS

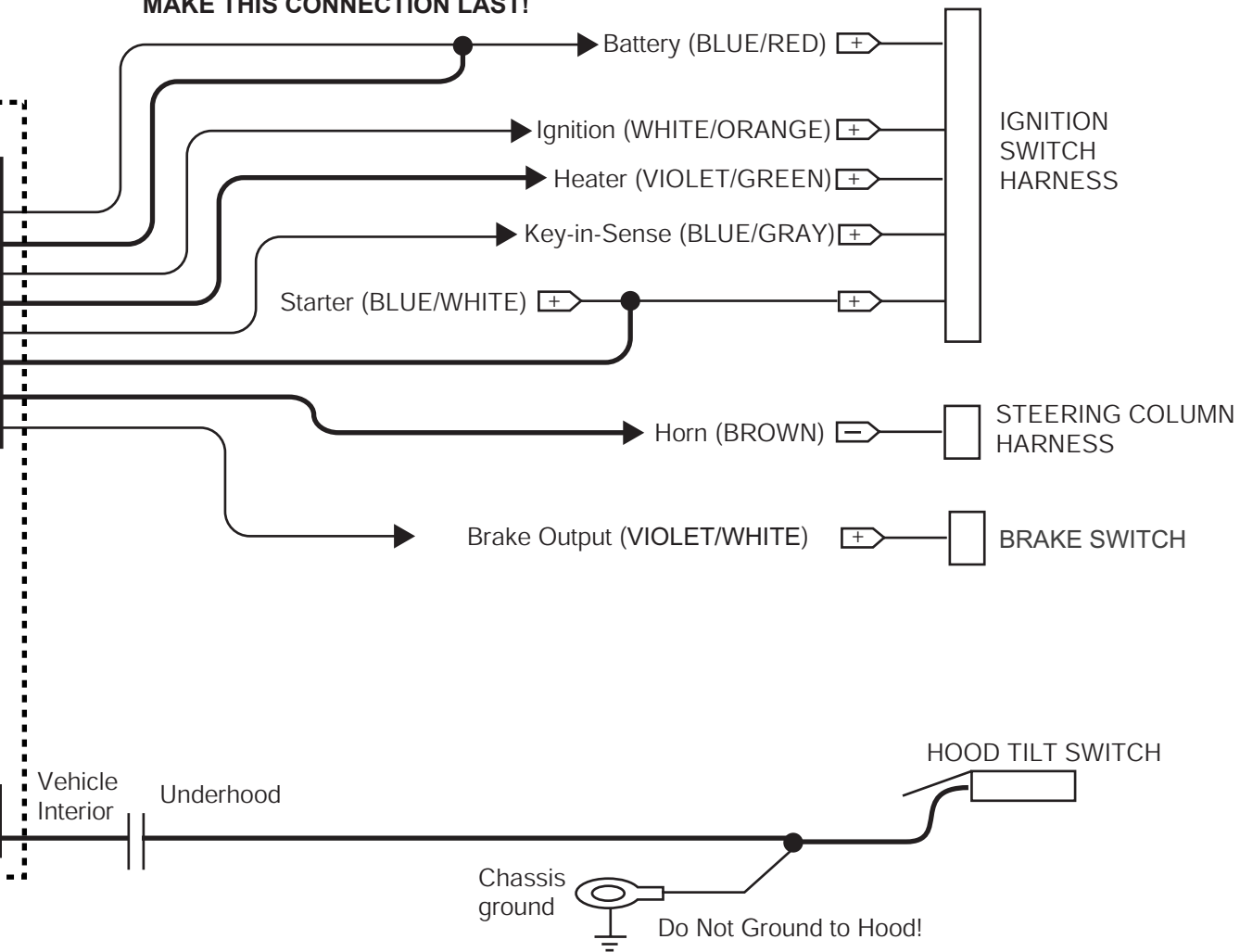
STEERING COLUMN HARNESS

	Color	Function
A-4	RED	Battery
B-2	RED	HVAC1 Battery Feed
A-7	PINK	Ignition 1 Input/Output
B-4	ORANGE	HVAC1 Output
B-8	BLACK/WHITE	Key-in-sense Input
A-8	VIOLET	Starter Interrupt Motor Side
A-21	BROWN/BLACK	Horn Relay Output
B-7	BROWN	Brake Input

UNDERHOOD HARNESS

	Color	Function
A-19	GRAY	Hood Open Switch Input

MAKE THIS CONNECTION LAST!



## OPTIONAL CONNECTIONS / FEATURES

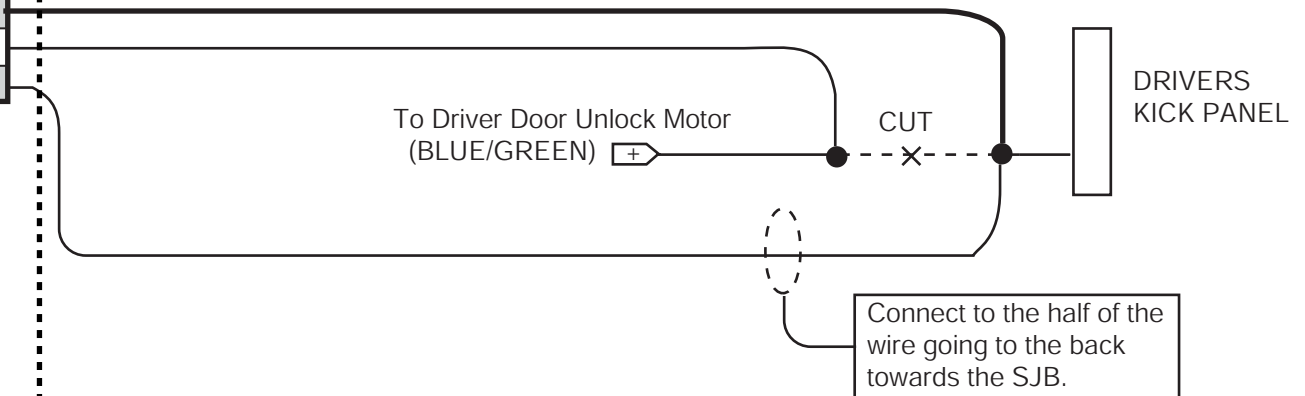
## OPTION PROGRAMMING REQUIREMENTS

BANK	OPTION	DESCRIPTION	LED
2	8	DRIVER UNLOCK RELAY	ON
3	1	DRIVER PRIORITY UNLOCK	ON

## RKE/VSS/RMST MODULE WIRE HARNESS

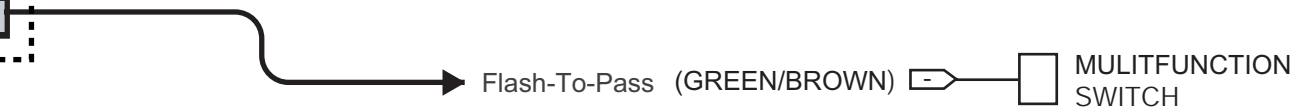
## DRIVER'S DOOR PRIORITY UNLOCK

	Color	Function
C-9	TAN/RED	Driver Door Unlock Switch
A-13	TAN	Driver Door Unlock Motor
A-9	BROWN	Disarm Input



## HEADLIGHTS/REAR DEFROSTER

	Color	Function
C-10	RED/WHITE	Headlight Output



[Manual Table of Contents](#)

# RKE/VSS/REMOTE START SYSTEM INSTALLATION

## CONTENTS

### INSTALLATION

[RKE/VSS/Remote Start](#)

### GENERAL PROCEDURES

[Proper Splicing Techniques](#)

[Programming](#)

[Functional Test](#)

[Troubleshooting](#)

[Shock Sensor Setting](#)

### WIRING DIAGRAMS

[Vehicle Specific Wiring Diagrams](#)

## INSTALLATION

### Remote Start

#### 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.

#### Review RKE/VSS/RMST Installation Kit Contents

**NOTE:** Use kit number 7L3Z-19G364-AA REMOTE START SYSTEM

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

2. Review the RKE/VSS/RMST kit contents.

#### Remote Keyless Entry/ Vehicle Security System/ReMote STart (RKE/VSS/RMST) System Kit

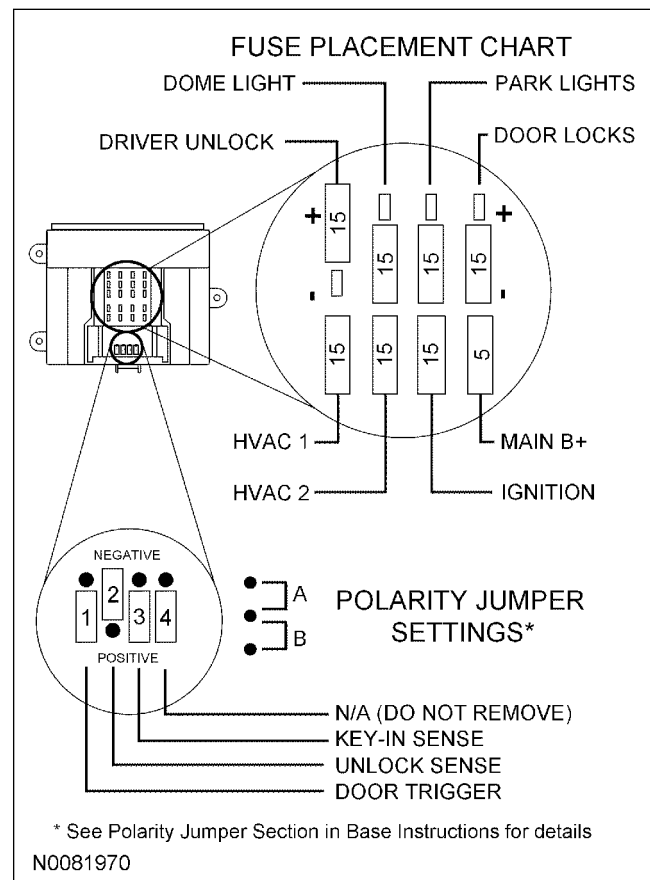
QUANTITY	DESCRIPTION
1	CONTROL MODULE ASSEMBLY
1	SOFTWARE CARTRIDGE ASSEMBLY
2	6 BUTTON POWERCODE TRANSMITTER
3	WIRING HARNESS ASSEMBLIES
1	DIPOLE ANTENNA
1	HOOD SAFETY SWITCH ASSEMBLY
1	INSTALLATION PARTS BAG
1	FUSE PARTS BAG
1	OPERATORS INSTRUCTIONS

#### Remote Keyless Entry/ Vehicle Security System/ReMote STart (RKE/VSS/RMST) System Kit (Continued)

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

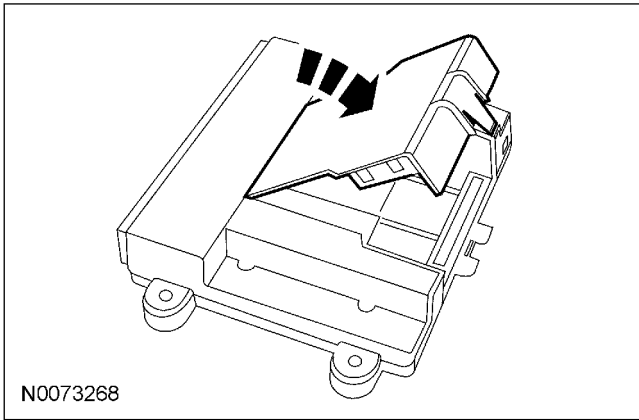
#### Module Preparation

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

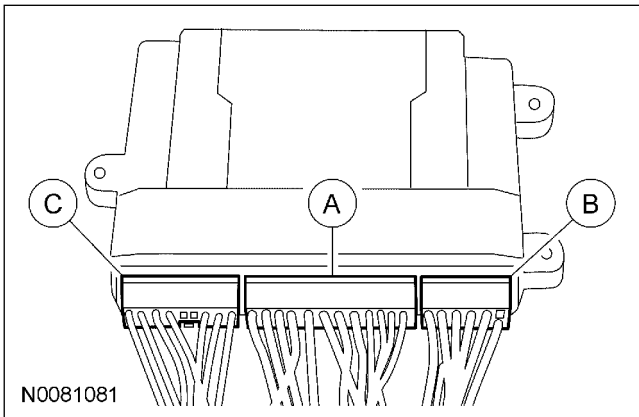


**INSTALLATION (Continued)**

4. Place the software cartridge onto the control module.



5. 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.
  - C - Harness: 16-way, used on all systems with RKE/VSS/RMST.

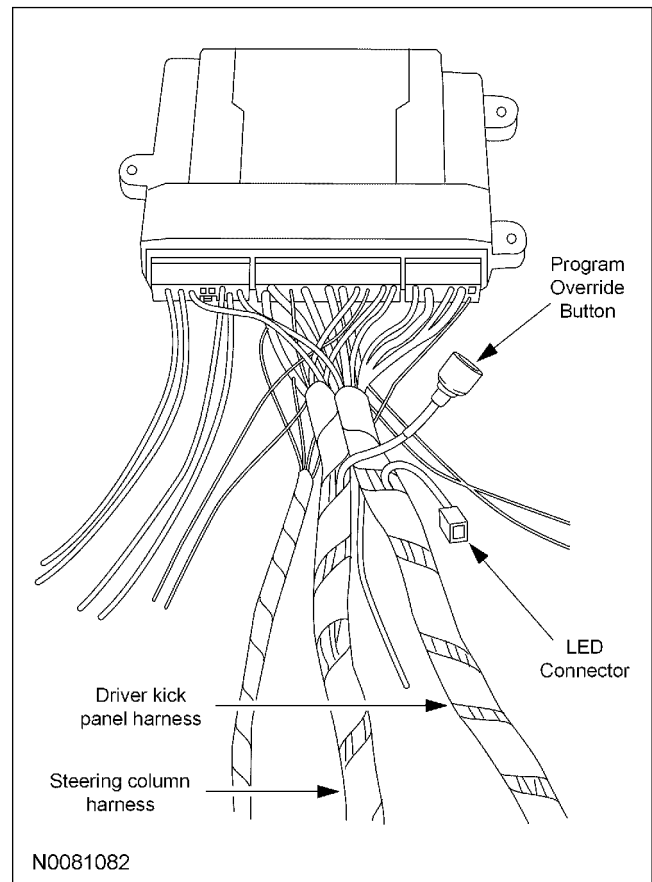


6. **NOTE:** Do not cut the override programming button off of the harness, it is used for all installations.

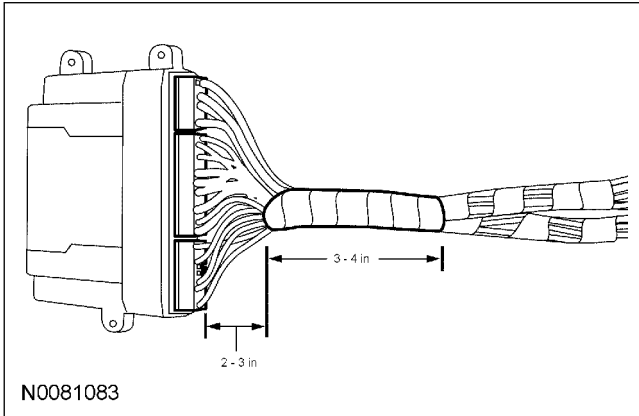
**NOTE:** For vehicle specific wiring diagram(s) [click here](#).

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.

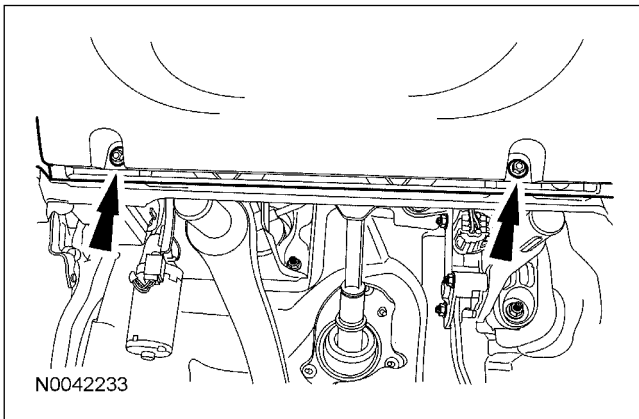
Trim the unused wires approximately 6 - 8'' from the module.



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

**INSTALLATION (Continued)****Vehicle Preparation**

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



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

**Dipole Antenna Mounting**

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

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

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

**Install The Dipole Antenna**

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

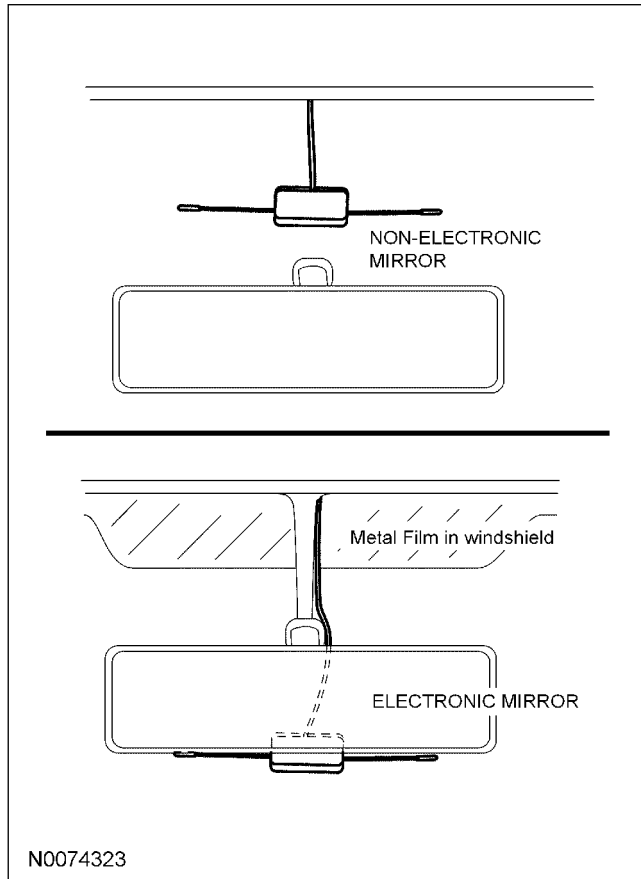
13. **NOTE:** Do not touch the adhesive, reduced adhesion may result.

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

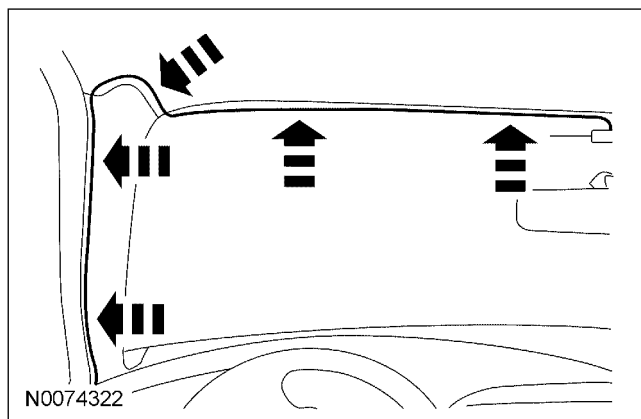
**NOTE:** The wire will be attached to the control module later in this procedure.

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

## INSTALLATION (Continued)

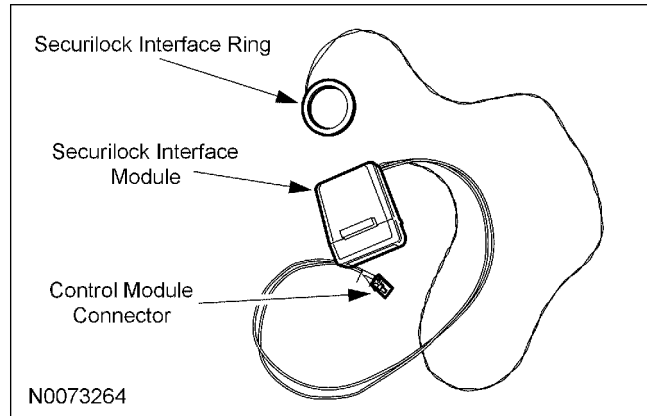


14. Route the dipole antenna cable along the headliner and down the A pillar toward the floor. The wire can be tucked behind the headliner without removing or loosening any of the trim panels.

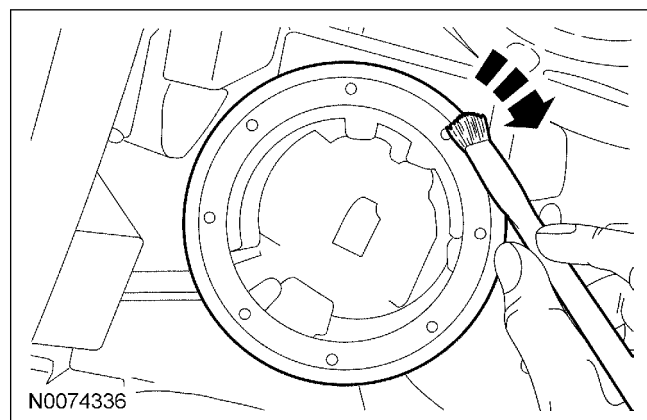


### Install The Securilock Interface Kit

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



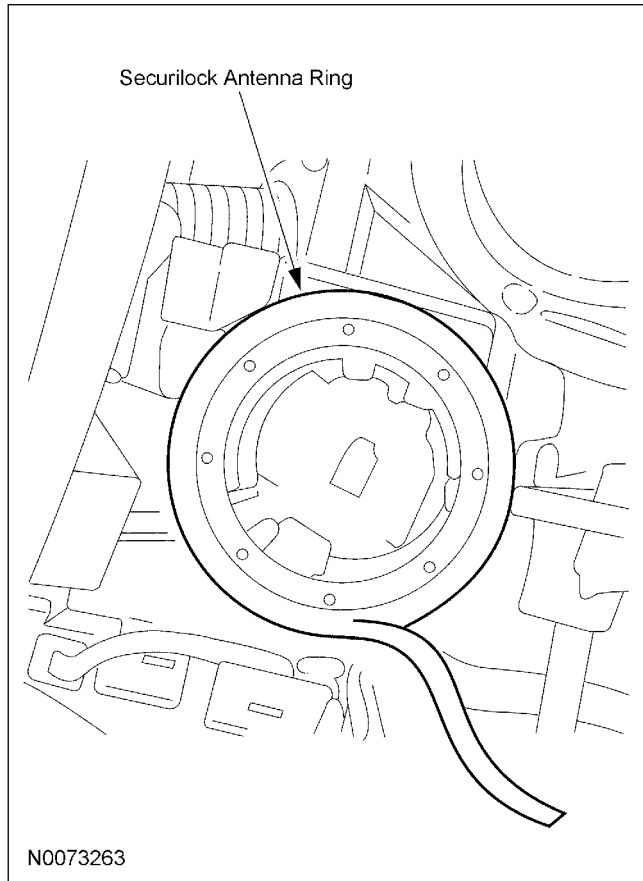
16. Following the directions on the supplied tube of adhesive primer, apply a thin coating around the transceiver antenna coil and allow to dry for approximately 5 minutes.



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

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

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

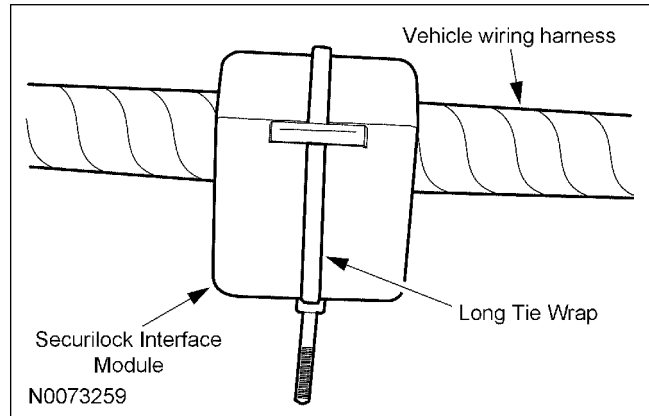
**INSTALLATION (Continued)****Install The Securilock Interface Module**

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

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

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

Route the harness and connector to the module mounting location.

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

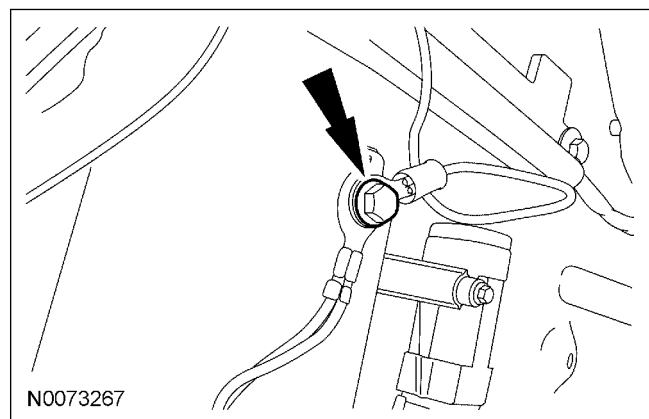
20. Place the control module and harness assembly in the vehicle.

**Identify Circuit Wires For Connections**

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

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

21. Connect the Black ground wire from the control module harness to the chassis ground point in the driver kick panel.





**INSTALLATION (Continued)**

22. **NOTE:** A DVOM connected to the correct wire will show 0V when the ignition switch is in the OFF position, then show 12V with the ignition switch in the RUN/START position.

A logic probe will show ground on the correct wire, then show power when the ignition switch is in the RUN/START position.

Identify the White/Orange ignition circuit wire in the ignition switch harness.

23. Connect the Pink wire from the control module harness to the White/Orange ignition circuit wire in the ignition switch harness.

24. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V when the Ignition switch is in the RUN position.

A logic probe will show ground on the correct wire, then show power when the Ignition switch is in RUN position.

Identify the Violet/Green heater circuit wire at the ignition switch harness.

25. Connect the Orange wire from the control module harness to the Violet/Green heater circuit wire at the ignition switch harness.

26. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V when the ignition is in START position.

A logic probe will show ground on the correct wire, then show power when the ignition is in START position.

Identify the Blue/White starter circuit wire at the ignition switch harness.

27. Connect the Violet wire from the control module harness to the harness Blue/White starter circuit wire at the ignition switch harness.

28. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V when the key is in the ignition lock cylinder.

A logic probe will show ground on the correct wire, then show power when the key is in the ignition lock cylinder.

Identify the Blue/Gray Key-in-sense circuit wire at the steering column harness.

29. Connect the Black/White wire from the control module harness to the Blue/Gray Key-in-sense circuit wire at the steering column harness.

30. **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.

31. Connect the Brown/Black wire from the control module harness to the Blue/White horn circuit wire in the steering column harness.

32. **NOTE:** A DVOM connected to the correct wire will show 0V, when the Headlight Switch is in the park lamp position, 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 in the park lamp position, then show open when the headlight switch is OFF.

Identify the Gray parking light on circuit wire at the headlight switch.

33. Connect the White wire from the control module harness to the Gray parking light on circuit at the headlight 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 open 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 Green/Blue dome light circuit wire at the headlight dimmer switch harness.

**INSTALLATION (Continued)**

35. Connect the Black/White wire from the control module harness to the Green/Blue dome light circuit wire at the headlight dimmer switch harness.
36. **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/Gray dome light circuit wire at the driver kick panel harness.
37. Connect the Green/Violet wire from the control module harness to the Yellow/Gray dome light circuit wire at the driver kick panel harness.
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 Grey/Yellow power door lock circuit wire at the driver kick panel harness.
39. Connect the Blue wire from the control module harness to the Grey/Yellow power door lock circuit at the driver kick panel harness.
40. **NOTE:** A DVOM connected to the correct wire will show 12V, then show 0V while depressing the door unlock switch.  
A logic probe will show open on the correct wire, then show ground while depressing the door unlock switch.  
Identify the Violet/Gray door unlock switch circuit wire at the driver kick panel harness.
41. Connect both the Green and the Light Green wires from the control module harness to the Violet/Gray door unlock switch circuit wire at the driver kick panel harness.
42. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V when the door lock switch is pressed.  
A logic probe will show ground on the correct wire, then show power when the door lock switch is pressed.  
Identify the Gray/Brown power door lock motor circuit wire at the driver kick panel harness.
43. Connect the White/Blue wire from the control module harness to the Gray/Brown power door lock motor circuit wire at the driver kick panel harness.
44. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V when the driver door unlock switch is pressed.  
A logic probe will show ground on the correct wire, then show power when the driver door unlock switch is pressed.  
Identify the Blue/Green driver power door unlock motor circuit wire at the driver kick panel harness.
45. Connect the Brown wire from the control module harness to the Blue/Green driver power door unlock motor circuit wire at the driver kick panel harness.
46. **NOTE:** Vehicles without factory perimeter alarm skip this step.  
**NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V when the factory alarm disarm switch is activated.  
A logic probe will show ground on the correct wire, then show power when the factory alarm disarm switch is activated.  
Identify the Green/Violet factory alarm disarm circuit wire at the driver kick panel harness.
47. Connect the Light Green/Black wire from the control module harness to the Green/Violet factory alarm disarm circuit wire at the driver kick panel harness.

**INSTALLATION (Continued)**

48. **NOTE:** A DVOM connected to the correct wire will show 12V, then show 0V when the hatch/trunk release switch is pressed.

A logic probe will show open on the correct wire, then show ground when the hatch/trunk release switch is pressed.

Identify the Brown flip out glass circuit wire at the driver kick panel harness.

49. Connect the Blue/Green wire from the control module harness to the Brown flip out glass circuit wire at the driver kick panel harness.

50. **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 when ground 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.

51. Connect the Brown wire from the control module harness to the Violet/White brake switch circuit wire at the driver kick panel harness.

**Optional Connections/Features - Driver Door Priority Unlock**

52. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V while depressing the door unlock switch.

A logic probe will show ground on the correct wire, then show power while depressing the door unlock switch.

Identify the Blue/Green door unlock circuit wire at the driver kick panel harness.

53. Cut the Blue/Green door unlock circuit wire at the driver kick panel harness.

54. Connect the following wires to the side of the Blue/Green door unlock circuit wire going to the back towards the back of the vehicle.

- Tan/Red wire from the control module harness.

**NOTE:** Vehicles with factory RKE only

Brown wire from the control module harness.

55. Connect the Tan wire from the control module harness to the Remaining side of the cut Blue/Green door unlock circuit wire.

**Optional Connections/Features - Headlights**

56. **NOTE:** A DVOM connected to the correct wire will show 12V, then show 0V with the headlights ON.

A logic probe will show open on the correct wire, then show ground with the headlights ON.

Identify the Green/Brown flash-to-pass circuit wire at the multifunction switch.

57. Connect the Red/White wire from the control module harness to the Green/Brown flash-to-pass circuit wire at the multifunction switch.

**Optional Connections/Features - Memory Seats**

58. **NOTE:** A DVOM connected to the correct wire will show 12V, then show 0V when the memory seat function is activated.

A logic probe will show open on the correct wire, then show ground when the memory seat function is activated.

Identify the Violet/White memory seat 1 circuit wire at the center console harness.

59. Connect the Green/White wire from the control module harness to the Violet/White memory seat 1 circuit wire at the center console harness.

60. Identify the Yellow memory seat 2 circuit wire at the center console harness.

61. Connect the Yellow/Green wire from the control module harness to the Yellow memory seat 2 circuit wire at the center console harness.

## INSTALLATION (Continued)

### Install The Hood Safety Switch

62. **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.

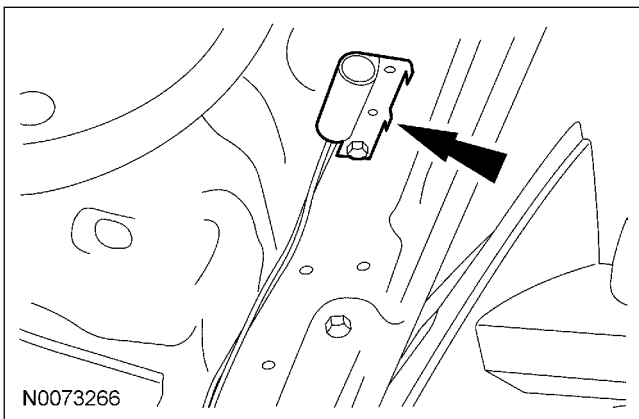
**NOTE:** The switch should be positioned about 30 degrees below parallel to the ground to accommodate for parking on inclines.

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

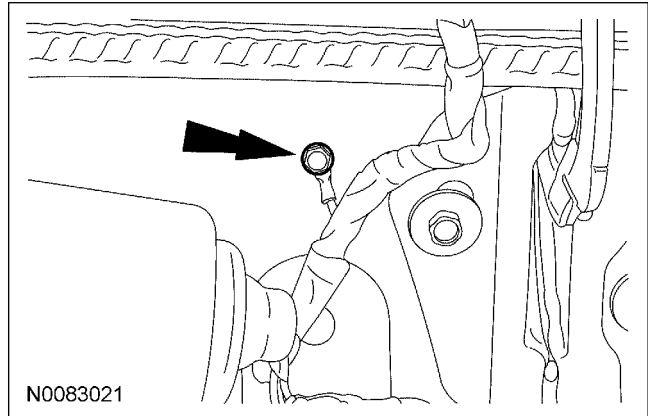
- False alarm trips
- Non-Remote Start events
- Inadvertent shutdown during Remote Start

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

63. Apply rustproofing compound (PM-12-A) to the drilled hole and torque the screw to 1.00 Nm (10 lb-in).

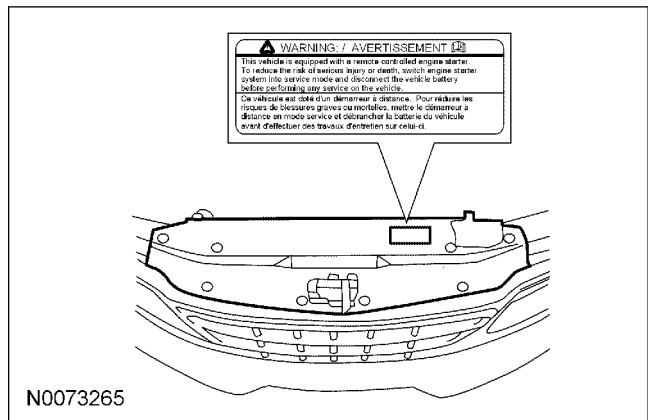


64. Connect hood switch ground wire to a suitable location on the bulkhead.



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

Install the underhood warning label



66. Route the Grey hood safety switch wire from the RKE/VSS/RMST control module through the bulkhead into the engine compartment and attach to the hood safety switch.
67. Connect the dipole antenna to the RKE/VSS/RMST control module.
68. Connect the SECURILOCK interface module to the RKE/VSS/RMST control module.

### Power Connection

69. **NOTE:** A DVOM connected to the correct wire will show 12V with the key in any position.

A logic probe will show power on the correct wire with the key in any position.

Identify the Violet/Red battery circuit wire in the ignition switch harness.

---

**INSTALLATION (Continued)**

70. Connect the two Red wires (A-4 and B-2) from the control module harness to the Violet/Red battery circuit wire in the ignition switch harness.

**Program The RMST System**

71. [Refer to the RKE/VSS/RMST programming section for this vehicle \(click here\).](#)

**Secure RMST Harness and Control Module**

72. Use the supplied tie wraps to secure the harness wires.

73. **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 control module to the underdash wiring harness.

**Install Trim**

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

75. Install the upper and lower steering column shrouds.

Install the 3 screws.

76. Install the steering column opening cover.

Install the 2 screws.

---

## GENERAL PROCEDURES

### Programming

#### Programming the Module

- NOTE:** If the vehicle 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 is 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.

##### Option Bank - 1 Chart (4 - Honks)

BANK	OPTIONS	DESCR	LED
1	1	LITE TOUCH ADJUST	NOTE 1
1	2	FULL SHOCK ADJUST	NOTE 1
1	4	DOOR AJAR INVERT	ON
1	5	UNLOCK SENSE INVERT	ON
1	6	KEY-IN SENSE INVERT	ON

##### Option Bank - 2 Chart (5 - Honks)

BANK	OPTIONS	DESCR	LED
2	1	STARTER INTERRUPT	OFF
2	8	DRIVER UNLOCK RELAY	NOTE 2

##### Option Bank - 3 Chart (6 - Honks)

BANK	OPTIONS	DESCR	LED
3	1	DRIVER PRIORITY UNLOCK	NOTE 2

##### Option Bank - 4 Chart (7 - Honks)

BANK	OPTIONS	DESCR	LED
4	1	TACHLESS MODE	ON

**NOTE:** 1. Perform proper adjustments following the “Shock Sensor Setting”, refer to General Procedures [click here](#).

**NOTE:** 2. See the Optional Connections/Features, refer to Vehicle Specific Wiring Diagram(s) [click here](#).

- Open the driver door.  
All other doors should remain closed.
- Turn the ignition key to the RUN position.
- 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.
- 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.
  - 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 remote start fob panic button 4 times.

The horn will honk 4 times indicating the system has entered the option 4 of the first program bank.

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

8. 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 lock button and verify the LED illuminates.

**NOTE:** When programming the remote start module, if the remote start fob unlock button is pressed, 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.

9. Press and release the remote start fob panic button.

The horn will honk 5 times indication the system has entered the option 5 of the first program bank.

10. The LED must be ON for option 5. If the LED is illuminated no action is required. If the LED is not illuminated press the remote start fob lock button and verify the LED illuminates.

11. Press and release the remote start fob panic button.

The horn will honk 6 times indication the system has entered the option 6 of the first program bank.

12. The LED must be ON for option 6. If the LED is illuminated no action is required. If the LED is not illuminated press the remote start fob lock button and verify the LED illuminates.

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

14. Press and release the remote start fob panic button.

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

15. The LED must be OFF for option 1. If the LED is not illuminated no action is required. If the LED is illuminated press the remote start fob lock button and verify the LED does not illuminate.

16. Press and release the override button 2 times. The horn will honk 7 times indicating the system has entered the fourth option bank.

17. Press and release the remote start fob panic button.

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

18. 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 lock button and verify the LED illuminates.

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

19. **NOTE:** Immediately after programming the remote start module, program the SECURILOCK.

**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.

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

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

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

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

**GENERAL PROCEDURES (Continued)**

22. 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.

---

23. 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.

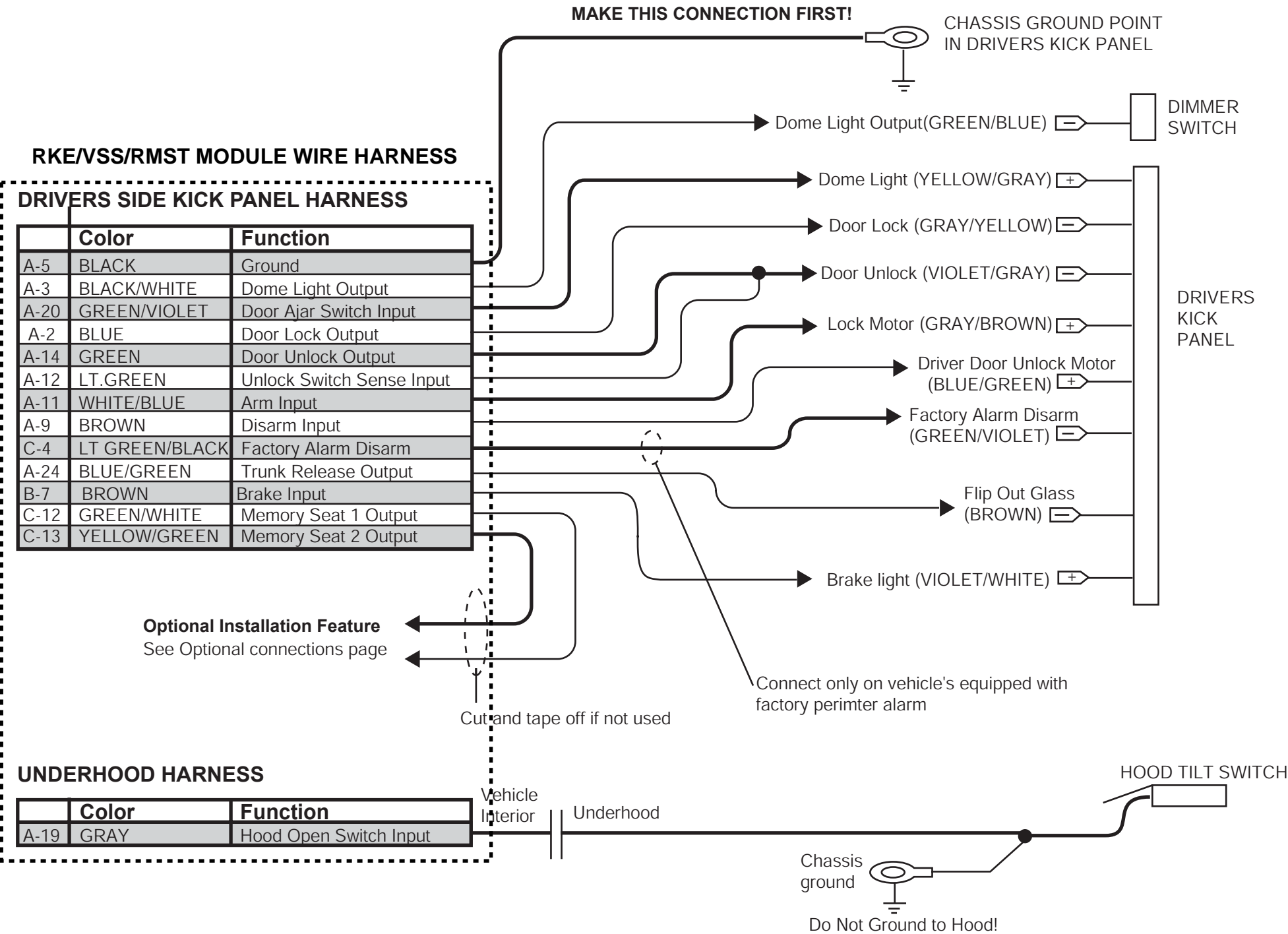
**GENERAL PROCEDURES (Continued)**

---

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

---

'09 Explorer/Mountaineer/Sport Trac



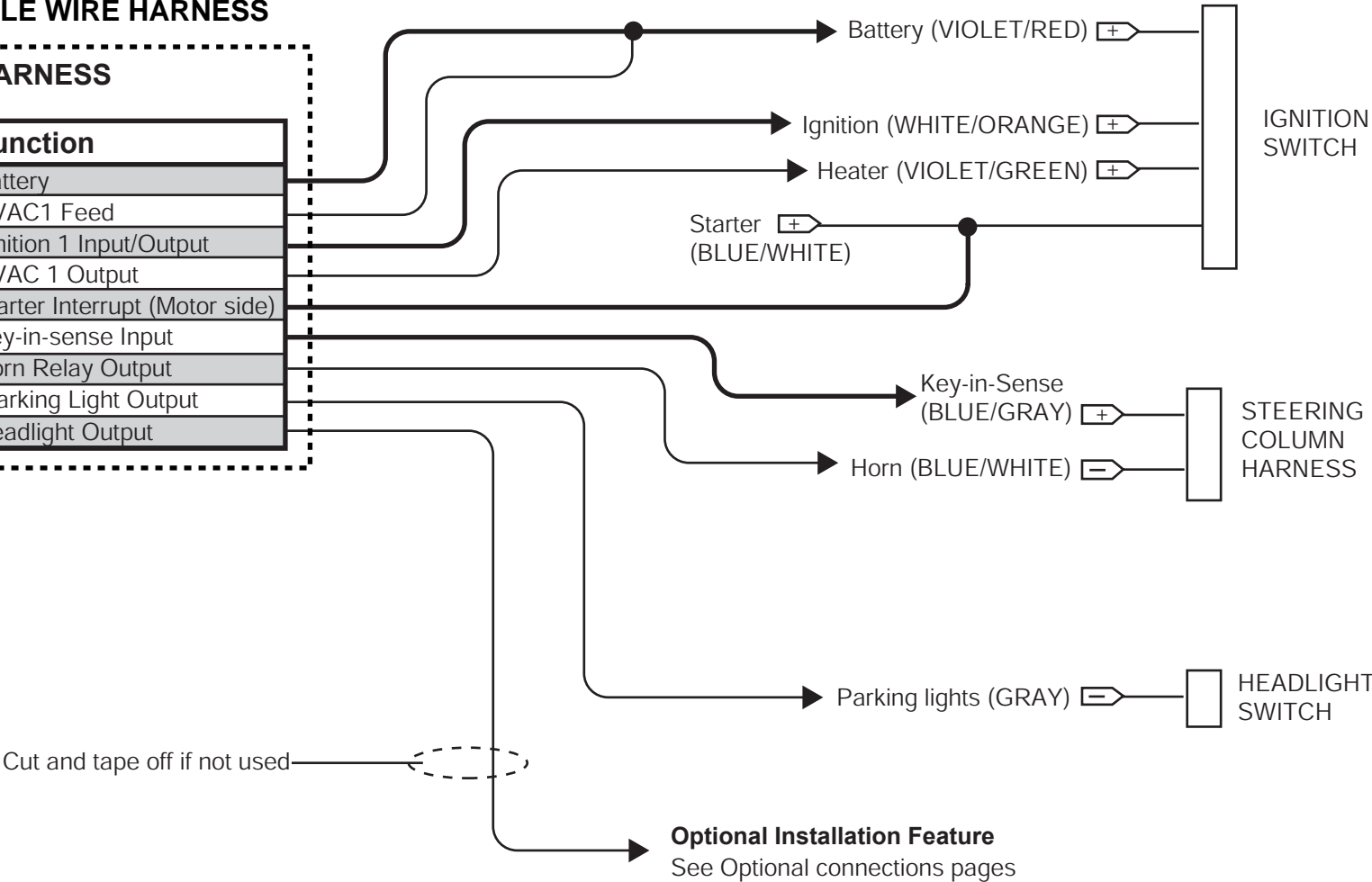
'09 Explorer/Mountaineer/Sport Trac

RKE/VSS/RMST MODULE WIRE HARNESS

STEERING COLUMN HARNESS

	Color	Function
A-4	RED	Battery
B-2	RED	HVAC1 Feed
A-7	PINK	Ignition 1 Input/Output
B-4	ORANGE	HVAC 1 Output
A-8	VIOLET	Starter Interrupt (Motor side)
B-8	BLACK/WHITE	Key-in-sense Input
A-21	BROWN/BLACK	Horn Relay Output
A-1	WHITE	Parking Light Output
C-10	RED/WHITE	Headlight Output

MAKE THIS CONNECTION LAST!



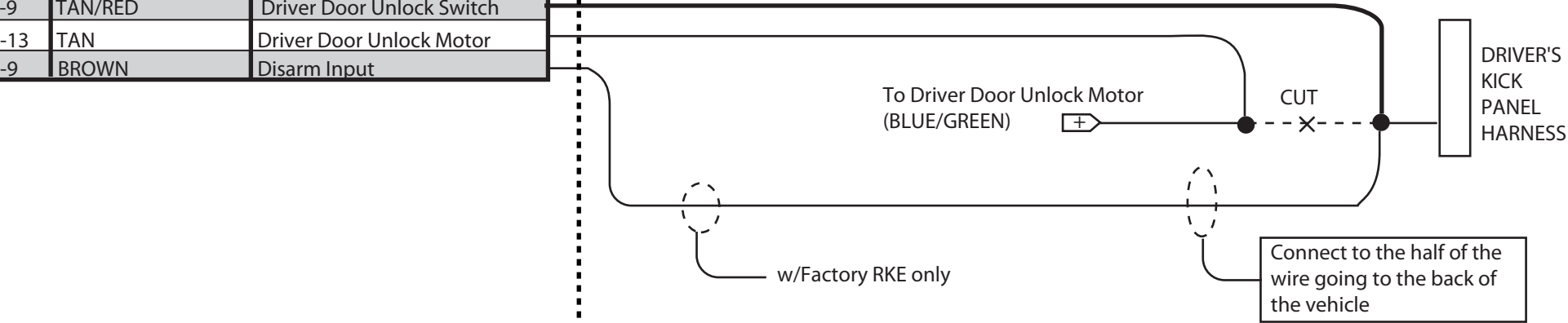
OPTIONAL CONNECTIONS / FEATURES

RKE/VSS/RMST MODULE WIRE HARNESS

DRIVER'S DOOR PRIORITY UNLOCK

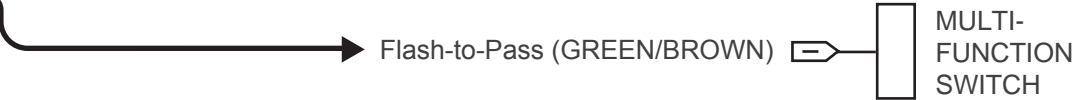
	Color	Function
C-9	TAN/RED	Driver Door Unlock Switch
A-13	TAN	Driver Door Unlock Motor
A-9	BROWN	Disarm Input

OPTION PROGRAMMING REQUIREMENTS			
BANK	OPTION	DESCRIPTION	LED
2	8	DRIVER UNLOCK RELAY	ON
3	1	DRIVER PRIORITY UNLOCK	ON



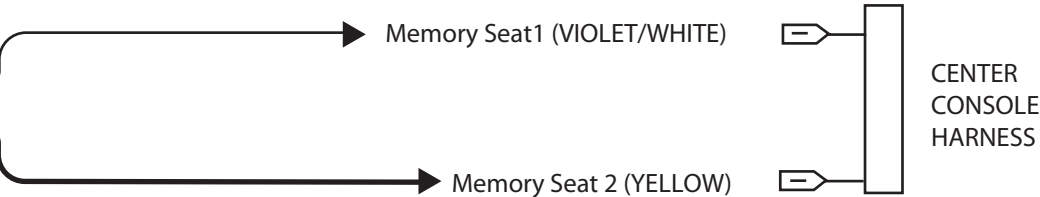
HEADLIGHTS

	Color	Function
C-10	RED/WHITE	Headlight Output



MEMORY SEATS (IF EQUIPPED)

	Color	Function
C-12	GREEN/WHITE	Memory Seat 1 Output
C-13	YELLOW/GREEN	Memory Seat 2 Output



[Manual Table of Contents](#)

# RKE/VSS/REMOTE START SYSTEM INSTALLATION

## CONTENTS

### INSTALLATION

[RKE/VSS/Remote Start](#)

### GENERAL PROCEDURES

[Proper Splicing Techniques](#)

[Programming](#)

[Functional Test](#)

[Troubleshooting](#)

[Shock Sensor Setting](#)

### WIRING DIAGRAMS

[Vehicle Specific Wiring Diagrams](#)

## INSTALLATION

### Remote Start

#### F-150

**NOTICE:** Control 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.

#### Review Remote Start Installation Kit Contents

**NOTE:** Use kit number 7L3Z-19G364-AA REMOTE START SYSTEM

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

2. Review the RMST kit contents.

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

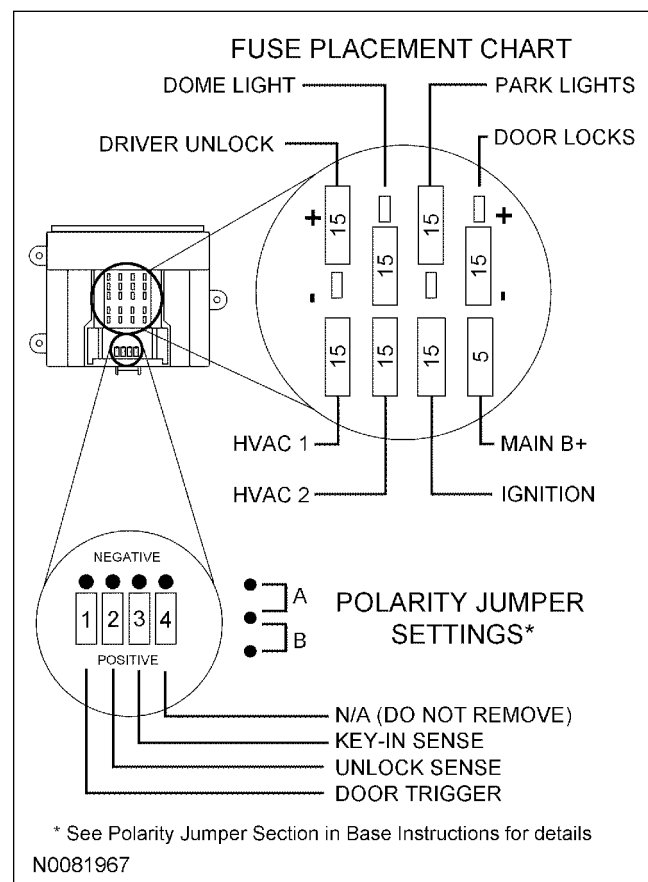
QUANTITY	DESCRIPTION
1	TYPE - "A" MODULE ASSEMBLY
1	RMST SOFTWARE CARTRIDGE ASSEMBLY
2	1 BUTTON POWERCODE TRANSMITTER
1	TYPE - "A" CUSTOM WIRING HARNESS
1	DIPOLE ANTENNA
1	HOOD SAFETY SWITCH ASSEMBLY
1	INSTALLATION PARTS BAG
1	FUSE PARTS BAG
1	OPERATORS INSTRUCTIONS

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

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

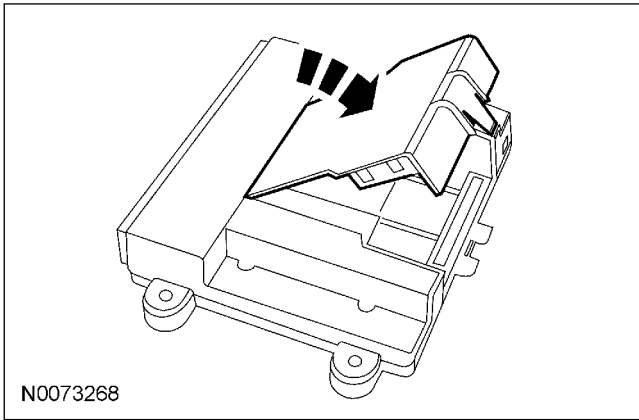
#### Module Preparation

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

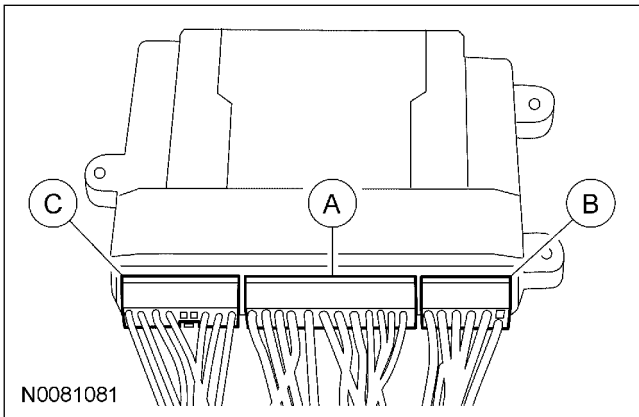


**INSTALLATION (Continued)**

4. Place the software cartridge onto the RKE/VSS/RMST control module.



5. 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.
  - C - Harness: 16-way, used on all systems with RKE/VSS/RMST.



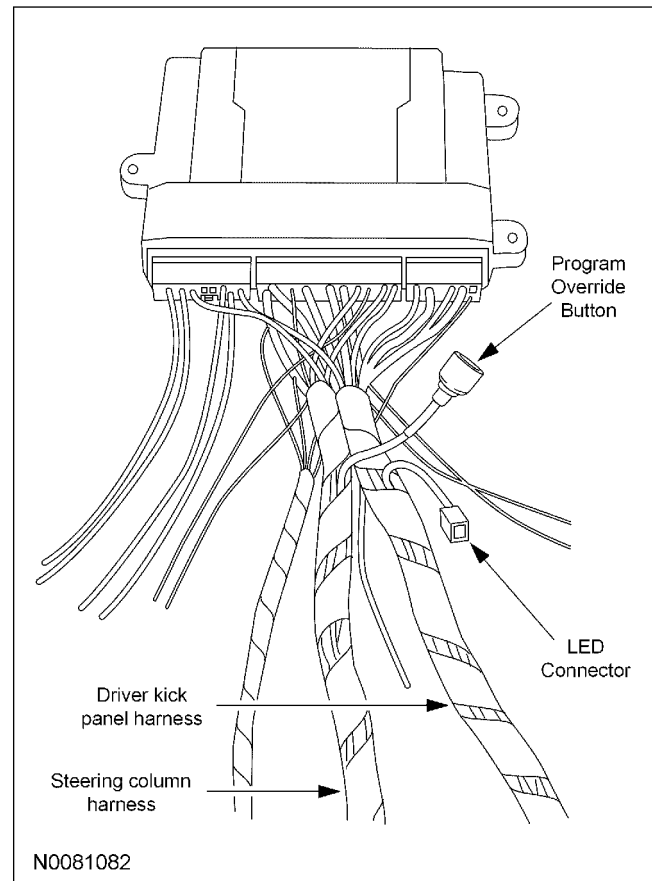
6. **NOTE:** Do not cut the override programming button off of the harness, it is used for all installations.

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

Splice the following wires to the B-2 Red wire in the B connector of the control module approximately 8 inches from the connector

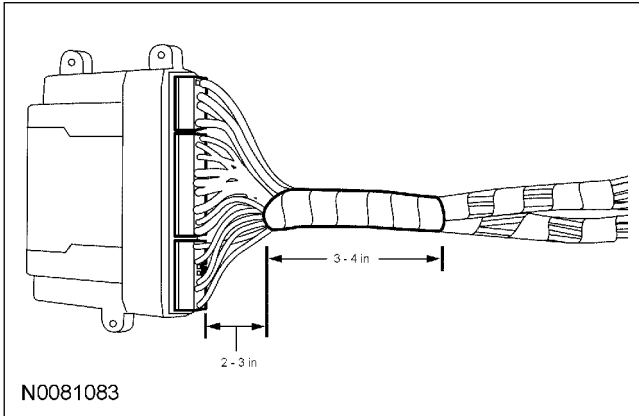
- B-1 Blue wire in the B connector.

7. 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.



**INSTALLATION (Continued)****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.
12. Remove the passenger side cowl trim panel.

**Dipole Antenna Mounting**

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

**NOTE:** Keep these points in mind when selecting a location and mounting the dipole 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 Dipole Antenna**

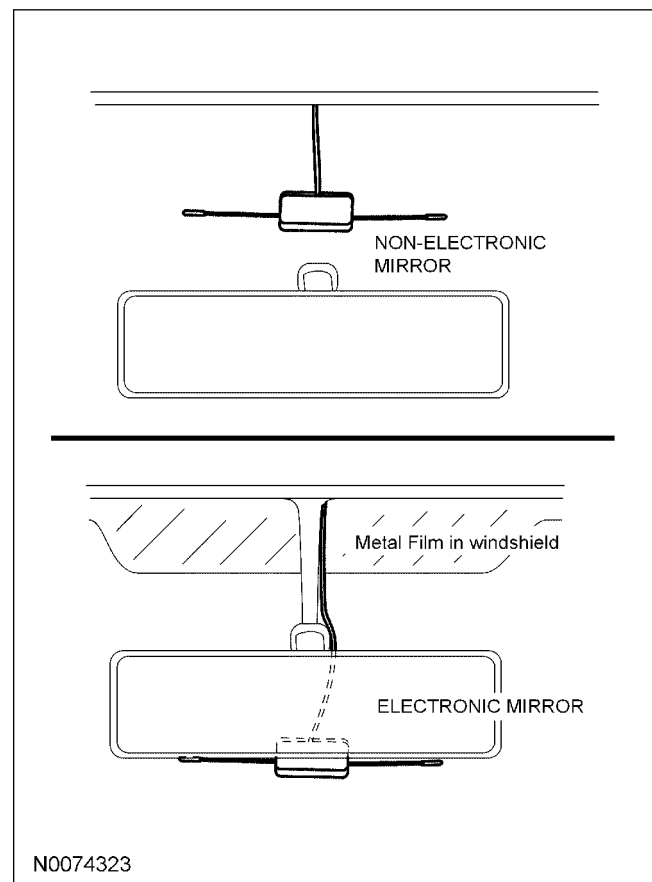
14. Clean the mounting surface using an alcohol base solution and a clean cloth.

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

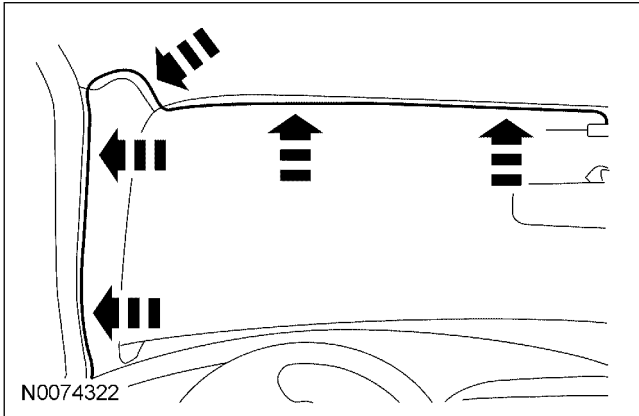
**NOTE:** Make sure that the long wire on the antenna is pointing toward the top of the windshield since this wire will be routed along the headliner.

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

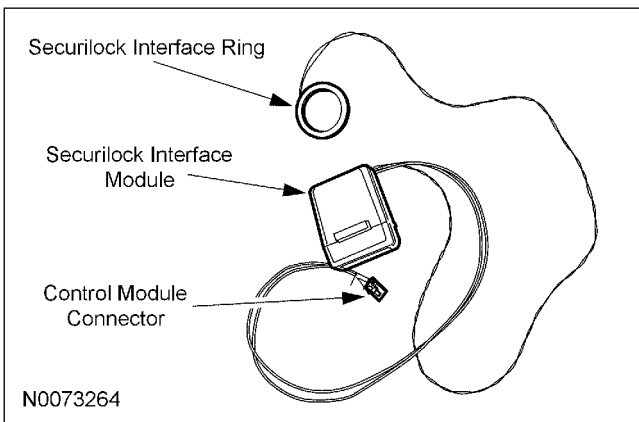
Remove the protective backing from the adhesive on the antenna and firmly press the body of the antenna to the windshield.



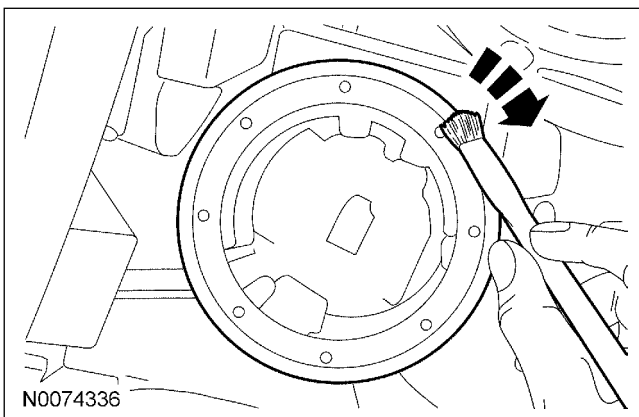
16. Route the dipole antenna cable along the headliner and down the A pillar toward the floor. The wire can be tucked behind the headliner without removing or loosening any of the trim panels.

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

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



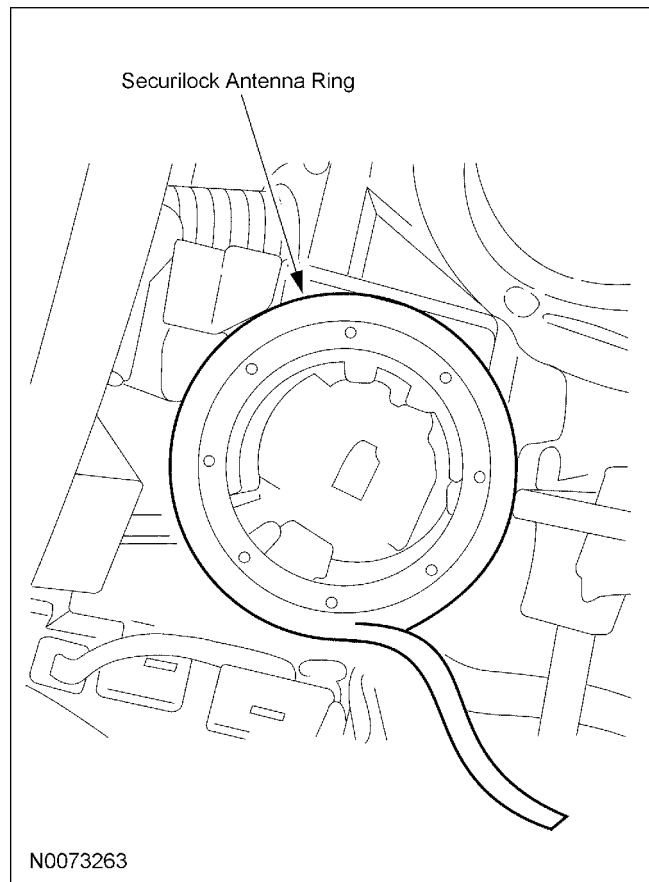
18. Following the directions on the supplied tube of adhesive primer, apply a thin coating around the transceiver antenna coil and allow to dry for approximately 5 minutes.



19. **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 control 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**

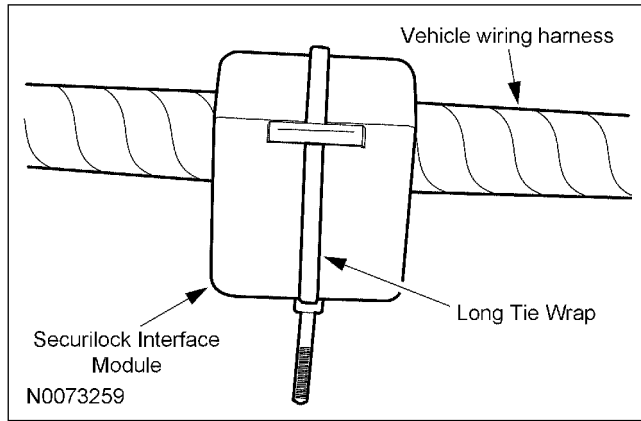
20. **NOTE:** Do Not mount the SECURILOCK Interface Module to or within 3" of a metal surface, including any underdash brackets, or in the knee bolster area.

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

**INSTALLATION (Continued)**

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

Route the harness and connector to the module mounting location.

**Install the control Module and Harness Assembly**

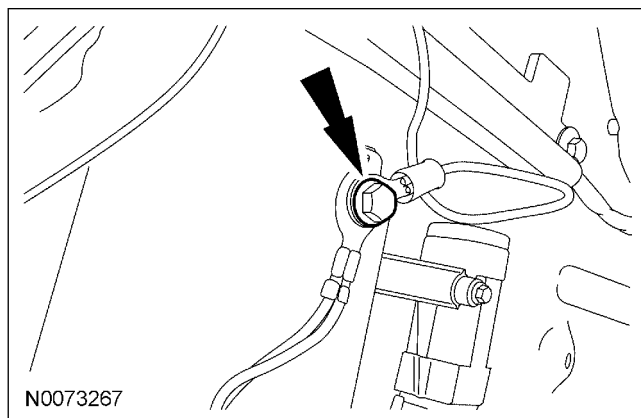
22. Place the control module and harness assembly in the vehicle.

**Identify Circuit Wires For Connections**

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

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

23. Connect the Black ground wire from the control module harness to the chassis ground point in the driver kick panel.



24. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V when the Ignition Switch is in the RUN and START positions.

A logic probe will show ground on the correct wire, then show power when the Ignition Switch is in the RUN and START positions.

Identify the White/Orange ignition circuit wire at the ignition switch harness.

25. Connect the Pink wire from the control module harness to the White/Orange ignition circuit wire at the ignition switch harness.

26. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V when the Ignition Switch is in the ACC and RUN positions.

A logic probe will show ground on the correct wire, then show power when the Ignition Switch is in the ACC and RUN positions.

Identify the Violet/Green heater circuit wire at the ignition switch harness.

27. Connect the Orange wire from the control module harness to the Violet/Green heater circuit wire at the ignition switch harness.

28. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V when the Ignition Switch is in the START position.

A logic probe will show ground on the correct wire, then show power when the Ignition Switch is in the START position.

Identify the Blue/White starter circuit wire at the ignition switch harness.

29. Connect the Violet wire from the control module harness to the harness Blue/White starter circuit wire.

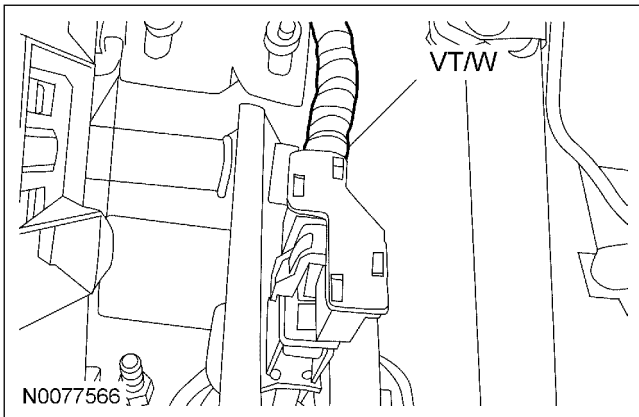
30. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V when the key is in the ignition lock cylinder.

A logic probe will show ground on the correct wire, then show power when the key is in the ignition lock cylinder.

Identify the Blue/Grey Key-in-sense circuit wire at the ignition switch harness.

**INSTALLATION (Continued)**

31. Connect the Black/White wire from the control module harness to the Blue/Grey Key-in-sense circuit wire at the ignition switch harness.
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 Blue/White horn circuit wire in the steering column harness.
33. Connect the Brown/Black wire from the control module harness to the Blue/White horn circuit wire in the steering column harness.
34. **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.



35. Connect the Brown wire from the control module harness B-7 to the Violet/White brake switch circuit wire at the brake switch.
36. **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 SJB connector C2280A 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.
37. Connect the Green/Violet wire from the control module harness to the Gray/Violet dome light circuit wire at the SJB connector C2280A pin 9.
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 power on the correct wire, then show ground when the door lock switch is pressed.  
Identify the Gray/Yellow power door lock circuit wire at the SJB connector C2280C pin 17.
39. Connect the Blue wire from the control module harness to the Gray/Yellow power door lock circuit wire at the SJB connector C2280C pin 17.
40. **NOTE:** A DVOM connected to the correct wire will show 12V, then show 0V when the door unlock switch is pressed.  
A logic probe will show power on the correct wire, then show ground when the door unlock switch is pressed.  
Identify the Violet/Gray power door unlock circuit wire at the SJB connector C2280C pin 4.

**INSTALLATION (Continued)**

41. Connect the Green wire from the control module harness to the Violet/Gray power door unlock circuit wire at the SJB connector C2280C pin 4.
42. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V when the door lock switch is pressed.  
A logic probe will show ground on the correct wire, then show power when the door lock switch is pressed.  
Identify the Gray/Brown power door lock motor circuit wire at the SJB connector C2280D pin 6.
43. Connect the White/Blue wire from the control module harness to the Gray/Brown power door lock motor circuit wire at the SJB connector C2280D pin 6.
44. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V when the door unlock switch is pressed.  
A logic probe will show ground on the correct wire, then show power when the door unlock switch is pressed.  
Identify the Violet/Gray power door unlock motor circuit wire at the SJB connector C2280D Pin 27.
45. Connect the Light Green wire from the control module harness to the Violet/Gray power door unlock motor circuit wire at the SJB connector C2280D Pin 27.
46. **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 power with the switch in the ON position and open with the switch in the parking lights OFF position.  
Identify the Violet/White parking lights on circuit wire at the SJB connector C2280E pin 6.
47. Connect the White wire from the control module harness to the Violet/White parking lights on circuit wire at the SJB connector C2280E pin 6.
48. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V when the driver door unlock switch is pressed.  
A logic probe will show ground on the correct wire, then show power when the driver door unlock switch is pressed.  
Identify the Blue/Green driver power door unlock motor circuit wire at the driver kick panel harness.
49. Connect the Brown wire from the control module harness to the Blue/Green power door unlock motor circuit wire at the driver kick panel harness.
50. **NOTE:** A DVOM connected to the correct wire will show 12V, then show 0V with headlights ON.  
A logic probe will show open on the correct wire, then show ground with Flash-To-Pass ON.  
Identify the Green/Brown Flash-To-Pass circuit wire at the multifunction switch connector pin 4.
51. Connect the Red/White wire from the control module harness to the Green/Brown Flash-To-Pass circuit wire at the multifunction switch connector pin 4.
52. **NOTE:** A DVOM connected to the correct wire will show 12V, then show 0V with dome light ON.  
A logic probe will show power on the correct wire, then show ground with dome light ON.  
Identify the Green/Blue dome circuit wire at the dimmer switch.
53. Connect the Black/White wire from the control module harness to the Green/Blue dome circuit wire at the dimmer switch.

**INSTALLATION (Continued)****Optional Connections / Features Driver Door Priority Unlock**

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

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

A logic probe will show ground on the correct wire, then show power when the driver door unlock switch is pressed.

Identify the Blue/Green driver power door unlock motor circuit wire at the driver scuff plate harness.

55. Cut the Blue/Green driver door unlock motor circuit wire at the driver scuff plate harness.
56. Splice the Tan wire from the control module harness to the cut Blue/Green driver door unlock motor circuit wire going toward the front of the vehicle.
57. Connect the Tan/Red wire from the control module harness to the cut Blue/Green driver door unlock motor circuit wire going toward the back of the vehicle.
58. Connect the Brown wire from the control module harness A-9 to the cut Blue/Green driver door unlock motor circuit wire going toward the back of the vehicle.

**NOTE:** Vehicles with memory seats

59. **NOTE:** Route wires under the floor carpet.

**NOTE:** Provide enough slack in the wires to allow for seat travel.

**NOTE:** A DVOM connected to the correct wire will show 12V, then show 0V when the driver seat memory button (1) is pressed.

A logic probe will show power on the correct wire, then show ground when the driver seat memory button (1) is pressed.

Identify the Violet/White wire at the driver seat switch.

60. Connect the Green/White wire from the control module harness to the Violet/White wire at the driver seat switch.

61. **NOTE:** A DVOM connected to the correct wire will show 12V, then show 0V when the driver seat memory button (2) is pressed.

A logic probe will show power on the correct wire, then show ground when the driver seat memory button (2) is pressed.

Identify the Yellow wire at the driver seat switch.

62. Connect the Yellow/Green wire from the control module harness to the Yellow wire at the driver seat switch.

**Install The Hood Safety Switch**

63. **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.

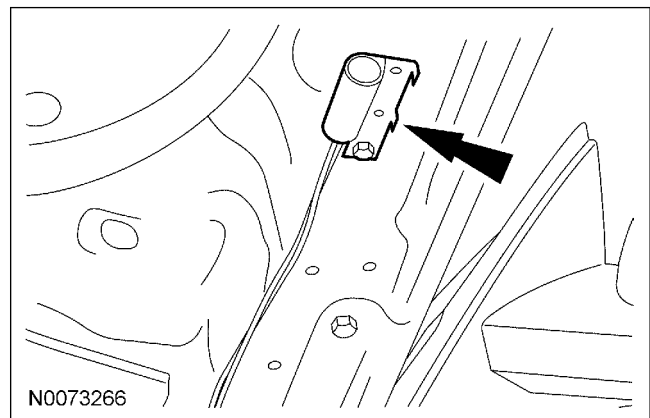
**NOTE:** The switch should be positioned about 30 degrees below parallel to the ground to accommodate for parking on inclines.

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

- False alarm trips
- Non-control events
- Inadvertent shutdown during control

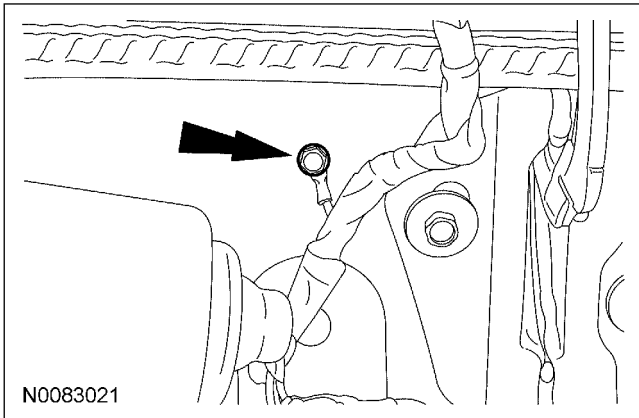
Locate an easy to access area near the driver side hood hinge and install the hood safety switch using the supplied metal screws.

64. Apply rustproofing compound (PM-12-A) to the drilled hole and torque the screw to 1.00 Nm (10 lb-in).



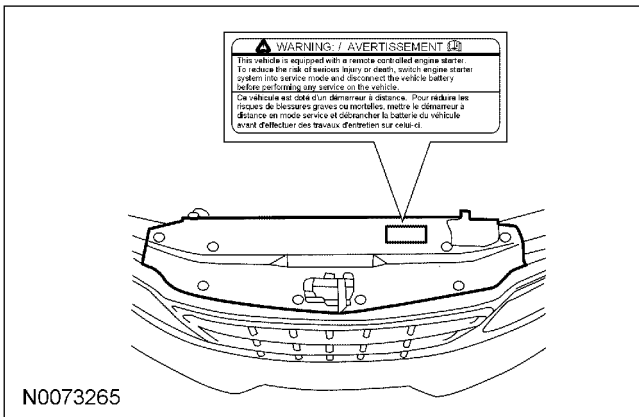
## INSTALLATION (Continued)

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



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

Install the underhood warning label



67. Route the Grey hood safety switch wire through the bulkhead into the engine compartment and attach to the RKE/VSS/RMST control module.
68. Connect the dipole antenna to the RKE/VSS/RMST control module.
69. Connect the SECURILOCK interface module to the RKE/VSS/RMST control module.

## Power Connection

70. **NOTE:** A DVOM connected to the correct wire will show 12V with the key in any position.

A logic probe will show power on the correct wire with the key in any position.

Identify the Violet/Red and the Yellow/Red Battery circuit wires in the ignition switch harness.

71. Connect the one Red wire from the control module harness to the one Violet/Red Battery circuit wire in the ignition switch harness.
72. Connect the remaining Red wire from the control module harness to the remaining Yellow/Red Battery circuit wire in the ignition switch harness.

## Program The RKE/VSS/RMST System

73. [Refer to the RKE/VSS/RMST programming section for this vehicle \(click here\).](#)

## Secure RKE/VSS/RMST Harness and Control Module

74. Use the supplied tie wraps to secure the RKE/VSS/RMST harness wires.

75. **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 RKE/VSS/RMST control module to the underdash wiring harness.

## Install Trim

76. Install the left hand cowl trim panel.

- 1 Install both cowl trim panels.
- 2 Install the scuff plate.

77. Install the upper and lower steering column shrouds.

Install the 3 screws.

---

**INSTALLATION (Continued)**

78. Install the lower steering column opening cover.

Install the 3 screws.

---



## GENERAL PROCEDURES

### Programming

#### Programming the Module

- NOTE:** If the vehicle 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 is 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.

##### Option Bank - 1 Chart (4 - Honks)

BANK	OPTIONS	DESCR	LED
1	1	LITE TOUCH ADJUST	NOTE 1
1	2	FULL SHOCK ADJUST	NOTE 1
1	4	DOOR AJAR INVERT	ON
1	5	UNLOCK SENSE INVERT	ON
1	6	KEY-IN SENSE INVERT	ON

##### Option Bank - 2 Chart (5 - Honks)

BANK	OPTIONS	DESCR	LED
2	1	STARTER INTERRUPT	OFF
2	8	DRIVER UNLOCK RELAY	NOTE 2

##### Option Bank - 3 Chart (6 - Honks)

BANK	OPTIONS	DESCR	LED
3	1	DRIVER PRIORITY UNLOCK	NOTE 2

##### Option Bank - 4 Chart (7 - Honks)

BANK	OPTIONS	DESCR	LED
4	1	TACHLESS MODE	ON

**NOTE:** 1. Perform proper adjustments following the “Shock Sensor Setting”, refer to General Procedures [click here](#).

**NOTE:** 2. See the Optional Connections/Features, refer to Vehicle Specific Wiring Diagram(s) [click here](#).

- Open the driver door.  
All other doors should remain closed.
- Turn the ignition key to the RUN position.
- 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.
- 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.
  - 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 remote start fob panic button 4 times.

The horn will honk 4 times indicating the system has entered the option 4 of the first program bank.

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

8. 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 lock button and verify the LED illuminates.

**NOTE:** When programming the remote start module, if the remote start fob unlock button is pressed, 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.

9. Press and release the remote start fob panic button.

The horn will honk 5 times indication the system has entered the option 5 of the first program bank.

10. The LED must be ON for option 5. If the LED is illuminated no action is required. If the LED is not illuminated press the remote start fob lock button and verify the LED illuminates.

11. Press and release the remote start fob panic button.

The horn will honk 6 times indication the system has entered the option 6 of the first program bank.

12. The LED must be ON for option 6. If the LED is illuminated no action is required. If the LED is not illuminated press the remote start fob lock button and verify the LED illuminates.

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

14. Press and release the remote start fob panic button.

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

15. The LED must be OFF for option 1. If the LED is not illuminated no action is required. If the LED is illuminated press the remote start fob lock button and verify the LED does not illuminate.

16. Press and release the override button 2 times. The horn will honk 7 times indicating the system has entered the fourth option bank.

17. Press and release the remote start fob panic button.

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

18. 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 lock button and verify the LED illuminates.

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

19. **NOTE:** Immediately after programming the remote start module, program the SECURILOCK.

**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.


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

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

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

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

**GENERAL PROCEDURES (Continued)**

22. 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.

---

23. 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)**

---

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

---

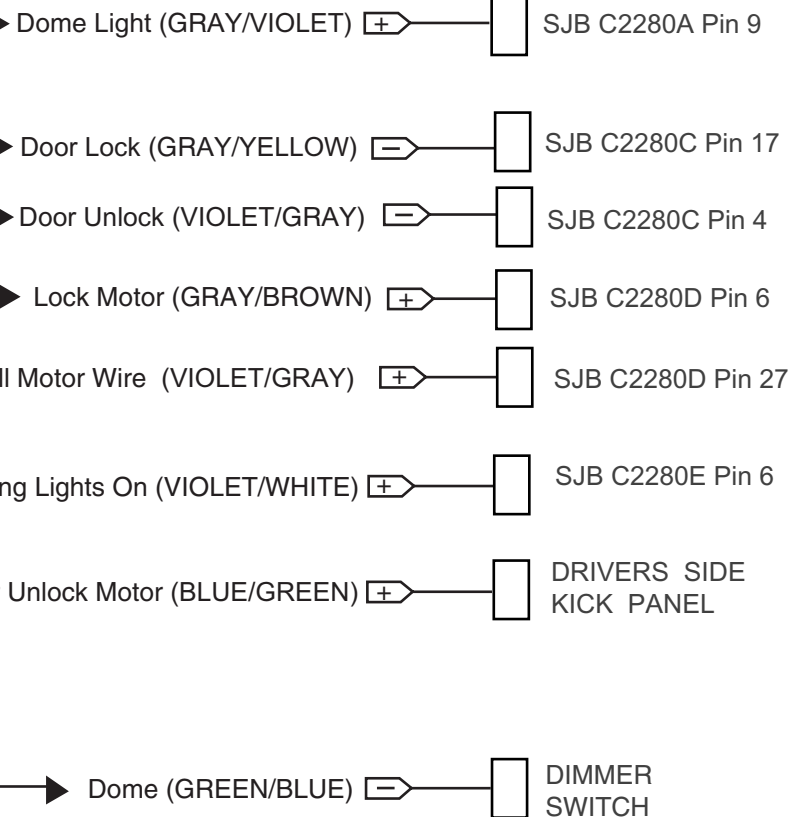
MAKE THIS CONNECTION FIRST!

CHASSIS GROUND POINT  
IN DRIVERS KICK PANEL

## RKE/VSS/RMST MODULE WIRE HARNESS

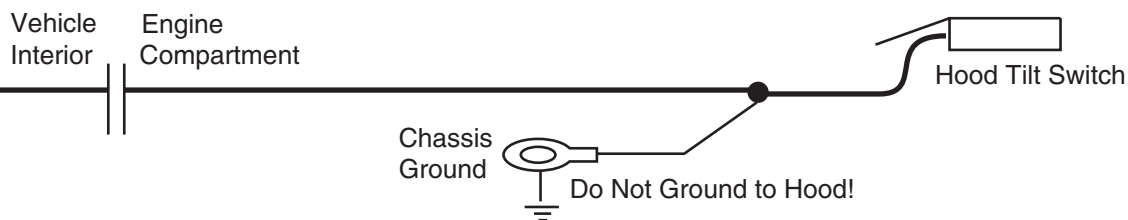
### DRIVERS SIDE KICK PANEL HARNESS

	Color	Function
A-5	BLACK	Ground
A-20	GREEN/VIOLET	Door Ajar Switch Input
A-2	BLUE	Door Lock Output
A-14	GREEN	Door Unlock Output
A-11	WHITE/BLUE	Arm Input
A-12	LT GREEN	Unlock Switch Sense
A-1	WHITE	Parking Light Output
A-9	BROWN	Disarm Input
A-3	BLACK/WHITE	Domelight Output



### UNDER HOOD HARNESS

	Color	Function
A-19	GRAY	Hood Open Switch Input



## RKE/VSS/RMST MODULE WIRE HARNESS

### STEERING COLUMN HARNESS

	Color	Function
A-4	RED	Battery
B-1	BLUE	HVAC2 Feed
B-2	RED	HVAC 1 Battery Feed
A-7	PINK	Ignition 1 Input/Output
B-4	ORANGE	HVAC 1 Output
A-8	VIOLET	Starter Output
B-8	BLACK/WHITE	Key-in-sense Input
A-21	BROWN/BLACK	Horn Relay Output
B-7	BROWN	Brake Input
C-10	RED/WHITE	Headlight Output

MAKE THIS CONNECTION LAST!

Two Separate Circuits

Starter (+)  
(BLUE/WHITE)

IGNITION SWITCH

Key-In Sense (BLUE/GRAY) (+)

Horn (BLUE/WHITE) (=) STEERING COLUMN HARNESS

Flash-to-Pass (GREEN/BROWN) (=) MULTI-FUNCTION SWITCH Pin 4

Brake (VIOLET/WHITE) (+) BRAKE SWITCH

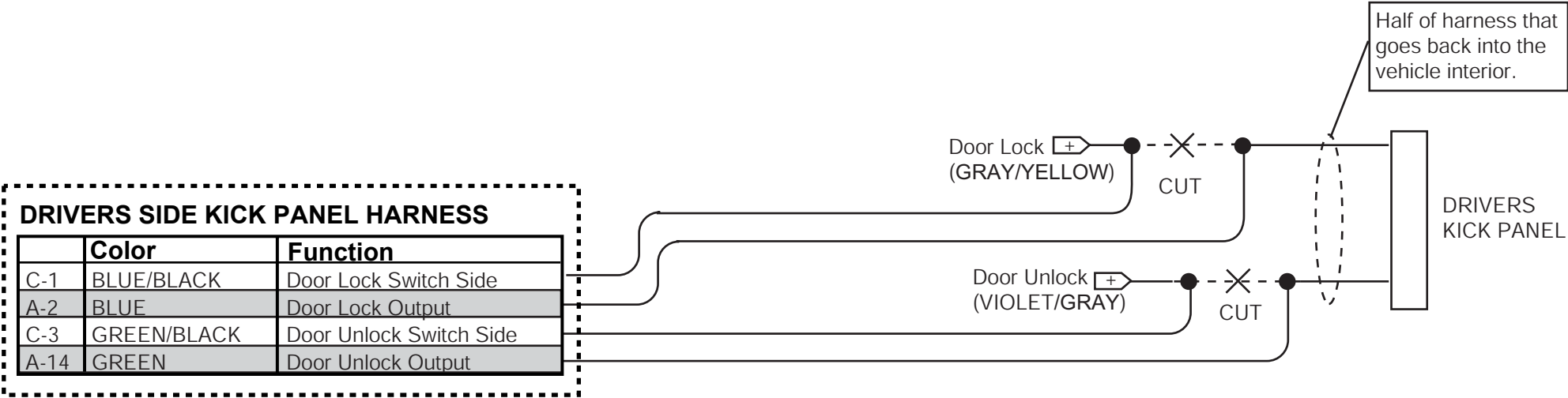
Battery (VIOLET/RED) (+)

Battery (YELLOW/RED) (+)

Ignition (WHITE/ORANGE) (+)

Heater (VIOLET/GREEN) (+)

\* MAKE THESE CONNECTIONS ON VEHICLES W/O FACTORY RKE.





## OPTIONAL CONNECTIONS / FEATURES

### RKE/VSS/RMST MODULE WIRE HARNESS

#### OPTION PROGRAMMING REQUIREMENTS

BANK	OPTION	DESCRIPTION	LED
2	8	DRIVER UNLOCK RELAY	ON
3	1	DRIVER PRIORITY UNLOCK	ON

#### DRIVER'S DOOR PRIORITY UNLOCK

	Color	Function
C-9	TAN/RED	Driver Door Unlock Switch
A-13	TAN	Driver Door Unlock Motor
A-9	BROWN	Disarm Input

w/Factory RKE only

To Driver Door Unlock Motor  
(BLUE/GREEN)

CUT

DRIVERS  
SCUFF  
PLATE  
HARNESS

Connect to the half of  
the wire going to the  
back of the vehicle

#### MEMORY SEAT FUNCTION

	Color	Funct
C-12	GREEN/WHITE	Memory Seat 1
C-13	YELLOW/GREEN	Memory Seat 2

Memeroy Seat 1 (VIOLET/WHITE)

Memeroy Seat 2 (YELLOW)

DRIVERS  
SEAT  
SWITCH

[Manual Table of Contents](#)

# RKE/VSS/REMOTE START SYSTEM INSTALLATION

## CONTENTS

### INSTALLATION

[RKE/VSS/Remote Start](#)

### GENERAL PROCEDURES

[Proper Splicing Techniques](#)

[Programming](#)

[Functional Test](#)

[Troubleshooting](#)

[Shock Sensor Setting](#)

### WIRING DIAGRAMS

[Vehicle Specific Wiring Diagrams](#)

## INSTALLATION

### Remote Start

#### 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.

#### Review RKE/VSS/RMST Installation Kit Contents

**NOTE:** Use kit number 7L3Z-19G364-AA REMOTE START SYSTEM

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

2. Review Remote Keyless Entry/Vehicle Security System/Remote Start (RKE/VSS/RMST) Installation Kit Contents

#### Remote Keyless Entry/ Vehicle Security System/Remote Start (RKE/VSS/RMST) System Kit

QUANTITY	DESCRIPTION
1	MODULE ASSEMBLY
1	RKE/VSS/RMST SOFTWARE CARTRIDGE ASSEMBLY
2	6 BUTTON POWERCODE TRANSMITTER
3	WIRING HARNESS ASSEMBLIES
1	DIPOLE ANTENNA
1	HOOD SAFETY SWITCH ASSEMBLY
1	INSTALLATION PARTS BAG
1	FUSE PARTS BAG

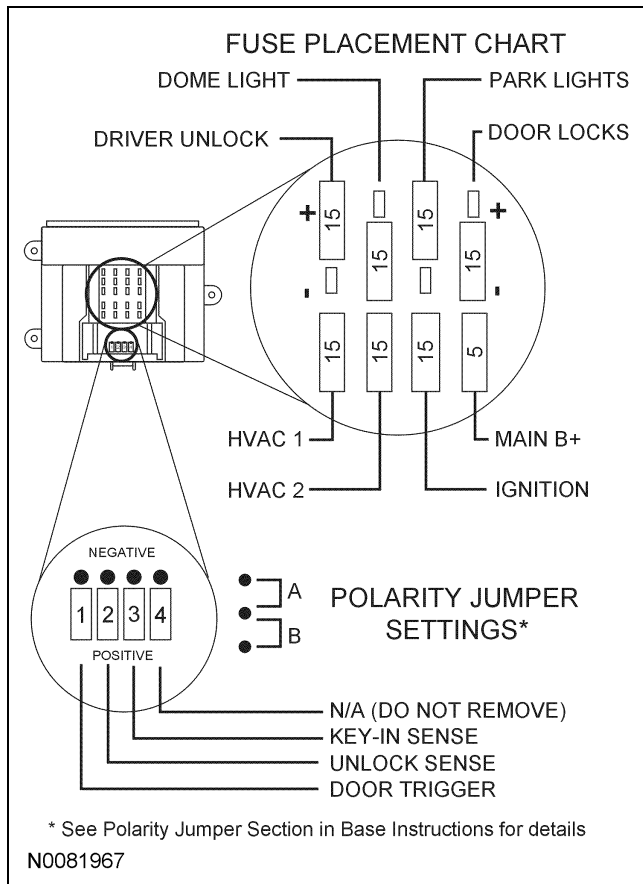
#### Remote Keyless Entry/ Vehicle Security System/Remote Start (RKE/VSS/RMST) System Kit (Continued)

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)

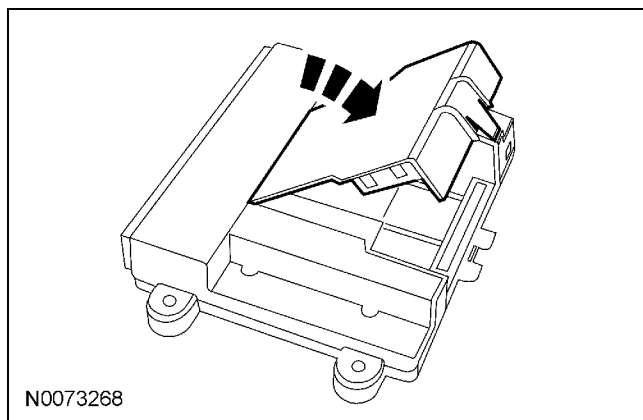
#### Module Preparation

3. Place the supplied fuses into the power distribution block on the RKE/VSS/RMST control module.
  - Move the polarity jumpers to their proper locations on the control module, see illustration.

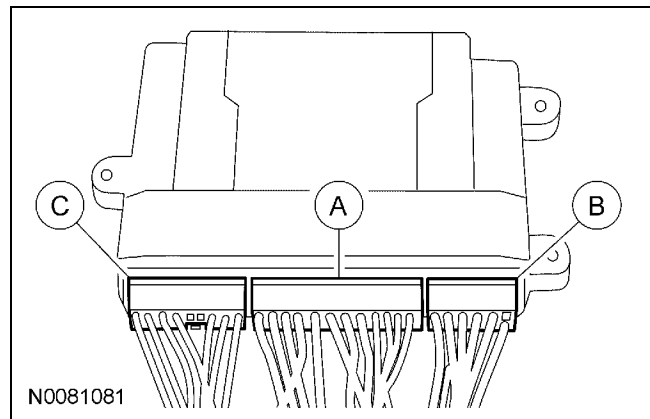
## INSTALLATION (Continued)



4. Place the software cartridge onto the control module.



5. 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.
  - C - Harness: 16-way, used on all systems with RKE/VSS/RMST.



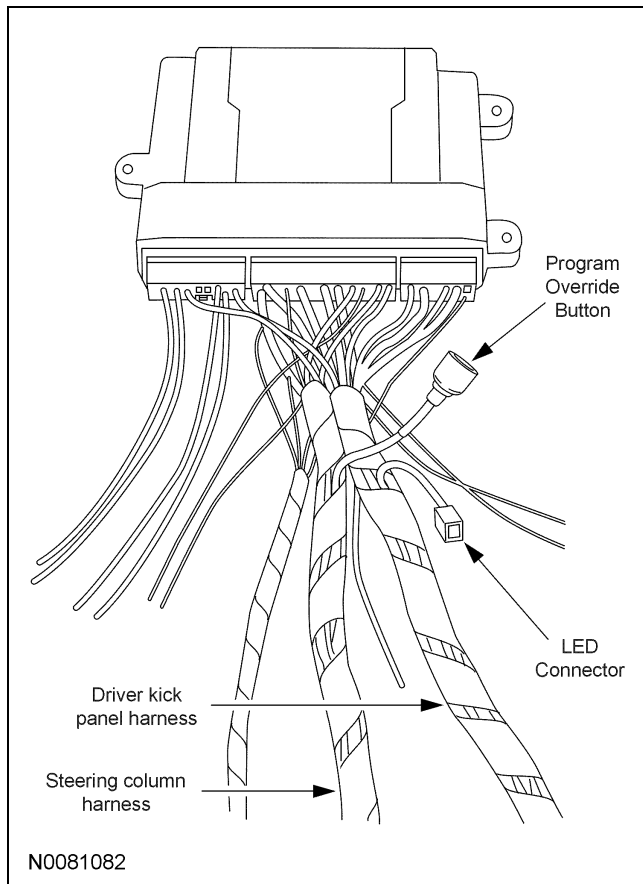
6. **NOTE:** Do not cut the override programming button off of the harness, it is used for all installations.

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

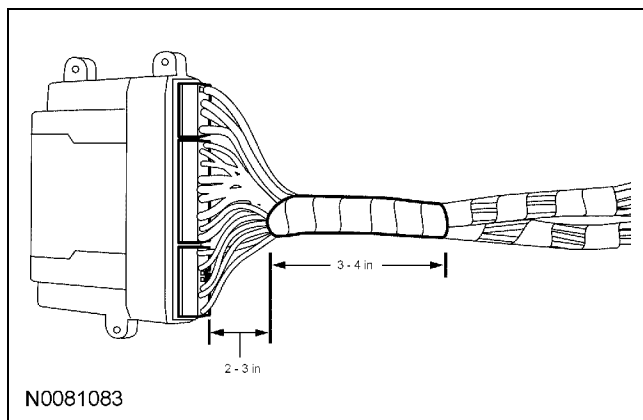
Splice the following wires to the A-4 Red wire in the A connector of the control module approximately 8 inches from the connector

- B-2 Red wire in the B connector.

7. 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 3 lower instrument panel steering column cover screws and the 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.

**Dipole Antenna Mounting**

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

**NOTE:** Keep these points in mind when selecting a location and mounting the dipole 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 Dipole Antenna**

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

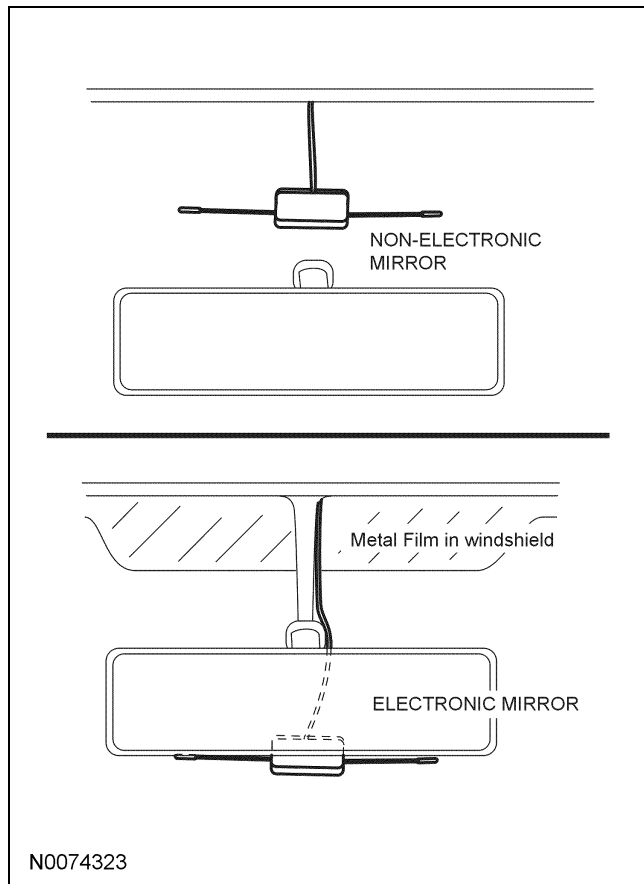
14. **NOTE:** Do not touch the adhesive, reduced adhesion may result.

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

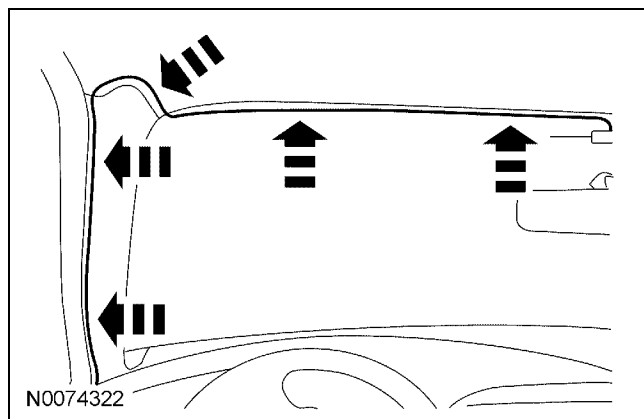
**NOTE:** The wire will be attached to the control module later in this procedure.

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

## INSTALLATION (Continued)

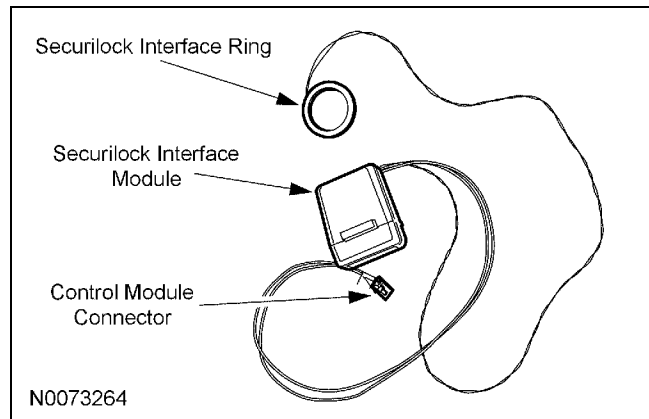


15. Route the dipole antenna cable along the headliner and down the A pillar toward the floor. The wire can be tucked behind the headliner without removing or loosening any of the trim panels.

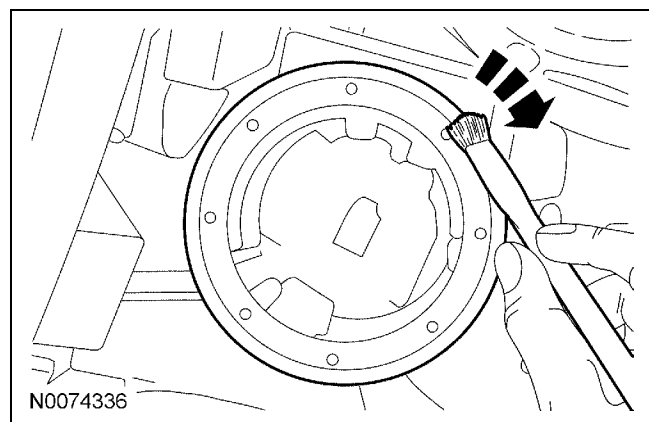


### Install The Securilock Interface Kit

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



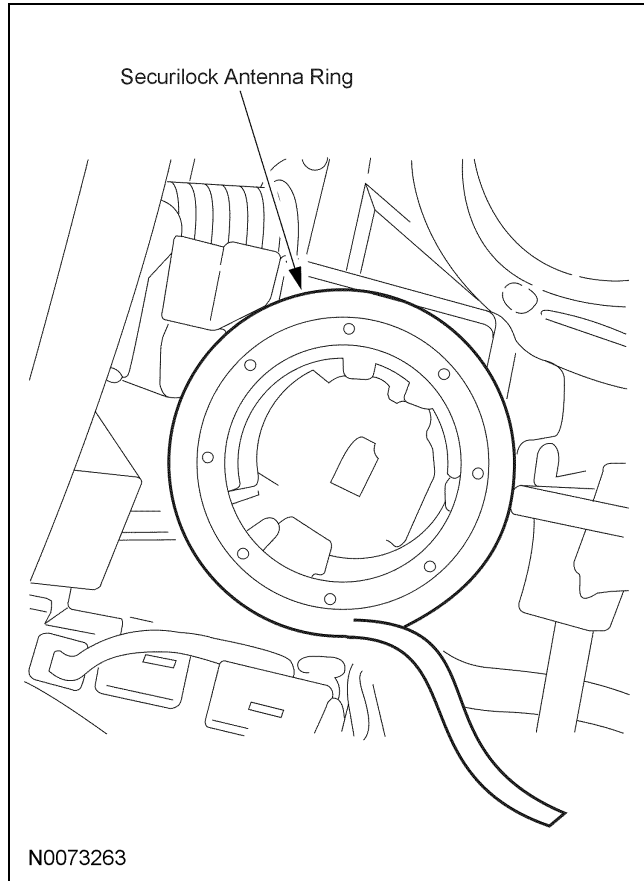
17. Following the directions on the supplied tube of adhesive primer, apply a thin coating around the transceiver antenna coil and allow to dry for approximately 5 minutes.



18. **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.

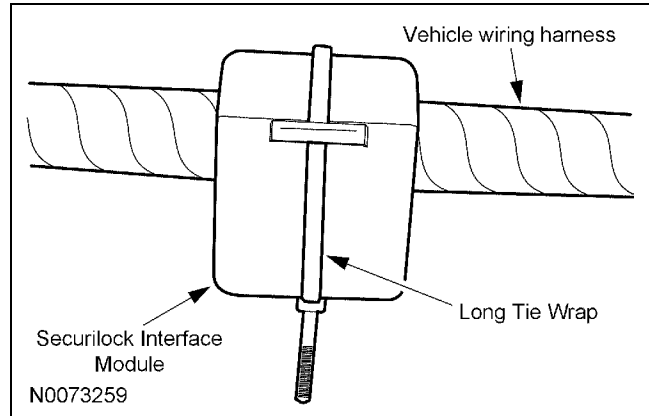
**INSTALLATION (Continued)****Install The Securilock Interface Module**

19. **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.

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

Route the harness and connector the to module mounting location.

**Install the RKE/VSS/RMST Control Module and Harness Assembly**

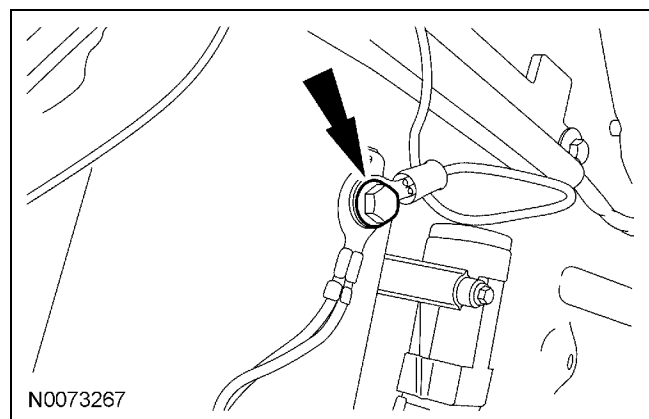
21. Place the RKE/VSS/RMST module and harness assembly in the vehicle.

**Identify Circuit Wires For Connections**

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

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

22. Connect the Black ground wire from the control module harness to the chassis ground point in the driver kick panel.



**INSTALLATION (Continued)**

23. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V when the ignition switch is in the RUN/START position.

A logic probe will show ground on the correct wire, then show power when the ignition switch is in the RUN/START position.

Identify the White/Orange ignition circuit wire at the ignition switch harness.

24. Connect the Pink wire from the control module harness to the White/Orange ignition circuit wire at the ignition switch harness.

25. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V when the ignition switch is in the RUN position.

A logic probe will show ground on the correct wire, then show power when the ignition switch is in the RUN position.

Identify the Violet/Green heater circuit wire at the ignition switch harness.

26. Connect the Orange wire from the control module harness to the Violet/Green heater circuit wire at the ignition switch harness.

27. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V when the key is in the ignition lock cylinder.

A logic probe will show ground on the correct wire, then show power when the key is in the ignition lock cylinder.

Identify the Blue/Grey key-in-sense circuit wire at the ignition switch harness.

28. Connect the Black/White wire from the control module harness to the Blue/Grey key-in-sense circuit wire at the ignition switch harness.

29. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V when the ignition is in the START position.

A logic probe will show ground on the correct wire, then show power when the ignition is in the START position.

Identify the Blue/White starter circuit wire at the ignition switch harness.

30. Connect the Violet wire from the control module harness to the Blue/White starter circuit wire at the ignition switch harness.

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 open on the correct wire, then show ground when the horn button is held.

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

32. Connect the Brown/Black wire from the control module harness to the Blue/White horn circuit wire at the steering column 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 Smart Junction Box SJB connector C2280B Pin 40.

34. Connect the Brown wire from the control 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 open 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.

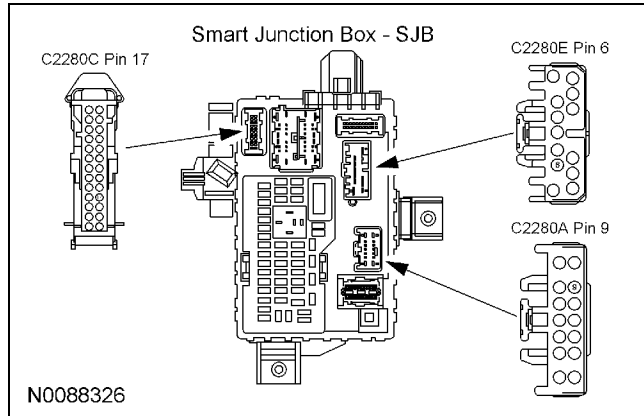
Be sure that the dome lamp is illuminated before performing the door open test.

Identify the Grey/Violet dome light circuit wire at the SJB connector C2280A Pin 9.



**INSTALLATION (Continued)**

36. Connect the Green/Violet wire from the control module harness to the Grey/Violet dome light circuit wire at the SJB connector C2280A Pin 9.
37. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V when the door lock switch is pressed.  
A logic probe will show ground on the correct wire, then show power when the door lock switch is pressed.  
Identify the Gray/Brown lock all motors circuit wire at the driver kick panel.
38. Connect the White/Blue wire from the control module harness to the Gray/Brown lock all motors circuit wire at the driver kick panel.
39. **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 SJB connector C2280C Pin 17.
40. Connect the Blue wire from the control module harness to the Blue/Green wire at the SJB connector C2280C Pin 17.
41. **NOTE:** A DVOM connected to the correct wire will show 12V, then show 0V when the door unlock switch is pressed.  
A logic probe will show open on the correct wire, then show ground when the door unlock switch is pressed.  
Identify the Yellow/Violet door unlock circuit wire at the driver kick panel harness.
42. Connect the Green wire from the control module harness to the Yellow/Violet door unlock circuit wire at the driver kick panel harness.
43. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V when the door unlock switch is pressed.  
A logic probe will show ground on the correct wire, then show power when the door unlock switch is pressed.  
Identify the Blue/Green driver door unlock motor circuit wire at the driver kick panel.
44. Connect the Brown wire from the control module harness to the Blue/Green driver door unlock motor circuit wire at the driver kick panel.
45. **NOTE:** A DVOM connected to the correct wire will show 12V, then show 0V when the factory disarm switch is activated.  
A logic probe will show open on the correct wire, then show ground when the factory disarm switch is activated.  
Identify the Green/Violet factory alarm disarm circuit wire at the driver kick panel.
46. Connect the Lt. Green/Black wire from the control module harness to the Green/Violet factory alarm disarm circuit wire at the driver kick panel.
47. **NOTE:** A DVOM connected to the correct wire will show 12V, when the Headlight Switch is in the park lamp position, then show 0V when the Headlight Switch is OFF.  
A logic probe will show power on the correct wire when the Headlight Switch is in the park lamp position, then show ground when the Headlight Switch is OFF.  
Identify the Violet/White parking light circuit wire at the SJB connector C2280E Pin 6.

**INSTALLATION (Continued)**

48. Connect the White wire from the control module harness to the Violet/White parking light circuit wire at the SJB connector C2280E Pin 6.
49. **NOTE:** A DVOM connected to the correct wire will show 12V, then show 0V when the dome light switch is ON.  
A logic probe will show power on the correct wire, then show ground when the dome light switch is ON.  
Identify the Green/Blue dome light circuit wire at the dome light switch.
50. Connect the Black/White wire from the control module harness to the Green/Blue dome light circuit wire at the dome light switch.
51. **NOTE:** A DVOM connected to the correct wire will show 12V, then show 0V when the deck lid release switch is pressed.  
A logic probe will show open on the correct wire, then show ground when the deck lid release switch is pressed.  
Identify the Gray/Yellow deck lid release circuit wire at the instrument panel deck lid release switch.
52. Connect the Blue/Green wire from the control module harness to the Gray/Yellow deck lid release circuit wire at the instrument panel deck lid release switch.

**Optional Connections/Features - Driver Door Priority Unlock**

53. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V while depressing the door unlock switch.

A logic probe will show ground on the correct wire, then show power while depressing the door unlock switch.

Identify the Blue/Green door unlock circuit wire at the driver kick panel.

54. Cut the Blue/Green door unlock circuit wire at the driver kick panel.
55. Connect the following wires to the side of the Blue/Green door unlock circuit wire going to the back towards the SJB.
  - Tan/Red wire from the control module harness.
  - Brown wire from the control module harness.
56. Connect the Tan wire from the control module harness to the remaining side of the cut Blue/Green door unlock circuit wire.

**Optional Connections/Features - Headlight Illumination**

57. **NOTE:** A DVOM connected to the correct wire will show 12V, then show 0V when the headlights ON.

A logic probe will show power on the correct wire, then show ground when the headlights ON.

Identify the Green/Brown Flash-To-Pass circuit wire at the multi-function switch.

58. Connect the Red/White wire from the control module harness to the Green/Brown Flash-To-Pass circuit wire at the multi-function switch.

## INSTALLATION (Continued)

### Install The Hood Safety Switch

59. **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.

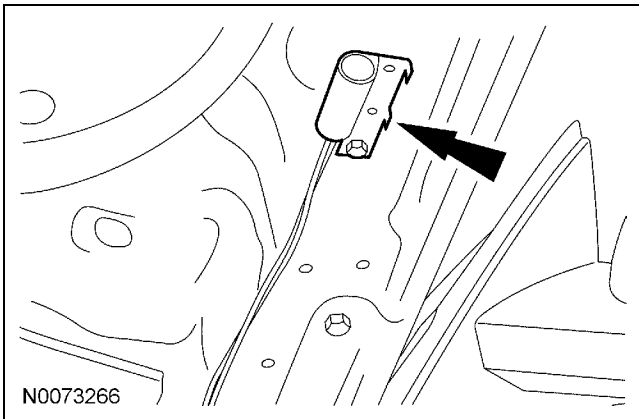
**NOTE:** The switch should be positioned about 30 degrees below parallel to the ground to accommodate for parking on inclines.

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

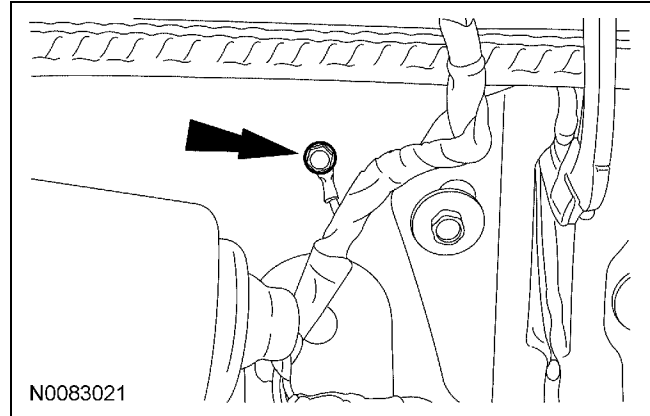
- False alarm trips
- Non-Remote Start events
- Inadvertent shutdown during Remote Start

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

60. Apply rustproofing compound (PM-12-A) to the drilled hole and torque the screw to 1.00 Nm (10 lb-in).

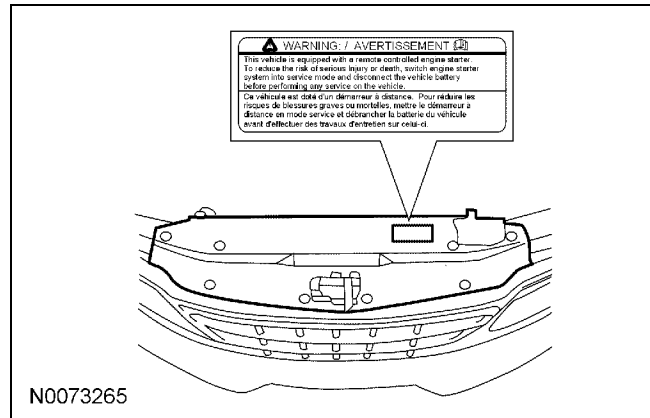


61. Connect hood switch ground wire to a suitable location on the bulkhead.



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

Install the underhood warning label



63. Route the Grey hood safety switch wire from the RKE/VSS/RMST control module through the bulkhead into the engine compartment and attach to the hood safety switch.
64. Connect the dipole antenna to the RKE/VSS/RMST control module.
65. Connect the SECURILOCK interface module to the RKE/VSS/RMST control module.

### Power Connection

66. **NOTE:** A DVOM connected to the correct wire will show 12V with the key in any position.

A logic probe will show power on the correct wire with the key in any position.

Identify the Blue/Red Battery circuit wire in the ignition switch harness.

---

**INSTALLATION (Continued)**

67. Connect the Red wire from the control module harness to the Blue/Red Battery circuit wire in the ignition switch harness.

**Program The RKE/VSS/RMST System**

68. [Refer to the control module programming section for this vehicle \(click here\).](#)

**Secure The Control Module Harness and Control Module**

69. Use the supplied tie wraps to secure the control module harness wires.

70. **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 control module to the underdash wiring harness.

---

**Install Trim**

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

72. Install the upper and lower steering column shrouds.

Install the 3 screws.

73. Install the lower steering column opening cover.

Install the 2 screws.

- Tighten to 2.5 Nm (22 lb-in).

## GENERAL PROCEDURES

### Programming

#### Programming the Module

- NOTE:** If the vehicle 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 is 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.

##### Option Bank - 1 Chart (4 - Honks)

BANK	OPTIONS	DESCR	LED
1	1	LITE TOUCH ADJUST	NOTE 1
1	2	FULL SHOCK ADJUST	NOTE 1
1	4	DOOR AJAR INVERT	ON
1	5	UNLOCK SENSE INVERT	ON
1	6	KEY-IN SENSE INVERT	ON

##### Option Bank - 2 Chart (5 - Honks)

BANK	OPTIONS	DESCR	LED
2	1	STARTER INTERRUPT	OFF
2	8	DRIVER UNLOCK RELAY	NOTE 2

##### Option Bank - 3 Chart (6 - Honks)

BANK	OPTIONS	DESCR	LED
3	1	DRIVER PRIORITY UNLOCK	NOTE 2

##### Option Bank - 4 Chart (7 - Honks)

BANK	OPTIONS	DESCR	LED
4	1	TACHLESS MODE	ON

**NOTE:** 1. Perform proper adjustments following the “Shock Sensor Setting”, refer to General Procedures [click here](#).

**NOTE:** 2. See the Optional Connections/Features, refer to Vehicle Specific Wiring Diagram(s) [click here](#).

- Open the driver door.  
All other doors should remain closed.
- Turn the ignition key to the RUN position.
- 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.
- 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.
  - 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 remote start fob panic button 4 times.

The horn will honk 4 times indicating the system has entered the option 4 of the first program bank.

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

8. 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 lock button and verify the LED illuminates.

**NOTE:** When programming the remote start module, if the remote start fob unlock button is pressed, 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.

9. Press and release the remote start fob panic button.

The horn will honk 5 times indication the system has entered the option 5 of the first program bank.

10. The LED must be ON for option 5. If the LED is illuminated no action is required. If the LED is not illuminated press the remote start fob lock button and verify the LED illuminates.

11. Press and release the remote start fob panic button.

The horn will honk 6 times indication the system has entered the option 6 of the first program bank.

12. The LED must be ON for option 6. If the LED is illuminated no action is required. If the LED is not illuminated press the remote start fob lock button and verify the LED illuminates.

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

14. Press and release the remote start fob panic button.

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

15. The LED must be OFF for option 1. If the LED is not illuminated no action is required. If the LED is illuminated press the remote start fob lock button and verify the LED does not illuminate.

16. Press and release the override button 2 times. The horn will honk 7 times indicating the system has entered the fourth option bank.

17. Press and release the remote start fob panic button.

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

18. 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 lock button and verify the LED illuminates.

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

19. **NOTE:** Immediately after programming the remote start module, program the SECURILOCK.

**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.


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

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

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

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

**GENERAL PROCEDURES (Continued)**

22. 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.

---

23. 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)**

---

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

---

## RKE/VSS/RMST MODULE WIRE HARNESS

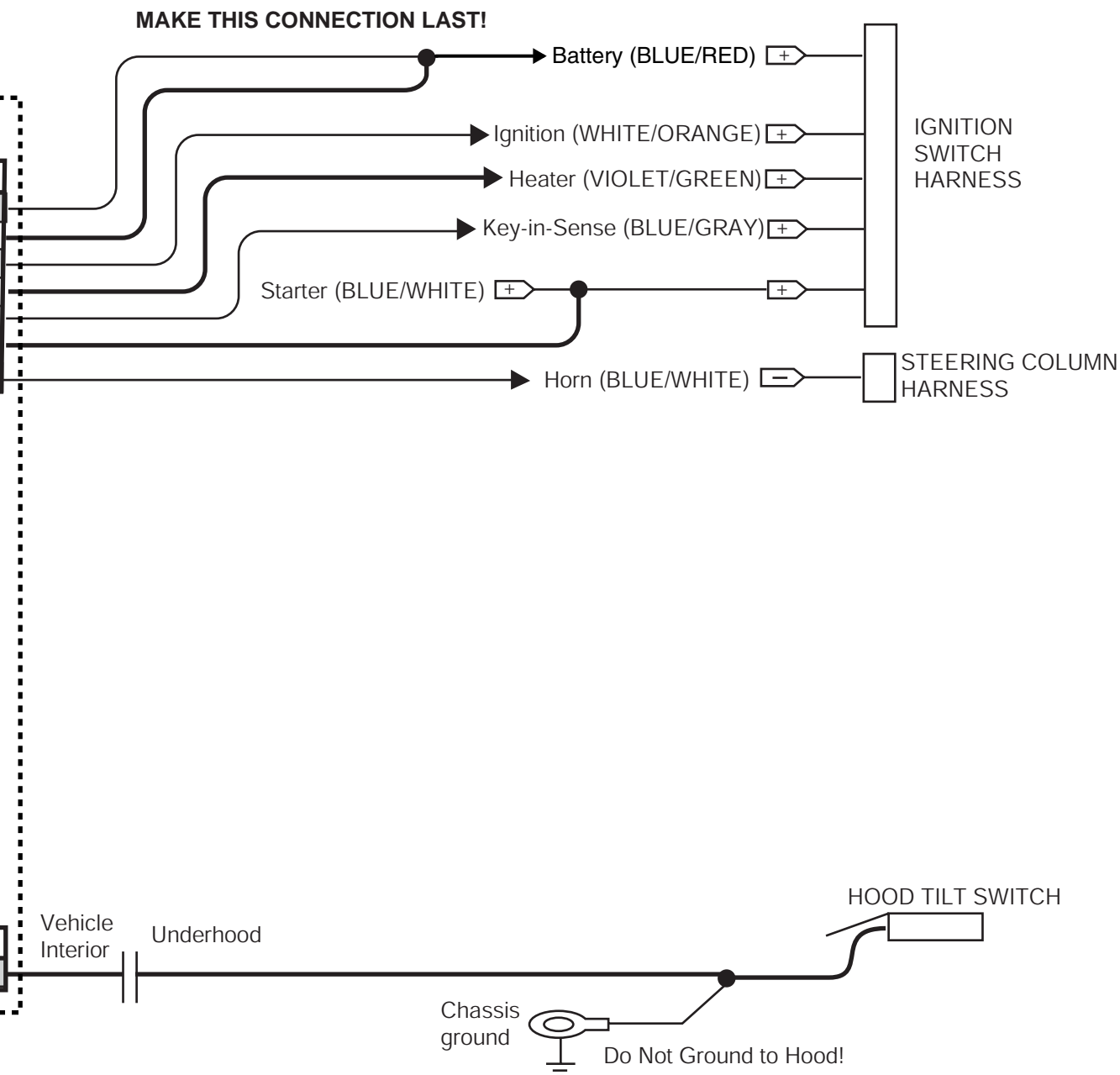
## STEERING COLUMN HARNESS

	Color	Function
A-4	RED	Battery
B-2	RED	HVAC1 Battery Feed
A-7	PINK	Ignition 1 Input/Output
B-4	ORANGE	HVAC1 Output
B-8	BLACK/WHITE	Key-in-sense Input
A-8	VIOLET	Starter Interrupt Motor Side
A-21	BROWN/BLACK	Horn Relay Output

## UNDERHOOD HARNESS

	Color	Function
A-19	GRAY	Hood Open Switch Input

## MAKE THIS CONNECTION LAST!



RKE/VSS/RMST MODULE WIRE HARNESS

DRIVER'S SIDE KICK PANEL HARNESS

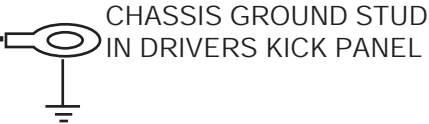
	Color	Function
A-5	BLACK	Ground

KICK PANEL HARNESS

	Color	Function
B-7	BROWN	Brake Input
A-20	GREEN/VIOLET	Door Ajar Switch Input
A-11	WHITE/BLUE	Arm Input
A-2	BLUE	Door Lock Output
A-14	GREEN	Door Unlock Output
A-9	BROWN	Disarm Input
C-4	LT. GREEN/BLACK	Factory Alarm Disarm
A-12	LT. GREEN	Unlock Switch Sense Input

MAKE THIS CONNECTION FIRST!

See "SJB Layout" page for connector locations.



Brake Switch (VIOLET/WHITE) + SJB C2280B PIN 40

Dome Light (GRAY/VIOLET) + SJB C2280A PIN 9

Lock All Motors (GRAY/BROWN) + DRIVER'S KICK PANEL

Door Lock (BLUE/GREEN) - SJB C2280C PIN 17

Door Unlock (YELLOW/VIOLET) - DRIVER'S KICK PANEL

Driver's Door Unlock Motor (BLUE/GREEN) + DRIVER'S KICK PANEL

Factory Alarm Disarm (GREEN/VIOLET) - DRIVER'S KICK PANEL

Unlock All Doors (VIOLET/GRAY) + DRIVER'S KICK PANEL

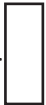
RKE/VSS/RMST MODULE WIRE HARNESS

HEADLAMP SWITCH HARNESS

	Color	Function
A-1	WHITE	Parking Light Output



Parking Lights On  
(VIOLET/WHITE)



SJB  
C2280E  
PIN 6

DOMELIGHT HARNESS

	Color	Function
A-3	BLACK/WHITE	Dome Light Output



Dome Light (GREEN/BLUE)



DOME LAMP  
SWITCH

TRUNK RELEASE HARNESS

	Color	Function
A-24	BLUE/GREEN	Trunk Release



Power Liftgate Switch  
(GRAY/YELLOW)



INSTRUMENT  
PANEL

OPTIONAL CONNECTIONS / FEATURES

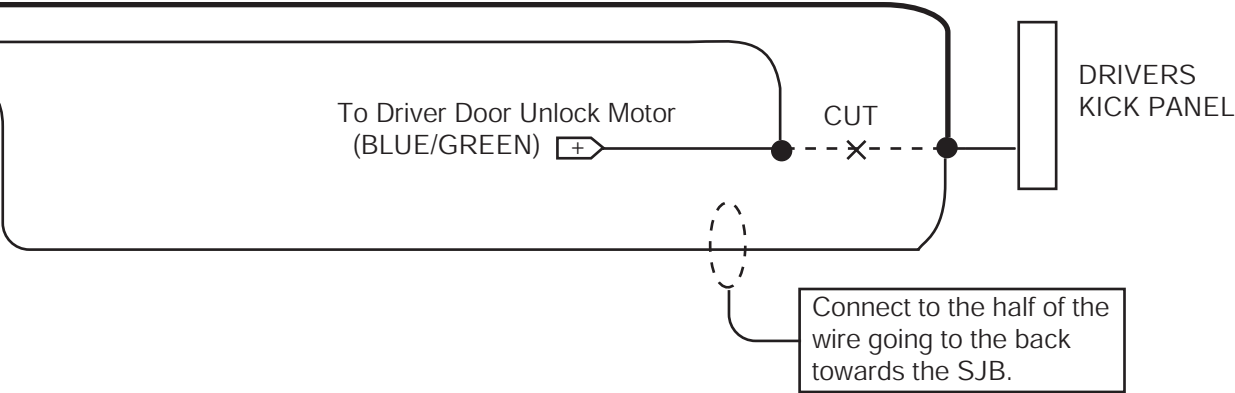
OPTION PROGRAMMING REQUIREMENTS

BANK	OPTION	DESCRIPTION	LED
2	8	DRIVER UNLOCK RELAY	ON
3	1	DRIVER PRIORITY UNLOCK	ON

RKE/VSS/RMST MODULE WIRE HARNESS

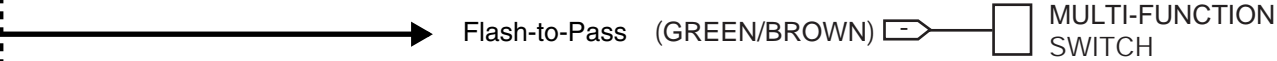
DRIVER'S DOOR PRIORITY UNLOCK

	Color	Function
C-9	TAN/RED	Driver Door Unlock Switch
A-13	TAN	Driver Door Unlock Motor
A-9	BROWN	Disarm Input



HEADLIGHTS/REAR DEFROSTER

	Color	Function
C-10	RED/WHITE	Headlight Output



[Manual Table of Contents](#)

# RKE/VSS/REMOTE START SYSTEM INSTALLATION

## CONTENTS

### INSTALLATION

[RKE/VSS/Remote Start](#)

### GENERAL PROCEDURES

[Proper Splicing Techniques](#)

[Programming](#)

[Functional Test](#)

[Shock Sensor Setting](#)

[Troubleshooting](#)

### WIRING DIAGRAMS

[Vehicle Specific Wiring Diagrams](#)

## INSTALLATION

### Remote Start

#### 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.

#### Review RKE/VSS/RMST Installation Kit Contents

**NOTE:** Use kit number 7L3Z-19G364-AA REMOTE START SYSTEM

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

2. Review the RKE/VSS/RMST kit contents.

#### Remote Keyless Entry/ Vehicle Security System/Remote Start (RKE/VSS/RMST) System Kit

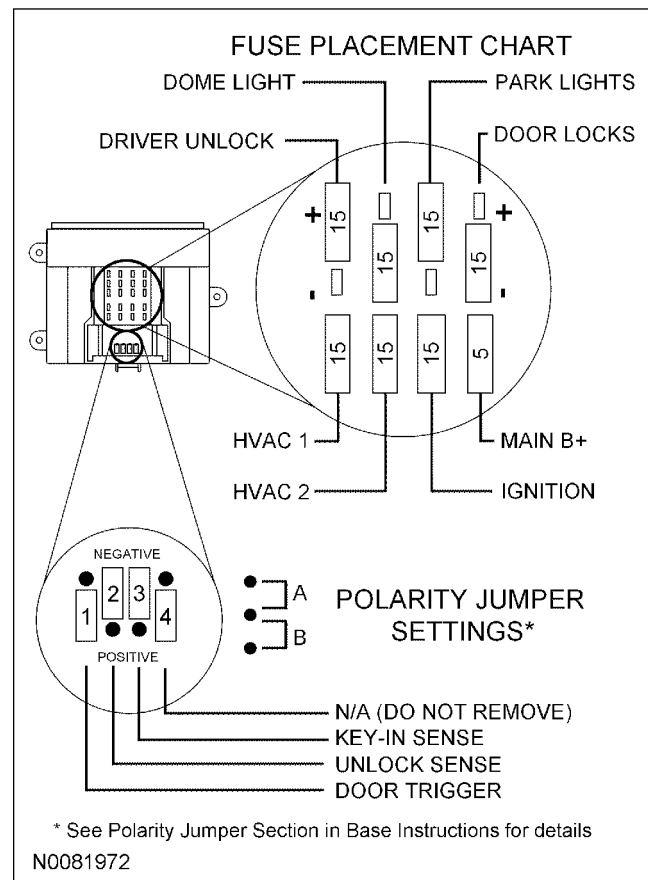
QUANTITY	DESCRIPTION
1	MODULE ASSEMBLY
1	RKE/VSS/RMST SOFTWARE CARTRIDGE ASSEMBLY
2	6 BUTTON POWERCODE TRANSMITTER
3	WIRING HARNESS ASSEMBLIES
1	DIPOLE ANTENNA
1	HOOD SAFETY SWITCH ASSEMBLY
1	INSTALLATION PARTS BAG
1	FUSE PARTS BAG
1	OPERATORS INSTRUCTIONS

#### Remote Keyless Entry/ Vehicle Security System/Remote Start (RKE/VSS/RMST) System Kit (Continued)

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

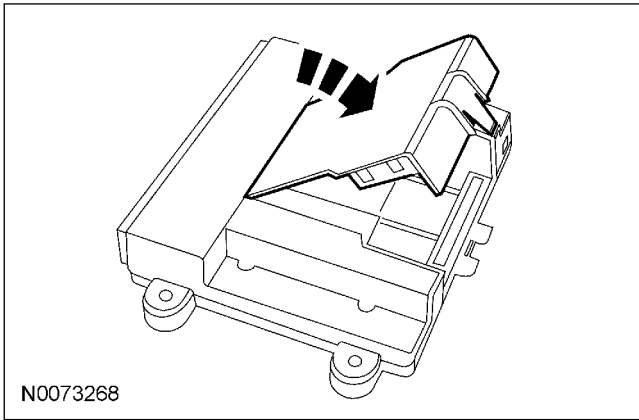
#### Module Preparation

3. Place the supplied fuses into the power distribution block on the RKE/VSS/RMST control module.
  - Move the polarity jumpers to their proper locations on the control module, see illustration.

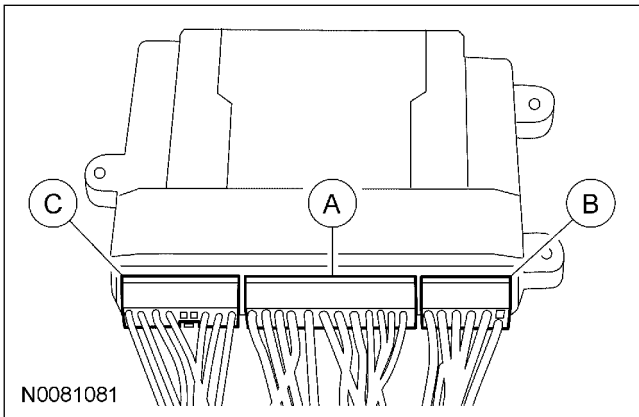


**INSTALLATION (Continued)**

4. Place the software cartridge onto the RKE/VSS/RMST control module.



5. 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 RKE/VSS/RMST.
  - C - Harness: 16-way, used on all systems with RKE/VSS/RMST.



6. **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](#).

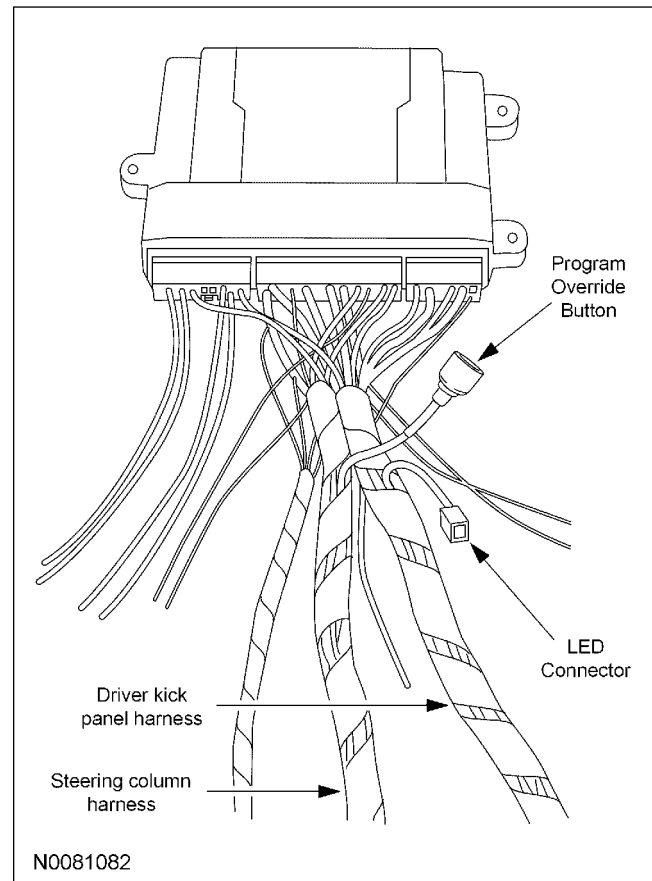
**NOTE:** Vehicle w/o factory RKE skip this step.

Splice the following wire to the A-14 Green wire in the A connector of the control module approximately 8 inches from the connector

- A-12 Light Green wire in the A connector.

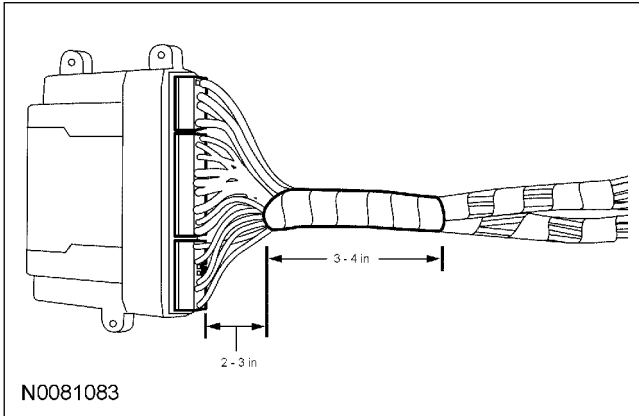
7. Referring to the vehicle specific wiring section for the system being installed, gather all individual wires that will be routed to the same areas of the vehicle into groups. Cover each wire group with electrical tape for approximately 18". Depending on the vehicle, there will be 2 to 5 different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

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

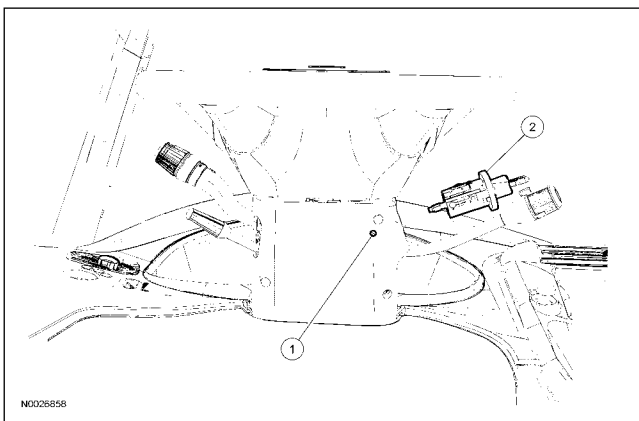


8. Tape the harness sections together, making sure to cover all of the unused wires.



**INSTALLATION (Continued)****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.
11. Remove the 5 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.
15. Remove the left hand scuff plate and cowl trim panel.



14. Remove the steering column shroud.
  - Remove the tilt shank.
  - Remove the shroud.

**Dipole Antenna Mounting**

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

**NOTE:** Keep these points in mind when selecting a location and mounting the dipole 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 Dipole Antenna**

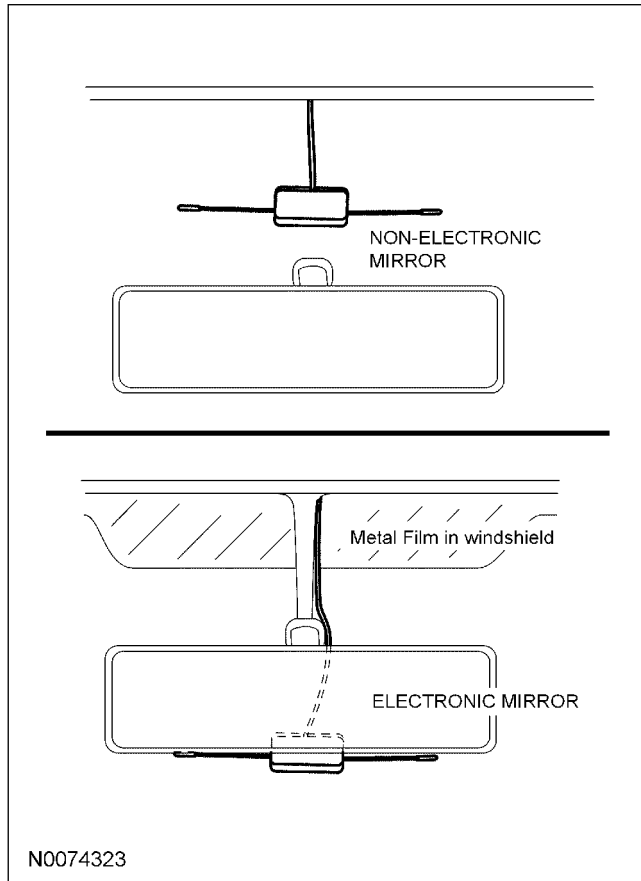
17. Clean the mounting surface using an alcohol base solution and a clean cloth.

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

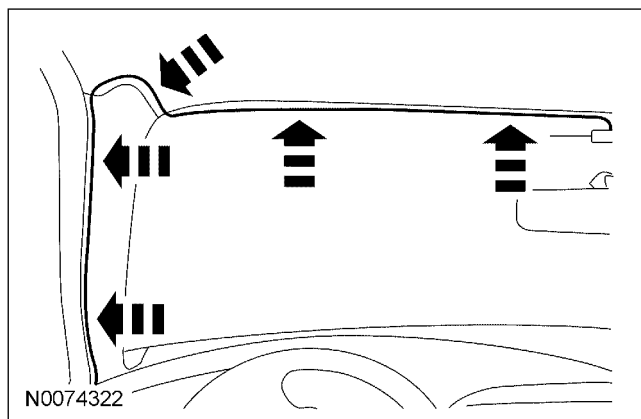
**NOTE:** Make sure that the long wire on the antenna is pointing toward the top of the windshield since this wire will be routed along the headliner.

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

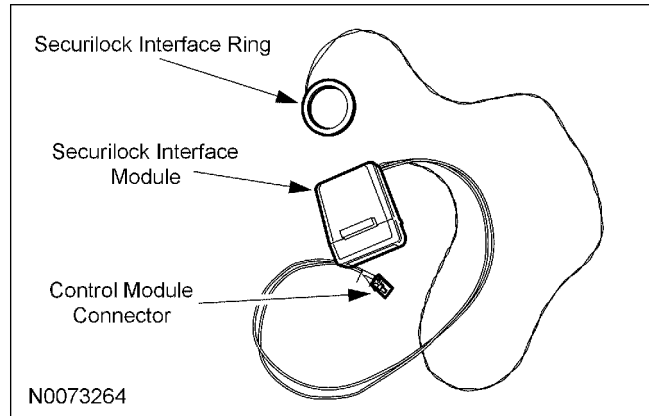
Remove the protective backing from the adhesive on the antenna and firmly press the body of the antenna to the windshield.

**INSTALLATION (Continued)**

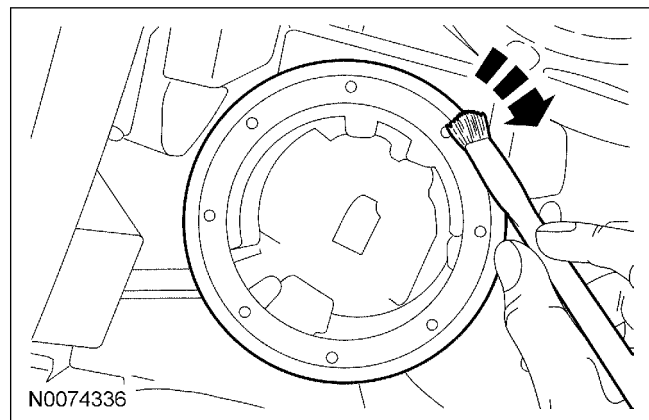
19. Route the dipole antenna cable along the headliner and down the A pillar toward the floor. The wire can be tucked behind the headliner without removing or loosening any of the trim panels.

**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.



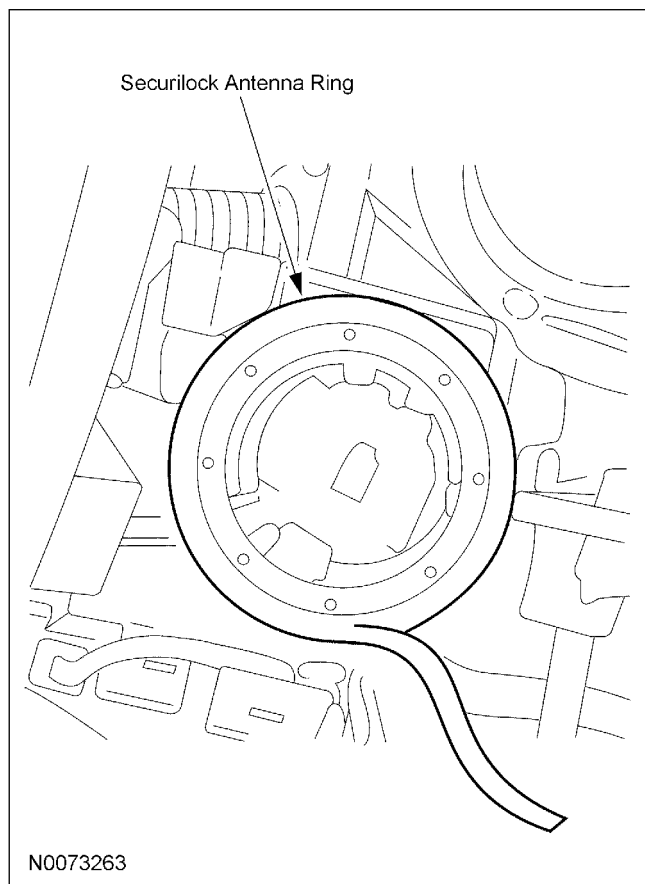
21. Following the directions on the supplied tube of adhesive primer, apply a thin coating around the transceiver antenna coil and allow to dry for approximately 5 minutes.



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.

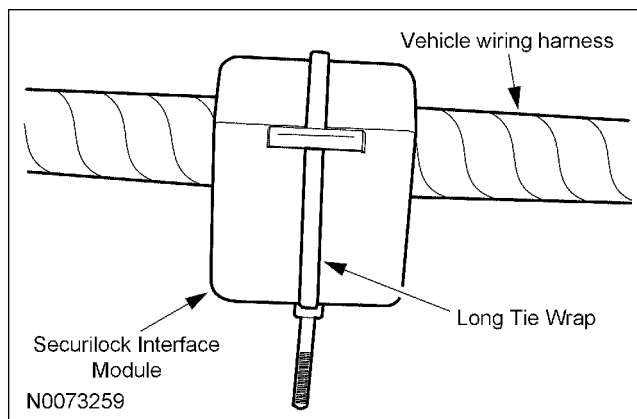
**INSTALLATION (Continued)****Install The Securilock Interface Module**

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 the to module mounting location.

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

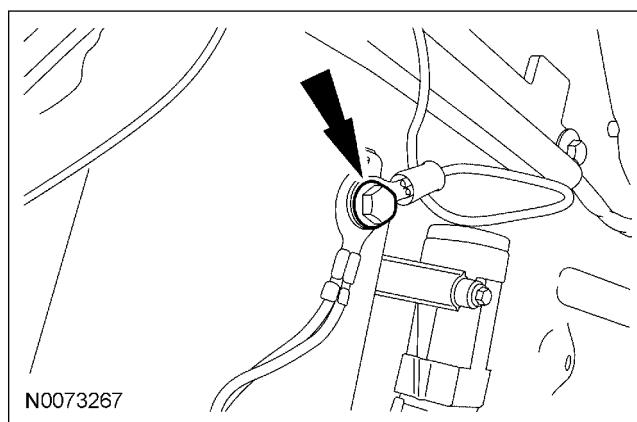
25. Install the ignition lock cylinder.
26. Place the remote start module and harness assembly in the vehicle.

**Identify Circuit Wires For Connections**

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

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

27. Connect the black ground wire from the remote start module harness to the chassis ground point in the driver kick panel.



**INSTALLATION (Continued)**

28. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V when the Ignition Switch is in the RUN/START position.

A logic probe will show ground on the correct wire, then show power when the ignition switch is in the RUN/START position.

Identify the White/Orange ignition circuit wire at the Ignition Switch.

29. Connect the Pink wire from the control module harness to the White/Orange ignition circuit wire at the Ignition Switch.

30. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V when the Ignition Switch is in the RUN position.

A logic probe will show ground on the correct wire, then show power when the Ignition Switch is in the RUN position.

Identify the Brown/Yellow heater circuit wire at the Ignition Switch.

31. Connect the Orange wire from the control module harness to the Brown/Yellow heater circuit wire at the Ignition Switch.

32. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V when the Ignition Switch is in the RUN/ACC position.

A logic probe will show ground on the correct wire, then show power when the Ignition Switch is in the RUN/ACC position.

Identify the Violet/Green heater circuit wire at the Ignition Switch.

33. Connect the Orange/White wire from the control module harness to the Violet/Green heater circuit wire at the Ignition Switch.

**Vehicles W/O Pats**

34. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V when the Ignition Switch is in the START position.

A logic probe will show ground on the correct wire, then show power when the Ignition Switch is in the START position.

Identify the Blue/White starter circuit wire at the Ignition Switch.

35. Cut the Blue/White starter circuit wire at the Ignition Switch.

36. Connect the Violet wire from the control module harness to the harness Blue/White starter circuit wire coming from the ignition switch harness.

37. Connect the Violet/Red wire from the control module harness to the Blue/White starter circuit wire coming from the ignition switch connector.

**All Vehicles**

38. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V when the Ignition Switch is in the START position.

A logic probe will show ground on the correct wire, then show power when the Ignition Switch is in the START position.

Identify the Blue/White starter circuit wire at the Ignition Switch.

39. Connect the Violet wire from the control module harness to the harness Blue/White starter circuit wire at the ignition switch.

40. **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 open on the correct wire, then show ground when the horn button is held.

Identify the Yellow/Red horn circuit wire located in the 10-way connector to right of the steering column.

41. Connect the Brown/Black wire from the control module harness to the Yellow/Red horn circuit wire located in the 10-way connector to right of the steering column.

42. **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.

Identify the Blue/Grey key in sense circuit wire located in the 10-way connector to right of the steering column.

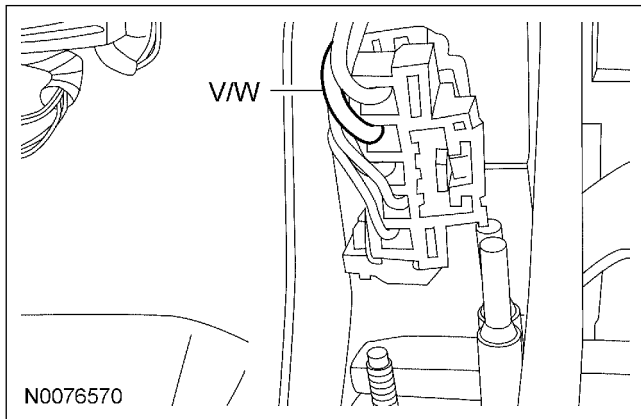
**INSTALLATION (Continued)**

43. Connect the Black/White wire from the control module harness to the Blue/Gray key in sense circuit wire located in the 10-way connector to right of the steering column.

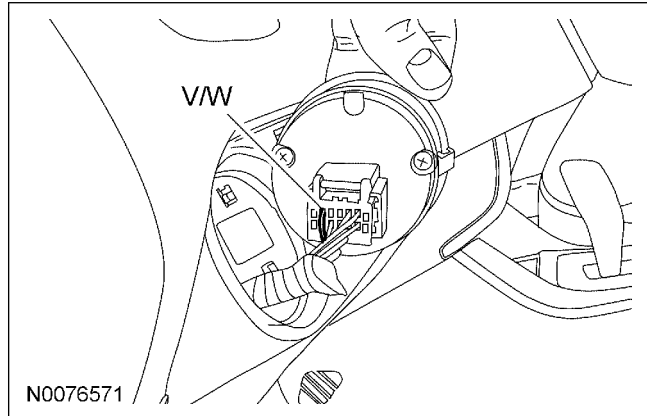
44. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V while depressing the brake pedal.

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.



45. Connect the Brown wire from the control module harness to the Violet/White brake switch circuit wire at the brake switch.
46. **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.
47. Identify the Violet/White parking light circuit wire at the headlight switch.



48. Connect the White wire from the control module harness to the Violet/White parking light circuit wire at the headlight switch.
49. **NOTE:** A DVOM connected to the correct wire will show 12V with the switch in the OFF position, then show 0V with the dimmer switch in the dome lamp ON position.
- A logic probe connected to the correct wire will show open with the switch in the OFF position, then ground with the dimmer switch in the dome lamp ON position.
- Identify the White/Brown dome light output circuit wire at the dimmer switch. location.
50. Connect the Black/White wire from the control module harness to the White/Brown dome light output circuit wire at the dimmer switch.
51. **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.

**INSTALLATION (Continued)**

52. 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.
53. **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 door jamb boot.
54. Connect the Blue wire from the remote start module harness to the Gray/Yellow power door lock circuit at the driver door jamb boot harness.
55. **NOTE:** A DVOM connected to the correct wire will show 12V, then show 0V when the door unlock switch is pressed.  
A logic probe will show open on the correct wire, then show ground when the door unlock switch is pressed.  
Identify the Violet/Grey power door unlock circuit wire at the driver door jamb boot harness.
56. Connect the Green wire from the control module harness to the Violet/Grey power door unlock motor circuit wire at the driver door jamb boot harness.
57. Connect the Light Green wire from the control module harness to the Violet/Grey power door unlock motor circuit wire at the driver door jamb boot harness.
59. Connect the White/Blue wire from the control module harness to the Grey/Brown power door lock motor circuit wire at the driver door jamb boot harness.
60. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V when the door unlock switch is pressed.  
A logic probe will show ground on the correct wire, then show power when the door unlock switch is pressed.  
Identify the Blue/Green power door unlock motor circuit wire at the driver door jamb boot harness.
61. Connect the Brown wire from the control module harness to the Blue/Green power door unlock motor circuit wire at the driver door jamb boot harness.
- All Vehicles**
62. **NOTE:** A DVOM connected to the correct wire will show 12V, then show 0V when the driver door is OPEN.  
A logic probe will show open on the correct wire, then show ground when the driver door is OPEN.  
Identify the Green/Violet door ajar circuit wire at the driver door jamb boot harness.
63. Connect the Light Green/Black wire from the control module harness to the Green/Violet door ajar circuit wire at the driver door jamb boot harness.
- Install The Power Window, Slider and Moonroof Interrupt Relays**

**Vehicles With Factory RKE**

58. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V when the door lock switch is pressed.  
A logic probe will show ground on the correct wire, then show power when the door lock switch is pressed.  
Identify the Grey/Brown power door lock motor circuit wire at the driver door jamb boot harness.

64. 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.

65. 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.
66. Connect the circuit 85 White wires from the power window, interrupt relays to the Blue/Black circuit wire from the remote start module harness.
67. **NOTE:** A DVOM connected to the correct wire will show 0V, then show 12V when the Ignition Switch is in the RUN/START position. A logic probe will show ground on the correct wire, then show power when the Ignition Switch is in the RUN/START position. Identify the White/Orange ignition circuit wire at the Ignition Switch.
68. Connect the circuit 86 Black wires from the power window, interrupt relays to the White/Orange battery wire at the ignition switch harness.
69. **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.
70. Cut the Gray/Yellow driver power window 12V supply circuit wire at the driver kick panel.
  - Connect the circuit 30 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 circuit 87a 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.

71. **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.

72. Cut the Violet/White passenger power window 12V supply circuit wire at the passenger kick panel.
  - Connect the circuit 30 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 circuit 87a 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**

73. **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.

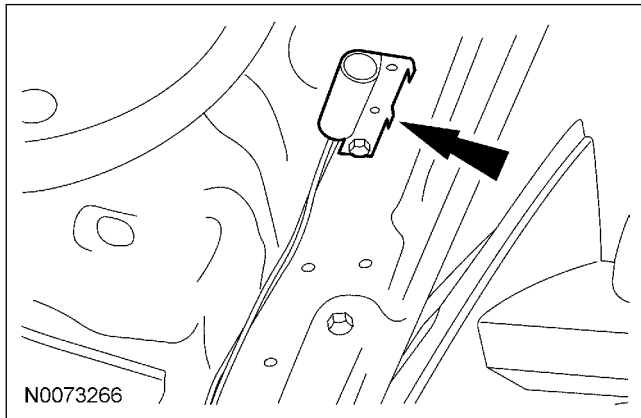
Failure to position the switch properly could result in one of the following:

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

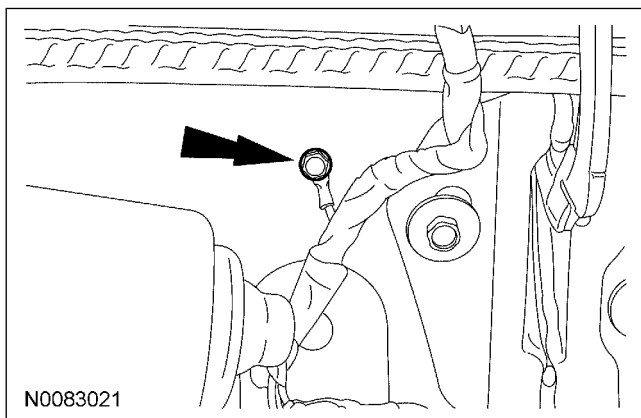
Locate an easy to access area near the drivers side hood hinge and install the hood safety switch using the supplied metal screws.

**INSTALLATION (Continued)**

74. Apply rustproofing compound (PM-12-A) to the drilled hole and torque the screw to 1.00 Nm (10 lb-in).

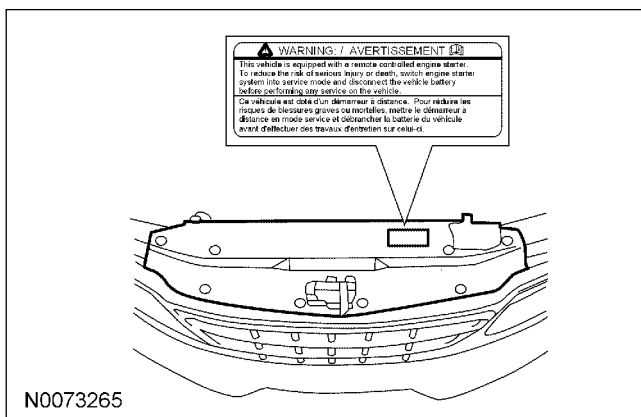


75. Connect hood switch ground wire to a suitable location on the bulkhead.



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

Install the underhood warning label



77. Route the Grey hood safety switch wire from the RKE/VSS/RMST control module through the bulkhead into the engine compartment and attach to the hood safety switch.

78. Connect the dipole antenna to the RKE/VSS/RMST control module.

79. Connect the SECURILOCK interface module to the RKE/VSS/RMST control module.

**Optional Connections/Features - Driver Door Priority Unlock**

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

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

A logic probe will show ground on the correct wire, then show power when the driver door unlock switch is pressed.

Identify the Blue/Green driver power door unlock motor circuit wire at the driver door jamb boot harness.

81. Cut the Blue/Green driver power door unlock motor circuit wire at the driver door jamb boot harness.
82. Splice the Tan wire from the control module harness to the cut Blue/Green driver door unlock motor circuit wire going toward the front of the vehicle.
83. Connect the Tan/Red wire from the control module harness to the cut Blue/Green driver door unlock motor circuit wire going toward the back of the vehicle.
84. **NOTE:** With factory RKE only
- Connect the Brown wire from the control module harness to the cut Blue/Green driver door unlock motor circuit wire going toward the back of the vehicle.



## INSTALLATION (Continued)

### Power Connection

85. **NOTE:** A DVOM connected to the correct wire will show 12V with the key in any position.  
A logic probe will show power on the correct wire with the key in any position.  
Identify three Red Battery circuit wires at the ignition switch.
86. Connect one of the three Red wires from the control module harness to one of the three Red Battery circuit wires at the ignition switch.
87. Connect one of the remaining Red wires from the control module harness to one of the remaining Red Battery circuit wires at the ignition switch.
88. Connect the remaining Red wire from the control module harness to the remaining Red Battery circuit wire at the ignition switch harness.

### Program The RKE/VSS/RMST System

89. [Refer to the RKE/VSS/RMST programming section for this vehicle \(click here\).](#)

### Secure RKE/VSS/RMST Harness and Control Module

90. Use the supplied tie wraps to secure the RKE/VSS/RMST harness wires.

91. **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 RKE/VSS/RMST control module to the underdash wiring harness.

### Install Trim

92. Install the steering column shroud.
93. Install the reinforcement panel and install the 3 instrument panel steering column opening cover reinforcement bolts.
- Tighten to 7 Nm (62 lb-in).
94. Install the lower instrument panel steering column cover and the screws.
95. Position back the hood latch release handle and install the 2 bolts.
- Tighten to 7 Nm (62 lb-in).
96. Install the left hand scuff plate and cowl trim panel.

## GENERAL PROCEDURES

### Programming

#### Programming the Module

- NOTE:** If the control 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 is 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 7 of bank 1 is programmed.

- See chart below for programming information.

#### Option Bank 1 Chart (4 Honks)

BANK	OPTIONS	DESCR	LED
1	1	LITE TOUCH ADJUST	NOTE 1
1	2	FULL SHOCK ADJUST	NOTE 1
1	4	DOOR AJAR INVERT	ON
1	5	UNLOCK SENSE INVERT	ON
1	6	KEY-IN SENSE INVERT	ON
1	7	EXTENDED HORN HONK	ON

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

BANK	OPTIONS	DESCR	LED
2	1	STARTER INTERRUPT	OFF
2	8	DRIVER UNLOCK RELAY	NOTE 2

#### Option Bank 3 Chart (6 Honks)

BANK	OPTIONS	DESCR	LED
3	1	DRIVER PRIORITY UNLOCK	NOTE 2

#### Option Bank 4 Chart (7 Honks)

BANK	OPTIONS	DESCR	LED
4	1	TACHLESS MODE	ON

**NOTE:** 1. Perform proper adjustments following the “Shock Sensor Setting”, refer to General Procedures [click here](#).

**NOTE:** 2. See the Optional Connections/Features, refer to Vehicle Specific Wiring Diagrams [click here](#).

- Open the driver door.  
All other doors should remain closed.
- Turn the ignition key to the RUN position.
- 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.

**GENERAL PROCEDURES (Continued)**

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.
- 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 remote start fob panic button 4 times.

The horn will honk 4 times indicating the system has entered the option 4 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.

8. 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 lock button and verify the LED illuminates.

**NOTE:** When programming the remote start module, if the remote start fob unlock button is pressed, 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.

9. Press and release the remote start fob panic button.

The horn will honk 5 times indication the system has entered the option 5 of the first program bank.

10. The LED must be on for option 5. If the LED is illuminated no action is required. If the LED is not illuminated press the remote start fob lock button and verify the LED illuminates.

11. Press and release the remote start fob panic button. The horn will honk 6 times indicating the system has entered option 6 of the first program bank.

12. The LED must be ON for option 6. If the LED is illuminated no action is required. If the LED is not illuminated press the remote start fob lock button to verify that the LED illuminates.

13. Press and release the remote start fob panic button.

The horn will honk 7 times indication the system has entered the option 7 of the first program bank.

14. The LED must be on for option 7. If the LED is illuminated no action is required. If the LED is not illuminated press the remote start fob lock button and verify the LED illuminates.

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

16. Press and release the remote start fob panic button.

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

17. The LED must be OFF for option 1. If the LED is not illuminated no action is required. If the LED is illuminated press the remote start fob lock button and verify the LED does not illuminate.

18. Press and release the override button 2 times. The horn will honk 7 times indicating the system has entered the fourth option bank.

19. Press and release the remote start fob panic button.

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

20. 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 lock button and verify the LED illuminates.

---

**GENERAL PROCEDURES (Continued)**

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

21. **NOTE:** Immediately after programming the remote start module, program the SECURILOCK.

**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.

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

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

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

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

24. 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.

25. 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)**

---

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

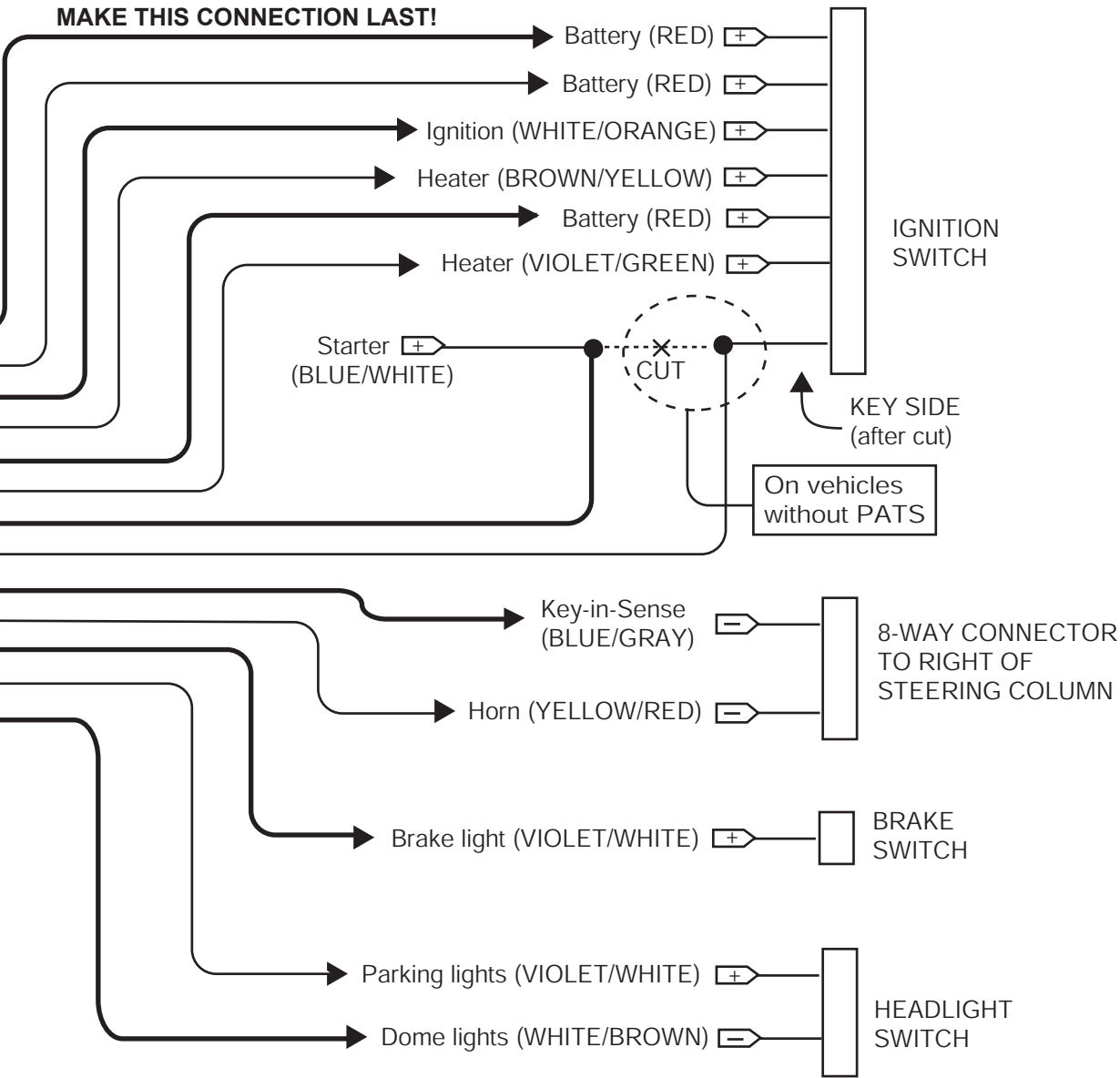
---

'09 Ranger

RKE/VSS/RMST MODULE WIRE HARNESS

STEERING COLUMN HARNESS

	Color	Function
A-4	RED	Battery
B-2	RED	HVAC 1 Feed
A-7	PINK	Ignition 1 Input/Ouput
B-4	ORANGE	HVAC 1 Output
B-1	BLUE	HVAC 2 Feed
B-5	ORANGE/WHITE	HVAC 2 Output
A-8	VIOLET	Starter Interrupt (Motor side)
A-6	VIOLET/RED	Starter Interrupt (Key side)
B-8	BLACK/WHITE	Key-in-sense Input
A-21	BROWN/BLACK	Horn Relay Output
B-7	BROWN	Brake Input
A-1	WHITE	Parking Light Output
A-3	BLACK/WHITE	Dome Light Output



'09 Ranger

MAKE THIS CONNECTION FIRST!

CHASSIS GROUND POINT  
IN DRIVERS KICK PANEL

RKE/VSS/RMST MODULE WIRE HARNESS

DRIVERS SIDE KICK PANEL HARNESS

	Color	Function
A-5	BLACK	Ground
A-20	GREEN/VIOLET	Door Ajar Switch Input
A-2	BLUE	Door Lock Output
A-14	GREEN	Door Unlock Output
A-12	LT.GREEN	Unlock Switch Sense Input
A-11	WHITE/BLUE	Arm Input
A-9	BROWN	Disarm Input
C-4	LT GREEN/BLACK	Factory Alarm Disarm Output

Dome Light (GREEN/BLUE)

Door Lock (GRAY/YELLOW)

Door Unlock (VIOLET/GRAY)

Lock Motor (GREY/BROWN)

Driver Door Unlock Motor  
(BLUE/GREEN)

Connect only on vehicles  
with factory RKE

Driver Door Ajar Switch  
(GREEN/VIOLET)

HARNESS TO THE  
RIGHT OF GAS  
PEDAL

DRIVER DOOR  
JAMB BOOT  
HARNESS

UNDERHOOD HARNESS

	Color	Function
A-19	GRAY	Hood Open Switch Input

Vehicle  
Interior

Underhood

HOOD TILT SWITCH

Chassis  
ground

Do Not Ground to Hood!



OPTIONAL CONNECTIONS / FEATURES

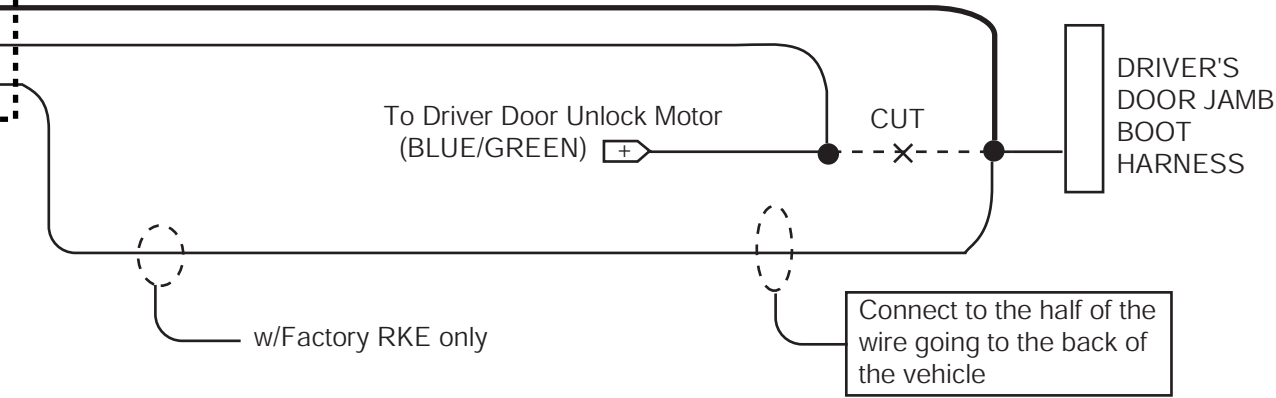
OPTION PROGRAMMING REQUIREMENTS

BANK	OPTION	DESCRIPTION	LED
2	8	DRIVER UNLOCK RELAY	ON
3	1	DRIVER PRIORITY UNLOCK	ON

RKE/VSS/RMST MODULE WIRE HARNESS

DRIVER'S DOOR PRIORITY UNLOCK

	Color	Function
C-9	TAN/RED	Driver Door Unlock Switch
A-13	TAN	Driver Door Unlock Motor
A-9	BROWN	Disarm Input

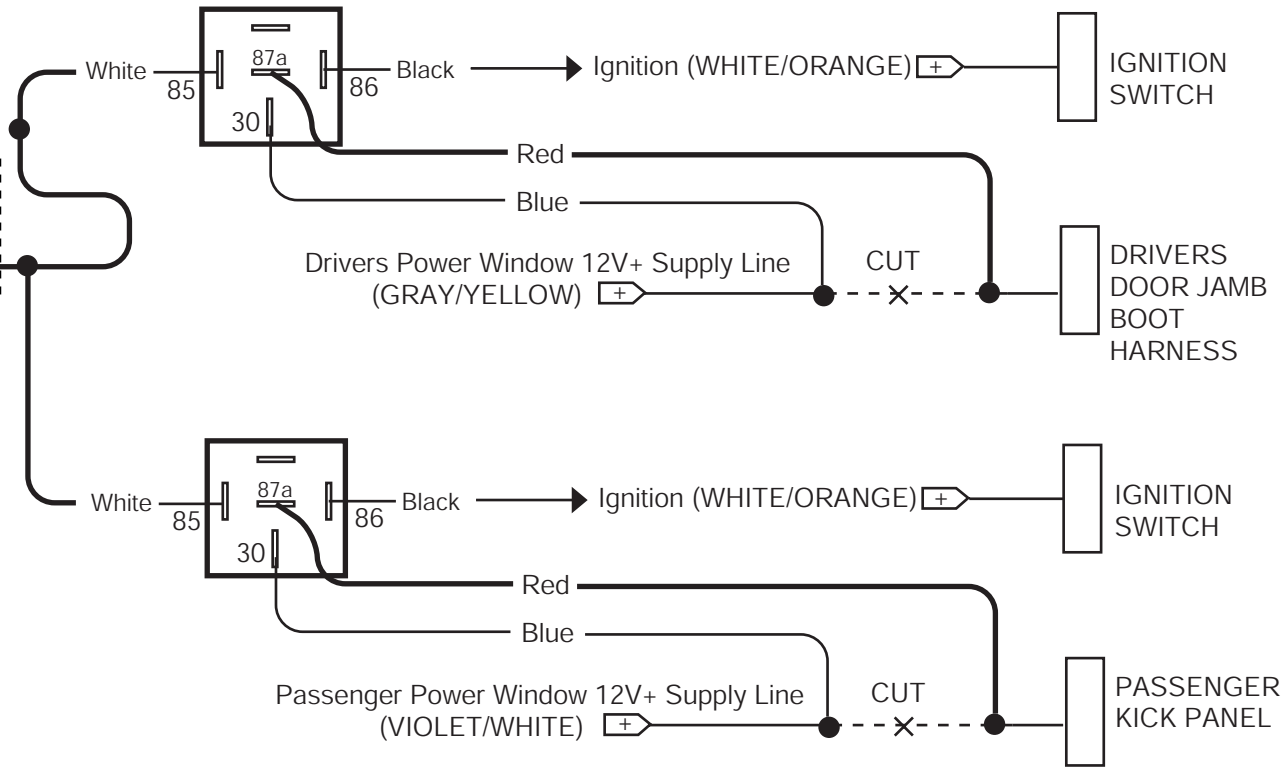


POWER WINDOW, SLIDER & MOONROOF INTERRUPTS

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).

RKE/VSS/RMST MODULE WIRE HARNESS

POWER WINDOW INTERRUPT		
	Color	Function
B-10	BLUE/BLACK	Active Output



CAUTION: REMOVE YELLOW WIRE AND TERMINAL FROM RELAY SOCKETS