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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:
Vehicle Security System—>**VSS**

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 Vehicle Security System 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 VSS 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.

Splicing Procedures

NOTE:
Refer to applicable wiring diagrams for circuit information.

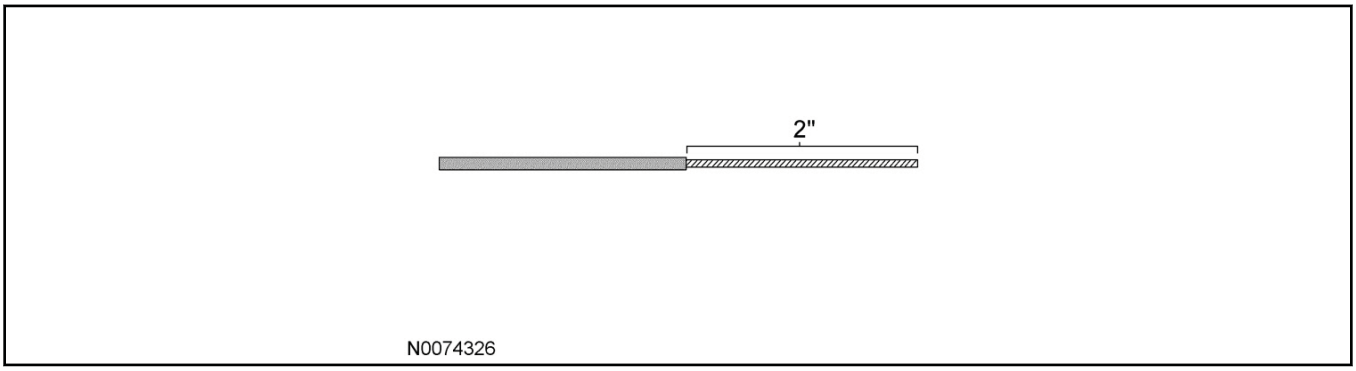
NOTE:
This procedure contains multiple splicing techniques.

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

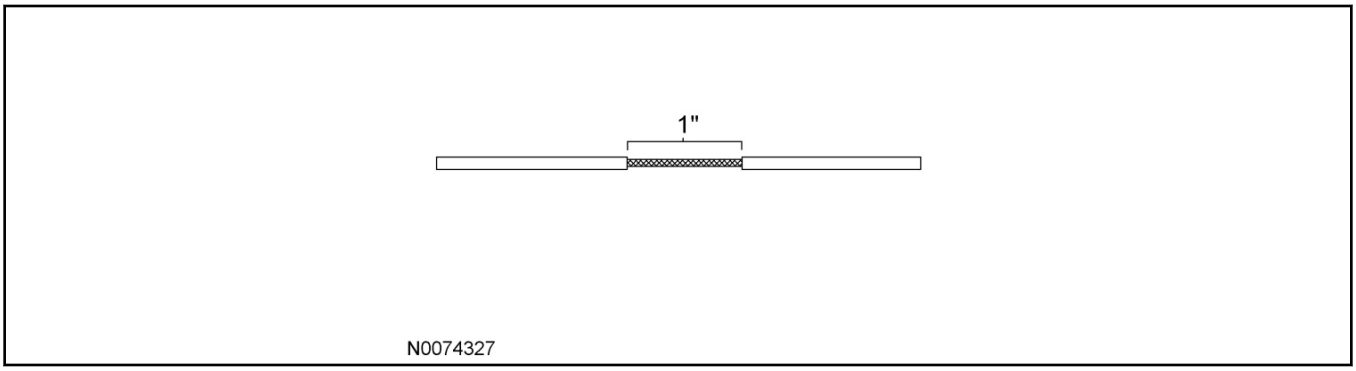
2-Wire Solder "Center Splice" With No Wire Cutting

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

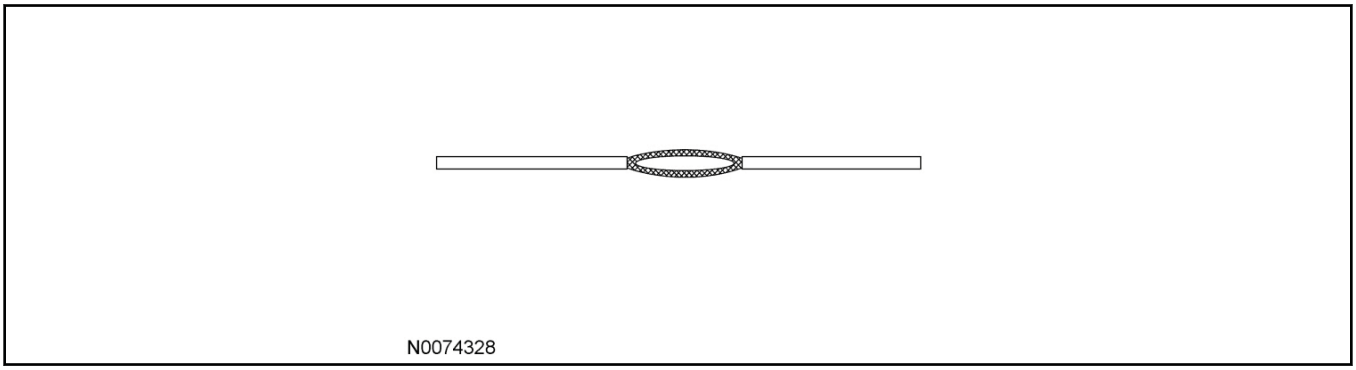
1. Strip approximately two inches of insulation from the wire to be installed in the vehicle.



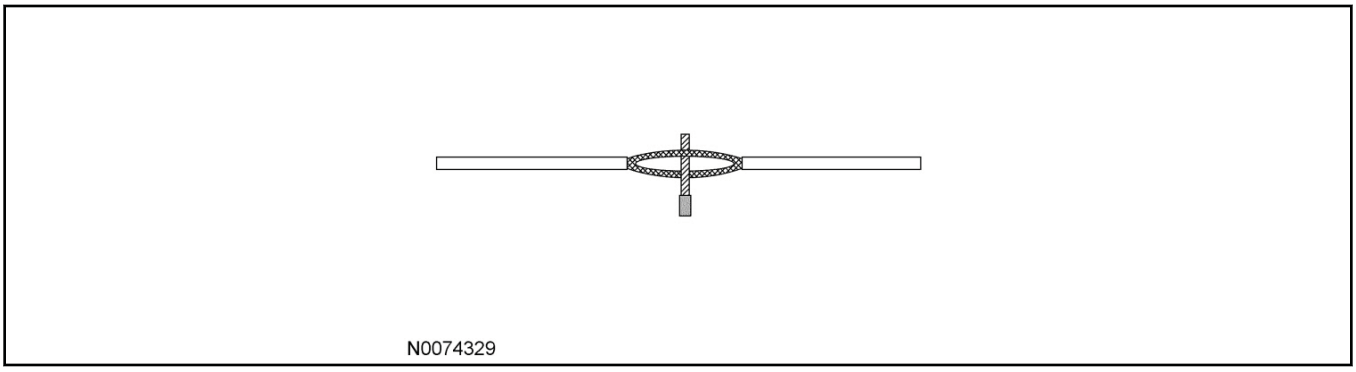
2. On the vehicle wire to be spliced into, strip one inch of insulation from the wire.



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



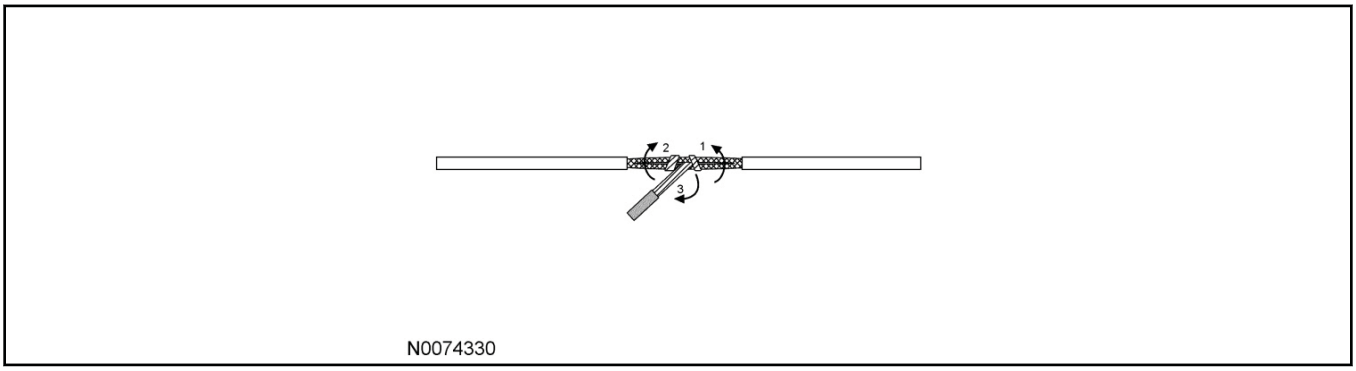
4. Insert the new wire between the parted strands. If more than one wire is being spliced, wrap them in opposite directions.



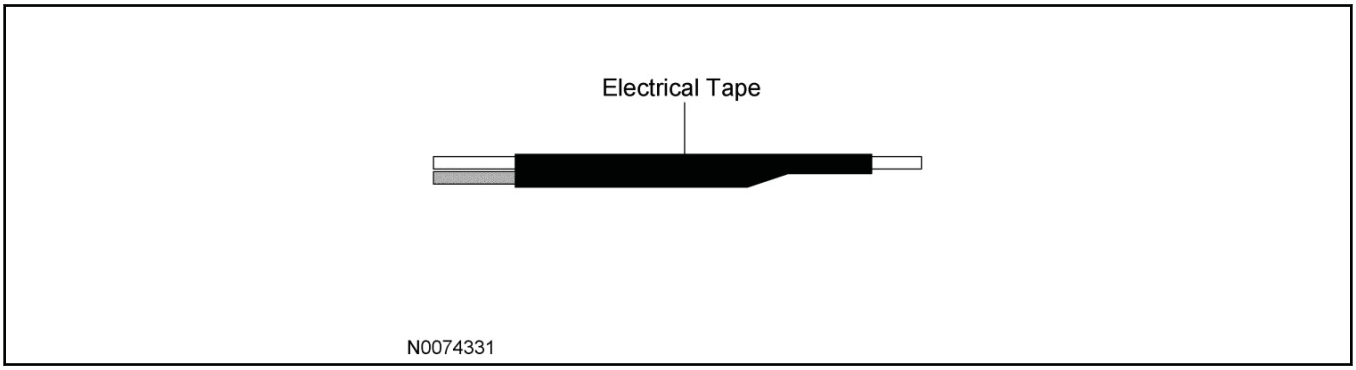
NOTE:
Use Rosin Core Mildly-Activated (RMA) Solder. Do not use Acid Core Solder.

NOTE:
Wait for solder to cool before moving wires.

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



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



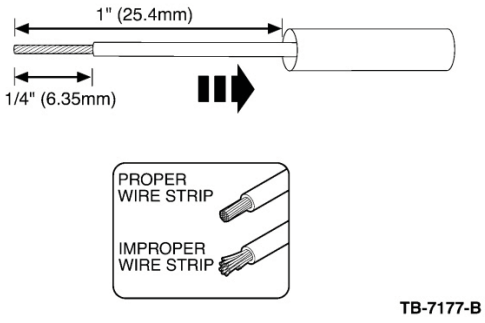
2-Wire Solder Splice/Ratcheting Crimp Tool Splice Procedure

NOTE:
For 10-14 AWG Use The following "Ratcheting Crimp Tool Splice Procedure".

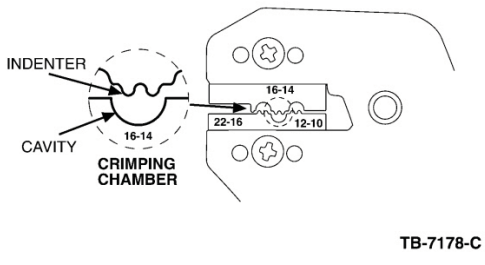
NOTE:
For Splicing Procedure Use Wire Splice Tool Kit (164-R5903).

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

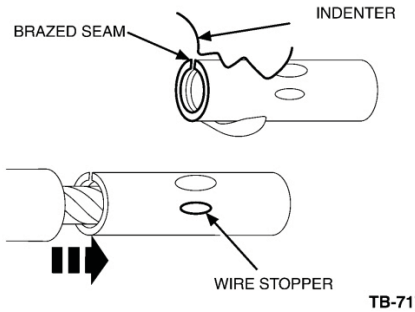
   Strip 1/4" (6.35 mm) of insulation from pigtail wire end once the wire lengths are sized so repairs can be staggered. Take care not to nick or cut wire strands. Pull wire straight from stripper. If wire is pulled at an angle, wire strands may be cut off. If more than one (1) strand is cut off during stripping, cut off the end and re-strip. Slide heat shrink tubing onto one (1) of the wire ends to be crimped, must be at least 1" (25.4mm) away from the stripped end.



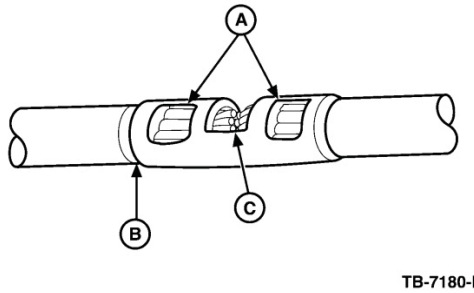
8. Identify the appropriate crimping chamber of the Rotunda 164-R5901 Pro-Crimper (or equivalent) by matching the wire size on the dies with the wire size stamped on the butt splice. Hold the crimping tool so the identified wire sizes are facing you. Squeeze tool handles together until the ratchet releases, then allow the jaws of the tool to open fully.



9. Center one (1) end of the butt splice on the appropriate crimping chamber. If visible, be sure to place the brazed seam of the butt splice toward the indenter. Hold the butt splice in place and squeeze the tool handles together until the ratchet engages sufficiently to hold the butt splice in position (typically one (1) or two (2) clicks). DO NOT deform the butt splice. Insert stripped wire into the butt splice, making sure the insulation on wire does not enter the butt splice.



10. Holding the wire in place, squeeze tool handles together until ratchet releases. Allow tool handles to open, then remove crimped butt splice.
    To crimp the other half of the splice, reposition the un-crimped wire barrel in the same crimping chamber, and repeat the crimping procedure. If splice cannot be turned for crimping the other half, turn the tool around.
    Check for acceptable crimp.
    - Crimp should be centered on each end of the butt splice. It is acceptable for crimp to be slightly off center, but not off the end of the butt splice (A).
    - Wire insulation does not enter butt splice. Wire is flush with or extends slightly beyond end of butt splice (B).
    - Wire is visible through inspection hole of splices (C).

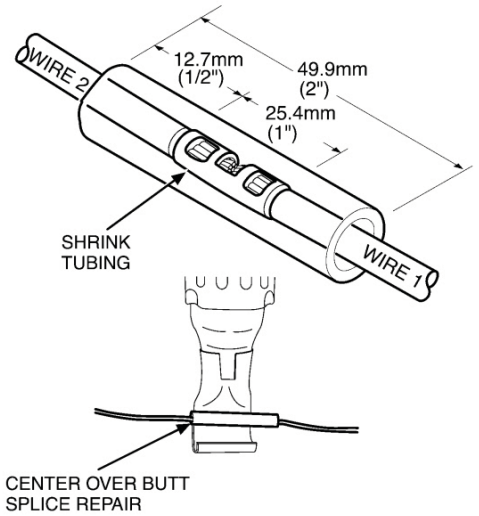


11. **NOTE:**
Overlap heat shrink tubing on both wires.

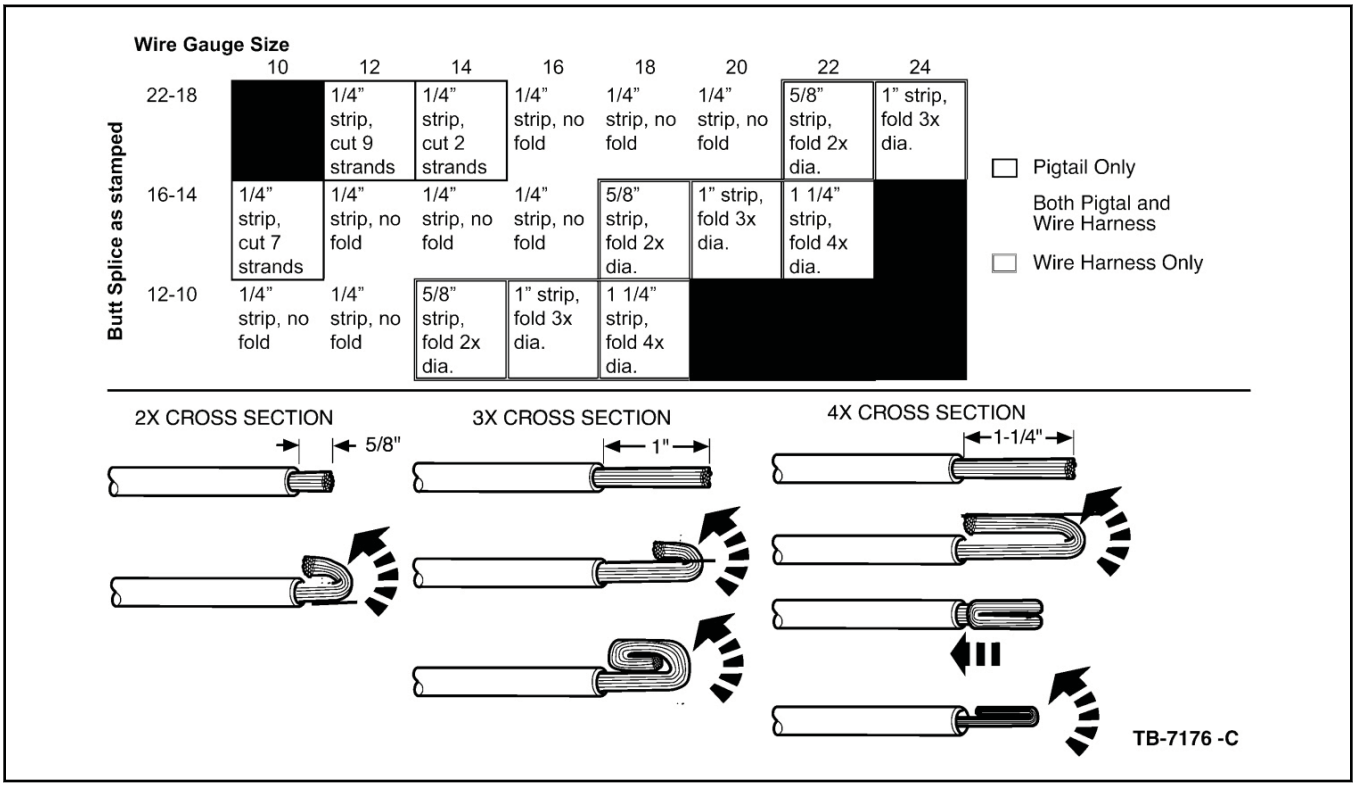
NOTE:
The hot melt forms an adhesive seal between the wire insulation and the heat shrink tubing, which prevents air and moisture from entering the solder point.

NOTE:
Durability of a heat shrink tubing splice is dependent on the hot melt that will appear from both ends of the tube.

Evenly position heat shrink tubing over wire repair. Use a shielded heat gun to heat the entire length of the heat shrink tubing until the hot melt appears from both ends of the tubing.

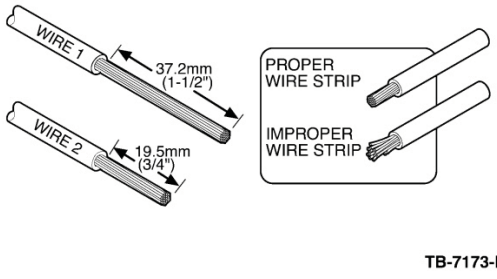


Wire Stripping Lengths and Application Techniques.



For 16-22 AWG wire use either the above "Ratcheting Crimp Procedure" or the following "2 Wire Solder Splice Procedure".

12. Strip 1 1/2" (37.2 mm) of insulation from Wire #1 and 3/4" (19.5mm) of insulation from Wire #2, taking care not to nick or cut wire strands. Pull wire straight from stripper. If wire is pulled at an angle, wire strands may be cut off during stripping. Cut off the end and re-strip.



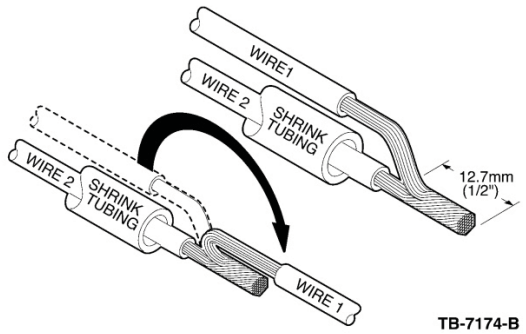
13. **NOTE:**
Use rosin core mildly activated (RMS) solder. do not use acid core solder for wire repair.

NOTE:
Overlap tubing on both wires and wait for solder to cool before moving the wires.

NOTE:
Durability of a heat shrink tubing splice is dependent on the hot melt that will appear from both ends of the tube.

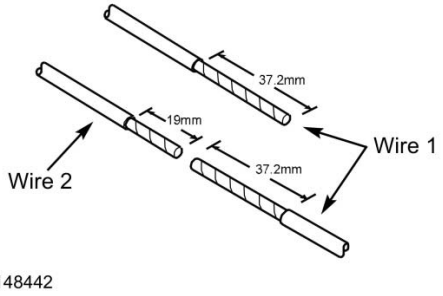
NOTE:
The hot melt forms an adhesive seal between the wire insulation and the heat shrink tubing, which prevents air and moisture from entering the solder point.

Install heat shrink tubing at least 1" (26 mm) away from one of the stripped ends being spliced. Twist the wires together. Solder wires together. Bend Wire #1 back in a straight line for sealing. Inspect solder joint bond. Evenly position heat shrink tubing over wire repair. Use a shielded heat gun to heat the entire length of the heat shrink tubing until the hot melt appears from both ends of the tubing.



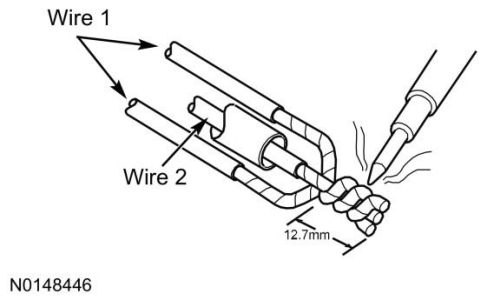
3-Wire Solder Splice Procedure

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

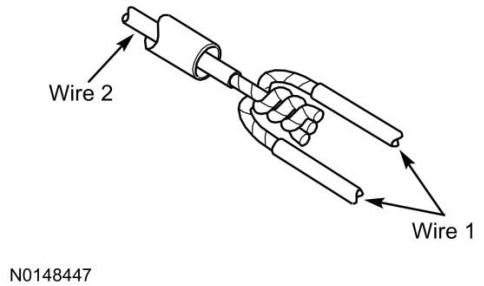


15. **NOTE:**
    Wait for solder to cool before moving wires.

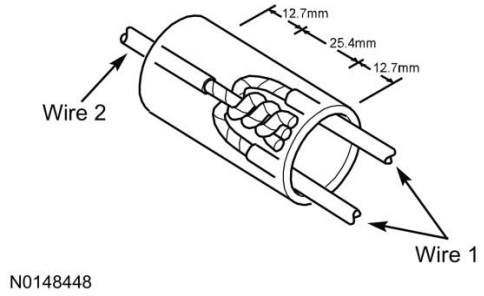
    Apply heat shrink tubing to Wire #2. Twist both ends of Wire #1 around Wire #2. Solder wires together.



16. Bend Wire #1 back over the twisted wires for sealing. Inspect solder joint bond.



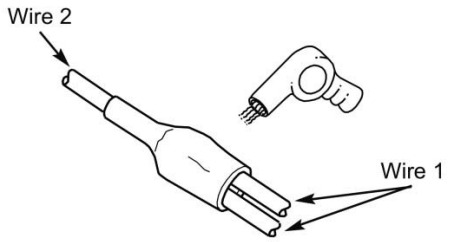
17. Evenly position heat shrink tubing over wire repair.



18. **NOTE:**
    Durability of a heat shrink tubing splice is dependent on the hot melt that will appear from both ends of the tube.

    NOTE:
    The hot melt forms an adhesive seal between the wire insulation and the heat shrink tubing, which prevents air and moisture from entering the solder point.

    Use a shielded heat gun to heat the entire length of the heat shrink tubing until the hot melt appears from both ends of the tubing.



N0148450

GENERAL PROCEDURES

Shock Sensor Setting

Vehicle 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. Open 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 the lock button on the trim switch (scroll down) to select first option in option bank 1. The horn will honk once.
5. **NOTE:**
   Make sure window is rolled down and shut all doors.

   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.
   Press the Lock button on the trim switch to decrease the sensitivity or press Unlock to increase the sensitivity.
6. When properly adjusted, open a door, press lock button on trim switch (scroll down) to select second option in option bank #1. The horn will honk twice to indicate second option in option bank #1. Shut door again.
7. **NOTE:**
   This is the Full Shock Adjustment Programming Option. When in this programming option the vehicle will honk the horn when an impact is detected.

   NOTE:
   Only a High impact of open hand on steering wheel should cause a honk. Light to Medium impacts need to be adjusted down.

   To test and adjust current sensitivity level: Start with a light tap on outer rim of steering wheel with open palm of hand. Gradually increase force of tap until horn honk is detected. This should be set to honk at a High impact level.
   Press the Lock button on the trim switch to decrease the sensitivity or press Unlock to increase the sensitivity.

GENERAL PROCEDURES

8. Turn the ignition key to the OFF position.
9. Arm the system and check the new settings.

Manual Table of Contents

VSS SYSTEM INSTALLATION

CONTENTS

INSTALLATION

Vehicle Security

Explorer - Key Start

NOTICE:
Vehicle security systems are only applicable to vehicles with RKE.

1. Verify correct kit number.

Review VSS Installation Kit Contents

NOTE:
Use kit number 7L3Z-19A361-AA VEHICLE SECURITY SYSTEM

NOTE:
Kits are vehicle specific and are not interchangeable.

NOTE:
If system is to be used in Lot Mode, Wire Harness P/N 2W7Z-19C757-BA will have to be ordered.

2. Review the VSS kit contents.

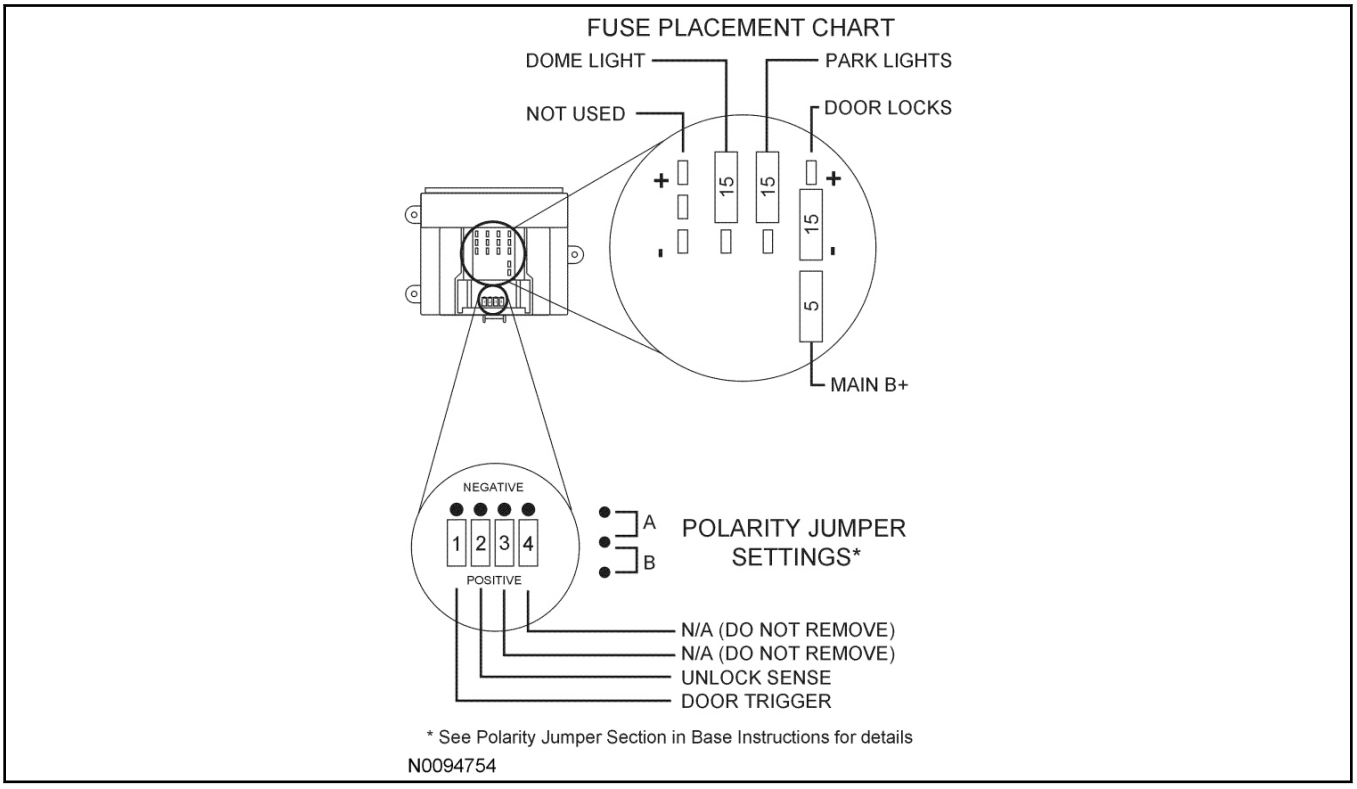
Vehicle Security System (VSS) System Kit

QUANTITY	DESCRIPTION
1	MODULE ASSEMBLY
1	VSS SOFTWARE CARTRIDGE ASSEMBLY
1	WIRING HARNESS WITH 24-WAY CONNECTOR
1	INSTALLATION PARTS BAG
1	FUSE PARTS BAG
1	OPERATORS INSTRUCTIONS
1	OPERATORS QUICK REFERENCE WALLET CARD
1	VEHICLE SECURITY SYSTEM WARNING. WINDOW DECAL

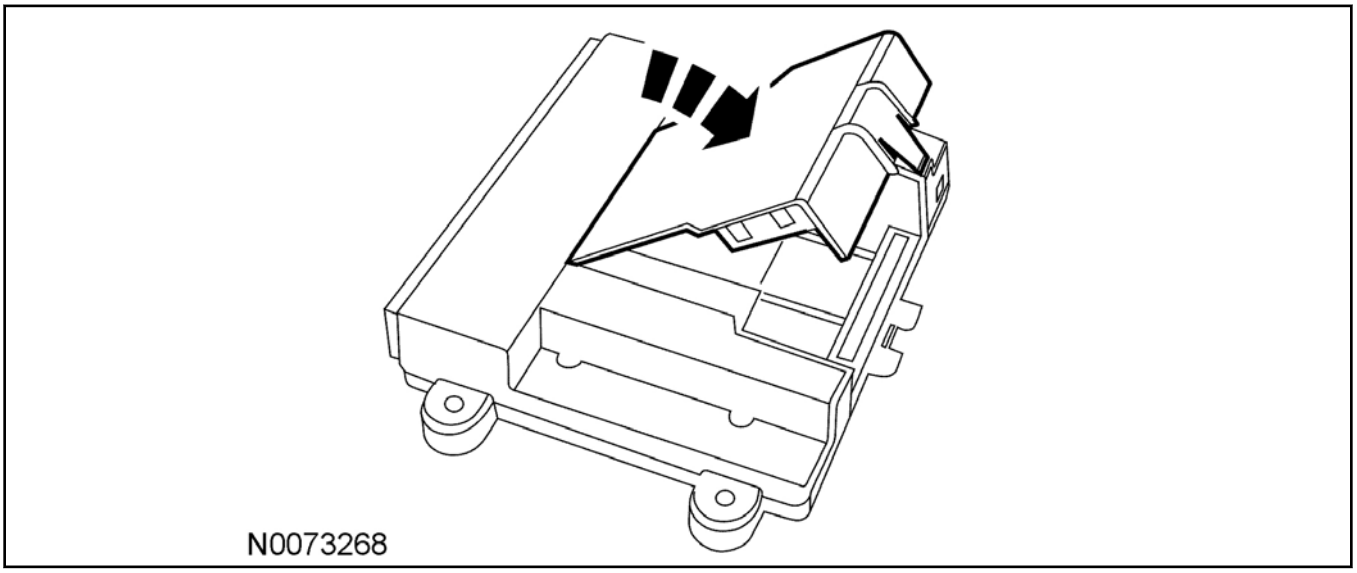
Module Preparation

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

INSTALLATION (Continued)

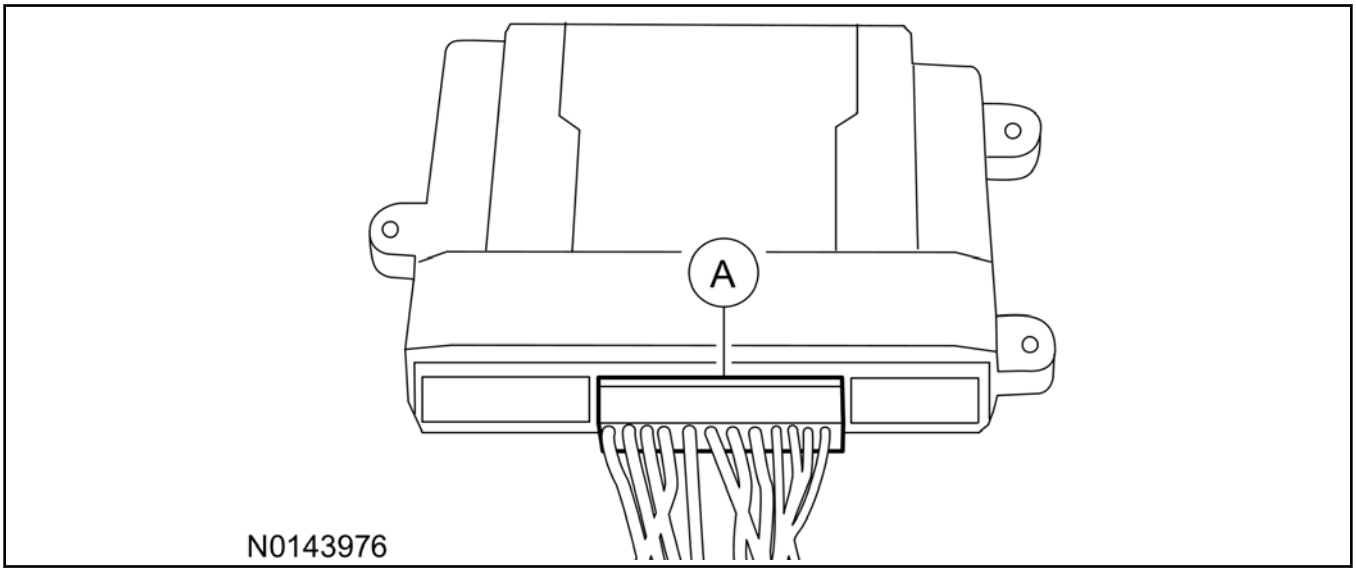


4. Place the software cartridge onto the control module.



INSTALLATION (Continued)

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

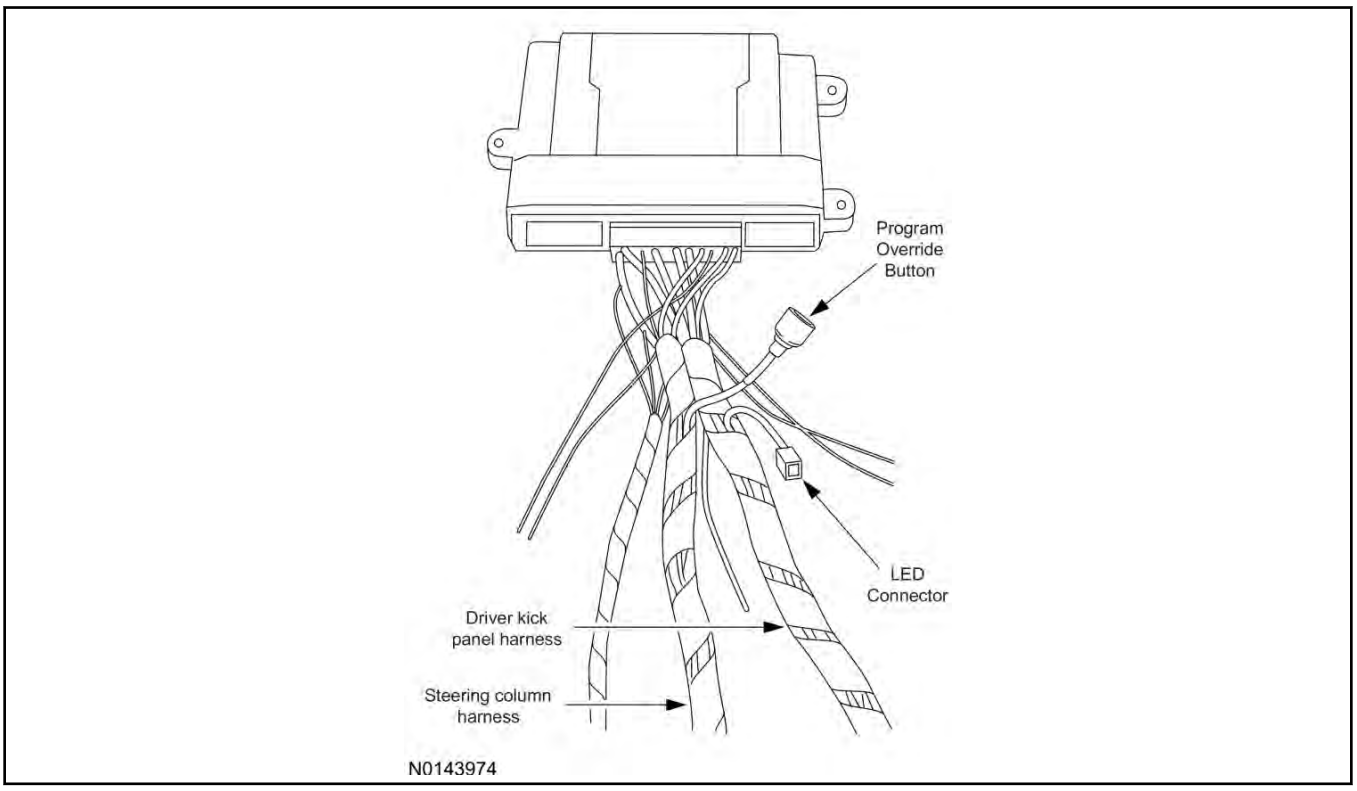


NOTE:
Do not cut the override programming button off of the harness, it is used for all installations.

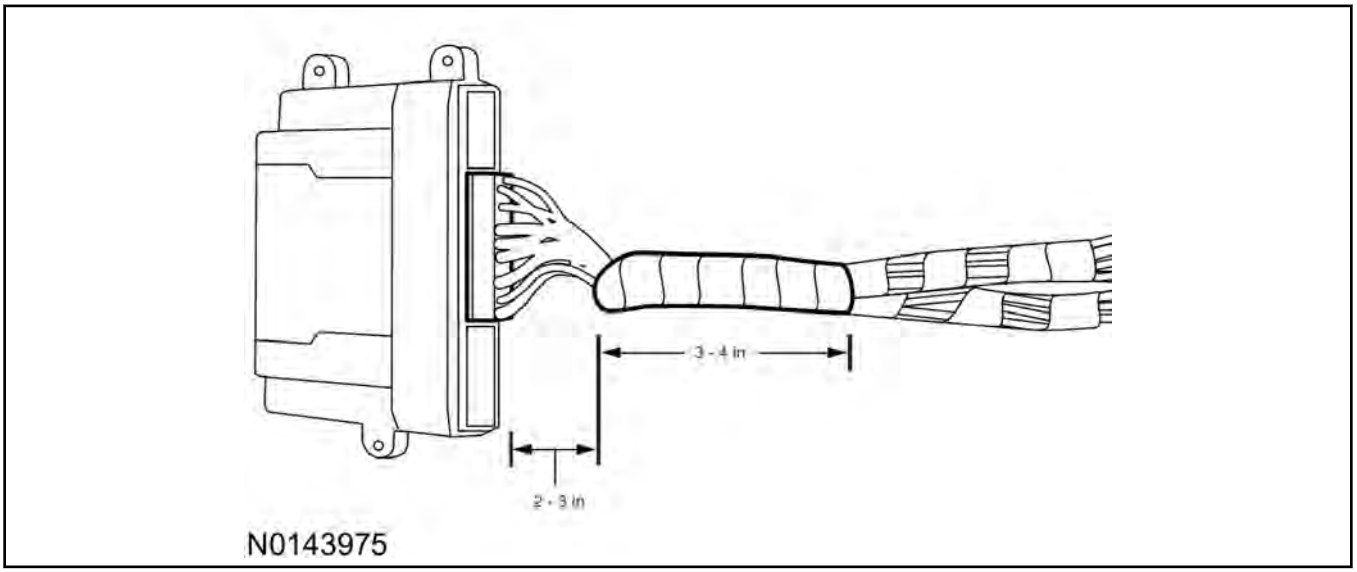
NOTE:
Review the vehicle specific wiring diagram(s).

6. 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)



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



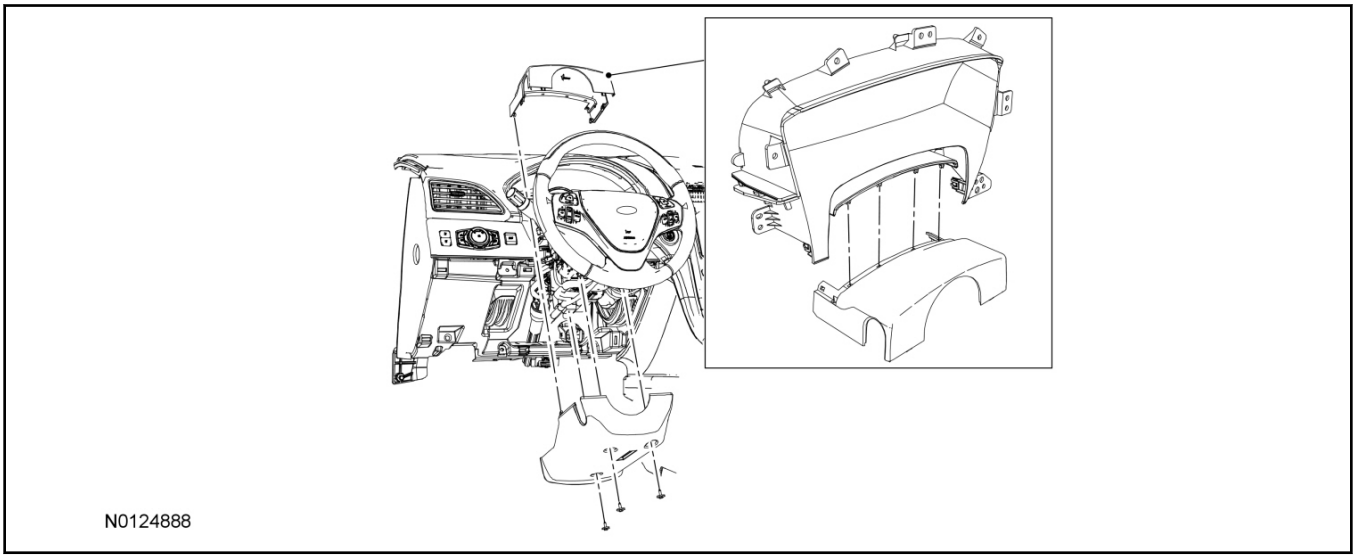
Vehicle Preparation

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

8. Remove the steering column opening trim panel.
   1 Remove the 2 steering column opening trim panel screws.
   2 Pull to disengage the steering column opening trim panel from the instrument panel.

INSTALLATION (Continued)

9. Remove the steering column shrouds.
   1 Remove the 3 lower shroud retainers.
   2 Detach and remove the lower shroud from the upper shroud.
   3 Detach the instrument panel cluster opening trim from the upper shroud.
   4 Remove the upper shroud.



10. Remove the driver side front door scuff plate.

Install the Control Module and Harness Assembly

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

Install LED

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

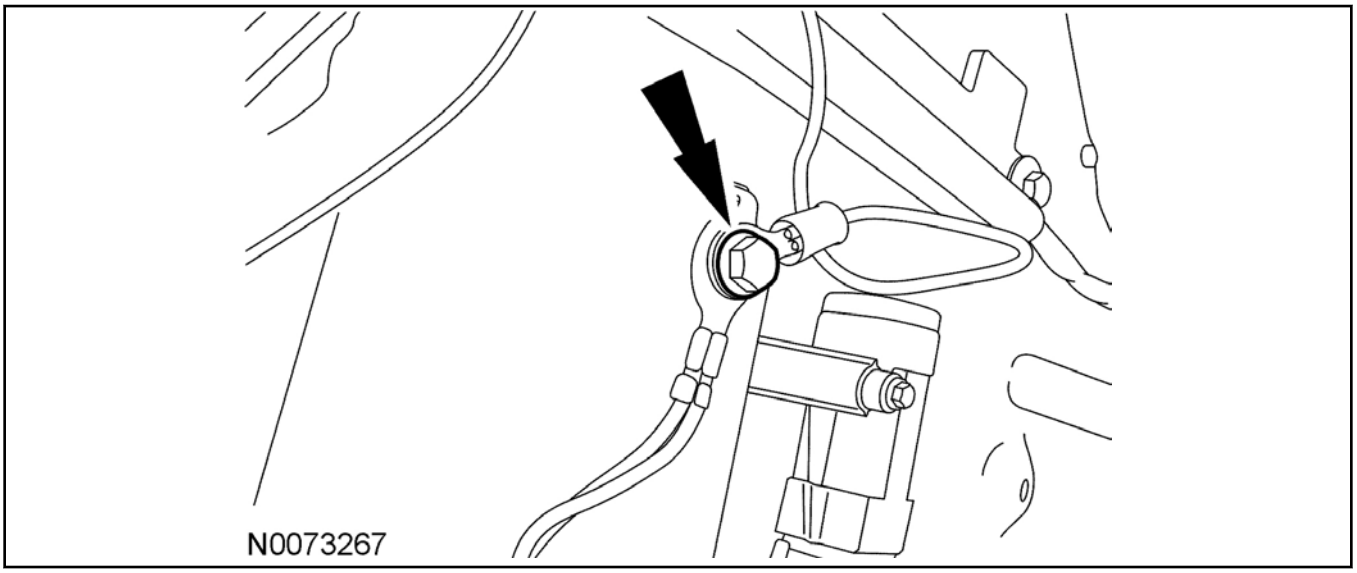
Identify Circuit Wires For Connections

NOTE:
Review the vehicle specific wiring diagram(s).

NOTE:
Review proper wire splicing techniques.

INSTALLATION (Continued)

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



17. **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.

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

19. **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.

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

21. Connect the Violet wire from the control module harness to the harness side of the cut Blue/White starter circuit wire at the ignition switch harness.

22. Connect the Violet/Red wire from the control module harness to the Ignition Switch side of the cut Blue/White starter circuit wire at the ignition switch harness.

23. **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.

INSTALLATION (Continued)

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 Violet/Green horn circuit wire at the steering column harness.

24. Connect the Brown/Black wire from the control module harness to the Violet/Green horn circuit wire at the steering column harness.

25. **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 Yellow/Blue parking light on circuit wire at the driver kick panel.

26. Connect the White wire from the control module harness to the Yellow/Blue parking light circuit at the driver kick panel.

27. **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 BCM connector C2280A Pin 1.

28. Connect the Green/Violet wire from the control module harness to the Gray/Violet dome light circuit at BCM connector C2280A Pin 1.

29. **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.

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

31. **NOTE:**
Connect only if system will be used in Lot Mode.

INSTALLATION (Continued)

NOTE:
A DVOM connected to the correct wire will show 12V, then show 0V when the door lock switch is pressed.
A logic probe will show open on the correct wire, then show ground when the door lock switch is pressed.

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

32. Connect the Blue wire from the control module harness to the Blue/Green power door lock circuit at the driver kick panel.

33. **NOTE:**
Connect only if system will be used in Lot Mode.

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

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

35. **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/Gray all door unlock motor circuit wire at the driver kick panel.

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

37. **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.

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.

Power Connection

39. **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 Green/Red Battery circuit wire in the ignition switch harness.

INSTALLATION (Continued)

40. Connect the Red wire from the VSS module harness to the Green/Red Battery circuit wire in the ignition switch harness.

Program The VSS System

41. Refer to the VSS programming section for this vehicle.

Secure VSS Harness and Control Module

42. Use the supplied tie wraps to secure the VSS harness wires.
43. **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 VSS control module to the underdash wiring harness.

Install Trim

44. Install the driver side front door scuff plate.
45. Install the steering column shrouds.
    1 Install the upper shroud.
    2 Attach the instrument panel cluster opening trim to the upper shroud.
    3 Install the lower shroud and attach to the upper shroud.
    4 Install the 3 lower shroud retainers.
46. Install the steering column opening trim panel.
    1 Engage the steering column opening trim panel to the instrument panel.
    2 Install the 2 steering column opening trim panel screws.

GENERAL PROCEDURES

Programming

Programming the Module

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

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

   NOTE: The VSS override button must be accessible.

Programming Options: Entering Programming Mode

2. 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	3	DOOR AJAR INVERT	ON
1	4	UNLOCK SENSE INVERT	ON

Option Bank - 2 Chart (5 - Honks)

BANK	OPTIONS	DESCR	LED
2	1	STARTER INTERRUPT	ON

NOTE: Perform proper adjustments following the ‘‘Shock Sensor Setting’’, refer to General Procedures click here.

3. Open the driver door.

   All other doors should remain closed.

4. Turn the ignition key to the RUN position.

5. Press and hold the VSS override button for at least 10 seconds.

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

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:

   - All door and dome light circuit wire solder connections.
   - The key is in the RUN position.
   - The software cartridge is firmly seated in the VSS module.
   - The VSS harness connections are firmly seated in the VSS module.

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

7. Press and release the Lock button on the trim switch 3 times.

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

NOTICE: **To turn the LED on or off, press and immediately release Unlock button on the trim switch.**

8. The LED must be ON for option 3. If the LED is illuminated no action is required. If the LED is not illuminated press the Unlock button and verify the LED illuminates.

NOTE: When programming the VSS module, if the Lock button is held for more than 3 seconds, the horn will honk 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 VSS module.

9. Press and release the Lock button on the trim switch.

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

GENERAL PROCEDURES (Continued)

10. 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 unlock button and verify the LED illuminates.

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

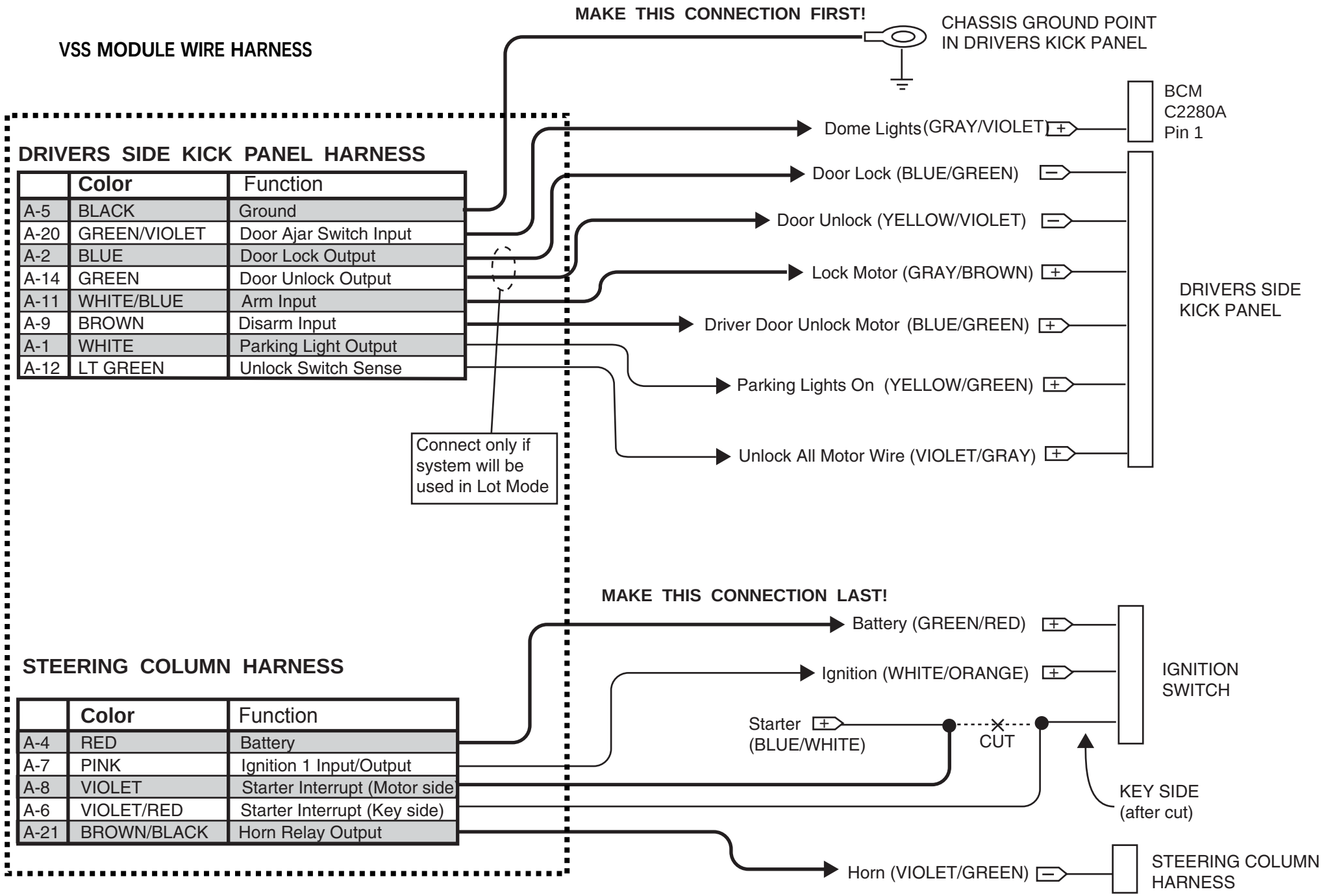
12. Press and release the Lock button on the trim switch.

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

13. 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 Unlock button and verify the LED illuminates.

14. The VSS module is now programmed.

'13 Explorer - Key Start



	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

	Color	Function
A-4	RED	Battery
A-7	PINK	Ignition 1 Input/Output
A-8	VIOLET	Starter Interrupt (Motor side)
A-6	VIOLET/RED	Starter Interrupt (Key side)
A-21	BROWN/BLACK	Horn Relay Output

Manual Table of Contents

VSS SYSTEM INSTALLATION

CONTENTS

INSTALLATION

Vehicle Security

Edge - Key Start

NOTICE:
Vehicle security systems are only applicable to vehicles with RKE.

1. Verify correct kit number.

Review VSS Installation Kit Contents

NOTE:
Use kit number 7L3Z-19A361-AA VEHICLE SECURITY SYSTEM

NOTE:
Kits are vehicle specific and are not interchangeable.

NOTE:
If system is to be used in Lot Mode, Wire Harness P/N 2W7Z-19C757-BA will have to be ordered.

2. Review the VSS kit contents.

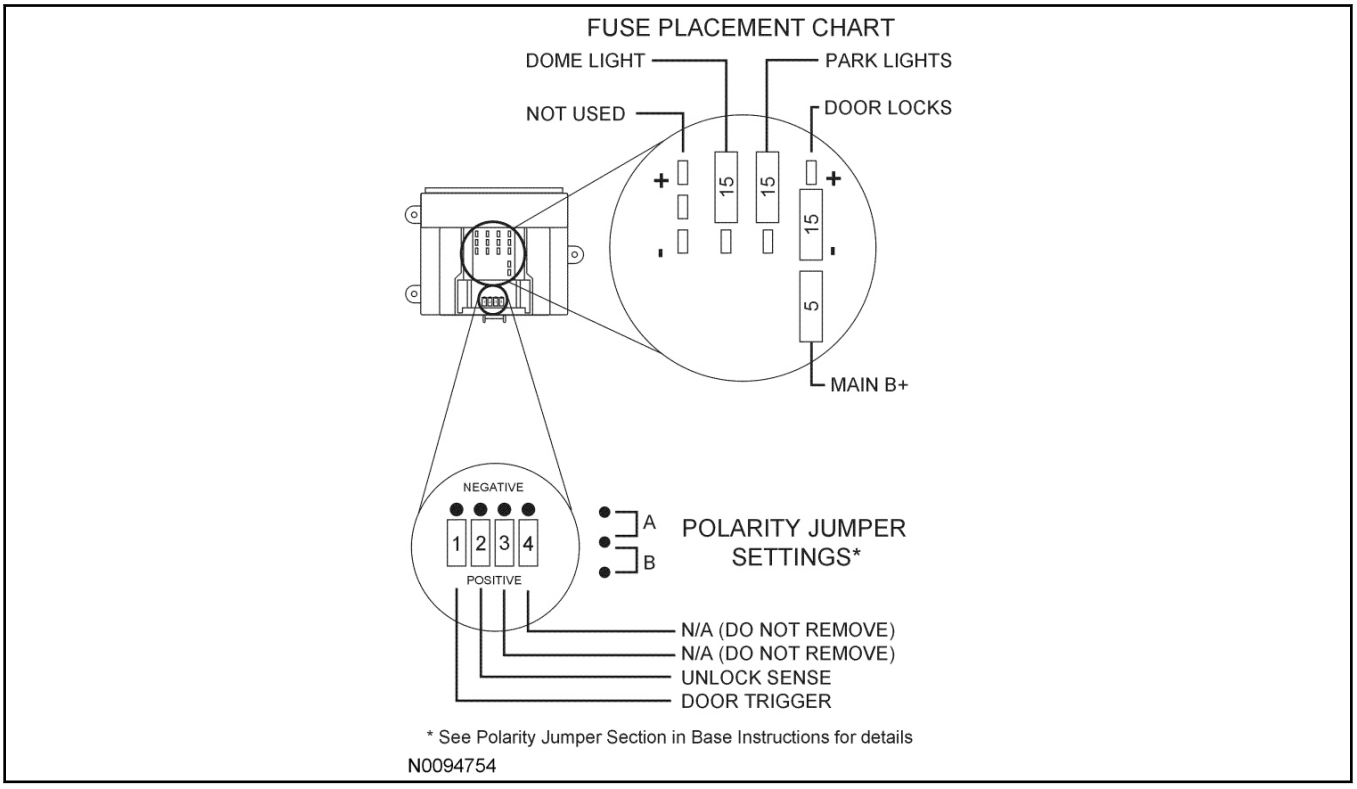
Vehicle Security System (VSS) System Kit

QUANTITY	DESCRIPTION
1	MODULE ASSEMBLY
1	VSS SOFTWARE CARTRIDGE ASSEMBLY
1	WIRING HARNESS WITH 24-WAY CONNECTOR
1	INSTALLATION PARTS BAG
1	FUSE PARTS BAG
1	OPERATORS INSTRUCTIONS
1	OPERATORS QUICK REFERENCE WALLET CARD
1	VEHICLE SECURITY SYSTEM WARNING. WINDOW DECAL

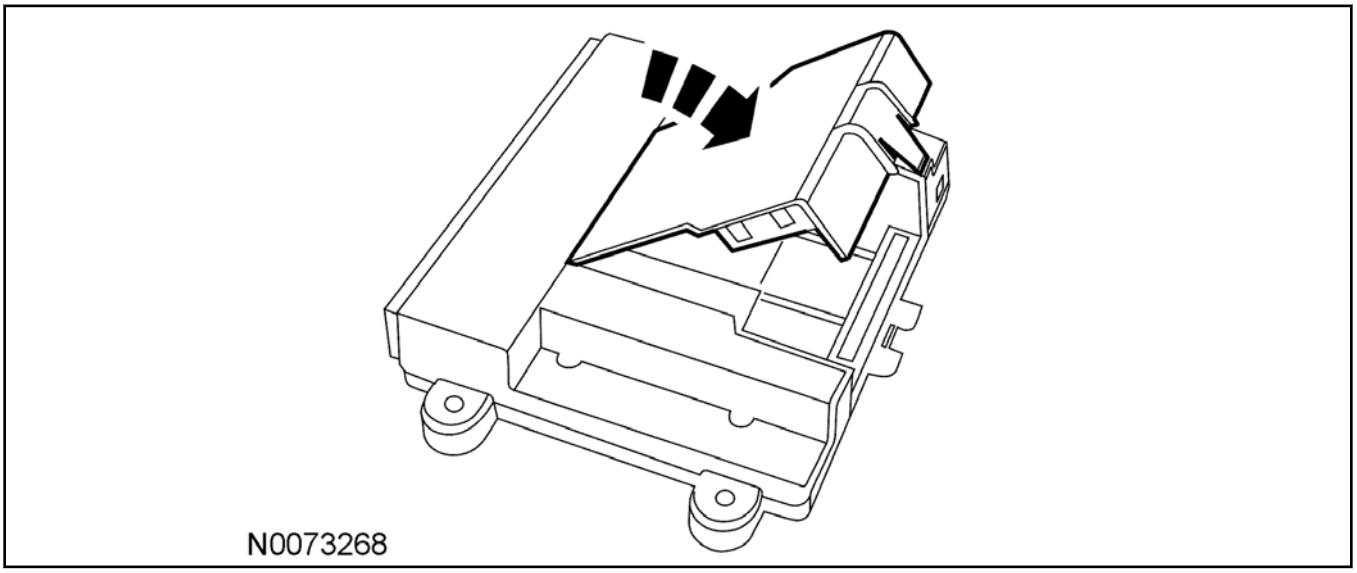
Module Preparation

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

INSTALLATION (Continued)

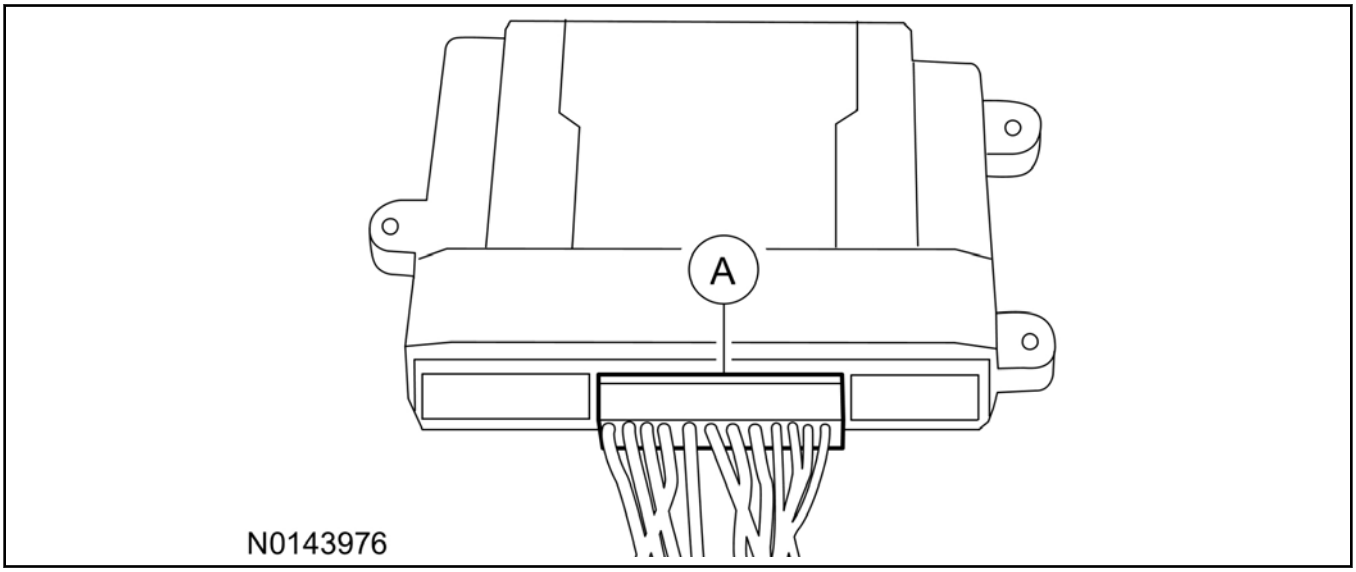


4. Place the software cartridge onto the control module.



INSTALLATION (Continued)

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

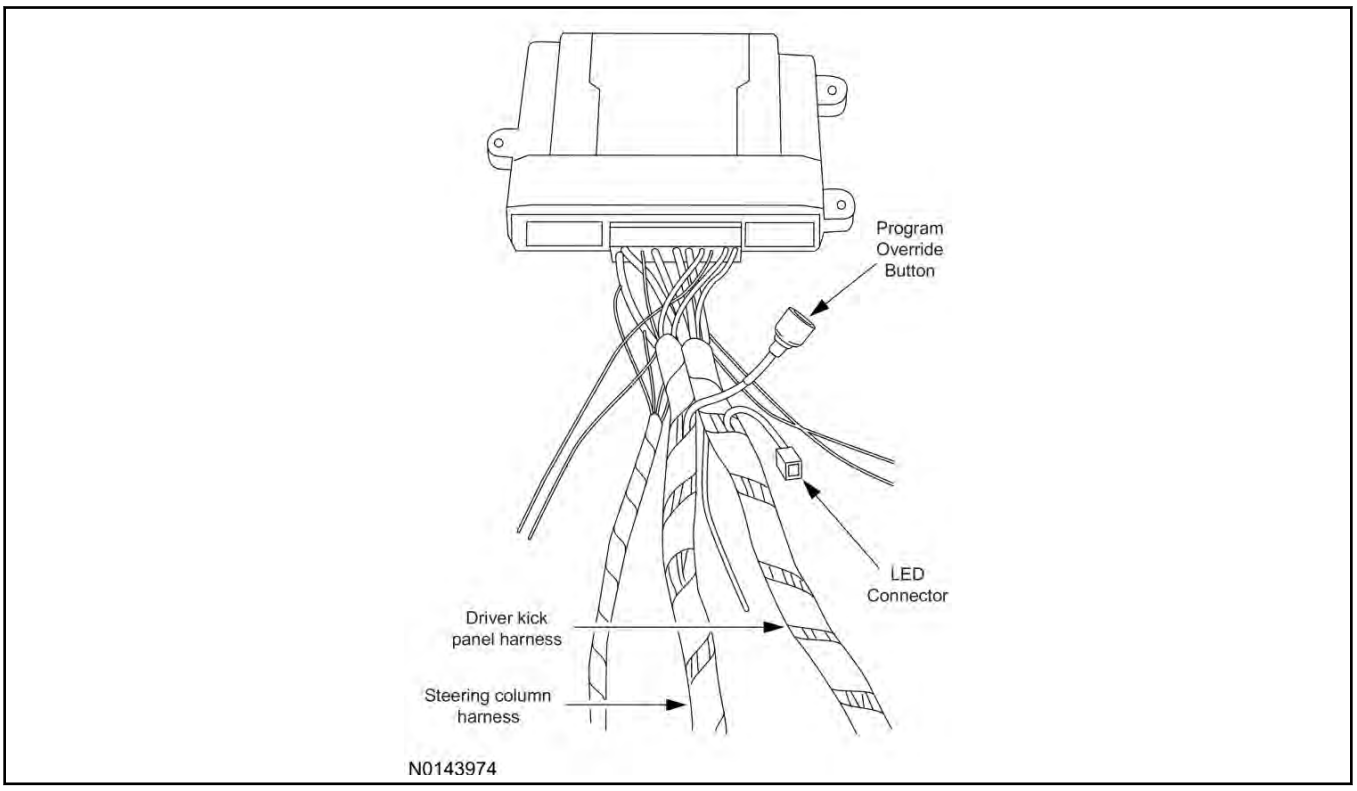


NOTE:
Do not cut the override programming button off of the harness, it is used for all installations.

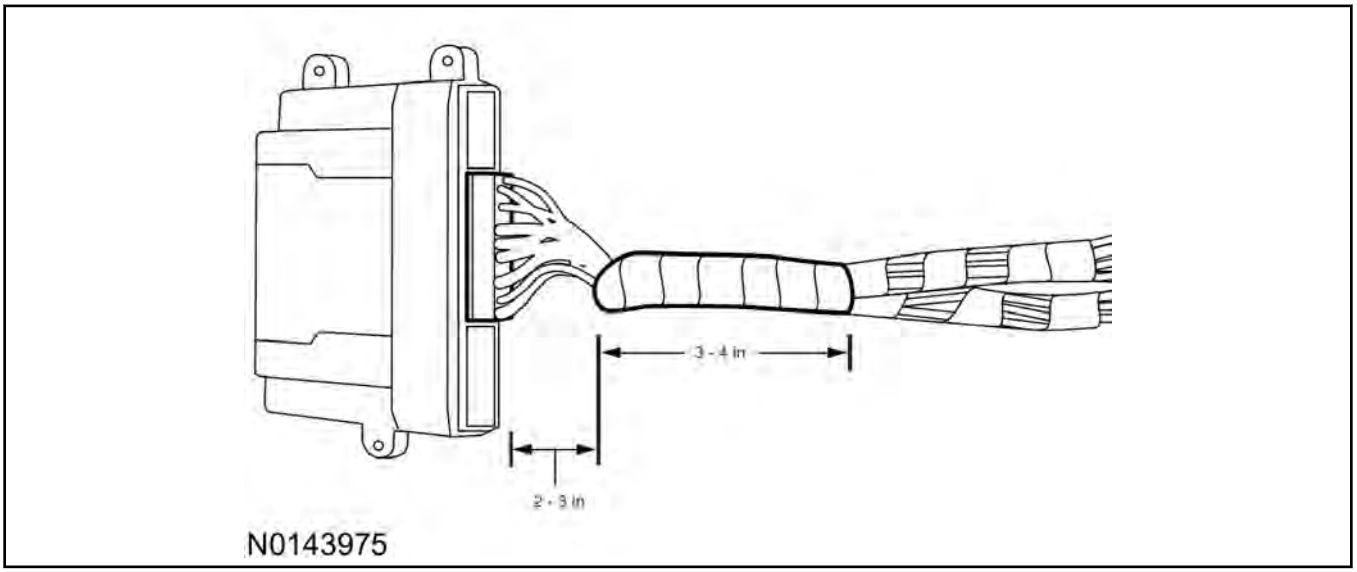
NOTE:
Review the vehicle specific wiring diagram(s).

6. 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)



7. 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.

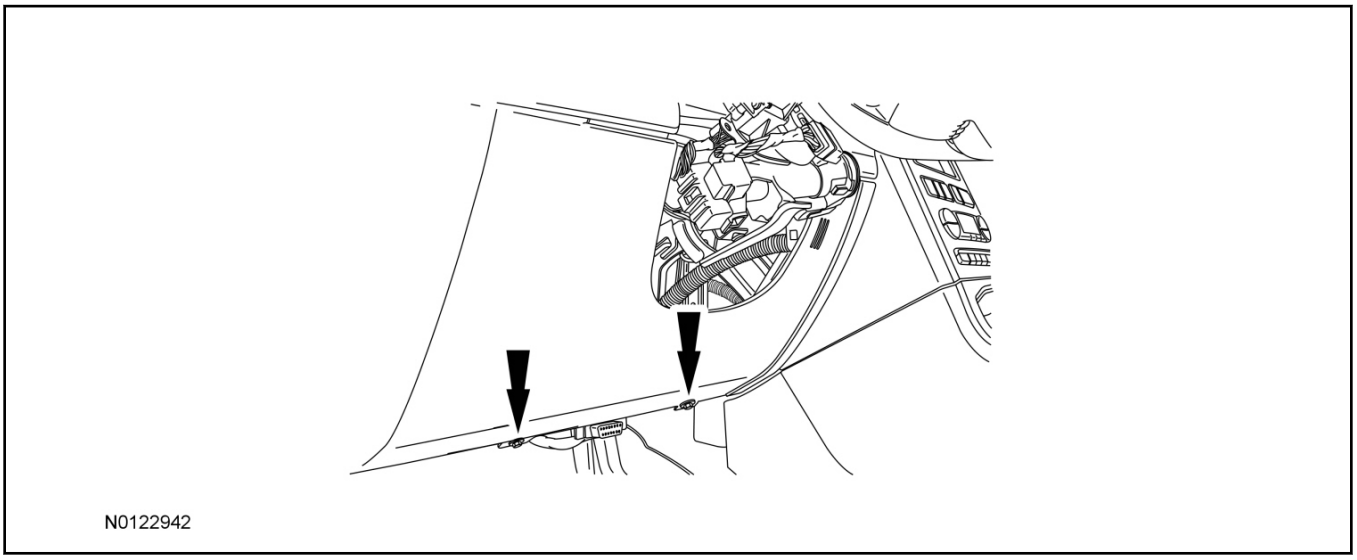
8. Remove the upper steering column shroud.
9. Release the tilt lever, remove the 3 screws and then remove the lower steering column shroud.

INSTALLATION (Continued)

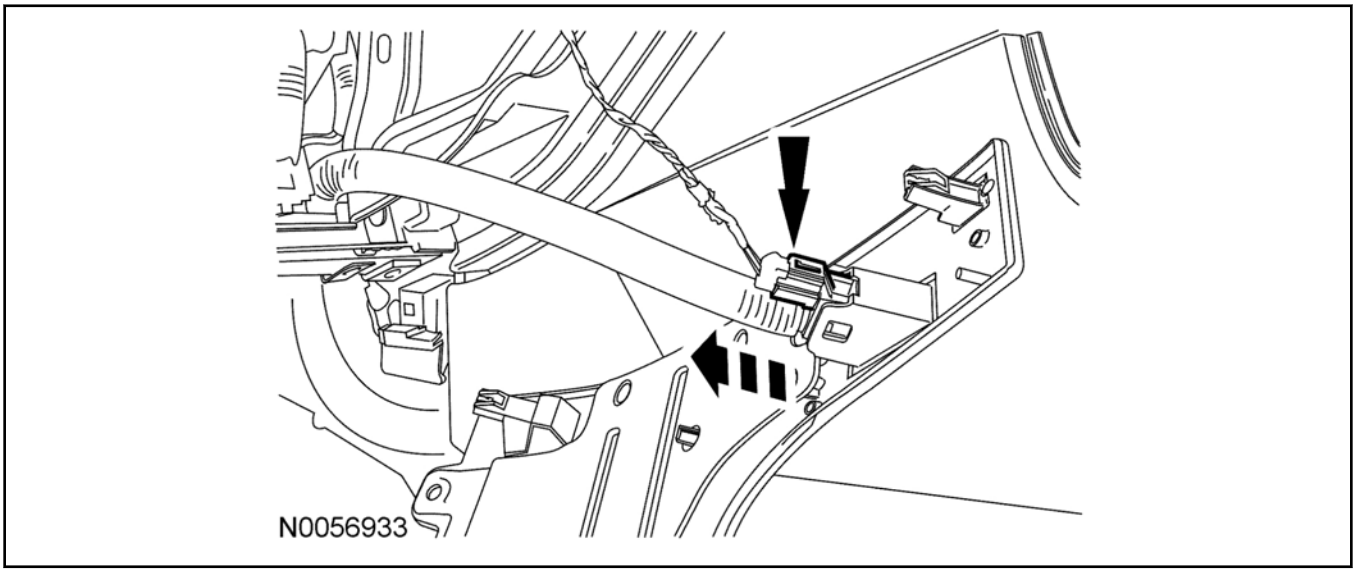
NOTE:

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

10. Remove the 2 instrument panel steering column cover screws.
    - Detach the instrument panel steering column cover by pulling straight outward.



11. If equipped, disconnect the electrical connector and hose from the temperature sensor.
    - Remove the instrument panel steering column cover.



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

Install the Control Module and Harness Assembly

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

INSTALLATION (Continued)

Install LED

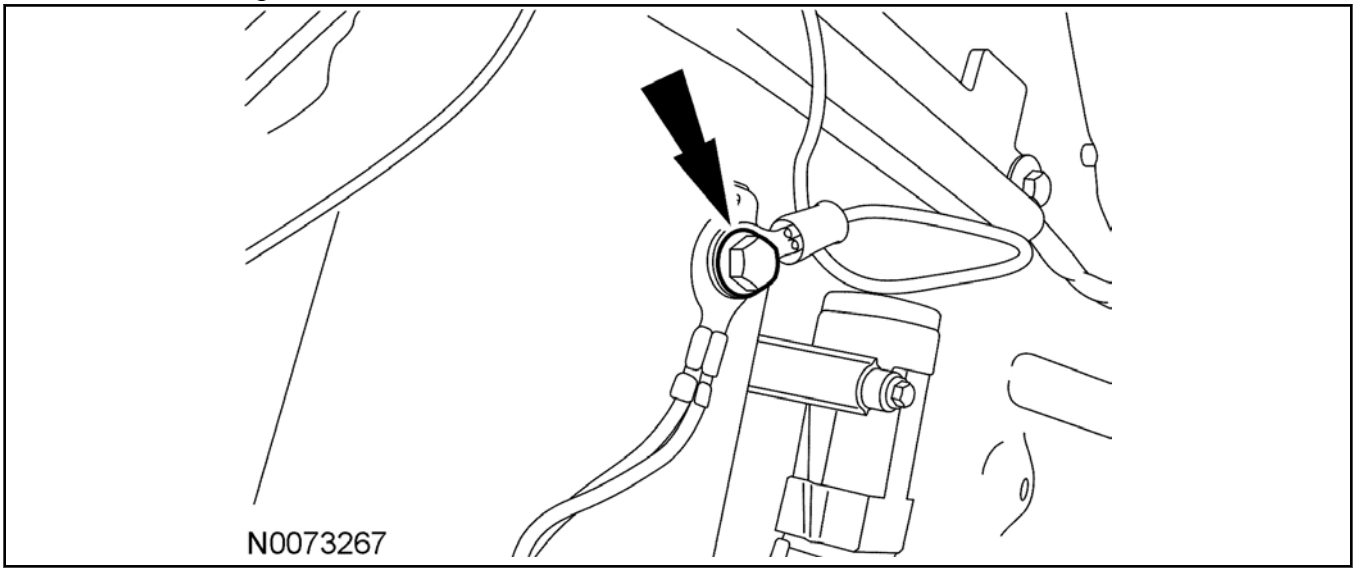
14. Connect the LED harness to the VSS module harness LED connector.
15. Route the LED harness through the instrument panel to the driver side of the vehicle.
    Keep the following points in mind when routing or positioning the LED for mounting:
    - Have at least 3/4" clearance behind any trim panel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

Identify Circuit Wires For Connections

NOTE:
Review the vehicle specific wiring diagram(s).

NOTE:
Review proper wire splicing techniques.

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



19. **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.
20. Connect the Pink wire from the control module harness to the White/Orange ignition circuit wire at the ignition switch harness.

INSTALLATION (Continued)

21. **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.
22. Cut the Blue/White starter circuit wire at the ignition switch harness.
23. Connect the Violet wire from the control module harness to the harness side of the cut Blue/White starter circuit wire at the ignition switch harness.
24. Connect the Violet/Red wire from the control module harness to the Ignition Switch side of the cut Blue/White starter circuit wire at the ignition switch harness.
25. **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 Violet/Green horn circuit wire at the steering column harness.
26. Connect the Brown/Black wire from the control module harness to the Violet/Green horn circuit wire at the steering column harness.
27. **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 Yellow/Green parking light on circuit wire at the driver kick panel.
28. Connect the White wire from the control module harness to the Yellow/Green parking light circuit at the driver kick panel.
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 BCM connector C2280A Pin 1.

INSTALLATION (Continued)

30. Connect the Green/Violet wire from the control module harness to the Gray/Violet dome light circuit at BCM connector C2280A Pin 1.
31. **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.
32. Connect the White/Blue wire from the control module harness to the Gray/Brown power door lock motor circuit at the driver kick panel.
33. **NOTE:**
    Connect only if system will be used in Lot Mode.

    NOTE:
    A DVOM connected to the correct wire will show 12V, then show 0V when the door lock switch is pressed.
    A logic probe will show open on the correct wire, then show ground when the door lock switch is pressed.

    Identify the Blue/Green power door lock circuit wire at the driver kick panel.
34. Connect the Blue wire from the control module harness to the Blue/Green power door lock circuit at the driver kick panel.
35. **NOTE:**
    Connect only if system will be used in Lot Mode.

    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 Yellow/Violet door unlock circuit wire at the driver kick panel.
36. Connect the Green wire from the control module harness to the Yellow/Violet door unlock circuit wire at the driver kick panel.
37. **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/Gray all door unlock motor circuit wire at the driver kick panel.
38. Connect the Light Green wire from the control module harness to the Violet/Gray all door unlock motor circuit wire at the driver kick panel.

INSTALLATION (Continued)

39. **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.

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

Power Connection

41. **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.

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

Program The VSS System

43. Refer to the VSS programming section for this vehicle.

Secure VSS Harness and Control Module

44. Use the supplied tie wraps to secure the VSS harness wires.

45. **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 VSS control module to the underdash wiring harness.

Install Trim

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

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

    - Install the instrument panel steering column cover.

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

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

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

50. Install the upper steering column shroud.

INSTALLATION (Continued)

21. Connect the Brown/Black wire from the control module to the Blue/White horn circuit wire at the steering column harness 6 way connector.

22. **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.

23. Connect the White wire from the control module to the Violet/White parking lights on circuit wire at the driver kick panel.

24. **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.

25. Connect the Green/Violet wire from the VSSemote start module harness to the Gray/Violet dome light circuit wire at the driver kick panel.

26. **NOTE:** Connect only if system will be used in Lot Mode.

    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.

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

28. **NOTE:** Connect only if system will be used in Lot Mode.

    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.

29. Connect the Green wire from the control module to the Violet/Gray power door unlock circuit at the driver kick panel.

30. **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 at the driver kick panel.

31. Connect the Light Green wire from the control module harness to the Violet/Gray door unlock circuit wire at the driver kick panel.

32. **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.

33. Connect the White/Blue wire from the control module harness to the Gray/Brown lock motor circuit wire at the driver kick panel.

GENERAL PROCEDURES (Continued)

10. 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 unlock button and verify the LED illuminates.

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

12. Press and release the Lock button on the trim switch.

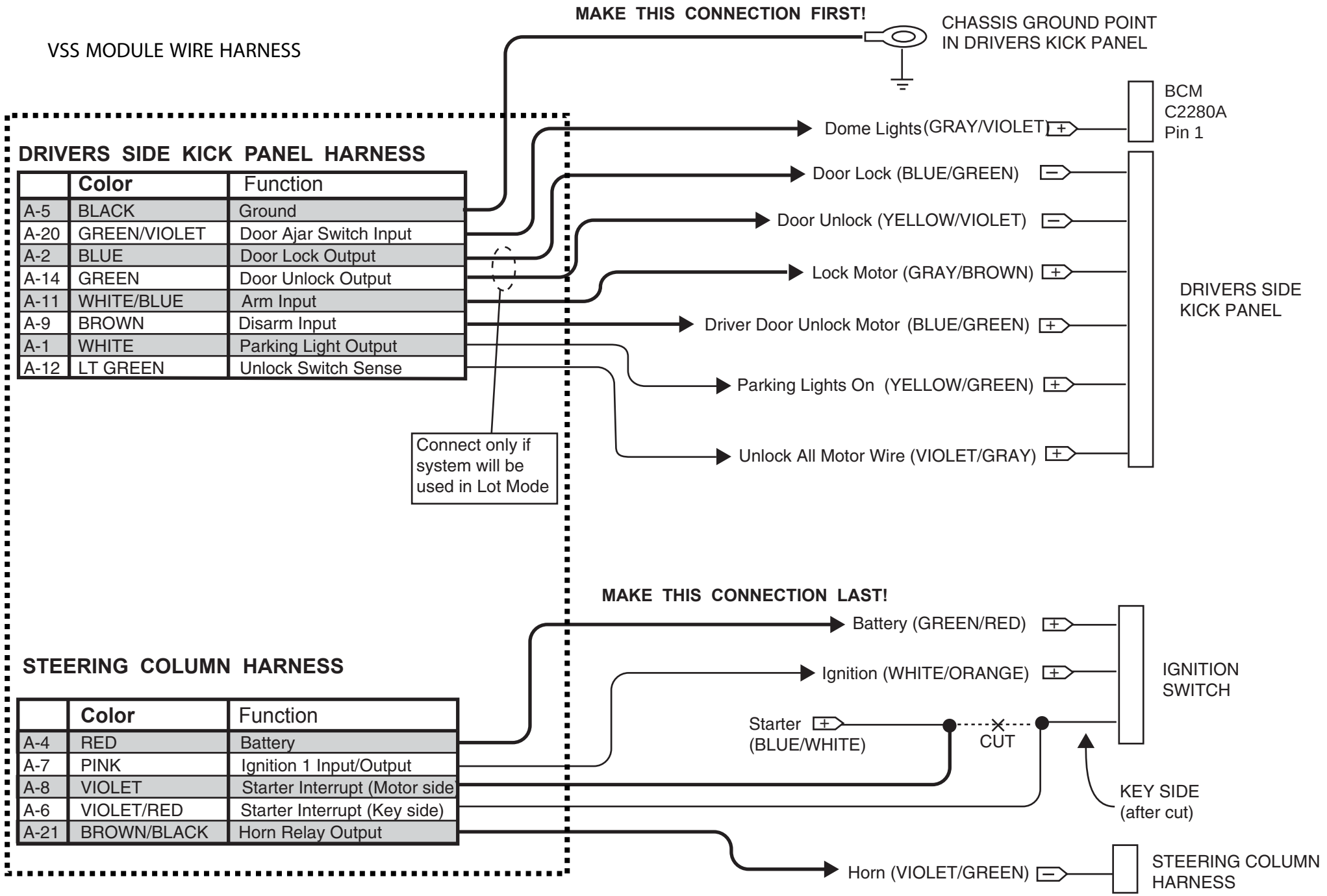
    The horn will honk 1 time indication the system has entered the option 1 of the second program bank.

13. 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 Unlock button and verify the LED illuminates.

14. The VSS module is now programmed.

'13 Edge - Key Start

VSS 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

STEERING COLUMN HARNESS

	Color	Function
A-4	RED	Battery
A-7	PINK	Ignition 1 Input/Output
A-8	VIOLET	Starter Interrupt (Motor side)
A-6	VIOLET/RED	Starter Interrupt (Key side)
A-21	BROWN/BLACK	Horn Relay Output

Vehicle Security System

CONTENTS

INSTALLATION

Vehicle Security System

Flex - Key Start

NOTE: Vehicle Security Systems (VSS) are only applicable to vehicles with RKE.

1. Verify correct kit number.

Review VSS Installation Kit Contents

NOTE: Kits are vehicle specific and are not interchangeable.

NOTE: If system is to be used in Lot Mode, Wire Harness P/N 2W7Z-19C757-BA will have to be ordered.

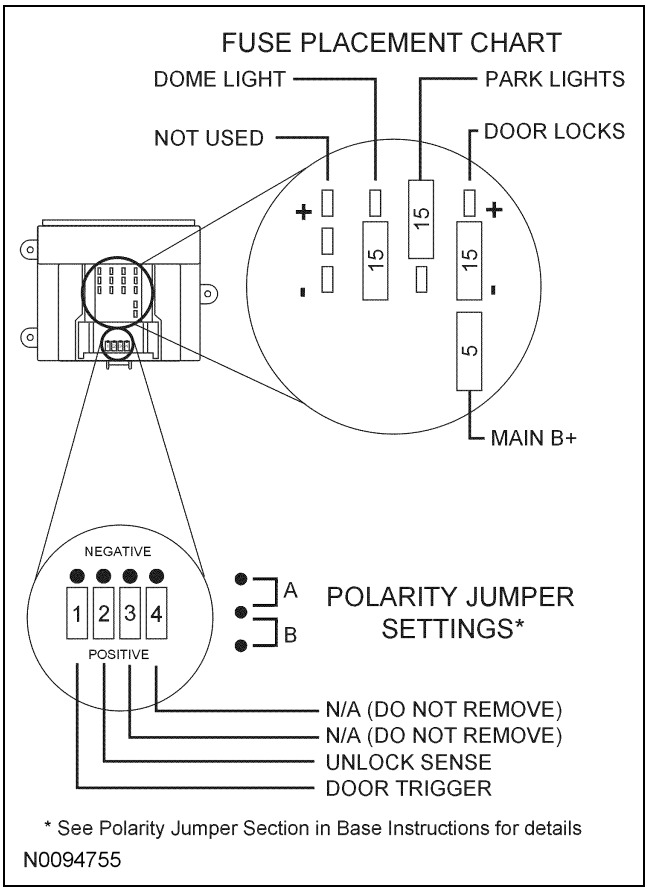
2. Review the VSS kit contents.

VSS System Kit

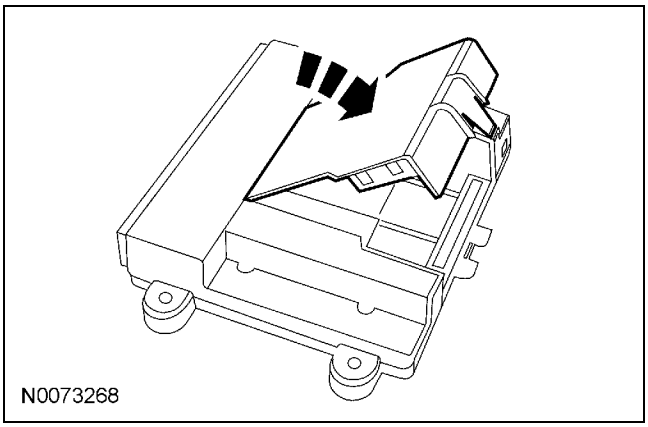
QUANTITY	DESCRIPTION
1	MODULE ASSEMBLY
1	VSS SOFTWARE CARTRIDGE ASSEMBLY
1	WIRING HARNESS WITH 24-WAY CONNECTOR
1	INSTALLATION PARTS BAG
1	FUSE PARTS BAG
1	OPERATORS INSTRUCTIONS
1	OPERATORS QUICK REFERENCE WALLET CARD
1	VEHICLE SECURITY SYSTEM WARNING. WINDOW DECAL

Module Preparation

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

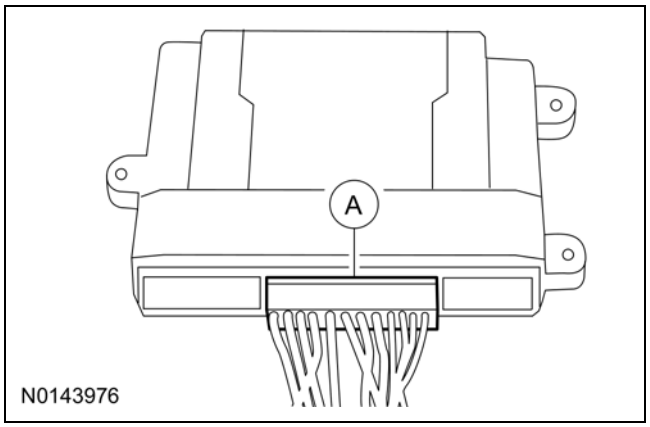


4. Place the software cartridge onto the control module.



INSTALLATION (Continued)

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

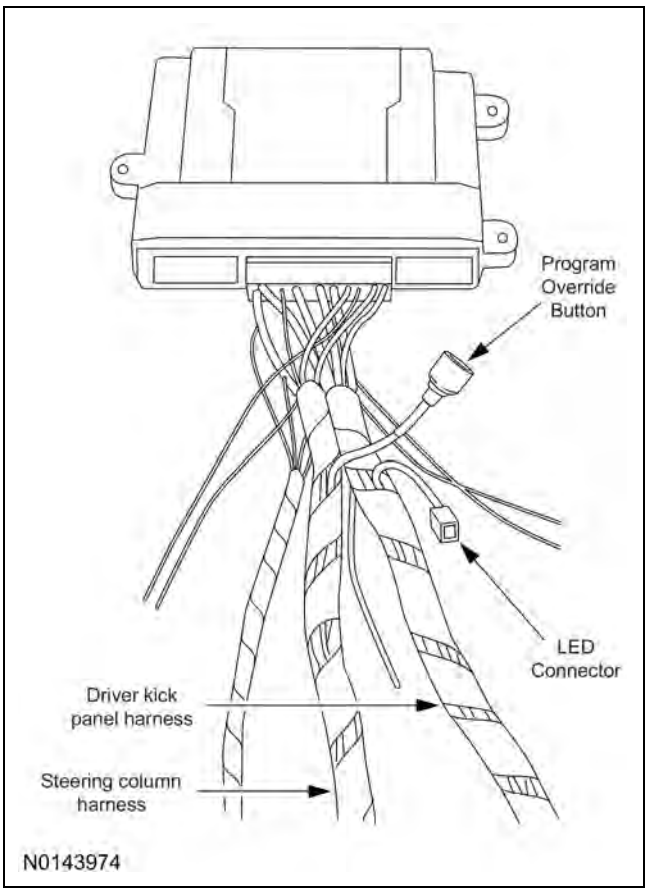


6. **NOTE:** Do not cut the override programming button off of the harness, it is used for all installations.

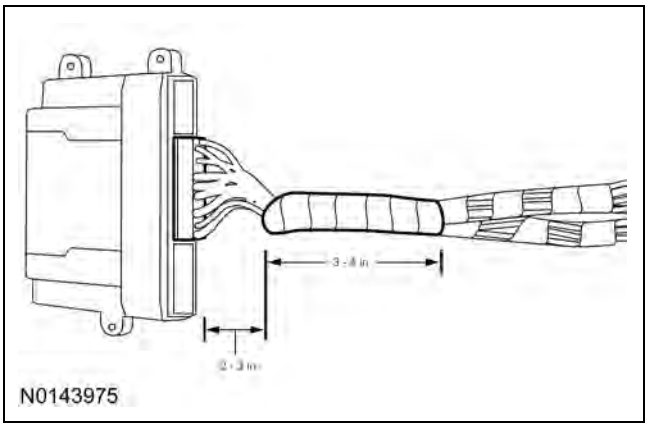
   NOTE: Refer to the vehicle specific wiring diagram(s)

   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.



Vehicle Preparation

8. Remove the 3 lower instrument panel steering column cover screws and the cover.

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

INSTALLATION (Continued)

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

Install the VSS Control Module and Harness Assembly

11. Place the VSS module and harness assembly in the vehicle.

Install LED

12. Connect the LED harness to the VSS module harness LED connector.

13. Route the LED harness through the instrument panel to the driver side of the vehicle.

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

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

14. Mount the LED at an appropriate location on the driver’s side of the vehicle using the guidelines listed above.

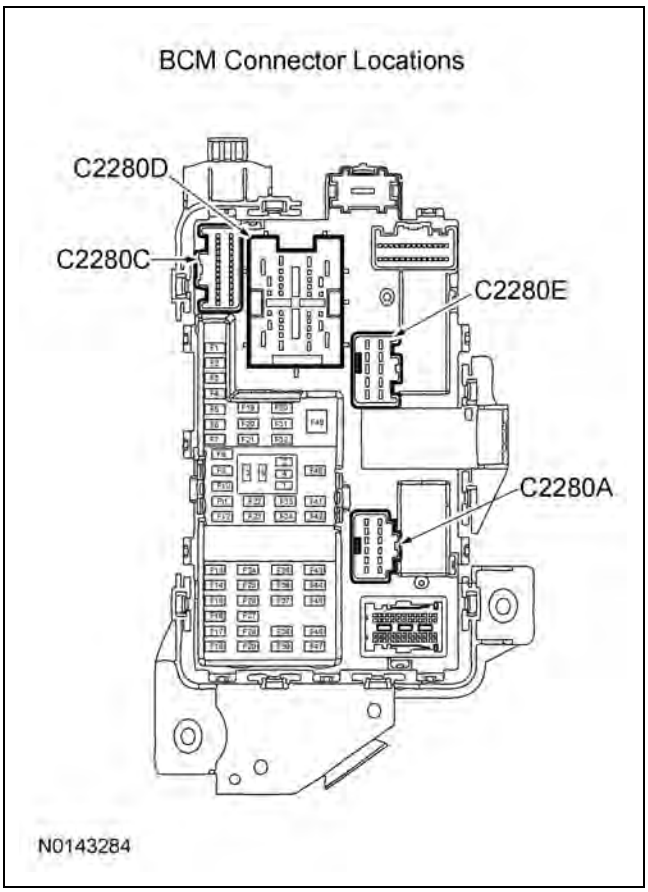
    - Drill a 9/32’’ hole into the selected location, for the LED to mount in.

15. Secure the LED wire harness with tie-straps.

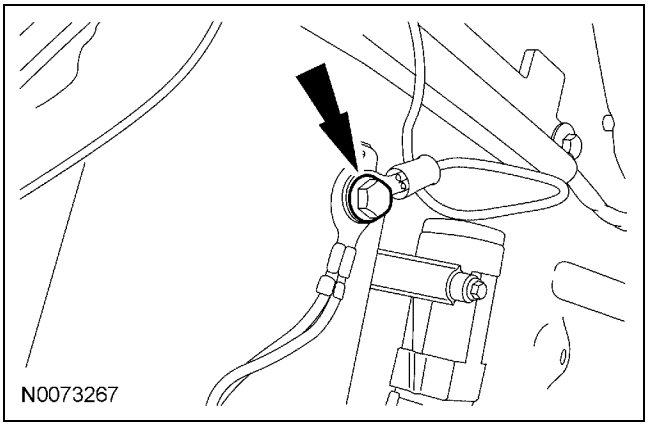
Identify Circuit Wires For Connections

NOTE: Review vehicle specific wiring diagram(s).

NOTE: Review proper wire splicing techniques.



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



INSTALLATION (Continued)

17. **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.

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

19. **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.

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

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

22. Connect the Violet/Red wire from the control module harness to the Blue/White starter circuit wire coming from ignition switch connector.

23. **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 Violet/Green horn circuit wire at the steering column harness.

24. Connect the Brown/Black wire from the control module harness to the Violet/Green horn circuit wire at the steering column harness.

25. **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 Gray/Violet dome light circuit wire at Body Control Module (BCM) connector C2280A Pin 1.

26. Connect the Green/Violet wire from the control module harness to the Gray/Violet dome light circuit wire at BCM connector C2280A Pin 1.

27. **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 BCM connector C2280D Pin 26.

28. Connect the White/Blue wire from the control module harness to the Gray/Brown lock all motors circuit wire at BCM connector C2280D Pin 26.

29. **NOTE:** Connect only if system will be used in Lot Mode.

    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 power door lock circuit wire at the BCM connector C2280C Pin 6.

30. Connect the Blue wire from the control module harness to the Blue wire at the BCM connector C2280C Pin 6.

INSTALLATION (Continued)

31. **NOTE:** Connect only if system will be used in Lot Mode.

    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 door unlock circuit wire at BCM connector C2280C Pin 8.

32. Connect the Green wire from the control module harness to the Yellow door unlock circuit wire at BCM connector C2280C Pin 8.

33. **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 BCM connector C2280D Pin 21.

34. Connect the Brown wire from the control module harness to the Blue/Green driver door unlock motor circuit wire at BCM connector C2280D Pin 21.

35. **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 unlock all doors circuit wire at BCM connector C2280D Pin 31.

36. Connect the Light Green wire from the control module harness to the Violet/Gray unlock all doors circuit wire at BCM connector C2280D Pin 31.

37. **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 Yellow/Blue parking light circuit wire at the BCM connector C2280E Pin 6.

38. Connect the White wire from the control module harness to the Yellow/Blue parking light circuit wire at the BCM connector C2280E Pin 6.

Power Connection

39. **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 Yellow/Red Battery circuit wire in the ignition switch harness.

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

Program The VSS System

41. Refer to the control module programming section for this vehicle.

Secure The Control Module Harness and Control Module

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

43. **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.

INSTALLATION (Continued)

Install Trim

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

45. Install the upper and lower steering column shrouds.

    Install the 3 screws.

46. Install the lower steering column opening cover.

    Install the 2 screws.

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

Programming the Module

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

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

NOTE: The VSS override button must be accessible.

47. **Programming Options: Entering Programming Mode**

    See chart(s) 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	3	DOOR AJAR INVERT	ON
1	4	UNLOCK SENSE INVERT	ON

Option Bank - 2 Chart (5 - Honks)

BANK	OPTIONS	DESCR	LED
2	1	STARTER INTERRUPT	ON

NOTE: Perform proper adjustments following the ^^Shock Sensor Setting^^, refer to General Procedures.

48. Open the driver door.

    All other doors should remain closed.

49. Turn the ignition key to the RUN position.

50. Press and hold the VSS override button for at least 10 seconds. After 10 seconds the horn with honk 3 times, indicating the system is now in the learn mode.

51. 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:

    - All door and dome light circuit wire solder connections.
    - The key is in the RUN position.
    - The software cartridge is firmly seated in the VSS module.
    - The VSS harness connections are firmly seated in the VSS module.

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

52. Press and release the Lock button on the trim switch 3 times. The horn will honk 3 times indicating the system has entered the option 3 of the first program bank.

NOTICE: **To turn the LED on or off, press and immediately release Unlock button on the trim switch.**

53. The LED must be ON for option 3. If the LED is illuminated no action is required. If the LED is not illuminated press the Unlock button and verify the LED illuminates.

INSTALLATION (Continued)

NOTE: When programming the VSS module, if the Lock button is held for more than 3 seconds, the horn will honk 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 VSS module.

54. Press and release the Lock button on the trim switch. The horn will honk 4 times indicating the system has entered the option 4 of the first program bank.

55. 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 unlock button and verify the LED illuminates.

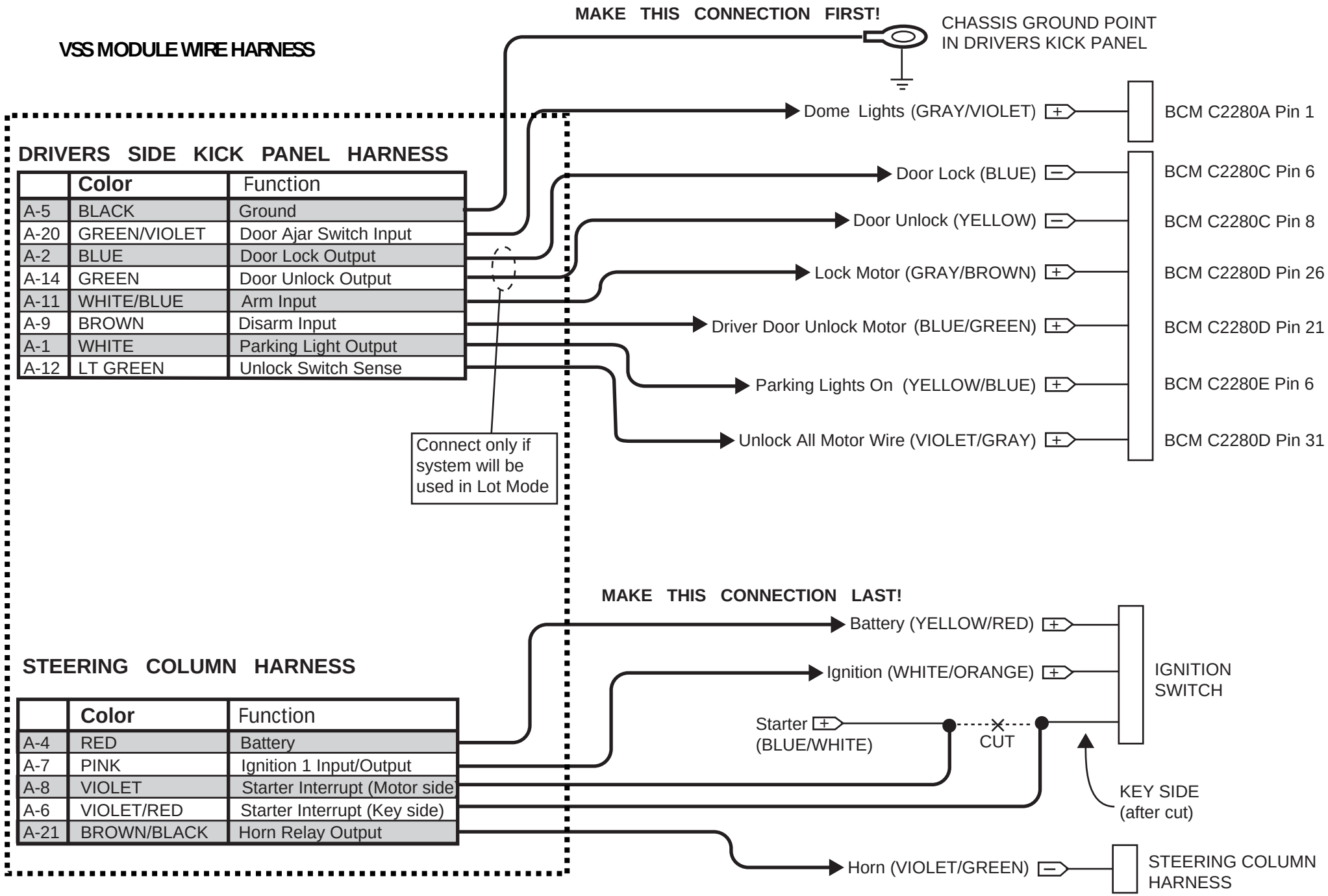
56. Press and release the override button. The horn will honk 5 times indicating the system has entered the second option bank.

57. Press and release the Lock button on the trim switch. The horn will honk 1 time indicating the system has entered the option 1 of the second program bank.

58. 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 Unlock button and verify the LED illuminates.

59. The VSS module is now programmed.

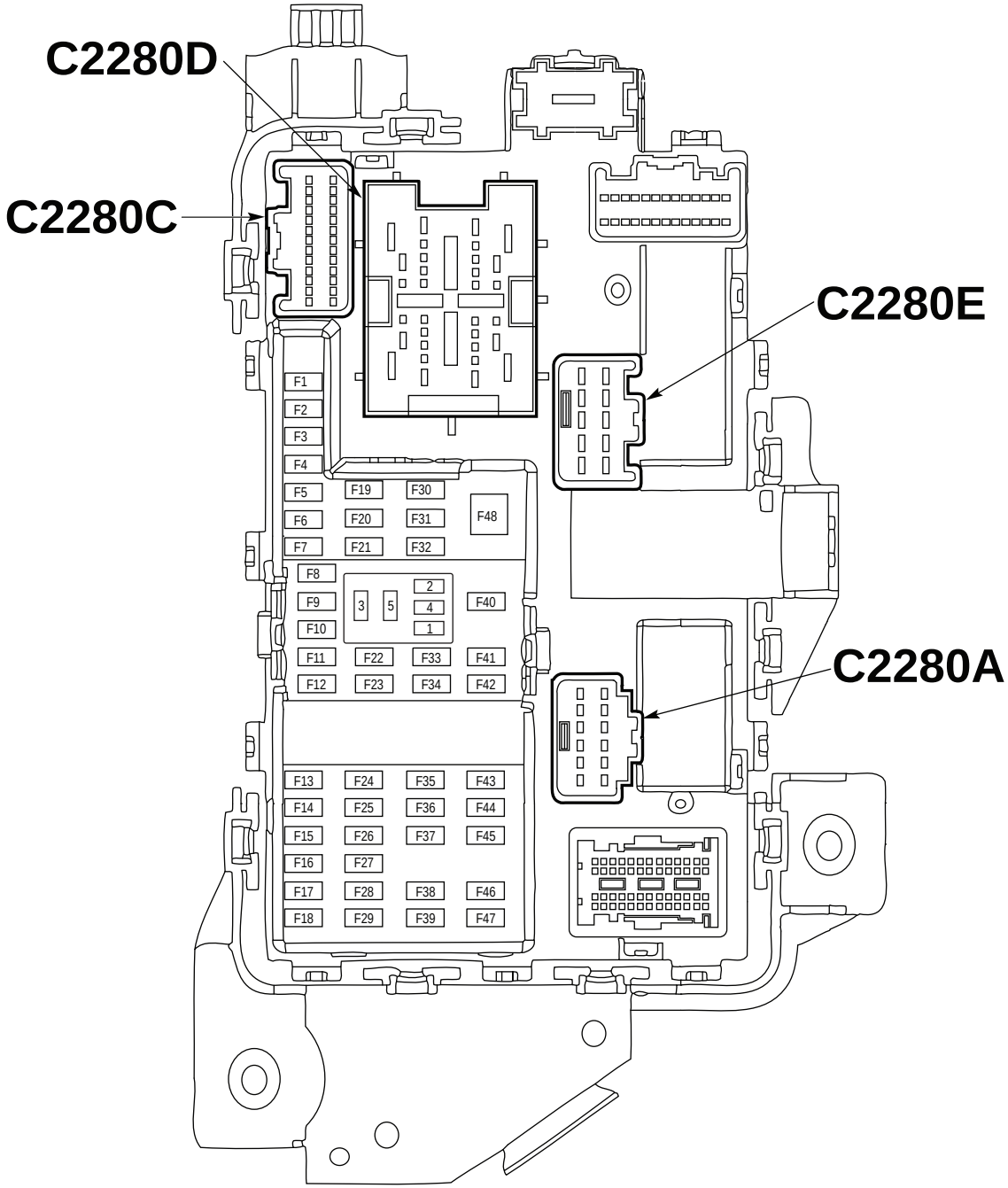
‘13 Flex- Key Start



	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

	Color	Function
A-4	RED	Battery
A-7	PINK	Ignition 1 Input/Output
A-8	VIOLET	Starter Interrupt (Motor side)
A-6	VIOLET/RED	Starter Interrupt (Key side)
A-21	BROWN/BLACK	Horn Relay Output

BCM Connector Locations



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VSS SYSTEM INSTALLATION

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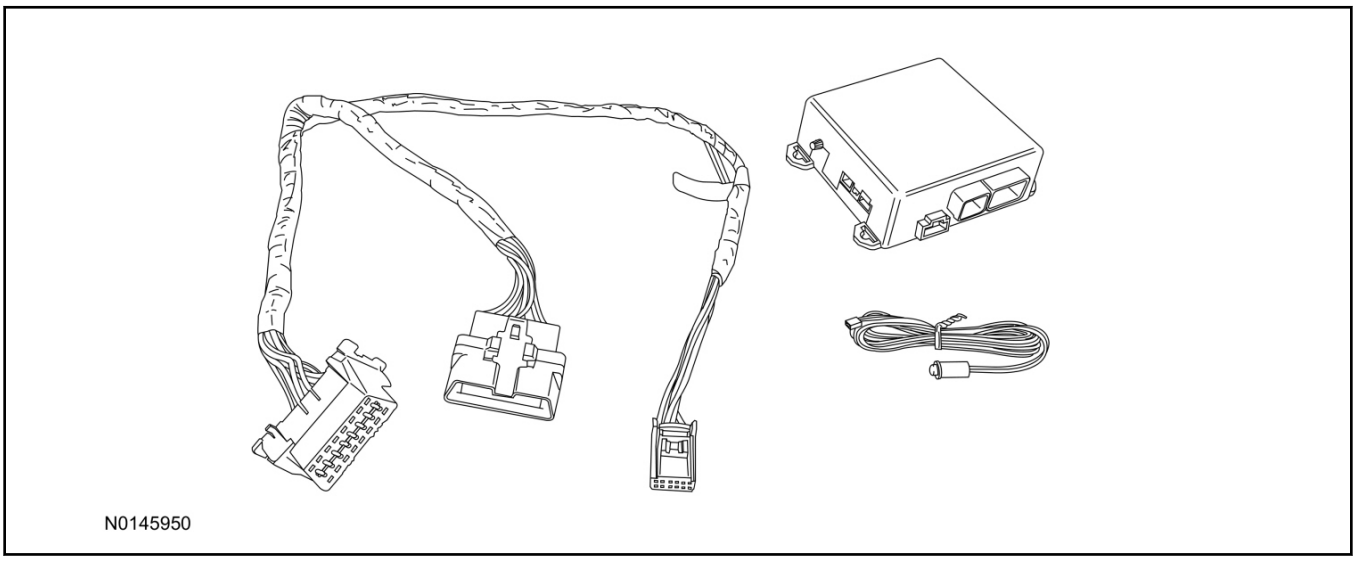
INSTALLATION

Vehicle Security

Escape



1. Verify correct kit number.

Review VSS Installation Kit Contents

NOTE:
Kits are vehicle specific and are not interchangeable.

2. Review the VSS kit contents.

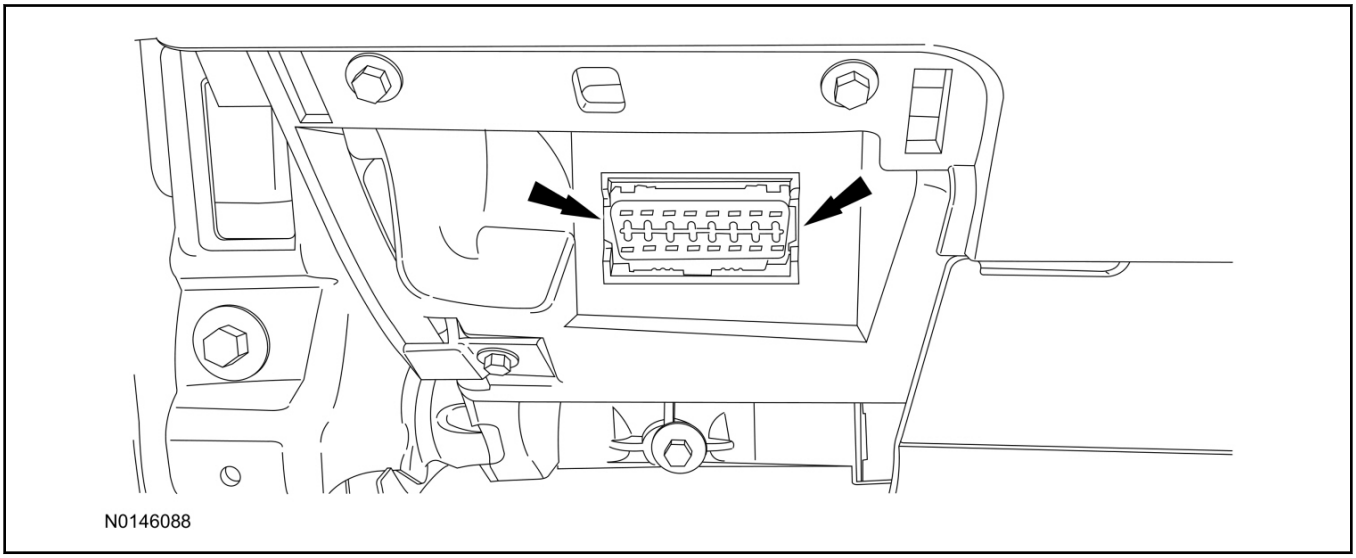
Vehicle Security System (VSS) System Kit

QUANTITY	DESCRIPTION
1	VSS Module
1	VSS T-harness
1	LED harness
2	Window Label
4	Zip-tie
1	Owner's Manual

VSS Installation

3. Remove the steering column shrouds. For additional information, refer to Workshop Manual (WSM), Section 211-04.
4. Press inward on the clips and detach the vehicle's OBD II port from the Instrument Panel (IP) frame.

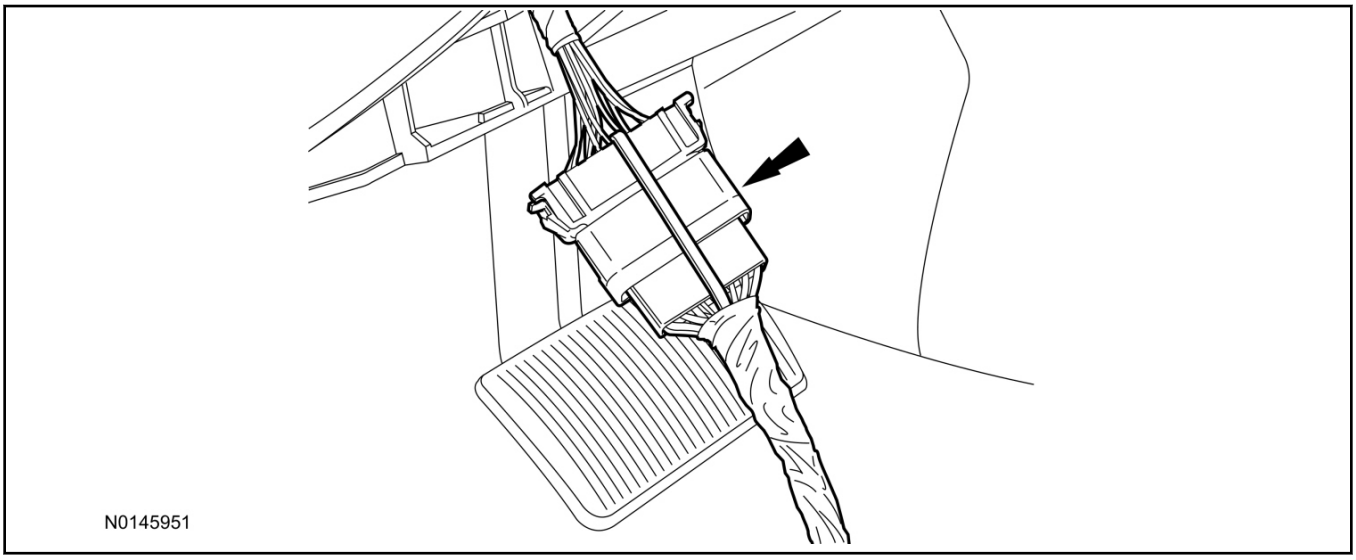
INSTALLATION (Continued)



5. **NOTE:**
   Failure to secure harness connection with a zip-tie will result in loss of VSS system functionality.

   Connect the VSS T-harness to the vehicle's OBD II port.

   - Secure the T-harness to the OBD II port using a zip-tie.

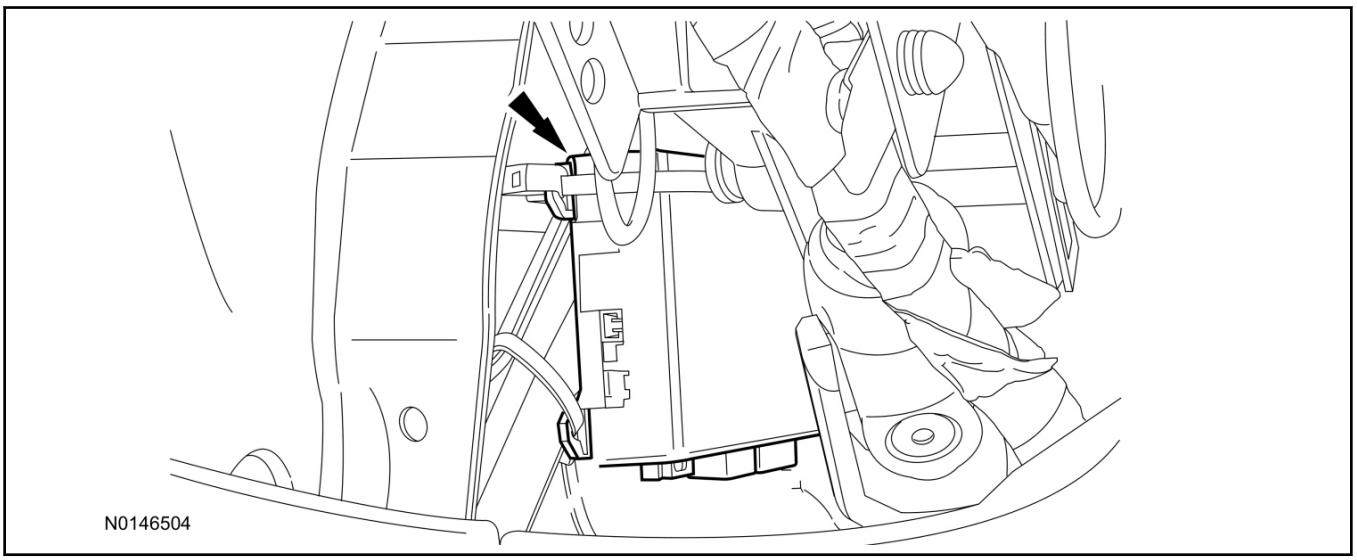


6. **NOTE:**
   Make sure the shock sensor adjustment knob will be accessible.

   Install the VSS module to the IP frame.

   - Secure with zip-ties.

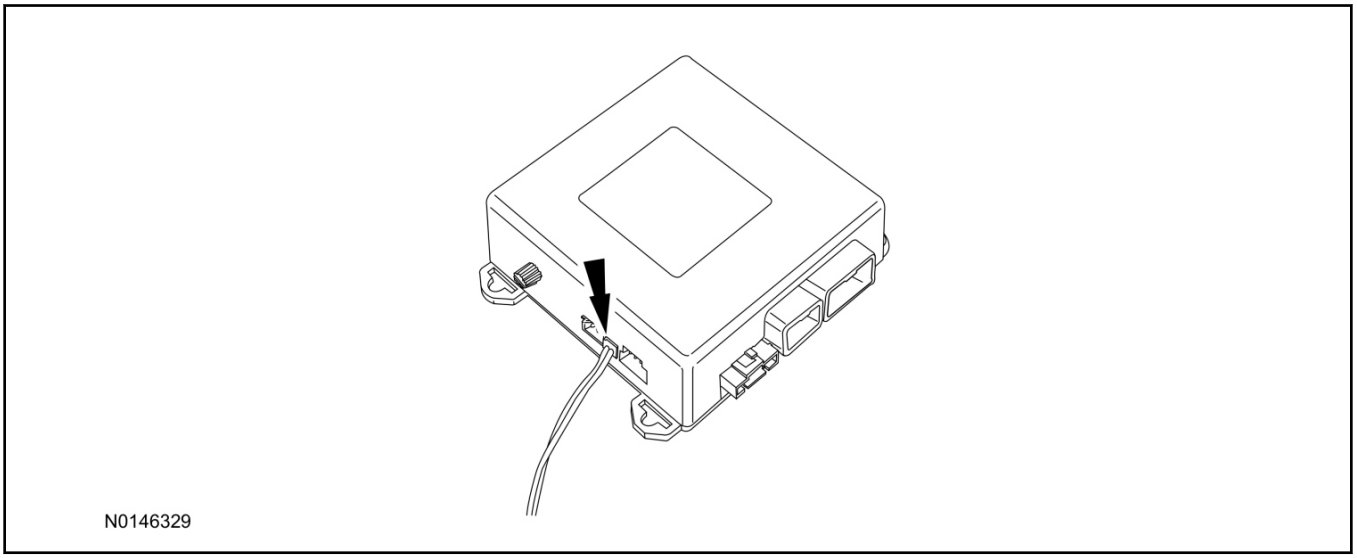
INSTALLATION (Continued)



7. Position the T-harness inside the IP.
8. ***NOTICE:***
   Use care in harness routing to avoid pinching or routing against sharp metal.

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

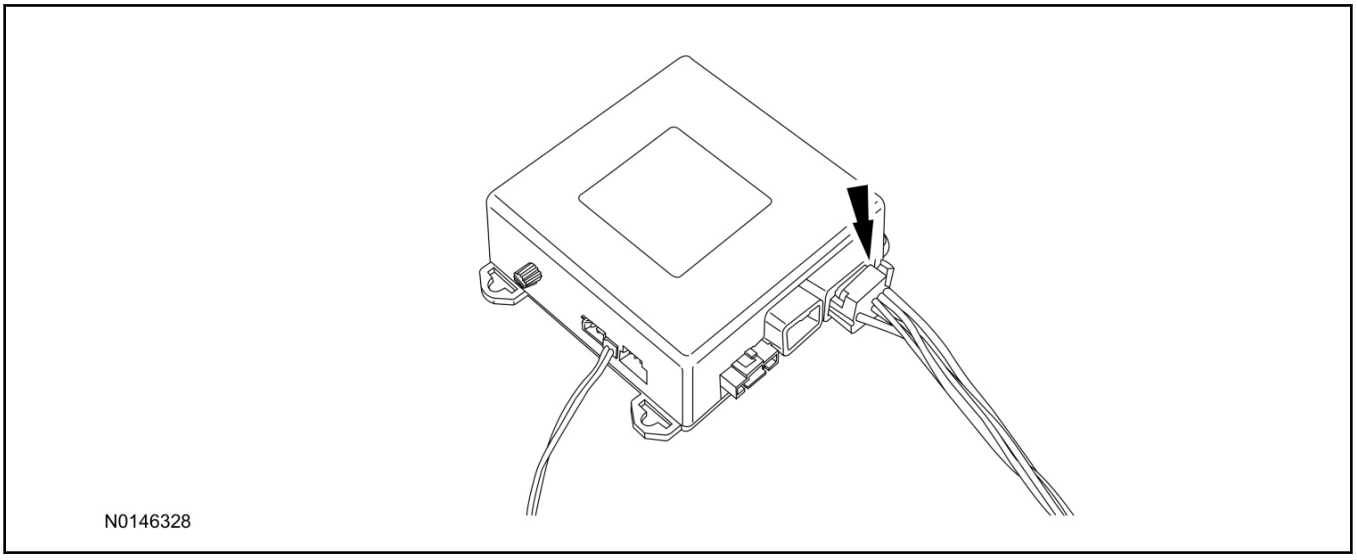
INSTALLATION (Continued)



NOTE:
Observe the LED while performing the following step.

NOTE:
The VSS module will automatically program itself once connected to the harness / vehicle. The VSS system should immediately flash the LED 3 times to indicate that it is entering "Auto Learn Mode". Auto learn completes at "power-up" of the module, and once it is complete, the LED will stay On. Turn on the vehicle's ignition to exit "Auto Learn Mode" .

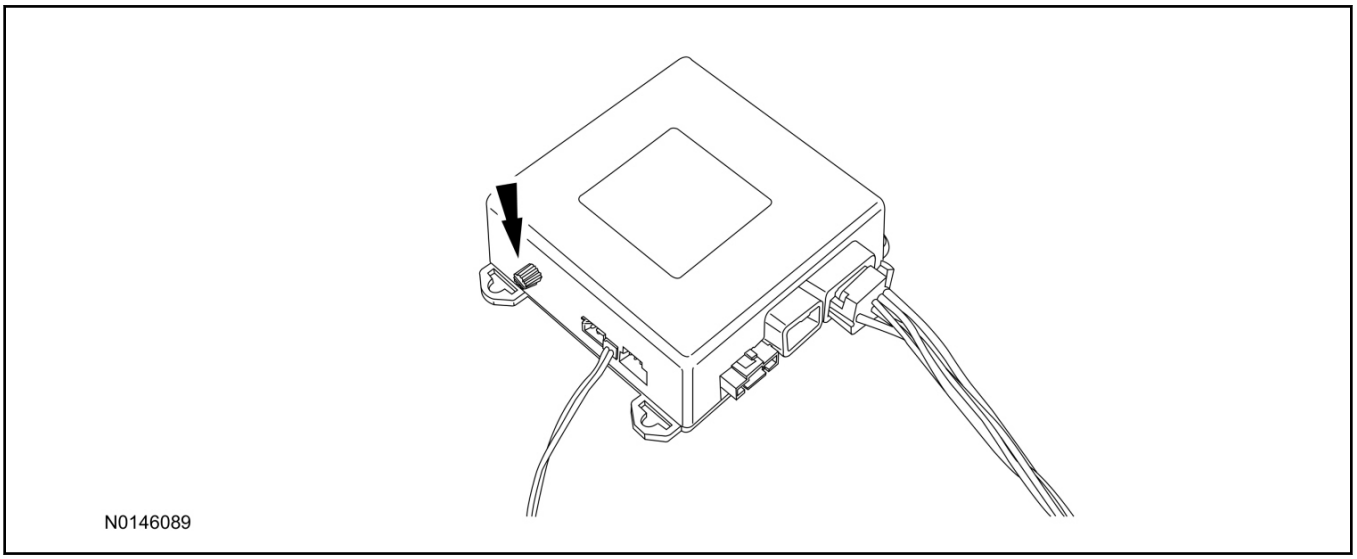
13. Connect the T-harness to the VSS module.



INSTALLATION (Continued)

Shock Sensor Sensitivity Adjustment

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



14. Starting with the adjustment knob in approximately the halfway position, lower the driver's window and exit the vehicle.
15. Press the LOCK button on the vehicle's RKE fob to arm the VSS system. The LED will light solid for 10-15 seconds and then begin to flash a steady on/off sequence to indicate the system is armed.
16. Using a closed fist, impact the steering wheel with moderate force to simulate a light impact on the vehicle. If the impact is detected, the horn will honk and the lights will flash 1 time to indicate the warning impact was detected.
17. Using a closed fist, impact the steering wheel with heavy force to simulate a hard impact (i.e. glass breakage) on the vehicle. If the impact is detected, the horn will honk and the lights will flash a steady on off sequence to indicate the heavy or full shock trigger was detected.
18. Increase (rotate clockwise) or decrease (rotate counter-clockwise) the adjustment knob as necessary to achieve desired sensitivity, repeat the previous steps to test, and verify adjustment.

Install Trim

19. Install the steering column shrouds. For additional information, refer to WSM, Section 211-04.

INSTALLATION (Continued)

VSS Functional Test

NOTE:
Observe the LED while performing these tests.

20. Lower the driver's door window, then close all doors, hood, and trunk/hatch and press lock on the keyfob. The LED should stay lit for 10-15 seconds while the VSS system pre-arms, after which it will flash every 3-4 seconds in fully armed mode.
21. Reach inside the window hit the door unlock trim switch. The LED should continue to flash, indicating that the vehicle is still armed. Use the inside driver's door handle to open the door. The alarm should sound, indicating perimeter breach. Turn the alarm off by Turning the ignition to "On".
    - If equipped with OE perimeter security, there will be a 12 second interior chime prior to alarm sounding. For vehicles not equipped with OE perimeter security, the alarm will trigger instantly upon door opening.
    - For push button start vehicles, the Intelligent Access (IA) key must be away from the vehicle, otherwise the security system will disarm immediately upon trigger.
22. Exit the vehicle and arm it again, this time leaving the driver's door open. The vehicle should arm itself, ignoring the open door but monitoring the rest. Once the vehicle is armed, shut the driver's door and reopen it after a few seconds. The alarm should sound. Turn the alarm off by hitting unlock on the keyfob.
    - For push button start vehicles, the Intelligent Access (IA) key must be away from the vehicle, otherwise the security system will disarm immediately upon trigger.
23. Test all other vehicle doors and the trunk in the same manner, by setting off the alarm and disarming with the keyfob.

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VSS SYSTEM INSTALLATION

CONTENTS

INSTALLATION

Vehicle Security System

Expedition/Navigator

NOTICE: **Vehicle Security systems are only applicable to vehicles with RKE.**

1. Verify correct kit number.

Review VSS Installation Kit Contents

NOTE: Use kit number 7L3Z-19A361-AA VEHICLE SECURITY SYSTEM

NOTE: Kits are vehicle specific and are not interchangeable.

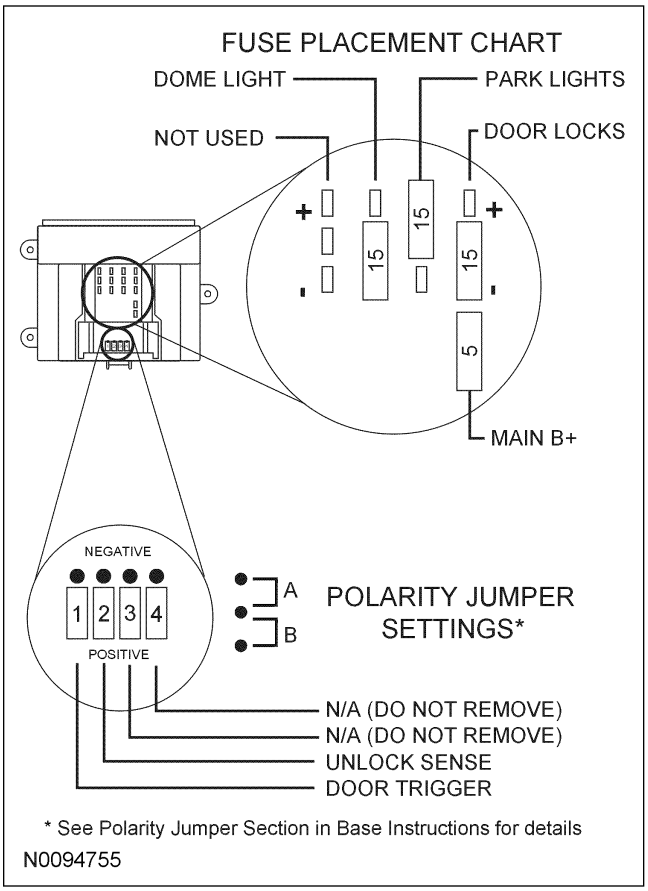
2. Review the VSS kit contents.

Vehicle Security System (VSS) Kit

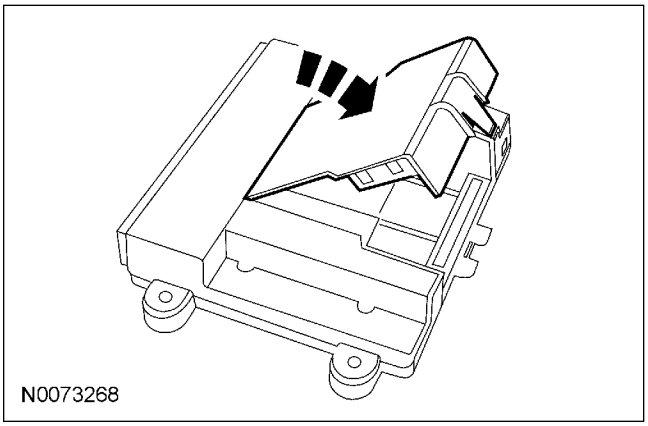
QUANTITY	DESCRIPTION
1	MODULE ASSEMBLY
1	VSS SOFTWARE CARTRIDGE ASSEMBLY
1	WIRING HARNESS WITH 24-WAY CONNECTOR
1	INSTALLATION PARTS BAG
1	FUSE PARTS BAG
1	OPERATORS INSTRUCTIONS
1	OPERATORS QUICK REFERENCE WALLET CARD
1	VEHICLE SECURITY SYSTEM WARNING. WINDOW DECAL

Module Preparation

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

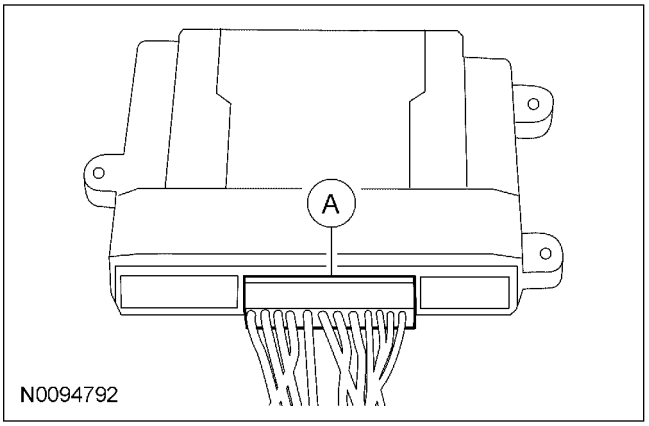


4. Place the software cartridge onto the VSS control module.



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

INSTALLATION (Continued)

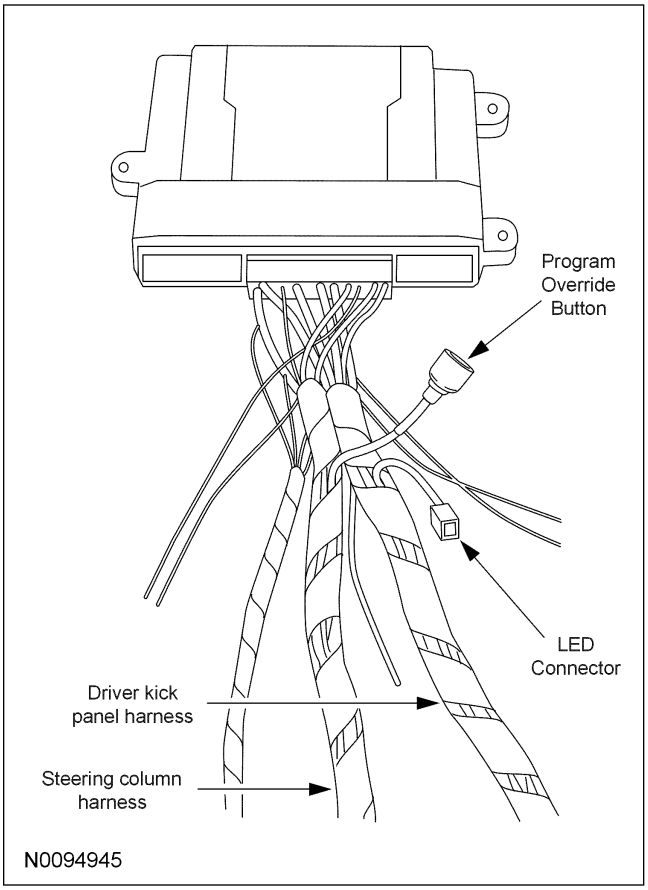


6. **NOTE:** Do not cut the override programming button off of the harness, it is used for all installations.

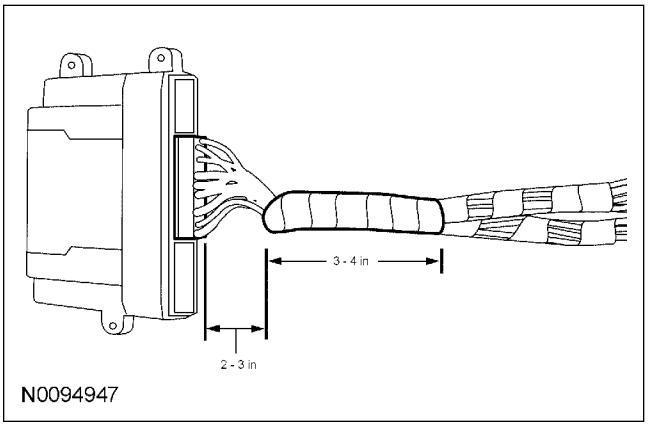
   NOTE: For vehicle specific wiring diagram(s) click here.

   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.



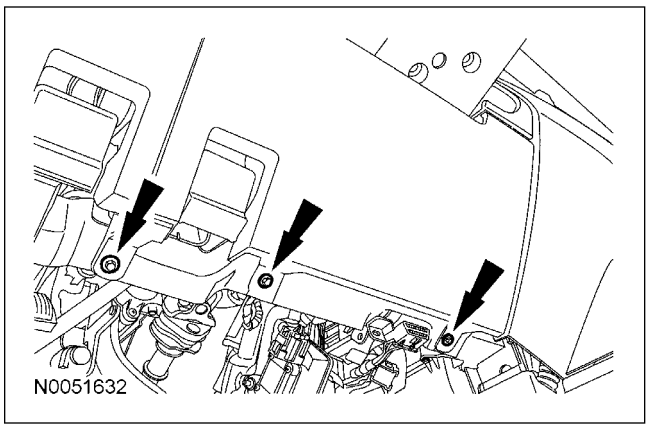
7. Tape the harness sections together, making sure to cover all of the unused wires.

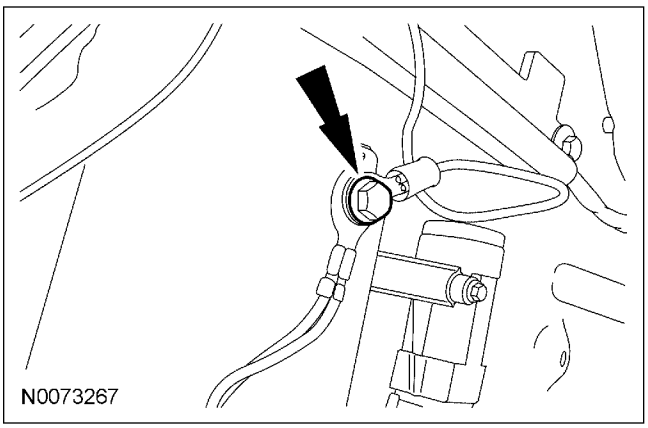


Vehicle Preparation - All Vehicles

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

INSTALLATION (Continued)





Vehicles With Power Tilt

9. Remove the 3 screws and the upper and lower steering column shrouds.
   - Disconnect the power tilt electrical connector switch from the lower shroud.

Vehicles With Manual Tilt

10. If equipped, release the tabs and slide the gear selector cover away from the steering column shrouds.

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

All Vehicles

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

Install the VSS Control Module and Harness Assembly

13. Place the VSS 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.

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

15. **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.

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

17. **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.

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

19. Connect the Violet wire from the control module harness to the harness side of the cut Blue/White starter circuit wire at the ignition switch harness.

20. Connect the Violet/Red wire from the control module harness to the Ignition Switch side of the cut Blue/White starter circuit wire at the ignition switch harness.

INSTALLATION (Continued)

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

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

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

22. Connect the Brown/Black wire from the VSS module harness to the Yellow/Red horn circuit wire in the steering column harness.

23. **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 dimmer switch.

24. Connect the Black/White wire from the control module harness to the Green/Blue dome light circuit wire at the dimmer switch.

25. **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 passenger kick panel Smart Junction Box (SJB) C2280A Connector Pin 9.

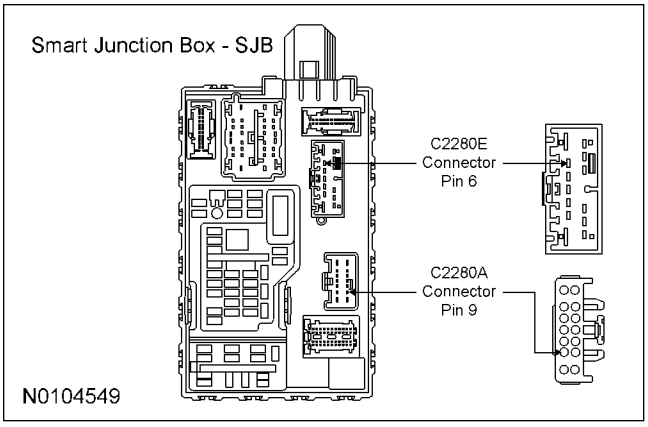
26. Connect the Green/Violet wire from the control module harness to the Gray/Violet dome light circuit wire at the passenger kick panel SJB C2280A Connector Pin 9.

27. **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 C2280E Connector Pin 6.

28. Connect the White wire from the control module harness to the Violet/White parking light circuit wire at the SJB C2280E Connector Pin 6.



29. **NOTE:** Connect only if system will be used in Lot Mode.

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

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

INSTALLATION (Continued)

31. **NOTE:** Connect only if system will be used in Lot Mode.

    NOTE: A DVOMconnected 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 Blue/Brown power door unlock circuit wire at the driver kick panel harness.

32. Connect the Green wire from the VSS module harness to the Blue/Brown power door unlock circuit at the driver kick panel harness.

33. **NOTE:** A DVOMconnected 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.

34. Connect the White/Blue wire from the control module harness to the Gray/Brown lock all motors circuit wire at the driver kick panel.

35. **NOTE:** A DVOMconnected 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 circuit wire at the driver kick panel harness.

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

37. **NOTE:** A DVOMconnected 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 Passenger Unlock Motor circuit wire at the passenger door sill plate harness.

38. Connect the Light Green wire from the control module harness to the Violet/Gray Passenger Unlock Motor circuit wire at the passenger door sill plate harness.

Power Connection

39. **NOTE:** A DVOMconnected 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 wire in the ignition switch harness.

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

Program The VSS System

41. Refer to the VSSprogramming section for this vehicle (click here).

Secure VSS Harness and Control Module

42. Use the supplied tie wraps to secure the VSS harness wires.

43. **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 VSScontrol module to the underdash wiring harness.

INSTALLATION (Continued)

All Vehicles

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

Vehicles With Manual Tilt

45. Install the upper and lower steering column shrouds.

    Install the 3 screws.

Vehicles With Power Tilt

46. Connect the power tilt electrical connector switch on the lower shroud.
47. Install the upper and lower steering column shrouds.

    Install the 3 screws.

All Vehicles

48. Install the lower steering column opening cover.

    Install the 3 screws.

GENERAL PROCEDURES

Programming

Programming the Module

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

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

   NOTE: The VSS override button must be accessible.

Programming Options: Entering Programming Mode

2. 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	3	DOOR AJAR INVERT	ON
1	4	UNLOCK SENSE INVERT	ON

Option Bank - 2 Chart (5 - Honks)

BANK	OPTIONS	DESCR	LED
2	1	STARTER INTERRUPT	ON

NOTE: Perform proper adjustments following the ‘‘Shock Sensor Setting’’, refer to General Procedures click here.

3. Open the driver door.

   All other doors should remain closed.

4. Turn the ignition key to the RUN position.

5. Press and hold the VSS override button for at least 10 seconds.

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

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:

   - All door and dome light circuit wire solder connections.
   - The key is in the RUN position.
   - The software cartridge is firmly seated in the VSS module.
   - The VSS harness connections are firmly seated in the VSS module.

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

7. Press and release the Lock button on the trim switch 3 times.

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

NOTICE: **To turn the LED on or off, press and immediately release Unlock button on the trim switch.**

8. The LED must be ON for option 3. If the LED is illuminated no action is required. If the LED is not illuminated press the Unlock button and verify the LED illuminates.

NOTE: When programming the VSS module, if the Lock button is held for more than 3 seconds, the horn will honk 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 VSS module.

9. Press and release the Lock button on the trim switch.

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

GENERAL PROCEDURES (Continued)

10. 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 unlock button and verify the LED illuminates.

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

12. Press and release the Lock button on the trim switch.

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

13. 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 Unlock button and verify the LED illuminates.

14. The VSS module is now programmed.

2013 Expedition/Naviagror

VSS MODULE WIRE HARNESS

MAKE THIS CONNECTION FIRST!

CHASSIS GROUND POINT IN DRIVERS KICK PANEL

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-12	LT GREEN	Unlock Switch Sense

Connect only if system will be used in Lot Mode

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

Door Lock (WHITE/BROWN) (−)

Door Unlock (BLUE/BROWN) (−)

Lock Motor (GRAY/BROWN) (+)

Driver Door Unlock Motor (BLUE/GREEN) (+)

→ DRIVERS SIDE KICK PANEL

Passenger Unlock Motor (VIOLET/GRAY) (+) → UNDER PASSENGER DOOR SILL PLATE

MAKE THIS CONNECTION LAST!

STEERING COLUMN HARNESS

	Color	Function
A-4	RED	Battery
A-7	PINK	Ignition 1 Input/Output
A-8	VIOLET	Starter Interrupt (Motor side)
A-6	VIOLET/RED	Starter Interrupt (Key side)
A-21	BROWN/BLACK	Horn Relay Output

Battery (BLUE/RED) (+)

Ignition (WHITE/ORANGE) (+)

→ IGNITION SWITCH

Starter (+) (BLUE/WHITE) — CUT

KEY SIDE (after cut)

Horn (YELLOW/RED) (−) → STEERING COLUMN HARNESS

PARKING LIGHT HARNESS

	Color	Function
A-1	WHITE	Parking Light Output

Parking Lights On (+) (VIOLET/WHITE) → PASSENGER KICK PANEL IN SJB C2280E PIN 6

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

DOME LIGHT HARNESS

	Color	Function
A-3	BLACK/WHITE	Domelight Output

Dome (GREEN/BLUE) (−) → DIMMER SWITCH

Manual Table of Contents

VSS SYSTEM INSTALLATION

CONTENTS

INSTALLATION

Vehicle Security System—

E-Series

NOTICE: **Vehicle Security systems are only applicable to vehicles with RKE.**

1. Verify correct kit number.

Review VSS Installation Kit Contents

NOTE: Use kit number 7L3Z-19A361-AA VEHICLE SECURITY SYSTEM

NOTE: Kits are vehicle specific and are not interchangeable.

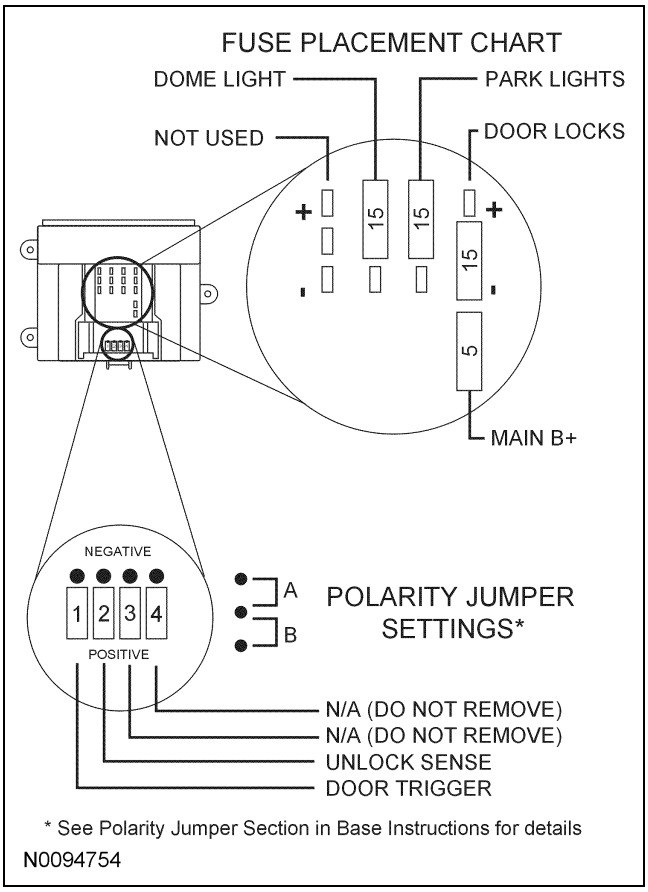
2. Review the VSS kit contents.

Vehicle Security System (VSS) Kit

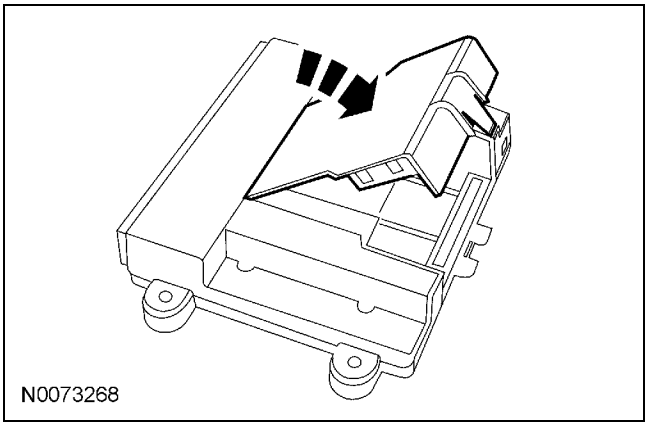
QUANTITY	DESCRIPTION
1	MODULE ASSEMBLY
1	VSS SOFTWARE CARTRIDGE ASSEMBLY
1	WIRING HARNESS WITH 24-WAY CONNECTOR
1	INSTALLATION PARTS BAG
1	FUSE PARTS BAG
1	OPERATORS INSTRUCTIONS
1	OPERATORS QUICK REFERENCE WALLET CARD
1	VEHICLE SECURITY SYSTEM WARNING. WINDOW DECAL

Module Preparation

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

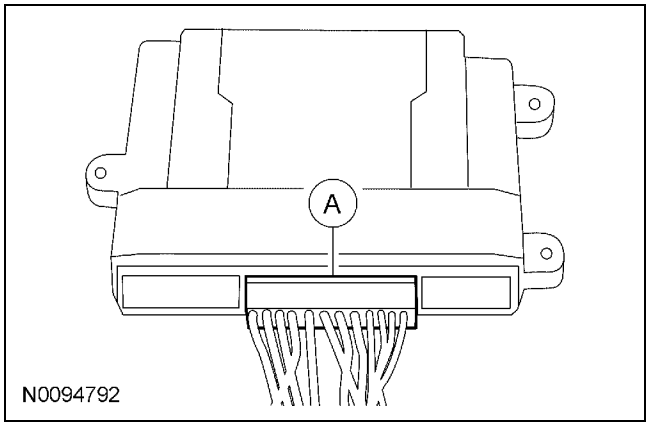


4. Place the software cartridge onto the control module.



INSTALLATION (Continued)

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



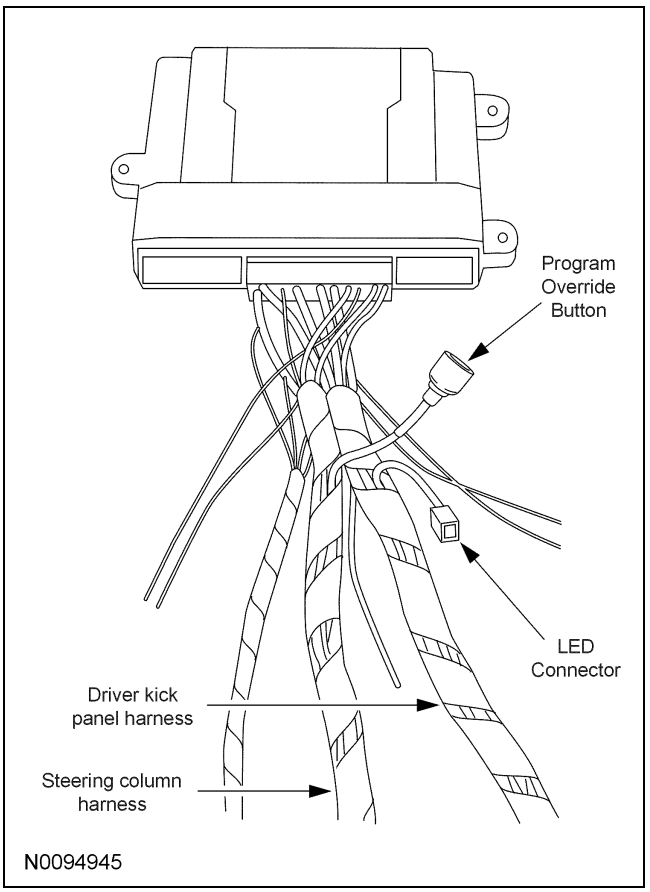
6. **NOTE:** Do not cut the override programming button off of the harness, it is used for all installations.

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

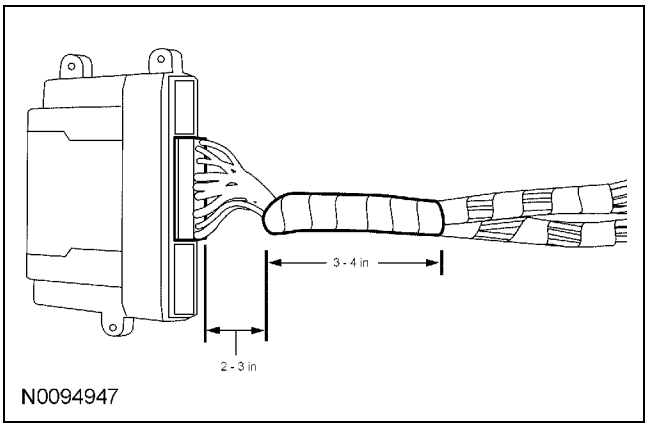
   Connect the following wire to the A-20 Green/Violet wire in the A connector of the control module approximately 8 inches from the connector
   - A-3 Black/White wire in the A connector.

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

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



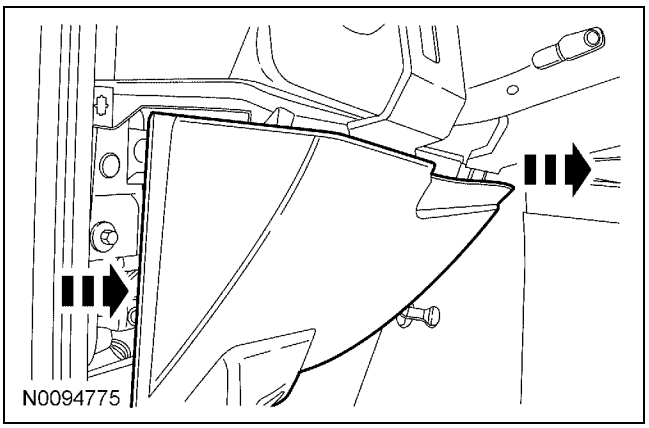
8. Tape the harness sections together, making sure to cover all of the unused wires.

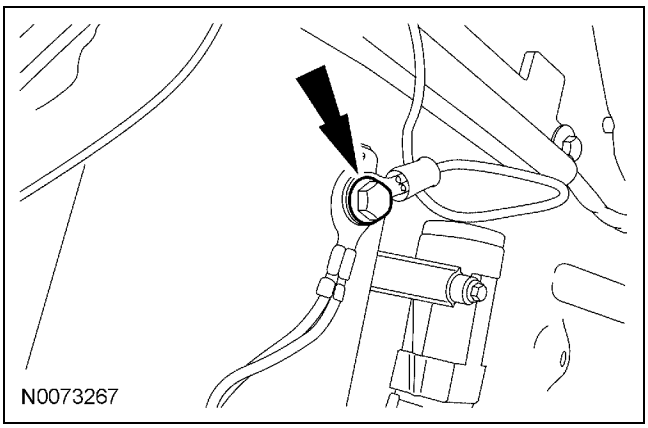


Vehicle Preparation

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

INSTALLATION (Continued)





10. Remove the lower steering column shroud.

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

12. If equipped, remove the tilt release lever handle.

13. Remove the (3) screws and the steering column shrouds.

Install the VSS Control Module and Harness Assembly

14. Place the VSS 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.

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

16. **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.

17. Connect the pink wire from the control module harness to the White/Orange ignition circuit wire at the Ignition Switch.

18. **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.

19. Connect the Violet wire from the control module harness to the harness Blue/White starter circuit wire at the Ignition Switch.

20. **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 6 way connector.

INSTALLATION (Continued)

21. Connect the Brown/Black wire from the control module to the Blue/White horn circuit wire at the steering column harness 6 way connector.

22. **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.

23. Connect the White wire from the control module to the Violet/White parking lights on circuit wire at the driver kick panel.

24. **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.

25. Connect the Green/Violet wire from the VSS module harness to the Gray/Violet dome light circuit wire at the driver kick panel.

26. **NOTE:** Connect only if system will be used in Lot Mode.

    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.

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

28. **NOTE:** Connect only if system will be used in Lot Mode.

    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.

29. Connect the Green wire from the control module to the Violet/Gray power door unlock circuit at the driver kick panel.

30. **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 at the driver kick panel.

31. Connect the Light Green wire from the control module harness to the Violet/Gray door unlock circuit wire at the driver kick panel.

32. **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.

33. Connect the White/Blue wire from the control module harness to the Gray/Brown lock motor circuit wire at the driver kick panel.

INSTALLATION (Continued)

34. **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.

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

Power Connection

36. **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.

37. Connect the one Red wire from the control module harness to one of the Blue/Red battery circuit wire in the ignition switch.

Program The VSS System

38. Refer to the VSS programming section for this vehicle click here.

Secure VSS Harness and Control Module

39. Use the supplied tie wraps to secure the VSS harness wires.

40. **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 VSS control module to the underdash wiring harness.

Install Trim

41. Install the (3) screws and the steering column shroud.

42. If equipped, install the tilt release lever handle.

43. Install the lower instrument panel steering column cover.

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

GENERAL PROCEDURES

Programming

Programming the Module

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

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

   NOTE: The VSS override button must be accessible.

Programming Options: Entering Programming Mode

2. 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	3	DOOR AJAR INVERT	ON
1	4	UNLOCK SENSE INVERT	ON

Option Bank - 2 Chart (5 - Honks)

BANK	OPTIONS	DESCR	LED
2	1	STARTER INTERRUPT	ON

NOTE: Perform proper adjustments following the ‘‘Shock Sensor Setting’’, refer to General Procedures click here.

3. Open the driver door.

   All other doors should remain closed.

4. Turn the ignition key to the RUN position.

5. Press and hold the VSS override button for at least 10 seconds.

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

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:

   - All door and dome light circuit wire solder connections.
   - The key is in the RUN position.
   - The software cartridge is firmly seated in the VSS module.
   - The VSS harness connections are firmly seated in the VSS module.

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

7. Press and release the Lock button on the trim switch 3 times.

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

NOTICE: **To turn the LED on or off, press and immediately release Unlock button on the trim switch.**

8. The LED must be ON for option 3. If the LED is illuminated no action is required. If the LED is not illuminated press the Unlock button and verify the LED illuminates.

NOTE: When programming the VSS module, if the Lock button is held for more than 3 seconds, the horn will honk 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 VSS module.

9. Press and release the Lock button on the trim switch.

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

GENERAL PROCEDURES (Continued)

10. 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 unlock button and verify the LED illuminates.

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

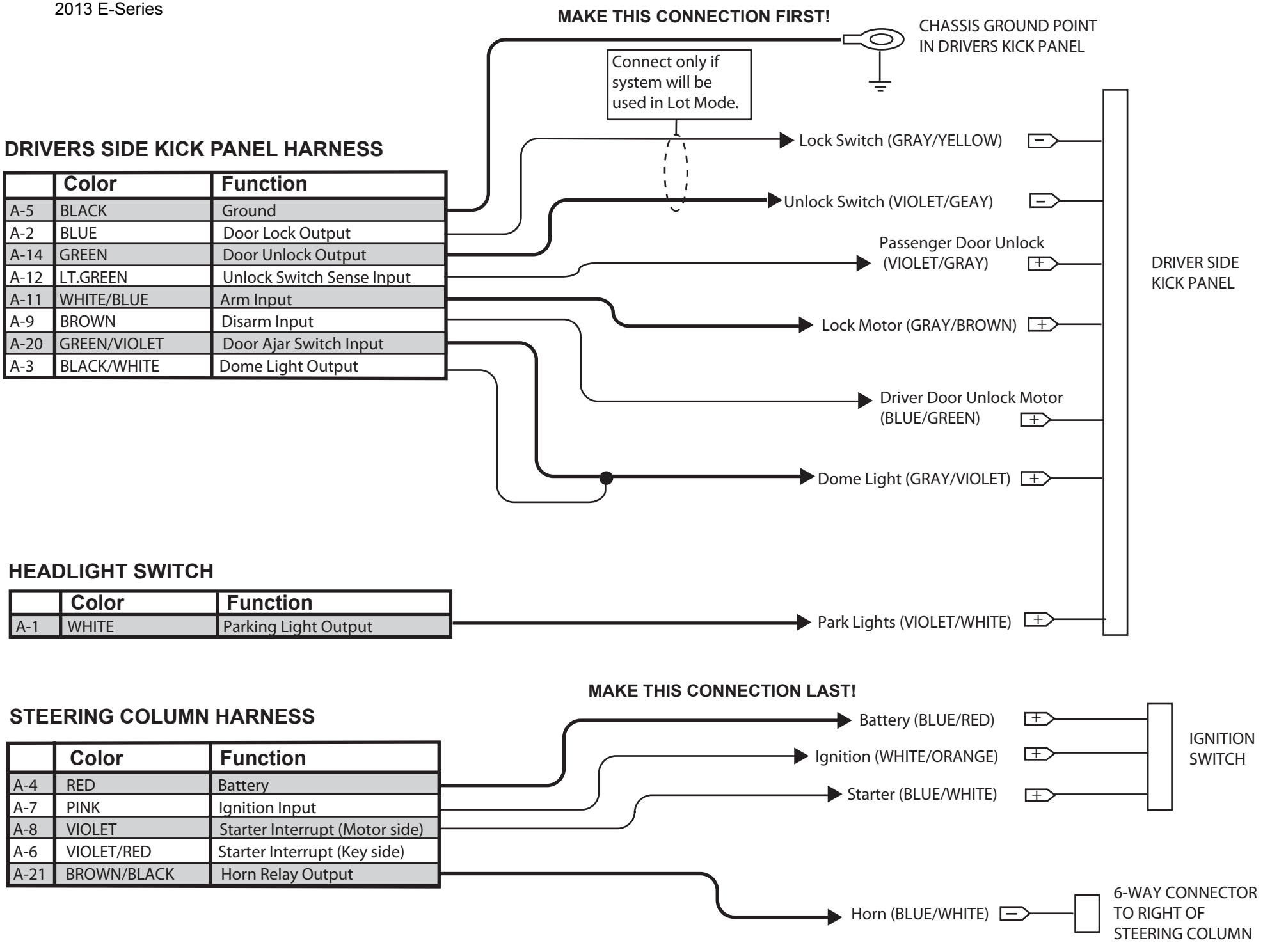
12. Press and release the Lock button on the trim switch.

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

13. 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 Unlock button and verify the LED illuminates.

14. The VSS module is now programmed.

2013 E-Series



	Color	Function
A-5	BLACK	Ground
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
A-20	GREEN/VIOLET	Door Ajar Switch Input
A-3	BLACK/WHITE	Dome Light Output

	Color	Function
A-1	WHITE	Parking Light Output

	Color	Function
A-4	RED	Battery
A-7	PINK	Ignition Input
A-8	VIOLET	Starter Interrupt (Motor side)
A-6	VIOLET/RED	Starter Interrupt (Key side)
A-21	BROWN/BLACK	Horn Relay Output

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VSS SYSTEM INSTALLATION

CONTENTS

INSTALLATION

Vehicle Security System (VSS)

F-150

NOTICE:
VSS Systems are only applicable to vehicles with RKE.

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

1. Verify correct kit number.

Review VSS Installation Kit Contents

NOTE:
Kits are vehicle specific and are not interchangeable.

2. Review the VSS kit contents.

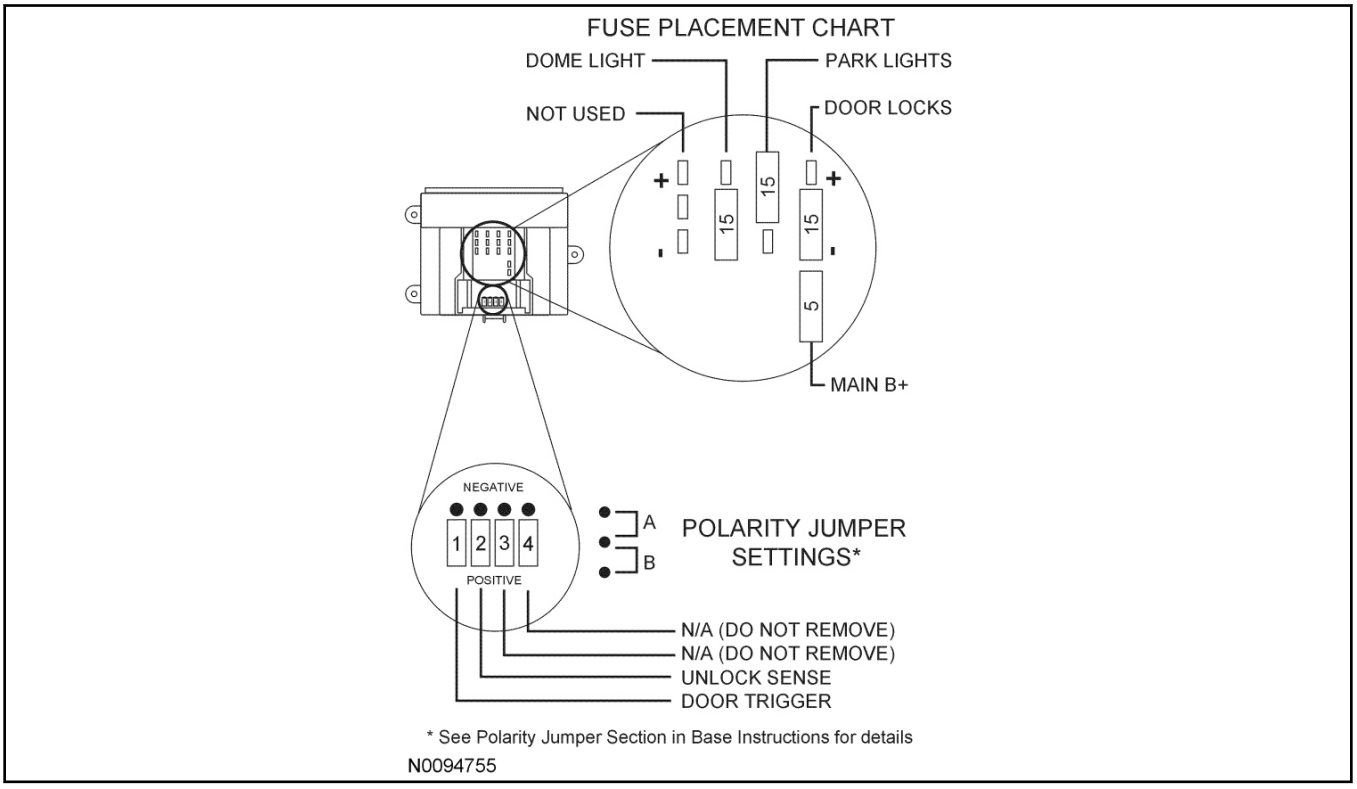
Vehicle Security System (VSS) Kit

QUANTITY	DESCRIPTION
1	MODULE ASSEMBLY
1	VSS SOFTWARE CARTRIDGE ASSEMBLY
1	WIRING HARNESS WITH 24-WAY CONNECTOR
1	INSTALLATION PARTS BAG
1	FUSE PARTS BAG
1	OPERATORS INSTRUCTIONS
1	OPERATORS QUICK REFERENCE WALLET CARD
1	VEHICLE SECURITY SYSTEM WARNING. WINDOW DECAL

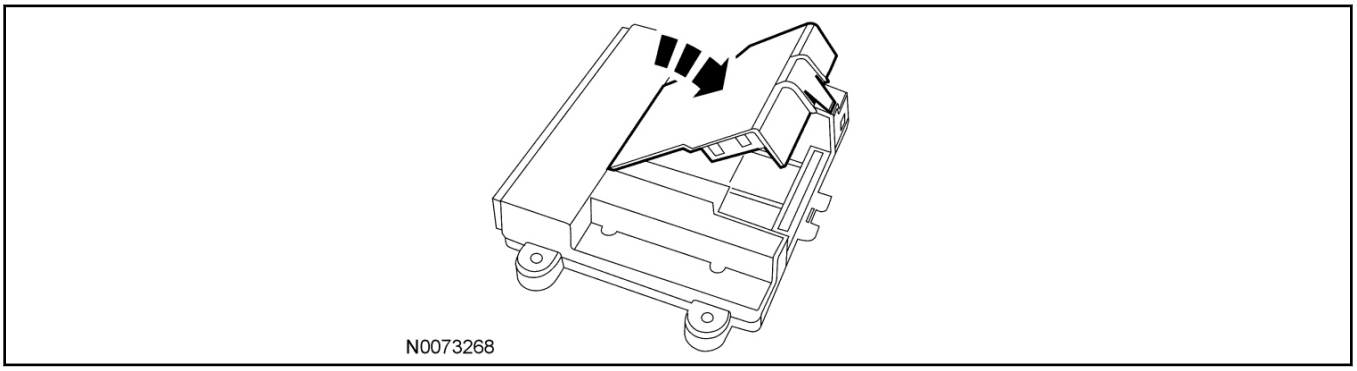
Module Preparation

3. Remove the software cartridge from the VSS module and verify that the fuses are properly installed. See Illustration.
   - If required, move the polarity jumpers to their proper locations on the control module.

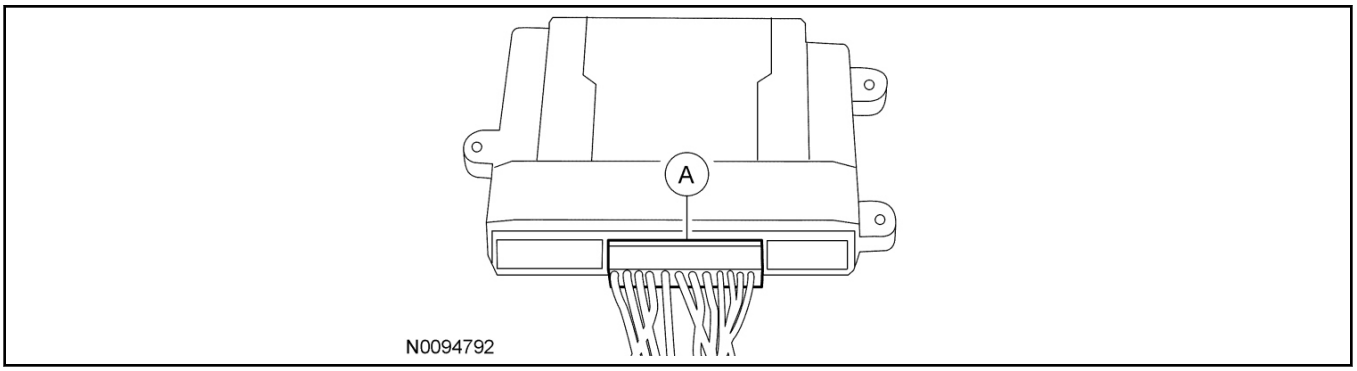
INSTALLATION (Continued)



4. Place the software cartridge onto the VSS control module.



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

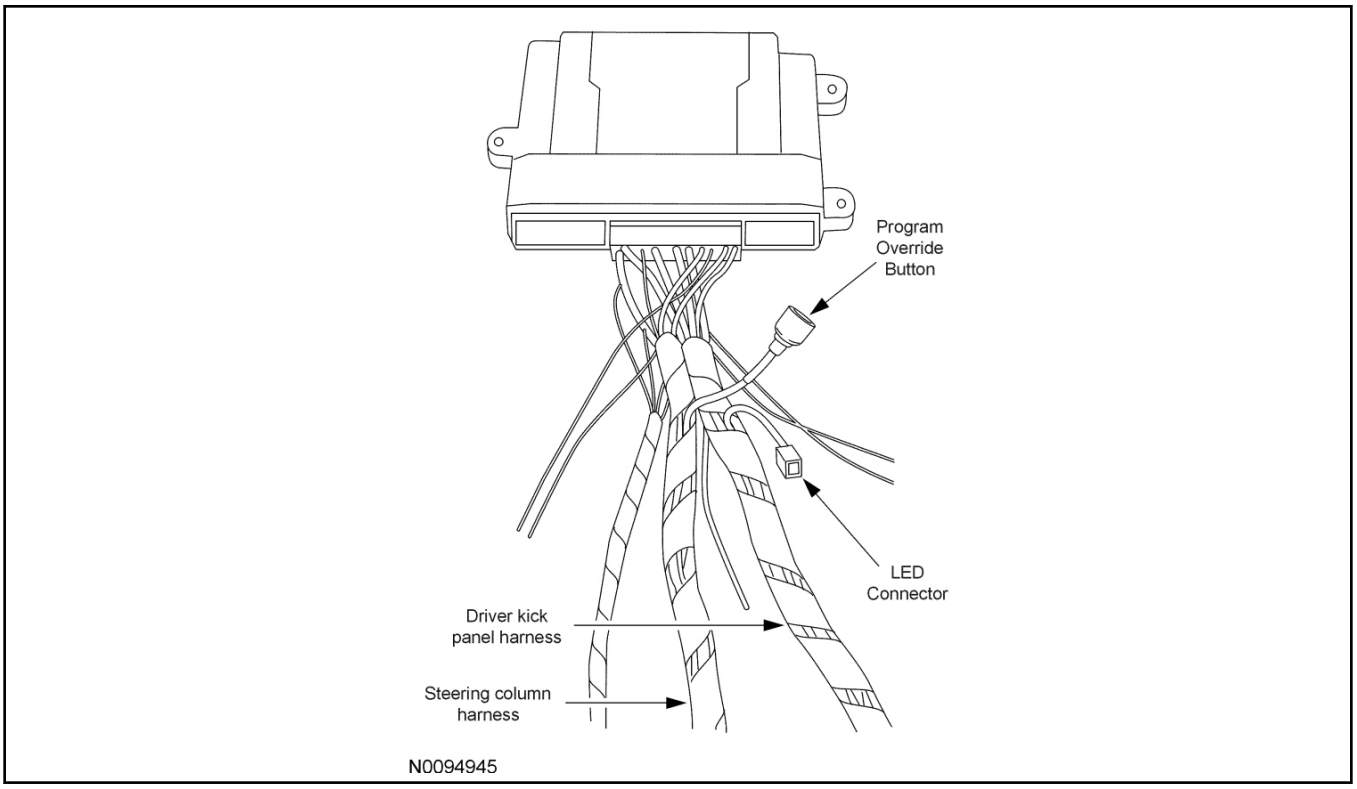


INSTALLATION (Continued)

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

   NOTE:
   Review the vehicle specific wiring diagram(s).

   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.



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

Vehicle Preparation

8. Remove the steering column opening trim.
9. Remove the 3 screws and the upper and lower steering column shrouds.
10. Remove the driver side scuff plate and cowl trim panel.
11. Remove the passenger side cowl trim panel.

Install the VSS Control Module and Harness Assembly

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

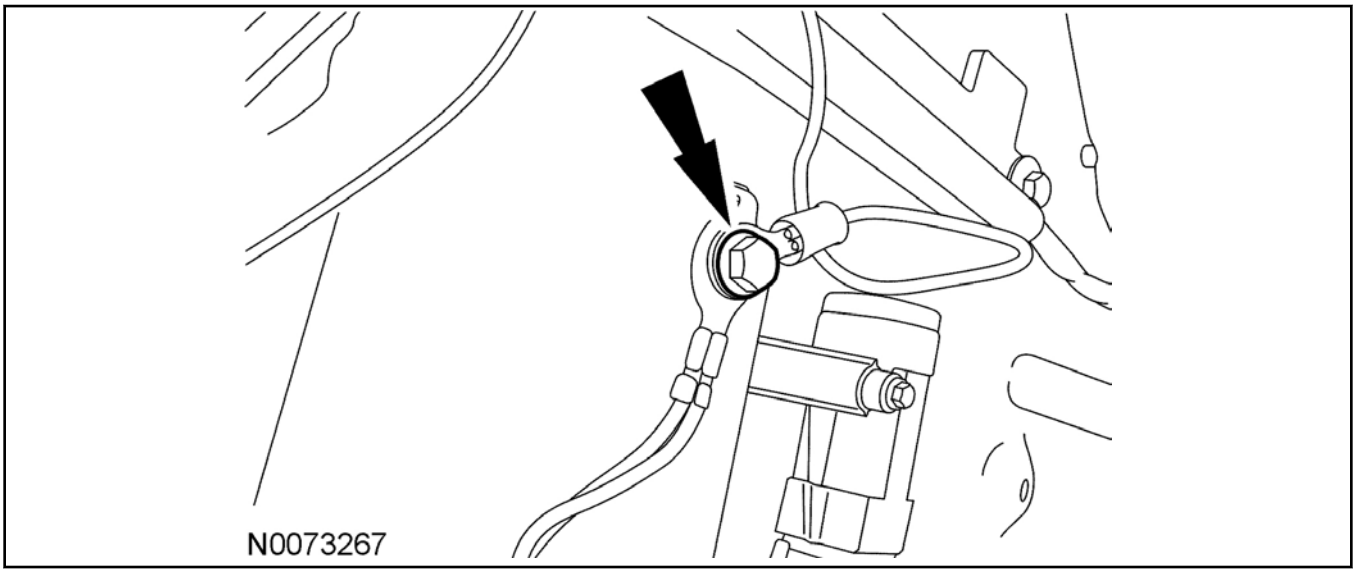
Identify Circuit Wires For Connections

NOTE:
Review the vehicle specific wiring diagram(s).

INSTALLATION (Continued)

NOTE:
Review the proper splicing techniques prior to proceeding.

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



14. **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.
15. Connect the Pink wire from the control module harness to the White/Orange ignition circuit wire at the ignition switch harness.
16. **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.
17. Cut the Blue/White starter circuit wire at the ignition switch harness.
18. Connect the Violet wire from the control module harness to the Blue/White starter circuit wire coming from ignition switch harness.
19. Connect the Violet/Red wire from the control module harness to the Blue/White starter circuit wire coming from ignition switch connector.
20. **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 Violet/Green horn circuit wire in the steering column harness.

INSTALLATION (Continued)

21. Connect the Brown/Black wire from the control module harness to the Violet/Green horn circuit wire in the steering column harness.
22. **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 Violet Cargo High Mounted Stop Lamp (CHMSL) circuit wire at one of the following locations:

    - Passenger side door sill plate harness.
    - Smart Junction Box (SJB) Connector C2280C Pin 1.
23. Connect the Green/Violet wire from the VSS module harness to the Violet CHMSL circuit wire at one of the following locations:
    - Passenger side door sill plate harness.
    - SJB Connector C2280C Pin 1.
24. **NOTE:**
    Connect only if system will be used in Lot Mode.

    NOTE:
    A DVOM connected to the correct wire will show 12V, then show 0V when the door lock switch is pressed.
    A logic probe will show power on the correct wire, then show ground when the door lock switch is pressed.

    Identify the Blue/Green power door lock circuit wire at the driver kick panel harness.
25. Connect the Blue wire from the control module harness to the Blue/Green power door lock circuit wire at the driver kick panel harness.
26. **NOTE:**
    Connect only if system will be used in Lot Mode.

    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 Yellow/Violet power door unlock circuit wire at the driver kick panel harness.

INSTALLATION (Continued)

27. Connect the Green wire from the control module harness to the Yellow/Violet power door unlock circuit wire at the driver kick panel harness.
28. **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.
29. 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.
30. **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.
31. 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.
32. **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 Yellow/Blue parking lights on circuit wire at the driver kick panel.
33. Connect the White wire from the control module harness to the Yellow/Blue parking lights on circuit wire at the driver kick panel.
34. **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 one of the following locations:

    - Passenger side door sill plate harness.
    - SJB Connector C2280D Pin 31.
35. Connect the Light Green wire from the control module harness to the Violet/Gray power door unlock motor circuit wire at one of the following locations:

    - Passenger side door sill plate harness.
    - SJB Connector C2280D Pin 31.

INSTALLATION (Continued)

Power Connection

36. **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 Green/Red Battery circuit wire in the ignition switch harness.

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

Program The VSS System

38. Refer to the VSS programming section for this vehicle.

Secure VSS Harness and Control Module

39. Use the supplied tie wraps to secure the VSS harness wires.

40. **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 VSS control module to the underdash wiring harness.

Install Trim

41. Install the left hand cowl trim panel.
    1 Install both cowl trim panels.
    2 Install the scuff plate.

42. Install the upper and lower steering column shrouds.
    - Install the 3 screws.

43. Install the lower steering column opening cover.
    - Install the 3 screws.

Programming the Module

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

NOTE:
The LED on the VSS harness must

NOTE:
The VSS override button must be accessible.

44. Programming Options: Entering Programming Mode
    - See chart below for programming information.

INSTALLATION (Continued)

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	3	DOOR AJAR INVERT	ON
1	4	UNLOCK SENSE INVERT	ON

Option Bank - 2 Chart (5 - Honks)

BANK	OPTIONS	DESCR	LED
2	1	STARTER INTERRUPT	ON

NOTE:
Perform proper adjustments following the Shock Sensor Setting Procedure.

45. Open the driver's door. All other doors should remain closed.
46. Turn the ignition key to the RUN position.
47. Press and hold the VSS override button for at least 10 seconds. After 10 seconds the horn with honk 3 times, indicating the system is now in the learn mode.
48. 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:
    - All door and dome light circuit wire solder connections.
    - The key is in the RUN position.
    - The software cartridge is firmly seated in the VSS module.
    - The VSS harness connections are firmly seated in the VSS module.

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

49. Press and release the lock button on the trim switch 3 times. The horn will honk 3 times indicating the system has entered the option 3 of the first program bank.

NOTICE:
To turn the LED on or off, press and immediately release Unlock button on the trim switch.

50. The LED must be ON for option 3. If the LED is illuminated no action is required. If the LED is not illuminated press the Unlock button and verify the LED illuminates.

INSTALLATION (Continued)

NOTE:
When programming the VSS module, if the Lock button is held for more than 3 seconds, the horn will honk 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 VSS module.

51. Press and release the lock button on the trim switch. The horn will honk 4 times indicating the system has entered the option 4 of the first program bank.
52. 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 unlock button and verify the LED illuminates.
53. Press and release the override button. The horn will honk 5 times indicating the system has entered the second option bank.
54. Press and release the Lock button on the trim switch. The horn will honk 1 time indicating the system has entered the option 1 of the second program bank.
55. 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 unlock button and verify the LED illuminates.
56. The VSS module is now programmed.

2013 F-150

VSS MODULE WIRE HARNESS

MAKE THIS CONNECTION FIRST!

CHASSIS GROUND POINT
IN DRIVERS KICK PANEL

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

CHMSL (VIOLET) → UNDER PASSENGER DOOR SILL PLATE OR SJB C2280C PIN 1

Door Lock (BLUE/GREEN) → DRIVERS SIDE KICK PANEL

Door Unlock (YELLOW/VIOLET) → DRIVERS SIDE KICK PANEL

Lock Motor (GRAY/BROWN) → DRIVERS SIDE KICK PANEL

Driver Door Unlock Motor (BLUE/GREEN) → DRIVERS SIDE KICK PANEL

Parking Lights On (YELLOW/BLUE) → DRIVERS SIDE KICK PANEL

Connect only if system will be used in Lot Mode

Unlock All Motor Wire (VIOLET/GRAY) → UNDER PASSENGER DOOR SILL PLATE OR SJB C2280D PIN 31

MAKE THIS CONNECTION LAST!

STEERING COLUMN HARNESS

	Color	Function
A-4	RED	Battery
A-7	PINK	Ignition 1 Input/Output
A-8	VIOLET	Starter Interrupt (Motor side)
A-6	VIOLET/RED	Starter Interrupt (Key side)
A-21	BROWN/BLACK	Horn Relay Output

Battery (GREEN/RED) → IGNITION SWITCH

Ignition (WHITE/ORANGE) → IGNITION SWITCH

Starter (BLUE/WHITE) → CUT → IGNITION SWITCH

KEY SIDE (after cut)

Horn (VIOLET/GREEN) → STEERING COLUMN HARNESS

Manual Table of Contents

VSS SYSTEM INSTALLATION

CONTENTS

INSTALLATION

Vehicle Security System

F-Super Duty

NOTICE:
Vehicle Security Systems are only applicable to vehicles with RKE.

1. Verify correct kit number.

Review VSS Installation Kit Contents

NOTE:
Kits are vehicle specific and are not interchangeable.

2. Review the VSS kit contents.

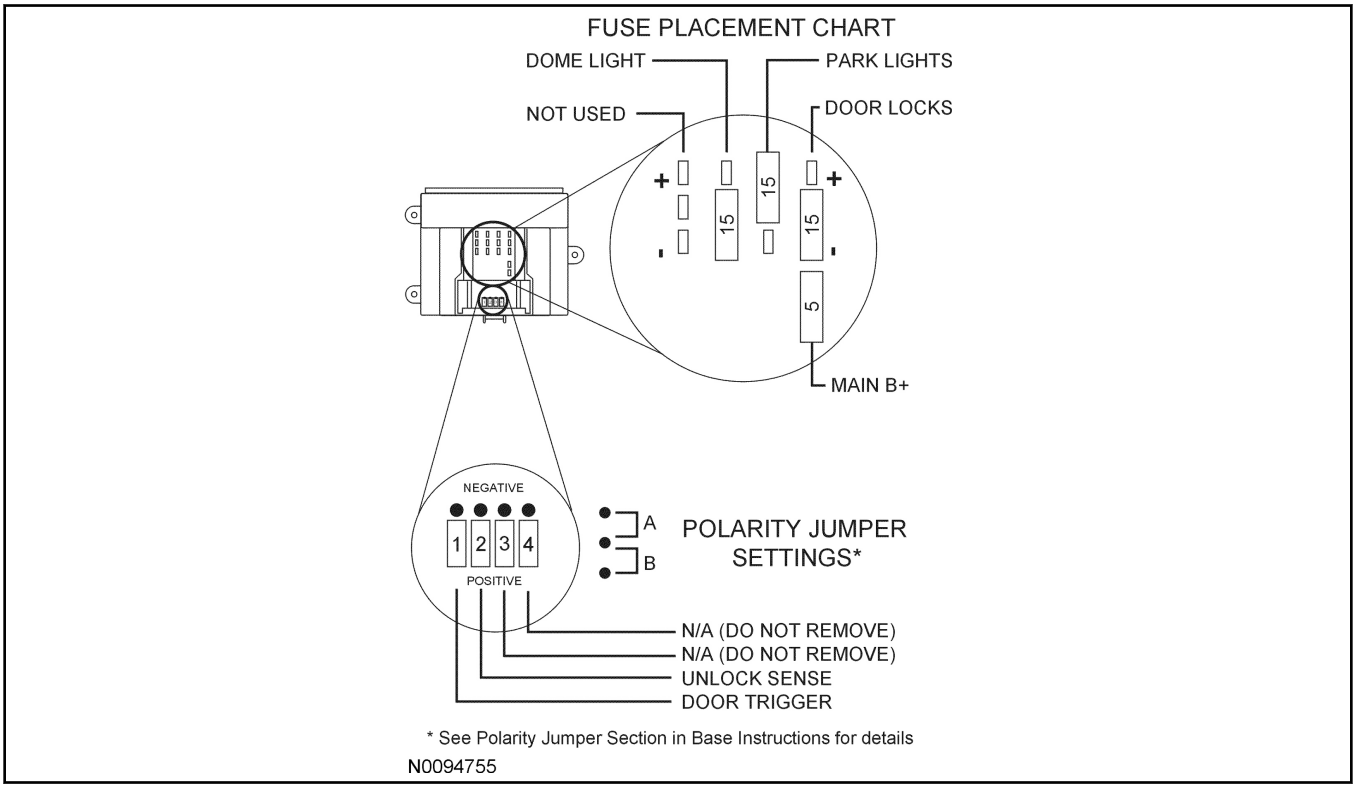
Vehicle Security System (VSS) Kit

QUANTITY	DESCRIPTION
1	MODULE ASSEMBLY
1	VSS SOFTWARE CARTRIDGE ASSEMBLY
1	WIRING HARNESS WITH 24-WAY CONNECTOR
1	INSTALLATION PARTS BAG
1	FUSE PARTS BAG
1	OPERATORS INSTRUCTIONS
1	OPERATORS QUICK REFERENCE WALLET CARD
1	VEHICLE SECURITY SYSTEM WARNING. WINDOW DECAL

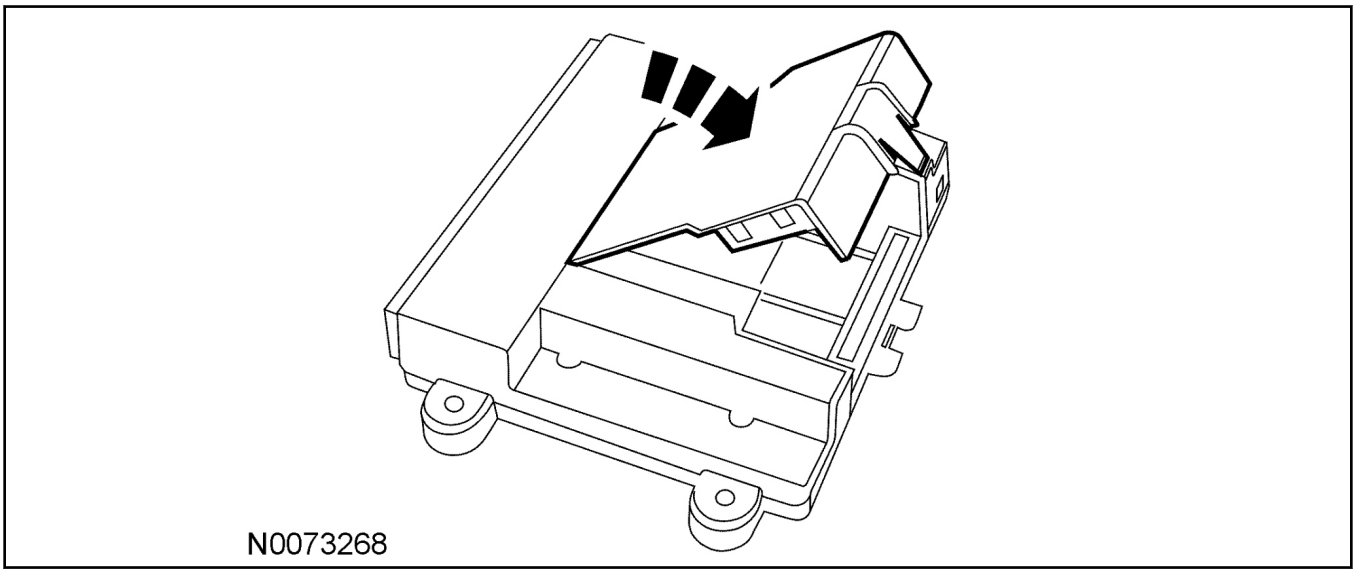
Module Preparation

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)

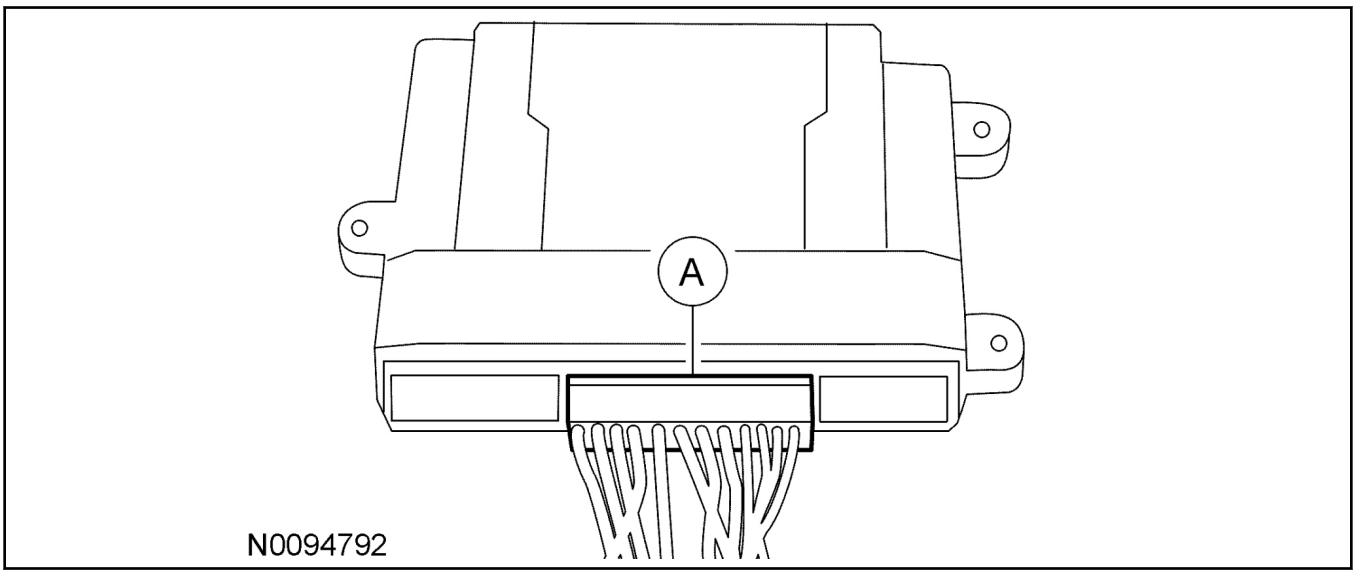


4. Place the software cartridge onto the VSS control module.



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

INSTALLATION (Continued)



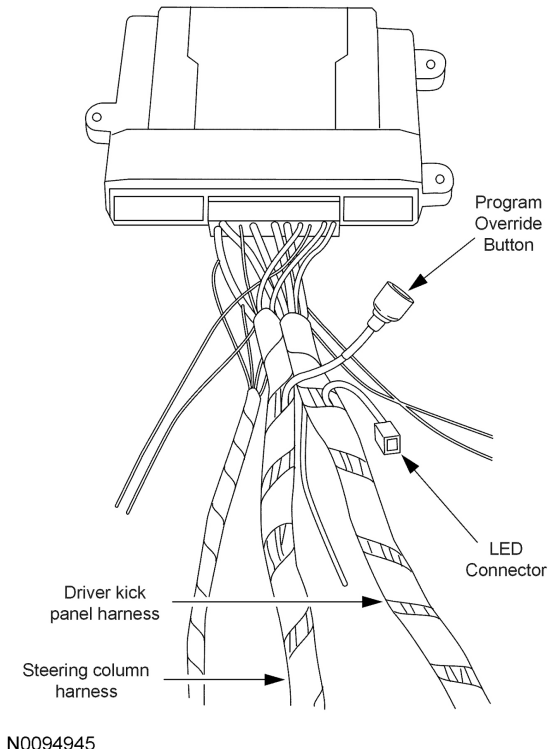
6. **NOTE:**
   Do not cut the override programming button off of the harness, it is used for all installations.

   NOTE:
   Review vehicle specific wiring diagram(s) prior to proceeding.

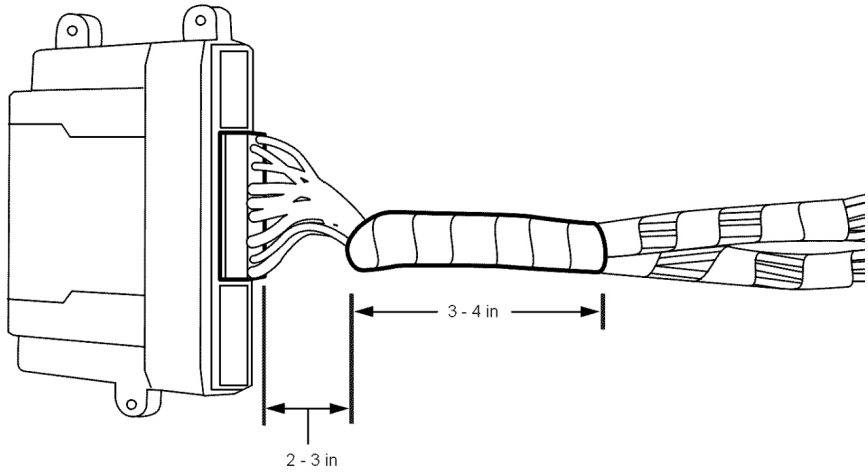
   Refer to the vehicle specific wiring section for the system being installed, gather all individual wires that will be routed to the same areas of the vehicle into groups. Cover each wire group with electrical tape for approximately 18". Depending on the vehicle, there will be 2 to 5 different wire groups.

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

INSTALLATION (Continued)



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



Vehicle Preparation

8. Remove the steering column shroud. For additional information, refer to Workshop Manual (WSM), Section 211-04.
9. Install the RH and LH cowl side trim panel. For additional information, refer to WSM, Section 501-05.

Install the control Module and Harness Assembly

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

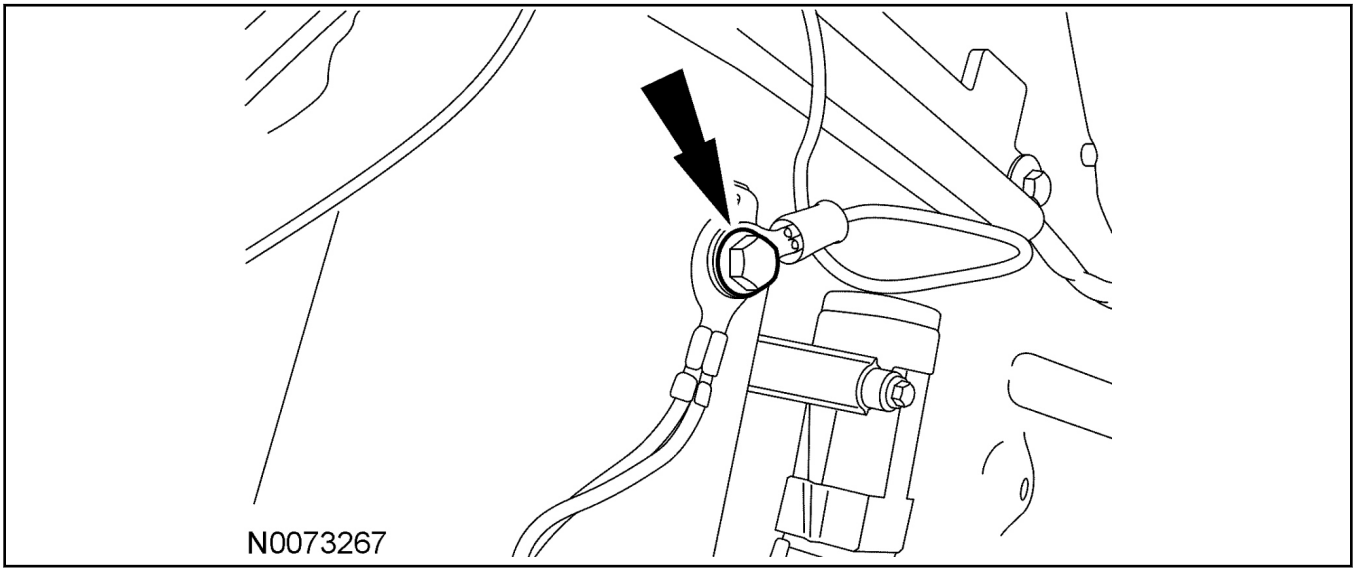
INSTALLATION (Continued)

Identify Circuit Wires For Connections

NOTE:
Review vehicle specific wiring diagram(s) prior to proceeding.

NOTE:
Review proper wire splicing techniques prior to proceeding.

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



12. **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.

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

14. **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.

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

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

INSTALLATION (Continued)

17. Connect the Violet/Red wire from the control module harness to the Blue/White starter circuit wire coming from ignition switch connector.
18. **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 Violet/Green horn circuit wire in the steering column harness.
19. Connect the Brown/Black wire from the control module harness to the Violet/Green horn circuit wire in the steering column harness.
20. **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 Cargo High Mounted Stop Lamp (CHMSL) circuit wire at one of the following locations:

    - The harness under the passenger side kick panel.
    - Body Control Module (BCM) connector C2280A Pin 1.
21. Connect the Green/Violet wire from the VSS module harness to the Gray/Violet CHMSL circuit wire at one of the following locations:

    - The harness under the passenger side kick panel.
    - BCM connector C2280A Pin 1.
22. **NOTE:**
    Connect only if system will be used in Lot Mode.

    NOTE:
    A DVOM connected to the correct wire will show 12V, then show 0V when the door lock switch is pressed.
    A logic probe will show power on the correct wire, then show ground when the door lock switch is pressed.

    Identify the Blue/Green power door lock circuit wire at the driver kick panel harness.
23. Connect the Blue wire from the control module harness to the Blue/Green power door lock circuit wire at the driver kick panel harness.

INSTALLATION (Continued)

24. **NOTE:**
    Connect only if system will be used in Lot Mode.

    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 Yellow/Violet power door unlock circuit wire at the driver kick panel harness.

25. Connect the Green wire from the control module harness to the Yellow/Violet power door unlock circuit wire at the driver kick panel harness.

26. **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.

27. 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.

28. **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.

29. 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.

30. **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 Yellow/Green parking light circuit wire at one of the following locations:

    - The harness under the driver side kick panel.
    - BCM connector C2280D Pin 18.

31. Connect the White wire from the control module harness to the Yellow/Green parking light wire at one of the following locations:

    - The harness under the driver side kick panel.
    - BCM connector C2280D Pin 18.

INSTALLATION (Continued)

32. **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 one of the following locations:

    - The harness under the passenger side kick panel.
    - BCM connector C2280D Pin 31.

33. Connect the Light Green wire from the control module harness to the Violet/Gray power door unlock motor circuit wire at one of the following locations:

    - The harness under the passenger side kick panel.
    - BCM connector C2280D Pin 31.

Power Connection

34. **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 Green/Red Battery circuit wire in the ignition switch harness.

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

Program The VSS System

36. Refer to the VSS programming section for this vehicle.

Secure VSS Harness and Control Module

37. Use the supplied tie wraps to secure the VSS harness wires.

38. **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 VSS control module to the underdash wiring harness.

Install Trim

39. Install the RH and LH cowl side trim panel. For additional information, refer to WSM, Section 501-05.

40. Install the steering column shroud. For additional information, refer to WSM, Section 211-04.

Programming the Module

41. **NOTE:**
    The LED on the VSS harness must be visible to complete module programming.

    NOTE:
    The VSS override button must be accessible.

INSTALLATION (Continued)

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

Programming Options: Entering Programming Mode

42. See chart below for programming information.

Option Bank - 1 Chart (4 - Honks)

BANK	OPTIONS	DESCRIPTION	LED
1	1	LITE TOUCH ADJUST	NOTE 1
1	2	FULL SHOCK ADJUST	NOTE 1
1	3	DOOR AJAR INVERT	ON
1	4	UNLOCK SENSE INVERT	ON

Option Bank - 2 Chart (5 - Honks)

BANK	OPTIONS	DESCRIPTION	LED
2	1	STARTER INTERRUPT	ON

NOTE:
Perform proper adjustments following the "Shock Sensor Setting", refer to General Procedures.

43. Open the driver door.
    All other doors should remain closed.
44. Turn the ignition key to the RUN position.
45. Press and hold the VSS override button for at least 10 seconds.
    After 10 seconds the horn with honk 3 times, indicating the system is now in the learn mode.
46. 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:
    - All door and dome light circuit wire solder connections.
    - The key is in the RUN position.
    - The software cartridge is firmly seated in the VSS module.
    - The VSS harness connections are firmly seated in the VSS module.

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

47. Press and release the Lock button on the trim switch 3 times.
    The horn will honk 3 times indicating the system has entered the option 3 of the first program bank.

NOTICE:
To turn the LED on or off, press and immediately release Unlock button on the trim switch.

INSTALLATION (Continued)

48. The LED must be ON for option 3. If the LED is illuminated no action is required. If the LED is not illuminated press the Unlock button and verify the LED illuminates.

NOTE:
When programming the VSS module, if the Lock button is held for more than 3 seconds, the horn will honk 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 VSS module.

49. Press and release the Lock button on the trim switch.
    The horn will honk 4 times indication the system has entered the option 4 of the first program bank.
50. 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 unlock button and verify the LED illuminates.
51. Press and release the override button. The horn will honk 5 times indicating the system has entered the second option bank.
52. Press and release the Lock button on the trim switch.
    The horn will honk 1 time indication the system has entered the option 1 of the second program bank.
53. 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 Unlock button and verify the LED illuminates.
54. The VSS module is now programmed.

2013 F-Super Duty

VSS MODULE WIRE HARNESS

MAKE THIS CONNECTION FIRST!

CHASSIS GROUND POINT
IN DRIVERS KICK PANEL

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

Connect only if system will be used in Lot Mode

CHMSL (GRAY/VIOLET) (+) — PASSENGER SIDE KICK PANEL OR BCM C2280A PIN 1

Door Lock (BLUE/GREEN) (−)

Door Unlock (YELLOW/VIOLET) (−)

Lock Motor (GRAY/BROWN) (+)

Driver Door Unlock Motor (BLUE/GREEN) (+)

Parking Lights On (YELLOW/GREEN) (+)
(NOTE: Can also be found at BCM Connector C2280D Pin 18)

DRIVERS SIDE KICK PANEL

Unlock All Motor Wire (VIOLET/GRAY) (+) — PASSENGER SIDE KICK PANEL OR BCM C2280D PIN 31

MAKE THIS CONNECTION LAST!

STEERING COLUMN HARNESS

	Color	Function
A-4	RED	Battery
A-7	PINK	Ignition 1 Input/Output
A-8	VIOLET	Starter Interrupt (Motor side)
A-6	VIOLET/RED	Starter Interrupt (Key side)
A-21	BROWN/BLACK	Horn Relay Output

Battery (GREEN/RED) (+)

Ignition (WHITE/ORANGE) (+) — IGNITION SWITCH

Starter (+) (BLUE/WHITE) — CUT

KEY SIDE (after cut)

Horn (VIOLET/GREEN) (−) — STEERING COLUMN HARNESS