

Splicing Procedures

NOTE:

Refer to applicable wiring diagrams for circuit information.

NOTE:

This procedure contains multiple splicing techniques.

NOTE:

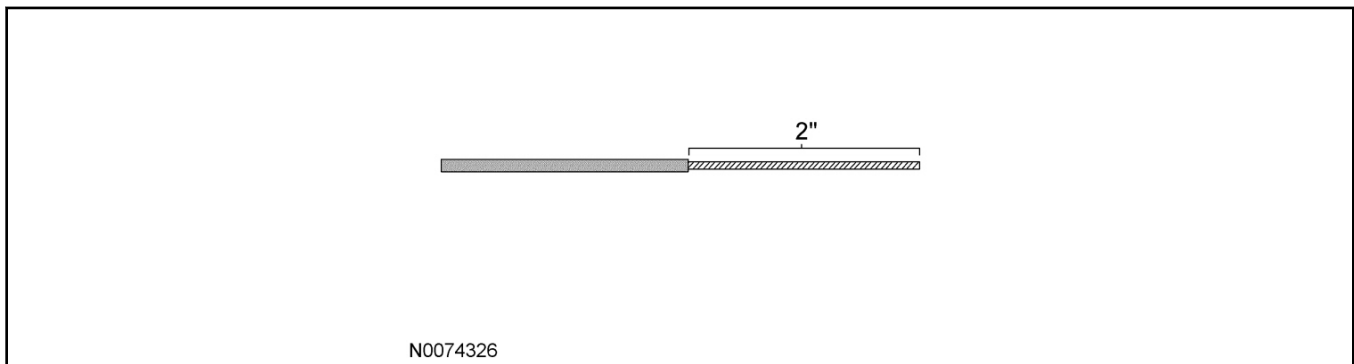
Review splicing procedures prior to performing any cutting/soldering/splicing.

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

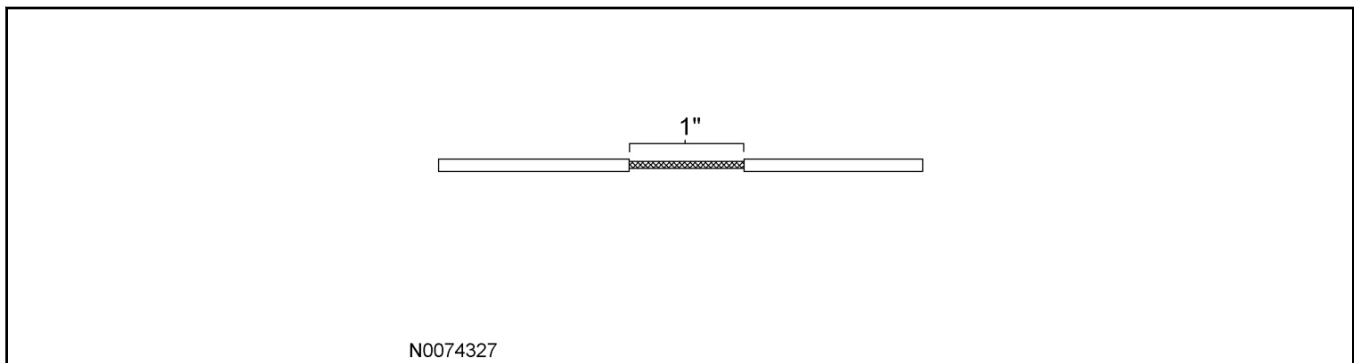
NOTE:

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

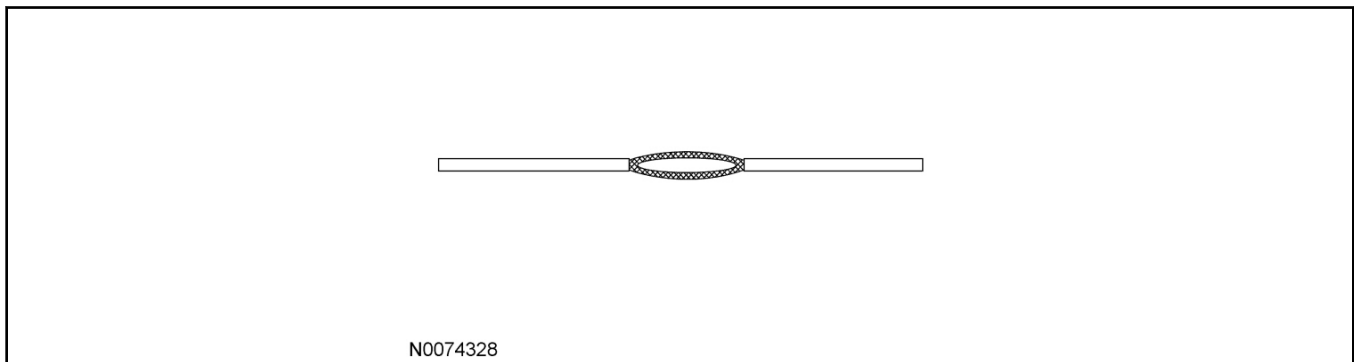
1. Strip approximately two inches of insulation from the wire to be installed in the vehicle.



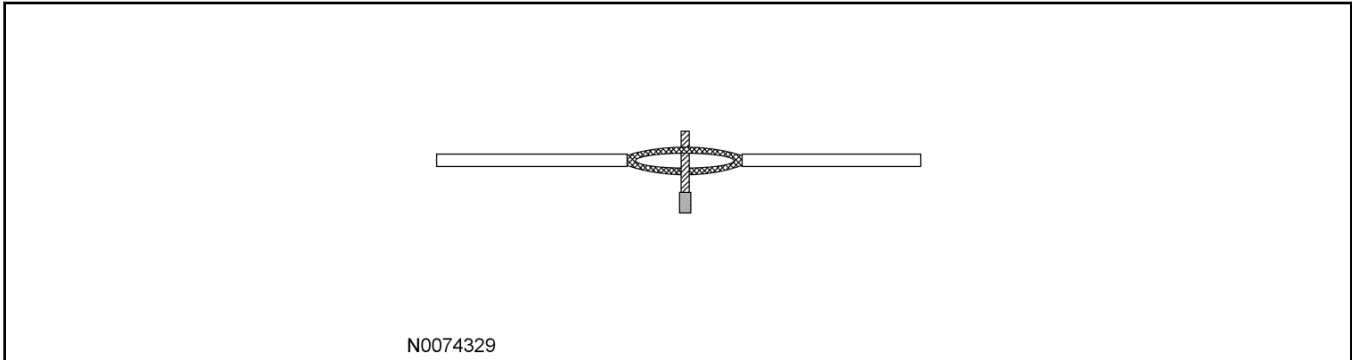
2. On the vehicle wire to be spliced into, strip one inch of insulation from the wire.



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.

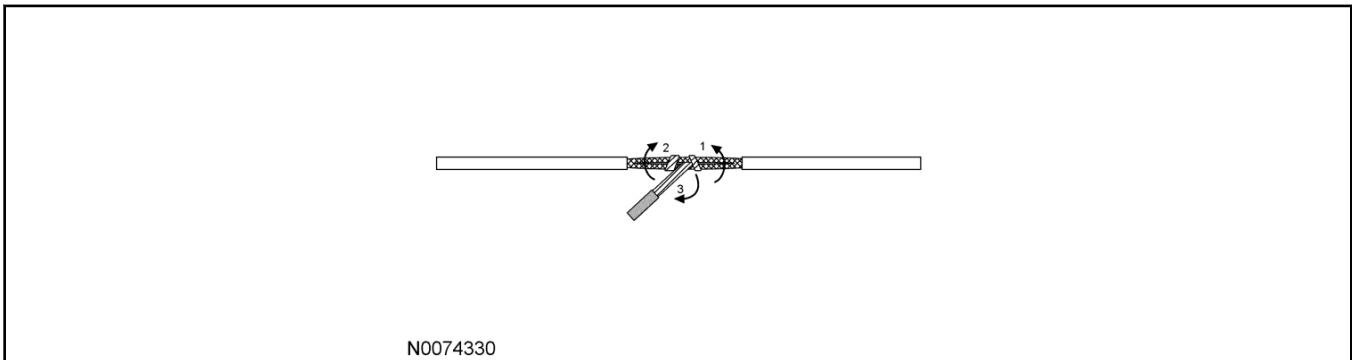
**NOTE:**

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

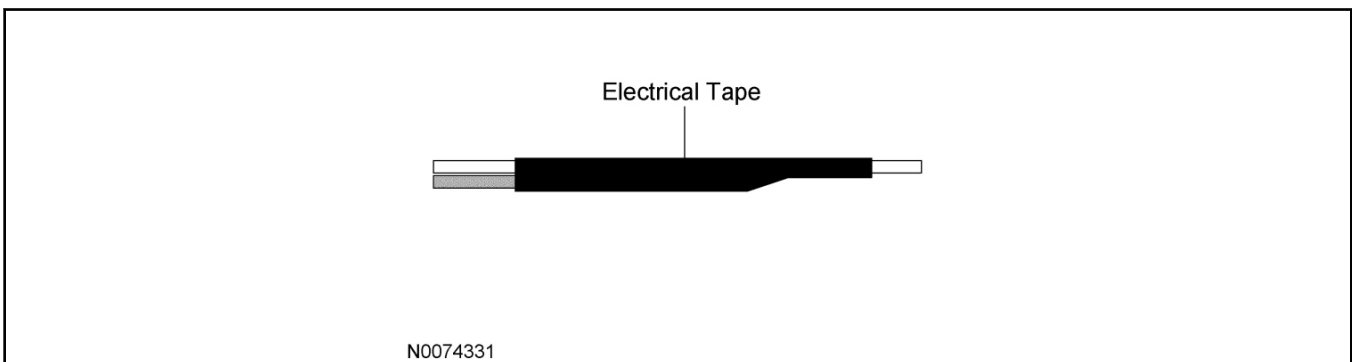
NOTE:

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".

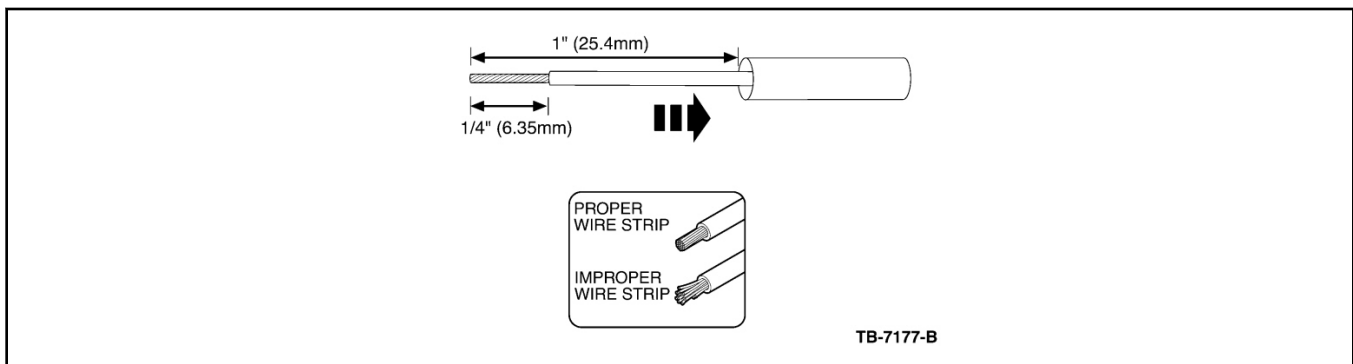
NOTE:

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

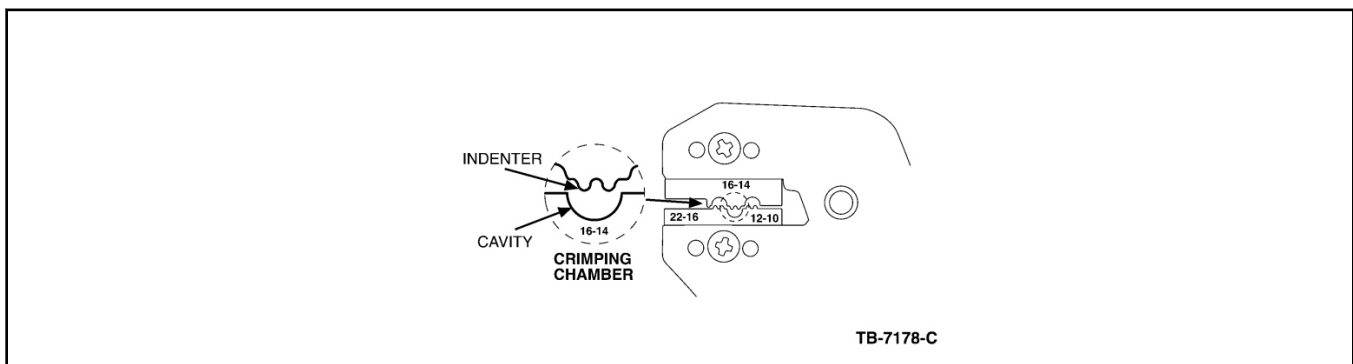
7. NOTE:

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.

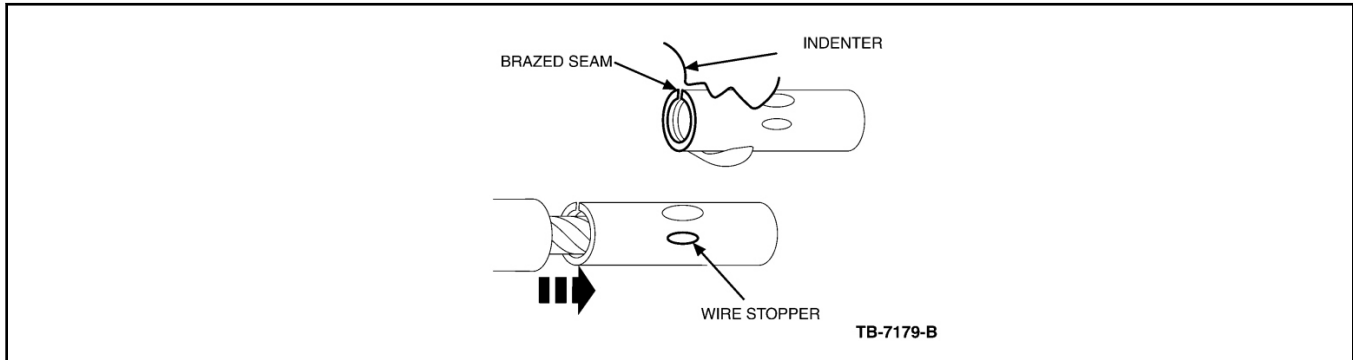
Strip 1/4" (6.35 mm) of insulation from pigtail wire end once the wire lengths are sized so repairs can be staggered. Take care not to nick or cut wire strands. Pull wire straight from stripper. If wire is pulled at an angle, wire strands may be cut off. If more than one (1) strand is cut off during 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.

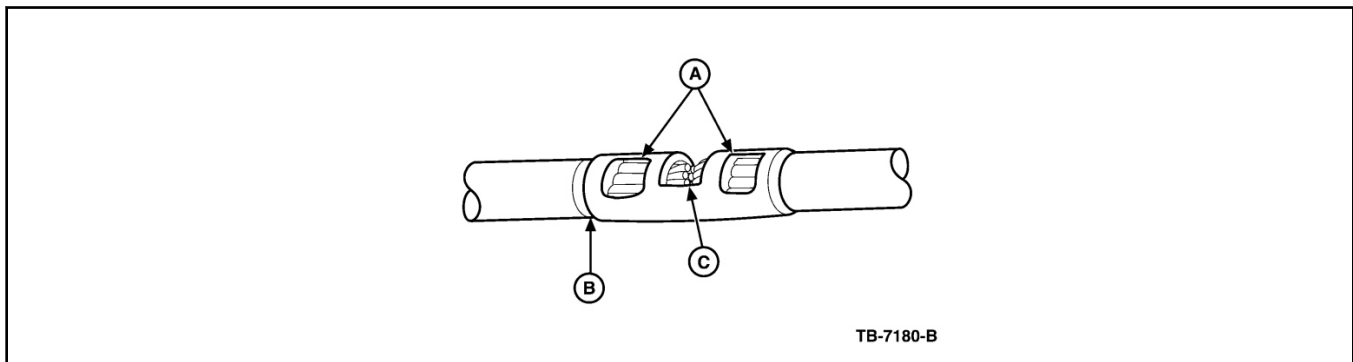


10. Holding the wire in place, squeeze tool handles together until ratchet releases. Allow tool handles to open, then remove crimped butt splice.

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.

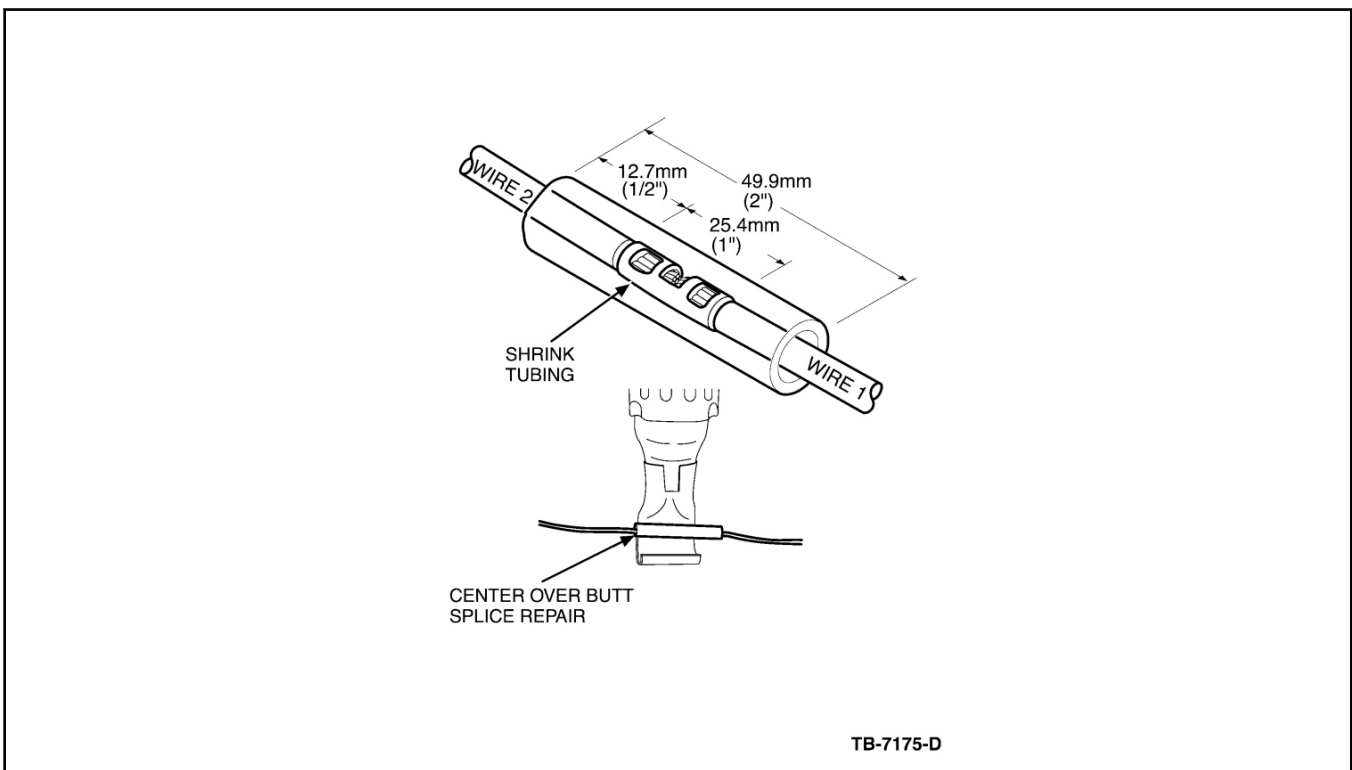
NOTE:

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.

Wire Gauge Size		10	12	14	16	18	20	22	24
		Butt Splice as stamped	22-18		1/4" strip, cut 9 strands	1/4" strip, cut 2 strands	1/4" strip, no fold	1/4" strip, no fold	1/4" strip, no fold
16-14	1/4" strip, cut 7 strands		1/4" strip, no fold	1/4" strip, no fold	1/4" strip, no fold	5/8" strip, fold 2x dia.	1" strip, fold 3x dia.	1 1/4" strip, fold 4x dia.	
12-10	1/4" strip, no fold		1/4" strip, no fold	5/8" strip, fold 2x dia.	1" strip, fold 3x dia.	1 1/4" strip, fold 4x dia.			

Pigtail Only
 Both Pigtail and Wire Harness
 Wire Harness Only

2X CROSS SECTION **3X CROSS SECTION** **4X CROSS SECTION**

TB-7176 -C

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

- 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.

TB-7173-B

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.

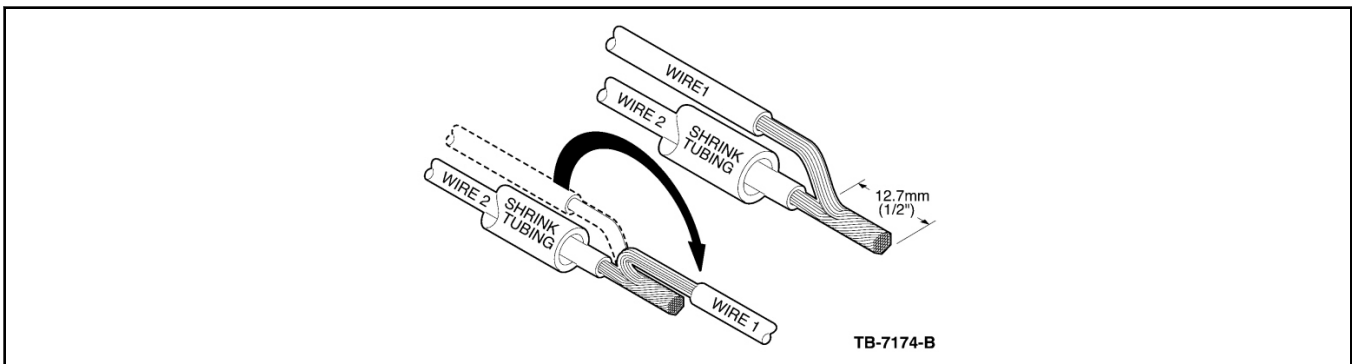
NOTE:

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.

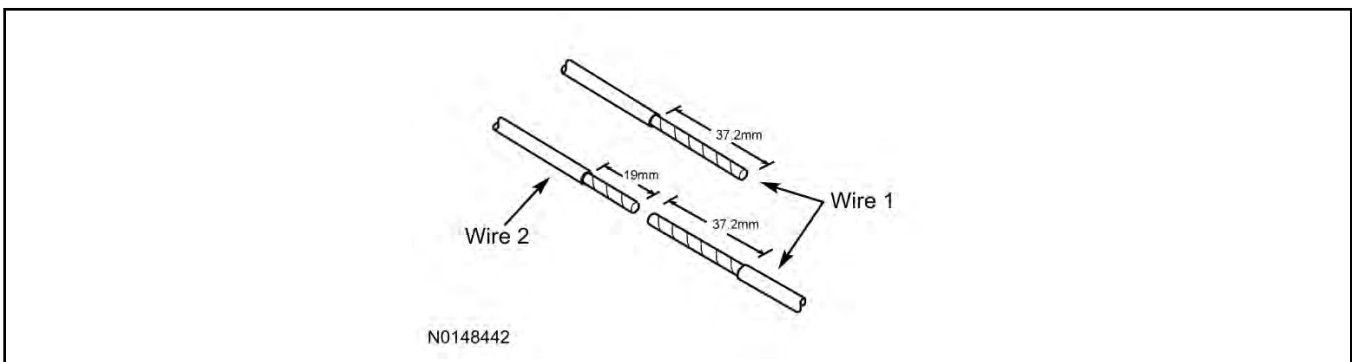
Install heat shrink tubing at least 1" (26 mm) away from one of the stripped ends being spliced.

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**

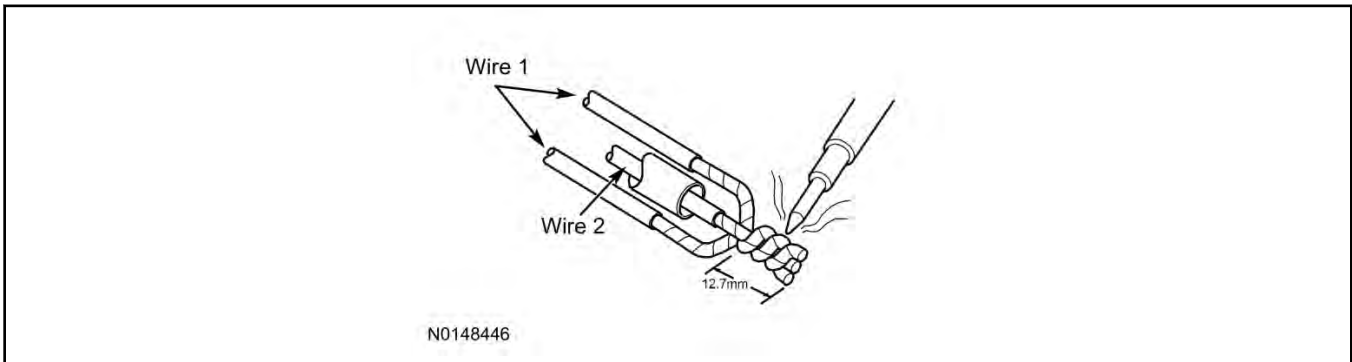
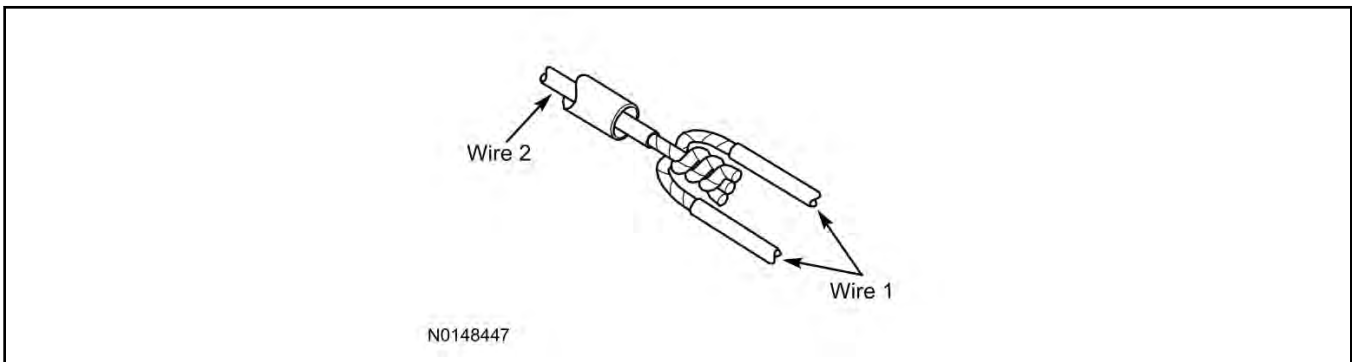
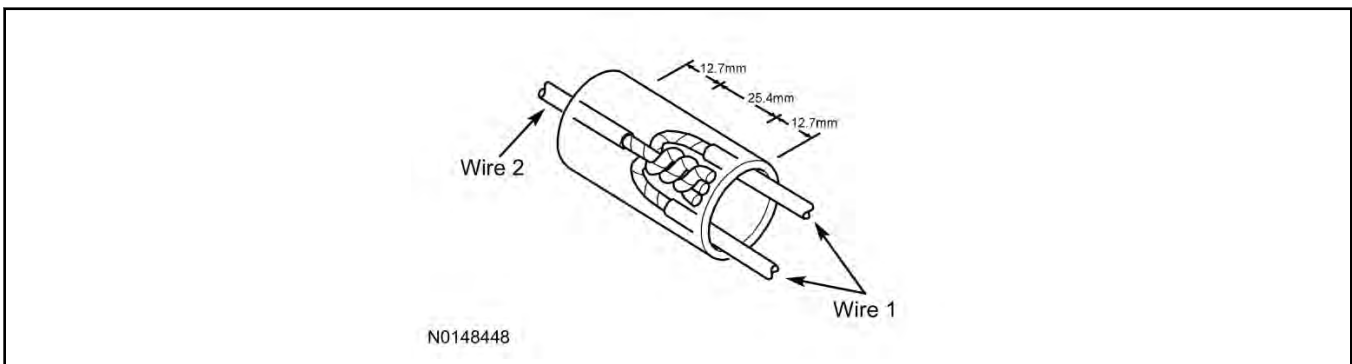
14. Strip 1 1/2" (37.2 mm) of insulation from both sides of Wire #1 and 3/4" (19 mm) of insulation from Wire #2, taking care not to nick or cut wire strands. Pull wire straight from stripper. If wire is pulled at an angle, wire strands may be cut off during stripping. Cut off the end and re-strip.



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.**

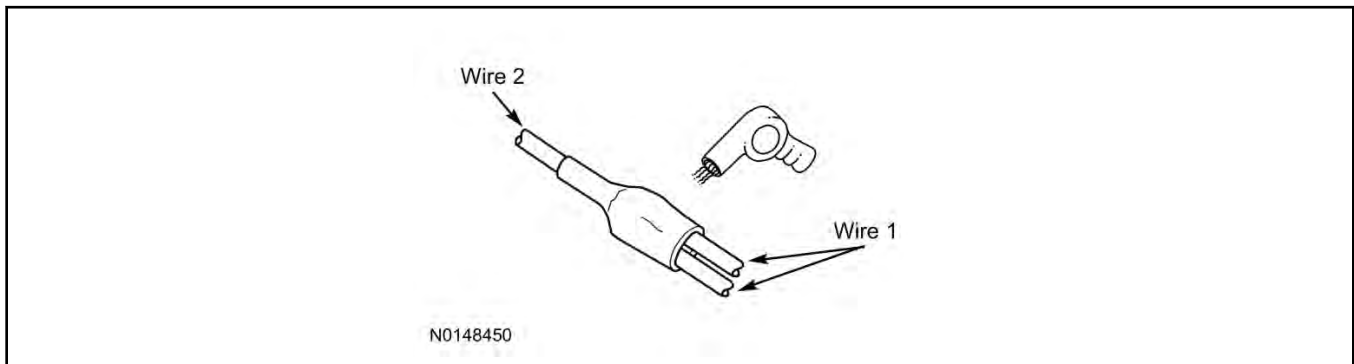
18. NOTE:

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.



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AMBIENT LIGHTING KIT INSTALLATION

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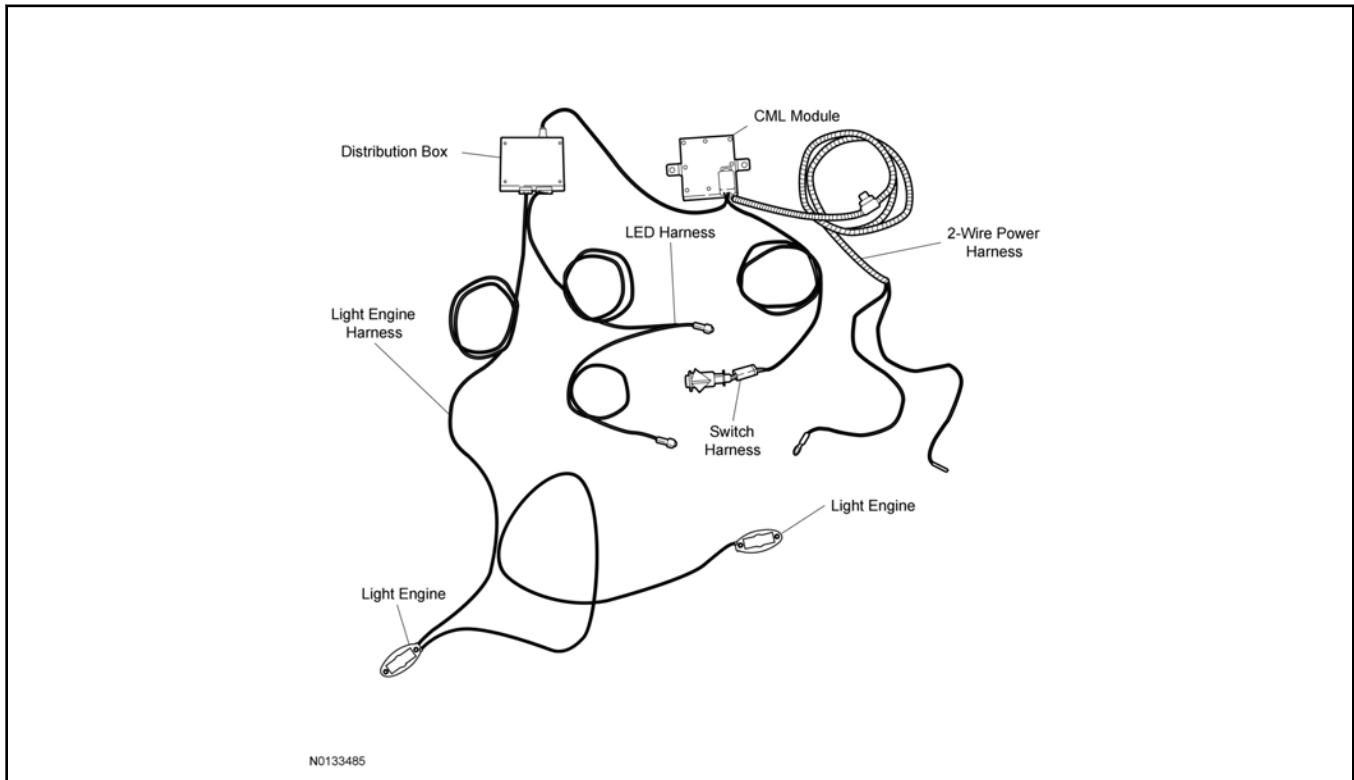
[Ambient Lighting Kit](#)

GENERAL PROCEDURES

[Wire Splicing Techniques](#)

INSTALLATION

Ambient Lighting - Escape



Ambient Lighting Kit Contents

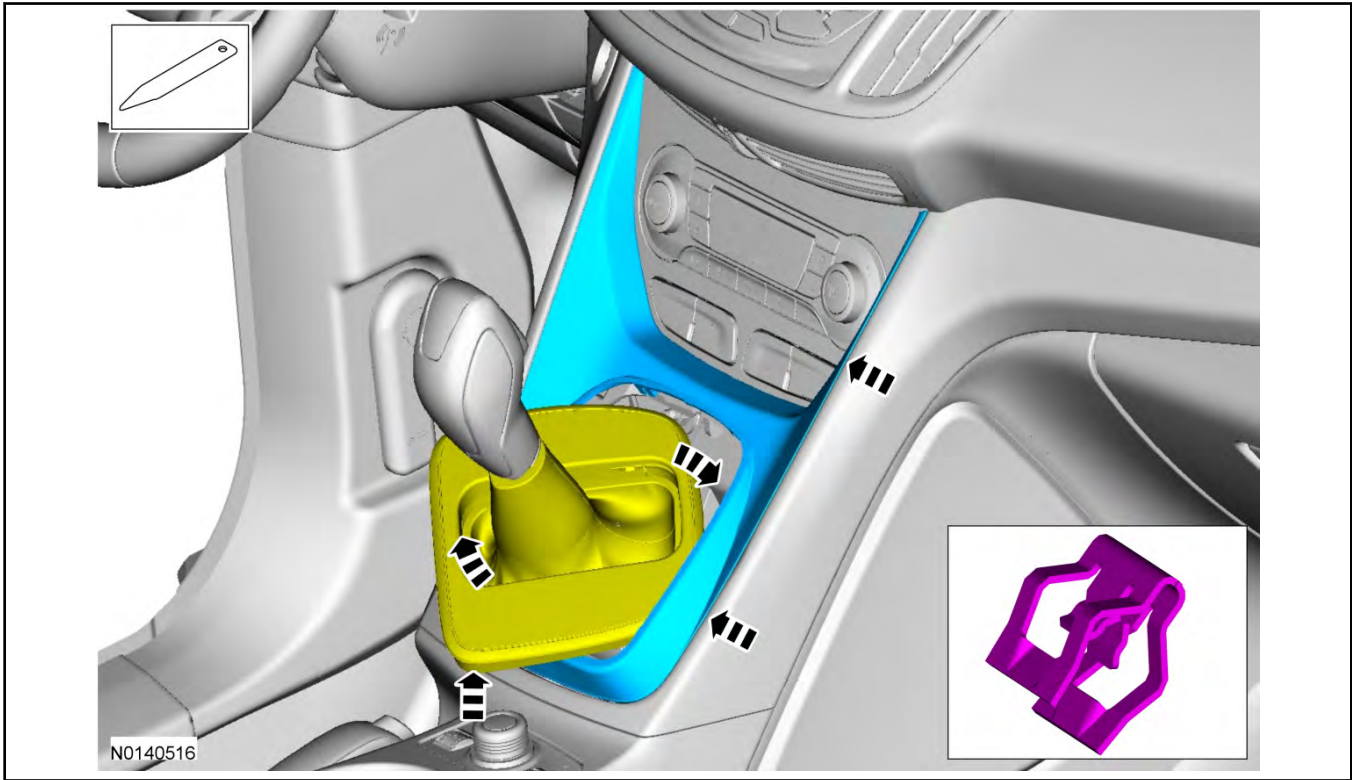
1. Review the Ambient Lighting Kit Contents.

Ambient Lighting Kit

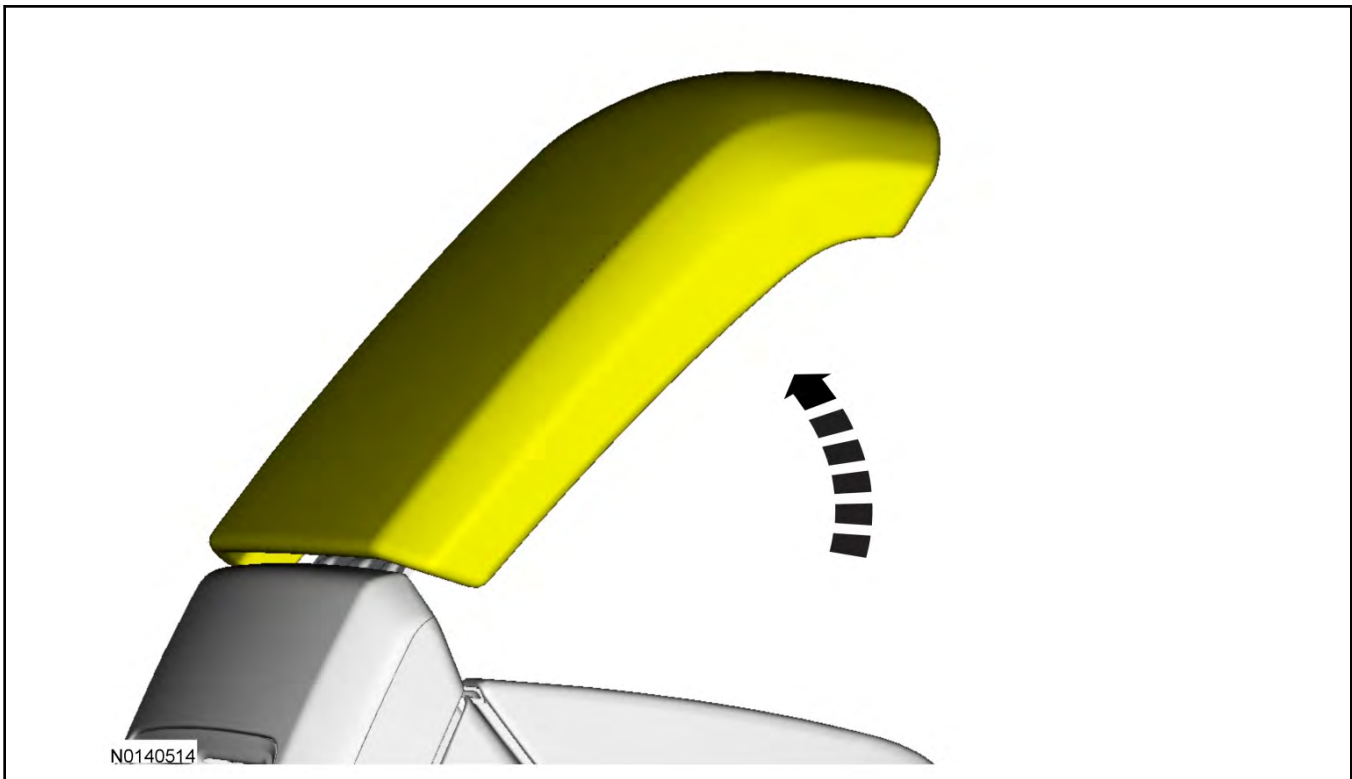
QUANTITY	DESCRIPTION
1	DISTRIBUTION BOX HARNESS ASSEMBLY
1	CML MODULE
2	LIGHT ENGINE
1	SWITCH
1	HARDWARE KIT

Trim Removal

2. Place the gear selector lever into neutral.
3. Disconnect the battery cable to ground. For additional information, refer to Workshop Manual (WSM), Section 414-01.
4. Remove the selector lever trim panel.

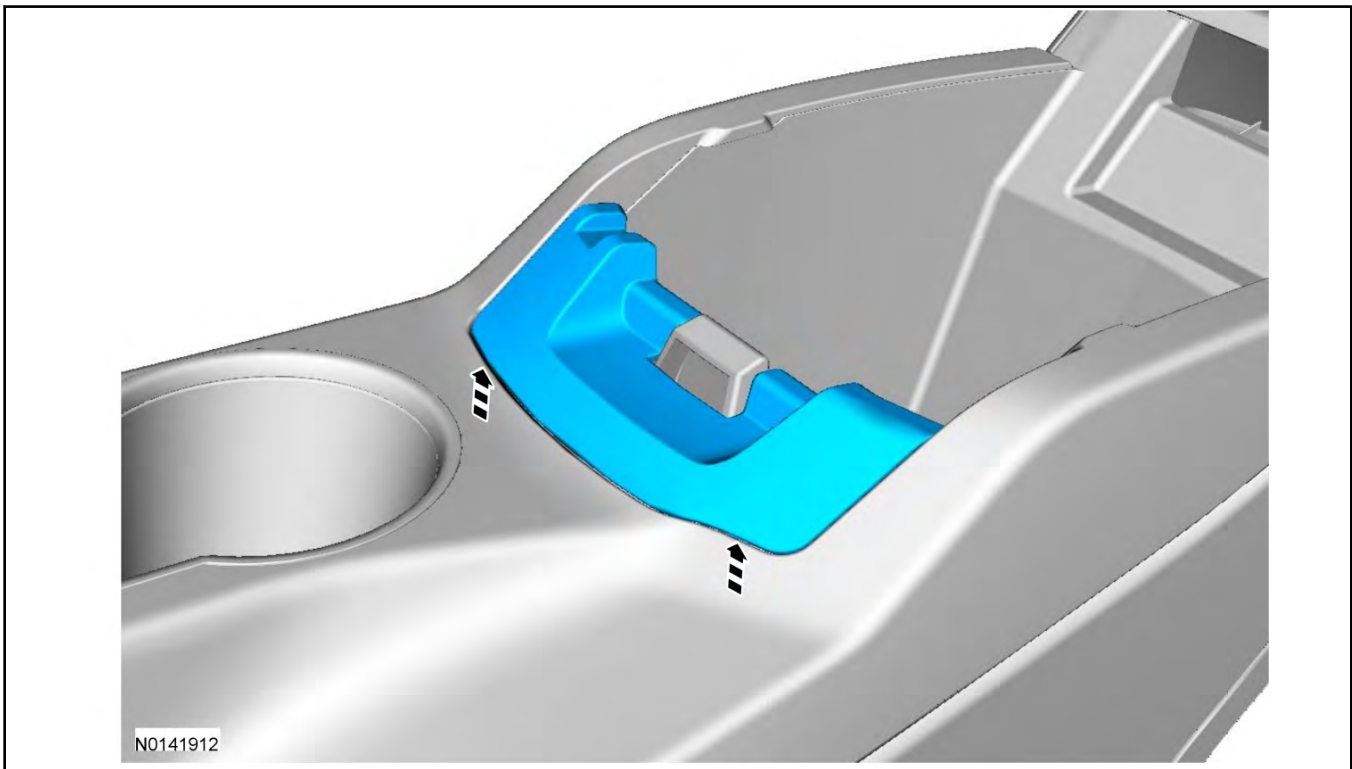


5. Remove the center, lower - Instrument Panel (IP) finish panel. For additional information, refer to WSM, Section 501-12.
6. Open the floor console stowage bin door.



INSTALLATION (Continued)

7. Remove the floor console latch trim panel.
 - Remove the screw and lift upward to remove.

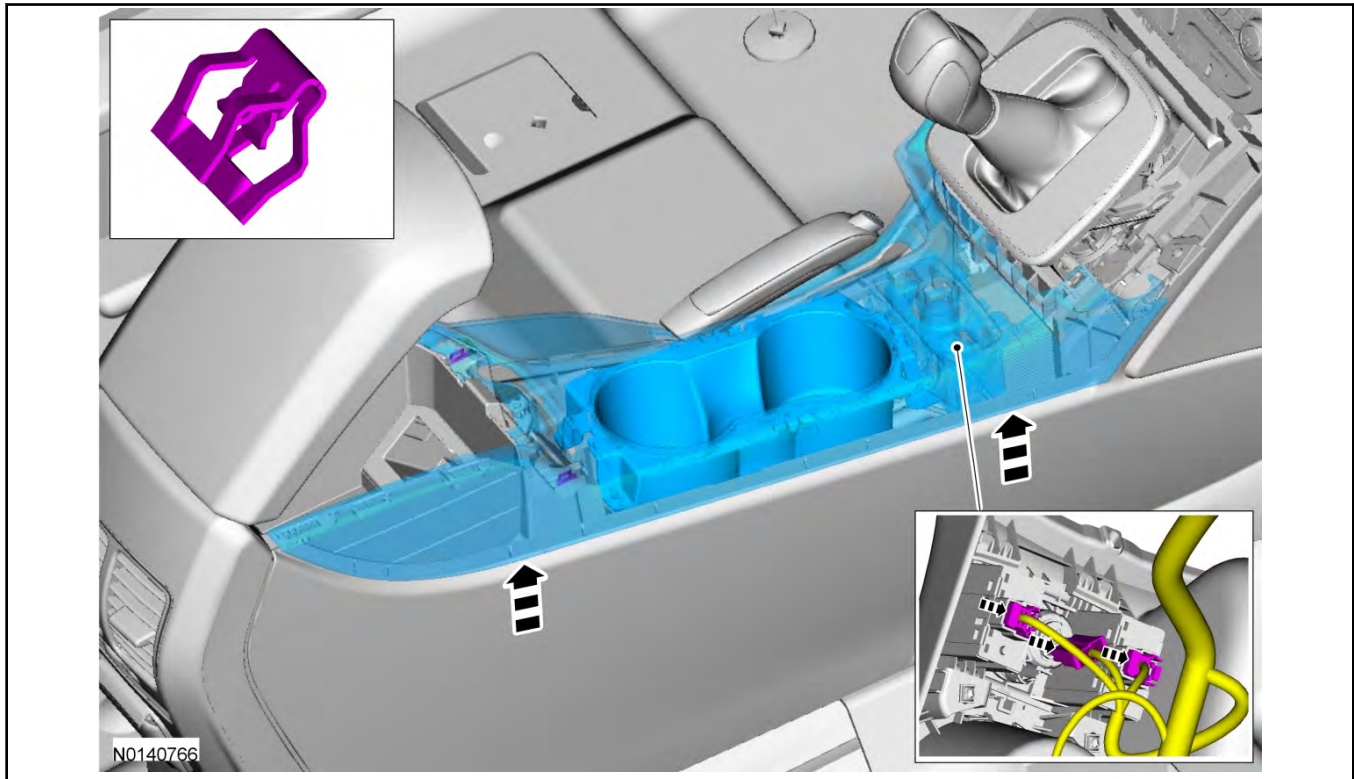


8. Remove the emergency brake handle trim.

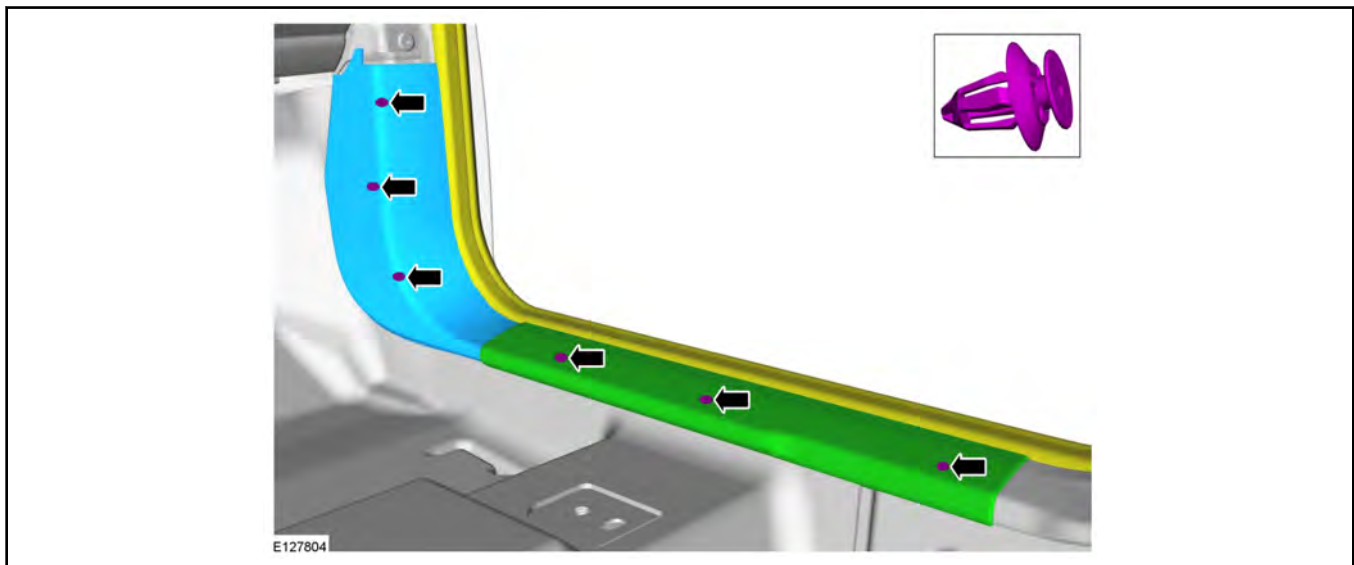


INSTALLATION (Continued)

9. Remove the floor console upper trim panel.
 - Remove the screw and lift upward to remove.



10. Position the weather strip aside and remove the RH side lower cowl trim panel and scuff plate.



11. Remove the lower IP Insulator panel.

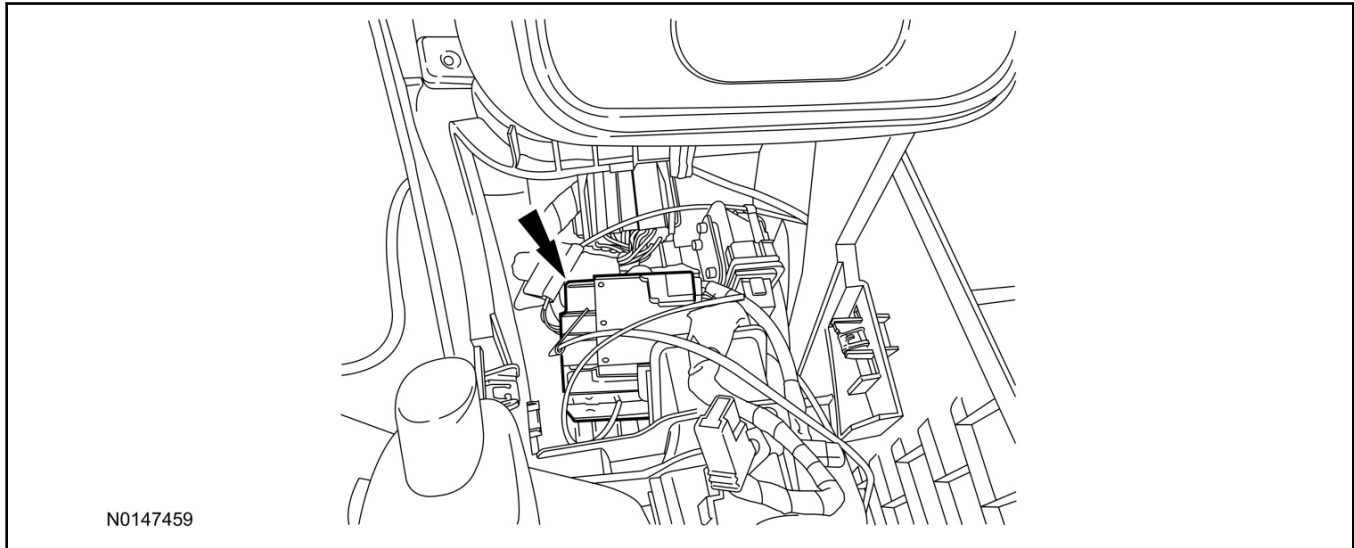
Install Modules**NOTE:**

Do not touch the adhesive pads as reduced adhesion may result.

12. Identify the distribution box with the double sided adhesive pad attached to the back.
13. Identify the CML module with the clear protective film attached to the back.

INSTALLATION (Continued)

14. Using the adhesive pad attach the distribution box to the top of the CML module.
15. Apply the adhesive pad supplied in the hardware kit, directly to the clear protective film of the CML module.
16. Remove the protective backing from the adhesive pad from the CML module and secure both of the modules in the floor console.

**Route Harness****NOTE:**

Avoid routing ambient lighting wires near sharp edges and moving components.

NOTE:

Ensure the ambient lighting wires are secure and do not interfere with vehicle operation.

NOTE:

Light Engine and wiring should be routed and secured out of driver and passenger view.

17. Route the light engine LED harness and the 2-wire power harness to the passenger footwell area.
18. Route the switch harness and the harness containing the exposed LED ends to the floor console mounting area.

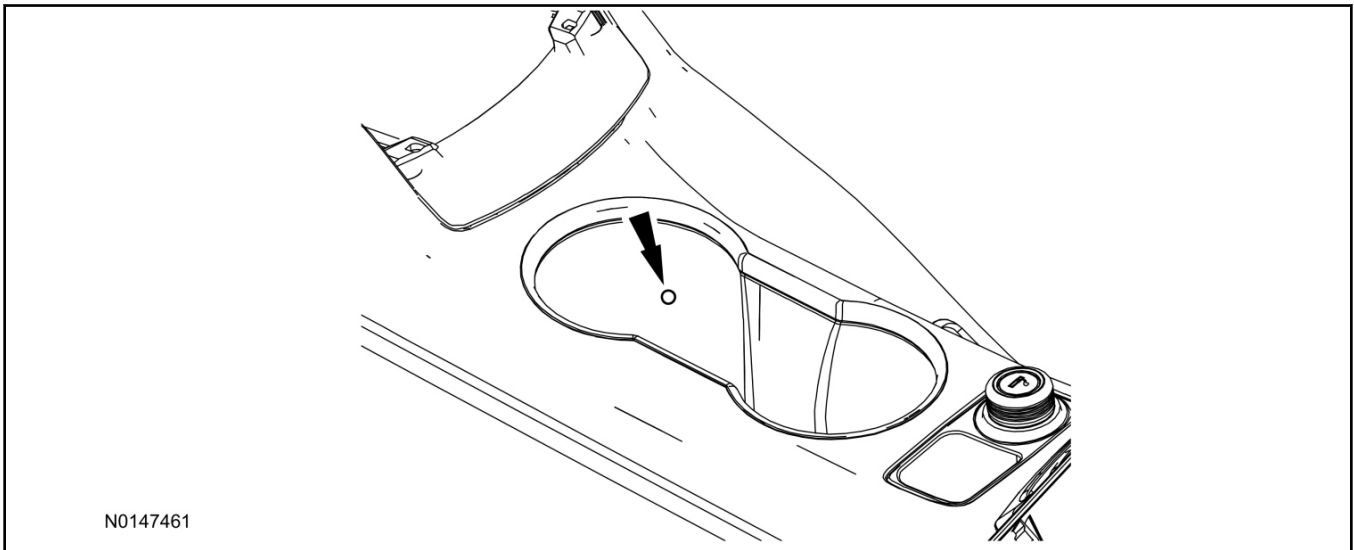
Install LED**NOTE:**

If this vehicle uses a liner in the cup holder, carefully mark the LED location onto the liner. Then remove the liner and use a 1/2" hollow punch to punch a hole in the liner to allow the LED light to pass through the liner. Re-install the liner when complete.

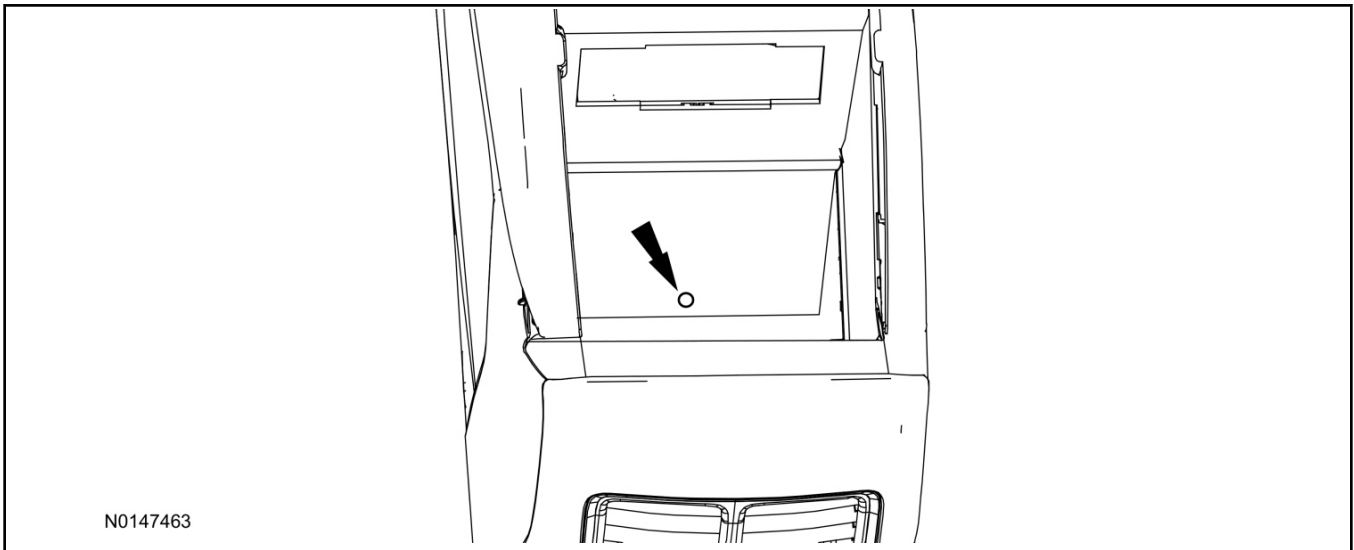
NOTE:

Avoid driver distraction by locating the cup holder LED in the 7 o'clock position out of the driver line of sight.

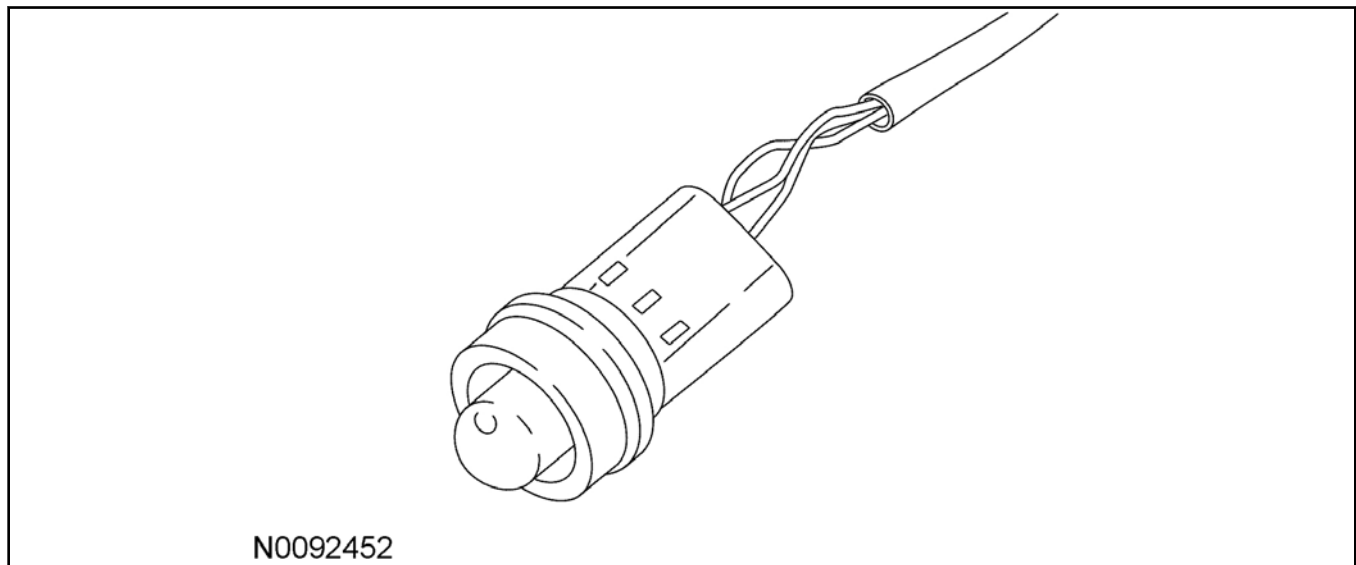
19. Working from the underside of the floor console, drill a 5/16" (8mm) LED mounting hole in the rear cup holder.

INSTALLATION (Continued)

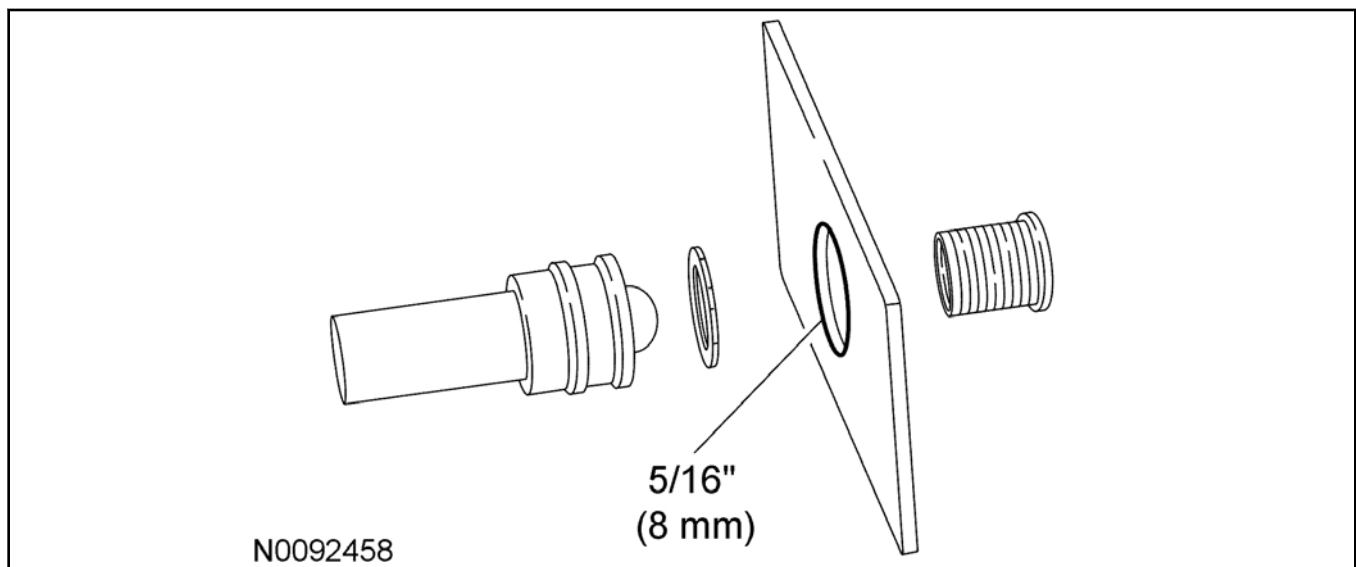
20. Working from the underside of the floor console, drill a 5/16" (8mm) LED mounting hole in the floor console bin.
- It may be necessary to drill a 27/64" (10mm) countersink hole into the previously drilled 5/16" (8mm) LED mounting hole. This will allow the LED mounting cap to engage the threads of the LED.



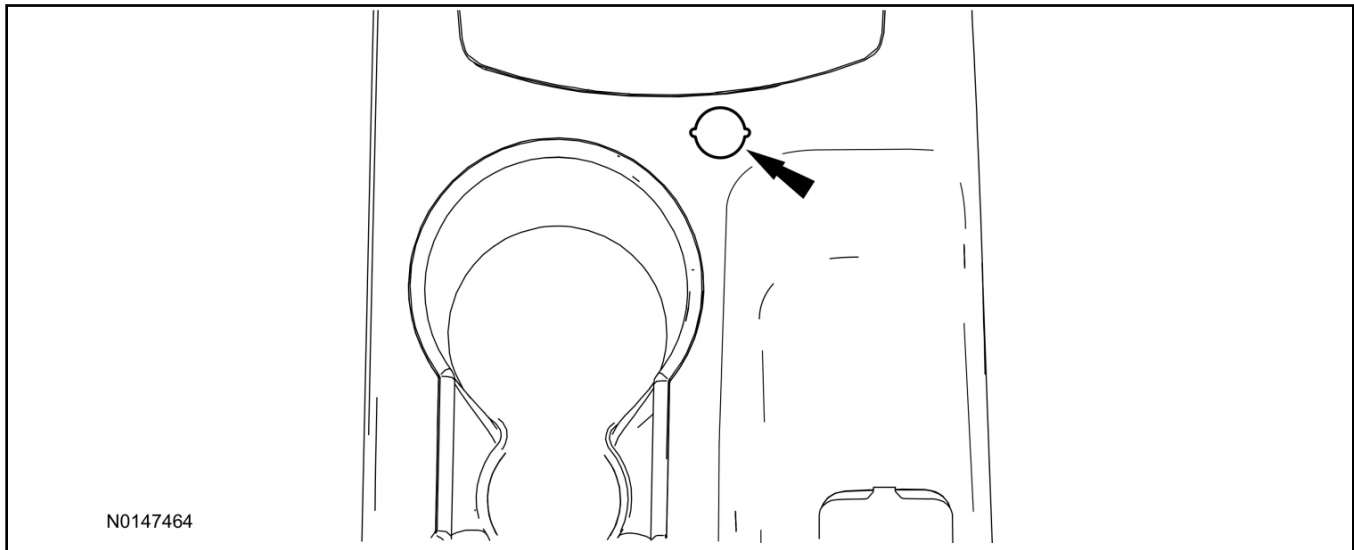
21. Route both of the LED housings to previously drilled LED mounting holes.

INSTALLATION (Continued)

22. Position the LED housings to the LED mounting holes and attach the LED lens to the both LED housings.

**Install Switch**

23. Locate and drill a 11/16" (17.5mm) switch mounting hole into the floor console side finish panel as shown below.
- File (2) switch locating notches (one each side) into the switch mounting hole.

INSTALLATION (Continued)

24. Install the ambient lighting switch into the switch mounting hole.

Install Light Engines

25. Route the light engine that has 2 wires to the driver's footwell area.

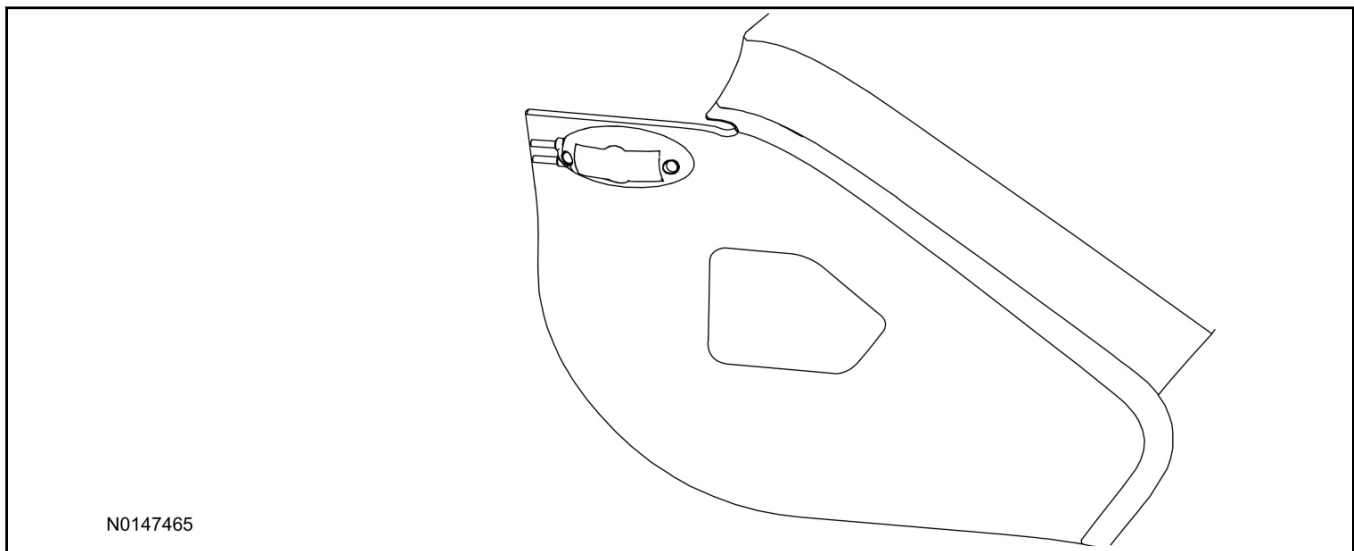
26. Route the remaining light engine to the passenger footwell area.

27. Position the first light engine to the driver side floor console lower trim panel, as shown.

- Secure the light engine using the kit provided screws.

NOTE:

Light Engine and wiring should be routed and secured out of driver and passenger view.

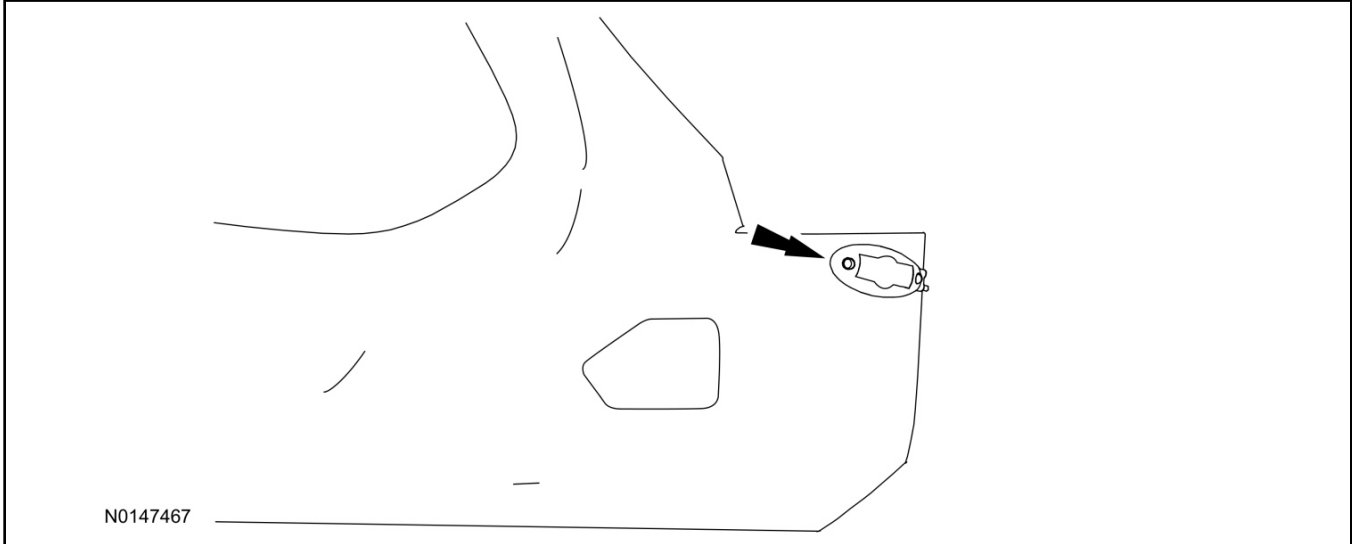


INSTALLATION (Continued)

28. Position the remaining light engine to the passenger side floor console lower trim panel, as shown.
- Secure the light engine using the kit provided screws.

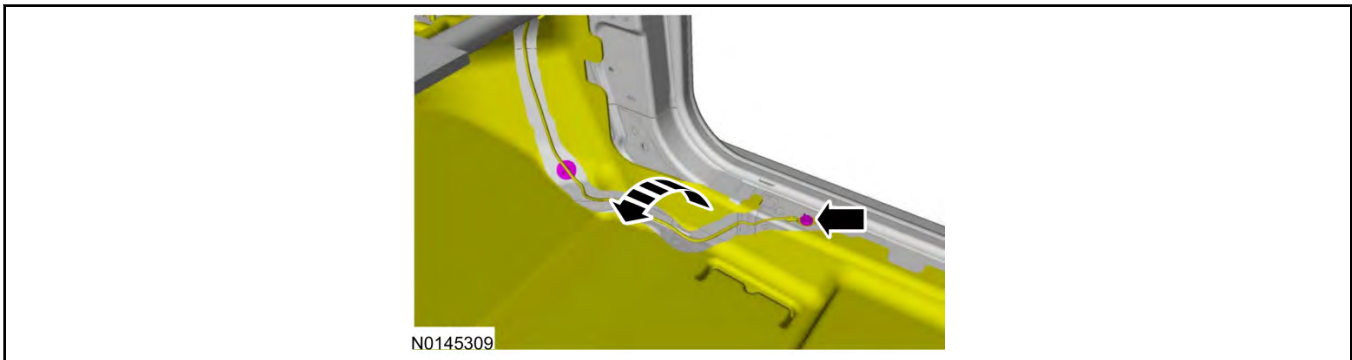
NOTE:

Light Engine and wiring should be routed and secured out of driver and passenger view.

**Power and Ground Connections****NOTE:**

Review "Proper Wire Splicing Techniques", within this document prior to proceeding.

29. Position aside the carpet and connect the Black ground wire from the ambient lighting harness, to one of the passenger side chassis ground points.

**30. NOTE:**

A DVOM connected to the correct wire will show 0V with the park lamp switch in the OFF position, then show 12V with the park lamp switch in the ON position, or when the instrument cluster is illuminated.

A logic probe will show ground on the correct wire with the park lamp switch in the OFF position, then show power with the park lamp switch in the ON position.

Identify the Violet/Gray (instrument panel/switch illumination) circuit wire at the Body Control Module (BCM) connector C2280C Pin 14.

31. Connect the White wire from the ambient lighting harness to the Violet/Gray (instrument panel/switch illumination) circuit wire at the Body Control Module (BCM) connector C2280C Pin 14.

INSTALLATION (Continued)

Trim Installation

32. Install the lower IP insulator panel.
33. Install the selector lever trim panel.
34. Install the center, lower - IP finish panel. For additional information, refer to WSM, Section 501-12.
35. Install the emergency brake handle trim.
36. Install the floor console latch trim panel.
 - Install the screw.
37. Install the floor console upper trim panel.
 - Install the screw.
38. Close the floor console stowage bin door.
39. Install the RH side lower cowl trim panel and scuff plate and position the weather strip back.
40. Connect the battery cable to ground. For additional information, refer to WSM, Section 414-01.

AMBIENT LIGHTING KIT INSTALLATION

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INSTALLATION

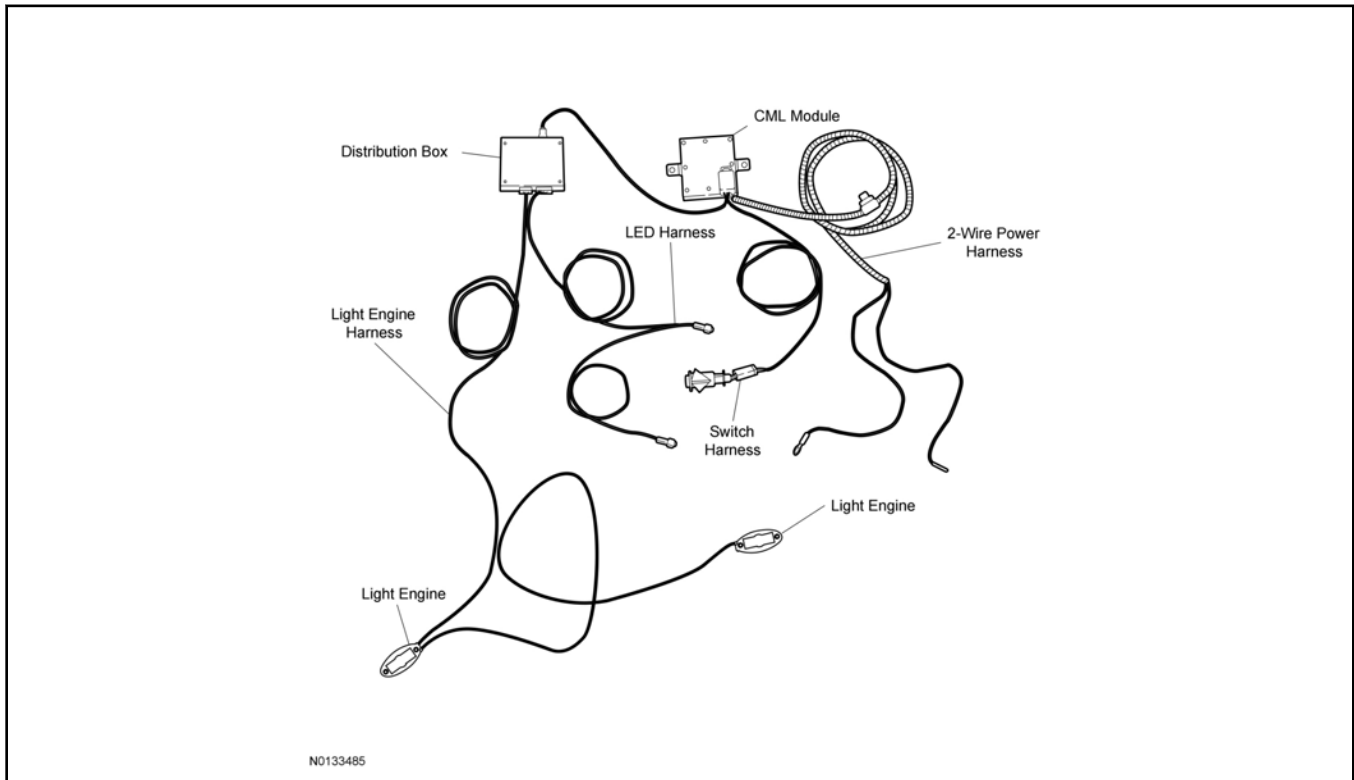
Ambient Lighting Kit

GENERAL PROCEDURES

Wire Splicing Techniques

INSTALLATION

Ambient Lighting - Flex



Ambient Lighting Kit Contents

1. Review the Ambient Lighting Kit Contents.

Ambient Lighting Kit

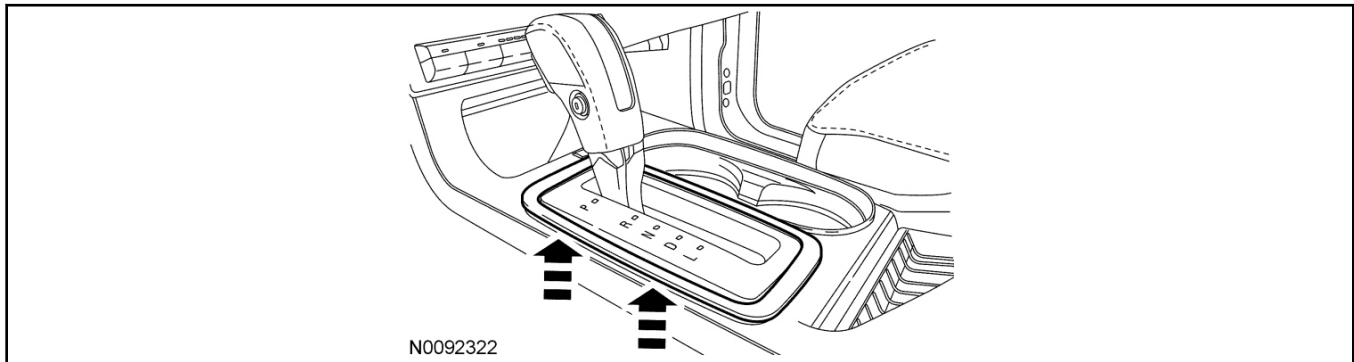
QUANTITY	DESCRIPTION
1	DISTRIBUTION BOX HARNESS ASSEMBLY
1	CML MODULE
2	LIGHT ENGINE
1	SWITCH
1	HARDWARE KIT

Prepare Vehicle

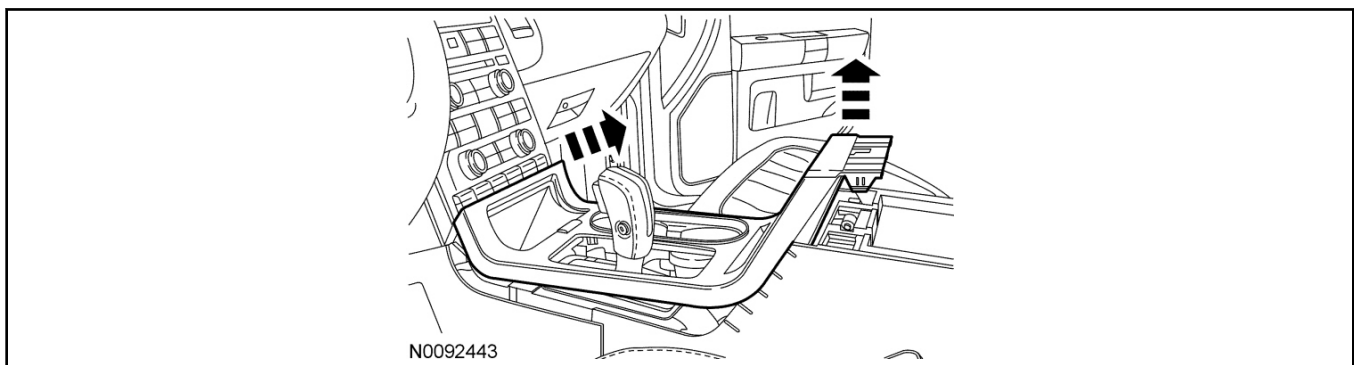
2. Apply the parking brake.
3. Position the front seats rearward.
4. Turn the ignition key to the "ON" position and move the shift lever to "NEUTRAL".
 - Turn the ignition key to the "OFF" position.

INSTALLATION (Continued)

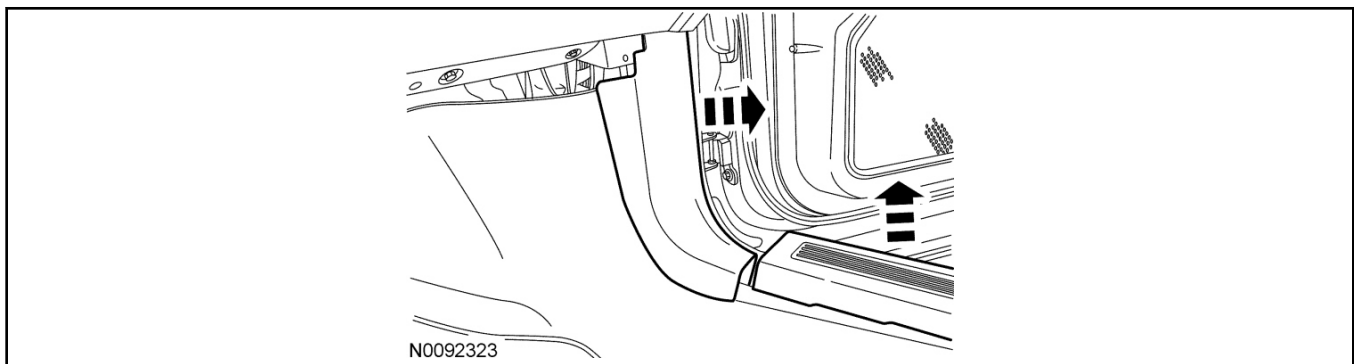
5. Remove the selector lever trim ring.



6. Lift upward and open the storage compartment lid.
7. Remove the floor console finish panel.
- Lift the floor console finish panel upward to release the retaining clips.
 - If equipped, disconnect the electrical connector.



8. Remove the RH A-pillar lower trim panel.
- Remove the door scuff plate.
 - Remove the A-pillar lower trim panel.

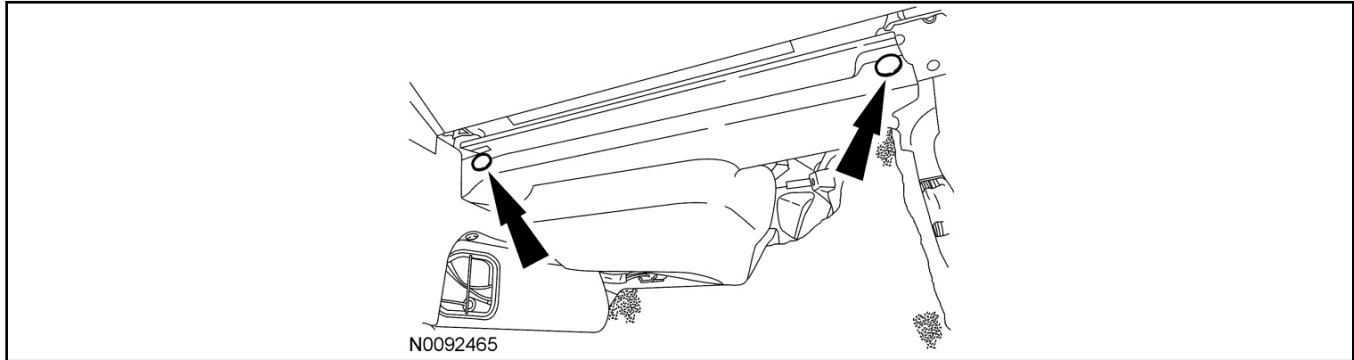


9. Remove the LH A-pillar lower trim panel.
- Remove the door scuff plate.
 - Remove the A-pillar lower trim panel.

INSTALLATION (Continued)

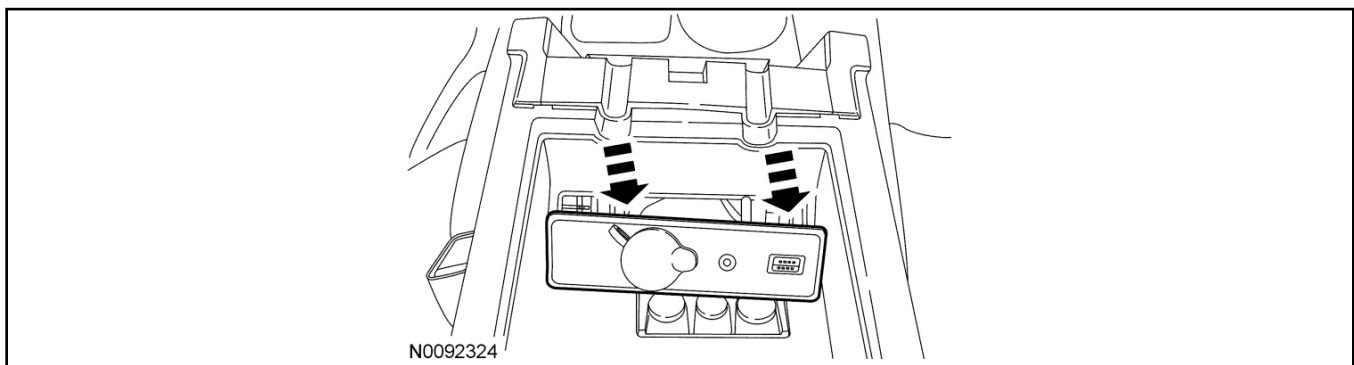
10. Remove the RH lower instrument panel insulator.

- Remove the 2 pin-type retainers.
- Lower and remove panel.



11. Remove the audio jack bezel.

- Lift to disengage the tabs.
- Disconnect the electrical connector(s).

**Install Modules****NOTE:**

Do not touch the adhesive, reduced adhesion may result.

NOTE:

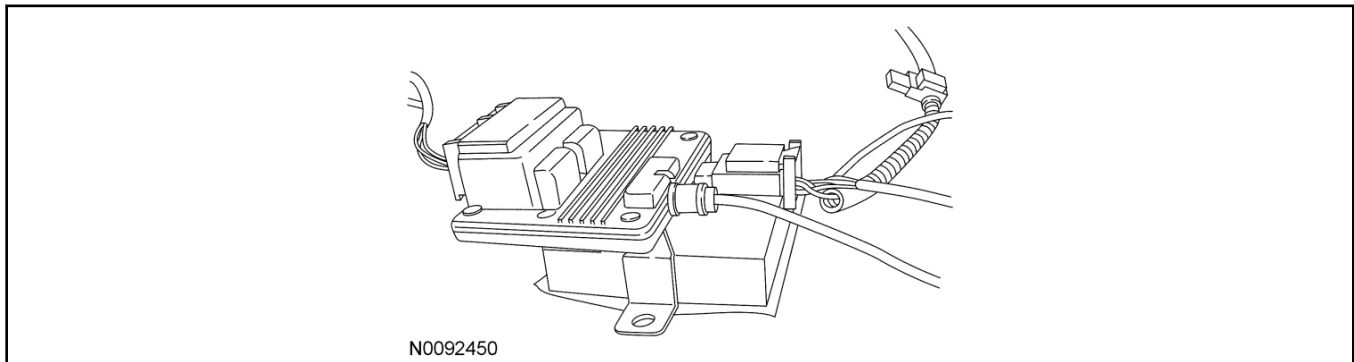
Do not remove the clear protective film from the back of the CML module.

12. Identify the distribution box.

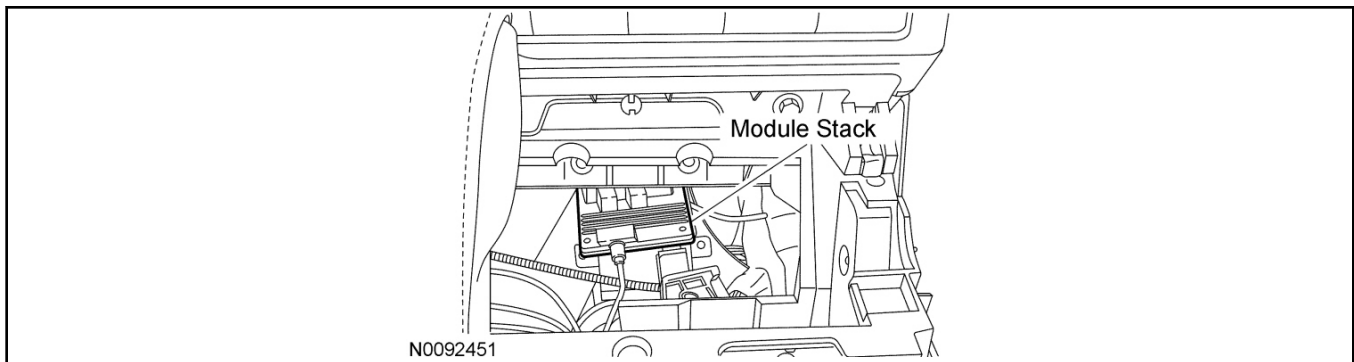
- The distribution box can be identified as the module with the double sided adhesive pad attached to the back.

INSTALLATION (Continued)

13. Remove the protective backing from the adhesive pad and stack to the CML module as shown below.



14. Using the adhesive pad supplied in the hardware kit, mount the module stack to the lower air duct located below the center stack.

**Route Harness****NOTE:**

Avoid routing ambient lighting wires near sharp edges and moving components.

NOTE:

Ensure the ambient lighting wires are secure and do not interfere with vehicle operation.

NOTE:

Light Engine and wiring should be routed and secured out of driver and passenger view.

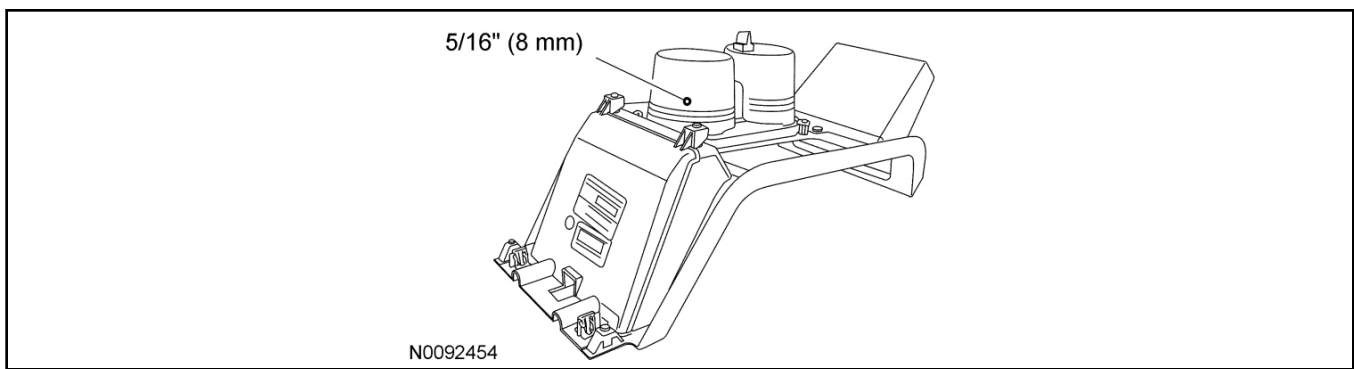
15. Route the 2-wire power harness and the light engine LED harness to the driver footwell area.
16. Route the switch harness to the location described in "Install Switch - Vehicles Without Media Hub" or Install Switch - Vehicles With Media Hub".

INSTALLATION (Continued)**Install LED****NOTE:**

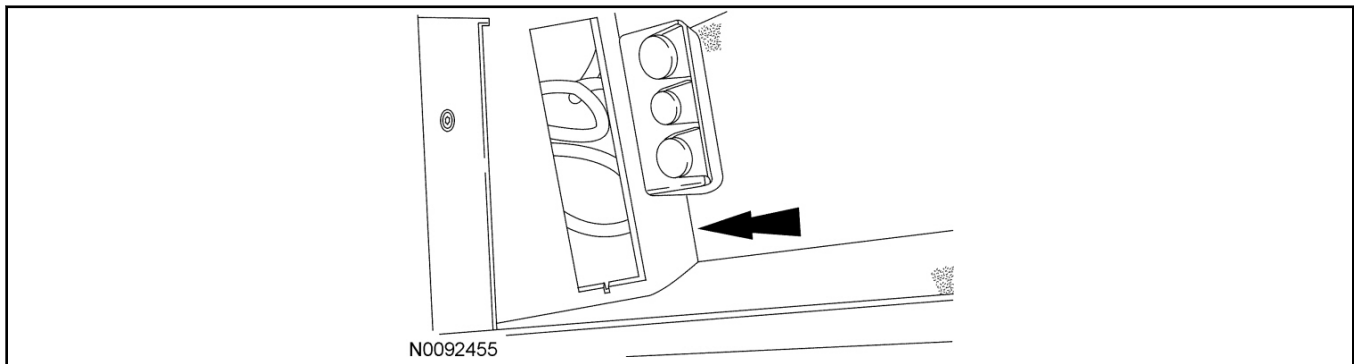
Avoid driver distraction by locating the cup holder LED in the 7 o'clock position out of the driver line of sight.

One source of the hollow punch set is Harbor Freight, item # 03838 or use an equivalent 1/2" hollow punch from another source.

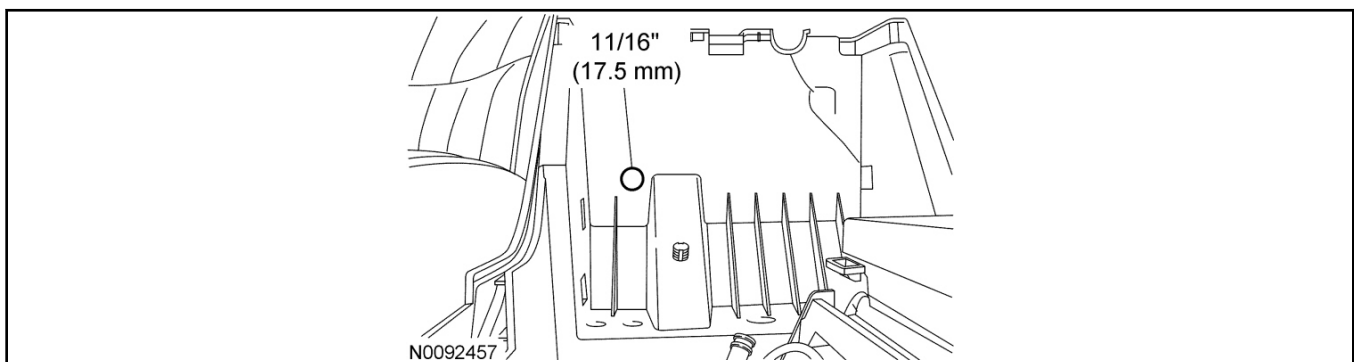
17. Ensure the cup holder insert is installed and fully seated in position. Using a 5/16" (8mm) drill bit; drill a hole into rear of the cup holder at the 7 o'clock location 30mm up from the bottom of the cup holder. The drill bit will leave a mark or hole on the cup holder liner. Remove the cup holder liner and use the 1/2" hollow punch to create the round 1/2" opening centered around the mark or 5/16" opening you have already made in the liner.



18. Working from inside the console storage box locate and drill a 5/16" (8mm) hole in the front of the console box next to the coin holder as shown below.



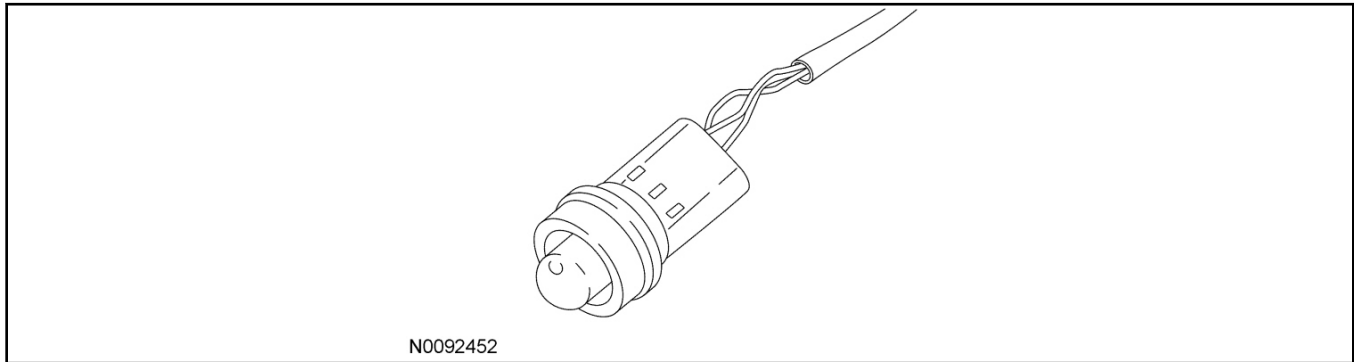
19. Working from outside the storage box locate and drill a 11/16" (17.5mm) access hole in the front of the console box as shown below.



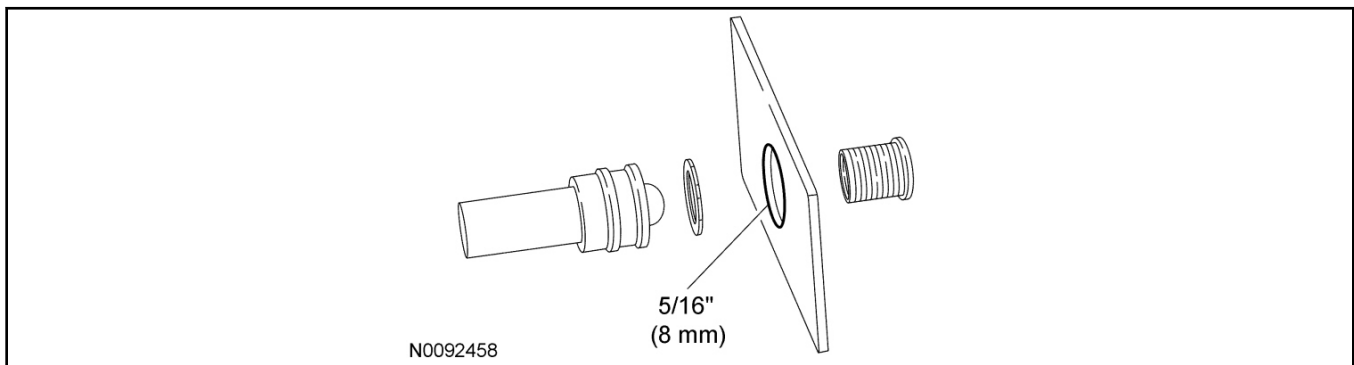
INSTALLATION (Continued)

20. Route the switch harness connector through the access hole and out the audio bezel opening.

21. Route the Exposed LED housing with the single harness wire through the access hole to the 5/16" (8mm) hole next to the coin holder.

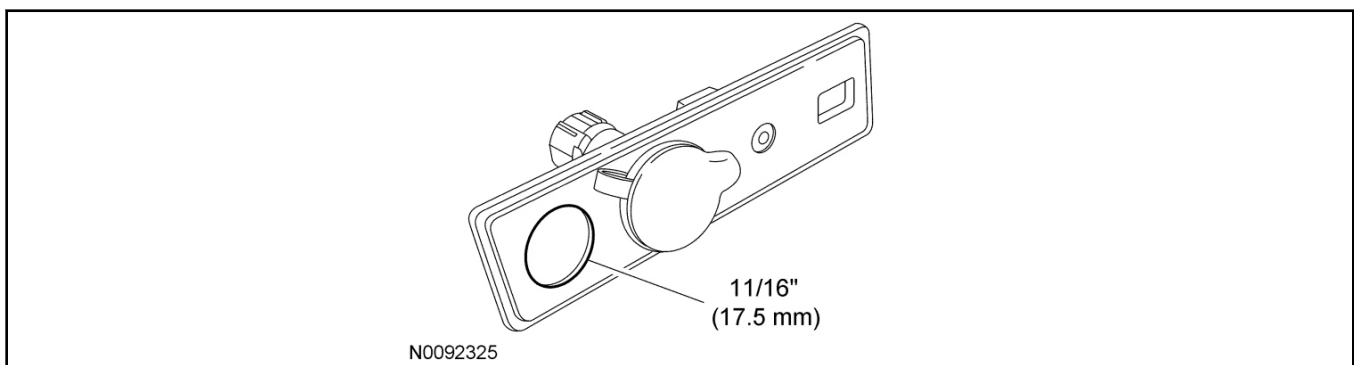


22. Working through the audio bezel opening attach the LED lens to the exposed LED housing.



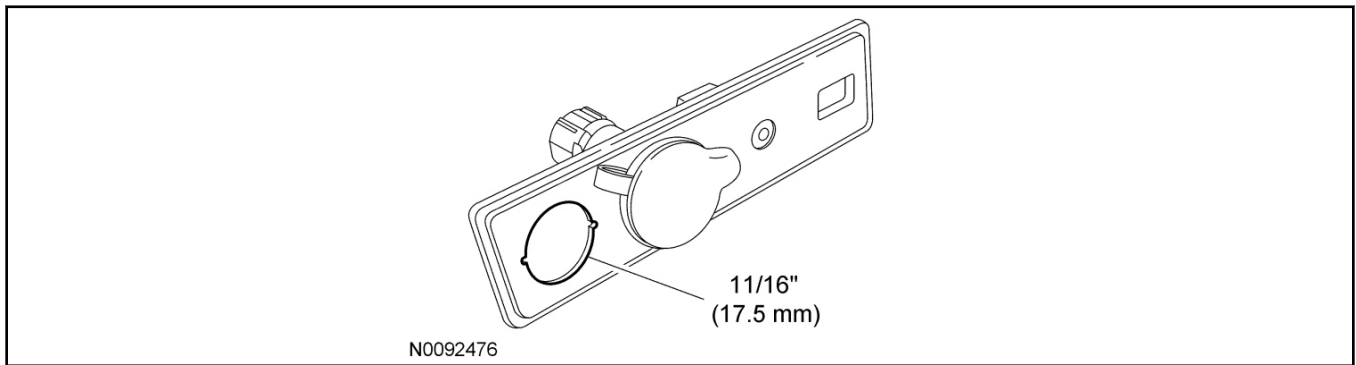
Install Switch - Vehicles Without Media Hub

23. Locate and drill a 11/16" (17.5mm) hole next to the audio jack in the audio jack bezel.

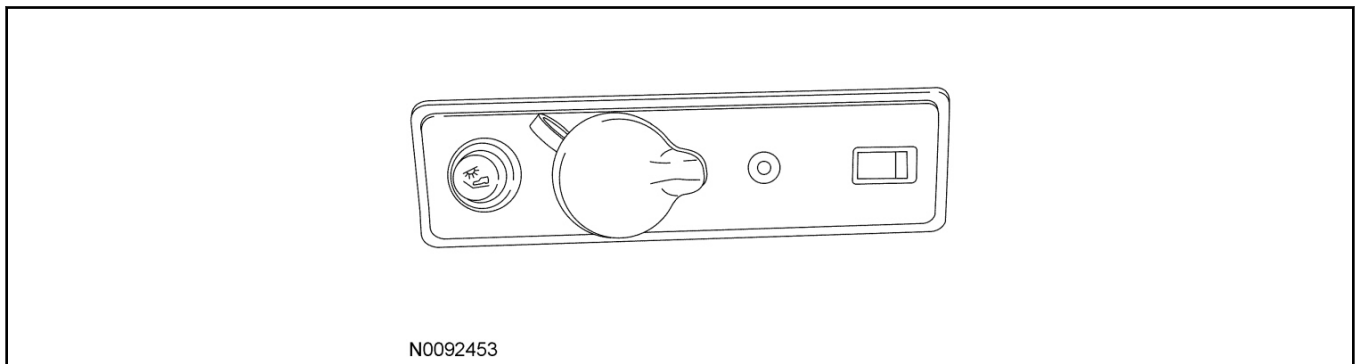


INSTALLATION (Continued)

24. File (2) locating notches in audio switch bezel as shown below.



25. Install the ambient lighting switch into the bezel as shown below.

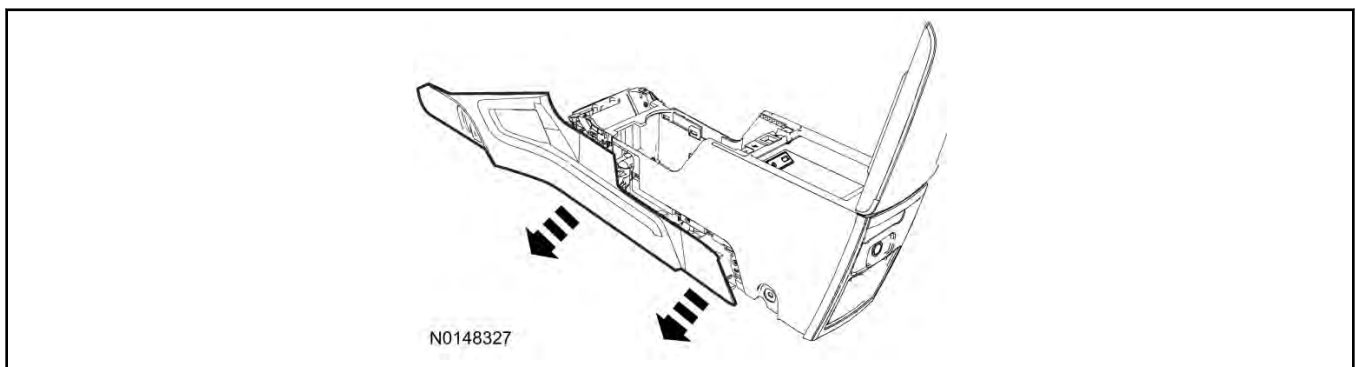


26. Install the audio jack bezel.

- Connect the ambient lighting switch and electrical connectors.

Install Switch - Vehicles With Media Hub

27. Pull the middle and rear of the LH floor console trim panel outward to release the retaining clips.



28. Pull the front of the LH floor console trim panel downward to detach the trim panel from the pin-type retainers.

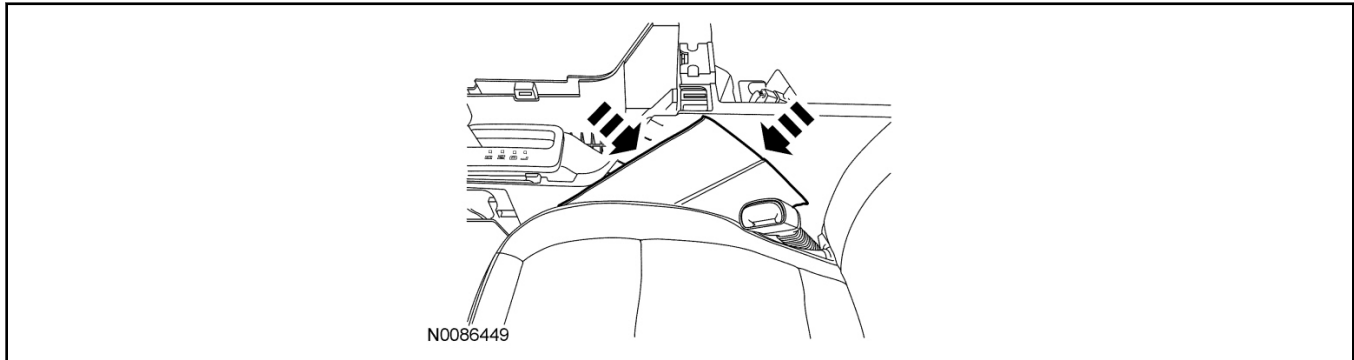
INSTALLATION (Continued)29. **NOTICE:**

Damage to the floor console may occur if cardboard is not used to remove the floor console trim panels.

NOTE:

LH floor console trim panel shown, RH floor console trim panel similar.

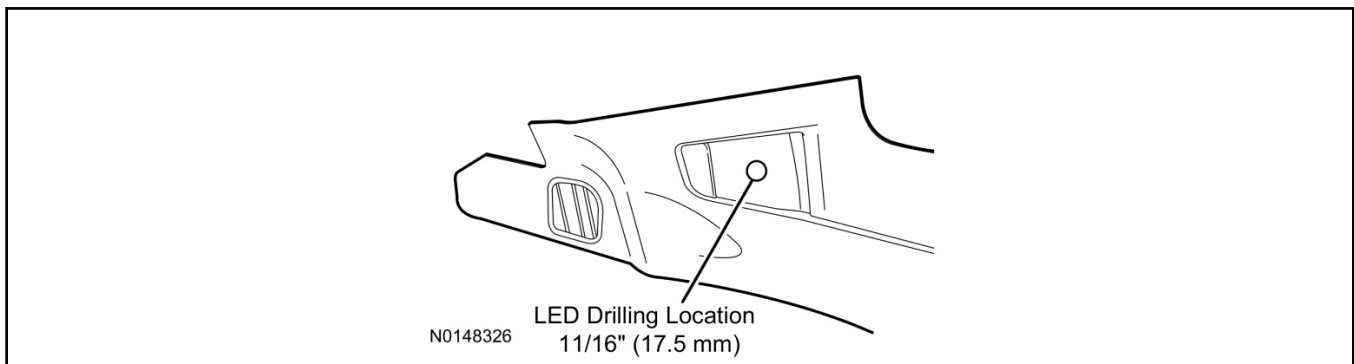
Position a piece of cardboard between the LH and RH floor console trim panels and the floor console.



30. Remove the LH floor console trim panel and cardboard simultaneously.

- If equipped, disconnect the electrical connectors.

31. Locate and drill a 11/16" (17.5mm) hole in the LH floor console trim panel as shown below.



32. File (2) locating notches in the 11/16" (17.5mm) hole.

33. Install the ambient lighting switch into the LH floor console trim panel.

34. **NOTICE:**

Damage to the floor console may occur if cardboard is not used while installing the LH floor console trim panel.

Install the LH floor console trim panel.

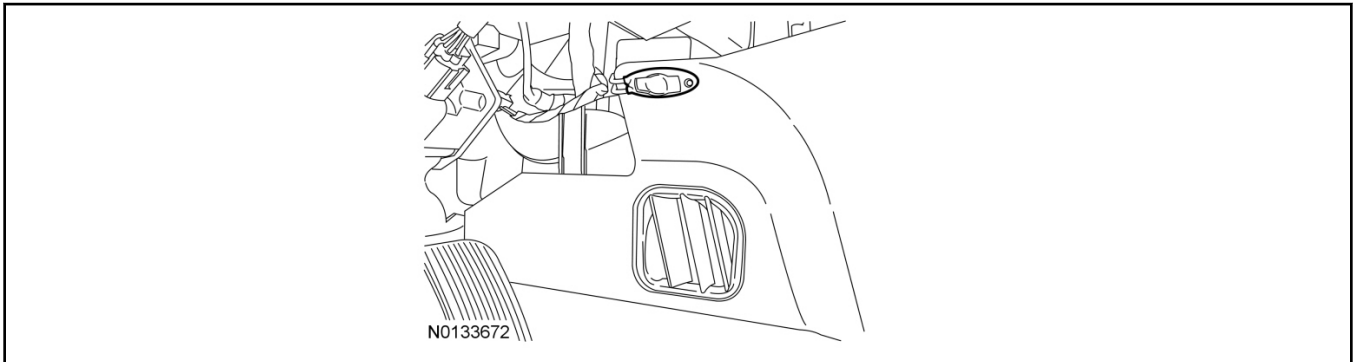
INSTALLATION (Continued)**Install Light Engines**

35. Position the light engine containing (2) wires to the driver side floor console trim panel as shown.

- Secure the light engine using the kit provided screws.

NOTE:

Light Engine and wiring should be routed and secured out of driver and passenger view.



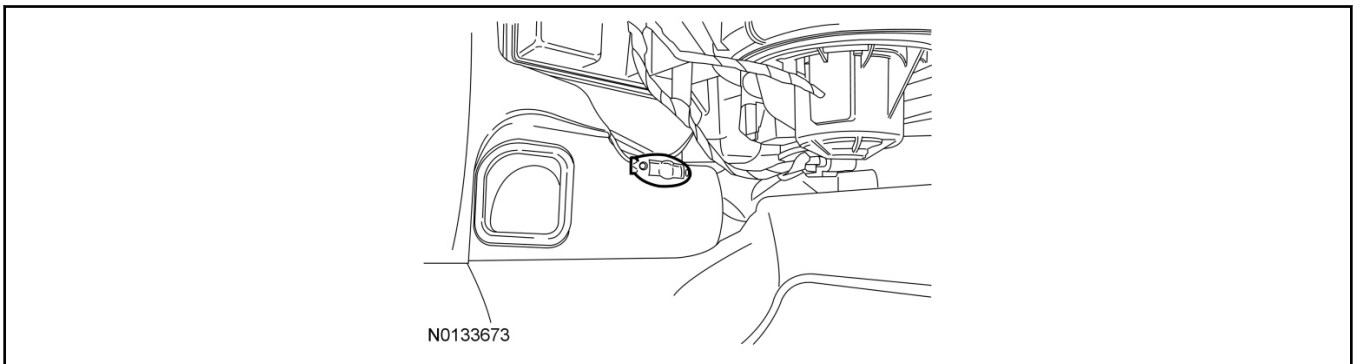
36. Route the remaining light engine to the passenger footwell area.

37. Position the remaining light engine to the passenger side floor console trim panel as shown.

- Secure the light engine using the kit provided screws.

NOTE:

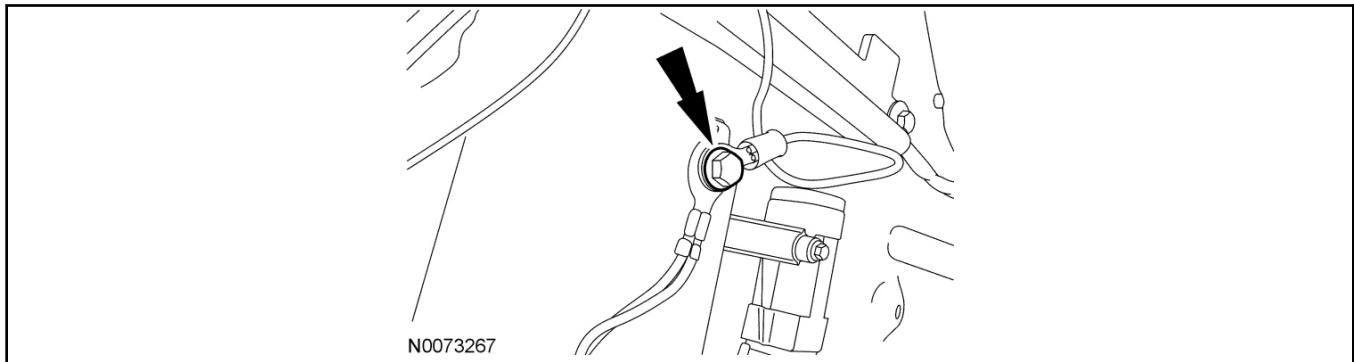
Light Engine and wiring should be routed and secured out of driver and passenger view.



INSTALLATION (Continued)**Power and Ground Connections****NOTE:**

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

38. Connect the Black ground wire from the ambient lighting harness to the chassis ground point at the driver kick panel.

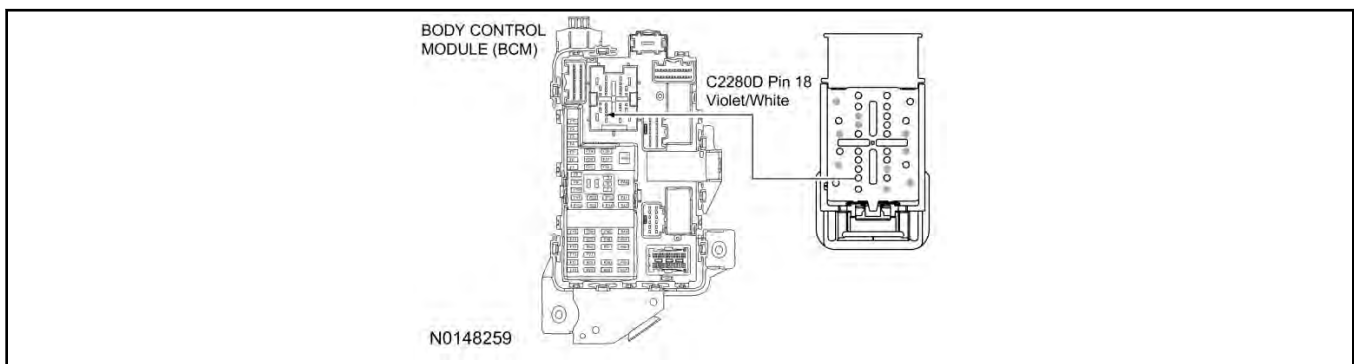
**39. NOTE:**

A DVOM connected to the correct wire will show 0V when the park lamp switch is in the OFF position, then show 12V when the park lamp switch is in the ON position.

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

Identify the Violet/White parking light circuit wire at the Body Control Module (BCM) Connector C2280D Pin 18.

40. Connect the White wire from the ambient lighting harness to the Violet/White park lamp circuit wire at the BCM Connector C2280D Pin 18.

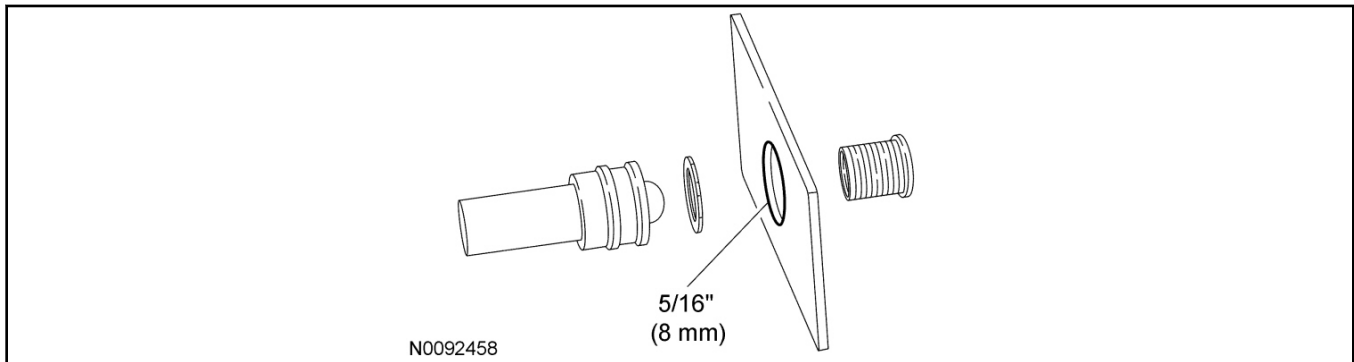
**Install Trim****41. NOTE:**

Ensure the ambient lighting wires are secure and do not interfere with vehicle operation.

Use the supplied 4" tie straps to secure the ambient lighting harness wires.

INSTALLATION (Continued)

42. Install the RH A-pillar lower trim panel.
 - Install the A-pillar lower trim panel.
 - Install the door scuff plate.
43. Install the LH A-pillar lower trim panel.
 - Install the A-pillar lower trim panel.
 - Install the door scuff plate.
44. Install LED lens to cup holder.



45. Install the floor console finish panel.
 - Connect the electrical connector.
 - Push the floor console finish panel downward to engage the retaining clips.
46. Close the storage compartment lid.
47. Install the selector lever bezel.
 - Push the selector lever bezel downward.
 - Place the gearshift lever in the PARK position.
 - Release the parking brake.

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AMBIENT LIGHTING KIT INSTALLATION

CONTENTS

INSTALLATION

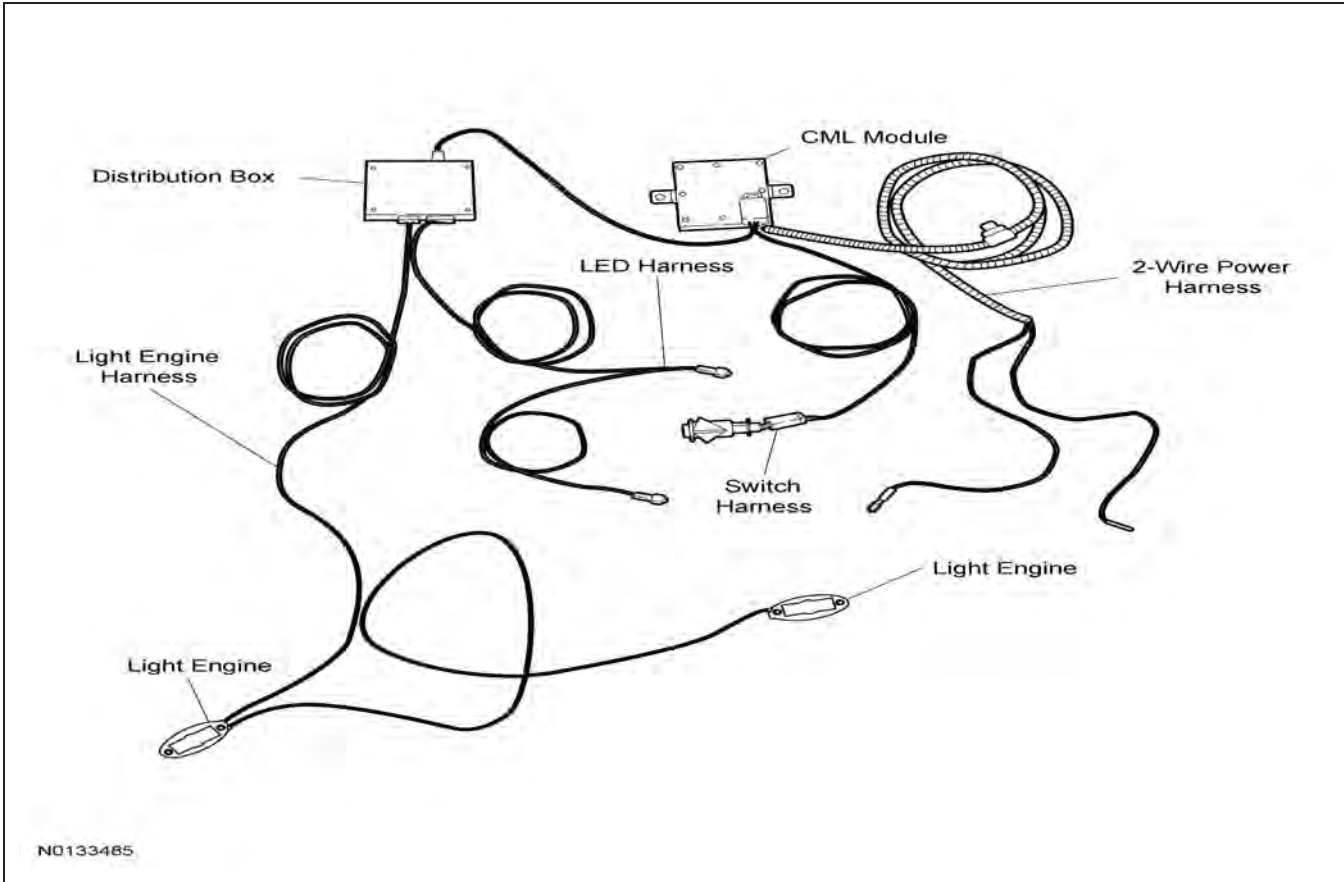
[Ambient Lighting Kit](#)

GENERAL PROCEDURES

[Wire Splicing Techniques](#)

INSTALLATION

Lighting — Navigator



Ambient Lighting Kit Contents

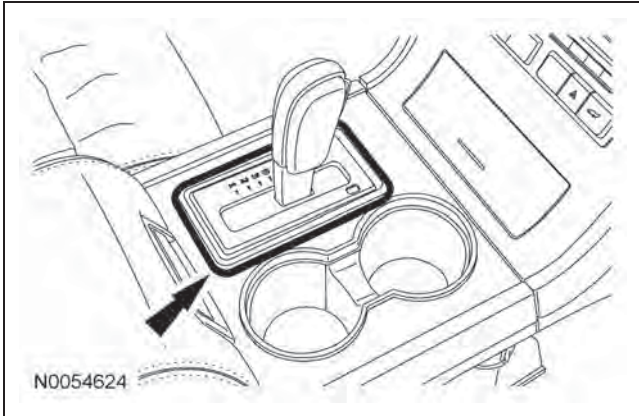
1. Review the Ambient Lighting Kit Contents.

Ambient Lighting Kit

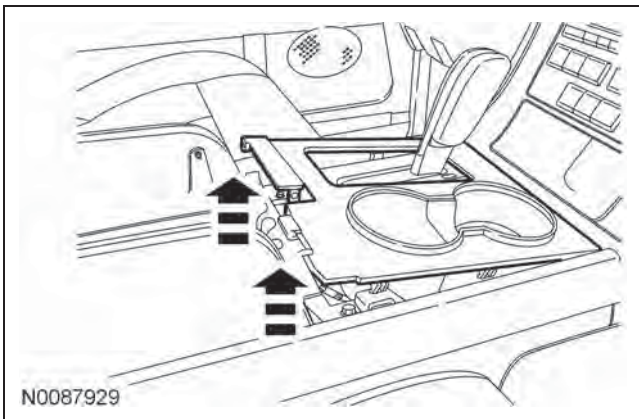
QUANTITY	DESCRIPTION
1	DISTRIBUTION BOX HARNESS ASSEMBLY
1	CML MODULE
2	LIGHT ENGINE
1	SWITCH
1	HARDWARE KIT

Prepare Vehicle

2. Apply the parking brake.
3. Turn the ignition key to the “ON” position and move the shift lever to “NEUTRAL”.
 - Turn the ignition key to the “OFF” position.
4. Remove the selector lever trim ring.

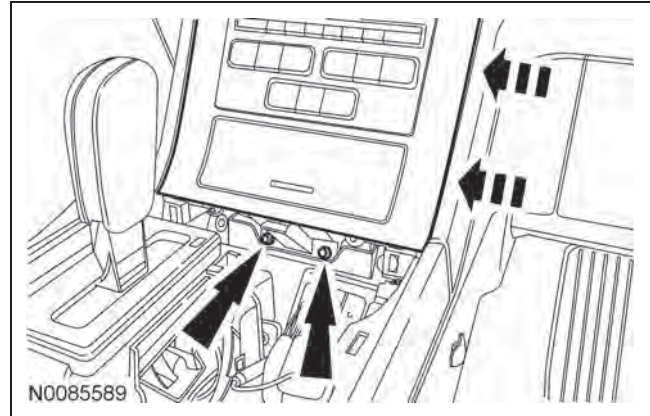
INSTALLATION (Continued)

5. Remove the front floor console finish panel.
 - Open the floor console storage door.
 - Lift upward on the rear of the floor console finish panel to release the floor console finish panel clips.

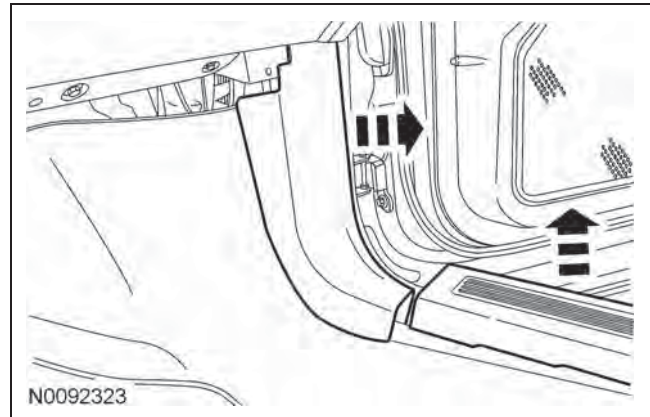


NOTICE: Use extreme care not to contact the ACM navigation display screen when removing the ACM and the lower instrument panel center finish panel. Unintended contact with the display screen can easily scratch and otherwise damage the display.

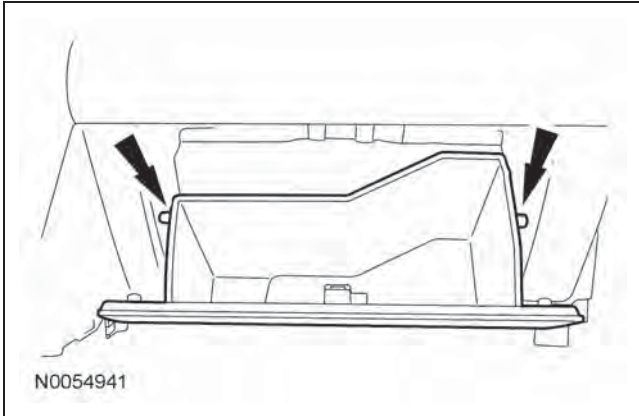
6. Remove the instrument panel center finish panel.
 - Remove the 2 instrument panel center finish panel screws.
 - Pull outward on the panel to disengage the clips.
 - Disconnect the electrical connectors.



7. Remove the RH A-pillar lower trim panel.
 - Remove the door scuff plate.
 - Remove the A-pillar lower trim panel.

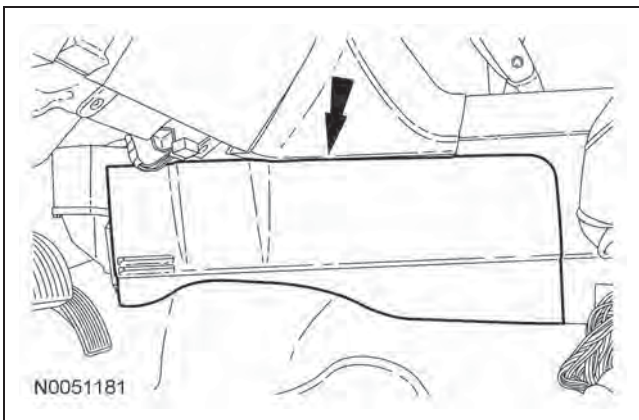


8. Remove the RH instrument panel insulator.
 - Disconnect the instrument panel insulator lamp.
9. Open the glove compartment.
10. **NOTICE:** Forcing the glove compartment past the stops will damage the dampener. Disconnect the dampener.
11. Release the stops and lower the glove compartment.

INSTALLATION (Continued)

12. Remove the LH and RH front floor console side finish panels.

- If equipped, disconnect the electrical connector.

**Install Modules**

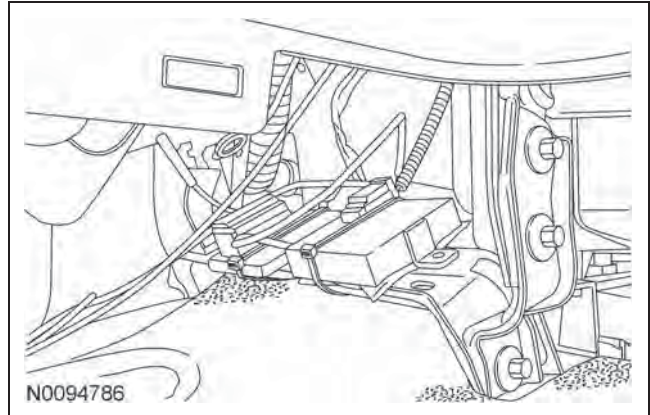
NOTE: Do not touch the adhesive, reduced adhesion may result.

NOTE: Do not remove the clear protective film from the back of the CML module.

13. Identify the CML module.
- The CML module can be identified as the module with clear protective film attached to the back.
14. Apply the adhesive pad supplied in the hardware kit, directly to the clear protective film of the CML module.

15. Remove the protective backing from the adhesive pad of both modules and secure both of the modules to the support below the center stack as shown below.

- Secure using included wire ties

**Route Harness**

NOTE: Avoid routing the ambient lighting wires near sharp edges and moving components.

NOTE: Ensure the ambient lighting wires are secure and do not interfere with vehicle operation.

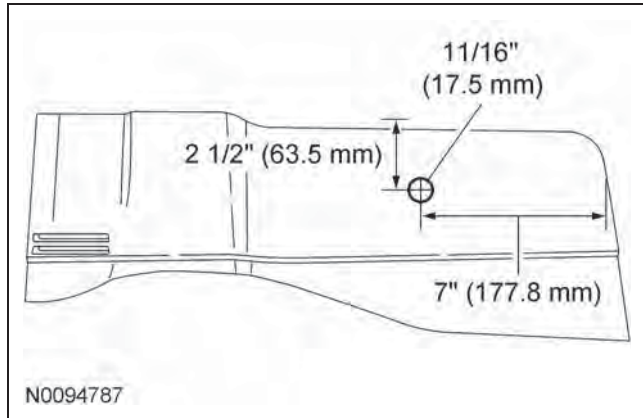
NOTE: Light Engine and wiring should be routed and secured out of driver and passenger view.

16. Route the light engine LED harness to the driver footwell area.
17. Route the 2-wire power harness to the passenger footwell area
18. Route the harness containing the exposed LED ends to the console box area.

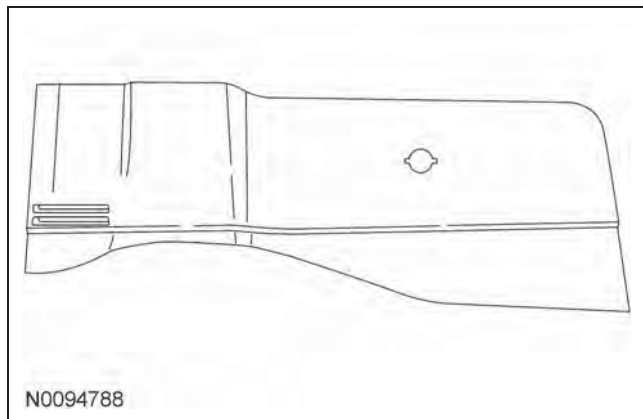
Install Switch

19. Locate and drill a 11/16" (17.5mm) hole in the LH front floor console side finish panel as shown below.
- Trim the sound mat.

INSTALLATION (Continued)



20. File (2) Switch locating notches in the 1 1/16'' (17.5mm) hole as shown below.



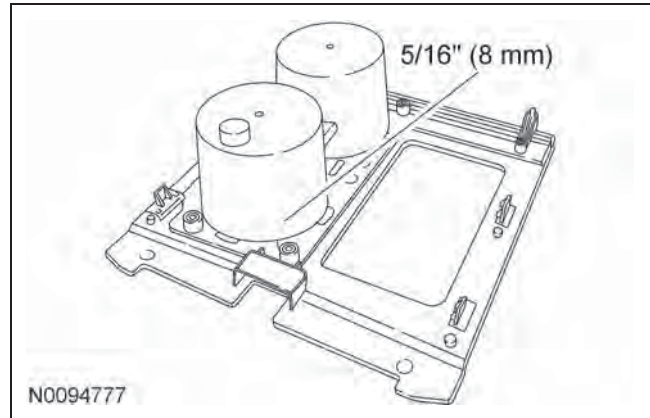
21. Install the ambient lighting switch into the front floor console side panel.

Install LED

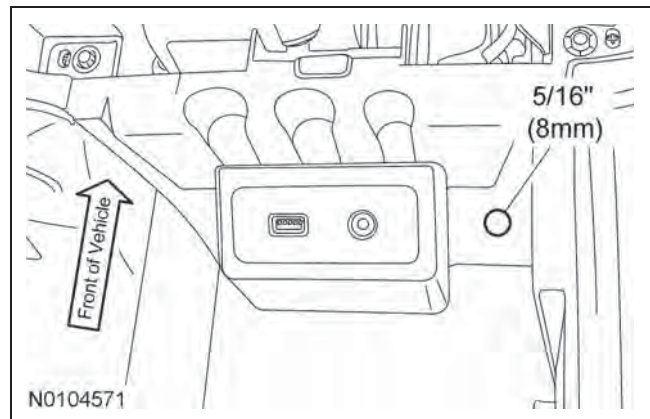
NOTE: If this vehicle uses a liner in the cup holder, carefully mark the LED location onto the liner. Then remove the liner and use a 1/2'' hollow punch to punch a hole in the liner to allow the LED light to pass through the liner. Re-install the liner when complete. One source of the hollow punch set is Harbor Freight, item # 03838 or use an equivalent 1/2'' hollow punch from another source.

NOTE: Avoid driver distraction by locating the cup holder LED in the 7 o'clock position out of the driver line of sight.

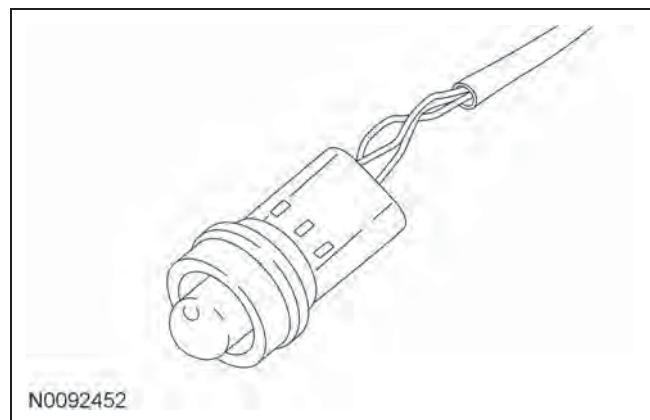
22. Locate and drill a 5/16'' (8mm) hole in the Rear cup holder as shown below.



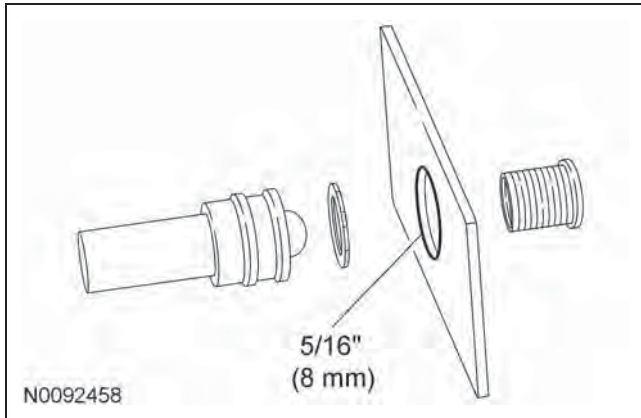
23. Locate and drill a 5/16'' (8mm) hole in the front of the console box as shown below.



24. Identify the exposed LED housing with the single lead.

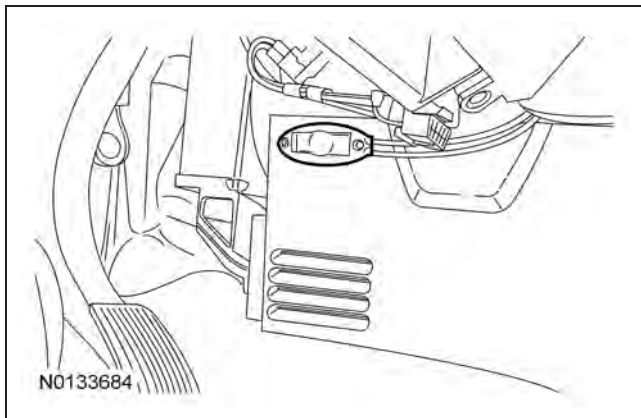


25. Install the LED lens to the console box and assemble to the exposed LED housing with the single lead.

INSTALLATION (Continued)**Install Light Engines**

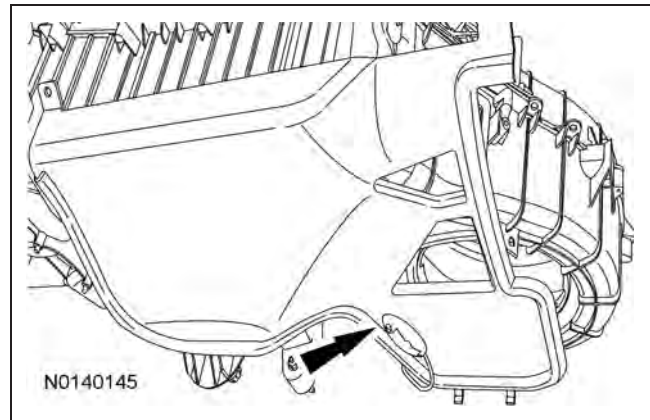
26. Position the light engine containing (2) wires to the driver side front floor console side cover as shown.
- Secure the light engine using the kit provided screws.

NOTE: Light Engine and wiring should be routed and secured out of driver and passenger view.



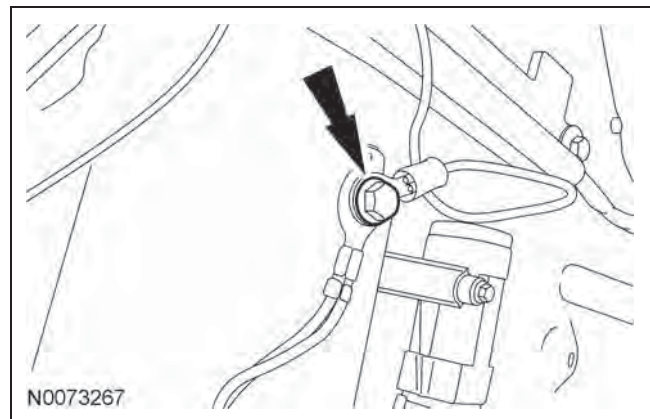
27. Route the remaining light engine to the passenger footwell area.
28. Position the remaining light engine to the passenger side lower instrument panel insulator as shown.
- Secure the light engine using the kit provided screws.

NOTE: Light Engine and wiring should be routed and secured out of driver and passenger view.

**Power and Ground Connections**

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

29. Connect the Black ground wire from the ambient lighting harness to the chassis ground point at the passenger kick panel.



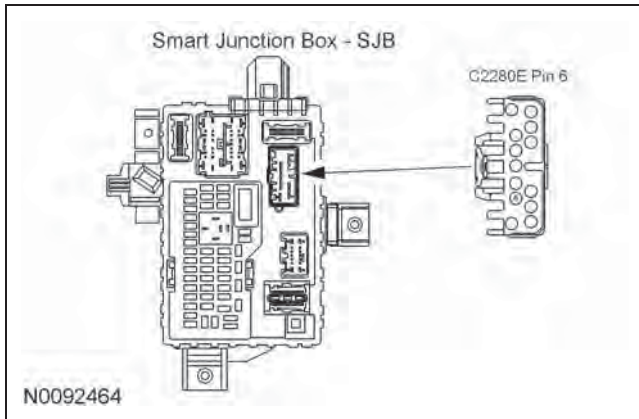
30. **NOTE:** A DVOM connected to the correct wire will show 0V when the park lamp switch is in the OFF position, then show 12V when the park lamp switch is in the ON position.

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

Identify the Violet/White parking light circuit wire at the Smart Junction Box (SJB) Connector C2280E Pin 6.

INSTALLATION (Continued)

31. Connect the White wire from the ambient lighting harness to the violet/white park lamp circuit wire at the SJB Connector C2280E Pin 6.

**Install Trim**

32. Install the RH A-pillar lower trim panel.
- Install the A-pillar lower trim panel.
 - Install the door scuff plate.
33. **NOTE:** Ensure the ambient lighting wires are secure and do not interfere with vehicle operation.
Use the supplied 4“ tie straps to secure the ambient lighting harness wires.
34. Install the LH and RH front floor console side finish panels.
- If equipped, connect the electrical connector.
 - Connect the ambient lighting switch.
35. Install the instrument panel center finish panel.
- Connect the electrical connectors.
 - Push inward to secure the retaining clips.
 - Install 2 screws.
36. Install the console finish panel.
- Push downward to secure the retaining clips.
37. Close the console compartment door.
38. Install the selector lever trim ring.
- Push the selector lever trim ring downward.
39. Place the gearshift lever in the PARK position and release the parking brake.

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AMBIENT LIGHTING KIT INSTALLATION

CONTENTS

INSTALLATION

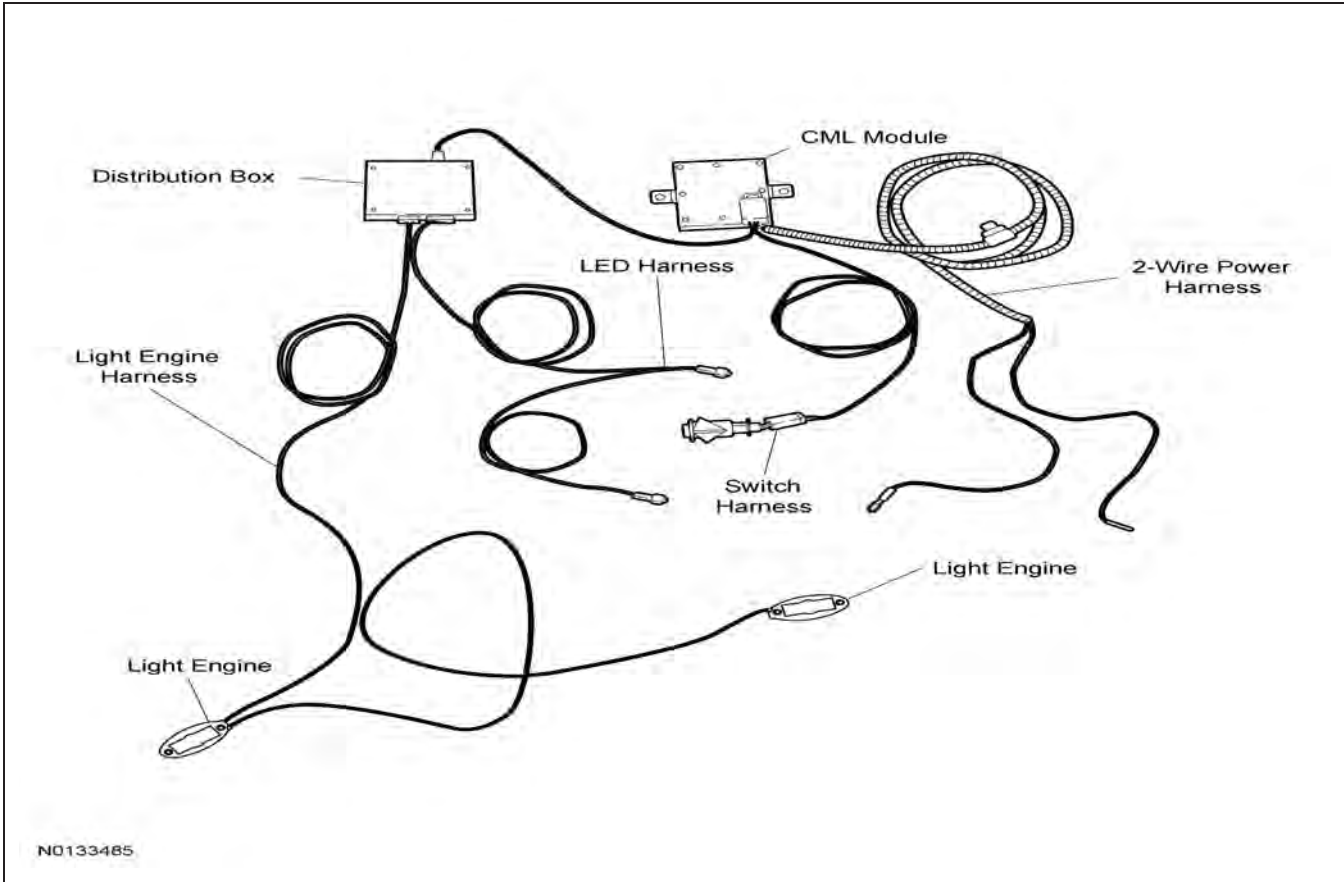
[Ambient Lighting Kit](#)

GENERAL PROCEDURES

[Wire Splicing Techniques](#)

INSTALLATION

Lighting — Expedition



Ambient Lighting Kit Contents

1. Review the Ambient Lighting Kit Contents.

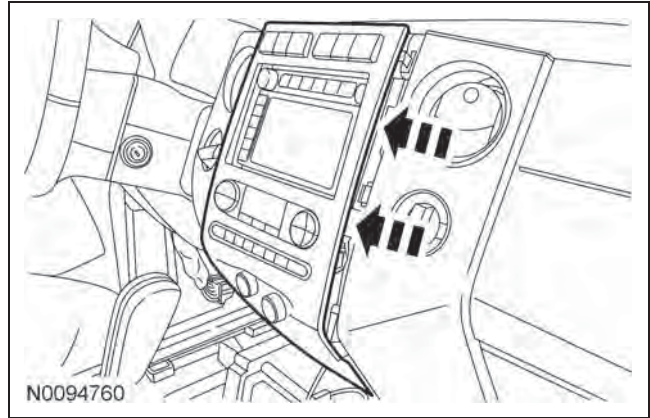
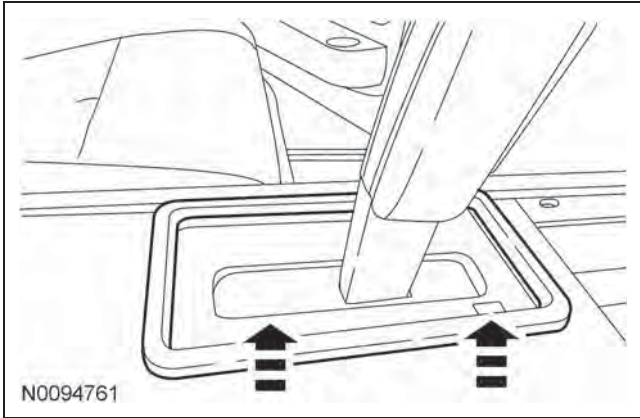
Ambient Lighting Kit

QUANTITY	DESCRIPTION
1	DISTRIBUTION BOX HARNESS ASSEMBLY
1	CML MODULE
2	LIGHT ENGINE
1	SWITCH
1	HARDWARE KIT

Prepare Vehicles-With Center Console and Cup Holders

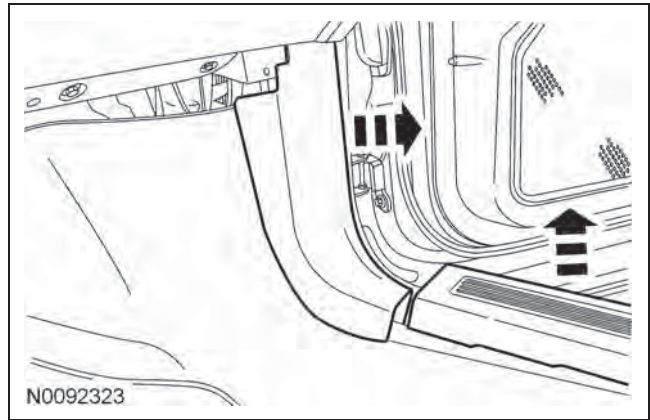
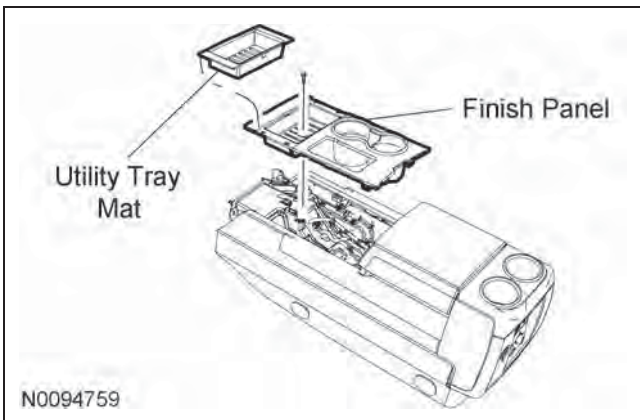
2. Apply the parking brake.
3. Turn the ignition key to the “ON” position and move the shift lever to “NEUTRAL”.
 - Turn the ignition key to the “OFF” position.
4. Remove the selector lever trim ring.

INSTALLATION (Continued)



5. Open the console compartment door.
6. Remove the screw and the console upper finish panel.
 - Remove the front floor console utility tray mat
 - Remove the screw.
 - Pull straight upward to release the retaining clips.

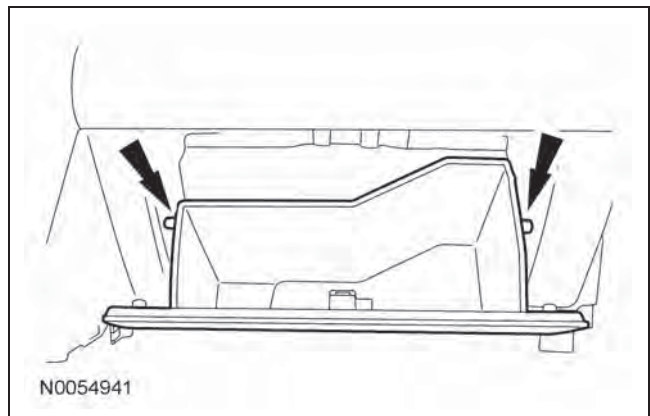
8. Remove the RH A-pillar lower trim panel.
 - Remove the door scuff plate.
 - Remove the A-pillar lower trim panel.



7. Remove the center stack panel.
 - Pull outward to release the retaining clips.
 - Disconnect the electrical connectors.

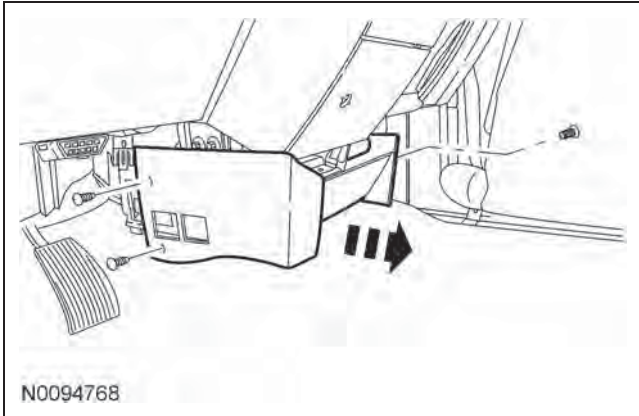
9. Open the glove compartment.
10. **NOTICE: Forcing the glove compartment past the stops will damage the dampener.**
If equipped, disconnect the dampener.

11. Release the stops.

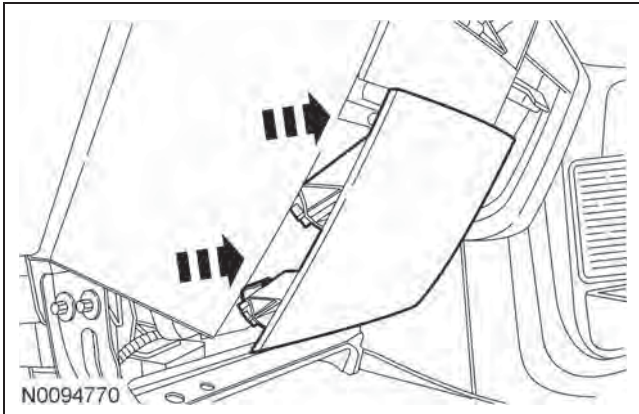


INSTALLATION (Continued)**Prepare Vehicles-Without Center Console and Cup Holders**

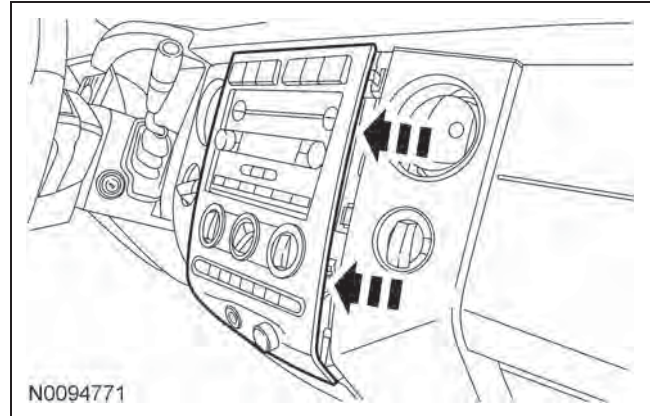
12. Position the instrument panel center valance rearward.
- Remove 3 pushpins.



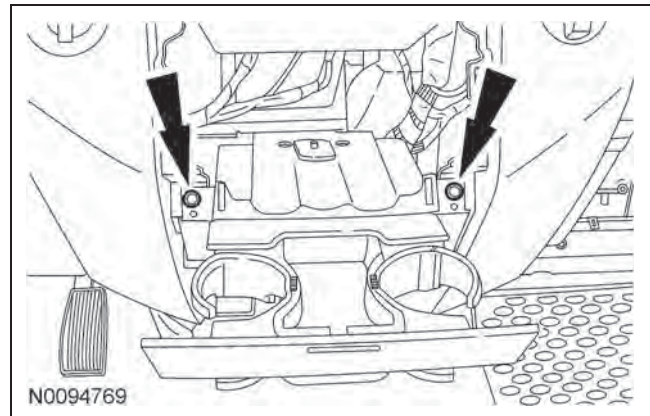
13. Remove the lower instrument panel center finish panel.



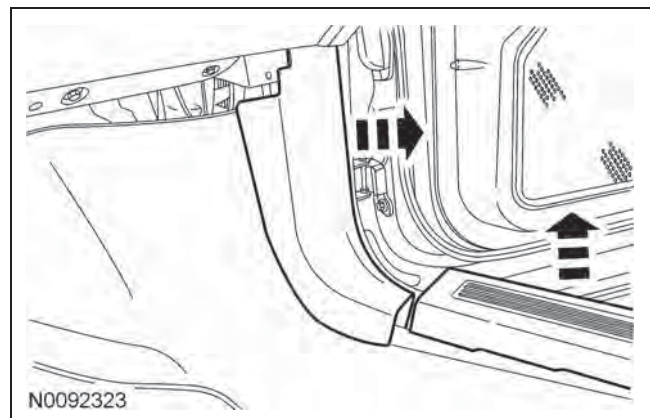
14. Remove the center stack panel.
- Disconnect the electrical connectors.



15. Remove the Instrument panel cup holder.
- Remove 2 mounting screws.



16. Remove the RH A-pillar lower trim panel.
- Remove the door scuff plate.
 - Remove the A-pillar lower trim panel.



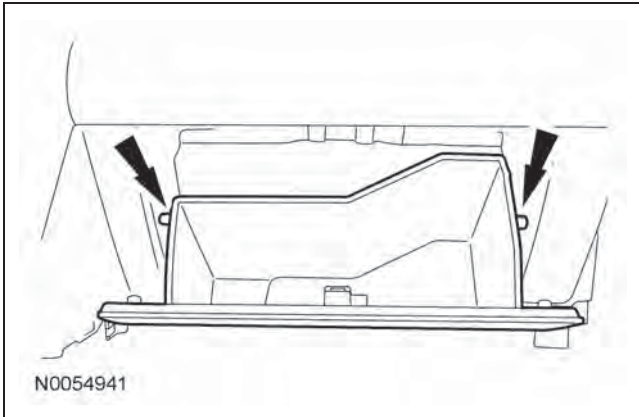
17. Open the glove compartment.

INSTALLATION (Continued)

18. **NOTICE:** Forcing the glove compartment past the stops will damage the dampener.

If equipped, disconnect the dampener.

19. Release the stops.

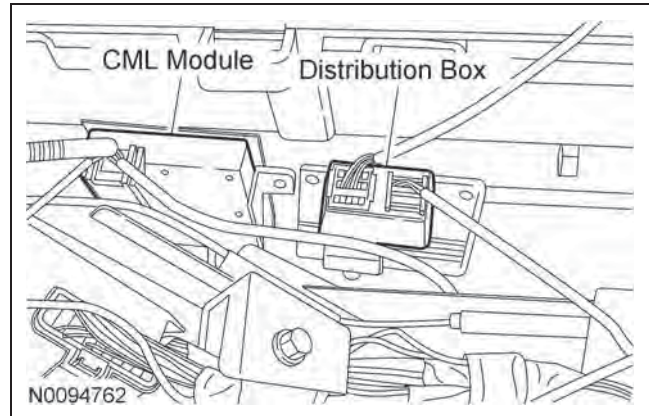


Install Modules-Vehicles With Center Console and Cup Holders

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

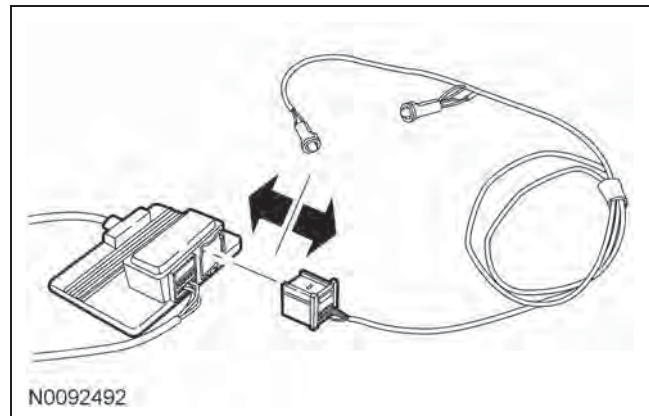
NOTE: Do not remove the clear protective film from the back of the CML module.

20. Identify the CML module.
- The CML module can be identified as the module with clear protective film attached to the back.
21. Apply the adhesive pad supplied in the hardware kit directly to the clear protective film of the CML module.
22. Remove the protective backing from the adhesive pad of both modules and secure both of the modules inside the center console as shown below.



Install Modules-Vehicles Without Center Console and Cup Holders

23. Identify the distribution box.
- The distribution box can be identified as the module with a double sided adhesive pad attached to the back.
24. Disconnect and discard the led wire harness from distribution box module.



25. Identify the CML module.
- The CML module can be identified as the module with clear protective film attached to the back

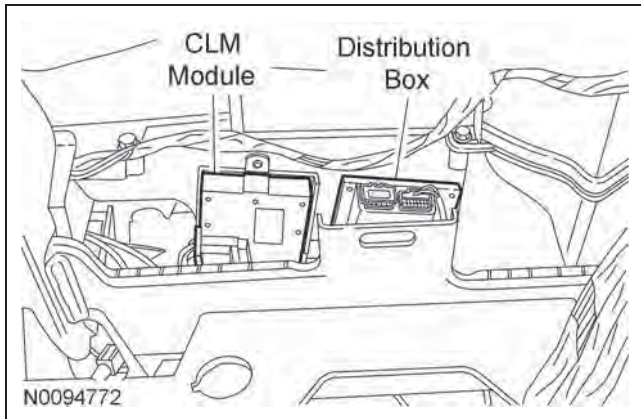
NOTE: Do not touch the adhesive, reduced adhesion may result.

NOTE: Do not remove the clear protective film from the back of the CML module.

26. Apply the adhesive pad supplied in the hardware kit, directly to the clear protective film of the CML module.

INSTALLATION (Continued)

27. Remove the protective backing from the adhesive pad of both modules and secure both of the modules to the heater core and evaporator core housing located in the center stack area as shown below.



Route Harness-Vehicles With Center Console and Cup Holders

NOTE: Avoid routing ambient lighting wires near sharp edges and moving components.

NOTE: Ensure the ambient lighting wires are secure and do not interfere with vehicle operation.

NOTE: Light Engine and wiring should be routed and secured out of driver and passenger view.

28. Route the light engine LED harness to the driver footwell area.
29. Route the 2-wire power harness to the passenger footwell area
30. Route the switch harness and the harness containing the exposed LED ends to the console box area.

Route Harness-Vehicles Without Center Console and Cup Holders

NOTE: Avoid routing ambient lighting wires near sharp edges and moving components.

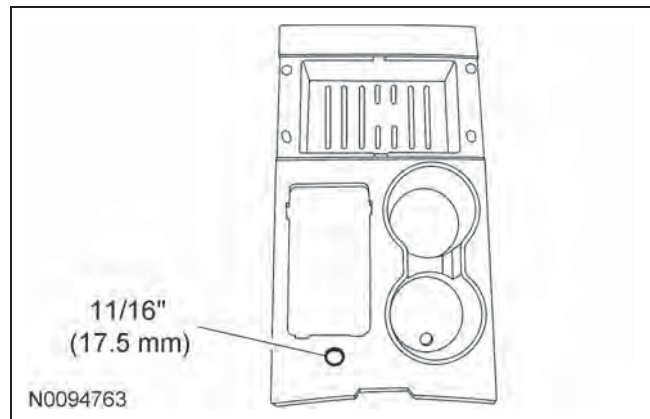
NOTE: Ensure the ambient lighting wires are secure and do not interfere with vehicle operation.

NOTE: Light Engine and wiring should be routed and secured out of driver and passenger view.

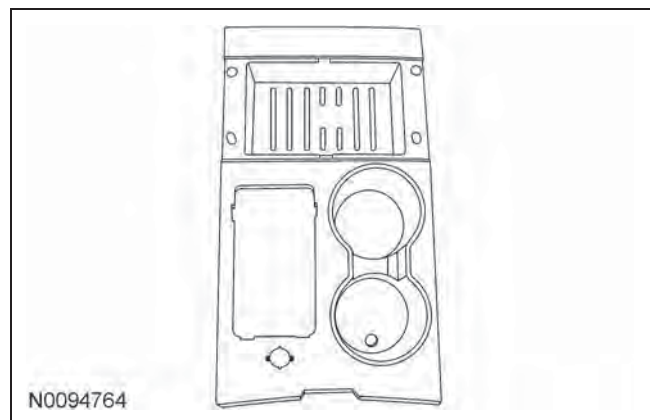
31. Route the light engine LED harness to the driver footwell area.
32. Route the 2-wire power harness to the passenger footwell area

Install Switch-Vehicles With Center Console and Cup Holders

33. Locate and drill a 11/16" (17.5mm) hole in the console finish panel behind the shifter opening as shown below.



34. File (2) Switch locating notches in the 11/16" (17.5mm) hole as shown below.

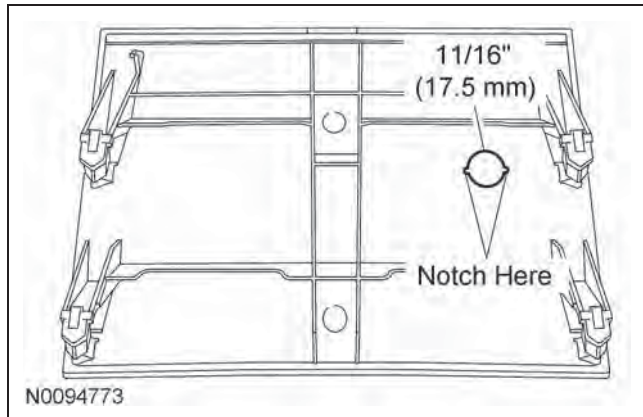


35. Install the ambient lighting switch into the console finish panel.

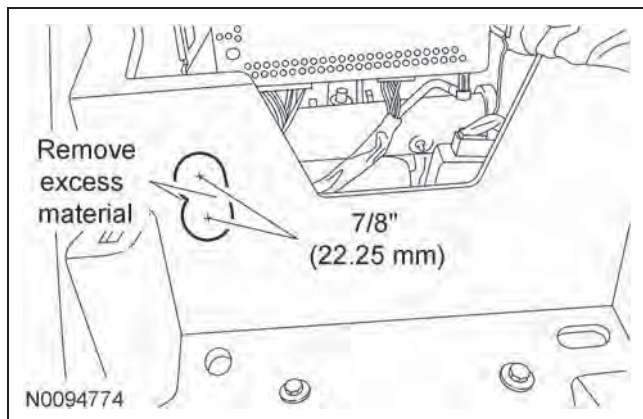
INSTALLATION (Continued)

Install Switch-Vehicles Without Center Console and Cup Holders

36. Locate and drill a 11/16'' (17.5mm) hole in the lower instrument finish panel as shown below.
- File (2) switch locating notches in the 11/16'' (17.5mm) hole.



37. Provide access clearance for the ambient lighting switch and switch connector in the instrument panel.
- 1 Install the lower instrument finish panel.
 - 2 Using the switch mounting hole, mark the switch location on the instrument panel behind the finish panel.
 - 3 Remove the lower instrument finish panel.
 - 4 Drill two 7/8'' (22.25mm) holes in the instrument panel at the marked location.
 - 5 Remove any excess material between the holes with a file.



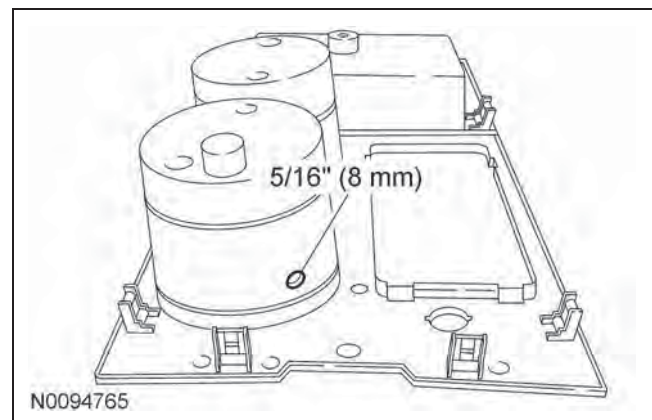
38. Install the ambient lighting switch into the lower instrument finish panel.

Install LED-Vehicles With Center Console and Cup Holders

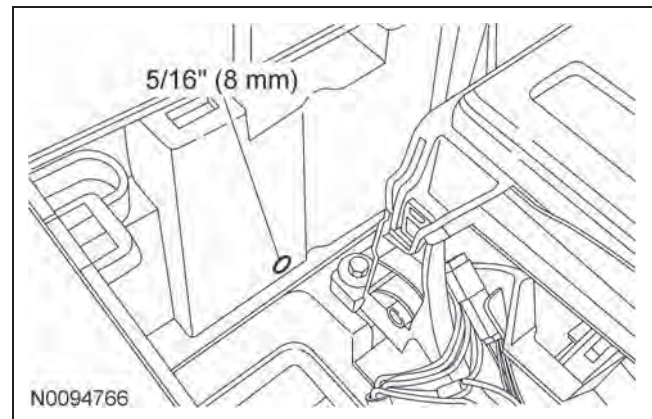
NOTE: If this vehicle uses a liner in the cup holder, carefully mark the LED location onto the liner. Then remove the liner and use a 1/2'' hollow punch to punch a hole in the liner to allow the LED light to pass through the liner. Re-install the liner when complete. One source of the hollow punch set is Harbor Freight, item # 03838 or use an equivalent 1/2'' hollow punch from another source.

NOTE: Avoid driver distraction by locating the cup holder LED in the 7 o'clock position out of the driver line of sight.

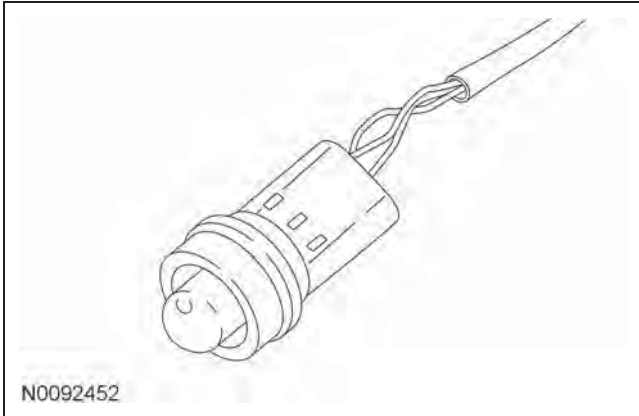
39. Locate and drill a 5/16'' (8mm) hole in the Rear cup holder as shown below.



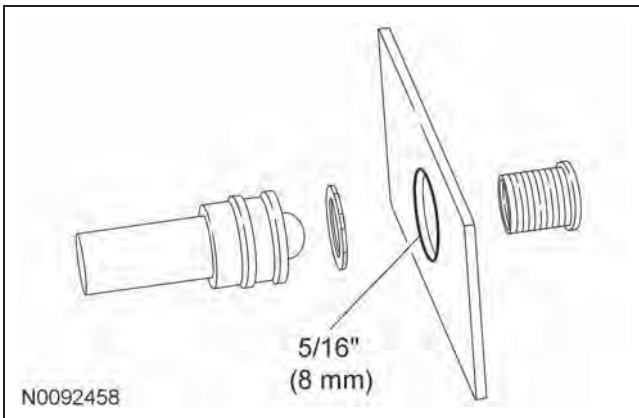
40. Locate and drill a 5/16'' (8mm) hole in the front of the console box as shown below.



41. Identify the exposed LED housing with the single lead.

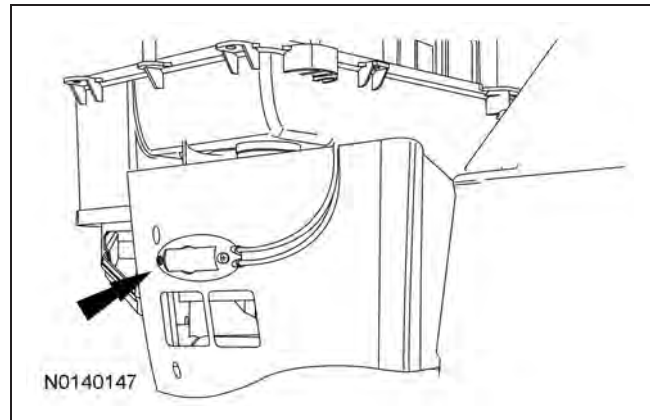
INSTALLATION (Continued)

42. Install the LED lens to the console box and the assemble to the exposed LED housing with the single lead.

**Install Light Engines-All Vehicles**

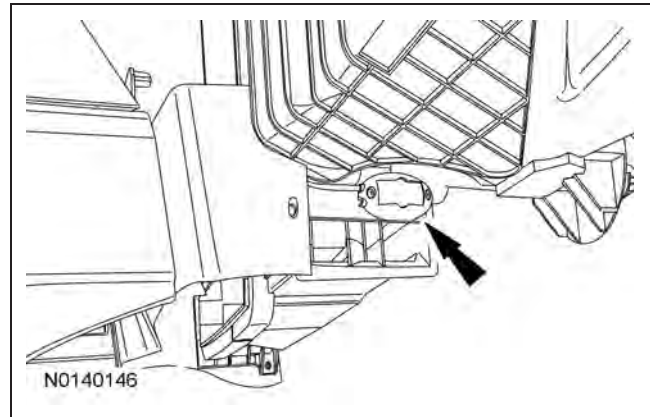
43. Position the light engine containing (2) wires to the driver side instrument panel center valance, as shown.
- Secure the light engine using the kit provided screws.

NOTE: Light Engine and wiring should be routed and secured out of driver and passenger view.



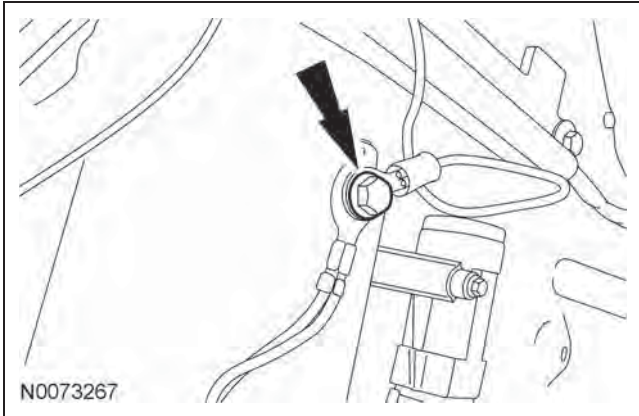
44. Route the remaining light engine to the passenger footwell area.
45. Position the remaining light engine to the passenger side instrument panel as shown.
- Secure the light engine using the kit provided screws.

NOTE: Light Engine and wiring should be routed and secured out of driver and passenger view.

**Power and Ground Connections-All Vehicles**

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

46. Connect the Black ground wire from the ambient lighting harness to the chassis ground point at the passenger kick panel.

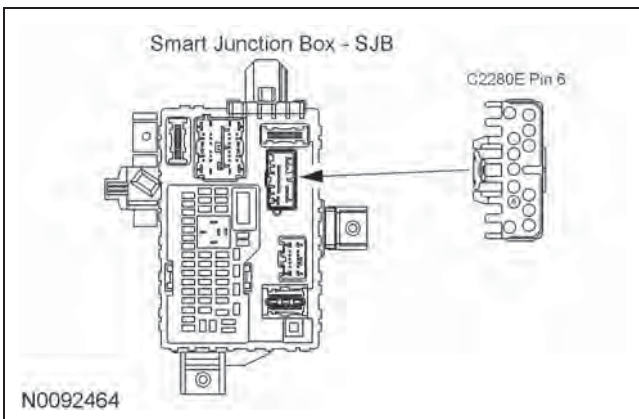
INSTALLATION (Continued)

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

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

Identify the Violet/White parking light circuit wire at the Smart Junction Box (SJB) Connector C2280E Pin 6.

48. Connect the White wire from the ambient lighting harness to the violet/white park lamp circuit wire at the SJB Connector C2280E Pin 6.

**Install Trim-All Vehicles**

49. Install the RH A-pillar lower trim panel.
- Install the A-pillar lower trim panel.
 - Install the door scuff plate.

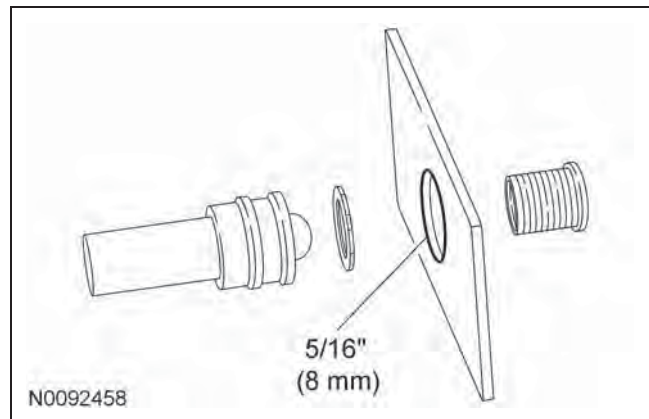
Install Trim-Vehicles With Center Console and Cup Holders

50. **NOTE:** Ensure the ambient lighting wires are secure and do not interfere with vehicle operation.

Use the supplied 4" tie straps to secure the ambient lighting harness wires.

51. Install the upper instrument panel center finish panel.
- Connect the electrical connectors.
 - Push inward to secure the retaining clips.

52. Install LED lens to cup holder.



53. Install the console upper finish panel and the retaining screw.
- Connect the ambient lighting switch.
 - Push downward to secure the retaining clips.
 - Install the screw.
 - Install the front floor console utility tray mat

54. Close the console compartment door.

55. Install the selector lever trim ring.
- Push the selector lever trim ring downward.

56. Place the gearshift lever in the PARK position and release the parking brake.

INSTALLATION (Continued)**Install Trim-Vehicles Without Center Console and Cup Holders**

57. **NOTE:** Ensure the ambient lighting wires are secure and do not interfere with vehicle operation.
Use the supplied 4'' tie straps to secure the ambient lighting harness wires.
58. Install the Instrument panel cup holder.
- Install 2 mounting screws.
59. Install the upper instrument panel center finish panel.
- Connect the electrical connectors.
60. Install the lower instrument panel center finish panel.
- Connect the ambient lighting switch.
61. Position the instrument panel center valance back.
- Install 3 pushpins.
-

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AMBIENT LIGHTING KIT INSTALLATION

CONTENTS

INSTALLATION

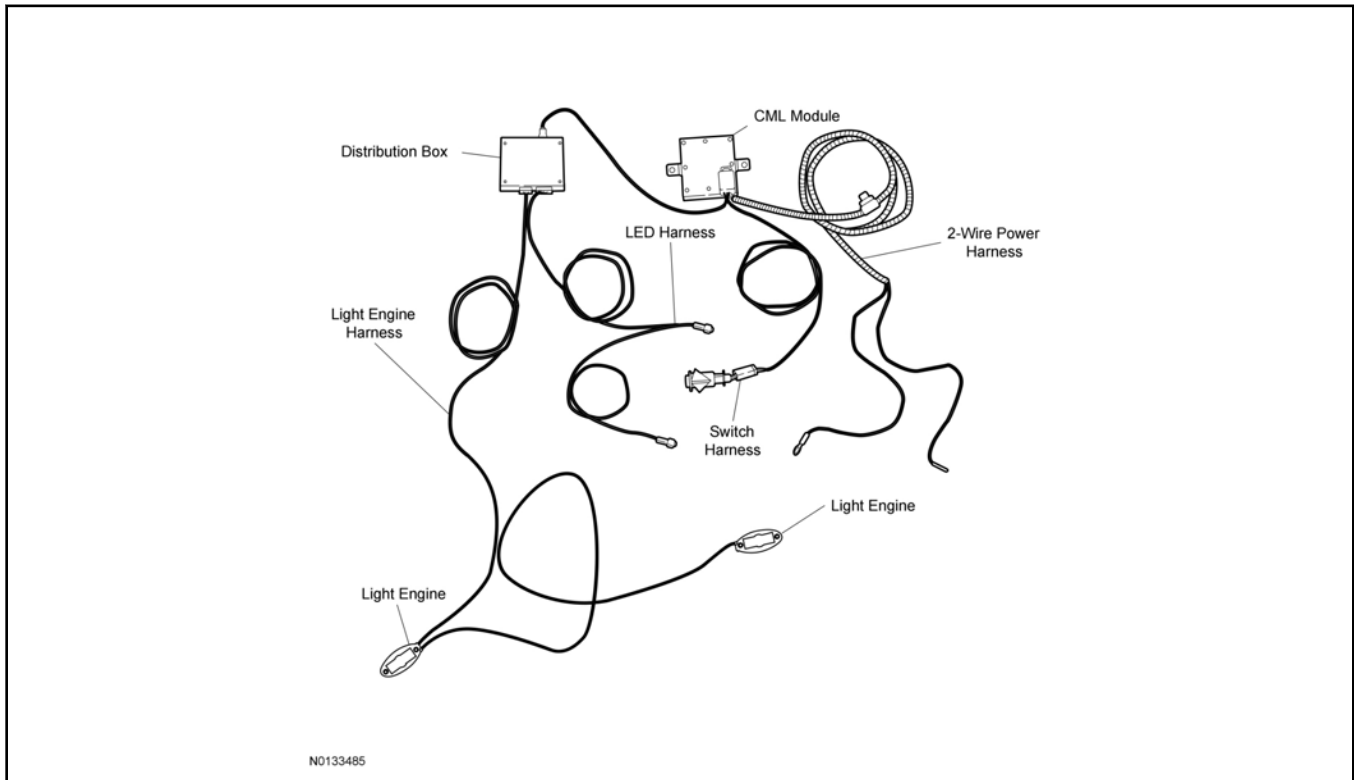
Ambient Lighting Kit

GENERAL PROCEDURES

Wire Splicing Techniques

INSTALLATION

Ambient Lighting — Edge



Ambient Lighting Kit Contents

1. Review the Ambient Lighting Kit Contents.

Ambient Lighting Kit

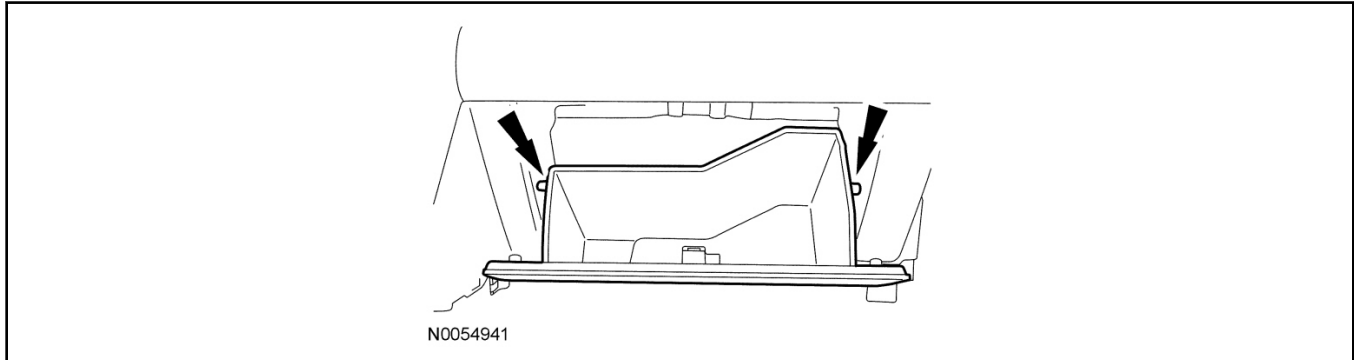
QUANTITY	DESCRIPTION
1	DISTRIBUTION BOX HARNESS ASSEMBLY
1	CML MODULE
2	LIGHT ENGINE
1	SWITCH
1	HARDWARE KIT

Prepare Vehicle

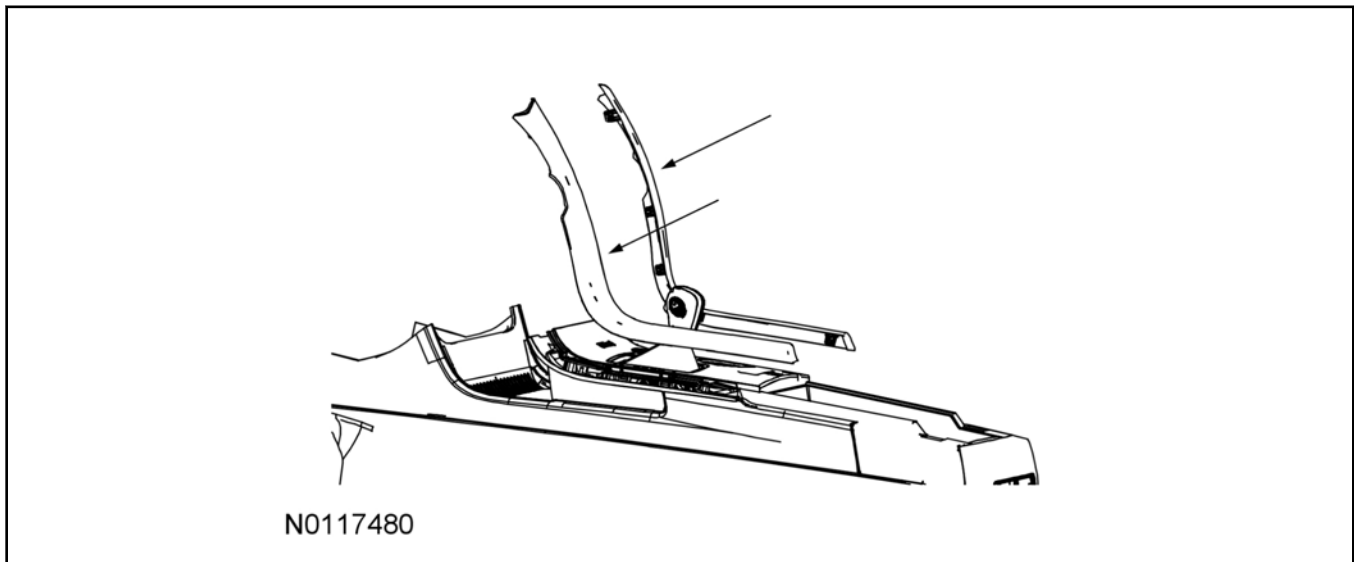
2. Apply the parking brake.
3. Place the selector lever in the NEUTRAL position.
4. Remove the passenger side lower instrument panel insulator.

INSTALLATION (Continued)

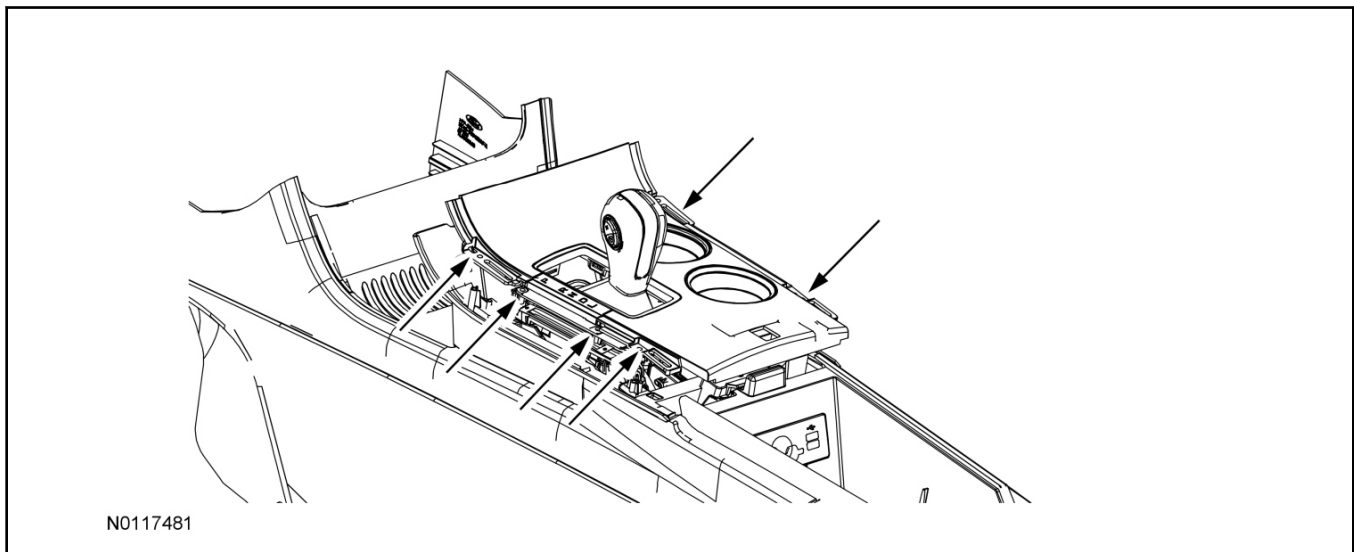
5. Fully open the glove compartment.
 - 1 Push in the 2 rubber stops and open the glove compartment.
 - 2 Unhook the glove compartment tether and lower the glove compartment.



6. Disengage the floor console lower side trim panels from the front of the floor console.
7. Open the floor console storage door.
8. Remove the floor console upper side finish panels.



9. Remove the front floor console finish panel.
 - Remove the 6 screws.
 - Working from underneath, disconnect the floor shifter boot/trim ring from the finish panel.
 - Pull rearward to disengage the finish panel from the retaining clips and remove the finish panel.
 - Disconnect the electrical connectors.

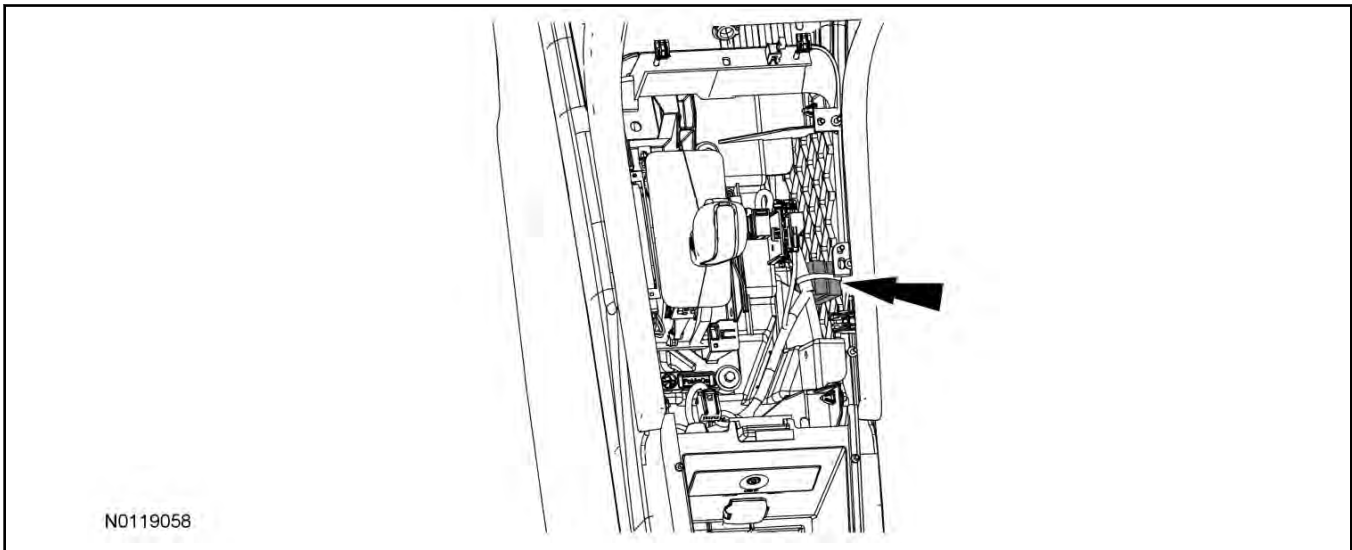
INSTALLATION (Continued)

10. Remove the steering column opening trim panel.
 - Remove the 2 steering column opening trim panel screws.
 - Pull to disengage the steering column opening trim panel from the Instrument Panel.
 - Disconnect the electrical connector and aspirator hose, if equipped.
11. Remove the driver's front door scuff plate.

Install Modules**NOTE:**

Do not touch the adhesive pads. Reduced adhesion may result.

12. Connect the LED wire harness and light engine wire harness to the distribution box.
13. Connect the 2-wire power harness and switch harness to the CML module.
14. Attach the 2 modules together using the supplied adhesive pads.
15. Install both of the modules into the floor console.
 - Use the supplied tie-straps to secure.

INSTALLATION (Continued)**NOTE:**

Avoid routing the ambient lighting wires near sharp edges and moving components.

NOTE:

Verify the ambient lighting wires are secure and do not interfere with vehicle operation.

NOTE:

Light Engine and wiring should be routed and secured out of driver and passenger view.

16. Route the light engine LED harness and the 2-wire power harness to the driver foot well area.

17. Route the switch harness and the harness containing the exposed LED ends to the console box area.

Install Switch

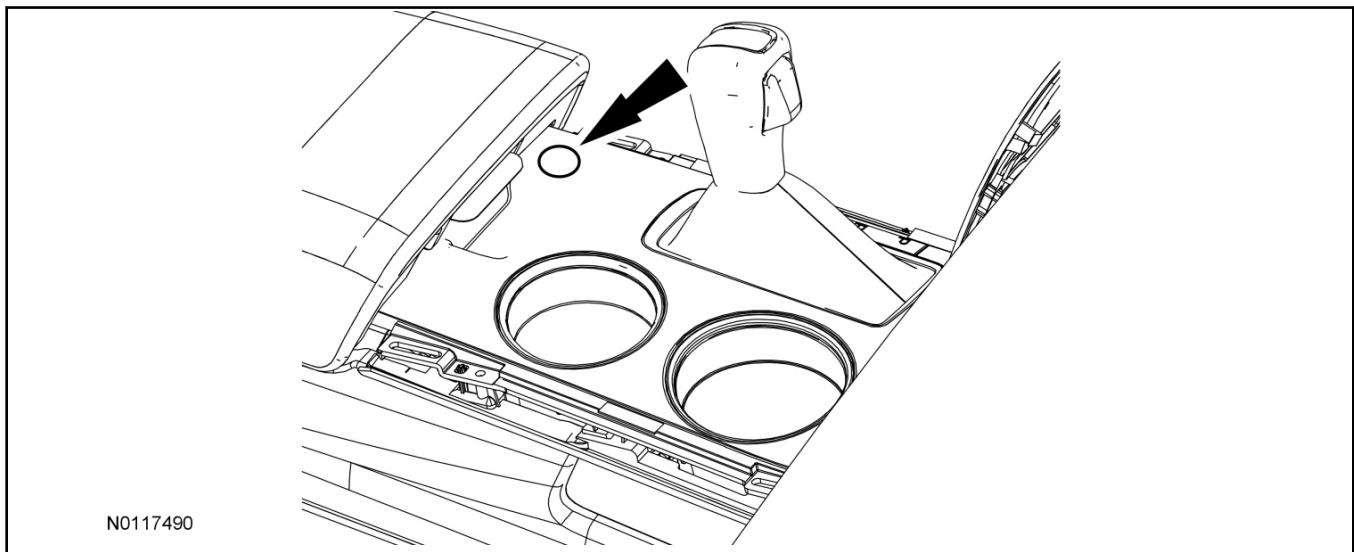
18. Place the floor console finish panel onto the floor console.

NOTE:

Be sure the mounting position of the switch will not interfere with vehicle operation or mounting of the floor console finish panel.

19. Determine the proper mounting location for the switch, approximately 1 inch (25.4 mm) in front of the floor console storage compartment door.

- The floor console storage compartment door should be closed while taking these measurements.
- Mark the location to be prepared.

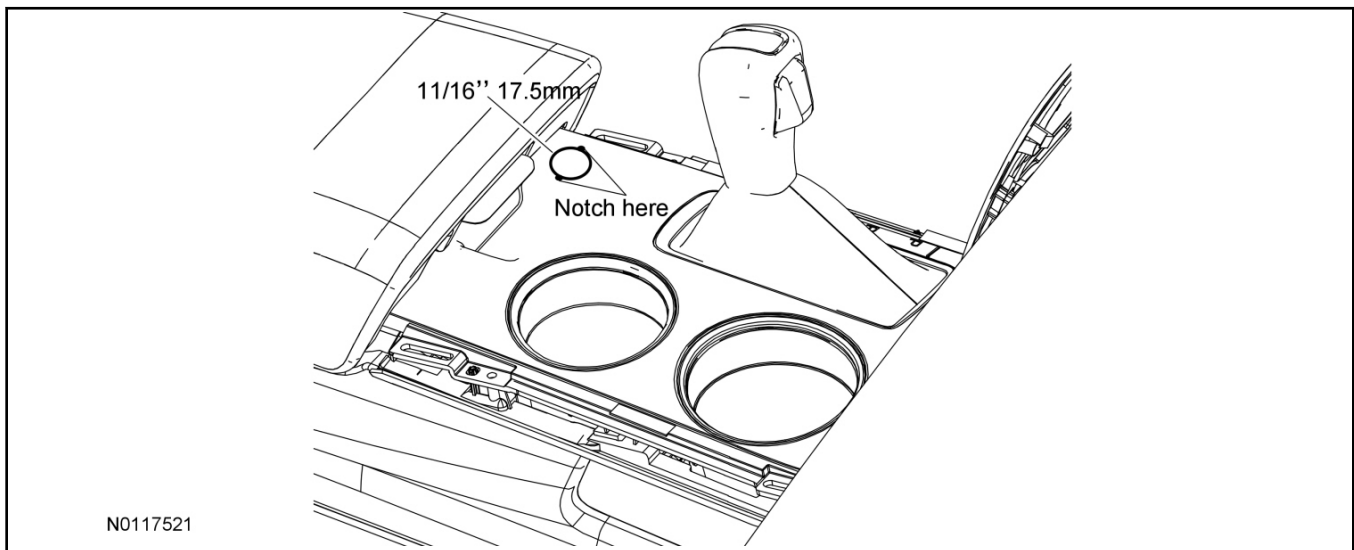
INSTALLATION (Continued)

20. Remove the floor console finish panel from the floor console.

NOTE:

Floor console shown for location reference only, do not drill while the finish panel is installed.

21. Locate and drill a 11/16 inch (17.5 mm) hole in the floor compartment finish panel as shown below.



22. File (2) Switch locating notches in the 11/16 inch (17.5 mm) hole as shown above.

23. Install the ambient lighting switch to the floor console finish panel.

Install LED**NOTE:**

If this vehicle uses a liner in the cup holder, carefully mark the LED location onto the liner. Then remove the liner and use a 1/2 inch hollow punch to punch a hole in the liner to allow the LED light to pass through the liner. Re-install the liner when complete. One source of the hollow punch set is Harbor Freight, item #03838 or use an equivalent 1/2 inch hollow punch from another source.

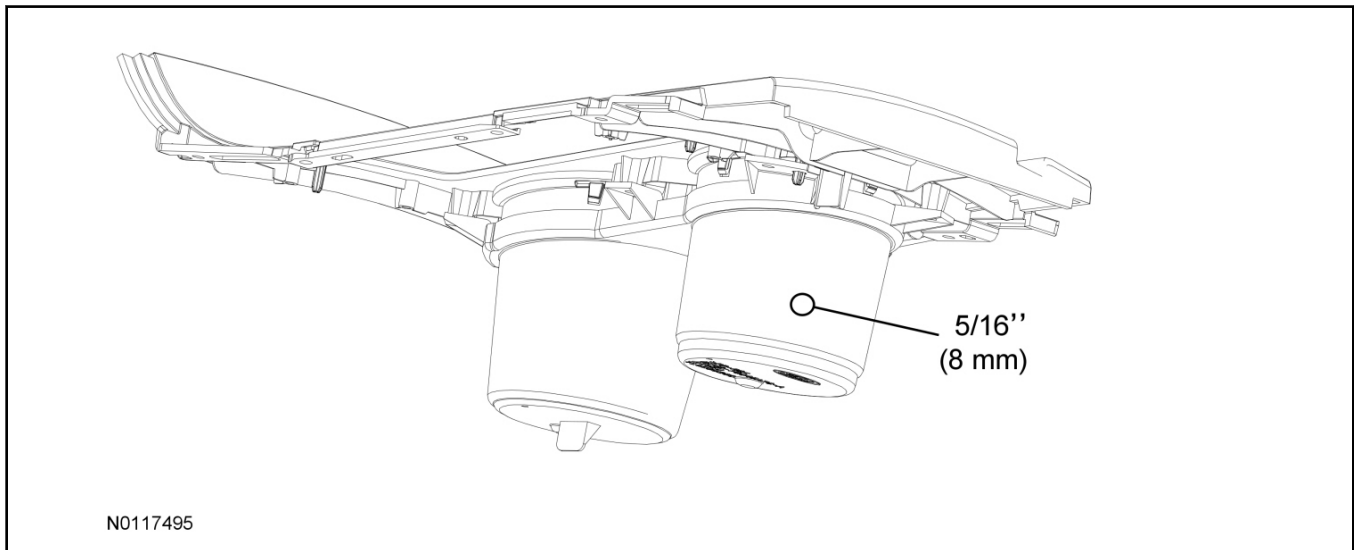
INSTALLATION (Continued)**NOTE:**

Avoid driver distraction by locating the cup holder LED in the 7 o'clock position out of the driver line of sight.

NOTE:

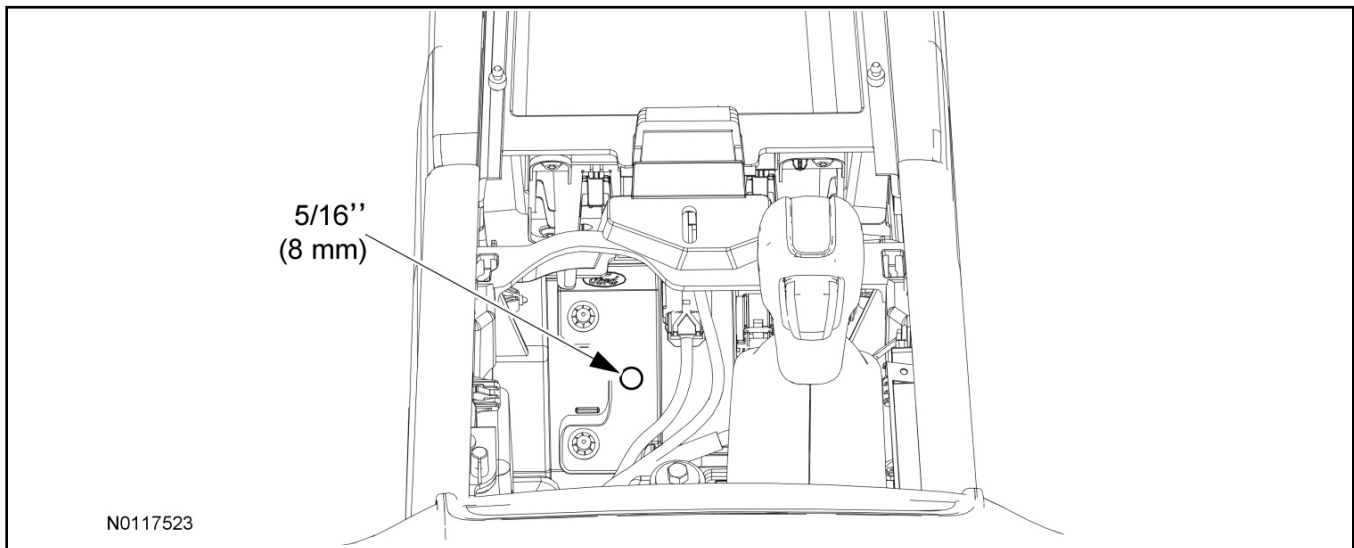
The LED will be mounted to the console cup holder later in this procedure.

24. Locate and drill a 5/16 inch (8 mm) hole in the rear cup holder as shown below.



25. If equipped remove and disconnect the Auxiliary Input Panel from the bin, prior to drilling.

26. Locate and drill a 5/16 inch (8 mm) hole in the floor console bin as shown below.

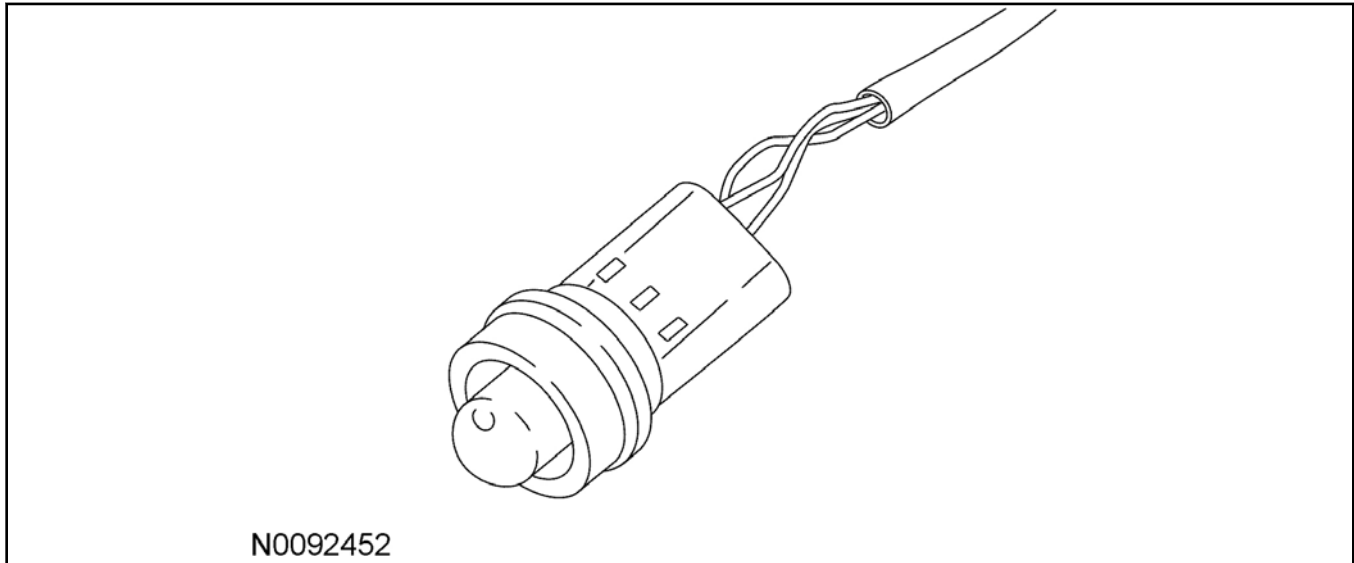


27. Install the floor console finish panel to the floor console.

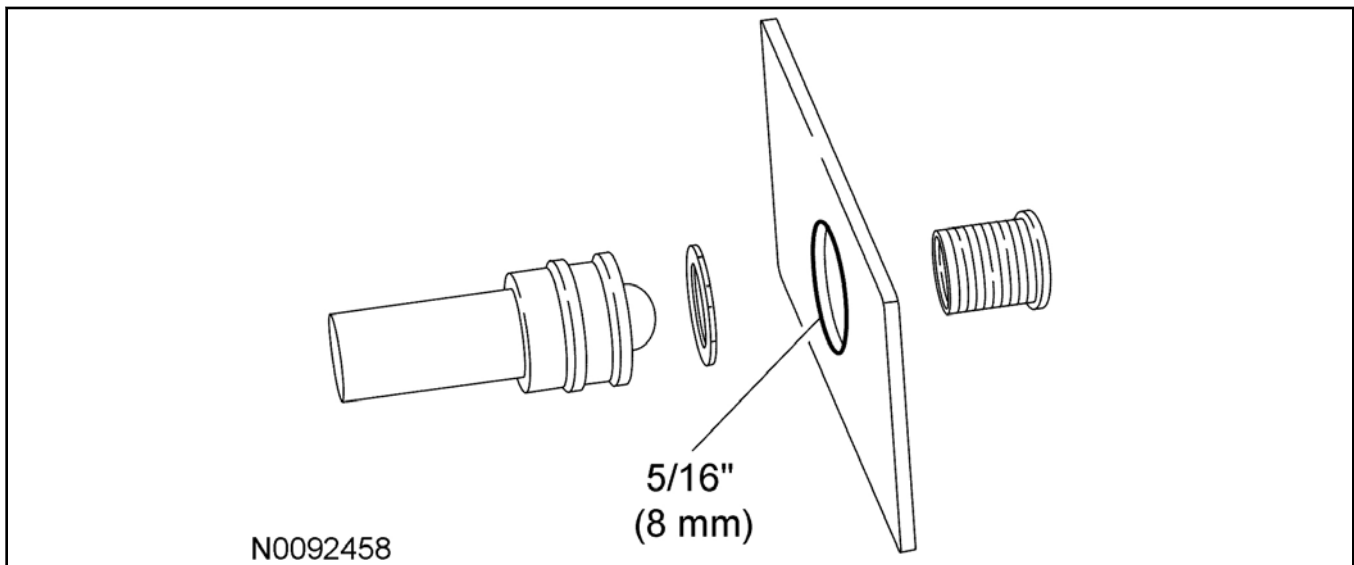
- Connect the ambient lighting switch.
- Do not install the retainers at this time.

INSTALLATION (Continued)

28. Route both of the exposed LED housings to the 5/16 inch (8 mm) holes.



29. Attach the LED lens to the exposed LED housings.



30. If equipped install and connect the auxiliary input panel to the bin.

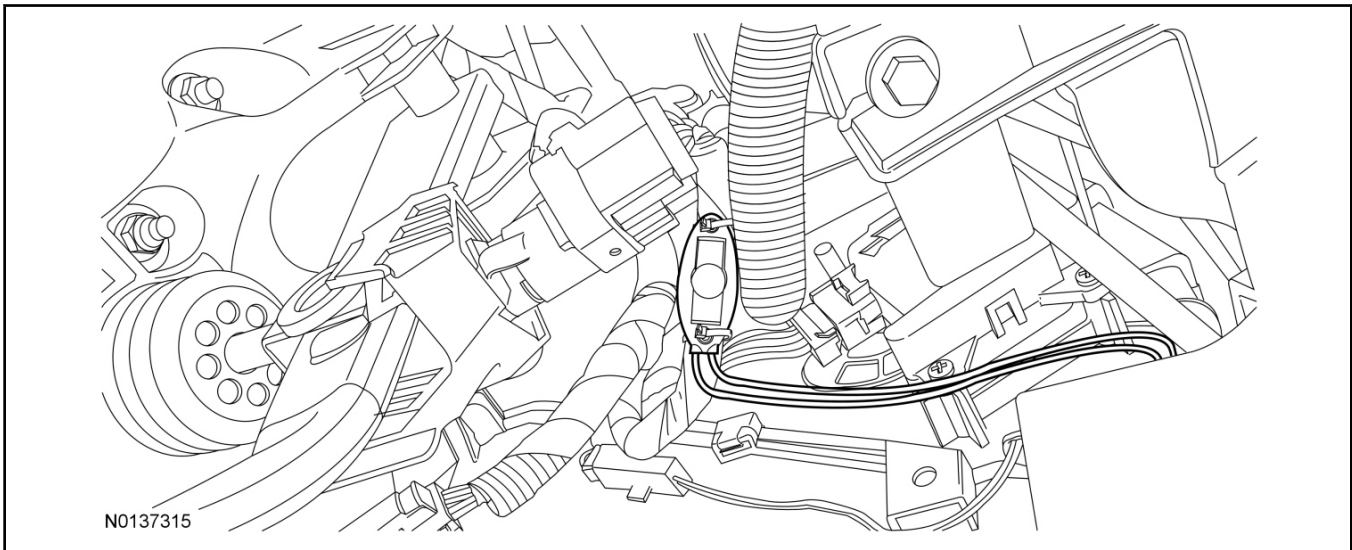
Install Light Engines

31. Position the first light engine to the driver side IP wire harness, as shown.

- Secure the light engine using zip-ties.

NOTE:

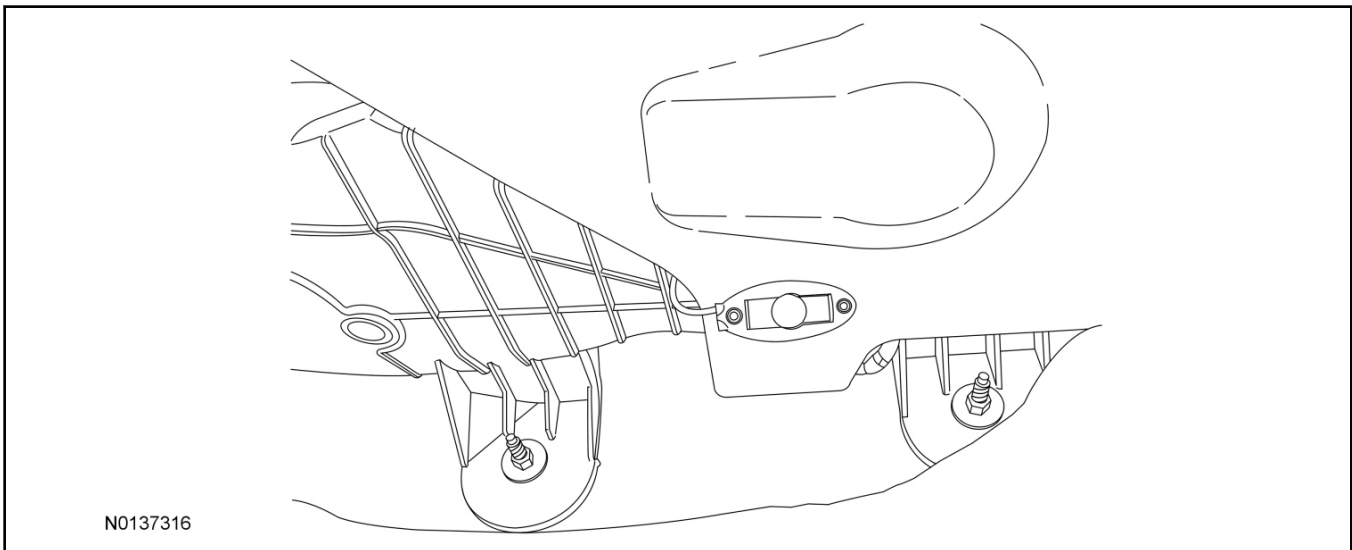
Light Engine and wiring should be routed and secured out of driver and passenger view.

INSTALLATION (Continued)

32. Route the remaining light engine to the passenger footwell area.
33. Position the remaining light engine to the lower IP insulator, as shown.
 - Secure the light engine using the kit provided screws.

NOTE:

Light Engine and wiring should be routed and secured out of driver and passenger view.

**Power and Ground Connections****NOTE:**

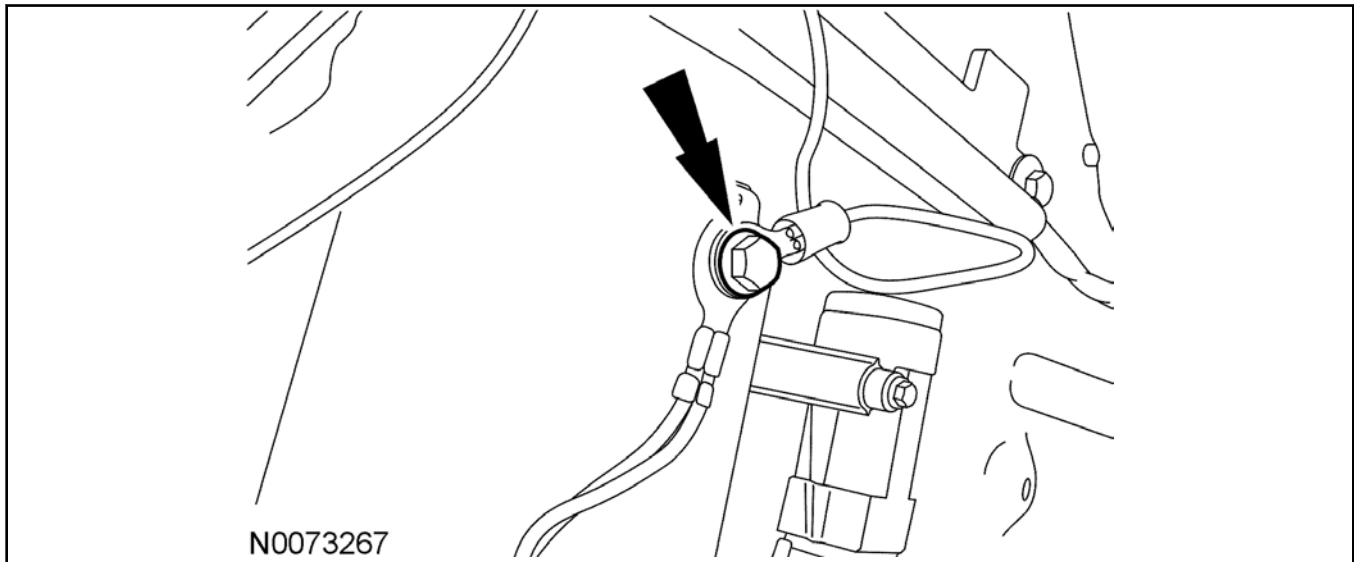
For proper wire splicing techniques [click here](#).

NOTE:

A DVOM connected to the correct wire will show 0V when the park lamp switch is in the OFF position, then will show 12V when the park lamp switch is in the ON position. A logic probe will show ground on the correct wire when the park lamp switch is in the OFF position, then show power when the park lamp switch is in the ON position.

INSTALLATION (Continued)

34. Identify the Yellow/Blue parking light circuit wire at the Body Control Module (BCM) Connector C2280E Pin 6.
35. Disconnect the battery ground cable. For additional information, refer to WSM Section 414-01.
36. Connect the black ground wire from the ambient lighting harness to the chassis ground point at the driver kick panel or in a suitable grounding location.



37. Connect the White wire from the ambient lighting harness to the Yellow/Blue parking light circuit wire at the BCM connector C2280E Pin 6.
38. Connect the battery ground cable. For additional information, refer to WSM Section 414-01.

Install Trim

39. Install the driver side front door scuff plate.
40. Install the steering column opening trim panel.
 - Connect the electrical connector and aspirator hose, if equipped.
 - Install the steering column opening trim panel to the Instrument Panel.
 - Install the 2 steering column opening trim panel screws.
41. Install the front floor console finish panel.
 - Working from underneath, connect the floor shifter boot/trim ring to the finish panel.
 - Install the finish panel to the retaining clips.
 - Install the 6 screws.
42. Install the floor console upper side finish panels.
43. Close the floor console storage door.
44. Attach the floor console lower side trim panels to the floor console.

INSTALLATION (Continued)

45. Close the glove compartment.
 - 1 Raise the glove compartment and connect the tether to the hook.
 - 2 Push the 2 rubber stops in and close the glove compartment.
46. Move the shift lever to the PARK position.
47. Release the parking brake.

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AMBIENT LIGHTING KIT INSTALLATION

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INSTALLATION

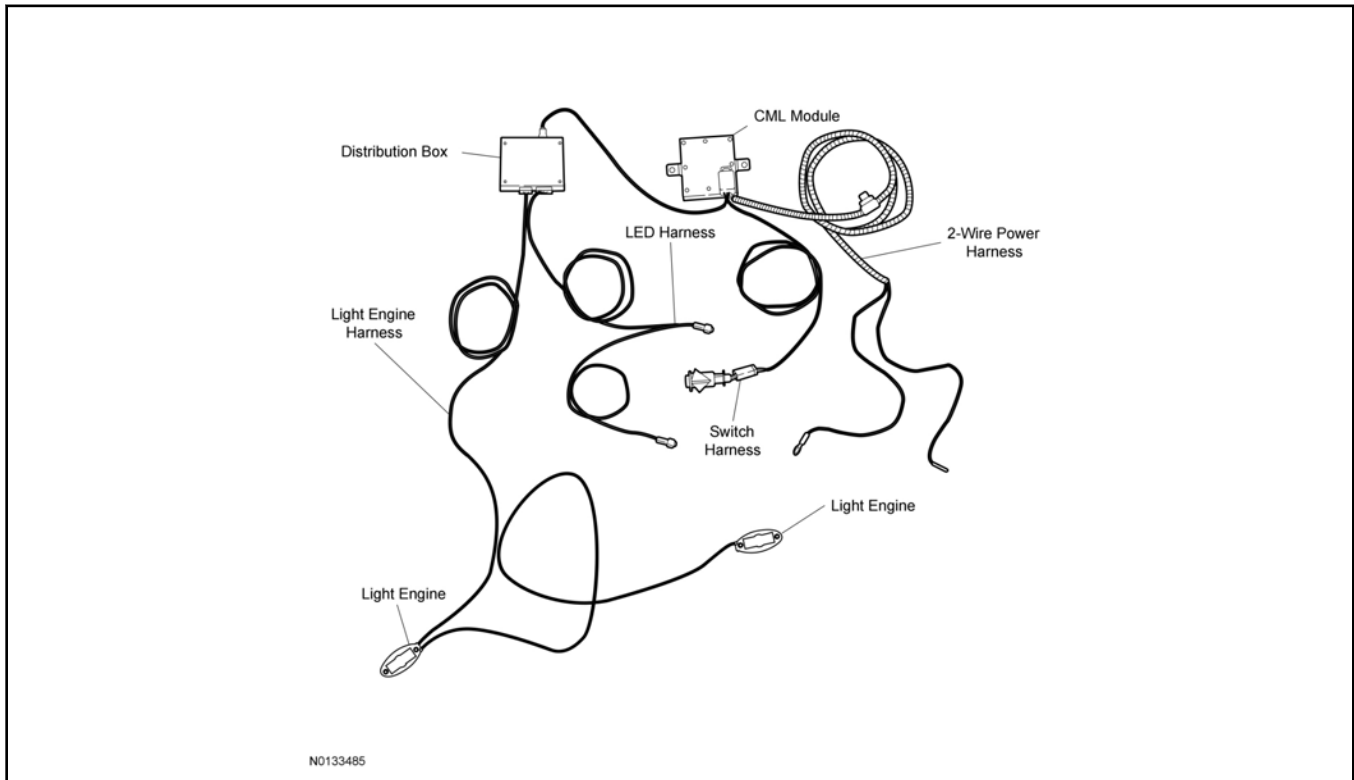
Ambient Lighting Kit

GENERAL PROCEDURES

Wire Splicing Techniques

INSTALLATION

Ambient Lighting – Explorer



Ambient Lighting Kit Contents

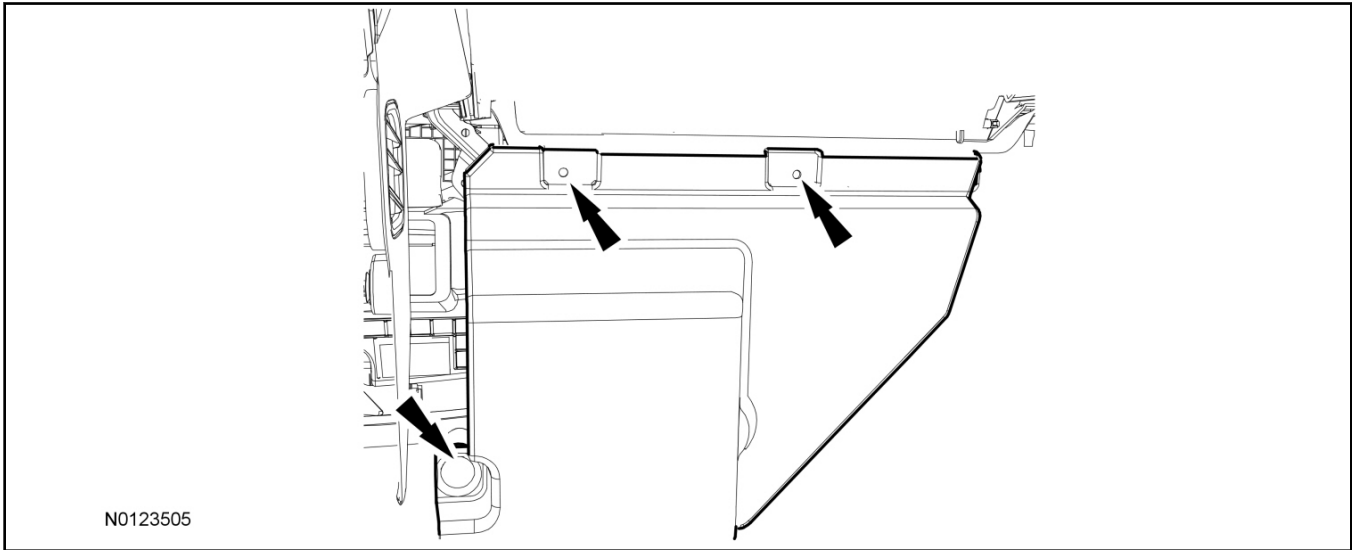
1. Review the Ambient Lighting Kit Contents.

Ambient Lighting Kit

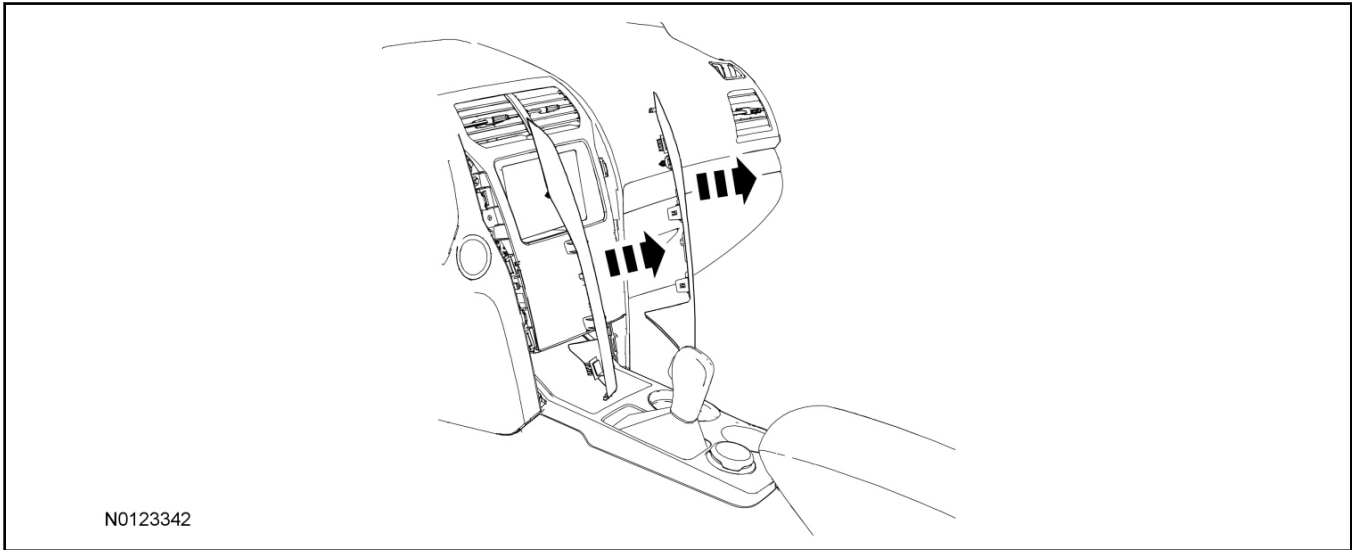
QUANTITY	DESCRIPTION
1	DISTRIBUTION BOX HARNESS ASSEMBLY
1	CML MODULE
2	LIGHT ENGINE
1	SWITCH
1	HARDWARE KIT

Prepare Vehicle

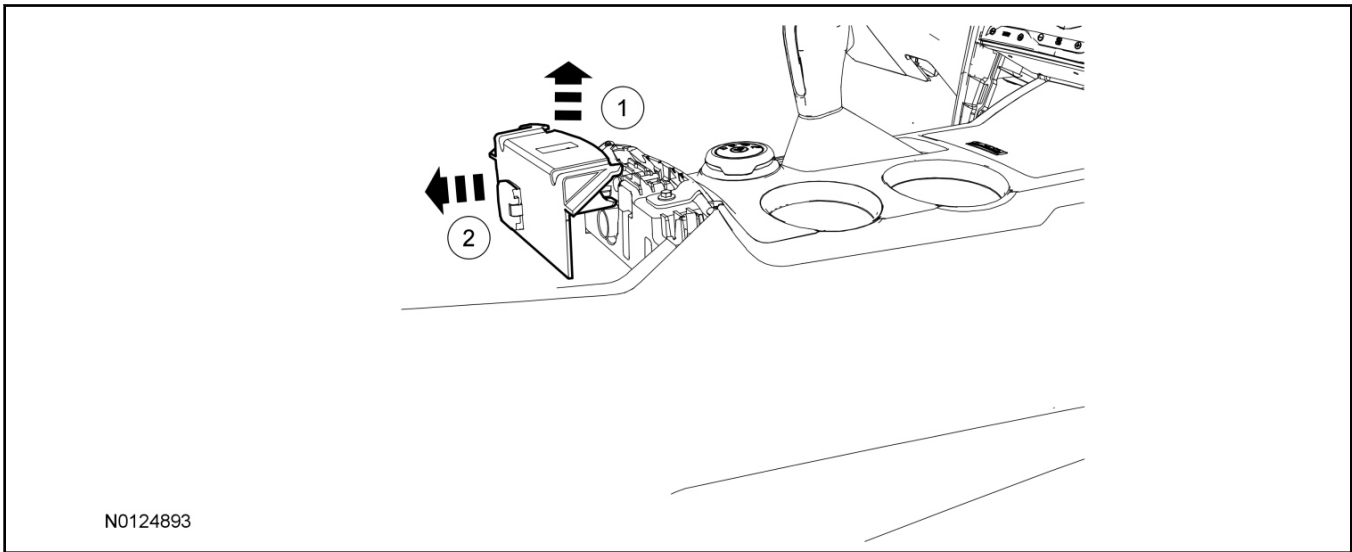
2. Apply the parking brake.
3. Place the selector lever in the NEUTRAL position.
4. Remove the passenger side lower instrument panel insulator.
 - Remove the 3 retainers.



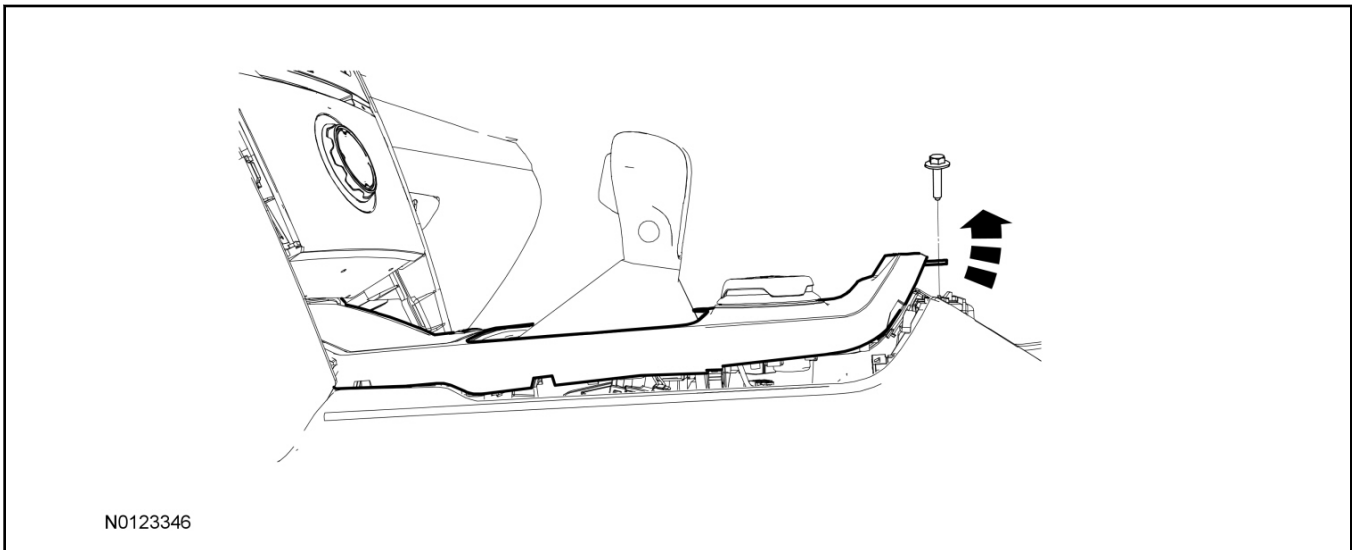
5. Disengage the floor console lower side trim panels from the front of the floor console.
6. Open the floor console storage door.
7. Remove the floor console upper side finish panels.



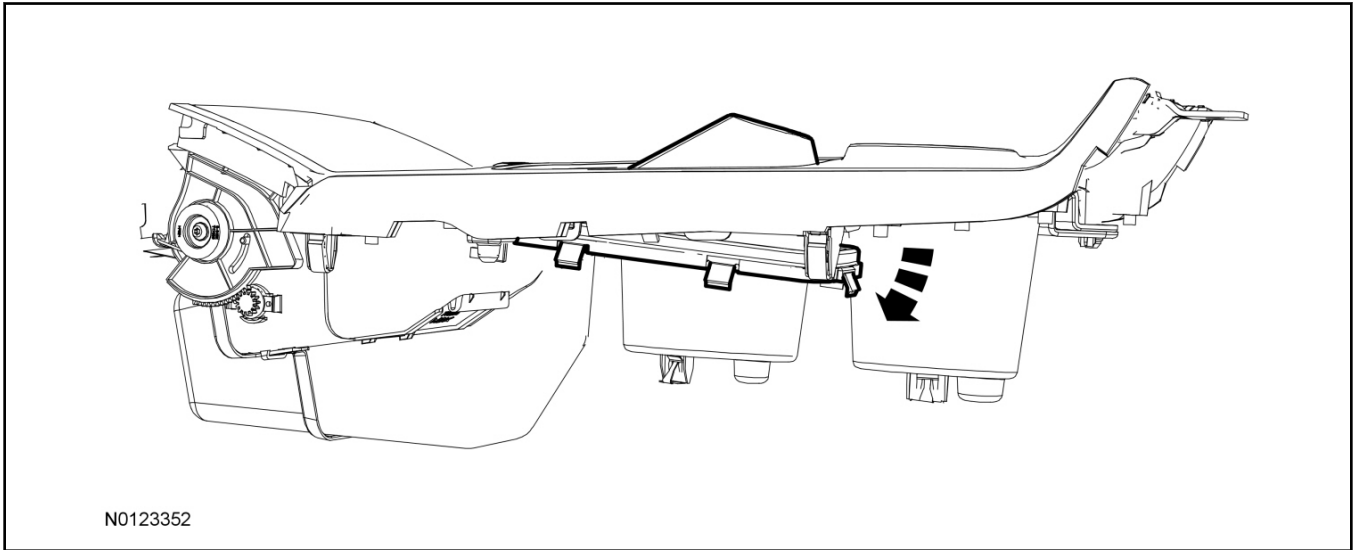
8. Remove the auxiliary power point trim panel from the floor console.
 - Disconnect the electrical connector.



9. Detach the floor console finish panel from the floor console.
- If equipped, remove the bolt.
 - Pull up and rearward to disengage the finish panel from the retaining clips.
 - Disconnect the electrical connectors.



10. Detach the shift lever boot and remove the floor console finish panel from the vehicle.

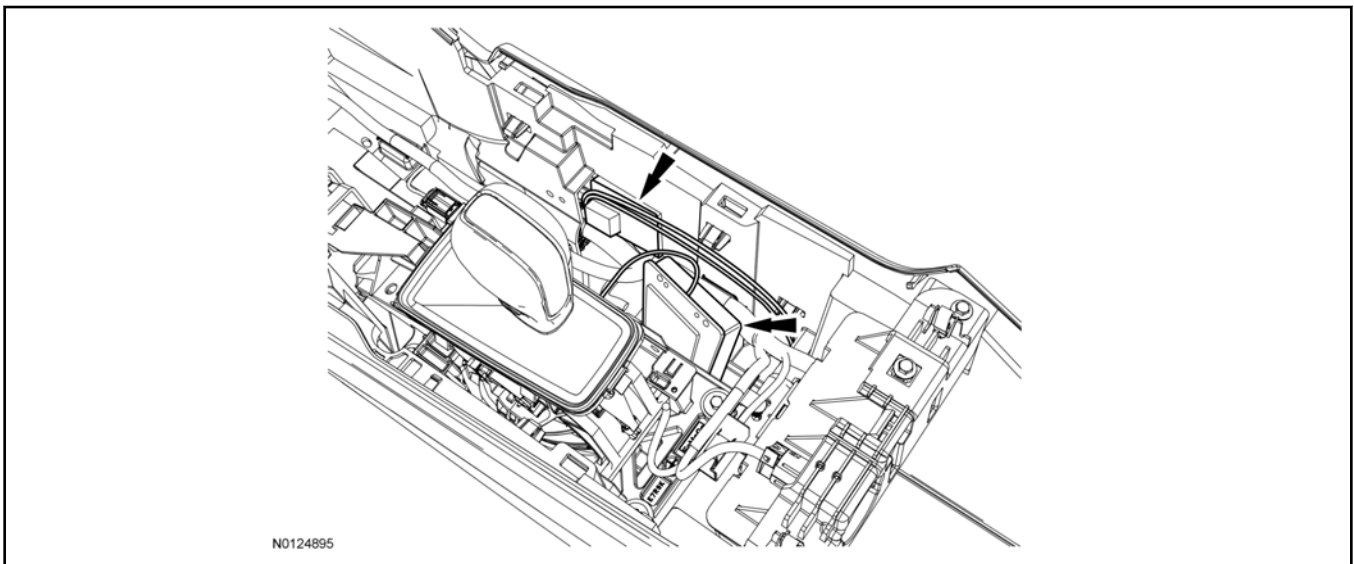
INSTALLATION (Continued)

11. Remove the steering column opening trim panel.
 - Remove the 2 steering column opening trim panel screws.
 - Pull to disengage the steering column opening trim panel from the instrument panel.
12. Remove the driver side front door scuff plate.

Install Modules**NOTE:**

Do not touch the adhesive pads. Reduced adhesion may result.

13. Connect the LED wire harness and light engine wire harness to the distribution box.
14. Connect the 2-wire power harness and switch harness to the CML module.
15. Install the CML module and distribution box to the floor console.
 - Secure the CML module and distribution box with double-sided tape.



INSTALLATION (Continued)**NOTE:**

Avoid routing the ambient lighting wires near sharp edges and moving components.

NOTE:

Avoid routing the ambient lighting wires near the gearshift level moving components.

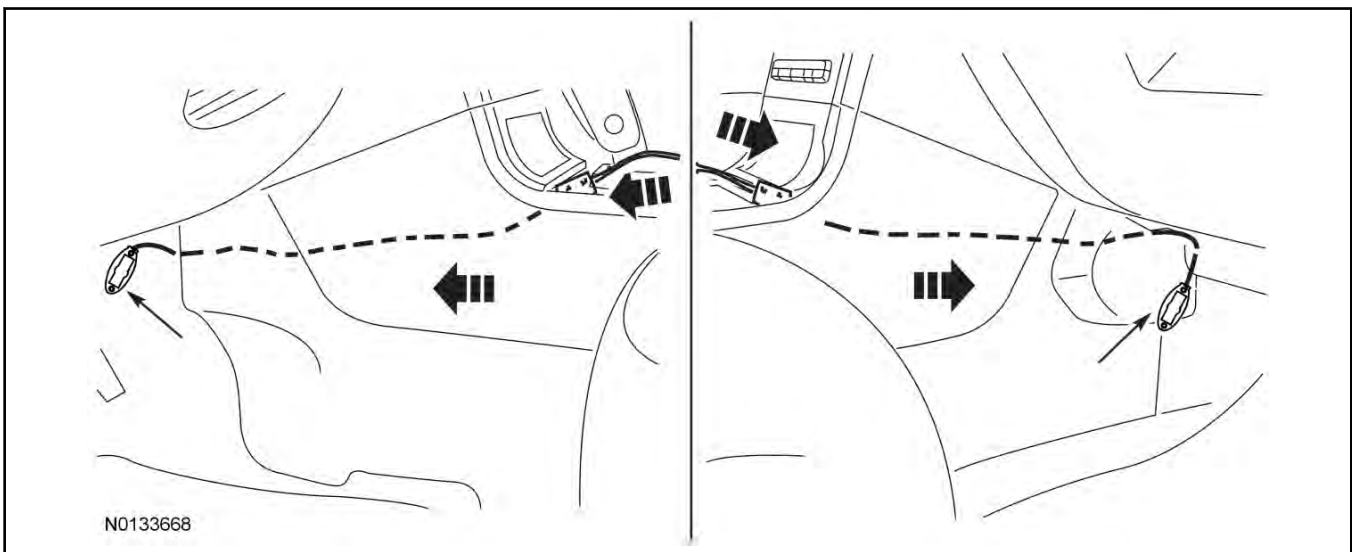
NOTE:

Verify the ambient lighting wires are secure and do not interfere with vehicle operation.

NOTE:

Light Engine and wiring should be routed and secured out of driver and passenger view.

16. Route the LED light engine harness from the floor console to the driver and passenger foot wells.

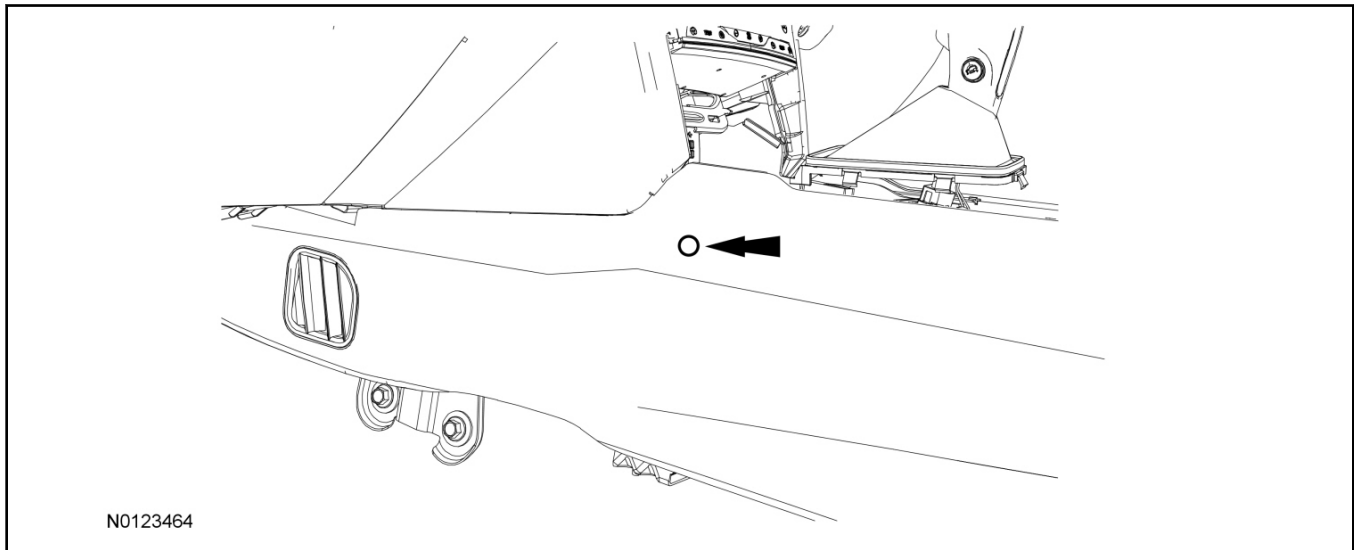


17. Route the 2-wire power harness from the floor console to the driver side sill plate.

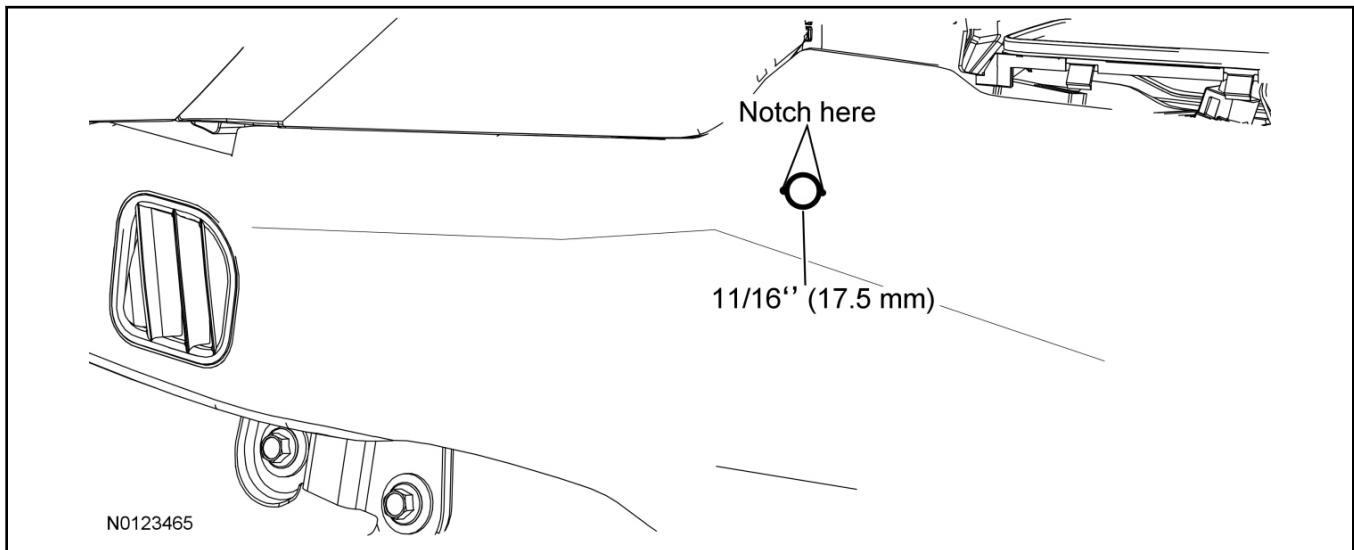
Install Switch**NOTE:**

Be sure the mounting position of the switch will not interfere with vehicle operation or mounting of the floor console finish panel.

18. Determine the proper mounting location for the switch on the driver side floor console lower side trim panel.
- Make sure that the mounting position will not interfere with vehicle operation or the mounting of the trim panels.
 - Mark the location to be prepared.



19. Locate and drill a 11/16 inch (17.5 mm) hole in the floor compartment finish panel, as shown in the following illustration.



20. File (2) switch locating notches in the 11/16 inch (17.5 mm) hole, as shown in the previous illustration.

21. Install the ambient lighting switch to the floor console finish panel.

- Connect the electrical connector.

Install LED

NOTE:

If this vehicle uses a liner in the cup holder, carefully mark the LED location onto the liner. Then remove the liner and use a 1/2-inch hollow punch to punch a hole in the liner to allow the LED light to pass through the liner. Re-install the liner when complete. One source of the hollow punch set is Harbor Freight, item #03838 or use an equivalent 1/2-inch hollow punch from another source.

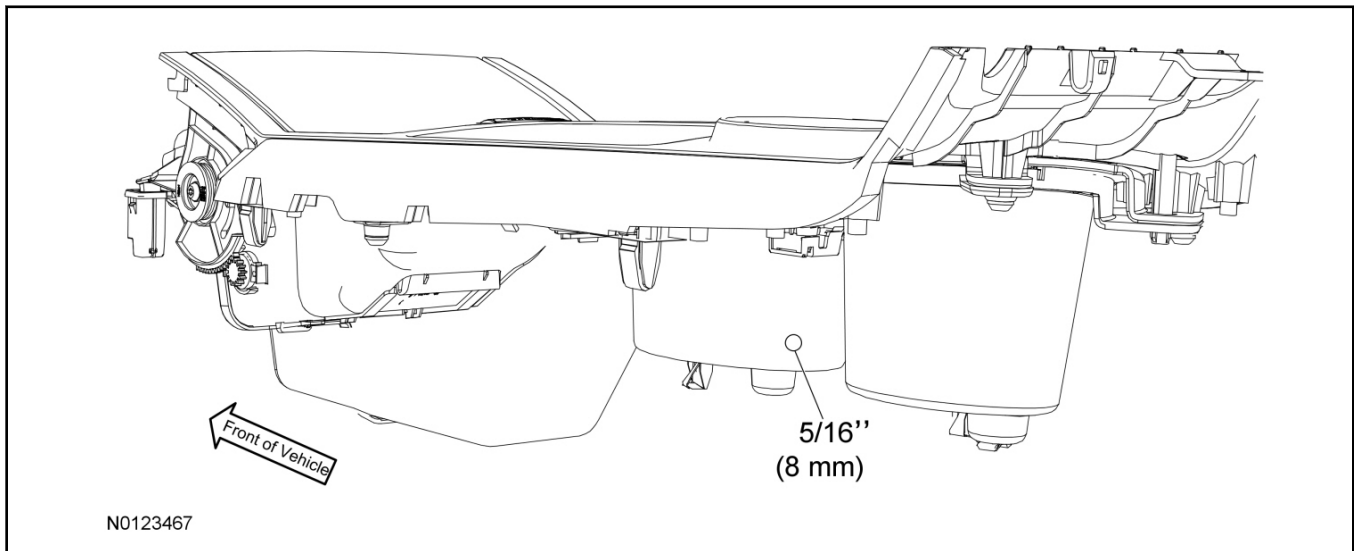
INSTALLATION (Continued)**NOTE:**

Avoid driver distraction by locating the cup holder LED in the 7 o'clock position out of the driver's line of sight.

NOTE:

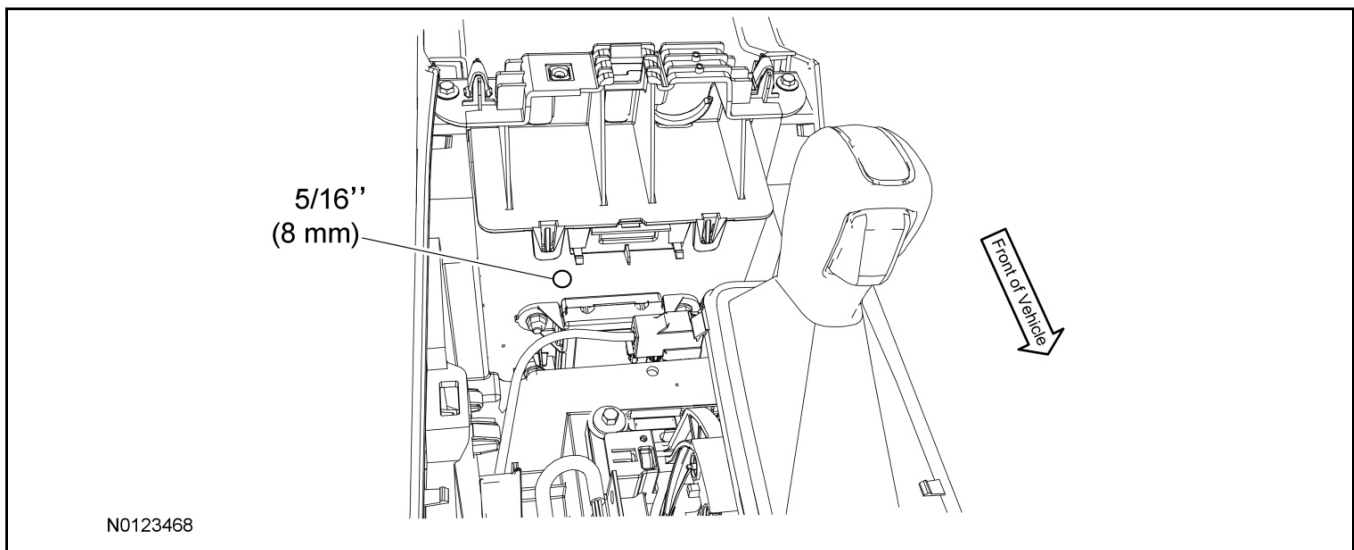
The LED will be mounted to the console cup holder later in this procedure.

22. Locate and drill a 5/16 inch (8 mm) hole in the front cup holder as shown below.

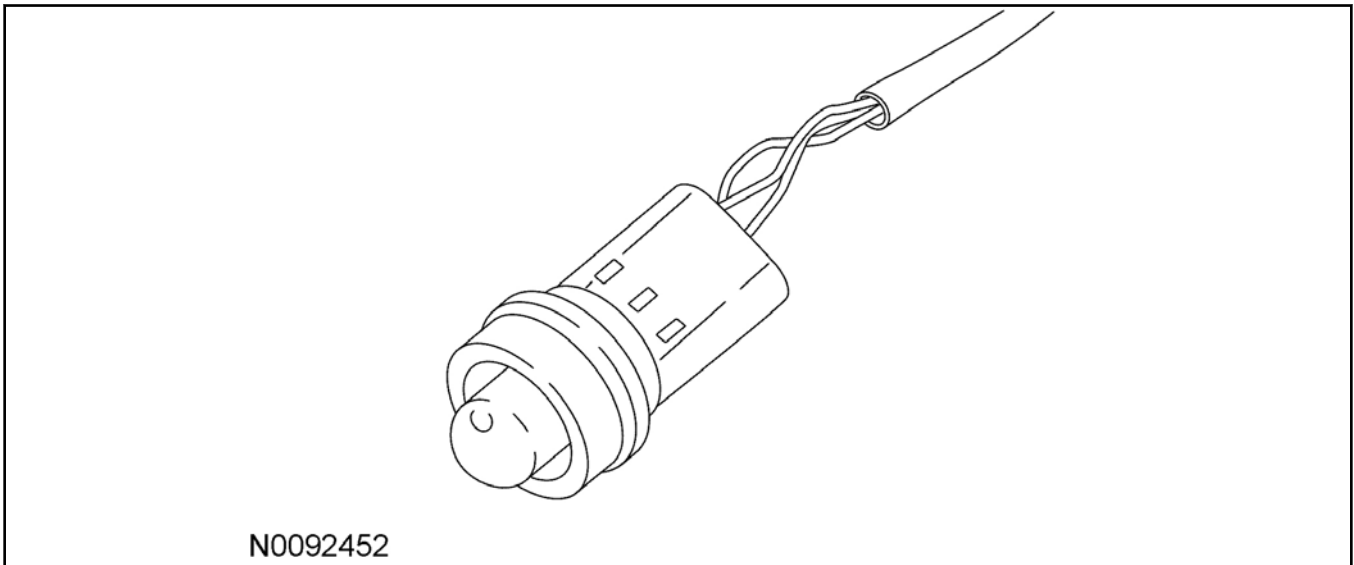


23. If equipped, remove and disconnect the auxiliary input panel from the bin, prior to drilling.

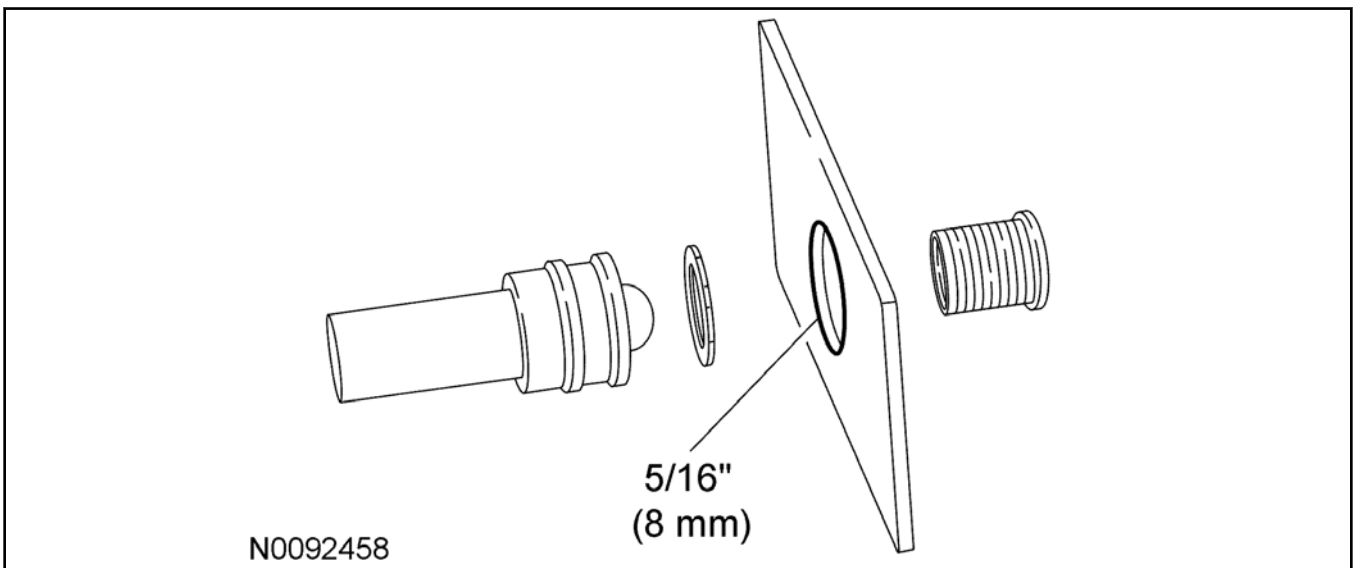
24. Locate and drill a 5/16 inch (8 mm) hole in the floor console bin, as shown in the following illustration.



25. Route both of the exposed LED housings to the 5/16 inch (8 mm) holes.



26. Attach the LED lens to the exposed LED housings.



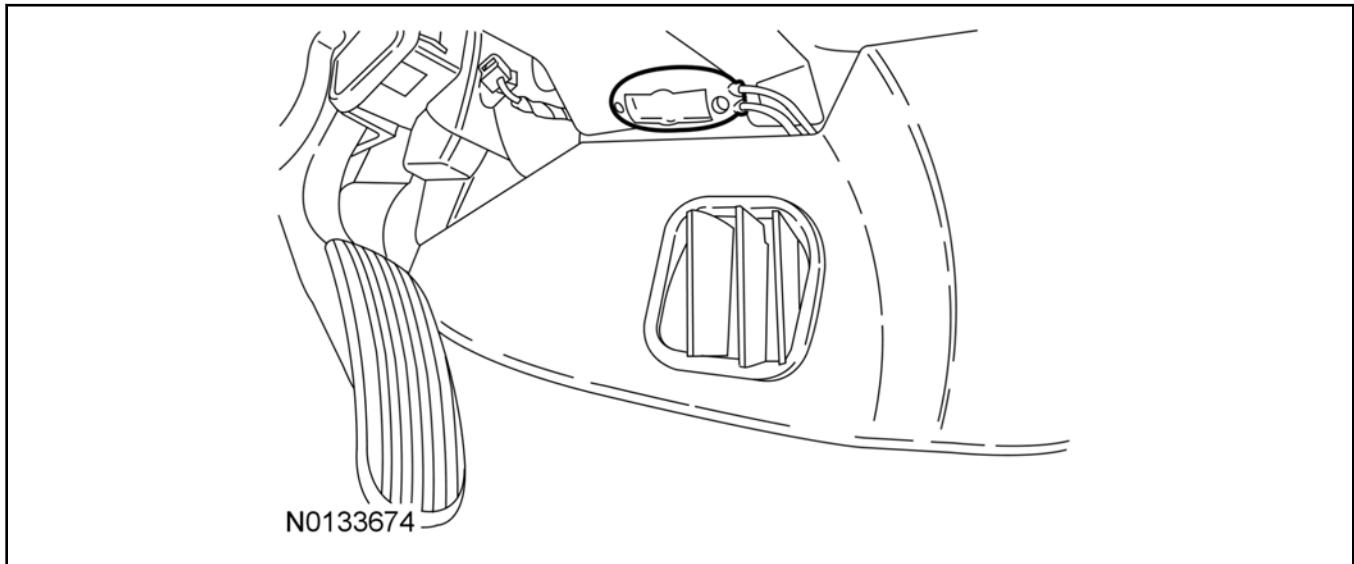
Install Light Engines

27. Position the first light engine to the driver side HVAC housing, as shown.

- Secure the light engine using the kit provided screws.

INSTALLATION (Continued)**NOTE:**

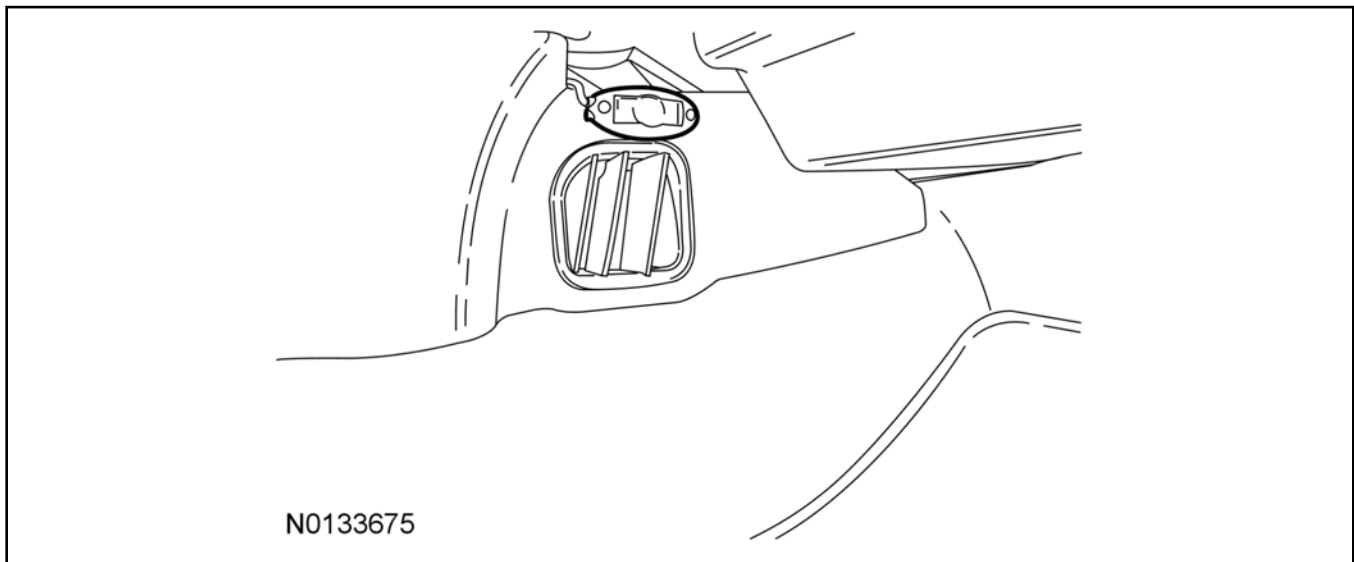
Light Engine and wiring should be routed and secured out of driver and passenger view.



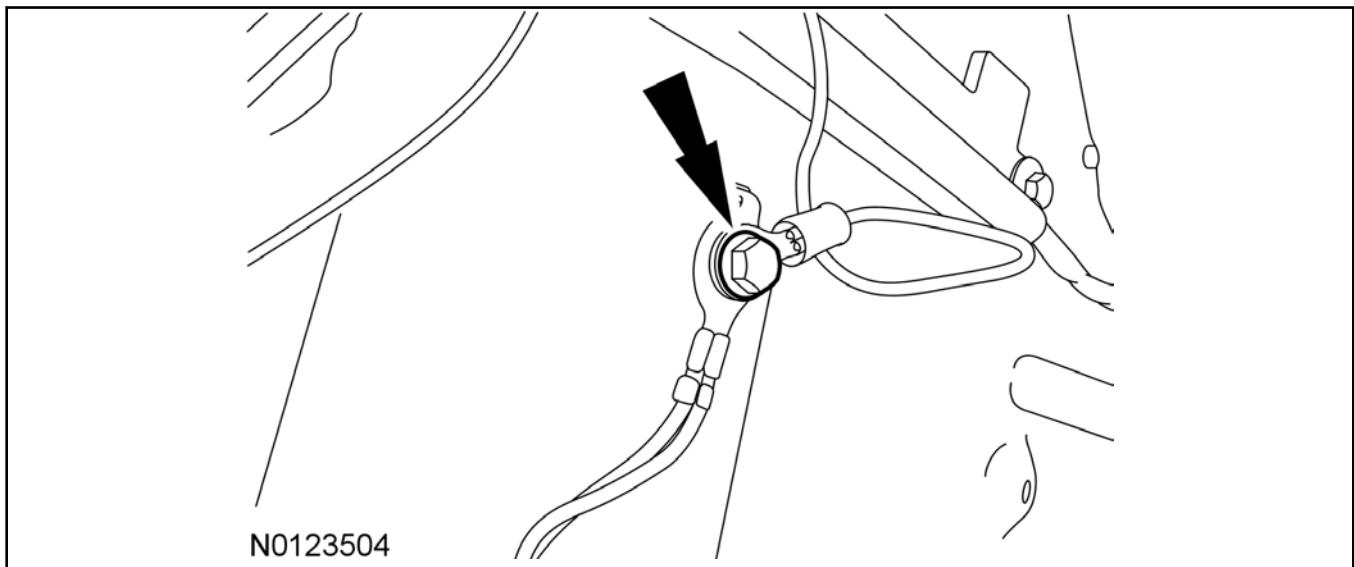
28. Route the remaining light engine to the passenger footwell area.
29. Position the remaining light engine to the passenger side floor console lower trim panel, as shown.
 - Secure the light engine using the kit provided screws.

NOTE:

Light Engine and wiring should be routed and secured out of driver and passenger view.

**Power and Ground Connections**

30. Disconnect the battery ground cable. For additional information, refer to WSM Section 414-01.
31. Connect the black ground wire from the ambient lighting harness to the chassis ground point at the driver kick panel or in a suitable grounding location.

INSTALLATION (Continued)**NOTE:**

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

NOTE:

A DVOM connected to the correct wire will show 0V when the park lamp switch is in the OFF position, then will show 12V when the park lamp switch is in the ON position. A logic probe will show ground on the correct wire when the park lamp switch is in the OFF position, then show power when the park lamp switch is in the ON position.

32. Identify the Yellow/Green parking light circuit wire at the body control module (BCM) connector C2280D pin 18.
33. Connect the White wire from the ambient lighting harness to the Yellow/Green parking light circuit wire at the BCM connector C2280D pin 18.
34. Connect the battery ground cable. For additional information, refer to WSM Section 414-01.

Install Trim

35. Install the driver side front door scuff plate.
36. Install the steering column opening trim panel.
 - Engage the steering column opening trim panel to the instrument panel.
 - Install the 2 steering column opening trim panel screws.
37. Attach the shift lever boot to the floor console finish panel.
38. Install the floor console finish panel to the floor console.
 - Connect the electrical connectors.
 - If equipped, install the bolt.
39. Install the auxiliary power point trim panel to the floor console.
 - Connect the electrical connector.
40. Install the floor console upper side finish panels.

INSTALLATION (Continued)

41. Close the floor console storage door.
42. Install the floor console lower side trim panels back to the front of the floor console.
43. Place the selector lever in the PARK position.
44. Release the parking brake.

AMBIENT LIGHTING KIT INSTALLATION

CONTENTS

INSTALLATION

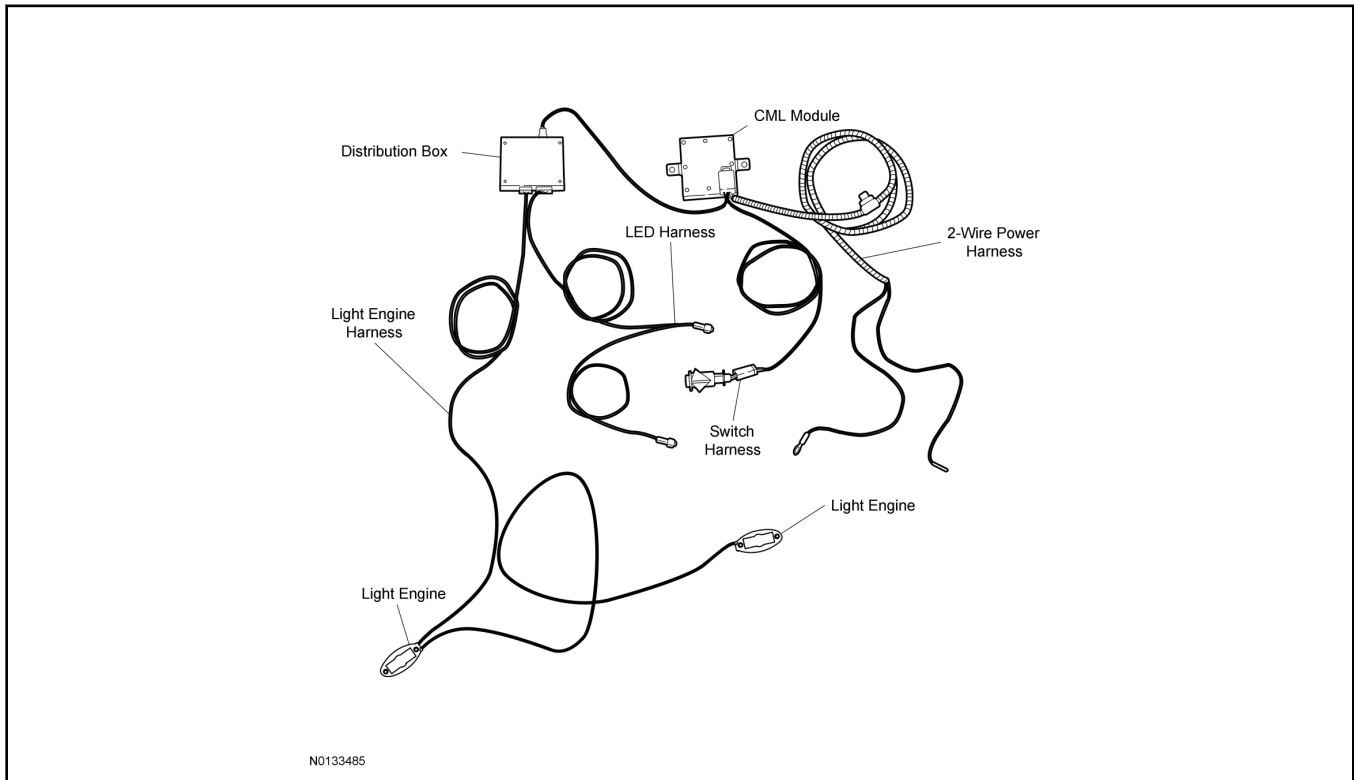
Ambient Lighting Kit

GENERAL PROCEDURES

Wire Splicing Techniques

INSTALLATION

Ambient Lighting - F-150 Vehicles With Center Console And Cupholders



Ambient Lighting Kit Contents

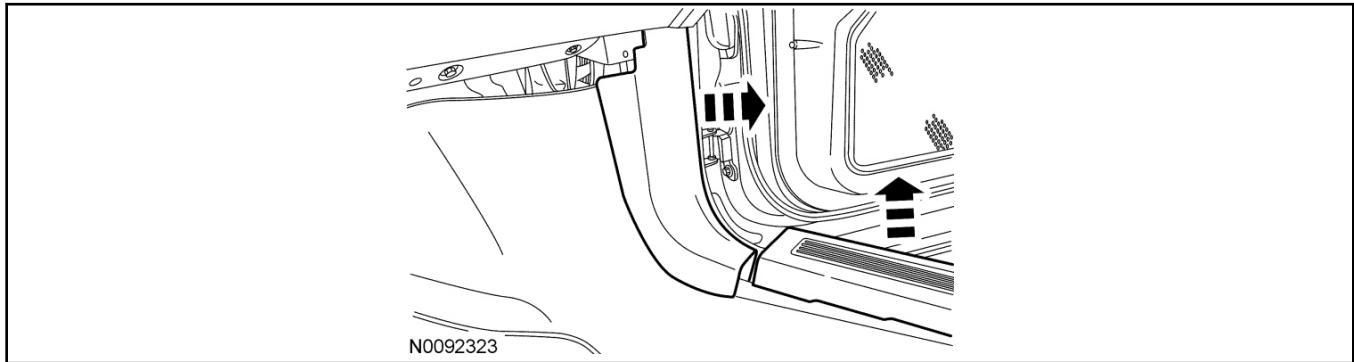
1. Review the Ambient Lighting Kit Contents.

Ambient Lighting Kit

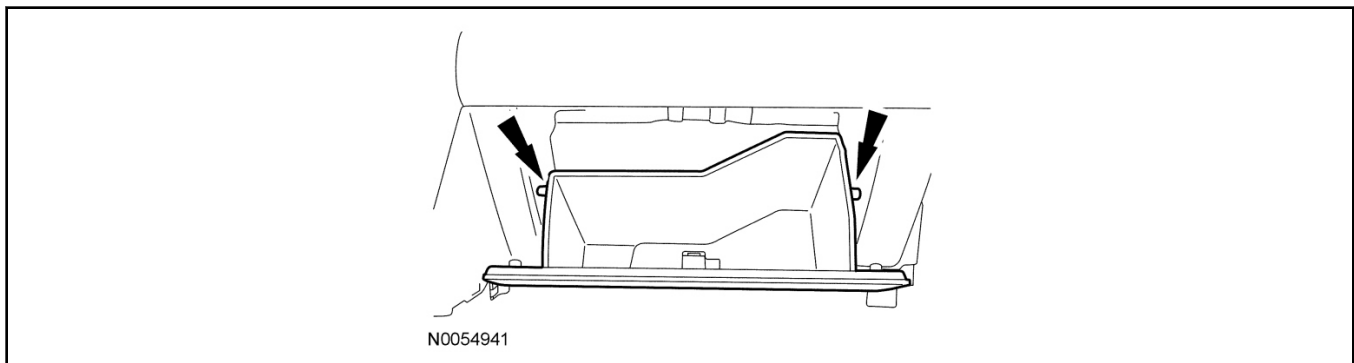
QUANTITY	DESCRIPTION
1	DISTRIBUTION BOX HARNESS ASSEMBLY
1	CML MODULE
2	LIGHT ENGINE
1	SWITCH
1	HARDWARE KIT

INSTALLATION (Continued)**Prepare Vehicle**

2. Remove the RH A-pillar lower trim panel.
 - Remove the door scuff plate.
 - Remove the A-pillar lower trim panel.



3. Open the glove compartment.
4. Release the stops and lower the glove compartment.

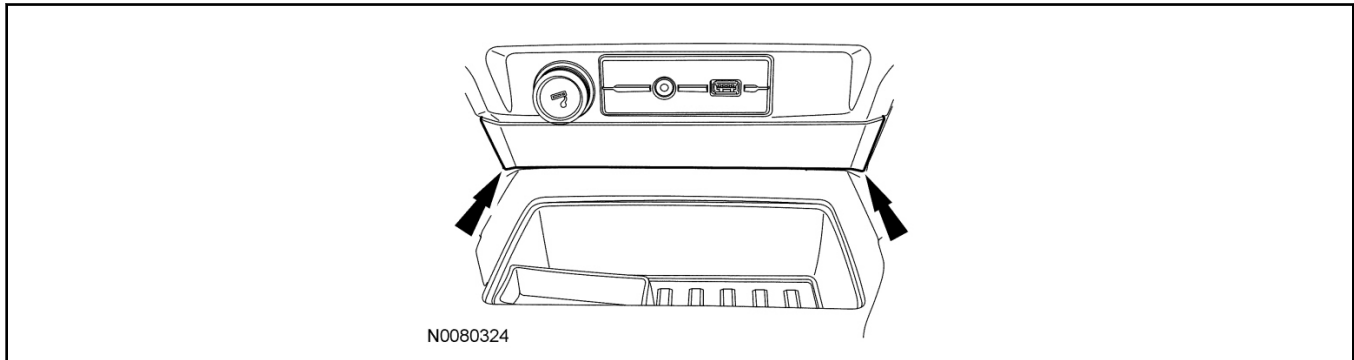


5. Remove glove box and set aside.
 - Remove the 3 screws.
6. Remove the driver's side knee bolster panel.
 - Remove the 3 screws.
7. Remove the knee bolster bracket.
 - Remove the 4 bolts.
8. Apply the parking brake.
9. Turn the ignition key to the "ON" position and move the shift lever to "NEUTRAL".
 - Turn the ignition key to the "OFF" position.
10. Position the front seats forward.
11. Remove the 2 floor console rear bolts.
12. Position the front seats rearward.

INSTALLATION (Continued)

13. Remove the LH and RH floor console finish mouldings.

- Pull outward on the floor console finish mouldings to release the retaining clips.



14. Open and remove the floor console storage compartment door and hinge.

15. Remove the selector lever trim panel.

- Lift the selector lever trim panel upward to release the retaining clips.

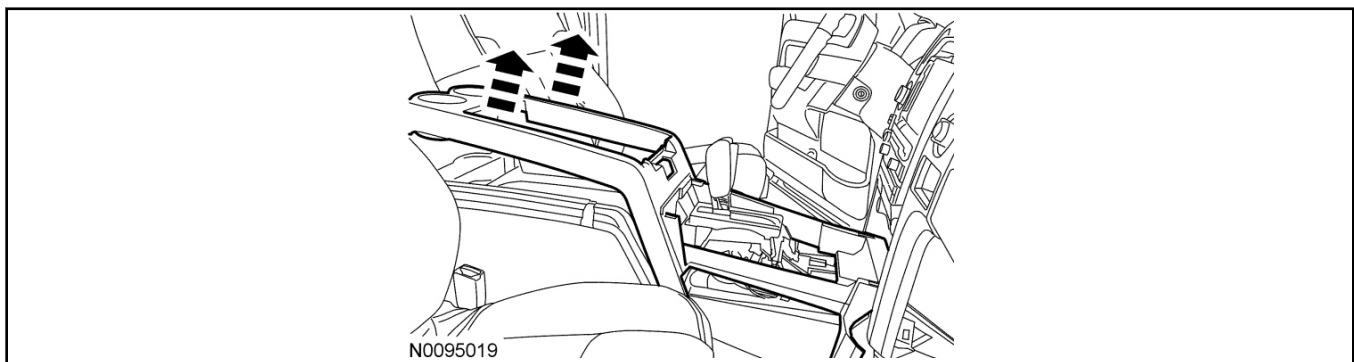
16. Remove the 2 floor console-to-instrument panel bolts.

17. Remove the 2 floor console front bolts.

18. Position the floor console rearward.

19. Remove the floor console upper finish panel.

- Lift the floor console finish panel upward to release the retaining clips.

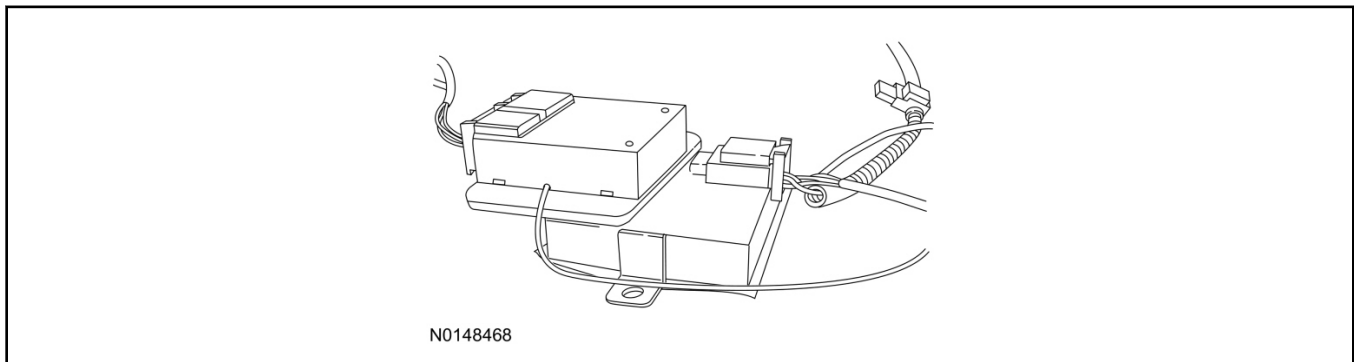
**Install Modules**

20. Identify the distribution box.

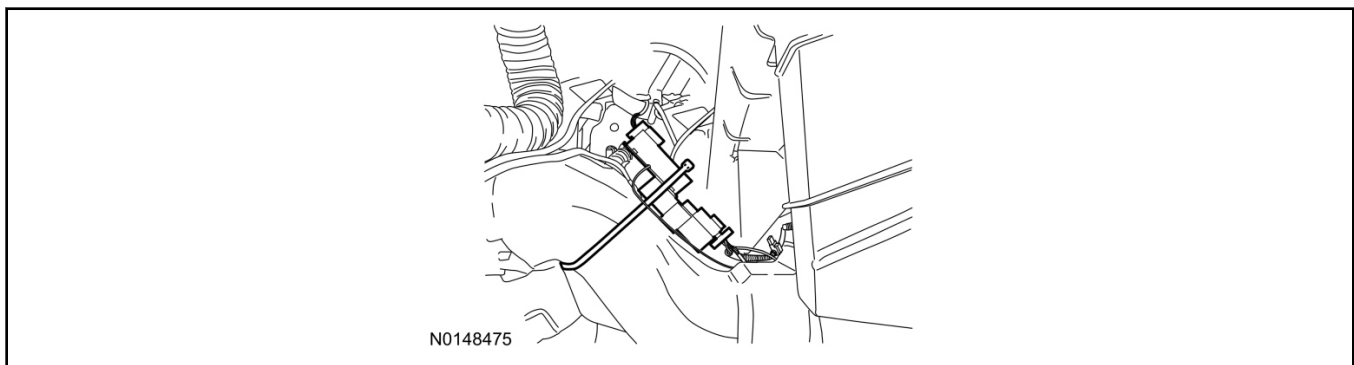
- The distribution box can be identified as the module with the double sided adhesive pad attached to the back.

INSTALLATION (Continued)

21. Remove the protective backing from the adhesive pad and stack to the CML module as shown below.



22. Using the adhesive pad supplied in the hardware kit mount the module stack to the lower air duct located below the center stack on driver's side.

**Route Harness****NOTE:**

Avoid routing ambient lighting wires near sharp edges and moving components.

NOTE:

Ensure the ambient lighting wires are secure and do not interfere with vehicle operation.

NOTE:

Light Engine and wiring should be routed and secured out of driver and passenger view.

23. Route the light engine LED harness to the driver footwell area.
24. Route the 2-wire power harness to the passenger footwell area.
25. Route the switch harness and the harness containing the exposed LED ends to the console box area.

INSTALLATION (Continued)**Install Switch****NOTE:**

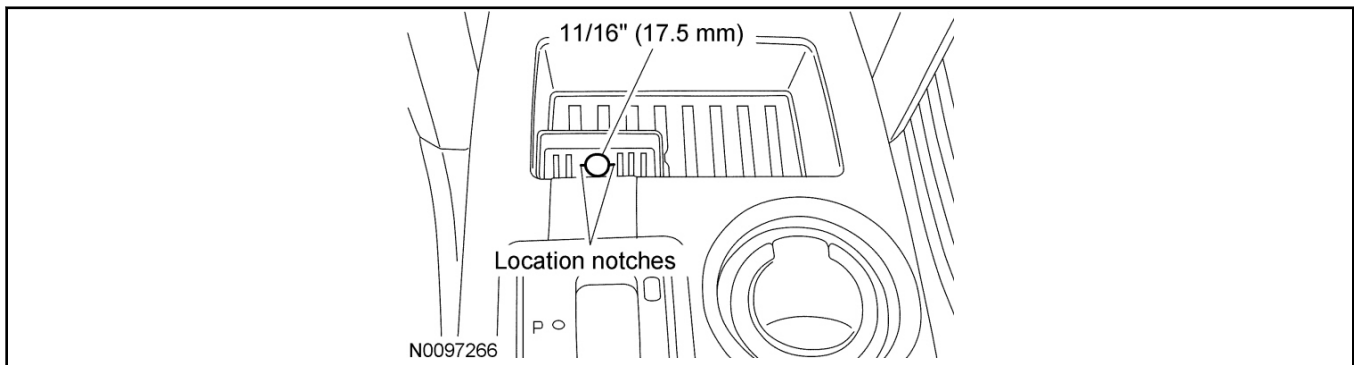
Remove the small change holder liner.

26. Locate and drill a 11/16" (17.5mm) hole in the small change holder compartment in front of the shifter opening as shown below.

NOTE:

Carefully mark the switch location onto the liner. Then remove the liner and use a 57/64" hollow punch to punch a hole in the liner to allow the switch to pass through the liner. Re-install the liner when complete.

27. File (2) Switch locating notches in the 11/16" (17.5mm) hole as shown below.



28. Install the ambient lighting switch into the console finish panel.

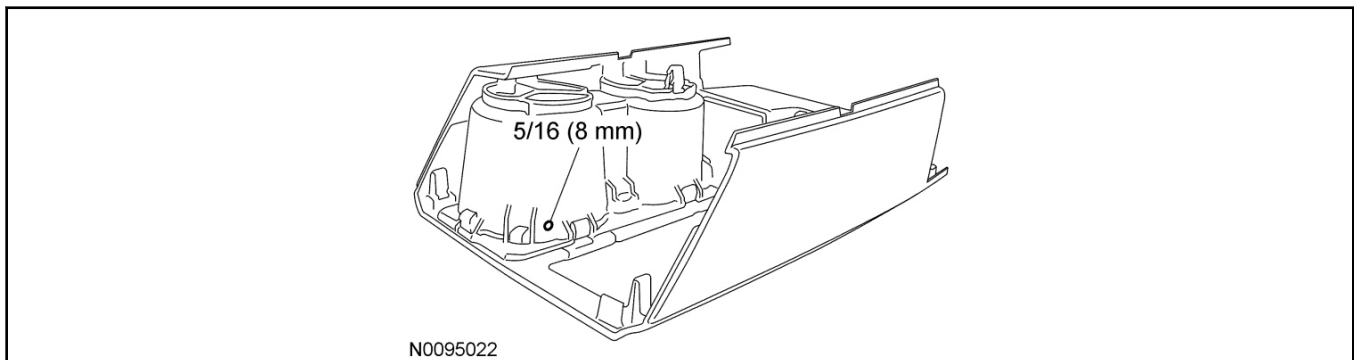
Install LED**NOTE:**

If this vehicle uses a liner in the cup holder, carefully mark the LED location onto the liner. Then remove the liner and use a 1/2" hollow punch to punch a hole in the liner to allow the LED light to pass through the liner. Re-install the liner when complete. One source of the hollow punch set is Harbor Freight, item # 03838 or use an equivalent 1/2" hollow punch from another source.

NOTE:

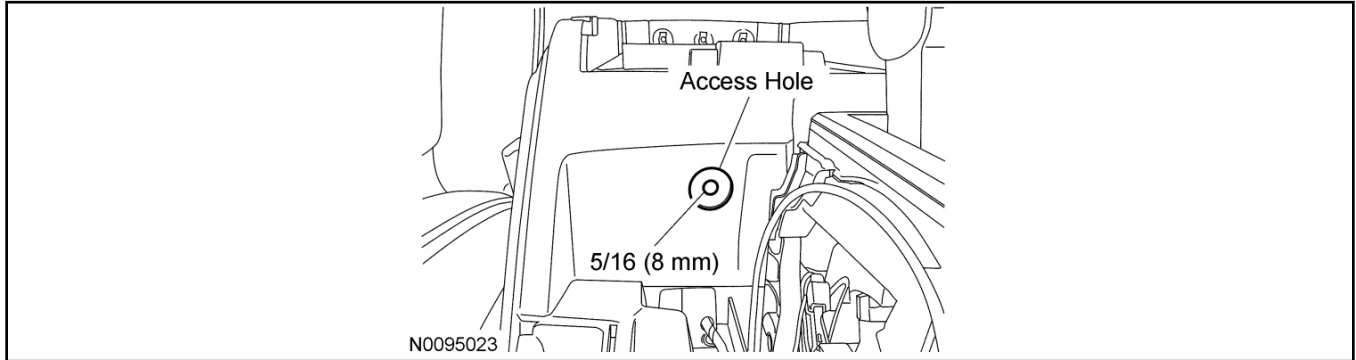
Avoid driver distraction by locating the cup holder LED in the 7 o'clock position out of the driver line of sight.

29. Locate and drill a 5/16" (8mm) hole in the Rear cup holder as shown below.

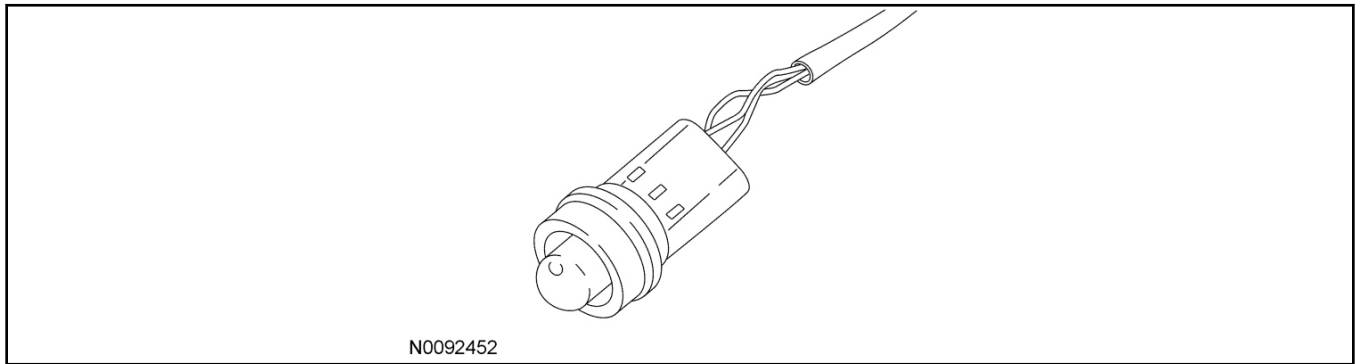


INSTALLATION (Continued)

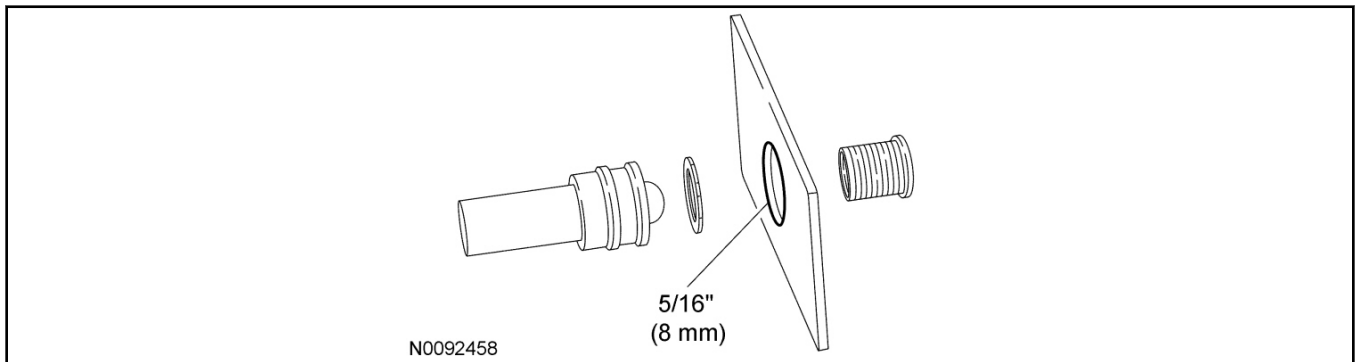
- 30. Drill an access hole in the front of the console box as shown below.
- 31. Locate and drill a 5/16" (8mm) hole through the access hole into the interior of the console box as shown below.



- 32. Identify the exposed LED housing with the single lead.



- 33. Install the LED lens to the console box and assemble to the exposed LED housing with the single lead.



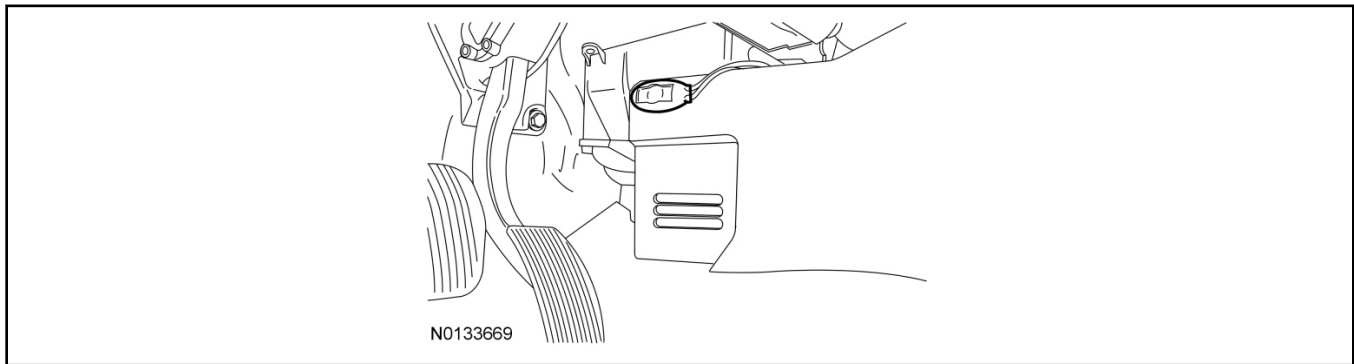
INSTALLATION (Continued)**Install Light Engines**

34. Position the light engine containing (2) wires to the driver side floor console lower trim panel as shown.

- Secure the light engine using the kit provided screws.

NOTE:

Light Engine and wiring should be routed and secured out of driver and passenger view.



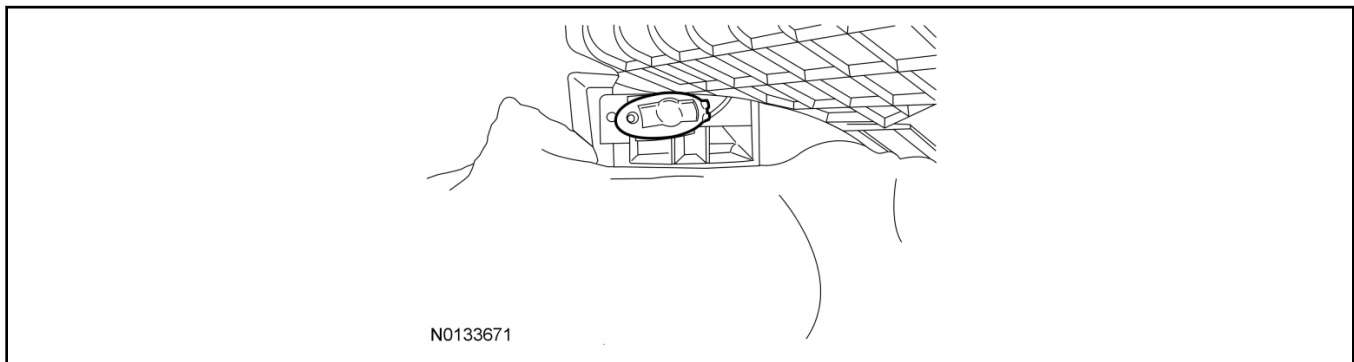
35. Route the remaining light engine to the passenger footwell area.

36. Position the remaining light engine to the passenger side floor duct as shown.

- Secure the light engine using the kit provided screws.

NOTE:

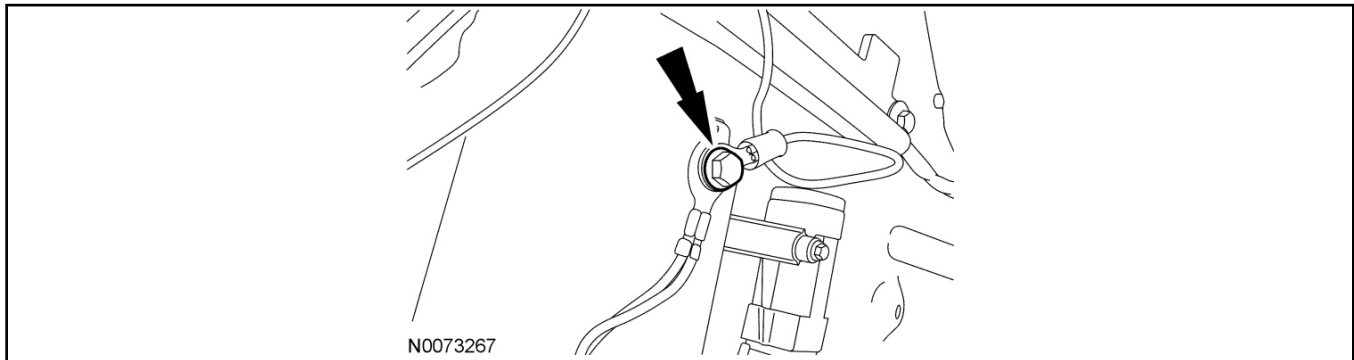
Light Engine and wiring should be routed and secured out of driver and passenger view.



INSTALLATION (Continued)**Power and Ground Connections****NOTE:**

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

37. Connect the Black ground wire from the ambient lighting harness to the chassis ground at the passenger kick panel.

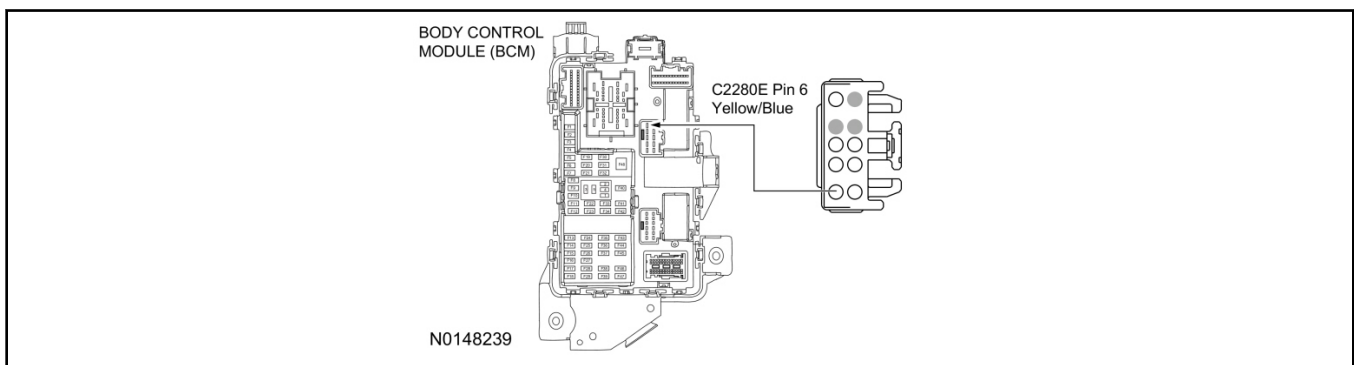
**38. NOTE:**

A DVOM connected to the correct wire will show 0V when the park lamp switch is in the OFF position, then show 12V when the park lamp switch is in the ON position.

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

Identify the Yellow/Blue parking light circuit wire at the BCM Connector C2280E Pin 6.

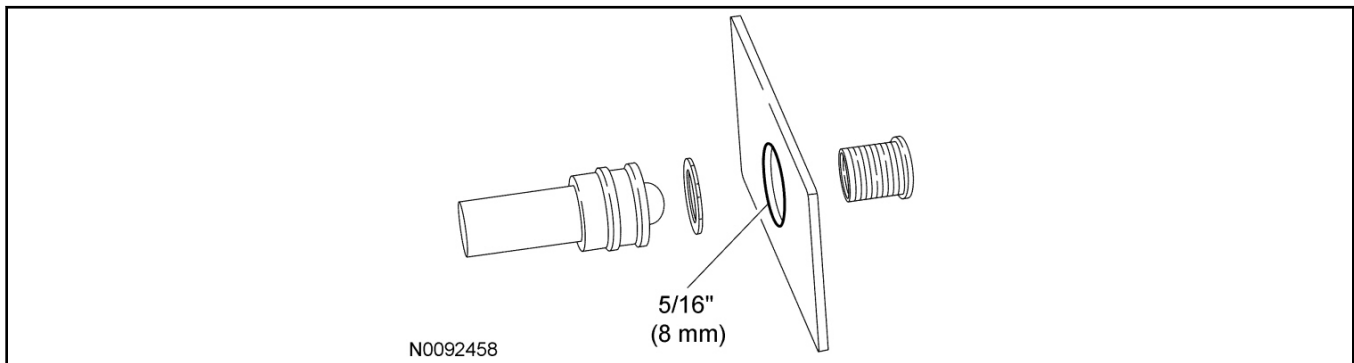
39. Connect the White wire from the ambient lighting harness to the Yellow/Blue park lamp circuit wire at the BCM Connector C2280E Pin 6.



INSTALLATION (Continued)**Install Trim****40. NOTE:**

Ensure the ambient lighting wires are secure and do not interfere with vehicle operation.

Use the supplied 4" tie straps to secure the ambient lighting harness wires.

41. Install LED lens to cup holder.**42. Install the floor console upper finish panel.**

- Push the floor console finish panel downward to secure the retaining clips.

43. Position the floor console to align with mounting holes.**44. Install the 2 floor console front bolts.**

- Tighten to 10 Nm (89 lb-in).

45. Install the 2 floor console-to-instrument panel bolts.

- Tighten to 5 Nm (44 lb-in).

46. Install the selector lever trim panel.

- Push the selector lever trim panel downward, to secure the retaining clips.

47. Install and close the floor console storage compartment door.**48. Install the LH and RH floor console finish mouldings.**

- Push inward on the floor console finish mouldings to secure the retaining clips.

49. Position the front seats forward.**50. Install the 2 floor console rear bolts.**

- Tighten to 10 Nm (89 lb-in).

51. Position the front seats rearward.**52. Place the gearshift lever in the PARK position and release the parking brake.**

INSTALLATION (Continued)

NOTE:

Ensure the ambient lighting wires are secure and do not interfere with vehicle operation.

53. Use the supplied 4" tie straps to secure the ambient lighting harness wires.
54. Install the knee bolster bracket.
 - Tighten the 4 screws.
55. Install the knee bolster panel.
 - Tighten the 3 screws.
56. Install the RH A-pillar lower trim panel.
 - Install the A-pillar lower trim panel.
 - Install the door scuff plate.