Manual Table of Contents

SLIDING REAR WINDOW INSTALLATION

CONTENTS

INSTALLATION
- Power Sliding Rear Window
- Control Switch Installation Template
- Proper Splicing Techniques
INSTALLATION

Power Sliding Rear Window — F-150

Remove The Rear Seat Backrest (Supercab)

1. Remove the rear seat center shoulder belt trim cover.
   1. Remove the belt guide.
   2. Remove the retainer cover.
   3. Remove the nut.
   4. Lift up and remove the trim cover.

3. Pull some of the safety belt webbing out of the rear center safety belt retractor, slide the rear seat backrest out from the webbing and out of the vehicle.

Fold The Rear Seat Backrests Forward (Crew Cab)

NOTE: The Crew Cab is equipped with a 60/40 split bench type rear seat.

4. Raise both seat cushions to the upright position.

NOTE: The release latches are located near the top outside corner of the seat backrests.

5. Release both backrest latches.

NOTE: There are retaining clips that must be released to remove the rear seat backrest.

NOTE: The rear seat backrest trim cover and foam pad is removed for clarity.

2. To locate the retaining clips, align a screwdriver with the inboard portion of the outboard LATCH attachment points. Be careful not to damage the seat trim covers. Make contact with the rounded portion of the backrest frame and work the screwdriver upward until the screwdriver clears the rounded portion of the backrest frame. At this point the screwdriver should be located at the access hole. Press down on the backrest slightly (this is crucial, otherwise the retaining clip may not release), press the screwdriver rearward to release the retaining clip, then lift the backrest upward. Repeat this process to release the other side of the backrest.

6. Pull the seat cushion release handle and fold the backrest and the seat cushion down.
INSTALLATION (Continued)

Remove The LH and RH B-Pillar Trim Panels (Super Cab) C-Pillar Trim Panels (Crew Cab)

7. Remove the LH and RH scuff plates.
   - Rear scuff plates only on Crew Cab.

8. Remove the LH and RH B-pillar C-pillar bolt trim covers.

9. Remove the LH and RH B-pillar C-pillar bolts.

10. Remove the pin-type retainer from the LH and RH B-pillar C-pillar trim panels.

11. Position aside the LH and RH B-pillar C-pillar trim panels.

Remove The LH and RH B-Pillar Trim Panels (Crew Cab)

12. Remove the LH and RH front door scuff plate.

13. Position the driver and passenger seats forward.

14. Remove the LH and RH B-pillar bolt covers.

15. Remove the LH and RH B-pillar bolts.


Remove The Rear Glass

17. Remove the rear trim panel.
   1. Remove the 3 pin-type retainers.
   2. Remove the rear trim panel from the vehicle.

18. Remove the LH and RH upper door latch trim covers (Supercab).

19. Remove the 2 garment hooks.

20. Remove the 2 headliner pin-type retainers.

21. Lower the headliner to gain access to the rear window glass nuts.

22. If equipped, disconnect the heated rear backlight connectors.

23. Remove the center child safety seat anchor to gain access to one rear window glass nut.
24. Remove the rear window glass nuts.

NOTE: Use only a plastic windshield setting tool to slide under the seal to separate the foam core butyl from the glass. Once the glass starts to separate from the body, constant hand pressure will break the seal and the glass can be removed. The aid of an assistant will be required to support the glass during this step to prevent damage to the glass frame or body. Failure to use a plastic windshield setting tool can damage the body or the glass frame.

25. Remove the rear glass from the vehicle.

Installation

NOTE: Remove as much of the foam core butyl as possible from the body and window glass prior to installation.

NOTE: The aid of an assistant will be required to support the glass in close proximity to the body opening during the following power sliding rear window installation steps.

26. Remove the adhesive backing on the foam core butyl.

NOTE: Feed the window regulator and cables through the window opening prior to installing the power sliding window assembly.

27. Carefully install the rear power sliding window assembly into the body opening.

28. Install the rear window glass nuts.
   • Tighten to 4 Nm (35 lb-in).

29. Install the center child safety seat anchor.
   • Tighten to 30 Nm (22 lb-ft).

30. Install 3 J-nuts.

31. Mount the rear window glass regulator and motor assembly.
   1 Install three screws.
   2 Tighten to 11 Nm (8 lb-ft).

32. If equipped, remove the ground strap to allow the LH regulator control cable to be routed behind the wires against the rear panel.
   • Remove the retainer and position aside the ground strap.
33. If equipped, connect the rear window defrost grid electrical connector.
   - Insert the pin type retainer into the pre-existing mounting hole in the rear panel.
   - If the two window defrost grid electrical connectors are not the same and will not connect proceed to steps 34-37.

34. If equipped with rear window defrost grid and the two electrical connectors do not match, cut the two connectors off of the wire harnesses.

35. Connect the rear window defrost grid, large gauge wires together.

36. If equipped, connect the two sense wires from the vehicle harness side together.

37. Apply shrink wrap tubing to the unused sense wire on the rear window defrost harness side.
INSTALLATION (Continued)

38. If vehicle is not equipped with a rear window defrost grid, trim the unused wires from the window harness.

39. If equipped, connect the rear window defrost grid ground wire.

40. If vehicle is not equipped with a rear window defrost grid, trim the unused ground wire from the window harness.

Crew Cab

41. Disconnect the rear seat center shoulder strap at the lower buckle.
   - Insert a suitable tool into the release button slot and separate the belt from the buckle.

Super Cab

42. Remove the rear seat center shoulder strap anchor.
   1. Remove the nut.
   2. Position aside the anchor.
INSTALLATION (Continued)

All Vehicles

NOTE: The window regulator control cables are designed with pin type retainers that are to be inserted into pre-existing mounting holes in the rear panel.

Driver side shown, passenger side similar.

43. Secure the window regulator control cables.
   - Insert the six pin type retainers into the pre-existing mounting holes in the rear panel.

44. If equipped, install the ground strap.

45. Place the RH control cable in the channel below the window glass and secure using the attached clip.

Install The Wiring Harness

NOTE: The wiring harness is to be routed around the driver side of the vehicle under the scuff plate(s) and behind the LH cowl side trim panel to the switch mounting location near the headlight dimmer control switch.

46. Connect the harness electrical connector to the window regulator motor.

47. Route the harness along the driver side window regulator control cable and secure with zip ties.

48. Tuck the harness along side the main body wiring harness under the scuff plate(s) toward the front of the vehicle.

NOTE: This wire is for switch backlight illumination and will not be used for this installation.

49. Cut off the Blue/Red wire and fuse holder from the power sliding rear window harness and discard.
50. Remove the LH cowl side trim panel.

51. Connect the Black ground wire from the power sliding window wiring harness to the chassis ground point behind the LH cowl side trim panel.

NOTE: A DVOM connected to the correct wire will show 12V, when the ignition switch is in the RUN/ACC position, then show 0V when the ignition switch OFF position. A logic probe will show power on the correct wire when the ignition switch is in the RUN/ACC position, then show 0V when the ignition switch OFF position.

NOTE: For proper wire splicing techniques click here.

52. Identify the power window circuit wire in the main body harness behind the LH cowl side trim panel.
   2009-2010 MY: Green/Blue wire.
   2011-2013 MY: Blue wire.

53. Connect the Blue/Black wire from the power sliding window wiring harness to the Green/Blue power window circuit wire in the main body harness behind the LH cowl side trim panel.

NOTE: When locating the template on the trim panel, the small notch in the center of the cut-out must be in the down position.

NOTE: These markings will be used to drill two 11/16" holes

54. Disconnect and remove the LH instrument panel trim panel.

55. Place the trim panel on a work surface and apply the supplied template to create the hole to receive the control switch.
   1. Print and cut out the template.
   2. Secure the template with tape.
   3. Use a center punch or awl to mark the two center locations from the template.
NOTE: This step is to mark the area to be removed in order to receive the control switch body and wiring. Only necessary on vehicles with a removable trim panel.

58. Temporarily install the trim panel and mark the dash panel behind the trim panel through the control switch hole.

59. Remove the trim panel.

60. Use a 7/8” drill bit to remove the material in the dash panel.

⚠️ WARNING: USE EXTREME CAUTION WHEN DRILLING HOLES IN THE TRIM PANEL. HOLES LARGER THAN THOSE SPECIFIED WILL NOT ALLOW THE SWITCH TO SNAP INTO PLACE PROPERLY AND MAY REQUIRE TRIM PANEL REPLACEMENT.

56. Drill two 11/16” holes.
   1. Remove any excess material between the holes with a file.
   2. Create a 2.5 mm x 1 mm notch on the bottom center of the switch opening. (Refer to template)

57. Test fit the control switch, make adjustments to the hole with a file as necessary.
   - Temporarily remove the control switch.

61. Install the control switch.

62. Route the control switch connector from under the dash area through the hole in the dash and attach to the control switch.

63. Connect and install the LH instrument panel trim panel.

Install The Control Switch (Vehicles With Non-Removable Trim Panel)

NOTE: For the control switch mounting template (Click Here).

NOTE: When locating the template on the trim panel, the small notch in the center of the cut-out must be in the down position.

NOTE: These markings will be used to drill two 11/16” holes

64. Remove the LH instrument panel access panel.
INSTALLATION (Continued)

70. Install the control switch.

71. Route the control switch connector from under the dash area and attach to the control switch.

72. Install the LH instrument panel access panel.

All Vehicles

73. Test the power sliding rear window for proper operation.
   If the system functions properly, continue.

74. Install the LH cowl side trim panel.

75. Raise the headliner and install the 2 pin-type retainers.

76. Install the 2 garment hooks.

77. Install the LH and RH upper door latch trim covers (Supercab).

78. Install the rear trim panel.
   - Install the 3 pin-type retainers.

Install The LH and RH B-Pillar Trim Panels
(Crew Cab)

79. Install the LH and RH B-pillar trim panels.

80. Install the LH and RH B-pillar bolts.

81. Install the LH and RH B-pillar bolt covers.

82. Install the LH and RH front door scuff plate.

Install The LH and RH B-Pillar Trim Panels
(Super Cab) C-Pillar Trim Panels (Crew Cab)

83. Install the LH and RH B-pillar C-pillar trim panels.

84. Install the pin-type retainer in the LH and RH B-pillar C-pillar trim panels.

85. Install the LH and RH B-pillar C-pillar bolts.

86. Install the LH and RH B-pillar C-pillar bolt trim covers.

65. Print and cut out the template.

66. Secure the template with tape.

67. Use a center punch or awl to mark the two center locations from the template.

⚠️ WARNING: USE EXTREME CAUTION WHEN DRILLING HOLES IN THE TRIM PANEL. HOLES LARGER THAN THOSE SPECIFIED WILL NOT ALLOW THE SWITCH TO SNAP INTO PLACE PROPERLY AND MAY REQUIRE TRIM PANEL REPLACEMENT.

68. Drill two 11/16" holes.
   1. Remove any excess material between the holes with a file.
   2. Create a 2.5 mm x 1 mm notch on the bottom center of the switch opening. (Refer to template)

69. Test fit the control switch, make adjustments to the hole with a file as necessary.
INSTALLATION (Continued)

87. Install the LH and RH scuff plates.
   - Rear scuff plates only on Crew Cab.

88. Connect the rear seat center shoulder strap at the lower buckle (Crew Cab).

89. Install the rear seat center shoulder strap anchor (Supper Cab).
   1. Position the anchor.
   2. Install the nut, tighten to 80 Nm (59 lb-ft).

Return The Rear Seat Backrests To The Upright Position.

NOTE: Make sure that the latches are fully engaged and the backrests are secured in place.

90. Raise the rear seat backrests to the upright position.
   - Firmly press the latches in place.

Install The Rear Seat Backrest (Supercab)

91. Pull some of the safety belt webbing out of the rear center safety belt retractor, slide the rear seat backrest under the webbing and position it into the vehicle.

NOTE: Make sure the seat backrest lower retaining clips are completely seated before installing the seat backrest.

NOTE: Make sure the safety belt webbing is not twisted prior to installation.

NOTE: Make sure that the safety belt buckles are accessible after seat installation.

92. Align the locators near the right center of the backrest and press the backrest downward until the retaining clips are engaged.

93. Install the rear seat center shoulder belt trim cover.
   1. Press the trim cover into place.
   2. Install the nut.
   3. Install the retainer cover.
   4. Install the belt guide.
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.

![Diagram](N0074326)

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

![Diagram](N0074327)

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

![Diagram](N0074328)
4. Insert the new wire between the parted strands. If more than one wire is being spliced, wrap them in opposite directions.

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

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

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

6. Wrap the connection with electrical tape so the tape covers the wires approximately two inches on either side of the connection.
   - Tape the wires together as shown in the illustration.
2-Wire Solder Splice/Ratcheting Crimp Tool Splice Procedure

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

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

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

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

8. Identify the appropriate crimping chamber of the Rotunda 164-R5901 Pro-Crimper (or equivalent) by matching the wire size on the dies with the wire size stamped on the butt splice. Hold the crimping tool so the identified wire sizes are facing you. Squeeze tool handles together until the ratchet releases, then allow the jaws of the tool to open fully.
9. Center one (1) end of the butt splice on the appropriate crimping chamber. If visible, be sure to place the brazed seam of the butt splice toward the indenter. Hold the butt splice in place and squeeze the tool handles together until the ratchet engages sufficiently to hold the butt splice in position (typically one (1) or two (2) clicks). DO NOT deform the butt splice. Insert stripped wire into the butt splice, making sure the insulation on wire does not enter the butt splice.

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

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

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

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

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

12. Strip 1 1/2" (37.2 mm) of insulation from Wire #1 and 3/4" (19.5mm) of insulation from Wire #2, taking care not to nick or cut wire strands. Pull wire straight from stripper. If wire is pulled at an angle, wire strands may be cut off during stripping. Cut off the end and re-strip.
13. **NOTE:**
Use rosin core mildly activated (RMS) solder. do not use acid core solder for wire repair.

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

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

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

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

### 3-Wire Solder Splice Procedure

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

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

![Diagram of splicing procedure](image1)

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

![Diagram of bending procedure](image2)

17. Evenly position heat shrink tubing over wire repair.

![Diagram of positioning procedure](image3)
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.