APPLICATION | LENGTH | MODEL YR | PART #  
---|---|---|---  

*Modification required to running board assembly. See Item 1 on page 3.

APPLICATION | LENGTH | MODEL YR | PART #  
---|---|---|---  

*Modification required to running board assembly. See Item 1 on page 3.
INSTALLATION GUIDE
Attaching motor to linkage assembly

The motors must be attached to the linkage assemblies before continuing the installation process.

CAUTION: HANDLE WITH CARE.

To ensure our customers receive all components with full integrity, we pack the motors separate from their linkage assemblies. This requires that the installer position and fasten the motor before continuing with the install. Please follow the instructions below and handle the assembly carefully.

CAUTION: Dropping the assembly or any excessive impact MAY cause damage to the motor.

Instructions:

1. Position the gear cover in place as shown if not already in place.

2. Seat motor into position on the three mounting bosses. This may require an adjustment of the gear by moving the swing arms.

3. After seating into place, fasten the motor with the three motor mount screws with 4mm Hex Head. Tighten screws to 36 in-lbs (4N-m). Do not over torque.
Note: Some Applications require modification.

<table>
<thead>
<tr>
<th>Application</th>
<th>Cut Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crew Cab/Excursion</td>
<td>79” (No Modification Required)</td>
</tr>
<tr>
<td>Super Cab</td>
<td>60” (Trim 19”)</td>
</tr>
<tr>
<td>Regular Cab</td>
<td>48” (Trim 31”)</td>
</tr>
</tbody>
</table>

(A) End cap left (x1)
(B) End cap right (x1)
(C) T-nut insert (x2)
(D) Socket cap screw (x2)
(E) End cap wedge right (x1)
(F) End cap wedge left (x1)

1 x2
Running board assembly

2 x2
Idler linkage assembly

3 x2
Motor linkage assembly

4
Wire harness

5
Controller STA

6 x2
Double-diode
(Not required for all applications
See Wiring Guides for details)
<table>
<thead>
<tr>
<th>Part Number</th>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>x8</td>
<td>Conical bolt</td>
</tr>
<tr>
<td>8</td>
<td>x8</td>
<td>Button head - M10</td>
</tr>
<tr>
<td>9</td>
<td>x2</td>
<td>Cable tie (11&quot;)</td>
</tr>
<tr>
<td>10</td>
<td>x8</td>
<td>Socket cap screw</td>
</tr>
<tr>
<td>11</td>
<td>x8</td>
<td>U-nut</td>
</tr>
<tr>
<td>12</td>
<td>x8</td>
<td>Washer (stainless)</td>
</tr>
<tr>
<td>13</td>
<td>x20</td>
<td>Cable tie (7&quot;)</td>
</tr>
<tr>
<td>14</td>
<td></td>
<td>Tubing (installation tool)</td>
</tr>
<tr>
<td>15</td>
<td>x2</td>
<td>Connecting wire (red)</td>
</tr>
<tr>
<td>16</td>
<td>x10</td>
<td>Butt connector</td>
</tr>
<tr>
<td>17</td>
<td>x4</td>
<td>Posi-Tap® connector</td>
</tr>
<tr>
<td>18</td>
<td>x4</td>
<td>LED Lamp</td>
</tr>
<tr>
<td>19</td>
<td>x4</td>
<td>Grommet</td>
</tr>
</tbody>
</table>
Loop two large tie wraps through fastener cutouts in sheet metal as shown. Position controller as shown above and cinch down tie wraps to secure controller in place. Connect harness to controller. Make sure that locking tabs on controller/harness connector are fully engaged.
Puncture grommet and thread trigger wire

Open passenger door
Remove step plate
Remove kick plate

Roll back carpet
See Detail 14

Roll back carpet and pull trigger-wire through grommet.

(See Wiring Guides for wiring details)

(See wiring guides for details and step-by-step instructions; colors and procedures will vary per model year)

Roll back carpet
See Detail

Connecting Wire or leg of Double Diode

Rear Door Ajar Wire
NOTE: Steps 14-23, removing driver’s door panel, only for vehicles prior to 2007.

14 Remove door light

15 (See Step 20)

16 Remove speaker screws

17 Pull back door lining

18
(See wiring guides and step-by-step instructions; colors and procedures will vary per model year)

20

21

22

23

24

25
2004 model shown
Some previous year models require that the ORANGE and WHITE wires be reversed (See wire diagram)

Plug in (both sides)

Open doors to extend arm (if not already extended)

Attach step
Slide mounting T-nut into position

TORQUE
10 ft-lbs (13.5 N m)

On each side of the vehicle measure from the front edge of door line on the pinch weld to the specified lengths below. Measure at 27” for front LED Light and 65” for rear LED Light.
Drill a 9/32” hole through the pinch weld at marked locations. Debur all holes.

Insert grommet into drilled holes. Insert lamp wires through the grommets. (Silicone lube will help wires slip through grommets.)

Affix lamp to rocker panel surface. Make sure lamp is affixed to a flat, clean surface.

Using supplied butt connectors, connect the lamp wires. Red to Red, Black to Black. Once Crimped use heat gun to shrink tube.

Close and wrap with conduit and electrical tape. Secure all loose wires with cable ties, with lamp wires pulled upward to avoid any wire snagging.

Reinstall fuse.
Check that all doors activate the Power Step and the LED Lights work when doors open and close. Reinstall any remaining trim panels.

**FINAL SYSTEM CHECK**
Check that all doors activate the PowerStep and the LED lights work when doors open and close.  

**NORMAL OPERATION:** When the doors open, PowerStep automatically deploys from under the vehicle. When the doors are closed, PowerStep will automatically return to the stowed/retracted position. *Note that there is a 2-second delay before the PowerStep returns to the stowed/retracted position.*  

**CORRECT OPERATION OF LIGHTS:** All four lamps will illuminate upon opening any door of vehicle. Lamps will stay on until restowing of both Power Steps or until 5 minutes has expired with the doors open. When the lights timeout after 5 minutes, they can be reillumintated by closing and opening any door of vehicle.
Posi-Tap™ installation instructions

1. Insert
2. Tighten
3. Strip 3/8”
4. Insert & Tighten

For two or more wires twist.

Posi-Tap™ Patents: 5,228,875; 5,695,369; 5,868,589; 2,708.
Other patents pending.

Diodes

NOTE: 2004-2006 Ford Super Duty trucks without remote keyless plus 2001 and older Super Duty trucks with remote keyless entry require additional diodes that are not included in the standard parts kit.
See specific model year Wiring Guides for quantities required for your application
If needed, additional diodes (Part # Single 19-02727-90 / Double 19-02890-90) may be ordered at no charge and shipped UPS Ground by calling 1-888-983-2204.

CAUTION
- Handle the motor and linkage assemblies with care when installing. Dropping can damage motor.
- Remove fuse from wiring harness during installation. Failure to do so could result in severe electrical shock.

TECH SUPPORT 1-888-983-2204 (press 2) Monday - Friday, 6:00 AM - 5:00 PM PST
WIRING GUIDE
Ford Super Duty (2007)
With remote keyless entry

**Driver-side wiring**

1. Remove front kick panel and locate bundle of wires leaving front door just above e-brake assembly (Area-A). Open bundle and locate 18Ga door-ajar wire (yellow with black stripe). **Caution:** You may find two wires with these colors; the correct wire will ground when the door is open (ohm meter will read low resistance with door open and OL (open line) with the door closed.

2. Using supplied Posi-Tap connectors, splice supplied red connecting wire into yellow with black stripe wire.

3. Route red wire down to sill plate.

4. Attach purple Power step trigger wire to blue butt connector of “double diode harness”.

5. Attach one leg of “double diode harness” to open end of red connecting wire.

6. Using supplied Posi-Tap connectors, splice remaining leg of “double diode harness” into rear door-ajar wire (light green with yellow stripe). **Caution:** You may find two wires with these colors; the correct wire will ground when the door is open (ohm meter will read low resistance with door open and OL (open line) with the door closed.

**Passenger-side wiring**

1. Remove sill plate and attach purple Power Step trigger wire to blue butt connector of “double diode harness”.

2. Open wire bundle and locate door-ajar wires (rear: pink with light blue stripe; front: grey with red stripe. Both wires pass under front seat as shown in figure-C

3. Using supplied Posi-Tap connectors, splice the open legs of the “double diode harness” into the door-ajar wires.

4. If necessary, attach red connecting wire to “double diode harness” to extend length as needed.

**Notes:**
1. All of the signal wires we tap into will be 18Ga. Do not tap into anything with a thicker gage than this.
2. Occasionally the wire colors do not match the wire schematics. Under these circumstances you will need to locate the door-ajar signal wires. Each door will have one wire leading out to its latch and one ground wire coming away. The ground wire will usually be solid black. The signal wire we need is the other wire.
3. Make sure you secure all wires after install. Loose wires can be damaged and may cause a failure in the Powerstep's function.
**WIRING GUIDE**

With remote keyless entry

**DRIVER SIDE WIRING**

1. Remove front door panel and locate bundle of wires below and to the left of speaker (Area-A). Open bundle and locate 18Ga door-ajar wire (yellow with black stripe).

**CAUTION:** You may find two wires with these colors; use wire that leads out to door latch.
2. Using supplied Posi-Tap™ connectors, splice supplied red connecting wire into yellow with black stripe wire.
3. Route red wire back into cab of vehicle.
4. Attach purple Power Step trigger wire to blue butt connector of "double diode harness".

5. Attach one leg of "double diode harness" to open end of red connecting wire.

6. Using supplied Posi-Tap™ connectors, splice remaining leg of "double diode harness" into rear door-ajar wire (light green with yellow stripe).

**CAUTION:** You will find two wires with these colors; the correct wire will ground when the door is open (ohm meter will read low resistance with door open and OL with door closed).

**PASSENGER SIDE WIRING**

1. Remove sill plate and attach purple Power Step trigger wire to blue butt connector of "double diode harness".
2. Open wire bundle and locate door-ajar wires (rear: pink with a light blue stripe; front: grey with red stripe). Both wires pass under the front seat as shown in figure-C.
3. Using supplied Posi-Tap™ connectors, splice the open legs of "double diode harness" into door-ajar wires.
4. Attach Posi-Tap splice to this wire as shown in Figure-C.

**NOTE:** As shown above, you may have to use the supplied red connecting wire to extend to the installed Posi-Taps.

**Notes:**
1. All of the signal wires we tap into will be 18Ga. Do not tap into anything with a thicker gage than this.
2. Occasionally the wire colors do not match the wire schematics. Under these circumstances you will need to locate the door-ajar signal wires. Each door will have one wire leading out to its latch and one ground wire coming away. The ground wire will usually be solid black. The signal wire we need is the other wire.
3. Make sure you secure all wires after install. Loose wires can be damaged and may cause a failure in the Powerstep's function.
**Driver-side wiring**

1. Remove front door panel and locate bundle of wires below and to the left of speaker (Area-A). Open bundle and locate 18Ga door-ajar wire (light green with yellow stripe). **Caution:** You may find two wires with these colors; use wire that leads out to door latch.
2. Using supplied Posi-Tap™ connectors, splice supplied red connecting wire into light green with yellow stripe wire.
3. Route red wire into cab of vehicle and back toward sill plate area.
4. Remove sill plate, open wire bundle and locate rear door-ajar wire (pink with a light blue stripe). **Caution:** Make certain to locate the pink with light blue stripe wire rear of the junction where the wires cross under front seat. See figure B.

5. Cut wire and install "single diode harness" as oriented in Figure-B.
6. Attach red connecting wire routed from area-A to the open blue butt connector of "single diode harness" installed in step 5.
7. Attach blue connector of "double diode harness" to the purple signal wire of Powerstep harness that was pulled through the floor.
8. Cut the red connecting wire near the "double diode harness". Use butt connectors to connect each cut end of the connecting wire to the open legs of the "double diode harness".

**Passenger-side wiring**

1. Remove front sill plate, open wire bundle and locate rear door-ajar wire (pink with a light blue stripe). This wire will be located rear of the junction where the wires route under the front passenger seat.
2. Cut wire and install "single diode harness" as oriented in Figure-C.
3. Locate front door-ajar wire (also pink with a light blue stripe). This wire will be located in front of the junction where the wires route under the front passenger seat.

4. Cut wire and install "single diode harness" as oriented in the figure above.
5. After both "single diode harnesses" have been installed, attach the supplied connecting wire to the blue connector of the rear "single diode harness".
6. After trimming to length, attach the opposite end of the connecting wire and the purple signal wire of the Powerstep harness to the blue connector on the front "single diode harness".

**Notes:**
1. All of the signal wires (tap into will be 18Ga. Do not tap into anything with a thicker gage than this.
2. Occasionally, the wire colors do not match the wire schematics. Under these circumstances you will need to locate the door-ajar signal wires. Each door will have one wire leading out to its latch and one ground wire coming away. The ground wire will usually be solid black. The signal wire we need is the other wire.
3. Make sure you secure all wires after install. Loose wires can be damaged and may cause a failure in the Powerstep's function.
WIRING GUIDE
Ford Super Duty (2001)
With remote keyless entry

SINGLE DIODES REQUIRED
If diodes were not ordered with kit, they can be ordered at no charge and shipped UPS Ground by calling 1-888-983-2204

NOTE: On 2001 and older models the factory harness does not split and cross over from passenger to driver side under front seats, but does on all other model years.

Driver-side wiring

1. Remove front door panel and locate bundle of wires below and to the left of speaker (Area-A). Open bundle and locate 18Ga door-ajar wire (black with yellow stripe).
   
   Caution: You may find two wires with these colors; use wire that leads out to door latch.

2. Using supplied Posi-Tap™ connectors, splice supplied red connecting wire into black with yellow stripe wire.
3. Route red wire back into cab of vehicle.
4. Attach purple Power Step trigger wire to blue butt connector of “double diode harness”.

4. After removing the front sill plate, open wire bundle and locate rear door-ajar wire (black with a white stripe).
5. Cut wire and install “single diode harness” as oriented in the figure-B.
6. Connect blue connector of “double diode harness” to purple Power Step trigger wire that was pulled through the floor.
7. Attach connecting wire that comes from Area-A as shown in the figure using supplied red butt connector.
8. Attach the open blue connector of “single diode harness” to the remaining open leg of “double diode harness”.

Passenger-side wiring

1. Remove front passenger door panel and access a bundle of wires below and to the right of the speaker (Area-C). Open bundle and locate 18Ga door-ajar wire (black with a pink stripe).
2. Using supplied Posi-Tap™ connectors, splice supplied red connecting wire into black with pink stripe wire.
3. Route red wire back into cab of vehicle and down to sill plate.
4. Remove step plate (Area-D), open wire bundle and locate rear door-ajar wire (black with a white stripe).
5. Cut wire and install “single diode harness” as oriented in Figure-D.
6. Attach connecting wire from step-3 and purple signal wire from Powerstep harness to “single diode harness” as shown in Figure-D.

Notes:
1. All of the signal wires we tap into will be 18Ga. Do not tap into anything with a thicker gage than this.
2. Occasionally the wire colors do not match the wire schematics. Under these circumstances you will need to locate the door-ajar signal wires. Each door will have one wire leading out to its latch and one ground wire coming away. The ground wire will usually be solid black. The signal wire we need is the other wire.
3. Make sure you secure all wires after install. Loose wires can be damaged and may cause a failure in the Powerstep's function.
WIRING GUIDE
With remote keyless entry

Driver-side wiring

1. Remove front door panel and locate bundle of wires below and to the left of speaker (Area-A). Open bundle and locate 18Ga door-ajar wire (yellow with black stripe).
Caution: You may find two wires with these colors; use wire that leads out to door latch.
2. Using supplied Posi-Tap™ connectors, splice supplied red connecting wire into yellow with black stripe wire.
3. Route red wire into cab of vehicle and back toward sill plate area.
4. After removing the front door step plate, attach the connecting wire to the purple signal wire from Powerstep harness that was pulled through the floor.

Passenger-side wiring

1. Removing the passenger side front sill plate, open wire bundle and locate the rear door-ajar wire (gray with a red stripe).
2. Using supplied Posi-Tap™ connectors, splice supplied purple Power Step trigger wire into gray with red stripe wire.

Notes:
1. All of the signal wires we tap into will be 18Ga. Do not tap into anything with a thicker gage than this.
2. Occasionally the wire colors do not match the wire schematics. Under these circumstances you will need to locate the door-ajar signal wires. Each door will have one wire leading out to its latch and one ground wire coming away. The ground wire will usually be solid black. The signal wire we need is the other wire.
3. Make sure you secure all wires after install. Loose wires can be damaged and may cause a failure in the Powerstep's function.

www.amp-research.com 6/7
WIRING GUIDE
With remote keyless entry

Driver-side wiring

NOTE: The two wires to each of the motor plugs (orange and white) must be reversed.

1. Remove front door panel and locate bundle of wires below and to the left of speaker (Area-A). Open bundle and locate 18Ga door-ajar wire (light green with yellow stripe).
2. Using supplied Posi-Tap™ connectors, splice supplied red connecting wire into light green with yellow stripe wire.
3. Route red wire into cab of vehicle and back toward sill plate area.
4. After removing the front door step plate, attach the connecting wire to the purple signal wire from Powerstep harness that was pulled through the floor.

Passenger-side wiring

1. Removing the passenger side front sill plate, open wire bundle and locate the rear door-ajar wire (pink with a light blue stripe).
2. Using supplied Posi-Tap™ connectors, splice supplied purple Power Step trigger wire into pink with light blue stripe wire.

Notes:
1. All of the signal wires we tap into will be 18Ga. Do not tap into anything with a thicker gage than this.
2. Occasionally the wire colors do not match the wire schematics. Under these circumstances you will need to locate the door-ajar signal wires. Each door will have one wire leading out to its latch and one ground wire coming away. The ground wire will usually be solid black. The signal wire we need is the other wire.
3. Make sure you secure all wires after install. Loose wires can be damaged and may cause a failure in the Powerstep's function.
Thank you for your recent AMP Research Purchase.

REGISTER YOUR PRODUCT TODAY FOR FASTER SERVICE & PRODUCT UPDATES

Please visit:
www.amp-research.com/productregistration
or scan the QR Code

Product Registration Benefits:

• Ensure we have your purchase receipt and product info in our system which is required for warranty
• Faster and easier access to customer service and tech support in the unlikely event you need warranty or product support
• Registration helps us keep you up to date on product information and offers

To view other Amp Research products that may be offered for your vehicle.
Please visit: www.amp-research.com
POWDER-DEPLOYABLE RUNNING BOARDS OPERATION: AMP Research PowerStep running boards automatically move when the doors are opened to assist entering and exiting the vehicle.

**Automatic power deploy:**
The running boards will extend down and out when the doors are opened.

**Automatic power stow:**
The running boards will return to the stowed position when the doors are closed. There will be a 2-second delay before the running boards move to the stowed position.

**Automatic stop:**
If an object is in the way of the moving running board, the running board will automatically stop. To reset, clear any obstruction, then simply open and close the door to resume normal operation.

**Manually set in the deployed (OUT) position for access to the roof:**
The running boards can be manually set in the deployed position by firmly holding the step down with your foot while at the same time closing the door. To resume normal operation, open and close the door.

**Maintenance:** In adverse conditions, debris such as mud, dirt, and salt may become trapped in the running board mechanism, possibly leading to unwanted noise. If this occurs, manually set the running boards to the deployed position and flush the front and rear hinge arms with a high-pressure car wash wand. Avoid spraying the motors directly. After washing, apply silicone spray lubricant to the hinge pivot pins. Do not apply silicone, wax or protectants like Armor All® to the running board stepping surface.

**Caution!** Keep hands away when the running board is in motion.

---

**5-YEAR LIMITED WARRANTY**

AMP RESEARCH warrants this product to be free from defects in material and workmanship for FIVE (5) YEARS FROM DATE OF PURCHASE, provided there has been normal use and proper maintenance. This warranty applies to the original purchaser only. All remedies under this warranty are limited to the repair replacement of the product itself, or the repair or replacement of any component part thereof, found by the factory to be defective within the time period specified. The decision to repair or replace is wholly within the discretion of the manufacturer.

This warranty specifically excludes labor. If you have a warranty claim, first you must call our factory at the number below for instructions. You must retain proof of purchase and submit a copy with any items returned for warranty work. Upon completion of warranty work, if any, we will return the repaired or replaced item or items to you freight prepaid. Damage to our products caused by accidents, fire, vandalism, negligence, misinstallation, misuse, Acts of God, or by defective parts not manufactured by us, is not covered under this warranty.

ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND/OR FITNESS FOR A PARTICULAR PURPOSE CREATED HEREBY ARE LIMITED IN DURATION TO THE SAME DURATION AND SCOPE AS THE EXPRESS WRITTEN WARRANTY. OUR COMPANY SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGE.

Some states do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.

FOR WARRANTY ISSUES WITH THIS PRODUCT PLEASE CALL AMP RESEARCH CUSTOMER SERVICE 1-888-983-2204

---

**WARNING**

Be sure to read and precisely follow the provided instructions when installing this product. Failure to do so could place the vehicle occupants in a potentially dangerous situation. After installing or reinstalling, re-check to insure that the product is properly installed.

---

© 2007 AMP Research, a wholly owned subsidiary of Allison Transmission, Inc. Copyright © 2007 AMP Research, a wholly owned subsidiary of Allison Transmission, Inc. All rights reserved. No part of this manual may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without permission in writing from the publisher. (07-03-2008) 191066

The material that your product is made from can be recycled. Please also consider recycling the packaging that your product came in.