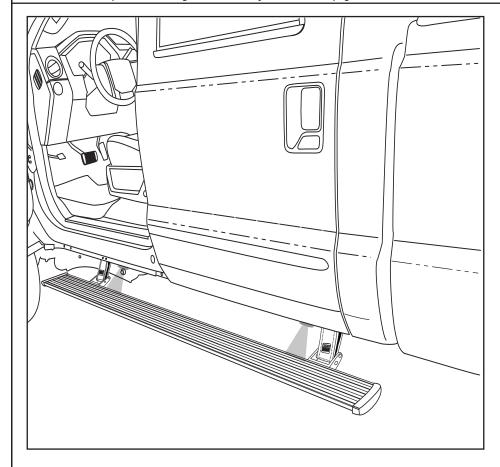
## AMP POWEr Step

APPLICATION	LENGTH	MODEL YR	PART#
Ford Super Duty F-250 / F-350 Regular Cab <sup>a</sup> Ford Super Duty F-250 / F-350 Super Cab <sup>a</sup> Ford Super Duty F-250 / F-350 Crew Cab	* (48") (60") (79")	1999-2001 / 2004-2007 1999-2001 / 2004-2007 1999-2001 / 2004-2007	75104-01A 75104-01A 75104-01A
Ford Excursion* *Modification required to running board assembly. See Item 1	(79") on page 3.	2000-2001 / 2004–2005	75104-01A



#### **INSTALLATION TIME** 3-5 Hours Professional installation recommended

#### SKILL LEVEL









4= Experienced

#### **TOOLS REQUIRED**

- Safety goggles
- Measuring tape
- Flat blade screwdriver
- Phillips head screwdriver
- 13mm socket
- 8mm socket
- Ratchet wrench and extension
- Wire crimpers
- Wire stripper / cutter
- 3/16" hex key wrench (allen wrench)
- 4mm hex key wrench (allen wrench)
- Electrical tape
- 9/32" Drill Bit
- 25/64" Drill Bit
- Weather proof caulking (silicone sealer)

#### WARRANTY

5-Year Limited Warranty

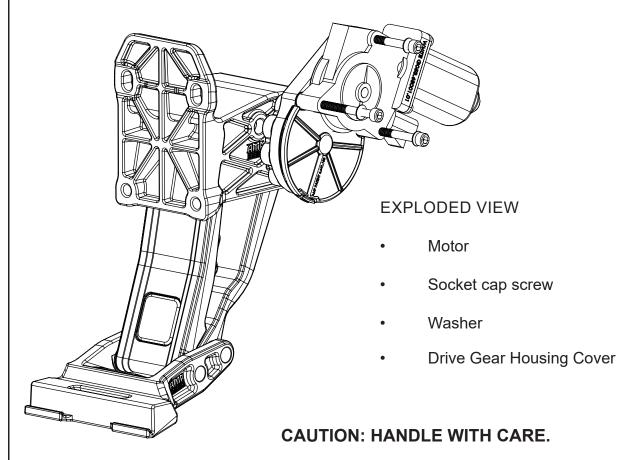
AMP RESEARCH TECH SUPPORT 1-888-983-2204 (Press 2) Monday - Friday, 7:00 AM - 5:00 PM PST

Invented, engineered and manufactured exclusively by AMP Research in the USA. May be covered by one OR MORE of the following patents: 6,641,158; 6,830,257; 6,834,875; 6,938,909; 7,055,839; 7,380,807; 7,413,204; 7,398,985; 7,584,975; 7,566,064; 7,487,986; 8,157,277; 8,408,571; 9,302,626; 9,561,751; 10,053,017; CA2463717 ©2012 AMP Research. All rights reserved. Printed in USA.

#### **INSTALLATION GUIDE**

Attaching motor to linkage assembly

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

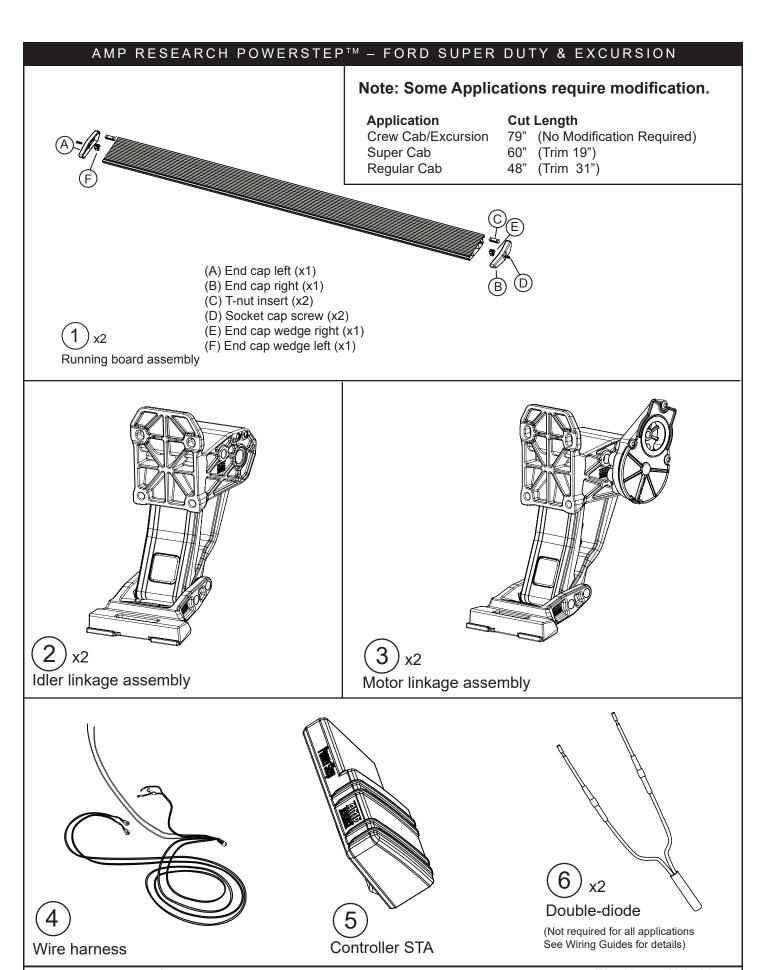


To ensure our customers receive all components with full integrity, we pack the motors separate from their linkage assemblies. This requires that the installer position and fasten the motor before continuing with the install. Please follow the instructions below and handle the assembly carefully.

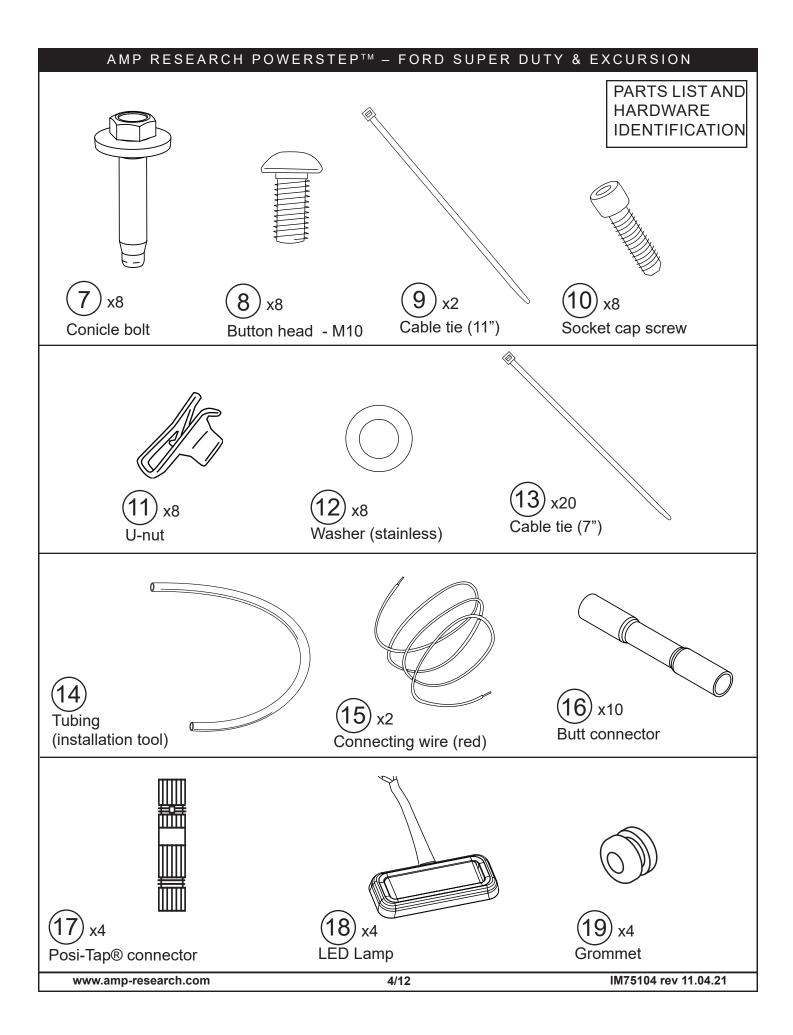
CAUTION: Dropping the assembly or any excessive impact MAY cause damage to the motor.

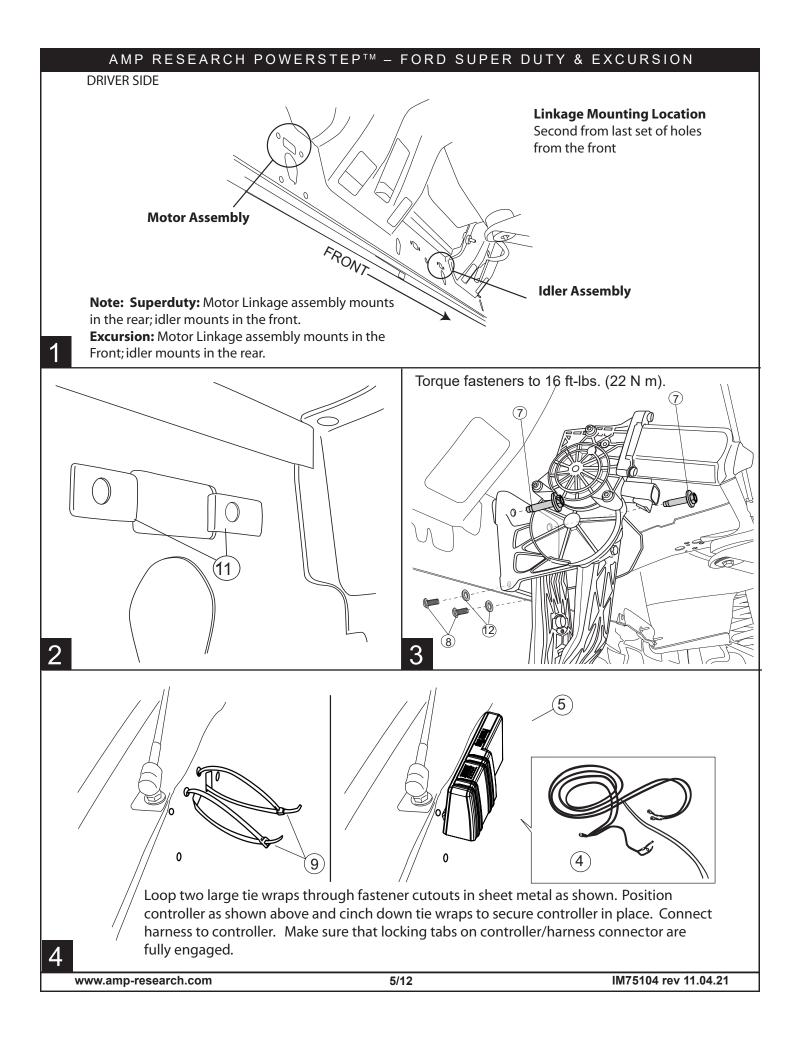
#### Instructions:

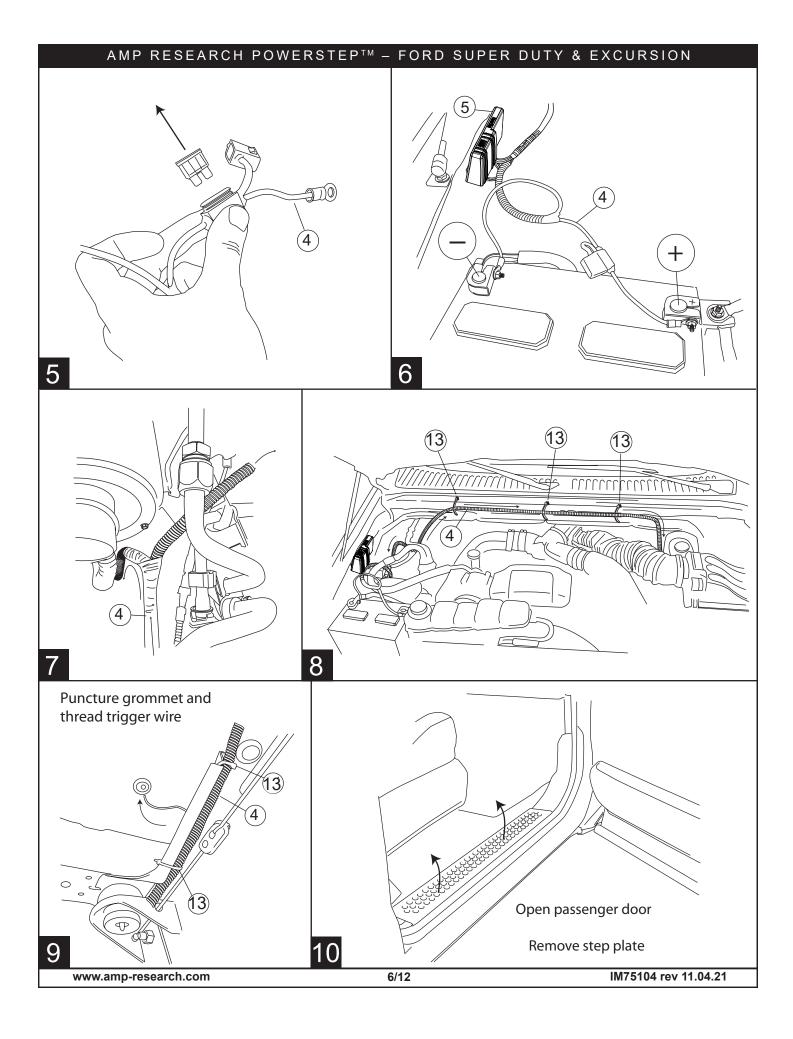
- 1. Position the gear cover in place as shown if not already in place.
- 2. Seat motor into position on the three mounting bosses. This may require an adjustment of the gear by moving the swing arms.
- 3. After seating into place, fasten the motor with the three motor mount screws with 4mm Hex Head. Tighten screws to 36 in-lbs (4N-m). **Do not over torque.**



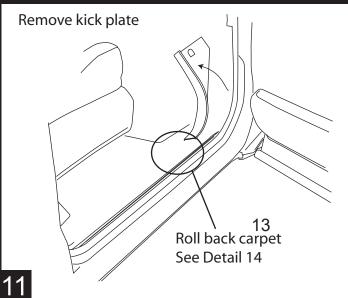
www.amp-research.com 3/12 IM75104 rev 11.04.21



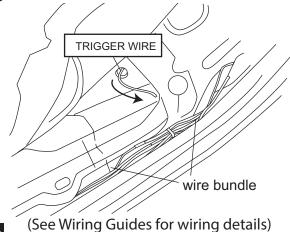


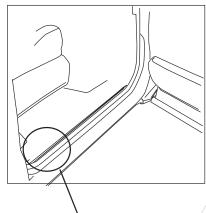


#### AMP RESEARCH POWERSTEP™ - FORD SUPER DUTY & EXCURSION



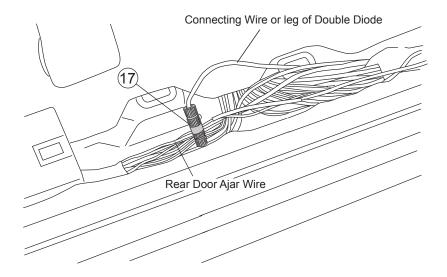
Roll back carpet and pull trigger-wire through grommet.

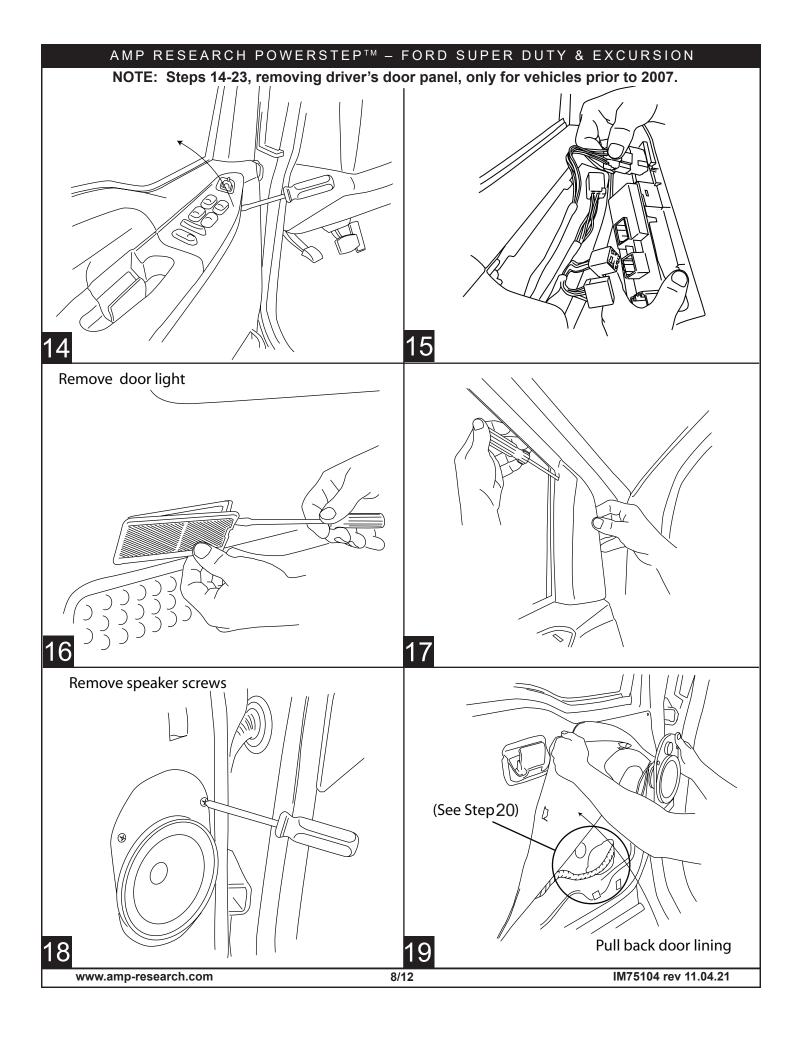


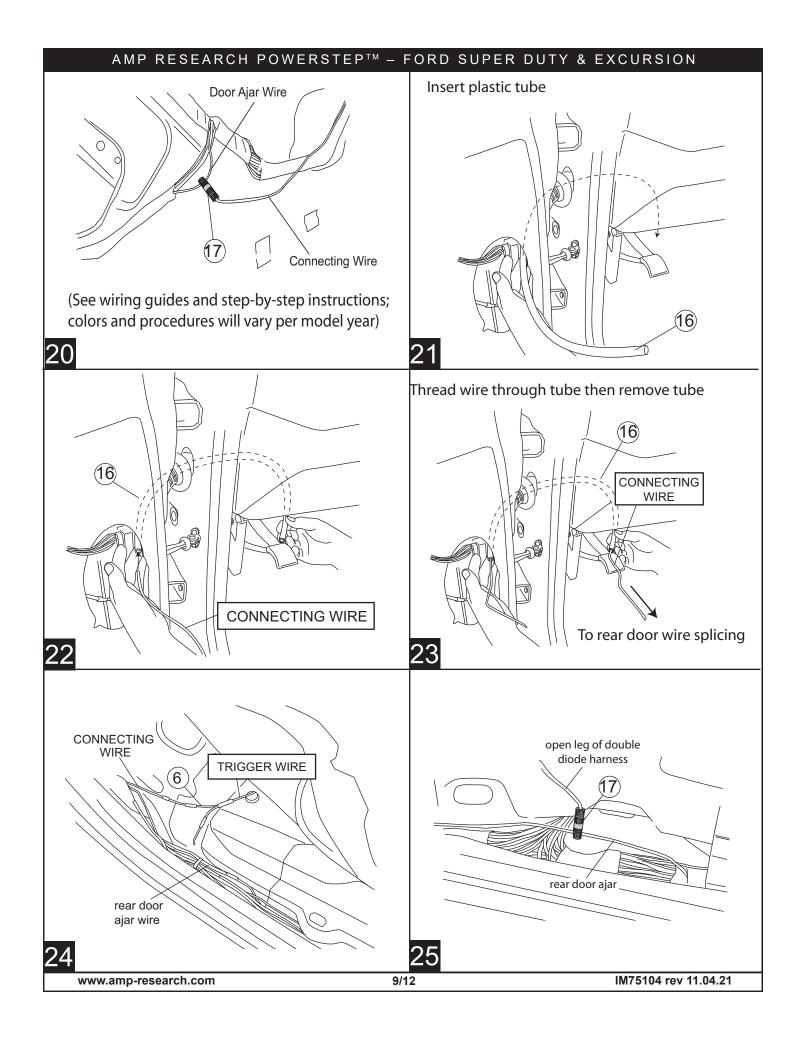


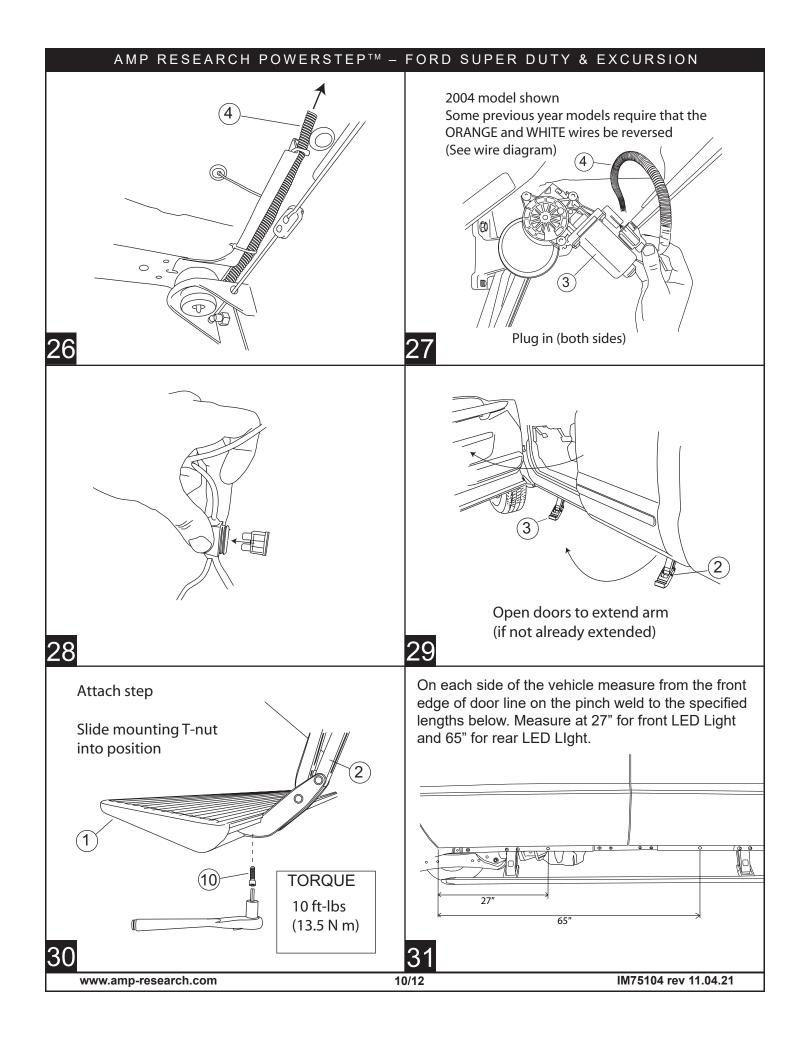
Roll back carpet See Detail

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



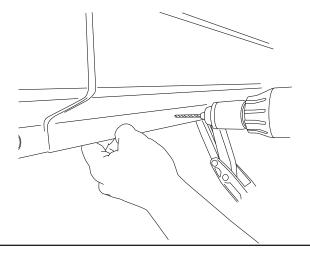




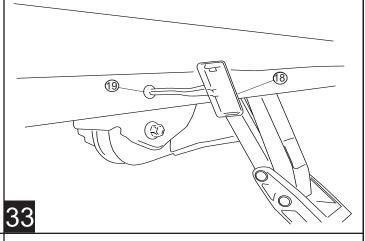


#### AMP RESEARCH POWERSTEP™ - FORD SUPER DUTY & EXCURSION

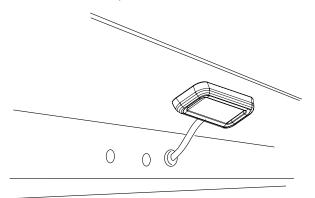
Drill a 9/32" hole through the pinch weld at marked locations. Debur all holes.



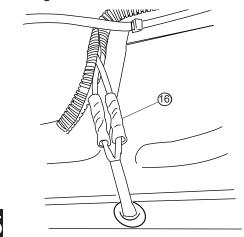
Insert grommet into drilled holes. Insert lamp wires through the grommets. (Silicone lube will help wires slip through grommets.)



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



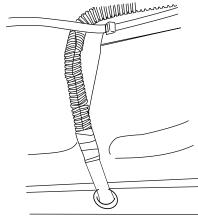
Using supplied butt connectors, connect the lamp wires. Red to Red, Black to Black. Once Crimped use heat gun to shrink tube.



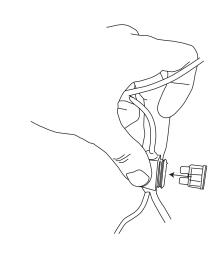
34

32

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.



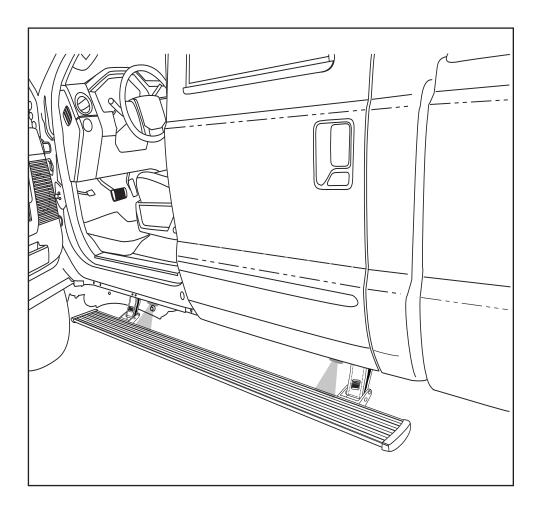
Reinstall fuse.



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#### AMP RESEARCH POWERSTEP™ - FORD SUPER DUTY & EXCURSION

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.

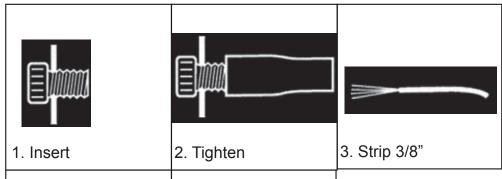
**NORMAL OPERATION:** When the doors open, PowerStep automatically deploys from under the vehicle. When the doors are closed, PowerStep will automatically return to the stowed/retracted position. **Note that there is a 2-second delay before the PowerStep returns to the stowed/retracted position.** 

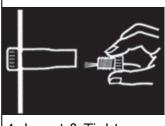
**CORRECT OPERATION OF LIGHTS:** All four lamps will illuminate upon opening any door of vehicle. Lamps will stay on until restowing of both Power Steps or until 5 minutes has expired with the doors open. When the lights timeout after 5 minutes, they can be reillumintated by closing and opening any door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



#### WIRING GUIDE / General instructions

#### Posi-Tap™ installation instructions





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

Designed and manufactured by AMP Research. Patent 6,830,257 / 6,641,158 / 6,834,875 / 6,938,909 / 6,942,233 / 7,007,961 Other US and worldwide patents pending. 5-year limited warranty. Professional installation is recommended.

#### Ford Super Duty (2007) With remote keyless entry

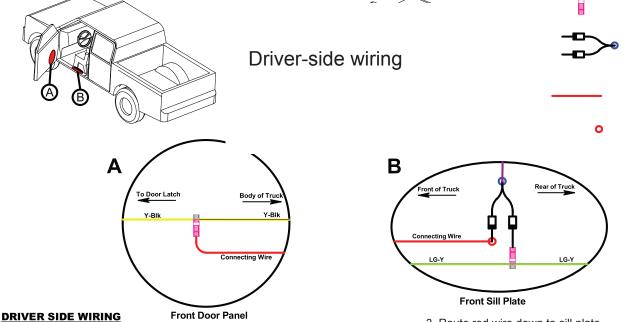


Posi-Tap™ connector

Double diode

**Butt connector** 

harness Additional connecting wire (Red - 18 Ga)



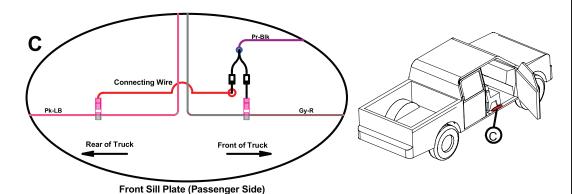
1. Remove front kick panel and locate bundle of wires leaving front door just above e-brake assembly (Area-A). Open bundle and locate 18Ga door-ajar wire (yellow with black stripe).

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 vellow 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



#### **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.

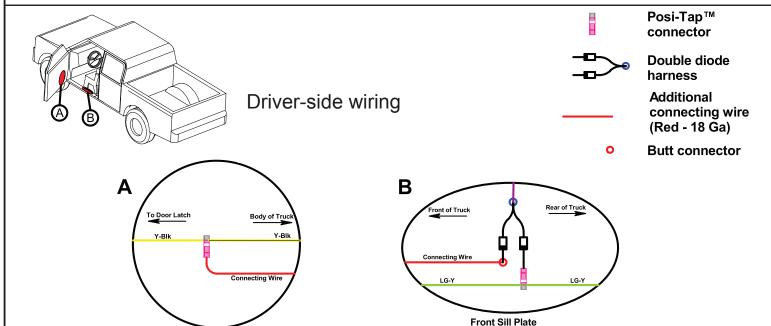
#### Notes:

- 1. All of the signal wires we tap into will be 18Ga. Do not tap into anything with a thicker gage than this.
- 2. Occassionally 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.

#### Ford Super Duty (2004 - 2006) With remote keyless entry





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.

**Front Door Panel** 

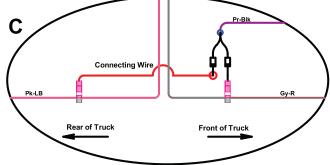
- 2. Using supplied Posi-Tap™ connectors, splice supplied red connecting wire into yellow with black stripe wire.
- 3. Route red wire back into cab of vehicle.
- **4.** Attach purple Power Step trigger wire to blue butt connector of "double diode harness".

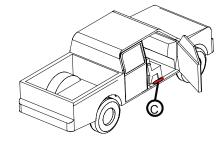
- **5.** Attach one leg of "double diode harness" to open end of red connecting wire.
- **6.** Using supplied Posi-Tap<sup>™</sup> connectors, splice remaining leg of "double diode harness" into rear door-ajar wire (light green with yellow stripe).

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

**DRIVER SIDE WIRING** 





Front Sill Plate (Passenger Side)

#### **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<sup>™</sup> 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.

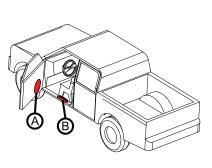
  3. Make sure you secure all wires after install. Loose wires can be damaged and may cause a failure in the Powerstep's function.

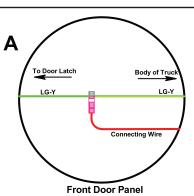
### Ford Super Duty (2004 - 2006) Without remote keyless entry

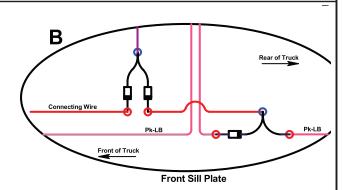
#### SINGLE DIODES REQUIRED

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





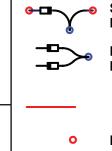




#### Driver-side wiring

- 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.
- 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.
- **9.** 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".
- **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 jucntion where the wires cross under front seat. See figure B..

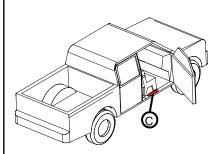


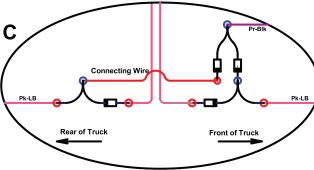
Single diode harness

Double diode harness

Additional connecting wire (Red - 18 Ga)

**Butt connector** 





#### Passenger-side wiring

Front Sill Plate (Passenger Side)

- 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 we tap into will be 18Ga. Do not tap into anything with a thicker gage than this.
- 2. Occassionally 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.

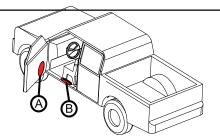
3. Make sure you secure all wires after install. Loose wires can be damaged and may cause a failure in the Powerstep's function.

## WIRING GUIDE Ford Super Duty (2001) With remote keyless entry

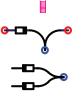
#### SINGLE DIODES REQUIRED

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.

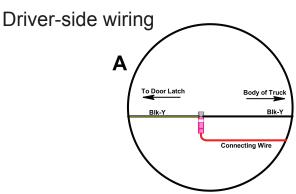


Posi-Tap™ connector Single Diode Harness

Double Diode Harness

Additional Connecting Wire (Red - 18 Ga)

**Butt Connector** 



**DRIVER SIDE WIRING** 

Front Door Panel

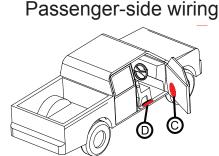
- Rear of Truck

  Connecting Wire

  Bik-W

  Bik-W

  Bik-W
- **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".
- 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".



Rear of Truck

Connecting Wire

Blk-W

Blk-W

Front Sill Plate (Passenger Side)

# Body of Truck To Door Latch Blk-P Blk-P Connecting Wire

(Passenger Side)

#### **PASSENGER SIDE WIRING**

- 1. Remove front passenger door panel and access a bundel 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.

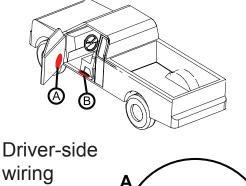
#### Notes:

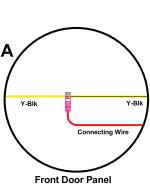
- 1. All of the signal wires we tap into will be 18Ga. Do not tap into anything with a thicker gage than this.
- 2. Occassionally the wire colors do not match the wire schematics. Under these circumstances you will need to locate the door-ajar signal wires. Each door will have one wire leading out to 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.

#### Ford Super Duty (2004 - 2006) Regular Cab & Extended Cab With remote keyless entry

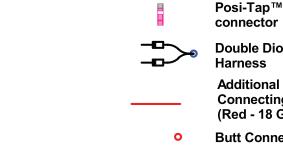




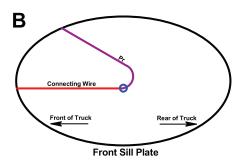


#### **DRIVER SIDE WIRING**

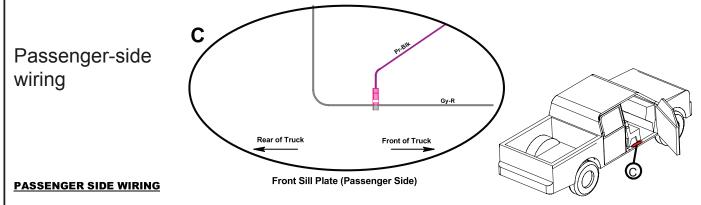
- 1. Remove front door panel and locate bundle of wires below and to the left of speaker (Area-A). Open bundle and locate 18Ga door-ajar wire (yellow with black stripe). Caution: You may find two wires with these colors; use wire that leads out to door latch.
- 2. Using supplied Posi-Tap™ connectors, splice supplied red connecting wire into yellow with black stripe wire.



**Double Diode Additional Connecting Wire** (Red - 18 Ga) **Butt Connector** 



- 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.



- 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. Occassionally 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.



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Rev 01.05.21

## **AMP** Power Step

Congratulations on your purchase of the genuine AMP Research PowerStep! Here's what you should know...

**POWER-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 TECH SUPPORT 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.



