

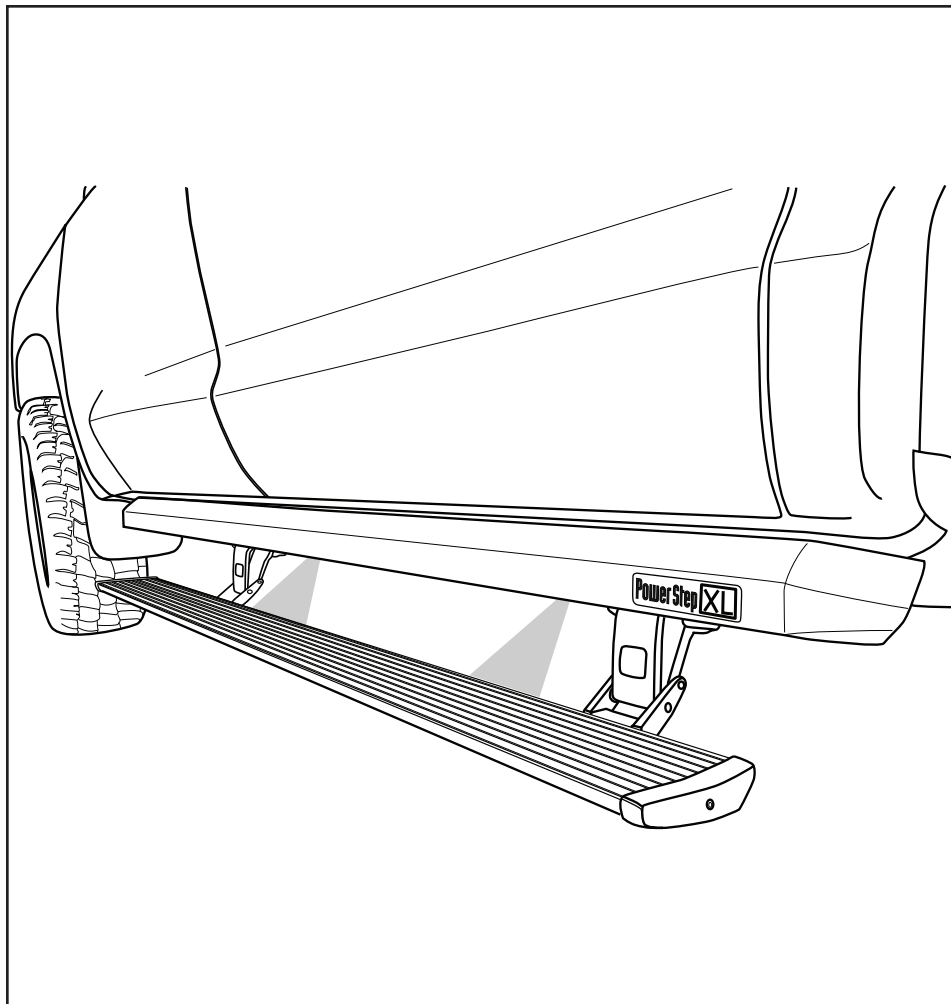
APPLICATION
Toyota Tundra CrewMax

MODEL YR
2007 - 2021

PART #
77137-01A

Note: The application works only on the Crew Cab model Vehicles.

INSTALLATION GUIDE



INSTALLATION TIME

3-5 Hours

Professional installation recommended

SKILL LEVEL



4= Experienced

TOOLS REQUIRED

- Measuring tape
- 13 mm socket
- 10 mm socket
- Ratchet wrench and extension
- 13mm end wrench
- Wire stripper / cutter
- 3/16" hex key wrench (allen wrench)
- 5mm hex key wrench (allen wrench)
- 4mm hex key wrench (allen wrench)
- Electrical tape
- T-25 Torx
- Heat Gun
- Drill
- 19/32" Drill bit

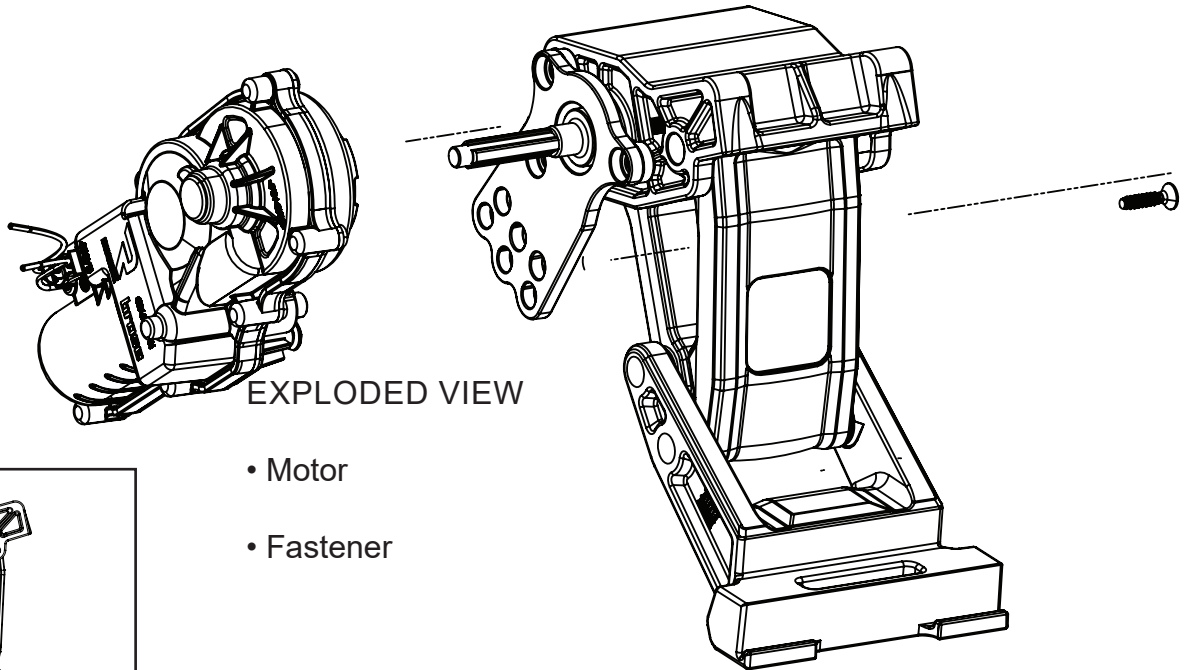
WARRANTY

5-Year Limited Warranty

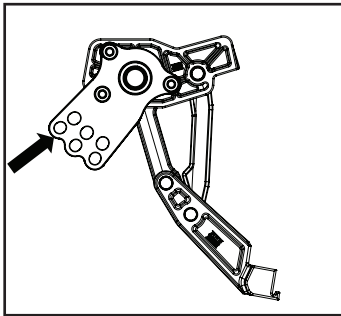
REALTRUCK TECH SUPPORT 1-888-983-2204 (Press 2) Monday - Friday, 8:00 AM - 5:00 PM EST

Designed and manufactured by RealTruck AMP Research® • Made in Mexico
Patent Protected. Please see our product site for applicable patents. www.realtruck.com/b/amp-research/
© RealTruck Group, Inc., 2026 • Five-year limited warranty. • Professional installation is recommended.

The motors must be attached to the linkage before mounting to vehicle.



- Motor
- Fastener



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. Slide motor on to drive shaft.
2. Rotate motor by hand while on the shaft to position it to the mounting plate (orientation as shown above).
3. Fasten motor to the motor mounting plate using supplied PT Screw with T-25 Torx driver. Tighten screw to 60 in-lbs (6.8 N·m). **Do not over torque.**

Note:

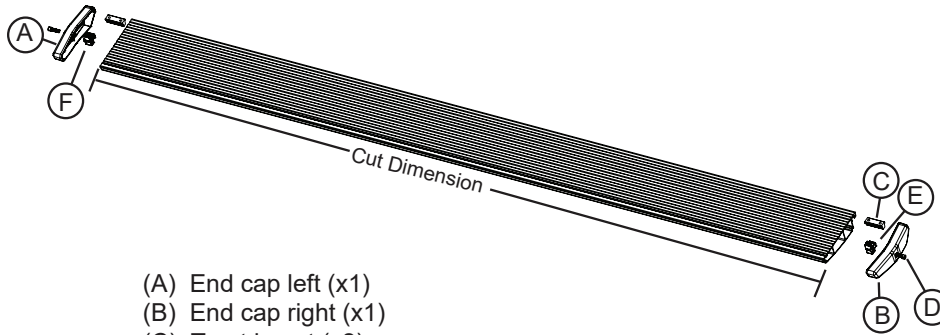
The motor and shaft have only three possible positions. Depending on the current position of the motor, motor/shaft and the orientation of the motor plate, it may be necessary to power it in order to align it correctly with the linkage and shaft during assembly so that the motor can be mounted to the mounting plate.

To do this:

1. Power up the motor.
2. Open the door to allow the motor to spin and reposition.
3. Once the motor times out, remove the fuse.
4. Assemble the motor onto the shaft.
5. Fasten motor to mounting plate.

This process may need to be repeated to achieve the correct alignment.

PARTS LIST AND HARDWARE IDENTIFICATION



- (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)

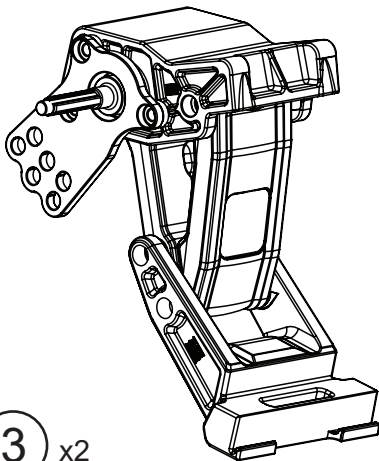
1 x2

Step assembly



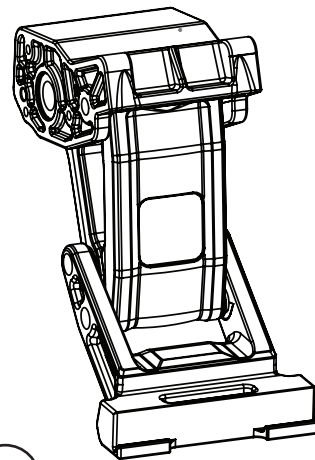
2 x2

Rail Assembly



3 x2

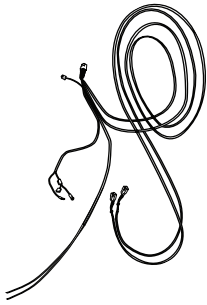
Motor linkage assembly



4 x2

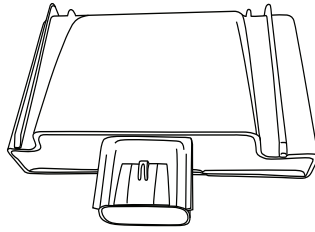
Idler linkage assembly

PARTS LIST AND HARDWARE IDENTIFICATION



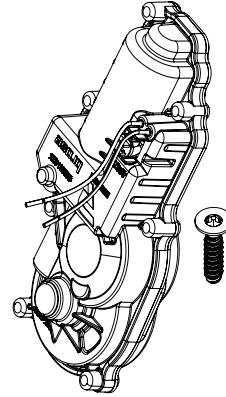
5

Wire harness



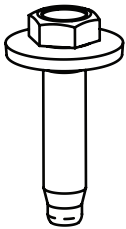
6

Controller SSA



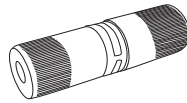
7 x2

Motor Assembly kit



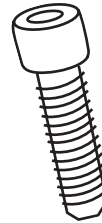
8 x20

M8 Hex Bolt w
Conical washer



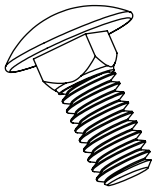
9 x4

Posi-Tite®



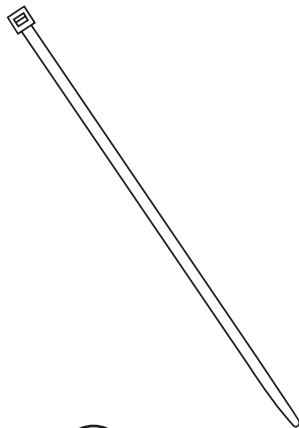
10 x8

Socket Cap Screw



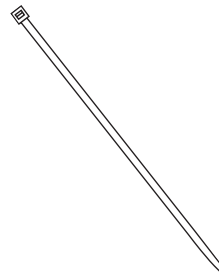
11 x14

5/16-18
Carriage Bolt



12 x2

Cable tie (11")



13 x20

Cable tie (7")



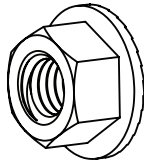
14 x4

Posi-Tap™

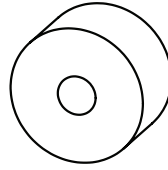
PARTS LIST AND HARDWARE IDENTIFICATION



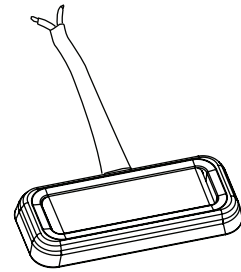
15 x4
M6 Flange Bolt



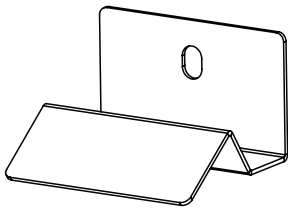
16 x14
5/16-18
Flange Nut



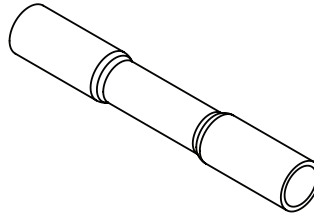
17 x4
Upper Mount
Spacer



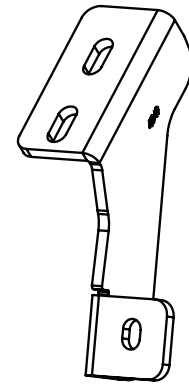
18 x4
LED Lamp



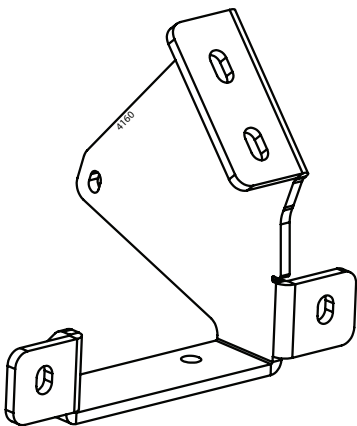
19 x4
LED Light Bracket



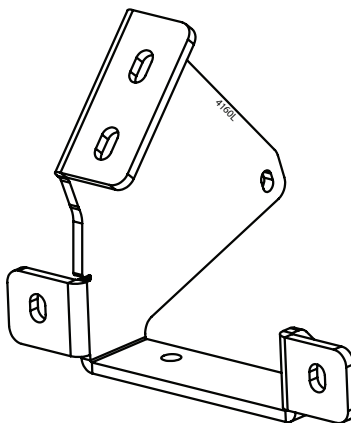
20 x8
Butt Connector



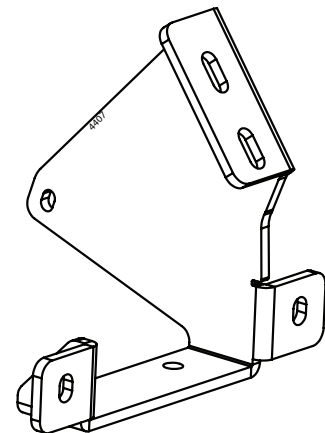
21 x2
Rail Support
Bracket # 4549



22
Linkage mounting
bracket REAR # 4160



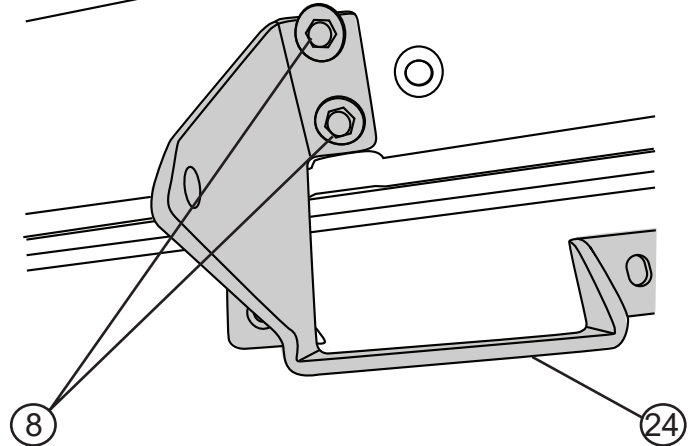
23
Linkage mounting
bracket REAR # 4160L



24 x2
Linkage mounting bracket,
FRONT # 4407

Install Front linkage mounting bracket (#24) (part# 4407 Front) using supplied Conical Washer bolts (#8). Use second set of mounting holes from front. Do not tighten to allow for adjustment. Take note of bracket orientation.

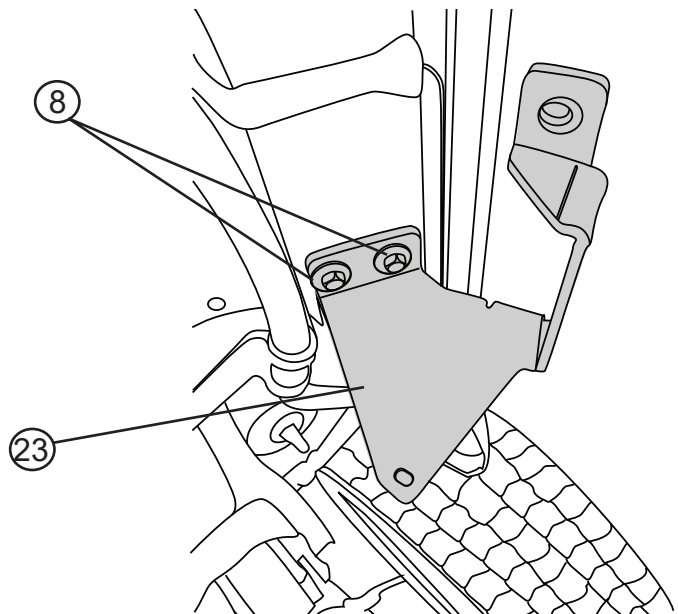
Driver side shown.



1

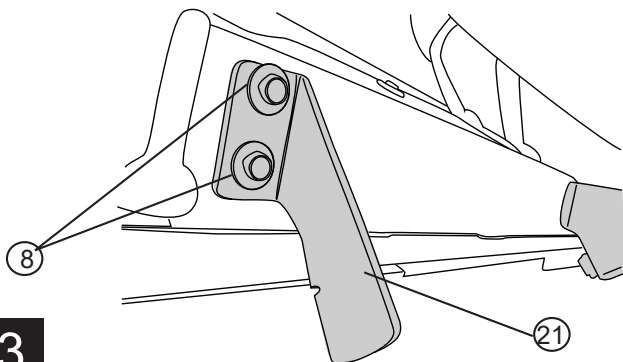
Install Rear linkage mounting bracket (#23) (part # 4160L Rear) using supplied Conical Washer bolts #8. Use last set of mounting holes. Do not tighten to allow for adjustment. Take note of bracket orientation.

Driver side shown.



2

Install Rail support bracket (#21), part # 4549 using supplied conical washer assembly in middle mounting position on body. Use supplied conical washer bolts #8. Do not tighten to allow for adjustment.



3

Repeat Bracket installation on passanger side. Note: Rear linkage mounting bracket (#22), part # 4160.

Do not tighten to allow for adjustment.

4

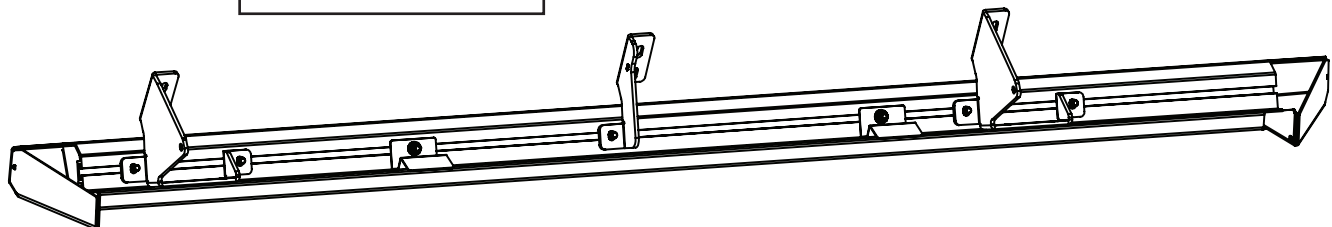
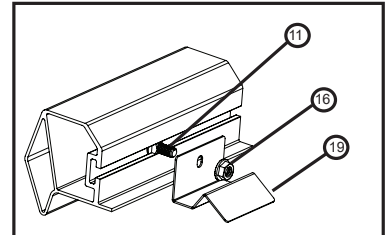
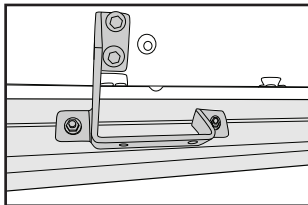
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Insert 7 Carriage Bolts (#11) into slot on Rail (#2). Insert from either end of rail. Add 2 Light Brackets (#21) on the 3rd and 5th bolt. Insert Flange Nut (#15) onto bracket tab to attach light brackets into position shown. Leave loose to allow for adjustment.

Align bolts with bracket and use supplied Flange nuts (#15) to attach Rail to brackets. Do not tighten to allow for adjustment. Insert Threaded nut plate onto rail pocket. Light brackets will need to go rearward of Front linkage bracket and forward of Rear linkage bracket. Leave loose to allow for adjustment.

Note: LED light bracket locations on image below.

Do not tighten this will allow for rail adjustment when mounted onto vehicle.



Rear Of Vehicle

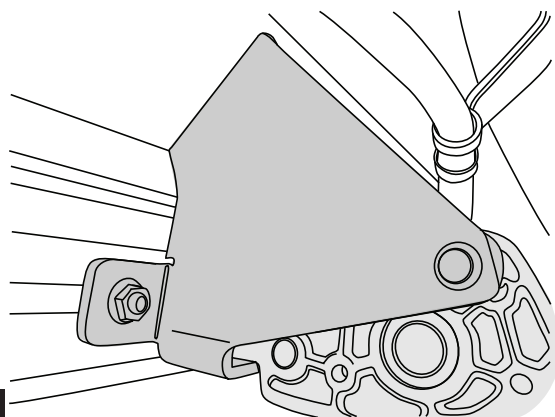
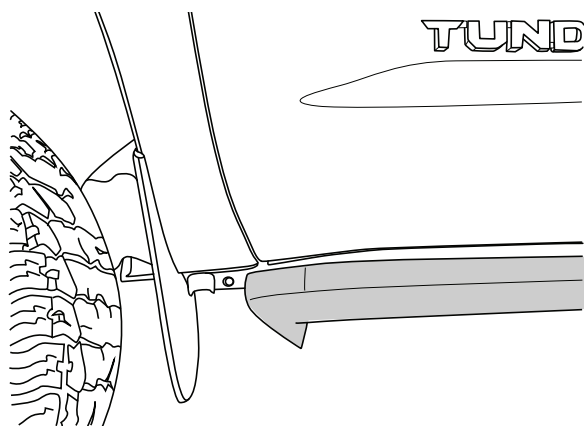
Front Of Vehicle

5

Note: Badge on rail sits towards the rear of the vehicle!

Slide rail into position as shown. Torque bolts from step 1-3 to 16ft-lbs. Next, torque flange nuts that attach rail to brackets to 16ft-lbs.

On Driver side mount Front drive linkage and rear idler linkage. Thread supplied Conical washer bolts (#8) into linkages. Install provided spacer (#17) and M6 flange bolt (#15) into upper mount as shown on both Drive and Idler linkages. Do not tighten.

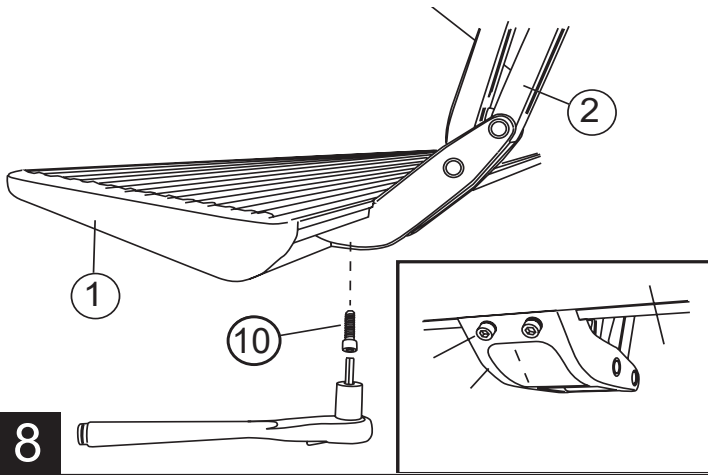


6

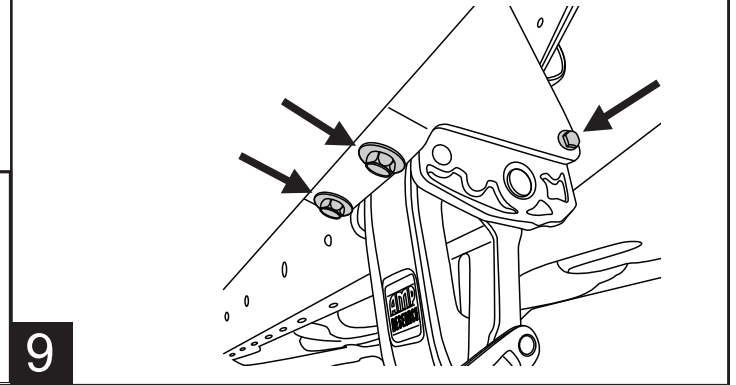
7

REALTRUCK AMP RESEARCH POWERSTEP XL™ – TOYOTA TUNDRA

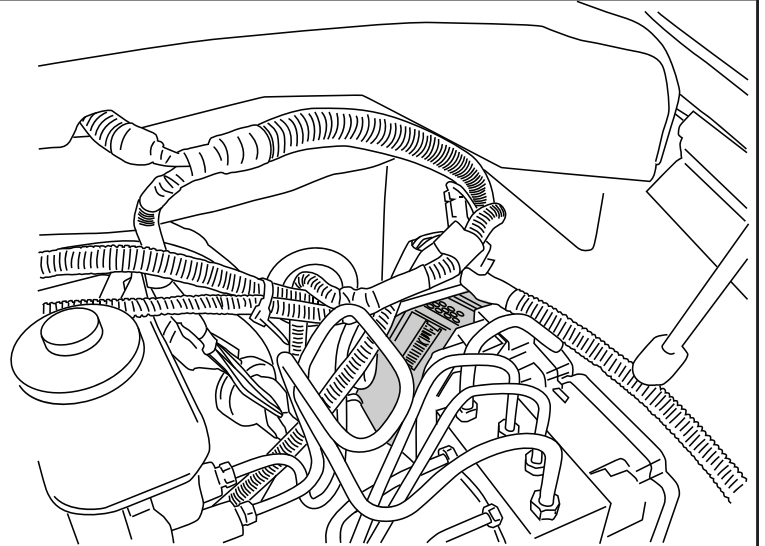
Slide mounting T-nut into position. Center Board in rail pocket. Tighten fasteners to 10ft-lb.



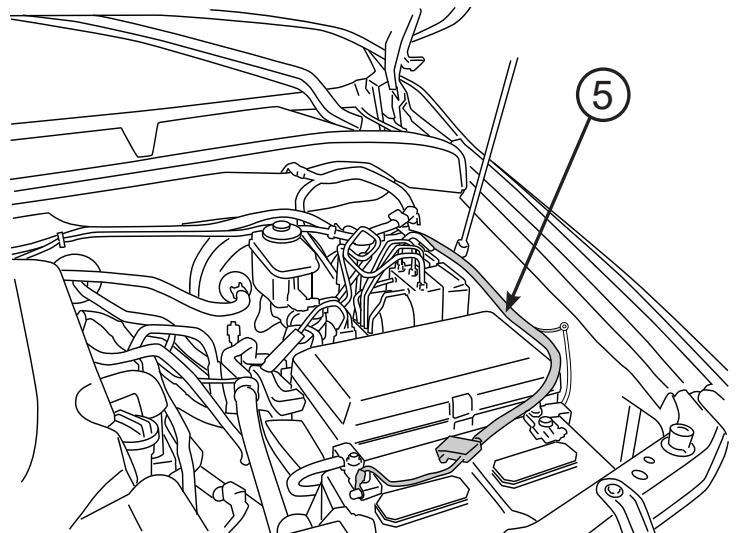
Using a 13 mm socket torque linkage bolts to 16ft-lbs. Next use a 10mm socket torque linkage spacer bolt (#17) to 8 ft-lbs. Once linkages are tight cycle board to verify steps deploy under own weight and clear rail endcaps.



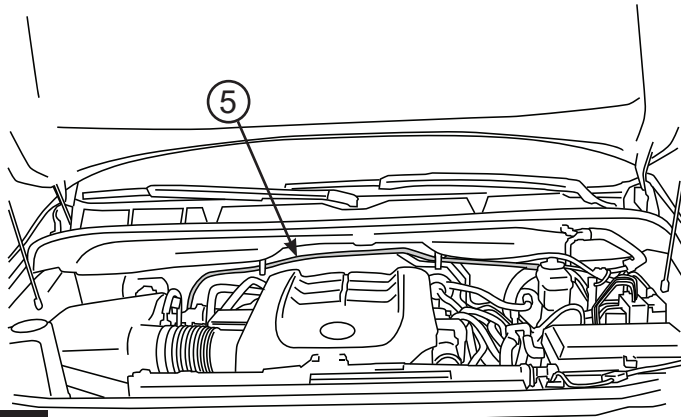
Install controller #6 under hood on driver side fender apron. Secure to factory wiring loom with 11" cable ties (#12).



Remove power fuse. Connect wire harness to controller and secure locking clip. Connect red power lead to positive battery terminal and black ground lead to grounding lug on fender apron.

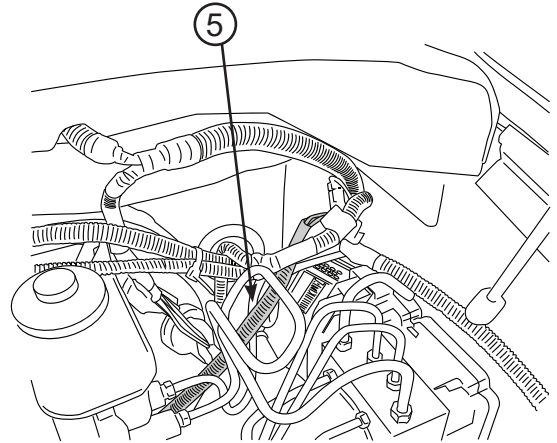


Route longest leg of wire harness across fire wall to passenger side and under vehicle outside of frame rail.



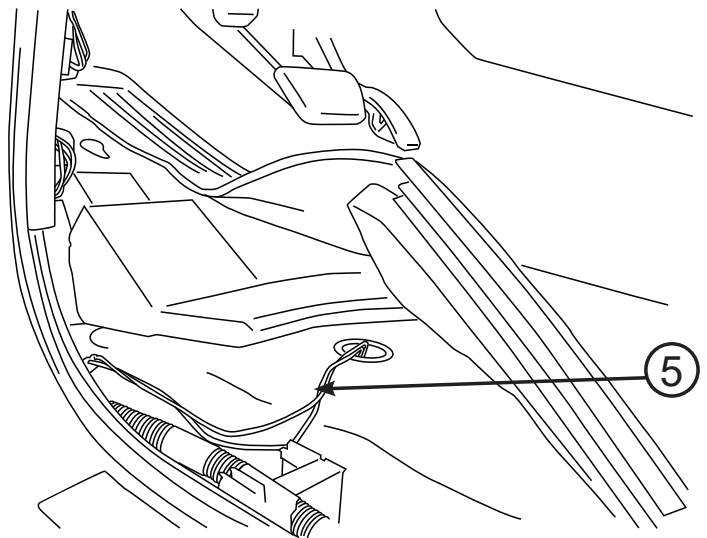
12

Route shorter leg of wire harness down driver side fender well and under vehicle outside of frame rail.

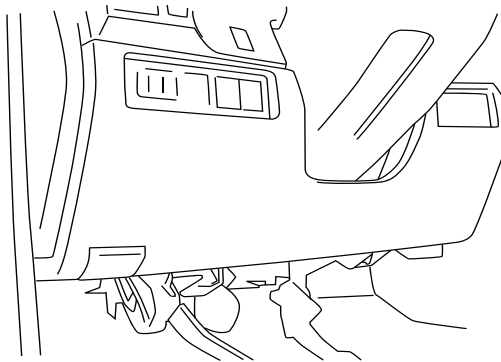


13

Remove driver and passenger front sill plates and kick panels. Pull up carpet. Locate rubber grommets under carpet in forward floorboards. Cut a slit in the rubber grommets and pass the trigger wires up through grommets under carpet on both the driver and passenger side.



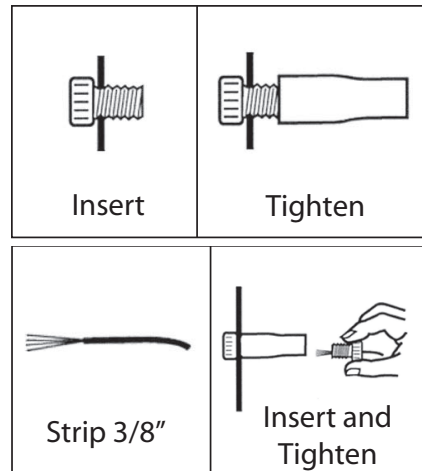
14



Remove trim panel below steering column

15

Posi-Tap™ instructions

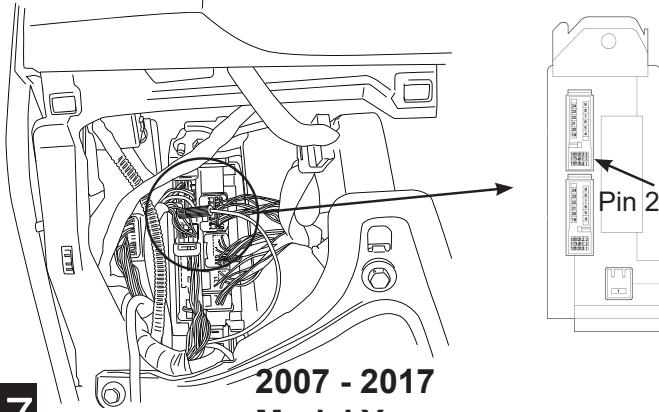


16

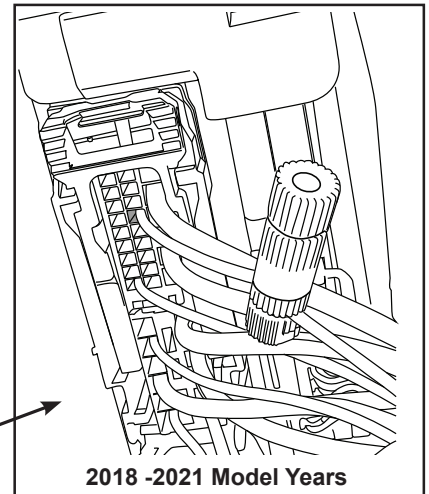
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2007 - 2017 model years: Locate main electrical junction box located under dash to the left of the steering column. Connect grey Power Step wire to 18 gage black or dark charcoal wire (*Driver Rear*) in pin 2 of upper left connector shown.

2018-2021 model years: Locate the 18 gage pink w/red stripe wire (*Driver Rear*) in Pin 24.



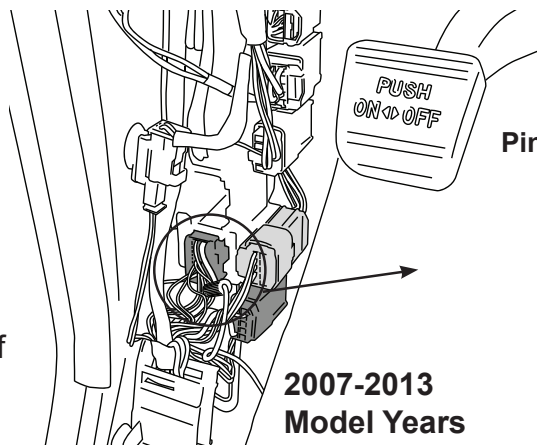
2007 - 2017 Model Years



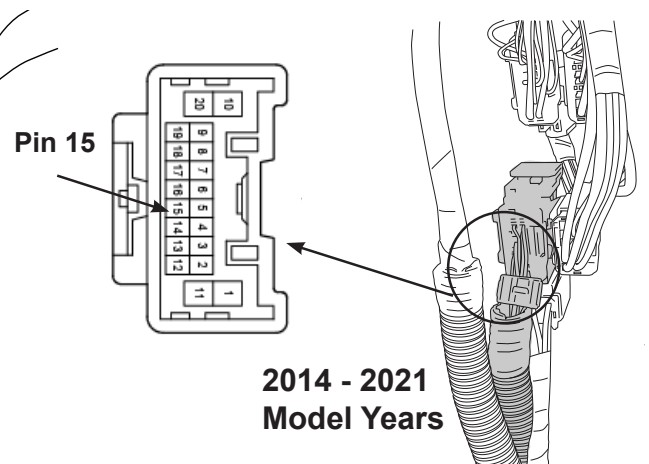
2018 -2021 Model Years

17

Locate 20 pin connector at bottom of panel on left. Connect blue Power Step wire to 18 gage blue wire (*Driver Front*) in pin 15 of connector shown. Plugs are located to the left of E Brake Pedal.



2007-2013 Model Years



2014 - 2021 Model Years

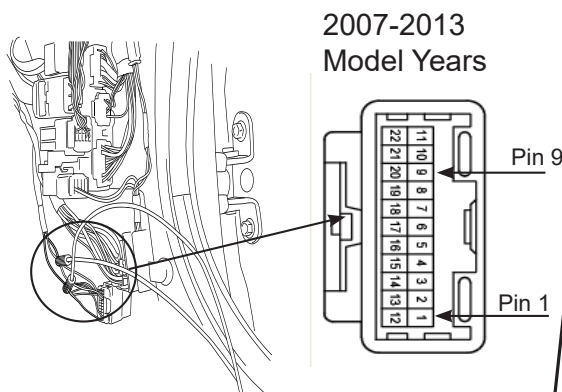
18

Locate the 22 pin connector at the bottom of the passenger side kick panel area. See pin connector locations for corresponding model years.

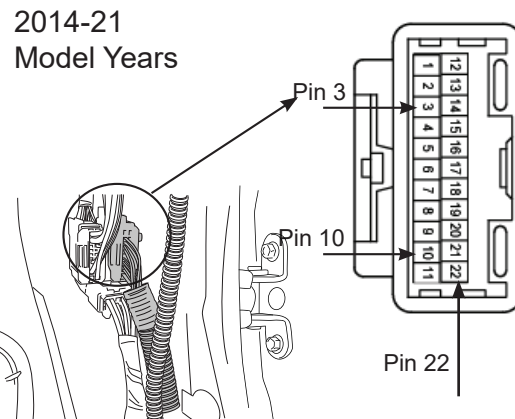
(07-13 Model yrs) plug color Grey Pin 1(*Passenger Rear*) wire color will be Blue and pin 9 (*Passenger Front*) wire will be White.

(2014-17 Model yrs) plug color white Pin 3 (*Passenger Rear*) wire color will be Tan and pin 10 (*Passenger Front*) wire will be Green.

(2018-21 Model yrs) plug color white Pin 3 (*Passenger Rear*) wire color will be Tan and pin 22 (*Passenger Front*) wire will be Green.



2007-2013 Model Years



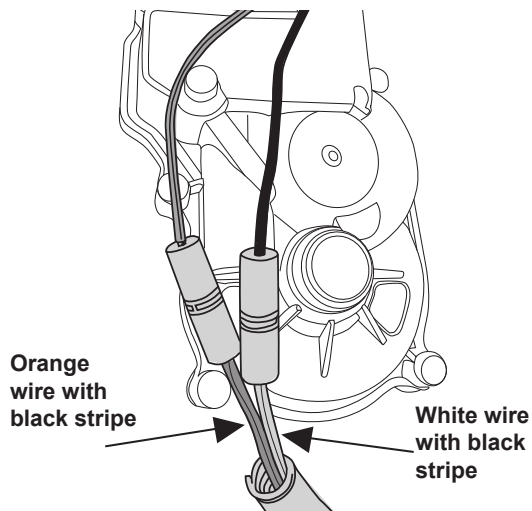
2014-21 Model Years

20

Before proceeding, see spin direction of the each motor than proceed with step A or B below. Use Method A for Driver & Passenger motors.

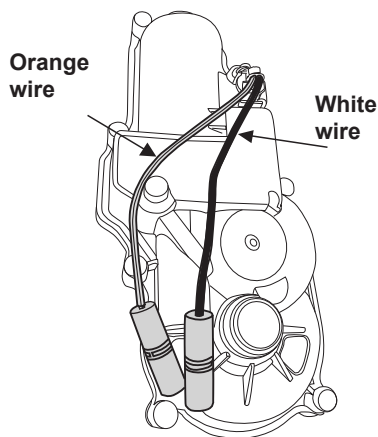
A. Motor spinning the shaft clockwise direction:

- 1) First, install one Posi-Tite® (9) onto white wire from the motor. See image on right.
- 2) Install second Posi-Tite® (9) onto orange wire from motor. See image on right.



- 3) Next, connect the white wire with black stripe from the wire harness to the other end of the Posi-Tite® (9) that is connected to the all white wire from first step above.

- 4) Connect the Posi-Tite® (9) the orange wire from the motor with the orange with black stripe wire from the harness.



Posi-Tite® Instructions

1. Strip 3/8"



2. Push

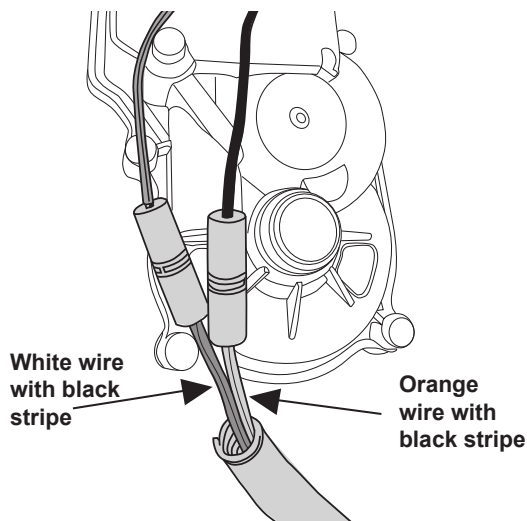


3. Tighten



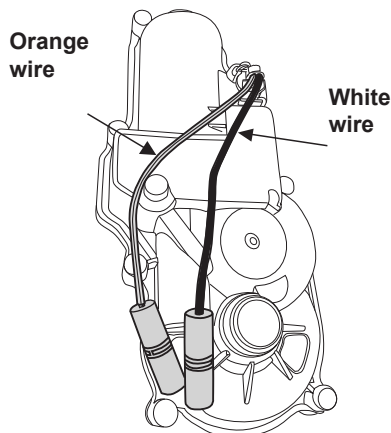
B. Motor spinning the shaft counter clockwise direction:

- 1) First, install one Posi-Tite® (9) onto white wire from the motor. See image on right.
- 2) Install second Posi-Tite® (9) onto orange wire from motor. See image on right.



- 3) Next, connect the orange wire with black stripe from the wire harness to the other end of the Posi-Tite® (9) that is connected to the all white wire from first step above.

- 4) Connect the Posi-Tite® (9) the orange wire from the motor with the white with black stripe wire from the harness.



Posi-Tite® Instructions

1. Strip 3/8"



2. Push

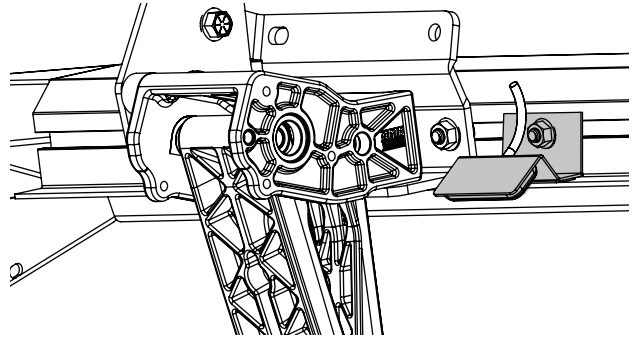
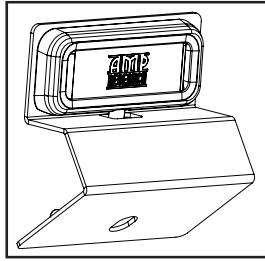


3. Tighten

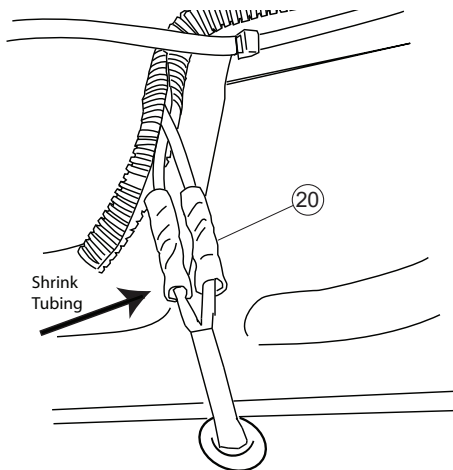


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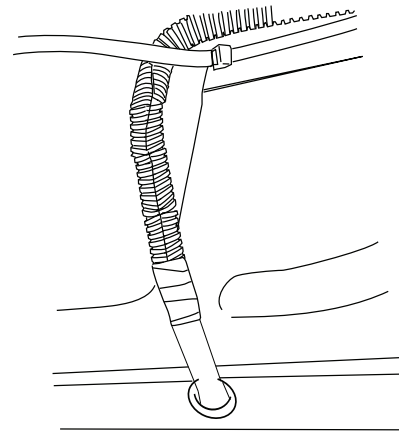
Affix LED Lamps (18) to Light Brackets (19) that are on rail. Slide brackets into desired position and tighten using 5/32" Allen key.



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



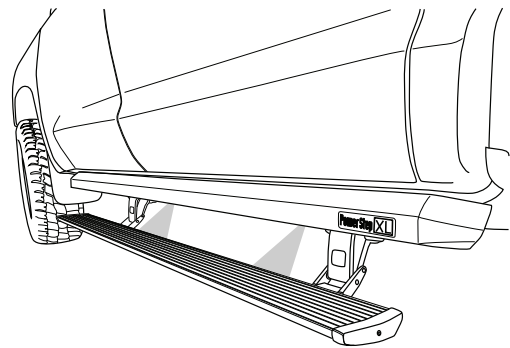
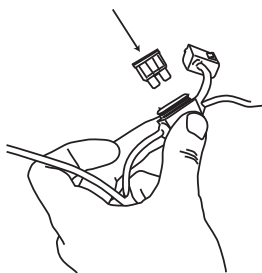
Close and wrap with conduit and electrical tape. Secure all loose wires with cable ties, with lamp wires pulled upward to avoid any wire snagging.



22

23

Reinstall fuse, then 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 reilluminated by closing and opening any door of vehicle.

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- 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.

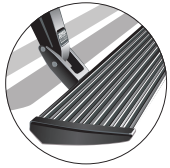
To view other RealTruck products that may be offered for your vehicle.

Please visit: www.realtruck.com

Rev 05.30.24

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

POWER-DEPLOYABLE RUNNING BOARDS OPERATION: RealTruck / 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.

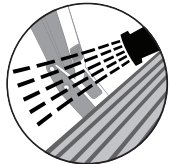
Automatic stop:

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

RealTruck / 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 by nature 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 REALTRUCK 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.



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

