#### INSTALLATION GUIDE

## AMP POWER Step

APPLICATION MODEL YR PART #

Ford Transit 2014-2016 75159-01A (all models)

#### **INSTALLATION TIME**

3-5 Hours

Professional installation recommended

#### SKILL LEVEL









4= Experienced

#### **TOOLS REQUIRED**

- Safety goggles
- ☐ Measuring tape
- ☐ Power Drill
- ☐ 1/8" Drill Bit
- ☐ 17/32" Drill Bit
- □ 10 mm socket
- ☐ 13 mm socket ☐ 9/16" wrench
- ☐ Ratchet wrench and extension
- Wire crimpers
- ☐ Wire stripper / cutter
- ☐ 3/16" hex key wrench (allen wrench)
- ☐ 4mm hex key wrench (allen wrench)
- Electrical tape

WARRANTY

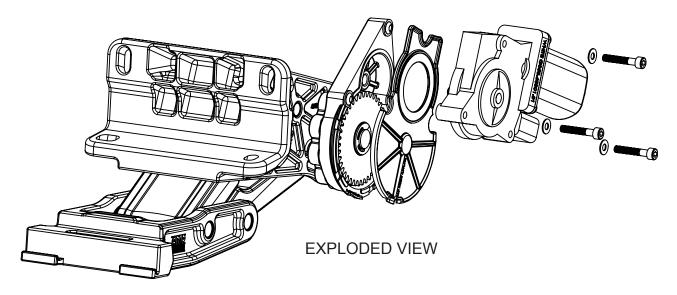
5-Year Limited Warranty

AMP RESEARCH TECH SUPPORT 1-888-983-2204 (Press 2) Monday - Friday, 6:00 AM - 5:00 PM PST

Invented, engineered and manufactured exclusively by AMP Research in the USA. May be covered by one of the following patents: 6,641,158; 6,830,257; 6,834,875; 6,938,909; 7,055,839; 7,380,807; 7,398,985; 7,584,975 ©2012 AMP Research. All rights reserved. Printed in USA.

#### **INSTALLATION GUIDE**

Attaching motor to Linkage assembly. To be assembled in Step 5.



- Motor
- Socket cap screw
- Washer
- Drive Gear Housing Cover

#### **CAUTION: HANDLE WITH CARE.**

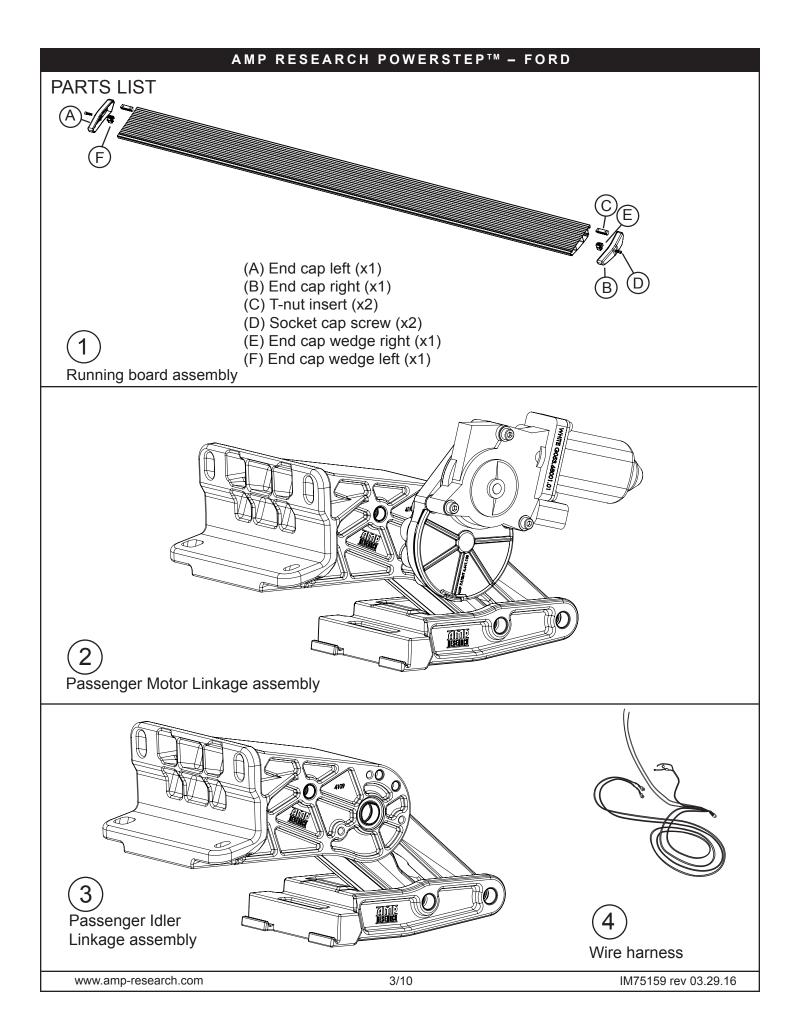
### The motor must be put on in Step 5 after the linkage is tightened to the body of the vehicle.

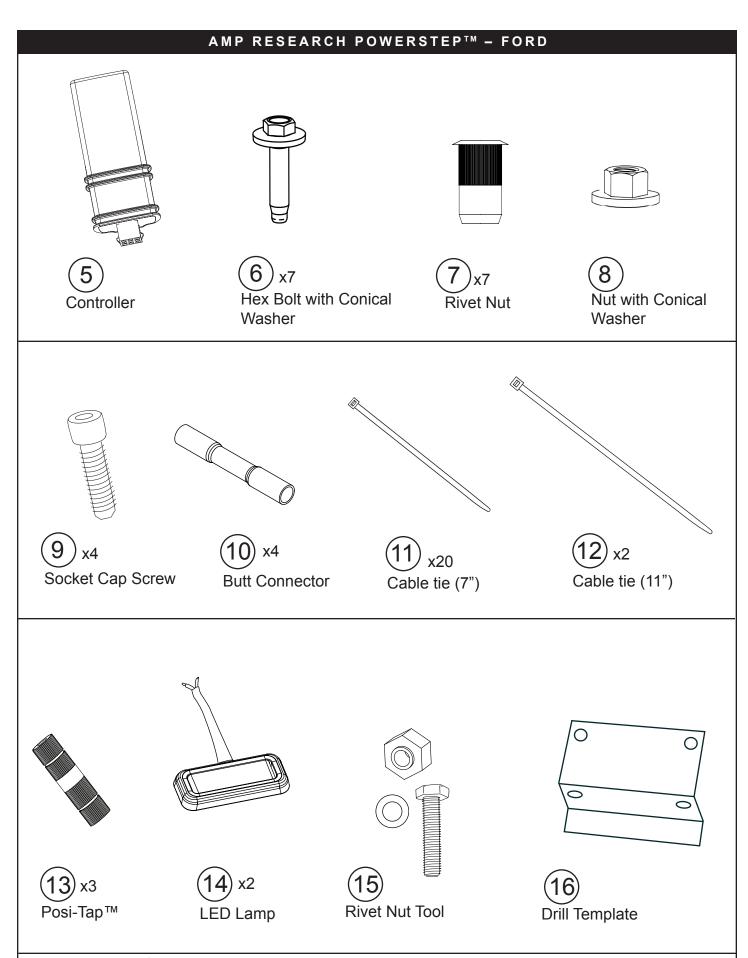
To ensure our customers receive all components with full integrity, we pack the motors separate from their linkage assemblies. This requires that the installer position and fasten the motor before continuing with the install. Please follow the instructions below and handle the assembly carefully.

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

#### Instructions:

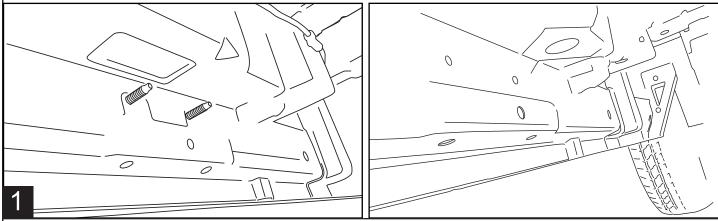
- 1. Position the gear cover in place as shown if not already in place.
- 2. Seat motor into position on the three mounting bosses. This may require an adjustment of the gear by moving the swing arms.
- 3. After seating into place, fasten the motor with the three motor mount screws with 4mm Hex Head.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



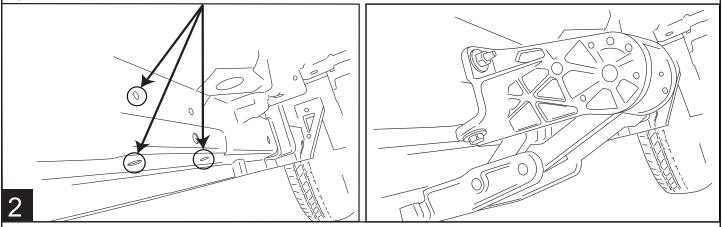


# AMP RESEARCH POWERSTEP™ - FORD May be attached to Relay. Relay with Lead Wires Double stick tape. **Spade Connector**

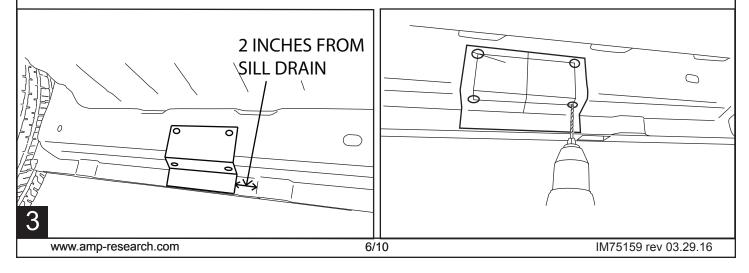
If equipped, remove factory fixed-step on the Passenger side. If no step is present, you may have studs and tapped holes present or just plain holes alone. If threaded studs and inserts are present attach the **Idler Linkage and skip to step 3.** If not, proceed to the next step before installing the **Idler Linkage**.



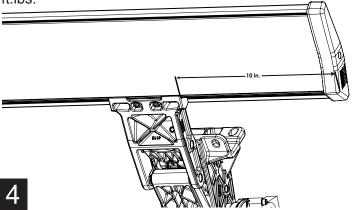
To attach the **Idler Linkage** to the rear factory-step mount location, when no studs/threaded inserts are present, the 3 holes need to be drilled to the proper size **17/32**" to install 3 rivnuts. Now install the **Idler Linkage** with M8 fasteners (3), install the upper bolt loosely, then tighten the bottom two bolts fully. Now, tighten the top.



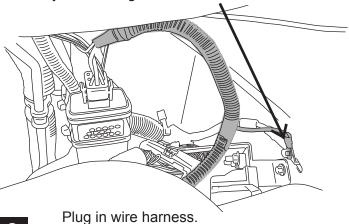
Now, for the **Drive Linkage** attach the drill template **2 inches** in front of the second sill drain from the front with tape`, mark 4 holes to drill. **Drill a 1/8" pilot hole, then a 17/32" hole at each location and install 4 Rivnuts using the supplied rivnut tool.** Install Drive Linkage with M8 fasteners (3), install the upper bolt loosely, then tighten the bottom two bolts fully. Now, tighten the top.



Slide the front mounting T-nut into position, place the board 10 inches from the Linkage front edge. Finger tighten only. Align the rear T-nut and bolt it to the rear linkage. Then tighten all 4 fasteners. Torque to 10 ft.lbs.

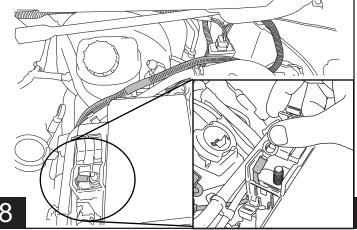


Using the two 11" cable ties, mount controller to the main harness, plug in the small connector, attach the 3 wire eyelet to the ground stud as shown.

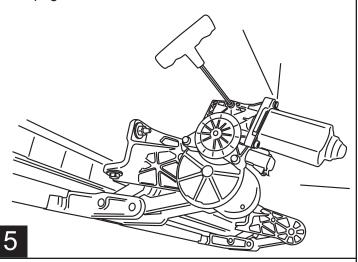


6 (Ensure that locking tabs engage.)

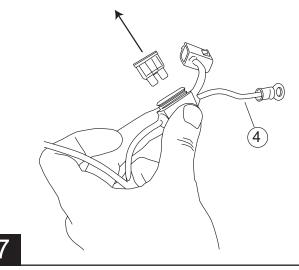
Attach power lead (RED wire) to positive pole on the Fuse block and Negative lead (BLACK wire) to negative pole on the fender. **CAUTION**: Do not ground wrench when engaged with nut.



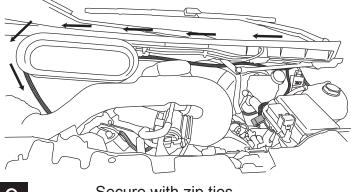
Install the motor onto the forward Linkage Assembly. See page 2 for motor installation instructions.



Remove fuse from harness.

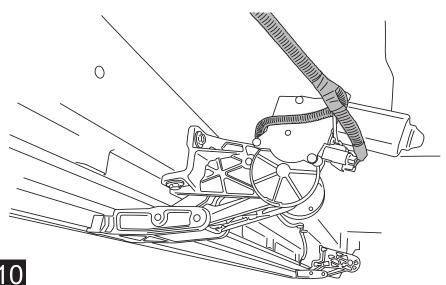


Route long end of wire harness above engine and down through passenger side wheel well. Zip tie the harness to cowling clips on fire wall. Keep away from exhaust components.



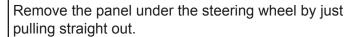
Secure with zip ties.

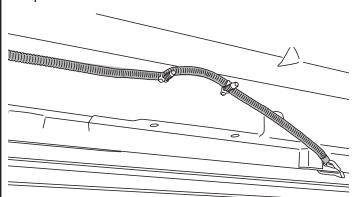
www.amp-research.com 7/10 IM75159 rev 03.29.16

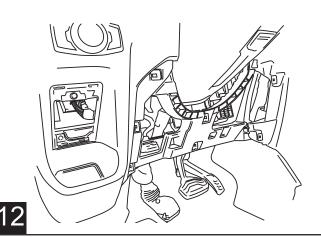


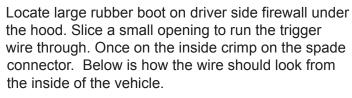
Route wire harness along the upper side of the floor/rocker structure directly towards the front linkage. Secure with zip ties. Keep away from exhaust components.

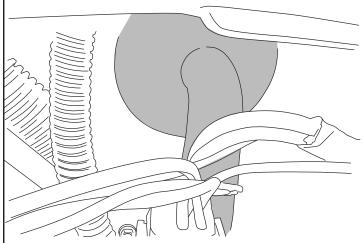
Route wire harness along the upper side of the floor/rocker structure towards to the rear light location. Secure with zip ties. Keep away from exhaust components.





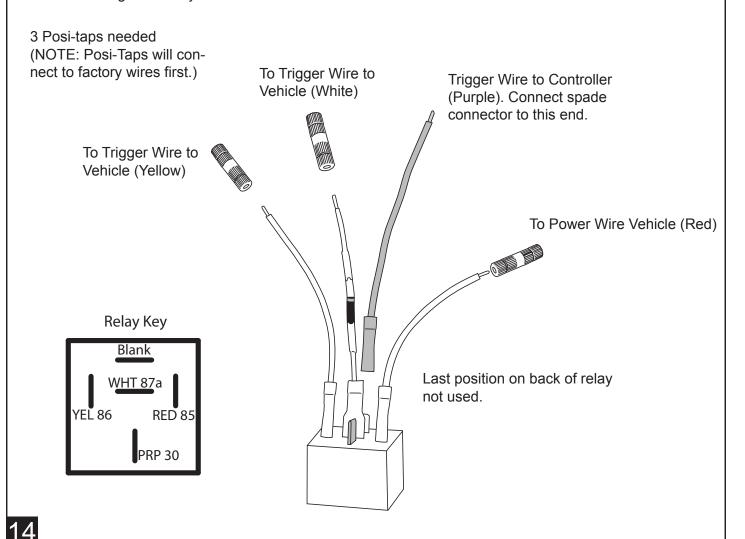




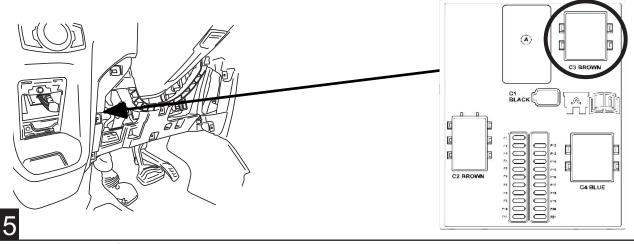


#### Relay Wiring to Harness Instructions

The relay wiring should be setup first to make install simple and correct. The purple trigger wire from the controller should be passed through the firewall before crimping on the spade connector. The wires attach according to the Key below.

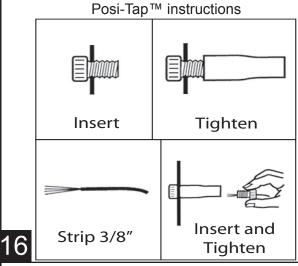


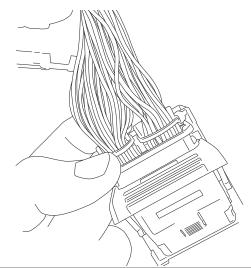
Now find the C3 Brown connector in the upper right and remove it from the fuse panel as shown. To remove the connector a grey locking lever must be pulled back first.



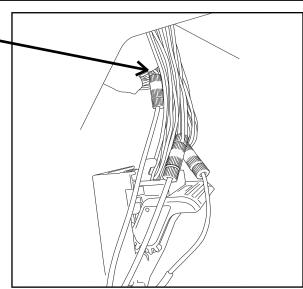
www.amp-research.com 9/10 IM75159 rev 03.29.16

Disconnect the rear large Brown connector and the harness clip to gain slack. Then in the left bundle, (that is zipped tied together and may need to be clipped), use Posi-Taps to attach the free end of the White and Yellow wires from the relay to the White and Yellow trigger wires in the harness near the connector.





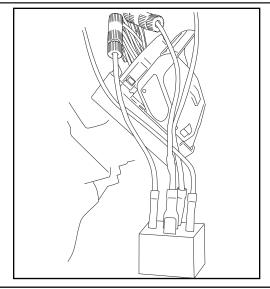
The adjacent harness to the left has the Red power wire to tap the Red Wire from the relay into. The wiring should look like this when complete.



<del>17</del>

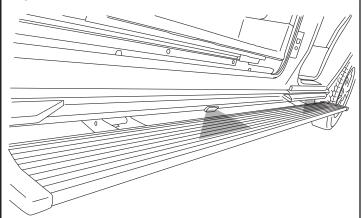
Now that the relay is all wired up, use the supplied double stick tape on the relay to attach it to the fuse block out of harms way. Reattach connector and lock, then install the panel from step 14.

NOTE: Plug reassembly is critical. Lever Arm of plug must be rotated completely locked in the open position to engage properly!

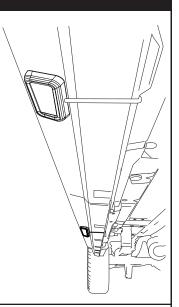


18

On the passenger side of the vehicle place the LED Lights at the center of each of the doors.

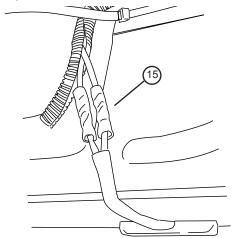


Affix lamps to rocker panel surface. Make sure the lamp is affixed to a clean, flat surface. The outside the rocker face is the ideal location affix the lamp just at its edge. If already equipped with a step, the rear door rocker will be different but the light shall be placed in the position

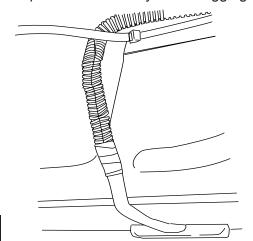


19

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

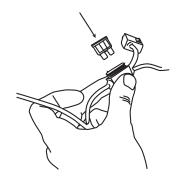


Close and wrap with conduit and electrical tape. Secure all loose wires with cable ties, with lamp wires pulled upward to avoid any wire snagging.



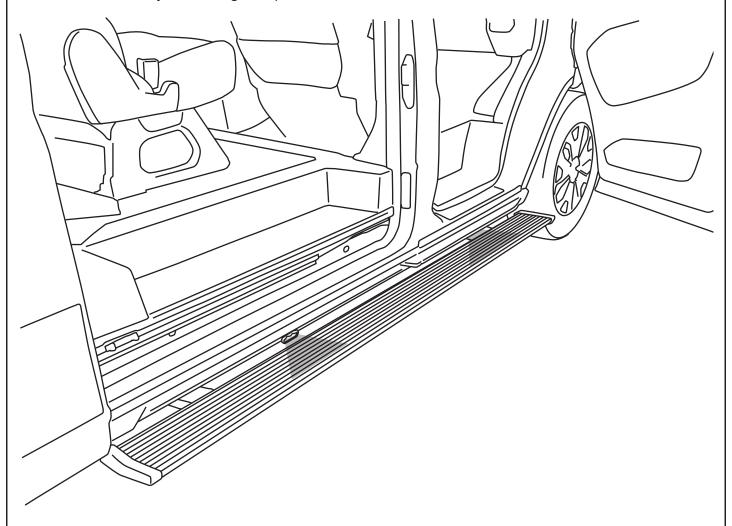
**4** 

Reinstall fuse.



**7**3

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.



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 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.