



Equipped with AEM® Dryflow™ Filter  
No Oil Required!

## INSTALLATION INSTRUCTIONS

### PART NUMBER: 21-696

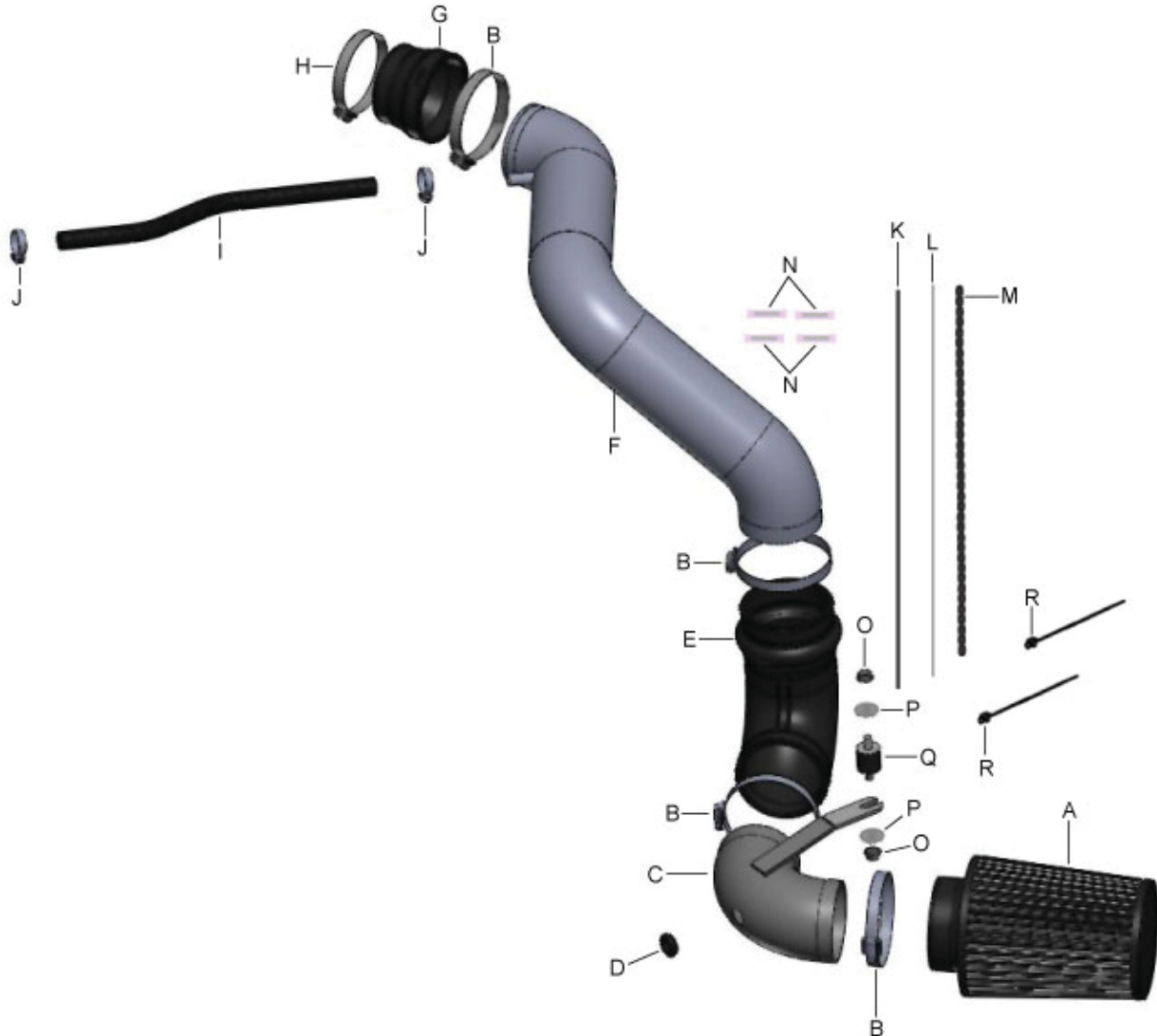
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2009-2010	DODGE	Challenger	V6-3.5L	C.A.R.B. E.O. D-670-6
2009-2010	DODGE	Charger	V6-3.5L	C.A.R.B. E.O. D-670-6

\* **NOTE:** Legal in California only for racing vehicles which may never be used upon a highway

## PARTS LIST

Description	Qty.	Part Number
A Element Parts Kit 3.5" X 7" Dry Ele.	1	21-2147DK
B 1/2" Bndhose Clamp, 3.15"-4.00"	4	9456
C Lower Pipe	1	2-1407
D Grommet; 1" OD,1/2"ID,1/2" Thk.	1	08064
E Hose, Hump 3.50/3.50x9.00" 90 Deg.	1	5-1037
F Upper Pipe	1	2-1419
G Hose, Adapter 3.00/3.50x2.5	1	5-1046
H 1/2" Bnd. Hose Clamp, 2.56"-3.50"	1	9448
I Hose; 1/2"ID X 11"L	1	5-5011
J Hose Clamp #6 Mini	2	08407
K Wire; 42", 20 Gage Black	1	8-30-2
L Wire; 42", 20 Gage White	1	8-30-3
M Convoluted Slit, 1/4" X 42"L Hi-Temp.	1	3-2042
N Connector; Perma-seal 22-18 Ga.	4	8-194
O Nut, M8 Hex Serrated	2	444.460.08
P Washer, 8mm Soft Mount	2	559960
Q Mount, Rubber 1" X 8mm	1	1228560
R Zip Tie, 6 Long	2	1-113



Read and understand these instructions **BEFORE** attempting to install this product. Failure to follow installation instructions and not using the provided hardware may damage the intake tube, throttle body and engine.

The AEM® intake system is a performance product that can be used safely during mild weather conditions. During harsh and inclement weather conditions, you must return your vehicle to stock OEM air box and intake tract configuration. Failure to follow these instructions will void your warranty.

## 1. Preparing Vehicle

- a. Make sure vehicle is parked on level surface.
- b. Set parking brake.
- c. If engine has run in the past two hours, let it cool down.
- d. Disconnect negative battery terminal.
- e. Do not discard stock components after removal of the factory system.

## 2. Removal of stock system



a. Remove the bolt securing the OEM air box and loosen the hose clamp at the throttle body.



b. Pull to remove the crank case breather hose from the nipple on the head cover.



c. Unplug the IAT sensor. To unplug the IAT sensor, slide the red tab back to unlock the latch on the plug, then press in on the latch and pull the plug off of the sensor.

**Grey tabbed connector:** Push the top of the gray tab in and simply pull off the connector.



d. Pull the rubber inlet hose off of the throttle body, then lift and remove the OEM air box assembly.



e. Carefully remove the IAT sensor from the OEM rubber inlet hose. Set the sensor aside for future use.



f. Raise the front of the vehicle with a jack. Refer to your owner's manual for proper jack and jack stand placement to properly support vehicle. Support your vehicle using properly rated jack stands before wheel removal or while working under the vehicle. **NEVER WORK UNDER A VEHICLE WITHOUT USING JACK STANDS.** In the wheel well area on each side, remove the 3 clips securing the belly pan.



g. From underneath the vehicle, remove the following: 3 clips, 7 screws, and 2 bolts from the front belly pan. Remove the front belly pan.



h. Locate and remove the 10mm bolt securing the lower intake resonator to the vehicle. Remove the resonator.

### 3. Universal IAT Extension Harness Kit Installation

a. Because the stock IAT connectors and wire colors may vary between vehicles of the same model year, the AEM® intake system includes a universal IAT extension harness kit.



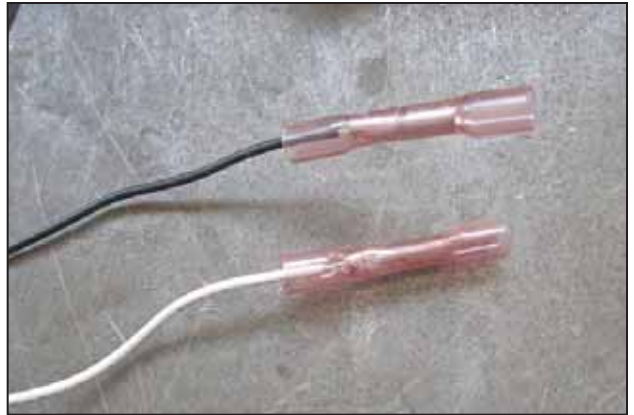
b. Slit open the insulation cover at the end of the IAT connector cable to expose the 2 wires. Cut the wires 1-2 inches [5 cm] below the connector.



c. Strip the ends of the wires at the connector.



d. Crimp on two Perma-Seal connectors as shown.



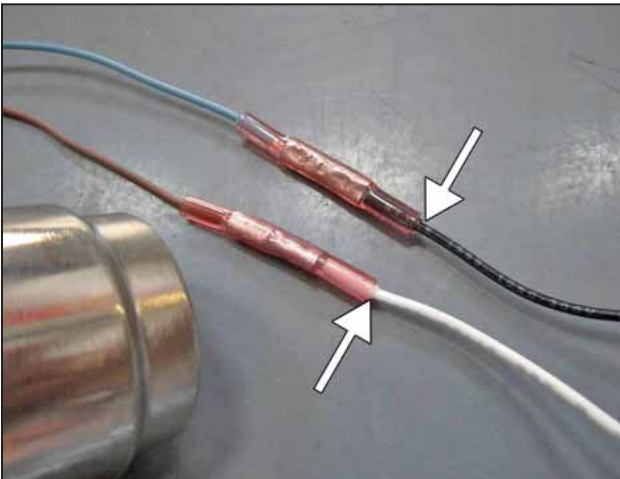
e. Crimp a Perma-Seal connector onto one end of the provided 20ga. black extension wire. Crimp another Perma-Seal connector onto one end of the provided 20ga. white extension wire as shown.



f. Strip the ends of the cut IAT wires near the throttle body.



g. Crimp the stripped stock wires into the new Perma-Seal connectors on the black and white wires. Since the color of the stock wires may vary with each vehicle, pay close attention and crimp the other ends of the new black and white wires to the correct color wires on the IAT connector.



h. Using a heat gun or other safe heat source, heat shrink each of the Perma-Seal connectors until clear sealant comes out of both ends of the connector.



i. Slip the protective convoluted split-loom wire cover over the newly extended IAT wire harness. Trim as needed.

#### 4. Installation of AEM® intake system.

a. When installing the intake system, do not completely tighten the hose clamps or mounting hardware until instructed to do so.



b. From underneath the vehicle, install the M8 rubber mount through the slotted hole in the sheet metal using one M8 washer and M8 nut. In order to leave some room for adjustment, do not fully tighten the M8 rubber mount.



d. From underneath the vehicle, hold the collapsed coupler firmly and insert it through the large hole in the sheet metal.



c. Hold the rubber coupler as shown, and squeeze the hump end of the coupler to collapse it into itself.



e. Make sure that the hump is all the way through the hole, then release the coupler and manipulate it until the sheet metal "snaps" into the groove in the coupler.



f. Orient the coupler as shown.



g. Install the grommet into the lower pipe. Attach the air filter with one #56 clamp as shown.



h. Carefully install the IAT sensor into the grommet.



i. Install the lower pipe assembly as shown, using one M8 washer, one M8 nut, and one #56 clamp.



j. Adjust the lower pipe assembly so that there is equal space between the filter, bumper support, fender liner, and marker lamp. When a good fit is achieved, tighten both nuts on the rubber mount and the #56 clamp.



k. At the top end of the upper intake tube, install the reducer coupler, one #56 clamp and one smaller #48 hose clamp. Loosely tighten the hose clamps.





l. Install 1 #56 hose clamp onto the lower elbow hump hose coupler as shown.



m. Route the new IAT extension harness underneath the existing OEM factory harness as shown. Use the 2 supplied zip ties to secure the extension harness and route the female connector down below to the lower intake tube.



n. From underneath the vehicle, plug the IAT connector onto the IAT sensor in the lower intake tube. Be sure to pull up the red lock tab to secure the connector (if applicable).



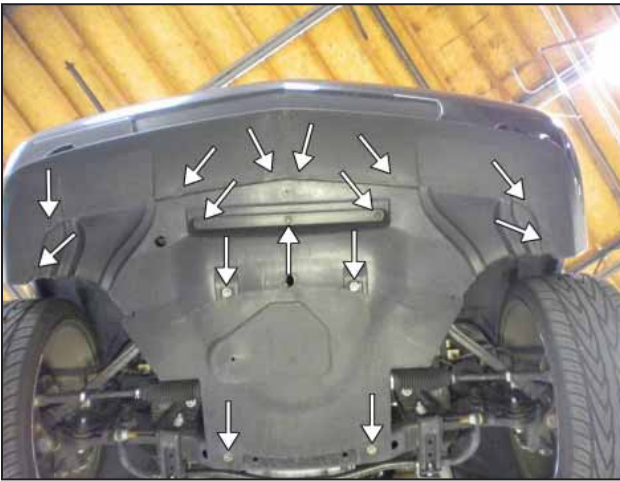
o. The lower end of the upper intake pipe should be inserted into the lower rubber coupler to a depth of about  $\frac{3}{4}$ " to 1". Use glass cleaner as a lubricant if needed. To allow fitment of the reducer coupler over the throttle body, slide the lower end further into the elbow coupler, then adjust the top end of the intake tube to fit over the throttle body. When a proper fit is achieved, pull up on the lower end of the tube to adjust the fit, and then tighten the 3 hose clamps.



p. Install the supplied 1/2" ID hose between the crank case vent on the head cover and the nipple on the upper intake pipe using the provided small hose clamps. Trim the hose if needed.



q. Remove the protective clear film from the AEM® intake system decal as shown.



r. Reinstall the belly pan and hardware (3 clips, 7 screws, and 2 bolts) that were removed in step 2g. Also install the 3 clips for each wheel well area that were removed in step 2f.



Stock air box system installed



AEM® intake system installed

## 5. Reassemble Vehicle

- a. Position the inlet pipes for the best fitment. Be sure that the pipes or any other components do not contact any part of the vehicle. Tighten the rubber mount, all bolts, and hose clamps.
- b. Check for proper hood clearance. Re-adjust pipes if necessary and re-tighten them.
- c. Inspect the engine bay for any loose tools and check that all fasteners that were moved or removed are properly tightened.
- d. Reconnect negative battery terminal and start engine. Let the vehicle idle for 3 minutes. Perform a final inspection before driving the vehicle.

## 6. CARB Sticker Placement

- a. The C.A.R.B. exemption sticker, (attached), must be visible under the hood so that an emissions inspector can see it when the vehicle is required to be tested for emissions. California requires testing every two years, other states may vary.

## 7. Service and Maintenance

- a. AEM Induction Systems requires cleaning the intake system's air filter element every 100,000 miles. When used in dusty or off-road environments, our filters will require cleaning more often. We recommend that you visually inspect your filter once every 25,000 miles to determine if the screen is still visible. When the screen is no longer visible some place on the filter element, it is time to clean it. To clean, purchase our Synthetic air filter cleaner, part number 99-0624 and follow the easy instructions.
- b. Use window cleaner to clean your powder coated AEM® intake tube.

**NOTE: DO NOT USE aluminum polish on powder coated AEM® intake tubes.**

For technical inquiries  
e-mail us at  
sales@aemintakes.com  
or  
call us at  
800.992.3000

## AEM Air Intake System Warranty Policy

AEM® warrants that its intake systems will last for the life of your vehicle. AEM will not honor this warranty due to mechanical damage (i.e. improper installation or fitment), damage from misuse, accidents or flying debris. AEM will not warrant its powder coating if the finish has been cleaned with a hydrocarbon-based solvent. The powder coating should only be cleaned with a mild soap and water solution. Proof of purchase of both the vehicle and AEM intake system is required for redemption of a warranty claim.

This warranty is limited to the repair or replacement of the AEM part. In no event shall this warranty exceed the original purchase price of the AEM part nor shall AEM be responsible for special, incidental or consequential damages or cost incurred due to the failure of this product. Warranty claims to AEM must be transportation prepaid and accompanied with dated proof of purchase. This warranty applies only to the original purchaser of product and is nontransferable. Improper use or installation, use for racing, accident, abuse, unauthorized repairs or alterations voids this warranty. AEM disclaims any liability for consequential damages due to breach of any written or implied warranty on all products manufactured by AEM. Warranty returns will only be accepted by AEM when accompanied by a valid Return Merchandise Authorization (RMA) number. Credit for defective products will be issued pending inspection. Product must be received by AEM within 30 days of the date RMA is issued.

If you have a warranty issue, please call (800) 992-3000 and our customer service department will assist you. A proof of purchase is required for all AEM warranty claims.