



Equipped with AEM® Dryflow™ Filter
No Oil Required!

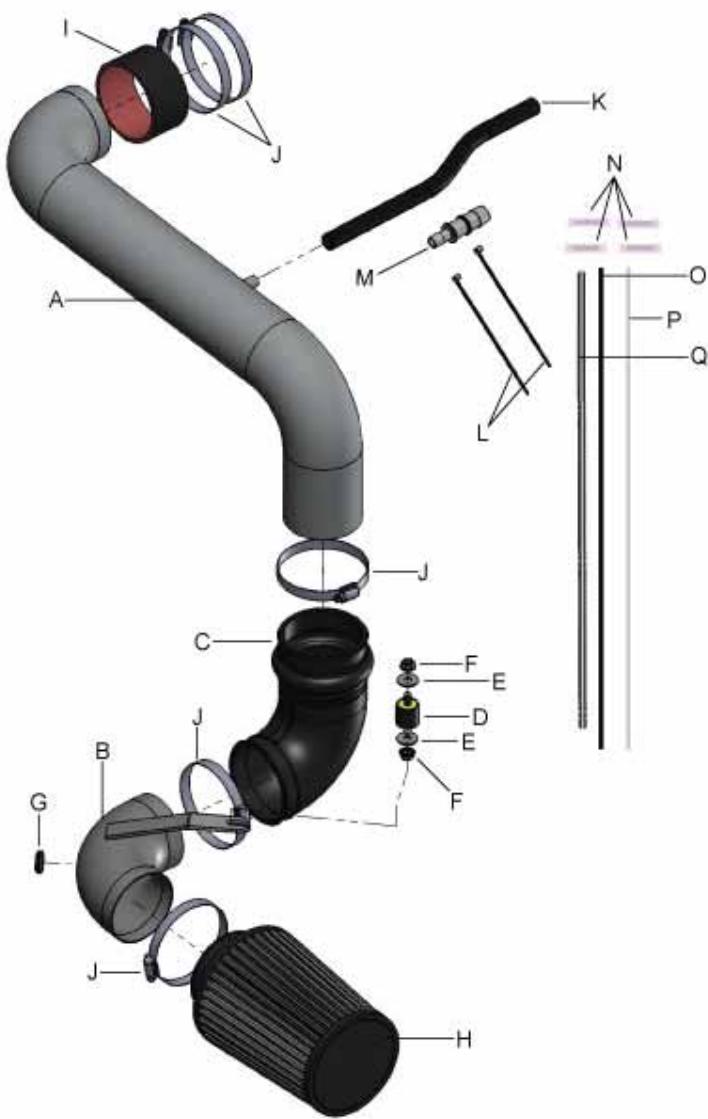
INSTALLATION INSTRUCTIONS

PART NUMBER: 21-8223

2008-2010	DODGE	Challenger	V8-6.1L	SEE * NOTE
2009-2010	DODGE	Challenger	V8-5.7L	SEE * NOTE
2009-2010	DODGE	Charger	V8-6.1L	SEE * NOTE
2009-2010	DODGE	Charger	V8-5.7L	SEE * NOTE

PARTS LIST

Description	Qty.	Part Number
A Upper Pipe	1	2-1406
B Lower Pipe	1	2-1407
C Hose, Hump 3.50/3.50x9.00" 90 Deg.	1	5-1037
D Mount, Rubber 1" X 8mm	1	1228560
E Washer, 8mm Soft Mount	2	559960
F Nut, M8 Hex Serrated	2	444.460.08
G Grommet, IAT	1	8-122
H Air Filter Assy. 3.5" X 7" Dry Ele.	1	21-2147DK
I Hose, Silicone 3.50x2" Black	1	5-351
J 1/2" Bnd. Hose Clamp, 3.15"-4.00"	5	9456
K Hose; 1/2"ID X 14'L	1	5-5014
L Zip Tie, 6 Long	2	1-113
M Hose Adapter, 3/4" X 1/2"	1	8-146
N Connector; Perma-Seal 22-18 Ga.	4	8-194
O Wire, 20Ga. Black, 42in	1	8-30-2
P Wire, 20Ga. White, 42in	1	8-30-3
Q Split Loom Flexible Wire Cover, 42in	1	3-2042



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.

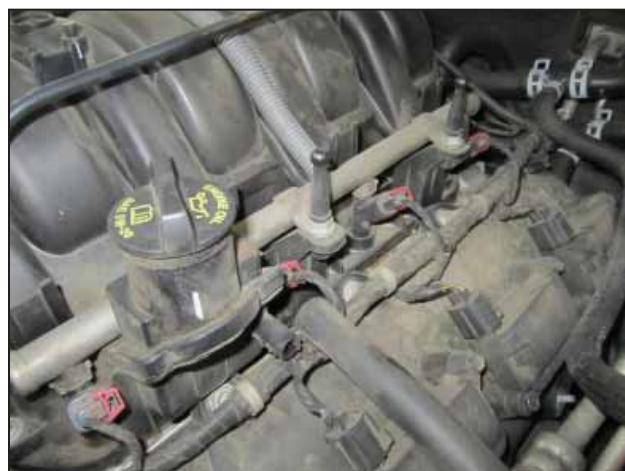
1. Preparing Vehicle

- 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 all negative battery terminals.
- e. 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.
- f. Do not discard stock components after removal of the factory system.

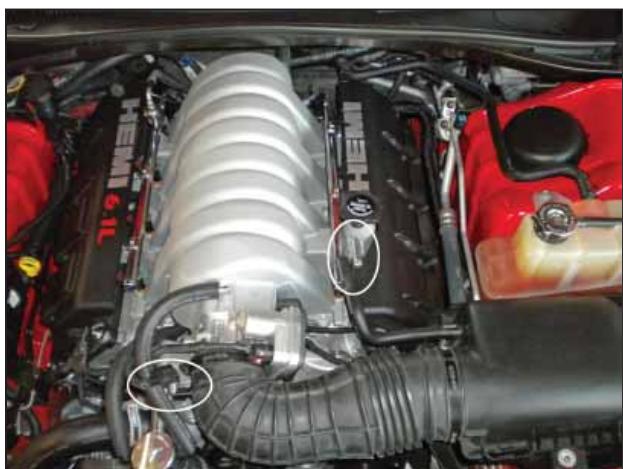
2. Removal of stock system



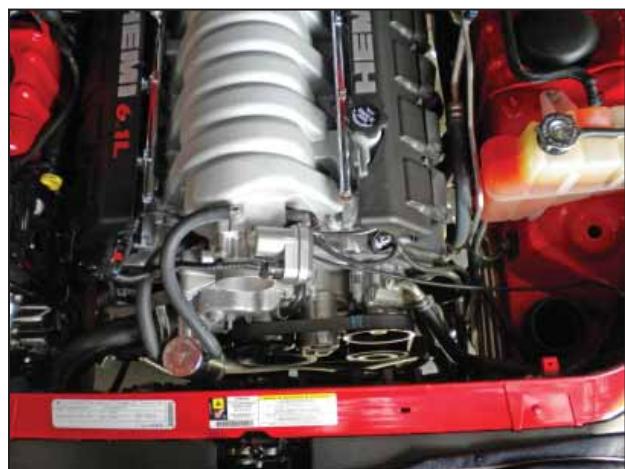
- a. Remove the bolt securing the OEM air box and loosen the hose clamp at the throttle body.



- b. Pull to remove the crankcase 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. For "grey" tabbed connectors, push the top of the gray tab in and simply pull the connector off.



- 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.



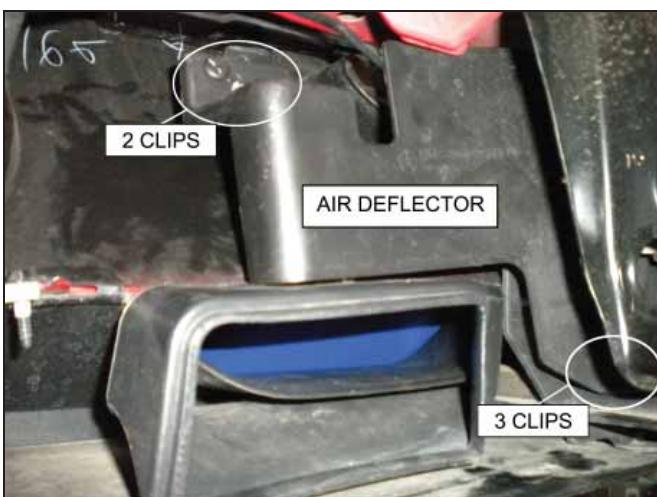
f. In the wheel well area on each side, remove the 3 clips securing the belly pan.



g. From underneath the car, remove: 3 clips, 7 screws, and 2 bolts from the belly pan. (May vary with each vehicle.)



h. Remove the belly pan.



i. For maximum performance from your intake system, you may choose to remove the air deflector. If equipped, the air deflector will be located behind the lower grill on the driver side. Removing this will provide additional cold air flow to the air filter.



j. To remove the air deflector, remove the five plastic rivets securing it to the fascia. The rivets can be removed by pulling the center pin out from the back side of the rivet.

3. Installation of Lower 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 car, install the M8 rubber mount through the slotted hole in the sheet metal, secure with 1 M8 washer and nut. Do not completely tighten the M8 nut, this will allow room for adjustment.

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



d. From underneath the car, hold the collapsed coupler firmly, then insert it into the large hole in the sheet metal.

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, and attach the filter with one #56 clamp as shown.



h. Carefully install the IAT sensor into the grommet.



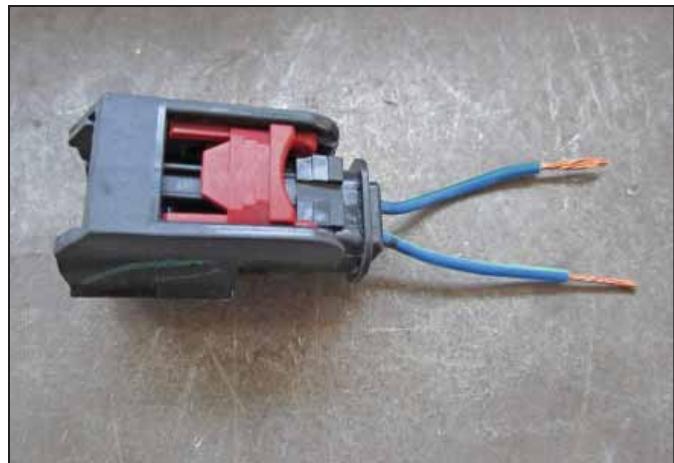
i. Install the lower pipe assembly as shown using one M8 washer, one M8 nut, and one #56 clamp.



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.

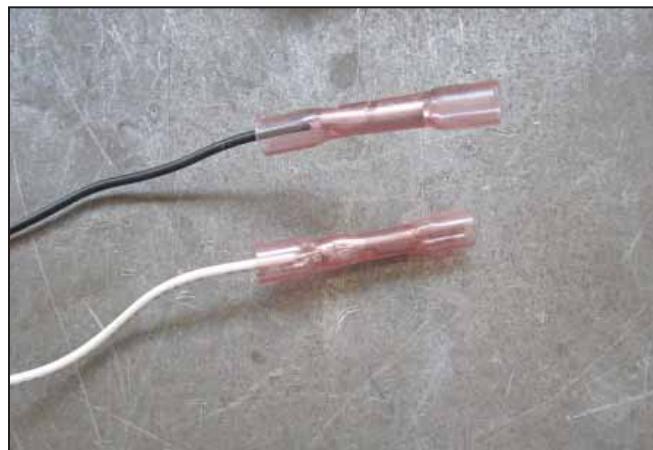
4. AEM® Universal IAT Extension Harness Kit Installation

- a. Because the stock IAT connectors and wire colors may vary between Dodge vehicles of the same model year, your AEM® intake system includes a universal IAT extension harness kit. This kit must be spliced into the existing wiring.



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 a perma-seal connector onto each of the IAT connector wires as shown.

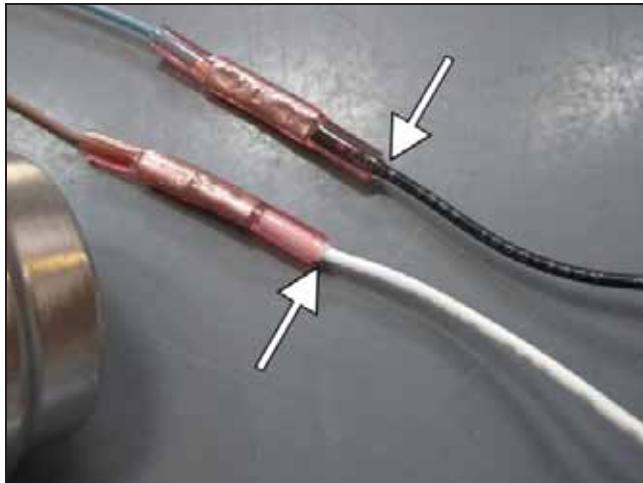
e. Strips both ends of the black and white 20ga wires. Crimp a perma-seal connector onto one side of the black 20ga. and white 20ga. extension wires.



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



g. Crimp the stripped stock wires into the perma-seal connectors of the black and white extension wires. Because the color of the stock wires may vary with each vehicle pay close attention to the following process. Crimp the IAT connector wires to the opposite end of the black and white extension wires, but ensure that the IAT wire colors are properly matched.



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.



j. Route the IAT extension harness underneath the throttle body and towards driver's side of the engine.



k. Route the IAT harness extension and attach it as shown with the two zip ties. Position the female IAT connector next to the lower intake tube.



l. From underneath the vehicle, plug the IAT connector onto the IAT sensor in the lower intake tube. Be sure to pull the red lock tab "up", to secure the connector.

5. Installation of Upper Intake System

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



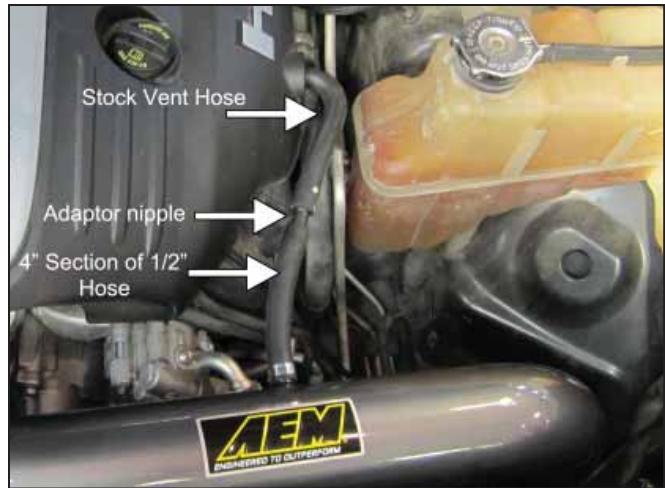
b. Loosely install a #56 hose clamp over the upper opening of the elbow hump hose.

c. Install the silicone coupler and two #56 clamps onto the throttle body. Slide the coupler all the way onto the throttle body and secure it by tightening one of the #56 clamps.



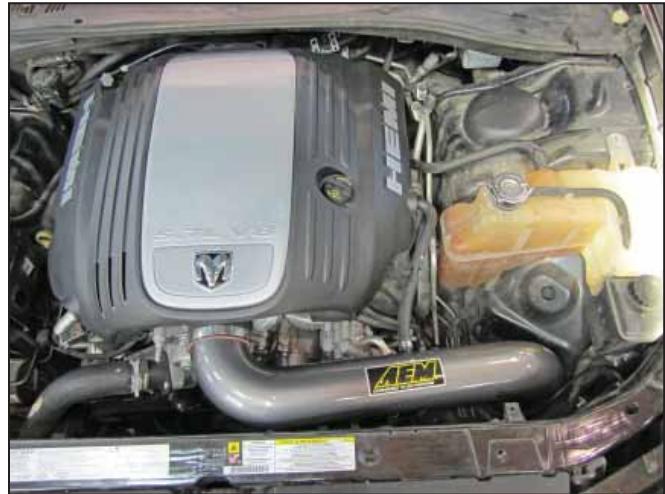
d. Insert the lower end of the upper intake pipe into the rubber coupler, and then carefully angle the other end into the throttle body coupler. The clamp on the rubber coupler may need to be extra loose to achieve this.

e. The lower end of the pipe should be inserted into the rubber coupler to a depth of about $\frac{3}{4}$ " to 1". Slide the pipe all the way into the throttle body coupler until it bottoms out. When proper fit is achieved, tighten the two remaining clamps.



f. For Most Applications: Install the supplied $\frac{1}{2}$ " ID hose between the crankcase vent on the head cover and the nipple on the upper intake pipe. Secure the $\frac{1}{2}$ " hose with two small hose clamps.

g. On some 5.7L engines: Connect the stock crankcase vent hose to the supplied plastic adaptor nipple. Connect a 4" section of the $\frac{1}{2}$ " ID hose onto the other end of plastic adaptor nipple. Connect the hose to the intake pipe and secure with the small hose clamps as shown.



h. Install the belly pan with the 9 clips, 7 screws, and 2 bolts removed in steps 5 and 6.

AEM® intake system installed

6. Reassemble Vehicle

- 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.
- Check for proper hood clearance. Re-adjust pipes if necessary and re-tighten them.
- Inspect the engine bay for any loose tools and check that all fasteners that were moved or removed are properly tightened.
- Reconnect negative battery terminals and start engine. Let the vehicle idle for 3 minutes. Perform a final inspection before driving the vehicle.

7. Service and Maintenance

- It is recommended that you service your AEM® Dryflow™ filter every 20,000 miles for optimum performance. Use AEM Dryflow cleaning kit part # 21-110.
- Use aluminum polish to clean your polished AEM intake tube.
- Use window cleaner to clean your powder coated AEM intake tube. (**NOTE: DO NOT USE aluminum polish on powder coated AEM intake tubes**)