



Equipped with AEM® Dryflow™ Filter  
No Oil Required!

# INSTALLATION INSTRUCTIONS

## PART NUMBER: 21-8218

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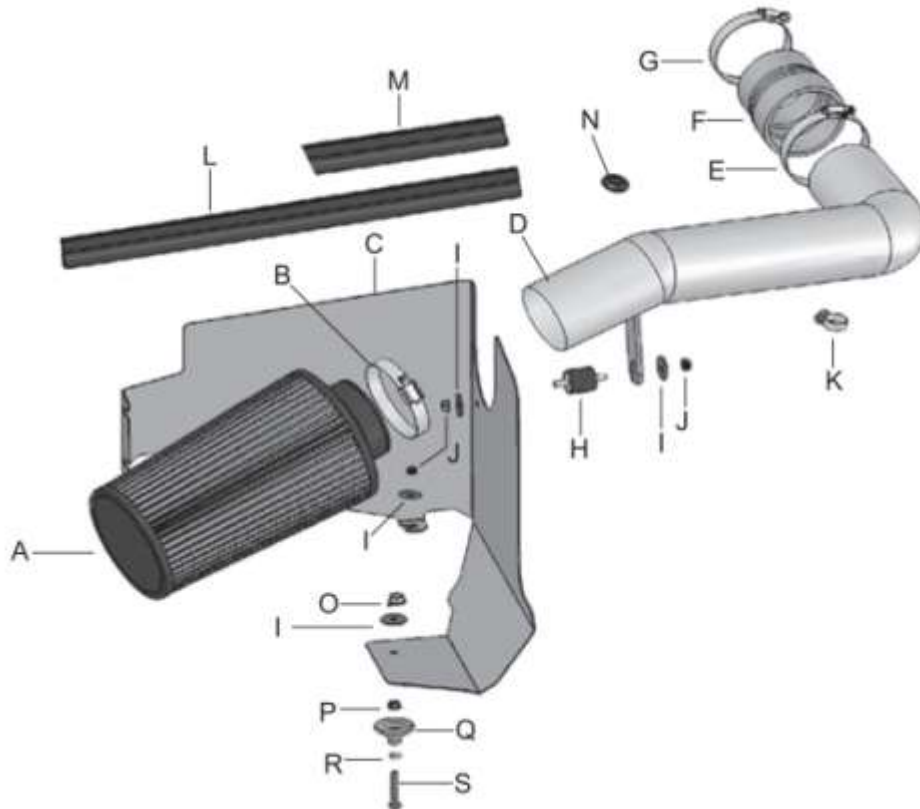
2007 DODGE Nitro V6-3.7L

C.A.R.B. E.O. # D-670

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

## PARTS LIST

	Description	Qty	Part Number
A	Air Filter Assy. 3.00 X 9" Dry Ele.	1	21-2039DK
B	1/2" Bnd. Hose Clamp,2.90"-3.75"	1	9452
C	Heat Shield	1	20-8218
D	Inlet Pipe	1	2-82181
E	1/2" Bnd. Hose Clamp, 2.56"-3.50"	1	9448
F	Hose, Adapter 2.75/3.00 X 3" Bl.	1	5-273
G	1/2" Bnd. Hose Clamp, 2.31"-3.25"	1	9444
H	Mount, Rubber 1" X 6mm	1	1228599
I	Washer, 6mm Soft Mount	4	559999
J	Nut, M6 Hex Serrated	3	444.460.04
K	Hose Clamp, 1"	1	99024.032
L	Edge Trim, 12"	1	8-4012
M	Edge Trim, 5"	1	8-4005
N	Grommet,1/2"	1	784634
O	Nut, 1/4-20 Nylock	1	1-2074
P	Nut, 1/4-20	1	1-2073
Q	Stand, Aluminum	1	2-670
R	Washer, 1/4 SAE Flat	1	1-3028
S	Bolt, Hex 1/4-20 X 1 3/4	1	1-2072



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.

### 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



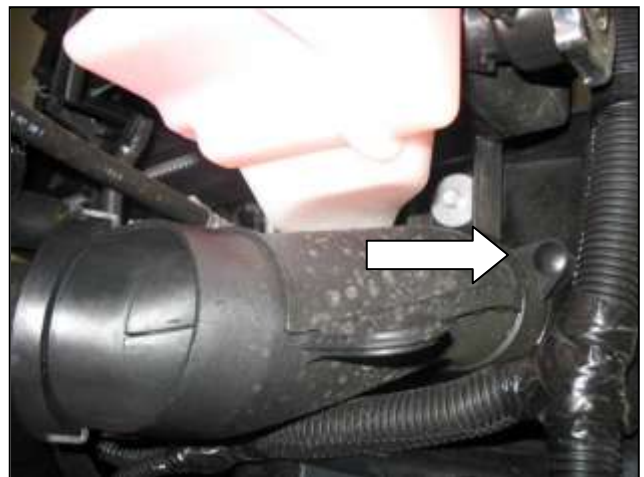
a. Disconnect the Inlet Air Temperature (IAT) sensor connector. Push up the on the release (red) and depress the connector (black).



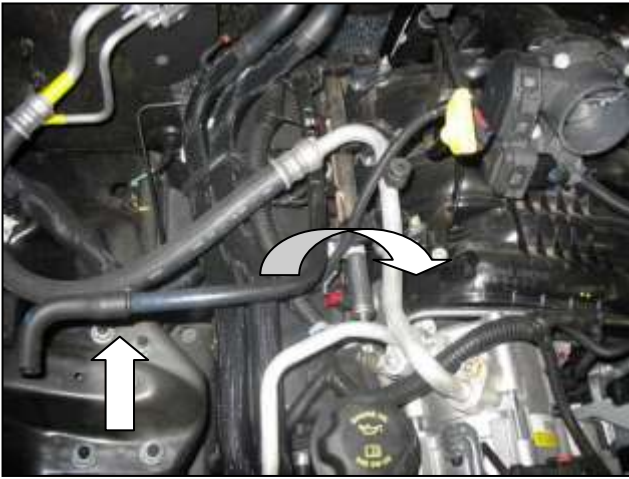
b. Loosen the hose clamp at the throttle body.



c. Remove the PCV breather tube from the air box. Remove the air box and inlet tube.



d. Remove the air duct by removing the push-in tab.



e. The breather hose will need to be rotated so that the outlet is on the throttle body side.



f. The breather hose should be positioned as shown. The hose outlet should sit vertical.

**3. Installation of AEM® intake system.**

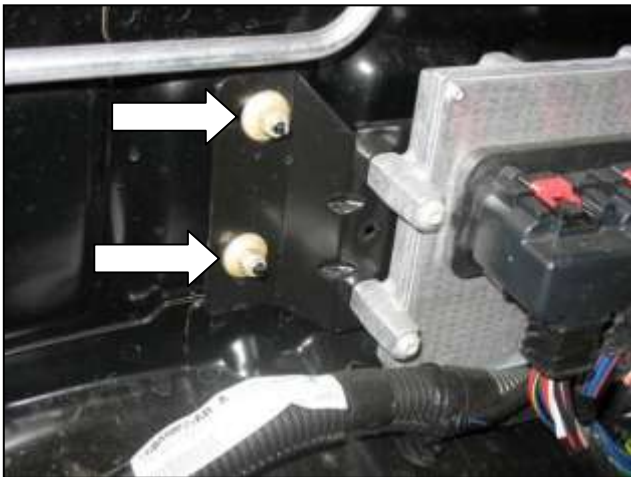
a. When installing the intake system, do not completely tighten the hose clamps or mounting hardware until instructed to do so.



b. Insert the 1/4-20 bolt (1-2072) and 1/4 washer (1-3028) from underneath the grommet through the fender well.



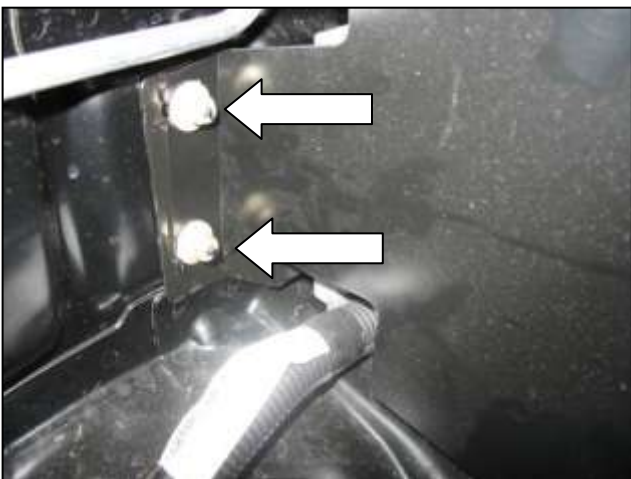
c. Install the aluminum stand (2-670) over the bolt installed in the previous step. Secure the assembly with the 1/4-20 nut (1-2073) and tighten.



d. Loosen and remove the mounting bracket nuts. These nuts will be reused.



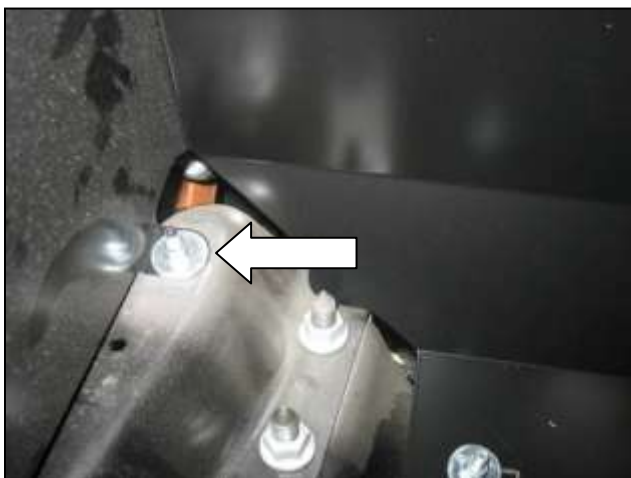
e. Insert the heat shield as shown. Align the heat shield to the studs in previous step. The bottom of the heat shield should align with the stud from step 3(c).



f. Secure the heat shield with the nuts from 3d.



g. Secure the bottom of the heat shield with the fender washer (559999) and nylok nut (1-2074).



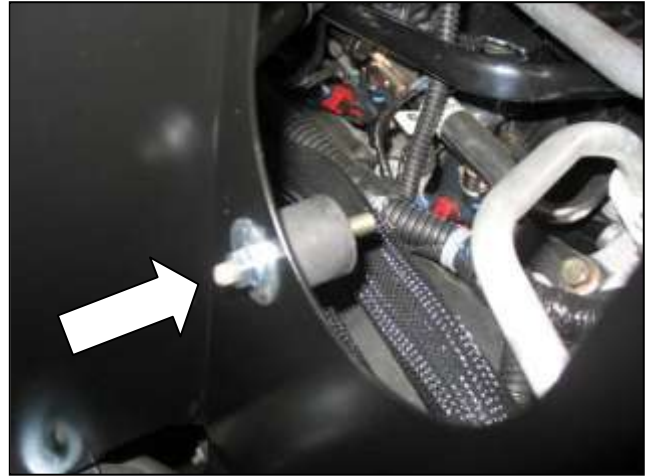
h. Secure the heat shield tab with the fender washer (559999) and M6 nut (444.460.04).



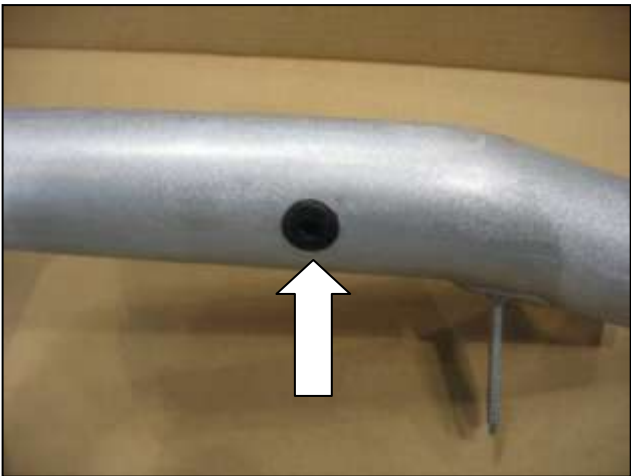
i. Check clearance around the body and the heat shield. Tighten all mounting points.



j. Attach the reducer coupler to the throttle body and secure with #44 and #48 hose clamps.



k. Insert the rubber mount into the heat shield and secure with a fender washer and M6 nut.



l. Insert rubber grommet into the pipe.



m. Insert the inlet pipe into the reducer coupler. Align the bracket with the rubber mount on the heat shield. Install the IAT into the rubber grommet and reconnect the wire harness.



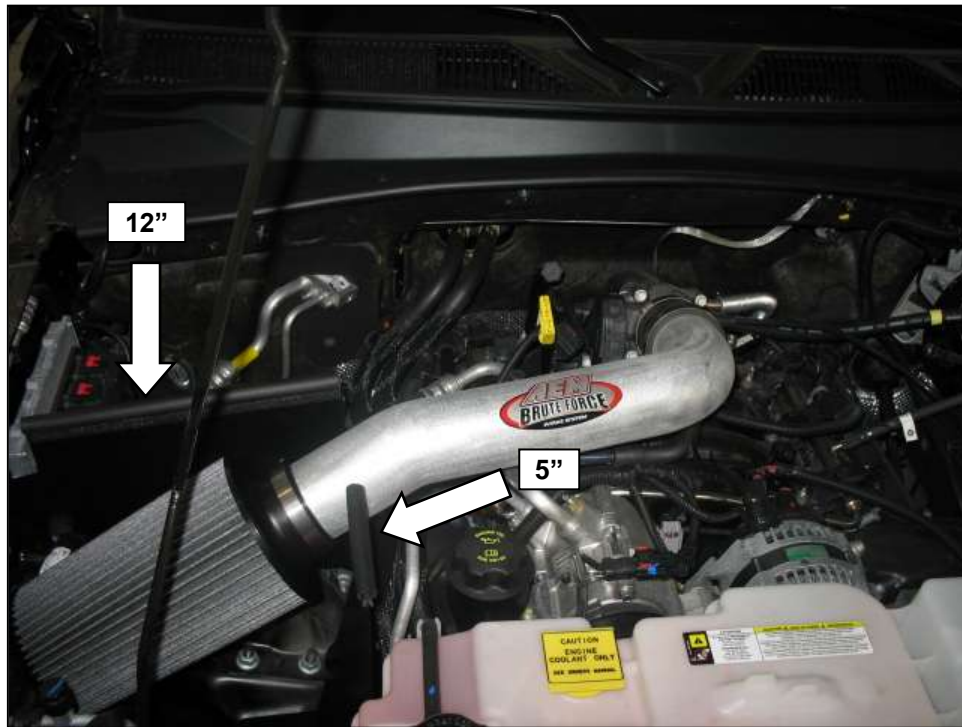
n. Attach the breather hose to the inlet pipe and secure with 1" hose clamp.



o. Ensure there is sufficient clearance around the inlet pipe and the heat shield.



p. Secure the bracket with the remaining fender washer and M6 nut.



q. Install the 12" and 5" edge trim pieces onto the heat shield as shown. Install the air filter to the intake pipe. Adjust for clearance; once proper fitment is achieved secure the air filter with the #52 hose clamp.

#### 4. 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.

## 5. 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.

## 6. Service and Maintenance

- a. It is recommended that you service your AEM<sup>®</sup> Dryflow™ filter every 20,000 miles for optimum performance. Use AEM Dryflow cleaning kit part # 21-110.
- b. Use aluminum polish to clean your polished AEM<sup>®</sup> intake tube.
- c. Use window cleaner to clean your powder coated AEM<sup>®</sup> 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<sup>®</sup> 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.