

AEM

BRUTE

FORCE AIR

INTAKE

SYSTEM

Equipped with AEM DRYFLOW Filter. No oil required!

Installation Instructions for:
Part Number 21-8310
2006 Jeep Commander
4.7L V8

ADVANCED ENGINE MANAGEMENT INC.
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Instruction Part Number: 10-8310
2006 Jeep Commander 4.7L V8
C.A.R.B. E.O. #Pending

Brute Force Air Intake Systems that are pending CARB approval are illegal in California except on racing vehicles which may never be used on public highways.

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Congratulations! You have just purchased the finest Air Induction & Filtration system for your vehicle at any price!

The **AEM** Brute Force Intake System is the result of extensive development on a wide variety of vehicles. It is the most advanced short pipe air intake system on the market. Each system is specifically engineered for its particular application. All **AEM** Brute Force Intake Systems deliver maximum performance gains through the lightweight, all-aluminum, mandrel-bent tubing that is tuned in both length and diameter. The tube length and diameter are matched for each specific engine to give power over a broad RPM range. Every intake is coated with a high-gloss, heat-reducing Zirconia based powder coating. This special blend of powder coating helps reduce heat penetration, which in turn reduces the temperature of the inlet air charge. The cooler inlet air temperature translates to more power during the combustion process because cool air is denser than warm air. The air mass flow to the engine is increased because of the increased airflow and reduced inlet temperature, which translates to more power.

Bill of Materials for: 21-8310

Quantity	Part Number	Description
1	2-83101	Inlet Pipe
1	21-2049D	3.5" Filter Element Dry
1	784634	Grommet 1/2" ID
1	103-BLO-6020	Filter Hose Clamp
1	5-352	HOSE,ADAPTER 3.50/3.25X2.50 AEM BLK
1	103-BLO-5620	Hose Clamp #56
1	103-BLO-5220	Hose Clamp #52
1	20-8310	Heat Shield
1	1-3016	SS Washer
3	444.460.04	6MM Nut
2	444.460.08	8MM Nut
1	12285960	8MM Rubber Mount
2	559960	8MM Washer
2	559999	6MM Washer
1	1-2075	BOLT,HEX/FLANGE M6 X 40
6	8-119	Foam Gasket
7	8-119	Foam Gasket
15	8-111	Rubber Edge Trim
1	99024.032	HOSE CLAMP,1"
1	2-670	Heat Shield Spacer
1	1-3027	Washer, 1/4 x 1 1/4 Fender
1	1-3028	Washer, 1/4 SAE Flat
1	1-2072	Bolt, 1/4-20-UNC x 1 3/4
1	1-2002	Bolt, Hex M6x1.0x35
1	1-2074	Lock Nut, '1/4-20
2	10-922Y	AEM Decal
1	10-8310	Instructions
1	7-7007-1	Nipple, 0.375x.065WLx.75
1	1-2073	Nut, '1/4-20

Read and understand these instructions **BEFORE** attempting to install this product.

1) Getting started

- a) Make sure vehicle is parked on a level surface.
- b) Set parking brake.
- c) **Disconnect negative battery terminal.**
- d) If engine has run within the past two hours let it cool down.

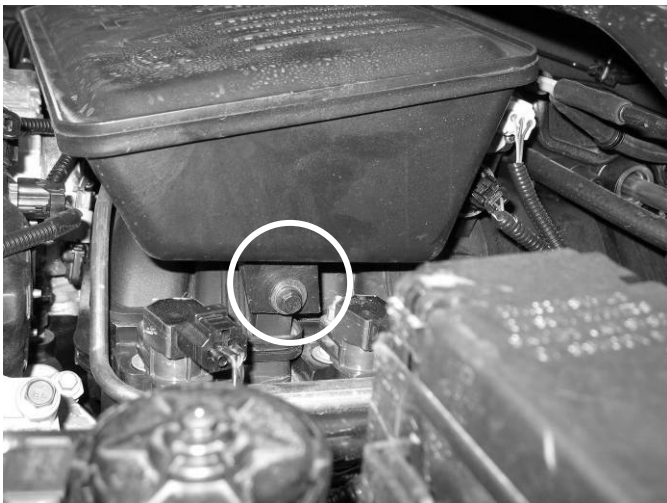
2) Removing the stock air inlet system



a) Disconnect the Inlet Air Temperature sensor.



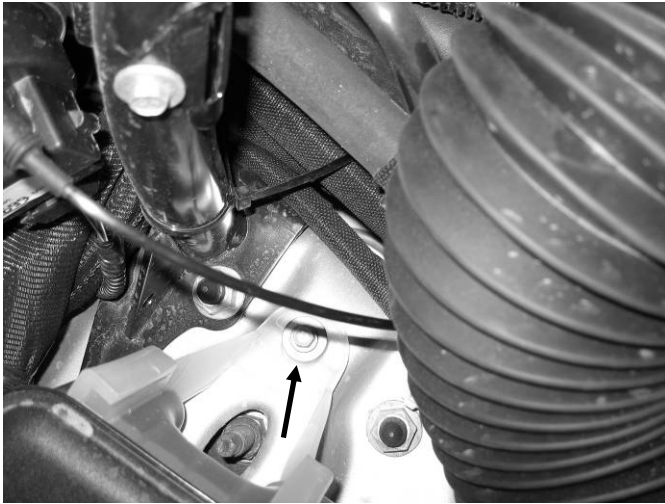
b) Loosen and remove the air box mounting bolt on the passenger side.



c) Loosen and remove the air box bolt on the driver's side.



d) Disconnect the crankcase breather hose.



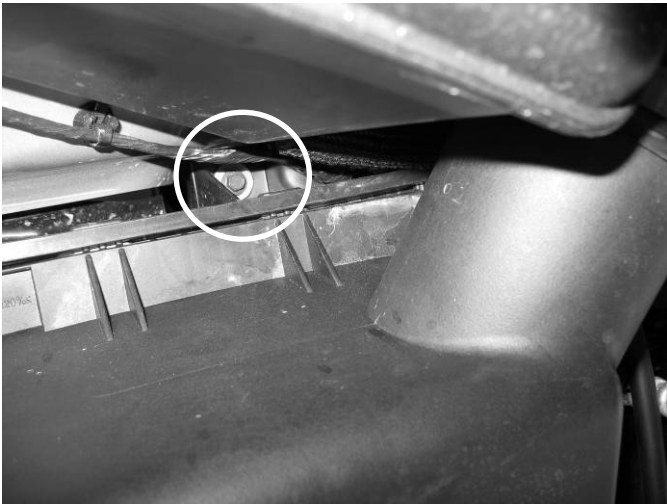
e) Loosen and remove the coolant reservoir mounting bolt.



f) Remove fastener.



g) Gently remove the coolant reservoir from its factory location and set aside. **Do not disconnect coolant lines.**



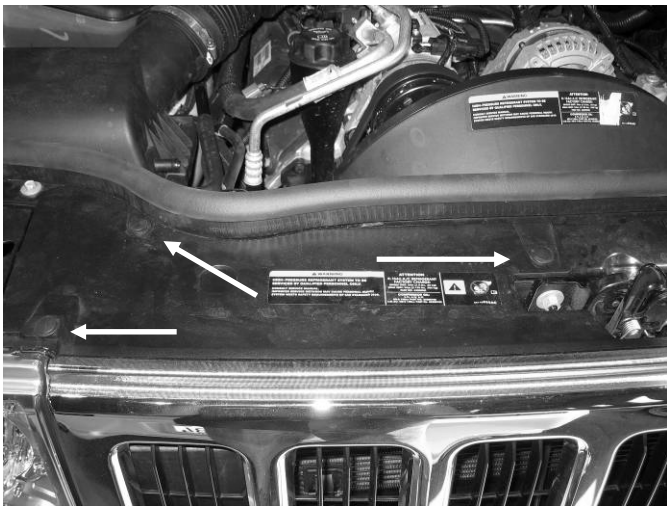
h) Loosen and remove the air box mounting bolt.



i) Loosen the throttle body hose clamp.



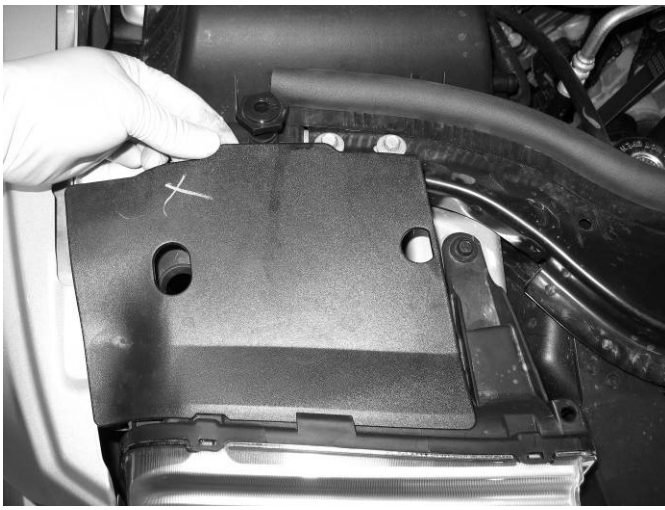
j) Remove push in tabs from the grill. These tabs will be reused.



k) Remove push in tabs from the grill. These tabs will be reused.



l) Remove the grill. Lift the grill up and pull forward.



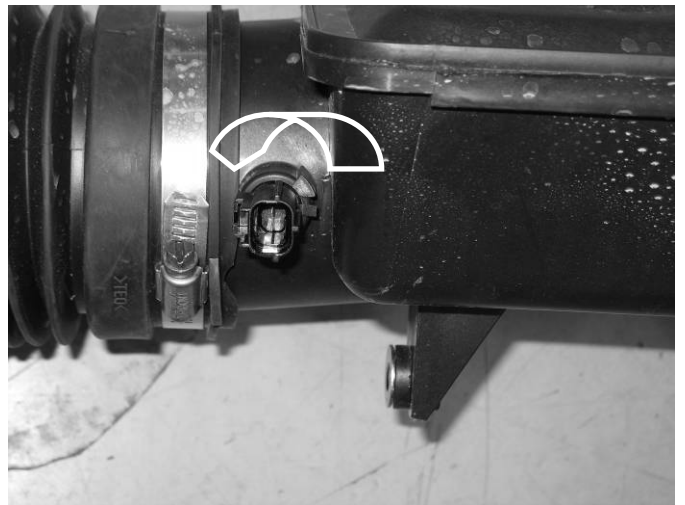
m) Remove the head light cover. Pull the rear up and back



n) Disconnect the resonator inlet. Pull straight forward.



o) Remove the air box assembly.



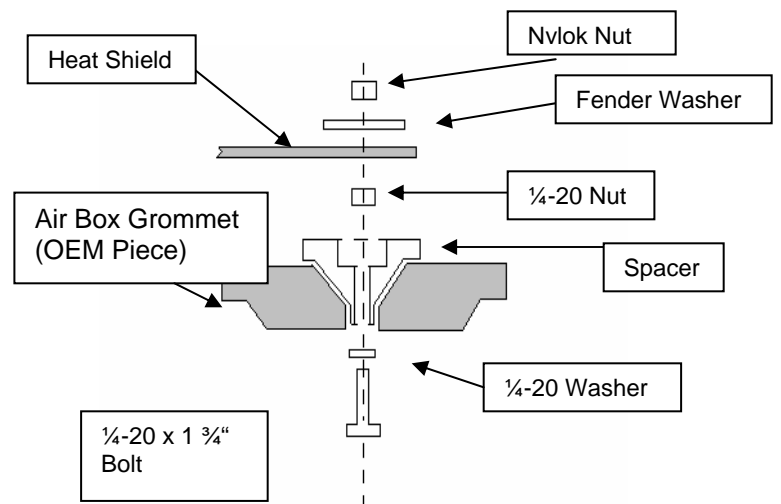
p) Remove the IAT sensor from the stock air box. Turn counter clockwise.

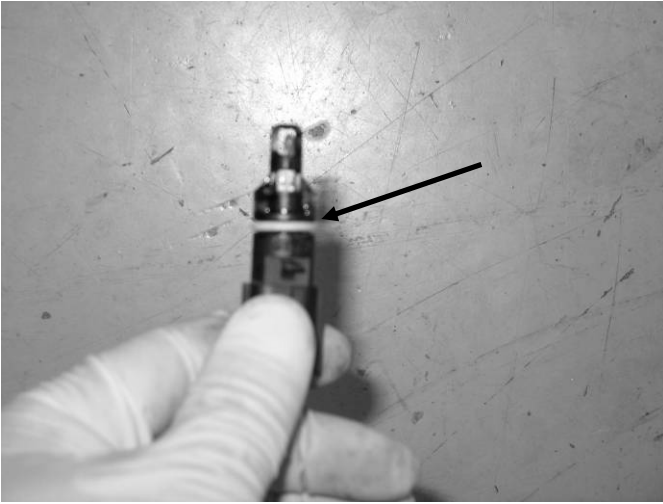
3) Installation of AEM Brute Force Intake System

Do not tighten the hose clamps or mounting hardware until instructed to do so later in these instructions.



a) Assemble the heat shield mount to the air box mounting tab. Refer to the following diagram, using the 1/4-20 bolt, washer, spacer, and nut. Reuse the rubber grommet from the air box mounting tab.

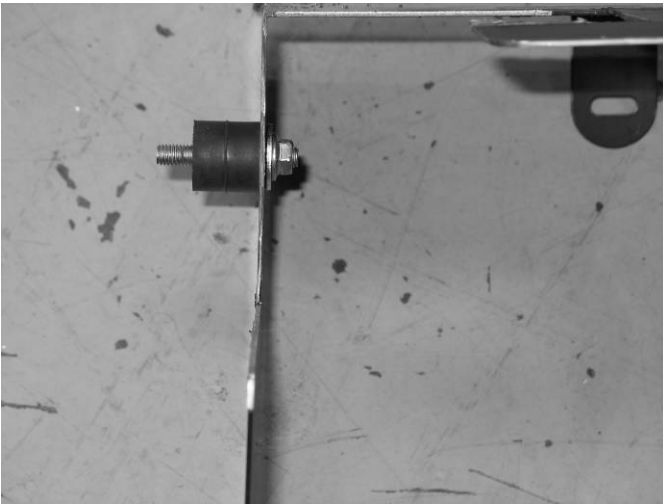




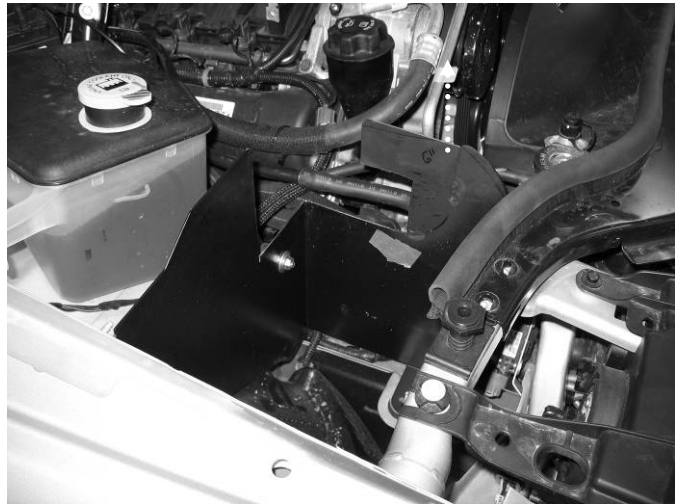
b) Remove the O-Ring from the sensor.



c) Loosen and remove the bolts to the hood latch support bracket. These will be reused.



d) Attach the rubber mount to the heat shield as shown. Secure with M8 Washer and Nut.



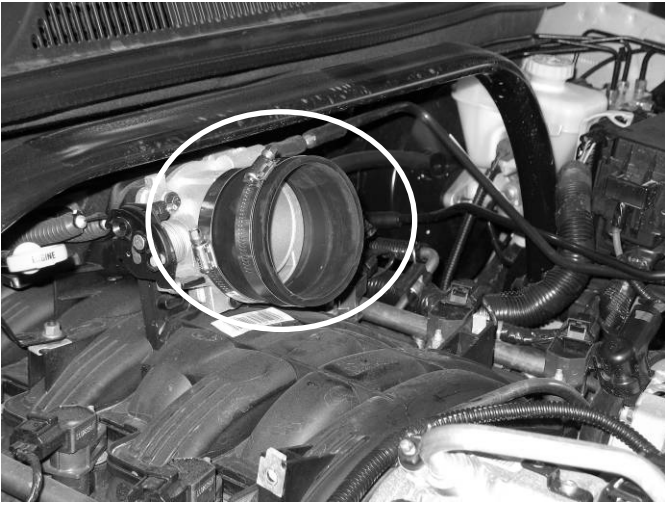
e) Insert heat shield as shown. Align the heat shield mount to the bottom bracket to the heat shield.



f) Insert the heat shield tab underneath the hood latch support bracket. Secure with factory hardware.



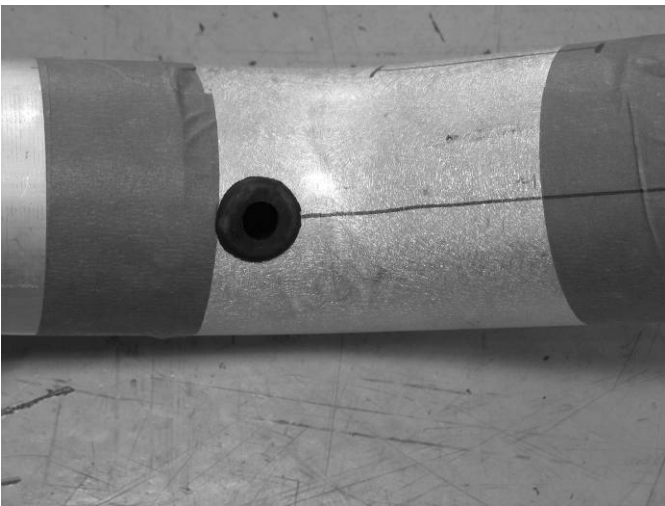
g) Secure the heat shield tab between the fender and the coolant overflow reservoir with M6 washer and nut. Secure reservoir.



h) Attach the coupler to the throttle body. Secure with #52 hose clamp.



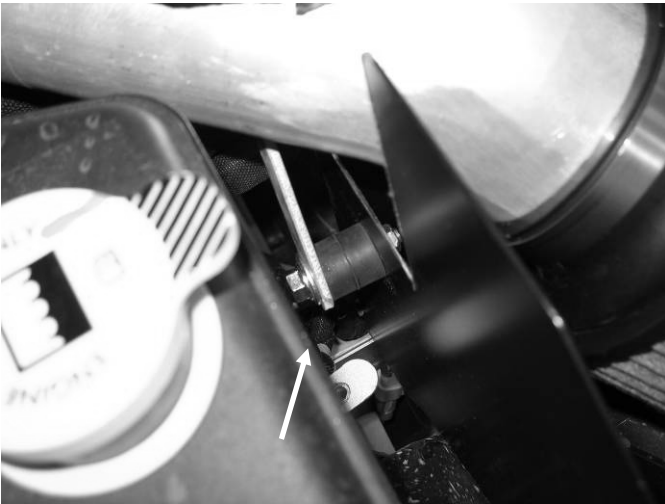
i) Attach the filter element as shown. Secure with #60 hose clamp.



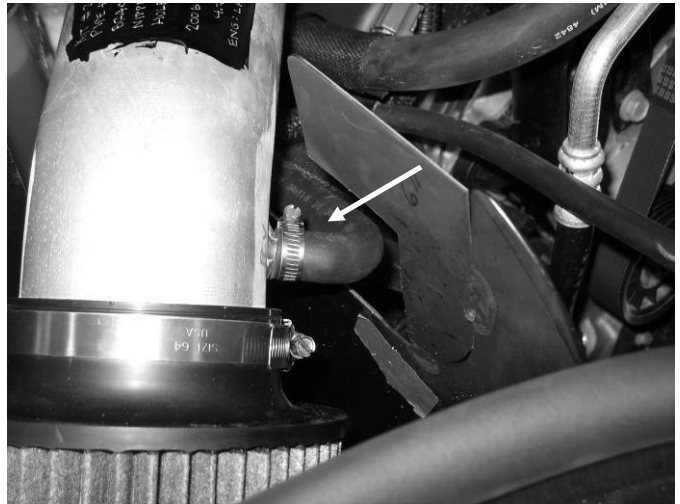
j) Insert grommet for the IAT.



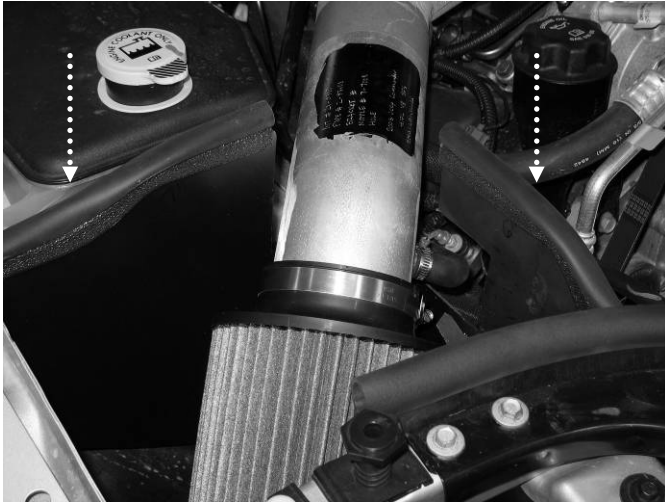
k) Insert the inlet pipe as shown.



l) Secure the inlet pipe to the rubber mount with M8 Washer and nut.



m) Reattach the PCV breather hose and secure with 1" hose clamp.



n) Attach foam gasket to the tops of the heat shield.



o) Reinsert IAT and connector.



p) If your truck comes equipped with cruise control, reinstall the vacuum canister as shown. Use the M6 bolt, washer, nipple and M6 nut provided.



q) Your BFS should look like this.

4) Re-Assemble the vehicle

- a) Inspect the engine bay for any loose tools and check that all fasteners that were moved or removed are properly tight.
- a) Position the pipe so that it does not touch any other surface and tighten hose clamps and lock nuts.
- b) Reconnect negative battery terminal.
- c) Start engine and perform a final inspection before driving the vehicle.