



Equipped with AEM® Dryflow™ Filter
No Oil Required!

INSTALLATION INSTRUCTIONS

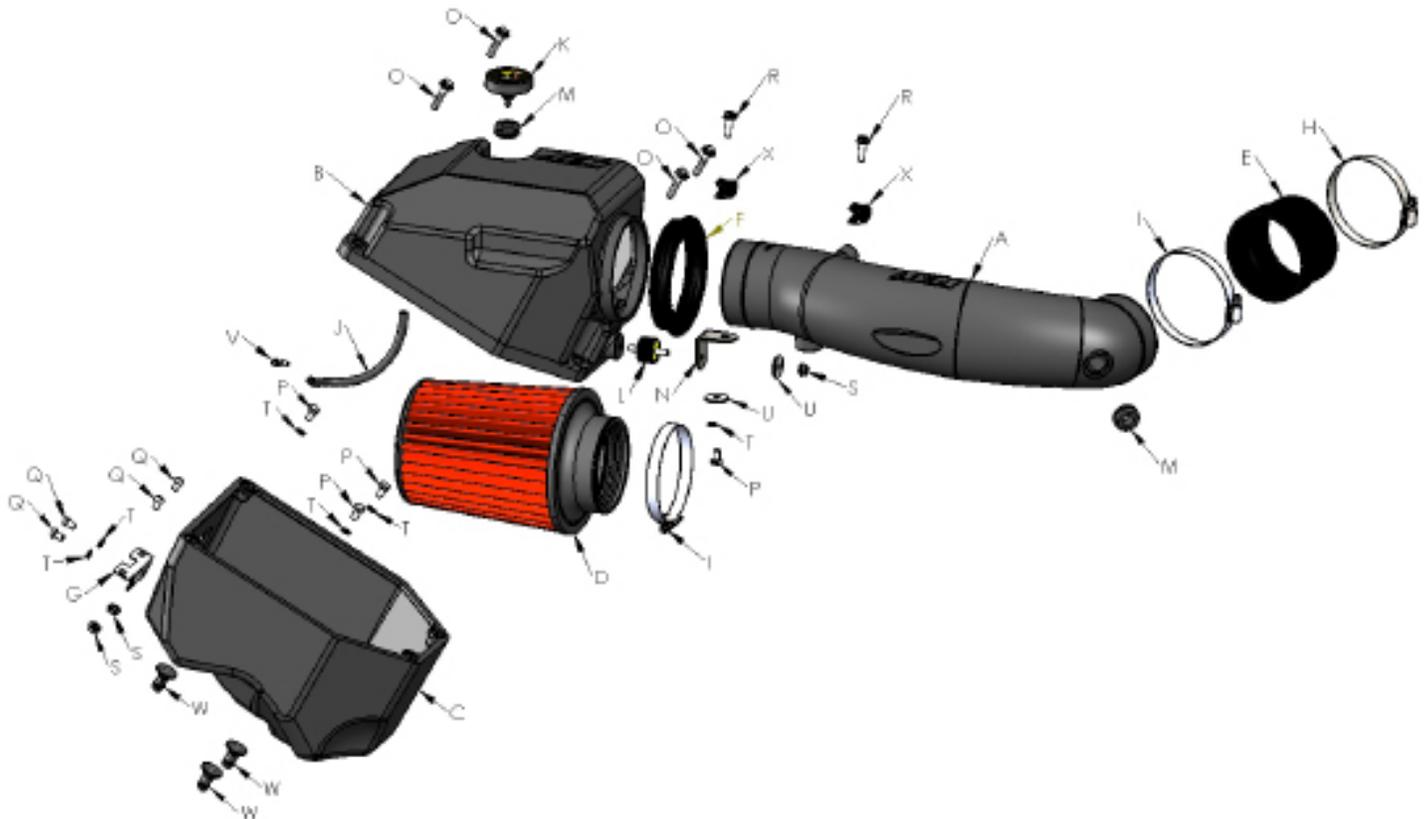
PART NUMBER: 21-8316

YEAR	Make	Model	Engine Type	Displacement
2012-13	Jeep	Wrangler	V6	3.6L F/I

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

PARTS LIST

Description	Qty.	Part Number
A	1	9-0432
B	1	9-0431
C	1	9-0430
D	1	21-2147D-HK
E	1	5-352
F	1	8-4013
G	1	32-3092
H	1	9452
I	2	9456
J	1	5-3009
K	1	35-80311
L	1	1228598
M	1	784642
N	1	32-3087
O	4	1-1016
P	4	1-2065
Q	4	1-112
R	2	1-2038
S	3	444.460.04
T	6	1-3025
U	2	08160
V	1	8-152
W	3	8-186
X	2	07299



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 airbox 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. 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. This intake system includes a replacement windshield washer system.
- g. Do not discard stock components after removal of the factory system.

2. Removal of stock intake system



a. Remove the engine cover.



b. Release the 4 clamps on the stock airbox lid.



c. Disconnect the rubber breather hose from the stock air box lid.



d. Loosen the hose clamp on the stock intake tube at the throttle body.



e. Release the coolant bypass hose from the finger clamps on the stock intake tube.



f. Remove the two M6 bolts retaining the intake tube to the radiator upper cross member.



g. Pull up on the stock intake tube and lid assembly until the IAT sensor is visible and accessible.



h. Disconnect the IAT sensor harness by pushing the tab and pulling on the connector.



i. Remove the stock filter, and then remove the lower airbox and inlet tube from the engine bay by pulling up on the box to free it from the 3 rubber mounting grommets underneath it.



j. Make sure all 3 grommets are retained in the vehicle as shown.



k. Remove the IAT (Intake Air Temperature) sensor from the stock intake tube by carefully lifting the locking tab and rotating the sensor, then pulling it from the tube. Save for use with your AEM intake.



l. Use a 1/4" drill to remove the rivets mounting the stock inlet tube to the lower air box. Remove the inlet tube for use with your AEM intake.

3. Installation of AEM® Brute Force Intake System

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



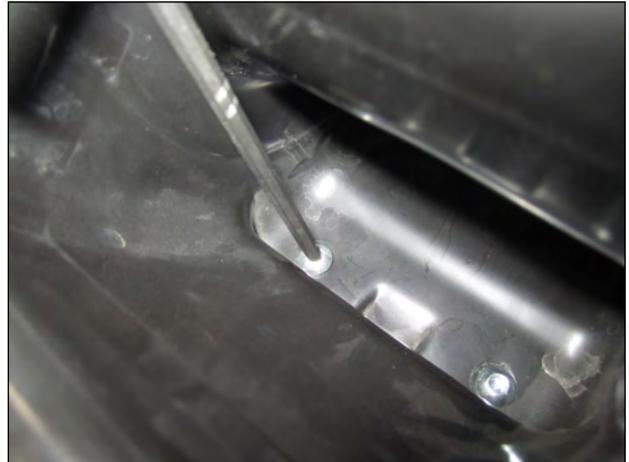
a. Install the 3 plastic air box mounts (W) using 3 M6 X 12mm bolts (P) and 3 split washers (T) inside your new AEM lower airbox (C) and fully tighten them.



b. Insert two M6 buttonhead bolts (Q) into the drilled out holes inside the stock inlet tube you removed in Step "1" above.



c. Mount the bracket (G) onto the two button head bolts using two M6 hex nuts (S). Install the inlet tube into the lower airbox inlet and secure the bracket to the airbox using two split washers (T) and two more M6 buttonhead bolts (Q) as shown.



d. Hold the buttonhead bolts inside the inlet tube with an Allen key while tightening the M6 hex nuts on the outside with a 10mm wrench or socket.



e. Install the lower airbox and inlet tube assembly onto the original airbox mounting grommets as shown.



f. Install one grommet (M) into the hole in the AEM upper air box (B) as shown.



g. Install the M6 rubber isolator mount (L) onto the boss on the airbox lid (B) as shown. Tighten by hand.



h. Install the rubber edge bulb seal (F) around the edge of the upper airbox outlet as shown. Trim as needed.



i. Install the other (M) grommet into your new AEM intake tube (A) as shown.



j. Install the stock IAT sensor into the grommet in the intake tube using glass cleaner for lubrication. Make sure the sensor O-ring is fully seated inside the grommet and orient the sensor as shown.



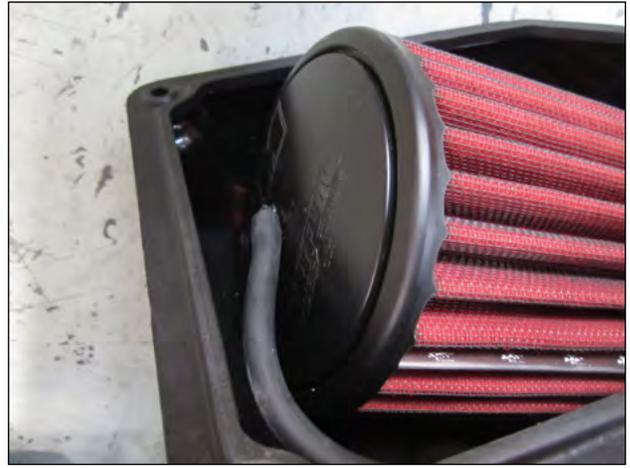
k. Insert the plastic 90-degree elbow port (V) into the hole in the cap of your new AEM Dryflow Filter (D).



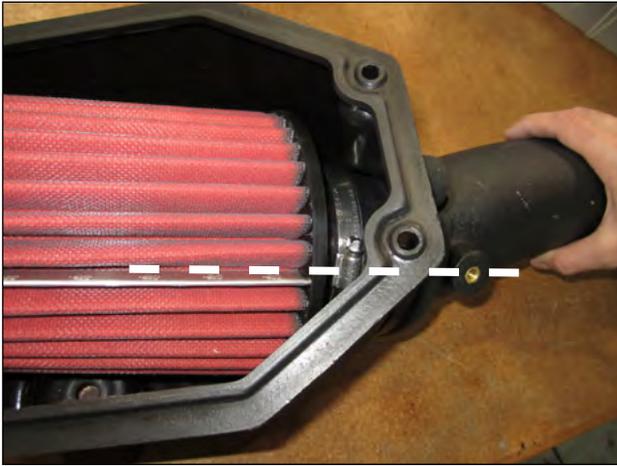
l. Install the 5/32" hose (J) onto the elbow port.



m. Install a #56 hose clamp (I) onto the Dryflow filter flange.



n. Insert the Dryflow filter assembly into the upper airbox lid as shown. Pass the 5/32" hose through the grommet in the airbox lid.



o. Insert the straight end of your AEM intake tube thru the airbox lid outlet hole and into the Dryflow air filter inside. Align the hose clamp hex nut with the mounting boss on the bottom of the AEM intake tube as shown.



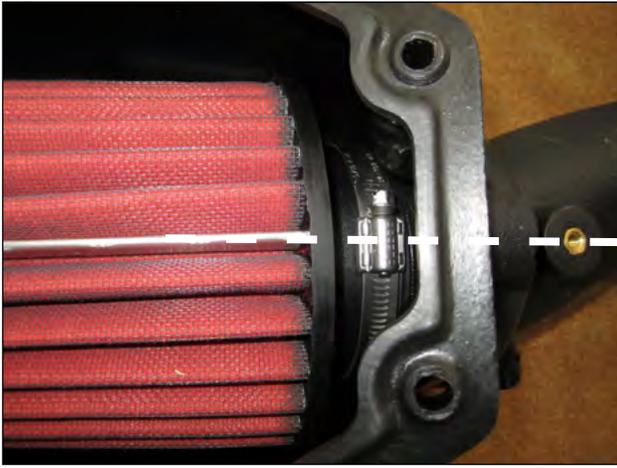
p. Rotate the tube and filter to allow access to the hose clamp nut. Fully seat the filter onto the intake tube and tighten the hose clamp.



q. Connect the AEM Filter Minder Gauge (K) to the rubber hose (J) you passed through the grommet in Step n above.



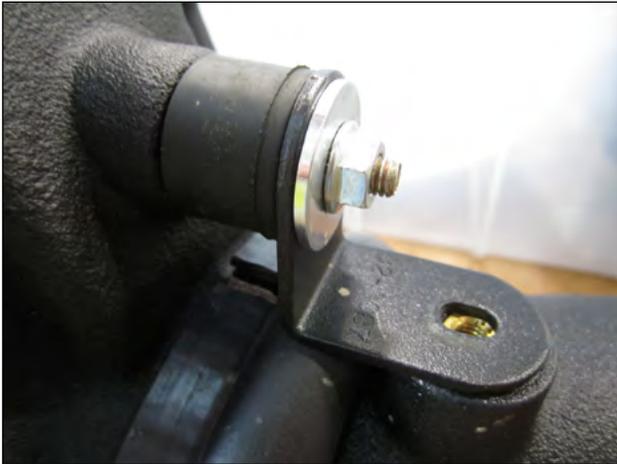
r. Using glass cleaner to lubricate grommet, fully seat the Filter Minder Gauge into the grommet and orient as shown. Make sure the yellow needle is pointing to the green section.



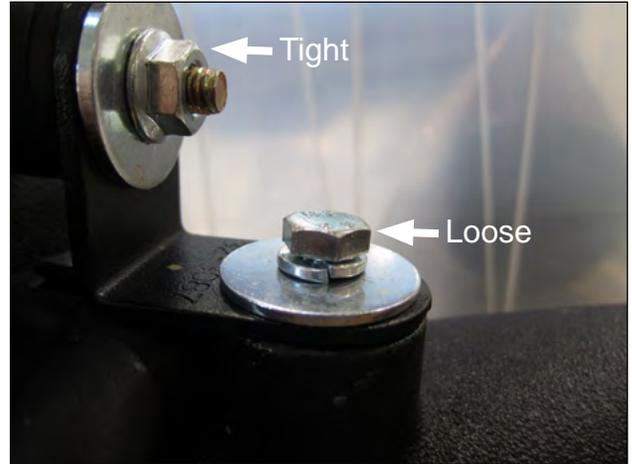
s. Rotate the intake tube back again until the mounting boss is aligned with the M6 rubber isolator mount as shown.



t. Install the "L" bracket (N) onto rubber isolator mount as shown. The slotted hole should face the mounting boss on the intake tube.



u. Install a flat washer (U) and M6 hex nut (S) onto the isolator mount stud as shown.



v. Install a flat washer, split washer, and M6 x 12mm bolt (P) through the slotted hole in the "L" bracket and into the mounting boss on the intake tube. Tighten the bolt by hand until snug to allow for adjustment. Now fully tighten the M6 nut installed in the previous step.



w. Install the rubber adapter (E) onto the elbow end of the intake tube with a #56 hose clamp (I) and tighten it. Loosely install the #52 (H) hose clamp onto the smaller end.



x. Bring the intake tube and upper lid assembly into the engine bay. First, connect the IAT sensor to the stock wiring harness.



y. Install the rubber adapter over the throttle body as shown. **Do not tighten** the small hose clamp yet.



z. Insert the 4 M6 by 30mm bolts (O) into the bolt holes in the top of the airbox lid. Place the airbox lid carefully onto the lower air box, aligning the 4 bolt holes.



aa. Start threading all 4 bolts before tightening. A long $\frac{1}{4}$ " ratchet extension and U-joint is recommended to tighten the lower 2 bolts with a 10mm socket.



ab. Using a 10mm box wrench, reach under the intake tube to tighten the M6 bolt (P) that you installed by hand through the "L" bracket (Step v. above) to secure the tube to the airbox.



ac. Now tighten the smaller hose clamp at the throttle body.



ac. Connect the stock breather hose to the large port in new intake tube as shown.



ad. Install the 2 rubber insulated loop clamps (X) over the stock coolant return hose. Install the two M6 X 20mm hex flanged bolts (R) through the loop clamps and into the radiator upper cross member as shown.



ae. Re-install the engine cover. AEM-21-8316 Brute Force Intake System shown installed.

4. 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 any rubber mounts (if applicable), 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 the negative battery terminal and start the 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. 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 AEM Synthetic air filter cleaner, part number 1-1000 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.