Equipped with AEM® *Dryflow™ Filter*
No Oil Required!

INSTALLATION INSTRUCTIONS

PART NUMBER:

21-492B (Blue Finish)

21-492C (Gun Metal Grey Finish

21-492P (Vacuum Metalized Chrome-VMC)

21-492R (Red Finish)

1999-2005	VOLKSWAGEN	Golf	L4-2.0L	after 6/99	C.A.R.B. E.O. # D-670-15
1999-2005	VOLKSWAGEN	Jetta	L4-2.0L	after 6/99	C.A.R.B. E.O. # D-670-15

Excludes 2005 MY LEV II SULEV 5VWXV02.0227 model year vehicles

PARTS LIST

Description	Qty.	Part Number
Element Parts Kit 2.75 X 5" Dry Ele.	1	21-202DK
Inlet Pipe	1	2-498
Hose, Silicone 2.75x3" Blk.	1	5-275
Hose; 5/8"ID X 18"L	1	5-7018
Mount, Rubber 1" X 6MM	1	1228599
Adapter, Vacuum Hose	1	2-649
Washer, 6mm Soft Mount	4	08160
Nut, M6 Hex Serrated	3	444.460.04
Hose Clamp, 1"	2	08407
1/2" Bnd. Hose Clamp, 2.31-3.25"	2	9444
1/2" Bnd. Hose Clamp, 2.56"-3.50"	1	9448

Read and understand these instructions <u>BEFORE</u> 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

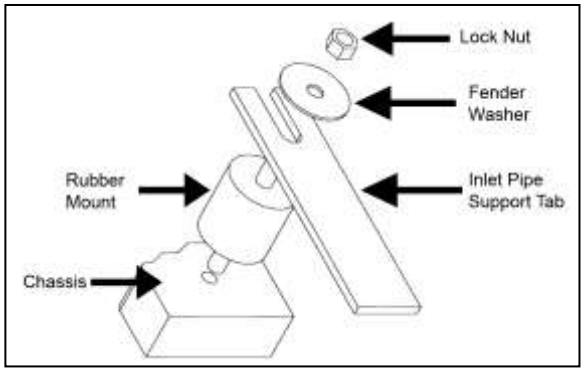
a. Make sure vehicle is parked on level surface.
b. Set parking brake.
c. If engine has run in the past two hours, let it cool down.
d. Lift the plastic battery cover and disconnect the negative battery terminal. Remove the short positive lead from the positive battery terminal. **(Fig. 1)**
e. Do not discard stock components after removal of the factory system.

2. Removal of stock system

a. Swing the fuse box on top of the battery upwards and remove the hinge from the plastic battery box.
b. Remove the four screws along the top of the radiator support. **(Fig. 2)** Remove the two plastic covers.
c. Remove the battery hold down bolt. **(Fig. 3)**
d. Remove the three bolts that secure the plastic battery box in place. Two bolts are located at the rear of the battery on both sides of the plastic wire tunnel. The third bolt is located on the radiator side of the battery **(Fig. 4)**. Remove the battery from the vehicle.
e. Unlatch the plastic wire tunnel cover on the backside of the battery box. **(Fig. 5)** Swing the cover open and remove the wire harness for the plastic battery box.
f. Remove the plastic battery tray from the vehicle by removing the four bolts that secure it. **(Fig. 6)**
g. Unplug the wire connector from the MAF sensor. **(Fig. 7)**
h. Loosen the spring hose clamp that secures the inlet tube to the MAF sensor. Pull the inlet tube clear of the MAF sensor. **(Fig. 8)**
i. Remove the breather hose from the airbox by squeezing the plastic tabs to release the fitting. Use care to avoid damaging the o-ring. **(Fig. 9)**
j. Remove the nut that secures the lower inlet tube to the inner fender well. **(Fig. 10)**
k. Remove the two bolts that secure the airbox **(Fig. 11).** Remove the airbox, MAF sensor, and lower inlet tube from the vehicle.
l. Remove the two screws securing the MAF sensor to the airbox and set the MAF sensor aside in a safe place where it won't be damaged.
m. 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.
   i. Remove the screws securing the driver's side fender liner in place. Fold the fender liner back and out of the way to allow access to the area behind the front bumper.
n. Remove the plastic cover behind the driver's side headlight. The cover is secured with three plastic rivets. The rivets are released by pushing the center of the plastic rivet with a small, pointed object. Two rivets are located at the top of the plastic cover in the radiator support. **(Fig. 12)** The third rivet is accessible from under the vehicle. **(Fig. 13)** Pull the plastic cover out of the engine bay. **(Fig. 14)**
o. Remove the ground cable from the plastic clip in the fender well. **(Fig. 15)**

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. Install the rubber mount in the outermost (towards driver's side of vehicle) hole to the rear of the large opening behind the headlight. Insert the rubber mount from below **(Fig. 16)** and secure it with a large fender washer and lock nut from the top. **(Fig. 17)**
c. Place a large fender washer on the stud that originally secured the lower inlet tube in place. **(Fig. 18)**
d. Re-install the MAF sensor into the plastic intake hose, rotating the electrical connector to the original position. Use the original spring hose clamp.
NOTE: It is possible to install the MAF sensor backwards. DO NOT INSTALL BACKWARDS. Ensure the end with the flange (originally in the airbox) is facing AWAY from the throttle body. If you are still unsure, there is an arrow with the word "flow" molded into the MAF sensor body to reference. (Fig. 19)
e. Install a silicone hose onto the upper end of the AEM® intake pipe with one of the 2.75" hose clamps. The upper end is the end with the AEM® decal. Loosely install a second 2.75" hose clamp onto the end of the silicone hose.
f. Feed the AEM® intake pipe into the engine bay and fender well. The lower bracket should line up with the rubber mount that was installed in step 3(b). The upper mount should line up with the stud originally used to mount the lower inlet tube. The upper mount will slide between the large fender washer and the chassis as shown in **Fig. 20,** secure with a nut.
g. Install a large fender washer and lock nut onto the rubber mount stud **(Fig. 21).** Refer to the following diagram for proper rubber mount installation.



h. Insert the MAF sensor into the silicone hose on the AEM® intake pipe. Make sure the MAF sensor is still rotated correctly in the factory position. Plug in the wire harness connector into the MAF sensor.
i. Install the AEM® air filter onto the bottom end of the AEM® intake pipe with a supplied hose clamp. Ensure the air filter does not contact the horn or the plastic fender liner. **(Fig. 22)**
j. Connect the factory breather hose to the AEM® vacuum hose adapter. Line the clips on the plastic hose up with the flats machined into the adapter. **(Fig. 23)** It may be helpful to lubricate the o-ring with a small amount of clean engine oil to ease installation.
NOTE: Use caution to avoid damaging the o-ring.
k. Install the supplied 5/8" vacuum hose onto the AEM® vacuum hose adapter and the nipple of the AEM® intake pipe. Secure each end of the vacuum hose in place a 1" hose clamp. Route the hose in a broad arc under the AEM® intake pipe to prevent the hose from kinking. **(Fig. 24)**
l. Re-assemble the vehicle in the reverse order of disassembly. The large plastic cover behind the headlights that was retained by the three plastic rivets does not need to be reinstalled.
m. At this point the entire intake pipe and air filter can be re-adjusted for position and alignment. Ensure that the AEM® intake pipe does not make contact with any part of the vehicle along its length. **Critical points to check are on the corner of the plastic battery box and at the bend of the intake pipe, just above the air filter.**
n. Connect the positive battery cable.

4. Reassemble Vehicle

a. **Fender liner:** Install and secure the driver's side fender liner that was partially removed in step 2m.
NOTE: Failure to install the fender liner will result in diminished performance and increase the potential for engine damage due to water ingestion in rainy conditions.
b. **Wheel:** Install the driver's side wheel using the factory torque specification (see owner's manual).
c. 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.
d. Check for proper hood clearance. Re-adjust pipes if necessary and re-tighten them.
e. Inspect the engine bay for any loose tools and check that all fasteners that were moved or removed are properly tightened.
f. Reconnect negative battery terminals and start engine. Let the vehicle idle for 3 minutes. Perform a final inspection before driving the vehicle.

Installation Images:

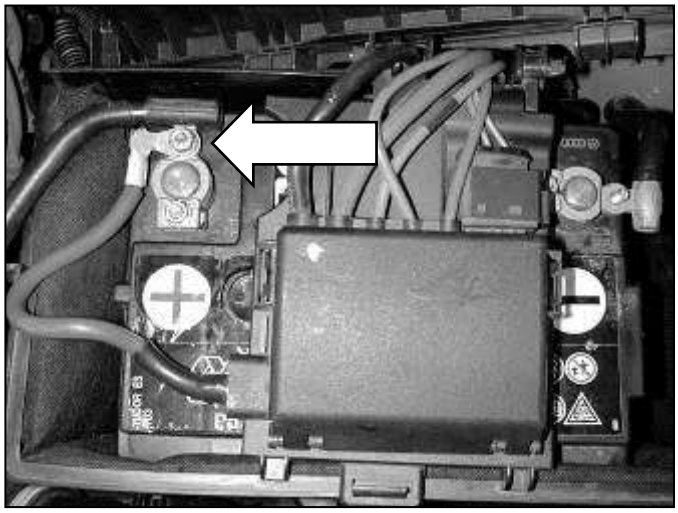


Fig. 1

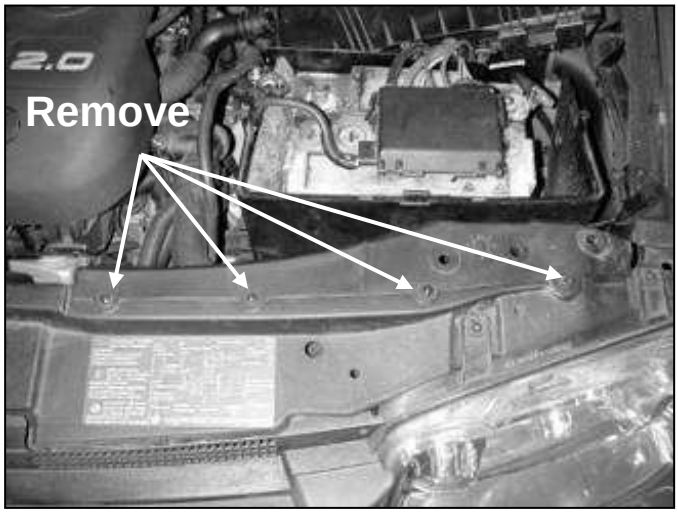


Fig. 2

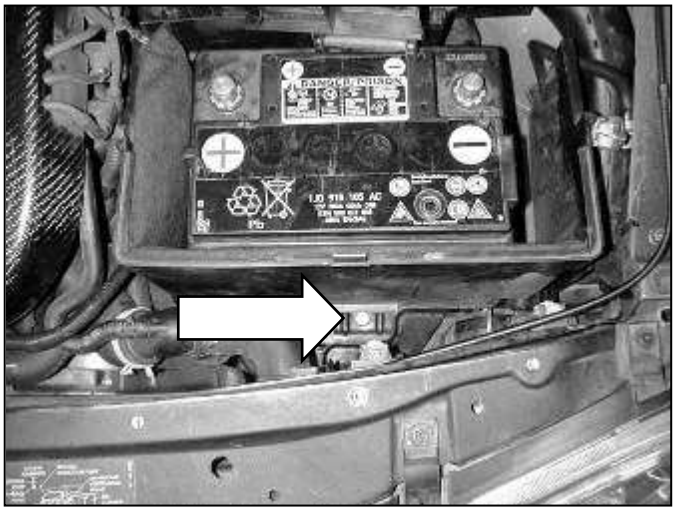


Fig. 3

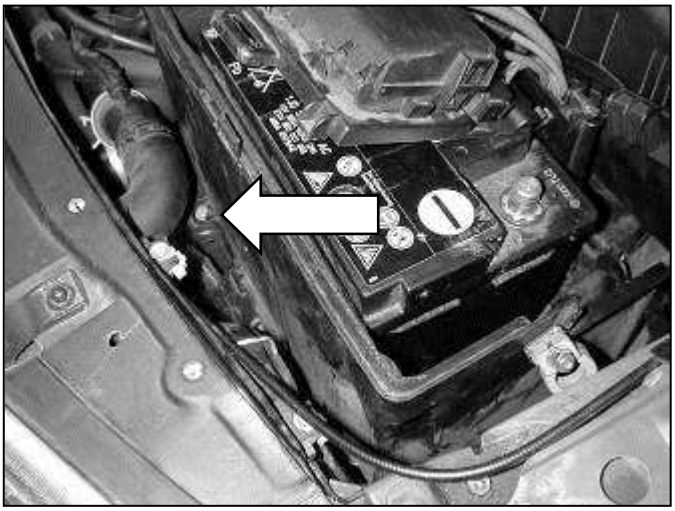


Fig. 4

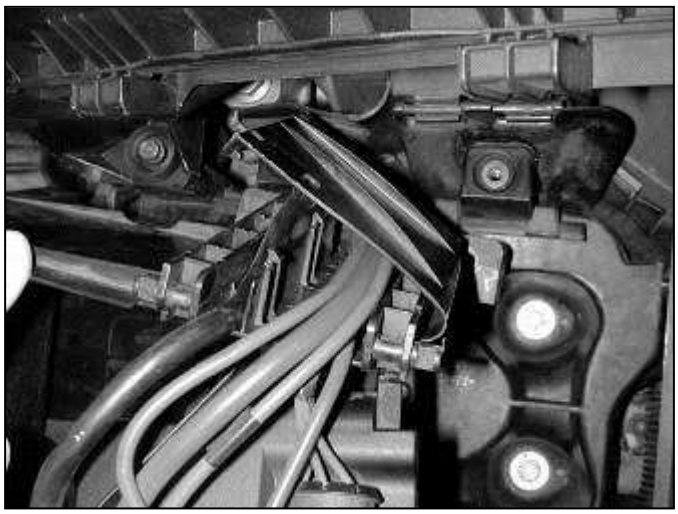


Fig. 5

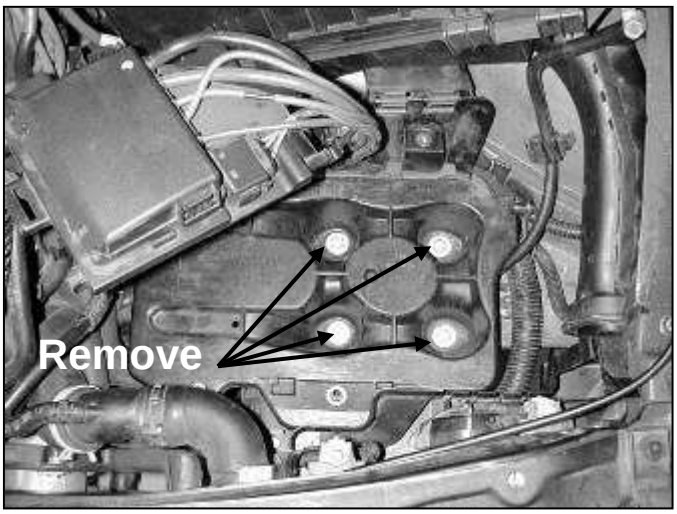


Fig. 6

Fig. 7

Fig. 8

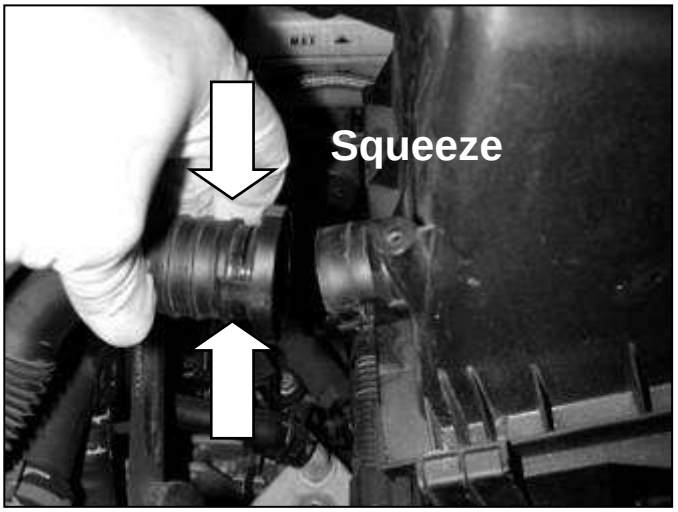


Fig. 9

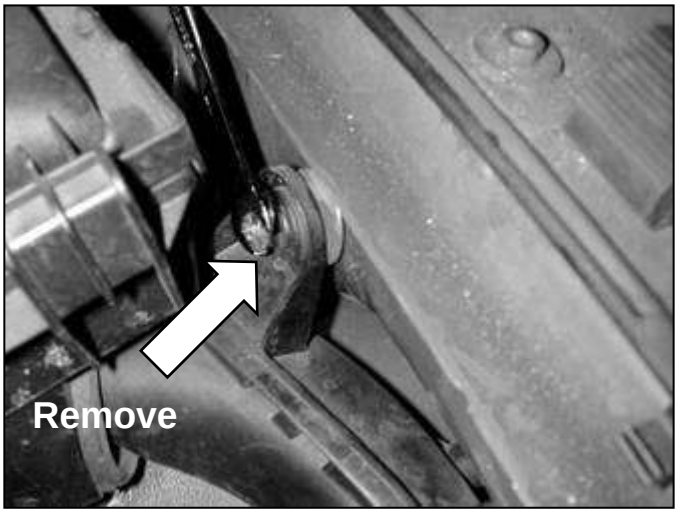


Fig. 10

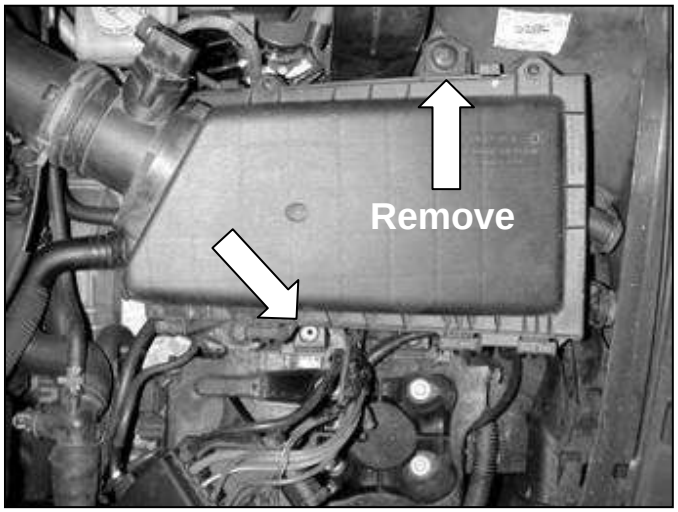


Fig. 11

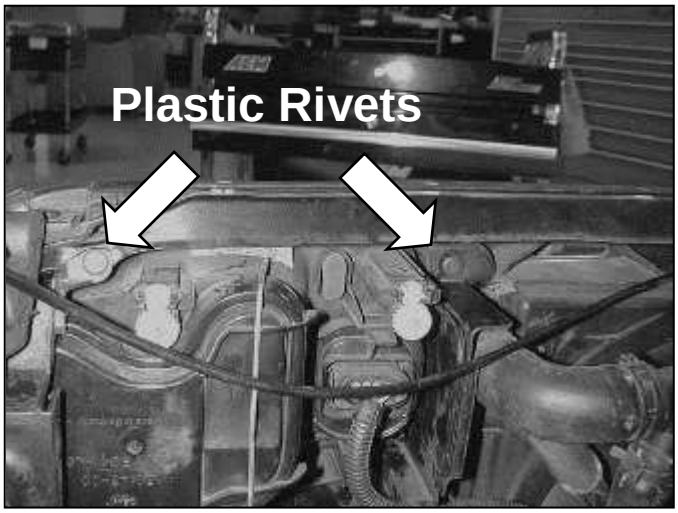


Fig. 12

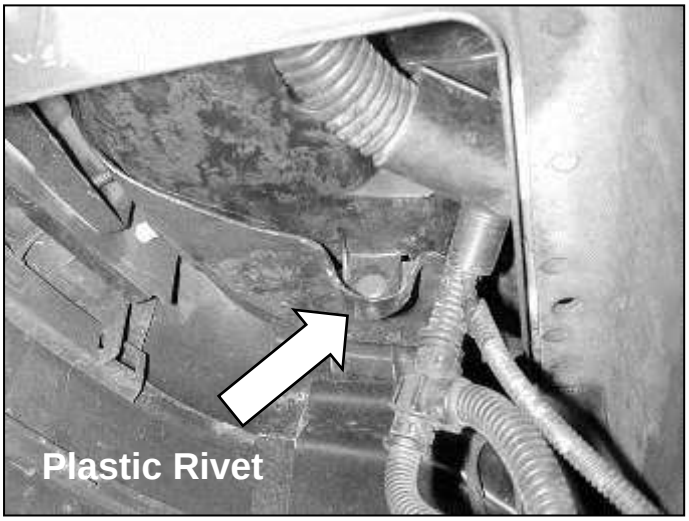


Fig. 13

Fig. 14

Fig. 15

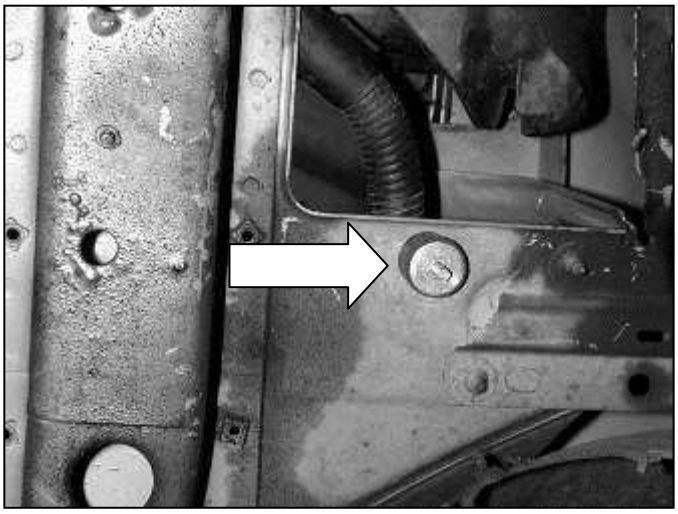


Fig. 16

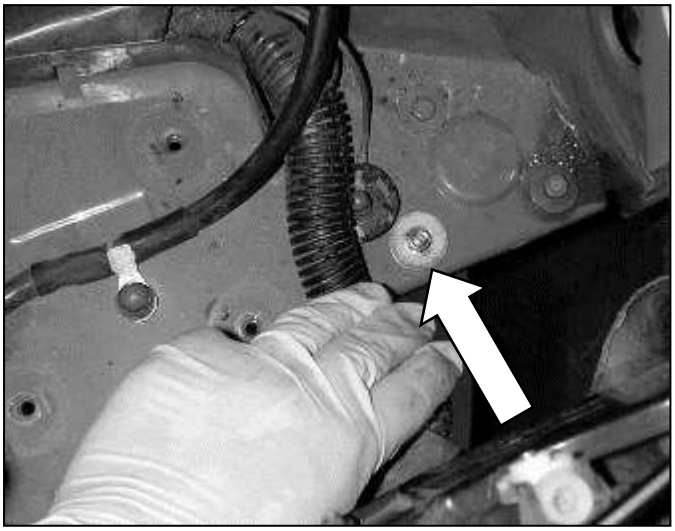


Fig. 17

Fig. 18

Fig. 19

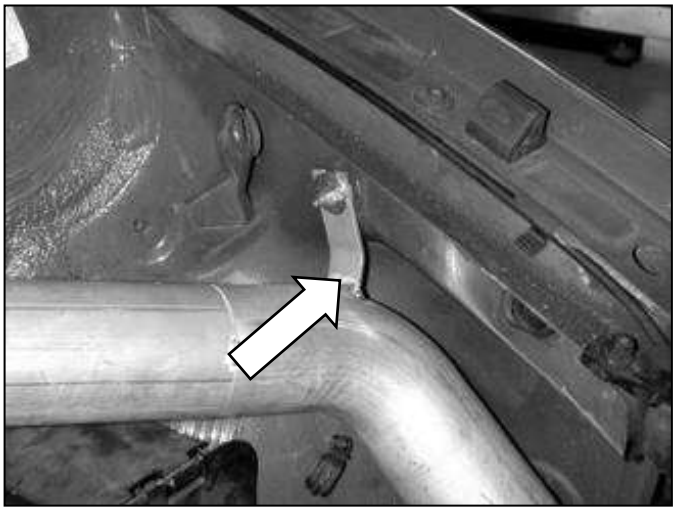


Fig. 20

Fig. 21

Fig. 22

Fig. 23

Fig. 24

Factory airbox system installed

AEM® intake system installed

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® 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® intake tube.

c. Use window cleaner to clean your powder coated AEM® intake tube. **(NOTE: DO NOT USE aluminum polish on powder coated AEM intake tubes).**