



Equipped with AEM® Dryflow™ Filter
No Oil Required!

INSTALLATION INSTRUCTIONS

PART NUMBER: 22-454

1999-2002 MERCURY Cougar V6-2.5L

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
Short Pipe	1	2-4541
A/F Assy 3.00 x 5" Dry Ele.	1	21-203DK
Hose, Adapter 2.50/3.0" x2.50"	1	5-253-54
Hose, Adapter 3.25/3.00 x 2.25"	1	5-323
1/2' Bnd. Hose Clamp,2.15-3.00"	1	9440
1/2" Bnd. Hose Clamp,2.56"-3.50"	2	9448
1/2" Bnd. Hose Clamp,3.15"-4.00"	1	9456
Hose Clamp,1"	1	99024.032
Hose Clamp,3/4"	2	4093-5
1/2" Bnd. Hose Clamp,2.90"-3.75"	1	9452
Bolt, Hex/Flange M6-1 x 20	4	1-2038
Bracket, Support MAF	1	32-3018
Adapter,MAF	1	2-668
Hose; 3/4"ID x 2"L	1	5-4002
Hose; 3/8"ID x 2"L	2	5-1002
Grommet,13/32"	1	784639

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.

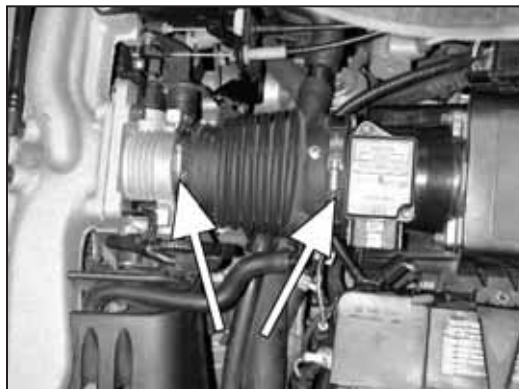
1. Preparing Vehicle

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

2. Removal of stock system



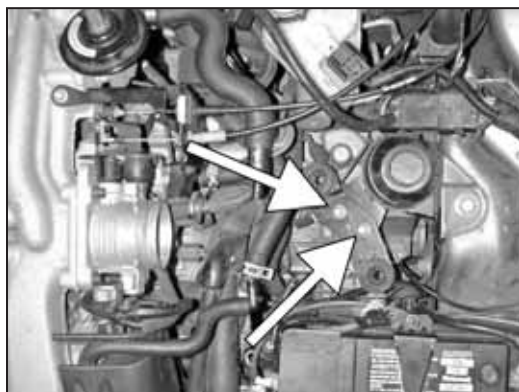
a. Twist the inlet air temperature (IAT) sensor and remove it from the back side of the air box. Unplug the mass air flow (MAF) sensor connector.



b. Loosen the hose clamps at both ends of the rubber intake tube. Remove the three vacuum lines from the rubber intake tube. When removing the vacuum lines, make sure the plastic nipples remain in each breather hose and not in the rubber intake tube. These components will be re-used with the AEM® intake system.



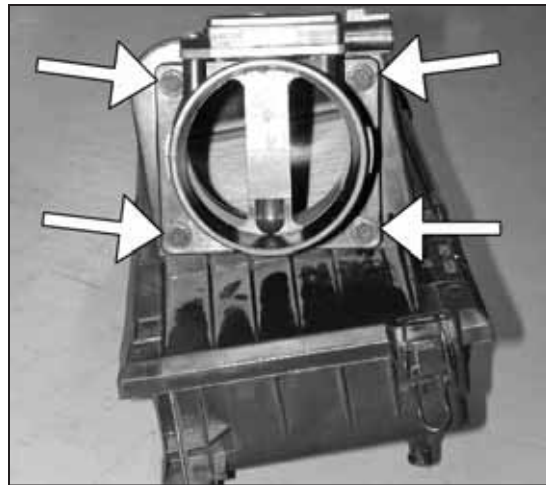
c. Remove the air box, MAF sensor, and rubber intake tube assembly from the vehicle.



d. Remove the two bolts that retain the lower air box mounting bracket. Keep the bolts for use with installation of the AEM® intake system. Remove the bracket from the vehicle.



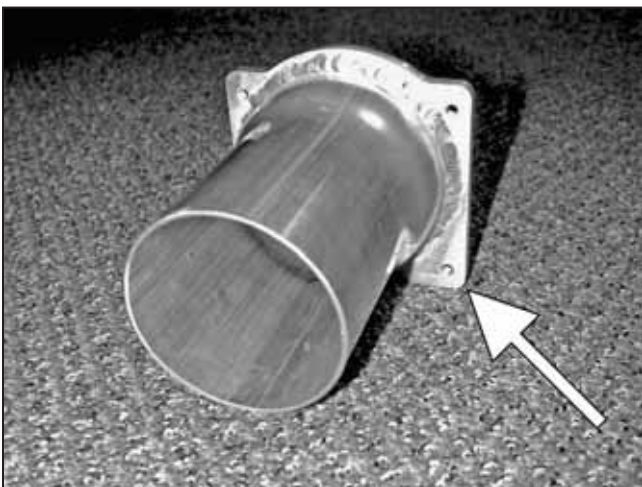
e. Remove rubber boot from the inner fender in front of the shock tower.



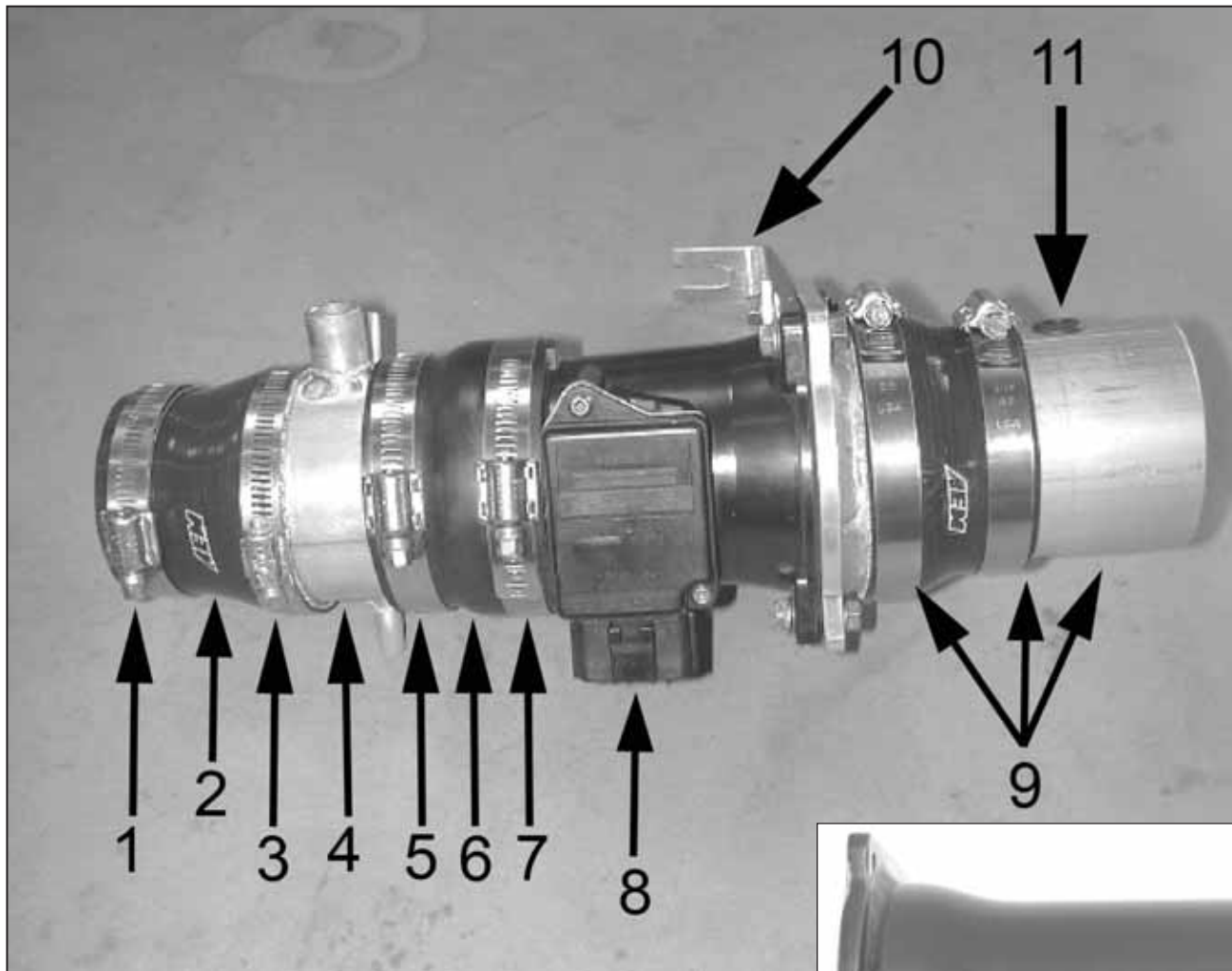
f. Remove the MAF sensor from the air box by loosening the four screws that retain it. Use care to avoid damaging the gasket. The factory gasket will be used with the AEM® intake system.

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. Attach the supplied MAF sensor adaptor to the stock MAF sensor using the supplied M6 bolts. Be sure to utilize the factory gasket between the sensor and adaptor. Leave the bolt denoted by the arrow out until the next step. An extra mounting bracket will be affixed at this location.



AEM MAF Sensor Adaptor

c. Loosely assemble the AEM® intake system components as shown. All of the bolts and hose clamps will be tightened after the intake system is installed in the vehicle to ensure proper fitment.

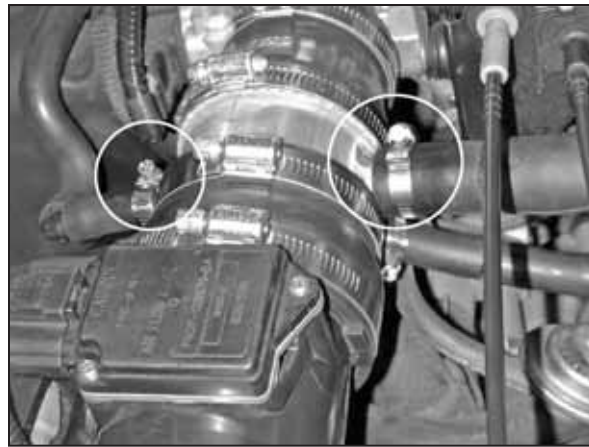
1. 2.50" (#40) Hose Clamp
2. 2.50" to 3.00" Hose Adapter
3. 3.00" (#48) Hose clamp
4. AEM Inlet Pipe
5. 3.00" (#48) Hose Clamp
6. 3.00" to 3.25" Hose Adapter
7. 3.50" (#56) Hose Clamp
8. Factory MAF Sensor
9. AEM MAF Sensor Adaptor
10. AEM MAF Sensor Bracket
11. IAT Sensor Grommet

* The assembly piece labeled as part 9 shown above in the labeled diagram image has been replaced with a single component. The new component looks like the piece labeled "AEM MAF Sensor Adaptor".

Approximately position the components in relation to each other as shown in the figure. The MAF sensor connector should be at the front, while two nipples on inlet pipe '4' should face towards the rear. Final positioning may be adjusted once installed in the vehicle.



d. Place the AEM® intake assembly in the engine bay. The 2.50" coupler and hose clamp should be affixed to the throttle body. The bracket on the MAF sensor will line up with the rear-most rubber mount where the air box mounting bracket used to be attached. Use one of the stock bolts to attach the bracket to this mount.



e. Using the supplied sections of hose, connect the breather hoses to AEM® inlet pipe. Use the supplied hose clamps on the ends that attach to the AEM inlet pipe. The barbs on the stock plastic nipples will keep the hose from sliding off on the other end.



f. Insert the IAT sensor in the IAT grommet at the back of the AEM® inlet pipe '9.' Insert the sensor up to the barbs. Attempting to force the barbs past the grommet will cause the grommet to fall out of the pipe.



g. Install the AEM® air filter onto the end of the assembly. Position the inlet pipe for best fitment. Plug in the MAF sensor connector. Be sure that the pipe or any other components do not contact any part of the vehicle. Tighten the hose clamps and bracket bolt.



Stock air box system installed



AEM® intake system 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 the rubber mount, 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 negative battery terminals and start engine. Let truck 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 state 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)**

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.