



Equipped with AEM® Dryflow™ Filter
No Oil Required!

INSTALLATION INSTRUCTIONS

PART NUMBER: 21-641

2006

MAZDA

Mazdaspeed 6 L4-2.3L

C.A.R.B. E.O. # D-670-2

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

PARTS LIST

Parts List	Qty.	Part Number
Element Parts Kit 3.00 X 5" Dry Ele.	1	21-203DK
Upper Pipe	1	2-710
Lower Pipe	1	2-711
Hose, Adapter 2.50/3.00 X 3" 45	1	5-273-45
Hose, Silicone 3.00x1.5" Blk. No	1	5-315
Zip Tie, 8" Tree Push-Mnt.	1	1-127
Bolt, Socket 8-32 X 1/2"	2	1-2028
Mount, Rubber 1" X 8mm	1	1228560
Washer, 8mm Soft Mount	1	559960
Nut, M8 Hex Serrated	1	444.460.08
1/2" Bnd. Hose Clamp, 2.31-3.25"	1	9444
1/2" Bnd. Hose Clamp, 2.56"-3.50"	3	9448
1/2" Bnd. Hose Clamp, 2.90"-3.75"	1	9452

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 air box 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 both the negative and positive battery terminals.
- e. Make sure you have the anti-theft code for the radio.
- f. Do not discard stock components after removal of the factory system.

2. Removal of stock system



a. Remove plastic intercooler cover by removing the 2 bolts securing it to the intake manifold.



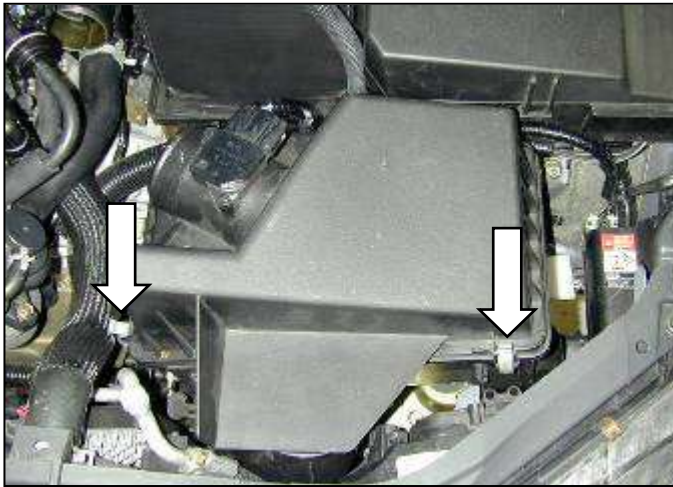
b. Disconnect the plastic breather hose from the inlet tube. This is done by squeezing the blue retaining clip and pulling on the breather hose.



c. Loosen the hose clamps securing the inlet hose to the stock air box and turbo inlet pipe. Remove the inlet hose.



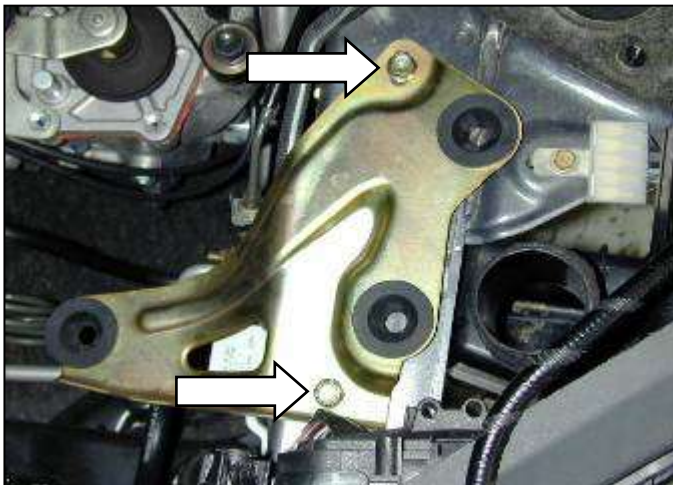
d. Disconnect the MAF sensor wiring harness from the sensor and unclip it from the side of the air box.



e. Unclip the four metal retaining straps securing the air box lid to the lower air box housing. Remove the air box lid.



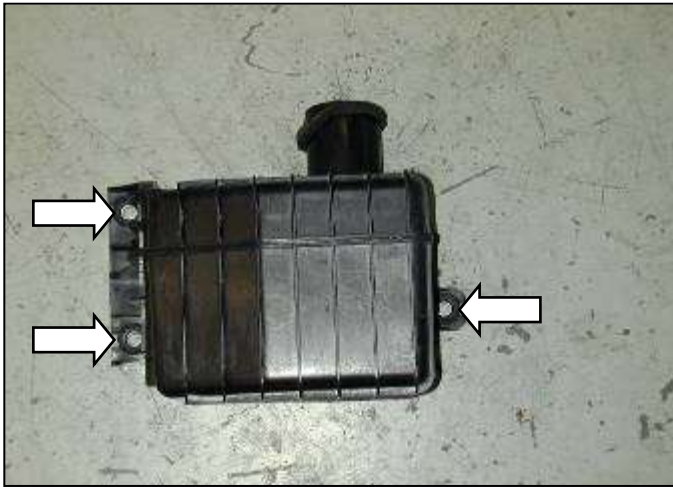
f. Remove the stock air filter. Next, pull up on the lower air box housing and remove it from the engine bay.



g. Remove the two bolts securing the lower air box mount to the vehicle chassis and remove the mount.



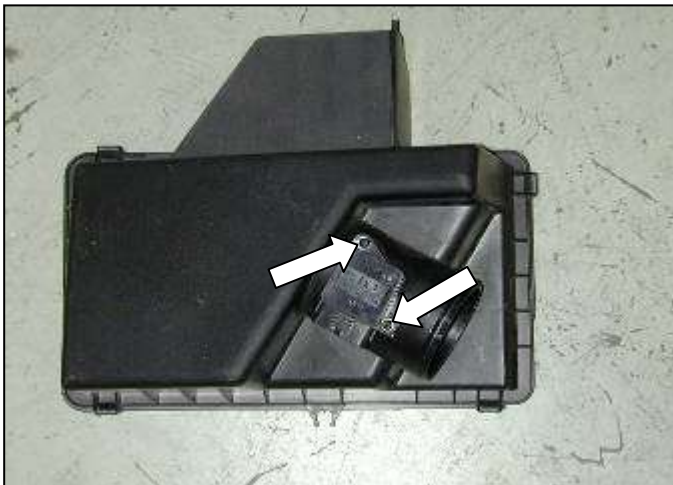
h. Raise the front of the vehicle with a jack. Refer to your owner's manual for proper jack and jack stand placement to properly support vehicle. Support your vehicle using properly rated jack stands before wheel removal or while working under the vehicle.
NEVER WORK UNDER A VEHICLE WITHOUT USING JACK STANDS.
 Remove driver side wheel. From underneath the vehicle, remove the 4 screws and two plastic connectors securing the inner fender liner to the bumper.



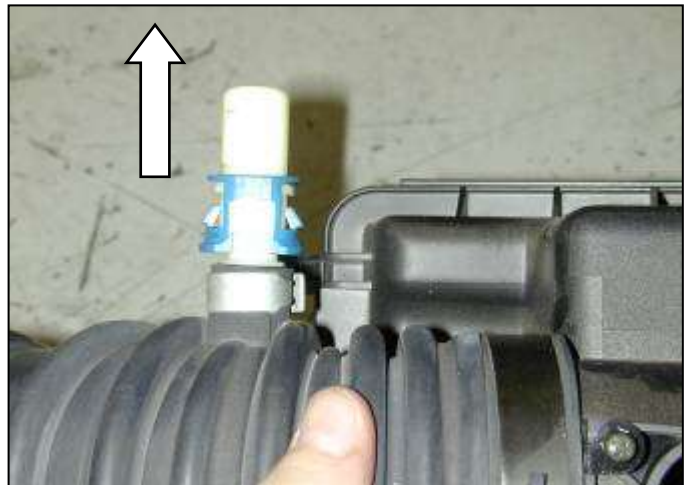
i. Remove the three nuts securing the lower resonator to the chassis and remove the resonator.



j. Factory air box system removed.



k. Remove the two screws securing the MAF sensor to the air box lid. Be careful not to damage the sensor.



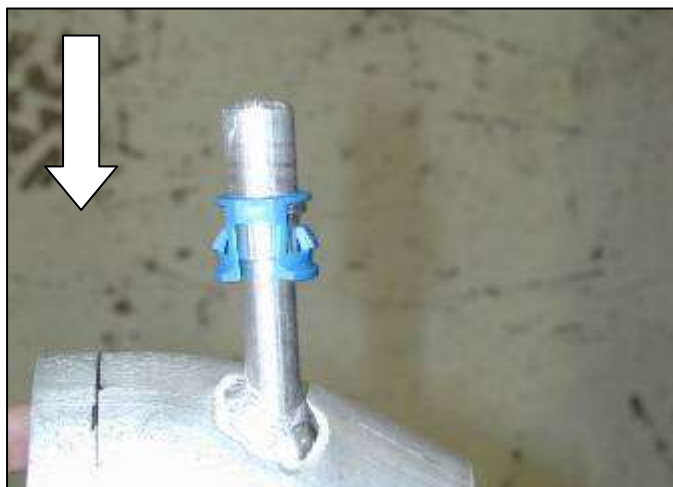
l. Remove the blue plastic breather hose clip from the breather nipple by prying up on the two small tabs.

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 45 degree coupler onto the turbo inlet tube and secure using a #40 hose clamp.



- c. Check to see that the inside of the AEM® intake pipes are clean and free from any foreign objects. Install the previously removed blue plastic breather hose retaining clip by carefully sliding it over the breather hose until it snaps into place.



- d. Install the previously removed MAF sensor into the lower inlet pipe using the two supplied Allen bolts.



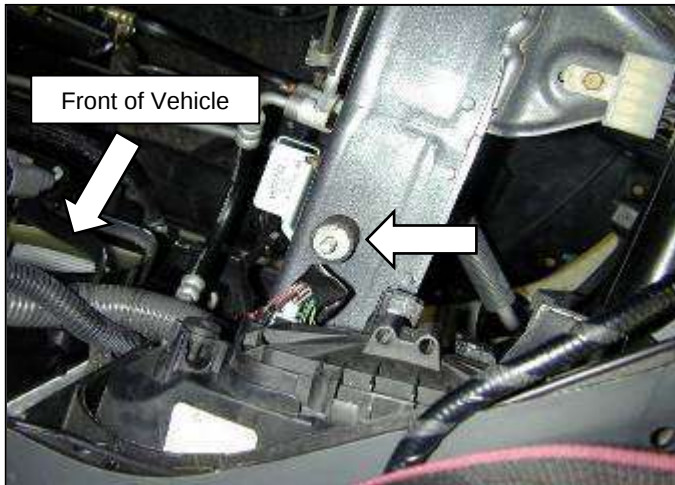
- e. Slide upper inlet pipe into the previously installed coupler with the breather nipple angled towards the engine. Secure with a #48 hose clamp.



f. Attach the breather hose to the nipple on the upper pipe. The end of the breather hose will need to be rotated to fit properly.



g. Install the 3" coupler to the end of the upper inlet pipe. Secure the coupler with a #48 hose clamp.



h. Install the rubber mount into the engine bay where the lower air box mount was previously removed in step 2g. Use the front mount location.



i. Install the lower inlet pipe into the coupler attached to the upper inlet pipe and use a #48 hose clamp so secure. Align the mounting bracket with the rubber mount that was installed in the previous step.



j. Secure the lower inlet pipe using the supplied M8 washer and nut.



k. Install the AEM® air filter onto the end of the inlet pipe. Push the air filter over the inlet pipe until the stop in the air filter is reached. Install one hose clamp to secure the air filter onto the inlet pipe. Once fitment is checked, tighten the hose clamp.



l. Plug in the MAF sensor and secure the wiring harness using the supplied tree mount zip tie. Trim the excess plastic zip strap. Reinstall the plastic intercooler cover removed in step 2a.



m. Ensure that the air filter is not touching any part of the vehicle. Position the AEM® intake system for best fitment. Be sure that the pipe or any other component is not in contact with any part of the vehicle. Tighten the hose clamps at the inlet tube and silicone coupler. Tighten the nut on the mounting bracket. Re-adjust the intake pipe if necessary.



Factory air box system installed



AEM® intake system installed

4. Reassemble Vehicle

- a. **Fender liner:** Install the fender liner and any hardware that was removed in steps 2h.
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 the 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® 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.