



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

# INSTALLATION INSTRUCTIONS

## PART NUMBER: 22-482

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2000-2003

MAZDA

Miata

L4-1.8L

C.A.R.B. E.O. # D-392-28

## PARTS LIST

| Description                          | Qty. | Part Number |
|--------------------------------------|------|-------------|
| Element Parts Kit 2.75 X 5" Dry Ele. | 1    | 21-202DK    |
| Upper Pipe                           | 1    | 2-4821      |
| Lower Pipe                           | 1    | 2-4822      |
| Hose, Adapter 2.50/2.75 X 3" Bl.     | 1    | 5-257       |
| Hose, Silicone 2.75x2" Black         | 2    | 5-272       |
| Zip Tie, 6 Long                      | 1    | 1-113       |
| Grommet, IAT                         | 1    | 8-122       |
| Hose Clamp, 3/4"                     | 1    | 4093-5      |
| 1/2" Bnd. Hose Clamp, 2.56"-3.50"    | 1    | 9448        |
| 1/2" Bnd. Hose Clamp, 2.31-3.25"     | 5    | 9444        |
| 1/2" Bnd. Hose Clamp, 2.15-3.00"     | 1    | 9440        |

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

## **2. Removal of stock system**

- a. Refer to diagram (Fig. 1) on page 5 for the identification of these components: ventilation hose, intake air temp. sensor and the mass air flow sensor (MAF).
- b. Disconnect the ventilation hose from the air hose.
- c. Loosen the two hose clamps that secure the air hose to the throttle body and the MAF sensor. Remove the air hose.
- d. Disconnect the MAF sensor and intake air temp sensor wires.
- e. Remove the air filter assembly by removing the 3 bolts. (Fig. 2)
- f. Remove the headlight relays from relay mount. (Fig. 3)
- g. Loosen the three bolts holding the relay and air cleaner assembly mount and remove it. (Fig. 3)
- h. Mount the headlight relays to the fender using the factory threaded holes and the original relay mount bolts. (Fig. 4)
- i. Separate the MAF sensor from the air cleaner assembly by loosening the two 10 mm bolts.  
**NOTE: Make note of which end of the MAF sensor is the inlet side. (Fig. 5)**
- j. Separate the air temp sensor and its rubber grommet from the air cleaner cap.

## **3. Installation of AEM<sup>®</sup> Intake System**

- a. When installing the intake system, do not completely tighten the hose clamps or mounting hardware until instructed to do so.
- b. Check to see that the inside of the AEM<sup>®</sup> intake pipes and air filter are clean and free from any obstructions.
- c. Install the 2.50" / 2.75" adapter onto the throttle body using a supplied hose clamp (9444).
- d. Install one (9444) hose clamp onto the other end of the coupler.
- e. Slide the 2.75" curved intake pipe onto the coupler. (Fig. 8)
- f. Install the 2.75" coupler onto the exposed end of the upper intake pipe, securing it with a No. (9444) clamp.
- g. Slide the outlet end of the MAF sensor into the coupler, and secure it with a No. (9444) hose clamp.
- h. Install the rubber grommet into the 3/4" hole in the lower intake pipe. (Fig 6)
- i. Install the air filter onto the end of the lower intake tube and secure it with a No. 44 Hose clamp. (Fig. 6)
- j. Using the 2.75" coupler, and 2 No. (9444) clamps, install the lower intake pipe onto the inlet side of the MAF sensor and secure the bracket to the power steering pump bracket using the original nut, as shown. (Fig. 7)
- k. Install the air temp sensor in the rubber grommet installed on the lower intake tube.
- l. Bundle the excess wiring away from any moving objects and the exhaust manifold using the included zip tie.
- m. Install the valve cover breather hose onto the nipple on the upper intake tube.
- n. Connect the wiring harnesses to the MAF sensor and the air temp sensor.

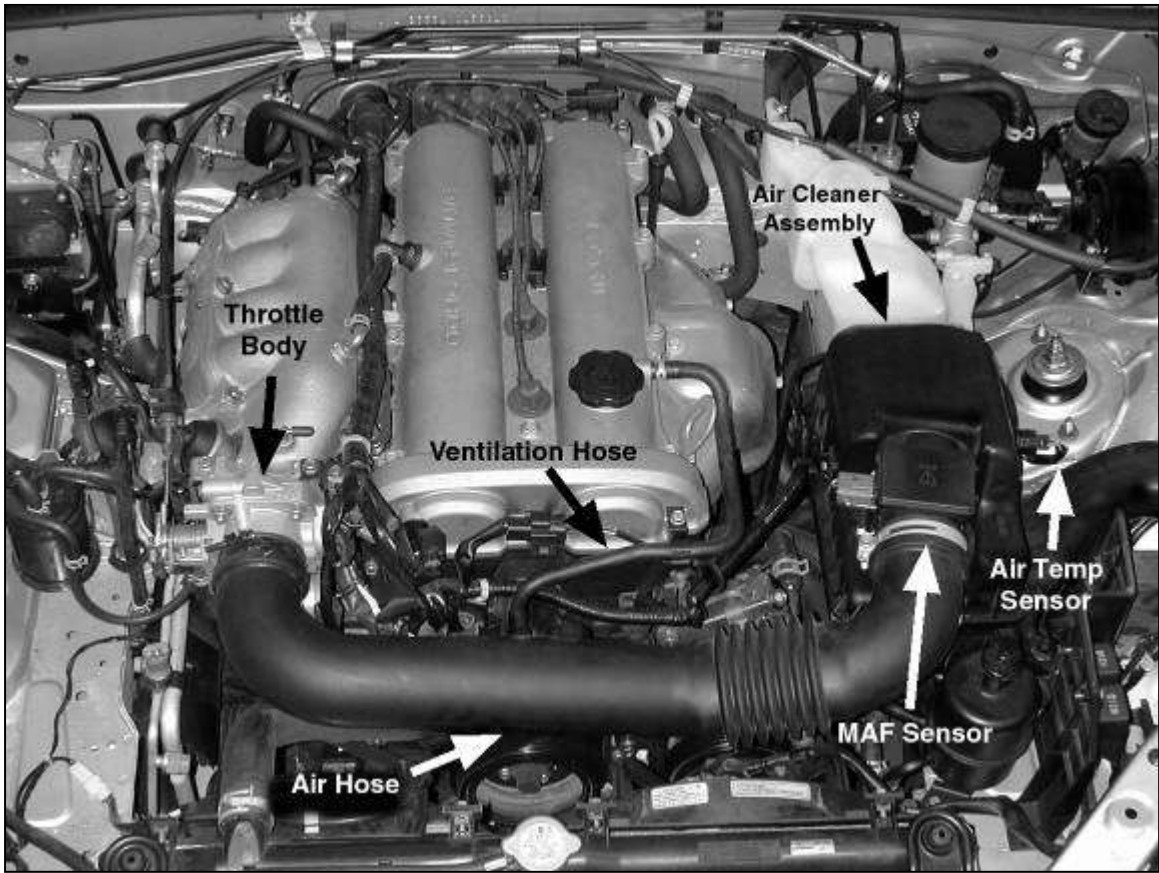


Fig. 1

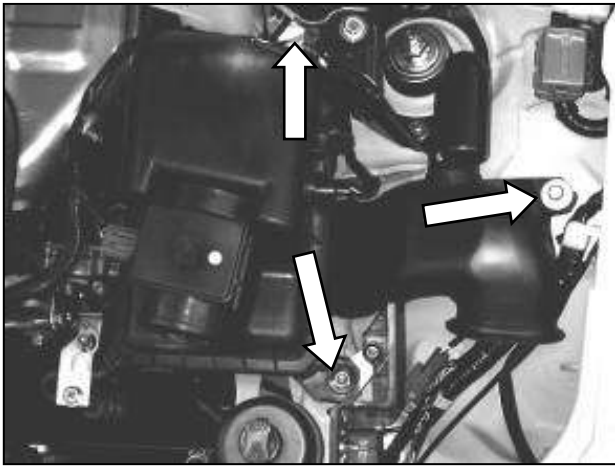


Fig. 2

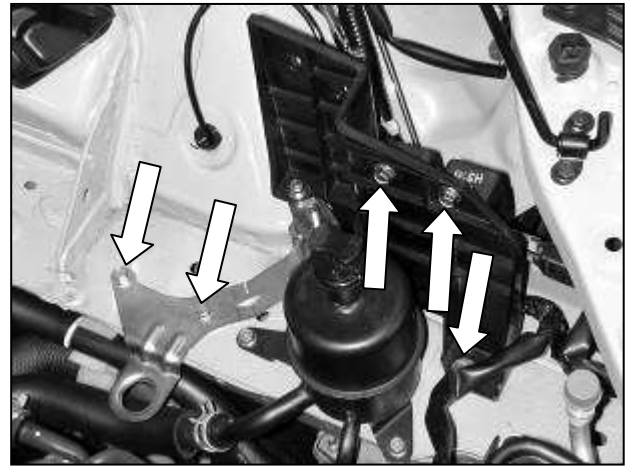


Fig. 3

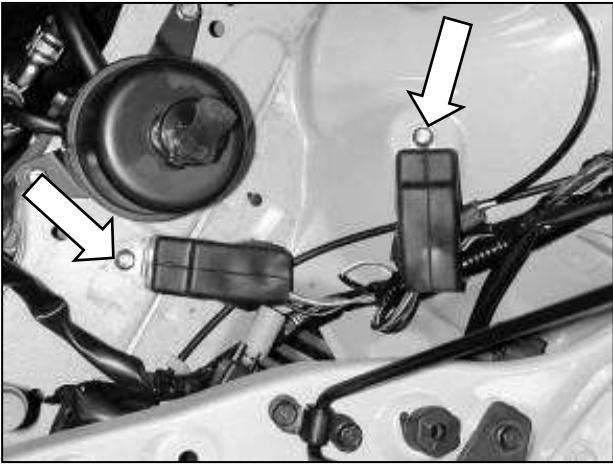


Fig. 4

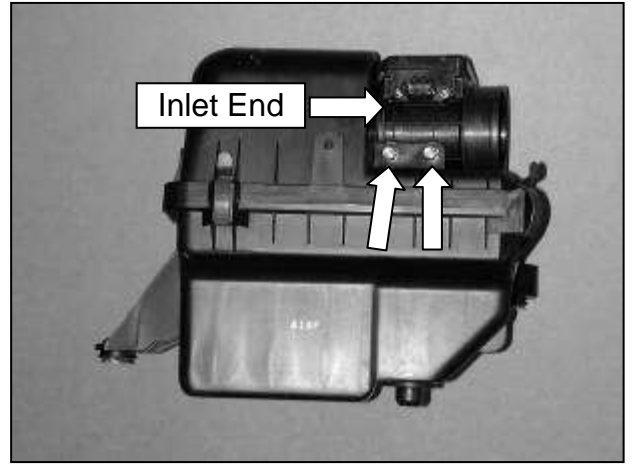


Fig. 5



Fig. 6

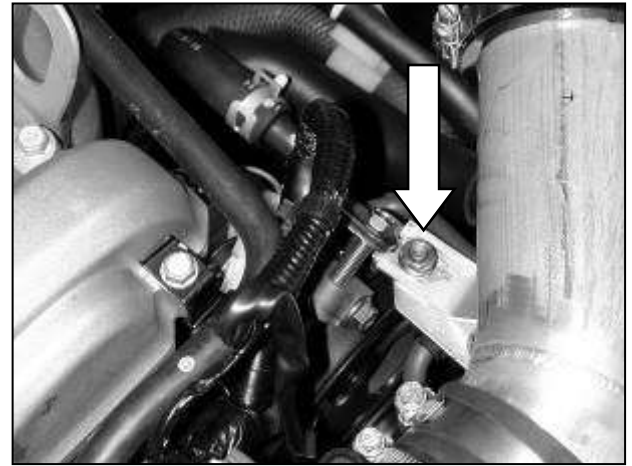


Fig. 7

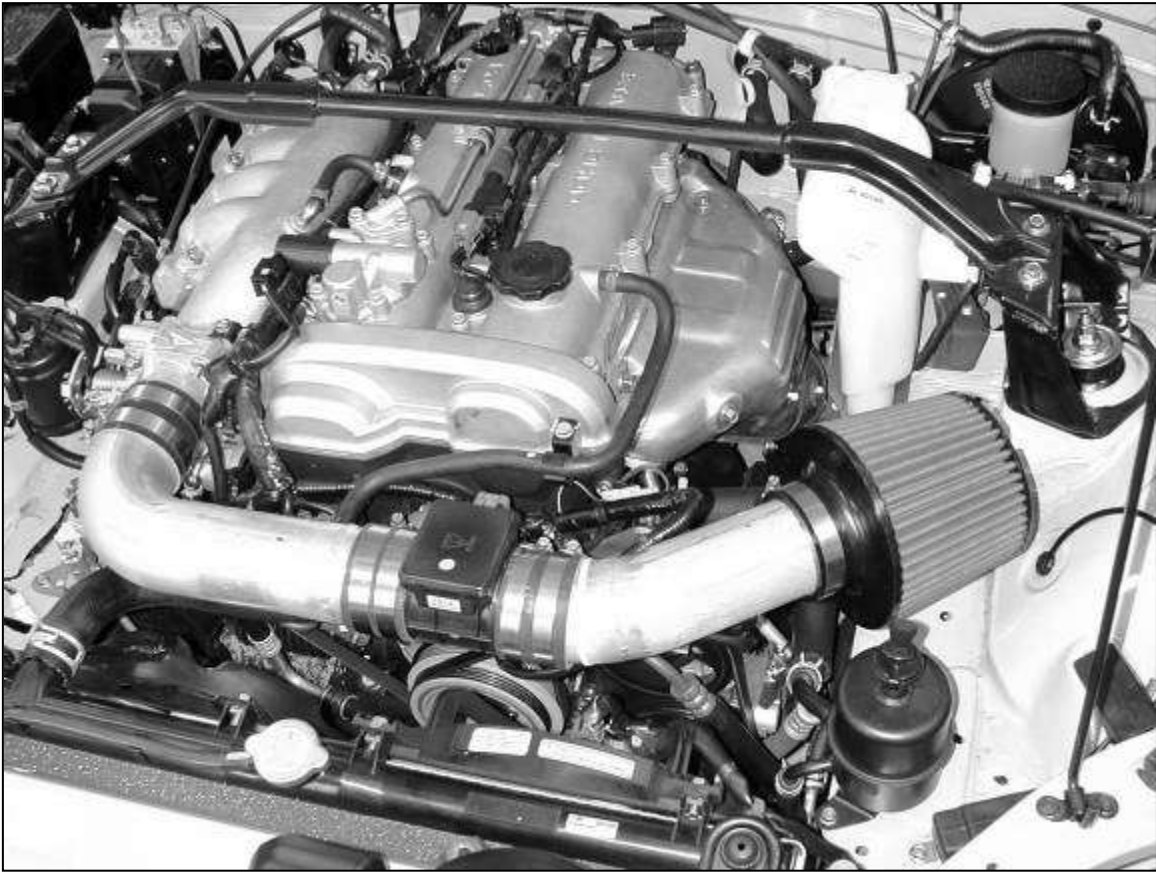


Fig. 8

#### 4. Reassemble Vehicle

- a. Position the inlet pipes for the best fit. 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 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<sup>®</sup> Dryflow<sup>™</sup> 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<sup>®</sup> intake tube.
- c. Use window cleaner to clean your powder coated AEM<sup>®</sup> intake tube. **(NOTE: DO NOT USE aluminum polish on powder coated AEM intake tubes).**