

1999-05 Miata High Flow Air Inlet Assembly

Part No. 56502

Installation of this assembly on a Miata equipped with the factory shock tower brace requires the use of the RB Mounting Bracket Kit (Part No. 56511 or 56512). START the intake installation process by following the steps listed in the Mounting Bracket Kit instructions. (Instructions I-56511 or I-56512)

Read through these instructions before starting installation of the intake assembly.

1. Loosen the hose clamp and disconnect the plastic hose from the outlet of the air meter. Unplug the electrical connectors from the air temperature sensor and the air meter (do not attempt to unscrew the air meter connector or permanent damage may occur). Disconnect the three (3) wire harness support clips from the air filter box by using a pair of needle nose pliers. Remove the air filter box from the chassis. (See Figure 1)

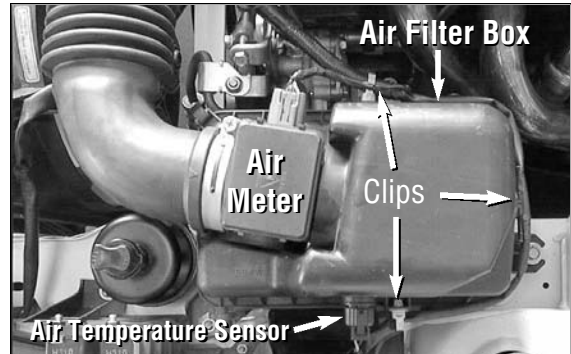


Figure 1

2. Remove the two (2) bolts and one (1) nut (See Figure 2) that secure the air filter support bracket and set aside the two bolts for later use in the same locations. Remove the support bracket. Next, remove the bolt that secures the front of the plastic relay mount panel. Now remove the relays from the panel and gently set them aside. The relay mounting bolts and nuts will be used later to re-mount the relays in a different location.

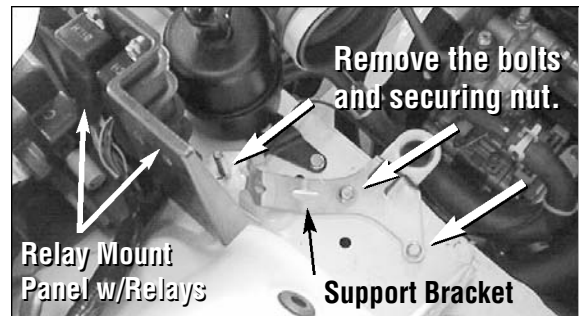


Figure 2

3. Remove the air meter from the filter box by removing the two bolts, then pulling the air meter out of the box. (See Figure 3) The rubber seal will be reused. Note that there is an arrow on the air meter showing airflow direction. Also remove the air temperature sensor from the filter box by pulling it out while "twisting". The rubber grommet will also be reused.

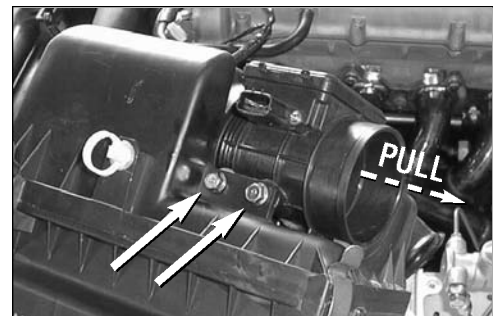


Figure 3

4. Re-install the rubber seal onto the inlet end of the air meter with the seal ribs oriented as shown (See Figure 4). Lightly lube the ribs of the seal and the inside mating recess of the aluminum intake duct with grease or oil. **Note:** Do not apply any lubricant between the seal and the air meter. Gently insert the air meter/seal assembly into the duct while aligning the four (4) holes as shown in Figure 5.

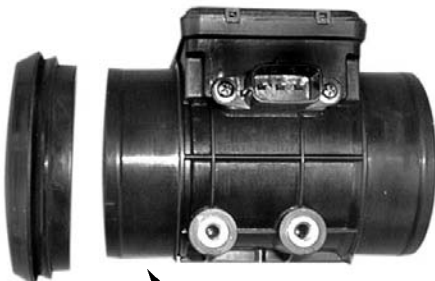


Figure 4

Do **not** apply lubricant between the seal and the air meter.

5. Assemble the air meter to the aluminum duct using the RB support bracket, two (2) round spacers, two (2) long bolts that originally were used to attach the air meter, and two (2) supplied short bolts. (See Figure 6) Before final tightening, be sure the air meter

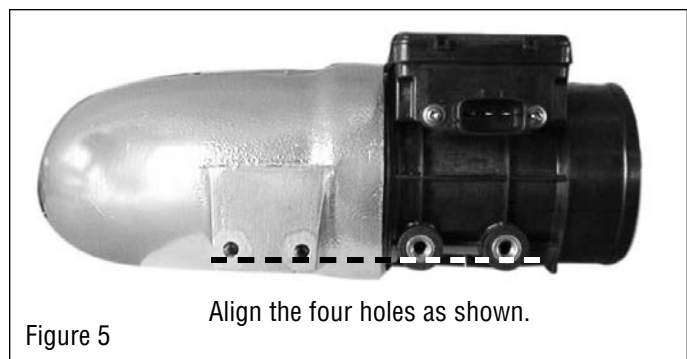


Figure 5

Align the four holes as shown.

is fully and squarely seated in the duct. Insert the rubber grommet for the air temperature sensor into the hole on the side of the duct (See Figure 7), then insert the sensor with a “twisting” motion.

6. Invert the aluminum duct (Racing Beat logo down) and install the last short bolt supplied through the small hole of the large (2.5”long) oblong bracket and into the duct as shown. (See Figure 7) Do not tighten the bolt.

STOP: If you are installing the Racing Beat Carbon Fiber Cold Air Duct along with the High Flow Intake, proceed to Page 3 and continue with step 6A.

7. If you are installing this intake using the *Racing Beat Mounting Bracket for the Mazda Factory Shock Tower Brace*, return to the instructions supplied with that kit, and proceed with **Step 7A**. If NOT using the Shock Tower Brace Mounting Bracket, proceed to Step 8.

8. Place the Duct Assembly into the chassis (see Figure 10) while hooking the oblong bracket over the forward shock mount stud (do not remove the existing nut). Use the two original support bracket bolts to attach the new RB support bracket to the chassis, do not tighten fully. Use the supplied 8mm nut to attach the oblong bracket to the forward shock mount stud, and tighten. (See Figure 8). Tighten the bolt on the “intake” end of the oblong bracket, and the bolts that secure the intake support bracket (72 in/lbs).

9. Install the plastic intake hose, removed in Step 1, to the outlet of the air meter, and tighten. Attach the relays to the upper two (2) holes of the RB support bracket using the original hardware that was removed in Step 2. See Figure 10 for orientation of the the relays.

1999-2000 Miata: If your car is equipped with the Mazda Factory Driving Lights, use the supplied “small” (1.5” long) oblong bracket to mount the additional driving light relay. (See Figure 9)

10. Install the air filter element. Route the wire through the arms of the RB intake support bracket as shown in Figure 10 and insert the harness clip into the remaining hole in the support bracket. Reconnect the electrical connector to the air meter and air temperature sensor. See figure for wire routing and electrical connector attachment positions.

11. Gently lower the hood and check clearances. This completes the installation of this intake kit.

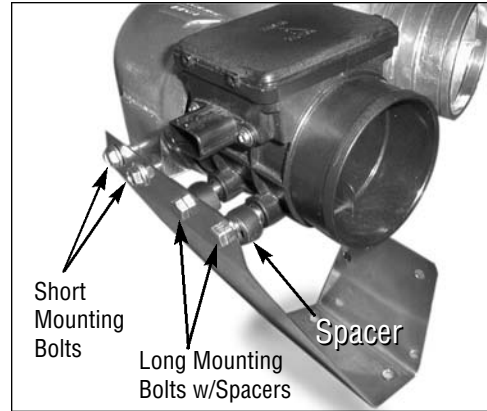


Figure 6



Figure 7

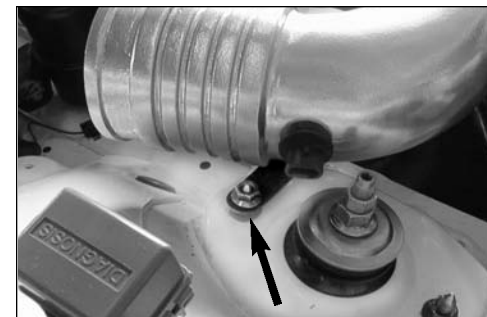


Figure 8

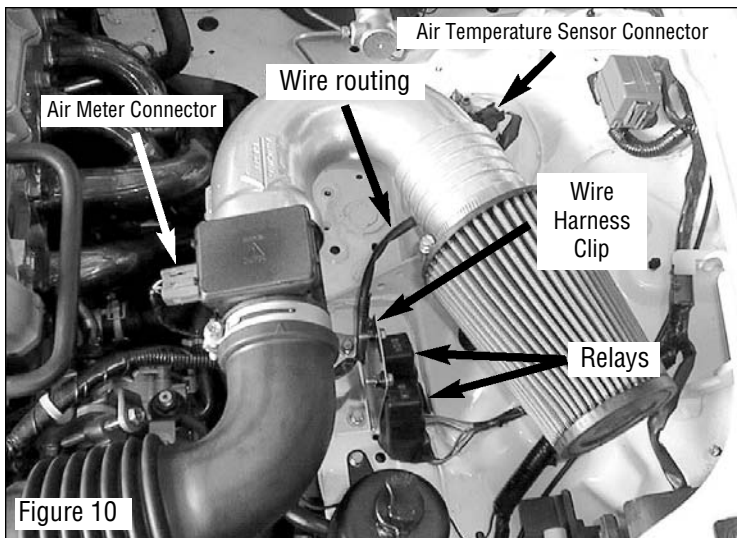


Figure 10

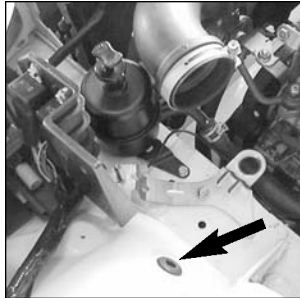


Figure 9

Mount end of bracket with lower relay, secure Driving Light relay on the opposite end of the small bracket.

Installation of the Racing Beat Carbon Fiber Cold Air Duct and High Flow Intake Assembly

6A. Electrical Relay Positioning- Using the 2.5" long oblong bracket supplied, mount the relays together back-to-back to either hole of the oblong bracket using one of the nuts and bolts that originally attached the relays to the car. (See Figure 11) Attach the relays to the inner fender wall as shown in Figure 12 using the short bolt that was originally used to attach the relay to the chassis. Note: If you have additional relays, use the supplied tie wraps to secure them to the wire bundle.



ABS (Anti-lock Brakes) equipped cars: Locate the ABS sensor wire that extends up through a chassis-mounted rubber grommet located approximately 5" in front of the driver's side shock tower. (See photo at left) Follow this wire inside the engine compartment to the electrical connector, and unplug this connector. Position the end of this connector towards the rear of the car, and temporarily tape it into place. (This will keep the connector out of the way during the installation of the carbon fiber duct.)

7A. Slip the hose clamp over the inlet end of the aluminum duct. Position the air filter inside the carbon fiber duct and push the filter onto the inlet of the aluminum duct as shown in Photo 13. (Make certain that the air filter is seated in the recess on the inlet end of the duct.) Slide the hose clamp into place and tighten.

If your car is NOT equipped with ABS, place the supplied small rubber grommet into the opening on the side of the carbon fiber intake duct to seal the hole.

8A. If you are installing this intake using the **Racing Beat Mounting bracket for the Mazda Factory Shock Tower Brace**, return to the instructions supplied with that kit, and proceed with **Step 8B**. If NOT using the Racing Beat Shock Tower Mounting Bracket, proceed to Step 9A.

9A. Place the complete Duct Assembly into the chassis while hooking the oblong bracket over the forward shock stud, and position the fan wire bundle underneath the recess located in the forward lower edge of the cold air duct. (Use this recess to route any other accessory wires that would otherwise become "pinched" under the duct. Secure wires using the supplied tie wraps.)

ABS equipped cars: Do not route the ABS wire under the duct. This wire will be routed through the opening in the side of the duct at a later step.

Secure the cold air duct to the chassis using the two (2) supplied bolts. Use the two original intake support bracket bolts to secure the new RB intake support bracket to the chassis (72 in/lbs.).



Figure 11



Figure 12

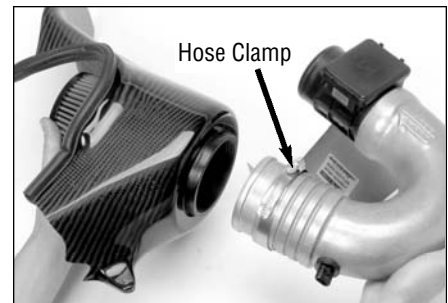


Figure 13

10A. Reattach the plastic intake hose, removed in Step 1, to the outlet of the air meter, and tighten. Install the wire retaining clip into the lower hole on the intake support mounting bracket and route the wiring as shown in Figure 14. Reconnect the electrical connector to the air meter and the air temperature sensor. Tighten the bolt that attaches the oblong bracket to the underside of the duct.

ABS equipped cars: Route the connector end of the ABS wire through the opening in the side of the duct. Place the small rubber grommet over the wire, and insert the grommet in the opening in the carbon fiber duct. See Figure 15. Connect the ends of the ABS electrical connectors in the area shown in Figure 16.

11A. Gently latch the hood of the car. If the hood appears to be "raised" in the area between the fender and headlight, raise the hood and adjust the hood "stop". (See Figures 17A & B) Adjust the stop by rotating it clockwise, which lowers the hood accordingly.

12A. This completes the installation of this intake kit. Check the completed assembly to make certain that all fasteners have been securely tightened. Start the car and test the operation of the intake.

Keep these instructions with your records for reference during the removal and cleaning of your filter element.

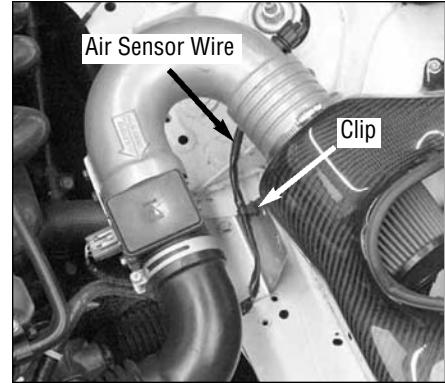


Figure 14



Figure 15

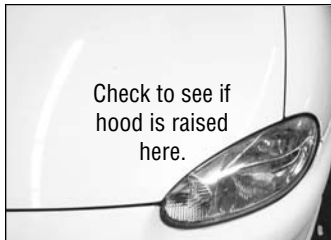


Figure 17A



Figure 17B

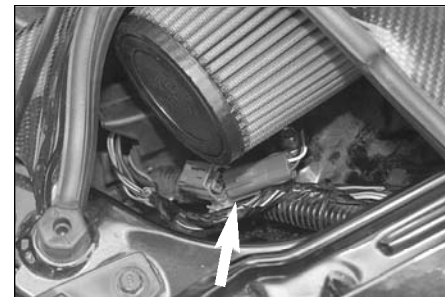


Figure 16

Care Of Your K&N Air Filter:

Your High Flow Air Inlet Assembly is equipped with a genuine K&N air filter. If cared for properly, this air filter should last indefinitely. To maintain your filter, obtain the K&N Recharger Kit to clean and re-oil your filter. This inexpensive kit contains all the components required to clean your filter. Check the condition of your filter periodically, and remove and clean the filter if it appears excessively dirty. The underside of the filter element is positioned closer to the air inlet, and may become dirty at a faster rate than the topside. When removing your filter from the aluminum duct, take care not to "twist" your filter during the removal process. The twisting motion can damage the mesh screen of your filter.

Use these Racing Beat part numbers to order the required parts:

K&N Recharger Kit Part No. 55019
K&N Replacement Filter Part No. 56520

**California Air Resources Board (CARB)
Emission Exemption Decal****1999-2005 Miata High Flow Intake Assembly
EO # D-450-6**

Sections 27156 and 38391 of the California Vehicle Code charge the Air Resources Board (ARB) with the responsibility of ensuring that aftermarket parts used on emission-controlled motor vehicles do not have an adverse impact on the vehicle's emissions. To ensure that these parts do not have an adverse impact on emissions, the ARB has developed a program to test and evaluate "add-on" or "modified parts". By meeting the requirements of this program, a manufacturer can receive an exemption from the prohibition(s) of Sections 27156 and 38391, thereby allowing the sale and use of such exempted parts in California.

The supplied decal applies to a the **1999-2005 Racing Beat High Flow Intake** and/or **Carbon Fiber Intake Duct**, which has successfully passed the emission testing program. The Executive Order number that is indicated on this decal applies **ONLY** to the specific model years that were subjected to emission testing.

The supplied decal is required to aid in passing the California Smog Check program. This decal must be displayed in **one** of the following ways:

- 1) This decal should be placed in an area in close proximity to the Racing Beat part in a location that is visible to a smog check technician.
- 2) This decal should be placed on the Racing Beat part in a location that is visible to a smog check technician.
- 3) This decal should be placed under the vehicle's hood, next to the manufacturer's emission decal.

