

## Race Header Kit\*

(For 1999-2000 California Emission Regulations equipped Miatas)

All 1999-2000 Miatas are equipped with a catalytic converter that is incorporated into the factory connecting pipe. California emissions equipped cars are supplied with an additional catalytic converter located between the exhaust manifold and the front pipe.

Installing this header on a California emissions equipped 1999-00 Miata requires that 1) the primary catalytic converter be removed, and 2) the rear oxygen sensor must be relocated into the the factory connecting pipe behind the secondary catalytic converter.

Relocating the oxygen sensor behind the secondary catalytic converter requires that the connecting pipe be removed from the car, a sensor hole be drilled (1/2-inch diameter) and a sensor nut be welded to the connecting pipe.

In the process of installing this header, you will be switching the front and rear oxygen sensor positions. These sensors differ only in wire length.

### Installation

Refer to the diagram for part location.

At this point you should have followed the installation instructions (Part No. I-56002) supplied with the header. If so, proceed with the following steps:

5) With the connecting pipe on the car, mark a location on the driver's side of the connecting pipe approximately 4-inches back from the catalytic converter weld at the "bend" in the pipe. Use the photos at right as guides to position the sensor. Unbolt and remove the connecting pipe from the car.

7) Drill a 1/2-inch hole at the marked position. Weld the nut to the connecting pipe, making certain that the nut position will allow the sensor to positioned parallel to the ground. (DONOT have the oxygen sensor in the nut while it is being welded!)

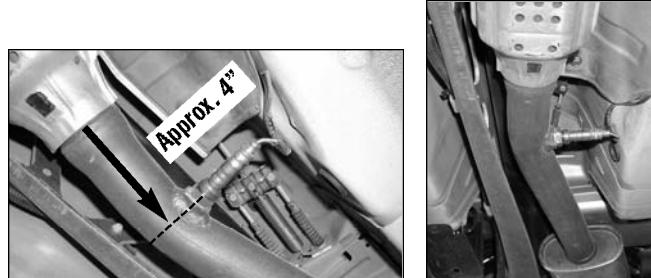
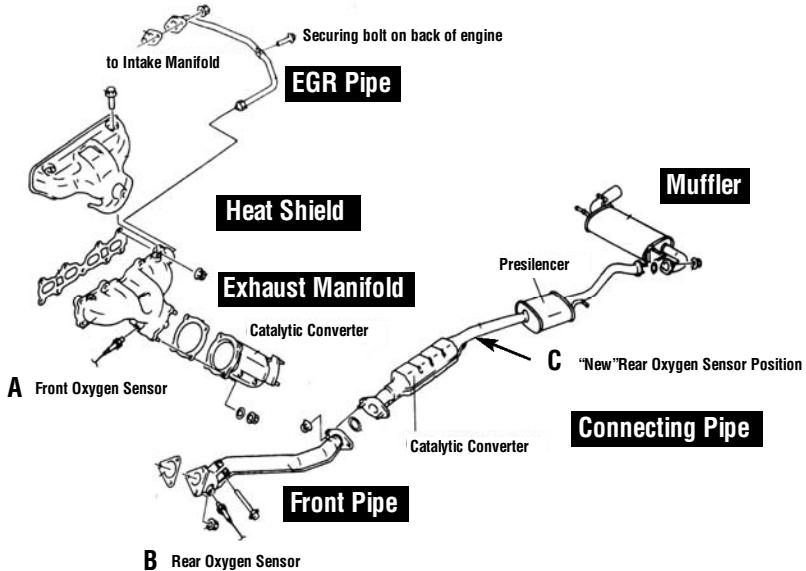
8) Carefully remove the rear oxygen sensor (B) from the front pipe. Apply a small amount of "never-seize" product to the sensor threads (do not allow this material to contact the end of the sensor). Install this sensor into the sensor position on the Racing Beat header.

9) Place a small amount of "never-seize" material on all stud threads before re-assembly. The original gaskets can be re-used if they show no signs of failure, i.e. black streaks, cracking, etc... Place the engine-to-header gasket on the mounting studs.

10) Place the header on the car, being careful not to damage the upper end of the oxygen sensor. Replace the water heater hose bracket over the mounting stud, being careful not to pull the hose rearward. Tighten the engine-to-header nuts to 29-33 ft/lbs.

11) Place the connecting pipe on the car. Place a gasket between the header and connecting pipe, tighten the header-to-connecting pipe bolts to 32-44 ft/lbs. Place the do-nut gasket between the connecting pipe and muffler, tighten the connecting pipe-to-muffler bolts to 32-44 ft/lbs.

### California Emission Regulations Applicable Model



\*Legal for racing use only and must never be used upon a highway.

12) Carefully remove the front oxygen sensor (A) from the exhaust manifold. Apply a small amount of “never-seize” product to the sensor threads (do not allow this material to contact the end of the sensor). Install this sensor into the “new” sensor position (C) in the connecting pipe.

13) Plug the “long” wiring extension cable into the rear sensor (**C**) and run the cable up to the engine compartment. We recommend that the cable be run above the heat shield that insulates the transmission tunnel. Position the cable plug as shown in photo 4. Connect this extension cable to the sensor connector located at the rear of the engine (see photo 5).

14) Plug the “short” wiring extension cable to the front sensor mounted in the header and route the cable up to the engine compartment, under the header, to the sensor connector position at the front of the engine (see photo 5 for suggested wire routing and plug position). Position the wiring harness away from the header to prevent damage. Using the supplied cable wraps, secure the cable to the water heater tube that runs under the header.

15) Tighten the header-to-EGR end fitting to 24-34 ft/lbs. (If required, tighten the two (2) EGR pipe-to-intake manifold nuts to 60 **in/lbs**. Tighten the support bracket bolt to 60 **in/lbs**.)

16) Reconnect the air intake assembly and windshield wiper tank (if necessary).

- Start the engine and check for any exhaust gas leaks. After running the engine through several “heat cycles”, re-torque the engine-to-header nuts.

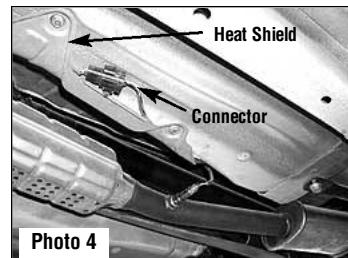


Photo 4

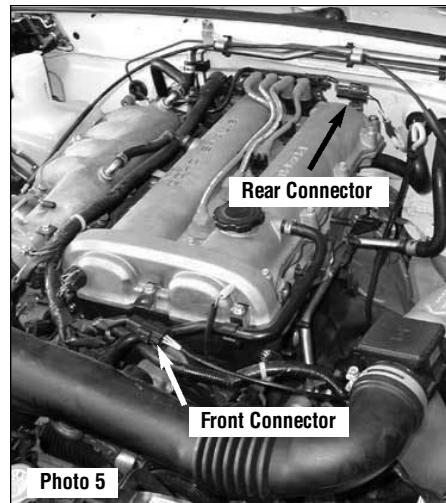


Photo 5