

Installation Instructions 1994-97 Miata Header

Read these instructions thoroughly before you start the installation process.

It is suggested that the exhaust be "cold" before attempting to install this header. Exhaust components (especially the catalytic converter) may retain heat for a substantial period of time after the car has been shut off. Further, you may experience difficulty removing the nuts on "hot" exhaust components. If you experience difficulty removing the nuts on a "cold" component, apply an loosening agent (i.e. WD 40) and slowly and carefully work the nuts off the studs.

Raise the front of the car and place the car on jack stands. Never work on a car supported only by a floor jack.

1. Remove the heat shield from the stock manifold. Remove the securing nuts and bolts that retain the stock air intake box and re-position it to allow access to the stock manifold.
 2. Loosen the manifold securing nuts. Spray with a penetrating spray if needed. Before removing the stock manifold from the engine, note that there is a heater water tube bracket sandwiched on top of the manifold-to-engine flange at the lower right of the flange. When removing the manifold, take care not to pull the heater tube rearward since it might disengage from the water pump. Unbolt the EGR fitting from the exhaust manifold.
 3. Unplug and carefully remove the oxygen sensor from the exhaust manifold.
 4. Work the stock manifold-to-catalytic converter nuts off the studs slowly and carefully. If the nuts are difficult to remove, spray with a penetrating spray and slowly work the nuts off the studs. If a stud should break, the stud can be replaced or drilled out and a new securing bolt substituted. (The two (2) nuts at the front of the catalytic converter look the same as the manifold-to-engine nuts but they are coarse thread - do not mix!)
 5. Remove the nuts that connect the stock exhaust manifold to the engine. Remove the two nuts connecting the catalytic converter to the exhaust manifold pipe. Unbolt the bracket from the bell housing that supports the center of the stock manifold, remove the bracket along with the manifold section. Access to these bell housing bolts are difficult. If you are having trouble accessing or loosening these bolts, unbolt the stock manifold from the bracket, remove the stock manifold, then remove the bell housing bracket. This bracket will not be re-used on the Racing Beat header. Replace the bolts in the bell housing, tighten to 47-66 ft/lbs.
- Time Saving T ip:** Several Miata owners have reported that it is easier to unbolt the bracket assembly from the stock exhaust manifold, then remove the bracket from the bellhousing. (The bolt head is located on the driver's side of the bracket and may be difficult to reach.)
6. Remove the stock manifold from the car. The easiest way to remove the exhaust manifold is to pull it straight off the engine and then move it towards the front of the car, turning it clockwise until it slides out. (On some Miatas we have found that clearance problems makes removing the assembled unit impossible. If this is the case with your vehicle, unbolt the upper and lower sections and remove them separately from the car.)
 7. 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...
 7. Remove the oxygen sensor from the stock manifold sensor and place it in the Racing Beat header.
 8. Carefully guide the Racing Beat header into the car. Position the header onto the engine studs, and tighten all header-to-engine bolts to 29-33 ft/lbs. Tighten the header-to-catalytic converter bolts to 28-38 ft/lbs. Re-install the EGR fitting onto the header.
 - After installing the header, check to see how much clearance exists between the rear most exhaust tube and the heater water tube. If the clearance is less than 3/4" (about one finger width), gently pry the water tube rearward to obtain the needed clearance.
 9. Re-install the oxygen sensor, being careful not to get any non-seizing material on the sensor, just the threads. You will need to re-route the sensor wire in the most direct path possible. Do not reuse the plastic clips that hold the sensor wire in place. (It may be necessary to cut away some of the electrical tape from the wire bundle that secures the engine compartment sensor connector. This will expose additional wire if more length is required.)
 10. Re-position the air intake box and secure the mounting bolts.
 11. Start the car and check for exhaust gas leaks.

