



# Installation Instructions

## Remote Oil Filter

FOR MIATA 1990-2005

PART # 902-115

### Tools Needed for Remote Oil Filter Installation:

10, 14 mm, wrenches and sockets with ratchet  
7/8" open wrench  
Oil Filter wrench (Optional Moss # 900-900)  
Drill bit set  
Electric drill  
Large adjustable jaw pliers

**Note: Please read all Instructions completely before attempting installation!**

To install the Moss Remote Oil filter or cooler kit, it will be necessary to elevate the front of your Miata safely using a jack and jack stands or ramps. Under NO circumstances should you attempt to work under your Miata using only a jack. Consult your Owner's Manual for the proper jack points.

1. After opening your hood and raising the front of the car start by removing the black plastic under tray located under the engine. It is attached by ten bolts with 10-mm heads and 2 nuts. You will find that under the two nuts located in the front corners is the slender brace to support the corner of the Miata's "nose," as the nose is flexible, you can carefully pull the brace of the stud under the nuts and just let them hang until re-installation.
2. From under the hood, locate the intake

manifold support brace under the manifold. (see Illus. #1) Remove the bolt or bolts that attach it to the manifold with a 14 mm socket wrench, 1.6L cars will have on bolt, 1.8L cars have two. From under the car, locate the other end of the brace that attaches it to the side of the block and remove the bolt that secures it, (it will be VERY tight).

3. With the under tray and manifold brace removed, remove the oil filter using an oil filter wrench. Install the new adapter plate, first lubricating the seal ring with clean motor oil, and then screw the adapter on the engines filter nipple. Tighten the adapter firmly using a large pair of adjustable jaw pliers. Note that on the adapter the nipples are marked IN and OUT.

4. Under the hood, on the passenger's side of the firewall, locate the oil filter mount (see Illus. #2) approximately 9" from the edge of the fender and as high up as possible. Note that on the mount, the nipples are marked IN and OUT (see Illus. #3). Using the mount as a pattern, mark and drill three 8.25 mm or 21/64" holes, ensuring that the filter and mount will be as vertical as possible, and that the

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mounting bolts and nuts will not interfere with the black plastic windshield flashing on the other side of the firewall. This flashing can be removed during installation by squeezing the ends of the plastic rivets that hold it to the firewall and pushing them back through their holes. Attach the oil filter mount to the firewall using the bolts, washers and lock nuts supplied with a 13-mm wrench. Now install the oil filter on the mount after lubricating the sealing ring and filling it with clean motor oil. Tighten it only by hand.

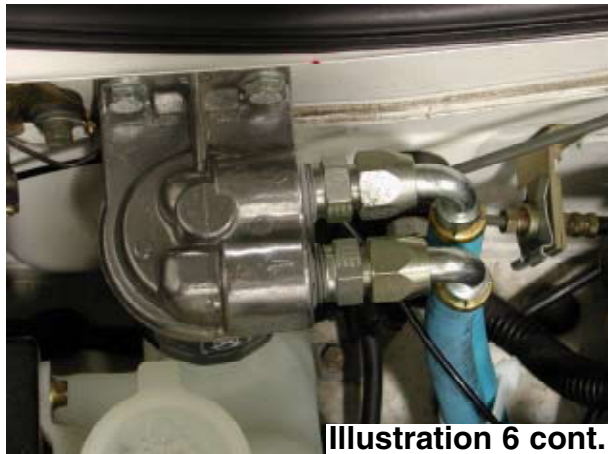
5. On Miata's fitted with ABS brakes, use part #166-000 aluminum spacer block between the oil filter mount and the firewall. This spacer will provide needed space between the brake lines and the oil filter on ABS equipped cars.

6. Observe the two oil lines, note that they are not the same length. Choose the shortest of the oil lines and attach one 90° end to the (OUT) nipple furthest from the center of the adapter plate and the other 90° end to the mount (IN) nipple furthest from the fire wall. Attach the longer line to the remaining nipples, with the straight fitting at the adapter plate and the 90° fitting at the filter mount.

7. It is recommended that before you



**Illustration 6**



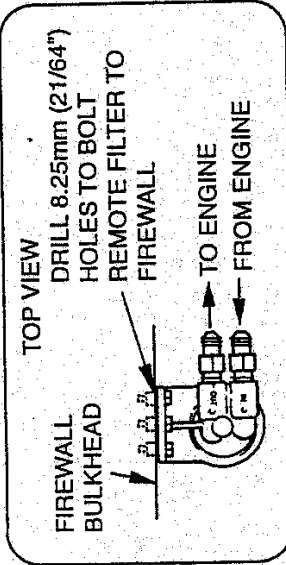
**Illustration 6 cont.**

tighten the fittings at the filter mount that you check that the oil is plumbed correctly. The oil route should be as follows: starting at the adapter on the engine, the oil flows from the OUT nipple to the IN nipple on the filter mount on the firewall, through the filter, exiting through the OUT nipple, and finally back to the engine through the IN nipple. It is also a good idea to pre-fill the oil lines at this time, using a small funnel and clean, new motor oil.

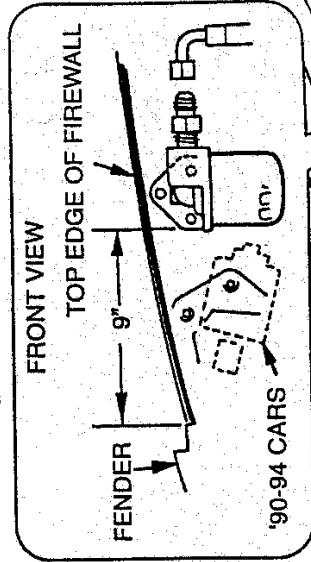
8. Tighten all fittings securely and reinstall the Manifold brace by fastening the upper bolt(s) finger tight first, then the lower bolt securely, then finally the upper bolt(s) securely. Have a friend start the engine while you observe under the hood for any oil leaks. If everything is tightened properly, you should have no oil leaks.

9. The final step in the Remote Oil Filter installation is to reinstall the under tray as described previously.

**ILLUSTRATION #3**



**ILLUSTRATION #2**



**ILLUSTRATION #1**

