Cold Air Intake

Installation Instructions

Fits: 1999-2005 Miata

PART # 909-605

Tools required:

- Ratchet
- Sockets: 10mm, 12mm
- 10mm wrench
- Philips head screwdriver
- Flat head screwdriver
- Needle nose pliers
- Side Cutters
- Two Cable ties

Included in this kit:

- 1x K&N air filter
- 1x Cobalt crossover tube
- 1x Cobalt heat shield
- 1x 2.5" Silicone coupler
- 1x 2.75" Silicone coupler
- 1x Hose barb
- 4x Hose clamp
- 54" Rubber trim lock seal

Removal of the Factory Air Box and Crossover Tube

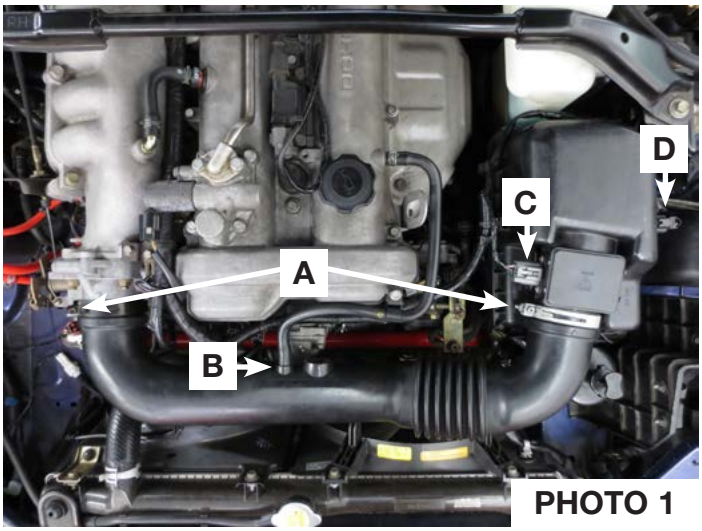

PHOTO 1

1) Use a Phillips head screwdriver to loosen the two clamps found on each end of the crossover tube. One end connects to the throttle body while the other connects to the mass airflow sensor on the air box. (See PHOTO 1: A)

2) Disconnect the breather hose from the center of the crossover tube, and then remove the tube from the vehicle by pulling each side off towards the front. Keep the spring clamp on the breather hose. Use a clean lint-free rag to cover the openings at the throttle body and mass air flow sensor. (See PHOTO 1: B)

3) Unplug the connectors on the mass air flow sensor and intake air temperature sensor located on the air box. There are three clips that hold the IAT wiring to the air box that will also need to be removed. Use a pair of needle nose pliers to gently release the back of the clips, making sure not to break the plastic. (See PHOTO 1: C & D, Illustration 3)

Illustration 3

4) Unbolt the snorkel located on the side of the air box using a 10mm socket and ratchet. Slide the snorkel off of the air box by lifting it up and toward the driver side fender. Set aside the bolt removed in this step so that it can be used later in the installation. (Illustration on next page.)

Illustration 4

5) The two relays located on the plastic bracket in front of the air box can now be removed with a 10mm socket and wrench. Move the relays out of the way, but do not remove them from the car or disconnect them.

Illustration 5

6) Unbolt both the10mm bolt and 10mm nut connecting the plastic bracket to the body of the vehicle, then remove the 12mm nut holding the bracket to the air box.

Illustration 6

7) Unfasten the final 12mm bolt located at the rear of the air box, pull it from the engine bay, and set the air box aside so that the sensors can be removed. Take out the plastic bracket as well.

8) Unscrew the two 10mm bolts and take out the metal support bracket that was positioned under the air box.

Illustration 8

9) Everything has now been removed from the engine bay. The two sensors found in the air box will now need to be removed for use in the new intake.

10) To remove the mass air flow sensor, unbolt the two 10mm bolts securing it to the air box. Then pull the MAF straight out from its seal with the air box. The seal for the air box may come off with the MAF, but it is not needed with the new intake.

Illustration 10

11) Removal of the intake air temperature sensor is done by gently pulling the sensor out of its grommet. Once the sensor is removed, pull out the grommet as well. Both will be used with the new intake.

Cold Air Intake Installation

1) Begin assembly of the cold air intake by installing the intake air temperature sensor and its grommet into the new Cobalt crossover tube. Push the grommet into the hole on the side of the tube, and then gently push the IAT sensor into place.

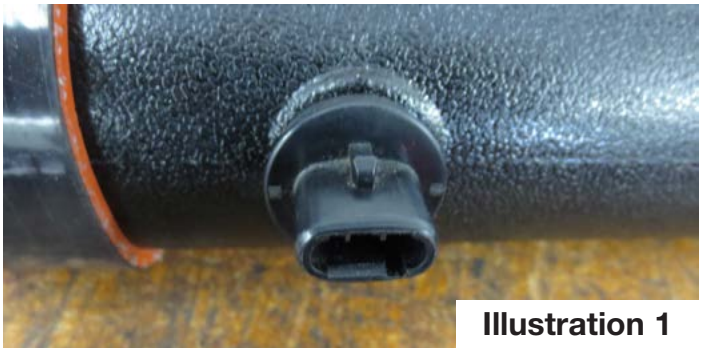

Illustration 1

2) Install the included silicone couplers onto the crossover tube. The smaller, straight diameter coupler should be installed on the throttle body side (side of tube with 90* bend). The stepped diameter coupler goes on the MAF side with the larger end facing the MAF. Loosely secure the couplers to the new intake with the provided band clamps. Do not fully tighten as the position of the coupler may need to be adjusted.

3) Position the intake tube so that the Cobalt logo is facing up. Install the mass air flow sensor and band clamp into the larger side of the crossover tube. The MAF should be positioned as shown.

Illustration 3

4) The heat shield now needs to be prepared for installation. The included roll of trim lock is a seal for the top and bottom of the heat shield as well as the circular cutout for the air filter. You will need to cut the trim lock to length using side cutters. Use the pictures as a guide.

   Push the trim lock onto the bottom edge for the heat shield firmly.

   Push the top seal on only half way down to ensure that it seals when the hood is closed. The hood can push the trim lock down where needed to ensure a tighter seal along the top of the heat shield and the hood.

   The seal that fits in the circular cutout will need to have extra cuts made to ensure that it can fit inside of the cutout without binding.

Illustration 4

5) Position the heat shield in the engine bay. It should stay to the outside of the power steering reservoir and block off the entire corner of the engine bay behind the driver side headlight.

Illustration 5

6) Line the slotted tab of the heat shield up with the bolt hole that was originally used to secure the snorkel. This tab may need to be slightly bent to match the surface of the engine bay before the bolt is fully tightened. Use the bolt removed for the snorkel to fasten the heat shield.

7) Push the end of the crossover tube with mass air flow sensor attached through the hole in the heat shield. Place the other end on the throttle body and secure it with a band clamp.

8) Connect the breather hose to the brass fitting in the new intake.

9) Install the air filter onto the mass air flow sensor through the heat shield using a band clamp. Verify that the filter is pushed all the way onto the MAF before tightening the clamp.

10) Adjust the intake tube so that it sits in the center of hole in the heat shield. Ensure that the air filter is not touching the bottom of the engine bay or the top of the wheel well.

11) Once a good neutral position has been found, fully tighten all of the band clamps.

12) Reconnect the intake air temperature sensor and mass air flow sensor, and then secure excess wiring from the IAT with a cable tie.

13) The relays removed from the plastic bracket now need to be secured. Bolt them together using the nut and bolt originally used on the plastic bracket, and then use a cable tie to secure the relays behind the driver side headlight.

Illustration 13

The new intake is now fully installed: