

Flyin' Miata

MSM intercooler upgrade kit 22-35000



Installation of the new intercooler is relatively straightforward. The stock steel intercooler pipes will have to be cut in order to accommodate the larger piece, however. Tools required are a 8, 10 and 14mm wrenches, a Philips screwdriver, big pliers and some way to cut the pipes.

Begin by lifting the car off the ground and supporting it securely on ramps or jackstands. Remove the plastic shields underneath the engine to reveal the bottom of the stock intercooler.

Unbolt the lower support for the intercooler and remove it. This also doubles as a support for the intercooler outlet tube. This won't be reused - the lack of support for the intercooler outlet tube is okay.



Remove the large spring clamps that attach the rubber interconnects to the intercooler piping. Be careful, these take a fair bit of strength to open and will attempt to escape. They're also glued to the rubber, which is glued to the piping and intercooler. Fun! Since silicone replacements are included with the upgrade kit, you can also simply slice through the rubber pieces attached directly to the intercooler. Remove the two remaining bolts holding the intercooler in place and pull it out of the car.



The horn and the factory intercooler share a bracket. The lower part of this bracket needs to be trimmed off. The horn can be attached to the remaining piece.

The steel intercooler pipes can either be cut out of the car or in place. We usually remove them, but then you have to battle with another pair of clamps and rubber hose. We're going to assume you're taking them out. Both of them have brackets holding them in place as well as the rubber hose.

Make sure the intercooler is clean inside. If you have compressed air, blow it out. The power steering line will have to be bent slightly to clear the intercooler.

Intercooler

The intercooler mounting bracket consists of one lateral bar and two vertical hangers. Begin by attaching these pieces together using the M8 x 1.25 x 20 mm (36-10421) bolts, lock nuts (36-20120) and a pair of washers (36-30130) for each bolt. They should be arranged as shown.



Note the position of the Flyin' Miata engraved in the lateral bar. In this case, the painted FM on the intercooler will be facing forward. Use the two M8 x 1.25 x 16 mm (36-10420) bolts to attach the assembly to the top of the intercooler. The outlets are at the bottom. The intercooler is symmetrical so it can be installed to make the painted FM visible through the grille (as shown) or facing the radiator.

Remove the two bolts holding the hood latch to the body. Now slide the intercooler up from underneath the nose of the car and use these two bolts to fasten the vertical hangers to the car.



Once the intercooler is in place, hold the intercooler pipes up to determine how much needs to be cut off. Typically 4" needs to be removed from the inlet pipe (driver's side) and 2-3/4" from the outlet pipe (passenger side). If you've upgraded to the 19" intercooler, you'll need to take 6-3/4" off of the outlet side (the inlet is the same). Clean the pipes out carefully when you are finished, and use pliers to create a lip around the edge of the pipe in order to prevent it from popping off. Reinstall the pipes in the car, using the supplied silicone and clamps to connect them to the intercooler. The clamps should be snug, but don't need to be as tight as possible. Simply make sure there's no chance of the hose slipping off.

Reinstall the plastic shielding that was removed earlier. Enjoy!

