

R52S-R53 Replacement Intercooler Boots

Installation Guide

M7 Speed engineers and manufactures the highest quality MINI accessories and performance parts available anywhere on the planet! Please inspect your parts when you receive them to verify everything is included and no damage has happened during shipment. Read these instructions completely BEFORE attempting to install this product. If you are not confident you can do the work described or do not have the tools, skills or knowledge necessary please contact a local M7 dealer (listed on our website www.m7speed.com) or a local automotive accessory installation center to perform this work.

This installation is classified as a moderate mechanical skill level task.



Tools & Supplies Required:

- #30 Torx socket or wrench
- Ratchet
- Masking tape
- Water based cleaner product (foaming window cleaner recommended)
- Brake cleaner or similar degreasing solvent
- Clean rags or paper towels
- Fine scouring pad (Scotchbrite) or emery cloth

DISASSEMBLY PROCEDURE

1. Begin by removing the stock intercooler diverter cover. Loosen and remove the (4) M6 retaining bolts using a #30 Torx wrench or driver.



2. Remove the diverter cover



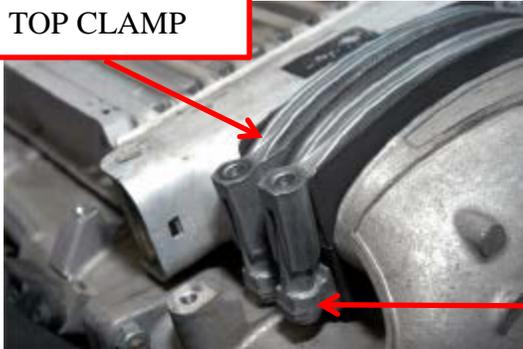
****NOTE****

Before removing the intercooler remove all loose debris and dirt from the intercooler, from underneath the intercooler, around the intercooler connection boots, horns and general work area. Best method is to use compressed air and a blow gun & a shop vac. Take every precaution ahead of time to prevent any dirt and foreign objects from falling into the intake system during the removal of the stock intercooler.

3. Use a #30 Torx driver to remove the four (4) intercooler inlet/ outlet clamps. There are eight (8) bolts in total to remove. (4) per side.



TOP CLAMP



4. Before removing, note that the top and bottom of each clamp has one male end and one female end. It is advised to make a small mark on each clamp with a Sharpie to identify top and bottom. Gently tap each clamp side to side with a small plastic hammer to loosen.

BOTTOM CLAMP

5. Remove the stock intercooler by pulling the unit up from the back and then towards the front of the car. It may be helpful to have someone hold the clamp bottoms to prevent them from falling into the engine bay.



6. Remove the stock black rubber bellows and discard. These will be replaced with the new M7 silicone boots.



****NOTE****

Take a good look at the intercooler clamps before continuing. Each clamp has two parts: Top and Bottom. The top half has a straight hole without threads. The bottom half is threaded for screws. It is **EXTREMELY** important (to avoid frustration) that you make this distinction now.



CAUTION

The intake horns to the supercharger and intake manifold are now open. **TAKE EXTREME CAUTION** not to drop anything into these open ports. This includes tools, hardware, dirt, etc.. If you do drop anything into these open ports **YOU MUST REMOVE IT** before reassembly. Failure to do so will cause extreme damage to you engine.

7. This is a great time to clean all the dirt and debris accumulated underneath the intercooler, lying on the fuel injectors, fuel rail and intake manifold. Before disturbing any of this matter seal off each intake horn with tape to ensure NO dirt or foreign objects enters your supercharger. This will cause extensive damage.
8. Inspect the inside of the intercooler. If oil residue is present this will significantly you're your MINI's performance by impeding heat transfer. For peak performance we recommend you have this part cleaned by hot tanking or ultrasonic cleaning (available at any engine machine shop). An alternate method is to spray brake cleaner or similar degreasing solvent through the intercooler until it runs clear.
9. Clean the cooling airflow flow path of the intercooler by blowing compressed air through the fins from the bottom side. (reverse of the normal air flow)
10. Clean the horns on the engine and intercooler in the area where the boots clamp & seal with degreaser and a light scouring pad to ensure a clean and non-slippery sealing surface

REASSEMBLY

****NOTE****

Before proceeding to the next step verify you have removed all tape and removed all rags you may have inserted into the intake horns.

11. Attach the large silicone boot to the passenger side intercooler horn. Clamp this one side down. Attach the small silicone boot directly onto the intercooler and clamp it down. Slide the large end of the intercooler onto the larger boot and push the rest of the intercooler down into place.
If you are having trouble sliding the boots in-place, use a water-based spray such as foaming window cleaner as a lubricant. **DO NOT USE ANY OIL OR PETROLEUM BASED PRODUCTS.**
12. Adjust the placement of the silicone boots and the intercooler itself to reduce any connection gaps. Make sure that all ends of the silicone boots are installed correctly and the Intercooler is centered between the intake horns.
13. This may be one of the trickiest parts of the installation. Fish the bottom parts of the inlet / outlet clamps under the silicone boots. Make sure that you are installing the bottom pieces on the bottom! It may be helpful to pull the intercooler slightly upwards to give you more room. Then slide the clamps in from the back of the car towards the front.
14. Attach the top clamp sections and install the factory T-30 screws. FINGER TIGHTEN ONLY! DO NOT TIGHTEN yet.
15. Before tightening down the clamps, run your fingers around the inlet and outlet holes of both the passenger and driver's side to make sure they are sitting flat and square to the intercooler and intake horns. If the boots are wrinkled or the seal is not good, adjust the position of the intercooler and the silicone boots as required to achieve a quality seal.
16. After you have verified good seal and proper location tighten the intercooler clamp bolts to 40 in-lbs. (4.5 Nm) and then final torque to 85 in-lbs. (9.6 Nm) each.
17. Reinstall the intercooler cover. Tighten the M6 screws to 30 in-lbs. (3.4 Nm)
18. Start the engine and check for any leaks. *Enjoy the ride.....!*