



BNR Heat Shield Install Guide

This product fits the GM LUV/LUJ 1.4T Engine. Install should take around 15-30 minutes.

Tools Required:

- 13mm Socket
- $\frac{3}{8}$ Socket Extension
- $\frac{3}{8}$ Drive Ratchet
- 13mm Wrench
- 10mm Wrench
- 5mm Allen Key

1. First thing is to make sure the engine is cool since you will be working around the turbo and exhaust which can get quite hot. Now using a blade screwdriver loosen the 2 hose clamps located on the tube going from the intake box to the turbo. With those 2 clamps loosened, remove the tube from the car. (See image on page 3)
2. Next, there are 2 engine lift points located on the front of the engine. Remove the single bolt holding them to the cylinder head and remove them from the engine bay. (See image on page 3)
3. On the factory turbo heat shield there is a single bolt located lower on the front side of the heat shield facing the radiator. On the Sonic it is a little difficult to get to, it is much easier to reach and see on the Cruze. You will need to use a 10mm wrench to remove this bolt from the heat shield.
4. With the bolt removed from the heat shield, find the threaded stud in the hardware bag included with the heat shield. Install the threaded stud in place of the bolt you just removed. Thread the stud all the way in until it stops and then place one of the larger diameter washers over top of the threaded stud. This is a little difficult to do on the Sonic, and is a little easier from underneath if you remove the lower tray. (See image on page 3)
5. There is a bracket that was shipped with the heat shield that will serve as one of the mounts for the heat shield itself. There are 2—13mm head bolts in the hardware kit, these will allow you to bolt the bracket to the cylinder head, using the 2 locations that you removed the engine lift points. (See image on page 3)

6. With the mounting bracket installed on the cylinder head and the threaded stud installed into the turbo, the main heat shield can be installed onto the car now. Place the shield into place lining up the single hole in the front of the shield with the threaded stud installed on the turbo already. Once the heat shield is over the threaded stud, line it up with the 3 holes on the bracket that was just installed to the cylinder head. At this point if you remove the oil dipstick, it will make it a little easier to tighten the 3 bolts. There are 3 stainless steel socket head bolts in the hardware package, install the 3 bolts through the heat shield and into the bracket mounted to the cylinder head, making sure to have a washer between the bolt and the heat shield.
7. With the 3 bolts installed along the top of the heat shield, the last thing to do is install the lower mounting nut. On the threaded stud that the heat shield is mounted over, place the other large diameter washer, then place the supplied M6 nut, tighten down the nut. This is going to be very tight on the Sonic, but is a little easier from under the car with the lower panel removed.
8. The last thing to do is re-install the intake tube from the turbo to the intake box, or whatever intake you are using.

