Installation Guide

PastPower Innovations

Intake Plenum Spacer Kit

Caution:

The Installation of this product requires detailed knowledge of automotive components. We recommend that the installation of this product be carried personnel that are qualified to perform the task.

Any responsibility or damages due to correct or incorrect installation, or production defects shall be placed solely on the end user.

When performing any mechanical work on your vehicle, ensure that proper eye protection and other safety apparel deemed necessary is worn. As always be careful when working around gasoline or any fuel system components

WARNING!

Improper installation of this kit can cause severe engine damage.

What's In the Box:

1x Delrin Plenum Spacer

4x 6mm Hex Drive Bolts (M8x65 1.25 thread)

1x 6mm Hex Drive Bolt (M8x35 1.25 thread)

1x Packet of sensor-safe RTV silicone gasket maker

Recommended Tools:

Phillips Screwdriver

10mm Socket Wrench

6mm Allen Head Socket or Wrench

Vise Grips

Razor Blade or Gasket Scraper

Before You Begin

Congratulations on your purchase of this **Intake Plenum Spacer Kit** from us at PastPower Innovations!

Before you begin the installation process, confirm that the kit has arrived with all the necessary components to complete the installation. If you are the original purchaser of this kit, and any component listed in “What’s In the Box” are missing, please contact PastPower Innovations to receive the necessary parts.

Upon test-fitting this spacer to your lower intake, you should note that the ports are about .5-1mm larger than those of your lower intake. This is an intentional design feature used to account for the differences in the lower intake’s rough sand casting dimensions. Unfortunately, because the castings have such variances, this creates a difficulty in obtaining an intake runner wall with very few irregularities at the area where the upper plenum and lower intakes meet. In short: should you choose to install it by this method, this kit can also help to provide somewhat of a remedy to this, which is an issue in the alignment of the stock parts.

300ZX Specific Installation

With the intake plenum being raised 3/8 inch, you can encounter two small problems:

- The coolant hose from the lower intake
- The EGR valve.

You must bypass the coolant flow from the lower intake using a section of hose so the engine coolant flowing through does not heat the plenum. If you do not have turbo coolant lines in place, the lower intake and coolant pipe can simply be capped off instead of bypassing the coolant flow. Bear in mind the factory cold start valve located on the passenger side of the intake plenum will no longer operate properly without heated coolant running through the upper plenum. This device can easily be disabled or removed on most cars without any issue while the intake plenum is removed.

The factory EGR tube will need to be lengthened or otherwise modified for proper EGR function. Some have simply unscrewed the nut from the manifold slightly and sealed it with RTV to get the valve tube to align properly.

General Installation Procedure

Installation (1-5hrs depending):

1. Remove the intake plenum according to your Haynes or Factory Service Manual instructions.
2. Scrape all old gasket material from lower intake flange surfaces.
3. Remove the small hose running from the lower intake to the intake plenum in the middle passenger side of the lower intake.

Optional: Remove the coolant hoses on the throttle body.

Figure 1: Coolant Hose Bypass

Optional Coolant Hose Bypass: Route coolant bypass hose around the back of the lower intake to location shown. If you have a water cooled turbocharger center section, you may wish to leave those water lines connected to feed the coolant from the lower intake. There are a few ways to route these coolant hoses; any good parts store will be able to supply you with 3/8” coolant hose, t-fittings and anything else should you need it

Figure 2: Spacer Cleaning

4. Clean the mating surfaces of the spacer using warm, soapy water.
5. Using an old rag and your choice of solvent, attempt to remove all buildup and/or deposits from the first ½" of the lower intake runner. These surfaces will need to be clean for any bond to the RTV silicone.
6. Check the fitment of the spacer on the lower intake and loosen the two bolts retaining the fuel pressure regulator if needed for good fitment (they should be re-tightened after installation is completed).
7. Apply a **light coating** of the RTV silicone to one side of the spacer

Figure 3: Place heavy object to secure plenum spacer

8. Make sure the spacer is reasonably well-aligned with the lower intake ports and immediately place something flat and heavy on top of it to make sure the spacer is firmly pressed against the lower intake. Use pressure on all areas of the spacer to make sure it forms an even and sealed bond with the flange.
9. Allow minimum of 1 hour for the RTV to set, at which time adhering the spacer to the lower intake plenum is complete.
10. Remove whatever you use to secure the spacer to the lower intake and feel the inside of each of the port entries. Use your finger with an additional small amount of RTV. Use it to smooth in the small ridge between the spacer and the aluminum wall of the lower intake port.
11. You will need to allow the small amount of RTV you used to smooth in the ports to cure for at least 20 minutes before starting the engine. Attempt to keep the RTV you apply to the spacer and lower intake well below the level of the flange surface. Apply a **VERY** thin coating of RTV to both the top of the spacer and the flange of the intake plenum.
12. Re-install the intake plenum by using the included new hardware. **Apply anti-seize compound to the new bolt threads before installation.**
13. Torque intake plenum bolts to 18-21lb/ft.