

# AGP Wastegate Actuator Installation Instructions for Caliber SRT-4 – For WGA shipped after 7/29/13 NOTE: IT IS COMPLETELY NORMAL FOR THE ARM OF THE WASTEGATE TO BE LOOSE AND ROTATE AROUND AND BACK AND FORTH. IT IS NOT BROKEN.

Parts Included: WGA with 8psi spring installed, 7/32" vacuum hose, zip ties, 12psi and 19psi spring

### Choosing your spring rate:

8psi spring (already installed) – Use the standard wastegate spring if you desire to use the factory PCM's solenoid to control boost. If you choose the 8psi spring setup, you install the wastegate exactly the same way as the factory wastegate. There is no need to change any vacuum lines. This would be used on most setups especially setups that use an upgrade flash tune on the PCM.

12psi spring – Install the 12psi spring in the wastegate assembly (shown below) if you are running a stock turbo and you do not want to run your car on PCM controlled boost. If you want to eliminate your boost solenoid, you would choose this spring rate. This requires the re-running of your vacuum lines to eliminate the use of the factory solenoid as detailed in step 4 of the installation procedure.

19psi spring – Install the 19psi spring in the wastegate assembly (shown below) if you are running an upgraded stock turbo and you want to run it as balls out as possible. Most people will never need to run this spring; however we include it just in case. Additionally, you are probably not running PCM controlled boost so you will need to re-route your vacuum lines as detailed in step 4 of the installation procedure.

### Changing your spring:

With a pair of good snap ring pliers and a bench vice, swapping springs will take you less than one minute. If you don't have snap ring pliers or a vice, go buy them now. Those are always good tools to have around the garage.



1. Place the assembly in the vice and tighten the vice ever so slightly until you notice the tension is taken off of the snap ring.

2. Insert the snap ring pliers on to the snap ring, squeeze the pliers and work the snap ring off its groove.

3. Once the snap ring is out of the way, loosen the vice slowly and you will see it separate in two pieces. Make sure you have the wastegate in the vice square, otherwise you may damage the wastegate or it may shoot out of the vice.

4. As you separate the two halves, you will pull the spring out and replace the spring with the desired one. You will be able to tell the difference in all three springs just by looking at them. Obviously the 8psi spring is the thinnest, and the 19psi spring is the thickest.

5. Once you place the desired spring in the actuator, place it back in the vice square, and tighten the vice until it bottoms out. Once it is bottomed out, re-install the snap ring in its groove, and release the pliers. Slowly loosen the vice and you should be all complete.

### Installation Procedure:

- 1. Remove the bolts holding the heatshield to the manifold after the engine is cool. (Removing the entire heatshield from the vehicle is a real pain, and it's not 100% necessary to install the wastegate actuator). Once the bolts are removed, you can pull the heatshield up out of the way.
- 2. Locate the grenade pin on the factory wastegate arm and remove it. Make sure you don't lose it as you will need it later.
- 3. Remove the factory wastegate actuator by removing the two bolts that attach it to the turbo. Make sure you don't lose the bolts, because you will need them later.
- 4. If you are not running PCM controlled boost, remove the vacuum line that goes into the solenoid from the factory wastegate actuator. Also, remove the boost source that goes from the turbo nipple to that same corresponding solenoid.
- 5. Mount the AGP WGA to the compressor housing using the two bolts you removed earlier.
- 6. Place the rod end hoop over the factory wastegate arm and place the grenade pin back into the arm. Leave the AGP WGA loose at this point. (We'll get to the adjustment later)
- 7. Next, connect the supplied vacuum hose to the boost source on the nipple on the compressor housing that you removed earlier. Connect the other end of the supplied vacuum hose to nipple on the AGP WGA. Use the supplied zip ties to secure the hoses on the nipples.
- 8. From the picture below, you will need to trim the factory heatshield a little to allow the AGP Wastegate arm enough clearance. Using a pair of tin snips, you'll be able to notch the clearance quickly and easily. Please be careful because you may need to file some sharp ends after trimming.

## **Adjustment Procedure:**

In order to achieve the best performance out of this modification, you will need to "preload" the tension on the actuator. This is accomplished by loosening the jamb nut from the rod end and turning the 5/16" adjustment rod towards the firewall. Every car is different, so there is no set number of turns to get the correct tension. With just a little preload, your car should hit and hold about 11psi. Some cars are able to run about 13psi before they throw a check engine light. Once you've reached your desired boost, tighten the jamb nut against the rod end. This process may take a while to dial in perfectly, but it's definitely worth it. If you want to run a boost controller, it should go in line between the boost source and the wastegate.

