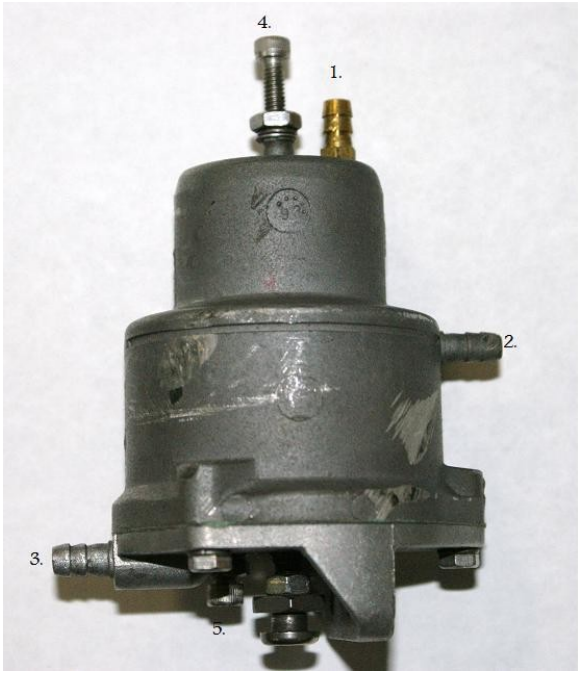
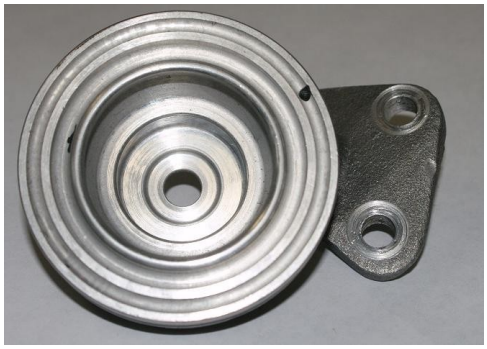
Aerocharger® Boost Controllers

Piston Controller



1. Hook this port up to airbox or charge-tube.
2. Leave this port exposed to the atmosphere.
3. Hook this port can be hooked up to the airbox/charge tube or the intake manifold. *Hooking this up the the intake manifold will cause some boost lag but will clean up low rpm fatness. Hooking it up to the airbox will allow for the fastest spooling.
4. This set-screw sets how far the vanes are initially closed. To make your turbo spool faster back the set-screw out. To slow the spooling, move the set-screw inwards.
5. This set-screw controls how far the vanes can open up under engine vacuum if port 3 is hooked up to the intake manifold. If not hooked up to the manifold this will not effect the turbo.

"Ghost Controller"



On the ghost controller there is no external hookup for pressure. The compressor housing is drilled and matched up with the controller. The initial vane position is controlled by the set-screw. If you back the screw out the vanes close more causing a faster spool time. If the screw is advanced the vanes will open slowing boost. **Do not assume you have a ghost controller as these are rare.**

Multi-port Controller

This style of controller is very common. There are three 10-32 threaded ports that can be used in different setups. It can be used with a single port in one of the three positions. When this is done hook up the port to the airbox or charge tube. Another option is to hook up a port to the the airbox or charge tube and then use one of the other ports to install an external boost controller or switch. On this controller the vane position is controlled by the set-crew. Backing the set-screw out speeds up boost and advancing the screw slows the boost.

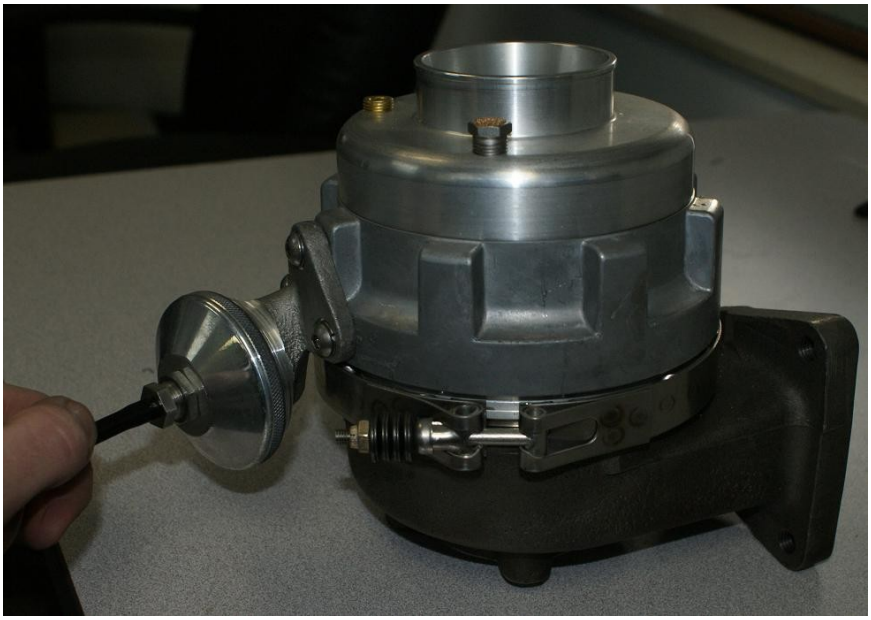
Single-Port Controller

This is the most recent generation of the Aerocharger® boost controller. This controller is hooked up to the airbox or charge tube. The initial vane position is controlled by the fitting location. To close the vanes and speed up the boost you can back out the set-screw. To slow the boost, screw the fitting in further. You need to tighten the jam nut to insure that the fitting does not back out.

Adjusting Boost Pressure

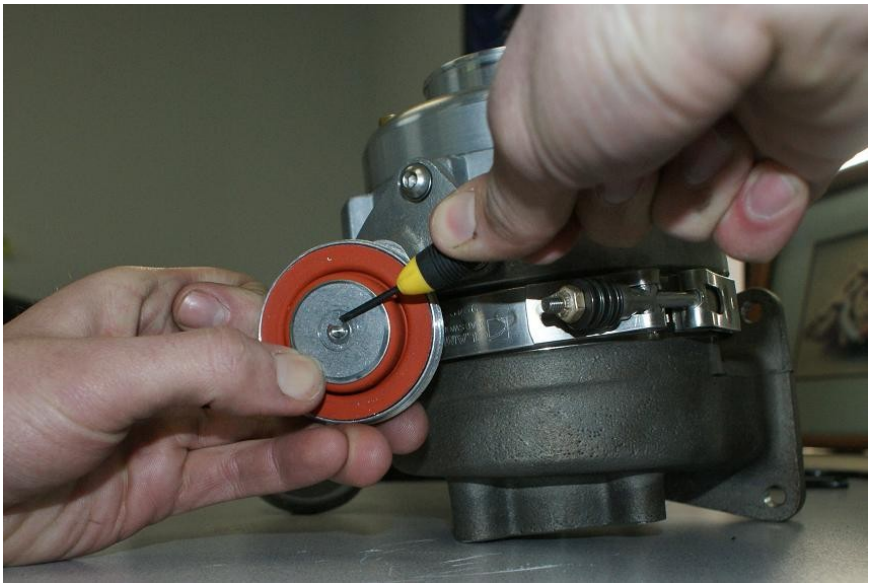
All of the Aerocharger® boost controllers use an internal spring to set the maximum boost pressure. The springs can be changed and shimmed to adjust this pressure.

The first step is to remove the boost line from the controller hose barb.



Remove the bonnet from the controller.

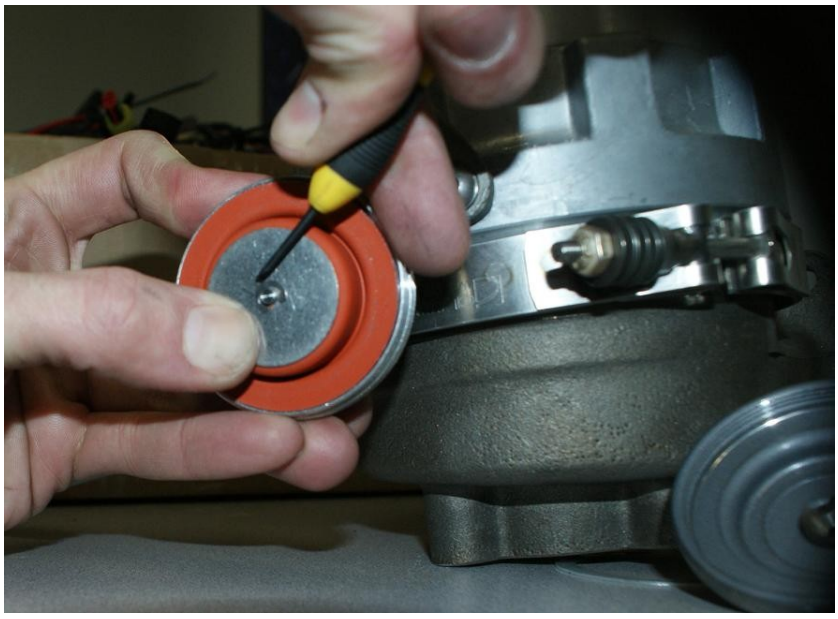
With the controller top removed, the next step is to remove the e-clip from the control rod. This can be done using a small straight slot screwdriver.



After the e-clip is removed, take off the orange diaphragm exposing the spring and shims

After removing the old springs and or shims, make sure you do not lose the white washer or small washer on the end of the control rod.

Install your new spring and shim combination along with the piston, diaphragm and washer. Then while holding the piston down re-install the e-clip.



Test the controller to make sure it is not bound by pushing diaphragm. This should be fairly easy to push.

When installing the controller bonnet make sure there is a white seal inside of the bonnet. You only need to hand tighten the controller bonnet, **DO NOT USE PLIERS!**

Tips:

- Make sure you do not lose the small washer on the end of the control rod
- You need at least one shim below a spring.

Spring Color	*Boost Pressure(PSI)*
Green	5
Blue	7
Orange	8
Black	14

Adding additional shims will provide about .75-1.0 psi of additional pressure.

**Note: The pressures stated above will vary depending upon altitude.*
you need at least one shim installed.