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## GSR40 HP Carb Installation Instructions

### Contents:

1 - 15mm carb  
1 - Billet intake manifold  
1 - Composite manifold spacer  
2 - Intake gasket  
1 - Carb gasket  
2 - 5x25mm allen bolt  
2 - 5mm lock washer  
1 - kill switch wire

### What tools you will need:

Phillips screwdriver  
4mm allen wrench

### Basics:

High speed (black screw in side of carb) setting 1-1/2 turn open from all the way in  
Low speed (black screw at top of carb) setting 1-1/2 turns open from all the way in

Turning the high or low speed in is leaner, which gives the engine less fuel. Too lean on the high speed can result in a piston seizure at high rpm. Too lean on the low speed will result in hesitation during acceleration. Too rich (screw out to far) will result in gurgling and/or a fouled spark plug.

### **Read instructions completely through before installing!**

**Note:** This hp carburetor installs and operates the same as the stock one. So, pay attention when removing the stock carburetor as this will help with installing the hp carburetor kit. Also, you must install the kill switch wire!

**Step 1:** Empty all gas from fuel tank and pump primer bulb on stock carb to purge fuel from carb.

**Step 2:** Remove the stock carb and intake manifold. Disconnect throttle cable from stock carb and unhook fuel lines. Wipe cylinder surface clean.

**Step 3:** Install the billet intake manifold using the composite spacer between the manifold and the cylinder. Make sure to use a gasket between each surface. Make sure to line up the small hole in the bottom of the gasket with the small hole in the cylinder. The manifold and spacer must also line up with the hole. Use the supplied 5x25mm allen bolts to mount the manifold and spacer. It is recommended to use Lock-tite on the bolts that hold the manifold on.

**Step 4:** Bolt the HP carb onto the manifold, with the primer bulb facing down (same as stock), using the stock screws. You can use either your stock air filter or an aftermarket filter/velocity stack. Make sure to use the supplied gasket between the carb and the manifold.

**Step 5:** Connect the throttle cable just as it was connected to the stock carburetor. Make sure that the throttle operation is smooth and it returns to a closed position.

**Step 6:** Install the fuel lines with the blue line on the larger multi-barbed fitting and the yellow line on the fitting on the 90° single barbed fitting out the side of the carb.

**Step 7:** Install the kill switch wire. Do this by disconnecting the kill switch from the throttle cable wire. Plug the new wire into the kill switch and run it along the throttle cable wrapping it around the throttle cable every so often. You must run it along the throttle cable all of the way under the deck plate to the engine. Disconnect the throttle cable wire at the engine and plug the supplied wire into the engine. Make sure that the wire length is adjusted properly, not pulling at either end. Once you have finalized the routing and have made sure that it is done so in a safe manner, use the supplied zip ties to securely fasten the wire to the throttle cable. Make sure that the kill switch wire is securely fastened near the engine as to not interfere or come in contact with any moving parts, i.e. chain, sprockets. This wire must be installed for the kill switch to function. The aluminum manifold allows the stock kill wire that runs down the throttle cable to ground out, acting as if the kill switch is depressed. Even if your engine runs with the stock wire, it may only be temporary as the cable will eventually make contact and ground out.

**Step 8:** You can now re-fill the fuel tank. Pump the fuel circulation bulb on the bottom of the carb until you see fuel in the bulb and fuel going back to the gas tank thru the yellow fuel line. Double check the operation of your throttle again.

**Step 9:** Set the adjustment screws as follows: High speed 1-1/2 turn out, low speed 1-1/2 turn out. To set the high and low speed, turn them all the way in just until they stop, then back them out the suggested amount. The high speed is the black slotted screw that sticks out the side of the carb. The low speed screw is located in the center of the throttle fulcrum at the top of the carb, next to the swivel where the cable connects. The high speed needs to be adjusted for peak speed/rpm while riding, then turn it out 1/16 of a turn. Never adjust the high speed by free revving with the back wheel off of the ground and holding the throttle wide open while adjusting the screw. The low speed should be adjusted for good throttle response when initially accelerating. As you adjust your low speed setting, it may affect idle speed. Idle is adjusted by turning the screw that acts as a stop for the throttle fulcrum.



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## **GSR40™ Juice Box Instructions**

### Billet Aluminum Tuned Boost Box for GSR40™

- 1) Remove carburetor and intake manifold.
- 2) Using new gaskets and bolts, install Juice Box using plastic spacer between box and cylinder. Be sure to use a gasket between cylinder and spacer, spacer and Juice Box, and Juice Box and carb.
- 3) If you are not using the ADA Racing butterfly carb adaptor, re-install carburetor directly to Juice Box, no intake manifold needed.
- 4) If you are using the carb adaptor, then mount the billet adaptor to the Juice Box using the 5x16 allen bolts and washers. Make sure to use the gasket between the adaptor and Juice Box, also making sure that the small pulse hole lines up with the Juice Box hole and the slot in the adaptor. Mount your butterfly style carb to the adaptor, using a gasket. Make sure that your carb mounting bolts are not too long, as bolt length varies depending on the velocity stack used.
- 5) You will need to run a separate kill wire or relocate the kill switch to the engine, as the aluminum Juice Box will ground out the stock cable supplied kill wire.
- 6) Carburetor tuning may be required for maximum performance. In our testing a leaner setting was required. Ultimately, it is your responsibility for proper carb tuning.

#### Performance benefits:

Improved throttle response, quicker acceleration, and overall performance.  
Can increase top speed.  
Reduces intake noise.

#### Purpose:

Acts as a tuned reservoir for the fuel/air mixture, allowing the engine to quickly draw on it.

