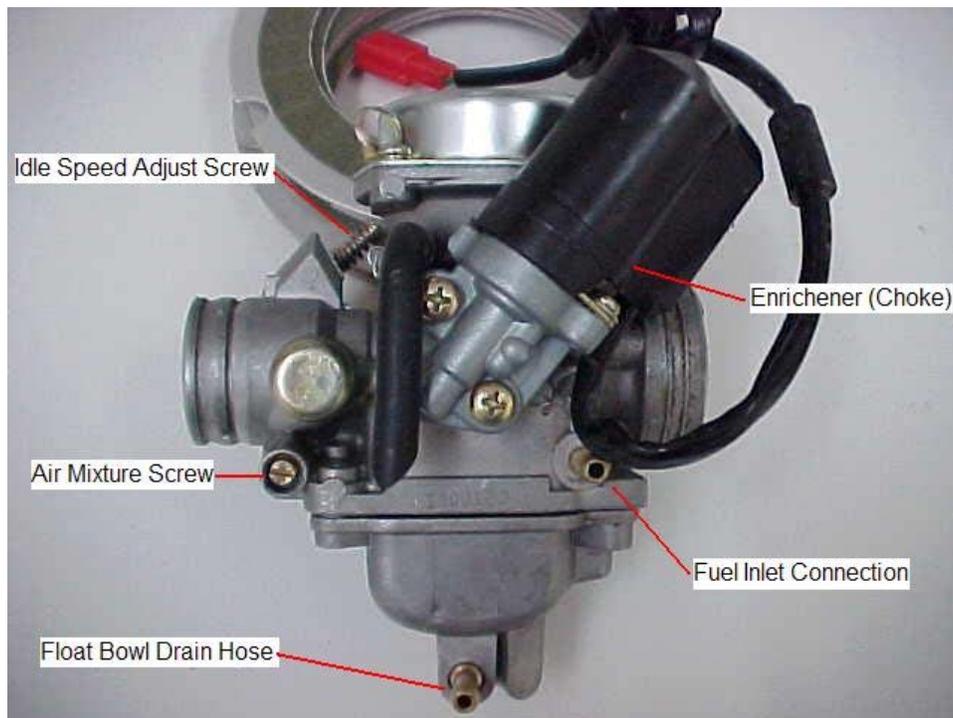


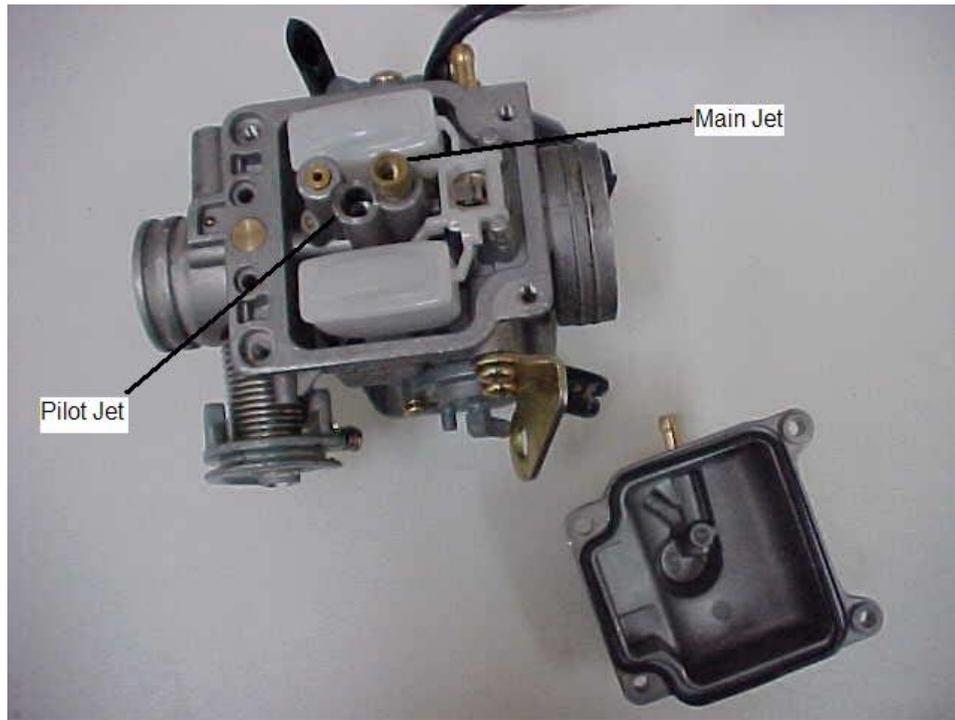
Touring Carburetor

You should understand that virtually all vehicles come from the factory running on the ragged edge of being too lean. If you want a little cooler running and better throttle response, re-jetting is in order. I found that the stock jet sizes were 1.07mm on the main jet and .35mm for the pilot jet. Typically, you want to go one or two sizes larger on the pilot and around two sizes on the main. Since these are constant velocity carbs, they will only deliver the volume of fuel/air mix that the engine demands (intake volume/velocity).

So, after some searching, I decided on a .38 pilot and 1.20 main jet. The stock jets are Keihin style N424-26-XX pilot and 99101-393-XXX main jet (substitute the jet size for the XXX). I was able to find the longer pilot jet N424-21-038 locally, so I decided to try it rather than wait for ordering one, and they will work just fine. I also found a 1.20 locally, so I went with that one too. Most Jap bike shops will have the jets, but they are less than cooperative about looking for them if you don't have one of their bikes. So, for those that simply don't want the hassle, I do carry the re-jetting kit in stock on the [Scooter Parts](#) page of my web site.

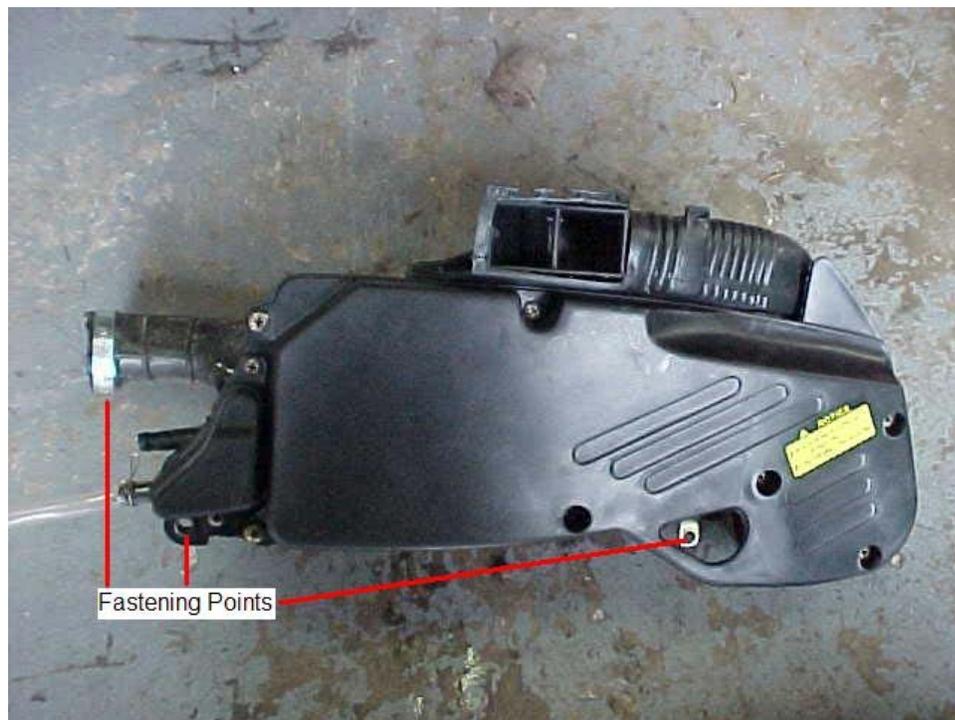
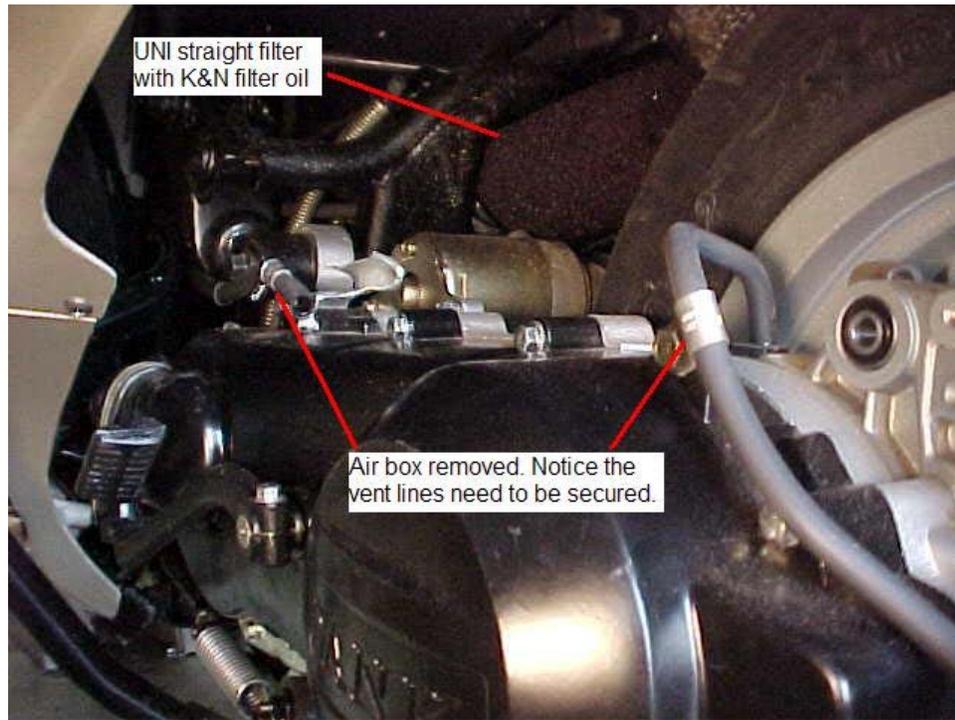
I added a UNI foam filter and removed the air box while installing the jets. So far, there is a marked difference in starting, and throttle response. Next, I'm planning on some muffler modifications to lower the back pressure and this in turn improves the intake capacity, so we'll see how that works out.





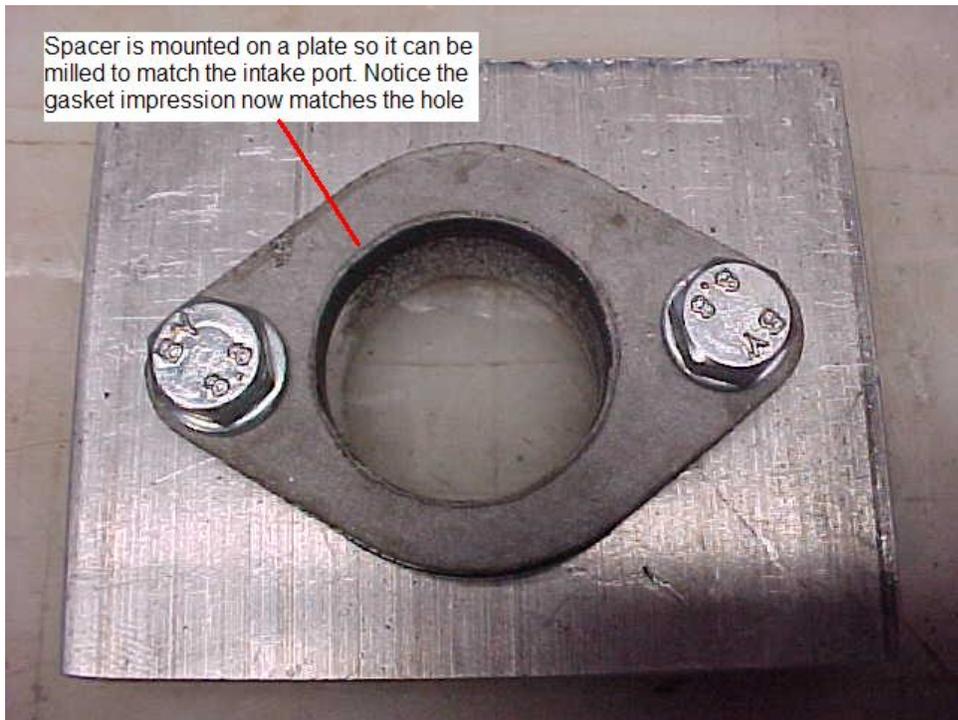
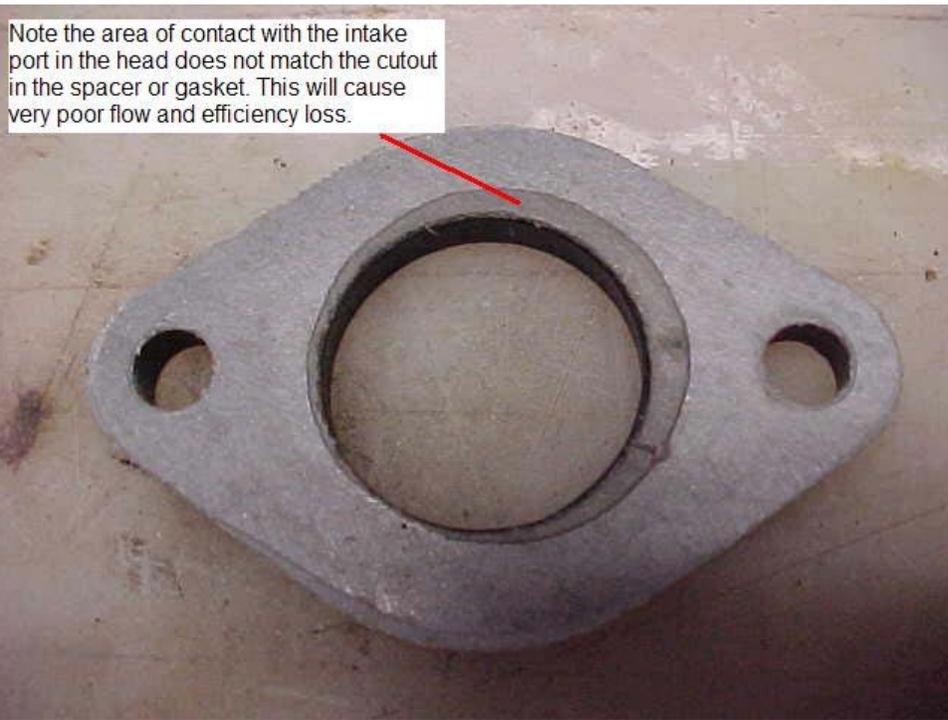
AIR FILTER

I've seen complaints posted about having to remove body panels to get to the air filter, but here is an easier way to do it..... There are 2 bolts (10mm hex) that fasten the air box to the CVT cover and are easily accessed, plus the clamp at the rear of the carb. Loosen the clamp, and remove the bolts, and the whole works will come right off without removing any panels. There are two vent hoses to remove from the air box also, and you'll see in the photos where I have used clamps to secure the hoses where the air box was originally fastened. Also see the Fuel System article to see the final location of the filter to avoid water spray from the rear wheel.



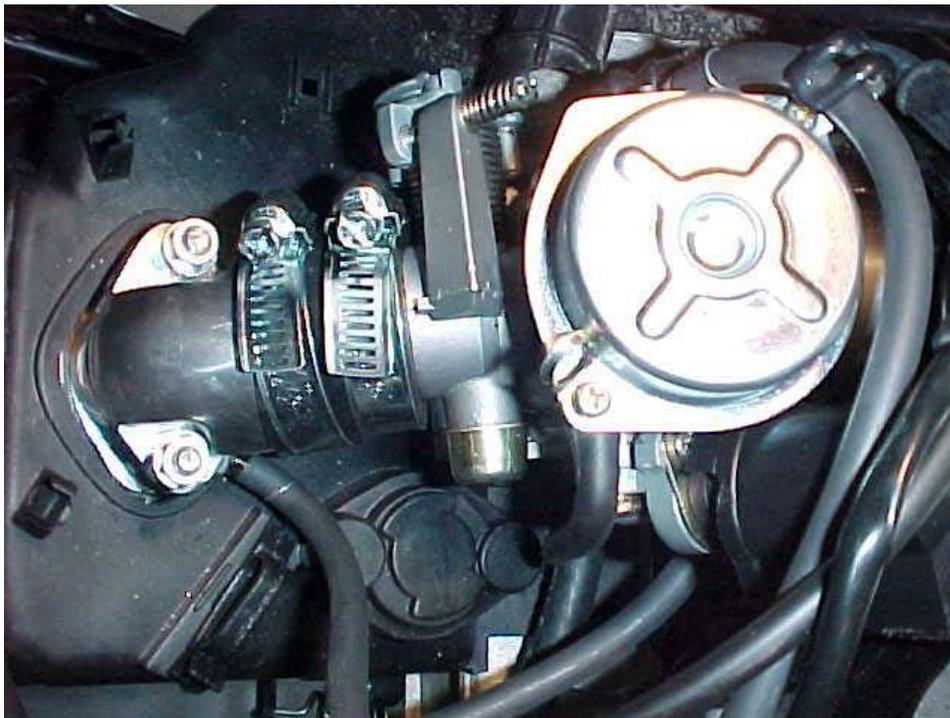
Intake Manifold

Here is an area you can make some big improvements on, but it takes some effort. The stock manifold is a rubber material, which would be ok, but they get brittle from heat. Replacing it with an aluminum manifold will solve that problem. Something I found when doing this is that the heat spacer used on the rubber manifold did not align with the intake port like it should. So, if you are sticking with the stock manifold, at least correct this problem. I fixed this one with a milling machine, but you can also carve it out with a die grinder if necessary. The boring process using a mill is just a lot neater and smoother than manually grinding. The spacer is also fragile, so be careful.



Replacing the manifold itself is also not a real easy job, but it's worth the effort. The cast manifold is far superior to the original rubber coated one, but it's also longer, so the fit is very tight. You will need to use an aftermarket filter because it moves the carb out of position for the air box. A little patience and you can squeeze it in there. I found that with the stock carb it's best to remove the plastic OEM spacer and only use a paper gasket. The manifold comes with two spacers you can put on the studs after the manifold is installed to take up the extra threads. Hold the carb roughly in place with the manifold end pointed upward, then set the manifold barely on the top edge of the studs and align the parts with each other. Now as you push down, the carb will slide into the manifold rubber coupling. Once in place you'll have a little more room and you can get things aligned and fastened down. It may also help to loosen the choke (enrichener) module

screw and rotate it for extra clearance before installing the assembly. Tighten the screw before installation. I did need to use a razor knife to cut away a little bit of the plastic cooling shroud in one spot because it was too close to the stud for the new beefier manifold, so slipping the manifold on alone is good to check the clearance first..



Carburetor Upgrades

Like most products that I carry, I like to test them before I stock them, so I ordered a 30mm carb from MRP some time ago. Due to many other projects in my way, I didn't get around to installing it for a while. I had some concerns about the fit since the performance manifold is slightly longer than the OEM manifold, and the carb area is very tight. As soon as removed the OEM carb, I found that this wouldn't be a problem since the new 30mm carb is shorter than the OEM 24mm carb. This allowed me to use the plastic spacer that had to be removed for the stock carb when using the performance manifold.

The stock main jet in the new carb was 1.28mm and from what I could gather from others that have used this carb, I thought it would be too much, so I installed it with a 1.20mm main jet. Once installed, I fired the scooter up, set the idle and let it warm up. From there, I adjusted the mixture and went for a ride. Up to half throttle the performance was great, then it fell on its face, so back to the shop. I installed the original 1.28 jet and tried again. This time it was great to about 7/8 throttle before it started to lean out on me. I didn't have a larger jet, so I drilled an old one to 1.36mm and tried again. Absolutely awesome power increase! I'm now slightly too rich at the top, so I will be ordering a 1.32 main jet, which should be just about perfect with my setup. I can't say this upgrade changed the top speed in any major way, but the time it takes to get there has definitely been reduced!

Jetting is a trial and error proposition, so be patient and make sure you readjust the mixture screw after each jet change. The mixture screw adjusts the air/fuel ratio throughout the entire range of operation, where the jets are more specific to an

operating range. In general, the pilot jet controls the flow for the first one third of the throttle range then the main jet kicks in for the remaining range of the throttle.

Fire up is instant with this carb, and the idle consistency is superior to the OEM. Throttle response is incredible (don't ArmorAll your seat!).

You may notice that this carb does not use a vacuum connection, so I've plugged the vacuum line at the manifold. I'm also running an electric fuel pump, so now I don't use any engine vacuum for operating other devices. Also, the bowl drain valve is on the bowl rather than at the end of the drain hose like the OEM carb. I simply wire tied the drain line to the frame to keep it out of the way. The enrichener uses the same plug as the OEM, so that was just a plug and play operation.

To make this conversion, you will need to use the aluminum intake manifold. Keep in mind that my scooter has a foam air filter and performance exhaust installed, so if you don't have these items, your jetting may vary from what I found to be optimum. I also plan to install a performance cam shaft and larger valve head, so with these items added, I may need to increase the main jet again.

As with many of these performance upgrades, they are not for everyone, and they are expensive. If you want more power, go for it. If you want maximum fuel mileage, leave it alone. I test these parts so you don't have to, but I am not suggesting that everyone hop up their scooter. Remember that speed and power cost money.....How fast do you want to go?

