

HP Carburetor Installation Instructions

Form 8

As a courtesy to our customers, DDM has provided these instructions to help get you up and running as soon as possible. This carb kit is designed for use on the G23LH engine only.

To install the kit:



Fuel lines are disconnected.

- 1) Empty your gas tank. Pump the primer bulb while holding your ped upside down to clear all gas from the fuel lines.
- 2) Disconnect the fuel lines and throttle cable from your stock carb. The fuel lines can be pulled off with pliers; the throttle cable is disconnected by sliding the tab on the end of the cable out of the swivel on top of the stock carb. Unscrew the silver throttle barrel from the carb. Disconnect the kill switch wire that connects the throttle cable to the ignition coil by separating the brass connectors.



The insulator manifold is removed in this picture.

- 3) Open your air filter and remove the two bolts that hold the air filter and carb in place. Set the bolts, filter, and carb aside. See picture.

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- 4) Remove the insulator manifold (the plastic thing between the carb and the cylinder). Keep the screws and the insulator gasket. See picture. ←



Unscrew the bolts that hold the air filter and carburetor on.

- 5) Now, you need to trim the plastic cover around your engine to make room for the new carb. It is easiest to do this if you remove the engine cover to work on it.

- 6) To remove the engine cover:

Remove the fan cover. Remove the 4 bolts and 1 screw holding it on. → Unscrew the small screw holding the cover located on the gas tank side of the engine. This is easiest with a short screwdriver or with pliers. Remove the spark plug cap from the spark plug.

- 7) Now, lift the engine cover off. Unthread the kill switch wire from the hole in the engine cover.

Next, trim the cover. You can do this with a Dremel-type tool, tin snips, strong scissors, etc. Looking toward the rear of the scooter, trim these areas: Trim the plastic approx halfway upward to the hole where the spark plug sits. Trim to the left approx $\frac{1}{4}$ " to allow room for the new insulator manifold. Trim to the right A LOT. We find it easiest to remove most of the way over to the metal fan cover (this includes the area that comes forward and then continues over). Just leave approx $\frac{1}{4}$ " so your engine cover still holds under the fan cover.

If you find you need to remove more in any direction, don't worry – you can remove as much as you need without harming your scooter. When you are finished, your cover should look like the one in the picture. →



Removing the fan cover.



Engine cover after trimming.

8) After your cover is trimmed, re-install the engine cover, fan cover, and other parts. Re-attach the spark plug cord.
9) Now, using the same screws from your stock manifold, install the new insulator manifold. Be sure to place the insulator gasket between the manifold and the cylinder.

11) Install the aluminum throttle linkage onto your new carb. To do this, remove the 2 small screws located next to the rubber primer bulb, on the opposite side from the black fuel post with a 'G' on top. Set the linkage on top of the carb so the curved part fits smoothly around the base of the primer bulb. Replace the screws and tighten firmly.

12) Insert the silver throttle barrel (the part on the throttle cable with threads on the outside) through the hole in the throttle linkage. Put the small nut on the other side of the barrel and tighten firmly.

13) Slide the spring onto the throttle cable. Then, spin the throttle swivel (the silver part on the carb with several small holes on it) up close to the throttle cable. Pull firmly on the cable and slide the end of the cable into the round hole on the swivel post. Your carb should now look like one in the picture. →



HP carb with throttle bracket attached, throttle barrel and nut installed, spring installed over the throttle cable, and the end of the cable connected to the swivel. Your carb should look like this before you bolt it on.



The throttle cable has been moved to the gas tank side.

14) You will need to insure that your throttle cable emerges from underneath the deck on the gas tank side. If you need to move your cable, loosen the rear bolts that hold the deck on, and slide the cable over to the gas tank side.

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15) Slide the two bolts provided through the air filter, and then slide the carb onto the bolts. The primer bulb should be on top, black fuel line posts should be on the left side (fuel tank side) when you connect the carb to the manifold. Slide the gasket over the screws behind the carb, and connect everything back to the manifold. →

16) Re-connect your fuel lines. Yellow goes on top by the primer bulb, blue down below. Re-connect the kill switch.

17) Follow the carb tuning steps. To ensure max performance and engine life, follow this procedure: **1)** Locate the low and high RPM jets on the side of the carb - they are usually marked with a L and a H. Turn both jets completely **CLOCKWISE** (to the fully closed position). **2)** Rotate the Low jet counter-clockwise to 1 and 1/2 turns open. **3)** Rotate the High jet counter-clockwise to 3/4 turns open. **4)** Start the engine. You may need to turn the Low jet slightly one way or the other for the engine to start. **5)** Adjust the Low jet as desired until the idle is where you like it. Turning clockwise ("CLOSING" THE JET) will produce a higher idle, and counterclockwise ("OPENING" THE JET) will produce a lower idle (and eventually flood and the engine will kill, if you turn it too far).

6) Lift the rear tire off the ground and pull the throttle lever to full blast. Adjust the High jet until you get maximum RPMs. Note: this will probably be **REALLY LOUD**. Listen for the highest-pitched whine to tell you where max RPMs are hit.



Air filter, carb, and gasket are now connected to the manifold.

AFTER YOU FIND THE MAX RPM SETTING, TURN THE HIGH JET COUNTER-CLOCKWISE ("OPEN" THE JET) APPROX 1/16TH OF A TURN TO ENSURE YOU HAVE SUFFICIENT GAS/OIL MIX TO COOL THE ENGINE PROPERLY.