

Thank you for shopping with VM Innovations! Here are some helpful instructions for the set up procedure and starting/running process for your equipment!

*As a friendly reminder, please fully read and review the owner's manual included with your product, as item specific safety and set up instructions are there directly.

The below instructions are general and typical for getting your equipment started up and running.

1. **Assembly:** Prior to attempting to add gas/oil and starting the unit, please ensure you have the unit fully assembled (ex. For trimmers have the handle and guard in place, for chainsaws have the bar and chain stalled, etc. – See owner's manual for these specific instructions)
2. **Adding the Gas/Oil:** After the unit is assembled, you can now add the gas and oil. Please Note: 2 cycle engines require a mixture of gas and oil in one tank; whereas 4 cycle engines will require gas and oil to be separated in their individual tanks. Each units required mixture may vary slightly, so please review your manual for that specific information.
 - a. Be sure not to overfill the small gas/oil tank as this can cause the item to leak, which can then lead to excessive smoking and other hazards.
 - b. Fuel – Make sure you're NOT using older fuel (more than 45 days old) or the incorrect fuel, as this will bog down the unit. Do NOT use E85 fuel. You will want to use a higher octane (89 or higher) fuel. Also, never use any fuel richer than 10% ethanol as this can damage the fuel system over time. If you find yourself using the wrong fuel in the unit, you may need to drain it by pouring the gas out and add a new mixture of oil and the correct gas.
 - c. Once you are ready to start the unit, you will typically see white or blue smoke. This is typical because oil is being burnt along with gas.
3. **Priming the engine:** If the engine is cold, the first thing you need to do is prime the unit using the primer bulb. If this is your first attempt at starting it or it's been over 24 hours since its last use, you will need to do this.
 - a. Push in on the primer bulb 4-5 times until fuel begins to fill the bulb. It may require more pumps; however remember the primer bulb does not need to be completely full, as too much priming can flood the engine. If your engine is flooded, see instructions below on "How to fix a flooded engine".
 - b. If there is no gas showing up in the primer bulb, be sure you do have enough gas in the unit. If so, first trying pumping the bulb with the gas cap off. If fuel enters the bulb with the gas cap off, that means the vent in the cap is clogged and a new gas cap will likely be needed.
 - c. If you still get nothing in the primer bulb, follow the fuel lines back to the tank to ensure there is no kink in the line or something blocking the gas, such as a leak, bad connection, or pinch. If everything looks good, check for any cracks in the bulb itself that may prevent a good air seal in the bulb. If you find any bulb or fuel line issues, please let us know.
4. **Starting the unit:** Once the engine is primed, move the choke lever to the "closed" position (known as position 1, cold start position, or full choke), and pull the cord out slightly until you feel resistance. Next, quickly and powerfully pull the cord out 12-14 inches. You will have to pull hard, so the resistance is a good thing. Pull fast and hard, but do not pull the cord completely out of the unit. Repeat pulling the cord until the engine "attempts" to start. This should take only a few pulls. Be careful not to flood the engine.
 - a. Some units will only have 2 choke positions, while some will have 3 choke positions. Your specific unit may not match these instructions directly as these are generalized instructions.
 - b. Some units will request you squeeze the throttle trigger while attempting to start and some may not. Please check your manual for this specific information

5. Once you hear the engine attempting to start, move the choke lever to the ½ position (also known as position 2). Pull the cord again until the unit starts up, which should happen on the first few pulls. If it doesn't start up easily after a few pulls, please review the previous steps and attempt the starting process once more.
6. Once the unit starts and runs on the ½-position, let it idle for a minute or so to get the engine warmed up. Then slowly move the choke handle to the run position (also known as position 3 or open choke position), and the unit will be ready to operate.
 - a. If the unit does not start, or dies, return the choke lever to the closed position and return to step #4 to reattempt the starting process.

****IMPORTANT CHECK POINTS****

*Things to check if you are having issues keeping the unit running or getting it started after following the above instructions:

1. You may need to continue warming up the unit. It will take some time and working with to get the fluids completely through the system.
2. Fuel: Double check the gas being used.
3. Air: Check the air intake and exhaust to make sure there is no blockage to the engine. The air filter may need removed and cleaned or replaced. Review the owner's manual for specific instructions.
4. Spark: Check and clean the spark plug to make sure it is not wet or hooked up incorrectly. Remove the spark plug and wipe off any gunk/buildup or wetness from the unit.
5. The engine may be flooded. See how to fix this below.
6. The carburetor may need to be slightly adjusted as it can be affected by your environment (air condition, climate, altitude, humidity, etc). Adjusting the carburetor is something that commonly needs done and can often fix any beginning issues you have with the unit. See how to adjust this below.

****HOW TO FIX A FLOODED ENGINE****

1. A flooded engine is common from too many starting attempts or pulls with the machine in the choke position or a combination of pressing the primer bulb too many times.
2. You will need to remove the cover over the spark plug and remove the spark plug itself. Dry the spark plug off.
3. Remove the excess fuel from the engine. Make sure the choke is off and turn the equipment upside down and pull the starter rope 10-15 times as fuel spurts out.
4. Reassemble the spark plug and wire. Then replace the cover.
5. Ensure the choke is off and attempt to restart the equipment.

****HOW TO ADJUST A THE CARBURETOR****

1. There are two screws on the carb. One for idle and one for high speed. These are typically noted with symbols H (High) and L (Low). There is also a third screw to determine how fast you want the unit to idle once the carb is adjusted known as the T (throttle) screw.
2. Start with the H and L screws both backed out from the closed position two turns (Essentially each needs to be closed completely, and then OPENED two turns).
3. Crank the motor and get the unit warmed up. Use the same above starting instructions. When attempting to start, you may need to open the unit up by squeezing the throttle to get the unit running.
4. While the unit is idling on its own then slowly turn the idle screw (L or Low screw) IN until the unit starts to die. When this happens stop turning and back the screw out a quarter- to half-turn to the ideal position.
5. Now hold the throttle wide open and slowly turn the high-speed screw IN until you hear the engine begin to smooth out and rev high. When the engine starts "screaming," back this screw out again until the unit starts to run rough or slow down. Once you find this high and low point set the high-speed screw in the middle.
6. A key part to adjusting the carburetor is listening to the unit, as you should be able to hear when it's idling properly and getting good high speed.
7. After these adjustments are made, go through the same starting instructions above and your unit should then be in good working order.

If you have further questions or need assistance please contact us directly at help@vminnovations.com or view some videos at: <http://blog.vminnovations.com/category/troubleshooting/>