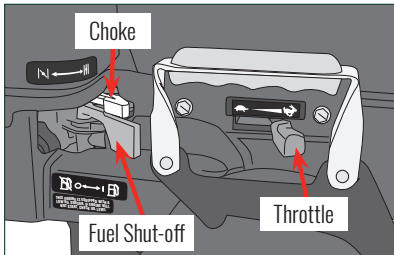




Troubleshooting 8HP & 10HP Vanguard Electric-Start Engines

If you are experiencing issues with starting your engine please refer to the steps below for some of the most common problems and solutions. For our fastest service during our peak seasons, please send a note to support@woodlandpowerproducts.com and we will be in touch within 1 business day or, you can contact us at our main line 888-531-7253 and at the prompt, please press 2 for technical support.

My Engine Won't Start.



1. Check all the levers are in the correct position.

- First make sure all the levers are in the correct spot.
- Move the Red fuel shut off lever to the right for "ON," move the Throttle to the right to "Rabbit," and move the Gray choke lever to the left for "Full Choke."
- If all of that is correct, we must next determine if it is an ignition or fuel delivery problem.

2. Determining whether it is an ignition or fuel delivery issue.

- Remove the spark plug, and pour a couple teaspoons of gas directly into the cylinder, and then replace the plug and cable on top.
- With all the levers in the correct position, attempt to start the engine.
- If the engine fires but does not stay running, then the ignition is fine and it is a fuel delivery problem.
- Most likely the float valve is lodged or the carburetor is dirty.



3. The float valve may be lodged.

- Locate the carburetor and give it a solid tap tap the bottom with the handle of a screwdriver. Or take a couple laps around your property with the engine off.
- Then try to restart the engine.



4. The carburetor may be dirty.

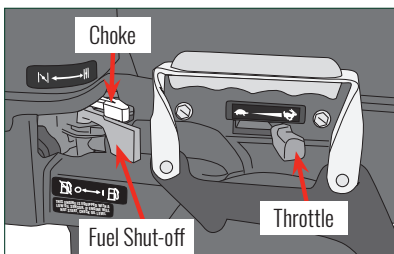
- If it still does not start, remove the airfilter then spray some carburetor cleaner (we recommend using the brand Sea Foam) into the base of the air filter housing so it goes into the carburetor. Then let it sit for a few hours, but preferably overnight.
- Again, try to start the engine.
- If this does not work, you must take it to a Briggs & Stratton dealer for warranty work.



5. Checking for an ignition issue.

- If there is an ignition problem, double check that the fuel lever is in the correct position.
- When you begin to move the fuel lever, there should be a clicking sound.
- Make sure the spark plug wire is properly attached to the top of the plug.
- If it still does not start, you will need to take it to a Briggs & Stratton dealer for warranty work.

Are Your Fuel Levers in the Correct Position?



1. Fuel levers correct positioning.

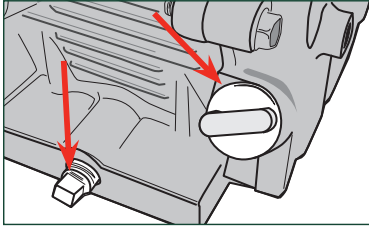
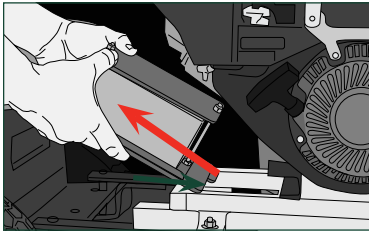
- Move the Red fuel shut off to the right for "ON."
- Move the throttle lever to the right for "Full Throttle."
- Move the Gray choke lever to the left for "Full Choke."

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Your Engine May Be Out of Oil.

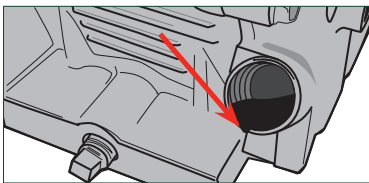


RECOMMENDED OIL CHART

The oil should be marked A.P.I. service "SF," "SG," "SH," "SJ" or higher.

Air Temperature	Type of Oil
Above 32° F	SAE 30 or SAE 10W30 oil
Below 32° F	SAE 5W30 oil

If synthetic oil is preferred 5W-30 is good in all temps.
SAE 10W40 is specifically not recommended.



1. Prepare.

- Place a shallow pan under the engine, then disconnect the battery and remove it from the engine.

2. Drain the engine of excess oil.

- Locate and remove the yellow plastic butterfly cap at the base of the engine on the side the battery is on.
- Use a 3/8 inch wrench or 7/16 inch socket to remove the drain plug.
- After the oil has drained, reinstall and tighten the oil drain plug.
- Wipe up any spilled oil and remove the pan.

3. Check you are using the correct oil.

- Using the chart in the leftside column, determine which recommended oil you should be using for your engine.

3. Adding new oil.

- Place a rag under the butterfly cap opening, and using a small funnel slowly pour oil into the opening.
- When the oil reaches the bottom edge of the butterfly hole it is at the proper level.
- Replace the yellow butterfly cap by hand and tighten.

IMPORTANT: Do not use a wrench or pliers to tighten, you can break the butterfly cap.

My Engine Only Runs on Choke or Starts and then Stops.

1. Engine will not catch, or will start and then stop.

- If this is the case, your float valve may be lodged, or your carburetor needs cleaning.

. Dislodging the float valve.

- Start by locating the carburetor underneath the carburetor cover and give it a solid tap with the handle of a screwdriver.
- Or, you can even try taking a couple laps around your property with the engine off.
- If the float valve was lodged this will dislodge it.

3. Cleaning the carburetor.

- Reference the instructions on how to clean your carburetor below.

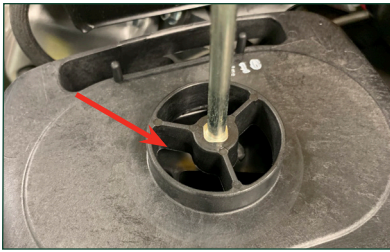


Your Carburetor May Need Cleaning.

1. Preparing the carburetor.

- First, drain the carburetor of gas by locating fuel drain underneath the air filter.
- You will see a Phillips head screw sticking out to the side of the carburetor.
- Loosen the screw and gas will start pouring out of the carburetor
- Once carburetor is empty, re-tighten the screw.





2. Cleaning the carburetor.

- Remove the air filter exposing base, so you have clear access to the carburetor.
- Spray about a shot glass worth of carburetor cleaner, (we recommend using the brand Sea Foam) directly into the base of the air filter so it goes into the carburetor.
- The longer the Sea Foam stays there, the more it will clean it. It will start eating away at the gunk in the carburetor.
- Let it sit overnight.



3. Checking the engine.

- The next day, with the air filter still off, start the engine and let it burn out the Sea Foam in the carburetor.
- As it runs it will continue to clean itself.
- Once it burns up the Sea Foam in the carburetor, the engine may sputter and die.
- Spray carburetor cleaner directly into base of air filter to resuscitate it.
- Repeat the last step until the engine runs on it's own.

Is Their An Issue With the Electric-Start?



1. No sound when turning the key.

- Check to make sure the battery is charged.
- Check that the fuel lever is pushed to the right for "on", and make sure the wiring harness is secured to the battery and engine.
- The engine harness should have one red wire going to the solenoid and one black wire grounded to the engine block. The ends of both wires should be secured into a grey connector.
- The battery harness should have one red wire connected to the (+) terminal of the battery and one black wire connected to the (-) terminal of the battery. The ends of both wires should be secured into a grey connector.

2. Clicking/spinning sound when turning the key.

- The wires connecting the battery may have been reversed. Make sure its red to (+) and black to (-).
- The starter is bad and would need to be diagnosed by a Briggs & Stratton dealer.

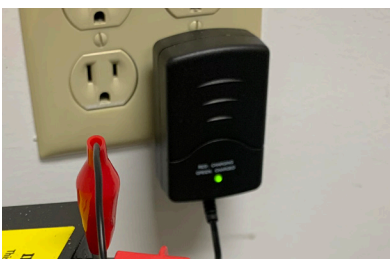
IMPORTANT: The engine may begin to smoke if you continue to turn the key!

3. Engine cranks normally when turning the key, but will not start.

- This could be an engine issue, check to see if it starts with the pull cord. If it does not, refer to instructions on 8HP 10HP Vanguard Engine not starting.
- If engine pull cord works, this could be a battery or charger issue.

4. Damage to the battery or charger.

- Check for any bulges, deformities, or damage on the battery.
- When you plug the charger into the wall, the light should turn red, even if it's only for a second, before it switches to float mode.
- If it goes straight to green, the battery may be over-discharged and would need to be replaced.
- If it does not turn green after 24 hours, the battery may be damaged and would need to be replaced.



Thanks for being a Cyclone Rake customer and we hope this troubleshooting guide has helped resolve your issue!