



# VFE-L Manual



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# 1. Getting Started

## What's In the Box

- 1 x **VFE-L** - An amazing VaporFlame Engine unit
- 1 x Integrated Power Cord
- 1 x Integrated Air/Water Hose
- 1 x VFE-L Manual
- 1 x VaporFlame Bleeder Hose
- 1 x VaporFlame Blow Off Valve

## “Let's Unpack That...”

Hey! Look at that! You are the proud owner of a shiny new VaporFlame Engine. You now have the power to make “fire” from water- Pretty cool huh? As you unpack your VaporFlame engine from its shipping material make sure all the parts are present. Inspect the engine for damage that may have occurred in transport. The VaporFlame fixtures are pretty hearty, but sometimes accidents happen. Please keep the original packing material for inspection. If a fixture must be returned to the factory, it is important that it is sent in the original packing.

## Powering Up

All engines must be powered directly via circuit and cannot be run off a rheostat (variable resistor) or dimmer circuit, even if the rheostat or dimmer channel is used solely for a 0% to 100% switch.

**The VFE-L Engine requires an input voltage of 110 VAC/60Hz.** Be sure the input voltage applied to the fixture matches these specifications. **Irreparable damage may occur if the incorrect is voltage supplied.**

## Getting A Hold of Us

If you need more information, or something goes wrong, please **contact us at [www.vaporflame.net](http://www.vaporflame.net)**. We love talking shop and will be happy to troubleshoot any challenges with you. Really!

**Disclaimer: The information and specifications contained in this document are subject to change without notice. VaporFlame Inc. assumes no responsibility or liability for any errors or omissions that may appear in this user manual. VaporFlame Inc. reserves the right to update the existing document or to create a new document to correct any errors or omissions at any time. You can download the latest version of this document from [www.vaporflame.net](http://www.vaporflame.net).**

## 2. Safety Instructions

Please keep this User Guide for future use. If you sell the unit to someone else, be sure that they also receive this User Guide.

- ALWAYS make sure that you are connecting to the proper voltage, and that the line voltage you are connecting to is not higher than that stated on the decal of the engine.
- NEVER use any liquid other than water and/or white vinegar in the unit. ONLY clean potable water should be used. White vinegar should be added to prevent odors from forming.
- DO NOT allow water to flow into the air line. This will cause damage to the VaporFlame units



- DO NOT allow water to remain in the fixture when not in use. This could cause an unpleasant odor or bacterial growth in the water tubes.

- In the event of an unpleasant odor the Engine and Water Hoses must be cleaned immediately.

- It is RECOMMENDED to add 2oz of white vinegar to every tank of water to maintain clean internal water hoses.

- ALWAYS bleed remaining water and air from The Engine before storing.

- The Engine must be installed in a location with adequate ventilation.

- The Engine MUST be in a ‘lid up” orientation for running.

- Use The Engine for only one type of VaporFlame fixture at a time. (Each fixture requires a different air pressure and The Engine can only be set on a one air pressure at a time.

- The cable door must be open when the unit is running. The cable door serves as the inlet for airflow. Closing or blocking the cable door may cause The Engine to overheat.

- ALWAYS drain the water tank prior to travel or storage.
- DO NOT block fans on exterior of the case. Doing so may cause The Engine to overheat.

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- DO NOT run The Engine with additional padding. Doing so may cause The Engine to overheat.
- PROTECT THE UNIT FROM FREEZING. DO NOT operate at ambient temperatures lower than 20°F (-6°C) or higher than 104°F (40°C). DO NOT allow water to remain in the unit with the unit OFF at ambient temperatures lower than 40°F (4°C).
- In the event of a serious operating problem, stop using the unit immediately. NEVER try to repair the unit yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center. Always use the same type spare parts.
- NEVER connect The Engine to a dimmer pack. Make sure the power cord is never crimped or damaged.

**Caution! There are no user serviceable parts inside the unit. Do not open any housings or attempt any repairs yourself. In the unlikely event your unit may require service, please contact us at [www.vaporflame.net](http://www.vaporflame.net).**

# 3. Meet The VFE-L!

## VFE-L Main Features

- 2 hp / 10 Gal Air Compressor
- 4.5 gpm / 40 psi Water Pump
- 5 Gal Water Tank
- Air/Water Bleeder Hose
- Air/Water Blow Off Valve

## Product Description

The VFE-L is an air compressor and water pump set built into a mobile road case that serves as an "Engine" to the VaporFlame System.

This case houses an air compressor, water pump, water tank and hoses to deliver enough air and water for several VaporFlame units. Complete with 5 gallon water tank, and ultra quiet air compressor, the VFE-L can be located just off-stage while its hoses send air and water to the VaporFlame fixtures. The VFE-L features a cable door on the side for power in, and air/water out.

The VFE-L uses a paired valved connector for delivering air and water to the VaporFlame effect units. These valved connectors prevent air and water leaks when used correctly.

Dimensions of the case are 20"w x 15"d x 20"h, and features a tilt-and-roll pull out handle. The VFE opens from the top to access the water tank and the air tank.

The VFE-L water tank must be empty for travel/storage, and must be in a "lid-up" orientation to run. The VFE-L case may be run with the lid closed to reduce sound.

The VFE-L is designed to provide enough air and water to power:

- 3-4 VF6b Units
- 1-2 VF8b Unit at 25% Duty Cycle (periodic blast for momentary effect- 60-90 seconds. After which the air tank will need to recharge prior to another blast effect. Recharge 2-3 minutes)

## 4. Setup

### Set the VFE-L in a “Lid-up” Orientation. (FIG. 1)

The VFE-L Engine features a “tilt-and-roll” handle for ease of transport, but must be set in a “lid-up” orientation when run.

1. The VFE-L should not tip or flip and **MUST** ride on wheels



FIG.1

### Fill The Water Tank with Clean Potable Water. (FIG. 2)

Water Tank



1. Disconnect the gray, quick release connector by pressing on the thumb button and gently pulling the connector away from the tank.
2. Remove the water tank by gently lifting the tank out of the road case. Check to ensure there is no debris or sediment in the tank.
3. Fill the water tank with clean potable water. There should be no sediment or debris in the water tank.
4. Add 1oz white vinegar to each full tank to maintain a clean VaporFlame system.
5. Replace the water tank and reconnect the quick release connector.

FIG.2

### Power the Engine (FIG. 3)

1. Connect The Engine directly to an appropriate circuit.
2. The Engine is powered by an integrated power cord which powers all of the internal components.
3. The Engine requires an input voltage of 110 VAC/60 Hz
4. The Engine draws a total of 16 amps @110 VAC.



FIG.3

## Switch On The Air Compressor. (FIG 4)

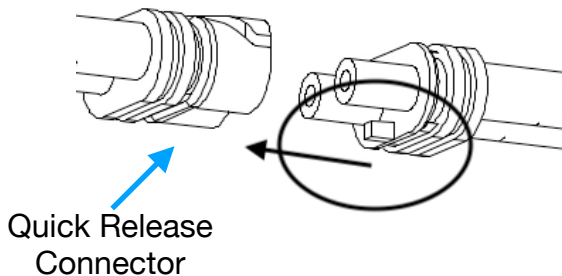
1. Turn the power switch from “OFF” to “AUTO”.
2. Use the pressure knob to set the Correct Air Pressure for the VaporFlame units desired. (SEE VaporFlame Unit manuals for correct pressure settings.)



FIG. 4

## Connect Air/Water Hoses and Prime the System (FIG 5)

FIG. 5



1. Use VaporFlame Air/Water hoses, (sold separately) to connect The Engine to the VaporFlame effects units.
2. Prime the water pump & clear air from the water line. Using the Water Bleeder Valve, bleed the air from the water line. This is best done into a container as water will most likely come out with the air. Once the water runs as a steady stream without pockets of air, disconnect the Bleeder Valve.
3. Connect the Air/Water hose to the VaporFlame effect units.

## Set up your VaporFlame Effect unit

1. Power up the VaporFlame effect and lighting fixture per their manuals.

FIG. 6



## Drain remaining water from the unit before storage.

1. Disconnect the VaporFlame effects units from the Air/Water hoses.
2. Connect the Air/Water Blow Off Valve in-line directly after the The Engine, and before the hoses.
3. Move the valve lever to the Air (Gray) hose. This sends air through the water line to clear the water from the hose.
4. Connect the Bleeder Valve at the end of the Air/Water hose line. This allows the water to be blown out of the water line to prepare it for storage.
5. Once the water has been cleared from the hoses, the hoses may be disconnected and stored.
6. NOTE: Release the residual air pressure in the air AND water hoses by depressing the male connectors. A puff of air will result. Neat huh?

## 5. A Few More Things

### Draining the Air Compressor

The air compressor may accumulate moisture in the air tank, and will need to be regularly drained. The VFE-L comes with an auto-drain feature. Accumulated moisture will drain via a black tube. Feed this tube through the cable pass-through door so that the discharged moisture does not collect in the bottom of the road case. (FIG. 8)

### Air & Water

Any clean potable water can be used in The Engine. In short, if you can drink it, so can the VFE-L. Debris in the water line can clog and damage the VaporFlame units. We have installed a filter for debris on the water supply line. Regularly check to see if debris has accumulated in this filter. The clear cover can be removed to clear debris from the filter. (FIG. 9)

Unpleasant odors can occur if water is left in the unit for extended periods of time. **IMMEDIATELY** clean the unit if found odors are present. We recommend a solution of 2 oz of wine vinegar to 5 gallons of water be run through the unit for 10-20 minutes.

Drain Tube

FIG. 8



Water Filter

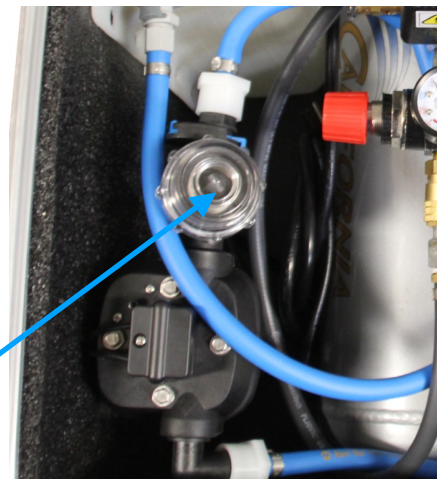


FIG. 9

## **Warranty**

VaporFlame provides a limited warranty for all fixtures and engines.

Each Engine (VFE-L) has a 2-year warranty, including parts and labor.

Warranty on each fixture is only valid if fixture was operated under normal conditions.

To apply for the warranty, the fixture must be shipped, at owners expense, to VaporFlame. VaporFlame will then assess the fixture to evaluate the issue and determine if the issue falls under the warranty.

If VaporFlame determines the fixture is under warranty, then VaporFlame will correct the issue and ship back to owner at VaporFlame's expense. If VaporFlame determines the fixture is not under warranty, VaporFlame will ship the fixture back to the owner at the owners expense.

If VaporFlame determines the fixture is not under warranty, but the owner would like VaporFlame to correct the issue, the owner will be charged time and materials. VaporFlame will provide an estimate to the owner to correct the issue and the owner payment will be due prior to VaporFlame correcting the issue. Once the issue on the unit has been addressed, VaporFlame will ship the unit back to the owner at the owners expense.

Warranty for light fixtures falls under the light fixture manufacture's warranty and not under VaporFlame.

## Tips and Tricks

VFE-L Tips and Tricks	
The water pump is constantly running.	<ol style="list-style-type: none"> <li>1. The pump needs to be primed. Connect the bleeder hose to the valved connector to allow the water to flow freely. Get a bucket- You'll need it!</li> <li>2. There is air in the water line. Connect the bleeder hose to the end of the Air/Water hose. Once the water flows freely the line is ready. Again, we suggest a bucket to collect the water!</li> </ol>
Nothing is coming out of the nozzle on my VaporFlame effect unit.	<ol style="list-style-type: none"> <li>1. Check the air compressor. Be sure it is powered and on</li> <li>2. Check the outlet air pressure. Be sure it is high enough to trigger the effect</li> <li>3. Check to see if the air and water hoses are correctly connected to The Engine's valved connectors</li> <li>4. Check power</li> <li>5. Check data/control</li> </ol>
Air is coming out of the nozzle, but water isn't coming out of the nozzle on my VaporFlame effect units.	<ol style="list-style-type: none"> <li>1. Check water tank level</li> <li>2. Check for debris in the water line.</li> <li>3. Check to see if the air and water hoses are correctly connected to an air and water supply</li> <li>4. Use the blow off valve to clear the water from the water line. This may also clear debris in the water line. Re-set up the system per this manual</li> </ol>
I am getting a plume of air/ water vapor, but it is minimal, or low and wide.	<ol style="list-style-type: none"> <li>1. Adjust the air to water ratio on the effect unit. Too much air in relation to water can cause a wide low plume</li> <li>2. Check air pressure. If the air pressure is set too high the VaporFlame effect will be minimal. Try a lower pressure</li> <li>3. Check the water level in the water tank.</li> <li>4. Check for debris in the system</li> </ol>
The plume is really wet!	<ol style="list-style-type: none"> <li>1. Adjust the ratio of air to water on the effect unit.</li> <li>2. Check air pressure. If the air pressure is set too low the VaporFlame effect will be wet. Try a higher pressure</li> </ol>
I crossed the streams and now the VaporFlame effect won't work	<ol style="list-style-type: none"> <li>1. Don't cross the streams!!</li> <li>2. Sending water into the air hose of a VaporFlame effect will damage the internal air valve. You can try letting the unit dry out for a few hours. But most likely permanent damage has been done. (Uh-Oh It croaked.)</li> <li>3. The air valve needs to be replaced by the manufacturer.</li> </ol>