



VFe Manual

VaporFlame

Designed & Built

20



13

Orlando

Need Help?



1. Add air. 2. Add water. 3. Add light.

4. Make fire...

www.vaporflame.net



VFE User Manual

VaporFlame® Effect Utility Engine

1. Getting Started

What's Included

- 1 × VFE VaporFlame Engine
- Integrated power cord
- Air & water output hose connections
- VaporFlame bleeder hose
- VFE User Manual

Product Overview

The **VFE (VaporFlame Engine)** is a portable air and water supply system designed to power VaporFlame effect units.

The VFE serves as the **utility engine** for the VaporFlame system, supplying air and water to VaporFlame effect heads including the VF6 and VF8 series.

The system integrates an **air compressor, water pump, and water reservoir** inside a durable rolling road case. This allows the entire support system required for VaporFlame effects to be transported, shipped, and deployed quickly in production environments.

The VFE provides sufficient air and water capacity to support multiple VaporFlame effect heads from a single portable unit.

Typical capacity:

- Up to 4 × VF6c or VF6s units
- Up to 2 × VF8c units



Unpacking and Inspection

Carefully inspect the unit upon receipt.

Although the VFE is designed for touring and production environments, damage may occur during shipping. Verify that the case and internal components show no visible signs of damage.

Retain the original packing materials. If the unit must be returned for service, it should be shipped using the original packaging.

Power Requirements

The VFE must be connected **directly to a power circuit** and must not be operated on a dimmer or rheostat-controlled circuit.

Power requirements:

- 110 VAC / 60 Hz
- 16 amps

Ensure the supplied voltage matches these specifications.

Supplying incorrect voltage may result in permanent damage to the unit.

Support

For technical support, service inquiries, or updated documentation, visit:

www.vaporflame.net

Disclaimer

Specifications and information contained in this manual are subject to change without notice. VaporFlame Inc. assumes no responsibility for errors or omissions in this document. The latest version of this manual can be downloaded from

www.vaporflame.net.



2. Safety Instructions

Retain this manual for future reference. If transferring ownership of the unit, include this manual with the product.

Electrical Safety

- Verify the input voltage matches the unit specifications.
 - Never connect the VFE to a dimmer or rheostat-controlled circuit.
 - Do not operate the unit with damaged power cables.
 - Do not expose electrical components to water.
-

Water System Safety

- Use clean potable water only.
 - Do not introduce chemicals or additives other than recommended cleaning solutions.
 - Prevent water from entering the air line.
-

Storage and Sanitation

Water left inside the system for extended periods may develop odor or bacterial growth.

Recommended maintenance:

- Drain the water tank before storage.
 - Add **1–2 oz of white vinegar per tank** to help maintain clean internal water lines.
-

Hose Storage and Maintenance

Water left inside the system for extended periods may develop odor or bacterial growth. Use air pressure to clear water lines of water.

Recommended maintenance:

- Connect the included Water line adapter to the air compressor
- Connect Blow Off Hose to water line



- Place blow off hose into water tank
- Connect Water line to Water line adapter on air compressor

Ventilation

The VFE must be installed in a location with adequate airflow.

- Do not block external ventilation fans.
- Do not obstruct the cable pass-through door during operation.
- Do not operate the system with additional padding or coverings.

Operating Orientation

The VFE must be operated in a **lid-up and open orientation**.

Temperature Limits

- Minimum operating temperature: **20°F (-6°C)**
- Maximum operating temperature: **104°F (40°C)**

Do not allow water to remain inside the system if temperatures may drop below **40°F (4°C)**.

Service

There are **no user-serviceable internal components**. Do not open internal housings or attempt repairs.

If service is required, contact VaporFlame technical support.

3. Meet the VFE

Main Features

- Integrated 2 HP air compressor

Information ©VaporFlame Inc.

Rev 4.1 3/26



- 10-gallon air tank
- 5.3 CFM @ 90 PSI
- Sound-dampened compressor enclosure
- 58 dB operating noise
- Integrated 5 gallon water tank
- 5.5 GPM water pump
- Touring-grade rolling road case
- Integrated air and water output connectors

System Description

The VFE serves as the **central utility engine** for VaporFlame effects.

The system combines an air compressor and water pump in a single portable unit, allowing VaporFlame effects to be deployed without requiring separate air or water infrastructure.

All components are mounted inside a durable road case designed for:

- Truck transport
- Touring productions
- Event installations
- Rapid load-in and load-out

The air compressor is housed inside a **sound-dampening cabinet** that reduces operational noise while maintaining airflow for cooling.

The case may be operated with the lid closed to reduce operational noise.

The water tank must be empty during transport or long-term storage.

4. Setup

Positioning the VFE

Place the VFE on a **level surface**.

The unit must operate with **lid open or off**.



Ensure adequate airflow around the case and keep ventilation openings clear.

Filling the Water Tank

1. Disconnect the quick-release connector from the water tank.
2. Remove the tank from the road case.
3. Inspect the tank to ensure it is free of debris.
4. Fill the tank with **clean potable water**.
5. Add **1–2 oz of white vinegar** if desired for sanitation.
6. Replace the tank and reconnect the quick-release connector.

Tank capacity: **5 gallons**

Powering the Engine

Connect the integrated power cord to an appropriate electrical circuit.

Power requirements:

- 110 VAC
- 60 Hz
- 16 amps

This single power connection supplies the compressor and pump systems.

Air Compressor Operation

Turn the compressor power switch from **OFF** to **AUTO**.

Allow the compressor tank to reach operating pressure before activating VaporFlame effect units.

Use the pressure regulator to set the appropriate air pressure for the connected VaporFlame fixtures.

Refer to the **fixture manual** for correct pressure settings.

Connecting VaporFlame Units

Connect VaporFlame air/water hoses between the VFE and the effect heads.

The VFE uses **paired valved connectors** to supply air and water simultaneously.

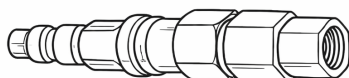
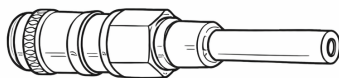
These connectors help prevent leaks when disconnected.

Priming the Water System

Before operating the system:
Bleeder Hose (Male AG 5675 to Bare Hose)

The bleeder hose is used to remove air from the water lines and prime the system prior to operation. It features a **Male AG 5675 quick connect** on one end and an open (bare) hose on the other.

BLEEDER HOSE



AIR/WATER ADAPTER

Caution

- Use of excessive air pressure may damage fittings or the system.
- Do not exceed 60 PSI of air pressure.
- Confirm that only air is seen exiting the end of the hose before disconnecting.

Prime the System

1. Connect the water hoses to the main water outlet (**Female AG 5675**) on the VFE.
2. Place the bare end of the bleeder hose into a suitable tank or receptacle.
3. Connect the water hoses to the bleeder hose.
4. Allow water to flow until a steady stream is achieved and all air is purged from the line.

5. Shutdown and Storage



Air to Water Adapter

The air to water adapter is used during system shutdown to clear water from the hoses for storage. It features a **1/4" industrial male air fitting** on one end and a **Female AG 5675 quick connect** on the other.

Clear the System

1. Connect the air to water adapter to the air outlet on the VFE.
2. Connect the water hoses to the **Female AG 5675** end of the adapter.
3. Place the bare end of the bleeder hose into a suitable tank or receptacle.
4. Connect the water hoses to the bleeder hose.
5. Apply air until all water is expelled and only air is visible exiting the hose.

⚠ Caution

- Use of excessive air pressure may damage fittings or internal components.
- Do not exceed **60 PSI** when using compressed air to clear the system.
- Ensure all connections are secure before applying air pressure.
- Confirm that only air (no water) is exiting the hose before disconnecting.

6. Maintenance

Compressor Drain

The air compressor may accumulate moisture in the air tank.

The VFE includes an **automatic drain system** that releases accumulated moisture through a discharge tube.

If installed, ensure the drain tube exits the case through the cable pass-through door so moisture does not accumulate inside the road case.

Water Filter

The VFE includes a debris filter in the water supply line.

Periodically inspect this filter for debris.

The clear filter housing can be removed to clean the filter if needed.

Cleaning the Water System

If the system develops odor or contamination:

1. Mix 2 oz white vinegar with 5 gallons of water
2. Run the solution through the system for **10–20 minutes**
3. Use included bleeder hose to send air through hoses until the air runs dry
4. Drain and refill with clean water

7. Warranty

VaporFlame provides a **limited two-year warranty** covering parts and labor for the VFE system when operated under normal conditions.

Warranty service requires the unit to be shipped to VaporFlame for evaluation.

- Shipping to VaporFlame is the responsibility of the owner.
- If the issue is determined to be covered under warranty, repairs will be performed and the unit returned at VaporFlame's expense.
- Non-warranty repairs may be performed for time and materials with customer approval.

Third-party components such as compressors and pumps may carry separate manufacturer warranties.