ELIMINATOR® LIGHTING

VF1600 EP
User Manual

Caution: Fog machines may set off smoke alarms!

Eliminator Lighting

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DOCUMENT VERSION

Due to additional product features and/or enhancements, an updated version of this document may be available online.
Please check www.adj.com for the latest revision/update of this manual before beginning installation and/or programming.

Date	Document Version	Software Version >	DMX Channel Mode	Notes
11/01/23	1.0	N/A	1 Ch	Initial Release
01/20/25	1.1	N/A	No Change	Updated Remote Operations, Specifications
08/04/25	1.2	N/A	No Change	Update Silkscreen

CONTENTS

GENERAL INFORMATION

INTRODUCTION

Congratulations on your purchase of one of the most reliable fog machines on the market today! The VF1600 EP commercial fog machine has been designed to perform reliably for years when the guidelines in this booklet are followed. Please read and understand the instructions in this manual carefully and thoroughly before attempting to operate this unit. These instructions contain important information regarding safety during usage and maintenance.

CUSTOMER SUPPORT

Tel: (323) 213-4592

www.adj.com I support@eliminatorlighting.com

Warning! To prevent or reduce the risk of electrical shock or fire, do not expose this unit to rain or moisture.

Caution! There are no user serviceable parts inside this unit. Do not attempt any repairs yourself, as doing so will void your manufacturer's warranty. In the event that your unit requires service, please contact Eliminator Lighting for assistance.

SAFETY NOTICE! NEVER POINT OR AIM A FOG MACHINE TOWARDS PEOPLE OR THEIR CLOTHING. THIS UNIT EMITS HOT VAPOR AND SHOULD BE USED WITH THE SAME CARE THAT WOULD BE OBSERVED WHEN USING AN ELECTRIC KETTLE OR AN IRON.

PLEASE recycle the shipping carton whenever possible.

LIMITED WARRANTY (USA ONLY)

A. Eliminator Lighting, an ADJ Products, LLC brand, hereby warrants, to the original purchaser, Eliminator Lighting products to be free of manufacturing defects in material and workmanship for a prescribed period from the date of purchase (see specific warranty period on reverse). This warranty shall be valid only if the product is purchased within the United States of America, including possessions and territories. It is the owner's responsibility to establish the date and place of purchase by acceptable evidence, at the time service is sought.

B. For warranty service, you must obtain a Return Authorization number (RA#) before sending back the product-please contact ADJ Products, LLC Service Department at 800-322-6337. Send the product only to the Eliminator Lighting factory. All shipping charges must be pre-paid. If the requested repairs or service (including parts replacement) are within the terms of this warranty, Eliminator Lighting will pay return shipping charges only to a designated point within the United States. If the entire instrument is sent, it must be shipped in its original package. No accessories should be shipped with the product. If any accessories are shipped with the product, Eliminator Lighting shall have no liability whatsoever for loss of or damage to any such accessories, or for the safe return thereof.

C. This warranty is void of the serial number has been altered or removed; if the product is modified in any manner which Eliminator Lighting concludes, after inspection, affects the reliability of the product, if the product has been repaired or service by anyone other than ADJ Products, LLC factory unless prior written authorization was issued to purchaser by Eliminator Lighting; if the product is damaged because not properly maintained as set forth in the instruction manual.

D. This is not a service contact, and this warranty does not include maintenance, cleaning or periodic check up. During the period specified above, Eliminator Lighting will replace defective parts at its expense with new or refurbished parts, and will absorb all expenses for warrant service and repair labor by reason of defects in material or workmanship. The sole responsibility of Eliminator Lighting under this warranty shall be limited to the repair of the product, or replacement thereof, including parts, at the sole discretion of Eliminator Lighting. All products covered by this warranty were manufactured after August 15, 2012, and bear identifying marks to that effect.

E. Eliminator Lighting reserves the right to make changes in design and/or improvements upon its products without any obligation to include these changes in any products theretofore manufactured.

F. No warranty, whether expressed or implied, is given or made with respect to any accessory supplied with products described above. Except to the extent prohibited by applicable law, all implied warranties made by Eliminator Lighting in connection with this product, including warranties of merchantability or fitness, are limited in duration to the warranty period set forth above. And no warranties, whether expressed or implied, including warranties of merchantability or fitness, shall apply to this product after said period has expired. The consumer's and/or Dealer's sole remedy shall be such repair or replacement as is expressly provided above; and under no circumstances shall Eliminator Lighting be liable for any loss or damage, direct or consequential, arising out of the use of, or inability to use, this product.

G. This warranty is the only written warranty applicable to Eliminator Lighting products and supersedes all prior warranties and written descriptions of warranty terms and conditions heretofore published.

LIMITED WARRANTY PERIODS

- **All Eliminator Lighting products (except laser diodes) = 1-year (365 days) Limited Warranty** (Such as: Special Effect Lighting, Intelligent Lighting, UV lighting, Strobes, Fog Machines, Bubble Machines, Mirror Balls, Par Cans, Trussing, Lighting Stands etc. excluding LED and lamps)
- **Laser Products = 1 Year (365 Days) Limited Warranty** (excludes laser diodes which have 6 month limited warranty)
- **Batteries = 180 Day Limited Warranty** (excluding batteries which have a 180 day limited warranty)

WARRANTY REGISTRATION

This device carries a one year (365 days) limited warranty. Please fill out the enclosed warranty card to validate your purchase. All returned service items, whether under warranty or not, must be freight pre-paid and accompanied by a return authorization (R.A.) number. The R.A. number must be clearly written on the outside of the return package. A brief description of the problem as well as the R.A. number must also be written down on a piece of paper included in the shipping carton. If the unit is under warranty, you must provide a copy of your proof of purchase invoice. You may obtain a R.A. number by contacting our customer support team on our customer support number. All packages returned to the service department not displaying a R.A. number on the outside of the package will be returned to the shipper.
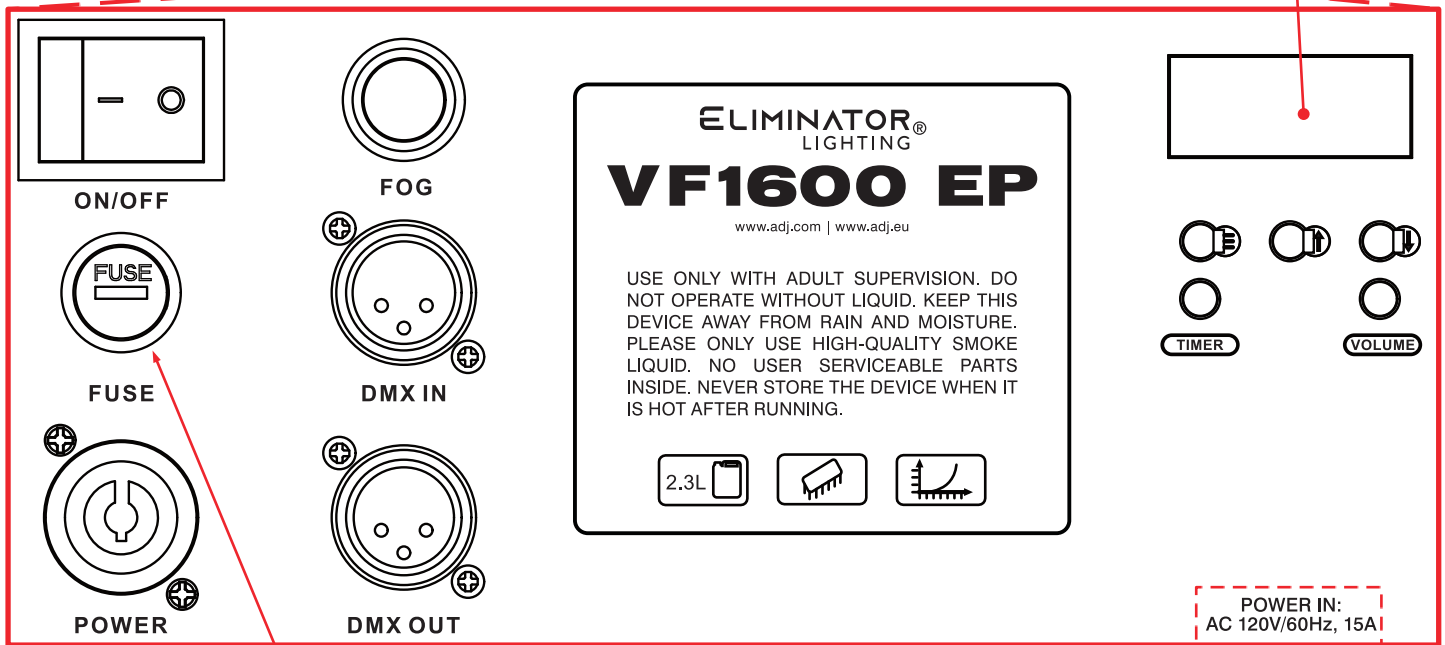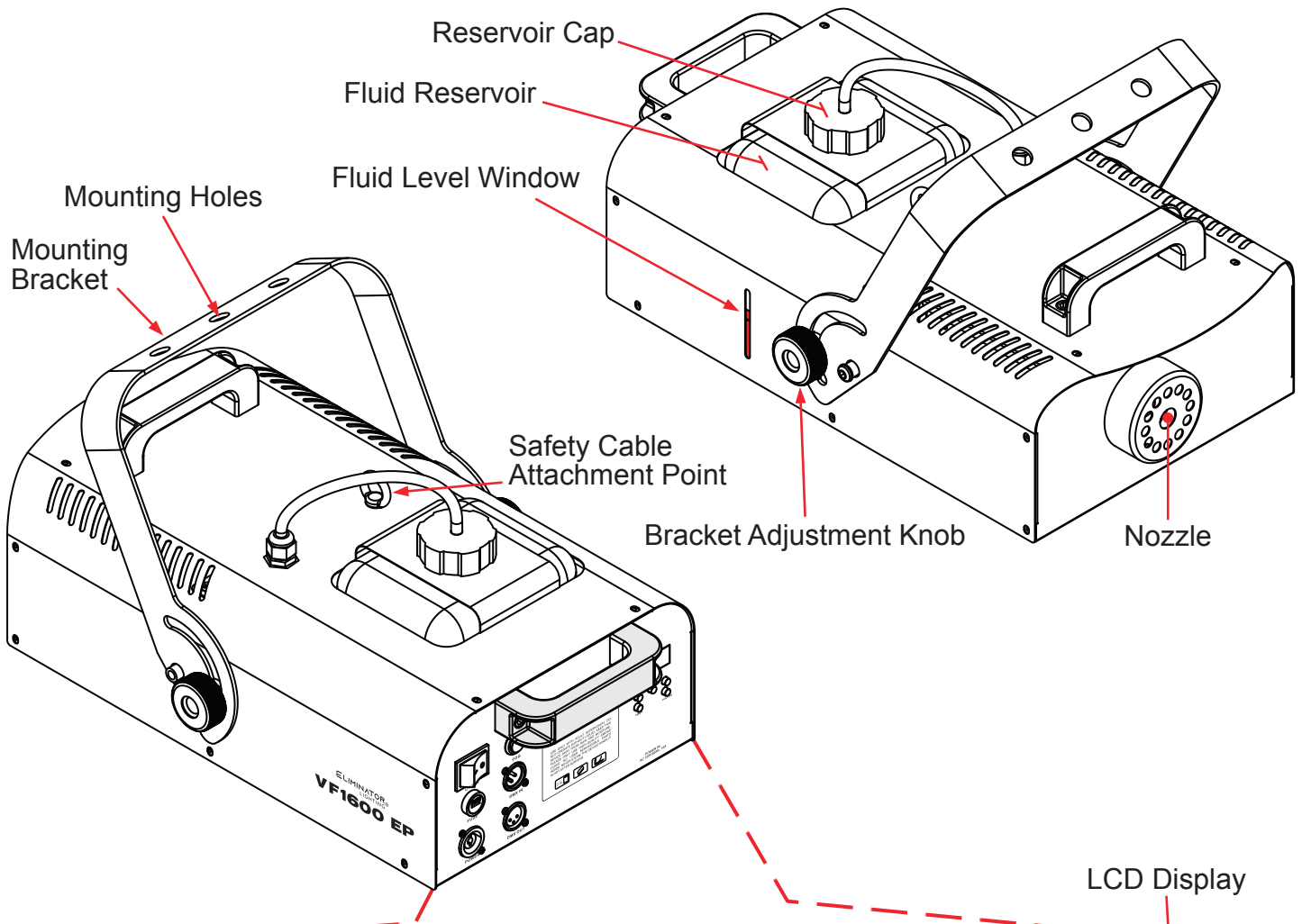
FEATURES

- Specially Designed heating element to perform better with less buildup
- Professional Quality Pump
- High performance output
- Onboard Timer Controls
- Wireless remote control included
- DMX control

SAFETY GUIDELINES

- In the event that the device needs to be return to Eliminator Lighting for service, use only the original packaging and materials for shipping.
- To reduce the risk of electrical shock or fire, do not expose this unit rain or moisture.
- Do not spill water or other liquids into or on to your unit.
- Ensure that the fog fluid is poured only into the fluid reservoir. Avoid spilling fog fluid into or onto other internal components.
- Ensure that the voltage of the power source matches the required voltage of the device.
- Do not remove the cover for any reason! There are no user serviceable parts inside this device.
- Disconnect the unit from power during long periods of non-use.
- Never operate this unit with the cover removed.
- Do not attempt to operate this unit if the power cord has been frayed or broken.
- Do not attempt to remove or break off the ground prong from the electrical cord. This prong is used to reduce the risk of electrical shock and fire in the event of an internal short.
- Disconnect from main power before attempting to make any type of connection.
- Never block the ventilation holes, and always be sure to mount this unit in an area that will allow proper ventilation. Allow at least 6" (15cm) clearance between this device and a wall.
- This unit is intended for indoor use only, and use of this product outdoors voids all warranties.
- Follow proper storage guidelines when storing for extended periods. See the **Proper Storage and Maintenance** section of this manual for details.
- Always mount this unit in a safe and stable manner.
- Always route your power cord out of the path of foot traffic. Power cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them.
- The fixture should be serviced by qualified service personnel when:
  A. The power-supply cord or the plug has been damaged.
  B. Objects have fallen onto, or liquid has been spilled into, the unit.
  C. The unit has been exposed to rain or water.
  D. The unit does not appear to operate normally or exhibits a marked change in performance.

OVERVIEW

Reservoir Cap

Fluid Reservoir

Fluid Level Window

Mounting Holes

Mounting Bracket

Safety Cable Attachment Point

Bracket Adjustment Knob

Nozzle

VF1600 EP

LCD Display

ON/OFF

FOG

FUSE

FUSE

DMX IN

POWER

DMX OUT

ELIMINATOR® LIGHTING

VF1600 EP

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USE ONLY WITH ADULT SUPERVISION. DO NOT OPERATE WITHOUT LIQUID. KEEP THIS DEVICE AWAY FROM RAIN AND MOISTURE. PLEASE ONLY USE HIGH-QUALITY SMOKE LIQUID. NO USER SERVICEABLE PARTS INSIDE. NEVER STORE THE DEVICE WHEN IT IS HOT AFTER RUNNING.

2.3L

TIMER

VOLUME

POWER IN:
AC 120V/60Hz, 15A

POWER IN:
AC 230V/50Hz, 10A

US

EU

FUSE:
US is 15A@120V
EU is 10A@230V

INSTALLATION GUIDELINES

ELECTRICAL CONNECTIONS
A qualified electrician should be used for all electrical connections and/or installations.

DO NOT INSTALL THE FIXTURE IF YOU ARE NOT QUALIFIED TO DO SO!

Fixture MUST be installed following all local, national, and country commercial electrical and construction codes and regulations. Before rigging/mounting the fixture to any metal truss/structure or placing the fixture on any surface, a professional equipment installer MUST be consulted to determine if the metal truss/structure or surface is properly certified to safely hold the combined weight of the fixture, clamps, cables, and accessories.

Overhead fixture installation must always be secured with a secondary safety attachment, such as an appropriately rated safety cable that meets all local, national, and country codes and regulations.

Fixture should be installed away from walking paths, seating areas, or areas where unauthorized personnel might reach the fixture by hand.

NEVER stand directly below the fixture when rigging, removing, or servicing.

If the unit is installed in a suspended or hanging configuration, it should be mounted using a mounting clamp (not provided), and affixing it to the mounting bracket that is provided with the unit. Always ensure that the unit is firmly fixed to avoid vibration and slipping during operation. Always ensure that the structure that you are attaching the unit to is secure and is able to support at least 10 times the unit's weight. Also, always use a safety cable that can hold 12 times the unit's weight when installing the fixture. The equipment must be installed by a professional, and it must be installed in a place where it is out of the reach of people's grasp.
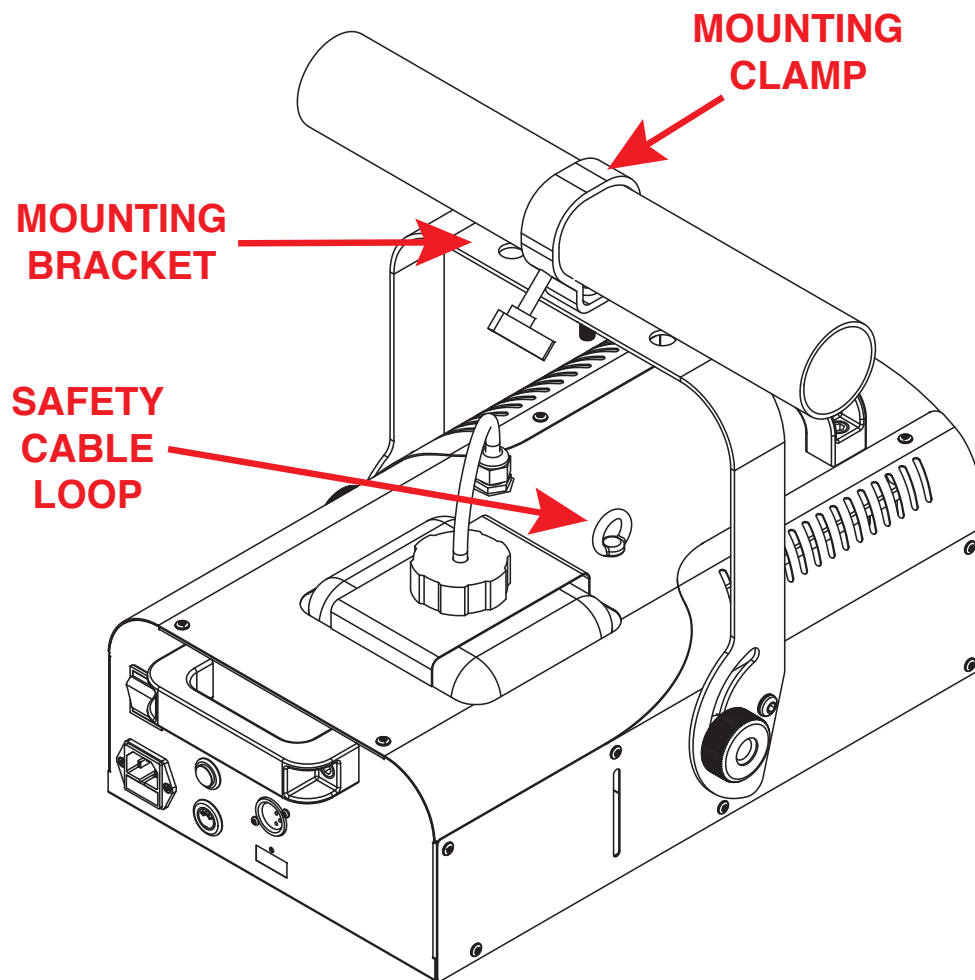
GENERAL SET UP

1. Open the shipping carton and carefully remove the unit from the shipping carton. Remove all the packing material from the device, paying special attention to the area around the nozzle.
2. Set the fog machine on a flat, dry surface. Locate the included bracket from the package and attach it to the sides of the fog machine using the supplied hardware. **Please note: The bracket is an optional accessory, and its usage is required when the fog machine is being installed in a suspended or hanging configuration.**
3. Fill the fog fluid reservoir with ADJ brand fog juice only and then tighten the cap.
4. Firmly attach the remote control unit to the remote control socket on the rear of the unit.
5. Plug the unit in to a compatible power supply. At this time, the fluid reservoir will glow red, indicating that the unit is warming up. Allow approximately eight minutes for the fogger to reach normal operating temperature. When it has reached sufficient temperature, the reservoir will glow green to indicate that the device is ready to emit fog.
6. To emit fog, either press the remote button, use the timer function, or use the manual button on the rear of the unit. See the **Timer Remote Operation** section of this manual for operating instructions.

INSTALLATION GUIDELINES

CLAMP MOUNTING

To install this device in a suspended environment, insert a bolt of the proper weight rating through the bottom of an appropriately rated mounting clamp as well as the mounting surface of the mounting bracket, then fasten in place with a bolt of the appropriate rating. When installing this device suspended from a truss, make sure that the device hangs in a level position in order to prevent leakage from the fluid reservoir. Be sure this fixture is kept at least 0.2m (7.9in.) away from any flammable materials (decoration etc.). This device also includes a safety cable attachment point on the top surface, near the fluid reservoir cap. Always use and install a properly rated supplied safety cable as a safety measure to prevent accidental damage and/or injury in the event the clamp fails. Never use the carrying handles for secondary attachment.

MOUNTING CLAMP

MOUNTING BRACKET

SAFETY CABLE LOOP

⚠ **ALWAYS ATTACH A SAFETY CABLE WHENEVER INSTALLING THIS FIXTURE IN A SUSPENDED ENVIRONMENT TO ENSURE THE FIXTURE WILL NOT FALL IF THE CLAMP FAILS.**
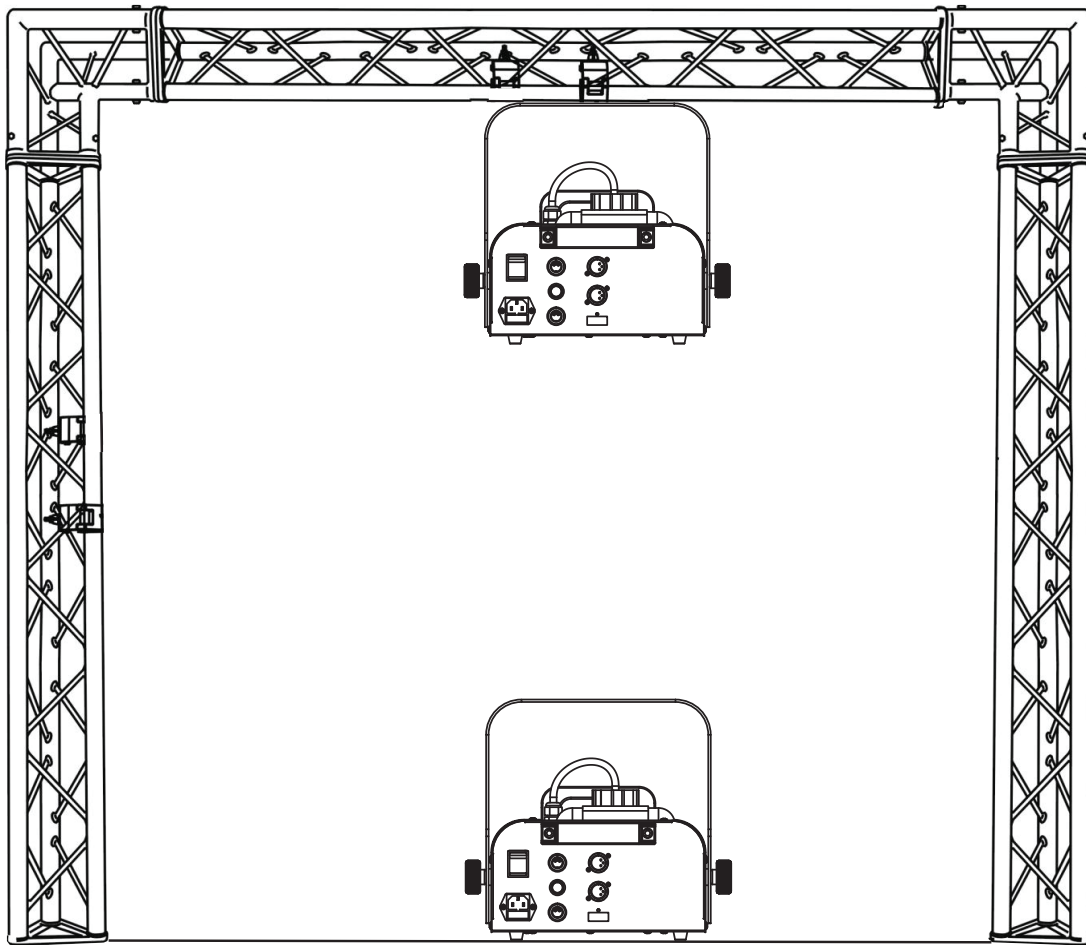
INSTALLATION GUIDELINES

RIGGING

Overhead rigging requires extensive experience, including but not limited to: calculating working load limits, understanding the installation material being used, and periodic safety inspection of all installation material and the fixture itself. If you lack these qualifications, do not attempt to perform the installation yourself. Improper installation can result in bodily injury.

FIXTURE INSTALLATION

This device is fully operational in two different mounting positions: hanging in a level position from a truss, or set on a flat level surface. **Regardless of configuration, the device should be in a level position in order to prevent leakage from the fluid reservoir.** Be sure this fixture is kept at least 0.2m (7.9in.) away from any flammable materials (decoration etc.). Always use and install the supplied safety cable as a safety measure to prevent accidental damage and/or injury in the event the clamp fails. Never use the carrying handles for secondary attachment.
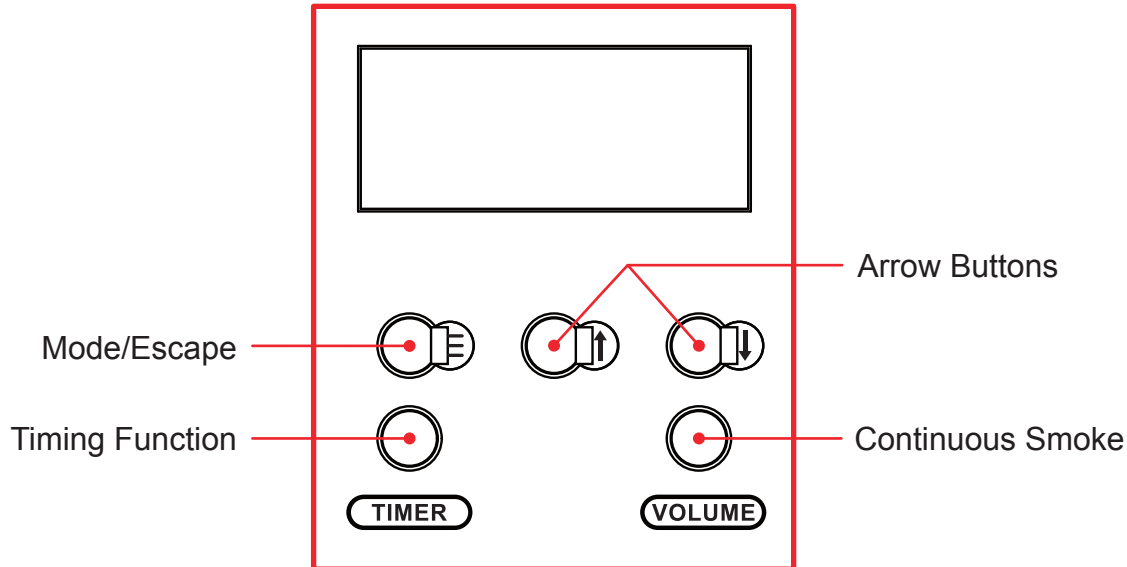

FALLING FIXTURES CAN CAUSE SEVERE INJURY OR SERIOUS EQUIPMENT DAMAGE! FOR THIS REASON, FIXTURES SHOULD BE INSTALLED AND INSPECTED ONLY BY QUALIFIED PERSONNEL. DO NOT INSTALL THE UNIT IF YOU LACK THE QUALIFICATIONS TO DO SO, OR IF YOU HAVE DOUBTS ABOUT THE SAFETY AND SECURITY OF THE INSTALLATION SETUP OR LOCATION!

OPERATING INSTRUCTIONS

PREPARATION

- After checking and confirming that the VF1600 EP and its accessories are intact, place the machine on a flat surface. Remove the oil reservoir, twist off its cap, and carefully add high-quality fog fluid to the reservoir. Once refilled, replace and tighten the cap on the oil reservoir, then insert the reservoir back into the VF1600 EP. For best results, use Eliminator branded fog fluid.
- Confirm that the power supply specifications match the rated voltage of the machine, connect the power cord, and plug it into a grounded socket.
- When the VF1600 EP is powered on, the screen displays 'Heating' to indicate the machine is warming up. Once 'Ready' appears, the machine is operational.
- The VF1600 EP supports DMX512/RDM, remote control, and manual timing/volume control modes.

Arrow Buttons

Mode/Escape

Timing Function

Continuous Smoke

TIMER   VOLUME

CONTROL PANEL

- Mode/Escape button < ☰ >: Press to cycle through the menu of modes/functions and values, or escape mode.
- Arrow Buttons <↑ ↓>: Press the arrow buttons to set parameter values.
- TIMER Button: Activates the timing function. The output duration is determined by the "Duration" setting, the interval between outputs by the "Interval" setting, and the fog volume by the "Fog %" setting. Press the button once to enable timed operation mode; to escape, press it again or press the MODE button.
- VOLUME Button: Activates the continuous function. The fog volume is determined by the "Fog %" setting. Press the button once to enable continuous operation mode; to escape, press it again, or press the MODE button.

SYSTEM MENU

LCD MENU DISPLAY	DESCRIPTIONS
Heating **VF1600EP**	"Heating" indicates the VF1600 EP is preheating and cannot operate until work until it reaches operating temperature.
Ready **VF1600EP**	The "Ready" display indicates that the machine is fully heated and prepared for immediate operation.
DMX Addr **1**	"DMX Addr" indicates the DMX address setting, adjustable from 1 to 512.
Fog % **100**	"Fog %" controls the fog output volume, adjustable from 0 to 100. A setting of 0 stops fog output; higher values increase fog volume.
Duration **10**	"Duration" sets the fog spray time, adjustable from 1 to 500 seconds.
Interval **60**	"Interval" sets the time between fog outputs, adjustable from 1 to 500 seconds.
OIL **ON**	"OIL" activates or deactivates the fluid-free protection function: ON (enabled) / OFF (disabled).
RF **ON**	"RF" enables or disables the wireless function: ON / OFF.
UID : 1900 **00010001**	"UID" displays the RDM protocol UID number.

SYSTEM MENU - ERROR MESSAGES

LCD MENU DISPLAY	DESCRIPTIONS
T_over Error	"T-over Error" indicates that the VF1600 EP's temperature exceeds safe operating limits and requires cooling before use.
T_broken Error	"T_broken Error" indicates that the VF1600 EP has detected a broken or disconnected thermocouple wire, preventing accurate temperature readings and disabling operation until repaired or replaced.
Fluid Error	"Fluid Error" indicates that the VF1600 EP's fluid-free protection function has detected an empty or low fluid reservoir, halting operation to prevent damage.
Tm_over Error	"Tm_over Error" indicates that the VF1600 EP has exceeded the maximum heating time, triggering a timeout to prevent overheating and halting operation until the issue is resolved.
Hz Error	"Hz Error" indicates that the VF1600 EP has detected an incorrect power supply frequency, preventing proper operation until the power source is corrected to match the machine's specified frequency.

DMX SETUP

DMX-512: DMX is short for Digital Multiplex. This is a universal protocol that is used as a form of communication between intelligent fixtures and controllers. A DMX controller sends DMX data instructions from the controller to the fixture. DMX data is sent as serial data that travels from fixture to fixture via the DATA "IN" and DATA "OUT" XLR terminals located on all DMX fixtures (most controllers only have a DATA "OUT" terminal).
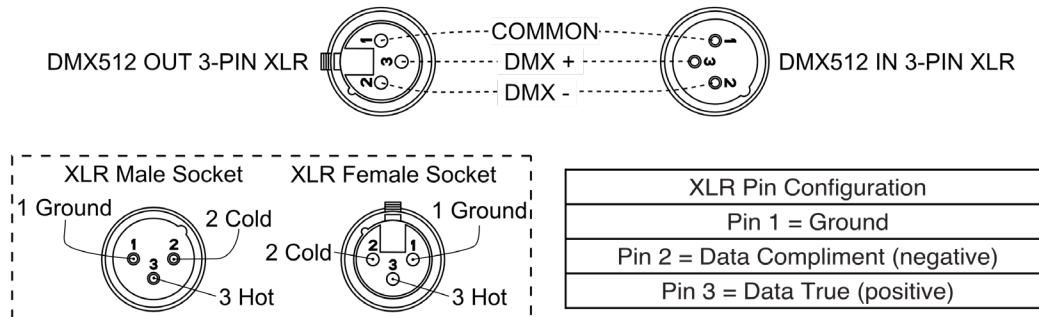
DMX Linking: DMX is a language allowing all makes and models of different manufacturers to be linked together and operate from a single controller, as long as all fixtures and the controller are DMX compliant. To ensure proper DMX data transmission, try to use the shortest cable path possible when linking several DMX fixtures together. The order in which fixtures are connected in a DMX line does not influence the DMX addressing. For example, a fixture assigned a DMX address of 1 may be placed anywhere in a DMX line: at the beginning, at the end, or anywhere in the middle. When a fixture is assigned a DMX address of 1, the DMX controller knows to send DATA assigned to address 1 to that unit, no matter where it is located in the DMX chain.

Data Cable (DMX Cable) Requirements (For DMX Operation): This device can be controlled via DMX-512 protocol, and is a 1-channel DMX unit. The DMX address is set using the dip switches on the back panel of the unit. Your unit and your DMX controller require an approved DMX-512 110-ohm data cable for data input and output (Figure 1). We recommend Accu-Cable DMX cables. If you are making your own cables, be sure to use standard 110-120 Ohm shielded cable (This cable may be purchased at almost all professional lighting stores). Your cables should be made with a male XLR connector at one end and a female XLR connector at the other. Also remember that DMX cable must be daisy chained and cannot be split.
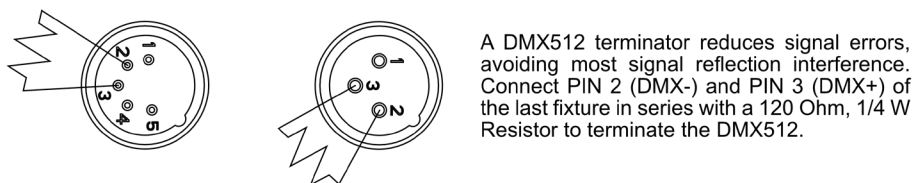
DMX SETUP

Notice: Be sure to follow figures two and three when making your own cables. Do not use the ground lug on the XLR connector. Do not connect the cable's shield conductor to the ground lug or allow the shield conductor to come in contact with the XLR's outer casing. Grounding the shield could cause a short circuit and erratic behavior.

DMX512 OUT 3-PIN XLR ---- COMMON ---- DMX + ---- DMX - ---- DMX512 IN 3-PIN XLR

XLR Male Socket
1 Ground
2 Cold
3 Hot

XLR Female Socket
1 Ground
2 Cold
3 Hot

XLR Pin Configuration
Pin 1 = Ground
Pin 2 = Data Compliment (negative)
Pin 3 = Data True (positive)

Special Note: Line Termination. When longer runs of cable are used, you may need to use a terminator on the last unit to avoid erratic behavior. A terminator is a 110-120 ohm 1/4 watt resistor which is connected between pins 2 and 3 of a male XLR connector (DATA + and DATA -). This unit is inserted in the female XLR connector of the last unit in your daisy chain to terminate the line. Using a cable terminator (ADJ part number Z-DMX/T) will decrease the chances of erratic behavior.

A DMX512 terminator reduces signal errors, avoiding most signal reflection interference. Connect PIN 2 (DMX-) and PIN 3 (DMX+) of the last fixture in series with a 120 Ohm, 1/4 W Resistor to terminate the DMX512.

5-Pin XLR DMX Connectors. Some manufacturers use 5-pin DMX-512 data cables for DATA transmission in place of 3-pin. 5-pin DMX fixtures may be implemented in a 3-pin DMX line by using a cable adapter, which can readily be found at most electronics stores. The chart below details a proper cable conversion.

DMX512 OUT 3-PIN XLR ---- COMMON ---- DMX + ---- DMX - ---- NOT USED ---- NOT USED ---- DMX512 IN 5-PIN XLR

3-Pin XLR to 5-Pin XLR Conversion		
Ground/Shield	Pin 1	Pin 1
Data Compliment (- signal)	Pin 2	Pin 2
Data True (+ signal)	Pin 3	Pin 3
Not Used		Do Not Use
Not Used		Do Not Use

DMX TRAITS

Power on the machine and connect it to the power supply. Once the machine has fully heated, connect the DMX output cable from the DMX console to the machine's DMX input socket. Upon receiving the DMX signal, the display will show the DMX address page. Use the Arrow Buttons < ↑ ↓ > to set or adjust the DMX512 address.

CHANNEL	DMX VALUES	FUNCTION
		Fog Output
1	000	No Fog
	001 - 255	Fog Output, 0% to 100%

WIRELESS REMOTE CONTROL

The VF1600 EP can be operated using a wireless remote control without requiring pairing:
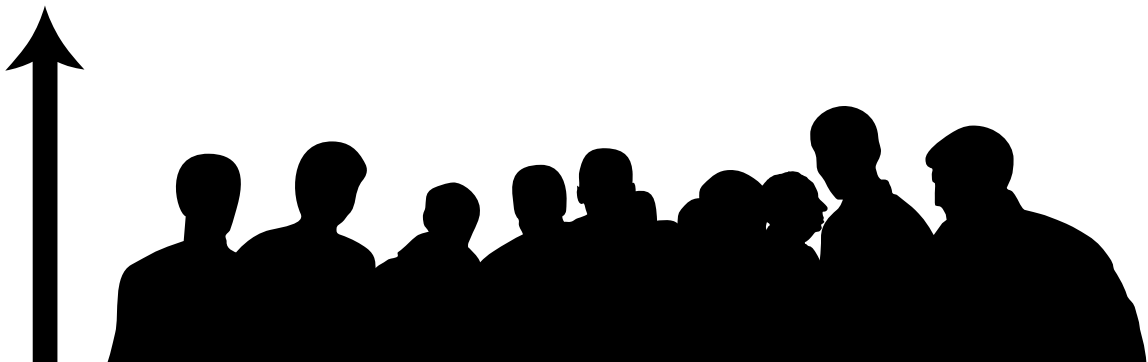- The Lock key disables fog output.
- The Unlock key activates fog output, with the volume determined by the "Fog %" setting in the VOLUME mode.
- The remote control functions only after the machine has fully heated. When connected to a DMX console, DMX control takes priority, rendering the remote control inactive.

WIRELESS INSTALLATION GUIDELINES

For optimal performance, and where feasible, orient the VF1600 EP so that its LCD screen faces the wireless remote control. The wireless signal can penetrate walls, glass, metal, and most objects. However, various factors, including the presence of people, may affect or interrupt the signal. Therefore, position the wireless antenna at least 9.8 ft (3 m) above the audience to ensure reliable operation.

9.8 ft (3m)
Above Ground

FUSE REPLACEMENT

Disconnect the unit from its power source. Remove the power cord from the unit, then find the fuse holder located inside the power socket. Insert a flat-head screw driver into the power socket and gently pry out the fuse holder. Remove the bad fuse and replace with a new one of the same rating **(10A for 230V power, or 15A for 120V power).** Please note that the fuse holder also has a holder for a spare fuse.

STORAGE AND MAINTENANCE

Store your device in a cool area only, and cover the device to prevent dust buildup. When storing for long periods of time, it is strongly advised to run the device at least once every 3-4 months, due to the fact that long periods of inactivity can severely shorten the operational life of the device. Only run water based fog juice through your device. Never run plain water, vinegar, or any other liquid solution through your device, as running anything other then water based fog juice will seriously damage your device.

TROUBLE SHOOTING

If you experience low fog output, pump noise, or no fog output at all, disconnect the device from power and discontinue use immediately. Do not continue to push the remote control's activation button, as this may cause damage to the device. Check fluid level, the external fuse or breaker, and remote connection, and verify that the wall outlet is sending power. If none of these factors prove to be the cause of the problem, and the unit still fails to operate correctly, the unit may require service. Please contact customer support for further instructions. Please do not return the unit to your dealer without contacting customer support first.

SPECIFICATIONS

- Voltage: AC220V/50HZ or AC110V/60HZ
- Power: 1600W
- Fuse: 10A (220V) or 15A (110V)
- Initial warm-up time: ~3-minutes
- Re-heating time: ~30-seconds (220V) / ~25-seconds (110V)
- Temperature control: Electronic Thermo-Control
- Spray distance: 8-10m
- Continuous Output Time(100%): ~12S
- Fluid Consumption: 100ml/min.
- Full load consumables output time (100% output): ~23 minutes
- Fluid-free protection: Supported
- Fluid tank: 2.3 L
- On-device Manual Control: LCD Display
- Controller included: Wireless Remote Control (433MHz)
- Control Protocol: DMX-512 / RDM
- DMX Channels: 1 CH
- DMX input and output: 3-pin XLR
- Net Weight: 15.9 lbs. / 7.2 Kg
- Gross weight: 17.9 lbs. / 8.1 Kg
- Machine Dimensions - LWH: 210.1" x 7.4" x 11.5" / 510x324x187mm
- Packing Dimensions - LWH: 20.9" x 13.6" x 10.0" / 530x345x255mm
- Weight: 22 lbs. / 10 kg

DIMENSIONAL DRAWINGS

11.5" (293mm)

7.4" (187mm)

5.8" (146mm)

20.1" (510mm)

10.3" (262mm)

12.8" (324mm)