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# **1. BEFORE YOU BEGIN**

What Is Included	<ul> <li>Hurricane<sup>™</sup> 1600</li> <li>FC-T Timed Remote Control</li> <li>Hanging Bracket with Mounting Hardware</li> <li>Warranty Card</li> <li>Quick Reference Guide</li> </ul>					
Unpacking Instructions		Carefully unpack the product immediately and check the container to make sure all the parts are in the package and are in good condition.				
Claims	If the box or the contents (the product and included accessories) appear damaged from shipping, or show signs of mishandling, notify the carrier immediately, not Chauvet. Failure to report damage to the carrier immediately may invalidate your claim. In addition, keep the box and contents for inspection. For other issues, such as missing components or parts, damage not related to shipping, or concealed damage, file a claim with Chauvet within 7 days of delivery.					
Text	Convention	Meaning				
Conventions	1—512	A range of values				
	50/60	A set of values				
	Settings	A menu option				
	Menu > Settings	A sequence of menu options				
	<enter></enter>	A button				
Symbols	Symbol	Meaning				
-	$\triangle$	Critical installation, configuration, or operation information. Not following these instructions may make the product not work, cause damage to the product, or cause harm to the operator.				
	Í	Important installation or configuration information. The product may not function correctly if this information is not used.				
		Useful information.				

### Disclaimer

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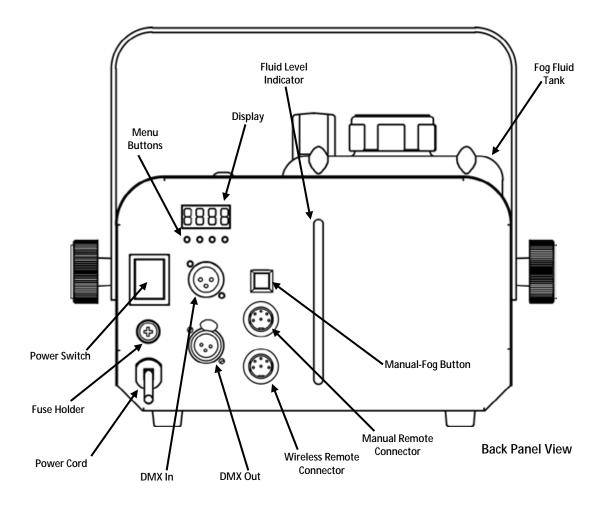
Electronically published by Chauvet in the United States of America.

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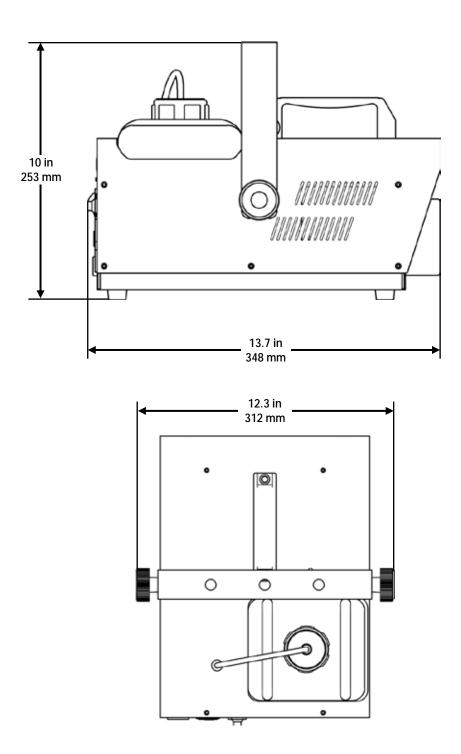
Product at a	Use on Dimmer	×	Auto Programs	×
	Outdoor Use	X	Fixed voltage (120 V or 230 V)	Р
	Sound-Activated	X	Replaceable Fuse	Р
	DMX	Ρ	User-Serviceable	X
	Master/Slave	X	Duty Cycle	X
Safety Notes	These notes include important info of this product; read before using t	ormation he produ	about the mounting, usage, and mai uct.	ntenance
Ĩ	<ul> <li>Always disconnect the product the fuse.</li> <li>Make sure the power cord is response to the product overhass afety cable.</li> <li>Make sure there are no flamm</li> <li>Do not touch the product or a carton, plastic, etc.).</li> <li>The product's nozzle is very hafter operation has stopped.</li> <li>The fog exits the nozzle at a vertice of the product as a second to the product as a seco</li></ul>	t from the not crimp from power ead, alwa nable ma using wh a flamma not during very high the near pace hea ct with the e US) for	wer by pulling or tugging on the cord. ays secure to a fastening device usin terials close to the product when ope ten operating because it may be very able surface (linoleum, carpet, wood, g operation and it remains hot for a lo temperature. Keep a minimum distan- rest object. ater. te fog fluid. If you do, call your local	placing g a rating. hot. paper, ng time nce of
i	<ul> <li>product is within the range state</li> <li>The product is for indoor used expose the product to rain or a Always install the product in a (50 cm) from adjacent surface</li> <li>Be sure that no ventilation slo</li> <li>Never connect the product to Make sure to replace the fuse</li> <li>Never carry the product from a hanging/mounting bracket.</li> <li>The maximum ambient temper product at higher temperature</li> <li>In the event of a serious operation. Contate this product is not intended for Use only CHAUVET® water-b</li> <li>Drain the tank before transport</li> </ul>	ated on the only! (IP2 moisture location es. ts on the a dimme with and the powe erature (T s. ating pro t. Repairs act the ne pased fog rting or s ar and im	with adequate ventilation, at least 20 e product's housing are blocked. or or rheostat. other of the same type and rating. er cord or any moving part. Always us fa) is 104 °F (40 °C). Do not operate blem, stop using the product immedia is carried out by unskilled people can earest authorized technical assistanc nent installation. g fluid.	o not ) in the the ately. lead to e center.
	Keep this User Manual for future give this document to the next own		ou sell the product to another user, b	e sure to
Ō		i use FC	cally developed by Chauvet to cle Q regularly, no longer than 90 days er.	

# 2. INTRODUCTION

### Overview



### Dimensions



## 3. Setup

#### **AC Power** This Hurricane<sup>™</sup> 1600 has a fixed voltage power supply and it can work with an input voltage of either 120 VAC, 60 Hz or 230 VAC, 50 Hz, depending on the specific model.

To determine the product's power requirements (circuit breaker, power outlet, and wiring), use the current value listed on the label affixed to the product's back panel, or refer to the product's specifications chart. The listed current rating indicates the product's average current draw under normal conditions.

Always connect the product to a protected circuit (circuit breaker or fuse). Make sure the product has an appropriate electrical ground to avoid the risk of electrocution or fire.



To eliminate unnecessary wear and improve its lifespan, during periods of non-use completely disconnect the product from power via breaker or by unplugging it.



Never connect the product to a rheostat (variable resistor) or dimmer circuit, even if the rheostat or dimmer channel serves only as a 0 to 100% switch.

Fuse 1.

Disconnect the product from power.

4. Replace with a fuse of the same type and rating.

Replacement 2.

Twist the fuse holder cap counterclockwise to loosen the fuse holder and pull

Remove the blown fuse.

straight out.

3.

Disconnect the product from power before replacing the fuse.

5. Screw the fuse holder cap back in place and reconnect power.

Always replace a blown fuse with another of the same type and rating.

**Mounting** Before mounting the product, read and follow the safety recommendations indicated in the <u>Safety Notes</u>.

#### Orientation

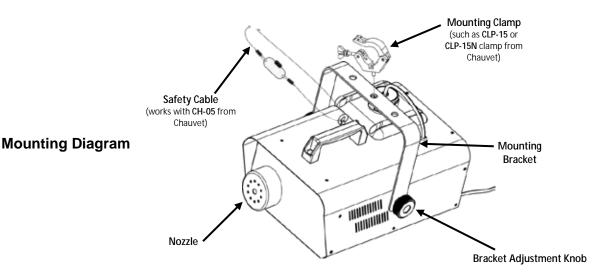


This product may NOT be tilted. This product should be level when on a surface or when mounted.

Rigging

**g** · Before deciding on a location, always make sure there is easy access to the product for maintenance and fluid replenishment.

- Make sure that the structure or surface onto which you are mounting the product can support the product's weight (see the <u>Technical Specifications</u>).
- When mounting the product overhead, always use a safety cable. Mount the product securely to a rigging point, such as an elevated platform or a truss.
- When rigging the product onto a truss, you should use a mounting clamp of appropriate weight capacity. The bracket has 13-mm holes, which are appropriate for this purpose.
- The rubber feet also serve as floor supports and allow for surface mounting. When mounting the product on the floor, make sure that the product and cables are away from people and vehicles.



While operating the Hurricane<sup>™</sup> 1600, make sure there is adequate fog fluid in the machine to prevent pump and heater damage. When the fog fluid level becomes low, simply add more fog fluid to continue using the Hurricane<sup>™</sup> 1600.



### **4. OPERATION**

Control Panel To access the control panel functions, use the four buttons located underneath the **Operation** display. Please refer to the <u>Product Overview</u> to see the button locations on the control panel.

Button	Function			
<menu></menu>	Press to exit from the current menu or function			
<up></up>	Press to scroll up the list of options or to find a higher value			
<down></down>	Press to scroll down the list of options or to find a lower value			
<enter></enter>	Press to activate a menu option or a selected value			

Menu Map	Mode	Programming Steps		Description	
	DMX Mode	Addr	A 1–A512	Sets DMX starting address	
	Temperature	Ht Hxxx		Displays current heater temperature	

- **Configuration** Set the product in DMX mode to control with a DMX controller.
  - (DMX)
- 1. Connect the product to a suitable power outlet, and turn the power switch to on. 2. Connect a DMX cable from the DMX output of the DMX controller to the DMX input
  - socket on the product.

**DMX Starting** Address

### **DMX Channel Assignments and Values**

1-CH	Channel	Function	Value	Percent/Setting
	1	Fog Output	000 <b>ó</b> 005	No function
			006 <b>ó</b> 255	0–100%

Note: Fog output is variable, depending on the status of the heater and environment.

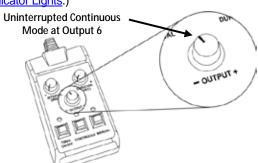
### Remote or Manual Operation Wired Timer Controller (FC-T) Setup

Remote or Manual Operation Nanual Operation Nanual Nanual

The FC-T wired timer controller allows you to automatically trigger fog output by setting output, interval time, and duration time. LED indicator lights display the machine and controller's current state. Rotary knobs set interval, output, and duration times, while manual and continuous buttons allow overriding control.

- 1. Plug in the fog machine to power.
- 2. Plug in the wired timer controller to the Manual Remote Connector socket on the back of the fog machine. (See the product <u>Overview</u>.)
- 3. Allow the Hurricane<sup>™</sup> 1600 six to seven minutes to heat up before continuing. (See <u>Fluid Tank Indicator Lights</u>.)

FC-T Wired Timer Controller Overview



#### Wired Timer Controller (FC-T) Operation

The FC-T wired timer controller has three modes of operation: timer, continuous, and

Timer Mode

manual.

To trigger the Hurricane<sup>™</sup> 1600 with the timer function, follow the instructions below: 1. Set the desired output level with the **OUTPUT** knob.

- Set the INTERVAL and DURATION knobs to the desired positions.
  - The **INTERVAL** knob sets the amount of time in between bursts of fog.
  - The **DURATION** knob sets the length of time that the fog machine will run during the burst.
- Press the <TIMER ON/OFF> latching button. The LED indicator above the button will light up. The timer will now run as set by the INTERVAL, DURATION, and OUTPUT knobs.
- 4. Press the **<TIMER ON/OFF>** button again to turn off the timer.

#### The <MANUAL> button will override the timer.

**Continuous Mode** 

- To trigger the Hurricane<sup>™</sup> 1600 to continuously cycle fog, follow the instructions below:
- 1. Set the desired output level with the **OUTPUT** knob.
- Press the <CONTINUOUS> latching button. The LED indicator above the button will light up. The fog machine outputs fog until the <CONTINUOUS> button is pressed again.
- 3. Press the **<CONTINUOUS>** button again to stop the fog output.



In order for Continuous mode to run uninterrupted, without the Hurricane<sup>™</sup> 1600 stopping to reheat, set the OUTPUT knob no higher than 6. At Output levels above 6, the fogger will cycle through intermittent bursts of fog during its reheating program. The duration of Continuous fog output is based on the capacity of the tank.

Fluid consumption will be significantly increased during Continuous mode.

Manual Mode

- To trigger the Hurricane™ 1600 manually, do the following:
- 1. Set the desired output level with the **OUTPUT** knob.
- Press and hold the <MANUAL> button on the wired timer controller. The LED indicator above the button will light up. The fog machine will output fog for as long as you hold down the <MANUAL> button.
- 3. Release the **<MANUAL>** button to stop the fog output.
- The duration of manual fog at any given Output setting is based on the capability of the fog machine.

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### Optional Wired Manual Remote Control (FC-M)

The optional FC-M wired manual remote control allows the user to start and stop the fog output. It operates the same as the Manual button on the product, with the addition of a **READY** indicator LED.

- 1. Plug in the fog machine to power.
- 2. Plug in the wired manual remote control to the Manual Remote Connector socket on the back of the fog machine. (See the product <u>Overview</u>.)
- 3. Wait for the **READY** indicator LED to light up, indicating the Hurricane<sup>™</sup> 1600 is heated enough to produce fog. (Also see Fluid Tank Indicator Lights.)
- 4. Press and hold the <FOG> button on the wired manual remote control.
- 5. Release the **<FOG>** button to stop the fog output.

FC-M Manual Remote Control Overview



The Hurricane<sup>™</sup> 1600 unit may start producing fog intermittently to allow for fluid reheating after a period of continuous fog output. This is a normal occurrence. The duration of manual fog output is based on the capability of the fog machine.

### Optional Wireless Remote (FC-W)

The optional FC-W wireless remote allows the user to trigger the Hurricane<sup>™</sup> 1600 to produce fog from up to 100 ft away.

- 1. Plug in the fog machine to power.
- Plug the FC-W wireless remote receiver into the Wireless Remote Connector on the back of the Hurricane<sup>™</sup> 1600. (See the product <u>Overview</u>.)
- 3. Allow the Hurricane<sup>™</sup> 1600 six to seven minutes to heat up. (See Fluid Tank Indicator Lights.)
- 4. Press and hold the <1>, <2>, <3>, or <4> button on the wireless remote. (Download the
- 5. Release the button to stop the fog output.

FC-W Wireless Remote Overview



$(\mathbf{i})$	<ul> <li>Ensure the FC-W has an unobstructed view of the receiver for maximum performance.</li> <li>The &lt;2&gt;, &lt;3&gt;, and &lt;4&gt; buttons are reserved for future use.</li> </ul>
Fluid Tank Indicator Lights	<ul> <li>The Hurricane<sup>™</sup> 1600 has indicator LEDs that light up the fluid tank to indicate the status of the product, as follows:</li> <li>Red - The heater is currently warming up.</li> <li>Flashing Red - The heater is currently warming up and no fluid is detected.</li> <li>Blue - The heater is ready to produce fog.</li> <li>Flashing Blue - The heater is ready to produce fog and no fluid is detected.</li> </ul>
Heater Temperature	<ul> <li>To view the current heater temperature, follow the instructions below:</li> <li>Press <menu> repeatedly until Ht shows on the display.</menu></li> <li>Press <enter> and Hxxx (the current heater temperature) will show on the display.</enter></li> </ul>

## **5. TECHNICAL INFORMATION**

Fogger Do not allow the fogger to become clogged. After every 40 hours of continuous Maintenance operation, use CHAUVET® Fog Cleaner Quart (FCQ) through the system to prevent the accumulation of particulate matter in the heating element.

The recommended cleaning procedure is as follows.

- 1. Unplug the product from power.
- 2. Empty all fog fluid from the machine.
- 3. Add cleaning solution to the tank.
- 4. Connect the product to power and allow it to warm up.
- 5. Run the unit in a well-ventilated area until the tank is almost empty. Do not allow the pump to run dry.
- 6. Refill with fogger fluid to continue using the fogger. Run the machine briefly to clear any remaining cleaning solution from the pump and heater.



Do Not operate the machine without fluid at any time.

Fog Cleaner Quart (FCQ) was specifically developed by Chauvet to clean your Hurricane<sup>™</sup> 1600. Make sure you use FCQ regularly, no longer than 90 days between cleanings, to increase the life of your product.

Storage Before storing the fogger, run FCQ through the system as described in the cleaning procedure above; however, only follow steps 1 through 5. Do not refill the tank with fog fluid if storing the fogger. Cleaning the system prior to storage will help prevent any particles from condensing inside the pump or heater while not in use.



Test-run your Hurricane<sup>™</sup> 1600 on a monthly basis to achieve the best performance.

Symptom	Indicator Status	Possible Cause	Possible Action		
No output or short output	Red	Heater warming up	Allow the product to warm up completely. This should take less than 10 minutes.		
			Allow the product to warm up completely.		
	Red flashing	Air bubble in fluid line	Turn fog machine $45^\circ$ to flatten out the bubble and allow the fog flu flow properly		
			Turn off the product for 5 seconds, and then turn it back on. Repeat as necessary. After more than 10 attempts, contact Customer Service.		
		Incorrect fluid	Clean thoroughly with CHAUVET® FCQ. For full instructions, see <u>Fogger Maintenance</u> . Refill with CHAUVET® water-based fog fluid.		
	Blue	Blocked pipes	Contact Customer Service		
		Failing part	Contact Customer Service		
		Incorrect fluid	Clean thoroughly with CHAUVET® FCQ. For full instructions, see <u>Fogger Maintenance</u> . Refill with CHAUVET® water-based fog fluid.		
	Blue blinking	Blocked pipes	Contact Customer Service		
Contation of fluxing		Failing part	Contact Customer Service		
Spitting fluid		Incorrect fluid	Clean thoroughly with CHAUVET® FCQ. For full instructions, see <u>Fogger Maintenance</u> . Refill with CHAUVET® water-based fog fluid.		
	Blue	Blocked pipes	Contact Customer Service		
		Failing part	Contact Customer Service		
Normal	Blue	Normal	Normal function		
Circuit breaker or fuse keeps		Excessive load on the circuit	Make sure that the total load does not exceed the recommended capacity of the breaker or fuse's nominal current		
olowing		Short circuit along the power lines	Check the power lines and power cords		
	N/A	No energy on power outlet	Check power outlet Change to another outlet		
Product does not		Loose or damaged power cord	Check the power cord		
power up		Blown fuse	Replace blown fuse with a good one of the same type and rating		
		Internal problem	Send product for repair		
		Wrong starting address on the product	Set the correct starting address on the product		
Product does not respond to DMX		Wrong polarity setting on the DMX controller	Change the signal polarity on the controller		
		Loose or damaged DMX cable	Check the DMX cable entering the faulty unit		
	Internal problem		Send product for repair		
	Blue	Signal cables are not DMX compatible	Replace non-DMX cables with true DMX cables		
Intermittent DMX		Interference with AC or radio signals	Keep DMX cables away from AC wires or radio equipment		
Problems		DMX cable too long	Use a shorter DMX cable or install an optically coupled DMX amplifie right before the product with intermittent problems		
		Terminator not connected	Install a terminator		
False Sensor Reading (Priming)			Fill the tank. Allow the unit to reach the normal operating temperature and for the blue indicator to light. Set the output to the highest level. Power cycle the unit 1-2 times until the fluid reaches the sensor. The blue tank indicator light stops flashing.		
	Red	Air bubbles in fluid line	Fill the tank. While the unit is operating, pinch the fluid line between yo thumb and forefinger, and hold for 3 to 5 seconds creating a vacuum in the system. Release the pinched portion and allow the fluid to flow naturally.		
			Fill the tank. While the unit is operating; remove but do not disconnect the fluid tank and tilt the machine at a 45° angle.		
	Red	Empty fluid tank	Refill tank with the correct CHAUVET® water-based fog fluid		

# 6. GENERAL TROUBLESHOOTING

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<b>_</b>	L an adh	14/2-141	11-1-1-1-1			
Dimensions and	Length	Width	Height	Weight		
Weight	13.7 in (348 mm)	12.3 in (312 mm)	10 in (253 mm)	13.2 lb (6 kg)		
	Note: Dimensions in inches rounded to the nearest decimal digit.					
Power	Power Supply Type	Ra	ange	Voltage Selection		
	Model-specific	120 VAC, 60 Hz or 230 VAC, 50 Hz		Fixed		
	Parameter	120 V	/, 60 Hz	230 V, 50 Hz		
	Consumption	1,5	80 W	1,580 W		
	Operating current	12	2.8 A	6.8 A		
	Fuse	Fuse F 13 A, 250 V		F 8 A, 250 V		
	Power I/O	US/We	orldwide	UK/Europe		
	Power input connector	r Haro	l-wired	Hard-wired		
	Power Cord plug	Ediso	on (US)	Local plug		
Operation	Heat-up Time	Tank (	Capacity	Fluid Consumption		
	4 min	0.63 g	al (2.4 l)	120 ml/min		
Fog Output	Output					
	25,000 cfm					
Thermal	Maximum External Ten	np. Cooling	Cooling System			
	104 °F (40 °C)	104 °F (40 °C) Con				
Ordering	Product Name	Item	Code	UPC Number		
	Hurricane <sup>™</sup> 1600 (120 )	V) 090	71019	781462213671		
	Hurricane <sup>™</sup> 1600 (230 )	V) 090	71021	781462213695		

# 7. TECHNICAL SPECIFICATIONS



### Returns

In case you need to get support or return a product:

- $\cdot$   $\,$  If you are located in the U.S., contact Chauvet World Headquarters.
- · If you are located in the UK or Ireland, contact Chauvet Europe Ltd.
- · If you are located in Mexico, contact Chauvet Mexico.
- If you are located in Benelux, contact Chauvet Europe BVBA.
- · If you are located in any other country, DO NOT contact Chauvet. Instead, contact

Call the corresponding Chauvet Technical Support office and request a Return Merchandise Authorization (RMA) number before shipping the product. Be prepared to provide the model number, serial number, and a brief description of the cause for the return.

Send the merchandise prepaid, in its original box, and with its original packing and accessories. Chauvet will not issue call tags.

Clearly label the package with the RMA number. Chauvet will refuse any product returned without an RMA number.



### Write the RMA number on a properly affixed label. DO NOT write the RMA number directly on the box.

Before sending the product, clearly write the following information on a piece of paper and place it inside the box:

- Your name
- · Your address
- Your phone number
- RMA number
- A brief description of the problem

Be sure to pack the product properly. Any shipping damage resulting from inadequate packaging will be your responsibility. FedEx packing or double-boxing are recommended.



Chauvet reserves the right to use its own discretion to repair or replace returned product(s).

# CONTACT US