

## **H-X3 DMX Automatic Dry Ice Machine**

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### **USE MANUAL**

GUANGZHOU DJPOWER ELECTRONIC TECHNOLOGY CO.,LTD

# 1 BEFORE YOU BEGIN

## 1.1 What Is Included




- H-X3 DMX Automatic Dry Ice Machine × 1
- Flight case × 1
- ★ Optional spare parts: 3.3 m hose ,Nozzle
- Power cord × 1
- Warranty card× 1

## 1.2 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.

If the box or the contents (the product and included accessories) appear damaged from shipping, or show signs of mishandling, notify the carrier or dealer/seller immediately. In addition, keep the box and contents for inspection.

## 1.3 Symbols

Symbol	Meaning
	<b>Caution</b> 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.
	<b>Important</b> Important installation or configuration information. Failure to comply with this information may keep the product from working correctly.
	<b>Information</b> Useful information.

## 1.4 Disclaimer

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## 1.5 Safety Notes

Please read the following Safety Notes carefully before working with the product. The notes include important safety information about installation, usage, and maintenance.

### 1.5.1 The Dry Ice Fogger Principal

Dry Ice is a solid form of carbon dioxide. With its ability to sublime, transform from the form of solid to gas without generating liquid. Dry-ice reaches a temperature of minus 87.5 Celsius degree.

When immersed in hot water or boiling water, the dry ice sublimates which will stir the water violently and spray many water droplets into the air. The released cold CO<sub>2</sub> gas cause the water vapor in the air to form more droplets. This great expansion of gas and moisture pushes its way out of the machine. Because it is cold, it sinks to the floor, plus the droplets in the air, low fog effects then come into being.

- Do not store dry ice in a sealed container to avoid explosion due to accumulated pressure.
- Do not cover or block the nozzle during operation to avoid explosion due to accumulated pressure.。
- Be sure to wear protective gloves and do not directly touch dry ice with bare hands.
- Do not swallow dry ice, this can lead to severe internal injuries.
- When breaking solid blocks of dry ice, always use eye protection. Cover the dry ice with a piece of cloth or put the dry ice in a cloth bag to prevent fragments from flying
- Do not use the device in a confined space. Before using the device, ensure that the space is well ventilated.

### **1.5.2 Personal Safety**

- Always connect the product to a grounded circuit to avoid the risk of electrocution.
- Make sure that children, unauthorized people and animals do not obtain access to the machine.
- During the heating or operation of the machine, the temperature of the water tank is high, please do not touch it.
- Do not touch the hot nozzle of the machine during operation. The distance between the machine and the nearest object should be at least 2 meters.
- Before cleaning, disconnect the machine from the power supply.
- Before transporting the machine, empty the water tank through the drain valve.

### **1.5.3 Mounting and Rigging**

- For safety reasons, other installation methods are not recommended, please install and operate the machine in a flat position.
- Please keep the machine dry. Do not expose the machine to rain or moisture. Do not use the machine when it is wet, wipe with a dry cloth.
- CAUTION: When transferring product from extreme temperature environments, (e.g. cold truck to warm humid ballroom) condensation may form on the internal electronics of the product. To avoid causing a failure, allow product to fully acclimate to the surrounding environment before connecting it to power.
- Do not mount the product on a flammable surface (linoleum, carpet, wood, paper, carton, plastic, etc.).
- Do not use the unit in a confined space. Always install the product in a location with adequate ventilation, at least 20 in (50 cm) from adjacent surfaces.

### **1.5.4 Power and Wiring**

- Always make sure that the voltage of the outlet to which you are connecting the product is within the range stated on the decal or rear panel of the product.
- Make sure the power cord is not crimped or damaged.
- Do not connect the machine to the dimming controller or rheostat.
- Never disconnect the product from power cord by pulling or tugging on the cord.

- 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.

### 1.5.5 Operation

- Do not operate this product if you see damage to the housing or cables. Have the damaged parts replaced by an authorized technician at once.
- During the operation, the area in front of the nozzle will get wet, please be careful to avoid slipping.
- The fog output carries moisture, please avoid the access to electrical equipment, power outlets and any places that may cause danger through moisture.
- Never carry the product by the power cord or any moving part. Always use the handles.
- The maximum ambient temperature (Ta) is 104 °F (40 °C). Do not operate the product at higher temperatures.
- This product contains no user-serviceable parts. Any reference to servicing in this User Manual will only apply to properly trained, certified technicians. Do not open the housing or attempt any repairs which can lead to damage or malfunction.
- In the event of a serious operating problem, stop using the product immediately.



**Please save this manual for future use. When resell the machine, be sure to attach the instructions.**

## 2 INTRODUCTION

### 2.1 Description

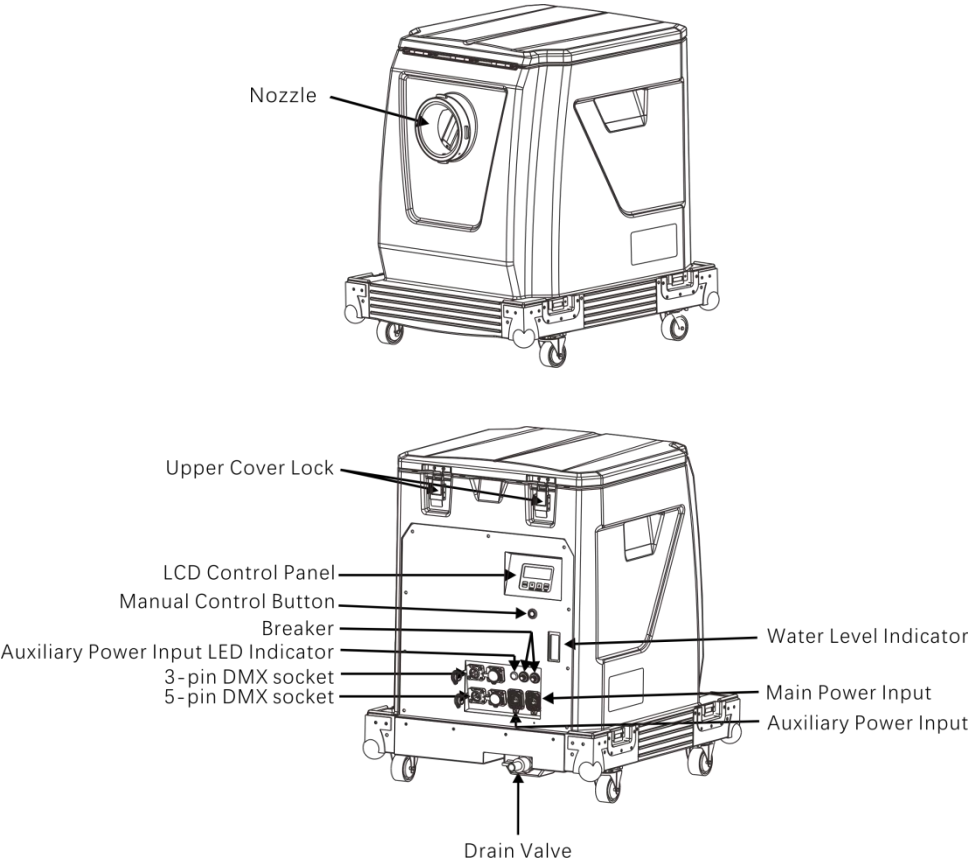
H-X3 is an upgraded dry ice low fog machine from H-X1. It creates thick, white fog hugging the floor and dissipating without rising. Dual heaters allow for faster heat-up and recycle time. The unique design allows remaining dry ice to be stored temporarily in the machine for next uses. It includes a hose, flight case and casters, very convenient for transportation and moving. H-X3 is ideal for weddings, stages, theaters, nightclubs and any other event productions.

### 2.2 Features

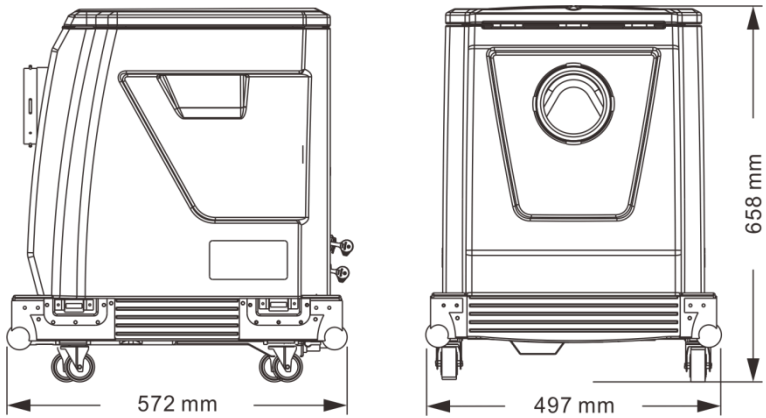
- Enhanced high-intensity composite shell, lighter and durable;
- Dual heating system, (3,000W/6,100W) allow for faster heat-up (only 27 min.);
- Clear water level indicator;
- Easy one-button fog operation;
- Create strong fog from at most 13kg of dry ice one time to cover max 300 m<sup>2</sup>;
- Adjustable fog output 3-10 minutes of run time;
- Tap-design drain outlet, easy to pour out the remaining water after use;

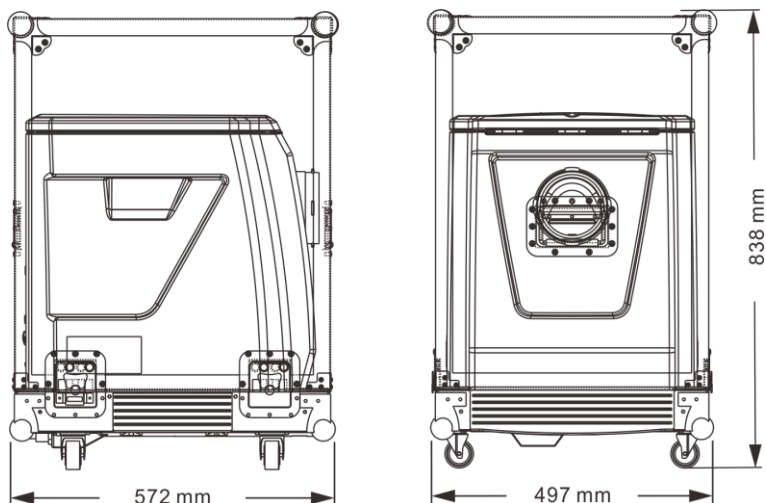
Note: The actual effect may be affected by the using environment.

2.3 Product Overview



2.4 Product Dimensions





### 3 TECHNICAL SPECIFICATIONS

AC Power	Input Voltage & Rate	AC 100-120 V, 50/60 Hz	AC 220-240 V, 50/60 Hz
	Current Limiter Type	Breaker	Breaker
	Current Limiter Specifications	15A, 250V X 2	15A, 250V X 2
	Typical Operating Current	26.1 A	26.1 A
Heating	Total Power	3,000 W	6,100 W
	Main Power	1,500 W	3,000 W
	Auxiliary Power	1,500 W	3,000 W
	Normal Heat-up Time		Appr. 50min (3,000W)
	Shortest Heat-up Time		Appr. 27min (6,100W)
Capacity	Water Tank Capacity	36 L	
	Dry ice Capacity	Appr. 13 kg	
Output	Fog Adjustable Output	√	
	Adjustable Range	10%-100%	
	Max Output Coverage	Appr. 300 m <sup>2</sup>	
	Continuous Output Duration	Appr. 3-10 minutes	
	Continuous Output	√	
	Consumables for Standard Output	Pellet Dry Ice	
Accessories	Hose	√	
	Nozzle	√	
	Flight case	√	
	Power Cord	√	
Placement & Mounting	Flatwise	√	

<b>Function Features</b>	Electronic Temperature Control	√
	Adjustable Output	√
	Automatic Output Compensation (AOC)	×
	Low Water Protection	√
<b>Control</b>	On-device Manual Control	LCD
	Control Protocol	DMX-512
	DMX Channel Range	1
<b>Weight &amp; Dimensions</b>	Net Weight	36.4 kg
	With Flight case Weight	53.4 kg
	Gross Weight	57.4 kg
	Machine Dimensions	572 × 497 × 658 mm
	Flight case Dimensions	572 × 497 × 838 mm
	Packing Dimensions	640 × 560 × 840 mm
<b>Consumable</b>	Consumable	Dry Ice, Water

## 4 SETUP

### 4.1 AC Power

The machine has two kinds of voltage power supply, it can work with an input voltage of AC 100V-120V, 50/60 Hz or AC 220V-240V, 50/60 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.**



**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.**

### 4.2 AC Plug

The H-X3 comes with a power input cord terminated with a Lockable power connector on one end. The other end is EU plug.

If the power input cord that came with your product has no plug, or if you need to change the plug, use the table below to wire the new plug:

Connection	Wire (CN)	Wire (EU)	Wire (US)
<b>AC Live</b>	Brown	Brown	Black
<b>AC Neutral</b>	Blue	Blue	White
<b>AC Ground</b>	Yellow-green	Yellow-green	Green

## 4.3 DMX Linking

You can link the H-X3 to a DMX controller using a 3- or 5-pin DMX connection. If using other DMX-compatible products with this product, you can control each individually with a single DMX controller. Instructions for connecting and configuring this product for DMX operation are in the User Manual.

## 4.4 Mounting

Before mounting the product, read and follow the safety recommendations indicated in the Safety Notes.

### 4.4.1 Orientation

For safety reasons, we do not recommend mounting the product in any capacity. Operate the product while it is flat in a safety position, and make sure there is adequate room for ventilation, configuration, and maintenance.

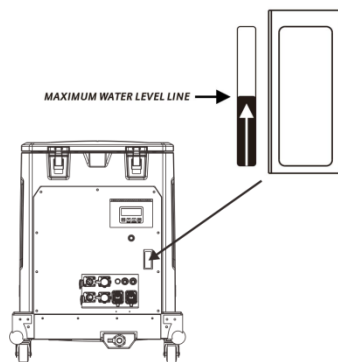
### 4.4.2 Rigging

- Make sure that the structure or surface onto which you are mounting the product can support the product's weight (see the Technical Specifications).
- When mounting the product on the floor, make sure that the product and cables are away from people and vehicles.

## 5 OPERATION

### 5.1 Preparing for Operation

- After checking that all the parts are intact and complete, position the machine on flat.
- The Water Level Indicator comes with LED to help check the water level inside the water tank visually. In addition, the machine is equipped with fluid sensor, which can detect the water level. In case it is too low, the unit will stop working automatically and with "WATER LEVEL LOW" showing in the LCD display.
- When the power is OFF, open the upper cover to add water till the recommended level as shown in the right picture. Water Tank capacity is Appr. 32L.
- Always connect the product to a grounded circuit. Before power on, make sure it is connected with the rated voltage.
- The unit has a main power input and an auxiliary power input with 3,000W respectively. The main power input supplies to the heater and control circuits while the auxiliary power supply only provides power to the heater. Hence the main power source must be connected when using the unit.



**With main power and auxiliary power together, it takes about 27 minutes to reach the optimal operating temperature. If operating the unit with main power only, heating times will be longer.**

- Open the upper cover, add no more than 13 kg of dry ice to the basket, and lock the cover tightly.



Add dry ice when using the machine to avoid waste of dry ice.

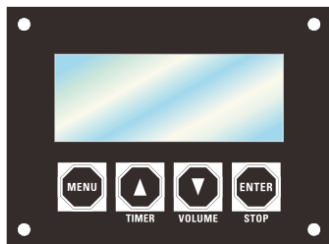


H-X3 provides dry ice storage function: even when the machine is heated, dry ice can be stored temporarily for hours for next uses.

In order to achieve the desired effect, please place the dry ice in the built-in basket. At this time, please do not take out the dry ice basket to avoid serious personal injury.


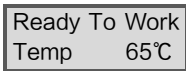
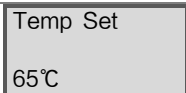
## 5.2 On-device Control Mode & Operation


To access the control panel functions, use the four buttons located underneath the LCD display.



Button	Function
<MENU>	Switch menu pages to select a function
▲	Increases the numeric value of current function Trigger TMER output mode
▼	Decreases the numeric value of current function Trigger Manual output mode
<ENTER>	Save settings STOP turns the fog output off

### 5.2.1 Menu Map

	Display	Description	Parameter Range
Standby page		In case the water level is normal, this page appears when it is heating. (Note: The machine can work after the water temperature reaches 40 °C)  Press <ENTER> / <STOP> at any time to return to this standby page.	
		In case the water level is normal, this page appears when heating is finished.  Press <ENTER> / <STOP> at any time to return to this standby page.	65°C~80°C
		Press "▼"/ <TIMER> to enter into TIMER Mode. The relevant pages are explained as below: ① "Interval 10S": Interval countdown of TIMER mode ② "Duration 10S": Duration countdown of TIMER mode  Under TIMER Mode, the fog output is set through <VOLUME> between 10% and 100%.	
Setting Pages		Press "▲" or "▼" button to select the desired preset water temperature(°C).	65°C, 70°C, 75°C or 80°C

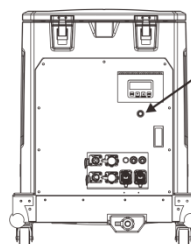
	DMX Address 1	Press "▲" or "▼" button to set DMX starting address.	1 - 512
	Timer Interval 10S	Press "▲" or "▼" button to set interval under TIMER mode.	10-200S
	Timer Duration 10S	Press "▲" or "▼" button to set duration under TIMER mode.	10-200S
Working Status Page		Press "▼"/ <VOLUME> to start the continuous setting.	
	Volume 100%	Press "▲" or "▼" button to set the volume between 10% and 100%. Press <ENTER> / <STOP> at any time to return to the standby page.	10% -100%
Error & Warning Pages		Screen flashes,Indicates current water level is too low.	
	Water Low	At this moment, heater will not work. Turn off the power, add water to the water level line and restart the machine, return to the standby page, the machine can work again.	
		 <b>Because the water will evaporate, only with enough water inside the unit, can it run continuously.</b>	
	Drain Valve	Screen flashes,The temperature sensor is faulty. Please turn off the power and contact the after-sales service.	

## 5.3 Manual Control Mode & Operation

There is a manual control button on the rear of the machine. When the water temperature of the machine reaches 40 °C, the button LED will light up and the machine can work. At this time, press the manual control button to run the unit, and then press the button again to stop the fog output (pictured at right)



**Note: The Manual control mode only works without connecting to DMX signal.**



## 5.4 DMX Mode & Operation

H-X3 DMX Automatic Dry Ice Machine works with a DMX controller.

- Connect the product to a suitable power outlet.
- Turn the product on.

- Connect a DMX cable from the DMX output of the DMX controller to the DMX input socket on the product.

### 5.4.1 DMX Working Page


DMX Address

1


Pressing “▲”or “▼” to set the DMX starting address

1 - 512

Standby and setup page



When setting the DMX starting address, the number of channels occupied by the DMX mode must be considered. If the starting address is too high, some channels may not be controlled.



When connected with DMX controller and receiving DMX signal, the LCD display will always show current DMX starting address which can be reset by pressing “▲”or “▼”.

In DMX mode, each machine responds to the control of the DMX controller through its own unique starting address. Machines with the same starting address will be synchronized accordingly.

### 5.4.2 DMX Channel Assignments and Values

H-X3 DMX has 1 DMX channel and can be connected by 3-pin or 5-pin DMX sockets. Set the DMX start address within the range of 001-512, you can independently control 512pcs devices with one DMX channel.

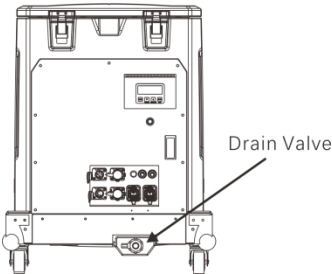
Channel	Function	Value	Description
1	Fog Output	0-10	OFF
		11-255	Increase gradually

## 6 TECHNICAL INFORMATION

### 6.1 Maintenance

H-X3 DMX needs regular maintenance to achieve the best performance.However, in order to achieve the best results, some cleaning and maintenance steps are essential:

- After use, disconnect all power to the unit, please wait till the water at a safe temperature of 86°F (30°C) or below.
- Please open the drain valve located at the base of the unit to drain the remaining water.



### 6.2 Storage

Before storing the machine, clean it and empty the fluid tank.



**Test and run your H-X3 DMX every month to achieve the best performance.**

