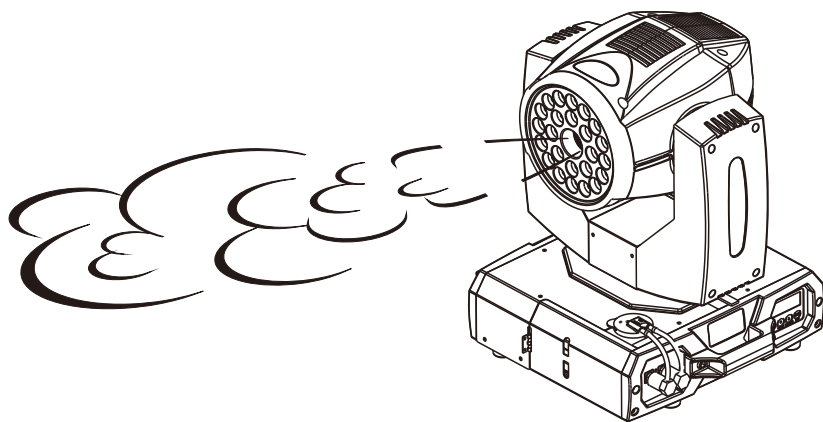


**TOPCAT®**  
HIGH-END EFFECTS



# H-1 PLUS

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## USER MANUAL

GUANGZHOU DJPOWER ELECTRONIC TECHNOLOGY CO.,LTD

# 1 BEFORE YOU BEGIN

## 1.1 What Is Included




H-1 PLUS machine × 1	Power Cord × 1	Certification × 1
Warranty Card × 1	User Manual × 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

The information and specifications contained in this User Manual are subject to change without notice. DJPOWER assumes no responsibility or liability for any errors or omissions and reserves the right to revise or to create this manual at any time.

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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 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.

### 1.5.2 Mounting and Rigging

- The product is For indoor and outdoor used! To prevent risk of fire or shock, do not expose the product to rain or moisture.
- 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 in a confined space. Always install the product in a location with adequate ventilation, at least 20 in (50 cm) from adjacent surfaces.
- When hanging this product, always secure to a fastening device using a safety cable.
- Be sure that no ventilation slots on the product's housing are blocked.

### 1.5.3 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.

### 1.5.4 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.
- Do not use the product as a space heater.
- Make sure there are no flammable materials close to this product while it is operating.
- The maximum ambient temperature (Ta) is 104 °F (40 °C). Do not operate the product at higher temperatures.
- **Don't cover the ventilation holes during operation to avoid excessive temperature inside the machine.**
- **Don't cover the nozzle during operation.**
- Never carry the product by the power cord or any moving part.
- **Before shipping, please empty the fluid tank.**
- Always disconnect the product from the power source before cleaning.
- In the event of a serious operating problem, stop using the product immediately.
- 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.
- **Use only DJPOWER high-quality PRO-A or PRO-V fog fluid.**



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

## 2 INTRODUCTION

### 2.1 Description

H-1 PLUS is an upgraded version of DJPOWER LED moving head fog machine. The patented technology of super jet, the response speed of smoke spray is faster. 24PCS 5W RGBA LED lights. At the same time, the size of heater is bigger. So that the fog output is stronger and the color is brighter. which can achieve 360° smoking effect. The machine has the patented technology of super jet (patent number: ZL201520934500.2) and Immediate-Stop and Anti-Squirting Plus patented technology (patent number: ZL201320700998.7).

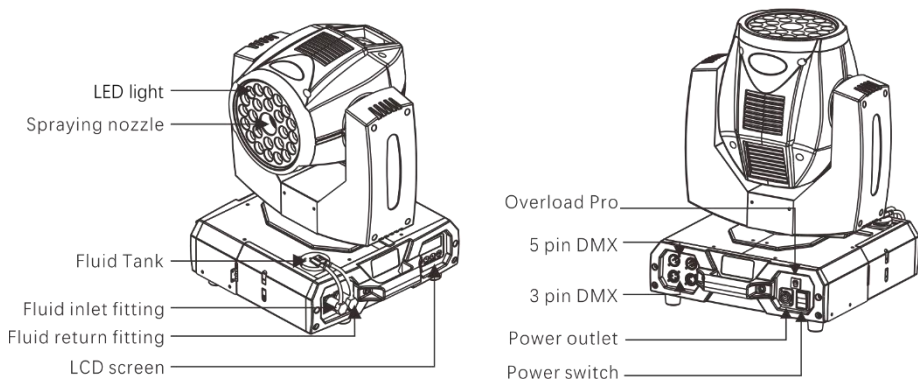
### 2.2 Features

- Super-jet function Longer output distance
- Immediate-Stop and Anti-Squirting Plus patented technology
- 24PCS 5W RGBA LED lights.
- The size of heater is bigger so that the fog output is stronger and the color is brighter
- Upgraded structure, more safer and convenient
- Built-in LCD control, DMX512 control
- 360° moving head rotation, hung or place on floor
- Please use DJPOWER professional fog fluid PRO-A or PRO-V

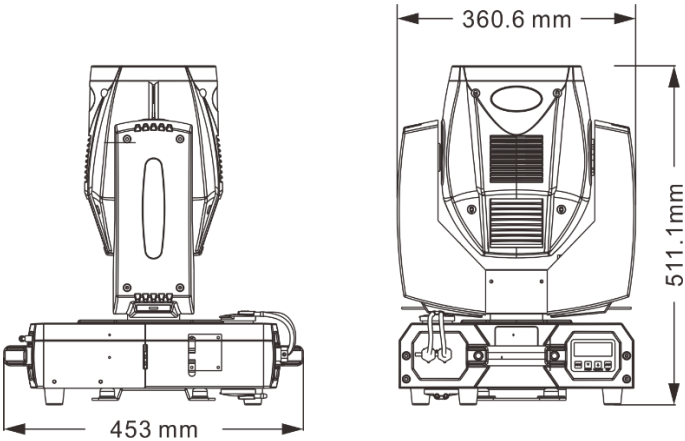
In addition, the moving head fog machine is equipped with a new and small controller box, which can be bought separately. The controller box enables the machine work automatically without DMX console! Such as when four machines daisy chained, the machines can work the programs you choose from the control box automatically.

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

### 2.3 Product Overview



2.4 Product Size



3 TECHNICAL PARAMETERS

Power	Voltage	AC 100-120V,50/60Hz	AC 220-240V,50/60Hz
	Breaker	15 A/250 V	8 A/250 V
	Total power	1500 W	1500 W
Heat-up	Heat-up Time	Appr. 9.5 min	
LED	LED power	5 W × 24 pcs	
	LED color	RGBA	
Tank Capacity	Tank Capacity	1.3 L	
Output	Max fog output distance	Appr. 29,000cuft/min	
	Max fluid consumption rate	Appr. 6.8 min/L	
	Max continuous output duration	Appr. 6 S	
	Max output distance	Appr. 6~8 m	
Function	Mechanical temperature control	√	
	Electronic temperature control	√	
	Output adjustable	×	
	Immediate-Stop	√	
	Super-Jet	√	
Control	Body control	LCD control board	
	Wireless control	×	
	Wired control	×	
	Control protocol	DMX512	
	DMX channel	10	
Consumable	Consumable	Only DJPOWER PRO-A or PRO-V fluid	
Weight and Dimension	N.W.	23.6 kg	
	G.W.	27 kg	
	Machine size	453 × 360.6 × 511.1 mm	
	Packing size	545 × 467 × 570 mm	

## 4 INSTALLATION SETTING

### 4.1 AC Power

H-1 PLUS has a fixed voltage power supply, which can be used according to the specific model AC 100 - 120 V,50/60 Hz or AC 220 - 240 V,50/60 Hz. To determine the power requirements of the machine (circuit breaker, power outlet and wiring), please refer to the values listed on the machine panel label, or refer to the machine specification data. The listed values represent the average current consumption of the machine under normal conditions.



**Always connect the machine to a protected circuit (circuit breaker or fuse). Make sure that the machine is connected to a grounded power plug to avoid electric shock or fire.**



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

### 4.2 DMX Control

H-1 PLUS supports 3-pin or 5-pin connection to the DMX console, it can be connected to the same console with other DMX-supported devices and be controlled separately. This manual covers the operation connection and configuration of DMX.

### 4.3 Installation

Before installing the machine, please read and follow the safety instructions.

#### 4.3.1 Position

Lay the machine flat in a safe location with adequate ventilation, configuration and maintenance space.

#### 4.3.2 Rigging

DJPOWER recommends using the following general guidelines when mounting this product.

- Before deciding on a location for the product, make sure there is easy access to the product for maintenance and programming
- purposes.
- 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 installing the machine on the floor, keep the machine and cables away from people and vehicles.
- Always use a safety cable to secure the machine to the fastening device when in suspended use.

## 5 OPERATION MACHINE

### 5.1 Preparations

Before operating the machine, prepare according to the following steps:

- After checking that the machine and accessories are not damaged, then place the machine on a flat surface.

- Take off the fluid tank, put on the PRO-A or PRO-V fluid.
- Make sure that the plastic tubing from the fluid tank to the machine is not bent or twisted.
- Plug the power cord into a grounded outlet. Before turning on the power, please confirm the voltage specification again.
- Turn on the power switch, the machine will display "Heat-up" when it is heating; about 7 minutes after the machine is heated, the screen will display "Preparation".

## 5.2 Operation

### 5.2.1 LCD Control



Button	function
<MENU>	Menu pages choose
<▲>	Increase, also "TIME" button for fog output regularly
<▼>	Decrease, also "VOLUME" button for fog output
<ENTER>	In/out, also for "stop" button

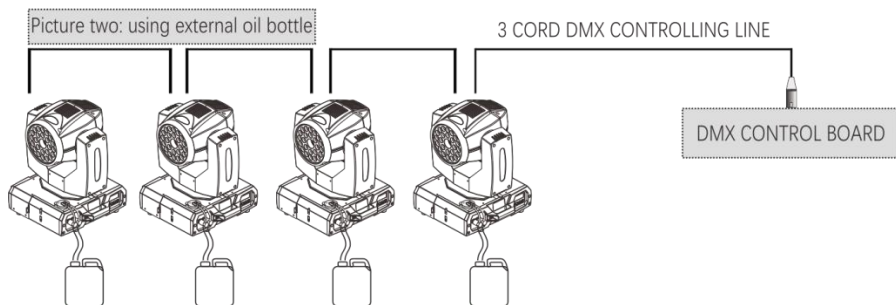
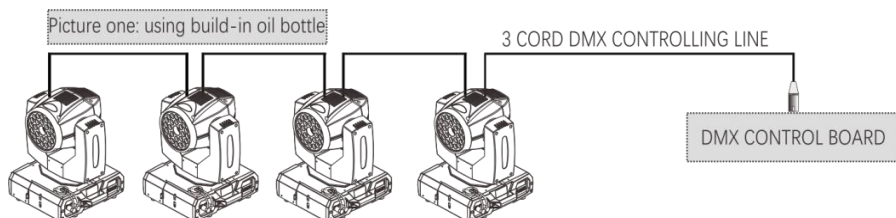
### 5.2.2 Menu Map

	Display	Description	Parameter Range
Preparing Page	Ready To Fog >>>>>>>>>>	The content displaying on the screen means the machine can start to work  Note: English display or Chinese display is set by the menu language selection page.	
	DMX512 Address 1	This page Displays Settings page for the DMX address by "▲" or "▼" button to set the DMX address code, ranging from 1 to 512;	1 - 512
	Fluid Sensor ON	This page displays settings for the Fluid Sensor, in this page by pressing the "▲" or "▼" button to set ON or OFF (open or closed Fluid Sensor);	ON / OFF
Setting Pages	Auto black out Screen ON	This page displays settings for the Auto black out Screen, in this page by pressing the "▲" or "▼" button to set ON or OFF (open or closed the Auto black out Screen);	ON / OFF
	Language English	This page is displayed language selection by pressing the "▲" or "▼" button to select the Chinese or English and press ENTER to save.	Chinese / English
	Pan Inverse	This page is set horizontal selection by pressing the "▲" or "▼" button to select the setting.	
	Tilt Inverse	This page is set vertical selection by pressing the "▲" or "▼" button to select the setting.	

### 5.2.3 Operating Instruction

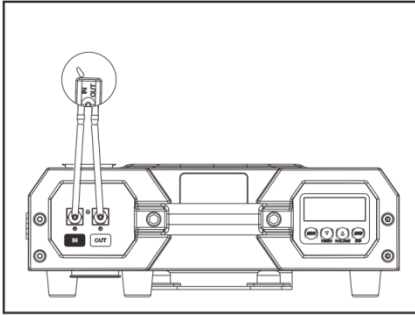
Before using the machine, please read and follow the safety recommendations mentioned in the safety instructions.

- Connect the DMX controlling line, open the base of the fixture, and remove the fluid tank to add fluid, carefully not to exceed the mark on the tank to prevent fluid from spilling out, and then press the cap down and check tightly, finally place the fluid tank back carefully and cover it.
- If you need to use fixture upside down, just put machine upside down and remove the tank, put the tank upside down and then re-inserted into the base.
- Plug in the power cord, turn on the power switch, then fluid bottles displaying in red is in heating, set address code, waiting for about seven minutes, when the machine is well heated, fluid bottles will be displayed in blue, the LCD display can also be observed to understand the heating state of the machine.
- Promote push rod of the console, the machine will begin to spray, the pump may emit shaking sound in the first fog slowly, which is a normal phenomenon.
- Different ways of using several pieces together: Picture one: using build-in fluid bottle; Picture two: connect the machine with any outside fluid bottle, no need to fill the fluid in the height, suitable for being used in the high place and long-term using.

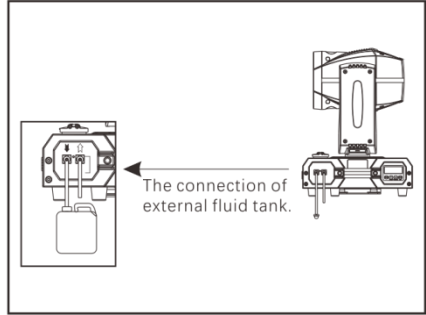




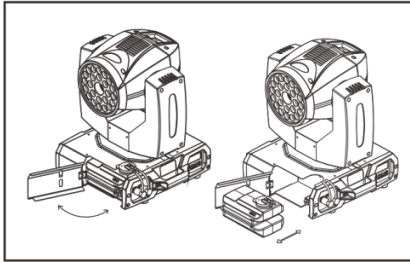
Tubing connection diagram



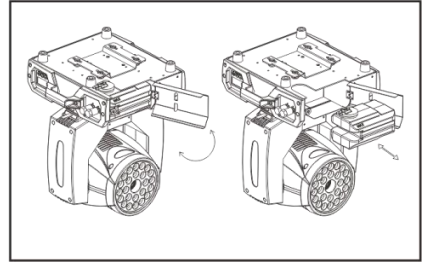
The connection of external fluid tank



The diagram of removing the oil bottle-A



The diagram of removing the oil bottle-B



**Adding fluid must be careful to prevent fluid from inflowing the machine.**

**The fluid should be poured out and keep the oil bottle dry when the machine in shipment.**

**When the fluid is consumed and the tank is empty, the fluid pump keeps working without stop. Under this situation, the temperature will rise and the temperature control device will automatically disconnect the pump from working, resulting in the machine being unable to spray smoke. The solution:**

- Refueling: Refill the fluid tank.
- Shutdown for cooling: shut down the machine and let the fluid pump cool for 1-2 minutes.
- Restart the machine: restart the machine after cooling, the machine can work normally.

### 5.3 Manual control function

By the "TIMER", "VOLUME" and "STOP" button to manually operate the machine spraying work.

When the machine is heated well, the "Ready To Fog" is in the display page, press the button "VOLUME", the machine will begin to work; press the button "STOP", the machine will stop work.

Note: Only the page displays "Ready To Fog", the button will work. Otherwise, buttons do not work, and turn into conventional functions.

①.

## 5.4 DMX Operation

H-1 PLUS can use DMX controller to operate work.

- Connect the machine to a suitable power outlet.
- Turn on the machine.
- Connect the DMX output of the DMX controller to the DMX input socket on the machine via the DMX cable.

After the machine is connected to the DMX signal, the display screen can only display the DMX address setting page. At this time, you can set and modify the DMX512 address by pressing the "▲" or "▼" key.

### 5.4.1 DMX channel

Channel	Display	Description
Channel 1	Fog	0-9 OFF
		10-255 ON,the output volume of fog gradually become larger
Channel 2	Red	0-9 OFF
		10-255 ON,red become lighter
Channel 3	Green	0-9 OFF
		10-255 ON,green become lighter
Channel 4	Blue	0-9 OFF
		10-255 ON,blue become lighter
Channel 5	Yellow	0-9 OFF
		10-255 ON,yellow become lighter
Channel 6	Color mixing	0-9 OFF
		10-255 ON,color mixing
Channel 7	Strobe	0-9 OFF
		10-255 ON,LED strobe become faster
Channel 8	Dimmer	0-9 OFF
		10-255 ON,LED dimmer become lighter
Channel 9	X-axis control	0-255 corresponds to 0-540 degree
Channel 10	Y-axis control	0-255 corresponds to 0-270 degree

## 6 TECHNICALINFORMATION

### 6.1 Maintenance

H-1 PLUS needs regular cleaning and maintenance to achieve the best results. Some cleaning and maintenance steps are essential. Here are the recommended cleaning steps:

1. Please use DJPOWER fluid. It will prolong the lifetime of machines. To avoid danger, it is not allowed to take machine apart by unprofessional man. Neither to refit the machine.
2. Excessive dust, fluid residue and dirt will degrade performance and cause overheating. Remove dust from air vents with air compressor, vacuum or a soft brush. The casing could be cleaned by the damp cloth.
3. Drain residual fluid before transport. Steps: Turn off and restart the power, wait for 5 seconds. Repeat this step for 2~3 times.

4. Before storing, run distilled water through the heating system to help avoid blocking the electric heating element.
5. All smoke machine will be blocked because of the inferior liquid or frequent use.
6. Periodic maintenance is necessary for long term use. After 40 hours continuous working, please spray 10-15 times with the detergent composed of 35% vinegar and 65% distilled water.
7. Please properly operate the machine comply with user manual.



**Test-run your H-1 PLUS on a monthly basis to achieve the best performance.**

## 6.2 Storage

### 6.2.1 Machine Storage

Before storing the machine, clean it and empty the fluid tank. Keep storage environment dry.

## 7 FOG MACHINE FLUID BLOWOUT AND HEATER BLOCKING PHENOMENON ANALYSIS

Please use the original consumables, protect your health and life of machine !

A. Fluid injection trouble: Refers to the fog fluid atomizing in the heater pipe of the machine is not good, heater temperature cannot be timely and effective transmit to the fog fluid, fog fluid cannot all atomization and lead to fluid injection.

First reason: Using the low quality or counterfeit fog fluid, low quality fog fluid have more impurities, easy to adhere to the pipe wall and hindered temperature transmission result in incomplete atomization caused fluid injection.

Second reason: using an incorrect fog fluid. Different fog fluid have different required atomization temperature. If you use the wrong fog fluid result in fluid cannot fully atomization caused fluid injection.(fig 1) .

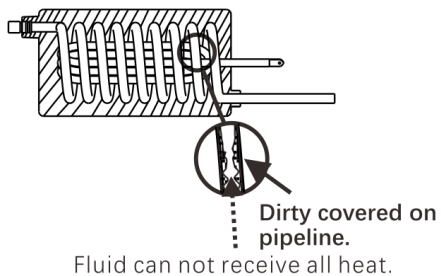
Heater blocking trouble: poor atomization fluid injection is the early signs of heater block. Using poor quality fog fluid or not timely maintenance cleaning the fog machine for a long time. Inevitable will appear the terminal symptom of heater blocking.

Reason: heater blocked is because used inferior fog fluid or not maintenance for a long time. Have nothing to do with the quality of machine. Like a car with poor quality gasoline produce poor fluid circuit failure or long-time no maintenance the car will inevitably appear bigger problems. (fig 2).

B. Solutions to these problems: fog machine heating pipes used for a long time and then the pipe wall will easily produce sediments (The more inferior fog fluid the more impurities thus lead to fluid injection or blocked). All fog machines need regular maintenance (fog machine maintenance cycle for 1 to 2 months/time). Specific maintenance method: after heating the 35% white vinegar plus 65% distilled water and then spray 10 to 15 times.

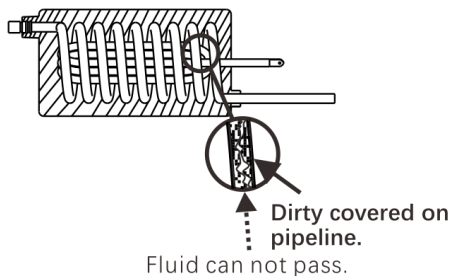
Conclusion: As long as the fog machine with fluid injection or heater blocking after using a period of time. It was caused by fog fluid quality or lack of maintenance, has nothing to do with the quality of the machine. Please use the original high quality fog fluid and timely maintain it, then it can be used for a long time.

Pipeline has covered by dirt, insufficient heat transfer result in water-spraying.



**Fig 1**

Pipeline has covered by dirt, that results in blocked heater.



**Fig 2**