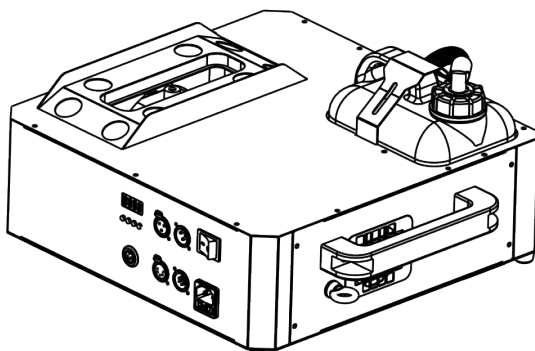


# X-FORCE

by DJPOWER

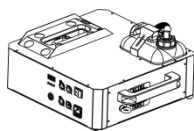


## DSK-1600VM *USER MANUAL*

LED SWING SUPER JET

# 1 BEFORE YOU BEGIN

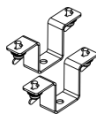
## 1.1 What Is Included



DSK-1600VM × 1



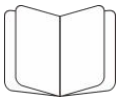
Power Cord × 1



Omega bracket with  
1/4 turn fastener × 2



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.
- During heating up and operation, the housing will be scalding hot. Do not touch.
- **The product is very hot during operation and it remains hot for a long time after operation has stopped. Do not touch the product's nozzle.**
- Make sure that children, unauthorised people and animals do not obtain access to the machine.
- **Avoid direct eye exposure to the light source while the product is on.**

### 1.5.2 Mounting and Rigging

- The product is for indoor use only! 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 or clogged by dust. If necessary, remove the dust.

### 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.
- Never connect this product to a dimmer pack 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.
- The maximum ambient temperature (Ta) is 104 °F (40 °C). Do not operate the product at higher temperatures.
- **Do not cover the ventilation slots when operating to avoid internal overheating.**
- **Do not cover or plug the output nozzle during operation.**
- Wipe up spitted fluid immediately. Moisture – also fluid – can destroy the electric.

- You may hear a loud popping sound during operation. This is normal.
- Never carry the product by the power cord or any moving part. Always use the handles of the machine.
- **Drain the tank before transporting the product.**
- 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 Consumable, fog fluid PRO-V is recommended.**



Keep this User Manual for future use. If you sell the product, be sure that the purchaser receives this document.

## 2 INTRODUCTION

### 2.1 Description

DSK-1600VM is a new version of LED swing super jet independently developed by DJPOWER, with horizontal rotation angle of 90°. It is equipped with eight 10W RGBAUV five-in-one LED lights, which can change the color of jet. With newest "Anti-Squirting Plus" technology, it is safer no matter hung or place on the floor. The height of jet is about 7-8 meters. DJPOWER's patented technology (Patent No.: ZL201320700998.7) is used to provide better effects. It is suitable for bars, concerts, product launch and other places.

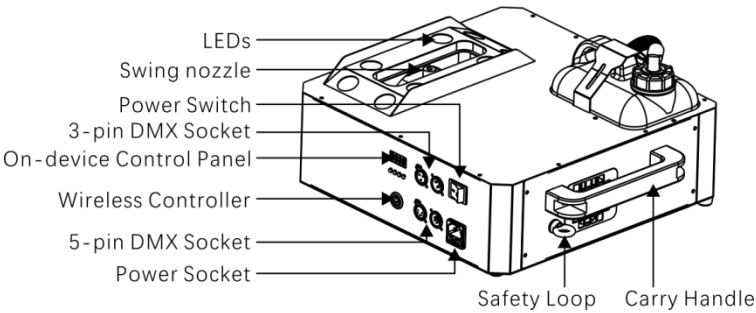
### 2.2 Features

- "Immediate-stop" patented technology.
- Advanced "Anti-Squirting Plus" technology, greatly reduced the probability of squirting water.
- With horizontal rotation angle of 90°, max output distance can reach to 7-8m.
- 8 PCS 10W RGBAUV five-in-one LED lights create colorful fog effect.
- Digital display control, wireless remote control, and 3-pin, 5-pin DMX control.
- Please use the original DJPOWER professional quick dissipating fluid PRO-V.

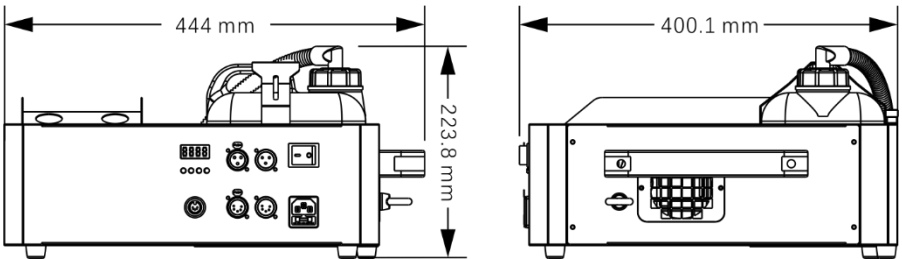
PRO-V is the liquid for white smoke, the mist dissipates in seconds, which is very suitable for creating super fog jet and it has better light transmission. Special modulation makes it have good light transmission sex. Colorful smoke columns will be brighter.

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

2.3 Product Overview



2.4 Product Dimensions



3 TECHNICAL SPECIFICATIONS

	Input Voltage & Rate	AC 100-120V, 50/60Hz	AC 220-240V, 50/60Hz
AC Power	Current Limiter Specifications	15 A, 250 V	8 A, 250 V
	Total Power Consumption	1,600 W	1,600 W
Heating	Heat Up Time	Appr. 4 min	
	LED Color	RGBAUW	
Light Source	Total Power of Inner LED	10 W	
	Quantity of LED	8 pcs	
Capacity	Fluid Tank Capacity	3 L	
	Adjustable Output	×	
	Max Output Volume	Appr. 32,000 cuft/min	
Output	Max Output Height	Appr. 7-8 m	
	Fluid Consumption (100% Output)	Appr. 7.5 min/L	
	Maximum Continuous Duration (100% Output)	Appr. 7 S	

<b>Placement &amp; Mounting</b>	Continuous Output	×
	Consumable Type for Standard Output Test	PRO-V
	Horizontal	√
	Inclined	×
	Vertical	×
	Hang Upside Down	√
	Rigging & Trussing	√
<b>Control</b>	On-device Manual Control	On-device Control Panel
	Wireless Control	W-2 updated version
	Wired Control	×
	Control Protocol	DMX512
	DMX Channel Range	16
<b>Consumable</b>	Consumable	PRO-V
<b>Weight &amp; Dimensions</b>	Net Weight	11 kg
	Gross Weight	13.3 kg
	Machine Dimensions	444 × 400.1 × 223.8 mm
	Packing Dimensions	511 × 486 × 273 mm

## 4 SETUP

### 4.1 AC Power

The machine has a fixed voltage power supply and can work with an input voltage of AC 100 V-120 V, 50/60 Hz or AC 220 V-240 V, 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 DSK-1600VM comes with a power input cord terminated with a Lockable Powercon connector on one end and an EU plug on the other end. 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 (US)	Wire (EU)	Wire (CN)
AC Live	Black	Brown	Brown
AC Neutral	White	Blue	Blue
AC Ground	Green	Yellow-green	Yellow-green

### 4.3 DMX Linking

You can link the DSK-1600VM 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.

### 4.5 Orientation

Always mount this product in a safe position and make sure there is adequate room for ventilation, configuration, and maintenance. The DSK-1600VM should be suspended upright or upside down using the 2 Omega brackets included, or it can be placed on its rubber feet on a flat level surface.

#### 4.5.1 Upside down installation

The guardrail of the fluid tank can be removed by loosening 5 screws, and then flipped 180° to put it back, so that the product can be used upside down.

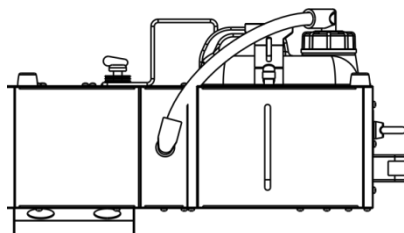


**(Note: When the machine is hung upside down, the attached ring screws must be installed and connected with a safety rope. When hung the machine, the handle of the tank must also be hung with a safety rope.)**

#### 4.5.2 Tank Inversion

To avoid leaking, invert the fluid tank when mounting this product in an inverted position:

- Put the fluid tank back, install the fast lock and safety ring for suspension, and the product can be used upside down.



### 4.6 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 mounting the product on the floor, make sure that the product and cables are away from people and vehicles.
- When mounting the product overhead, always use a safety cable. Mount the product securely to a rigging point, whether an elevated platform or a truss.

## 5 OPERATION

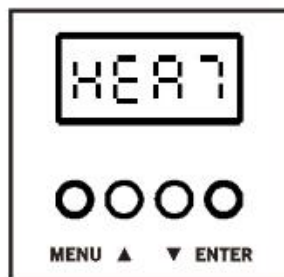
### 5.1 Preparing for Operation

To prepare the DSK-1600VM for operation, perform the following steps:

- After checking that all the parts are intact and complete, position the machine on flat.
- Withdraw the fluid tank from its compartment and remove its cap, carefully fill in PRO-V and tighten the cap. Arbitrary use of other fog fluid may cause poor quality smoke or damage the machine. Damage caused by the use of other fluid is not covered by the warranty.
- Verify that the two plastic hoses attached to the cap are in place and in good condition.
- Return the tank back to its compartment in the DSK-1600VM.
- Make sure the plastic hose entering the DSK-1600VM from the fluid tank cap is not bent or kinked.
- Always connect the product to a grounded circuit. Before power on, make sure it is connected with the rated voltage.
- Turn on the power switch, the machine will start to heat up, and prepare for the use of the machine. At this time, "HEAT" will be displayed on the screen.
- The heating time is about 4 minutes. When the machine finishes heating, the screen will display "ADDR", press the button on the remote control, and the machine will create smoke.

### 5.2 On-device Control Panel

To access the control panel functions, disconnect the DMX signal, and use the four buttons located underneath the Digital display tube.






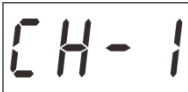



Button	Function
<MENU>	Switch menu pages to select a function
▲	Increase the relevant value of each page
▼	Increase the relevant value of each page
< ENTER >	Enter or exit each page

When turn on the machine, the screen first displays the chip version "U001", and then displays "HEAT", which means the machine is heating. The heating time is about 4 minutes. When the machine is finished heating, the screen displays "ADDR".

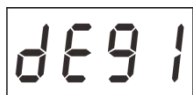


### 5.2.1 Menu Map

Press the <MENU> key to switch parameter settings among 9 menu pages.

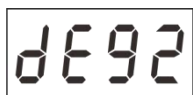
Display	Description	Parameter Range
	After selecting ADDR, press the ENTER key to enter the submenu, and select the DMX address code through the ▲、▼ keys	1~512
	After selecting CH-1, press ENTER to the submenu, and use the ▲、▼ keys to select the LED color of channel 1	
	After selecting CH-2, press ENTER to the submenu, and use the ▲、▼ keys to select the LED color of channel 2	
	After selecting CH-3, press ENTER to the submenu, and use the ▲、▼ keys to select the LED color of channel 3	
	After selecting CH-4, press ENTER to the submenu, and use the ▲、▼ keys to select the LED color of channel 4	

home page



After selecting dEG-1, press ENTER to the submenu, and use the ▲、▼ keys to set the control injection angle of remote control button 1.

1-512



After selecting dEG-2, press ENTER to the submenu, and use the ▲、▼ keys to set the control injection angle of remote control button 2.

1-512



After selecting dEG-3, press ENTER to the submenu, and use the ▲、▼ keys to set the control injection angle of remote control button 3.

1-255  
(corresponding to  
 $\pm 45^\circ$ ),  
Automatic rotation  
(rand)



After selecting dEG-4, press ENTER to the submenu, and use the ▲、▼ keys to set the control injection angle of remote control button 4

1-255  
(corresponding to  
 $\pm 45^\circ$ ),  
Automatic rotation  
(rand)

## 5.3 Machine function description

DSK-1600VM has the functions of wireless remote control, DMX control, immediate stop, and LED lights (8 pieces \* 10 w).

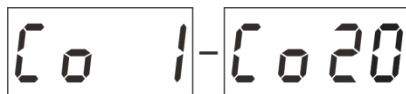
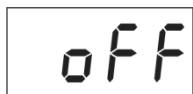
DMX control takes precedence over wireless remote control. The fog output duration time is 7s.

### 5.3.1 LED function description

LED are controlled by remote control and DMX:

- In the remote control mode, after the color is set through the CH-setting page, when the remote control controls the spraying of smoke, the LED light is on, displaying the set color, and when the output is stopped, the LED light is off.
- Under DMX control, smoke and color do not affect each other, a total of 16 channels control LED light display, smoke and motor movement effects. The details are detailed in the DMX function.

### 5.3.2 LED light color setting



On the CH-1 page, press "ENTER " to the LED light color setting subpage. Use the ▲ and ▼ keys to set the color. After setting, press the "ENTER" to exit to the CH-1 page. LED color can be set to off, 20 colors (Co1-Co20), automatic color change (rand) state. The color setting of CH-1 corresponds to the color of the smoke output by pressing the "1" button when using the remote control.

**A. When the setting is off, the LED light is off.**

**B. The 21 setting color states are as follows:**

Co 1	Red
Co 2	Green
Co 3	Blue
Co 4	amber
Co 5	UV color
Co 6	pink
Co 7	purple
Co 8	Yellow
Co 9	blue
Co 10	white
Co 11	Inner green,Outer red
Co 12	Inner blue,Outer red
Co 13	Inner red,Outer green
Co 14	Inner blue,Outer green
Co 15	Inner red,Outer blue
Co 16	Inner green,Outer blue
Co 17	Inner amber,Outer purple
Co 18	Inner blue,Outer purple
Co 19	Inner purple,Outer amber
Co 20	Inner pink,Outer blue
rand	Auto color

After setting the LED color, when the remote control controls the smoke, the LED light will display the corresponding color.

**C. Automatically change color (rand) state.**

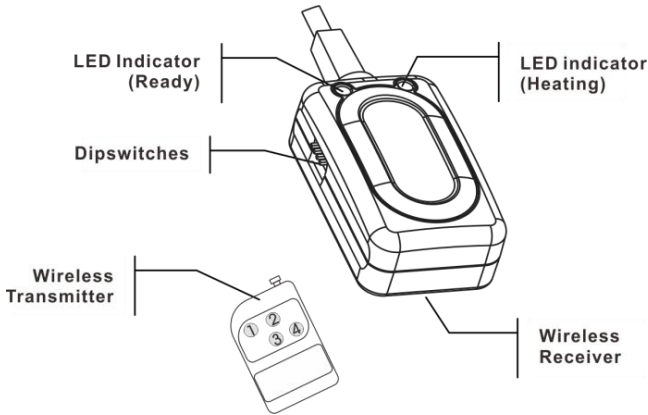
**Under this setting, when the remote control is used to control the smoke, the LED color changes, and the changing interval is 1 second.**

According to the above operation steps, CH-2, CH-3, and CH-4 can be set to correspond to the "2" key, "3" key, and "4" key's smoke color when remote control.

Note: When using the DMX control, the status set on this page will not work, and the LED color is determined by the DMX.

### 5.3.3 Wireless remote control and operation


#### W-2 Upgraded Remote Operation Instructions:



- Insert the wireless receiver into the 5-pin socket marked with "Wireless Controller" on the control panel of the machine to connect to the wireless remote control function.
- When the machine is heating, the indicator light on the wireless control receiver lights up red. When the machine is heated, the green LED indicator light on the control receiver lights up, indicating that the machine can work.
- Press the button on the wireless remote control, the machine can create smoke according to the time you press the button, and the 1, 2, 3, 4 buttons on the remote control can select different color LEDs through the panel operation and control the angle and swing spray effect.

### 5.3.4 DMX Mode & Operation DMX

When selecting a starting DMX address, always consider the number of DMX channels. If you choose a starting address that is too high, you could restrict the access to some of the product's channels.

 When the DMX signal is connected, the menu will automatically jump to the "ADDR" page, or press "MENU" to enter the "ADDR" page, Press "▲" or "▼" to set desired DMX starting address.

### 5.3.5 DMX Menu Page

The subpage settings under the DMX address page



On the ADDR page, press "ENTER" to enter the DMX address setting subpage. Use the "▲" and "▼" keys to set the addition and subtraction of the address code. After setting, press the ENTER key to exit to the ADDR page.

### 5.3.6 DMX Channel Assignments and Values DMX

- **DMX control has a total of 16 channels , which are as follows**

Channel	Function	Value	Description
1	Fog	000 - 009	No function
		010 - 255	Fog on
2	Inner red	000 - 011	No function
		012 - 255	Dim to bright
3	Inner green	000 - 011	No function
		012 - 255	Dim to bright
4	Inner blue	000 - 011	No function
		012 - 255	Dim to bright
5	Inner amber	000 - 011	No function
		012 - 255	Dim to bright
6	Inner UV	000 - 011	No function
		012 - 255	Dim to bright
7	Outer red	000 - 011	No function
		012 - 255	Dim to bright
8	Outer blue	000 - 011	No function
		012 - 255	Dim to bright
9	Outer blue	000 - 011	No function
		012 - 255	Dim to bright
10	Outer amber	000 - 011	No function
		012 - 255	Dim to bright
11	Outer UV	000 - 011	No function
		012 - 255	Dim to bright
12	RGB mixing	000 - 009	No function
		010 - 255	Auto Color (Color 1-9 rotating every 1 second)
13	Auto color	000 - 009	No function
		010 - 255	Color speed Dim to fast
14	Strobe	000 - 009	No function
		010 - 255	Strobe speed Dim to fast
15	Dimmer	000 - 011	No function
		012 - 255	Dim to bright
16	Motor angle adjustment	000 - 255	0-90° (±45°)

After connecting with DMX signal, the digital display will only show the address. When the machine is heating, it will display HEAT.

## 6 TECHNICAL INFORMATION

### 6.1 Expected LED Lifespan

LEDs gradually decline in brightness over time, primarily due to heat. Packaged in clusters, LEDs exhibit higher operating temperatures than in ideal, single-LED conditions. For this reason, using clustered LEDs at their fullest intensity significantly reduces the LEDs' lifespan. Under normal conditions, this lifespan can be 40,000 to 50,000 hours. If extending this lifespan is vital, lower the operating temperature by improving the ventilation around the product and reducing the ambient temperature to an optimal operating range. In addition, limiting the overall projection intensity may also help to extend the LEDs' lifespan.

### 6.2 Maintenance

Do not allow the DSK-1600VM to become clogged. Dust build-up reduces light output performance and can cause overheating. This can lead to reduced light source life and increased mechanical wear. After every 40 hours of continuous operation, use a detergent composed of 35% vinegar and 65% distilled water through the system and spray 10-15 times after heat 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 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 product in a well-ventilated area until the tank is empty. Do not allow the pump to run dry.
- 6) Refill with fog fluid to continue using the DSK-1600VM. Run the machine briefly to clear any cleaning solution from the pump and heater.
- 7) Excessive dust, fluid residue and dirt will degrade performance and cause overheating. Remove dust from air vents with air compressor, vacuum or soft brush. The casing could be cleaned by the damp cloth.



**Test-run your DJPOWER® DSK-1600VM on a monthly basis to achieve the best performance.**

### 6.3 Storage

#### 6.3.1 Machine Storage

Before storing the machine, clean it 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 machine. Cleaning the system prior to storage will help prevent any particles from condensing inside the pump or heater while not in use.

