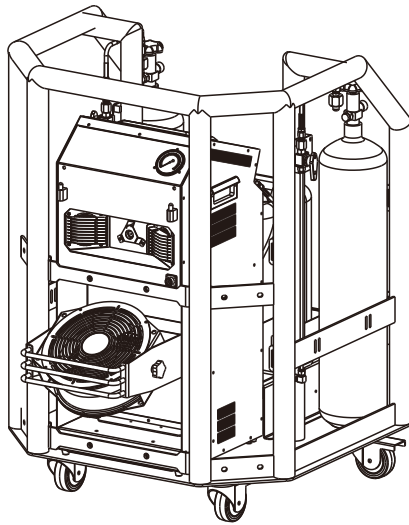


# TOPCAT<sup>®</sup>



## **CAT-1** ATMOSPHERIC GENERATOR

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### **USE MANUAL**

# 1 BEFORE YOU BEGIN

## 1.1 What Is Included

- CAT-1 × 1
- Power Cord × 1
- 10L CO2 Cylinder x 2
- User Manual × 1
- Warranty Card × 1
- Water Proof cover × 1
- Flight case × 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

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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.

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## 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 use! 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.
- 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.
- Make sure there are no flammable materials close to this product while it is operating.
- Do not cover or plug the output nozzle during operation.
- Do not cover the vents always.
- Do not use the product as a space heater.
- Never carry the product by the power cord or any moving part. Always use the handles.
- Empty the storage bin before transporting the product.
- The maximum ambient temperature ( $T_a$ ) is 104 °F (40 °C). Do not operate the product at higher temperatures.
- Always disconnect the product from the power source before cleaning.
- 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.
- Use only DJPOWER Professional Neutral Fluid PRO-GX and CO2 or N2.

## 2 INTRODUCTION

### 2.1 Description

CAT-1 Atmospheric Generator is designed for large indoor and outdoor spaces, adopting a brand-new concept, through a complex pipeline arrangement, the carbon dioxide/nitrogen is evenly mixed with a special mist oil, and then through a specially made evaporation structure, a large number of tiny mist particles are generated, which can uniformly refract light. The light effect is transparent and bright, referred to as: light effect particles.

It can be simply understood that, in the case of the same smoke output, a DJPOWER CAT-1 can achieve the effect of more than 15 traditional fog machines, Cat-1 has a better light transmittance than traditional fog machines. So in actual use, the light beam will have a special texture, and the visual brightness of the light beam will also be greatly improved.

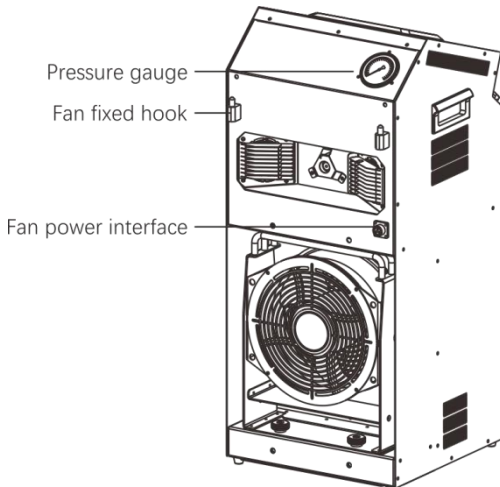
Outdoors, CAT-1 Atmospheric Generator used for large space mist manufacturing capacity, create a beautiful and long-lasting mist effect.

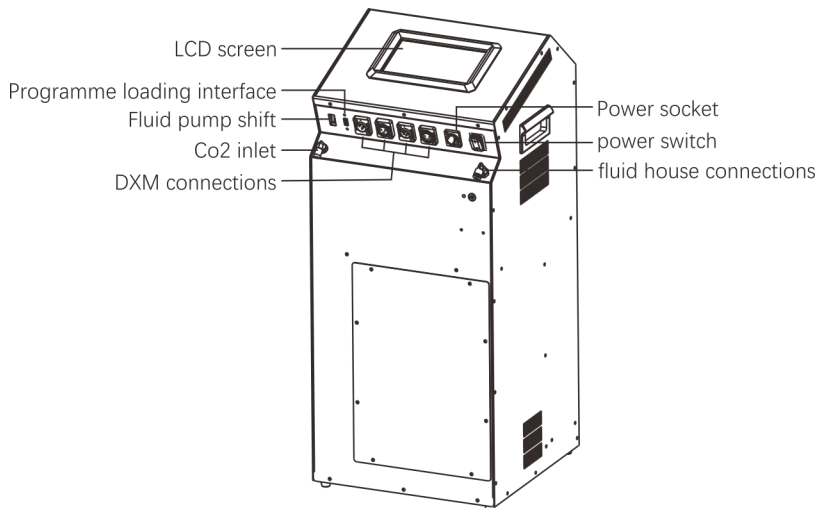
A special texture for the beam, a beautiful visual feast.

### 2.2 Features

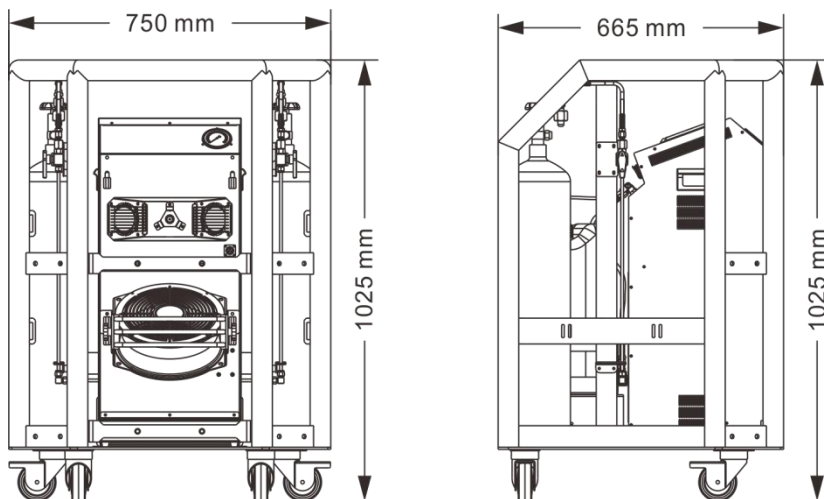
- Haze/fog dual mode with multi-function.
- Low noise, moisture-proof and long-life fan.
- Adapts to global voltage 110V and 220V with automatic voltage switching.
- Support DMX 512, RDM control .
- Haze mode 100% duty cycle to save fuel.
- Self-cleaning function make CAT-1 much more durable.
- Super quiet fans, rapid spread of smoke.

### 2.3 Product appearance





## 2.4 Machine dimensions



## 3 SPECIFICATIONS

<b>AC power</b>	Voltage	AC 110V-240V 50/60Hz
	Power	1800 W
<b>Heating</b>	Heat-up time	Appr, 18min
<b>Capacity</b>	Tank capacity	20 L
	Cylinder capacity	10L X 2

<b>Output</b>	Output adjustable	√
	Fluid consumption rate	Haze mode:1% 1886min/L 50% 833min/L 100% 555min/L  Fog mode:1% 176min/L 50% 73min/L 100% 46min/L
	Gas consumption Rate	Haze mode:1% 0.3kg/h 100% 0.43kg/h  Fog mode:1% 0.72kg/h 100% 1.29kg/h
	Max Output Volume (Fog mode 100% output)	Appr. 36,000 cuft/min
	Max Output Coverage	Appr. 600 m <sup>2</sup> (5 min)
<b>Installation</b>	Lie flat	√
	Slanting	×
	Side lay (do not cover the radiating holes)	×
	Hang upside down	×
	Hang up	√
<b>Control mode</b>	Manual control	√
	Wireless remote control	×
	Wired control	×
	Control Protocol	DMX512/RDM
	DMX Channel	3
<b>Consumables</b>	Consumables	Only DJPOWER Neutral PRO-GX and CO2 or N2
<b>Weight &amp; Dimension</b>	Net weight	103 kg
	Gross weight	153 kg
	Machine dimensions	750 × 665 × 1025 mm
	Flight case dimensions	790 × 715 × 1215 mm
	Packing dimensions	825 × 740 × 1100 mm

## 4 INSTALLATION SETTING

### 4.1 AC Power supply

CAT-1 has a fixed voltage power supply, which can be used according to the specific model AC 110V or 230V.

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

CAT-1 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.

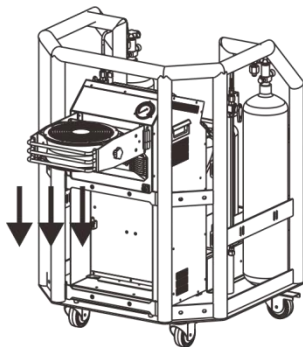
## 4.3 Installation

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

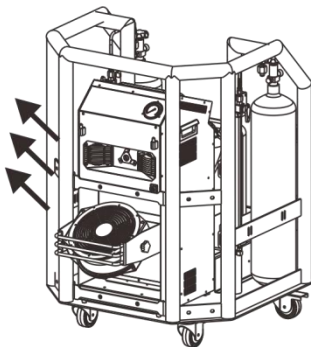
External fan:

This adjustable fan can be fixed above (hanging) or below (on the ground) the smoke nozzle to adjust its direction. When the fan is not in use, it can also be stored inside the machine.

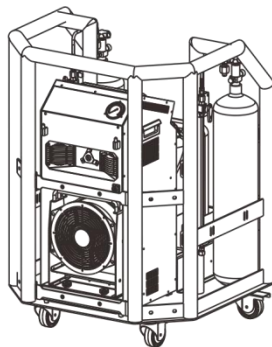
As the picture shows:



DOWN MODE



UP MODE



STANDBY



**Warning: Use ONLY Carbon Dioxide gas or Nitrogen gas.**

### 4.3.1 Position

Please lay the machine flat in a safe location and ensure that there is enough space for ventilation, configuration and maintenance.

### 4.3.2 Installation

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 WORKING WITH THE CAT-1

### 5.1 Preparation

Before operating the machine, please make a preparation according to the following steps:

Check the machine and accessories are not damaged, then place the machine on a flat position

Take out the fluid tank and remove the lid of the tank, carefully inject the PRO-GX fluid, close the lid, and put the fluid tank into the machine. Damage caused by using other liquids is not covered by the warranty.

Connect the machine to a gas cylinder, this machine only supports CO<sub>2</sub> or N<sub>2</sub>, cannot use other gases

Insert the power connector, reconfirm the power supply specifications, and plug the power cord into a grounded socket.

Turn on the power switch, the machine will begin to heat up. At this time, the LCD screen displays "heating". When the machine is connected to a gas cylinder, please do not power on.

The heating time of this machine is about 18 minutes. During the heating process, touching the upper left corner of the LCD screen will display the heating progress. When the heating is over, touching the upper left corner of the LCD screen to display normal, indicating that the machine can work now.

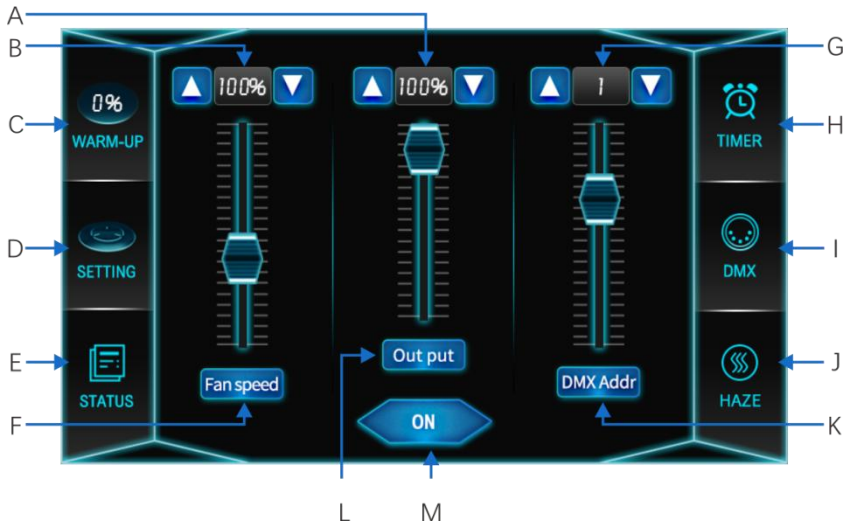
### 5.2 Operation

#### 5.2.1 LCD control

##### Advanced Settings Interface

##### 1. Main interface and function description





A: Display the fog and haze output, through the sliding bar or the up and down buttons to adjust the capacity

B: Display fan speed, through the sliding bar or the up and down buttons to adjust the capacity.

C: Machine is in heating up, it could only start working when reach the start.

D: Enter into the setting page

E: Enter into the state page

F, L, K: Click to lock, lock the corresponding adjustment slider and adjustment button

G: DMX address, through the sliding bar or the up and down buttons to adjust the capacity.

H: Timer page, enter the timing adjustment page.

I: DMX mode, it will flash when entering DMX or RDM

J: Switch the fog and haze mode

M: On/off

## 2. Timer page description



A: Interval time

B: Output time

C: Interval time

D: Output time

E: ON/ OFF

F: BACK

### 3. Set menu and Function



A: The screen rest setting, the parameters are: off, 10 seconds, 30 seconds, 1 minute, 5 minutes, and 10 minutes.

B: Program version No.

C: Enter into Manual

D: Factory mode

E: Power-off memory function, the machine will remember the state before power-off after it is turned on, and it will return to the state before power-off after restarting

F: Clean mode

G: On/ Off no - fluid protection function

H: Switch pump

Return to the main page, it will automatically return to the main page after 10 seconds of inactivity

#### 4. Machine status interface and function description



A: Display the parameters or status of each corresponding item

B: Return to the main page, it will automatically return to the main page after 10 seconds of inactivity

#### 5. Clean mode page



## Clean modes

Press the cleaning mode to enter. After 180S, the cleaning program ends, the screen turns off, and the machine enters the standby mode. At this time, touch anywhere on the screen and the machine will start again. Press any button during the cleaning process, the machine will automatically exit the cleaning mode.

## Multiple working modes

Haze mode. In this mode, the machine is in a spray state, the two fans below the nozzle are in operation, and the wind speed cannot be adjusted.

Fog mode. In this mode, the machine is in the state of spraying smoke, and the two fans below the nozzle are in a stopped state. At this time, an external fan can be connected. The external fan is controlled by the "wind speed output" on the main interface.

## 5.3 DMX Operation

After the machine is connected to the DMX signal, the "DMX mode" on the main interface will flash, and the machine can be controlled through DMX at this time. At the same time, it can be adjusted by adjusting the "DMX address".

This machine supports 3 DMX channels, the channel table is as follows:

Channel	Function	Value	Description
1	Fan Speed	0-10	No Function
		11-255	1-100% increase. No function when under the forward mode.
2	Fog Output	0-10	No Function
		11-255	1-100% increase
3	Work Mode	0-128	Haze mode
		129-255	Fog mode

## 5.4 RDM Function

"RDM-UID" is the unique UID code of CAT-1, you can use RDM to modify the DMX address code remotely. CAT-1 supports 3 sensor information.

	Status	Value	Description
1	Heater Status	0	Heating
		1	Heating finished
2	Fluid Sensor	0	Enough fluid
		1	Low fluid
3	Pressure Sensor	0	Enough pressure
		1	Low pressure

## 5.5 Auto Run Last Settings

If the machine is shut off while it is operating at standalone mode (On-device manual control), the “Auto Run Last Setting” will allow the

machine to recover its previous same operating status when the unit is powered on again without pressing any button.



- **Shut off: Get disconnected from power supply or turn off the power switch.**
- **Power on: Get connected with power supply or turn on the power switch.**

## 5.6 Fluid Sensor

This machine uses software-based fluid sensor to detect whether there is fluid inside tube so as to protect the pump from being damaged.

Turn on the “Fluid Sensor” to activate “No Fluid Protection” function.

## 5.7 Trigger “No-Fluid Protection”

When the Fluid Sensor is ON, the software-based “no-fluid protection” function will be activated. After the program continues to detect the machine working with no fluid inside the tube for 60 s, the pump-shutoff will be activated with the flickering warning page showing on the screen.

## 5.8 Clear “No-Fluid Protection” Warning

When the machine is under the no-fluid protection, after refilling the fluid, there are three ways to clear the warning.

- Under the Menu control model, click “SURE” in the no-fluid tip. The machine will be quieted no- fluid protection and auto pumping fluid.
- Under the DMX control mode, slide down channel 1 to OFF (value 0-10), then back to ON (value 11-255), to let the machine run again. The warning will disappear until the fluid is pumped and fill the tube.
- Turn off “Fluid Sensor” in the menu.

# 6 TECHNICAL INFORMATION

## 6.1 Maintenance

- 1、 Please use DJPOWER PRO Neutral Fluid only.
- 2、 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.
- 3、 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.
- 4、 When the smoke output is turn off, the machine will perform pipe cleaning and may continue to spray smoke for dozens of seconds. It is normal.



Test-run your TOPCAT® CAT-1 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.

## 6.3 Troubleshooting

Errors	Symptom	Potential Cause	Solution
<b>No fluid</b>	Refer to "MENU MAP" chapter to for more information	No fluid in the tank	Refill the fluid
		Pump problem	Contact dealer for Service
<b>Heating failure</b>	Refer to "MENU MAP" chapter to for more information	Heater problem	Contact dealer for Service
<b>Low pressure</b>	Refer to "INSTALLATION" chapter to for more information	Low pressure	Check the gas cylinder: if the hose is in correct connection; if there is enough gas in the cylinder

