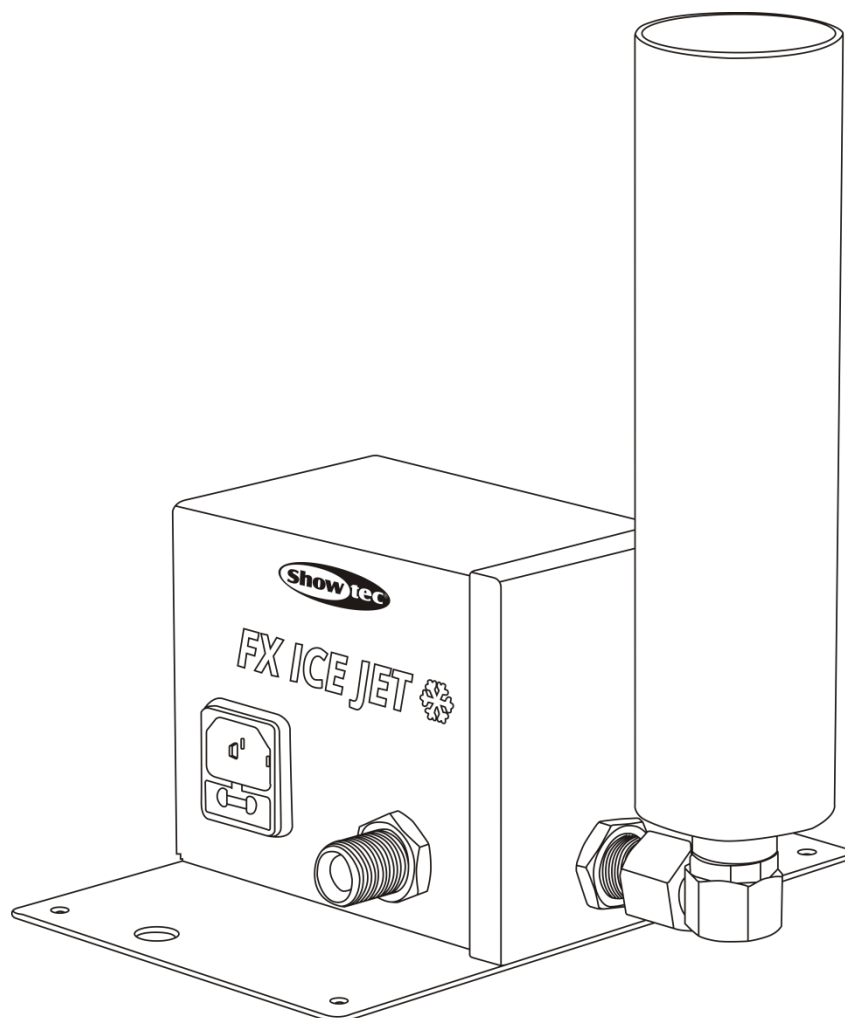




## MANUAL



ENGLISH

# FX Ice Jet

# V1

Ordercode: 61000

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## Warning



### CAUTION! READ THIS MANUAL!

Do not attempt to operate the device without professional knowledge!  
The device may potentially cause severe injuries and damage!



### CAUTION!

Keep this manual together with the FX Ice Jet!  
Refer to this manual, whenever in doubt!

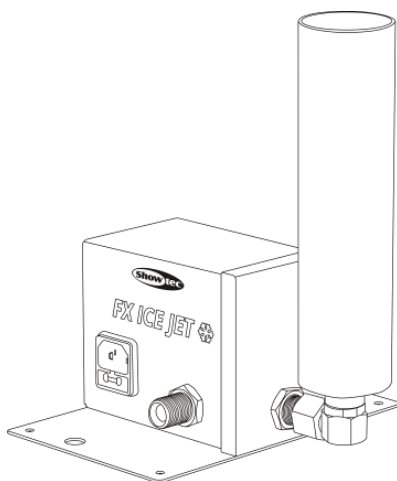


## Unpacking Instructions

Immediately upon receiving this product, carefully unpack the carton and check the contents to ensure that all parts are present, and have been received in good condition. Notify the dealer immediately and retain packing material for inspection if any parts appear damaged from shipping or the carton itself shows signs of mishandling. Save the carton and all packing materials. In the event that a fixture must be returned to the factory, it is important that the fixture be returned in the original factory box and packing.

## Your shipment includes:

- Showtec FX Ice Jet with IEC power cable (1,5 m)
- User manual



### CAUTION!

Keep this device away from rain and moisture!  
Unplug mains lead before opening the housing!



## Safety Instructions

Every person involved with the installation, operation and maintenance of this device has to:

- be **authorized**
- follow the instructions of this manual
- We also **insist** that **all new users** (operators, installers, maintenance workers and cleaners) receive a training course during which they become **thoroughly** familiarized with this user manual.



### CAUTION! Be careful with your operations.

With a dangerous voltage you can suffer  
a dangerous electric shock when touching the wires!



Before your initial start-up, please make sure that there is no damage caused by transportation. Should there be any, consult your dealer and do not use the device.

To maintain perfect condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this manual.

Please consider that damages caused by manual modifications to the device are not subject to warranty.

This device contains no user-serviceable parts. Refer servicing to qualified technicians only.

### **IMPORTANT:**

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual or any unauthorized modification to the device.

- Never let the power cord come into contact with other cables! Handle the power cord and all connections with the mains with particular caution!
- Never remove warning or informative labels from the unit and, on regular basis, make sure that they remain clearly visible and legible.
- Never place any material over the cannon tube.
- Never look directly into the cannon tube.
- Never leave any cables lying around.
- Do not expose the device to any source of vibration.
- Do not insert objects into the cannon tube.
- Do not switch the device on and off in short intervals, as this would reduce the device's life.
- Do not touch the device's housing bare-handed during its operation.
- Do not remove or disable the safety devices.
- Do not shake the device. Avoid brute force when installing or operating the device.
- Use the device ONLY if there ARE NOT ANY people, animals or other objects in the direction of the output within the output range. The shooting direction is the direction in which the output pipe on the FX Ice Jet is pointed. The output distance depends on the humidity in the air! The higher the humidity, the longer the output distance.
- Only use the device indoors, avoid contact with water or other liquids.
- Only operate the fixture after having checked that the housing is firmly closed and all screws are tightly fastened.
- Only operate the device after having familiarized with its functions.
- Avoid flames and do not put close to flammable liquids or gases.
- Always keep case closed while operating.
- Always allow free air space of at least 50 cm around the unit for ventilation.
- Always disconnect power from the mains, when device is not used or before cleaning! Only handle the power cord by the plug. Never pull out the plug by tugging the power cord.
- Make sure that the device is not exposed to extreme heat, moisture or dust.
- Make sure that the available voltage is not higher than stated on the rear panel.
- Make sure that all the required safety devices are in good condition and function properly.
- Make sure that the power cord is never crimped or damaged. Check the device and the power cord from time to time.
- If the cannon tube is obviously damaged, it needs to be replaced, so that its functions are not impaired.
- If the device is dropped or struck, disconnect mains power supply immediately. Have a qualified engineer inspect for safety before operating.
- If the device has been exposed to drastic temperature fluctuation (e.g. after transportation), do not switch it on immediately. The arising condensation water might damage your device. Leave the device switched off until it has reached room temperature.
- If your Showtec device fails to work properly, discontinue use immediately. Pack the unit securely (preferably in the original packing material), and return it to your Showtec dealer for service.
- For adult use only. Device must be installed out of the reach of children and unauthorized persons. Never leave the unit running unattended.
- Never attempt to bypass the thermostatic switch or fuses.
- For replacement use fuses of same type and rating only.
- Provide sufficient lighting of the surroundings.

- The user is responsible for correct positioning and operating of the FX Ice Jet. The manufacturer will not accept liability for damages caused by the misuse or incorrect installation of this device.
- This device falls under protection class I. Therefore it is essential to connect the yellow/green conductor to earth.
- Repairs, servicing and electric connection must be carried out by a qualified technician.
- WARRANTY: Till one year after date of purchase.



**CAUTION! PROTECT YOUR HANDS!**  
**The cannon tube becomes extremely cold!**  
**Do not attempt to operate the device without cold protection gloves!**  
**The device may potentially cause frostbite!**





**CAUTION!**  
**Do not perform any repairs on your own!**  
**If in doubt, always contact [service@highlite.nl](mailto:service@highlite.nl)!**



### Operating Determinations

- This device is not designed for permanent operation. Consistent operation breaks will ensure that the device will serve you for a long time without defects.
- The maximum ambient temperature  $t_a = 30^\circ\text{C}$  must never be exceeded.
- Do not expose this device to relative humidity degree higher than 75%.
- Do not expose this device to any source of vibration.
- Operate the device in a reasonably stable temperature of between 0 and  $30^\circ\text{C}$
- If this device is operated in any other way, than the one described in this manual, the product may suffer damages and the warranty becomes void.
- If any unauthorized alterations or repairs are performed on the device, the warranty becomes void.
- Any operation different to the ones described in this manual may lead to dangers like frostbite, short-circuit, burns, electric shock, crash etc.

### Rigging

Please follow the European and national guidelines concerning rigging, trussing and all other safety issues.

Do not attempt the installation yourself !

Always let the installation be carried out by an authorized dealer !

### Procedure:

- If the FX Ice Jet is lowered from the ceiling or high joists, professional trussing systems have to be used.
- Use a clamp to mount the FX Ice Jet, with the mounting-bracket, to the trussing system.
- The FX Ice Jet must never be fixed swinging freely in the room.
- The installation must always be secured with a safety attachment, e.g. an appropriate safety net or safety-cable.
- When rigging, derigging or servicing the FX Ice Jet, always make sure, that the area below the installation place is blocked and staying in the area is forbidden.



We presume that you, your employees and others who come into contact with the FX Ice Jet are familiar with how the machine must be dealt with. This includes the correct use, maintenance and repair of the FX Ice Jet as described in this user manual. The employees should be familiar with the use of machines through training and/or experience.



Improper installation can cause serious damage to people and property !



**CAUTION!**

**Use the device only in accordance with the instructions in the manual!  
If in doubt, always contact [service@highlite.nl](mailto:service@highlite.nl)!**



Showtec excludes liability for unsafe situations, accidents and damage that are the result of:

- Disregard for the warnings or regulations as set out on the FX Ice Jet or in this manual.
- Use for other purposes or under other circumstances than those set out in this documentation.
- Alterations to the FX Ice Jet. This also includes the use of replacement parts other than the original ones.
- Insufficient maintenance.
- Unauthorised removal of safety caps and/or safeguards.
- Incompetent operation of the machine.


Showtec is not liable for any consequential loss in the event of an FX Ice Jet breakdown.

**This user manual has been drawn up with the utmost care. Showtec cannot be held responsible for any mistakes made in this publication or for any consequences thereof.**

### Connection with the mains

Connect the device to the mains with the power-plug.

Always pay attention, that the right color cable is connected to the right place.

International	EU Cable	UK Cable	US Cable	Pin
L	BROWN	RED	YELLOW/COPPER	PHASE
N	BLUE	BLACK	SILVER	NEUTRAL
	YELLOW/GREEN	GREEN	GREEN	PROTECTIVE GROUND

Make sure that the device is always connected properly to the earth!

**Improper installation can cause serious damage to people and property!**





## **Return Procedure**



Returned merchandise must be sent prepaid and in the original packing, call tags will not be issued. Package must be clearly labeled with a Return Authorization Number (RMA number). Products returned without an RMA number will be refused. Highlite will not accept the returned goods or any responsibility. Call Highlite 0031-455667723 or mail [aftersales@highlite.nl](mailto:aftersales@highlite.nl) and request an RMA prior to shipping the fixture. Be prepared to provide the model number, serial number and a brief description of the cause for the return. Be sure to properly pack fixture, any shipping damage resulting from inadequate packaging is the customer's responsibility. Highlite reserves the right to use its own discretion to repair or replace product(s). As a suggestion, proper UPS packing or double-boxing is always a safe method to use.

**Note: If you are given an RMA number, please include the following information on a piece of paper inside the box:**

- 01) Your name
- 02) Your address
- 03) Your phone number
- 04) A brief description of the symptoms

## **Claims**

The client has the obligation to check the delivered goods immediately upon delivery for any shortcomings and/or visible defects, or perform this check after our announcement that the goods are at their disposal. Damage incurred in shipping is the responsibility of the shipper; therefore the damage must be reported to the carrier upon receipt of merchandise.

It is the customer's responsibility to notify and submit claims with the shipper in the event that a fixture is damaged due to shipping. Transportation damage has to be reported to us within one day after receipt of the delivery.

Any return shipment has to be made post-paid at all times. Return shipments must be accompanied with a letter defining the reason for return shipment. Non-prepaid return shipments will be refused, unless otherwise agreed in writing.

Complaints against us must be made known in writing or by fax within 10 working days after receipt of the invoice. After this period complaints will not be handled anymore.

Complaints will only then be considered if the client has so far complied with all parts of the agreement, regardless of the agreement of which the obligation is resulting.

## Description of the device

The Showtec FX Ice Jet is designed to blow white CO<sub>2</sub> smoke streams.

As soon as the CO<sub>2</sub> leaves the cylinder through the secured high-pressure hoses, it converts into gas. This formation of gas is accompanied by a strong hissing sound, as well as a solid stream of smoke will be visible. The released smoke stream is approximately 8-meter long and depends strictly on current air humidity.

The higher the humidity, the longer the smoke stream will be.

CO<sub>2</sub> gas has a temperature of -70° degrees !!

### Features

- Input voltage: 230 VAC, 50Hz
- Power consumption: 20W
- IEC power connector input
- Housing: Black Metal & Flame-retardant plastic
- Operation temperature: <30°C
- Output range: 8 meters
- Consumption CO<sub>2</sub>: 30L/min
- Quick connector: RU 1 (W21.8x1/14") – 3/8" BSP
- Fuse: F1AL/250V
- Dimensions: 195 x 125 x 244 mm (LxWxH)
- Weight: 2,9 kg

### Overview

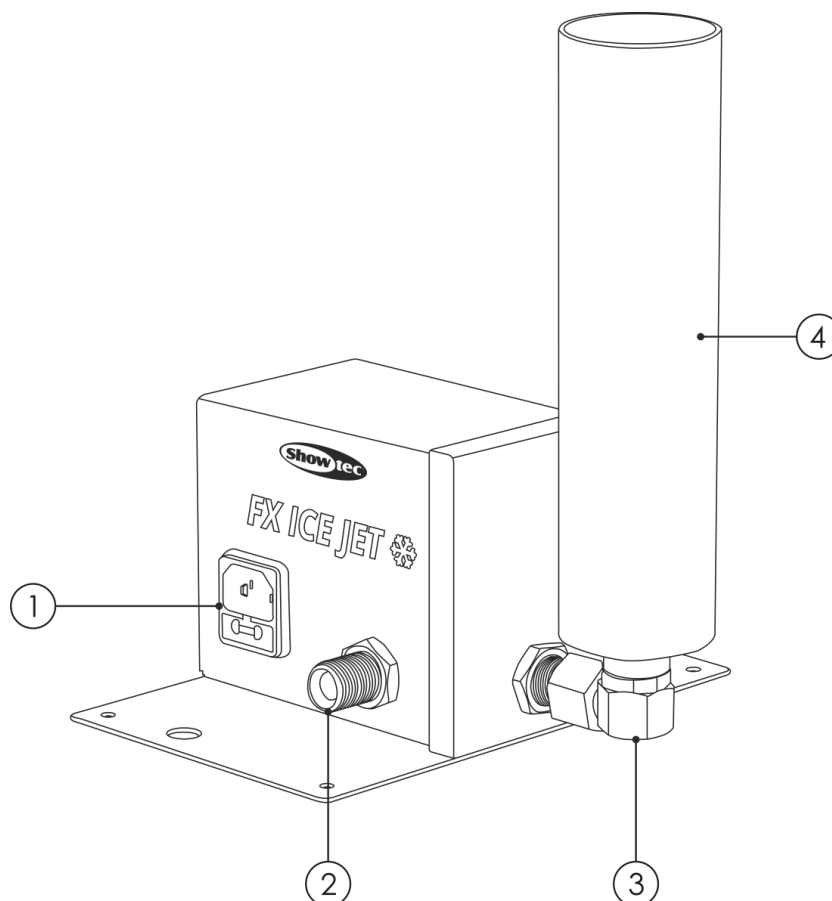
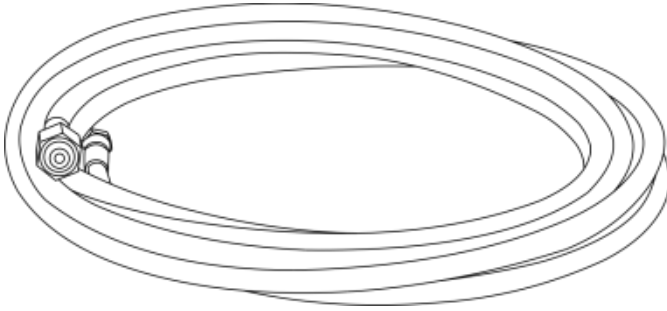


Fig. 01

- 01) IEC power connector + Fuse F1AL/250V  
02) CO<sub>2</sub> input  
03) CO<sub>2</sub> output  
04) Cannon tube

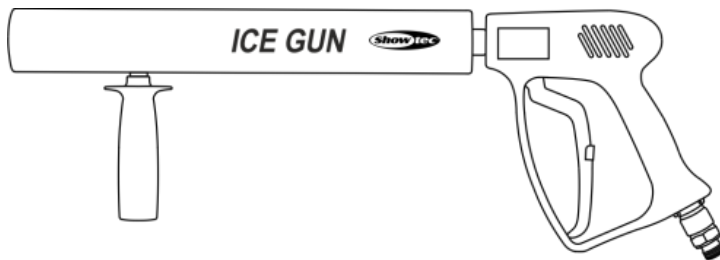
**Optional accessories**



- 61010** - CO2 High Pressure Hose 5 m
- 61011** - CO2 High Pressure Hose 10 m
- 61012** - CO2 High Pressure Hose 15 m



- 70332** - Twenty Clamp SWL 20 kg, TÜV 28 mm



- 61001** - Ice Gun

## Installation

Remove all packing materials from the FX Ice Jet. Check if all foam and plastic padding is removed. Connect all cables.

**Do not supply power before the whole system is set up and connected properly.**

**Always disconnect from electric mains power supply before cleaning or servicing.**

**Damages caused by non-observance are not subject to warranty.**



### CAUTION!

**Read all the warnings and safety instructions before installation!  
Knowledge of safety instructions is INEVITABLE for a safe use!**



### CAUTION! USE ONLY APPROVED CO2 BOTTLES (liquid carbon dioxide with dip pipe)!

**Consult a gas supplier about the installation, usage and  
guidelines for a safe use of the CO2 bottles!**



### CAUTION!

**The FX Ice Jet is not suitable for gases different than CO2!**

**It is forbidden to use any other gases!**

**Any use different to the one described in this manual will exclude your supplier from any liability !**



### CAUTION! PROTECT YOUR HANDS!

**The cannon tube becomes extremely cold!**

**Do not attempt to operate the device without cold protection gloves!**

**The device may potentially cause frostbite!**



In order to carry out a **proper** and **safe** installation, act according to the following steps:

### Step 1

- 01) Place the CO<sub>2</sub> bottle on a stable and even surface and secure it by means of an approved strap or bottle clamp.
- 02) Place the bottle in such a position that the valve opening does not point in the direction of the public.
- 03) Place the CO<sub>2</sub> bottle preferably outdoors or in a properly ventilated space with a CO<sub>2</sub> detection system.
- 04) The maximum temperature in the surrounding area **should not exceed 30°C!**
- 05) Consult your gas supplier for full instructions with regard to CO<sub>2</sub> gas use.



### Step 2

- 01) Place the FX Ice Jet on a solid and even surface.
- 02) Screw it down (there are 4 screw holes in the base plate).
- 03) Use 4 screws of a length of at least 5cm and screw them in the holes intended for this in the base plate of the FX Ice Jet.



### Step 3

- 01) Adjust the cannon tube to change the direction of the output.
- 02) Ensure at all times that the coupling of the cannon tube is firmly tightened with an open-ended spanner.



### Step 4

- 01) The FX Ice Jet is activated as soon as it is powered by a 230V electricity source, preferably via a dimming pack.
- 02) Use a 230V plug and make sure that the electricity is switched OFF!
- 03) Plug the FX Ice Jet into the electricity socket of a Showtec Relay Pack, Multidim or a Single MKII.
- 04) However you should be able to close the valve in case of a power outage.



### Step 5

- 01) Check if the gas valve on the CO<sub>2</sub> bottle is still in closed position.
- 02) Check if the FX Ice Jet has been installed properly by connecting and disconnecting the electricity.

**Note:** If the system has been connected properly you will hear a clicking sound which is produced by the opening and closing of the magnetic valve in the FX Ice Jet.



### Step 6

- 01) Connect the hose to the FX Ice Jet and secure it with an open-ended spanner (size 22).



### Step 7

- 01) Connect the other end of the hose to the CO<sub>2</sub> bottle (with a dip pipe).
- 02) Turning it by hand should suffice! Use a wrench only if the coupling continues to leak.



### Step 8

- 01) When the system is properly connected, open the valve of the CO<sub>2</sub> bottle.
- 02) Check for leaks.
- 03) If the gas hose is **not properly** connected, **gas can escape**.
- 04) If this is the case, turn the couplings tighter until gas is no longer escaping.
- 05) The FX Ice Jet is now ready for use.



### Set Up and Operation

Follow the directions below, as they pertain to your preferred operation mode.

Before plugging the unit in, always make sure that the power supply matches the product specification voltage. Do not attempt to operate a 120V specification product on 230V power, or vice versa.

The Showtec FX Ice Jet is designed to blow white CO<sub>2</sub> smoke streams.

As soon as the CO<sub>2</sub> leaves the cylinder through the secured high-pressure hoses, it converts into gas. This formation of gas is accompanied by a strong hissing sound, as well as a solid stream of smoke will be visible. The released smoke stream is approximately 8-meter long and depends strictly on current air humidity.

The higher the humidity, the longer the smoke stream will be.

CO<sub>2</sub> gas has a temperature of -70° degrees !!



**The proper use of the FX Ice Jet requires utmost safety and alertness!**



In order to use the device in the proper way, act according to the following instructions:

#### Usage

- 01) Plug the FX Ice Jet's power connector into the mains power supply.
- 02) The magnetic valve will immediately open and a white smoke plume will exit from the FX Ice Jet.
- 03) Unplug the device - the valve will immediately close.

**Note:** Never switch the device ON for more than 3 seconds.

This way you prevent dry ice from forming on the cannon tube and you will not cause an accumulation of CO<sub>2</sub> in the room.

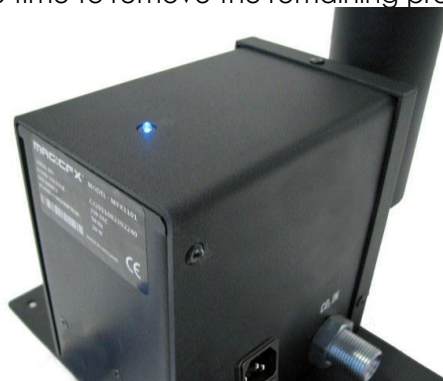
#### Switching Off

In order to switch the device OFF in the proper way, act according to the following instructions:

- 01) Close the valve of the gas bottle.



- 02) Activate the FX Ice Jet one more time to remove the remaining pressure from the hose.



03) Disconnect the plug of the FX Ice Jet from the power supply, preferably via a dimming pack.



04) The hose can be disconnected from the gas bottle and the FX Ice Jet **only** when there is **no gas** in it.



## **Declaration of Conformity**

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### **DECLARATION OF CONFORMITY**

(according to Annex II.1.A of the Machinery Directive)



Concerning the Machinery Directive.

We; Highlite International B.V.

Vestastraat 2

6468 EX Kerkrade

The Netherlands

State under personal responsibility:

We are the manufacturer of the product:

#### **Showtec FX Ice Jet**

to which this statement relates and which is in accordance with the provisions of the following Directive(s):

- Machinery Directive 2006/42/EC
- Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EG
- Pressure Equipment Directive 97/23/EC

The following harmonising standards have been applied:

- NEN-EN-ISO 12100
- NEN-EN-ISO 60204-1

Place : Kerkrade

Date : 18-10-2012

Name: Highlite International B.V.



Director: H. De la Haye

## Maintenance

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The Showtec FX Ice Jet requires almost no maintenance. However, you should keep the unit clean. Otherwise, the fixture's performance will be significantly reduced. Disconnect the mains power supply and then wipe the cover with a damp cloth. Do not use alcohol or solvents. Do not immerse in liquid. Keep connections clean. Disconnect electric power, then wipe the connections with a damp cloth. Make sure that the connections are thoroughly dry before supplying electric power.

The operator has to make sure that safety-related and machine-technical installations are to be inspected by an expert on regular basis in the course of an acceptance test.  
The operator has to make sure that safety-related and machine-technical installations are to be inspected by a skilled person once a year.

The following points have to be considered during the inspection:

- 01) All screws used for installing the device or parts of the device have to be tightly connected and must not be corroded.
- 02) There may not be any deformations on housings, fixations and installation spots.
- 03) The electric power supply cables must not show any damages or material fatigue.

## Troubleshooting

---

### **The FX Ice Jet is leaking**

- 01) Check if the coupling of the gas hose is connected properly to the coupling of the FX Ice Jet.
- 02) Press it firmly if it is not entirely secured. This is only possible when there is no pressure on the hose.
- 03) If the problem persists, consult the Showtec technical service.

### **Only a small smoke plume is visible when the CO<sub>2</sub> gas exits the FX Ice Jet**

- 01) Visibility can vary due to air humidity.
- 02) The output will be more visible when there is high absolute air humidity.

### **No white smoke plume visible when the CO<sub>2</sub> gas exits the FX Ice Jet.**

- 01) Check if you have the right carbon dioxide cylinders.
- 02) Connect bottles with liquid carbon dioxide and a dip pipe to the FX Ice Jet.
- 03) In some cases the dip pipe may be broken. In that case, replace the carbon dioxide bottle with another one and inform your gas supplier about the cylinder with a defective dip pipe.

### **Troubleshooting does not provide the solution**

Always contact your local Showtec dealer in case of uncertainties, questions about the FX Ice Jet performance or other issues with regard to the FX Ice Jet.

## Product Specification

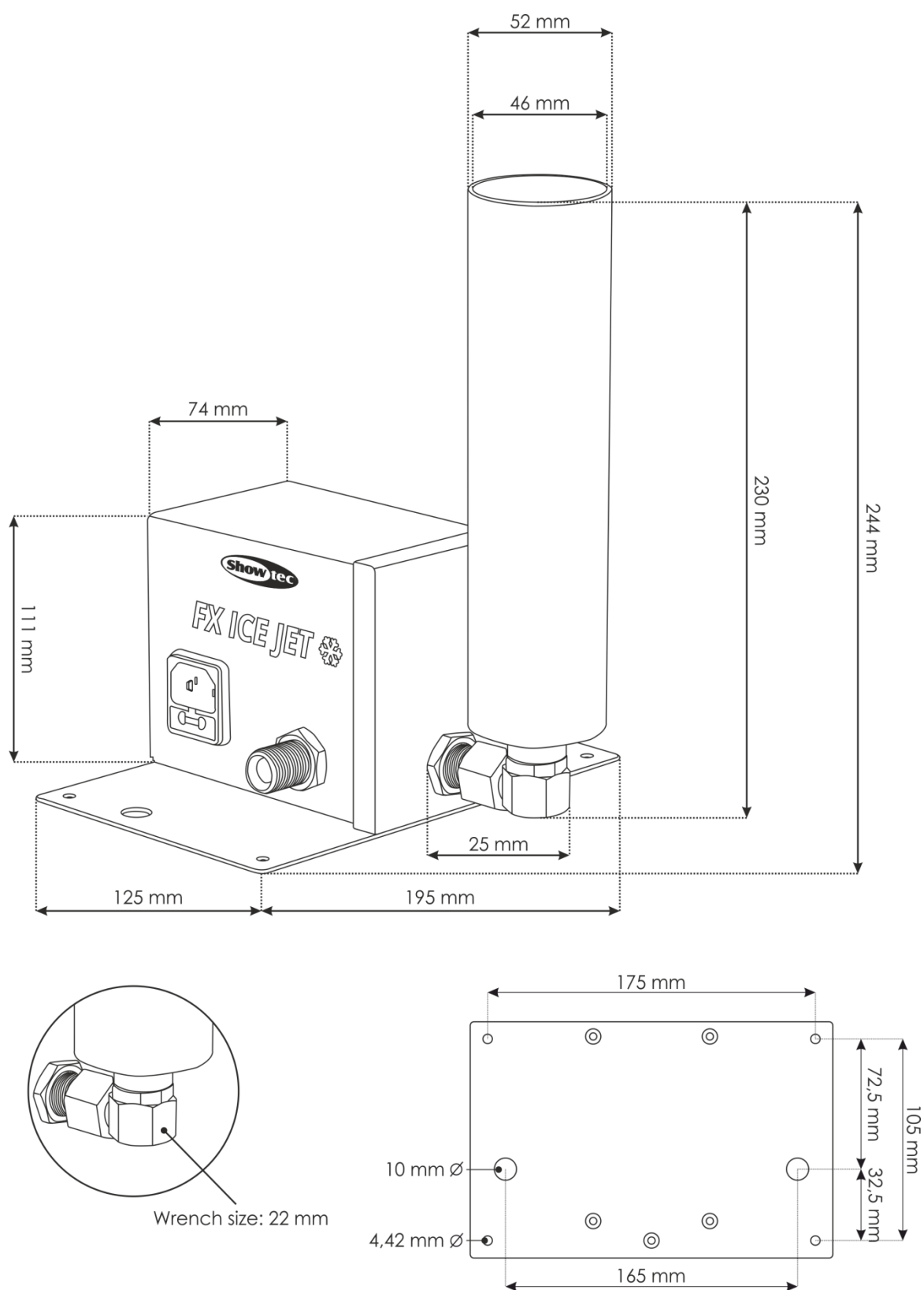
Model:	Showtec FX Ice Jet
Input Voltage:	230 VAC, 50 Hz
Continuous Power:	20W
Fuse:	F1AL/250V
Dimensions:	195 x 125 x 244 mm (LxWxH)
Weight:	2,9 kg
<b>Operation</b>	
Input:	IEC power connector
<b>CO<sub>2</sub></b>	
Input:	Liquid CO <sub>2</sub>
Output:	CO <sub>2</sub> gas
Consumption CO <sub>2</sub> :	30L/min
Quick connector:	RU 1 (W21.8x1/14") – 3/8" BSP
<b>Electro-mechanical effects</b>	
<ul style="list-style-type: none"> <li>• IEC power IN</li> <li>• Housing: Black Metal &amp; Flame-retardant plastic</li> <li>• Output range: 8 meters</li> </ul>	
Max. ambient temperature $t_a$ :	30°C
Max. air humidity:	75%
<b>Minimum distance:</b>	
Minimum distance from other surfaces:	0,5m

Design and product specifications are subject to change without prior notice.



Website: [www.Showtec.info](http://www.Showtec.info)  
 Email: [service@highlite.nl](mailto:service@highlite.nl)

## Dimensions





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