

USER AND INSTALLATION MANUAL

MAG:CFX<sup>®</sup>

ENGLISH

# /CO2JET II.



CE CO2 FX

PART01184  
rev 01-00

## DISCLAIMER

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### **⚠ WARNING**

Read this manual carefully before installing and/or using this product. Failure to read the manual and to follow the printed instructions may lead to personal injury and/or damage to the product.

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## TRADEMARKS

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## LIABILITY

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Refer further to the General Conditions. These are available on request, free of charge.

Although considerable care has been taken to ensure a correct and suitably comprehensive description of all relevant components, the manual may nonetheless contain errors and inaccuracies.

Should you detect any errors or inaccuracies in the manual, we would be grateful if you would inform us. This helps us to further improve our documentation.

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## FOREWORD

Congratulations! You have bought a great new product from MAGIC FX.

This manual contains all information required for the intended use of the equipment. Deviation from the described intended use can result in a hazardous situation and/or property damage.

This manual includes notes and warnings on safe operation of the equipment. These notes and warnings are accompanied by the following icons. Read them attentively!

---

**⚠ DANGER**

Indicates a hazardous situation that, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations.

---

---

**⚠ WARNING**

Indicates a hazardous situation that, if not avoided, could result in death or serious injury.

---

---

**⚠ CAUTION**

Indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

---

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**NOTICE**

Indicates information considered important, but not hazard-related (e.g. messages relating to property damage).

---

## LANGUAGE

This document contains the original instructions in English. In case you require other languages please contact MAGIC FX.

## REVISION TABLE

| Document nr | Revision | Date     | Description     | Authored by | Checked by |
|-------------|----------|----------|-----------------|-------------|------------|
| PART01184   | 01-00    | 1-6-2018 | Initial release | SdO         | TvA        |

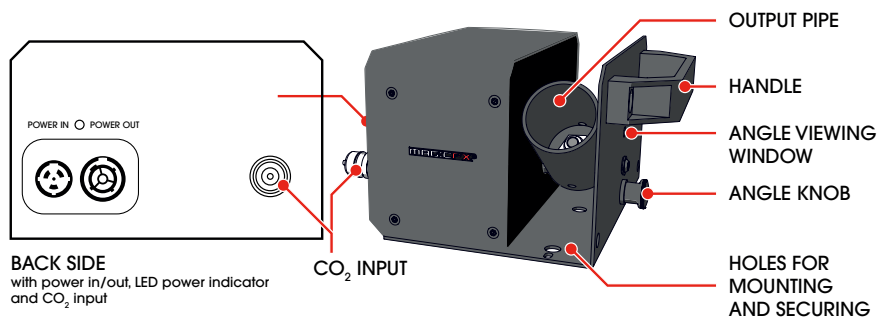
# 1 MEET THE MAGICFX® CO2JET II!

The MAGICFX® CO2JET II is a special effects machine that blasts CO<sub>2</sub> into the air.

The MAGICFX® CO2JET II is equipped with a CO<sub>2</sub> powered rotating nozzle. A solenoid valve controls the supply of liquid CO<sub>2</sub> to the nozzle. From the nozzle, the CO<sub>2</sub> escapes through the output pipe. A blast of escaping CO<sub>2</sub> is accompanied by a strong hissing sound and a white plume of fog will be visible from the output pipe. The output pipe with nozzle can be set in an angle.

The MAGICFX® CO2JET II is equipped with several holes for mounting of the unit to a stage or to a truss with a truss clamp and for attaching safety cables. Furthermore the MAGICFX® CO2JET II is suited for simultaneous activation of multiple units by creating a power link.

## 1.1 MAIN PARTS



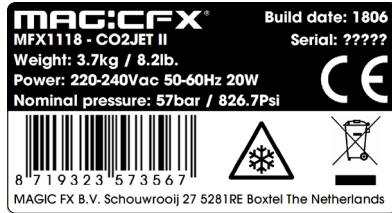
Main parts

## 1.2 TECHNICAL DATA

|                        |                             |                                      |      |
|------------------------|-----------------------------|--------------------------------------|------|
| <b>Product</b>         | Product Name                | MAGICFX® CO2JET II                   |      |
|                        | Product Code                | MFX1118                              |      |
|                        | Product Type                | CO <sub>2</sub> FX                   |      |
| <b>Main Dimensions</b> | Length (mm/in.)             | 232                                  | 9,1  |
|                        | Width (mm/in.)              | 196                                  | 7,7  |
|                        | Height (mm/in.)             | 124,5                                | 4,9  |
| <b>Weight</b>          | Empty weight (kg/lb.)       | 3,7                                  | 8,2  |
| <b>Package</b>         | Length (mm/in.)             | 289                                  | 11,4 |
|                        | Width (mm/in.)              | 289                                  | 11,4 |
|                        | Height (mm/in.)             | 201                                  | 7,9  |
|                        | Packaged weight (kg/lb.)    | 4,2                                  | 9,3  |
| <b>Environment</b>     | Minimum Temperature (°C/°F) | -20                                  | -4   |
|                        | Maximum Temperature (°C/°F) | 70                                   | 158  |
|                        | Humidity (Relative)         | 20% to 90% (non condensing)          |      |
| <b>Electrical</b>      | Voltage Input (Vac)         | 220 - 240 Vac                        |      |
|                        | Voltage Frequency           | 50 - 60 Hz                           |      |
|                        | Power Consumption (Vac)     | 20 W                                 |      |
|                        | Power Connector (Vac)       | Neutrik® powerCON TRUE1 (in & out)   |      |
| <b>Controlling</b>     | Control Options             | Direct output                        |      |
| <b>Usage</b>           | Propellant                  | Liquid CO <sub>2</sub>               |      |
|                        | Propellant Connector        | CO <sub>2</sub> Quick Connector 3/8" |      |
|                        | Propellant Consumption      | 0,5 L/s                              |      |

Technical data

### 1.3 PRODUCT IDENTIFICATION



Type plate

### 1.4 ACCESSORIES

| Code     | Product   |
|----------|---|
| MFX0305  | MAGICFX® BASEPLATE II                                       |
| MFX1114  | CO <sub>2</sub> High Pressure Hose 3/8 Male - Female, 1.25M |
| MFX1105  | CO <sub>2</sub> High Pressure Hose 3/8 Male - Female, 2M    |
| MFX1106  | CO <sub>2</sub> High Pressure Hose 3/8 Male - Female, 3M    |
| MFX1108  | CO <sub>2</sub> High Pressure Hose 3/8 Male - Female, 10M   |
| MFX1109  | CO <sub>2</sub> High Pressure Hose 3/8 Male - Female, 15M   |
| MFX1122  | CO <sub>2</sub> High Pressure Hose 3/8 Male - Female, 20M   |
| MFX1110  | CO <sub>2</sub> 90 Degrees Connector 3/8                    |
| MFX1103  | CO <sub>2</sub> Bottle to Hose Connector                    |
| MFX1115  | CO <sub>2</sub> Bottle to Hose Connector 90 Degrees         |
| MFX3103  | Twenty Clamp (20kg) M10                                     |
| SPR00119 | Safety Steel  |
| SPR00972 | Standard Nozzle   |
| SFX1137  | Low Noise Spray Nozzle CO <sub>2</sub>                      |

Accessories

Please contact MAGIC FX for additional possibilities.

## 2 SHOOT SAFELY!

The MAGICFX® CO2JET II has been designed and constructed in such a manner that it can be used safely. This applies to the use, the circumstances and the regulations as described in this documentation. Reading this documentation and following the instructions are therefore necessary for everyone who is authorised to work with the MAGICFX® CO2JET II.

The MAGICFX® CO2JET II must be used in surroundings that preferably:

- Have a reasonably stable temperature of between -20 and 70°C.
- Have a relative humidity degree of no more than 90% (non condensing).
- Are reasonably free of dust, corrosive gases and high concentrations of organic vapours.
- Are not situated in the vicinity of a source of vibration.

### 2.1 GENERAL SAFETY RULES

- Only authorised persons may carry out work with the MAGICFX® CO2JET II.
- Do not use the MAGICFX® CO2JET II if there are people or animals in the direct output.
- Make sure that children, unauthorised people and animals do not obtain access to the MAGICFX® CO2JET II.
- Make sure there are no freestanding objects or objects that can be damaged by the MAGICFX® CO2JET II within the output distance.
- Do not connect more units to a single electrical circuit than the installed fuse is able to handle. (Calculate the summed load with the electrical data from Chapter 1)
- Do not remove any safeguards, safety caps and safety symbols.
- All required safety devices must be in good condition and function properly.
- Ensure sufficient lighting of the surroundings.
- Keep the workplace clean.

### 2.2 CO<sub>2</sub>

The MAGICFX® CO2JET II uses liquid CO<sub>2</sub> as input. The application of CO<sub>2</sub> involves serious risks. Make sure that you are well informed on these risks before installation and/or operation. Always use approved CO<sub>2</sub> cylinders, hoses and connections. Always consult your CO<sub>2</sub> supplier for regulations and instructions on safe installation and use.

MAGIC FX is not liable for unsafe situations, accidents and damage that are the result of incorrect working with CO<sub>2</sub> and CO<sub>2</sub> cylinders.



---

**⚠ WARNING**

Inadequate installation and/or operation of a CO<sub>2</sub> powered machine and CO<sub>2</sub> cylinders can lead to death or serious injury. Always follow the instructions from this manual, from your CO<sub>2</sub> supplier and from local authorities.

---

## 2.3 INDOOR USE

The MAGICFX® CO2JET II is designed for outdoor use and use in well-ventilated indoor spaces. When used indoors, make sure you take the necessary preparations. These preparations could include, but are not limited to:

- Consulting your CO<sub>2</sub> supplier.
- Calculating the reduction of oxygen for the indoor space.
- Checking the location for spots where CO<sub>2</sub> could accumulate and taking preventive actions.
- Installing CO<sub>2</sub> monitoring devices that will warn for hazardous CO<sub>2</sub> levels.

---

**⚠ DANGER**

Do not use the MAGICFX® CO2JET II in poor ventilated confined spaces. Exposure to high levels of CO<sub>2</sub> can cause symptoms like headache, nausea, loss of consciousness or even death.

---

## 2.4 RIGGING

Please follow the European and national guidelines for safe rigging and trussing.

## 2.5 NOISE LEVEL

The environmental noise level measured at 100 cm (39,37 in) from the product is 90 dB(A). This level of noise is only reached during the short shooting instances. Therefore hearing protection is not necessary.


---

**⚠ WARNING**

Do not operate the MAGICFX® CO2JET II close to yourself or to others for a long period of time. If you experience any hearing loss or ringing in the ears, you should immediately stop using the unit.

---

## 2.6 SAFETY SYMBOLS

| Symbol  | Meaning                               |
|---|---------------------------------------|
|  | Read the manual carefully before use! |

Safety symbols

## 2.7 PRECAUTIONS FOR OPERATION

### **⚠ WARNING**

Using a damaged or an improper installed machine can lead to death, serious injury or property damage. Always inspect the machine thoroughly before operation.

### **⚠ WARNING**

A poorly mounted machine will come loose when the machine blasts CO<sub>2</sub>. This can lead to death, serious injury and/or property damage. Always inspect if the machine is mounted firmly and correctly as according to the instructions in this manual.

### **⚠ WARNING**

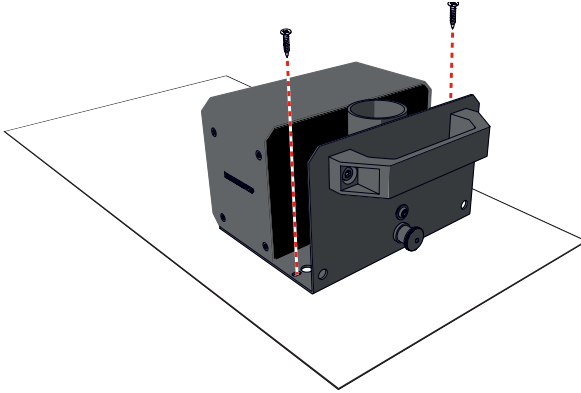
Missing or obscured safety symbols on the machine can lead to death or serious injury. Make sure all safety symbols are correctly in place, see section 2.6.

## 3 LET'S SHOOT!

### 3.1 MOUNT ON A STAGE

---

- 1 Mount the MAGICFX® CO2JET II firmly on a stage.



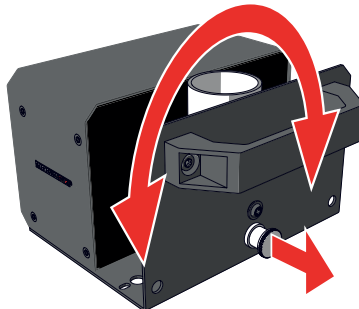
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**NOTICE**

Optionally use a MAGICFX® BASEPLATE II for stage mounting.

---

- 2 Inspect if the MAGICFX® CO2JET II is mounted firmly.
- 3 Pull the angle knob and set the output pipe to the desired shooting angle. Release the angle knob to fasten the output pipe. Check if you hear a clicking sound and whether the output pipe is fastened correctly.



---

**⚠ CAUTION**

Make sure that the direct output will be free from persons and animals.

---

**⚠ CAUTION**

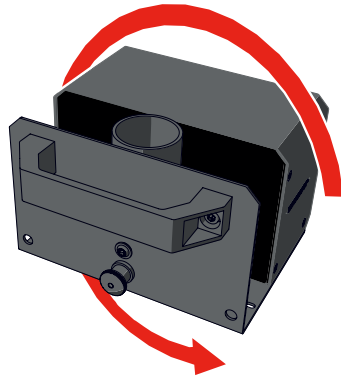
Make sure there are no freestanding objects or objects that can be damaged by the MAGICFX® CO2JET II within the output distance.

---

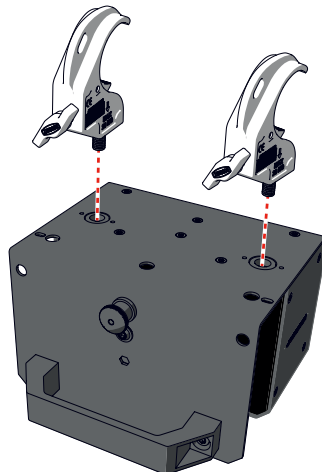
### 3.2 MOUNT ON A TRUSS

---

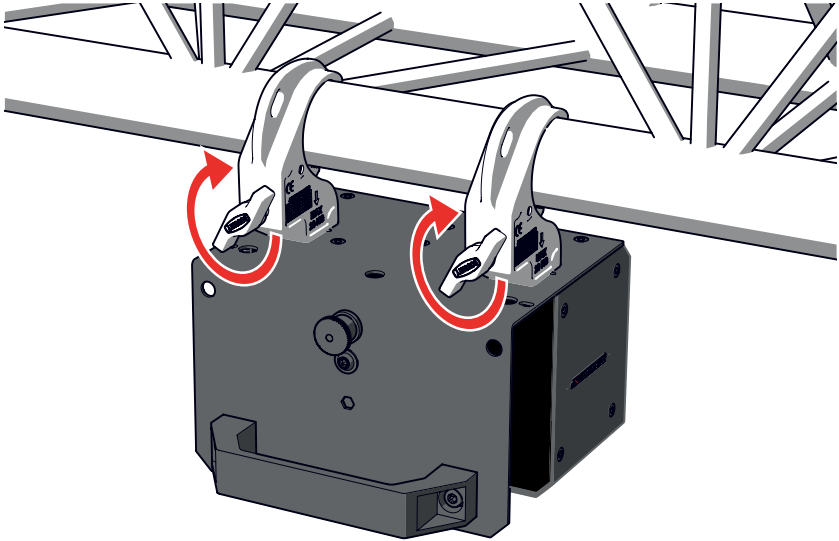
- 1 Flip the MAGICFX® CO2JET II upside down.



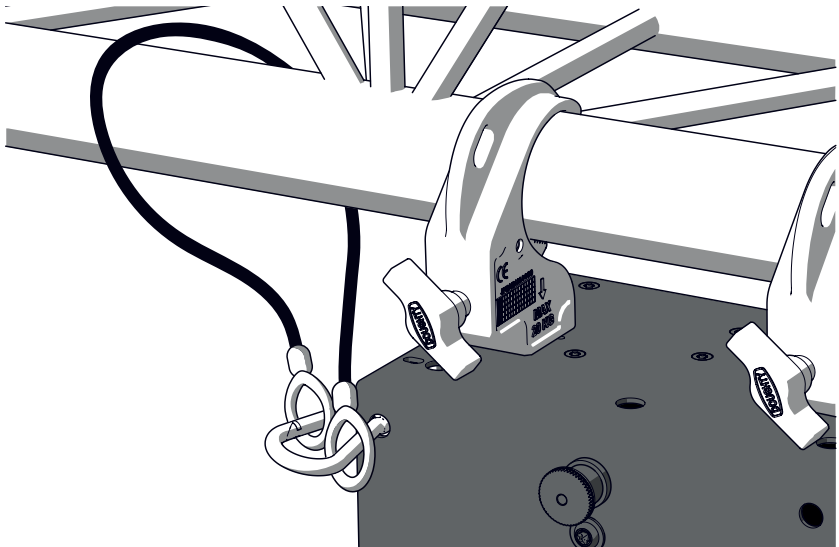
- 2 Screw a M10 twenty clamp for truss mounting (product code MFX3103) into both threaded holes.



- 
- 3** Mount the clamp firmly on a truss.



- 
- 4** Secure the MAGICFX® CO2JET II onto the truss.

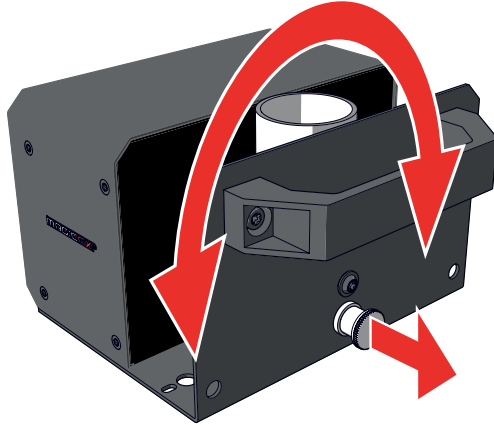


---

5 Inspect if the MAGICFX® CO2JET II is mounted firmly and secured correctly.

---

6 Pull the angle knob and set the output pipe to the desired shooting angle.



---

**⚠ CAUTION**

Make sure that the direct output will be free from persons and animals.

---

**⚠ CAUTION**

Make sure there are no freestanding objects or objects that can be damaged by the MAGICFX® CO2JET II within the output distance.

---

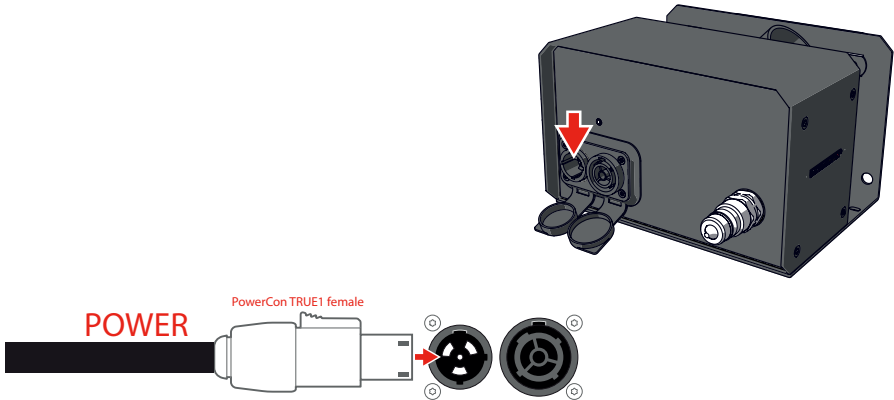
### 3.3 CONNECT POWER

---

1 Make sure that the power output on your controller or power switch is disabled.

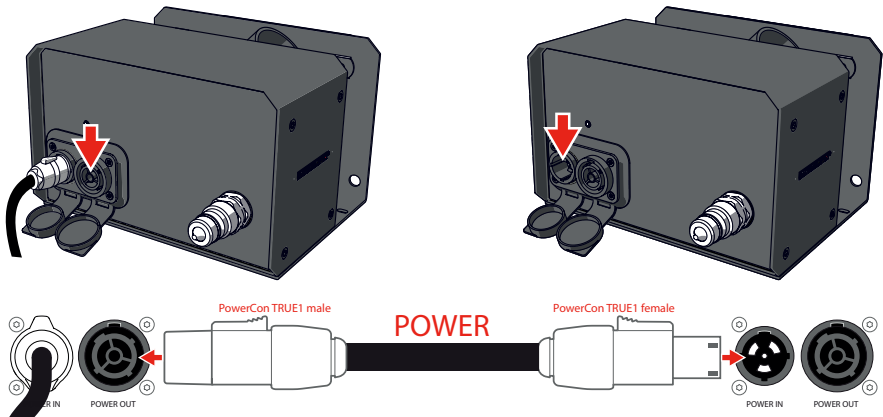
---

- 
- 2 Connect a power cable to the power input.



- 
- 3 Connect the other end to your controller or power switch.

- 
- 4 Optionally connect another machine to the power output with a power link cable.



---

**⚠ CAUTION**

Do not connect more units to a single electrical circuit than the installed fuse is able to handle. (Calculate the summed load with the electrical data from Chapter 1)

- 
- 5 Switch the power on and check if the LED power indicator lights up. Check if you hear a clicking sound. If so, then the machine is working correctly.
- 

**⚠ CAUTION** Make sure that the CO<sub>2</sub> is not connected when testing the power.

---

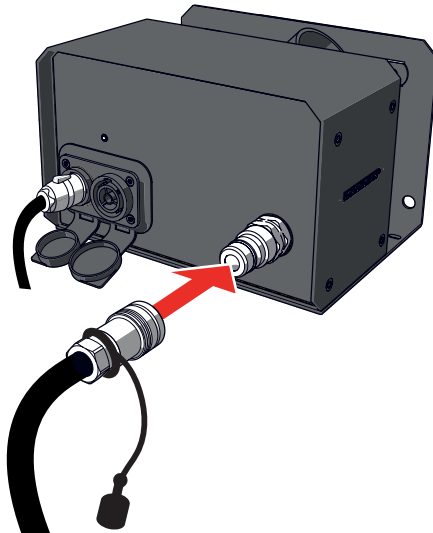
- 6 Switch off the power.
- 

### 3.4 CONNECT CO<sub>2</sub>

---

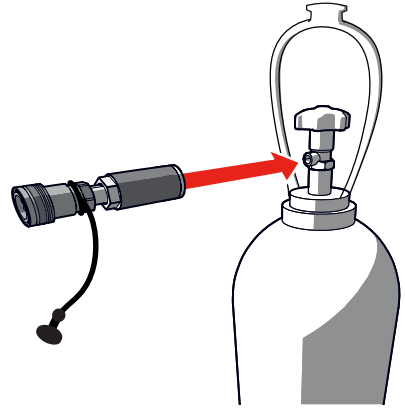
- 1 Make sure that the power is switched off (LED power indicator is off).
- 

- 2 Connect the CO<sub>2</sub> hose to the CO<sub>2</sub> quick connector.

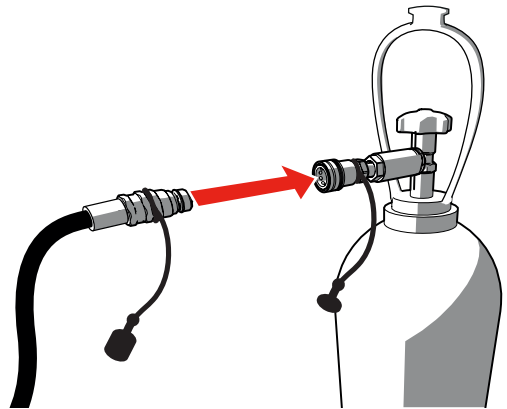




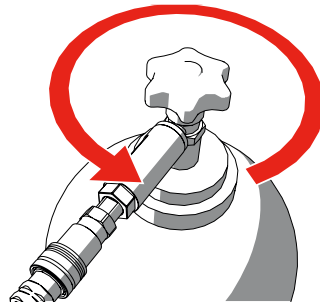
- 
- 3** Connect a CO<sub>2</sub> bottle-to-hose connector to a CO<sub>2</sub> cylinder.



- 
- 4** Connect the CO<sub>2</sub> hose to the CO<sub>2</sub> bottle-to-hose connector on the CO<sub>2</sub> cylinder.



- 
- 5** Open the CO<sub>2</sub> cylinder.



---

**6** In case of multiple machines: Repeat steps 1-5 for each machine.

---

### **3.6 LET'S BLAST!**

---

**1** Make sure that the direct output is free from persons, animals and objects.

---

**2** When it's time to shoot, switch the power on.

---

**⚠ CAUTION**

Do not use the machine if the CO<sub>2</sub> valve is not opening and closing correctly.

---

**3** Enjoy the view!

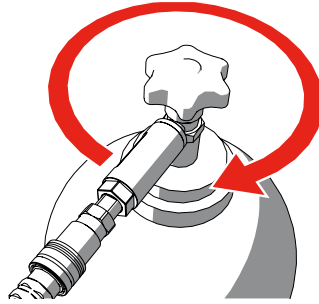


- 
- 4 Switch off the power.
- 

### 3.7 CLEAN UP

---

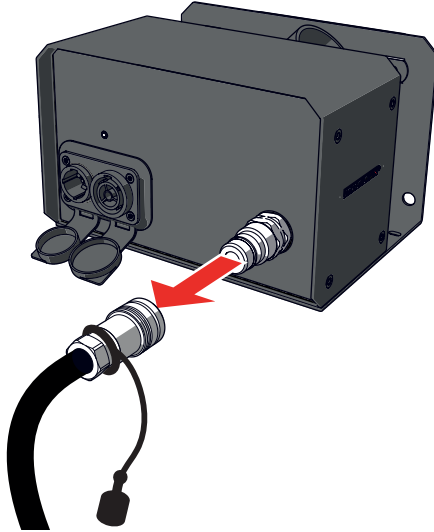
- 1 Close the CO<sub>2</sub> cylinder.



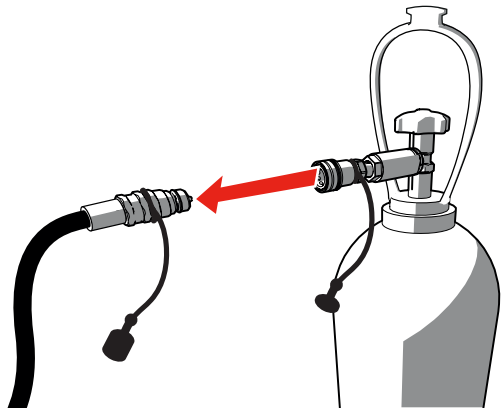
- 
- 2 Switch the power on to release the remaining pressure.
- 

- 3 Switch the power off and disconnect the power cable(s).
-

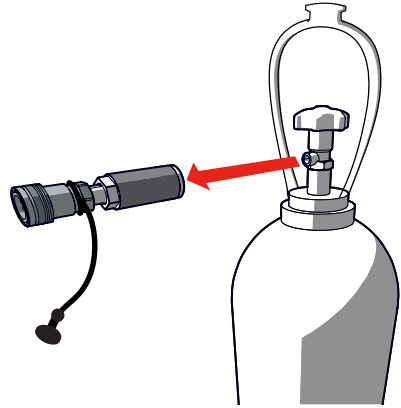
- 
- 4 Disconnect the CO<sub>2</sub> hose from the CO<sub>2</sub> quick connector.



- 
- 5 Disconnect the CO<sub>2</sub> hose from the CO<sub>2</sub> bottle-to-hose connector on the CO<sub>2</sub> cylinder.



- 
- 6 Remove the CO<sub>2</sub> bottle-to-hose connector from the cylinder.



- 
- 7 Dismount the machine.
-

## 4 MAINTENANCE

To achieve the maximum service life of the MAGICFX® CO2JET II you must regularly clean the MAGICFX® CO2JET II and test if it is functioning correctly.

Contact MAGIC FX if the MAGICFX® CO2JET II is not functioning correctly.

---

**⚠ DANGER**

Do not replace parts yourself; always consult MAGIC FX if necessary.

---

## 5 TROUBLESHOOTING

Always contact MAGIC FX if any malfunctions or errors occur that cannot be solved with the instructions as described in this manual.

## 6 CORRECT DISPOSAL



This symbol on the product and / or accompanying documents means that used electrical and electronic products should not be mixed with general household waste. For proper treatment, recovery and recycling, please take this product to designated collection points where it will be accepted free of charge.

Alternatively, in some countries you may be able to return your products to your local retailer upon purchase of an equivalent new product.

Disposing of this product correctly will help save valuable resources and prevent any potential negative effects on human health and the environment, which could otherwise arise from inappropriate waste handling.

Please contact your local authority for further details of your nearest designated collection point.

Penalties may be applicable for incorrect disposal of this waste, in accordance with your national legislation.

# 7 EC DECLARATION OF CONFORMITY

## According to Annex III A Low Voltage Directive 2014/35/EU

MAGIC FX B.V. declares as manufacturer and composer of the technical construction file that the product with the following specifications:

|                      |                        |
|----------------------|------------------------|
| Name machine         | : MAGICFX® CO2JET II   |
| Type                 | : MFX1118              |
| Voltage              | : 220 – 240Vac 50-60Hz |
| Serial number        | : on product           |
| Year of construction | : on product           |

Is in conformity with the minimal safety regulations as stated in the following directive(s):

- LVD (2014/35/EU) Low Voltage Directive
- EMC (2014/30/EC) ElectroMagnetic Compatibility
- RoHS (2011/65/EU) Restriction of the use of certain Hazardous Substances
- WEEE (2012/19/EU) Waste Electrical & Electronic Equipment

The following harmonized standards were applied:

- NEN-EN-ISO 12100:2010, Safety of machinery - General principles for design - Risk assessment and risk reduction.
- NEN-EN-IEC 60204:2010, Safety of machinery - Electrical equipment of machines - Part 1: General requirements.
- NEN-EN-IEC 61000-6-3:2007/A1:2011, Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission standard for residential, commercial and light-industrial environments.
- NEN-EN-ISO 13732-3:2008, Ergonomics of the thermal environment - Methods for the assessment of human responses to contact with surfaces - Part 3: Cold surfaces

Original declaration of conformity

Translation of the original declaration of conformity

|                   |                                  |
|-------------------|----------------------------------|
| Name manufacturer | : MAGIC FX BV                    |
| Address           | : Schouwrooij 27, 5281 RE BOXTEL |
| Country           | : The Netherlands                |

|                 |             |
|-----------------|-------------|
| CEO: B. Veroude |             |
| Date            | : 31-5-2018 |

Signature :







**MAG:CFX<sup>®</sup>**

[WWW.MAGICFX.EU](http://WWW.MAGICFX.EU)

