

USER AND INSTALLATION MANUAL

MAG:CFX<sup>®</sup>

ENGLISH

# /CO2 SWITCH.



CE CO2 FX

PART02472  
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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MAGIC FX reserves the right to modify specifications stated in this manual.

## TRADEMARKS

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## LIABILITY

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

Although considerable care has been taken to ensure a correct and 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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## INTRODUCTION

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!

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 <b>DANGER</b>	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.
 <b>WARNING</b>	Indicates a hazardous situation that, if not avoided, could result in death or serious injury.
 <b>CAUTION</b>	Indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.
<b>NOTICE</b>	Indicates information considered important, but not hazard-related (e.g. messages relating to property damage).

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## LANGUAGE

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

## REVISION TABLE

Doc nr	Revision	Date	Description	Author	Approved
PART02472	01-00	04-09-2023	Initial release	MBO	PvdW

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# 1 MEET THE MAGICFX® CO2 SWITCH!

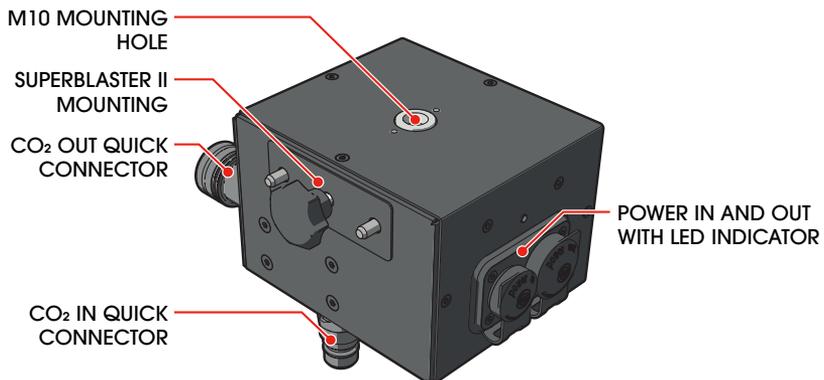
The MAGICFX® CO2 SWITCH enables controlling a SUPERBLASTER II with power. The CO2 SWITCH can be controlled with a commander or a switchpack.

The MAGICFX® CO2 SWITCH is equipped with several holes for mounting the unit. The CO2 SWITCH can be mounted to a stage or to a truss with a truss clamp. Safety cables can be attached,

The MAGICFX® CO2 SWITCH is suited for simultaneous activation of multiple units through a power link.

## 1.1 MAIN PARTS

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Main parts

## 1.2 TECHNICAL DATA

<b>Product</b>	Product Name	CO2 SWITCH	
	Product Code	MFX1124	
	Product Type	CO2 FX	
<b>Main Dimensions</b>	Length	203 mm	7.3 in
	Width	140 mm	4.5 in
	Height	155 mm	6.1 in
<b>Weight</b>	Weight	3.7 kg	8.2 lb
<b>Package</b>	Length	280 mm	11.4 in
	Width	200 mm	11.4 in
	Height	180 mm	7.9 in
	Packaged weight	4.2 kg	9.3 lb
<b>Environment</b>	Minimum Temperature	-20 °C	-4 °F
	Maximum Temperature	70 °C	158 °F
	Humidity (Relative)	20 % to 90 % (non condensing)	
<b>Electrical</b>	Voltage Input	220 – 240 Vac	
	Voltage Frequency	50 Hz / 60 Hz	
	Power Consumption:	12 W	
	Power Connector	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	Included
MFX1114	CO <sub>2</sub> High Pressure Hose 3/8 Male - Female, 1.25 m	
MFX1105	CO <sub>2</sub> High Pressure Hose 3/8 Male - Female, 2 m	
MFX1106	CO <sub>2</sub> High Pressure Hose 3/8 Male - Female, 3 M	
MFX1108	CO <sub>2</sub> High Pressure Hose 3/8 Male - Female, 10 M	
MFX1109	CO <sub>2</sub> High Pressure Hose 3/8 Male - Female, 15 m	
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	
MFX1121	CO <sub>2</sub> High Pressure Hose 3/8 Male - Female, 5 m	
MFX1122	CO <sub>2</sub> High Pressure Hose 3/8 Male - Female, 20 m	
MFX3103	Twenty Clamp (20 kg) M10	
SPR00119	Safety Steel	
MFX0313	Schuko to Neutrik® powerCON TRUE1 - cable 1.5 m	

Accessories

## 2 SAFETY

The CO<sub>2</sub> SWITCH 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 CO<sub>2</sub> SWITCH.

The CO<sub>2</sub> SWITCH must be used in surroundings that:

- Have a stable temperature of between -20 and 70 °C.
- Have a relative humidity degree between 20 % and 90 % (non condensing).
- Are 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 CO<sub>2</sub> SWITCH.
- Do not use the CO<sub>2</sub> SWITCH if there are people or animals in the direct output.
- Make sure that children, unauthorised people and animals do not obtain access to the CO<sub>2</sub> SWITCH.
- 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® CO<sub>2</sub> SWITCH 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.

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<b>⚠ WARNING</b>	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.
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## 2.3 INDOOR USE

The CO<sub>2</sub> SWITCH 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.

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**⚠ WARNING**

Do not use the MAGICFX® CO<sub>2</sub> SWITCH 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.

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## 2.4 RIGGING

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

## 2.5 NOISE LEVELS

The emitted noise levels are dependent on the machine the CO<sub>2</sub> SWITCH is connected to.

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**⚠ WARNING**

Do not operate the CO<sub>2</sub> SWITCH 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.

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## 2.6 SAFETY SYMBOLS

Symbol	Meaning	Position
	Read the manual carefully before use!	Control panel.

Safety symbols

## 2.7 SAFETY PRECAUTIONS

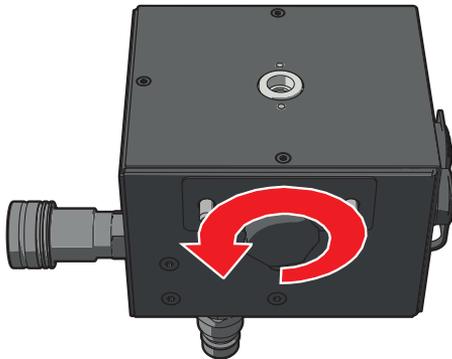
- 
- ⚠ WARNING** Using a damaged or an improper installed machine can lead to death, serious injury or property damage. Always inspect the machine thoroughly before operation.
- 
- ⚠ WARNING** A poorly mounted machine will come loose when the machine blasts CO<sub>2</sub>. This can lead to death, serious 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, serious injury or property damage. Make sure all safety symbols are correctly in place and visible, see Section 2.5.
-

### 3 INSTALLATION AND USE

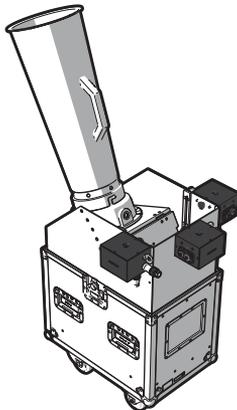
#### 3.1 MOUNT ON A SUPERBLASTER II

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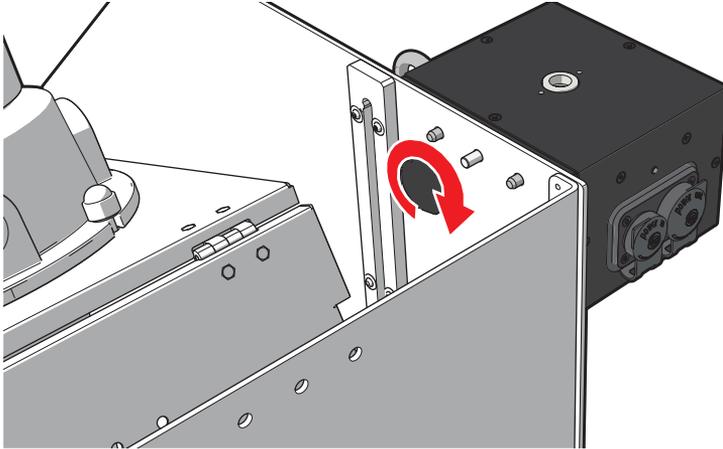
- 1 Loosen the starknob by turning it counter-clockwise.



- 2 Mount the CO2 SWITCH on the desired position on the SUPERBLASTER II.



- 
- 3 Tighten the starknob to secure the CO2 SWITCH.



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### 3.2 CONNECT POWER

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- 1 Connect the PowerCon TRUE1 power cable to the power input of the CO2 SWITCH. Connect the other end to the power controller with a 100-250 Vac (50-60 Hz) power output source.

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**⚠ 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)

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- 2 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.
- 

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**⚠ CAUTION**

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

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- 3 Switch off the power.
-

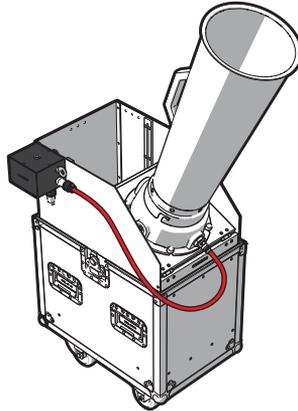
### 3.3 CONNECT CO<sub>2</sub>

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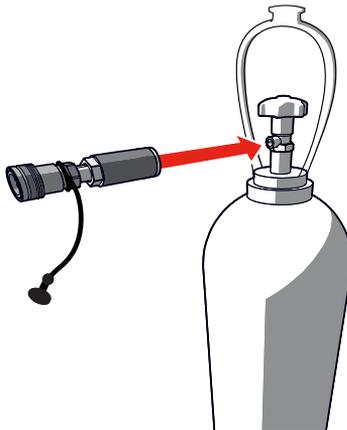
1 Make sure that the power is switched off (LED power indicator is off).

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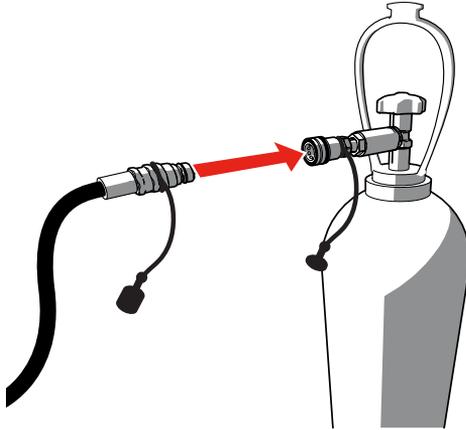
2 Connect the CO<sub>2</sub> hose to the CO<sub>2</sub> connector on the SUPERBLASTER II and the other end to the CO<sub>2</sub> SWITCH.



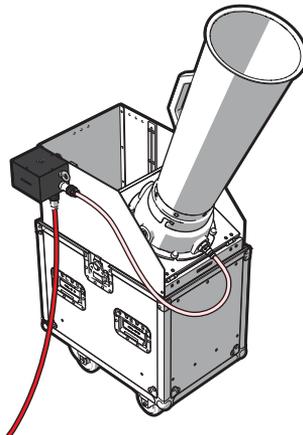
3 Connect a CO<sub>2</sub> bottle to hose connector to a CO<sub>2</sub> cylinder.



- 
- 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 Connect the other end of the CO<sub>2</sub> hose to the CO<sub>2</sub> SWITCH.



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

### 3.4 BLAST WITH POWER

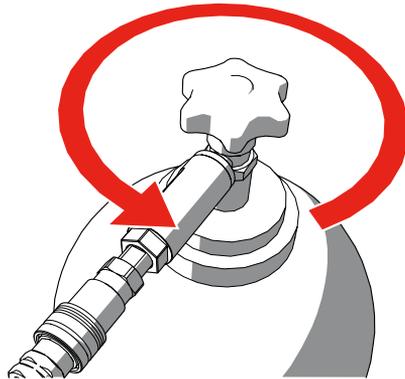
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#### **⚠ WARNING**

Carefully read the manual of the SUPERBLASTER II for all safety steps.

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



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

#### **⚠ CAUTION**

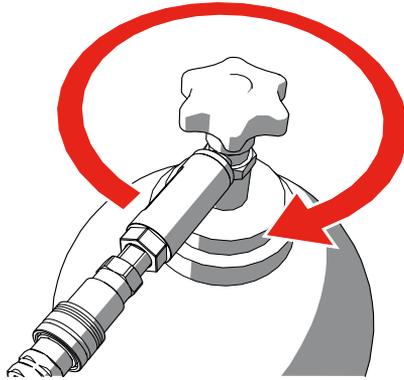
Do not use the machine if the CO<sub>2</sub> valve is not opening and closing correctly.

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### 3.5 CLEAN UP

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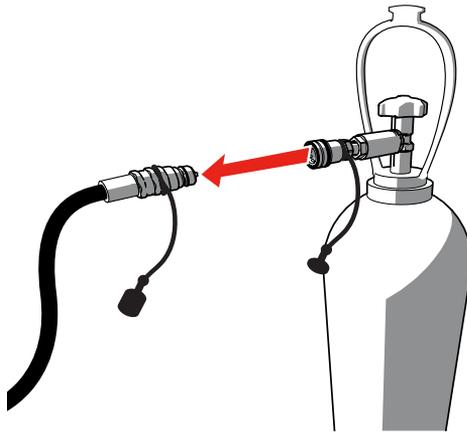
- 1 Close the CO<sub>2</sub> cylinder.



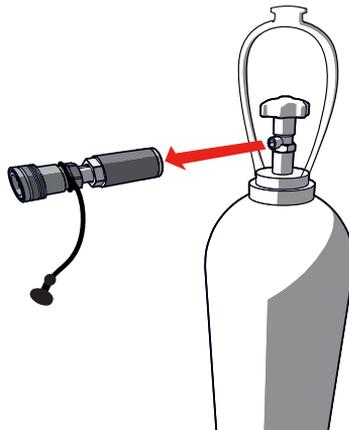
- 
- 2 Switch the power on to release the remaining pressure.
- 

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



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



- 
- 6 Dismount the machine.
-

## 4 MAINTENANCE

To achieve the maximum service life of the CO2 SWITCH you must regularly clean the CO2 SWITCH and test if it is functioning correctly.

Contact MAGIC FX if the CO2 SWITCH is not functioning correctly.

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### **⚠ DANGER**

Do not replace parts yourself; always consult MAGIC FX.

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## 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

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## 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® CO2 SWITCH  
Type : MFX1124  
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 : 28-8-2023

Signature : 

**MAG:CFX<sup>®</sup>**

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