MAGICFX®

USER AND INSTALLATION MANUAL

FIRESTORM

DISCLAIMER

⚠ 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.

TRADEMARKS

Any brand names mentioned in this manual are registered trademarks of their respective owners.

LIABILITY

MAGIC FX accepts no liability for claims from third parties arising from unauthorised use, use other than that stated in this manual, and use other than in accordance with the General Conditions registered at the Chamber of Commerce.

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. Always check the latest version of the manual.

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.

TABLE OF CONTENTS

INTRODUCTION

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

TARGET GROUP

This manual is targeted at authorised personnel in the event industry that install and operate the FIRESTORM and the required ARM SYSTEM.

Authorised personnel are those who:
- Are appointed by their supervisor to install and/or operate the FIRESTORM and the related ARM SYSTEM at the event.
- Are trained in recognizing and avoiding hazards related to SFX applications at events.
- Are familiar with the safety instructions of each involved ARM SYSTEM component.
- Are familiar with and abide by the applicable local, national and international laws and regulations.

OTHER DOCUMENTATION

Document	Document number
LIQUID FLAME SYSTEM User and Installation Manual	PART01881
ARM SYSTEM Configuration Manual	PART02323
ARM CONTROLLER User and Installation Manual	PART01882

Other related documentation

LANGUAGE

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

ABBREVIATIONS

Abbreviation	Description
SFX	Special effects
DMX	Digital Multiplex
RDM	Remote Device Management
ARM SYSTEM	MAGICFX® SFX SAFETY ARM SYSTEM
ARM CONTROLLER	MAGICFX® SFX SAFETY ARM CONTROLLER
E-STOP	MAGICFX® SFX SAFETY E-STOP
BEACON	MAGICFX® SFX SAFETY BEACON
LIQUID FLAME SYSTEM	MAGICFX® LIQUID FLAME SYSTEM
PUMP STATION	MAGICFX® LIQUID FLAME PUMP STATION
FIRESTORM	MAGICFX® FIRESTORM
TERMINATOR	MAGICFX® SFX SAFETY TERMINATOR

Abbreviations

REVISION TABLE

Doc nr	Revision	Date	Description	Author	Approved
PART02557	01-00	22-05-2025	Initial release	MB	GM

1.   DESCRIPTION

The FIRESTORM is an SFX output component for the LIQUID FLAME SYSTEM, for controlled emission of flame jets into the air.

The FIRESTORM has 5 output nozzles, differing in direction in steps of 18 degrees. From left to right: 36 - 18 - 0 - 18 - 36.

The flame head receives pressurized liquid fuel from the PUMP STATION. The liquid fuel is ejected from the flame head nozzle across spark ignition probes to produce the flame. There are three nozzles available for the FIRESTORM, which are interchangeable. Based on zero wind, the flame sizes are:
- S nozzle, up to 6 m (accessory);
- M nozzle, up to 8 m (accessory);
- L nozzle, up to 10 m (included);

A specific nozzle exchange tool is available to change between the available nozzles (SFX1404).

The PUMP STATION has two output groups (A/B). Each group has one fuel, one power and one data output. Both output groups can serve one FIRESTORM. Controlled by the DMX input, the PUMP STATION controls the behaviour of the flame head(s).
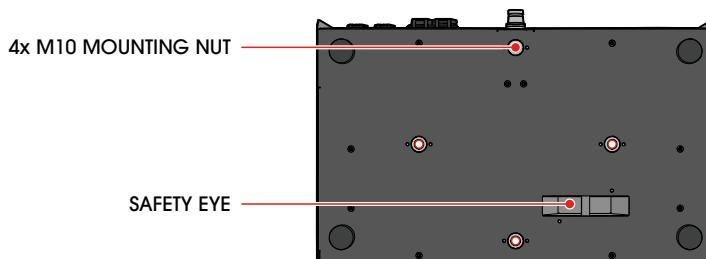
The LIQUID FLAME SYSTEM and the FIRESTORM are configured for safety control with an ARM SYSTEM®. Additional ARM devices such as the E-STOP and the BEACON can be incorporated anywhere in the ARM, ARM + DMX, or DATA lines. Check the scheme of an example setup below.
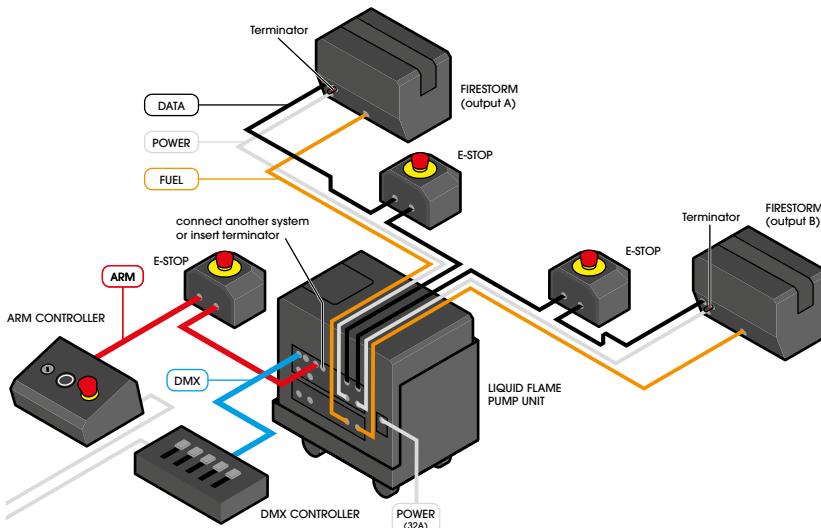
For more information about the LIQUID FLAME SYSTEM, refer to the LIQUID FLAME SYSTEM User and Installation Manual (PART01881).

For more information about the ARM SYSTEM and to learn how to configure a complete safety system, refer to the ARM SYSTEM Configuration Manual (PART02323).

1.1.   MAIN PARTS

BURN CHAMBER
5x OUTPUT NOZZLE

FX WARNING LED
DATA INPUT
DATA OUTPUT
POWER INPUT
POWER OUTPUT
FUEL CONNECTOR

4x M10 MOUNTING NUT

SAFETY EYE
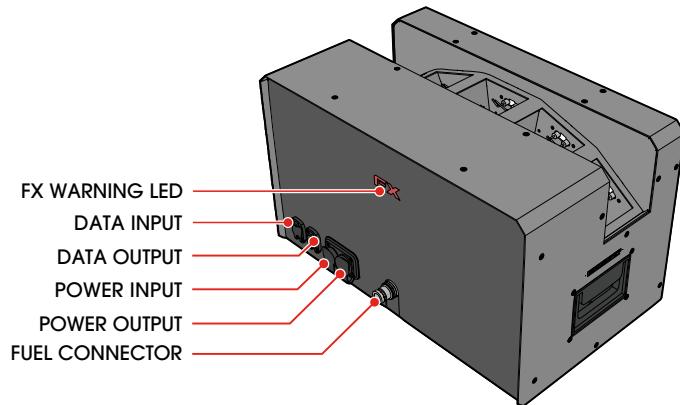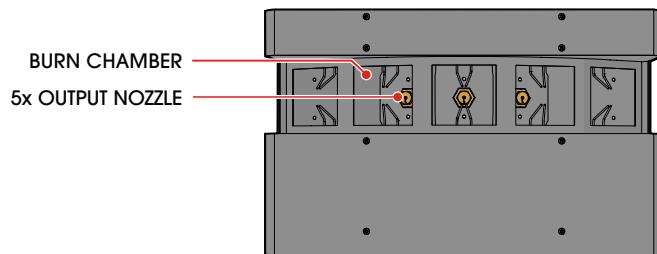
1.2.   FUEL

The FIRESTORM receives liquid fuel from the pump unit of the LIQUID FLAME SYSTEM: the PUMP STATION. For fuel connection and filling instructions, refer to the LIQUID FLAME SYSTEM User and Installation Manual (PART01881).

1.3.   TECHNICAL DATA

Product	Product Name	FIRESTORM	
	Product Code	MFX1412	
	Product Type	FLAME FX	
Main Dimensions	Length	495 mm	19.5 in
	Width	303 mm	11.9 in
	Height	304 mm	12 in
Weight	Empty Weight	28 kg	61.7 lb.
Package	Length	590 mm	23.2 in
	Width	390 mm	15.4 in
	Height	450 mm	17.7 in
	Packaged Weight	29.2 kg	64.4 lb.
Environment	Minimum Temperature	- 10 °C	14 °F
	Maximum Temperature	50 °C	122 °F
	Humidity (Relative)	20 to 90 % (non-condensing)	
Electrical	Voltage Input	220 - 250 VAC	
	Voltage Frequency	50 - 60 Hz	
	Power Consumption	450 W	
	Power Connector	Neutrik® powerCON TRUE1 (in&out)	
Safety controlling	ARM Connector	Neutrik® etherCON RJ45 (in&out)	
Configuring	Configure Options	On the PUMP STATION	
Usage	Consumable(s)	Isopropanol ISOPAR G, H & L	
	Consumable Consumption (per nozzle)	S nozzle: ≈ 1.6 L/min M nozzle: ≈ 2.0 L/min L nozzle: ≈ 4.5 L/min	

Technical data

1.4.   PRODUCT IDENTIFICATION

MAG:CFX®
MFX1412 - FIRESTORM
Weight: 28.0 kg / 62lb.
Power: 220-250Vac 50-60Hz 450W
Build date: 2503
Serial: 00001

8 719323 579569

MAGIC FX B.V. Schouwrooij 27 5281RE Boxtel The Netherlands

Type plate

1.5.   ACCESSORIES

Code	Product	Included
SFX1401	MAGICFX® FLAMEBLAZER Nozzle S	
SFX1402	MAGICFX® FLAMEBLAZER Nozzle M	
SFX1403	MAGICFX® FLAMEBLAZER Nozzle L	5x
SFX1408	Blanking nozzle	4x
SFX1404	FLAMEBLAZER Nozzle exchange tool	
MFX0313	Schuko to Neutrik® powerCON TRUE1 cable - 1.5 m	
MFX3106	Doughty Half Coupler (100 kg) M10	
MFX3110	Safety Steel	
MFX3080	MAGICFX® Flame Fluid IPA 5L	
MFX3086	MAGICFX® Flame Fluid Isopar L 5L	

Accessories

Please contact MAGIC FX for additional possibilities.

For information about the accessories of the ARM CONTROLLER (MFX3220), refer to the ARM CONTROLLER User and Installation Manual (PART01882).

For information about the accessories of the LIQUID FLAME SYSTEM (MFX1420), refer to the LIQUID FLAME SYSTEM User and Installation Manual (PART01881).

1.6.   CONTROL

NOTICE	The FIRESTORM cannot be operated without a fuel feed and a data signal from a DMX-controlled and ARM-controlled PUMP STATION.

On basis of DMX input, the PUMP STATION controls the behavior of the flame head(s). Furthermore, the LIQUID FLAME SYSTEM and the FIRESTORM are configured for safety control with an ARM SYSTEM. The PUMP STATION sends the control data together with the ARM safety signal to the FIRESTORM through the data cable connection.

The FIRESTORM cannot be operated without the safety signal from the ARM CONTROLLER. The safety signal from the ARM CONTROLLER goes through the PUMP STATION to the FIRESTORM. When there's no signal, the FIRESTORM valves and ignition are disabled instantly. The PUMP STATION also depressurises the fuel immediately. This prevents the FIRESTORM from producing high-risk SFX output. As a result, any related hazard/or property damage is stopped and prevented.

The FIRESTORM has 5 output nozzles, differing in direction in steps of 18 degrees. From left to right: 36 - 18 - 0 - 18 - 36. All directions can be controlled individually, all together, or in all combinations. The FIRESTORM has 5 control channels, channel 1 controls the left output, and channel 5 controls the right output.

Additional ARM devices such as the E-STOP and the BEACON can be incorporated anywhere in the ARM, DMX + ARM, or DATA lines. Check the scheme of an example setup in chapter 1.

The FIRESTORM has throughputs for power and data connections. Always plug in an ARM Terminator into the DATA output of the final unit in the control sequence.

For more information about the DMX and RDM setup of the LIQUID FLAME SYSTEM, refer to the LIQUID FLAME SYSTEM User and Installation Manual (PART01881).

For more information about the ARM SYSTEM and to learn how to configure a complete safety system, refer to the ARM SYSTEM Configuration Manual (PART02323).

For more information about the ARM CONTROLLER and to learn how to correctly set up and use the ARM SYSTEM, refer to the ARM CONTROLLER User and Installation Manual (PART01882).

2. SAFETY

The FIRESTORM 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 FIRESTORM.

The FIRESTORM must be used in surroundings that:
- Have a reasonably stable temperature of between -10 and 50 °C.
- Have a relative humidity degree between 20 % and 90 % (non condensing).
- Are free of dust, corrosive gases and high concentrations of organic vapours.

2.1. GENERAL SAFETY RULES

- Only authorised persons may work with the FIRESTORM.
- Do not use the FIRESTORM if there are people or animals in the direct output.
- Do not use the FIRESTORM if alterations have been made other than by or on behalf of MAGIC FX.
- Make sure that children, unauthorised people and animals do not obtain access to the FIRESTORM.
- Make sure there are no free-standing objects or objects that can be damaged by the machine within the output distance.
- Do not use incorrect nozzles as this may lead to damage to property or injury to people. (Product supplied with L nozzle);
- 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 or bypass any safeguards 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. INDOOR & OUTDOOR USE

The FIRESTORM is designed for outdoor use and use in large well-ventilated indoor spaces. Keep the prescribed output zone clear for safe release of the flames and their heat.

⚠ DANGER	Do not use the FIRESTORM in poor ventilated confined spaces. Exposure to accumulated heat and combustion fumes may cause inhalation of hazardous particles and gases, and cause eye and skin irritation.

2.3.   RIGGING

NOTICE	Make sure that fuel hoses and cable runs are well supported, and are clear from obstructions and sharp edges. Always support hanging hoses with strain reliefs. Avoid hard bends and kinks. Failure to do so could result in damaged hoses and cables.
NOTICE	Make sure that fuel connections do not carry the weight of the connected fuel hoses. Failure to do so could result in leaking or damaged fuel connections.

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

2.4.   SAFETY SYMBOLS

Symbol	Meaning	Position
	Read the manual carefully before use!	Front of the machine.
	Wear certified safety goggles!	In the manual.
	Warning: Flammable Fluid. Inside the 100 L tank, the internal machine pipework and projected from the flame outlet.	Front of the machine.
	Warning: High Pressure. High Pressure liquid inside the internal machine pipework and projected from the flame outlet.	Front of the machine.
	Warning: Hot Surface! Do not touch.	Top of the machine, near the flame outlet.
	Warning: High Voltage. The ignition probes in the flame outlet chamber during operation.	Top of the machine, near the flame outlet.

Safety symbols

2.5.   SAFETY WARNINGS

⚠ WARNING	Make sure that you are familiar with and comply with the instructions from the user and installation manual of the LIQUID FLAME SYSTEM and of each applied ARM SYSTEM component.
⚠ WARNING	Using a damaged or an improperly installed machine can lead to death, serious injury or property damage. Always inspect the machine thoroughly before operation.
⚠ WARNING	Eye contact with fuel under pressure and burning fuel from the machine can lead to serious eye injury. Always wear safety goggles when you enter the safety zone.
⚠ WARNING	The FIRESTORM works with pressurized fuel. Make sure that the fuel pressure is fully dissipated before connecting or disconnecting hoses. Always wear safety goggles and suitable gloves when you connect or disconnect hoses.
⚠ WARNING	Fuels are highly flammable and must be handled with caution and in accordance with local health and safety regulations. Always follow the safety instructions from the fuel packaging when handling and working with the fuel.
⚠ WARNING	Never allow smoking, flames, or other sources of ignition near the FIRESTORM (even when the system is turned off or in transit).
⚠ 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 2.4.
⚠ CAUTION	The FIRESTORM should not be used in winds exceeding 32 km/h or 20 mph.
⚠ CAUTION	Parts of the FIRESTORM heat up during operation and can cause burns when touched. Do not touch any metal parts of a (recently) triggered machine.
NOTICE	Always keep the machine dry and do not let excessive amounts of liquids such as rain or snow wet the machine.

2.6.   RISK ZONES

| NOTICE	Note that the risk zones shift accordingly when the machine is installed in a tilted position. Keep the entire zone and all areas beneath it clear from unauthorized people, animals, and flammable objects.
NOTICE	Note that the risk zones shift and increase with wind.
NOTICE	Note that overlap of risk zones in a setup with multiple machines is allowed, as long the outputs do not cross or touch.

2.6.1.   DANGER ZONE

Symbol	Meaning
⚠ DANGER KEEP CLEAR	Make sure **ALL** people, animals, and objects are clear of this area. Failure to do so results in death or serious injury.

⚠ DANGER
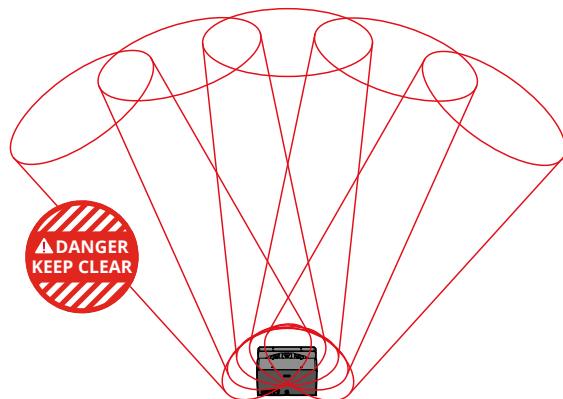
Maintain a free cylindrical output zone from each output of the FIRESTORM.
- S nozzle: radius 1.5 m, height 9 m;
- M nozzle: radius 2.0 m, height 12 m;
- L nozzle: radius 2.5 m, height 15 m.

NOTICE	Note that the zone shifts and increases with wind. As an approximate guide the distance measurement from the wind speed (in m/s) should be added to the standard safety zone e.g. wind speed of 5 m/s can add 5 m to the typical 2.5 m resulting in an 7.5 m safety zone in the direction of wind.
NOTICE	Note that if a blanking nozzle is intalled, the direction of that nozzle does not require a safety zone.

2.6.2.   HAZARDOUS ZONE

Symbol	Meaning
	Make sure unauthorized personnel and animals are clear of this area. Failure to do so could result in death or serious injury.
	Make sure there are no flammable objects or materials in this area. Failure to do so could result in death, serious injury, or damage.
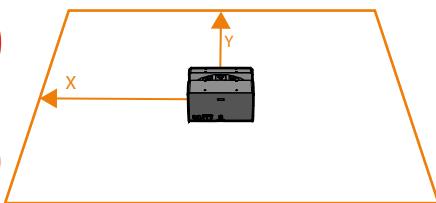
| **⚠ WARNING**	
	When using all 5 outputs simultaneously, the accumulated heat is intense. Always create a hazardous zone around the machine according to the zones indicated below. • S nozzle: a zone of 4 m (X) by 3 m (Y) • M nozzle: a zone of 4.5 m (X) by 3.5 m (Y) • L nozzle: a zone of 6 m (X) by 4.5 m (Y)
⚠ WARNING	Stop operating the system if any fire occurs outside of normal operation and/or if anything other than the emitted fuel for the SFX catches fire. Extinguish any remaining fire immediately with sand, carbon dioxide, dry powder or any other suitable extinguishing media. Do not use a water jet. Refer to the safety data sheet from the used fuel for detailed safety instructions.

	Keep the entire zone and all areas beneath it clear from unauthorized people, animals, and flammable objects.
⚠ CAUTION	Any material that blocks the output nozzle can result in injuries, fire and damage to the machine when the machine is used. Always inspect the nozzle before operating and remove any obstructing material.

NOTICE
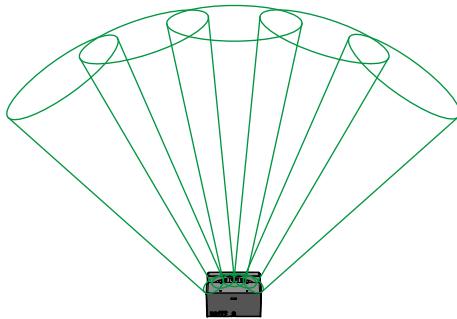
The total size of the output effect depends on the nozzle used.
- S nozzle, up to 6 m (accessory);
- M nozzle, up to 8 m (accessory);
- L nozzle, up to 10 m (included);

NOTICE	Make sure the FIRESTORM is installed properly and set up in a stable position.

3. INSTALLATION AND USE

⚠ WARNING	Eye contact with fuel under pressure or burning fuel from the machine can lead to serious eye injury. Always wear safety goggles when you enter the safety zone.
⚠ WARNING	Always choose for a flame height that is safe for the location and position of the FIRESTORM at the event.

3.1. INSTALL ON STAGE

1. Install the FIRESTORM on a firm and preferably level surface.
2. Inspect the machine and remove any foreign objects and material that will block or obscure the nozzle or ignition probes of the machine during operation.
3. Take the necessary safety precautions, including:
   a. Creating risk zones in accordance with section 2.6.
   b. Insert blanking nozzles in unused outputs and disable the output in the software.

⚠ WARNING	Always insert blanking nozzles in unused outputs. Disabling the output in the software is not sufficient for your safety.
NOTICE	The display will show an error if a blanking nozzle is installed but the output is not disabled in the software.

   c. Making sure that the direct output will be free from persons, animals and property.
   d. Making sure there are no objects near the machine and within the output distance that can be damaged or catch fire by the emitted heat, flame and fuel from the FIRESTORM.
4. Clean the fuel connections with a soft rag and a small quantity of isopropyl alcohol.

3.2. CHOOSE THE FLAME HEIGHT

The machine is supplied with an L nozzle installed which produces up to a 10 m flame.

1. Choose a flame height that is safe for the environment and rigging position of the FIRESTORM and select the nozzle that will ensure the flame cannot exceed the physical limitations of this location.
    • S nozzle, up to 6 m (accessory);
    • M nozzle, up to 8 m (accessory);
    • L nozzle, up to 10 m (included);
    • Blanking nozzle, blocks the output completely.
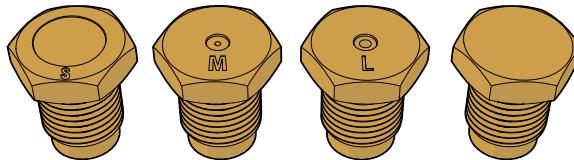
Operating the machine with a nozzle that does not have the sufficient safety clearances is dangerous and can cause damage to property and injury to people or animals.

2. To remove the nozzle from the burn chamber place the FLAMEBLAZER Nozzle exchange tool over the hex head of the nozzle being careful not to touch or miss-align the ignition probes.
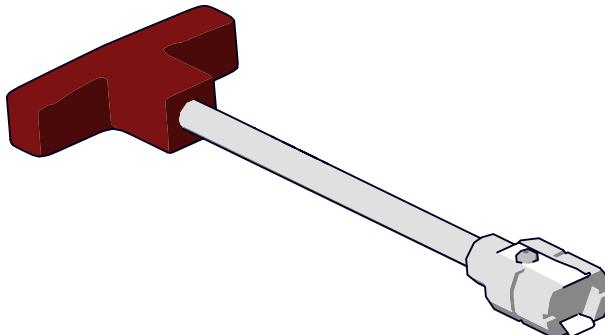
The machine should be on level ground and the burn chamber clean of foreign objects and materials.

3. With the FLAMEBLAZER Nozzle exchange tool held in a vertical position, continuous anti-clockwise rotation will result in the nozzle becoming free from the bulkhead.
This can be lifted out of the burn chamber and the nozzle exchange tool should retain the nozzle with the internal sprung clip.

| ⚠ WARNING	Eye contact with fuel under pressure from the machine can lead to serious eye injury. Always wear eye protection when you change the nozzle.
⚠ CAUTION	Nozzle removal will result in the exposure of residual flammable fuel in the resulting orifice. Caution should be exercised to make sure this cannot be ignited.
NOTICE	Ensure the washer seal remains with the nozzle when it is removed and does not stay in the burn chamber potentially obstructing the new nozzle from sealing properly.

4. Replace the nozzle that is not needed for the new nozzle and locate it in the socket of the FLAMEBLAZER Nozzle exchange tool ready for installation, checking it has a washer seal (PART01192).
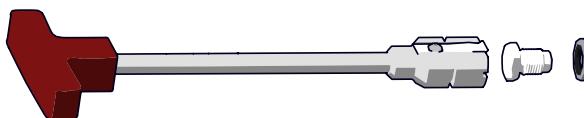
⚠ CAUTION	Check the nozzle for damage. If it is damaged, replace the nozzle.
⚠ CAUTION	Check the washer seal for damage. If it is damaged, replace the washer seal.

5. Carefully lower the FLAMEBLAZER Nozzle exchange tool with nozzle into the burn chamber until the nozzle locates into the bulkhead orifice. Rotate anti-clockwise until a click is heard or felt to check the threads are aligned.
Make sure the tool is held vertical, continuous clockwise rotation will tighten the nozzle into place.

| ⚠ CAUTION	Check there is no foreign objects or material in the bulkhead orifice prior to inserting the nozzle as this can lead to blockages or misfires resulting in a dangerous situation.
⚠ CAUTION	Cross-threading the nozzle into the bulkhead, under tightening or not using a ring seal will cause a poor seal resulting in fuel leaks in the burn chamber.

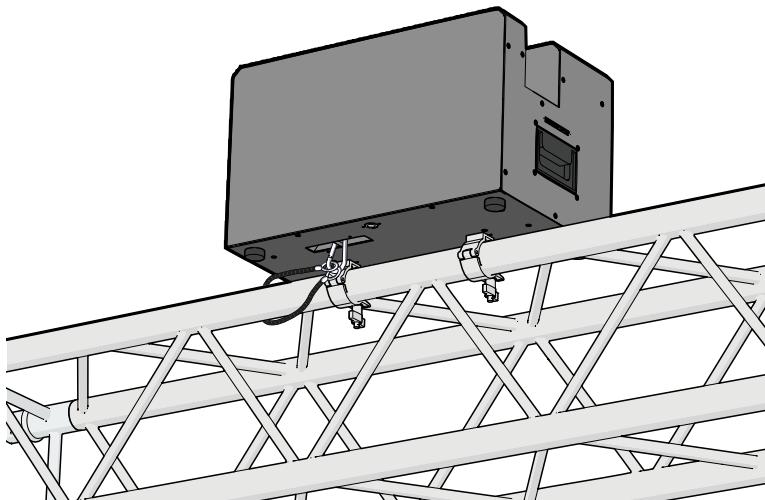| NOTICE	The nozzle quickly goes from loose to tight as the seal meets the bulkhead and does not need to be tightened with excessive force. 12 Nm is sufficient for a good seal.

3.3.   CLAMP TO A TRUSS

1.   Screw two clamps into threaded holes on the bottom of the machine. Use two Doughty Half Couplers M10 for truss mounting (MFX3106).
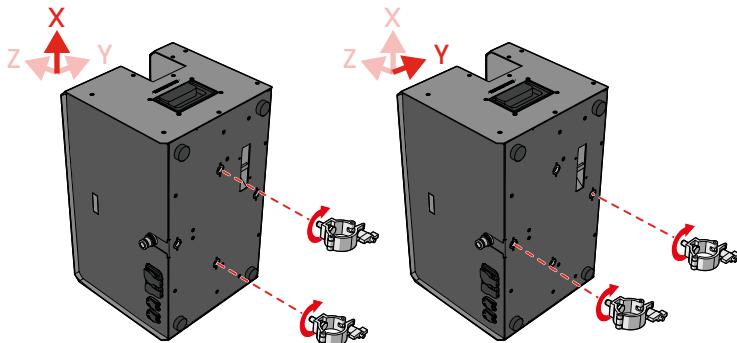
2.   Mount the clamps firmly on a truss.
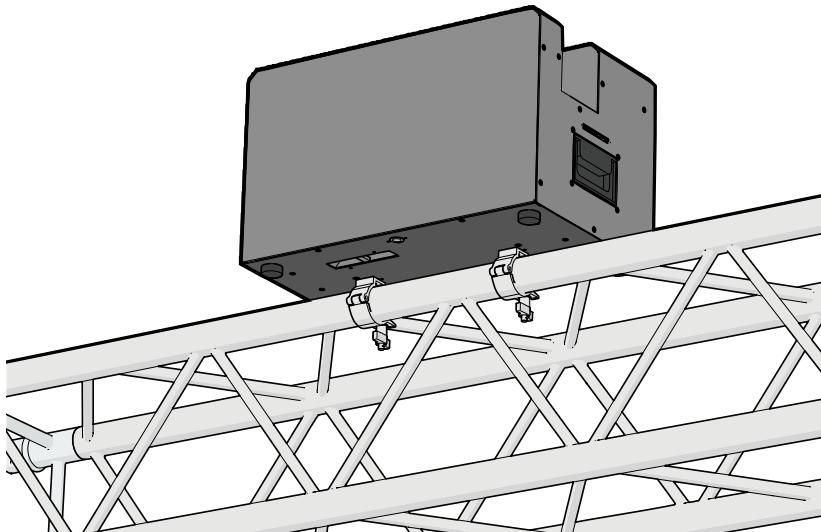
3.   Secure the FIRESTORM onto the truss using a safety steel (MFX3110).

4.   Take the necessary safety precautions, including:
     a.   Creating risk zones in accordance with section 2.6.
     b.   Insert blanking nozzles in unused outputs and disable the output in the software.

⚠ WARNING	Always insert blanking nozzles in unused outputs. Disabling the output in the software is not sufficient for your safety.
NOTICE	The display will show an error if a blanking nozzle is installed but the output is not disabled in the software.

     c.   Making sure that the direct output will be free from persons, animals and property.
     d.   Making sure there are no objects near the machine and within the output distance that can be damaged or catch fire by the emitted heat, flame and fuel from the FIRESTORM.
5.   Clean the fuel connections with a soft rag and a small quantity of isopropyl alcohol.

3.4.   MOUNTING AT AN ANGLE

The FIRESTORM can be mounted at a maximum angle of 25 degrees in unlocked mode. In locked mode, the maximum angle is 90 degrees. The rotation is in relation to its origin position. For more information, refer to the menu chapter of the LIQUID FLAME SYSTEM User and Installation Manual (PART01881).

3.5. CONNECTING TO THE PUMP STATION

1. Make sure that the PUMP STATION is disarmed and switched off.
2. Choose a free output group (A/B) of the PUMP STATION.
3. Connect the PowerCon True1 power cable to the power input of the FIRESTORM. Connect the other end to the power output of the chosen output group of the PUMP STATION.
4. Connect the correct data cables between the FIRESTORM and the A and/or B data output of the PUMP STATION. E-STOPS and BEACONS can be placed anywhere in the data lines.
5. Connect the fuel hose between the FIRESTORM fuel connector and the fuel connector of the chosen output group of the PUMP STATION.
6. Use the display and buttons of the PUMP STATION or an RDM controller to assign DMX addresses.

For connection and DMX setup instructions of the complete LIQUID FLAME SYSTEM, refer to the menu chapter of the LIQUID FLAME SYSTEM User and Installation Manual (PART01881).

For more information about the ARM CONTROLLER and to learn how to correctly set up and use the ARM SYSTEM, refer to the ARM CONTROLLER User and Installation Manual (PART01882).

⚠ WARNING	The FIRESTORM works with pressurized fuel. Make sure that the fuel pressure is fully dissipated before connecting or disconnecting hoses. Always wear safety goggles and suitable gloves when you connect or disconnect hoses.
⚠ WARNING	Make sure that hoses and cable runs are clear from obstructions and sharp edges.

3.6. FIRE WITH DMX

For operating instructions, refer to the LIQUID FLAME SYSTEM User and Installation Manual (PART01881).

⚠ WARNING	The FIRESTORM works with pressurized fuel. Do not disconnect hoses when the system is armed and pressurized.
⚠ CAUTION	Wind can influence the effect and cause flames and fuel to divert off vertical.

3.7.   USE THE EMERGENCY STOP

1.   When an emergency occurs or is about to occur with the FIRESTORM, you press the emergency stop button on the ARM CONTROLLER or on an external E-STOP (if present).
     As a result the pressure will be removed from the system and the ignition transformer will be blocked. Any related hazard or property damage is stopped and prevented.
2.   Set the safety key on the ARM CONTROLLER to the OFF position.
3.   Resolve the emergency situation and inspect the FIRESTORM.
4.   Release the emergency stop and perform a reset. For instructions, refer to the ARM CONTROLLER User and Installation Manual (PART01882).
5.   If DMX is used, set the enable and effect channel back to 0.

4.   TROUBLESHOOTING

Error codes are displayed on the PUMP STATION, refer to the LIQUID FLAME SYSTEM User and Installation Manual (PART01881).

5.   MAINTENANCE

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

Before conducting any maintenance ensure the machine is switched off and disconnected from a power source and the machine is not hot from recently being used. Always use personal protective equipment such as safety glasses and gloves when handling fuels.

Maintenance task	Activity
General clean.	Remove any foreign objects from burn chamber before every use being careful not to move or damage the spark ignition probes. Remove any dust or dirt from hose connections with a non-abrasive damp cloth.
Inspect and clean nozzles.	Remove the nozzle with the FIRESTORM Nozzle exchange tool. Submerge the nozzle in Isopropanol for minimum of 1 minute. Remove from the solution and when dry use compressed air to blow through the nozzle in opposite direction of fuel. Before inserting the nozzle back into machine conduct a visual check of the washer seal to make sure no damage to the soft material and replace the washer seal if damaged.
Inspect and clean spark ignition probes.	Any foreign particles should be removed from the probes, which can be cleaned with Isopropanol and a light abrasive cloth. Ignition probes should not be adjusted from the factory setting as this is critical to safe and reliable ignition. To check they are in the correct position each pair of probes must have a gap from tip to tip of 4 mm (+/-2 mm) and opposite probes must have a gap from tip to tip of 16 mm (+2 mm). If they do not have these gaps or are miss-aligned in anyway contact MAGIC FX.

Maintenance task	Activity
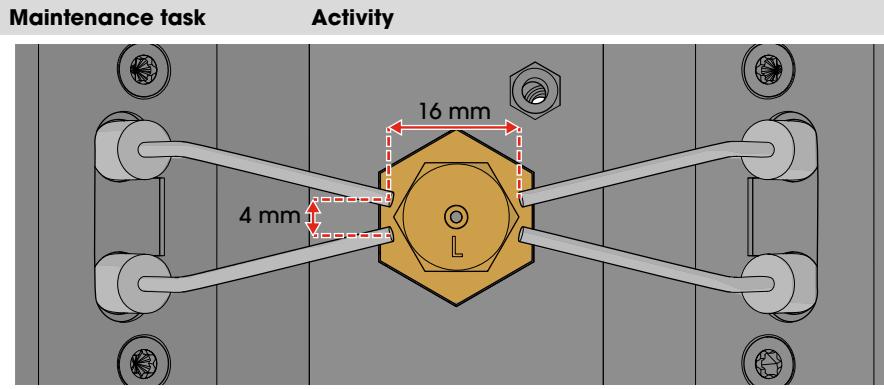
The FLAMEBLAZER Nozzle exchange tool contains ridges for bending and aligning the probes. The rod is 16 mm at one point for inspecting the spark ignition probes, as indicated here:

16 mm
FOR CHECKING
PROBES

PROBE BENDING
RIDGES
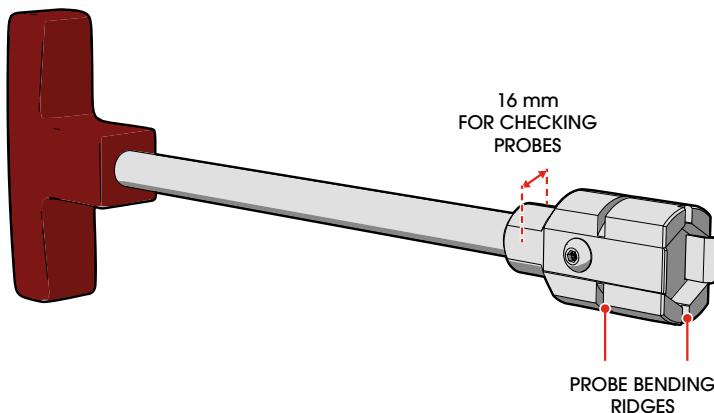
Contact MAGIC FX if the FIRESTORM is not functioning correctly.

Firmware updates for the PUMP STATION and/or the FIRESTORM can add additional features and bug fixes. Regularly check on the website or with your MAGIC FX account manager to ensure you have the latest version.

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

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

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

Name machine	: FIRESTORM
Type	: MFX1412
Voltage	: 220-250Vac 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 62368-1:2020 Audio/video, information and communication technology equipment - Part 1: Safety requirements
- NEN-EN-IEC 61000-6-1:2007 Electromagnetic compatibility (EMC) - Part 6-1: Generic standards - Immunity for residential, commercial and light-industrial environments
- NEN-EN-IEC 61000-6-3: 2007 Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission for residential, commercial and light-industrial environments

☐ Original declaration of conformity

☑ Translation of the original declaration of conformity

Name manufacturer	: MAGIC FX B.V.
Address	: Schouwrooij 27, 5281 RE BOXTEL
Country	: The Netherlands
CEO	: B. Veroude
Date	: 24-12-2024
Signature	

WWW.MAGICFX.EU