



Information specifically for:

FM-HAZER2

This manual contains important information.
Please read before operating fixture.

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www.techni-lux.com



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IMPORTANT INFORMATION

Save original packing and documentation for warranty, service and return issues.

Limited Warranty: This warranty covers defects or malfunctions in this equipment. This warranty lasts for a period of one year from date of purchase. It is the owner's responsibility to provide invoices for proof of purchase, purchase date and dealer or distributor. If purchase date can not be provided, warranty period will start at manufacture date. It is the sole discretion of Techni-Lux to repair or replace parts or equipment. All shipping will be paid by purchaser. This warranty does not cover lamps, fuses, belts, power semiconductors, relays, cleaning, standard maintenance adjustments or normal wear items or any problem resulting from the following: improper wiring, incorrect voltage (including low or over voltage conditions and lightning), abuse, misuse, improper maintenance or an act of God or damage resulting from shipping. Warranty will be null and void if the product is altered, modified, misused, damaged, or subjected to unauthorized repairs. Lamps are covered by relevant manufacturer warranty. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Any liability for consequential and incidental damages is expressly disclaimed. No other warranty, expressed or implied is made. Techni-Lux liability in all events is limited to, and shall not exceed, the purchase price paid.

Returning equipment and Repairs: All returns must be accompanied by a Return Merchandise Authorization (RMA) number and sent pre-paid. Contact the dealer or Techni-Lux directly to obtain an RMA. The RMA number must be clearly listed on the shipping label. Due care must be exercised in packing all merchandise to be returned. All repairs must be accompanied by a written explanation of the claimed problem or error encountered. Techni-Lux is solely responsible for determining a product's eligibility for coverage under warranty. If returning for consideration of credit, all accessories and documentation, original protective material and cartons must be included and the equipment, packing and carton must be in new resalable condition. Credit for returned merchandise will be issued at the lowest current price and is subject to a restocking fee. No returns accepted on discontinued items. Techni-Lux is not responsible for merchandise damaged in transit and reserves the right to refuse any return that is damaged by the carrier, not accompanied by a Return Authorization Number (RMA#) or sent by freight collect.

Claims: All claims must be made within seven (7) days of receipt of merchandise. Any physical damage must be reported to carrier upon receipt of merchandise.

Please record the following information for future reference:

Model Number: FM-HAZER2

Serial Number: _____

Dealer: _____

Date of Purchase: _____

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UNPACKING

Immediately upon receipt, carefully unpack and inspect the unit to verify that all parts are present and have been received in good condition. If any parts appear damaged from shipping or the shipping carton shows signs of mishandling, retain all packing material for inspection and notify the shipper immediately. Save all original packing and carton. In the event that the merchandise is to be returned, the original carton and packing must be used. The customer will be billed for a new carton and packing if merchandise is received without the original carton and packing. The plastic bag shipped with the unit can be used to keep the unit clean if stored or installed in a temporarily dusty environment. Do not operate unit with plastic bag in place.

Save shipping materials

The packing and carton are designed to provide the unit with protection during shipping. Save original packing and documentation for warranty, service and return issues. Additional charges will be applied to return items not received in original or incomplete packing.

Claims

Physical damage must be reported to the Freight Carrier or Shipping Company upon receipt of merchandise. Damage incurred in shipping is the responsibility of the Freight Carrier or Shipping Company. It is the customer's obligation in the event that merchandise is received damaged caused by shipping to notify the Freight Carrier or Shipping Company immediately. All other claims not related to damage incurred during shipping must be made to the Dealer or Distributor within 7 (seven) days of receiving merchandise.

Returns

Returned merchandise must be sent prepaid, in the original packing with a Return Merchandise Authorization number (RMA) clearly listed on the shipping label. Items sent by Freight Collect or without a RMA number will be refused. Call your sales person and request a RMA prior to shipping. Be prepared to provide the model number, serial number and a brief description of the nature of the return. Shipping damage resulting from inadequate packaging is the customer's responsibility. Customer will be charged additional shipping charges to return products received in non original packing and or cartons.

SAFETY INSTRUCTIONS



WARNING!!! To reduce the risk of fire, electric shock, or injury to persons, follow these important safety instructions:

- Keep this device dry.
- For inside use only. Not designed for outside use.
- Always unplug your FM-HAZER2 before filling its tank.
- Turn off or unplug when not in use.
- Never aim output directly at a person(s) or animal.
- Always allow the Hazer to cool down before cleaning or servicing.
- Do not obstruct the nozzle. Hazer output is very hot, avoid coming within 60cm (24") of the nozzle during operation.
- Never drink Hazer liquid. If it's ingested, call a doctor immediately. If Hazer fluid comes into contact with skin or eyes, rinse thoroughly with water.
- Avoid fluid spillage or residue on floor, as it may cause the floor to become slippery.
- This machine is not water- or splash-proof. If moisture, water, or hazer liquid gets inside the housing, immediately unplug the unit and contact a service technician or distributor before using it again.
- Danger of Burns. Hazer must be installed out of the reach of children. Never leave the unit running unattended.
- No user serviceable parts inside.

INTRODUCTION

Thank you for your purchase of this 2-channel DMX Hazer Machine. Please read this user guide thoroughly before operation. Proper use and care of this product will prolong the life of this device.

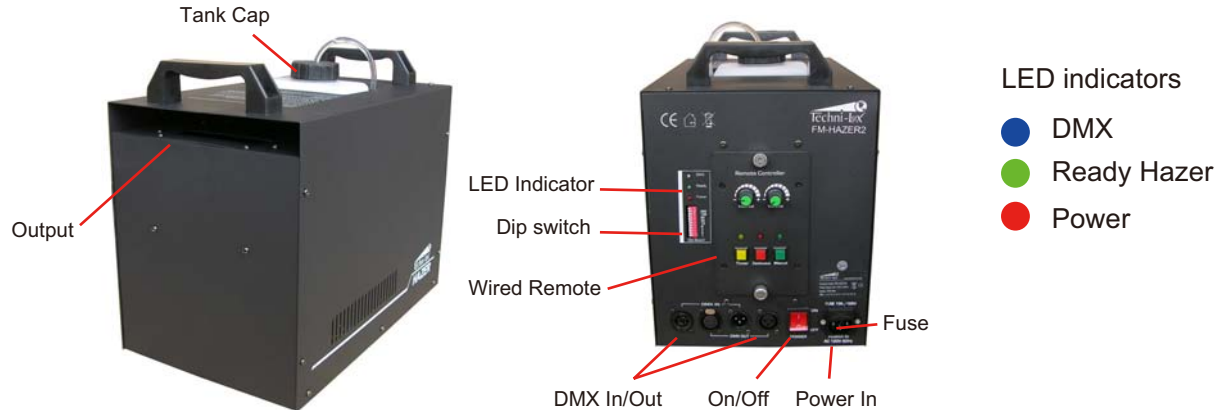
Features

- Water-based fluid
- Stand-alone or DMX operation
- DMX Channels: 2, Ch1-Haze output & Ch2-Fan speed
- Wired Remote included
- 3pin & 5pin XLR In/Out

Specifications

- Haze output: 3000 cubic/feet per minute
- Tank capacity: 3.7 liters
- Heater wattage: 600 watts
- Initial warm-up: 8 minutes
- Dual carrying handles
- Power consumed: 650 watts
- Power: 120vAC 50/60Hz
- Size: 15.6"x8.9"x15.75"
- Weight: 12Kgs/26.4Lbs
- Color: Black

Product View



SETUP

Mounting

Always consult a qualified professional when rigging. Consider access for routine maintenance and refilling the fluid container, when selecting a mounting position. This unit must be mounted in a horizontal position with only a +/- angle of about 20 degrees, to avoid any spillage of fluid from the container. The position selected must provide adequate room for ventilation and projection of the snow effect. Mount the unit securely using a mounting clamp and a safety cable. Always keep cords out of the way, thus preventing any trip hazards. Secure all cables properly and keep them away from any fluids. Do not mount where the unit will be exposed to rain, high humidity, extreme temperature changes or restricted ventilation. Do not obstruct any vents, as this will prevent the machine from producing the snow effect and cause the blower to malfunction.

Power



Do not apply power to the unit until power source is verified. For protection against electric shock, unit must be connected to suitable earth ground. Make sure unit is disconnected from power mains before any service.

This unit requires the mains voltage and frequency to be 120vAC 50/60Hz. The listed power rating is its average wattage under normal conditions. All units must be powered directly from a switched circuit. This unit cannot be run on a rheostat or dimmer circuit even if used solely for a 0% to 100% switching. Before applying power to a unit, check that the unit's input voltage matches the power source voltage. Consult a qualified electrician if there are any concerns about proper connection to power.

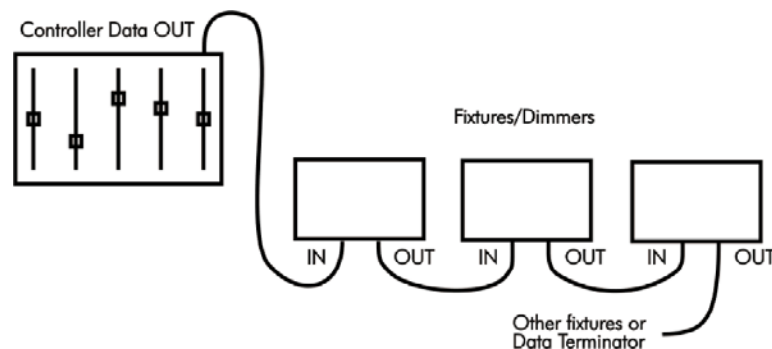
DMX-512 Background

DMX-512 is a digital data transmission standard developed by the United States Institute for Theater Technology (USITT). It is designed to enable control of lighting equipment, originally dimmers. DMX deals solely with the formatting of data for transmission and does not dictate how the data is created or used.

Under DMX, signals are transmitted in much the same way a computer modem transmits data. The Data, divided in to channels, is "Framed" using a start bit, high (1), eight data bits and finally, two stop bits, both high (1). DMX uses no parity to check the integrity of the signal. Instead, DMX relies on the ultra low probability of an error occurring in the same place when the data is resent. The rate at which data is sent is fixed at 250k bps, almost four and a half times faster than a 56k modem. This speed allows all data on a DMX chain to be updated more than 44 times every second.

The transmitted data follows a specific format. DMX allows for 512 channels each with eight data bits, giving each channel the possibility of 256 values. When a data "Packet" is sent, all channels are transmitted one after another. Even if the data on a specific channel has not been changed, it must be sent. In a packet, a "start code" of all zeros is sent before the data to identify the signal as a Standard DMX transmission. This start code is transparent to the user and is handled by the controller.

The physical signals are transmitted using a twisted pair of wires and a common shield, a configuration called Balanced. The controller and all receiving equipment are connected using a "Daisy Chain" connection. The signal is jumped from the controller to a piece of DMX equipment. From there, the signal is jumped to the next piece of equipment and so on until the last piece of equipment is connected. No branches are allowed and the signal does not come back to the controller. The final piece of equipment will have only one cable connection. As a result, all equipment connected to the chain will see exactly the same signal whether it is first or last. When connecting equipment, no particular attention needs to be paid to the order in which the equipment is connected. Depending on the conditions and equipment, a line terminator may be required. If there is any question, in most circumstances the addition of a terminator will not degrade the signal. To make a terminator, add a 120-ohm resistor between the Signal Data Negative and Signal Data Positive pins of a connector in the last piece of equipment in the chain.

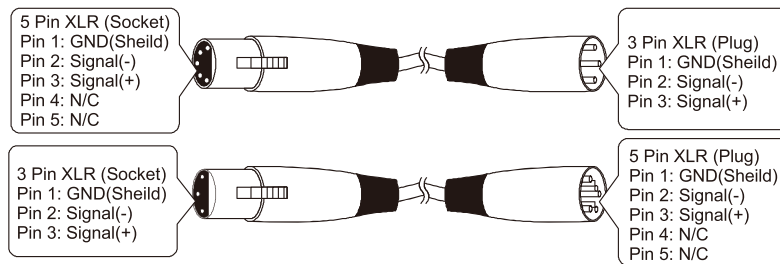


The DMX Standard calls for connections between DMX compatible equipment to be made using 5 pin XLR connectors. However, it is common to see fixtures with 3 pin XLR connectors as these types of balanced or "Lo-Z" cables are common in the audio industry. In either case, pin numbers are the same and carry the same signals.

Pin	Connection
1	Common (Shield)
2	Data Negative (S- or Cold)
3	Data Positive (S+ or Hot)
4	n/c (not used)
5	n/c (not used)

Adapter 5-to-3 pin

Numbers designating each pin can be found on connectors. Converting between the two XLR types is done in a pin-to-pin fashion. Connect the shields to pin 1, then connect pin 2 to pin 2 and pin 3 to pin 3. This is true for converting either 5 to 3 pin or 3 to 5 pin regardless of either connector's gender. Pins 4 and 5 are not used on the 5 pin XLR connectors.



OPERATING INSTRUCTION

Observe the following steps before operating this machine:

- 1) Never operate the machine without any fluid in the tank. It will cause the pump to burn up.
- 2) Fill the machines tank with water-based hazing fluid only, avoiding any spillage around the tank or into the machine. Do not overfill all the way to the top.
- 3) Clean up any spilt fluid as it may cause the floor to become slippery.
- 4) Set the remote or DMX options.
- 5) Using the handles to move the machine, secure machine in a well ventilated area away from children.
- 6) Power up the machine.

DMX Control

The Hazer machine functions on two DMX channels for output volume and fan speed. To operate in DMX mode, you need to set the machine in DMX mode and address it.

1. Connect the FM-HAZER2 to a standard DMX controller.
2. For DMX mode set DIP Switch 11 to OFF position.
3. Set address for the machine using DIP Switch 1- 9. See Dip Switch chart.
4. Blue LED indicator is lit up, indicating DMX communication is ready.
5. Move the slider on DMX controller to adjust Hazer output and fan speed when Green LED on rear of unit is ON.

Dip Switch Chart (value when switch is ON)

Dip Switch	1	2	3	4	5	6	7	8	9
Value	1	2	4	8	16	32	64	128	256

Wired Remote Control

Remote Indicator LEDs: GREEN = Ready to operate, RED = Power on, YELLOW = Timer activated

1. For Remote Control set DIP Switch 11 to ON position.
2. Plug in Wire Timer Remote and switch on the machine.
3. Red LED indicator on back of unit is on when machine is warming up.

4. Wait for some minutes until green LED indicator is on, indicating the machine is ready to Hazer.
5. The following functions are available:
 - a. Press the yellow TIMER button and yellow LED is lit up. Interval and Hazer output are adjustable by INTERVAL and VOLUME knob respectively. Interval varies from 0 - 60 minunites. Under TIMER mode, the length of hazer emission time is 15 seconds.
 - b. Press the red CONTINUOUS button for continuous generation of hazer. And you can adjust Hazer amount by the VOLUME knob.
 - c. Press the green MANUAL button and the machine generates hazer at its full output.

Note: MANUAL button overrides TIMER and CONTINUOUS button.

Master/Slave

1. Connect two or more units with DMX cables.
2. For the master, set DIP Switch 11 in ON position.
3. For the slaves, set DIP Switch 11 to OFF position.
4. Operate the Remote connected with the Master to run the whole system.

SERVICE

Cleaning

To maintain optimum performance units should be cleaned frequently. After 40 hours of continuous operation, it is recommended to run a cleaning solution composed of 80% distilled water and 20% distilled vinegar through the system to prevent the accumulation of particles in the heating element.

1. Empty all hazer fluid from the machine and add cleaning solution in the tank.
2. Plug unit in and warm it up. Run the unit in a well-ventilated area until the tank is almost empty. Do not allow the pump to run dry!
3. Cleaning is now complete. Refill with haze fluid. Run the machine briefly to clear any cleaning solution from the pump and heater.

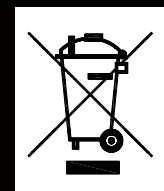
Fuse Replacement

In the event that the unit does not function when plugged in, then it is likely that the fuse has blown. Disconnect from main power before replacing the fuse.

1. Unscrew the 'Fuseholder Cap' to reveal the fuse.
2. Remove blown fuse and replace with the SAME rating and value.
3. Put the 'Fuseholder Cap' back in place.

IMPORTANT INFORMATION!

In order to optimize the recovery and recycling of the materials that old appliances contain and reduce the impact on human health and the environment, ensure that this product is recycled at the end of its life.





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