



MB PUMP SYSTEM

USER INSTRUCTIONS

Elation Lighting

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MB Pump System™ Introduction

Introduction: Every MB Pump System™ has been thoroughly tested and has been shipped in perfect operating order. Carefully check the shipping carton for damage that may have occurred during shipping. If the carton appears to be damaged, carefully inspect your unit for any damage and be sure all equipment necessary to operate the system has arrived intact. In the case damage has been found or parts are missing, please contact our toll free customer support number for further instructions. The MB Pump System™ is designed to pump fog liquid from an external tank to a series of fog machines. The MB Pump System facilitates the implementation of larger installations by allowing for centralized fog liquid supply and operator control via DMX or the remote control.

Customer Support: Elation Lighting provides a toll free customer support line, to provide set up help and to answer any question should you encounter problems during your set up or initial operation. You may also visit us on the web at www.elationlighting.com for any comments or suggestions. Service Hours are Monday through Friday 9:00 a.m. to 6:00 p.m. Pacific Standard Time.

Voice: (800) 322-6337
Fax: (323) 582-2610
E-mail: support@elation.com

Warning! To prevent or reduce the risk of electrical shock or fire, do not expose this unit to rain or moisture.

Caution! There are no user serviceable parts inside this unit. Do not attempt any repairs yourself, doing so will void your manufactures warranty.

Please protect our environment, do not discard this cartoon in the trash. Please recycle when ever possible.

MB Pump System™ Warranty Card

The MB PUMP SYSTEM™ carries a one year limited warranty. We recommend you fill out the enclosed warranty card to validate your purchase. All returned service items whether under warranty or not, must be freight pre-paid and accompany a R.A. number. Call our customer support lines to receive an R.A. number. If the unit is under warranty, you must provide a proof of purchase invoice.

MB Pump System™ Safety Warnings

- Keep this device dry at all times. Do not spill water or other liquids in to or on to the pump unit. Be sure that all the fog fluid is kept inside the external fluid reservoir.
- Be sure to save the packing carton in case you may ever have to return the unit for service.
- This unit is designed for interior use only. Do not use this unit outdoors.
- Be sure that the local power outlet match that of the required voltage for your MB Pump System.
- Do not attempt to operate this unit if the power cord has been frayed or broken. Please route your power cord out of the way of foot traffic.
- Do not attempt to remove or break off the ground prong from the electrical cord. This prong is used to reduce the risk of electrical shock and fire in case of an internal short.
- Disconnect from main power before making any type of connection.
- Disconnect the unit's main power when left unused for long periods of time.
- Never connect this unit to a dimmer pack
- Do not attempt to operate this unit, if it becomes damaged in any way.
- Never operate this unit when it's cover is removed.
- Always mount this unit in an upright position.

MB Pump System™ Accessories

- MB-4MM TUBE: 4mm liquid tube
- MB-6MM TUBE: 6mm liquid tube
- MB-4/6 CON: Adapter for 4mm to 6mm tube connection
- MB-6/6 CON: Adapter for 6mm to 6mm tube connection
- MB-T6X2/4: T-type adapter for two 6mm tubes to one 4mm tube connection
- MB-FIL4MM: Liquid filter for 4mm tube
- MB-FIL6MM: Liquid filter for 6mm tube

MB Pump System™ Set Up - DMX

Set Up: Page 8 details the set up procedures. Before beginning initial setup of your Elation® MB Pump System,™ be sure there is no evident damage caused in transit. In the event that the unit's housing or power cable is damaged do not attempt to use. Contact Elation® customer support for assistance.

- Remove all packing materials from shipping box. Be sure all foam and plastic padding is removed.
- Place the pump mechanism on a flat surface.
- Connect the pump to an external fluid tank.
- Connect the fluid lines to all the foggers in the system. You can connect up to four foggers to one pump. System with more than four fogger you will require additional pumps.
- Fill the external reservoir only with fog liquid, being careful not to exceed the maximum fluid level. **DO NOT OVERFILL.** Use only Elation® brand fog liquid. Any other types of fluid can damage the your foggers and pump unit. When liquid level reaches the fill line, place cap back on liquid tank.
- Your foggers and pump system may be operated with a remote controller or a standard DMX controller. If you will be controlling your unit remotely, firmly attach the remote control cable before plugging the unit in. Daisy chain all the remote control connections together.

Power Supply: Before plugging your unit in be sure the source voltage in your area matches the required voltage for your Elation® MB Pump System.™ The Elation® MB Pump System™ is available in a 115v and 230v version. Line voltage may vary from venue to venue, you should be sure to plug your power supply into a matching wall outlet before attempting to operate your fog.

Data Cable (DMX Cable) Requirements (For DMX Operation and remote control operation): The MB Pump System can be controlled via standard DMX-512 protocol or by the remote control included with you Elation Master Blaster™ fogger. Your MB Pump System, fogger, and your



Figure 1

MB Pump System™ Set Up - DMX

DMX controller require a standard 3-pin XLR connector for data input and data output (Figure 1). If you are making your own cables, be sure to use standard two conductor shielded cable (This cable may be purchased at almost all pro sound and lighting stores). Your cables should be made with a male and female XLR connector on either end of the cable. Also remember that DMX cable must be daisy chained and can not be split.

Notice: Be sure to follow figure three when making your own cables. Do not use the ground lug on the XLR connector. Do not connect the cable's shield conductor to the ground lug or allow the shield conductor to come in contact with the XLR's outer casing. Grounding the shield could cause a short circuit and erratic behavior.

Special Note: Line Termination.

When longer runs of cable are used, you may need to use a terminator on the last unit to avoid erratic behavior. A terminator is a 90-120 ohm 1/4 watt resistor which is connected between pins 2 and 3 of a male XLR connector (DATA + and DATA -). This unit is inserted in the female XLR connector of the last unit in your daisy chain to terminate the line. Using a cable terminator will decrease the possibilities of erratic behavior.

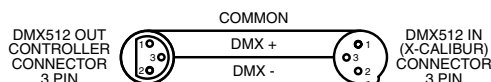


Figure 3



Termination reduces signal errors and avoids signal transmission problems and interference. It is always advisable to connect a DMX terminal, (Resistance 120 Ohm 1/4 W) between PIN 2 (DMX-) and PIN 3 (DMX +) of the last fixture.

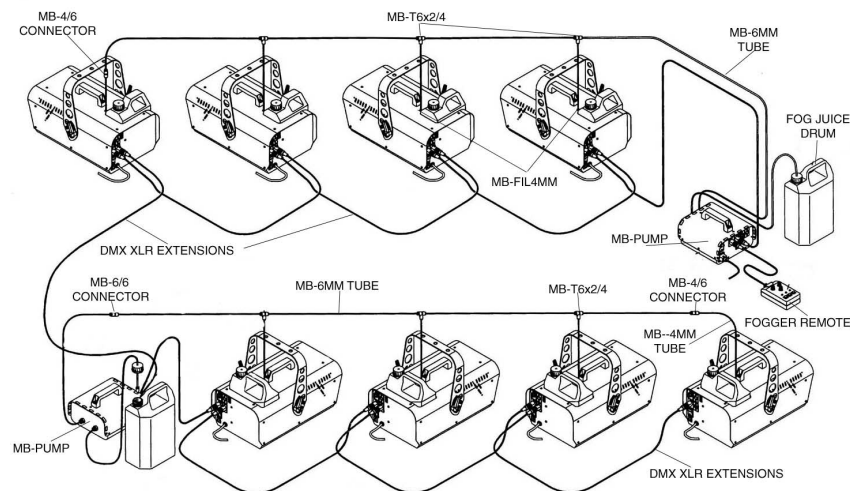
Figure 4

Linking:

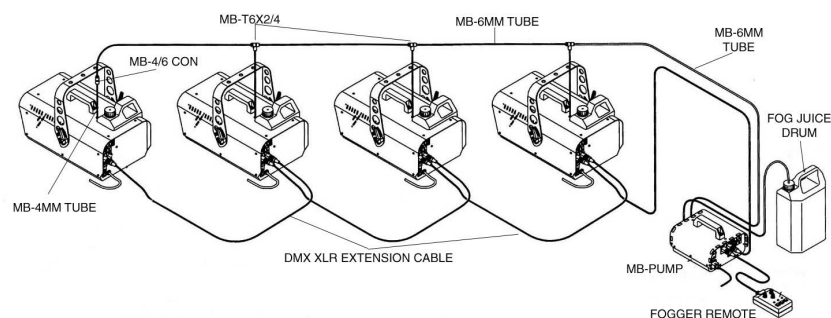
The MB Pump System™ is designed to control no more than four foggers. For larger installations that use more than four foggers, use more than one pump. Page 8 detail a MB pump system using two pumps. Be sure to follow standard DMX protocol when using more than one pump in DMX mode. A DMX signal cannot be split unless you are using an approved DMX splitter such as the American DJ® DMX Branch 4.™ Link your foggers and pump units together using standard DMX cable as described on page 6 of this manual. Be sure that each unit follows an "IN"/"OUT" pattern starting from your DMX controller. Your controller will always be the first output in a DMX chain. To control all the foggers and pumps at once, set all the units to the same DMX address.

MB Pump System™ Set Up - Tubes

The illustrations below details the set up of two typical MB Pump Systems. Note that the controller signal is daisy chained and the fluid line is spliced where needed. A MB Pump can control up to four foggers. When using more than four fogger with an external tank, you must use additional pumps.



Double Pump System



Single Pump System

MB Pump System™ Operating Instructions

Wired Remote: The MB Pump System may be controlled by the remote control included with you Elation Master Blaster fogger. The three knobs on the remote allow the operator to customize fog machine functions by adjusting fogging duration, interval and volume. Press the yellow TIMERS button to activate the timer function. Adjust the interval between each fog emission (within the range of 10 seconds to 5 minutes) by means of the INTERVAL control knob. Adjust the duration of each fog emission (within the range of 1 to 10 seconds) by means of the DURATION control knob. When pressed, the green MANUAL button overrides all other function controls, and activates maximum output. Press the red CONTINUOUS button for continuous output. Adjust output volume with the OUTPUT knob.

Wireless remote: The MB Pump System may also be controlled by an optional wireless remote control. Attach the receiver's magnetic base to the first (or only) pump in line. Plug the receiver's cable into the pump's in socket. Using the remote unit to control your fog blast. Your Elation Master Blaster can be operated from a distance of up to 50 meters.

DMX Operation:

When controlling your foggers through DMX be sure to set all your foggers and you pump are set to the same DMX address. If all the addresses are not the same damage may occur to your foggers and/or pumps.

MB Pump System™ Trouble Shooting

If you experience low output, pump noise, or no output at all, disconnect immediately. Do not attempt to continue pushing the remote button as this may damage your units. Check fluid level, the external fuse, remote connection, and check power from wall. Also, be sure you can see fluid traveling in all the tubes. If all of the above appear to be in good condition, and the unit fails to operate correctly, the unit will require service. Return the machine to an Elation Authorized dealer or service center.

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