

## USER MANUAL

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# Read all cautions and warnings prior to operation of this equipment 

## Protection Against Fire



1. Maintain a minimum of 1 foot distance from any type of flame.
2. Replace fuse only with the specified type and rating.
3. Do Not install the unit to close to a heat source.
4. Make sure cable are properly secured away from unit movement.

Fire
6. Maximum surface operating temperature $104^{\circ}$.

Protection Against Electrical Damage

1. Disconnect power before lamp replacement or servicing.

2. For connection to main power supply proceed to page 6.
3. This unit must be earthed. (electronically grounded)
4. Do not expose unit to rain or moisture.

Electrical
5. Unit must not be left on for a long period of time.

Protection Against Mechanical Hazards


1. Use safety chain when hanging unit.
2. Use quality clamps or bolts when positioning unit
3. Do not open unit risk of electrical shock.

Mechanical

## Specifications

## Part Numbers

| Fixture | Lamp | Flight Case |
| :--- | :--- | :--- |
| $1220-$ MB1 | 80w LED | CAS-1210-4 |

## Mechanical Specifications



| Power supply: | Auto Switch $100 \mathrm{~V}-240 \mathrm{~V} 50 / 60 \mathrm{HZ}$ |
| :--- | :--- |
| Power consumption: | Watts: 210 W |
| Amps: 2.94 |  |
| Ballast: | Electronic |
| LED Type: | 80 W LED |
| Display: | LCD Display |

## Electromechanical Effects

| Shutter: | Electronic Shutter strobe 18 flash per second | Output at 10 Feet $.85^{\circ}$ Degree: |  |
| :---: | :---: | :---: | :---: |
| Angle: | . $85^{\circ}$ |  |  |
| Prism: | 8 Facet Circular Prism | CCT | 5774 K |
| Prism 2: | 6 Facet Linier Prism |  |  |
| Multi Color: | 6 Color Multi Color Effect | CRI | 77.3 |
| Frost: | Soft Frost Effect |  |  |
| Focus: | Mechanical Focus | Lux | 111845.5 |
| Color: | 13 Colors + Open |  |  |
| Fixed Gobo: | 9 Fixed Gobo's + 2 Beam Reducing Gobo's | fc | 10394.6 |

## Caution!

1. Do not connect fixture to a dimmer system.
2. This unit must be earthed. (electronically grounded)
3. Replace fuse only with the specified type and rating.
4. Power link maximum 5 units at 110 V

This device is equipped with a auto switching power supply that will allow you to work from $100 \mathrm{~V}-240 \mathrm{~V} 50 / 60 \mathrm{~Hz}$
The occupation of the connection-cable is as follows:

| Cable (USA) | Cable (EU) | Pin | 110 V | 220 V |
| :---: | :---: | :---: | :---: | :---: |
| Black | Brown | Live | L | L |
| White | Light Blue | Neutral | N | L |
| Green | Yellow/Green | Ground | $\square$ | $\square$ |



## DMX-512 Connection



The fixture is equipped with 3 and 5 pin XLR Sockets for DMX input and output. The sockets are wired in parallel. Only use a shielded twisted pair cable designed for RS-485 and 3 or 5 pin XLR plugs and connectors in order to connect the controller with the fixture or the fixture with another.

## DMX—Input



## DMX—Output



## Caution!

At the last fixture the DMX signal needs to be terminated with a terminator. Solder a 120 Ohm resistor between the $(-)$ and the $(+)$ signal into a 3 or 5 pin XLR plug and plug it in to the last fixture on the signal run. Pre-manufactured terminator plugs are available for purchase from your Mega-Lite dealer (P-DMX-T).

## Main Control

The control board on the fixture base is your interface to access and control all the functions on the unit. It's LCD display gives you a code view of the options and functions. The following will explain each function and its options. Press ESC to Enter Main Menu




| Main Menu |  |
| :--- | ---: |
| DMX Address | 001 |
| Fixture |  |
| Manual |  |
| Information |  |
| Calibration |  |
| Fixture Reset |  |
| Display |  |

Information

| Information |
| :--- |
| Time |
| Sensor |
| Temperature |
| Software Version |
|  |

Fixture Information



| Main Menu | Display |  |  |
| :---: | :---: | :---: | :---: |
| DMX Address 001 |  | Display Invert |  |
| Fixture | Display |  |  |
|  | Display Invert Normal |  | Will invert display to use when fixture is hanging |
| Fixture Reset |  | Display Mode |  |
| Display |  | Display Mode | tain amount of time or display to stay on. |

## Rigging the fixture

## Caution!

1. The installations must be carried out by an authorized dealer or trained professional.
2. Unit may cause severe injures if you have doubts concerning the safety do not install.
3. Unit is to be 24inches away from flammable materials (decoration material)
4. Use high quality installation equipment to hang unit.

When rigging a unit it is very important that you follow common safety procedures. Rigging requires extensive experience including but not limited to calculating working loads, material being used and periodic safety inspections. If you lack these qualifications, do not attempt the installation yourself, instead use a professional structural rigger.

When rigging the unit always be secured with a secondary safety attachment. The installation location of the projector has got to be built in the way that it can hold 10 times the weight for 1 hour with out any harming. Installation should be checked at least one time a year by a skilled person.

## MB1 17Ch Mode

| DMX Channel | Function | Description | Value | Init Value |
| :---: | :---: | :---: | :---: | :---: |
| 1 | Pan | Pan | 0-255 | 128 |
| 2 | Pan Fine | Pan Fine | 0-255 | 128 |
| 3 | Tilt | Tilt | 0-255 | 128 |
| 4 | Tilt Fine | Tilt Fine | 0-255 | 128 |
| 5 | P/T Speed | Pan and Tilt Speed (fast to slow) | 0-255 | 0 |
| 6 | Dimmer | Dimmer off to full | 0-255 | 255 |
| 7 | Shutter | Closed | 0-3 | 255 |
|  |  | Strobe (slow to fast) | 4-103 |  |
|  |  | Open | 104-107 |  |
|  |  | Pulse Strobe (slow to fast) | 108-207 |  |
|  |  | Open | 208-212 |  |
|  |  | Random Strobe (slow to fast) | 213-251 |  |
|  |  | Open | 252-255 |  |
| 8 | Color | Open | 0-4 | 0 |
|  |  | White + Red | 5-9 |  |
|  |  | Red | 10-14 |  |
|  |  | Red + Yellow | 15-19 |  |
|  |  | Yellow | 20-24 |  |
|  |  | Yellow + Blue | 25-29 |  |
|  |  | Blue | 30-34 |  |
|  |  | Blue + Green | 35-39 |  |
|  |  | Green | 40-44 |  |
|  |  | Green + Magenta | 45-49 |  |
|  |  | Magenta | 50-54 |  |
|  |  | Magenta + Orange | 55-59 |  |
|  |  | Orange | 60-64 |  |
|  |  | Orange + UV | 65-69 |  |
|  |  | UV | 70-74 |  |
|  |  | UV + Lime | 75-79 |  |
|  |  | Lime | 80-84 |  |
|  |  | Lime + Pink | 85-89 |  |
|  |  | Pink | 90-94 |  |
|  |  | Pink + Candy Apple | 95-99 |  |
|  |  | Candy Apple | 100-104 |  |
|  |  | Candy Apple + Light Blue | 105-109 |  |
|  |  | Light Blue | 110-114 |  |
|  |  | Light Blue + Lilac | 115-119 |  |
|  |  | Lilac | 120-124 |  |
|  |  | Lilac + CTO | 125-129 |  |
|  |  | CTO | 130-134 |  |
|  |  | Open | 140-149 |  |
|  |  | Clockwise Wheel Rotation (fast to slow) | 150-199 |  |
|  |  | Rotation Spot | 200-205 |  |
|  |  | Counter Clockwise Wheel Rotation (slow to fast) | 206-255 |  |


| 9 | Fixed Gobo | Open | 0-9 | 0 |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Gobo 1 | 10-19 |  |
|  |  | Gobo 2 | 20-29 |  |
|  |  | Gobo 3 | 30-39 |  |
|  |  | Gobo 4 | 40-49 |  |
|  |  | Gobo 5 | 50-59 |  |
|  |  | Gobo 6 | 60-69 |  |
|  |  | Gobo 7 | 70-79 |  |
|  |  | Gobo 8 | 80-89 |  |
|  |  | Gobo 9 | 90-99 |  |
|  |  | Gobo 10 | 100-109 |  |
|  |  | Gobo 11 | 110-119 |  |
|  |  | Gobo 1 Shake (slow to fast) | 120-127 |  |
|  |  | Gobo 2 Shake (slow to fast) | 128-135 |  |
|  |  | Gobo 3 Shake (slow to fast) | 136-143 |  |
|  |  | Gobo 4 Shake (slow to fast) | 144-151 |  |
|  |  | Gobo 5 Shake (slow to fast) | 152-159 |  |
|  |  | Gobo 6 Shake (slow to fast) | 160-167 |  |
|  |  | Gobo 7 Shake (slow to fast) | 168-175 |  |
|  |  | Gobo 8 Shake (slow to fast) | 176-183 |  |
|  |  | Gobo 9 Shake (slow to fast) | 184-191 |  |
|  |  | Gobo 10 Shake (slow to fast) | 192-199 |  |
|  |  | Gobo 11 Shake (slow to fast) | 200-207 |  |
|  |  | Clockwise Wheel Rotation (fast to slow) | 208-230 |  |
|  |  | Rotation Spot | 231-232 |  |
|  |  | Counter Clockwise Wheel Rotation (slow to fast) | 233-255 |  |
| 10 | Focus | Focus | 0-255 | 127 |
| 11 | Multi Color | No Function | 0-127 | 0 |
|  |  | Multi Color | 128-255 |  |
| 12 | Frost | No Function Frost (clear to frost) | 0-127 | 0 |
|  |  |  | 128-255 |  |
| 13 | Prism 1 | No Function | 0-127 | 0 |
|  |  | Prism 1 | 128-255 |  |
| 14 | Prism 1 Rotation | Prism 1 Orientation | 0-63 | 0 |
|  |  | Clockwise Rotation (fast to slow) | 64-126 |  |
|  |  | Rotation Spot | 127-128 |  |
|  |  | Counter Clockwise Rotation (slow to fast) | 129-191 |  |
|  |  | Bounce Rotation (slow to fast) | 192-255 |  |
| 15 | Prism 2 | No Function | 0-127 | 0 |
|  |  | Prism 2 | 128-255 |  |
| 16 | Prism 2 Rotation | Prism 1 Orientation | 0-63 | 0 |
|  |  | Clockwise Rotation (fast to slow) | 64-126 |  |
|  |  | Rotation Spot | 127-128 |  |
|  |  | Counter Clockwise Rotation (slow to fast) | 129-191 |  |
|  |  | Bounce Rotation (slow to fast) | 192-255 |  |
| 17 | Control | No Function | 0-199 | 0 |
|  |  | Fixture Reset | 200-250 |  |
|  |  | No Function | 251-255 |  |

MB1 20Ch Mode

| DMX Channel | Function | Description | Value | Init Value |
| :---: | :---: | :---: | :---: | :---: |
| 1 | Pan | Pan | 0-255 | 128 |
| 2 | Pan Fine | Pan Fine | 0-255 | 128 |
| 3 | Tilt | Tilt | 0-255 | 128 |
| 4 | Tilt Fine | Tilt Fine | 0-255 | 128 |
| 5 | P/T Speed | Pan and Tilt Speed (fast to slow) | 0-255 | 0 |
| 6 | Dimmer | Dimmer off to full | 0-255 | 255 |
| 7 | Dimmer Fine | Dimmer Fine | 0-255 | 255 |
| 8 | Shutter | Closed | 0-3 | 255 |
|  |  | Strobe (slow to fast) | 4-103 |  |
|  |  | Open | 104-107 |  |
|  |  | Pulse Strobe (slow to fast) | 108-207 |  |
|  |  | Open | 208-212 |  |
|  |  | Random Strobe (slow to fast) | 213-251 |  |
|  |  | Open | 252-255 |  |
| 9 | Color | Open | 0-4 | 0 |
|  |  | White + Red | 5-9 |  |
|  |  | Red | 10-14 |  |
|  |  | Red + Yellow | 15-19 |  |
|  |  | Yellow | 20-24 |  |
|  |  | Yellow + Blue | 25-29 |  |
|  |  | Blue | 30-34 |  |
|  |  | Blue + Green | 35-39 |  |
|  |  | Green | 40-44 |  |
|  |  | Green + Magenta | 45-49 |  |
|  |  | Magenta | 50-54 |  |
|  |  | Magenta + Orange | 55-59 |  |
|  |  | Orange | 60-64 |  |
|  |  | Orange + UV | 65-69 |  |
|  |  | UV | 70-74 |  |
|  |  | UV + Lime | 75-79 |  |
|  |  | Lime | 80-84 |  |
|  |  | Lime + Pink | 85-89 |  |
|  |  | Pink | 90-94 |  |
|  |  | Pink + Candy Apple | 95-99 |  |
|  |  | Candy Apple | 100-104 |  |
|  |  | Candy Apple + Light Blue | 105-109 |  |
|  |  | Light Blue | 110-114 |  |
|  |  | Light Blue + Lilac | 115-119 |  |
|  |  | Lilac | 120-124 |  |
|  |  | Lilac + CTO | 125-129 |  |
|  |  | CTO | 130-134 |  |
|  |  | Open | 140-149 |  |
|  |  | Clockwise Wheel Rotation (fast to slow) | 150-199 |  |
|  |  | Rotation Spot | 200-205 |  |
|  |  | Counter Clockwise Wheel Rotation (slow to fast) | 206-255 |  |
| 10 | Color Fine | Color Fine | 0-255 | 0 |


| 11 | Fixed Gobo | Open | 0-9 | 0 |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Gobo 1 | 10-19 |  |
|  |  | Gobo 2 | 20-29 |  |
|  |  | Gobo 3 | 30-39 |  |
|  |  | Gobo 4 | 40-49 |  |
|  |  | Gobo 5 | 50-59 |  |
|  |  | Gobo 6 | 60-69 |  |
|  |  | Gobo 7 | 70-79 |  |
|  |  | Gobo 8 | 80-89 |  |
|  |  | Gobo 9 | 90-99 |  |
|  |  | Gobo 10 | 100-109 |  |
|  |  | Gobo 11 | 110-119 |  |
|  |  | Gobo 1 Shake (slow to fast) | 120-127 |  |
|  |  | Gobo 2 Shake (slow to fast) | 128-135 |  |
|  |  | Gobo 3 Shake (slow to fast) | 136-143 |  |
|  |  | Gobo 4 Shake (slow to fast) | 144-151 |  |
|  |  | Gobo 5 Shake (slow to fast) | 152-159 |  |
|  |  | Gobo 6 Shake (slow to fast) | 160-167 |  |
|  |  | Gobo 7 Shake (slow to fast) | 168-175 |  |
|  |  | Gobo 8 Shake (slow to fast) | 176-183 |  |
|  |  | Gobo 9 Shake (slow to fast) | 184-191 |  |
|  |  | Gobo 10 Shake (slow to fast) | 192-199 |  |
|  |  | Gobo 11 Shake (slow to fast) | 200-207 |  |
|  |  | Clockwise Wheel Rotation (fast to slow) | 208-230 |  |
|  |  | Rotation Spot | 231-232 |  |
|  |  | Counter Clockwise Wheel Rotation (slow to fast) | 233-255 |  |
| 12 | Focus | Focus | 0-255 | 127 |
| 13 | Focus Fine | Fine Focus | 0-255 | 127 |
| 14 | Multi Color | No Function | 0-127 | 0 |
|  |  | Multi Color | 128-255 |  |
| 15 | Frost | No Function Frost (clear to frost) | 0-127 | 0 |
|  |  |  | 128-255 |  |
| 16 | Prism 1 | No Function | 0-127 | 0 |
|  |  | Prism | 128-255 |  |
| 17 | Prism 1 Rotation | Prism 1 Orientation | 0-63 | 0 |
|  |  | Clockwise Rotation (fast to slow) | 64-126 |  |
|  |  | Rotation Spot | 127-128 |  |
|  |  | Counter Clockwise Rotation (slow to fast) | 129-191 |  |
|  |  | Bounce Rotation (slow to fast) | 192-255 |  |
| 18 | Prism 2 | No Function | 0-127 | 0 |
|  |  | Prism | 128-255 |  |
| 19 | Prism 2 Rotation | Prism 1 Orientation | 0-63 | 0 |
|  |  | Clockwise Rotation (fast to slow) | 64-126 |  |
|  |  | Rotation Spot | 127-128 |  |
|  |  | Counter Clockwise Rotation (slow to fast) | 129-191 |  |
|  |  | Bounce Rotation (slow to fast) | 192-255 |  |
| 20 | Control | No Function | 0-199 | 0 |
|  |  | Fixture Reset | 200-250 |  |
|  |  | No Function | 251-255 |  |

## Cleaning and Maintenance

Installation Maintenance: The operator has to make sure that the unit is operating safely and has the installations and electronics checked by an expert every 2 years.

The following points have to be considered during the inspection:

1) All screws used for installing the device or part of the device have to be tightly connected and must not be corroded.
2) There must not be any deformations on the housing, fixation and installation spots (ceiling, suspension, trussing).
3) Mechanically moved parts like axles and other must not show any traces of wearing and must not rotate with unbalances.
4) The electronic power supply cables must not show any damages, material fatigue (e.g. porous cables) or sediments. Further instructions depending on the installation spot and usage have to be adhered by a skilled installer and any safety problems have to be removed.

## Disconnect from mains before starting maintenance operation!



## Caution Danger to life!

Electrical

We recommend a frequent cleaning of the device. Please use a moist, lint free cloth. Never use alcohol or solvents!

1) The objective lens will require periodic cleaning on usage and environment. Environment with foggers will require more periodic cleaning as fog fluid tends to build up residues, reducing the light output.
2) The cooling-fans should be cleaned monthly. DO NOT blow high pressure air into fans as incorrect rotation can damage the fans operation.
3) The gobos, dichroic color filters and internal lenses may be cleaned with soft brush using soapy water.
4) The interior of the fixture should be cleaned using a vacuum.
5) We recommend proper lubrication of the motor wheel. The quantity of the oil must not be excessive in order to avoid oil run outs when motor wheel rotates

Note: There is no serviceable parts inside the device except for the fuse. Maintenance and service operations are to be carried out by authorized dealers.

Replacing the fuse: Only replace the fuse with the same type and rating.
Replacing the power cable: If the power cable of this device becomes damaged, it has to be replaced by authorized dealers only

Should you have further questions, please contact your dealer.

## Parts List

| CAS-1210-4 | 4 Unit Road Case |
| :---: | :---: |
| $1220-L E D$ | LED Replacement |
| $1220-\mathrm{PCB}-\mathrm{DRI}$ | LED Driver Board |
| $1220-\mathrm{PCB}-\mathrm{DIS}$ | Display PCB |
| $1210-\mathrm{BAN}-\mathrm{PAN}$ | Pan Band |
| $1210-\mathrm{BAN}-\mathrm{TIL}$ | Tilt Band |
| $1215-\mathrm{CON}-\mathrm{DMX}$ | DMX Connections |
| $1220-\mathrm{FAN}-24 \mathrm{~V}-3.6$ | 24VFan 3.6 |
| $1220-\mathrm{FAN}-24 \mathrm{~V}-4.8$ | 24V Fan 4.8 |
| $1210-\mathrm{HOU}-\mathrm{QUI}$ | Quick Release Mount |
| $1220-\mathrm{POW}$ | Power Supply |

## Warranty Information

Warranty Conditions
-Unless otherwise stated in writing, your product is covered by a one year parts and labor limited warranty.
-LEDs or Lamps are not guaranteed to match in color temperature or output.
-It is the owner's responsibility to furnish receipts or invoices for verification of purchase, date, and reseller or distributor. If purchase date cannot be provided, date of manufacture will be used to determine warranty period.
-Goods returned under warranty must follow the proper authorization procedure and must be accompanied by a copy of the original invoice.
-Goods repaired under warranty will be returned to the owner with the freight prepaid by MSI via the most economical means of shipment.
-Repair or replacement as provided for under this warranty is the exclusive remedy of the consumer. MEGA SYSTEMS INC. makes no warranties, express or implied, with respect to any product, and Mega Systems specifically disclaims any warranty of merchantability or fitness for a particular purpose. Mega Systems shall not be liable for any indirect, incidental or consequential damage, including lost profit, sustained or incurred in connection with any product or caused by product defect or the partial or total failure of any product regardless of the form of action, weather in contract, tort (including negligence), strict liability or otherwise, and weather or not such damage was foreseen or unforeseen.

- Warranty is void if the product is misused, damaged, modified in any way, or for unauthorized repairs or parts. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.


## Customer Support

Mega Lite has a customer support line to provide set up help and to answer any question should you encounter a problem. Please visit our website for any other related technical documents. For service related issue please contact our service dept.

Monday-Friday 9am to 6pm CST
Voice: 210-684-2600
E-mail: service@megasystemsinc.com

Specifications in this manual are subject to change.

