## FOCUS HYBRID



User Manual
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## DOCUMENT VERSION



Due to additional product features and/or enhancements, an updated version of this document may be available online.
Please check www.adj.com for the latest revision/update of this manual before beginning installation and/or programming.

| Date | Document <br> Version | Software <br> Version | DMX Channels | Notes |
| :---: | :---: | :---: | :---: | :--- |
| $09 / 23 / 2022$ | 1.0 | 1.01 | $19 / 23 / 25 \mathrm{ch}$. | Initial Release |

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## INTRODUCTION

Unpacking: Thank you for purchasing the Focus Hybrid by ADJ Products, LLC. Every device has been thoroughly tested and has been shipped in perfect operating condition. Carefully check the shipping carton for damage that may have occurred during shipping. If the carton appears to have been damaged, carefully inspect your fixture for any damage and be sure all accessories necessary to operate the unit have arrived intact. In the event that damage has been found or parts are missing, please contact our toll free customer support number for further instructions. Do not return this unit to your dealer without first contacting customer support.

Introduction: ADJ's Focus Hybrid is a professional beam, spot, and wash capable moving head lighting fixture powered by a 200-Watt LED engine. This product is intended to be used by professionally trained personnel only and is not suitable for private use.

Customer Support: Contact ADJ Service for any product related service and support needs. Also visit forums.adj.com with questions, comments or suggestions.
Parts: To purchase parts online visit:
http://parts.adj.com (US)
http://www.adjparts.eu (EU)
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CAUTION! To avoid the risk of shock or fire, do NOT expose this unit to rain or moisture! This unit is intended only for dry, indoor environments!

CAUTION! There are no user serviceable parts inside this unit. Do not attempt any repairs yourself, as doing so will void your manufacturer's warranty. In the unlikely event your unit may require service, please contact ADJ Products, LLC.

Do not discard the shipping cartoon in the trash. Please recycle when ever possible.

## LIMITED WARRANTY (USA ONLY)

A. ADJ Products, LLC hereby warrants, to the original purchaser, ADJ Products, LLC products to be free of manufacturing defects in material and workmanship for a prescribed period from the date of purchase (see specific warranty period on reverse). This warranty shall be valid only if the product is purchased within the United States of America, including possessions and territories. It is the owner's responsibility to establish the date and place of purchase by acceptable evidence, at the time service is sought.
B. For warranty service, you must obtain a Return Authorization number (RA\#) before sending the product back-please contact ADJ Products, LLC Service Department at 800-322-6337. Send the product only to the ADJ Products, LLC factory. All shipping charges must be prepaid. If the requested repairs or service (including parts replacement) are within the terms of this warranty, ADJ Products, LLC will pay return shipping charges only to a designated point within the United States. If the entire instrument is sent, it must be shipped in its original package and packaging material. No accessories should be shipped with the product. If any accessories are shipped with the product, ADJ Products, LLC shall incur no liability whatsoever for loss of or damage to any such accessories, nor for the safe return thereof.
C. This warranty is void if the product serial number and/or labels are altered or removed; if the product is modified in any manner which ADJ Products, LLC concludes, after inspection, affects the reliability of the product; if the product has been repaired or serviced by anyone other than the ADJ Products, LLC factory unless prior written authorization was issued to purchaser by ADJ Products, LLC; if the product is damaged because it was not properly maintained as set forth in the product instructions, guidelines and/or user manual.
D. This is not a service contract, and this warranty does not include maintenance, cleaning, or periodic checkup. During the period specified above, ADJ Products, LLC will replace defective parts at its expense with new or refurbished parts, and will absorb all expenses for warranty service and repair labor by reason of defects in material or workmanship. The sole responsibility of ADJ Products, LLC under this warranty shall be limited to the repair of the product, or replacement thereof, including parts, at the sole discretion of ADJ Products, LLC. All products covered by this warranty were manufactured after August 15, 2012, and bear identifying marks to that effect.
E. ADJ Products, LLC reserves the right to make changes in design and/or improvements upon its products without any obligation to include these changes in any products theretofore manufactured.
F. No warranty, whether expressed or implied, is given or made with respect to any accessory supplied with products described above. Except to the extent prohibited by applicable law, all implied warranties made by ADJ Products, LLC in connection with this product, including warranties of merchantability or fitness, are limited in duration to the warranty period set forth above. And all warranties, whether expressed or implied, including warranties of merchantability or fitness, are limited in duration to the warranty period set forth above. The consumer's and/or dealer's sole remedy shall be such repair or replacement as is expressly provided above; and under no circumstances shall ADJ Product, LLC be liable for any loss and/or damage, direct and/or consequential arising out of the use of, and/or inability to use this product.
G. This warranty is the only written warranty applicable to ADJ Products, LLC products, and supersedes all prior warranties and written descriptions of warranty terms and conditions heretofore published.

## MANUFACTURER'S LIMITED WARRANTY PERIODS:

- Non-LED Lighting Products = 1-Year (365 Days) (Including Special Effect Lighting, Intelligent Lighting, UV lighting, Strobes, Fog Machines, Bubble Machines, Mirror Balls, Par Cans, Trussing, Lighting Stands, Power/Data Distribution, etc. excluding LED and lamps)
- Laser Products = 1-Year (365 Days) (excluding laser diodes which have a 6-Month Limited Warranty)
- LED Products = 2-Year (730 Days) (excluding batteries which have a 180 Day Limited Warranty)
- NOTE: 2-Year (730 Days) Limited Warranty ONLY applies to product purchased within the United States. StarTec Series = 1-Year (365 Days) (excluding batteries which have a 180 Day Limited Warranty)
- ADJ DMX Controllers = 2 Year (730 Days)
- American Audio Products = 1 Year (365 Days)


## WARRANTY REGISTRATION

Please 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 accompanied by a return authorization (R.A.) number. The R.A. number must be clearly written on the outside of the return package. A brief description of the problem as well as the R.A. number must also be written down on a piece of paper included in the shipping carton. If the unit is under warranty, you must provide a copy of your proof of purchase invoice. You may obtain an R.A. number by contacting our customer support team. All packages returned to the service department not displaying an R.A. number on the outside of the package will be returned to the shipper.

## FEATURES

- 200W LED Engine
- 8-Facet Circular \& 6-Facet Linear Rotating Prisms
- Replaceable Frost Filter (Heavy Frost Default)
- Motorized Zoom ( $2^{\circ}$ to $24^{\circ}$ )
- Motorized Focus
- Electronic Dimming \& Strobe $(1-20 \mathrm{~Hz})$
- Color Wheel with 11 dichroic colors, includes 3200 CTO Filter
- 7 Interchangeable Rotating-Indexing Gobos
- 15 Static Stamped Gobos


## INCLUDED ITEMS

- Omega Brackets (x2)
- Medium Frost Filter (x1)
- Locking Power Cable (x1)


## SAFETY PRECAUTIONS



PROTECTION CLASS 1 - FIXTURE MUST BE PROPERLY GROUNDED.


THERE ARE NO USER SERVICEABLE PARTS INSIDE THIS UNIT. DO NOT ATTEMPT ANY REPAIRS YOURSELF, AS DOING SO WILL VOID YOUR MANUFACTURER'S WARRANTY. DAMAGES RESULTING FROM MODIFICATIONS TO THIS FIXTURE AND/OR THE DISREGARD OF SAFETY INSTRUCTIONS AND GUIDELINES IN THIS MANUAL VOID THE MANUFACTURER'S WARRANTY AND ARE NOT SUBJECT TO ANY WARRANTY CLAIMS AND/OR REPAIRS.


DO NOT EXPOSE THIS UNIT TO RAIN AND/OR MOISTURE! THIS FIXTURE IS INTENDED FOR USE IN DRY, INDOOR ENVIRONMENTS ONLY!


## NEVER LOOK DIRECTLY INTO THE LIGHT SOURCE! <br> RETINA INJURY RISK - MAY INDUCE BLINDNESS! SENSITIVE PERSONS MAY SUFFER AN EPILEPTIC SHOCK!

- Maximum ambient operating temperature is $113^{\circ} \mathrm{F}\left(45^{\circ} \mathrm{C}\right)$ !
- DO NOT TOUCH the fixture housing during operation. Disconnect the power and allow approximately 15 minutes for the fixture to cool down before servicing.
- DO NOT shake the fixture, and avoid brute force when installing and/or operating the fixture.
- DO NOT operate the fixture if the power cord has become frayed, crimped and/or damaged. If the power cord is damaged, replace immediately with a new one of the same power rating.
- 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 the event of an internal short.
- DO NOT attempt to operate this unit if it has been damaged in any way.
- DO NOT spill water or other liquids into or on to your unit.
- Disconnect from main power before making any type of connection.
- DO NOT block any air ventilation slots. All fan and air inlets must remain clean and never blocked. Allow approx. 6 " $(15 \mathrm{~cm})$ between fixture and other devices or a wall for proper cooling.
- Always be sure to mount this unit in an area that will allow proper ventilation.
- DO NOT remove the cover under for any reason.
- When installing fixture in a suspended enviroment, always use mounting hardware that is no less than M10 x 25 mm , and always install fixture with an appropriately rated safety cable.
- Never plug this unit in to a dimmer pack.
- During long periods of non-use, disconnect the unit's main power.
- Always mount this unit in safe and stable matter.
- Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to the point where they exit the unit.
- Cleaning - The fixture should be cleaned only as recommended by the manufacturer.
- Heat - The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
- The fixture should be serviced by qualified service personnel when:
A. The power-supply cord or the plug have been damaged.
B. Objects have fallen onto, or liquid has been spilled into, the fixture.
C. The fixture does not appear to operate normally or exhibits a marked change in performance.
D. The fixture has fallen and/or has been subjected to extreme handling.



## INSTALLATION



Fixture MUST be installed following all local, national, and country commercial electrical and construction codes and regulations.

When installing the unit, the trussing or area of installation must be able to support at least 10 times the weight of the unit and any attached accessories without any deformation. The unit must be secured with a secondary safety attachment, e.g. an appropriately-rated safety cable.

Before rigging/mounting a fixture to any metal truss/structure or placing the fixture(s) on any surface, a professional equipment installer MUST be consulted to determine if the metal truss/structure or surface is properly certified to safely hold the combined weight of the fixture(s), clamps, cables, and accessories.

Maximum ambient operating temperature is $\mathbf{- 1 1 3 ^ { \circ }} \mathbf{F}\left(45^{\circ} \mathrm{C}\right)$.
Fixture(s) should be installed away from walking paths, seating areas, or areas where unauthorized personnel might reach the fixture by hand.

NEVER stand directly below the fixture(s) when rigging, removing, or servicing.
Overhead fixture installation must always be secured with a secondary safety attachment, such as an appropriately rated safety cable that can hold at least 10 times the weight of the fixture.

Overhead mounting requires extensive experience, including calculating working load limits, knowledge of installation material being used, and perodic safety inspection of all installation material as well as the unit itself. If you lack these qualifications, do not attempt the installation yourself.

The installation should be checked by a skilled person once a year.

## INSTALLATION

## CLAMP MOUNTING

This fixture features mounting points on the underside for the attachment of two Omega brackets. Additionally, the unit also features a safety cable loop on the underside, between the Omega bracket mounting points (see the illustration below). When mounting the fixture to a truss or any other suspended or overhead installation, be sure to secure appropriately rated mounting clamps (not included) to each Omega bracket. Please note that two Omega brackets and two mounting clamps are needed to safely support the fixture in a suspended installation. Attach a separate SAFETY CABLE of the appropriate weight rating to the provided safety cable loop. NEVER use carry handles as an attachment point for the safety cable.


## INSTALLATION <br> POTENTIAL INTERNAL FIXTURE DAMAGE FROM EXTERNAL SOURCES OF LIGHT BEAMS

External sources of light beams from direct sunlight, lighting and moving head fixtures, and lasers, which are focused directly towards the exterior housing and/or penetrate the front lens opening of ADJ lighting fixtures, can cause severe internal damage including burning of optics, dichroic color filters, glass and metal gobos, prisms, animation wheels, frost filters, iris, shutters, motors, belts, wiring, discharge lamps, and LEDs.

This issue is not specific only to ADJ lighting fixtures, but rather it is a common issue with lighting fixtures from all manufacturers. Although there is no true way to fully prevent this issue from happening, the guidelines below can reduce the risk of potential damage. Contact ADJ Service for more details.

DO NOT EXPOSE THE FIXTURE AND/OR FRONT LENS OPENING TO LIGHT BEAMS FROM DIRECT SUNLIGHT, OTHER LIGHTING OR MOVING HEAD FIXTURES, AND LASERS DURING UNPACKING, INSTALLATION, USE, AND EXTENDED IDLE TIMES OUTDOORS. DO NOT FOCUS A LIGHT BEAM FROM ONE LIGHTING FIXTURE DIRECTLY TOWARDS ANOTHER.


The hibernation function is an existing feature that puts the unit into a 'sleep state' to save power (this is a state where only the electronics remain on, and all other functions are turned off, functions such as motors lamps etc). This state is automatically activated when no DMX signal is present for the set time (1-99min or off). The hibernation feature can be deactivated either from the System Menu or via the DMX channel for Special Functions. Refer to the System Menu and DMX Traits section of this manual for detailed information.

## ACCESSORY INSTALLATION FROST FILTER

1. Place the device on a flat, stable surface, and allow the device to cool down for at least 1 hour before beginning this procedure.
2. Remove the screws holding the head covers in place, and detach the clips for the head cover security cables. Remove the head covers.
3. Locate the frost filter, which is positioned on the top-most module. Remove the screws that hold the frost filter in place, then remove from the module. Refer to the illustration below.

4. Install the new frost filter in place and secure it with the screws that were removed in step 3. Reinstall the head covers.

## REMOTE DEVICE MANAGEMENT (RDM)

NOTE: In order for RDM to work properly, RDM enabled equipment must be used throughout the entire system, including DMX data splitters and wireless systems.

Remote Device Management (RDM) is a protocol that sits on top of the DMX512 data standard for lighting, allowing the DMX systems of the fixtures to be modified and monitored remotely. This protocol is ideal for instances in which a unit is installed in a location that is not easily accessible.

With RDM, the DMX512 system becomes bi-directional, allowing a compatible RDM enabled controller to send out a signal to devices on the wire, as well as allowing the fixture to respond (known as a GET command). The controller can then use its SET command to modify settings that would typically have to be changed or viewed directly via the unit's display screen, including the DMX Address, DMX Channel Mode, and Temperature Sensors.

## FIXTURE RDM INFORMATION:

| RDM Code | Device ID | Device Model ID | Personality ID |
| :---: | :---: | :---: | :---: |
| $0 \times 1900$ | 002 B | 43 | $001:$ Basic (19) <br> $002:$ Standard (23) <br> 003 Extended (25) |

Please be aware that not all RDM devices support all RDM features, and therefore it is important to check beforehand to ensure that the equipment that you are considering includes all of the features that you require.

The following parameters are accessible in RDM on this device:

| [0x0200] Sensor Definition | [0x0500] Display Invert |
| :---: | :---: |
| [0x0201] Sensor Value | [0x0501] Display Level |
| [0x0080] Device Model Description | [0x0603] Realtime Clock |
| [0x0081] Manufacturer Label | [0x1010] Power State |
| [0x0082] Device Label | [0x1031] Preset Playback |
| [0x00E0] DMX Personality | [0x0120] Slot Information |
| [0x00E1] DMX Personality Description | [0x0121] Slot Description |
| [0x0400] Device Hours | [0x0122] Default Slot Value |
| [0x0015] Comms Status | [0x00B0] Language |
| [0x0031] Status ID Description | [0x00A0] Language Capabilites |
| [0x0032] Clear Status ID | [0x00C2] Boot Software Version Label |
| [0x0405] Device Power Cycles | [0x00C1] Boot Software Version ID |
| [0x0600] Pan Invert | [0x0070] Product Detail ID List |
| [0x0601] Tilt Invert | [0x0030] Status Messages |
| [0x0602] Pan Tilt Swap |  |

## WIFLY

There are many factors that can affect and/or interrupt a wireless signal, including walls, glass, metal, objects, and people. Therefore, the following guidelines are recommended in order to maximize the chances of having a clear path for the wireless signal to reach the device:

- Install the device a minimum of $9.8 \mathrm{ft}(3 \mathrm{~m})$ above audiences and/or ground level.
- Arrange the wireless antenna in an upright, vertical position.
- Position devices in direct line of sight of the transmitting controller.

Careful planning and testing of the selected installation location is critical to ensure optimum and reliable wireless operation.


To enable Wifly, open the system menu and navigate to Personality > Wifly Settings > Enable Wifly, and then use the UP or DOWN button to toggle to the "On" setting.

Various other Wifly settings can be configured from the Personality > Wifly Settings sub-menu, as well. For detailed information, please refer to the System Menu section of this manual.

## COLOR WHEEL



FIXED GOBOS


| GOBO DIMENSIONS |  |  |
| :---: | :---: | :---: |
| Thickness | Inner (Viewable) Diameter | Outer Diameter |
| $0.02 \mathrm{in}(0.5 \mathrm{~mm})$ | $0.35 \mathrm{in}(9.0 \mathrm{~mm})$ | $0.650 \mathrm{in}_{0.007}^{0}\left(16.5 \mathrm{~mm}_{0.2}^{0}\right)$ |

## GOBOS

## GOBO HOLDER DIM DRAWING



A-A

Ensure that gobo ring, gobo, and retainer are securely installed before inserting gobo holder back onto gobo wheel.


## GOBOS <br> REPLACEMENT PROCEDURE

1. Place the device on a flat, stable surface, and allow the device to cool down for at least 1 hour before beginning this procedure.
2. Remove the screws holding the head covers in place, and detach the clips for the head cover security cables. Remove the head covers.
3. Locate the gobo module, which is the second module from the bottom, as shown in the illustration below. Disconnect any electrical connectors linking the module to the fixture head, and remove the screws holding the module in place. Slide the module out of the head.

4. Pull the gobo holder away from the gobo wheel, then gently slide it outwards. Use a pair of needle nose pliers to carefully remove the retainer spring from the gobo holder. The gobo can now be removed from the gobo holder, and replaced with a new gobo. Reassemble by reversing these steps.


## CONTROL PANEL

The Focus Hybrid features a display screen with a 6-button control pad, which can be used to easily adjust any device settings.

- The MODE button cycles through main menu options, or returns to the previous menu without making changes.
- The ENTER button is used to select the highlighted option, or to confirm a selection.
- The UP, DOWN, LEFT, and RIGHT buttons are used to navigate and adjust menu options and settings displayed on the screen.



## KEY LOCK

This function allows the user to configure whether or not the display screen and control panel keys will lock after a certain period of inactivity. It can be accessed by navigating to Personality > Display > Key Lock in the system menu. The setting options are described below:

- OFF: The display screen and control panel keys remain active at all times.
- ON: The display screen and control panel keys automatically lock after a certain period of inactivity, which can be set under Personality > Display > Screen Saver Delay. To unlock, press and hold the MODE button for 10 seconds.
- ON1: The display screen and control panel keys automatically lock after a certain period of inactivity, which can be set under Personality > Display > Screen Saver Delay. To unlock, press UP, DOWN, UP, DOWN, ENTER in that order.


## SOFTWARE UPDATES

The control panel features a Service Port for use in updating this fixture's software. Please contact ADJ service for instructions and software updates.

## SYSTEM MENU

| DMX SETTINGS | DMX Address | 001-xxx |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | DMX Channel Mode | Basic 19 |  |  |
|  |  | Standard 23 |  |  |
|  |  | Extended 25 |  |  |
|  | No DMX Status | Hold Last |  |  |
|  |  | Blackout |  |  |
|  |  | Manual |  |  |
|  |  | Internal Programs |  |  |
| PERSONALITY | Prim/Sec Mode | Primary / Secondary |  |  |
|  | Select Signal | DMX or Wifly |  | DMX has priority; green LED when Wifly is connected, red LED when Wifly is connected |
|  |  | Wifly and DMX Out |  | DMX XLR output sends DMX signal out |
|  | Wifly Settings | Wifly Enable | On / Off | When Wifly is enabled and connected, a signal strength indicator bar will be shown |
|  |  | Set Wifly Channel | 00-14 |  |
|  | Status Settings | Pan Degree | 540 / 630 |  |
|  |  | Pan Invert | On / Off |  |
|  |  | Tilt Invert | On / Off |  |
|  |  | P/T Feedback | On / Off |  |
|  |  | P/T Speed | Speed 1 |  |
|  |  |  | Speed 2 |  |
|  |  |  | Speed 3 |  |
|  |  | Hibernation | Off, 01min - 99min | Default $=15 \mathrm{~min}$ |
|  | Fan Settings | Head Fan | Auto |  |
|  |  |  | High |  |
|  |  |  | Low |  |
|  |  |  | Mute |  |
|  |  | Base Fan | Auto |  |
|  |  |  | High |  |
|  |  |  | Low |  |
|  | Zoom Speed | Standard |  |  |
|  |  | Fast |  |  |

## SYSTEM MENU

|  |  | Standard |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Stage |  |  |  |
|  |  | TV |  |  |  |
|  | Dim Modes | Architectural |  |  |  |
|  |  | Theatre |  |  |  |
|  |  | Stage 2 |  |  |  |
|  |  | Dim Speed | 0.1s-10.0s |  |  |
|  | LED Refresh Rate | $\begin{aligned} & 900-1500 \mathrm{~Hz}, 250 \\ & \mathrm{KHz}, 15 \mathrm{KHz}, 20 \end{aligned}$ | $\begin{aligned} & \mathrm{Hz}, 4000 \mathrm{~Hz}, 500 \mathrm{C} \\ & \mathrm{~Hz}, 25 \mathrm{KHz} \end{aligned}$ | $\mathrm{Hz}, 6000 \mathrm{~Hz}, 10$ | Default $=1200 \mathrm{~Hz}$ |
|  |  | Square |  |  |  |
|  | Dim Curve | Linear |  |  |  |
|  | Dim Curve | Inv Squa |  |  |  |
|  |  | S Curve |  |  |  |
|  |  | Reset All Motors | Yes / No |  |  |
|  | Motors | Pan/Tilt Reset | Yes / No |  |  |
| (continued) |  | ... | ... |  |  |
|  |  | Effect Reset | Yes / No |  |  |
|  |  | Intensity | 1-10 |  |  |
|  |  | Display Invert | Yes / No |  |  |
|  | Display | Screen Saver Delay | Off - 10min |  | Default $=5 \mathrm{~min}$ |
|  |  |  | Off |  |  |
|  |  | Key Lock | On |  |  |
|  |  |  | On1 |  |  |
|  |  |  |  | Pan 000-255 |  |
|  |  |  |  | Tilt 000-255 |  |
|  |  |  | (Calibration) | Color1 000-255 |  |
|  | Service | Passcode = 050 |  | ... |  |
|  |  |  | Update Software | Off / On |  |
|  |  |  | Factory Restore Passcode $=011$ | Off / On |  |
|  | Pan | 000-255 |  |  |  |
|  | Pan Fine | 000-255 |  |  |  |
| MANUAL CONTROL | Tilt | 000-255 |  |  |  |
|  | Tilt Fine | 000-255 |  |  |  |
|  | ... | ... |  |  |  |
|  |  | Speed | 000-255 |  |  |
|  | Program 1 | Fade | 000-255 |  |  |
| INTERNAL <br> PROGRAMS | ... | ... | $\ldots$ |  |  |
|  | Program 7 | Speed | 000-255 |  |  |
|  | Program 7 | Fade | 000-255 |  |  |
|  |  | CONTINUED | N NEXT PAGE |  |  |

## SYSTEM MENU

|  |  | Power On Time | xxxxxx Hours |  | Total time fixture has been powered on over its entire life |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Fixture Life Time | P-On Time-R | xxxxxx Hours |  | Time fixture has been powered on since last reset |
|  |  | P-On Time-Reset | Passcode $=050$ |  | Reset P-On TimeR |
|  |  | LED On Time | xxxxxx Hours |  | Total time LED has been powered on over fixture's entire life |
|  | Total LED Time | LED On Time-R | xxxxxx Hours |  | Time LED has been powered on since last reset |
|  |  | LED Hours Reset | Passcode $=050$ |  | Reset LED On Time-R |
|  |  |  | Current | xxx F / xxx C | Current LED temperature |
| INFORMATION |  | LEDs | Max Resettable | xxx F / xxx C | Max LED temperature since last rest |
|  | Fixture Temps |  | Current | xxx F / xxx C | Current base temperature |
|  |  | Base Temp | Max Resettable | xxx F / xxx C | Max base temperature since last reset |
|  |  | Reset LED Temp | Yes / No | Passcode = 050 |  |
|  |  | Reset Base Temp | Yes / No | Passcode $=050$ |  |
|  | Fan Info (RPM) | LED Fan | xxxx RPM LED |  |  |
|  | Fan Info (RPM) | Base Fan | xxxx RPM |  |  |
|  |  | Pan |  |  |  |
|  | DMX Values | Pan Fine |  |  |  |
|  |  | ... |  |  |  |
|  | Error Logs | xxxxx |  |  | Lists errors one by one |
|  |  | Reset Error Log | Yes / No | Passcode $=050$ |  |
|  | Software Version | V : xxx |  |  |  |

## DMX SET UP

DMX-512: DMX is short for Digital Multiplex. This is a universal protocol used as a form of communication between intelligent fixtures and controllers. A DMX controller sends DMX data instructions from the controller to the fixture. DMX data is sent as serial data that travels from fixture to fixture via the DATA "IN" and DATA "OUT" XLR terminals located on all DMX fixtures (most controllers only have a DATA "OUT" terminal).

DMX Linking: DMX is a language allowing all makes and models of different manufacturers to be linked together and operate from a single controller, as long as all fixtures and the controller are DMX compliant. To ensure proper DMX data transmission, try to use the shortest cable path possible when linking several DMX fixtures. The order in which fixtures are connected in a DMX line does not influence the DMX addressing. For example, a fixture assigned a DMX address of 1 may be placed anywhere in a DMX line: at the beginning, at the end, or anywhere in the middle. When a fixture is assigned a DMX address of 1 , the DMX controller knows to send DATA assigned to address 1 to that unit, no matter where it is located in the DMX chain.

Data Cable (DMX Cable) Requirements (For DMX Operation): This unit can be controlled via DMX512 protocol. The DMX address is set on the rear panel of the unit. Your unit and your DMX controller require a standard 5-pin XLR connector for data input and data output. We recommend Accu-Cable DMX cables. If you are making your own cables, be sure to use standard 110-120 Ohm shielded cable (This cable may be purchased at almost all pro lighting stores). Your cables should be made with a male XLR connector at one end and a female XLR connector at the other. Also remember that DMX cable must be daisy chained and cannot be split.

Notice: Be sure to follow the diagram below 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 into 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 110-120 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 (ADJ part number Z-DMX/T) will reduce the risk of erratic behavior.


## DMX SET UP

DMX ADDRESSING.
All fixtures should be given a DMX starting address when using a DMX controller, so the correct fixture responds to the correct control signal. This digital starting address is the channel number from which the fixture starts to "listen" to the digital control signal sent out from the DMX controller. The assignment of this starting DMX address is achieved by setting the correct DMX address on the digital control display on the fixture.

You can set the same starting address for all fixtures or a group of fixtures, or set different addresses for each individual fixture. Setting all fixtures to the same DMX address will cause all fixtures to react in the same way. In other words, changing the settings of one channel will affect all the fixtures simultaneously.

If you set each fixture to a different DMX address, each unit will start to "listen" to the channel number you have set, based on the quantity of DMX channels of each fixture. That means changing the settings of one channel will only affect the selected fixture.

For example, when this unit is operating in 19 channel mode, you should set the starting DMX address of the first unit to 1 , the second unit to $20(1+19)$, the third unit to $39(1+19+19)$, and so on. See the chart below for more details.

| CHANNEL MODE | UNIT 1 ADDRESS | UNIT 2 ADDRESS | UNIT 3 ADDRESS | UNIT 4 ADDRESS |
| :---: | :---: | :---: | :---: | :---: |
| 19 Ch | 1 | 20 | 39 | 58 |
| 23 Ch | 1 | 24 | 47 | 70 |
| 25 Ch | 1 | 26 | 51 | 76 |

## DMX TRAITS

| CHANNEL |  |  | DMX VALUES | FUNCTION |
| :---: | :---: | :---: | :---: | :---: |
| 19 CH | 23 CH | 25 CH |  |  |
| 1 | 1 | 1 | 000-255 | Pan Movement (540/630) |
|  | 2 | 2 | 000-255 | Pan Fine |
| 2 | 3 | 3 | 000-255 | Tilt Movement (270) |
|  | 4 | 4 | 000-255 | Tilt Fine |
| 3 | 5 | 5 |  | Color Wheel |
|  |  |  | 000-008 | Open / White |
|  |  |  | 009-013 | Red |
|  |  |  | 014-018 | Blue |
|  |  |  | 019-023 | Green |
|  |  |  | 024-028 | Yellow |
|  |  |  | 029-033 | Orange |
|  |  |  | 034-038 | Purple |
|  |  |  | 039-043 | Magenta |
|  |  |  | 044-048 | Dark Blue |
|  |  |  | 049-053 | Light Blue |
|  |  |  | 054-058 | Light Green |
|  |  |  | 059-063 | 3200K CTO |
|  |  |  | 064-127 | Color Mixing |
|  |  |  | 128-189 | Clockwise Color Wheel Rotation, fast to slow |
|  |  |  | 190-193 | No Rotation |
|  |  |  | 194-255 | Counter-Clockwise Color Wheel Rotation, slow to fast |
| 4 | 6 | 6 |  | Rotating Gobo Wheel |
|  |  |  | 000-005 | Open |
|  |  |  | 006-014 | Gobo 1 |
|  |  |  | 015-023 | Gobo 2 |
|  |  |  | 024-032 | Gobo 3 |
|  |  |  | 033-041 | Gobo 4 |
|  |  |  | 042-050 | Gobo 5 |
|  |  |  | 051-059 | Gobo 6 |
|  |  |  | 060-068 | Gobo 7 |
|  |  |  | 069-077 | Gobo 8 |
|  |  |  | 078-091 | Gobo 1 shake, slow to fast |
|  |  |  | 092-105 | Gobo 2 shake, slow to fast |
|  |  |  | 106-119 | Gobo 3 shake, slow to fast |
|  |  |  | 120-133 | Gobo 4 shake, slow to fast |
|  |  |  | 134-147 | Gobo 5 shake, slow to fast |
|  |  |  | 148-161 | Gobo 6 shake, slow to fast |
|  |  |  | 162-175 | Gobo 7 shake, slow to fast |
|  |  |  | 176-189 | Gobo 8 shake, slow to fast |
|  |  |  |  | CONTINUED ON NEXT PAGE |

## DMX TRAITS

| CHANNEL |  |  | DMX VALUES | FUNCTION |
| :---: | :---: | :---: | :---: | :---: |
| 19 CH | 23 CH | 25 CH |  |  |
| 4 | 6 | 6 |  | Rotating Gobo Wheel (continued) |
|  |  |  | 190-221 | Clockwise Gobo Wheel Rotation, fast to slow |
|  |  |  | 222-223 | No Rotation |
|  |  |  | 224-255 | Counter-Clockwise Gobo Wheel Rotation, slow to fast |
| 5 | 7 | 7 |  | Gobo Rotation |
|  |  |  | 000-127 | Indexing |
|  |  |  | 128-189 | Clockwise Gobo Rotation, fast to slow |
|  |  |  | 190-192 | No Rotation |
|  |  |  | 193-255 | Counter-Clockwise Gobo Rotation, slow to fast |
| 6 | 8 | 8 |  | Static Gobos |
|  |  |  | 000-009 | Open (8mm) |
|  |  |  | 010-013 | Gobo 1 |
|  |  |  | 014-017 | Gobo 2 |
|  |  |  | 018-021 | Gobo 3 |
|  |  |  | 022-025 | Gobo 4 |
|  |  |  | 026-029 | Gobo 5 |
|  |  |  | 030-033 | Gobo 6 |
|  |  |  | 034-037 | Gobo 7 |
|  |  |  | 038-041 | Gobo 8 |
|  |  |  | 042-045 | Gobo 9 |
|  |  |  | 046-049 | Gobo 10 |
|  |  |  | 050-053 | Gobo 11 |
|  |  |  | 054-057 | Gobo 12 |
|  |  |  | 058-061 | Gobo 13 |
|  |  |  | 062-065 | Gobo 14 |
|  |  |  | 066-069 | Gobo 15 (open 15mm) |
|  |  |  | 070-077 | Gobo 1 shake, slow to fast |
|  |  |  | 078-085 | Gobo 2 shake, slow to fast |
|  |  |  | 086-093 | Gobo 3 shake, slow to fast |
|  |  |  | 094-101 | Gobo 4 shake, slow to fast |
|  |  |  | 102-109 | Gobo 5 shake, slow to fast |
|  |  |  | 110-117 | Gobo 6 shake, slow to fast |
|  |  |  | 118-125 | Gobo 7 shake, slow to fast |
|  |  |  | 126-133 | Gobo 8 shake, slow to fast |
|  |  |  | 134-141 | Gobo 9 shake, slow to fast |
|  |  |  | 142-149 | Gobo 10 shake, slow to fast |
|  |  |  | 150-157 | Gobo 11 shake, slow to fast |
|  |  |  | 158-165 | Gobo 12 shake, slow to fast |
|  |  |  | 166-173 | Gobo 13 shake, slow to fast |
|  |  |  |  | CONTINUED ON NEXT PAGE |

## DMX TRAITS

| CHANNEL |  |  | $\begin{gathered} \text { DMX } \\ \text { VALUES } \end{gathered}$ | FUNCTION |
| :---: | :---: | :---: | :---: | :---: |
| 19 CH | 23 CH | 25 CH |  |  |
| 6 | 8 | 8 |  | Static Gobos (continued) |
|  |  |  | 174-181 | Gobo 14 shake, slow to fast |
|  |  |  | 182-189 | Gobo 15 shake, slow to fast |
|  |  |  | 190-221 | Clockwise Gobo Wheel Rotation, fast to slow |
|  |  |  | 222-223 | No Rotation |
|  |  |  | 224-255 | Counter-Clockwise Gobo Wheel Rotation, slow to fast |
| 7 | 9 | 9 |  | Shutter |
|  |  |  | 000-031 | Shutter closed |
|  |  |  | 032-063 | Shutter open |
|  |  |  | 064-095 | Strobe, slow to fast |
|  |  |  | 096-127 | Shutter open |
|  |  |  | 128-159 | Pulse Effect, slow to fast |
|  |  |  | 160-191 | Shutter open |
|  |  |  | 192-223 | Random Strobe, slow to fast |
|  |  |  | 224-255 | Shutter open |
| 8 | 10 | 10 | 000-255 | Dimmer Intensity, 0\% to 100\% |
|  | 11 | 11 | 000-255 | Dimmer Intensity Fine |
| 9 | 12 | 12 |  | Prism 1 |
|  |  |  | 000-031 | Open |
|  |  |  | 032-255 | 8 Facet Circular Prism |
| 10 | 13 | 13 |  | Prism 1 Index / Rotation |
|  |  |  | 000-005 | Prism Rotation Off |
|  |  |  | 006-128 | Prism Indexing, 0...540 |
|  |  |  | 129-191 | Clockwise Prism Rotation, fast to slow |
|  |  |  | 192 | No Rotation |
|  |  |  | 193-255 | Counter-Clockwise Prism Rotation, slow to fast |
| 11 | 14 | 14 |  | Prism 1 / Gobo Macros |
|  |  |  | 000-014 | No Prism - Open |
|  |  |  | 015-029 | Macro 1 |
|  |  |  | 030-044 | Macro 2 |
|  |  |  | 045-059 | Macro 3 |
|  |  |  | 060-074 | Macro 4 |
|  |  |  | 075-089 | Macro 5 |
|  |  |  | 090-104 | Macro 6 |
|  |  |  | 105-119 | Macro 7 |
|  |  |  | 120-134 | Macro 8 |
|  |  |  | 135-149 | Macro 9 |
|  |  |  | 150-164 | Macro 10 |
|  |  |  | 165-179 | Macro 11 |
|  |  |  |  | CONTINUED ON NEXT PAGE |

DMX TRAITS

| CHANNEL |  |  | DMX VALUES | FUNCTION |
| :---: | :---: | :---: | :---: | :---: |
| 19 CH | 23 CH | 25 CH |  |  |
| 11 | 14 | 14 |  | Prism 1 / Gobo Macros (continued) |
|  |  |  | 180-194 | Macro 12 |
|  |  |  | 195-209 | Macro 13 |
|  |  |  | 210-224 | Macro 14 |
|  |  |  | 225-239 | Macro 15 |
|  |  |  | 240-255 | Macro 16 |
| 12 | 15 | 15 |  | Prism 2 |
|  |  |  | 000-031 | Open |
|  |  |  | 032-255 | 6 Facet Linear Prism |
| 13 | 16 | 16 |  | Prism 2 Index / Rotation |
|  |  |  | 000-005 | Prism Rotation Off |
|  |  |  | 006-128 | Prism Indexing, 0...540 |
|  |  |  | 129-191 | Clockwise Prism Rotation, fast to slow |
|  |  |  | 192 | No Rotation |
|  |  |  | 193-255 | Counter-Clockwise Prism Rotation, slow to fast |
| 14 | 17 | 17 |  | Prism 2 / Gobo Macros |
|  |  |  | 000-014 | No Prism - Open |
|  |  |  | 015-029 | Macro 1 |
|  |  |  | 030-044 | Macro 2 |
|  |  |  | 045-059 | Macro 3 |
|  |  |  | 060-074 | Macro 4 |
|  |  |  | 075-089 | Macro 5 |
|  |  |  | 090-104 | Macro 6 |
|  |  |  | 105-119 | Macro 7 |
|  |  |  | 120-134 | Macro 8 |
|  |  |  | 135-149 | Macro 9 |
|  |  |  | 150-164 | Macro 10 |
|  |  |  | 165-179 | Macro 11 |
|  |  |  | 180-194 | Macro 12 |
|  |  |  | 195-209 | Macro 13 |
|  |  |  | 210-224 | Macro 14 |
|  |  |  | 225-239 | Macro 15 |
|  |  |  | 240-255 | Macro 16 |
| 15 | 18 | 18 | 000-255 | Focus, 0\% to 100\% |
| 16 | 19 | 19 | 000-255 | Zoom, narrow to wide |
|  |  | 20 | 000-255 | Zoom Fine |
| 17 | 20 | 21 | 000-255 | Frost, open to full frost |
|  |  |  |  | CONTINUED ON NEXT PAGE |

## DMX TRAITS

| CHANNEL |  |  | DMX VALUES | FUNCTION |
| :---: | :---: | :---: | :---: | :---: |
| 19 CH | 23 CH | 25 CH |  |  |
|  | 21 | 22 |  | Dimmer Modes |
|  |  |  | 000-020 | Default to Unit Setting |
|  |  |  | 021-040 | Standard |
|  |  |  | 041-060 | Stage |
|  |  |  | 061-080 | TV |
|  |  |  | 081-100 | Architectural |
|  |  |  | 101-120 | Theater |
|  |  |  | 121-140 | Stage 2 |
|  |  |  | 141-160 | Dim Speed, fast to slow (0.1s - 10.0s) |
|  |  |  | 161-255 | Default to Unit Setting |
|  |  | 23 |  | Dim Curves |
|  |  |  | 000-020 | Square |
|  |  |  | 021-040 | Linear |
|  |  |  | 041-060 | Inv. Squa |
|  |  |  | 061-080 | S. Curve |
|  |  |  | 081-255 | No function |
| 18 | 22 | 24 |  | Pan/Tilt Speed |
|  |  |  | 000-225 | Pan/Tilt Speed, fast to slow |
|  |  |  | 226-235 | Blackout by movement |
|  |  |  | 236-245 | Blackout by all wheel changing |
|  |  |  | 246-255 | No function |
| 19 | 23 | 25 |  | Special Functions |
|  |  |  | 000-029 | No function |
|  |  |  | 030-039 | Fan Control - Mute (hold 3s) |
|  |  |  | 040-049 | Fan Control - Low (hold 3s) |
|  |  |  | 050-059 | Fan Control - High (hold 3s) |
|  |  |  | 060-069 | Fan Control - Auto (default) (hold 3s) |
|  |  |  | 070-074 | All Motor Reset (hold 3s) |
|  |  |  | 075-079 | Pan/Tilt Reset (hold 3s) |
|  |  |  | 080-084 | Color Reset (hold 3s) |
|  |  |  | 085-089 | Gobo Reset (hold 3s) |
|  |  |  | 090-094 | Focus and Zoom Reset (hold 3s) |
|  |  |  | 095-099 | Shutter Reset (hold 3s) |
|  |  |  | 100-104 | Prism Reset |
|  |  |  | 105-109 | Other Motors Reset (hold 3s) |
|  |  |  | 110-148 | No function |
|  |  |  | 149-150 | Wifly On (default) (hold 3s) |
|  |  |  | 151-152 | Wifly Off (hold 5s) |
|  |  |  | 153-154 | Hibernation Enable (hold 3s) |
|  |  |  |  | CONTINUED ON NEXT PAGE |

## DMX TRAITS

| CHANNEL |  |  | DMX VALUES | FUNCTION |
| :---: | :---: | :---: | :---: | :---: |
| 19 CH | 23 CH | 25 CH |  |  |
| 19 | 23 | 25 |  | Special Functions (continued) |
|  |  |  | 155-156 | Hibernation Off (hold 5s) |
|  |  |  | 157-158 | Display Backlight On (hold 3s) |
|  |  |  | 159-160 | Display Backlight Off (hold 5s) |
|  |  |  | 161-162 | Pan/Tilt Speed 1 (default) (hold 5s) |
|  |  |  | 163-164 | Pan/Tilt Speed 2 |
|  |  |  | 165-166 | Invert Pan On (hold 3s) |
|  |  |  | 167-168 | Invert Pan Off (hold 5s) |
|  |  |  | 169-170 | Invert Tilt On (hold 3s) |
|  |  |  | 171-172 | Invert Tilt Off (hold 5s) |
|  |  |  |  | LED Refresh Rate (hold 1s) |
|  |  |  | 173 | 900 Hz |
|  |  |  | 174 | 910 Hz |
|  |  |  | 175 | 920 Hz |
|  |  |  | 176 | 930 Hz |
|  |  |  | 177 | 940 Hz |
|  |  |  | 178 | 950 Hz |
|  |  |  | 179 | 960 Hz |
|  |  |  | 180 | 970 Hz |
|  |  |  | 181 | 980 Hz |
|  |  |  | 182 | 990 Hz |
|  |  |  | 183 | 1000 Hz |
|  |  |  | 184 | 1010 Hz |
|  |  |  | 185 | 1020 Hz |
|  |  |  | 186 | 1030 Hz |
|  |  |  | 187 | 1040 Hz |
|  |  |  | 188 | 1050 Hz |
|  |  |  | 189 | 1060 Hz |
|  |  |  | 190 | 1070 Hz |
|  |  |  | 191 | 1080 Hz |
|  |  |  | 192 | 1090 Hz |
|  |  |  | 193 | 1100 Hz |
|  |  |  | 194 | 1110 Hz |
|  |  |  | 195 | 1120 Hz |
|  |  |  | 196 | 1130 Hz |
|  |  |  | 197 | 1140 Hz |
|  |  |  | 198 | 1150 Hz |
|  |  |  | 199 | 1160 Hz |
|  |  |  | 200 | 1170 Hz |
|  |  |  |  | CONTINUED ON NEXT PAGE |

## DMX TRAITS

| CHANNEL |  |  | DMX VALUES | FUNCTION |
| :---: | :---: | :---: | :---: | :---: |
| 19 CH | 23 CH | 25 CH |  |  |
| 19 | 23 | 25 |  | LED Refresh Rate (hold 1s) (continued) |
|  |  |  | 201 | 1180 Hz |
|  |  |  | 202 | 1190 Hz |
|  |  |  | 203 | 1210 Hz |
|  |  |  | 204 | 1220 Hz |
|  |  |  | 205 | 1230 Hz |
|  |  |  | 206 | 1240 Hz |
|  |  |  | 207 | 1250 Hz |
|  |  |  | 208 | 1260 Hz |
|  |  |  | 209 | 1270 Hz |
|  |  |  | 210 | 1280 Hz |
|  |  |  | 211 | 1290 Hz |
|  |  |  | 212 | 1300 Hz |
|  |  |  | 213 | 1310 Hz |
|  |  |  | 214 | 1320 Hz |
|  |  |  | 215 | 1330 Hz |
|  |  |  | 216 | 1340 Hz |
|  |  |  | 217 | 1350 Hz |
|  |  |  | 218 | 1360 Hz |
|  |  |  | 219 | 1370 Hz |
|  |  |  | 220 | 1380 Hz |
|  |  |  | 221 | 1390 Hz |
|  |  |  | 222 | 1400 Hz |
|  |  |  | 223 | 1410 Hz |
|  |  |  | 224 | 1420 Hz |
|  |  |  | 225 | 1430 Hz |
|  |  |  | 226 | 1440 Hz |
|  |  |  | 227 | 1450 Hz |
|  |  |  | 228 | 1460 Hz |
|  |  |  | 229 | 1470 Hz |
|  |  |  | 230 | 1480 Hz |
|  |  |  | 231 | 1490 Hz |
|  |  |  | 232 | 1500 Hz |
|  |  |  | 233 | 2500 Hz |
|  |  |  | 234 | 4000 Hz |
|  |  |  | 235 | 5000 Hz |
|  |  |  | 236 | 6000 Hz |
|  |  |  | 237 | $10,000 \mathrm{~Hz}$ |
|  |  |  | 238 | $15,000 \mathrm{~Hz}$ |
|  |  |  |  | CONTINUED ON NEXT PAGE |

## DMX TRAITS

| CHANNEL |  |  | DMX VALUES | FUNCTION |
| :---: | :---: | :---: | :---: | :---: |
| 19 CH | 23 CH | 25 CH |  |  |
| 19 | 23 | 25 |  | LED Refresh Rate (hold 1s) (continued) |
|  |  |  | 239 | 20,000 Hz |
|  |  |  | 240 | 25,000 Hz |
|  |  |  |  | Internal Programs (hold 3s) |
|  |  |  | 241 | Program 1 (scenes 1-8) |
|  |  |  | 242 | Program 2 (scenes 9-16) |
|  |  |  | 243 | Program 3 (scenes 17-24) |
|  |  |  | 244 | Program 4 (scenes 25-32) |
|  |  |  | 245 | Program 5 (scenes 33-40) |
|  |  |  | 246 | Program 6 (scenes 41-48) |
|  |  |  | 247 | Program 7 (scenes 49-56) |
|  |  |  | 248-255 | No function |


| DMX VALUES | DELAY TIME |
| :---: | :---: |
| 141 | 0.1 sec |
| 142 | 0.2 sec |
| 143 | 0.3 sec |
| 144 | 0.4 sec |
| 145 | 0.5 sec |
| 146 | 0.6 sec |
| 147 | 0.7 sec |
| 148 | 0.8 sec |
| 149 | 0.9 sec |
| 150 | 1.0 sec |
| 151 | 1.5 sec |
| 152 | 2.0 sec |
| 153 | 3.0 sec |
| 154 | 4.0 sec |
| 155 | 5.0 sec |
| 156 | 6.0 sec |
| 157 | 7.0 sec |
| 158 | 8.0 sec |
| 159 | 9.0 sec |
| 160 | 10.0 sec |

## DIM MODES

DIMMER


| Dimming Curve Ramp Effect | 0 sec Fade Time |  | 1 sec Fade Time |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $0$ | - 255 | $0$ |  |
|  | Rise Time (ms) | Down Time (ms) | Rise Time (ms) | Down Time (ms) |
| Standard (default) | 0 | 0 | 0 | 0 |
| Stage | 780 | 1100 | 1540 | 1660 |
| TV | 1180 | 1520 | 1860 | 1940 |
| Architectural | 1380 | 1730 | 2040 | 2120 |
| Theatre | 1580 | 1940 | 2230 | 2280 |
| Stage 2 | 0 | 1100 | 0 | 1660 |






## PRIMARY-SECONDARY SET UP

This function allows you to link units together to run in a Primary-Secondary set-up, in which one unit will act as the controlling unit and the others will react to the controlling unit's built-in programs. Any unit can be configured to act as a Primary or as a Secondary, but only one unit in a given system can be programmed to act as the Primary.

## Primary-Secondary Connections and Settings:

1. Daisy chain your units via the XLR connectors on the rear panels of each unit. Use standard XLR data cables to link your units together. Remember that the male XLR connector is the input and the female XLR connector is the ouput. The first unit in the chain (primary) will use the female XLR connector only, while the last unit in the chain will use the male XLR connector only.
2. Use the display screen and control panel to navigate to Personality > Prim/Sec Mode. Select this sub-menu using the ENTER button, and use the arrows to toggle between "Primary" and "Secondary". Press ENTER to confirm your selection.
3. Repeat Step 2 for each unit in the system. Make sure that only one unit is designated as the Primary, while all other units are designated as Secondaries.
4. The secondary units will now follow the behavior of the primary unit.

## MULTI UNIT POWER LINKING

This feature allows you to connect the fixtures to one another using the power cable input and output sockets.

The maximum number of units that can be linked in this manner is as follows:

- 2 units when running on 120 V power.
- 6 units when running on 240 V power.


## DO NOT EXCEED THIS MAXIMUM NUMBER WHEN POWER LINKING UNITS!

All linked units must be of the same make and model type. Do not mix and match units!

## MAINTENANCE GUIDELINES



## DISCONNECT POWER BEFORE PERFORMING ANY MAINTENANCE!

## CLEANING

Frequent cleaning is recommended to ensure proper function, optimized light output, and an extended life. The frequency of cleaning depends on the environment in which the fixture operates: damp, smoky, or particularly dirty environments can cause greater accumulation of dirt on the fixture's optics. Clean the external lens surface regularly with a soft cloth to avoid dirt/debris accumulation.

NEVER use alcohol, solvents, or ammonia-based cleaners.

## MAINTENANCE

Regular inspections are recommended to ensure proper function and extended life. There are no user serviceable parts inside this fixture. Please refer all other service issues to an authorized ADJ service technician. Should you need any spare parts, please order genuine parts from your local ADJ dealer.

Please refer to the following points during routine inspections:
A. A detailed electrical check by an approved electrical engineer every three months, to make sure the circuit contacts are in good condition and prevent overheating.
B. Be sure all screws and fasteners are securely tightened at all times. Loose screws may fall out during normal operation, resulting in damage or injury as larger parts could fall.
C. Check for any deformations on the housing, color lenses, rigging hardware, and rigging points (ceiling, suspension, trussing). Deformations in the housing could allow for dust to enter into the fixture. Damaged rigging points or unsecured rigging could cause the fixture to fall and seriously injure a person(s).
D. Electric power supply cables must not show any damage, material fatigue, or sediments.

NEVER remove the ground prong from the power cable.

## SOFTWARE UPDATES

For software updates, please contact ADJ service to obtain a software uploader and detailed instructions. Refer to the Introduction section of this manual for contact information.

## ERROR CODES

When power is applied, the unit will automatically enter a "Reset/Test" mode. This mode brings all the internal motors to a home position. If there is an internal problem with one or more of the motors, an error code will flash in the display, as described in the chart below. For example, when the display shows "Pan" it means there is some type of error with the Pan motor. If there are multiple errors during the start-up process, they will all flash in the display. For example: if the fixtures have errors on Pan, Tilt, and Color Wheel all at the same time, you will see the error message "Pan", "Tilt", and "Color Wheel" flash in sequence. The error sequence will repeat 5 times.

If an error does occur during the initial start-up procedure, the fixture will self-generate a second reset signal and try to realign all the motors and correct the errors. If the error persists after a second attempt, a third attempt will be made. If after a third attempt all the errors have not been corrected, the fixture will make the following determinations:

- 3 or More Errors: The fixture cannot function properly with three or more errors. Therefore the fixture will place itself in a stand-by mode until subsequent repairs can be made.
- Less Than 3 Errors: The fixture has less than 3 errors. Therefore, most other functions will work properly. The fixture will attempt to operate normally until the errors can be correct by a technician. The errors in question will remain flashing in the display as a reminder of internal errors.

| Error Code | Description |
| :--- | :--- |
| Pan | Pan Error |
| Tilt | Tilt Error |
| Color Wheel | Color Wheel Error |
| Rot Gobo | Rotating Gobo Error |
| Fixed Gobo | Fixed Gobo Error |
| Zoom | Zoom Error |
| Focus | Focus Error |
| Prism 1 | Prism 1 Error |
| Prism 1 Rot | Prism 1 Rotation Error |
| Prism 2 | Prism 2 Error |
| Prism 2 Rot | Prism 2 Rotation Error |
| LED Fan | LED Fan Error |
| Gobo Fan | Gobo Fan Error |
| Base Fan | Base Fan Error |
| Head Temp | Head Temperature Error |
| Base Temp | Base Temperature Error |

## DIMENSIONAL DRAWINGS



Drawings are not to scale.

## SPECIFICATIONS

## SOURCE

- 200W LED Engine
- 50,000 Hour Average LED Life


## PHOTOMETRIC DATA

- 4,100 Total Lumens
- 7,500K, >70CRI
- 57,433 LUX 5,336 FC @16.4' (5m) (3.1º Beam)
- 1,293 LUX 120 FC @16.4' (5m) (23.8º Beam)


## EFFECTS

- 8-Facet Circular \& 6-Facet Linear Rotating Prisms
- Replaceable Frost Filter (Heavy Frost Default)
- Motorized Zoom ( $2^{\circ}$ to $24^{\circ}$ )
- Motorized Focus
- Electronic Dimming \& Strobe $(1-20 H z)$


## COLOR

- Color Wheel with 11 dichroic colors, includes 3200 CTO Filter


## GOBOS

- (2) Gobo Wheels
- \#1 - (7) Interchangeable Rotating-Indexing Gobos
- \#2 - (15) Static-Stamped Gobos


## CONTROL / CONNECTIONS

- (3) DMX Channel Modes (19 / 23 / 25)
- RDM (Remote Device Management)
- 6 Button Touch Control Panel
- Full Color $180^{\circ}$ Reversible LCD Menu Display
- 8 / 16 Bit Resolution Adjustable Movement
- 5 pin XLR DMX In/Out
- Locking In/Thru power connections
- With Wired Digital Communication Network


## PAN / TILT

- Pan: 540 or 630 degrees
- Tilt: 270-degrees


## SIZE / WEIGHT

- Length: $6.93^{\prime \prime}$ (176mm)
- Width: $10.95^{\prime \prime}$ (278mm)
- Vertical Height: 20.99" (533mm)
- Weight: 31 lbs. (14.1 kg)


## ELECTRICAL / THERMAL

- AC $100-240 \mathrm{~V}-50 / 60 \mathrm{~Hz}$
- Max Power Consumption: 335W
- Max ambient temperature: $-13^{\circ} \mathrm{F}$ to $113^{\circ} \mathrm{F}\left(-25^{\circ} \mathrm{C}\right.$ to $\left.45^{\circ} \mathrm{C}\right)$
- Max housing temperature: $136^{\circ} \mathrm{F}\left(58^{\circ} \mathrm{C}\right)$


## TECHNICAL DATA

- DB Rating @ 3ft.: 43.2dB
- BTU: 0.32
- BTU/H: 1,142.35


## APPROVALS / RATINGS

- CE I ETL (Pending)
- IP20

Please Note: Specifications and improvements in the design of this unit and this manual are subject to change without any prior written notice.


[^0]:    Europe Energy Saving Notice
    Energy Saving Matters (EuP 2009/125/EC)
    Saving electric energy is a key to help protecting the enviroment. Please turn off all electrical products when they are not in use. To avoid power consumption in idle mode, disconnect all electrical equipment from power when not in use. Thank you!

