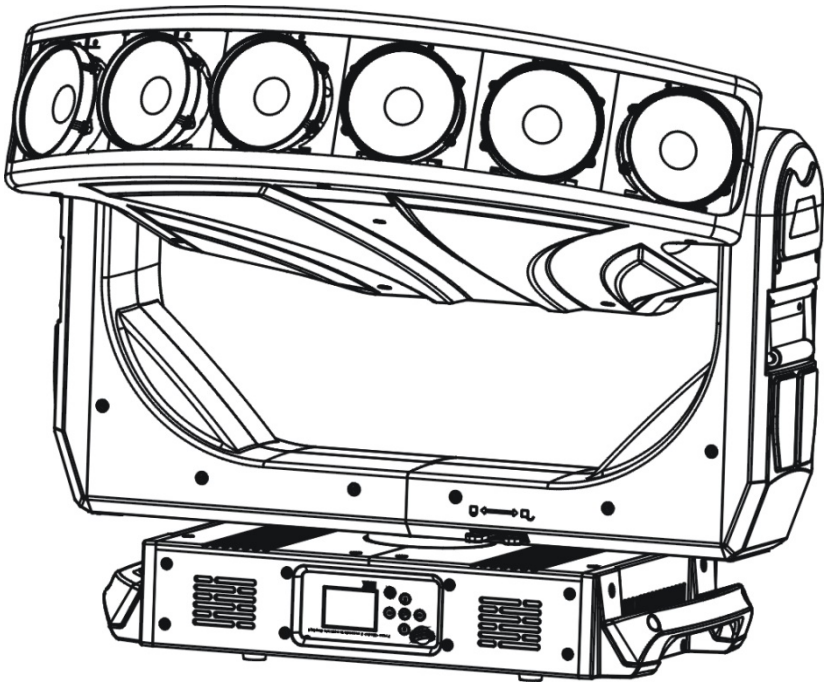
HIGH END SYSTEMS

User Manual



HEX

Version 0.0.1

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Welcome

Notice

Contacting High End Systems ®

Sales Department	High End Systems, Inc. 2105 Gracy Farms Lane Austin, TX 78758 USA voice:512.836.2242 fax:512.837.5290 Toll Free: 800.890.8989
Customer Service	High End Systems, Inc. 2105 Gracy Farms Lane Austin, TX 78758 USA voice:800.890.8989 fax: 512.834.9195 toll free: 800.890.8989 email: support@highend.com
World Wide Web	http://www.highend.com

Declaration of Conformity

High End Systems, Inc.

An ETC Company

Declaration of Conformity

Manufacturer's name: HAO YEANG ELECTRONIC CO., LTD

Manufacturer's address: No. 109, HaiYong Road, GuanNanYoung Industry Districe, Shiji Town DanYu Zone, GuanZhou City, China

Distributor's name: Hi End Systems, Inc.

Distributor's address: 2105 Gracy Farms Lane
Austin, Texas 78758 USA

Product Name: HEX

Product Options: All

We hereby declare that the above referenced product complies with the essential requirements of Council Directives 2014/30/EU (EMC), 2014/35/EU (LVD) and 2011/65/EC (RoHS) .

Safety: EN 60598-1: 2015
EN 60598-2-17: 1989 A2: 1991
EN62493 (2015)
EN62471 (2008)
EN61347-2-13: 2014;
EN61347-1: 2015
EN62031: 2008+A1; 2013+A2: 2015

EMC: Emission: EN55015:20013+A1:2015,
EN61547:2009
EN 61000-3-2 (2014)
EN 61000-3-3 (2013)

ROHS:	**Restricted Substances**	**Maximum Concentration Value (by weight in homogeneous material)**
	Cadmium (Cd)	0.01%
	Lead (PB)	0.1%
	Mercury (Hg)	0.1%
	Hexavalent Chromium (Cr VI)	0.1%
	Polybrominated Biphenyl (PBB)	0.1%
	Polybrominated Diphenyl Ethers (PBDE)	0.1%

Kenneth S. Hansen

Kenneth Hansen

Compliance Engineer
March 31, 2017

Patent information

FOR LATEST PATENT LISTING PLEASE SEE https://www.highend.com/company/patents

Warranty Information

Limited Warranty

Unless otherwise stated, your product is covered by a one year parts and labor limited warranty. Dichroic filters and LithoPatterns® high resolution glass gobos are not guaranteed against breakage or scratches to coating. It is the owner's responsibility to furnish receipts or invoices for verification of purchase, date, and dealer or distributor. If purchase date cannot be provided, date of manufacture will be used to determine warranty period.

Returning an Item Under Warranty for Repair

It is necessary to obtain a Return Material Authorization (RMA) number from your dealer or point of purchase BEFORE any units are returned for repair. The manufacturer will make the final determination as to whether or not the unit is covered by warranty.

A fixture must be returned in its original packaging. Any other parts returned to High End Systems must be packaged in a suitable manner to ensure the protection of such product unit or parts, and such package shall be clearly and prominently marked to indicate that the package contains returned Product units or parts and with an RMA number. Accompany all returned Product units or parts with a written explanation of the alleged problem or malfunction. Ship returned Product units or parts to: 2105 Gracy Farms Lane, Austin, TX 78758 USA.

Note: Freight Damage Claims are invalid for fixtures shipped in non-factory boxes and packing materials.

Freight

All shipping will be paid by the purchaser. Items under warranty shall have return shipping paid by the manufacturer only in the Continental United States. Under no circumstances will freight collect shipments be accepted. Prepaid shipping does not include rush expediting such as air freight. Air freight can be sent customer collect in the Continental United States.

REPAIR OR REPLACEMENT AS PROVIDED FOR UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY OF THE CONSUMER. HIGH END SYSTEMS, INC. MAKES NO WARRANTIES, EXPRESS OR IMPLIED, WITH RESPECT TO ANY PRODUCT, AND HIGH END SPECIFICALLY DISCLAIMS ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. HIGH END SHALL NOT BE LIABLE FOR ANY INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGE, INCLUDING LOST PROFITS, SUSTAINED OR INCURRED IN CONNECTION WITH ANY PRODUCT OR CAUSED BY PRODUCT DEFECTS OR THE PARTIAL OR TOTAL FAILURE OF ANY PRODUCT REGARDLESS OF THE FORM OF ACTION, WHETHER IN CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHERWISE, AND WHETHER 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.

Production Modification Warning

Product Modification Warning

High End Systems products are designed and manufactured to meet the requirements of United States and International safety regulations. Modifications to the product could affect safety and render the product non-compliant to relevant safety standards.

Mise En Garde Contre La Modification Du Produit

Les produits High End Systems sont conçus et fabriqués conformément aux exigences des règlements internationaux de sécurité. Toute modification du produit peut entraîner sa non conformité aux normes de sécurité en vigueur.

Produktmodifikationswarnung

Design und Herstellung von High End Systems entsprechen den Anforderungen der U.S. Amerikanischen und internationalen Sicherheitsvorschriften. Abänderungen dieses Produktes können dessen Sicherheit beeinträchtigen und unter Umständen gegen die diesbezüglichen Sicherheitsnormen verstoßen.

Avvertenza Sulla Modifica Del Prodotto

I prodotti di High End Systems sono stati progettati e fabbricati per soddisfare i requisiti delle normative di sicurezza statunitensi ed internazionali. Qualsiasi modifica al prodotto potrebbe pregiudicare la sicurezza e rendere il prodotto non conforme agli standard di sicurezza pertinenti.

Advertencia De Modificación Del Producto

Los productos de High End Systems están diseñados y fabricados para cumplir los requisitos de las reglamentaciones de seguridad de los Estados Unidos e internacionales. Las modificaciones al producto podrían afectar la seguridad y dejar al producto fuera de conformidad con las normas de seguridad relevantes.

Important Safety Information

Instructions pertaining to continued protection against fire, electric shock, and injury to persons are found throughout this manual. Please read all instructions prior to assembling, mounting, and operating this equipment.

The following international caution and warning symbols appear in margins throughout this manual to highlight messages.

This symbol appears adjacent to Caution messages. Not heeding these messages could result in personal injury and/or damage to equipment.

This symbol appears adjacent to high voltage warning messages. Not heeding these messages could result in serious personal injury.

This symbol cautions against mounting the fixture on or near a flammable surface.

This symbol indicates that, while operating, equipment surfaces may reach very high temperatures. Allow the fixture to cool before handling.

Safety Considerations

CAUTION: The information in this chapter is intended to assist qualified personnel *only*.

WARNING: Disconnect power before servicing. Replace fuses with the specified type and rating only.

This device has left the factory in perfect condition. In order to maintain this condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this user manual.

Important:

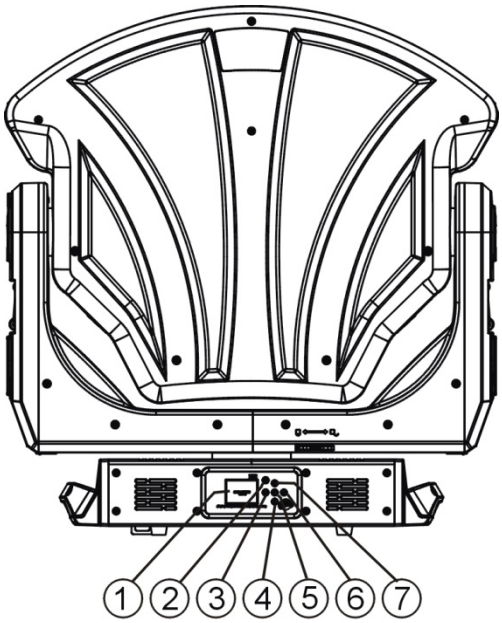
Damages caused by the disregard of this user manual are not subject to warranty. The dealer will not accept liability for any resulting defects or problems.

- If the device has been exposed to temperature changes due to environmental changes, do not switch it on immediately. The condensation could cause damage to the device. Leave the device switched off until it has reached room temperature.
- This device falls under protection-class I. Therefore it is essential that the device be earthed.
- If protection screen, lens or ultraviolet screen in the fixture is apparently damaged or is damaged to exceed their own effective degree, such as cracked and gashed, it must be replaced.
- The electrical connection must carry out by a qualified person.
- Make sure that the available voltage is within stated range.
- Make sure the power cord is never crimped or damaged by a sharp edge. Replace cable immediately if damaged, this work must be done by an authorized dealer.
- Always disconnect from power, when the device is not in use or before cleaning it. Only handle the power cord by the plug. Never pull out the plug by tugging the power cord.
- Don't project the beam onto combustible substances, as this causes a safety hazard.
- Please be aware that damages caused by manual modifications will void warranty.
- During initial start-up some smoke or smell may arise. This is a normal process and does not necessarily mean that the device is defective, it should decrease gradually
- If the external flexible cable or cord of this luminaire is damaged, it shall be exclusively replaced by the manufacturer or his service agent or a similar qualified person in order to avoid a hazard. All screws for installing the devices or parts of the device have to be tightly connected and must not be corroded.
- There must not be any deformations on the housing, color lenses, fixations and installation spots (ceiling, suspension, trussing).
- Mechanically moved parts must not show any traces of wearing and must not rotate with unbalances.
- The electric power supply cables must not show any damage, material fatigue or sediments.
- Further instructions depending on the installation spot and usage have to be administered by a skilled installer and any safety problems have to be removed.

General Guidelines

- This device is a lighting effect for professional use on stages, theaters, or other professional installations, etc., the device was designed for indoor use only.
- This fixture is only allowed to be operated with the max alternating current which stated in the technical specifications printed on the fixture.
- Lighting effects are not designed for permanent operation. Consistent operation breaks may ensure that the device will serve you for a long time without defects.
- Do not shake the device, handle with care .Avoid brute force when installing or operating the device.
- While choosing the installation-spot, please make sure that the device is not exposed to extreme heat, moisture or dust. Please don't project the beam onto combustible substances. The minimum distance between light-output from the projector and the illuminated surface must be more than 0.5 meter.
- If you use the quick lock cam in hanging up the fixture, please make sure the quick lock fasteners turned in the quick lock holes correctly.
- Operate the device only after having familiarized with its functions. Do not permit operation by persons not qualified for operating the device. Most damages are the result of unprofessional operation.
- Please use the original packaging if the device is to be transported.
- For safety reasons, please be aware that all modifications on the device are forbidden.
- If this device will be operated in any way different to the one described in this manual, the product may suffer damages and the guarantee becomes void. Furthermore, any other operation may lead to short-circuit, burns, electric shock, lamp explosion, crash, etc.
- In order to make the lights in good condition and extend the life time, we suggest a regular cleaning to the lights.

Fixture Overview



1）Display

2）Mode/Esc-button

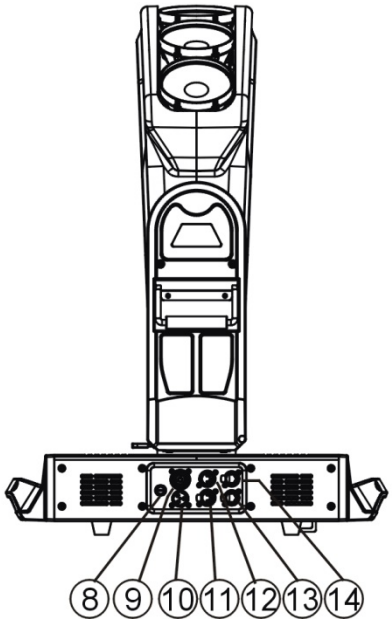
3）Left-button

4）Down-button

5）Enter-button

6）Right-button

7）Up-button



8）Fuse

9）Power out

10） Power in

11） DMX in

12） DMX out

13） ART-NET out

14） ART-NET in

Features

POWER SUPPLY
- AC 100-240V~, 50/60Hz
- Power Consumption: 750W

OPTICS
- 6 x 60W high power LEDs
- RGBW 4 in 1 LED make extremely even and smooth color mixing
- 35x 3W dark blue LED backdrop light
- Extremely long Life: 50,000H and low power consumption

MOVEMENT
- Pan movement: 540 (16 bit)
- Tilt movement: 210 (16 bit)
- Advanced Motion system: fast, stable and quite, auto x-y

COLORS
- Excellent color mixing and rainbow effect

FEATURES
- Control channel modes: 64 channels
- 2 operations modes: DMX-512, Master / Slave
- Beam angle: zoom from 7◦
- Strobe effect with 1-25 flashes per second and pulse effect

DISPLAY
- Advanced full –color LCD touch screen
- Battery power, for setting without power connected
- Auto lock after 15 seconds to prevent errors; hold for 3 seconds to re-activate
- Easy reset function: hold ⇦ and ⇨ button to lock pan /tilt reset, able to complete reset detection inside flight case

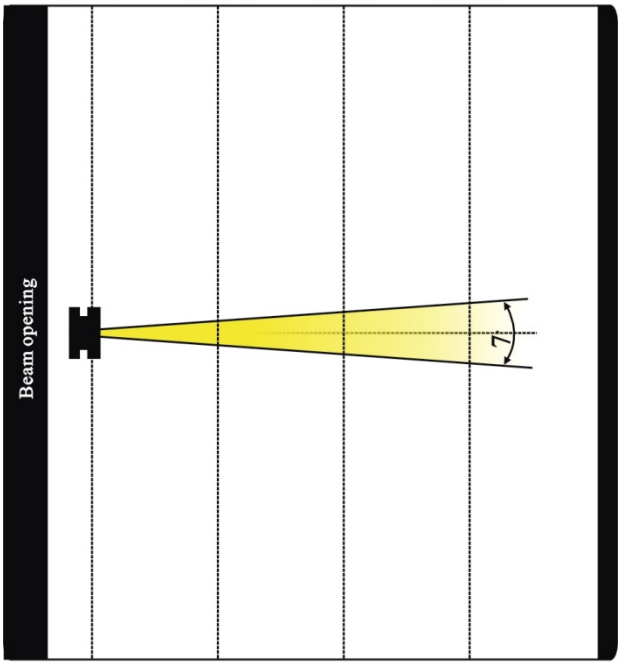
SOFTWARE
Upgrades: fast and convenient through DMX cable, additional dongle required
Reset DMX address, remote lamp switch, reset can all be done by the controller
Running time of fixture on display for reference

OTHER SPEC
Input signal isolation: guarantees stable signal transmission without interference
Advanced RDM function

WEIGHT
Net weight: 42.5 kg

Photometric Data Image

Beam angle			
Intensity LUX			
Red leds	1795	857.4	459.2
Green leds	3282	1453	819.1
Blue leds	690.7	327.6	207.6
White leds	5769	2615	1491
Full leds	10290	4669	2630



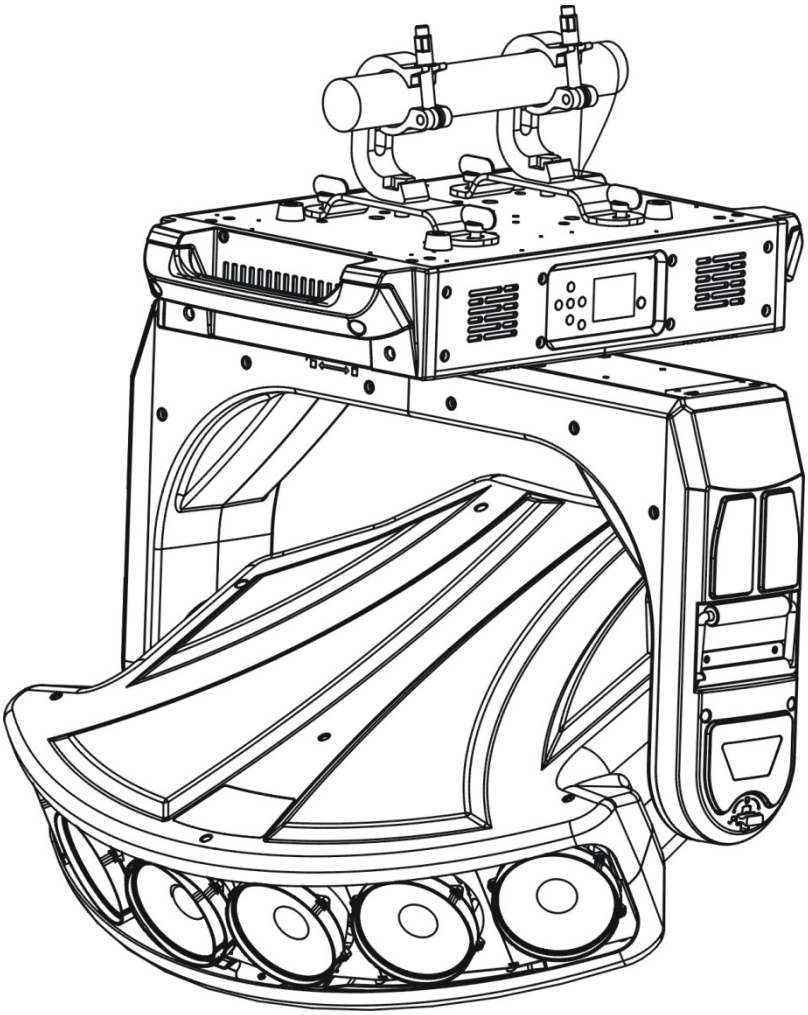
Distance(m)	5	7.5	10
Diametre(m)	Φ0.62	Φ0.92	Φ1.22

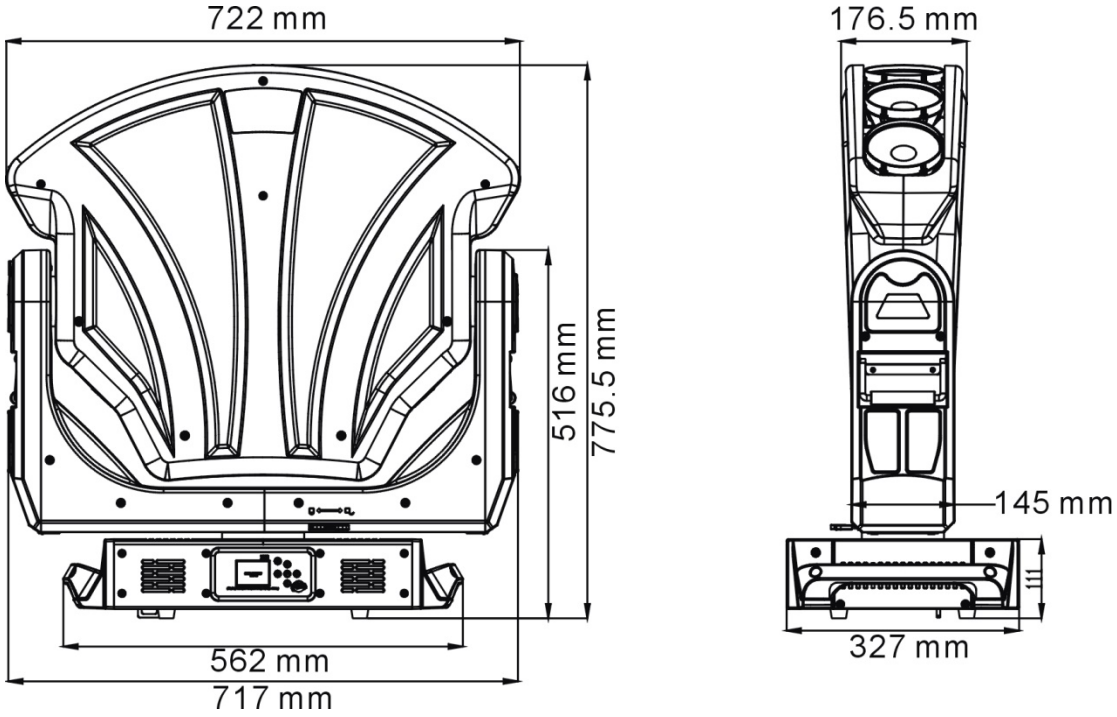
Installation Instructions

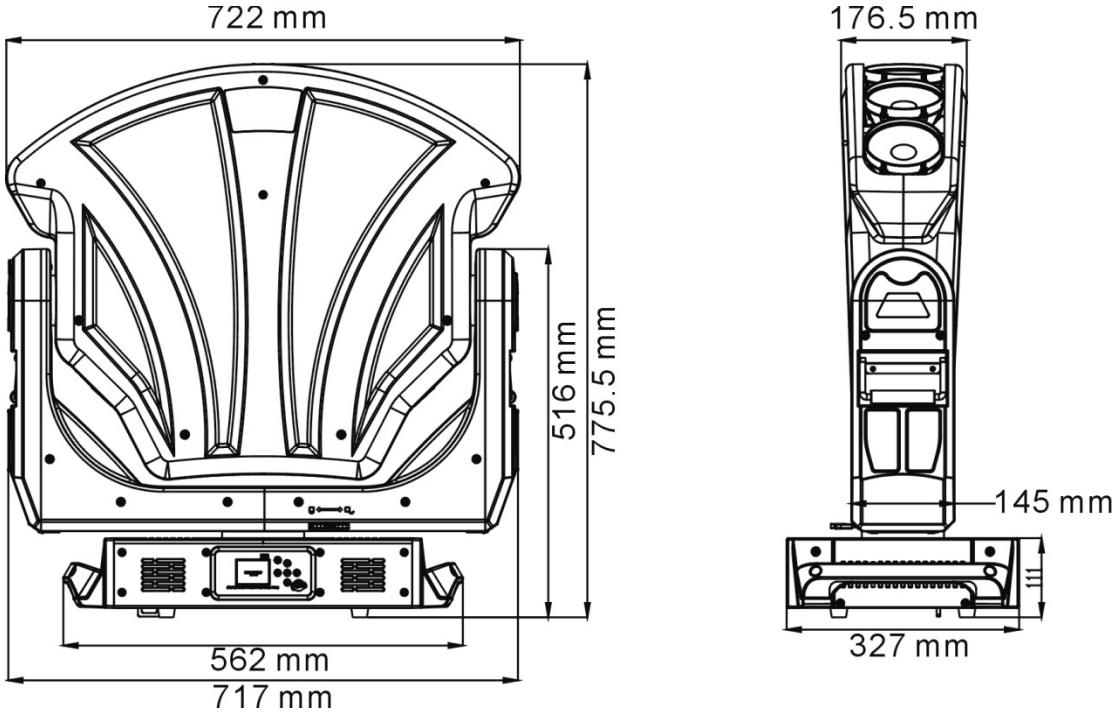
- **The installation must always be secured with a secondary safety attachment, e.g. an appropriate safety cable.**
- **The installation of the fixture has to be built and constructed in a way that it can hold 10 times the weight for 1 hour without any harming deformation.**
- **The applicable temperature for the lighting is between -10°C to 45°C. Do not use the fixture under or above the temperature.**
- **Never stand directly below the device when mounting, removing or servicing the fixture.**
- **The operator has to make sure the safety and technical aspects are approved by an expert before using this fixture for the first time.**
- **These installations must be inspected by a skilled person at least once a year.**
- **Overhead mounting requires extensive experience, including amongst others calculating working load limits, installation material being used, and periodic safety inspection of all installation material and the device. If you lack these qualifications, do not attempt the installation yourself. Improper installation can result in serious bodily injury.**

Attachment Instructions

- Attach the Omega clamp on the bracket by tighten the M12 bolt on the bracket to the hole in the middle of the bracket.
- Insert the quick-lock fasteners of the bracket into the respective holes on the bottom of the fixture.
- Tighten the quick-lock fasteners fully clockwise.
- Install the second Omega clamp.
- Attach the safety-cable through the holes on the bottom of the base. Attach to the trussing system or other safe fixation point.
- Be sure the safety is fully looped, the quick-link is attached and fully tighten
- Inspect for complete attachment before lifting over-head



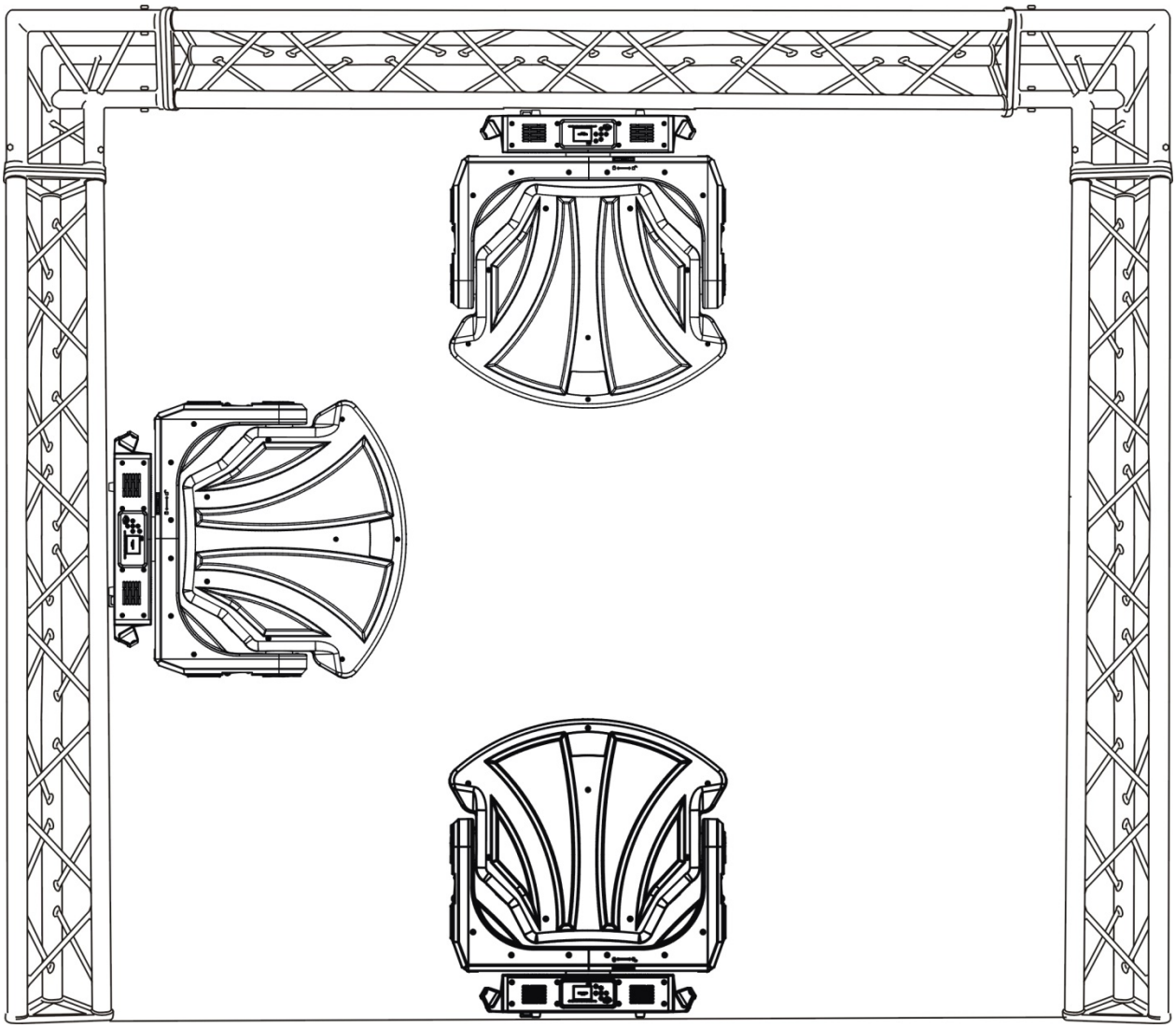

722 mm
516 mm
775.5 mm
562 mm
717 mm
176.5 mm
145 mm
327 mm


722 mm
516 mm
775.5 mm
562 mm
717 mm
176.5 mm
145 mm
327 mm

Mounting

Be sure this fixture is kept at least 0.5m away from any flammable materials (decoration etc.). Always use and install the supplied safety cable as a safety measure to prevent accidental damage and/or injury in the event the clamp fails.

Overhead mounting requires extensive experience, including amongst others calculating working load limits, a detailed knowledge of the installation material being used, and periodic safety inspection of all installation material and the fixture. If you lack these qualifications, do not attempt the installation yourself. Improper installation can result in bodily injury.



Technical Specifications

- Power supply: AC 100-240V~, 50/60Hz
- Power consumption: 750W
- Flight case dimensions: TBC
- Net weight: 42.5 KGS / 93.5LBS
- Gross weight: TBC

Power Specifications

Note: To ensure maximum safety and stability,

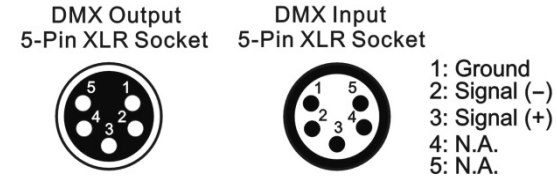
When operating on 100V~120V, a maximum of two devices may be linked together in order to not overload power connector specification. For more than 2 devices, the third device must be connected directly to mains power.

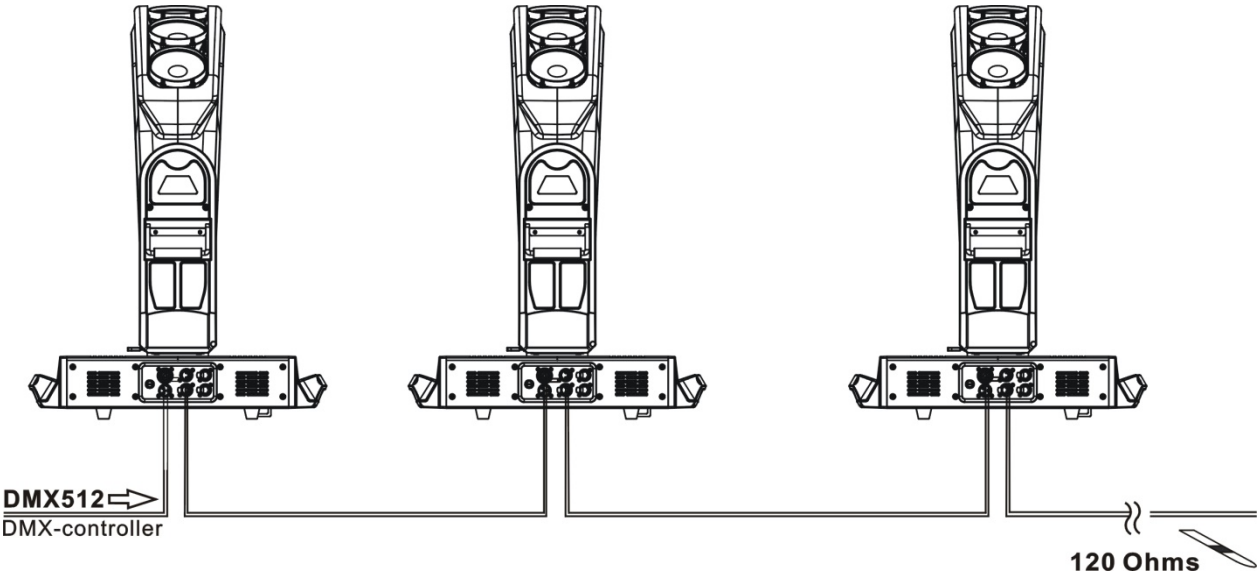
When the voltage is over 200V~240V, a maximum of three devices may be connected together in order to not overload power connector specification. For more than 3 devices, the forth device must be connected directly to mains power.

DMX Control

XLR -Connection

Connect the provided XLR cable to the female 5-pin XLR output of your controller and the other side to the male 5-pin XLR input of the moving head. You can chain multiple moving heads together through serial linking. The cable needed should be two core, screened cable with XLR input and output connectors. Please refer to the diagram below:





Address 1 Address 64 Address 129

Ethernet - Connection

Provided for Art-Net control is an Ethernet port, also provided is an Ethernet “out” port for daisy chaining fixtures.

Note: When power is applied to the fixture, the data traveling is actively regenerated in the fixture, so a fixture-to-fixture limit is set at 100m. When power is not applied, the data is not regenerated, thus cabling length can easily be over 100m leading to data loss at the end of the chain

Note: An exceedingly larger number of fixtures should not be daisy chained together, as this is scenario is untested and potential issues could arise from propagation delay of the Ethernet data traveling through the fixtures. Testing is commonly completed in groups of 20 fixtures, and no significant issues have been seen.

Ethernet Jack in XLR
Style connector

DMX Start Address

All fixtures should be given a DMX starting address when using a DMX signal, so that the correct fixture responds to the correct control signals. This digital starting address is the channel number from which the fixture starts to “listen” to the digital control information sent out from the DMX controller. The allocation of this starting address is achieved by setting the correct number on the display located on the base of the device.

You can set the same starting address for all fixtures or a group of fixtures, or make different address for each fixture individually.

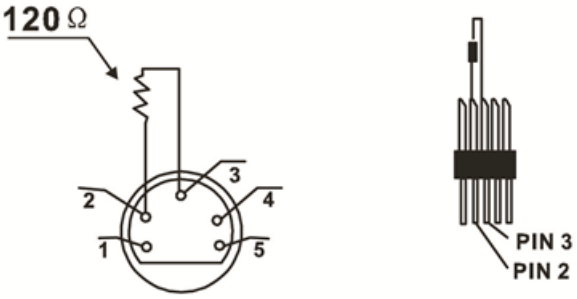
If you set the same address, all the units will start to “listen” to the same control signal from the same channel number. In other words, changing the settings of one channel will affect all the fixtures simultaneously.

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

In the case of this fixture, which is a 64 channel fixture, you should set the starting address of the first unit to 1, the second unit to 65(64+1), the third unit to 129 (64+65), and so on.

DMX terminator

For installations where the DMX cable has to run a long distance or is in an electrically noisy environment, such as in a clubs, it is recommended to use a DMX terminator. This helps in preventing corruption of the digital control signal by electrical noise. The DMX terminator is simply an XLR plug with a 120 Ω resistor connected between pins 2 and 3,which is then plugged into the output XLR socket of the last fixture in the chain. Please see illustrations below:



Internal Control Board

Menu Layout

This chart displays the layout of the control menu structure. See following section for more information and navigation tips.

Address	A001~AXXX			DMX address setting
Info	Time Info.	Current Time Ttl Life Hrs Last Run Hrs LED Hours Timer PIN Clr Last Run LED Time PIN Clear LED Time	XXXX(Hours) XXXX(Hours) XXXX(Hours) XXXX(Hours) Password=XXX ON/OFF Password=XXX ON/OFF	Power on running time Fixture running time Fixture Last times clear LED running time Timer Password Clear Fixture Last time Lamp Password Clear lamp time
	Error Info	XXXXX		Show up to the minute error information
	Value Disp.	ALL, Auto Program PAN……		DMX value display
	Head Temp.	XXX℃/℉		Temperature in the head
	Fan Speed	DisFan2: XX RPM FAN 1:XX RPM FAN 2:XX RPM FAN 3:XX RPM FAN 4:XX RPM FAN 5:XX RPM FAN 6:XX RPM		Head Power Fan Head LED Fan 1 rev Head LED Fan 2 rev Head LED Fan 3 rev Head LED Fan 4 rev Head LED Fan 5 rev Head LED Fan 6 rev
	Ethernet IP	Ethernet IP XXX. XXX. XXX. XXX XXX. XXX. XXX. XXX		IP information
	Software Ver	VerX.X.X……		Software version
Set	Status	No DMX Mode Pan Reverse Tilt Reverse Pan Degree Encoders Hibernation	Close/Hold/Auto/Music ON/OFF ON/OFF 540 ON/OFF OFF, 01M~99M，15M	Auto run if no DMX Pan Reverse movement Tilt Reverse movement Pan Degree Select Movement Feedback Movement Mode Select Standby Mode
	Select Input	DMX Only Art-Net On IP2 Art-Net On IP10		DMX Only Art-Net On IP2 Art-Net On IP10
	Set Universe	000~255		Set Art-Net Universe
	Service PIN	Service PIN Ethernet IP Ether Mask IP Clr Err Info	Password=XXX XXX. XXX. XXX. XXX XXX. XXX. XXX. XXX ON/OFF	Service Password”=050” RDM PID Code Ether Mask IP Clean Err Information
	Disp. Setting	Shutoff Time Flip Display	02~60m 05m ON/OFF	Display shutoff time Reverse 180 degree

		Key Lock	ON/OFF	Key Lock
	Temp. C/F	Fahrenheit Celsius		Temperature switch between ℃/℉
	Reset Default	ON/OFF		Restore factory set.
Test	Home	All Pan & Tilt Others		Reset all motors Reset Pan/Tilt Reset other motors
	Test Channel	PAN ……		Test function
	Manual Ctrl.	PAN =XXX :		Fine adjustment of the LED
	Calibration	-Password- Pan =XXX :		Password Calibrate and adjust the effects to standard/right position
Preset	PlayBack	DMX Control Set To Slave Auto Program	Slave1,Slave2,Slave3 Master / Alone	Choose DMX mode Slave setting Auto program
	Select Prog.	Prog. Part 1 = Program 1 ~ 10 Program 1 Prog. Part 2 = Program 1 ~ 10 Program 2 Prog. Part 3 = Program 1 ~ 10 Program 3		Select programs to be run
	Edit Prog.	Program 1 : Program 10	Program Test Step 01=SCxxx Step 64=SCxxx	Testing program Program in loop Save and exit
	Edit Scenes	Edit Scene 001 ~ Edit Scene 250	Pan,Tilt,…… --Fade Time-- --Secne Time-- Input By Outside	Save and automatically return manual scenes edit
	Scenes Input	XX~XX		Automat. scenes rec

Control Board Functions

Address

With this function, you can adjust the desired DMX-address via the Control Board.

1. Access the main menu.
2. Tap the <Up/Down> button until ”Set DMX Address” is displayed.
3. Press ENTER, the display will show “Set DMX Address”.
4. Tap the <Up/Down> button, the display will show “A001~AXXX”
5. Press ENTER to confirm or press <MODE/ESC>to return to the main menu.

Info.

Time Info

Current Time

With this function, you can display the temporary running time of the device from the last power on. The display shows “XXXX”, “XXXX” stands for the number of hours. The counter is reset after turning the device off.

1. Tap <MODE/ESC> button, to access the main menu
2. Tap the <Up/Down> button until ”Info” is displayed. Press ENTER.
3. Tap the <Up/Down>button until the display will show “Time Info.” Press ENTER.
4. Press <Up/Down> the display will show “Current Time”.
5. Press < ENTER> the display will show ”Current Time”.
6. The display will show “XXXX” (Hours)
7. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

Ttl Life Hrs

With this function, you can display the running time of the device. The display shows “XXXX”, “XXXX” stands for the number of hours.

1. Tap <MODE/ESC>button, access the main menu
2. Tap the <Up/Down>button until ” Info” is displayed. Press ENTER
3. Tap the <Up/Down>button until the display will show “Time Info.”. Press ENTER
4. Press <Up/Down> the display will show “Ttl Life Hrs”.
5. Press<ENTER> the display will show ” Ttl Life Hrs””.
6. The display will show “XXXX” (Hours) ;
7. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

Last Run Hrs

With this function, you can display last the running time of the lamp. The display shows “XXXX”, “XXXX” stands for the number of hours

1. Tap <MODE/ESC>button, access the main menu
2. Tap the <Up/Down>button until ” Info” is displayed. Press ENTER
3. Tap the <Up/Down>button until the display will show “Time Info.” Press ENTER
4. Press <Up/Down> the display will show “Last Run Hrs”.
5. Press<ENTER> the display will show ” Last Run Hrs”.
6. The display will show “XXXX” (Hours) ;
7. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

LED Hour

With this function, you can display the running time of the LED. The display shows “XXXX”, “XXXX” stands for the number of hours.

1. Tap <MODE/ESC>button, access the main menu
2. Tap the <Up/Down>button until ”Info” is displayed. Press< ENTER>
3. Tap the <Up/Down>button until the display will show “Time Info.” Press< ENTER>
4. Press <Up/Down> the display will show “LED Hours”.
5. Press<ENTER> the display will show “LED Hours”.
6. The display will show “XXXX” (Hours) ;
7. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

Timer PIN

With this function, you can display the timer password. The time password is 038.

1. Tap <MODE/ESC>button, access the main menu
2. Tap the <Up/Down>button until ” Info” is displayed. Press ENTER,
3. Tap the <Up/Down>button until the display will show “Time Info.”. Press ENTER
4. Press <Up/Down> the display will show “Timer PIN”.
5. Press <ENTER> the display will show “Timer PIN”, the time password is 038.
6. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

Clr Last Run

With this function, you can clear last run time of the fixture. The display shows “ON” or “OFF”, Press “Enter” to confirm.

1. Tap <MODE/ESC>button, access the main menu
2. Tap the <Up/Down>button until ” Info” is displayed. Press< ENTER>
3. Tap the <Up/Down>button until the display will show “Time Info.”. Press ENTER
4. Press <Up/Down>;, the display will show “Clr Last Run”.
5. At” L-Timer Password” menu input right password, Press<ENTER>
6. The display show “OFF”, Press <Up/Down> the display will show “ON”.
7. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

LED Time PIN

Please contact service to for more information, in general LED time should not be modified.

Clen LED Time

Please contact service to for more information, in general LED time should not be reset unless directed by factory rep.

Error Info

ErrorInfo

With this function you can view error code information

1. Tap <MODE/ESC>button, access the main menu
2. Tap the <Up/Down>button until, “Info” is displayed. Press ENTER
3. Press <Up/Down>, the display will show “Error Info.”.
4. Press< ENTER>, the display will show “Error Info.”
5. The display will show “XXXX”
6. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

Value Disp.

DMX Value ALL

With this function you can display the DMX 512 value of each channel. The display automatically shows the channel with a value changing.

1. Tap <MODE/ESC>button, to access the main menu
2. Tap the <Up/Down>button until ”Info” is displayed Press <ENTER>
3. Tap the <Up/Down>button until the display will show “Value Disp”. <Press ENTER>
4. Tap the <Up/Down>button until “ALL”, “PAN” is displayed.
5. Tap the <Up/Down>button, choose each channel.
6. Press ENTER to confirm or press <MODE/ESC> to return to the main menu

Head Temperature

With this function you can display the temperature on the head in Celsius.

1. Tap <MODE/ESC>button, to access the main menu
2. Tap the <Up/Down>button until ” Info” is displayed. Press ENTER, the display will show “Info”.
3. Tap the <Up/Down>button until ” Head Temp.” is displayed. Press ENTER, “Head Temp.” will show
4. The display show “XXX °C/ °F”.
5. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

Fan Speeds

With this function you can display the speed of the fans.

1. Tap <MODE/ESC> button, to access the main menu.
2. Tap the <Up/Down>button until “Info” is displayed. Press ENTER, the display will show “Info”.
3. Press <Up/Down>, the display will show “Fan Speed”.
4. Press< ENTER>, the display will show “Fan Info”.
5. The display show “HeadFan1: xxxx RPM”, “LEDFanX: xxxx…
6. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

Ethernet IP

With this function you can choose display the IP address of the fixture.

1. Tap <MODE/ESC>button, access the main menu
2. Tap the <Up/Down>button until ”Info” is displayed.
3. Press ENTER, the display will show “Info”.
4. Tap the <Up/Down>button until the display will show “Ethernet IP”.
5. Press ENTER, the display will show “EthernetIP xxx.xxx.xxx.xxx.xxxx”.
6. Press ENTER to confirm or press <MODE/ESC> to return to the main menu

Software Version

With this function, you can display the software version of the device.

1. Tap <MODE/ESC>button, access the main menu
2. Tap the <Up/Down>button until ”Info” is displayed. Press <ENTER>
3. Press <Up/Down> the display will show “Software Ver”
4. Press<ENTER> the display will show ”Software Ver”
5. The display show “Ver x.x.x”.
6. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

SET

Status

No DMX Status

With this function, when the drive is not DMX signal, it runs automatism, close, hold and music, the default is hold.

1. Tap <MODE/ESC>button, access the main menu
2. Tap the <Up/Down>button until ”SET” is displayed. Press ENTER
3. Tap the <Up/Down>button until the display will show “Status”. Press ENTER
4. Press <Up/Down> the display will show “No DMX Status”.
5. Press<ENTER> the display will show ”No DMX Status”.
6. The display show “Hold”, Press <Up/Down> the display will show “Close”, “Auto”,.
7. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

Pan Reverse

With this function you can reverse the Pan-movement.

1. Tap <MODE/ESC>button, access the main menu
2. Tap the <Up/Down>button until ”SET” is displayed. Press ENTER,
3. Tap the <Up/Down>button until the display will show “Status”. Press ENTER
4. Press <Up/Down> the display will show “Pan Reverse”.
5. Press<ENTER> the display will show ”Pan Reverse”.
6. The display show “OFF”, Press <Up/Down>;the display will show “ON”.
7. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

Tilt Reverse

With this function you can reverse the Tilt-movement.

1. Tap <MODE/ESC>button, access the main menu
2. Tap the <Up/Down>button until ”SET” is displayed. Press ENTER
3. Tap the <Up/Down>button until the display will show “Status”
4. Press ENTER, the display will show “Status”.
5. Press <Up/Down> the display will show ”Tilt Reverse”.
6. Press<ENTER>the display will show ”Tilt Reverse”.
7. The display show “OFF”, Press <Up/Down> the display will show “ON”.
8. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

Encoders

With this function, you can feedback switch of pan movement or tilt movement.

1. Tap <MODE/ESC>button, access the main menu
2. Tap the <Up/Down>button until ”SET” is displayed. Press ENTER
3. Tap the <Up/Down>button until the display will show “Status”. Press ENTER
4. Press <Up/Down> the display will show ” Encoders.”
5. Press<ENTER> the display will show ” Encoders.”
6. The display show “ON”, Press <Up/Down> the display will show “OFF”.
7. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

Hibernation —Standby mode

The lamp and step motors will be power off if the fixture stay without DMX signal for 15 mins (Factory default).And the fixture will be reset before working once it receive DMX signal again.

1. Tap <MODE/ESC>button, access the main menu
2. Tap the <Up/Down>button until ”SET” is displayed. Press ENTER,
3. Tap the <Up/Down>button until the display will show “Status”. Press ENTER
4. Press <Up/Down> the display will show ”Hibernation”.
5. Press<ENTER> the display will show ”Hibernation”.
6. Press <Up/Down> the display will show “01M”,”02M”, “15M”, “99M” or ”OFF”.
7. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

Select Input

Select Input

With this function, you change between ArtNet on IP2., IP on 10. Or DMX

1. Tap <MODE/ESC>button, access the main menu
2. Tap the <Up/Down>button until ”SET” is displayed. Press ENTER
3. Tap the <Up/Down>button until the display will show “Status”. Press ENTER
4. Press <Up/Down> the display will show ” Select Input”.Press<ENTER>
5. Press <Up/Down> the display will show “ArtNet on IP2” or “ArtNet on IP10” or “DMX”.
6. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

Set Universe

Set Universe

With this function, you change the ArtNet Universe

1. Tap <MODE/ESC>button, access the main menu
2. Tap the <Up/Down>button until ”SET” is displayed. Press ENTER
3. Tap the <Up/Down>button until the display will show “Status”. Press ENTER
4. Press <Up/Down> the display will show ”Set Universe”.
5. Press<ENTER> the display will show ” Set Universe”.
6. The display show “000--255”, Press <Up/Down> to select
7. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

Service PIN

Password——The Password for this function is “50”.

Ether Mask

With this function, you can set the IP Mask of the fixture.

1. Tap <MODE/ESC> button to access the main menu
2. Tap the <Up/Down> button until “Personality” is displayed. Press ENTER
3. Tap the <Up/Down> button until the display will show “Service Setting”. Press ENTER
4. Press <Up/Down>, the display will show “Ether Mask”.
5. Press< ENTER>, the display will show “Ether Mask”.
6. The display show “xxx.xxx.xxx.xxx”, Press <Up/Down>, to set.
7. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

Ethernet IP

With this function, you can set the IP address of the fixture.

1. Tap <MODE/ESC> button to access the main menu
2. Tap the <Up/Down> button until “Personality” is displayed. Press ENTER
3. Tap the <Up/Down> button until the display will show “Service Setting”. Press ENTER
4. Press <Up/Down>, the display will show “Ethernet IP”.
5. Press< ENTER>, the display will show “Ethernet IP”.
6. The display show “xxx.xxx.xxx.xxx”, Press <Up/Down>, to set.
7. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

Clr Err Info

With this function, you can clear the error messages

1. Tap <MODE/ESC> button to access the main menu
2. Tap the <Up/Down> button until “Personality” is displayed. Press ENTER
3. Tap the <Up/Down> button until the display will show “Service Setting”. Press ENTER
4. Press <Up/Down>, the display will show “Clear Err. Info”.
5. Press< ENTER>, the display will show “Clear Err. Info”.
6. The display show “OFF”, Press <Up/Down>, the display will show “ON”.
7. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

Display Settings

Shut off time

With this function you can shut off the color LCD display after 2 to 60 minutes. Turn the encoder in order to select the desired shut off time. The default is 5 minute.

1. Tap <MODE/ESC>button, access the main menu
2. Tap the <Up/Down>button until ”Set” is displayed. Press ENTER
3. Tap the <Up/Down>button until the display will show “Disp.Setting”. Press ENTER
4. Press <Up/Down> the display will show ” Shutoff Time”.
5. Press<ENTER> the display will show ” Shutoff Time”.

Flip Display

With this function you can the entire display to be flipped by 180˚ to allow for better view when the fixture is hung from truss or a ceiling. This function is disabled as default.

1. Tap <MODE/ESC>button, access the main menu
2. Tap the <Up/Down>button until ”Set” is displayed. Press ENTER
3. Tap the <Up/Down>button until the display will show “Disp. Setting”. Press ENTER
4. Press <Up/Down> the display will show ”Flip Display”.
5. Press<ENTER> the display will show ”Flip Display”.
6. The display show “OFF”, Press <Up/Down> the display will show “ON”.
7. Press <ENTER>; to confirm or press <MODE/ESC>; to return to the main menu.

Key Lock

With this function you can activate the automatic key lock status. If this function is activated, the keys will be locked automatically after exiting the edit mode for 15 seconds. Keep pressing the [MENU] key for 3seconds if you do not need this function.

1. Tap <MODE/ESC>button, access the main menu
2. Tap the <Up/Down>button until ”Set” is displayed. Press ENTER
3. Tap the <Up/Down>button until the display will show “Disp.Setting”. Press ENTER
4. Press <Up/Down> the display will show ”Key Lock”.
5. Press< ENTER> the display will show “Key Lock”.
6. The display show “OFF”, Press <Up/Down>;, the display will show “ON”.
7. Press <ENTER>; to confirm or press &<MODE/ESC>; to return to the main menu.

Temperature C/F

With this function, Display the temperature for Celsius or Fahrenheit.

1. Tap <MODE/ESC>button, access the main menu
2. Tap the <Up/Down>button until ” Set” is displayed. Press ENTER
3. Press <Up/Down>the display will show ”Temp. C/F”.
4. Press<ENTER> the display will show ” Temp. C/F”.
5. The display show “Celsius”, Press <Up/Down> the display will show “Fahrenheit”.
6. Press <ENTER>; to confirm or press <MODE/ESC>; to return to the main menu.

Reset Default

With this function, you can select restore factory set for ON or OFF, the default is OFF.

1. Tap <MODE/ESC>button, access the main menu
2. Tap the <Up/Down>button until ”Personality” is displayed. Press ENTER
3. Press <Up/Down>the display will show ” Reset Default”.
4. Press<ENTER> the display will show ” Reset Default”.
5. The display show “OFF”, Press <Up/Down> the display will show “ON”.
6. Press <ENTER>; to confirm or press <MODE/ESC>; to return to the main menu.

Test

Home

With this function you can reset the device via the Control Board. You can select the different reset functions by turning the encoder.

1. Tap <MODE/ESC>button, access the main menu
2. Tap the <Up/Down>button until ” Test” is displayed. Press ENTER
3. The display show “Reset All”, Press <Up/Down>
4. Press <ENTER>; to confirm or press <MODE/ESC>; to return to the main menu.

Test channel

With this function you can test each channel on its (correct) function.

1. Tap <MODE/ESC>button, access the main menu
2. Tap the <Up/Down>button until ” Test” is displayed. Press ENTER
3. Press <Up/Down> the display will show “Test Channel”.
4. Press<ENTER> the display will show “Test Channel”.
5. The display show “Pan Moving ”first channel, Press <Up/Down> can choose other channel.
6. Press <ENTER>; to confirm or press <MODE/ESC>; to return to the main menu

Manual control

With this function, you can adjust the lamp more easily. All effects will be canceled, the shutter opens and the dimmer intensity will be set to 100 %. With the individual functions, you can focus the light on a flat surface (wall) and perform the fine lamp adjustment.

1. Tap <MODE/ESC>button, access the main menu
2. Tap the <Up/Down>button until ” Test” is displayed. Press ENTER
3. Press <Up/Down> the display will show “Manual Ctrl.”.
4. Press<ENTER> the display will show “Manual Ctrl.”.
5. The display show “PAN=XXX”.
6. Press <ENTER>; to confirm or press <MODE/ESC>; to return to the main menu.

Calibration

Please contact service to for more information, in general this function should not be used unless directed by factory rep.

Preset Programming and Playback

Preset

Play Back

DMX Control

1. Tap <MODE/ESC>button, access the main menu
2. Tap the&<Up/Down>button until ”Preset” is displayed. Press ENTER
3. Tap the <Up/Down>button until the display will show “PlayBack”. Press ENTER
4. Tap the <Up/Down>button until “DMX Control” is displayed.
5. Press ENTER, the display will show “DMX Control”.
6. Tap the <Up/Down>button, choose DMX modes.
7. Press ENTER to confirm or press <MODE/ESC> to return to the main menu

Set To Slave

With this function, you can define the device as slave.

1. Tap <MODE/ESC>button, access the main menu
2. Tap the <Up/Down>button until ”Preset” is displayed. Press ENTER
3. Tap the <Up/Down>button until the display will show “PlayBack”. Press ENTER
4. Tap the <Up/Down>button until “Set To Slav” is displayed
5. Press ENTER, the display will show “Set To Slav”.
6. Tap the <Up/Down>button, the display will show “Slave1”, ”Slave2”, ”Slave3”.
7. Press ENTER to confirm or press <MODE/ESC> to return to the main menu

Auto Program

With this function, you can run the internal program. You can select the desired program under “Select prog.”.

You can set the number of steps under “Edit prog.”. You can edit the individual scenes under “Edit scenes”.

With this function, you can run the individual scenes either automatically, i.e. with the adjusted Step-Time.

1. Tap <MODE/ESC>button, access the main menu
2. Tap the <Up/Down>button until ”Preset” is displayed. Press ENTER
3. Tap the <Up/Down>button until the display will show “PlayBack”. Press ENTER
4. Tap the <Up/Down>button until “Auto Program” is displayed.
5. Press ENTER, the display will show “Auto Program”
6. Tap the <Up/Down> button, the display will show “Master1,” ”Alone”.
7. Press ENTER to confirm or press <MODE/ESC> to return to the main menu

Select programs

With this function, you can select the program for the Program Run.

Edit program

With this function, you can edit the internal programs.

Edit scenes

With this function, you can edit the scenes of the internal programs.

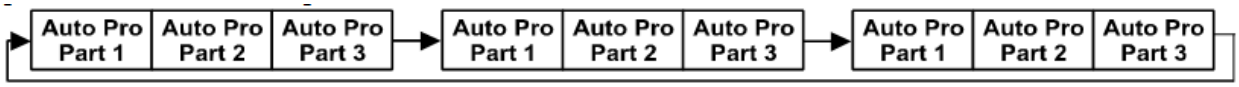
Scenes Input

The moving head features an integrated DMX-recorder by which you can transmit the programmed scenes from your DMX-controller to the moving head. Adjust the desired scene numbers via the encoder (from – to). When you call up the scenes at your controller, they will automatically be transmitted to the moving head.

Example Program

Example:

A Master unit can send up to 3 different data groups to the Slave units, i.e. a Master unit can start 3 different Slave units, which run 3 different programs. The Master unit sends the 3 program parts in a continuous loop.



The Slave unit receives data from the Master unit according to the group which the Slave unit was assigned to. If e.g. a Slave unit is set to “Slave 1” in the menu “Set to Slave”, the Master unit sends “Auto Program Part 1” to the Slave unit. If set to “Slave 2” ,the Slave unit receives “Auto Program Part 2”.

To start an Auto Program please proceed as follows:

1. Slave-Setting

- Select “Function Mode” by turning the encoder.
- Press the Enter button to confirm.
- Select “Set to slave” by turning the encoder.
- Press the Enter button to confirm
- Turn the encoder to select “Slave 1”, “Slave 2” or “Slave 3”
- Press the Enter button to confirm.• Press the MODE/ESC button in order to return to the main menu.

2. Automatic Program Run

- Select “Function Mode” by turning the encoder.
- Press the Enter button to confirm
- Select “Auto Program” by turning the encoder.
- Press the Enter button to confirm.
- Turn the encoder to select “Master” or “Alone”. The selection "Alone" means Stand Alone-mode and "Master" that the device is defined as master.
- Press the Enter button to confirm.• Press the MODE/ESC button in order to return to the main menu.

3. Program selection for Auto Pro Part

• Select “Edit program” by turning the encoder.

• Press the Enter button to confirm

• Select “Select programs” by turning the encoder.

• Press the Enter button to confirm.

• Turn the encoder to select “Auto Pro Part 1”, “Auto Pro Part 2” or “Auto Pro Part 3”, and thus select which Slave program is to be sent. Selection “Part 1” means, that the Slave unit runs the same program as the master units.

• Press the Enter button to confirm.

• Press the MODE/ESC button in order to return to the main menu.

4. Program selection for Edit Program

• Select “Edit program” by turning the encoder.

• Press the Enter button to confirm.

• Select “Edit program” by turning the encoder.

• Press the Enter button to confirm.

• Turn the encoder to select the desired program. With this function you can edit specific scenes into a specific program.

• Press the Enter button to confirm.

• Press the MODE/ESC button in order to return to the main menu.

5. Automatic Scene Recording

• Select “Edit program” by turning the encoder.

• Press the Enter button to confirm.

• Select “Edit scenes” by turning the encoder.

• Turn the encoder to select the desired scene numbers. You can program a maximum number of 250

• Press the Enter button to confirm.

• Press the MODE/ESC button in order to return to the main menu.

Example:

Program 2 includes scenes: 10, 11, 12, 13

Program 4 includes scenes: 8, 9, 10

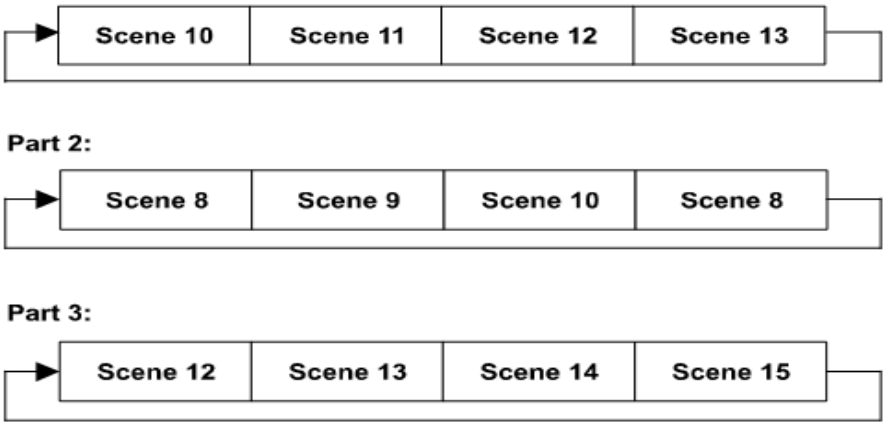
Program 6 includes scenes: 12, 13, 14, 15

Auto Pro Part 1 is Program 2;

Auto Pro Part 2 is Program 3;

Auto Pro Part 3 is Program 6

The 3 Slave groups run the Auto Program in certain time segments, as shown in the following picture:



DMX Protocol

DMX channel´s functions and their values (64 DMX channels):

Channel	Marketing Construct	Description	Decimal Low	Decimal High	Percent Low	Percent High	Hex Low	Hex High	Controller Default
1	Pan	Pan Coarse	0	255	0%	100%	00h	FFh	128
2	Pan	Pan Fine	0	255	0%	100%	00h	FFh	0
3	Tilt	Tilt Coarse	0	255	0%	100%	00h	FFh	128
4	Tilt	Tilt Fine	0	255	0%	100%	00h	FFh	0
5	Mix Color Function	RGB	0	15	0%	6%	00h	0Fh	0
		RBG	16	30	6%	12%	10h	1Eh	
		BRG	31	45	12%	18%	1Fh	2Dh	
		BGR	46	60	18%	24%	2Eh	3Ch	
		GRB	61	75	24%	29%	3Dh	4Bh	
		GBR	76	90	30%	35%	4Ch	5Ah	
		CMY	91	105	36%	41%	5Bh	69h	
		CYM	106	120	42%	47%	6Ah	78h	
		YCM	121	135	47%	53%	79h	87h	
		YMC	136	150	53%	59%	88h	96h	
		MCY	151	165	59%	65%	97h	A5h	
		MYC	166	180	65%	71%	A6h	B4h	
		Cycle	181	195	71%	76%	B5h	C3h	
		Random	196	210	77%	82%	C4h	D2h	
		Reserved	211	255	83%	100%	D3h	FFh	
6	Shutter/ LED Functions	Normal Strobe Functions	0	31	0%	12%	00h	1Fh	0
		Random Random strobe	32	63	13%	25%	20h	3Fh	
		Synchronous Random Strobe	64	95	25%	37%	40h	5Fh	
		TBD	96	255	38%	100%	60h	FFh	
7	Shutter	Close	0	23	0%	9%	00h	17h	255
		Strobe Rate (slow to fast)	24	229	9%	90%	18h	E5h	
		Open	230	255	90%	100%	E6h	FFh	
8	Dim Coarse	Close	0		0%		00h		0
		Open	255		100%		FFh		
9	Dim Fine		0		0%		00h		0
			255		100%		FFh		
10	Mspeed	Disable	0	3	0%	1%	00h	03h	0
		Longest (252.7 seconds)	4		2%		04h		
		Shortest (0.15 seconds)	255		100%		FFh		
11	Inclusive Macro (Note 1)	Macro off	0		0%		00h		0
		Macro 1	1		0%		01h		
		Macro 2	2		1%		02h		
		Macro 3	3		1%		03h		
		…							

		Macro 136	136		53%		88h		
		TBD	137	255	54%	100%	89h	FFh	
12	Inclusive Macro Speed	Static Macro Operation (Note 1)							192
		Disable	0	3	0%	1%	00h	03h	
		Longest (252.7 seconds)	4		2%		04h		
		Shortest (0.15 seconds)	255		100%		FFh		
		Animated Macro Operation (Note 1)							
		Reverse Play Speed Fast to x1	0	62	0%	24%	00h	3Eh	
		Reverse Play Speed x1	63		25%	0%	3Fh	00h	
		Reverse Play speed x 1 to slow	64	126	25%	49%	40h	7Eh	
		Stop	127	128	50%	50%	7Fh	80h	
		Forward Play Speed slow to x1	129	191	51%	75%	81h	BFh	
		Forward Play speed x 1	192		75%	0%	C0h	00h	
		Forward Play speed x 1 to fast	193	255	76%	100%	C1h	FFh	
13	Inclusive Macro X fade	Static Macro Operation (Note 1)							128
		Disable	0	3	0%	1%	00h	03h	
		Longest (252.7 seconds)	4		2%		04h		
		Shortest (0.15 seconds)	255		100%		FFh		
		Animated Macro Operation (Note 1)							
		Stop	0		0%		00h	00h	
		Decreasing xfade time	1	127	0%	50%	01h	7Fh	
		Programmed xfade time x1	128		50%		80h		
		Increasing xfade time	129	255	51%	100%	81h	FFh	
14	Control (Note 2)	The Control channel should not be crossfaded. No shutter channel requirement.							0
		Safe (normal operation)	0	15	0%	6%	00h	0Fh	
		Pan & Tilt Mspeed Off	16	31	6%	12%	10h	1Fh	
		Shutter channel to 0 for access to the following commands.							
		Display/LED's Off (send 20 packets)	32	47	13%	18%	20h	2Fh	
		Display/LED's On (send 20 packets)	48	63	19%	25%	30h	3Fh	
		Home All (send 20 packets)	64	79	25%	31%	40h	4Fh	
		Shutdown (send 80 packets)	80	95	31%	37%	50h	5Fh	
		TBD	96	111	38%	44%	60h	6Fh	
		Module X Invert On	112	127	44%	50%	70h	7Fh	
		Module X Invert Off	128	143	50%	56%	80h	8Fh	
		Module Mirror On (Note 5)	144	159	56%	62%	90h	9Fh	
		Module Mirror Off	160	175	63%	69%	A0h	AFh	
		White Balance On (Note 6)	176	191	69%	75%	B0h	BFh	
		White Balance Off	192	207	75%	81%	C0h	CFh	
		Home Modules (only modules home with LEDs off) (send 20 packets)	208	223	82%	87%	D0h	DFh	
		Motion Only Macro Mode	224	239	88%	94%	E0h	EFh	
		TBD	240	255	94%	100%	F0h	FFh	
15	Indigo Highlighter Function	Indigo Highlighter Dim Tracking Mode							0
		Continuous	0	15	0%	6%	00h	0Fh	

		Periodic Strobe (slow to fast)	16	41	6%	16%	10h	29h	
		Random Strobe (slow to fast)	42	67	16%	26%	2Ah	43h	
		TBD	68	127	27%	50%	44h	7Fh	
		Indigo Highlighter Independent Dim Mode							
		Continuous	128	143	50%	56%	80h	8Fh	
		Periodic Strobe (slow to fast)	144	169	56%	66%	90h	A9h	
		Random Strobe (slow to fast)	170	195	67%	76%	AAh	C3h	
		TBD	196	255	77%	100%	C4h	FFh	
16	Indigo Highlighter Dim	Indigo Highlighter Off	0		0%		00h		0
		Indigo Highlighter 100%	255		100%		FFh		
17	LED 1 X	LED 1 X shift (NOTE 4)	0	255	0%	100%	00h	FFh	255
18	LED 1 Red (Note 3)	RGB Control							255
		Red Off	0		0%		00h		
		Red Full Saturation	255		100%		FFh		
		RBG Control							
		Red Off	0		0%		00h		
		Red Full Saturation	255		100%		FFh		
		BRG Control							
		Blue Off	0		0%		00h		
		Blue Full Saturation	255		100%		FFh		
		BGR Control							
		Blue Off	0		0%		00h		
		Blue Full Saturation	255		100%		FFh		
		GRB Control							
		Green Off	0		0%		00h		
		Green Full Saturation	255		100%		FFh		
		GBR Control							
		Green Off	0		0%		00h		
		Green Full Saturation	255		100%		FFh		
		CMY Control							
		Red Full Saturation	0		0%		00h		
		Red Off	255		100%		FFh		
		CYM Control							
		Red Full Saturation	0		0%		00h		
		Red Off	255		100%		FFh		
		YCM Control							
		Blue Full Saturation	0		0%		00h		
		Blue Off	255		100%		FFh		
		YMC Control							
		Blue Full Saturation	0		0%		00h		
		Blue off	255		100%		FFh		
		MCY Control							
		Green Full Saturation	0		0%		00h		

		Green Off	255		100%		FFh	
		MYC Control						
		Green Full Saturation	0		0%		00h	
		Green Off	255		100%		FFh	
		Cycle & Random Modes. Scan Speed controlled by Red Channel						
		Slow Rate	0		0%		00h	
		Fast Rate	255		100%		FFh	
19	LED 1 Green	RGB Control						255
		Green Off	0		0%		00h	
		Green Full Saturation	255		100%		FFh	
		RBG Control						
		Blue Off	0		0%		00h	
		Blue Full Saturation	255		100%		FFh	
		BRG Control						
		Red Off	0		0%		00h	
		Red Full Saturation	255		100%		FFh	
		BGR Control						
		Green Off	0		0%		00h	
		Green Full Saturation	255		100%		FFh	
		GRB Control						
		Red Off	0		0%		00h	
		Red Full Saturation	255		100%		FFh	
		GBR Control						
		Blue Off	0		0%		00h	
		Blue Full Saturation	255		100%		FFh	
		CMY Control						
		Green Full Saturation	0		0%		00h	
		Green Off	255		100%		FFh	
		CYM Control						
		Blue Full Saturation	0		0%		00h	
		Blue Off	255		100%		FFh	
		YCM Control						
		Red Full Saturation	0		0%		00h	
		Red Off	255		100%		FFh	
		YMC Control						
		Green Full Saturation	0		0%		00h	
		Green Off	255		100%		FFh	
		MCY Control						
		Red Full Saturation	0		0%		00h	
		Red Off	255		100%		FFh	
		MYC Control						
		Blue Full Saturation	0		0%		00h	
		Blue Off	255		100%		FFh	

20		RGB Control							255
		Blue Off	0		0%		00h		
		Blue Full Saturation	255		100%		FFh		
		RBG Control							
		Green Off	0		0%		00h		
		Green Full Saturation	255		100%		FFh		
		BRG Control							
		Green Off	0		0%		00h		
		Green Full Saturation	255		100%		FFh		
		BGR Control							
		Red Off	0		0%		00h		
		Red Full Saturation	255		100%		FFh		
		GRB Control							
		Blue Off	0		0%		00h		
		Blue Full Saturation	255		100%		FFh		
		GBR Control							
		Red Off	0		0%		00h		
		Red Full Saturation	255		100%		FFh		
		CMY Control							
		Blue Full Saturation	0		0%		00h		
		Blue Off	255		100%		FFh		
		CYM Control							
		Green Full Saturation	0		0%		00h		
		Green Off	255		100%		FFh		
		YCM Control							
		Green Full Saturation	0		0%		00h		
		Green Off	255		100%		FFh		
		YMC Control							
		Red Full Saturation	0		0%		00h		
		Red Off	255		100%		FFh		
		MCY Control							
		Blue Full Saturation	0		0%		00h		
		Blue Off	255		100%		FFh		
		MYC Control							
		Red Full Saturation	0		0%		00h		
		Red Off	255		100%		FFh		
21		RGB Control							255
		White Off	0		0%		00h		
		White Full	255		100%		FFh		
		RBG Control							
		White Off	0		0%		00h		
		White Full	255		100%		FFh		
		BRG Control							

		White Off	0		0%		00h	
		White Full	255		100%		FFh	
		BGR Control						
		White Off	0		0%		00h	
		White Full	255		100%		FFh	
		GRB Control						
		White Off	0		0%		00h	
		White Full	255		100%		FFh	
		GBR Control						
		White Off	0		0%		00h	
		White Full	255		100%		FFh	
		CMY Control						
		White Off	0		0%		00h	
		White Full	255		100%		FFh	
		CYM Control						
		White Off	0		0%		00h	
		White Full	255		100%		FFh	
		YCM Control						
		White Off	0		0%		00h	
		White Full	255		100%		FFh	
		YMC Control						
		White Off	0		0%		00h	
		White Full	255		100%		FFh	
		MCY Control						
		White Off	0		0%		00h	
		White Full	255		100%		FFh	
		MYC Control						
		White Off	0		0%		00h	
		White Full	255		100%		FFh	
22	LED 1 Function	LED 1 Dim Tracking Mode						0
		Continuous	0	15	0%	6%	00h	0Fh
		Periodic Strobe (slow to fast)	16	41	6%	16%	10h	29h
		Random Strobe (slow to fast)	42	67	16%	26%	2Ah	43h
		TBD	68	127	27%	50%	44h	7Fh
		LED 1 Independent Dim Mode						
		Continuous	128	143	50%	56%	80h	8Fh
		Periodic Strobe (slow to fast)	144	169	56%	66%	90h	A9h
		Random Strobe (slow to fast)	170	195	67%	76%	AAh	C3h
		TBD	196	255	77%	100%	C4h	FFh
23	LED 1 Dim Coarse	LED 1 Off	0		0%		00h	0
		LED 1 100%	255		100%		FFh	
24	LED 1 Dim Fine		0		0%		00h	0
			255		100%		FFh	

25	LED 2 X	LED 2 X shift (NOTE 4)	0	255	0%	100%	00h	FFh	177
26		RGB Control							255
		Red Off	0		0%		00h		
		Red Full Saturation	255		100%		FFh		
		RBG Control							
		Red Off	0		0%		00h		
		Red Full Saturation	255		100%		FFh		
		BRG Control							
		Blue Off	0		0%		00h		
		Blue Full Saturation	255		100%		FFh		
		BGR Control							
		Blue Off	0		0%		00h		
		Blue Full Saturation	255		100%		FFh		
		GRB Control							
		Green Off	0		0%		00h		
		Green Full Saturation	255		100%		FFh		
		GBR Control							
		Green Off	0		0%		00h		
		Green Full Saturation	255		100%		FFh		
		CMY Control							
		Red Full Saturation	0		0%		00h		
		Red Off	255		100%		FFh		
		CYM Control							
		Red Full Saturation	0		0%		00h		
		Red Off	255		100%		FFh		
		YCM Control							
		Blue Full Saturation	0		0%		00h		
		Blue Off	255		100%		FFh		
		YMC Control							
		Blue Full Saturation	0		0%		00h		
		Blue off	255		100%		FFh		
		MCY Control							
		Green Full Saturation	0		0%		00h		
		Green Off	255		100%		FFh		
		MYC Control							
		Green Full Saturation	0		0%		00h		
		Green Off	255		100%		FFh		
		Cycle & Random Modes. Scan Speed controlled by Red Channel							
		Slow Rate	0		0%		00h		
		Fast Rate	255		100%		FFh		
27	LED 2 Green	RGB Control							255
		Green Off	0		0%		00h		
		Green Full Saturation	255		100%		FFh		

		RBG Control							
		Blue Off	0		0%		00h		
		Blue Full Saturation	255		100%		FFh		
		BRG Control							
		Red Off	0		0%		00h		
		Red Full Saturation	255		100%		FFh		
		BGR Control							
		Green Off	0		0%		00h		
		Green Full Saturation	255		100%		FFh		
		GRB Control							
		Red Off	0		0%		00h		
		Red Full Saturation	255		100%		FFh		
		GBR Control							
		Blue Off	0		0%		00h		
		Blue Full Saturation	255		100%		FFh		
		CMY Control							
		Green Full Saturation	0		0%		00h		
		Green Off	255		100%		FFh		
		CYM Control							
		Blue Full Saturation	0		0%		00h		
		Blue Off	255		100%		FFh		
		YCM Control							
		Red Full Saturation	0		0%		00h		
		Red Off	255		100%		FFh		
		YMC Control							
		Green Full Saturation	0		0%		00h		
		Green Off	255		100%		FFh		
		MCY Control							
		Red Full Saturation	0		0%		00h		
		Red Off	255		100%		FFh		
		MYC Control							
		Blue Full Saturation	0		0%		00h		
		Blue Off	255		100%		FFh		
	LED 2 Blue	RGB Control							255
		Blue Off	0		0%		00h		
		Blue Full Saturation	255		100%		FFh		
		RBG Control							
		Green Off	0		0%		00h		
		Green Full Saturation	255		100%		FFh		
		BRG Control							
		Green Off	0		0%		00h		
		Green Full Saturation	255		100%		FFh		
		BGR Control							

		Red Off	0		0%		00h	
		Red Full Saturation	255		100%		FFh	
		GRB Control						
		Blue Off	0		0%		00h	
		Blue Full Saturation	255		100%		FFh	
		GBR Control						
		Red Off	0		0%		00h	
		Red Full Saturation	255		100%		FFh	
		CMY Control						
		Blue Full Saturation	0		0%		00h	
		Blue Off	255		100%		FFh	
		CYM Control						
		Green Full Saturation	0		0%		00h	
		Green Off	255		100%		FFh	
		YCM Control						
		Green Full Saturation	0		0%		00h	
		Green Off	255		100%		FFh	
		YMC Control						
		Red Full Saturation	0		0%		00h	
		Red Off	255		100%		FFh	
		MCY Control						
		Blue Full Saturation	0		0%		00h	
		Blue Off	255		100%		FFh	
		MYC Control						
		Red Full Saturation	0		0%		00h	
		Red Off	255		100%		FFh	
	LED 2 White	RGB Control						255
		White Off	0		0%		00h	
		White Full	255		100%		FFh	
		RBG Control						
		White Off	0		0%		00h	
		White Full	255		100%		FFh	
		BRG Control						
		White Off	0		0%		00h	
		White Full	255		100%		FFh	
		BGR Control						
		White Off	0		0%		00h	
		White Full	255		100%		FFh	
		GRB Control						
		White Off	0		0%		00h	
		White Full	255		100%		FFh	
		GBR Control						
		White Off	0		0%		00h	

		White Full	255		100%		FFh		
		CMY Control							
		White Off	0		0%		00h		
		White Full	255		100%		FFh		
		CYM Control							
		White Off	0		0%		00h		
		White Full	255		100%		FFh		
		YCM Control							
		White Off	0		0%		00h		
		White Full	255		100%		FFh		
		YMC Control							
		White Off	0		0%		00h		
		White Full	255		100%		FFh		
		MCY Control							
		White Off	0		0%		00h		
		White Full	255		100%		FFh		
		MYC Control							
		White Off	0		0%		00h		
		White Full	255		100%		FFh		
	LED 2 Function	LED 2 Dim Tracking Mode							0
		Continuous	0	15	0%	6%	00h	0Fh	
		Periodic Strobe (slow to fast)	16	41	6%	16%	10h	29h	
		Random Strobe (slow to fast)	42	67	16%	26%	2Ah	43h	
		TBD	68	127	27%	50%	44h	7Fh	
		LED 2 Independent Dim Mode							
		Continuous	128	143	50%	56%	80h	8Fh	
		Periodic Strobe (slow to fast)	144	169	56%	66%	90h	A9h	
		Random Strobe (slow to fast)	170	195	67%	76%	AAh	C3h	
		TBD	196	255	77%	100%	C4h	FFh	
31	LED 2 Dim Coarse	LED 2 Off	0		0%		00h		0
		LED 2 100%	255		100%		FFh		
32	LED 2 Dim Fine		0		0%		00h		0
			255		100%		FFh		
33	LED 3 X	LED 3 X shift (NOTE 4)	0	255	0%	100%	00h	FFh	113
34	LED 3 Red (Note 3)	RGB Control							255
		Red Off	0		0%		00h		
		Red Full Saturation	255		100%		FFh		
		RBG Control							
		Red Off	0		0%		00h		
		Red Full Saturation	255		100%		FFh		
		BRG Control							
		Blue Off	0		0%		00h		
		Blue Full Saturation	255		100%		FFh		

		BGR Control							
		Blue Off	0		0%		00h		
		Blue Full Saturation	255		100%		FFh		
		GRB Control							
		Green Off	0		0%		00h		
		Green Full Saturation	255		100%		FFh		
		GBR Control							
		Green Off	0		0%		00h		
		Green Full Saturation	255		100%		FFh		
		CMY Control							
		Red Full Saturation	0		0%		00h		
		Red Off	255		100%		FFh		
		CYM Control							
		Red Full Saturation	0		0%		00h		
		Red Off	255		100%		FFh		
		YCM Control							
		Blue Full Saturation	0		0%		00h		
		Blue Off	255		100%		FFh		
		YMC Control							
		Blue Full Saturation	0		0%		00h		
		Blue off	255		100%		FFh		
		MCY Control							
		Green Full Saturation	0		0%		00h		
		Green Off	255		100%		FFh		
		MYC Control							
		Green Full Saturation	0		0%		00h		
		Green Off	255		100%		FFh		
		Cycle & Random Modes. Scan Speed controlled by Red Channel							
		Slow Rate	0		0%		00h		
		Fast Rate	255		100%		FFh		
35	LED 3 Green	RGB Control							255
		Green Off	0		0%		00h		
		Green Full Saturation	255		100%		FFh		
		RBG Control							
		Blue Off	0		0%		00h		
		Blue Full Saturation	255		100%		FFh		
		BRG Control							
		Red Off	0		0%		00h		
		Red Full Saturation	255		100%		FFh		
		BGR Control							
		Green Off	0		0%		00h		
		Green Full Saturation	255		100%		FFh		
		GRB Control							

		Red Off	0		0%		00h	
		Red Full Saturation	255		100%		FFh	
		GBR Control						
		Blue Off	0		0%		00h	
		Blue Full Saturation	255		100%		FFh	
		CMY Control						
		Green Full Saturation	0		0%		00h	
		Green Off	255		100%		FFh	
		CYM Control						
		Blue Full Saturation	0		0%		00h	
		Blue Off	255		100%		FFh	
		YCM Control						
		Red Full Saturation	0		0%		00h	
		Red Off	255		100%		FFh	
		YMC Control						
		Green Full Saturation	0		0%		00h	
		Green Off	255		100%		FFh	
		MCY Control						
		Red Full Saturation	0		0%		00h	
		Red Off	255		100%		FFh	
		MYC Control						
		Blue Full Saturation	0		0%		00h	
		Blue Off	255		100%		FFh	
36	LED 3 Blue	RGB Control						255
		Blue Off	0		0%		00h	
		Blue Full Saturation	255		100%		FFh	
		RBG Control						
		Green Off	0		0%		00h	
		Green Full Saturation	255		100%		FFh	
		BRG Control						
		Green Off	0		0%		00h	
		Green Full Saturation	255		100%		FFh	
		BGR Control						
		Red Off	0		0%		00h	
		Red Full Saturation	255		100%		FFh	
		GRB Control						
		Blue Off	0		0%		00h	
		Blue Full Saturation	255		100%		FFh	
		GBR Control						
		Red Off	0		0%		00h	
		Red Full Saturation	255		100%		FFh	
		CMY Control						
		Blue Full Saturation	0		0%		00h	

		Blue Off	255		100%		FFh	
		CYM Control						
		Green Full Saturation	0		0%		00h	
		Green Off	255		100%		FFh	
		YCM Control						
		Green Full Saturation	0		0%		00h	
		Green Off	255		100%		FFh	
		YMC Control						
		Red Full Saturation	0		0%		00h	
		Red Off	255		100%		FFh	
		MCY Control						
		Blue Full Saturation	0		0%		00h	
		Blue Off	255		100%		FFh	
		MYC Control						
		Red Full Saturation	0		0%		00h	
		Red Off	255		100%		FFh	
37	LED 3 White	RGB Control						255
		White Off	0		0%		00h	
		White Full	255		100%		FFh	
		RBG Control						
		White Off	0		0%		00h	
		White Full	255		100%		FFh	
		BRG Control						
		White Off	0		0%		00h	
		White Full	255		100%		FFh	
		BGR Control						
		White Off	0		0%		00h	
		White Full	255		100%		FFh	
		GRB Control						
		White Off	0		0%		00h	
		White Full	255		100%		FFh	
		GBR Control						
		White Off	0		0%		00h	
		White Full	255		100%		FFh	
		CMY Control						
		White Off	0		0%		00h	
		White Full	255		100%		FFh	
		CYM Control						
		White Off	0		0%		00h	
		White Full	255		100%		FFh	
		YCM Control						
		White Off	0		0%		00h	
		White Full	255		100%		FFh	

		YMC Control							
		White Off	0		0%		00h		
		White Full	255		100%		FFh		
		MCY Control							
		White Off	0		0%		00h		
		White Full	255		100%		FFh		
		MYC Control							
		White Off	0		0%		00h		
		White Full	255		100%		FFh		
38	LED 3 Function	LED 3 Dim Tracking Mode							0
		Continuous	0	15	0%	6%	00h	0Fh	
		Periodic Strobe (slow to fast)	16	41	6%	16%	10h	29h	
		Random Strobe (slow to fast)	42	67	16%	26%	2Ah	43h	
		TBD	68	127	27%	50%	44h	7Fh	
		LED 3 Independent Dim Mode							
		Continuous	128	143	50%	56%	80h	8Fh	
		Periodic Strobe (slow to fast)	144	169	56%	66%	90h	A9h	
		Random Strobe (slow to fast)	170	195	67%	76%	AAh	C3h	
		TBD	196	255	77%	100%	C4h	FFh	
39	LED 3 Dim Coarse	LED 3 Off	0		0%		00h		0
		LED 3 100%	255		100%		FFh		
40	LED 3 Dim Fine		0		0%		00h		0
			255		100%		FFh		
41	LED 4 X	LED 4 X shift (NOTE 4)	0	255	0%	100%	00h	FFh	113
42	LED 4 Red (Note 3)	RGB Control							255
		Red Off	0		0%		00h		
		Red Full Saturation	255		100%		FFh		
		RBG Control							
		Red Off	0		0%		00h		
		Red Full Saturation	255		100%		FFh		
		BRG Control							
		Blue Off	0		0%		00h		
		Blue Full Saturation	255		100%		FFh		
		BGR Control							
		Blue Off	0		0%		00h		
		Blue Full Saturation	255		100%		FFh		
		GRB Control							
		Green Off	0		0%		00h		
		Green Full Saturation	255		100%		FFh		
		GBR Control							
		Green Off	0		0%		00h		
		Green Full Saturation	255		100%		FFh		
		CMY Control							

		Red Full Saturation	0		0%		00h	
		Red Off	255		100%		FFh	
		CYM Control						
		Red Full Saturation	0		0%		00h	
		Red Off	255		100%		FFh	
		YCM Control						
		Blue Full Saturation	0		0%		00h	
		Blue Off	255		100%		FFh	
		YMC Control						
		Blue Full Saturation	0		0%		00h	
		Blue off	255		100%		FFh	
		MCY Control						
		Green Full Saturation	0		0%		00h	
		Green Off	255		100%		FFh	
		MYC Control						
		Green Full Saturation	0		0%		00h	
		Green Off	255		100%		FFh	
		Cycle & Random Modes. Scan Speed controlled by Red Channel						
		Slow Rate	0		0%		00h	
		Fast Rate	255		100%		FFh	
43	LED 4 Green	RGB Control						255
		Green Off	0		0%		00h	
		Green Full Saturation	255		100%		FFh	
		RBG Control						
		Blue Off	0		0%		00h	
		Blue Full Saturation	255		100%		FFh	
		BRG Control						
		Red Off	0		0%		00h	
		Red Full Saturation	255		100%		FFh	
		BGR Control						
		Green Off	0		0%		00h	
		Green Full Saturation	255		100%		FFh	
		GRB Control						
		Red Off	0		0%		00h	
		Red Full Saturation	255		100%		FFh	
		GBR Control						
		Blue Off	0		0%		00h	
		Blue Full Saturation	255		100%		FFh	
		CMY Control						
		Green Full Saturation	0		0%		00h	
		Green Off	255		100%		FFh	
		CYM Control						
		Blue Full Saturation	0		0%		00h	

		Blue Off	255		100%		FFh	
		YCM Control						
		Red Full Saturation	0		0%		00h	
		Red Off	255		100%		FFh	
		YMC Control						
		Green Full Saturation	0		0%		00h	
		Green Off	255		100%		FFh	
		MCY Control						
		Red Full Saturation	0		0%		00h	
		Red Off	255		100%		FFh	
		MYC Control						
		Blue Full Saturation	0		0%		00h	
		Blue Off	255		100%		FFh	
44	LED 4 Blue	RGB Control						255
		Blue Off	0		0%		00h	
		Blue Full Saturation	255		100%		FFh	
		RBG Control						
		Green Off	0		0%		00h	
		Green Full Saturation	255		100%		FFh	
		BRG Control						
		Green Off	0		0%		00h	
		Green Full Saturation	255		100%		FFh	
		BGR Control						
		Red Off	0		0%		00h	
		Red Full Saturation	255		100%		FFh	
		GRB Control						
		Blue Off	0		0%		00h	
		Blue Full Saturation	255		100%		FFh	
		GBR Control						
		Red Off	0		0%		00h	
		Red Full Saturation	255		100%		FFh	
		CMY Control						
		Blue Full Saturation	0		0%		00h	
		Blue Off	255		100%		FFh	
		CYM Control						
		Green Full Saturation	0		0%		00h	
		Green Off	255		100%		FFh	
		YCM Control						
		Green Full Saturation	0		0%		00h	
		Green Off	255		100%		FFh	
		YMC Control						
		Red Full Saturation	0		0%		00h	
		Red Off	255		100%		FFh	

		MCY Control							
		Blue Full Saturation	0		0%		00h		
		Blue Off	255		100%		FFh		
		MYC Control							
		Red Full Saturation	0		0%		00h		
		Red Off	255		100%		FFh		
45	LED 3 White	RGB Control							255
		White Off	0		0%		00h		
		White Full	255		100%		FFh		
		RBG Control							
		White Off	0		0%		00h		
		White Full	255		100%		FFh		
		BRG Control							
		White Off	0		0%		00h		
		White Full	255		100%		FFh		
		BGR Control							
		White Off	0		0%		00h		
		White Full	255		100%		FFh		
		GRB Control							
		White Off	0		0%		00h		
		White Full	255		100%		FFh		
		GBR Control							
		White Off	0		0%		00h		
		White Full	255		100%		FFh		
		CMY Control							
		White Off	0		0%		00h		
		White Full	255		100%		FFh		
		CYM Control							
		White Off	0		0%		00h		
		White Full	255		100%		FFh		
		YCM Control							
		White Off	0		0%		00h		
		White Full	255		100%		FFh		
		YMC Control							
		White Off	0		0%		00h		
		White Full	255		100%		FFh		
		MCY Control							
		White Off	0		0%		00h		
		White Full	255		100%		FFh		
		MYC Control							
		White Off	0		0%		00h		
		White Full	255		100%		FFh		
46	LED 4	LED 4 Dim Tracking Mode							0

	Function	Continuous	0	15	0%	6%	00h	0Fh	
		Periodic Strobe (slow to fast)	16	41	6%	16%	10h	29h	
		Random Strobe (slow to fast)	42	67	16%	26%	2Ah	43h	
		TBD	68	127	27%	50%	44h	7Fh	
		LED 4 Independent Dim Mode							
		Continuous	128	143	50%	56%	80h	8Fh	
		Periodic Strobe (slow to fast)	144	169	56%	66%	90h	A9h	
		Random Strobe (slow to fast)	170	195	67%	76%	AAh	C3h	
		TBD	196	255	77%	100%	C4h	FFh	
47	LED 4 Dim Coarse	LED 4 Off	0		0%		00h		0
		LED 4 100%	255		100%		FFh		
48	LED 4 Dim Fine		0		0%		00h		0
			255		100%		FFh		
49	LED 5 X	LED 5 X shift (NOTE 4)	0	255	0%	100%	00h	FFh	177
50	LED 5 Red (Note 3)	RGB Control							255
		Red Off	0		0%		00h		
		Red Full Saturation	255		100%		FFh		
		RBG Control							
		Red Off	0		0%		00h		
		Red Full Saturation	255		100%		FFh		
		BRG Control							
		Blue Off	0		0%		00h		
		Blue Full Saturation	255		100%		FFh		
		BGR Control							
		Blue Off	0		0%		00h		
		Blue Full Saturation	255		100%		FFh		
		GRB Control							
		Green Off	0		0%		00h		
		Green Full Saturation	255		100%		FFh		
		GBR Control							
		Green Off	0		0%		00h		
		Green Full Saturation	255		100%		FFh		
		CMY Control							
		Red Full Saturation	0		0%		00h		
		Red Off	255		100%		FFh		
		CYM Control							
		Red Full Saturation	0		0%		00h		
		Red Off	255		100%		FFh		
		YCM Control							
		Blue Full Saturation	0		0%		00h		
		Blue Off	255		100%		FFh		
		YMC Control							
		Blue Full Saturation	0		0%		00h		

		Blue off	255		100%		FFh		
		MCY Control							
		Green Full Saturation	0		0%		00h		
		Green Off	255		100%		FFh		
		MYC Control							
		Green Full Saturation	0		0%		00h		
		Green Off	255		100%		FFh		
		Cycle & Random Modes. Scan Speed controlled by Red Channel							
		Slow Rate	0		0%		00h		
		Fast Rate	255		100%		FFh		
51	LED 5 Green	RGB Control							255
		Green Off	0		0%		00h		
		Green Full Saturation	255		100%		FFh		
		RBG Control							
		Blue Off	0		0%		00h		
		Blue Full Saturation	255		100%		FFh		
		BRG Control							
		Red Off	0		0%		00h		
		Red Full Saturation	255		100%		FFh		
		BGR Control							
		Green Off	0		0%		00h		
		Green Full Saturation	255		100%		FFh		
		GRB Control							
		Red Off	0		0%		00h		
		Red Full Saturation	255		100%		FFh		
		GBR Control							
		Blue Off	0		0%		00h		
		Blue Full Saturation	255		100%		FFh		
		CMY Control							
		Green Full Saturation	0		0%		00h		
		Green Off	255		100%		FFh		
		CYM Control							
		Blue Full Saturation	0		0%		00h		
		Blue Off	255		100%		FFh		
		YCM Control							
		Red Full Saturation	0		0%		00h		
		Red Off	255		100%		FFh		
		YMC Control							
		Green Full Saturation	0		0%		00h		
		Green Off	255		100%		FFh		
		MCY Control							
		Red Full Saturation	0		0%		00h		
		Red Off	255		100%		FFh		

		MYC Control							
		Blue Full Saturation	0		0%		00h		
		Blue Off	255		100%		FFh		
52	LED 5 Blue	RGB Control							255
		Blue Off	0		0%		00h		
		Blue Full Saturation	255		100%		FFh		
		RBG Control							
		Green Off	0		0%		00h		
		Green Full Saturation	255		100%		FFh		
		BRG Control							
		Green Off	0		0%		00h		
		Green Full Saturation	255		100%		FFh		
		BGR Control							
		Red Off	0		0%		00h		
		Red Full Saturation	255		100%		FFh		
		GRB Control							
		Blue Off	0		0%		00h		
		Blue Full Saturation	255		100%		FFh		
		GBR Control							
		Red Off	0		0%		00h		
		Red Full Saturation	255		100%		FFh		
		CMY Control							
		Blue Full Saturation	0		0%		00h		
		Blue Off	255		100%		FFh		
		CYM Control							
		Green Full Saturation	0		0%		00h		
		Green Off	255		100%		FFh		
		YCM Control							
		Green Full Saturation	0		0%		00h		
		Green Off	255		100%		FFh		
		YMC Control							
		Red Full Saturation	0		0%		00h		
		Red Off	255		100%		FFh		
		MCY Control							
		Blue Full Saturation	0		0%		00h		
		Blue Off	255		100%		FFh		
		MYC Control							
		Red Full Saturation	0		0%		00h		
		Red Off	255		100%		FFh		
53	LED 5 White	RGB Control							255
		White Off	0		0%		00h		
		White Full	255		100%		FFh		
		RBG Control							

		White Off	0		0%		00h	
		White Full	255		100%		FFh	
		BRG Control						
		White Off	0		0%		00h	
		White Full	255		100%		FFh	
		BGR Control						
		White Off	0		0%		00h	
		White Full	255		100%		FFh	
		GRB Control						
		White Off	0		0%		00h	
		White Full	255		100%		FFh	
		GBR Control						
		White Off	0		0%		00h	
		White Full	255		100%		FFh	
		CMY Control						
		White Off	0		0%		00h	
		White Full	255		100%		FFh	
		CYM Control						
		White Off	0		0%		00h	
		White Full	255		100%		FFh	
		YCM Control						
		White Off	0		0%		00h	
		White Full	255		100%		FFh	
		YMC Control						
		White Off	0		0%		00h	
		White Full	255		100%		FFh	
		MCY Control						
		White Off	0		0%		00h	
		White Full	255		100%		FFh	
		MYC Control						
		White Off	0		0%		00h	
		White Full	255		100%		FFh	
54	LED 5 Function	LED 5 Dim Tracking Mode						0
		Continuous	0	15	0%	6%	00h	0Fh
		Periodic Strobe (slow to fast)	16	41	6%	16%	10h	29h
		Random Strobe (slow to fast)	42	67	16%	26%	2Ah	43h
		TBD	68	127	27%	50%	44h	7Fh
		LED 5 Independent Dim Mode						
		Continuous	128	143	50%	56%	80h	8Fh
		Periodic Strobe (slow to fast)	144	169	56%	66%	90h	A9h
		Random Strobe (slow to fast)	170	195	67%	76%	AAh	C3h
		TBD	196	255	77%	100%	C4h	FFh
55	LED 5 Dim	LED 5 Off	0		0%		00h		0

	Coarse	LED 5 100%	255		100%		FFh		
56	LED 5 Dim Fine		0		0%		00h		0
			255		100%		FFh		
57	LED 6 X	LED 6 X shift (NOTE 4)	0	255	0%	100%	00h	FFh	255
58	LED 6 Red (Note 3)	RGB Control							255
		Red Off	0		0%		00h		
		Red Full Saturation	255		100%		FFh		
		RBG Control							
		Red Off	0		0%		00h		
		Red Full Saturation	255		100%		FFh		
		BRG Control							
		Blue Off	0		0%		00h		
		Blue Full Saturation	255		100%		FFh		
		BGR Control							
		Blue Off	0		0%		00h		
		Blue Full Saturation	255		100%		FFh		
		GRB Control							
		Green Off	0		0%		00h		
		Green Full Saturation	255		100%		FFh		
		GBR Control							
		Green Off	0		0%		00h		
		Green Full Saturation	255		100%		FFh		
		CMY Control							
		Red Full Saturation	0		0%		00h		
		Red Off	255		100%		FFh		
		CYM Control							
		Red Full Saturation	0		0%		00h		
		Red Off	255		100%		FFh		
		YCM Control							
		Blue Full Saturation	0		0%		00h		
		Blue Off	255		100%		FFh		
		YMC Control							
		Blue Full Saturation	0		0%		00h		
		Blue off	255		100%		FFh		
		MCY Control							
		Green Full Saturation	0		0%		00h		
		Green Off	255		100%		FFh		
		MYC Control							
		Green Full Saturation	0		0%		00h		
		Green Off	255		100%		FFh		
		Cycle & Random Modes. Scan Speed controlled by Red Channel							
		Slow Rate	0		0%		00h		
		Fast Rate	255		100%		FFh		

59	LED 6 Green	RGB Control							255
		Green Off	0		0%		00h		
		Green Full Saturation	255		100%		FFh		
		RBG Control							
		Blue Off	0		0%		00h		
		Blue Full Saturation	255		100%		FFh		
		BRG Control							
		Red Off	0		0%		00h		
		Red Full Saturation	255		100%		FFh		
		BGR Control							
		Green Off	0		0%		00h		
		Green Full Saturation	255		100%		FFh		
		GRB Control							
		Red Off	0		0%		00h		
		Red Full Saturation	255		100%		FFh		
		GBR Control							
		Blue Off	0		0%		00h		
		Blue Full Saturation	255		100%		FFh		
		CMY Control							
		Green Full Saturation	0		0%		00h		
		Green Off	255		100%		FFh		
		CYM Control							
		Blue Full Saturation	0		0%		00h		
		Blue Off	255		100%		FFh		
		YCM Control							
		Red Full Saturation	0		0%		00h		
		Red Off	255		100%		FFh		
		YMC Control							
		Green Full Saturation	0		0%		00h		
		Green Off	255		100%		FFh		
		MCY Control							
		Red Full Saturation	0		0%		00h		
		Red Off	255		100%		FFh		
		MYC Control							
		Blue Full Saturation	0		0%		00h		
		Blue Off	255		100%		FFh		
60	LED 6 Blue	RGB Control							255
		Blue Off	0		0%		00h		
		Blue Full Saturation	255		100%		FFh		
		RBG Control							
		Green Off	0		0%		00h		
		Green Full Saturation	255		100%		FFh		
		BRG Control							

		Green Off	0		0%		00h	
		Green Full Saturation	255		100%		FFh	
		BGR Control						
		Red Off	0		0%		00h	
		Red Full Saturation	255		100%		FFh	
		GRB Control						
		Blue Off	0		0%		00h	
		Blue Full Saturation	255		100%		FFh	
		GBR Control						
		Red Off	0		0%		00h	
		Red Full Saturation	255		100%		FFh	
		CMY Control						
		Blue Full Saturation	0		0%		00h	
		Blue Off	255		100%		FFh	
		CYM Control						
		Green Full Saturation	0		0%		00h	
		Green Off	255		100%		FFh	
		YCM Control						
		Green Full Saturation	0		0%		00h	
		Green Off	255		100%		FFh	
		YMC Control						
		Red Full Saturation	0		0%		00h	
		Red Off	255		100%		FFh	
		MCY Control						
		Blue Full Saturation	0		0%		00h	
		Blue Off	255		100%		FFh	
		MYC Control						
		Red Full Saturation	0		0%		00h	
		Red Off	255		100%		FFh	
61	LED 6 White	RGB Control						255
		White Off	0		0%		00h	
		White Full	255		100%		FFh	
		RBG Control						
		White Off	0		0%		00h	
		White Full	255		100%		FFh	
		BRG Control						
		White Off	0		0%		00h	
		White Full	255		100%		FFh	
		BGR Control						
		White Off	0		0%		00h	
		White Full	255		100%		FFh	
		GRB Control						
		White Off	0		0%		00h	

		White Full	255		100%		FFh	
		GBR Control						
		White Off	0		0%		00h	
		White Full	255		100%		FFh	
		CMY Control						
		White Off	0		0%		00h	
		White Full	255		100%		FFh	
		CYM Control						
		White Off	0		0%		00h	
		White Full	255		100%		FFh	
		YCM Control						
		White Off	0		0%		00h	
		White Full	255		100%		FFh	
		YMC Control						
		White Off	0		0%		00h	
		White Full	255		100%		FFh	
		MCY Control						
		White Off	0		0%		00h	
		White Full	255		100%		FFh	
		MYC Control						
		White Off	0		0%		00h	
		White Full	255		100%		FFh	
62	LED 6 Function	LED 6 Dim Tracking Mode						0
		Continuous	0	15	0%	6%	00h	0Fh
		Periodic Strobe (slow to fast)	16	41	6%	16%	10h	29h
		Random Strobe (slow to fast)	42	67	16%	26%	2Ah	43h
		TBD	68	127	27%	50%	44h	7Fh
		LED 6 Independent Dim Mode						
		Continuous	128	143	50%	56%	80h	8Fh
		Periodic Strobe (slow to fast)	144	169	56%	66%	90h	A9h
		Random Strobe (slow to fast)	170	195	67%	76%	AAh	C3h
		TBD	196	255	77%	100%	C4h	FFh
63	LED 6 Dim Coarse	LED 6 Off	0		0%		00h	0
		LED 6 100%	255		100%		FFh	
64	LED 6 Dim Fine		0		0%		00h	0
			255		100%		FFh	

Error codes

When you turn on the fixture, the startup routine will check all functions. The display may show the “Err channel is XX” message if there are problems found in one or more channels. “XX” stands for channel 1, 2, 3, 4, 5, 6 who has the testing sensor for positioning. For example, when the display shows “Err channel is Pan movement”, it means there is some error in channel 1. If there multiple errors found, for example on channel 1, channel 3, channel 11, you may see the error message, “Err channel is Pan movement”, “Err channel is Tilt movement” , “Err channel is Shutter”, flash repeated for 2 times, and then the fixture will attempt a homing routine. If the fixture error message remains after performing reset more than 2 times, only the channels which have errors will not work properly, others may work as usual. Please contact with dealer or manufacturer for service.

PAN- movement Er

(PAN-yoke movement error) This message will appear after the reset of the fixture if the yoke’s magnetic-indexing circuit malfunction (sensor failed or magnet missing) or the stepping-motor is defective (or its driving IC on the main PCB). The PAN-movement is not located in the default position after the reset.

TILT- movement Er

(TILT-head movement error) This message will appear after the reset of the fixture if the head’s magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepping-motor is defective (or its driving IC on the main PCB). The TILT-movement is not located in the default position after the reset.

LED1 wheel Er

(LED1 wheel - error) This message will appear after a reset of the fixture if the head’s magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepper motor is defective (or its driving IC on the main PCB). The LED1 wheel - error is not located in the default position after the reset.

LED2 wheel Er

(LED1 wheel - error) This message will appear after a reset of the fixture if the head’s magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepper motor is defective (or its driving IC on the main PCB). The LED1 wheel - error is not located in the default position after the reset.

LED3 wheel Er

(LED1 wheel - error) This message will appear after a reset of the fixture if the head’s magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepper motor is defective (or its driving IC on the main PCB). The LED1 wheel - error is not located in the default position after the reset.

LED4 wheel Er

(LED1 wheel - error) This message will appear after a reset of the fixture if the head’s magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepper motor is defective (or its driving IC on the main PCB). The LED1 wheel - error is not located in the default position after the reset.

LED5 wheel Er

(LED1 wheel - error) This message will appear after a reset of the fixture if the head’s magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepper motor is defective (or its driving IC on the main PCB). The LED1 wheel - error is not located in the default position after the reset.

LED6 wheel Er

(LED1 wheel - error) This message will appear after a reset of the fixture if the head's magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepper motor is defective (or its driving IC on the main PCB). The LED1 wheel - error is not located in the default position after the reset.

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