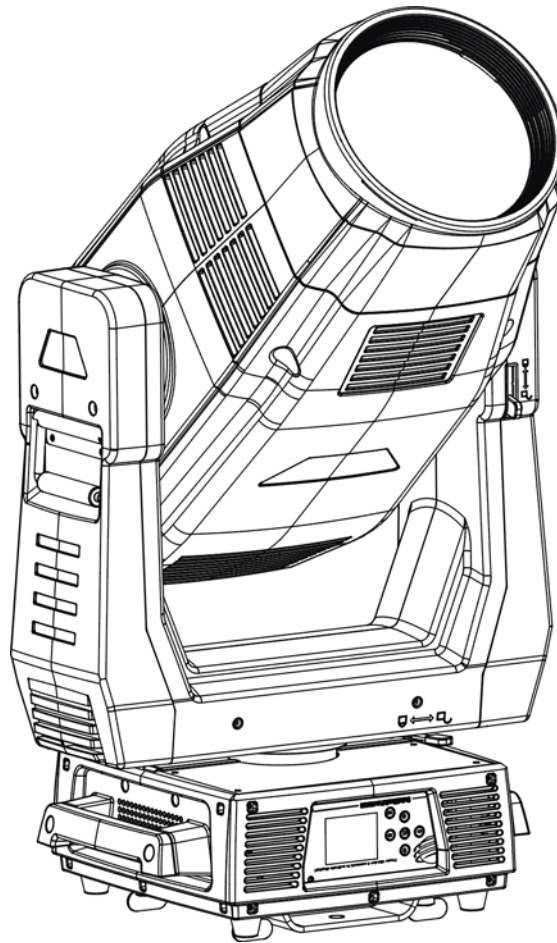


HIGH END SYSTEMS



an ETC. Company

USER MANUAL



SolaHyBeam 2000

Version 1.3 -- Revision A

Contents

Welcome	5
KEEP THIS MANUAL FOR FUTURE NEEDS	5
<i>Contacting High End Systems ®</i>	6
<i>Patent information</i>	9
<i>FCC Information</i>	10
<i>Terms and Conditions and Warranty Information</i>	11
SAFETY INSTRUCTIONS	12
<i>IMPORTANT SAFETY WARNING</i>	12
<i>GENERAL GUIDELINES</i>	13
FEATURES	14
Photometric data image	16
Fixture Overview	17
<i>DIMENSIONAL DRAWINGS</i>	18
INSTALLATION INSTRUCTIONS	19
<i>RIGGING THE DEVICE</i>	19
DMX-512 CONTROL CONNECTION	22
DMX-512 CONNECTION WITH DMX TERMINATOR	22
DEVICE DMX START ADDRESS SELECTION	22
DISPLAY	23
<i>Address</i>	26
<i>Info</i>	26
<i>SET</i>	30
<i>Service PIN</i>	31
<i>Test</i>	32
<i>Preset</i>	33
<i>Example Program</i>	35
DMX Control Protocol	36
ERROR MESSAGES	40
CLEANING AND MAINTENANCE	42

Welcome

Notice

© High End Systems, 2017, All Rights Reserved

Information and specifications in this document are subject to change without notice. High End Systems assumes no responsibility or liability for any errors or inaccuracies that may appear in this manual. Trademarks used in this text: High End Systems, Wholehog, and Lithopatterns, and intellaspot are registered trademarks. Internal Effects, the High End Systems globe logo and the Hog logo are trademarks of High End Systems, Inc. Belden is a registered trademark of Belden, Inc.

Other trademarks and trade names may be used in this document to refer to either the entities claiming the marks and names or their products. High End Systems disclaims any proprietary interest in trademarks and trade names owned by others.

KEEP THIS MANUAL FOR FUTURE NEEDS 

Thank you for your patronage. You have acquired a powerful and versatile fixture. We are confident that you will be satisfied with our excellent products and service. For your own safety, please read this user manual carefully before installing and operating the device.

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



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: High End Systems, Inc.
Distributor's address: 2105 Gracy Farms Lane
Austin, Texas 78758 USA

Product Name: SOLAHYBEAM 2000
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)

High End Systems | 2105 Gracy Farms Lane | Austin TX 78758 | highend.com

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



Compliance Engineer

July 10 2017

Patent Information

Notice of intellectual property rights

For a listing of current patents go to the web address:

<https://www.highend.com/patents>

FCC Information

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

Terms and Conditions and Warranty Information

Complete Terms and Conditions and Warranty information can be found on the High End Systems, Inc. website <https://www.highend.com/pub/products/HES-Warranty-Information.pdf>.

SAFETY INSTRUCTIONS

IMPORTANT SAFETY WARNING

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

In order to install, operate, and maintain the lighting fixture safely and correctly we suggest that the installation and operation be carried out by qualified technicians and these instructions be carefully followed.



CAUTION!

HIGH VOLTAGE. RISK OF SEVERE OR FATAL ELECTRIC SHOCK



CAUTION!

ALWAYS DISCONNECT MAINS SUPPLY BEFORE REMOVING ANY FIXTURE COVERS



CAUTION!

NEVER LOOK DIRECTLY INTO THE LIGHT SOURCE. SENSITIVE PERSONS MAY SUFFER AN EPILEPTIC SHOCK



CAUTION!

NEVER TOUCH THE DEVICE DURING OPERATION! COVERS MAY BE HOT



CAUTION!

KEEP THIS DEVICE AWAY FROM RAIN AND MOISTURE



Important:

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

- If the device has been exposed to temperature changes due to environmental conditions, do not power on immediately. The resulting condensation could damage the device. Leave the device powered off until it has reached room temperature.
- This device falls under protection-class I. Therefore, it is essential that the device be earthed.
- If either lenses or display are damaged (damage may include cracks or gashes in the material) they must be replaced.
- Electrical connections, such as replacing the power plug, must be performed by a qualified person.
- Make sure that the available voltage is not higher than that which is stated at the end of this manual.
- Make sure the power cord is never crushed or damaged by sharp edges. Should the power cord suffer, replacement of the cable must be done by an authorized dealer.
- If the external flexible power cord of this device is damaged, it shall be exclusively replaced by the manufacturer or their service agent or a similar qualified person in order to avoid injury.
- When the device is not in use or before performing maintenance, always disconnect the device from the mains. Only handle the power cord from the plug. Never pull the plug out of a socket by tugging the power cord.
- When powered on for the first time, some smoke or smell may occur. This is caused by coating on

- metal parts when heated and is normal. If you are concerned, please contact your distributor.
- Do not focus the beam onto flammable surfaces. The minimum distance between the exiting lens of the device and the illuminated surface must be greater than 1.5 meter.

Please be aware that damage caused by any modifications to the device are not subject to warranty. Keep away from children and non-professionals.

GENERAL GUIDELINES

- This device is a lighting effect for professional use on stages, in discotheques, theatres, etc., the device was designed for indoor use only.
- This fixture is only allowed to be operated within the maximum alternating current as stated in the technical specifications in section 2 of this manual.
- Handle the device with care, avoid shaking or using force when installing or maintaining the device.
- When choosing the installation location, please make sure that the device is not exposed to extreme heat, moisture or dust.
- If you use the quick lock cam when rigging the device, make sure the quick lock fasteners are located in the quick lock holes correctly and securely.
- Operate the device only after having familiarized yourself 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.
- The applicable temperature for the device is between -10°C to 45°C. Do not use the device outside of this temperature range.

For safety reasons, please be aware that all modifications to the device are forbidden. If this device is operated in any way different to the ones described in this manual, the product may suffer damage and the warranty becomes void. Furthermore, any other operation may lead to short-circuits, burns, electric shocks etc.

FEATURES

POWER SUPPLY

- AC 100-240V~, 50/60Hz
- Power Consumption: 850W

OPTICS

- LED: 600W white LED
- Extremely long Life: >20,000H
- Color temperature: 6954 K
- Luminous flux: 25,926 lm

MOVEMENT

- Pan movement: 540° /630° Optional (16 bit)
- Tilt movement: 270° (16 bit)
- Advanced moving system: fast, stable and quite, auto x-y repositioning

COLORS

- CMY color mixing, uniform, linear and speed can be adjustable
- CTO color temperature linear change
- 1 Color wheel: 6 dichroic filters + open, indexable, rainbow effect



GOBOS

- 1 Rotation gobo wheel: 7 interchangeable, rotating, and indexable, gobo + open
- “Slot in & out” gobo wheel system.

FEATURES

- Control channel modes: 39 channels
- 2 operations modes: DMX-512, Master / Slave
- Beam angle: zoom from 8.5° -38.5°
- Strobe effect with 1-25 flashes per second and pulse effect
- Motorized focus
- Dimmer: 0%~100% full range dimming.
- Stepless iris , 5%~100% linear change iris, pulse iris effect
- Stepless frost, 0%~100% linear change frost.

DISPLAY

- Advanced and convenient full –color LCD touch screen, with rechargeable battery
- Locked automatically after standby for 15 seconds to prevent error; hold the button for 3 seconds to activate
- Friendly reset detection: hold  and  button to lock pan /tilt reset, able to complete reset detection inside flight case

SOFTWARE

7 pre-installed programs available upon selection

Upgrades: fast and convenient through DMX cable

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

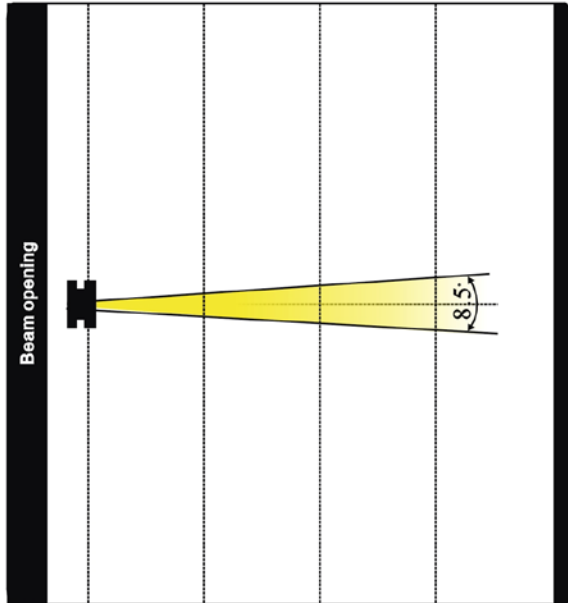
WEIGHT

Net weight: 45 kg

Photometric data image

Min. Beam angle

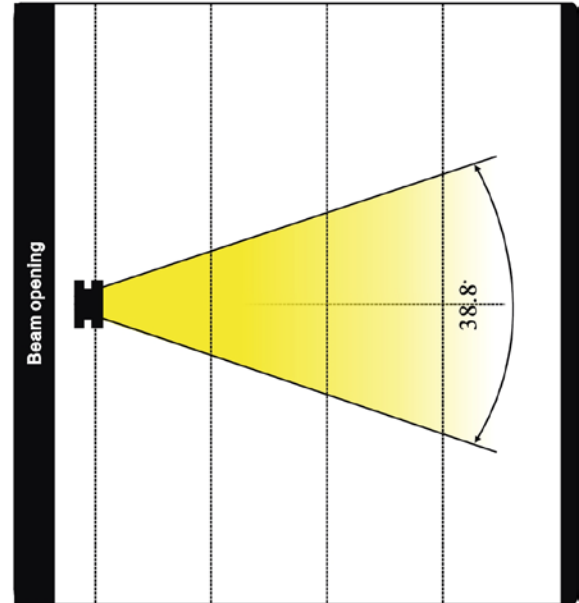
Intensity LUX 136100 59190 26230



Distance(m)	2.5	5	7.5
Diametre(m)	Φ0.37	Φ0.74	Φ1.11

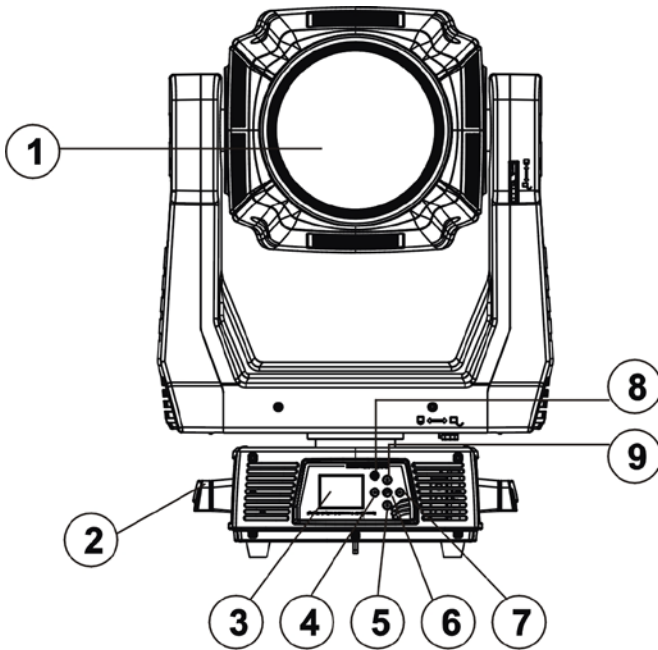
Max. Beam angle

Intensity LUX 13030 3620 1655

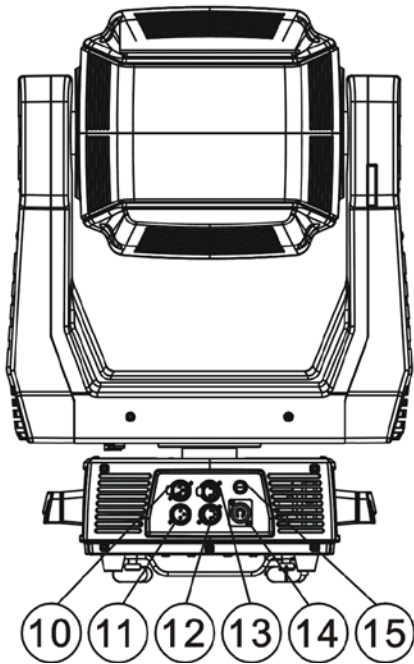


Distance(m)	2.5	5	7.5
Diametre(m)	Φ1.76	Φ3.52	Φ5.28

Fixture Overview

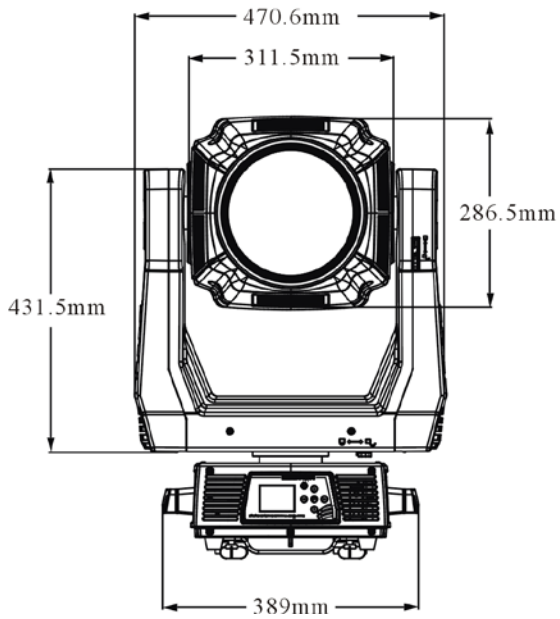
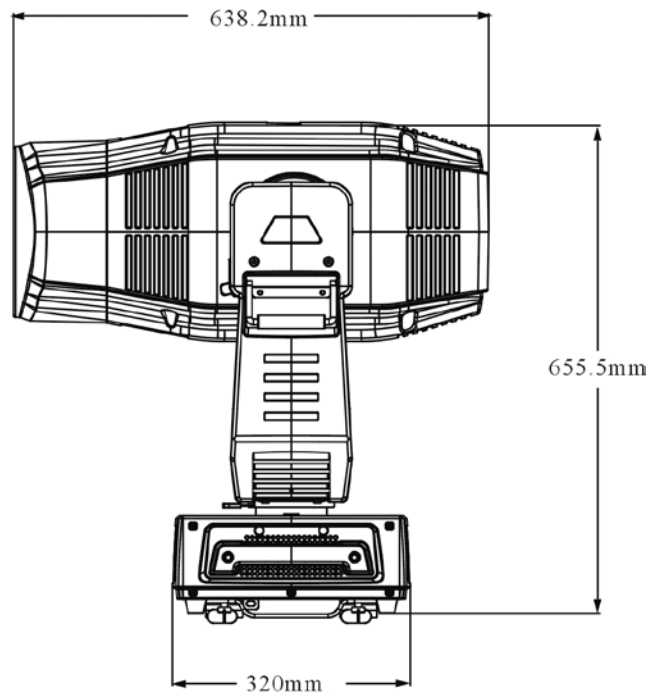
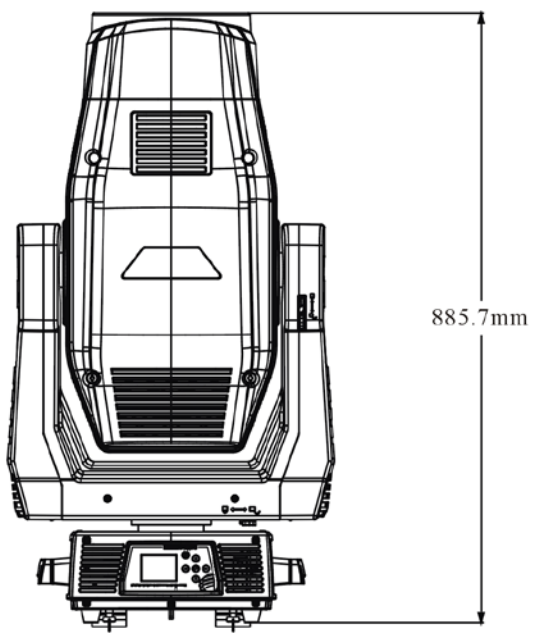


- 1) Lens
- 2) Handle
- 3) Display
- 4) Left-button
- 5) Down-button
- 6) ENTER-button
- 7) Right-button
- 8) Mode/Esc-button
- 9) Up-button



- 10) DMX out
- 11) DMX in
- 12) DMX in
- 13) DMX out
- 14) Power in
- 15) Fuse

DIMENSIONAL DRAWINGS



INSTALLATION INSTRUCTIONS



CAUTION!

DO NOT OPERATE THIS DEVICE WITH OPEN COVER

- The installation must always be secured with a secondary safety attachment, e.g. an appropriate safety cable.
- Never stand directly below the device when mounting, removing or servicing the fixture.
- The operator has to make sure the safety and technical installations are approved by an expert before taking and using this fixture in the field for the first time.
- These installations must be inspected by a skilled person 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.

RIGGING THE DEVICE

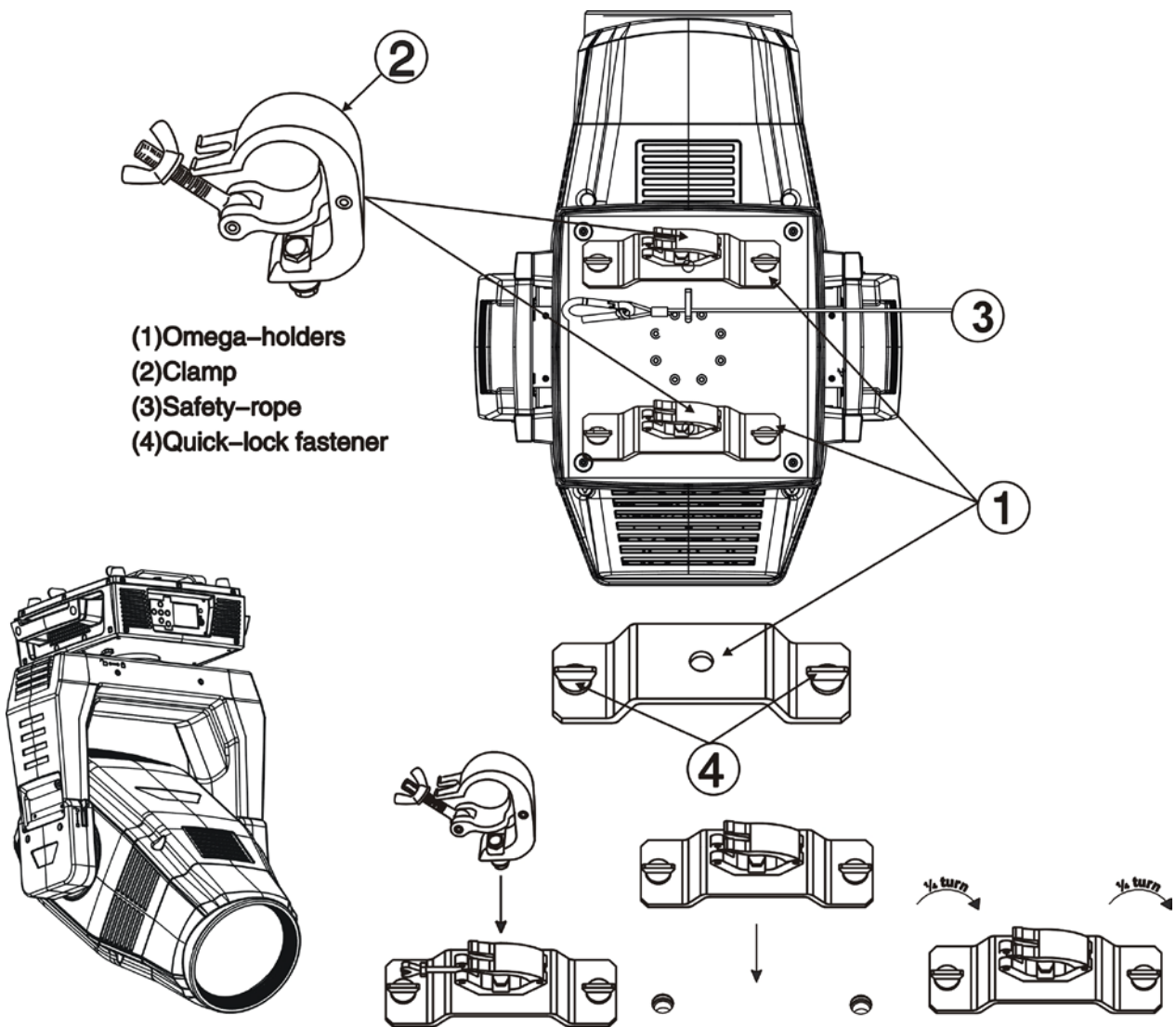


CAUTION!

PLEASE CONSIDER THE GB7000.1-2015, GB7000.217-2008 AND THE OTHER RESPECTIVE NATIONAL NORMS DURING THE INSTALLATION. THE INSTALLATION MUST ONLY BE CARRIED OUT BY A QUALIFIED PERSON.

- The structure on which the device is rigged must be able to support 10 times the weight of the device for 1 hour without any critical deformation occurring.
- The installation must always be secured with a secondary safety attachment, e.g. the included appropriate safety cable.
- Never stand directly below the device when rigging, de-rigging or maintaining the device.
- All electrical connections should be approved by a qualified electrician prior to using the product.
- When the device is permanently installed these installations have to be approved by a qualified person once a year.
- Overhead rigging requires extensive experience, including (but not limited to) calculating working load limits, specifying installation/ rigging materials, and periodic safety inspection of all installation material as well as the device. If you lack these qualifications, do not attempt the rigging of this device yourself. Improper installation/ rigging can result in serious bodily injury.
- Before rigging make sure that the installation area can hold a minimum point load of 10 times the device's weight.

1.1. RIGGING USING THE OMEGA BRACKETS



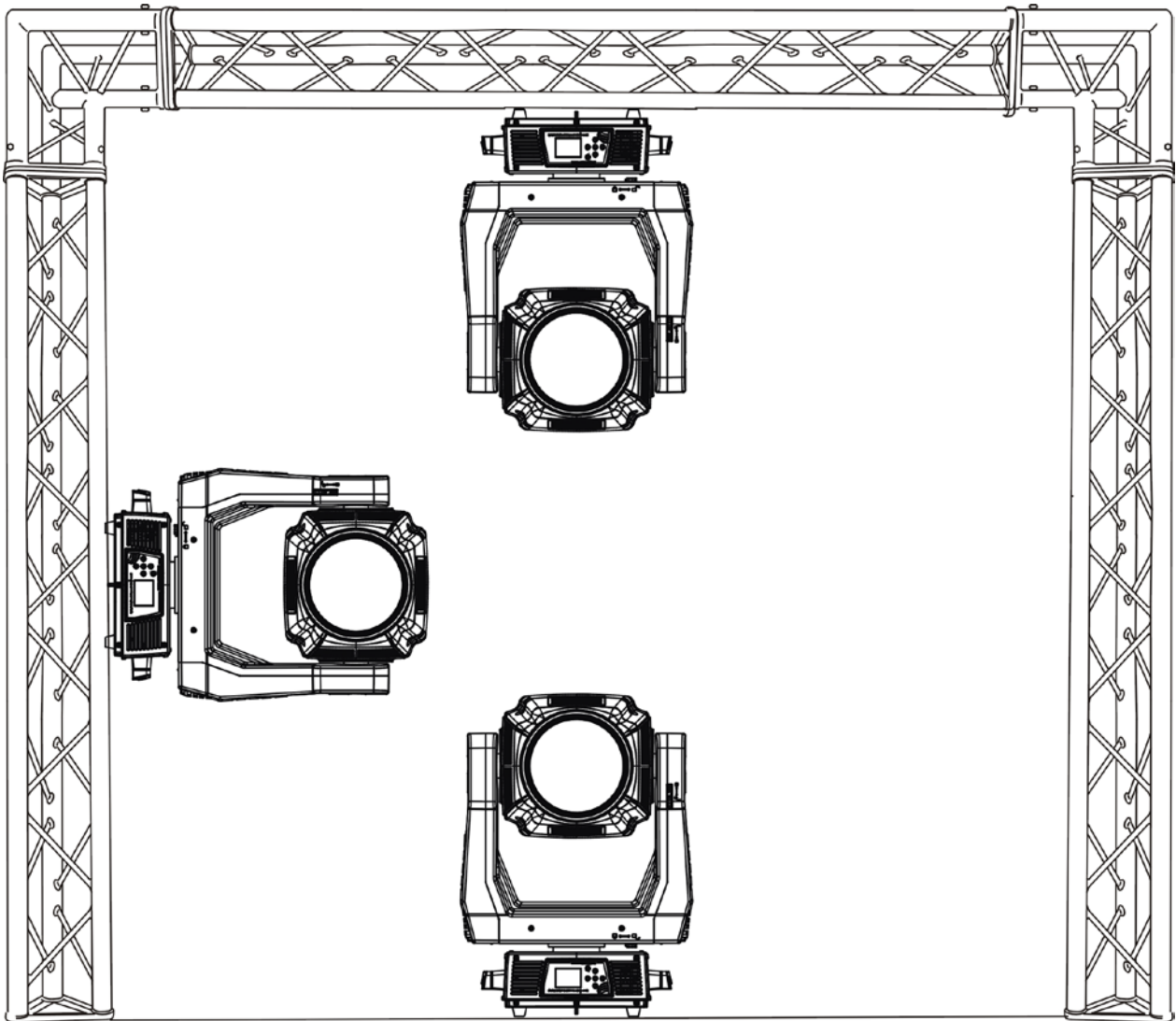
- Fix the clamp to the bracket by tightening the M12 nut and bolt to the bracket through the $\Phi 13$ hole in the middle of the bracket.
- Insert the quick-lock fasteners of the first Omega holder into the respective holes on the bottom of the device. Tighten the quick-lock fasteners fully clockwise.
- Install the second Omega holder.
- Pull the safety cable through the holes on the bottom of the base and over the trussing system or another suitable rigging point. Insert the end into the carabiner and tighten the safety screw.



Important:

This step is very important to ensure safe rigging of the fixture.

1.2. RIGGING DRAWINGS



- The device can be rigged in any of the orientations shown in the image above.
- The device must be kept at least 0.1 m 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.

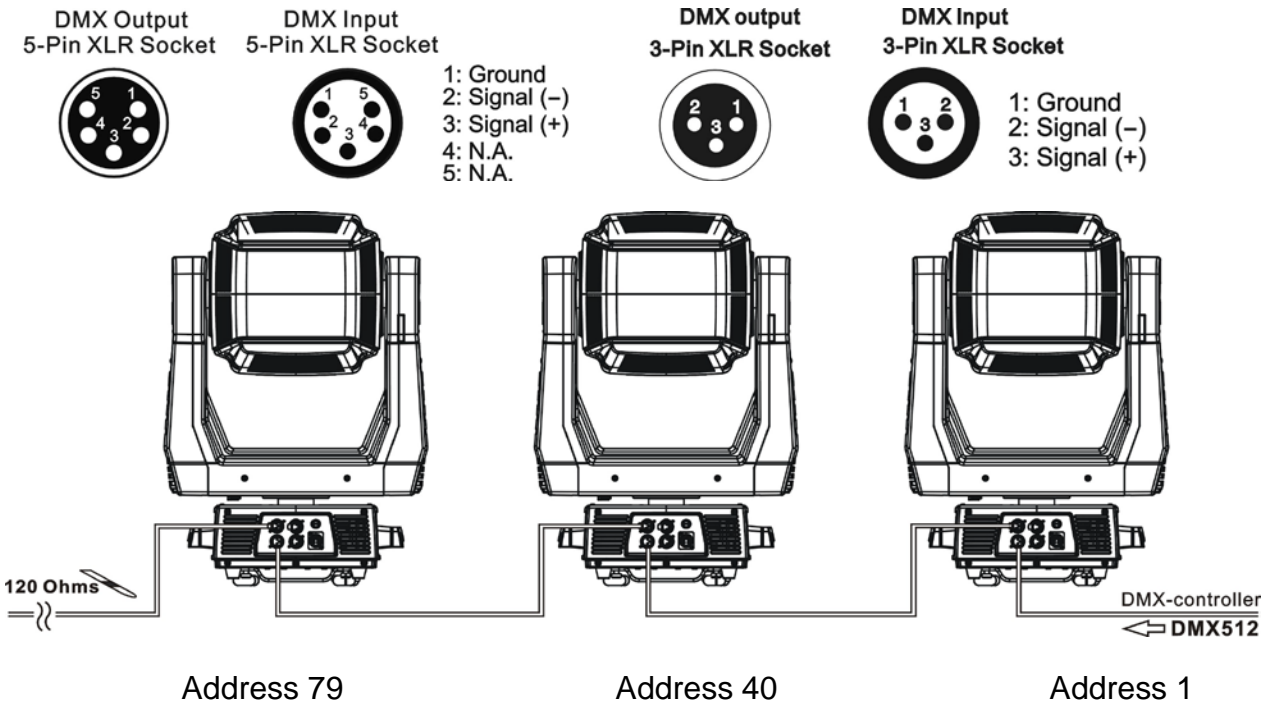


Important:

Overhead rigging requires extensive experience, including (but not limited to) calculating working load limits, specifying installation/ rigging materials, and periodic safety inspection of all installation material as well as the device. If you lack these qualifications, do not attempt the rigging of this device yourself. Improper installation/ rigging can result in serious bodily injury.

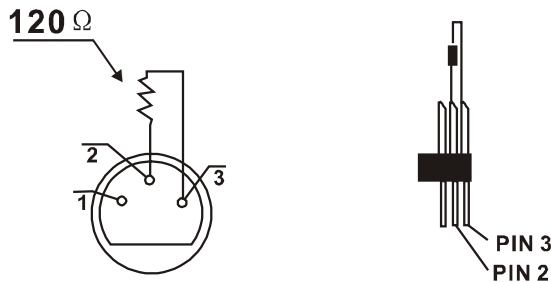
DMX-512 CONTROL CONNECTION

Connect the provided male side of the XLR cable to the female XLR output of your controller and the female side of the XLR cable to the male XLR input of the device. You can connect multiple devices together in a serial fashion. The cable needed should be two core, screened cable with XLR input and output connectors. Please refer to the diagram below.



DMX-512 CONNECTION WITH DMX TERMINATOR

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



DEVICE DMX START ADDRESS SELECTION

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 address 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 set different addresses for each fixture individually.












If you set the same address on all devices, all the devices 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 device.

In the case of the led move head, which is a 39 channel fixture, you should set the starting address of the first unit to 1, the second unit to 40(39 + 1), the third unit to 79 (39+ 40), and so on.

DISPLAY

The Display offers several features: you can set the starting address, run the pre-programmed program or reset the device.

The main menu is accessed by pressing the  -button until the display starts flashing. Browse through the menu by pressing the , ,  -button or  -button. Press the  Enter-button in order to select the desired menu. You can change the selection by pressing the  -button, ,  -button or  -button. Confirm every selection by pressing the  -button.

You can leave every mode by pressing the  -button. After accessing the edit mode, the unit will automatically exit to the main menu after 15 seconds from the last button press. When the unit is powered on, if no data signal is connected after 1 minute, then the display will switch off automatically. The Display does not need external power to operate. Hold down the  -button for 3 seconds and the Display will turn on by using the unit’s battery built in battery.

Default settings shaded

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 038 Clear Fixture Last time LED Password ="038" Clear LED time
	Error Info	XXXXX		Show up to the minute error information
	Value Disp	ALL, PAN.....		DMX value display
	Head Temp	XXX°C		Temperature in the head
	Fan Speed	FAN 1:XX RPM FAN 2:XX RPM FAN 3:XX RPM FAN 4:XX RPM		Head LED Fan 1 rev Head LED Fan 2 rev Head LED Fan 3 rev Head LED Fan 4 rev
	Software Ver	Ver X.X.X.....		Software version
Set	Status	No DMX Mode Pan Reverse Tilt Reverse Pan Degree Encoders Pan/Tilt Spd Hibernation Defogger	Close Shutter/Hold/ Auto Program/ Music Control ON/OFF ON/OFF 630/540 ON/OFF Speed 1~ 4 OFF, 01M~99M, 15M Defog OnOP Defog Off Defog OnPwr	Auto run if no DMX Pan Reverse movement Tilt Reverse movement Pan Degree Select Movement Feedback Movement Mode Select Standby Mode Defogger
	Service PIN	Service PIN Clr Err Info	Password=XXX ON/OFF	Service Password"=050" RDM PID Code
	Disp.Setting	Shutoff Time Flip Display Key Lock	02~60m 05m ON/OFF ON/OFF	Display shutoff time Reverse 180 degree Key Lock
	Temp. C/F	Fahrenheit Celsius		Temperature switch between °C/°F
	ResetDefault	ON/OFF		Restore factory set.

Test	Home	All Pan&Tilt Colors Gobos Others		Reset All Reset Pan&Tilt Reset Colors Reset Gobos Reset Others
	Test Channel	PAN		Test function
	Manual Ctrl.	PAN =XXX :		Fine adjustment of the LED
	Calibration	-Password- Pan =XXX :		Password "050" 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-- --Scene Time-- Input By Outside	Save and automatically return manual scenes edit
	Scenes Input	XX~XX		Automat. scenes rec

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 "Address" is displayed.
3. Press ENTER, the display will show "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, access the main menu, Tap the <Up/Down>button until "Info" is displayed. Press ENTER, the display will show "Info". Tap the <Up/Down>button until the display will show "Time Info.". Press ENTER, the display will show "Time Info.".
2. Press <Up/Down>, the display will show "Current Time".
3. Press <ENTER>, the display will show "Current Time".
4. The display will show "XXXX" (Hours) ;
5. 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, Tap the <Up/Down>button until "Info" is displayed. Press ENTER, the display will show "Info". Tap the <Up/Down>button until the display will show "Time Info.". Press ENTER, the display will show "Time Info.".
2. Press <Up/Down>, the display will show "Ttl Life Hrs".
3. Press <ENTER>, the display will show "Ttl Life Hrs".
4. The display will show "XXXX" (Hours) ;
5. 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, Tap the <Up/Down>button until "Info" is displayed. Press ENTER, the display will show "Info". Tap the <Up/Down>button until the display will show "Time Info.". Press ENTER, the display will show "Time Info.".
2. Press <Up/Down>, the display will show "Last Run Hrs".
3. Press <ENTER>, the display will show "Last Run Hrs".
4. The display will show "XXXX" (Hours) ;
5. 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 lamp. The display shows “XXXX”, “XXXX” stands for the number of hours.

1. Tap <MODE/ESC>button, access the main menu, Tap the <Up/Down>button until “Info” is displayed. Press ENTER, the display will show “Info”. Tap the <Up/Down>button until the display will show “Time Info.”. Press ENTER, the display will show “Time Info.”.
2. Press <Up/Down>, the display will show “LED Hours”.
3. Press< ENTER>, the display will show “LED Hours”.
4. The display will show “XXXX” (Hours) ;
5. 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, Tap the <Up/Down>button until “Info” is displayed. Press ENTER, the display will show “Info”. Tap the <Up/Down>button until the display will show “Time Info.”. Press ENTER, the display will show “Time Info.”.
2. Press <Up/Down>, the display will show “Timer PIN”.
3. Press< ENTER>, the display will show “Timer PIN”, the time password is 038.
4. 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, Tap the <Up/Down>button until “Info” is displayed. Press ENTER, the display will show “Info”. Tap the <Up/Down>button until the display will show “Time Info.”. Press ENTER, the display will show “Time Info.”.
2. Press <Up/Down>, the display will show “Clr Last Run”.
3. At” L-Timer Password” menu input right password, Press< ENTER>, the display will show “Clr Last Run”.
4. The display show “OFF”, Press <Up/Down>, the display will show “ON”.
5. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

LED Time PIN

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

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

Clen LED Time

With this function you can clear the running time of the lamp. Please clear the lamp time every time you replace the lamp.

1. Tap <MODE/ESC>button, access the main menu, Tap the <Up/Down>button until "Info" is displayed. Press ENTER, the display will show "Info". Tap the <Up/Down>button until the display will show "Time Info.". Press ENTER, the display will show "Time Info."
2. Press <Up/Down>, the display will show "Clen LED Time".
3. At "Timer Password" menu input a correct password, press< ENTER>, the display will show "Clen LED Time",
4. The display will show "OFF" or "ON".
5. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

Error Info

1. Tap <MODE/ESC>button, access the main menu, Tap the <Up/Down>button until "Information" is displayed. Press ENTER, the display will show "Information".
2. Press <Up/Down>, the display will show "Error Info".
3. Press< ENTER>, the display will show "xxxxxx".
4. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

Value Disp.

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, access the main menu, Tap the <Up/Down>button until "Info" is displayed. Press ENTER, the display will show "Info". Tap the <Up/Down>button until the display will show "Value Disp". Press ENTER, the display will show "Value Disp".
2. Tap the <Up/Down>button until "ALL", "PAN" is displayed.
3. Tap the <Up/Down>button, choose each channel.
4. 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 display board of the base (near CMY-filter) in Celsius.

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

Fan Speed

1. Tap <MODE/ESC> button, access the main menu, Tap the <Up/Down>button until "Info" is displayed. Press ENTER, the display will show "Info".
2. Press <Up/Down>, the display will show "Fan Speed".
3. Press< ENTER>, the display will show "Fan Info".
4. The display show "HeadFan1: xxxxRPM", "HeadFan2: xxxxRPM".....
5. 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, Tap the <Up/Down>button until "Info" is displayed. Press ENTER, the display will show "Info".
2. Press <Up/Down>, the display will show "Software Ver".
3. Press< ENTER>, the display will show "Software Ver".
4. The display show "Ver x.x.x".
5. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

SET

Status

No DMX Mode

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, Tap the <Up/Down>button until "SET" is displayed. Press ENTER, the display will show "SET". Tap the <Up/Down>button until the display will show "Status". Press ENTER, the display will show "Status".
2. Press <Up/Down>, the display will show "No DMX Status".
3. Press< ENTER>, the display will show "No DMX Status".
4. The display show "Hold", Press <Up/Down>, the display will show "Close Shutter", "Auto Program", "Music Control",.
5. 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, Tap the <Up/Down>button until "SET" is displayed. Press ENTER, the display will show "SET". Tap the <Up/Down>button until the display will show "Status". Press ENTER, the display will show "Status".
2. Press <Up/Down>, the display will show "Pan Reverse".
3. Press< ENTER>, the display will show "Pan Reverse".
4. The display show "OFF", Press <Up/Down>, the display will show "ON".
5. 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, Tap the <Up/Down>button until "SET" is displayed. Press ENTER, the display will show "SET". Tap the <Up/Down>button until the display will show "Status". Press ENTER, the display will show "Status".
2. Press <Up/Down>, the display will show "Tilt Reverse".
3. Press< ENTER>, the display will show "Tilt Reverse".
4. The display show "OFF", Press <Up/Down>, the display will show "ON".
5. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

Pan Degree

With this function, you can select pan degree for 630 or 540.

1. Tap <MODE/ESC>button, access the main menu, Tap the <Up/Down>button until "SET" is displayed. Press ENTER, the display will show "SET". Tap the <Up/Down>button until the display will show "Status". Press ENTER, the display will show "Status".
2. Press <Up/Down>, the display will show "Pan Degree".
3. Press< ENTER>, the display will show "Pan Degree".
4. The display show "540", Press <Up/Down>, the display will show "630".
5. 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, Tap the <Up/Down>button until "SET" is displayed. Press ENTER, the display will show "SET". Tap the <Up/Down>button until the display will show "Status". Press ENTER, the display will show "Status".
2. Press <Up/Down>, the display will show "Encoders.".
3. Press< ENTER>, the display will show "Encoders.".
4. The display show "ON", Press <Up/Down>, the display will show "OFF".
5. 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, Tap the <Up/Down>button until “SET” is displayed. Press ENTER, the display will show “SET”. Tap the <Up/Down>button until the display will show “Status”. Press ENTER, the display will show “Status”.
2. Press <Up/Down>, the display will show “Hibernation”.
3. Press< ENTER>, the display will show “Hibernation”.
4. The display show “15M”, Press <Up/Down>, the display will show “01M”, ”02M” “99M” or “OFF”.
5. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

Defogger

1. Tap <MODE/ESC>button, access the main menu, Tap the <Up/Down>button until “SET” is displayed. Press ENTER, the display will show “SET”. Tap the <Up/Down>button until the display will show “Status”. Press ENTER, the display will show “Status”.
2. Press <Up/Down>, the display will show “Defog OnO.”.
3. The display show “Defog OnO.”, Press <Up/Down>, the display will show “Defog Off”, “Defog OnPwr”.
4. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

Service PIN Password

The Password for this function is “50”.

Disp. Setting

Shut off time

With this function you can shut off the color LCD display after 2 to 59 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, Tap the <Up/Down>button until “Set” is displayed. Press ENTER, the display will show “Set”. Tap the <Up/Down>button until the display will show “Disp.Setting”. Press ENTER, the display will show “Disp.Setting”.
2. Press <Up/Down>, the display will show “Shutoff Time”.
3. 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, Tap the <Up/Down>button until “Set” is displayed. Press ENTER, the display will show “Set”. Tap the <Up/Down>button until the display will show “Disp.Setting”. Press ENTER, the display will show “Disp.Setting”.
2. Press <Up/Down>, the display will show “Flip Display”.
3. Press< ENTER>, the display will show “Flip Display”.
4. The display show “OFF”, Press <Up/Down>, the display will show “ON”.
5. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

Key Lock

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

1. Tap <MODE/ESC>button, access the main menu, Tap the <Up/Down>button until "Set" is displayed. Press ENTER, the display will show "Set". Tap the <Up/Down>button until the display will show "Disp.Setting". Press ENTER, the display will show "Disp.Setting".
2. Press <Up/Down>, the display will show "Key Lock".
3. Press< ENTER>, the display will show "Key Lock".
4. The display show "OFF", Press <Up/Down>, the display will show "ON".
5. 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, Tap the <Up/Down>button until "Set" is displayed. Press ENTER, the display will show "Set".
2. Press <Up/Down>, the display will show "Temp. C/F".
3. Press< ENTER>, the display will show "Temp. C/F".
4. The display show "Celsius", Press <Up/Down>, the display will show "Fahrenheit".
5. 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, Tap the <Up/Down>button until "Personality" is displayed. Press ENTER, the display will show "Personality".
2. Press <Up/Down>, the display will show "Reset Default".
3. Press< ENTER>, the display will show "Reset Default".
4. The display show "OFF", Press <Up/Down>, the display will show "ON".
5. 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, Tap the <Up/Down>button until "Test" is displayed. Press ENTER, the display will show "Test".
2. The display show "Reset All", Press <Up/Down>, the display will show "Reset Pan&Tilt", "Colors", "Gobos", "Others".
3. 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, Tap the <Up/Down>button until "Test" is displayed. Press ENTER, the display will show "Test".
2. Press <Up/Down>, the display will show "Test Channel".
3. Press< ENTER>, the display will show "Test Channel".
4. The display show "Pan Moving" first channel, Press <Up/Down>, can choose other channel.
5. 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, Tap the <Up/Down>button until "Test" is displayed. Press ENTER, the display will show "Test".
2. Press <Up/Down>, the display will show "Manual Ctrl.".
3. Press< ENTER>, the display will show "Manual Ctrl.".
4. The display show "PAN=XXX".
5. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

Calibration

With this function, you can calibrate and adjust the effect wheels to their correct positions. The password of calibrate values is 050.

1. Tap <MODE/ESC>button, access the main menu, Tap the <Up/Down>button until "Test" is displayed. Press ENTER, the display will show "Test".
2. Press <Up/Down>, the display will show "Calibration".
3. Press< ENTER>, the display will show "Calibration".
4. The display show "Password=XXXX".
5. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

Preset

PlayBack

DMX Control

1. Tap <MODE/ESC>button, access the main menu, Tap the <Up/Down>button until "Preset" is displayed. Press ENTER, the display will show "Preset". Tap the <Up/Down>button until the display will show "PlayBack". Press ENTER, the display will show "PlayBack".
2. Tap the <Up/Down>button until "DMX Control" is displayed.
3. Press ENTER, the display will show "DMX Control".
4. Tap the <Up/Down>button, choose dmx modes.
5. 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, Tap the <Up/Down>button until "Preset" is displayed. Press ENTER, the display will show "Preset". Tap the <Up/Down>button until the display will show "PlayBack". Press ENTER, the display will show "PlayBack".
2. Tap the <Up/Down>button until "Set To Slav" is displayed.
3. Press ENTER, the display will show "Set To Slav".
4. Tap the <Up/Down>button, the display will show "Slave1", "Slave2", and "Slave3".
5. 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, Tap the <Up/Down>button until “Preset” is displayed. Press ENTER, the display will show “Preset”. Tap the <Up/Down>button until the display will show “PlayBack”. Press ENTER, the display will show “PlayBack”.
2. Tap the <Up/Down>button until “Auto Program” is displayed.
3. Press ENTER, the display will show “Auto Program”.
4. Tap the <Up/Down>button, the display will show “Master1”, “Alone”.
5. 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

1. Tap <MODE/ESC> button, access the main menu, Tap the <Up/Down> button until “Edit program” is displayed. Press ENTER, the display will show “Edit program”.
2. The display show “Select programs”, Press <Up/Down>, the display will show “Edit Program”, “Edit Scenes”, and “Rec. Controller”.
3. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

Example Program

Run the auto program: A master fixture can output to three different program signals to the slave fixture to operate. It means the host will send cyclically in the following orders (The host will keep operating the program of Part 1), then the slave fixture will selectively receive according to its own set.



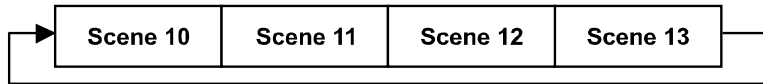
1. If the slave fixture chooses Run For Slave 1 from the menu of 1-3, then it will receive the part 1's automatic program from link, in the same way, when the slave fixture chooses Run For Slave 2, then it will receive the part 2's automatic program from link.
2. Enter the menu of 1-3 Function Mode---Set To Slave, Here to set machine operate which part of the program during the host-slave connection
3. Enter the menu of 1-4,1-5 Function Mode---Set To Master
4. Enter the menu of 8-1 Edit Program---Auto Program Part1.The host outputs three groups driven program---Part1, Part2, Part3(Part1 program runs the same effect as the host)
5. Enter the menu of 8-2 Edit Program---Edit Program. Edit the program's connection, connect the scene in order
6. The editor of the scene, there are as many as 250 scenario editors, and every scene can have a program connection of 10.

Note:

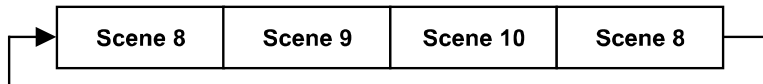
Part 2, Part 3 repeat in accordance with the Part 1's repeat. For example: When Part 1 uses Program 2, Part 2 uses Program 4, Part 3 uses Program 6, Assume: Program 2 includes scene of 10, 11, 12, 13; Program 4 includes scene of 8, 9, 10; Program 6 includes scene of 12, 13, 14, 15; Then it will run as below.

Example:

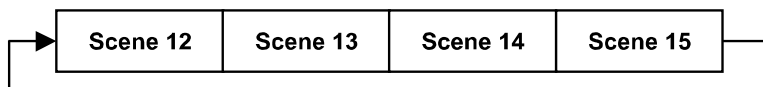
Part 1:



Part 2:



Part 3:



DMX Control Protocol

The most current DMX Control Protocol data for the SolaHyBeam 2000 can be found on the High End Systems, Inc. website <https://www.highend.com/SolaHyBeam2000-DMXProtocol>.

The following data is current as of protocol version 1.3, revision date July 13, 2017.

Standard Protocol	
Channel	Construct
1	Pan Coarse
2	Pan Fine
3	Tilt Coarse
4	Tilt Fine
5	Mix Color Function
6	Cyan
7	Magenta
8	Yellow
9	CTO
10	Static Color 1 Function
11	Static Color 1 Position
12	Gobo 1 Function
13	Gobo 1 Position
14	Gobo 1 Rotate Function
15	Gobo 1 Rotate Coarse
16	Gobo 1 Rotate Fine
17	Blade 1 Angle A
18	Blade 1 Angle B
19	Blade 2 Angle A
20	Blade 2 Angle B
21	Blade 3 Angle A
22	Blade 3 Angle B
23	Blade 4 Angle A
24	Blade 4 Angle B
25	Frame Rotation Coarse
26	Frame Rotation Fine
27	Frost 1
28	Frost 2
29	Focus Coarse
30	Focus Fine
31	Zoom Coarse
32	Zoom Fine
33	Iris
34	Shutter/LED Function
35	Shutter/LED
36	Dim Coarse
37	Dim Fine
38	Mspeed
39	Control

Channel	Marketing Construct	Description	Decimal Low	Decimal High	Percent Low	Percent High	Hex Low	Hex High	Controller Defaults		
1	Pan	Pan Coarse	0	255	0%	100%	00h	FFh	127		
2	Pan	Pan Fine	0	255	0%	100%	00h	FFh	255		
3	Tilt	Tilt Coarse	0	255	0%	100%	00h	FFh	127		
4	Tilt	Tilt Fine	0	255	0%	100%	00h	FFh	255		
5	Color Mix Function	Pure Mix	0	31	0%	12%	00h	1Fh	0		
		Cycle	32	47	13%	18%	20h	2Fh			
		Random	48	63	19%	25%	30h	3Fh			
		Continuous	64	79	25%	31%	40h	4Fh			
		Reserved	80	255	31%	100%	50h	FFh			
6 7 8	Cyan Magenta Yellow	Pure Mix							255		
		Full Saturation	0		100%		00h				
		Open	255		0%		FFh				
		Cycle & Random Modes. Scan Speed controlled by Cyan Channel									
		Slow Rate	0		0%		00h				
		Fast Rate	255		100%		FFh				
		Continuous mode (NOTE 1)									
Positioning from 0-360 degrees	0	255	0%	100%	00h	FFh					
9	CTO	Full Saturation	0		0%		00h		255		
		Open (White)	255		100%		FFh				
10	Static Color 1 Function	Full Speed Control									
		Indexed	0	15	0%	6%	00h	0Fh	48		
		Forward Spin	16	31	6%	12%	10h	1Fh			
		Reverse Spin	32	47	13%	18%	20h	2Fh			
		Continuous (Note 1)	48	63	19%	25%	30h	3Fh			
		Fast Scan	64	79	25%	31%	40h	4Fh			
		Random	80	95	31%	37%	50h	5Fh			
		Reserved	96	255	38%	100%	60h	FFh			
11	Static Color 1 Position	Indexed, Scan & Blink modes									
		1. Open (White)	0	16	0%	6%	00h	10h	0		
		2. (Open/Red)	17	32	7%	13%	11h	20h			
		3. (Red)	33	48	13%	19%	21h	30h			
		4. (Red/Blue)	49	64	19%	25%	31h	40h			
		5. (Blue)	65	80	25%	31%	41h	50h			
		6. (Blue/Green)	81	96	32%	38%	51h	60h			
		7. (Green)	97	112	38%	44%	61h	70h			
		8. (Green/Orange)	113	128	44%	50%	71h	80h			
		9. (Orange)	129	144	51%	56%	81h	90h			
		10. (Orange/Magenta)	145	160	57%	63%	91h	A0h			
		11. (Magenta)	161	176	63%	69%	A1h	B0h			
		12. (Magenta/Dark Blue)	177	192	69%	75%	B1h	C0h			
		13. (Dark Blue)	193	208	76%	82%	C1h	D0h			
		14. (Dark Blue/Open)	209	224	82%	88%	D1h	E0h			
		1. Open (White)	225	255	88%	100%	E1h	FFh			
		Spin & Random modes									
		Stop	0		0%	0%	00h	00h			
		Slowest to fastest	255		100%	0%	FFh	00h			
		Continuous mode									
Positioning from 0-360 degrees	0	255	0%	100%	00h	FFh					

12	Gobo 1 Function	Indexed	0	15	0%	6%	00h	0Fh	0	
		Forward Wheel Spin	16	31	6%	12%	10h	1Fh		
		Reverse Wheel Spin	32	47	13%	18%	20h	2Fh		
		Scan	48	63	19%	25%	30h	3Fh		
		Random	64	79	25%	31%	40h	4Fh		
		TBD/Indexd	80	255	31%	100%	50h	FFh		
13	Gobo 1 Position	Indexed, Scan & Blink modes								
		1. (Open)	0	27	0%	11%	00h	1Bh	0	
		2. (Spokes)	28	55	11%	22%	1Ch	37h		
		3. (Dots)	56	84	22%	33%	38h	54h		
		4. (Perfora)	85	112	33%	44%	55h	70h		
		5. (Monovekto)	113	140	44%	55%	71h	8Ch		
		6. (Bars)	141	169	55%	66%	8Dh	A9h		
		7. (Psych)	170	197	67%	77%	AAh	C5h		
		8. (Rays)	198	225	78%	88%	C6h	E1h		
		1. (Open)	226	255	89%	100%	E2h	FFh		
		Spin & Random modes								
		Rotate Stop	0	3	0%	1%	00h	03h		
		Slowest to fastest	4	255	2%	100%	04h	FFh		
		14	Gobo 1 Rotate Function	Full Speed Control						
Indexed	0			15	0%	6%	00h	0Fh		0
Forward Rotate	16			31	6%	12%	10h	1Fh		
Reverse Rotate	32			47	13%	18%	20h	2Fh		
Forward Strobe Rotate (Gobo animate)	48			63	19%	25%	30h	3Fh		
Reverse Strobe Rotate (Gobo animate)	64			79	25%	31%	40h	4Fh		
Reserved	80	255	31%	100%	50h	FFh				
15	Gobo 1 Rotate Coarse	Indexed/Blink Modes								
		Position 0-360 degrees	0	255	0%	100%	00h	FFh	127	
		Forward/Reverse/Forward Strobe/Reverse Strobe Rotate Modes								
		Rotate Stop	0	3	0%	1%	00h	03h		
Rotate Slowest to Fastest	4	255	2%	100%	04h	FFh				
16	Gobo 1 Rotate Fine	Indexed Mode								255
		Low Order Byte 0-360 degrees	0	255	0%	100%	00h	FFh		
17	Blade 1 Angle	Out of the light path	0		0%		00h		0	
		Full in the light path	255		100%		FFh			
18	Blade 1 Angle	Out of the light path	0		0%		00h		0	
		Full in the light path	255		100%		FFh			
19	Blade 2 Angle	Out of the light path	0		0%		00h		0	
		Full in the light path	255		100%		FFh			
20	Blade 2 Angle	Out of the light path	0		0%		00h		0	
		Full in the light path	255		100%		FFh			
21	Blade 3 Angle	Out of the light path	0		0%		00h		0	
		Full in the light path	255		100%		FFh			
22	Blade 3 Angle	Out of the light path	0		0%		00h		0	
		Full in the light path	255		100%		FFh			
23	Blade 4 Angle	Out of the light path	0		0%		00h		0	
		Full in the light path	255		100%		FFh			
24	Blade 4 Angle	Out of the light path	0		0%		00h		0	
		Full in the light path	255		100%		FFh			
25	Frame Rotation Coarse	Frame Angle Negative	0	127	0%	50%	00h	7Fh	0	
		Frame Angle 0 degrees	128		50%		80h			
		Frame Angle positive	129	255	51%	100%	81h	FFh		
26	Frame Rotation Fine	Frame Angle Negative	0	127	0%	50%	00h	7Fh	0	
		Frame Angle 0 degrees	128		50%		80h			
		Frame Angle positive	129	255	51%	100%	81h	FFh		

Protocol Notes

1. Continuous mode should take quickest path from 255-0, and 0-255.
 - Continuous mode color wheel aperture centers

Color	Center of color DMX value
Open	0
Red	337
Blue	72
Green	110
Orange	144
Magenta	184
Dark Blue	219

2. Fan control modes are not retentive. When the fixture is turned off it will default back to Standard mode.

ERROR MESSAGES

When you turn on the device, it will first perform a reset. The display may show "Err channel is XX" should there be problems with one or more functions. "XX" stands for channel 1, 2, 3, 4, 5, 6, etc. whose sensor has encountered a problem. For example, when the display shows "Err channel is Pan movement", it means there is an error on channel 1. If there are errors on channel 1, channel 3, channel 9 at the same time, you may see the error message, "Err channel is Pan movement", "Err channel is Tilt movement" "Err channel is CTO" ,flash twice, and then the device will generate a second reset. If the error messages persist after performing a reset more than twice, the channels which have errors may not work properly however, all other functions can work as usual. Please contact your dealer or manufacturer for service. Self-repair is not allowed.

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 (Optical Sensor or Magnetic Sensor fails) or the stepper motor is defective (or it's 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 ((Optical Sensor or Magnetic Sensor fails)) or the stepper motor is defective (or it's driving IC on the main PCB). The TILT- movement is not located in the default position after the reset.

CMY wheel Er

(CMY wheel- 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 stepper motor is defective (or it's driving IC on the main PCB). The CMY - movement is not located in the default position after the reset.

CTO wheel Er

(CTO wheel- 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 stepper motor is defective (or it's driving IC on the main PCB). The CTO - movement is not located in the default position after the reset.

COLOR wheel Er

(COLOR wheel- 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 stepper motor is defective (or it's driving IC on the main PCB). The COLOR - movement is not located in the default position after the reset.

GOBO wheel Er

(GOBO wheel- 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 stepper motor is defective (or it's driving IC on the main PCB). The GOBO1 - movement is not located in the default position after the reset.

Frost 1 wheel Er

(Frost 1 wheel- 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 stepper motor is defective (or it's driving IC on the main PCB). The Frost1 - movement is not located in the default position after the reset.

Frost 2 wheel Er

(Frost 2 wheel- 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 stepper motor is defective (or it's driving IC on the main PCB). The Frost2 - movement is not located in the default position after the reset.

Focus wheel Er

(Focus wheel- 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 stepper motor is defective (or it's driving IC on the main PCB). The Focus - movement is not located in the default position after the reset.

Zoom wheel Er

(Zoom wheel- 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 stepper motor is defective (or it's driving IC on the main PCB). The Zoom - movement is not located in the default position after the reset.

Iris wheel Er

(Iris wheel- 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 stepper motor is defective (or it's driving IC on the main PCB). The Iris - movement is not located in the default position after the reset.

Blade1wheel Er

(Blade1 wheel- 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 stepper motor is defective (or it's driving IC on the main PCB). The Blade1 - movement is not located in the default position after the reset.

Blade1 Rot wheel Er

(Blade1 Rot wheel- 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 stepper motor is defective (or it's driving IC on the main PCB). The Blade1 Rot - movement is not located in the default position after the reset.

Blade2wheel Er

(Blade2 wheel- 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 stepper motor is defective (or it's driving IC on the main PCB). The Blade2 - movement is not located in the default position after the reset.

Blade2 Rot wheel Er

(Blade2 Rot wheel- 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 stepper motor is defective (or it's driving IC on the main PCB). The Blade2 Rot - movement is not located in the default position after the reset.

Blade3 wheel Er

(Blade3 wheel- 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 stepper motor is defective (or it's driving IC on the main PCB). The Blade3 - movement is not located in the default position after the reset.

Blade3 Rot wheel Er

(Blade3 Rot wheel- 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 stepper motor is defective (or it's driving IC on the main PCB). The Blade3 Rot - movement is not located in the default position after the reset.

Blade4 wheel Er

(Blade4 wheel- 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 stepper motor is defective (or it's driving IC on the main PCB). The Blade4 - movement is not located in the default position after the reset.

Blade4 Rot wheel Er

(Blade4 Rot wheel- 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 stepper motor is defective (or it's driving IC on the main PCB). The Blade4 Rot - movement is not located in the default position after the reset.

Blade Rot wheel Er

(Blade Rot wheel- 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 stepper motor is defective (or it's driving IC on the main PCB). The Blade Rot Rot - movement is not located in the default position after the reset.

CLEANING AND MAINTENANCE

The following points have to be considered during inspection:

- 1) All screws for installing the devices or parts of the device have to be tightly connected and must not be corroded.
- 2) There must not be any deformations to the housing, lenses, rigging and installation points (ceiling, suspension, trussing).
- 3) Motorized parts must not show any signs of wear and must move smoothly without issue.
- 4) The power supply cables must not show any damage, material fatigue or sediment.

Further instructions depending on the installation location and usage have to be adhered to by a qualified installer and any safety concerns have to be removed.



CAUTION!

Disconnect from mains before starting maintenance operation.

In order to ensure the device remains in good condition and does not fail prematurely, we suggest regular maintenance.

- 1) Clean the inside and outside lens each week to avoid loss of output due to accumulation of dust/ dirt on the lens.
- 2) Clean the fans each week to ensure maximum airflow and efficient thermal cooling. This will ensure the light source is operated in the best possible condition.
- 3) A detailed electrical check by an approved electrician every quarter to make sure that the circuit contacts are in good condition. This will prevent poor circuit contacts and the resultant overheating.

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

Please refer to the instructions under "Installation instructions".

Should you need any spare parts, please order genuine parts from your local dealer.