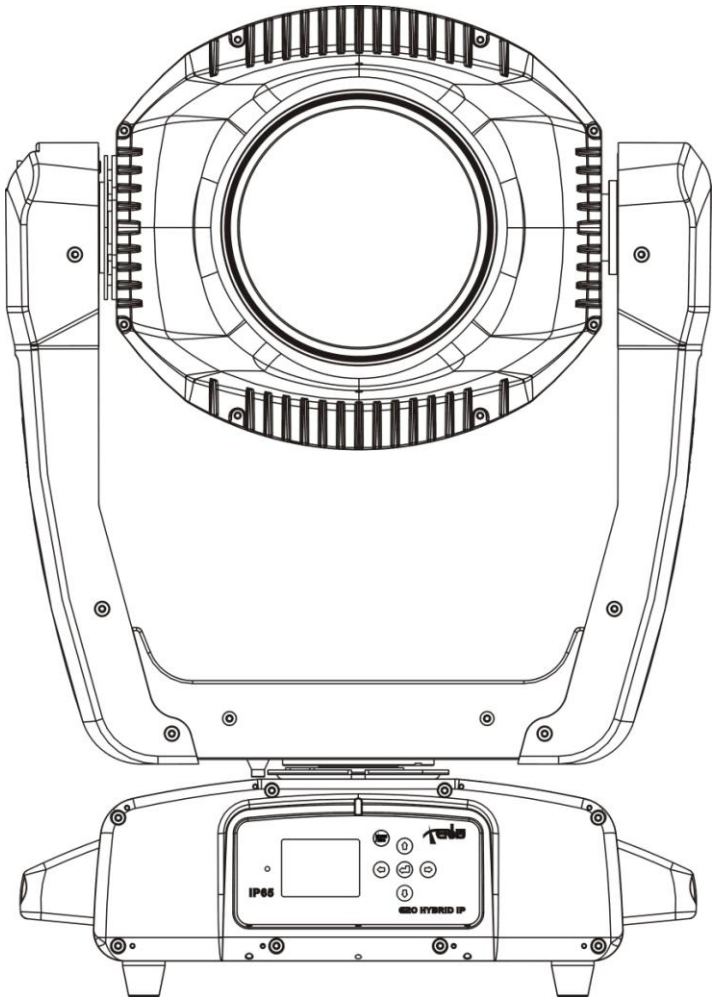
Terbly Professional Lighting

MOVING HEAD

USER MANUAL



G20 HYBRID IP

KEEP THIS MANUAL FOR FUTURE NEEDS CE

Terbly Professional Lighting

Thank you for purchasing a TERBLY product. 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.

CONTENTS

1. SAFETY INSTRUCTIONS

1.1. 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 If this should be the case, 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 or Terbly.
- 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 12 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.

1.2. GENERAL GUIDELINES

- This device is a lighting effect for professional use on stages, in discotheques, theatres, etc., the device was designed for indoor and outdoor.
- 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.
- The light source contained in this luminaire shall only be replaced by the manufacturer or his service agent or a similar qualified person.

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.

2. FEATURES

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

OPTICS
- Lamp: MSD Platinum 21R 470W
- Extremely long Life: >1500H

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
- 1 Color wheel: 14dichroic filters + open, indexable, rainbow effect

GOBOS
- 1 Rotation gobo wheel: 8 interchangeable, rotating, and indexable, gobo + open
- "Slot in & out" gobo wheel system.
- 1 Static gobo wheel: 14 + open

FEATURES
- 3 Control channel modes: 25/27/38 channels
- 2 operations modes: DMX-512, Master / Slave mode
- Strobe effect with 1-25 flashes per second and pulse effect
- Rotating Prism: 16 prism Macros
- Motorized focus
- Dimmer: 0%~100% full range dimming.
- Stepless frost, 0%~100% linear change frost.
- Waterproof grade: IP65

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

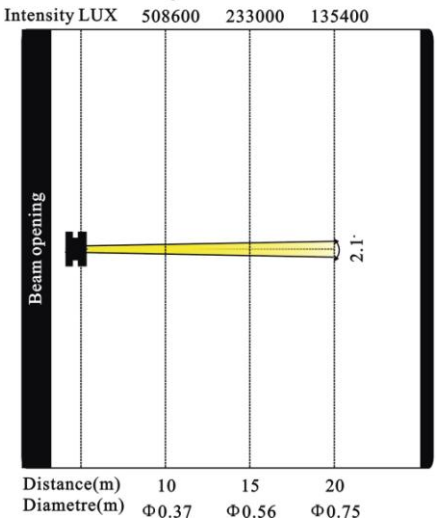
SOFTWARE
7 pre-installed programs available upon selection
Upgrades: fast and convenient through DMX cable
Reset DMX address, remote lamp switch, reset can all be done by the controller
Running time of fixture on display for reference

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

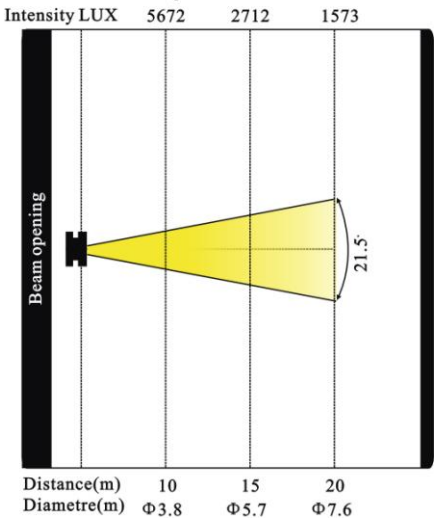
WHIGHT
Net weight: 41.09 kg

PHOTOMETRIC DATA IMAGE

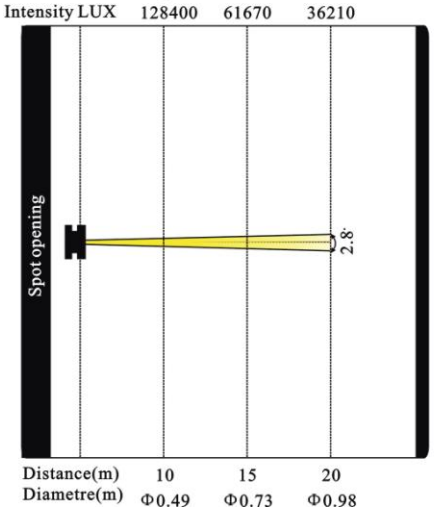
Min. BEAM mode angle



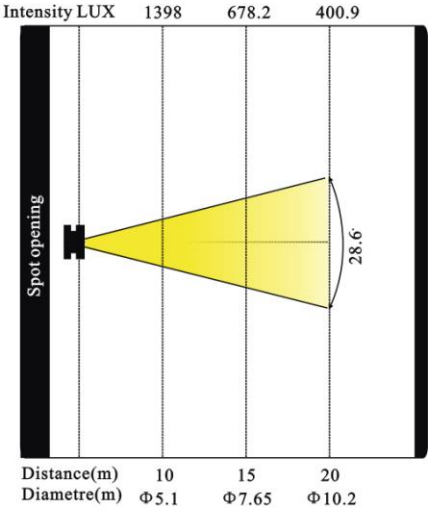
Max. BEAM mode angle



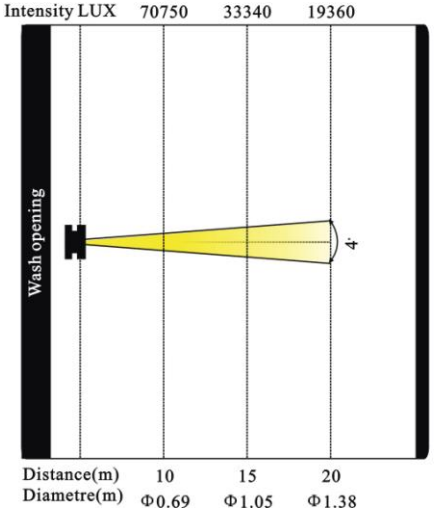
Min. SPOT mode angle



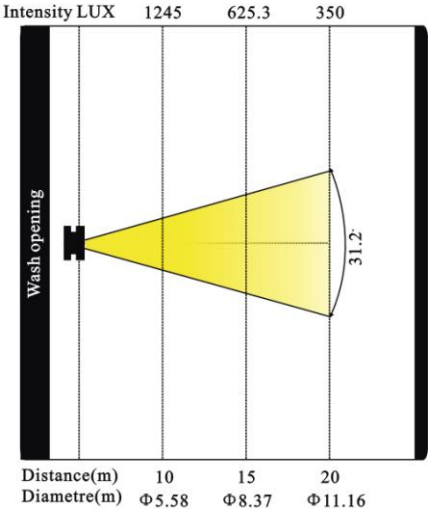
Max. SPOT mode angle



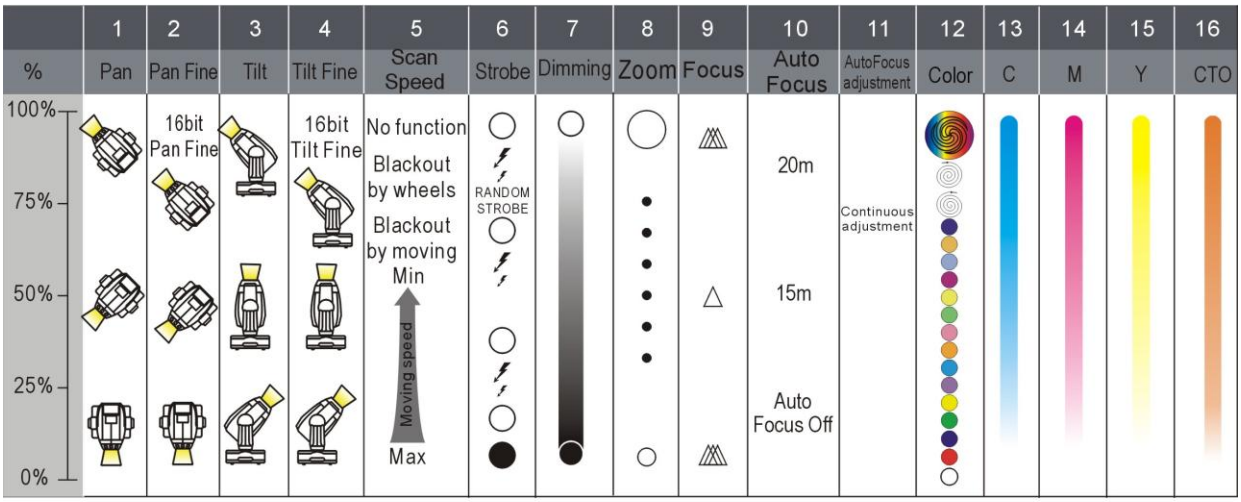
Min. WASH mode angle

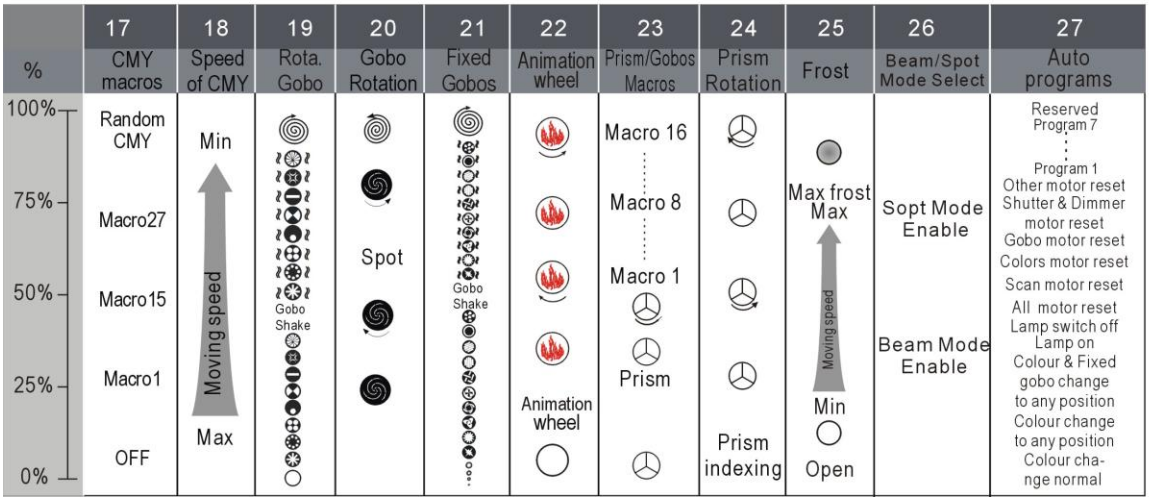


Max. WASH mode angle

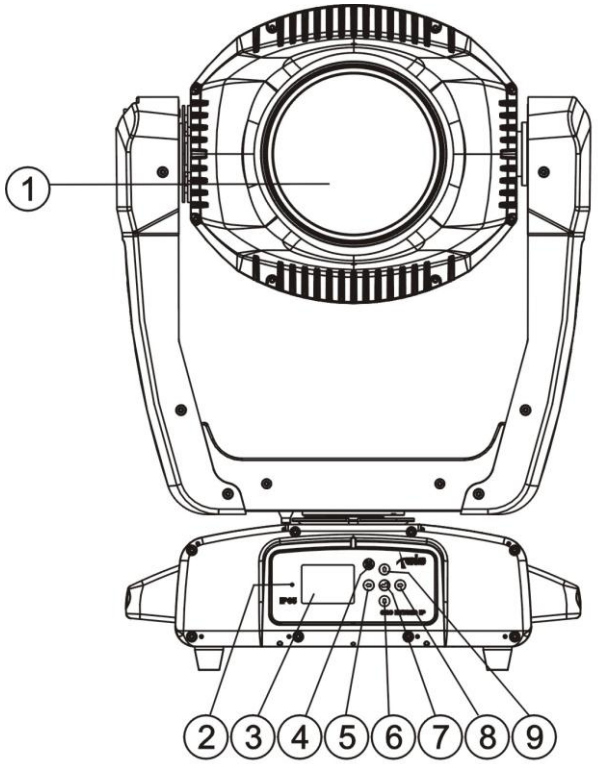


DMX CHANNEL DATA IMAGE





3. FIXTURE OVERVIEW



1） Lens

2） Mic

3） Display

4） Mode/Esc-button

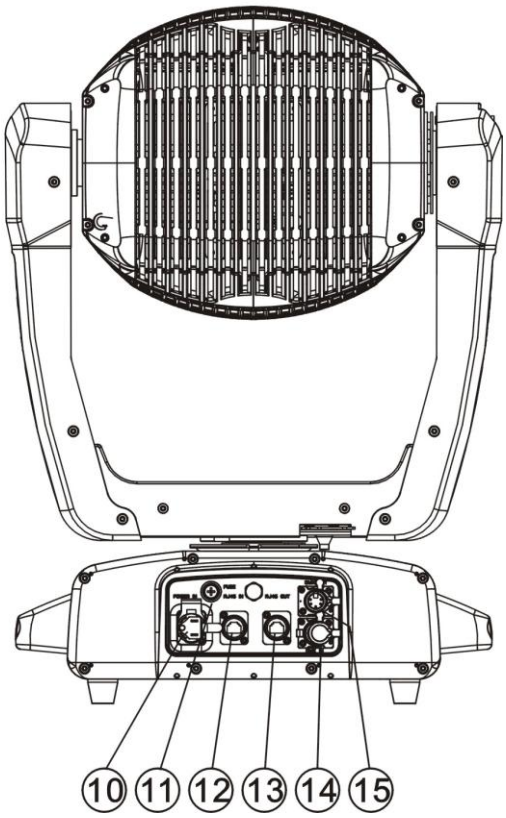
5） Left-button

6） Down-button

7） ENTER-button

8） Right-button

9） Up-button



10） Power in

11） Fuse

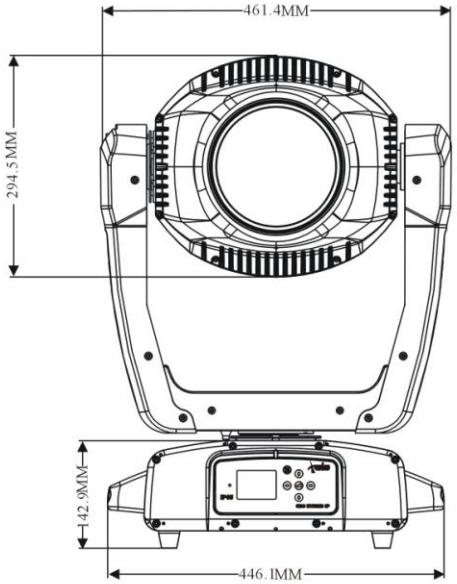
12） RJ45 in

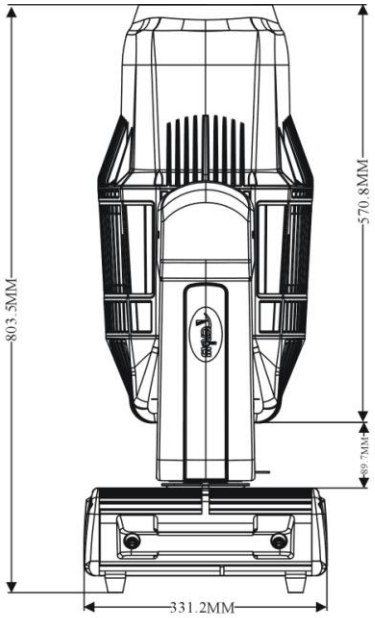
13） RJ45 out

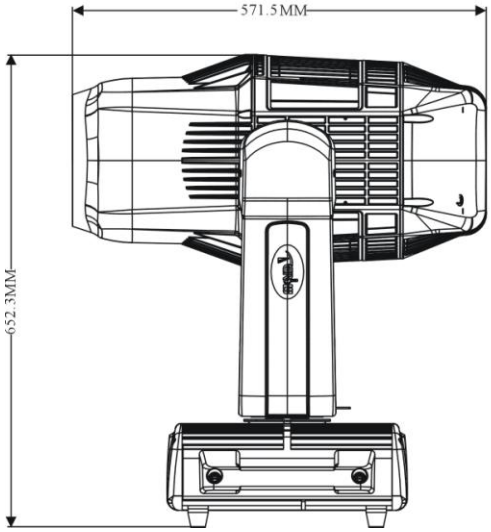
14） DMX in

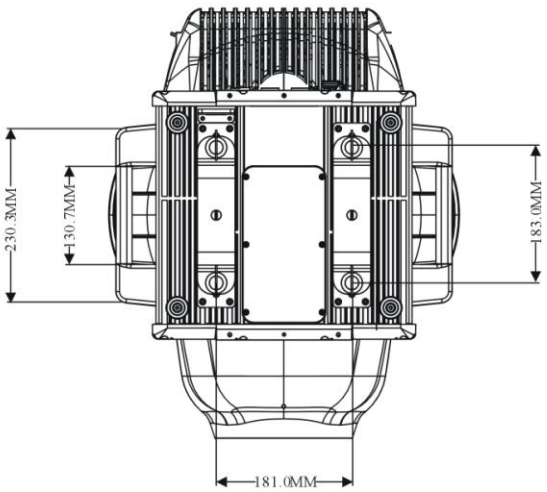
15） DMX out

4. DIMENSIONAL DRAWINGS









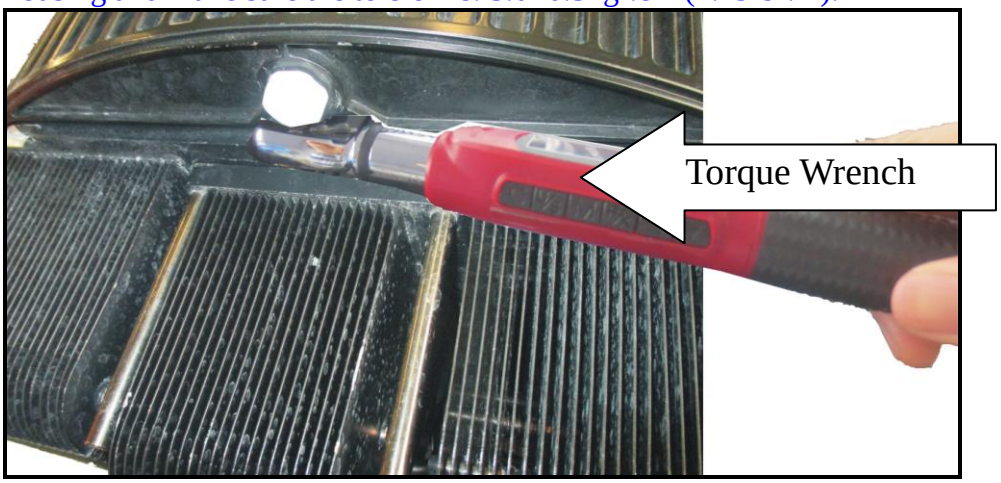
5. INSTALLATION INSTRUCTIONS

Warning:

This fixture has passed ingress testing and is rated at IP65.

If you have to open any of the fixture's compartments, after reinstalling the parts, the fixture must have its vacuum seal reinstated to ensure it maintains its IP65 rating. The instrument you can consult the KY-200 airtightness detecting instrument.

After the vacuuming process, please use a torque wrench to tighten the valves on the lamp holder and /or housing and make sure the torsion is: 5.0±0.3kgf.cm (4.29lbf.in).



CAUTION!

DO NOT OPERATE THIS DEVICE WITH OPEN COVER

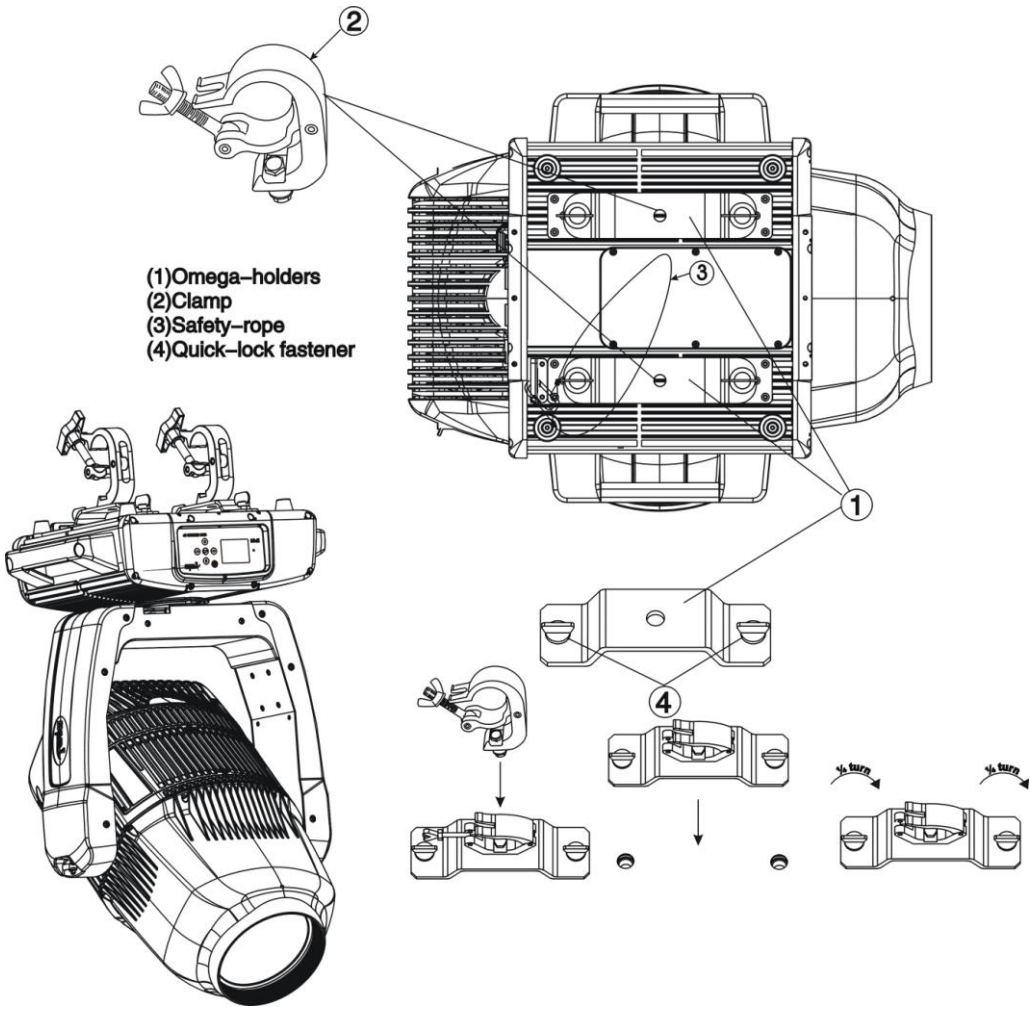
5.1. RIGGING THE DEVICE

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.

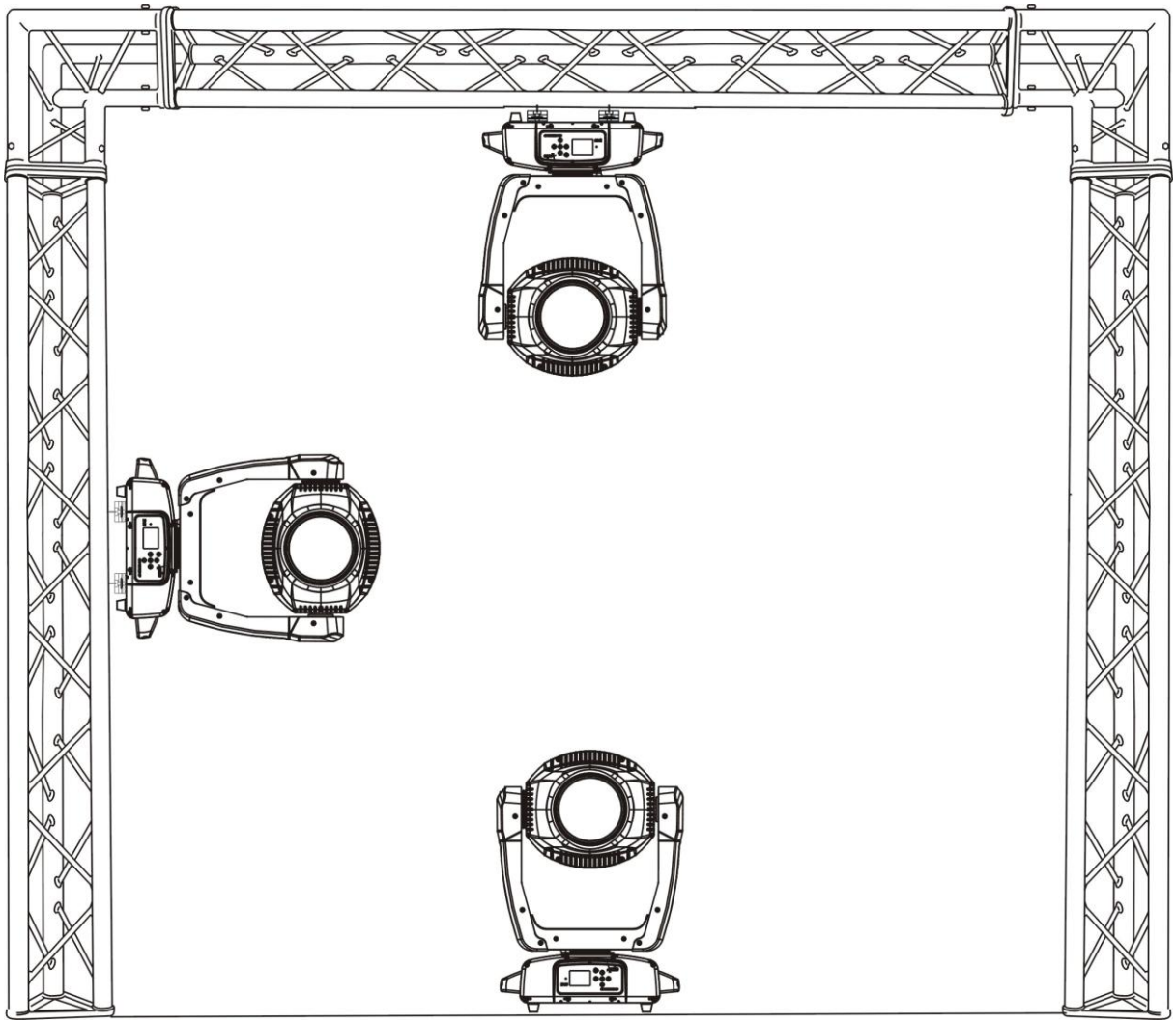
5.2. RIGGING USING THE OMEGA BRACKETS



- Fix the clamp to the bracket by tightening the M12 nut and bolt to the bracket through the Φ13 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.

5.3. RIGGING DRAWINGS



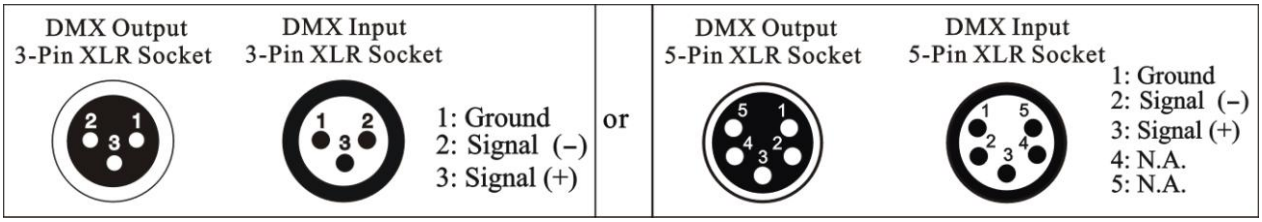
- The device can be rigged in any of the orientations shown in the image above.
- The device must be kept at least 0.1 m away from any flammable materials (decoration etc.).
- Always use and install the supplied safety cable as a safety measure to prevent accidental damage and/or injury in the event the clamp fails.

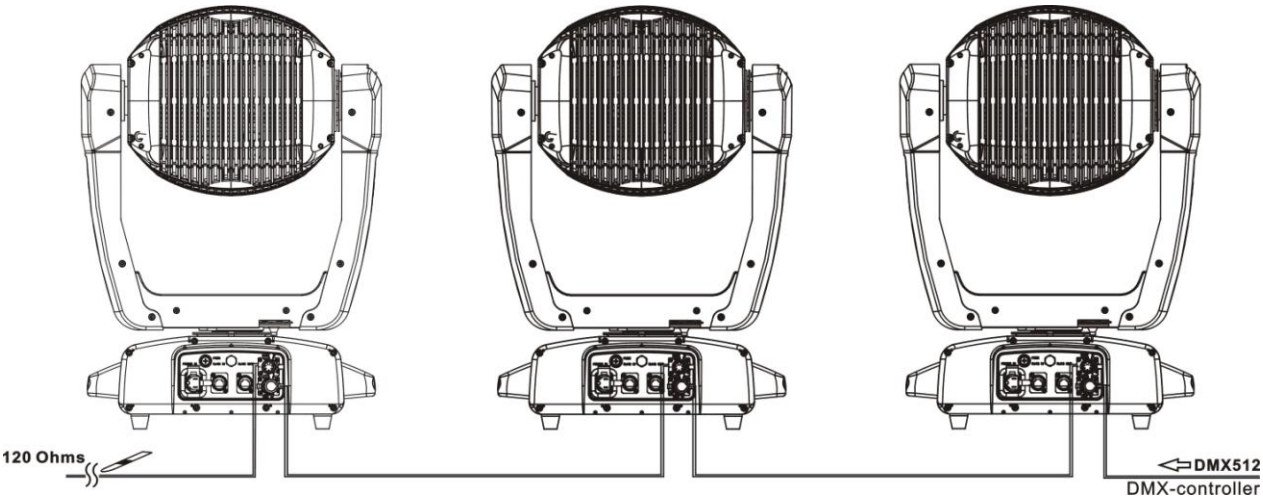
Important:

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.

6. 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.

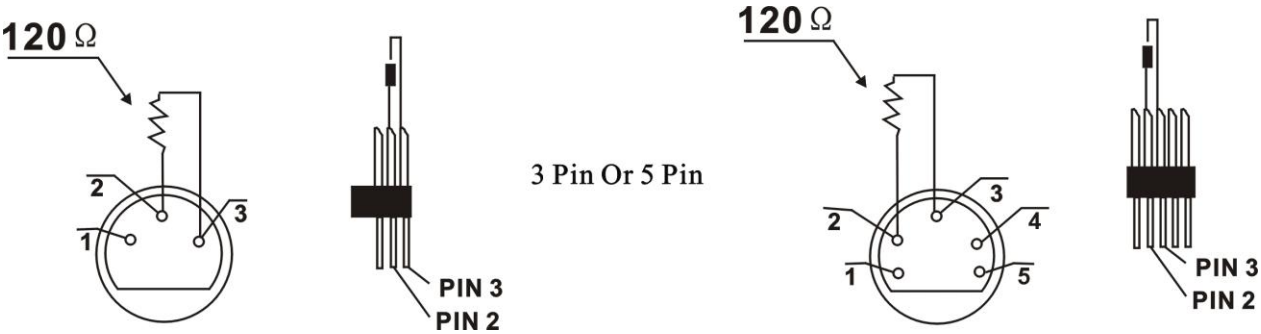




Address 55 Address 28 Address 1

7. 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.



8. 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 G20 HYBRID IP, which is a 27 channel fixture, you should set the starting address of the first unit to 1, the second unit to 28(27 + 1), the third unit to 55 (27+ 28), and so on.

9. 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 MODE /ESC -button until the display starts flashing. Browse through the menu by pressing the ⇧ -button , ⇩ -button , ⇦ -button or ⇨ -button. Press the Enter-button in order to select the desired menu. You can change the selection by pressing the ⇧ -button , ⇩ -button , ⇦ -button or ⇨ -button. Confirm every selection by pressing the ↵ -button. You can leave every mode by pressing the MODE /ESC -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 connectedafter 1 minute, then the display will switch off automatically. The Display does not need external power to operate. Hold down the MODE /ESC -button for 3 seconds and the Display will turn on by using the unit’s battery built in battery.

Default settings shaded

Function	Set Dmx Address	A001~AXXX		DMX address setting
	Dmx Value	PAN……		DMX value display
	Slave Mode	Slave1,Slave2,Slave3		Slave setting
	Auto Program	Master / Alone		Auto program
Information	Time Information	Current Time	XXXX(Hours)	Power on running time
		Total Run Time	XXXX(Hours)	Fixture running time
		Last Run Time	XXXX(Hours)	Fixture Last times clear
		Lamp Hours	XXXX(Hours)	Lamp running time
		Lamp Off Time	XXXX(Minute)	Lamp Off Time
		LastRun Password	Password=XXX	Timer Password 038
		Clear Last Run	ON/OFF	Clear Fixture Last time
		LampTime Password	Password=XXX	Lamp Password =”038”
		Clear Lamp Time	ON/OFF	Clear lamp time
	Temperature Info	Head Temperature	XXX℃/℉	Temperature in the head
		Lamp Temperature	XXX℃/℉	Temperature in the lamp
		Base Temperature	XXX℃/℉	Temperature in the Base
	Humidity Info	Head Humidity		XXX%RH
		Base Humdity		XXX%RH
	Ethernet IP	Ethernet IP XXX. XXX. XXX. XXX XXX. XXX. XXX. XXX		IP Information
	Fan Info	1U_FAN1: ……		
	Encode Info	PAN ENCODE: TILT ENCODE:		
	Software Version	V1.1.0……		Software version
Lamp Control	Lamp On/Off	ON/OFF		Lamp on/off
	Automatic On	ON/OFF		Lamp on/off Power on
	Lamp On via DMX	ON/OFF		Lamp on via DMX
	Lamp Off via DMX	ON/OFF		Lamp off via DMX
	Max On at Temp.	20~79℃,45℃ /68~174℉ 113℉		Lamp restart at temp.
	Max On at Humidity	20~100%，70%RH		Lamp restart at humidity
	Lamp Off Temp.	80~139℃, 130℃ /176~282℉, 266℉		Lamp off at temp.
Personality	Status Settings	Address Via DMX	ON/OFF	Add. via DMX
		No DMX Status	Close/Hold/Auto	Auto run if no DMX
		Pan Reverse	ON/OFF	Pan Reverse movement
		Tilt Reverse	ON/OFF	Tilt Reverse movement
		Pan Degree	630/540	Pan Degree Select
		Feedback	ON/OFF	Movement Feedback
		Movement Speed	High Speed/ Middle Speed/ Slow Speed	Movement Speed
		Hibernation	OFF, 01M~99M，15M	Stand by Mode

	Service Setting	Password	Password=XXX	Service Password“=050”
	Display Setting	Shutoff Time Display Reverse Key Lock	02~60m 05m AUTO /ON/OFF ON/OFF	Display shutoff time Reverse 180 degree Key Lock
	Temperature C/F	Celsius Fahrenheit		Temperature switch between ℃/℉
	Initial Status	PAN =XXX …….		Initial effect position
	Select Signal	DMX Only Art-Net sACN		DMX Only Art-Net sACN
	Ethernet IP	XXX. XXX. XXX. XXX		Ethernet IP
	Ether Mask IP	XXX. XXX. XXX. XXX		Ether Mask IP
	Set Universe	000~32767		Set Art-Net Universe
	Reset Default	ON OFF		Restore factory set.
Reset Function	Reset All Reset Pan&Tilt Reset Colors Reset Gobos Reset Shutter Reset Others			Reset all motors Reset Pan/Tilt Reset color wheel Reset gobos Reset shutter Reset other motors
Effect Adjust	Test Channel	PAN ……		Test function
	Manual Control	PAN =XXX :		Fine adjustment of the lamp
	Calibration	Calibrate Password Pan=XXX :		Password “050” Calbrate and adjust the effects to standard/right position
Users Mode Set	User Mode	Basic Mode Standard Mode Extended Mode User Mode A User Mode B User Mode C		User’s mode to change channel numbers
	Edit User Mode	Max Channel = XX PAN = CH01 :		Preset User modes A,B,C
Edit Program	Select Programs	Auto Pro Part 1 = Program 1 ~ 10 Program 1 Auto Pro Part 2 = Program 1 ~ 10 Program 2 Auto Pro Part 3 = Program 1 ~ 10 Program 3		Select programs to be run
	Edit Program	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--	Save and automatically return manual scenes edit

			Input By Out	
	Rec. Controller	Up/Dn Le/Ri XXX —> XXX Start sc End sc		Automat. scenes rec
Language Set	English/Chinese			Choose English or Chinese

9.1. FUNCTION

9.1.1. Set DMX Address

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

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.

9.1.2. DMX Value

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

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

9.1.3. Slave Mode

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

1. Access the main menu.
2. Tap the <Up/Down> button until “Slave Mode” is displayed.
3. Press <ENTER>, the display will show “Slave Mode”.
4. Tap the <Up/Down> button，the display will show “Slave1”, “Slave2”, “Slave3”.
5. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

9.1.4. Auto Program

With this function, you can run the internal program. You can select the desired program under **“Select program”**. You can set the number of steps under **“Edit program”**. 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. Access the main menu.
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 “Master”, “ Alone”.
5. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

9.2. INFORMATION

9.2.1. Time information

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 resetted after turning the device off.

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”. Tap the <Up/Down> button until the display will show “Time Information”. Press ENTER, the display will show “Time Information”.
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.

Total Run Time

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

Last Run Time

With this function, you can display last 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 “Information” is displayed. Press ENTER, the display will show “Information”. Tap the <Up/Down> button until the display will show “Time Information”. Press ENTER, the display will show “Time Information”.
2. Press <Up/Down>, the display will show “Last Run Time”.
3. Press< ENTER>, the display will show “Last Run Time”.
4. The display will show “XXXX” (Hours) ；
5. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

Lamp Hours

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 “Information”is displayed. Press ENTER, the display will show “Information”. Tap the <Up/Down>button until the display will show “Time Info. Press ENTER, the display will show “Time Information”.
2. Press <Up/Down>, the display will show “Lamp Hours”.
3. Press< ENTER>, the display will show “Lamp Hours”.
4. The display will show “XXXX” (Hours) ；

5. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

Lamp Off Time

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”. Tap the <Up/Down>button until the display will show “Time Info. Press ENTER, the display will show “Time Information”.
2. Press <Up/Down>, the display will show “Lamp Off Time”.
3. Press< ENTER>, the display will show “Lamp Off Time”.
4. The display will show “XXXX” (Minute)；
5. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

LastRun Password

With this function, you can display the timer password.

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”. Tap the <Up/Down> button until the display will show “Time Information”. Press ENTER, the display will show “Time Information”.
2. Press <Up/Down>, the display will show “LastRun Password”.
3. Press< ENTER>, the display will show “LastRun Password”. The time password is 038.
4. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

Clear 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 “Information” is displayed. Press ENTER, the display will show “Information”. Tap the <Up/Down> button until the display will show “Time Information”. Press ENTER, the display will show “Time Information”.
2. Press <Up/Down>, the display will show “Clear Last Run”.
3. At ”L-Timer Password” menu input right password, Press< ENTER>, the display will show “Clear 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.

LampTime Password

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

Clear Lamp 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 “Information” is displayed. Press ENTER, the display will show “Information”. Tap the <Up/Down>button until the display will show “Time Information”. Press ENTER, the display will show “Time Information”.
2. Press <Up/Down>, the display will show “Clear Lamp Time”.
3. At “Timer Password” menu input a correct password, press< ENTER>, the display will show “Clear Lamp Time” .
4. The display will show “OFF” or “ON”.
5. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

9.2.2. Temperature Info

Head Temperature

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

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

Lamp Temperature

With this function you can display the temperature of the lamp in Celsius.

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

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

9.2.3. Humidity Info

Head Humidity

With this function you can display the humidity of the head.

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”. Tap the <Up/Down> button until “Temperature Info” is displayed. Press ENTER, the display will show “Temperature Info”.
2. Press <Up/Down>, the display will show “Head Humidity”.
3. Press< ENTER>, the display will show “Head Humidity”.
4. The display show “XXX%RH”.
5. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

Base Humidity

With this function you can display the humidity on the display board of the base.

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”. Tap the <Up/Down> button until “Temperature Info” is displayed. Press ENTER, the display will show “Temperature Info”.
2. Press <Up/Down>, the display will show “Base Humidity”.
3. Press< ENTER>, the display will show “Base Humidity”.
4. The display show “XXX%RH”.
5. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

9.2.4. Ethernet IP

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 “Ethernet IP”.
3. Press< ENTER>, the display will show “Ethernet IP”.
4. The display show “XXX.XXX.XXX.XXX”.
5. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

9.2.5. Fan 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 “Fan Info”.
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.

9.2.6. Encode 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 “Encode Info”.
3. Press< ENTER>, the display will show “Encode Info”.
4. The display will show “PAN ENCODE:”, “TILT ENCODE:”.
5. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

9.2.7. Software Ver

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 “Information” is displayed. Press ENTER, the display will show “Information”.
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.

9.3. LAMP CONTROL

When the real temperature around the lamp is higher than the preset value, the lamp will be shut down in 5 minutes automatically.

When the LCD display shows “Off”, it means the lamp must be turned on again manually;

When the LCD display shows “Hot”, it means the actual temperature around the lamp is still higher than the preset value, so even the lamp can not be striked even the menu Lamp is turned to ON, as the lamp switch is compelled to turned off.

When the temperature unit after the temperature value come to lowercase letter “c” or “f”, it means menu Lamp is turned to ON, but the lamp is not full dimming up.

When the temperature unit after the temperature value come to capital letter “C” or “F”, it menu Lamp is turned to ON, and the lamp is full intensity.

9.3.1. Lamp on/off

With this function you can switch the lamp on or off via the Control Board.

1. Tap <MODE/ESC>button，access the main menu，Tap the <Up/Down>button until “Lamp Control” is displayed. Press ENTER, the display will show “Lamp Control”.
2. Tap the <Up/Down>button until the display will show “Lamp On or Off” .
3. Press <ENTER>, the display will show “Lamp On or Off ”.
4. Press <Up/Down>, the display will show “OFF” or “ON”.
5. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

Remark: The menu Lamp On/Off is the software command only, the lamp can be striked successfully only when the menu Lamp is set to ON and the actual temperature is lower than the limited value.

9.3.2. Automatic on

With this function you can select if the lamp will be switched on when switching the power on. Select “ON” by turning the encoder if you wish to enable this function or “OFF” if you don’t.

1. Tap <MODE/ESC>button，access the main menu，Tap the <Up/Down>button until “Lamp Control” is displayed. Press ENTER, the display will show “Lamp Control”.
2. Tap the <Up/Down>button until the display will show “Automatic On”.
3. Press <ENTER>, the display will show “Automatic On”.
4. Press <Up/Down>, the display will show “OFF” or “ON”.
5. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

9.3.3. Lamp on via DMX

With this function you can select if you can switch the lamp on via an external controller (DMX-channel of internal programs, value 64-79). Select “ON” by turning the encoder if you wish to enable this function or “OFF” if you don’t.

1. Tap <MODE/ESC>button，access the main menu，Tap the <Up/Down>button until “Lamp Control” is displayed. Press <ENTER>, the display will show “Lamp Control”.
2. Tap the <Up/Down>button until the display will show “Lamp On Via DMX”.
3. Press <ENTER>, the display will show “Lamp On Via DMX”.
4. Press <Up/Down>, the display will show “OFF” or “ON”.
5. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

9.3.4. Lamp off via DMX

With this function you can select if you can switch the lamp off via an external controller (DMX-channel of internal programs, value 224-239). Select “ON” by turning the encoder if you wish to enable this function or “OFF” if you don’t.

1. Tap <MODE/ESC>button，access the main menu，Tap the <Up/Down>button until “Lamp Control” is displayed. Press ENTER, the display will show “Lamp Control”.
2. Tap the <Up/Down>button until the display will show “Lamp Off Via DMX”.
3. Press<ENTER>, the display will show “Lamp Off Via DMX”.
4. Press <Up/Down>, the display will show “OFF” or “ON”.
5. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

9.3.5. Max on at temp.

With this function you can set the inside temperature from which the projector will restrike the lamp after automatic lamp shut off.

1. Tap <MODE/ESC>button，access the main menu，Tap the <Up/Down>button until“Lamp Control”is displayed. Press ENTER, the display will show “Lamp Control”.
2. Tap the <Up/Down>button until the display will show “Max On at Temp”.
3. Press<ENTER>, the display will show “Max On at Temp”.
4. The display will show “45℃”, Press <Up/Down>,Temperature generally in “20~79℃”.
5. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

9.3.6. Max on at Humidity

With this function you can set the inside humidity from which the projector will restrike the lamp after automatic lamp shut off.

1. Tap <MODE/ESC>button，access the main menu，Tap the <Up/Down>button until“Lamp Control”is displayed. Press ENTER, the display will show “Lamp Control”.
2. Tap the <Up/Down>button until the display will show “Max On at Humidity”.
3. Press<ENTER>, the display will show “Max On at Humidity”.
4. The display will show “70%RH”, Press <Up/Down>,humidity generally in “20~100%RH”.
5. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

9.3.7. Lamp off temp.

With this function you can set the inside temperature at which the projector will automatically switch the lamp off.

1. Tap <MODE/ESC>button，access the main menu，Tap the <Up/Down>button until“Lamp Control”is displayed. Press ENTER, the display will show “Lamp Control”.
2. Tap the <Up/Down>button until the display will show “Lamp Off Temp”.
3. Press <ENTER>, the display will show “Lamp Off Temp”.
4. The display will show “130℃”, Press <Up/Down>,Temperature generally in “80~139℃”.
5. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

When the temperature around the lamp is higher than the preset value continuously up to 5 minutes, the lamp will be shut off automatically.

If the lamp be shut off automatically due to over heat, it can not be striked again automatically, it must be turned on again by manually.

9.4. PERSONALITY

9.4.1. Status Settings

Address via DMX

With this function, you can adjust the desired DMX-address via an external controller.

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”. Tap the <Up/Down> button until the display will show “Status settings”. Press ENTER, the display will show “Status settings”.
2. Press <Up/Down>, the display will show “Address via DMX”.
3. Press< ENTER>, the display will show “Address via DMX”.
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.

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，Tap the <Up/Down> button until “Personality” is displayed. Press ENTER, the display will show “Personality”. Tap the <Up/Down> button until the display will show “Status settings”. Press ENTER, the display will show “Status settings”.
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”, “Hold”, “Auto”.
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 “Personality” is displayed. Press ENTER, the display will show “Personality”. Tap the <Up/Down> button until the display will show “Status settings”. Press ENTER, the display will show “Status settings”.
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 “Personality” is displayed. Press ENTER, the display will show “Personality”. Tap the <Up/Down> button until the display will show “Status settings”. Press ENTER, the display will show “Status settings”.
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

"Personality" is displayed. Press ENTER, the display will show "Personality". Tap the <Up/Down> button until the display will show "Status settings". Press ENTER, the display will show "Status settings".
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.

Feedback

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 "Personality" is displayed. Press ENTER, the display will show "Personality". Tap the <Up/Down> button until the display will show "Status settings". Press ENTER, the display will show "Status settings".
2. Press <Up/Down>, the display will show "Feedback".
3. Press< ENTER>, the display will show "Feedback".
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.

Movement Speed

With this function, you can select movement speed for normal speed or slow speed.

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". Tap the <Up/Down> button until the display will show "Status settings". Press ENTER, the display will show "Status settings".
2. Press <Up/Down>, the display will show "Movement Speed".
3. Press< ENTER>, the display will show "Movement Speed".
4. The display show "High Speed", Press <Up/Down>, the display will show "Middle Speed" , "Slow Speed".
5. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

Hibernation

The device 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 "Personality" is displayed. Press ENTER, the display will show "Personality". Tap the <Up/Down> button until the display will show "Status settings". Press ENTER, the display will show "Status settings".
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.

9.4.2. Service Setting

Password

The Password for this function is "050".

9.4.3. Display Setting

Shut off time

With this function you can shut off the LCD display after 2 to 60 minutes.The default is 5 minutes.

Display Reverse

With this function you can rotate the display by 180°.

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”. Tap the <Up/Down> button until the display will show “Display Setting”. Press ENTER, the display will show “Display Setting”.
2. Press <Up/Down>, the display will show “Display Reverse”.
3. Press< ENTER>, the display will show “Display Reverse”.
4. The display show “AUTO”, Press <Up/Down>, the display will show “ON” or “OFF” .
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 key lock function. If this function is activated, the keys will be locked automatically after exiting the edit mode for 15 seconds. keeping press the <MODE/ESC> key for 3seconds if you do not need this function.

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”. Tap the <Up/Down> button until the display will show “Display Setting”. Press ENTER, the display will show “Display 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.

9.4.4. Temperature C/F

With this function you can display the temperature in Celsius or Fahrenheit.

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 “Temperature C/F”.
3. Press< ENTER>, the display will show “Temperature 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.

9.4.5. Initial Status

With this function you can display initial effect position.

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 “Initial Status”.
3. Press< ENTER>, the display will show “Initial Status”.
4. The display show “PAN=XXX”.
5. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

9.4.6. Select Signal

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 “Select Signal”.
3. Press< ENTER>, the display will show “Select Signal”.

4. The display show “DMX Only”, Press <Up/Down>, the display will show “Art-Net” “sACN”.
5. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

9.4.7. Ethernet IP

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 “Ethernet IP”.
3. Press< ENTER>, the display will show “Ethernet IP”.
4. The display show “XXX.XXX.XXX.XXX”.
5. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

9.4.8. Ethernet Mask IP

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 “Ethernet Mask IP”.
3. Press< ENTER>, the display will show “Ethernet Mask IP”.
4. The display show “XXX.XXX.XXX.XXX”.
5. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

9.4.9. Set Universe

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 “Set Universe”.
3. Press< ENTER>, the display will show “Set Universe”.
4. The display show “000-32767”,
5. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

9.4.10. 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.

9.5. RESET FUNCTION

With this function you can reset the device via the Display. You can select the different reset functions from thedisplay screen or a DMX console.

1. Tap <MODE/ESC> button，access the main menu，Tap the <Up/Down> button until “Reset Function” is displayed. Press<ENTER>, the display will show “Reset Function”.
2. The display show “Reset All”, Press <Up/Down>, the display will show “Reset Pan & Tilt”, “Reset Colors” , “Reset Gobos” , “Reset Shutter” , “Reset Others”.
3. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

9.6. EFFECT ADJUST

9.6.1. Test Channel

With this function you can test each channel's function to ensure correct operation.

1. Tap <MODE/ESC> button，access the main menu，Tap the <Up/Down> button until "Effect Adjust" is displayed. Press ENTER, the display will show "Effect Adjust".
2. Press <Up/Down>, the display will show "Test Channel".
3. Press< ENTER>, the display will show "Test Channel".
4. The display shows "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.

9.6.2. Manual Control

When set to Manual Mode, fixture will be back to factory settings. If want to adjust brightness, can adjust by shutter and dimming channel, channel value is 0-255. Other functions can be set according to user's real need.

1. Tap <MODE/ESC>button，access the main menu，Tap the <Up/Down>button until "Effect Adjust" is displayed. Press < ENTER>, the display will show "Effect Adjust".
2. Press <Up/Down>, the display will show "Manual control".
3. Press< ENTER>, the display will show "Manual control".
4. The display show "PAN=XXX"…….
5. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

9.6.3. 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 "Effect Adjust" is displayed. Press < ENTER>, the display will show "Effect Adjust".
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.

9.7. USERS MODE SET

1. Tap <MODE/ESC> button, access the main menu, Tap the <Up/Down> button until "Users mode set" is displayed. Press <ENTER>, the display will show "Users mode set".
2. The display shows "User Mode" , Press <Up/Down> button, then you can choose "Edit User Mode A", "Edit User Mode B" and "Edit User Mode C".
3. Press <ENTER> to confirm or press <MODE/ESC> to exit

As well as Standard Mode, Basic Mode and Extended Mode, this fixture has another three DMX modes which can be set according to user's needs. To set one of these user modes see below:

1. Tap <MODE/ESC> button, access the main menu, Tap the <Up/Down> button until "Users mode set" is displayed. Press <ENTER>, the display will show "Users mode set".
2. Choose "Edit User Mode A", press "ENTER"
3. Set "Max Channel=xxx" the max channel

4. Set “Edit User Mode B”and “Edit User Mode C” as above

9.7.1. User Mode

With this function, you can create user defined channel orders.

9.7.2. Edit User Mode

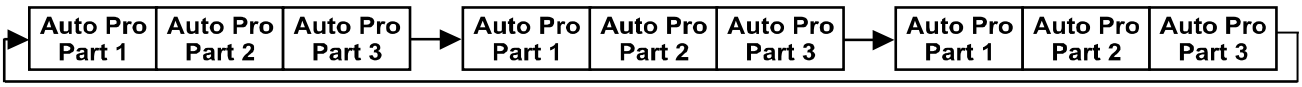
With this function, you can adjust the rest user defined channel order.

1. Tap <MODE/ESC> button, access the main menu, Tap the <Up/Down> button until “Users mode set” is displayed. Press <ENTER>, the display will show “Users mode set”.
2. The display show “Edit User Mode” first channel, Press <Up/Down> the display will show “Edit User Mode”.
3. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

9.8. EDIT PROGRAM

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

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 make the selectively receiving according to its own set.



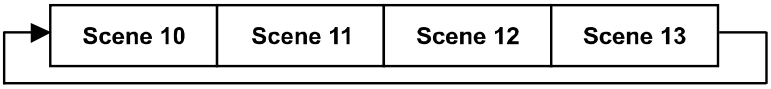
1. If the slave fixture chooses Run For Slave 1 from the menu of 1-3,then it will receive the part 1’s automatic program from link, in the same way, when the slave fixture chooses Run For Slave 2,then it will receive the part 2’s automatic program from link.
2. Enter the menu of 1-3 Function Mode---Set 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:

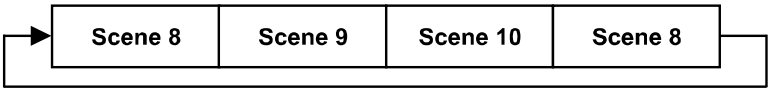
Part 2, Part 3 repeat in accordance with the Part1’s repeat. For example: When Part 1 uses Program 2, Part 2 uses Program 4, Part 3 uses Program 6, Assume: Program 2 includes scene of 10, 11, 12, 13; Program 4 includes scene of 8, 9, 10; Program 6 includes scene of 12, 13, 14, 15; Then it will run as below.

Example：

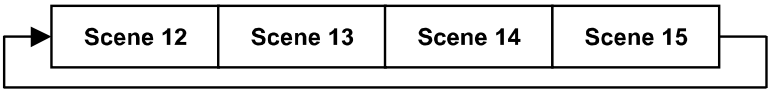
Part 1:



Part 2:



Part 3:



9.9. Language Set

With this function, you can set the device language to English or Chinese, the default is Chinese.

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

10. DMX PROTOCOL

File Mame : G20HYBRID IP DMX protocol **Standard 27 channels**

User Customer : JAPAN Ver 1.2.2b **Basic 25 channels**

MOVING HEAD G20HYBRID IP : **Extended 38 channels**

DMX channel´s functions and their values (38DMX channels):

Mode/Channel			DMX Value	Percent	Function	
St	Ba	Ex				
1	1	1			**Pan Movement 8bit :**	
			0-255	0-100	Pan Movement (630/540)	
2		2			**Pan Fine 16bit**	_
			0-255	0-100	Fine control of Pan movement	
3	2	3			**Tilt Movement 8bit :**	
			0-255	0-100	Tilt Movement (270)	
4		4			**Tilt Fine 16bit :**	
			0-255	0-100	Fine control of Tilt movement	
5	3	5			**Speed Pan/Tilt movement :**	_
			0-225	0-88	max to min speed	
			226-235	88-92	blackout by movement	
			236-245	92-96	blackout by all wheel changing	
			246-255	96-100	no function	
6	4	6			**Shutter, strobe :**	
			0-31	0-12	Shutter closed	

			32-63	12-25	Shutter open	
			64-95	25-37	Strobe effect slow to fast	
			96-127	37-50	Shutter open	
			128-159	50-63	Pulse-effect in sequences	
			160-191	63-75	Shutter open	
			192-223	75-88	Random strobe effect slow to fast	
			224-255	88-100	Shutter open	
7	5	7			**Dimmer intensity :**	
			0-255	0-100	Intensity 0 to 100%	
		8			**Fine Dimmer intensity :**	
			0-255	0-100	Dimmer intensity fine	
8	6	9			**Zoom :**	
			0-255	0-100	Zoom adjustment from 3° to F6032°	
		10			**Zoom Fine :**	
			0-255	0-100	Zoom adjustment fine	
9	7	11			**Focus :**	
			0-255	0-100	Continuous adjustment from near to far	
		12			**Focus Fine :**	
			0-255	0-100	Continuous adjustment fine	
10	8	13			**Auto Focus :**	
			0-50	0-20	Auto Focus Off	
			51-150	20-59	15m	
			151-255	59-100	20m	
11	9	14			**Auto Focus Adjustment :**	
			0-255	0-100	Continuous adjustment fine	
12	10	15			**Color Wheel :**	
			0-15	0-6	Open / White	
			16-23	6-9	Red	
			24-31	9-12	Navy Blue	
			32-39	12-15	Green	
			40-47	15-18	Yellow	
			48-55	18-21	Purple	
			56-63	21-25	Cyan	
			64-71	25-28	Orange	
			72-79	28-31	Pink	
			80-87	31-34	Yellow Green	
			88-95	34-37	Straw	
			96-103	37-40	Magenta	
			104-111	40-43	CTB	
			112-119	43-46	CTO	
			120-127	46-50	UV	
			128-189	50-74	Clock-wise scroll from fast to slow	
			190-193	74-76	Stop scroll	

			194-255	76-100	Counter Clock-wise from slow to fast	
		16			**Color Wheel Fine :**	
			0-255	0-100	Color Wheel color change to any position fine	
13	11	17			**Cyan Color :**	
			0-255	0-100	Cyan (0-white,255-100% Cyan)	
		18			**Cyan Color Fine :**	
			0-255	0-100	Cyan fine	
14	12	19			**Magenta Color :**	
			0-255	0-100	Magenta (0-white,255-100% Magenta)	
		20			**Magenta Color Fine :**	
			0-255	0-100	Magenta fine	
15	13	21			**Yellow Color :**	
			0-255	0-100	Yellow (0-white,255-100% Yellow)	
		22			**Yellow Color Fine :**	
			0-255	0-100	Yellow fine	
16	14	23			**CTO Color :**	
			0-255	0-100	CTO (0-white,255-100% CTO)	
		24			**CTO Color Fine :**	
			0-255	0-100	CTO fine	
17	15	25			**CMY Color Macro:**	
			0-31	0-12	No function	
			32-39	12-15	Macro 1	
			40-47	15-18	Macro 2	
			48-55	18-21	Macro 3	
			56-63	21-24	Macro 4	
			64-71	24-28	Macro 5	
			72-79	28-31	Macro 6	
			80-87	31-34	Macro 7	
			88-95	34-37	Macro 8	
			96-103	37-40	Macro 9	
			104-111	40-43	Macro 10	
			112-119	43-46	Macro 11	
			120-127	46-50	Macro 12	
			128-135	50-53	Macro 13	
			136-143	53-56	Macro 14	
			144-151	56-59	Macro 15	
			152-159	59-62	Macro 16	
			160-167	62-65	Macro 17	
			168-175	65-68	Macro 18	
			176-183	68-72	Macro 19	
			184-191	72-75	Macro 20	
			192-199	75-78	Macro 21	
			200-207	78-81	Macro 22	
			208-215	81-84	Macro 23	
			216-223	84-87	Macro 24	
			224-231	87-90	Macro 25	
			232-239	90-94	Macro 26	

			240-247	94-97	Macro 27	
			248-255	97-100	Random CMY	
18	16	26			**Speed of CMY Speed :**	
			0-255	0-100	max to min speed	
19	17	27			**Rotating Gobos :**	
			0-10	0-4	Beam open	
			11-21	4-8	Spot open	
			22-31	8-12	Rot gobo 1	
			32-41	12-16	Rot gobo 2	
			42-51	16-20	Rot gobo 3	
			52-61	20-24	Rot gobo 4	
			62-71	24-28	Rot gobo 5	
			72-81	28-32	Rot gobo 6	
			82-91	32-36	Rot gobo 7	
			92-101	36-40	Rot gobo 8	
			102-112	40-44	Rot gobo 1 shake	
			113-123	44-48	Rot gobo 2 shake	
			124-134	48-53	Rot gobo 3 shake	
			135-145	53-57	Rot gobo 4 shake	
			146-156	57-62	Rot gobo 5 shake	
			157-167	62-66	Rot gobo 6 shake	
			168-178	66-70	Rot gobo 7 shake	
			179-189	70-75	Rot gobo 8 shake	
			190-221	75-87	Clock-wise scroll from fast to slow	
			222-223	87-88	Stop scroll	
			224-256	88-100	Counter Clock-wise from slow to fast	
20	18	28			**Rotating gobo index,Rotating gobo rotation :**	
			0-127	0-50	Gobo indexing	
			128-189	50-74	Clock-wise scroll from fast to slow	
			190-193	74-76	Stop Rotation	
			194-255	76-100	Counter Clock-wise from slow to fast	
		29			**Rotating gobo indexing fine :**	
			0-255	0-100	Fine indexing	
21	19	30			**Fixed Gobos :**	
			0-7	0-3	Open / hole	
			8-14	3-5	Fix gobo 1	
			15-21	5-8	Fix gobo 2	
			22-28	8-11	Fix gobo 3	
			29-35	11-14	Fix gobo 4	
			36-42	14-16	Fix gobo 5	
			43-49	16-19	Fix gobo 6	
			50-56	19-22	Fix gobo 7	
			57-63	22-25	Fix gobo 8	
			64-70	25-28	Fix gobo 9	
			71-77	28-30	Fix gobo 10	
			78-84	30-33	Fix gobo 11	
			85-91	33-36	Fix gobo 12	
			92-98	36-39	Fix gobo 13	

			99-105	39-41	Fix gobo 14	
			106-111	41-44	Fix gobo 1 shake	
			112-117	44-46	Fix gobo 2 shake	
			118-123	46-48	Fix gobo 3 shake	
			124-129	48-51	Fix gobo 4 shake	
			130-135	51-53	Fix gobo 5 shake	
			136-141	53-56	Fix gobo 6 shake	
			142-147	56-58	Fix gobo 7 shake	
			148-153	58-60	Fix gobo 8 shake	
			154-159	60-63	Fix gobo 9 shake	
			160-165	63-65	Fix gobo 10 shake	
			166-171	65-67	Fix gobo 11 shake	
			172-177	67-70	Fix gobo 12 shake	
			178-183	70-72	Fix gobo 13 shake	
			184-189	72-75	Fix gobo 14 shake	
			190-221	75-87	Clock-wise scroll from fast to slow	
			222-223	87-88	Stop scroll	
			224-255	89-100	Counter Clock-wise from slow to fast	
		31			**Rotating gobo indexing fine :**	
			0-255	0-100	Fine indexing	
22	20	32			**Wheel Animation :**	
			0-7	0-3	Open Animation	
			8-127	3-50	Clock-wise scroll from fast to slow	
			128-135	50-53	Stop scroll	
			136-255	53-100	Counter Clock-wise from slow to fast	
23	21	33			**Rotating prism, Prism/Gobo macros :**	
			0-31	0-16	Open prism	
			32-64	16-28	8 Prism	
			65-94	28-38	Line Prism	
			95-127	38-50	8/Line Prism	
			128-135	50-53	Macro 1	
			136-143	53-56	Macro 2	
			144-151	56-59	Macro 3	
			152-159	59-62	Macro 4	
			160-167	62-65	Macro 5	
			168-175	65-68	Macro 6	
			176-183	68-72	Macro 7	
			184-191	72-75	Macro 8	
			192-199	75-78	Macro 9	
			200-207	78-81	Macro 10	
			208-215	81-84	Macro 11	
			216-223	84-87	Macro 12	
			224-231	87-90	Macro 13	
			232-239	90-94	Macro 14	
			240-247	94-97	Macro 15	
			248-255	97-100	Macro 16	
24	22	34			**Prism index , Prism rotation :**	
			0-127	0-50	Prism indexing	

			128-189	50-74	Clock-wise scroll from fast to slow	
			190-193	74-76	Stop Rotation	
			194-255	76-100	Counter Clock-wise from slow to fast	
		35			**Prism indexing fine :**	
			0-255	0-100	Fine indexing	
25	23	36			**Frost :**	
			0-127	0-50	Disable frost	
			128-255	50-100	Enable frost	
26	24	37			**Lens :**	
			0-127	0-50	Beam Mode	
			128-255	50-100	Spot Mode	
27	25	38			**Reset, internal programs:**	
			0-19	0-7	Color change normal	
			20-29	7-11	Color change to any position	
			30-39	11-15	Color & Fixed gobo change to any position	
			40-59	15-22	Lamp On	
			60-79	22-30	Lamp Off	
			80-84	30-32	All motor reset	
			85-87	32-33	Pan/Tilt motor reset	
			88-90	33-34	Color motor reset	
			91-93	34-35	Gobo motor reset	
			94-96	35-37	Shutter & Dimmer motor reset	
			97-99	37-38	Other motor reset	
			100-119	39-46	Internal program 1	
			120-139	47-54	Internal program 2	
			140-159	55-62	Internal program 3	
			160-179	63-69	Internal program 4	
			180-199	70-77	Internal program 5	
			200-219	78-85	Internal program 6	
			220-239	86-93	Internal program 7	
			240-255	94-100	Reserved	

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 6 at the same time, you may see the error message, “Err channel is Pan movement”, “Err channel is Tilt movement”“ “Err channel is Shutter” ,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 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 ((Optical Sensor or Magnetic Sensor fails)) or the stepper motor is defective (or its 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 its 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 its 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 its driving IC on the main PCB). The COLOR - movement is not located in the default position after the reset.

GOBO 1 wheel Er
(GOBO 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 its driving IC on the main PCB). The GOBO1 - movement is not located in the default position after the reset.

GOBO_R 1 wheel Er
(GOBO_R 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 its driving IC on the main PCB). The GOBO1_R - movement is not located in the default position after the reset.

GOBO 2 wheel Er
(GOBO2 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 its driving IC on the main PCB). The GOBO2- movement is not located in the default position after the reset.

Prism 1 wheel Er
(Prism 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 its driving IC on the main PCB). The Prism 1 - movement is not located in the default position after the reset.

Prism Rot 1 wheel Er
(Prism Rot 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 its driving IC on the main PCB). The Prism Rot 1- movement is not located in the default position after the reset.

Prism 2 wheel Er
(Prism 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 its driving IC on the main PCB). The Prism 2 - movement is not located in the default position after the reset.

Prism Rot 2 wheel Er
(Prism Rot 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 its driving IC on the main PCB). The Prism Rot 2- 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 its 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 its driving IC on the main PCB). The Zoom - movement is not located in the default position after the reset.

Animation wheel Er
(Animation 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 its driving IC on the main PCB). The Animation - movement is not located in the default position after the reset.

Dimmer Er
(Dimmer 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 its driving IC on the main PCB). The Dimmer is not located in the default position after the reset.

Frost Er
(Frost 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 its driving IC on the main PCB). The Frost is not located in the default position after the reset.

Fan Moving Er
(Fan Moving 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 its driving IC on the main PCB). The Fan Moving is not located in the default position after the reset.

Array Lens Er
(Array Lens 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 its driving IC on the main PCB). The Array Lens is not located in the default position after the reset.

11. 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.

12. SERVICE

For all service needs please contact your local authorized dealer or Terbly directly. Our contact details are:
Email: QA@terbly.com
Phone: +86 20 3996 6388
Address: No.109 Hai Yong Road, Shi Ji Town, Pan Yu Zone Guangzhou City, China, 511450

***Remark*:** Errors and omissions for all information given in this manual are excepted. All information is subject to change without prior notice.