LIGHTING

PROFESSIONAL MOVING HEAD USER MANUAL

CLASSE LS 200

KEEP THIS MANUAL FOR FUTURE NEEDS

CE

Contents

Thank you for your patronage. We are confident that our excellent products and service can satisfy you. For your own safety, please read this user manual carefully before installing the device.

In order to install , operate, and maintain the lighting safety and correctly. We suggest that the installation and operation should be done by the verified technician and follow the instruction strictly.

	CAUTION! Keep this device away from rain and moisture !
	CAUTION! Unplug mains lead before opening the housing.

Every person involved with the installation, operation and maintenance of this device has to:
-be qualified
-follow carefully the instructions of this manual

INTRODUCTION:

Thank you for having chosen this professional moving head.

You will see you have acquired a powerful and versatile device.

Unpack the device. Inside the box you should find:

1. One XLR connection cable
2. Two omega clamps
3. One safety rope
4. Manual

Please check carefully that there is no damage caused by transportation. Should there be any, consult your dealer and don't install this device.

1. Features

• 3 DMX Channels mode: 14/16/20 channels

• Stand alone operation with Master/Slave function, sound activated via built in microphone.

• Pan movement: pan 540°/630° / 540° -90° offset, Tilt movement: tilt 265°

• Color wheel: 8 colors plus white, with two direction rainbow effect,

• Rotating gobo: **7** rotating gobos plus open, all gobos can be easily replaceable and gobo indexing

• Static gobo: 7 static gobos plus open with different speed gobo shaking and gobo indexing

• Prism and prism rotating , with 16 prism macros

• Strobe effect : 0~13 flashes per second or random strobe

• Dimmer intensity from 0%~100%

• Focus: motorized focus

• Iris: motorized linear change from 5%~100%

• Stepless frost, 0%~100% linear change frost

• Control board with full color LCD graphic display and touch-keyboard

• Display: Can be changed 180° reverse to fit for different installation position.

• 7 preset programs selectable

• Rechargeable Back up Battery for Display, no need external power supply, enable users to enter display menu for address setting or access other functions setting.

• Software-upload by optional accessory via DMX lin

2. FIXTURE OVERVIEW
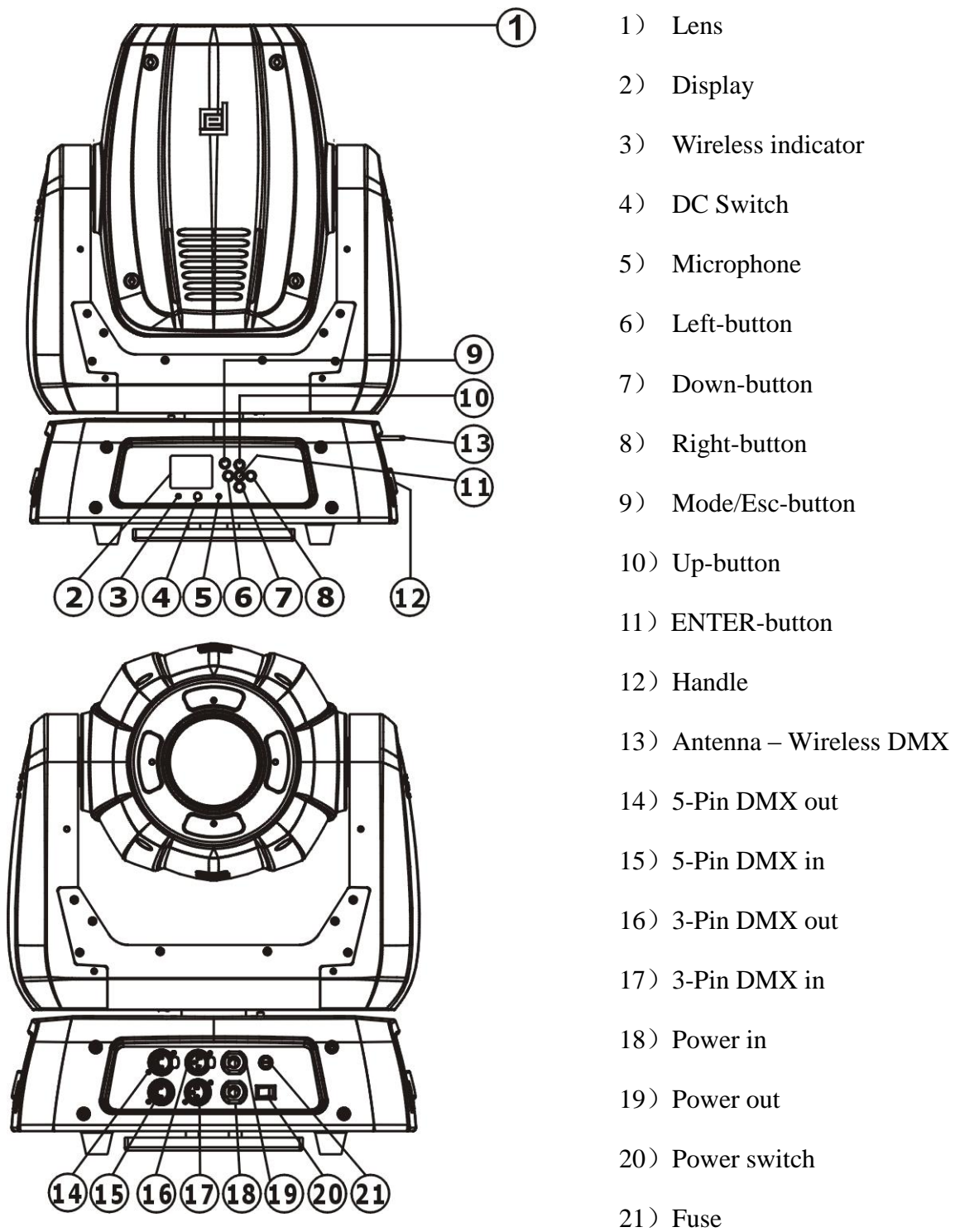
1） Lens

2） Display

3） Wireless indicator

4） DC Switch

5） Microphone

6） Left-button

7） Down-button

8） Right-button

9） Mode/Esc-button

10） Up-button

11） ENTER-button

12） Handle

13） Antenna – Wireless DMX

14） 5-Pin DMX out

15） 5-Pin DMX in

16） 3-Pin DMX out

17） 3-Pin DMX in

18） Power in

19） Power out

20） Power switch

21） Fuse

RED LIGHTING

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3.2) 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 with the max alternating current which stated in the technical specifications in the last page of this manual.

Lighting effects are not designed for permanent operation. Consistent operation breaks may ensure that the device will serve you for a long time without defects.

Do not shake the device.Avoid brute force when installing or operating the device.
While choosing the installation-spot, please make sure that the device is not exposed to extreme heat, moisture or dust. Please don't project the beam onto combustible substances.The minimum distance between light-output from the projector and the illuminated surface must be more than 0.5 meter.

If you use the quick lock cam in hanging up the fixture, please make sure the quick lock fasteners turned in the quick lock holes correctly.

Operate the device only after having familiarized with its functions. Do not permit operation by persons not qualified for operating the device. Most damages are the result of unprofessional operation.

Please use the original packaging if the device is to be transported.

For safety reasons, please be aware that all modifications on the device are forbidden.

If this device will be operated in any way different to the one described in this manual, the product may suffer damages and the guarantee becomes void. Furthermore, any other operation may lead to short-circuit, burns, electric shock, lamp explosion, crash, etc.

4. INSTALLATION INSTRUCTIONS

4.1) Mounting the device

	CAUTION! Please consider the GB7000.1-2007,GB7000.217-2008 and the other respective national norms during the installation. The installation must only be carried out by a qualified person.

The applicable temperature for the lighting is between -10°C to 45°C. Do not use the lighting under or above the temperature.

The installation of the effect has to be built and constructed in a way that it can hold 10 times the weight for 1 hour without any harming deformation.

The installation must always be secured with a secondary safety attachment, e.g. an appropriate safety rope.

Never stand directly below the device when mounting, removing or servicing the fixture.

The operator has to make sure the safety relating and machine technical installations are approved by an expert before taking the device into operation for the first time.

These installations have to be approved 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 bodily injury.

⚡	**CAUTION!** The electric connection must only be carried out by a qualified electrician.

Before mounting make sure that the installation area can hold a minimum point load of 10 times the device's weight.
Connect the fixture to the mains with the power plug.

Installation via the Omega holders

(1)Omega–holders
(2)Clamp
(3)Safety–rope
(4)Quick–lock fastener
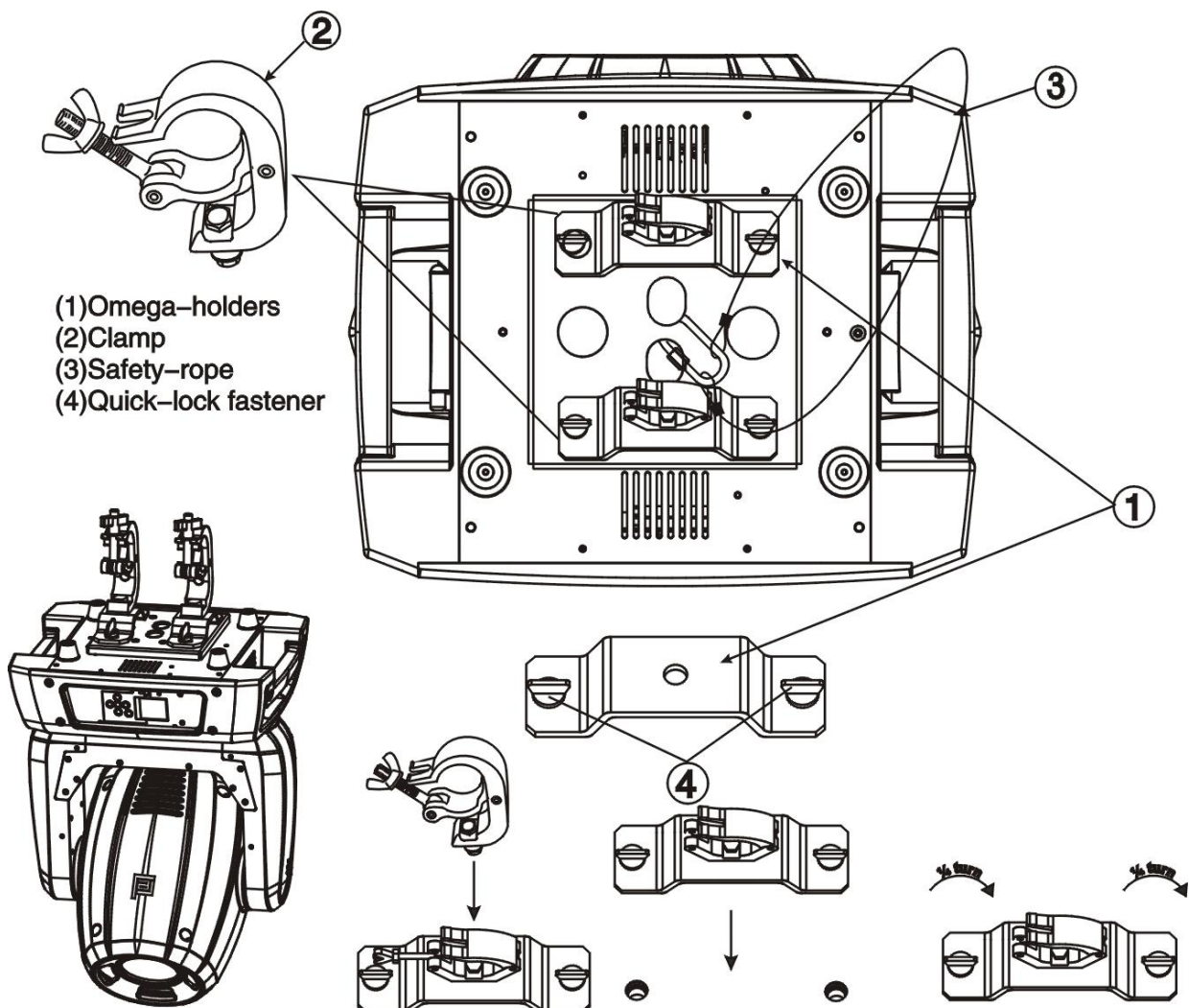
a) Fixed the clamp on the bracket by tighten up the M12 screw on the bracket to the Φ13 hole in the middle of the bracket.
b) Insert the quick-lock fasteners of the first Omega holder into the respective holes on the bottom of the device. Tighten the quick-lock fasteners fully clockwise.
c) Install the second Omega holder.
d) Pull the safety-rope through the holes on the bottom of the base and over the trussing system or a safe fixation spot. Insert the end in the carabine and tighten the safety screw.

Notice: this step is quite important to ensure that the fixture will not drop out   by the damage of the clamp.

Dimensional Drawings:
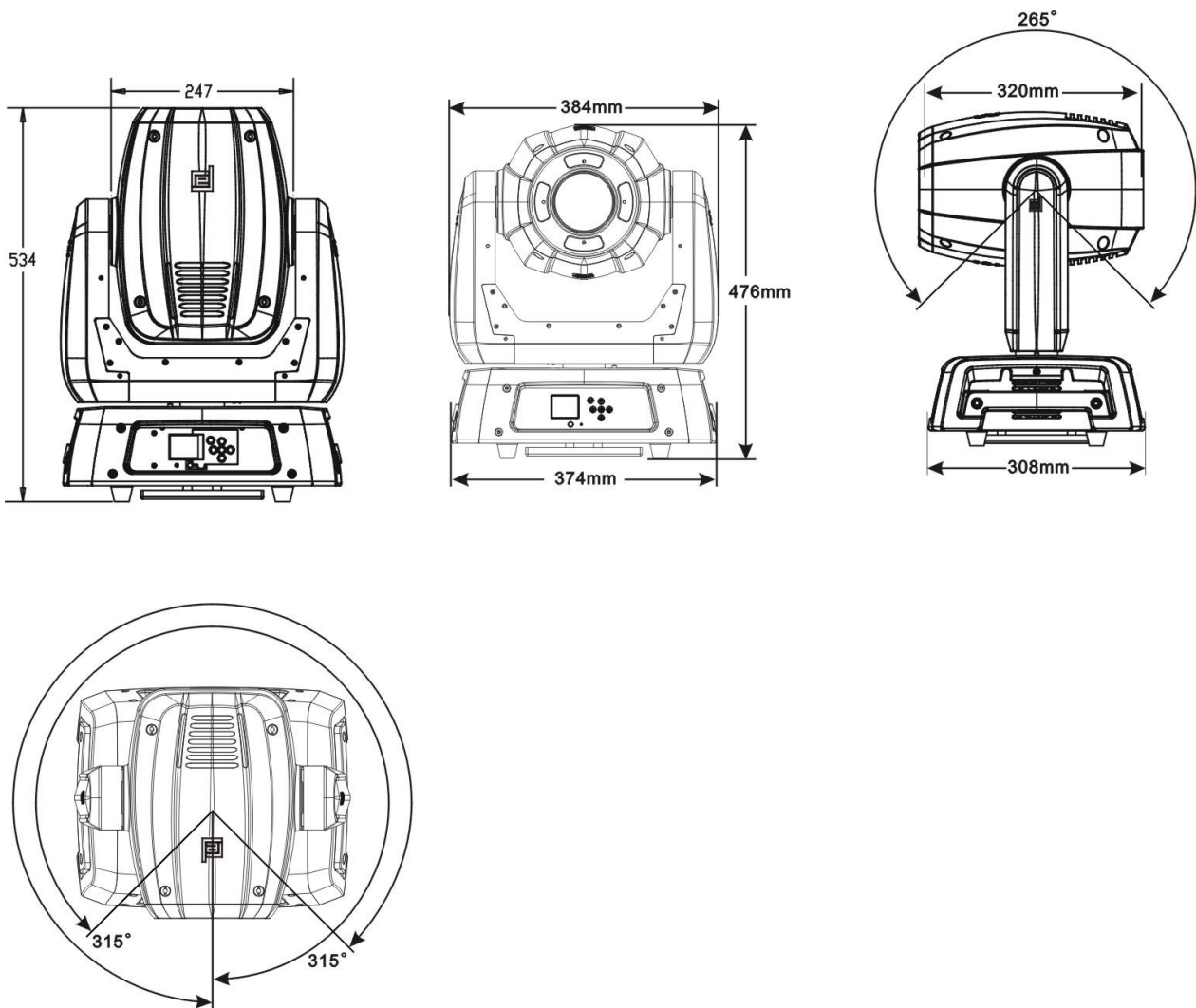
Layout Drawings:
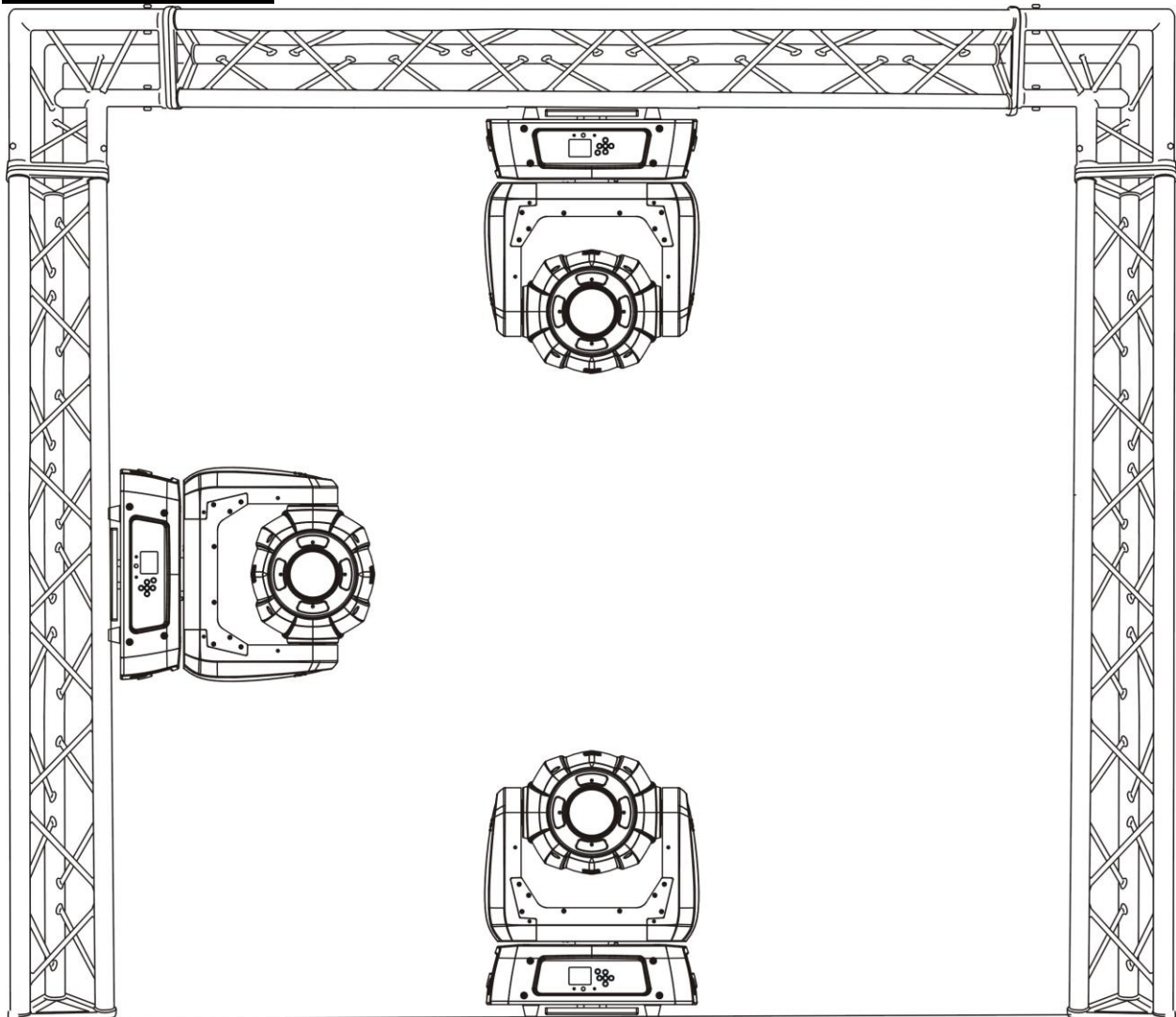
Mounting points

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

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

5. DMX-512 control connection

Connect the provided XLR cable to the female 3-pin XLR output of your controller and the other side to the male 3-pin XLR input of the moving head. You can chain multiple
Moving head together through serial linking. The cable needed should be two core, screened cable with XLR input and output connectors. Please refer to the diagram below.

DMX Output
5-Pin XLR Socket

DMX Input
5-Pin XLR Socket

1: Ground
2: Signal (−)
3: Signal (+)
4: N.A.
5: N.A.

DMX output
3-Pin XLR Socket

DMX Input
3-Pin XLR Socket

1: Ground
2: Signal (−)
3: Signal (+)

120 Ohms

DMX512

DMX-controller

Address 33   Address 17   Address 1
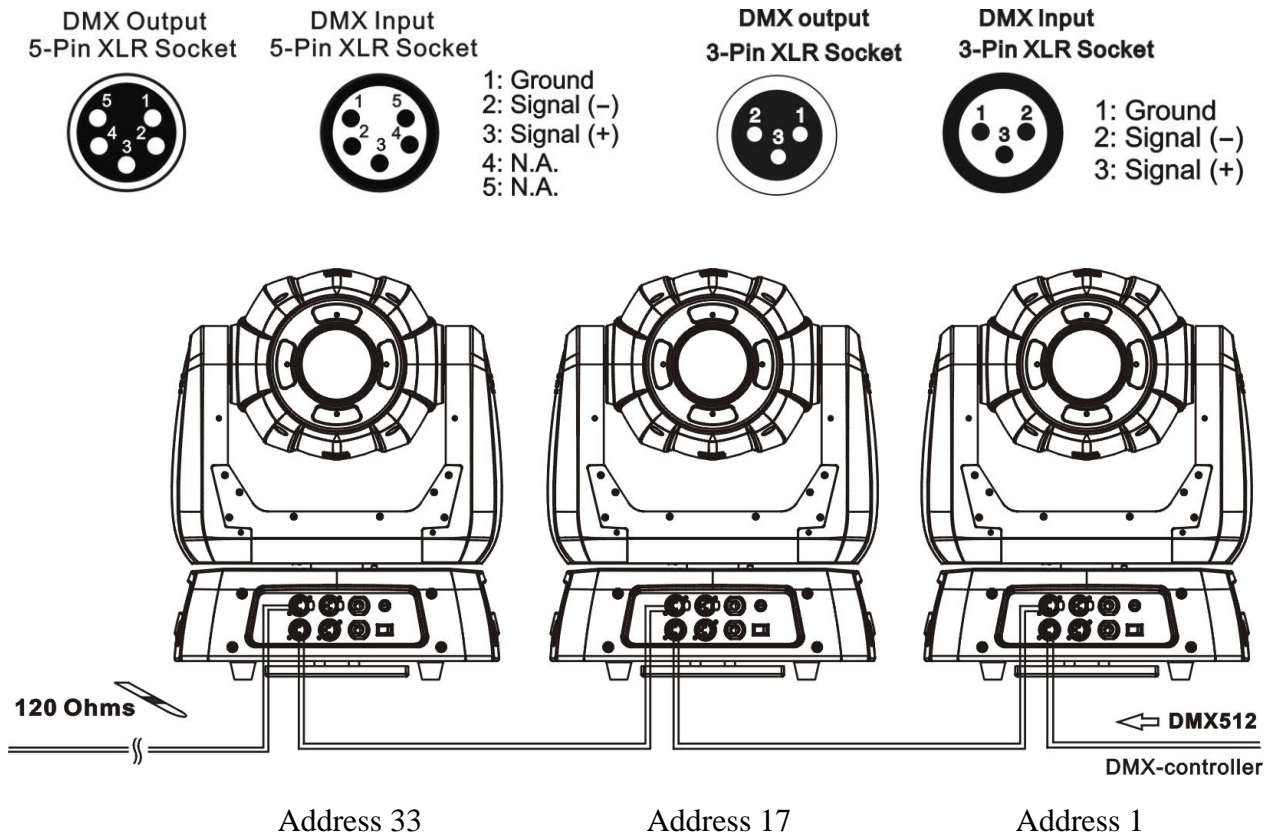
6. DMX-512 connection with DMX terminator

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

120 Ω

PIN 3
PIN 2
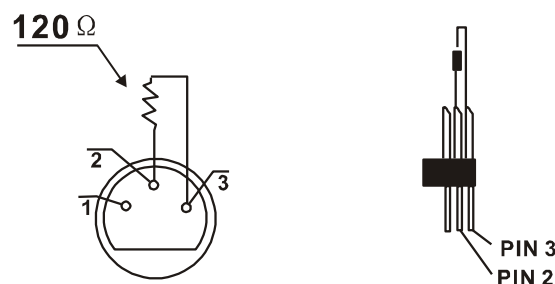
7. Projector DMX start address selection

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 number on the display located on the base of the device.

You can set the same starting address for all fixtures or a group of fixtures, or make different address for each fixture individually.
If you set the same address, all the units will start to "listen" to the same control signal from the same channel number. In other words, changing the settings of one channel will affect all the fixtures simultaneously.
If you set a different address, each unit will start to "listen" to the channel number you have set, based on the quantity of control channels of the unit. That means changing the settings of one channel will affect only the selected fixture.

In the case of the move head, which is a 16 channel fixture, you should set the starting address of the first unit to 1, the second unit to 17 (16 + 1), the third to 33 (17 + 16), and so on.

8. Operting instructions of the internal DMX wireless system

1. Equipments:
   DMX 512 controller, wireless transmitter, and the fixtures with wireless receiver.

2. Message from the LED indicator:
     1) Rapid flashing red/Green: logging in to a transmitter
     2) Slow flashing Red/Green: Logged on a transmitter and the DMX line is idle (No DMX is connected to transmitter).
     3) Solid Green: Logged on to a transmitter and receiving DMX data.
     4) Solid Red: Not logged on to a transmitter (free)

3．WDMX in the menu of the fixture:
On a fixture installed with wireless system, in order to switch between wireless control system and traditional DMX control (with cable), a new menu WDMX is added to the display board.
     ON: (Activate WDMX)
     1) When the fixture is on power，and the WDMX is activated to ON status, but did not connect to the controller and did not log in to the transmitter, the fixture will search for the DMX signal source. If the fixture is connected to the DMX controller it can be controlled by DMX controller; if it is log in to the wireless transmitter, it can be controlled by the Transmitter
     2) When the fixture is power off, and the WDMX is in ON status, if the fixture is connected to DMX controller. After the fixture is power on, it can be controlled only by the DMX controller which connected. The fixture can log in the wireless transmitter, and receive only radio signal from transmitter, but not DMX from the transmitter.

     OFF: (De-activate WDMX)
     In this status, wireless system is not activated, so the fixture can not log in the transmitter.
     REST: (reset WDMX memory);
     Can remove the fixture from the connection with the transmitter, the fixture become free and ready to log in any transmitter.

4. Setup the wireless system:
  1) Connect the transmitter with the DMX controller
  2) To make the fixture installed with wireless receiver log in to the transmitter
       a) Initially, the indicator on the receiver fixture should be in Solid red
       b) Press and hold the configuration button on transmitter for less than 3 seconds the red/green LEDs on the transmitter and the receiver fixture will flash rapidly for about 5~ 10 seconds while the system goes through its setup procedure.
       c) Once the receiver fixture is logged in to the transmitter (T1), the fixture with wireless receiver will keep the memory, even if restart the power, this unit will log in the transmitter (T1) automatically.
  3) Use the DMX 512 to control the fixture

5．Remove the receivers from transmitter (T1) and to log in to another transmitter (T2)
   Case 1: Remove a receiver:
    a) On the control board of the fixture, enter menu to activated the function of REST;
    b) The LED for wireless on the fixture should turn to Solid red; the receiver can log out from the transmitter (T1);
    c) press the configuration button on transmitter(T2) for less than 3 second, then the fixture will start to connect with the transmitter(T2)

   Case 2: Remove all receivers from a transmitter (T1) to log in to T2;
    a) Press and hold the configuration button on the T1 as least 5 seconds, can clear the connection with all the fixtures.
    b) All the red/green LEDs on the receiver fixtures will turn to Solid red to indicate that the receivers are unassigned and removed from the transmitter (T1);
    c) Press and hold the configuration button on the T2 less then less than 3 second , the fixtures will connect with the T2

PS: 1. Please log the receivers out from the transmitter after every job, so that the receivers are in free un assigned state and ready to be assigned to a transmitter.
    2. Do not connect the fixture which is under the communication of wireless system to the DMX controller, otherwise it will cause interference from the DMX controller.

9. Control Board
The Control Board offers several features: you can simply set the starting address , run the pre-programmed program or make a reset.

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 the (⇧) -button , (⇩) -button , (⇦) -button or (⇨) -button. Confirm every selection by pressing the (↵) -button. You can leave every mode by pressing the (MODE/ESC) -button. The functions provided are described in the following sections. it will exit from flash 10 seconds after the last keypress. Press this key under edit mode, . The functions provided are described in the following sections.

To access the display menu via the internal battery, press the DC switch button for 2seconds; To shut off the display immediately, choose the commend " Reset All" menu and press "Enter" button, otherwise, the display will automatically switch off about 1 minute from last button press.

Function Mode	Set Dmx Address	A001~AXXX		DMX address setting
	Value Display	PAN……		DMX value display
	Set To Slave	Slave1,Slave2,Slave3		Slave setting
	Auto Program	Master / Alone		Auto program
	Music Control	Master / Alone		Music control
Information	Time Information	Current Time	XXXX(Hours)	Power on running time
		Total Life Hours	XXXX(Hours)	Fixture running time
		Last Run Hours	XXXX(Hours)	Fixture Last times clear
		Timer Password	Password=XXX	Timer Password *038*
		Clear Last Run	ON/OFF	Clear Fixture Last time
	Temperature Info	Head Temperature	XXX°C/℉	Temperature in the head
	Software Version	Ver ……		Software version of each IC
Personality	Status Settings	Address via DMX	ON/OFF	Add. via DMX
		No DMX Status	Close/Hold/Auto/Music	Auto run if no DMX
		Pan Reverse	ON/OFF	Pan Reverse movement
		Tilt Reverse	ON/OFF	Tilt Reverse movement
		Pan Degree	Pan 540	Pan Degree Select
			Pan 540-90 offset	
			Pan 630	
		Feedback	ON/OFF	Movement Feedback switch
		Movement Speed	Speed 1~ 4	Movement Mode Select
		Mic Sensitivity	0~99%	Sensitivity of Mic.
		Hibernation	OFF/1~99M	Standby mode
	Fans Control	Auto Fans Speed		Fans Speed Mode Select
		High Fans Speed		
		Low Fans Speed		
	Display Setting	Shutoff Time	02~60m 05m	Display shutoff time
		Display Reverse	ON/OFF	Display Reverse 180 degree
		Key Lock	ON/OFF	Key Lock
	Temperature C/F	Celsius/ Fahrenheit		Temperature switch between °C/℉
	Initial Effect	PAN =XXX		Initial effect position
	Wireless DMX	WDMX Off		De-activate WDMX
		Activate WDMX		Activate WDMX
		Act & Data Out		Act & Data Out
		Clean WDMX Memo		Reset Wireless DMX Mem
	Reset Default	ON/OFF		Restore factory set.

Reset Function	Reset All			Reset all motors
	Reset Pan&Tilt			Reset Pan/Tilt
	Reset Colors			Reset color wheel
	Reset Gobos			Reset gobos
	Reset Others			Reset other motors
Effect Adjust	Test Channel	PAN ……		Test function
	Manual Control	PAN =XXX :		Fine adjustment of the lamp
	Calibrate Values	Calibrate Password =XXX Color wheel=XXX :		Password "050" Calbrate and adjust the effects to standard/right position
Users Mode Set	User Mode	Standard Mode Basic 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
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-- --Secne Time-- Input By Outside	Save and automatically return manual scenes edit
	Rec. Controller	XX~XX		Automat. scenes rec

Default settings shaded

9.1 FUNCTION MODE

9.1.1 Set DMX Address

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

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

9.1.2 Value Display

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

1．Access the main menu.
2．Tap the <Up/Down>button until"Value Display"is displayed.
3．Press ENTER, the display will show "Value Display".
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 Set to slave
With this function, you can define the device as slave.
1．Access the main menu.
2．Tap the <Up/Down>button until" Set To Slave"is displayed.
3．Press ENTER, the display will show "Set To Slave".
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 "Master1", " Alone".
5．Press ENTER to confirm or press <MODE/ESC> to return to the main menu.

9.1.5 Music control
With this function, you can run the internal program sound-controlled.
1．Access the main menu.
2．Tap the <Up/Down>button until"Music control"is displayed.
3．Press <ENTER>, the display will show "Music control".
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.

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 "Timer Password". Press ENTER, the display will show "Timer Password".
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 Life Hours

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 "Timer Password". Press ENTER, the display will show "Timer Password".

2．Press <Up/Down>, the display will show "Total Life Hours".

3．Press< ENTER>, the display will show "Total Life Hours".

4．The display will show "XXXX" (Hours)；

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

Last Run Hours

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 "Information"is displayed. Press ENTER, the display will show "Information". Tap the <Up/Down>button until the display will show "Timer Password". Press ENTER, the display will show "Timer Password".

2．Press <Up/Down>, the display will show "Last Run Hours".

3．Press< ENTER>, the display will show "Last Run Hours".

4．The display will show "XXXX" (Hours)；

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

Timer 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 "Timer Password". Press ENTER, the display will show "Timer Password".

2．Press <Up/Down>, the display will show "Timer Password".

3．Press< ENTER>, the display will show "Timer 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 "Timer Password". Press ENTER, the display will show "Timer Password".

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.

9.2.2 Temperature Info
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
   "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.

9.2.3 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
   "Information"is displayed. Press ENTER, the display will show "Information".
2．Press <Up/Down>, the display will show "Software version".
3．Press< ENTER>, the display will show "Software version".
4．The display show "Ver x.x".
5．Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

9.3 PERSONALITY
9.3.1 Status setting
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 setting". Press ENTER, the
   display will show "Status setting".
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 setting". Press ENTER, the
   display will show "Status setting".
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", "Auto",
   "Music".
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 setting". Press ENTER, the display will show "Status setting".
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 setting". Press ENTER, the display will show "Status setting".
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 ,540-90 offset 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 setting". Press ENTER, the display will show "Status setting".
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" ,"540-90 offset".
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 setting". Press ENTER, the display will show "Status setting".
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 scan mode from 1 to 4.

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 setting". Press ENTER, the display will show "Status setting".

2．Press <Up/Down>, the display will show "Movement Speed".

3．Press< ENTER>, the display will show "Movement Speed".

4．The display show "Speed 1",Press <Up/Down>, the display will show "Speed 2", "Speed 3", "Speed 4".

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

Mic Sensitivity

With this function, the default is 70%，you can select the desired microphone sensitivity from 0 % to 99 %.

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 setting". Press ENTER, the display will show "Status setting".

2．Press <Up/Down>, the display will show "Mic Sensitivity".

3．Press< ENTER>, the display will show "Mic Sensitivity".

4．The display show "70%",Press <Up/Down>, the display will show "0~99%".

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

2．Press <Up/Down>, the display will show "Hibernation".

3．Press< ENTER>, the display will show "Hibernation".

4．The display show "OFF",Press <Up/Down>, the display will show "01M", "02M" …. "99M".

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

9.3.2 Fans Control

You can set the speed of the running fans.The selections have Auto high and low.

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 "Fans Control".

3．Press< ENTER>, the display will show "Fans Control".

4．The display show "Auto Fans Speed",Press <Up/Down>, the display will show "High Fans Speed", "Low Fans Speed".

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

9.3.3 Display settings

Shutoff 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.

Display Reverse
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.

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. keeping press the **[MENU]** 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".
2．Press <Up/Down>, the display will show "Display Setting".
3．Press< ENTER>, the display will show "Display Setting".
4．The display show "Shutoff Time",Press <Up/Down>, the display will show "Display Reverse", "Key Lock".
5．Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

9.3.4 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 "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.

9.3.5 Initial effect
With this function, 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 effect".
3．Press< ENTER>, the display will show "Initial effect".
4．The display show "XXX".
5．Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

9.3.6 Wireless DMX
From factory, this projector is prepared for wireless data transmission (W-DMX). If you wish to de-activate W-DMX control, you can select the function "De-activate WDMX" by turning the encoder. With the function "rest", you can log out the projector from the wireless sender.
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 "Wireless DMX".
3．Press< ENTER>, the display will show "Wireless DMX".

4．The display show "Activate WDMX", Press <Up/Down>, the display will show "WDMX Off", "Act & Data Out" or "Clean WDMX Memo".

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

9.3.7 Restore 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 "Restore Default".

3．Press< ENTER>, the display will show "Restore 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.

9.4 Reset-functions

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 "Reset-functions"is displayed. Press ENTER, the display will show "Reset-functions".

2．The display show "Reset All", Press <Up/Down>, the display will show "Reset All", "Reset Pan/Tilt", "Reset Colors", "Reset Gobos", Reset Other ".

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

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

9.5 Effect Adjust
9.5.1 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 "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 show "Pan Moving" frist channel, Press <Up/Down>, can choose other channel.

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

9.5.2 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 erform the fine lamp adjustment.

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.

9.5.3 Calibrate values

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 "Calibrate values".
3．Press< ENTER>, the display will show "Calibrate values".
4．The display show "Password=XXXX".
5．Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

9.6 Users mode set

In this menu, user can select different channels list by different sequence:

For example, after the user enter this manual, if select Auto Program = CH 22, means in this User's mode, the "Dimmer" is in Channel 16.

9.6.1 User mode

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

9.6.2 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 "User Mode" frist 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.

9.7 Edit program

9.7.1 Select program

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

9.7.2 Edit program

With this function, you can edit the internal programs.

9.7.3 Edit scenes

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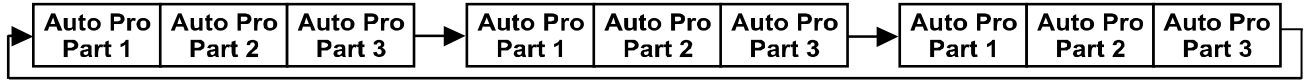
9.7.4 Rec. Controller

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

Excursion:

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

Auto Pro Part 1	Auto Pro Part 2	Auto Pro Part 3	→	Auto Pro Part 1	Auto Pro Part 2	Auto Pro Part 3	→	Auto Pro Part 1	Auto Pro Part 2	Auto Pro Part 3

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

To start a Auto Program please proceed as follows:

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

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

3. Program selection for Auto Pro Part
- Select "Edit program" by turning the encoder.
- Press the Enter button to confirm.
- Select "Select programs" by turning the encoder.
- Press the Enter button to confirm.
- Turn the encoder to select "Auto Pro Part 1", "Auto Pro Part 2" or "Auto Pro Part 3", and thus select which Slave program is to be sent. Selection "Part 1" means, that the Slave unit runs the same program as the master units.
- Press the Enter button to confirm.
- Press the MODE/ESC button in order to return to the main menu.

4. Program selection for Edit Program
- Select "Edit program" by turning the encoder.
- Press the Enter button to confirm.
- Select "Edit program" by turning the encoder.
- Press the Enter button to confirm.
- Turn the encoder to select the desired program. With this function you can edit specific scenes into a specific program.
- Press the Enter button to confirm.
- Press the MODE/ESC button in order to return to the main menu.

5. Automatic Scene Recording
- Select "Edit program" by turning the encoder.
- Press the Enter button to confirm.
- Select "Edit scenes" by turning the encoder.
- Turn the encoder to select the desired scene numbers. You can program a maximum number of 250
- Press the Enter button to confirm.
- Press the MODE/ESC button in order to return to the main menu.

Example:
Program 2 includes scenes: 10, 11, 12, 13
Program 4 includes scenes: 8, 9, 10
Program 6 includes scenes: 12, 13, 14, 15
Auto Pro Part 1 is Program 2;
Auto Pro Part 2 is Program 3;
Auto Pro Part 3 is Program 6

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

Part 1:

Scene 10	Scene 11	Scene 12	Scene 13

Part 2:

Scene 8	Scene 9	Scene 10	Scene 8

Part 3:

Scene 12	Scene 13	Scene 14	Scene 15
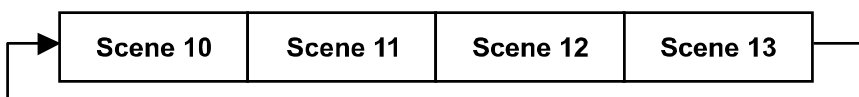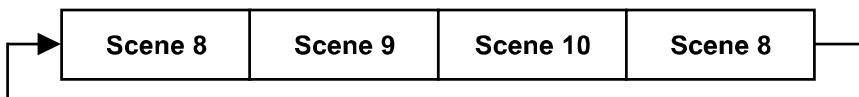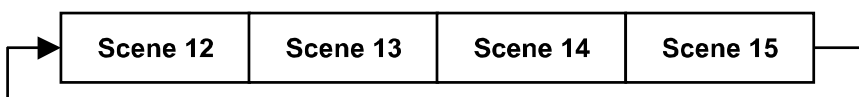
10. INSTRUCTIONS ON USE:

DMX channel´s functions and their values (20 DMX channels):				
Mode/Channel			**Value**	**Function**
St	**Ba**	**Ex**		
1	1	1		**Color Wheel**
			0-13	Open / white
			14-27	Color 1
			28-41	Color 2
			42-55	Color 3
			56-69	Color 4
			70-83	Color 5
			84-97	Color 6
			98-111	Color 7
			112-127	Color 8
			128-187	Forwards rainbow effect from fast to slow
			188-193	No rotation
			194-255	Backwards rainbow effect from slow to fast
		2		**Color Wheel Fine**
			0-255	Fine control of Tilt movement
2	2	3		**Rotating gobos, cont. rotation**
			0-9	Open
			10-19	Rot. gobo 1
			20-29	Rot. gobo 2
			30-39	Rot. gobo 3
			40-49	Rot. gobo 4
			50-59	Rot. gobo 5
			60-69	Rot. gobo 6
			70-79	Rot. gobo 7
			80-99	Gobo 1 shake slow to fast
			100-119	Gobo 2 shake slow to fast
			120-139	Gobo 3 shake slow to fast
			140-159	Gobo 4 shake slow to fast
			160-179	Gobo 5 shake slow to fast
			180-199	Gobo 6 shake slow to fast
			200-219	Gobo 7 shake slow to fast
			220-255	Rot. gobo wheel cont. rotation slow to fast
3	3	4		**Rotating gobo index, rotating gobo rotation**
			0-127	Gobo indexing
			128-189	Forwards gobo rotation from fast to slow
			190-193	No rotation
			194-255	Backwards gobo rotation from slow to fast

		5		**Rotating gobo index Fine**
			0-255	Fine indexing
4	4	6		**Fixed Gobos**
			0-13	Open/hole
			14-27	Gobo 1
			28-41	Gobo 2
			42-55	Gobo 3
			56-69	Gobo 4
			70-83	Gobo 5
			84-97	Gobo 6
			98-111	Gobo 7
			112-127	Gobo 1 shake slow to fast
			128-143	Gobo 2 shake slow to fast
			144-159	Gobo 3 shake slow to fast
			160-175	Gobo 4 shake slow to fast
			176-191	Gobo 5 shake slow to fast
			192-207	Gobo 6 shake slow to fast
			208-223	Gobo 7 shake slow to fast
			224-255	Gobo wheel rotation from slow to fast
5	5	7		**PAN Movement 8bit**
			0-255	Pan Movement By 630/540
6	6	8		**TILT Movement 8bit**
			0-255	Tilt Movement
7	7	9		**Speed pan/tilt movement**
			0-225	max to min speed
			226-235	blackout by movement
			236-245	blackout by all wheel changing
			246-255	no function
				Rotating prism, Prism / Gobo macros:
8	8	10	0-31	open
			32-63	3 facet prism
			64-95	trapezoid prism
			96-127	Frost
			128-135	Macro 1
			136-143	Macro 2
			144-151	Macro 3
			152-159	Macro 4
			160-167	Macro 5
			168-175	Macro 6
			176-183	Macro 7
			184-191	Macro 8
			192-199	Macro 9

			200-207	Macro 10
			208-215	Macro 11
			216-223	Macro 12
			224-231	Macro 13
			232-239	Macro 14
			240-247	Macro 15
			248-255	Macro 16
			Rotating prism index, rotating prism rotation :	
9	9	11	0-127	Prism indexing
			128-189	Forwards prism rotation from fast to slow
			190-193	No rotation
			194-255	Backwards prism rotation from slow to fast
10	10	12		**Focus**
			0-225	Continuous adjustment from far to near
		13		**Focus Fine**
			0-255	Continuous adjustment Fine
11	11	14		**Shutter, strobe**
			0-31	Shutter closed
			32-63	No function (shutter open)
			64-95	Strobe effect slow to fast
			96-127	No function (shutter open)
			128-159	Pulse-effect in sequences
			160-191	No function (shutter open)
			192-223	Random strobe effect slow to fast
			224-255	No function (shutter open)
12	12	15		**Dimmer (intensity)**
			0-255	Intensity 0 to 100%
13	13	16		**Iris**
			0-191	Max. diameter to Min.diameter
			192-223	Pulse closing fast to slow
			224-255	Pulse closing slow to fast
		17		**Iris Fine**
			0-255	Iris Fine
14	14	18		**Lamp on/off, reset, internal programs**
			0-19	Color&Gobo change normal
			20-29	Color change to any position
			30-39	Color&Gobo change to any position
			40-59	No function
			60-79	No function
			80-84	All motor reset
			85-87	Scan motor reset
			88-90	Colors motor reset
			91-93	Gobo motor reset

			94-96	no function
			97-99	Other motor reset
			100-119	Internal program 1 (secne1~8 of EEPROM)
			120-139	Internal program 2 (secne9~16 of EEPROM)
			140-159	Internal program 3 (secne17~24 of EEPROM)
			160-179	Internal program 4 (secne25~32 of EEPROM)
			180-199	Internal program 5 (secne33~40 of EEPROM)
			200-219	Internal program 6 (secne41~48 of EEPROM)
			220-239	Internal program 7 (secne49~56 of EEPROM)
			240-255	Music Control (secne of Program 1)
15		19		**Pan Fine 16bit**
			0-255	Fine control of Pan movement
16		20		**Tilt Fine 16bit**
			0-255	Fine control of Tilt movement

10. ERROR MESSAGE

When you turn on the fixture, it will make a reset at first. The display may show"Err channel is XX" while there are problems with one or more channels. "XX" stands for channel 1, 2, 3, 4, 5, 6 who has the testing sensor for positioning. For example, when the display shows "Err channel is Color wheel", it means there is some error in channel 1. If there are some errors on channel 1, channel 15, channel 16 at the same time, you may see the error message "Err channel is Color wheel", "Err channel is Pan movement", "Err channel is Tilt movement" flash repeated for 2 times, and then the fixture will generate a second reset. If the fixture remain error message after performing reset more than 2 times, only the channels which have errors can not work properly, others can work as usual. Please contact with 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 (sensor failed or magnet missing) or the stepping-motor is defective (or its driving IC on the main PCB). The PAN- movement is not located in the default position after the reset.

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

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

Gobo wheel 1 Er
(Gobo wheel 1 - error) This message will appear after the reset of the fixture if the magnetic-indexing circuit malfunction (sensor failed or magnet missing) or the stepping-motor is defective (or its driving IC on the main PCB). The Gobo wheel 1 is not located in the default position after the reset.

Gobo Rot 1 Er

(Gobo Rot 1- error) This message will appear after the reset of the fixture if the magnetic-indexing circuit malfunction (sensor failed or magnet missing) or the stepping-motor is defective (or its driving IC on the main PCB). The Gobo Rot 1 is not located in the default position after the reset.

Gobo wheel 2 Er

(Gobo wheel 2 - error) This message will appear after the reset of the fixture if the magnetic-indexing circuit malfunction (sensor failed or magnet missing) or the stepping-motor is defective (or its driving IC on the main PCB). The Gobo wheel 2 is not located in the default position after the reset.

Focus Er

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

Iris Er

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

11. CLEANING AND MAINTENANCE

The following points have to be considered during the 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 on the housing, color lenses, fixations and installation spots (ceiling, suspension, trussing).

3) Mechanically moved parts must not show any traces of wearing and must not rotate with unbalances.

4) The electric power supply cables must not show any damage, material fatigue or sediments.

Further instructions depending on the installation spot and usage have to be adhered by a skilled installer and any safety problems have to be removed.

CAUTION!
Disconnect from mains before starting maintenance operation.

In order to make the lights in good condition and extend the life time, we suggest a regular cleaning to the lights.

1) Clean the inside and outside lens each week to avoid the weakness of the lights due to accumulation of dust.

2) Clean the fan each week.

3) To make sure the smooth gobo rotation, we suggest adding proper lube to the wheel each three month, avoiding the excessive lube splashes during the gobo rotating.

4) A detailed electric check by approved electrical engineer each three month, make sure that the circuit contacts are in good condition, prevent the poor contact of circuit from overheating.

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

There are no serviceable parts inside the device except for the lamp. Please refer to the instructions under "Installation instructions".

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

12. TECHNICAL SPECIFICATIONS

Power supply: AC 100-240V~, 50/60Hz
Power consumption: 240W
*Packing dimensions***:** 48 x 41 x 66 cm
Flight case dimensions: 85.5 x 61.5 x 65 cm(2Pcs)
Net weight: 17 KG
Gross weight: 21 KG（carton packing） 71 KG (Double flightcase packing)

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