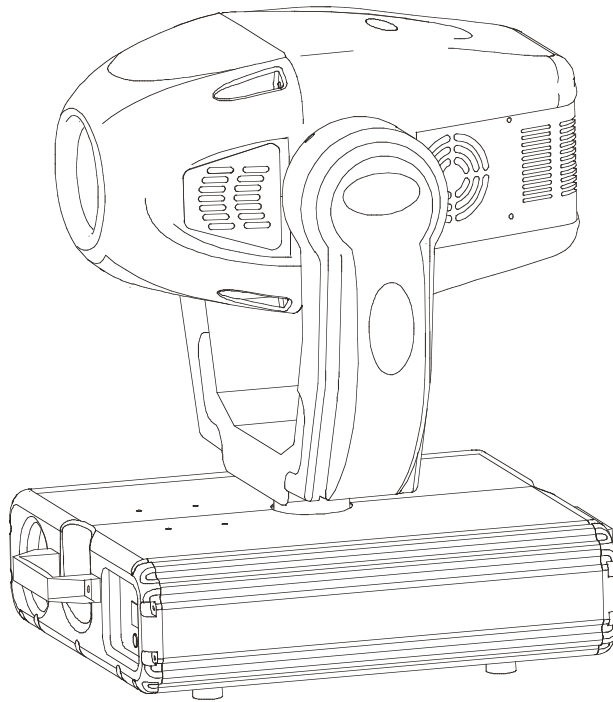




PROFESSIONAL MOVING HEAD USER'S MANUAL

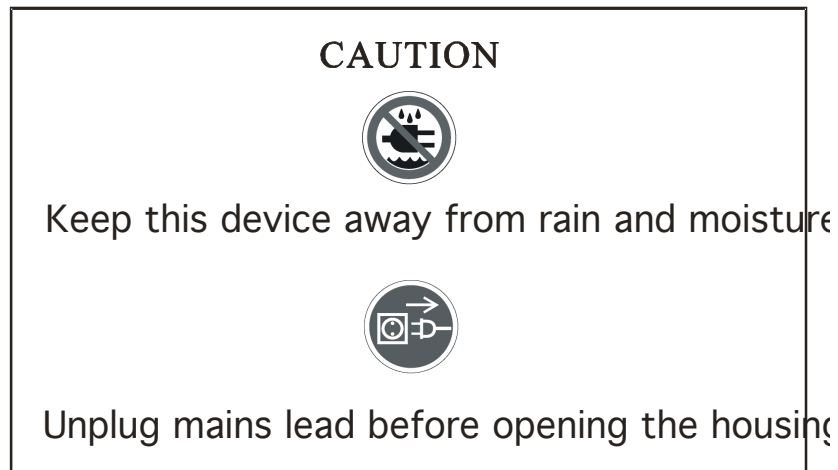
SPOT PRO 700



KEEP THIS MANUAL FOR FUTURE NEEDS



For your own safety, please read this user manual carefully before installing the device.



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. The fixture device
2. A power cable
3. An XLR connection cable
4. A pair of Quick-lock omega holders
5. A safety cable and this 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.

Features

- control signal: standard DMX-512, 17 channels
- pan and tilt movement:
 - 8 bit and 16 bit resolution for smooth and precise motion
 - pan: 540° (optional: 630°) rotation, tilt: 265° rotation
 - speed of pan/tilt movement adjustable
- electronic focus
- strobe/shutter: high speed dual-blade shutter, 0-10Hz or random strobe
- dimmer: mechanical adjust 0%~100%
- Both of the colors wheels have 7 dichroic glass plus white, with two direction rainbow effect.
- one rotating gobo wheel + one static gobo wheel:
 - slot in & out gobos system for rotating gobo wheel.
 - rotating gobo wheel has 6 speed adjustable rotating gobos plus open, rainbow effect
 - static gobo wheel has 7 fixed gobos plus open, rainbow effect
 - gobo shaking and gobo indexing

- Step zoom function with 18°、22°、26° lens can be selected.
- Iris from 5%~100% with pulse iris effect.
- prism: 3- face speed adjustable prism rotates in two directions with 16 prism macro effect
- auto-program: 8 pre-built programs can be selected
- display: can turn 180° reverse to meet mounting location requires
- local or remote resetting
- lamp switches ON/OFF locally or remote, motor reset
- auto test for all functions
- value of each DMX-channel can be displayed
- save program:

Edit and save the program to the incorporated EEPROM through the front control panel or external controller; can save maximum 48 scenes, and run the saved program by the “run” menu from the front control panel

SAFETY INSTRUCTIONS



CAUTION

Be very careful during installation. Since you will be working with a c voltage you can suffer a life-threatening electric shock when touchin

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

IMPORTANT

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

If the device has been exposed to temperature changes due to environmental changes, do not switch it on immediately. The arising condensation could damage the device. Leave the device switched off until it has reached room temperature.

This device falls under protection-class I. Therefore it is essential that the device be earthed.

The electric connection must carry out by qualified person.

If the external flexible cable or cord of this luminaire is damaged, it shall be exclusively replaced by the manufacturer or his service agent or a similar qualified person in order to avoid a hazard.

Make sure that the available voltage is not higher than stated at the end of this manual.

Make sure the power cord is never crimped or damaged by sharp edges. If this would be the case,

replacement of the cable must be done by an authorized dealer.

Always disconnect from the mains, when the device is not in use or before cleaning it. Only handle the power cord by the plug. Never pull out the plug by tugging the power cord.

During initial start-up some smoke or smell may arise. This is a normal process and does not necessarily mean that the device is defective, it should decrease gradually.



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

GENERAL GUIDELINES

This device is a lighting effect for professional use on stages, in discotheques, theatres, etc. This fixture is only allowed to be operated with the max alternating current which is stated in the technical specifications in the last page of this manual, the device was designed for indoor use only. 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. The minimum distance between light-output from the projector and the illuminated surface must be more than 0,5 meter.

Always fix the fixture with an appropriate safety cable if you use the clamp to hang up the fixture. When fixing the device on a raised-from-the-ground support, be sure to use no less than screws and nuts of M10 x 25 mm and insert them in the pre-arranged screw holes in the base of the fixture.

If you use the quick lock cam in hanging up the fixture, please make sure the 4 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.

INSTALLATION INSTRUCTIONS

a) Installing or replacing the lamp



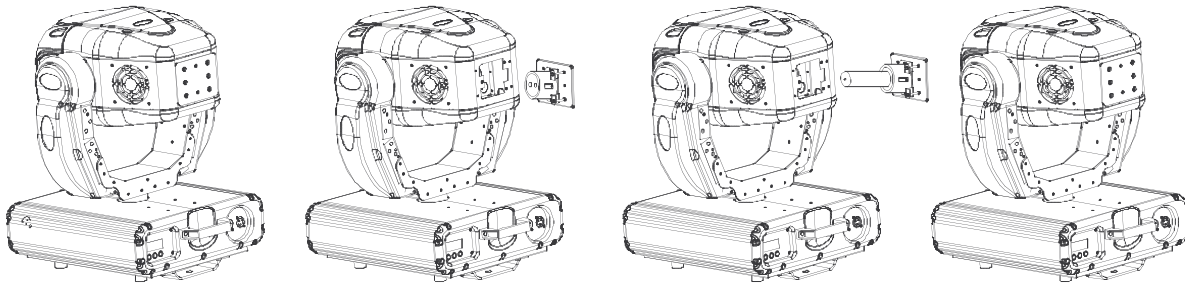
Before replacing the lamp let the lamp cool down, because during operation, the lamp can reach very high temperature.

During the installation of halogen lamps do not touch the glass bulbs bare handed. Always use a cloth to handle the lamps during insertion and removal.

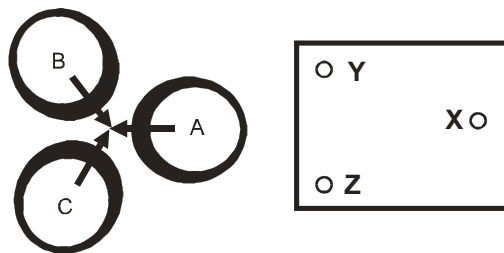
Do not install lamps with a higher wattage. They generate higher temperatures than which the device was designed for.

For the installation, you need one Philips MSR 700/2 lamp

Procedures:



- 1) Unscrew the 3 screws (X, Y, Z) on the bottom of the housing, holding the plate where the lamp is underneath. Carefully remove the metal plate.
- 2) Carefully insert the lamp into the socket. Please remember there is only one way to insert the lamp. Gently slide the lamp and its lamp holder back into place.
- 3) On the access plate there are 3 screws marked A, B and C. which are used to adjust the lamp holder in the lamp housing. You can adjust the 3 screws to fine-tune the position of the lamp to get the maximum light output as shown below.



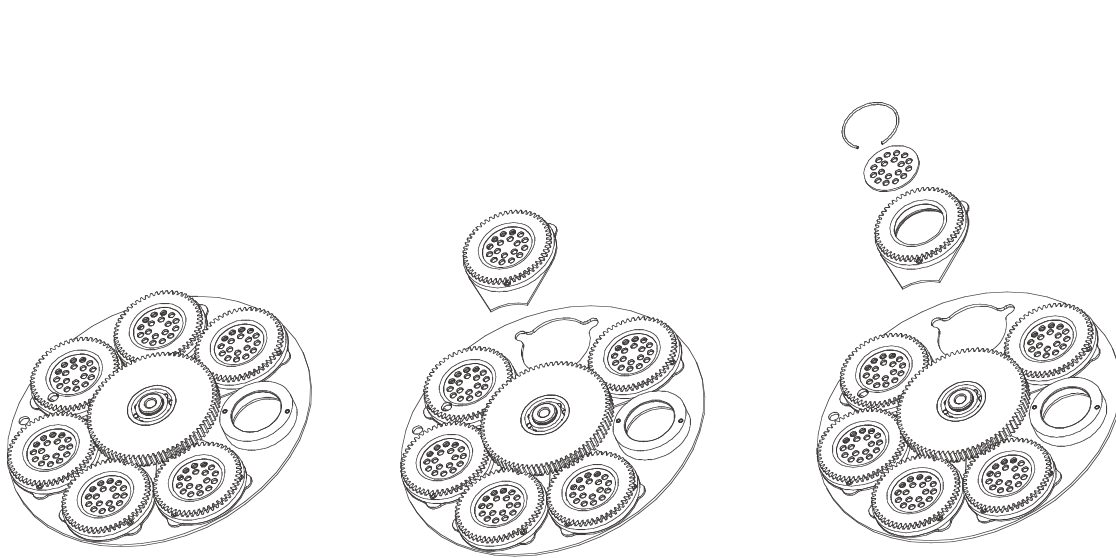
Please remember the lamp is not a hot-restrike type, you must wait for approximately 15 minutes after having turned off the lamp before you can turn it back on again.



b) Inserting/Exchanging gobos

If you wish to use other forms and patterns as the standard-gobos, or if gobos are to be exchanged, please follow the instructions below:

Remove the fixation-ring with an appropriate tool. Remove the gobo and insert the new gobo. Press the fixation-ring together and insert it in front of the gobo.



c) *Mounting the device*



CAUTION

Please consider the EN 60598-2-17 and the other respective national norms for the installation. The installation must only be carried out by a qualified person.

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 cable.

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.



CAUTION

Before taking into operation for the first time, the installation has to be approved by an expert.

Cautions:

The effect should be installed outside areas where persons may reach it, walk by or be seated.



CAUTION

When installing the device, make sure there is no flammable material within a distance of min.

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.



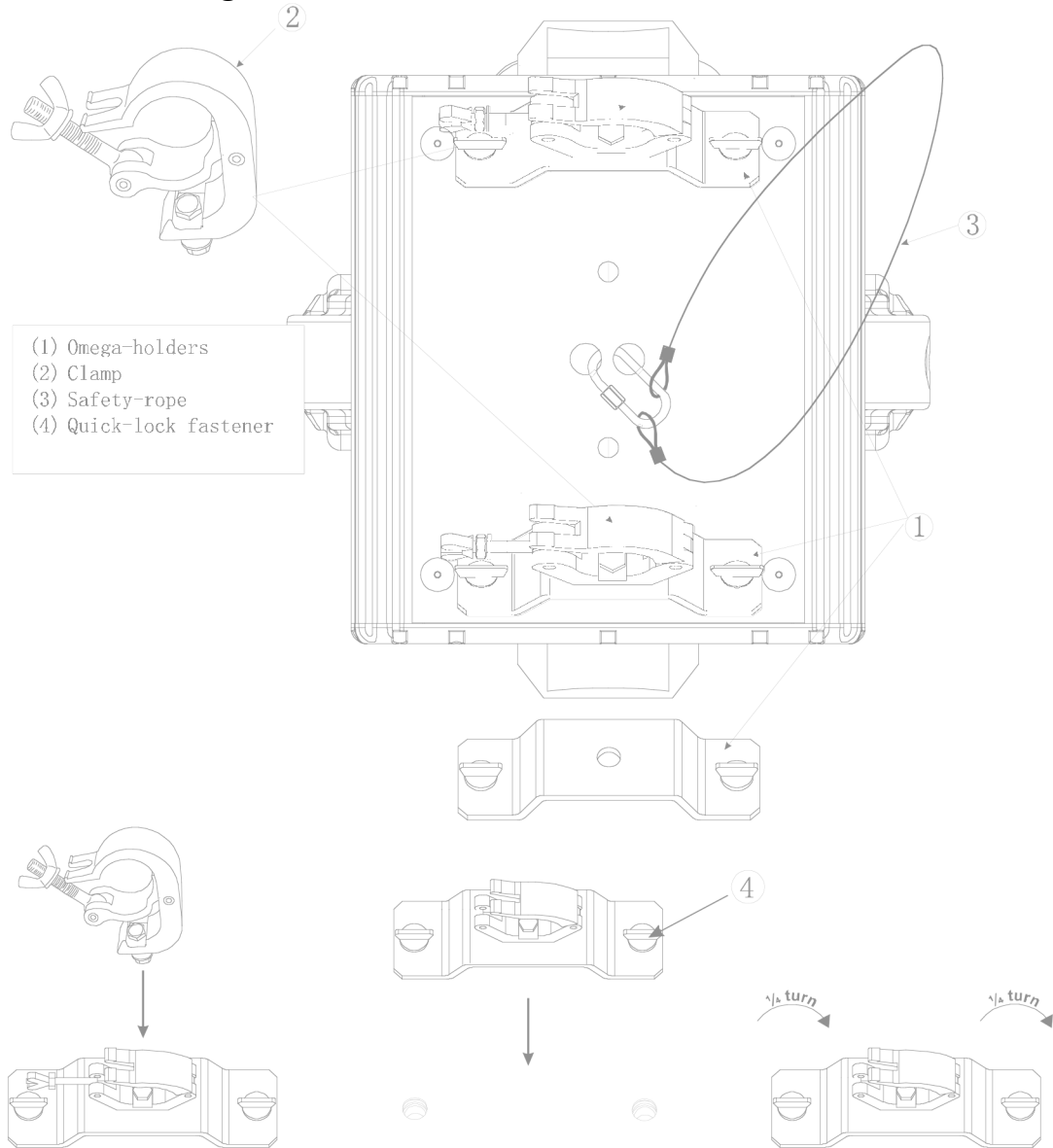
CAUTION

The electric connection must only be carried out by a qualified

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



Screw one clamp each via a M12 screw and nut onto the Omega holders.

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.

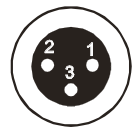
Pull the safety-rope through the holes on the bottom of the base and over the trussing system or a safe fixation spot. Insert the end in the carabine and tighten the safety screw.

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
XLR mounting-socket

DMX -input
XLR mounting-socket



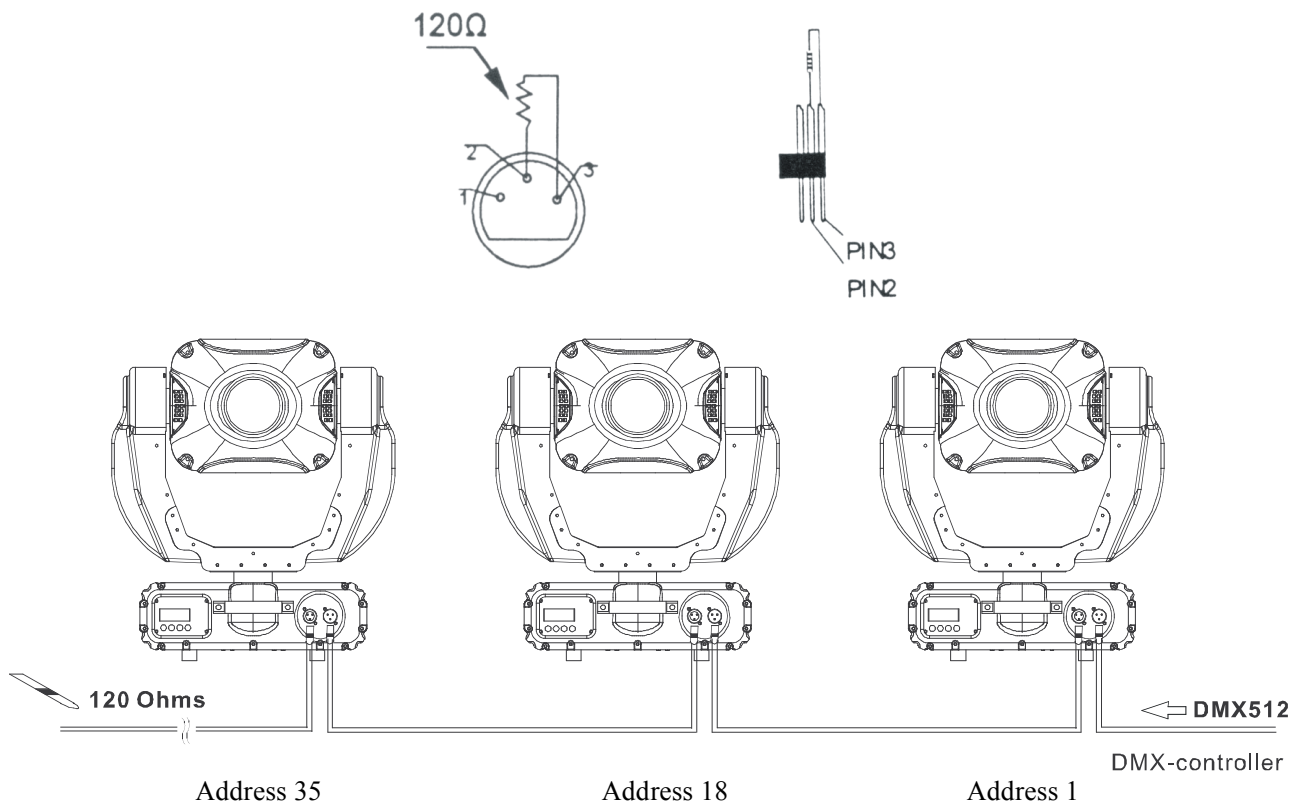
1:Ground
2:Signal(-)
3:Signal(+)



1:Ground
2:Signal(-)
3:Signal(+)

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.



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 spot head, which is a 17 channel fixture, you should set the starting address of the first unit to 1, the second unit to 18 (17 + 1), the third to 35 (18 + 17), and so on.

Note:

After switching on, the machine will automatically detect whether DMX 512 data is received or not. If the data is received, the display will show "**A.001**" with the actually set address. If there is no data received at the DMX-input, the display flashes "**A001**" with the actually set address. This situation can occur if:

- the 3 PIN XLR plug (cable with DMX signal from controller) is not connected with the input of the machine.
- the controller is switched off or defective, if the cable or connector is defective or the signal wires are swap in the input connector.

Control Board

The Control Board offers several features: you can simply set the starting address, switch on and off the lamp, 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 **Up**-button or **Down**-button. Press the **Enter**-button in order to select the desired menu. You can change the selection by pressing the **Up**-button or **Down**-button. Confirm every selection by pressing the **Enter**-button. You can leave every mode by pressing the **Mode/esc**-button. The functions provided are described in the following sections.

	Main menu	Sub. menu	Extension	Display	Function
0	MODE	ADDR	VALU	A001~AXXX (AXXX)	DMX address setting
			SLAV	ON/OFF (SLAV)	Slave setting
			EBOC	ON/OFF	Change DMX address via external controller
		RUN	AUTO	ALON (AU-A)	Automatic Run in Stand Alone
				MAST (AU-M)	Automatic Run as Master
			SOUN	ALON (SO-A)	Sound-controlled Run in Stand Alone
				MAST (SO-M)	Sound-controlled Run as Master
		DISP	VALU	D-XX D-00 (DXXX)	Display the DMX 512 value of each channel
			RDIS	ON/OFF	Reverse display
			CLDI	ON/OFF	Shut off LED display
1	LAMP	OPEN	ON/OFF	Lamp on/off	
		LAAU	ON/OFF	Lamp automated on with power	
		ONLI	ON/OFF	Lamp on/off via controller	
		DELA	D-XX D-05	Delay lamp on	
2	SET	RPAN	ON/OFF	Pan Reverse	
		RTIL	ON/OFF	Tilt Reverse	
		16BI	ON/OFF	Switch 16 bit/8 bit	
		DEGR	630/540	Pan degree select	
		DIMM	Slow/Fast	Dimmer speed	
		MIC	M-XX	Mic sensitivity	
		AUTO	Clos/Hold/Auto/Audi	No DMX Status	
		FANS	HIGH/AUTO	Fan's mode select	
		SPEE	SP-1/SP-2	Movement Mode Select	
		REST		Reset	
		LODA	ON/OFF	Restore factory settings	
		VER	V-1.0~V-9.9	Software version	
3	ADJU	LADJ	ON/OFF	Lamp adjustment	
		TEST	T-01~T-30	Test function of each channel	
		WHEL	CODE	CXXX	Fixture code *code is "C050"
CH01~CH30	XXXX(-128~127)		Motor Fix		
4	TIME	MATI	0000~9999(hours)	Fixture running time	
		LATI	0000~9999(hours)	Lamp running time	
		CLMT	ON/OFF	Clear fixture time	
		CLLT	ON/OFF	Clear lamp time	
5	EDIT	STEP	S-01 ~S-48	Steps of Program Run	
		REC.	RE.XX	Auto Save Scene	
		SC01 ~ SC48	C-01~C-30	01 XX(00~FFH) 30 XX(00~FFH)	Edit the channels of each scene
			TIME	T XXX(001~999)	Time for each scene
			CNIN	ON/OFF	Edit program via controller

Default settings shaded.

Note:

By default setting, the lamp is not ignited with power on. Lamp can be turned on via DMX controller.

Main functions:

MODE - LAMP - SET - ADJUST - EDIT

MODE - Main menu 0

1. Press [MODE/ESC] to enter the main menu "MODE" (display flashing)
2. Press [ENTER] and select "ADDR", "RUN" or "DISP" by pressing [UP] or [DOWN] button.
3. Press [ENTER] for selecting the desired sub menu.

MODE - ADDR
RUN
DISP

ADDR - DMX address setting, Slave setting

MODE - ADDR - VALU - ADDR-111111
SLAV - ON/OFF
EBOC - ON/OFF

VALU - DMX address setting

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

1. Select "VALU" by pressing [UP] or [DOWN] button.
2. Press [ENTER], adjust the DMX address by pressing [UP] or [DOWN] button.
3. Press [ENTER] to confirm or pressing [MODE/ESC] to return to main menu.

SLAV - Slave setting

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

1. Select "SLAV" by pressing [UP] or [DOWN] button.
2. Press [ENTER], the display shows "ON" or "OFF".
3. Press [UP] to select "ON" if you wish to enable this function or press [DOWN] to select "OFF" if you don't.
4. Press [ENTER] to confirm or press [MODE/ESC] to return to main menu.

EBOC - DMX address setting via controller

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

This function can only be activated when the DMX-value of all other channels is set to "0" on the controller.

Select "EBOC" by pressing [UP] or [DOWN].

Press [ENTER], the display shows "ON" or "OFF".

Press [UP] to select "ON" if you wish to enable this function or [DOWN] to select "OFF" if you don't.

Press [MODE/ESC] to confirm.

Press [ENTER] in order to return to the main menu.

On the controller, set the DMX-value of channel 1 to "7".

Set the DMX-value of channel 2 to "7" or "8". When set to "7" you can adjust the starting address between 1 and 255. When set to "8" you can adjust the starting address between 256 and 511.

Set the DMX-value of channel 3 to the desired starting address. If you want to set the starting address to 57, set channel 1 to "7", channel 2 to "7" and channel 3 to "57". If you want to set the starting address to 420, set channel 1 to "7", channel 2 to "8" and channel 3 to "164" (256+164=420).

Wait for approx. 20 seconds and the unit will carry out a reset. After that, the new starting address is set.

run

Program Run, Master setting

With the function "RUN", you can run the internal program. You can set the number of steps under Step. You can edit the individual scenes under Edit. You can run the individual scenes either automatically (AUTO), i.e. with the adjusted Step-Time or sound-controlled (SOUN). The selection "ALON" means Stand Alone-mode and "MAST" that the device is defined as master.

```
node - run - AUTO - ALON
          |
          +----- MAST
          |
          +----- SOUN - ALON
          |
          +----- MAST
```

1. Select "AUTO" or "SOUN" by pressing [UP] or [DOWN] button.
2. Press [ENTER] for selecting the desired extension menu.
3. Select "ALON" or "MAST" by pressing [UP] or [DOWN] button.
4. Press [ENTER] to confirm or Press [MODE/ESC] to return to the main menu.

d1SP

Display the DMX-value, Reverse display, Shut off LED display

```
node - d1SP - VALU - d-00
          |
          +----- rd15 - ON/OFF
          |
          +----- CLd1 - ON/OFF
```

VALU

Display the DMX 512 value of each channel

With this function you can display the DMX 512 value of each channel.

1. Select "VALU" by pressing [UP] or [DOWN] button.
2. Press [ENTER] to confirm; the display shows "D-00". In this setting, the DMX-adjustment of every channel will be displayed.
3. Press [UP] or [DOWN] button in order to select the desired channel. If you select "D-14" the display will only show the DMX-value of the 14th channel.
4. Press [ENTER] to confirm or Press [MODE/ESC] to return to the main menu.
5. The display shows "D-XX", "X" stands for the DMX-value of the selected channel.

rd15

Reverse display

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

1. Select "RD15" by pressing [UP] or [DOWN] button.

2. Press [ENTER], the display shows “ON” or “OFF”.
3. Press [UP] to select “ON” if you wish to enable this function or press [DOWN] button to “OFF” if you don’t; the display will rotate by 180° .
4. Press [ENTER] to confirm or Press [MODE/ESC] to return to the main menu.

CLDI - Shut off LED display

With this function you can shut off the LED display after 2 minutes.

1. Select "CLDI" by pressing [UP] or [DOWN] button.
2. Press [ENTER], the display shows “ON” or “OFF”.
3. Press [UP] to select “ON” if you wish to enable this function or press [DOWN] button to “OFF” if you don’t.
4. Press [ENTER] to confirm or Press [MODE/ESC] to return to the main menu.

LAMP - Main menu 1

```

LAMP - OPEN - ON/OFF
      |
      v
LAAU - ON/OFF
      |
      v
ONLI - ON/OFF
      |
      v
DELA - d-00
  
```

1. Press [MODE/ESC] to enter the main menu (display flashing).
2. Press [UP] or [DOWN] button to select “LAMP”.

OPEN - Lamp on/off

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

1. Select “OPEN” by pressing [UP] or [DOWN] button.
2. Press [ENTER], the display shows “ON” or “OFF”.
3. Press [UP] to select “ON” if you wish to enable this function or press [DOWN] button to “OFF” if you don’t.
4. Press [ENTER] to confirm or Press [MODE/ESC] to return to the main menu.

LAAU - Lamp automated on with power.

With this function you can set the lamp be ignited or not when the fixture is power on.

1. Select “LAAU” by pressing [UP] or [DOWN] button.
2. Press [ENTER], the display shows “ON” or “OFF”.
3. Press [UP] to select “ON” if you wish to enable this function or press [DOWN] button to “OFF” if you don’t.
4. Press [ENTER] to confirm or Press [MODE/ESC] to return to the main menu.

ONLI - Lamp on/off via external controller

With this function you can switch the lamp on or off via an external controller.

1. Select “ONLI” by pressing [UP] or [DOWN] button.
2. Press [ENTER], the display shows “ON” or “OFF”.
3. Press [UP] to select “ON” if you wish to enable this function or press [DOWN] button to “OFF” if you don’t.
4. Press [ENTER] to confirm or Press [MODE/ESC] to return to the main menu.

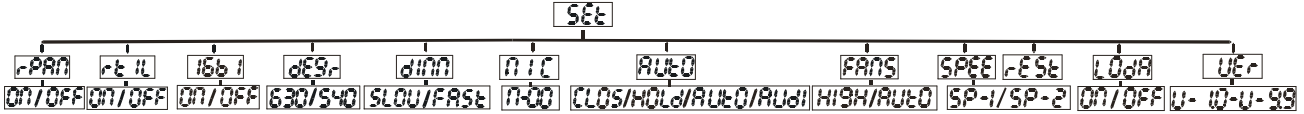
DELA - Delay lamp on

With this function you can delay the lamp ignition.

1. Select “DELA” by pressing [UP] or [DOWN] button.

2. Press [ENTER], the display shows “ON” or “OFF”.
3. Press [UP] to select “ON” if you wish to enable this function or press [DOWN] button to “OFF” if you don’t.
4. Press [ENTER] to confirm or Press [MODE/ESC] to return to the main menu.

SEt - Main menu 2



1. Press [MODE/ESC] to enter the main menu (display flashing).
2. Press [UP] or [DOWN] button. to select “SET”.

rPAN - Pan Reverse

With this function you can reverse the Pan-movement.

1. Select “RPAN” by pressing [UP] or [DOWN] button.
2. Press [ENTER], the display shows “ON” or “OFF”.
3. Press [UP] to select “ON” if you wish to enable this function or press [DOWN] button to “OFF” if you don’t.
4. Press [ENTER] to confirm or Press [MODE/ESC] to return to the main menu.

rtIL - Tilt Reverse

With this function you can reverse the Tilt-movement.

1. Select “RTIL” by pressing [UP] or [DOWN] button.
2. Press [ENTER], the display shows “ON” or “OFF”.
3. Press [UP] to select “ON” if you wish to enable this function or press [DOWN] button to “OFF” if you don’t.
4. Press [ENTER] to confirm or Press [MODE/ESC] to return to the main menu.

16b1 - Switch 16 bit/8 bit

With this function you can switch the device from 16 bit to 8 bit resolution.

1. Select “16BI” by pressing [UP] or [DOWN] button.
2. Press [ENTER], the display shows “ON” or “OFF”.
3. Press [UP] to select “ON” if you wish to enable this function or press [DOWN] button to “OFF” if you don’t.
5. Press [ENTER] to confirm or Press [MODE/ESC] to return to the main menu.

dEGr - Pan degree select

With this function you can select pan angle 630° or 540°.

1. Select “DEGR” by pressing [UP] or [DOWN] button.
2. Press [ENTER], the display shows “630” or “540”.
3. Press [UP] to select “630” or press [DOWN] button to select “540”.
4. Press [ENTER] to confirm or Press [MODE/ESC] to return to the main menu.

dImM - Dimmer speed select

With this function you can select dimmer speed “slow” and “fast”.

1. Select “DIMM” by pressing [UP] or [DOWN] button.
2. Press [ENTER], the display shows “SLOW” or “FAST”.
3. Press [UP] or [DOWN] button to select “SLOW” or “FAST”.
4. Press [ENTER] to confirm or Press [MODE/ESC] to return to the main menu.

MIC - Mic sensitivity

With this function you can adjust the sensitivity of the microphone.

1. Select "MIC" by pressing [UP] or [DOWN] button.
2. Press [ENTER], the display shows "M-XX", "XX" stands for the number from 0 to 99.
3. Press [ENTER] to confirm or Press [MODE/ESC] to return to the main menu.

AUTO -Automatic Run by no DMX

With this function you can automatic run the device by no DMX.

1. Select "AUTO" by pressing [UP] or [DOWN] button.
2. Press [ENTER], the display shows "CLOS", "HOLD", "AUTO" or "AUDI".
3. Press [UP] or [DOWN] button to select "CLOS", "HOLD", "AUTO" or "AUDI", the default is "HOLD".
4. Press [ENTER] to confirm or Press [MODE/ESC] to return to the main menu.

FANS - Fan's mode select

With this function you can select the Fan's mode.

1. Select "FANS" by pressing [UP] or [DOWN] button.
2. Press [ENTER], the display shows "HIGH" or "AUTO".
3. Select "HIGH" or "AUTO" by pressing [UP] or [DOWN] button.
4. Press [ENTER] to confirm or Press [MODE/ESC] to return to the main menu.

SPEE - Movement mode select

With this function you can select the movement mode.

1. Select "SPEE" by pressing [UP] or [DOWN] button.
2. Press [ENTER], the display shows "SP-1" or "SP-2".
3. Select "SP-1" or "SP-2" by pressing [UP] or [DOWN] button.
4. Press [ENTER] to confirm or Press [MODE/ESC] to return to the main menu..

REST - Reset

With this function you can reset the device via the Control Board.

1. Select "REST" by pressing [UP] or [DOWN] button.
2. Press [ENTER] to reset or Press [MODE/ESC] to return to the main menu.

LODA - Restore factory settings

With this function you can restore the factory settings of the device. All settings will be set back to the default values (shaded). Any edited scenes will be lost.

1. Select "LODA" by pressing [UP] or [DOWN] button.
2. Press [ENTER], the display shows "ON" or "OFF".
3. Press [UP] to select "ON" if you wish to enable this function or press [DOWN] button to "OFF" if you don't.
4. Press [ENTER] to confirm or Press [MODE/ESC] to return to the main menu.

VER - Software version

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

1. Select "VER" by pressing [UP] or [DOWN] button.
2. Press [ENTER], The display will show "V-XX", "XX" stands for the version number, such as the display may also show, "V-2.0", "V-9.9" etc.
3. Press [ENTER] to confirm or Press [MODE/ESC] to return to the main menu.

ADJU - Main menu 3

ADJU - LAdj - ON/OFF
 TEST - T-01 - T-30
 |
 WHEL - CODE - C000
 CH01-CH30

1. Press [MODE/ESC] to enter the main menu (display flashing).
2. Press [UP] or [DOWN] button to select “ADJU”.

LAdj - Lamp adjustment

With this function you can adjust the lamp via the Control Board. The shutter opens and the lamp can be adjusted. In this mode, the device will not react to any control signal.

1. Select “LADJ” by pressing [UP] or [DOWN] button.
2. Press [ENTER], the display shows “ON” or “OFF”.
3. Press [UP] to select “ON” if you wish to enable this function or press [DOWN] button to select “OFF” if you don’t.
4. Press [ENTER] to confirm or Press [MODE/ESC] to return to the main menu.

TEST - Test function of each channel

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

1. Select “TEST” by pressing [UP] button.
2. Press [ENTER], the display shows “T-XX”, “X” stands for the channel number.
3. The current channel will be tested.
4. Select the desired channel by pressing [UP] or [DOWN] button.
5. Press [ENTER] to confirm or Press [MODE/ESC] to return to the main menu.

WHEL - Fixture code and motor fix

1. Select “WHEL” by pressing [UP] or [DOWN] button.
2. Press [ENTER], the display shows “CODE” or “CH01-CH30”.
4. Select “CODE” or “CH01-CH30” by pressing [UP] or [DOWN] button.
5. Press [ENTER] to confirm or Press [MODE/ESC] to return to the main menu.

TINE - Main menu 4

TINE - NAT 1 - 0000-9999
 LAT 1 - 0000-9999
 CLNT - ON/OFF
 CLLE - ON/OFF

1. Press [MODE/ESC] to enter the main menu (display flashing).
2. Press [UP] or [DOWN] button to select “TIME”.

NAT 1 - Fixture running time

With this function you can display the running time of the device.

1. Select **"MATI"** by pressing [UP] or [DOWN] button.
2. Press [ENTER], the display shows **"XXXX"**, "X" stands for the number of hours.
3. Press [ENTER] to confirm or Press [MODE/ESC] to return to the main menu.

LAT 1 - Lamp running time

With this function you can display the running time of the lamp.

1. Select **"LATI"** by pressing [UP] button.
2. Press [ENTER], the display shows **"XXXX"**, "X" stands for the number of hours.
3. Press [MODE/ESC] to return to the main menu.

CLMT - Clear fixture time

With this function you can clear the running time of the device.

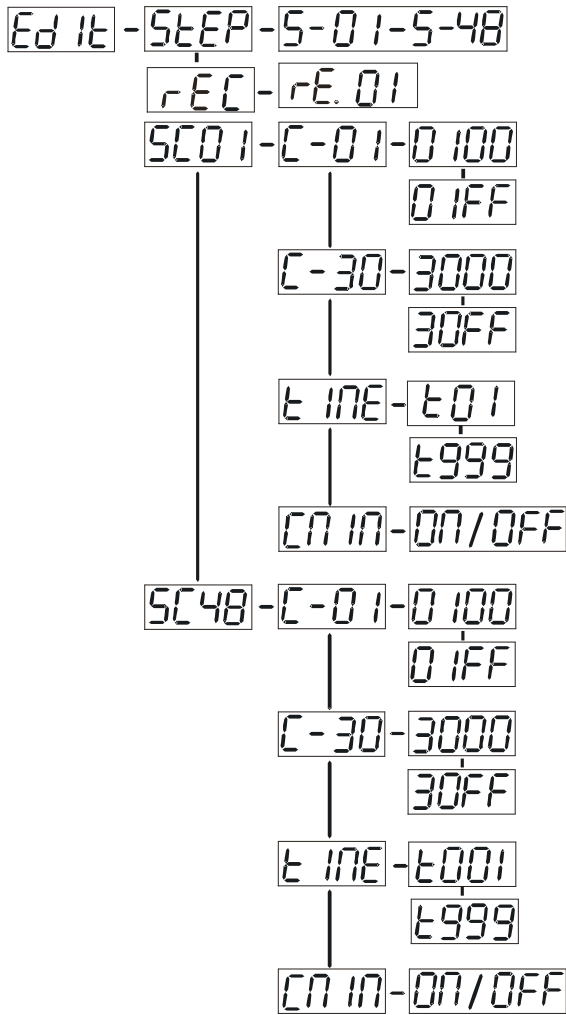
1. Select **"CLMT"** by pressing [UP] or [DOWN] button.
2. Press [ENTER], the display shows **"ON"** or **"OFF"**.
3. Press [UP] to select **"ON"** if you wish to enable this function or press [DOWN] button to **"OFF"** if you don't.
4. Press [ENTER] to confirm or Press [MODE/ESC] to return to the main menu.

CLLE - 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. Select **"CLLT"** by pressing [UP] or [DOWN] button.
2. Press [ENTER], the display shows **"ON"** or **"OFF"**.
3. Press [UP] to select **"ON"** if you wish to enable this function or press [DOWN] button to **"OFF"** if you don't.
4. Press [ENTER] to confirm or Press [MODE/ESC] to return to the main menu.

Ed It - Main menu 5



1. Press [MODE/ESC] to enter the main menu (display flashing).
2. Press [UP] or [DOWN] button to select “EDIT”.

STEP - Define the number of steps in Run

With this function you can define the number of steps in the Program Run.

1. Select “STEP” by pressing [UP] or [DOWN] button.
2. Press [ENTER], the display shows “S-XX”, “X” stands for the total amount of steps you want to save, so you can call up to 48 scenes in “RUN”. For example if the “XX” is 05, it means that “RUN” will run the first 5 scenes you saved in “EDIT”.
3. Press [ENTER] to confirm or Press [MODE/ESC] to return to the main menu.

REC -Auto Save

With this function you can automatic save the number of steps in the Program Run.

1. Select “REC” by pressing [UP] or [DOWN] button.
2. Press [ENTER], the display shows “RE.XX”, “XX” stands for the number from 1 to 400.
2. Press [ENTER] to confirm or Press [MODE/ESC] to return to the main menu.

SC01 - Editing the channels of the individual scenes

With this function you can edit the program to be called up in Run.

a) Editing via the Control Board

1. Select “SC01” by pressing [UP] or [DOWN] button.
2. Press [ENTER], the display shows “SCXX”, “X” stands for the scene no. to be edited.
3. Change the scene no. by pressing [UP] or [DOWN] button.
4. Press [ENTER], the display shows “C-X”, “X” stands for the channel no. Such as “C-01”, it means you are editing channel 1 of the selected scene.
5. Select the channel no. you would like to edit by pressing [UP] or [DOWN] button.
6. Press [ENTER] to enter editing for the selected channel, the fixture reacts to your settings. The display shows the DMX value of the edited channel. Such as “11XX”, it stands for in the channel 11 of the editing scene, the DMX value is XX, XX is a hexadecimal number value “01-FF”.
7. Adjust the desired DMX value by pressing [UP] or [DOWN] button.
8. Press [ENTER] in order to edit other channels of this scene.
9. Repeat steps 5-9 until you finish setting all the DMX values for all channels of this scene.
10. Once all the channels completed, the display will flash “TIME”
11. Press [ENTER] to edit the time needed, the display shows “TXXX” , “XXX” stands for the time needed to run the current scene, value “001-999”. E.g., “002” means you need 0.4ms (002*0.2ms) to run the current scene. Adjust the desired time by pressing [UP] or [DOWN] button.
12. Press [ENTER] to save the settings for the scene you are editing, the display will change to the next scene automatically.

13. Repeat step 3-14 to edit and other scenes, you can edit and save a maximum of 48 scenes.
14. Press [MODE/ESC] to exit. The number of steps can be defined under "STEP" and the scenes can be called up under "RUN"

b) Editing via the external controller

Call up the first scene in your controller now.

1. Select "SC01" by pressing [UP] or [DOWN] button.
2. Press [ENTER], the display shows "SC01".
3. Press [ENTER], the display shows "C-01".
4. Select "CNIN" by pressing [UP] or [DOWN] button.
5. Press [ENTER], the display shows "OFF".
6. Press [UP] or [DOWN] button .the display shows "ON".
7. Press [ENTER], the display shows "SC02". You successfully downloaded the first scene.
8. Adjust the Step-time as described above under point 12.
9. Call up the second scene in your controller now.
10. Repeat steps 5-11 until all desired scenes are downloaded.
11. Press [MODE/ESC] to exit. The number of steps can be defined under "STEP" and the scenes can be called up under "RUN"

DMX channel's functions and their values (17 DMX channels):

Channel 1 - Color Wheel 1:

0-15	Open / white
16-31	Color 1
32-47	Color 2
48-63	Color 3
64-79	Color 4
80-95	Color 5
96-111	Color 6
112-127	Color 7
128-187	Forwards rainbow effect from fast to slow
188-193	No rotation
194-255	Backwards rainbow effect from slow to fast

Channel 2 - Rotating gobos, cont. rotation :

0-9	Open
10-19	Rot. gobo 1 (dichroic multicolor)
20-29	Rot. gobo 2 (glass)
30-39	Rot. gobo 3 (metal)
40-49	Rot. gobo 4 (metal)
50-59	Rot. gobo 5 (metal)
60-69	Rot. gobo 6 (metal)
70-89	Gobo 1 shake slow to fast
90-109	Gobo 2 shake slow to fast
110-129	Gobo 3 shake slow to fast

130-149 Gobo 4 shake slow to fast
150-169 Gobo 5 shake slow to fast
170-189 Gobo 6 shake slow to fast
190-255 Rot. gobo wheel cont. rotation slow to fast

Channel 3 - Rotating gobo index, rotating gobo rotation :

0-127 Gobo indexing
128-187 Forwards gobo rotation from fast to slow
188-193 No rotation
194-255 Backwards gobo rotation from slow to fast

Channel 4- 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

Channel 5 - PAN movement 8bit :

Channel 6 - TILT movement 8bit :

Channel 7 - 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

Channel 8- 3 facet rotating prism, Prism / Gobo macros:

0-3 Open

4-63	Forwards rotation from fast to slow
64-67	No rotation
68-127	Backwards rotation from slow to fast
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

Channel 9 – Focus & Zoom:

0-85	Zoom1 & Continuous adjustment from far to near
86-171	Zoom2 & Continuous adjustment from far to near
172-255	Zoom3 & Continuous adjustment from far to near

Channel 10 - 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)

Channel 11- Dimmer (intensity):

0-255	Intensity 0 to 100%
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Channel 12 – Iris:

0-191	Max. diameter to Min.diameter
192-223	Pulse opening fast to slow

224-255 Pulse closing slow to fast

Channel 13 –Frost:

0-191 Frost 0~100%
192-223 Pulse opening fast to slow
224-254 Pulse closing slow to fast
255 100% Frost

Channel 14 - Color Wheel 2 :

0-15 Open / white
16-31 Color 1
32-47 Color 2
48-63 Color 3
64-79 Color 4
80-95 Color 5
96-111 Color 6
112-127 Color 7
128-187 Forwards rainbow effect from fast to slow
188-193 No rotation
194-255 Backwards rainbow effect from slow to fast

Channel 15– 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 Lamp on
60-79 Lamp switch off
80-99 Motor reset
100-119 Internal program 1
120-139 Internal program 2
140-159 Internal program 3
160-179 Internal program 4
180-199 Internal program 5
200-219 Internal program 6
220-239 Internal program 7
240-255 Internal program 8

Channel 16 – Pan fine 16bit

Channel 17– Tilt fine 16bit

ERROR MESSAGE

When you turn on the fixture, it will make a reset first. The display may show “Xer” while there are problems with one or more channels. “XX” stands for channel 1,2,3,4,5,6,8,9,12,14 who has the testing sensor for positioning . For example, when the display shows “02Er”, it means there is some error in channel 2. If there are some errors on channel 1, channel 2, channel 5 at the same time, you may see the error message “01Er”, “02Er”, “05Er” flash repeated for 5 times, and then the fixture will generate a reset signal, all the stepper reset. If the fixture remain error message after performing reset more than 3 times, it will detect whether the fixture has more than 3 errors. If the fixture has more than 3 errors (including 3 errors), all the channels can not work properly; but if the fixture has less than 3 errors, only the channels which have errors can not work properly, others can work as usual.

01Er:

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

02Er:

(Rotating gobo-wheel error) This message will appear after the reset of the fixture if the magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepping-motor is defective (or its drive circuit on the main PCB). The rotating gobo-wheel is not located in the default position after the reset.

03Er:

(Gobo rotating error) This message will appear after the reset of the fixture and if the magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepping-motor is defective (or its driver circuit on the main PCB). The rotating gobo is not located in the default position after the reset.

04Er:

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

05Er:

(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 yoke is not located in the default position after the reset.

06Er:

(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 head is not located in the default position after the reset.

08Er:

(Prism-wheel error) This message will appear after the reset of the fixture and if the magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepping-motor is defective (or its driver circuit on the main PCB). The rotating gobo is not located in the default position after the reset.

09Er:

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

12Er:

(Iris error) This message will appear after the reset of the fixture and if the magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepping-motor is defective (or its driver circuit on the main PCB). The iris

is not located in the default position after the reset.

14Er:

(Color wheel 2) This message will appear after the reset of the fixture and if the magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepping-motor is defective (or its driver circuit on the main PCB). The color wheel 2 is not located in the default position after the reset.

CLEANING AND MAINTENANCE

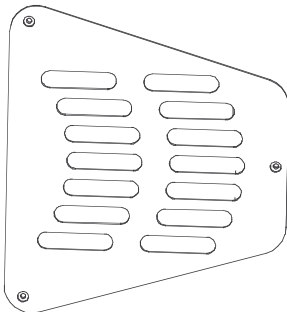
The following points have to be considered during the inspection:

- 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).
- 4) Mechanically moved parts must not show any traces of wearing and must not rotate with unbalances.
- 5) 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.

6) How to clean dust-proof filter:

To prevent from blocking ventilation system. Please clean the dust-proof filter termly. the clean procedure is shown as bellow: (three months per clean time).



Step 1: Unscrew the fixation screws of the housing cover.

Step 2: Remove the housing cover.

Step 3: Remove the dust protection filters and clean them.

Step 4: Replace the dust protection filters in the housing and tighten the fixation screws.

Step 5: Replace the housing cover and tighten the fixation screws.



CAUTION

Disconnect from mains before starting maintenance c

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.

TECHNICAL SPECIFICATIONS

Power supply:

100VAC,50Hz; 120VAC, 50Hz; 208VAC, 50Hz; 220VAC,50Hz; 230VAC,50Hz; 240VAC, 50Hz;
 100VAC,60Hz; 120VAC,60Hz; 208VAC, 60Hz; 220VAC,60Hz; 230VAC,60Hz; 240VAC,60Hz;

Power consumption: max. 950W

Lamp: PHILIPS MSR 700/2

Packing dimensions: 72 x 56 x 60 cm

Net weight: 37.5KG

Gross weight: 44.5KG

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