

USER MANUAL

eurolite®

LED TMH-X4

Moving Head Wash Zoom

**DANGER! Electric shock caused by short-circuit**

Be careful with your operations. With a dangerous voltage you can suffer a dangerous electric shock when touching the wires. Never open the housing. Keep the device away from rain and moisture.



Please read these instructions carefully before using the product. They contain important information for the correct use of the product.

Every person involved with the installation, operation and maintenance of this device has to

- be qualified
- follow the instructions of this manual
- consider this manual to be part of the total product
- keep this manual for the entire service life of the product
- pass this manual on to every further owner or user of the product
- download the latest version of the user manual from the Internet

INTRODUCTION

Thank you for having chosen one of our products. If you follow the instructions given in this manual, we are sure that you will enjoy this device for a long period of time.

Product features

Washlight with 19 intense 15 W LEDs (4in1) and motorized zoom

- Subdivided into 3 segments, which can be controlled individually via DMX
- Positioning within 540° PAN and 270° TILT
- Stepless color blend, color change
- Strobe effect with adjustable speed
- Random strobe effect
- Electronic dimmer (0-100%)
- Automatic position correction
- Exact positioning via 16 bit PAN/TILT movement resolution
- Mains input and output for power linking up to 8 units
- 19 powerful LEDs 15 W COB (chip-on-board) 4in1 QCL RGBW (homogenous color mix)
- Integrated show programs
- Can be operated in 16; 24 CH mode
- The device is cooled by temperature-controlled fan at the Head; cooling fan at the Base
- Controlling by stand-alone; DMX; Sound to light via Microphone; Master/slave function; QuickDMX via USB (optional); W-DMX by wireless solution via USB (optional); CRMX by LumenRadio via USB (optional)
- Preprogrammed in Light'J; LED PC-Control 512; EASY SHOW 1; Light Captain
- Flicker-free
- With a beam angle of 1° - 40°
- Multicolor LCD display

Package contents

- 1 x moving light, 1 x user manual, 1 x power cord, 2 x omega bracket

SAFETY INSTRUCTIONS



WARNING!

Please read the safety warnings carefully and only use the product as described in this manual to avoid accidental injury or damage.

Intended use

- This device is a Moving Head for creating decorative lighting effects. This device is designed for professional use in the field of event technology, e.g. on stage. It is not suitable for household lighting.
- Only use the device according to the instructions given herein. Damages due to failure to follow these operating instructions will void the warranty! We do not assume any liability for any resulting damage.
- We do not assume any liability for material and personal damage caused by improper use or non-compliance with the safety instructions. In such cases, the warranty will be null and void.
- Unauthorized rebuilds or modifications of the device are not permitted for reasons of safety and render the warranty invalid.

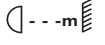
Danger due to electricity

- The device is suitable for indoor use only. Do not use it outdoors. Never expose it to rain or moisture. Do not store it in rooms exposed to moisture.
- To reduce the risk of electric shock, do not open any part of the device. There are no serviceable parts inside the device.
- Only connect the device to a properly installed mains outlet. The outlet must be protected by residual current breaker (RCD). The voltage and frequency must exactly be the same as stated on the device. If the mains cable is equipped with an earthing contact, then it must be connected to an outlet with a protective ground. Never deactivate the protective ground of a mains cable. Failure to do so could possibly injure the user.
- The mains outlet must be easily accessible so that you can unplug the device quickly if need be.
- Never touch the mains plug with wet or damp hands. There is the risk of potentially fatal electric shock.
- The mains cable must not be bent or squeezed. Keep it away from hot surfaces or sharp edges.
- Never pull the mains cable to disconnect the mains plug from the mains outlet, always seize the plug.
- Unplug the device during lightning storms, when unused for long periods of time or before cleaning.
- Do not expose the device to any high temperatures, direct sunlight, dripping or splashing water, strong vibrations or heavy mechanical stress.
- Do not place any objects filled with liquids on the device.
- Do not place any open sources of fire, such as burning candles, on or directly next to the device.
- Make sure that objects cannot fall into the device, in particular metal parts.
- Only have repairs to the device or its mains cable carried out by qualified service personnel. Repairs are required when the device or the mains cable is visibly damaged, liquid has been spilled or objects have fallen into the device; when the device has been exposed to rain or moisture, has been dropped or malfunctions occur.
- Cleaning of the device is limited to the surface. Make sure that moisture does not come into contact with any areas of the terminal connections or mains voltage control parts. Only wipe off the product with a soft lint-free and moistened cloth. Never use solvents or aggressive detergents.

Danger to children and people with restricted abilities

- This product is not a toy. Keep it out of the reach of children and pets. Do not leave packaging material lying around carelessly. Never leave this device running unattended.
- This device may be used only by persons with sufficient physical, sensorial, and intellectual abilities and having corresponding knowledge and experience. Other persons may use this device only if they are supervised or instructed by a person who is responsible for their safety.

Warning – risk of burns and fire

- The admissible ambient temperature range (T_a) is -5 to +45°C. Do not operate the device outside of this temperature range.
- The housing temperature (T_c) can be up to 55°C during use. Avoid contact by persons and materials.
- Do not illuminate surfaces within 0.2 m of the device. This value is indicated on the device by the  symbol.
- Do not use the device near highly flammable materials. Always place the device at a location where sufficient air circulation is ensured. Leave 50 cm of free space around the device. Never cover the air vents of the housing.

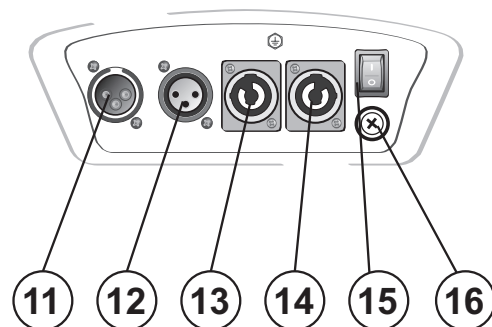
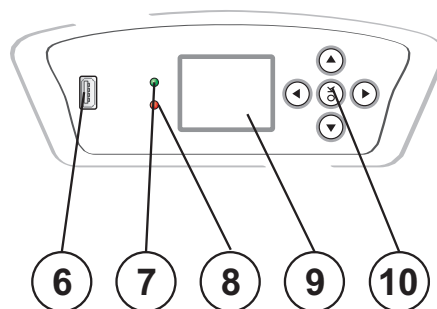
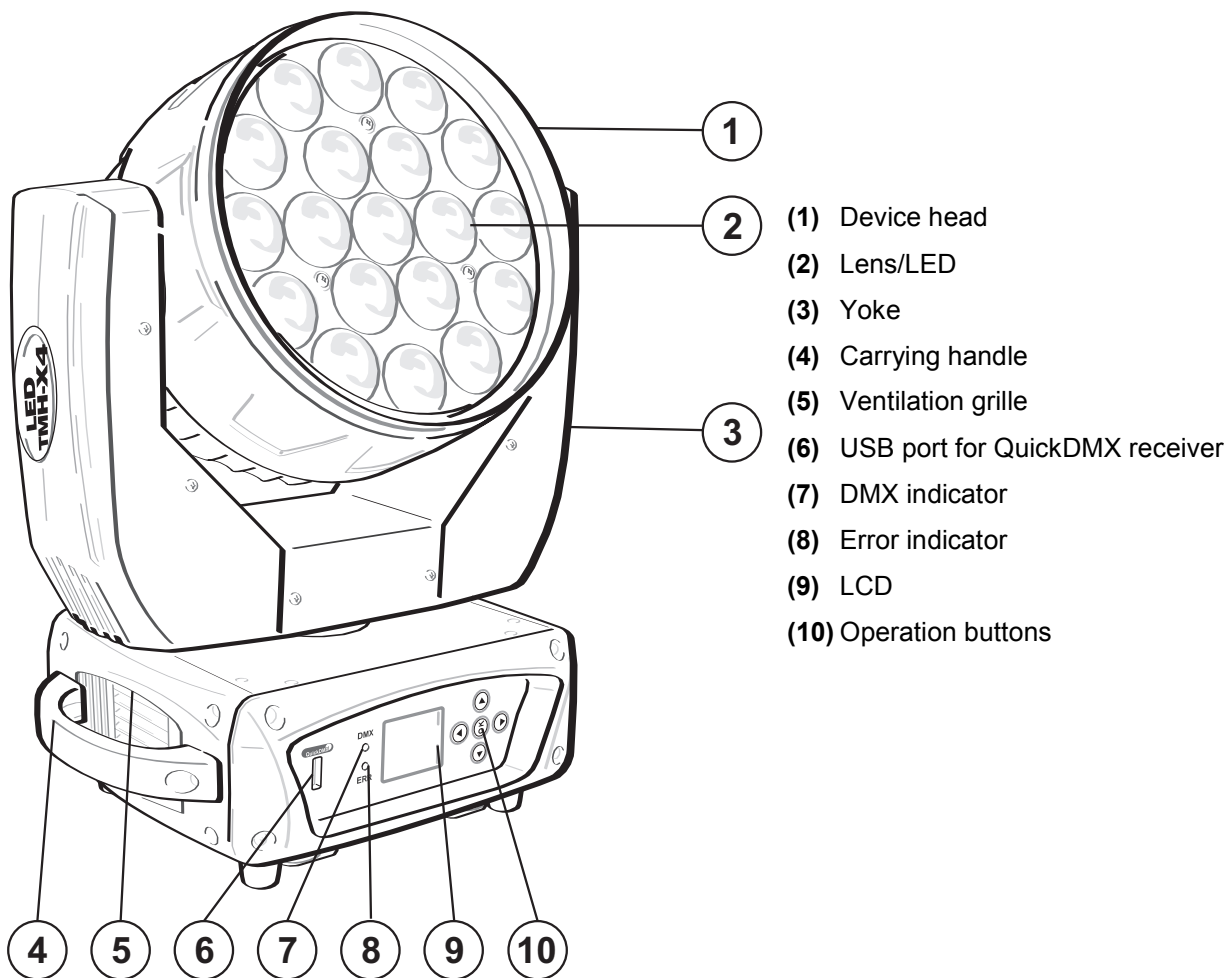
Warning – risk of injuries

- Do not look directly at the light source. Persons with light-sensitive epilepsy may suffer from epileptic seizures or fall unconscious.
- Make sure that the product is set up or installed safely and expertly and prevented from falling down. Comply with the standards and rules that apply in your country, in particular EN 60598-2-17.
- If you lack the qualification, do not attempt the installation yourself, but instead use a professional installer. Improper installation can result in bodily injury and or damage to property.
- The manufacturer cannot be made liable for damages caused by incorrect installations or insufficient safety precautions.
- For overhead use, always secure the device with a secondary safety attachment such as a safety bond or safety net.
- Make sure that the area below the installation place is blocked when rigging, derigging or servicing the device.
- For commercial use the country-specific accident prevention regulations of the government safety organization for electrical facilities must be complied with at all times.

Caution – material damage

- This device must not be connected to the mains voltage by means of a dimmer.
- Lighting effects are not designed for permanent operation. Consistent operation breaks will ensure that the device will serve you for a long time without defects.
- Never switch the device on and off in short intervals. This will considerably reduce the service life of the device.
- If the device has been exposed to drastic temperature fluctuation, do not switch it on immediately. The resulting condensation may destroy the device. Allow the device to reach room temperature before connecting it. Wait until the condensation has evaporated.
- Please use the original packaging to protect the device against vibration, dust and moisture during transportation or storage.
- If a serial number label is affixed to the device, do not remove the label as this would make the warranty void.
- Never lift the fixture by holding it at the device-head, as the mechanics may be damaged. Always hold the fixture at the transport handles.

DESCRIPTION OF THE DEVICE



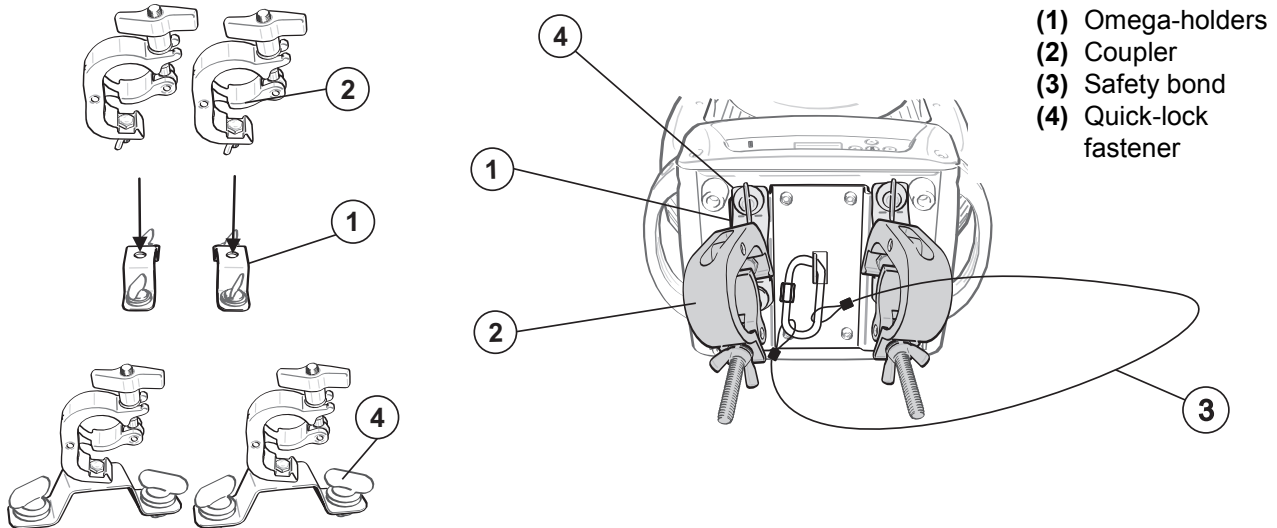
- (11) DMX input
- (12) DMX output
- (13) Power input
- (14) Power output
- (15) Power switch
- (16) Fuseholder

INSTALLATION



WARNING! Risk of injury caused by falling objects

Devices in overhead installations may cause severe injuries when crashing down. Make sure that the device is installed securely and cannot fall down. The installation must be carried out by a specialist who is familiar with the hazards and the relevant regulations.

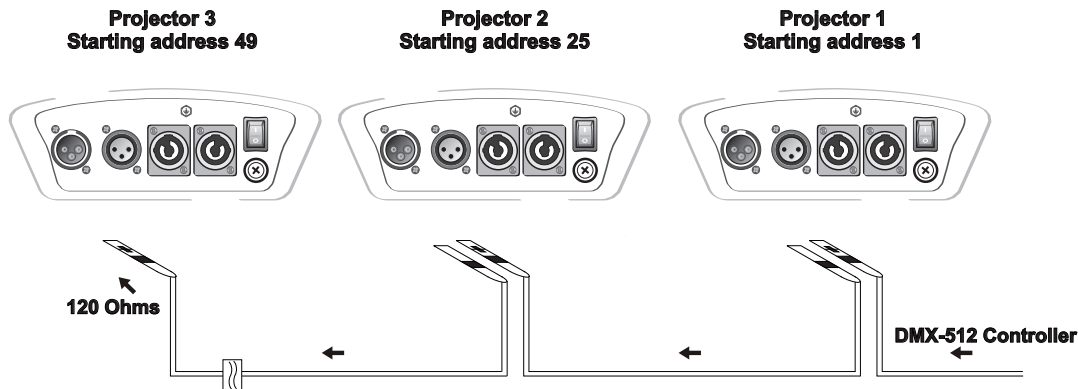


The device can be fastened via its base to a truss or similar rigging structure in any orientation without altering its operation characteristics. The device must never be fixed swinging freely in the room.

- 1 The rigging structure must support at least 10 times the weight of all fixtures to be installed on it.
- 2 Block access below the work area and work from a stable platform when installing the device.
- 3 Use rigging hardware that is compatible with the structure and capable of bearing the weight of the device. Please refer to the "Accessories" section for a list of suitable rigging hardware and follow the instructions mentioned at the bottom of the base. Screw one coupler each via a M10 screw and self-locking nut onto the Omega-holders. Insert the two quick-lock fasteners of the Omega-holders into the respective holes on the bottom of the device. Tighten the quick-lock fasteners fully clockwise.
- 4 Secure the device with a safety bond or other secondary attachment. This secondary safety attachment must be sufficiently dimensioned in accordance with the latest industrial safety regulations and constructed in a way that no part of the installation can fall down if the main attachment fails. Install the safety bond by inserting the quick link in the eyelet on the bottom of the base. Pull the safety bond over the trussing system etc. Insert the end in the quick link and tighten the fixation screw. Fasten the safety bond in such a way that, in the event of a fall, the maximum drop distance of the device will not exceed 20 cm.
- 5 After installation, the device requires inspections periodically to prevent the possibility of rot, deformation and looseness.

CONNECTIONS

DMX512 connection / connection between fixtures



The wires must not come into contact with each other; otherwise the fixtures will not work at all, or will not work properly.

Please note the starting address depends upon which controller is being used.

DMX512 control

A DMX512 data link is required in order to control the device via DMX. The device provides 3-pin XLR connectors for DMX connection.

1. Connect the output of your DMX controller to the DMX input DMX IN of the device with a DMX cable.
2. Connect the DMX output DMX OUT of the device to the DMX input of the next unit in the chain. Always connect one output to the input of the next unit until all units are connected.
3. At the last unit, the DMX cable has to be terminated. Plug the terminator with a 120 Ω resistor between Signal (-) and Signal (+) in the DMX output of the last unit.

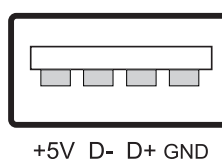
XLR connection:



Wireless DMX transmission with QuickDMX

The device features an alternative DMX input for a QuickDMX receiver (sold separately). CRMX and WDMX receivers are compatible and can also be used. The connector allows a DMX control signal to be transmitted wirelessly to the device, eliminating the need for complex wiring to the DMX controller. The connector is designed as a USB port which provides the required 5 V operating voltage for the receiver.

Occupation of the USB port:



Connection to the mains

The device uses an auto-range power supply that accepts input voltages between 100 und 240 volts.

- 1 Connect the device via the enclosed mains cable to a grounded mains socket.
- 2 Do not connect the unit to the mains voltage via a dimmer. For a more convenient operation, use a mains outlet which is switchable.

Power supply of further devices

The jack POWER OUT allows for power supply of further devices. To interconnect several devices, connect the jack POWER OUT to the input POWER IN of the next unit until all units are connected. Matching power cables with P-Con plugs are available as accessories. In this manner, up to 8 devices can be linked at 230/240 input voltage and up to 4 devices at 110/115 input voltage.

OPERATION

With the power switch, you can switch the device on and off.

After you connected the effect to the mains, the device starts running. During the Reset, the motors are trimmed and the device is ready for use afterwards.

Stand-alone operation

In stand-alone mode, the LED TMH-X4 can be used without controller. Disconnect the LED TMH-X4 from the controller and call up the internal program. Please refer to the instructions under *Control Board*.

Master/Slave operation

The master/slave operation enables that several devices can be synchronized and controlled by one master device.

On the rear panel of the device you can find an XLR-jack (DMX Out) and an XLR-plug (DMX In), which can be used for connecting several devices.

Choose the device which is to control the effects. This device then works as master device and controls all other slave-devices, which are to be connected to the master device via a DMX cable. Connect the DMX OUT-jack with the DMX IN-plug of the next device.

Set the desired Master mode "Slow", "Fast", "Sound" or "Manual" for the master device. Set the respective mode "DMX" for all slave-devices. Please refer to the instructions under *Control Board*.

DMX-controlled operation

You can control the devices individually via your DMX controller. Every DMX channel has a different occupation with different features. The individual channels and their features are listed under *DMX protocol*.

The device has two DMX channel modes. The Control Board allows you to assign the DMX channel mode.

Addressing

The Control Board allows you to assign the DMX starting address, which is defined as the first channel from which the LED TMH-X4 will respond to the controller.

If you set, for example, the address in the 24 channel mode to channel 25, the LED TMH-X4 will use the channel 25 to 48 for control.

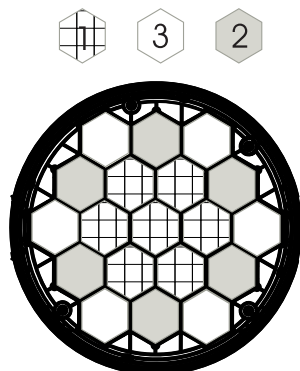
Please, be sure that you don't have any overlapping channels in order to control each LED TMH-X4 correctly and independently from any other fixture on the DMX-chain. If several LED TMH-X4 are addressed similarly, they will work synchronically.

Note:

After switching on, the device will automatically detect whether DMX 512 data is received or not. If there is data received at the DMX-input, the DMX indicator next to the display will light up. If there is no data received, the DMX indicator will not light up.

This situation can occur if:

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



The LEDs of the device are arranged in three different segments (see graphic) and can be individually controlled with the following DMX-protocol.

DMX protocol**16 channel mode**

Channel	Value		Feature
1			Horizontal movement (PAN)
	0	255	Push slider up in order to move the head horizontally (PAN). Gradual head adjustment from one end of the slider to the other (0-255, 128-center). The head can be stopped at any position you wish.
2			PAN-movement with 16-bit resolution
	0	255	Fine indexing
3			Vertical movement (TILT)
	0	255	Push slider up in order to move the head vertically (TILT). Gradual head adjustment from one end of the slider to the other (0-255, 128-center). The head can be stopped at any position you wish.
4			TILT-movement with 16-bit resolution
	0	255	Fine indexing
5			PAN/TILT speed
	0	0	No function
	1	255	Decreasing speed
6			Dimmer intensity
	0	255	Gradual adjustment of the dimmer intensity from 0 to 100 %
7			Strobe
	0	3	No function
	4	95	Strobe effect with increasing speed
	96	176	Random strobe effect
	177	255	Pulse-effect in sequences (Thunder strobe)
8			Red
	0	255	Red 0 - 100 % increasing
9			Green
	0	255	Green 0 - 100 % increasing
10			Blue

	0	255	Blue 0 - 100 % increasing
11	White		
	0	255	White 0 - 100 % increasing
12	Zoom		
	0	255	Gradual adjustment from big to small
13	No function		
14	Color change speed		
	0	255	Decreasing speed
15	Function control		
	0	49	Channels 1 to 12
	50	99	Color change
	100	149	Internal program 1
	150	199	Internal program 2
	200	255	Music control
16	Reset		
	0	250	No function
	251	255	Reset

24 channel mode

Channel	Value		Feature
1	Horizontal movement (PAN)		
	0	255	Push slider up in order to move the head horizontally (PAN). Gradual head adjustment from one end of the slider to the other (0-255, 128-center). The head can be stopped at any position you wish.
2	PAN-movement with 16-bit resolution		
	0	255	Fine indexing
3	Vertical movement (TILT)		
	0	255	Push slider up in order to move the head vertically (TILT). Gradual head adjustment from one end of the slider to the other (0-255, 128-center). The head can be stopped at any position you wish.
4	TILT-movement with 16-bit resolution		
	0	255	Fine indexing
5	PAN/TILT speed		
	0	0	No function
	1	255	Decreasing speed
6	Zoom		
	0	255	Gradual adjustment from big to small
7	Dimmer intensity		
	0	255	Gradual adjustment of the dimmer intensity from 0 to 100 %
8	Strobe		
	0	3	No function
	4	95	Strobe effect with increasing speed
	96	176	Random strobe effect
	177	255	Pulse-effect in sequences (Thunder strobe)
9	Red 1		
	0	255	Red 0 - 100 % increasing
10	Green 1		

	0	255	Green 0 - 100 % increasing
11			Blue 1
	0	255	Blue 0 - 100 % increasing
12			White 1
	0	255	White 0 - 100 % increasing
13			Red 2
	0	255	Red 0 - 100 % increasing
14			Green 2
	0	255	Green 0 - 100 % increasing
15			Blue 2
	0	255	Blue 0 - 100 % increasing
16			White 2
	0	255	White 0 - 100 % increasing
17			Red 3
	0	255	Red 0 - 100 % increasing
18			Green 3
	0	255	Green 0 - 100 % increasing
19			Blue 3
	0	255	Blue 0 - 100 % increasing
20			White 3
	0	255	White 0 - 100 % increasing
21			No function
22			Color change speed
	0	255	Decreasing speed
23			Function control
	0	49	Channels 1 to 12
	50	99	Color change
	100	149	Internal program 1
	150	199	Internal program 2
	200	255	Music control
24			Reset
	0	250	No function
	251	255	Reset

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 OK until the display is lit. Browse through the menu by pressing the arrow buttons (up, down, left, right). Press OK in order to select the desired menu. You can change the selection by pressing the arrow buttons. Press OK in order to confirm. The functions provided are described in the following sections.

Default settings shaded.

	Main menu	Sub menu	Function
DMX setting	DMX512 Address	001 ~ 512	DMX address setting
	Channel settings	16CH/24CH	DMX channel mode
Run Mode	DMX/Slow/Fast/ Sound/Manual		DMX mode / auto program slow / auto program fast / music control / manual settings
Invert PAN/TILT	Invert PAN	Yes No	Reverse movement
	Invert TILT	Yes No	
Display Set	Invert word	Yes No	Reverse display
	English/Chinese	EN CH	Language select
	LCD Backlight on	Yes No	Display shutoff
Manual Set	PAN ...		Manual settings of the channels
SoundSense	001-100, 90		Microphone sensitivity
System Set	System information	Version	Software version
	Default settings	Yes?	Restore factory settings
	Code settings	PAN XXX TILT XXX Set_R XXX Set_G XXX Set_B XXX Set_W XXX Focus XXX	Calibration to standard position/values password "Up/Down/Up/Down/OK"
Reset	Reset System	Yes?	Reset all

DMX setting

DMX address setting

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

DMX channel mode

With this function, you can select the desired DMX channel mode.

Run Mode

DMX512 mode

This mode allows the unit to be controlled via every standard DMX controller.

Auto mode (Slow/Fast)

With this function, you can run the internal program in two different speeds.

Sound

With this function, you can run the internal program sound-controlled.

Manual Mode

With this function the device can be adjusted and operated manually via the menu item "Manual Set".

Invert PAN/TILT

Invert PAN

With this function, you can reverse the PAN-movement.

Invert TILT

With this function, you can reverse the TILT-movement.

Display Set

Invert word

With this function, you can rotate the display by 180° for a better view when the fixture is hung from the truss or a ceiling.

Language select

With this function, you can select the desired display language.

Backlight

With this function, you can adjust the display characteristics when the buttons are inactive:

No - shuts off the display after 30 seconds,

Yes - display always on.

Manual Set

Manual settings of the channels

With this function, you can set the values of the individual channels manually.

Sound Sense

Microphone sensitivity

With this function, you can select the desired microphone sensitivity between 1 and 100.

System Set

Software version

With this function, you can display the software version.

Default settings

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

Code settings

With this function, you can calibrate PAN, TILT, and Zoom to their correct positions and R, G, B and W to their correct values. The password for this function is „**Up/Down/Up/Down/OK**“

Reset

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

CLEANING AND MAINTENANCE

The outside of the device should be cleaned periodically to remove contaminants such as dust etc. The lenses, in particular, should be clean to ensure that light will be emitted at maximum brightness.

- 1 Disconnect the device from power and allow it to cool before cleaning.
- 2 Clean the surface with a soft lint-free and moistened cloth. Never use alcohol or solvents as these may damage the surface. Make sure that no liquids can enter the device.
- 3 The device must be dry before reapplying power.

There are no serviceable parts inside. Do not open the housing. Do not try to repair the device by yourself as this may result in damage. Maintenance and service operations are only to be carried out by authorized dealers.

Should you need any spare parts, please use genuine parts. Should you have further questions, please contact your dealer.

Replacing the fuse

If the fine-wire fuse of the device fuses, only replace the fuse by a fuse of same type and rating.

- 1 Disconnect the device from power and allow it to cool.
- 2 Open the fuse holder of the mains connection with a fitting screwdriver.
- 3 Remove the old fuse from the fuse holder and replace it with a new fuse.
- 4 Carefully push the fuse holder back into its position before reapplying power.

PROTECTING THE ENVIRONMENT



Disposal of old equipment

When to be definitively put out of operation, take the product to a local recycling plant for a disposal which is not harmful to the environment. Devices marked with this symbol must not be disposed of as household waste. Contact your retailer or local authorities for more information. Remove any inserted batteries and dispose of them separately from the product.



You as the end user are required by law (Battery Ordinance) to return all used batteries/rechargeable batteries. Disposing of them in the household waste is prohibited. You may return your used batteries free of charge to collection points in your municipality and anywhere where batteries/rechargeable batteries are sold. By disposing of used devices and batteries correctly, you contribute to the protection of the environment.

TECHNICAL SPECIFICATIONS

Power supply:	100-240 V AC, 50/60 Hz
Power consumption:	225 W
IP classification:	IP20
Power connection:	Mains input via P-Con (blue), mounting version, power supply cord with safety plug
Power output:	P-Con (gray), mounting version
Fuse:	5 x 20 mm, T 2 A Fuse replaceable
Lamp type:	LED lamp
LED:	19 x 15 W COB (chip-on-board) 4in1 QCL RGBW (homogenous color mix)
Max. TILT movement:	Exact positioning (16 bit resolution) 270° Auto position correction (feedback)
Max. PAN movement:	Exact positioning (16 bit resolution) 630° Auto position correction (feedback)
Equipment:	Zoom motor-driven
DMX channels:	16; 24
DMX input:	3-pin XLR (M) mounting version
DMX output:	3-pin XLR (F) mounting version
Cooling:	Temperature-controlled fan at the Head Cooling fan at the Base
Control:	Stand-alone; DMX; Sound to light via Microphone; Master/slave function; Light' J; LED PC-Control 512; EASY SHOW 1; QuickDMX via USB (optional); W-DMX by wireless solution via USB (optional); CRMX by LumenRadio via USB (optional); Light Captain
Beam angle:	1 - 40°
Beam angle (1/2 peak):	1 - 25°
Beam angle (1/10 peak):	8 - 40°
Illuminance in Lux (lx):	Narrow red (R) 3m: 2779 lx, 6m: 763 lx
	Narrow green (G) 3m: 7893 lx, 6m: 1841 lx
	Narrow blue (B) 3m: 1468 lx, 6m: 390 lx
	Narrow cold white (CW) 3m: 9558 lx, 6m: 2468 lx
	Narrow all 3m: 19553 lx, 6m: 5001 lx
	Wide red (R) 3m: 272 lx, 6m: 73 lx
	Wide green (G) 3m: 583 lx, 6m: 160 lx
	Wide blue (B) 3m: 117 lx, 6m: 34 lx
	Wide cold white (CW) 3m: 740 lx, 6m: 211 lx
	Wide all 3m: 1568 lx, 6m: 439 lx
Housing color:	Item no. 51785915 black, item no. 51785916 white
Display type:	Multicolor LCD display
Dimensions:	Width: 30,5 cm
	Depth: 20,0 cm
	Height: 40,0 cm
Weight:	8,20 kg
Noise classification:	Class 3 (clearly perceptible sounds)

Accessories

EUROLITE Omega Holder 35	No. 51786548
EUROLITE TPC-10 Coupler, silver	No. 59006856
EUROLITE Safety Bond A 4x1000mm up to 15kg silver	No. 58010320
EUROLITE DMX cable XLR 3pin 3m bk	No. 3022785H
PSSO DMX cable XLR 3pin 3m bk Neutrik	No. 30227810
PSSO PowerCon Connection Cable 3x1.5 3m	No. 3023503R
EUROLITE QuickDMX USB Wireless Transmitter/Receiver	No. 70064704
ROADINGER Flightcase 2x LED TMH-X4	No. 31005174
ROADINGER Flightcase 4x LED TMH-X4 with wheels	No. 31005175
EUROLITE DMX Move Controller 512 PRO	No. 70064516

Please note: Every information is subject to change without prior notice. 08.11.2022 ©

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