English

USER MANUAL

eurolite®

LED THA-60PC Theater Spot

CAUTION!
Keep this device away from rain and moisture!
Never open the housing!

For your own safety, please read this user manual carefully before you initially start-up.

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 a EUROLITE LED THA-60PC Theater Spot. If you follow the instructions given in this manual, we are sure that you will enjoy this device for a long period of time.

Unpack your LED THA-60PC Theater Spot.

SAFETY INSTRUCTIONS

CAUTION!
Be careful with your operations. With a dangerous voltage you can suffer a dangerous electric shock when touching the wires!

This device has left our premises in absolutely 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 to warranty. The dealer will not accept liability for any resulting defects or problems.

If the device has been exposed to drastic temperature fluctuation (e.g. after transportation), do not switch it on immediately. The arising condensation water might damage your device. Leave the device switched off until it has reached room temperature.

Please make sure that there are no obvious transport damages. Should you notice any damages on the A/C connection cable or on the casing, do not take the device into operation and immediately consult your local dealer.

This device falls under protection-class I. The power plug must only be plugged into a protection class I outlet. The voltage and frequency must exactly be the same as stated on the device. Wrong voltages or power outlets can lead to the destruction of the device and to mortal electrical shock.

Always plug in the power plug last. The power plug must always be inserted without force. Make sure that the plug is tightly connected with the outlet.

Never let the power-cord come into contact with other cables! Handle the power-cord and all connections with the mains with particular caution! Never touch them with wet hands, as this could lead to mortal electrical shock.

Never modify, bend, strain mechanically, put pressure on, pull or heat up the power cord. Never operate next to sources of heat or cold. Disregard can lead to power cord damages, fire or mortal electrical shock.

The cable insert or the female part in the device must never be strained. There must always be sufficient cable to the device. Otherwise, the cable may be damaged which may lead to mortal damage.

Make sure that the power-cord is never crimped or damaged by sharp edges. Check the device and the power-cord from time to time.

If extension cords are used, make sure that the core diameter is sufficient for the required power consumption of the device. All warnings concerning the power cords are also valid for possible extension cords.

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. Otherwise, the cable or plug can be damaged leading to mortal electrical shock. If the power plug or the power switch is not accessible, the device must be disconnected via the mains.

If the power plug or the device is dusty, the device must be taken out of operation, disconnected and then be cleaned with a dry cloth. Dust can reduce the insulation which may lead to mortal electrical shock. More severe dirt in and at the device should only be removed by a specialist.

There must never enter any liquid into power outlets, extension cords or any holes in the housing of the device. If you suppose that also a minimal amount of liquid may have entered the device, it must immediately be disconnected. This is also valid, if the device was exposed to high humidity. Also if the device is still running, the device must be checked by a specialist if the liquid has reduced any insulation. Reduced insulation can cause mortal electrical shock.

There must never be any objects entering into the device. This is especially valid for metal parts. If any metal parts like staples or coarse metal chips enter into the device, the device must be taken out of operation and disconnected immediately. Malfunction or short-circuits caused by metal parts may cause mortal injuries.

HEALTH HAZARD!

Never look directly into the light source, as sensitive persons may suffer an epileptic shock (especially meant for epileptics)!

Keep away children and amateurs!

Never leave this device running unattended.

OPERATING DETERMINATIONS

This device is a lighting effect for creating decorative effects. This product is only allowed to be operated with an alternating voltage of 100 - 240 V, 50/60 Hz and was designed for indoor use only.

This device is designed for professional use, e.g. on stages, in discotheques, theatres etc.

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.

Do not shake the device. Avoid brute force when installing or operating the device.

When choosing the installation-spot, please make sure that the device is not exposed to extreme heat, moisture or dust. There should not be any cables lying around. You endanger your own and the safety of others!

This device must never be operated or stockpiled in surroundings where splash water, rain, moisture or fog may harm the device. Moisture or very high humidity can reduce the insulation and lead to mortal electrical shocks. When using smoke machines, make sure that the device is never exposed to the direct smoke jet and is installed in a distance of 0.5 meters between smoke machine and device. The room must only be saturated with an amount of smoke that the visibility will always be more than 10 meters.

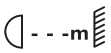
The ambient temperature must always be between -5° C and +45° C. Keep away from direct insulation (particularly in cars) and heaters.

The relative humidity must not exceed 50 % with an ambient temperature of 45° C.

This device must only be operated in an altitude between -20 and 2000 m over NN.

Never use the device during thunderstorms. Over voltage could destroy the device. Always disconnect the device during thunderstorms.

The F-symbol means: this device can be installed on normal inflammable surfaces.

The symbol  determines the minimum distance from lighted objects. The minimum distance between light-output and the illuminated surface must be more than the given value.

This device is only allowed for an installation via the mounting bracket. In order to safeguard sufficient ventilation, leave 50 cm of free space around the device.

The housing must never touch surrounding surfaces or objects.

Make sure that the area below the installation place is blocked when rigging, derigging or servicing the fixture.
Always fix the fixture with an appropriate safety bond.

The maximum ambient temperature T_a = 45° C must never be exceeded.

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

Never use solvents or aggressive detergents in order to clean the device! Rather use a soft and damp cloth.

Please use the original packaging if the device is to be transported. Make sure that you pack the device in the original state.

Please consider that unauthorized modifications on the device are forbidden due to safety reasons!

Never remove the serial barcode from the device as this would make the guarantee void.

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 dangers like short-circuit, burns, electric shock, crash etc.

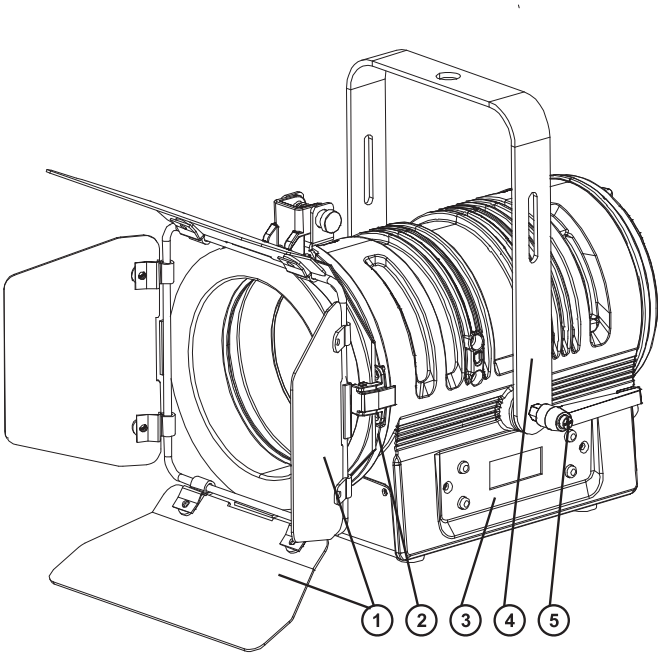
DESCRIPTION

Features

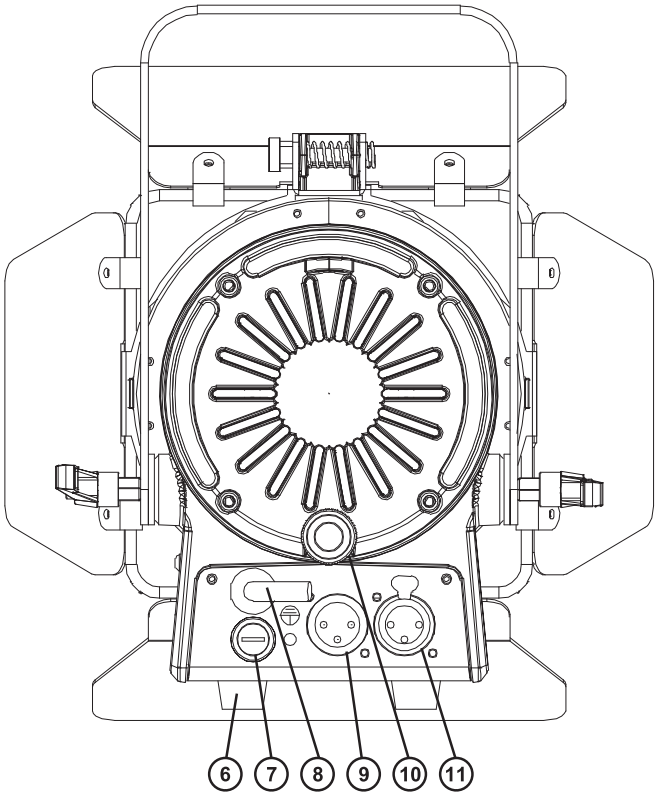
LED theatre spot with barn doors and color filter frame

- Equipped with one 60 W COB LED in the colors red, green, blue and white
- With plano-convex lens
- Supports RDM (Remote Device Management)
- Flicker-free projection
- 5, 6 or 7 DMX channels selectable
- Manual, stepless zoom
- Small and robust spot with metal housing
- Mounting bracket for installation on a stand or a crossbeam
- Locking possibility at the bracket
- Functions: RGBW color mixture, automatic color change, internal program, dimmer, strobe effects with variable speed, sound-control via built-in microphone sound-control
- Different dimmer curves and dimmer speed (step response) adjustable
- DMX-controlled operation or stand-alone operation with Master/Slave function
- Rotatable barn doors and color filter frame included in the delivery
- Addressing via control panel with LC display
- Ready for connection via power cord with safety-plug
- Switch-mode power supply for operation between 100 and 240 Volts
- DMX512 control possible via any commercial DMX controller

Overview



(1) Barn doors
(2) Color filter frame
(3) Display with operating buttons
(4) Mounting bracket
(5) Fixation screw



(6) Rubber feet
(7) Fuseholder
(8) Power input
(9) DMX-In plug
(10) Zoom screw
(11) DMX-Out socket

INSTALLATION

The device can be installed on a floor stand or on trussing.

Overhead rigging

DANGER TO LIFE!
Please consider the EN 60598-2-17and the respective national standards during the installation!
The installation must only be carried out by an authorized dealer!

The installation of the device 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 catch net. This secondary safety attachment must be constructed in a way that no part of the installation can fall down if the main attachment fails.

When rigging, derigging or servicing the device staying in the area below the installation place, on bridges, under high working places and other endangered areas is forbidden.

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

The operator has to make sure that safety-relating and machine-technical installations are approved by an expert after every four year in the course of an acceptance test.

The operator has to make sure that safety-relating and machine-technical installations are approved by a skilled person once a year.

Procedure:
The device should be installed outside areas where persons may walk by or be seated.

IMPORTANT! OVERHEAD RIGGING REQUIRES EXTENSIVE EXPERIENCE, including (but not limited to) 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, but instead use a professional structural rigger. Improper installation can result in bodily injury and or damage to property.

The device has to be installed out of the reach of people.

If the device shall be lowered from the ceiling or high joists, professional trussing systems have to be used. The device must never be fixed swinging freely in the room.

Caution: Devices in hanging installations may cause severe injuries when crashing down! If you have doubts concerning the safety of a possible installation, do NOT install the device!

Before rigging make sure that the installation area can hold a minimum point load of 10 times the device's weight.

DANGER OF FIRE!
When installing the device, make sure there is no highly-inflammable material (decoration articles, etc.) within a distance of min. 0.5 m.

Mount the device to your trussing system using an appropriate clamp.

For overhead use, always install an appropriate safety bond.

You must only use safety bonds and quick links complying with DIN 56927, shackles complying with DIN EN 1677-1 and BGV C1 carbines. The safety bonds, quick links, shackles and the carbines must be sufficiently dimensioned and used correctly in accordance with the latest industrial safety regulations (e. g. BGV C1, BGI 810-3).

Please note: for overhead rigging in public or industrial areas, a series of safety instructions have to be followed that this manual can only give in part. The operator must therefore inform himself on the current safety instructions and consider them.

The manufacturer cannot be made liable for damages caused by incorrect installations or insufficient safety precautions!

Lead the safety bond through the mounting-bracket of the device and over the trussing system or a safe fixation spot. Insert the end in the quick link and tighten the safety screw.

The maximum drop distance must never exceed 20 cm.

A safety bond which already held the strain of a crash or which is defective must not be used again.

Adjust the desired inclination-angle via the mounting-bracket and tighten the fixation screws.

DANGER TO LIFE!
Before taking into operation for the first time, the installation has to be approved by an expert!

DMX-512 connection / connection between fixtures

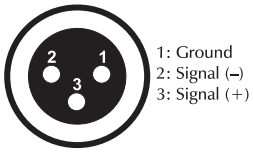
The wires must not come into contact with each other, otherwise the fixtures will not work at all, or will not work properly.

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

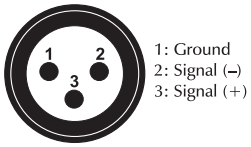
Only use a stereo shielded cable and 3-pin XLR-plugs and connectors in order to connect the controller with the fixture or one fixture with another.

Occupation of the XLR-connection:

DMX-output
XLR mounting-socket:



DMX-input
XLR mounting-plug:



If you are using controllers with this occupation, you can connect the DMX-output of the controller directly with the DMX-input of the first fixture in the DMX-chain. If you wish to connect DMX-controllers with other XLR-outputs, you need to use adapter-cables.

Building a serial DMX-chain:
Connect the DMX-output of the first fixture in the DMX-chain with the DMX-input of the next fixture. Always connect one output with the input of the next fixture until all fixtures are connected.

Caution: At the last fixture, the DMX-cable has to be terminated with a terminator. Solder a 120 Ω resistor between Signal (–) and Signal (+) into a 3-pin XLR-plug and plug it in the DMX-output of the last fixture.

Master/Slave-operation

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

On the rear of the LED THA-60PC Theater Spot 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 spotlights. Set the desired Master-mode on the master-device. This device then works as master-device and controls all other slave-devices, which are to be connected to the master-device via a balanced microphone lead. Connect the DMX out connectors with the DMX input plug of the next device.

Set the Slave-mode on every slave-device.

Press the MODE button to select the **SLAVE** mode. The devices set in this manner can now be controlled by the master unit.

Connection with the mains

Connect the device to the mains with the power-plug.

The occupation of the connection-cables is as follows:

Cable	Pin	International
Brown	Live	L
Blue	Neutral	N
Yellow/Green	Earth	

The earth has to be connected!

If the device will be directly connected with the local power supply network, a disconnection switch with a minimum opening of 3 mm at every pole has to be included in the permanent electrical installation.

The device must only be connected with an electric installation carried out in compliance with the IEC-standards. The electric installation must be equipped with a Residual Current Device (RCD) with a maximum fault current of 30 mA.

Lighting effects must not be connected to dimming-packs.

OPERATION

After you connected the device to the mains, the LED THA-60PC Theater Spot starts running.

The display lights up and you can choose the desired mode via the buttons MODE, ENTER, UP, DOWN.

The device has two operating modes. It can be operated in Stand Alone or in DMX-controlled mode.

Stand-alone mode

In the stand-alone mode, you can do without a controller.

Disconnect the EUROLITE LED THA-60PC Theater Spot from the controller.

Control Board

The Control Board offers several features: you can easily set the starting address or adjust the brightness.

Enter the menu by pressing the MODE-button. Browse through the menu by pressing UP or DOWN. Press ENTER in order to select the desired menu. You can change the selection by pressing UP or DOWN. Press ENTER in order to confirm. You can leave every mode by pressing MODE. The functions provided are described in the following sections.

Default settings shaded.

Main menu		Sub menu		Display	Function
SET ADDRESS		A001 ~ A508			DMX address setting
USER MODE		Channel Mode: 05 / 06 / 07			DMX channel mode
FUNCTION	Status	No DMX status		Close/Hold	Modes if no DMX
	Fixture ID	Service PIN		Password=XXX	Passwort „050“
		RDM PID		XXXXXX	
	Dimmer Curve	Linear	The increase in light intensity appears to be linear as DMX value is increased		
		Square	Light intensity control is finer at low levels and coarser at high levels		
		INV. Square	Light intensity control is coarser at low levels and finer at high levels		
		S-Curve	Light intensity control is fine at low levels and high levels and coarser at medium levels		
	Lamp Behavior	LED			
		Halogen			
	LCD. Set	Backlight		05M ~ 60M	Display shutoff time
		Key lock		ON/OFF	Key lock activation
		DispFlash		ON/OFF	Setting that the device will flash when there is no DMX signal received
	Load	ON/OFF			Restore factory settings
	Temp. C/F	Celsius			Select temperature designation °C or °F
		Fahrenheit			
INFORMATION	Time. Info	Current		XXXX (h)	Power on running time
		Total time		XXXX (h)	Fixture running time
		Last clear		XXXX (h)	Individual fixture running time
		Timer PIN		Password=„050“	
	Temp. Info	XXX °C/°F			Inside temperature
	Model. Info	LED THA-60PC			Model name
	Software version	V 0.03			Software version
TEST	Panel. Ctrl.	Dimmer = 000-255			Manual adjustment
	Panel. Ctrl.	Strobe = 000-255			Manual adjustment
	Program	Static	R/G/B/RG/GB/RB/RGB/BLAC F: 00 - 99		Manual adjustment
		Change	SP: 01 – 99 F: 00 – 99		Manual adjustment
		Fade	SP: 01 – 99 F: 00 – 99		Manual adjustment
		Auto	SP: 01 – 99 F: 00 - 99		Manual adjustment
	Sound	Sense	00 - 31		Manual adjustment

Set Address
With this function, you can set the desired DMX-starting address via the Control Board.

User mode
With this function, you can set the DMX channel mode.

Function

Status

No DMX status
With this function, you can set different modes if there is no DMX-signal.

Close
Here you can **close the shutter** and set the device to center position if there is no DMX-signal.

Hold
Here the device remains in the last received DMX-program if there is no DMX-signal.

Fixture ID

Service PIN
The password for this function is **„050“.**

RDM
With this function, you can call up various submenus via RDM.

This device is RDM ready. RDM stands for "Remote Device Management" and makes remote control of devices connected to the DMX-bus possible. ANSI E1.20-2006 by ESTA specifies the RDM standard as an extension of the DMX512 protocol.

Manual settings like adjusting the DMX starting address are no longer needed. This is especially useful when the device is installed in a remote area.

RDM is integrated n the DMX-protocol without influencing the connections. The RDM-data is transmitted via the standard XLR-poles 1 and 2 – new DMX-cables are not necessary. RDM ready and conventional DMX devices can be operated in one DMX line. The RDM protocol sends own packages in the DMX512 data feed and does not influence conventional devices.

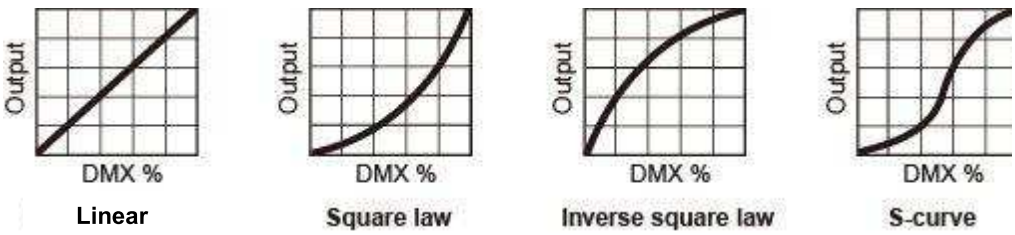
If DMX splitters are used and RDM control is to be used, these splitters must support RDM.

The number and type of RDM parameters depend on the (optional) RDM controller being used.

In general, the device supports the following commands and functions via RDM:

Dimmer Curve
With this function, you can set various dimmer curves.

LINEAR: the increase in light intensity appears to be linear as DMX value is increased.
SQUARE LAW: light intensity control is finer at low levels and coarser at high levels
INVERSE SQUARE LAW: light intensity control is coarser at low levels and finer at high levels
S-CURVE: light intensity control is fine at low levels and high levels and coarser at medium levels.



Lamp Behavior
This function indicates the light impression, halogen or LED.

LCD. Set

Backlight
With this function you can shut off the display after 5 to 60 minutes.

Key lock
With this function, you can lock the buttons of the Control Board to e.g. prevent menu tampering. If this function is activated, the buttons will be automatically locked in 15 seconds from the last command. In order to deactivate or temporarily deactivate the key lock function, press the MODE button for 3 seconds to regain access to the menu commands.

DispFlash
With this function, you can set the device that it will flash when there is no DMX signal received.

Load
With this function, you can reset the device to the default setting. Set Load to “ON”.

Temp. C/F
With this function, you can select the temperature designation.

Information

Time. Info
Current
With this function, you can display the temporary running time of the device from the last power on. The display shows “XXXX”, “X“ stands for the number of hours. The counter is reset after turning the device off.

Total time
With this function, you can display the running time of the device. The display shows “XXXX”, “X“ stands for the number of hours.

Last clear
This function allows the operator to record the operating hours of the device, according to his requirements. You can use the counter to document the operating hours since the last service, for example, or to document the operating hours from a rental. Individual operating hours can be reset at any time. The display shows “XXXX”; “X” stands for the number of hours.

Timer PIN
Use this function to enter the password to clear the individual fixture running time. The password is „**050**“.

Temp. Info
With this function, you can display the inner temperature in degrees Celsius or degrees Fahrenheit.

Model. Info
Within this function, you can display the type designation.

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

Test

Panel.Ctrl. Dimmer
With this function, you can adjust the dimmer manually (000-255).

Panel.Ctrl. Strobe
With this function, you can adjust the strobe manually (000-255).

Program
With this function, you can adjust the desired static colors and internal programs manually.

1. **STATIC**: Choose the desired static color and adjust the brightness (**F:00-99**)

2. **CHANGE**: Choose the color switching program and adjust the speed (**SP:01-99**) and the brightness (**F:00-99**).

3. **FADE**: Choose the color fading program and adjust the speed (**SP:01-99**) and the brightness (**F:00-99**).

4. **AUTO**: Choose the auto program and adjust the speed (**SP:01-99**) and the brightness (**F:00-99**).

Sound
With this function, you can adjust the desired sensitivity manually (**00-31**).

DMX-Mode

Setting the DMX Starting Address:
Press the MODE button until the display shows **Set ADDR**. Press the ENTER button. You can select the desired DMX address via the UP or DOWN buttons.

Confirm your choice by pressing ENTER.

Please, be sure that you don't have any overlapping channels in order to control each LED THA-60PC Theater Spot correctly and independently from any other fixture on the DMX-chain. If several LED THA-60PC Theater Spots are addressed similarly, they will work synchronically.

Controlling:
After having addressed the LED LED THA-60PC Theater Spot, you may now start operating it via your lighting controller.

Note:
After switching on, the device will automatically detect whether DMX 512 data is received or not. If there is no data received at the DMX-input, the display will flash.

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 individual channels and their features are listed under DMX-protocol.

Setting DMX channel mode:
The device has 3 DMX channel modes.

Press the MODE button until the display shows **Channel**. Press the ENTER button.

You can select the DMX channel mode CH05, CH06 or CH07 via the UP or DOWN buttons.

Confirm your choice by pressing ENTER.

DMX-protocol

Channel Mode			Value		Feature
5 CH	6 CH	7 CH			
1	1	3			**Red**
			0	255	Red 0 - 100 % increasing
2	2	4			**Green**
			0	255	Green 0 - 100 % increasing
3	3	5			**Blue**
			0	255	Blue 0 - 100 % increasing
4	4	6			**White**
			0	255	White 0 - 100 % increasing
5	5	1			**Dimmer intensity**
			0	255	Gradual adjustment of the dimmer intensity from 0 to 100 %
	6				**Strobe**
			0	0	No function
			1	5	Sound Control (15 colors)
			6	10	No function
			11	255	Strobe-effect with increasing speed
		2			**Strobe**
			0	31	LED off
			32	95	Strobe-effect with increasing speed
			96	127	LED on
			128	159	Pulse-effect with increasing speed
			160	191	LED on
			192	223	Random strobe-effect with increasing speed
			224	255	LED on
		7			**Color change / sound control**
			1	100	Switching colors with increasing speed
			101	200	Fading colors with increasing speed
			201	255	Sound control with increasing sensitivity

CLEANING AND MAINTENANCE

DANGER TO LIFE!
Disconnect from mains before starting maintenance operation!

We recommend a frequent cleaning of the device. Please use a soft lint-free and moistened cloth. Never use alcohol or solvents!

There are no serviceable parts inside the device except for the fuse. Maintenance and service operations are only to be carried out by authorized dealers.

Replacing the fuse

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

Before replacing the fuse, unplug mains lead.

Procedure:

Step 1: Unscrew the fuse-holder with a fitting screwdriver from the housing (anti-clockwise).
Step 2: Remove the old fuse from the fuse-holder.
Step 3: Install the new fuse in the fuse-holder.
Step 4: Replace the fuse-holder in the housing and fix it.

Should you need any spare parts, please use genuine parts.

If the power supply cable of this device becomes damaged, it has to be replaced by authorized dealers only in order to avoid hazards.

Should you have further questions, please contact your dealer.

TECHNICAL SPECIFICATIONS

Power supply:	100 - 240 V AC, 50/60 Hz ~
Power consumption:	60 W
DMX control channels:	5/6/7
DMX512 connection:	3-pin XLR
Maximum ambient temperature T_a:	45° C
Maximum housing temperature T_C:	60° C
Min.distance from flammable surfaces:	0.50 m
Min.distance to lighted object:	0.10 m
Fuse:	T 1 A, 250 V
Type of LEDs:	60 W COB LED
Number of LEDs:	1
Beam angle:	7° - 39°
Dimensions (LxWxH):	334 x 195.3 x 172.7 mm
Weight:	3.6 kg

Accessories:	No
TPC-10 Coupler, silver	59006856
Safety bond AG-5 3x600mm up to 5kg	58010360
DMX cable XLR 3pin 5m bl	3022785K
DMX cable XLR 3pin 5m bk Neutrik	30227812
DMX cable XLR 3pin 5m bk Hicon	30307458
DMX cable XLR 3pin 5m bk Neutrik	30307471
FS-1 Floorstand, Steel, black	5900698A

Please note: All information is subject to change without prior notice. 19.12.2015 ©