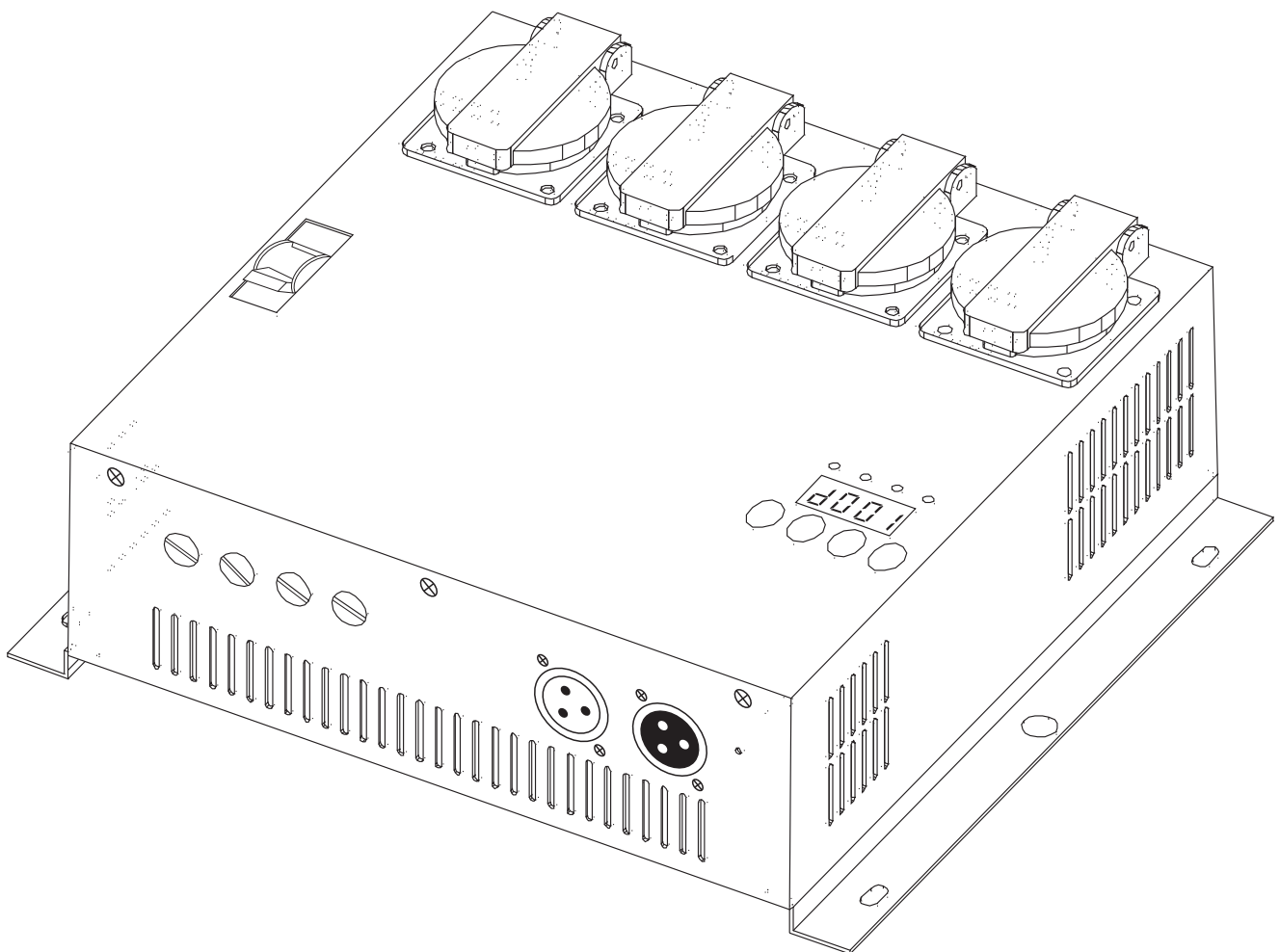


eurolite®

BEDIENUNGSANLEITUNG
USER MANUAL

EDX-4R/ESX-4R **4-channel DMX dimmer/switch pack**



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USER MANUAL

eurolite®

EDX-4R/ESX-4R

4-channel dimmer/switch pack



CAUTION!

Keep this device away from rain and moisture!
Unplug mains lead before opening 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

1. INTRODUCTION

Thank you for having chosen a EUROLITE EDX-4R/ESX-4R. You will see you acquired a powerful and versatile device.

Unpack your EDX-4R/ESX-4R.

2. 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 least. 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.

Keep away children and amateurs!

Never leave this device running unattended.

3. OPERATING DETERMINATIONS

This device is an electronic dimmer for dimming other devices like spots in discotheques, on stages etc. This product is allowed to be operated with an alternating current of 230 V, 50 Hz and was designed for indoor use only.

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.

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.

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, etc.

4. DESCRIPTION

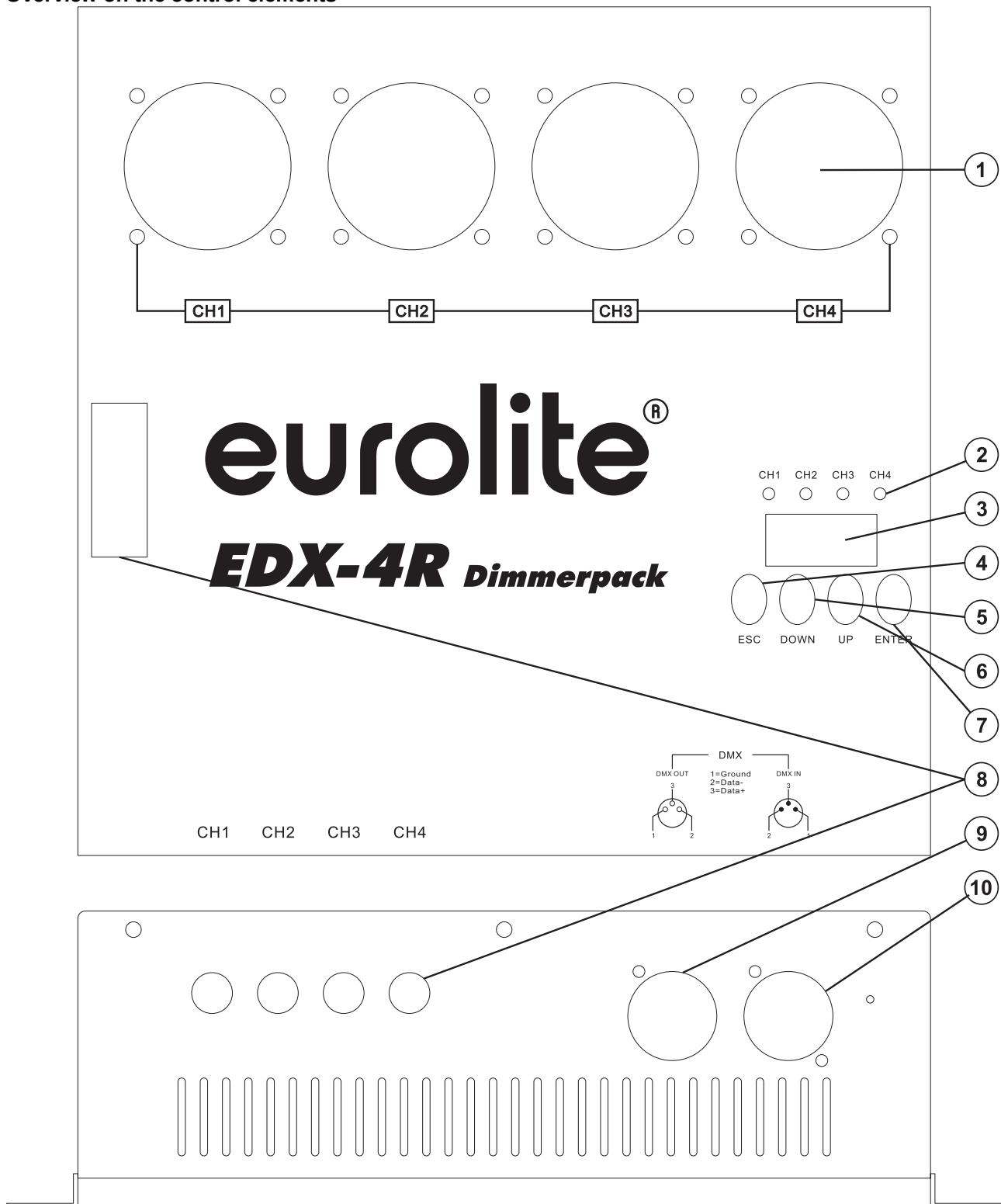
4.1 Features

4-channel DMX dimmer pack

- 4 controllable channels
- 5 A resistive load per channel
- Maximum current 16 A
- Outputs via 4 safety sockets
- LED display of all channels
- DMX512 input and output
- Supports RDM
- With Control Board for programming scenes and chasers
- For trussing and mounting directly at the device

4.2 Overview

Overview on the control elements



- (1) Channel outputs via safety sockets
- (2) Channel display LEDs
- (3) Display
- (4) Escape button
- (5) Down button

- (6) Up button
- (7) Enter button
- (8) Automatic circuit breaker / channel fuses
- (9) DMX-output
- (10) DMX-input

5. SETUP

5.1 Overhead rigging



DANGER TO LIFE!

Please consider the EN 60598-2-17 and the respective national norms 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.

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

For overhead use, always install a safety-rope that can hold at least 12 times the weight of the fixture. You must only use safety-ropes with quick link with screw cap. Pull the safety-rope through the attachment eyelet on 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 rope which already hold the strain of a crash or which is defective must not be used again.



DANGER TO LIFE!

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

5.2 Attachment

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

The device must only be installed absolutely planar at a vibration-free, oscillation-free and fire-resistant location. Make sure that the device is installed absolutely planar by using a water-level.

The device must be installed out of the reach of people.

The device must always be installed via all fixation holes. Do only use appropriate screws and make sure that the screws are properly connected with the ground.

The durability of the installation depends very much on the material used at the installation area (building material) such as wood, concrete, gas concrete, brick etc. This is why the fixing material must be chosen to suit the wall material. Always ask a specialist for the correct plug/screw combination indicating the maximum load and the building material.

Procedure:

- Step 1:** On the baseplate, there are the holes for the installation.
- Step 2:** Hold the baseplate onto the location where the device is to be installed.
- Step 3:** Mark the boreholes with a pen or a suitable tool.
- Step 4:** Drill the holes.
- Step 5:** Hold the baseplate in the desired position and tighten it.



DANGER TO LIFE!

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

5.3 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.

5.4 Outputs

Output is via 4 safety sockets on the rearpanel.

Connect your loads via the output-sockets. The maximum load per channel is 1,150 W (resistive) or 5 A. Please note that the maximum current of 16 A must never be exceeded.

5.5 DMX-512 control



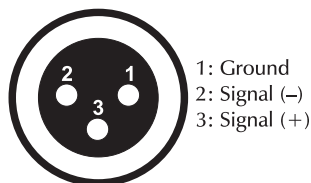
The wires must not come into contact with each other, otherwise the devices will not work at all, or will not work properly.



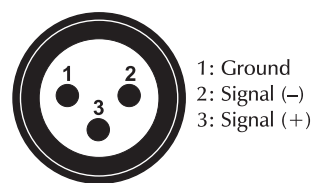
Only use a stereo shielded cable and 3-pin XLR-plugs and connectors in order to connect the controller with the device or one device with another.

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 device 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 device in the DMX-chain with the DMX-input of the next device. Always connect one output with the input of the next device until all devices are connected.

Caution: At the last device, 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 device. Each device occupies 4 channels. To ensure that the control signals are properly directed to each device, the device requires addressing.

The starting address is defined as the first channel from which the device will respond to the controller. Please make sure that you don't have any overlapping channels in order to control each device correctly and independently from any other device on the DMX data link. If two, three or more device are addressed similarly, they will work similarly.

6. OPERATION

After you connected the device to the mains and switched the circuit breaker, the EDX-4R/ESX-4R is ready for use. If the display shows "A", all channels are selected.

DMX address setting



Press UP/DOWN buttons to choose DMX address setting menu,
Press ENTER and come into DMX address setting status.
LED display start to flash, then press UP/DOWN to set DMX address
Press ENTER, all LED display will be flash, save settings
Press ESC, return to main menu.

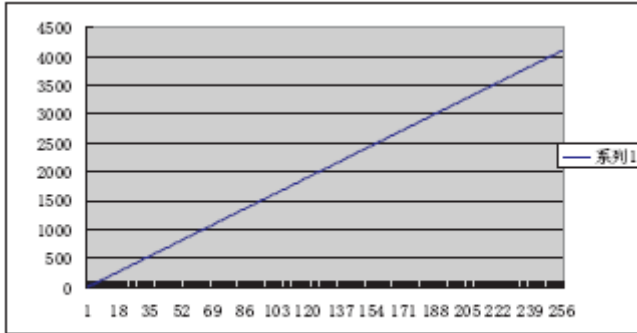
Dimmer curve

Each channel has 4 kinds curve dimming. This mode is only available in EDX-4R.

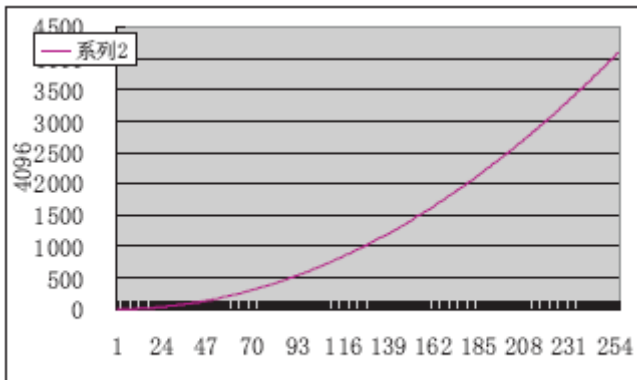


Press UP/DOWN buttons to choose curve dimming setting menu,
 Press Enter and come into curve selection menu.
 Press UP/DOWN to choose channel (1-4)
 Press ENTER and setting curve
 Press UP/DOWN to choose curve (1-4)
 Press ENTER to save settings
 Press ESC, return to main menu.

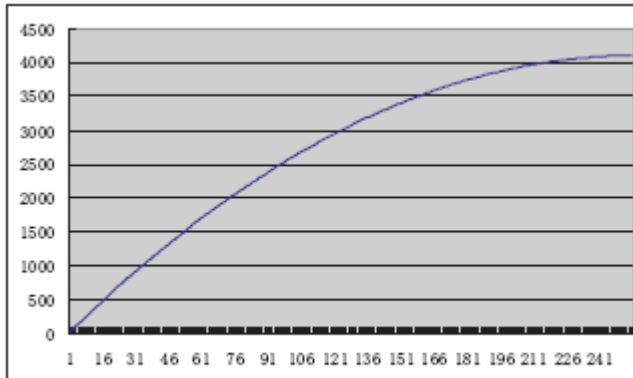
Curve diagram:



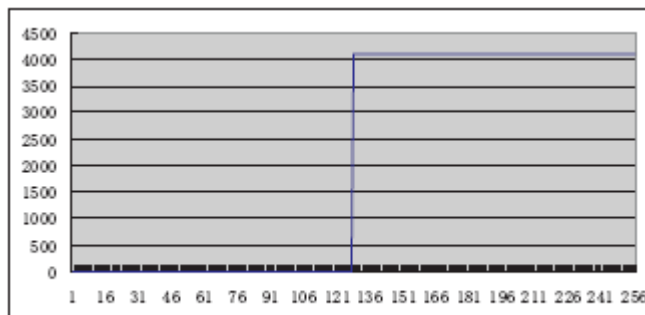
Curve 1



Curve 2

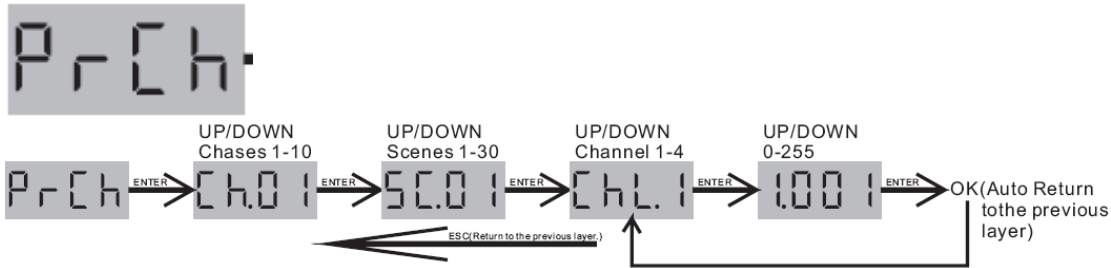


Curve 3



Curve 4

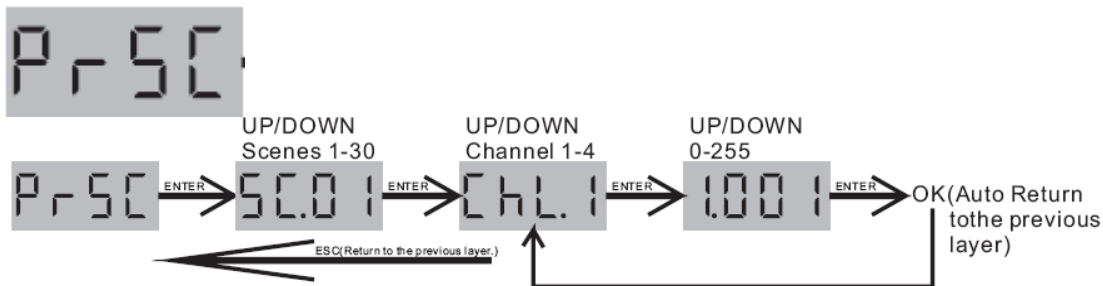
When choose curve Number 4, this channel only works as switch

Program chase

Press UP/DOWN buttons to choose programming menu
 Press ENTER and come into programming menu.
 Press UP/DOWN to choose program (1-10)
 Press ENTER selection program
 Press UP/DOWN to choose scene of program (1-30)
 Press ENTER and select scene
 Press UP/DOWN to choose channel (1-4)
 Press ENTER to select channel
 Press UP/DOWN to select the value of channel
 Press ENTER to save settings
 Press ESC, return to previous menu.

Chases Run

Press UP/DOWN buttons to choose chases running menu,
 Press ENTER and come into chase running
 Press ENTER to change the current running chase
 Press UP/DOWN to choose chase (1-10)
 Press ENTER and selection program
 If the chase running under AUTO mode, press UP/DOWN can adjust the running speed.
 If the chase running under sound control mode, press UP/DOWN can adjust the sensitive of the sound
 Press ESC, return to previous menu.

Edit Scene

Press UP/DOWN buttons to choose scene edit menu,
 Press ENTER and come into scene edit menu
 Press UP/DOWN to choose scene (1-10)
 Press ENTER and selection scene
 Press UP/DOWN to choose channel
 Press ENTER selection channel
 Press UP/DOWN to set values of channel
 Press ENTER to save
 Press ESC, return to previous menu

Scene Run



Press UP/DOWN buttons to choose scene running menu,
 Press ENTER and come into scene running status
 Press ENTER to change the current running scene
 Press UP/DOWN to choose scene (1-10)
 Press ENTER selection scene
 Press ESC, return to previous menu

Manual Dimming



Press UP/DOWN buttons to choose manual dimming menu,
 Press ENTER and come into manual dimming mode
 Press UP/DOWN to choose channel (1-4)
 Press ENTER selection channel
 Press UP/DOWN to set values of channel
 Press ENTER to save
 Press ESC, return to previous menu

Program Run Mode



Press UP/DOWN buttons to choose chase running mode menu,
 Press ENTER and come into program running mode setting
 LED Displayed current running mode
 Press ENTER to be sure to modify mode
 Press UP/DOWN to modify running mode
 Press ENTER to save
 Press ESC, return to previous menu

RDM

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 in 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.

This device supports the following RDM commands:

Parameter ID	Discovery command	SET Command	GET command
DISC_UNIQUE_BRANCH	✓		
DISC_MUTE	✓		
DISC_UN_MUTE	✓		
DEVICE_INFO			✓
SUPPORTED_PARAMETERS			✓
DMX_START_ADDRESS		✓	✓
IDENTIFY_DEVICE		✓	✓
DEVICE_MODEL_DESCRIPTION			✓
MANUFACTURER_LABEL			✓
DEVICE_LABEL			✓
DMX_PERSONALITY		✓	✓
DMX_PERSONALITY_DESCRIPTION			✓
SLOT_INFO			✓
SLOT_DESCRIPTION			✓

7. CLEANING AND MAINTENANCE

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

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

The following points have to be considered during the inspection:

- 1) All screws used 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 housings, fixations and installation spots (ceiling, suspension, trussing).
- 3) The electric power supply cables must not show any damages, material fatigue (e.g. porous cables) 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.



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 servicable parts inside the device except for the fuse. Maintenance and service operations are only to be carried out by authorized dealers.

7.1 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: Open the fuseholder on the top panel with a fitting screwdriver.

Step 2: Remove the old fuse from the fuseholder.

Step 3: Install the new fuse in the fuseholder.

Step 4: Replace the fuseholder in the housing.

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 a special power supply cable available at your dealer.

Should you have further questions, please contact your dealer.

8. TECHNICAL SPECIFICATIONS

Power supply:	230 V AC, 50 Hz ~
Max. power output:	3680 W
Max. total current:	16 A
Number of channels:	4
Resistive load/channel:	1150 W
Max. current/channel:	5 A
Output sockets:	4 safety power outlets
DMX output:	3-pin XLR mounting plug
DMX input:	3-pin XLR mounting jack
Dimensions (WxDxH):	270 x 260 x 95 mm
Weight:	3 kg
Accessory:	
Safety rubber plug, black, prof. version	No. 30236210
Safety plug, plastic, black	No. 3023610A
Safety plug, smash proof, black	No. 30236215
EUROLITE DMX Commander 24/48	No. 70064550

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