

MPX-4LED Multipack

Digital Switcher and Dimmer

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## **General information**

This document contains important instructions for the safe operation of the product. Read and follow the safety instructions and all other instructions. Keep the document for future reference. Make sure that it is available to all those using the product. If you sell the product to another user, be sure that they also receive this document.

Our products and documentation are subject to a process of continuous development. They are therefore subject to change. Please refer to the latest version of the documentation, which is ready for download under www.thomann.de.

## Symbols and signal words

In this section you will find an overview of the meaning of symbols and signal words that are used in this document

Signal word	Meaning
DANGER!	This combination of symbol and signal word indicates an immediate dangerous situation that will result in death or serious injury if it is not avoided.
NOTICE!	This combination of symbol and signal word indicates a possible dangerous situation that can result in material and environmental damage if it is not avoided.

Warning signs	Type of danger
A	Warning – high-voltage.
$\triangle$	Warning – danger zone.

## 2 Safety instructions

#### Intended use

This appliance is designed for professional use only and is intended to be used to control the brightness of connected spotlights. Use the device only as described in this user manual. Any other use or use under other operating conditions is considered to be improper and may result in personal injury or property damage. No liability will be assumed for damages resulting from improper use.

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.

## Safety



#### DANGER!

#### Risk of injury and choking hazard for children!

Children can suffocate on packaging material and small parts. Children can injure themselves when handling the device. Never allow children to play with the packaging material and the device. Always store packaging material out of the reach of babies and small children. Always dispose of packaging material properly when it is not in use. Never allow children to use the device without supervision. Keep small parts away from children and make sure that the device does not shed any small parts (such knobs) that children could play with.



#### DANGER!

## Danger to life due to electric current!

Within the device there are areas where high voltages may be present. Never remove any covers. There are no user-serviceable parts inside. Do not use the device when covers, safety equipment or optical components are missing or damaged.



#### **DANGER!**

### Danger to life due to electric current!

A short circuit could lead to a fire hazard and risk of death. Do not modify the mains cable or the plug! In case of isolation damage, disconnect immediately the power supply and arrange repair. If in doubt, seek advice from a qualified electrician.

#### NOTICE!

#### Risk of fire due to covered vents and neighbouring heat sources!

If the vents of the device are covered or the device is operated in the immediate vicinity of other heat sources, the device can overheat and burst into flames. Never cover the device or the vents. Do not install the device in the immediate vicinity of other heat sources. Never operate the device in the immediate vicinity of naked flames.

#### NOTICE!

#### Damage to the device if operated in unsuitable ambient conditions!

The device can be damaged if it is operated in unsuitable ambient conditions. Only operate the device indoors within the ambient conditions specified in the "Technical specifications" chapter of this user manual. Avoid operating it in environments with direct sunlight, heavy dirt and strong vibrations. Avoid operating it in environments with strong temperature fluctuations. If temperature fluctuations cannot be avoided (for example after transport in low outside temperatures), do not switch on the device immediately. Never subject the device to liquids or moisture. Never move the device to another location while it is in operation. In environments with increased dirt levels (for example due to dust, smoke, nicotine or mist): Have the device cleaned by qualified specialists at regular intervals to prevent damage due to overheating and other malfunctions.

#### NOTICE!

#### Damage to the device due to high voltages!

The device can be damaged if it is operated with the incorrect voltage or if high voltage peaks occur. In the worst case, excess voltages can also cause a risk of injury and fires. Make sure that the voltage specification on the device matches the local power grid before plugging in the device. Only operate the device from professionally installed mains sockets that are protected by a residual current circuit breaker (FI). As a precaution, disconnect the device from the power grid when storms are approaching or it the device will not be used for a longer period.



#### NOTICE!

### Risk of fire due to installation of a wrong fuse!

Using fuses of a different type than compatible with the device may cause a fire and seriously damage the device. Only use fuses of the same type. Observe the labelling on the device casing and the information in the "Technical data" chapter.

## 3 Features

- 4 dimmer channels, 5 A per channel, 16 A max.
- 17 pre-set programmes
- Chase speed control
- Memory for power failure
- Switches even low loads such as power supplies and LED spotlights
- Control via DMX and via buttons and display on the unit

## Installation and starting up

Unpack and check carefully there is no transportation damage before using the unit. Keep the equipment packaging. To fully protect the product against vibration, dust and moisture during transportation or storage use the original packaging or your own packaging material suitable for transport or storage, respectively.

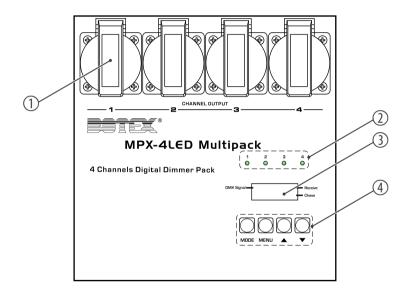
Create all connections while the device is off. Use the shortest possible high-quality cables for all connections. Take care when running the cables to prevent tripping hazards.

#### Connections in 'DMX' mode

Connect the DMX input of the device to the DMX output of a DMX controller or other DMX device. Connect the output of the first DMX device to the input of the second one and so on, to form a series connection. Make sure that the output of the last DMX device in the chain is terminated by a resistor (110  $\Omega$ , ¼ W).

## **5** Connections and controls

### **Front**



- [CHANNEL OUTPUT] | 4 × socket as dimmer output for connecting the spotlight to be controlled, load capacity 5 A per channel, total up to max. 16A.
  - 2 [1]...[4] | Channel indicator light: shows in all operating modes which channels are currently being used by the running programme (LEDs light up).
  - 3 Display

[DMX Signal] | DMX indicator light: lights up when the device is on and receiving a DMX signal.

[Receive] | The [Receive] indicator light lights up when 'Receive' mode is enabled.

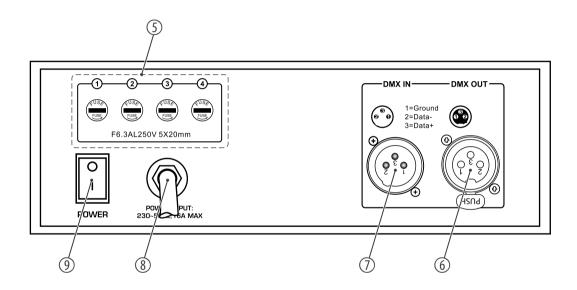
[Chase] | The [Chase] indicator lights up when 'Chase' mode is enabled.

4 [MODE] | Button for choosing the operating mode.

[MENU] | Button for opening the main menu and confirming display values

- ▲ | Button for increasing the displayed value.
- ▼ | Button for decreasing the displayed value.

### Connections



5 [FUSE] | Fuse holder 6 [DMX OUT] | DMX output 7 [DMX IN] | DMX input 8 [POWER INPUT] | Mains cable 9 [POWER] | Main switch. Turns the device on and off.

## 6 Operating

### Starting the device

- Connect the device to the power grid.
  - ⇒ The unit starts with the last settings. The display shows the last set DMX address.

## Selecting the operating mode

With [MODE] to select the desired operating mode. Here you have the choice between the modes:

- Chase: Chase mode is used when the device is used without a DMX controller.
- Receive: Receive mode is used when the device is used without a DMX controller.

### **Selecting chase programme**

- **1.** Press [MODE] to enable 'Chase' mode.
  - ⇒ The [Chase] indicator lights up.
- **2.** Press [MENU] repeatedly until the display shows 'P:XX'.
- 3. Use ▲ or ▼ to select a value between 1 and 16 (display shows 'P:01' ... 'P:16'), to select the chase programme you want to activate. 16 programmes and the sequential run of the 16 programmes are available. The setting is instantly applied.

### Setting programme speed

- 1. Press [MODE] to enable 'Chase' mode.
  - ⇒ The [Chase] indicator lights up.
- **2.** Press [MENU] repeatedly until the display shows 'SP:XX'.
- 3. ▶ Use ▲ or ▼ to select a value between 1 and 99 (display shows 'SP:01'...'SP:99') to set the desired programme speed. The setting is instantly applied.

## Setting the dimmer intensity

- 1. Press [MODE] to enable 'Chase' mode.
  - ⇒ The [Chase] indicator lights up.
- **2.** Press [MENU] repeatedly until the display shows 'd:XXX'.
- 3. ► Use ▲ or ▼ to select a value between 0 and 100 (display shows 'd:000' ... 'd:100') to set the dimmer intensity. The setting is instantly applied.

### Setting the DMX address

- **1.** Press [MODE] to enable 'Receive' mode.
  - ⇒ The [Receive] indicator lights up.
- 2. Press [MENU] repeatedly until the display shows 'A:XXX'.

3. ▶ Use ▲ or ▼ to select a value between 1 and 512 (display shows 'A:001' ... 'A:512') as start address for channel 1. The setting is instantly applied. Channels 2, 3 and 4 are automatically given addresses that follow the address selected for channel 1.

### Selecting the number of DMX channels

The unit can be controlled via 1, 2 or 4 DMX channels.

- **1.** Press [MODE] to enable 'Receive' mode.
  - ⇒ The [Receive] indicator lights up.
- 2. Press [MENU] repeatedly until the display shows 'CH:01', 'CH:02' or 'CH:04'.
- 3. ▶ Use ▲ or ▼ to select the desired DMX channel mode. The setting is instantly applied.

Display	Function		
CH:01	1-channel DMX mode		
	All four channels of the device are controlled via one DMX channel.		
CH:02	2-channel DMX mode		
	Each two channels of the device are controlled via each one DMX channel.		
CH:04	4-channel DMX mode		
	Each channel of the device is controlled via its own DMX channel.		

#### Switch mode

Switch mode can be selected both in 'Chase' mode and in 'Receive' mode.

When switch mode is activated, a connected spotlight lights up at full brightness regardless of the DMX signal. When switch mode is deactivated, a connected spotlight operates according to the DMX signal.

- **1.** Press [MODE] to activate 'Chase' mode or 'Receive' mode.
  - ⇒ The [Chase] indicator lights up, when the 'Chase' mode is active. The [Receive] indicator lights up, when the 'Receive' mode is active.
- **2.** Press [MENU] to select the output channel of the device (display shows 'C1-d' ... 'C4-d').
- **3.**  $\triangleright$  Use  $\blacktriangle$  or  $\blacktriangledown$  to select '-S' for enabling Switch mode. The setting is instantly applied.
  - ⇒ Switch mode is activated. A spotlight connected to this output channel lights up in full brightness regardless of the DMX signal.
- **4.**  $\triangleright$  Use  $\blacktriangle$  or  $\blacktriangledown$  to select '-d' for disabling Switch mode. The setting is instantly applied.
  - ⇒ Switch mode is deactivated. A spotlight connected to this output channel is operated depending on the DMX signal.

# **Technical specifications**

Control principle	Leading edge phase control		
Input connections	Signal input	DMX 512 via 3-pin XLR plug	
Output connections	Power supply	4 × outlets, 230 V	
	Signal output	DMX 512 via 3-pin XLR panel socket	
Output current	Max. 5 A / channel, 16 A (in total)		
Channel fuse	Micro fuse per channel	5 mm $\times$ 20 mm, 6.3 A, 250 V, fast blow	
Power consumption	3680 W		
Supply voltage	230 V ∼ 50 Hz		
International Protection Rating	IP20		
Mounting options	Wall or stand mounting		
Dimensions (W $\times$ H $\times$ D)	260 mm × 210 mm × 72 mm		
Weight	3.25 kg		
Ambient conditions	Temperature range	0 °C40 °C	
	Relative humidity	20%80% (non-condensing)	

#### 8 Plug and connection assignments

#### Introduction

This chapter will help you select the right cables and plugs to connect your valuable equipment so that a perfect light experience is guaranteed.

Please take our tips, because especially in 'Sound & Light' caution is indicated: Even if a plug fits into a socket, the result of an incorrect connection may be a destroyed DMX controller, a short circuit or 'just' a not working light show!

### DMX connections



The unit offers a 3-pin XLR socket for DMX output and a 3-pin XLR plug for DMX input. Please refer to the drawing and table below for the pin assignment of a suitable XLR plug.

Pin	Configuration
1	Ground, shielding
2	Signal inverted (DMX–, 'cold signal')
3	Signal (DMX+, 'hot signal')

## 9 Cleaning

### **Device components**

Clean the device components that are accessible from the outside regularly. The cleaning frequency depends on the operating environment: damp, smoky or particularly dirty environments can cause greater accumulation of dirt on the device components.

- Clean with a dry soft cloth.
- Stubborn dirt can be removed with a slightly dampened cloth.
- Never use solvents or alcohol for cleaning.

#### 10 **Protecting the environment**

## Disposal of the packing material



Environmentally friendly materials have been chosen for the packaging. These materials can be sent for normal recycling. Ensure that plastic bags, packaging, etc. are disposed of in the proper manner.

Do not dispose of these materials with your normal household waste, but make sure that they are collected for recycling. Please follow the instructions and markings on the packaging.



Observe the disposal note regarding documentation in France.

### Disposal of your old device



This product is subject to the European Waste Electrical and Electronic Equipment Directive (WEEE) as amended.

Do not dispose of your old device with your normal household waste; instead, deliver it for controlled disposal by an approved waste disposal firm or through your local waste facility. When disposing of the device, comply with the rules and regulations that apply in your country. If in doubt, consult your local waste management facility. Proper disposal protects the environment as well as the health of your fellow human beings.

Also note that waste avoidance is a valuable contribution to environmental protection. Repairing a device or passing it on to another user is an ecologically valuable alternative to disposal.

You can return your old device to Thomann GmbH at no charge. Check the current conditions on www.thomann.de.

If your old device contains personal data, delete those data before disposing of it.