MPX-4LED Multipack

User manual

digital dimmer and switcher

Musikhaus Thomann
Thomann GmbH
Hans-Thomann-Straße 1
96138 Burgebrach
Germany
Telephone: +49 (0) 9546 9223-0
E-mail: info@thomann.de
Internet: www.thomann.de

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MPX-4LED Multipack
4 Channels Digital Dimmer Pack
CHANNEL OUTPUT
MODE
MENU
DMX CHANNEL
TOTAL DMX CHANNEL
DIMMER / SWITCH
CHASE PROGRAM
CHASE SPEED
CHASE DIMMER
DIMMER / SWITCH
DISPLAY

1 General information

This user manual contains important information on the safe operation of the device. Read and follow all safety notes and all instructions. Save this manual for future reference. Make sure that it is available to all persons using this device. If you sell the device to another user, be sure that they also receive this manual.

Our products and user manuals are subject to a process of continuous development. We therefore reserve the right to make changes without notice. Please refer to the latest version of the user manual which is ready for download under *www.thomann.de*.

1.1 Further information

On our website (*www.thomann.de)* you will find lots of further information and details on the following points:

Download	This manual is also available as PDF file for you to download.
Keyword search	Use the search function in the electronic version to find the topics of interest for you quickly.
Online guides	Our online guides provide detailed information on technical basics and terms.
Personal consultation	For personal consultation please contact our technical hotline.
Service	If you have any problems with the device the customer service will gladly assist you.

1.2 Notational conventions

This manual uses the following notational conventions:

Letterings

The letterings for connectors and controls are marked by square brackets and italics.

Examples: *[VOLUME]* control, *[Mono]* button.

Displays

Texts and values displayed on the device are marked by quotation marks and italics.

Examples: *'24ch'*, *'OFF'*.

1.3 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 manual.

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
	Warning – high-voltage.
	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!

Danger for children

Ensure that plastic bags, packaging, etc. are disposed of properly and are not within reach of babies and young children. Choking hazard!

Ensure that children do not detach any small parts (e.g. knobs or the like) from the unit. They could swallow the pieces and choke!

Never let children unattended use electrical devices.

DANGER!

Electric shock caused by high voltages inside

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 if covers, protectors or optical components are missing or damaged.

DANGER!

Electric shock caused by short-circuit

Do not modify the mains cable or the plug. Failure to do so could result in electric shock/death or fire. If in doubt, seek advice from a registered electrician.

NOTICE!

Risk of fire

Do not block areas of ventilation. Do not install the device near any direct heat source. Keep the device away from naked flames.

NOTICE!

Operating conditions

This device has been designed for indoor use only. To prevent damage, never expose the device to any liquid or moisture. Avoid direct sunlight, heavy dirt, and strong vibrations.

Only operate the device within the ambient conditions specified in the chapter 'Technical specifications' of this user manual. Avoid heavy temperature fluctuations and do not switch the device on immediately after it was exposed to temperature fluctuations (for example after transport at low outside temperatures).

Dust and dirt inside can damage the unit. When operated in harmful ambient conditions (dust, smoke, nicotine, fog, etc.), the unit should be maintained by qualified service personnel at regular intervals to prevent overheating and other malfunction.

NOTICE!

Power supply

Before connecting the device, ensure that the input voltage (AC outlet) matches the voltage rating of the device and that the AC outlet is protected by a residual current circuit breaker. Failure to do so could result in damage to the device and possibly injure the user.

Unplug the device before electrical storms occur and when it is unused for long periods of time to reduce the risk of electric shock or fire.

NOTICE!

Possible damage due to installation of a wrong fuse

The use of different types of fuses can cause serious damage to the unit. Fire hazard!

Only fuses of the same type may be used.

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

4 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.

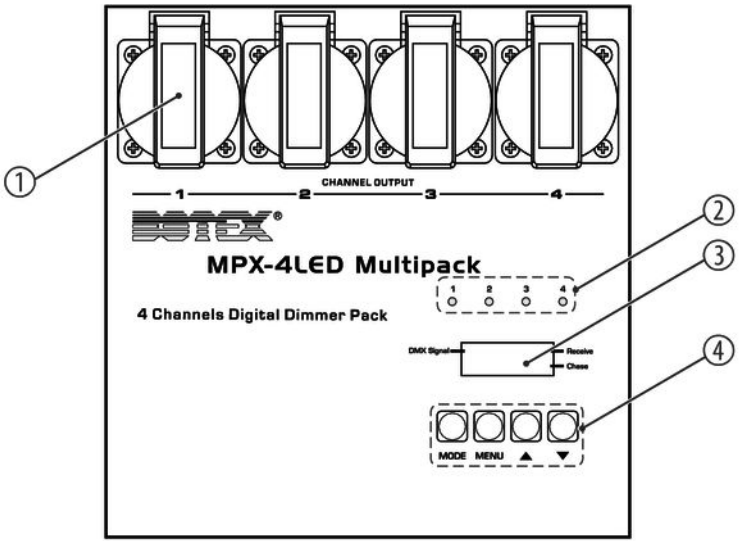
Create all connections while the device is off. Use the shortest possible high-quality cables for all connections. Take care when running the cables to prevent tripping hazards.

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 Ω, ¼ W).

5 Connections and controls

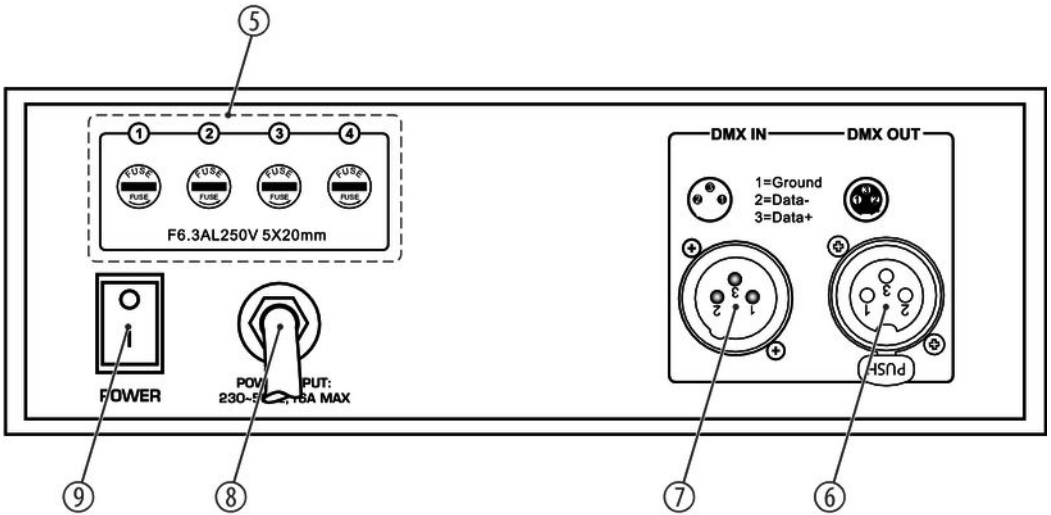
Front panel



1	*[CHANNEL OUTPUT]* 4 × socket as dimmer output for connecting the spotlight to be controlled, loadable with 5 A per channel, total up to max. 16 A.
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 unit is turned on and receives a DMX signal.
	[Receive] The *[Receive]* indicator lights up, when the *'Receive'* mode is active.
	[Chase] The *[Chase]* indicator lights up, when the *'Chase'* mode is active.
4	*[MODE]* Button for choosing the operating mode.

	[MENU] Button to open the main menu and confirm display values
	▲ Button to increase the displayed value.
	▼ Button to decrease the displayed value.

Connections



5	*[FUSE]* Fuse holder
6	*[DMX OUT]* DMX output
7	*[DMX IN]* DMX input
8	*[POWER INPUT]* Power cord
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. Use ▲ or ▼ 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. Use ▲ or ▼ 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.

7 Technical specifications

Control protocol	DMX512	
Input connections	Signal input	XLR chassis plug, 3-pin
Output connections	Signal output	XLR chassis socket, 3-pin
Output current	5 A per channel, max. 16 A in total	
Channel fuse	4 × 5 mm × 20 mm, 6,3 A, 250 V, fast-acting	
Operating supply voltage	230 V ~ 50 Hz	
Protection class	IP20	
Dimensions (W × H × D)	260 mm × 210 mm × 53 mm	
Weight	2.6 kg	
Ambient conditions	Temperature range	0 °C…40 °C
	Relative humidity	50 %, 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 packaging material

For the transport and protective packaging, environmentally friendly materials have been chosen that can be supplied to normal recycling.

Ensure that plastic bags, packaging, etc. are properly disposed of.

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

Disposal of your old device

This product is subject to the European Waste Electrical and Electronic Equipment Directive (WEEE) in its currently valid version. Do not dispose with your normal household waste.

Dispose of this device through an approved waste disposal firm or through your local waste facility. When discarding the device, comply with the rules and regulations that apply in your country. If in doubt, consult your local waste disposal facility.