STAIRVILLE

Pixel Panel 440 RGB MKII

effect panel

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MUSIC IS OUR PASSION

user manual

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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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.
WARNING!	This combination of symbol and signal word indicates a possible dangerous situation that can 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 – dangerous optical radiation.

Warning signs	Type of danger
	Warning – suspended load.
	Warning – danger zone.

2 Safety instructions

Intended use

This device is intended for use as an electronic lighting effect by means of LED technology. The device is designed for professional use and is not suitable for use in households. 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.

Extend the life of the device by regular breaks in operation and avoid switching it on and off frequently. This device is not suitable for continuous use.

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.

Completely disconnect the device from the power supply before you open or remove covers. Mount all covers and attach them firmly before connecting the device again.

Do not use the device if covers, protectors or optical components are missing or damaged.

DANGER!

Electric shock caused by short-circuit

Always use proper ready-made insulated mains cabling (power cord) with a protective contact plug. 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.

WARNING!

Eye damage caused by high light intensity

Never look directly into the light source.

WARNING!

Risk of epileptic shock

Strobe lighting can trigger seizures in photosensitive epilepsy. Sensitive persons should avoid looking at strobe lights.

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

- Effect panel with 160 × SMD RGB LEDs
- Control protocols: DMX-512, ArtNet
- Operating modes: Stand alone (30 programmes), Master / Slave, DMX (eight or 480 channels)
- In and outputs: DMX (3 and 5-pin), RJ45
- Operating via buttons and display on the unit
- Power Twist connectors for self-supply and for supplying further devices
- Robust aluminium die-cast housing
- variably positionable bracket with various mounting options
- the supplied fastening strap allows to connect devices stably to each other

For technological reasons, the light output of LEDs decreases over their lifetime. This effect increases with higher operating temperature. You can extend the service life of the illuminants by providing adequate ventilation and operating the LEDs with the lowest possible brightness.

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.

Mounting options

WARNING!

Risk of injury caused by falling objects

Make sure that the installation complies with the standards and rules that apply in your country. Always secure the device with a secondary safety attachment, such as a safety cable or a safety chain.

NOTICE!

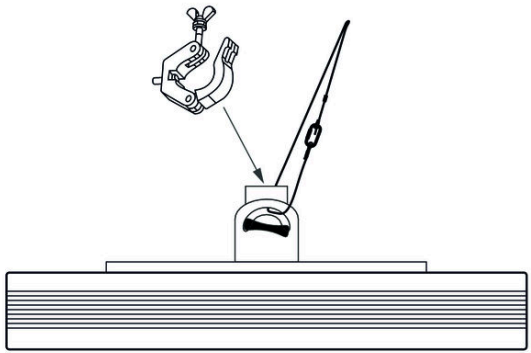
Risk of overheating

The distance between light output and the illuminated surface must be more than 1.5 m (19.7in).

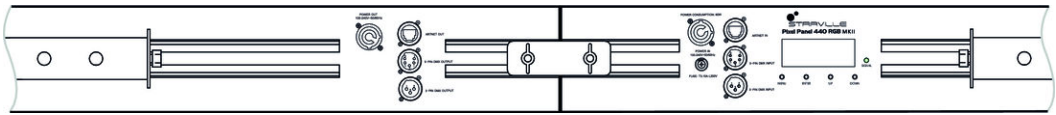
Provide sufficient ventilation.

The ambient temperature must always be below 40 °C (104 °F).

The horizontally movable and swivelling mounting bracket on the rear of the device is used for secure mounting and alignment of the device on a tripod or the like using an Omega bracket. Secure the device additionally with a safety cable, which is routed through the bracket, as shown in the following figure.



The mounting rails and fastening lugs are used for secure serial mounting of several Effect panels, see figure below.

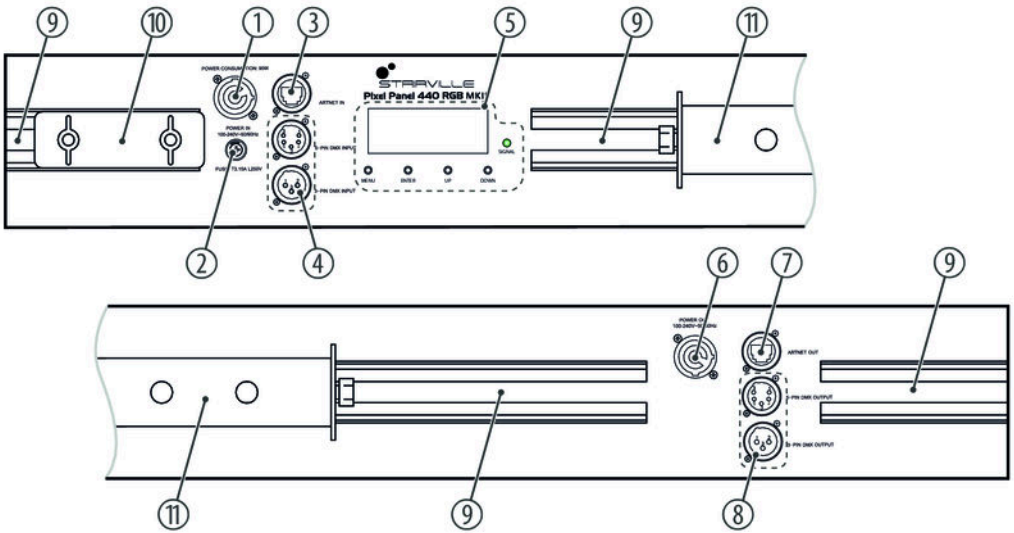


Connect the units to be controlled via suitable DMX or RJ45 data cable to the device. A maximum of 30 devices may be serially connected to each serial port of the controller. The cable length in a series connection for DMX operation should not exceed 100 metres.

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.

Please note that this device must not be connected to a dimmer.

5 Connections and controls



1	*[POWER IN]* Lockable Power Twist input socket for power supply.
2	*[FUSE]* Fuse holder
3	*[ARTNET IN]* RJ45 input to control the device via computer / controller
4	*[DMX INPUT]* DMX input (3 and 5-pin) to control the device via DMX
5	Display
	[SIGNAL] Indicator LED. This LED lights up on incoming signal.
	[MENU] Activates the main menu and toggles between menu items. Closes an opened submenu.

	[ENTER] Selects an option of the respective operating mode, confirms the set value.
	[UP] Increases the displayed value by one.
	[DOWN] Decreases the displayed value by one.
6	*[POWER OUT]* Lockable Power Twist output socket to supply further devices.
7	*[ARTNET OUT]* RJ45 output for connecting additional ArtNet or KlingNet-enabled devices via data cable.
8	*[DMX OUTPUT]* DMX output (3 and 5-pin) for connecting additional DMX devices in a DMX universe.
9	Horizontal mounting rail

10	Mounting lug for connecting multiple devices together
11	Horizontally movable and swivelling mounting bracket

6 Operating

Connect the device to the power grid. Once the display is lit, the device is operational.

Operating mode Auto

Automatic operation can only be activated when the unit is operating alone or as master in a master / slave combination. This setting is only relevant if the device is not controlled via DMX or ArtNet.

Press *[MENU]* and use the buttons *[UP]* and *[DOWN]* to select the *'Auto Mode'* option. Confirm with *[ENTER]* to open the 'Auto Mode' menu.

Here you can activate one of 30 available show programmes and set the programme speed.

Use the buttons *[UP]* and *[DOWN]* to select the desired option and confirm with *[ENTER]*. Adjust the displayed value with *[UP]* and *[DOWN]* and press Enter to confirm each new setting. *[ENTER]*.

With *[MENU]* you return to the previous menu level.

Parameter	Function
Speed	Programme speed, value range *'1'* … *'9'* (slow … fast).
Program	Programme selection, value range *'01'* … *'29'*, *'Mix'*.

DMX mode

This setting is only relevant when the device is controlled via DMX.

Press *[MENU]* and use the buttons *[UP]* and *[DOWN]* to select the option *'DMX CH Mode'*. Confirm with *[ENTER]* to open the 'DMX CH Mode' menu.

Use *[UP]* or *[DOWN]* to specify the desired DMX mode.

- *'8CH'* (eight channels)
- *'480CH'* (480 channels)

Confirm to save the new setting with *[ENTER]*. With *[MENU]* you return to the previous menu level.

DMX address

This setting is only relevant when the device is controlled via DMX.

Press *[MENU]* and use the buttons *[UP]* and *[DOWN]* to select the *'DMX Address'* option. Confirm with *[ENTER]* to open the 'DMX Address' menu.

In 8-channel mode, use *[UP]* or *[DOWN]* to specify the desired DMX address in a range from *'001'* … *'504'*.

In 480-channel mode, use *[UP]* or *[DOWN]* to specify the desired DMX address in a range from *'001'* … *'032'*.

Confirm to save the new setting with *[ENTER]*. With *[MENU]* you return to the previous menu level.

Software info

This menu offers you the option to display the currently installed software version.

Press *[MENU]* and use the buttons *[UP]* and *[DOWN]* to select the *'Software Version'* option.

Confirm with *[ENTER]* to display the version information.

With *[MENU]* you return to the previous menu level.

Network settings

In this menu you determine the network settings.

Press *[MENU]* and use the buttons *[UP]* and *[DOWN]* to select the *'Network Settings'* option. Confirm with *[ENTER]* to open the 'Network Settings' menu.

Use the buttons *[UP]* and *[DOWN]* to select the desired option and confirm with *[ENTER]*. Adjust the displayed value with *[UP]* and *[DOWN]* and press Enter to confirm each new setting. *[ENTER]*.

Parameter	Function
IP Address	IP address
Subnet Mask	Subnet mask
Net SubNet Unive	DMX universe

Operating mode Slave

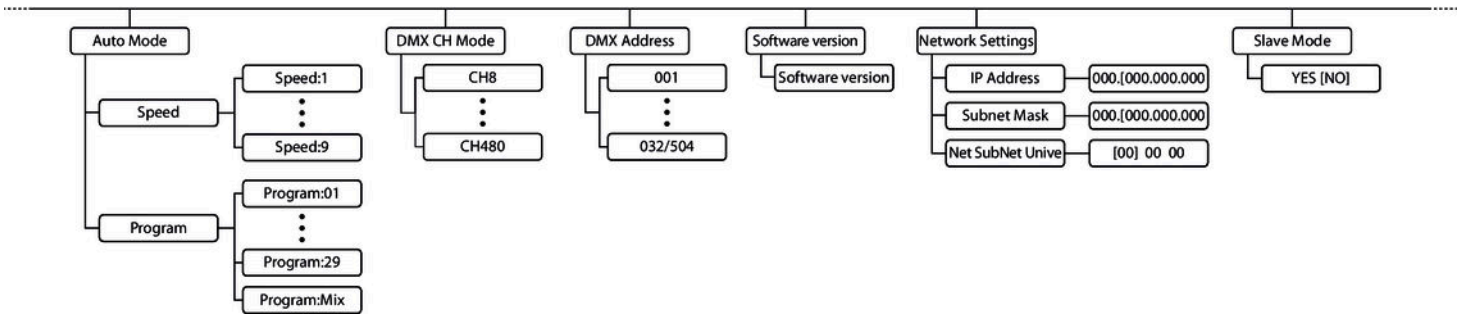
This setting is only relevant if the device is controlled via DMX and working as slave in a master / slave configuration.

Press *[MENU]* and use the buttons *[UP]* and *[DOWN]* to select the *'Slave Mode'* option.

Confirm with *[ENTER]* and use *[UP]* and *[DOWN]* to select the *'YES'* option. Then the device operates in Slave mode.

With *[MENU]* you return to the previous menu level.

6.1 Menu overview



6.2 Functions in 8-channel mode

Channel	Value	Function
1	0 … 255	Dimmer function (0 % … 100 %)
2	0 … 255	Strobe effect (slow … fast)
3	0 … 255	Intensity red LED (0 % … 100 %)
4	0 … 255	Intensity green LED (0 % … 100 %)
5	0 … 255	Intensity blue LED (0 % … 100 %)
6	0 … 15	Without function
	16 … 31	Show programme 01
	32 … 47	Show programme 02
	48 … 63	Show programme 03
	64 … 79	Show programme 04
	80 … 95	Show programme 05

Channel	Value	Function
	96 … 111	Show programme 06
	112 … 127	Show programme 07
	128 … 143	Show programme 08
	144 … 159	Show programme 09
	160 … 175	Show programme 10
	176 … 191	Show programme 11
	192 … 207	Show programme 12
	208 … 223	Show programme 13
	224 … 239	Show programme 14
	240 … 255	Show programme 15
7	0 … 15	Without function
	16 … 31	Show programme 16
	32 … 47	Show programme 17

Channel	Value	Function
	48 … 63	Show programme 18
	64 … 79	Show programme 19
	80 … 95	Show programme 20
	96 … 111	Show programme 21
	112 … 127	Show programme 22
	128 … 143	Show programme 23
	144 … 159	Show programme 24
	160 … 175	Show programme 25
	176 … 191	Show programme 26
	192 … 207	Show programme 27
	208 … 223	Show programme 28
	224 … 239	Show programme 29

Channel	Value	Function
	240 … 255	Show programme mix
8	0 … 255	Programme speed (slow … fast)

6.3 Functions in 480-channel mode

Channel	Value	Function
1	0 … 255	Intensity red LED 1 (0 % … 100 %)
2	0 … 255	Intensity green LED 1 (0 % … 100 %)
3	0 … 255	Intensity blue LED 1 (0 % … 100 %)
4	0 … 255	Intensity red LED 2 (0 % … 100 %)
5	0 … 255	Intensity green LED 2 (0 % … 100 %)
6	0 … 255	Intensity blue LED 2 (0 % … 100 %)

Channel	Value	Function
7	0 … 255	Intensity red LED 3 (0 % … 100 %)
8	0 … 255	Intensity green LED 3 (0 % … 100 %)
9	0 … 255	Intensity blue LED 3 (0 % … 100 %)
…	…	…
478	0 … 255	Intensity red LED 160 (0 % … 100 %)
479	0 … 255	Intensity green LED 160 (0 % … 100 %)
480	0 … 255	Intensity blue LED 160 (0 % … 100 %)

6.4 Network connection

ArtNet

For operation via ArtNet, first Install the necessary software on your PC (Windows or Mac with fixed IP address). Connect the device(s) to the controller and switch it on. Give the controller an IP address corresponding to the ArtNet settings. Set the subnet mask of the controller and the software to '255.0.0.0'.

Connect the controller to your PC. The software automatically recognizes all connected devices.

7 Maintenance

7.1 Changing the front panel

DANGER!

Electric shock caused by high voltages inside

Within the device there are areas where high voltages may be present.

Completely disconnect the device from the power supply before you open or remove covers. Mount all covers and attach them firmly before connecting the device again.

Do not use the device if covers, protectors or optical components are missing or damaged.

NOTICE!

Damage to electronic components

The electronic components on the PCB of the device are sensitive to electrostatic discharge and contamination.

Avoid touching the board.

Procedure

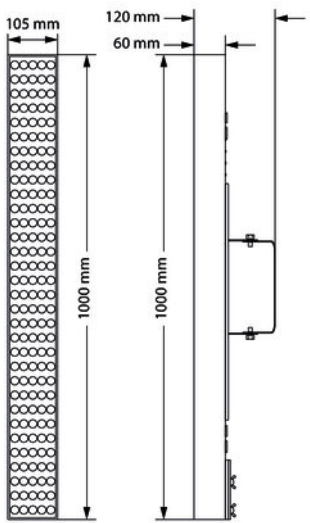
1. Make sure that the device is disconnected from the mains and completely cooled down.
2. Open the housing by loosening the four Phillips screws on both front sides of the housing and remove the side covers.
3. Slide the front panel about 10 cm sideways in one direction out of the housing.
4. Remove the front panel completely.

5. Carefully slide the replacement front panel into the unit.

> *Make sure that the groove of the front panel sits correctly in the guide rail of the device.*

6. Reattach the side covers of the unit to both front sides of the housing and secure them with the four corresponding Phillips screws.
7. Reconnect the device to the mains.

8 Technical specifications



Light source		160 × SMD RGB LED
Optical properties	Beam angle	120°
Dimmer		0 … 100 %
Strobe effect		0 … 25 Hz
Control protocols		DMX-512
Control		ArtNet
		DMX
Number of DMX channels		8, 480
Input connections	Voltage supply	1 × lockable Power Twist input socket
	DMX control	1 × XLR chassis socket, 3-pin
		1× XLR chassis socket, 5-pin
	ArtNet control	1 × RJ45 input socket

Output connections	Voltage supply	1 × lockable Power Twist output socket
	DMX control	1 × XLR chassis socket, 3-pin
		1 × XLR chassis socket, 5-pin
	ArtNet control	1 × RJ45 output socket
Power consumption		90 W
Operating supply voltage		100 – 240 V ~ 50/60 Hz
Fuse		5 mm × 20 mm, 3.15 A, 250 V, slow-blow
Protection class		IP20
Mounting options		hanging, tripod-mounted
Dimensions (W × H × D)		118 mm × 1000 mm × 123 mm (incl. bracket)
Weight		4 kg

Ambient conditions	Temperature range	0 °C…40 °C
	Relative humidity	50 %, non-condensing

Further information

Type	Wall decoration
Rechargeable battery operation	No
Housing colour	black

9 Plug and connection assignment

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')

DMX connections

A five-pin XLR socket serves as DMX output, a five-pin XLR plug serves as DMX input. The drawing below and the table show the pin assignment of a matching coupling.

Pin	Assignment
1	Ground (shielding)
2	Signal inverted (DMX–, 'cold')
3	Signal (DMX+, 'hot')
4	unused / second connection (DMX–)
5	unused / second connection (DMX+)

10 Troubleshooting

NOTICE!

Possible data transmission errors

For error-free operation make use of dedicated DMX cables and do not use ordinary microphone cables.

Never connect the DMX input or output to audio devices such as mixers or amplifiers.

In the following we list a few common problems that may occur during operation. We give you some suggestions for easy troubleshooting:

Symptom	Remedy
The unit does not work, no light, the display is dark	Check the mains connection and the main fuse.
No response to the DMX controller	1. Check whether the DMX controller is switched on. Check the DMX connectors and cables for proper connection.
	2. Check the address settings and the DMX polarity.
	3. Try using another DMX controller.
	4. Check whether the DMX cables run near or parallel to high-voltage cables that may cause damage or interference to a DMX interface circuit.

If the procedures recommended above do not succeed, please contact our Service Center. You can find the contact information at *www.thomann.de*.

11 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.

12 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.

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