



LED PAR56 24×3W RGB MKII  
LED PAR64 36×3W RGB MKII

LED PAR

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# 1 General notes

This manual contains important instructions for the safe operation of the unit. Read and follow the safety instructions and all other instructions. Keep the manual for future reference. Make sure that it is available to all those using the device. If you sell the unit please make sure that the buyer also receives this manual.

Our products are subject to a process of continuous development. Thus, they are subject to change.

## 1.1 Further information

On our website ([www.thomann.de](http://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
<b>DANGER!</b>	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.
<b>WARNING!</b>	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.
<b>NOTICE!</b>	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 – suspended load.



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Warning signs	Type of danger
	Warning – danger zone.

## 2 Safety instructions

### **Intended use**

This device is intended to be used as an electronic illumination effect using LED technics. 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.

**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.



**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.



**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 cover the device nor any ventilation slots. Do not place 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.



### **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.

### 3 Features

The LED PAR is suitable for almost all applications, for example in clubs, bars, small stages and theatres. It is characterized by small size, solid construction also for use 'on tour' and enormous power.

Special features of the device:

- 24 × tri-colour High-Power-LEDs (LED PAR 56)  
or
- 36 × tri-colour High-Power-LEDs (LED PAR 64)
- Control via DMX (two different modes) and via buttons and display on the unit
- Automatic mode and sound control
- Master / Slave operation
- Robust metal housing with colour filter frame holder and double bracket

## 4 Installation

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

You can install the device on the wall, ceiling or floor. A two-piece mounting bracket with locking screws is included in the package.



**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**

Always ensure sufficient ventilation.

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



**NOTICE!**

**Use of stands**

When mounting the device onto a stand, ensure that the stand is in a safe and stable position and that the weight of the device does not exceed the maximum permissible load capacity of the stand.



### **NOTICE!**

#### **Possible data transmission errors**

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

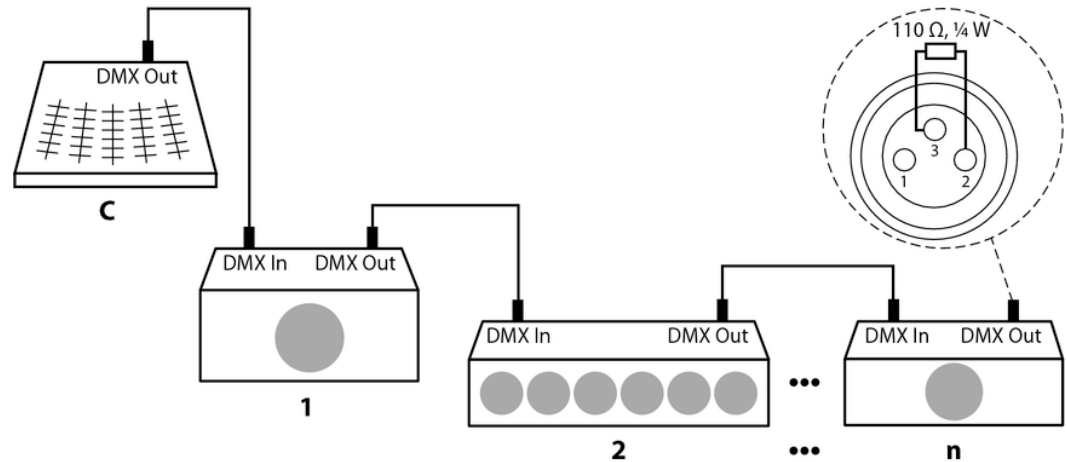
Never connect the DMX input or output to audio devices such as mixers or amplifiers.

## 5 Starting up

Establish all connections as long as the unit is switched off. Use the shortest possible high-quality cables for all connections.

### Connections in DMX mode

Connect the DMX input of the device to the DMX output of a DMX controller or another DMX device. Connect the output of the first DMX device to the input of the second one, and so on to form a daisy chain. Always ensure that the output of the last DMX device in the daisy chain is terminated with a resistor ( $110\ \Omega$ ,  $\frac{1}{4}\text{ W}$ ).



**DMX indicator**

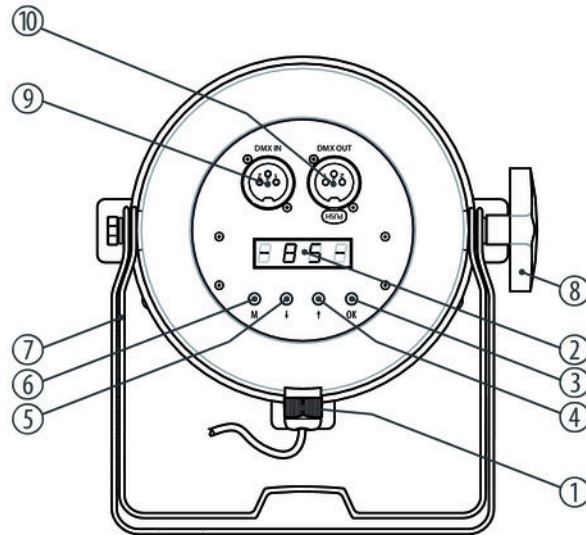
With active display, a dot is lit in the first digit when the unit is in DMX mode. If the dot is not lit, no valid DMX data is received.

**Connections in master/slave mode**

When you configure a group of devices in master/slave mode, the first unit will control the other units for an automatic, sound-activated, synchronized show. This function is ideal when you want to start a show immediately. Connect the DMX output of the master device to the DMX input of the first slave device. Then connect the DMX output of the first slave device to the DMX input of the second slave device and so on.

## 6 Connections and controls

### Rear panel



1	Power cord.
2	Display.
3	<i>[OK]</i> Confirms a selected value.
4,5	↑, ↓ Buttons to increase / decrease the displayed value by one.
6	<i>[M]</i> Calls up the main menu or a submenu.
7	Bracket for floor placement or hanging.
8	Locking screws for the mounting bracket.
9	<i>[DMX IN]</i> DMX input.
10	<i>[DMX OUT]</i> DMX output.

## 7 Operating

### 7.1 Starting the device

Connect the device to the power supply to start operation. After a few seconds, the display indicates that a reset is in progress. The device is then ready for use.

### 7.2 Main menu

Press *[M]* to activate the main menu and select an operating mode. Use the arrow buttons to change the respectively displayed value. When the display shows the desired value, press *[OK]*.

If you don't press any button for about 1 minute, the unit returns to the previously selected mode. The set values are retained even when the device is disconnected from the mains power supply.



**DMX mode**

Press *[M]*. Press one of the arrow buttons repeatedly until the display shows 'SET'. Press *[OK]*. Press one of the arrow buttons repeatedly until the display shows 'dMX'. Press *[OK]*. Now use the arrow buttons to select one of the following DMX modes:

- '3CH' (three channels)
- '5CH' (five channels)

This setting is only relevant when the device is controlled via DMX. When the display shows the desired value, press *[OK]* to confirm the selection and then *[M]* to return to the parent menu. To return to the parent menu without making changes, press *[M]*.

### DMX address

Press *[M]*. Press one of the arrow buttons repeatedly until the display shows 'Addr'. Press *[OK]*. Now you can set the number of the first DMX channel to be used by the device (DMX address). Use the arrow buttons to select a value between 1 and 512 (display shows 'A001' ... 'A512').

When the display shows the desired value, press *[OK]* to confirm the selection and then *[M]* to return to the parent menu. To return to the parent menu without making changes, press *[M]*.

Make sure that this number matches the configuration of your DMX controller. The following table shows the highest possible DMX address for the various DMX modes

Mode	Highest possible DMX address
3-channel	510
5-channel	508

## Display blackout

Press *[M]*. Press one of the arrow buttons repeatedly until the display shows 'SET'. Press *[OK]*. Press one of the arrow buttons repeatedly until the display shows 'DISP'. Press *[OK]*.

To enable the blackout function press one of the arrow buttons repeatedly until the display shows 'OFF'. Press *[OK]*. From now on the display goes out if you do not press a button within a period of two minutes. Once you press any button, the display becomes active again.

To permanently turn on the display, press one of the arrow buttons repeatedly until the display shows 'ON'. Press *[OK]*.

To return to the parent menu, press *[M]*.

## Operating mode 'Master'

Press *[M]*. Press one of the arrow buttons repeatedly until the display shows 'SET'. Press *[OK]*. Press one of the arrow buttons repeatedly until the display shows 'MAST'. To configure the device as Master use the arrow buttons to select the setting 'ON'. The device is now configured as Master and sets the movements and light effects which are copied by the devices configured as Slaves.

To return to the parent menu without making changes, press *[M]*.

This setting is only relevant if the device is not controlled via DMX.

### **Operating mode 'Slave'**

To configure the device as slave, press one of the arrow buttons repeatedly until the display shows 'SLAVE'. Press [OK] to confirm the selection. The device is now configured as slave and follows the settings of the master device to which it is connected. Make sure that on all devices configured as Slave the DMX address is set to 1.

To return to the parent menu without making changes, press [M].

This setting is only relevant if the device is not controlled via DMX.

### **Operating mode 'Show 1'**

Press [M]. Press one of the arrow buttons repeatedly until the display shows 'CHAN'. Press [OK]. Now you can select one of the preprogrammed automatic shows. Use the arrow buttons to select a value for the progress speed between 0 and 255. (Display shows 'C000' ... 'C255').

The auto show can only be activated on the master device.

This setting is only relevant if the device is not controlled via DMX. The device can operate in stand-alone mode or control connected devices of the same type, that must be configured as slaves. When the display shows the desired value, press [OK] to confirm the selection and then [M] to return to the parent menu. To return to the parent menu without making changes, press [M].

## Operating mode 'Show 2'

Press *[M]*. Press one of the arrow buttons repeatedly until the display shows 'MIX'. Press *[OK]*. Now you can select one of the preprogrammed automatic shows. Use the arrow buttons to select a value for the progress speed between 0 and 255. (Display shows 'M000' ... 'M255').

The auto show can only be activated on the master device.

This setting is only relevant if the device is not controlled via DMX. The device can operate in stand-alone mode or control connected devices of the same type, that must be configured as slaves. When the display shows the desired value, press *[OK]* to confirm the selection and then *[M]* to return to the parent menu. To return to the parent menu without making changes, press *[M]*.

## Sound control

Press *[M]*. Press one of the arrow buttons repeatedly until the display shows 'SOUd'. Press *[OK]* and use the arrow buttons to select the option 'ON' to enable sound control. The device now shows an automatic colour change in the rhythm of the music when operating mode 'Show 1' is active.

Open the 'SOUd' menu again to disable sound control. Confirm with *[OK]* and use the arrow buttons to select the option 'OFF'.

This setting is only relevant if the device is not controlled via DMX. Press *[M]* to return to the parent menu.

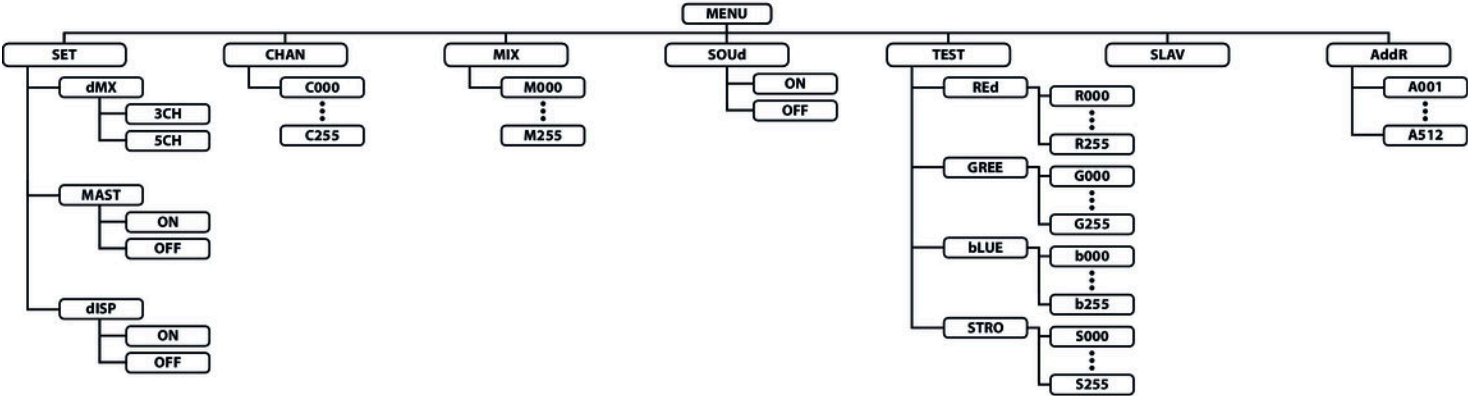
### Manual test

Press *[M]*. Press one of the arrow buttons repeatedly until the display shows *'TEST'*. Press *[OK]*. Press one of the arrow buttons repeatedly until the display shows *'RED'*, *'GREE'*, *'BLUE'* or *'STRO'*. Press *[OK]*. Now you can separately set the brightness of the LEDs for each colour red, green and blue in a range from 0 to 255, or select the strobe rate from a range of 0 to 255.

This mode is also suitable to mix constant or flashing light from the three LED colours without DMX control.

When the display shows the desired value, press *[OK]* to confirm the selection and then *[M]* to return to the parent menu. To return to the parent menu without making changes, press *[M]*.

### 7.3 Menu overview



## 7.4 Functions in 3-channel DMX mode

Channel	Value	Function
1	0...255	Intensity Red (0 % to 100 %)
2	0...255	Intensity Green (0 % to 100 %)
3	0...255	Intensity Blue (0 % to 100 %)

## 7.5 Functions in 5-channel DMX mode

Channel	Value	Function
1	0...255	Intensity Red (0 % to 100 %), if channel 4 = 0...31, otherwise without function
2	0...255	Intensity Green (0 % to 100 %), if channel 4 = 0...31, otherwise without function
3	0...255	Intensity Blue (0 % to 100 %), if channel 4 = 0...31, otherwise without function
4	0...31	Constant colour, the hue is set by channels 1 to 3



Channel	Value	Function
	32...63	Fade-out effect
	64...95	Fade-in effect
	96...127	Fade-in-out effect
	128...159	Random programme (Fade-out, Fade-in, colour change)
	160...191	Automatic colour change with 3 colours
	192...223	Automatic colour change with 10 colours
	224...255	Sound-controlled colour change
5	0...15	No function, if channel 4 = 0...31
	16...255	Stroboscope effect frequency, if channel 4 = 0...31
	0...255	Fade effect speed, if channel 4 = 32...127
	0...255	Programme change speed, if channel 4 = 128...223
	0...255	Sound-control sensitivity, if channel 4 = 224...255

## 8 Technical specifications

### LED PAR56 24x3W RGB MKII

LEDs	24 × tri-colour LEDs (RGB), 3 W each
Beam angle	40°
Number of DMX channels	3, 5
Power consumption	65 W
Operating supply voltage	100 - 240 V ~ 50/60 Hz
Housing colour	Black (item no. 386024) Silver (item no. 386027)
Dimensions (incl. bracket)	195 × 225 × 270 mm
Weight	2.3 kg

**LED PAR64 36×3W RGB MKII**

LEDs	36 × tri-colour LEDs (RGB), 3 W each
Beam angle	40°
Number of DMX channels	3, 5
Power consumption	90 W
Operating supply voltage	100 - 240 V ~ 50/60 Hz
Housing colour	Black (item no. 386012) Silver (item no. 386022)
Dimensions (incl. bracket)	260 × 275 × 390 mm
Weight	2.5 kg

## 9 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')

## 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	Check the mains connection and the main fuse.
Apparently no function despite proper power supply	Check if the unit is in DMX mode or in 'slave' mode. If so, check the unit in another mode.
No response to the DMX controller	<ol style="list-style-type: none"><li>1. With active display, a dot is lit in the first digit when the unit is in DMX mode. If the dot is not lit, no valid DMX data is received. Then check that the DMX controller is switched on. Check the DMX connectors and cables for proper connection.</li><li>2. Check the address settings and the DMX polarity.</li><li>3. Try using another DMX controller.</li><li>4. Check to see if the DMX cables run near or alongside to high voltage cables that may cause damage or interference to DMX interface circuits.</li></ol>

If the procedures recommended above do not succeed, please contact our Service Center. You can find the contact information at [www.thomann.de](http://www.thomann.de).

# 11 Cleaning

## Optical lenses

Clean the optical lenses, that are accessible from the outside, regularly in order to optimize the light output. The frequency of cleaning depends on the operating environment: wet, smoky or particularly dirty surroundings can cause more accumulation of dirt on the optics of the device.

- Clean with a soft cloth using our lamp and lens cleaner (item no. 280122).
- Always dry the parts carefully.

## Fan grids

The fan grids of the device must be cleaned on a regular basis to remove dust and dirt. Before cleaning, switch off the device and disconnect AC-powered devices from the mains. Use a lint-free damp cloth for cleaning. 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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