STAIRVILLE

PAR64 PRO 36x3W
Par56 Pro 24x3W
Mini Stage Par 7x3W
Stage PAR 18 Tri-Color LED3W

LED PAR

th•mann
MUSIC IS OUR PASSION

user manual

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24.01.2013

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1 General notes

This user manual contains important information on 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, include the manual for the next owner.

Our products are subject to a process of continuous development. We therefore reserve the right to make changes without notice.

Symbols and signal words

This section provides an overview of the symbols and signal words used in this user 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 signs	Type of danger
	Warning – suspended load.
	Warning – danger zone.

2 Safety instructions

Intended use

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

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.

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 particularly suitable for professional lighting applications, e.g. at events, on rock stages, in theatres and musicals or TV productions. It is characterized by a low power consumption and long life span.

Special features of this device:

- Tricolour LEDs (RGB)
- Control via DMX or DIP switches on the unit
- Preprogrammed automatic shows
- Sound control
- Master / slave mode
- Robust metal housing

4 Installation

Unpack and check carefully 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 mounting bracket and the necessary screws are 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 output to audio devices such as mixers or amplifiers.

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 pin assignment.

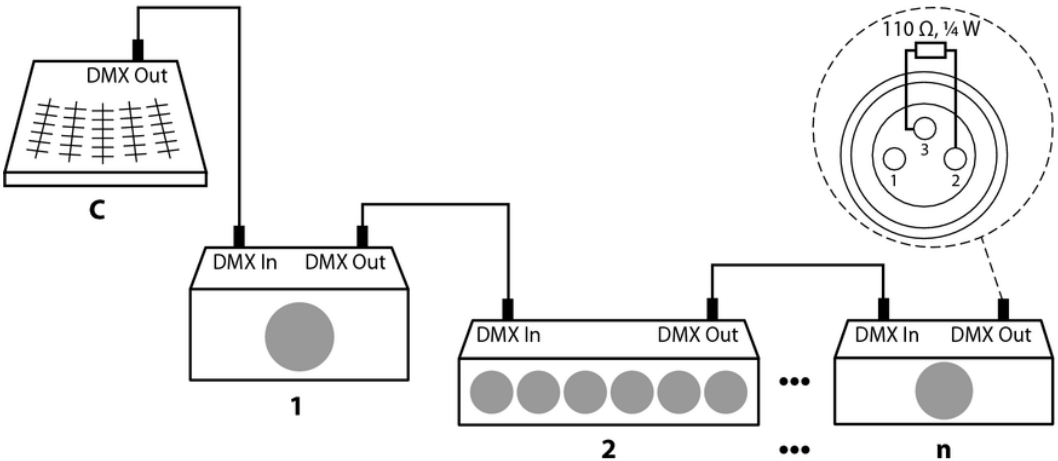
1	Ground, shielding
2	DMX data (–)
3	DMX data (+)

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 Ω, ¼ W).

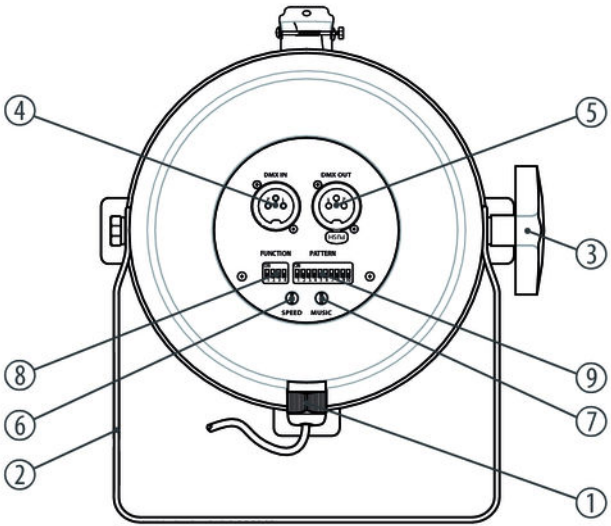


Connections in master/slave mode

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 operating elements

Rear panel



1	Mains cable.
2	Bracket for hanging or setting up.
3	Locking screw for the bracket.
4	**DMX IN** DMX input.
5	**DMX OUT** DMX output.
6	**SPEED** For manual speed adjustment.
7	**MUSIC** Sensitivity control for the built-in microphone.

8	**FUNCTION** This 4-way DIP switch sets the operating mode of the LED PAR.
9	**PATTERN** The function of this 10-way DIP switch depends on the current operating mode, e.g. in follow mode, the follow pattern can be selected here.

7 Operation

7.1 Introduction

The main characteristic of the LED PAR spotlights is the usability as 5-channel DMX controller. In this mode, the DMX in and outputs of 4 LED PAR lights must be connected via XLR cable.

The first LED PAR must be switched to DMX 'Master' mode. Then this light sends signals to the other connected devices, the 'slaves'. Various display patterns are available: e.g. all connected devices can show the same pattern, or each device shows a different one, or follow programmes or fade in / outs or blendings. The individual steps within the patterns can be controlled by the rhythm of the music or using a controller. The sensitivity of the sound-control is adjustable. The colour patterns offer a 100% colour mode, a 100% / 50% colour mode as well as a 100% / 75% / 50% / 25% colour mode. The colours are then selected randomly.

It also supports a 3-channel DMX slave mode for easy integration into a DMX system.

All 512 channels can be used.

The device also supports the stand-alone modes 'Auto change mode', 'Auto fade mode' and 'Manual mode'.

7.2 Operating modes

7.2.1 DMX modes

5-channel DMX master mode

In this mode, the LED PAR is used as a 5-channel DMX master. The 5-channel DMX master mode ensures compatibility to the first version of the LED PARs. The 5-channel DMX master mode utilises built-in features of the LED PARs, which are controlled via the DMX signal.

3 different patterns are available: e.g. all connected LED PARs can show the same pattern, or each device shows a different one, or follow programmes or fade in / outs or blendings. The individual steps within the patterns can be controlled by the rhythm of the music or using a controller. The sensitivity of the sound-control is adjustable. The colour patterns offer a 100% colour mode, a 100% / 50% colour mode as well as a 100% / 75% / 50% / 25% colour mode. The colours are then selected randomly.

3-channel DMX master mode

In this mode, the LED PAR is used as a 3-channel DMX master. The 3-channel DMX master mode occupies less DMX channels, e.g. when connecting DMX power packs or other equipment that receives DMX signals.

3 different patterns are available: e.g. all connected LED PARs can show the same pattern, or each device shows a different one, or follow programmes or fade in / outs or blendings. The individual steps within the patterns can be controlled by the rhythm of the music or using a controller. The sensitivity of the sound-control is adjustable. The colour patterns offer a 100% colour mode, a 100% / 50% colour mode as well as a 100% / 75% / 50% / 25% colour mode. The colours are then selected randomly.

5-channel DMX slave mode

In this mode, the LED PAR is used as DMX slave. The 5-channel DMX slave mode utilises built-in features of the LED PARs, which are controlled via the DMX signal. An external DMX controller controls the LED PAR.

3-channel DMX slave mode

The 3-channel slave mode is for use with a standard DMX controller. The LED PAR can be controlled via all 512 channels. Each colour is controlled via one DMX channel.

7.2.2 Stand-alone modes

Auto-fade mode

The Auto-fade mode is available with 3 different patterns for fade in / outs or blendings.

The times for fade in / outs or blendings can be determined exactly by 9 time settings.

The Auto-fade mode supports several colour change patterns: The colour patterns offer a 100% colour mode, a 100% / 50% colour mode as well as a 100% / 75% / 50% / 25% colour mode. The colours are then selected randomly.

Auto-change mode

The Auto-change mode supports various colour change patterns. The colour patterns offer a 100% colour mode, a 100% / 50% colour mode as well as a 100% / 75% / 50% / 25% colour mode. The colours are then selected randomly.

The change speed can be set by the rhythm of the music or with a controller.

Manual mode

In manual mode, each colour can be turned on in steps of about 14%.

7.3 Starting up the device

Connect the unit to the power grid to start the operation. After a few seconds the unit is ready for use.

7.4 Function selection

You can set the operating mode of the LED PARS according to the following table using the 4-way DIP switches **FUNCTION** on the rear panel:

SW4	SW3	SW2	SW1	Mode
X	0	0	0	Auto-change mode
X	0	0	1	Auto-fade mode
X	0	1	0	Manual mode
X	0	1	1	5-channel DMX slave mode
X	1	0	0	5-channel DMX master mode
X	1	0	1	3-channel DMX slave mode
X	1	1	0	3-channel DMX master mode
X	1	1	1	No new mode (3-channel DMX master mode is used)

SW4	SW3	SW2	SW1	Mode
0	X	X	X	Speed controlled by controller, if supported by the selected operating mode
1	X	X	X	Speed controlled by music, if supported by the selected operating mode

0 = DIP switch is in 'OFF' position. 1 = DIP switch is in 'ON' position. X = see more / above information.

7.5 Auto-change mode

The LED PAR shows different colours depending on the speed selection. In this mode, the LED PAR is used as a stand-alone device, the DMX in and outputs remain unused.

Mode selection

To enable the auto-change mode, set the 4-way DIP switch on the rear side of the LED PAR according to the following table:

SW4	SW3	SW2	SW1	Mode
X	0	0	0	Auto-change mode

0 = DIP switch is in 'OFF' position. 1 = DIP switch is in 'ON' position. X = see more / above information.

Setting the speed

Using SW4 you can set how the speed is controlled. Then orientate yourself on the following table:

SW4	SW3	SW2	SW1	Mode
0	0	0	0	Speed controlled by controller, if supported by the selected operating mode
1	0	0	0	Speed controlled by music, if supported by the selected operating mode

0 = DIP switch is in 'OFF' position. 1 = DIP switch is in 'ON' position.

Setting the colour pattern

You can set the colour patterns according to the following table using the 10-way DIP switch on the rear panel of the LED PAR:

SW10	SW9	SW8	SW7	SW6	SW5	SW4	SW3	SW2	SW1	Selecting the colour pattern
0	0	0	0	0	0	0	0	0	0	Compatibility mode - old pattern style
0	0	0	0	0	0	0	0	0	1	100% colour change
0	0	0	0	0	0	0	0	1	0	100%, 50% colour change
0	0	0	0	0	0	0	0	1	1	100%, 75%, 50%, 25% colour change

0 = DIP switch is in 'OFF' position. 1 = DIP switch is in 'ON' position.

If a different colour pattern is set, always pattern '0000000011' is used.

7.6 Auto fade mode

The LED PAR shows colour fadings depending on the speed selection. In this mode, the LED PAR is used as a stand-alone device, the DMX in / outputs remain unused.

Setting the mode

To activate the automatic fade mode, set the 4-way DIP switch on the back of the LED PAR according to the following table:

SW4	SW3	SW2	SW1	Mode
X	0	0	1	Auto fade mode

0 = DIP switch is in 'OFF' position. 1 = DIP switch is in 'ON' position. X = in this mode, speed control by controller or music is not supported.

Setting the fade speed

You can adjust the speed of the fading using the 10-way DIP switch on the back of the LED PAR according the following table:

SW10	SW9	SW8	SW7	SW6	SW5	SW4	SW3	SW2	SW1	Selection of fading speed
0	0	0	X	X	X	0	0	0	0	630 s (10:30 min)
0	0	0	X	X	X	0	0	0	1	2.5 s
0	0	0	X	X	X	0	0	1	0	5 s
0	0	0	X	X	X	0	0	1	1	10 s
0	0	0	X	X	X	0	1	0	0	20 s
0	0	0	X	X	X	0	1	0	1	40 s
0	0	0	X	X	X	0	1	1	0	80 s
0	0	0	X	X	X	0	1	1	1	160 s
0	0	0	X	X	X	1	0	0	0	320 s

0 = DIP switch is in ‘OFF’ position. 1 = DIP switch is in ‘ON’ position. X = see below for more information.

If a different timing pattern is set, always pattern ‘000xxx1000’ is used.

in this mode, speed control by controller or music is not supported.

Setting the colour patterns

You can adjust the colour patterns using the 10-way DIP switch on the back of the LED PAR according the following table:

SW 10	SW 9	SW 8	SW 7	SW 6	SW 5	SW 4	SW 3	SW 2	SW 1	Selection of colour patterns
0	0	0	0	0	0	X	X	X	X	Compatibility mode - old pattern style
0	0	0	0	0	1	X	X	X	X	100% colour change, fade in and out
0	0	0	0	1	0	X	X	X	X	100%, 50% colour change, fade in and out
0	0	0	0	1	1	X	X	X	X	100%, 75%, 50%, 25% colour change, fade in and out
0	0	0	1	0	0	X	X	X	X	100% colour change, fade in
0	0	0	1	0	1	X	X	X	X	100%, 50% colour change, fade in
0	0	0	1	1	0	X	X	X	X	100%, 75%, 50%, 25% colour change, fade in

0 = DIP switch is in 'OFF' position. 1 = DIP switch is in 'ON' position. X = see above for more information.

If a different colour pattern is set, always pattern '000110xxxx' is used.

7.7 Manual mode

The LED PAR shows different fixed colours. In this mode the LED PAR is used as a stand-alone device, the DMX in / outputs remain unused.

Setting the mode

To activate the manual mode, set the 4-way DIP switch on the back of the LED PAR according to the following table:

SW4	SW3	SW2	SW1	Mode
X	0	1	0	Manual mode

0 = DIP switch is in 'OFF' position. 1 = DIP switch is in 'ON' position. X = in this mode, speed control by controller or music is not supported.

Adjust the colour pattern

Red colour

The red colour can be set using the 10-way DIP switch on the back of the LED PAR according to the following table:

SW10	SW9	SW8	SW7	SW6	SW5	SW4	SW3	SW2	SW1	Brightness of the colour red
0	X	X	X	X	X	X	0	0	0	0%
0	X	X	X	X	X	X	0	0	1	14%
0	X	X	X	X	X	X	0	1	0	28%
0	X	X	X	X	X	X	0	1	1	42%
0	X	X	X	X	X	X	1	0	0	57%
0	X	X	X	X	X	X	1	0	1	71%
0	X	X	X	X	X	X	1	1	0	85%
0	X	X	X	X	X	X	1	1	1	100%

0 = DIP switch is in 'OFF' position. 1 = DIP switch is in 'ON' position. X = see below for more information.

Green colour

The green colour can be set using the 10-way DIP switch on the back of the LED PAR according to the following table:

SW10	SW9	SW8	SW7	SW6	SW5	SW4	SW3	SW2	SW1	Brightness of the colour green
0	X	X	X	0	0	0	X	X	X	0%
0	X	X	X	0	0	1	X	X	X	14%
0	X	X	X	0	1	0	X	X	X	28%
0	X	X	X	0	1	1	X	X	X	42%
0	X	X	X	1	0	0	X	X	X	57%
0	X	X	X	1	0	1	X	X	X	71%
0	X	X	X	1	1	0	X	X	X	85%
0	X	X	X	1	1	1	X	X	X	100%

0 = DIP switch is in 'OFF' position. 1 = DIP switch is in 'ON' position. X = see more information above and below.

Blue colour

The blue colour can be set using the 10-way DIP switch on the back of the LED PAR according to the following table:

SW10	SW9	SW8	SW7	SW6	SW5	SW4	SW3	SW2	SW1	Brightness of the colour blue
0	0	0	0	X	X	X	X	X	X	0%
0	0	0	1	X	X	X	X	X	X	14%
0	0	1	0	X	X	X	X	X	X	28%
0	0	1	1	X	X	X	X	X	X	42%
0	1	0	0	X	X	X	X	X	X	57%
0	1	0	1	X	X	X	X	X	X	71%
0	1	1	0	X	X	X	X	X	X	85%
0	1	1	1	X	X	X	X	X	X	100%

0 = DIP switch is in 'OFF' position. 1 = DIP switch is in 'ON' position. X = see more information above.

7.8 5-channel DMX slave mode

Setting the mode

To activate the 5-channel DMX slave mode, set the 4-way DIP switch on the back of the LED PAR according to the following table:

SW4	SW3	SW2	SW1	Mode
X	0	1	1	5-channel DMX slave mode

0 = DIP switch is in 'OFF' position. 1 = DIP switch is in 'ON' position. X = see below for more information.

Setting the speed

Use SW4 to set how the speed is controlled. Orientate yourself on the following table:

SW4	SW3	SW2	SW1	Mode
0	0	1	1	Speed controlled by controller, if supported by the selected operating mode
1	0	1	1	Speed control by music, if supported by the selected operating mode

0 = DIP switch is in 'OFF' position. 1 = DIP switch is in 'ON' position.

DMX allocation

This table shows the DMX values that can be sent from an external DMX controller to the LED PAR:

Channel 1 value	**Function**
0…63	RGB control, CH2 = red, CH3 = green, CH4 = blue
64…127	7-fold colour fade, CH5 = speed control
128…191	7-fold colour change, CH5 = speed control
192…255	3-fold colour change, CH5 = speed control
Channel 2 value	**Function**
0…255	Red colour: 0%…100%
Channel 3 value	**Function**
0…255	Green colour: 0%…100%

Channel 4 value	**Function**
0…255	Blue colour: 0%…100%

Channel 5 value	**Function**
0…10	no function – no speed
11…100	Speed low to high
101…150	no function – no speed
151…255	Speed control via device, music or controller

Setting DMX receive channel

The value of the DIP switches 1 to 9 is binary coded. To set up a desired DMX receive channel, set the DIP switches so that the sum of the resulting channel numbers results in the desired number. Orientate yourself on the following table:

SW10	SW9	SW8	SW7	SW6	SW5	SW4	SW3	SW2	SW1	First DMX receive channel
0	0	0	0	0	0	0	0	0	1	1
0	0	0	0	0	0	0	0	1	0	2
0	0	0	0	0	0	0	1	0	0	4
0	0	0	0	0	0	1	0	0	0	8
0	0	0	0	0	1	0	0	0	0	16
0	0	0	0	1	0	0	0	0	0	32
0	0	0	1	0	0	0	0	0	0	64
0	0	1	0	0	0	0	0	0	0	128
0	1	0	0	0	0	0	0	0	0	256

0 = DIP switch is in ‘OFF’ position. 1 = DIP switch is in ‘ON’ position.

If only DIP switch 1 is set to ‘ON’, the first DMX receive channel is ‘1’. The highest possible first receiving channel is ‘508’. If you have configured a higher number than 508, channel 508 remains enabled.

Examples

Example A, the first DMX receive channel is channel 1

SW10	SW9	SW8	SW7	SW6	SW5	SW4	SW3	SW2	SW1	First DMX receive channel
0	0	0	0	0	0	0	0	0	1	1

The unit starts receiving on DMX channel 1. This occupies channels 1, 2, 3, 4 and 5.

Example B, the first DMX receive channel is channel 22

SW10	SW9	SW8	SW7	SW6	SW5	SW4	SW3	SW2	SW1	First DMX receive channel
0	0	0	0	0	1	0	1	1	0	22

The unit starts receiving on DMX channel 22. This occupies channels 22, 23, 24, 25 and 26.

Example C, the first DMX receive channel is channel 272

SW10	SW9	SW8	SW7	SW6	SW5	SW4	SW3	SW2	SW1	First DMX receive channel
0	1	0	0	0	1	0	0	0	0	272

The unit starts receiving on DMX channel 272. This occupies channels 272, 273, 274, 275 and 276.

Example D, the first DMX receive channel is channel 508

SW10	SW9	SW8	SW7	SW6	SW5	SW4	SW3	SW2	SW1	First DMX receive channel
0	1	1	1	1	1	1	1	0	0	508

The unit starts receiving on DMX channel 508. This occupies channels 508, 509, 510, 511 and 512.

7.9 5-channel DMX master mode

In this mode, the device operates as a DMX controller in 5-channel mode. The 5-channel mode is used to control both the current and the older revision of the LED PARs. The connected slave devices must be set as 5-channel slaves (*Chapter 7.8 '5-channel DMX slave mode' on page 39*).

Setting the mode

To activate the 5-channel DMX master mode, set the 4-way DIP switch on the back of the LED PAR according to the following table:

SW4	SW3	SW2	SW1	Mode
X	1	0	0	5-channel DMX master mode

0 = DIP switch is in 'OFF' position. 1 = DIP switch is in 'ON' position. X = see below for more information.

Setting the speed

Use SW4 to set how the speed is controlled. Orientate yourself on the following table:

SW4	SW3	SW2	SW1	Mode
0	1	0	0	Speed controlled by controller, if supported by the selected operating mode
1	1	0	0	Speed control by music, if supported by the selected operating mode

0 = DIP switch is in 'OFF' position. 1 = DIP switch is in 'ON' position.

DMX use with 5-channel control

In master mode, the LED PAR sends DMX data according to the following table. The connected slave devices must be set as 5-channel DMX-slaves (*Chapter 7.8 '5-channel DMX slave mode' on page 39*).

Spot light	Channel	
1	1	DMX CH = 0, RGB control
	2	DMX CH = RED
	3	DMX CH = GREEN
	4	DMX CH = BLUE
	5	DMX CH = 0, no function, no speed
2	6	DMX CH = 0, RGB control
	7	DMX CH = RED
	8	DMX CH = GREEN
	9	DMX CH = BLUE

Spot light	Channel	
	10	DMX CH = 0, no function, no speed
3	11	DMX CH = 0, RGB control
	12	DMX CH = RED
	13	DMX CH = GREEN
	14	DMX CH = BLUE
	15	DMX CH = 0, no function, no speed
4	16	DMX CH = 0, RGB control
	17	DMX CH = RED
	18	DMX CH = GREEN
	19	DMX CH = BLUE
	20	DMX CH = 0, no function, no speed

Setting the colour pattern

You can set the colour pattern using the 10-way DIP switch on the back of the LED PAR according to the following table:

Colour pattern

All LED PARs are turned on and change colour.

SW 10	SW 9	SW 8	SW 7	SW 6	SW 5	SW 4	SW 3	SW 2	SW 1	Colour pattern
0	0	0	0	0	0	0	0	0	0	4 spot lights, pattern 1, all on, all carry out the same
0	0	0	0	0	0	0	0	0	1	4 spot lights, pattern 2, all on, all carry out the same
0	0	0	0	0	0	0	0	1	0	4 spot lights, pattern 3, all on, all carry out the same
0	0	0	0	0	0	0	0	1	1	4 spot lights, pattern 1, all on, each device has its own pattern
0	0	0	0	0	0	0	1	0	0	4 spot lights, pattern 2, all on, each device has its own pattern
0	0	0	0	0	0	0	1	0	1	4 spot lights, pattern 3, all on, each device has its own pattern

0 = DIP switch is in 'OFF' position. 1 = DIP switch is in 'ON' position.

Fading In / Out colour pattern

The colour is faded in and out.

SW 10	SW 9	SW 8	SW 7	SW 6	SW 5	SW 4	SW 3	SW 2	SW 1	Colour pattern
0	0	0	0	0	0	0	1	1	0	4 spot lights, pattern 1, all on, all carry out the same, incl. fade in / out
0	0	0	0	0	0	0	1	1	1	4 spot lights, pattern 2, all on, all carry out the same, incl. fade in / out
0	0	0	0	0	0	1	0	0	0	4 spot lights, pattern 3, all on, all carry out the same, incl. fade in / out
0	0	0	0	0	0	1	0	0	1	4 spot lights, pattern 1, all on, each device has its own pattern, incl. fade in / out

SW 10	SW 9	SW 8	SW 7	SW 6	SW 5	SW 4	SW 3	SW 2	SW 1	Colour pattern
0	0	0	0	0	0	1	0	1	0	4 spot lights, pattern 2, all on, each device has its own pattern, incl. fade in / out
0	0	0	0	0	0	1	0	1	1	4 spot lights, pattern 3, all on, each device has its own pattern, incl. fade in / out

0 = DIP switch is in 'OFF' position. 1 = DIP switch is in 'ON' position.

Colour pattern 'Fading Over' (colour cross-fade)

Colour is cross-faded.

SW 10	SW 9	SW 8	SW 7	SW 6	SW 5	SW 4	SW 3	SW 2	SW 1	Colour pattern
0	0	0	0	0	0	1	1	0	0	4 spot lights, pattern 1, all on, all carry out the same
0	0	0	0	0	0	1	1	0	1	4 spot lights, pattern 2, all on, all carry out the same
0	0	0	0	0	0	1	1	1	0	4 spot lights, pattern 3, all on, all carry out the same

SW 10	SW 9	SW 8	SW 7	SW 6	SW 5	SW 4	SW 3	SW 2	SW 1	Colour pattern
0	0	0	0	0	0	1	1	1	1	4 spot lights, pattern 1, all on, each device has its own pattern, incl. fading over
0	0	0	0	0	1	0	0	0	0	4 spot lights, pattern 2, all on, each device has its own pattern, incl. fading over
0	0	0	0	0	1	0	0	0	1	4 spot lights, pattern 3, all on, each device has its own pattern, incl. fading over

0 = DIP switch is in 'OFF' position. 1 = DIP switch is in 'ON' position.

Follow colour pattern (one of 4 LED PARs is on)

SW 10	SW 9	SW 8	SW 7	SW 6	SW 5	SW 4	SW 3	SW 2	SW 1	Colour pattern
0	0	0	0	0	1	0	0	1	0	Follow pattern 1, right to left, same colour for each step
0	0	0	0	0	1	0	0	1	1	Follow pattern 1, right to left – left to right, same colour for each step
0	0	0	0	0	1	0	1	0	0	Follow pattern 2, right to left, same colour for each step
0	0	0	0	0	1	0	1	0	1	Follow pattern 2, right to left – left to right, same colour for each step
0	0	0	0	0	1	0	1	1	0	Follow pattern 3, right to left, same colour for each step
0	0	0	0	0	1	0	1	1	1	Follow pattern 3, right to left – left to right, same colour for each step
0	0	0	0	0	1	1	0	0	0	Follow pattern 1, right to left, new colour for each step

SW 10	SW 9	SW 8	SW 7	SW 6	SW 5	SW 4	SW 3	SW 2	SW 1	Colour pattern
0	0	0	0	0	1	1	0	0	1	Follow pattern 1, right to left – left to right, new colour for each step
0	0	0	0	0	1	1	0	1	0	Follow pattern 2, right to left, new colour for each step
0	0	0	0	0	1	1	0	1	1	Follow pattern 2, right to left – left to right, new colour for each step
0	0	0	0	0	1	1	1	0	0	Follow pattern 3, right to left, new colour for each step
0	0	0	0	0	1	1	1	0	1	Follow pattern 3, right to left - left to right, new colour for each step

0 = DIP switch is in 'OFF' position. 1 = DIP switch is in 'ON' position.

Follow colour pattern (two of four LED PARs are on)

SW 10	SW 9	SW 8	SW 7	SW 6	SW 5	SW 4	SW 3	SW 2	SW 1	Colour pattern
0	0	0	0	0	1	1	1	1	0	Follow pattern 1, right to left, new colour for each step
0	0	0	0	0	1	1	1	1	1	Follow pattern 1, right to left – left to right, new colour for each step
0	0	0	0	1	0	0	0	0	0	Follow pattern 2, right to left, new colour for each step
0	0	0	0	1	0	0	0	0	1	Follow pattern 2, right to left – left to right, new colour for each step
0	0	0	0	1	0	0	0	1	0	Follow pattern 3, right to left, new colour for each step
0	0	0	0	1	0	0	0	1	1	Follow pattern 3, right to left – left to right, new colour for each step
0	0	0	0	1	0	0	1	0	0	Follow pattern 1, right to left, each device has its own pattern, new colour for each step

SW 10	SW 9	SW 8	SW 7	SW 6	SW 5	SW 4	SW 3	SW 2	SW 1	Colour pattern
0	0	0	0	1	0	0	1	0	1	Follow pattern 1, right to left – left to right, each device has its own pattern, new colour for each step
0	0	0	0	1	0	0	1	1	0	Follow pattern 2, right to left, each device has its own pattern, new colour for each step
0	0	0	0	1	0	0	1	1	1	Follow pattern 2, right to left – left to right, each device has its own pattern, new colour for each step
0	0	0	0	1	0	1	0	0	0	Follow pattern 3, right to left, each device has its own pattern, new colour for each step
0	0	0	0	1	0	1	0	0	1	Follow pattern 3, right to left – left to right, each device has its own pattern, new colour for each step

0 = DIP switch is in 'OFF' position. 1 = DIP switch is in 'ON' position.

Examples

Example A

This example shows how to set up 4 LED PARs that are controlled in 5-channel DMX-Master mode.

Connection: MASTER: device 1, SLAVE1: device 2, SLAVE2: device 3, SLAVE3: device 4.

MASTER setup, device 1, must be configured as follows:

SW 10	SW 9	SW 8	SW 7	SW 6	SW 5	SW 4	SW 3	SW 2	SW 1	Colour pattern
0	0	0	0	0	1	0	0	1	0	Follow pattern 1, right to left, same colour for each step

SW4	SW3	SW2	SW1	Mode
0	1	0	0	5-channel DMX master mode, speed control via controller

This occupies channels 1, 2, 3, 4 and 5.

SLAVE 1 setup, device 2, DMX start channel 6:

10-way DIP switch PATTERN											4-way DIP switch FUNCTION			
SW10	SW9	SW8	SW7	SW6	SW5	SW4	SW3	SW2	SW1		SW4	SW3	SW2	SW1
0	0	0	0	0	0	0	1	1	0		0	0	1	1

The unit starts to receive with DMX channel 6. This occupies channels 6, 7, 8, 9 and 10.

SLAVE 2 setup, device 3, DMX start channel 11:

10-way DIP switch PATTERN											4-way DIP switch FUNCTION			
SW10	SW9	SW8	SW7	SW6	SW5	SW4	SW3	SW2	SW1		SW4	SW3	SW2	SW1
0	0	0	0	0	0	1	0	1	0		0	0	1	1

The unit starts to receive with DMX channel 11. This occupies channels 11, 12, 13, 14 and 15.

SLAVE 3 setup, device 4, DMX start channel 16:

10-way DIP switch PATTERN										4-way DIP switch FUNCTION			
SW10	SW9	SW8	SW7	SW6	SW5	SW4	SW3	SW2	SW1	SW4	SW3	SW2	SW1
0	0	0	0	0	1	0	0	0	0	0	0	1	1

The unit starts to receive with DMX channel 16. This occupies channels 16, 17, 18, 19 and 20.

Example B

This example shows how to set up 8 LED PARs that are controlled in 5-channel master mode. The patterns are being sent yet for 4 channels.

Connection: MASTER: device 1, SLAVE1: device 2, SLAVE2: device 3, SLAVE3: device 4, SLAVE4: device 5, SLAVE5: device 6, SLAVE6: device 7, SLAVE7: device 8.

MASTER setup, device 1, must be set up as follows:

SW 10	SW 9	SW 8	SW 7	SW 6	SW 5	SW 4	SW 3	SW 2	SW 1	Colour pattern
0	0	0	0	0	1	0	0	1	0	Follow pattern 1, right to left, same colour for each step

SW4	SW3	SW2	SW1	Mode
0	1	0	0	5-channel DMX master mode, speed control via controller

This occupies channels 1, 2, 3, 4 and 5.

SLAVE 1 setup, device 2, DMX start channel 6:

10-way DIP switch PATTERN											4-way DIP switch FUNCTION			
SW10	SW9	SW8	SW7	SW6	SW5	SW4	SW3	SW2	SW1		SW4	SW3	SW2	SW1
0	0	0	0	0	0	0	1	1	0		0	0	1	1

The unit starts to receive with DMX channel 6. This occupies channels 6, 7, 8, 9 and 10.

SLAVE 2 setup, device 3, DMX start channel 11:

10-way DIP switch PATTERN										4-way DIP switch FUNCTION			
SW10	SW9	SW8	SW7	SW6	SW5	SW4	SW3	SW2	SW1	SW4	SW3	SW2	SW1
0	0	0	0	0	0	1	0	1	1	0	0	1	1

The unit starts to receive with DMX channel 11. This occupies channels 11, 12, 13, 14 and 15.

SLAVE 3 setup, device 4, DMX start channel 16:

10-way DIP switch PATTERN										4-way DIP switch FUNCTION			
SW10	SW9	SW8	SW7	SW6	SW5	SW4	SW3	SW2	SW1	SW4	SW3	SW2	SW1
0	0	0	0	0	1	0	0	0	0	0	0	1	1

The unit starts to receive with DMX channel 16. This occupies channels 16, 17, 18, 19 and 20.

SLAVE 4 setup, device 5, DMX start channel 1:

10-way DIP switch PATTERN											4-way DIP switch FUNCTION			
SW10	SW9	SW8	SW7	SW6	SW5	SW4	SW3	SW2	SW1		SW4	SW3	SW2	SW1
0	0	0	0	0	0	0	0	0	1		0	0	1	1

The unit starts to receive with DMX channel 1. This occupies channels 1, 2, 3, 4 and 5.

SLAVE 5 setup, device 6, DMX start channel 6:

10-way DIP switch PATTERN											4-way DIP switch FUNCTION			
SW10	SW9	SW8	SW7	SW6	SW5	SW4	SW3	SW2	SW1		SW4	SW3	SW2	SW1
0	0	0	0	0	0	0	1	1	0		0	0	1	1

The unit starts to receive with DMX channel 6. This occupies channels 6, 7, 8, 9 and 10.

SLAVE 6 setup, device 7, DMX start channel 11:

10-way DIP switch PATTERN										4-way DIP switch FUNCTION			
SW10	SW9	SW8	SW7	SW6	SW5	SW4	SW3	SW2	SW1	SW4	SW3	SW2	SW1
0	0	0	0	0	0	1	0	1	1	0	0	1	1

The unit starts to receive with DMX channel 11. This occupies channels 11, 12, 13, 14 and 15.

SLAVE 7 setup, device 8, DMX start channel 16:

10-way DIP switch PATTERN										4-way DIP switch FUNCTION			
SW10	SW9	SW8	SW7	SW6	SW5	SW4	SW3	SW2	SW1	SW4	SW3	SW2	SW1
0	0	0	0	0	1	0	0	0	0	0	0	1	1

The unit starts to receive with DMX channel 16. This occupies channels 16, 17, 18, 19 and 20.

7.10 3-channel DMX slave mode

The 3-channel DMX slave mode is suitable for use with a standard DMX controller. The LED-PAR can be controlled via all 512 channels. Each colour is controlled via one DMX channel. All 512 channels can be used. The DIP switches 1 to 9 switch the first channel to reception.

Setting the mode

To activate the 3-channel DMX slave mode set the 4-way DIP switch on the back of the LED PAR according to the following table:

SW4	SW3	SW2	SW1	Mode
X	1	0	1	3-channel DMX slave mode

0 = DIP switch is in 'OFF' position. 1 = DIP switch is in 'ON' position. X = in this mode, speed control by controller or music is not available.

DMX usage

1.	DMX CH = RED
2.	DMX CH = GREEN
3.	DMX CH = BLUE

Setting the DMX receive channel

The value of the DIP switches 1 to 9 is binary coded. To set up a desired DMX receive channel, set the DIP switches so that the sum of the resulting channel numbers results in the desired number. Orientate yourself on the following table:

SW10	SW9	SW8	SW7	SW6	SW5	SW4	SW3	SW2	SW1	First DMX receive channel
0	0	0	0	0	0	0	0	0	1	1
0	0	0	0	0	0	0	0	1	0	2
0	0	0	0	0	0	0	1	0	0	4
0	0	0	0	0	0	1	0	0	0	8
0	0	0	0	0	1	0	0	0	0	16
0	0	0	0	1	0	0	0	0	0	32
0	0	0	1	0	0	0	0	0	0	64
0	0	1	0	0	0	0	0	0	0	128
0	1	0	0	0	0	0	0	0	0	256

0 = DIP switch is in ‘OFF’ position. 1 = DIP switch is in ‘ON’ position.

If only DIP switch 1 is set to ‘ON’, the first DMX receive channel is ‘1’. The highest possible first receiving channel is ‘510’. In case you have configured a higher number than 510, channel 510 remains enabled.

Examples

Example A, the first DMX receive channel is channel 1

SW10	SW9	SW8	SW7	SW6	SW5	SW4	SW3	SW2	SW1	First DMX receive channel
0	0	0	0	0	0	0	0	0	1	1

The device starts reception on DMX channel 1. This occupies channels 1, 2 and 3.

Example B, the first DMX receive channel is channel 22

SW10	SW9	SW8	SW7	SW6	SW5	SW4	SW3	SW2	SW1	First DMX receive channel
0	0	0	0	0	1	0	1	1	0	22

The device starts reception on DMX channel 22. This occupies channels 22, 23 and 24.

Example C, the first DMX receive channel is channel 272

SW10	SW9	SW8	SW7	SW6	SW5	SW4	SW3	SW2	SW1	First DMX receive channel
0	1	0	0	0	1	0	0	0	0	272

The device starts reception on DMX channel 272. This occupies channels 272, 273 and 274.

Example D, the first DMX receive channel is channel 510

SW10	SW9	SW8	SW7	SW6	SW5	SW4	SW3	SW2	SW1	First DMX receive channel
0	1	1	1	1	1	1	1	1	0	510

The device starts reception on DMX channel 510. This occupies channels 510, 511 and 512.

7.11 3-channel DMX master mode

This mode offers the same features as the 5-channel DMX master mode, as described in section 7.9. The difference lies in the use of the DMX channels. In this mode, only three DMX channels are used to control a device. In this operating mode, also other devices than LED PARs, e.g. power packs or LED PARs of other manufacturers that support control via a DMX master can be connected.

Setting the mode

To enable the 3-channel DMX master mode, set the 4-way DIP switch on the back of the LED PAR according to the following table:

SW4	SW3	SW2	SW1	Mode
X	1	1	0	3-channel DMX master mode

0 = DIP switch is in 'OFF' position. 1 = DIP switch is in 'ON' position. X = see below for more information (setting the speed).

Setting the speed

Using SW4 you can set how the speed is controlled. Then orientate yourself on the following table:

SW4	SW3	SW2	SW1	Mode
0	X	X	X	Speed controlled by controller, if supported by the selected operating mode
1	X	X	X	Speed control by music, if supported by the selected operating mode

0 = DIP switch is in 'OFF' position. 1 = DIP switch is in 'ON' position. X = see more information above (setting the mode).

DMX usage in 3-channel control

In master mode, the LED PAR sends DMX data according to the following table. The connected slave devices must be set up as 3-channel slaves (☞ *Chapter 7.10 '3-channel DMX slave mode' on page 66*).

Spot lights	Channel	
1	1	DMX CH = RED
	2	DMX CH = GREEN
	3	DMX CH = BLUE
2	4	DMX CH = RED
	5	DMX CH = GREEN
	6	DMX CH = BLUE
3	7	DMX CH = RED
	8	DMX CH = GREEN
	9	DMX CH = BLUE
4	10	DMX CH = RED

Spot lights	Channel	
	11	DMX CH = GREEN
	12	DMX CH = BLUE

Setting the colour pattern

Same settings as in 5-channel DMX master mode, *Chapter 7.9 '5-channel DMX master mode' on page 47*.

Examples

Example A

This example shows how to set up 4 LED PARs to be controlled in 3-channel DMX master mode.

Connection: MASTER: device 1, SLAVE1: device 2, SLAVE2: device 3, SLAVE3: device 4.

MASTER setup, device 1, must be set up as follows:

SW 10	SW 9	SW 8	SW 7	SW 6	SW 5	SW 4	SW 3	SW 2	SW 1	Colour pattern
0	1	1	1	1	1	1	1	1	0	Follow pattern 1, right to left, same colour for each step

SW4	SW3	SW2	SW1	Mode
0	1	1	0	3-channel DMX master mode

This is the DIP switch setting for the 3-channel DMX master mode.

SLAVE 1 setup, device 2, DMX start channel 4:

10-way DIP switch PATTERN											4-way DIP switch FUNCTION			
SW10	SW9	SW8	SW7	SW6	SW5	SW4	SW3	SW2	SW1		SW4	SW3	SW2	SW1
0	0	0	0	0	0	0	1	0	0		0	1	0	1

The unit starts to receive with DMX channel 4. This occupies channels 4, 5 and 6.

SLAVE 2 setup, device 3, DMX start channel 7:

10-way DIP switch PATTERN											4-way DIP switch FUNCTION			
SW10	SW9	SW8	SW7	SW6	SW5	SW4	SW3	SW2	SW1		SW4	SW3	SW2	SW1
0	0	0	0	0	0	0	1	1	1		0	1	0	1

The unit starts to receive with DMX channel 7. This occupies channels 7, 8 and 9.

SLAVE 3 setup, device 4, DMX start channel 10:

10-way DIP switch PATTERN											4-way DIP switch FUNCTION			
SW10	SW9	SW8	SW7	SW6	SW5	SW4	SW3	SW2	SW1		SW4	SW3	SW2	SW1
0	0	0	0	0	0	1	0	1	0		0	1	0	1

The unit starts to receive with DMX channel 10. This occupies channels 10, 11 and 12.

Example B

This example shows how to set up 8 LED PARs to be controlled in 3-channel DMX master mode. The patterns continue to be sent out for 4 channels.

Connection: MASTER: device 1, SLAVE1: device 2, SLAVE2: device 3, SLAVE3: device 4, SLAVE4: device 5, SLAVE5: device 6, SLAVE6: device 7, SLAVE7: device 8.

MASTER setup, device 1, must be set up as follows:

SW 10	SW 9	SW 8	SW 7	SW 6	SW 5	SW 4	SW 3	SW 2	SW 1	Colour pattern
0	0	0	0	0	1	0	0	1	0	Follow pattern 1, right to left, same colour for each step

SW4	SW3	SW2	SW1	Mode
0	1	1	0	3-channel DMX master mode

This is the DIP switch setting for the 3-channel DMX master mode.

SLAVE 1 setup, device 2, DMX start channel 4:

10-way DIP switch PATTERN											4-way DIP switch FUNCTION			
SW10	SW9	SW8	SW7	SW6	SW5	SW4	SW3	SW2	SW1		SW4	SW3	SW2	SW1
0	0	0	0	0	0	0	1	0	0		0	1	0	1

The unit starts to receive with DMX channel 4. This occupies channels 4, 5 and 6.

SLAVE 2 setup, device 3, DMX start channel 7:

10-way DIP switch PATTERN											4-way DIP switch FUNCTION			
SW10	SW9	SW8	SW7	SW6	SW5	SW4	SW3	SW2	SW1		SW4	SW3	SW2	SW1
0	0	0	0	0	0	0	1	1	1		0	1	0	1

The unit starts to receive with DMX channel 7. This occupies channels 7, 8 and 9.

SLAVE 3 setup, device 4, DMX start channel 10:

10-way DIP switch PATTERN											4-way DIP switch FUNCTION			
SW10	SW9	SW8	SW7	SW6	SW5	SW4	SW3	SW2	SW1		SW4	SW3	SW2	SW1
0	0	0	0	0	0	1	0	1	0		0	1	0	1

The unit starts to receive with DMX channel 10. This occupies channels 10, 11 and 12.

SLAVE 4 setup, device 5, DMX start channel 1:

10-way DIP switch PATTERN											4-way DIP switch FUNCTION			
SW10	SW9	SW8	SW7	SW6	SW5	SW4	SW3	SW2	SW1		SW4	SW3	SW2	SW1
0	0	0	0	0	0	0	0	0	1		0	1	0	1

The unit starts to receive with DMX channel 1. This occupies channels 1, 2 and 3.

SLAVE 5 setup, device 6, DMX start channel 4:

10-way DIP switch PATTERN											4-way DIP switch FUNCTION			
SW10	SW9	SW8	SW7	SW6	SW5	SW4	SW3	SW2	SW1		SW4	SW3	SW2	SW1
0	0	0	0	0	0	0	1		0		0	1	0	1

The unit starts to receive with DMX channel 4. This occupies channels 4, 5 and 6.

SLAVE 6 setup, device 7, DMX start channel 7:

10-way DIP switch PATTERN											4-way DIP switch FUNCTION			
SW10	SW9	SW8	SW7	SW6	SW5	SW4	SW3	SW2	SW1		SW4	SW3	SW2	SW1
0	0	0	0	0	0	0	1	1	1		0	1	0	1

The unit starts to receive with DMX channel 7. This occupies channels 7, 8 and 9.

SLAVE 7 setup, device 8, DMX start channel 10:

10-way DIP switch PATTERN											4-way DIP switch FUNCTION			
SW10	SW9	SW8	SW7	SW6	SW5	SW4	SW3	SW2	SW1		SW4	SW3	SW2	SW1
0	0	0	0	0	0	1	0	1	0		0	1	0	1

The unit starts to receive with DMX channel 10. This occupies channels 10, 11 and 12.

8 Technical specifications

Item no. 222333/222334 Stairville LED-PAR 64 Pro 36X3W RGB Short black/silver

LEDs	36 × high power RGB (3 W)
Number of DMX channels	3, 5
Operating supply voltage	AC 230 V ~ , 50 Hz
Weight	2.5 kg

Item no. 222335/222336 Stairville LED-PAR 64 Pro 36X3W RGB Long black/silver

LEDs	36 × high power RGB (3 W)
Number of DMX channels	3, 5
Operating supply voltage	AC 230 V ~ , 50 Hz
Dimensions (W × D × H)	230 mm × 500 mm × 230 mm
Weight	2.8 kg

Item no. 222331/222332 Stairville LED-PAR 64 Pro 36X3W RGB Floor black/silver

LEDs	36 × high power RGB (3 W)
Number of DMX channels	3, 5
Operating supply voltage	AC 230 V ~ , 50 Hz
Dimensions (W × D × H)	230 mm × 400 mm × 230 mm
Weight	2.5 kg

Item no. 254113 Stairville Mini Stage PAR 7X3W RGB black

LEDs	7 × high power RGB (3 W)
Number of DMX channels	3, 5
Operating supply voltage	AC 230 V ~ , 50 Hz
Dimensions (W × D × H)	200 mm × 140 mm × 200 mm (without bracket)
Weight	1.7 kg

Item no. 212903 Stairville Stage PAR 18X3W RGB

LEDs	18 × high power RGB (3 W)
Number of DMX channels	3, 5
Operating supply voltage	AC 230 V ~ , 50 Hz
Dimensions (W × D × H)	290 mm × 330 mm × 230 mm (incl. bracket and locking screws)
Weight	2.5 kg

Item no. 270650/270651 Stairville LED Par56 Pro 24x3W black/pol. RGB

LEDs	24 × high power RGB (3 W)
Number of DMX channels	3, 5
Operating supply voltage	AC 230 V ~ , 50 Hz
Dimensions (W × D × H)	210 mm × 300 mm × 210 mm (incl. bracket and locking screws)
Weight	2.2 kg

9 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 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 fuse.
No response to the DMX controller.	1. Check the DMX ports and cables for proper connection.
	2. Check the address settings and the DMX polarity.
	3. Try using another DMX controller.
	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.

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

10 Cleaning

Optical lenses

Clean the exterior of accessible optical lenses periodically to optimise 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 normal glass cleaning products.
- Always dry the parts carefully.

11 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 device is subject to the European directive 2002/96/EC.

Do not dispose of the device 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.