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LIGHTING



S-PAR

USER MANUAL

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1. INTRODUCTION

Thank you for choosing our product! Please consult this manual for any safety reasons, to ensure a painless and trouble-free operation, as well as for any reference needed.

We encourage you to check out our other products at our website: <http://slservice.pl/> !

2. SAFETY INFORMATION

To maintain this device's condition and to ensure a safe operation, it is absolutely necessary for the user to follow these safety instructions and warning notes written in this user manual.

- This device falls under protection-class I. Therefore it is essential that the device should be earthed.
- The electric connection and installation should be done by qualified personnel in order to minimize the risk of accidental electric shock and damaging the device.
- Always disconnect from the mains, when the device is not in use or before cleaning it. Only handle the power cord by the plug. Never pull out the plug by tugging the power cord.
- Make sure the power cord is never crimped or damaged by sharp edges - if this would be the case, immediately replace the cable for the exact same type.
- Before connecting the unit to the mains, make sure it is not damaged mechanically. If you notice any signs of damage, you should contact your dealer immediately. In this case do not connect the device to the mains.
- Make sure that the available voltage is not higher than 240V.
- Never look directly into the light source (especially if you have any epileptic past)!
- The device must be installed on a stable structure. Always use steel security cable to attach the device to a stable structure.
- Do not use this device in high humidity conditions and at temperatures above 40°C.
- Do not cover the ventilation slots when operating to avoid internal overheating.

- CAUTION: This product's housing may be hot when lights are operating.
- DO NOT connect this product to a dimmer or rheostat.

In case of a serious operating problem stop using this product immediately!

Important:

Damages caused by a disregard of this user manual are not subject to warranty or any liability.

3. PRODUCT INFORMATION

3.1 SPECIFICATION

Power supply voltage: 100-240V

Power consumption: 250W

Voltage frequency: 50/60Hz

Diode type and power: 10W RGBW 4in1 LED

Number of diodes: 24pcs

Beam angle: 45°

Scan rate: up to 20000 Hz

Dimming: 16-bit dimmer

DMX standard: DMX 512

DMX channels: 7/11

AC IN: powerCON

AC OUT: powerCON

DMX IN: XLR - 3 pin

DMX OUT: XLR - 3 pin

IP Rating: IP20

Cooling: Active

Height [cm]: 31

Width [cm]: 22

Depth [cm]: 9

Weight [kg]: 2.8

3.2 CLEANING AND MAINTENANCE

We recommend a frequent cleaning of the device, as dust, smoke and other debris will build up on the optics and housing. After disconnecting the power wipe the device with a soft, lint-free and damp cloth. Never use alcohol or solvents, as these may damage the finish. A dry paint brush is an excellent tool to remove surface dust.

Be sure to periodically check for loose parts that could damage the device or potentially allow the device to cause injury. Make sure all overhead and wall installations have a secondary safety accessory installed, such as safety cable rated for your device type and size. Check the power cord as well, make sure there is no damage that could cause electrical shock, never remove the ground pin. There are no user-servicable parts in this device. Do not attempt to open and repair the fixture.



CAUTION! Always disconnect from mains before starting any maintenance operation!

There are no servicable parts inside the device. Maintenance and service operations are only to be carried out by authorized dealers. If you need any spare parts, please use only genuine parts. If the power supply cable of this device becomes damaged, it has to be replaced by authorized dealers only, in order to avoid hazards.

Never remove the ground pins from power cord nor spin any cooling fan with compressed air, as this can damage the components in your fixture.

If you have further questions, please contact your dealer.



Before replacing a fuse, disconnect the power cord! Always replace with the same type and rating of fuse!

Mounting & rigging

This device can be mounted in any orientation (vertical, horizontal). Always make sure there is adequate ventilation and no flammable surfaces within 2 feet (0.6 meters) of the device. You can mount the device using clamps or with threaded bolt type hardware. Always install the included safety eyebolt and cable when mounting in overhead or wall locations.



Warning: Do not mount the fixture in the ventilation path of a nearby heating supply duct. The heated airflow will cause device failure due to overheating.

Expected LED lifespan

LEDs gradually decline in brightness over time, mostly because of heat. Packaged in clusters, LEDs exhibit higher operating temperatures than in ideal, single LED conditions. For this reason, using clustered LEDs at their fullest intensity significantly reduces the LEDs' lifespan. Under normal conditions, this lifespan can be 40'000 to 50'000 hours.

If extending this lifespan is vital, lower the operating temperature by improving the ventilation around the product and reducing the ambient temperature to an optimal operating range. In addition, limiting the overall projection intensity may also help to extend the LEDs' lifespan.

3.3 DMX-512

To link devices together you'll need data cables. You should use data grade cables that can carry a high quality signal and are less prone to electromagnetic interference. For instance, Belden© 9841 meets the specifications for EIA RS-485 applications. Standard microphone cables will **probably** be OK, but note that they cannot transmit DMX data as reliably over long distances. In any event, the cable should have the following characteristics:

- 2-conductor twisted pair plus a shield,
- maximum capacitance between conductors - **30pF/ft**,
- maximum capacitance between conductor & shield - **55 pF/ft**,
- maximum resistance of **20 ohms / 1000 ft** (304.8m in normal),
- nominal impedance **100 - 140 ohms**.

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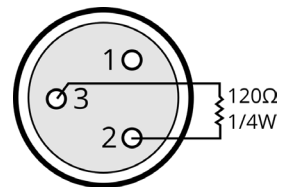
Cable connectors:

Cables must have a male XLR connector on one end and a female XLR connector on the other end (duh!).

A word on termination: DMX is a resilient communication protocol, however errors still occasionally occur. Termination reduces signal errors, and therefore best practises include the use of terminator in all circumstances. If you are experiencing problems with erratic device behavior, especially over long cable runs, a terminator may help improve performance.

To build your own DMX Terminator:

Obtain a 120-ohm, 1/4-watt resistor and wire it between pins 2 & 3 of the last fixture. They are also readily available from specialty retailers.



A DMX terminator

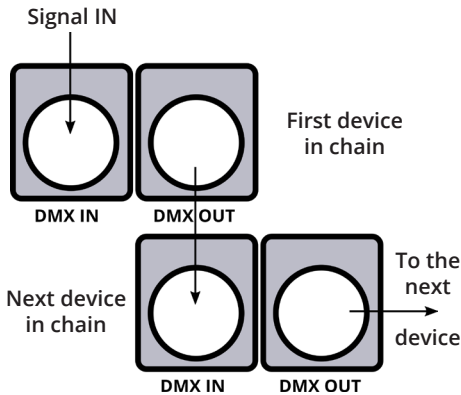
CAUTION: Do not allow contact between the common and the device's chassis ground. Grounding the common may cause a ground loop, and your device may perform erratically. Test cables with an ohm meter to verify correct polarity and to make sure the pins are not grounded or shorted to the shield or each other.

3-Pin / 5-Pin

If you use a controller with a 5 pin DMX output connector, you will need to use a 5 pin to 3 pin adapter. They are widely available over the Internet and from specialty retailers, but if you'd like to build your own, the table below details a proper cable conversion:

| Conductor | 3-Pin female (Output) | 5-Pin male (Input) |
|---------------|-----------------------|--------------------|
| Ground/Shield | Pin 1 | Pin 1 |
| DMX Data (-) | Pin 2 | Pin 2 |
| DMX Data (+) | Pin 3 | Pin 3 |
| Not used. | no connector | Pin 4 |
| Not used. | no connector | Pin 5 |

Setting up DMX control



Step 1: Connect the male connector of the DMX cable to the female connector (output) on the controller.

Step 2: Connect the female connector of the DMX cable to the first device's male connector (input).

Note: It doesn't matter which device address is the first one connected. We recommend connecting the device in terms of their proximity to the controller, rather than connecting the lowest device number first, and so on.

Step 3: Connect other devices in the chain from output to input as above. Place a DMX terminator on the output of the final device to ensure the best communication.

Fixture linking (Master/Slave Mode)

1. Connect the (male) 3-pin connector side of the DMX cable to the output (female) 3-pin connector of the first device.
2. Connect the end of the cable coming from the first device, which will have a (female) 3-pin connector to the input connector of the next device consisting of a (male) 3-pin connector. Then, proceed to connect from the output as stated above, to the input of the following device (and so on).

4. DISPLAY MENU

| | | |
|----|-------|---|
| 1 | d001 | 7 channel - Set DMX Address |
| 2 | d.001 | 11 channel - Set DMX Address |
| 3 | CC01 | Change speed of color change (01-99) |
| 4 | CP01 | Change strobe speed (01-99) |
| 5 | dE01 | Variable pulse (01-99) |
| 6 | dENo | Jump change + Gradient + Variable pulse |
| 7 | bEbE | Sound control - Jump change + Gradient + Variable pulse |
| 8 | r255 | Red color dimmer |
| 9 | G255 | Green color dimmer |
| 10 | b255 | Blue color dimmer |
| 11 | W255 | White color dimmer |
| 12 | dr01 | Dimming mode (1-5) five kinds of dimming mode: Mode 1 - linear dimming Mode 2 - immediately on and immediately off linear dimming Mode 3 - low gray soft linear dimming Mode 4 - conventional linear dimming slow Mode 5 - low gray soft linear dimming slow |

5. DMX FUNCTIONS AND VALUES

| | | |
|---|---------|--|
| 1 | 0-255 | Red Dimmer |
| 2 | 0-255 | Green Dimmer |
| 3 | 0-255 | Blue Dimmer |
| 4 | 0-255 | White Dimmer |
| 5 | | Dimming mode selection |
| | 0-009 | Dimming mode from menu (dr01-05) |
| | 10-050 | Mode 1 - linear dimming |
| | 51-101 | Mode 2 - immediately on and immediately off linear dimming |
| | 102-152 | Mode 3 - low gray soft linear dimming |
| | 153-203 | Mode 4 - conventional linear dimming slow |
| | 204-255 | Mode 5 - low gray soft linear dimming slow |

5CH Mode

| | | |
|---|---------|--|
| 1 | 0-255 | Red Dimmer |
| 2 | 0-255 | Green Dimmer |
| 3 | 0-255 | Blue Dimmer |
| 4 | 0-255 | White Dimmer |
| 5 | | Dimming mode selection |
| | 0-009 | Dimming mode from menu (dr01-05) |
| | 10-050 | Mode 1 - linear dimming |
| | 51-101 | Mode 2 - immediately on and immediately off linear dimming |
| | 102-152 | Mode 3 - low gray soft linear dimming |
| | 153-203 | Mode 4 - conventional linear dimming slow |
| | 204-255 | Mode 5 - low gray soft linear dimming slow |
| 6 | 0-255 | Master dimmer |
| 7 | 0-009 | Strobe off |
| | 10-255 | Strobe (slow <--> fast) |
| 8 | | Pre-program |
| | 10-050 | Jump change |
| | 51-100 | Gradient |
| | 101-150 | Variable pulse |
| | 151-200 | Jump change + gradient + variable pulse |
| | 201-255 | Sound control CH7 |
| 9 | 0-255 | Speed (slow <--> fast) |

9CH Mode