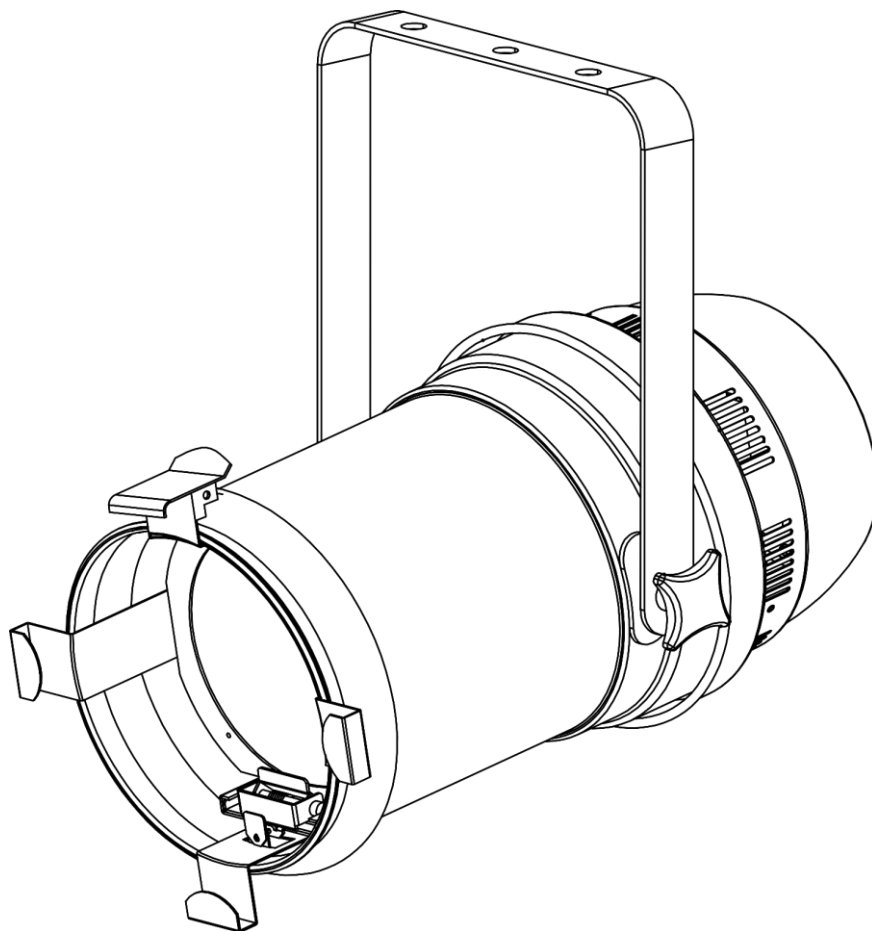




MANUAL



ENGLISH

Par 64 LED-120Z-Q4 V1

Ordercode: 42540

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Warning



**For your own safety, please read this user manual carefully
before your initial start-up!**

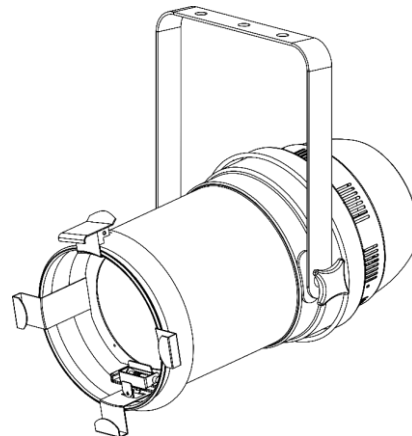


Unpacking Instructions

Immediately upon receiving this product, carefully unpack the carton and check the contents to ensure that all parts are present, and have been received in good condition. Notify the dealer immediately and retain packing material for inspection if any parts appear damaged from shipping or the carton itself shows signs of mishandling. Save the carton and all packing materials. In the event that a fixture must be returned to the factory, it is important that the fixture be returned in the original factory box and packing.

Your shipment includes:

- Showtec Par 64 LED-120Z-Q4
- 1 x color frame
- Pro power cable (1,2 m)
- User manual



LED Expected Lifespan

LEDs gradually decline in brightness over time. HEAT is the dominant factor that leads to the acceleration of this decline. Packaged in clusters, LEDs exhibit higher operating temperatures than in ideal or singular optimum conditions. For this reason, when all color LEDs are used at their fullest intensity, life of the LEDs is significantly reduced. If improving the lifespan is of higher priority, place care in providing for lower operational temperatures. This may include climatic-environmental and the reduction of overall projection intensity.



CAUTION!

**Keep this device away from rain and moisture!
Unplug mains lead before opening the housing!**



Safety Instructions

Every person involved with the installation, operation and maintenance of this device has to:

- be qualified
- follow the instructions of this manual



**CAUTION! Be careful with your operations.
With a dangerous voltage you can suffer
a dangerous electric shock when touching the wires!**



Before the initial start-up, please make sure that there is no damage caused by transportation. Should there be any, consult your dealer and do not use the device.

To maintain perfect condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes contained in this manual.

Please consider that damages caused by manual modifications to the device are not subject to warranty.

This device contains no user-serviceable parts. Refer servicing to qualified technicians only.

IMPORTANT:

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual or any unauthorized modification to the device.

- Never let the power cord come into contact with other cables! Handle the power cord and all connections with the mains with particular caution!
- Never remove warning or informative labels from the unit.
- Never use anything to cover the ground contact.
- Never lift the fixture holding it by the projector-head, as the mechanics may be damaged. Always hold the fixture by the transport handles.
- Never place any material over the lens.
- Never look directly into the light source.
- Never leave any cables lying around.
- Do not connect this device to a dimmer pack.
- Do not switch the device on and off in short intervals, as this will reduce the device's life.
- Do not touch the device's housing bare-handed during its operation (housing becomes very hot). Allow the fixture to cool for at least 5 minutes before handling.
- Do not shake the device. Avoid brute force when installing or operating the device.
- Only use the device indoors, avoid contact with water or other liquids.
- Only operate the fixture after having checked if the housing is firmly closed and all screws are tightly fastened.
- Only operate the device after having familiarized with its functions.
- Avoid flames and do not put close to flammable liquids or gases.
- Always keep the case closed while operating.
- Always allow a free air space of at least 50 cm around the unit for ventilation.
- Always disconnect power from the mains, when device is not used or before cleaning! Only handle the power cord holding it by the plug. Never pull out the plug by tugging the power cord.
- Make sure that the device is not exposed to extreme heat, moisture or dust.
- Make sure that the available voltage is not higher than stated on the rear panel.
- Make sure that the power cord is never crimped or damaged. Check the device and the power cord from time to time.
- If the lens is obviously damaged, it has to be replaced.
- If device was dropped or struck, disconnect mains power supply immediately. Have a qualified engineer inspect for safety before operating.
- If the device has been exposed to drastic temperature fluctuation (e.g. after transportation), do not switch it on immediately. The arising condensation water might damage your device. Leave the device switched off until it has reached room temperature.
- If your Showtec device fails to work properly, discontinue the use immediately. Pack the unit securely (preferably in the original packing material), and return it to your Showtec dealer for service.
- For adult use only. The fixture must be installed beyond the reach of children. Never leave the unit running unattended.
- Never attempt to bypass the thermostatic switch or fuses.
- For replacement use fuses of same type and rating only.
- The user is responsible for correct positioning and operating of the Par. The manufacturer will not accept liability for damages caused by the misuse or incorrect installation of this device.
- This device falls under protection class I. Therefore it is essential to connect the yellow/green conductor to earth.
- Repairs, servicing and electric connection must be carried out by a qualified technician.
- WARRANTY: Till one year after date of purchase.



CAUTION! Eyedamages!!!
Avoid looking directly into the lightsource!!!
(meant especially for epileptics)!!!



Operating Determinations

- This device is not designed for permanent operation. Consistent operation breaks will ensure that the device will serve you for a long time without defects.
- The minimum distance between light output and the illuminated surface must be bigger than 1 meter.
- In order to eliminate wear and improve the device's lifespan, during periods of non-use, completely disconnect from power source via breaker or by unplugging.
- The maximum ambient temperature $t_a = 40^\circ\text{C}$ must never be exceeded.
- The relative humidity must not exceed 50 % with an ambient temperature of 40°C .
- If this device is operated in any other way than the one described in this manual, the product may suffer damages and the warranty becomes void.
- Any other operation may lead to dangers like short-circuit, burns, electric shock, crash, etc.

You endanger your own safety and the safety of others!

Rigging

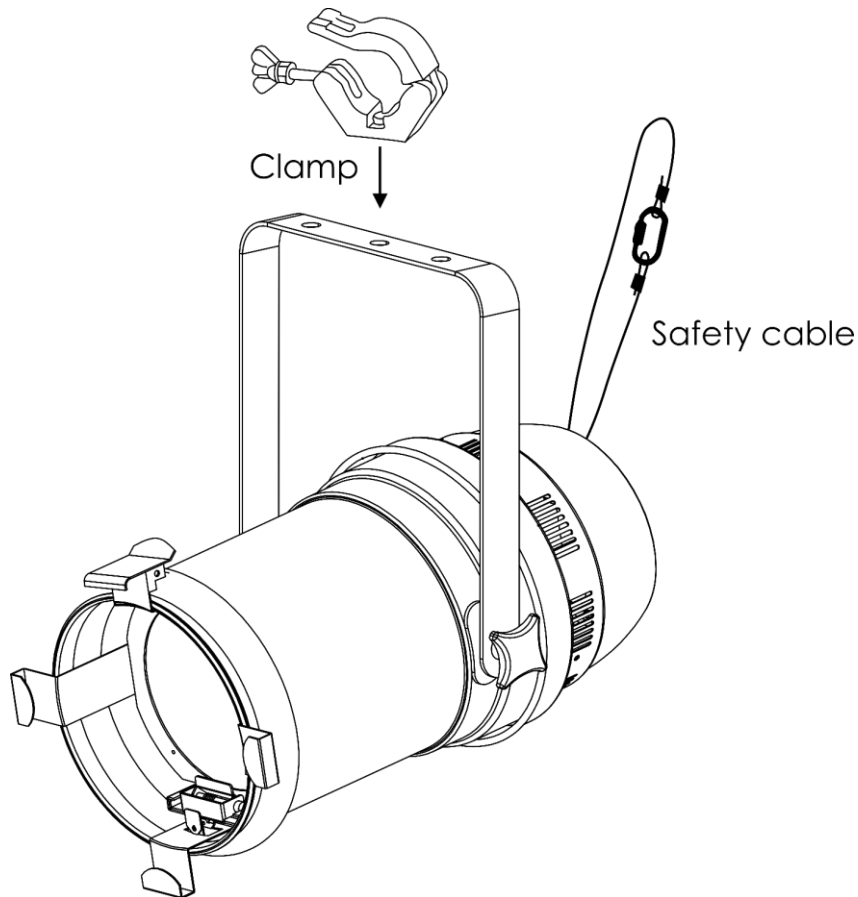
Please follow the European and national guidelines concerning rigging, trussing and all other safety issues.

Do not attempt the installation yourself !

Always let the installation be carried out by an authorized dealer !

Procedure:

- If the Par is lowered from the ceiling or high joists, professional trussing systems have to be used.
- Use a clamp to mount the Par with the mounting bracket to the trussing system.
- The Par must never be fixed swinging freely in the room.
- The installation must always be secured with a safety attachment, e.g. an appropriate safety net or safety cable.
- When rigging, derigging or servicing the Par, always make sure, that the area below the installation site is secured and that there are not any unauthorized people around.



The Par can be mounted to any kind of truss with a clamp.

Improper installation can cause serious injuries and/or damage of property!

Connection with the mains

Connect the device to the mains with the power-plug.
Always check if the right color cable is connected to the right place.

International	EU Cable	UK Cable	US Cable	Pin
L	BROWN	RED	YELLOW/COPPER	PHASE
N	BLUE	BLACK	SILVER	NEUTRAL
⊕	YELLOW/GREEN	GREEN	GREEN	PROTECTIVE GROUND

Make sure that the device is always properly connected to the earth!

Improper installation can cause serious injuries and/or damage of property!



⚠ Return Procedure ⚠

Returned merchandise must be sent prepaid and in the original packing, call tags will not be issued. Package must be clearly labeled with a Return Authorization Number (RMA number). Products returned without an RMA number will be refused. Highlite will not accept the returned goods or any responsibility. Call Highlite 0031-455667723 or mail aftersales@highlite.com and request an RMA prior to shipping the fixture. Be prepared to provide the model number, serial number and a brief description of the cause for the return. Be sure to properly pack fixture, any shipping damage resulting from inadequate packaging is the customer's responsibility. Highlite reserves the right to use its own discretion to repair or replace product(s). As a suggestion, proper UPS packing or double-boxing is always a safe method to use.

Note: If you are given an RMA number, please include the following information on a piece of paper inside the box:

- 01) Your name
- 02) Your address
- 03) Your phone number
- 04) A brief description of the symptoms

Claims

The client has the obligation to check the delivered goods immediately upon delivery for any shortcomings and/or visible defects, or perform this check after our announcement that the goods are at their disposal. Damage incurred in shipping is the responsibility of the shipper; therefore the damage must be reported to the carrier upon receipt of merchandise.

It is the customer's responsibility to report and submit claims with the shipper in the event that a fixture is damaged due to shipping. Transportation damage has to be reported to us within one day after receipt of the delivery.

Any return shipment has to be made post-paid at all times. Return shipments must be accompanied with a letter defining the reason for return shipment. Non-prepaid return shipments will be refused, unless agreed otherwise in writing.

Complaints against us must be prepared in writing or sent by fax within 10 working days after receipt of the invoice. After this period complaints will not be handled anymore.

Complaints will only then be considered if the client has so far complied with all parts of the agreement, regardless of the agreement from which the obligation is resulting.

Description of the device

Features

The Par 64 LED-120Z-Q4 is a LED parcan fixture, with high output and great effects.

- Input voltage: 100-240V AC, 50/60Hz
- Power consumption: 142W
- Power factor: >0,8
- DMX channels: 4, 7, 11 channels
- Light source: 1 x 120W RGBA ProLightOpto LED
- Light output @12°:
 - Red: 4180 Lumen @2m
 - Green: 6850 Lumen @2m
 - Blue: 342 Lumen @2m
 - Amber: 7950 Lumen @2m
 - Full ON: 17180 Lumen @2m
- Output distance: >10m
- Refresh rate: 3 kHz
- Control modes: Color macros/Color programs, Manual, Master/Slave, DMX-512
- Control protocol: DMX-512
- Dimmer: 0-100%
- Strobe: 0-20Hz
- Beam angle: 12°, 15°, 20°, 25°, 30°, 35° (Manual Zoom)
- Housing: Aluminum
- Cooling: Cooling fan
- Connections: Pro power connector Blue IN/Gray OUT & 3-pin DMX IN/OUT
- IP rating: IP20
- Fuse: T2AL/250V
- Dimensions: 445 x 290 x 400 mm (LxWxH)
- Weight: 3,8 kg

Frontside

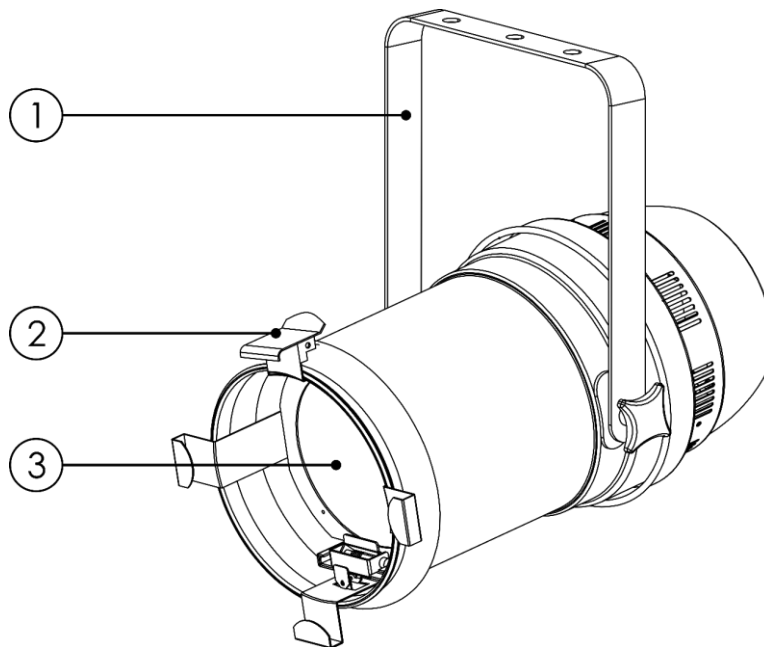


Fig. 01

- 01) Mounting bracket with inclination screws
02) Color frame retaining clip
03) 1 x 120W RGBA ProLightOpto LED

Backside

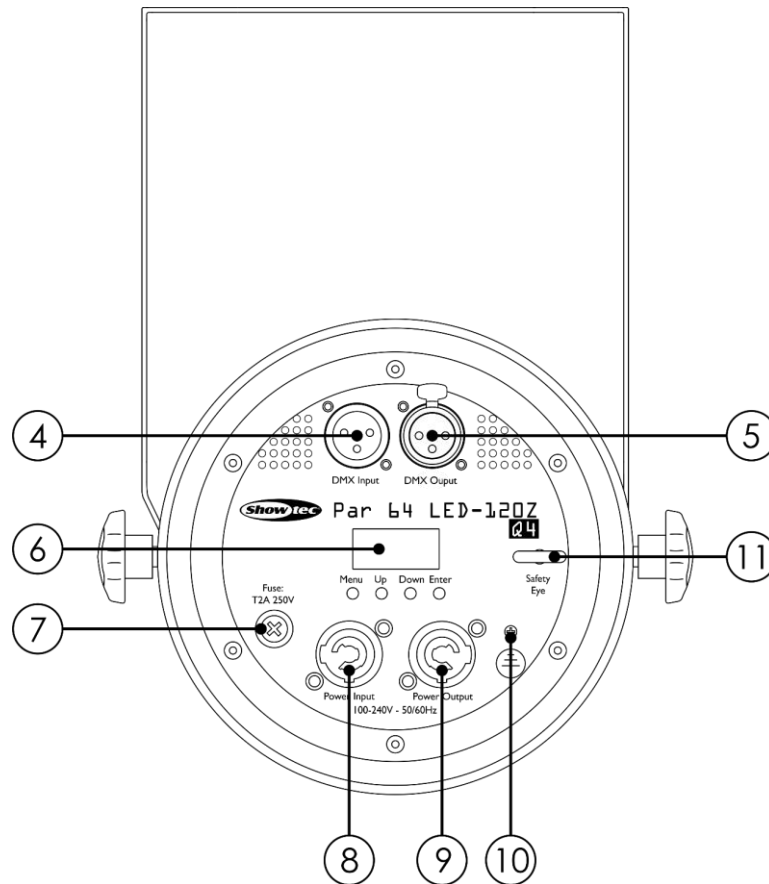


Fig. 02

- 04) 3-pin DMX signal connector IN
- 05) 3-pin DMX signal connector OUT
- 06) 4-digit LED display + control buttons
- 07) Fuse T2AL/250V
- 08) 100-240V pro power connector (Blue) IN
- 09) 100-240V pro power connector (Gray) OUT
- 10) Ground/earth connection
- 11) Safety eye

Installation

Remove all packing materials from the Par 64 LED-120Z-Q4. Check if all foam and plastic padding is removed. Connect all cables.

Do not supply power before the whole system is set up and connected properly.

Always disconnect from electric mains power supply before cleaning or servicing.

Damages caused by non-observance are not subject to warranty.

Set Up and Operation

Follow the directions below, as they pertain to your preferred operation mode.

Before plugging the unit in, always make sure that the power supply matches the product specification voltage. Do not attempt to operate a 120V specification product on 230V power, or vice versa.

Connect the device to the main power supply.

Color Frame Retaining Clip

- 01) Press and hold down the color frame retaining clip.
- 02) Insert the color frame into the bracket.
- 03) Release the color frame retaining clip in order to secure the color frame in position.

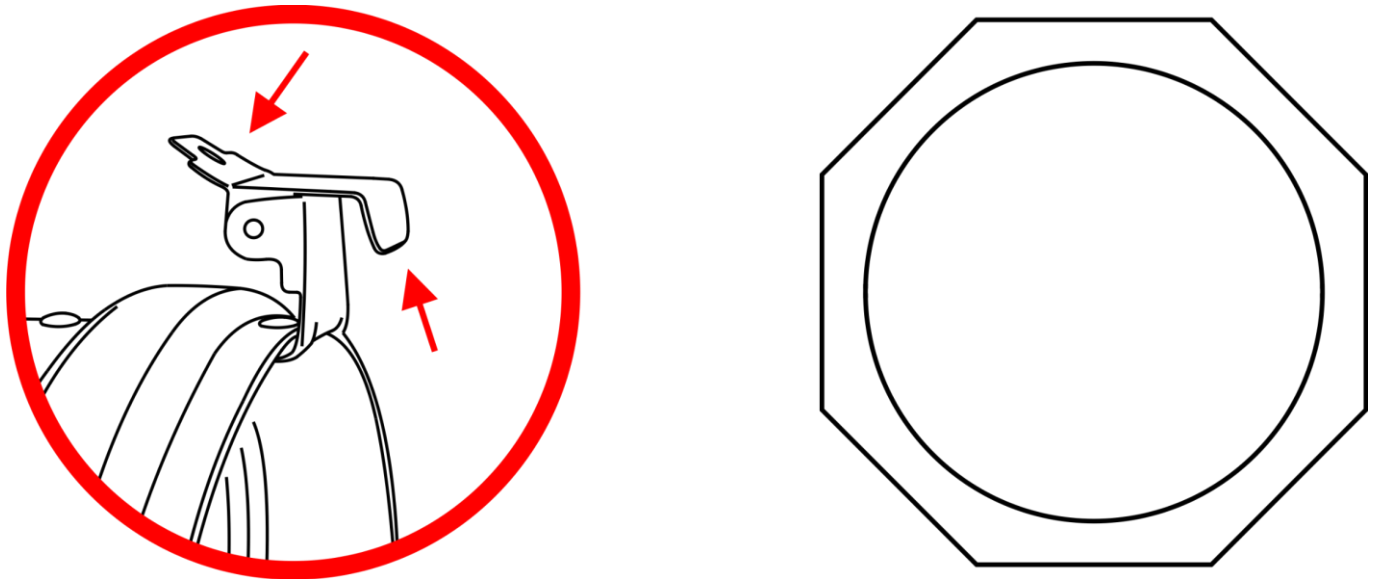


Fig. 03

Manual Zoom Adjustment

- 01) Press and hold down the manual zoom clip.
- 02) Move the clip up or down, in order to set the desired beam angle (12°, 15°, 20°, 25°, 30°, 35°).

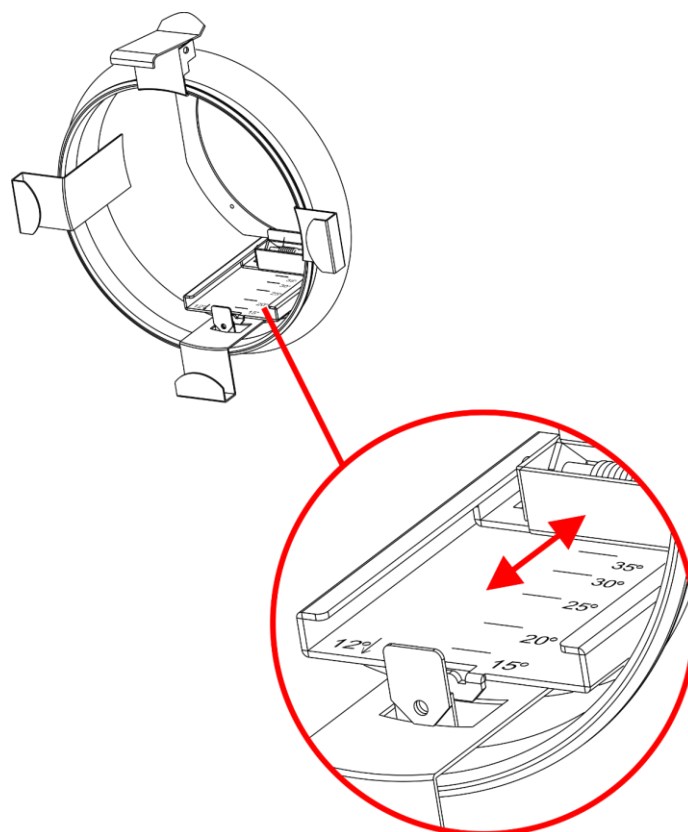


Fig. 04

Control Modes

- There are 4 modes:
- Color Macros/Color Programs
 - Manual
 - Master/Slave
 - DMX-512 (4CH, 7CH, 11CH)

One Par (Manual, Color Macros/Color Programs)

- 01) Fasten the effect light to a firm trussing. Leave at least 0,5 meter on all sides for air circulation.
- 02) Always use a safety cable (ordercode 70140 / 70141).
- 03) Plug the end of the electric mains power cord into a proper electric power supply socket.
- 04) When the Par is not connected with a DMX cable, it functions as a stand-alone device.
Please see pages 17 and 19 for more information about Color macros/Color programs and Manual mode.

Multiple PARS (Master/Slave control)

- 01) Fasten the effect light onto firm trussing. Leave at least 0,5 meter on all sides for air circulation.
- 02) Always use a safety cable (ordercode 70140 / 70141).
- 03) Use a 3-pin XLR cable to connect the Par.

The pins:



- 01) Earth
- 02) Signal -
- 03) Signal +

- 04) Link the units as shown in fig. 05. Connect the first unit's DMX "out" socket with the second unit's "in" socket, using a DMX signal cable. Repeat this process to link the second, third, and fourth units. You can use the same functions on the master device as described on pages 17 and 19 (Color macros/Color programs and Manual mode). This means that you can set your desired operation mode on the master device and all slave devices will react the same as the master device.

Multiple PARS (Master/Slave control)

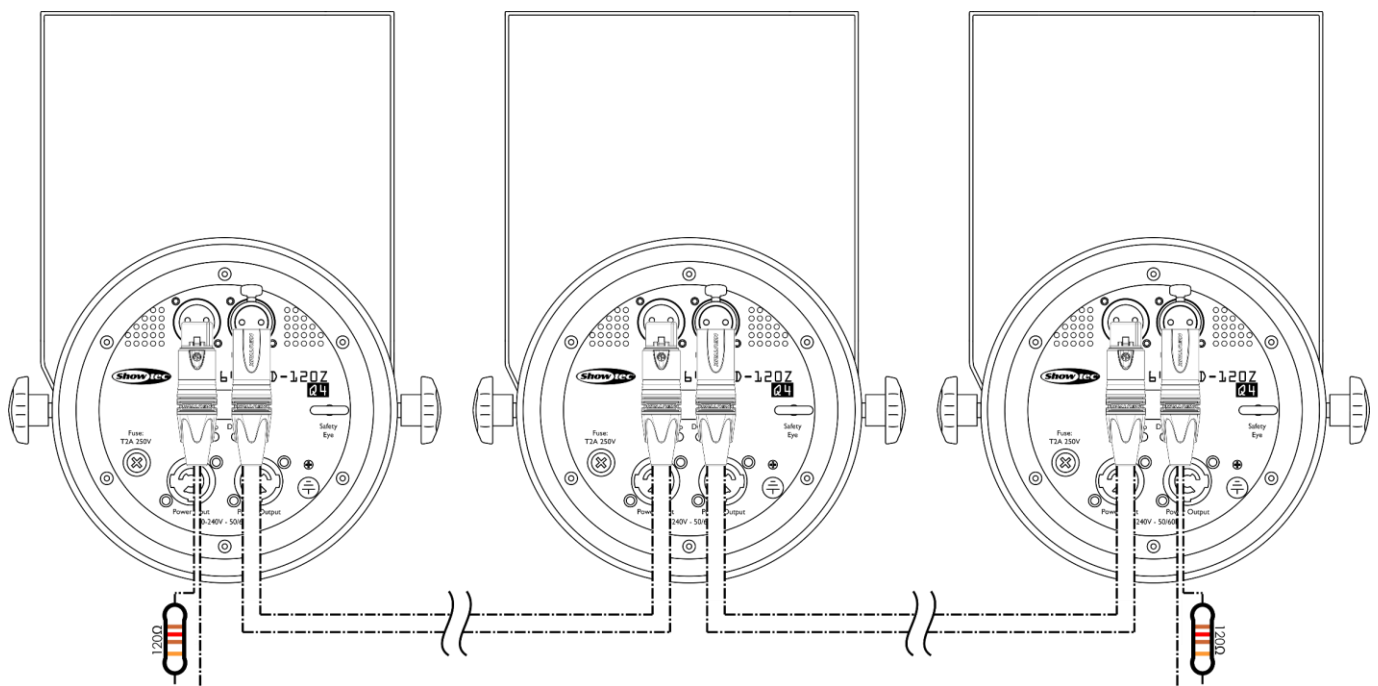
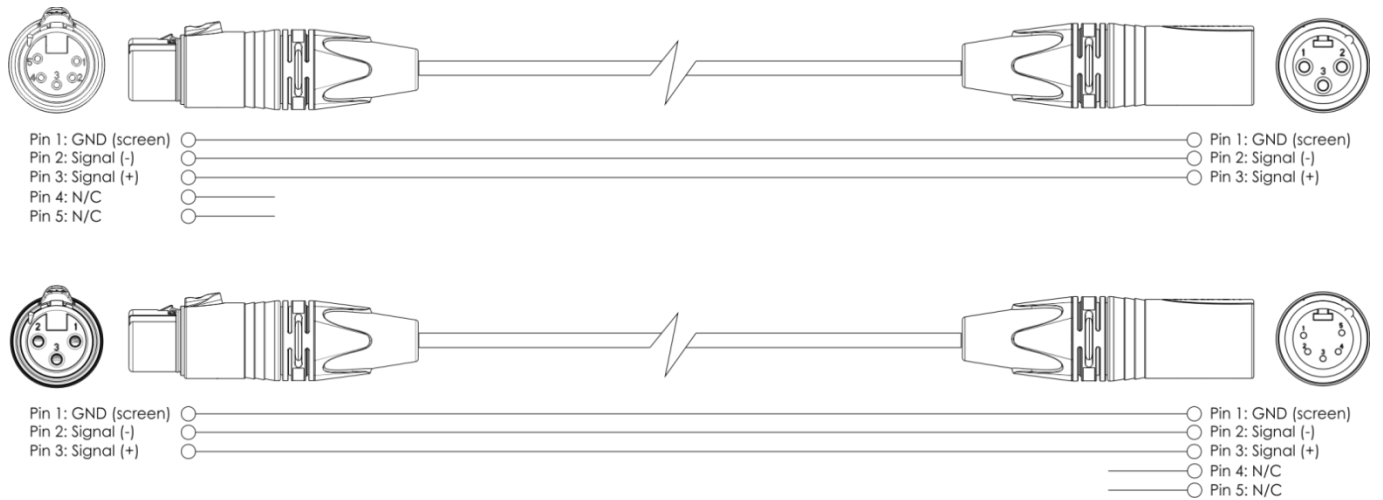


Fig. 05

Multiple Pars (DMX Control)

- 01) Fasten the effect light to a firm trussing. Leave at least 0,5 meter on all sides for air circulation
- 02) Always use a safety cable (ordercode 70140 / 70141).
- 03) Use a 3-pin XLR cable to connect the Pars and other devices.



- 04) Link the units as shown in fig. 06. Connect the first unit's DMX "out" socket with the second unit's "in" socket, using a DMX-signal cable. Repeat this process to link the second, third, and fourth units.
- 05) Supply electric power: Plug electric mains power cords into each unit's Pro power socket, then plug the other end of the mains power cord into proper electric power supply sockets, starting with the first unit. Do not supply power before the whole system is set up and connected properly.

Multiple Pars DMX Set Up

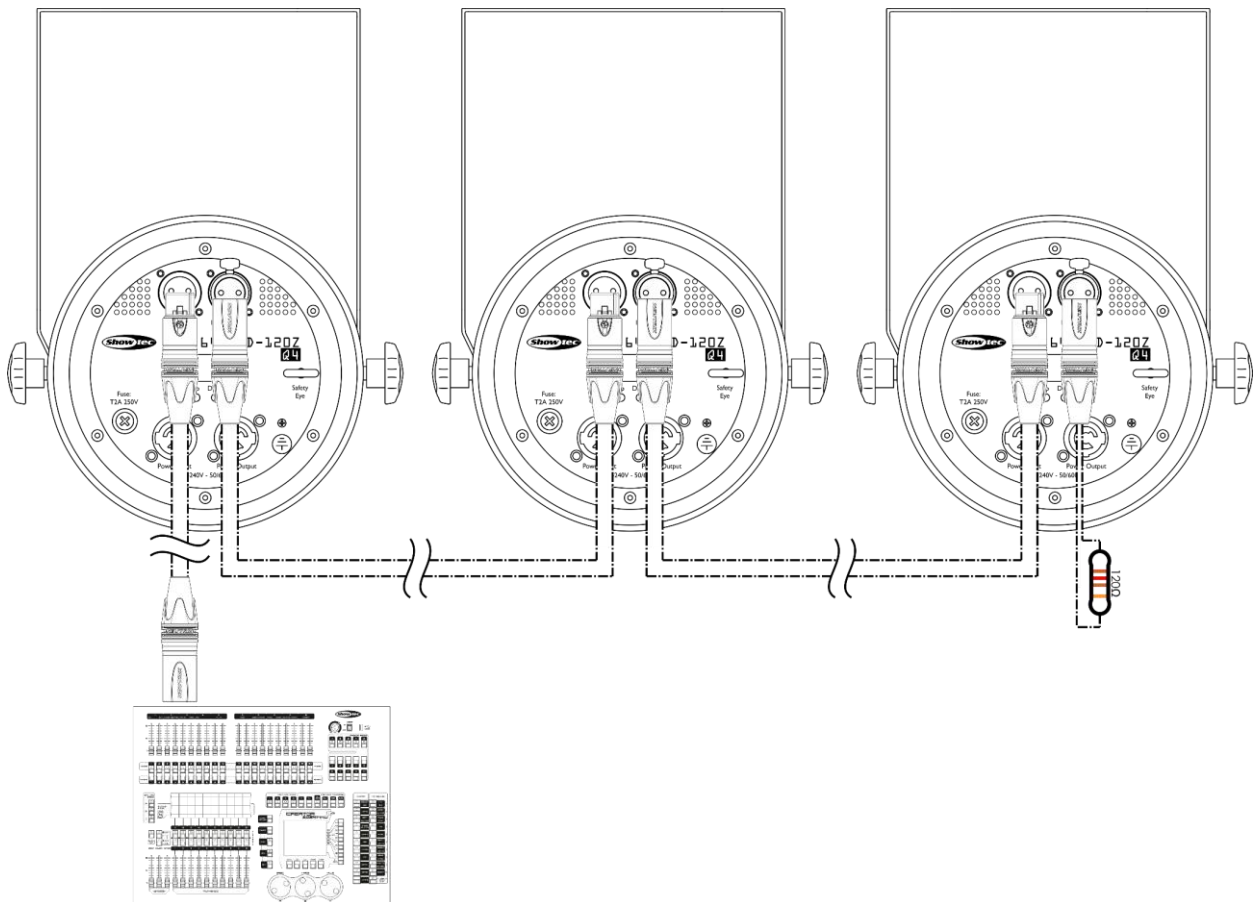



Fig. 06

Note : Link all cables before connecting electric power

Fixture Linking

You will need a serial data link to run light shows of one or more fixtures using a DMX-512 controller or to run synchronized shows of two or more fixtures set to a master/slave operating mode. The combined number of channels required by all the fixtures on a serial data link determines the number of fixtures the data link can support.

Important: Fixtures on a serial data link must be daisy-chained in a single line. To comply with the EIA-485 standard, no more than 30 devices should be connected on one data link. Connecting more than 30 fixtures on one serial data link without the use of a DMX optically isolated splitter may result in deterioration of the digital DMX signal.

 Maximum recommended DMX data link distance: 100 meters
Maximum recommended number of fixtures on a DMX data link: 30 fixtures
Maximum recommended number of fixtures on a power link @110V: 12 fixtures
Maximum recommended number of fixtures on a power link @240V: 25 fixtures

Data Cabling

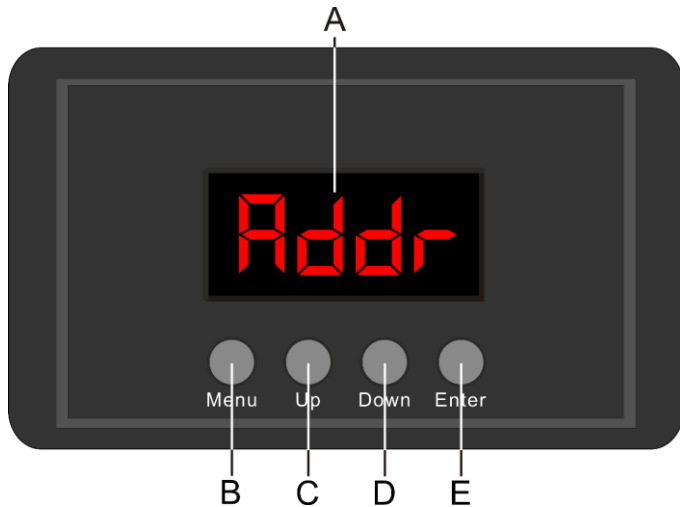
To link fixtures together, you must obtain data cables. You can purchase DAP Audio certified DMX cables directly from a dealer/distributor or construct your own cable. If you choose to create your own cable, please use data-grade cables that can carry a high quality signal and are less prone to electromagnetic interference.

DAP Audio DMX Data Cables

- DAP Audio Basic microphone cable for allround use. bal. XLR/M 3-pin > XLR/F 3-pin. **Ordercode** FL01150 (1,5 m), FL013 (3 m), FL016 (6 m), FL0110 (10 m), FL0115 (15 m), FL0120 (20 m).
- DAP Audio X-type data cable XLR/M 3-pin > XLR/F 3-pin. **Ordercode** FLX0175 (0,75 m), FLX01150 (1,5 m), FLX013 (3 m), FLX016 (6 m), FLX0110 (10 m).
- DAP Audio cable for the demanding user with exceptional audio-qualities and connector made by Neutrik®. **Ordercode** FL71150 (1,5 m), FL713 (3 m), FL716 (6 m), FL7110 (10 m).
- DAP Audio cable for the demanding user with exceptional audio-qualities and connector made by Neutrik®. **Ordercode** FL7275 (0,75 m), FL72150 (1,5 m), FL723 (3 m), FL726 (6 m), FL7210 (10 m).
- DAP Audio 110 Ohm cable with digital signal transmission. **Ordercode** FL0975 (0,75 m), FL09150 (1,5 m), FL093 (3 m), FL096 (6 m), FL0910 (10 m), FL0915 (15 m), FL0920 (20 m).
- DAP Audio data cable FL08 DMX/AES-EBU, XLR/M 5-pin > XLR/F 5-pin. **Ordercode** FL08150 (1,5 m), FL083 (3 m), FL086 (6 m), FL0810 (10 m), FL0820 (20 m).
- DAP Audio DMX adapter: 5-pin/3-pin. **Ordercode** FLA29.
- DAP Audio DMX adapter: 3-pin/5-pin. **Ordercode** FLA30.
- DAP Audio DMX Terminator 3-pin. **Ordercode** FLA42.
- DAP Audio DMX Terminator 5-pin. **Ordercode** FLA43.

The Par 64 LED-120Z-Q4 can be operated with a controller in **control mode** or without the controller in **stand-alone mode**.

Control Panel



- A) 4-digit LED display
- B) MENU button
- C) UP button
- D) DOWN button
- E) ENTER button

Fig. 07

Control Mode

The fixtures are individually addressed on a data-link and connected to the controller. The fixtures respond to the DMX signal from the controller. (When you select the DMX address and save it, the controller will display the saved DMX address, next time.)

DMX Addressing

The control panel on the front side of the base allows you to assign DMX fixture addresses, which is the first channel with which the Par will respond to the controller.

Please note, when you use the controller, the unit has **11** channels.

When using multiple Pars, make sure you set the DMX addresses right.

Therefore, the DMX address of the first Par should be **1(001)**; the DMX address of the second Par should be **1+11=12 (012)**; the DMX address of the third Par should be **12+11=23 (023)**, etc. Please, be sure that you do not have any overlapping channels in order to control each Par correctly. If two or more Pars are addressed similarly, they will work similarly.

Controlling:

After having addressed all Par fixtures, you may now start operating these via your lighting controller.

Note: After switching on, the Par will automatically detect whether DMX 512 data is received or not.

If there is no data received at the DMX-input, the "LED " on the control panel will not flash.

If not, the problem may be:

- The XLR cable from the controller is not connected with the input of the Par.
- The controller is switched off or defective, the cable or connector is defective, or the signal wires are swapped in the input connector.

Note: It is necessary to insert an XLR termination plug (with 120 Ohm) in the last fixture in order to ensure proper transmission on the DMX data link.

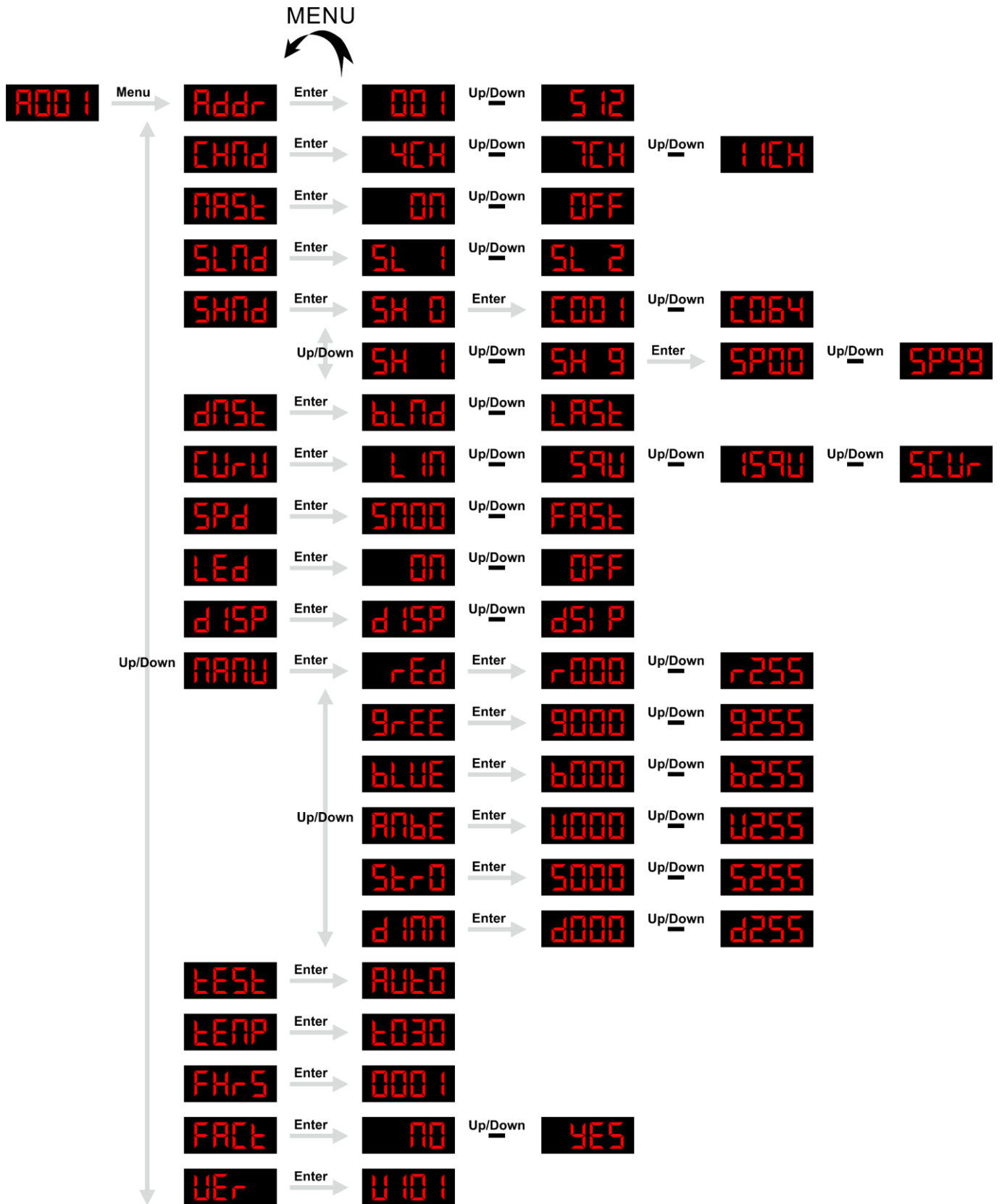
Display Off after 40 seconds

When no button is pressed for 40 seconds, the display will turn off.

To light up the display, you have to press the MENU, UP, DOWN or ENTER button.

Once you have pressed the button, the display will light up.

Menu Overview



Main Menu Options

Upon start-up the display will show **ADD 1**. Press the **MENU** button to enter the main menu.

Addr	1. DMX-512 Mode
CHNd	2. DMX Channel Modes
MASt	3. Master/Slave
SLNd	4. Slave Modes
SHNd	5. Color Macros/Color Programs
dNSt	6. DMX Fail
CUrV	7. Dimming Curves
SPd	8. Dimmer Speed
LEd	9. Display Settings
dISP	10. Display Inversion
MANU	11. Manual Mode
tEst	12. Test
tEMP	13. Temperature
FHrS	14. Total Operation Time
FRCE	15. Reset
VER	16. Software Version

1. DMX-512 Mode

In this menu you can set the DMX address.

- 01) In main menu, press the **MENU** button until the display shows **Addr**.
- 02) Press the **ENTER** button to open the menu.
- 03) Press the **UP/DOWN** button to set the desired DMX address. The address range is between 001-512.
- 04) Press the **ENTER** button to confirm your choice.
- 05) **Press and hold down the MENU button for 2 seconds, until the display shows **ADD 1**, to save your settings.**

2. DMX Channel Modes

In this menu you can set the desired channel mode.

- 01) In main menu, press the **MENU** button until the display shows **CHNd**.
- 02) Press the **ENTER** button to open the menu.
- 03) Press the **UP/DOWN** buttons to choose one of the 3 following channel modes:

4CH 4-channel mode

7CH 7-channel mode

11CH 11-channel mode

- 04) Press the **ENTER** button to confirm your choice.
- 05) **Press and hold down the MENU button for 2 seconds, until the display shows **ADD 1**, to save your settings.**

3. Master/Slave

In this menu you can set the device as a master or a slave.

- 01) In main menu, press the **MENU** button until the display shows **MASt**.
- 02) Press the **ENTER** button to open the menu.
- 03) Press the **UP/DOWN** buttons to choose one of the 2 options:

ON Master

OFF Slave (all slave devices will react the same as the master device)

- 04) Press the **ENTER** button to confirm your choice.
- 05) **Press and hold down the MENU button for 2 seconds, until the display shows **ADD 1**, to save your settings.**

4. Slave Modes

In this menu you can set the desired slave mode.

- 01) In main menu, press the **MENU** button until the display shows **SLNd**.
- 02) Press the **ENTER** button to open the menu.
- 03) Press the **UP/DOWN** buttons to choose one of the 2 slave modes:

SL 1 Normal slave mode

SL 2 Mirror slave mode

- 04) Press the **ENTER** button to confirm your choice.
- 05) **Press and hold down the MENU button for 2 seconds, until the display shows **ADD 1**, to save your settings.**

5. Color Macros/Color Programs

In this menu you can set color macros and color programs.

- 01) In main menu, press the **MENU** button until the display shows **5M7d**.
- 02) Press the **ENTER** button to open the menu.
- 03) Press the **UP/DOWN** buttons to choose one of the 10 options: **5H 0** ^{Up/Down} **5H 9**.
- 04) If you have chosen **5H 0**, press the **ENTER** button to open the menu. Press the **UP/DOWN** buttons to choose one of the 64 color macros **C001** ^{Up/Down} **C064**. Press the **ENTER** button to confirm your choice.
- 05) If you have chosen one of the color programs **5H 1** ^{Up/Down} **5H 9**, press the **ENTER** button to open the menu.
- 06) Press the **UP/DOWN** buttons to set the color program speed. The adjustment range is between **5P00** ^{Up/Down} **5P99**, from slow to fast.
- 07) Press the **ENTER** button to save your settings.

List of Color Programs

5H 0	64 color macros
5H 1	RGB color flow
5H 2	RGBA color flow
5H 3	RGB color flow + Amber ON
5H 4	4-color switch
5H 5	10-color switch
5H 6	Red, fade IN/OUT
5H 7	Green, fade IN/OUT
5H 8	Blue, fade IN/OUT
5H 9	Amber, fade IN/OUT

6. DMX Fail

In this menu you can set the device's behavior in case of a DMX failure.

- 01) In main menu, press the **MENU** button until the display shows **d75E**.
- 02) Press the **ENTER** button to open the menu.
- 03) Press the **UP/DOWN** buttons to choose one of the 2 options:

BL7d	The device will black out the light output
LAST	The device will use the last properly received DMX signal, ensuring uninterrupted performance
- 04) Press the **ENTER** button to confirm your choice.
- 05) **Press and hold down the MENU button for 2 seconds, until the display shows **ADD 1**, to save your settings.**

7. Dimming Curves

In this menu you can set the dimming curves.

- 01) In main menu, press the **MENU** button until the display shows **CURV**.
- 02) Press the **ENTER** button to open the menu.
- 03) Press the **UP/DOWN** buttons to choose one of the 4 dimming curves:

LIN

Linear

SQU

Square

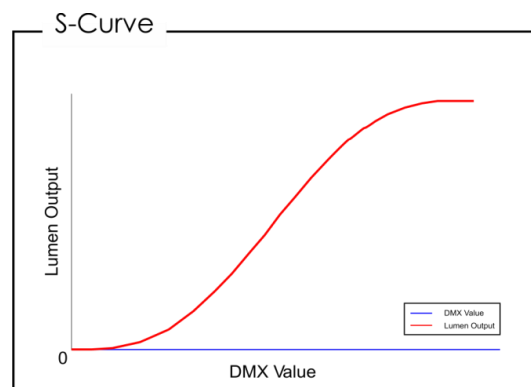
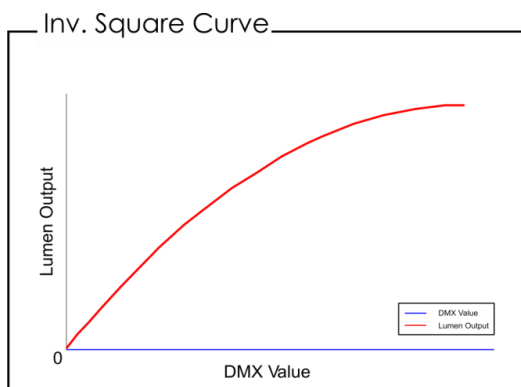
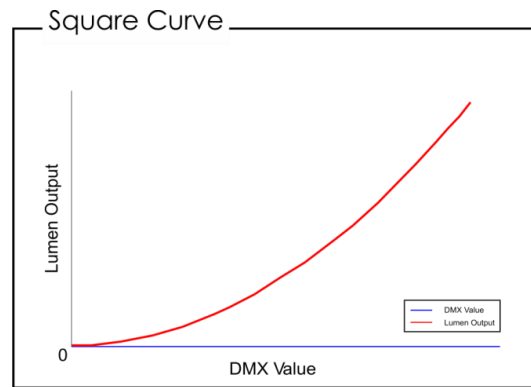
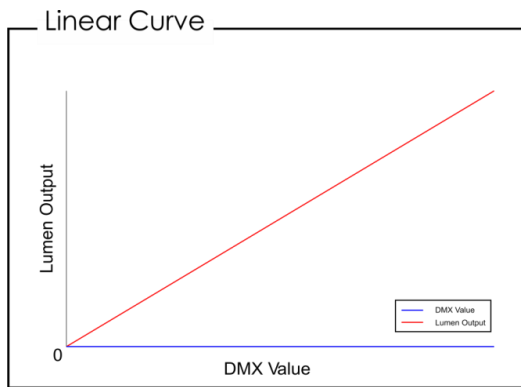
ISQU

Inverted Square

SCUR

S-Curve

- 04) Press the **ENTER** button to confirm your choice.



8. Dimmer Speed

In this menu you can set the dimmer speed.

- 01) In main menu, press the **MENU** button until the display shows **SPd**.
- 02) Press the **ENTER** button to open the menu.
- 03) Press the **UP/DOWN** buttons to choose one of the 2 options:

SMO Smooth

FAST Fast

- 04) Press the **ENTER** button to confirm your choice.

9. Display Settings

In this menu you can set the display settings.

- 01) In main menu, press the **MENU** button until the display shows **LED**.
- 02) Press the **ENTER** button to open the menu.
- 03) Press the **UP/DOWN** buttons to choose one of the 2 options:

ON Display continuously ON

OFF Display OFF after 40 seconds

- 04) Press the **ENTER** button to confirm your choice.

10. Display Inversion

In this menu you can set the display inversion.

- 01) In main menu, press the **MENU** button until the display shows **dISP**.
- 02) Press the **ENTER** button to open the menu.
- 03) Press the **UP/DOWN** buttons to choose one of the 2 options:

dISP Normal view

dSI P Inverted view

- 04) Press the **ENTER** button to confirm your choice.

11. Manual Mode

In this menu you can set Manual mode.

- 01) In main menu, press the **MENU** button until the display shows **MANU**.
- 02) Press the **ENTER** button to open the menu.
- 03) Press the **UP/DOWN** buttons to toggle through the static colors (RED, GREEN, BLUE, AMBER), Strobe and Dimmer.
- 04) Once you have chosen the desired color, press the **ENTER** button to open the menu.
- 05) Press the **UP/DOWN** buttons to adjust the LED brightness. The adjustment range is between 0-255, from dark to brightest.
- 06) When the display shows **Stro**, press the **ENTER** button to open the menu.
- 07) Press the **UP/DOWN** buttons to set the strobe frequency. The adjustment range corresponds with the DMX channel assigned to the strobe function (DMX channel # 7, page 21).
- 08) When the display shows **dimm**, press the **ENTER** button to open the dimmer settings.
- 09) Press the **UP/DOWN** buttons to adjust the dimmer brightness. The adjustment range is between 0-255, from dark to brightest.
- 10) You can combine RED, GREEN, BLUE and AMBER to create an infinite range of colors (0-255).

12. Test

In this menu you can start the automatic test.

- 01) In main menu, press the **MENU** button until the display shows **TEST**.
- 02) Press the **ENTER** button to start the test. The display will show **AUTO**.

13. Temperature

In this menu you can view the device's temperature.

- 01) In main menu, press the **MENU** button until the display shows **TEMP**.
- 02) Press the **ENTER** button to open the menu. The display will show the device's temperature.

14. Total Operation Time

In this menu you can view the device's total operation time.

- 01) In main menu, press the **MENU** button until the display shows **HR-S**.
- 02) Press the **ENTER** button to open the menu. The display will show the device's total operation time.

15. Reset

In this menu you can reset the device.

- 01) In main menu, press the **MENU** button until the display shows **FACT**.
- 02) Press the **ENTER** button to open the menu.
- 03) Press the **UP/DOWN** buttons to choose one of the 2 options: **NO** or **YES**.
- 04) Press the **ENTER** button to confirm your choice.
- 05) If you have chosen **YES**, the factory default settings will be restored.

16. Software Version

In this menu you can view the device's software version.

- 01) In main menu, press the **MENU** button until the display shows **VER**.
- 02) Press the **ENTER** button to open the menu. The display will show the currently installed software version: **0101**.

DMX Channels

4 Channels

Channel 1 – Red

0-255 Gradual adjustment Red, from dark to brightest

Channel 2 – Green

0-255 Gradual adjustment Green, from dark to brightest

Channel 3 – Blue

0-255 Gradual adjustment Blue, from dark to brightest

Channel 4 – Amber

0-255 Gradual adjustment Amber, from dark to brightest

7 Channels

Channel 1 – Red ⚠ **CH5 must be closed; CH6 must be open; CH7 must be set between 32-255** ⚠

0-255 Gradual adjustment Red, from dark to brightest

Channel 2 – Green ⚠ **CH5 must be closed; CH6 must be open; CH7 must be set between 32-255** ⚠

0-255 Gradual adjustment Green, from dark to brightest

Channel 3 – Blue ⚠ **CH5 must be closed; CH6 must be open; CH7 must be set between 32-255** ⚠

0-255 Gradual adjustment Blue, from dark to brightest

Channel 4 – Amber ⚠ **CH5 must be closed; CH6 must be open; CH7 must be set between 32-255** ⚠

0-255 Gradual adjustment Amber, from dark to brightest

Channel 5 – Color Temperature ⚠ **CH6 must be open; CH7 must be set between 32-255** ⚠

0-255 Color temperature adjustment, from 3000K to 7000K

Channel 6 – Dimmer

0-255 Dimmer intensity, from dark to brightest

Channel 7 – Strobe ⚠ **CH1-4 or CH5 must be open; CH6 must be open** ⚠

0-31 Off

32-63 Open

64-95 Strobe effect, from low to high frequency

96-127 Open

128-159 Pulse strobe effect, from low to high frequency

160-191 Open

192-223 Random strobe, from low to high frequency

224-255 Open

11 Channels

Channel 1 – Red

⚠ **CH5-6 and CH10 must be closed; CH7 must be open; CH9 must be set between 32-255** ⚠

0-255 Gradual adjustment Red, from dark to brightest

Channel 2 – Green

⚠ **CH5-6 and CH10 must be closed; CH7 must be open; CH9 must be set between 32-255** ⚠

0-255 Gradual adjustment Green, from dark to brightest

Channel 3 – Blue

⚠ **CH5-6 and CH10 must be closed; CH7 must be open; CH9 must be set between 32-255** ⚠

0-255 Gradual adjustment Blue, from dark to brightest

Channel 4 – Amber

⚠ **CH5-6 and CH10 must be closed; CH7 must be open; CH9 must be set between 32-255** ⚠

0-255 Gradual adjustment Amber, from dark to brightest

Channel 5 – Color Macros

⚠ CH7 must be open; CH9 must be set between 32-255; CH10 must be closed ⚠

0	Not functional
1-4	Color macro 1
5-8	Color macro 2
9-12	Color macro 3
	• • •
	• • •
	• • •
249-252	Color macro 63
253-255	Color macro 64

Channel 6 – Color Temperature

⚠ CH5 must be closed; CH7 must be open; CH9 must be set between 32-255; CH10 must be closed ⚠

0-255	Color temperature adjustment, from 3000K to 7000K
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Channel 7 – Dimmer

0-255	Dimmer intensity, from dark to brightest
-------	--

Channel 8 – Dimmer Fine ⚠ CH7 must be open ⚠

0-255	Dimmer fine intensity, from dark to brightest
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Channel 9 – Strobe ⚠ CH1-4 or CH5 or CH6 or CH10 must be open; CH7 must be open ⚠

0-31	Off
32-63	Open
64-95	Strobe effect, from low to high frequency
96-127	Open
128-159	Pulse strobe effect, from low to high frequency
160-191	Open
192-223	Random strobe, from low to high frequency
224-255	Open

Channel 10 – Built-in shows ⚠ CH7 must be open; CH9 must be set between 32-255 ⚠

0-2	Not functional
3-30	Show 1
31-58	Show 2
59-86	Show 3
87-114	Show 4
115-142	Show 5
143-170	Show 6
171-198	Show 7
199-226	Show 8
227-255	Show 9

Channel 11 – Program Speed ⚠ CH10 must be set between 3-255 ⚠

0-255	Gradual speed adjustment, from slow to fast
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Maintenance

The operator has to make sure that safety-related and machine-technical installations are to be inspected by an expert after every year in the course of an acceptance test.

The operator has to make sure that safety-related and machine-technical installations are to be inspected by a skilled person once a year.

The following points have to be considered during the inspection:

- 01) All screws used for installing the device or parts of the device have to be tightly connected and must not be corroded.
- 02) There may not be any deformations on housings, fixations and installation spots.
- 03) Mechanically moving parts like axles, eyes and others may not show any traces of wearing.
- 04) The electric power supply cables must not show any damages or material fatigue.

The Par 64 LED-120Z-Q4 requires almost no maintenance. However, you should keep the unit clean. Otherwise, the fixture's light output will be significantly reduced. Disconnect the mains power supply, and then wipe the cover with a damp cloth. Do not immerse in liquid. Wipe lens clean with glass cleaner and a soft cloth. Do not use alcohol or solvents.

The front lens will require weekly cleaning, as smoke-fluid tends to build up residues, reducing the light output very quickly.

Please clean internal components once a year with a light brush and vacuum cleaner.

Keep connections clean. Disconnect electric power, and then wipe the DMX and audio connections with a damp cloth. Make sure connections are thoroughly dry before linking equipment or supplying electric power.

Replacing the Fuse

Power surges, short-circuit or inappropriate electrical power supply may cause a fuse to burn out. If the fuse burns out, the product will not function whatsoever. If this happens, follow the directions below:

- 01) Unplug the unit from electric power source.
- 02) Insert a screwdriver into the slot in the fuse cover. Turn the fuse holder counterclockwise. The fuse will come out.
- 03) Remove the used fuse. If brown or unclear, it is burned out.
- 04) Insert the replacement fuse into the holder where the old fuse was. Reinsert the fuse holder. Be sure to use a fuse of the same type and specification. See the product specification label for details.

Troubleshooting

This troubleshooting guide is meant to help solve simple problems.

If a problem occurs, carry out the steps below in sequence until a solution is found. Once the unit operates properly, do not carry out following steps.

No Light

If the light effect does not operate properly, refer servicing to a technician.

Suspect three potential problem areas as: the power supply, the LEDs, the fuse.

- 01) Power supply. Check if the unit is plugged into an appropriate power supply.
- 02) The LEDs. Return the Par to your Showtec dealer.
- 03) The fuse. Replace the fuse. See page 23 for replacing the fuse.
- 04) If all appears to be O.K., plug the unit in again.
- 05) If you are unable to determine the cause of the problem, do not open the Par, as this may damage the unit and the warranty will become void.
- 06) Return the device to your Showtec dealer.

No Response to DMX

Suspect the DMX cable or connectors, a controller malfunction, a light effect DMX card malfunction.

- 01) Check the DMX setting. Make sure that DMX addresses are correct.
- 02) Check the DMX cable: Unplug the unit; change the DMX cable; then reconnect to electrical power. Try your DMX control again.
- 03) Determine whether the controller or light effect is at fault. Does the controller operate properly with other DMX products? If not, take the controller in for repair. If so, take the DMX cable and the light effect to a qualified technician.

Problem	Probable cause(s)	Solution
One or more fixtures do not function at all	No power to the fixture	<ul style="list-style-type: none"> Check if power is switched on and cables are plugged in
	Primary fuse blown	<ul style="list-style-type: none"> Replace fuse
Fixtures reset correctly, but all respond erratically or not at all to the controller	The controller is not connected	<ul style="list-style-type: none"> Connect controller
	3-pin XLR Out of the controller does not match XLR Out of the first fixture on the link (i.e. signal is reversed)	<ul style="list-style-type: none"> Install a phase reversing cable between the controller and the first fixture on the link
Fixtures reset correctly, but some respond erratically or not at all to the controller	Poor data quality	<ul style="list-style-type: none"> Check data quality. If much lower than 100 percent, the problem may be a bad data link connection, poor quality or broken cables, missing termination plug, or a defective fixture disturbing the link
	Bad data link connection	<ul style="list-style-type: none"> Inspect connections and cables. Correct poor connections. Repair or replace damaged cables
	Data link not terminated with 120 Ohm termination plug	<ul style="list-style-type: none"> Insert termination plug in output jack of the last fixture on the link
	Incorrect addressing of the fixtures	<ul style="list-style-type: none"> Check address setting
	One of the fixtures is defective and disturbs data transmission on the link	<ul style="list-style-type: none"> Bypass one fixture at a time until normal operation is restored: unplug both connectors and connect them directly together Have the defective fixture serviced by a qualified technician
	3-pin XLR Out on the fixtures does not match (pins 2 and 3 reversed)	<ul style="list-style-type: none"> Install a phase-reversing cable between the fixtures or swap pin 2 and 3 in the fixture that behaves erratically
No light or LEDs cut out intermittently	Fixture is too hot	<ul style="list-style-type: none"> Allow the fixture to cool down Clean the fan Make sure air vents in control panel and the front lens are not blocked Turn up the air conditioning
	LEDs damaged	<ul style="list-style-type: none"> Disconnect the fixture and return it to your dealer
	The power supply settings do not match local AC voltage and frequency	<ul style="list-style-type: none"> Disconnect fixture. Check settings and correct if necessary

Product Specifications

Model:	Par 64 LED-120Z-Q4
Input voltage:	100-240V AC, 50/60Hz
Power consumption:	142W
Fuse:	T2AL/250V
Dimensions:	445 x 290 x 400 mm (LxWxH)
Weight:	3,8 kg
Operating and Programming:	
Signal pin OUT:	Pin 1 (earth), pin 2 (-), pin 3 (+)
DMX mode:	4, 7, 11 channels
Signal input:	3-pin XLR IN
Signal output:	3-pin XLR OUT
Electro-mechanical effects:	
Light source:	1 x 120W RGBA ProLightOpto LED
Light output @12°:	Red: 4180 Lumen @2m Green: 6850 Lumen @2m Blue: 342 Lumen @2m Amber: 7950 Lumen @2m Full ON: 17180 Lumen @2m
Output distance:	>10m
Power factor:	>0,8
Refresh rate:	3 kHz
Dimmer:	0-100%
Strobe:	0-20Hz
Beam angle:	12°, 15°, 20°, 25°, 30°, 35° (Manual Zoom)
Housing:	Aluminum
Cooling:	Cooling fan
DMX control:	via standard DMX controller
Onboard:	4-digit LED display for easy setup
Control:	Color macros/Color programs, Manual, Master/Slave, DMX-512
Connections:	Pro power connector Blue IN/Gray OUT & 3-pin DMX IN/OUT
IP rating:	IP20
Max. ambient temperature t_a :	40°C
Max. housing temperature t_B :	70°C
Minimum distance:	
Minimum distance from flammable surfaces:	0,5 m
Minimum distance to lighted object:	1 m

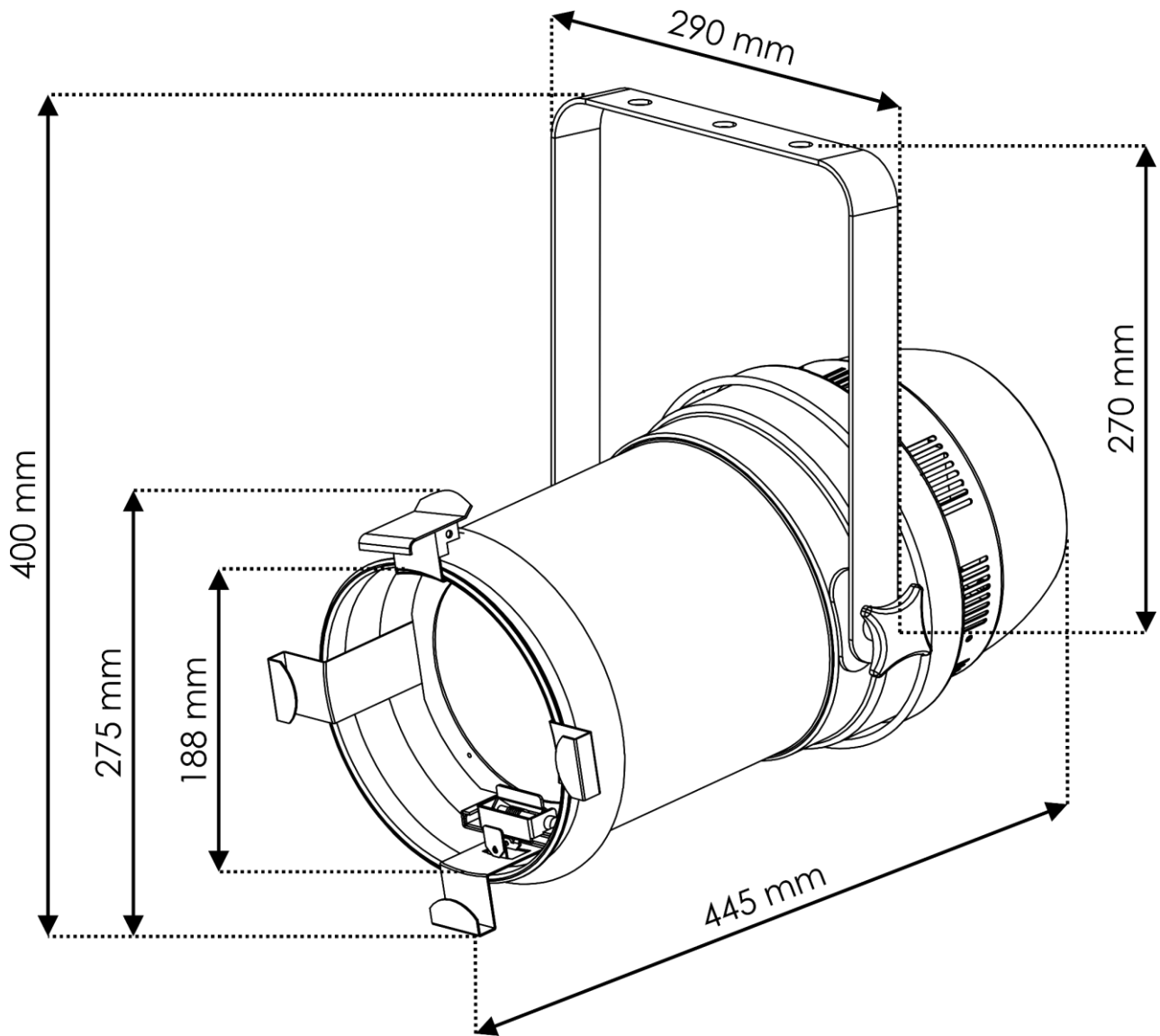
Design and product specifications are subject to change without prior notice.



Website: www.Showtec.info

Email: service@highlite.com

Dimensions





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