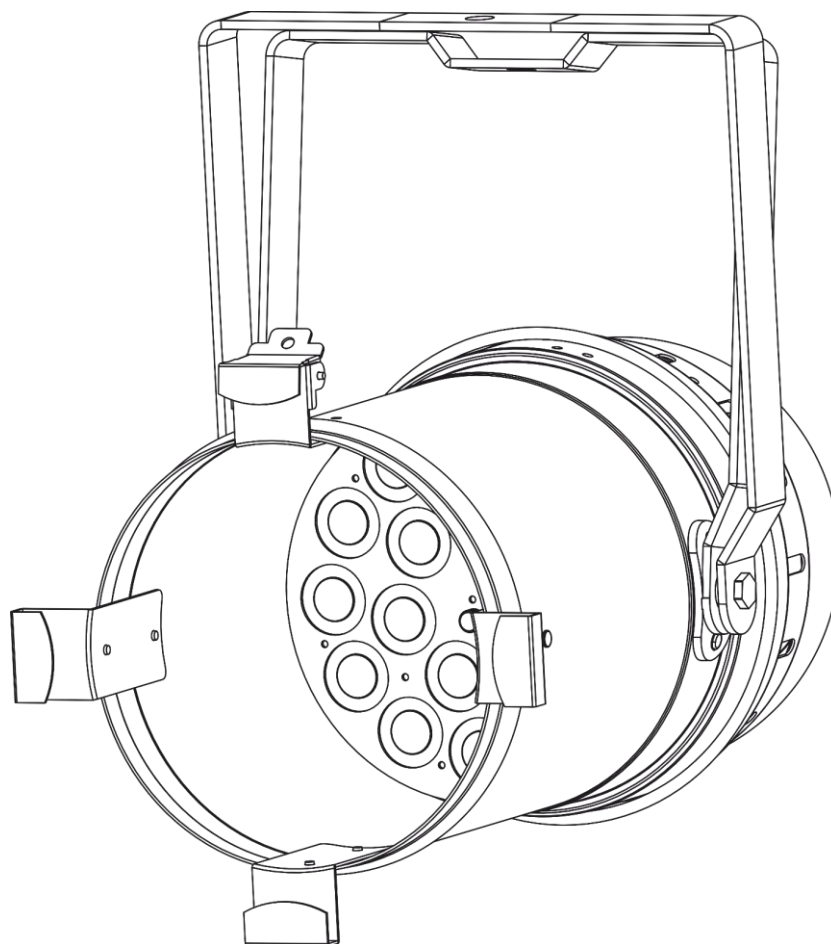




MANUAL



ENGLISH

LED Par 64 Aircraft

Ordercode: 30745

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Warning



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

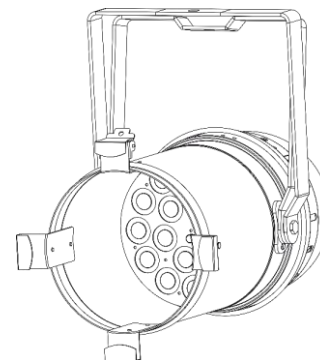
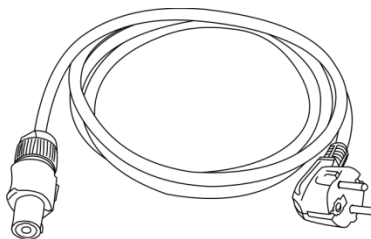


Unpacking Instructions

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 LED Par 64 Aircraft
- IEC power cable (1,5 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 your lifespan expectancy is of a 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 your 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 written 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 by holding it at the projector-head, as the mechanics may be damaged. Always hold the fixture at the transport handles.
- Never place any material over the lens.
- Never look directly into the light source.
- Never leave any cables lying around.
- Never unscrew the screws of the rotating gobo, as the ball bearing will otherwise be opened.
- Do not insert objects into air vents.
- Do not connect this device to a dimmerpack.
- Do not switch the device on and off in short intervals, as this would 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 device indoor, avoid contact with water or other liquids.
- Only operate the fixture after having checked that 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 case closed while operating.
- Always allow 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 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. So that its functions are not impaired, due to cracks or deep scratches.
- If device is 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 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. This device must be installed out of 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 LED Par 64 Aircraft. 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.
- During the initial start-up some smoke or smell may arise. This is a normal process and does not necessarily mean that the device is defective.
- 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 more than 1 meter.
- 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

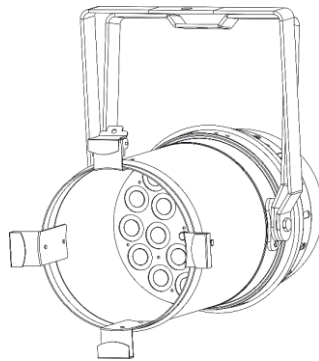
Please follow the European and national guidelines concerning rigging, trussing and all other safety issues.

Do not attempt the installation yourself !

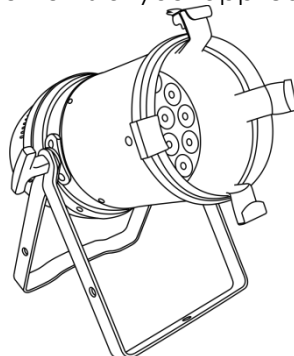
Always let the installation be carried out by an authorized dealer !

Procedure:

- If the projector is lowered from the ceiling or high joists, professional trussing systems have to be used.
- Use a clamp to mount the projector, with the mounting-bracket, to the trussing system.
- The projector 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 projector, always make sure, that the area below the installation place is blocked and staying in the area is forbidden.



The LED Par 64 Aircraft can be mounted in a hanging position (Fig. Above) or Upright (Fig. Below), using the support brackets. Mounting the LED Par 64 Aircraft with a clamp or any other mounting bracket is recommended, depending on the requirements of your application.




The LED Par 64 Aircraft can be placed on a flat stage floor or mounted to any kind of truss by a clamp.

Improper installation can cause serious damage to people and property !

Connection with the mains

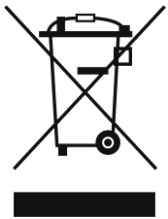
Connect the device to the mains with the power-plug.

Always pay attention, that the right color cable is connected to the right place.

International	EU Cable	UK Cable	US Cable	Pin
L	BROWN	RED	YELLOW/COPPER	FASE
N	BLUE	BLACK	SILVER	NULL
	YELLOW/GREEN	GREEN	GREEN	EARTH

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

Improper installation can cause serious damage to people and 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 notify 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 otherwise agreed in writing.

Complaints against us must be made known in writing or 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 of which the obligation is resulting.

Description of the device

Features

The Showtec LED Par 64 Aircraft is a LED parcan with high output and great effects.

- Heavy duty double bracket.
- Output Distance: >100m
- LED Quantity: 18 x 4W WW
- Refreshrate: 400 Hz
- Dimmer: 0-100 %
- Strobe: 0-20 Hz
- Beam Angle: 4°
- On Board: 2x8 Character Display
- DMX-control via standard DMX-controller
- Control: DMX-512, Built-in Programs, Manual, Sound-controlled, Master/Slave
- DMX personality: 1, 2 channels
- Input Voltage: 100/240VAC, 50/60Hz
- Power consumption: 85W at full output
- IP Rating: IP-20
- Housing: Metal
- Connections: Neutrik Powercon Powercon IN / OUT + XLR Data in/out (XLR 3-pin)
- Cooling: Convection
- Fuse F3A / 250V
- Dimensions: 430 x 275 x 280 mm (LxWxH)
- Weight: 3,44 kg

Overview

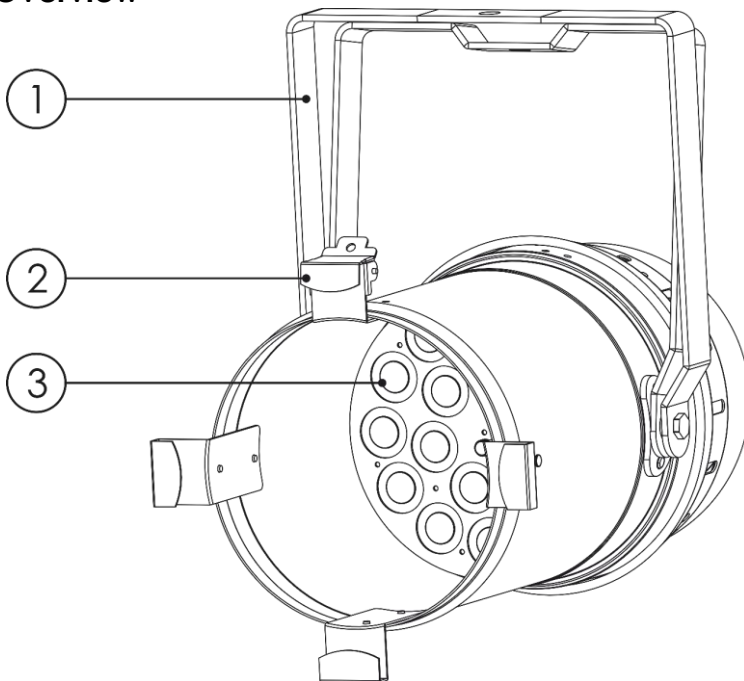


Fig. 01

- 01) Double mountingbracket with inclination screws
02) Filter frame
03) LED Quantity: 18 x 4W WW

Backside

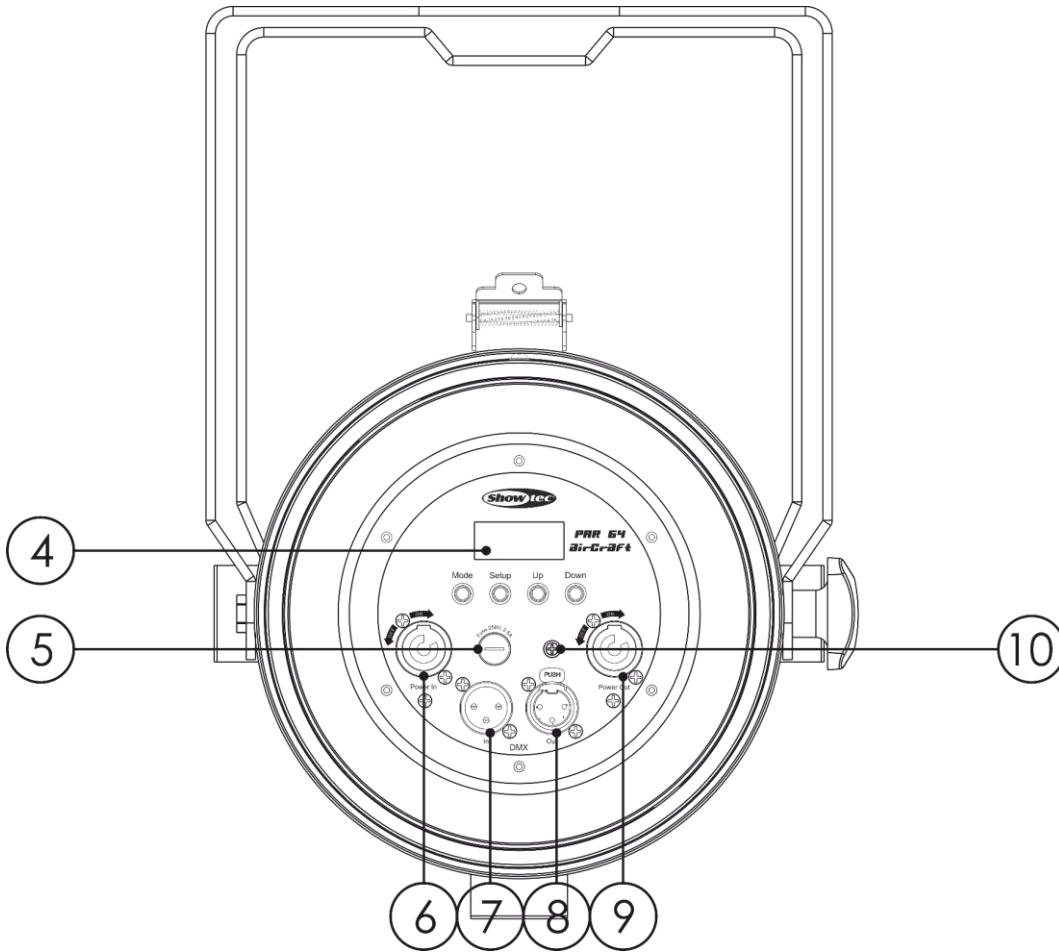


Fig. 02

- 04) LCD Display + Menu buttons
- 05) Fuse 3A / 250V
- 06) Neutrik Powercon IN connector Blue
- 07) DMX signal connector (IN) 3-pin
- 08) DMX signal connector (OUT) 3-pin
- 09) Neutrik Powercon OUT connector Gray
- 10) Earth connection

NOTE: Knowledge of DMX is required to fully utilize this unit.

Installation

Remove all packing materials from the LED Par 64 Aircraft. Check that 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.

Control Modes

- There are 5 modes:
- Stand-alone (built-in programs)
 - Manual Dimmer Operation
 - Sound-controlled
 - Master/slave
 - DMX512 (1, 2 Channels)

One Aircraft (Built-in Programs)

- 01) Fasten the effect light onto firm trussing. Leave at least 1 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 Aircraft is not connected by a DMX-cable, it functions as a stand-alone device.
- 05) Please see page 14 for more information about the built-in programs.

One Aircraft (Manual Dimmer Operation)

- 01) Fasten the effect light onto firm trussing. Leave at least 1 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 Aircraft is not connected by a DMX-cable, it functions as a stand-alone device.
- 05) Please see page 15 for more information about the manual dimmer control.

One Aircraft (Sound-controlled)

- 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) Turn on the music. If the device is set to sound-control, then the Aircraft will react to the beat of the music. Please see page 15 for more information about the sound-control options.

Multiple Aircrafts (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 Aircraft.

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 14 and 15 (Built-in programs, Manual Dimmer, Sound-controlled 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 Aircrafts (Master/Slave control)

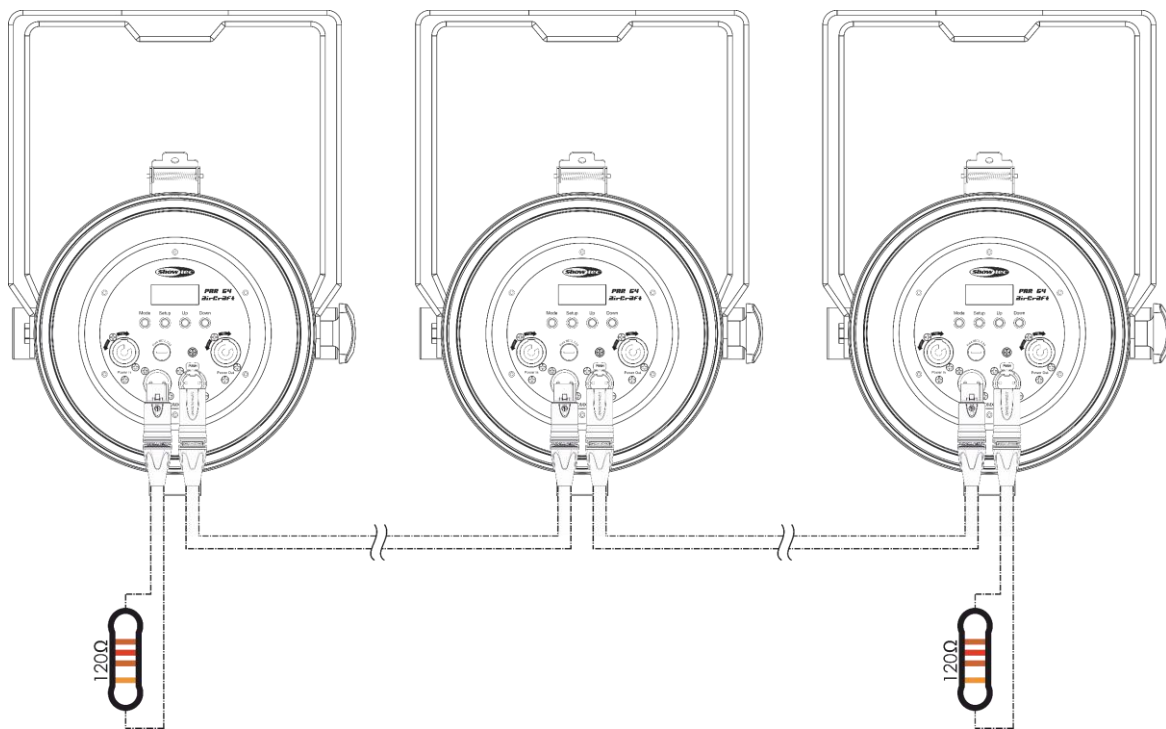
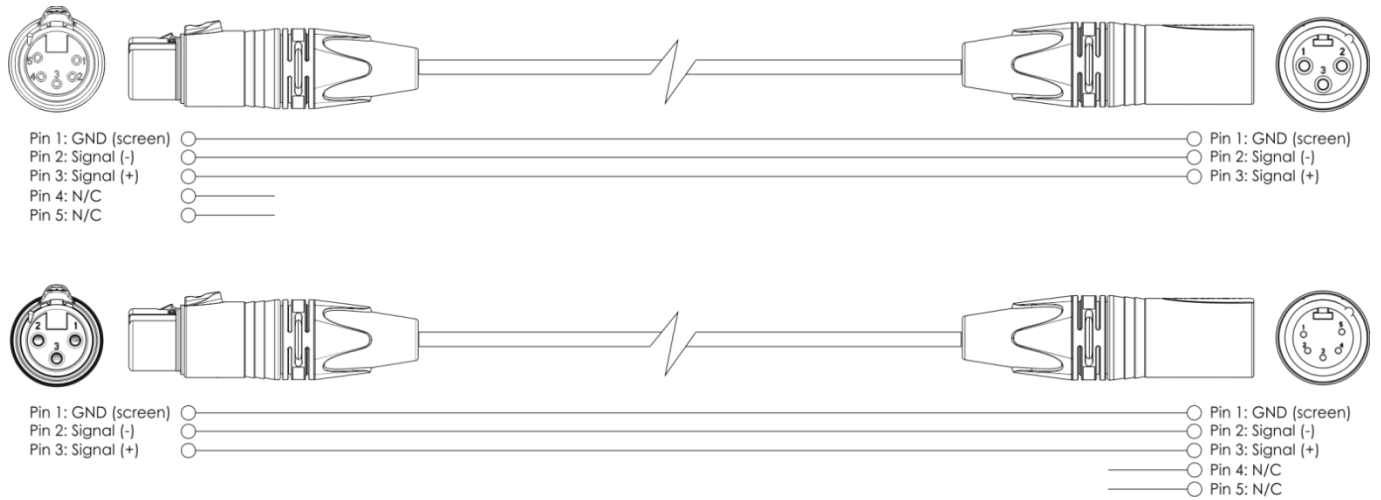


Fig. 05

Multiple Aircrafts (DMX Control)

- 01) Fasten the effect light onto firm trussing. Leave at least 1 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) Use a 3-p XLR cable to connect the Aircrafts and other devices.



- 05) Link the units as shown in (figure 4), Connect a DMX signal cable from the first unit's DMX "out" socket to the second unit's "in" socket. Repeat this process to link the second, third, and fourth units.
- 06) Supply electric power: Plug electric mains power cords into each unit's IEC 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 Aircrafts DMX Set Up

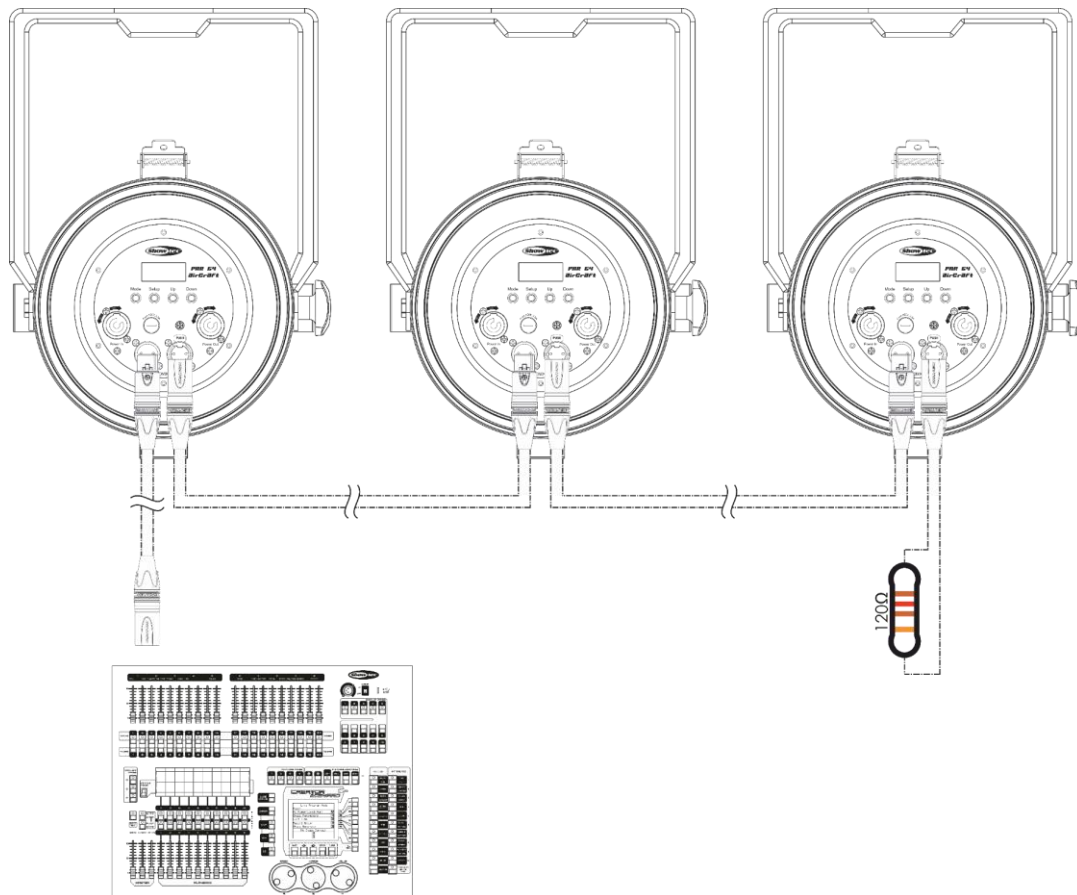


Fig. 03

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 on 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 one 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 Aircrafts on a DMX data link: 30 fixtures

Maximum recommended number of fixtures on a power link @ 110V: 20 fixtures

Maximum recommended number of fixtures on a power link @ 240V: 40 fixtures

Data Cabling

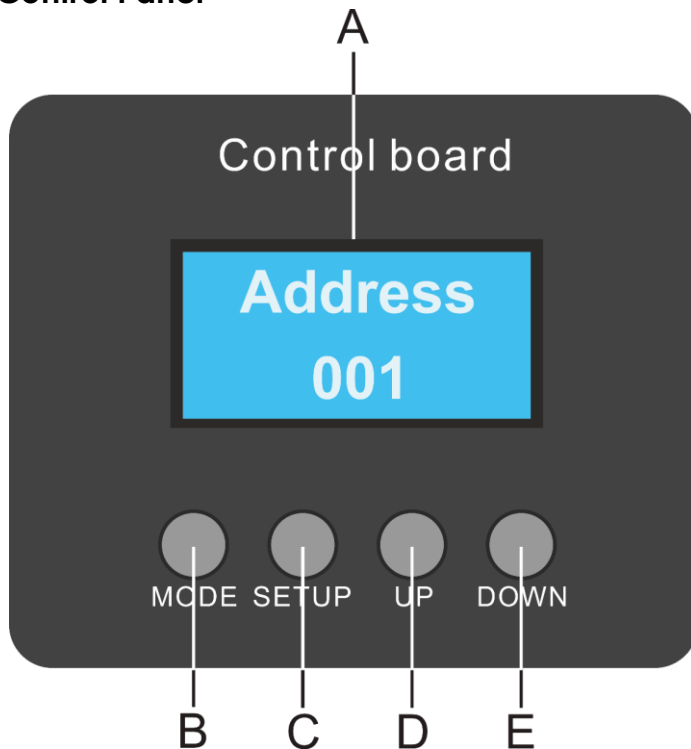
To link fixtures together you must obtain data cables. You can purchase DAP Audio certified DMX cables directly from a dealer/distributor or construct your own cable. If you choose to create your own cable please use data-grade cables that can carry a high quality signal and are less prone to electromagnetic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

DAP Audio Certified DMX Data Cables

- DAP Audio cable for allround use. bal. XLR/M 3 p. > XLR/F 3 p.
Ordercode FL01150 (1,5m.), FL013 (3m.), FL016 (6m.), FL0110 (10m.), FL0115 (15m.), FL0120 (20m.).
- DAP Audio cable for the demanding user with exceptional audio-qualities and connector made by Neutrik®. Ordercode FL71150 (1,5m.), FL713 (3m.), FL716 (6m.), FL7110 (10m.).

The Aircraft can be operated with a controller in **control mode** or without the controller in **stand-alone mode**.

Control Panel



- A) LCD Display
- B) Mode Button
- C) Setup Button
- D) Up Button
- E) Down Button

Fig. 04

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 the next time.)

DMX Addressing

The control panel on the front side of the base allows you to assign the DMX fixture address, which is the first channel from which the Aircraft will respond to the controller. Please note when you use the controller, the unit has **2** channels. When using multiple Aircrafts, make sure you set the DMX addresses right. Therefore, the DMX address of the first Aircrafts should be **1(001)**; the DMX address of the second Aircraft should be **1+2=3 (003)**; the DMX address of the third Aircraft should be **3+2=5 (005)**, etc. Please, be sure that you don't have any overlapping channels in order to control each Aircraft correctly. If two or more Aircrafts are addressed similarly, they will work similarly.

Controlling:

After having addressed all Aircraft fixtures, you may now start operating these via your lighting controller. **Note:** After switching on, the Aircraft will automatically detect whether DMX 512 data is received or not. If there is no data received at the DMX-input, the display will show "**NO DMX Signal**".

The problem may be:

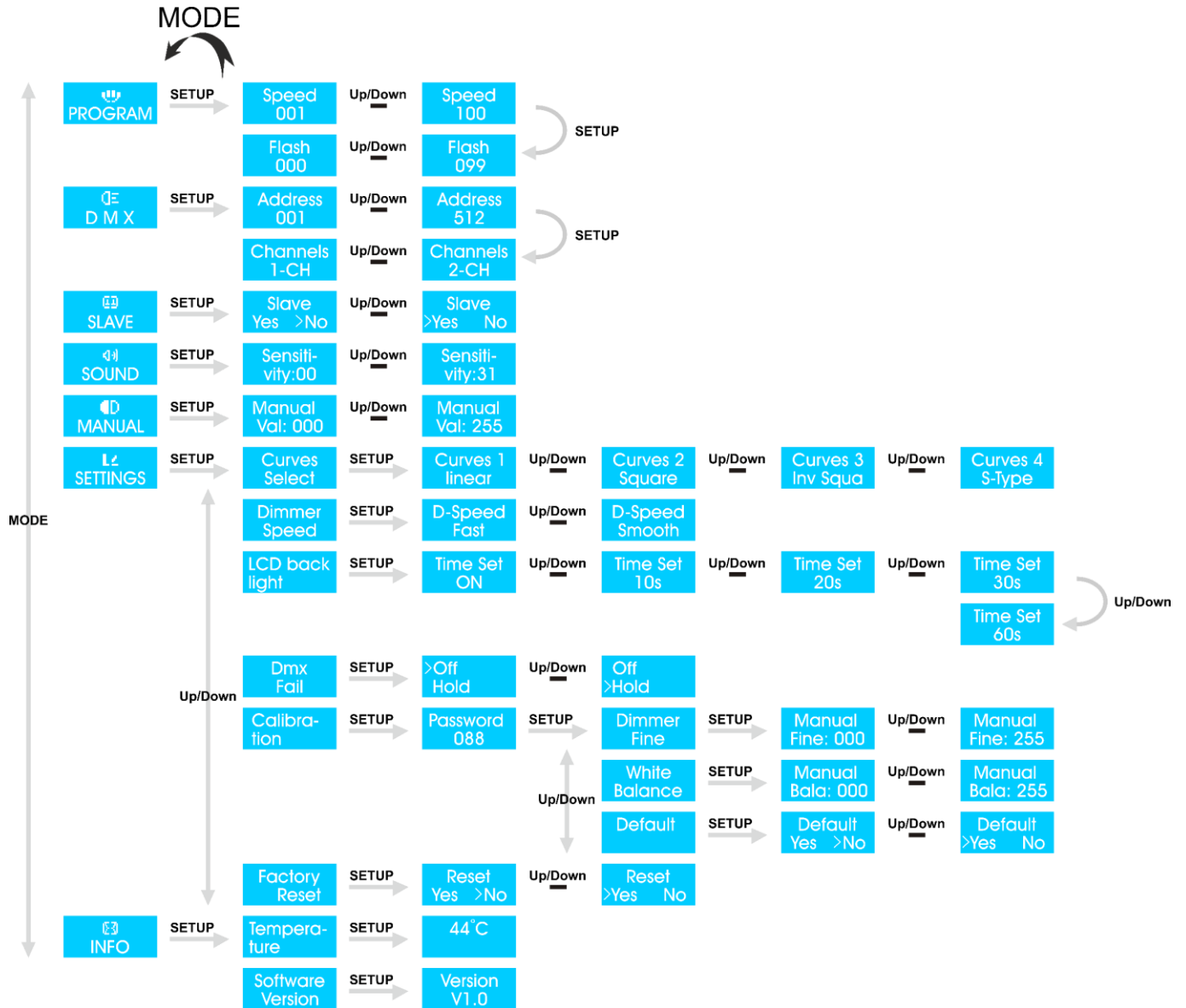
- The XLR cable from the controller is not connected with the input of the Aircraft.

- 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's necessary to insert a XLR termination plug (with 120 Ohm) in the last fixture in order to ensure proper transmission on the DMX data link.

To unlock the display, press and hold any of the 3 menu buttons for 7 seconds. The display will light up and you are able to change your settings.








Menu Overview



The LED Par 64 Aircraft will only show its version number at start-up !










Main Menu Options

-  1. Auto
-  2. DMX-512 mode
-  3. Master/Slave mode
-  4. Sound-controlled mode
-  5. Manual mode
-  6. Settings
-  7. Information

The LED Par 64 Aircraft will automatically detect the presence of a DMX signal. In order to receive a DMX signal, the controller must be attached to a DMX controller by a 3/5-pin DMX cable and the DMX controller must be turned on. The LED Par 64 Aircraft system can operate as a 1 or 2-channel DMX fixture.





1. Program


In this menu you can activate Auto mode.

- 01) Press the **MODE** button until the display shows .
- 02) Press the **SETUP** button to open the menu.
- 03) Press the **UP/DOWN** buttons to increase/decrease the auto program speed. The adjustment range is between   , from slow to fast.
- 04) Press the **SETUP** button again to proceed to strobe settings. Press the **UP/DOWN** buttons to set the strobe frequency. The adjustment range is between   , from OFF to high strobe frequency.

2. DMX Mode

In this menu you can set the DMX address.


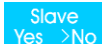


- 01) Press the **MODE** button on the device, until the display shows .
You can choose 512 different DMX addresses.
- 02) Use the Up / Down buttons to select the required address from   .
- 03) You can also press the **SETUP** button to set the DMX Mode.
The LED Par 64 Aircraft has 2 different DMX modes.

 1 Channel

 2 Channels





3. Slave Mode

In this menu you can set the slave mode.

- 01) Press the **MODE** button on the device, until the display shows: .
- 02) Press the **SETUP** button to open the menu.
- 03) Press the **UP/DOWN** buttons to select   .
- 04) If you choose Yes, the device will be operating in slave mode and it will react the same as the master device.


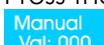

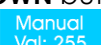
4. Sound

In this menu you can set the sound sensitivity.

- 01) Press the **MODE** button until the display shows .
- 02) Press the **SETUP** button to enter the menu.
- 03) Press the **UP/DOWN** buttons to set the sound sensitivity. The adjustment range is between   , from low to high sensitivity.
- 04) The device will now react to the beat of the background music.


5. Manual







In this menu you can manually set the dimmer intensity.

- 01) Press the **MODE** button on the device, until the display shows .
- 02) Press the **SETUP** button to open this menu.
- 03) Press the **UP/DOWN** buttons to set the intensity of the LEDs. The adjustment range is between   , from OFF to high intensity.

6. Settings


In this menu you can adjust several settings.

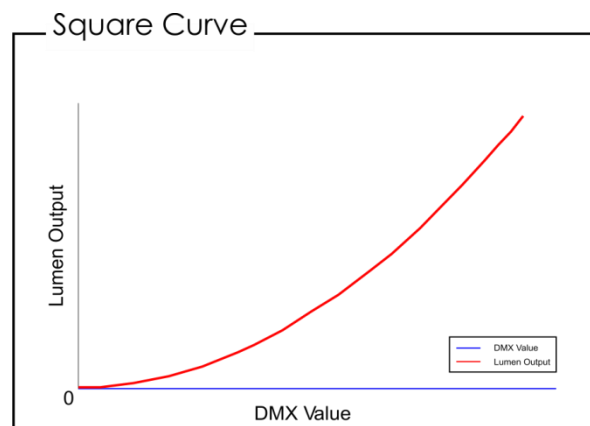
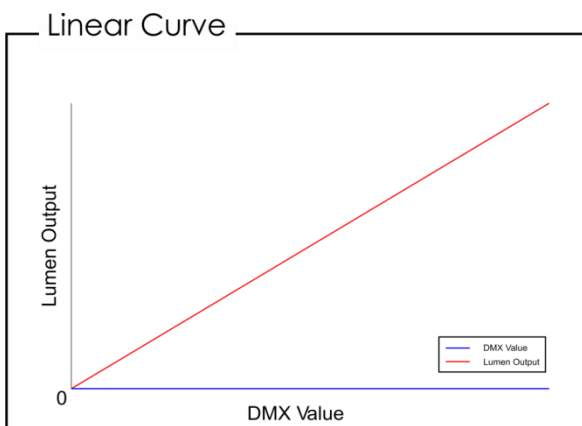
- 01) Press the **MODE** button on the device, until the display shows .
- 02) Press the **SETUP** button to open this menu.
- 03) Press the **UP/DOWN** buttons to choose between the 6 available options:

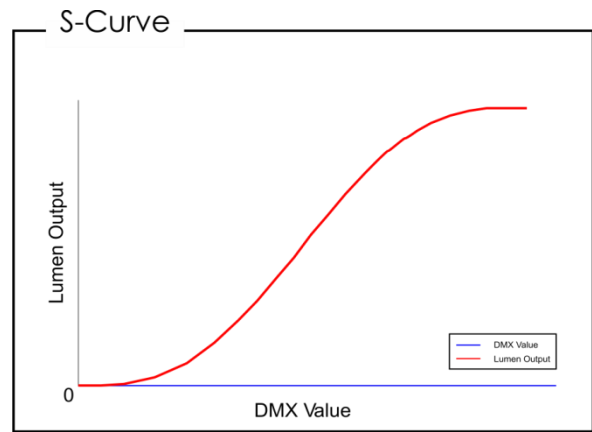
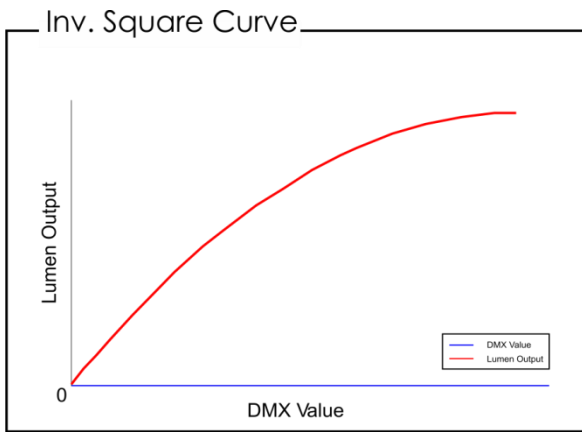
	Curves Select
	Dimmer Speed
	LCD Backlight
	DMX Fail
	Calibration
	Factory Reset

- 04) Press the **Setup** button to open one of the 6 options.

6.1 Curves settings

- 01) Use the **UP/DOWN** buttons in settings menu, until the display shows .
- 02) Press the **SETUP** button to open the sub menu.
- 03) You can use the **UP/DOWN** buttons to select one of the 4 dimming curves.





6.2 Dimmer Speed

- 01) Use the **UP/DOWN** buttons in settings menu, until the display shows Dimmer Speed.
- 02) Press the **SETUP** button to open the sub menu.
- 03) You can use the **UP/DOWN** buttons to choose between Smooth or Fast.

6.3 LCD Backlight

- 01) Use the **UP/DOWN** buttons in settings menu, until the display shows LCD back light.
- 02) Press the **SETUP** button to open the sub menu.
- 03) You can use the **UP/DOWN** buttons to choose between 10, 20, 30 or 60 seconds. If you choose the option "**ON**", the display will remain continuously ON, when no button is pressed.

6.4 DMX Fail

- 01) Use the **UP/DOWN** buttons in settings menu, until the display shows Dmx Fail.
- 02) Press the **SETUP** button to open the sub menu.
- 03) You can use the **UP/DOWN** buttons to choose between Off or Hold.
- 04) If you choose Off the fixture will blackout when there is no DMX signal.
- 05) If you choose Hold the fixture will remember the last settings and will not go out when there is no DMX signal.

6.5 Calibration

In this menu you can calibrate your Aircraft.

- 01) Use the **UP/DOWN** buttons in settings menu, until the display shows Calibration.
- 02) Press the **SETUP** button to open the next menu.
- 03) Insert the password in order to access the calibration menu. Password : 088
- 04) Press the **ENTER** button to confirm.
- 05) Press the **UP/DOWN** buttons to choose between the 3 available options:

- Dimmer Fine Dimmer Fine
- White Balance White Balance
- Default Default

6.5.1 Dimmer Fine

- 01) Use the **UP/DOWN** buttons in settings menu, until the display shows Dimmer Fine.
- 02) Press the **SETUP** button to open the sub menu.
- 03) Press the **UP/DOWN** buttons to set the Dimmer Fine. The adjustment range is between Manual Fine: 000 Up/Down Manual Fine: 255.

6.5.2 White Balance

- 04) Use the **UP/DOWN** buttons in settings menu, until the display shows Dimmer
Fine.
- 05) Press the **SETUP** button to open the sub menu.
- 06) Press the **UP/DOWN** buttons to set the White Balance. The adjustment range is between Manual
Bala: 000 Up/Down Manual
Bala: 255.

6.5.3 Default

- 07) Use the **UP/DOWN** buttons in settings menu, until the display shows Dimmer
Fine.
- 08) Press the **SETUP** button to open the sub menu.
- 09) Press the **UP/DOWN** buttons to select Default
Yes >No Up/Down Default
>Yes No.

6.6 Factory Reset

- 01) Use the **UP/DOWN** buttons in settings menu, until the display shows Factory
Reset.
- 02) Press the **SETUP** button to open the sub menu.
- 03) You can use the **UP/DOWN** buttons to choose between Yes or No.
- 04) If you have chosen Yes, the factory settings will be restored.

DMX Channels

1 Channel Mode

Channel 1 – Dimmer intensity

0	Off
1-255	Dimmer intensity, from dark to brightest

2 Channel Mode

Channel 1 – Dimmer intensity

0	Off
1-255	Dimmer intensity, from dark to brightest

Channel 2 – Strobe (Dimmer must be open)

0-10	Close
11-255	Strobe from slow to fast

Maintenance

The Showtec LED Par 64 Aircraft 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. Wipe the front glass panel clean with glass cleaner and a soft cloth. Do not use alcohol or solvents. The front panel will require weekly cleaning, as smoke-fluid tends to build up residues, reducing the light-output very quickly. Do not immerse in liquid. 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.

The operator has to make sure that safety-relating 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-relating 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.

Replacing a 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 to do so.

- 01) Unplug the unit from electric power source.
- 02) Insert a screwdriver into the slot in the fuse cover. Turn the screwdriver to the left, at the same time gently push a bit (Turn and Push). 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 cover. Be sure to use a fuse of the same type and specification. See the product specification label for details.

Troubleshooting

No Light

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.

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

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

- 01) Power supply. Check that the unit is plugged into an appropriate power supply.
- 02) The LEDs. Return the Aircraft to your Showtec dealer.
- 03) The fuse. Replace the fuse. See page 19 for replacing the fuse.
- 04) If all of the above 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 Aircraft, as this may damage the unit and the warranty will become void.
- 06) Return the device to your Showtec dealer.

No Response to DMX

Response: 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.

See next page for more problem solving.

Problem	Probable cause(s)	Remedy
One or more fixtures are completely dead.	No power to the fixture.	<ul style="list-style-type: none"> • Check that 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 regained: 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.
Shutter closes suddenly	The fixture is resetting the effect.	<ul style="list-style-type: none"> • Contact a technician for servicing the problem persists.
No light or lamp cuts out intermittently	Fixture is too hot.	<ul style="list-style-type: none"> • Allow fixture to cool. • Clean fan. • Make sure air vents at control panel and front lens are not blocked. • Turn up the air conditioning .
	LEDs damaged	<ul style="list-style-type: none"> • Disconnect fixture and return 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 Specification

Model:	Showtec LED Par 64 Aircraft
Input Voltage:	100-240 VAC, 50/60Hz
Power consumption:	85W max. at full output
DMX linking:	30pcs
Fuse:	3A/250V
Dimensions:	430 x 275 x 280 mm (LxWxH)
Weight:	3,44 kg
Operating and Programming:	
Signal pin OUT:	Pin 1 (earth), pin 2 (-), pin 3 (+)
DMX Mode:	1, 2 channels
Signal input:	3-pin XLR male
Signal output:	3-pin XLR female
Electro-mechanical effects:	
IP Rating:	IP-20
Beam angle:	4°
Refreshrate:	400 Hz
LED Quantity:	18 x 4W WW
Output Distance:	>100m
Dimmer:	0-100 %
Strobe:	0-20 Hz
Control protocol:	DMX-512
DMX-control:	via standard DMX-controller
On Board:	2x8 Character Display
Control modes:	DMX-512, Built-in Programs, Manual, Sound-controlled, Master/Slave
Housing:	Black Metal & Flame-retardant plastic
Cooling:	Convection
Power Connections:	Neutrik Powercon connector IN/OUT
Data Connections	3-pin XLR IN and OUT
Max. ambient temperature t_a :	40°C; Max. housing temperature t_B : 80°C
Minimum distance:	
Minimum distance from flammable surfaces:	0,5 m
Minimum distance to lighted object:	1 m

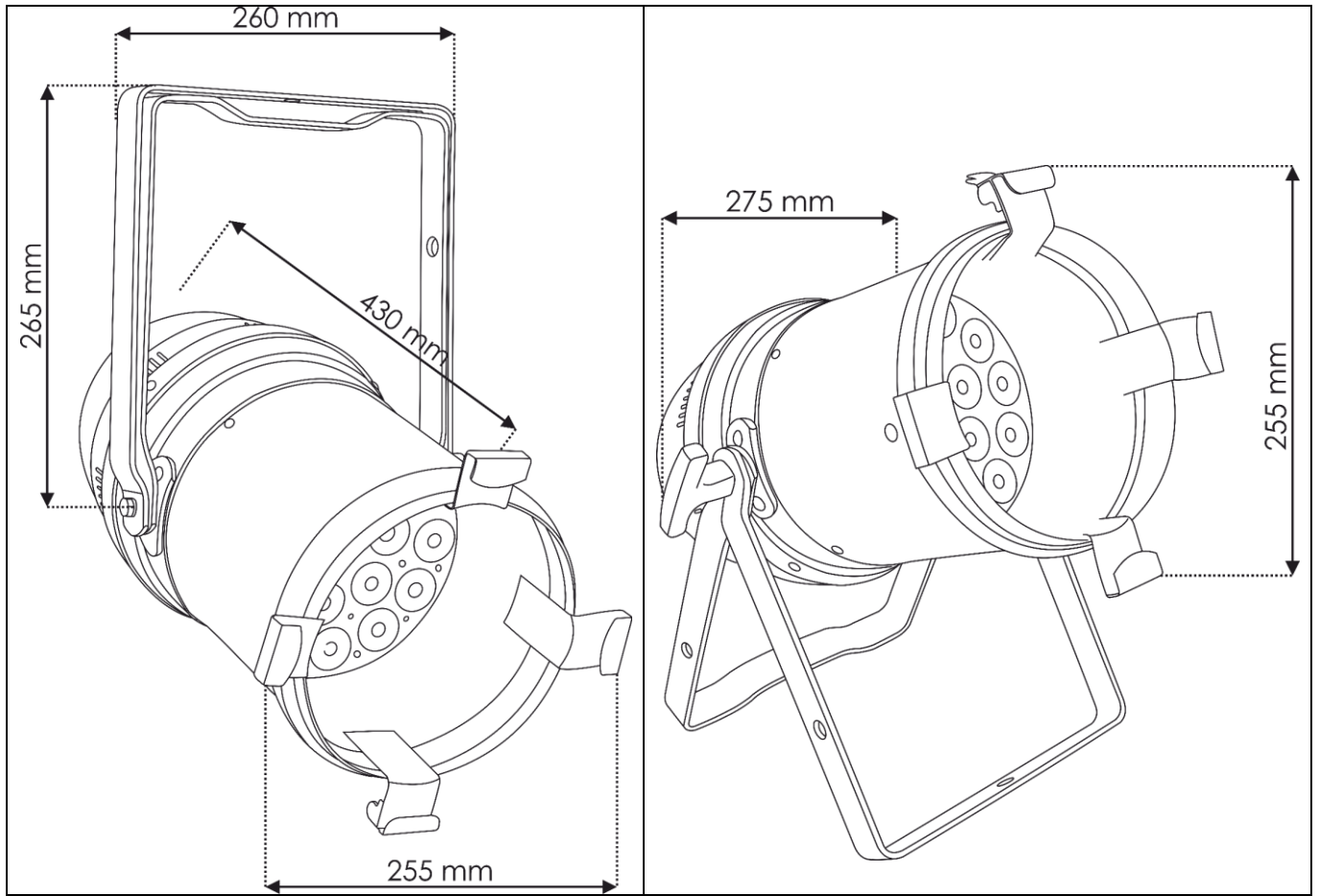
Design and product specifications are subject to change without prior notice.



Website: www.Showtec.info

Email: service@highlite.com

Dimensions





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