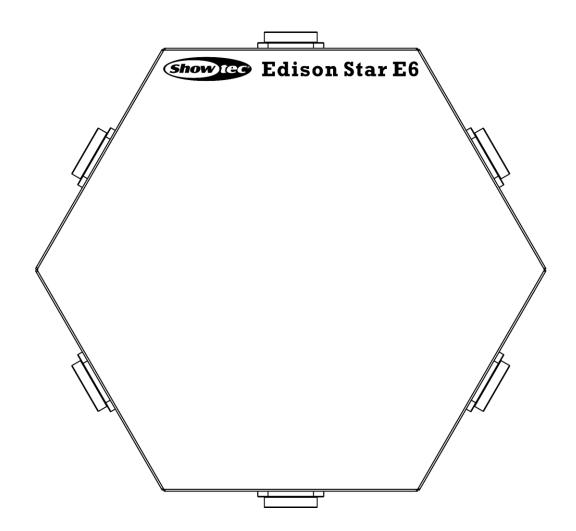


USER MANUAL



ENGLISH

Edison Star E6

V3

Product code: 30748

Preface

Thank you for purchasing this Showtec product.

The purpose of this user manual is to provide instructions for the correct and safe use of this product.

Keep the user manual for future reference as it is an integral part of the product. The user manual shall be stored at an easily accessible location.

This user manual contains information concerning:

- Safety instructions
- Installation and operation of the device
- Intended and non-intended use of the device
- Maintenance procedures
- Troubleshooting
- Transport, storage and disposal of the device

Non-observance of the instructions in this user manual may result in serious injuries and damage of property.

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Table of contents

Ι.	1. Introduction	
	1.1. Before Using the Product	
	1.2. Intended Use	
	1.3. Product Lifespan	
	1.4. LEDs Lifespan	
	1.5. Text Conventions	
	1.6. Symbols and Signal Words	
	1.7. Symbols on the Information Label	
2	2. Safety	
	2.1. Warnings and Safety Instructions	
	2.2. Requirements for the User	
_	·	
3.	3. Description of the Device	
	3.1. Front View	
	3.2. Back View	
	3.3. Product Specifications	
	3.4. Accessories	
	3.5. Dimensions	12
4.	4. Installation	13
	4.1. Safety Instructions for Installation	
	4.2. Personal Protective Equipment	13
	4.3. Installation Site Requirements	13
	4.4. LED Bulb Installation	13
	4.5. Rigging	14
	4.6. Connecting to Power Supply	
	4.7. Power Linking of Multiple Devices	15
5.	5. Setup	1/
5.	5. Setup	
5.	5.1. Warnings and Precautions	1
5.	5.1. Warnings and Precautions	1 <i>6</i>
5.	5.1. Warnings and Precautions	16 16 16
5.	5.1. Warnings and Precautions 5.2. Stand-alone Setup 5.3. DMX Connection 5.3.1. DMX-512 Protocol	16 16 16
5.	5.1. Warnings and Precautions 5.2. Stand-alone Setup 5.3. DMX Connection 5.3.1. DMX-512 Protocol	16 16 16 16
5.	5.1. Warnings and Precautions 5.2. Stand-alone Setup 5.3. DMX Connection 5.3.1. DMX-512 Protocol 5.3.2. DMX Cables	16 16 16 17
	5.1. Warnings and Precautions 5.2. Stand-alone Setup 5.3. DMX Connection 5.3.1. DMX-512 Protocol 5.3.2. DMX Cables 5.3.3. DMX Linking 5.3.4. DMX Addressing	
6.	5.1. Warnings and Precautions 5.2. Stand-alone Setup 5.3. DMX Connection 5.3.1. DMX-512 Protocol 5.3.2. DMX Cables 5.3.3. DMX Linking 5.3.4. DMX Addressing	
6.	5.1. Warnings and Precautions 5.2. Stand-alone Setup 5.3. DMX Connection 5.3.1. DMX-512 Protocol 5.3.2. DMX Cables 5.3.3. DMX Linking 5.3.4. DMX Addressing 6. Operation 6.1. Safety Instructions for Operation	
6.	5.1. Warnings and Precautions 5.2. Stand-alone Setup 5.3. DMX Connection 5.3.1. DMX-512 Protocol 5.3.2. DMX Cables 5.3.3. DMX Linking 5.3.4. DMX Addressing. 6.1. Safety Instructions for Operation 6.2. Control Modes	
6.	5.1. Warnings and Precautions 5.2. Stand-alone Setup 5.3. DMX Connection 5.3.1. DMX-512 Protocol 5.3.2. DMX Cables 5.3.3. DMX Linking 5.3.4. DMX Addressing 6.1. Safety Instructions for Operation 6.2. Control Modes 6.3. Control Panel	
6.	5.1. Warnings and Precautions 5.2. Stand-alone Setup 5.3. DMX Connection 5.3.1. DMX-512 Protocol 5.3.2. DMX Cables 5.3.3. DMX Linking 5.3.4. DMX Addressing 6. Operation 6.1. Safety Instructions for Operation 6.2. Control Modes 6.3. Control Panel 6.4. Start-up	
6.	5.1. Warnings and Precautions 5.2. Stand-alone Setup 5.3. DMX Connection 5.3.1. DMX-512 Protocol 5.3.2. DMX Cables 5.3.3. DMX Linking 5.3.4. DMX Addressing 6. Operation 6.1. Safety Instructions for Operation 6.2. Control Modes 6.3. Control Panel 6.4. Start-up 6.5. Menu Overview	
6.	5.1. Warnings and Precautions 5.2. Stand-alone Setup 5.3. DMX Connection 5.3.1. DMX-512 Protocol 5.3.2. DMX Cables 5.3.3. DMX Linking 5.3.4. DMX Addressing. 6.1. Safety Instructions for Operation 6.2. Control Modes 6.3. Control Panel 6.4. Start-up 6.5. Menu Overview 6.6. Main Menu Options	
6.	5.1. Warnings and Precautions 5.2. Stand-alone Setup 5.3. DMX Connection 5.3.1. DMX-512 Protocol 5.3.2. DMX Cables 5.3.3. DMX Linking 5.3.4. DMX Addressing. 6.1. Safety Instructions for Operation 6.2. Control Modes 6.3. Control Panel 6.4. Start-up 6.5. Menu Overview 6.6. Main Menu Options 6.6.1. Run Mode	
6.	5.1. Warnings and Precautions 5.2. Stand-alone Setup 5.3. DMX Connection 5.3.1. DMX-512 Protocol 5.3.2. DMX Cables 5.3.3. DMX Linking 5.3.4. DMX Addressing 6.1. Safety Instructions for Operation 6.2. Control Modes 6.3. Control Panel 6.4. Start-up 6.5. Menu Overview 6.6. Main Menu Options 6.6.1. Run Mode 6.6.1.1. DMX Mode	
6.	5.1. Warnings and Precautions 5.2. Stand-alone Setup 5.3. DMX Connection 5.3.1. DMX-512 Protocol 5.3.2. DMX Cables 5.3.3. DMX Linking 5.3.4. DMX Addressing 6. Operation 6.1. Safety Instructions for Operation 6.2. Control Modes 6.3. Control Panel 6.4. Start-up 6.5. Menu Overview 6.6. Main Menu Options 6.6.1. Run Mode 6.6.1.1. DMX Mode 6.6.1.2. Sound-controlled Mode	
6.	5.1. Warnings and Precautions 5.2. Stand-alone Setup 5.3. DMX Connection 5.3.1. DMX-512 Protocol 5.3.2. DMX Cables 5.3.3. DMX Linking 5.3.4. DMX Addressing. 6. Operation 6.1. Safety Instructions for Operation 6.2. Control Modes 6.3. Control Panel 6.4. Start-up 6.5. Menu Overview 6.6. Main Menu Options 6.6.1. Run Mode 6.6.1.1. DMX Mode 6.6.1.2. Sound-controlled Mode 6.6.1.3. Auto Mode	16
6.	5.1. Warnings and Precautions 5.2. Stand-alone Setup 5.3. DMX Connection 5.3.1. DMX-512 Protocol 5.3.2. DMX Cables 5.3.3. DMX Linking 5.3.4. DMX Addressing 6.1. Safety Instructions for Operation 6.2. Control Modes 6.3. Control Panel 6.4. Start-up 6.5. Menu Overview 6.6. Main Menu Options 6.6.1. Run Mode 6.6.1.1. DMX Mode 6.6.1.2. Sound-controlled Mode 6.6.1.3. Auto Mode 6.6.1.4. Manual Mode 6.6.1.4. Manual Mode	
6.	5.1. Warnings and Precautions 5.2. Stand-alone Setup 5.3. DMX Connection 5.3.1. DMX-512 Protocol 5.3.2. DMX Cables 5.3.3. DMX Linking 5.3.4. DMX Addressing 6. Operation 6.1. Safety Instructions for Operation 6.2. Control Modes 6.3. Control Panel 6.4. Start-up 6.5. Menu Overview 6.6. Main Menu Options 6.6.1. Run Mode 6.6.1.1. DMX Mode 6.6.1.2. Sound-controlled Mode 6.6.1.3. Auto Mode 6.6.1.4. Manual Mode 6.6.1.4. Manual Mode 6.6.2. Pixel Invert	16
6.	5.1. Warnings and Precautions 5.2. Stand-alone Setup 5.3. DMX Connection 5.3.1. DMX-512 Protocol 5.3.2. DMX Cables 5.3.3. DMX Linking 5.3.4. DMX Addressing 6. Operation 6.1. Safety Instructions for Operation 6.2. Control Modes 6.3. Control Panel 6.4. Start-up 6.5. Menu Overview 6.6. Main Menu Options 6.6.1. Run Mode 6.6.1.1. DMX Mode 6.6.1.2. Sound-controlled Mode 6.6.1.3. Auto Mode 6.6.1.4. Manual Mode 6.6.2. Pixel Invert 6.6.3. DMX Fail	16
6.	5.1. Warnings and Precautions 5.2. Stand-alone Setup 5.3. DMX Connection 5.3.1. DMX-512 Protocol 5.3.2. DMX Cables 5.3.3. DMX Linking 5.3.4. DMX Addressing 6. Operation 6.1. Safety Instructions for Operation 6.2. Control Modes 6.3. Control Panel 6.4. Start-up 6.5. Menu Overview 6.6. Main Menu Options 6.6.1. Run Mode 6.6.1.1. DMX Mode 6.6.1.2. Sound-controlled Mode 6.6.1.3. Auto Mode 6.6.1.4. Manual Mode 6.6.1.4. Manual Mode 6.6.2. Pixel Invert 6.6.3. DMX Fail 6.6.4. Reset	16
6.	5.1. Warnings and Precautions 5.2. Stand-alone Setup 5.3. DMX Connection 5.3.1. DMX-512 Protocol 5.3.2. DMX Cables 5.3.3. DMX Linking 5.3.4. DMX Addressing 6. Operation 6.1. Safety Instructions for Operation 6.2. Control Modes 6.3. Control Panel 6.4. Start-up 6.5. Menu Overview 6.6. Main Menu Options 6.6.1. Run Mode 6.6.1.1. DMX Mode 6.6.1.2. Sound-controlled Mode 6.6.1.3. Auto Mode 6.6.1.4. Manual Mode 6.6.2. Pixel Invert 6.6.3. DMX Fail	16



Edison Star E6

7. T	Troubleshooting	25
8. <i>N</i>	Maintenance	26
8.1	1. Safety Instructions for Maintenance	26
8.2	2. Preventive Maintenance	26
8	8.2.1. Basic Cleaning Instructions	26
	3. Corrective Maintenance	
	8.3.1. Replacing the Fuse	
9. [Deinstallation, Transportation and Storage	28
9.1	1. Instructions for Deinstallation	28
9.2	2. Instructions for Transportation	28
9.3	3. Storage	28
10. [Disposal	28
11. 4	Approval	28



1. Introduction

1.1. Before Using the Product



Important

Read and follow the instructions in this user manual before installing, operating or servicing this product.

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

After unpacking, check the contents of the box. If any parts are missing or damaged, contact your Highlite International dealer.

Your shipment includes:

- Showtec Edison Star E6
- Schuko to pro power cable (1,3 m)
- User manual

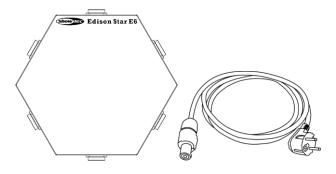


Fig. 01

1.2. Intended Use

This device is intended for professional use as a DMX LED dimmer. It is suitable only for indoor installation. This device is not suitable for households and for general lighting.

Any other use, not mentioned under intended use, is regarded as non-intended and incorrect use.

1.3. Product Lifespan

This device is not designed for permanent operation. Disconnect the device from the electrical power supply when the device is not in operation. This will reduce the wear and will improve the device's lifespan.

1.4. LEDs Lifespan

The light output of the LEDs gradually decreases over time (lumen depreciation). High operating temperatures contribute to this process. You can extend the lifespan of the LEDs by providing adequate ventilation and operating the LEDs at the lowest possible brightness.

1.5. Text Conventions

Throughout the user manual the following text conventions are used:

Buttons: All buttons are in bold lettering, for example "Press the UP/DOWN buttons"

• References: References to chapters and parts of the device are in bold lettering, for example:

"Refer to 2. Safety", "turn the adjustment screw (02)"

• 0–255: Defines a range of values

Notes: Note: (in bold lettering) is followed by useful information or tips



1.6. Symbols and Signal Words

Safety notes and warnings are indicated throughout the user manual by safety signs.

Always follow the instructions provided in this user manual.



DANGER Indicates an imminently hazardous situation which, if not avoided, will result in

death or serious injury.

WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in

death or serious injury.

CAUTION

Indicates a potentially hazardous situation, which, if not avoided, may result in

minor or moderate injury.

Attention

Indicates important information for the correct operation and use of the

product.

Important Read and observe the instructions in this document.



Electrical hazard



Eye damage hazard



Provides important information about the disposal of this product.

1.7. Symbols on the Information Label

This product is provided with an information label. The information label is located on the backside of the device.

The information label contains the following symbols:



This device shall not be treated as household waste.



This device is designed for indoor use.



This device falls under IEC protection class I.



Read and observe the instructions in this document.



2. Safety



Important

Read and follow the instructions in this user manual before installing, operating or servicing this product.

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

2.1. Warnings and Safety Instructions



DANGER Danger for children

For adult use only. The device must be installed beyond the reach of children.

• Do not leave various parts of the packaging (plastic bags, polystyrene foam, nails, etc.) within children's reach. Packaging material is a potential source of danger for children.



DANGER Electric shock caused by dangerous voltage inside

There are areas within the device where dangerous touch voltage may be present.

- Do not open the device or remove any covers.
- Do not operate the device if the covers or the housing are open. Before operation, check if the housing is firmly closed and all screws are tightly fastened.
- Disconnect the device from electrical power supply before service and maintenance, and when the device is not in use.



DANGER Electric shock caused by short-circuit

This device falls under IEC protection class I.

- Make sure that the device is electrically connected to ground (earth). Connect the device only to a socket-outlet with ground (earth) connection.
- Do not cover the ground (earth) connection.
- Do not bypass the thermostatic switch or fuses.
- For replacement use fuses of the same type and rating only.
- Do not let the power cable come into contact with other cables. Handle the power cable and all connections with the mains with caution.
- Do not modify, bend, mechanically strain, put pressure on, pull or heat up the power cable.
- Make sure that the power cable is not crimped or damaged. Examine the power cable periodically for any defects.
- Do not immerse the device in water or other liquids. Do not install the device in a location where flooding may occur.
- Do not use the device during thunderstorms. Disconnect the device from the electrical power supply immediately.





Attention Power supply

- Before connecting the device to the power supply, make sure that the current, voltage and frequency match the input voltage, current and frequency specified on the information label on the device.
- Make sure that the cross-sectional area of the extension cords and power cables is sufficient for the required power consumption of the device.



Attention General safety

- Do not insert objects into the air vents.
- Do not connect the device to a dimmer pack.
- Do not switch the device on and off in short intervals. This decreases the device's life.
- Do not shake the device. Avoid brute force when installing or operating the device.
- If the device is dropped or struck, disconnect the device from the electrical power supply immediately.
- If the device is exposed to extreme temperature variations (e.g. after transportation), do not switch it on immediately. Let the device reach room temperature before switching it on, otherwise it may be damaged by the formed condensation.
- If the device fails to work properly, discontinue the use immediately.



Attention For professional use only This device shall be used only for the purposes it is designed for.

This device is designed to be used as a DMX LED dimmer. Any incorrect use may lead to hazardous situations and result in injuries and material damage.

- This device is not suitable for households and for general lighting.
- This device is not designed for permanent operation.
- This device does not contain user-serviceable parts. Unauthorized modifications to the device will render the warranty void. Such modifications may result in injuries and material damage.





Attention

Before each use, examine the device visually for any defects.

Make sure that:

- All screws used for installing the device or parts of the device are tightly fastened and are not corroded.
- The safety devices are not damaged.
- There are no deformations on housings, fixations and installation points.
- The LED bulbs are not cracked or damaged.
- The power cables are not damaged and do not show any material fatigue.



Attention

Do not expose the device to conditions that exceed the rated IP class conditions.

This device is IP20 rated. IP (Ingress Protection) 20 class provides protection against solid objects greater than 12 mm, such as fingers, and no protection against harmful ingress of water.

2.2. Requirements for the User

This product may be used by ordinary persons. Maintenance may be carried by ordinary persons. Installation and service shall be carried out only by instructed or skilled persons. Contact your Highlite dealer for more information.

Instructed persons have been instructed and trained by a skilled person, or are supervised by a skilled person, for specific tasks and work activities associated with the installation, service and maintenance of this product, so that they can identify risks and take precautions to avoid them.

Skilled persons have training or experience, which enables them to recognize risks and to avoid hazards associated with the installation, service and maintenance of this product.

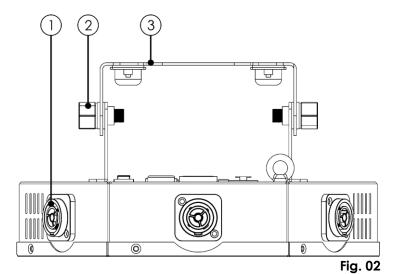
Ordinary persons are all persons other than instructed persons and skilled persons. Ordinary persons include not only users of the product but also any other persons that may have access to the device or who may be in the vicinity of the device.



3. Description of the Device

The Edison Star E6 is a DMX LED dimmer with 6 x E27 sockets. It can be controlled either manually or via DMX. The device is delivered with a mounting bracket. It is suitable for indoor venues.

3.1. Front View



- 01) 6 x E27 sockets; for 6 x LED bulbs (not included)
- 02) Adjustment screw
- 03) Mounting bracket (also for quick-lock connectors)

3.2. Back View

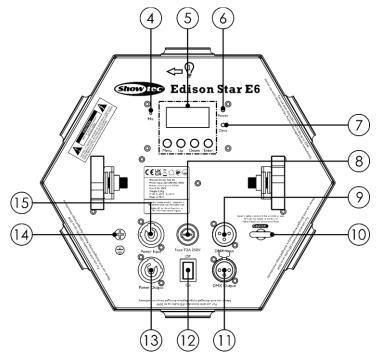


Fig. 03

- 04) Built-in microphone
- 05) LCD display + control buttons
- 06) LED power indicator
- 07) LED DMX indicator
- 08) Fuse T2AL/250V
- 09) 3-pin DMX signal connector IN
- 10) Safety eye
- 11) 3-pin DMX signal connector OUT
- 12) Power switch ON/OFF
- 13) 230 V pro power connector OUT (Gray)
- 14) Ground/earth connection
- 15) 230 V pro power connector IN (Blue)



3.3. Product Specifications

Model:				
Electrical:				
Input voltage:	220–240 V AC, 50 Hz			
Power consumption:	130 W			
Fuse:	T2AL/250 V			
Physical:	07/070141.			
Dimensions:	276 x 270 x 141 ı	mm (L X W X H)		
Weight:	2,3 kg			
Optics:				
Light source:	6 x LED bulb (no	ot included); Use only dimmable LED bulbs.		
LED bulb socket:	E27			
Dimmer:	0–100 %			
Operation and control:				
Control:	Stand-alone (au DMX-512	uto, manual, sound-controlled)		
DMX channels:	1, 6 channels			
Control panel:		d control buttons		
Cormoi parioi.	Leb display dife			
Connections:	i			
Power connections:	Pro power conr	nector (Blue) IN/(Gray)OUT		
Data connections:	3-pin DMX conr	nectors IN/OUT		
Signal pinouts:	3-pin: pin 1 (gro	und), pin 2 (-), pin 3 (+)		
Construction:				
Housing:	Metal and flam	Metal and flame-retardant plastic		
Color:	Black	 		
IP rating:	IP20			
Thermal:				
	perature t.:	40 °C		
Maximum ambient temperature t₀: Maximum housing temperature t₀:		40 °C		
Minimum distance:				
Minimum distance from t	flammable surfaces:	0,5 m		
Minimum distance to ligh	nted object:	1 m		



3.4. Accessories



Attention

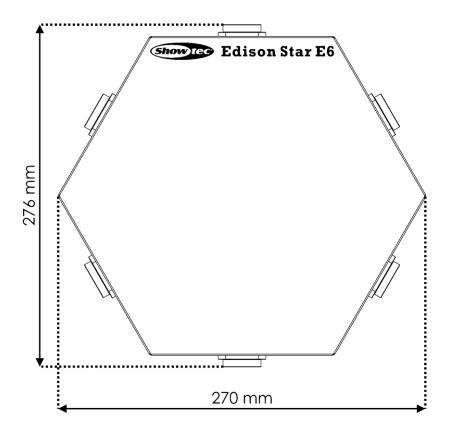
The device is designed to be operated with the LED filament bulbs installed.

The device is delivered without LED filament bulbs. There are 17 LED filament bulbs available for this device:

Product code: 83260 (LED Filament Bulb E27, 4 W) Product code: 83261 (LED Filament Bulb E27, 5 W) Product code: 83262 (LED Filament Bulb E27, 5 W) Product code: 83264 (LED Filament Bulb E27, 5 W) Product code: 83266 (LED Filament Bulb T9, Crossed Filament 300 mm) Product code: 83267 (LED Filament Bulb T9, Crossed Filament 225 mm) Product code: 83268 (LED Filament Bulb T9, Crossed Filament 185 mm) Product code: 83269 (LED Filament Bulb T9, Straight Filament 300 mm) Product code: 83270 (LED Filament Bulb T9, Straight Filament 225 mm) Product code: 83271 (LED Filament Bulb T9, Straight Filament 185 mm) Product code: 83275 (LED Filament Bulb BT180, 6 W) Product code: 83276 (LED Filament Bulb BT118, 6 W) Product code: 83277 (LED Filament Bulb G200, 6 W) Product code: 83278 (LED Filament Bulb PS52, 6 W) Product code: 83279 (LED Filament Bulb PS35, 6 W) Product code: 83280 (LED Filament Bulb BTT80, 6 W) Product code: 83281 (LED Filament Bulb R160, 6 W)



3.5. Dimensions



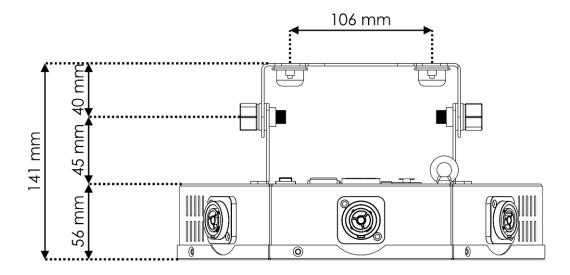


Fig. 04

4. Installation

4.1. Safety Instructions for Installation



WARNING

Incorrect installation can cause serious injuries and damage of property.

If trussing systems are used, installation must be carried out only by instructed or skilled persons.

Follow all applicable European, national and local safety regulations concerning rigging and trussing.

4.2. Personal Protective Equipment

During installation and rigging wear personal protective equipment in compliance with the national and site-specific regulations.

4.3. Installation Site Requirements

- The device must be installed only indoors.
- The device can be mounted to a truss or other rigging structure in any orientation.
- The minimum distance between the light output and the illuminated surface must be bigger than 1 m.
- The minimum distance to other objects must be bigger than 0,5 m.
- The maximum ambient temperature $t_a = 40$ °C must never be exceeded.
- The relative humidity must not exceed 50 % with an ambient temperature of 40 °C.

4.4. LED Bulb Installation

The Edison Star E6 is delivered without the light source. It can be used with 6 LED bulbs.



Attention

Install the light bulb before mounting the device.

To install the LED bulb, insert it into the **E27 socket (01)** and twist it clockwise until it fits into place (Fig. 05).

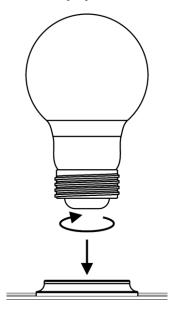


Fig. 05



4.5. Rigging

The device can be mounted to a truss or other rigging structure. Make sure that all loads are within the pre-determined limits of the supporting structure.



CAUTION

Restrict the access under the work area during rigging and/or derigging.

To mount the device, follow the steps below:

- 01) Use a clamp to attach the device to the supporting structure, as shown in Fig. 06. Make sure that the device cannot move freely. The use of a quick lock bracket is optional.
- 02) Secure the device with a secondary suspension, for example a safety cable. Make sure that the secondary suspension can hold 10 times the weight of the device. If possible, the secondary suspension should be attached to a supporting structure independent of the primary suspension. Put the safety cable through the **safety eye (10)**, as shown in Fig. 06.

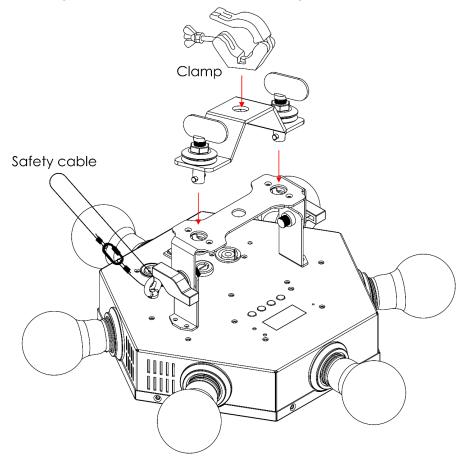


Fig. 06



4.6. Connecting to Power Supply



DANGER Electric shock caused by short-circuit

The device accepts AC mains power at 220–240 V and 50 Hz. Do not supply power at any other voltage or frequency to the device.

This device falls under IEC protection class I. Make sure that the device is always electrically connected to the ground (earth).

Before connecting the device to the socket-outlet:

- Make sure that the power supply matches the input voltage specified on the information label on the device.
- Make sure that the socket-outlet has ground (earth) connection.

Connect the device to the socket-outlet with the power plug. Do not connect the device to a dimmer circuit, as this may damage the device.

4.7. Power Linking of Multiple Devices

This device supports power linking. Power can be relayed to another device via the power OUT connector. Note that the input and the output connectors have different designs: one type cannot be connected to the other.

Power linking of multiple devices must be carried out only by instructed or skilled persons.



WARNING

Incorrect power linking may lead to overload of the electrical circuit and result in serious injuries and damage of property.

To prevent overload of the electrical circuit, when power linking multiple devices:

- Use cables with sufficient current-carrying capacity. The power cable supplied with the device is not suitable for power linking of multiple devices.
- Make sure that the total current draw of the device and all connected devices does not exceed the rated capacity of the power cables and the circuit breaker.
- Do not link more devices on one power link than the maximum recommended number.

Maximum recommended number of devices:

- at 100–120 V: 12 devices
- at 200–240 V: 27 devices



5. Setup

5.1. Warnings and Precautions



Attention

Connect all data cables before supplying power.

Disconnect power supply before connecting or disconnecting data cables.

5.2. Stand-alone Setup

When the Edison Star E6 is not connected to a controller or to other devices, it functions as a stand-alone device. It can be operated manually or in auto mode.

For more information about the control modes, refer to 6.2. Control Modes on page 19.

5.3. DMX Connection

5.3.1. DMX-512 Protocol

You need a DMX serial data link to run light shows of one or more devices using a DMX-512 controller.

The Edison Star E6 has 3-pin DMX signal IN and OUT connectors.

The pin assignment is as follows:

• 3-pin: pin 1 (ground), pin 2 (-), pin 3 (+)

Devices on a serial data link must be daisy-chained in a single line. The number of devices that you can control on one data link is limited by the combined number of the DMX channels of the connected devices and the 512 channels available in one DMX universe.

To comply with the TIA-485 standard, no more than 32 devices should be connected on one data link. In order to connect more than 32 devices on one data link, you must use a DMX optically isolated splitter/booster, otherwise this may result in deterioration of the DMX signal.

Note:

- Maximum recommended DMX data link distance: 300 m
- Maximum recommended number of devices on a DMX data link: 32 devices



5.3.2. DMX Cables

Shielded twisted-pair cables with 3-pin XLR connectors must be used for reliable DMX connection. You can purchase DMX cables directly from your Highlite International dealer or make your own cables.

If you use XLR audio cables for DMX data transmission, this may lead to signal degradation and unreliable operation of the DMX network.

When you make your own DMX cables, make sure that you connect the pins and wires correctly as shown in Fig. 07.

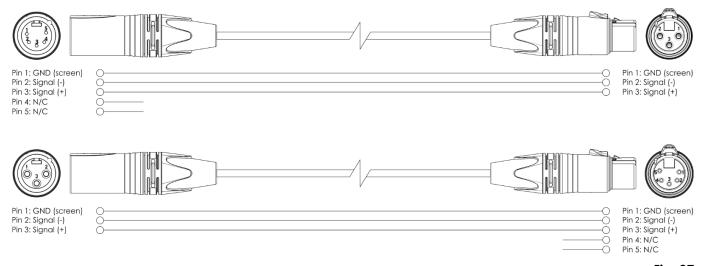


Fig. 07

5.3.3. DMX Linking

To connect multiple devices on one DMX data link, follow the steps below:

- 01) Use a 3-pin DMX cable to connect the DMX OUT connector of the lighting controller to the DMX IN connector of the first device.
- 02) Connect the first device's DMX OUT connector to the second device's DMX IN connector with a 3-pin DMX cable.
- 03) Repeat step 2 to connect all devices in a daisy-chain as shown in Fig. 08.
- 04) Connect a DMX terminator (120 Ω resistor) to the DMX OUT connector of the last device on the data link

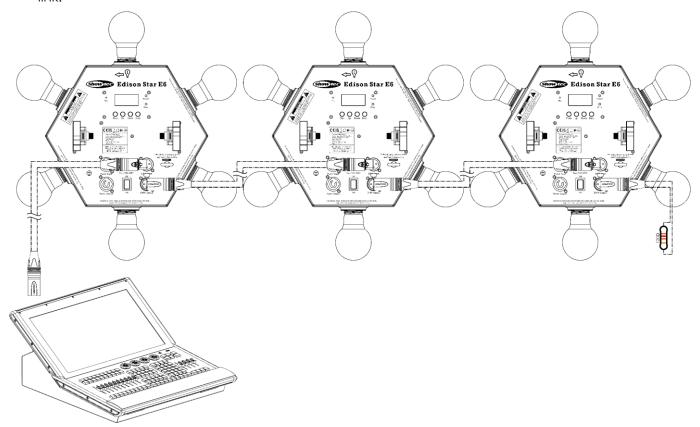


Fig. 08

5.3.4. DMX Addressing

In a setup with multiple devices, make sure that you set the DMX starting address of each device correctly. The Edison Star E6 has 2 personalities: 1 and 6 channels.

If you want to connect multiple devices on one data link and use them in 6-channel mode, for example, follow the steps below:

- 05) Set the starting address of the 1st device on the data link to 1 (001).
- 06) Set the starting address of the 2^{nd} device on the data link to 7 (007), as 1 + 6 = 7.
- 07) Set the starting address of the 3^{rd} device on the data link to 13 (013) as 7 + 6 = 13.
- 08) Continue assigning the starting addresses of the remaining devices by adding each time 6 to the previous number.

Make sure that you do not have any overlapping channels in order to control each Edison Star E6 correctly. If two or more devices are addressed similarly, they will work similarly.



6. Operation

6.1. Safety Instructions for Operation



Attention

This device must be used only for the purposes it is designed for.

This device is intended for professional use as a DMX LED dimmer. It is suitable only for indoor installation. This device is not suitable for households and for general lighting.

Any other use, not mentioned under intended use, is regarded as non-intended and incorrect use.



Attention Power supply

Before connecting the device to the power supply, make sure that the current, voltage and frequency match the input voltage, current and frequency specified on the information label on the device.

6.2. Control Modes

The Edison Star E6 supports the following control modes:

• Stand-alone: Auto operation mode (auto programs), manual operation mode, sound-

controlled operation mode

• DMX-512: 1, 6 channels

For more information about how to connect the devices, refer to 5. Setup on pages 16–18.

To operate the device manually as a stand-alone device, adjust all the settings in Manual menu. See **6.6.1.4. Manual Mode** on page 23 for more information.

To run the built-in programs in auto operation mode without a DMX controller, activate Auto menu. See **6.6.1.3. Auto Mode** on page 23 for more information.

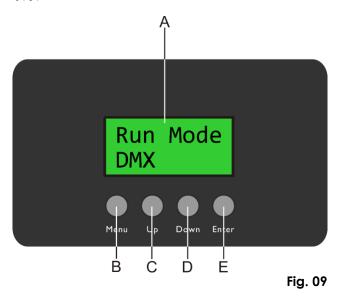
For more information about sound-controlled operation mode, see **6.6.1.2. Sound-controlled Mode** on page 23.

To operate the device with a DMX controller:

- 01) Set the DMX starting address of the device in the DMX Address menu. See **5.3.4. DMX Addressing** on page 18 and **6.6.1.1. DMX Mode** on page 22.
- 02) Select the DMX channel mode. See **6.6.1.1. DMX Mode** on page 22 for more information. See **6.7. DMX Channels** on page 24 for complete overview of all DMX channels.



6.3. Control Panel



- A) LCD display
- B) MENU button
- C) UP button
- D) DOWN button
- E) ENTER button

 Use the MENU button to exit the current submenu, to return to the Main Menu and to return to the start screen.

- Use the **UP/DOWN** buttons to navigate through the menus or to increase/decrease numeric values.
- Use the **ENTER** button to open the desired menu, to confirm your choice or to set the currently selected value.

6.4. Start-up

Upon start-up the display will show a splash screen with the current software version:

Edi-Star Ver 1.03

After 10 seconds the display will show the main menu.

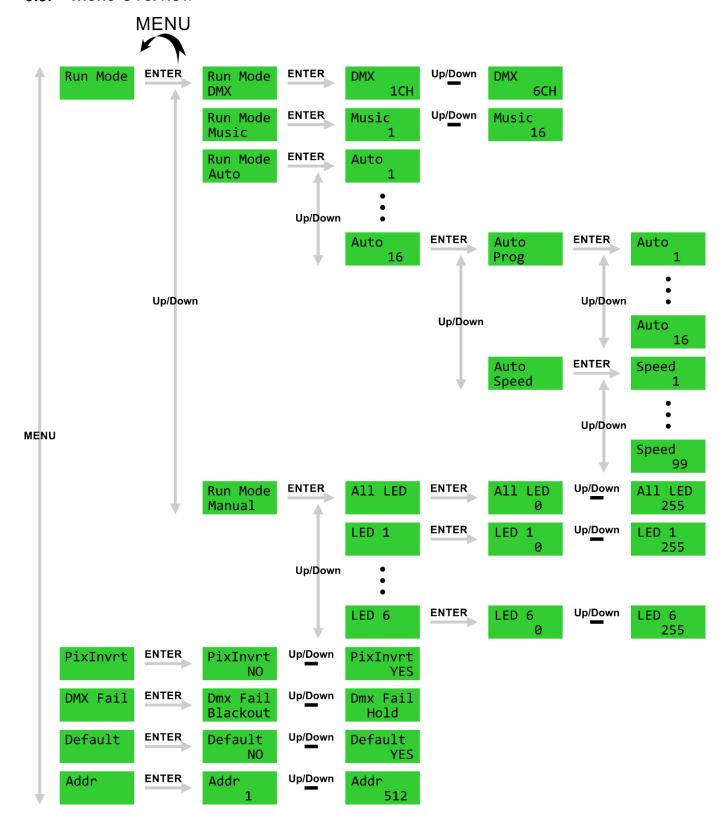
Run Mode

Note:

If no button is pressed, after 10 seconds of inactivity the display will turn off. Press any button to turn the display on.



6.5. Menu Overview



6.6. Main Menu Options

The main menu has the following options:

R	un Mode	Run Mode	Run Mode (see 6.6.1. Run Mode)
P	ixInvrt	Pixel Invert	Pixel Inversion (see 6.6.2. Pixel Invert)
DI	MX Fail	DMX Fail	DMX Fail (see 6.6.3. DMX Fail)
D	efault	Default	Reset (see 6.6.4. Reset)
А	ddr	Address	DMX Addressing (see 6.6.5. DMX Addressing)

- 01) Press the **UP/DOWN** buttons to navigate through the main menu.
- 02) Press the **ENTER** button to open the submenus.

6.6.1. Run Mode

In this menu you can set the desired operation mode.

01) Press the **UP/DOWN** buttons to choose one of the 4 operation modes:

Run Mode DMX	DMX	DMX mode (see 6.6.1.1. DMX Mode)
Run Mode Music	Music	Sound control (see 6.6.1.2. Sound-controlled Mode)
Run Mode Auto	Auto	Auto mode (see 6.6.1.3. Auto Mode)
Run Mode Manual	Manual	Manual mode (see 6.6.1.4. Manual Mode)

02) Press the **ENTER** button to confirm.

6.6.1.1. DMX Mode

In this menu you can choose the desired DMX channel mode and control the device with a DMX controller.

01) Press the **UP/DOWN** buttons to choose one of the 2 DMX channel modes:



02) Press the **ENTER** button to confirm.



6.6.1.2. Sound-controlled Mode

In this menu the device will react to the beat of the background music.

01) Press the **UP/DOWN** buttons to choose one of the 16 sound-controlled programs:



02) Press the **ENTER** button to confirm.

6.6.1.3. Auto Mode

In this menu you can run the desired built-in programs.

01) Press the UP/DOWN buttons to choose one of the 16 built-in programs:



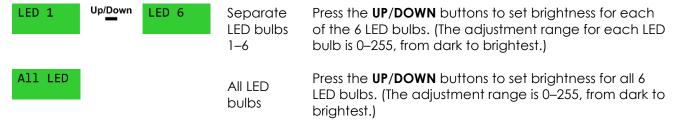
- 02) Press the **ENTER** button to confirm.
- 03) Press the UP/DOWN buttons to choose one of the 2 submenus and press the ENTER button to confirm:

Auto Prog	Program	Press the UP/DOWN buttons to choose one of the 16 built-in programs and press the ENTER button to confirm.
Auto Speed	Speed	Press the UP/DOWN buttons to set the program speed. (The adjustment range is 1–99.) Press the ENTER button to confirm.

6.6.1.4. Manual Mode

In this menu you can manually set the LED bulb brightness.

01) Press the **UP/DOWN** buttons to choose one of the 2 submenus and press the **ENTER** button to confirm:

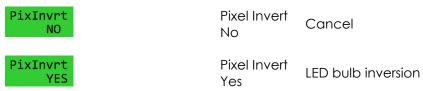


02) Press the **ENTER** button to confirm.

6.6.2. Pixel Invert

In this menu you can invert the order in which the LED bulbs light up.

01) Press the **UP/DOWN** buttons to choose one of the 2 options:



02) Press the **ENTER** button to confirm.



6.6.3. DMX Fail

In this menu you can set the behavior of the device in case of a DMX signal error.

01) Press the **UP/DOWN** buttons to choose one of the 2 options:

Dmx Fail
Blackout

DMX Fail
Blackout

The device will black out the light output.

DMX Fail Hold The device will use last properly received DMX signal.

02) Press the **ENTER** button to confirm.

6.6.4. Reset

In this menu you can restore the default factory settings.

01) Press the **UP/DOWN** buttons to choose one of the 2 options:

Default No Cancel

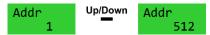
Default YES Personal Restore the default factory settings.

02) Press the ENTER button to confirm.

6.6.5. DMX Addressing

In this menu you can set the DMX address.

01) Press the **UP/DOWN** buttons to select the required address. The adjustment range is 001–512:



02) Press the **ENTER** button to confirm.

6.7. DMX Channels

6.7.1. 1 Channel, 6 Channels

1 CH	6 CH	Function	Value	Setting
1		Dimmer (LED bulbs 1-6)	000-255	From low to high intensity (0–100 %)
	1	Dimmer (LED bulb 1)	000-255	From low to high intensity (0–100 %)
	2	Dimmer (LED bulb 2)	000-255	From low to high intensity (0–100 %)
	3	Dimmer (LED bulb 3)	000-255	From low to high intensity (0–100 %)
	4	Dimmer (LED bulb 4)	000-255	From low to high intensity (0–100 %)
	5	Dimmer (LED bulb 5)	000-255	From low to high intensity (0–100 %)
	6	Dimmer (LED bulb 6)	000–255	From low to high intensity (0–100 %)



7. Troubleshooting

This troubleshooting guide contains solutions to problems which can be carried out by an ordinary person. The device does not contain user-serviceable parts.

Unauthorized modifications to the device will render the warranty void. Such modifications may result in injuries and material damage.

Refer servicing to instructed or skilled persons. Contact your Highlite International dealer in case the solution is not described in the table.

Problem	Probable cause(s)	Solution	
The device does not	No power to the device	Check if power is switched on and cables are plugged in	
function at all	Main fuse is blown	 Replace the fuse. See 8.3.1. Replacing the Fuse on page 27 	
The device responds erratically	The factory settings of the device are changed	 Reset the device's parameters to the default factory settings. See 6.6.4. Reset on page 24 	
	The controller is not connected	Connect the controller	
The device does not respond to DMX control	The signal is reversed. The 3-pin DMX OUT of the controller does not match the DMX IN of the device	 Install a phase-reversing cable between the controller and the device 	
	The controller is defective	Try using another controller	
	Bad data link connection	 Examine connections and cables. Correct poor connections. Repair or replace damaged cables 	
The device responds erratically to DMX	The data link is not terminated with a 120 Ω termination plug	 Insert a termination plug in the DMX OUT connector of the last device on the link 	
control	Incorrect addressing	 Check address settings and correct, if necessary 	
	In case of a setup with multiple devices, one of the devices is defective and disturbs data transmission on the link	To find out the defective device, bypass one device at a time until normal operation is restored	
No light or LED bulb	LED bulb is damaged	Disconnect the device and replace the LED bulb.	
cuts out intermittently	The power supply settings do not match local AC voltage and frequency	Disconnect the device. Check the settings and correct, if necessary	



8. Maintenance

8.1. Safety Instructions for Maintenance



DANGER

Electric shock caused by dangerous voltage inside

Disconnect power supply before servicing or cleaning.

8.2. Preventive Maintenance



Attention

Before each use, examine the device visually for any defects.

Make sure that:

- All screws used for installing the device or parts of the device are tightly fastened and are not corroded.
- The safety devices are not damaged.
- There are no deformations on housings, fixations and installation points.
- The LED bulbs are not cracked or damaged.
- The power cables are not damaged and do not show any material fatigue.

8.2.1. Basic Cleaning Instructions

The LED bulbs installed on the device must be cleaned periodically in order to optimize the light output. The cleaning schedule depends on the conditions at the site where the device is installed. When smoke or fog machines are used at the site, the device will need more frequent cleaning. On the other hand, if the device is installed in well-ventilated area, it will need less frequent cleaning. To establish a cleaning schedule, examine the device at regular intervals during the first 100 hours of operation.

To clean the device, follow the steps below:

- 01) Disconnect the device from the electrical power supply.
- 02) Allow the device to cool down for at least 20 minutes.
- 03) Remove the dust collected on the external surface with dry compressed air and a soft brush.
- 04) Clean the LED bulbs with a damp cloth. Use a mild detergent solution.
- 05) Dry the LED bulbs carefully with a lint-free cloth.
- 06) Clean the DMX and other connections with a damp cloth.





Attention

- Do not immerse the device in liquid.
- Do not use alcohol or solvents.
- Make sure that the connections are fully dry before connecting the device to the power supply and to other devices.

8.3. Corrective Maintenance

The device does not contain user-serviceable parts. Do not open the device and do not modify the device.

Refer repairs and servicing to instructed or skilled persons. Contact your Highlite International dealer for more information.

8.3.1. Replacing the Fuse



DANGER Electric shock caused by short-circuit

- Do not bypass the thermostatic switch or fuses.
- For replacement use fuses of the same type and rating only.

Power surges, short-circuit or incorrect electrical power supply may cause a fuse to burn out. If the fuse burns out, the device will not function anymore. If this happens, follow the steps below.

- 01) Disconnect the device from the electrical power supply.
- 02) Allow the device to cool down for at least 20 minutes.
- 03) Loosen the fuse cover with a screwdriver and remove the fuse holder.
- 04) If the fuse is brown or unclear, it is burned out. Remove the old fuse.
- 05) Insert a new fuse in the fuse holder. Make sure that the type and the rating of the replacement fuse are the same as the ones specified on the information label of the product.
- 06) Replace the fuse holder in the opening and tighten the fuse cover.



9. Deinstallation, Transportation and Storage

9.1. Instructions for Deinstallation



WARNING

Incorrect deinstallation can cause serious injuries and damage of property.

- Let the device cool down before dismounting.
- Disconnect power supply before deinstallation.
- Always observe the national and site-specific regulations during deinstallation and derigging of the device.
- Wear personal protective equipment in compliance with the national and site-specific regulations.

9.2. Instructions for Transportation

- Use the original packaging to transport the device, if possible.
- Always observe the handling instructions printed on the outer carton box, for example: "Handle with care", "This side up", "Fragile".

9.3. Storage

- Clean the device before storing. Follow the cleaning instructions in chapter 8.2.1. Basic Cleaning Instructions on page 26.
- Store the device in the original packaging, if possible.

10. Disposal



Correct disposal of this product

Waste Electrical and Electronic Equipment

This symbol on the product, its packaging or documents indicates that the product shall not be treated as household waste. Dispose of this product by handing it to the respective collection point for recycling of electrical and electronic equipment. This is to avoid environmental damage or personal injury due to uncontrolled waste disposal. For more detailed information about recycling of this product contact the local authorities or the authorized dealer.

11. Approval



UK CA

Check the respective product page on the website of Highlite International (<u>www.highlite.com</u>) for an available declaration of conformity.







