USER MANUAL

ENGLISH

V1.0

ACT Par 200W RGBAL

Product code: 34065

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
- Intended and non-intended use of the device
- Installation and operation 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.

Table of contents

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:

Figure 1

- Showtec ACT Par 200W RGBAL
- 3x diffusers: 30°, 50° and 80°
- Schuko to Power Pro cable (1,5 m)
- User manual
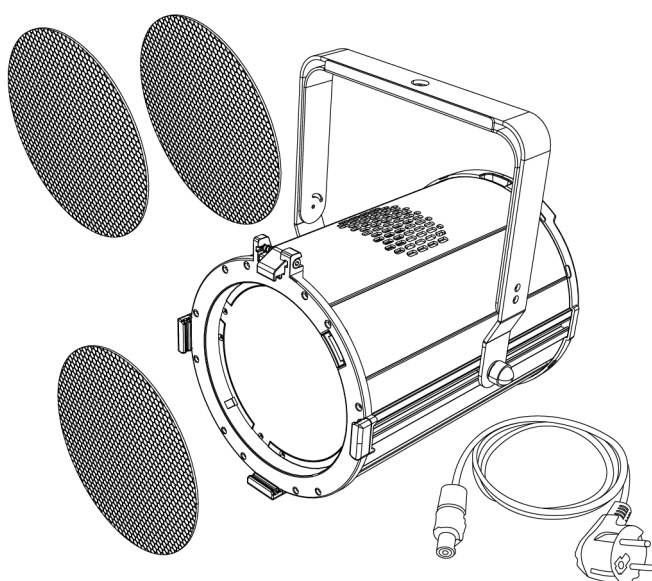
1.2. Intended Use

This device is intended for professional use as a theater spotlight. It can be installed only indoors. 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. 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.

1.4. 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 parts of the device are in bold lettering, for example: "turn the **adjustment handle (05)**". References to chapters are hyperlinked
- 0–255:   Defines a range of values
- Notes: **Note:** (in bold lettering) is followed by useful information or tips

1.5. 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**	
🗑️		Provides important information about the disposal of this product.

1.6. Symbols on the Information Label

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

The information label contains the following symbols:

🏠	This device is designed for indoor use.
🗑️	This device shall not be treated as household waste.

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 any parts of the packaging (plastic bags, polystyrene foam, nails, etc.) within the reach of children. Packaging material is a potential source of danger for children.

> **DANGER**
> **Electric shock caused by dangerous voltage inside**

There are areas inside 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 the 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 a ground (earth) connection.
- Do not cover the ground (earth) connection.
- Do not bypass the thermostatic switch or fuses.
- Replace fuses only with same type and rating.
- 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.

> **WARNING**
> **Risk of epileptic shock**

Strobe lighting can trigger seizures in photosensitive epilepsy. Sensitive persons should avoid looking at strobe lights.

> **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 air vents.
- Do not connect the device to a dimmer pack.
- Do not switch the device on and off in short intervals. This reduces the device's life.
- Do not shake the device. Avoid brute force when installing or operating the device.
- Change the lens or the LEDs if they are visibly damaged to such an extent that their effectiveness is impaired, for example by cracks or deep scratches. Contact your Highlite International dealer for more information, as servicing can be performed only by instructed or skilled persons.
- 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 must be used only for the purposes it is designed for.**

This device is intended for professional use as a theater spotlight. 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, fixings and installation points.
- The lens is 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 out by ordinary persons. Installation and service shall be carried out only by instructed or skilled persons. Contact your Highlite International 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 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.

2.3. Personal Protective Equipment

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

3. Description of the Device

The ACT Par 200W RGBAL is an indoor spotlight with a high CRI and RDM capability. The RGBAL LED light source (Red, Green, Blue, Amber and Lime) can produce a wide range of colors, including white. In addition to the control panel on the back, the ACT Par 200W RGBAL has 2 knobs to control the color and intensity when using it in stand-alone mode. This makes the device suitable for use in exhibition venues. There are 3 diffusers included, so that the ACT Par 200W RGBAL can be used a spotlight, a medium flood or a soft beam. An optional barndoor is also available.

3.1. Front View

Figure 2
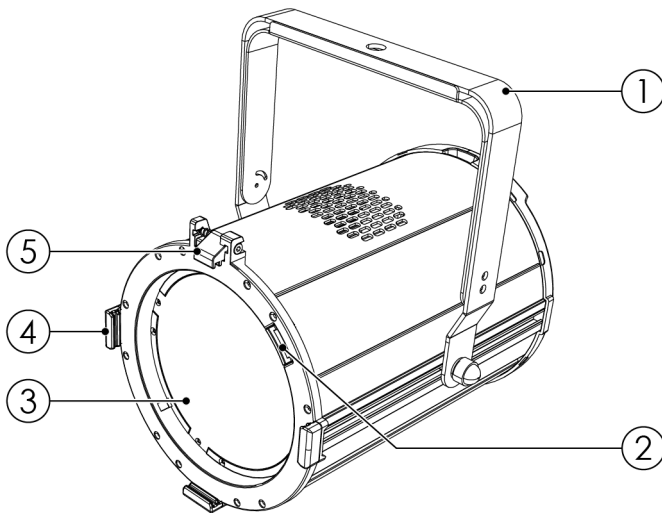
01) Mounting bracket
02) Diffuser clip
03) Lens opening
04) 3 x Barndoor holders
05) Barndoor clip

3.2. Back View

Figure 3
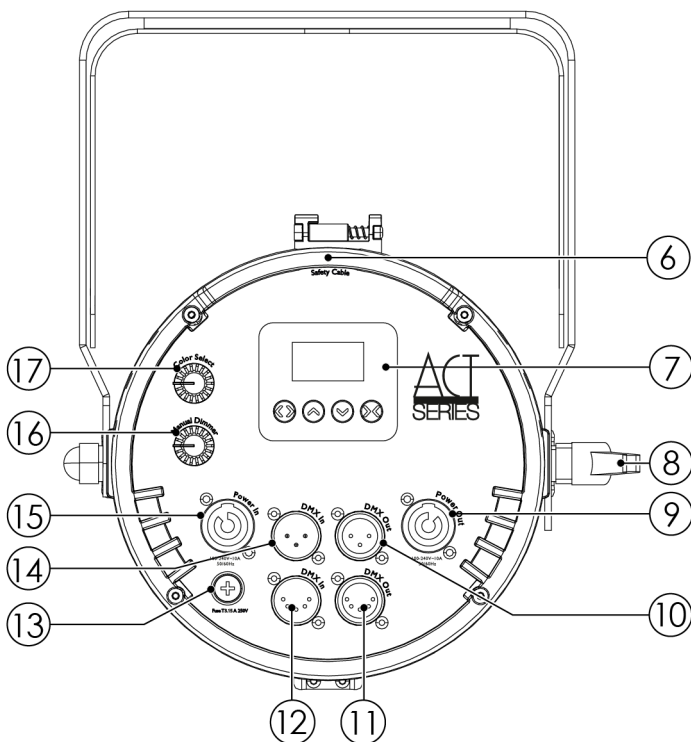
06) Safety eye
07) Control panel: OLED display and control buttons
08) Adjustment handle
09) Power Pro connector OUT
10) 3-pin DMX signal connector OUT
11) 5-pin DMX signal connector OUT
12) 5-pin DMX signal connector IN
13) Fuse T3,15 A 250 V
14) 3-pin DMX signal connector IN
15) Power Pro connector IN
16) Manual dimmer control
17) Color select control

3.3. Product Specifications

Model:	ACT Par 200W RGBAL

Source:	
Light source type	LED
Light source quantity	1
Light source power	200 W
LED color type	R / G / B / A / L
Luminous flux (total)	5481 lm
Luminous flux (red)	1619 lm
Luminous flux (green)	2004 lm
Luminous flux (blue)	602 lm
Luminous flux (amber)	1049 lm
Luminous flux (lime)	2267 lm
CRI	90
Minimum CCT	2800 K
Maximum CCT	10000 K

Optical:	
Beam angle (circular)	32°

Control and Programming:	
Control mode	DMX / Manual
DMX channels	5 / 8 / 12
Protocols	DMX / RDM
Display	OLED

Dynamic Effects:	
Dimmer	0–100 %
Strobe	0–20 Hz

Electrical Specifications and Connections:	
Power supply	100–240 V AC 50/60 Hz
Power consumption	205 W
Fuse	3,15 A
Power connector IN	Power Pro Blue
Power connector OUT	Power Pro Gray
DMX connector IN	XLR 3P / XLR 5P
DMX connector OUT	XLR 3P / XLR 5P

Mechanical Specifications:	
Width	258 mm
Height	304 mm
Depth	280 mm
Weight	4,5 kg
IP Rating	IP20 (indoor use only)
Housing	Aluminum
Color	Black

Product Properties:	
Cooling	Convection

Rigging:	

Mounting options	Bracket / Floor
Safety attachment	Yes

Thermal Specifications:	
Maximum ambient temperature	40 °C
Minimum operating temperature	0 °C

Included Items:	
Included cables	Power Pro Cable
Included optics	Diffusers

3.4. Dimensions

Figure 4
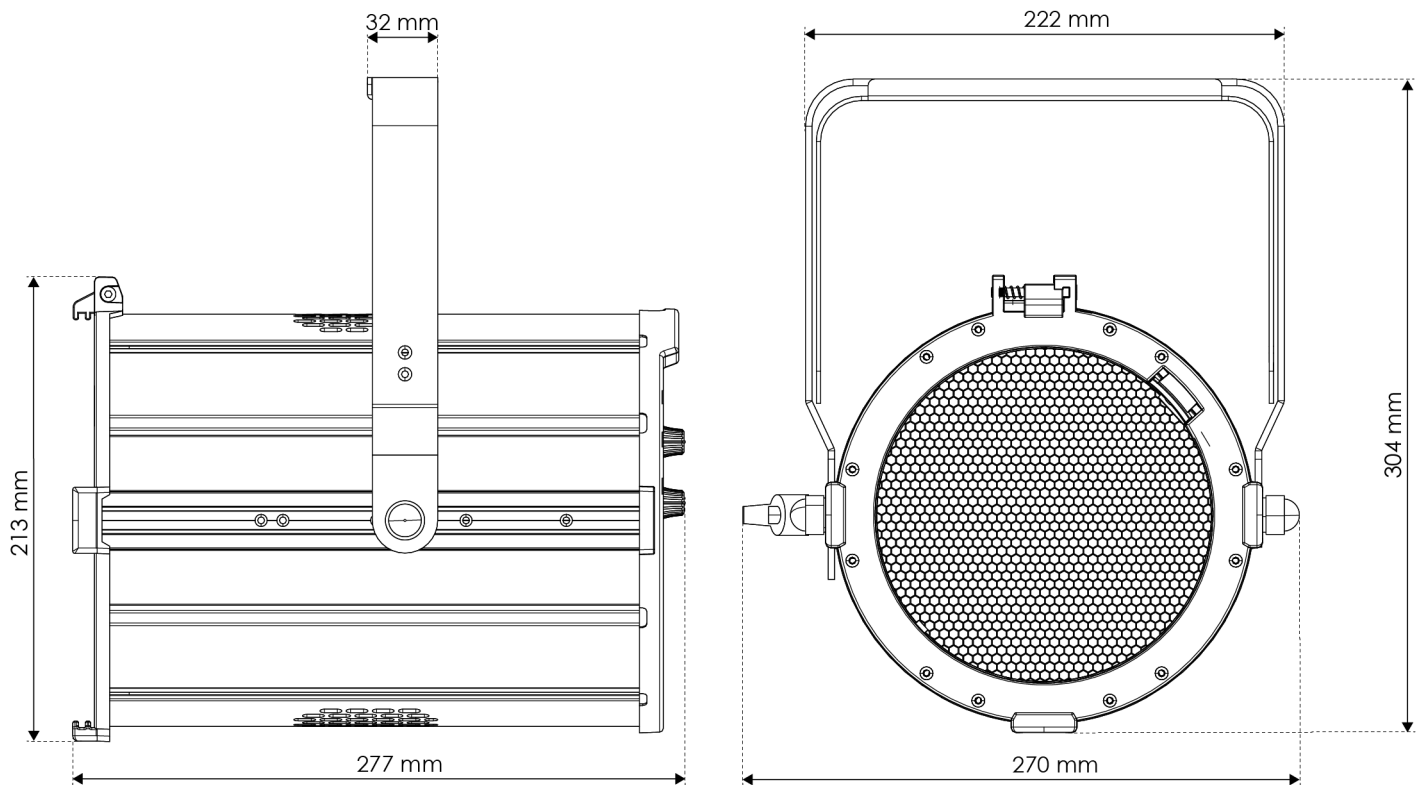
3.5. Optional Accessories

You can additionally purchase the following accessory:

• 34067 Barndoor for ACT Par 200W

Contact your Highlite International dealer for more information.

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

4.3. Installation Site Requirements

- The device can be used only indoors.
- 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. Rigging

To mount the device, follow the steps below:

01) Use a clamp to attach the device to the supporting structure. Make sure that the device cannot move freely.
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 (06)**.
03) If an optional barndoor is installed, secure the barndoor to the overhead structure with an appropriate secondary attachment, for example a safety cable. Put the safety cable through the safety eye of the barndoor.

Figure 5

Safety cable

Clamp
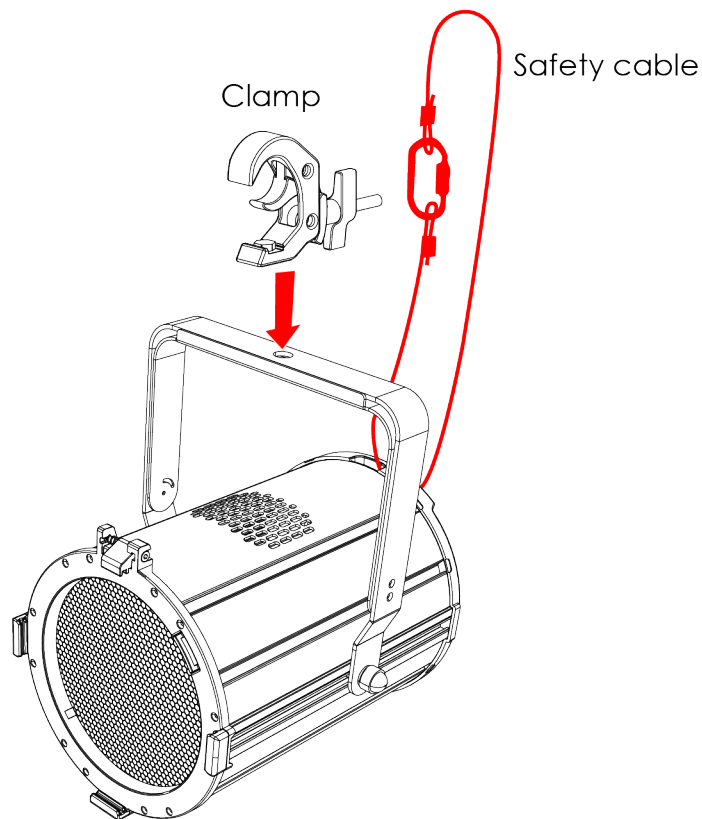
4.5.   Angle Adjustment

You can adjust the angle of the device with the **adjustment handle (08)**.

01) Turn the **adjustment handle (08)** counterclockwise to loosen it.
02) Tilt the device to the desired angle.
03) Turn the **adjustment handle (08)** clockwise to tighten it. Make sure that the device cannot move freely after the **adjustment handle (08)** is tightened.

Figure 6
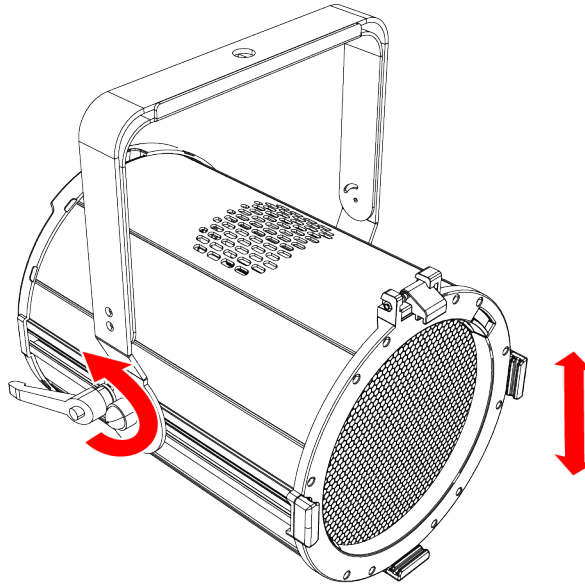
4.6.   Diffuser Installation

The ACT Par 200W RGBAL can be used as a spotlight, a medium flood or a soft beam by installing one of the 3 included diffusers: 30°, 50°, or 80°.

To install a diffuser, press the diffuser into the **lens opening (03)** of the device. Make sure that the diffuser is held in position by the **diffuser clip (02)**.

To remove the diffuser, press the **diffuser clip (02)**. The diffuser can now be removed.

Figure 7
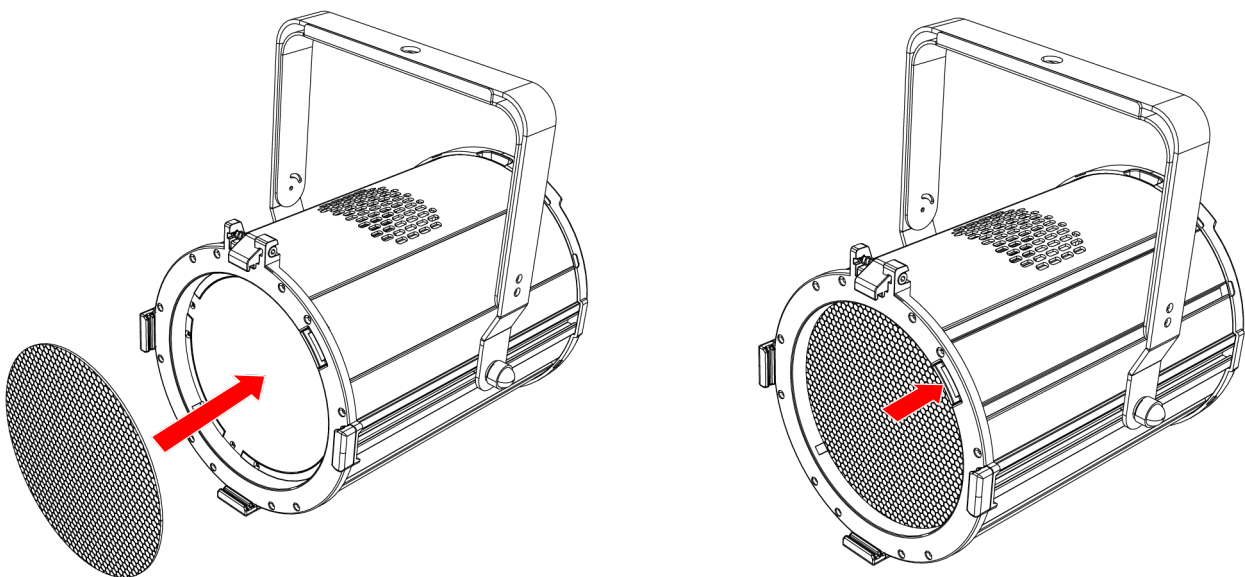
4.7. Barndoor Installation

An optional barndoor (see 3.5. Optional Accessories on page 11) is available for use with the ACT Par 200W RGBAL. To install the barndoor, follow the steps below:

01) Slide the spring-loaded **barndoor clip (05)** to the side and flip it backwards.
02) Insert the barndoor into the **barndoor holders (04)**.
03) Pull the **barndoor clip (05)** downwards to release the spring-loaded screw. The barndoor will be locked in position.
04) Secure the barndoor to the overhead structure with an appropriate secondary attachment, for example a safety cable. Put the safety cable through the safety eye of the barndoor.

Note:

Make sure that the barndoor is locked in position with the barndoor clip before using the device.

Figure 8
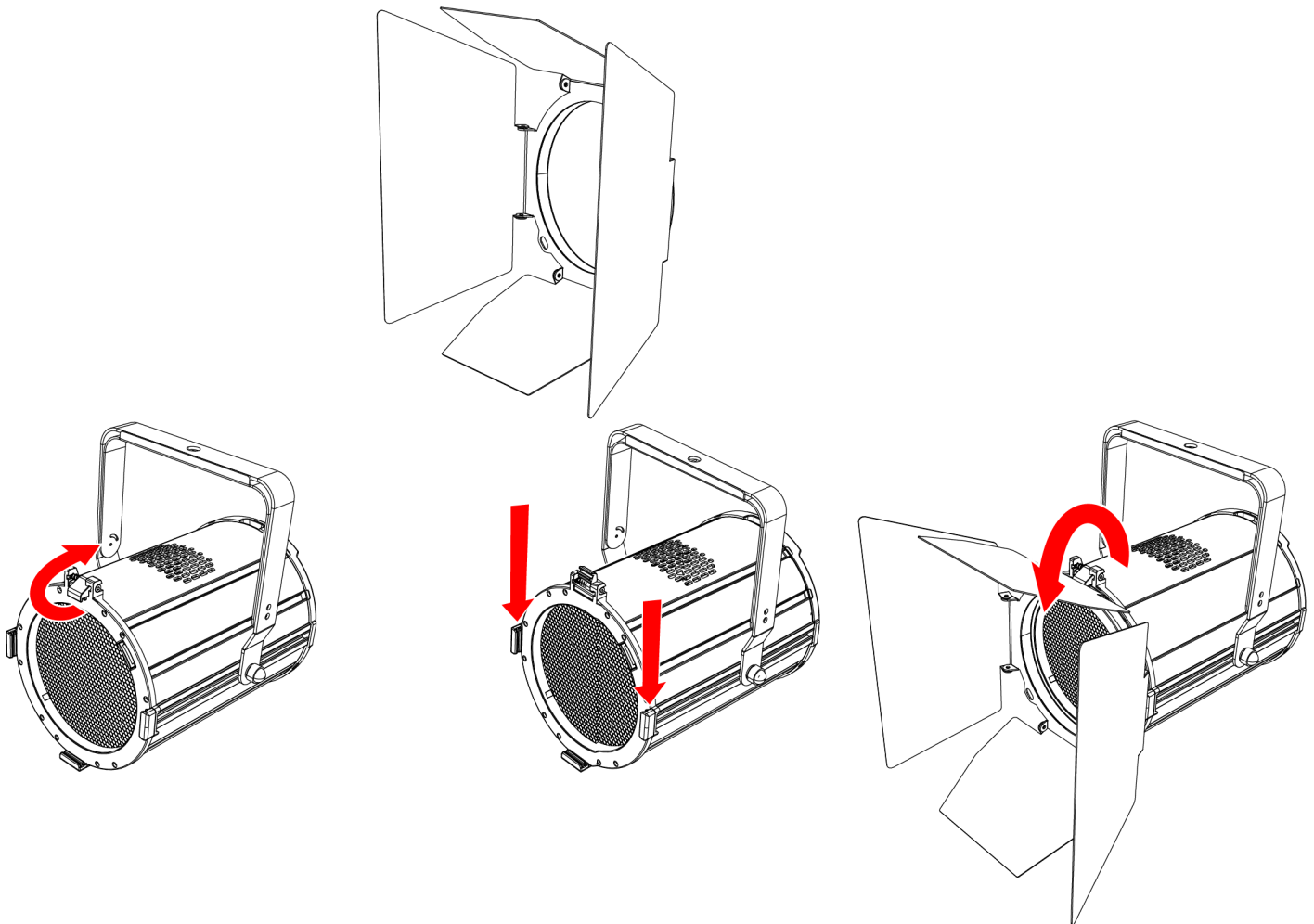
4.8. Connecting to Power Supply

> **DANGER**
> **Electric shock caused by short-circuit**

The device accepts AC mains power at 100–240 V and 50/60 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.

4.9. 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: 5 devices ACT Par 200W RGBAL
* at 200–240 V: 10 devices ACT Par 200W RGBAL

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 ACT Par 200W RGBAL is not connected to a controller or to other devices, it functions as a stand-alone device. It can be operated manually via the control panel and via the manual controls.

Refer to Control Modes (see 6.2. Control Modes on page 20) for more information.

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 ACT Par 200W RGBAL has 3-pin and 5-pin DMX signal IN and OUT connectors.

The pin assignment is as follows:

- 3-pin: pin 1 (ground), pin 2 (-), pin 3 (+)
- 5-pin: pin 1 (ground), pin 2 (-), pin 3 (+), pin 4 (N/C), pin 5 (N/C)

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/5-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 the figure below.

Figure 9

Pin 1: GND (screen)
Pin 2: Signal (-)
Pin 3: Signal (+)
Pin 4: N/C
Pin 5: N/C

Pin 1: GND (screen)
Pin 2: Signal (-)
Pin 3: Signal (+)

Pin 1: GND (screen)
Pin 2: Signal (-)
Pin 3: Signal (+)

Pin 1: GND (screen)
Pin 2: Signal (-)
Pin 3: Signal (+)
Pin 4: N/C
Pin 5: N/C
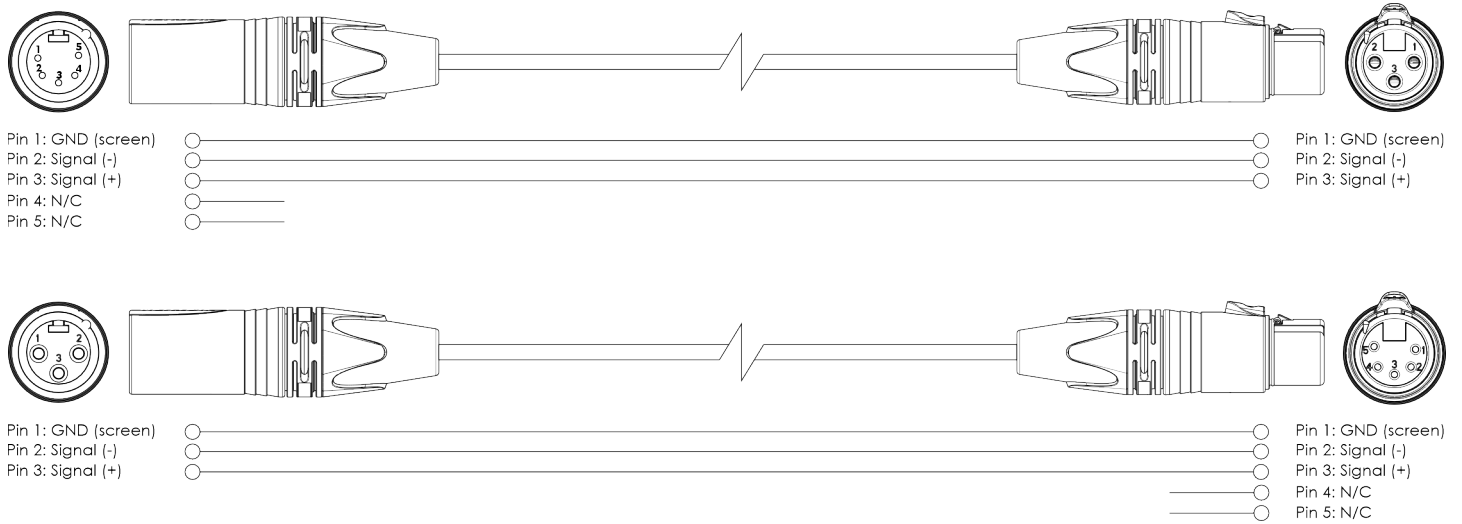
5.3.3. DMX Linking

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

01) Use a 3-pin/5-pin DMX cable to connect the DMX OUT connector of the lighting controller to the DMX IN connector of the 1st device.
02) Connect the DMX OUT connector of the 1st device to the DMX IN connector of the 2nd device with a 3-pin/5-pin DMX cable.
03) Repeat step 2 to connect all devices in a daisy-chain.
04) Connect a DMX terminator (120 Ω resistor) to the DMX OUT connector of the last device on the data link.

Figure 10

120 Ω
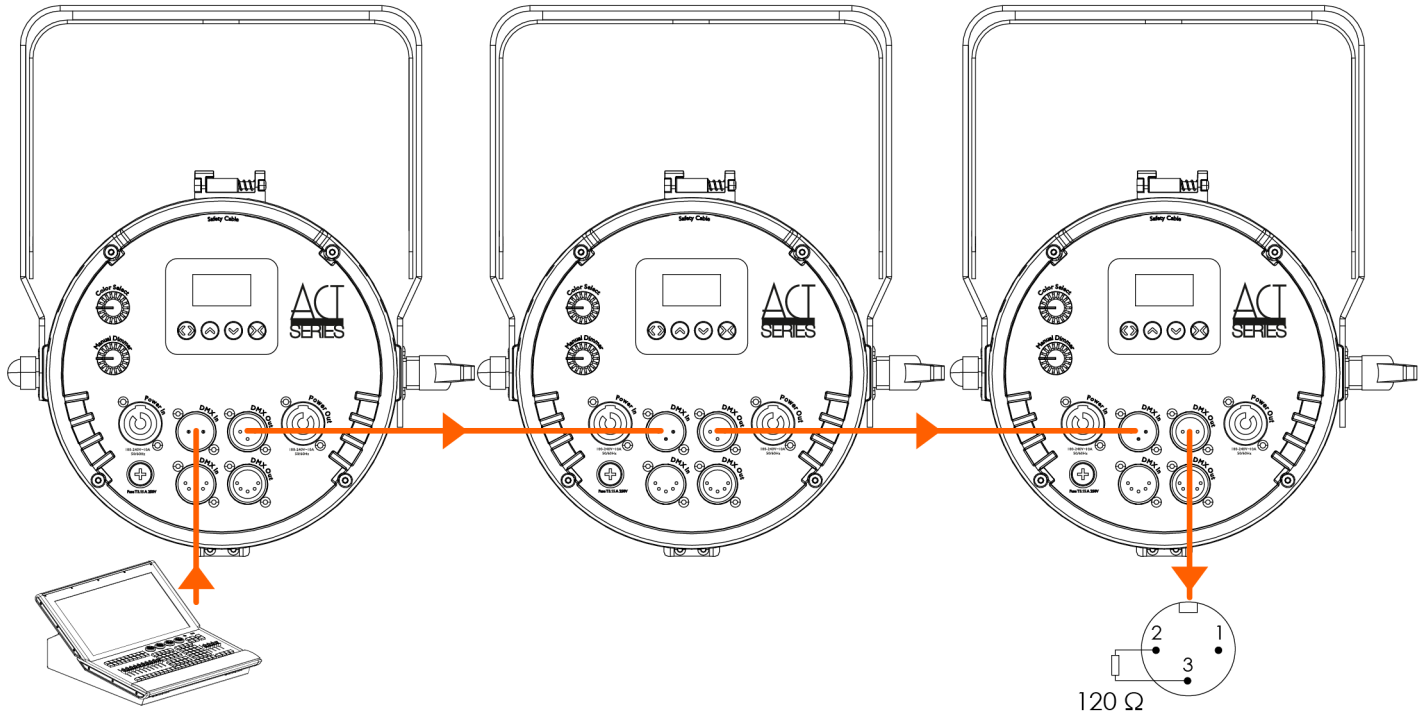
5.3.4. DMX Addressing

In a setup with multiple devices, make sure that you set the DMX starting address of each device correctly. The ACT Par 200W RGBAL has 3 personalities: RAW (5 channels), Basic (8 channels), and Advanced (12 channels).

If you want to connect multiple devices on one data link and use them in 12-channel mode, for example, follow the steps below:

01) Set the starting address of the 1st device on the data link to 1 (001).
02) Set the starting address of the 2nd device on the data link to 13 (013), as 1 + 12 = 13.
03) Set the starting address of the 3rd device on the data link to 25 (025), as 13 + 12 = 25.
04) Continue assigning the starting addresses of the remaining devices by adding each time 12 to the previous number.

Make sure that you do not have any overlapping channels in order to control each ACT Par 200W RGBAL 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 theater spotlight. It can be installed only indoors. 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 ACT Par 200W RGBAL can be operated with a DMX controller and as a stand-alone device.

The ACT Par 200W RGBAL supports the following control modes:

- Stand-alone: Manual operation
- DMX-512: RAW (5 channels), Basic (8 channels), and Advanced (12 channels)

For more information about how to connect the devices, refer to Setup (see 5. Setup on page 17).

You can operate the device as a stand-alone device in 2 ways:

- with the **manual dimmer control (16)** and **color select control (17)**, and
- from the control panel and the menu.

To operate the device with the manual controls:

01) Select Knob in the Function Mode pop-up submenu (see 6.6.2.1. Function Mode on page 25).
02) Adjust the dimmer with the **manual dimmer control (16)**.
03) Adjust the color temperature with the **color select control (17)**. The following options are available: red, green, blue, amber, lime, yellow, light blue, purple, 2800 K, 3200 K, 3600 K, 4000 K, 4400 K, 4800 K, 5200 K, 5600 K, 6000 K, 6600 K, 7200 K, 8000 K, 10000 K.

The values selected with the manual controls will be shown on the start screen (see 6.4. Start-up on page 21) when Knob mode is selected.

To operate the device manually from the control panel and the menu:

01) Select Define in the Function Mode pop-up submenu (see 6.6.2.1. Function Mode on page 25).
02) Adjust the color temperature and strobe speed in the Static CCT submenu.

To operate the device with a DMX controller:

01) Set the DMX starting address of the device in the DMX Address menu (see 6.6.1.1. DMX Address on page 23).
02) Select the behavior of the device in case there is no DMX signal in the DMX Fail pop-up submenu (see 6.6.1.3. DMX Fail on page 24).
03) Select the DMX channel mode in the DMX Mode submenu (see 6.6.1.2. Mode on page 23). See DMX Channels (see 6.7. DMX Channels on page 29) for a complete overview of all DMX channels.

6.3. Control Panel

Figure 11
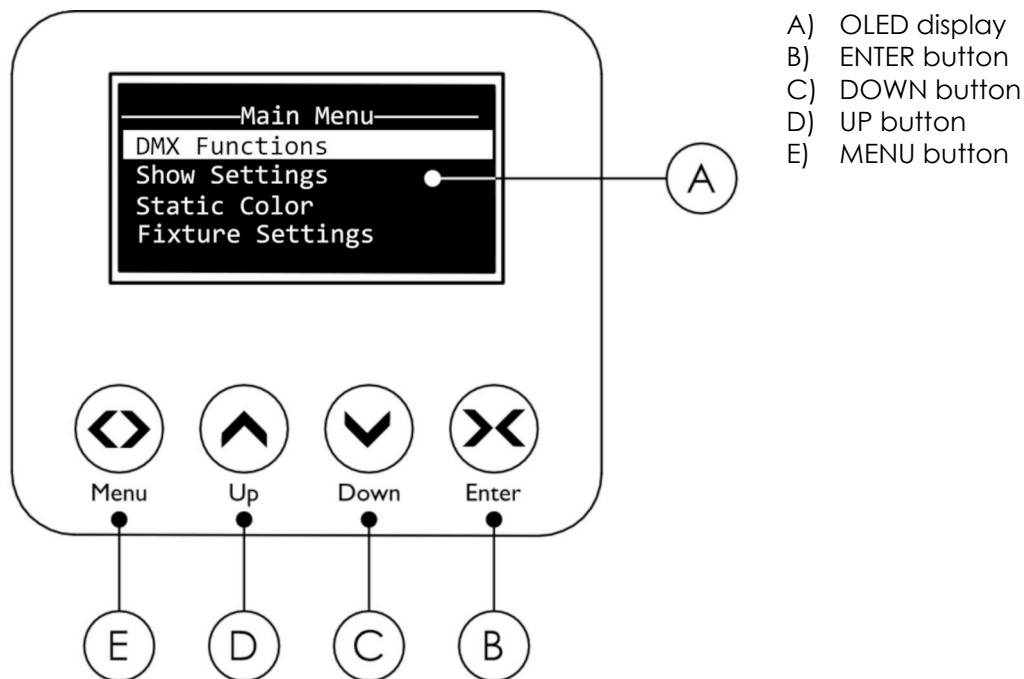
A) OLED display
B) ENTER button
C) DOWN button
D) UP button
E) MENU button

- 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 and to select values and options.
- Use the **ENTER** button to open the desired menu, to confirm the selection or to set the currently selected value.

6.4. Start-up

Upon start-up the display will show a splash screen with the name of the device:

ACT PAR 200W RGBAL

Immediately afterwards, the display shows the start screen. The start screen provides information about the control modes of the device and the temperature of the LEDs, for example:

Manual operation (from the menu)

Manual operation (from the manual controls)

12-channel DMX mode with starting address 001

Note:

If no button is pressed, after 30 seconds of inactivity the display will turn off. Press any button to turn the display on. Refer to the Display Settings (see 6.6.5. Display Settings on page 26) for more information.

6.5. Menu Overview

Level 1	Level 2	Level 3	Level 4
DMX Functions (see 6.6.1. DMX Functions on page 23)	DMX Address	001–512	
	Mode	RAW – 5 Ch.	
		Basic – 8 Ch.	
		Adv. – 12 Ch.	
	DMX Fail	Manual Defined	
		Hold	
		Blackout	
	View DMX Value	(Depends on the DMX channel mode)	
Show Settings (see 6.6.2. Show Settings on page 24)	Function Mode	Knob	
		Auto	
		Define	
	Show Chase	001–009	
	Show Speed	00–99	
Static Color (see 6.6.3. Static Color on page 25)	Static Color	OFF	
		Pale Lavender	
		Quarter Blue	
		Yellow	
		…	
		7200 K	
		7600 K	
		8000 K	
Fixture Settings (see 6.6.4. Fixture Settings on page 26)	Dimmer Curve	Linear	
		Square Law	
		Inv. Square Law	
		S-Curve	
	Dimmer Speed	LED	
		Halogen	
	White Balance	Red	125–255
		Green	125–255
		Blue	125–255
Display Settings (see 6.6.5. Display Settings on page 26)	Display Inverse	No	
		Yes	
	Backlight Auto Off	No	
		Yes	
	Display Contrast	01–30	
Fixture Test (see 6.6.6. Fixture Test on page 27)	Auto Test		
	Manual Defined	Red	000–255
		Green	000–255
		Blue	000–255
		Amber	000–255
		Lime	000–255
		Dimmer	000–255
		Strobe	000–015
Fixture Information (see 6.6.7. Fixture Information on page 27)	UID		
	Hours		
	Version		
Special Functions (see 6.6.8. Special Functions on page 28)	Factory Reset	No	
		Yes	

6.6. Main Menu Options

The main menu has the following options:

```
————————Main Menu————————
DMX Address
Show Settings
Static Color
Fixture Settings
Display Settings
Fixture Test
Fixture Information
Special Functions
```
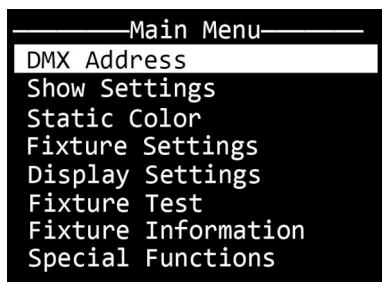
DMX Functions
Show Settings
Static Color
Fixture Settings
Display Settings
Fixture Test
Fixture Information
Special Functions

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

6.6.1. DMX Functions

In this menu you can configure the DMX settings of the device.
01) Press the **UP/DOWN** buttons to scroll through the following options:

```
———— DMX Functions ————
DMX Address 1        001
Mode          Adv-12Ch.
DMX Fail    Manual Def
View DMX Value
```
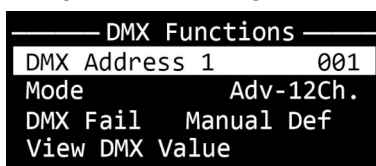
- DMX Address   (see 6.6.1.1. DMX Address)
- Mode   (see 6.6.1.2. Mode)
- DMX Fail   (see 6.6.1.3. DMX Fail)
- View DMX Value   (see 6.6.1.4. View DMX Value)
02) Press the **ENTER** button to confirm the selection.

6.6.1.1. DMX Address

In this pop-up submenu you can set the starting DMX address of the device.
01) Press the **UP/DOWN** buttons to select the starting DMX address of the device. The selection range is 001-512.

```
———— DMX Functions ————
DMX                    001
Mode    001       2Ch.
DMX               ef
View
```

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

6.6.1.2. Mode

In this pop-up submenu you can select the DMX channel mode.
01) Press the **UP/DOWN** buttons to select the DMX channel mode. There are 3 options available:

```
———— DMX Functions ————
DMX A   RAW-5Ch.
Mode    Basic-8Ch.
DMX F   Adv-12Ch.
View DMX Value
```
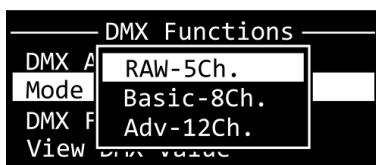
- RAW (5 channels)
- Basic (8 channels)
- Advanced (12 channels)
02) Press the **ENTER** button to confirm the selection. For more information, refer to DMX Channels (see 6.7. DMX Channels on page 29).

6.6.1.3. DMX Fail

In this pop-up submenu you can determine the behavior of the device in case there is no DMX signal.

01) Press the **UP/DOWN** buttons to select one of the following 3 options:

```
───────DMX Functions───────
DMX A┌─────────────────┐
Mode │ Manual Def.     │  9
     │ Hold            │
DMX F│ Blackout        │
View └─────────────────┘
```

- Manual Defined: The device will use the manually selected values for color and color temperature. See Manual Defined (see 6.6.6.1. Manual Defined on page 27) for more information.
- Hold: The device will use the last DMX signal received correctly.
- Blackout: The device will black out the light output.

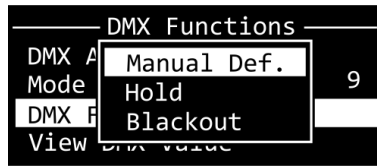**02)** Press the **ENTER** button to confirm the selection.

6.6.1.4. View DMX Value

In this submenu you can view the currently selected DMX value for each DMX channel.

Press the **UP/DOWN** buttons to scroll through all options:

```
───────View DMX Value───────
1. Red              255
2. Green            255
3. Blue             255
4. Amber            255
```

```
───────View DMX Value───────
5. Lime             255
6. Color Macros     255
7. CCT              255
8. Dimmer           255
```

```
───────View DMX Value───────
9. Dimmer Fine      255
10. Strobe          255
11. Macro Auto      255
12. Macro Speed     255
```

Depending on the selected DMX channel mode in the DMX Channel Mode submenu (see 6.6.1.2. Mode on page 23), you can see the following values:

- in 5-channel DMX mode: red, green, blue, amber, lime
- in 8-channel DMX mode: red, green, blue, amber, lime, color macros, CCT, dimmer
- in 12-channel DMX mode: red, green, blue, amber, lime, color macros, CCT, dimmer, dimmer fine, strobe, macro auto, and macro speed

6.6.2. Show Settings

In this menu you can select the operation mode, the built-in chase and the speed.

01) Press the **UP/DOWN** buttons to scroll through the following 3 options:

```
───────Show Settings───────
Function Mode      Defin
Show Chase             9
Show Speed            77
```
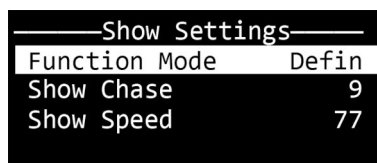
- Function Mode: Select how to operate the device manually. See Function Mode (see 6.6.2.1. Function Mode) for more information.
- Show Chase: Select the built-in chase. See Show Chase (see 6.6.2.2. Show Chase) for more information.
- Show Speed: Select the speed. See Show Speed (see 6.6.2.3. Show Speed) for more information.

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

6.6.2.1. Function Mode

In this submenu you can select one of the following 3 options:

- Knob: Select this option to control the device with the **manual dimmer control (16)** and the **color select control (17)**. See Control Modes (see 6.2. Control Modes on page 20) for more information.
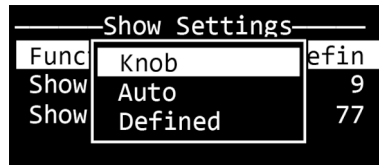- Auto: The device runs one of the built-in chases.
- Define: You can control the device manually via the control panel and the menu.

6.6.2.2. Show Chase

In this pop-up submenu you can select one of the 9 built-in chases.

01) Press the **UP/DOWN** buttons to select the built-in chase. The adjustment range is 001–009.

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

6.6.2.3. Show Speed

In this pop-up submenu you can select the speed of the built-in chase.

01) Press the **UP/DOWN** buttons to set the speed. The adjustment range is 00–99.

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

6.6.3. Static Color

In this menu you can select one of the 64 color macros and OFF.

01) Press the **ENTER** button to open the selection pop-up:

02) Press the **UP/DOWN** buttons to select one of the 65 options.
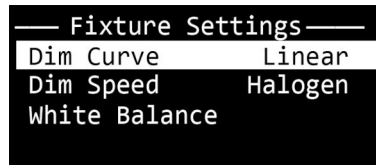03) Press the **ENTER** button to confirm.

Note:

To view all available options, see the **Static Colors** in DMX Channels (see 6.7. DMX Channels on page 29).
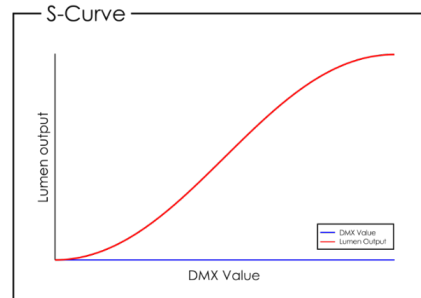
6.6.4. Fixture Settings

In this menu you can adjust the fixture settings.

01) Press the **UP/DOWN** buttons to select one of the following 3 options:

```
── Fixture Settings──
Dim Curve        Linear
Dim Speed       Halogen
White Balance
```

- • Dimmer Curve: There are 4 options available: Linear, Square Law, Inverse Square Law and S-Curve

Linear Curve

Square Law

Inv. Square Law

S-Curve
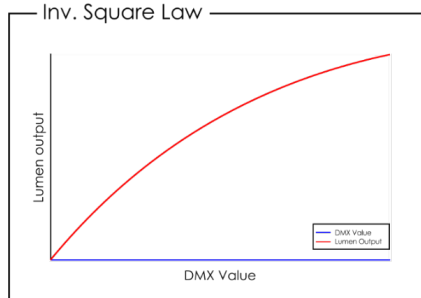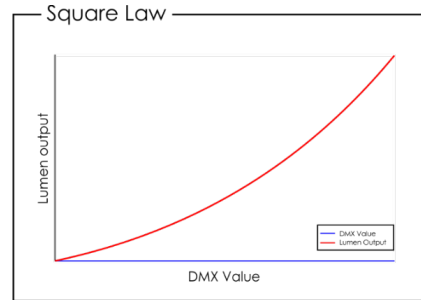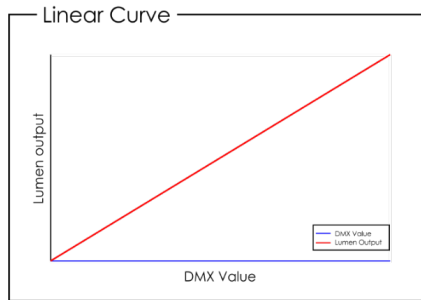
- • Dimmer Speed: There are 2 options available: LED (instant dimming without delay) and Halogen (delayed dimming, imitating the behavior of a halogen lamp)
- • White Balance: You can adjust the white balance of the LEDs through adjusting the values of the red, green, and blue colors. The adjustment range is 125–255

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

6.6.5. Display Settings

In this menu you can adjust the display settings of the device.

01) Press the **UP/DOWN** buttons to select one of the following 3 options:

```
──Display Settings──
Display Inverse       No
Backlight Auto Off  Yes
Display Contrast      29
```
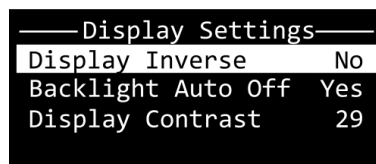
- • Display Inverse: The OLED display is rotated at 180° (Yes/No)
- • Backlight Auto Off: The backlight of the OLED display does not turn off automatically after 30 seconds of inactivity (Yes/No)
- • Display Contrast: The adjustment range is 01-30 (from low to high contrast)

02) Press the **ENTER** button to confirm the selection and open the pop-up submenu where you can adjust the settings.

03) Press the **UP/DOWN** buttons to select the desired setting.

04) Press the **ENTER** button to confirm the selection.

6.6.6. Fixture Test

In this menu you can perform a test of the parameters of the device and manually adjust the color and the dimmer and strobe values.

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

```
————— Fixture Test —————
 Auto Test
 Manual Defined
```
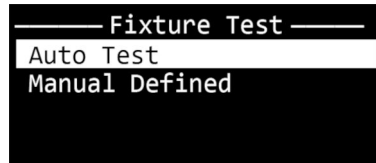
- Auto Test: The device performs an auto test of its parameters
- Manual Defined: See Manual Defined (see 6.6.6.1. Manual Defined) for more information

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

6.6.6.1. Manual Defined

In this submenu you can manually adjust the colors, the dimmer and the strobe.

01) Press the **UP/DOWN** buttons to scroll through the following options: red, green, blue, amber, lime, dimmer, and strobe.

```
————Manual Defined————          ————Manual Defined————
 Red              255             Lime              255
 Green            255             Dimmer            255
 Blue             255             Strobe            000
 Amber            255
```
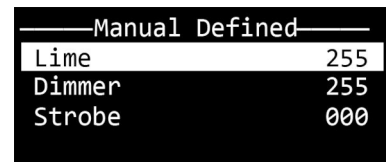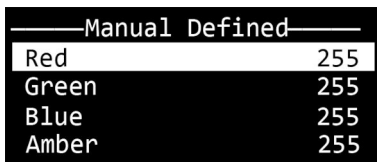
02) Press the **ENTER** button to confirm and open the respective pop-up submenu where you can adjust the values.
03) Press the **UP/DOWN** buttons to adjust the values. The adjustment range is 000-255.
04) Press the **ENTER** button to confirm.

6.6.7. Fixture Information

In this menu you can view the UID, the LED operating hours and the firmware version of the device.

With the **UP/DOWN** buttons you can scroll through the following 3 options:

```
— Fixture Information —
 UID:        29B40DC00001
 Hours              021 h
 Ver:     CPU-A V1.2 B1.0
```
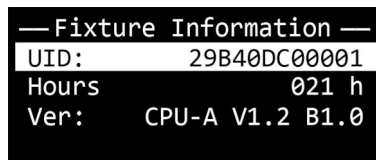
- UID: Shows the unique identification (UID) number of the device
- Hours: Shows the operating hours of the LED
- Version: Shows the current firmware version

6.6.8. Special Functions

In this menu you can reset the settings of the device to the default factory settings.

01) Press the **ENTER** button to open the pop-up submenu for the factory reset:

```
──────Special Functions──────
 Facto┌──────────────────┐
      │ No               │
      │ Yes              │
      └──────────────────┘
```
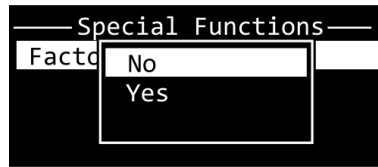
02) Press the **UP/DOWN** buttons to choose between No and Yes. If you choose Yes, the settings of the device will be reset to the default factory settings.
03) Press the **ENTER** button to confirm your choice.

6.7. DMX Channels

RAW 5 CH	Basic 8 CH	Advanced 12 CH	Function	Value	Setting		
1	1	1	**Red**	000–255	From low to high intensity (0–100 %)		
2	2	2	**Green**	000–255	From low to high intensity (0–100 %)		
3	3	3	**Blue**	000–255	From low to high intensity (0–100 %)		
4	4	4	**Amber**	000–255	From low to high intensity (0–100 %)		
5	5	5	**Lime**	000–255	From low to high intensity (0–100 %)		
		6	**Static Colors**	001–004	Color 1	Pale Lavender	
				005–008	Color 2	Quarter C.T. Blue	
				009–012	Color 3	Yellow	
				013–016	Color 4	Daylight Blue	
				017–020	Color 5	Light Pink	
				021–024	Color 6	Light Amber	
				025–028	Color 7	Half Minus Green	
				029–032	Color 8	Quarter New Color Blue	
				033–036	Color 9	Oklahoma Yellow	
				037–040	Color 10	Spring Yellow	
				041–044	Color 11	Pale Rose	
				045–048	Color 12	Medium Bastard Amber	
				049–052	Color 13	Lavender Tint	
				053–056	Color 14	English Rose	
				057–060	Color 15	Dark Pink	
				061–064	Color 16	Mist Blue	
				065–068	Color 17	Congo Blue	
				069–072	Color 18	Steel Blue	
				073–076	Color 19	Lee Green	
				077–080	Color 20	Fire	
				081–084	Color 21	Orange	
				085–088	Color 22	Medium Amber	
				089–092	Color 23	Hampshire Rose	
				093–096	Color 24	Light Pink	
				097–100	Color 25	Lee Yellow	
				101–104	Color 26	Deep Lavender	
				105–108	Color 27	Lavender Tint	
				109–112	Color 28	Light Lavender	
				113–116	Color 29	Old Steel Blue	
				117–120	Color 30	Madge	
				121–124	Color 31	Rose Purple	
				125–128	Color 32	Rose Pink	
				129–132	Color 33	Lagoon Blue	
				133–136	Color 34	Follies Pink	
				137–140	Color 35	Mist Blue	
				141–144	Color 36	Magical Magenta	
				145–148	Color 37	Pale Yellow	
				149–152	Color 38	Summer Blue	
				153–156	Color 39	Steel Green	
				157–160	Color 40	Half Shanklin Frost	
				161–164	Color 41	Regal Blue	
				165–168	Color 42	Special Pale Lavender	

RAW 5 CH	Basic 8 CH	Advanced 12 CH	Function	Value	Setting		
				169–172	Color 43	Liberty Green	
				173–176	Color 44	Lilac Tint	
				177–180	Color 45	Lee Fluorescent 4300 K	
				181–184	Color 46	No Color Blue	
				185–188	Color 47	Terry Red	
				189–192	Color 48	Lighter Blue	
				193–196	Color 49	Waterfront Green	
				197–200	2700 K (CRI 91)		
				201–204	3200 K (CRI 93)		
				205–208	3400 K (CRI 92)		
				209–212	3600 K (CRI 93)		
				213–216	3800 K (CRI 93)		
				217–220	4000 K (CRI 91)		
				221–224	4200 K (CRI 93)		
				225–228	4400 K (CRI 93)		
				229–232	4800 K (CRI 92)		
				233–236	5600 K (CRI 91)		
				237–240	6000 K (CRI 93)		
				241–244	6600 K (CRI 91)		
				245–248	7200 K (CRI 90)		
				249–252	7600 K (CRI 91)		
				253–255	8000 K (CRI 91)		
6	6	7	CCT	000–009	Dimming mode (CH 1–5)		
				010–024	2800 K (CRI 94)		
				025–039	3200 K (CRI 93)		
				040–054	3600 K (CRI 93)		
				055–069	4000 K (CRI 91)		
				070–084	4400 K (CRI 93)		
				085–099	4800 K (CRI 92)		
				100–114	5200 K (CRI 92)		
				115–129	5600 K (CRI 91)		
				130–144	6000 K (CRI 93)		
				145–159	6600 K (CRI 91)		
				160–174	7200 K (CRI 90)		
				175–189	8000 K (CRI 91)		
				190–255	10000 K (CRI 92)		
	7	8	**Master Dimmer**	000–255	From low to high intensity (0–100 %)		
		9	**Master Dimmer Fine**	000–255	From low to high intensity (0–100 %)		
	8	10	**Strobe**	000–031	Closed (No light output)		
				032–063	Open		
				064–095	Linear strobe, from low to high frequency		
				096–127	Open		
				128–159	Pulse strobe, from low to high frequency		
				160–191	Open		
				192–223	Random strobe, from low to high frequency		
				224–255	Open		
		11	**Built-in programs**	000–002	No Function		
				003–127	Color 1– 32		

RAW 5 CH	Basic 8 CH	Advanced 12 CH	Function	Value	Setting
				128–191	Color Fade 1–16
				192–255	Color Change 1–16
		12	Speed	000–255	Speed adjustment, from slow to fast (Built-in programs in CH 11)

Note:

- Make sure that the Strobe channel and the Master Dimmer channel are open in 8-CH and 12-CH mode in order to see the light output.
- If you play the built-in programs in 12-CH mode, the strobe (CH 10), the master dimmer (CH 8), and the master dimmer fine (CH 9) are not functional.

6.8. RDM Information

This device supports RDM (see 6.8.2. Supported RDM PIDs (Parameter IDs)).

6.8.1. RDM Details

- Responder ID: 29B4:0DCXXXXX
- Manufacturer's ID: Showtec (Highlite International B.V.)
- Manufacturer Label: Showtec
- Model Description: ACT Par 200W RGBAL
- Model ID: 220 (0DC hexadecimal)
- Device Label: ACT Par 200W RGBAL

Note:

An RDM responder ID consists of 3 parts:

- 1st part – 4 digits – Manufacturer's ID
- 2nd part – 3 digits – Model ID
- 3rd part – 5 digits – Unique ID

The RDM responder IDs of all products of Highlite International start with the same 4 digits. The first 7 digits of the RDM responder ID for each model are the same. The last 5 digits are different for each device.

6.8.2. Supported RDM PIDs (Parameter IDs)

RDM Parameter ID	Value	Required	GET	SET
SUPPORTED_PARAMETERS	0x0050	*	*	
DEVICE_MODEL_DESCRIPTION	0x0080		*	
MANUFACTURER_LABEL	0x0081		*	
DEVICE_LABEL	0x0082		*	*
DMX_PERSONALITY	0x00E0		*	*
DMX_PERSONALITY_DESCRIPTION	0x00E1		*	
DMX_START_ADDRESS	0x00F0	*	*	*
DEVICE_HOURS	0x0400		*	*

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 function at all	No power to the device	• Make sure that the device is connected to power supply and the cables are plugged in
	Main fuse is blown	• Replace the fuse (see 8.3.1. Replacing the Fuse on page 34)
The device responds erratically	The factory settings of the device are changed	• Reset the parameters of the device to the default factory settings (see 6.6.8. Special Functions on page 28)
The device does not respond to DMX control	The controller is not connected	• Connect the controller
	The signal is reversed. The 3-pin/5-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
The device responds erratically to DMX control	Connections are defective	• Examine connections and cables. Correct defective connections. Repair or replace damaged cables
	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
	Incorrect addressing	• Make sure that the address settings are correct
	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 LEDs cut out intermittently	LEDs are damaged	• Disconnect the device and contact your Highlite International dealer
	The input power parameters of the device do not match the local AC voltage and frequency	• Disconnect the device. Make sure that the local current, voltage and frequency match the input voltage, current and frequency specified on the information label on the device

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, fixings and installation points.
- The lens is not cracked or damaged.
- The power cables are not damaged and do not show any material fatigue.

8.2.1. Basic Cleaning Instructions

The external lens of 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 15 minutes.
03) Remove the dust collected on the external surface with dry compressed air and a soft brush.
04) Clean the lens with a damp cloth. Use a mild detergent solution.
05) Dry the lens 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.
- Replace fuses only with same type and rating.

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 15 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 (see 8.2.1. Basic Cleaning Instructions on page 33).
- 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

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

Product code: 34065