Show tec ®

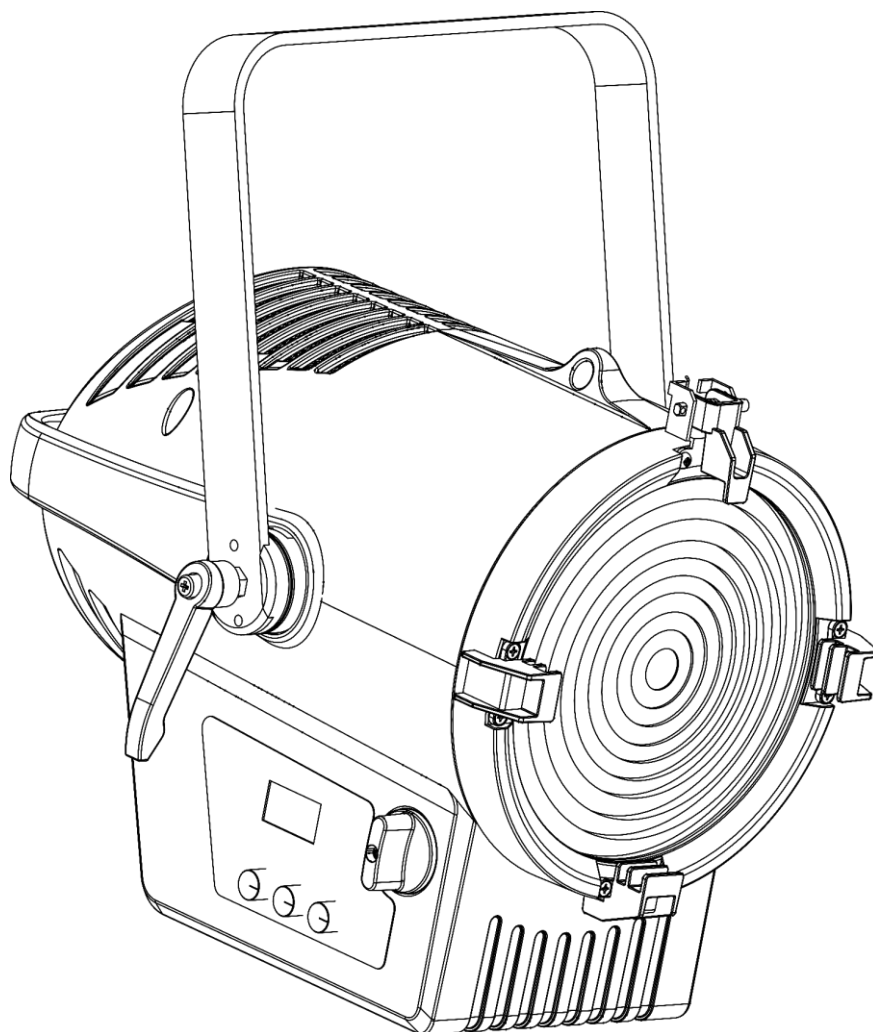**ENGLISH**

Performer 2500 Fresnel Q6　V1

Product code: 33140

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.

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

For the latest version of this document, please visit our website www.highlite.com or contact us at service@highlite.com.

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:

● Showtec Performer 2500 Fresnel Q6
● Schuko to True1 pro power cable (1,4 m)
● 1 x safety cable
● User manual
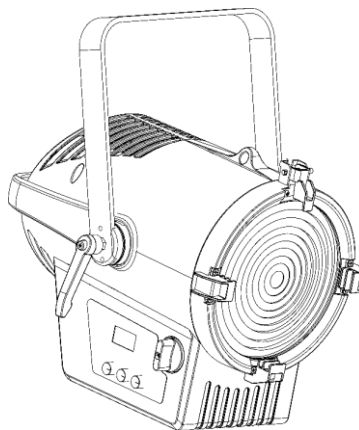
Fig. 01

1.2. Intended Use

This device is intended for professional use as a theater spot. 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**	
♨	**Hot surface**	
☀	**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 is designed for indoor use.
🗑	This device shall not be treated as household waste.
⊠	Replace any cracked protective shield.
◖---m❘	Minimum distance from lighted objects.
⚡	Caution: Risk of electric shock. Disconnect input power before opening. This appliance must be earthed.

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 (> 120 V DC) 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.

WARNING
Risk of burns due to hot surface

The surface and the inner parts of the device can become very hot during operation.

- Do not touch the device during operation.
- Allow the device to cool down for at least 15 minutes before handling.

WARNING
Risk of epileptic shock

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

WARNING
Possible eye damage caused by high light intensity

Possibly hazardous optical radiation emitted from this device.

- Do not look at the operating light source. May be harmful to the eye.
- Do not look at the light source with optical instruments that may concentrate the light output.
- Make sure that persons are not looking directly into the light source when the device lights up suddenly. This can happen when the device is powered or when it receives DMX signal, or when certain menu items are selected.
- Disconnect power supply before servicing.
- Wear protective goggles if looking into light source during service or maintenance.

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.
- 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 Highlight 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 shall be used only for the purposes it is designed for.**

This device is designed to be used as a professional stage light effect. 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 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 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.

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3. Description of the Device

The Performer 2500 Q6 is equipped with a 6-color LED engine. This engine is customized with specially selected colors with specified wavelengths, ensuring a high CRI and even beam. It contains 16 color presets which are frequently used in theaters. The Performer has a CCT channel enabling you to set the color temperature between 1800–8000 K.

3.1. Front View
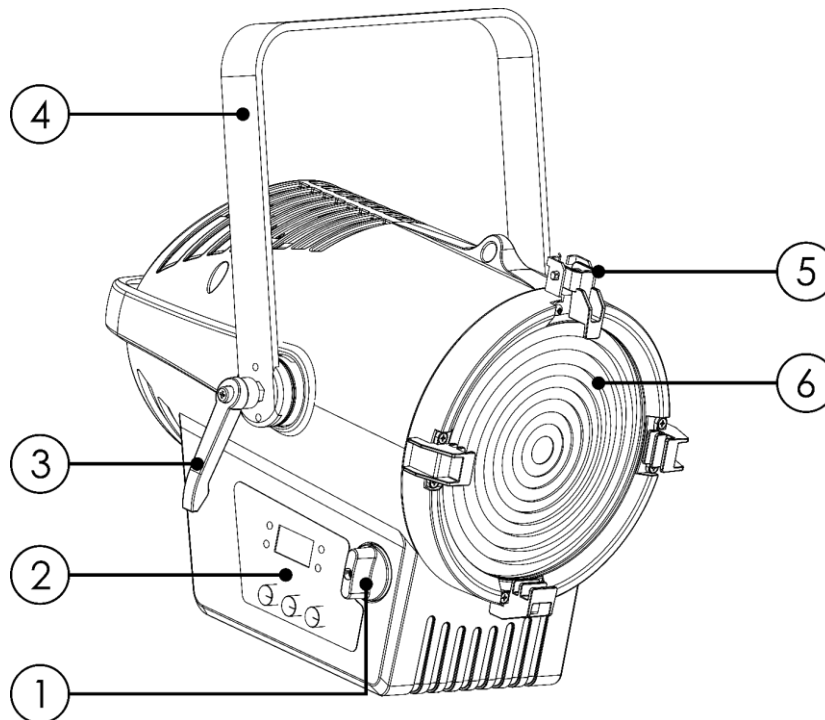
Fig. 02

01) Zoom control
02) Control panel: OLED display, control buttons and 3 rotatable controls
03) Adjustment screw
04) Mounting bracket
05) Barndoor retaining clip
06) 250 W RGBALC LED Module

3.2. Back View
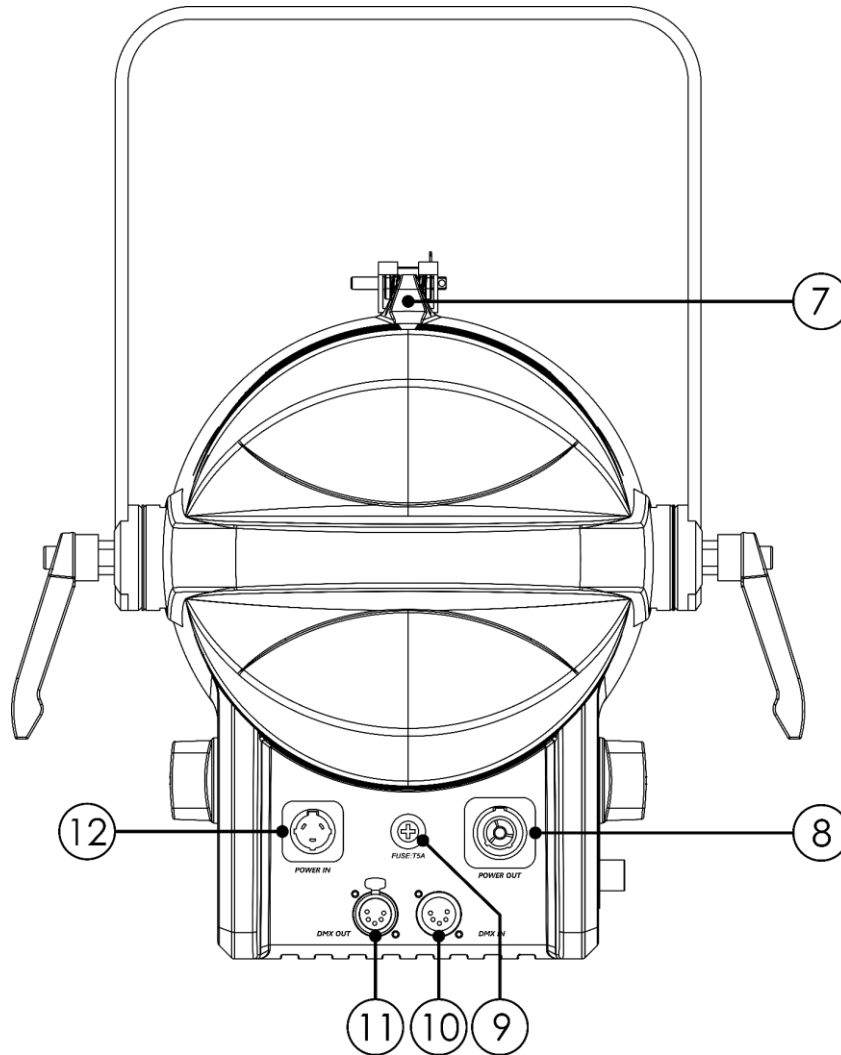
Fig. 03

07) Safety eye
08) Pro True1 power connector OUT
09) Fuse F5AL/250 V
10) 5-pin DMX connector IN
11) 5-pin DMX connector OUT
12) Pro True1 power connector IN

3.3. Product Specifications

Model:	Performer 2500 Fresnel Q6

Electrical:	
Input voltage:	100–240 V AC, 50/60 Hz
Power consumption:	250 W
Max. power:	270 W
Power factor:	0,95
Fuse:	F5AL/250 V

Physical:	
Dimensions:	470 x 380 x 450 mm (LxWxH)
Weight:	10 kg

Optics:	
Light source:	250 W RGBALC LED Module
Dimmer:	0–100 %
Strobe:	0–25 Hz
Beam angle:	10–60°
Field angle:	18–88°
Lumen:	7661 lm
Lux @ 2 m:	26812 lx
Color temperature:	1800–8000 K
Zoom:	Manual
CRI:	90
Refresh rate:	>1000 Hz

Operation and control:	
Control:	Stand-alone (Knob mode, Static, Color presets, Auto) Master/Slave (Knob mode, Static, Color presets, Auto) DMX-512/RDM
DMX channels:	BASIC (3 channels), CLR (6 channels), HSIC (7 channels), SSP (9 channels), CMY (10 channels), TOUR (13 channels), TR16 (20 channels)
Control panel:	OLED display and buttons

Connections:	
Power connections:	Pro True1 power connectors IN/OUT
Data connections:	5-pin DMX connectors IN/OUT
Signal pinouts:	5-pin: pin 1 (ground), pin 2 (-), pin 3 (+), pin 4 (N/C), pin 5 (N/C)

Construction:	
Housing:	Die-cast aluminum
Color:	Black
IP rating:	IP20
Cooling:	Forced convection

Thermal:	
Maximum ambient temperature t_a:	40 °C
Maximum housing temperature t_c:	70 °C

Minimum distance:	
Minimum distance from flammable surfaces:	0,5 m
Minimum distance to lighted object:	2 m

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3.4. Optional Accessories

The Performer 2500 Fresnel Q6 is delivered without accessories. You can additionally purchase the following accessories:

Product code: 33161 (Barndoor for Performer 2500 Fresnel)

3.5. Dimensions

Fig. 04

Fig. 05

470 mm
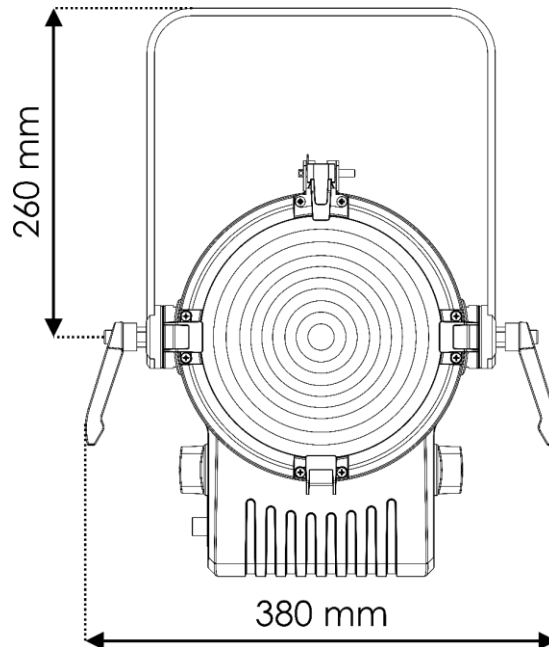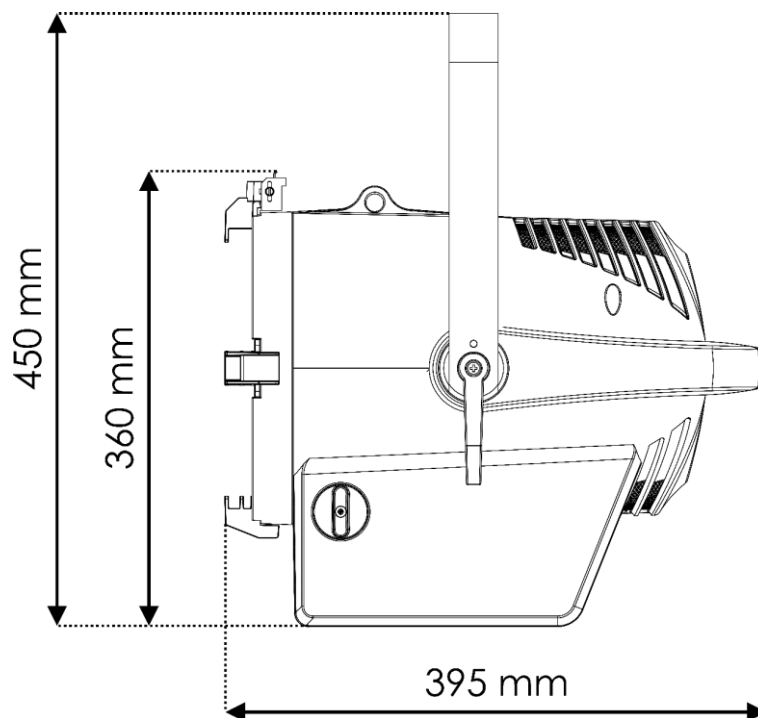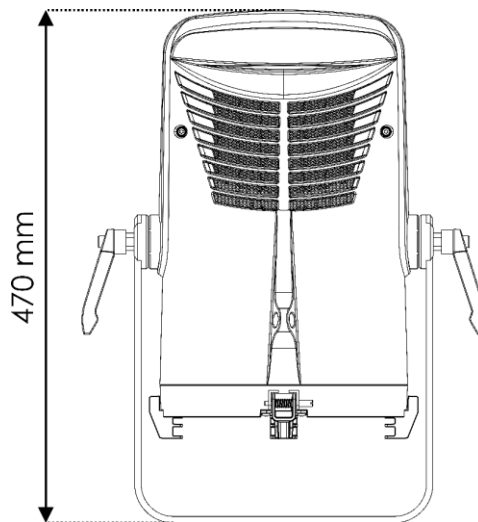
Fig. 06

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 can be used only indoors.
- The device can be mounted to a truss or other rigging structure in any orientation.
- The minimum distance to other objects must be bigger than 0,5 m.
- The minimum distance between the light output and the illuminated surface must be bigger than 2 m.
- The maximum ambient temperature ta = 40 °C must never be exceeded.
- The relative humidity must not exceed 50 % with an ambient temperature of 40 °C.

4.4.   Rigging

The device can be positioned on a flat surface or mounted to a truss or other rigging structure in any orientation. 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:

13) Use a clamp to attach the device to the supporting structure, as shown in Fig. 07. Make sure that the device cannot move freely. Optionally, you can use the Slide Complete to attach the device.
14) 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 (07)**, as shown in Fig. 07.

Clamp

Clamp

Slide Complete

Safety cable

Safety cable
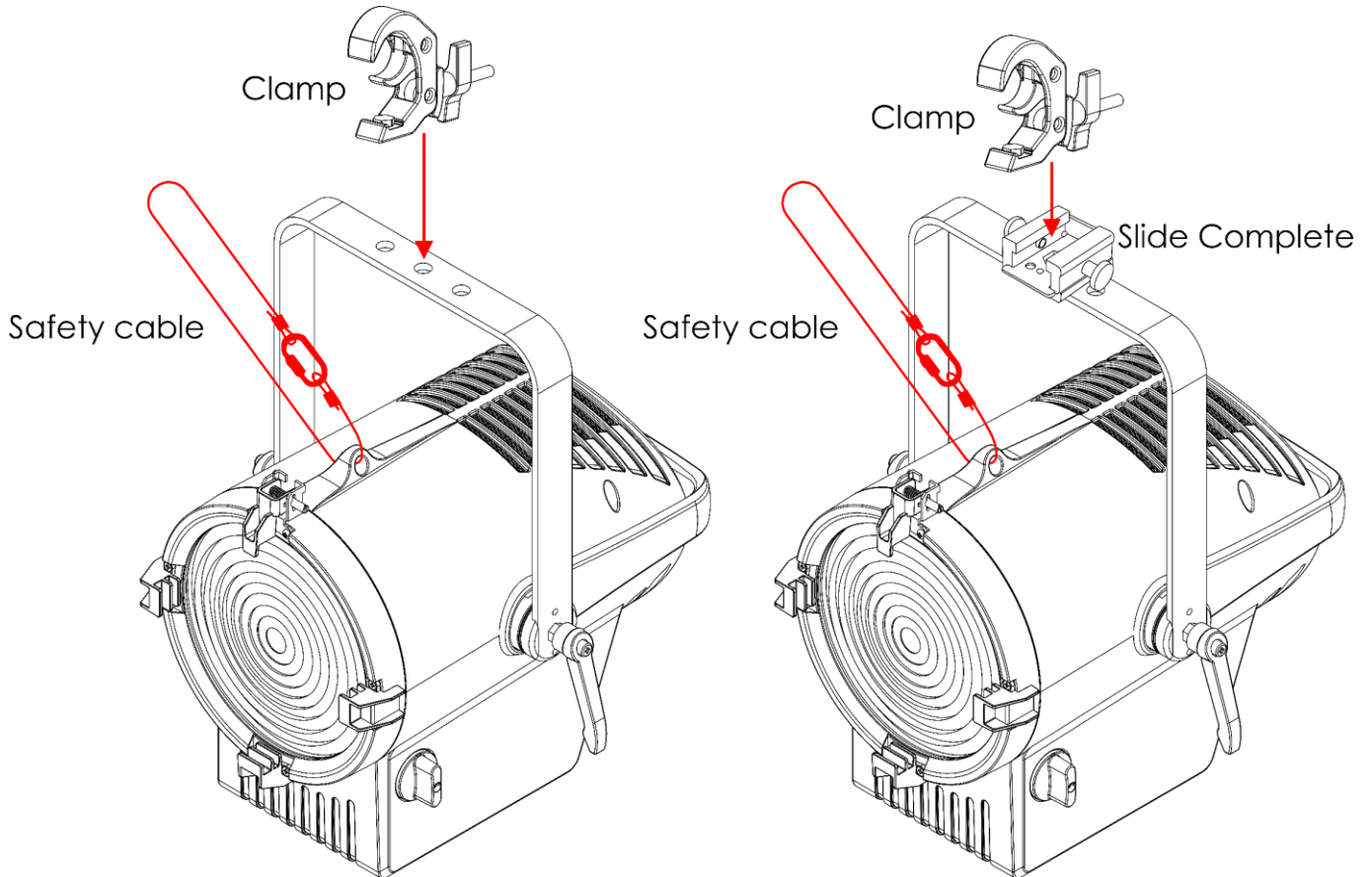
Fig. 07

4.4.1. Angle Adjustment

You can adjust the angle of the device with the 2 **adjustment screws (03)**.

01) Turn the **adjustment screws (03)** counterclockwise to release them.
02) Tilt the device to the desired angle (see Fig. 08).
03) Turn the **adjustment screws (03)** clockwise to tighten them. Make sure that the device cannot move freely after the **adjustment screws (03)** are tightened.
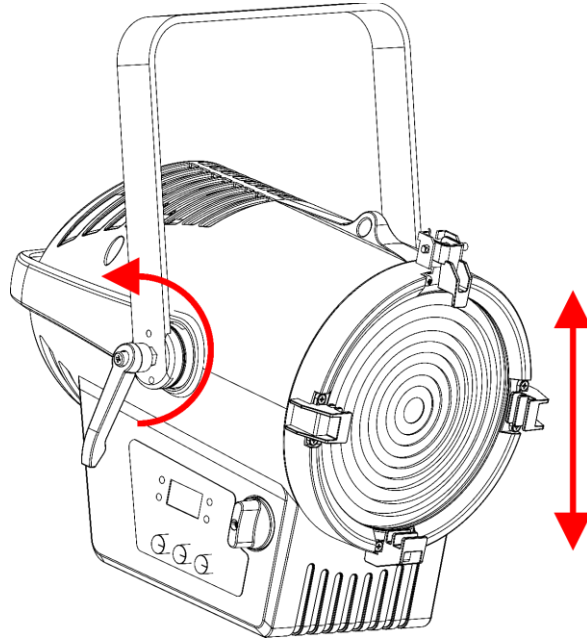
Fig. 08

4.4.2. Zoom Adjustment

You can adjust the zoom of the device with the **zoom control (01)**.

01) Turn the **zoom control (01)** to set the desired zoom (see Fig. 09).
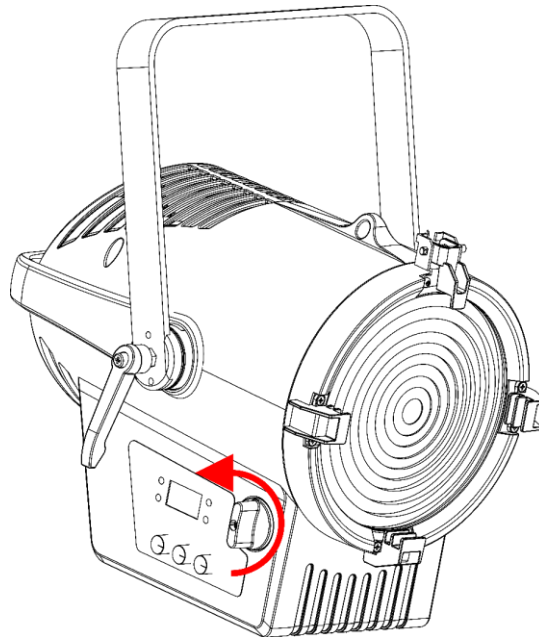
Fig. 09

4.5. Barndoor Installation

The barndoor holder is equipped with a spring-loaded retaining clip. This prevents the barndoor from falling out.

01) Release the retaining clip by pressing the lock towards the lens and pressing on the longer side of the screw. The retaining clip will open (see Fig. 10).
02) Insert the barndoor as shown in Fig. 11.
03) Press the retaining clip towards the lens to lock the barndoor in position.
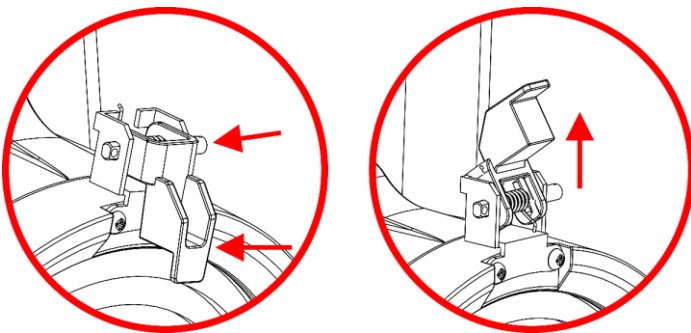
Fig. 10
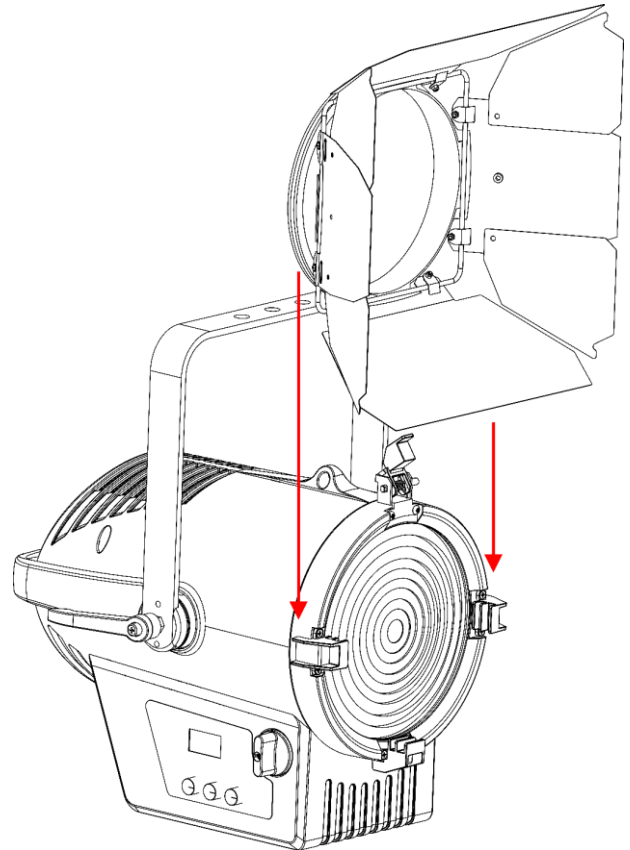
Fig. 11

4.6. 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 a power plug. Do not connect the device to a dimmer pack, 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: 6 devices Performer 2500 Fresnel Q6
- at 200–240 V: 12 devices Performer 2500 Fresnel Q6

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 Performer 2500 Fresnel Q6 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 21.

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 or to run synchronized shows of two or more devices set in a master/slave operating mode.

The Performer 2500 Fresnel Q6 has 5-pin DMX signal IN and OUT connectors.

The pin assignment is as follows:
- 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 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 3-pin 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. 12.

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

Pin 1: GND (screen)   Pin 1: GND (screen)
Pin 2: Signal (-)   Pin 2: Signal (-)
Pin 3: Signal (+)   Pin 3: Signal (+)
                          Pin 4: N/C
                          Pin 5: N/C
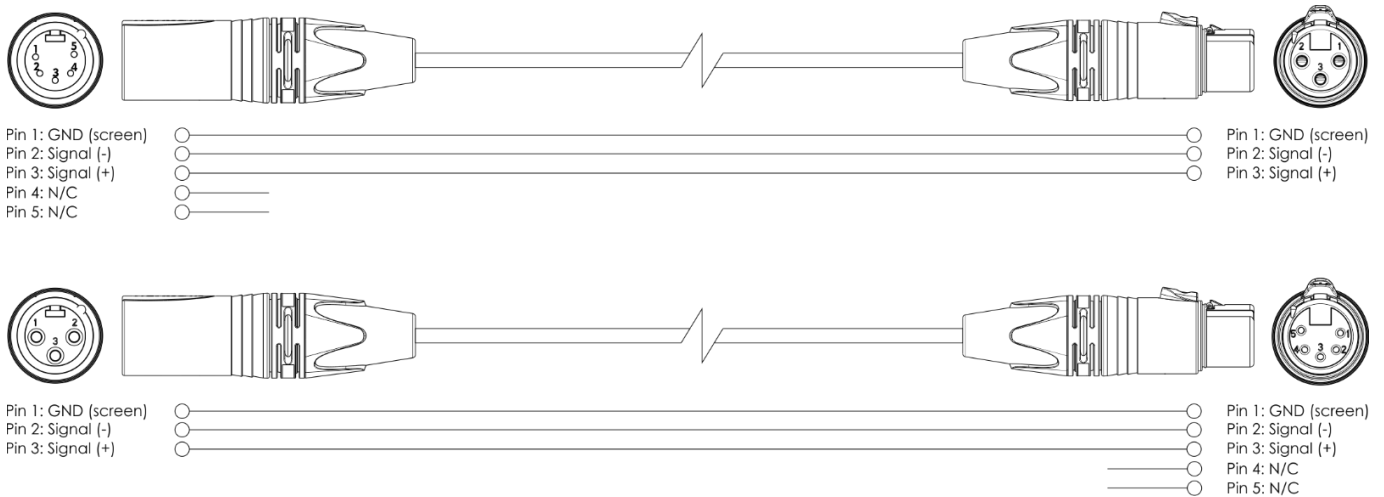
Fig. 12

5.3.3. Master/Slave Setup

The Performer 2500 Fresnel Q6 supports master/slave control mode. To connect multiple devices in master/slave setup, follow the steps below:

01) Connect the first device's DMX OUT connector to the second device's DMX IN connector.
02) Repeat step 1 to connect all devices as shown in Fig. 13.
03) Connect a DMX terminator (120 Ω resistor) to the DMX OUT connector of the last device in the setup.
04) Set the first device on the data link as a master device. See **6.6.9.8. Mode Setting** on page 31 for more information.
05) Set the remaining devices to slave mode. See **6.6.4. Run Mode** on page 27 for more information.
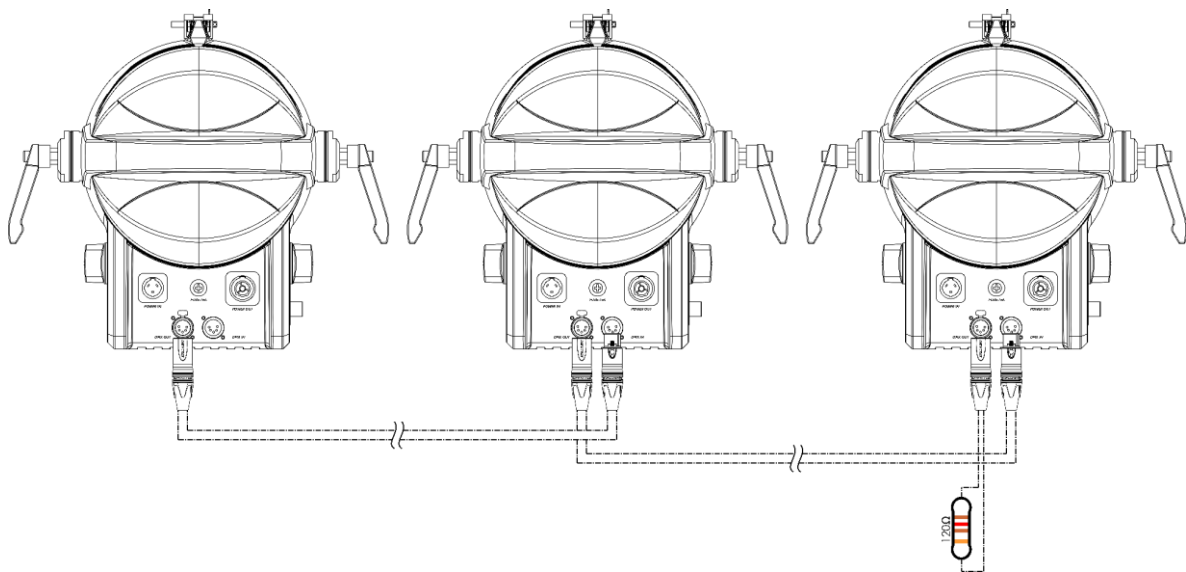
Fig. 13

5.3.4. DMX Linking

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

01) Use a 5-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 5-pin DMX cable.
03) Repeat step 2 to connect all devices in a daisy-chain as shown in Fig. 14.
04) Connect a DMX terminator (120 Ω resistor) to the DMX OUT connector of the last device on the data link.
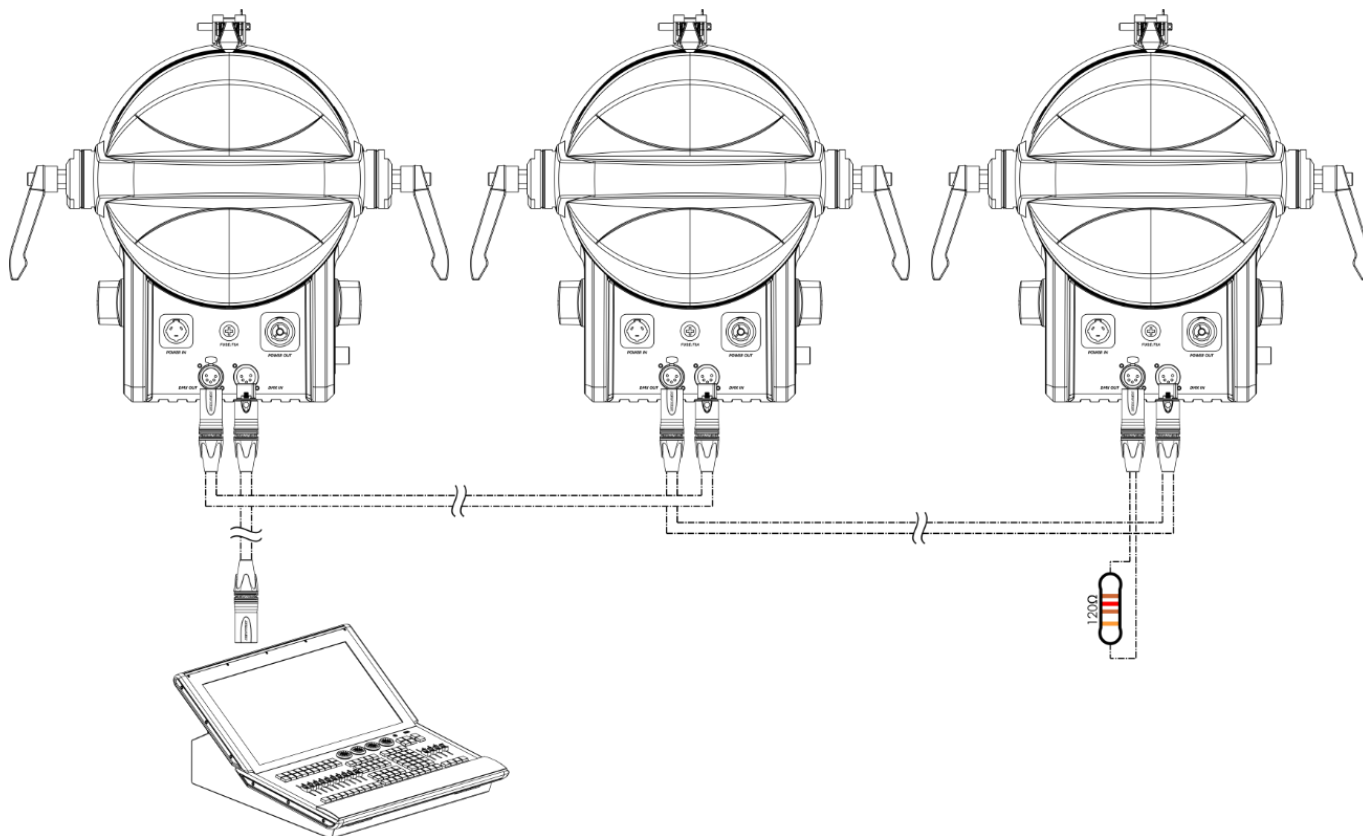
Fig. 14

5.3.5. DMX Addressing

In a setup with multiple devices, make sure that you set the DMX starting address of each device correctly. The Performer 2500 Fresnel Q6 has 7 personalities: 3 channels, 6 channels, 7 channels, 9 channels, 10 channels, 13 channels and 20 channels.

If you want to connect multiple devices on one data link and use them in 20-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 21 (021), as 1 + 20 = 21.
03) Set the starting address of the 3rd device on the data link to 41 (041) as 21 + 20 = 41.
04) Continue assigning the starting addresses of the remaining devices by adding each time 20 to the previous number.

Make sure that you do not have any overlapping channels in order to control each Performer 2500 Fresnel Q6 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 spot. 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 Performer 2500 Fresnel Q6 supports the following control modes:
- Stand-alone: Knob mode, Static, Color presets, Auto
- Master/Slave: Knob mode, Static, Color presets, Auto
- DMX-512, RDM   3, 6, 7, 9, 10, 13, 20 channels

For more information about how to connect the devices, refer to **5. Setup** on pages 18–20.

To operate the device manually as a stand-alone device or in a master/slave setup:

- Adjust the functions by turning the **rotatable controls (02)** in Knob Mode menu. See **6.6.1. Knob Mode** on page 25 for more information.
- Adjust the levels for red, green, blue, amber, lime and cyan in Static menu. See **6.6.2. Static** on page 26 for more information.

To run one of the built-in programs in auto operation mode without a DMX controller:

01) Select one of the 10 built-in programs in Auto Program menu. See **6.6.7. Auto Programs** on page 28 for more information.
02) Set the speed of the built-in programs in Auto Program menu. See **6.6.7. Auto Programs** on page 28 for more information.

To run the preset colors without a DMX controller:

01) Select one of the 16 preset colors in Preset Color menu. See **6.6.6. Preset Color** on page 27 for more information.

To operate the device with a DMX controller:

01) Set the DMX starting address of the device in the DMX Address menu. See **5.3.5. DMX Addressing** on page 20 and **6.6.3. DMX Address** on page 26.
02) Select the DMX channel mode. See **6.6.5. Personality (DMX Channel Modes)** on page 27 for more information. See **6.7. DMX Channels** on pages 34–38 for complete overview of all DMX channels.

6.3. Control Panel

A) OLED display
B) UP button
C) DOWN button
D) Control 1
E) Control 2
F) Control 3
G) ENTER button
H) MENU button
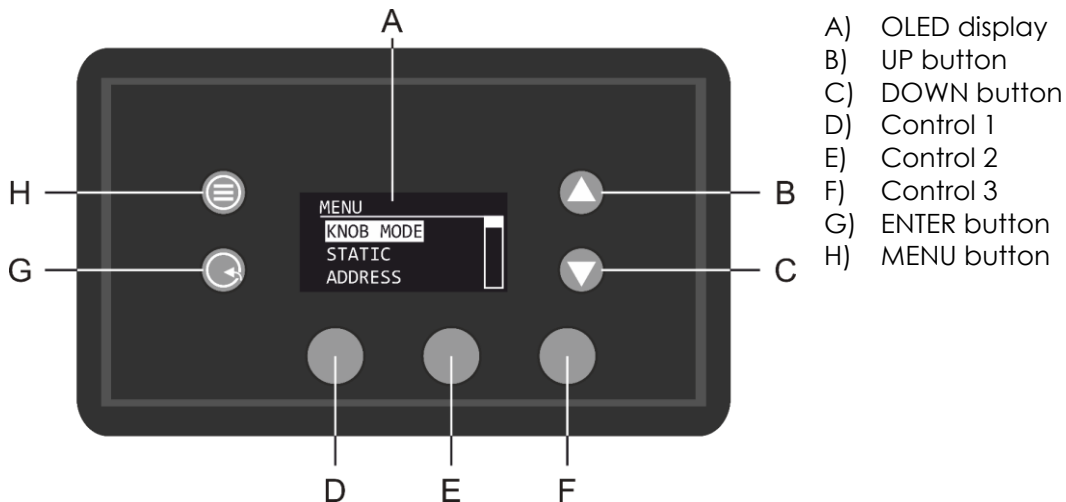
Fig. 15

- 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.
- Use the rotatable controls to adjust settings in Knob mode. See **6.6.1. Knob Mode** on page 25 for more information.

6.4. Start-up

Upon start-up the display will show a splash screen with the logo of Showtec. Press any button to enter the password and/or enter the Main Menu.

Note:

- If no button is pressed, after the preset number of seconds of inactivity, the display will turn off. Press any button to turn the display on. See **6.6.11. Disp Time (Display Time)** on page 32 for more information
- By default the display is locked. To access the main menu, you need to enter the **password**.
  The default password is pressing the **UP/DOWN** buttons in the following order: **UP, DOWN, UP, DOWN, ENTER**. Deactivating the display lock does not affect the submenu items which by default require a password. See **6.6.10. Disp Key (Display Lock)** on page 32 for more information.

6.5. Menu Overview

```
MENU                    KNOB MODE                DIMMER    CCT    GREEN
KNOB MODE    ENTER >    MODE 1      UP/DOWN      69%      4200K   +0.6
STATIC                  MODE 2
ADDRESS                 MODE 3
```

```
                        KNOB MODE                DIMMER   COLOR   GREEN
                        MODE 1      UP/DOWN       69%     L106      0
           UP/DOWN      MODE 2
                        MODE 3
```

```
                        KNOB MODE                 H        S        I
                        MODE 1      UP/DOWN       51%      14%      9%
                        MODE 2
                        MODE 3
```

```
MENU                    STATIC                   STATIC
KNOB MODE    ENTER >    RED         ENTER >       RED        255
STATIC                  GREEN                     GREEN       0
ADDRESS                 BLUE                      BLUE        0
                        AMBER                     AMBER       0
                        LIME                      LIME        0
                        CYAN                      CYAN        0
                        STROBE                    STROBE     25
```

```
MENU                    ADDRESS                  ADDRESS
KNOB MODE    ENTER >    001         UP/DOWN       512
STATIC
ADDRESS
```

```
MENU                    RUN MODE
RUN MODE     ENTER >    DMX
PERSONALITY             SLAVE
PRESET COLOR
```

```
MENU                    PERSONALITY
RUN MODE     ENTER >    BASIC
PERSONALITY             CLR
PRESET COLOR            HSIC
                        SSP
                        TOUR
                        TR16
                        CMY
```

```
MENU                    PRESET COLOR
RUN MODE     ENTER >    L106
PERSONALITY             R05
PRESET COLOR            L194
                        R54
                        L019
                        R08
                        R89
                        R86
                        L213
                        R377
                        R80
                        L202
                        L328
                        R3314
                        L101
                        L768
```

```
MENU                    AUTO PROGRAM             AUTO.1
AUTO PROGRAM ENTER >    AUTO.1      ENTER >
EDIT                    AUTO.2
SETTING                 ...                      SPEED      0
                        AUTO.10
                        PR.01
                        PR.02
                        ...
                        PR.10
```

```
MENU              EDIT            PROGRAM          SCENE EDIT         SCENE EDIT
AUTO PROGRAM      PROGRAM01       SCENE-01         RED                RED      255
EDIT     ENTER >  PROGRAM02 ENTER> SCENE-02 ENTER> GREEN    ENTER >   GREEN      0
SETTING           ...             ...              BLUE               BLUE       0
                  PROGRAM10       SCENE-30         AMBER              AMBER      0
                                                   LIME               LIME       0
                                                   CYAN               CYAN       0
                                                   STROBE             STROBE    25
                                                   TIME               TIME     255
                                                   FADE               FADE       0
```

UP/DOWN

MENU
AUTO PROGRAM
EDIT
SETTING

ENTER +
PASSWORD

SETTING
UPLOAD
RESET
DIMMER

ENTER +
PASSWORD

SEND..

SETTING
UPLOAD
RESET
DIMMER

ENTER +
PASSWORD

RESET..

SETTING
UPLOAD
RESET
DIMMER

ENTER

DIMMER
OFF
DIM1
DIM2
DIM3
DIM4

SETTING
DMX ERROR
PWM_RATE
POWER CCT

ENTER

DMX ERROR
SAVE
BLACK

SETTING
DMX ERROR
PWM_RATE
POWER CCT

ENTER

PWM RATE
600HZ
1200HZ
2000HZ
4000HZ
6000HZ
25000HZ

ENTER

600HZ
X FINE
Y FINE

ENTER

X FINE
-200

UP/DOWN

X FINE
+200

UP/DOWN

600HZ
X FINE
Y FINE

ENTER

Y FINE
-200

UP/DOWN

Y FINE
+200

UP/DOWN

SETTING
DMX ERROR
PWM_RATE
POWER CCT

ENTER

POWER CCT
2700K
3200K
4200K
NORMAL

SETTING
PERFORMANCE
MODE SETTING
XY OFFSET

ENTER

PERFORMANCE
STUDIO
POWER
LIVE

SETTING
PERFORMANCE
MODE SETTING
XY OFFSET

ENTER

MODE SETTING
SELF
MASTER

SETTING
PERFORMANCE
MODE SETTING
XY OFFSET

ENTER

XY OFFSET
HIDE
SHOW

SETTING
MODE SETTING
XY OFFSET
UC

ENTER

UC
RED
GREEN
BLUE
AMBER
LIME
CYAN

ENTER

UC
RED   255
GREEN   0
BLUE   0
AMBER   0
LIME   0
CYAN   0

MENU
DISP KEY
DISP TIME
CCT

ENTER

DISP KEY
ON
OFF

MENU
DISP KEY
DISP TIME
CCT

ENTER

DISP TIME
On
10s
30s
2min

MENU
DISP KEY
DISP TIME
CCT

ENTER +
PASSWORD

CCT
CCT

ENTER

CCT
1800K
2200K
2700K
3000K
3200K
3500K
4000K
4200K
4500K
5600K
6000K
6500K
7200K
8000K

ENTER

1800K
X FINE
Y FINE

ENTER

X FINE
-200

UP/DOWN

X FINE
+200

UP/DOWN

1800K
X FINE
Y FINE

ENTER

Y FINE
-200

UP/DOWN

Y FINE
+200

UP/DOWN

MENU
DISP TIME
CCT
INFO

ENTER

INFO
FIXTURE HOURS
VERSION
RDM

ENTER

FIXTURE HOURS
31Hours

INFO
FIXTURE HOURS
VERSION
RDM

ENTER

VERSION
V1.0.0

INFO
FIXTURE HOURS
VERSION
RDM

ENTER

RDM
UID
LABEL

ENTER

UID
0x29B406C00001

RDM
UID
LABEL

ENTER

LABEL
Performer 2500
Fresnel Q6

UP/DOWN

6.6. Main Menu Options

The main menu has the following options:

```
MENU
 KNOB MODE
 STATIC
 ADDRESS
 RUN MODE
 PERSONALITY
 PRESET COLOR
 AUTO PROGRAM
 EDIT
 SETTING
 DISP KEY
 DISP TIME
 CCT
 INFO
```

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

Note: Some of the submenus require a password. The default password is pressing the **UP/DOWN** buttons in the following order: **UP, DOWN, UP, DOWN, ENTER**. Deactivating the display lock does not affect the submenu items which by default require a password.

6.6.1. Knob Mode

In this menu you can set and adjust the desired knob mode.

01) Press the **UP/DOWN** buttons to choose one of the 3 knob modes.
02) Press the **ENTER** button to open the settings submenu.

6.6.1.1. Mode 1

In this menu you can set the dimmer, CCT and green.
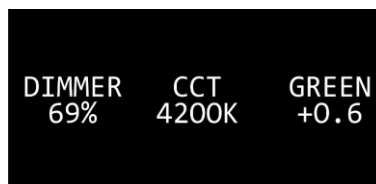
```
DIMMER    CCT    GREEN
 69%     4200K    +0.6
```

01) Turn the controls (**D/E/F**) to adjust settings.
02) The adjustment ranges are:
   ● **D**: Dimmer, from dark to brightest (0–100 %)
   ● **E**: CCT (1800 K, 2200 K, 2700 K, 3000 K, 3200 K, 3500 K, 4000 K, 4200 K, 4500 K, 5600 K ,6000 K, 6500 K, 7200 K, 8000 K)
   ● **F**: Green, from dark to brightest (from -10 to +10)
03) Once you have set your settings, press each of the controls (**D/E/F**) to save your settings. Otherwise, your settings will be lost upon returning to the previous menu.

6.6.1.2. Mode 2

In this menu you can set the dimmer, color presets (**L**ee and **R**osco colors) and green.

```
DIMMER  COLOR   GREEN
 69%    L106      0
```

01) Turn the controls (**D/E/F**) to adjust settings.
02) The adjustment ranges are:
- **D**: Dimmer, from dark to brightest (0–100 %)
- **E**: Color presets (L106, R05, L194, R54, L019, R08, R89, R86, L213, R377, R80, L202, L328, R3314, L101, L768)
- **F**: Green, from dark to brightest (from -10 to +10)
03) Once you have set your settings, press each of the controls (**D/E/F**) to save your settings. Otherwise, your settings will be lost upon returning to the previous menu.

6.6.1.3. Mode 3

In this menu you can set the hue, saturation and intensity.

```
  H        S        I
 51%      14%      9%
```
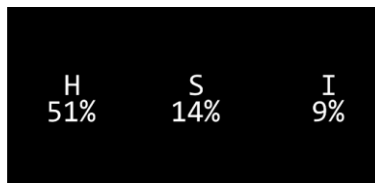
01) Turn the controls (**D/E/F**) to adjust settings.
02) The adjustment ranges are:
- **D**: (H)ue (0–100 %)
- **E**: (S)aturation (0–100 %)
- **F**: (I)ntensity, from dark to brightest (0–100 %)
03) Once you have set your settings, press each of the controls (**D/E/F**) to save your settings. Otherwise, your settings will be lost upon returning to the previous menu.

6.6.2. Static

In this menu, you can set the static colors to create an infinite range of colors.
01) Press the **UP/DOWN** buttons to scroll through the static colors (RED, GREEN, BLUE, AMBER, LIME, CYAN) and STROBE.
02) Press the **ENTER** button to open the settings submenu.
03) Press the **UP/DOWN** buttons to increase/decrease the values.
- Color intensity (RED, GREEN, BLUE, AMBER, LIME, CYAN): the adjustment range is between 0–255, from low to high intensity
- STROBE frequency: the adjustment range is between 0–25, from OFF to high frequency
04) Press the **ENTER** button to set the value and to move to the next setting.

6.6.3. DMX Address

In this menu you can set the device's DMX starting address.

01) Press the **UP/DOWN** buttons to set the desired DMX address. The adjustment range is 001–512.
02) Press the **ENTER** button to save the changes.

6.6.4. Run Mode

In this menu you can set the control mode of the device.

01) Press the **UP/DOWN** buttons to toggle between the following 2 options:
- DMX: the device will operate in DMX Mode.
- SLAVE: the device will operate as a slave in Master/Slave Mode. It means that it will react the same as the master device.
02) Press the **ENTER** button to confirm your choice.

6.6.5. Personality (DMX Channel Modes)

In this menu you can set the DMX channel mode (personality).

01) Press the **UP/DOWN** buttons to select the desired DMX channel mode. There are 7 options available:
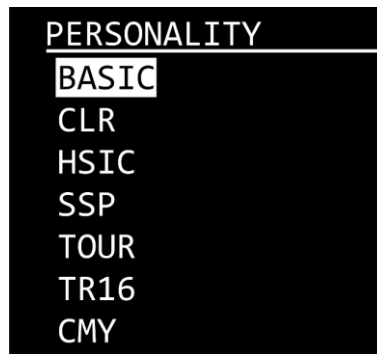
```
PERSONALITY
BASIC
CLR
HSIC
SSP
TOUR
TR16
CMY
```

BASIC:	3 channels	**TOUR:**	13 channels
CLR:	6 channels	**TR16:**	20 channels
HSIC:	7 channels	**CMY:**	10 channels
SSP:	9 channels		

02) Press the **ENTER** button to confirm your choice. See pages 34–38 for the DMX channel modes.

6.6.6. Preset Color

In this menu you can choose a preset color mix.

01) Press the **UP/DOWN** buttons to select one of the 16 presets: L106, R05, L194, R54, L019, R08, R89, R86, L213, R377, R80, L202, L328, R3314, L101, L768.
02) Press the **ENTER** button to confirm your choice.

6.6.7. Auto Programs

In this menu you can select a built-in auto program or a custom program. There are 10 uneditable auto programs and 10 custom programs, which can be edited in Edit menu. See **6.6.8. Edit** on page 28.

```
AUTO PROGRAM
AUTO.1
AUTO.2
...
AUTO.10
PR.01
PR.02
...
PR.10
```
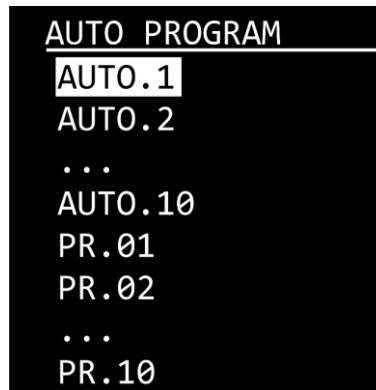
01) Press the **UP/DOWN** buttons to choose an auto or a custom program.
02) Press the **ENTER** button to confirm your choice.
03) If you have chosen one of the auto programs, after pressing the **ENTER** button you can additionally adjust the speed.
04) Press the **UP/DOWN** buttons to set the program speed. The adjustment range is between 0–255, from slow to fast.
05) Press the **ENTER** button to set the speed.

6.6.8. Edit

In this menu you can edit the custom programs thus creating your own custom show.

01) Press the **UP/DOWN** buttons to choose the custom program you want to edit (PROGRAM01–10).
02) Press the **ENTER** button to confirm the selection. Each custom program has 30 scenes, which can be edited:

```
PROGRAM
SCENE-01
SCENE-02
...
SCENE-30
```
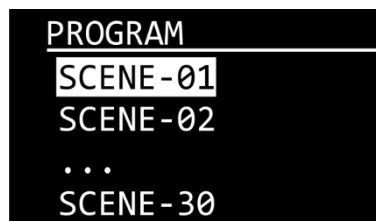
03) Press the **UP/DOWN** buttons to select the desired scene.
04) Press the **ENTER** button to enter the scene settings.
05) Press the **UP/DOWN** buttons to scroll through the 6 colors (RED, GREEN, BLUE, AMBER, LIME, CYAN), and the STROBE, TIME and FADE options.
06) Press the **ENTER** button to open the settings submenu.

```
SCENE EDIT
RED        255
GREEN       0
BLUE        0
AMBER       0
LIME        0
CYAN        0
STROBE     25
TIME      255
FADE        0
```

07) Press the **UP/DOWN** buttons to increase/decrease the values.
- Color intensity (RED, GREEN, BLUE, AMBER, LIME, CYAN): the adjustment range is between 0-255, from low to high intensity
- STROBE frequency: the adjustment range is between 0–25, from OFF to high frequency
- TIME (duration of the scene): the adjustment range is between 0–255, from 0 to 255 seconds
- FADE (transition time between the scenes): the adjustment range is between 0–255, from 0 to 255 seconds.

08) Press the **ENTER** button to set the value and to move to the next setting.

Note: For each custom program you can create 30 scenes, which makes it possible to create 300 customized scenes in total.

6.6.9. Settings

In this menu you can adjust the device's settings. This menu requires the **password**. The default password is pressing the **UP/DOWN** buttons in the following order: **UP, DOWN, UP, DOWN**.

01) Enter the password to access the menu.
02) Press the **ENTER** button to confirm the password.
03) Press the **UP/DOWN** buttons to scroll through the following options:

```
SETTING
UPLOAD
RESET
DIMMER
DMX ERROR
PWM_RATE
POWER CCT
PERFORMANCE
MODE SETTING
XY OFFSET
UC
```

6.6.9.1. Upload

In this submenu you can export the custom programs from the master device to the connected slave devices.

01) Select UPLOAD and press the **ENTER** button to open the submenu.
02) Enter the password, pressing the buttons in the following order: **UP, DOWN, UP, DOWN**.

03) Press the **ENTER** button to confirm. During upload, the light output will turn yellow and the display will show:

SEND..

04) When the upload is finished, the display will show OK.
05) Press the **ENTER** button to confirm and exit the submenu.

6.6.9.2. Reset

In this submenu you can restore the default factory settings and reset the custom programs.

01) Select RESET and press the **ENTER** button to open the submenu.
02) Enter the password, pressing the buttons in the following order: **UP, DOWN, UP, DOWN**.
03) Press the **ENTER** button to confirm. During reset the display will show:
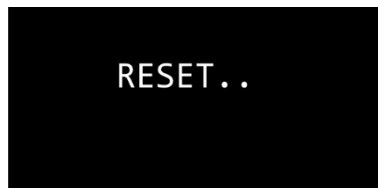
RESET..

04) When the resetting is finished, the display will show OK.
05) Press the **ENTER** button to confirm and exit the submenu.

6.6.9.3. Dimmer

In this submenu you can adjust the dimmer speed.

01) Select DIMMER and press the **ENTER** button to open the submenu.
02) Press the **UP/DOWN** buttons to choose one of the following options:
   ● DIM 1, DIM 2, DIM 3, DIM 4: non-linear dimmers, from fast to slow
   ● OFF: linear dimmer
03) Press the **ENTER** button to confirm your choice.

6.6.9.4. DMX Error

In this submenu, you can determine the behavior of the device in case of a DMX failure.

01) Select DMX ERROR and press the **ENTER** button to open the submenu.
02) Press the **UP/DOWN** buttons to toggle between the following 2 options:
   ● SAVE: in case of a DMX signal failure the device will use the last properly received DMX signal ensuring uninterrupted performance
   ● BLACK: in case of a DMX signal failure the device will black out the light output
03) Press the **ENTER** button to confirm your choice.

6.6.9.5. PWM Rate

In this submenu you can set the PWM (Pulse Width Modulation) frequency.

01) Select PWM RATE and press the **ENTER** button to open the submenu.
02) Press the **UP/DOWN** buttons to choose the desired PWM frequency. The available options are: 600 Hz, 1200 Hz, 2000 Hz, 4000 Hz, 6000 Hz and 25000 Hz.
    Note: The higher the PWM frequency, the lower the dimmer's grayscale.
03) Press the **ENTER** button to open the submenu.
04) Press the **UP/DOWN** buttons to choose between X FINE and Y FINE.
05) Press the **ENTER** button to confirm the selection.
06) Press the **UP/DOWN** buttons to increase/decrease the value. The adjustment range is between -200 and +200.
07) Press the **ENTER** button to set the value.

6.6.9.6. Power CCT

In this submenu you can set the color temperature.

01) Select POWER CCT and press the **ENTER** button to open the submenu.
02) Press the **UP/DOWN** buttons to choose the desired color temperature. The available options are: 2700 K, 3200 K, 4200 K and NORMAL.
03) Press the **ENTER** button to confirm your choice.

6.6.9.7. Performance

In this menu you can set the performance of the Performer.

01) Select PERFORMANCE and press the **ENTER** button to open the submenu.
02) Press the **UP/DOWN** buttons to choose the desired performance mode. The available options are:
    ● STUDIO: Noise level-oriented mode. It emits little noise and operates at moderate power level
    ● POWER: Output-oriented mode. The device does not offer any consideration for noise level and operates at full power
    ● LIVE: Default mode. It provides a compromise between output quality and noise level
03) Press the **ENTER** button to confirm your choice.

6.6.9.8. Mode Setting

In this submenu you can set the device to perform as a master.

01) Select MODE SETTINGS and press the **ENTER** button to open the submenu.
02) Press the **UP/DOWN** buttons to toggle between the following 2 options:
    ● SELF: the device will operate as a stand-alone
    ● MASTER: the device will operate as a master in Master/Slave mode
03) Press the **ENTER** button to confirm your choice.

6.6.9.9. XY Offset

In this submenu you can enable the color temperature calibration.

01) Select XY OFFSET and press the **ENTER** button to open the submenu.
02) Press the **UP/DOWN** buttons to toggle between the following 2 options:
    ● HIDE: color temperature calibration will be disabled
    ● SHOW: color temperature calibration will be enabled.

Note: If you choose HIDE, it will not be possible to adjust XY offset in such menus as **6.6.9.5. PWM Rate** and **6.6.12. CCT**. Also, UC menu will not be visible (see **6.6.9.10. UC** on page 32 for more information).

03) Press the **ENTER** button to confirm your choice.

6.6.9.10. UC

In this submenu you can calibrate the colors.

This menu will be visible **ONLY** if XY Offset is set to SHOW (see **6.6.9.9. XY Offset** on page 31 for more information)

01) Select UC and press the **ENTER** button to open the submenu.
02) Press the **UP/DOWN** buttons to scroll through the static colors: RED, GREEN, BLUE, AMBER, LIME and CYAN.
03) Press the **ENTER** button to open the settings submenu.
04) Press the **UP/DOWN** buttons to adjust the color intensity. The adjustment range is 0–255, from low to high intensity.
05) Press the **ENTER** button to set the value and to move to the next color.

6.6.10. Disp Key (Display Lock)

In this menu you can activate the display lock.

01) Press the **UP/DOWN** buttons to toggle between ON and OFF.
●   ON: display lock is on. The display turns off if no button is pressed within the preset amount of time. To access the main menu, you will need to enter the password. The default password is pressing the **UP/DOWN** buttons in the following order: **UP, DOWN, UP, DOWN, ENTER**.
●   OFF: the main menu remains unlocked after the display turns off.

Note: Deactivating the display lock does not affect the submenu items which by default require a password.

6.6.11. Disp Time (Display Time)

In this menu you can set the amount of time that needs to pass before the display turns off, if no button is pressed.

01) Press the **UP/DOWN** buttons to select one of the following options: 10 s/30 s/2 min/ON.
02) Press the **ENTER** button to confirm your choice.

6.6.12. CCT (Correlated Color Temperature Control)

In this menu you can calibrate the color temperature. This menu requires the **password**. The default password is pressing the **UP/DOWN** buttons in the following order: **UP, DOWN, UP, DOWN**.

01) Enter the password to access the menu.
02) Press the **ENTER** button to confirm the password.
03) Press the **UP/DOWN** buttons to scroll through the following options:

```
CCT
1800K
2200K
2700K
3000K
3200K
3500K
4000K
4200K
4500K
5600K
6000K
6500K
7200K
8000K
```
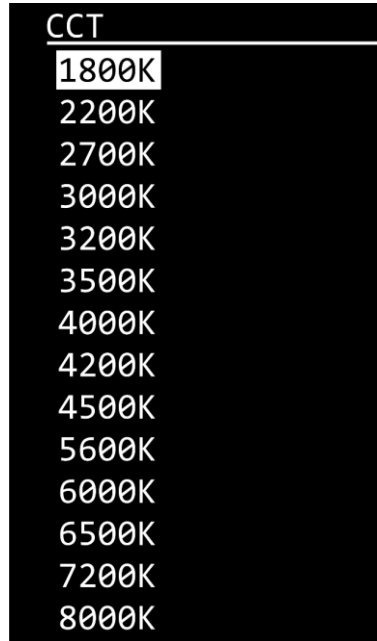
04) Press the **ENTER** button to open the submenu.
05) Press the **UP/DOWN** buttons to choose between X FINE and Y FINE.
06) Press the **ENTER** button to confirm the selection.
07) Press the **UP/DOWN** buttons to increase/decrease the value. The adjustment range is between -200 and +200.
08) Press the **ENTER** button to set the value.

6.6.13. Information

In this menu you can view the total operation time, current software version and the RDM details of the device.

01) Press the **UP/DOWN** buttons to choose FIXTURE HOURS, VERSION or RDM.
02) Press the **ENTER** button to confirm the selection.

6.6.13.1. Fixture Hours

In this submenu you can view the total operation time of the device.

6.6.13.2. Version

In this submenu you can view the current version of the installed firmware.

```
VERSION
       V1.0.0
```

6.6.13.3. RDM

In this submenu you can view the RDM details of the device.

01) Press the **UP/DOWN** buttons to choose between the following options:
- UID: the display shows the unique identification number of the device
- LABEL: the display shows the name of the device
02) Press the **ENTER** button to confirm the selection.

6.7. DMX Channels

6.7.1. 3 Channels, 6 Channels, 9 Channels, 13 Channels, 20 Channels

3 CH (Basic)	6 CH (CLR)	9 CH (SSP)	13 CH (TOUR)	20 CH (TR16)	Function	Value	Setting
1		1	1	1	**Master Dimmer**	000–255	From low to high intensity (0–100 %)
				2	**Dimmer Fine**	000–255	From low to high intensity (0–100 %)
	1	2	2	3	**Red**	000–255	From low to high intensity (0–100 %)
				4	**Red Fine**	000–255	From low to high intensity (0–100 %)
	2	3	3	5	**Green**	000–255	From low to high intensity (0–100 %)
				6	**Green Fine**	000–255	From low to high intensity (0–100 %)
	3	4	4	7	**Blue**	000–255	From low to high intensity (0–100 %)
				8	**Blue Fine**	000–255	From low to high intensity (0–100 %)
	4	5	5	9	**Amber**	000–255	From low to high intensity (0–100 %)
				10	**Amber Fine**	000–255	From low to high intensity (0–100 %)
	5	6	6	11	**Lime**	000–255	From low to high intensity (0–100 %)
				12	**Lime Fine**	000–255	From low to high intensity (0–100 %)
	6	7	7	13	**Cyan**	000–255	From low to high intensity (0–100 %)
				14	**Cyan Fine**	000–255	From low to high intensity (0–100 %)
2			8	15	**Color Presets**	000–010	No function
						011–020	L106
						021–030	R05
						031–040	L194
						041–050	R54
						051–060	L019
						061–070	R08
						071–080	R89
						081–090	R86
						091–100	L213
						101–110	R377
						111–120	R80
						121–130	L202
						131–140	L328
						141–150	R3314
						151–160	L101
						161–170	L768
						171–255	No function
3			9	16	**Color Macros**	000–010	No function
						011–030	Red 100 % / Green Up / Blue 0 %
						031–050	Red Down / Green 100 % / Blue 0 %
						051–070	Red 100 % / Green Up / Blue 0 %
						071–090	Red 0 % / Green Down / Blue 100 %
						091–110	Red Up / Green 0 % / Blue 100 %
						111–130	Red 100 % / Green 0 % / Blue Down
						131–150	Red 100 % / Green Up / Blue Up
						151–170	Red Down / Green Down / Blue 100 %
						171–195	All LEDs FULL ON
						196–199	1800 K
						200–203	2200 K
						204–207	2700 K
						208–211	3000 K

3 CH (Basic)	6 CH (CLR)	9 CH (SSP)	13 CH (TOUR)	20 CH (TR16)	Function	Value	Setting	
						212–215	3200 K	
						216–219	3500 K	
						220–223	4000 K	
						224–227	4200 K	
						228–231	4500 K	
						232–235	5600 K	
						236–239	6000 K	
						240–243	6500 K	
						244–247	7200 K	
						248–255	8000 K	
			10	17	Auto Programs	000–040	No function	
						041–050	Auto 1	
						051–060	Auto 2	
						061–070	Auto 3	
						071–080	Auto 4	
						081–090	Auto 5	
						091–100	Auto 6	
						101–110	Auto 7	
						111–120	Auto 8	
						121–130	Auto 9	
						131–140	Auto 10	
						141–150	Custom program 1	Use CH 2 (TOUR) or 3 (TR16) to set Time. Use CH 3 (TOUR) or 4 (TR16) to set Fade. The adjustment range is 000–255, from short to long
						151–160	Custom program 2	
						161–170	Custom program 3	
						171–180	Custom program 4	
						181–190	Custom program 5	
						191–200	Custom program 6	
						201–210	Custom program 7	
						211–220	Custom program 8	
						221–230	Custom program 9	
						231–255	Custom program 10	
			11	18	Speed	000–255	Program speed adjustment, from slow to fast	
		8	12	19	Strobe	000–009	No function	
						010–099	Strobe, from low to high frequency (0–25 Hz)	
						100–109	No function	
						110–179	Lightning strobe, from low to high frequency (0–25 Hz)	
						180–189	No function	
						190–255	Random strobe, from low to high frequency (0–25 Hz)	
		9	13	20	Dimmer Mode	000–009	Preset dimmer speed from display menu	
						010–029	Dimmer Off	
						030–069	Dimmer Mode 1	
						070–129	Dimmer Mode 2	
						130–189	Dimmer Mode 3	
						190–255	Dimmer Mode 4	

Note: Make sure that the Master Dimmer channel is open in order to see the light output.

6.7.2. 7 Channels

7 CH (HSIC)	Function	Value	Setting
1	**Intensity**	000–255	From low to high intensity (0–100 %)
2	**Hue**	000–255	From low to high intensity (0–100 %)
3	**Hue Fine**	000–255	From low to high intensity (0–100 %)
4	**Saturation**	000–255	From low to high intensity (0–100 %)
5	**CCT**	000–010	No function
		011–028	1800 K
		029–046	2200 K
		047–064	2700 K
		065–082	3000 K
		083–100	3200 K
		101–118	3500 K
		119–136	4000 K
		137–154	4200 K
		155–172	4500 K
		173–190	5600 K
		191–208	6000 K
		209–226	6500 K
		227–244	7200 K
		245–255	8000 K
6	**Strobe**	000–009	No function
		010–099	Strobe, from low to high frequency (0–25 Hz)
		100–109	No function
		110–179	Lightning strobe, from low to high frequency (0–25 Hz)
		180–189	No function
		190–255	Random strobe, from low to high frequency (0–25 Hz)
7	**Dimmer Mode**	000–009	Preset dimmer speed from display menu
		010–029	Dimmer Off
		030–069	Dimmer Mode 1
		070–129	Dimmer Mode 2
		130–189	Dimmer Mode 3
		190–255	Dimmer Mode 4

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6.7.3. 10 Channels

10 CH (CMY)	Function	Value	Setting
1	**Master Dimmer**	000–255	From low to high intensity (0–100 %)
2	**Cyan**	000–255	From low to high intensity (0–100 %)
3	**Magenta**	000–255	From low to high intensity (0–100 %)
4	**Yellow**	000–255	From low to high intensity (0–100 %)
5	**Color Presets**	000–010	No function
		011–020	L106
		021–030	R05
		031–040	L194
		041–050	R54
		051–060	L019
		061–070	R08
		071–080	R89
		081–090	R86
		091–100	L213
		101–110	R377
		111–120	R80
		121–130	L202
		131–140	L328
		141–150	R3314
		151–160	L101
		161–170	L768
		171–255	No function
6	**Color Macros**	000–010	No function
		011–030	Red 100 % / Green Up / Blue 0 %
		031–050	Red Down / Green 100 % / Blue 0 %
		051–070	Red 100 % / Green Up / Blue 0 %
		071–090	Red 0 % / Green Down / Blue 100 %
		091–110	Red Up / Green 0 % / Blue 100 %
		111–130	Red 100 % / Green 0 % / Blue Down
		131–150	Red 100 % / Green Up / Blue Up
		151–170	Red Down / Green Down / Blue 100 %
		171–195	All LEDs FULL ON
		196–199	1800 K
		200–203	2200 K
		204–207	2700 K
		208–211	3000 K
		212–215	3200 K
		216–219	3500 K
		220–223	4000 K
		224–227	4200 K
		228–231	4500 K
		232–235	5600 K
		236–239	6000 K
		240–243	6500 K
		244–247	7200 K
		248–255	8000 K
7	**Auto Programs**	000–040	No function
		041–050	Auto 1
		051–060	Auto 2
		061–070	Auto 3
		071–080	Auto 4

10 CH (CMY)	Function	Value	Setting	
		081–090	Auto 5	
		091–100	Auto 6	
		101–110	Auto 7	
		111–120	Auto 8	
		121–130	Auto 9	
		131–140	Auto 10	
		141–150	Custom program 1	Use CH 2 to set Time. Use CH 3 to set Fade. The adjustment range is 000–255, from short to long
		151–160	Custom program 2	
		161–170	Custom program 3	
		171–180	Custom program 4	
		181–190	Custom program 5	
		191–200	Custom program 6	
		201–210	Custom program 7	
		211–220	Custom program 8	
		221–230	Custom program 9	
		231–255	Custom program 10	
8	Speed	000–255	Program speed adjustment, from slow to fast	
9	Strobe	000–009	No function	
		010–099	Strobe, from low to high frequency (0–25 Hz)	
		100–109	No function	
		110–179	Lightning strobe, from low to high frequency (0–25 Hz)	
		180–189	No function	
		190–255	Random strobe, from low to high frequency (0–25 Hz)	
10	Dimmer Mode	000–009	Preset dimmer speed from display menu	
		010–029	Dimmer Off	
		030–069	Dimmer Mode 1	
		070–129	Dimmer Mode 2	
		130–189	Dimmer Mode 3	
		190–255	Dimmer Mode 4	

6.8. Supported RDM PIDs (Parameter IDs)

Parameter ID	Discovery command	SET command	GET command
DISC_UNIQUE_BRANCH	*		
DISC_MUTE	*		
DISC_UN_MUTE	*		
DEVICE_INFO			*
SUPPORTED_PARAMETERS			*
SOFTWARE_VERSION_LABEL			*
DMX_START_ADDRESS		*	*
IDENTIFY_DEVICE		*	*
DEVICE_MODEL_DESCRIPTION			*
MANUFACTURER_LABEL			*
DEVICE_LABEL		*	*
SENSOR_DEFINITION			*
SENSOR_VALUE		*	*
DEVICE_RESET		*	
DMX_PERSONALITY		*	
DMX_PERSONALITY_DESCRIPTION			*
STATUS_MESSAGES			*
STATUS_ID_DESCRIPTION			*

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	● Check if power is switched on and cables are plugged in
	Main fuse is blown	● Replace the fuse. See **8.3.1. Replacing the Fuse** on page 42
The device responds erratically	The factory settings of the device are changed	● Reset the device's parameters to the default factory settings. See **6.6.9.2. Reset** on page 30
The device does not respond to DMX control	The controller is not connected	● Connect the controller
	The signal is reversed. The 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	Bad data link connection	● Examine connections and cables. Correct poor 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	● 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 LEDs cut out intermittently	LEDs are damaged	● Disconnect the device and contact your Highlite International dealer
	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.

> ⚠ **WARNING**
> **Risk of burns due to hot surface**

Allow the device to cool down for at least 15 minutes 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 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.
- 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 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. Follow the cleaning instructions in chapter **8.2.1. Basic Cleaning Instructions** on page 42.
- Store the device in the original packaging, if possible.

10. Disposal

Correct disposal of this product
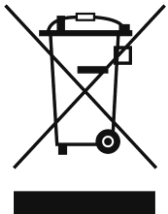
Waste Electrical and Electronic Equipment

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

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