ENGLISH

Raccoon P14/4　　　　　V1

Product code: 200500

Preface

Thank you for purchasing this Infinity 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 or other language versions, please visit our website www.highlite.com or contact us at service@highlite.com.

infinity
INTELLIGENT LIGHT

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infinity
INTELLIGENT LIGHT

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:

- Infinity Raccoon P14/4
- Seetronic Schuko to Power Pro True power cable (1,5 m)
- Quick-lock bracket
- User manual
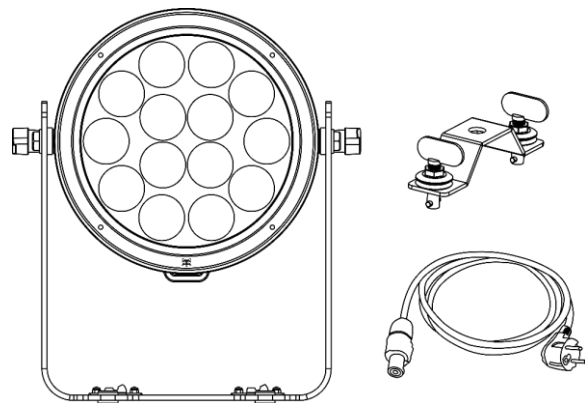
Fig. 01

1.2. Intended Use

This device is intended for professional use as an outdoor LED par effect. 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 handle (05)**"
- 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	
		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 mounting bracket.

The information label contains the following symbols:

	This device falls under IEC protection class I.
	This device shall not be treated as household waste.
	Read and follow the instructions in the user manual before installing, operating or servicing the device.
IP65	This device is rated IP65.

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.
● 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.
● Keep the connectors sealed with the rubber caps when the connectors are not in use.
● Do not connect the cables from above the connectors, if the device is installed outdoors. Make a 'drip loop' in the cable so that rain water cannot enter the device.

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

This device is intended for professional use as an outdoor LED par 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 IP65 rated. IP (Ingress Protection) 65 class means that the device is dust-tight and protected against harmful effect of water jets.

Keep the connectors sealed with the rubber caps when the connectors are not in use.

2.2. Requirements for the User

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

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

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

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

3.   Description of the Device

The Infinity Raccoon P14/4 is an IP65-rated LED par effect. It is equipped with 14 extremely bright LEDs (red, green, blue, mint). It is suitable for rental applications and situations that demand a high light output.

3.1.   Front View
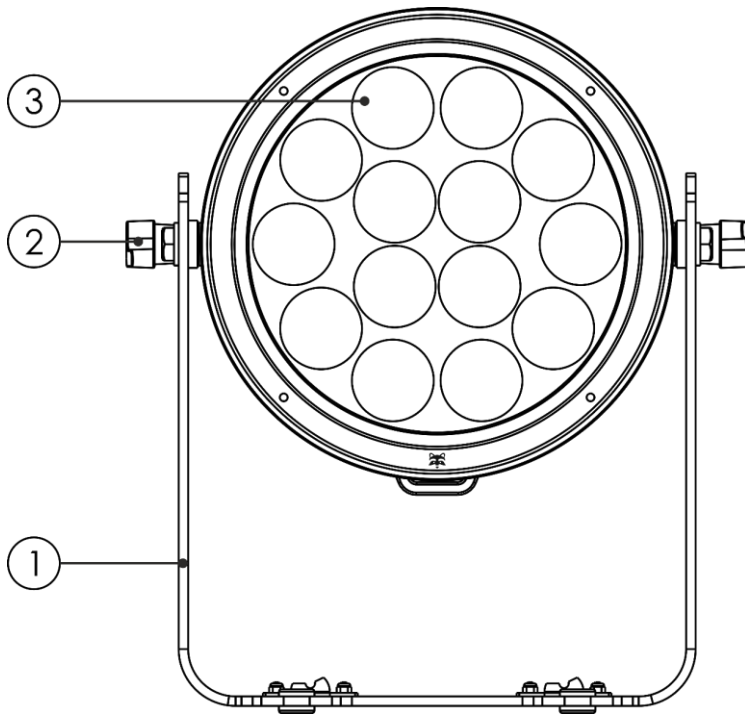
01)   Mounting bracket
02)   2 x adjustment screws
03)   14 x 15 W RGBM LEDs

Fig. 02

3.2.   Back View
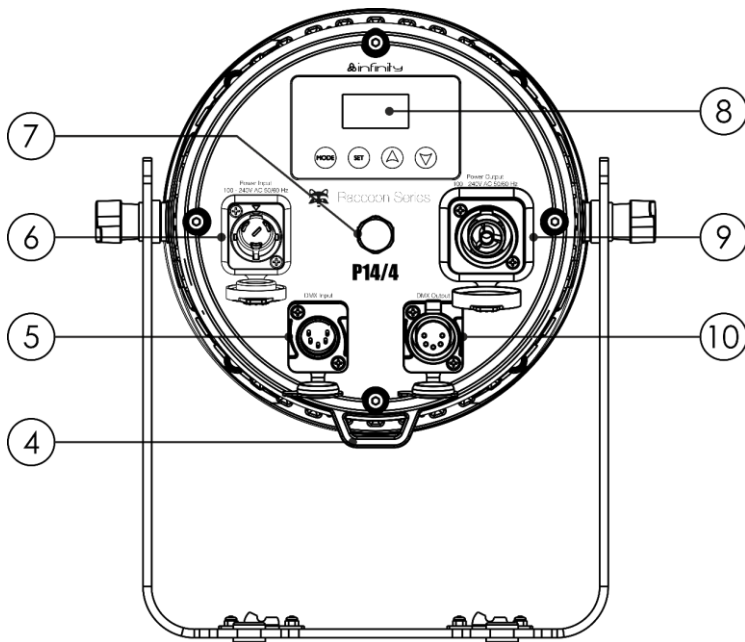
04)   Safety eye
05)   IP65-rated Seetronic 5-pin DMX signal connector IN
06)   IP65-rated Seetronic power connector IN
07)   Protective vent
08)   OLED display + control buttons
09)   IP65-rated Seetronic power connector OUT
10)   IP65-rated Seetronic 5-pin DMX signal connector OUT

Fig. 03

3.3. Product Specifications

Model:	Raccoon P14/4

Electrical:	
Input voltage:	100–240 V AC, 50/60 Hz
Power consumption:	165 W

Physical:	
Dimensions:	300 x 260 x 195 mm (L x W x H)
Weight:	5,5 kg

Optics:	
Light source:	14 x 15 W RGBM LEDs
Dimmer:	0–100 %
Strobe:	0–25 Hz
Lumen total:	8000 lm
CRI:	87
CCT:	2000–8000 K
Refresh rate:	640–25000 Hz
Beam angle (circular):	10°

Operation and control:	
Control:	Stand-alone (Manual, Built-in effects) DMX-512, RDM
DMX channels:	Dimmer (1 channel) Pixel (3 channels) Basic (8 channels) XY (8 channels) Raw (8 channels) HSI (10 channels) RGB (12 channels) CMY (12 channels)
Control panel:	OLED display and buttons

Connections:	
Power connections:	IP65-rated Seetronic Power Pro connectors IN/OUT
Data connections:	IP65-rated Seetronic 5-pin DMX connectors IN/OUT
Signal pinouts:	Pin 1 (ground), pin 2 (-), pin 3 (+), pin 4 (N/C), pin 5 (N/C)

Construction:	
Housing:	Die-cast aluminum
Color:	Black
IP rating:	IP65
Cooling:	Convection

Thermal:	
Maximum ambient temperature t_a:	45 °C
Minimum ambient temperature t_a:	-5 °C

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

3.4. Optional Accessories

You can additionally purchase the following accessories:

- Product code: 200560 (Accessory Holder for Raccoon Series)
- Product code: 200251 (Barndoor for 300W Fresnel)
- Product code: 200561 (Top Hat for Raccoon Series)
- Product code: 200564 (15° Diffusor for Raccoon Series)
- Product code: 200565 (20° Diffusor for Raccoon Series)
- Product code: 200566 (40° Diffusor for Raccoon Series)
- Product code: 200567 (90° Diffusor for Raccoon Series)
- Product code: 200568 (15° x 60° Diffusor for Raccoon Series)

3.5. Dimensions
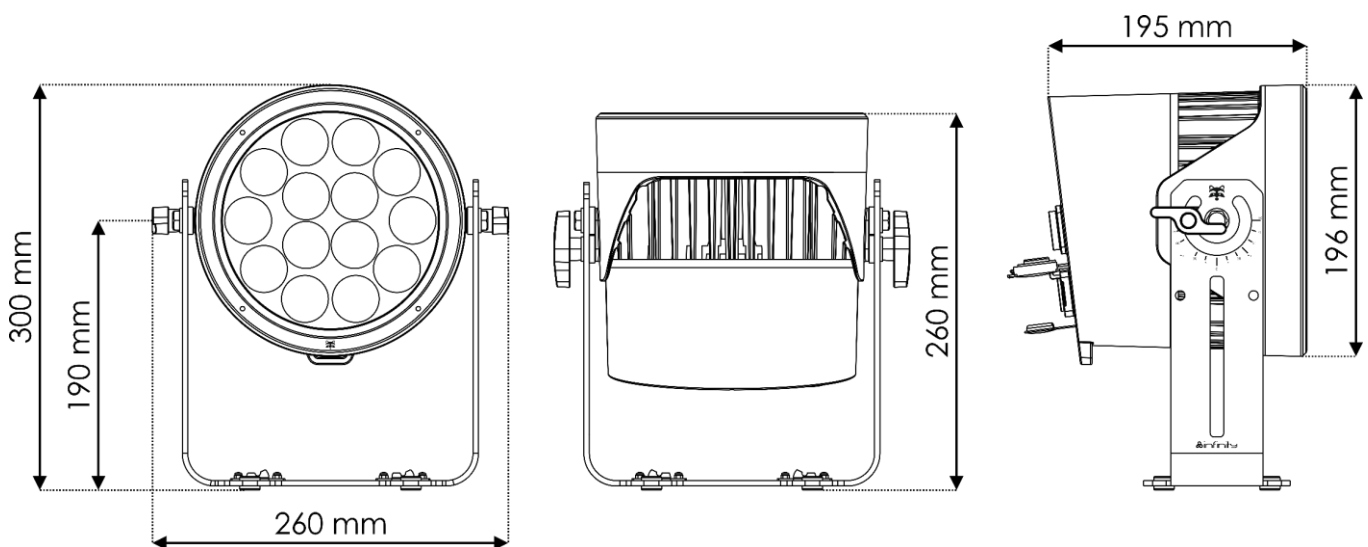
Fig. 04

4. Installation

4.1. Safety Instructions for Installation

> ⚠ **WARNING**
> **Incorrect installation can cause serious injuries and damage of property.**

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

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

4.2. Personal Protective Equipment

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

4.3. Installation Site Requirements

- The device can be used outdoors.
- The device can be mounted to a truss or other rigging structure in any orientation.
- The minimum distance between the light output and the illuminated surface must be bigger than 0,5 m.
- The maximum ambient temperature t_a = 45 °C must never be exceeded.

4.4. Rigging

The device can be 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:

01) Fasten the quick-lock bracket (Fig. 05).
02) Install the clamp, as shown in Fig. 05. Make sure that the clamp is suitable for attaching of the device to a truss.

Clamp

Quick-lock bracket
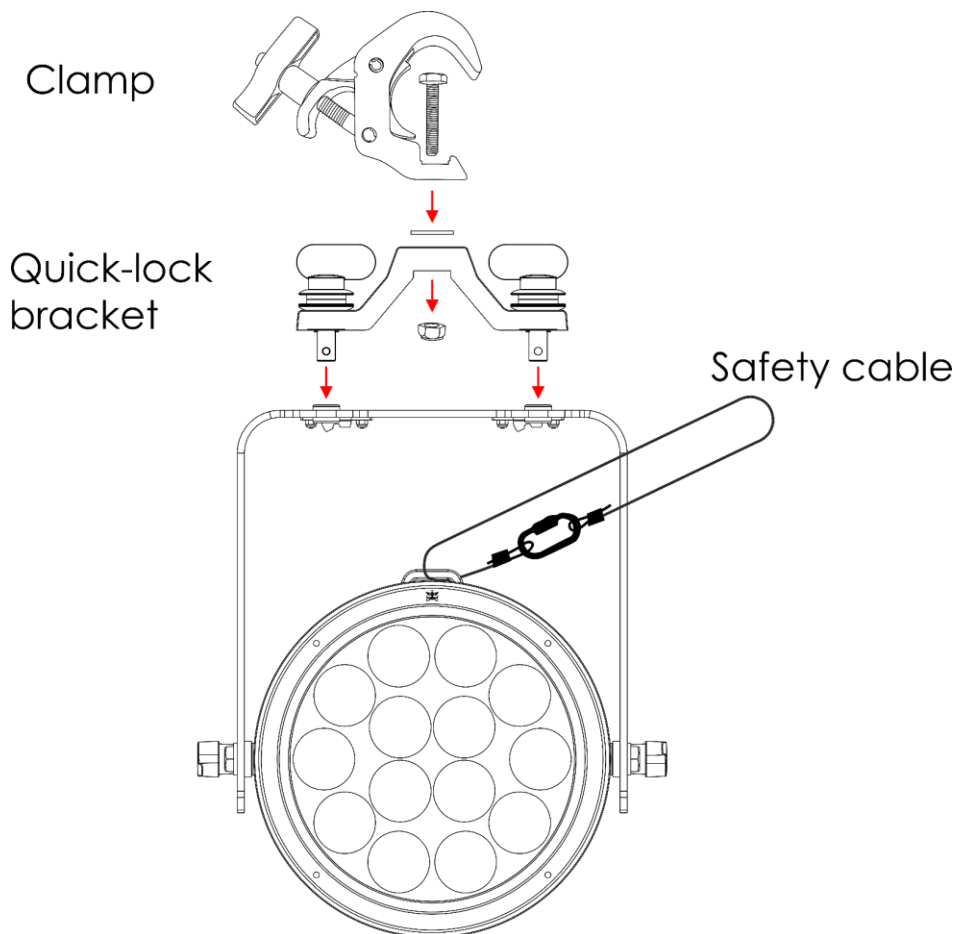
Safety cable

Fig. 05

03) Attach the device to the supporting structure. Make sure that the device cannot move freely.
04) 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 (04)**, as shown in Fig. 05.

4.5. Angle Adjustment

You can adjust the angle of the device with the 2 **adjustment screws (02)**.

01) Turn the 2 **adjustment screws (02)** counterclockwise to loosen them.
02) Tilt the device to the desired angle (Fig. 06).
03) Turn the 2 **adjustment screws (02)** clockwise to tighten them. Make sure that the device cannot move freely after the 2 **adjustment screws (02)** are tightened.
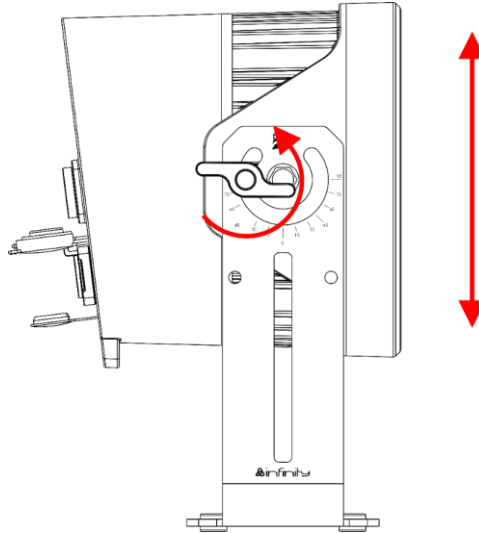
Fig. 06

4.6. Accessory Holder Installation

You need to install the Accessory Holder on the device before you install the other accessories.

The Accessory Holder is not supplied and shall be purchased separately. See **3.4. Optional Accessories** on page 11. Contact your Highlite International dealer for more information.

To install the Accessory Holder, follow the steps below:

01) Put the Accessory Holder on the lens of the Raccoon (Fig. 07).
02) Use a screwdriver to tighten the 4 screws (supplied with the Accessory Holder) to secure the Accessory Holder in position (Fig. 08).
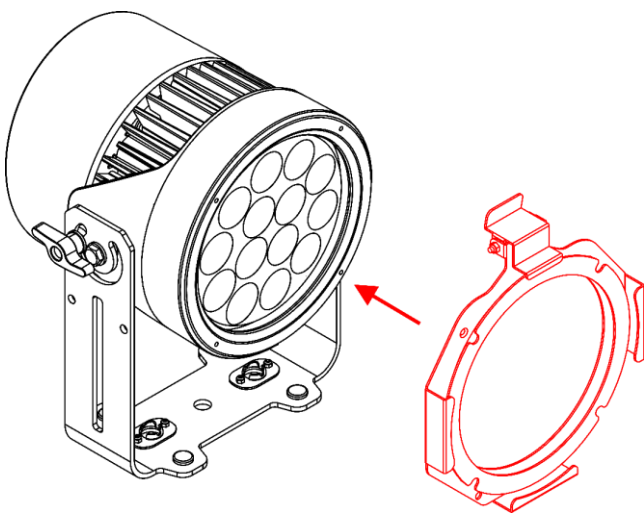
Fig. 07
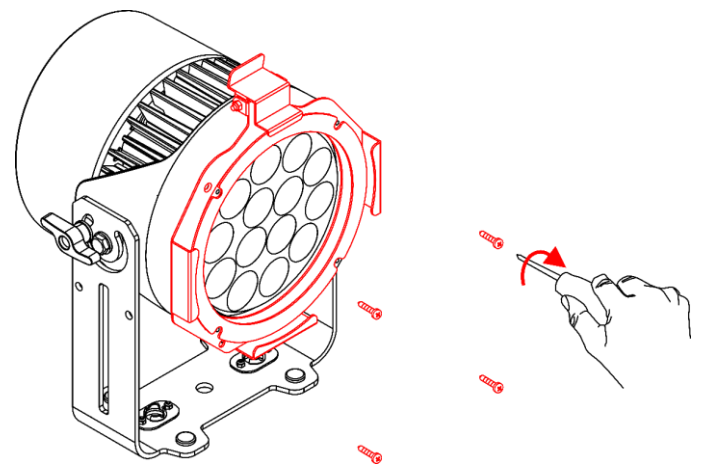
Fig. 08

4.7. Barndoor Installation

The Barndoor is not supplied and shall be purchased separately. See **3.4. Optional Accessories** on page 11. Contact your Highlite International dealer for more information.

To install the Barndoor, follow the steps below:

01) Install the Accessory Holder. See **4.6. Accessory Holder Installation** on page 13 for more information.
02) Lift the spring-loaded retainer clip of the Accessory Holder and flip it backwards (Fig. 09).
03) Insert the Barndoor into the Accessory Holder (Fig. 10).
04) Pull the spring-loaded retainer clip of the Accessory Holder downwards (Fig. 11). The Barndoor will be locked in position.
05) Secure the Barndoor to the overhead structure with a secondary attachment, for example a safety cable.
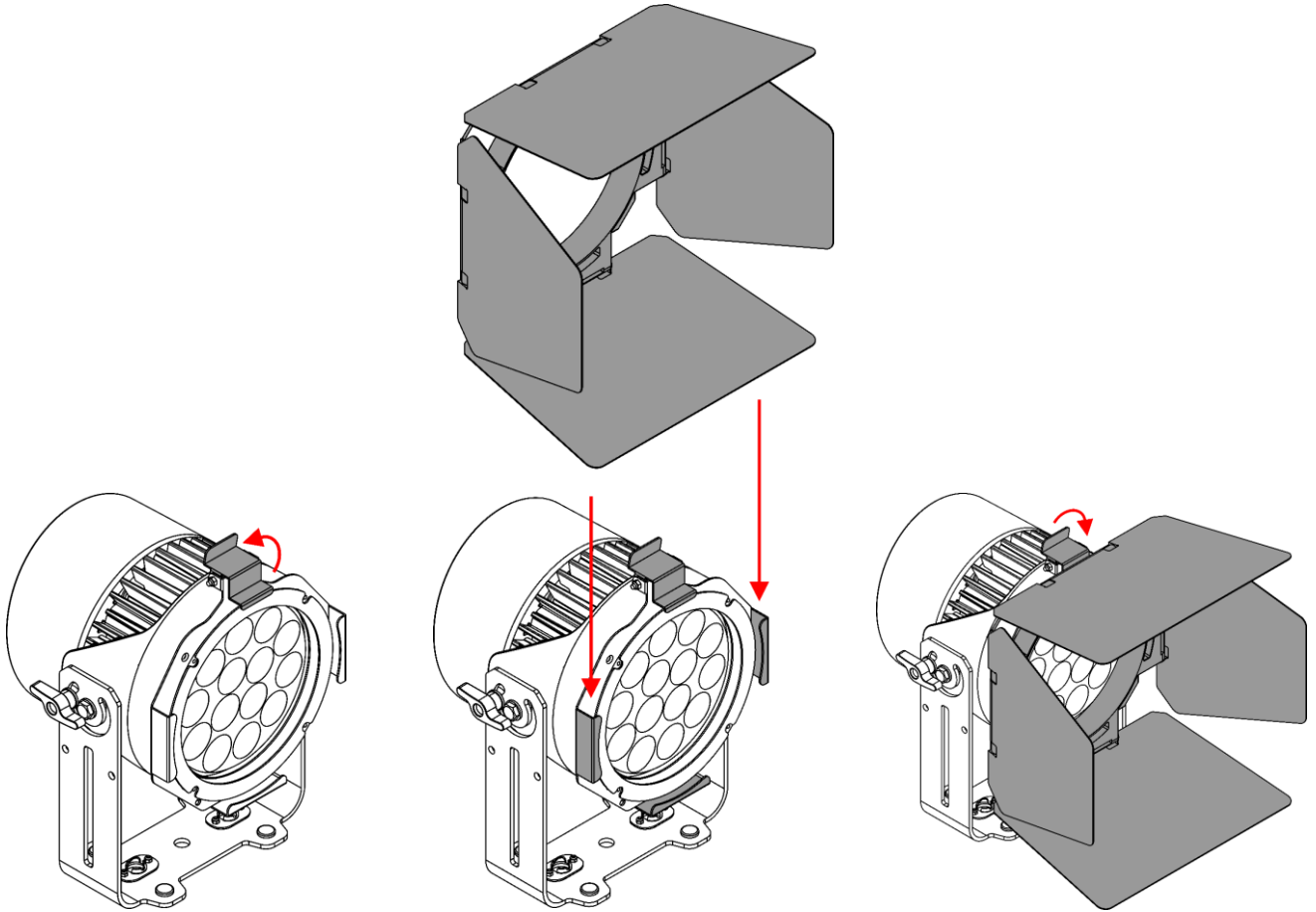
| Fig. 09 | Fig. 10 | Fig. 11 |

4.8. Top Hat Installation

The Top Hat is not supplied and shall be purchased separately. See **3.4. Optional Accessories** on page 11. Contact your Highlite International dealer for more information.

To install the Top Hat, follow the steps below:

01) Install the Accessory Holder. See **4.6. Accessory Holder Installation** on page 13 for more information.
02) Lift the spring-loaded retainer clip of the Accessory Holder and flip it backwards (Fig. 12).
03) Insert the Top Hat into the Accessory Holder (Fig. 13).
04) Pull the spring-loaded retainer clip of the Accessory Holder downwards (Fig. 14). The Top Hat will be locked in position.
05) Secure the Top Hat to the overhead structure with a secondary attachment, for example a safety cable.
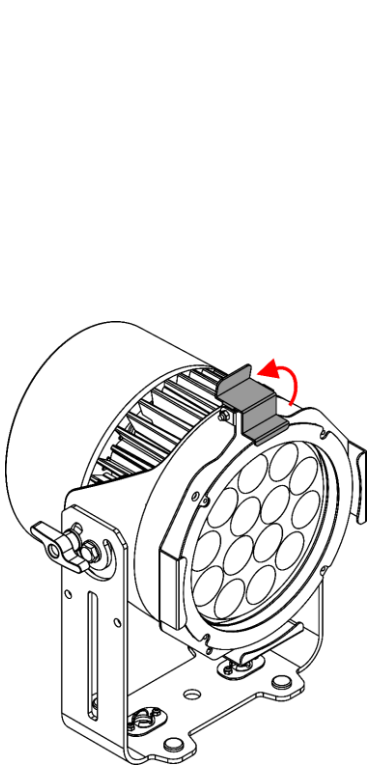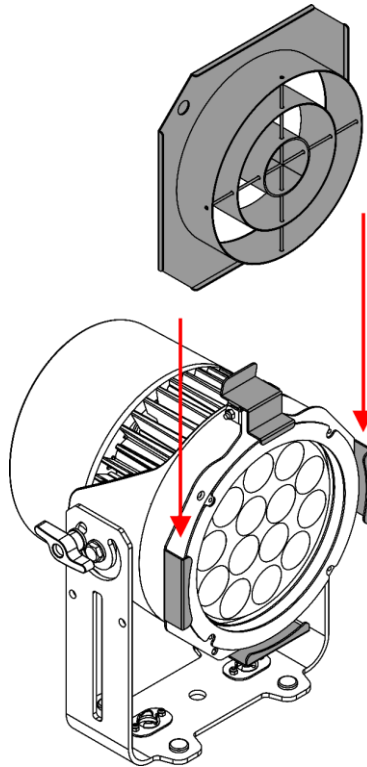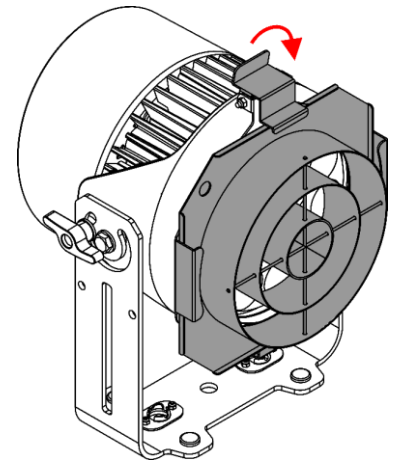
| Fig. 12 | Fig. 13 | Fig. 14 |

4.9. Diffusor Installation

The Diffusor is not supplied and shall be purchased separately. See **3.4. Optional Accessories** on page 11. Contact your Highlite International de aler for more information.

To install the Diffusor, follow the steps below:

01) Install the Accessory Holder. See **4.6. Accessory Holder Installation** on page 13 for more information. This step is optional. It is possible to install the Diffusor with or without the Accessory Holder.
02) Put the Diffusor on the lens of the device or on the Accessory Holder (if installed) as shown in Fig. 15. The magnets in the Diffusor will keep it in position.
03) Secure the Diffusor to the overhead structure with the safety cable of the Diffusor.
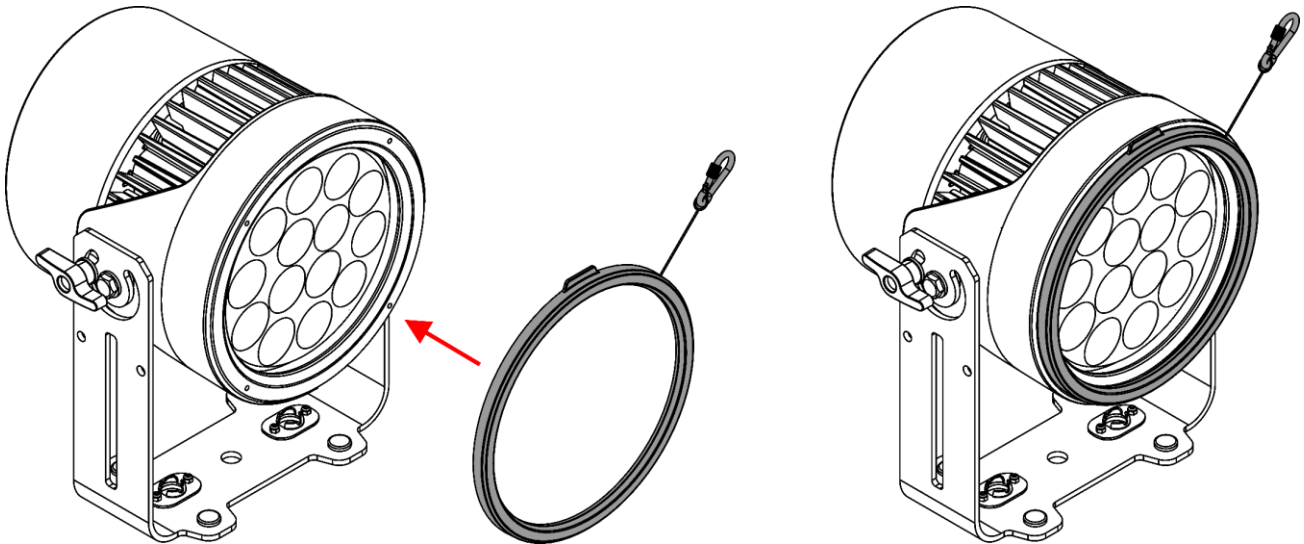
Fig. 15

4.10. 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.

This device is IP65 rated.

● Do not expose the device to conditions that exceed the rated IP class conditions.
● Keep the connectors sealed with the rubber caps when the connectors are not in use.
● Do not connect the cables from above the connectors, if the device is installed outdoors. Make a 'drip loop' in the cable so that rain water cannot enter the device.
● Make sure that the cable run is not too heavy. A heavy cable run can cause damage to the connectors. If the connectors are damaged, their ingress protection (IP) can deteriorate.

4.11. 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: 3 devices
- at 200–240 V: 6 devices

5. Setup

5.1. Warnings and Precautions

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

This device is IP65 rated.

- Do not expose the device to conditions that exceed the rated IP class conditions.
- Keep the connectors sealed with the rubber caps when the connectors are not in use.
- Do not connect the cables from above the connectors, if the device is installed outdoors. Make a 'drip loop' in the cable so that rain water cannot enter the device.
- Make sure that the cable run is not too heavy. A heavy cable run can cause damage to the connectors. If the connectors are damaged, their ingress protection (IP) can deteriorate.

> ❗ **Attention**
> **Connect all data cables before supplying power.**
> **Disconnect power supply before connecting or disconnecting data cables.**

5.2. Stand-alone Setup

When the Raccoon P14/4 is not connected to a controller or to other devices, it functions as a stand-alone device.

For more information about the control modes, refer to **6.2. Control Modes** on page 20.

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 Raccoon P14/4 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 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. 16.

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
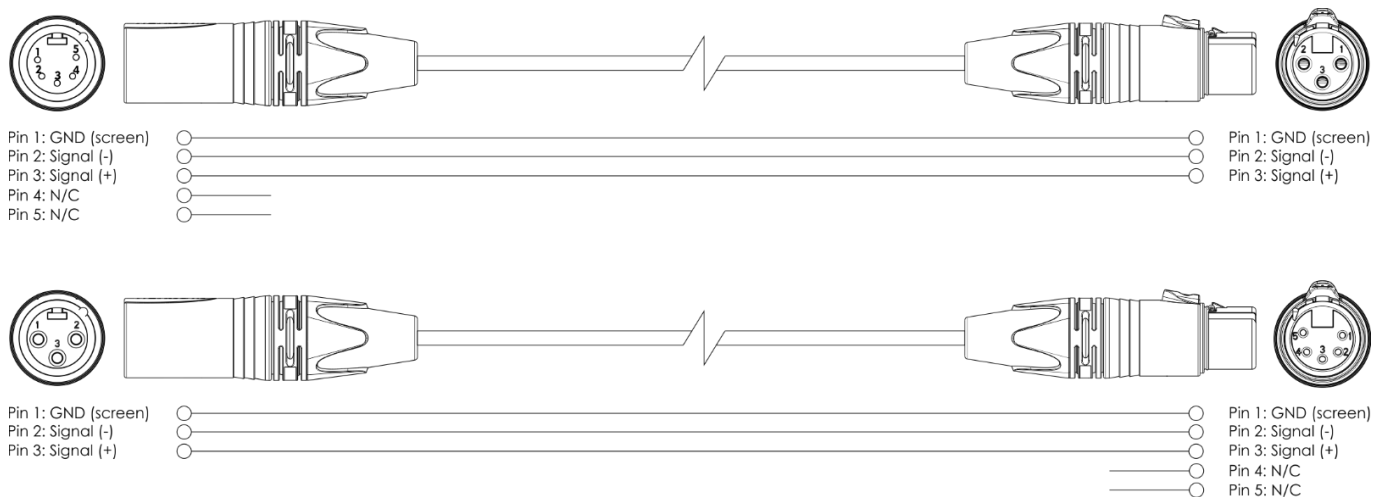
Fig. 16

5.3.3. 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. 17.
04) Connect a DMX terminator (120 Ω resistor) to the DMX OUT connector of the last device on the data link.
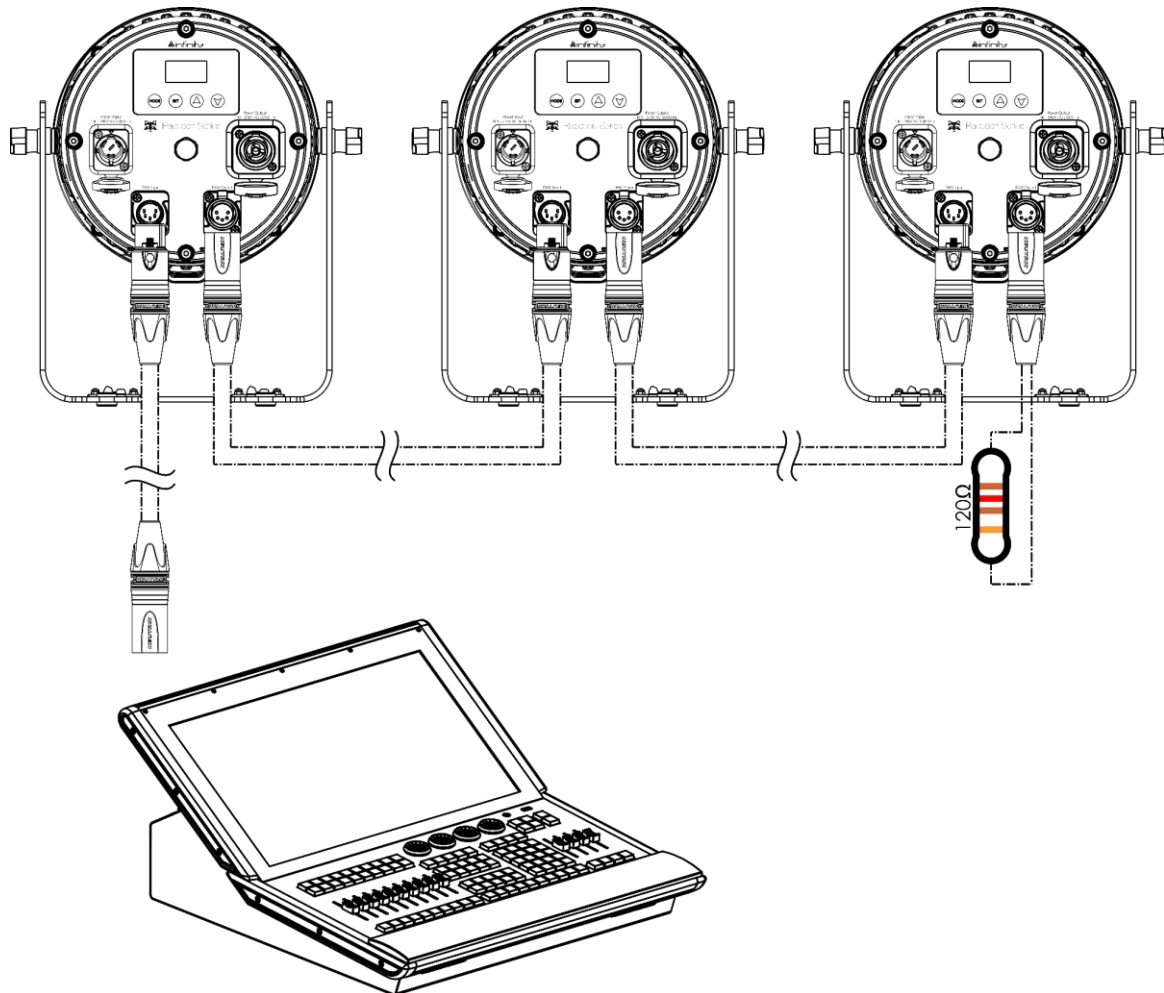
Fig. 17

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 Raccoon P14/4 has 8 personalities: Dimmer (1 channel), Pixel (3 channels), Basic (8 channels), XY (8 channels), Raw (8 channels), HSI (10 channels), RGB (12 channels), CMY (12 channels).

If you want to connect multiple devices on one data link and use them in 12-channel mode (RGB or CMY), 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 Raccoon P14/4 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 an outdoor LED par effect. 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 Raccoon P14/4 can be operated with a DMX controller and as a stand-alone device.

The Raccoon P14/4 supports the following control modes:
- Stand-alone: Manual, Built-in effects
- DMX-512, RDM: 1, 3, 8, 8, 8, 10, 12, 12 channels

For more information about how to connect the devices, refer to **5. Setup** on pages 17–19.

To operate the device manually as a stand-alone device, adjust the intensity values for the colors. See **6.6.3.1. Static Colors** on page 27 for more information.

To run one of the built-in effects, adjust the dimmer intensity, the fade times and the duration of the effects. See **6.6.3.2. Built-in Effects** 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 Address menu. See **5.3.4. DMX Addressing** on page 19 and **6.6.2. DMX Address** on page 26.
02) Select the behavior of the device in case there is no DMX signal in the DMX Lost menu. See **6.6.12. DMX Failure** on page 32.
03) Select the DMX channel mode. See **6.6.1. DMX Channel Mode** on page 26 for more information. See **6.7. DMX Channels** on page 35 for complete overview of all DMX channels.

6.3.   Control Panel

- A)   OLED display
- B)   DOWN button
- C)   UP button
- D)   SET button
- E)   MODE button
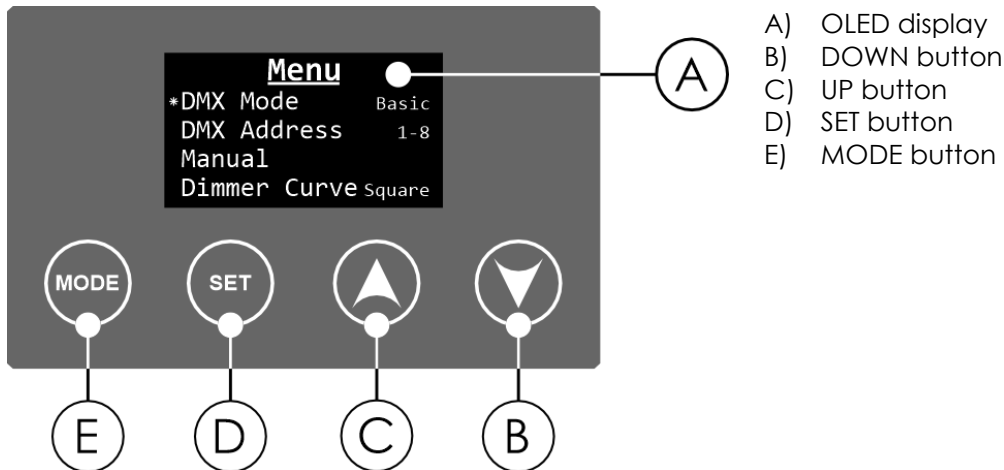
Fig. 18

- Use the **MODE** button to exit the current submenu and to return to the Main Menu.
- Use the **UP**/**DOWN** buttons to navigate through the menus or to increase/decrease numeric values.
- Use the **SET** button to open menus, to confirm choices or to adjust values.

6.4.   Start-up

Upon start-up, the display shows a splash screen with the Infinity logo and the name of the device.

Immediately afterwards, the display shows the current operation mode, the frequency and the temperature of the LEDs.
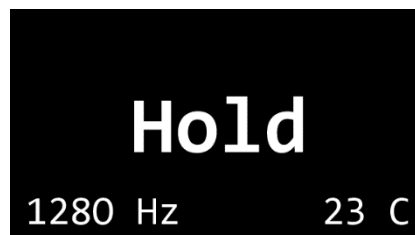
Press the **MODE** button to enter the main menu.

Note:

- If no button is pressed after 20 seconds of inactivity, the display will turn off. Press any button to return to the main menu. See **6.6.11.1. Backlight** on page 31 for more information.
- If the display is locked, you need to enter a **password** to access the main menu. Press the buttons in the following order: **UP**, **DOWN**, **UP**, **DOWN** to unlock the display. See **6.6.11.3. Key Lock** on page 32 for more information.

6.5. Menu Overview

UP/DOWN

Menu
- •DMX Mode   Pixel
- DMX Address   1-3
- Manual
- Dimmer Curve Square

SET →

DMX Mode
- •Dimmer (1)
- Pixel (3)
- Basic (8)
- XY (8)

UP
DOWN

DMX Mode
- •RGB (12)
- CMY (12)
- HSI (10)
- Raw (8)

Menu
- DMX Mode   Pixel
- •DMX Address   1-3
- Manual
- Dimmer Curve Square

SET →

DMX Address

4 - 6

Menu
- DMX Mode   Pixel
- DMX Address   1-3
- •Manual
- Dimmer Curve Square

SET →

Manual
- •Static
- Effect 1
- Effect 2
- Effect 3

SET →

Manual
- •Dimmer   100.0 %
- White Point
- Preset Colour OPEN
- Raw Color

SET →

Dimmer

0.0 %

UP
DOWN

Dimmer

100.0 %

Manual
- Dimmer   100.0 %
- •White Point
- Preset Colour OPEN
- Raw Color

SET →

White Point
- •Temperature 3200 K
- Tint   0.0 %

SET →

Temperature
- •2000 K
- 2200 K
- 2400 K
- 2600 K

UP/DOWN

Temperature
- •2800 K
- 3000 K
- 3200 K
- 3600 K

UP/DOWN

Temperature
- •4200 K
- 5600 K
- 6500 K
- 8000 K

UP/DOWN

White Point
- Temperature 3200 K
- •Tint   0.0 %

SET →

Tint

-100.0 %

UP/DOWN

Tint

100.0 %

UP/DOWN

Manual
- Dimmer   100.0 %
- White Point
- •Preset Colour OPEN
- Raw Color

SET →

Preset Colour
- •OPEN
- L004
- L019
- L026

UP
DOWN

Preset Colour
- •L328
- L353
- L778
- L793

Manual
- Dimmer   100.0 %
- White Point
- Preset Colour OPEN
- •Raw Color

SET →

Raw Color
- •Red   255
- Green   255
- Blue   255
- Mint   255

SET →

Red

0

UP/DOWN

Red

255

• • •

Raw Color
- Red   255
- Green   255
- Blue   255
- •Mint   255

SET →

Mint

0

UP/DOWN

Mint

255

infinity
INTELLIGENT LIGHT

UP/DOWN

Menu
DMX Mode   Pixel
DMX Address   1-3
•Manual
Dimmer Curve Square

SET

Manual
Static
•Effect 1
•Effect 2
•Effect 3

SET

UP/DOWN

Effect 1
•Dimmer   100.0 %
Period   60.0 s
Fade in   100 %
Fade out   100 %

SET

Dimmer

0.0 %

UP
DOWN

Dimmer

100.0 %

Effect 1
Dimmer   100.0 %
•Period   60.0 s
Fade in   100 %
Fade out   100 %

SET

Period

2.0 s

UP
DOWN

Period

60.0 s

Effect 1
Dimmer   100.0 %
Period   60.0 s
•Fade in   100 %
Fade out   100 %

SET

Fade in

0 %

UP
DOWN

Fade in

100 %

Effect 1
Dimmer   100.0 %
Period   60.0 s
Fade in   100 %
•Fade out   100 %

SET

Fade out

0 %

UP
DOWN

Fade out

100 %

Menu
DMX Mode   Pixel
DMX Address   1-3
Manual
•Dimmer Curve Square

SET

Dimmer
•Linear
Square
Inverse Square
S-Curve

Menu
•Dimmer Speed   Fast
Color Space   sRGB
Tungsten   Off
LED Mode   Quality

SET

Dimmer Speed
•Auto
Slow
Medium
Fast

Menu
Dimmer Speed   Fast
•Color Space   sRGB
Tungsten   Off
LED Mode   Quality

SET

Color Space
•Native
sRGB
Rec.2020
ProPhoto RGB

Menu
Dimmer Speed   Fast
Color Space   sRGB
•Tungsten   Off
LED Mode   Quality

SET

Tungsten
•Off
575/750W
1000W
2000W

Menu
Dimmer Speed   Fast
Color Space   sRGB
Tungsten   Off
•LED Mode   Quality

SET

LED Mode
•High Quality
High Brightness

Menu
•Calibration   Off
LED Frequency
Display
DMX Lost   Hold

SET

Calibration
•Off
On

Menu
Calibration   Off
•LED Frequency
Display
DMX Lost   Hold

SET

LED Frequency
•640 Hz
1280 Hz
2500 Hz
5 kHz

UP
DOWN

LED Frequency
•10 kHz
25 kHz
640 Hz
1280 Hz

∞ infinity
INTELLIGENT LIGHT

UP/DOWN

Menu		SET
Calibration	Off	
LED Frequency		
•Display		
DMX Lost	Hold	

UP/DOWN

Display		SET
•Backlight	Auto	
Display Flip	Regular	
Key Lock	Unlocked	

Backlight
•Auto
Stay On
Stay Off

Display		SET
Backlight	Auto	
•Display Flip	Regular	
Key Lock	Unlocked	

Display Flip
•Regular
Top Down

Display		SET
Backlight	Auto	
Display Flip	Regular	
•Key Lock	Unlocked	

Key Lock	SET
•Locked	
Unlocked	

Password
Raccoon P14/4
＿＿＿＿

UP/DOWN

Key Lock
Locked
•Unlocked

Menu		SET
Calibration	Off	
LED Frequency		
Display		
•DMX Lost	Hold	

DMX Lost
•Blackout
Hold
Manual

Menu		SET
DMX Lost	Hold	
•Information		
Send Settings		
Factory Settings		

Information	SET
•Operating Hours	
Source Hours	
Power Cycles	
Power	

Operating Hours
1 : 37

Information	SET
Operating Hours	
•Source Hours	
Power Cycles	
Power	

Source Hours
1 : 31

Information	SET
Operating Hours	
Source Hours	
•Power Cycles	
Power	

Power Cycles
33

Information	SET
Operating Hours	
Source Hours	
Power Cycles	
•Power	

Power
0 W

UP/DOWN

Information	SET
•LED Temperature	
RDM ID	
Product	
Device Label	

LED Temperature
27 C

Information	SET
LED Temperature	
•RDM ID	
Product	
Device Label	

RDM ID
29B4:0AA00008

Information	SET
LED Temperature	
RDM ID	
•Product	
Device Label	

Product
Raccoon P14/4

Information	SET
LED Temperature	
RDM ID	
Product	
•Device Label	

Device Label
Raccoon P14/4

infinity
INTELLIGENT LIGHT

6.6. Main Menu Options

The main menu has the following options:

- ● DMX Mode: See **6.6.1. DMX Channel Mode**
- ● DMX Address: See **6.6.2. DMX Address**
- ● Manual: See **6.6.3. Manual Mode**
- ● Dimmer Curve: See **6.6.4. Dimmer Curve Selection**
- ● Dimmer Speed: See **6.6.5. Dimmer Speed**
- ● Color Space: See **6.6.6. Color Space Selection**
- ● Tungsten: See **6.6.7. Tungsten Mode**
- ● LED Mode: See **6.6.8. LED Mode**
- ● Calibration: See **6.6.9. Calibration**
- ● LED Frequency: See **6.6.10. LED Frequency**
- ● Display: See **6.6.11. Display Settings**
- ● DMX Lost: See **6.6.12. DMX Failure**
- ● Information: See **6.6.13. System Information**

- Send Settings: See **6.6.14. Sending Settings**
- Factory Settings: See **6.6.15. Restoring Factory Settings**

Press the **UP/DOWN** buttons to select menus. Press the **SET** button to open menus.

6.6.1. DMX Channel Mode

In this menu you can select the DMX channel mode.

01) Press the **UP/DOWN** buttons to select the desired DMX channel mode. There are 8 options available:
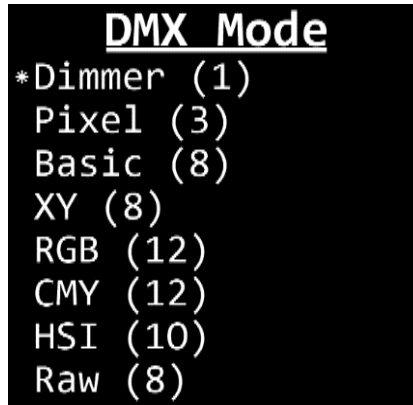
- DIMMER (1-channel mode)
- PIXEL (3-channel mode)
- BASIC (8-channel mode)
- XY (8-channel mode)
- RGB (12-channel mode)
- CMY (12-channel mode)
- HSI (10-channel mode)
- RAW (8-channel mode)

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

6.6.2. DMX Address

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

01) Press the **UP/DOWN** buttons to select the starting DMX address of the device. The selection range is between 1 and 512.

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

Note:

The display shows the DMX address range currently used by the device. For example, "4–6" means that the starting address of the device is 004 and that the device is operating in the 3-channel mode (DMX channels: 004, 005 and 006).

6.6.3. Manual Mode

In this menu you can use the device in Static Color mode or activate one of the 3 built-in effects.

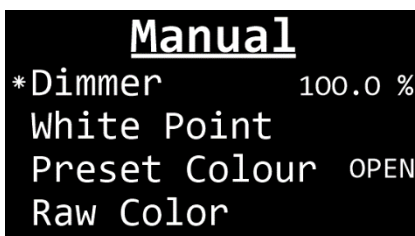01) Press the **UP/DOWN** buttons to select one of the 4 options:

```
         Manual
     *Static
      Effect 1
      Effect 2
      Effect 3
```
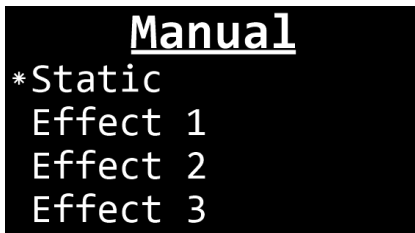
- ● STATIC: See **6.6.3.1. Static Color**
- ● EFFECT 1, 2, 3:   See **6.6.3.2. Built-in Effects**

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

6.6.3.1. Static Colors

In this menu you can set the static colors.

```
         Manual
     *Dimmer        100.0 %
      White Point
      Preset Colour  OPEN
      Raw Color
```

01) Press the **UP/DOWN** buttons to select one of the 4 submenus:
- ● DIMMER: From low to high intensity (0–100 %)
- ● WHITE POINT: Set the color temperature (2000 K, 2200 K, 2400 K, 2600 K, 2800 K, 3000 K, 3200 K, 3600 K, 4200 K, 5600 K, 6500 K, 8000 K) and the tint (From -100 to +100 %)
- ● PRESET COLOR: Use one of the Lee color presets (see **6.7. DMX Channels** on page 35 for the full list of presets)
- ● RAW COLOR: Set the intensity of the LEDs (Red, Green, Blue, Mint), from low to high intensity (0–255)

02) Press the **SET** button to open submenus.
03) Press the **UP/DOWN** buttons to adjust values.
04) Press the **SET** button to confirm.

6.6.3.2. Built-in Effects

In this menu you can run the built-in effects and adjust their settings.

01) Press the **UP/DOWN** buttons to select one of the 4 options:

```
        Effect 3
     *Dimmer        100.0 %
      Period          60.0 s
      Fade in          100 %
      Fade out         100 %
```

- ● DIMMER: From low to high intensity (0–100 %)
- ● PERIOD: Built-in effect duration (2–60 seconds)
- ● FADE IN: From fast to slow (0–100 %)
- ● FADE OUT: From fast to slow (0–100 %)

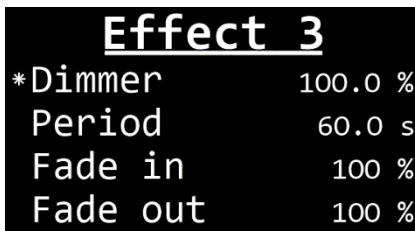02) Press the **SET** button to open submenus.
03) Press the **UP/DOWN** buttons to adjust values.
04) Press the **SET** button to confirm.

6.6.4. Dimmer Curve Selection

In this menu you can select dimming curves.

01) Press the **UP/DOWN** buttons to select one of the following 4 options:
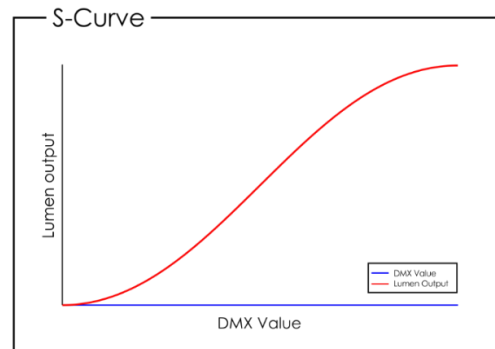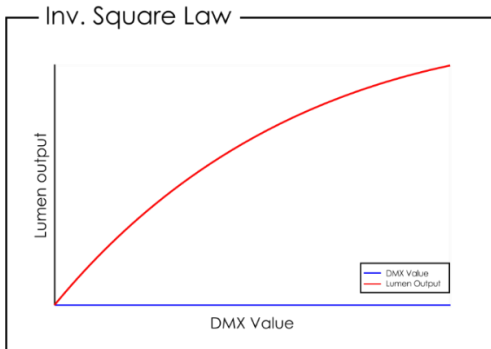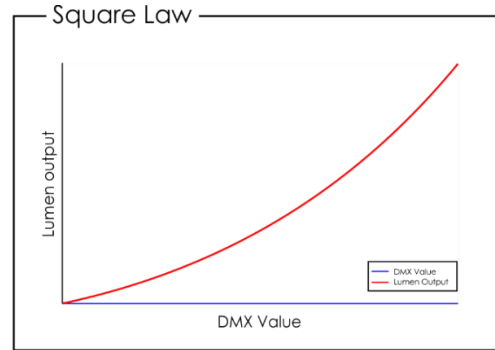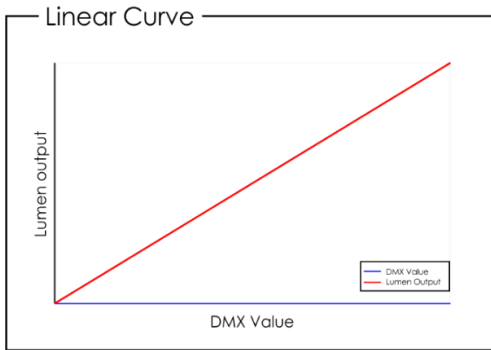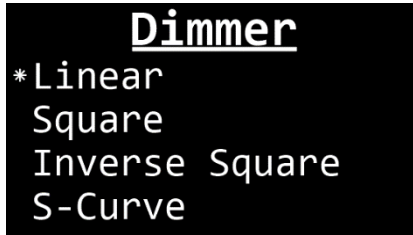
02) Press the **SET** button to confirm.

6.6.5. Dimmer Speed

In this menu you can set the dimmer speed.

01) Press the **UP/DOWN** buttons to select one of the 4 options:

- AUTO: Fast dimmer with jump detection
- SLOW: Slow dimmer
- MEDIUM: Medium dimmer
- FAST: Light output will follow DMX dimmer value directly

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

6.6.6. Color Space Selection

In this menu you can set one of the 4 color spaces.

The native color space is the complete subset of colors that can be created with individual LEDs installed in the device. The other color spaces (sRGB, ProPhoto RGB and Rec 2020) allow you to select colors from their subsets. If the selected color is not in the subset, the software creates a close match. It means that the color created by the software may differ from the originally selected color.

To avoid color difference, make sure that all devices in your setup use the same color space. See Fig. 19.

01) Press the **UP/DOWN** buttons to select one of the 4 options:

```
Color Space
*Native
 sRGB
 Rec.2020
 ProPhoto RGB
```
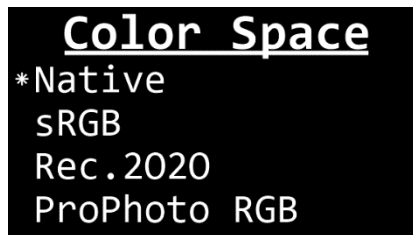
- NATIVE
- SRGB
- REC. 2020
- PROPHOTO RGB

02) Press the **SET** button to confirm.
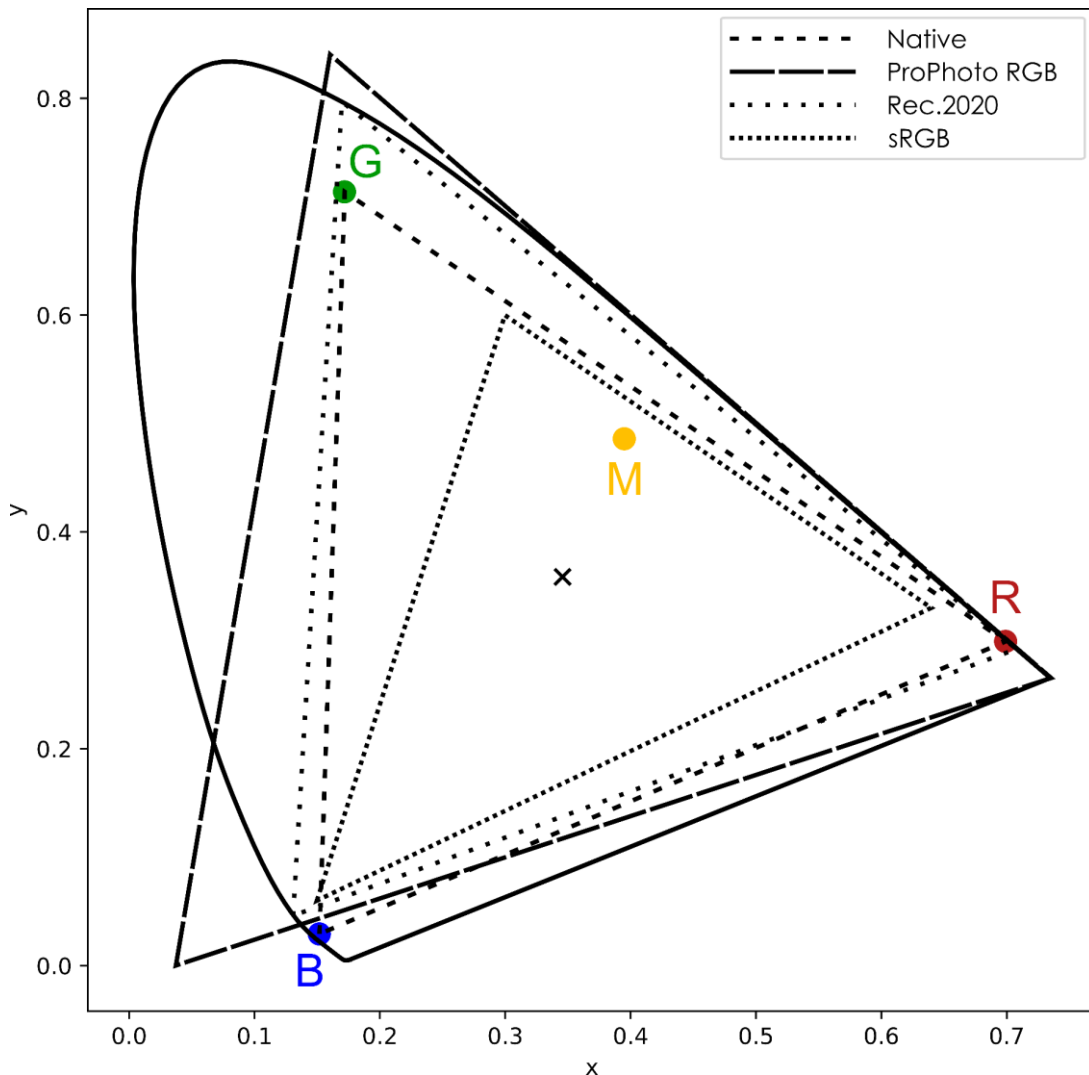
Fig. 19

6.6.7. Tungsten Mode

In this menu you can set the tungsten settings.

01) Press the **UP/DOWN** buttons to select one of the 4 options:

```
   Tungsten
 *Off
  575/750W
  1000W
  2000W
```
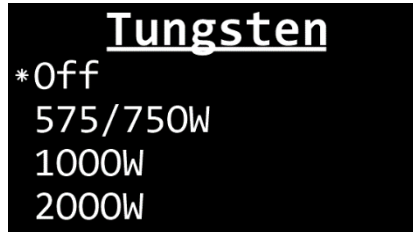
- OFF
- 575/750 W
- 1000 W
- 2000 W

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

6.6.8. LED Mode

In this menu you can set the LED performance settings.

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

```
  LED Mode
 *High Quality
  High Brightness
```
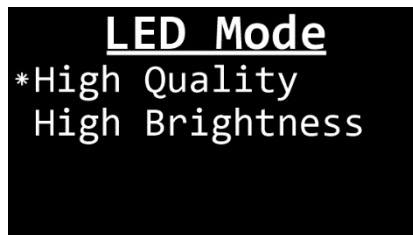
- HIGH QUALITY
- HIGH BRIGHTNESS

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

6.6.9. Calibration

In this menu you can set the color calibration.

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

```
 Calibration
 *Off
  On
```

- OFF: The device will not calibrate the colors and will operate at full output
- ON: The device will calibrate the colors to ensure that there are not any color differences among multiple Raccoon devices. The output power will slightly decrease.

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

6.6.10. LED Frequency

In this menu you can set the LED frequency.

01) Press the **UP/DOWN** buttons to select one of the 6 settings:

```
LED Frequency
*640 Hz
 1280 Hz
 2500 Hz
 5 kHz
 10 kHz
 25 kHz
```
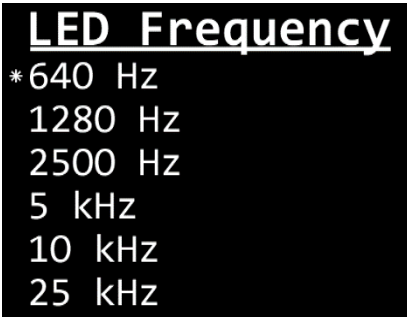
- 640 Hz
- 1280 Hz
- 2500 Hz
- 5 kHz
- 10 kHz
- 25 kHz

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

6.6.11. 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 submenus:

```
Display
Backlight      Auto
Display Flip Regular
*Key Lock    Unlocked
```

- BACKLIGHT: See **6.6.11.1. Backlight**
- DISPLAY FLIP: See **6.6.11.2. Display Flip**
- KEY LOCK: See **6.6.11.3. Key Lock**

02) Press the **SET** button to open submenus.

6.6.11.1.   Backlight

In this menu you can adjust the behavior of the display.

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

```
Backlight
*Auto
 Stay On
 Stay Off
```

- AUTO: After 20 seconds of inactivity, the display shows the start screen. Press any button to return to the main menu.
- STAY ON: The display remains continuously on.
- STAY OFF: After 20 seconds of inactivity, the display turns off. Press any button to return to the main menu.

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

6.6.11.2. Display Flip

In this menu you can rotate the display by 180°.

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

```
Display Flip
*Regular
 Top Down
```

- REGULAR: Regular view
- TOP DOWN: The display will be rotated by 180°

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

6.6.11.3. Key Lock

In this menu you can set the display lock.

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

```
Key Lock
*Locked
 Unlocked
```
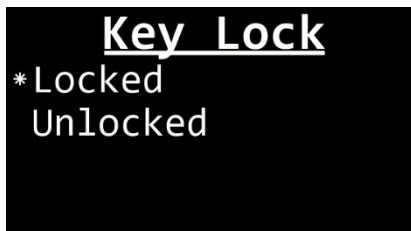
- LOCKED: The display will be locked.
- UNLOCKED: The display will be unlocked

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

Note:

If no button is pressed, after 20 seconds of inactivity the display turns off. Wait 10 seconds for the display lock to work. If you press any button too early, the display will remain unlocked, even if LOCKED is selected in the menu.

If the display is locked, you need to enter a **password** to open the main menu. Press the buttons in the following order: **UP**, **DOWN**, **UP**, **DOWN**, to unlock the display.

6.6.12. DMX Failure

In this menu 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 Lost
*Blackout
 Hold
 Manual
```
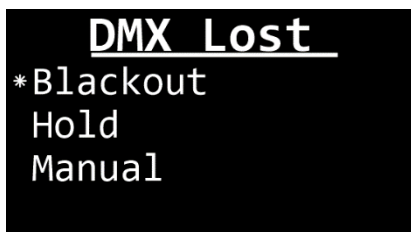
- BLACKOUT: The device will black out the light output
- HOLD: The device will use the last correctly received DMX signal
- MANUAL: The device will use the manually selected values for color. See **6.6.3. Manual Mode** on page 27 for more information

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

6.6.13. System Information

In this menu you can view the parameters of the device.

01) Press the **UP/DOWN** buttons to select one of the following 9 submenus:

```
Information
*Operating Hours
 Source Hours
 Power Cycles
 Power
 LED Temperature
 RDM ID
 Product
 Device Label
 Version
```
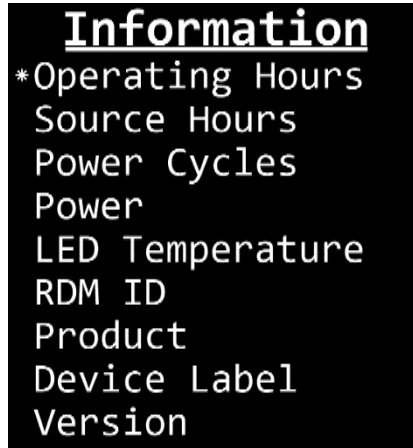
- OPERATING HOURS: Provides information about the total hours of operation of the device
- SOURCE HOURS: Provides information about the total hours of operation of the LEDs
- POWER CYCLES: Provides information about how many times the device was powered up
- POWER: Provides real-time status of the power consumption of the device. See **6.6.13.1. Power Consumption Status**.
- LED TEMPERATURE: Provides information about the temperature of the LEDs
- RDM ID: Shows the unique ID number of the device (29B4:0AA*****)
- PRODUCT: Shows the name of the device
- DEVICE LABEL: Shows the device label of the device
- VERSION: Shows the current firmware version

02) Press the **SET** button to open submenus.

6.6.13.1. Power Consumption Status

To see the real-time status of the power consumption, follow the steps below:

01) Activate the Manual mode and make sure that the light output is on. See **6.6.3. Manual Mode** on page 27 for more information.
02) Do not press any buttons and wait 20 seconds until the display turns off.
03) Enter the password (if needed) and open the main menu. See **6.4. Start-up** on page 21 for more information. The light output should still be on.
04) Open this submenu to view the real-time status of the power consumption.

Note:

If you open this submenu without waiting for the display to turn off first, it is not possible to view the real-time status of the power consumption. If you leave the Manual menu manually, the light output turns off and the display reads "0 W".

6.6.14. Sending Settings

In this menu you can use DMX to send your current settings to the other connected Raccoon devices.

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

```
Send Settings
*Abort
 Without DMX Addr
 With DMX Address
```
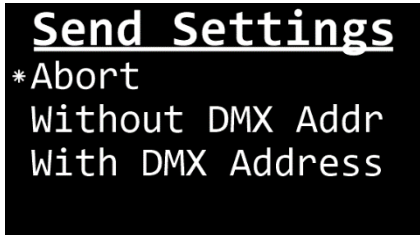
- ABORT: Return to the previous screen
- WITHOUT DMX ADDR: Send all the settings (apart from the DMX starting address) to the other connected Raccoon devices
- WITH DMX ADDRESS: Send all the settings (including the DMX starting address) to the other connected Raccoon devices

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

6.6.15. Restore Factory Settings

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

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

```
Factory Settings
*Abort
 Reset Settings
```
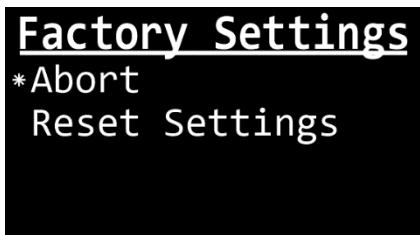
- ABORT: Return to the previous screen
- RESET SETTINGS: Reset all settings

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

6.7. DMX Channels

6.7.1. DMX Channels Overview

Function	Dimmer 1 CH	Pixel 3 CH	Basic 8 CH	XY 8 CH	Raw 8 CH	HSI 10 CH	RGB 12 CH	CMY 12 CH
Dimmer Coarse	1		1	1		1	1	1
Dimmer Fine			2	2		2	2	2
Strobe			3	3		3	3	3
Hue Coarse						4		
Hue Fine						5		
Saturation						6		
Intensity						7		
X Coarse				4				
X Fine				5				
Y Coarse				6				
Y Fine				7				
CCT			4					
Tint			5					
Red Coarse		1			1		4	
Red Fine					2		5	
Green Coarse		2			3		6	
Green Fine					4		7	
Blue Coarse		3			5		8	
Blue Fine					6		9	
Mint Coarse					7			
Mint Fine					8			
Cyan Coarse								4
Cyan Fine								5
Magenta Coarse								6
Magenta Fine								7
Yellow Coarse								8
Yellow Fine								9
Color Presets			6			8	10	10
Color Saturation			7			9	11	11
Control			8	8		10	12	12

6.7.2. Dimmer (1 Channel), Pixel (3 Channels), XY (8 Channels), Raw (8 Channels)

Dimmer 1 CH	Pixel 3 CH	XY 8 CH	Raw 8 CH	Function	Value	Setting
1		1		**Dimmer Coarse**	000–255	From low to high intensity (0–100 %)
		2		**Dimmer Fine**	000–255	From low to high intensity (0–100 %)
		3		**Strobe**	000–005	Closed (No light output)
					006–125	Strobe, from low to high frequency
					126–129	Open
					130–249	Random strobe, from low to high frequency
					250–255	Open
	1		1	**Red Coarse**	000–255	From low to high intensity (0–100 %)
			2	**Red Fine**	000–255	From low to high intensity (0–100 %)
	2		3	**Green Coarse**	000–255	From low to high intensity (0–100 %)
			4	**Green Fine**	000–255	From low to high intensity (0–100 %)
	3		5	**Blue Coarse**	000–255	From low to high intensity (0–100 %)
			6	**Blue Fine**	000–255	From low to high intensity (0–100 %)
			7	**Mint Coarse**	000–255	From low to high intensity (0–100 %)
			8	**Mint Fine**	000–255	From low to high intensity (0–100 %)
		4		**X Coarse**	000–255	0–100 %
		5		**X Fine**	000–255	0–100 %
		6		**Y Coarse**	000–255	0–100 %
		7		**Y Fine**	000–255	0–100 %
		8		**Control**	000–007	No function
					008–015	Dimmer curve: Linear
					016–023	Dimmer curve: S-Curve
					024–031	Dimmer curve: Square Law
					032–039	Dimmer curve: Inverse Sq. Law
					040–047	Dimmer speed: Auto
					048–053	Dimmer speed: Slow
					054–059	Dimmer speed: Medium
					060–065	Dimmer speed: Fast
					066–071	Simulation source: Tungsten off
					072–079	Simulation source: Tungsten 575 W
					080–087	Simulation source: Tungsten 750 W
					088–095	Simulation source: Tungsten 1000 W
					096–103	Simulation source: Tungsten 2000 W
					104–111	PWM frequency: 640 Hz
					112–119	PWM frequency: 1280 Hz
					120–127	PWM frequency: 2500 Hz
					128–135	PWM frequency: 5 kHz
					136–143	PWM frequency: 10 kHz
					144–151	PWM frequency: 25 kHz
					152–159	Calibration: disabled
					160–167	Calibration: enabled
					168–175	Reserved
					176–183	Reserved
					184–191	Reserved
					192–199	Graphic display: Auto Off
					200–207	Graphic display: On
					208–215	CCT mode: High CRI
					216–223	CCT mode: High Output
					224–230	Color space: Native
					231–237	Color space: sRGB
					238–243	Color space: Rec. 2020
					244–250	Color space: ProPhoto RGB
					251–255	Reset all control channel settings

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6.7.3. Basic (8 Channels), HSI (10 Channels) RGB (12 Channels), CMY (12 Channels)

Basic 8 CH	HSI 10 CH	RGB 12 CH	CMY 12 CH	Function	Value	Setting	
1	1	1	1	Dimmer Coarse	000–255	From low to high intensity (0–100 %)	
2	2	2	2	Dimmer Fine	000–255	From low to high intensity (0–100 %)	
3	3	3	3	Shutter/Strobe	000–005	Closed (No light output)	
					006–125	Strobe, from low to high frequency	
					126–129	Open	
					130–249	Random strobe, from low to high frequency	
					250–255	Open	
	4			Hue Coarse	000–255	From low to high intensity (0–100 %)	
	5			Hue Fine	000–255	From low to high intensity (0–100 %)	
	6			Saturation	000–255	From low to high intensity (0–100 %)	
	7			Intensity	000–255	From low to high intensity (0–100 %)	
4				CCT	000	2000 K	
					001–031	2000–2200 K	
					032–057	2200–2400 K	
					058–078	2400–2600 K	
					079–097	2600–2800 K	
					098–113	2800–3000 K	
					114–128	3000–3200 K	
					129–146	3200–3500 K	
					147–170	3500–4000 K	
					171–189	4000–4500 K	
					190–204	4500–5000 K	
					205–216	5000–5500 K	
					217–227	5500–6000 K	
					228–235	6000–6500 K	
					236–243	6500–7000 K	
					244–249	7000–7500 K	
					250–255	7500–8000 K	
5				Tint	000–255	Tint, from -100 % to 100 %	
		4		Red Coarse	000–255	From low to high intensity (0–100 %)	
		5		Red Fine	000–255	From low to high intensity (0–100 %)	
		6		Green Coarse	000–255	From low to high intensity (0–100 %)	
		7		Green Fine	000–255	From low to high intensity (0–100 %)	
		8		Blue Coarse	000–255	From low to high intensity (0–100 %)	
		9		Blue Fine	000–255	From low to high intensity (0–100 %)	
			4	Cyan Coarse	000–255	From low to high intensity (0–100 %)	
			5	Cyan Fine	000–255	From low to high intensity (0–100 %)	
			6	Magenta Coarse	000–255	From low to high intensity (0–100 %)	
			7	Magenta Fine	000–255	From low to high intensity (0–100 %)	
			8	Yellow Coarse	000–255	From low to high intensity (0–100 %)	
			9	Yellow Fine	000–255	From low to high intensity (0–100 %)	
6	8	10	10	Color Presets	000–007	No function	
					008–010	Medium Bastard Amber	L004
					011–013	Fire	L019
					014–016	Bright Red	L026
					017–019	Lavender	L058
					020–022	Sky Blue	L068
					023–025	Just Blue	L079
					026–028	Lime Green	L088
					029–031	Dark Yellow Green	L090
					032–034	Spring Yellow	L100
					035–037	Yellow	L101

Basic 8 CH	HSI 10 CH	RGB 12 CH	CMY 12 CH	Function	Value	Setting	
					038–040	Light Amber	L102
					041–043	Straw	L103
					044–046	Deep Amber	L104
					047–049	Orange	L105
					050–052	Primary Red	L106
					053–055	Dark Pink	L111
					056–058	Magenta	L113
					059–061	Peacock Blue	L115
					062–064	Medium Blue Green	L116
					065–067	Steel Blue	L117
					068–070	Light Blue	L118
					071–073	Dark Blue	L119
					074–076	Deep Blue	L120
					077–079	Lee Green	L121
					080–082	Fern Green	L122
					083–085	Dark Green	L124
					086–088	Bright Pink	L128
					089–091	Medium Blue	L132
					092–094	Golden Amber	L134
					095–097	Deep Golden Amber	L135
					098–100	Pale Lavender	L136
					101–103	Special Lavender	L137
					104–106	Pale Green	L138
					107–109	Primary Green	L139
					110–112	Bright Blue	L141
					113–115	Apricot	L147
					116–118	Bright Rose	L148
					119–121	Pale Gold	L152
					122–124	Pink	L157
					125–127	Deep Orange	L158
					128–130	Bastard Amber	L162
					131–133	Flame Red	L164
					134–136	Daylight Blue	L165
					137–139	Lilac Tint	L169
					140–142	Deep Lavender	L170
					143–145	Lagoon Blue	L172
					146–148	Chrome Orange	L179
					149–151	Dark Lavender	L180
					152–154	Congo Blue	L181
					155–157	Alice Blue	L197
					158–160	Full CT Blue	L201
					161–163	Half CT Blue	L202
					164–166	Quarter CT Blue	L203
					167–169	Full CT Orange	L204
					170–172	Half CT Orange	L205
					173–175	Quarter CT Orange	L206
					176–178	LEE Minus Green	L247
					179–181	Half Minus Green	L248
					182–184	Three Quarter CT Blue	L281
					185–187	Three Quarter CT Orange	L285
					188–190	Follies Pink	L328
					191–193	Lighter Blue	L353
					194–196	Millennium Gold	L778
					197–199	Vanity Fair	L793
					200–255	Reserved	

Basic 8 CH	HSI 10 CH	RGB 12 CH	CMY 12 CH	Function	Value	Setting
7	9	11	11	**Color Saturation**	000–255	Color filter saturation, from 100 % to 0 %
8	10	12	12	Control	000–007	No function
					008–015	Dimmer curve: Linear
					016–023	Dimmer curve: S-Curve
					024–031	Dimmer curve: Square Law
					032–039	Dimmer curve: Inverse Sq. Law
					040–047	Dimmer speed: Auto
					048–053	Dimmer speed: Slow
					054–059	Dimmer speed: Medium
					060–065	Dimmer speed: Fast
					066–071	Simulation source: Tungsten off
					072–079	Simulation source: Tungsten 575 W
					080–087	Simulation source: Tungsten 750 W
					088–095	Simulation source: Tungsten 1000 W
					096–103	Simulation source: Tungsten 2000 W
					104–111	PWM frequency: 640 Hz
					112–119	PWM frequency: 1280 Hz
					120–127	PWM frequency: 2500 Hz
					128–135	PWM frequency: 5 kHz
					136–143	PWM frequency: 10 kHz
					144–151	PWM frequency: 25 kHz
					152–159	Calibration: disabled
					160–167	Calibration: enabled
					168–175	Reserved
					176–183	Reserved
					184–191	Reserved
					192–199	Graphic display: Auto Off
					200–207	Graphic display: On
					208–215	CCT mode: High CRI
					216–223	CCT mode: High Output
					224–230	Color space: Native
					231–237	Color space: sRGB
					238–243	Color space: Rec. 2020
					244–250	Color space: ProPhoto RGB
					251–255	Reset all control channel settings

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6.8. RDM Information

This device supports RDM. Refer to **6.8.2. Supported RDM PIDs (Parameter IDs)** for more information.

6.8.1. RDM Details

- Responder: 29B4:0AAxxxxx
- Manufacturer's ID: Infinity (Highlite International B.V.)
- Manufacturer Label: Infinity
- Model Description: Raccoon P14/4
- Model ID: 170 (0AA hexadecimal)
- Device Label: Raccoon P14/4

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)

Parameter ID	Value	Required	GET	SET
DISC_UNIQUE_BRANCH	0x0001	*		
DISC_MUTE	0x0002	*		
DISC_UN_MUTE	0x0003	*		
SUPPORTED_PARAMETERS	0x0050	*	*	
DEVICE_INFO	0x0060	*	*	
DEVICE_MODEL_DESCRIPTION	0x0080		*	
MANUFACTURER_LABEL	0x0081		*	
DEVICE_LABEL	0x0082		*	*
FACTORY_DEFAULTS	0x0090		*	*
SOFTWARE_VERSION_LABEL	0x00C0	*	*	
BOOT_SOFTWARE_VERSION_ID	0x00C1		*	
BOOT_SOFTWARE_VERSION_LABEL	0x00C2		*	
DMX_PERSONALITY	0x00E0		*	*
DMX_PERSONALITY_DESCRIPTION	0x00E1		*	
DMX_START_ADDRESS	0x00F0	*	*	*
SENSOR_DEFINITION	0x0200		*	
SENSOR_VALUE	0x0201		*	*
DEVICE_HOURS	0x0400		*	*
LAMP_HOURS	0x0401		*	*
LAMP_STRIKES	0x0402		*	*
DEVICE_POWER_CYCLES	0x0405		*	*
IDENTIFY_DEVICE	0x1000	*	*	*
RESET_DEVICE	0x1001			*

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
	Internal fuse is blown	● Disconnect the device and contact your Highlite International dealer
The device responds erratically	The factory settings of the device are changed	● Reset the device's parameters to the default factory settings. See **6.6.15. Restore Factory Settings** on page 34
The device does not respond to DMX control	The controller is not connected	● Connect the controller
	The signal is reversed. The 3-pin DMX OUT of the controller does not match the DMX IN of the device	● Install a phase-reversing cable between the controller and the device
	The controller is defective	● Try using another controller
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.

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.

8.2.2. Draining Condensation Water

The Raccoon P14/4 is IP65 rated. The device can resist water jets. If the device is exposed to extreme humid conditions during servicing, condensation may collect inside the device. This can happen also during transportation, if the device is exposed to extreme temperature variations.

If condensation water collects inside the device, follow the steps bellow to remove the condensation water:

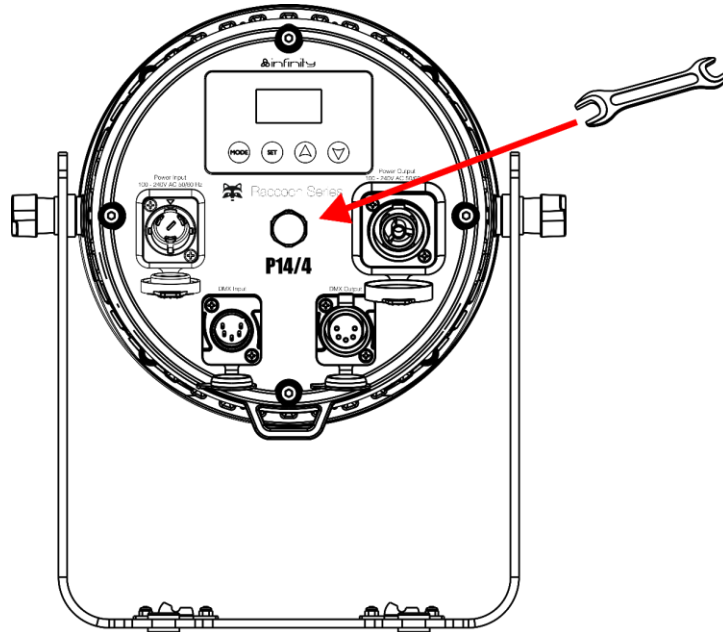01) Carefully remove the **protective vent (07)** with a wrench (16 mm).

Fig. 20

02) Let the device operate at full output for 60 minutes.
03) Let the device cool down for 30 minutes.
04) Install the **protective vent (07)** again. Make sure that you do not overtighten it.

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.

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
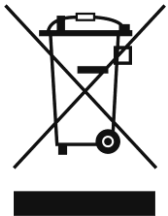
Waste Electrical and Electronic Equipment

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.