

ENGLISH

Image Spot 100

V1

Product code: A0690100

Preface

Thank you for purchasing this Arsecta 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.

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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 Image Spot 100
- Schuko to special 3-pin power cable (1,4 m)
- 3-pin XLR to special 3-pin data cable (1 m)
- Safety cable
- Safety eye
- 4 x gobo ring
- 4 x gobo retainer spring
- User manual

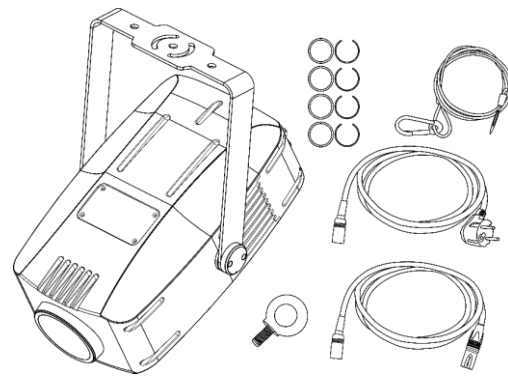


Fig. 01

1.2. Intended Use

This device is intended for professional use as an outdoor spot. It 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



Provides important information about the disposal of this product.

1.7. Symbols on the Information Label

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

The information label contains the following symbols:



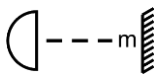
This device shall not be treated as household waste.

IP65

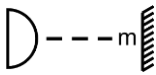
This device is rated IP65.



This device falls under IEC protection class I.



Minimum distance from lighted objects.



Minimum distance from other objects.

2. Safety



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

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

2.1. Warnings and Safety Instructions



DANGER
Danger for children

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

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



DANGER
Electric shock caused by dangerous voltage inside

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

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



DANGER
Electric shock caused by short-circuit

This device falls under IEC protection class I.

- Make sure that the device is electrically connected to ground (earth). Connect the device only to a socket-outlet with ground (earth) connection.
- Do not cover the ground (earth) connection.
- Do not bypass the thermostatic switch or fuses.
- 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.

- 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.



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 designed to be used as an outdoor spot. 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 contains a non-user-replaceable light source.
- 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.

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.

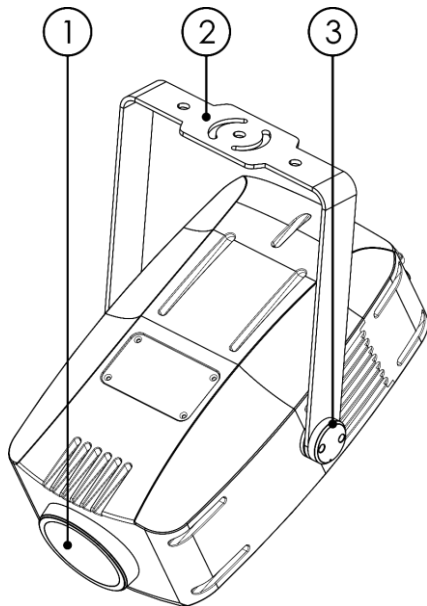
Skilled persons have training or experience, which enables them to recognize risks and to avoid hazards associated with the installation, service and maintenance of this product.

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 Artecta Image Spot 100 is a 100 Watt gobo projector spot with IP65 rating and high >80 CRI, suitable for outdoor applications. Its 7 gobos + open can be projected in 7 dichroic colours + white and can be indexed, meaning that the gobo rotational position can be recalled. A 3-facet rotational prism enables you to create dynamic effects. In addition, a ripple effect can be engaged to imitate waving flag patterns and create an additional dimension to the projection. The Image Spot 100 is equipped with an adjustable 10° - 30° zoom function including beam focus for scaling the projector size just right. All parameters can be adjusted manually and via DMX. Seven scenes can be programmed and stored for stand-alone use.

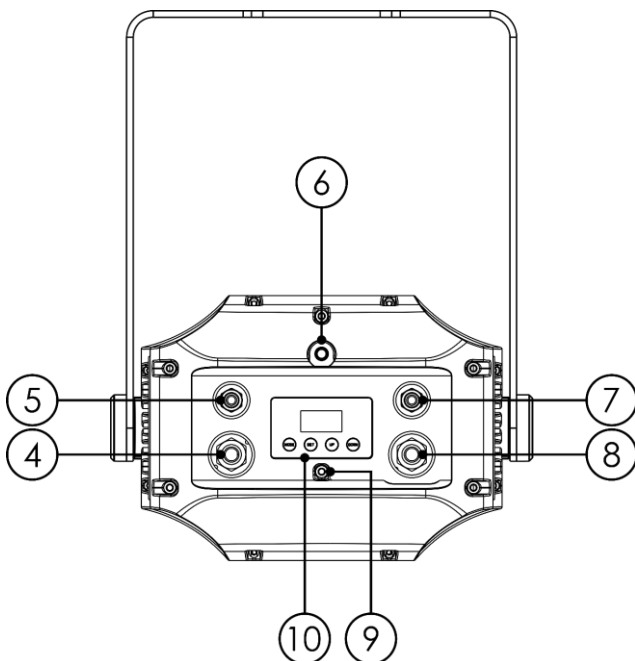
3.1. Front View



- 01) 100 W LED
- 02) Mounting bracket
- 03) Adjustment screw

Fig. 02

3.2. Back View



- 04) IP65 power IN
- 05) 3-pin IP65 DMX signal connector IN
- 06) Safety eye mounting hole
- 07) 3-pin IP65 DMX signal connector OUT
- 08) IP65 power OUT
- 09) Protective vent
- 10) LED display + menu buttons

Fig. 03

3.3. Product Specifications

Model:	Image Spot 100
Electrical:	
Input voltage:	100–240 V AC, 50/60 Hz
Power consumption:	110 W
Physical:	
Dimensions:	325 x 273 x 318 mm (LxWxH)
Weight:	11,24 kg
Optics:	
Light source:	100W CW LED
Dimmer:	0–100 %
Strobe:	0–20 Hz
Lumen Total:	2600 lm
CRI	80
	Zoom
	Focus
	Ripple effect
	3-facet rotational prism
	7 gobos + open & 7 colors + white
Operation and control:	
Control:	Stand-alone (auto, manual) Master/Slave (auto, manual) DMX-512, RDM
DMX channels:	13 channels
Control panel:	LED display
Connections:	
Power connections:	Dedicated IP65 Power connectors IN/OUT
Data connections:	3-pin DMX connectors IN/OUT
Signal pinouts:	3-pin: pin 1 (ground), pin 2 (-), pin 3 (+)
Construction:	
Housing:	Metal
Color:	Light gray
IP rating:	IP65
Cooling:	Convection
Thermal:	
Maximum ambient temperature t_a :	40 °C
Minimum Operating Temperature	-20 °C
Maximum housing temperature t_c :	65 °C
Minimum distance:	
Minimum distance from flammable surfaces:	0,5 m
Minimum distance to lighted object:	0,8 m

3.4. Optional Accessories

The Image Spot 100 is delivered with accessories. You can additionally purchase the following accessories:

- Product code: [A9920800](#) (IP-67 Data Extension Cable 1,5m)
- Product code: [A9920801](#) (IP-67 Data Extension Cable 3m)
- Product code: [A9920802](#) (IP-67 Data Extension Cable 6m)
- Product code: [A9920803](#) (IP-67 Data Extension Cable 1,5m)
- Product code: [A9920820](#) (IP-67 Power Extension Cable 1,5m)
- Product code: [A9920821](#) (IP-67 Power Extension Cable 1,5m)
- Product code: [A9920822](#) (IP-67 Power Extension Cable 1,5m)
- Product code: [A9920823](#) (IP-67 Power Extension Cable 1,5m)

3.5. Dimensions

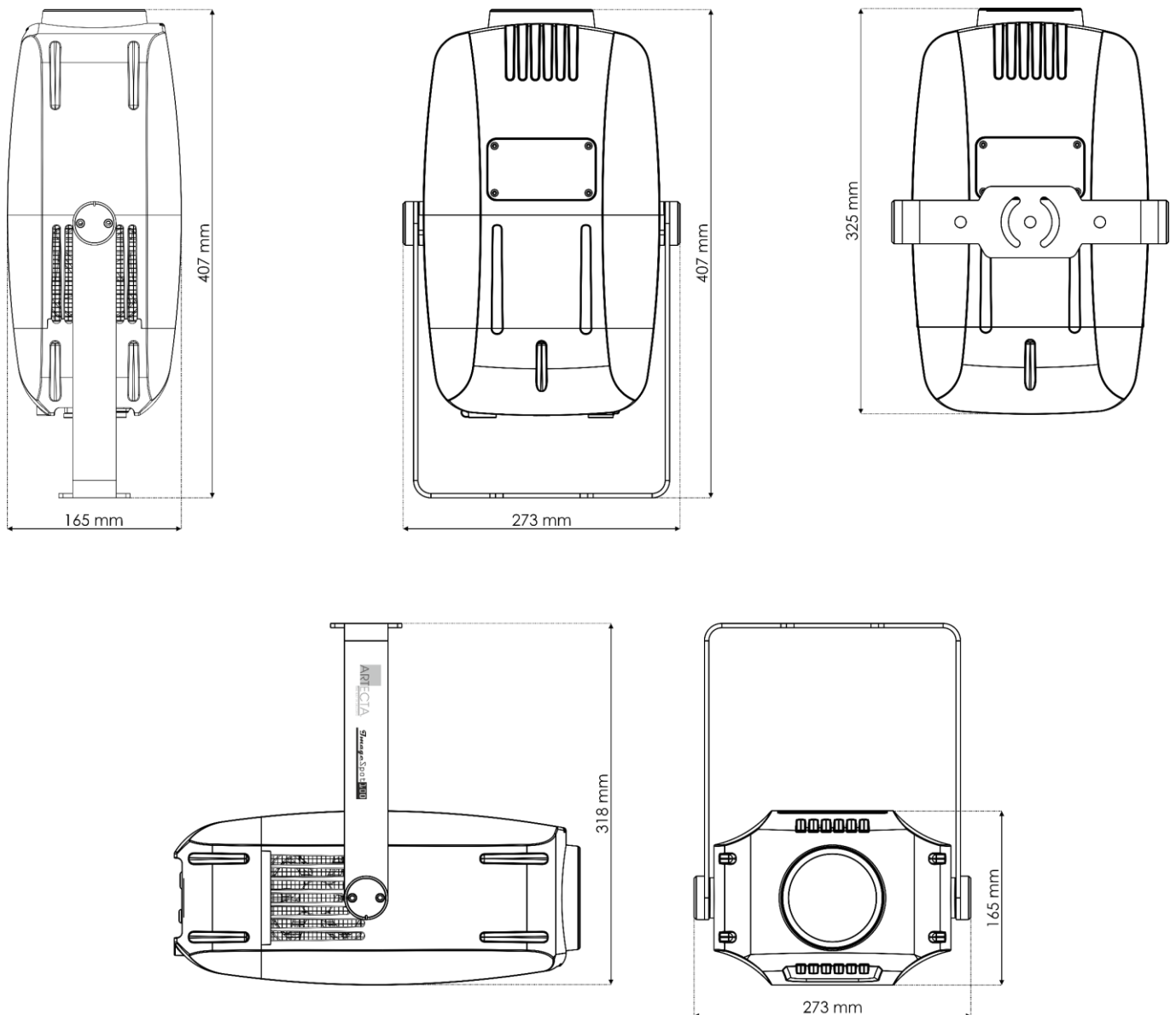


Fig. 04

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 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 0,8 m.
- The maximum ambient temperature $t_a = 40\text{ °C}$ 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:

- 01) Install the supplied safety eye in the **safety eye mounting hole (06)**, as shown in Fig. 05.

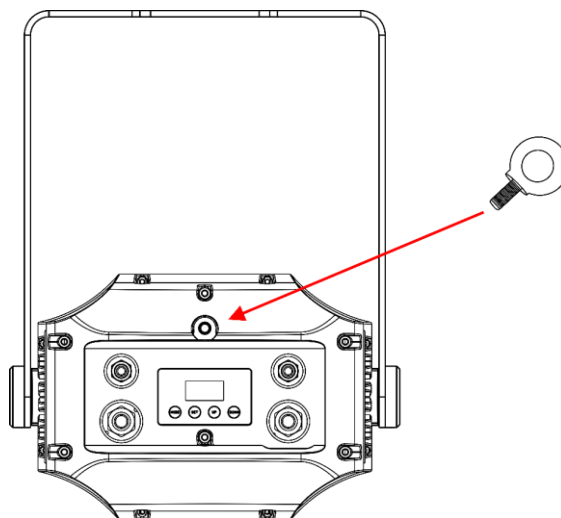


Fig. 05

- 02) Use a clamp to attach the device to the supporting structure, as shown in Fig. 06. Make sure that the device cannot move freely.

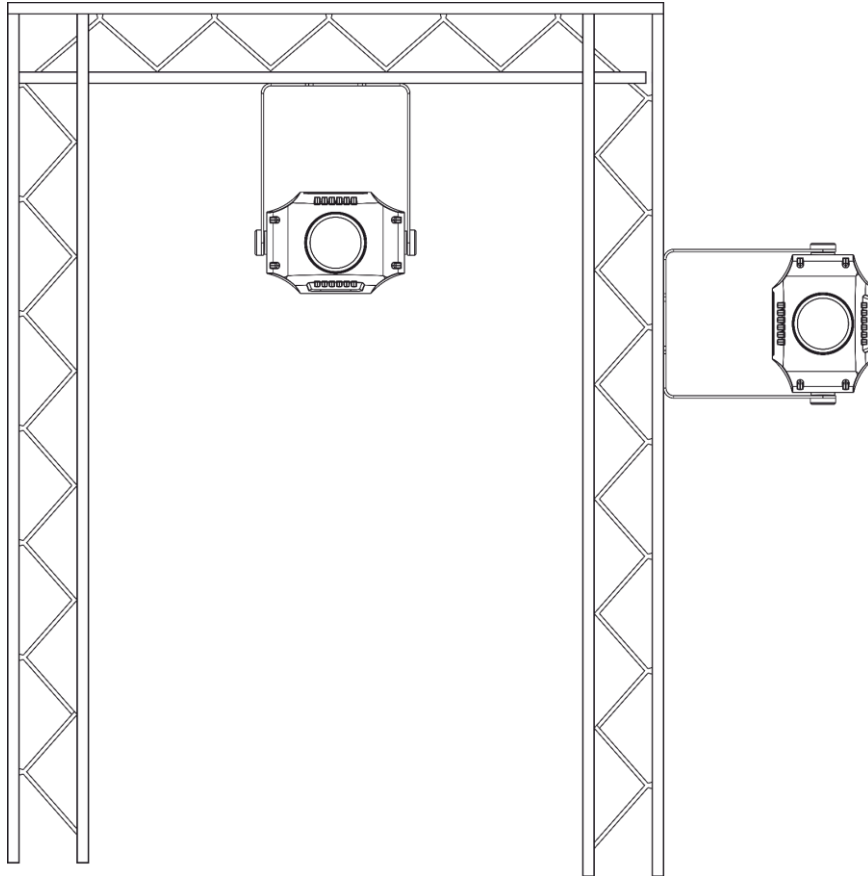


Fig. 06

- 03) 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.
- 04) Put the safety cable through the safety eye, as shown in Fig. 07.

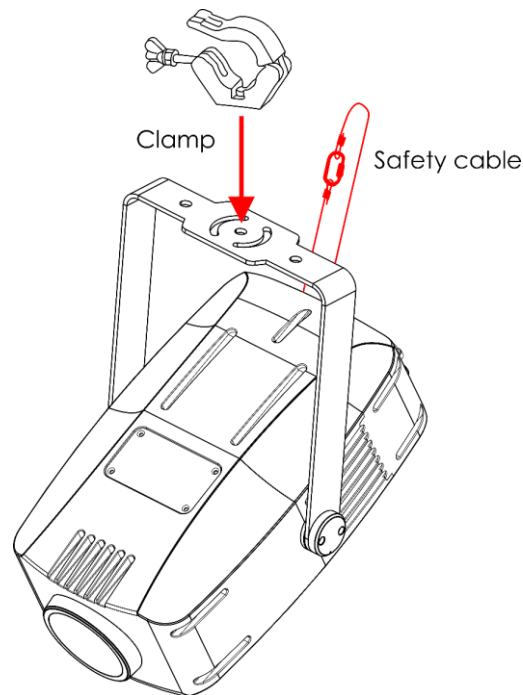


Fig. 07

4.4.1. Angle Adjustment

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

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

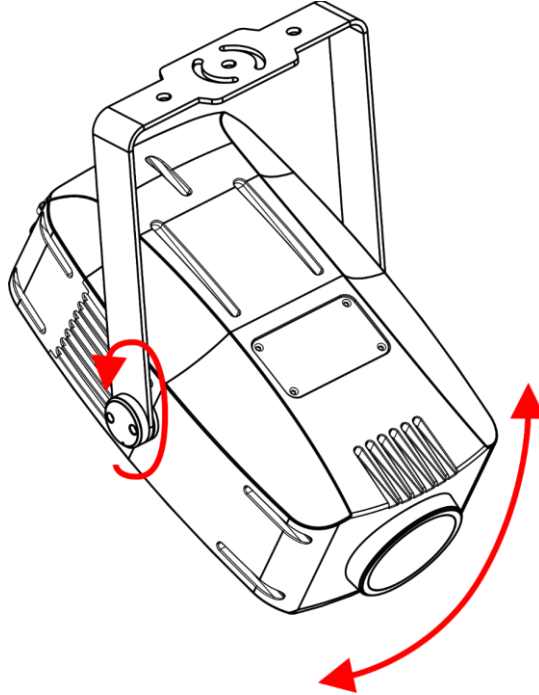


Fig. 08

4.4.2. Free-standing Bracket Installation

- 01) Put the free-standing bracket on the Image Spot 100.
- 02) Install all elements as shown in Fig. 09.
- 03) Tighten the screws.

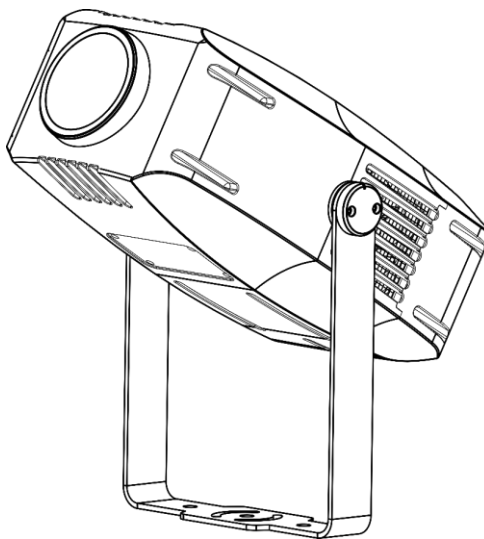


Fig. 09

4.5. 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.

4.6. 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 Image Spot 100
- at 200–240 V: 12 devices Image Spot 100

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 Image Spot 100 is not connected to a controller or to other devices, it functions as a stand-alone device. It can be operated in auto mode or manually.

For more information about the control modes, refer to **6.6.2. Auto Mode** on page 23 or **6.6.4. Manual Mode** on page 24.

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 Image Spot 100 has 3-pin DMX signal IN and OUT connectors.

The pin assignment is as follows:

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

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

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

Note:

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

5.3.2. DMX Cables

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

If you use 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. 10.

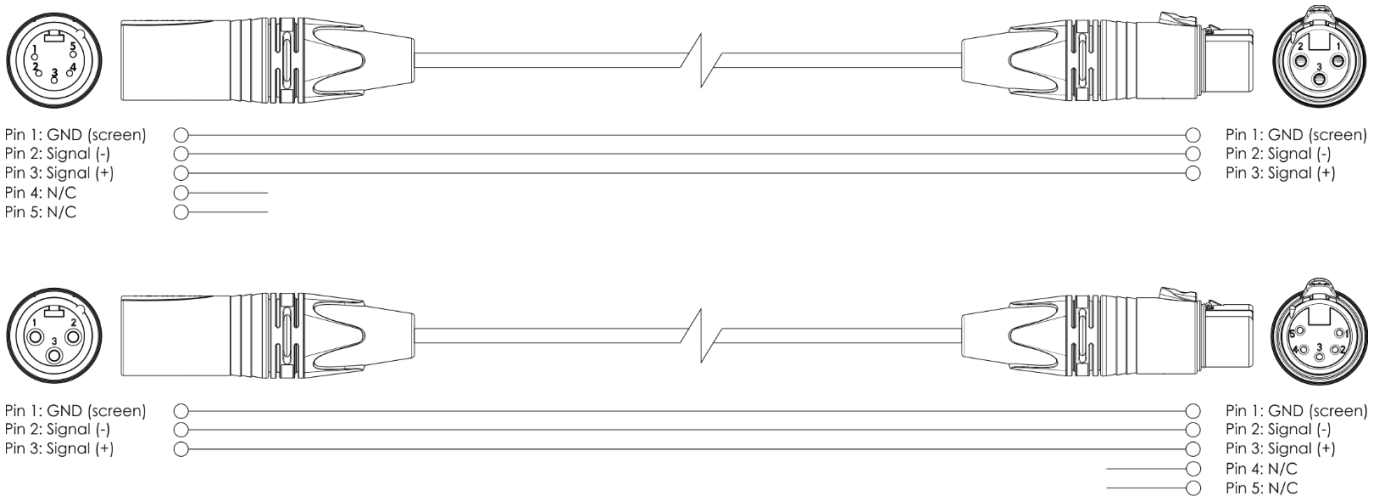


Fig. 10

5.3.3. Master/Slave Setup

The Image Spot 100 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. 11.
- 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 **6.6.2. Auto Mode** on page 23 or **6.6.4. Manual Mode** on page 24 for more information.
- 05) Set the remaining devices to slave mode. See **6.6.2. Auto Mode** on page 23 or **6.6.4. Manual Mode** on page 24 for more information.

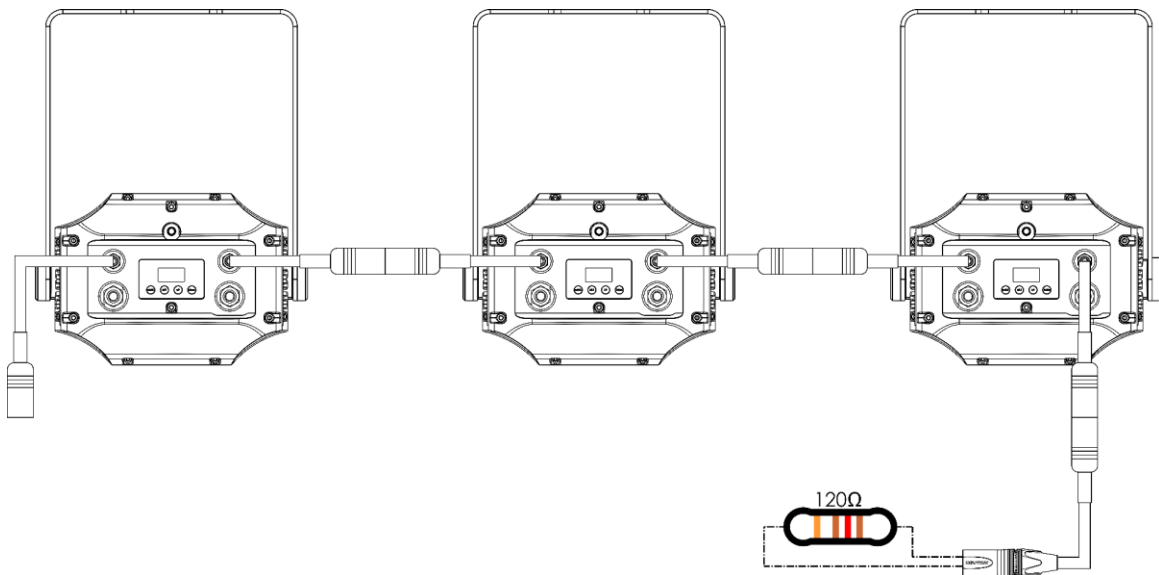


Fig. 11

5.3.4. DMX Linking

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

- 01) Use the supplied 3-pin XLR to special 3-pin data 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.
- 03) Repeat step 2 to connect all devices in a daisy-chain as shown in Fig. 12.
- 04) Connect a DMX terminator (120 Ω resistor) to the DMX OUT connector of the last device on the data link.

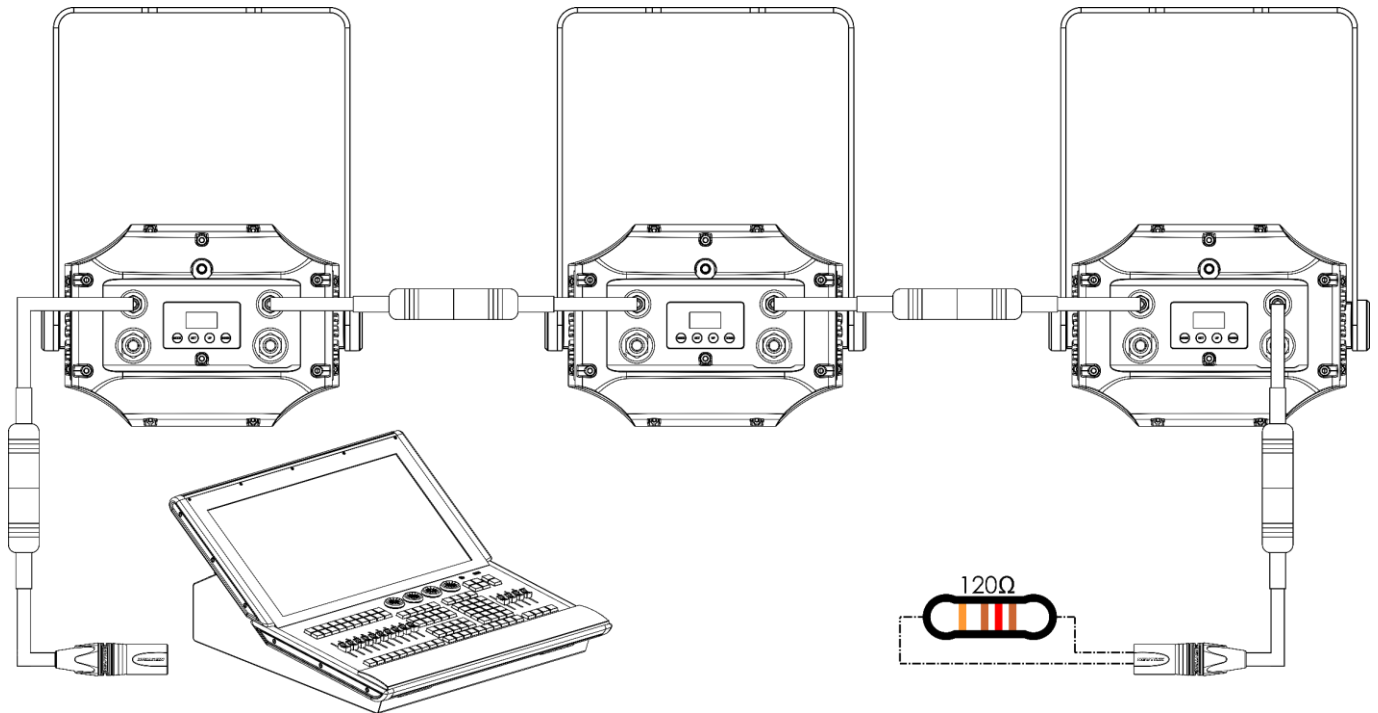


Fig. 12

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 Image Spot 100 has 1 personality: 13 channels.

If you want to connect multiple devices on one data link and use them in 13-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 14 (014), as $1 + 13 = 14$.
- 03) Set the starting address of the 3rd device on the data link to 27 (027) as $14 + 13 = 27$.
- 04) Continue assigning the starting addresses of the remaining devices by adding each time 13 to the previous number.

Make sure that you do not have any overlapping channels in order to control each Image Spot 100 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 spot. It 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 Mode

The Image Spot 100 supports the following control modes:

- Stand-alone: Auto, manual
- Master/Slave: Auto, manual
- DMX-512 13 channels

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

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

See **6.6.2. Auto Mode** on page 23 or **6.6.4. Manual Mode** on page 24 for more information

In auto mode you can run the auto program. To run the auto program:

See **6.6.2. Auto Mode** on page 23 for more information.

To operate the device with a DMX controller:

- Set the DMX starting address of the device in the DMX Address menu. See **5.3.5. DMX Addressing** on page 18 and **6.6.1. DMX Address** on page 23.
- Select the DMX channel mode. See **6.6.1. DMX Address** on page 23 for more information. See **6.7. DMX Channels** on pages 30–31 for complete overview of all DMX channels.

6.3. Control Panel

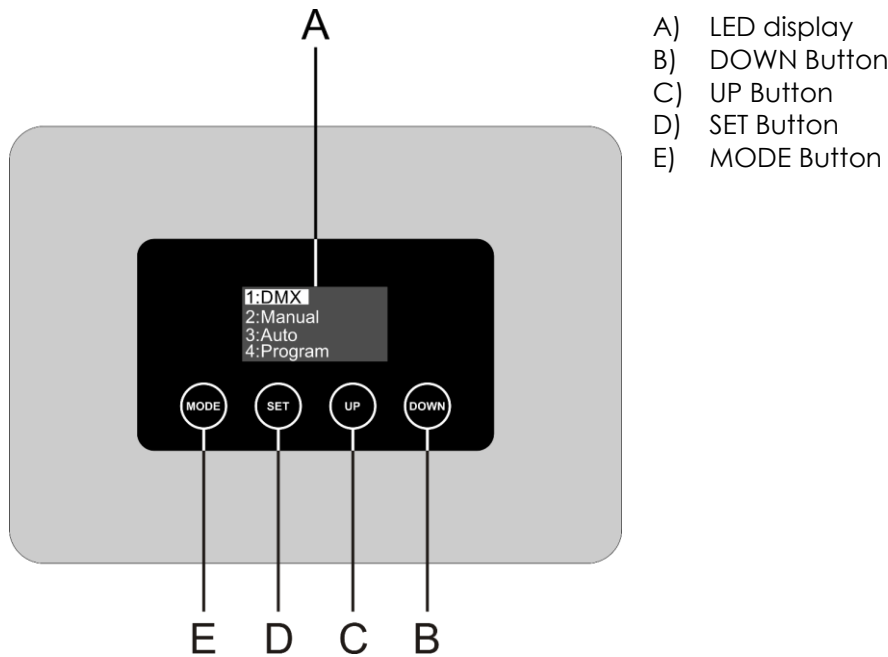
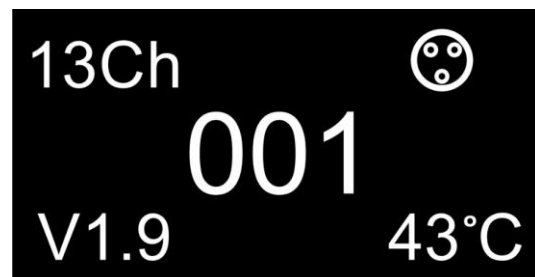


Fig. 13

- Use the **MODE** function in each menu to exit the current submenu and to return to the Main Menu.
- Use the **SET** button to open the desired menu, to confirm your choice or to set the currently selected value.
- Use the **UP/DOWN** buttons to navigate through the menus or to increase/decrease numeric values.

6.4. Start-up

Upon start-up the display will show a splash screen with the name and current software version of this device. Immediately afterwards the display will show the start screen. The start screen provides information about the currently active operation mode, temperature and software version. Press the **MODE** button to enter the main menu. The display will show:

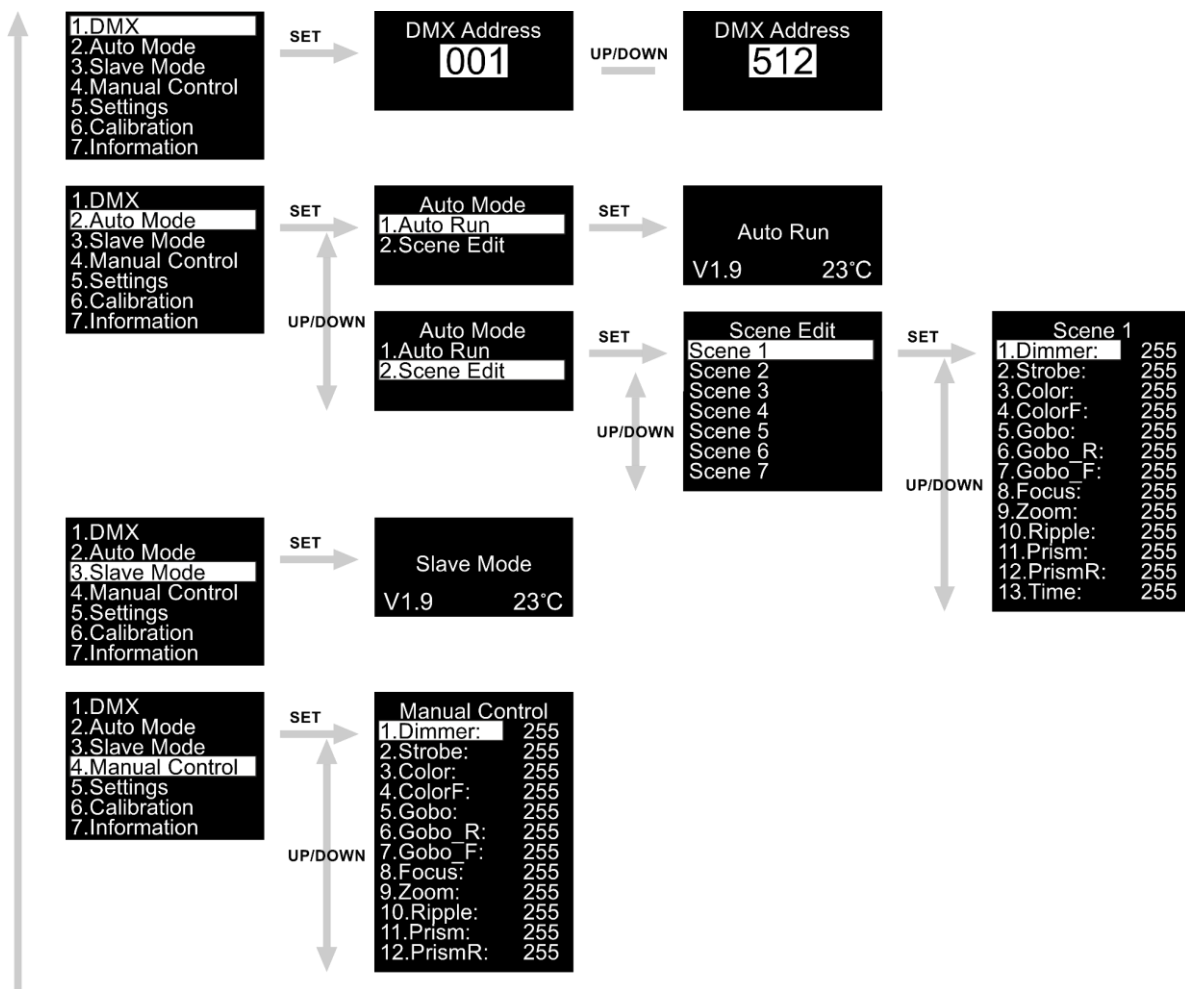


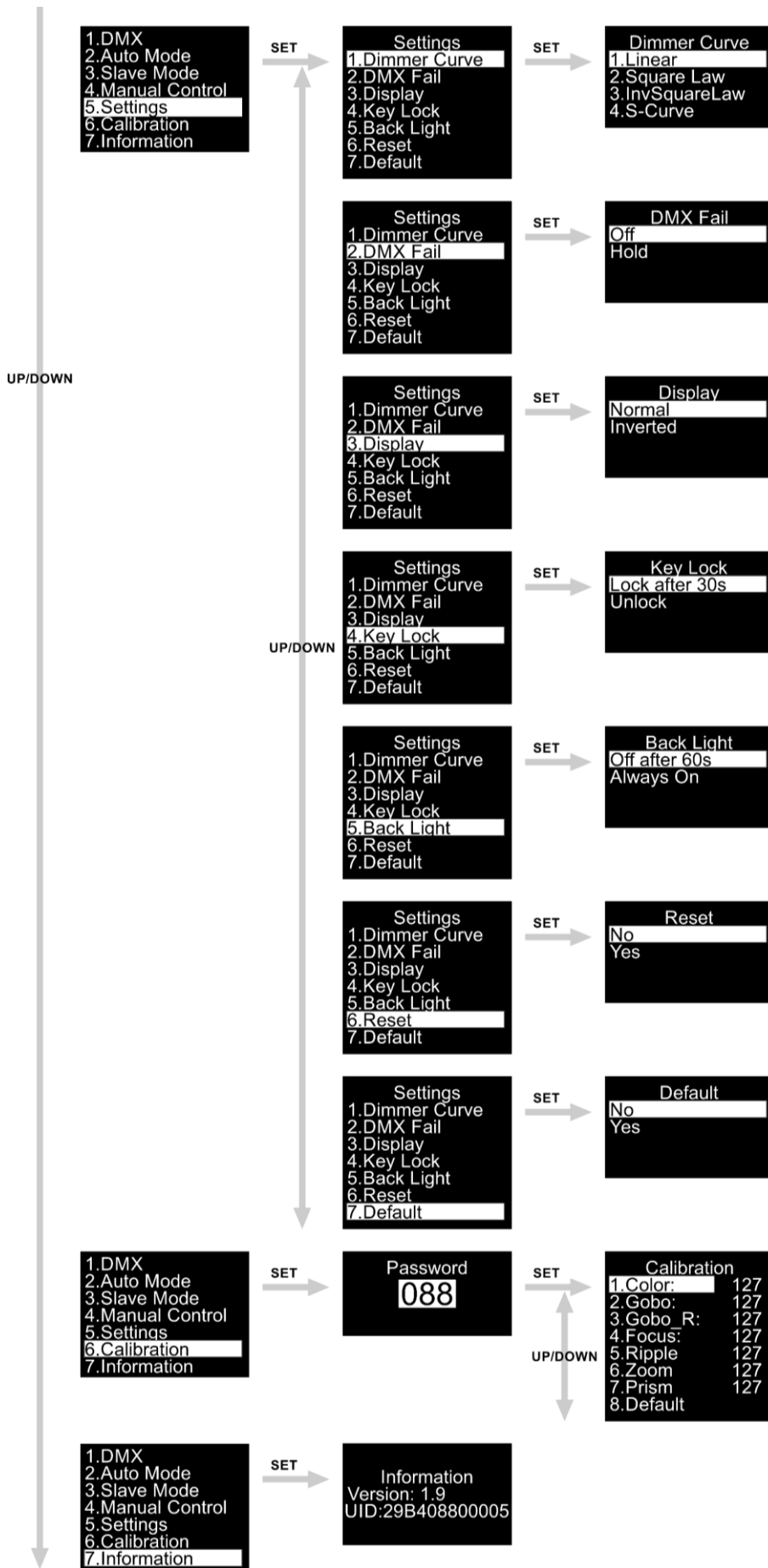
Note:

If no button is pressed, after 10 seconds of inactivity the display will turn off. When no button is pressed for 30 seconds, the display will turn off.

To light up the display, you have to press the **MODE** and **SET** buttons for 3 seconds. Once you have pressed these 2 buttons, the display will light up.

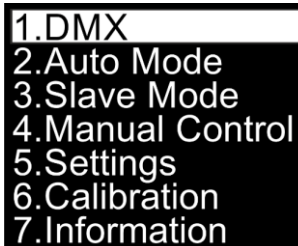
6.5. Menu Overview





6.6. Main Menu Options

The main menu has the following options:



```

1.DMX
2.Auto Mode
3.Slave Mode
4.Manual Control
5.Settings
6.Calibration
7.Information
  
```

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

6.6.1. DMX Address

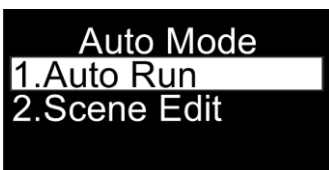
In this menu you can set the DMX starting address of the device and the personality of this device.

- 01) Press the **UP/DOWN** buttons to select the DMX starting address of the device. The selection range is 001–512. Refer to **5.3.5. DMX Addressing** on page 18 for more information.
- 02) Confirm your choice with the **SET** button.

6.6.2. Auto Mode

In this menu you can select the auto program or edit a scene.

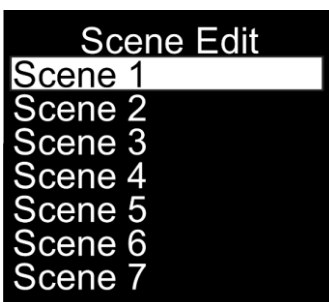
- 01) While in the main menu, press the **UP/DOWN** buttons until the display shows **Auto Mode**.
- 02) Press the **SET** button to open the menu, the display will show:



```

Auto Mode
1.Auto Run
2.Scene Edit
  
```

- 03) Press the **UP/DOWN** buttons to select one of the 2 options:
 - Auto Run: The device will play its built-in program
 - Scene Edit: choose one of the 7 options
- 04) Press the **SET** button to confirm your choice.
- 05) If you choose Scene Edit, press the **SET** button to open the submenu.
- 06) Press the **UP/DOWN** buttons to choose one of the 7 options:



```

Scene Edit
Scene 1
Scene 2
Scene 3
Scene 4
Scene 5
Scene 6
Scene 7
  
```

- 07) press the **SET** button to open the submenu.

08) Press the **UP/DOWN** buttons to choose one of the 13 options:

Scene 1	
1. Dimmer:	255
2. Strobe:	255
3. Color:	255
4. ColorF:	255
5. Gobo:	255
6. Gobo_R:	255
7. Gobo_F:	255
8. Focus:	255
9. Zoom:	255
10. Ripple:	255
11. Prism:	255
12. PrismR:	255
13. Time:	255

09) If you have selected the desired parameter, press the **SET** button to open the submenu.

10) Press the **UP/DOWN** buttons to adjust the value. The adjustment range is 000–255.

11) Confirm your choice with the **SET** button.

12) Press the **UP/DOWN** buttons to select another parameter you want to change.

6.6.3. Slave Mode

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

Once you have selected Slave Mode, the device will operate as a slave device in master/slave mode. This means that it will react the same as the master device.

6.6.4. Manual Mode

In this menu you can create manually control the device.

01) Press the **UP/DOWN** buttons to select a parameter. There are 12 options available:

Manual Control	
1. Dimmer:	255
2. Strobe:	255
3. Color:	255
4. ColorF:	255
5. Gobo:	255
6. Gobo_R:	255
7. Gobo_F:	255
8. Focus:	255
9. Zoom:	255
10. Ripple:	255
11. Prism:	255
12. PrismR:	255

02) If you have selected the desired parameter, press the **SET** button to open the submenu.

03) Press the **UP/DOWN** buttons to adjust the value. The adjustment range is 000–255.

04) Confirm your choice with the **SET** button.

05) Press the **UP/DOWN** buttons to select another parameter you want to change.

6.6.5. Settings

In this menu you can adjust the device's settings.

01) Press the **UP/DOWN** buttons to select a parameter. There are 7 options available:



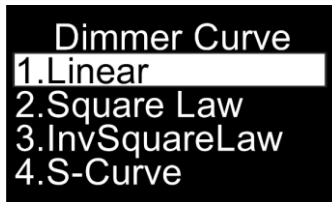
- DIMMER CURVE
- DMX FAIL
- DISPLAY
- KEY LOCK
- BACK LIGHT
- RESET
- DEFAULT

02) If you have selected the desired parameter, press the **SET** button to open the submenu.

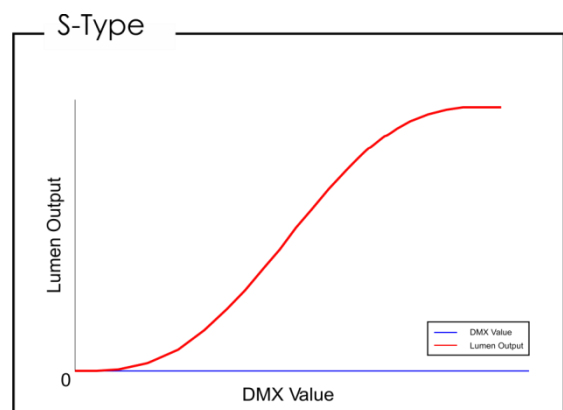
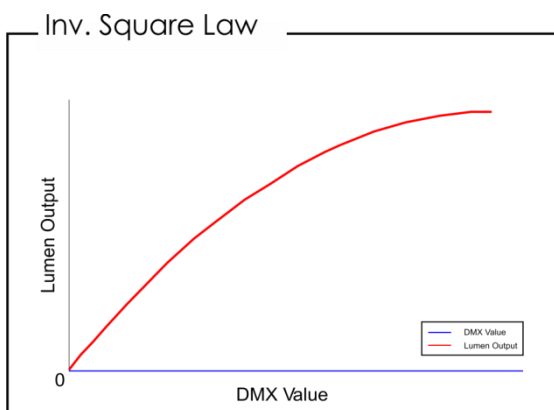
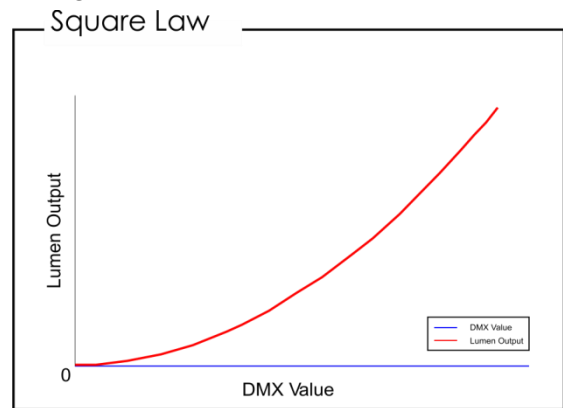
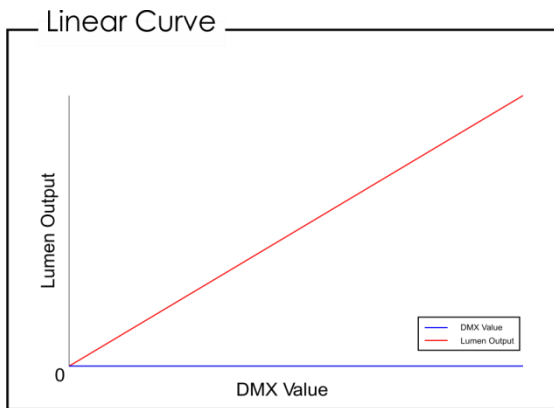
6.6.5.1. Dimmer Curve

In this menu you can adjust the dimming of the device by choosing a dimming curve.

- 01) Press the **UP/DOWN** buttons until the display shows **Dimmer curve**.
- 02) Press the **SET** button to open the menu, the display will show:



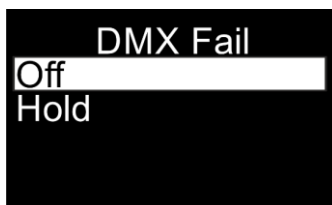
- 03) Press the **UP/DOWN** buttons to choose the desired dimming curve out of the 4 available options:



- 04) Press the **SET** button to confirm your choice.

6.6.5.2. DMX Fail

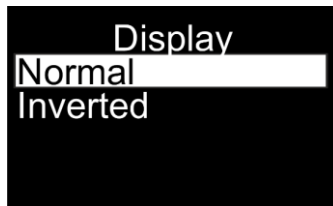
With this menu you can set the device's behavior in case of a DMX failure.



- 01) Press the **UP/DOWN** buttons to select one of the 2 options:
 - **OFF:** The device will black out the light output
 - **HOLD:** The device will use the last properly received DMX signal, ensuring uninterrupted performance
- 02) Press the **SET** button to confirm your choice.

6.6.5.3. Display

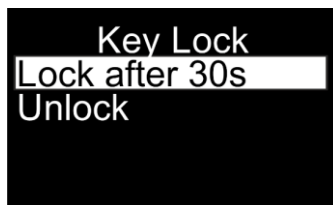
With this menu you can adjust the display settings of the device.



- 01) Press the **UP/DOWN** buttons to select one of the 2 options:
 - **NORMAL**: The text on the LED display is displayed normal
 - **INVERTED**: The text on the LED display will be rotated 180°
- 02) Press the **SET** button to confirm your choice.

6.6.5.4. Key Lock

With this menu you can set the safety lock, restricting access to the main menu.



- 01) Press the **UP/DOWN** buttons to select one of the 2 options:
 - **LOCK after 30s**: The device will lock after 30 seconds. To light up the display, you have to press the MODE and SET buttons for 3 seconds. Once you have pressed these 2 buttons, the display will light up
 - **UNLOCK**: The device will never lock its display, ensuring uninterrupted performance
- 02) Press the **SET** button to confirm your choice.

6.6.5.5. Back Light

In this menu you can select whether the back light is active or not.



- 01) Press the **UP/DOWN** buttons to select one of the 2 options:
 - **OFF after 60s**: The menu and its buttons will dim after 60 seconds
 - **Always ON**: The menu and its buttons will permanently light up
- 02) Press the **SET** button to confirm your choice.

6.6.5.6. Reset

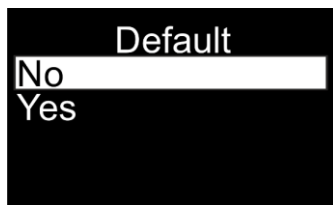
With this menu you can reset the device.



- 01) Press the **UP/DOWN** buttons to select one of the 2 options:
 - NO: If you choose **No**, the device will not reset
 - YES: If you choose **Yes** and confirm it with the **SET** button, the device will reset its gobo wheel.
- 02) Press the **SET** button to confirm your choice.

6.6.5.7. Default

With this menu you can restore the default factory settings.



- 01) Press the **UP/DOWN** buttons to select one of the 2 options:
 - NO: If you choose **No**, the device will keep current settings
 - YES: If you choose **Yes** and confirm it with the **SET** button, the device will reset to its factory default settings.
- 02) Press the **SET** button to confirm your choice.

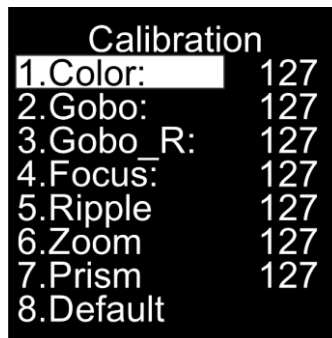
6.6.6. Calibrations

In this menu you can calibrate the device's settings.

01) Enter the **Password** (088) to open this menu:



02) Press the **UP/DOWN** buttons to select a parameter. There are 8 options available:



- COLOR
- GOBO
- GOBO_R
- FOCUS
- RIPPLE
- ZOOM
- PRISM
- DEFAULT

03) If you have selected the desired parameter, press the **SET** button to open the submenu.

04) Press the **UP/DOWN** buttons to adjust the value. The adjustment range is 000–255.

05) Confirm your choice with the **SET** button.

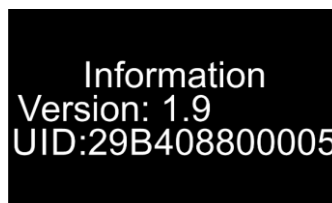
06) Press the **UP/DOWN** buttons to select another parameter you want to change.

6.6.7. Information

In this menu you can view the currently installed software version and temperature.

01) In main menu, press the **UP/DOWN** buttons until the display shows **Information**.

02) Press the **SET** button to open the menu, the display will show:



03) You can view the currently installed software version, the actual temperature and the UID number.

04) UID: the display shows the unique identification number of the device.

05) The model ID for the Image Spot 100 is 29B40880.

6.7. DMX Channels

6.7.1. 13 Channels

13 CH	Function	Value	Setting
1	Master Dimmer	000–255	From low to high intensity (0–100 %)
2	Strobe	000–010	Always on
		011–127	Random strobe slow to fast
		128–255	Linear strobe slow to fast
3	Color Programs	000–007	White
		008–015	Color 1 (Red)
		016–023	Color 2 (Green)
		024–031	Color 3 (Blue)
		032–039	Color 4 (Yellow)
		040–047	Color 5 (Cyan)
		048–055	Color 6 (Magenta)
		056–063	Color 7 (Orange)
		064–071	white+ Color 1 (White+Red)
		072–079	Color 1+ Color 2 (Red + Green)
		080–087	Color 2+ Color 3 (Green + Blue)
		088–095	Color 3+ Color 4 (Blue + Yellow)
		096–103	Color 4+ Color 5 (Yellow + Cyan)
		104–111	Color 5+ Color 6 (Cyan + Magenta)
		112–119	Color 6+ Color 7 (Magenta + Orange)
		120–127	Color 7+ white (Orange + White)
		128–191	Clockwise rotation: fast to slow
192–255	Counter-clockwise rotation: slow to fast		
4	ColorF	000–255	Color wheel positioning fine-tuning
5	Gobo	000–008	Gobo 1 (White circle)
		009–017	Gobo 2 (Ice Stars)
		018–026	Gobo 3 (Merry Christmas)
		027–035	Gobo 4 (Sale)
		036–044	Gobo 5 (Coffee, Tea, Food)
		045–053	Gobo 6 (Empty)
		054–062	Gobo 7 (Empty)
		063–071	Gobo 8 (Empty)
		072–079	Gobo 8 shake from slow to fast
		080–088	Gobo 7 shake from slow to fast
		089–097	Gobo 6 shake from slow to fast
		098–106	Gobo 5 shake from slow to fast
		107–115	Gobo 4 shake from slow to fast
		116–124	Gobo 3 shake from slow to fast
		125–133	Gobo 2 shake from slow to fast
		134–142	Gobo 1 shake from slow to fast
		143–199	Clockwise rotation fast to slow
200–255	Counter-clockwise rotation slow to fast		
6	GoboR	000–127	Gobo Indexing
		128–191	Clockwise rotation fast to slow
		192–255	Counter-clockwise rotation slow to fast
7	GoboF	000–255	Gobo Indexing fine-tuning
8	Focus	000–255	Gradual focus adjustment, 0–100 %
9	Zoom	000–255	Zoom adjustment
10	Water Effect	000–127	No function
		128–255	Ripple from slow to fast
11	Prism	000–031	Prism close
		032–255	Prism open (3-facet)

13 CH	Function	Value	Setting
12	PrismR	000-127	No rotate
		128-191	Clockwise rotation fast to slow
		192-255	Counter-clockwise rotation slow to fast
13	Function	000-009	No action
		010-019	All reset after three seconds
		020-255	No action

6.8. Color Wheel and Rotating Gobo Wheel

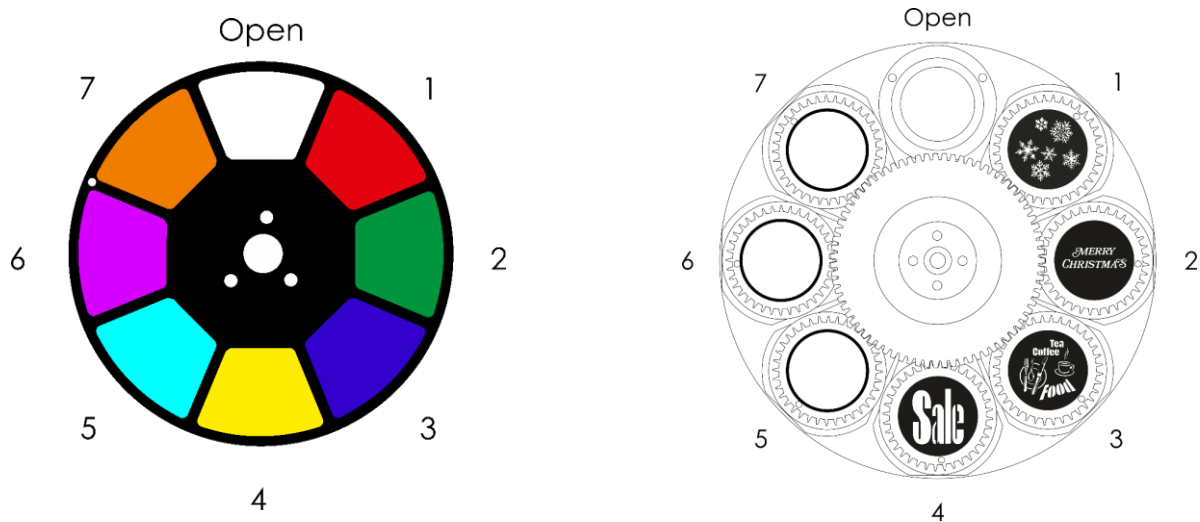



Fig. 14

6.8.1. Replacing a Gobo from the Rotating Gobo Wheel



DANGER
Electric shock caused by dangerous voltage inside

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

- Disconnect the device from electrical power supply before service and maintenance, and when the device is not in use.
- Allow the device to cool down before opening the cover.
- Use for replacement only gobos that match the specifications below. Using custom gobos that do not match those specifications may result in damage to the device. Any damage to the device as a result of using a custom gobo is not covered under warranty.
- Do not touch the glass gobo with bare fingers to avoid leaving fingerprints. Handle the gobo only by the gobo carrier, or wear protective gloves. If you touch the glass, clean with a soft lint-free cloth and rubbing alcohol.

To replace a rotating gobo, follow the steps below:

- 01) Disconnect the device from the mains and allow it to cool completely.
- 02) Set the device in horizontal position with the lens facing forward.
- 03) Loosen the 4 screws on the head cover, as shown in Fig. 15.

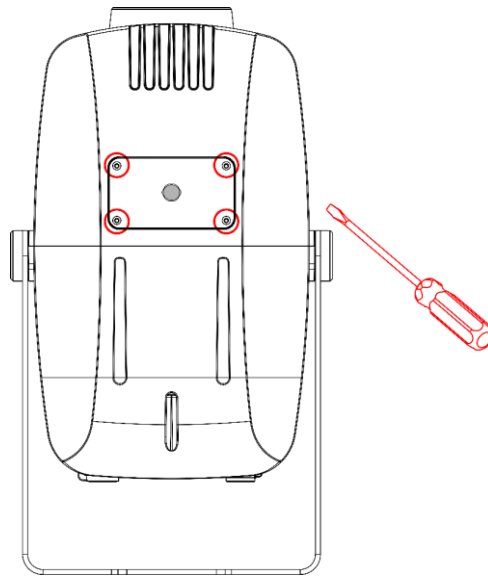


Fig. 15

- 04) Carefully remove the head cover from the housing to get access to the rotating gobo wheel.
- 05) Turn the rotating gobo wheel by hand until you reach the gobo which you want to replace.
- 06) Gently lift the gobo holder a bit up and pull it out from the rotating gobo wheel, as shown in Fig. 16 and Fig. 17.

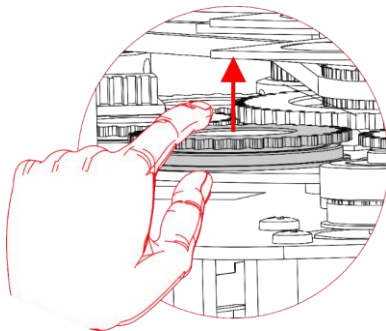


Fig. 16

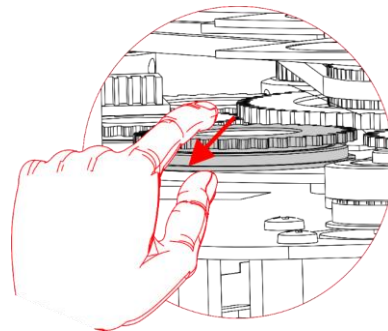


Fig. 17

- 07) Very carefully remove the retainer spring from the gobo holder with a small flathead screwdriver or similar. Please note, that high temperature silicone sealant is applied to the retainer spring.
- 08) Take the gobo out of the gobo holder. Do not touch the gobo with bare fingers.
- 09) Insert the new gobo in the gobo holder. See **6.8.3. Glass Gobo Orientation** on page 33 for more information.
- 10) Carefully insert the retainer spring with the narrow end against the gobo (see Fig. 18). To identify the narrow end, press the spring flat: the narrow end is on the inside.

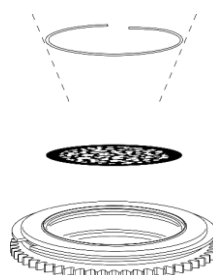


Fig. 18

- 11) Gently press the retainer spring as flat as possible against the back of the gobo using a small flathead screwdriver or similar.
- 12) Use silicone sealant to attach the gobo to the gobo holder.
- 13) Place the gobo holder back into the gobo assembly and snap it into position.
- 14) Replace the head cover and tighten all 4 screws.

6.8.2. Gobo Size

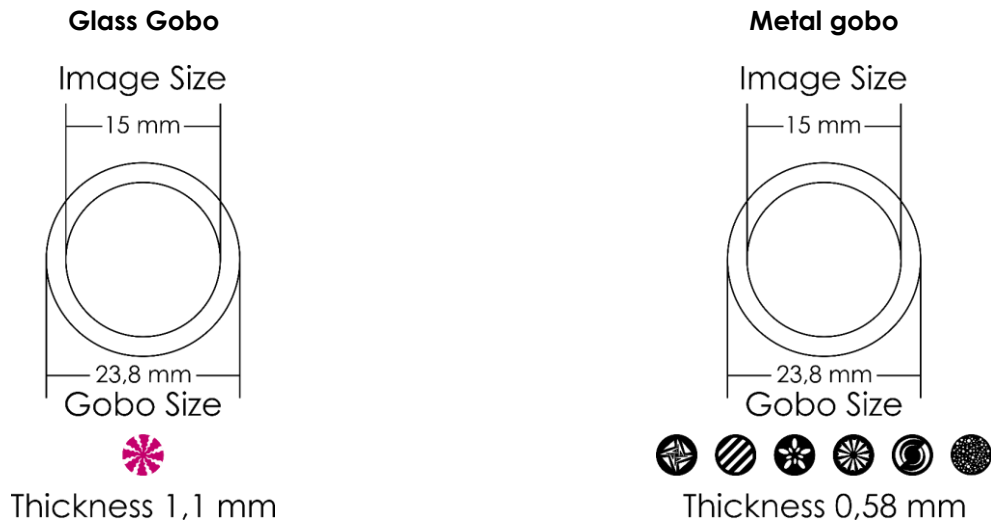


Fig. 19

6.8.3. Glass Gobo Orientation

Coated glass gobos are inserted with the coating against the rim of the holder (away from the spring). Textured gobos are inserted with the smooth side against the spring. This provides the best results when combining rotating gobos.



When an object is held up to the coated side, there is no space between the object and its reflection. The back edge of the gobo cannot be seen when looking through the coated side.

When an object is held up to the uncoated side, there is a space between the object and its reflection. The back edge of the gobo can be seen when looking through the uncoated side.

6.9. RDM Information

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

6.9.1. RDM Details

- Responder: 29B4:08D00003
- Manufacturer's ID: Showtec (Highlite International B.V.)
- Manufacturer Label: Arctea
- Model Description: Image Spot 100
- Model ID: 136
- Device Label: Image Spot 100

6.9.2. 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	*	*	
PARAMETER_DESCRIPTION	0x0051	*	*	
DEVICE_INFO	0x0060	*	*	
DEVICE_MODEL_DESCRIPTION	0x0080		*	
MANUFACTURER_LABEL	0x0081		*	
DEVICE_LABEL	0x0082		*	*
FACTORY_DEFAULTS	0x0090		*	*
SOFTWARE_VERSION_LABEL	0x00C0	*	*	
DMX_PERSONALITY	0x00E0		*	*
DMX_PERSONALITY_DESCRIPTION	0x00E1		*	
DMX_START_ADDRESS	0x00F0	*	*	*
SENSOR_DEFINITION	0x0200		*	
SENSOR_VALUE	0x0201		*	*
RECORD_SENSORS	0x0202			*
DISPLAY_INVERT	0x0500		*	*
IDENTIFY_DEVICE	0x1000	*	*	*
RESET_DEVICE	0x1001			*
CAPTURE_PRESET	0x1030			*
PRESET_PLAYBACK	0x1031		*	*
RUN_MODE	0xD320	*	*	*
SAVE_RUN_MODE	0xD321	*	*	*

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	<ul style="list-style-type: none"> Check if power is switched on and cables are plugged in
	Main fuse is blown	<ul style="list-style-type: none"> Disconnect the device and contact your Highlite International dealer
The device does not respond to DMX control	The controller is not connected	<ul style="list-style-type: none"> Connect the controller
	The signal is reversed. The 3-pin/5-pin DMX OUT of the controller does not match the DMX IN of the device	<ul style="list-style-type: none"> Install a phase-reversing cable between the controller and the device
	The controller is defective	<ul style="list-style-type: none"> Try using another controller
The device responds erratically to DMX control	Bad data link connection	<ul style="list-style-type: none"> Examine connections and cables. Correct poor connections. Repair or replace damaged cables
	The data link is not terminated with a 120 Ω termination plug	<ul style="list-style-type: none"> Insert a termination plug in the DMX OUT connector of the last device on the link
	Incorrect addressing	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Disconnect the device and contact your Highlite International dealer
	The power supply settings do not match local AC voltage and frequency	<ul style="list-style-type: none"> 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 Image spot 100 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 below to remove the condensation water:

01) Carefully remove the **protective vents (09)** with a wrench (16 mm).

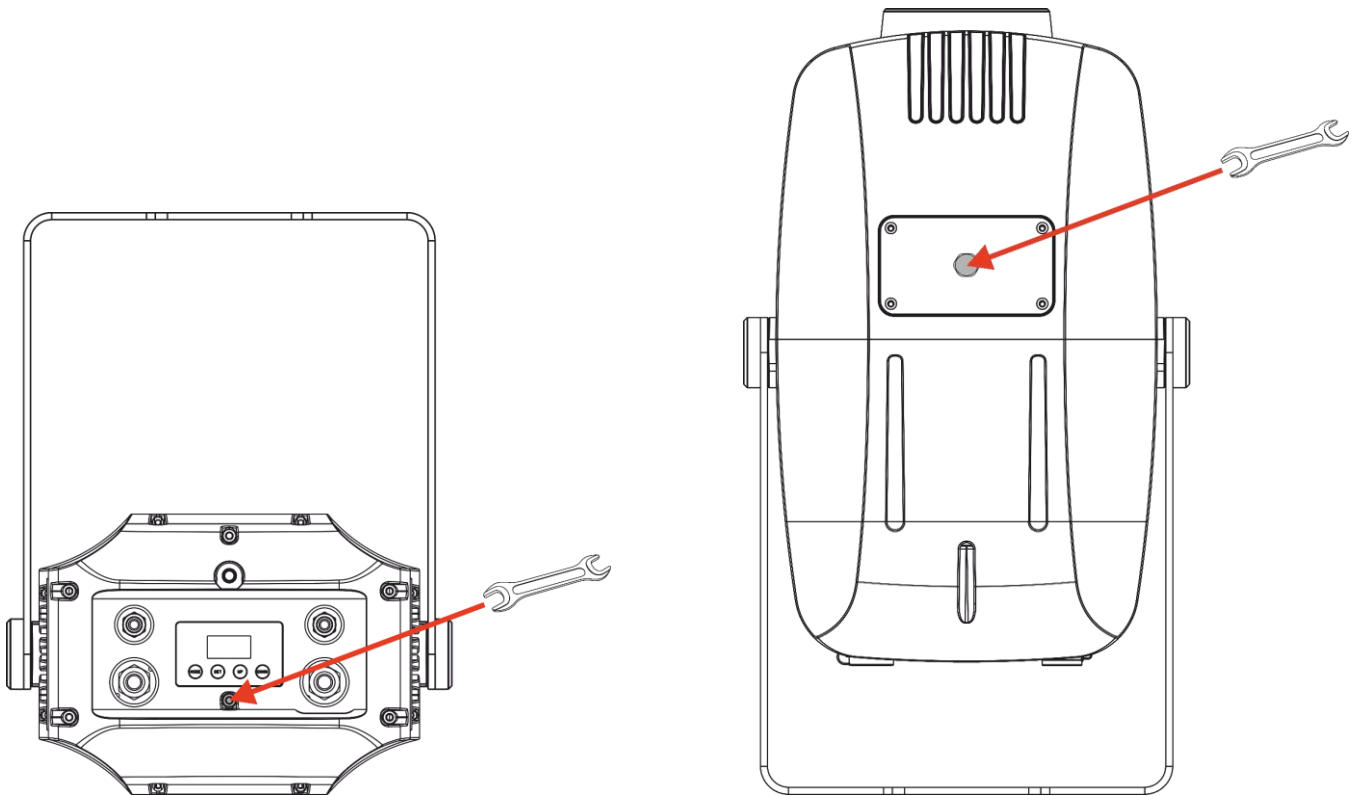


Fig. 20

02) Let the device operate at full output for 60 minutes.

03) Let the device cool down for 30 minutes.

04) Install the **protective vents (09)** back in place. 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 dismantling.
- 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 36.
- Store the device in the original packaging, if possible.

10. Disposal

Correct disposal of this product



Waste Electrical and Electronic Equipment

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

11. Approval



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



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