

**ENGLISH**

# Display Fresnel 20 SW

**V1**

Product code: A0320100 – Black housing  
A0320101 – White housing

## Preface

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Thank you for purchasing this Artecta 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



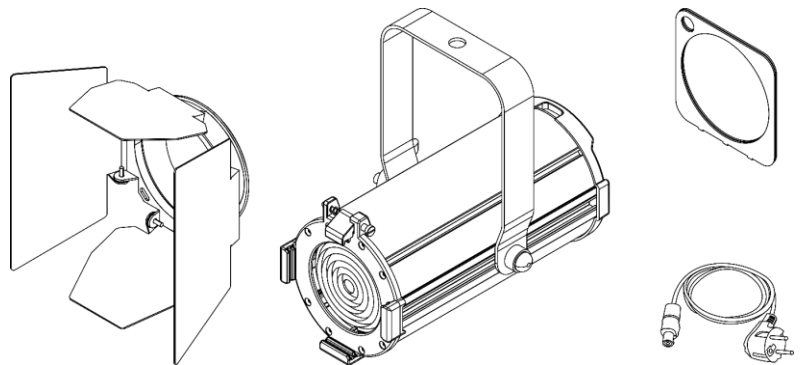
**Important**  
**Read and follow the instructions in this user manual before installing, operating or servicing this product.**

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:

- Artecta Display Fresnel 20 SW
- Schuko to pro-power cable (1,5 m)
- Barndoor
- Color frame
- User manual



**Fig. 01**

### 1.2. Intended Use

This device is intended for professional use as an architectural light spot. It is suitable for indoor installation in shops, exhibition halls, showrooms and similar venues. This device is not suitable for households.

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

### 1.3. LEDs Lifespan

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

### 1.4. Text Conventions

Throughout the user manual the following text conventions are used:

- 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

## 1.5. Symbols and Signal Words

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

Always follow the instructions provided in this user manual.



**DANGER**

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



**WARNING**

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



**CAUTION**

Indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury.



**Attention**

Indicates important information for the correct operation and use of the product.



**Important**

Read and observe the instructions in this document.



**Electrical hazard**



Provides important information about the disposal of this product.

## 1.6. Symbols on the Information Label

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

The information label contains the following symbols:



This device is designed for indoor use.



This device falls under IEC protection class I.



This device shall not be treated as household waste.

## 2. Safety



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

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

### 2.1. Warnings and Safety Instructions



**DANGER**  
**Danger for children**

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

- Do not leave 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 is 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.



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

This device falls under IEC protection class I.

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



### **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 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 architectural light spot. It is suitable for indoor installation in shops, exhibition halls, showrooms and similar venues.

- This device is not suitable for households.
- 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 use, examine the device visually for any defects.**

Make sure that:

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



**Attention**

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

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

## **2.2. Requirements for the User**

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

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

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

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



### 3. Description of the Device

The Arpecta Display Fresnel 20 SW is a compact spot suitable for indoor venues, featuring two selectable color temperatures: warm white and cold white. It has manual zooming and a built-in, manually controllable dimmer (5 – 100 %). The device is delivered with a barndoor and a color frame.

#### 3.1. Front View

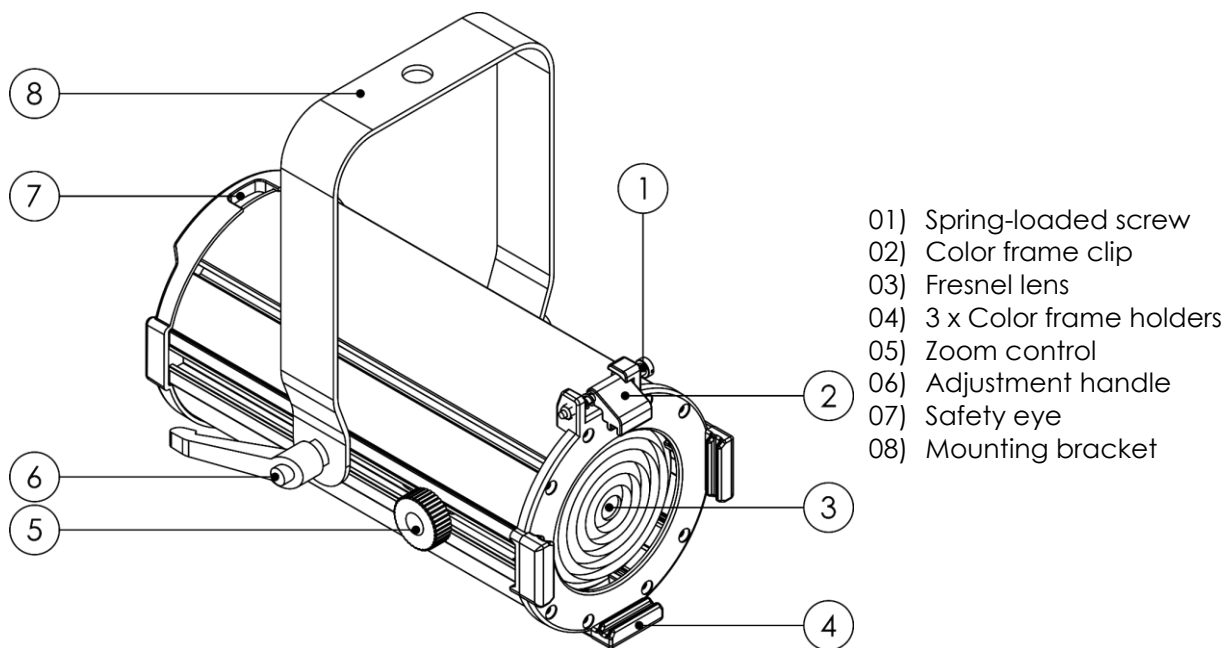


Fig. 02

#### 3.2. Back View

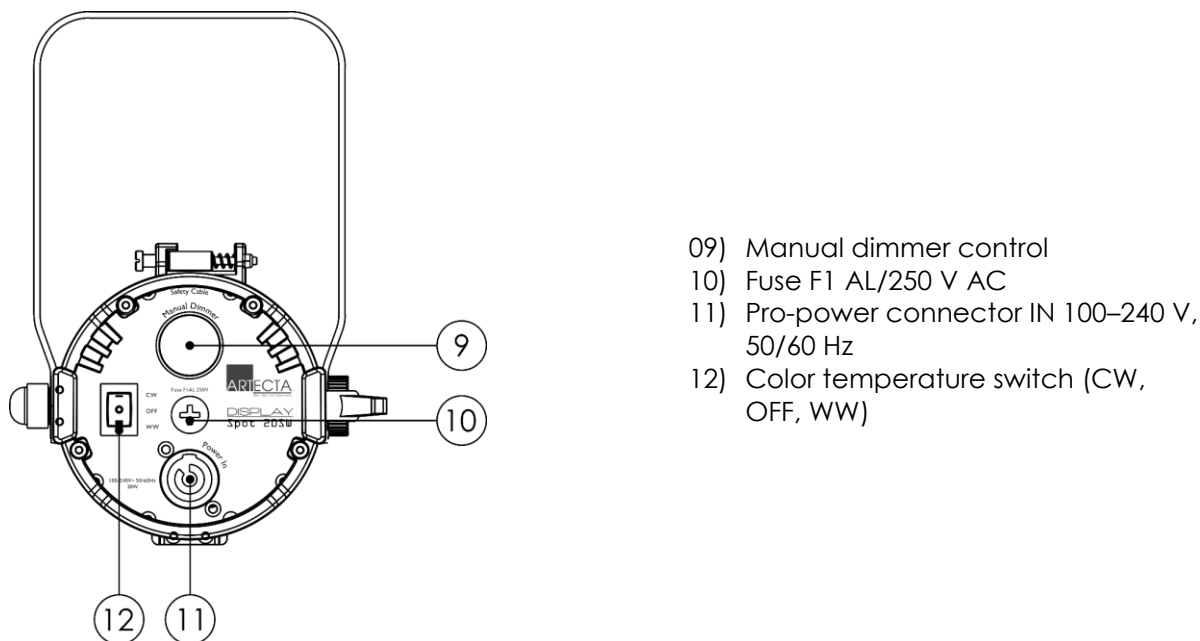
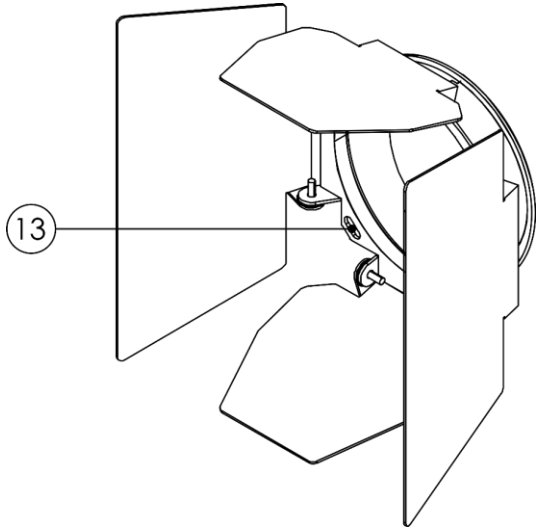


Fig. 03

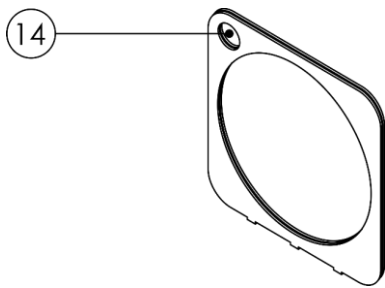
### 3.3. Barndoor



13) Safety eye (barndoor)

Fig. 04

### 3.4. Color frame



14) Safety eye (color frame)

Fig. 05

### 3.5. Product Specifications

Model:	Display Fresnel 20 SW
<b>Electrical:</b>	
Input voltage:	100–240 V AC, 50/60 Hz
Power consumption:	20 W
PFC:	0,93
Fuse:	F1 AL, 250 V AC
<b>Physical:</b>	
Dimensions:	231 x 165 x 216 mm (L x W x H) (without accessories)
Weight:	1,5 kg
<b>Optics:</b>	
Light source:	20 W Dual Color COB LED
Dimmer:	5–100 %
Zoom:	Manual
Beam angle:	13°–57°
Color temperature:	3000 K and 6000 K (selectable)
Output:	3000 K – 411 lm (13°); 926 lm (57°) 6000 K – 537 lm (13°); 1212 lm (57°)
CRI:	>92
<b>Operation and control:</b>	
Control:	Manual
<b>Connections:</b>	
Power connection:	Pro-power connector IN
<b>Construction:</b>	
Housing:	Extruded aluminum
Color:	Black (product code: A0320100) White (product code: A0320101)
IP rating:	IP20
Cooling:	Natural convection
<b>Thermal:</b>	
Maximum ambient temperature $t_a$ :	40 °C
<b>Minimum distance:</b>	
Minimum distance from flammable surfaces:	0,5 m
Minimum distance to lighted object:	0,5 m

### 3.6. Dimensions

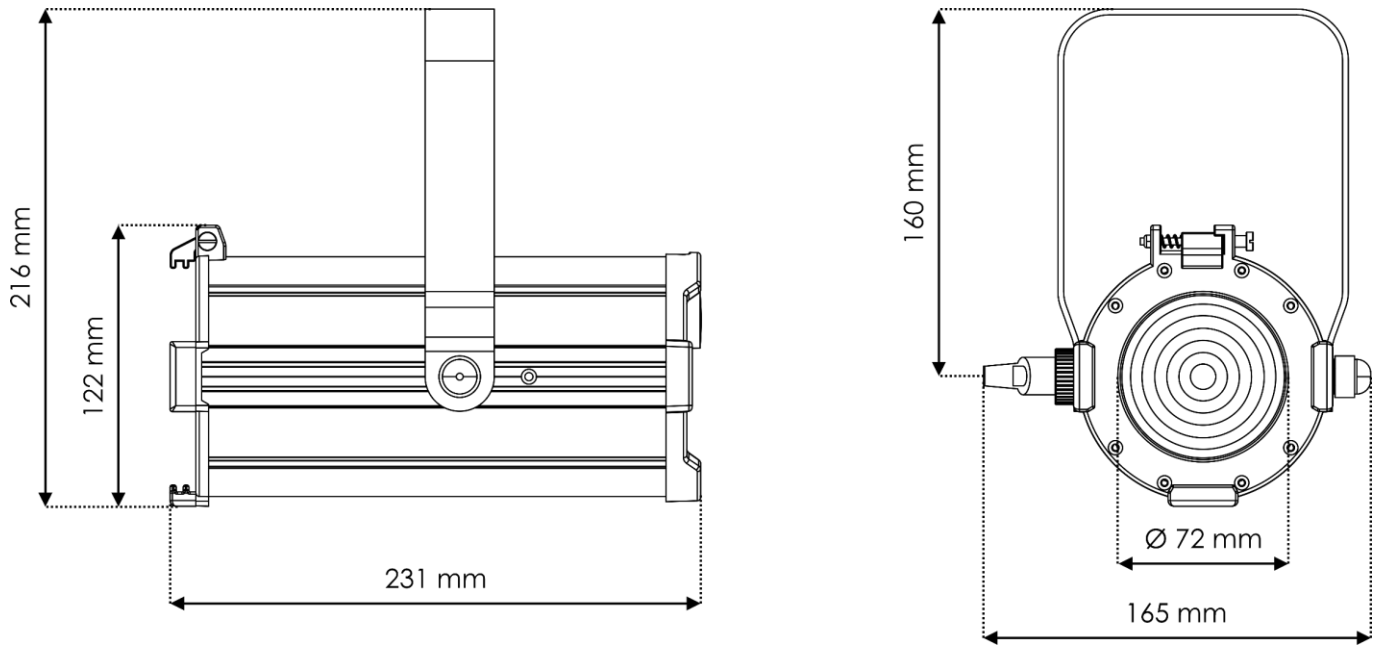


Fig. 06

## 4. Installation

### 4.1. Safety Instructions for Installation



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

If the device is installed overhead, the installation must be carried out only by instructed or skilled persons.

Follow all applicable European, national and local safety regulations concerning overhead installation on supporting structures.

### 4.2. Personal Protective Equipment

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

### 4.3. Installation Site Requirements

- The device can be used only indoors.
- The device can be mounted to a supporting structure in any orientation.
- The minimum distance to other objects must be bigger than 0,5 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  $40\text{ °C}$ .

#### 4.4. Mounting

The device can be mounted to a supporting 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 mounting.

To mount the device, follow the steps below:

- 01) Use a clamp to attach the device to the supporting structure, as shown in Fig. 07. Make sure that the device cannot move freely.
- 02) Secure the device with a secondary suspension, for example a safety cable. Make sure that the secondary suspension can hold 10 times the weight of the device. If possible, the secondary suspension should be attached to a supporting structure independent of the primary suspension. Put the safety cable through the **safety eye (07)**, as shown in Fig. 07.

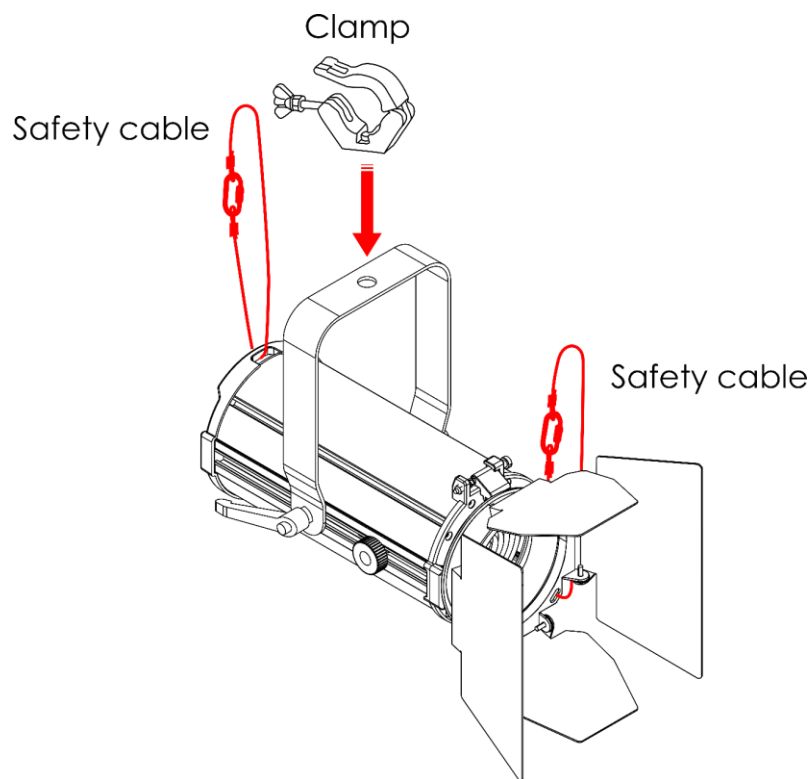


Fig. 07

## 4.5. Angle Adjustment

You can adjust the angle of the device with the **adjustment handle (06)**.

- 01) Turn the **adjustment handle (06)** counterclockwise to release it.
- 02) Tilt the device at the desired angle (see Fig. 08).
- 03) Turn the **adjustment handle (06)** clockwise to tighten it. Make sure that the device cannot move freely after the **adjustment handle (06)** is tightened.

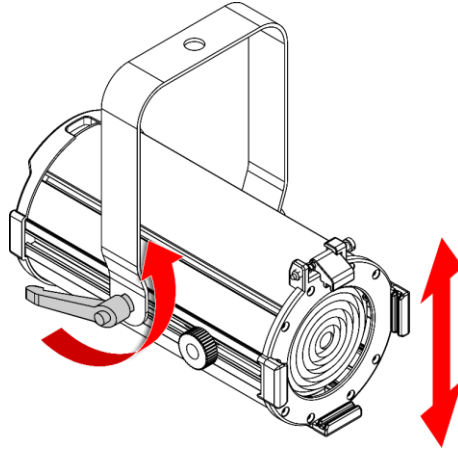


Fig. 08

## 4.6. Barndoor Installation

The Display Fresnel 20 SW is delivered with a barndoor. To install the barndoor, follow the steps below:

- 01) Push the **spring-loaded screw (01)** and at the same time lift and flip backwards the **color frame clip (02)** (see Fig. 09).
- 02) Insert the barndoor into the **color frame holders (04)** (see Fig. 10).
- 03) Pull the **color frame clip (02)** downwards to release the **spring-loaded screw (01)** (see Fig. 11). The barndoor will be locked in position.
- 04) Secure the barndoor to the supporting structure with an appropriate secondary attachment, for example a safety cable. See **4.4. Mounting** on page 12.

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

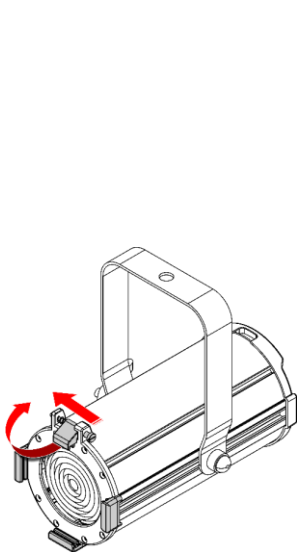


Fig. 09

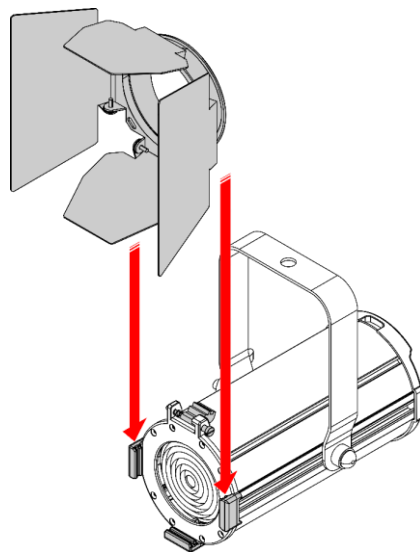


Fig. 10

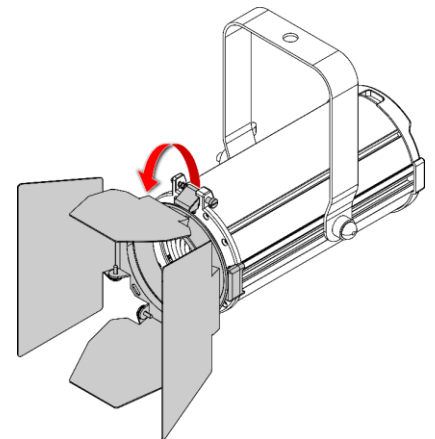


Fig. 11

## 4.7. Color Frame Installation

The Display Fresnel 20 SW is delivered with a color frame. You can insert a color gel or a diffusion filter into the color frame. To install the color frame, follow the steps below:

- 01) Push the **spring-loaded screw (01)** and at the same time lift and flip backwards the **color frame clip (02)** (see Fig. 12).
- 02) Insert a color gel or a diffusion filter into the color frame.
- 03) Insert the color frame into the **color frame holders (04)** (see Fig. 13).
- 04) Pull the **color frame clip (02)** downwards to release the **spring-loaded screw (01)** (see Fig. 14). The color frame will be locked in position.
- 05) Secure the color frame to the supporting structure with an appropriate secondary attachment, for example a safety cable. See **4.4. Mounting** on page 12.

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

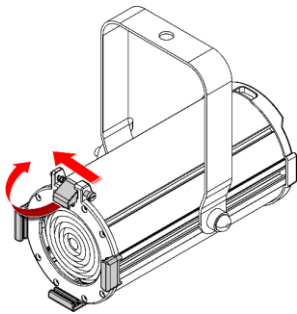


Fig. 12

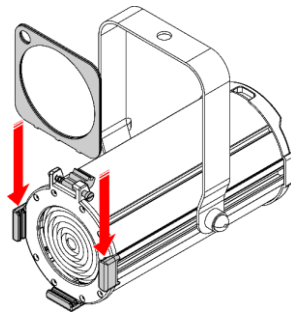


Fig. 13

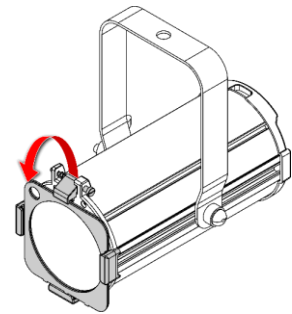


Fig. 14

## 4.8. Connecting to Power Supply



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

The device accepts AC mains power at 100–240 V and 50/60 Hz. Do not supply power at any other voltage or frequency to the device.

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

Before connecting the device to the socket-outlet:

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

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

## 5. Operation

### 5.1. 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 architectural light spot. It is suitable for indoor installation in shops, exhibition halls, showrooms and similar venues. This device is not suitable for households.

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.

### 5.2. Manual Control

The Display Fresnel 20 SW can be operated only manually. The device is equipped with a color temperature switch and a manual dimmer control.

- Set the **color temperature switch (12)** to CW or WW position to turn the device on.
  - CW (cold white) position – the light will turn on with a predefined color temperature of 6000 K
  - WW (warm white) position – the light will turn on with a predefined color temperature of 3000 K
- Turn the **manual dimmer control (09)** to adjust the light intensity. The adjustment range is 5–100 %.
- Set the **color temperature switch (12)** to OFF position to turn the device off.

#### 5.2.1. Beam Angle Adjustment

The beam angle of the Display Fresnel 20 SW can be adjusted manually in the range 13°–57°. To adjust the beam angle, follow the steps below:

- 01) Turn the **zoom control (05)** counterclockwise to loosen it.
- 02) Slide the **zoom control (05)** forwards or backwards to achieve the desired beam angle (see Fig. 15).
- 03) After adjusting the beam angle, turn the **zoom control (05)** clockwise to tighten it. Do not overtighten it.

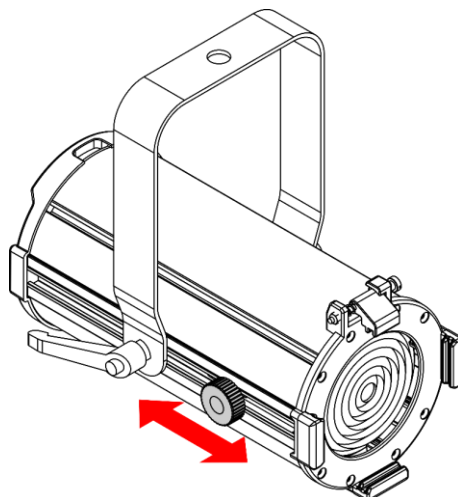


Fig. 15



## 6. 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	No power to the device	<ul style="list-style-type: none"> <li>Check if power is switched on and cables are plugged in</li> </ul>
	Main fuse is blown	<ul style="list-style-type: none"> <li>Replace the fuse. See <b>7.3.1. Replacing the Fuse</b> on page 17</li> </ul>
	LEDs are damaged	<ul style="list-style-type: none"> <li>Disconnect the device and contact your Highlite International dealer</li> </ul>
No light or LEDs cut out intermittently	The power supply settings do not match local AC voltage and frequency	<ul style="list-style-type: none"> <li>Disconnect the device. Check the settings and correct, if necessary</li> </ul>

## 7. Maintenance

### 7.1. Safety Instructions for Maintenance



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

Disconnect power supply before servicing or cleaning.

### 7.2. Preventive Maintenance



**Attention**  
Before 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.

### 7.2.1. 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 a 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 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.

### 7.3. 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.

#### 7.3.1. Replacing the Fuse



#### DANGER Electric shock caused by short-circuit

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

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

- 01) Disconnect the device from the electrical power supply.
- 01) Allow the device to cool down for at least 15 minutes.
- 02) Loosen the fuse cover with a screwdriver and remove the fuse holder.
- 03) If the fuse is brown or unclear, it is burned out. Remove the old fuse.
- 04) Insert a new fuse in the fuse holder. Make sure that the type and the rating of the replacement fuse are the same as the ones specified on the information label of the product.
- 05) Replace the fuse holder in the opening and tighten the fuse cover.

## 8. Deinstallation, Transportation and Storage

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### 8.1. 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 dismantling of the device.
- Wear personal protective equipment in compliance with the national and site-specific regulations.

### 8.2. 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".

### 8.3. Storage

- Clean the device before storing. Follow the cleaning instructions in chapter **7.2.1. Basic Cleaning Instructions** on page 17.
- Store the device in the original packaging, if possible.

## 9. Disposal

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### 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.

## 10. Approval

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



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