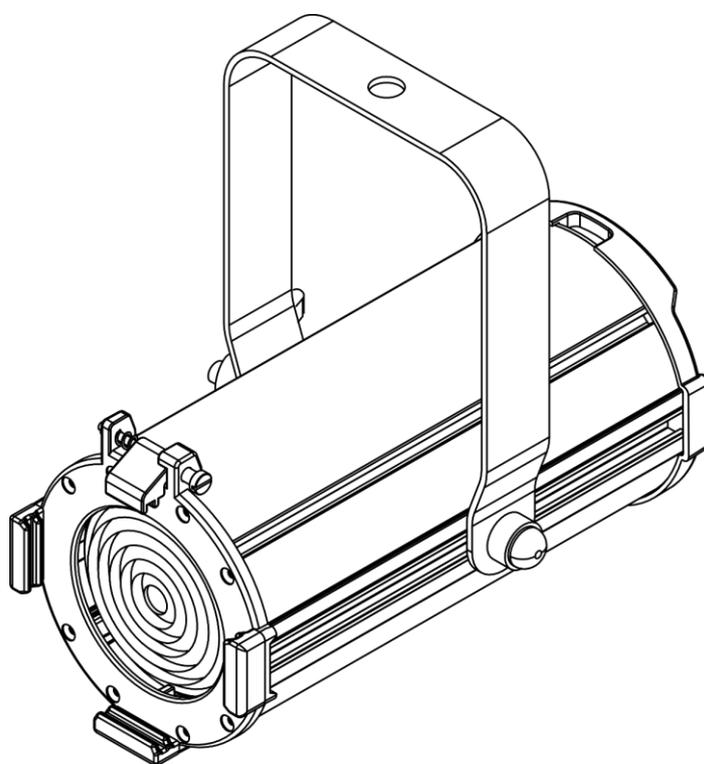




**MANUAL**



**ENGLISH**

**ACT Fresnel 20 WW**

**V1**

**Order code: 34010**

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## Warning



**For your own safety, please read this user manual carefully  
before your initial start-up!**

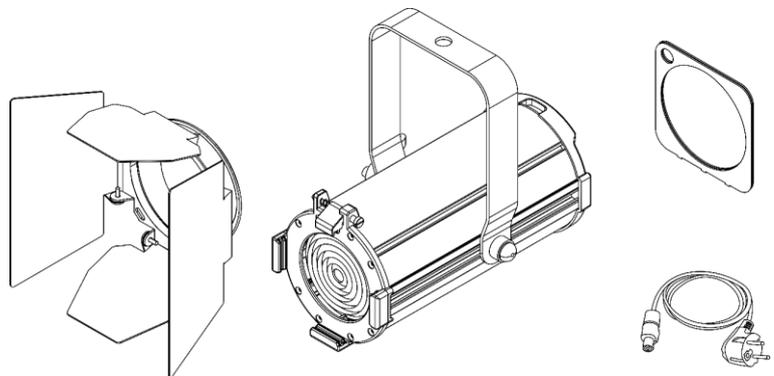


## Unpacking Instructions

Immediately upon receiving this product, carefully unpack the carton and check the contents to ensure that all parts are present, and have been received in good condition. Notify the dealer immediately and retain packing material for inspection if any parts appear damaged from shipping or the carton itself shows signs of mishandling. Save the carton and all packing materials. In the event that a fixture must be returned to the factory, it is important that the fixture will be returned in the original factory box and packing.

### Your shipment includes:

- Showtec ACT Fresnel 20 WW
- Barndoor
- Color frame
- Schuko to pro-power cable (1,5 m)
- User manual



## LED Expected Lifespan

LEDs gradually decline in brightness over time. HEAT is the dominant factor that leads to the acceleration of this decline. Packaged in clusters, LEDs exhibit higher operating temperatures than in ideal or singular optimum conditions. For this reason, when all color LEDs are used at their fullest intensity, life of the LEDs is significantly reduced. If improving the lifespan is of higher priority, place care in providing for lower operational temperatures. This may include climatic-environmental and the reduction of overall projection intensity.



### **CAUTION!**

**Keep this device away from rain and moisture!  
Unplug mains lead before opening the housing!**



## Safety Instructions

Every person involved with the installation, operation and maintenance of this device has to:

- be qualified
- follow the instructions of this manual



**CAUTION! Be careful with your operations.  
With a dangerous voltage you can suffer  
a dangerous electric shock when touching the wires!**



Before the initial start-up, please make sure that there is no damage caused by transportation. Should there be any, consult your dealer and do not use the device.

To maintain perfect condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes contained in this manual.

Please consider that damages caused by manual modifications to the device are not subject to warranty.

This device contains no user-serviceable parts. Refer servicing to qualified technicians only.

**IMPORTANT:**

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

- Never let the power cord come into contact with other cables! Handle the power cord and all connections with the mains with particular caution!
- Never modify, bend, mechanically strain, put pressure on, pull or heat up the power cord.
- Never strain the cable insert. There must always be sufficient cable going to the device. Otherwise, the cable will be damaged, which can cause serious damage.
- Never remove warning or informative labels from the unit.
- Never use anything to cover the ground contact.
- Never place any material over the lens.
- Never look directly into the light source.
- Never leave any cables lying around.
- Do not connect this device to a dimmer pack.
- Do not switch the device on and off in short intervals, as this will reduce the device's life.
- Do not touch the device's housing bare-handed during its operation (housing becomes very hot). Allow the fixture to cool for at least 5 minutes before handling.
- Do not shake the device. Avoid brute force when installing or operating the device.
- Only use the device indoors, avoid contact with water or other liquids.
- Only operate the fixture after having checked if the housing is firmly closed and all screws are tightly fastened.
- Only operate the device after having familiarized with its functions.
- Avoid flames and do not put close to flammable liquids or gases.
- Always keep the housing closed while operating.
- Always allow free space of at least 0,5 m around the unit for ventilation.
- Always disconnect power from the mains when device is not used or before cleaning! Only handle the power cord holding it by the plug. Never pull out the plug by tugging the power cord.
- Make sure that the device is not exposed to extreme heat, moisture or dust.
- Make sure that the available voltage is not higher than stated on the rear panel.
- Make sure that the power cord is never crimped or damaged. Check the device and the power cord from time to time.
- If the lens is obviously damaged, it has to be replaced to prevent its functions from being impaired, due to cracks or deep scratches.
- If device was dropped or struck, disconnect mains power supply immediately. Have a qualified engineer inspect for safety before operating.
- If the device has been exposed to drastic temperature fluctuation (e.g. after transportation), do not switch it on immediately. The arising condensation water may damage your device. Leave the device switched off until it has reached room temperature.
- If your Showtec device fails to work properly, discontinue the use immediately. Pack the unit securely (preferably in the original packing material), and return it to your Showtec dealer for service.
- For adult use only. The device must be installed beyond the reach of children. Never leave the unit running unattended.
- Never attempt to bypass the thermostatic switch or fuses.
- For replacement use fuses of same type and rating only.
- The user is responsible for correct positioning and operating of the device. The manufacturer will not accept liability for damages caused by the misuse or incorrect installation of this device.

- This device falls under protection class I. Therefore it is essential to connect the yellow/green conductor to earth.
- Repairs, servicing and electric connection must be carried out by a qualified technician.
- WARRANTY: Till one year after date of purchase.

### Operating Determinations

- This device is not designed for permanent operation. Consistent operation breaks will ensure that the device will serve you for a long time without defects.
- The minimum distance between light output and the illuminated surface must be bigger than 1 m.
- In order to eliminate wear and improve the device's lifespan, during periods of non-use, completely disconnect from power source via breaker or by unplugging.
- 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.
- If this device is operated in any other way than the one described in this manual, the product may suffer damages and the warranty becomes void.
- Any other operation may lead to dangers like short circuit, burns, electric shock, crash, etc.

*You endanger your own safety and the safety of others!*

## Rigging

Please follow the European and national guidelines concerning rigging, trussing and all other safety issues.

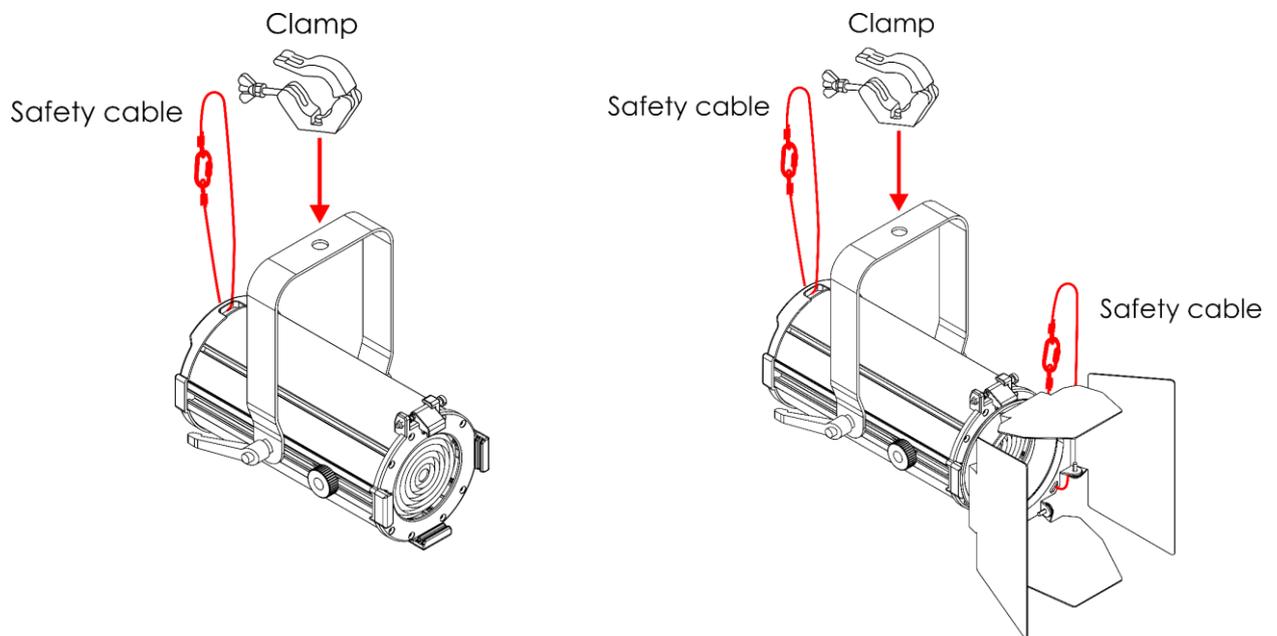
Do not attempt the installation yourself!

Always let the installation be carried out by an authorized dealer!

### Procedure:

- If the device is lowered from the ceiling or high joists, professional trussing systems have to be used.
- Use a clamp to mount the device with the mounting bracket to the trussing system.
- The device must never be fixed swinging freely in the room.
- The installation must always be secured with a safety attachment, e.g. an appropriate safety net or safety cable.
- If the barndoor or the color filter is installed, it must be secured with a safety cable.
- When rigging, derigging or servicing the device, always make sure, that the area below the installation site is secured and that there are not any unauthorized people around.

Improper installation can cause serious injuries and/or damage of property!



### 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. 01).
- 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.

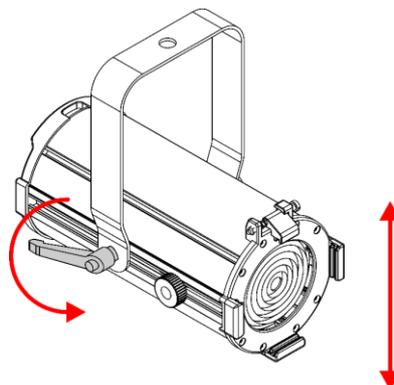


Fig. 01

**Connection with the Mains**

Connect the device to the mains with the power plug.  
Always check if the right color cable is connected to the right place.

International	EU Cable	UK Cable	US Cable	Pin
L	BROWN	RED	YELLOW/COPPER	PHASE
N	BLUE	BLACK	SILVER	NEUTRAL
	YELLOW/GREEN	GREEN	GREEN	PROTECTIVE GROUND

*Make sure that the device is always properly connected to the earth!*

*Improper installation can cause serious injuries and/or damage of property!*



** Return Procedure **

Returned merchandise must be sent prepaid and in the original packing, call tags will not be issued. Package must be clearly labeled with a Return Authorization Number (RMA number). Products returned without an RMA number will be refused. Highlite will not accept the returned goods or any responsibility. Call Highlite 0031-455667723 or mail [offersales@highlite.com](mailto:offersales@highlite.com) and request an RMA prior to shipping the fixture. Be prepared to provide the model number, serial number and a brief description of the cause for the return. Be sure to properly pack fixture, any shipping damage resulting from inadequate packaging is the customer's responsibility. Highlite reserves the right to use its own discretion to repair or replace product(s). As a suggestion, proper UPS packing or double-boxing is always a safe method to use.

**Note: If you are given an RMA number, please include the following information on a piece of paper inside the box:**

- 01) Your name
- 02) Your address
- 03) Your phone number
- 04) A brief description of the symptoms

**Claims**

The client has the obligation to check the delivered goods immediately upon delivery for any shortcomings and/or visible defects, or perform this check after our announcement that the goods are at their disposal. Damage incurred in shipping is the responsibility of the shipper; therefore the damage must be reported to the carrier upon receipt of merchandise.

It is the customer's responsibility to report and submit claims with the shipper in the event that a fixture is damaged due to shipping. Transportation damage has to be reported to us within one day after receipt of the delivery.

Any return shipment has to be made post-paid at all times. Return shipments must be accompanied with a letter defining the reason for return shipment. Non-prepaid return shipments will be refused, unless agreed otherwise in writing.

Complaints against us must be prepared in writing or sent by fax within 10 working days after receipt of the invoice. After this period complaints will not be handled anymore.

Complaints will only then be considered if the client has so far complied with all parts of the agreement, regardless of the agreement from which the obligation is resulting.

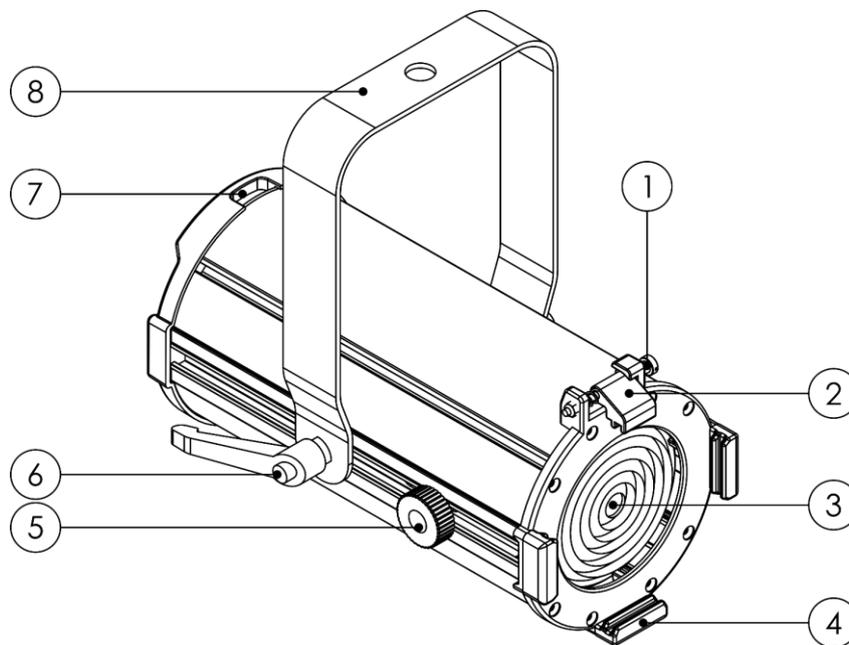
## Description of the Device

### Features

The Showtec ACT Fresnel 20 WW is a compact entry-level theater fixture. The ACT Fresnel 20 WW is equipped with a high quality molded-glass Fresnel lens and comes with a barndoor and a color frame. It is suitable for small theaters, school cafeterias or community centers.

- Input voltage: 100–240 V AC, 50/60 Hz
- Power consumption: 21 W
- Light source: 1 x 20 W Warm White COB LED
- Beam angle: 8°–55° (manual adjustment)
- Output: 8° – 2300 lx @ 2 m  
55° – 298 lx @ 2 m
- Color temperature: 3200 K
- Light quality: CRI 98
- Dimmer: Manual
- Zoom: Manual
- Connections: Pro-power connector IN
- Control: Manual
- Housing: Extruded aluminum
- Color: Black
- Cooling: Convection (no fan)
- IP Rating: IP20
- Fuse: F1 AL/250 V AC
- Dimensions: 231 x 165 x 216 mm (L x W x H) (without accessories)
- Weight: 1,48 kg (without accessories)

### Overview



**Fig. 02**

- 01) Spring-loaded screw
- 02) Color frame clip
- 03) Fresnel lens
- 04) 3 x Color frame holders
- 05) Zoom control
- 06) Adjustment handle
- 07) Safety eye
- 08) Mounting bracket

Backside

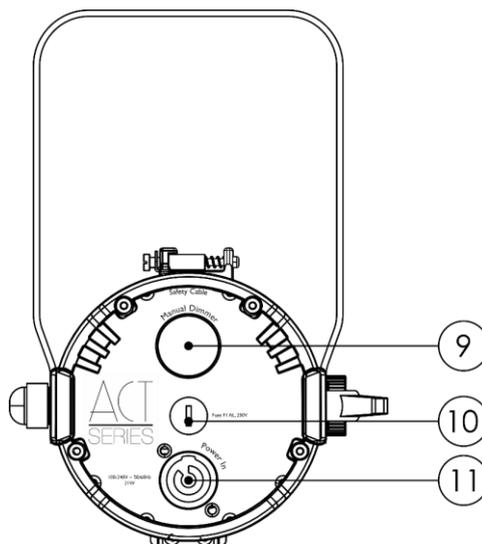


Fig. 03

- 09) Manual dimmer control
- 10) Fuse F1 AL/250 V AC
- 11) Pro-power connector IN 100–240 V, 50/60 Hz (Blue)

Accessories

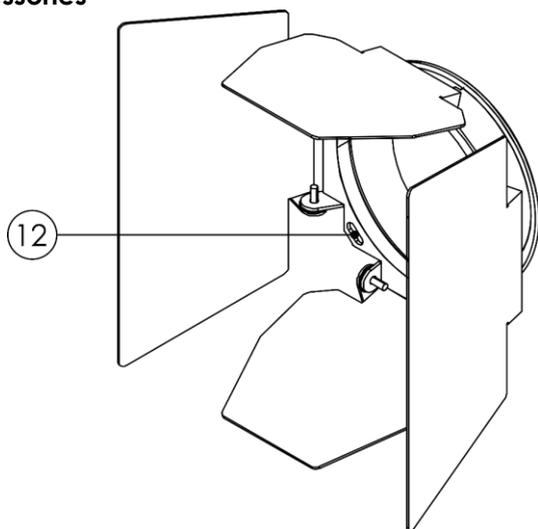


Fig. 04

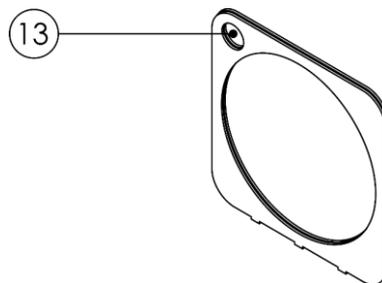


Fig. 05

- 12) Safety eye – barndoor
- 13) Safety eye – color frame

## Installation

Remove all packing materials from the ACT Fresnel 20 WW. Check if all foam and plastic padding is removed. Connect the device to the main power supply.

**Always disconnect from electric mains power supply before cleaning or servicing.**

**Damages caused by non-observance are not subject to warranty.**

## Setup and Operation

Follow the directions below, as they pertain to your preferred operation mode.

Before plugging the unit in, always make sure that the power supply matches the product specification voltage. Do not attempt to operate a 120 V specification product on 230 V power, or vice versa.

Connect the device to the main power supply.

### Beam Angle Adjustment

The beam angle of the ACT Fresnel 20 WW can be adjusted manually in the range 8°–55°. 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. 06).
- 03) After adjusting the beam angle, turn the **zoom control (05)** clockwise to tighten it. Do not overtighten it.

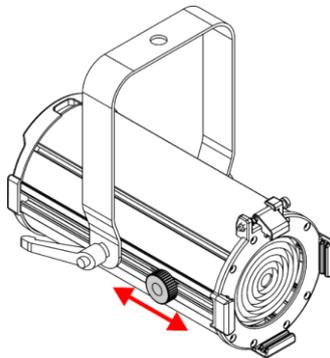


Fig. 06

### Barndoor Installation

The ACT Fresnel 20 WW 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 the **color frame clip (02)** and flip it backwards (see Fig. 07).
- 02) Insert the barndoor into the **color frame holders (04)** (see Fig. 08).
- 03) Pull the **color frame clip (02)** downwards to release the **spring-loaded screw (01)** (see Fig. 09). The barndoor will be locked in position.
- 04) Secure the barndoor to the trussing with an appropriate secondary attachment, for example a safety cable. See **Rigging** on page 5.

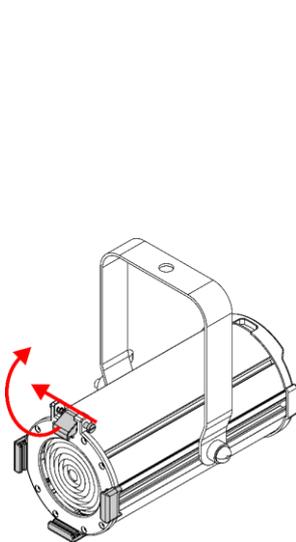


Fig. 07

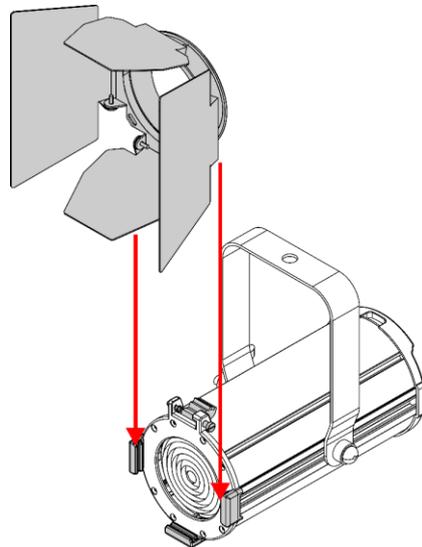


Fig. 08

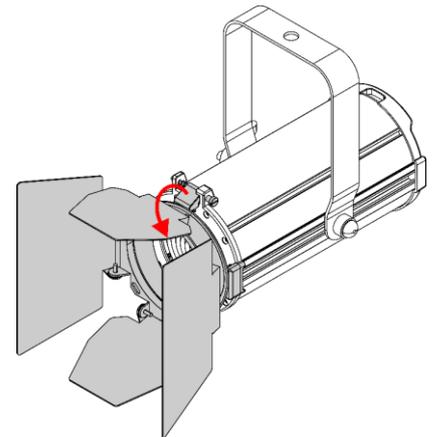


Fig. 09



**Make sure that the barndoor is locked in position with the color frame clip before using the ACT Fresnel 20 WW.**



### Color Frame Installation

The ACT Fresnel 20 WW 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 the **color frame clip (02)** and flip it backwards (see Fig. 10).
- 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. 11).
- 04) Pull the **color frame clip (02)** downwards to release the **spring-loaded screw (01)** (see Fig. 12). The color frame will be locked in position.
- 05) Secure the color frame to the trussing with an appropriate secondary attachment, for example a safety cable. See **Rigging** on page 5.

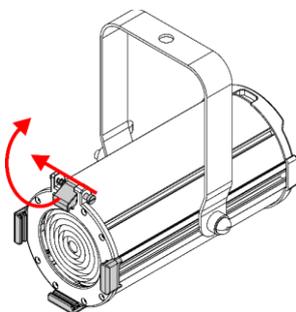


Fig. 10

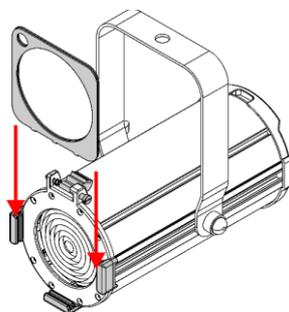


Fig. 11

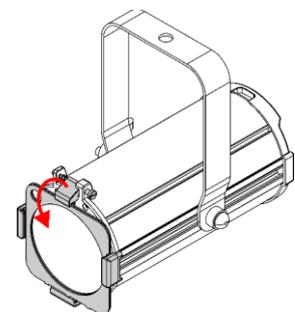


Fig. 12



**Make sure that the color frame is locked in position with the color frame clip before using the ACT Fresnel 20 WW.**



## Control Modes

The ACT Fresnel 20 WW can be operated only manually.

- 01) Fasten the effect light to a firm trussing. Leave at least 0,5 meter on all sides for air circulation.
- 02) Secure the device with a safety cable (order code 70140 / 70141).
- 03) Plug the end of the electric mains power cord into a proper electric power supply socket.
- 04) Turn the **manual dimmer control (09)** to adjust the intensity of the light.

## Maintenance

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The operator has to make sure that safety-related and machine-technical installations are to be inspected by an expert after every year in the course of an acceptance test.

The following points have to be considered during the inspection:

- 01) All screws used for installing the device or parts of the device have to be tightly connected and must not be corroded.
- 02) There may not be any deformations on housings, fixations and installation spots.
- 03) Mechanically moving parts like axles, eyes and others may not show any traces of wearing.
- 04) The electric power supply cables must not show any damages or material fatigue.

The ACT Fresnel 20 WW requires almost no maintenance. However, you should keep the unit clean. Otherwise, the fixture's light output will be significantly reduced. Disconnect the mains power supply and then wipe the housing with a damp cloth. Do not immerse in liquid. Wipe lens clean with glass cleaner and a soft cloth. Do not use alcohol or solvents.

The front lens will require weekly cleaning, as smoke fluid tends to build up residues, reducing the light output very quickly.

## Replacing the Fuse

Power surges, short-circuit or inappropriate electrical power supply may cause a fuse to burn out. If the fuse burns out, the product will not function whatsoever. If this happens, follow the directions below:

- 01) Unplug the unit from electric power source.
- 02) Insert a screwdriver into the slot of the fuse cover. Turn the fuse holder counterclockwise. The fuse holder will come out.
- 03) Remove the used fuse. If brown or unclear, it is burned out.
- 04) Insert the replacement fuse into the holder where the old fuse was. Reinsert the fuse cover. Be sure to use a fuse of the same type and specification. See the product specification label for details.

## Troubleshooting

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This troubleshooting guide is meant to help solve simple problems.

If a problem occurs, carry out the steps below in sequence until a solution is found. Once the unit operates properly, do not carry out following steps.

### No Light

If the light effect does not operate properly, refer servicing to a technician.

Suspect three potential problem areas as: the power supply, the LED, the fuse.

- 01) Power supply. Check if the unit is plugged into an appropriate power supply.
- 02) The LED. Return the device to your Showtec dealer.
- 03) The fuse. Replace the fuse. See page 11 for replacing the fuse.
- 04) If all of the above appears to be O.K., plug the unit in again.
- 05) If you are unable to determine the cause of the problem, do not open the device, as this may damage the unit and the warranty will become void.
- 06) Return the device to your Showtec dealer.

## Product Specifications

Model:	Showtec ACT Fresnel 20 WW
Input voltage:	100–240 V AC, 50/60 Hz
Power consumption:	21 W
Fuse:	F1 AL/250 V AC
Dimensions:	231 x 165 x 216 mm (L x W x H) (without accessories)
Weight:	1,48 kg (without accessories)
<b>Electro-mechanical properties:</b>	
Light source:	1 x 20 W Warm White COB LED
Dimmer:	Manual
Zoom:	Manual
Beam angle:	8°–55° (manual adjustment)
Output:	8° – 2300 lx @ 2 m 55° – 298 lx @ 2 m
Color temperature:	3200 K
Light quality:	CRI 98
Housing:	Extruded aluminum
Color:	Black
Control:	Manual
Connections:	Pro-power connector IN
IP Rating:	IP20
Cooling:	Convection (no fan)
Max. ambient temperature $t_a$ :	40°C
Max. housing temperature $t_b$ :	70°C
<b>Minimum distance:</b>	
Minimum distance from flammable surfaces:	0,5 m
Minimum distance to lighted object:	1 m

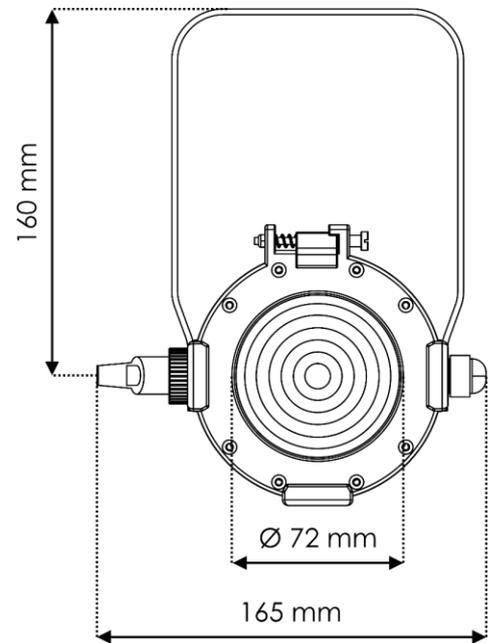
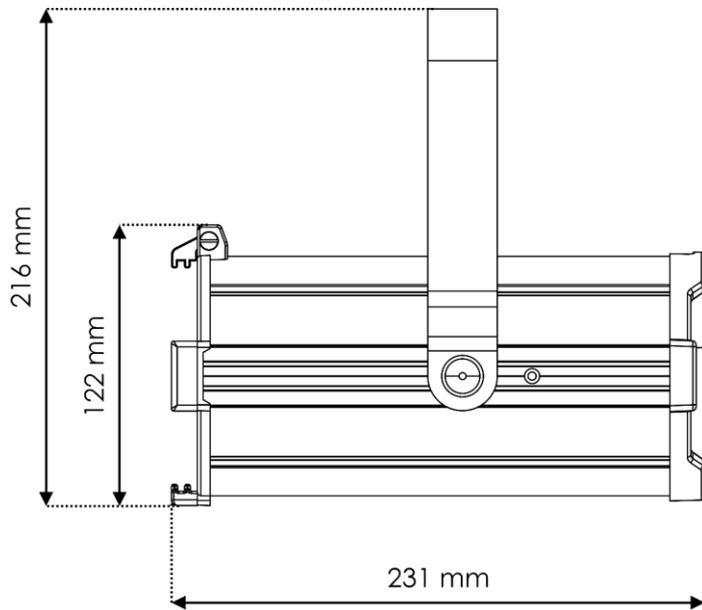
Design and product specifications are subject to change without prior notice.



Website: [www.Showtec.info](http://www.Showtec.info)

Email: [service@highlite.com](mailto:service@highlite.com)

## Dimensions







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