# Quick Start and Safety Manual

impression
FR10 BAR

Software version V. 20

-GLP-

GLP® FR10 Bar Quick Start and Safety Manual – Revision A

This manual covers fixture software version V. 20

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# 1. Safety

## Key to symbols

The following symbols are used in this Guide:

| | |
|---|---|
|  | **Warning!** Safety hazard. Risk of severe injury or death. |
|  | **Warning!** Hazardous voltage. Risk of lethal or severe electric shock. |
|  | **Warning!** See user manual for important safety information. |
|  | **Warning!** Fire hazard. |
|  | **Warning!** Risk of eye injury. |

## General safety information

**Read this manual carefully before installing, using or servicing the GLP impression FR 10 Bar lighting fixture.**

If you have any doubts or questions about how to use the fixture safely, contact your GLP® supplier for assistance. Your GLP supplier will be happy to help.

The user documentation for FR 10 Bar lighting fixtures consists of:

- The **FR 10 Bar Quick Start and Safety Manual**, supplied with FR 10 Bar fixtures and available for download from www.glp.de. The Quick Start and Safety Manual contains important safety information and installation instructions that the installer and user must read.
- The **FR 10 Bar User Manual**, available for download from www.glp.de. The User Manual explains features and control of FR 10 Bar fixtures.
- The **FR 10 Bar DMX Channel Index**, available for download from www.glp.de. The Channel Index is a separate guide to the DMX control channel layout and DMX commands available.

All documents are available for download from www.glp.de.

The impression FR 10 Bar is intended for use by experienced professionals with the knowledge and skills to set up, operate, and maintain high-powered, remotely controlled lighting equipment safely and efficiently. These operations require expertise that may not be provided in this Manual or in the User Manual.

- Respect all warnings and directions given in the fixture's user documentation and on the fixture. Read the user documentation and familiarize yourself with the safety

precautions it contains before installing or using the fixture. GLP and affiliated companies will take no responsibility for damage or injury resulting from disregard for the information in the user documentation.

- Check the GLP website at www.glp.de and make sure that you have the latest version of this manual. Check the fixture software version indicated on page 2 of this manual and then use the fixture's control panel to check the version installed in the fixture. If the versions are not the same, this manual may still cover the fixture, because software updates do not always affect the way you use the fixture. However, it is possible that this manual does not match the fixture perfectly. Software release notes can help clarify this question. You can consult software release notes and download the correct version of this manual on the GLP website if necessary.
- Make all user documentation – this Quick Start and Safety Manual as well as the User Manual – available to all installers and operators. Save both documents for future reference.
- If you have any questions about the safe operation of the fixture, please contact an authorized GLP distributor (see list of distributors at www.glp.de).
- Use the fixture only as directed in this manual. Observe all markings in this manual and on the fixture.
- Refer all repairs and any service operation not described in this manual to a technician authorized by GLP.
- The light source in this fixture must not be changed by the end user.
- Read and follow the user documentation for all additional equipment.

## Electrical safety

- The fixture is for use in dry locations only. Do not allow the fixture to come into contact with water or moisture.
- Use only a source of AC mains power that complies with local building and electrical codes and has both overload and ground fault (earth fault) protection.
- Ensure that the fixture is electrically connected to ground (earth).
- Disconnect the fixture from AC mains power before carrying out any installation or maintenance work and when the fixture is not in use.
- Disconnect the fixture from power immediately if any seal, cover, cable, connector or other component is damaged, defective, deformed or showing signs of overheating. Do not reapply power until the fixture has been repaired and made safe by a technician authorized by GLP.
- Check that all power distribution equipment, cables and connectors are in perfect condition, rated for the electrical requirements of all connected devices, suitable for their application and suitable for the installation environment.

- Use only Neutrik PowerCON TRUE1 cable connectors for AC mains power input at the fixture's Mains IN connector and for relaying AC mains power from one fixture's Mains OUT (Thru) connector to another fixture's Mains IN connector.
- Use minimum 14 AWG or 1.5 $mm^2$ power input and relay cables that are minimum 16 A-rated and temperature-rated to suit the application. In the USA and Canada the cables must be UL-listed, type SJT or equivalent. In the EU the cables must be type H05VV-F or equivalent.
- Do not connect devices to power in a chain if the total maximum current draw of all the devices in the chain when added together will exceed the current rating of any cable or connector used at any point in the chain. The supplied power input cable is rated as follows:
  - US power cable: 16 A, 14 AWG, UL-listed, E304117, SJT, 4.9 ft.
  - EU power cable: 16 A, 1.5 $mm^2$, H05VVF-F, 1.5 m.

  Do not connect more than two (2) FR 10 Bar fixtures to power linked together at 100-120 V, 60 Hz.

  Do not connect more than four (4) FR 10 Bar fixtures to power linked together in a chain at 200-240 V, 50 Hz.
- The voltage and frequency at the Mains OUT socket are the same as the voltage and frequency applied to the Mains IN socket. Only connect devices to the Mains OUT socket that accept this voltage and frequency.
- Replace the fuse with a new fuse of the same type and rating only.

**Fire safety and protection from burns**

- Do not operate the fixture if the ambient temperature (Ta) exceeds 45° C (113° F).
- The surface of the fixture can become hot during operation. Avoid contact by persons and materials. Do not install the fixture in a location where there is a risk of accidental contact. Allow the fixture to cool for at least 20 minutes before handling
- Keep the fixture well away from flammable materials.
- Keep all combustible materials (e.g. fabric, wood, paper) at least 0.2 m (8 in.) away from the fixture.
- Ensure that there is free and unobstructed airflow around the fixture.
- Do not illuminate surfaces within 0.2 m / 8 in. of the fixture. The light output from the fixture is powerful enough to cause burns or fire in illuminated objects at very close range.
- Do not place any optical components other than impression FR 10 Bar accessories from GLP onto the front of the fixture.
- Do not stick filters, masks or other materials onto the fixture. Do not block the light output in any way. The front surface becomes hot during operation and can melt or ignite objects that are in contact with the surface. Ensure that the front surface Is

clean and unobstructed at all times in order to prevent a fire hazard and damage to the fixture.

- The fixture's optical components can focus the sun's rays, creating a risk of fire and damage. Do not expose the front of the fixture to sunlight or any other intense light source, even from an angle.

## Eye safety

- The FR 10 Bar is classified as a Risk Group 2 lighting fixture according to EN 62471. Possibly hazardous radiation emitted. Do not stare into the light output from the fixture. May be harmful to the eyes.
- Do not look at the fixture's light output with optical instruments or any device that may concentrate the light output.
- Make sure that persons near to or working on the fixture are not looking directly into the light output when the fixture lights up suddenly. This can happen when power is applied, when the fixture receives a DMX signal, or when certain control menu items are selected.
- Provide well-lit conditions to reduce the pupil diameter of anyone working on or near the fixture.

## Strobe safety

- Flashing light, particularly at 5 - 30 Hz, may cause seizures in persons with photosensitive epilepsy. Do not use strobe effects for extended periods.
- Comply with local regulations on the use of strobe lighting and notify the public in advance with highly visible warning signs when strobe effects are used.
- If a seizure occurs, stop using strobe effects. Seek professional medical help. Note the time that the seizure starts and finishes. Call emergency medical help urgently if the seizure lasts more than five minutes, if it is the person's first seizure, or if the person is injured. While waiting for help to arrive, protect the affected person from injuring themselves on hard or sharp objects. If necessary, move the person to a safe place. Lay them on their side with their head supported to prevent it from hitting the floor. Loosen any tight clothing around their neck. Do not use force to hold the person or restrict their movements. Do not put anything in their mouth, including your fingers.

**Installation safety and protection from personal injury**

- Installation must be performed by qualified personnel only and carried out in accordance with applicable regulations such as DIN VDE 0711-217.
- The fixture is not portable when installed.
- Ensure that the supporting structure and installation hardware used can hold at least ten times the weight of the load that they support.
- Fasten the fixture to a structure or surface only as directed in this manual and only with hardware that is specifically designed and rated for its purpose. Do not use a safety cable as the primary means of support. Check that installation hardware is in perfect condition. Fasteners must be steel grade 8.8 strength or better. Rigging clamps must be half-coupler type that completely encircle the rigging truss chord.
- If the fixture is installed in a location where it may cause injury or damage if it falls, install as directed in this manual a safety cable or similar secondary attachment that will hold the fixture if a primary attachment fails. The secondary attachment must be approved by an official body such as TÜV as a safety attachment for the weight that it secures, it must comply with EN 60598-2-17 Section 17.6.6, and it must be able to support a static suspended load that is ten times the weight that it secures.
- If the fixture is installed in a location where it may be exposed to forces such as wind pressure, vibration or movement, make sure that the installation can withstand these forces. Monitor weather forecasts constantly. Take down the installation immediately if there is any risk of weather conditions that could destabilize the installation.
- Check that all covers and items of rigging hardware are secure before using the fixture. Do not operate the fixture with missing or damaged covers, shields or any optical component.
- Restrict access below the work area and work from a stable platform whenever installing, servicing or moving the fixture.
- If the fixture becomes damaged, stop using it immediately and disconnect it from power. Do not attempt to use a fixture that is obviously damaged.
- Do not modify the fixture in any way not described in its user documentation.
- Install genuine GLP parts only.

## 2. Avoiding damage to the fixture

**Important! Follow the directions in this section carefully, or the fixture may suffer damage that is not covered by the product warranty.**

### General precautions

Do not drop the fixture or expose it to mechanical stress.

Protect the LCD display and control panel from shocks, or they may suffer damage that is not covered by the product warranty.

Do not expose the fixture to heat (from other lighting fixtures for example).

Clean optical components only as directed. Oils, solvents, and other chemicals commonly used for cleaning can damage the lens coatings and surfaces.

Use only original spare parts. Do not make any structural modifications to the fixture or you will void the product warranty.

Create loose cable bends only. Do not subject connectors to bending forces or allow connectors to bear the weight of long lengths of cable.

### Avoiding damage from light sources and heat

Do not point the front of the fixture towards the sun or other strong light sources. Strong light can cause internal damage to the fixture, melting components or starting an internal fire within seconds.

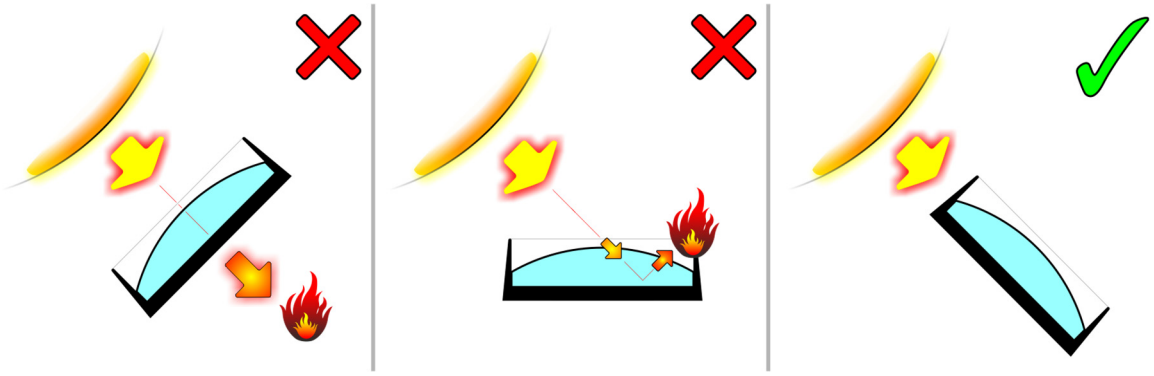

***Figure 1. Avoiding damage from light sources***

Damage can occur whether the fixture is powered on or off. See Figure 1. Damage can also occur if the light hits the front of the fixture at an angle: the fixture does not need to be pointing *directly* at the sun or other light source.

To avoid problems from strong light sources:

- Do not expose the front of the fixture to sunlight or any other strong light source.
- In outdoor applications during daylight, make sure that the front face of the fixture is shielded or points away from the sun, even when not in use.
- Do not aim other high-powered beam lights directly at the fixture.

Do not operate the fixture in ambient temperatures above 45° C / 113° F or below 5° C / 41° F. Allow free airflow around the fixture.

### Avoiding damage from dust and airborne particles

- Carry out regular visual inspections of the fixture to make sure that there is no accumulation of dirt, especially on the front of the fixture and around air vents.
- If cleaning is necessary, follow the instructions in 'Service' on page 20.

### Transportation and storage

- Transport the fixture in its original packaging to protect it from damage caused by shocks during transportation.
- Release the fixture's tilt lock before putting the fixture in its flightcase or other protective container for transportation. Before closing the flightcase, check that the protective liner in the flightcase will hold the head and protect it from shocks.
- Store the fixture in a dry location when not in use.

## 3. FR 10 Bar overview

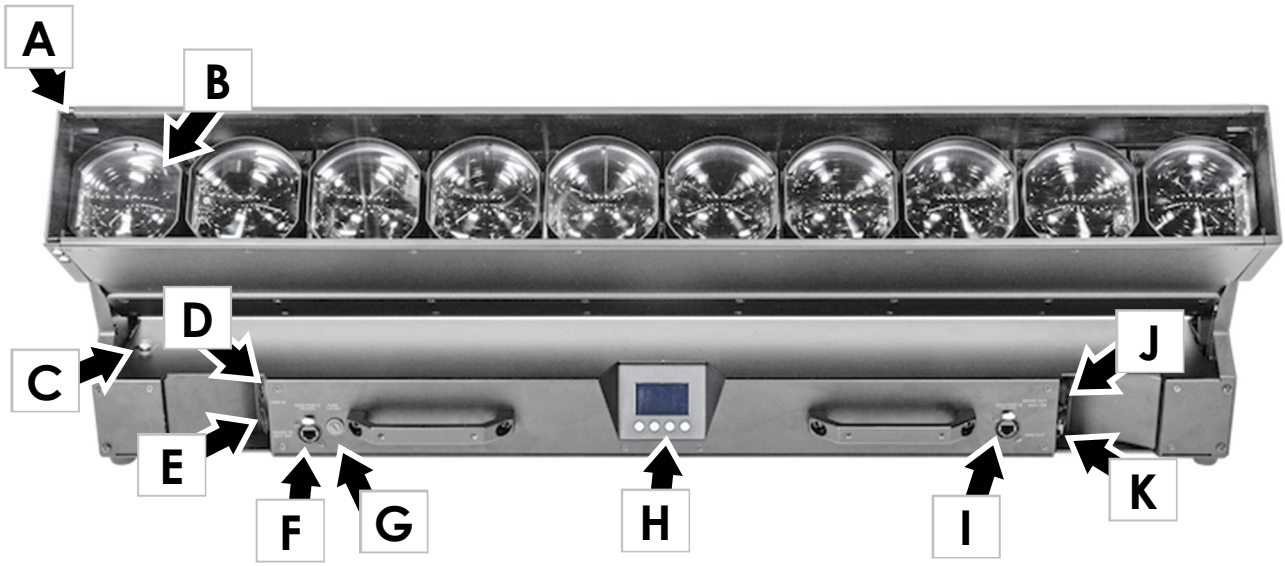


*Figure 2. FR 10 Bar overview*

**A – Head**

**B – Pixel zoom lens**

**C – Alignment pins button**

**D – DMX IN (5-pin XLR)**

**E – AC mains power IN (Neutrik powerCON TRUE1)**

**F – etherCon Port IN/THRU, fail-safe (Art-Net / sACN)**

**G – Fuseholder**

**H – Control panel with backlit display**

**I – etherCon Port IN/THRU, fail-safe (Art-Net / sACN)**

**J – AC mains power THRU (Neutrik powerCON TRUE1)**

**K – DMX THRU (5-pin XLR)**

# 4. Features

The impression FR 10 Bar from GLP can be used in dry locations in permanent and temporary installations. Fixtures can be placed on or fastened to a level surface, or they can be suspended from a suitable structure as directed in this manual.

Power and data can be daisy-chained for ease of installation, and multiple fixtures can be lined up to give an unbroken line of pixels using the retractable alignment pins that are built into the fixture.

The FR 10 Bar is not suitable for household use, for use in any location where unattended children have access to it, or for use in locations that may be exposed to water or humidity.

### User Manual

This Quick Start and Installation Manual gives a very basic overview of control options and functions. See the FR 10 Bar User Manual available for download from www.glp.de for full details of control, pixel layout, etc.

### Tilt lock

**Important!** Before transporting the FR10 Bar, release the tilt lock and make sure that the head is supported to prevent it from moving.

The FR10 Bar has a tilt lock that can be used to prevent the head from moving while the fixture is being carried. The tilt lock also lets you immobilize the head during cleaning or while installing optical accessories on the front of the fixture.

See Figure 3. The tilt lock button is located on the back of the head, at the left-hand end of the head when viewing the fixture from the control panel side. To engage the tilt lock:

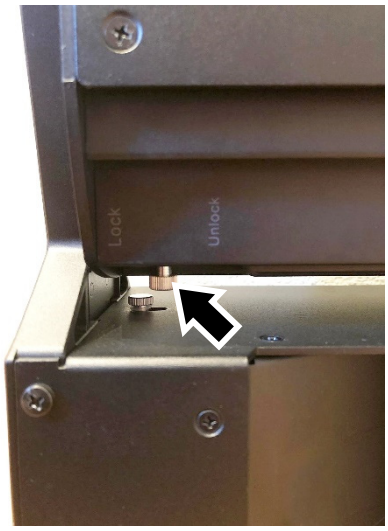


***Figure 3. Tilt lock button***

1. Check that power to the fixture is shut down.
2. Move the head into the upright position, facing away from the fixture base.
3. Slide the tilt lock button towards the yoke and into the **Lock** position to engage it.
4. Release the tilt lock by sliding it away from the yoke and into the **Unlock** position before reapplying power to the fixture.

# 5. Installation

**Warning!** Read 'Safety' starting on page 4 for important safety information that you must understand before you install or operate the fixture. Install FR 10 Bar fixtures only as described in this chapter, or you may create an installation that is unsafe.

It is the installer's responsibility to provide a stable, secure supporting structure that is suitable for the environment and application and that meets all applicable codes and legal requirements. Note the requirement to secure lighting fixtures with safety cables in temporary installations.

## Mounting options

An FR 10 Bar fixture may be installed in one of the following ways:

1. Standing horizontally on a horizontal surface.
2. Fastened to a rigging truss or similar structure at any angle using the supplied brackets and two or more rigging clamps (optional accessories).

## Securing the fixture with a safety cable

If a fixture can cause injury or damage if it falls you must secure it with at least one secondary attachment such as a safety cable that will hold it if the primary means of attachment fails. The safety cable must be approved for the weight that it secures. In multiple installations, each fixture must have its own safety cable.

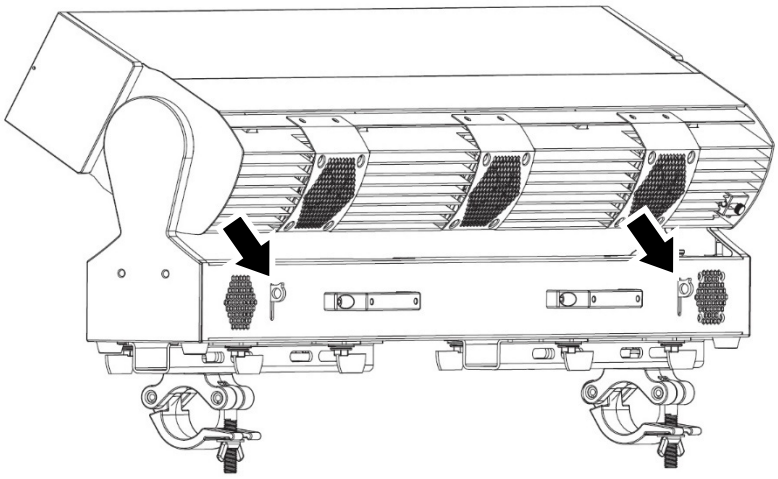

***Figure 4. Safety cable attachment points***

To secure an FR 10 Bar fixture with a safety cable:

1. Obtain a safety cable that is approved for the weight of the fixture and rigging hardware that it will secure.

2. Loop the cable around a secure anchoring point such as a truss chord or fixed structure so that it will catch the fixture if a rigging clamp fails. Take up as much slack as possible in the safety cable (by looping it more than once around the truss chord, for example).
3. See Figure 4. Open one of the retractable safety cable attachment eyelets (arrowed) in the sides of the fixture and fasten the safety cable to it.
4. If there is any danger that the fixture may swing dangerously from the safety cable if a primary attachment fails, open the second retractable safety cable eyelet at the other end of the fixture and add a second safety cable as described above, fastening it to this second eyelet.
5. Check that the fixture is now secured.

### End-to-end alignment

The FR10 features alignment pins that let you line up fixtures perfectly end-to-end to create an unbroken line of pixels. To use the alignment pins:

1. See Figure 5. The alignment pin release button is located on the base of the fixture at the left-hand end when viewing the fixture from the control panel side.
2. Slide the release button to the left to move the alignment pins out of the fixture.
3. Engage the pins in the corresponding holes in the right-hand end of the next fixture to line the two fixtures. The pins are for alignment purposes only, do not apply a load to them.

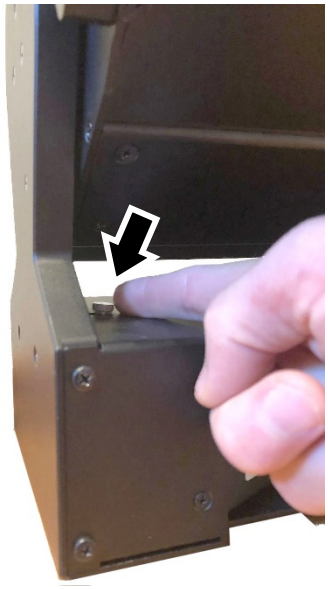

***Figure 5. Alignment pin release button***

### Standing an FR 10 Bar on a horizontal surface

To place an FR 10 Bar fixture standing horizontally on a stable horizontal surface:

1. Stand the fixture on its feet as shown in Figure 6. Make sure that it is safe and secure, and that it will not present a danger of tripping or falling.
2. If there is any danger of injury or damage if the fixture falls from the surface, secure it with a safety cable as described in 'Securing the fixture with a safety cable' on page 13.

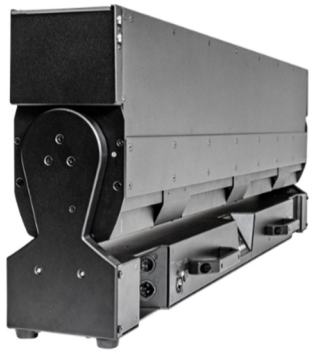

***Figure 6. FR 10 Bar placed on a horizontal surface***

### Installing on a rigging truss or similar structure

You can suspend an FR 10 Bar fixture from a rigging truss or pipe using the brackets that are supplied with the fixture and rigging clamps that are available from GLP as optional accessories.

If you are going to install the fixture hanging vertically downwards from a horizontal rigging truss or pipe, you can fasten it to the truss using G-clamps. If you are going to install the fixture in any other orientation or if the rigging truss is not horizontal, you must use half-coupler clamps that completely surround the truss chord or pipe. Rigging clamps must be approved for the weight that they will support.

To install the FR 10 Bar on a rigging truss or pipe:

1. Check that the truss or pipe is secure and can safely hold ten times the weight that it will support.
2. Using high-tensile steel screws or bolts and self-locking nuts, bolt at least one rigging clamp to each of the two installation brackets that are supplied with the fixture.
3. See Figure 7. Fasten the two brackets **A** supplied with the fixture to the bottom of the base using four quarter-turn fasteners **B** per bracket. Turn each fastener a full 90° to lock it.
4. Hold the fixture up to the truss and use the rigging clamps to fasten the fixture securely onto the truss chord.
5. If there is any risk that the fixture will cause injury or damage if it falls, secure it with a safety cable that is approved for the weight of the fixture, rigging hardware, cables etc. as described in 'Securing the fixture with a safety cable' on page 13.

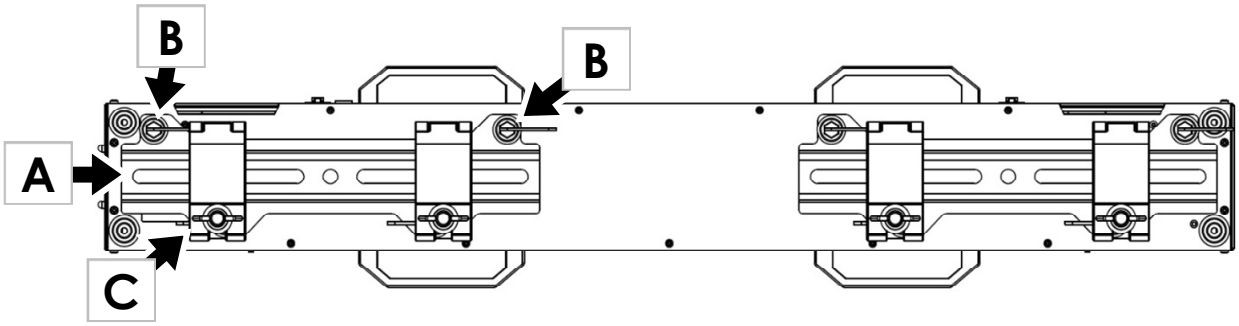


***Figure 7. Brackets and rigging clamps***

# 6. AC mains power

**Warning!** Read 'Safety' starting on page 4 for important safety information that you must understand before you install or operate the fixture.

Check that all cables and connectors are suitable for the installation environment and application (see recommendations in 'Avoiding damage to the fixture' on page 9).

Use minimum 14 AWG or 1.5 mm2 power input and relay cables that are minimum 16 A-rated and temperature-rated to suit the application. In the USA and Canada the cables must be UL-listed, type SJT or equivalent. In the EU the cables must be type H05VV-F or equivalent.

## Power cable

The FR 10 Bar is supplied with a power cord with a Neutrik powerCON TRUE1 connector for AC mains power input.

## Connecting to power

The AC mains power supply must include a connection to ground / protective earth. It must be protected against ground / earth leakage and overload. The fixture's internal auto-sensing power supply accepts AC power at 100-240 V, 50/60 Hz. Do not connect the fixture to power at any other voltage or to an external dimmer.

The FR 10 Bar does not have a power ON/OFF switch. Power is applied to the fixture as soon as the power cable becomes live.

The FR 10 Bar has a 3-conductor Neutrik powerCON TRUE1 Mains IN power input socket that accepts AC power from a TRUE1 female cable connector. Although TRUE1 connectors support hot-plugging, it is still good practice to shut down power to power cables before connecting them to fixtures.

To connect the fixture to power:

1. If possible, shut down power to the power input cable.
2. Note the position of the keys and keyways on the TRUE1 power cable connector and Mains IN socket and align them with each other carefully. Insert the cable connector into the socket and twist clockwise to lock. Do not use force. If the connector feels excessively stiff, remove it and check that it is lined up correctly.
3. Before applying power to the power cable, check that nobody is looking directly into the front of the fixture and check that there is no risk of collision if the head tilts without warning.

To disconnect the fixture from power, pull the latch on the cable connector outwards to release it, then twist the connector counterclockwise and pull to remove it from the socket.

## Installing power connectors

If you intend to draw power from convenience receptacles / consumer mains power sockets, it is possible to install a suitable cord cap / power plug on the supplied power cord / input cable. If you do this, check that the cord cap / plug is rated minimum 250 V, 16 A, that it has a connection to ground / earth and that it has an integral cable grip. Follow the cord cap / plug manufacturer's assembly instructions.

If you need to install a Neutrik powerCON TRUE1 connector on a power cable, follow the instructions given in the Support area of the Neutrik website at www.neutrik.com.

Respect the color coding used in the supplied power cable and in your local mains power wiring system. US and EU systems use the color coding shown below:

| | **Live or L** | **Neutral or N** | **Ground / Earth or ⏚** |
|---|---|---|---|
| **US system** | Black | White | Green |
| **EU system** | Brown | Blue | Yellow/green |

## Connecting multiple fixtures to power in a chain

You can connect fixtures to power in a daisy-chain to simplify your power circuit layout.

**Warning!** Do not connect more than two (2) FR 10 Bar fixtures in total to power in one chain at 100-120 V, 60 Hz. Do not connect more than four (4) FR 10 Bar fixtures in total to power in one chain at 200-240 V, 50 Hz.

The power input cable supplied with the fixture is rated 16 A maximum. Add together the maximum current draw ratings of all the devices that you intend to connect to power in a daisy chain and do not create a chain with a total maximum current draw of more than 16 A, or you will create a risk of fire and electric shock.

To connect fixtures to power in a chain:

1. Obtain power relay cables that have male and female Neutrik powerCON TRUE1 connectors. Cables must be minimum 14 AWG or 1.5mm$^2$, rated minimum 16 A and suitable for the environment and application.
2. Connect the power input cable to the Mains IN socket of the first fixture.
3. If you are operating the FR10 Bar on 100-120 V, 60 Hz AC mains power, you can connect maximum one FR10 Bar to the mains THRU socket (for a maximum of 2 fixtures total connected together in a chain) using a power relay cable. Do not connect any devices to the Mains THRU socket of the second fixture.

   If you are operating the FR10 Bar on 200-240 V, 50 Hz AC mains power, you can connect maximum three FR10 Bars to the mains THRU socket (for a maximum of 4 fixtures total connected together in a chain) using power relay cables. Do not connect any devices to the Mains THRU socket of the fourth fixture.

# 7. Connecting to DMX data

Check that all cables and connectors are suitable for the installation environment and application (see recommendations in 'Avoiding damage to the fixture' on page 9).

The FR 10 Bar supports USITT DMX 512A, Art-Net and sACN DMX control data signal protocols. It also supports RDM (Remote Device Management).

Two types of data connection are available:

- Two 5-pin XLR connectors for IN and THRU connections on a DMX data link using standard DMX protocol. We recommend the use of digital 110 Ohm DMX cable with original Neutrik 5-pin XLR HD connectors if connecting to the XLR connectors.
- Two EtherCON sockets for IN and THRU connections on a DMX data link using Art-Net or sACN protocol. You can use either socket for data IN or data THRU. Use CAT6 or better Ethernet cables for the data link if connecting to the Ethernet ports.

  The EtherCON sockets use fail-safe technology that allows data through even if the fixture is powered off.

If you would like advice with planning and installing a DMX link, your GLP supplier will be happy to provide assistance.

# 8. Starting and stopping operation

**Warning!** Before you apply power to the fixture or operate it after a blackout, make sure that nobody is looking directly into the front of the fixture and that there is sufficient clearance for the head to tilt safely.

The FR 10 Bar's TRUE1 mains power input connector supports hot-plugging, and connecting and disconnecting a live power cable is an option, especially if you need to shut down power urgently, but it is still good practice to shut down power to the AC mains power circuit before connecting and disconnecting power cables.

To start operation, check that nobody is looking into the front of the fixture and that there is no risk of collision of the head tilts without warning, then apply power to the AC mains power circuit.

To stop operation, shut down power to the AC mains power circuit.

### Transportation and storage

We strongly recommend that you transport the FR 10 Bar either in a flightcase or in its original packaging to protect it from damage during transportation. The product warranty does not cover damage caused by abnormal shocks during transportation and handling.

When the fixture is not installed, disconnect it from power and store it in a dry location.

# 9. Service

**Warning!** There are no user-serviceable parts inside the fixture. Any service operation that requires removal of a cover must be performed by a professional service technician with the tools, skills, and personal protective equipment to maintain high-powered lighting equipment safely and efficiently.

## Removing the front cover

The FR 10 Bar is supplied with a clear front cover installed. It is possible to remove the front cover for cleaning or to replace it with one of the custom front covers available from GLP.

To remove the front cover:

1. Place the fixture on a work surface with the head upright.
2. See Figure 8. Slide the two front cover quick-release knobs (arrowed) down towards the base.
3. Keeping the release knobs held down, slide the front cover out of the front of the fixture.
4. When replacing the front cover or installing a diffuser, hold the release knobs down and slide the front cover into the channels in the front of the fixture. Release the knobs and check that the front cover is prevented from sliding out of the channels.

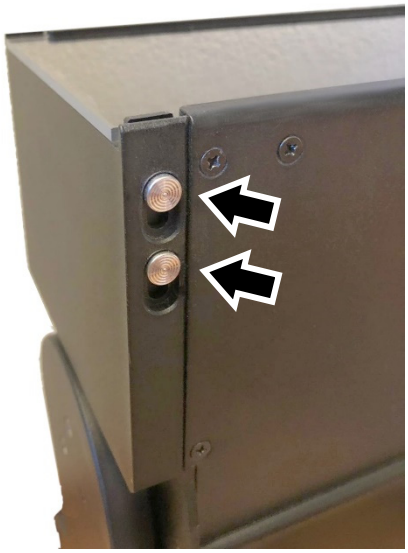

***Figure 8. Front cover quick-release knobs***

## Cleaning

FR 10 Bar fixtures require occasional cleaning to prevent the buildup of dust, dirt, and residue from atmospheric effects. Failure to keep the fixture clean will significantly reduce light output and may cause heat buildup and damage that is not covered by the product warranty. Regular cleaning will ensure maximum performance and reliable operation.

The cleaning schedule depends on the operating environment. Check fixtures regularly for signs of dirt buildup.

You can clean the fixture using a soft cloth slightly dampened with a household or automotive glass cleaning product. Do not apply pressure to the clear front or display on the back of the fixture, as you may scratch these surfaces.

## GLP Service and Support

Contact information for the nearest GLP Service and Support is available online at www.glp.de/en/service, by email at info@glp.de, or by telephone at the following numbers:

- GLP Germany: +49 (7248) 927 19-55
- GLP N. America: +1 818 767-8899
- GLP UK: +44 1392 690140
- GLP Asia: +852 (3151) 7730
- GLP Nordic: +46 737 57 11 40

# 10. Technical specifications

## Optics

Total luminous output: 5860 lumens (wide), 4374 lumens (narrow)
Light source: 10 x 60 W OSRAM Ostar RGBW LEDs
Lifetime: 50 000 hrs. approx. to > 70% luminous output
Zoom ratio: 1:7
Minimum zoom angle: 3.7° half-peak (50%), 7° field angle (10%), 8° cutoff angle (3%)
Maximum zoom angle: 25° half-peak (50%), 32° field angle (10%), 34° cutoff angle (3%)
CRI: >80
CQS: >80
TLCI: >80
TM-30 Rf: 77
TM-30 Rg: 106
LED refresh rate: 2200 / 3000 / 4800 / 9600 Hz / 25k Hz

## Effects

Color mixing: RGBW, 10 x pixels with grouped or independently variable control
Zoom: 10 x pixels with grouped or independently variable full-range 1:10 zoom
Virtual color wheel: 15 color presets, rotation, random color, rainbow colors
Color temperature control: Variable 10 000 – 2500 K, fine-tuning via RGBW
Dimmer: 0 – 100% continuous 16-bit electronic dimming, choice of two dimming curves
Shutter: Regular and random strobe and pulse effects, instant open and blackout, random pixel strobe
3-layer FX engine with light and zoom FX patterns
Tilt: 200°, 16-bit control

## Control and programming

Control systems: DMX, RDM via standard DMX link, Art-Net or sACN
DMX control modes: 4
DMX channel footprint: 25, 51, 57 or 79 depending on mode
Standalone operation: One captured scene
Setting and addressing: Onboard control panel, backlit display with battery power, DMX, RDM
DMX compliance: USITT DMX512
RDM compliance: ANSI/ESTA E1.20

## Installation

Options: Standing on horizontal surface, mounted on rigging truss or pipe at any angle
Operating position: Any
Minimum distance to combustible materials: 0.2 m (8 in.)
Minimum distance to illuminated surfaces: 0.2 m (8 in.)
Installation environment: Temporary or permanent indoor installation
Secondary attachment: 2 x retractable safety cable attachment eyelets

## Electrical

AC mains power: 100-240 V nominal, 50/60 Hz
Power supply unit: Auto-ranging electronic switch mode
Maximum power consumption, all LEDs at 100% output: 800 W
Idle power consumption, all LEDs at 0% output: 80 W
Primary fuse: T 12 A, 250 V, 6x32 mm

***Maximum permitted number of fixtures daisy-chained to power***
2 x FR 10 Bar total @ 100-120 V, 60 Hz
4 x FR 10 Bar total @ 200-240 V, 50 Hz

## Connections

AC mains power IN and THRU: Neutrik powerCON TRUE1
Standard DMX data link IN and THRU: 5-pin XLR
Art-Net and sACN data link IN and THRU: Neutrik etherCON, failsafe link integrity

## Construction

Ingress protection rating: IP20
Fixture housing: High-impact flame-resistant thermoplastic, aluminum alloy, steel
Color: Black
Interchangeable front screen
Integrated carrying handles
Tilt lock
Integrated multiple fixture alignment system

## Thermal

Cooling: Forced air, convection
Minimum ambient temperature: 5° C (41° F)
Maximum ambient temperature: 45° C (113° F)
Max. total heat dissipation: 2730 BTU/hr.

## Included items

Power cable with Neutrik powerCON TRUE1 mains input connector
2 x brackets for rigging clamps or surface mounting

## Dimensions and weight

Height, head straight up: 339 mm / 13.3 in.
Height, head horizontal: 254 mm / 10.0 in.
Width across yoke: 1000 mm / 39.4 in.
Depth, head straight up: 196 mm / 7.7 in.
Min. center-to-center distance: 170mm / 6.7 in., 1000 mm / 39.4 in.
Weight: 24 kg (53 lbs.)

# 11. Dimensions

## FR 10 Bar

All dimensions are in millimeters