

Quick Start and Safety Manual

impression X5



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GLP® impression X5 Quick Start and Safety Manual

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1. Safety

Key to symbols

The following symbols are used in this product's user documentation:



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.



Warning! Hot surface. Risk of burn injury.



General safety information

Read this manual carefully before installing, operating or servicing the GLP impression X5 lighting fixture.

If you have any doubts or questions about how to use the impression X5 safely, contact your GLP® supplier for assistance. Your GLP supplier will be happy to help.

The user documentation for the impression X5 consists of:

- The impression X5 Quick Start and Safety Manual, supplied with impression X5 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 impression X5 User Manual, available for download from www.glp.de. The User Manual explains features and control of impression X5 fixtures.
- The impression X5 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 X5 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 the fixture's user documentation.

- 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 fixture's 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 use of 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 available to all installers and operators. Save user documentation 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 LED light source in the impression X5 is not user-replaceable.
- Read and follow the user documentation for all additional equipment.



Electrical safety

- 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 a Neutrik powerCON TRUE1 cable connector for AC mains power input at the fixture's MAINS IN connector. If the connector and its keys are not in perfect condition, install a new TRUE1 connector on the cable following the instructions available on the Neutrik website before connecting the cable to power. Send the old connector for waste recycling.
- Use a power cable that is minimum 14 AWG or 1.5 mm², 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.
- Disconnect the fixture from power before attempting to replace the main fuse. Replace the fuse with one of the specified type only (see the fixture's specifications at the end of this manual).



Fire safety and protection from burns

- Do not operate the fixture if the ambient temperature exceeds 45° C (115° F).
- The hottest parts of the fixture's surface can reach up to 100° C (212° F) 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 30 minutes before handling it.
- Keep the fixture well away from flammable materials.
- Do not illuminate surfaces within 1 m (40 in.) of the fixture. The light output from the fixture is powerful enough to cause burns or fire in illuminated objects at close range.
- Keep all combustible materials (e.g. fabric, wood, paper) at least 10 cm (4 in.) away from the fixture.
- Ensure that there is free and unobstructed airflow around the fixture. Provide a minimum clearance of 30 cm (12 in.) around fans and air vents.
- Do not place any optical components other than impression X5 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 impression X5 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**

- The fixture is heavy. Apply the tilt lock and carry the fixture by holding the yoke. For more comfortable handling, install an optional GLP impression X5 Omega Bracket with handles and use this to carry the fixture.

- 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. All rigging hardware must be approved for the weight of the fixture.
- Fasten the fixture to a structure or surface only as directed in this manual and only with hardware that is specifically designed, approved and rated for its purpose. Do not use a safety cable as the primary means of support.
- You may use an omega bracket with rigging clamp – or a rigging clamp without an omega bracket – fastened directly to the fixture's baseplate when installing the fixture hanging vertically only.
- When installing the fixture in any other orientation, you must first fasten an GLP impression X5 Omega Bracket with Handles accessory from GLP (not supplied) to the fixture's baseplate, then fasten two rigging clamps to this Omega Bracket accessory to balance the weight of the fixture and to avoid danger of bending.
- Check that installation hardware is in perfect condition. Fasteners must be steel grade 8.8 strength or better. Nuts must be self-locking type and in good condition. Rigging clamps must be half-coupler type that completely encircle the rigging truss chord.
- If you fasten an M10 bolt into the fixture's baseplate to use when rigging the fixture, the bolt must protrude minimum 10 mm and maximum 15 mm into the mini-base.
- Allow a minimum center-to-center distance of 465 mm / 18.3 in. between fixtures when installed.
- 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

Check that the head is unlocked and that the head will be free of any obstacles through its full movement range before powering the fixture on.

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 lift or carry the fixture by the head. Carry the fixture by the yoke with the tilt lock applied.

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

Clean optical components only as directed in this manual. 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.

Avoiding damage from light sources

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.

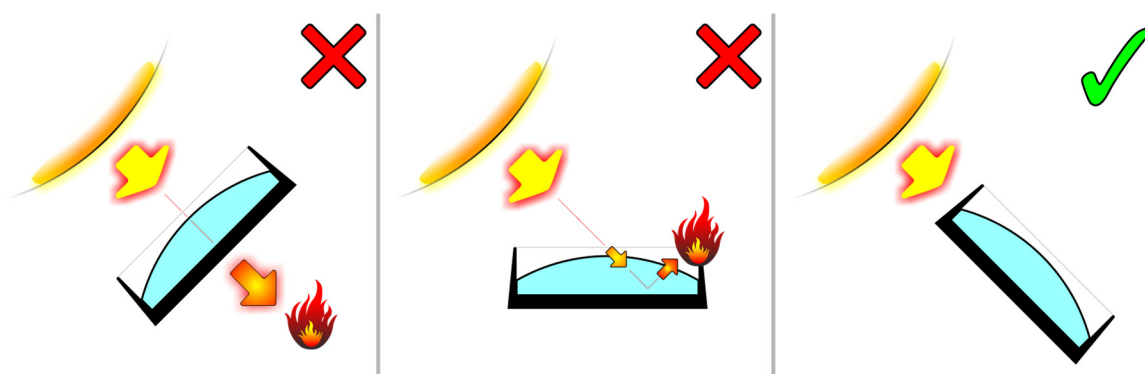


Figure 1. Avoiding damage from light sources

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 the fixture is not in use.

- Do not aim other high-powered beam lights directly at the fixture.

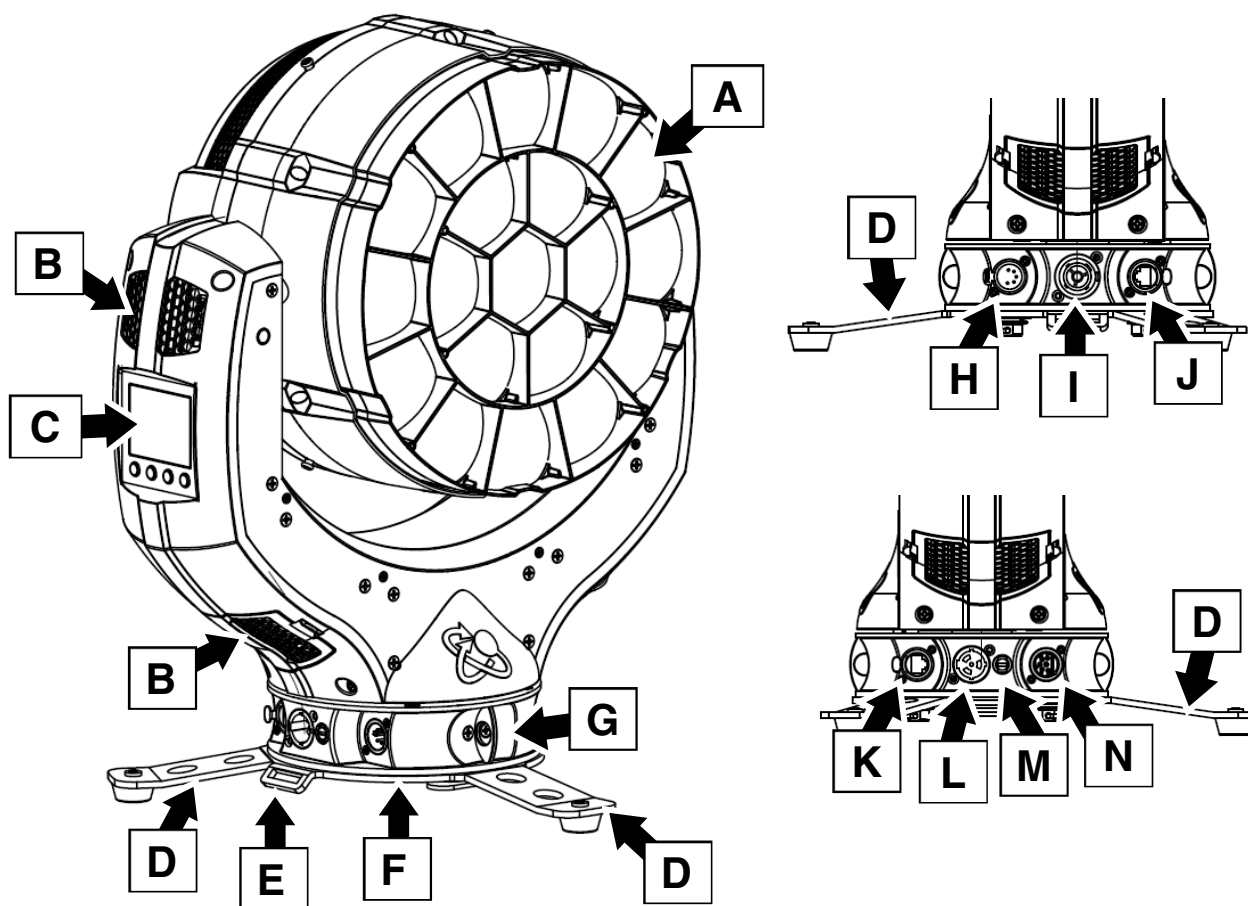
Avoiding damage from dust and airborne particles

- Carry out regular visual inspections of every fixture to make sure that there is no accumulation of dirt, especially on the front glass and on air vents.
- If cleaning is necessary, follow the instructions in 'Service and maintenance' on page 21.

Transportation and storage

- Transport the fixture either in a flightcase or in its original packaging to protect it from damage caused by shocks during transportation.
- Release the fixture's tilt lock and slide the zoom car fully into the head before putting the fixture into its flightcase 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. Overview



- | | |
|--|---|
| A – Lens array | I – Mains power OUT/THRU
(Neutrik powerCON TRUE1) |
| B – Cooling vents | J – Neutrik EtherCON port A for Art-
Net/sACN control data (fail-safe) |
| C – Control panel and backlit LCD display | K – Neutrik EtherCON port B for Art-
Net/sACN control data (fail-safe) |
| D – X5 tripod | L – Mains power IN
(Neutrik powerCON TRUE1) |
| E – Aperture for stabilizing strap | M – Fuseholder |
| F – Baseplate | N – DMX OUT/THRU (5-pin XLR) |
| G – Safety cable attachment point:
rear is grey, front (stage) is black | |
| H – DMX IN (5-pin XLR) | |

4. Overview of features

The impression X5 is for permanent or temporary indoor use in venues where the distance to illuminated surfaces is at least 1 m (3.3 ft.). It may be used outdoors if it is protected from moisture and precautions are taken to prevent damage from direct sunlight. It may be placed upright on a level surface or suspended from a suitable structure as described in this manual.

The impression X5 is not suitable for household use, wherever unattended children have access to it, for permanent outdoor installation, or in areas where the distance from the fixture to illuminated surfaces is less than specified.

The impression X5 shall be installed, operated, and maintained only by persons with the training, knowledge and skills to do so safely.

LED light source

The impression X5's light source is a powerful 19 x 40 W RGBL LED engine.

Control panel and display

The control panel with LCD display and self-charging battery allows you to change fixture settings quickly and intuitively under any conditions, even when the power is off.

Baseplate and rigging options

The fixture's baseplate has Camlock attachment points for easy fastening of the included floor stand, an omega bracket for clamp attachment or other rigging accessories. It also has one M10 threaded hole for directly fastening a rigging clamp using a suitable machine screw or bolt.

5. Preparation for use



Warning! Read 'Safety' starting on page 4 before installing the impression X5.

Warning! Use an X5 Omega Bracket with Handles installed on the fixture's base as described in this chapter when installing the X5 in any other orientation than hanging vertically downwards.

Included items

The impression X5 is supplied with a power cable with a Neutrik powerCON TRUE1 connector and an X5 Tripod floor stand.

Lifting and carrying

To carry the impression X5, apply the tilt lock and lift the fixture by the yoke. For more convenient handling, install an X5 Omega Bracket with Handles on the baseplate and use this for carrying.

To remove the fixture from a flightcase and prepare for installation on a truss or similar structure, fasten two omega brackets with handles to the fixture using the camlock bracket attachment points in the base of the fixture. Lift the fixture straight up out of the flightcase and hang it on the truss chord.

To remove the fixture from a flightcase and place it on the ground or horizontal surface that can hold the weight of the fixture, fasten the fixture's floor stand (supplied) to the fixture using the camlock bracket attachment points in the base of the fixture. Lift the fixture straight up out of the flightcase, turn it upside down and place it onto the surface.

Orientation and location

The fixture may be rigged in any orientation following the instructions in this chapter or placed on a level surface in locations where it is safe to stand the fixture.

Make sure that the head will be at least 0.1 m / 3 in. ft. away from combustible materials (wood, paper, textiles, etc.) including curtains and stage scenery when the fixture is installed.

Make sure that there will be a minimum of 1 m / 3.3 ft. between the fixture and any surface to be illuminated.

Make sure that there is no risk of collision when the head pans and tilts. Allow a minimum center-to-center distance of 465 mm / 18.3 in. when installing fixtures side by side.

Identifying the front of the fixture

To identify the front of the fixture, look at the safety attachment points in the fixture's baseplate. With pan centered at 0°:

- the attachment point colored black is on the *front (stage side)* of the fixture, and
- the attachment point colored grey is on the *back* of the fixture.

Mounting

The impression X5 may be rigged in any orientation or placed on a stable horizontal surface. You must install a secondary attachment such as a safety cable and use the hardware configuration described in this chapter.

Securing the fixture with a safety cable

In any location where the fixture can cause injury or damage if it falls, secure it with a safety cable that is approved as a secondary attachment for the weight of the fixture.

To secure the fixture with a safety cable:

1. See Figure 2. Pass the safety cable through one of the two safety attachment eyelets (arrowed) in the base of the fixture. If any type of floor stand or Omega Bracket is installed on the fixture, do not use any part of these accessories for safety cable attachment, or you will leave the fixture unsecured.
2. Pass the safety cable through or around a secure anchoring point such as the rigging truss or other supporting structure and take up as much slack as possible, then lock the safety cable closed.
3. Check that the safety cable will hold the fixture safely if a primary attachment fails.

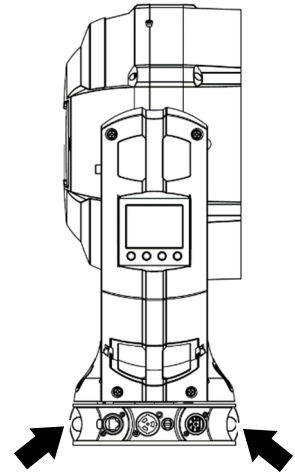


Figure 2. Safety cable attachment points

Fastener options in baseplate

See Figure 3. The fixture's baseplate has:

- one threaded hole in the center that accepts an M10 bolt or machine screw, and
- two mounting points that accept standard camlock quarter-turn fasteners with a center-to-center distance of 89 mm (3.50 in.).

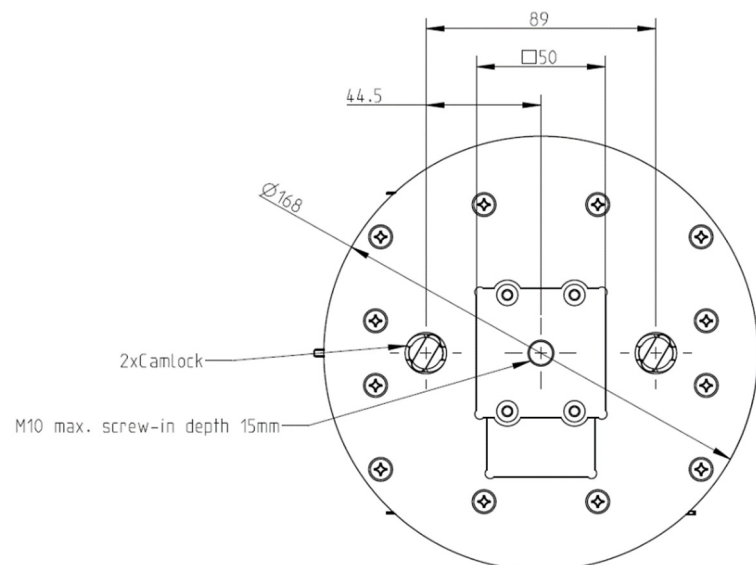


Figure 3. Mounting points in base

Installing upright on a horizontal surface

To install the fixture standing upright on a stable horizontal surface only:

1. See Figure 3. Two camlock quarter-turn fastener points are provided in the baseplate. Line up the camlock pins in the supplied X5 Tripod floor stand with the camlock fastener points in the baseplate, then insert the pins fully and turn their handles 90° clockwise to lock.
2. See Figure 4. Slots are provided in the X5 Tripod. To eliminate any risk that the fixture may fall over during sudden head movements, immobilize it with a ratchet strap or straps passed through the slots and fastened to suitable anchoring points. Remove any slack from ratchet straps, but do not overtighten them.
3. Make sure that the head will not collide with another fixture or any other object when it moves through its full pan and tilt ranges.

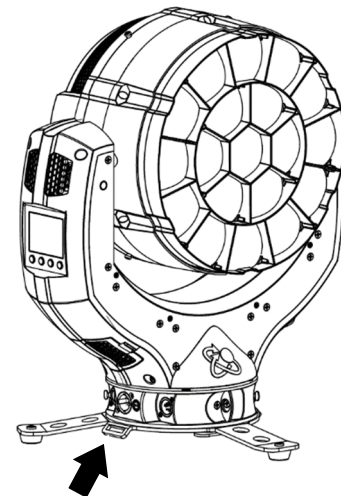


Figure 4. Slots for fixation straps in floor stand

Mounting at other angles than hanging vertically

To mount the X5 on a rigging truss **at any other angle than with the head hanging vertically downwards**, you must use the *X5 Omega Bracket with Handles* mounting plate that is available as an accessory from GLP (see Figure 5).

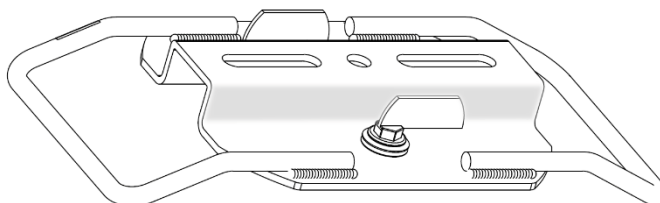


Figure 5. X5 Omega Bracket with Handles

To install the X5 using the X5 Omega Bracket with Handles:

1. Install two suitable half-coupler type rigging clamps on the Omega Bracket (half-coupler rigging clamps completely encircle the truss chord).
2. Fasten the Omega Bracket to the fixture's baseplate by inserting the Omega Bracket's camlock fasteners into the fastener receptacles in the fixture's base and turning the fastener handles a full 90° to lock them.
3. Fasten the half-coupler rigging clamps securely around a truss chord.
4. Secure the fixture against clamp failure as described in 'Securing the fixture with a safety cable' on page 15. Fasten the safety cable to one of the attachment points in the fixture base, not to the Omega Bracket.

5. Make sure that the head will not collide with another fixture or any other object when it moves through its full pan and tilt ranges.

Mounting directly with a rigging clamp

To suspend the impression X5 from a rigging truss or similar structure **with the head hanging vertically downwards only** using a rigging clamp bolted directly to the fixture:

1. Obtain a suitable half-coupler type rigging clamp. See Figure 6. Pass an M10 grade 8.8 steel bolt through the rigging clamp and check that the bolt will protrude minimum 10 mm / 0.4 in. and maximum 15 mm / 0.59 in. into the base of the fixture when tightened.
2. See Figure 3. Fasten the bolt through the half-coupler clamp and into the M10 threaded hole in the fixture's baseplate so that the clamp is held securely.
3. Fasten the rigging clamp securely around a rigging truss chord or similar bar.
4. Secure the fixture against clamp failure as described in 'Securing the fixture with a safety cable' on page 15.
5. Make sure that the head will not collide with another fixture or any other object when it moves through its full pan and tilt ranges.

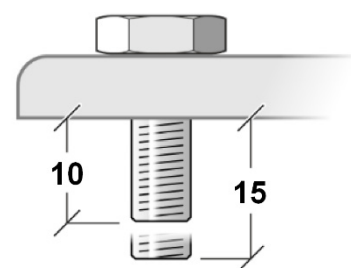


Figure 6. Min./max. bolt protrusion into fixture base (millimeters)

Mounting with an omega bracket and rigging clamp

To suspend the impression X5 from a rigging truss or similar structure **with the head hanging vertically downwards only** using an omega bracket and rigging clamp:

1. Obtain a suitable omega bracket with 89 mm center-to-center camlock fasteners and a suitable rigging clamp. Bolt the rigging clamp to the omega bracket using a suitable grade 8.8 minimum steel bolt and self-locking nut.
2. See Figure 3. Line up the two camlock quarter-turn pins in the omega bracket with the camlock fastener points in the base of the fixture and turn both locking levers a full 90° clockwise to lock the brackets to the fixture.
3. Fasten the rigging clamp securely around a rigging truss chord or similar bar.
4. Secure the fixture against clamp failure as described in 'Securing the fixture with a safety cable' on page 15.
5. Make sure that the head will not collide with another fixture or any other object when it moves through its full pan and tilt ranges.

6. Connections



Warning! Read 'Safety' starting on page 4 before connecting the impression X5 to power.

AC power

The impression X5 has a Neutrik powerCON TRUE1 socket for connection to AC mains power from a Neutrik powerCON TRUE1 female cable connector. The autosensing power supply accepts 100-240 V, 50/60 Hz AC power. Do not connect the fixture to AC power at any other voltage.

The AC mains power distribution circuit must include a connection to ground / protective earth. It must be protected against ground / earth leakage and overload.

Do not connect the fixture to a power distribution circuit that is equipped with an external dimmer.

Powering the fixture on

The fixture does not have an ON/OFF switch. It is powered on as soon as power is applied to the power input cable. Before applying power, check that the head is unlocked, check that the head will not collide with anything, and check that nobody will be looking directly at the fixture if it lights up suddenly.

Connecting to power

Although powerCON 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. Check that the Neutrik powerCON TRUE1 connector on the power input cable is in perfect condition, paying attention to the keys on the connector. If the connector or its keys show signs of damage, replace the connector with a new item.
2. Line up the keys in the TRUE1 connector correctly with the keyways in the MAINS IN socket.
3. Insert the connector into the socket. Do not use force. If you feel any more than light resistance when you try to push the connector into the socket, something is wrong. You may have lined up keys and keyways incorrectly. Remove the connector and check the positions of keys and keyways before trying to insert the connector again.
4. Twist the connector fully clockwise to lock. Listen for a 'click' that indicates that the connector is locked.
5. Release the tilt lock, check the clearance around the head and make sure that nobody is looking directly at the fixture. Then apply power to the power input cable.

Installing power connectors on the input cable

It is possible to install a cord cap / mains power plug that is suitable for your local convenience receptacles / power sockets on the supplied power 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 on 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 $\oplus$
US system	Black	White	Green
EU system	Brown or black	Blue	Yellow/green

Control data

The impression X5 can be controlled via USITT512 DMX over a standard DMX cable link, Art-Net network or sACN network. The fixture's **Protocol Setup** control menu lets you configure the fixture for control using one of these protocols (see the impression X5 User Manual available online at www.glp.de for details).

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

DMX over a standard DMX cable link

See 'Overview' on page 12. The fixture has 5-pin XLR IN and THRU sockets for connection to a DMX cable link. Connectors use standard DMX pinout:

- Pin 1 = Ground
- Pin 2 = Negative / data cold
- Pin 3 = Positive / data hot.
- Pins 4 and 5 are not used.

To link fixtures in cabled DMX daisy-chains using their XLR connectors, use certified DMX cable only.

Art-Net and sACN over a network cable link

See 'Overview' on page 12. The fixture has two Ethernet ports for connection to an Art-Net or sACN network. Both ports use GLP's fail-safe technology which allows data to flow through the fixture even if the fixture is powered off. If the fixture is powered on, the ports behave as a switch. If the fixture is powered off, both EtherCON ports operate simply as IN/THRU ports.

To link fixtures in Art-Net daisy-chains, use CAT 6 or higher Ethernet cable.

7. Using the fixture

For guidance on using the impression X5, see the latest version of the fixture's User Manual, available for download from www.glp.de.

Check that the software version given at the front of the user manual matches the software version installed in the fixture.

8. Service and maintenance

Regular maintenance and cleaning is essential to get the best performance and service lifetime from your fixture.

Suggested maintenance intervals

We suggest the maintenance schedule below, but bear in mind that cleaning intervals depend on the operating environment. Our suggested cleaning intervals are based on our experience with typical installations – please check the fixture to assess the need for cleaning and adjust intervals as necessary.

Maintenance Task	Interval	How
Front lens	Weekly	Soft cloth and glass cleaning fluid
Fans and air vents	Monthly	Vacuum cleaner and soft brush (holding fans still while applying suction)
Focus/zoom rails	Every six months	Suitable lubricant (consult with GLP Service)

Cleaning

The buildup of dust, dirt and other airborne particles will reduce the fixture's light output. It will also prevent the fixture from cooling correctly, and this will reduce the fixture's lifetime. The rate of dirt buildup will vary depending on environmental factors such as airborne dust, use of smoke machines, airflow from ventilation systems, etc. The fixture's cooling fans will accelerate buildup, and any smoke particles that are present in the atmosphere will increase the tendency for dirt to clog.

To get the best performance and lifetime from the fixture, inspect it regularly and clean it as soon as you see signs of dirt buildup. Assess the operating environment each time you begin to use the fixture. In dusty or smoky conditions, inspect the fixture after a few hours and check it frequently – the fixture may attract dirt faster than you expect. Draw up a cleaning schedule that will make sure that dirt is removed before it can build up.

Use the following guidelines:

- Disconnect the fixture from power and allow it to cool completely before cleaning.
- Do not use solvents, abrasives or any other aggressive product to clean the fixture.
- Use a vacuum cleaner and soft brush to remove dust and loose particles from surfaces and air vents. Prevent the blades of cooling fans from turning before you aim a vacuum at them, or you may spin the fan too fast and damage it.
- Do not let optical components come into contact with oil or grease. Put on clean, dry lint-free gloves before you touch them.

- Clean glass components by wiping gently with alcohol wipes or a soft, clean, lint-free cloth moistened with a weak detergent solution. Put the solution on the cloth, not on the surface to be cleaned. Avoid rubbing glass surfaces. If particles are stuck to the glass, try to lift them off by dabbing them repeatedly with a cotton swab or moistened lint-free cloth.
- Dry the fixture with a soft, clean, lint-free cloth or low-pressure compressed air before reapplying power.

Main fuse

See Figure 7 on right. The main fuse sits in a fuseholder in the base.

If the fixture appears to be completely shut down even though power is applied, the main fuse may have blown. Disconnect the fixture from power before replacing the fuse. You can open the fuseholder with a flat-headed screwdriver. Replace only with a fuse of the same type and rating.

If the fuse blows repeatedly, disconnect the fixture from power and contact GLP for service and repair.

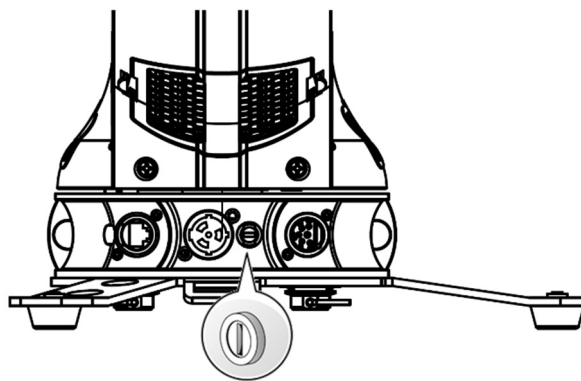


Figure 7. Main fuseholder

Lubrication

The fixture does not normally need lubrication. If any effects or moving parts show signs of rough movement, consult a GLP service partner.

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 1955
- GLP N. America: +1 818 767-8899
- GLP U.K.: +44 1392 690140
- GLP Asia: +852 (3151) 7730
- GLP Nordic: +46 737 57 11 40

9. Technical specifications

Light source

19 x 40 W RGBL LEDs

CRI (Ra)

- 90 @ 6500 K
- 85 @ 3200 K

TLCI

- 90 @ 6500 K
- 75 @ 3200 K

TM-30-15

- Rf/Rg: 87/105 @ 6500 K
- Rf/Rg: 85/110 @ 3200 K

Four LED PWM frequency options: Optimal / High 1 / High 2 / Maximum

LED lifetime: 50 000 hours to 70% output*

**Figure obtained under manufacturer's test conditions*

Optical system

Total fixture output:

- 12 500 lumens @RGBL wide
- 10 200 lumens @ RGBL medium
- 6 570 lumens @ RGBL narrow

Maximum peak luminous intensity

- 31.7 kcd @ RAW wide
- 107 kcd @ RAW medium
- 1.97 Mcd @ RAW narrow

Minimum zoom

- 3.5° beam angle (50%)
- 4.9° field angle (10%)
- 5.4° cutoff angle (3%)

Maximum zoom

- 37° beam angle (50%)
- 57° field angle (10%)
- 63° cutoff angle (3%)

Zoom ratio: 1:16

White points: 6500 K (default), 8000 K, 5600 K, 4200 K, 3200 K

Focus: Motorized, high-speed system

Movement

Resolution: 8 - 16 bit

Position feedback: Yes

Pan: 670°

Tilt: 264°

Effect movement: Fast, Normal and Smooth performance options

Control

Pan and tilt control: 16-bit
Fan modes: Regulated, High, Medium, Low, Off
Sub-fixture module modes: Normal, Independent
Integrated 4-button control panel
Control panel display: Backlit graphic LCD, manual or automatic inversion
Display power: Self-charging buffer battery
Control protocols: DMX-512, RDM, Art-Net, sACN
GLP FPO (Flexible Protocol Option) Port: Optional LumenRadio CRMX, other options on request
Fixture setup and addressing: Integrated control panel, DMX, RDM

Effects

Color mixing: RGB 16-bit ; RGBL 16-bit ; x;y 16-bit
Color temperature: Open, 10.000 K – 2500K
Virtual color wheel effect: 64 LEE-referenced static colors (D-Source), dynamic colors CW/CW
Virtual shutter: Regular and random strobe and pulse effects, instant open and blackout
Dimming: 0 – 100% continuous with 16-bit resolution, Linear, Soft and S-Curve dimming curve options
Performance mode options: Fast, Normal (Balanced), Smooth
Tungsten simulation: 8x with fixed CCT, 8x with individual CCT
Pattern effects: More than 50 static patterns and 50 dynamic patterns with indexing and rotation, random pixel, pattern crossfade effects, pattern transition effects

Electrical

Internal power supply unit: Auto-ranging electronic switch mode 100-240 VAC, 50/60 Hz
Power consumption:

- @ 230 V: 704 W, PF >0.95
- @ 100 V: 718 W, PF >0.99

Thermal

Cooling system: Combined convection and forced air, overheat protection
Cooling regulation: temperature-controlled or constant fan options
Max. ambient temperature: 45° C / 115° F
Min. ambient temperature: 5° C / 41° F
Max. surface temperature at 40° C ambient: 100° C / 212° F
Total heat dissipation at 230 V, calculated, +/-10°: 2650 BTU/hr.

Installation

Operating position: any (angles other than hanging vertically require *X5 Omega Bracket with Handles* accessory)

Location: Dry location only

Mounting: Fastened to surface or structure, or standing on supplied floor stand

Mounting points: One pair of camlock fastener points, one M10 threaded hole

Safety cable attachment points: Two in fixture baseplate

Floor stand stabilizing strap attachment points: Slots in supplied *X5 Tripod* floor stand

Minimum center-to-center distance: 465 mm / 18.3 in.

Minimum distance to illuminated surfaces: 1 m / 40 in.

Minimum distance to combustible materials: 0.1 m / 4 in.

Connectors

DMX data IN and THRU via DMX cable: 5-pin XLR

DMX data IN and THRU via Art-Net and sACN: Fail-safe EtherCON

Mains power IN and THRU: Neutrik powerCON TRUE1

Construction

Ingress protection: IP20

Standard color: Black (custom on request)

Housing: High-impact flame-resistant thermoplastic, aluminum

Service-friendly air filter change system

GLP iQ.Mesh module with NFC sensor for GLP iQ.Mesh connectivity (linking with for example GLP iQ.Service, GLP Collect&Connect etc.)

Accessories supplied

X5 Tripod floor stand

Power cable with Neutrik powerCON TRUE1 connector

Dimensions and weight

Width (head at max. horizontal extension): 724 mm / 28.6 in.

Width across yoke: 492 mm / 19.4 in

Height (head vertical): 773 mm / 30.5 in

Height (head at max. vertical extension): 794 mm / 31.3 in.

Height incl. *X5 Tripod* floor stand (head vertical): 799 mm / 31.5 in

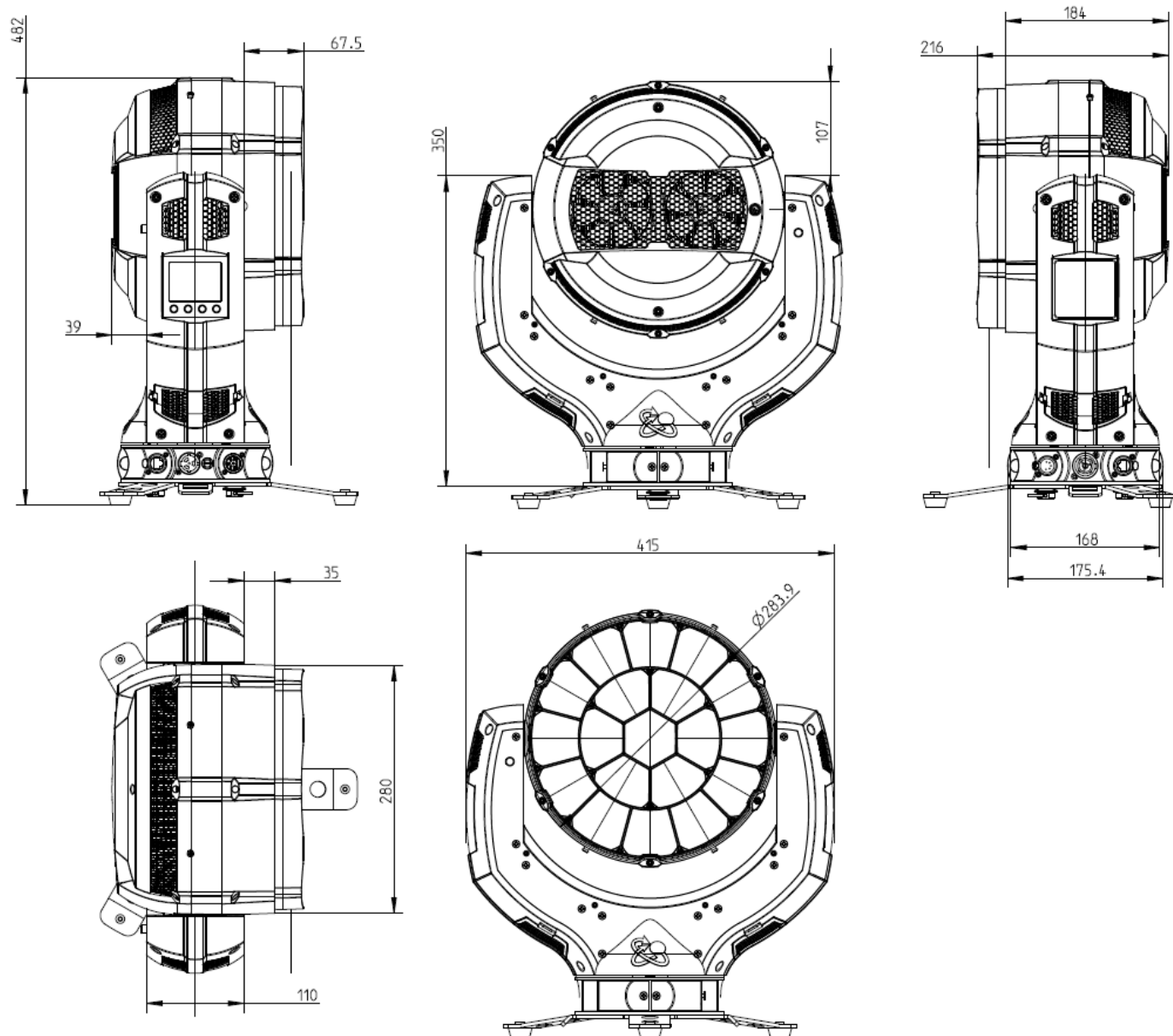
Height incl. *X5 Tripod* floor stand (head at max. vertical extension): 820 mm / 32.3 in.

Weight (fixture only): 13.3 kg / 29.3 lbs.

Weight (fixture incl. *X5 Tripod* floor stand): 14.4 kg / 31.7 lbs.

10. Dimensions

Dimensions are given in millimeters



-GLP-