

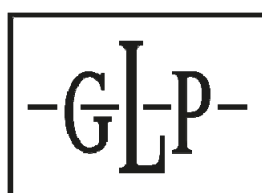
Quick Start and Safety Manual

FUSION
by GLP

Fusion XPAR 12Z



Software version 1.0.0.0



GLP® Fusion XPAR 12Z User Manual – Revision A

This document covers fixture software version 1.0.0.0

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Manufacturer's head office:

German Light Products GmbH (GLP), Industriestrasse 2, 76307 Karlsbad, Germany
Tel (Germany): +49 7248 92719 - 0

Service & Support EMEA:

GLP, Industriestrasse 2, 76307 Karlsbad, Germany
Tel. (Germany): +49 7248 9271955
Email: support@glp.de
www.glp.de

Service & Support USA:

GLP USA, 1145 Arroyo St., Ste. A, 91340 San Fernando, California
Tel (USA): +1 818 767 8899
Support (US): info@germanlightproducts.com
www.germanlightproducts.com

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1. Safety

Key to symbols

The following symbols are used in the Fusion XPAR 12Z lighting fixture'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! Read the XPAR 12Z Quick Start and Safety Manual supplied with the fixture and available for download from www.glp.de before installing, operating or servicing the fixture. The Quick Start and Safety Manual contains important information for the safe use of FS20 fixtures. If you fail to read that information you may create a safety hazard with a risk of injury, death or damage.

General safety information

Read this manual carefully before installing, using or servicing the Fusion XPAR 12Z 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 GLP Fusion XPAR 12Z lighting fixtures consists of:

- This document, the **XPAR 12Z User Manual**, available for download from www.glp.de. The User Manual contains important safety information and installation instructions that the installer and user must read and explains features and control of XPAR 12Z fixtures.
- The **XPAR 12Z DMX Quick Start and Safety Manual** supplied with XPAR 12Z 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. It also contains dimensions drawings and technical specifications for the fixture.
- The **XPAR 12Z 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 Fusion XPAR 12Z 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 available to all installers and operators. Save this document 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

- Do not allow the fixture to become immersed. Do not expose the fixture to high-pressure water projections.
- Keep any unused connectors on the fixture sealed with their protective caps at all times, both when the fixture is in use and when not in use.
- 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 TRUE1 compatible 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 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.
- 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 mm², H07RN-F, 1.5 m.

Do not connect more than twelve (12) Fusion XPAR 12Z fixtures to power in a chain at 100-120 V, 60 Hz.

Do not connect more than twenty-four (24) Fusion XPAR 12Z fixtures to power 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.
- Fusion XPAR 12Z fixtures do not have a user-replaceable fuse. If you suspect that a fuse has blown, disconnect the fixture from power and send it to a technician authorized by GLP for repair.



Fire safety and protection from burns

- Do not operate the fixture if the ambient temperature (Ta) exceeds 40° C / 104° F.
- The surface of the fixture's casing can reach up to 90° C / 194° 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 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 Fusion XPAR 12Z 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.



Eye safety

- The XPAR 12Z is classified as a Risk Group 2 lighting fixture according to EN 62471. Possibly hazardous optical 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.
- The warning below is printed on the fixture. If the warning becomes impossible to read, replace it with a label reproduced from this illustration:

Risk Group 2

CAUTION: Possibly hazardous optical radiation emitted from this product. Do not stare at operating lamp. May be harmful to the eye.

- 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 all locally 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 onboard OLED 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.

Avoiding damage from light sources and heat

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 40° C / 104° F. Allow free airflow around the fixture.

IP rating

XPAR 12Z fixtures are IP65-rated:

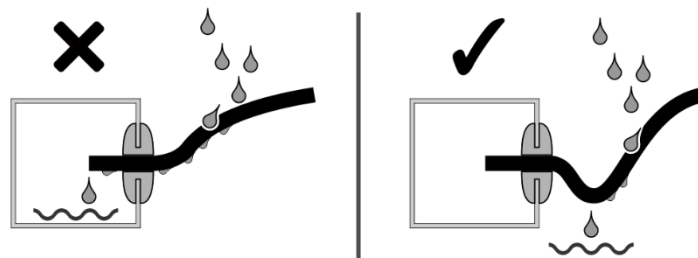
- **IP** stands for Ingress (entry into the fixture) Protection.
- The first figure **6** in the rating means that fixtures are protected against the entry of dust and airborne particles.
- The second figure **5** in the rating means that fixtures are protected against the entry of rain and water projections from all angles. Fixtures are not protected against immersion in water and they are not protected against high-pressure water jets.

Avoiding damage from water and humidity

- Do not install XPAR 12Z fixtures in a location where water can pool around the fixture or allow XPAR 12Z fixtures to become submerged in any other way. Do not aim low- or high-pressure water jets at fixtures.
- Keep all unused connectors on the fixture sealed with their protective caps, both when the fixture is being used and when it is not in use.
- In outdoor and high-humidity environments, use IP65-rated power and data connectors and cable (an IP65 rating means that the item is protected against the entry of water from rain, projections and low-pressure jets as well as the entry of dust). When assembling connectors and installing them on cable, follow the manufacturer's and ensure that an

IP65 rating is maintained for the complete assembly. Use only the following cable connectors:

- IP65-rated 5-pin XLR connectors for data IN and OUT (THRU)
- IP65-rated TRUE1 compatible connectors for Power IN and Power OUT (THRU).
- Apply a dielectric grease (available from electrical suppliers) to connector terminals and caps to prevent corrosion and/or electrical short circuits.
- Make sure that cables open into dry areas or sealed junction boxes. Moisture can be drawn along cables by capillary action or pressure variations resulting from thermal expansion.
- See drawing on right. Arrange cables so that they arrive at connectors from below. Make sure that it is impossible for water to flow down cables and accumulate at connectors. If necessary, provide extra cable slack and create 'drip loops' before connectors.
- Create loose cable bends only. Do not subject connections to bending forces or allow connections to bear the weight of long lengths of cable.



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.
- If cleaning is necessary, follow the instructions in '**Error! Reference source not found.**' on page **Error! Bookmark not defined.**

Transportation and storage

- Transport the fixture in its original packaging to protect it from damage caused by shocks during transportation.
- Store the fixture in a dry location when not in use.

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

3. XPAR 12Z overview

The Fusion XPAR 12Z from GLP is a powerful LED-based lighting fixture which uses a 120W RGLB (red, green, blue and lime) LED emitter. A motorized Fresnel lens provides variable zoom giving a beam angle from 6° – 44°.

The fixture can be controlled by DMX, or by settings on the control panel.

The XPAR 12Z can be used indoors in permanent and temporary installations. Its rugged construction and IP65 rating mean that it can also be used outdoors in temporary installations if precautions are taken to prevent immersion in water and damage from direct sunlight. It can be fixed to any surface or suspended from a suitable structure as described in Section 4.

The XPAR 12Z is not suitable for household use, for use in any location where unattended children have access to it, or for use in permanent outdoor installations.

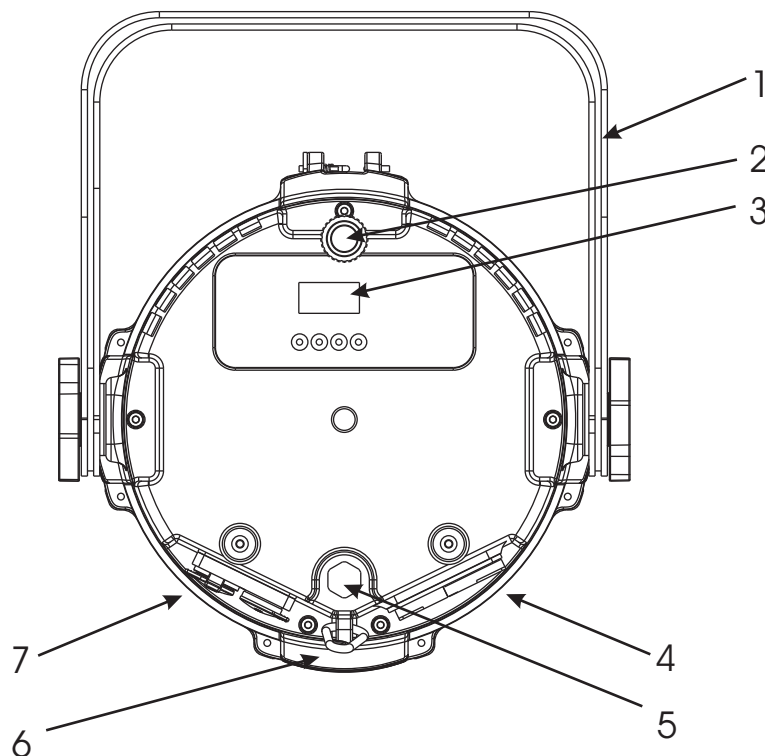


Figure 1. XPAR 12Z overview from rear

- 1 – Mounting bracket**
- 2 – Adjustable foot**
- 3 – Control panel with OLED display**
- 4 – Power in and loop through connectors**
- 5 – Vent for pressure equalization**
- 6 – Safety cable attachment point**
- 7 – DMX in and loop through connectors**

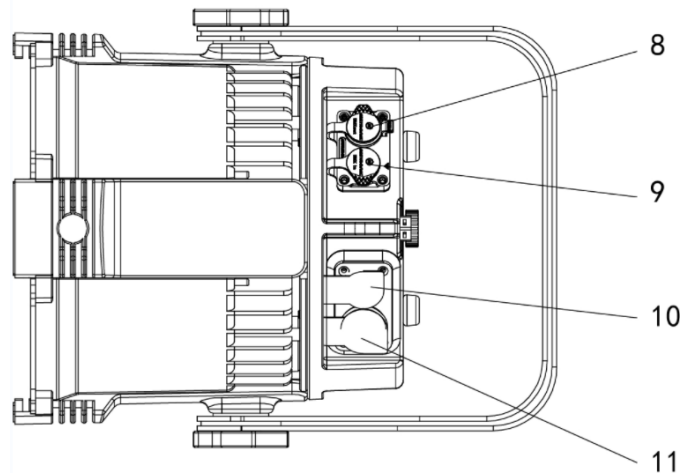


Figure 2. XPAN 12Z connections

- 8 – DMX through/out (5 pin XLR)**
- 9 – DMX in (5 pin XLR)**
- 10– Power in (TRUE1 compatible)**
- 11– Power loop through (TRUE1 compatible)**

Fixture control

This Quick Start and Installation Manual gives a very basic overview of installation options and control functions. See the XPAN 12Z User Manual available for download from www.glp.de for full details of control, DMX tables, etc.

4. Installation



Warning! Read 'Safety' starting on page 5 for important safety information that you must understand before you install or operate the fixture. Install XPAR 12Z fixtures only as described in this chapter, or you may create an installation that is unsafe.

Install the fixture at least 0.2 m / 8 in. away from combustible materials (wood, textiles, paper, etc.), 0.2 m / 8 in. away from any surface that will be illuminated, and a safe distance away from any flammable materials (volatile spirits, etc.).

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.

Permitted mounting options

An XPAR 12Z fixture may be installed in one of the following ways:

1. Fastened to a surface at any angle by screwing through the mounting bracket.
2. Fastened to a rigging truss or similar structure at any angle by means of a truss coupler or other clamp fixed to the mounting bracket.
3. Free standing on a flat surface by splitting apart the two sections of the mounting bracket to form two feet.
4. Free standing on a flat surface by standing the fixture on its back pointing upwards.

Securing fixtures with a safety cable

In temporary installations, if a fixture could cause injury or damage by falling you must secure it with a 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.

To secure an XPAR 12Z fixture with a safety cable:

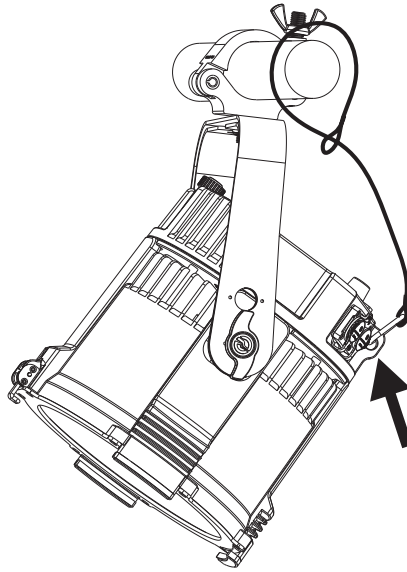


Figure 3. Safety cable attachment point

1. Loop a safety cable around a secure anchoring point such as a truss 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, for example).
2. See Figure 3. Fasten the safety cable to the attachment hole on the back of the fixture between the connectors. Check that the fixture is now secured.

Installing on a surface at any angle

To install an XPAR 12Z fixture on a surface at any angle:

1. Check that the surface is secure and can safely hold the weight of the fixture plus all hardware and cables.
2. Loosen the handwheels on the mounting bracket, adjust the bracket to a suitable angle and tighten the handwheels.
3. Hold the fixture in position on the surface and mark the positions of holes for fasteners on the surface. You will need at least two fasteners. Drill holes if necessary.
4. Fasten the mounting bracket to the surface by passing at least two suitable fasteners such as grade 8.8 steel bolts or screws through the holes in the bracket and fastening them to the surface. Fasteners must be suitable for their purpose and the installation environment.
5. In a temporary installation, secure the fixture with a safety cable as described in 'Securing fixtures with a safety cable' on page 14 if there is any risk that the fixture will cause injury or damage if it falls.

Installing on a rigging truss or similar structure

You can suspend an XPAR 12Z fixture from a rigging truss or pipe using a suitable clamp attached to the integral mounting bracket of the XPAR 12Z.

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 a G-clamp. If you are going to install the fixture in any other orientation, you must use a half-coupler clamp that completely surrounds the truss chord or pipe.

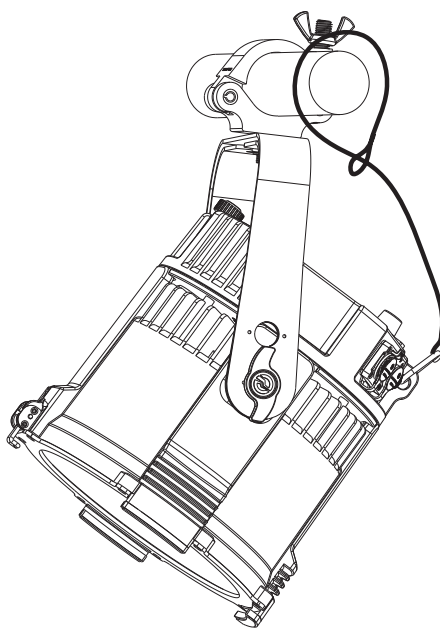


Figure 4. Truss mounting

1. Attach a suitable clamp to the mounting bracket of the XPAR 12Z as shown in Figure 4.
2. Attach the clamp to the truss or structure.
3. Secure the fixture with a safety cable as described in 'Securing fixtures with a safety cable' on page 14.

Free standing on a flat surface using mounting bracket

You can use the XPAR 12Z fixture free standing on the floor or other flat horizontal surface by splitting the mounting bracket into its two sections and positioning them at an angle to form two feet for the fixture to stand on.

The vertical angle of the fixture can be adjusted by varying the mounting bracket position.

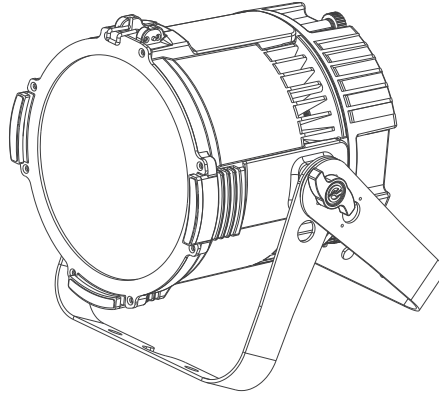


Figure 5. Free standing on a surface

1. Loosen the handwheel bolts either side of the mounting bracket.
2. Split the bracket into its two sections and position them at 90 degrees to each other as shown in Figure 4.
3. Adjust the vertical angle of the fixture by swivelling the fixture within the mounting brackets.
4. Tighten the handwheel bolts.
5. Ensure the fixture is located in a position where it will not form a trip hazard or cause injury if it falls over. If in doubt secure the fixture with a safety cable to an adjacent fixed point.

Free standing as uplighter

The XPAR 12Z fixture can be placed on its back for use as an uplighter. Two fixed feet and one adjustable foot allow you to set the vertical angle of the fixture. The mounting bracket may be removed if required for cleaner appearance by removing the handwheel bolts on either side.

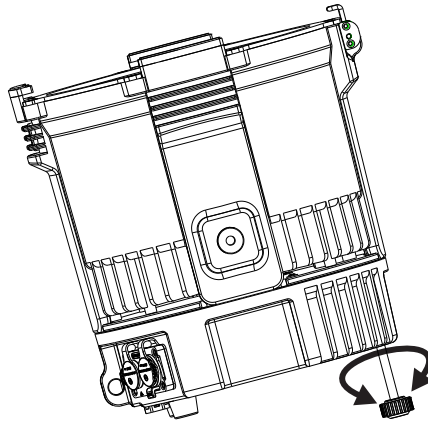


Figure 6. Free standing as uplighter

1. Unscrew the handwheel bolts either side of the mounting bracket and remove the mounting bracket (if required).
2. Stand the fixture on its back as shown in Figure 6 and adjust the angle by screwing the adjustable foot in or out.
3. Ensure the fixture is located in a position where it will not form a trip hazard or cause injury if it falls over. If in doubt secure the fixture with a safety cable to an adjacent fixed point.

5. AC mains power



Warning! Read 'Safety' starting on page 5 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 10).

Use H07 RN-F 3 x 2.5mm / SJT 12 AWG cables with TRUE1 compatible connectors to supply power to fixtures.

Line up the keyways in connectors carefully. Do not try to insert or twist a connector if it feels excessively stiff. Resistance to insertion or twisting is a sign that connectors may be incorrectly lined up.

Keep connectors sealed with their rubber caps at all times when not in use.

Included items

The XPAR 12Z is supplied with a power cord with a TRUE1 compatible connector.

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 XPAR 12Z does not have a power ON/OFF switch. Power is applied to the fixture as soon as the power cable becomes live.

The XPAR 12Z has a 3-conductor TRUE1 compatible 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 convenient, 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. 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 again 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.

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 TRUE1 compatible connector on a power cable, follow the instructions given on the manufacturer's website.

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.

XPAR 12Z fixtures have 2.5 mm² internal wiring from Power IN to Power THRU connectors.



Warning! Do not connect more than twelve (12) XPAR 12Z fixtures in total to power in one chain at 100-120 V, 60 Hz. Do not connect more than twenty-four (24) XPAR 12Z 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 TRUE1 compatible connectors. Cables must be minimum 14 AWG or 1.5mm², 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 as described under 'Connecting to power' on page 19.
3. Connect a relay cable to the Mains OUT / THRU socket of the first fixture and to the Mains IN socket of the second fixture.
4. If you are using 100-120 V, 60 Hz AC mains power you can continue connecting XPAR 12Z fixtures Mains OUT / THRU socket to Mains IN socket until the chain contains a maximum of twelve (12) fixtures in total. If you are using 200-240 V, 50 Hz AC mains power you can continue connecting fixtures Mains OUT to Mains IN until the chain contains a maximum of twenty-four (24) fixtures total.

6. 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 10).

Use digital 110 Ohm DMX cable with IP65 5-pin XLR connectors to supply DMX data to fixtures.

Keep connectors sealed with their rubber caps at all times when not in use.

The XPAR 12Z has two 5-pin XLR connectors for IN and THRU connections to a DMX data link. XPAR 12Z fixtures support the USITT DMX 512A signal protocol. They also support RDM (Remote Device Management).

The 5-pin XLR connectors use standard pin allocations:

1	Signal Ground
2	Data -
3	Data +
4	Not used
5	Not used

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

Installing optional barndoors

An optional barndoor accessory is available for the XPAR 12Z that can be installed on the front of the fixture to control lateral light spill if required.

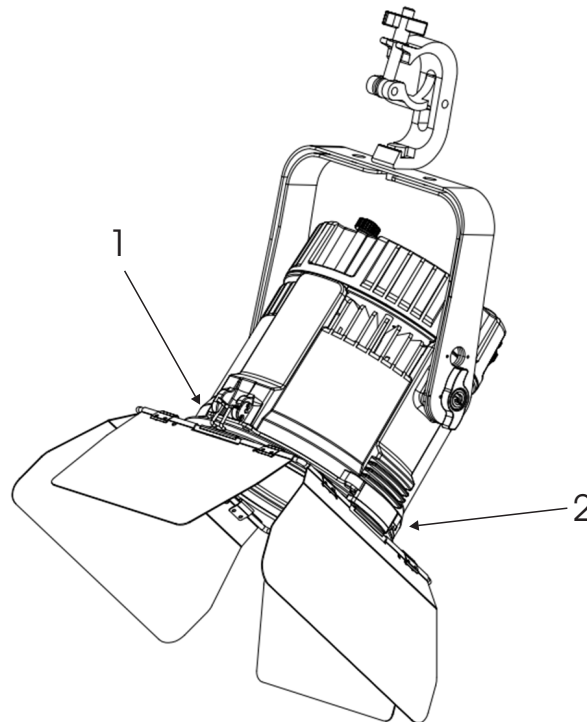


Figure 7. XPAR 12Z with Barndoors

To install barndoors:

1. See Figure 7. Pull back the spring clip (1) on the top of the fixture and slide the barndoor accessory into the channels (2) provided on the left, right and bottom of the fixture lens. Release the spring clip and ensure that all four sides of the barndoors are correctly held in place.
2. Install a safety bond between one of top corners of the barndoors assembly and the main fixture to prevent the barndoors falling if they become detached from the main fixture.

Installing color filter frame

An optional color filter frame accessory is available for the XPAR 12Z that can be installed on the front of the fixture. This would normally be used to hold diffusion or frost media to soften the light beam.

The procedure to install the frame is the same as for the barndoor accessory above.

7. 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.

The XPAR 12Z's TRUE1-compatible 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, then apply power to the AC mains power circuit.

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

8. DMX control modes overview

The following DMX control modes are available in the XPAR 12Z.

DMX Mode 1: Basic gives raw color control using 8-bit RGB levels, with overall dimmer and shutter controls. The Lime channel has no effect unless the fixture Color Mode is set to RGBL.

A Control / Settings channel lets you configure the fixture remotely via DMX.

Mode 1 Basic

1	Dimmer
2	Shutter
3	Zoom
4	Control
5	Red
6	Green
7	Blue
8	Lime

DMX Mode 2: Standard provides a selection of fixed colors with overall dimmer and shutter controls. If Channel 9 is set below DMX 10 (3.9%) then the color can be controlled by the RGB(L) channels - the Lime channel has no effect unless the fixture Color Mode is set to RGBL. If Channel 9 is DMX 10 or above, Channels 5-8 have no effect.

The CTC and M/G shift channels modify the color selected by the other channels.

A Control / Settings channel lets you configure the fixture remotely via DMX.

Mode 2 Standard

1	Dimmer
2	Shutter
3	Zoom
4	Control
5	Red
6	Green
7	Blue
8	Lime
9	Color Wheel
10	CTC
11	M/G shift

DMX Mode 3: Advanced provides a selection of fixed colors with overall 16-bit dimmer and a shutter control. If Channel 14 is set below DMX 10 (3.9%) then the color can be controlled by the 16-bit RGB(L) channels - the Lime channels have no effect unless the fixture Color Mode is set to RGBL. If Channel 14 is DMX 10 or above, Channels 6-13 have no effect.

The CTC and M/G shift channels modify the color selected by the other channels.

A Control / Settings channel lets you configure the fixture remotely via DMX.

Mode 3 Advanced

1	Dimmer
2	Dimmer Fine
3	Shutter
4	Zoom
5	Control
6	Red
7	Red fine
8	Green
9	Green fine
10	Blue
11	Blue fine
12	Lime
13	Lime fine
14	Color wheel
15	CTC
16	M/G shift

DMX Mode 4: RGB(L) gives raw color control using 8-bit RGB levels. The Lime channel has no effect unless the fixture Color Mode is set to RGBL. There is no master dimmer control.

A Control / Settings channel lets you configure the fixture remotely via DMX.

**Mode 4
RGB(L)**

1	Zoom
2	Control
3	Red
4	Green
5	Blue
6	Lime

DMX Mode 5: White operates the fixture as a white light with controllable Color Temperature and Green/magenta shift

A Control / Settings channel lets you configure the fixture remotely via DMX.

**Mode 5
White**

1	Dimmer
2	Shutter
3	Zoom
4	Control
5	CTC
6	Green/Magenta shift

DMX Mode 6: Easy provides a simple operating mode with a fixed selection of colors and zoom.

A Control / Settings channel lets you configure the fixture remotely via DMX.

**Mode 6
Easy**

1	Dimmer
2	Zoom
3	Control
4	Color Wheel

9. Technical specifications

Optics

Light source: 1x 120W RGBL LED
Lens: 190mm Fresnel
Lifetime: 20 000 hrs. approx. to > 70% luminous output
Output: 2520lm / 101000cd
Intensity: 3600lx @ 5m (6° zoom, Full ON)
CRI (Ra): 85+
TLCI: 84 @ 6000K
Beam angle (half peak): Motorized 6° - 44°

Control

Control systems: DMX, RDM, Manual setting, Master/Slave
DMX channel footprint: 4 / 6 / 8 / 11 / 16 depending on mode
Setting and addressing: Onboard control panel with OLED display, RDM
DMX compliance: USITT DMX512
RDM compliance: ANSI/ESTA E1.20

Installation

Options: Fixed to surface at any angle, suspended using truss mount bracket, floor standing using split yoke bracket
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, temporary outdoor installation
Secondary attachment: eyelet for safety cable attachment

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: 135 W

Maximum permitted number of fixtures daisy-chained to power

12 x XPAR 12Z total @ 100-120 V, 60 Hz
24 x XPAR 12Z total @ 200-240 V, 50 Hz

Connections

AC mains power in and thru (out): TRUE1 compatible with sealing caps
Control data in and thru (out): 5-pin XLR with sealing caps

Construction

Ingress protection rating: IP65
Fixture housing: Extruded aluminum
Color: Black

Thermal

Cooling: Convection
Minimum ambient temperature: -10° C (14° F)
Maximum ambient temperature: 40° C (104° F)

Included items

Power cable with TRUE1 compatible mains input plug

Accessories (optional)

Filter frame

Barn Door attachment

Dimensions and weight

Length: 245mm / 9.6 ins.

Width: 245 mm / 9.6 ins.

Height: 341 mm / 13.4 ins. (including bracket)

Weight: 7 kg (15.4 lbs.)

10. Dimensions

All dimensions are in millimeters

