Axia® Quasar XR, SR
Rack-Mount Power Supply

For:

QUASAR *XR*   QUASAR *SR*

Standalone Surface Modules

This Quickstart Guide assumes a few things:

- You are setting up a Quasar Control Surface based on the STANDALONE modules
- You did not order your Quasar Console with a full Table-Top or Flush-Mount frame.
- You purchased the Quasar Direct Mount Kits, for installing the surface modules

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ITEMS REQUIRED FOR INSTALLATION:

The following items are necessary to complete the installation of this unit:

- Quasar control surface modules, STANDALONE UNINSTALLED version
- A suitable Quasar 1U or 1.5U Direct Mount Kit, for each surface module
- 1x USB 2.0 host-device cable (USB-A to USB-B connectors)
- 2x Power (mains) cords

Unpacking the Unit

The Quasar Rackmount Power Supply, (p/n: 2001-00582-100) is a 2RU, rack-mountable unit that can power up to 8 modules. The unit offers all the smart protection and diagnostics capabilities available in the Quasar Table-Top and Flush-Mount Frames.

The unit includes dual redundant PSU modules and 4 independent DC outputs, each capable of supplying power to two modules, if daisy-chained.

The Quasar Rack-Mount PSU uses Auto-sensing, auto-ranging power supplies, which accept any AC voltage between 90 – 132 / 187 – 264VAC, with 50Hz/60Hz frequency.

The PSUs are the same units supplied with the standard Quasar Console frames, and are installed at the back of the unit, as shown in the picture below:

Two External 12VDC Power Cables (p/n: 17110-0506) are included with each Rackmount PSU. These cables are 5mt-long. If required, more can be ordered from your preferred dealer.

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Safety Notices

The following safety rules must be observed during installation:

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

To reduce the risk of electric shock, do not open the top cover. Refer servicing to qualified service personnel only.

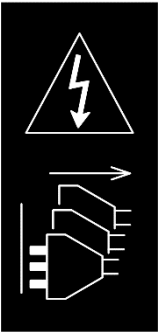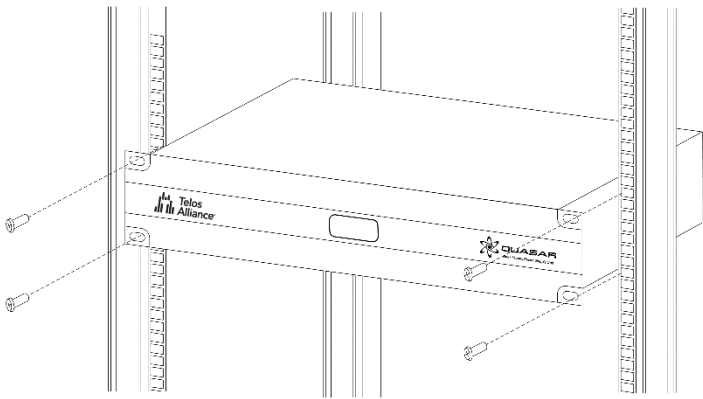To reduce the risk of fire or electric shock, do not expose this unit to rain or moisture.

This unit is not intended for outdoor use.

Mounting in a Rack:

The Quasar Rackmount PSU is designed for high-density installations in rack furniture.

- The unit must be rack mounted with four screws.
- The rack must be properly grounded.
- No empty rack spaces are required above and below the unit.
- The rear heat sinks must not be obstructed and a free air flow must be guaranteed.
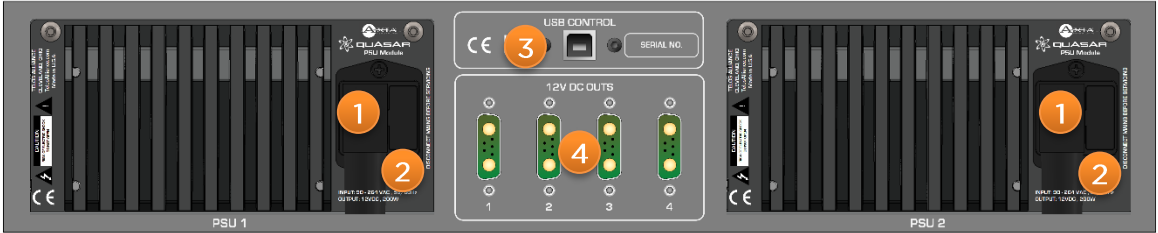- Maintain a clearance of at least 10 cm behind the unit, for proper cable routing.

Warning - Make sure there is no obstruction to the rear PSU Heatsinks while it is operating, or serious damage to the unit may occur!

Redundant Power Connections:

In case of service or inspection, both AC mains cables must be disconnected before opening the unit.

Connections

1. **AC INPUT :** Connect the IEC Type 13 cable supplied here. Retaining clips are provided to secure the AC cable to the sockets.

2. **FUSE :** The Fuse Holder can be extracted only when the AC Mains cable is disconnected. Insert a small flat-blade screwdriver into the release notch, to open. The fuse type is 3.1A Slow-Blow.

3. **USB Control:** This port can be connected to one of the MTS-MON USB ports for monitoring the voltage rails' status and current consumption directly from the console Web UI.

   Note - Connection to this port is optional and not required for powering up and operating the unit. The max. length for passive USB2.0 cables is 5mt (15ft). If a greater distance exists between the PSU and the MTS module, we recommend using an active USB cable with PSU (not bus-powered).

4. **12V DC OUTS:** Connect the two 12VDC cables provided with the unit, to any one of these ports.

   Note - If you have choice of standard and uninterrupted mains (UPS) in your studio, it is a good practice to connect each PSU to a different type of Mains supply. For example, don't connect both supplies to the same UPS.

Earth Connection and Grounding

This is a Class I product. An Earth connection MUST be provided in each AC power cord. The Quasar Rackmount PSU is grounded through the AC power cable and therefore relies upon proper grounding of the circuit providing AC power.

In case one of the PSU inlets is connected to standard Mains and the other PSU is connected to uninterrupted (UPS) mains, make sure that both circuits are referenced to, and share, the same ground.

Use the provided AC power cable(s) to connect the two PSU modules to a grounded power receptacle. We suggest connecting them to different power sources for redundancy and highly recommend the use of a UPS (uninterruptable power supply) for each source.

The Quasar Rack-Mount Power Supply does not require a separate chassis ground, therefore an Earth Lug at the rear of the unit is not provided.
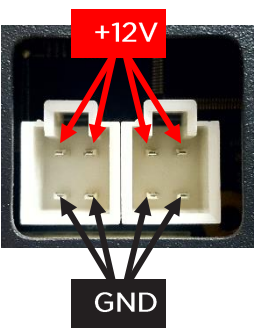
However, for those users who wish to have a separate ground/earth connection using a dedicated earth cable (at least 6mm² or 10 AWG cross section), this could be connected to any of the rear PSU modules fixing screw via a Grounding Tab with integrated lock washer. Such a cable is not provided with the unit, as this connection is optional and it is NOT a requirement to comply with safety standards.

Wiring DC Power to the Modules

The 12VDC Power wiring for Standalone Modules follows the following criteria:

1. Each 12VDC Out port on the Rackmount Power Supply is connected directly to one of the 12VDC inputs at the back of a module

2. The other 12VDC Input connector on that module is either used to daisy chain power to a second module, or it is left disconnected.

The two 12VDC Input connectors at the back of each module are connected in parallel, to allow daisy chaining the power from one module to the next one, in case this is necessary. This is a useful feature when modules are installed outside of a Console frame, and no Power Distribution Board is present. Do not daisy chain more than two modules on a single DC power line.

Note - The 12VDC Input connectors are not designed to feed redundant power to each module. In case power redundancy is required by a custom installation that do not make use of a console frame, we suggest using the Quasar Rackmount PSU.

Warning – Quasar surface modules can be damaged if two separate power feeds are connected to the rear 12VDC inlets.

INFORMATION ABOUT YOUR NEW PRODUCT

IMPORTANT!

Telos Alliance strongly suggests that you use an Uninterruptible Power Supply (UPS) with power line filtering to prevent damage to the unit during electrical storms and power surges. Please note that damage due to lightning is not covered under the product Warranty (refer to your User Manual for warranty information).

For more information on lightning protection please visit our website:
http://blogs.telosalliance.com/tech/surge-suppression-pointers

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