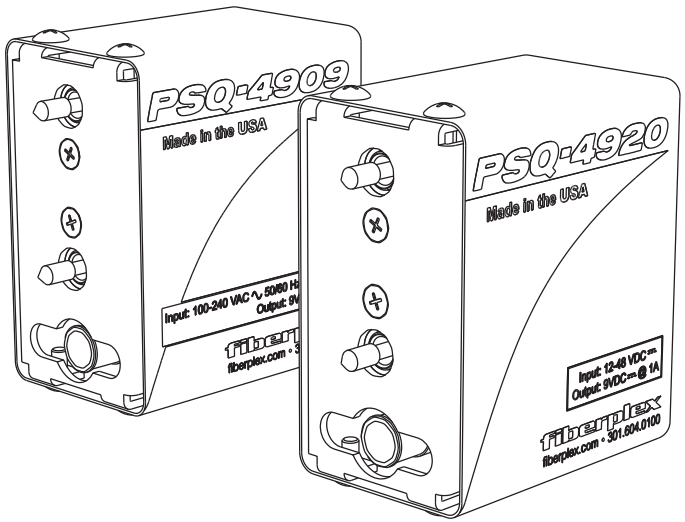

fiberplex TECHNOLOGIES, LLC

USER MANUAL

Stand Alone Power Supply

PSQ-2909 / PSQ-3909 / PSQ-4909

PSQ-2920 / PSQ-3920 / PSQ-4920

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Warning for Your Protection

1. Read these instructions.

2. Keep these instructions.

3. Heed all warnings.

4. Follow all instructions.

5. Do not use this apparatus near water.

6. Clean only with a dry cloth.

7. Do not block any of the ventilation openings. Install in accordance with the manufacturer's instructions.

8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

10. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

11. Only use attachments/accessories specified by the manufacturer.

12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13. Unplug this apparatus during lightning storms or when unused for long periods of time.

14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

The apparatus shall not be exposed to dripping or splashing. No objects filled with liquids, such as vases, shall be placed on the apparatus.

"WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture."

General Installation Instructions

Please consider these general instructions in addition to any product-specific instructions in the "Installation" chapter of this manual.

Unpacking

Check the equipment for any transport damage. If the unit is mechanically damaged, if liquids have been spilled or if objects have fallen into the unit, it must not be connected to the AC power outlet, or it must be immediately disconnected by unplugging the power cable. Repair must only be performed by trained personnel in accordance with the applicable regulations.

Installation Site

Install the unit in a place where the following conditions are met:

- The temperature and the relative humidity of the operating environment must be within the specified limits during operation of the unit. Values specified are applicable to the air inlets of the unit.
- Condensation may not be present during operation. If the unit is installed in a location subject to large variations of ambient temperature (e.g. in an OB-van), appropriate precautions must be taken.
- Unobstructed airflow is essential for proper operation. Ventilation openings of the unit are a functional part of the design and must not be obstructed in any way during operation (e.g. - by objects placed upon them, placement of the unit on a soft surface, or improper installation of the unit within a rack or piece of furniture).
- The unit must not be unduly exposed to external heat sources (direct sunlight, spot lights).

Ambient Temperature

Units and systems by FiberPlex are generally designed for an ambient temperature range (i.e. temperature of the incoming air) of +5...+40 °C. When rack mounting the units, the following facts must be considered:

- The permissible ambient temperature range for operation of the semiconductor components is 0 °C to +70 °C (commercial temperature range for operation).
- The airflow through the installation must allow exhaust air to remain cooler than 70 °C at all times.
- Average temperature increase of the cooling air shall be about 20 C°, allowing for an additional maximum 10 C° increase at the hottest components.

If the cooling function of the installation must be monitored (e.g. for fan failure or illumination with spot lamps), the exhaust air temperature must be measured directly above the modules at several places within the enclosure.

Grounding and Power Supply

Grounding of units with mains supply (class I equipment) is performed via the protective earth (PE) conductor integrated in a NEMA 5-15P connector. Units with battery operation (< 60 V, class III equipment) must be earthed using the 3 pin Phoenix connector. Grounding the unit is one of the measures for protection against electrical shock hazard (dangerous body currents). Hazardous voltage may not only be caused by defective power supply insulation, but may also be introduced by the connected audio or control cables.

This equipment may require the use of a different line cord, attachment plug, or both, depending on the available power source at installation. If the attachment plug needs to be changed, refer servicing to qualified personnel.

Warranty, Service and Terms and Conditions of Sale

For information about Warranty or Service information, please see our published 'Terms and Conditions of Sale'. This document is available on fiberplex.com or can be obtained by requesting it from clients@fiberplex.com or calling 301.604.0100.

Disposal

Disposal of Packing Materials

The packing materials have been selected with environmental and disposal issues in mind. All packing material can be recycled. Recycling packing saves raw materials and reduces the volume of waste. If you need to dispose of the transport packing materials, recycling is encouraged.

Disposal of Used Equipment

Used equipment contains valuable raw materials as well as substances that must be disposed of professionally. Please dispose of used equipment via an authorized specialist dealer or via the public waste disposal system, ensuring any material that can be recycled has been. Please take care that your used equipment cannot be abused. After having disconnected your used equipment from the mains supply, make sure that the mains connector and the mains cable are made useless.

Disclaimer

The information in this document has been carefully checked and is believed to be accurate at the time of publication. However, no liability is assumed by FiberPlex for inaccuracies, errors, or omissions, nor for loss or damage resulting either directly or indirectly from use of the information contained herein.

Introduction

The PSQ-2909, PSQ-3909 and PSQ-4909 are compact AC power supplies that attach to and provide operating voltage for FiberPlex's FOI series isolators.

The PSQ-2920, PSQ-3920 and PSQ-4920 are compact low voltage power supplies that attach to and provide operating voltage for FiberPlex's FOI series isolators. They can power the FiberPlex FOI units with a 12-48 VDC (or 10-32 VAC) external supply. These Low Voltage power supplies are not polarity sensitive; V+ and V- may be reversed for DC inputs. They are equipped with a resettable fuse to protect both the supply and the FOI.

Getting Started

Initial Inspection

Immediately upon receipt, inspect the shipping container for damage. The container should be retained until the shipment has been checked for completeness and the equipment has been checked mechanically and electrically. If the shipment is incomplete, if there is mechanical damage, or if the unit fails to operate notify FiberPlex and make the shipping materials available for the carrier's inspection.

Installation Instructions

1) Locate the FOI to the PSQ as shown; the power plug slides straight into the mating receptacle.
2) Start the captive screws into the FOI face. Do not tighten completely until both are threaded.
3) Tighten snugly the captive screws, evenly, drawing the faces together. The mounting face of the FOI should be in uniform contact with the face of the PSQ.

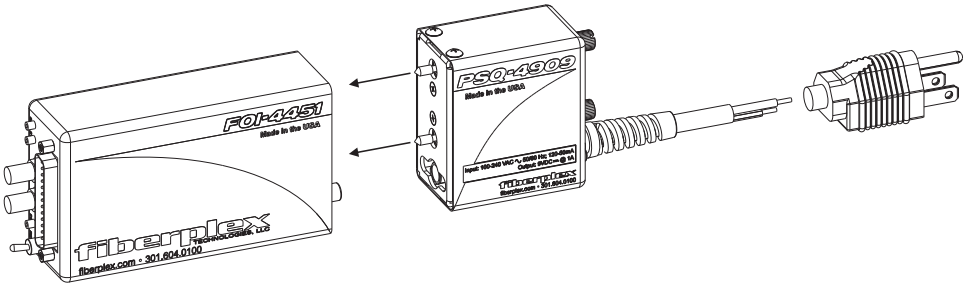

Figure 1 PSQ Installation

Note: The PSQ-4909 is shown. The PSQ-2920, PSQ-3920 and PSQ-4920 Low Voltage power supplies do not have the AC adapter cable.

Compatibility

The PSQ series power supplies are compatible with all FOI and FIS style Fiber Optic Isolators. The table below shows compatibility. See the specifications section in the user manual of your FOI to determine the Size of the FOI.

FiberPlex FOI Series*	Size	AC Power Supply	Low Voltage Power Supply
FOI-2xxx	**Size 2**	PSQ-2909	PSQ-2920
FOI-3xxx, TDU-4000	**Size 3**	PSQ-3909	PSQ-3920
FOI-4xxx thru FOI-9xxx	**Size 4**	PSQ-4909	PSQ-4920
* Includes both FOI and FIS variants			

Other Considerations

TEMPEST Support

TEMPEST is a US Government specification and NATO certification intended to protect valuable and mission critical information from being intercepted through leaking emanations, including unintentional radio or electrical signals, sounds, and vibrations. The protection efforts are also known as emission security (EMSEC), which is a subset of communications security (COMSEC).

Several FiberPlex Technologies FOI units have a variant designated with a 'T-ST' suffix, which has been rigorously designed and tested to comply with TEMPEST requirements. These units can easily be visually identified by their silver finish.

An RFI suppressed version of the PSQ-4909 AC power supplies have been tested with the TEMPEST FOI units and should be used with those units as part of a complete, certified TEMPEST solution. This version can be ordered using an 'R' suffix after the model number (PSQ-4909-R).

When using TEMPEST rated FOI, much care must be taken in both the mating equipment and especially the copper cabling used in such connection. In addition, the power supplies and/or chassis being uses must have an 'R' suffix. For standalone applications, use a **PSQ-4909-R** (or the older PSQ-4910-R) power supply or for a chassis mounted solution use either an **RMC-3101-R** or **RMC-2101-R** chassis. **All the items in the system must be TEMPEST compliant for the system to properly protect the information.**

Specifications

ELECTRICAL SPECIFICATIONS					
		Min	Typ	Max	Unit
Power Requirement **PSQ-x909** AC Supplies	Input Voltage	100	-	240	VAC
	Input Frequency	50	-	60	Hz
	Output Voltage	-	9	-	VDC
	Supply Current	-	1000	-	mA
	Output Power	-	9	-	W
Power Requirement **PSQ-x920** Low Voltage Supplies	Input DC Voltage	12	-	48	VDC
	Input AC Voltage (50-60 Hz)	10	-	32	VAC
	Output Voltage	-	9	-	VDC
	Supply Current	-	1000	-	mA
	Output Power	-	9	3	W
Environmental	Storage Temperature	-40	-	85	°C
	Operating Temperature	0	-	50	°C
Power Connector	PSQ-x909	NEMA 5-15P, Permanently Affixed			
	PSQ-x920	Phoenix Contact 1827716			

PHYSICAL SPECIFICATIONS					
Case Dimensions	FOI Size	Length	Width	Height	Weight
PSQ-2909	2	2.25 in (57mm)	2.56 in (65 mm)	1.31 in (33 mm)	0.8 lb (0.4 kg)
PSQ-3909	3	2.38 in (60 mm)	3.19 in (81mm)	1.45 in (37 mm)	0.8 lb (0.4 kg)
PSQ-4909	4	2.25 in (57mm)	2.56 in (65 mm)	1.45 in (37 mm)	0.8 lb (0.4 kg)
PSQ-2920	2	2.25 in (57mm)	2.56 in (65 mm)	1.31 in (33 mm)	0.8 lb (0.4 kg)
PSQ-3920	3	2.38 in (60 mm)	3.19 in (81mm)	1.45 in (37 mm)	0.8 lb (0.4 kg)
PSQ-4920	4	2.25 in (57mm)	2.56 in (65 mm)	1.45 in (37 mm)	0.8 lb (0.4 kg)

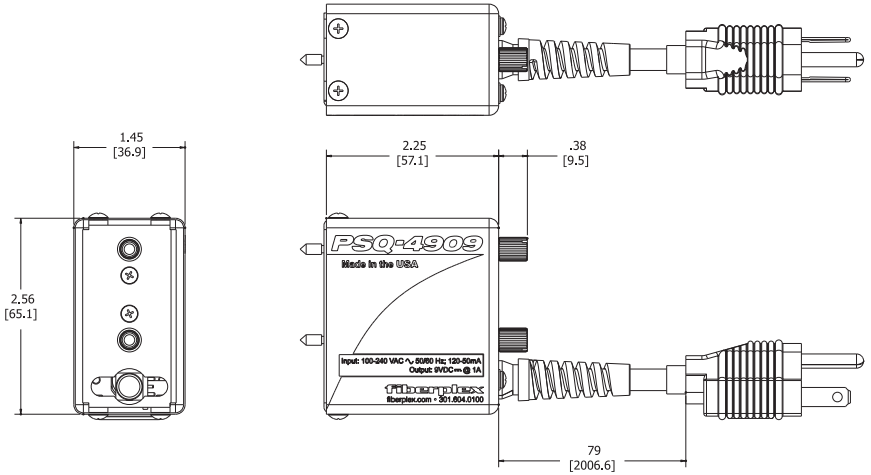

Figure 2 PSQ-4909 Dimensions

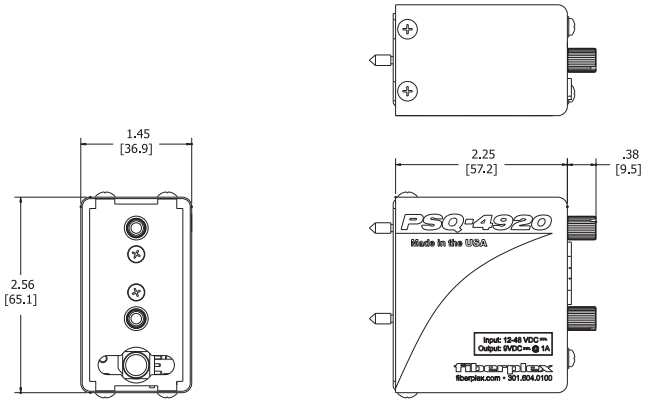

Figure 3 PSQ-4920 Dimensions

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