# 517EPS1 External Power Supply Installation Instructions

**Figure 1: 517EPS1**


## General

The compact 517EPS1 power supply is designed to supply power to two fully loaded 517R1 card cage racks. It is 19 inches (483 mm) wide and mounts in EIA standard 19-inch racks. It is one rack unit (1 RU or 1.75 inches or 44 mm) high.

### Capacity

The 517EPS1 provides two power outputs, each rated at 6.0 A.

### Safety considerations

The input voltage to the 517EPS1 is 115–230 V (50 to 60 Hz). Input power is supplied through an AC line cord with a three-pin grounding plug.

**WARNING:** Do not modify the plug by removing the grounding pin. Ensure that the outlet is properly grounded to an earth ground.

Consider the overall loading of the branch circuit before installing the power supply into the rack.

**WARNING:** This is not a user-serviceable product. There are hazardous voltages inside. It should NOT be opened by the user. Refer all servicing to factory trained or authorized personnel only.

Do not block power supply vents or otherwise restrict airflow when installing the unit in a rack.

## Installation

Installation consists of physical installation in a 19-inch (483 mm) instrument rack and electrical connections.

### Rack installation

We recommend that 1 RU (1.75 mm or 44 mm) of space be left between the 517EPS1 and any racks above and below it. This provides improved circulation of cooling air. Slide the power supply into the rack from the front. Secure it with four screws suitable for the rack.

### Electrical connections

Electrical connections consist of connections to the card cage rack or racks being supplied from the 517EPS1, dry contact connections to remote alarm devices, alarm input ocnnections from the supported racks, and input power connection.

**Note:** Make all the connections described in steps 1 through 3 before connecting the 517EPS1 to a power source (step 4).

1. The two screw terminal strips on the rear panel are labeled DC OUTPUT A (right side) and DC OUTPUT B (left side). Two interconnecting cable assemblies are supplied with each 517EPS1. The three conductors in the cable assembly are color-coded to the labels on the screw terminal blocks. Attach the cable assembly as follows:
   a. Connect the red, white, and black wires to the RED, WHT, and BLK screw terminals, respectively. Refer to Figure 2 on page 2 and Table 1 on page 2.
   b. Plug the other end of the cable into the mating connector on the rear of the card cage.
   c. Repeat steps a and b above for the second terminal strip and the remaining cable assembly.
2. *For a redundant power supply only*: The two independent channels of the 517EPS1 may be combined to provide a redundant power supply. Total output in this configuration is 6 A at 13.5 VDC. Connect the wiring as follows:
   a. Connect the BLK terminal of DC OUTPUT A block to the BLK terminal of DC OUTPUT B block.
   b. Connect the RED terminal of DC OUTPUT A block to the RED terminal of DC OUTPUT B block.
   c. Connect only ONE of the prewired harnesses to either terminal block A or B as described in step 1.
3. The two screw terminals labeled RELAY are the outputs for the dry contact relay for remote alarm announcement. The relay is normally open (NO) and closes when the optics in one of the rack-mounted receivers fails. Connect the external alarm equipment to the 517EPS1 according to Table 1 on page 2. The contacts are rated at 30 VDC, 0.5 A resistive.

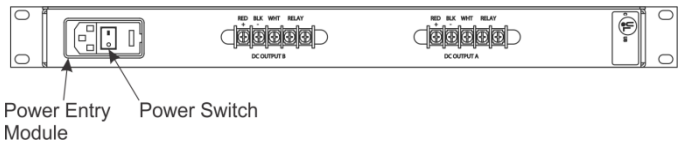
4. Ensure that the power switch on the input power module on the rear of the 517EPS1 is set to OFF (0). Plug the female end of the power cable into the socket in the power input module. Plug the male end into a suitable power outlet. Set the power switch to ON (1).

**Note:** When the power is switched on, the cooling fans start running at a slow speed. Their speed increases as the unit warms up.

**Table 1: 517EPS1 Terminal Strip Connections**

| Pin Name | Function | Connect to... |
|---|---|---|
| RED | +13.5 VDC | Red lead in accessory cable assembly |
| BLK | DC ground | Black lead in accessory cable assembly |
| WHT | Receiver failure alarm input from rack | White lead in accessory cable assembly |
| RELAY | Normally open (NO) dry contact | Customer remote alarm equipment |

**Figure 2: Power Supply Rear Panel**




# Operation

No user operation is required after the unit is installed. Four LEDs located on the front panel indicate the operational state of the two output channels of the unit and of fiber optic receivers mounted in the racks. See Figure 3 below.

**Figure 3: Power Supply Front Panel**

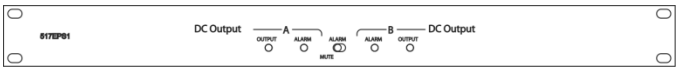



Table 2 below provides a convenient summary of LED functions.

**Table 2: Diagnostic LEDs**

| LED Name | Color | Indicates/Corrective Action |
|---|---|---|
| OUTPUT | Green | Output power provided to rack within rated limits. No action required. |
| | Red | Rated load exceeded. |
| | Off | No power is being output from the unit. |
| ALARM | Red | Optical failure in one or more receiver cards. Locate the failed unit(s). |
| | Off | All receiver cards are functioning normally. No action required. |

The ALARM LEDs indicate that an optical failure has occurred in a receiver module in the indicated card cage, A or B. This visual alarm function is supplemented by a piezo device which simultaneously sounds an alarm.

A MUTE switch, located on the front panel in the center of the LEDs, may be activated to silence this function. When in the MUTE position, only the sound is disabled.

Alarm outputs are provided for each channel. These consist of one pair of dry contacts per channel. They may be connected to external, customer-furnished equipment to transmit alarm status to a remote monitoring location.

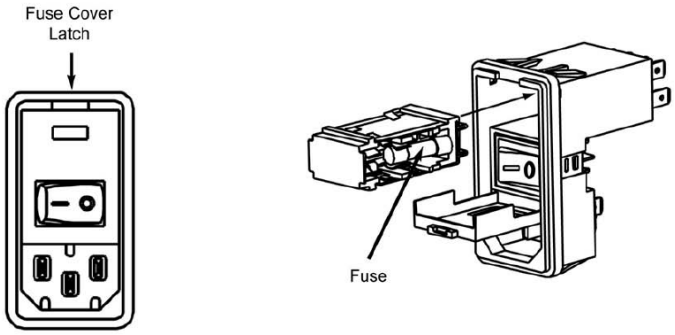
# Maintenance

The equipment is solid state and does not require any field adjustments, periodic maintenance, or routine calibration.

## Fuse replacement

The input power fuse is located in a power entry module built into the input power housing on the rear panel. See Figure 2 and Figure 4 below.

**Figure 4: Power Entry Module – Fuse Location and Replacement**




**To replace the fuse:**

**WARNING:** Disconnect the AC line cord from the power supply and from the AC outlet before attempting to remove or replace the fuse.

**Note:** Carefully note the position of the fuse in the fuse carrier before removing it to avoid installing or replacing the fuse incorrectly.

1. Remove the fuse carrier by locating the small slot at the top of the power entry module and gently prying the cover open using a small flat screwdriver. When the cover is open, pry the fuse carrier out of the module, and then remove and examine the fuse.
2. If necessary, replace with a fuse of the same type and rating and return the fuse carrier to the power entry module. Close the cover until it snaps into place.
3. Connect the AC line cord to the power supply and to the AC outlet.
4. Set the power switch on the rear of the unit to the ON position.

# Contacting support

For help installing, operating, maintaining, and troubleshooting this product, refer to this document and any other documentation provided. If you still have questions, contact us


P/N 1073567-EN • REV A • ISS 14NOV18

during business hours (Monday through Friday, excluding holidays).

**Note**: Please be ready at the equipment before calling.

| | |
|---|---|
| **North America** | |
| T | +1 855.286.8889 |
| E | techsupport@interlogix.com |
| W | www.interlogix.com/support |
| **Europe, Middle East, and Africa** | |
| W | Select *Support/Contact Us* at www.firesecurityproducts.com |
| **Australia** | |
| E | security.tech.support@interlogix.com.au |
| W | www.utcfs.com.au |

# Product Specifications

| | |
|---|---|
| **Electrical** | |
| Input Voltage | 115 or 230 VAC; 60/50 Hz |
| Input Current | 5 A @ 115 VAC; 2.5 A @ 230 VAC |
| Output Voltage | 13.5 VDC (each channel) |
| Output Current | 6.0 A per channel |
| Power | 13.5 VDC @ 6.0 A |
| Fuse Rating | 5.0 A, 250 V, fast blow |
| Relay Rating | 30 VDC, 0.5 A resistive |
| **Mechanical** | |
| Height | 1.73 inches (44 mm) |
| Width | 19.0 inches (483 mm) |
| Depth | 11.5 inches (292 mm) |
| Weight | 7.12 lb. (3.23 kg) |
| Construction | Aluminum |
| Finish | Black semigloss paint |
| Mounting | Mounts in standard EIA 19-inch rack with four screws |
| Cooling | Two thermostatically controlled fans |
| Airflow | In through back panel, out through top cover |
| **Connectors** | |
| Power Input | Recessed IEC 320 3-pin male (cable supplied) |
| DC Power and Alarm Output | Two 5-pin screw terminal barrier strips |
| Connection to 517R1 Rack | Prefabricated cable (two supplied) |
| **Environmental** | |
| Operating Temperature | -40 to 167 °F (-40 to 75 °C) |
| Maximum Humidity | 95% relative, noncondensing |

# Regulatory information

| | |
|---|---|
| **Copyright** | © 2018 United Technologies Corporation.<br>Interlogix is part of UTC Climate, Controls & Security, a unit of United Technologies Corporation. All rights reserved. Specifications subject to change without notice. |
| **Trademarks and patents** | The trade names used in this document may be trademarks or registered trademarks of the manufacturers or vendors of the respective products. |
| **Manufacturer** | Interlogix<br>2955 Red Hill Avenue, Costa Mesa, CA 92626 5923, USA<br>Authorized EU manufacturing representative:<br>UTC Fire & Security B.V.<br>Kelvinstraat 7, 6003 DH Weert, The Netherlands |
| **FCC compliance** | Class A: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. |
| **FCC conditions** | This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:<br>(1) This device may not cause harmful interference.<br>(2) This device must accept any interference received, including interference that may cause undesired operation. |
| **ACMA compliance** | Notice! This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures. |
| **Canada** | This Class A digital apparatus complies with CAN ICES-003 (A)/NMB-3 (A).<br>Cet appareil numérique de la classe A est conforme à la norme CAN ICES-003 (A)/NMB-3 (A). |
| **Certification** | CE   |
| **European Union directives** | This product complies with the applicable harmonized European standards listed under the EMC Directive 2014/30/EU, the RoHS Directive 2011/65/EU. |
|  | 2012/19/EU (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points. For more information see: www.recyclethis.info. |

| | |
|---|---|
| **Product warnings and disclaimers** | THESE PRODUCTS ARE INTENDED FOR SALE TO, AND INSTALLATION BY, AN EXPERIENCED SECURITY PROFESSIONAL. UTC FIRE & SECURITY CANNOT PROVIDE ANY ASSURANCE THAT ANY PERSON OR ENTITY BUYING ITS PRODUCTS, INCLUDING ANY “AUTHORIZED DEALER” OR “AUTHORIZED RESELLER”, IS PROPERLY TRAINED OR EXPERIENCED TO CORRECTLY INSTALL SECURITY RELATED PRODUCTS.<br>For more information on warranty disclaimers and product safety information, please check www.firesecurityproducts.com/policy/product-warning/ or scan the following code: |



P/N 1073567-EN • REV A • ISS 14NOV18