

**2400PSUA-8**  
**8 Channel Power Supply for 240xLT/LR Series**  
**Instruction Manual**

© Copyright 2007 - 2017

**EVERTZ MICROSYSTEMS LTD.**

5292 John Lucas Drive,  
Burlington, Ontario, Canada  
L7L 5Z9

Phone:	+1 905-335-3700	Internet:	Sales:	<a href="mailto:sales@evertz.com">sales@evertz.com</a>
Sales Fax:	+1 905-335-3573		Tech Support:	<a href="mailto:service@evertz.com">service@evertz.com</a>
Tech Support Phone:	+1 905-335-7570		Web Page:	<a href="http://www.evertz.com">http://www.evertz.com</a>
Tech Support Fax:	+1 905-335-7571			

Revision 1.2, January 2017



The material contained in this manual consists of information that is the property of Evertz Microsystems and is intended solely for the use of purchasers of the 2400 series products. Evertz Microsystems expressly prohibits the use of this manual for any purpose other than the operation of the Routers.

All rights reserved. No part of this publication may be reproduced without the express written permission of Evertz Microsystems Ltd. Copies of this guide can be ordered from your Evertz products dealer or from Evertz Microsystems.

*This page left intentionally blank*

# IMPORTANT SAFETY INSTRUCTIONS

## Model 2400PSUA-8

	The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of un-insulated “Dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.
	The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (Servicing) instructions in the literature accompanying the product.

- Read these instructions
- Keep these instructions.
- Heed all warnings.
- Follow all instructions.
- Do not use this apparatus near water
- Clean only with dry cloth.
- Do not block any ventilation openings. Install in accordance with the manufacturer’s instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than 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.
- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles and the point where they exit from the apparatus.
- Only use attachments/accessories specified by the manufacturer
- Unplug this apparatus during lightning storms or when unused for long periods of time.
- 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.

### **WARNING**

TO REDUCE THE RISK OF FIRE OR ELECTRIC – SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE

### **WARNING**

DO NOT EXPOSE THIS EQUIPMENT TO DRIPPING OR SPLASHING AND ENSURE THAT NO OBJECTS FILLED WITH LIQUIDS ARE PLACED ON THE EQUIPMENT

### **WARNING**



TO COMPLETELY DISCONNECT THIS EQUIPMENT FROM THE AC MAINS, DISCONNECT THE POWER SUPPLY CORD PLUG FROM THE AC RECEPTACLE

### **WARNING**

THE MAINS PLUG OF THE POWER SUPPLY CORD SHALL REMAIN READILY OPERABLE

## IMPORTANT SAFETY INSTRUCTIONS

### Model 2400PSUA-8-WP

	The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of un-insulated "Dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.
	The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (Servicing) instructions in the literature accompanying the product.

- Read these instructions
- Keep these instructions.
- Heed all warnings.
- Follow all instructions.
- Clean only with dry cloth.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than 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.
- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles and the point where they exit from the apparatus.
- Only use attachments/accessories specified by the manufacturer
- Unplug this apparatus during lightning storms or when unused for long periods of time.
- 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, or objects have fallen into the apparatus, the apparatus does not operate normally, or has been dropped.

**WARNING**

TO COMPLETELY DISCONNECT THIS EQUIPMENT FROM THE AC MAINS, DISCONNECT THE POWER SUPPLY CORD PLUG FROM THE AC RECEPTACLE

**WARNING**

THE MAINS PLUG OF THE POWER SUPPLY CORD SHALL REMAIN READILY OPERABLE

# INFORMATION TO USERS IN EUROPE

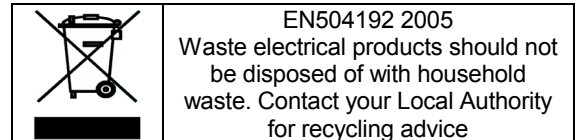
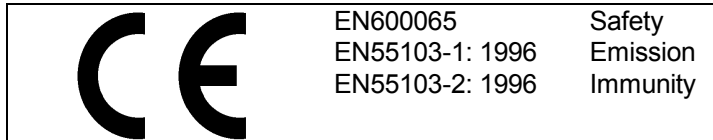
## NOTE

This equipment with the CE marking complies with both the EMC Directive (2004/108/EC) and the Low Voltage Directive (2006/95/EC) issued by the Commission of the European Community.

Compliance with these directives implies conformity to the following European standards:

- EN60065      Product Safety
- EN55103-1    Electromagnetic Interference Class A (Emission)
- EN55103-2    Electromagnetic Susceptibility (Immunity)

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to the European Union EMC directive. 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.



# INFORMATION TO USERS IN THE U.S.A.

## NOTE

### FCC CLASS A DIGITAL DEVICE OR PERIPHERAL

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.

## WARNING

Changes or modifications not expressly approved by Evertz Microsystems Ltd. could void the user's authority to operate the equipment. Use of unshielded plugs or cables may cause radiation interference. Properly shielded interface cables with the shield connected to the chassis ground of the device must be used.

Evertz Microsystems Ltd



For Commercial Use

Tested to comply  
with FCC  
Standards

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

This device may cause harmful interference, and this device must accept any interference received, including interference that may cause undesired operation.

## REVISION HISTORY

<u>REVISION</u>	<u>DESCRIPTION</u>	<u>DATE</u>
1.0	First Release	Jan 11
1.1	Updated for safety instructions	Mar 11
1.2	Updates throughout	Jan 17

Information contained in this manual is believed to be accurate and reliable. However, Evertz assumes no responsibility for the use thereof nor for the rights of third parties, which may be affected in any way by the use thereof. Any representations in this document concerning performance of Evertz products are for informational use only and are not warranties of future performance, either expressed or implied. The only warranty offered by Evertz in relation to this product is the Evertz standard limited warranty, stated in the sales contract or order confirmation form.

Although every attempt has been made to accurately describe the features, installation and operation of this product in this manual, no warranty is granted nor liability assumed in relation to any errors or omissions unless specifically undertaken in the Evertz sales contract or order confirmation. Information contained in this manual is periodically updated and changes will be incorporated into subsequent editions. If you encounter an error, please notify Evertz Customer Service department. Evertz reserves the right, without notice or liability, to make changes in equipment design or specifications.

## TABLE OF CONTENTS

1. OVERVIEW .....	1
2. INSTALLATION.....	3
2.1. 2400PSUA-8 CONNECTIONS.....	5
3. SPECIFICATIONS.....	7
3.1. AC INPUT .....	7
3.2. DC OUTPUT .....	7
3.3. PHYSICAL .....	7
3.4. ENVIRONMENTAL .....	7
4. STATUS INDICATORS.....	9
4.1. PSU1 AND PSU2 INDICATORS .....	9
4.2. UNIT 1-8 INDICATORS.....	9

### Figures

Figure 1-1: 2400PSUA-8 Block Diagram.....	1
Figure 2-1: 2400PSUA-8 .....	3
Figure 2-2: 2400PSUA-8-WP .....	3
Figure 2-3: 2400PSUA-8 Dimensions and Mounting Centers.....	4



## 1. OVERVIEW

The 2400PSUA-8 is used to supply power to up to eight 240xLT series RF fiber optic transmitters including DC power for upstream LNBS, and/or 240xLR series fiber optic receivers. It contains dual, isolated, redundant DC power supplies and provides eight outputs on F-Type connectors. The 2400PSUA-8-WP version adds dust/water protection to IP65 for use outdoors.

### Features:

- Provides isolated, redundant DC power for up to eight 240xLT/LR series modules and upstream LNBS
- Active current limit/short circuit protection of each DC output
- LED indicators display the status of each power supply and DC output
- PSU status signal output for remote monitoring via connected 2407LTA/2408LT transmitter and SmartMON™-enabled fiber receiver.
- Weather-proof option available for mounting outdoors

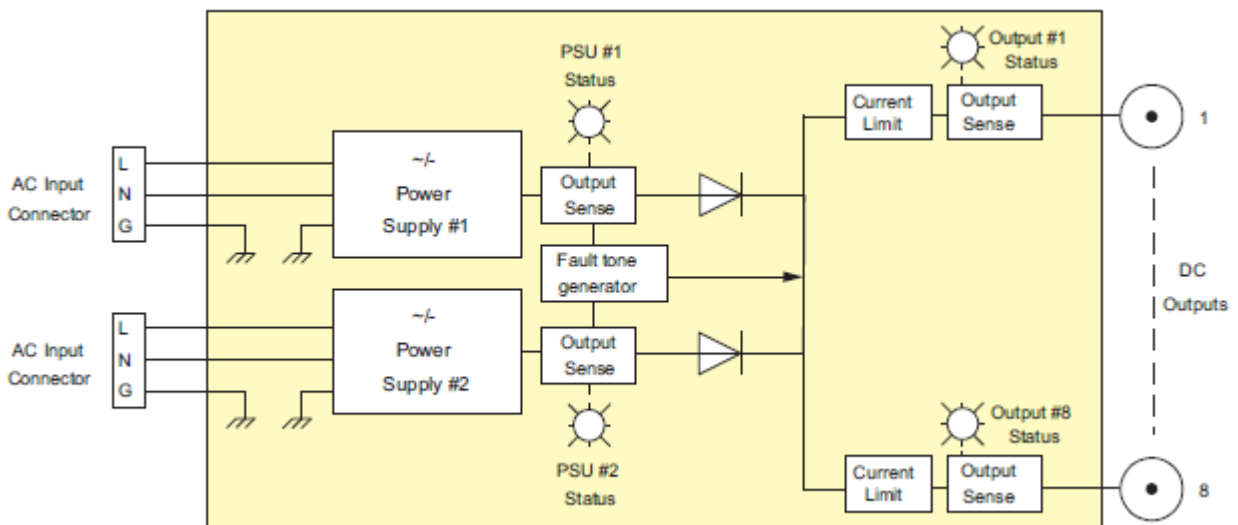


Figure 1-1: 2400PSUA-8 Block Diagram

*This page left intentionally blank*

## 2. INSTALLATION

The 2400PSUA-8 comes in a diecast enclosure with integral mounting flanges. It is recommended that the enclosure be mounted on a flat surface. A pair of slotted mounting holes is provided on the DC-output side of the unit, and a single slotted mounting hole is accessible on the AC-input side of the unit, centered between the two AC connectors. See Figure 2-3 for mounting hole and dimensional information.

The 2400PSUA-8 is intended for installation in dry locations, protected from direct rain/moisture. The 2400PSUA-8-WP version is sealed and protected to IP65, allowing installation outdoors.

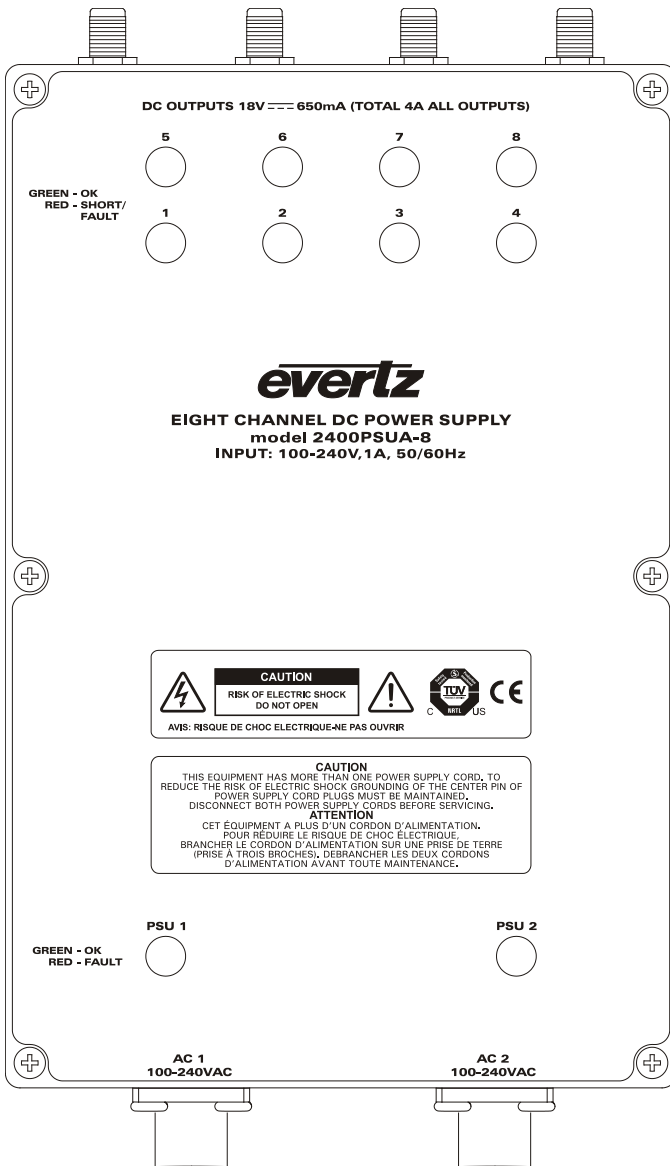


Figure 2-1: 2400PSUA-8

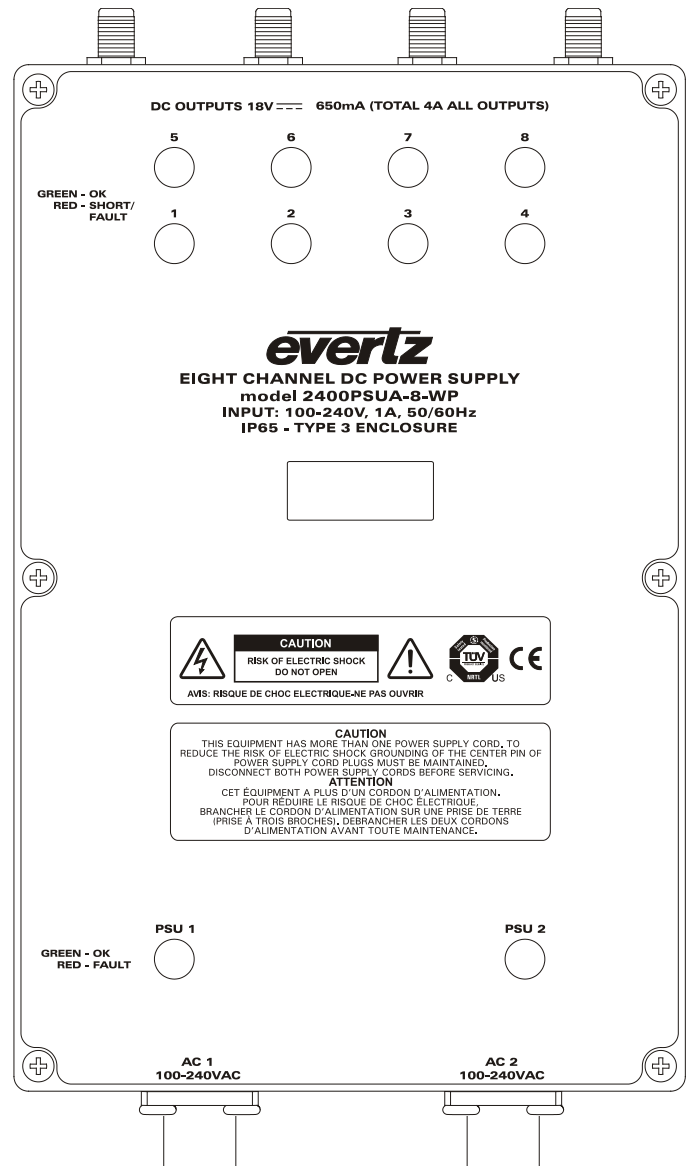


Figure 2-2: 2400PSUA-8-WP

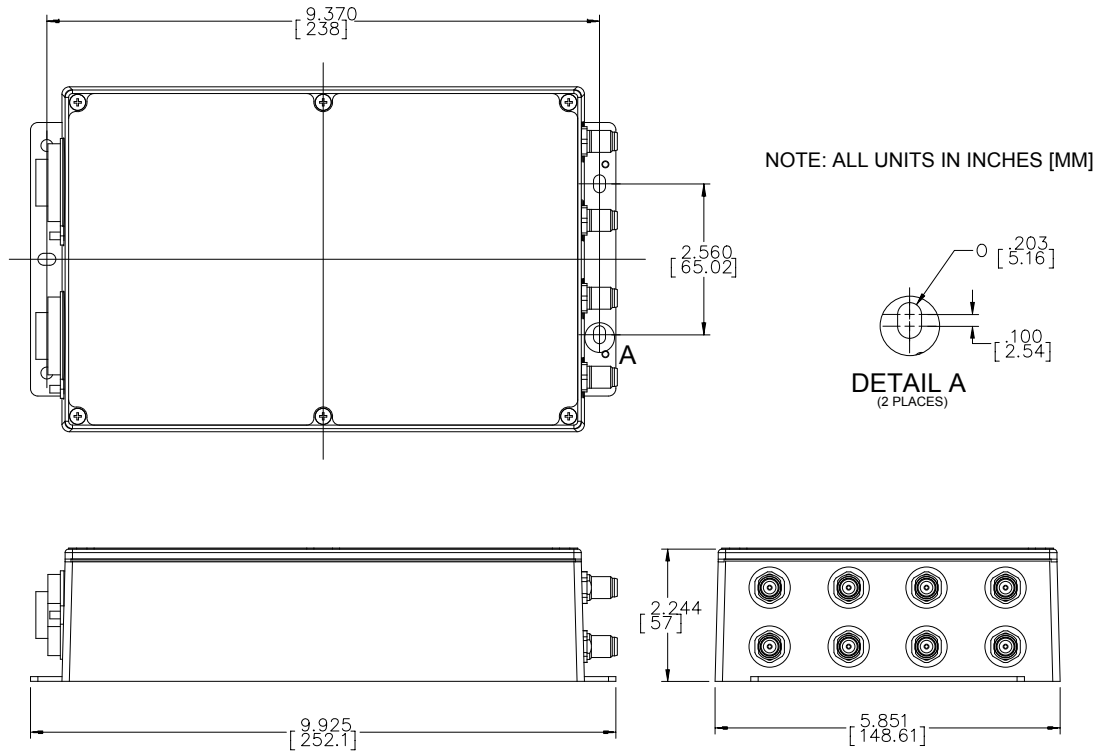


Figure 2-3: 2400PSUA-8 Dimensions and Mounting Centers

**2.1. 2400PSUA-8 CONNECTIONS**

**AC IN 1+2:** 100 to 240 VAC, 50/60 Hz, auto-ranging AC inputs. Each input is separately connected to one of the internal, redundant AC/DC power supplies. The dual connectors should be connected to separate AC branch circuits to permit fully redundant power.

Two outdoor rated cable assemblies with mating connectors are included. Cables are available with NEMA5-15P, as well as UK or Schuko style connectors for worldwide applications.



**CAUTION - TO REDUCE THE RISK OF ELECTRIC SHOCK, EARTHING OF THE EARTH PIN OF THE MAINS PLUG MUST BE MAINTAINED**



**For 2400PSUA-8-WP units installed outdoors, unconnected AC input connectors must be protected by attaching the captive sealing caps (received with the unit) in order to prevent moisture ingest into the unit.**



**Observe local electrical codes.**

**DC Outputs:** Eight output F-Type connectors for DC power connections to 240xLT/LR's. Each output features active short-circuit and overload protection.



**For 2400PSUA-8-WP units installed outdoors, unconnected DC output connectors must be protected by attaching the captive sealing caps (received with the unit) in order to prevent moisture ingest into the unit.**

*This page left intentionally blank*

### 3. SPECIFICATIONS

#### 3.1. AC INPUT

<b>Number of Inputs:</b>	2
<b>Connector:</b>	Male, weatherproof Two outdoor rated cable assemblies with mating connectors included.
<b>Voltage:</b>	Auto ranging, 100 ⇔ 240 VAC, 50/60 Hz
<b>Current:</b>	1 A max per input

#### 3.2. DC OUTPUT

<b>Number of Outputs:</b>	8
<b>Connector:</b>	F-Type
<b>Voltage:</b>	18 ±1 VDC per output
<b>Current:</b>	
<b>Per Output:</b>	650mA max, current limited
<b>All Outputs, Combined Total:</b>	4 Amps max (to maintain upper temperature rating)

#### 3.3. PHYSICAL

<b>Dimensions (with flanges):</b>	9.93"L x 5.85"W x 2.24"H (252mm L x 149mm W x 57mm H)
-----------------------------------	--

#### 3.4. ENVIRONMENTAL

<b>Temperature:</b>	-20 to +60°C
<b>Dust &amp; Water Protection (WP version only):</b>	IP65

*This page left intentionally blank*



## **4. STATUS INDICATORS**

The 2400PSUA-8 has ten LED status indicators on the front of the box to show operational status of the module at a glance.

### **4.1. PSU1 AND PSU2 INDICATORS**

The PSU1 and PSU2 LEDs indicate the status of the internal power supplies:

**GREEN:** Internal power supply associated with the LED is operating normally.

**RED:** Internal power supply associated with the LED has failed or is not receiving AC input.

**OFF:** If both PSU1 and PSU2 LEDs are OFF, this indicates that there is no power input to the unit at either AC connector, or both internal power supplies have failed.

### **4.2. UNIT 1-8 INDICATORS**

The UNIT 1-8 LEDs indicate the status of each DC output:

**GREEN:** Output associated with the LED is operating normally.

**RED:** Load connected to output associated with the LED is excessive or short circuited.

**OFF:** If all UNIT 1-8 LEDs are off, this indicates that there is no power supplied to the unit on either AC connector, or both internal power supplies have failed.

*This page left intentionally blank*