
Sentry

AC Power Distribution Unit

- PTPD-VL
- PTPD-HL

Installation Manual

**Instructions**

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

**Dangerous Voltage**

This symbol 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.

**Protective Grounding Terminal**

This symbol indicates a terminal that must be connected to earth ground prior to making any other connections to the equipment.

Life-Support Policy

As a general policy, Server Technology does not recommend the use of any of its products in the following situations:

- life-support applications where failure or malfunction of the Server Technology product can be reasonably expected to cause failure of the life-support device or to significantly affect its safety or effectiveness.
- direct patient care.

Server Technology will not knowingly sell its products for use in such applications unless it receives in writing assurances satisfactory to Server Technology that:

- the risks of injury or damage have been minimized,
- the customer assumes all such risks, and
- the liability of Server Technology is adequately protected under the circumstances.

The term life-support device includes but is not limited to neonatal oxygen analyzers, nerve stimulators (whether used for anesthesia, pain relief or other purposes), auto-transfusion devices, blood pumps, defibrillators, arrhythmia detectors and alarms, pacemakers, hemodialysis systems, peritoneal dialysis systems, neonatal ventilator incubators, ventilators (for adults or infants), anesthesia ventilators, infusion pumps, and any other devices designated as "critical" by the U.S. FDA.

Compliance

Units have been safety tested/certified to the following standards: USA and Canada to UL 60950:2000 and CAN/CSA 22.2 No. 60950-00, European Union to EN60950:2000

USA Notification

Warning: Changes or modifications to these units not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment under FCC rules.

Note: 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.

Canadian Notification

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe A prescrites dans le Règlement sur le brouillage radioélectrique édicté par le Ministère des Communications du Canada.

Japanese Notification

この装置は、情報処理装置等電波障害自主規制協議会（VCCI）の基準に基づくクラスA情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

Chapter 1: Introduction

Features and Benefits

Power Distribution

Sentry Power Distribution Units distribute a maximum of 30A AC power across eight attached devices.

Load Measurement

The Sentry Power Distribution Unit's load measurement feature eliminates guesswork by supplying the cumulative operating load in amperes allowing on-site technicians to maximize the equipment installed and operated on a circuit without worry. Use of the circuit is maximized, while effectively allowing a 10% to 20% safety margin.

Quick Start Guide

The following instructions will help you quickly install and configure your Sentry Power Distribution Unit for use on your network. For detailed information on each step, go to the page number listed to the right.

1. Mount the Sentry Power Distribution Unit.....4
2. Connect to the power source4
3. Connect the devices to the Sentry Power Distribution Unit4

Chapter 2: Installation

Before installing your Sentry Power Distribution Unit, refer to the following lists to ensure that you have all the items shipped with the unit as well as all other items required for proper installation.

Standard Accessories

- Mounting hardware:
Vertical - two removable flanges with four M4 screws and two mounting L-brackets with nut plates and four sets of screws and washers.
Horizontal/Rack – two mounting brackets and four screws
- Separate power input cord (PTPD-HL08-1-02 & PTPD-VL16-1-02)

Additional Required Items

- Phillip screwdriver
- Screws, washers and nuts to attach the PTPD to your rack

Equipment Overview

- A number designator is printed above each outlet.
- The Input Current LED displays the current load.
- The power inlet/cord connects the PDU to the electrical power source.

Mounting

Horizontal/Rack

1. Select the appropriate bracket mounting points for proper mounting depth within the rack.
2. Attach one bracket to these mounting points with two screws.
3. Repeat with the other mounting bracket on the opposite side of the enclosure.
4. Install the enclosure into your rack, using the slots in each bracket. The slots allow about ¼ inch of horizontal adaptability to align with the mounting holes of your rack.

NOTE: A mounting bracket kit for 23” wide racks or cabinets is available. Contact your Server Technology Sales Representative for more information.

Vertical

1. Attach one of the removable flanges to the mount points on the top rear of the enclosure using M4 screws.
2. Repeat with the other flange for the bottom mount points on the enclosure.
3. Attach one mounting bracket to the top flange with one set of screws and washers through each of the slots in the bracket into the nut plate, as shown in Figure 2.2 (brackets may differ from the illustration). The slots allow about 1½ inches of vertical adaptability.
4. Repeat with the other mounting bracket on the bottom flange.
5. Attach the top and bottom brackets to your rack.

NOTE: Contact your Server Technology Sales Representative for information regarding custom bracket design and fabrication services if you are unable to find a suitable manner for utilizing the included mounting brackets.

Connecting to the Power Source

For units with a separate power input cord, first plug the female end of the power cord firmly into its connector at the base and use a screwdriver to tighten the two screws on the retention bracket.

Plug the male end of the power cord into the AC power source.

Connecting Devices to the PTPD

To avoid the possibility of noise due to arcing:

1. Keep the device’s on/off switch in the off position until after it is plugged into the outlet.
2. Connect devices to the PTPD ports.

NOTE: Server Technology recommends even distribution of attached devices across all available outlets to avoid exceeding the outlet or quad ratings limitations. See *Ratings* in Appendices for more information.



Always disconnect the power supply cord before opening to avoid electrical shock.

Afin d'éviter les chocs électriques, débranchez le câble électrique avant d'ouvrir.

Immer Netzleitung auskuppeln vor den Aufmachen um elektrischen Schlag zu vermeiden.

Chapter 3: Appendices

Appendix A: Technical Specifications

Standard Models

Model	Voltage	Inlet	Cordset (10')	Outlets
PTPD-VL16-1-02	100-120V, 50/60Hz	IEC 60320/C20 *		16 NEMA 5-20R
PTPD-HL08-1-02	100-120V, 50/60Hz	IEC 60320/C20 *		8 NEMA 5-20R
PTPD-HL18-1-04	100-120V, 50/60Hz	Hardwired	NEMA L5-20P, 20A/125V locking	18 NEMA 5-20R
PTPD-HL18-1-05	100-120V, 50/60Hz	Hardwired	NEMA L5-30P, 30A/125V locking	18 NEMA 5-20R

Safety Precautions

This section contains important safety and regulatory information that should be reviewed before installing and using the Sentry Power Distribution Unit.

	Only for installation and use in a Restricted Access Location in accordance with the following installation and use instructions.	<i>Seulement pour l'installation et l'utilisation dans une Zone Interdite conformément aux installations et l'utilisation des indications suivants.</i>	Nur zur Installation und Verwendung in einem Sicherheitsbereich gemäß den folgenden Installations- und Verwendungsanleitungen.
	This equipment is designed to be installed on a dedicated circuit.	<i>Cet équipement est conçu à être installé sur un circuit spécialisé.</i>	Diese Ausrüstung ist zur Installation in einem festen Stromkreis vorgesehen.
	Dedicated circuit must have circuit breaker or fuse protection. PTPDs have been designed without a master circuit breaker or fuse to avoid becoming a single point of failure. It is the customer's responsibility to provide adequate protection for the dedicated power circuit. Protection should not exceed 120% of the Total Output Rating of the PTPD and must meet all applicable local, state and federal codes and regulations.	<i>Le circuit spécialisé doit avoir un disjoncteur ou une protection de fusible. PTPDs ont été conçus sans disjoncteur général ni fusible pour éviter que cela devienne un seul endroit de panne. C'est la responsabilité du client de fournir une protection adéquate pour le circuit-alimentation spécialisé. La protection ne doit pas dépasser 120 % l'Indice du Total de Sortie de la PTPD et doit être conforme à toutes les réglementations locales, d'état et fédéral applicables.</i>	Der feste Stromkreis muss mit einem Schutzschalter oder einem Sicherungsschutz versehen sein. PTPDs verfügt über keinen Hauptschutzschalter bzw. über keine Sicherung, damit kein einzelner Fehlerpunkt entstehen kann. Der Kunde ist dafür verantwortlich, den Stromkreis sachgemäß zu schützen. Der Schutz darf 120% der Gesamtausgangsnennleistung des PTPD nicht überschreiten und muss alle geltenden lokalen, regionalen und Bundesvorschriften erfüllen.
	The plug on the power supply cord shall be installed near the equipment and shall be easily accessible.	<i>La prise sur le cordon d'alimentation sera installée près de l'équipement et sera facilement disponible.</i>	Der Stecker des Netzkabels muss in der Nähe der Ausrüstung installiert werden und leicht zugänglich sein.
	Installation Orientation: PTxx-V0-xx-x units are design to be installed in vertical orientation.	<i>Installation Orientation : Les unités PTxx-V0-xx-x sont conçues pour être installées dans une orientation verticale.</i>	Installationsausrichtung: PTxx-V0-xx-x-Einheiten sind zur vertikalen Installation vorgesehen.
	Always disconnect the power supply cord before opening to avoid electrical shock.	<i>Toujours déconnecter le cordon d'alimentation avant d'ouvrir pour éviter un choc électrique.</i>	Ziehen Sie vor dem Öffnen immer das Netzkabel heraus, um die Gefahr eines elektrischen Schlags zu vermeiden.
	WARNING! High leakage current! Earth connection is essential before connecting supply!	ATTENTION ! <i>Haut fuite très possible ! Une connexion de masse est essentielle avant de connecter l'alimentation !</i>	ACHTUNG! Hoher Verluststrom! Ein Erdungsanschluss ist vor dem Einschalten der Stromzufuhr erforderlich!
	Warning: 208-240/230V models only: Outlets are not fused. Outlet circuit protection is provided by the building installation, which shall not exceed 30A branch circuit protection	<i>Attention: les modèles 208-240/230V seulement : Les prises n'ont pas de fusible incorporé. Une protection de la prise du circuit est fournie par l'installation du bâtiment, qui ne devrait pas dépasser 30A protection d'une branche de circuit.</i>	Achtung: Nur für 208-240/230V-Modelle: Die Anschlussstellen sind nicht gesichert. Der Ausgangsstromkreissschutz erfolgt durch die elektrische Gebäudeinstallation, die einen Abzweigschutz von 30A nicht übersteigen darf.

Ratings

	PTPD-HL08-1-02	PTPD-HL18-1-04	PTPD-HL18-1-05	PTPD-VL16-1-02
Input voltage:	100-129 V AC, 48-63 Hz			
Maximum output current:				
Enclosure	20 A	20 A	30 A	20 A
Outlet	10 A	10 A	10 A	10 A
Quad	15 A ¹	15 A ²	15 A ²	15 A ¹
Size (H x W x D):	1.75 x 17.25 x 5.5 in			33.0 x 1.75 x 2.25 in
Weight:	7.0 lb			7.8 lb
Temperature:	Operating	0° to 50° C (32° to 122° F)		
	Storage	-40° to 85° C (-40° to 185° F)		
Elevation (above MSL):	Operating	0 to 10,000 ft (0 to 3000 m)		
	Storage	0 to 50,000 ft (0 to 15 000 m)		
Relative humidity:	Operating	10 to 90%, non-condensing		
	Storage	10 to 90%, non-condensing		
Approvals	cTUVus, TUV-GS ³			

¹ Quad = Outlets 1-4, 5-8, 9-12, 13-16

² Quad = Outlets 1-4, 5-8, 9-13, 14-18

³ cTUVus - UL 60950:2000, CAN/CSA 22.2 No. 60950-00, TUV-GS - EN60950:2000

Appendix B: Warranty, Product Registration and Support

Warranty and Limitation of Liability

Server Technology, Inc. agrees to repair or replace Products that fail due to a defect within twelve (12) months after the shipment date of each Product unit to Buyer (“Warranty Period”). For purposes of this Agreement the term “defect” shall mean the Product fails to operate or fails to conform to its applicable specifications. Any claim made pursuant to this Agreement shall be asserted or made in writing only by Buyer. Buyer shall comply with Server Technology’s Standard Return Merchandise Authorization (“RMA”) procedure for all warranty claims as set forth in Server Technology’s operation manual.

Buyer must return Products in original packaging and in good condition. This limited warranty does not include labor, transportation, or other expenses to repair or reinstall warranted Products on site or at Buyer’s premises.

Server Technology reserves the right to investigate any warranty claims to promptly resolve the problem or to determine whether such claims are proper. In the event that after repeated efforts Server Technology is unable to repair or replace a defective Product, then Buyer’s exclusive remedy and Server Technology’s entire liability in contract, tort, or otherwise shall be the payment by Server Technology of Buyer’s actual damages after mitigation, but shall not exceed the purchase price actually paid by Buyer for the defective Product.

Server Technology shall have no responsibility or liability for any Product, or part thereof, that (a) has had the Serial Number, Model Number, or other identification markings altered, removed or rendered illegible; (b) has been damaged by or subject to improper installation or operation, misuse, accident, neglect and/or has been used in any way other than in strict compliance with Server Technology’s operation and installation manual; (c) has become defective or inoperative due to its integration or assembly with any equipment or products not supplied by Server Technology; (d) has been repaired, modified or otherwise altered by anyone other than Server Technology and/or has been subject to the opening of any sealed cabinet boxes without Server Technology’s prior written consent. If any warranty claim by Buyer falls within any of the foregoing exceptions, Buyer shall pay Server Technology its then current rates and charges for such services.

THE ABOVE WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ALL OF WHICH ARE EXPRESSLY DISCLAIMED. SERVER SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, OR EXEMPLARY DAMAGES; EVEN OF IT HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

For warranty issues, contact the Product Support Department at the number listed above. All repair and return shipments must be approved by Server and must be accompanied by a RMA (Return Merchandise Authorization) number and dated proof of purchase.

Product Registration

Registration is your key to special offers and services reserved for Registered Users.

- Excellent Technical Support Services
- Special Update and Upgrade Programs
- Warranty Protection
- Extended Warranty Service
- New Product Information

Register your products online today!

www.servertech.com/support/supportindex.htm

Technical Support

Server Technology understands that there are often questions when installing and/or using a new product. Free Technical Support is provided from 8:30 AM to 5:00 PM, Monday-Friday, Pacific Time.

Server Technology, Inc.

1040 Sandhill Drive

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Tel: 775.284.2000

Fax: 775.284.2065

Web: www.servertech.com

Email: support@servertech.com

Return Merchandise Authorization

If you have a unit that is not functioning properly and is in need of technical assistance or repair:

Submit a request for support by phone at the above number, or via the web at www.servertech.com/forms/techrequest.htm.

Be ready to provide:

- Company Name
- Contact Name, Phone Number, and Email address
- Model or Part Number (from the label on the equipment)
- Server Technology Serial Number
- Version of code (type 'vers' at the Sentry: prompt)
- Description of problem

1. Technical Support will work to diagnose/resolve the problem remotely, if possible. If the problem cannot be resolved, Technical Support will then issue an RMA# for the return/repair of the equipment in question. RMA#'s are valid for 30 days only from the issue date.
2. Shipping charges for the return of the equipment to Server Technology shall be the responsibility of the customer. For warranty repairs, Server Technology shall assume return shipping charges but for non-warranty repairs, the shipping charges shall be billed.
3. The RMA# shall be placed conspicuously on all shipping documentation, associated correspondence, and the shipping container.
4. Equipment must be returned in proper/original packaging to protect the equipment in transit. The customer shall be financially responsible for any damage/destruction of the equipment due to improper packaging.
5. Equipment shall typically be turned around within 48-72 hours of receipt at Server Technology. Equipment under warranty shall be repaired at no cost. Equipment NOT under warranty shall be repaired at the standard labor rate plus parts. Upon diagnosis of the equipment, the customer shall be notified of estimated charges prior to repair.
6. For non-warranty repairs, return of the equipment will be expedited with the inclusion of a Purchase Order or credit card number for incurred charges.

Server Technology, Inc.

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