



Basic Cabinet Distribution Unit

Installation Manual

- CB-12Hx
- CB-24Vx



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.

Notices

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Chapter 1: Introduction

Quick Start Guide

The following instructions will help you quickly install and configure your Basic Cabinet Distribution Unit (CDU) for use in your data center equipment cabinet. For detailed information on each step, go to the page number listed to the right.

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Technical Support



Experience Server Technology's **FREE SMARTER Technical Support** - [Learn more...](#)

Server Technology understands that there are often questions when installing and/or using a new product. Free Technical Support is provided from 6:00 AM to 7:00 PM, Monday-Friday, Pacific Time.

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Equipment Overview

The power inlet/cord connects the CDU to the electrical power source.

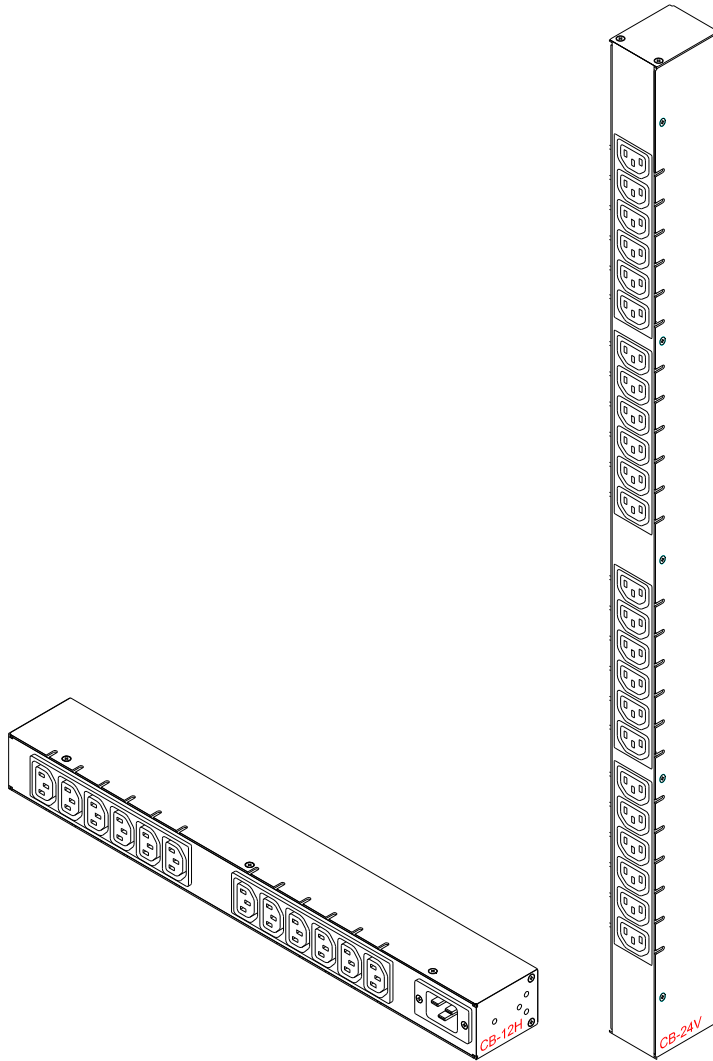


Figure 1. Basic Cabinet Distribution Unit Views

Chapter 2: Installation

Before installing your Sentry Basic Cabinet Distribution Unit (CDU), 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:
 - CB-24Vx* - Two removable flanges with four M4 screws.
 - CB-12Hx* - Two mounting L-brackets with M4 screws.
- Outlet retention clips (208-240V models).

Additional items for CB-xxx-C20 models:

- Separate power input cord.
- Power input retention bracket hardware (may be installed):
 - Two removable T-brackets with two 40mm screws.

Additional Required Items

- Flathead and Phillip screwdrivers
- Screws, washers and nuts to attach the CDU to your rack

Safety Precautions

This section contains important safety and regulatory information that should be reviewed before installing and using the Sentry Rack-Mount Fail-Safe Transfer Switch. For input and output current ratings, see *Power Ratings* in Appendix A: Technical Specifications.

	Only for installation and use in a Service Access Location in accordance with the following installation and use instructions.	<i>Destiné à l'installation et l'utilisation dans le cadre de Service Access Location selon les instructions d'installation et d'utilisation.</i>	Nur für Installation und Gebrauch an Anschlusszugriffspunkten gemäß der folgenden Installations- und Gebrauchsanweisungen.
	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. CDUs 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 of capacity equal to the current rating of the CDU must be provided and must meet all applicable codes and regulations. In North American, protection must have a 10,000A interrupt capacity.	<i>Le circuit spécialisé doit avoir un disjoncteur ou une protection de fusible. CDUs ont été conçus sans disjoncteur général ni fusible pour éviter que cela devient un seul endroit de panne. C'est la responsabilité du client de fournir une protection adéquate pour le circuit-alimentation spécialisé. Protection de capacité équivalant à la puissance de l'équipement, et respectant tous les codes et normes applicables. Les disjoncteurs ou fusibles destinés à l'installation en Amérique du Nord doivent avoir une capacité d'interruption de 10.000 A.</i>	Der feste Stromkreis muss mit einem Schutzschalter oder einem Sicherungsschutz versehen sein. CDUs 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 Kapazitätsschutz entspricht der aktuellen Stromstärke der Geräte und muss alle relevanten Codes und Bestimmungen erfüllen. Für Installation in Nordamerika müssen Ausschalter bzw. Sicherung über 10.000 A Unterbrechungskapazität verfügen.
	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: Cx-xxVx-x units are design to be installed in vertical orientation.	<i>Installation Orientation : Les unités Cx-xxVx-x sont conçues pour être installées dans une orientation verticale.</i>	Installationsausrichtung: Cx-xxVx-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>	Vor dem Öffnen immer Netzleitung abziehen um elektrischen Schlag zu vermeiden.
	WARNING! High leakage current! Earth connection is essential before connecting supply!	<i>ATTENTION ! Haut fuite très possible ! Une connection de masse est essentielle avant de connecter l'alimentation !</i>	ACHTUNG! Hoher Ableitstrom! Ein Erdungsanschluss ist vor dem Einschalten der Stromzufuhr erforderlich!
	WARNING! Cx-xxE-x units Double Pole/Neutral Fusing	<i>ATTENTION! Les unités Cx-xxE-x Double Pôle/Fusible sur le Neutre</i>	ACHTUNG!: Cx-xxE-x Zweipolige bzw. Neutraleiter-Sicherung

Installing the Power Input Retention Bracket

For units with a total maximum output <math><30\text{A}</math>, it may be necessary to install the power input retention bracket prior to mounting the unit within the rack.

To install the power input retention bracket:

1. Remove the two screws attaching the IEC 60320 C19 inlet to the enclosure.
2. Assemble and attach the retention bracket to the enclosure as shown.

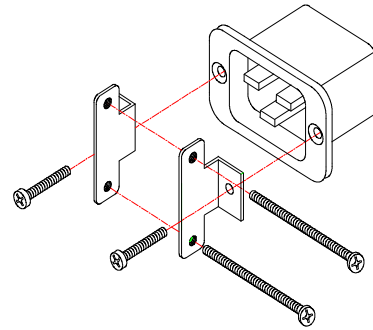


Figure 2.1 Retention Bracket Assembly

Mounting

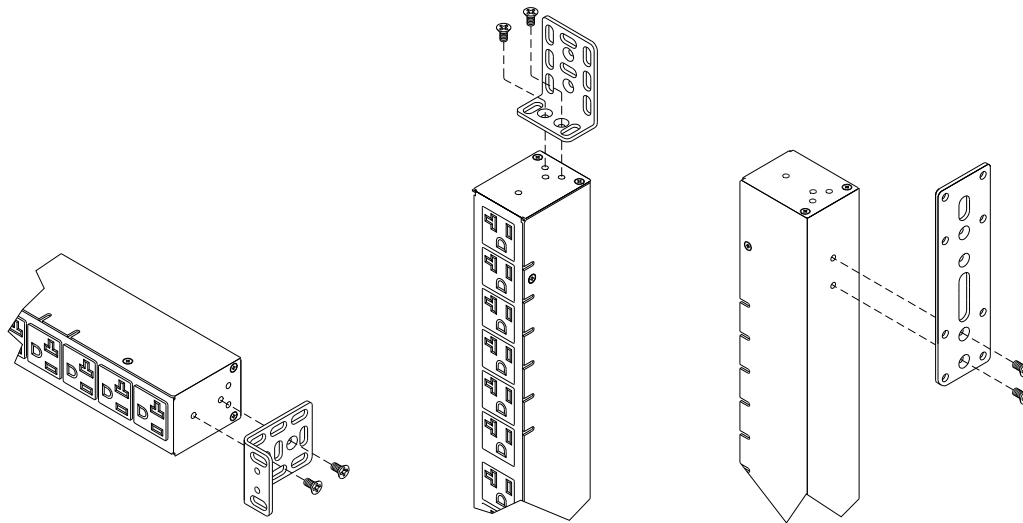


Figure 2.2 Mounting

Horizontal/Rack

1. Select the appropriate bracket mounting points for proper mounting depth within the rack.
2. Attach the brackets to these mounting points with two screws for each bracket.
3. Install the enclosure into your rack, using the slots in each bracket. The slots allow about $\frac{1}{4}$ inch of horizontal adaptability to align with the mounting holes of your rack.

Vertical

1. Attach the removable flanges to the mount points on the rear of the enclosure using M4 screws.
OR
2. Attach the mounting L-brackets to these mounting points with two screws for each bracket.
3. 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.

NOTE: Contact your Server Technology Sales Representative for information regarding optional button mounts for mounting the CDU into supporting cabinets.

Connecting to the Power Source

On 30A units, the input power cord is attached to the base of the unit. On units with a total maximum output $<30A$, you must first attach the power cord to the unit before connecting the unit to the power source.

To attach a power cord to the unit:

1. Plug the female end of the power cord firmly into its connector at the base.
2. Use a screwdriver to tighten the two screws on the retention bracket.

To connect to the power source:

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

Connecting Devices

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 CDU outlets.

NOTE: Server Technology recommends even distribution of attached devices across all available outlets to avoid exceeding the outlet, branch or phase limitations. See *Power Ratings* on page 9 for more information.



Always disconnect ALL power supply cords before opening to avoid electrical shock.
Afin d'éviter les chocs électriques, débranchez TOUTES les cables électrique avant d'ouvrir.
Vor dem Öffnen immer Netzleitungen abziehen um elektrischen Schlag zu vermeiden.

Chapter 3: Appendices

Appendix A: Technical Specifications

Domestic Models

Model	Rated Voltage	Input Cordset and Plug (10')	Outlets
CB-12H1-C20	100-120V, 50/60Hz	IEC 60320 C20 ¹	12 NEMA 5-20R
CB-12H1-L530	100-120V 50/60Hz	NEMA L5-30P, 30A/125V locking	12 NEMA 5-20R
CB-12H2-C20	208-240V, 50/60Hz	IEC 60320 C20 ¹	12 IEC 60320/C13
CB-12H2-L630	208-240V, 50/60Hz	NEMA L6-30P, 30A/208V locking	12 IEC 60320/C13
CB-24V1-C20	100-120V, 50/60Hz	IEC 60320 C20 ¹	24 NEMA 5-20R
CB-24V1-L530	100-120V 50/60Hz	NEMA L5-30P, 30A/125V locking	24 NEMA 5-20R
CB-24V2-C20	208-240V, 50/60Hz	IEC 60320 C20 ¹	24 IEC 60320/C13
CB-24V2-L630	208-240V, 50/60Hz	NEMA L6-30P, 30A/208V locking	24 IEC 60320/C13

International Models

Model	Rated Voltage	Input Cordset and Plug (10')	Outlets
CB-12H2-C20	208-240V, 50/60Hz	IEC 60320 C20 ¹	12 IEC 60320/C13
CB-24V2-C20	208-240V, 50/60Hz	IEC 60320 C20 ¹	24 IEC 60320/C13

¹ Input cordset selected at time of purchase

Power Ratings

Model <i>Modele</i> Modell	Input Current Ratings, <i>L'indice du courant d'entrée</i> Eingangstromstärke		Output Current Ratings <i>L'indice du courant de sortie</i> Ausgangsstromstärke			Total <i>Total</i> Insgesamt
	Voltage <i>Tension</i> Spannung	Current <i>Courant</i> Strom	Voltage <i>Tension</i> Spannung	Outlet <i>Prise</i> Anschlussstelle	Branch Circuit <i>Circuit de la Branche</i> Zweigstromkreis	
CB-12H1-C20	100-120V 50/60Hz	16	100-120V 50/60Hz	16		16
CB-12H1-L530	100-120V 50/60Hz	24	100-120V 50/60Hz	16	16	24
CB-24V1-C20	100-120V 50/60Hz	16	100-120V 50/60Hz	16		16
CB-24V1-L530	100-120V 50/60Hz	24	100-120V 50/60Hz	16	16	24
CB-12H2-C20	208-240V 50/60Hz	16	208-240V 50/60Hz	12		16
CB-12H2-L630	208-240V 50/60Hz	24	208-240V 50/60Hz	12	16	24
CB-24V2-C20	208-240V 50/60Hz	16	208-240V 50/60Hz	12		16
CB-24V2-L630	208-240V 50/60Hz	24	208-240V 50/60Hz	12	16	24

¹ All current ratings are in amperes. *Tous les indices de courant sont en ampères.* Alle Angaben der Stromstärke erfolgen in Ampere.

Physical Specifications

	Operating	Storage
Temperature	32° to 104° F (0° to 40° C)	-40° to 185° F (-40° to 85° C)
Elevation (above MSL)	0 to 10,000 ft (0 to 3000m)	0 to 50,000 ft (0 to 15000m)
Relative Humidity	10 to 90%, non-condensing	10 to 90%, non-condensing
	Dimensions (H x W x D)	Weight
CB-12Hx	1.75 x 17.0 x 2.25 in. (44 x 432 x 57 mm)	5.7 lbs (2.6 kg)
CB-24Vx	31.5 x 1.75 x 2.25 in. (800 x 44 x 57 mm)	7.6 lbs (3.5 kg)

Regulatory Compliance

Product Safety

Units have been safety tested and certified to the following standards:

- USA/Canada UL 60950:2003 and CAN/CSA 22.2 No. 60950-1-03
- European Union EN60950-1:2001

This product is also designed for Norwegian IT power system with phase-to phase voltage 230V.

USA Notification

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 the user's own expense.

Modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment under FCC rules.

Canadian Notification

This Class A digital apparatus complies meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

European Union Notification

Products with the CE Marking comply with both the EMC Directive (89/336/EEC) and the Low Voltage Directive (73/23/EEC) issued by the Commission of the European Community.

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

- EN55022 Electromagnetic Interference
- EN55024 Electromagnetic Immunity
- EN60950-1 Product Safety
- EN61000-3 Harmonics and Flicker



Products with the following mark comply with the RoHS Directive (2002/95/EC) issued by the Commission of the European Community.

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Chinese Notification

关于符合中国《电子信息产品污染控制管理办法》的声明

产品中有毒有害物质的名称及含量

部件名称 (Parts)	有毒有害物质或元素 (Hazardous Substance)					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr (VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
机箱子组件 (Chassis Subassembly)	O	O	O	O	O	O
印刷板组件 (PCAs)	X	O	O	O	O	O

O 表示该有毒有害物质在该部件所有均质材料中的含量均在SJ/T 11363-2006 标准规定的限量要求以下。
Indicates that this hazardous substance contained in all homogeneous materials of this part is below the limit requirement in SJ/T 11363-2006.

X 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出SJ/T 11363-2006 标准 规定的限量要求。
Indicates that this hazardous substance contained in at least one of the homogeneous materials of this part is above the limit requirement in SJ/T 11363-2006.

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Waste Electrical and Electronic Equipment (WEEE)



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For information on how to recycle this product responsibly in your country, please visit:
www.servertech.com/support/recycling.

Appendix B: Warranty, Product Registration and Support

Warranty

For [Server Technology Warranty](#) information, please see our website.

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- Special Update and Upgrade Programs
- Warranty Protection
- Extended Warranty Service
- New Product Information

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Return Merchandise Authorization

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

Please review Server Technology's [Return Merchandise Authorization](#) process on our website.



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