

2U POD™

USER MANUAL

*Power Output
Distribution
230 Volt*



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IMPORTANT SAFETY INSTRUCTIONS



WARNING

DO NOT ATTEMPT TO SERVICE THIS PRODUCT YOURSELF. OPENING OR REMOVING THE COVER MAY EXPOSE YOU TO DANGEROUS VOLTAGES, EVEN WHEN THE AC CORD IS DISCONNECTED FROM THE ELECTRICAL SOCKET. REFER ALL SERVICING TO QUALIFIED SERVICE PERSONNEL.

SAVE THESE INSTRUCTIONS

This manual contains important instructions that should be followed during installation and operation of the 2U POD™.

This product is designed for commercial / industrial use only, with Liebert UPS systems. It is not intended for use with life support and other designated “critical” devices. Do not exceed POD or UPS rating labels.

Read all safety and operating instructions before operating the 2U POD™ and the connected UPS system. Adhere to all warnings on the unit and in this manual. Follow all operating and user instructions.

Turn the UPS off and unplug the 2U POD™ before cleaning. Use only a soft cloth, never liquid or aerosol cleaners.

The UPS and 2U POD™ are designed for data processing equipment. Do not plug laser printers or appliances, such as hair dryers, heaters, vacuum cleaners, or electric drills, into the UPS output sockets.



WARNING

DO NOT MODIFY THE CABLES IN ANY WAY. THE POD SOCKETS SHOULD MATCH THE UPS SOCKETS. CONSULT YOUR DEALER IF THE AC CORDS DO NOT MATCH THE MAINS SOCKET. THE 2U POD™ MUST BE EARTHED AT ALL TIMES WHILE IN USE. TURN OFF THE UPS BEFORE UNPLUGGING IT.

The UPS and the 2U POD™ are equipped with earthed plugs (plug types vary depending on model). Do not defeat the safety purpose of this plug. If unable to fully insert the plug into the designated socket, contact a qualified electrician or your local dealer or Liebert representative for assistance.

Route power supply cords so they are not walked on or pinched in anyway.



CAUTION

Risk of electric shock, do not remove cover, no user serviceable parts inside. Refer servicing to qualified service personnel.



CAUTION

This device receives power from multiple sources. Before servicing this device, remove all connections. Before servicing the UPS, follow “Maintenance of UPS” instructions in the user manual for your UPS.



CAUTION

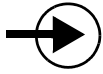
For use in a controlled environment. Refer to manual specifications for environmental conditions.



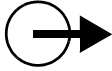
WARNING

WHEN THE 2U POD™ IS IN MAINS POSITION (MAINTENANCE BYPASS MODE) THE POWER TO THE CONNECTED LOAD IS NOT FILTERED OR CONDITIONED BY THE UPS. THE LIEBERT UPS CONNECTED EQUIPMENT GUARANTEE IS NOT VALID WHILE IN THIS MODE OF OPERATION.

GLOSSARY OF SYMBOLS



Indicates AC Input.



Indicates AC Output.



Consult the manual for additional information.

MAINS

MAINS lamp indicates local power is available and the load may be transferred to bypass the UPS.

UPS

UPS lamp indicates UPS power is available and the load may be transferred to the UPS to provide computer-grade power to the load.

INTRODUCTION AND SYSTEM DESCRIPTION

Congratulations on your choice of the Liebert 2U POD™. The Liebert 2U POD provides maintenance bypass capability as well as power output distribution. The Liebert 2U POD can be used on UPSs in the rack mount or tower configuration.

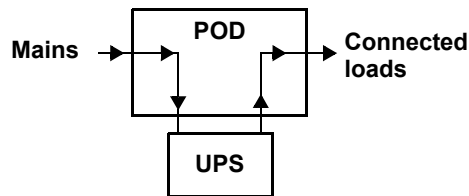
The Liebert 2U POD provides an isolated path of power for your UPS system for preventive maintenance or service.

System Description

The 2U POD has two modes of operation: **UPS** (UPS available) and **MAINS** (maintenance bypass).

- In **UPS mode**, the power is routed through the UPS system delivering conditioned power to the load, as shown in **Figure 1**.

Figure 1 UPS mode of operation



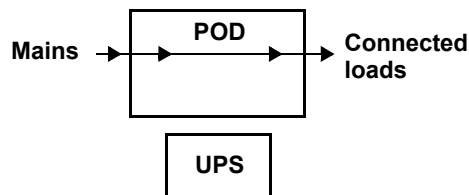
- In **MAINS mode**, the power is routed around (bypassing) the UPS system (see **Figure 2**). Mains power is supplied directly to the load through the 2U POD.



CAUTION

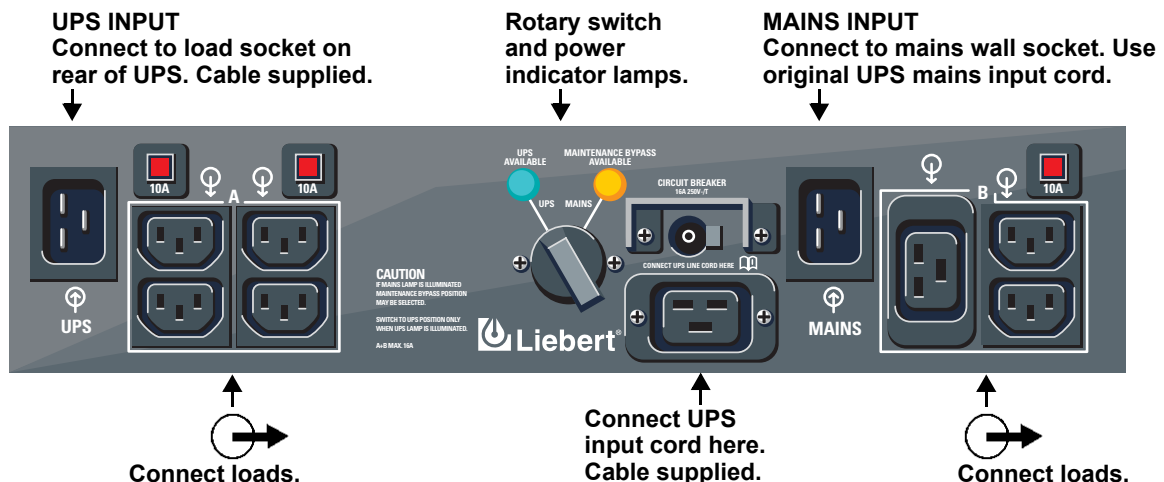
Battery back-up and conditioned power are NOT available during the MAINS mode of operation.

Figure 2 MAINS/maintenance bypass mode



- The UPS may be turned off and removed without affecting the load. See **Figure 3**.

Figure 3 2U POD connections



INSTALLATION ON GXT 2U UPS

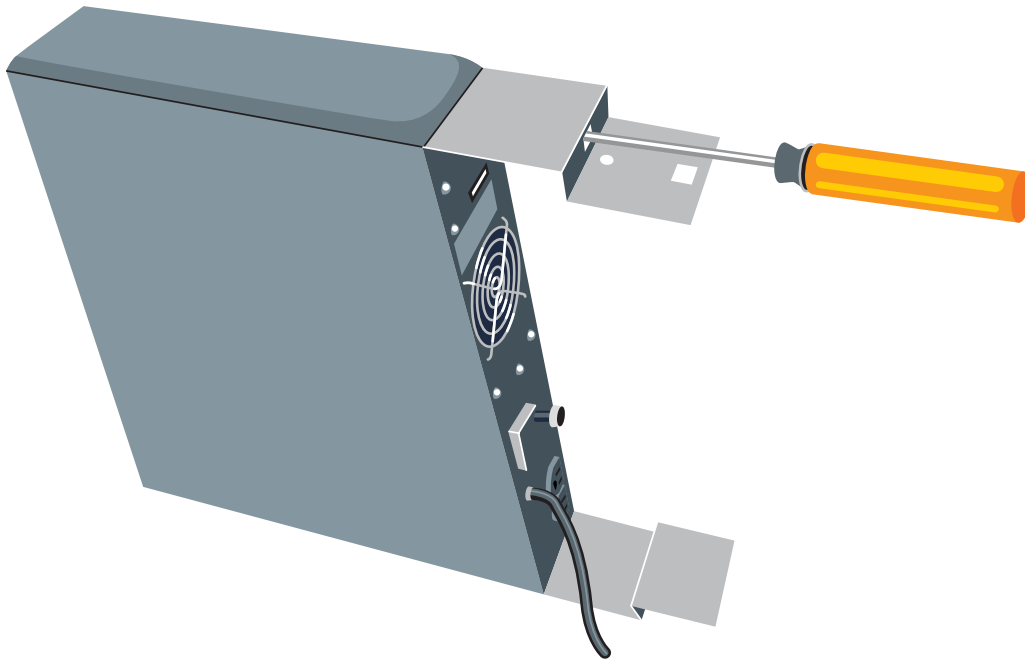


NOTE

This manual provides instructions for the 2U POD only. Refer to your UPS manual for UPS operation and installation instructions.

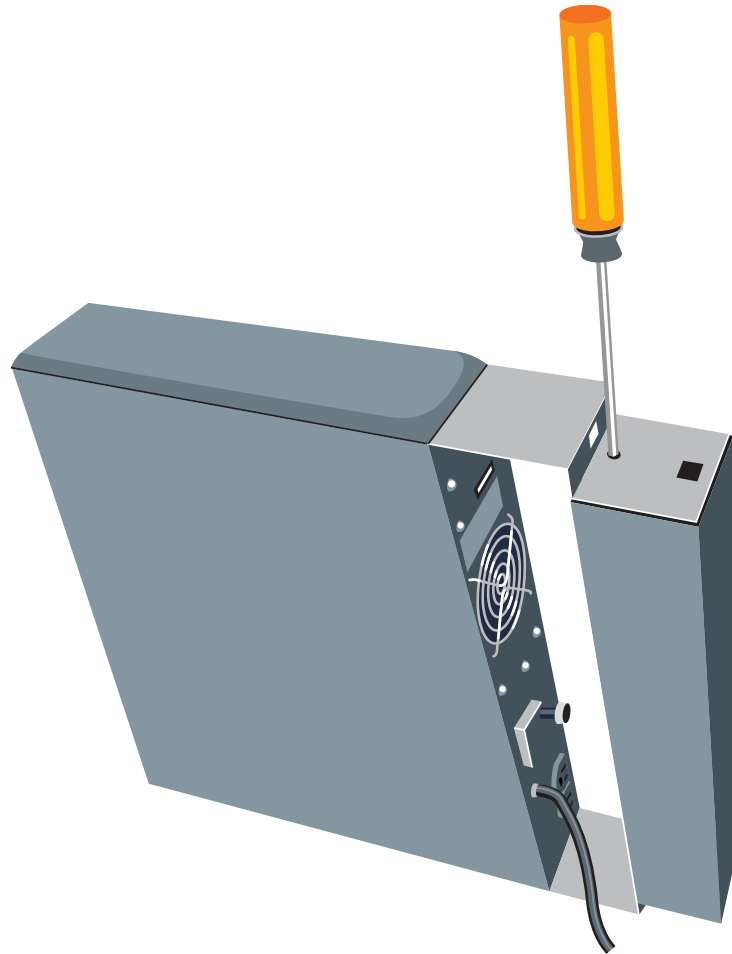
1. Unpack the 2U POD carefully, noting the packing method. Retain the box and packing material for possible future shipments.
2. Visually inspect the 2U POD for freight damage. Report damage to the carrier and your local dealer or Liebert representative.
3. Verify that the 2U POD input cord, UPS input cord, and socket for the UPS are the same type of configuration.
4. If you already have a UPS installed, turn off all connected loads and unplug them from the UPS. Turn off the UPS and disconnect the input cord.
5. Attach the two POD securing brackets (this is optional for GXT 2U UPS) to the rear of the UPS (see **Figure 4**). You will need a long M3 Phillips head screwdriver for this procedure (the torque is 0.79 Nm, or 7 in-lb). The POD brackets have a hole to allow the screwdriver to reach the screw.

Figure 4 Attaching POD securing brackets to rear of UPS



- Next attach the POD to the securing brackets (see **Figure 5**). The POD can be installed to face one of three different directions utilizing the same mounting procedures.

Figure 5 Attaching POD to securing brackets

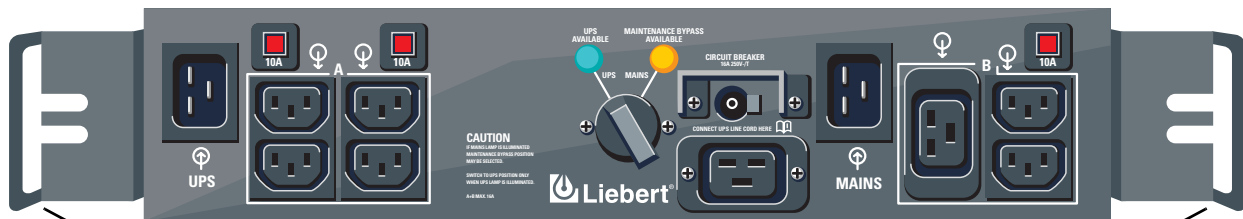


- Make sure the 2U POD rotary switch is in the MAINS position. Use the mains input cord originally used with the UPS. Plug the mains input cord from the mains input socket to the mains wall socket.
WARNING: The 2U POD is now electrically live. The MAINS lamp (orange) should now be illuminated.
- Using the cord provided, connect the UPS input power socket to the POD socket labeled “CONNECT UPS LINE CORD HERE.”
WARNING: The UPS system is now electrically live.
- Using the cord provided, connect the POD socket labeled “UPS” to one of the output sockets on the rear of the UPS.
- Plug in all loads to the output distribution sockets, evenly distributing them on the 2U POD. The 2U POD now powers your equipment in the MAINS mode.
- Turn ON the loads and ensure all are up and operating according to specification.
- Start the UPS according to its specific user manual.
- Verify that the UPS lamp (green) on the 2U POD is illuminated. If so, transfer the rotary switch from MAINS to UPS. The load is now being supplied with conditioned power through the UPS.
- Before any operation or procedure, always verify that both the UPS lamp (green) and the MAINS lamp (orange) are illuminated before changing the status of the rotary switch.

RACK MOUNT INSTALLATION

1. Rack mount installation of the 2U POD is possible with the use of the rack mounting brackets (shipped with the POD). See **Figure 6**.
2. The rack mount brackets allow you to rack mount the POD in a 19" enclosure (23" to 19" rack adapters would have to purchased separately if you are using our 23" Foundation or equivalent cabinet).
3. The POD can be mounted to face one of four directions depending on your application, and utilizing the rack mount brackets provided.
4. Determine the desired position and direction for the POD, face it in that direction, then attach the brackets to the POD with the screws provided.
5. Consult your rack/enclosure manufacturer's recommendations for specific rack mounting hardware that will be required.
6. The holes on the rack mount bracket are notched for easy installation. Tighten the POD securely to the rails and then follow the startup directions for the POD in the previous section, **Installation on GXT 2U UPS**.

Figure 6 2U POD with rack mounting brackets



Rack mounting brackets

INDICATOR LAMPS

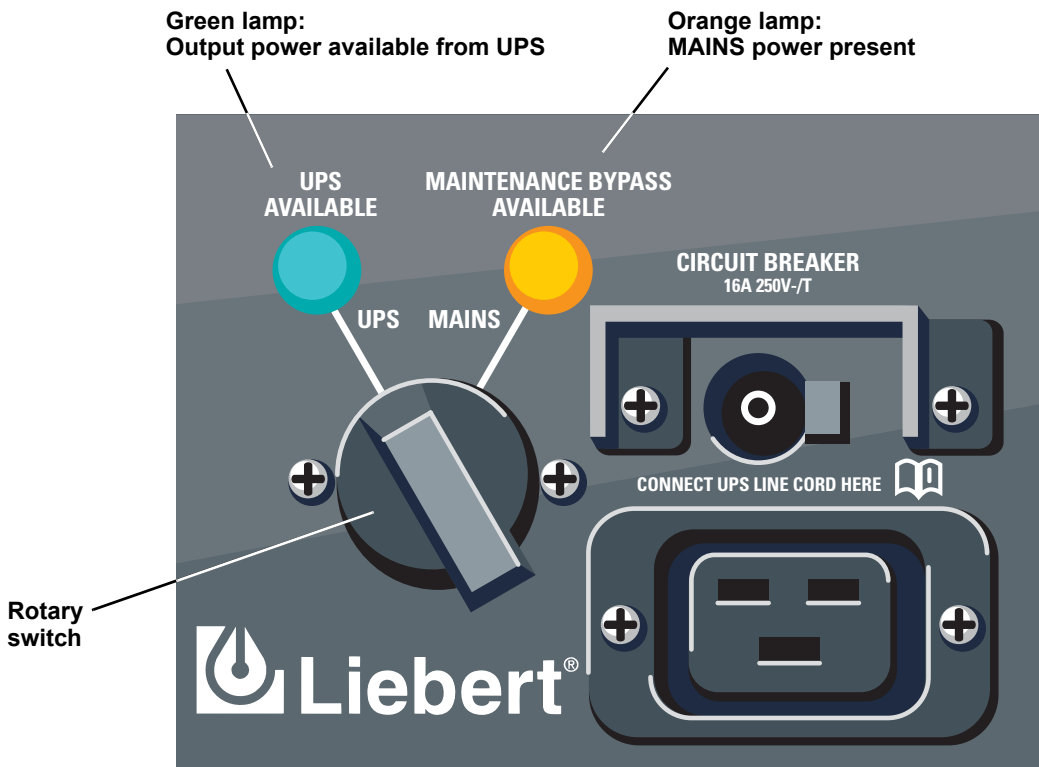
MAINS Indicator Lamp

This orange lamp is illuminated when mains power is present (see **Figure 7**). It signals that you may transfer the loads to maintenance bypass (MAINS mode) operation via the rotary switch. During a mains power outage, this lamp will be off and the UPS will supply battery back-up power to the connected loads.

UPS Indicator Lamp

This green lamp is illuminated when there is output power available from the UPS (see **Figure 7**). It signals that it is safe to transfer the connected loads from mains power back to UPS output power.

Figure 7 Indicator lamps on 2U POD



OPERATION

Transfer to Maintenance Bypass

To transfer to maintenance bypass (mains) from UPS, use the following steps:

1. Ensure the MAINS lamp (orange) is illuminated. If the lamp is not illuminated, refer to **Troubleshooting** section.
2. Transfer the rotary switch from UPS to MAINS, provided the MAINS lamp is illuminated on the 2U POD.
3. Turn the UPS off.
4. Disconnect the two cables connecting the UPS to the 2U POD.
5. You may now service the UPS.

Transfer to UPS

To transfer to UPS from maintenance bypass (mains), use the following steps:

1. Reconnect the UPS to the 2U POD. Start the UPS according to the instructions in the UPS user manual.
2. Verify that UPS lamp (green) on the 2U POD is illuminated. If so, transfer the rotary bypass switch from MAINS to UPS. If the lamp does not illuminate, refer to **Troubleshooting** section.
3. Conditioned power is now being supplied through the UPS.

SPECIFICATIONS

Transfer Time (to and from maintenance bypass)	< 6 milliseconds
Operating Ambient Temperature	0°C to +40°C (32°F to 104°F)
Storage Ambient Temperature	-20°C to +60°C (-4°F to 140°F)
Dimensions W x D x H: mm (in.)	88 x 77 x 394 (3.5 x 3.0 x 15.5)
Weight: kg (lbs)	4.5 (10)
Humidity	0 to 95% non-condensing
Agency/Standards	CE, EN 60950, ISTA Procedure 1A
Electrical Rating	See Model Label on MicroPOD

This 2U POD is intended for use with a UPS meeting all the following requirements:

- UPS input cord is compatible with the rating and type of socket on the 2U POD labeled "CONNECT UPS LINE CORD HERE."
- UPS output socket is compatible with the 2U POD input power connector labeled "UPS."
- Available mains socket is compatible with the 2U POD input power connector labeled "MAINS."
- The user must provide a suitable mains power cord with the appropriate country connector. This will usually be the original UPS power cord which has been removed from the UPS mains input.

TROUBLESHOOTING

Problem	Cause	Solution
MAINS lamp (orange) not illuminated.	Mains not present.	Call qualified service personnel to restore power to socket.
	2U POD input cord not connected to mains.	Refer to 2U POD installation instructions in this manual: <ul style="list-style-type: none"> • Installation on GXT 2U UPS and • Rack Mount Installation.
UPS Available lamp (green) not illuminated.	UPS output power not present.	Turn on UPS. Refer to UPS user manual.
	UPS input and/or output cord not connected to 2U POD.	Refer to 2U POD installation instructions in this manual: <ul style="list-style-type: none"> • Installation on GXT 2U UPS and • Rack Mount Installation.
2U POD will not start some / all connected loads.	2U POD output circuit breaker has tripped.	Reset 2U POD circuit protectors.
2U POD circuit protectors trip after resetting.	Overcurrent on 2U POD socket.	Recalculate load requirements, distribute load among other 2U POD sockets.

2U POD™

USER MANUAL

The Company Behind the Products

With over a million installations around the globe, Liebert is the world leader in computer protection systems. Since its founding in 1965, Liebert has developed a complete range of support and protection systems for sensitive electronics:

- Environmental systems—close-control air conditioning from 1 to 60 tons
- Power conditioning and UPS with power ranges from 300 VA to more than 1000 kVA
- Integrated systems that provide both environmental and power protection in a single, flexible package
- Monitoring and control—from systems of any size or location, on-site or remote
- Service and support through more than 100 service centers around the world and a 24/7 Customer Response Center

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SLI-23153 (5/02)

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