Vertiv™ Liebert® GXT5 Lithium-Ion UPS 8000/10000VA MV, 200-240V (L1, L2, N, G)

Quick Installation Guide

Thank you for your recent purchase of a Vertiv UPS! We appreciate your business and are confident that your new product will provide many years of uninterruptible power to your connected equipment. With this purchase, you may also want to consider Vertiv's complete line of racks, PDUs, thermal solutions, KVM switches, and serial consoles. Vertiv also offers a broad array of services and extended warranties. If you require any assistance or support, please don't hesitate to reach out to one of our resellers, local rep firms, or directly to us at 1-800-222-5877 menu option 3, or email at microups.warranty@vertiv.com. We stand ready to support you. We sincerely hope that you'll continue to select Vertiv for all of your future infrastructure needs!

The Vertiv Team

IMPORTANT: *Before installing, connecting to supply, or operating your Liebert® GXT5 Lithium-Ion UPS, please review the Safety and Regulatory Statements sheet. For detailed installation, operating, maintenance and troubleshooting information refer to the Liebert® GXT5 Lithium-Ion User Guide for your model by scanning the QR code above, or visiting www.Vertiv.com.*
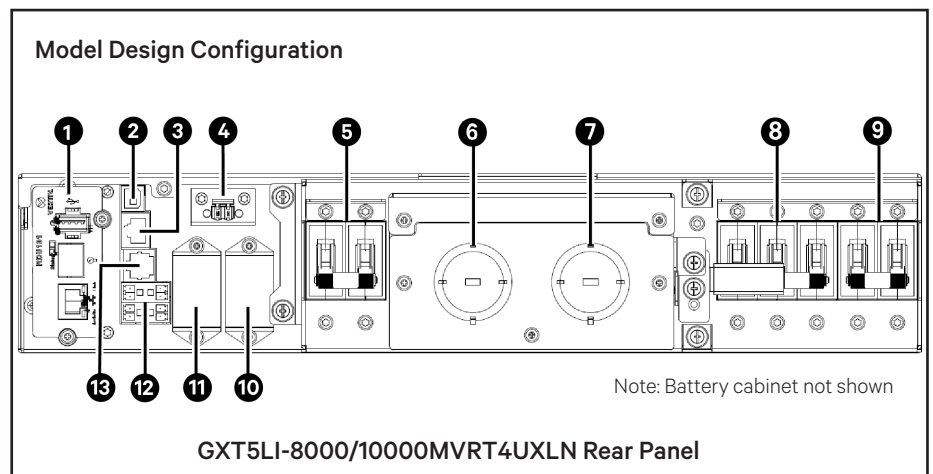
Pre-Installation Checks

1. Inspecting the UPS

Visually inspect the UPS for any damage. If damage is visible, do not install the unit and call our warranty support line for assistance at 1-800-222-5877 menu option 3, or email at microups.warranty@vertiv.com.

2. Conditions for Installation

Install the UPS in a temperature controlled environment that is free of corrosive and conductive contaminants. Avoid locations near heat or water sources and exposed to direct sunlight. For proper ventilation, leave four inches clearance on the front and rear of the UPS.


Model Design Configuration

Note: Battery cabinet not shown

GXT5LI-8000/10000MVRT4UXLN Rear Panel

Item	Description	Item	Description
1	Preinstalled network card	8	Maintenance bypass circuit breaker
2	USB port	9	Input circuit breaker
3	External Battery Cabinet (EBC) communication port (RS-485)	10	EBC BAT+ connector
4	REPO connector	11	EBC BAT- connector
5	Output circuit breaker	12	Dry contact communication terminal block
6	Output hardwire connection	13	RS-232 port (used for CLI)
7	Input hardwire connection		

Installation

The UPS and External Battery Cabinets (EBCs) may be installed in either a tower or rack configuration. The Maintenance Bypass Cabinet (MBC) may be installed first or last when installing in either configuration. Given illustrations depict the installation of the MBC first.

- Installing the MBC:
    1. Screw the four standoffs into the rear of the UPS.
    2. Place the MBC on the UPS and tighten the four screws attached to the MBC onto the standoffs.
- For Tower Installation:
    3. Assemble the tower support stands and spacers.
    4. Place the UPS and EBCs on the stands.
- For Rack Installation:
    3. Attach the rack ears with four screws on each side of the UPS.
    4. Attach the slide rail inner guides with four screws on each side of the UPS.
    5. Install the slide rail outer guides in the rack with two screws on the front and two screws on the rear of each guide.

NOTE: Align shelf of rack kit with rack U number for proper alignment.

    6. Align the inner guides on the UPS with the rail kit outer guides.
    7. Attach the rack ears to the rack with one screw on each side.
    8. Repeat steps 3-7 for each EBC.

Installing the MBC

For Tower Installation

For Rack Installation
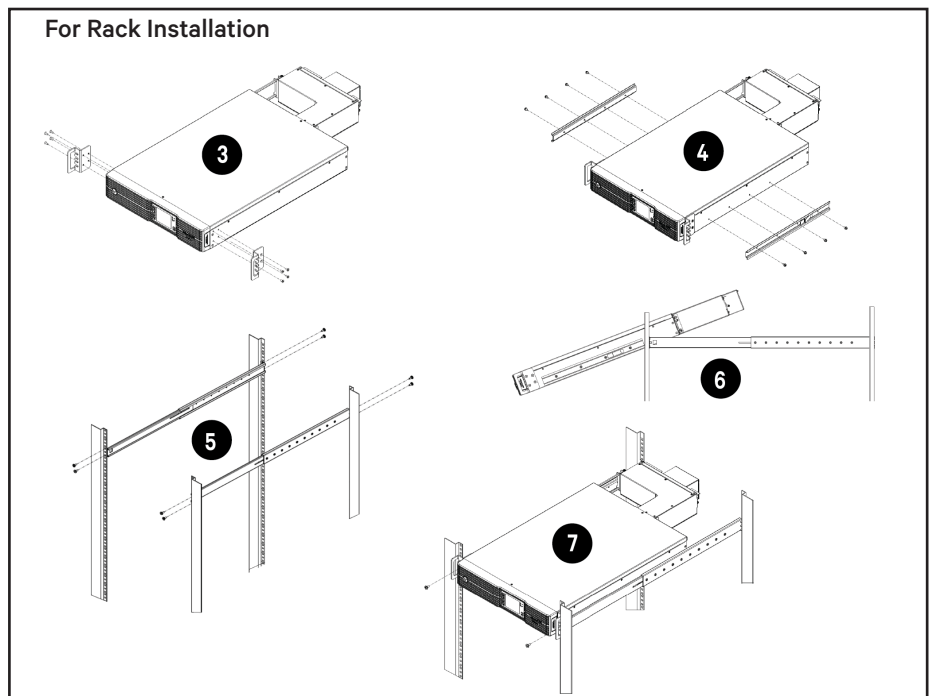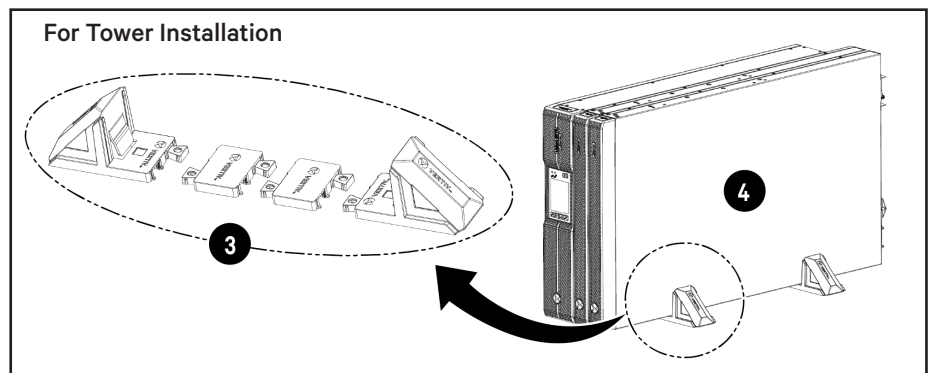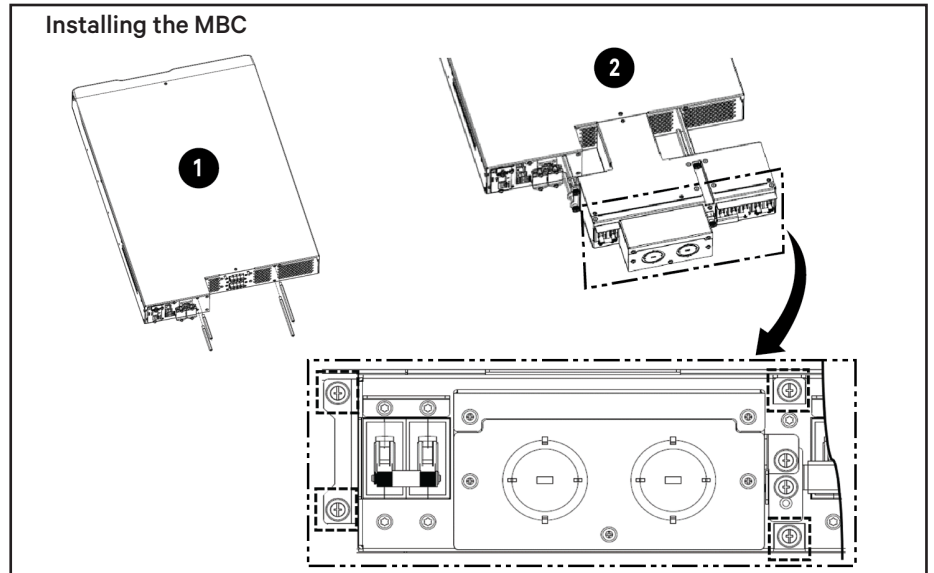
Connections

1. Connecting the EBCs

This GXT5 Lithium-Ion UPS has no internal batteries, at least one string of two VEBCLI-192VRT1U EBCs is required. Additional EBC strings provide longer battery run time for connected devices.

1. Verify that the EBC breaker is in the "Off" position on all EBCs.

2. Connect port B of the EBC cable (included in the package) to BAT+ on the UPS (1a). Connect port A of the EBC cable to port A on the first EBC (1b). Connect a communication (ethernet) cable to the UPS RS485 port (1c) and the first EBC's COM port (1d).

3. Connect port B of the EBC cable (included in the package) to BAT- on the UPS (2a). Connect port A of the EBC cable to port A on the second EBC (2b). Connect a communication cable to the first EBC's COM port (2c) and the second EBC's COM port (2d). Connect a communication cable to the first EBC's CAN port (2e) and the second EBC's CAN port (2f).

4. If connecting more than one external battery string, follow steps 4-6. If not, go to step 7. Connect port B of the EBC cable to port B on the first EBC (3a). Connect port A of the EBC cable to port A on the third EBC (3b). Connect a communication cable to the second EBC's COM port (3c) and the third EBC's COM port (3d). Connect a communication cable to the second EBC's CAN port (3e) and the third EBC's CAN port (3f).

5. Connect port B of the EBC cable to port B on the second EBC (4a). Connect port A of the EBC cable to port A on the fourth EBC (4b). Connect a communication cable to the third EBC's COM port (4c) and the fourth EBC's COM port (4d). Connect a communication cable to the third EBC's CAN port (4e) and the fourth EBC's CAN port (4f).

6. Repeat steps 4-5 for additional battery strings, if necessary.

7. Set ADDRESS DIP switch on each EBC as per the below table.

EBC String	EBC No.	DIP Switch Position				EBC Address
		1	2	3	4	
1	1	OFF	OFF	OFF	OFF	1
	2	ON	OFF	OFF	OFF	9
2	3	OFF	OFF	OFF	ON	2
	4	ON	OFF	OFF	ON	10
3	5	OFF	OFF	ON	OFF	3
	6	ON	OFF	ON	OFF	11
4	7	OFF	OFF	ON	ON	4
	8	ON	OFF	ON	ON	12
5	9	OFF	ON	OFF	OFF	5
	10	ON	ON	OFF	OFF	13
6	11	OFF	ON	OFF	ON	6
	12	ON	ON	OFF	ON	14
7	13	OFF	ON	ON	OFF	7
	14	ON	ON	ON	OFF	15
8	15	OFF	ON	ON	ON	8
	16	ON	ON	ON	ON	16

GXT5 Lithium-Ion UPS to External Battery Cabinet Connections
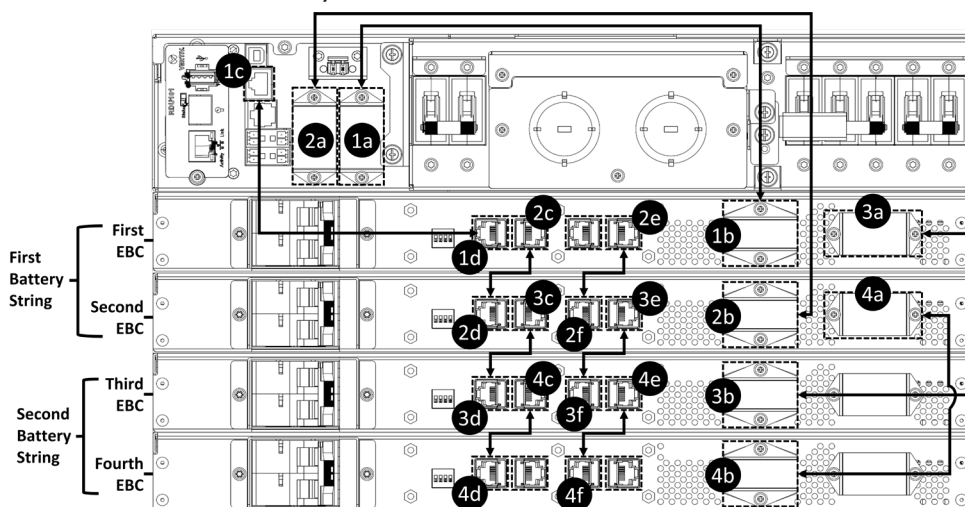
2. Connecting AC Power

Refer to the wiring table for the recommended overcurrent protection.

Remove the conduit entry knockouts. Install input and output wiring in separate conduit.

Refer to the given figure for the terminal block connections.

Connect to an input power supply that is properly protected by a circuit breaker in accordance with national and local electrical codes.

NOTE: *Allow the batteries to charge at least two hours before first startup to ensure adequate backup time. Allow an additional two hours of charging for each additional EBC string, if connected. The batteries charge when the UPS is connected to AC input regardless of whether the UPS is on or off.*

Wiring Table	
Recommended panel feeder breaker	70 A
Recommended wire (all wires) (90°C copper wire)	4 AWG (21.2 mm²)
Maximum wire accepted by terminal block	4 AWG (21.2 mm²)
Terminal tightening torque (phillips screw)	35 lb-in
Terminal tightening torque (flathead screw)	26 lb-in

Terminal Block Connections

⏚	L2	N	L1	⏚	L2	N	L1
	Output				Input		

3. Powering the UPS

NOTE: *Do not start the UPS until the installation has been completed, the system is commissioned by an authorized engineer, and the external input circuit breakers have been closed.*

1. Make sure the Maintenance Bypass breaker is in the open "OFF" position and the guard is secured in place on the rear of the MBC.

2. Make sure the panel feeder breaker is closed.

3. Close the input breaker on the rear of the MBC.

4. Close the output breaker on the rear of the MBC.

5. Close the breakers on the rear of the connected EBCs.

6. When the UPS is first connected startup guidance screens will appear. Use the Up, Down, and Enter buttons to confirm settings. Then, press and hold the Power button to power on the UPS.

NOTE: *The UPS will sound an alarm when the output receptacles are not powered. Press and hold the Esc button for two seconds to mute the alarm.*

Operation and Display Panel

Item	Description
1	Run indicator LED
2	Alarm indicator LED
3	Power button
4	Display screen
5	Escape button
6	Up arrow button
7	Down arrow button
8	Enter button