

Galaxy VM

System Bypass Cabinet 450 and 675 kVA

Installation

GVMSBC450KG, GVMSBC675KG, GVMSBCLB675KG
1/2019



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Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

As standards, specifications, and designs change from time to time, please ask for confirmation of the information given in this publication.

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Important Safety Instructions — SAVE THESE INSTRUCTIONS

Read these instructions carefully and look at the equipment to become familiar with it before trying to install, operate, service or maintain it. The following safety messages may appear throughout this manual or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.



The addition of this symbol to a “Danger” or “Warning” safety message indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages with this symbol to avoid possible injury or death.

DANGER

DANGER indicates a hazardous situation which, if not avoided, **will result in death or serious injury.**

Failure to follow these instructions will result in death or serious injury.

WARNING

WARNING indicates a hazardous situation which, if not avoided, **could result in death or serious injury.**

Failure to follow these instructions can result in death, serious injury, or equipment damage.

CAUTION

CAUTION indicates a hazardous situation which, if not avoided, **could result in minor or moderate injury.**

Failure to follow these instructions can result in injury or equipment damage.

NOTICE

NOTICE is used to address practices not related to physical injury. The safety alert symbol shall not be used with this type of safety message.

Failure to follow these instructions can result in equipment damage.

Please Note

Electrical equipment should only be installed, operated, serviced, and maintained by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

A qualified person is one who has skills and knowledge related to the construction, installation, and operation of electrical equipment and has received safety training to recognize and avoid the hazards involved.

FCC Statement

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.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Safety Precautions

⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

All safety instructions in this document must be read, understood and followed.

Failure to follow these instructions will result in death or serious injury.

⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

Read all instructions in the Installation Manual before installing or working on this UPS system.

Failure to follow these instructions will result in death or serious injury.

⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

Do not install the UPS system until all construction work has been completed and the installation room has been cleaned.

Failure to follow these instructions will result in death or serious injury.

⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- The product must be installed according to the specifications and requirements as defined by Schneider Electric. It concerns in particular the external and internal protections (upstream breakers, battery breakers, cabling, etc.) and environmental requirements. No responsibility is assumed by Schneider Electric if these requirements are not respected.
- After the UPS system has been electrically wired, do not start up the system. Start-up must only be performed by Schneider Electric.

Failure to follow these instructions will result in death or serious injury.

⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

The UPS system must be installed according to local and national regulations. Install the UPS according to:

- IEC 60364 (including 60364-4-41 - protection against electric shock, 60364-4-42 - protection against thermal effect, and 60364-4-43 - protection against overcurrent), or
- NEC NFPA 70, or
- Canadian Electrical Code (C22.1, Part 1)

depending on which one of the standards apply in your local area.

Failure to follow these instructions will result in death or serious injury.

⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- Install the UPS system in a temperature controlled indoor environment free of conductive contaminants and humidity.
- Install the UPS system on a non-flammable, level and solid surface (e.g. concrete) that can support the weight of the system.

Failure to follow these instructions will result in death or serious injury.

⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

The UPS is not designed for and must therefore not be installed in the following unusual operating environments:

- Damaging fumes
- Explosive mixtures of dust or gases, corrosive gases, or conductive or radiant heat from other sources
- Moisture, abrasive dust, steam or in an excessively damp environment
- Fungus, insects, vermin
- Salt-laden air or contaminated cooling refrigerant
- Pollution degree higher than 2 according to IEC 60664-1
- Exposure to abnormal vibrations, shocks, and tilting
- Exposure to direct sunlight, heat sources, or strong electromagnetic fields

Failure to follow these instructions will result in death or serious injury.

⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

Do not drill or cut holes for cables or conduits with the gland plates installed and do not drill or cut holes in close proximity to the UPS.

Failure to follow these instructions will result in death or serious injury.

⚠ WARNING

HAZARD OF ARC FLASH

Do not make mechanical changes to the product (including removal of cabinet parts or drilling/cutting of holes) that are not described in the Installation Manual.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

NOTICE**RISK OF OVERHEATING**

Respect the space requirements around the UPS system and do not cover the product's ventilation openings when the UPS system is in operation.

Failure to follow these instructions can result in equipment damage.

NOTICE**RISK OF EQUIPMENT DAMAGE**

Do not connect the UPS output to regenerative load systems including photovoltaic systems and speed drives.

Failure to follow these instructions can result in equipment damage.

Electrical Safety**⚠ DANGER****HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH**

- Electrical equipment must be installed, operated, serviced, and maintained only by qualified personnel.
- Apply appropriate personal protective equipment (PPE) and follow safe electrical work practices.
- Turn off all power supplying the UPS system before working on or inside the equipment.
- Before working on the UPS system, check for hazardous voltage between all terminals including the protective earth.
- The UPS contains an internal energy source. Hazardous voltage can be present even when disconnected from the mains supply. Before installing or servicing the UPS system, ensure that the units are OFF and that mains and batteries are disconnected. Wait five minutes before opening the UPS to allow the capacitors to discharge.
- The UPS must be properly earthed/grounded and due to a high leakage current, the earthing/grounding conductor must be connected first.

Failure to follow these instructions will result in death or serious injury.

⚠ DANGER**HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH**

In systems where backfeed protection is not part of the standard design, an automatic isolation device (backfeed protection option or other device meeting the requirements of IEC/EN 62040–1 or UL 1778 5th Edition – depending on which of the two standards apply to your local area) must be installed to prevent hazardous voltage or energy at the input terminals of the isolation device. The device must open within 15 seconds after the upstream power supply fails and must be rated according to the specifications.

Failure to follow these instructions will result in death or serious injury.

When the UPS input is connected through external isolators that, when opened, isolate the neutral or when the automatic backfeed isolation is provided external to the equipment or is connected to an IT power distribution system, a label must be fitted at the UPS input terminals, and on all primary power isolators installed remote from the UPS area and on external access points between such isolators and the UPS, by the user, displaying the following text (or equivalent in a language which is acceptable in the country in which the UPS system is installed):

⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

Risk of Voltage Backfeed. Before working on this circuit: Isolate the UPS and check for hazardous voltage between all terminals including the protective earth.

Failure to follow these instructions will result in death or serious injury.

Specifications

NOTICE

HAZARD OF EQUIPMENT DAMAGE

Refer to the UPS installation manual for detailed specifications for the UPS system.

Failure to follow these instructions can result in equipment damage.

Recommended Cable Sizes

NOTE: Refer to the UPS Installation Manual for UPS input and output cables sizes.

NOTE: All wiring must comply with all applicable national and/or electrical code. The maximum allowable conductor size is 500 kcmil for bypass load cables.

Cable sizes in this manual are based on Table 310.15 of the National Electrical Code 2011 (NEC) with the following assertions:

- 90 °C conductors (THHN) for 75 °C termination
- 4 current carrying conductors
- An ambient temperature of 30 °C
- Use of copper conductors

If the ambient room temperature is greater than 30 °C, larger conductors are to be selected in accordance with the correction factors of the NEC.

Equipment Grounding Conductors (EGC) are sized in accordance with NEC Article 250.122 and Table 250.122.

	450 kVA		675 kVA	
	80% rated OCPD	100% rated OCPD	80% rated OCPD	100% rated OCPD
Bypass	(3) 300 kcmil	(2) 400 kcmil	(4) 400 kcmil	(3) 500 kcmil
Load	(3) 300 kcmil	(2) 400 kcmil	(4) 400 kcmil	(3) 500 kcmil

Recommended Bolt and Lug Sizes

NOTICE

HAZARD OF EQUIPMENT DAMAGE

Use only UL approved cable lugs.

Failure to follow these instructions can result in equipment damage.

Cable Size	Terminal Bolt Diameter	Cable Lug Type	Crimping Tool/Die
300 kcmil	M10	LCA300-12-X	CT-720/CD-720-4
400 kcmil	M10	LCA400-12-X	CT-720/CD-720-5
500 kcmil	M10	LCA500-12-X	CT-720/CD-720-6

Upstream Protection

This system bypass cabinet is rated for use on a circuit capable of delivering no more than 65 k rms symmetrical amperes, 480 volts maximum.

	450 kVA		675 kVA	
	80% rated OCPD	100% rated OCPD	80% rated OCPD	100% rated OCPD
Bypass (A)	700	600	1200	1000

Trip Settings for Maintenance Bypass Breaker

System bypass cabinet	450 kVA		675 kVA	
UPSs	2 x 180 kVA	2 x 225 kVA	3 x 180 kVA	3 x 225 kVA
I _r	0.45	0.6	0.7	0.9
I _l	5	6	8	8
T _r	0.5	0.5	0.5	0.5

Trip Settings for System Input Breaker (SIB)

System bypass cabinet	450 kVA		675 kVA	
UPSs	2 x 180 kVA	2 x 225 kVA	3 x 180 kVA	3 x 225 kVA
I _r	0.45	0.6	0.7	0.9
I _l	5	6	8	8
T _r	4	4	4	4

Trip Settings for Load Bank Breaker (if available)

System bypass cabinet	675 kVA	
UPSs	3 x 180 kVA	3 x 225 kVA
I _r	0.7	0.9
I _l	8	8
T _r	4	4

Torque Specifications

Bolt size	Torque
M4	1.7 Nm (1.25 lb-ft)
M5	2.5 Nm (1.84 lb-ft)
M6	5 Nm (3.69 lb-ft)
M8	17.5 Nm (12.91 lb-ft)
M10	30 Nm (22 lb-ft)
M12	50 Nm (36.87 lb-ft)
M14	75 Nm (55.31 lb-ft)

System Bypass Cabinet Weights and Dimensions

Part	Weight kg (lbs)	Height mm (in)	Width mm (in)	Depth mm (in)
System bypass cabinet 450K 480V (GVMSBC450KG)	485 (1067)	1970 (77.56)	1505 (59.25)	837 (32.95)
System bypass cabinet 675K 480V (GVMSBC675KG)	505 (1111)	1970 (77.56)	1505 (59.25)	837 (32.95)
System bypass cabinet 675K 480V with load bank breaker (GVMSBCLB675KG)	585 (1287)	1970 (77.56)	1785 (70.28)	837 (32.95)

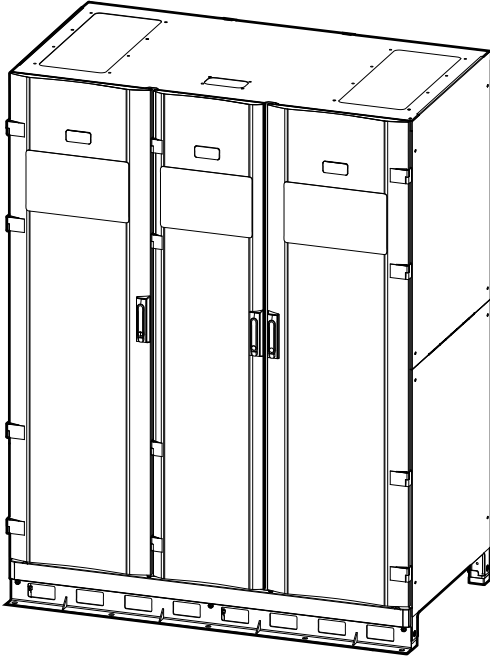
Environment

	Operation	Storage
Temperature	0 °C to 40 °C (32 °F to 104 °F)	-25 °C to 55 °C (-13 °F to 131 °F)

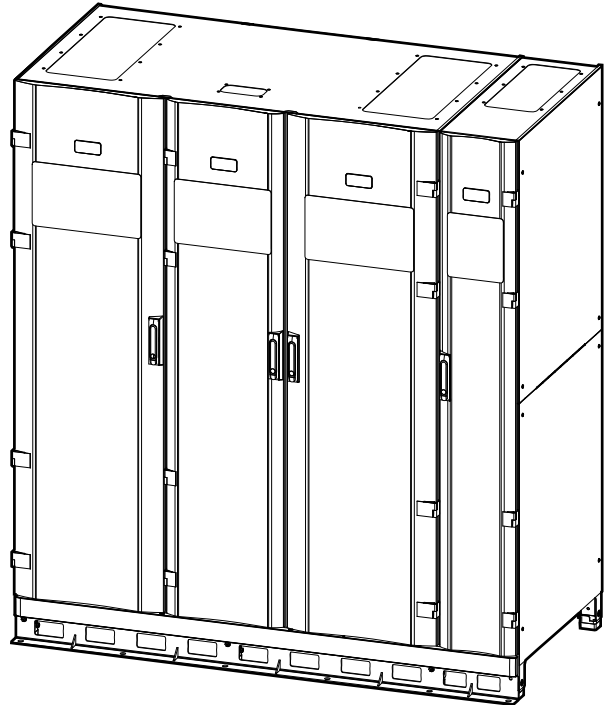
Introduction

The system bypass cabinet is used in parallel systems and contains the maintenance bypass breaker MBB and the system isolation breaker SIB. The 675 kVA system bypass cabinet is also available in a version with a load bank breaker.

Front View of the System Bypass Cabinet









Front View of the System Bypass Cabinet with Load Bank Breaker





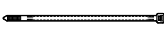


Overview of Supplied Installation Kits

Anchoring Kit



Part	Used in	Number of units
Rear anchoring bracket	<i>Mount the Rear Anchoring Bracket for the System Bypass Cabinet, page 18</i>	1 
Rod securing brackets	<i>Position the System Bypass Cabinet, page 20</i>	2 
Rod for securing to rear anchoring bracket		4 
Front anchoring bracket	<i>Mount the Front Anchoring Bracket on the System Bypass Cabinet, page 21</i>	1  or 
Front anchor cover		1 

Installation Kit 0M-77617

Part	Used in	Number of units
M6 x 16 mm torx screw with washer	<i>Mount the Front Anchoring Bracket on the System Bypass Cabinet, page 21</i>	4 
M8 x 20 mm hexagonal torx with washer	<i>Mount the Rear Anchoring Bracket for the System Bypass Cabinet, page 18 and Mount the Front Anchoring Bracket on the System Bypass Cabinet, page 21</i>	26 
Cable ties	<i>Connect the Signal Cables between the I/O Cabinets and the System Bypass Cabinet, page 40</i>	50 
Cable tie for power cables	<i>Connect the Power Cables to the System Bypass Cabinet, page 30 and Connect the Load Bank Cables, page 33</i>	100 
Cable ties for signal cables		100 

Installation Kit 0M-77618

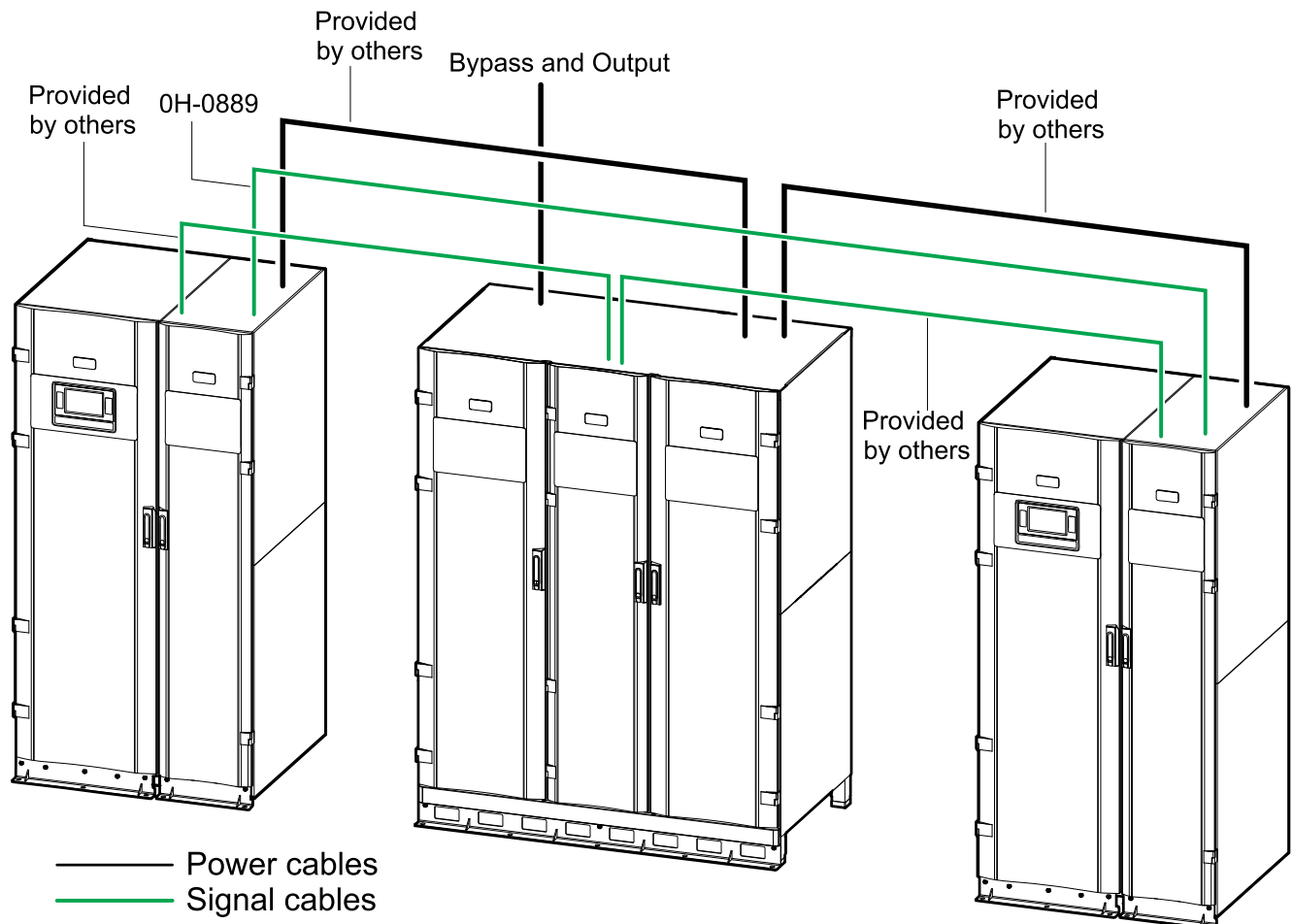
NOTE: This installation kit is only shipped with systems with load bank breaker.

Part	Used in	Number of units
M8 x 20 mm hexagonal torx with washer	<i>Connect the Load Bank Cables, page 33</i>	2 
Cable tie		25 

Installation Procedure for the System Bypass Cabinet

NOTE: Refer to the UPS Installation Manual for information on connecting power and signal cables to the UPS.

Overview of Signal Cable and Power Cable Connections



1. Remove the System Bypass Cabinet from the Pallet, page 17.
2. Mount the Rear Anchoring Bracket for the System Bypass Cabinet, page 18.
3. Position the System Bypass Cabinet, page 20.
4. Mount the Front Anchoring Bracket on the System Bypass Cabinet, page 21.
5. Connect the Power Cables to the System Bypass Cabinet, page 30.
6. Restrain the Cables, page 38.
7. Option: Connect the Load Bank Cables, page 33.
8. Connect the Signal Cables between the I/O Cabinets and the System Bypass Cabinet, page 40.

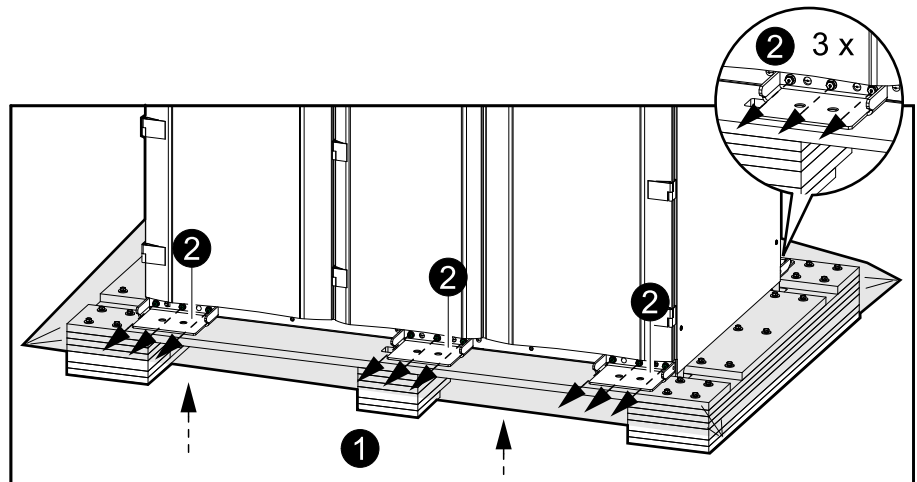
Mechanical Assembly

Remove the System Bypass Cabinet from the Pallet

NOTE: The removal of the pallet parts requires free space to one of the sides of the cabinet.

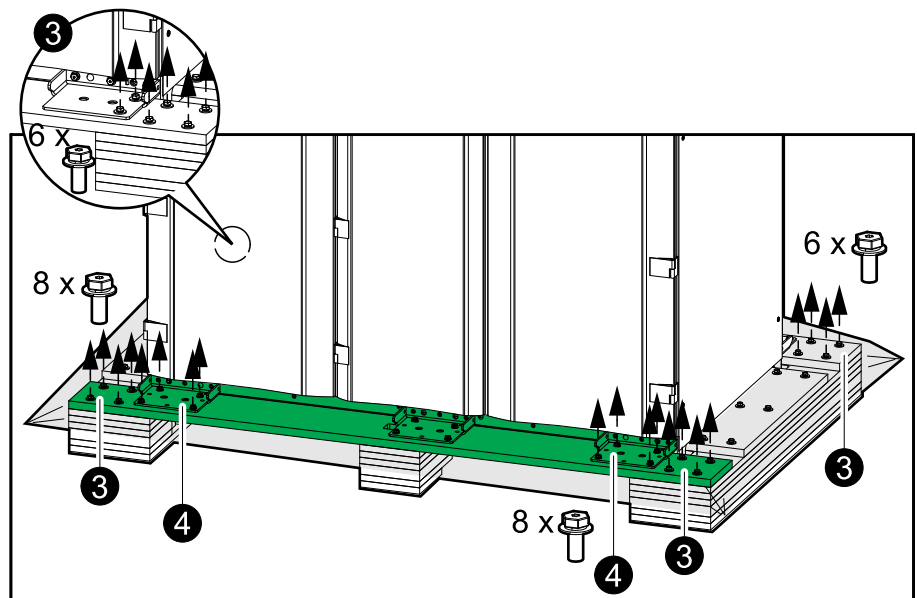
1. Lift up the cabinet and pallet off the floor using a forklift.

Front View of the System Bypass Cabinet



2. Remove the bolts that connect the six anchoring brackets to the cabinet in the front and rear.
3. Remove the bolts that connect the six anchoring brackets and the wooden crosspieces to the pallet as shown.

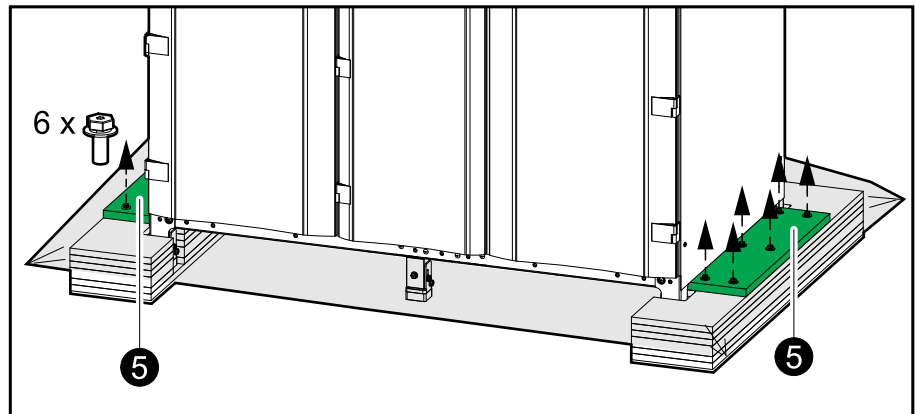
Front View of the System Bypass Cabinet



4. Remove the six anchoring brackets and the wooden crosspieces from the pallet. Save the left and right front anchoring brackets for the anchoring procedure.

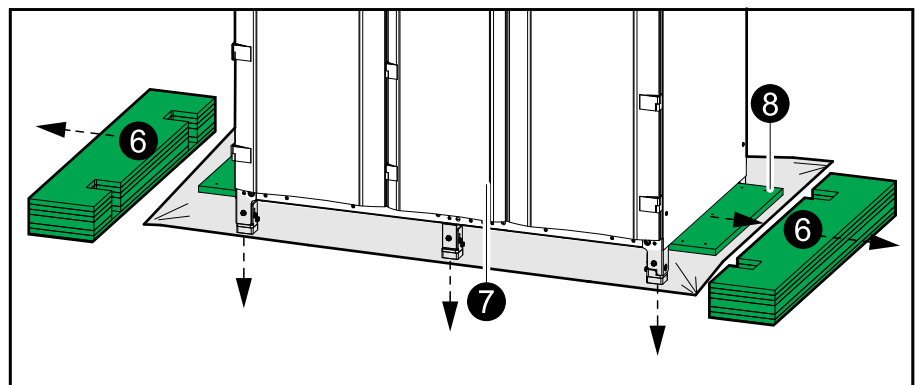
- Remove the bolts that connect the bottom plate to the pallet.

Front View of the System Bypass Cabinet



- Remove the wooden side parts of the pallet.

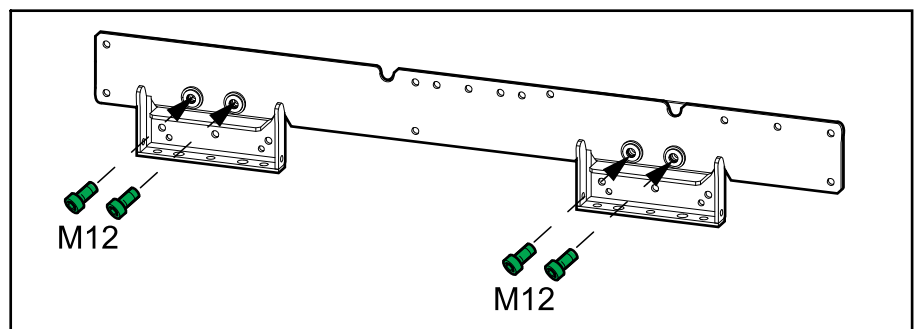
Front View of the System Bypass Cabinet



- Lower the cabinet onto the floor with the forklift.
- Remove the bottom plate.

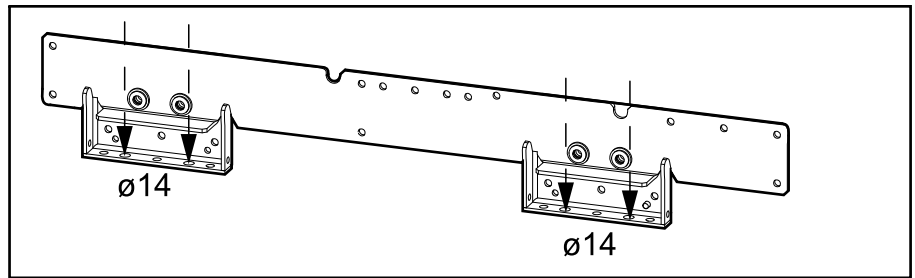
Mount the Rear Anchoring Bracket for the System Bypass Cabinet

- Assemble the three below parts and secure fasten M12 screws.

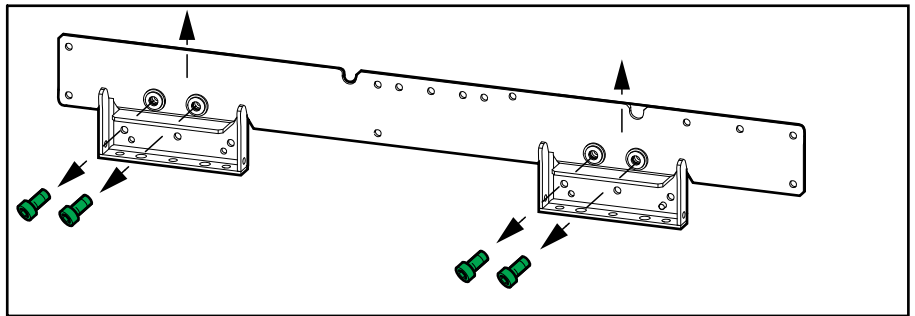


- Place the rear anchoring bracket assembly in the final installation area and mark the anchoring hole locations.
- Drill anchoring holes according to national and local requirements.

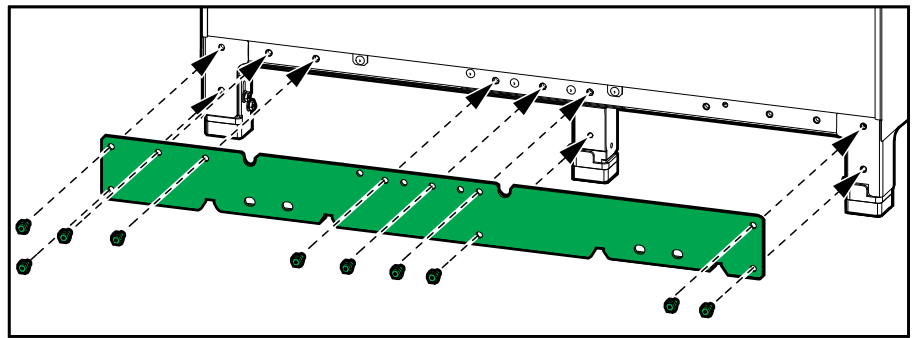
4. Anchor the assembly to the floor.



5. Loosen the screws and remove the bracket from the floor anchors.



6. Mount the brackets to the rear of the cabinet.

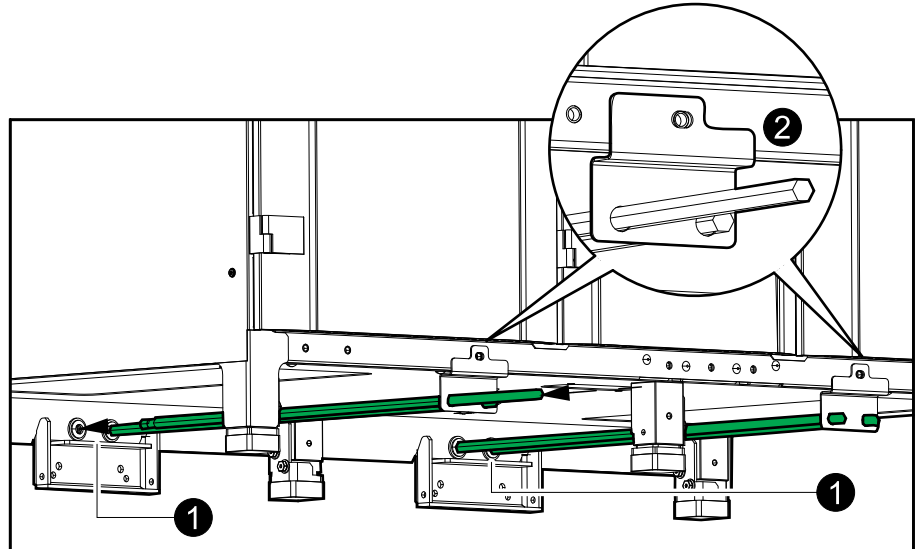


Position the System Bypass Cabinet

NOTE: The rear anchoring bracket must be mounted before performing this task.

1. Lift up the cabinet and place the bracket over the floor anchors.

Front View of the System Bypass Cabinet

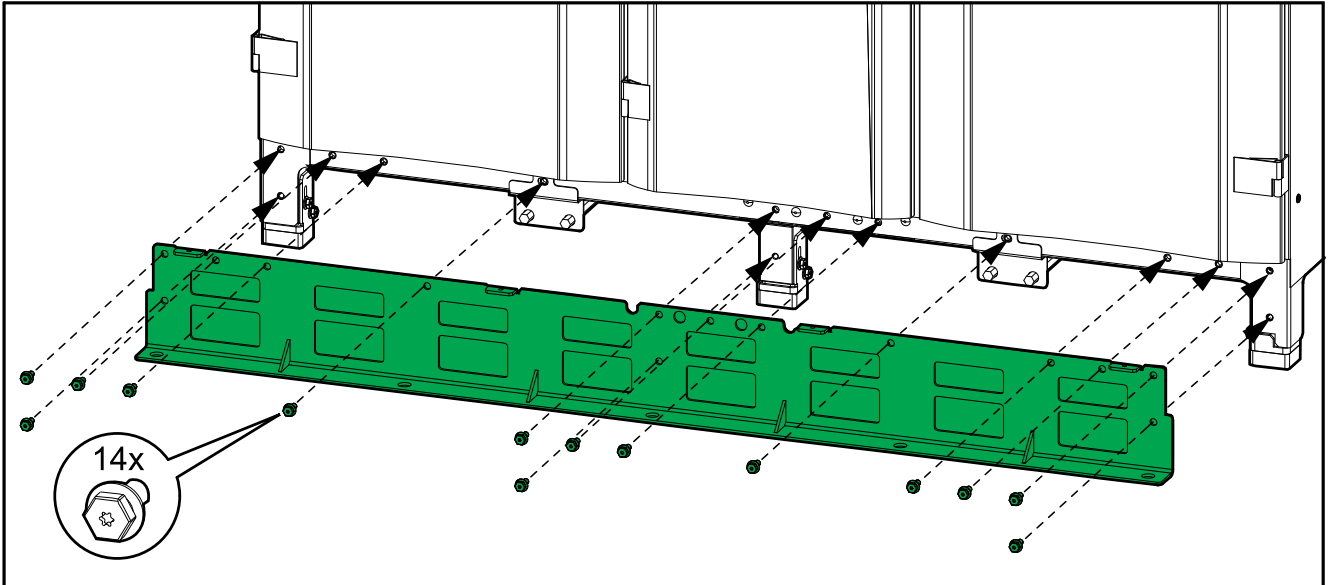


2. Guide the rod through the plate and into the hole in the rear of the cabinet. Use the rod to fasten the bolts in the rear of the cabinet.

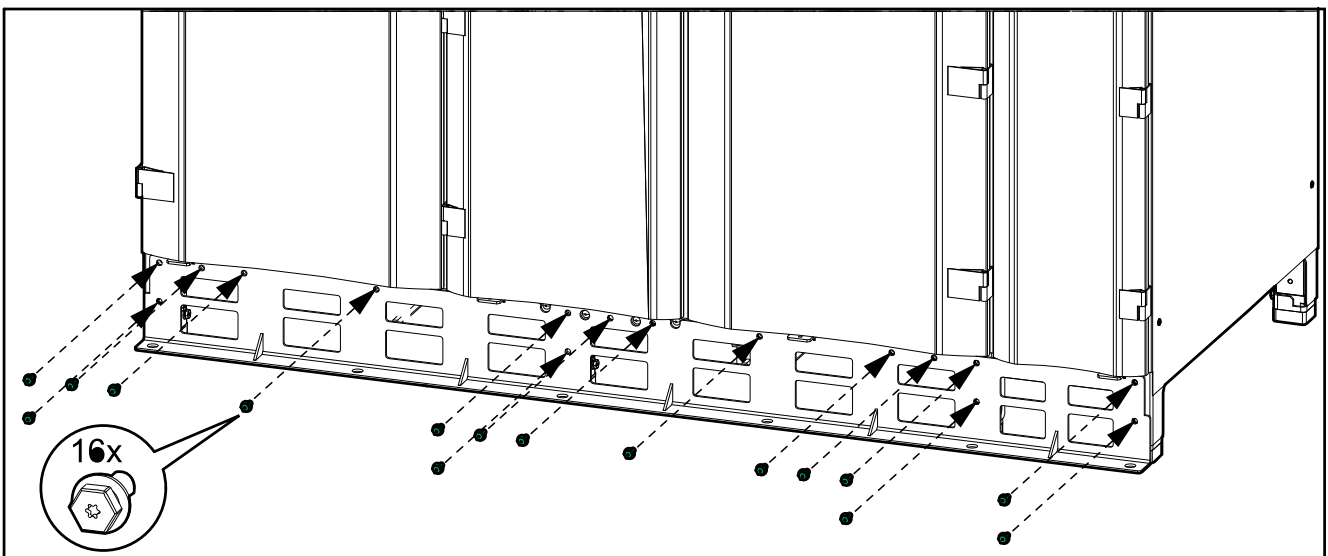
Mount the Front Anchoring Bracket on the System Bypass Cabinet

1. Fasten the front anchoring bracket to the front of the system bypass cabinet using the provided bolts.

Front View of the System Bypass Cabinet

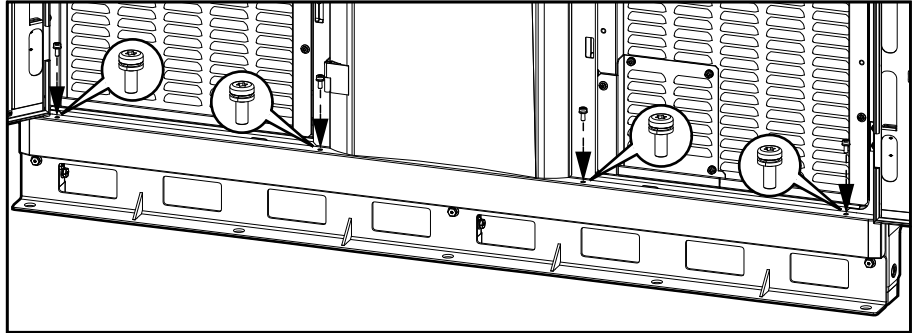


Front View of the System Bypass Cabinet with Load Bank Breaker

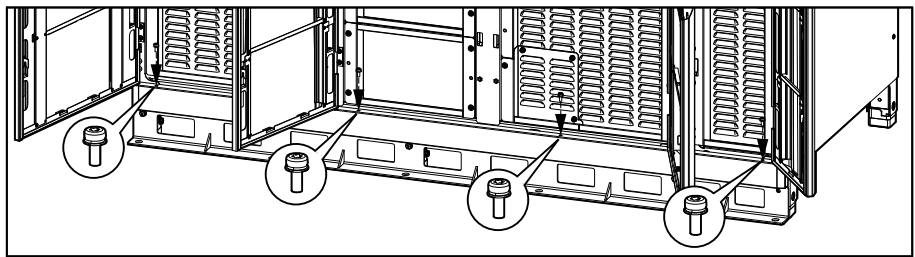


2. Open the front door, take the finishing panel, and fasten to the front of the system bypass cabinet using the provided bolts.

Front View of the System Bypass Cabinet



Front View of the System Bypass Cabinet with Load Bank Breaker



3. Anchor the brackets to the floor.

NOTE: Floor anchoring bolts are not supplied.

Connect the Power and Signal Cables

Prepare for Cables in a Top Cable Entry System

⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

Do not drill or cut holes for cables or conduits with the gland plates installed and do not drill or cut in close proximity to the UPS.

Failure to follow these instructions will result in death or serious injury.

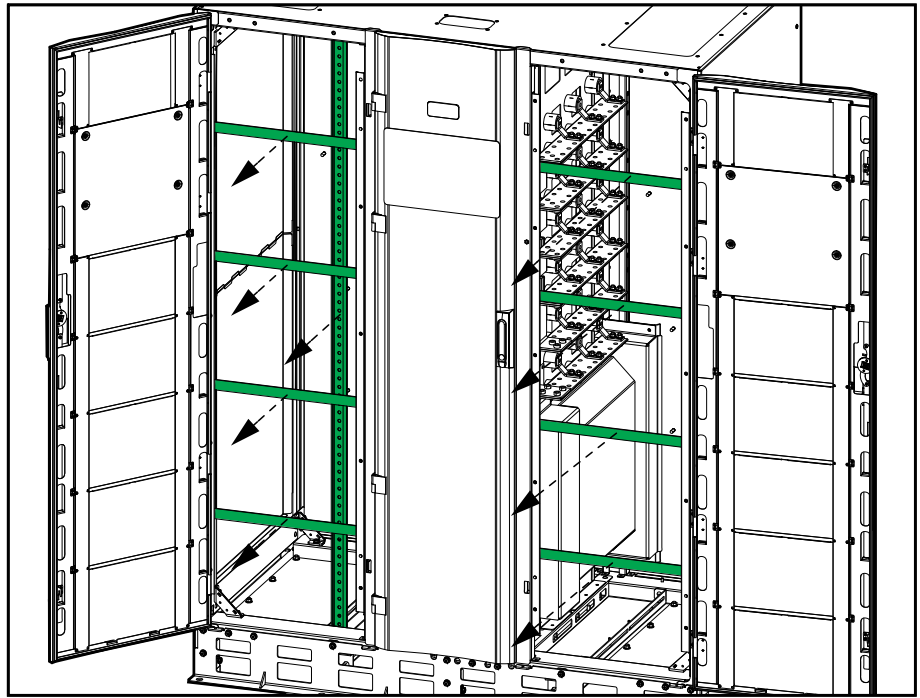
1. Open the left and right front doors of the system bypass cabinet.
2. Remove the two dead front panels.

Front View of the System Bypass Cabinet



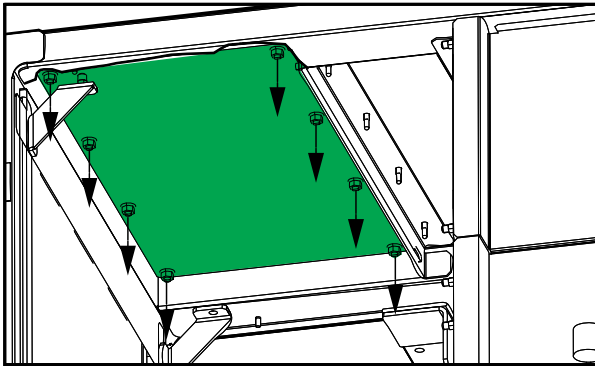
- Remove the horizontal bars and then the vertical pillars for better access.

Front View of the System Bypass Cabinet

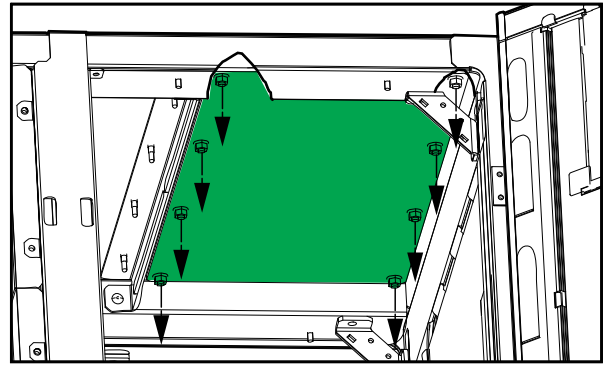


- Remove the right and left gland plates from the top by loosening the eight bolts of each gland plate.

Top Left of the System Bypass Cabinet



Top Right of the System Bypass Cabinet



- Drill or cut holes for conduits.
- Install conduits and refit the gland plates.

⚠ DANGER

HAZARD OF ELECTRICAL SHOCK, EXPLOSION, OR ARC FLASH

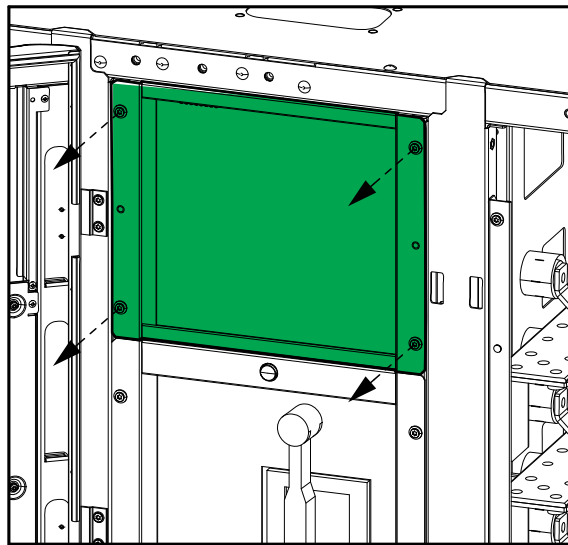
Ensure that there are no sharp edges that can damage the cables.

Failure to follow these instructions will result in death or serious injury.

- Open the middle front door.

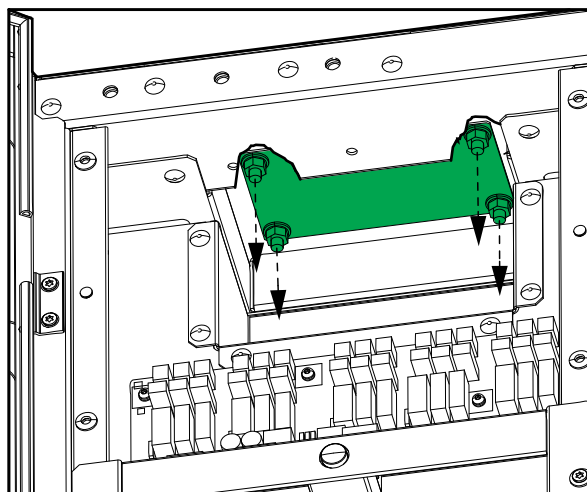
- Remove the dead front panel in the top by loosening the four bolts.

Front View of the System Bypass Cabinet



- Loosen the four bolts and remove the gland plate.

Front View of the System Bypass Cabinet



- Drill or cut holes for conduits.
- Install conduits and refit the gland plates.

⚠ DANGER

HAZARD OF ELECTRICAL SHOCK, EXPLOSION, OR ARC FLASH

Ensure that there are no sharp edges that can damage the cables.

Failure to follow these instructions will result in death or serious injury.

Prepare for Cables in a Bottom Cable Entry System

⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

Do not drill or cut holes for cables or conduits with the gland plates installed and do not drill or cut holes in close proximity to the UPS.

Failure to follow these instructions will result in death or serious injury.

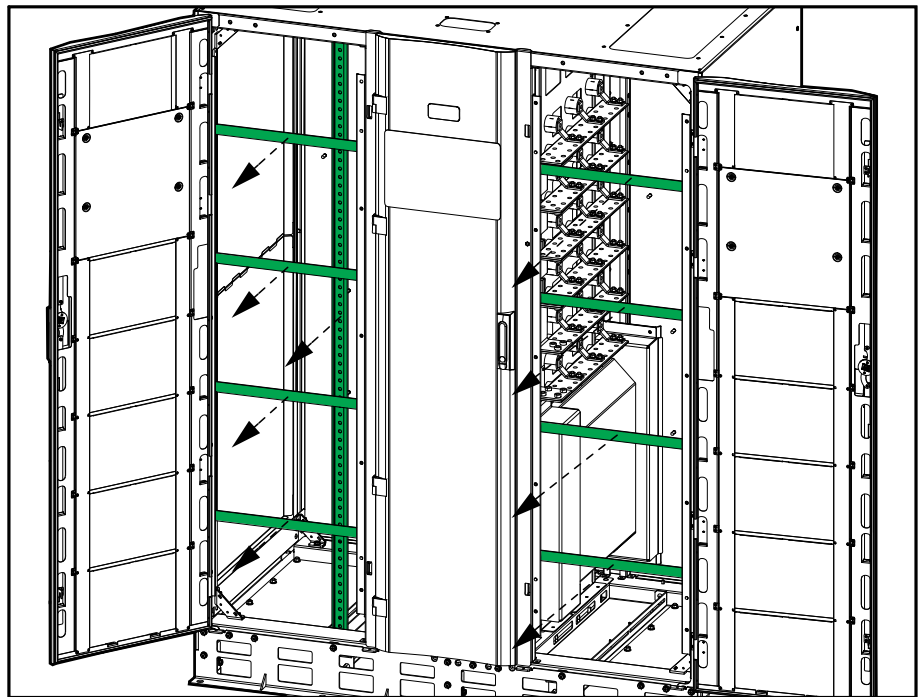
1. Open the left and right front doors of the system bypass cabinet.
2. Remove the two dead front panels.

Front View of the System Bypass Cabinet



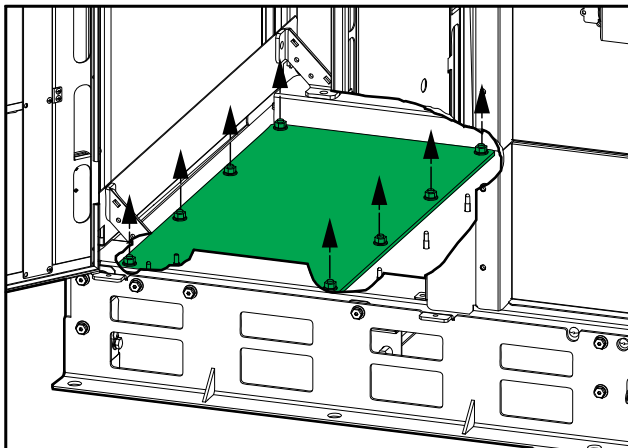
- Remove the horizontal bars and then the vertical pillars for better access.

Front View of the System Bypass Cabinet

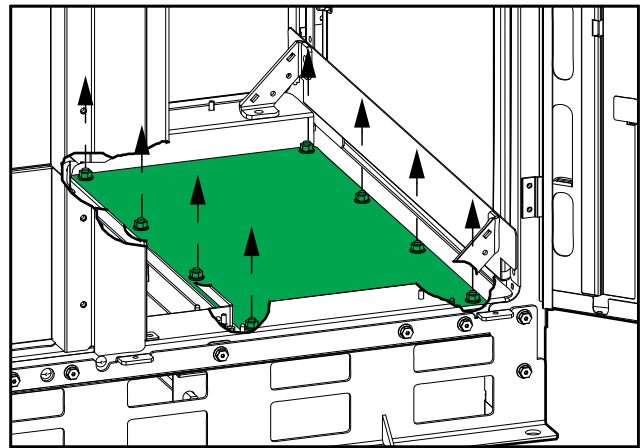


- Remove the right and left gland plates from the bottom by loosening the eight bolts of each gland plate.

Bottom Left of the System Bypass Cabinet



Bottom Right of the System Bypass Cabinet



- Drill or cut holes for conduits.
- Install conduits and refit the gland plates.

⚠ DANGER

HAZARD OF ELECTRICAL SHOCK, EXPLOSION, OR ARC FLASH

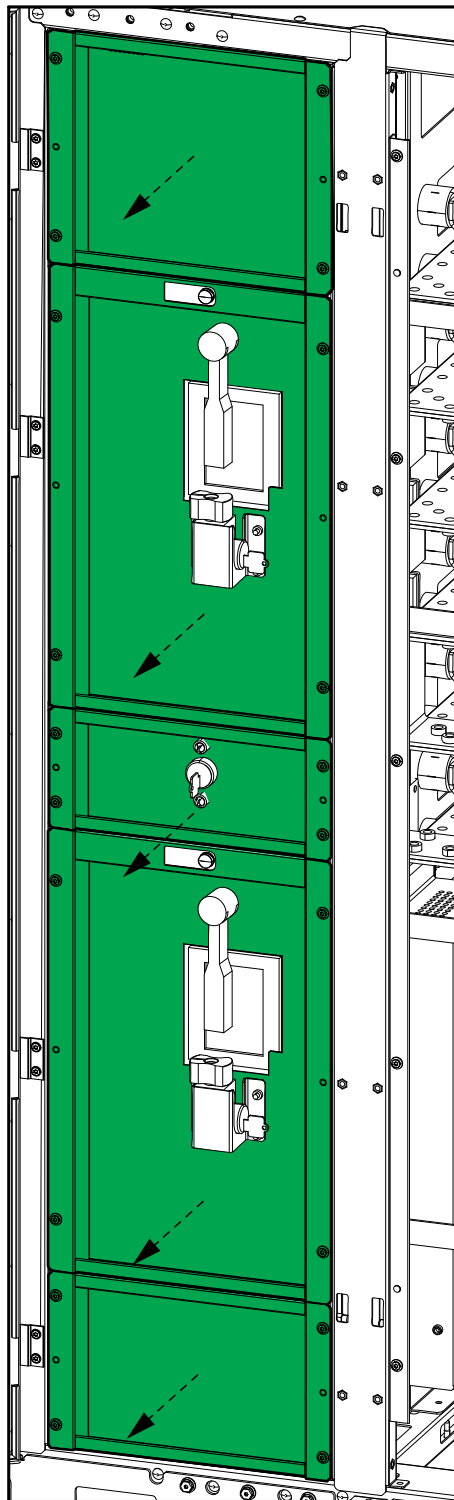
Ensure that there are no sharp edges that can damage the cables.

Failure to follow these instructions will result in death or serious injury.

- Open the middle front door.

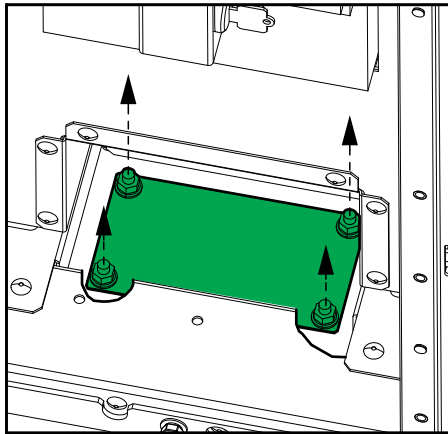
8. Turn the breaker handles to horizontal position and remove the five dead front panels.

Front View of the System Bypass Cabinet



9. Loosen the four bolts and remove the gland plate.

Front View of the System Bypass Cabinet



10. Drill or cut holes for conduits.
11. Install conduits and refit the gland plates.

⚠ DANGER

HAZARD OF ELECTRICAL SHOCK, EXPLOSION, OR ARC FLASH

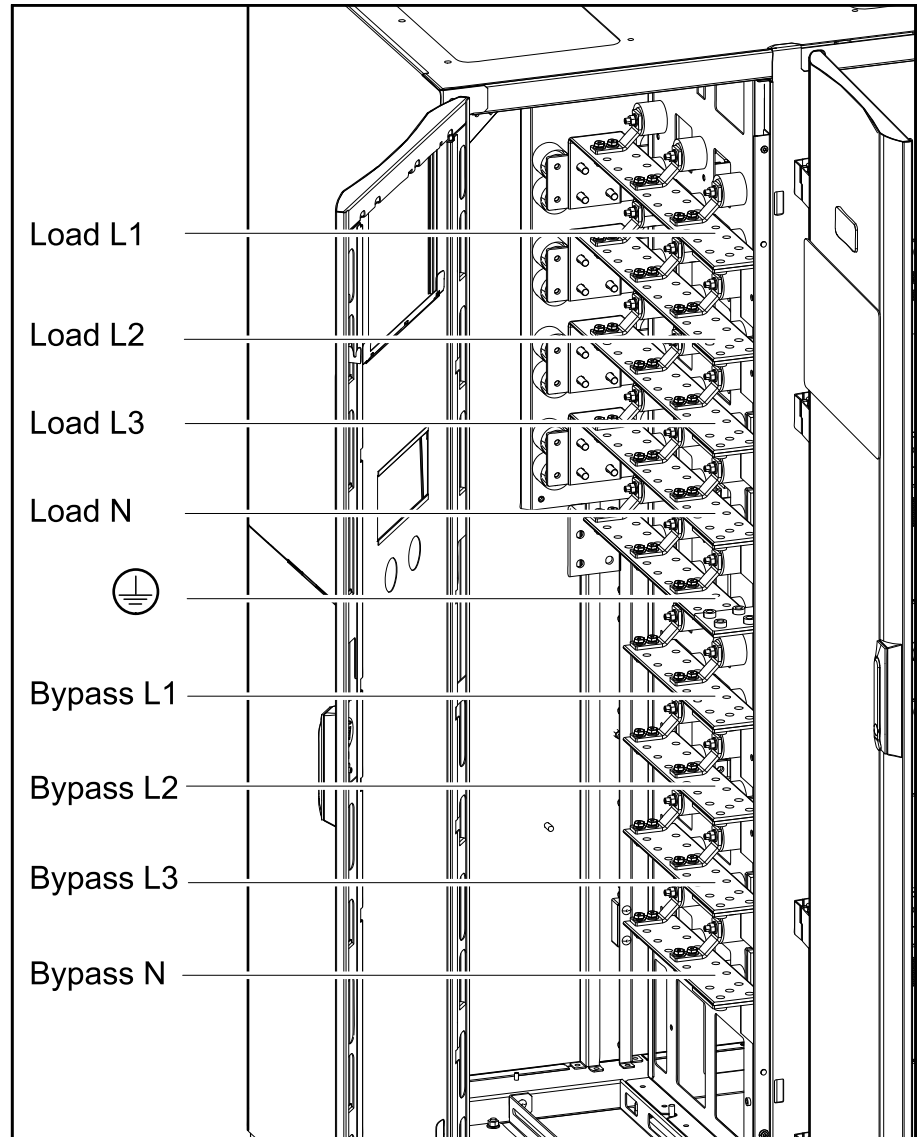
Ensure that there are no sharp edges that can damage the cables.

Failure to follow these instructions will result in death or serious injury.

Connect the Power Cables to the System Bypass Cabinet

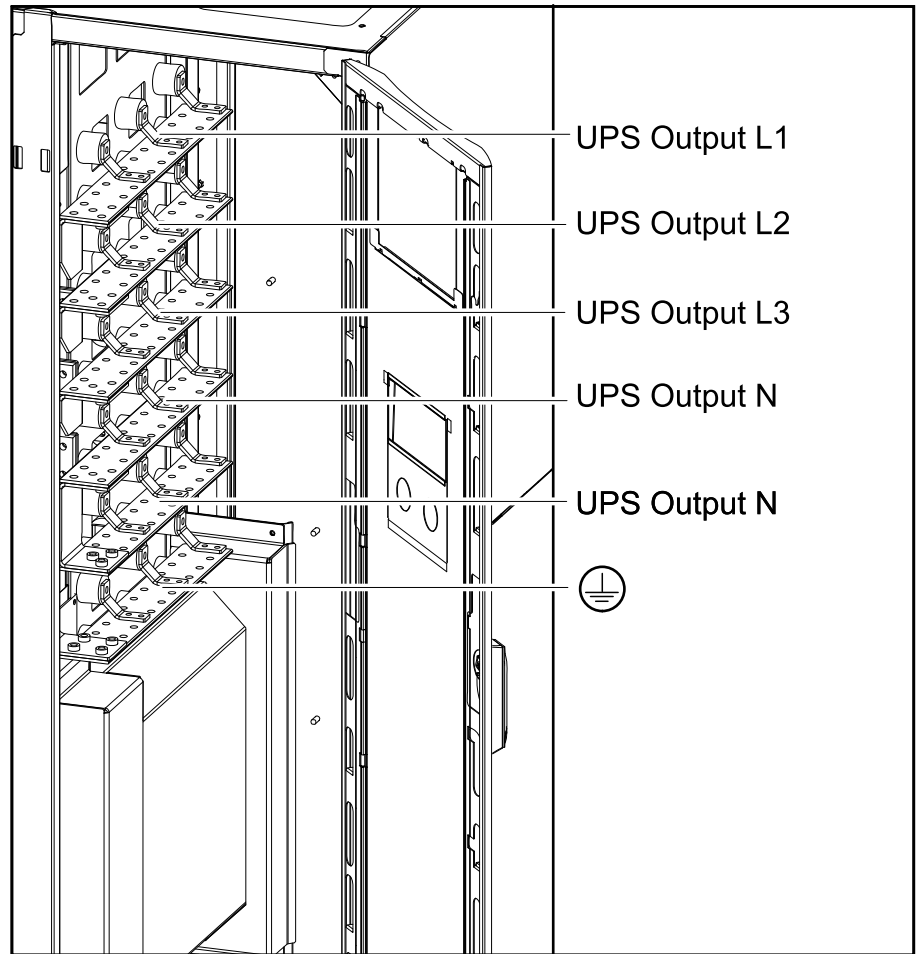
1. Route the bypass and load cables through either the top or bottom left of the system bypass cabinet and connect the cables to the busbars indicated on the illustration.

Front View of the System Bypass Panel



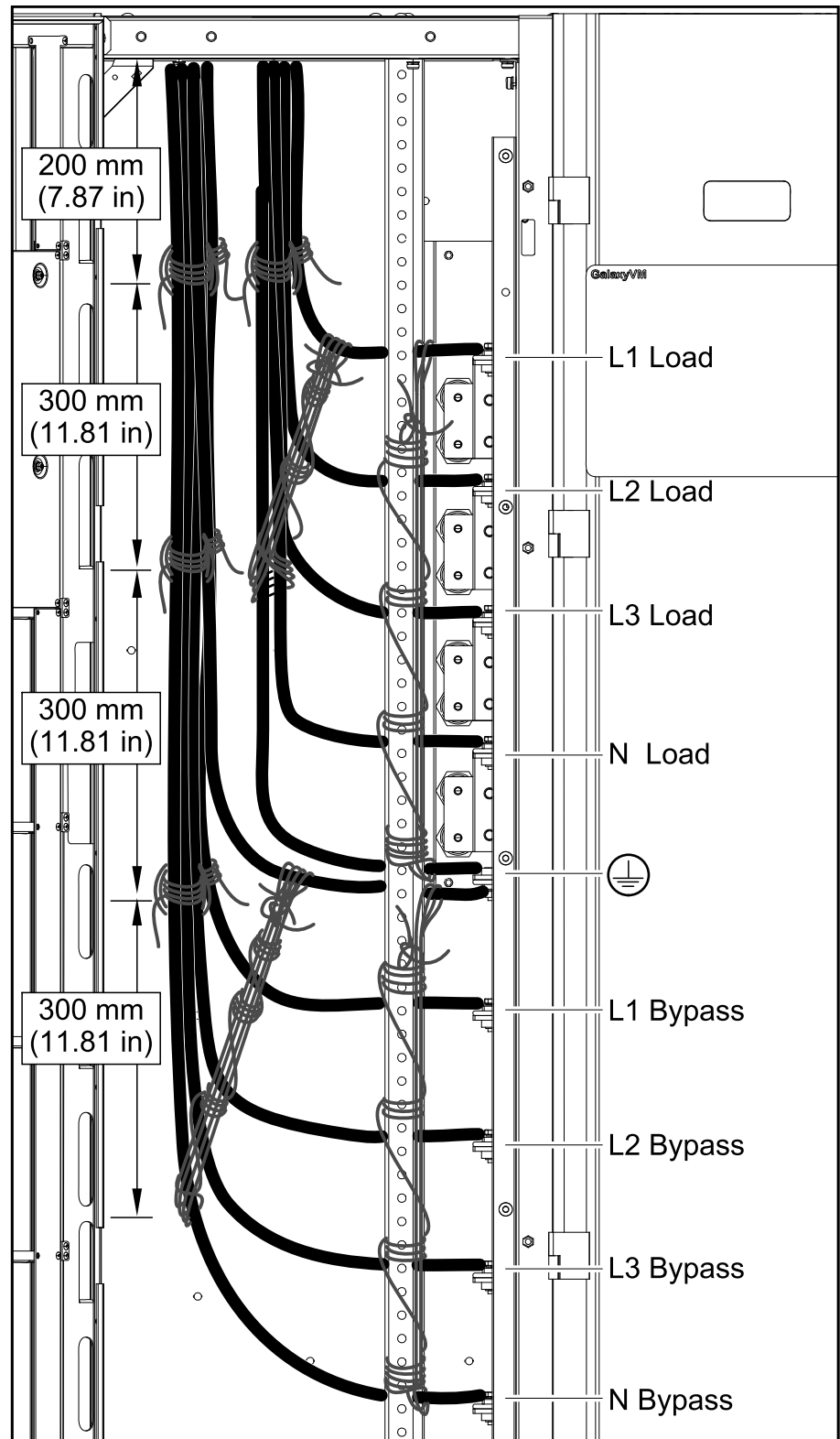
2. Route the UPS output cables through either the top or bottom right of the system bypass cabinet the cables from all UPS units of the system to the busbars in the right side of the system bypass cabinet.

Front View of the System Bypass Cabinet



3. Reinstall the vertical pillars and wrap the cables in both sides of the cabinet as shown on the illustration and by following the procedure in *Restrain the Cables*, page 38.

Front View of the System Bypass Cabinet



4. Reinstall the horizontal bars.
5. Reinstall the dead front panels.
6. Close the front doors.

Connect the Load Bank Cables

NOTE: This procedure is only applicable to system bypass cabinets with load bank breaker.

⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

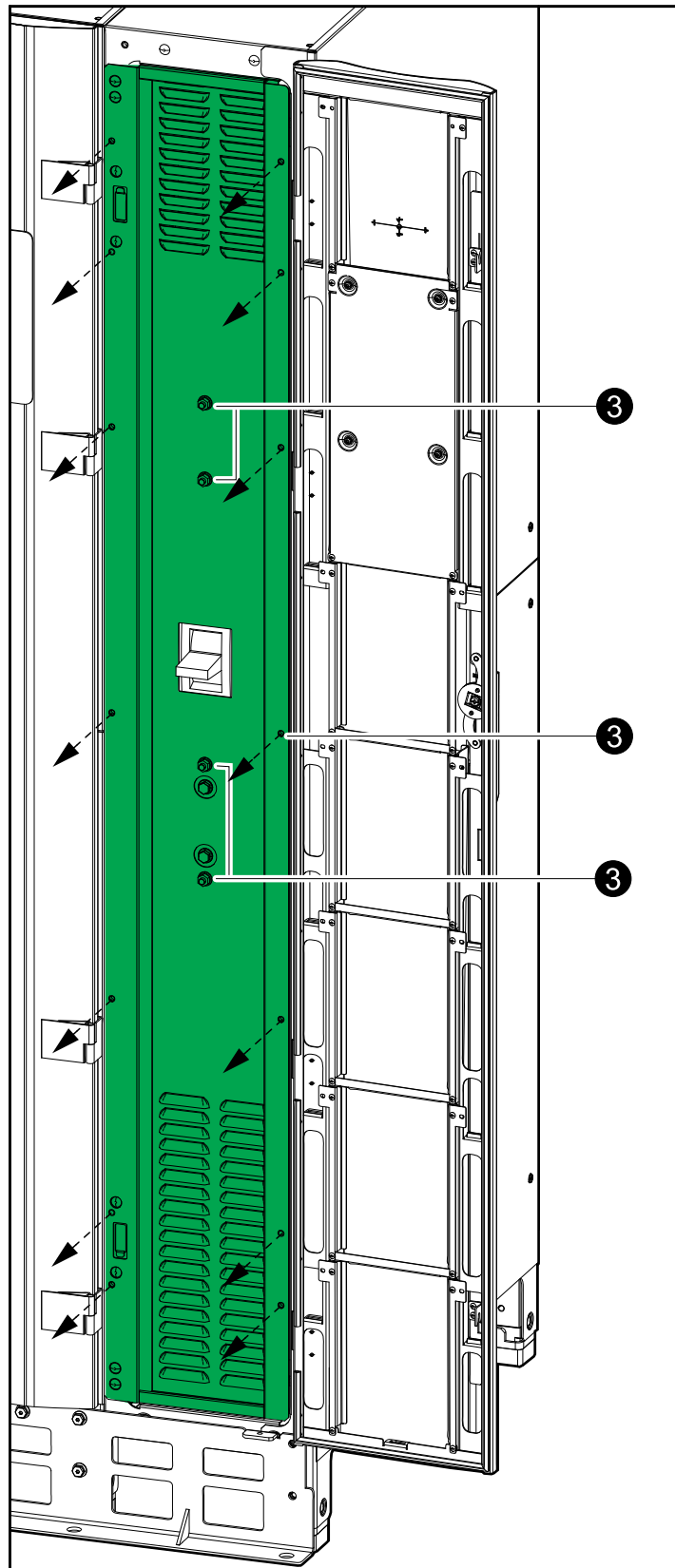
Do not drill or cut holes for cables or conduits with the gland plates installed and do not drill or cut holes in close proximity to the system bypass cabinet.

Failure to follow these instructions will result in death or serious injury.

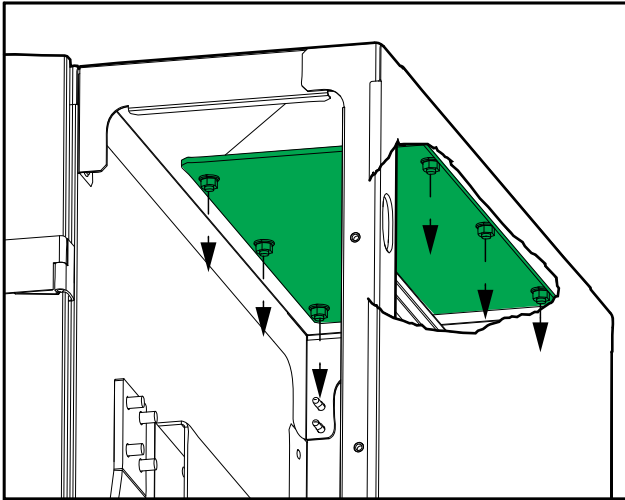
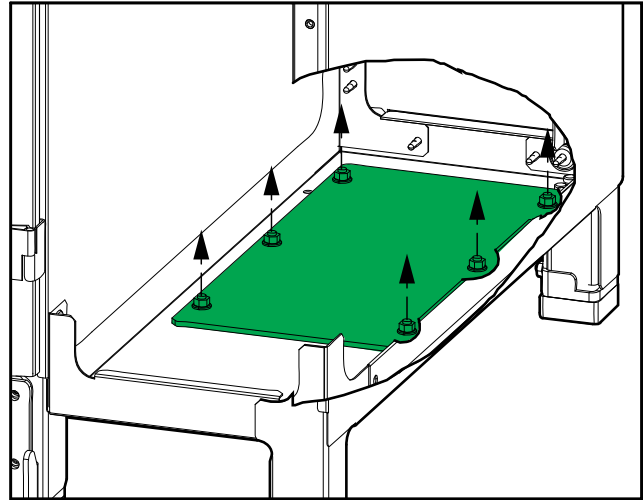
1. Open the front door of the load bank breaker.
2. Log out/tag out the Unit Output Breaker (UOB) for each UPS, and the System Isolaton Breaker (SIB) and the Maintenance Bypass Breaker (MBB) in the system bypass cabinet.

3. Loosen the 14 screws and the four bolts to remove the dead front panel.

Front View of the System Bypass Cabinet with Load Bank Breaker



4. Remove the gland plate in either the top or bottom of the load bank breaker section by loosening the six bolts.

Top Cable Entry**Bottom Cable Entry**

5. Drill or cut holes for conduits.
6. Install conduits and refit the gland plate.

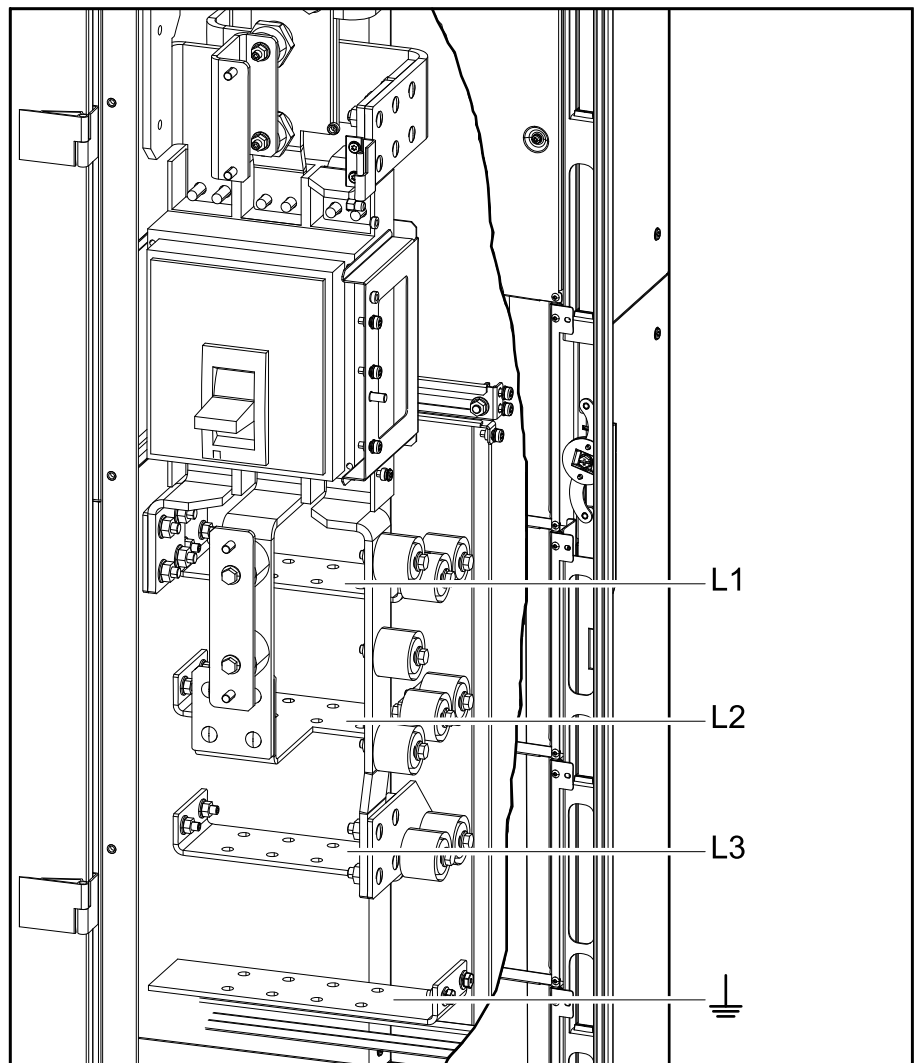
⚠ DANGER**HAZARD OF ELECTRICAL SHOCK, EXPLOSION, OR ARC FLASH**

Ensure that there are no sharp edges that can damage the cables.

Failure to follow these instructions will result in death or serious injury.

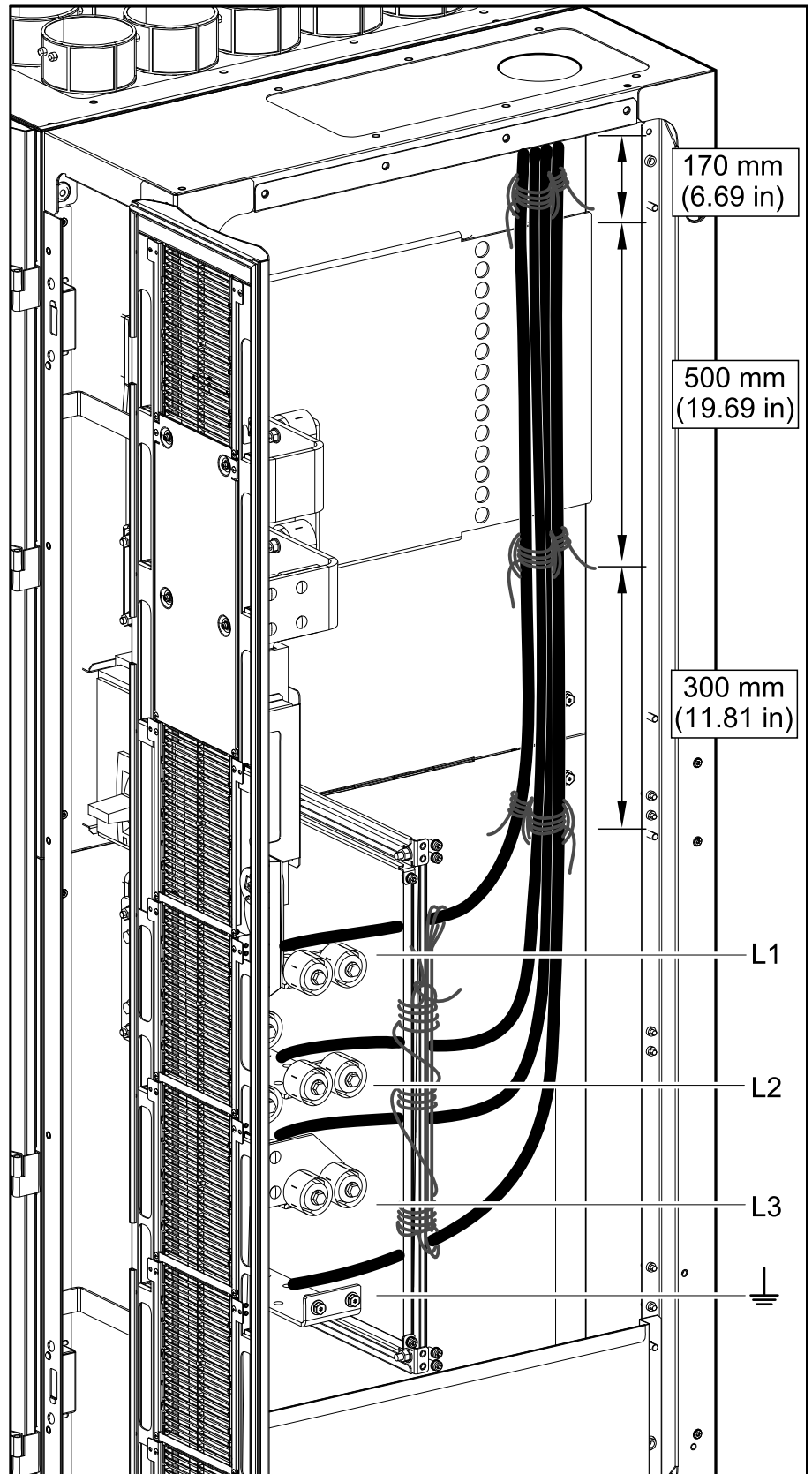
7. Connect the load bank cables to the L1, L2, L3 and ground terminals.

Front View of the System Bypass Cabinet with Load Bank Breaker



8. Wrap the cables as shown on the illustration and by following the procedure in *Restrain the Cables*, page 38.

Front Right View of the System Bypass Cabinet with Load Bank Breaker

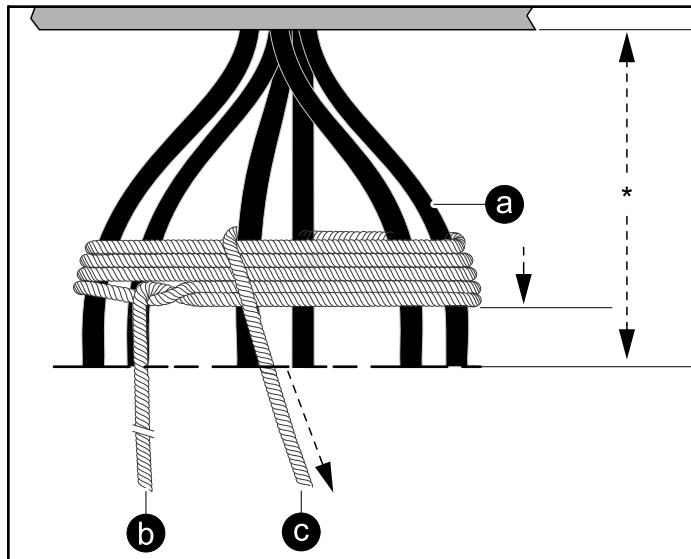


9. Reinstall the dead front panel.
10. Close the front door.

Restrain the Cables

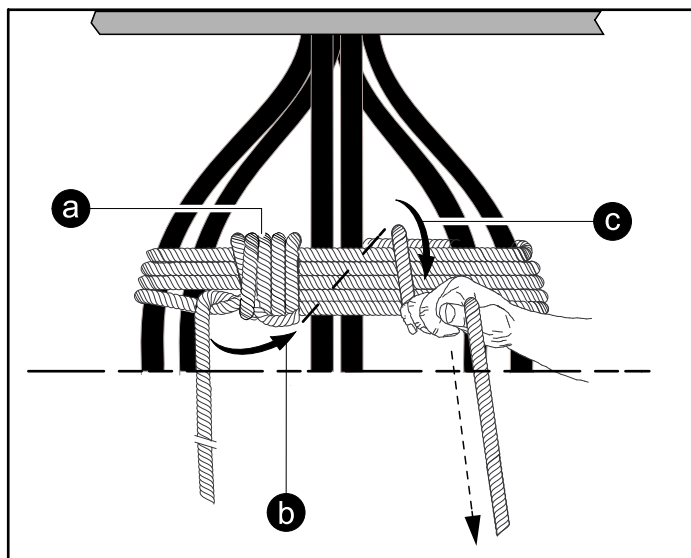
Use 3/8 in nylon rope to restrain the cables.

1. Wrap the rope around the cables (a). Wrap the cables four times leaving 1 m (3 ft) of excess rope at the first end (b). Pull rope (c) taut.

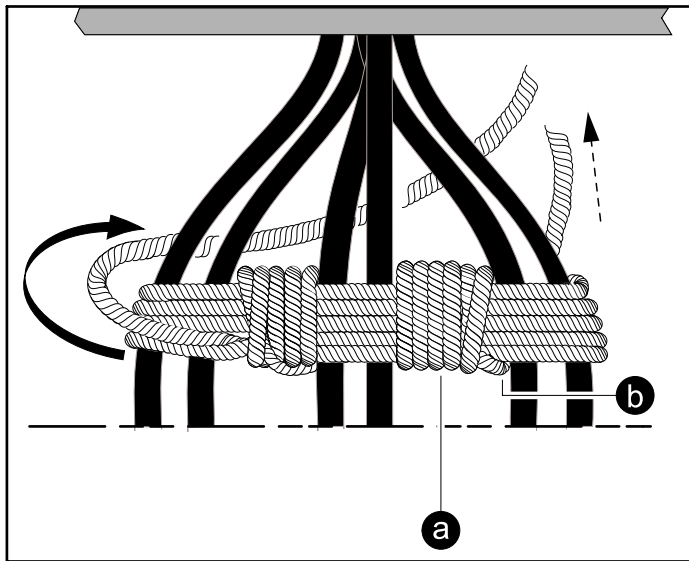


* Unsupported cable length.

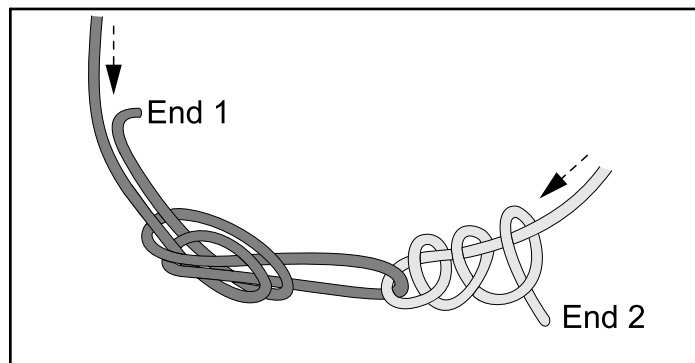
2. Wrap rope (a) several times until the space between the first two sets of cables is completely filled. Weave final rope loop underneath the previous loop (b). Bring rope (c) through the other open area and pull the rope taut.



3. Wrap rope (a) several times until the space between the second and the third set of cables is completely filled. Wave the final rope loop (b) underneath the previous loop as shown. Pull the rope taut.



4. Tie rope End 1 and End 2 together as shown. The rope must be taut. Cut off excess rope and tape ends to prevent fraying.

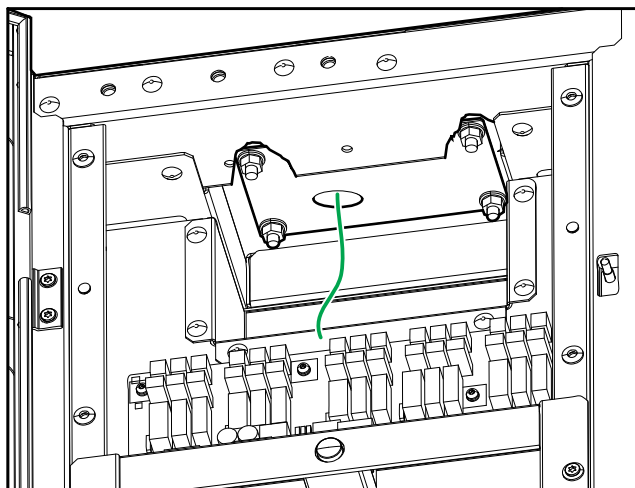


5. Repeat the procedure where needed.

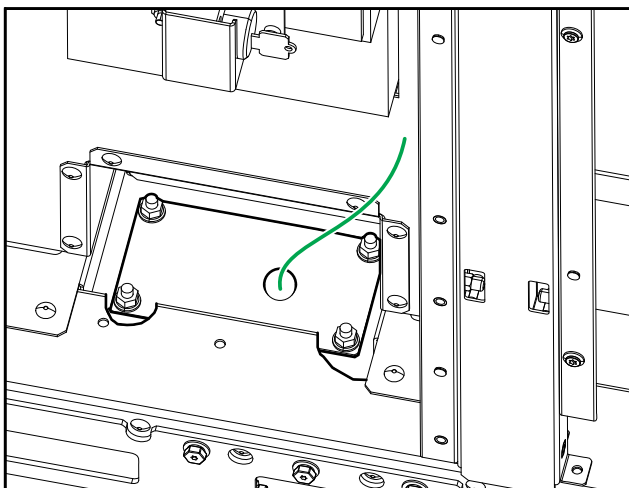
Connect the Signal Cables between the I/O Cabinets and the System Bypass Cabinet

1. Route the signal cables through either the top or the bottom of the system bypass cabinet and to the printed circuit board 640–6507 in the top middle of the system bypass cabinet.

Top Cable Entry

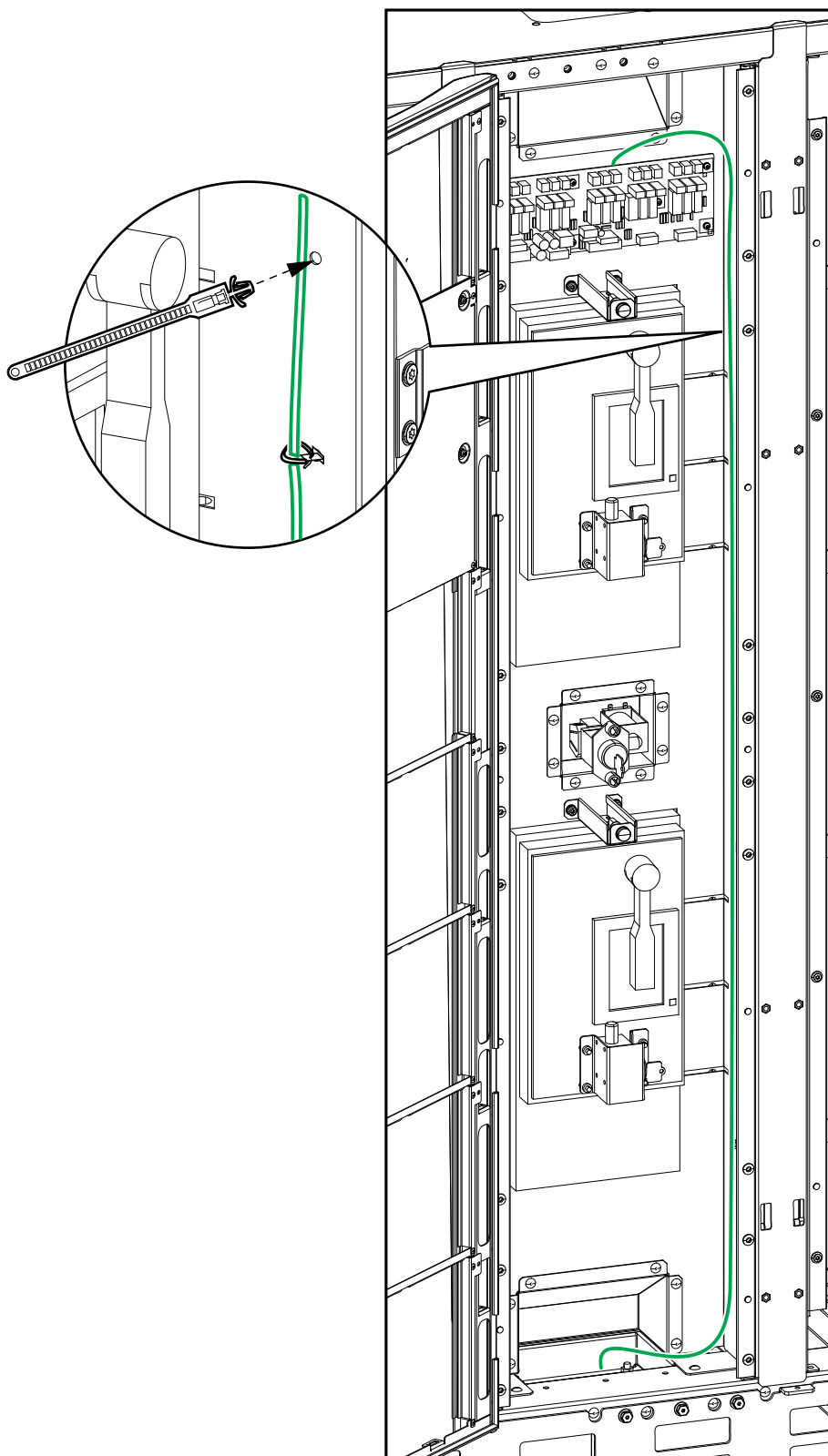


Bottom Cable Entry



2. In bottom entry systems, fasten the signal cables using the provided cable ties.

Front View of the System Bypass Cabinet



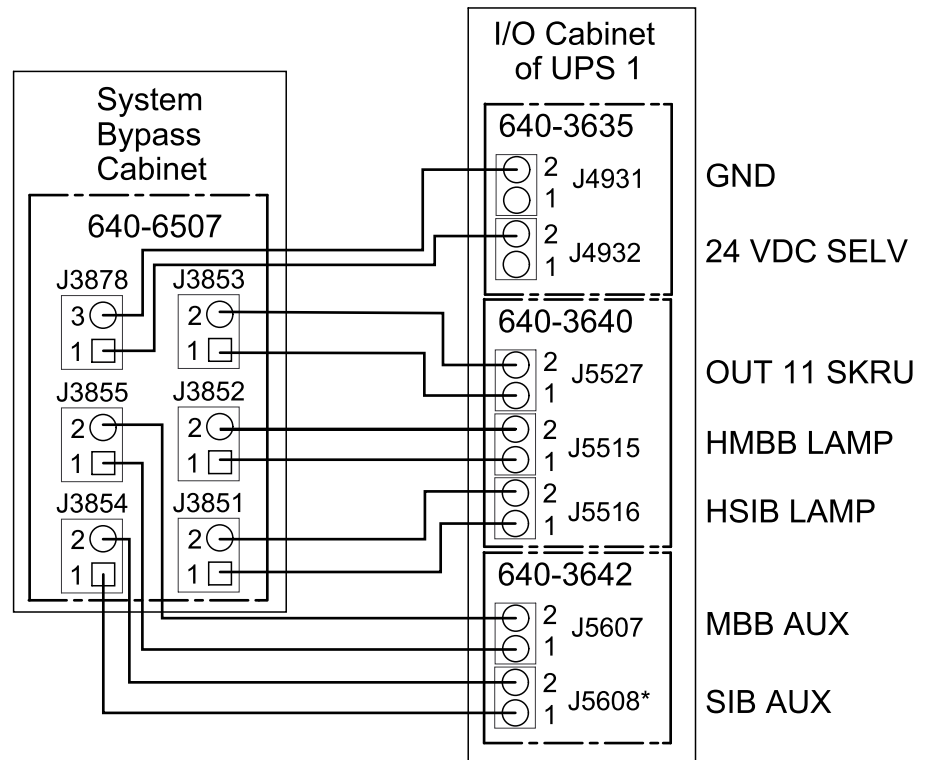
- Depending on the number of parallel UPS units, connect the below signal cables between the system bypass cabinet and the I/O cabinet of each specific UPS:

NOTE: Remove the jumper from J5608 before wiring.

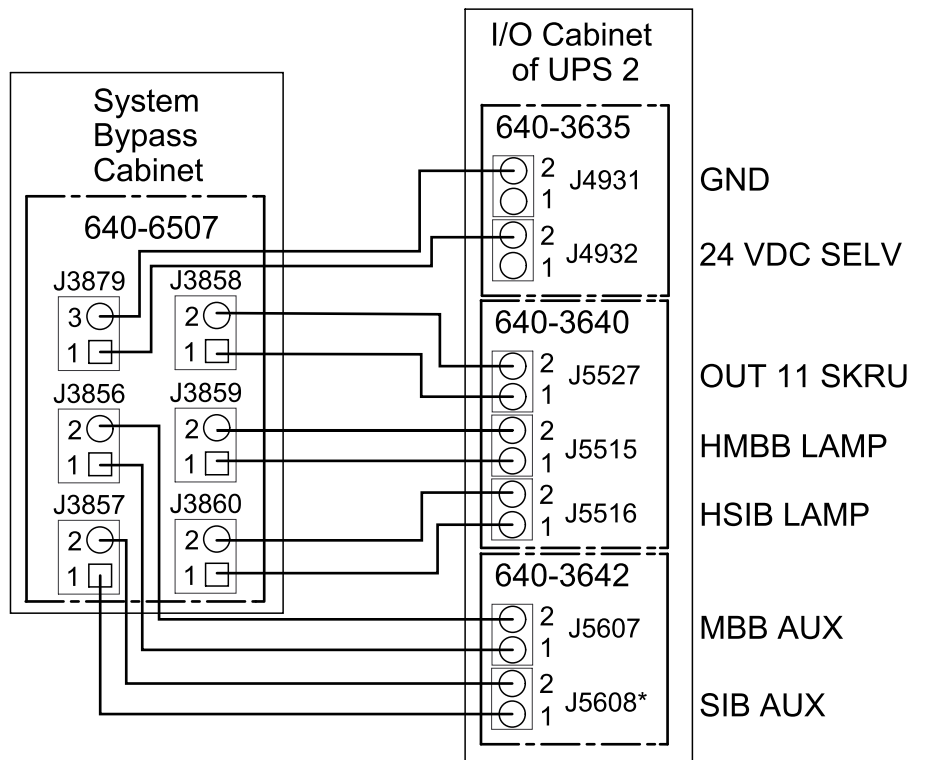
NOTE: All circuits connected must have the same 0 V reference. The signal cables must have a minimum rating of 600 V.

NOTE: All connections are considered Class 2 and SELV. Class 2 and SELV circuits must be isolated from the primary circuitry. Do not connect any circuit unless it can be confirmed that the circuit is Class 2 or SELV.

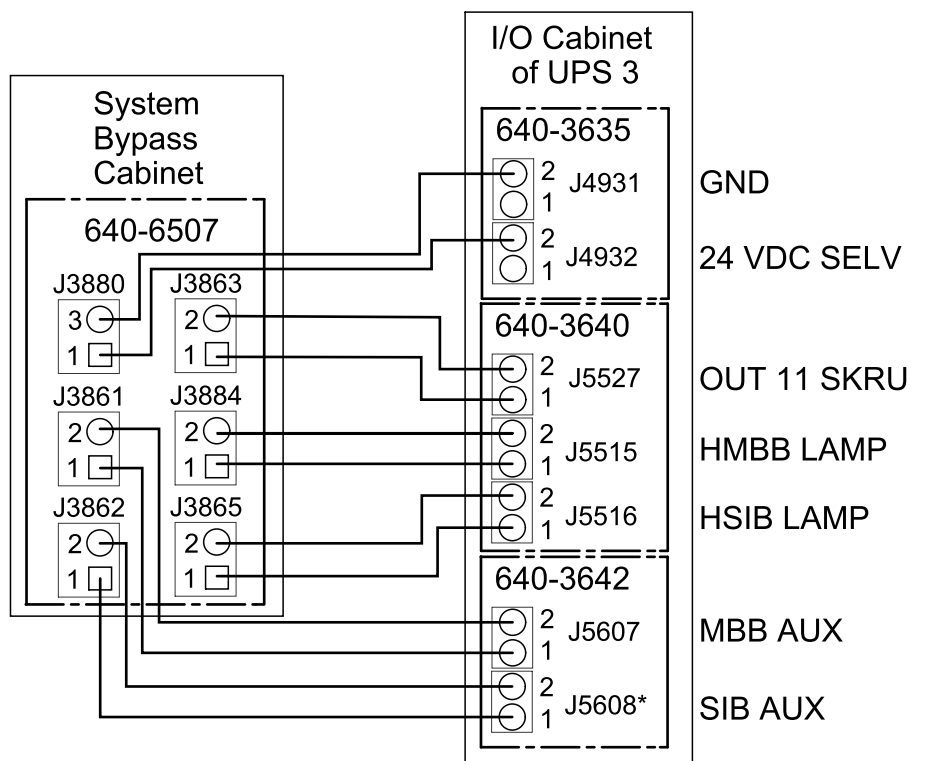
UPS 1 Signal Cables



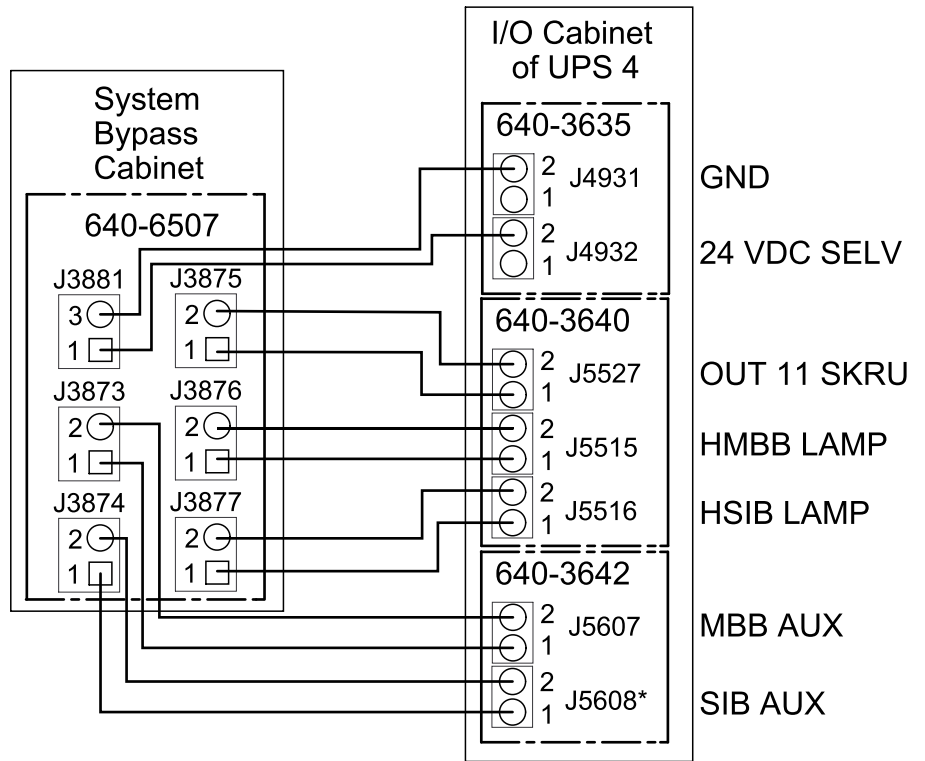
UPS 2 Signal Cables



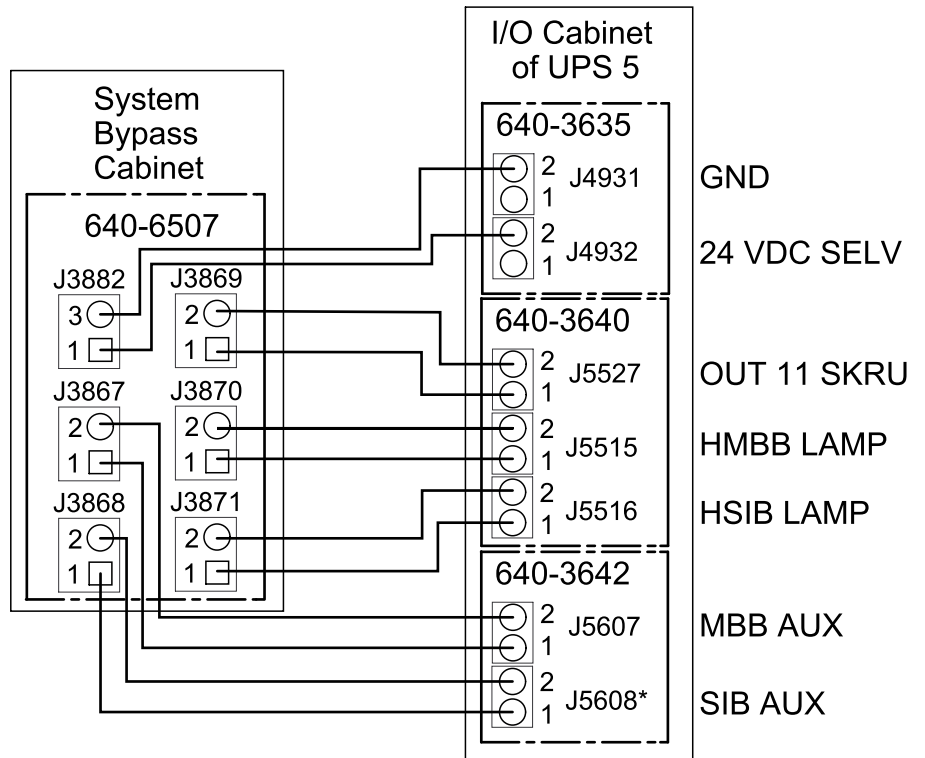
UPS 3 Signal Cables



UPS 4 Signal Cables



UPS 5 Signal Cables



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As standards, specifications, and design change from time to time,
please ask for confirmation of the information given in this publication.

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