# **Galaxy VM**

# 160–225 kVA 480-208 V Output Transformer Cabinet

# Installation

GVMTF225KGF

07/2017





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# Important Safety Instructions — SAVE THESE INSTRUCTIONS

This manual contains important safety instructions for Output Transformer Cabinet Model GVMTF225KGF, that should be followed during installation and maintenance.

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.

## **Symbols in This Manual**

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** 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** 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** 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**

## **A**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.

## 

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.

## 

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.

# 

#### 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.

# **A**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.

# 

#### 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.

# 

#### 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

# 

#### 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.

# **A**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**

### 

#### 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.

# 

#### 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 UL1778 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):

# **A**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.

# **Specifications**

# NOTICE

#### HAZARD OF EQUIPMENT DAMAGE

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

Failure to follow these instructions can result in equipment damage.

## **Specifications for Output Transformer Cabinet**

## NOTICE

#### HAZARD OF EQUIPMENT DAMAGE

- · See submittal drawings for detailed installation instructions.
- The recommended minimum instantaneous trip setting of upstream breaker is 3000 A in case of nuisance tripping caused by inrush current from the transformer.

Failure to follow these instructions can result in equipment damage.

UPS Power Rating	160 kVA	180 kVA	225 kVA			
Transformer type	Dry isolation	Dry isolation				
Insulation class	Class H					
Transformer vector group	Dyn11					
Input connections	3–wire (3PH+G)					
Output connections	4-wire (3PH+N+G)					
Nominal input voltage (V)	480					
Input voltage range (V)	432–528					
Nominal output voltage (V) <sup>1</sup>	208					
Frequency (Hz)	60					
Output power factor	0.9					
Nominal output current for transformer	445	500	625			
Nominal output current when operating with Galaxy VM UPS	417	472	597			

#### **Recommended Output Overcurrent Protection and Output Cable Sizes**

**NOTE:** All wiring must comply with all applicable local and/or national electrical code including Article 240.21 conductor tap rules for overcurrent protection of equipment. The maximum allowable conductor size is 400 kcmil for AC power cables.

Cable sizes in this manual are based on Table 310.15 of the National Electrical Code 2014 (NEC) with the following assertions:

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

1. The unit is not a voltage regulator. The output voltage will track the input voltage

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.

This is a separately derived system. A Grounding Electrode Conductor is required and is sized and installed in accordance with NEC Article 250.30.

	160 kVA			180 kVA		225 kVA			
	80% Rated OCPD	100% Rated OCPD	Cable Size	80% Rated OCPD	100% Rated OCPD	Cable Size	80% Rated OCPD	100% Rated OCPD	Cable Size
Output breaker	600AF/ 450AT	600AF/ 450AT	2 x 4/0 AWG	800AF/ 500AT	600AF/ 500AT	2 x 250 kcmil	800AF/ 640AT	800AF/ 640AT	2 x 400 kcmil
Output fuse	NA	450 A	2 x 4/0 AWG	NA	500 A	2 x 250 kcmil	NA	700 A	2 x 400 kcmil

**NOTE:** Transformer secondary conductors are not considered to be protected by the primary overcurrent protection device. A transformer output overcurrent protective device must be installed for load protection.

#### **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
4/0 AWG	M10	LCA4/0-12-X	CT-720/CD-720-2
250 kcmil	M10	LCA250-12-X	CT-720/CD-720-3
300 kcmil	M10	LCA300-12-X	CT-720/CD-720-4
400 kcmil	M10	LCA400-12-X	CT-720/CD-720-5

# **Output Transformer Cabinet Weights and Dimensions**

Part	Weight kg (lbs)	Height mm (in)	Width mm (in)	Depth mm (in)
480–208 V output transformer cabinet (GVMTF225KGF)	1200 (2640)	1970 (77.56)	800 (31.50)	854 (33.62)

# **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)

## **Environment**

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

# **Overview of Supplied Installation Kits**

# Installation Kit 0H-1017

Part	Used in	Number of units
Rear anchoring bracket	Mount the Rear Anchoring Brackets, page 20	1
Spacer between output transformer cabinet and I/O cabinet		1
Cabinet		
Top baying bracket	Install the Output Transformer Cabinet, page 21	1
Top baying bracket		1
M6 x 16 torx screw with washer	Install the Output Transformer Cabinet, page 21 and Connect the Power Cables, page 28	8
		U
Cable relief	Connect the Power Cables, page 28	16
Cable relief		12
Cable tie		150
Cable support for side panel		1
		ţj
Front anchoring bracket	Mount the Front Anchoring Bracket, page 39	1
		the start and the start

# Remove the Output Transformer Cabinet from the Pallet

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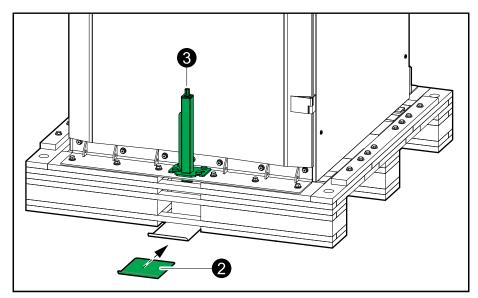
#### HAZARD OF EQUIPMENT DAMAGE

Ensure that the floor is level and can support the weight of the jack when it carries the cabinet.

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

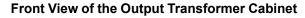
- 1. Take the installation kit 0M-816661 shipped on the I/O cabinet pallet.
- 2. Place the floor protection plate under the pallet on the front of the cabinet.

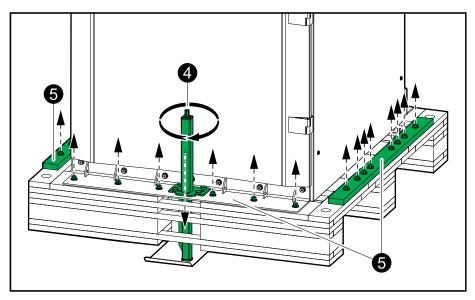
#### Front View of the Output Transformer Cabinet



3. Place the jack from the installation kit in the hole in the transport bracket on the front of the cabinet.

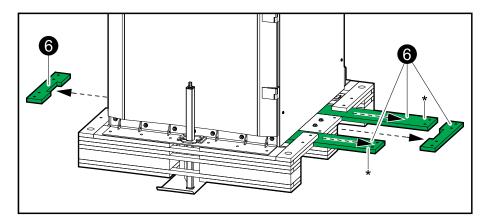
4. Use a drilling machine with the provided hexagonal socket to activate the jack, slide it into position in the bracket, and to lift the pallet to the top position.



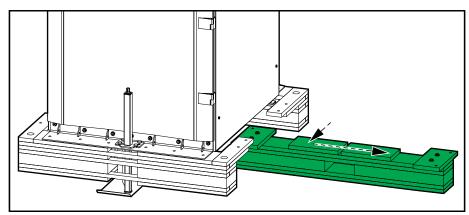


- 5. Loosen and remove the bolts shown on the drawing that fasten the transport bracket and the wooden plates to the pallet.
- 6. Remove the four indicated pallet parts. Save the pallet parts marked with \* for step 10.

#### Front View of the Output Transformer Cabinet

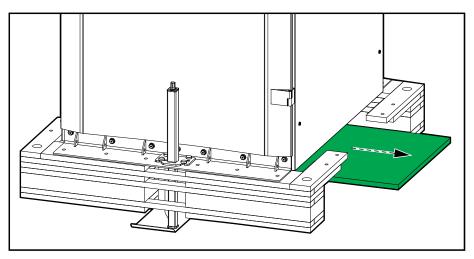


7. Remove the middle pallet part.

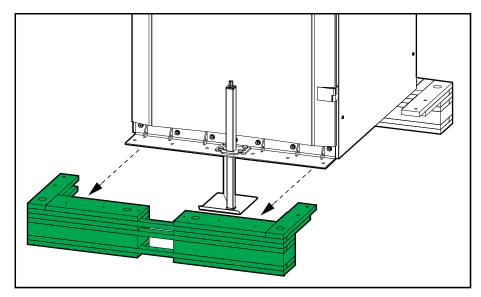


8. Remove the plate.

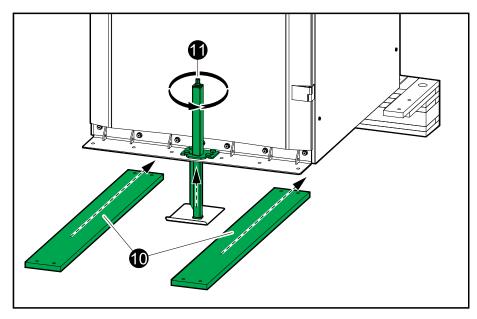
#### Front View of the Output Transformer Cabinet



9. Remove the front pallet part.



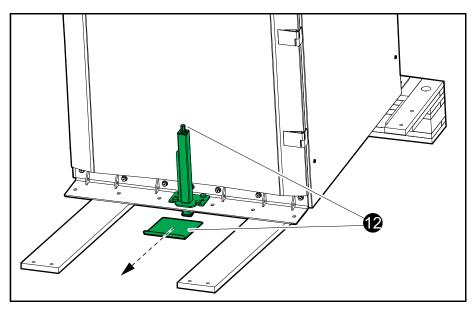
10. Place the pallet parts from step 6 as a support under the metal bracket.



#### Front View of the Output Transformer Cabinet

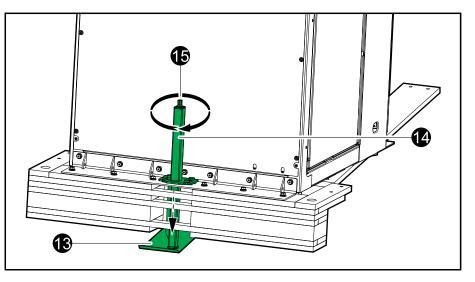
- 11. Lower the cabinet down onto the support using the jack and the drilling machine.
- 12. Remove the floor protection plate and the jack.

#### Front View of the Output Transformer



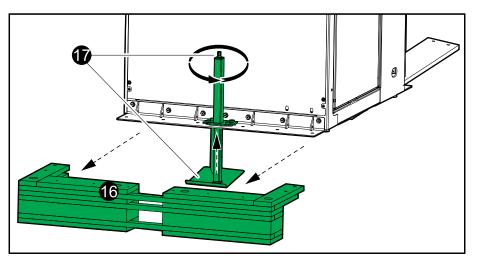
13. Place the floor protection plate under the pallet on the rear of the cabinet.

#### Rear View of the Output Transformer Cabinet



- 14. Place the jack in the hole in the transport bracket on the rear of the pallet.
- 15. Use a drilling machine with the provided hexagonal socket to activate the jack, slide it into position in the bracket, and to lift the pallet to the top position.
- 16. Loosen the screws and remove the rear pallet part.

#### Rear View of the Output Transformer Cabinet



# **A**WARNING

#### HAZARD OF SERIOUS INJURY

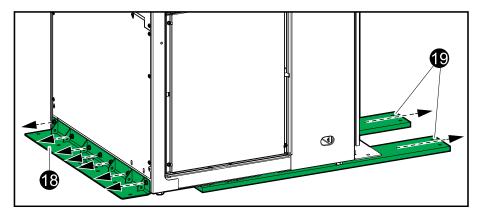
Do not put your hands or feet under the pallet while removing the wooden plate.

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

- 17. Use the jack to lower the cabinet onto the floor until the wheels connect with the floor. Remove the jack and the floor protection plate.
- 18. Remove the rear anchor.

19. Wheel the cabinet away and remove the remaining pallet parts. The cabinet can now be moved on the built-in wheels to the installation area.

#### Side View of the Output Transformer Cabinet



# **A**WARNING

#### HAZARD OF TILTING

Be carefully of uneven floors and doorsteps when moving the cabinet on its wheels to avoid overbalancing and tipping the cabinet.

# Mount the Rear Anchoring Brackets

## 

#### HAZARD OF ELECTRICAL SHOCK, EXPLOSION OR ARC FLASH

Leave the UPS system covered while creating anchoring holes to prevent dust or other conductive parts in the system.

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

# **A**WARNING

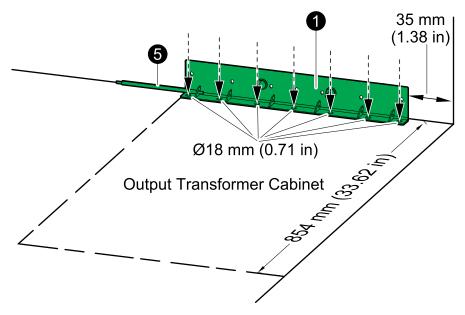
#### HAZARD OF TILTING

All front and rear anchoring brackets must be installed.

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

1. Place the rear anchoring bracket from the installation kit 0H-1017 in the final installation area and mark the anchoring hole locations on the floor.

**NOTE:** The minimum distance from the wall to the the right side of the bracket is 35 mm (1.38 in) to allow for the installation of the transformer cabinet.



2. Drill anchoring holes according to national and local requirements.

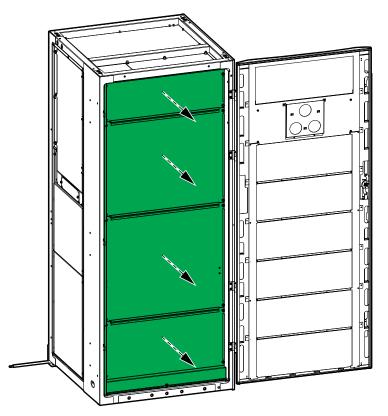
NOTE: A minimum of seven bolts are required.

- 3. Mount the rear anchoring bracket to the floor. Bolts are not supplied.
- 4. Use a bubble-leveler to ensure that the bracket is level. Use the provided leveling shims if necessary.
- 5. Mount the spacer from the installation kit 0H-1017.
- 6. Install the rear anchoring bracket of the I/O cabinet and power cabinet as described in the UPS installation manual.

# Install the Output Transformer Cabinet

- 1. Push the output transformer cabinet into position against the rear anchoring bracket the output transformer cabinet will connect to the conic outcroppings on the bracket.
- 2. Open the front door of the output transformer cabinet and remove the four dead front panels.

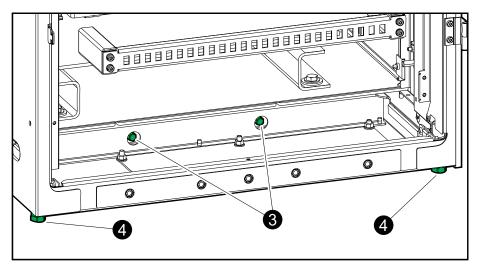
#### Front View of the Output Transformer Cabinet



3. Attach the output transformer cabinet to the rear anchoring bracket by tightening the two bolts on the front of the output transformer cabinet.

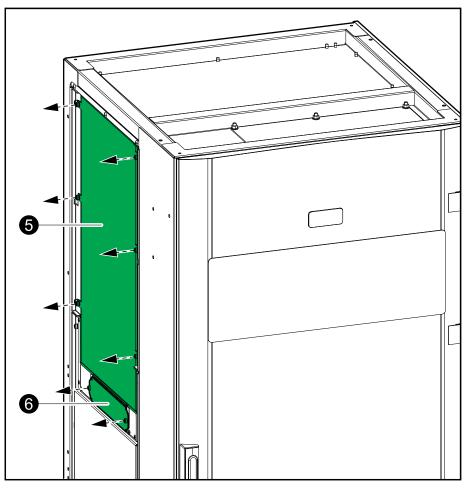
**NOTE:** It might be necessary to use a hammer or a similar tool to ensure that the rod engages with the rear anchoring bracket.

#### Front View of the Output Transformer Cabinet



4. Lower the two cabinet front feet until they connect with the floor – use a bubble-leveler to ensure that the cabinet is level.

5. Remove the cable cover from the left side of the output transformer cabinet.

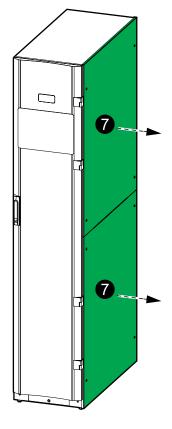


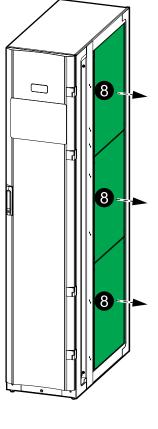
#### Front View of the Output Transformer Cabinet

6. Remove the interconnection plate from the left side of the output transformer cabinet and save the plate for later use.

7. Remove the two side panels from the right side of the I/O cabinet.

#### Front View of the I/O Cabinet



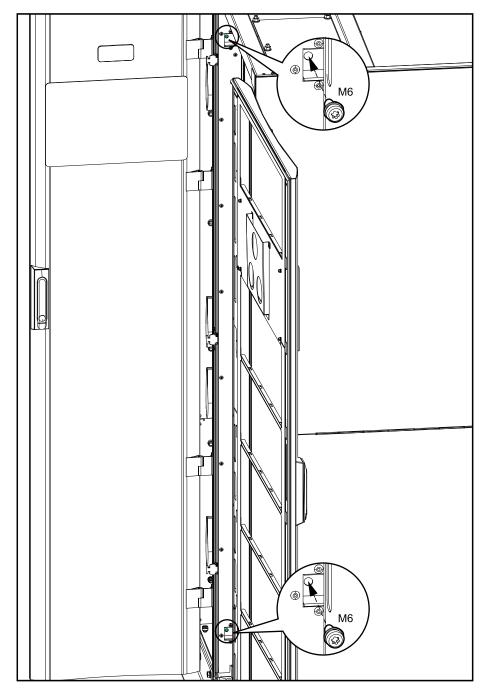


- 8. Remove the three side covers from the right side of the I/O cabinet.
- 9. Position and fasten the I/O cabinet as described in the UPS installation manual.

**NOTE:** In 1+1 parallel systems, the 1+1 I/O cabinet must be connected to the output transformer cabinet.

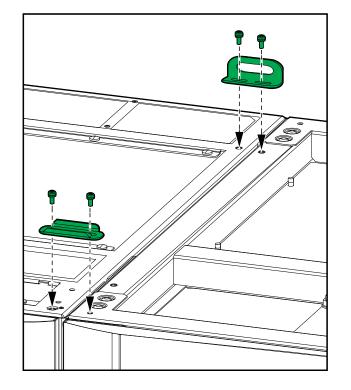
#### Front View of the I/O Cabinet

10. Mount the two M6 screws between the output transformer cabinet and the I/O cabinet from the output transformer cabinet side.



Side View of the Output Transformer Cabinet and the I/O Cabinet

11. Install the two top baying brackets on top of the cabinets and attach with two M6 screws each.



#### Top View of the I/O Cabinet and the Output Transformer Cabinet

# Prepare for Cables in a Top Cable Entry System

## **A**DANGER

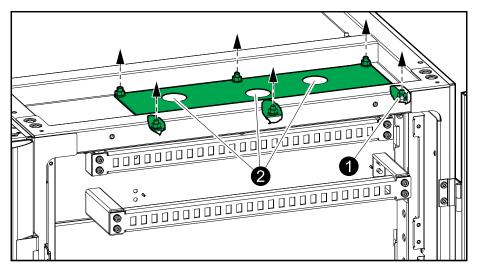
#### HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

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. Loosen the bolts from the top gland plate of the output transformer cabinet and remove the top gland plate.

#### Front View of the Output Transformer Cabinet



- 2. Drill or cut holes for conduits in the gland plate.
- 3. Install conduits and reinstall the gland plate.

# 

HAZARD OF ELECTRICAL SHOCK, EXPLOSION, OR ARC FLASH

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

# Prepare for Cables in a Bottom Cable Entry System

# **A**DANGER

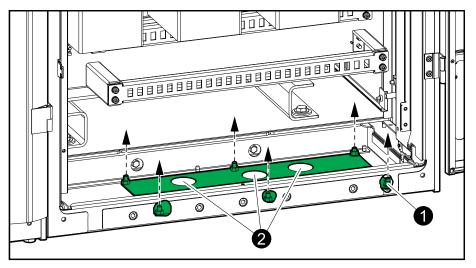
#### HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

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. Loosen the bolts from the gland plate in the bottom of the output transformer cabinet and remove the gland plate.

Front View of the Output Transformer Cabinet



- 2. Drill or cut holes for conduits in the gland plate.
- 3. Install conduits and reinstall the gland plate.

# **A**DANGER

HAZARD OF ELECTRICAL SHOCK, EXPLOSION, OR ARC FLASH

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

# **Connect the Power Cables**

**NOTE:** This procedure only describes the connection of the power cables between the output transformer cabinet and the I/O cabinet. Refer to the UPS installation manual for information on connection of the UPS power cables.

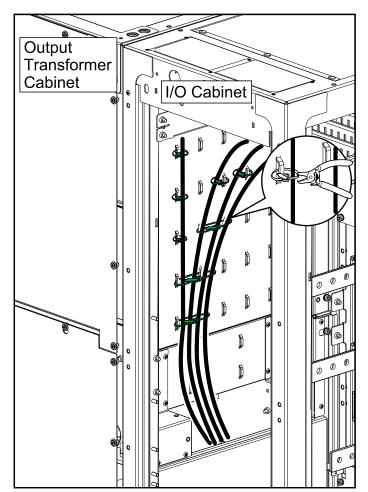
1. Release the power cables from the transformer cabinet one by one.

# **A**CAUTION

#### HAZARD OF INJURY

Hold tightly on to the cables when cutting the cable ties to avoid getting struck by the cable lugs.

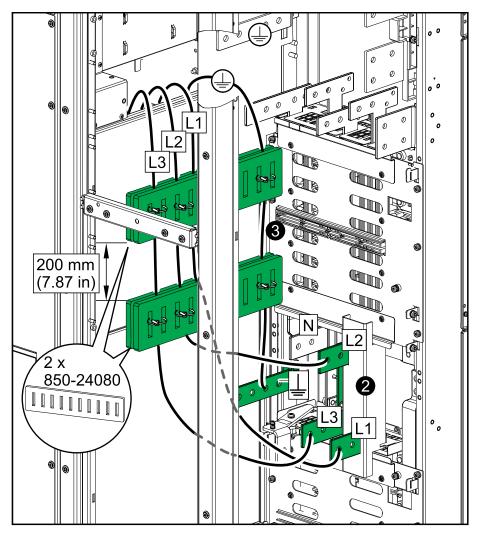
Failure to follow these instructions can result in injury or equipment damage.



Rear View of the Output Transformer Cabinet and the I/O Cabinet

2. Connect the power cables L1, L2, L3, and PE from the output transformer cabinet to the output terminals in the I/O cabinet.

**NOTE:** The illustration below shows the single I/O cabinet. Refer to the UPS installation manual for information on the location of the output terminals in the 1+1 I/O cabinet.



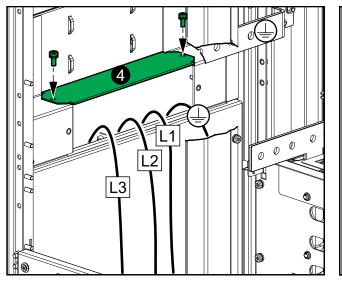
#### Rear View of the Output Transformer Cabinet and the Single I/O Cabinet

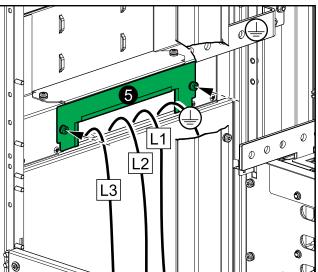
3. Fasten the cables to the provided cable reliefs using the cable ties.

4. Install the interconnection plate removed in *Install the Output Transformer Cabinet, page 21* on top of the cable channel.

the I/O Cabinet

Rear View of the Output Transformer Cabinet and the I/O Cabinet

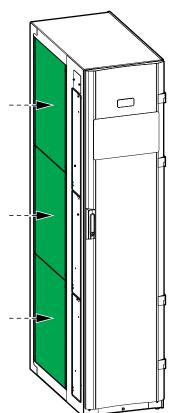




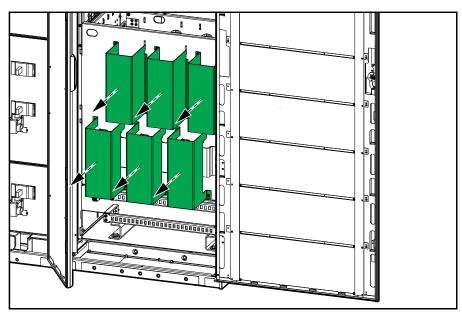
**Rear View of the Output Transformer Cabinet and** 

- 5. Install the cable support from installation kit 0H-1017 over the cables.
- 6. Connect the input, bypass, and battery cables to the I/O cabinet as described in the UPS installation manual.
- 7. Install the three covers on the left side of the I/O cabinet.

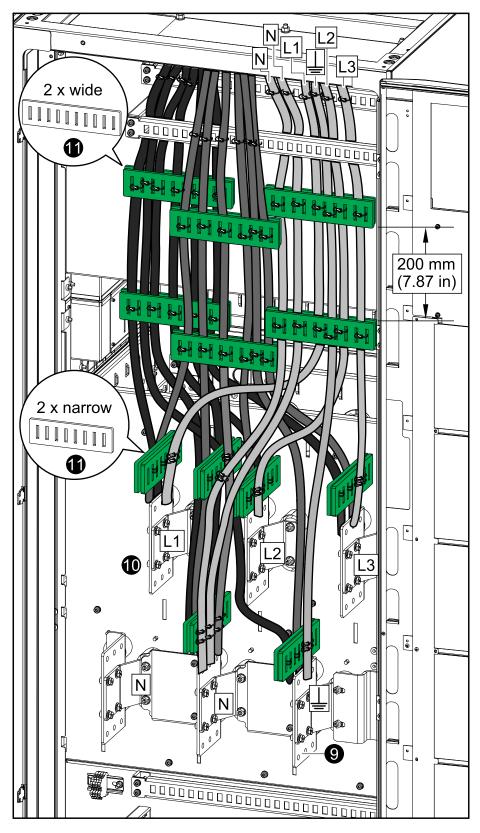
#### Front View of the I/O Cabinet



8. Remove the plastic covers in front of the output terminals.

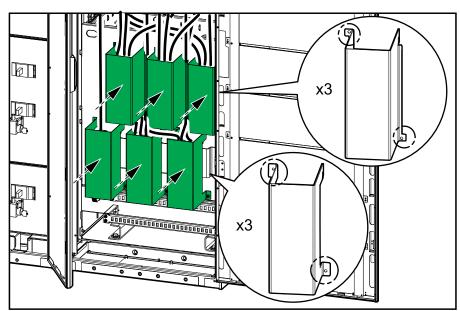


9. Connect the grounding electrode conductor.



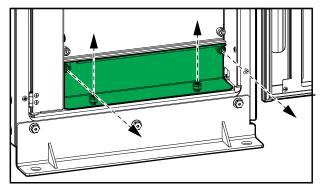
- 10. Separate the output cables into three groups and connect to the output terminals in the transformer cabinet.
- 11. Fasten the three groups of cables to the provided cable reliefs using the cable ties.

12. Reinstall the plastic covers over the output terminals.

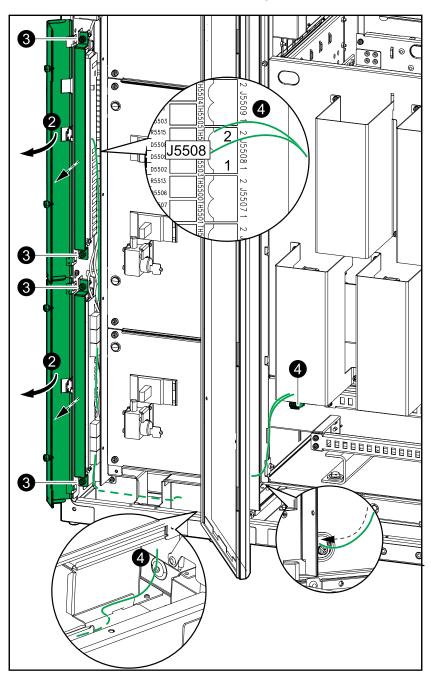


# **Connect the Signal Cable in a Single System**

1. Loosen the thumb screws and remove the gland plate in the bottom of the I/O cabinet.



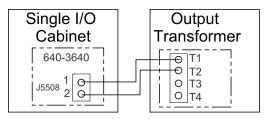
2. Loosen the thumb screws and open the cover in left side of the I/O cabinet.



Front View of the I/O Cabinet and the Output Transformer Cabinet

- 3. Loosen the thumb screws of the bottom and middle interface boards and pull out the boards.
- 4. Route the signal cable 0W10733 (for the temperature switch) that is connected in the bottom of the output transformer cabinet through the side into the I/O cabinet to the middle interface board. Connect the cables to J5508.

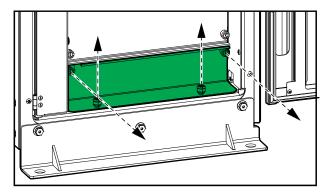
#### **Overview of Signal Cables**



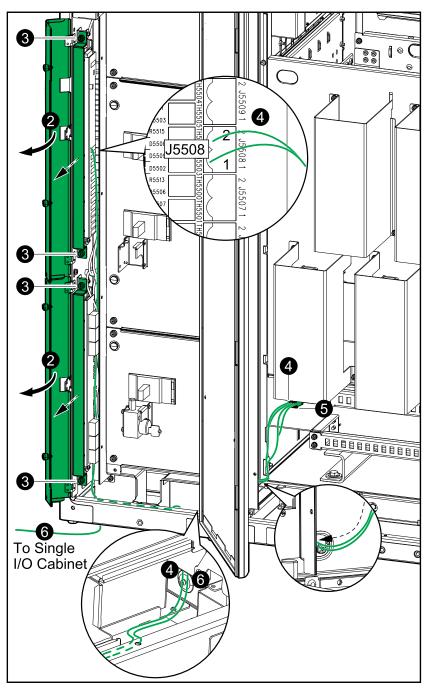
- 5. Reinstall the gland plate in the bottom of the I/O cabinet.
- 6. Push the interface boards back into position and tighten the thumb screws.
- 7. Close the cover in the left side of the I/O cabinet and tighten the thumb screws.

# **Connect Signal Cables in a 1+1 Redundant System**

1. Loosen the thumb screws and remove the gland plates in the bottom of the single I/O cabinet and the 1+1 I/O cabinet.



2. Loosen the thumb screws and open the covers in left side of the I/O cabinets.

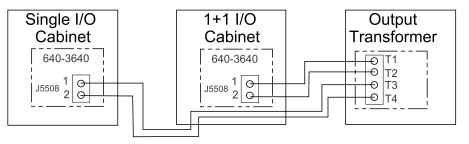


#### Front View of the 1+1 I/O Cabinet and the Output Transformer Cabinet

3. Loosen the thumb screws of the bottom and middle interface boards and pull out the boards.

 Route the signal cable 0W10733 (for the temperature switch) that is connected in the bottom of the output transformer cabinet through the side into the 1+1 I/O cabinet to the middle interface board. Connect the cables to J5508.

#### **Overview of Signal Cables**



- 5. Create an additional signal cable and connect to the terminals 3 and 4 in the terminal block in the bottom of the output transformer cabinet.
- 6. Route the signal cable through the side into the 1+1 I/O cabinet, then through the bottom or top of the 1+1 I/O cabinet and to the single I/O cabinet. Connect the signal cables to J5508 in the single I/O cabinet.

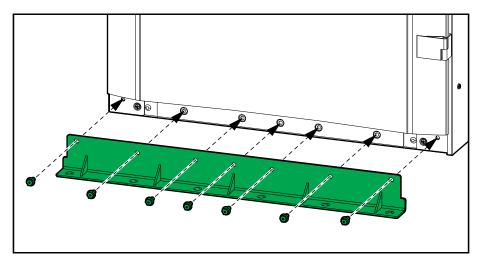
**NOTE:** Refer to the UPS installation manual for information on how to route signal cables through the top and bottom of the I/O cabinet.

- 7. Reinstall the gland plates in the bottom of the single I/O cabinet and the 1+1 I/ O cabinet.
- 8. Push the interface boards back into position and tighten the thumb screws.
- 9. Close the covers in the left side of the single I/O cabinet and the 1+1 I/O cabinet and tighten the thumb screws.

# **Mount the Front Anchoring Bracket**

**NOTE:** The front anchoring brackets must be mounted on the power cabinet and I/ O cabinet before the front anchoring bracket is mounted on the output transformer cabinet.

1. Attach the front anchoring bracket from the installation kit 0H-1017 to the front of the output transformer cabinet using the bolts that attached the system to the pallet during shipment.



#### Front View of the Output Transformer Cabinet

2. Anchor the front anchoring bracket to the floor.

NOTE: Floor anchoring bolts are not supplied.

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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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