Galaxy VS

IP52 Kit for UPS

Installation

GVSOPT033

9/2020

www.se.com

Legal Information

IEC UL

Go to
IEC: *https://www.productinfo.schneider-electric.com/galaxyvs_iec/* or
UL: *https://www.productinfo.schneider-electric.com/galaxyvs_ul/*
or scan the QR code above for digital experience and translated manuals.

Table of Contents

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.

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. If additional construction work is needed in the installation room after the UPS has been installed, turn off the UPS and cover the UPS with the protective packaging bag the UPS was delivered in.

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 UPS 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 utility/mains supply. Before installing or servicing the UPS system, ensure that the units are OFF and that utility/mains and batteries are disconnected. Wait five minutes before opening the UPS to allow the capacitors to discharge.
- A disconnection device (e.g. disconnection circuit breaker or switch) must be installed to enable isolation of the system from upstream power sources in accordance with local regulations. This disconnection device must be easily accessible and visible.
- 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.

Battery Safety

⚠⚠DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- Battery circuit breakers must be installed according to the specifications and requirements as defined by Schneider Electric.
- Servicing of batteries must only be performed or supervised by qualified personnel knowledgeable of batteries and the required precautions. Keep unqualified personnel away from batteries.
- Disconnect charging source prior to connecting or disconnecting battery terminals.
- Do not dispose of batteries in a fire as they can explode.
- Do not open, alter, or mutilate batteries. Released electrolyte is harmful to the skin and eyes. It may be toxic.

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

⚠⚠DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

Batteries can present a risk of electric shock and high short-circuit current. The following precautions must be observed when working on batteries

- Remove watches, rings, or other metal objects.
- Use tools with insulated handles.
- Wear protective glasses, gloves and boots.
- Do not lay tools or metal parts on top of batteries.
- Disconnect the charging source prior to connecting or disconnecting battery terminals.
- Determine if the battery is inadvertently grounded. If inadvertently grounded, remove source from ground. Contact with any part of a grounded battery can result in electric shock. The likelihood of such shock can be reduced if such grounds are removed during installation and maintenance (applicable to equipment and remote battery supplies not having a grounded supply circuit).

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

⚠⚠DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

When replacing batteries, always replace with the same type and number of batteries or battery packs.

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

NOTICE

RISK OF EQUIPMENT DAMAGE

- Wait until the system is ready to be powered up before installing batteries in the system. The time duration from battery installation until the UPS system is powered up must not exceed 72 hours or 3 days.
- Batteries must not be stored more than six months due to the requirement of recharging. If the UPS system remains de-energized for a long period, Schneider Electric recommends that you energize the UPS system for a period of 24 hours at least once every month. This charges the batteries, thus avoiding irreversible damage.

Failure to follow these instructions can result in equipment damage.

Load Derating for UPS with IP52 Kit Installed

NOTICE

RISK OF OVERHEATING

- Galaxy VS IP52 UPS may have load deratings/temperature deratings.
- Read all instructions in the installation manual before installing or working on this UPS.

Failure to follow these instructions can result in equipment damage.

380/400/415/480 V UPS

UPS rating	Maximum continuous load at 30 °C (86 °F)	Maximum continuous load at 35 °C (95 °F)	Maximum continuous load at 40 °C (104 °F)	Operating temperature and load derating
20 kW	20 kW	20 kW	20 kW	0 °C to 40 °C (32 °F to 104 °F): No derating.
30 kW	30 kW	30 kW	30 kW	0 °C to 40 °C (32 °F to 104 °F): No derating.
40 kW	40 kW	34 kW	30 kW	0 °C to 30 °C (32 °F to 86 °F): No derating; 30 °C to 40 °C (32 °F to 104 °F): Reduce load with 3% for every °C.
40 kW (N+1 power module)	40 kW	40 kW	40 kW	0 °C to 40 °C (32 °F to 104 °F): No derating.
50 kW	40 kW	34 kW	30 kW	40 kW maximum load on UPS. Output overload alarm settings need to be adjusted by Schneider Electric Service.
50 kW (N+1 power module)	50 kW	50 kW	50 kW	0 °C to 40 °C (32 °F to 104 °F): No derating.
60 kW	60 kW	60 kW	50 kW	0 °C to 35 °C (32 °F to 95 °F): No derating; 35 °C to 40 °C (95 °F to 104 °F): Reduce load with 3% for every °C.
60 kW (N+1 power module)	60 kW	60 kW	60 kW	0 °C to 40 °C (32 °F to 104 °F): No derating.
80 kW	80 kW	68 kW	50 kW	0 °C to 30 °C (32 °F to 86 °F): No derating; 30 °C to 40 °C (86 °F to 104 °F): Reduce load with 3% for every °C.
80 kW (N+1 power module)	80 kW	80 kW	80 kW	0 °C to 40 °C (32 °F to 104 °F): No derating.
100 kW	80 kW	68 kW	50 kW	80 kW maximum load on UPS. Output overload alarm settings need to be adjusted by Schneider Electric Service.
100 kW (N+1 power module)	100 kW	100 kW	84 kW	0 °C to 35 °C (32 °F to 95 °F): No derating; 35 °C to 40 °C (95 °F to 104 °F): Reduce load with 3% for every °C.
120 kW	120 kW	102 kW	84 kW	0 °C to 30 °C (32 °F to 86 °F): No derating; 30 °C to 40 °C (86 °F to 104 °F): Reduce load with 3% for every °C.
150 kW	120 kW	102 kW	84 kW	120 kW maximum load on UPS. Output overload alarm settings need to be adjusted by Schneider Electric Service.

200/208/220 V UPS

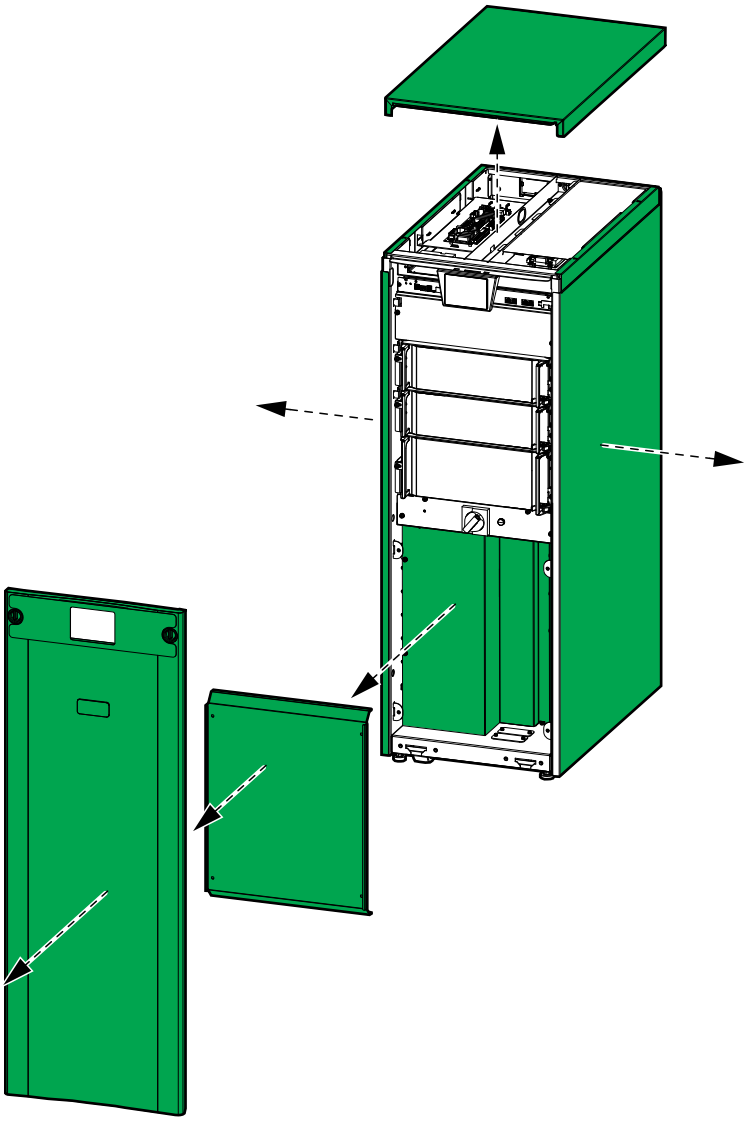
UPS rating	Maximum continuous load at 30 °C (86 °F)	Maximum continuous load at 35 °C (95 °F)	Maximum continuous load at 40 °C (104 °F)	Operating temperature and load derating
10 kW	10 kW	10 kW	10 kW	0 °C to 40 °C (32 °F to 104 °F): No derating.
15 kW	15 kW	15 kW	15 kW	0 °C to 40 °C (32 °F to 104 °F): No derating.
20 kW	20 kW	17 kW	15 kW	0 °C to 30 °C (32 °F to 86 °F): No derating; 30 °C to 40 °C (86 °F to 104 °F): Reduce load with 3% for every °C.
20 (N+1 power module)	20 kW	20 kW	20 kW	0 °C to 40 °C (32 °F to 104 °F): No derating.
25 kW	20 kW	17 kW	15 kW	20 kW maximum load on UPS. Output overload alarm settings need to be adjusted by Schneider Electric Service.
25 (N+1 power module)	25 kW	25 kW	25 kW	0 °C to 40 °C (32 °F to 104 °F): No derating.
30 kW	30 kW	30 kW	25 kW	0 °C to 35 °C (32 °F to 95 °F): No derating; 35 °C to 40 °C (95 °F to 104 °F): Reduce load with 3% for every °C.
40 kW	40 kW	34 kW	25 kW	0 °C to 30 °C (32 °F to 86 °F): No derating; 30 °C to 40 °C (86 °F to 104 °F): Reduce load with 3% for every °C.
40 (N+1 power module)	40 kW	40 kW	40 kW	0 °C to 40 °C (32 °F to 104 °F): No derating.
50 kW	40 kW	34 kW	25 kW	40 kW maximum load on UPS. Output overload alarm settings need to be adjusted by Schneider Electric Service.
50 (N+1 power module)	50 kW	50 kW	50 kW	0 °C to 35 °C (32 °F to 95 °F): No derating; 35 °C to 40 °C (95 °F to 104 °F): Reduce load with 3% for every °C.
60 kW	60 kW	51 kW	42 kW	0 °C to 30 °C (32 °F to 86 °F): No derating; 30 °C to 40 °C (86 °F to 104 °F): Reduce load with 3% for every °C.
75 kW	60 kW	51 kW	42 kW	60 kW maximum load on UPS. Output overload alarm settings need to be adjusted by Schneider Electric Service.

Install the IP52 Kit on the UPS

NOTE: The IP52 kit can only be installed on a UPS with bottom cable entry.

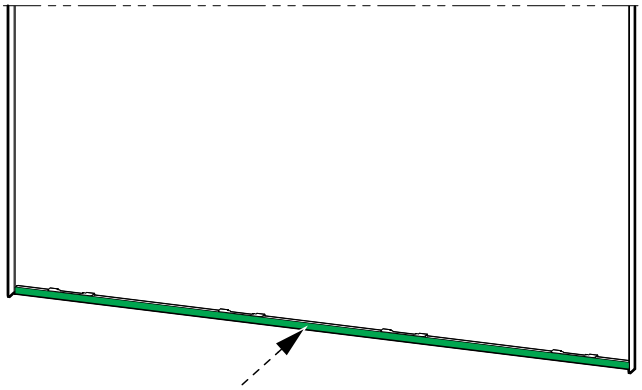
NOTE: This procedure describes installing the IP52 kit **after** power cabling and signal cabling is completed. Rear access is required to install the IP52 kit on the UPS.

1. Follow the UPS installation manual to install the UPS.
2. Remove the front panel, the lower front plate, the transparent cover, the top cover, the left side panel (if present), and the right side panel.

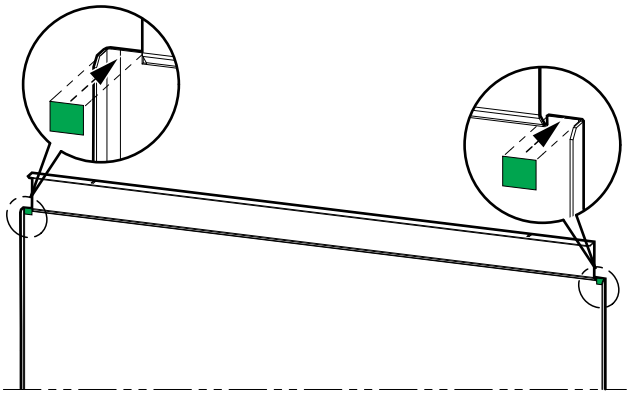


3. Mount the provided flat gaskets on the side panel(s) as close to the bottom and top inside edges as possible for optimal sealing.

Inside View of the Bottom Part of the Side Panel

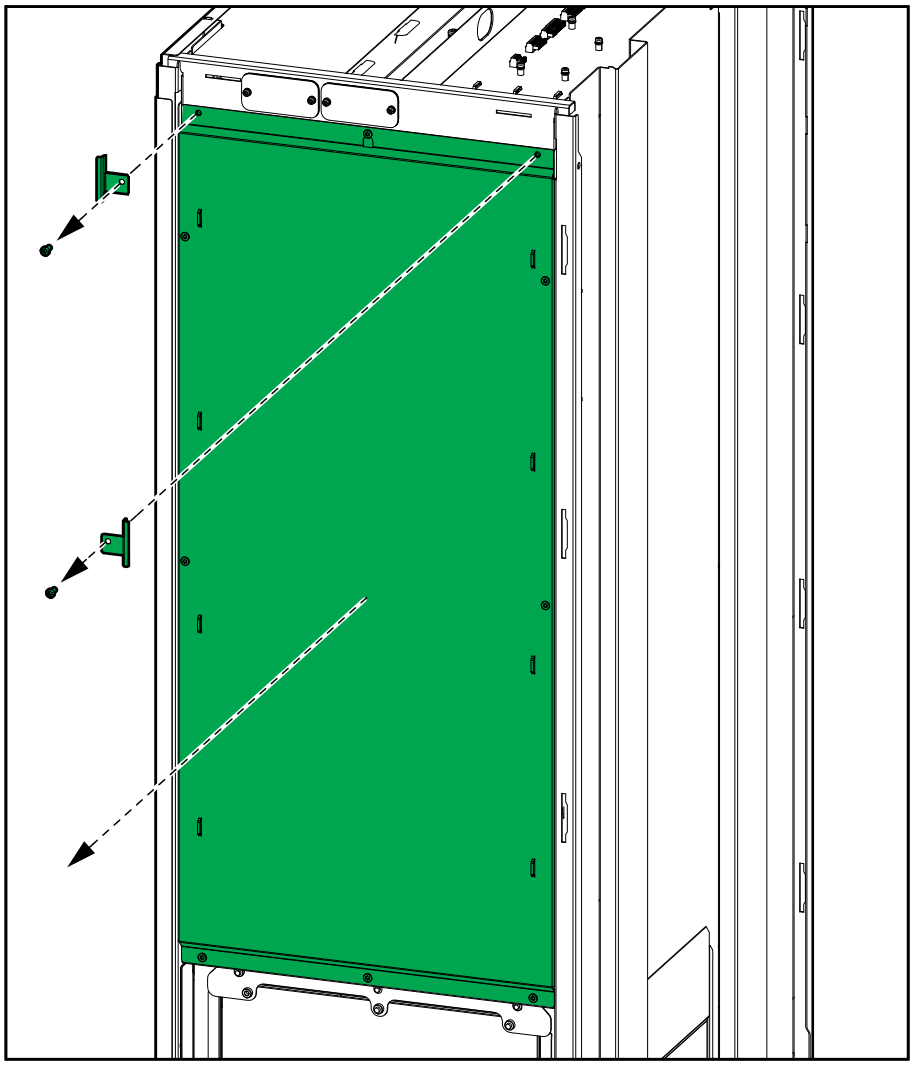


Inside View of the Top Part of the Side Panel

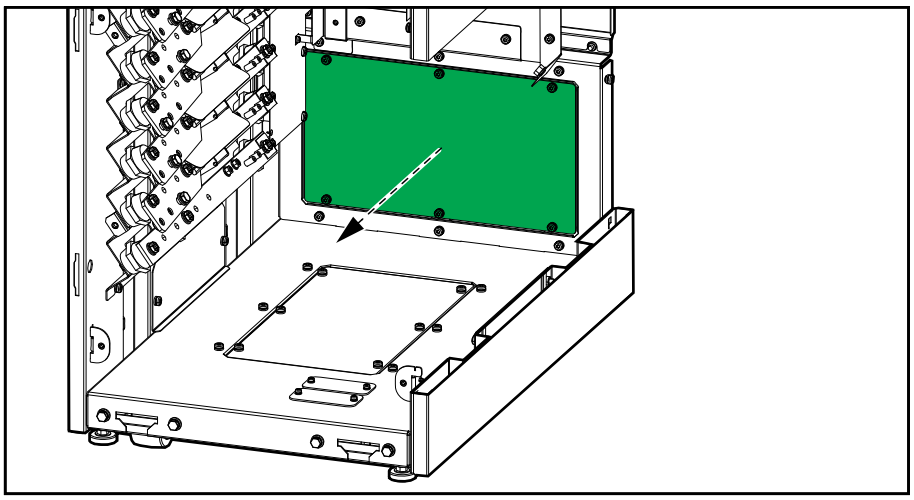


4. Reinstall the side panel(s) on the UPS.
5. Remove the two brackets and the rear cover. Save the two brackets and the flat head screws and discard the rear cover.

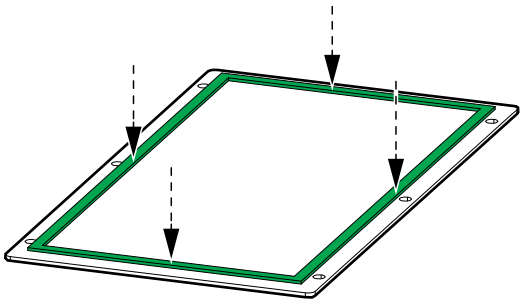
Rear View



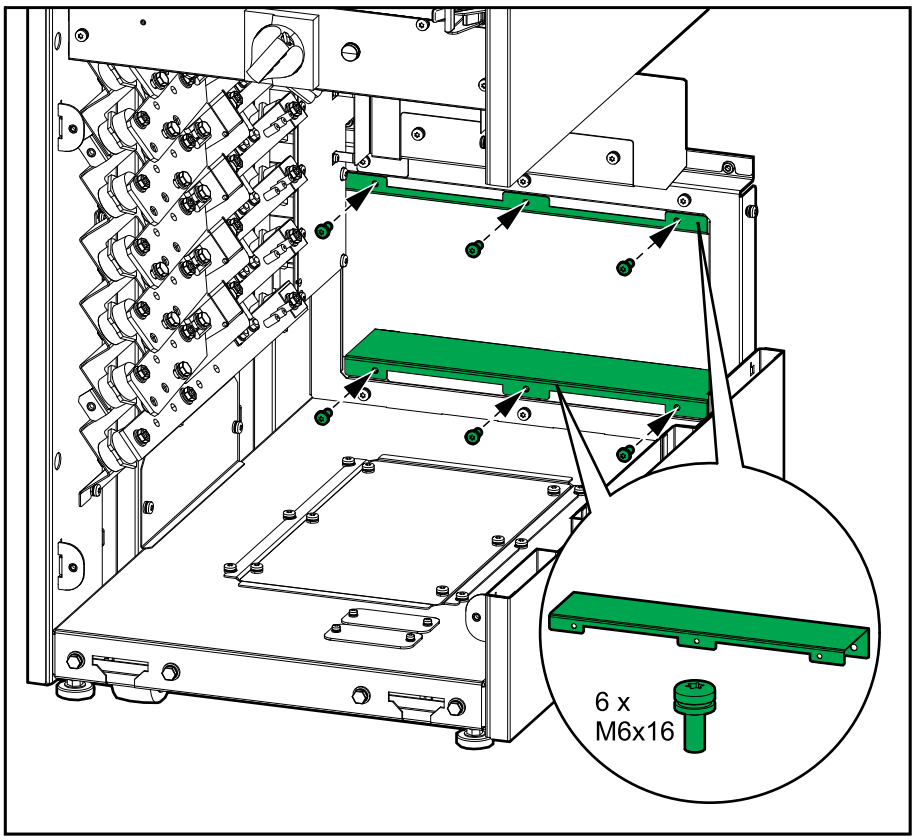
6. From inside the UPS, remove the rear gland plate.



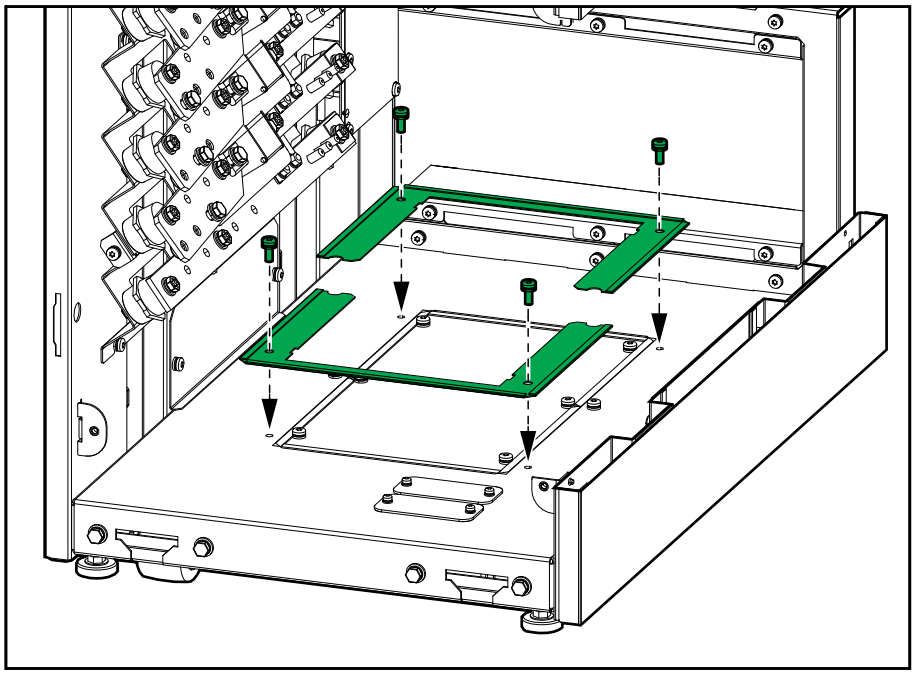
7. Mount the flat gasket 12.7 mm from the edges on the rear gland plate for optimal sealing and save the rear gland plate for later installation.



8. From inside the UPS, install the two shown parts with the six provided M6 screws.

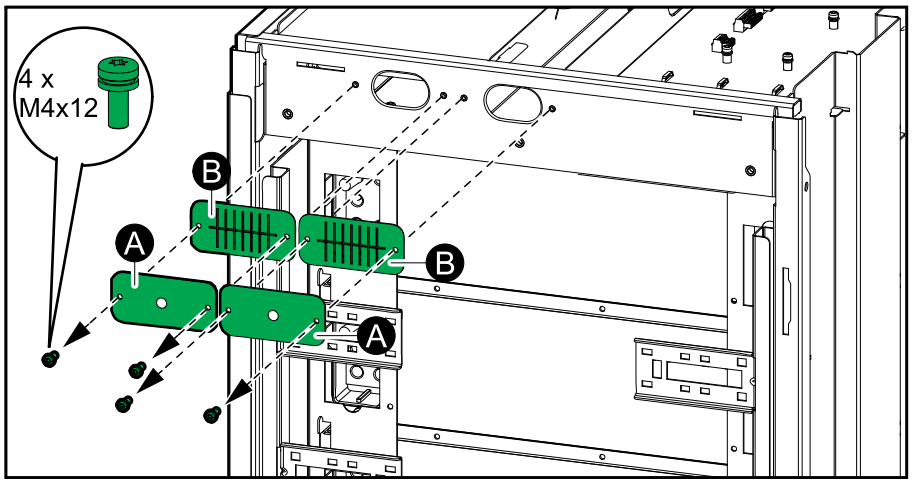


9. From inside the UPS, install the two shown parts on the bottom gland plate with the existing screws.



10. Disconnect the signal cables from the top of the UPS and pull the signal cables out through the rear gland plates on the UPS. Note the signal cable connections.
11. Remove the gland plates (A) and the brush plates (B) from the rear of the UPS.

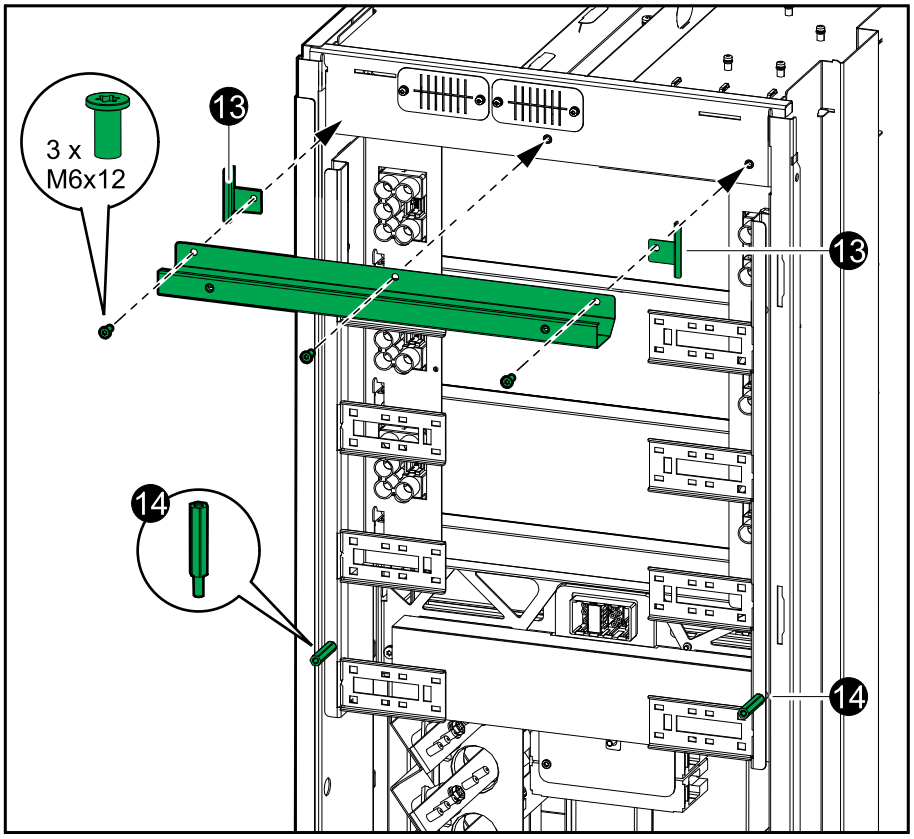
Rear View



12. Reinstall the two brush plates reusing the four screws. Save the gland plates for later installation.

13. Reinstall the two brackets from step 5 and the shown part. Reuse the flat head screws from step 5.

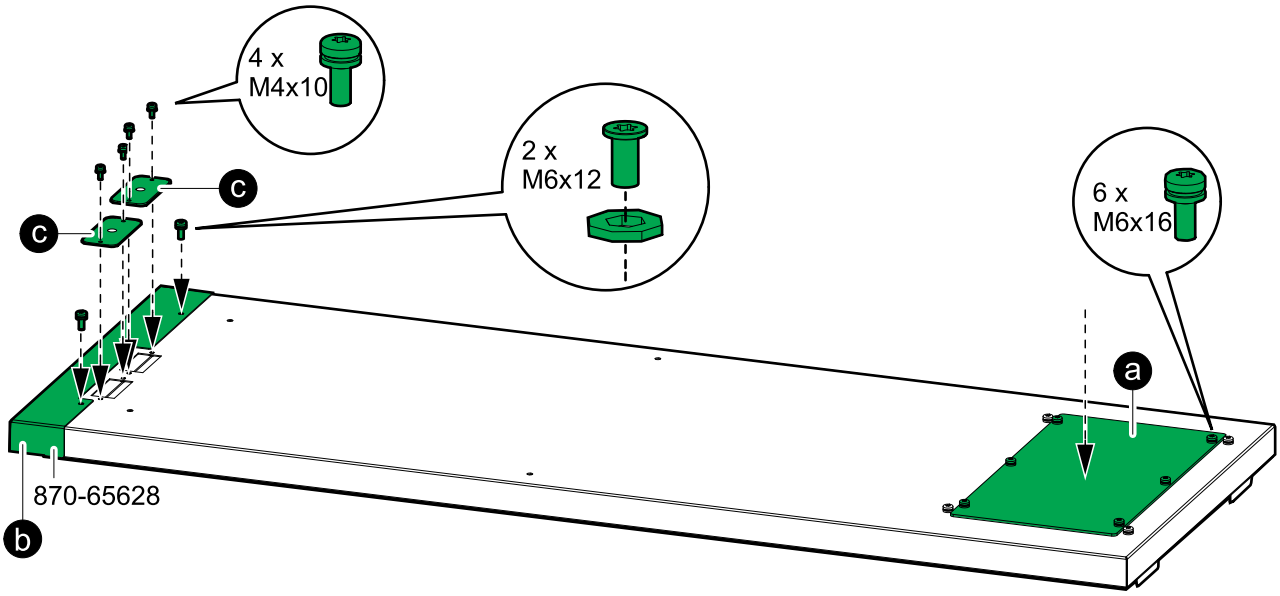
Rear View



14. Install the two provided studs.

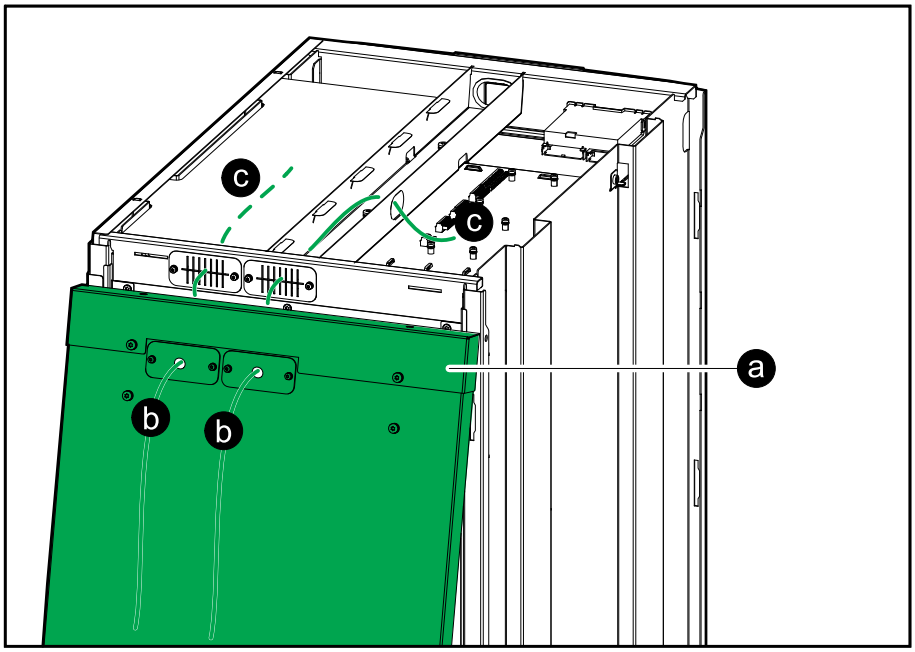
15. Assemble the rear assembly:
    a. Install the rear gland plate from step 6 on the shown part reusing the M6 screws.
    b. Install the shown part with the two provided M6 flat head screws and nylon washers.
    c. Install the gland plates from step 11 as shown with the four provided M4 screws.

Rear Assembly



16. Reconnect all the signal cables in the UPS:
    a. Place the rear assembly up against the UPS.
    b. Route the signal cables through the signal gland plates. See routing instructions in the UPS installation manual.
    c. Reconnect the signal cables in the UPS. See connection instructions in the UPS installation manual.

Rear View



⚠CAUTION

EQUIPMENT DAMAGE

Ensure that the signal cables are not damaged during this procedure.

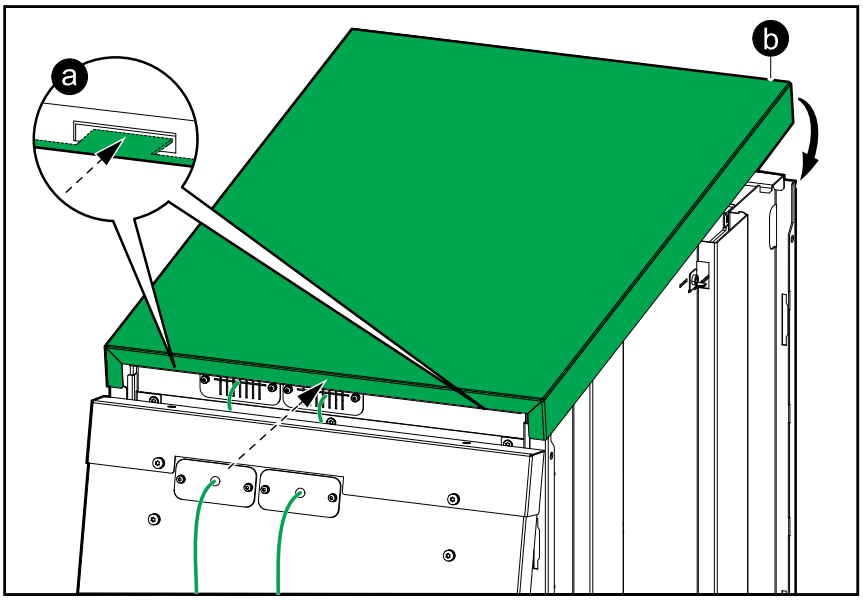
Failure to follow these instructions can result in injury or equipment damage.

17. Reinstall the top cover:

    a. Tilt the top cover and slide it onto the UPS from the rear. Tabs in the rear of the top cover must connect to the slots in the rear of the UPS.

    b. Push the top cover down in the front.

Rear View



⚠CAUTION

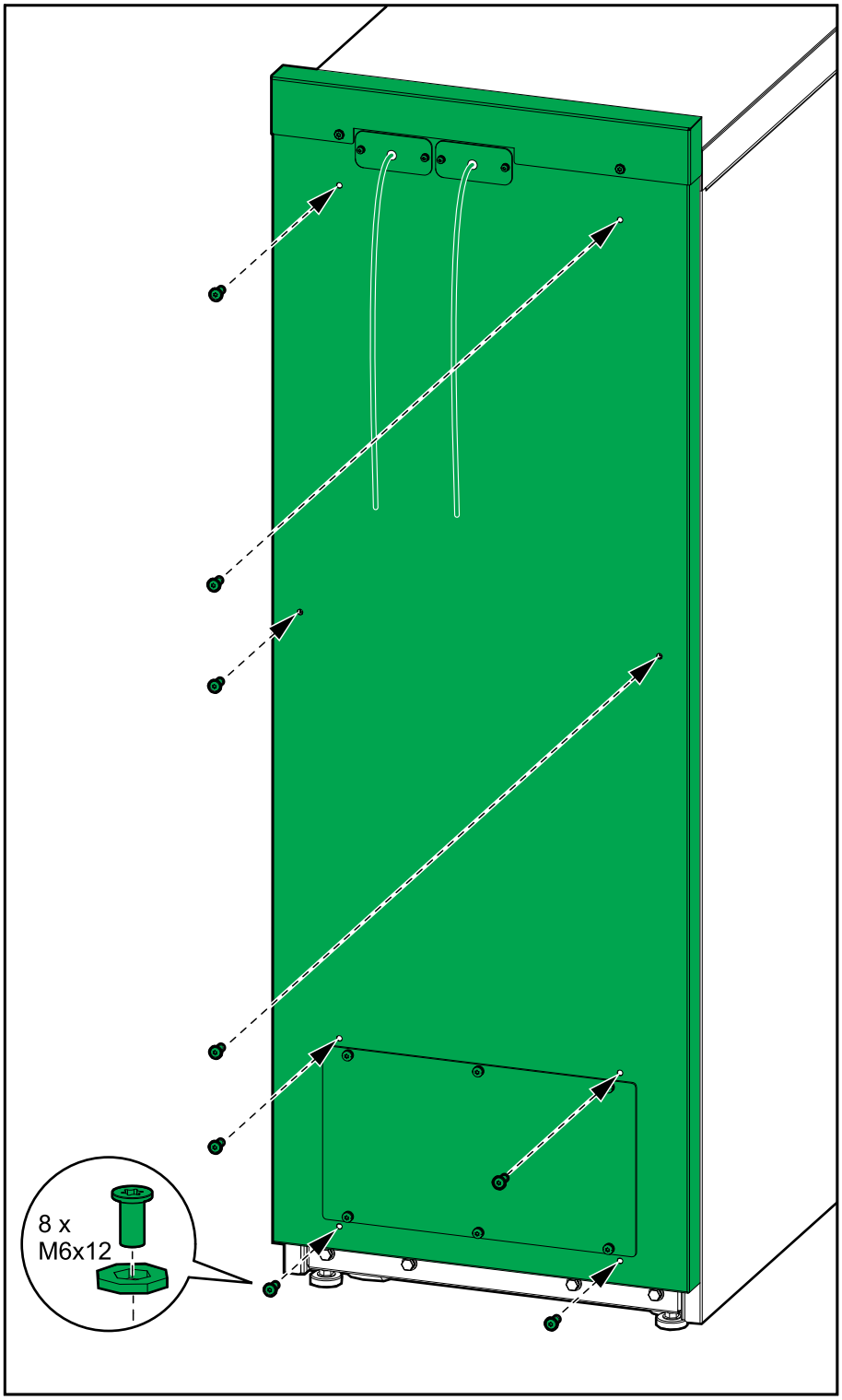
EQUIPMENT DAMAGE

Ensure that the signal cables are not damaged during this procedure.

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

18. Install the rear assembly with the eight provided M6 flat head screws and nylon washers.

Rear View



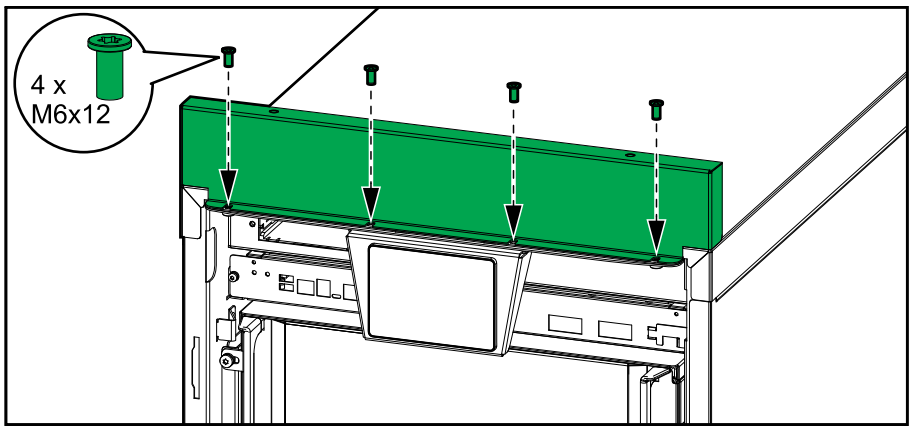
⚠CAUTION

EQUIPMENT DAMAGE

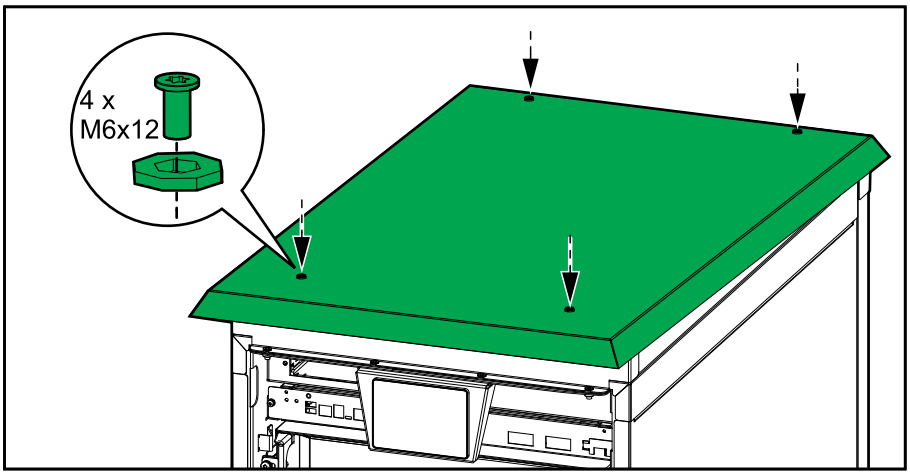
Ensure that the signal cables are not damaged during this procedure.

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

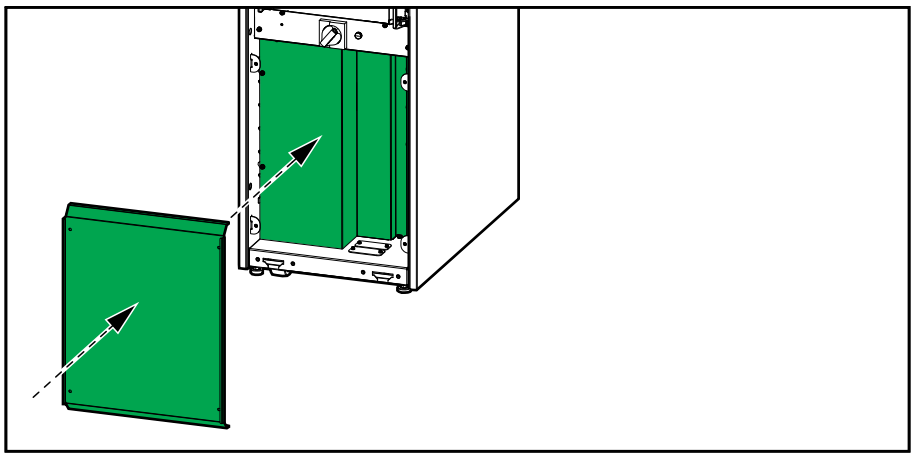
19. Install the shown part reusing the M6 flat head screws from the top cover.



20. Install the shown part with the four provided M6 flat head screws and nylon washers.



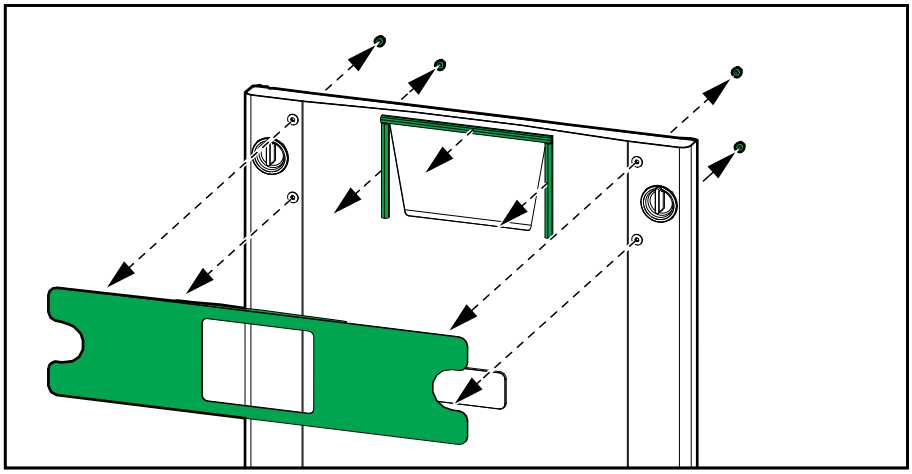
21. Reinstall the transparent cover and the lower front plate.



22. Remove the air filter from the front panel. Discard the air filter.

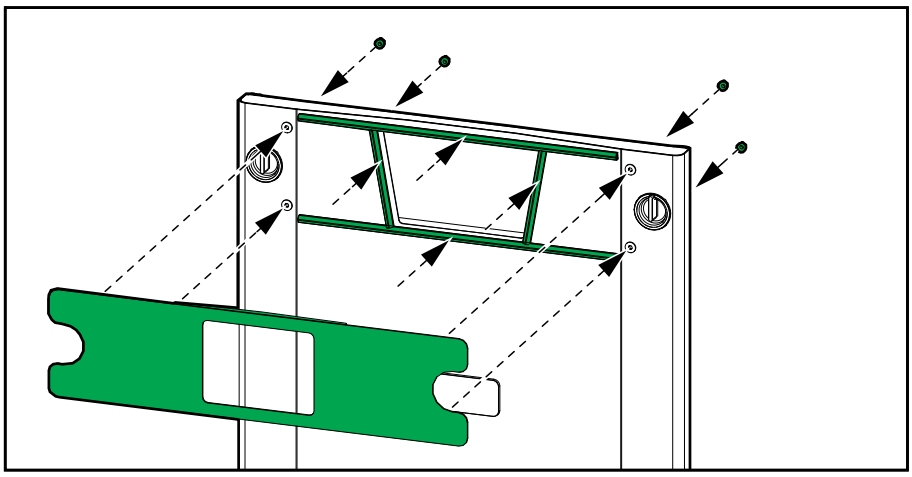
23. Remove the display plate and the three gaskets from the front panel.

Outside View of the Front Panel



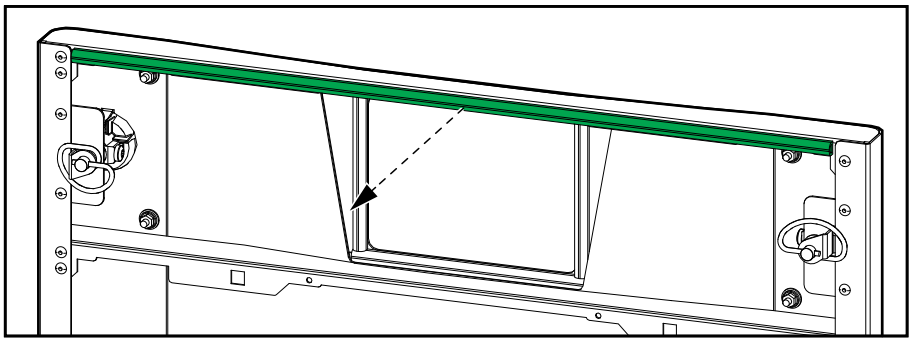
24. Mount the provided profile gaskets as shown and reinstall the display plate on the front cover.

Outside View of the Front Panel



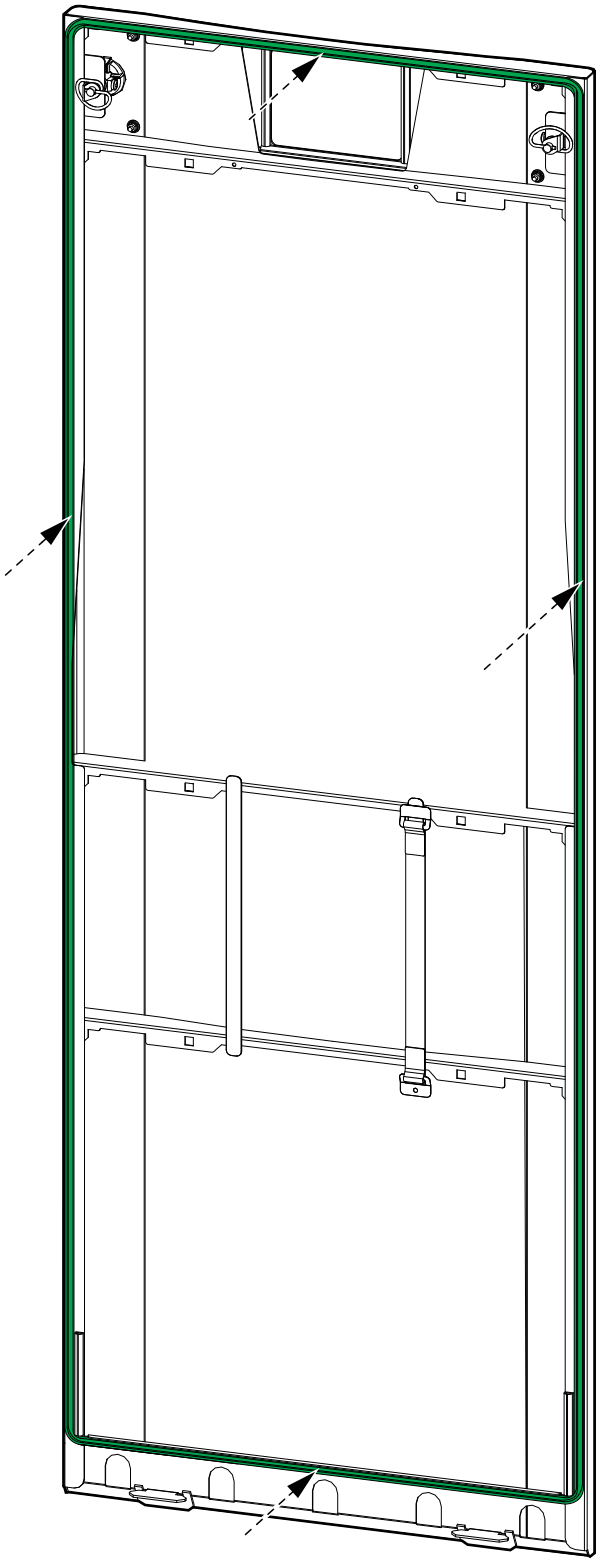
25. Remove the top gasket from the front panel.

Inside View of the Front Panel



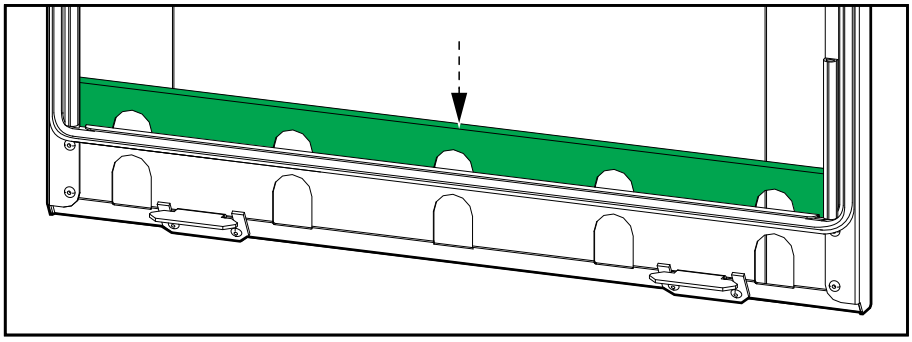
26. Mount the provided profile gasket as shown on the front panel as close to the edges of the front panel frame as possible. Start from the bottom centre and mount the profile gasket in one piece for optimal sealing.

Inside View of the Front Panel



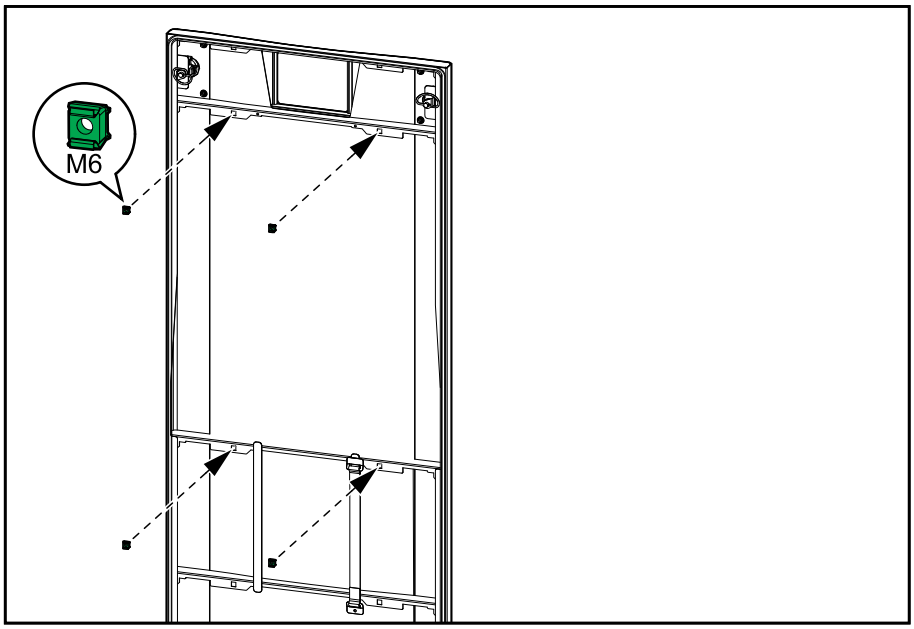
27. Install the transparent plastic part in the bottom of the front panel.

Inside View of the Front Panel



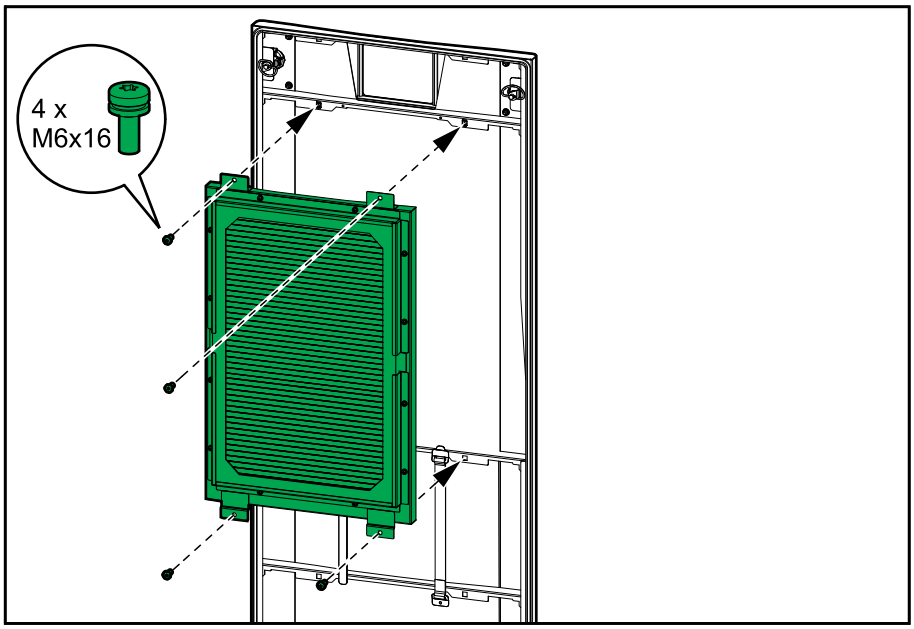
28. Install the four provided cage nuts.

Inside View of the Front Panel

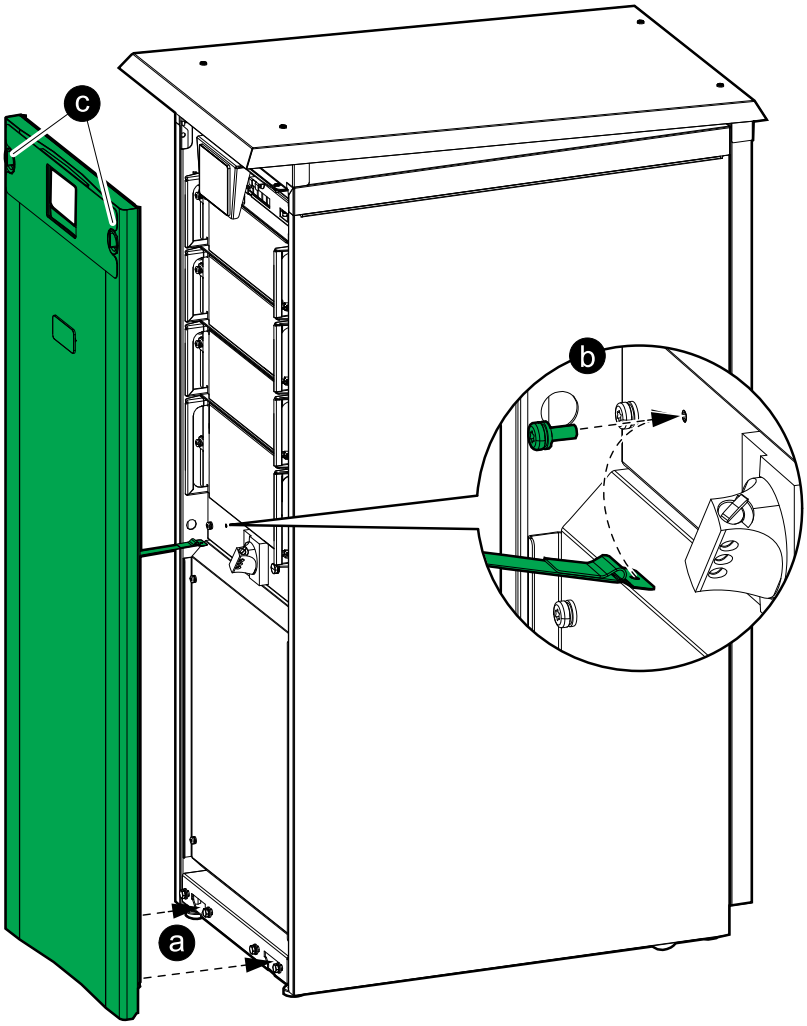


29. Install the shown part with the four provided M6 screws.

Inside View of the Front Panel



30. Attach the supplied label 885-92048 from the kit on the UPS lower front plate to alert to the risk of overheating.
31. Reinstall the front panel on the UPS:
    a. Insert the two tabs in the bottom of the front panel in the UPS at a tilted angle.
    b. Reconnect the front panel strap to the UPS.
    c. Close the front panel and lock with the two locking knobs.



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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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