

120V VE.Direct Inverters with GFCI outlet – line/neutral polarity swapped

Technote October 2026

www.victronenergy.com

1. Summary

Recent production batches of the 800, 1200 and 1600VA 120V VE.Direct Inverters have an issue with the wiring of the GFCI outlet. The GFCI outlet was recently replaced with a new type and the internal Line (Hot) and Neutral wiring on the back of this new type GFCI outlet are wrongly connected, so that Hot and Neutral are swapped on the outlet. This can make the product unsafe to use.

All units from the affected batches are therefore recalled for modification or replacement. We apologize to our customers and distributors for this issue.

Important: this issue poses a potential safety risk. Please read this technote carefully and make sure the unit is modified or replaced as soon as possible.

Applicability

This document is intended for authorized Victron distributors and repair centers, but is also written to be readable by installers and end users. Installers and end users with an affected unit should contact their dealer or distributor.

2. Affected models and serial numbers

Article description	Victron PN	Affected batches ⁽¹⁾
Inverter 12/800 120V VE.Direct NEMA GFCI (UL 458)	PIN121800510	HQ2505, HQ2536, HQ2537
Inverter 12/1200 120V VE.Direct NEMA GFCI (UL 458)	PIN122122510	HQ2538, HQ2601, HQ2613
Inverter 12/1600 120V VE.Direct NEMA GFCI (UL 458)	PIN122161510	HQ2619
Inverter 24/1200 120V VE.Direct NEMA GFCI (UL 458)	PIN242122510	HQ2543, HQ2550
Inverter 24/1600 120V VE.Direct NEMA GFCI (UL 458)	PIN242161510	HQ2621
Inverter 48/1200 120V VE.Direct NEMA GFCI (UL 458)	PIN482122510	HQ2550, HQ2617

(1) Format of the serial number is HQyywwzzzzz in which yy is the year, ww is the week number, and zzzzz is random alphanumeric.

The serial number (SN) can be found on the label on the enclosure, on the label on the carton, and in the VictronConnect app once the inverter is connected (via a VE.Direct Bluetooth Smart dongle or a VE.Direct to USB interface).

Some units with affected serial numbers have already been reworked in stock. Find how to recognize modified units in the next paragraph.

First stock of units with correctly connected GFCI outlet is available between week 44 and 46 2026, check E-order for more details on availability.

3. How to recognize already reworked units?

There are three ways to recognize modified units.

1. **Box level:** Individual boxes and master carton boxes of already modified units contain a label with *ECN261016FHE06*, see examples on below images.



2. **Product level test:** Check the polarity of the GFCI outlet with a plug-in GFCI outlet tester (e.g. Klein Tools RT210 or Sperry GFI6302), which must show “Correct”, or with a multimeter set to V AC.

Note: the outlet is tamper-resistant (TR). Its shutters only open when both slots are pressed at the same time, so a single probe cannot be inserted on its own.

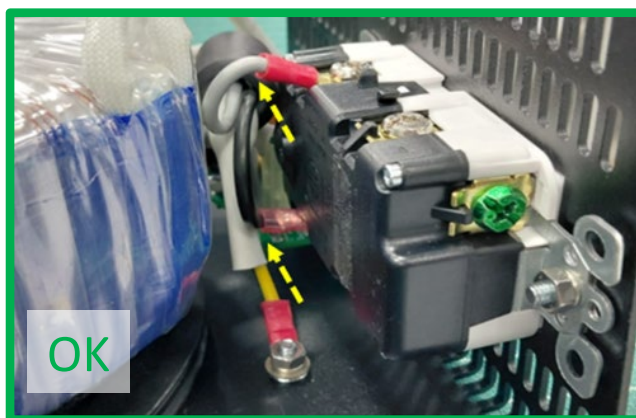
Measure as follows:

Insert both probes at the same time, one in the narrow slot (Hot) and one in the wide slot (Neutral): ≈ 120 V AC. Leave the probe in the narrow slot and move the other probe to the round earth hole: ≈ 120 V AC (Hot to earth). Insert both probes again in the narrow and wide slot. Leave the probe in the wide slot and move the other probe to the earth hole: ≈ 0 V AC (Neutral to earth).

See step 6 of the Appendix.



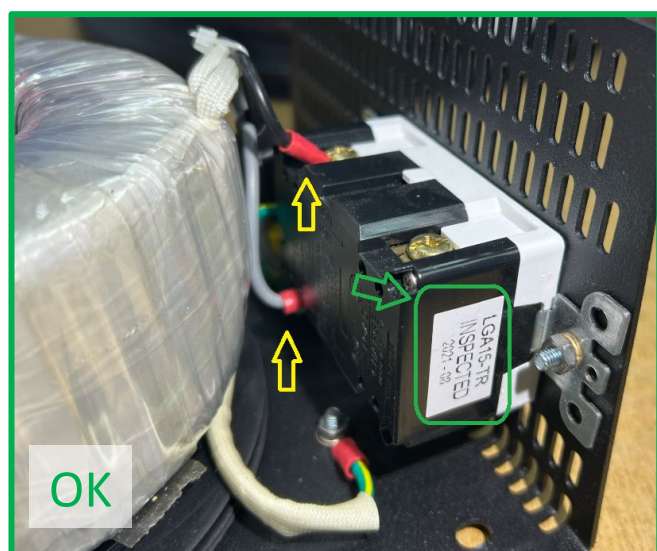
3. Product level observation: After opening the unit, you can see the internal wire connection on the back of the new type GFCI outlet (GF15TR). With the outlet mounted in the unit as in the images below, the grey wire must be connected on the top side and the black wire on the bottom side: black (Hot) on the LINE terminal marked HOT WIRE, grey (Neutral) on the LINE terminal marked WHITE WIRE.



Any unit within the affected serial number range and containing this ECN label or having the wires connected correctly is no longer affected and thus there is no need to be modified or RMAd.

Units with the **previous** type of GFCI outlet are **not** affected. The two types look slightly different, and the easiest way to tell them apart is the label on the side of the outlet (see the picture below).

If the label says **LGA15-TR**, the unit has the previous type of GFCI outlet. On this type the Hot (black) wire is connected at the top, which is correct, so no action is needed. The new type is GF15TR. Note that the Hot and Neutral terminals are in a different position on the two types, so always check the wiring against the terminal markings (HOT WIRE / WHITE WIRE) rather than top/bottom alone.



4. Solutions

For units with affected serial numbers, wired incorrectly and not marked with the label as mentioned above.

This also applies to affected units that have already been shipped and sold.

- **Option 1 – Self repair (recommended for technically skilled persons)**

If you have basic technical skills and experience with electrical installations, the fastest solution is to modify the unit yourself.

Instructions for swapping the polarity of the outlet wiring can be found in Appendix on the following pages and in the video [[LINK to GFCI instruction video widescreenv2.mp4](#)], if the link does not work go to

https://www.dropbox.com/scl/fi/xi4yq83jjvr7elglpagp3/GFCI_instruction_video_widescreenv2.mp4?rlk=igxp4w865vifc2atby4wp2j76&st=20n2b6jf&dl=0

Modifying the unit yourself will **not** void the warranty of the product.

After the modification, send a clear photo of the serial number label to your dealer or distributor, so the unit can be registered as reworked and the costs can be reimbursed.

If you are not confident carrying out this modification, do not attempt it. Choose Option 2 instead, or ask your installer or dealer for help.

- **Option 2 – Warranty replacement**

Distributors: create an e-RMA and ask for a replacement or a credit note.

Installers and end users: contact your dealer or distributor for a replacement unit.

Distributors can contact their Victron Energy Sales Manager with any questions about this issue or the modification or replacement procedure. Installers and end users can contact their dealer or distributor.

5. Common questions

Q: What am I entitled to?

A: You are entitled to a new unit. If you have the technical skills, you can also rework the unit yourself, following the instructions in the Appendix; this is the fastest solution. In both cases your dealer or distributor reimburses the reasonable costs: either the new unit, or the cost of the rework.

Q: Will reworking the unit myself void the warranty?

A: No. If you follow the instructions in this technote, including the polarity test in step 6, the unit keeps its 5-year limited warranty.

Q: What if I can't or don't want to rework the unit myself?

A: Send a clear photo of the unit and its serial number label to your dealer or distributor; they will provide a new unit. Do not use, sell or pass on the affected unit. Hand it to your dealer or distributor for rework, or, if that is not possible, dispose of it as electronic waste in line with local regulations.

Q: Are labour and transport costs covered?

A: Yes. Reasonable labour costs for the rework are covered, as well as transport costs to and from your dealer or distributor.

Q: What are reasonable costs?

A: The actual costs of the rework or replacement. A small margin is acceptable; excessive amounts are not.

Q: How are reworked or replaced units registered?

A: For every reworked or replaced unit, a photo of the serial number label is sent to the dealer or distributor. Distributors register these serial numbers and report them to Victron (repairs@victronenergy.com). This allows Victron Support to check whether a unit has been corrected when troubleshooting it later.

Q: We have new units from affected batches in stock. How should we handle those?

A: Do not sell or ship them until they have been reworked. Rework them yourself (see the Appendix), or report them through the normal e-RMA procedure and they will be replaced under warranty.

Q: Must an affected unit be returned to Victron?

A: No. A photo of the serial number label is enough. Scrapping a unit that is fully functional after rework is a waste of resources, so we recommend having it reworked by a technically skilled person. Only dispose of it as electronic waste if rework is not possible. An affected unit must never be used, sold or passed on before it has been reworked.

Q: How do we get our costs reimbursed?

A: Replacement units: through the e-RMA procedure. Rework, labour and transport costs: send an itemised invoice, including the serial numbers and photos of the serial number labels, to Victron (repairs@victronenergy.com), with a copy to your Victron Energy Sales Manager. You will receive a credit note.

Q: Is Victron still shipping or selling affected batches?

A: No. All remaining stock of the affected batches has been blocked in our warehouses, and only reworked units or units from unaffected batches are shipped. Units from affected batches that you received after October 20 are also covered by this recall; please check the serial numbers of recent deliveries.

Appendix – Modification Instructions

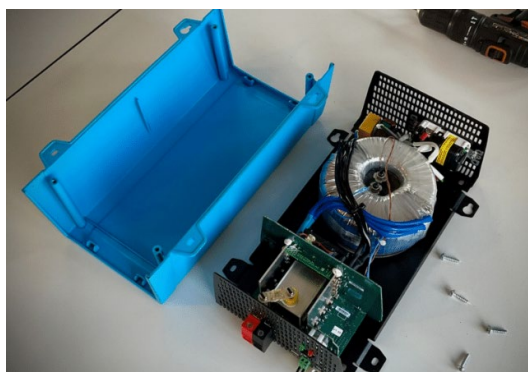
⚠ This modification must only be carried out by a person with basic technical skills and experience with electrical installations. Make sure the inverter is switched off and disconnected from the battery and all AC wiring before opening the unit.

Tools / equipment needed:

- Cordless drill or normal screwdriver with a Phillips PH2 screw head
- 7mm ring spanner
- Torque wrench or torque screwdriver 1 – 3 Nm
- Long-nose pliers
- For testing: a multimeter or a plug-in GFCI outlet tester (e.g. Klein Tools RT210 or Sperry GFI6302)

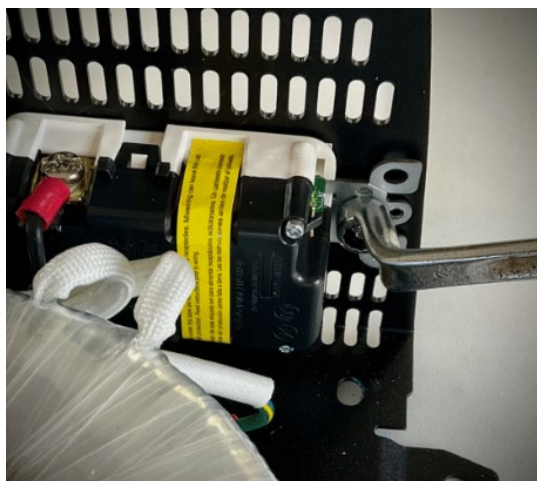
1. Removal of the plastic cover

Switch the inverter off and disconnect the battery (DC) cables and all AC plugs. Disassemble the plastic cover by the removal of the four screws indicated in the picture below

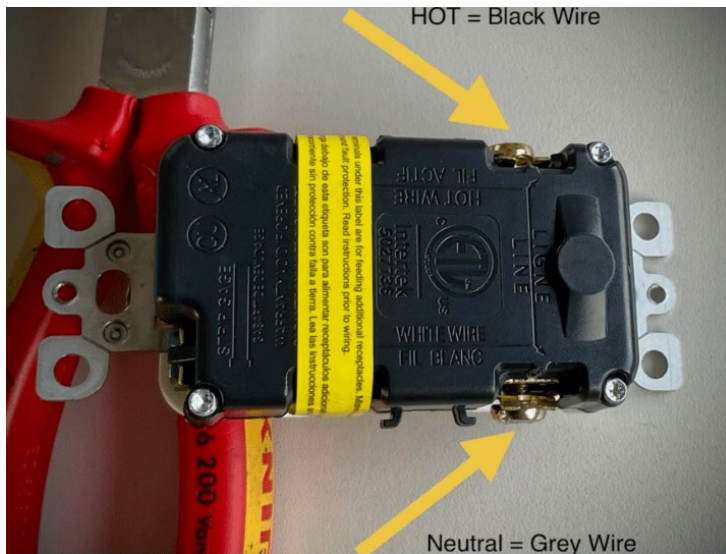


2. Removal of the GFCI Outlet

- loosen and remove the M4 nuts with the 7mm ring spanner
- remove the GFCI Outlet from the grille



3. Reconnect the wires to the correct position



Black wire (HOT) → LINE terminal marked HOT WIRE

Grey wire (NEUTRAL) → LINE terminal marked WHITE WIRE

Always use the LINE side of the GFCI outlet, not the LOAD side. US wiring uses a white neutral wire; in this inverter the neutral wire is grey.

Max torque setting for the terminal screws on the GFCI outlet: 1.5 Nm

4. Refit the GFCI Outlet

Fit the GFCI Outlet back into the front grille and fasten it with the M4 washers and nuts.

Max torque setting for the M4 connection: 3 Nm

5. Reinstall the plastic cover and tighten with the PH2 screws

Max torque setting for the PH2 cover screws: 1.5 Nm

6. Test the GFCI outlet

- 1: Connect the unit to a battery and switch the inverter ON; the outlet must be 'live' now.

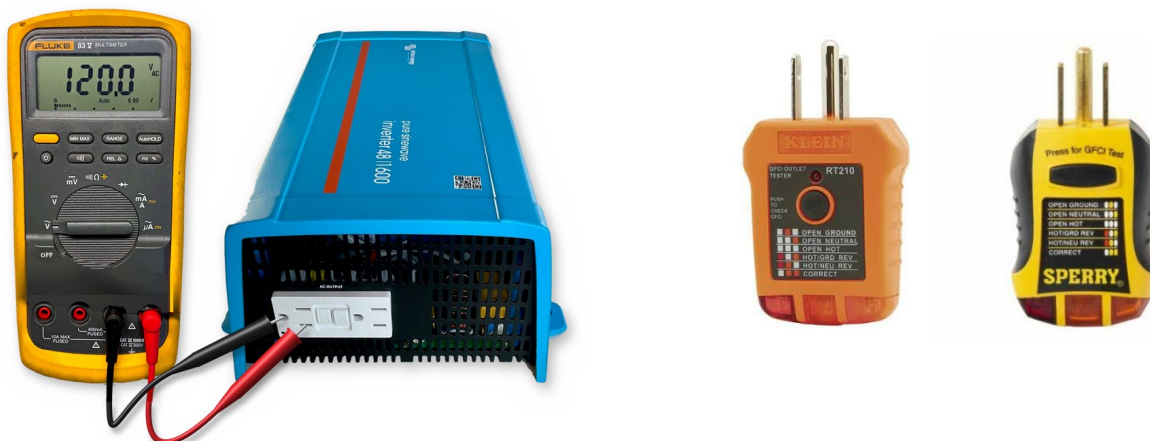
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- 3: Press TEST on the GFCI outlet: it must trip and the output must go off. Then press RESET: the output must come back on.



✅ **Pass:** The tester shows “Correct” (or the multimeter readings are as above), and the GFCI trips on TEST and comes back on RESET. The unit is now OK.

❌ **Fail:** The tester does not show “Correct”, the readings are different, or the GFCI does not trip or reset. Do not return the unit to service; recheck the wiring (step 3) and test again.