



GE VERNOVA

# UR Family

## Enhanced to Graphical Front Panel Retrofit Instructions

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# 1. Introduction

A UR can be fitted with one of three types of front panels: Basic, Enhanced, or Graphical. The Graphical Front Panel offers a large screen that can display single-line diagrams, for example. The Enhanced Front Panel has two versions, one version that closes with a finger-tightened knob and another version that closes with a screw. The latter is referred to as Rev. 2, or the IP54 Front Panel, because it can meet an IP54 enclosure rating using a mounting collar.

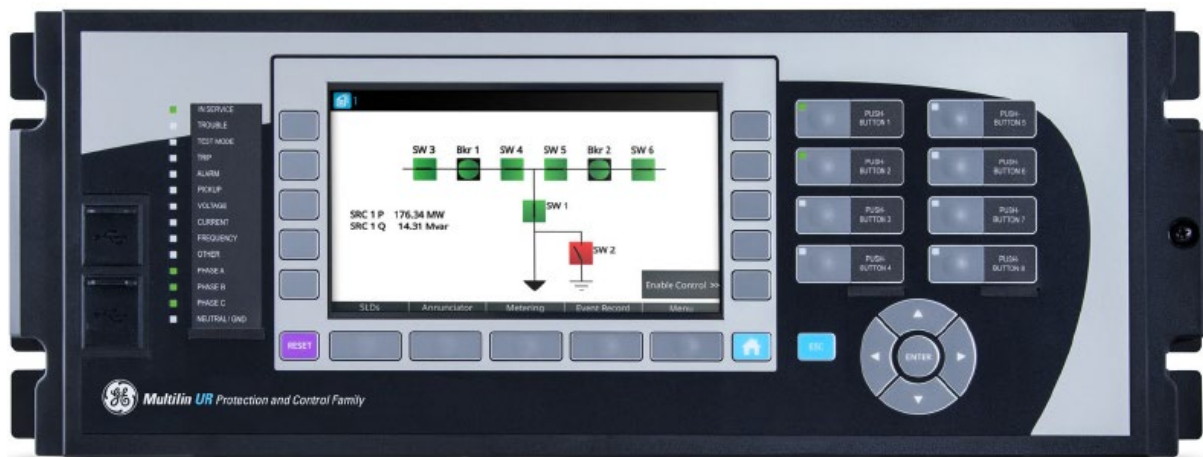
Rev. 2 also uses internal hinge screws similar to the Graphical Front Panel. The front panel is purchased with a UR, or it can be purchased separately and retrofitted. This document outlines how to replace an Enhanced Front Panel with a Graphical Front Panel.



Enhanced Front Panel Rev. 1 (knob closure not shown)



Enhanced Front Panel Rev. 2



## Graphical Front Panel

When purchased separately, a kit includes a front panel and mounting brackets.

The Graphical Front Panel requires CPU module type W or module type T, U, or V (newer type that has two connector slots on the front of the module). The CPU module can be purchased separately if required.

The steps are as follows:

- Remove the Enhanced Front Panel
- Install the Graphical Front Panel
- Replace the CPU module, if required
- Connect the UR
- Update the UR

## 2. Remove Front Panel



**Ensure that power to the UR device and front panel has been disconnected, else death or injury may result**

To remove an Enhanced Front Panel from a UR:

1. In the EnerVista software or on the front panel, access **Settings > Product Setup > Communications > Network**
2. Record the IP address and subnet mask of the port(s) being used.
3. Record the gateway address under **Default IPv4 Route**.
4. Turn off and disconnect power to the unit. Hot-swapping of the front panel is not supported.
5. Unscrew the right side of the Enhanced Front Panel, and open the panel. The figure shows Rev. 1 of the front panel with a thumbscrew. The Rev. 2 front panel requires a screwdriver to unscrew it.



6. Disconnect the CPU connector cable and the grounding wire. The figure shows a front panel (left) connected to a UR chassis (right). The CPU cable is the black RJ45 cable at the bottom. The CPU module is in the second slot of the UR, labeled slot D. The grounding wire is the flat grey ribbon cable at the top-left.



7. For a free-standing UR, using a Phillips screwdriver, remove the right bracket from the chassis, then remove the left bracket with the front panel. The bracket for the Enhanced Front Panel looks similar to that for the new Graphical Front Panel, but they are not the same. Keep the screws.



### 3. Install new front panel

Installation varies depending on the version of the Enhanced Front Panel being replaced.



**Ensure that power to the UR device and front panel has been disconnected, else death or injury may result**

To install the Graphical Front Panel:

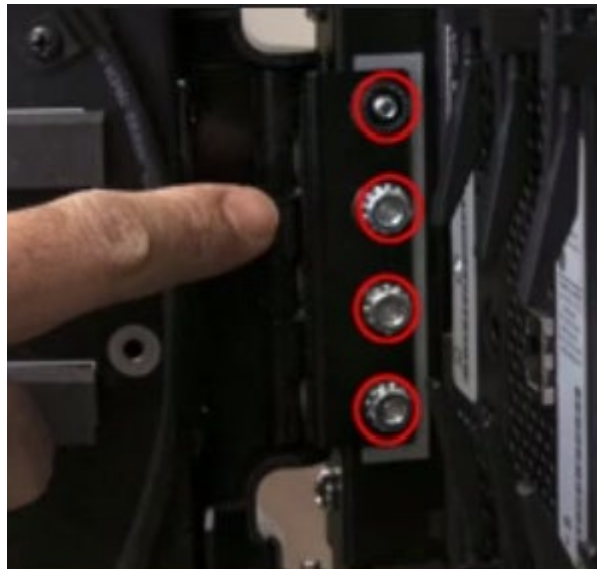
1. For a free-standing UR, attach the mounting brackets on the right and left sides of the UR (right 1001-0183, left 1001-0182).



When replacing a Rev. 1 Enhanced Front Panel, install the left mounting bracket on the outside of the relay. The power supply module can remain in the first slot. When replacing a Rev. 2 Enhanced Front Panel, use the new part supplied, even though the Rev. 2 panel had an internal hinge screw similar to the Graphical Front Panel.



2. Install the Graphical Front Panel on the four hinge screws on the left side, using the four hex nuts with tooth washers (1421-0010).



## 4. Replace CPU module

The Graphical Front Panel requires a CPU module inside the UR chassis of type W or module type T, U, or V (newer type that has two connector slots on the front of the module). A CPU module can be purchased with a UR, or it can be purchased separately and retrofitted.



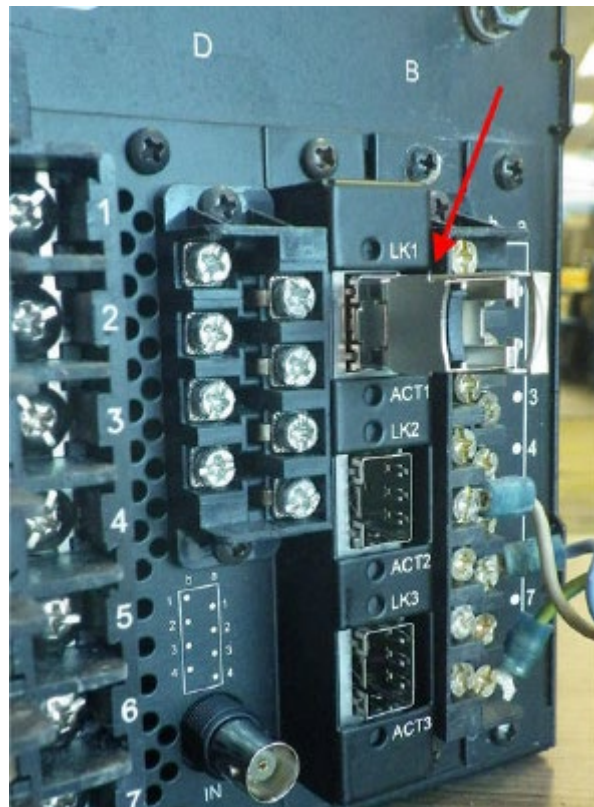
**Withdraw or insert a module only when control power has been removed from the unit, and be sure to insert only the correct module type into a slot, else personal injury, damage to the unit or connected equipment, or undesired operation can result.**

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*To avoid damage to the equipment, use proper electrostatic discharge protection (for example, a static strap) when coming into contact with modules while the relay is energized.*

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1. With power to the unit off, at the back of the CPU module in the second slot, note which port has the silver SFP connector(s), and disconnect any cables. Remove the SFP connector(s) and keep it handy. Then at the front of the relay, remove the CPU module by lifting the latches and sliding the module out from slot D.



2. At the front of the relay, insert the new CPU module in the second slot, which is slot D, and close the latches. The CPU module partly is installed and not connected.



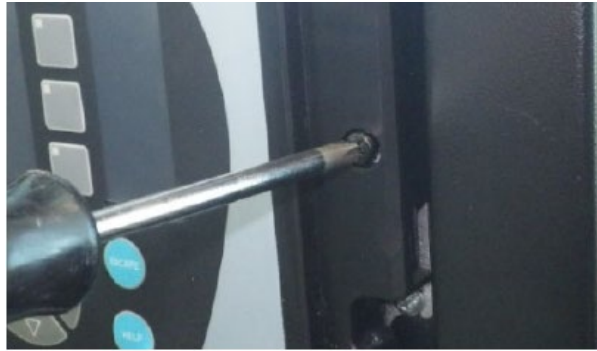
3. At the back of the CPU module, attach the new black cover plate to the back of the relay, then connect the new RS485 connector.
4. Insert the silver SFP connector(s) at the back of the CPU module, then connect any Ethernet connection(s).

## 5. Connect the UR

1. Connect the grounding wire from the UR chassis to the front panel, as shown in Figure 6. The front panel and UR are now connected.



2. Connect the grounding wire from the UR chassis to the front panel, as shown in Figure 6. The front panel and UR are now connected.
3. Close the front panel, using a screwdriver to tighten the embedded screw on the right side of the panel.



4. Optionally remove the protective plastic film on the front panel. It is normally peeled off, but also can be left on.
5. Connect the UR to power. If the Graphical Front Panel does not power up immediately, disconnect power, open the front panel, then check that the front panel is plugged into the upper connection, not the lower silver connection on the CPU module

## 6. Update software

Upgrade software and firmware, then perform a settings update to recognize the new front panel, as outlined.

To upgrade software and firmware:

1. Upgrade the EnerVista software as outlined in a UR instruction manual.
2. Input the IP address and subnet mask of the relay on the front panel under **Settings > Product Setup > Communications > Network**, and input the gateway address under Default IPv4 Route.
3. Upgrade the firmware in the EnerVista software as outlined in a UR instruction manual, for example under **Maintenance > Update Firmware**.

If you see error messages after the upgrade, disconnect power to the relay and shut down the software, then start both again. If you see a flashing message about front panel communications trouble, check the connection of the Graphical Front Panel to the CPU module.

4. In the EnerVista software, click the Device Setup button and refresh the order code for the device.
5. Set the relay to Programmed mode under **Settings > Product Setup > Installation**.
6. Update the EnerVista software to recognize the Graphical Front Panel under **Maintenance > Change Front Panel**. This setting does not display for units already with a Graphical Front Panel.

If an equipment mismatch error displays on the front panel, it can mean that the order code on the device needs to be refreshed to the new front panel using the **Device Setup** button.

The installation is now complete.

## 7. For further assistance

GE Vernova  
650 Markland Street  
Markham, Ontario  
Canada L6C 0M1  
Worldwide telephone: +1 905 927 7070  
Europe/Middle East/Africa telephone: +34 94 485 88 54  
North America toll-free: 1 800 547 8629

Fax: +1 905 927 5098

Worldwide e-mail: [GA.support@gevernova.com](mailto:GA.support@gevernova.com)

Website: <https://www.gevernova.com/grid-solutions/multilin/>