



G5.RCU Remote Control Unit

The remote control unit G5.RCU (RCU) enables the user to remotely control a single G5 power supply unit or a G5 master-slave system without the need of additional control elements. The high resolution 5" color touch display allows comprehensive and convenient operation of the power supply. Various installation options such as a prefabricated 19" panel, cabinet front door or power distribution unit (PDU) integration are available.

Installation Options

19" 3U front panel



The RCU is pre-installed in a 19" 3U plate for easy integration in any control rack. This option has the order code "G5.RCU.19".

Front door installation in a PDU



With a RCU installed in a power distribution unit PDU, the system can also be controlled manually from within a test cell, while the DC power supply is installed in a safe place outside the test cell.

Front door installation in a IP54 system



In case the mobile system is IP54 rated, the RCU installed in the front door of the cabinet fully replaces the HMI in the device's front panel. This allows the user to easily operate the system without opening the front door. Even multiple single channel power supplies may be controlled with just one RCU. An RCU for front door installation is called "G5.RCU.FD".

Functionality

While the remote control unit RCU offers the same comprehensive and convenient operation of the power supply as the HMI, which is mostly used for the standard local operation, the RCU is capable to be easily connected to different G5 power supplies or systems by choosing from a favorites list.

Clear system control is made possible by the use of different programming and indication pages.



Figure 1: Intuitive control by HMI and/or RCU touch displays. Everything you need at a glance.

Control Page

The control page offers the following possibilities:

- Indication of actual output values of voltage, current and power
- Set values for voltage, current, power and resistance by means of a keypad, step keys or a slider
- Setting of upper and lower limits

Config Page

On the config page several device settings are possible:

- Setting trip limits for load protection
- Setting warning limits for load protection
- Defining slopes for set value steps
- Specifying values for the voltage sense

FuncGen Page

The page for the optional function generator offers the programming of the main parts of the function generator:

- General enable / disable of the function generator
- Selection of the control mode: voltage, current or power
- Selection of a time-based curve form as sine, triangle, square wave, or user defined
- Set up of an application area programming (AAP) curve for simulation of solar array or fuel cell characteristics
- Specifying amplitude, offset, frequency, trigger modes, repetitions, sequences, and more

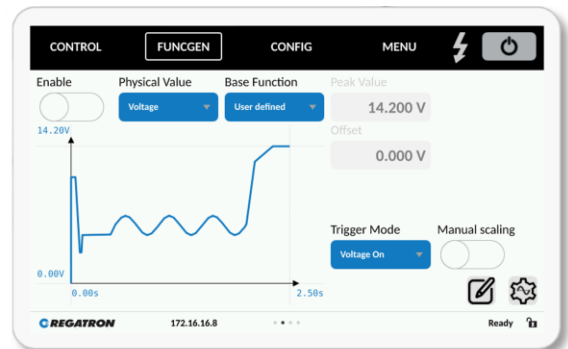


Figure 2: FuncGen setup page with function preview, here showing a cold cranking curve of a 12 V automotive application.

Menu Page

The menu page holds further possibilities for connections and to set up the connected device:

- Set up the favorites list
- Connect a device from the favorites list
- Handling warnings and errors
- Specifying the communication parameters
- RCU display settings
- Time zone

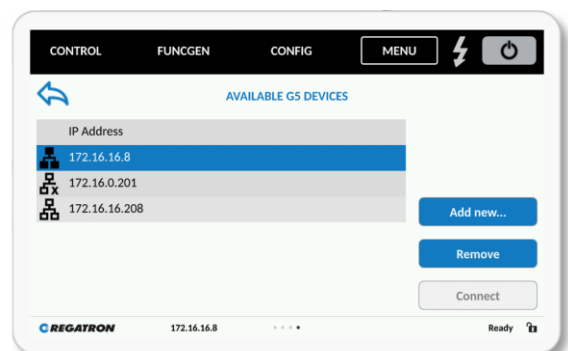


Figure 3: Easy favorites list setup with indication of availability in the network for fast switching between multiple devices/channels.

Connection to G5 Device

Depending on the specific type, the remote control unit RCU connects directly to the optional RCU.I interface within a cabinet, or peer-to-peer via the Ethernet port of the G5 device for remote control even over longer distances.

RCU.I link

The RCU.I interface is available with 2 m or 5 m cables. These options have the order code "G5.RCU.I.2" or "G5.RCU.I.5".

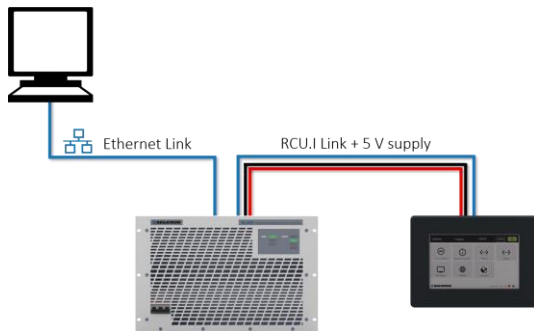


Figure 4: With the RCU.I interface the LAN socket of the device remains free for connection to REGATRON's application software or for control over API.



Figure 5: The RCU.I interface provides the 5 V supply as well as the direct link to the RCU.

Peer-to-peer (P2P) network



Figure 6: Direct link is possible to the LAN socket of the master device of a system. An external 5 V supply is required and the LAN socket is blocked by the link. External control is available via USB, analog interface or the optional CANmp interface.

This product is developed, produced and tested according to ISO 9001 by REGATRON.

For detailed technical information, contact your local sales partner.

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Local Area Network (LAN)

The full functionality of the RCU is obtained when using a LAN with multiple devices or systems. Besides the possibility to connect to any G5 system in the network, it may be used to control the system in parallel to an existing HMI or to use the REST API in the RCU from a remote computer.

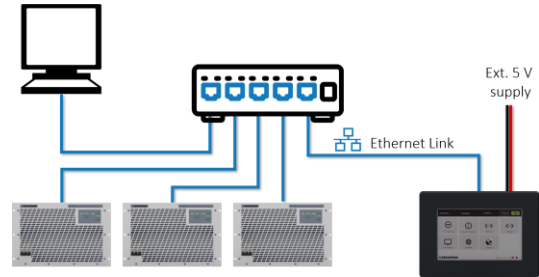


Figure 7: One G5.RCU can be easily connected to different G5 systems in the network.

Interfaces

Ethernet

To connect RCU with:

- G5 Master device or,
- PC for software updates or,
- Control device using the REST interface (REpresentational State Transfer)

Supply

The RCU is powered via an external 5 VDC / 10 W supply, which is not in the scope of delivery.

Environmental Conditions

The front of the RCU is designed to IP54 when installed in a suitable frontpanel or cabinet door.