RIM Protocol Converter Quick Start Guide

RIM Protocol Converter, Single Port
CPI P/N 60106-001
(1) EIA-485 port

RIM Protocol Converter, Dual Port
CPI P/N 60106-002
(3) EIA-485 port

Thank you for purchasing a Remote Infrastructure Management (RIM) System Protocol Converter from Chatsworth Products (CPI). This guide outlines basic RIM Protocol Converter installation and configuration. For additional information, download the RIM Protocol Converter User Manual from our website https://www.chatsworth.com/en-us/products/power-monitoring-security/environmental-monitoring/protocol-converter. If you need further assistance, please email our technical support staff at techsupport@chatsworth.com or call us at +1-800-834-4969.

CHATSWORTH PRODUCTS

Installation Supplies

Included with the RIM Protocol Converter
RIM Protocol Converter device
24VAC power supply
CAT 6 Crossover Network Cable
Rack-mount brackets

Optional supplies (purchased separately)
18-22 AWG ground wire
18AWG shielded twisted pair stranded copper wire - no more than 2000 ft (610 m) (Modbus RTU communication via EIA-485 port)
Straight-through CAT5 cable (Network Connection)
Straight-through, nine-pin serial cable (EIA-232 Connection, for setup)

Network Communications Information
Consult your IT administrator and determine the following RIM Protocol Converter network settings:

• IP Address _____

• Subnet Mask _____

• Default Gateway _____

Mount the Device

CPI provides mounting brackets with each unit and recommends installing the RIM Protocol Converter in a 19-inch rack. Remove the screws from the side of the device, put the brackets in place and reapply the screws. Use the proper anchoring method to mount the unit securely. Rack-mount screws are not included.

Provide a Power Supply and Ground Connection

Power the RIM Protocol Converter from a UPS supply, so the device can send alarm notifications during a power outage. Power can be supplied to the RIM Protocol Converter through either the power jack and the provided wall adapter or the power supply terminal block.
1. Connect an 18AWG ground wire from the ground terminal (marked on the upper left side of the enclosure) to a suitable earth ground.
2. Plug the provided wall adapter into the jack at P1 and the UPS outlet. The wall adapter has a five foot (1.5 m) power cord.
3. If you're providing your own power supply, connect 24VDC to the unit through the power terminal block.

Connect the RIM Protocol Converter to the Network

The RIM Protocol Converter needs network connectivity in order to access the web interface and configuration screen, as well as to activate the email (SMTP), BACnet, Modbus and SNMP features. Use the provided CAT 6 crossover cable to connect the 10/100BASE-T Ethernet port directly to a PC. Use a straight-through CAT 5 cable (purchased separately) to connect the RIM Protocol Converter to a network hub or switch.

EIA-232 Connection

The RIM Protocol Converter can be connected directly to a PC through its EIA-232 port. Designed for temporary use, this connection supports IP configuration, firmware downloads and troubleshooting. Connect via a straight through, 9-pin serial cable (ordered separately).
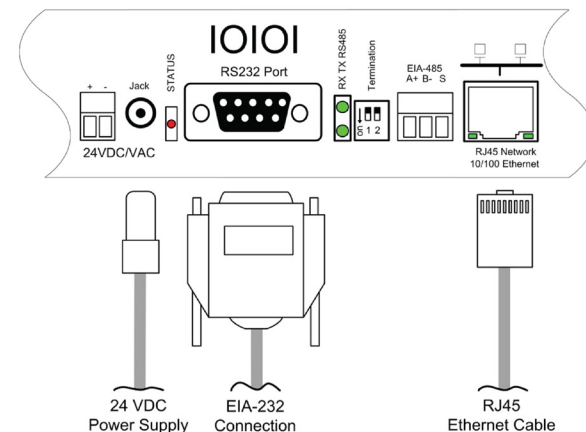
Modbus EIA-485 Connections

The RIM Protocol Converter can function as a Modbus master or Modbus slave over an EIA-485 hardware connection. The single port RIM Protocol Converter (P/N 60106-001) has one 2-wire EIA-485 connection. The dual port RIM Protocol Converter (P/N 60106-002) has two 2-wire EIA-485 connections and one 2- or 4-wire EIA-485 connections for extended Modbus polling over multiple trunk lines.
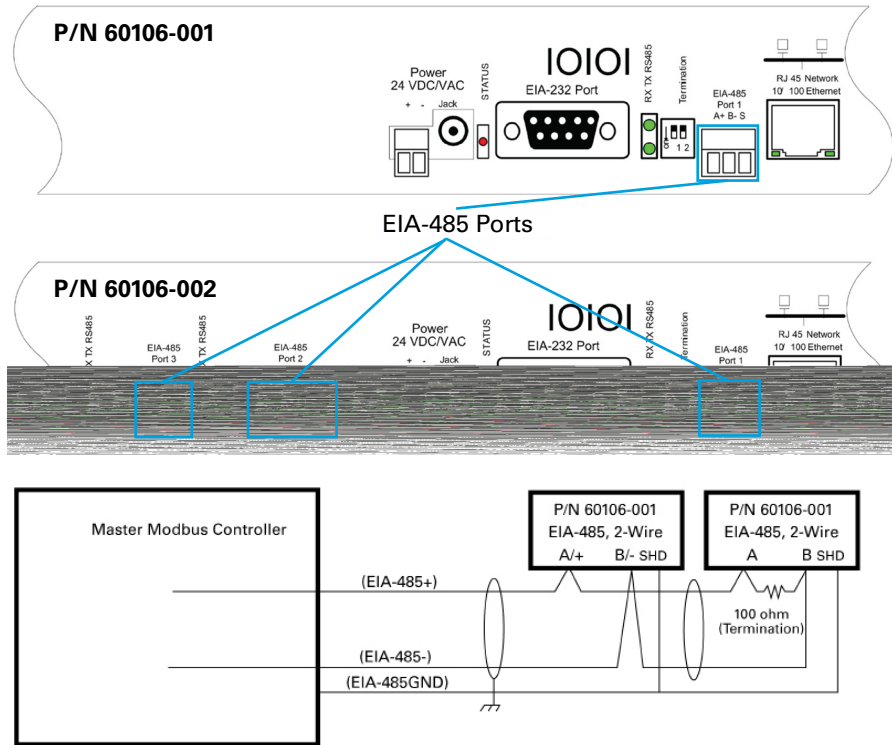
3. You'll need to change the IP address and Subnet Mask of your computer, so it can communicate with the RIM Protocol Converter in its factory-configured state. Before you change anything, write down the original IP address and Subnet Mask of your computer - you'll need to revert back to these original settings once the RIM Protocol Converter is configured.
4. Change the IP address and Subnet Mask of the computer from its existing address to one that will allow it to communicate with the RIM Protocol Converter, such as 10.0.0.189. It may be beneficial to set the IP address to one that is one number different from the RIM Protocol Converter's IP address (10.0.0.188).
5. Connect the other end of the crossover cable to the Ethernet port on the back of the RIM Protocol Converter.
6. Access the RIM Protocol Converter through a web browser — type the RIM Protocol Converter's IP address (10.0.0.188) into the location bar. When prompted, enter the RIM Protocol Converter's user name, which is cpi. There is no default password, leave it blank.
7. Select the Configuration link from the top menu bar, then select the Network and web option that appears in the Configuration Menu on the left side of the screen. Change the RIM Protocol Converter's IP address, Subnet Mask and default Gateway to the one provided by your IT department. Press the Submit Changes button. The RIM Protocol Converter will save the new IP address, Subnet Mask and default Gateway and reboot.
8. Change the IP address of the computer back to its original IP address. If the computer was configured as DHCP (the network domain controller assigns an IP address), return it to this state. This may require assistance from your IT Department, or you may need to consult the computer's manual.
9. Both the computer and the RIM Protocol Converter are now configured to communicate on the network and should be accessible via the network. Connect the PC and the RIM Protocol Converter to the network. From the PC web browser, type in the new IP address of the RIM Protocol Converter. Enter the user name and password as stated above to verify network access to the device.

Complete the Configuration

Once the RIM Protocol Converter has been hardwired and the IP address has been set, it's ready to be fully configured. It will be able to communicate over a network and through its communication ports, but you will still need to perform additional tasks to configure the devices connected to the RIM Protocol Converter.

Access the web interface to complete the configuration. Download the RIM Protocol Converter's User Manual from the web page https://www.chatsworth.com/en-us/products/power-monitoring-security/environmental-monitoring/protocol-converter.

Set the IP Address Using a Web Browser

The RIM Protocol Converter will not communicate over your network the first time it is connected. Since it is shipped with a default IP address of 10.0.0.188, you'll need to change the default IP address to one that will allow it to communicate over your network. If you have not set an IP address before, consult your IT department for support.

Note: The default IP address for the RIM Protocol Converter is 10.0.0.188
The default Subnet Mask is 255.255.255.0
The default user name is cpi (all lowercase)
There is no default password - leave the password field empty.

1. Contact your IT department to obtain an available IP address, Subnet Mask and default Gateway.
2. Plug a crossover network cable (provided) into the laptop or workstation that will be used to configure the RIM Protocol Converter.