



GE Power Management Control System



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Technical Note #55

GE Power Management Control System

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Setting up communication parameters in PMCS supported devices

Subject: How to check/or configure the communications in a PMCS device.

Applies To: PMCS 5.1, 5.1b

Note: Before setting up communications for a device verify that the devices firmware is a supported version.

I. Commnet Devices

All Commnet devices in your PMCS system require valid Commnet addresses to be programmed at the devices. The baud rate of Commnet devices is not programmable.

In addition, in order for Commnet devices to communicate with the PMCS system, they must be wired to a Modbus Concentrator, and their addresses must be programmed into the Concentrator. To configure the Concentrator, see the Concentrator setup instructions in the next section.

A. Enhanced MicroVersaTrip C & D Units

1. Press **FUNCTION** until the display **SETUP** appears.
2. Press **SELECT** until **ADDRESS** appears.
3. Press **VALUE** until the desired address is displayed.
4. Press **ENTER** to store the value.
5. Press **FUNCTION** to exit **SETUP**.

B. Spectra RMS6 Trip Units

1. Press **FUNCTION** until the display **SETUP** appears.
2. Press **SELECT** until **ADDRESS** appears.
3. Press **VALUE** until the desired address is displayed.
4. Press **ENTER** to store the value.
5. Press **FUNCTION** to exit **SETUP**.

C. POWER LEADER Meter

1. Press the **GE logo** on the front faceplate.
2. Press the **RESET/ENTER** button until the Commnet address appears.

3. Use the **SCROLL** keys to select the desired address.
4. Press **RESET/ENTER** twice to store the value.
5. Press the **GE logo** again to exit setup.

D. POWER LEADER EPM (with Commnet Communication)

1. Press the **GE logo** to enter the Program Mode.
2. Press **SELECT** until **COMMNET ADDRESS** is displayed.
3. Use the **UP** or **DOWN** key to set the Commnet address.
4. Press **ENTER** to store the value.

E. MDP Relay(with Commnet communication)

On the back of the relay, set the Commnet address on switches 1, 2, and 3 according to the list below:

S1 (Left): Most significant digit

S2 (Middle): Middle digit

S3 (Right): Least significant digit

F. ECM

Set the Commnet address on the three rotary switches on the front of the device according to the list below:

S1 (Left): Most significant digit

S2 (Middle): Middle digit

S3 (Right): Least significant digit

II. Modbus Devices

In order for the Modbus devices on your networks to communicate with the PMCS system valid Modbus addresses must be entered into each of the devices.

A. POWER LEADER Modbus Concentrator

1. To set the Modbus address, press **SELECT** to display **CNFG**. Press **ENTER** to display **ADDR**, then press **ENTER** again to display the current address. Press the **UP** or **DOWN** key to set the Modbus address and press **ENTER** to store the value.
2. To set the baud rate, press **SELECT** to display **CNFG**. Press **ENTER** and then the **UP** key to display **BAUD**. Press **ENTER** to display the current baud rate. Press the **UP** or **DOWN** key to set the baud rate and press **ENTER** to store the value.
3. To program the Commnet device addresses into the Concentrator, press **SELECT** to display **CNFG**. Press the **UP** key to toggle to **AUTO**. Press **ENTER** to begin the auto-configuration process, which may take as long as 10 minutes. The Commnet addresses may also be added manually through the keypad. Please see the Concentrator User's Manual for more details.

B. POWER LEADER Modbus Monitor

1. On the main menu of the Monitor display, highlight **SETUP** and press **ENTER**.
2. Highlight **RS-485 CONFIGURATION** and press **ENTER**.
3. Scroll to the **MODBUS ADDRESS** and press **SELECT**.
4. Adjust the address and press **SELECT** to store the change.
5. Set the baud rate in the same manner.
6. If the Monitor is a two port version, repeat this process for Segment B.

C. EPM 3710

1. Press **PARAMETER SELECT** and **CURSOR** simultaneously to enter the Programming Mode.
2. Press the **PARAMETER SELECT** button once to advance to the password screen. Enter the password (the default password is 0) and then advance through the parameter pages using the **PARAMETER SELECT** button until **UNIT ID** is displayed and enter the Modbus address.
3. Scroll through the menu and set the **BAUD RATE**.
4. Set the **COM MODE = RS-485**.
5. Set the **REGISTER SIZE = 32B**.
6. Set **INVALID REGISTERS = YES**.
7. Press **PARAMETER SELECT** and **CURSOR** simultaneously to exit the Programming Mode.

D. EPM 3720

1. Press **PARAMETER SELECT** and **CURSOR** simultaneously to enter the Programming Mode.
2. Press the **PARAMETER SELECT** button once to advance to the password screen. Enter the password (the default password is 0), using the increment/decrement keys, and then advance through the parameter pages using the **PARAMETER SELECT** button until **COMMUNICATIONS = NO** is displayed.
3. Change the display to **COMMUNICATIONS = YES** using the Function key. Navigate in the sub-menu using **PARAMETER SELECT** and set the **PROTOCOL = MODBUS**.
4. In the **CONFIG PML 3720 = YES** submenu, set the **UNIT ID** and the **BAUD RATE**.
5. In the **CONFIG MODBUS = YES** submenu, set **REGISTER SIZE = 32B**, **COMM = RS-485**, and **INVALID OBJECTS = YES**.
6. Press **PARAMETER SELECT** and **CURSOR** simultaneously to exit the Programming Mode.

E. POWER LEADER EPM (with Modbus Communication)

1. Locate the communication card inside of the relay.
2. Set slider 1 to ON and slider 2 to ON.
3. Set the baud rate on sliders 3 and 4, according to the list below:
 - 1200 baud: slider 3 ON slider 4 ON
 - 2400 baud: slider 3 OFF slider 4 ON
 - 9600 baud: slider 3 ON slider 4 OFF

- 19.2 kbaud: slider 3 OFF slider 4 OFF
4. Set the address on switches 1, 2, and 3 according to the list below:

S1: Most significant digit

S2: Middle digit

S3: Least significant digit

5. Cycle power to the Power leader EPM. This must be done for the EPM to recognize it's new address!

F. MDP Relay (with Modbus Communication)

1. Locate the communication card inside of the relay.
2. Set slider 1 to ON and slider 2 to OFF.
3. Set the baud rate on sliders 3 and 4, according to the list below:

- 1200 baud: slider 3 ON slider 4 ON
- 2400 baud: slider 3 OFF slider 4 ON
- 9600 baud: slider 3 ON slider 4 OFF
- 19.2 kbaud: slider 3 OFF slider 4 OFF

4. Slide the relay back into the case.
5. On the back of the relay, set the Modbus address on switches 1, 2, and 3 according to the list below:

S1 (Left): Most significant digit

S2 (Middle): Middle digit

S3 (Right): Least significant digit

5. Cycle power to the MDP. This must be done for the MDP to recognize it's new address!

G. MULTILIN 239

1. Place a jumper between the access terminals on the back of the relay.
2. Scroll to the menu **SETPOINTS\239 SETUP\RS-485 SERIAL PORT**.
3. Set the **SLAVE ADDRESS** and press **STORE**.
4. Set the **BAUD RATE** and press **STORE**.

Remove the access jumper, if desired.

H. MULTILIN 269Plus

1. Place a jumper between the access terminals on the back of the relay.
2. Scroll to the menu **SETPOINT VALUES\SYSTEM CONFIGURATION**.
3. Set the **SLAVE ADDRESS** and press **STORE**.
4. The baud rate is fixed at 2400 baud.

Remove the access jumper, if desired.

I. MULTILIN 469

1. Place a jumper between the access terminals on the back of the relay.
2. Scroll to the menu **SETPOINTS\SR469 SETUP\SERIAL PORTS**.
3. Set the **SLAVE ADDRESS** and press **ENTER**.
4. Set the **COMPUTER RS-485 BAUD RATE** and press **ENTER**.

Remove the access jumper, if desired.

J. MULTILIN 489

1. Place a jumper between the access terminals on the back of the relay.
2. Scroll to the menu **SETPOINTS\SR489 SETUP\SERIAL PORTS**.
3. Set the **SLAVE ADDRESS** and press **ENTER**.
4. Set the **COMPUTER RS-485 BAUD RATE** and press **ENTER**.

Remove the access jumper, if desired.

K. MULTILIN 565

1. Place a jumper between the access terminals on the back of the relay.
2. Scroll to the menu **SETPOINTS\COMMUNICATIONS**.
3. Set the **RELAY ADDRESS** and press **STORE**.
4. Set the **BAUD RATE** and press **STORE**.

Remove the access jumper, if desired.

L. MULTILIN 735

Set the address and baud rate on the COMMUNICATION dip switches on the front of the relay. A switch is ON when it is pushed to the right. Move the address switches so that the indicated numbers add up to the correct address. Slide the switch next to the appropriate baud rate.

M. MULTILIN 745

1. Place a jumper between the access terminals on the back of the relay.
2. Scroll to the menu **SETPOINTS\SR745 SETUP\COMMUNICATIONS**.
3. Set the **SLAVE ADDRESS** and press **ENTER**.
4. Set the **COM 1 BAUD RATE** and press **ENTER**.

Remove the access jumper, if desired.

N. MULTILIN 750

1. Place a jumper between the access terminals on the back of the relay.
2. Scroll to the menu **SETPOINTS\RELAY SETUP\COMMUNICATIONS**.
3. Set the **SLAVE ADDRESS** and press **ENTER**.
4. Set the **COM 1 RS485/422 BAUD RATE** and press **ENTER**.
5. Set **COM1 RS485/422 HARDWARE = RS485**.

Remove the access jumper, if desired.

O. MULTILIN PQM

1. Scroll to the menu **SETPOINTS\PQM SETUP\COM 1 RS-485 SERIAL PORT**.
2. Set the **MODBUS COMMUNICATION ADDRESS** and press **STORE**.

3. Set the **COM 1 BAUD RATE** and press **STORE**.

Keywords

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