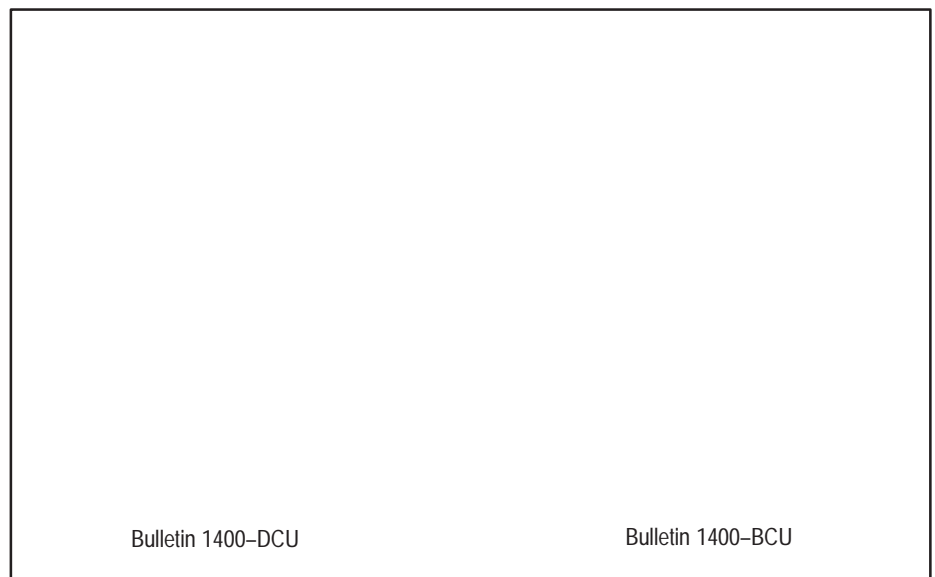




Bulletin 1400 Power Monitoring Products

Bulletin 1400-DCU/BCU Communications Card

Instruction Sheet



Description

The Bulletin 1400-DCU/BCU Communications Card supports Remote I/O and can be optionally configured as either RS-485 or RS-232C. Remote I/O and one of the two open architectures are active at all times. RS-232C or RS-485 are selected by means of a jumper.

Note: Bulletin 1400-DCU is used with the Powermonitor Display Module and Bulletin 1400-BCU is used with the Powermonitor Block Module.

Field Retrofit and Configuration of the Communications Card

This section explains the procedure for installing a universal communications card or changing the communications mode.

The card has a jumper block to allow the user to select RS-232C or RS-485 mode. The card's currently selected communications mode may be viewed from the front panel of the Powermonitor Display Module, if the unit is operating, (see Publication 1400-5.2, Chapter 3, "Field Programming"), or by removing the card and examining the position of the jumper block.

Removing An Existing Card



ATTENTION: An anti-static wrist grounding strap must be worn at all times while performing any reconfigurations or modifications to the Powermonitor Display/Block Module. Failing to do so may permanently damage the static-sensitive components inside the Powermonitor Display/Block Module.

1. Turn off all power to the Powermonitor Display/Block Module.



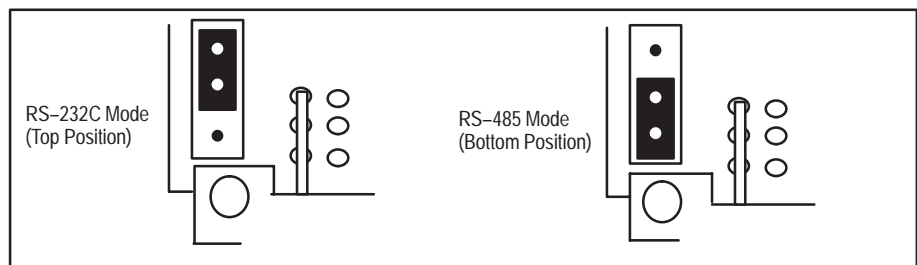
ATTENTION: Voltages may still be present when supply power is turned off to the unit. The unit will generally be powered by one source and will be monitoring another source. Turn off or disconnect all voltages applied to the unit. Failure to do so may result in personal injury or death.

2. Remove the four machine screws holding the rectangular communications card mounting plate on back of the Powermonitor Display/Block Module case.
3. Carefully pull the plate away from the main chassis using the pull tabs to remove the card.

Configuring the Display Communications Card

The circuit board of the communications card has a jumper labelled J1. This jumper has two positions, which determine the communications mode. Figure 1 illustrates the jumper in the bottom position for RS-485 mode. If the RS-232C mode is desired, move the jumper into the top position.

Figure 1
Communications Card Jumper Configuration



Configuring the Block Communications Card

The Powermonitor Block Communications card has a jumper labelled J1. This jumper has two positions, which determine the communications mode. The jumper is configured for RS-485 mode from the factory. If RS-232C mode is desired, move the jumper over the two pins closest to the LEDs.

Remote I/O Addressing

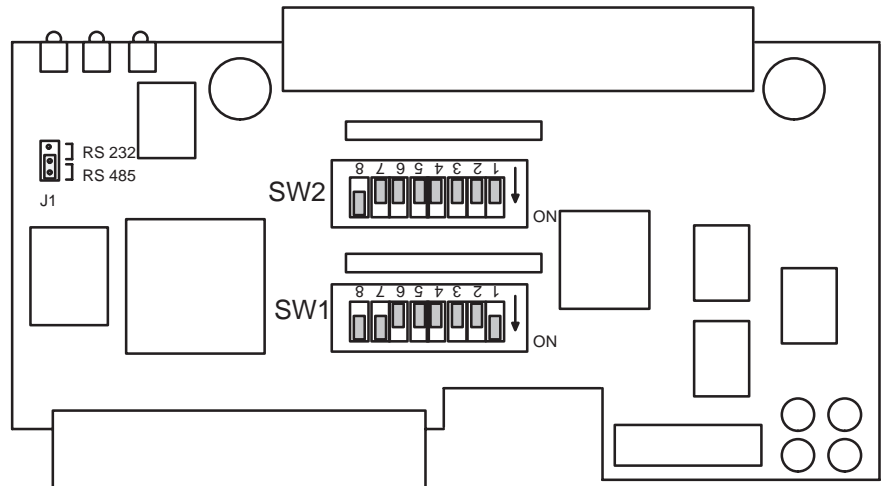
The Powermonitor Block Communications card uses two DIP switches to configure the RIO address, starting quarter, data rate, and last rack. The DIP switches are shown in the default factory configuration.

Use the following table to change the default configuration.

SW1 (1 = On)	8	7	6	5	4	3	2	1
	not used set=1		RIO rack address 0-63 (00-77 octal)					

SW2 (1 = On)	8	7	6	5	4	3	2	1
	not used set=1	last rack 0=no 1=yes	last rack <u>6 5</u> 0 0=hold 0 1=low 1 0=high 1 1=hold	data rate <u>4 3</u> 0 0=57.6kBaud 0 1=115kBaud 1 0=230kBaud 1 1=230kBaud	group number <u>2 1</u> 0 0=group 0 0 1=group 2 1 0=group 4 1 1=group 6			

Figure 2
 Communications Card Jumper and Switch Locations



Reinstalling (or Field Retrofitting) the Communications Card

1. Make sure that all power to the Powermonitor Display/Block Module is off.



ATTENTION: Voltages may still be present when supply power is turned off to the unit. The unit will generally be powered by one source and monitoring another source. Turn off or disconnect all voltages applied to the unit. Failure to do so may result in personal injury or death.

2. If field retrofitting a Powermonitor Display/Block Module, first remove the communications port cover plate on the rear cover of the Powermonitor Display/Block Module.

Reinstalling (or Field Retrofitting) the Communications Card (continued)

3. Install the new card as follows:
 - a.. Insert the communications card into the communications port insuring that the communications card is oriented such that it will mate properly with the edge connector on the main board inside the Powermonitor Display/Block case.

Important: The card is polarized to ensure installation in the correct orientation.

- b.. Align the holes in the mounting plate of the card with the mounting holes in the Powermonitor Module rear cover while lowering the card towards its seating. The installer will be able to feel when the card has found the correct alignment with the edge connector.
- c.. Once the board is resting in proper alignment on the edge connector, carefully press down to plug the card into the edge connector.
- d.. Install the four mounting screws through the mounting plate to secure the card in position.
- e.. Make all necessary communications connections to the communications card. Communications connection information can be found in Chapter 2 of Publication 1400–5.2, “Bulletin 1400 Power Monitor Installation and Operation” manual.
- f.. The card is now ready for use.

Specifications

INPUT & OUTPUT RATINGS		
Terminal Strip	Torque	5 lb-in (0.56 Nm) Torque
	Maximum Wire	14 AWG, 2.5 mm ² , 75° C CU Wire Only
Operating Temp.	0° C to 50° C (32° F to 122° F) ambient air temperature range	
Storage Temp.	–30°C to + 70°C (–22°F to 158°F)	
Humidity	5 to 95 percent, non–condensing	
Isolation	500 Volts RMS	
RS-232/RS-485 Baud Rate	300 to 19,200 Baud	
Remote I/O Baud Rate	57.6kBaud, 115kBaud, 230kBaud	
Energy Class	Class 2 Energy Limited	

