

MULTII-PORT Connector Pin Out and Jumper Selections for Modbus applications

Terminal Strip	9-pin D	RS232	RS422	RS485	NOTE:
1	1	DCD (in)	TX+	TRD+	The Multii-Port power supply circuit board is used in both the MARC Omnii-Comm and Multii-Port products. When used in the Multii-Port applications, the connector and jumper identification marks on the board silkscreen are reversed for the Multii-Port operation. Silkscreen ID Multii-Port ID P1 P4 P2 P3 P3 P2 P4 P1
2	6	DSR (in)	RX+	TRD+	
3	2	RXD (in)	TX-	TRD-	
4	7	RTS (out)	RX-	TRD-	
5	3	TXD (out)	TX+	TRD+	
6	8	CTS (in)	RX+	TRD+	
7	4	DTR (out)	TX-	TRD-	
8	9	RI (in)	RX-	TRD-	
9	5	GND	GND	GND	

P1, P2, P3 and P4 can be configured for RS232/RS422 or RS485 operation.

The selection is determined by a 9-position jumper located near each connector

RS232 operation is selected by connecting the 9-position jumper for the selected port between the center position and the pins on the left side

RS422/RS485 operation is selected by connecting the 9-position jumper for the selected port between the center position and the pins on the right side

If operating in RS422/RS485 mode, install a jumper between pins 10 and 13 of the appropriate 9-position jumper

If operating in RS422/RS485 mode, additional options are configured by adding or removing jumpers located along the upper edge of the module

There are 4 6-position jumpers, one for each port. If the port is configured for RS232 operation the jumpers are not used.

RS422 Jumper Options		RS485 Jumper Options	
1-2	TX Termination (120 ohms)	3-5, 7-9	RS485 Enable (Connects TX+ to RX+ and TX- to RX-
9-10	TX+ Pull UP	1-2	Termination Enable (120 ohms)
3-4	TX- Pull DOWN	11-12	TRD+ Pull UP
7-8	RX Termination (120 ohms)	6-8	TRD- Pull DOWN
11-12	RX+ Pull UP		
5-6	Rx- Pull DOWN		

Jumpers J8, J7 and J6 are 3-position jumpers located near the upper right side of the board. J8 is on the left, J7 in the center and J6 on the right.

Jumpers J7 and J6 are for factory use only. Jumper J8 is used to select the mode of operation of the reset switch. If J8 is installed 1-2

pressing the reset switch stops the Omnii-Comm operation and forces the P5 connector to be a Configuration port.

If J8 is installed 2-3 then pressing the reset switch forces a hard reset and the Omnii-Comm will restart its program just as if power had been cycled.

NOTE: Connector P1, is the "Common" connector.

Connect P1 to the Modbus Slave or Slaves.

Connect P2, P3 and P4 to Modbus Master(s)

Connector P5 is not used for Modbus communication

Changing serial port parameters					
The serial port communication parameters can be changed to meet system requirements					
To make the changes, first connect a PC serial port to connector P5					
Use a "Null Modem" cable (2 and 3 swapped) to connect to the PC.					
Start up a terminal program on the PC. This could be Hyperterminal, Procomm or the MARC FT program.					
Set the communication parameters to 9600,8,N,1					
Power up the Multiport Module.					
Wait until the green "active" LED starts to blink at a steady rate					
Press the black reset button located near connector P5					
You should get a help screen detailing how to make the changes					
The screen should look like this:					
MultiPort -- Available Commands:					
? Show this help screen			A Show status all connectors		
C Select connector			B Change baud rate		
P Change parity			S Change stop bits		
H Change handshake lines			T Set Time Out (hex)		
R Restart MultiPort operation when changes finished					
***** Select Connector before making changes *****					

P4 OPTIONS P3 OPTIONS P2 OPTIONS P1 OPTIONS

Multii-Port Jumper locations

