MULTII-PORT Connector Pin Out and Jumper Selections for Allen Bradley applications

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

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 P5, the 9-pin connector located on the bottom of the DIN Omnii near the power connector, is the "Common" Connector.
Connect P5 to the Allen-Bradley PLC port that is to be shared. This connector is RS232 only.
Connect P1, P2, P3 and P4 to the other Allen-Bradley devices that will communicate with the common device.
Note: All ports must be DF-1 Full Duplex. The DF-1 device connected to the common port (P5) cannot originate a messag

Changing serial port parameters

The serial port communication parameters can be changed to meed 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 *****'
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Multii-Port Jumper locations

P4 OPTIONS

P3 OPTIONS

P2 OPTIONS

P1 OPTIONS

RS422/RS485 CONNECTOR OPTIONS

P1 OPTIONS   P2 OPTIONS   P3 OPTIONS   P4 OPTIONS

2
1

RS232   RS422/485

RS422 JUMPER OPTIONS
1-2 TX TERMINATION (120 OHMS)
9-10 TX+ PULL UP
3-4 TX- PULL DOWN
7-8 RX TERMINATION (120 OHMS)
11-12 RX+ PULL UP
5-6 RX- PULL DOWN

RS485 JUMPER OPTIONS
3-5 RS485 ENABLE
7-9 RS485 ENABLE
1-2 TERMINATION (120 OHMS)
11-12 TRD+ PULL UP
6-8 TRD- PULL DOWN

OMNII-COMM ™

MIILLE APPLIED RESEARCH
HOUSTON, TEXAS
MADE IN USA
http://www.miille.com

P1

P2

P3

P4

RS232/422/485 SELECT OPTIONS. CONNECT OUTSIDE ROW TO CENTER
FOR RS232. CONNECT INSIDE ROW TO CENTER FOR RS422 OR 485

J8   J6

J7

TERM 9-PIN	RS232	RS422	RS485	CONNECTOR PIN ASSIGNMENTS
1	DCD(IN)	TX+	TRD+	
2	DSR(IN)	RX+	TRD+	
3	RXD(IN)	TX-	TRD-	
4	RTS(OUT)	RX-	TRD-	
5	TXD(OUT)	TX+	TRD+	
6	CTS(IN)	RX+	TRD+	
7	DTR(OUT)	TX-	TRD-	
8	RI(IN)	RX-	TRD-	
9	GND	GND	GND	

AC POWER SUPPLY

AC-L

AC-N

DC/DC CONVERTER

V+

V-

+5

FUSE