MP 2008/2208
Quick Reference Guide

(From Cubix Document 776D)

Cables & Connectors

Cable Specifications

RS-232 Cables

The Cubix MP 2008 includes an "octopus" shielded cable that converts the 78-pin high density connector on the adapter to eight DB25 male RS-232 D-connectors. All ports are wired as the DTE interface. The pinouts for the RS-232 connections are standard:

1	chassis ground
2	transmit data
3	receive data
4	Request To Send
5	Clear To Send
6	Data Set Ready
7	signal ground
8	Data Carrier Detect
20	Data Terminal Ready
22	Ring Indicator

Connection to Modems

The Octopus Cable shipped with the MP 2208/2208 adapter connects the MP adapter to external modems. If distances greater than the length of the octopus cable must be accommodated, an additional "straight-through" cable may be connected to the octopus cable's DB-25 RS-232 D-connector then to the modem.

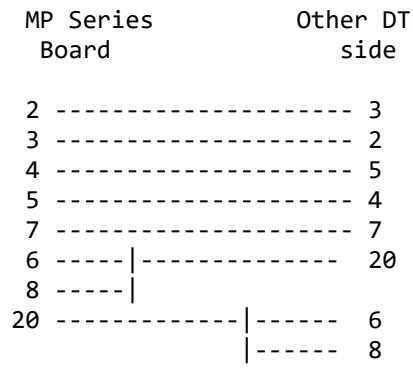
At a minimum, connections should be provided on the pins noted in the RS-232 Cables section above. Connections on all 25 pins are acceptable.

Connection to Hosts, Workstations, PCs, or Terminals

Direct connection of the MP adapter's RS-232 ports to hosts, workstations, PCS, or terminals configured as DTE equipment (without an intermediate modem or DCE device) generally requires a "null modem" cable. A "null modem" cable eliminates the need for modems (DCE devices) by crossing RS-232 signal pairs between the two DTE devices, such that each appears to the other as a DCE device.

To connect the MP adapter to another DTE device, connect the octopus cable's 78-pin connector to the MP adapter. Connect the "null-modem" cable (described below) to one of the octopus cable's DB-25 RS-232 D-connectors then connect the null modem cable directly to the DTE device.

To make a "null-modem" cable, use the following connections:



Switch Settings

Hardware Configuration

The MP 2008/2208 has a single switch bank labelled SW1 on the top edge of the adapter, near the end bracket. This switch bank consists of eight switches, numbered one through eight. These switches should only be changed while the system in which the MP board is located is powered off. A switch is in the ON position when it is toward the board.

The switches in bank SW1 set the I/O port address and the logical board number to be used by the MP board. Switches 1 and 2 control the I/O port address, while switches 4-8 control the logical board number. Switch 3 is alwavs ON.

The default switch settings for SW1 are all ON.

Base 1/0 Address Selection

The MP adapter boards require a series of 16 I/O locations to allow communications between the Cubix software driver and the hardware. Switches 1 and 2 of switch bank SW1 set the base I/O address to be used for this I/O address range. The MP boards support four different I/O address ranges (numbers given in hexadecimal):

Base I/O Address	Range	S-1	S-2
default 200	200-20F	ON	ON
210	210-21F	ON	OFF
300	300-30F	OFF	ON
310	310-31F	OFF	OFF

Select any base I/O address that does not conflict with other system hardware. Selecting a base I/O address other than the default may affect loading the software driver.

NOTE! - ALL MP SERIES ADAPTER BOARDS IN THE SYSTEM MUST USE THE SAME BASE I/O ADDRESS. Further, I/O addresses used by the MP adapter board must not conflict with the I/O addresses in use by any other system hardware.

Logical Board Number Selection

Each MP Series adapter board installed in a server must be assigned a unique board number among all MP boards in that system. The logical board number is used (along with a port number) to identify individual ports when the software driver is loaded. If two MP Series adapters attempt to use the same logical board number, driver failure will result.

Any board number from zero to fourteen may be selected for use by a board. Assign board numbers sequentially, beginning with board number zero. Switch bank SW1 switches 4-8 are used to set the board number for the hardware. The MP Series software dynamically detects the assigned board numbers. The switch settings for the logical board numbers are listed below.

Logical Board	S-4	S-5	S-6	S-7	S-8
default 0	ON	ON	ON	ON	ON
1	ON	ON	ON	ON	OFF
2	ON	ON	ON	OFF	ON
3	ON	ON	ON	OFF	OFF
4	ON	ON	OFF	ON	ON
5	ON	ON	OFF	ON	OFF
6	ON	ON	OFF	OFF	ON
7	ON	ON	OFF	OFF	OFF
8	ON	OFF	ON	ON	ON
9	ON	OFF	ON	ON	OFF
10	ON	OFF	ON	OFF	ON
11	ON	OFF	ON	OFF	OFF
12	ON	OFF	OFF	ON	ON
13	ON	OFF	OFF	ON	OFF
14	ON	OFF	OFF	OFF	ON