



Mitsubishi

Communication Module BD

Overview

Maple Systems' **Silver Series** Operator Interface terminals (Maple OITs) communicate with Mitsubishi communication modules BD series. The Computer Link Protocol is used. When configured with EZware-500, the Maple OIT is the master in a point-to-point single master, single slave format.

Compatible PLCs	
Family	Model
MELSEC FX2n Series	FX2n-16 through FX2n-128

Communications Cable

The Maple OIT should be connected to the BD module communication port that is installed on the PLC.

A list of communications cables offered by Maple Systems as well as cable assembly instructions to assist you in assembling your own communications cable are available on our website.

WARNING: If your communications cable is not wired exactly as shown in our cable assembly instructions, damage to the OIT or loss of communications can result.

Comm Module Settings

The PLC station must be set when using the BD Module. Register D8120 setting: set b9 and b8 of BFM#0 as 0.

Accessible PLC Memory

Register Memory

The following table lists the controller's register memory ranges that the Maple OITs are able to access. Please note that your controller's memory range may be *smaller* or *larger* than that supported by these OITs. The following register memory can be displayed in 16, 32, or 64 bit format on the Maple OIT.

PLC Register Type	Address Range	Format	PLC Register Description
TV	0-255	ddd (d=decimal)	Timer Memory
CV	0 - 199	dddd	Counter Memory
D	0 - 9999	dddd	Data Register
CV2	200-255	ddd	Counter Memory (D Word)

Discrete Memory

The following table lists the controller's discrete memory (bit) ranges that the Maple OITs are able to access. Please note that your controller's memory range may be *smaller* or *larger* than that supported by these OITs. The following discrete memory is displayable in single-bit format on the Maple OIT.

PLC Bit Type	Address Range	Format	PLC Bit Description
X	0 - 377	ooo (o=octal)	Inputs
Y	0 - 377	ooo	Outputs
M	0 - 9999	dddd (d=decimal)	Internal Control Relays
T	0 - 255	ddd	Timer Relays
C	0 - 199	ddd	Counter

Important Memory Considerations

If your PLC's memory range is smaller than the range supported by the Maple OITs, it is possible to configure the OIT to monitor a PLC memory address which does not exist. Since this can cause unpredictable results, when you configure the OIT, please ensure that all selected PLC memory addresses are valid for your PLC model.

Do not configure the OIT to write to any PLC memory address which should only be written to by the PLC.

EZware-500 Settings

The following table lists the communications settings that must be configured in EZware-500. These settings can be found in the Edit-Set System Parameters menu under the PLC tab. Please note:

- the **Recommended Settings** column provides the recommended setting based upon the default settings most commonly used in the Mitsubishi DB communication modules.
- the **Options** column lists EZware-500's options; your PLC may not support every option

Name	Recommended Settings	Options	Important Notes
PLC type:	Mitsubishi FX0n/2/2n COM		
Serial port I/F:	RS232	RS232, RS485 2W/4W	In accordance with BD Module
Data Bits:	7	7,8	Must match the module setting.
Stop Bits:	1	1,2	Must match the module setting
Baud Rate:	9600	9600,19200,	Must match the module setting
Parity:	Even	Even, Odd, None	Must match the module setting
HMI station No.:	0	N/A	Does not apply to this protocol.
PLC station No.:	0	0-15	Must match the PLC setting.
Multiple HMI:	Disable	Disable, Master, Slave	use for multiple HMIs
HMI-HMI link speed:	38400	38400, 115200	use for multiple HMIs
PLC time out constant (sec)	3.0	1.5 to 5.0	adjust if longer timeout is required
PLC block pack:	0	0-10	see <i>Silver Series Installation and Operation Manual</i>