



Baldor

MINT Series

Overview

Maple Systems' **Silver Series/HMI500 Series** Operator Interface Terminals (Maple HMIs) communicate with Baldor Motion Controllers using the Host Comms Protocol (HCP). When configured with EZware-500, the Maple HMI is the master in a point-to-point single master, single slave format. Please refer to the *Silver Series Installation and Operation Manual* for information on connecting multiple Maple HMIs to a single port.

Compatible Controller Models
NextMove BX ^{II} , NextMove ST, NextMove ES, NextMove ESB, Mint Drive ^{II} , Flex+Drive ^{II} , SmartMove

Communications Cable

The Maple HMI should be connected to the serial port on the controller.

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 at www.maple-systems.com/cables.htm.

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

Accessible Controller Memory

Register Memory

The following table lists the Controller's register memory ranges that the Maple HMIs are able to access.

Memory Type	Range	Details
CommsArrayInt	1 - 255 ¹	Comms() array element as an Integer value
CommsArrayFloat	1 - 255 ²	Comms() array element as a Floating Point value
Error	0 - 1	0 = No Error, 1 = Error
ControllerType	0 - 1	0 = Servo, 1 = Stepper

Discrete Memory

The following table lists the Controller's discrete memory ranges that the Maple HMIs are able to access.

Memory Type	Range	Details
CommsArrayBit	1.00 - 255.15 ³	Bit within an element of the Comms() array

NOTES:

1. On the Object Attribute's *General* tab, set Number of Words to 1 or 2, depending on the range of the value being used (1 word = +/- 32,767, 2 words = +/- 2,147,483,647). This setting affects how the HMI stores the data internally, and does not affect how many elements are read from or written to the controller's Comms() array.
2. On the Object Attribute's *Numeric* tab, set Display to Single Float. After entering a value, a slightly different value may be displayed. This is due to the drive's conversion of the data to its internal data format. If a high degree of precision is required, use the CommsArrayInt type, and scale the value. If Floating Point values are not displayed correctly, the drive's firmware may need updating.
3. The bit number must be specified to 2 digits. For example, bit 7 in Element 50 would be entered as 50.07. Only the first 16 bits (00-15) are supported.

Important Memory Considerations

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

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

Note that the PLC Control Object will not work as stated in the manual with this controller. Contact Maple Systems for additional information.

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 Baldor Motion Controller.
- the **Options** column lists EZware-500's options; your Controller may not support every option

Name	Recommended Settings	Options	Important Notes
PLC type:	Baldor Mint v.N.n		
Serial port I/F:	RS232	RS232, RS485 Default	
Data Bits:	8	7 or 8	Must match the serial port setting.
Stop Bits:	1	1 or 2	Must match the serial port setting.
Baud Rate:	RS232: 57,600 RS485: 19,200	9600,19200, 38400,57600, 115200	Must match the serial port setting. Use the fastest baud rate supported by the Controller.
Parity:	None	Even, Odd, None	Must match the serial port setting.
HMI station No.:	0	0-31	Not Applicable.
PLC station No.:	0	0-31	Must match the controller's Node 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>
Parameter 1	0	0-999	Turn-Around Delay (Msec)
Parameter 3	0	0,1	Potocol Mod: 0=HCP, 1=HCP2