CONTROLLER INFORMATION SHEET

Giddings & Lewis

PiC Family, MMC Family

Overview

Maple Systems' **Silver Series** Operator Interface Terminals (Maple OITs) communicate with the Giddings & Lewis PiC and MMC Family Controllers using the Modbus RTU protocol. When configured with EZware, the Maple OIT 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 OITs to a single Modbus RTU port.

Compatible Controllers	
Family	**Model**
PiC Family	PiC9, PiC90, PiC900
MMC Family	MMC-A2, MMC-A4, MMC-S8

Communications Cable

The Maple OIT should be connected to the Controller's RS232 User Port.

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.

Controller Settings

Name	Default	Options	Notes
Port	User	Comm Module	For RS485, use the Comm Module
Port Protocol	Modbus RTU Slave	No Valid Options	Only Modbus RTU Slave is supported.
Address	1	1 - 247	Must match the OIT 'PLC Station' setting.
Configuration String			Must match the OIT's configuration.
Baud Rate	19200	19200, 9600, 4800, 2400, 1200, 600, 300	Use the highest rate supported by both
Data Bits	8	7, 8	
Parity	Even	Even, Odd, None	
Stop Bits	1	1, 2	
Synchronization	None	No Valid Options	If updates are slow or data errors occur, reduce the baud rate.

Accessible 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.

Controller Register Address	Modbus Address	Description
0 - 998	30001 - 30999	Input Register, Read Only
0 - 998	40001 - 40999	Output Register

Discrete Memory

The following table lists the controller's discrete 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 discrete memory is displayable in single-bit format on the Maple OIT.

Controller Bit Address	Modbus Address	Controller Bit Description
0 - 998	00001 - 00999	Discrete Coils/Outputs
0 - 998	10001 - 10999	Discrete Inputs, Read Only

Important Memory Considerations

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

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

The Maple OITs use the following Modbus function codes:

- 01 - Read output coils (ex. 00001)
- 02 - Read input coils (ex. 10001)
- 03 - Read data registers (ex. 40001)
- 04 - Read input registers (ex. 30001)
- 05 - Write output coils (ex. 00001)
- 06 - Write data registers (ex. 40001)
- 15 - Write multiple output coils (ex. 00001-00016)
- 16 - Write multiple data registers (ex. 40001-40016)

EZware Settings

The following table lists the communications settings that must be configured in EZware. 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 Giddings & Lewis Controllers
- the **Options** column lists EZware's options; your controller may not support every option

Name	Recommended Settings	Options	Important Notes
PLC type:	Modbus RTU Extend V3		See Controller Information Sheet 1033-0045 *Modubs Generic Series* for more information
Serial port I/F:	RS232	RS232, RS485	
Data Bits:	8	7 or 8	Must match the Drive's port setting.
Stop Bits:	1	1 or 2	Must match the Drive's port setting.
Baud Rate:	19200	9600,19200, 38400,57600, 115200	Must match the Drive's port setting. Use the fastest baud rate supported by controller.
Parity:	Even	Even, Odd, None	Must match the Drive's port setting.
HMI station no.:	0	0-255	Does not apply to this protocol.
PLC station no.:	1	0-255	Must match the Modbus port setting.
Multiple HMI:	Disable	Disable, Master, Slave	use for multiple OITs
HMI-HMI link speed:	38400	38400, 115200	use for multiple OITs
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 Silver Series Installation and Operation Manual