



MGate MB3170 and MB3170I Quick Installation Guide

Fourth Edition, July 2012

1. Overview

The MGate MB3170 and MB3170I are 1-port advanced Modbus gateways that convert between Modbus TCP and Modbus ASCII/RTU protocols. They can be used to allow Ethernet masters to control serial slaves, or to allow serial masters to control Ethernet slaves. Up to 16 TCP masters and 31 serial slaves can be connected simultaneously.

2. Package Checklist

Before installing the MGate MB3170 or MB3170I, verify that the package contains the following items:

- MGate MB3170 or MB3170I Modbus gateway
- Document & Software CD
- MGate MB3170 and MB3170 Quick Installation Guide
- Product Warranty Statement

Please notify your sales representative if any of the above items is missing or damaged.

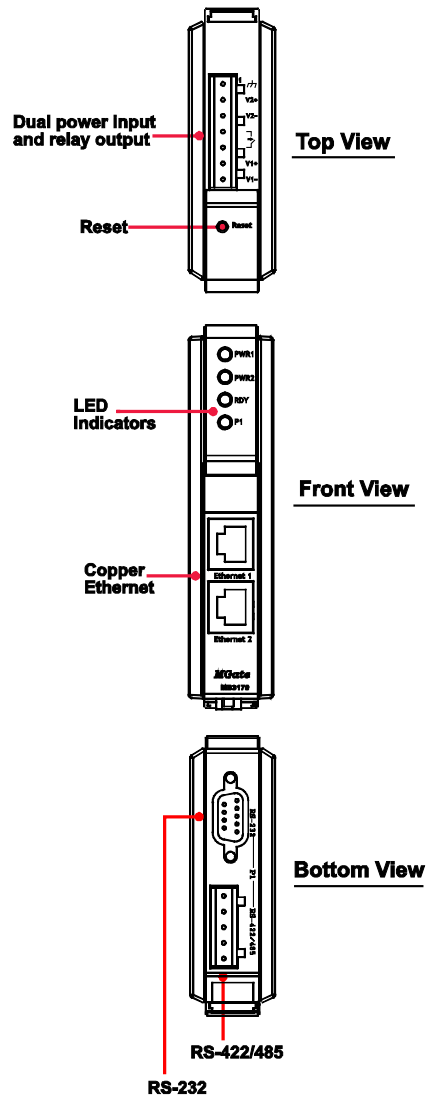
3. Hardware Introduction

LED Indicators

Name	Color	Function
PWR1	Red	Power is being supplied to the power input
PWR2	Red	Power is being supplied to the power input
RDY	Red	(steady) Power is on and the unit is booting up
		(blinking) IP conflict, DHCP or BOOTP server did not respond properly, or a relay output occurred
	Green	(steady) Power is on and the unit is functioning normally
	Off	(blinking) Unit is responding to Locate function
Ethernet	Orange	10 Mbps Ethernet connection
	Green	100 Mbps Ethernet connection
	Off	Ethernet cable is disconnected or has a short
P1	Orange	Serial port is receiving data
	Green	Serial port is transmitting data
	Off	Serial port is not transmitting or receiving data

The MGate MB3170 and MB3170I each provide P/N: 1802031700011

terminal block to connect to serial devices.



Reset Button

The reset button is used to load factory defaults. Use a pointed object such as a straightened paper clip to hold the reset button down for five seconds. Release the reset button when the Ready LED stops blinking.

4. Hardware Installation Procedure

STEP 1: Use a standard straight-through Ethernet cable to connect the unit to a network hub or switch.

STEP 2: Connect your device to the unit's serial port.

STEP 3: Mount the unit on a DIN-rail.

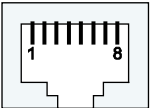
STEP 4: Connect the power source to power input.

5. Software Installation Information

To install MGate Manager, insert the MGate Document & Software CD into your PC's CD-ROM drive. Once the installation window opens, click the Installation button and follow the onscreen instructions. For more detailed information about MGate Manager, click the Documents button and select the MGate MB3000 User's Manual.

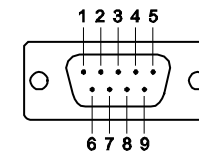
6. Pin Assignments

Ethernet Port (RJ45)



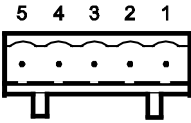
Pin	Signal
1	Tx+
2	Tx-
3	Rx+
6	Rx-

Serial Port (Male DB9)



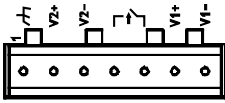
Pin	RS-232
1	DCD
2	RxD
3	TxD
4	DTR
5	GND
6	DSR
7	RTS
8	CTS
9	---

4W/2W RS-485/ RS-422 (Terminal Block) Pinouts



Pin	RS-422/485 (4W)	RS-485 (2W)
1	TxD+(B)	---
2	TxD-(A)	---
3	RxD+(B)	Data+(B)
4	RxD-(A)	Data-(A)
5	GND	GND

Power Input and Relay Output Pinouts



	V2+	V2-	Relay output	Relay output	V1+	V1-
Shielded Ground	DC Power Input 1	DC Power Input 1	Relay output	Relay output	DC Power Input 2	DC Power Input 2

7. Specifications

Power Requirements

Power Input	12 to 48 VDC
Power Consumption	MB3170: 400mA@12 VDC, 130mA@48 VDC MB3170I: 405mA@12 VDC, 140mA@48 VDC
Operating Temperature	0 to 55°C (32 to 131°F) -40 to 75°C (-40 to 167°F) for -T model
Operating Humidity	5 to 95% RH
Dimensions	29 x 124.5 x 89.2 mm
Relay Output	Support 1 Digital Relay Output to alarm (Normal close): Current carrying capacity 1 A@ 30 VDC

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