## MGate MB3270 and MB3270I

 Quick Installation GuideThird Edition, October 2007

## 1. Overview

The MGate MB3270 and MB3270I are 2-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 62 serial slaves can be connected simultaneously.

## 2. Package Checklist

Before installing the MGate MB3270 or MB3270I Modbus gateway,
verify that the package contains the following items

- MGate MB3270 or MB3270I Modbus gateway
- Document \& Software CD
- MGate MB3270 and MB3270I 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 <br>  |
|  | Green | (blinking) IP conflict, DHCP or BOOTP server did <br> not respond properly, or a relay output occurred |
|  |  | (steady) Power is on and the unit is functioning <br> normally |
|  | (blinking) Unit is responding to Locate function |  |
| Ethernet | Off | Power is off or power error condition exists |
|  | Green | 10 Mbps Ethernet connection |
|  | Off | Ethernet cable is disconnected or has a short |
| P1, P2 | Orange | Serial port is receiving data |
|  | Green | Serial port is transmitting data |
|  | Off | Serial port is not transmitting or receiving data |

## 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 MGate to a network hub or switch.

STEP 2: Connect your device to the MGate serial port
STEP 3: Mount the MGate 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)


Serial Port (Male DB9)


6789

| Pin | RS-232 | RS-422/485 (4W) | RS-485 (2W) |
| :---: | :---: | :---: | :---: |
| 1 | DCD | TxD-(A) | --- |
| 2 | RxD | TxD+(B) | --- |
| 3 | TxD | RxD+(B) | Data+(B) |
| 4 | DTR | RxD-(A) | Data-(A) |
| 5 | GND | GND | GND |
| 6 | DSR | --- | --- |
| 7 | RTS | --- | --- |
| 8 | CTS | --- | --- |
| 9 | --- | --- | --- |


|  | V2+ | V2- |  |  | V1+ | V1- |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Shielded <br> Ground | DC <br> Power <br> Input 1 | DC <br> Power <br> Input 1 | Relay <br> output | Relay <br> output | DC <br> Power <br> Input 2 | DC <br> Power <br> Input 2 |

## 7. Specifications

## Power Requirements

Power Input
12 to 48 VDC
Power Consumption MB3270: $410 \mathrm{~mA} @ 12 \mathrm{VDC}, 145 \mathrm{~mA} @ 48$ VDC MB3270I: $470 \mathrm{~mA} @ 12 \mathrm{VDC}, 150 \mathrm{~mA} @ 48 \mathrm{VDC}$
Operating Temperature Standard: 0 to $55^{\circ} \mathrm{C}$ ( 32 to $131^{\circ} \mathrm{F}$ ) Wide Temp. Model: -40 to $75^{\circ} \mathrm{C}\left(-40\right.$ to $\left.167^{\circ} \mathrm{F}\right)$
Operating Humidity 5 to $95 \%$ RH
Dimensions
$29 \times 124.5 \times 89.2 \mathrm{~mm}$
The Americas: +1-714-528-6777 (toll-free: 1-888-669-2872)
Europe: +49-89-3 70 03 99-0
www.moxa.com/support:
Asia-Pacific: +886-2-8919-1230
China: +86-21-5258-9955 (toll-free: 800-820-5036)
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