# Atop Technologies Inc.

# Industrial Modbus Gateway
## MB5408A / MB5416A
## MB5408A2-N / MB5416A2-N

# Hardware Installation Guide
### Version 1.2
### Updated in December, 2014



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## Package Check List

Check whether your package contains following items:
- MB5408A / MB5408A2-N / MB5416A / MB5416A2-N Industrial Modbus Gateway
- Hardware Installation Guide with Warranty Card
- Product CD
- 3-Pin 5.08mm Terminal Block
- 3-Pin 5.08mm Lockable Terminal Block (DC models only)
- RJ-45 to Male DB9 cable
- AC Power Cord (EU / US models only)
- Foot Rubbers
- Rack Mount Kit

## Panel Layout
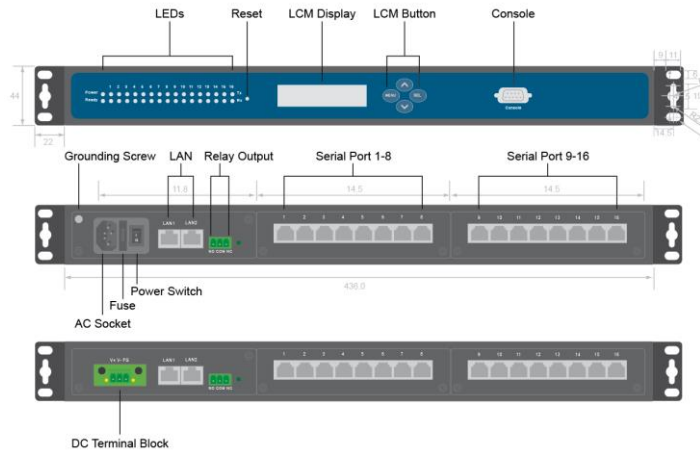


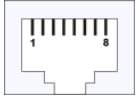*MB5408A/A2-N has its serial ports 9-16 covered up compared to MB5416A/A2-N

## LCM Display

| Buttons | Function |
|---|---|
| Menu | Open Main Menu or go back one level higher |
| (up arrow) | Scroll up |
| (down arrow) | Scroll down |
| SEL | Confirm the selection. When working with IP addresses, pressing <SEL> means moving to the next digit |

## Installation Overview

1. Ground the device properly. If you are using the AC model, you can use the grounding screw next to the AC inlet. Else, if you are using the DC model, you can use the FG pin in the terminal block. It is required to connect to the grounds at all times to ensure overall maximum performance.

2. If you opt to place the device on a rack, your will need to secure the rack mounts kit on to the device before placing it on the rack. If you opt to place the device on a surface, you can put on the foot rubbers to prevent the device from sliding.

3. You can then choose whether to plug in the I/O ports at this point or do it later. Next you can then proceed to connect the device to the LAN (switch or PC), take care on using the RJ-45 connector; after this we can then proceed to the device's settings.

- The openings to the sides are for the devices heat dissipation. Please never obstruct or cover them with any objects.

- The device server's factory IP by default is 10.0.50.100. You can access the device by its WebUI once it is connected to a physical network or use Serial Manager, for more information on Serial Manger, please refer to its manual. Please be aware that the PC needed for this procedure needs to be in the same subnet, or you may refer yourself to the device's manual on Web UI configuration.
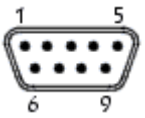
## Pin Assignments
### Serial and RJ-45 Connectors

| | Ethernet | RS-232 | RS-422 /4-Wire RS-485 | 2-Wire RS-485 |
|---|---|---|---|---|
| Pin 1 | Tx+ | RTS | - | - |
| Pin 2 | Tx- | DTR[1] | TX- | - |
| Pin 3 | Rx+ | TXD | TX+ | - |
| Pin 4 | - | SG | SG | SG |
| Pin 5 | - | SG | SG | SG |
| Pin 6 | Rx- | RXD | RX+ | Data+ |
| Pin 7 | - | DSR[1] | RX- | Data- |
| Pin 8 | - | CTS | - | - |

[1]The isolated models does not have DTR/DSR available.

## Serial and Male DB9 Connectors



| | RS-232 | RS-422 /4-Wire RS-485 | 2-Wire RS-485 |
|---|---|---|---|
| Pin 1 | DCD | - | - |
| Pin 2 | RXD | TXD+ | - |
| Pin 3 | TXD | RXD+ | Data+ |
| Pin 4 | DTR | - | - |
| Pin 5 | SG | SG | SG |
| Pin 6 | DSR | - | - |
| Pin 7 | RTS | RXD- | Data- |
| Pin 8 | CTS | TXD- | - |
| Pin 9 | RI | - | - |

*This cable (RJ-45 to Male DB9) is included in the package.

## LED Indicators

| Name | Color | Status | Message |
|---|---|---|---|
| Power | Green | On | System is powered on |
| | | Off | System is not powered on |
| Ready | Green | Blinking | AP firmware is running normally |
| | | On/Off | System is not running normally |
| COM | Green | Blinking | Data is transmitting on COM port |
| | | Off | No data is transmitting |
| LAN | Orange | On | Ethernet is connected at 100Mbps |
| | | Off | Ethernet is connected at 10Mbps or Disconnected |
| | Green | Blinking | Data is transmitting on this port |
| | | Off | Ethernet is Disconnected |

## Field Maintenance and Service

- If the device requires servicing of any kind, you may need to disconnect and remove it from its mounting. The initial installation should be done in a way that makes this as convenient as possible.

- Voltage/Power lines should be properly insulated as well as other cables. Be careful when handling them so as to not trip over.

- Do not under any circumstance insert foreign objects of any kind into the heat dissipation holes located in the different faces of the device. This may not only harm the internal layout, but might cause harm to you as well.

- Do not under any circumstance open the device for any reason. Please contact your dealer for any repair needed or follow the instructions on section of your manual.

## Warranty Policy

### Warranty Conditions

Products supplied by Atop Technologies are covered in this warranty for sub-standard performance or defective workmanship. The warranty is not, however, extended to goods damaged in the following circumstances:
(a) Excessive forces or impacts
(b) War or an Act of God: wind storm, fire, flood, electric shock, earthquake
(c) Use of unqualified power supply, connectors, or unauthorized parts/kits
(d) Replacement with unauthorized parts

### RMA and Shipping Costs Reimbursement

Customers shall always obtain an authorized "RMA" number from Atop before shipping the goods to be repaired to Atop. When in normal use, a sold product shall be replaced with a new one within 3 months after purchase. The shipping cost from the customer to Atop will be reimbursed by Atop.

After 3 months and still within the warranty period, it is up to Atop whether to replace the unit with a new one; normally, as long as a product is under warranty, all parts and labor are free of charge to the customers.

After the warranty period, the customer shall cover the cost for parts and labor. Three months after purchase, the shipping cost from the customer to Atop will not be reimbursed, but the shipping cost from Atop to the customer will be paid by Atop.

### Limited Liability

Atop shall not be held responsible for any consequential losses from using Atop's product.

### Warranty Period

| Product Categories | Warranty |
|---|---|
| Ethernet Switches | 5 Years |
| Wireless | |
| Serial Device Servers | |
| Modbus Gateways | |
| Embedded Device Servers | |
| DIN-Rail Power Supplies | 3 Years |
| Power Adaptors | 1 Year |
| Antennas | |
| Other Accessories | |

The Warranty Certification will not be effective until an authorized stamp issued by Atop's overseas agents.

Purchase Date:        /        /        (yyyy/mm/dd)

Serial Number:



**ATOP Customer Services and Supports**

1. Please contact your local dealers or Atop Technical Support Center at the following numbers.

    +886-3-550-8137   (Atop Taiwan)
    +86-21-6495-6232 (Atop China)

2. Please report the defected problems via Atop's Web site or E-mail account

Web Site:www.atop.com.tw e-mail: service@atop.com.tw
Web Site:www.atop.com.cn e-mail: service@atop.com.cn

-Any changes to this material will be announced on Atop website.-