MGate MB3180 Setup Guide

Software & Equipment Needed
In order to setup the MGate MB3180 unit you will need to download and install the MGate Manager software from MOXA. This can be downloaded from http://www.moxa.com/support/DownloadFile.aspx?type=support&id=981.

You will also need a connection from your laptop to the MGate unit using either a crossover cable or through a switch. I always go through a switch to make things a little easier.

Setting up the MGate MB3180 Unit
Start MGate Manager software and you will see this screen.

Figure 1 - MGate Manager
Make sure you are connected to the MGate MB3180 unit and select the Search button. Use the broadcast search to locate the unit you are trying to configure.

If the IP address has already been configured use the Specify IP Search and enter the IP address of the unit. This will search for the specific IP to allow you to change the setting if needed.

Once the unit is located it will show up in the main part of the screen as shown.
Once the unit is discovered select it and press the configuration button.

Figure 4 - Configure the Unit
The next screen is where you start the configuration process of the unit. You will see the screen below.

Figure 5 - Configuring the Unit - Mode
Select the RTU Master Mode for this screen as shown.

![Configuration Window]

Figure 6 - Select RTU Master Mode
Now go to the Network Tab. This is where you will set up the IP address for the unit. As you can see from the screen it is set as the default IP of the unit.

![Network Tab Configuration](image)

*Figure 7 – Setup IP Address*
Change this to match your PLC network.

I always leave the password fields blank but if you want to secure this enter the password you would like to use.
Next go to the Serial tab. You will see the default settings for the serial port.

Figure 9 - Configuration - Serial
Set these as follows to match the setting that will be used for the RS-485 (MODBUS) network.

![Figure 10 - Match RS-485 (MODBUS) Network](image)

Make sure you select the RS485 2-wire for the interface selection.
After the serial configurations are complete it should look something like this.

Figure 11 – Completed Serial Configuration

Notice that wiring for the serial port is shown in the top section. This will be the wiring from the MGate unit to the XL200 series controller.
Now go to the Modbus Routing tab.

It defaults to no routing as shown. We have to add a route in order for this unit to work.

![Configuration - MODBUS Routing](image)

In order to add a route select add next to the lower window. This will give you a pop-up window to add the routing (shown below).
Enter the IP address, slave ID start address and slave ID end address of the PLC into this window.  

*Leave the TCP port at the default 502. This is the default Rockwell Automation MODBUS TCP.*

![Slave ID Table](image1)

**Figure 13 - Slave ID Table**

It should look similar to this.

![Completed Slave ID Table](image2)

**Figure 14 – Completed Slave ID Table**
One you finish entering the PLC information select OK and the window should like similar to this.

Figure 15 - Completed MODBUS Routing Configuration
Next select the Modbus tab. Make sure these are at the defaults. No need to change any of these settings.

Figure 16 - Configuration - MODBUS
Next select the Accessible IP tab. Make sure these are at the defaults. No need to change any of these settings.

Figure 17 - Configuration - Accessible IP
Next select the SNMP tab. Make sure these are at the defaults. No need to change any of these settings.
Next select the Miscellaneous tab. Make sure these are at the defaults. No need to change any of these settings.

Figure 19 - Configuration - Miscellaneous
After all of the configuration tabs have been checked select the OK button.

Figure 20 - Approve Configurations
You will get this pop-up.

![Warning Pop-up](image)

Figure 21 - Warning Pop-up

This will force the MGate Manager to start searching for the unit again.

![Searching for Unit](image)

Figure 22 - Searching for Unit
After the search is completed you will see the unit listed with the new IP address.

![Image of MGate Manager interface with a table showing unit listed with new IP address]

Figure 23 - Unit Listed with New IP Address

At this point the configuration for the unit is completed. Once you make the connections to the PLC and the XL200 series controller, that has the PLC Interface settings entered to match the settings of the unit the communications should be able to start. You might be required to search for the PLC the first time you connect if the controller lost communications or never connected to the PLC before with this unit.