CHEMTROL AUSTRALIA PTY LTD
ABN: 95 626 805 301
Unit 19-20, 16 Narabang Way, BELROSE 2085 NSW
www.chemtrol.com.au

Building Management System (BMS) installation guidance

The CHEMTROL® programmable controller range supports communication through various open protocol languages. The most commonly used protocols today include Modbus IP, Modbus RTU, BACnet IP, BACnet MSTP, and LonWorks. The controller can be configured with any of these languages.

To establish this connection, our BMS electronics module must be installed within the controller cabinet. This intelligent module converts the controller's digital outputs into the required protocol language.

Installation of the BMS electronics module:

1. **24vDC Power Connection**:
   Run the two-wire cables (Red & Black) from the BMS module to the main power board terminal block. Connect the Red cable to the 24v terminal and the Black cable to the GND terminal.

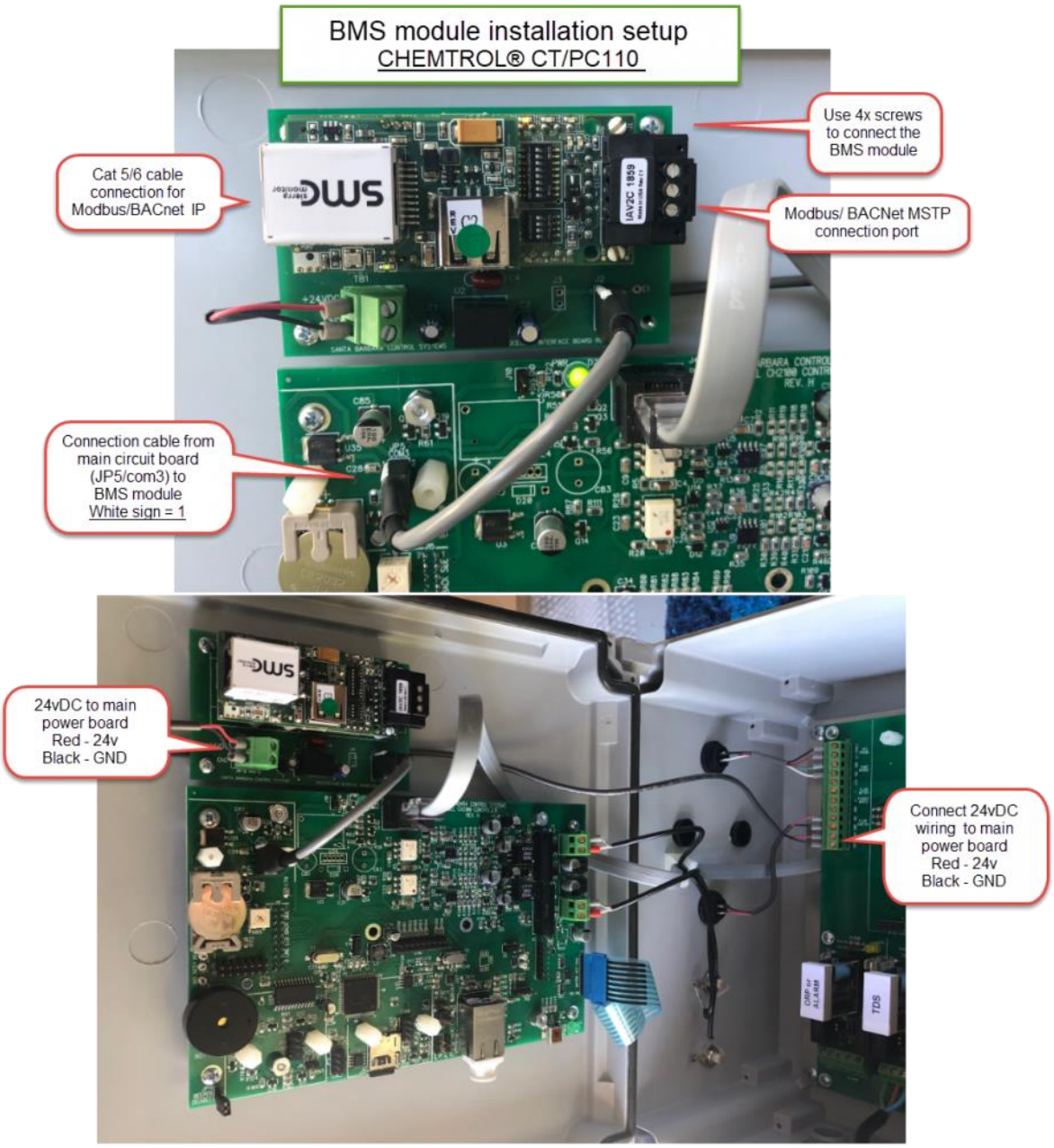
2. **Modbus/BACNet IP, Cat-5/6 Connection:**
   Plug in your customer cable connection to the designated port on the BMS module.

3. **Modbus/BACNet MSTP Connection:**
   Utilize the 3-wire connection port for Modbus/BACNet MSTP.

4. **Grey Cable Connection:**
   a. The grey wire comes pre-connected on the BMS module when shipped. Connect the other end of this wire to the CPU board at JP5/Comm3.
   b. Pin 1 on each side of the cable is marked with white ink or a red line. When connecting the grey wire to the CPU board, ensure that this white ink or red line is connected to Pin 1 on the CPU board.

Note: Please refer to the attached picture for a visual guide on connecting the grey cable.

CHEMTROL AUSTRALIA PTY LTD
ABN: 95 626 805 301
Unit 19-20, 16 Narabang Way, BELROSE 2085 NSW
www.chemtrol.com.au

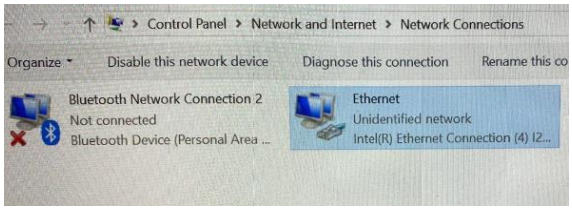


If any issues arise during installation, refer to the product manual or contact our customer support for assistance.

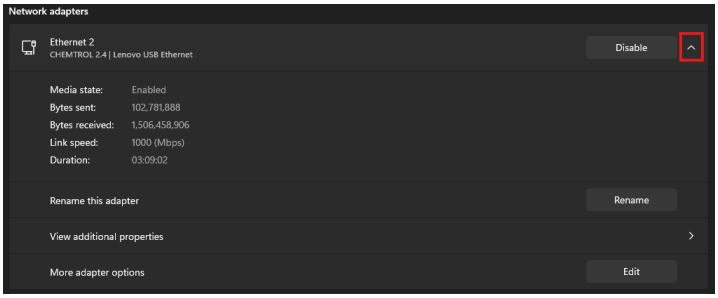
CHEMTROL AUSTRALIA PTY LTD
ABN: 95 626 805 301
Unit 19-20, 16 Narabang Way, BELROSE 2085 NSW
www.chemtrol.com.au

Network setup

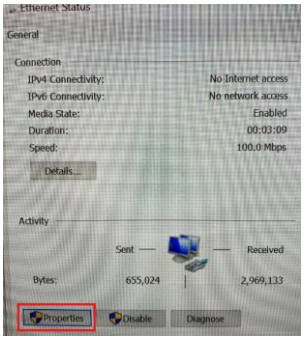
1. For Win 10 user, go to “Control panel -> network and internet -> network connections” Double click the “Ethernet” and you will get the below screen.



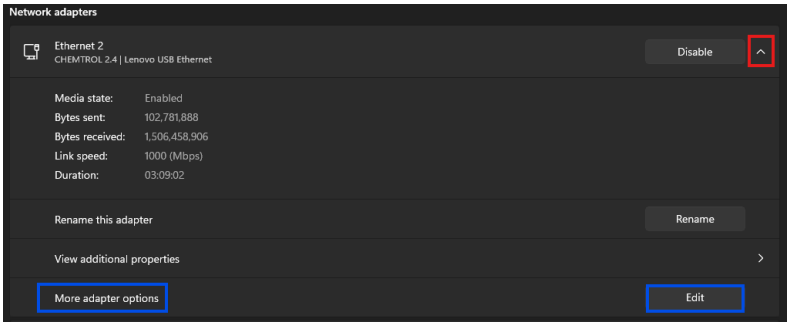
For Win 11 user, go to “Network & Internet”, click “Advanced network settings” and you’ll get the below screen.



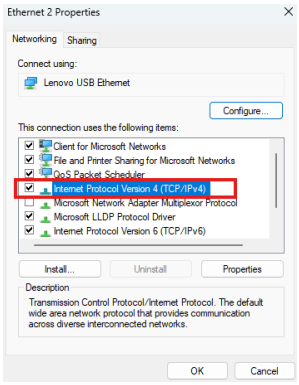
2. For Win 10 click “Properties” like in the image below.



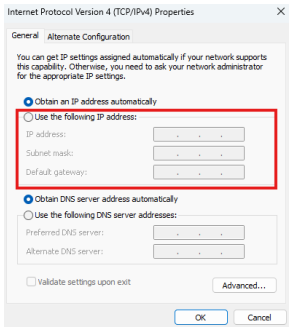
For win 11 click “More adapter options” edit button (in blue in the image below).



3. In both Win 10 and 11 you will get the below screen, double click “Internet Protocol Version 4 (TCP/IPv4)”

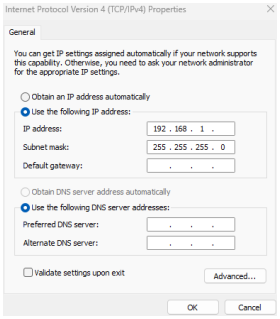


4. Change the IP setting from “Obtain an IP address automatically” to “Use the following IP address”. Configure your laptop's Ethernet adapter with an IP address in the same class.



And enter the below details:

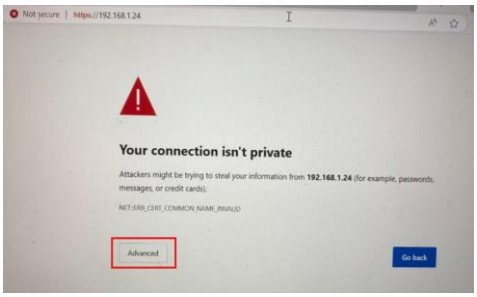
- IP Address: your current IP address (usually 192.168.1.x)
- Subnet Mask: 255.255.255.0
- Default Gateway: keep blank



Click “Ok” on all above screens so your changes will be saved.

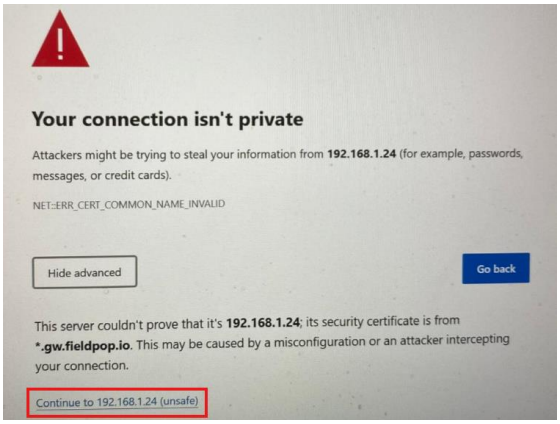
5. Make sure that the BMS unit is connected to your laptop via RJ45.

6. Open your desktop's browser and enter "192.168.1.24", you will receive a message that this page is not secure like in the image below.

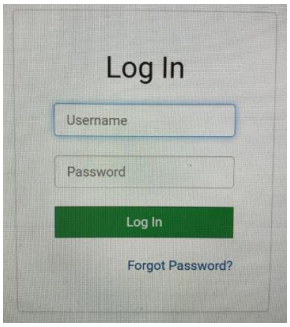


Click "advanced" to proceed to the next screen.

7. You will receive another message asking if to continue unsafe, click on it like in the below image.



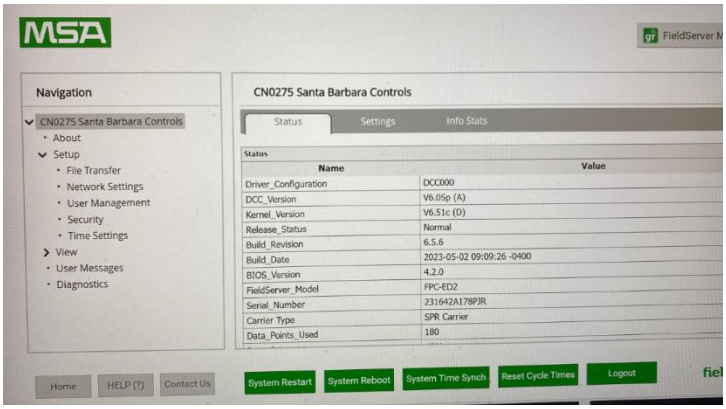
8. You will forward to the BMS log in page, enter the username and the password
   - Username: admin
   - Password: A sticker with the password is located on the BMS unit.



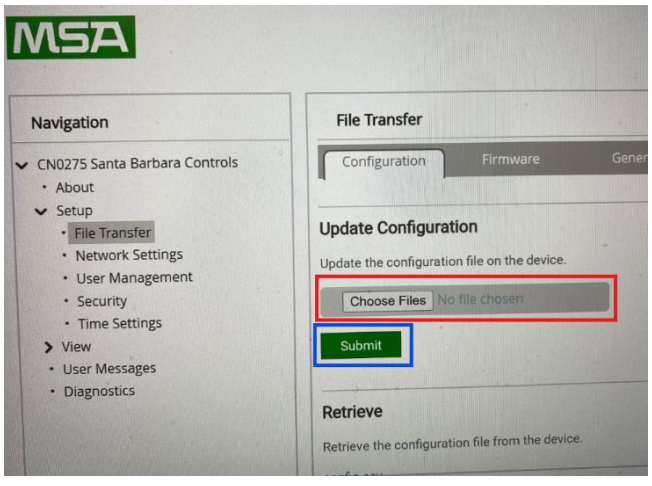
It looks like that:

9. You will get the below screen Click “Diagnostics & Debugging”

10. In the below screen you can see the device status and you know it’s connected. Go to, “Setup” -> “File Transfer”



11. And upload the file that support the protocol that you would like to work with. Simply click “Choose Files” and choose a CSV file, then click “Submit”.



Chemtrol Master Modbus Address Lis

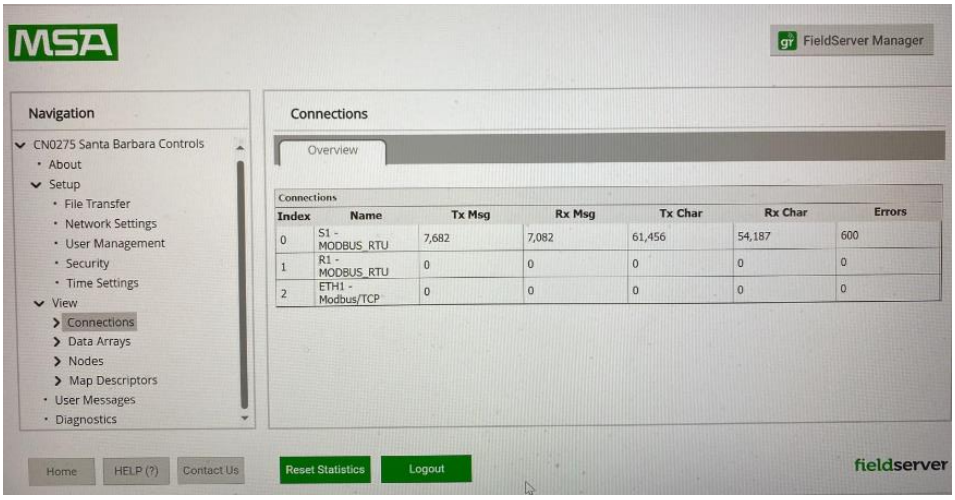
pc2100cPPM2-bacnetMSTP44.csv

pc2100cPPM2-bacnetIP44.csv

pc2100cPPM2-MOD44.csv

12. After uploading the file, click “system Restart” at the bottom. It will take up to 1 minute to reload.

13. Go to “View” -> “Connections”, and validate that the module is communicating in both ways, ‘Tx Msg’, and ‘Rx Msg’ as well as ‘Tx Char’, and ‘Rx Char’. If you see data there than all good.
You also will have approximately 2% of Errors, this is also normal.
Note –the name you’ll have in the “Name” column is based on the protocol that you are using which based on the CSV file you uploaded.



The above steps provide a clear and concise guide for configuring, and connecting with the SMC module.

If you have any questions, feel free to reach out to our support team for further assistance at any time.