tGW-700 Series Quick Start

IPv6 version 1.2, Oct. 2020

What's in the box?

The following items are included in the package:

tGW-700 Module x 1

CA-002 Cable x1

Quick Start x1

Related Information

- tGW Series Product webpage:

https://www.icpdas.com/en/product/guide+Industrial__Communication+Gateway+tGW__Modbus__Gateway#1063

- Document & Firmware:

https://www.icpdas.com/en/download/index.php?nation=US&kind1=&model=&kw=tGW-700

- NS-205/NS-205PSE/M-7000 Product webpage (optional):

https://www.icpdas.com/en/product/guide+Industrial__Communication+Ethernet__Communication+Ethernet__Switch

https://www.icpdas.com/en/product/guide+Remote__I_O__Module__and__Unit+RS-485__I_O__Modules+I-7000#467

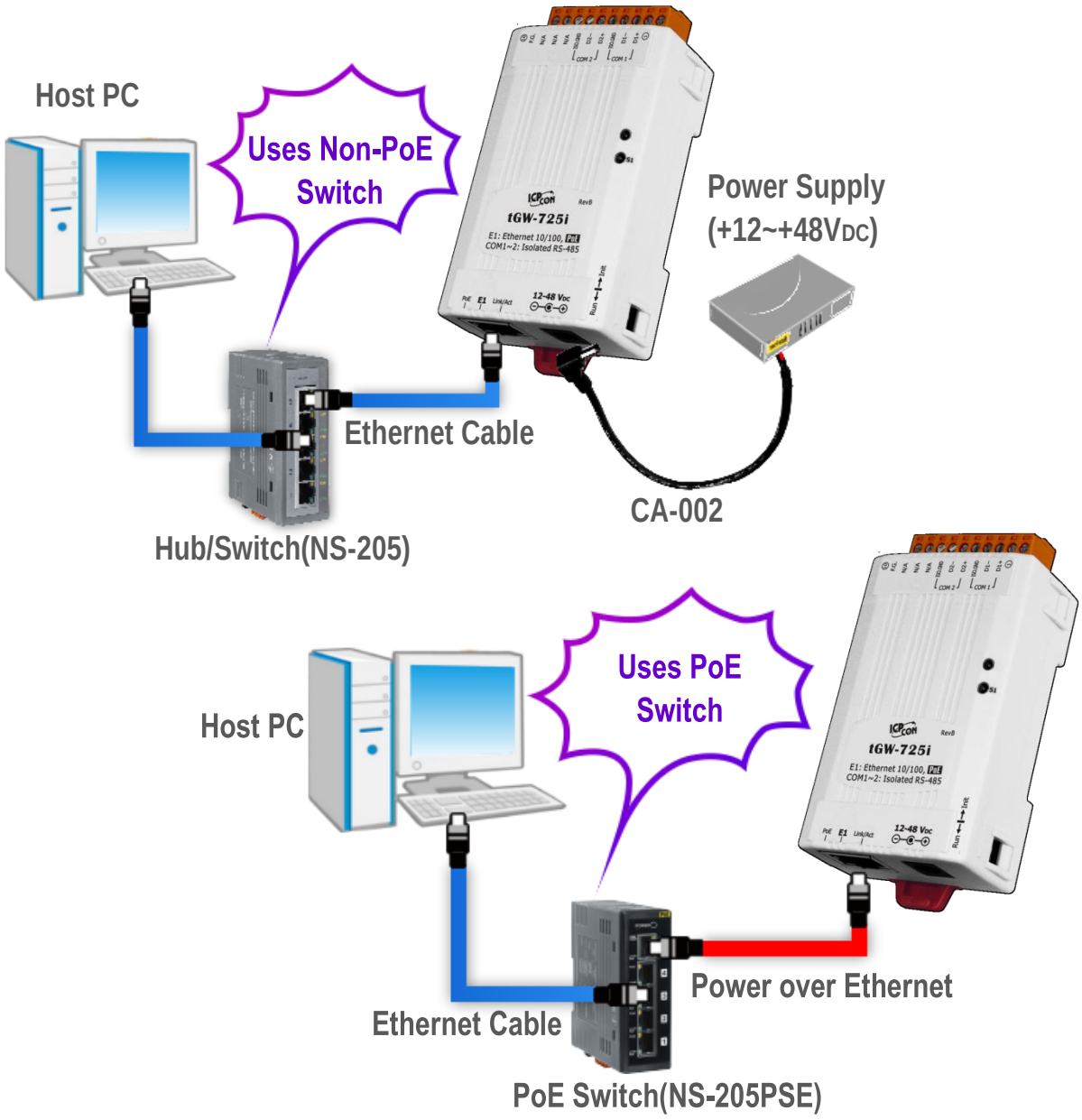
1 Connecting the Power and Host PC

1) Make sure the network of your PC is functioning appropriately.

Make sure your Windows firewall and Anti-Virus firewall is set accurately (or you can temporarily disable the Windows firewall or Anti-Virus firewall). The “Search Servers” on Chapter 5 may not work if the settings are incorrect. (Please contact your system Administrator if you have problem)

2) Connect the tGW-700 and your PC to the same sub network or the same Ethernet switch.

3) Connect power supply (PoE or +12 to +48 VDC) **to the tGW-700.**



2 Installing Software on Your PC

Install eSearch Utility (it can be obtained from the web site as below):

Note: The version of the eSearch Utility must be v1.2.5 or later.

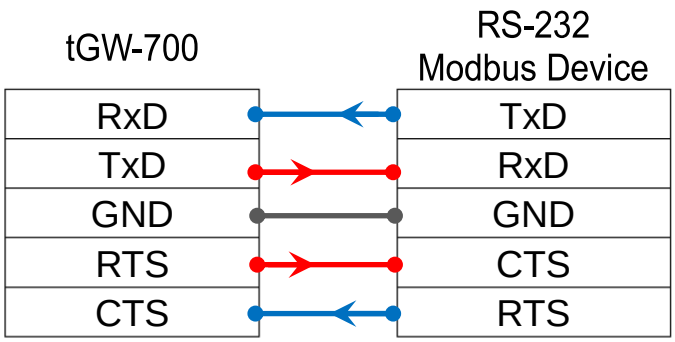
https://www.icpdas.com/en/product/guide+Software+Utility_Driver+eSearch__Utility

3 Wiring Notes

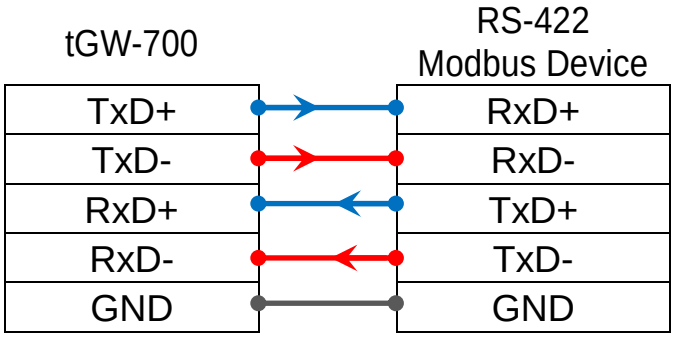
Wiring Notes for RS-232/485/422 Interfaces:

☑: The following RS-232 and RS-485 wiring deployment as an example.

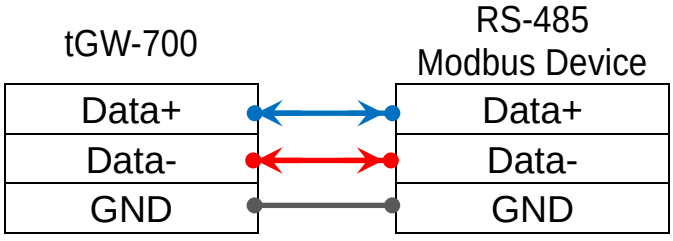
☑ RS-232 Wiring



☐ RS-422 Wiring



☑ RS-485 Wiring

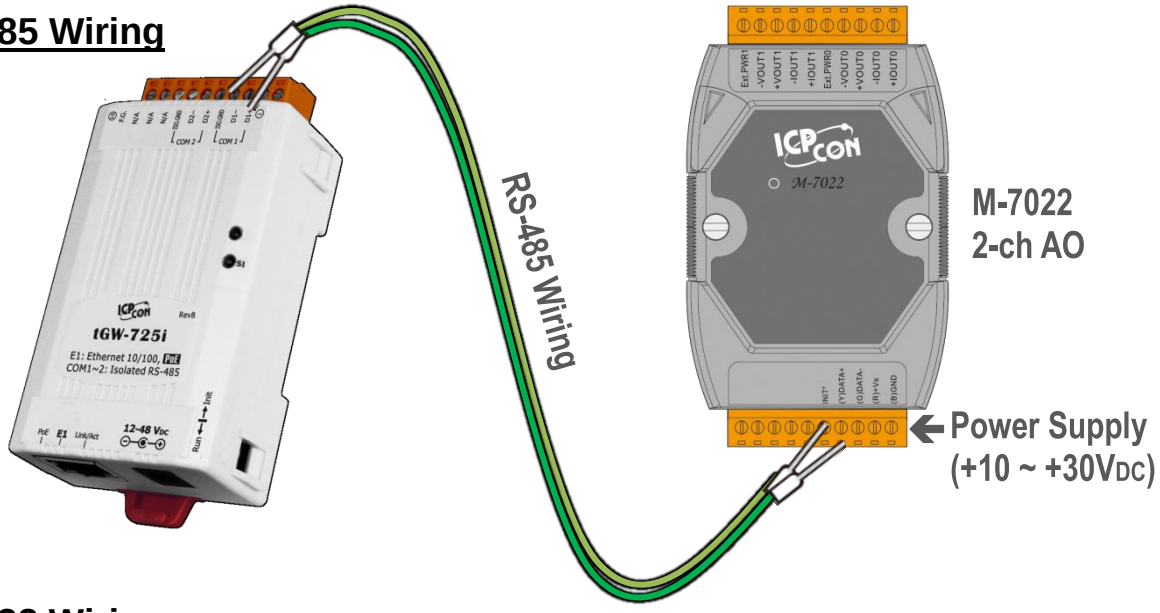


4 Connecting the Modbus Devices

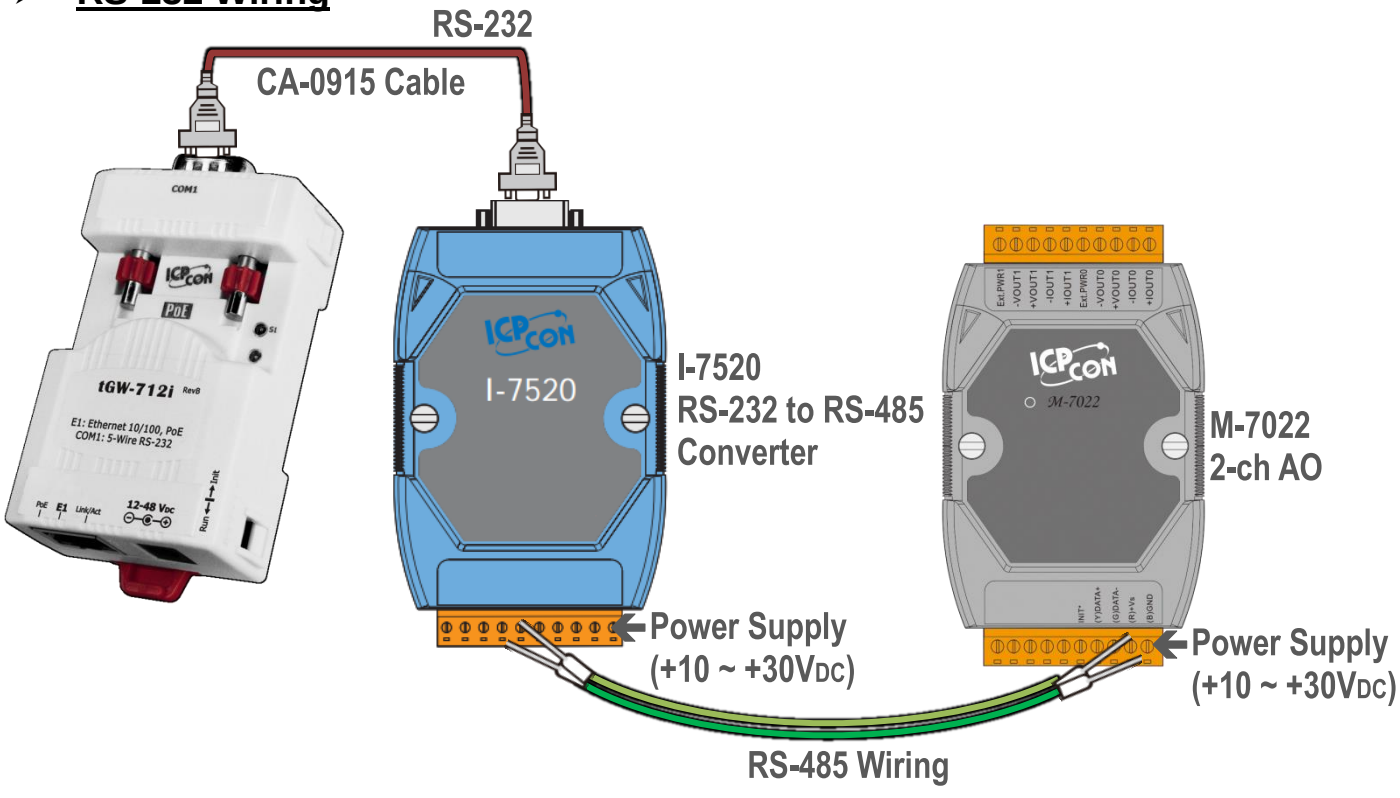
1) Connect the Modbus device (e.g., M-7022, optional) to the COM1 on tGW-700.
2) Supply power to the Modbus device (e.g., M-7022, Device ID:1).

⚠Note: The wiring deployment of the device and power supply may vary depends on your Modbus device.

➢ **RS-485 Wiring**



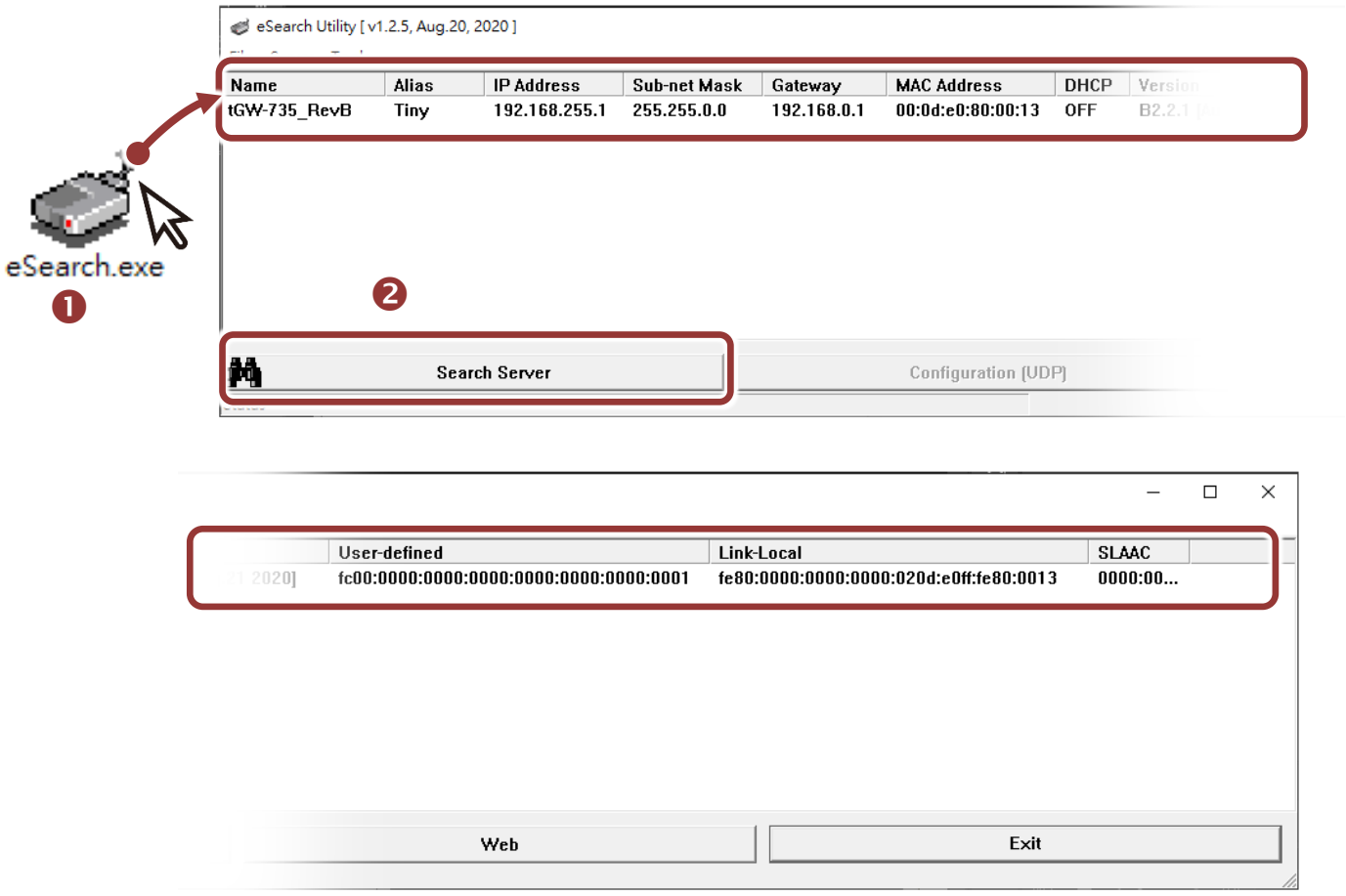
➢ **RS-232 Wiring**



5 Configuring Network Settings

1) Double-click the eSearch Utility shortcut on the desktop.

2) Click the **"Search Servers"** to search your tGW-700.



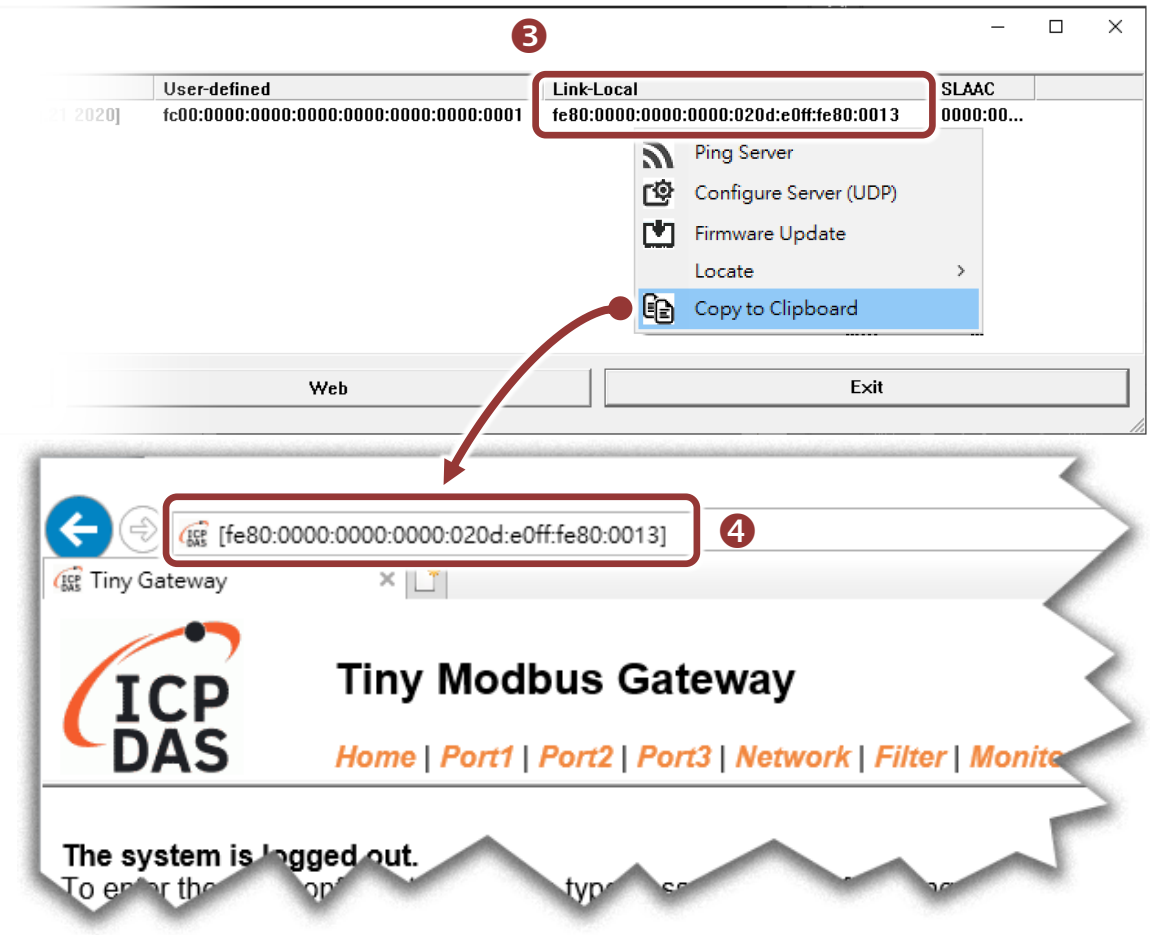
Factory Default Settings of tGW-700:

IPv4 settings		Wirtable
IP Address	192.168.255.1	✓
Subnet Mask	255.255.0.0	✓
Gateway	192.168.0.1	✓
IPv6 settings		Wirtable
User-defined	fc00::1	✓
Link-Local	EUI-64 format	×
SLAAC	Auto-Configure	×

3) Right Click on the Link-Local field and click the **"Copy to Clipboard"** to copy the "**Link-Local address"** of the tGW-700 module.

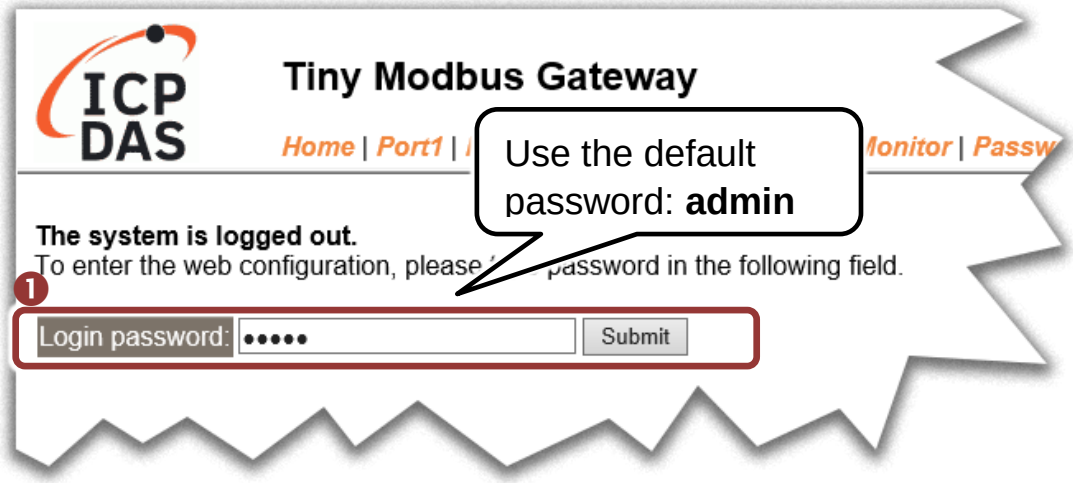
4) Paste the "**Link-Local address"** of the tGW-700 module in the address bar of the browser and add the brackets, i.e., [**Link-Local address**].

Note: The Web button only use the IPv4 address to access the Web Server.



6 Configuring the Serial Port

1) Enter the password in the login password field and click **"Submit".**

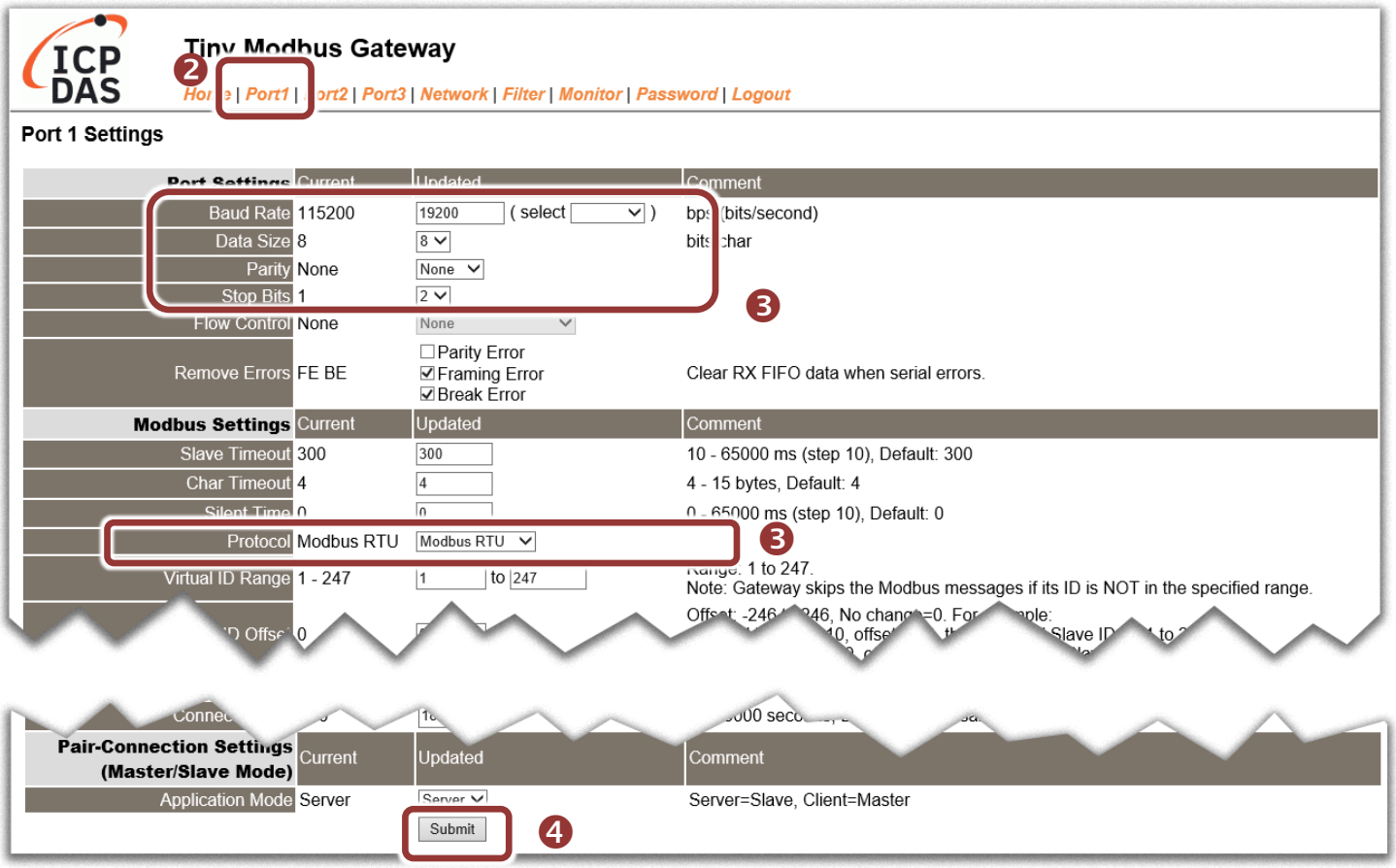


2) Click the **"Port1"** tab to display the **"Port1 Settings"** page.

3) Select the appropriate **Baud Rate, Data Format and Modbus Protocol** (e.g., 19200, 8N2 and Modbus RTU) from the relevant drop down options.

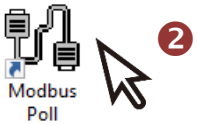
⚠ **Note: The settings of Baud Rate, Data Format or Modbus protocol will depend on your Modbus device.**

4) Click **"Submit"** to save your settings.



7 Self-Test

1) Download and install the "Modbus Poll" test program from the link as below: https://www.modbustools.com/download.html

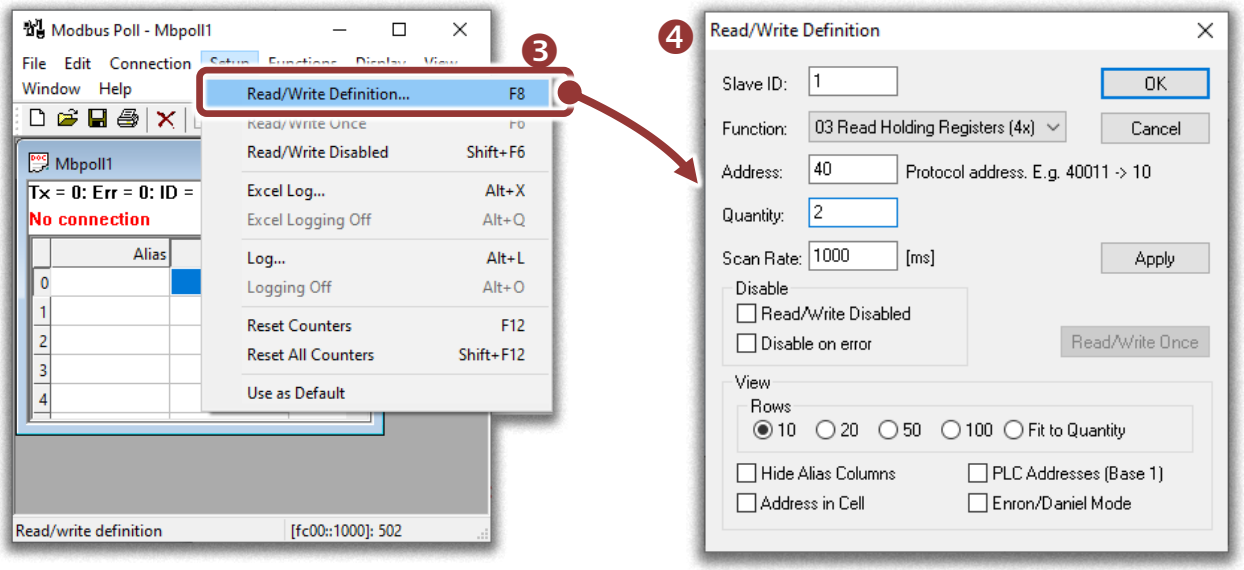


2) Double-click the Modbus Poll shortcut to open.

3) Select the "Read/Write Definition…" from the "Setup" menu to open the "Read/Write Definition" dialog box.

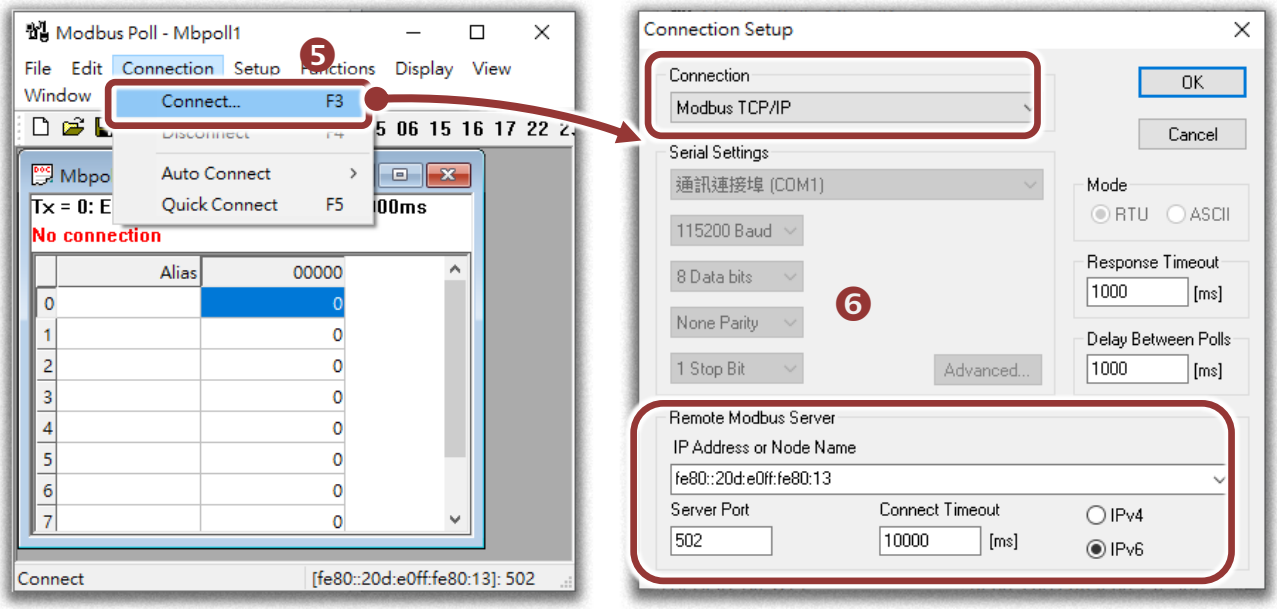
4) Configure the settings for the Slave.

⚠ **Note: The settings of the Modbus Slave will depend on your Modbus device.**



5) Select the “Connect…” from the “Connection” menu to open the “Connection Setup” dialog box.

6) Configure the IPv6 address and TCP port (default : 502) of tGW-700 and click **“OK”** to connect the tGW-700 for testing.



7) If the response data is correct, it means the test is successful**.**