

tSH-72x Series Quick Start

v1.0, Feb. 2018

What's in the box?

The package includes the following items:



tSH-72x Series Module x1



Quick Start x1 (This Document)



CA-002 Cable x1

Related Information

- tSH Series Product Page:
http://www.icpdas.com/root/product/solutions/industrial_communication/pds/tsh-700.html

- Documentation & Firmware:
http://ftp.icpdas.com/pub/cd/tinymodules/napdos/tsh-700/document/
http://ftp.icpdas.com/pub/cd/tinymodules/napdos/tsh-700/firmware/

- NS-205/NS-205PSE Product Page (optional):
http://www.icpdas.com/root/product/solutions/industrial_ethernet_switch/ns-205.html
http://www.icpdas.com/root/product/solutions/industrial_ethernet_switch/ns-105pse.html

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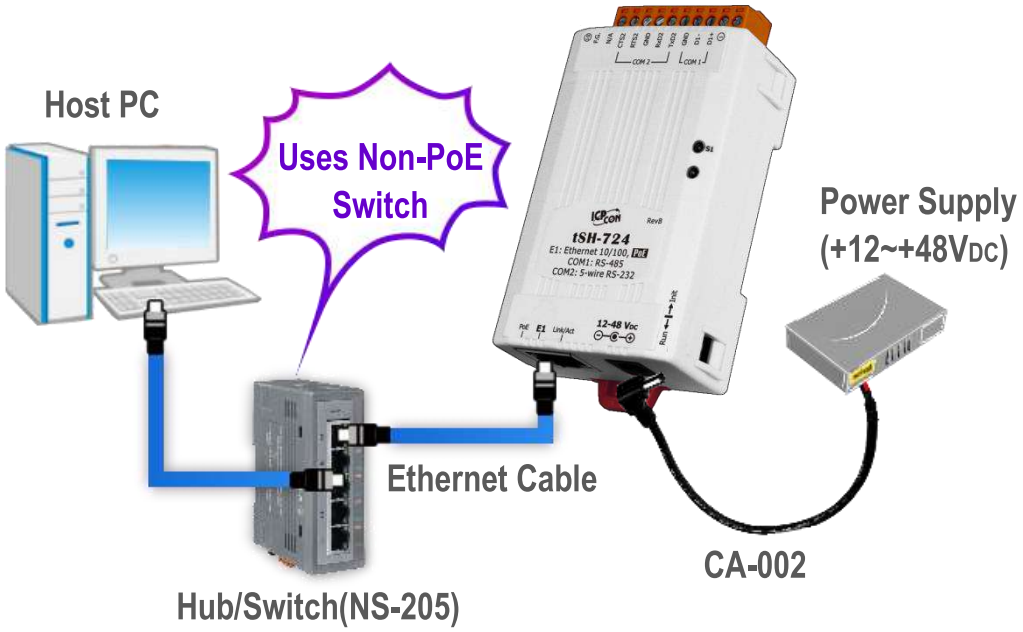
1 Connecting the Power and Host PC

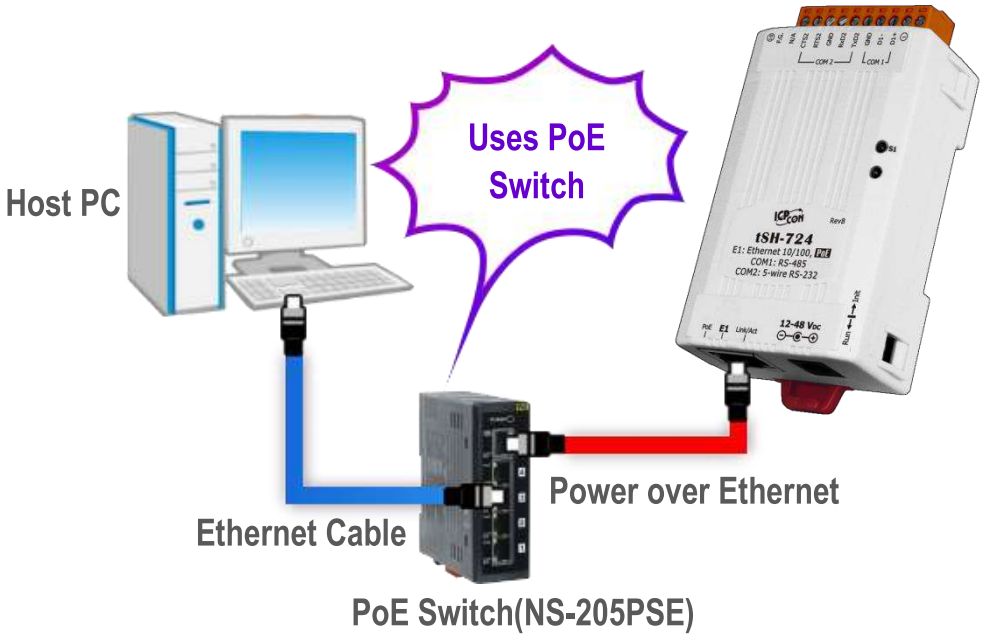
1) Make sure your PC has workable network settings.

Disable or well configure your Windows firewall and Anti-Virus firewall first, else the **"Search Servers"** on **Chapter 4** may not work. (Please contact with your system Administrator)

2) Connect both the tSH-72x and your PC to the same sub network or the same Ethernet switch.

3) Supply power (PoE or +12~+48 VDC) **to the tSH-72x.**





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2 Installing Software on Your PC



Install eSearch Utility, which can be obtained from the web site:

http://ftp.icpdas.com/pub/cd/tinymodules/napdos/software/esearch/

3 Connecting the Master and Slave Devices

1) Connect the serial port of PC (Master) to COM2 on the tSH-72x (e.g., tSH-724).

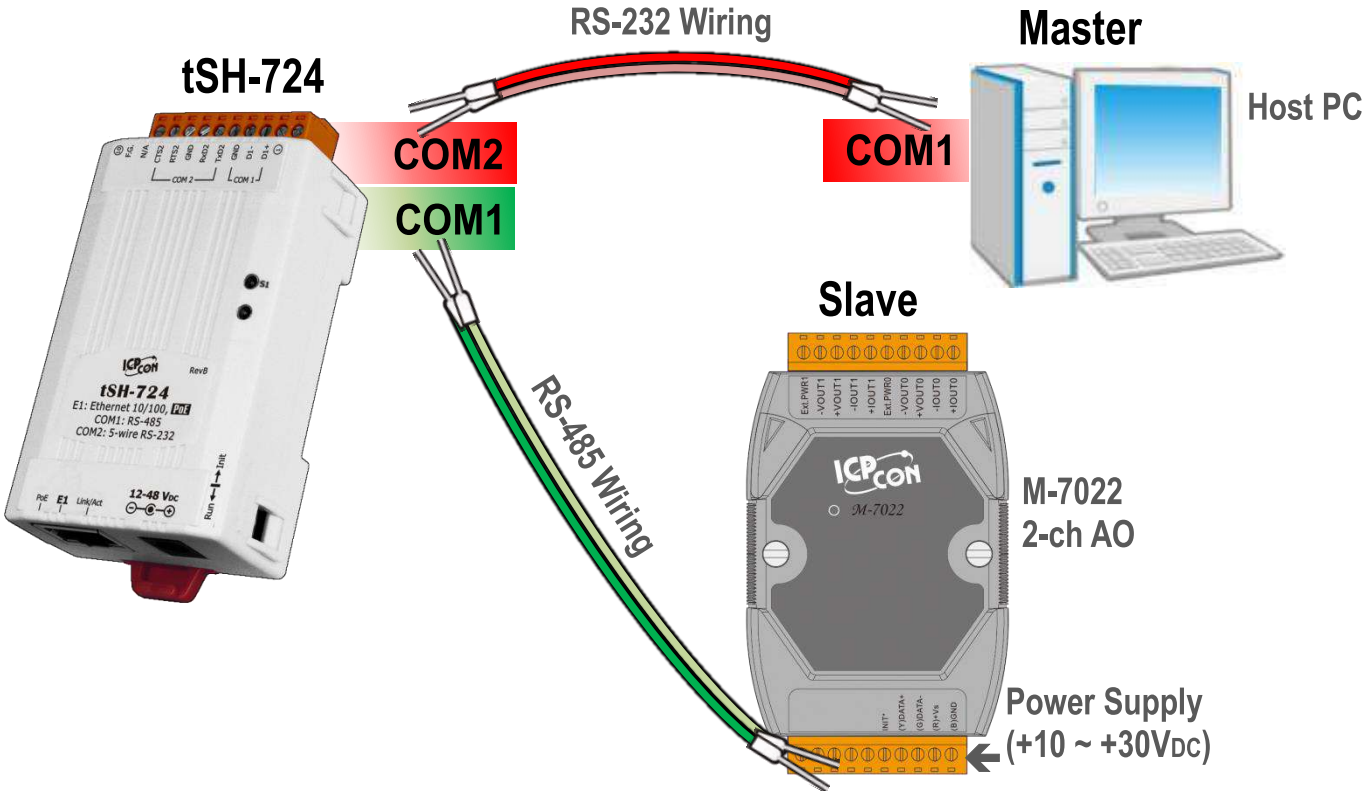
2) Connect the Modbus device (Slave, e.g., M-7022, optional) to COM1 on the tSH-72x (e.g., tSH-724).

tSH-700		RS-485 Modbus Device
DATA1+	● — ●	DATA2+
DATA1-	● — ●	DATA2-
GND	● — ●	GND

tSH-700		RS-232 Modbus Device
RxD	● ← ●	TxD
TxD	● → ●	RxD
GND	● — ●	GND

3) Supply power (+10 ~+30 V_{DC}) to the Modbus device (e.g., M-7022, Device ID: 1)

Note: The wiring and supply power method depends on your Modbus device.



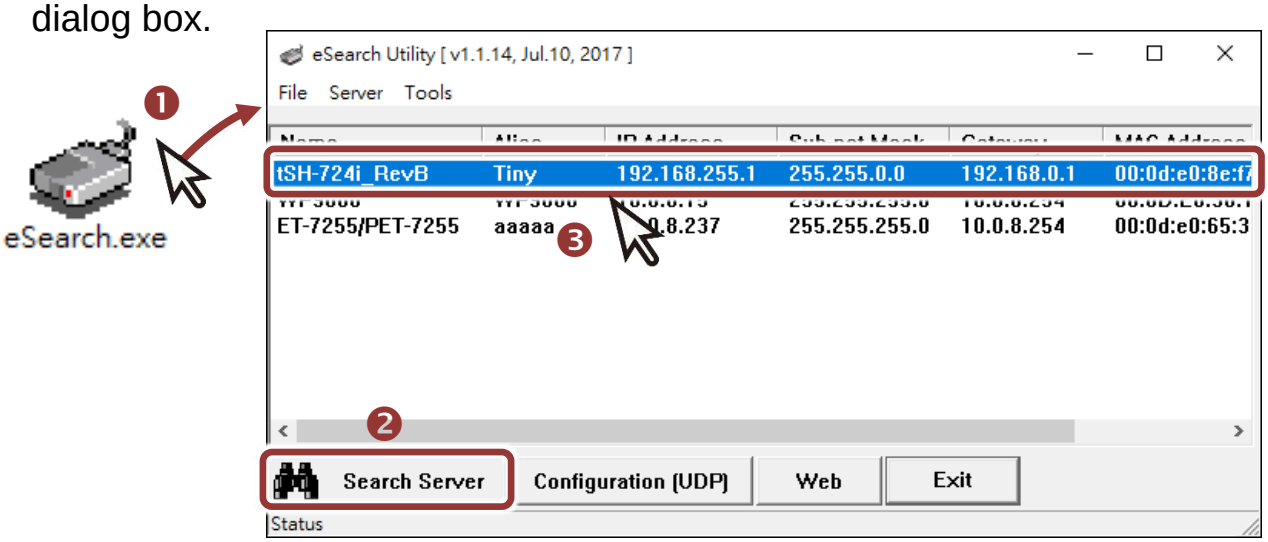
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4 Configuring Network Settings

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

2) Click the **"Search Servers"** button to search your tSH-72x.

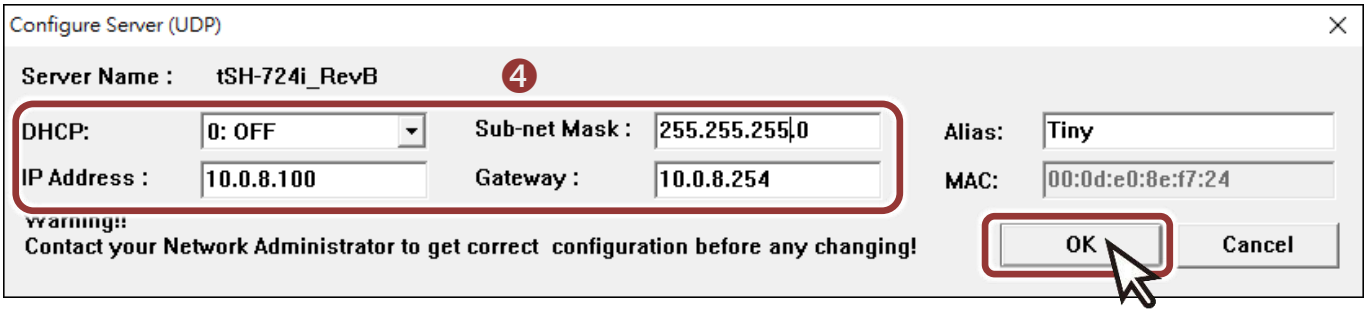
3) Double click the name of tSH-72x to open the "**Configure Server (UDP)**" dialog box.



Factory Default Settings of tSH-72x:

IP Address	192.168.255.1
Subnet Mask	255.255.0.0
Gateway	192.168.0.1

4) Contact your Network Administrator to obtain a correct network configuration (such as **IP/Mask/Gateway**). **Enter the network settings** and click **"OK"**. **Note: The tSH-72x will use the new settings 2 seconds later.**

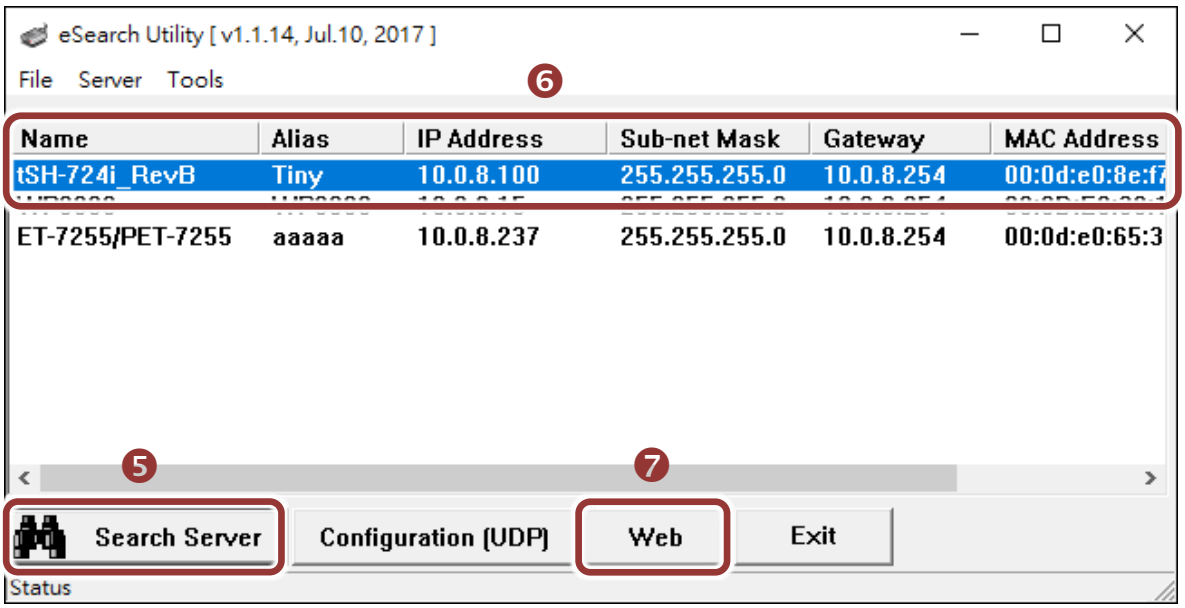


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5) Wait 2 seconds and click **"Search Servers"** button again to ensure the tSH-72x is working well with new configuration.

6) Click the name of tSH-72x to select it.

7) Click the **"Web"** button to log in to the web configuration pages. (Or enter the URL address of the tSH-72x in the address bar of the browser.)



5 Configuring the Application Mode

Note that if you intend to use Internet Explorer, ensure that the cache function is disabled in order to prevent browser access errors, please disable your Internet Explorer cache as follow: **(If you are not using IE browser, please skip this step.)**

Step1: Click **"Tools"** >> **"Internet Options…"** in the menu items.

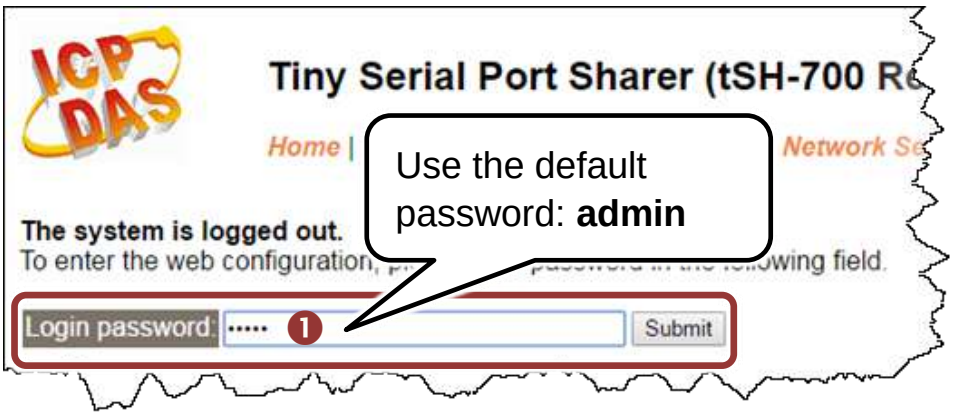
Step 2: Click **"General"** tab and click the **"Settings…"** button in Temporary Internet files frame.

Step3: Click **"Every visit to the page"** and click the **"OK"** in Settings box and Internet Options box.

For more detail, refer to "FAQ: How to avoid a browser access error that causes a blank page to be displayed when using Internet Explorer"

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1) Enter the password (use the default password **"admin"**) in the Login password field and click the **"Submit"** button.

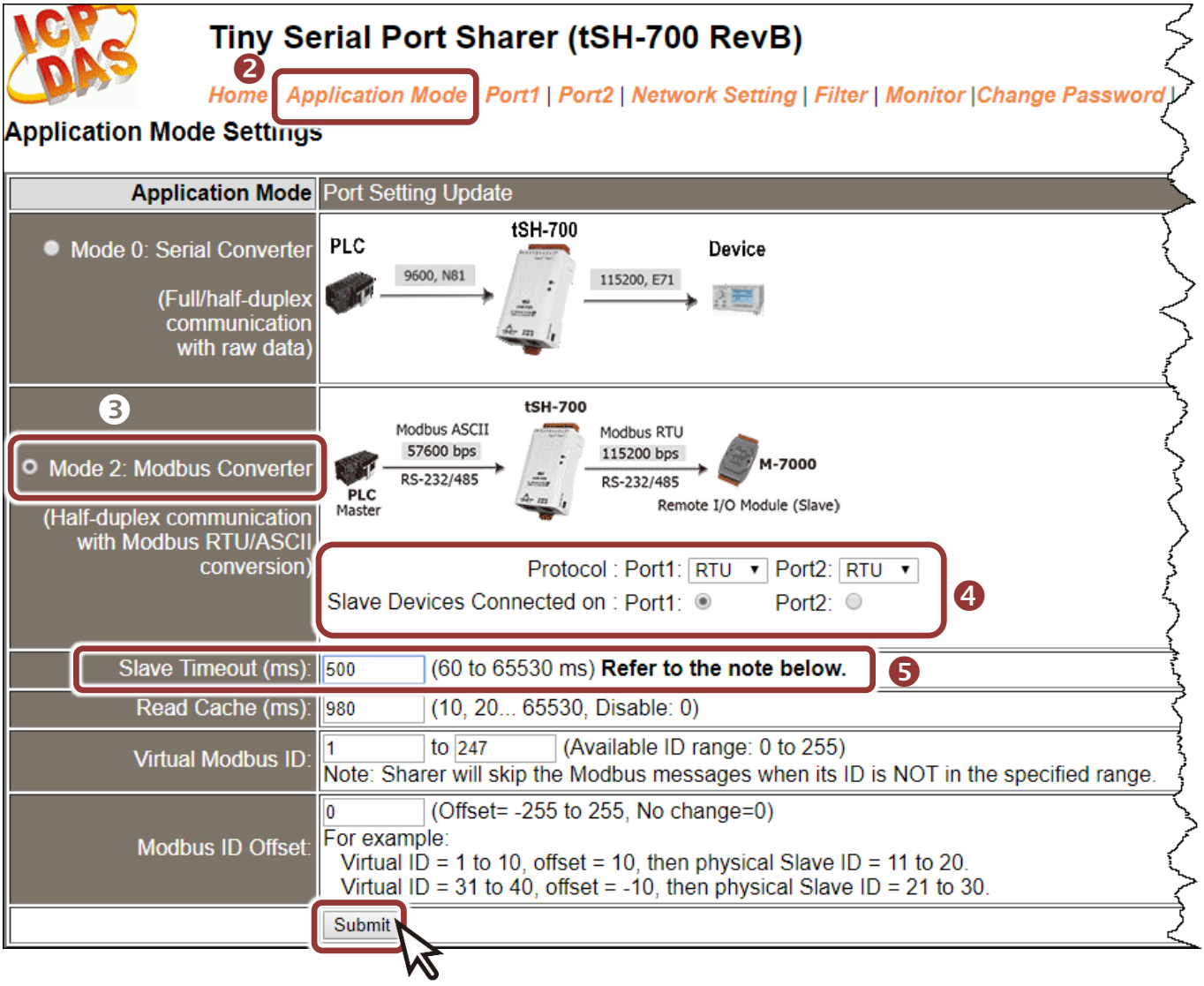


2) Click the **"Application Mode"** tab to display the **Application Mode Settings** page.

3) Check the **"Mode 2: Modbus Converter"** option.

4) Select the M-7022 (slave device) connected to COM port of the tSH-72x **(e.g. "Port1")** from the **"Slave Device Connected on:"** option button.

5) Enter the timeout value of the Port1 **(e.g. "500")** in the **"Slave Timeout (ms)"** field and click the **"Submit"** button to save your settings.



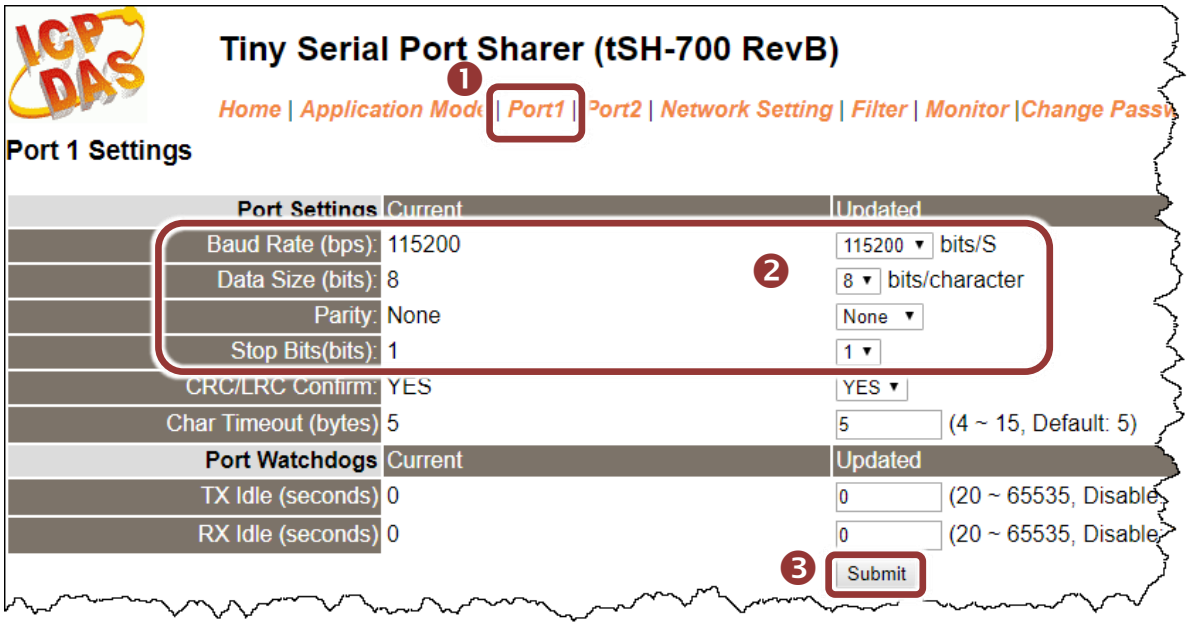
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6 Configuring the Serial Port

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

2) Select the appropriate **Baud Rate and Data Format** settings depending on the M-7022 (Slave) from the relevant drop down options. **(e.g. Baud Rate: 115200 and Data Format: 8, None, 1)**

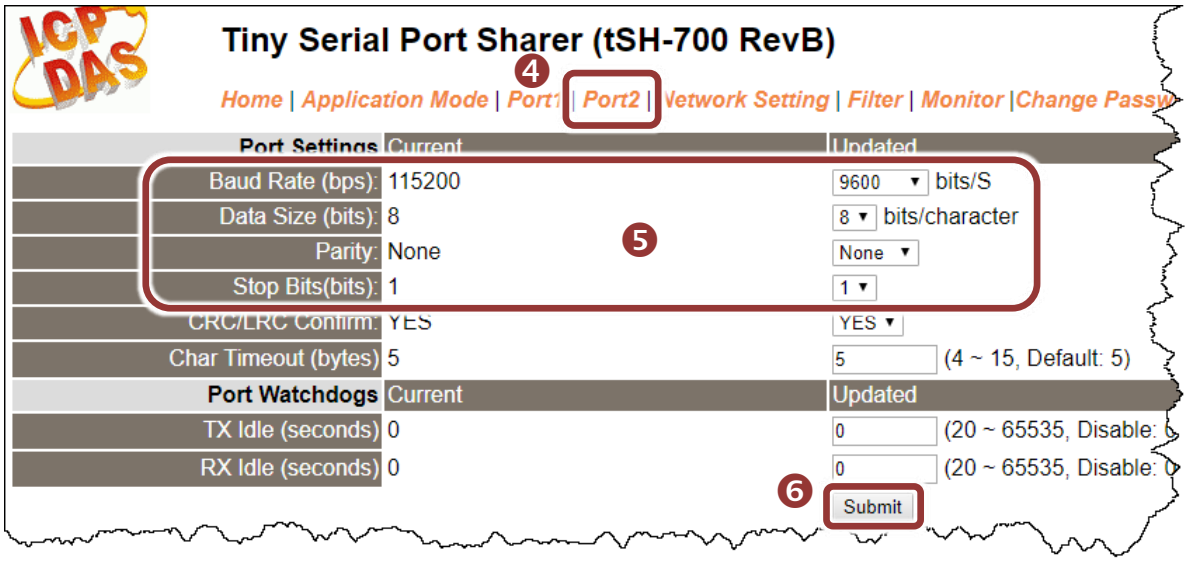
3) Click the **"Submit"** button to save your settings.



4) Click the **"Port2"** tab to display the **Port2 Settings** page.

5) Select the appropriate **Baud Rate and Data Format** settings depending on the serial COM Port of PC (Master) from the relevant drop down options. **(e.g. Baud Rate: 9600 and Data Format: 8, None, 1)**

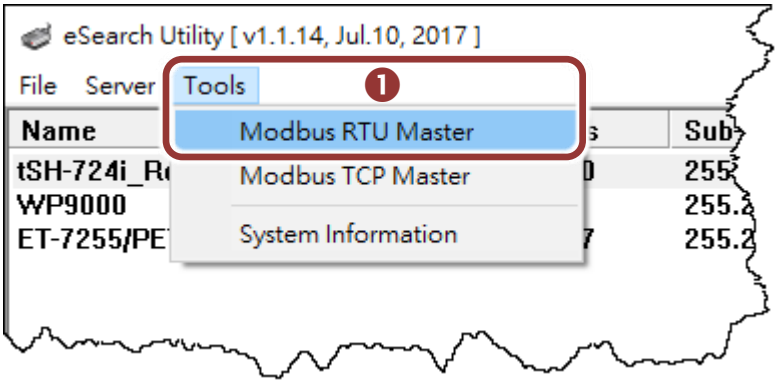
6) Click the **"Submit"** button to save your settings.



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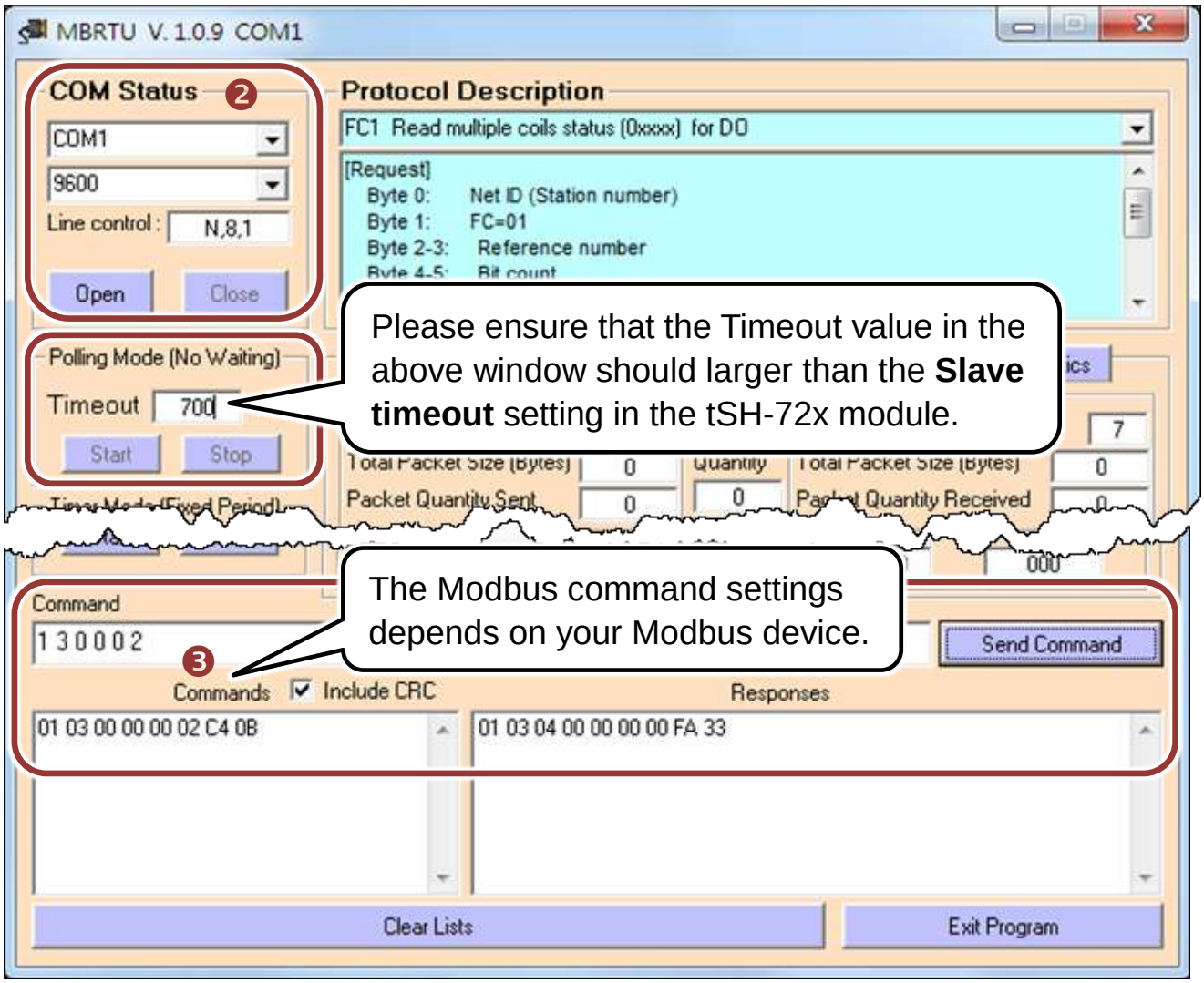
7 Self-Test

1) In the eSearch Utility, select the **"Modbus RTU Master"** item from the **"Tools"** menu to open the Modbus RTU Master Utility.



2) In the Modbus RTU Modbus Utility, select your COM port, Baud Rate and Data Format (e.g. **COM1/9600/N,8,1**) on the PC (Master) and then click the "**Open**" button in the **"COM status"** section.

3) Refer to "**Protocol Description**" section and type the command in the **"Command"** field then click the **"Send command"** button. If the response data is correct, it means the test is success.



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