

Q. How do I access a single Modbus RTU/ASCII slave device from two Modbus RTU/ASCII master devices?

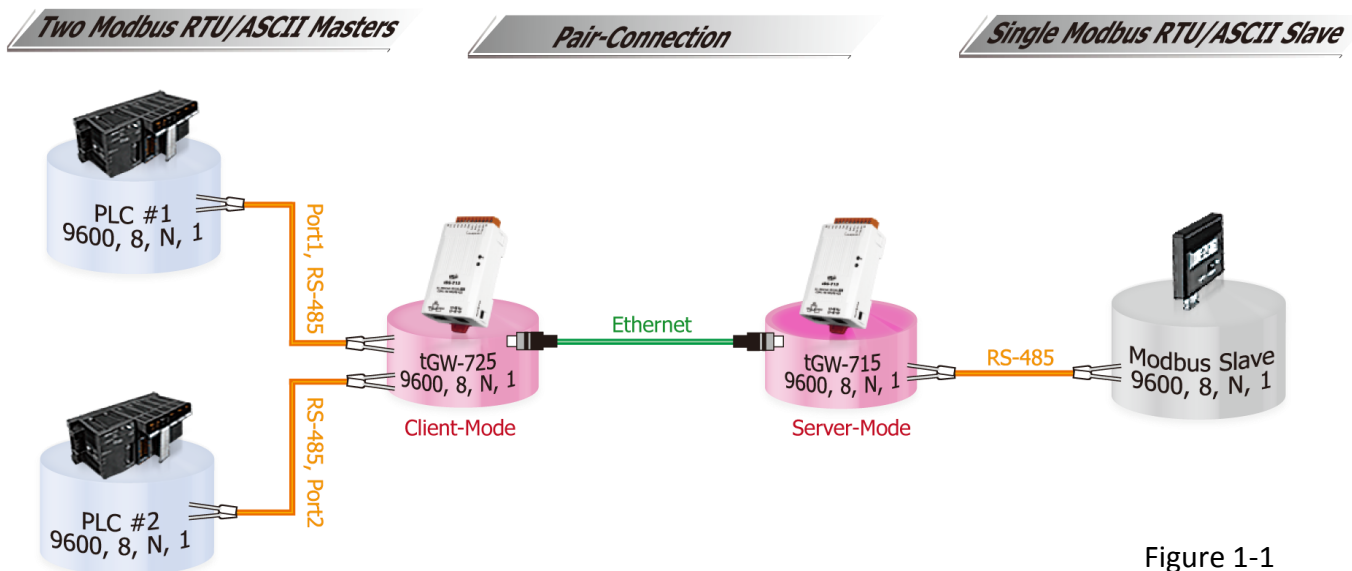


Figure 1-1

A: The Pair-connection settings for tGW-700 series modules are showed in the table below:

Model	COM Port	Port Settings		Pair-connection Settings		
		Baud Rate	Data Format	Server Mode	Remote Server IP	Remote TCP Port (default)
tGW-725	Port1	9600	8,N,1	Client	10.0.8.16	502
					IP Address and TCP Port for the tGW-175	
	Port2	9600	8,N,1	Client	10.0.8.16	502
					IP Address and TCP Port for the tGW-175	
tGW-715	Port1	9600	8,N,1	Server	-	-

Follow the procedure described below to configure the tGW-725 module:

Step 1: Confirm that both the Ethernet connection and the tGW-700 series module are functioning correctly. For detailed information regarding how to install, configure and operate your tGW-700 series module, refer to the tGW-700 Quick Start Guide, which can be downloaded from:



[Download the Quick Start Guide.](#)

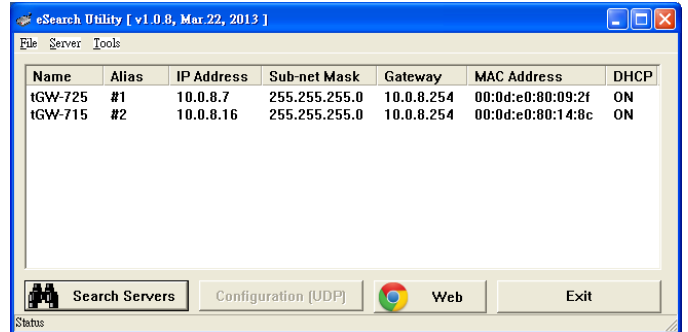


Figure 1-2

Step 2: Execute the eSearch Utility to search for any tGW-700 modules connected to the network, and then click the name of the tGW-725 module to select it.

Step 3: Click the **“Web”** button to log in to the web configuration pages for the tGW-725 module (use the default password **“admin”**), or enter the URL address of the tGW-725 in the address bar of the browser.

Step 4: Click the **“Port1”** tab to display the **Port1 Settings** page.

Step 5: Select the appropriate **Baud Rate, Data Format and Modbus Protocol** settings from the relevant drop down options. The following is an example: Baud Rate (bps) **“9600”**, Data Size (bits) **“8”**, Parity **“None”**, Stop Bits (bits) **“1”** and Modbus Protocol **“Modbus RTU”**.



Tiny Modbus Gateway (tGW-72x)

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Settings:

Port Settings	Current	Updated
Baud Rate (bps)	115200	9600 bits/S
Data Size (bits)	8	8 bits/character
Parity	None	None
Stop Bits (bits)	1	1
Slave Timeout (ms)	300	300 (Default: 300)
Char Timeout (bytes)	4	4 (4 ~ 15, Default: 4)
Silent Time (ms)	0	0 (0, 10, 20... 65530, Default: 0)
Read Cache (ms)	980	980 (10, 20... 65530, Disable: 0)
Local TCP Port	502	502 (Default: 502)
TCP Timeout (seconds)	180	180 (1 ~ 65535, Default: 180, Disable: 0)
Modbus Protocol	Modbus RTU	Modbus RTU

Figure 1-3

Step 6: In the Pair-connection settings area for Port1, check that the configuration details are the same as those shown in the table below:

Field	Server Mode	Modbus Protocol	Remote Server IP	Remote TCP Port	TCP Slave ID (1~247)	RTU Slave ID (1~247)
Pair-Connection Settings	Client	TCP	10.0.8.16	502	0	0
		Modbus Protocol, IP address and TCP port for the tGW-715				

Step 7: Amend any details as required and then click the **“Submit”** button to complete the configuration.

Pair-Connection Settings (Master/Slave Mode)	Current	Updated
Server Mode	Client	Client (Server=Slave, Client=Master)
Modbus Protocol	TCP	TCP
Remote Server IP	10.0.8.16	10 . 0 . 8 . 16
Remote TCP Port	502	502
RTU Slave ID (1~247)	0	0 (0: Bypass, No check)
TCP Slave ID (1~247)	0	0 (0: Same as RTU)
Submit		

Figure 1-4

Step 8: Click the **“Port2”** tab display the **Port2 Settings** page.

Step 9: Select the appropriate **Baud Rate, Data Format and Modbus Protocol** settings from the relevant drop down options. The following is an example: Baud Rate (bps) **“9600”**, Data Size (bits) **“8”**, Parity **“None”**, Stop Bits (bits) **“1”** and Modbus Protocol **“Modbus RTU”**.

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Settings:

Port Settings	Current	Updated
Baud Rate (bps)	9600	9600 bits/S
Data Size (bits)	8	8 bits/character
Parity	None	None
Stop Bits (bits)	1	1
Slave Timeout (ms)	300	300 (Default: 300)
Char Timeout (bytes)	4	4 (4 ~ 15, Default: 4)
Silent Time (ms)	0	0 (0, 10, 20... 65530, Default: 0)
Read Cache (ms)	980	980 (10, 20... 65530, Disable: 0)
Local TCP Port	503	503 (Default: 503)
TCP Timeout (seconds)	180	180 (1 ~ 65535, Default: 180, Disable: 0)
Modbus Protocol	Modbus RTU	Modbus RTU

Figure 1-5

Step 10: In the Pair-connection settings area for Port2, check that the configuration details are the same as those shown in the table below:

Field	Server Mode	Modbus Protocol	Remote Server IP	Remote TCP Port	TCP Slave ID (1~247)	RTU Slave ID (1~247)
Pair-Connection Settings	Client	TCP	10.0.8.16	502	0	0
		Modbus Protocol, IP address and TCP port for the tGW-715				

Step 11: Amend any details as required and then click the **“Submit”** button to complete the configuration.

Pair-Connection Settings (Master/Slave Mode)	Current	Updated
Server Mode	Client	Client (Server=Slave, Client=Master)
Modbus Protocol	TCP	TCP
Remote Server IP	10.0.8.16	10 . 0 . 8 . 16
Remote TCP Port	502	502
RTU Slave ID (1~247)	0	0 (0: Bypass, No check)
TCP Slave ID (1~247)	0	0 (0: Same as RTU)
Submit		

Figure 1-6

Step 12: Click the **“Home”** tab to confirm that the pair-connection settings for Port1 and Port2 are correct.

Current port settings:

Port Settings	Port 1	Port 2
Baud Rate (bps)	9600	9600
Data Size (bits)	8	8
Parity	None	None
Stop Bits (bits)	1	1
Modbus Protocol	RTU	RTU
Slave Timeout (ms)	300	300
Char Timeout (bytes)	4	4
Silent Time (ms)	0	0
Read Cache (ms)	980	980
Local TCP Port	502	503
TCP Timeout (Seconds)	180	180
Pair-Connection Settings (Master/Slave Mode)	Port 1	Port 2
Server Mode	Client	Client
Remote Server IP	10.0.8.16	10.0.8.16
Remote TCP Port	502	502
RTU Slave ID	0	0
TCP Slave ID	0	0

Figure 1-7

Follow the procedure described below to configure the tGW-715 module:

Step 13: In the eSearch Utility, click the name of the tGW-715 module to select it, and then click the **“Web”** button to log in to the web configuration pages for the tGW-715 module (use the default password **“admin”**), or enter the URL address of the tGW-715 in the address bar of the browser.

Step 14: Click the **“Port1”** tab to display the **Port1 Settings** page.

Step 15: Select the appropriate **Baud Rate, Data Format and Modbus Protocol** settings from the relevant drop down options. The following is an example: Baud Rate (bps) **“9600”**, Data Size (bits) **“8”**, Parity **“None”**, Stop Bits (bits) **“1”** and Modbus Protocol **“Modbus RTU”**.

Step 16: In the Pair-connection settings area for Port1, select **“Server”** from the **“Server Mode”** drop down options

Step 17: Click the **“Submit”** button to complete the configuration.

✂ Refer to **Figure 1-8** for an illustration of how to perform the above procedure.



Tiny Modbus Gateway (tGW-71x)

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Settings:

Port Settings	Current	Updated
Baud Rate (bps)	9600	9600 ▾ bits/S
Data Size (bits)	8	8 ▾ bits/character
Parity	None	None ▾
Stop Bits (bits)	1	1 ▾
Slave Timeout (ms)	300	300 (Default: 300)
Char Timeout (bytes)	4	4 (4 ~ 15, Default: 4)
Silent Time (ms)	0	0 (0, 10, 20... 65530, Default: 0)
Read Cache (ms)	980	980 (10, 20... 65530, Disable: 0)
Local TCP Port	502	502 (Default: 502)
TCP Timeout (seconds)	180	180 (1 ~ 65535, Default: 180, Disable: 0)
Modbus Protocol	Modbus RTU	Modbus RTU ▾
Pair-Connection Settings (Master/Slave Mode)	Current	Updated
Server Mode	Server	Server ▾ (Server=Slave, Client=Master)
Modbus Protocol	TCP	TCP ▾
Remote Server IP	Disabled	10 . 0 . 8 . 7
Remote TCP Port	Disabled	503
RTU Slave ID (1~247)	1	1 (0: Bypass, No check)
TCP Slave ID (1~247)	0	0 (0: Same as RTU)
		<input type="button" value="Submit"/>

Figure 1-8

Step 18: Click the **“Home”** tab to confirm that the pair-connection settings for Port1 are correct.

Current port settings:

Port Settings		Port 1
Baud Rate (bps)		9600
Data Size (bits)		8
Parity		None
Stop Bits (bits)		1
Modbus Protocol		RTU
Slave Timeout (ms)		300
Char Timeout (bytes)		4
Silent Time (ms)		0
Read Cache (ms)		980
Local TCP Port		502
TCP Timeout (Seconds)		180
Pair-Connection Settings (Master/Slave Mode)		Port 1
Server Mode		Server
Remote Server IP		-
Remote TCP Port		-
RTU Slave ID		-
TCP Slave ID		-



Figure 1-9