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SAN TELEQUIP
Connecting. Converting. Leading!

Document Name: Manual for Dual Port Modbus RTU to Modbus TCP Converter Model SC10MK2-485

SC10MK2 is a Two Port Modbus RTU/ASCII to Modbus TCP protocol converter. Both the Serial ports are RS485/422.

TECHNICAL SPECIFICATIONS

Communication Interfaces	
Ethernet Interface	10/100 Base Mbps (Auto Detecting)
Serial Interface	2 Ports Port1 is RS485 / RS422 Port2 is RS485 / RS422
Baud Rates	300 bps to 921600 bps
Modes	TCP to RTU Slave, RTU Master to TCP Slave, TCP to ASCII Slave, ASCII Master to TCP Slave
Configuration	Through a Utility on a PC and through HTTP
Mechanical: Connectors	
RS485/RS422	5 Pin Screw ype Terminal
Ethernet	RJ45
Dimensions	34 * 115 * 110 mm (W * D * H)
Power Supply	
Power Supply	24V DC OR DC Jack for 230V AC External Adapter
Mounting	Din rail

- Power ON: Connect power to the SC10MK2 Converter. Power Input can be DC Jack or 2 wires Terminal Block.
- The “SYS” LED Green will be On.
- Insert Network LAN cable in to RJ45 connecter of the converter, LAN LED on RJ45 connecter LAN Link & Lan Communication.

- When you finish these procedure and LED indication are as shown, the hardware is properly installed and online. You can use IP search utility SC**10EK Config** to setup.
  For advance setup /configuration use IE or other Browser.

LED INDICATION

PWR : Power ON indicator
SYS : CPU health, LED will be On
TX/ RX : Blink if there is serial port data received and transmitted

Reset key (Top side on box)

When the power is on, press “Reset” key for over 25 seconds then release. SC10MK2 will set configuration back to default

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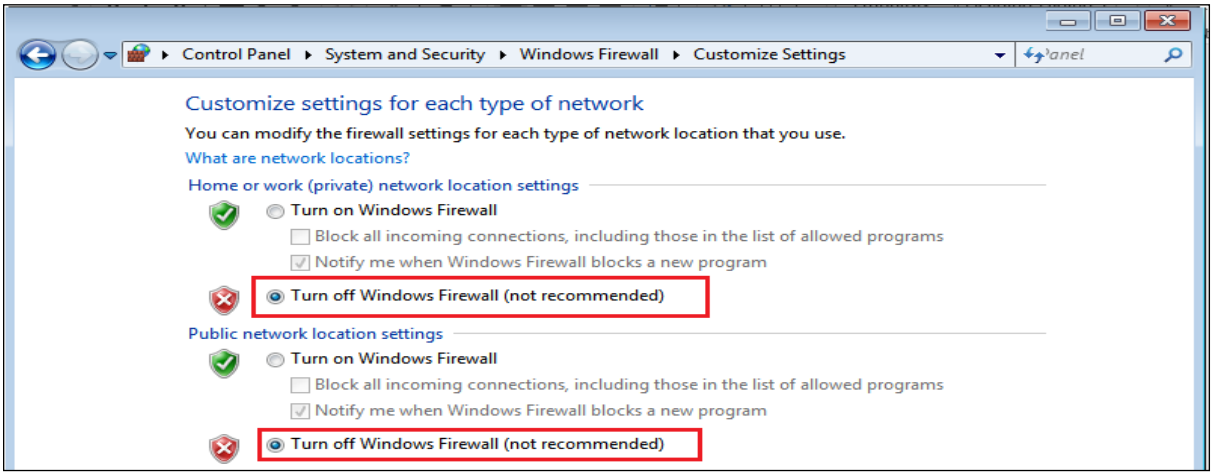
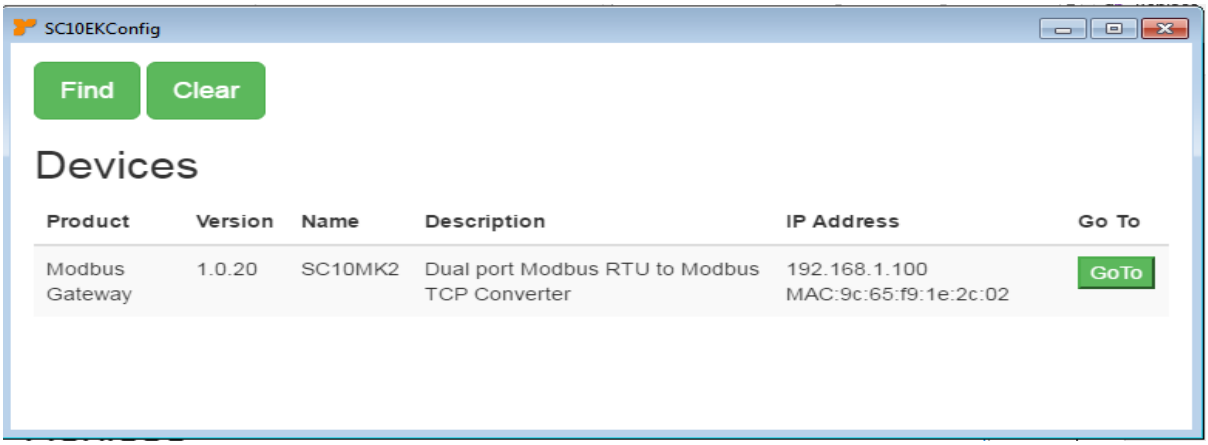
- Running  IP search utility installation will get a program shortcut on desktop. If a firewall warning pop up, please click to accept the program pass through firewall.



1. Click program shortcut  to run IP search utility.
2. Click “Find” button

3. Device’s IP appears. Click “GoTo” button to open web configuration. If not able to open web configuration, must read #7 in advance.



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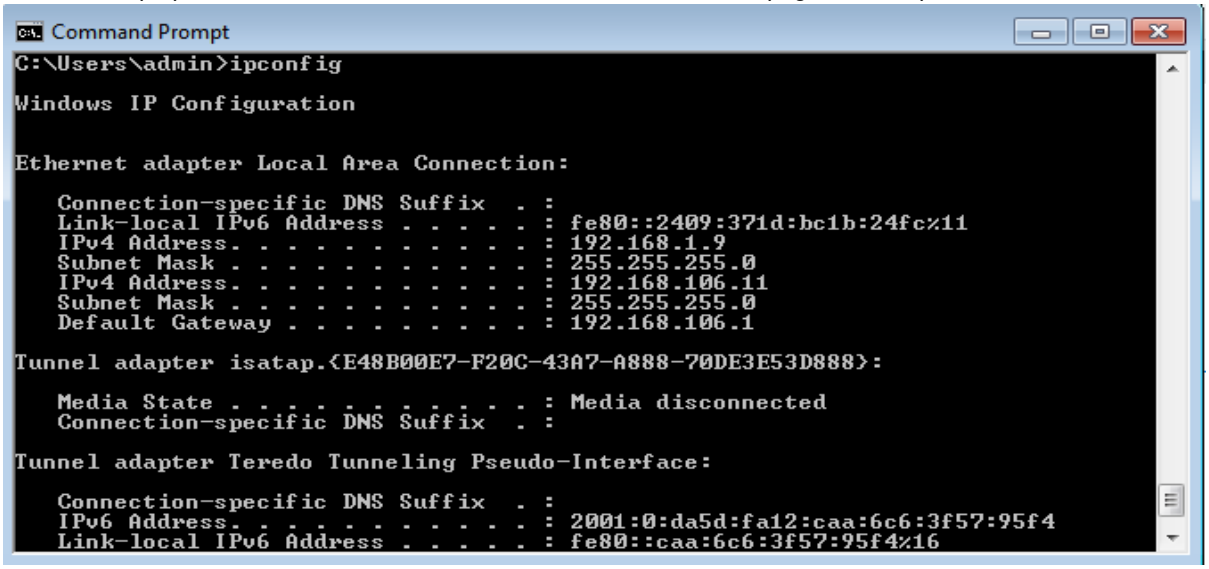
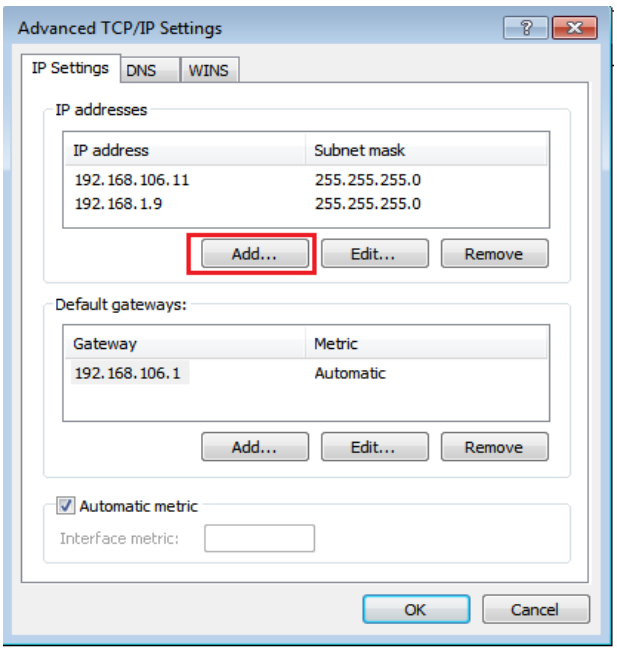
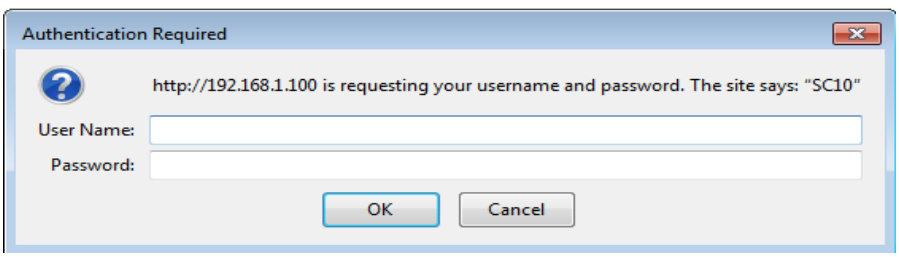
4. PC or Laptop IP must be same subnet with SC10MK2 then the web page can be opened.



5. If PC or NB's IP not same subnet as SC10MK2, please add new IP to PC / Laptop with same subnet of SC10MK2-485.



6. Click "**GoTo**" button again to open web configuration.
When the login page appear, input Login: "admin", Password:" admin"



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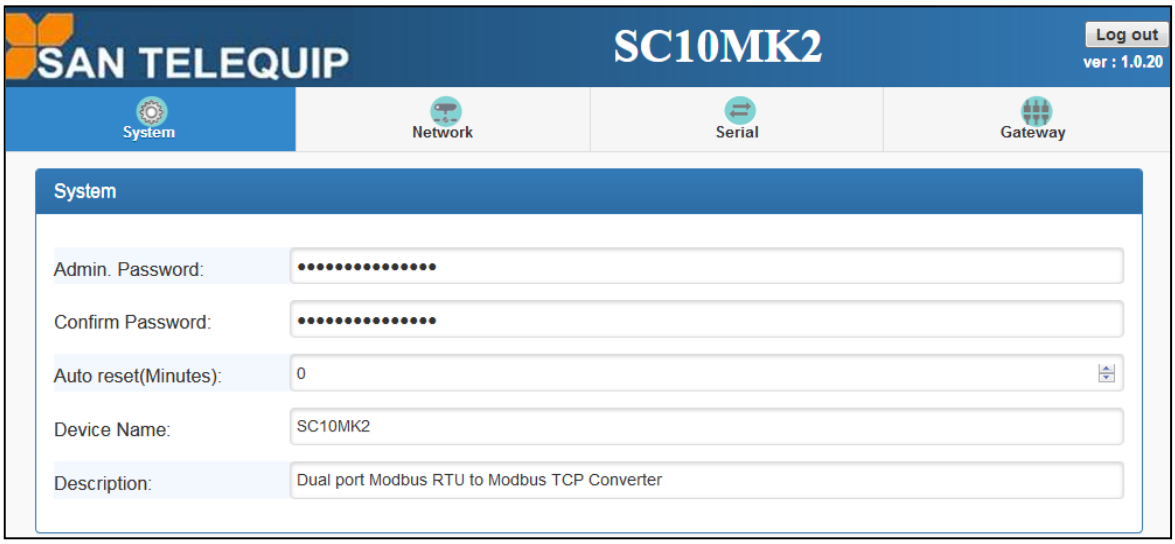
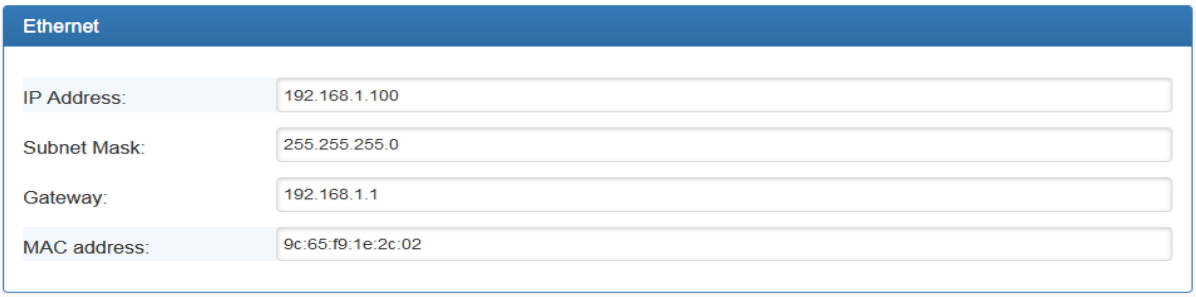
Web configuration pages

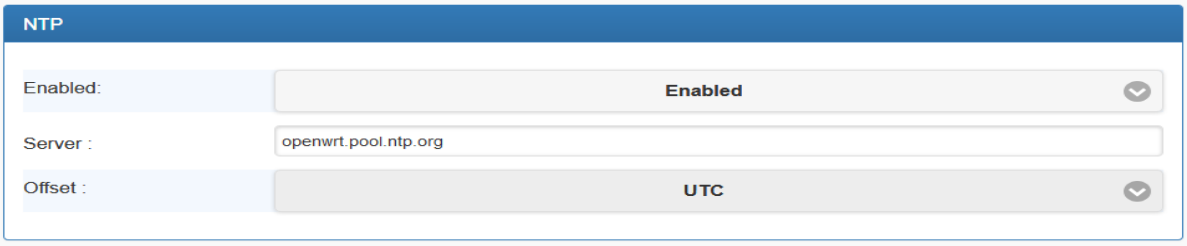
System :- Each item can be changed by manual input.



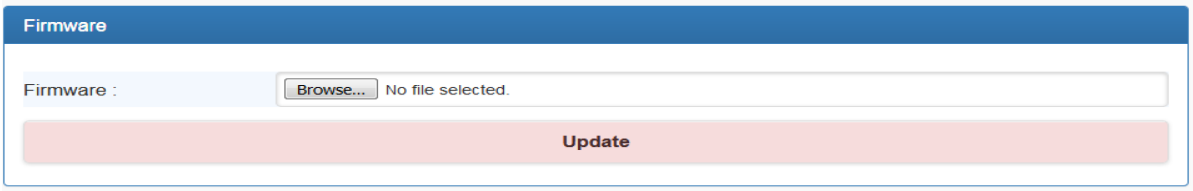
Ethernet: - these items are mapping from chart “Network”.



NTP:- these items can pull down to select Enabled/Disabled and Countries.You may use default or input NTP server manually



Firmware:- for update purpose. It must check with supplier before any process



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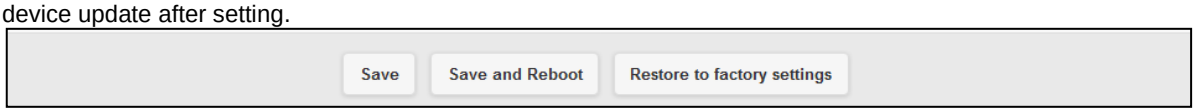
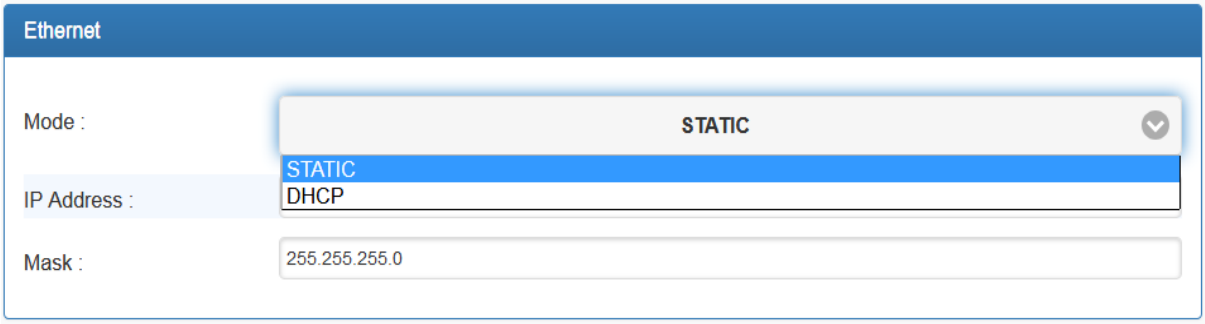
Click “Save” at each page if any change then switch to other pages before Reboot. Reboot is necessary for device update after setting.

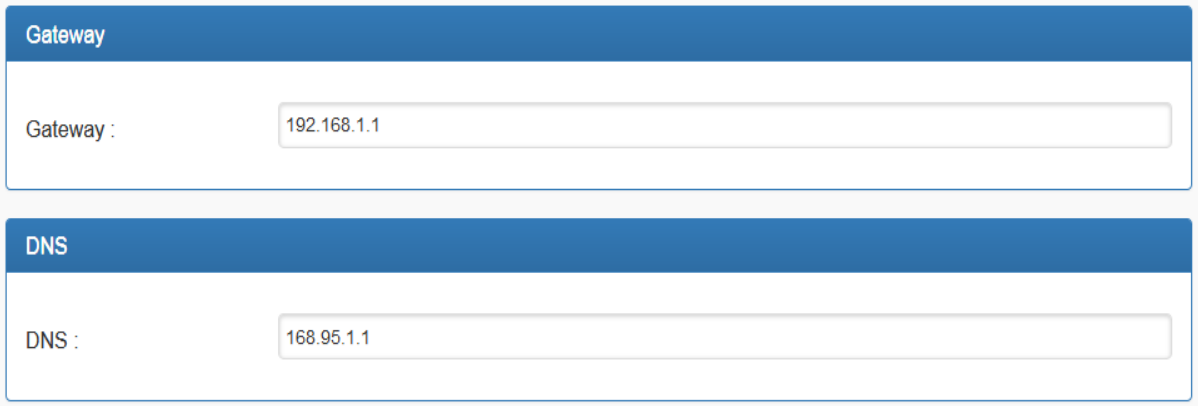


Network

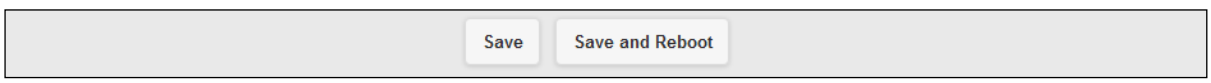
Ethernet: to use default or select Mode and input IP/Mask manually.



Gateway, DNS: input IP for connecting with Internet.



Click to save change or Reboot.



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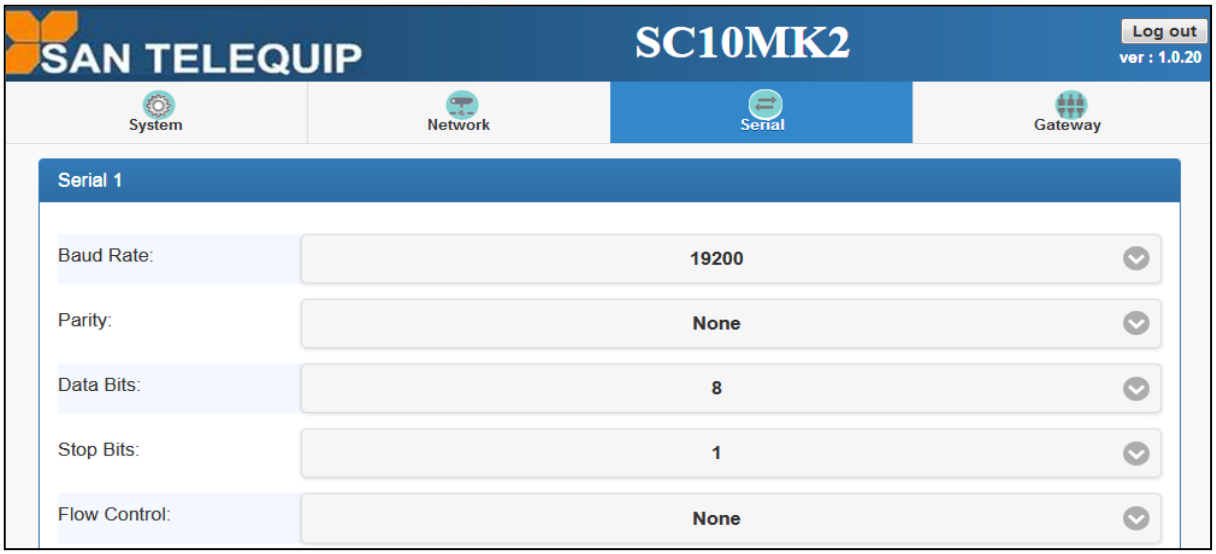
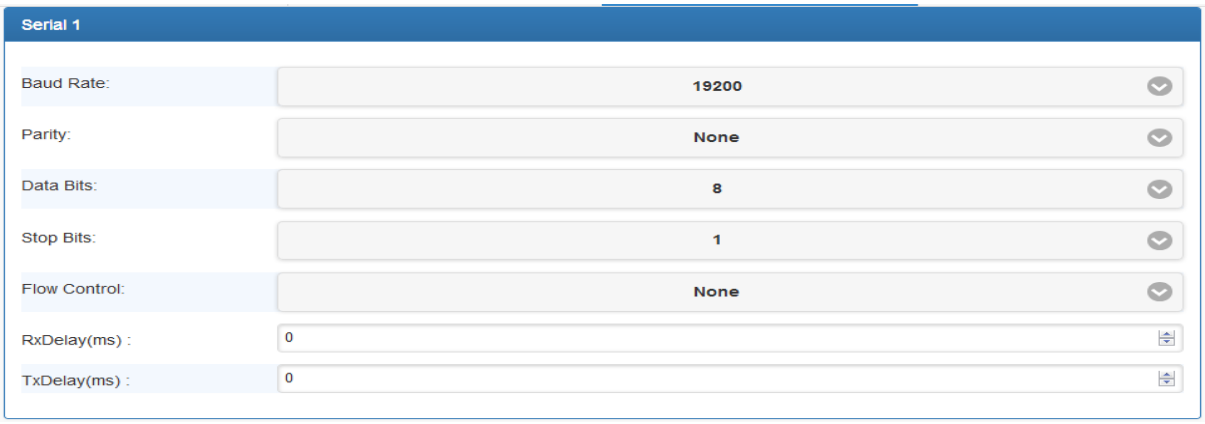
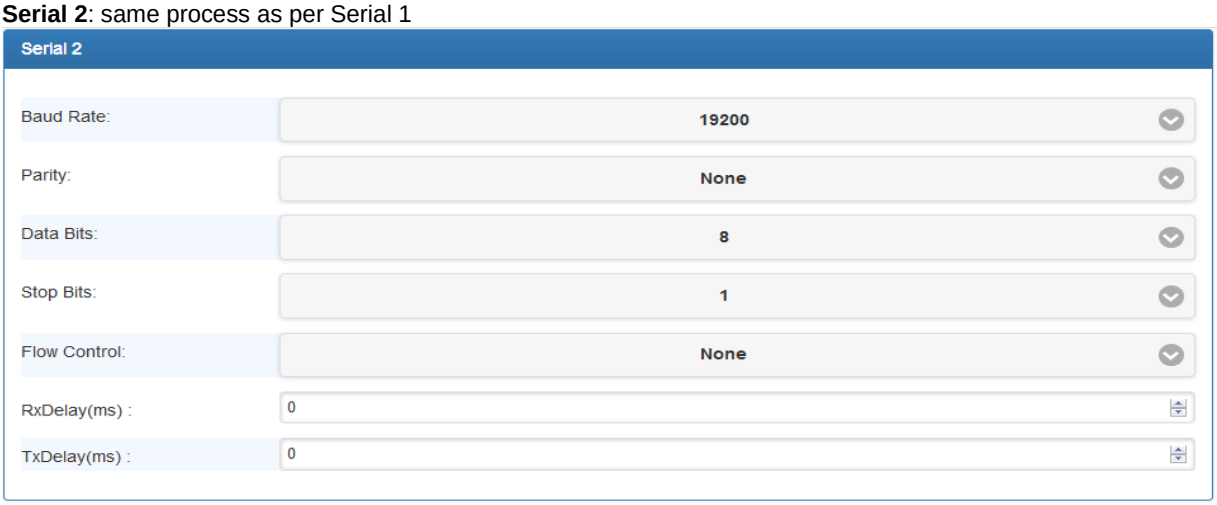
Serial



Serial 1: Pull down the items will show selections to set up. Do not input Rx Delay or Tx Delay unless contact with supplier in advance.



Serial 2: same process as per Serial 1



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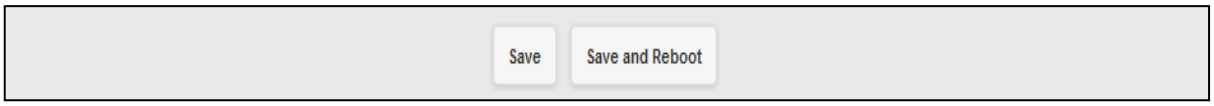
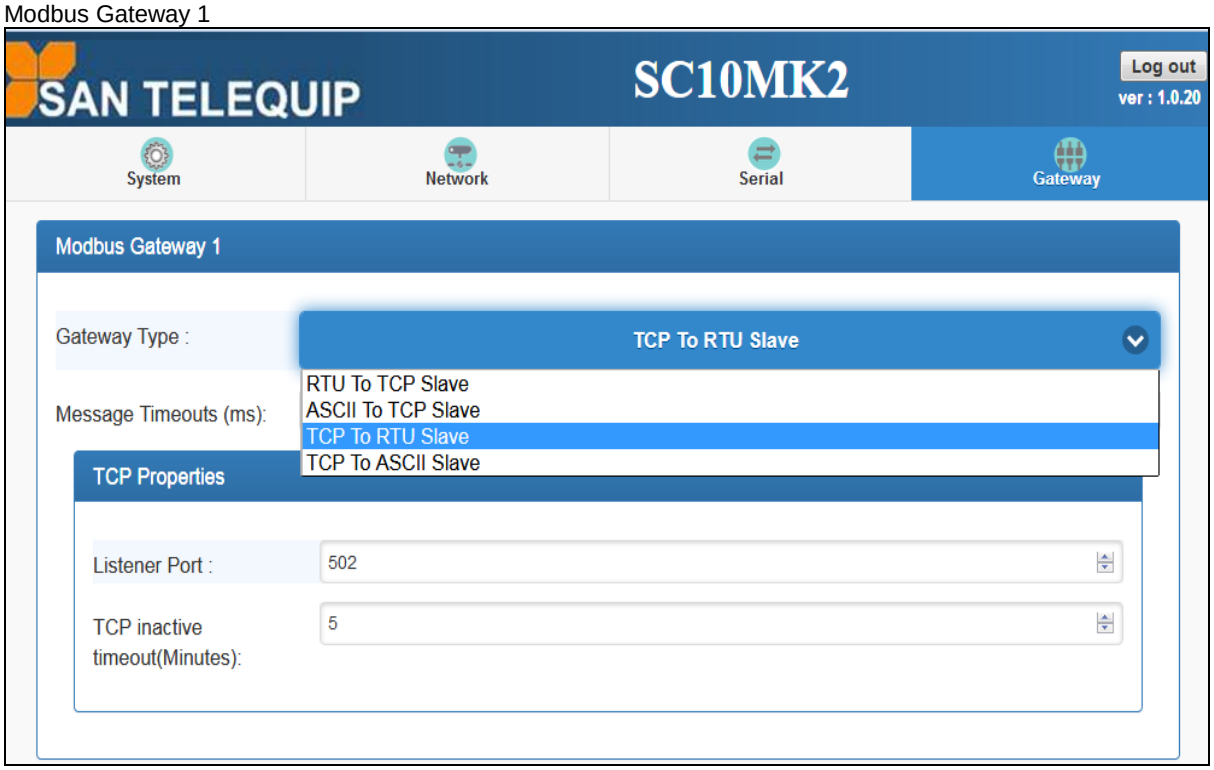
Click to save change or Reboot

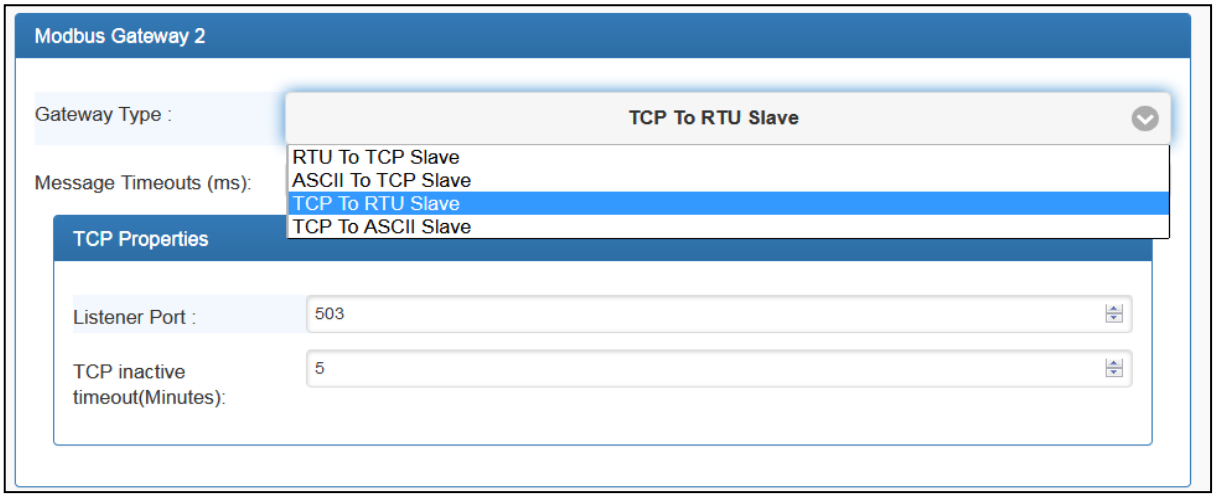


Gateway 1 & 2: Four modes are selectable as below pictures

Modbus Gateway 1



Modbus Gateway 2



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TCP to RTU Slave

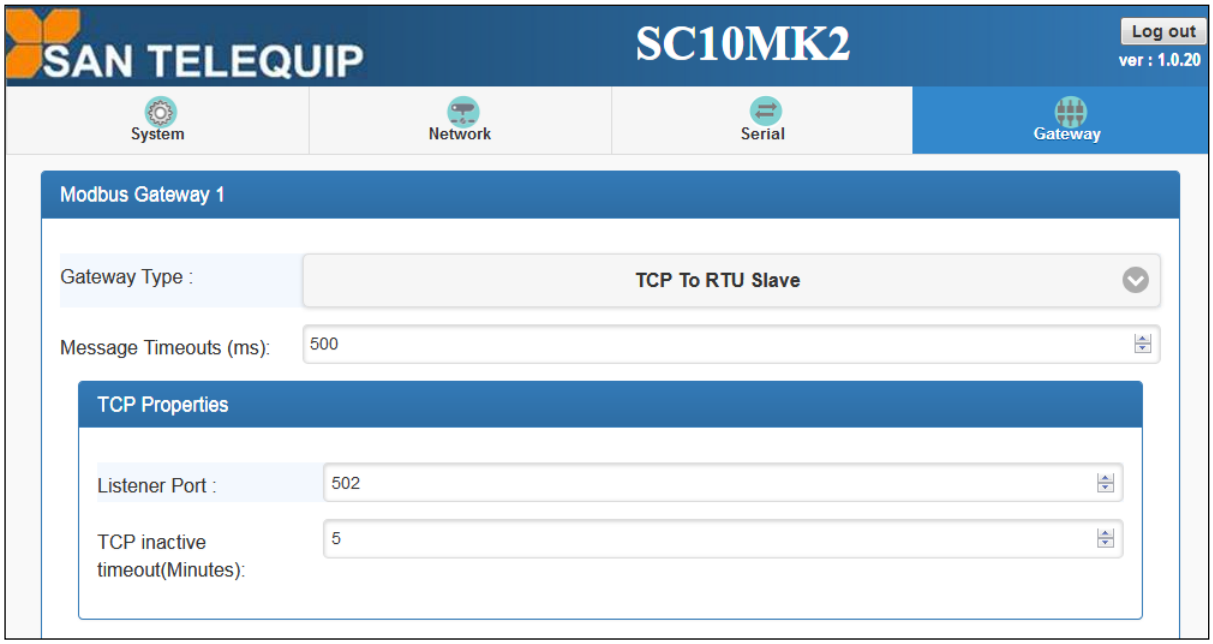
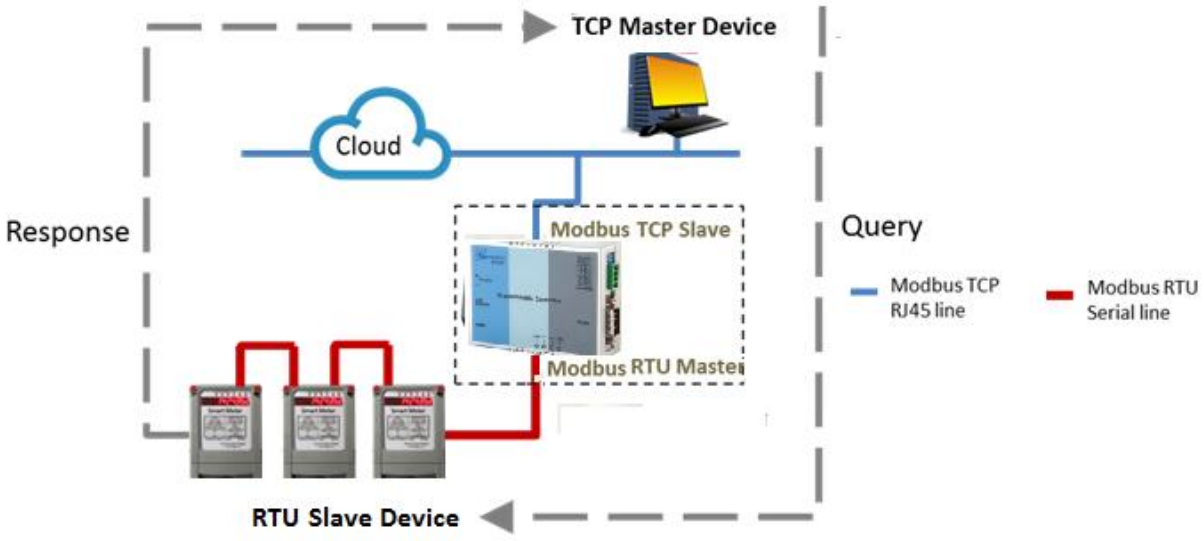


Diagram as below. TCP Master Device (ex. Modscan / SCADA system) sends query to RTU Slave device then RTU Slave device response back to TCP Master's requirement. Inside the Modbus gateway, there are TCP Slave & RTU Master counterparts respectively



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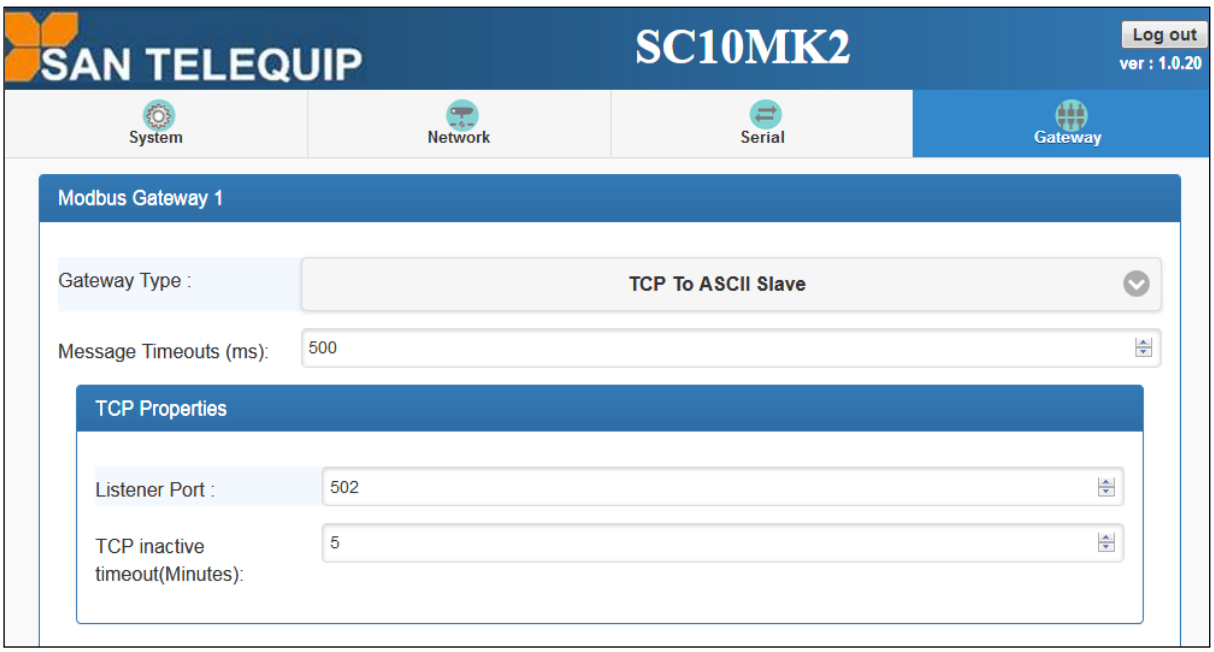
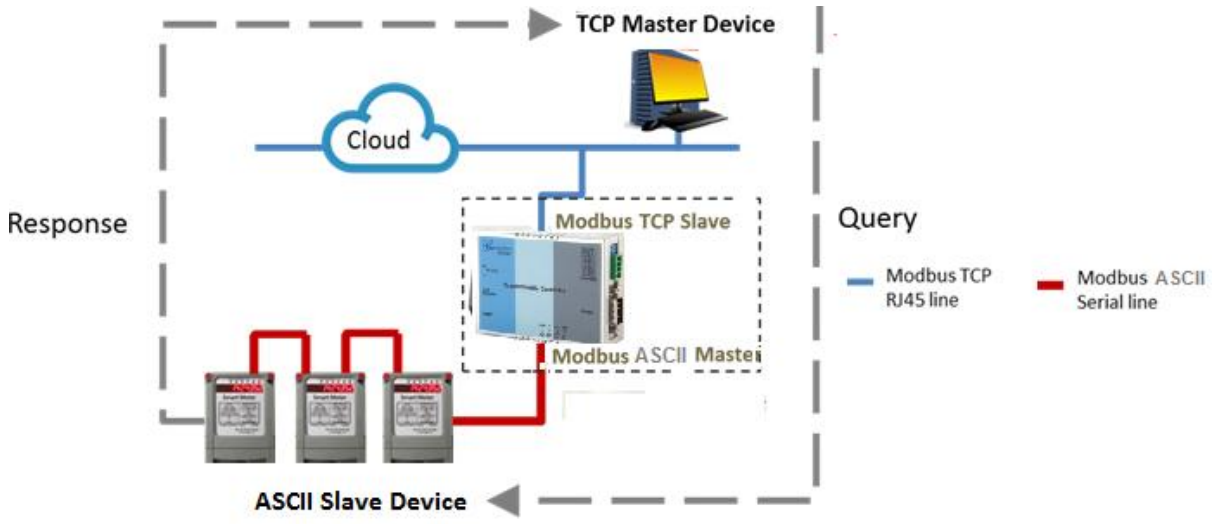
TCP to ASCII Slave



TCP Master Device (ex. Modscan / SCADA system) sends query to ASCII Slave device then ASCII Slave device response back to TCP Master's requirement. Inside the Modbus gateway, there are TCP Slave & ASCII Master counterparts respectively



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RTU to TCP Slave: TCP Slave device IP address should be entered “TCP SLAVE MAP”

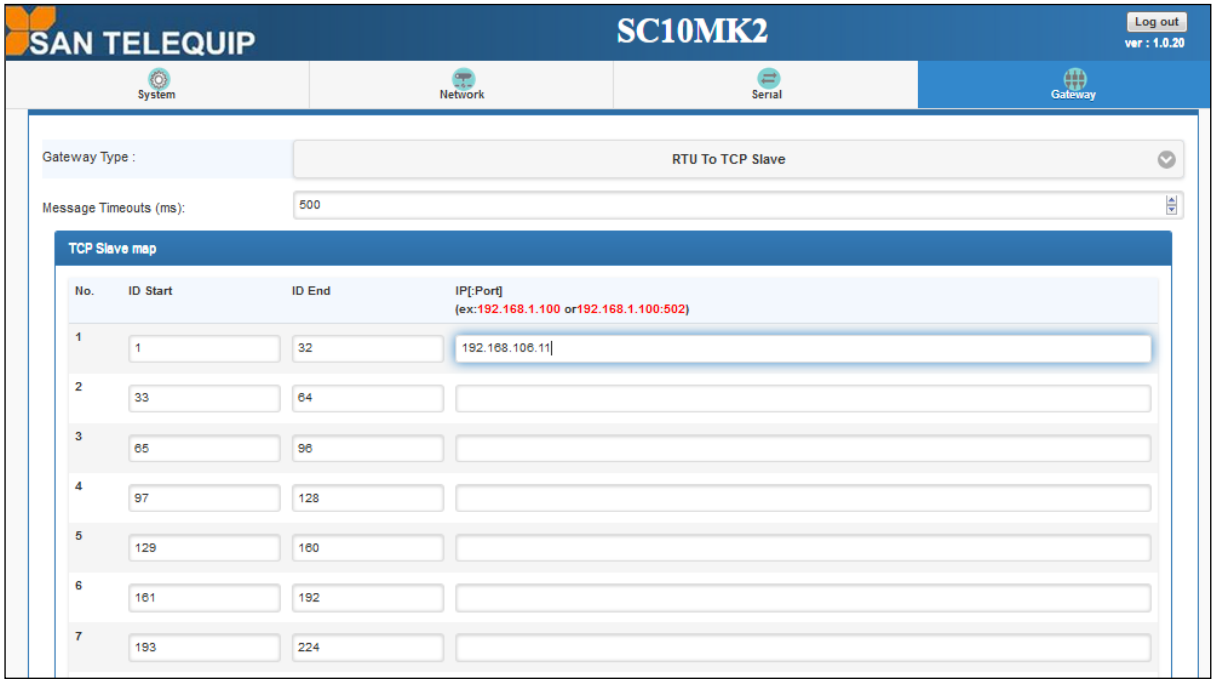
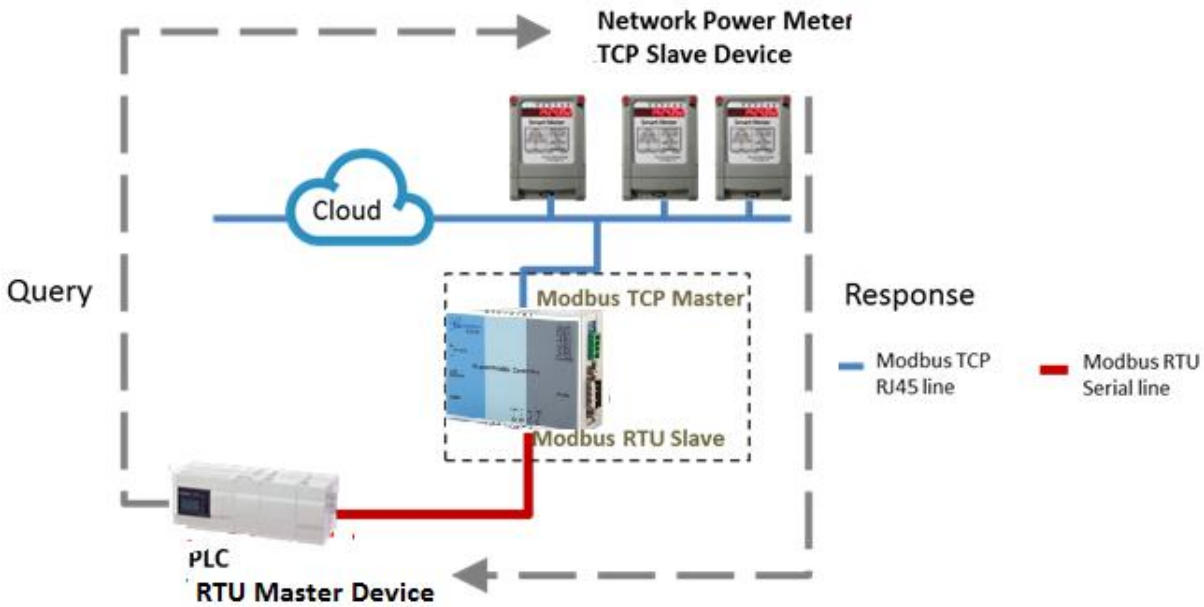


Diagram as below. RTU Master Device (ex. PLC / Modscan) sends query to TCP Slave device; then TCP Slave device response back to RTU Master’s requirement. Inside the Modbus gateway, there are TCP Master & RTU Slave counterparts respectively



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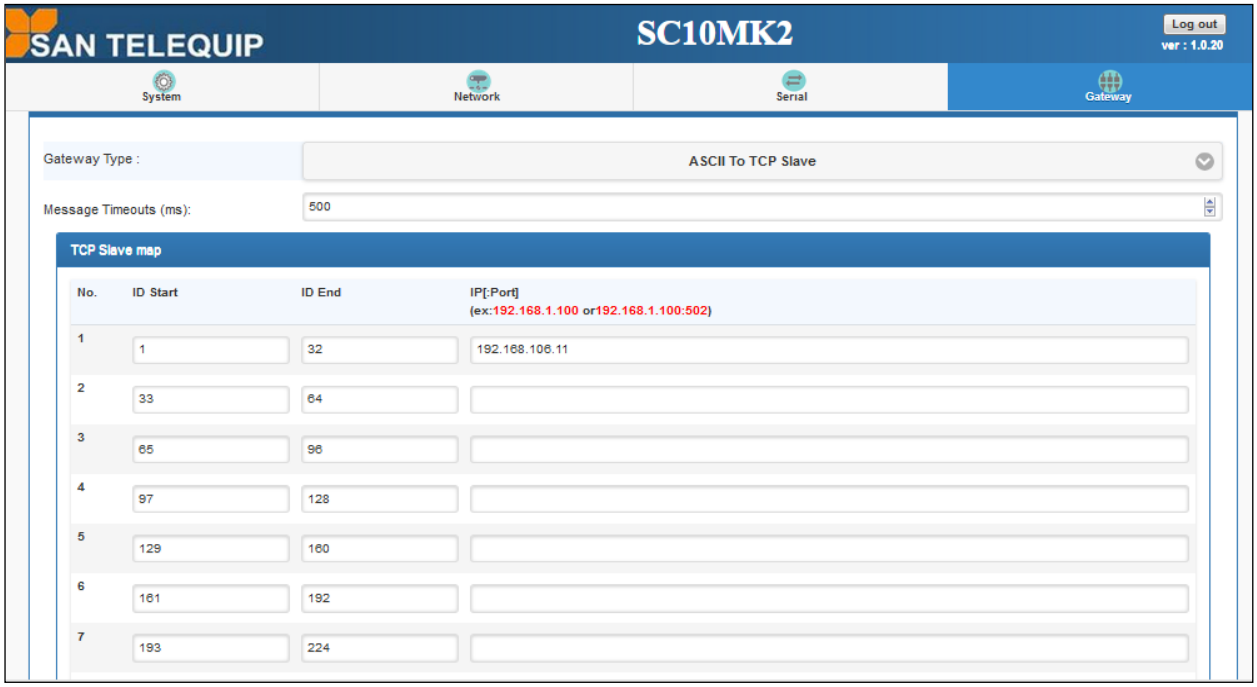
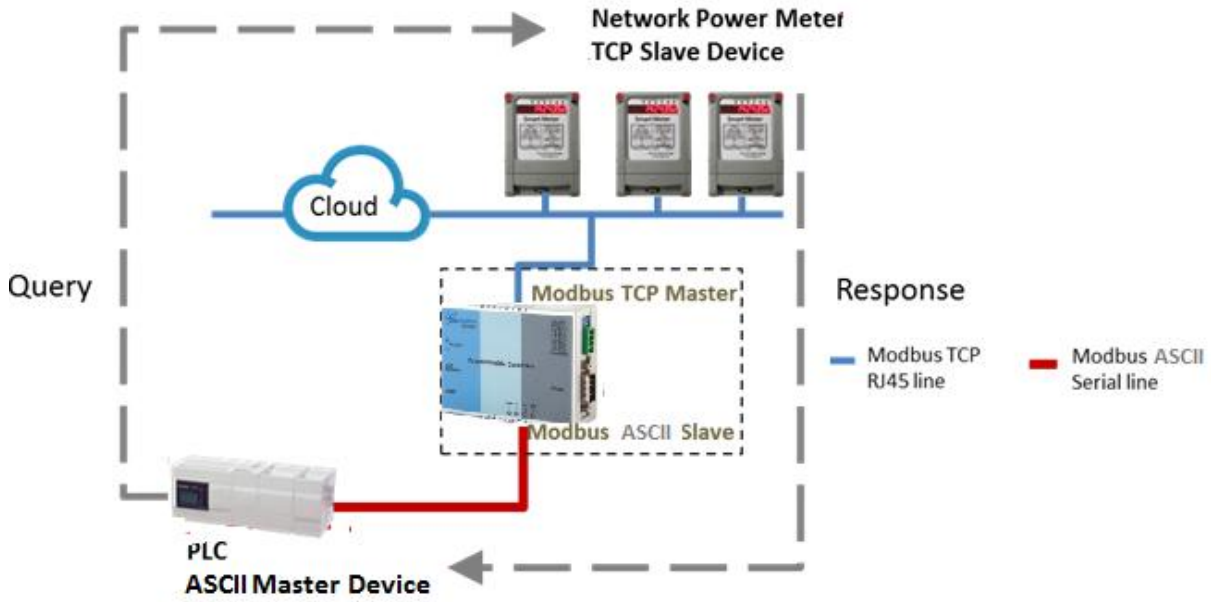
ASCII to TCP Slave: TCP Slave device IP address should be entered “TCP SLAVE MAP”



ASCII Master Device (ex. PLC / Modscan) sends query to TCP Slave device; then TCP Slave device response back to ASCII Master’s requirement. Inside the Modbus gateway, there are TCP Master & ASCII Slave counterparts respectively.



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Wiring Details for RS485 / 422 ports

For RS485- 2 Wire

SIGNAL of SC10MK2-485	Will Connect to
D + / TX +	TX + of your device.
D -- / TX --	TX -- of your device.

For RS485- 4 Wire

SIGNAL of SC10MK2-485	Will Connect to
TX +	RX + of your device.
TX --	RX -- of your device.
RX +	TX + of your device.
RX --	TX – of your device.

POWER SUPPLY

24V DC through 2 Pin screw type connector (Range 9 to 24V DC)
OR 230V AC External Adapter