Product Informaton Sheet:

The WMT900-TCP is designed to transport ModBus-TCP communication data over short to extended ranges using the 900 MHz frequency (902-928). All devices are plug-and-play requiring no special programming tools. Using a web browser or patch cable synching , radios can be addressed to one another in the field. All WMT900-TCP transceivers are shipped by default as a Client/Subscriber. Configuration instructions are on the reverse side:

Installation Instructions:
1. Connect ModBus-TCP bus to WMT900-TCP via the RJ45 Port.
2. Connect 12-24 VAC/DC power as labeled.**
3. Digital LED sequence should begin, "AIC", "Eth", "revision number".
4. *WMT900-TCP will begin searching for paired unit(s). Note: For radios configured as a server, the LED channel numbers will descend from 12 to 0, and reverse for client radios.*
5. Verify the RF network communication with the Channel, Link Quality "LQ", RFTX, RFRX, Link, and Power LEDs.

WARNING: If using AC power option, a 24 VAC isolation transformer must be used! Ensure neither of the two secondaries are bonded.
Note: As with any RF network, plan ahead for proper antenna selection and placement. It is the intention of AIC Wireless to provide a reliable wireless communication device for existing ModBus-TCP networks. However, in some conditions, reliability is determined largely by correct antenna placement, which is the responsibility of the installer. This product is NOT TO BE USED in situations where life safety issues may arise. AIC Wireless makes no claims, expressed or implied, of the products usefulness with regard to specific applications. Determination of the product's suitability for a particular application is the sole responsibility of the purchasing parties. In any installation, ensure the devices are properly protected from the elements by installing in an appropriate enclosure. Additional surge protection devices may be necessary to protect from lighting and/or power surges.

900 MHz Channel Table

1	903.12500 MHz
2	905.20833 MHz
3	907.29167 MHz
4	909.37500 MHz
5	911.45833 MHz
6	913.54167 MHz
7	915.62500 MHz
8	917.70833 MHz
9	919.79167 MHz
10	921.87500 MHz
11	923.95833 MHz
12	926.04167 MHz

Dip Switch Settings
Switch 1 Down (Away from label) Server Radio Setting
Switch 1 Up (Towards label) Client Radio Setting
Switch 2 (Factory Use Only) <u>LEAVE IN UP POSITION</u>

Direct Patch Cable Pairing
Follow these instructions to establish a Server (Access Point) / Client (Subscriber) relationship between the WMT900-TCP transceivers using the Direct Patch Cable method.

1. Place Dip Switch 1 in the down position (away from the top label) to designate the WMT900-TCP as a Server/Access Point.
2. Ensure both Dip Switch 1 and 2 are in the up position (towards the top label) for each Client/Subscriber unit.
   *Note: Each Server/Access Point can be addressed to only 16 Client/Subscriber units.
3. Connect a standard patch cable via the RJ45 port between the designated Server/Access Point and the Client/Subscriber unit to be paired.
4. Power on the Client/Subscriber unit **then**, power on the Server/Access Point unit within 5 seconds. The Channel and Link Quality LEDs will sequence and stop on the revision number. Wait 5 seconds.
   At this point the Server/Access Point is exchanging internal addressing information with the Client/Subscriber unit.
5. Cycle power on each unit and remove the patch cable.
6. With antennas connected and a minimum of 3 feet distance between transceivers, the Client/Subscriber should link up with the Server/Access Point, indicated by a locked channel and fixed link quality on the LEDs.
7. Repeat as necessary with additional Client/Subscriber units.

Web Browser Pairing
Follow these instructions to establish a Server (Access Point) / Client (Subscriber) relationship between the WMT900-TCP transceivers using the Web Browser method. Note: the internal IP Address of each WMT900-TCP by default is 192.168.17.17.

1. Set the laptop/PC used to configure the WMT900-TCP to a static IP Address such as 192.168.17.19.
2. Connect a standard patch cable between the laptop/PC and the WMT900-TCP.
3. Ensure that the desired Dip Switch setting is selected. *Refer to Dip Switch Settings.*
4. Apply power to the WMT900-TCP.
5. Open the laptop/PC web browser and enter the IP Address of the unit: 192.168.17.17
6. The AIC Wireless splash screen will appear. Enter the password "password" where prompted.
7. The Statistics and Device Information will populate with the information in the transceiver.
8. Scroll to the bottom and select the "Advanced Admin" button.
9. Under the Device Settings tab in Advanced Admin the device can be configured. Note: if the device is manually configured via dip switches as a Server/Access Point or Client/Subscriber do not change via the web browser. This will populate based on the dip switch setting.
10. Enter the Client/Subscriber ID number where prompted. Note: Each client must have a unique ID, not to exceed 16 per Server Access Point. If the device is a Server/Access Point the number of subscribers on this unit's network needs to be entered. Example: the Number 8 will be entered if the Server/Access Point is addressed to 8 Client/Subscriber units.
11. If desired, a user specific Network Name (32-bit HEX) and Encryption Key (128-bit HEX) can be applied following the listed example.
12. After all changes have been made select "Apply".
13. After Applying the changes select the "Reset Device" button. This will cycle power on the device and ensure all changes were accepted.

Embedded Spectrum Analyzer
Follow these instructions to utilize the embedded Spectrum Analyzer. This can be a valuable tool to evaluate the RF environment of the installation site. Note: the internal IP Address of each WMT900-TCP by default is 192.168.17.17.

1. Set the laptop/PC used to configure the WMT900-TCP to a static IP Address such as 192.168.17.19.
2. Connect a standard patch cable between the laptop/PC and the WMT900-TCP.
3. Apply power to the WMT900-TCP.
4. Connect the desired Omni-Directional or Directional antenna to the WMT900-TCP.
5. Open the laptop/PC web browser and enter the IP Address of the unit: 192.168.17.17
6. The AIC Wireless splash screen will appear. Enter the password "password" where prompted.
7. Scroll to the bottom of the page and select "Fast Spectrum Scan".
8. Change the Automatic Scan Interval to the desired refresh rate.
9. Select "Scan Now" to begin analyzing the RF environment within range of the WMT900-TCP.
10. Move the antenna, if directional to scan a wider area.
11. Logout of the unit when finished and cycle power.