

## Specifications

The TIM-AA8870 provides a wireless communications interface between Aprilaire 8870 communicating thermostats and the Autani Energy Efficiency System.

*Power:*  
24VAC

*Wired Communications:*  
Five wire RS-485 electrical interface

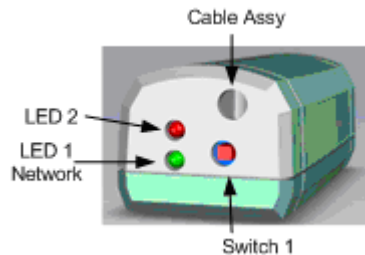
*Wireless Communications:*  
2.4 GHz, 16 channel spread spectrum

*Operating Temperature:*  
The rated loads are in accordance to an ambient temperature of 25 degrees Celsius.

*This device complies with Part 15 of FCC rules. Operation is subject to the following two conditions: 1) this device may not cause harmful interference and, 2) this device must accept any interference received, including interference that may cause undesired operation.*

*Changes of modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.*

*This Class B digital apparatus complies with Canadian ICES-003.  
UC:7737A-RZC1000110  
FCC ID:V8NRZC1000110  
Product code: 1000110 Rev A*



Autani Corporation  
7125 Columbia Gateway Drive  
Suite 200  
Columbia, MD 21046

Phone: 443-320-2233  
Web: [www.autani.com](http://www.autani.com)  
Email: [support@autani.com](mailto:support@autani.com)



## Wireless Thermostat Interface Module (TIM-AA8870)

### Technical Support

If you have questions about the installation or operation of this device, call Autani technical support at: 443-320-2233.

**Warning!** There are no serviceable parts within the TIM-AA8820 and no attempt should be made to disassemble the device.

**Warning!** Improper connection of the device may result in permanent damage to the device. Follow installation instructions carefully.

**Caution!** Using this product in any manner other than outlined in this document is not supported and voids any warranty. Autani is not responsible for any damages or injuries incurred as a result of misuse or abuse of this product.

### Device Installation

The RZC can be mounted on or in the interior wall of a structure wherever the thermostat is mounted.

- 1) Remove the Aprilaire 8870 thermostat from its base and expose the screw terminals underneath.
- 2) First, connect the solid brown wire on the RZC to the ground (C) terminal of the thermostat.
- 3) Next, connect the solid orange wire on the RZC to the power (R) terminal of the thermostat.
- 4) Next, connect the white wire with the brown tracer on the TIM to the REF (REF) terminal of the thermostat.
- 5) Next, connect the solid green wire on the RZC to the Tx+ (A+) terminal of the thermostat.
- 6) Next, connect the white wire with the green tracer on the RZC to the Tx- (A-) terminal of the thermostat.
- 7) Next, connect the solid blue wire on the RZC to the Rx+ (B+) terminal of the thermostat.
- 8) Next, connect the white wire with the blue tracer on the RZC to the Rx- (B-) terminal of the thermostat.
- 9) Finally, replace the Aprilaire thermostat and watch for the communication symbol to appear in the upper left corner of the thermostat's larger display to confirm a successful installation. If the communication symbol does not appear remove the thermostat and check the wiring.

### Device Operation

**LED 1:** A flashing green indicates the node is properly communicating with the network. In this mode the LED may occasionally flash red. This is normal and is an indication of wireless network activity. These flashes of red will be brief and the predominant color will be green.

If this LED is blinking red the node is attempting to locate a wireless network to join.

**LED 2:** Not currently used.

**Switch 1:** Causes the node to leave the network and begin to look for a commissioning node to join. To activate this mode the button should be depressed until LED 1 begins to blink red. This may require the button to be held down for a few seconds.

### Aprilaire 8870 Thermostat Configuration

The 8870 thermostat has set-up features that must be set and/or verified for proper operation. The Installations Instructions for the 8870 provides the details to access the set-up. The set-up should be as follows:

Remove the Aprilaire 8870 thermostat from its base and expose the screw terminals underneath. Enter set up mode by pressing both **Mode** and **Enter** keys at the same time.

Configure the 8870 to use the following Autani settings:

Network Override Set Up: Disable Network Override  
Thermostat Lockout: Unlock Thermostat  
Security Set Up: Remove Pass Code  
Communications Set Up:  
Set Thermostat Address->Network Address: 1  
Number of Stats on Network: 1  
Set Baud Rate->Select 19200  
Temperature Set Up:  
Display Temp. Offset->Offset: 0  
Differential for 1st Stage->1st Stage Diff: +/- 1  
Differential for 2nd Stage->2nd Stage Diff: +/- 1  
Backlight Set Up:  
On only when needed  
Set 1=lighter, 2=darker: 1  
Display Set Up:  
Temperature Scale: F  
Show Temp Setpts: Always  
Display Time and Date: No

Once the TIM-AA8870 is installed and power restored to the device refer to the Autani E2/E4 System Users Guide for further instructions on utilizing the device via the wireless interface.