

## **Climatouch /CT03TS/217S31 Programmable Universal Touch Screen thermostat**

- Fully configurable 1-4 stages heat/ cool
- Can be configured for heatpumps , air handlers , oil, gas electric furnaces in **any** combination
- Backlit display with “Night Reverse”
- Auto change over
- Ultra friendly throw away this manual
- Permanent memory no batteries required
- Relay outputs provide reliable operation
- Suitable for Residential / Commercial
- Outdoor wireless Temperature sensor optional

### **Specifications**

<b>Electrical Rating:</b>	24volt AC 1 amp maximum per terminal 4 amp maximum total load
<b>Temperature Control Ranges</b>	Accuracy +/- 1°F 41°F- 95°F , adjustable dead band and differential
<b>System Configurations:</b>	2 stage heat, 2 stage cool , heat pump , air handler , gas , oil, electric in any combination whatsoever (totally universal)
<b>Terminations</b>	I1-I2-Dh-H Future expansion C-Y2-R-Ob-W2-G-Y1

### **Safety Information:**

**Always turn off power at the main power supply before installing or removing thermostat.**

- This product is for 24 VAC operation only
- All wiring must conform to local and national electrical and building codes.

## FCC Statement

NOTE: THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT

FCC ID: RAN217S31
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THIS DEVICE COMPLIES WITH PART 15 OF THE 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 UNDESIRE OPERATION.

## Installation

### Replacement

**Turn off power at the main service panel before proceeding .**

Remove the cover of the old thermostat .

Loosen the screws holding the old thermostat base .

Carefully disconnect the wires from the old thermostat make sure that you write down the connection label of each wire. This will simplify installation of your new thermostat.

If the terminal designations on your old thermostat do not match those of your old thermostat please refer to the list below.

**Table 1. Terminal Designations on Old and New Thermostats**

217S31/ CT03TS	Typical Terminal Designations from the Existing Thermostat			Alternative Terminal Designations					Function Description
				Trane American Standard	Lennox	York Borg Warner	General Electric	Rheem Ruud	
C	C	C or X	C	B	X	B			Common
R	R	R	R	R	V or VR <sup>b</sup>	R	R	R	Power
Y1	Y or Y1	Y or Y1	Y or Y1	Y	M	Y	Y	Y or Y1	Compressor
	-	-	-	-	-	-	-	-	Stage 1 heating relay
W2	W or W1	W,W1 or W2	W or W1	W or W1 jumped to U	W1 or Y	W or W2	W or W1	W2	Auxiliary heat relay
G	G	G	G	G	F or G	G	G	G	Fan Relay
OB	O <sup>a</sup>	O <sup>a</sup>	O <sup>a</sup>	O <sup>a</sup>	R or O <sup>a</sup>	O <sup>a</sup>	O <sup>a</sup>	O <sup>a</sup>	Cooling changeover relay
	B <sup>a</sup>	B <sup>a</sup>	B <sup>a</sup>	-	-	H	-	-	Heating changeover relay
	L	L or X	L	F or L	L	F	F or L	L	System monitor
Y2	E	E	E or X	X2 or E	E	X or E	E or X2	E	Emergency heat relay See configuration section

C may not be used on all systems

O/B is used if your system is a heat pump

## Configuration

The configuration mode is used to setup your Climatouch thermostat to match the exact profile of your HVAC system . It can be configured as a single stage furnace thermostat right up to a 4 stage (2 heat 2 cool ) controller .

To enter the configuration mode Touch the center of the Climatouch screen , this will bring you to the main control page . Touch “MENU” , this will take you to the **main menu page** . Press and hold for 5 seconds the “ADVANCED SETTINGS” button. All installation and configurations are made through the “ADVANCED SETTINGS “ menu.

The following parameters should be set up , since the CT03TS/217S31 is the most user friendly , setup and configuration are very simple .

\* **Installer Message:** Up to a 42 character message can be entered here and set to display on your CT03TS/217S31 Climatouch thermostat at programmed intervals . Simply enter your message, when finished press “OK” and set the number of months for this message to repeatedly display . An example of a message is “ Call for maintenance 555-555-5555” for example if set for 6 months this message will display every 6 months on the main screen . The message will disappear when the CT03TS/217S31 screen is touched.

\***Filter :** Turning on this function and setting the number of days will cause a filter icon to display after the fan run time has exceeded the entered number of days .

**Energy Watch:** Entering in the KW ratings of your HVAC installation will allow the user to monitor the energy cost of the HVAC system . Simply enter in the compressor KW , the furnace KW if you are using an electric furnace and the fan KW rating . All KW ratings should be rounded for example if your fan is a 750w unit set to 1 KW .

**Min Diff:** Heat and cool set points will never come closer then the value set .

**Dead Band :** This is the area where there will be no demand for heating or air conditioning for example if the heat is set for 72°F and the dead band is 2 then the heat will turn on when the room temperature reaches 70°F .

### **HVAC System Configuration**

In “**advanced settings**” menu there are two buttons used to tailor your Climatouch thermostat to function with your specific heating/cooling system. The correct setting influences the type of control buttons available to the user. For example if you configure your **CT03TS/217S31** for heat only there will be no display of a cool button. The advanced touch screen and display icons provide the most user friendly thermostat interface in the world.

**“HEAT PUMP”**

**“AIR CONDITIONING”**

**“NO COMPRESSOR”** :used for furnace only installations

**“FURNACE OFF”**

**“ELECTRIC FURNACE”**

**“EMERGENCY ELECTRIC FURNACE”** SETS Y2 TO CONTROL AN  
ADDITIONAL HEATER ELEMENT (used in northern installations)  
**“GAS FURNACE”** fan is controlled by the operation of the furnace  
**“OIL FURNACE”** fan is controlled by the operation of the furnace

## **Owners Information**

Your Climatouch CT03TS/217S31 has been engineered to the highest electronic and logical standards . We have taken great pain to make the operation of this Climatouch product user friendly and intuitive. Our priority was to design a product that would sustain the test of time . It is rare to find an operationally friendly product that does not require that there be a lengthy and complicated instruction manual always in close proximity to the thermostat.

## **Temperature control**

Simply touch the CT03TS/217S31 screen , this will take you to the control page where you have the option to change any of the following functions :

**HOLD TEMP : holds the temperature to your set point**

**RUN PROGRAM : runs the programmable temperature settings .**

**Cool – heat –Emergency Heat – off – auto -** Depending on your specific configuration not all of these buttons may be present

Auto selects either heat or cool automatically

Emergency heat forces on your furnace and disables your heat pump.

**Fan Auto:** Fan turns on only when there is a demand for heat or cool

**Fan on:** Fan runs continuously

**Fan Intermittent:** Fan runs 20 minutes per hour or whenever there is a demand for heat or cool , this is a convenient way to filter the air intermittently while saving energy .

## **Menu**

**Advanced Settings:** Caution , this menu is for installers only

**Date/Time Settings:** sets date and time

**Vacation Settings :** Sets your temperature to a fixed set point while you are away on vacation. When “vacation mode “ is set a suit case icon will be displayed on the main screen When you return you will see a message “vacation mode ended” displayed on the screen simply touch the screen to cancel the message. Vacation mode begins at 11pm on the day of your departure and ends at midnight (12am) on the day of your arrival .

**Filter Monitor:** Indicates how many days of “fan run time” the air filter has been used, it should be reset after changing your air filter.

**Set Screen:**

**Wipe** Animates the appearance between each screen transition.

**Reverse:** Changes the appearance of the display to negative or positive.

**Night Reverse:** Changes the appearance of the display to negative after 9PM and positive after 6am, this effectively and automatically dims the display for night time viewing.

### **Cleaning your CT03TS/217S31 Climatouch Thermostat**

From time to time your Climatouch screen may require cleaning, lightly dampen a tissue with water, Press the “**Clean Screen**” button and gently wipe the screen. This function allows you to wipe the screen without accidentally changing any of the settings; it places the touch screen in a sleep mode for 8 seconds. Stop wiping when the warning alarm sounds, this indicates that the touch screen will become active. If you need to repeat the process simply press the “**Clean Screen**” button once again.

### **Optional UHF Outdoor temperature transmitter Installation**

To install your optional outdoor UHF temperature transmitter which will automatically display outdoor temperature on your Climatouch thermostat simply remove the 4 screws at the rear of the temperature transmitter remove the battery cover, insert 2 AAA alkaline batteries and replace the cover . The transmitter will immediately begin transmitting temperature information back to your CT03TS/217S31 Climatouch Thermostat and it will be displayed on the main screen. It is important to locate the transmitter in a location which is not too distant from the thermostat; maximum range is typically 40 feet. For the first 10 minutes after the batteries have been inserted the outdoor temperature transmitter will transmit a signal every 10 seconds as can be seen by the flashing dot to the left of the outside temperature display on the thermostat screen . It is important to locate the transmitter in an area where this dot flashes to insure that the location that you have selected is one which insures good communications back to the thermostat. After 10 minutes the outdoor temperature transmitter will only update once every 20 minutes. If you notice that your outside temperature does not display reliably and disappears from the Climatouch thermostat screen it may be necessary to relocate the transmitter in an area closer to the thermostat.