

Instruction Manual



US PAT:
6,824,069
6,786,421



Models:
CT03TS21
CT03TS32
CT03TS32H

www.climatouch.com

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H4P 1K5

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(1-866-908-6824)
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The Climatouch logo, featuring the word "Climatouch" in a stylized, italicized font with a swoosh above it.

Dear Customer,

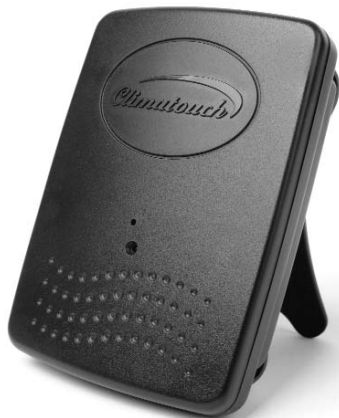
Thank you for purchasing a Climatouch™ thermostat, the most innovative thermostat in the world.

Did you know that your Climatouch™ thermostat can also accurately display outdoor temperature?



To enable this convenient feature you need an optional outdoor UHF temperature transmitter. There is no need for any additional installation or set-up. Simply fit the transmitter unit with batteries and place it outdoors. Your Climatouch™ thermostat will start displaying accurate outdoor temperature immediately.

Ask your installer for an optional outdoor UHF temperature transmitter today!



UHF TEMPERATURE TRANSMITTER PART NUMBER: 217S31

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Mounting Climatouch™ to the wall

1. Make sure to turn off the power supply located at the electrical service panel. All heating and cooling units should be OFF.
2. Remove the cover plate by pulling up the cover from the left or right side only.
3. Align the Climatouch™ unit to the wall.
4. Mark the four locations for drilling the 3/16" holes required for the plastic screw anchors.
5. Remove the thermostat and drill the four 3/16" holes in these locations.
6. Insert the plastic gyproc screw anchors and tighten them securely.
7. Make the appropriate wire connections based on the specifications of the household HVAC unit(s). Please refer to Wiring Table to determine the appropriate wire connections.
8. Securely mount the Climatouch™ unit to the wall with the four supplied screws.
9. Fit the cover plate back by clipping one side first (left or right) and then push down on the opposite side.
10. Turn on the electricity at the electrical service panel.

Terminals

C	Power Supply Common
R	24VAC Power Supply
Y2	See Wiring Table
O/B/W	heat or cool reverse valve - the default is energized in COOL mode. See Manufacturer's Technical Settings to reverse (if necessary) the logical orientation of contact Ob.
W2	Furnace
G	Fan
Y1	Compressor
Dh-H	Humidity model only. 24 VAC Class 2 MAX 4A

NOTE (Humidity model only)

HUMIDIFY feature controls the H relay in the HUMIDIFY mode when there is a demand for humidifying. DH relay may control a variable speed fan in DEHUMIDIFY mode. DH relay is universally configurable in "Advanced Settings" - Page 6.

Wiring Table

Configuration		Y1	Y2	W2	OB/W	R	C	G
Cooling Only								
Air Conditioner	Furn. Off	AC				x	x	x
2Air Conditioner	Furn. Off	AC1	AC2			x	x	x
Heating Only								
No Compressor	Electrical Furn.			El.Furn	El.Furn2*	x	x	x
No Compressor	Emg. El. Furn.		Emg.El.Furn	El.Furn	El.Furn2*	x	x	x
No Compressor	Gas			Gas	Gas2*	x	x	x
No Compressor	Oil			Oil	Oil2*	x	x	x
No Compressor	2 Stage Gas			Gas1	Gas2	x	x	x
* if there is another furnace, then connect it to OB/W relay.								
1 Stage Cooling, 1 Stage Heating								
Heat Pump	Furn. Off	HP			OB	x	x	x
Air Conditioner	Electrical Furn.	AC		El.Furn		x	x	x
Air Conditioner	Emg. El. Furn.	AC	Emg. El.Furn	El.Furn		x	x	x
Air Conditioner	Gas	AC		Gas		x	x	x
Air Conditioner	Oil	AC		Oil		x	x	x
1 Stage Cooling, 2 Stage Heating								
Air Conditioner	2 Stage Gas	AC		Gas1	Gas2	x	x	x
Air Conditioner	Electrical Furn.	AC		El.Furn1	El.Furn2	x	x	x
Air Conditioner	Emg. El. Furn.	AC	Emg. El.Furn	El.Furn1	El.Furn2	x	x	x
Air Conditioner	Gas	AC		Gas1	Gas2	x	x	x
Air Conditioner	Oil	AC		Oil1	Oil2	x	x	x
Heat Pump	Electrical Furn.	HP		El.Furn	OB	x	x	x
Heat Pump	Gas	HP		Gas	OB	x	x	x
Heat Pump	Oil	HP		Oil	OB	x	x	x
1 Stage Cooling, 3 Stage Heating								
Heat Pump	2 Stage Gas	HP	Gas2	Gas1	OB	x	x	x
2 Stage Cooling, 1 Stage Heating								
HP /AC	Furn. Off	HP	AC		OB	x	x	x
2Air Conditioner	Electrical Furn.	AC1	AC2	El.Furn		x	x	x
2Air Conditioner	Gas	AC1	AC2	Gas		x	x	x
2Air Conditioner	Oil	AC1	AC2	Oil		x	x	x
2 Stage Cooling, 2 Stage Heating								
HP /AC	Electrical Furn.	HP	AC	El.Furn	OB	x	x	x
HP /AC	Gas	HP	AC	Gas	OB	x	x	x
HP /AC	Oil	HP	AC	Oil	OB	x	x	x
2Heat Pump	Furn. Off	HP1	HP2		OB	x	x	x
2Air Conditioner	Electrical Furn.	AC1	AC2	El.Furn1	El.Furn2	x	x	x
2Air Conditioner	Gas	AC1	AC2	Gas1	Gas2	x	x	x
2Air Conditioner	Oil	AC1	AC2	Oil1	Oil2	x	x	x
2Air Conditioner	2 stage Gas	AC1	AC2	Gas1	Gas2	x	x	x
2 stage Cooling, 3 stage heating								
2Heat Pump	Gas	HP1	HP2	Gas	OB	x	x	x
2Heat Pump	Oil	HP1	HP2	Oil	OB	x	x	x
2Heat Pump	Electrical Furn.	HP1	HP2	El. Furn	OB	x	x	x

HOME PAGE

To return to the Home Page, simply touch  icon at any time!

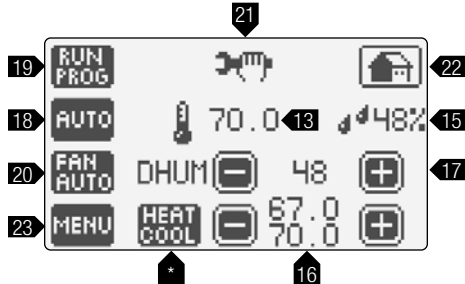


- 1** ▶ Room Temperature; to change °F/°C, go to **35**.
- 2** ▶ Outdoor Temperature (°F/°C)²
- 3** ▶ Relative Room Humidity (%); to change set point, go to **17**.
- 4** ▶ Thermostat Control Mode; to change, go to **19**.
- 5** ▶ Temperature Control Mode; to change, go to **18**.
- 6** ▶ Fan Operation Mode; to change, go to **20**.

- 7** ▶ Fan Operation Indicator; to change, go to **20**.
- 8** ▶ Vacation Mode Indicator; to change, go to **28**.
- 9** ▶ Security On Indicator; to change, go to **36**.
- 10** ▶ Heating set point; to change, go to **16**.
- 11** ▶ Cooling set point; to change, go to **16**.
- 12** ▶ Date (Month/Day/Year); to change, go to **24**.
- 13** ▶ Time; to change, go to **24**.

CONTROL PAGE

To access the Control Page, simply touch the Home Page Screen...anywhere!



14 Current Room Temperature.

15 Current Room Humidity¹.

16 Heat and Cool temperature set points; to change, raise or lower set point as desired. In "Auto" mode touch

***** Heat/Cool button (Heat or Cool will flash once selected), then raise or lower set points as desired.

17 Humidify/Dehumidify set point¹; to change, raise or lower as desired.

18 Temperature Control Mode; select between Heat / Cool / Auto / Emergency Heat.

19 Thermostat Operation Mode: Select between "Run Program" mode (for details, see **25**) or "Hold Temperature" mode.

20 Fan Operation Mode: select between Fan Automatic / Fan Continuously On / Fan Intermittently On.

Note: to save energy, select Fan Intermittent (runs fan for 10 minutes every 1/2 hour).

21 Displays Installer Message; to enter a message, go to **37**

22 Return to Homepage.

23 Access the Menu Page.

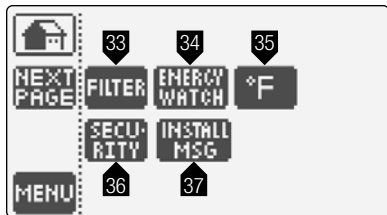
MENU PAGE

To access the Menu Page, simply touch **MENU** from the Control Page.



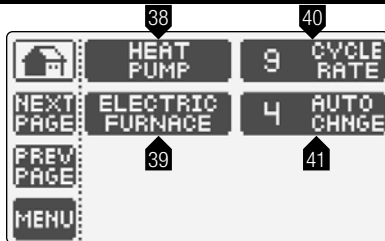
- 24** Set Date and Time.
- 25** Program automatic temperature changes and fan mode ("Run Program" mode) 4 events per day.
- 26** Displays system energy consumption and cost of running system; to enter system consumption parameters, go to **34**; otherwise, displays fan and compressor runtime.
- 27** Freezes the screen for 15 sec to allow the user to wipe the screen with dampened cloth.
- 28** Turn "Vacation Mode" OFF or ON and set: Departure Date, Arrival Date and temperature set point. ("Vacation Mode" will BEGIN at 11PM on your departure date and END at midnight on your arrival date).
- 29** Displays filter usage in days and resets filter timer.
- 30** Select either "Humidify" or "Dehumidify" mode¹; to change Humidify / Dehumidify set point, go to **17**.
- 31** Set Screen Options:
 - Daylight Time (ON/OFF): activate only if you are located in a "Daylight Savings Time" zone.
 - Reverse: Select between dark background (ON) or light background (OFF)
 - Night Reverse: Select between ON: Automatically reverses screen background for comfortable viewing at night (from 9PM to 6AM) OFF: screen background determined by "Reverse" function setting.
 - Contrast: set screen contrast from 1-11.
- 32** To access "Advanced Settings", hold finger 5 seconds on icon.

ADVANCED SETTINGS: Page 1



- 33** Turn “Filter Monitor” ON or OFF; if ON enter the filter replacement interval.
- 34** Enter HVAC system consumption parameters rounded off to kW; see 26 (Typically: Fan 1kW; Heat Pump 1kW/ton; Furnace 5-30 kW, 7-9¢/kW)
- 35** Change thermostat temperature display units (°F or °C).
- 36** Turn “Security” ON or OFF (Default Security PIN = 1111) and select the security level:
Partial Lock: User has can only change temperature set point(s) without a password.
Full Lock: User must enter PIN to change any setting.
- 37** Enter “Installer Message” (up to 42 characters) to appear at programmable intervals, see 21.

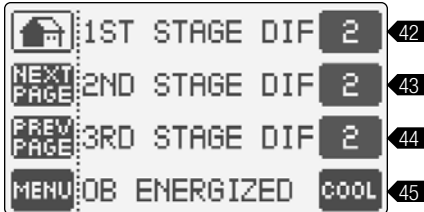
ADVANCED SETTINGS: Page 2



Please note that inadvertently modifying Compressor and Furnace settings, may seriously degrade system performance.

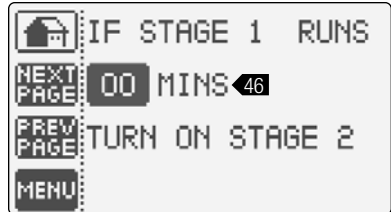
- 38** Select system heating and/or cooling equipment: _____
Heat Pump, 2-stage Heat Pump, Air Conditioning, No Compressor - see Wiring Table.
- 39** Select the system Furnace Type: _____
Furnace Off (No Furnace), Electric Furnace, Emergency Electrical Furnace (additional electric furnace which will come on in emergency mode in conjunction with electric furnace), Gas Furnace, Oil Furnace, and 2-stage Gas Furnace; see Wiring Table.
- 40** Set maximum compressor cycles per hour.
- 41** Set Minimum difference between auto mode heat and cool temperature set points. See 18.

ADVANCED SETTINGS: Page 3



- 42 Set temperature difference between temperature set point and actual temperature reading before 1st stage heating or cooling is initiated.
- 43 Set temperature difference between 1st stage initiation (42) and 2nd stage heating or cooling initiation.
- 44 Set temperature difference between 2nd stage initiation (43) and 3rd stage heating or cooling initiation.
NOTE: Number of stages depends on your system; see 38 & 39.
- 45 Reverses the Heat Pump OB Valve contact ; (manufacturer dependant)

ADVANCED SETTINGS: Page 4



- 46 Specify X minutes for which stage 1 will function until stage 2 is activated to help raise (or cool) temperature (if the temperature set point is not reached). This function avoids excess compressor wear in the case where the necessary temperature set point is not met (see 42, 43 & 44). Set to "00" to disable.

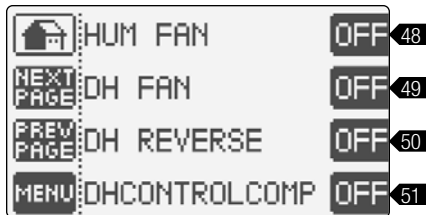
ADVANCED SETTINGS: Page 5



- 47** ➤ HP “ON” when Furnace On: Heat Pump and Furnace can operate together when 2nd stage furnace is required.
HP “OFF” when Furnace On: turns off the Heat Pump when the furnace is On (required on some gas or oil furnaces).

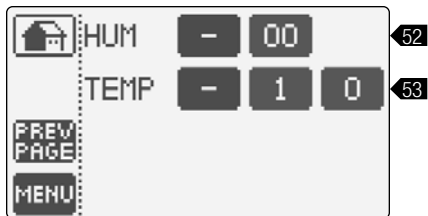
- 48** ➤ ON: fan runs when there is an independent demand to humidify;
OFF: fan only runs when there is a demand to humidify while heating or cooling.

ADVANCED SETTINGS: Page 6¹



- 49** ➤ ON: fan runs when there is an independent demand to dehumidify;
OFF: fan only runs when there is a demand to dehumidify while cooling.
- 50** ➤ ON, DH relay is normally closed when relative humidity is above DH set point.
OFF, DH relay is normally open when relative humidity is above DH set point.
- 51** ➤ ON: thermostat will turn off the air conditioning if either the dehumidify set point or the temperature set point is reached, whichever comes first, both DH relay and compressor will turn off.
OFF: DH relay is independent of compressor activity (DH becomes a spare and can be used for a variable speed fan or separate dehumidifier or air exchanger)

ADVANCED SETTINGS: Page 7



- 52** Humidity calibration offset - allows for fine-tuning of the humidity sensor.
-
- 53** Temperature calibration offset - allows for fine-tuning of the temperature sensor (use an accurate thermometer to calibrate if necessary).
-

¹ Humidity model only.

² Requires wireless temperature transmitter.

Simple Thermostat Mode

Climatouch can also function as a non-programmable thermostat after it has been configured.

Simple Mode has the following basic features:

Temperature Control Modes:



Fan Operation Modes:



To enable "Simple Mode", press the reset button (take off the thermostat faceplate and press the reset button located in the bottom right-hand corner). The message "Touch for simple thermostat" will appear. Touch the screen, and Climatouch becomes a simplified non-programmable thermostat.

- * *Please note that when changing to Simple Mode, you will not lose any of the settings you have previously entered in the "Programmable Mode".*
- * *To revert back to the Programmable Climatouch Thermostat, simply press the reset button and touch the screen when the message "Touch for Programmable Thermostat" appears.*

Troubleshooting

Touch screen buttons do not function properly.

Remove cover, press the reset button located in the bottom left corner then accurately touch 3 target centers on the screen when prompted.

Air Conditioning does not turn on even when room temperature is higher than the temperature set point set point (Humidity models only).

DHCONTROLCOMP is turned ON and dehumidify set point has been reached. This will cause air conditioning to turn off. Lower dehumidify set point or turn off "DH Controls Compressor" feature (see "Advanced Settings" Page 6).

Air conditioning turns on in HEAT mode and heating turns on in COOL mode.

Reverse the OB valve (see "Advanced Settings" Page 3).

PARTIAL LOCK and FULL LOCK do not function.

You must not touch the screen for 1 minute for Climatouch™ to automatically lock

Thermostat appears normal until the screen becomes blank when the compressor or heating system turn on.

You need to connect the "C" wire. 4 wire system will not function unless the heat and compressor contactors can supply enough current to power the thermostat with only 4 wires, if you cannot hook up the "C" wire another possible solution is to connect two 100 ohm 10 watt resistors in the HVAC room, one between Y and C, and the second one between W2 and C.

I forgot my PIN and cannot unlock the thermostat.

Remove the cover plate, press the reset button located in the bottom right corner, as soon as the message "touch to reset password" appears touch the screen, your PIN will be erased and the thermostat will unlock.

LIMITED WARRANTY

Hardware

AED Electronics Inc. ("AED") warrants the original end user ("Customer") that new Climatouch branded products will be free from defects in workmanship and materials, under normal use, for two (2) years from the original purchase date.

Software

AED warrants to Customer that the Climatouch thermostat software will perform in substantial conformance to its program specifications for a period of two (2) years from the date of the original purchase.

Exclusions

This warranty excludes (1) physical damage to the surface of the product, including cracks or scratches on the touch-screen or outside casing; (2) damage caused by misuse, neglect, improper installation, unauthorized attempts to open, repair, or modify the product, or any other cause beyond the range of intended use; (3) damage caused by accident, fire, power changes, other hazard, or Acts of God; or (4) use of the product with any device if such device causes the problem.

Exclusive Remedies

Should a covered defect occur during the warranty period and Customer notifies AED, Customer's sole and exclusive remedy will be, at AED's sole option and expense, to repair or replace the product. Replacement products or parts may be new or reconditioned or a comparable version of the defective item. AED warrants any replaced product or part for a period of ninety (90) days from shipment, or through the end of the original warranty, whichever is longer.

Obtaining Warranty Service

Customer must contact and return product to a local AED product dealer or installer within the applicable warranty period to obtain warranty service. Dated proof of original purchase will be required. AED will not be responsible for Customer's memory data contained in, stored on, or integrated with any products returned to AED for repair, whether under warranty or not.

Warranty Exclusive

THE FORGOING WARRANTIES AND REMEDIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, CORRESPONDENCE WITH DESCRIPTION, AND NON-INFRINGEMENT, ALL OF WHICH ARE EXPRESSLY DISCLAIMED BY AED AND ITS SUPPLIERS.

Disclaimer

NEITHER AED NOR ITS SUPPLIERS SHALL BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL, INDIRECT, SPECIAL, OR PUNITIVE DAMAGES OF ANY KIND, OR FINANCIAL LOSS ARISING OUT OF OR IN CONNECTION WITH THE SALE OR USE OF THIS PRODUCT, WHETHER BASED IN CONTRACT, TORT (INCLUDING NEGLIGENCE) OR ANY OTHER THEORY, EVEN IF AED HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. AED'S ENTIRE LIABILITY SHALL BE LIMITED TO REPLACEMENT OR REPAIR OF THE PRODUCT.



FCC Statement

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 UNDESIRABLE OPERATION.



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