

INSTRUCTION MANUAL

Climatouch™ CTO-7TC-32ADH

3 Heating and 2 Cooling with Automatic Humidity Control and Dual Fuel Switch





OUTDOOR WIRELESS TEMPERATURE TRANSMITTER AND RECEIVER KIT

Climatouch™ Part No. 90064



82°

Accurately Displays Current Outdoor Temperature on the Climatouch™ Thermostat and Enables Dual Fuel and Automatic Humidity Capability

Outdoor Wireless Temperature
Transmitter and Receiver Kit Includes:
Transmitter
Antenna
Receiver Module
2 AA Batteries

U.S. Patent: 6,902,117



COMFORT CONVENIENCE CONTROL

Introducing the Climatouch™ CTO-7TC-32ADH touch-screen thermostat with 3-stage heating, 2-stage cooling control, an automatic humidity controller and fossil fuel switch (available only when combined with Climatouch™ Outdoor Wireless Transmitter and Receiver Kit. Climatouch™ Part No. 90064)

×	7 Day programmable with 4 event
	per day - including fan

- Large, easy to read dot matrix display
- **∷** True touch screen technology
- Automatic selection of cool or heat mode
- Programmable fan mode
- Programmable filter monitor
- Programmable installer message
- Configurable humidification relay

■ Independent de-humidification relay

- Customizable full and partial lock security
- Adjustable differential settings for multistage installations
- Energy watch calculates kWh consumption and real time HVAC cost
- Simple mode for non-programmable usage
- Programmable Vacation Mode

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GLOSSARY OF TERMS

CYCLE RATE - Cycle rate is the frequency that heating or cooling equipment is turned on during a certain period of time. Cycle rate is often given in units of cycles per hour (CPH).

DEHUMIDIFY - The process of removing moisture from the air.

DEHUMIDIFIER - Device used to remove moisture from the air.

DIFFERENTIAL - Differential is defined as the difference between the cut-in and cut-out points as measured at the thermostat under specified operating conditions. For example, if the thermostat turns the heating equipment on at 70 degrees F and turns the heating equipment off at 74 degrees F, then the differential is 4 degrees F.

HUMIDIFIER - A device used to add moisture to a space.

HUMIDISTAT - A control which is operates the humidifier and is affected by changing humidity.

HUMIDITY - Moisture in the air.

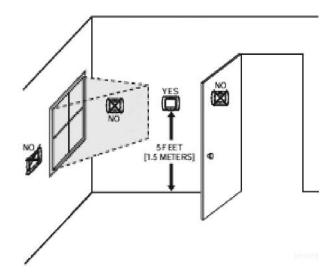
PROGRAMMABLE THERMOSTAT - A thermostat with the capability of automatically adjusting temperature set point to pre-selected settings at pre-selected times.

SETBACK - The automatic alteration of the thermostat control point(s) by means other than manually changing the temperature set point.

SET POINT - The desired temperature setting on an electromechanical or electronic thermostat

SELECTING A LOCATION

Install your Climatouch™ thermostat approximately 5 feet (1.5 meters) above the floor in an area with good air circulation.



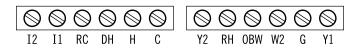
Avoid the following locations:

- ## Hot or cold air from ducts
- ## Radiant heat for appliances or sun such as a skylight
- Unheated or uncooled areas: for example an outside wall behind the thermostat.
- \blacksquare Ensure that there is no furniture directly below or beside the thermostat.

MOUNTING CLIMATOUCH™ TO THE WALL

- Make sure to turn off the power supply located at the electrical service panel.
 All heating and cooling units should be OFF.
- 2. Separate the backplate from the thermostat by grasping the unit firmly at the bottom lip and pulling gently until the two piece are apart.
- 3. Align the backplate to the wall.
- 4. Mark the three locations for drilling the 3/16" holes required for the plastic screw anchors
- 5. Remove the backplate and drill the three 3/16" holes in these locations.
- 6. Insert the plastic gyproc screws and ensure that they are snug in the wall.
- 7. Securely mount the backplate to the wall with the 3 supplied screws.
- 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.
- 9. Place the thermostat on the backplate by firmly but gently from the top aligning the pins with the screw terminals.
- 10. Turn on the electricity at the electrical service panel.

WIRING LEGEND



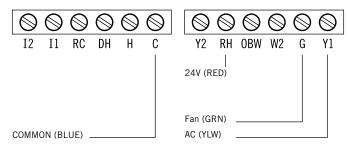
TERMINAL	EQUIPMENT	STANDARD COLOR
Y1	First Heat Pump and AC	Yellow
G	Fan	Green
W2	First Stage Furnace	White
OBW	Reverse Valve - Second Stage Furnace	Orange
RH	24v	Red
Y2	Second Heat Pump and AC	Unknown
С	Common	Blue
Н	Humidity Control	Unknown
DH	Dehumidify Control, Variable Fan Control	Unknown
RC	24v	Unknown
11 and 12	Not Used	

NOTE: The above colors are standard in HVAC industry. The wiring should be confirmed before installation

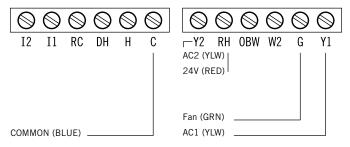
WIRING DIAGRAMS

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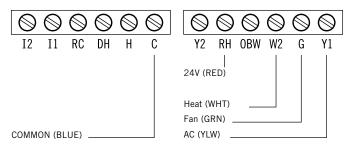
ONE AC



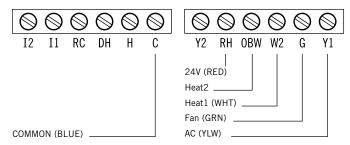
TW0 AC



AC AND ONE HEAT



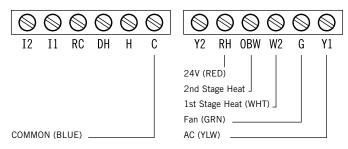
AC AND TWO HEAT



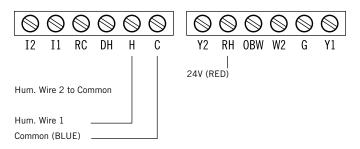
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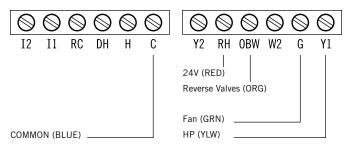
AC AND TWO STAGE FURNACE



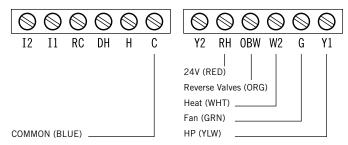
HUMIDITY CONTROL



ONE HEAT PUMP



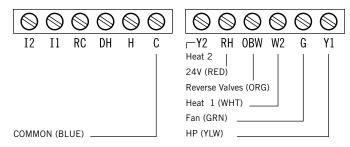
ONE HEAT PUMP AND ONE HEAT



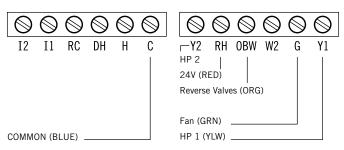
WIRING DIAGRAMS

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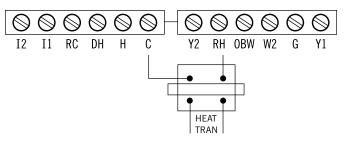
ONE HEAT PUMP AND TWO HEAT

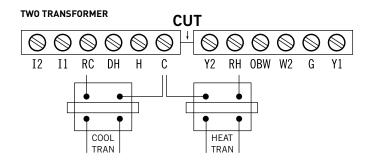


TWO HEAT PUMP

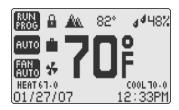


ONE TRANSFORMER





CONTROL SCREEN



> To return to the HOME SCREEN, simply touch

> The HOME SCREEN displays the following information:

Temperature

448% Current Room Humidity



Current Outdoor Temperature



Current Thermostat Operation Mode



Current Temperature Control Mode



Current Fan Operation Mode



Fan Operation Indicator



Vacation Mode Indicator



Security Indicator

HEAT 67.0

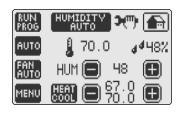
Heat setpoint Cool setpoint

C00L 70.0

Date

01/27/07 12:33PM

Time



- > To access the CONTROL SCREEN, simply touch the HOME SCREEN Screen... anywhere!
- >> From the CONTROL SCREEN, you can:





Change the Temperature Setpoint(s) using - and + buttons. In AUTO MODE toggle the Heat/Cool button (Heat or Cool will flash once selected), then raise or lower setpoints as desired.





Change the Humidity Setpoint using - and + buttons.





HOLD Select the Thermostat O TEMP operation mode button. Select the Thermostat Operation Mode by toggling thermostat







Select the Temperature Control Mode by togaling the temperature control mode button.







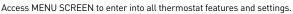
FAN Select the Fan Operation operation mode button. Select the Fan Operation Mode by toggling the fan





HUMIDITY Select the Humidity Control mode by toggling MANUAL the humidity control mode button.'





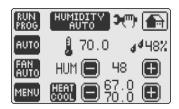


Displays Installer Message to review important information.

Available only in combination with WIRELESS OUTDOOR TEMPERATURE TRANSMITTER AND RECEIVER KIT (90064)

THERMOSTAT OPERATION MODES

TEMPERATURE CONTROL MODES



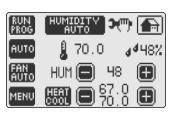
③ Climatouch™ thermostat can operate in PROGRAM MODE or can HOLD a fixed temperature.



RUN PROGRAM: Climatouch™ initiates the 7-day Programmable Temperature Control Program with 4 independent events per day. To set up a custom temperature control program with customizable Temperature Setpoint and Fan operation mode, refer to Section PROGRAM SETTINGS (page 27).



HOLD TEMPERATURE: Climatouch™ regulates the room temperature as determined by the selected Temperature Setpoint.



≫ Based on your HVAC equipment Climatouch™ can operate in the following temperature control modes - AUTO or HEAT or EMERGENCY HEAT or COOL or OFF



AUTO - Climatouch™ keeps the room temperature between the selected HEAT and COOL setpoints by using both the cooling and heating HVAC units.



HEAT - $Climatouch^{\bowtie}$ only turns on the heating units to regulate room temperature.



EMERGENCY HEAT - Climatouch™ enables the emergency heat (if required).

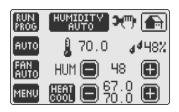




OFF - Climatouch™ will not control temperature. Climatouch™ will continue to display the current room temperature, current room humidity and outdoor temperature.

AUTOMATIC HUMIDITY CONTROL

HUMIDIFY AND HUMIDITY SETPOINT



In order to reduce condensation, humidity must be controlled and air movement must be generated. As the exterior temperature drops, the humidity level needs to decrease if condensation is to be controlled.

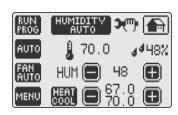


HUMIDITY AUTO: Climatouch automatically adjusts the humidity set point based on the current indoor temperature and humidity as well as the current outdoor temperature in order to maintain a maximum comfort level and eliminate condensation. The automatic humidity setpoint is determined according to the following standard humidity table.¹

Setpoint	Outdoor Temp in °C	Outdoor Temp in °F
15%	-29	-20
20%	-24	-10
25%	-18	0
30%	-12	10
35%	-7	20
40%	-7	-20



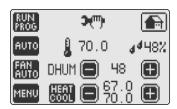
HUMIDITY MANUAL: The user selects the humidity setpoint.



- * HUMIDIFY SETPOINT: Allows you to increase and maintain the relative humidity at a specific setpoint. Once you choose HUMIDIFY follow these easy steps:
- The HUM setpoint with and + icons allow you to lower and raise your setpoint.
- ★ Example of the typical use of the Humidify Function: If the current humidity is 30% your Climatouch™ thermostat will initiate the humidifier to function until Setpoint 50% is reached. In order to humidify you must set the humidity setpoint above the current humidity.

¹ Available only in combination with WIRELESS OUTDOOR TEMPERATURE TRANSMITTER AND RECEIVER KIT (90064)

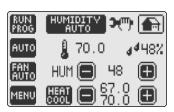
DE-HUMIDIFY AND HUMIDITY SETPOINT



- DE-HUMIDIFY SETPOINT: Allows you to reduce and maintain the relative humidity at a specific setpoint.
- ※ Please note that this feature functions in the COOL Mode only. Your Climatouch™ Thermostat must be configured to control a cooling unit such as an air conditioner of heat pump. Once you choose De-Humidify follow these easy steps:
- ## The DH SETPOINT with and + icons allow you to lower and raise your setpoint
- ★ Example of typical use of the De-Humidify function: In order to de-humidify you must set the de-humidify setpoint below the current relative humidity. Your Climatouch™ will both lower and regulate temperature to the cooling setpoint while monitoring and lowering the room humidity.

Since the De-Humidify feature uses the COOL Function of your Air Conditioner or Heat Pump, your Climatouch™ thermostat will turn off the air conditioning if either the dehumidifier setpoint or temperature setpoint is reached - which ever comes first.

FAN OPERATION MODES



☼ Climatouch™ can operate the fan in one of the following three modes:



FAN AUTO: The fan runs only when there is a demand for heating or cooling.



FAN ON: The fan runs continuously



FAN INTERMITTENT: The fan runs 10 minutes per 1/2 hour providing a convenient way to improve air quality and save energy.



When the fan is running, the animated fan icon will appear on the HOME SCREEN.

MENU SCREEN



- >> To access the MENU SCREEN, simply touch MENU from the CONTROL SCREEN.
- >> From the MENU page, you can:



Access **DATE AND TIME SETTINGS** to enter the accurate date and time



Access **PROGRAM SETTINGS** to pre-program temperature changes during each day of the week.



Access **ENERGY WATCH** to display kWh consumption and the dollar cost of operating the HVAC System



CLEAN SCREEN places the touch screen in a sleep mode for 15 seconds which allows you to wipe the screen with a dampened cloth.



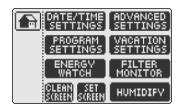
Access the **SET SCREEN** menu to change screen properties.



Access VACATION SETTINGS to activate the VACATION MODE



Access FILTER MONITOR to review days of "fan run time."







Select **HUMIDIFY** or **DE-HUMIDIFY**Control Mode by toggling the humidity control mode button



HUMIDIFY increases and maintains the relative humidity of the room at a humidity setpoint selected on the CONTROL SCREEN.



DE-HUMIDIFY reduces and maintains the relative humidity of the room at a humidity setpoint selected on the CONTROL SCREEN.

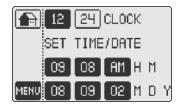
Please note that DE-HUMIDIFY feature functions only in COOL mode. Climatouch™ will regulate both the room temperature and the room humidity at the same time. If DE-HUMIDIFY setpoint reached before the temperature COOL setpoint, the air conditioning will turn off before the temperature setpoint is reached. This feature has been specially designed to save energy without compromising the comfort.



Access ADVANCED SETTINGS to configure the thermostat.

To access the ADVANCED SETTINGS, hold the ADVANCED SETTINGS button for 5 seconds. Climatouch $^{\text{m}}$ will continuously beep for 5 seconds to indicate that you are in the process of entering this feature.

CAUTION Altering the system properties in the ADVANCED SETTINGS may affect the performance of the HVAC system and should be performed only by a qualified installer.





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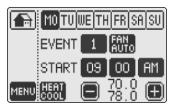
Select the 12 OR 24 HOUR CLOCK display by pushing the corresponding button.



Set the **TIME** by togggling hour, minute and AM/PM buttons



Set the **DATE** by toggling Month, Day and Year buttons





PROGRAM SETTINGS feature allows you to easily and quickly program daily temperature changes to fit your lifestyle and reduce energy consumption. You can customize the program for each day of the week with 4 independent temperature and fan operation settings per day. To setup your program:







Select the **EVENT NUMBER** by toggling the Event Number button



Choose desired FAN OPERATION MODE by fan operation mode button.

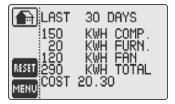


Enter the event START TIME with Hour/Minute and AM/PM buttons



Choose desired TEMPERATURE SET-POINT with - and + buttons

Select the next event and repeat the steps described above. Once finished. select the next day of the week that you would like to program. Climatouch™ will prompt you to copy the settings. Repeat steps to program other days of the week.



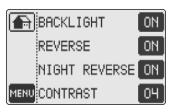


ENERGY WATCH feature provides a report on the energy consumption and the dollar cost of operating your HVAC system (for up to the last 255 days).

Once the cost of the kWH per compressor, furnace and fan have been entered into the ENERGY WATCH Settings (see page 32) Energy Watch will display the consumption as well as the real time dollar cost of the HVAC system.

Otherwise, ENERGY WATCH will display only the total time the Compressor and the Furnace have been operating.





BACKLIGHT: Select between automatic and permanent backlight for the screen.



AUTO: The screen back-light will come on only when you touch the screen.



ON: Screen will constantly be back-lit.

REVERSE: Select the positive or negative screen display.



ON: Negative Display (Dark Background)



OFF: Positive Display (Light Background)

II NIGHT REVERSE: changes the touch screen background at night for improved display under low-lighting conditions. Select between:

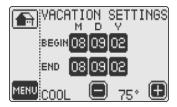


ON: the screen automatically reverses the background at 9PM and returns to the normal display at 6:00AM.



OFF: screen background is determined by REVERSE function.

■■ CONTRAST: Toggle the screen contrast settings button (1-10) to select the screen contrast that suits best your thermostat surroundings. Climatouch™ recommends the setting of 7.



* VACATION SETTINGS allows you to set the temperature to a fixed setpoint during the time you are on vacation, providing energy savings without compromising comfort upon your return.

IMPORTANT: HEAT or COOL must be selected from the CONTROL SCREEN before entering the Vacation Settings screen.



To begin select Vacation Mode ON:



BEGIN 08 09 02 Se

Select the START Date

END



Select the **END** Date



75° 🖽

Adjust the HEAT or COOL temperature setpoint: the Vacation mode begins at 10 PM on the day of your departure and ends at Midnight on the day of your arrival.



When the Vacation mode is active the suitcase icon appears on the HOME SCREEN. Upon your return, the message VACATION

MODE ENDED will be displayed on the screen. Simply touch the screen, and your Climatouch™ thermostat will automatically revert to the Program Settings if you are in RUN PROGRAM or to HOLD TEMPERATURE operation mode.





FILTER MONITOR: Displays filter usage in days



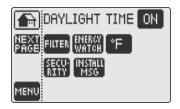
RESET: Resets filter timer (You should reset FILTER MONITOR after changing the air filter.



When activated the FILTER MONITOR icon appears on your HOME SCREEN - this feature must be activated in ADVANCED SETTINGS

ADVANCED SETTINGS - FEATURES SETTINGS

ADVANCED SETTINGS - FEATURES SETTINGS



DAYLIGHT TIME: Choose Daylight Time **ON** or **OFF** dependent on your Time Zone.



FILTER: Enter the air filter "fan run time" information here. The Filter Monitor feature uses this information to inform you when to change your air filter by displaying CHANGE FILTER icon on the HOME SCREEN.





ENERGY WATCH: Enter the HVAC system consumption parameters (rounded off to kW) as well as your electrical energy cost (¢/kW) and the ENERGY WATCH feature will display a real time totals of electrical energy consumption and cost. To review



touch the ENERGY WATCH button on the MENU SCREEN.

★ EXAMPLE: Fan 1kW, Heat Pump 1kW/ton, Furnace 5-30 kW, 7-9¢/kW

ENERGY WATCH feature will run consecutively for 255 days. If you do not enter your information what will appear on the display is the total time the Compressor and the Furnace have been operating.





Select temperature display in either **CELSIUS** or **FAHRENHEIT** degrees by toggling the °C / °F button to either °C or °F.





SECURITY: The security settings allow you to protect your Climatouch™ thermostat from unauthorized use.





OFF)

Turn Security **ON** or **OFF**. You will be prompted to enter the PIN. The Default PIN 1111



To **CHANGE PIN**, enter your new PIN and then, when prompted, re-enter your new PIN.

Choose a security mode by toggling SECURITY MODE button:



FULL LOCK does not allow any changes unless the user enters the PIN



PARTIAL LOCK allows you to change only the temperature setpoint without entering a PIN.



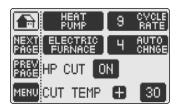
Enter the INSTALLER MESSAGE: (up to 42 characters) to appear at programmable



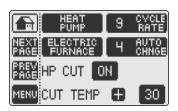
intervals. Type the message using the keyboard, and push OK button to confirm. You will be prompted to enter the number of months after which you would like the message to appear.

ADVANCED SETTINGS - SYSTEM CONFIGURATION

ADVANCED SETTINGS - DUAL FUEL SWITCH



- IMPORTANT: By inadvertently modifying system configuration settings, you may seriously degrade HVAC system performance.
- Choose system heating and cooling equipment remember all you need to do is toggle the appropriate button until the correct setting appears.
- Choose HEAT PUMP or 2 STAGE HEAT PUMP or AIR CONDITIONING or NO COMPRESSOR please review the wiring table and diagram for wiring instructions.
- Choose FURNACE OFF (No Furnace) or ELECTRIC FURNACE or EMERGENCY ELECTRICAL FURNACE (additional electric furnace which will come on in emergency mode in conjunction with electric furnace) or GAS FURNACE or OIL FURNACE or 2 STAGE GAS FURNACE; please review the wiring table and diagram for wiring instructions.
- **## CYCLE RATE**: Set Maximum compressor cycles per hour. We recommend that the factory default be maintained for optimal performance..
- **## AUTO CHANGE**: Set the minimum difference between Auto Mode, Heat and Cool temperature setpoints. We recommend that the factory default be maintained for optimal performance.



IMPORTANT: This feature can only be activated when used with the Climatouch™ Outdoor Wireless Temperature Transmitter and Receiver. Please install the Climatouch™ Outdoor Wireless Temperature Transmitter and Receiver before activating this feature.

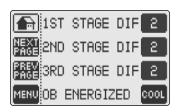
Increasing energy efficiency and reducing costs can be achieved by using the dual fuel switch. Your heat pump can generally provide heat and comfort without assistance to an outside temperature of just a few degrees below freezing. This temperature is called the heat pump balance point. When the outside temperature is above the balance point, the heat pump alone is sufficient for heating.

Once the outdoor temperature drops to the balance point the heat pump must be assisted by your alternate energy source. When the outdoor temperature drops below the systems normal crossover temperature (-12°C or -15°C), your heat pump will stop operating and the alternate energy source will take over.

- ## HP Cut ON or OFF
- **Cut Temperature:**
 - +/-Temperature in Celsius (-5°c to 25°c)
 - +/- Temperature in Fahrenheit (13°F to 41°F)

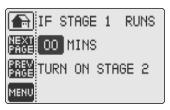
ADVANCED SETTINGS - DIFFERENTIAL SETTINGS

ADVANCED SETTINGS - TIMER FEATURE



- ≫ The Climatouch™ CT0-7TC-32ADH allows you to control up to 3 Stages of Heating and 2 Stages of Cooling, dependent on the type of system you have configured.
- ## 1ST STAGE DIFFERENTIAL: Set temperature difference between temperature set point and actual temperature reading before 1st stage heating or cooling is initiated.
- ## 2ND STAGE DIFFERENTIAL: Set temperature difference between 1st stage initiation and 2nd stage heating or cooling initiation.
- ## 3RD STAGE DIFFERENTIAL: Set temperature difference between 2nd stage initiation and 3rd stage heating or cooling initiation.
- ## OB ENERGIZED: Reverses the Heat Pump OB Valve contact to HEAT or COOL (manufacturer dependent).

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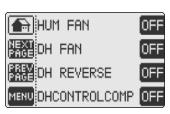
■ Specify the number of minutes for which Stage 1 will function until Stage 2 is activated to help raise (or cool) temperature (if the temperature set point is not reached). This unique function avoids excess compressor wear in the case where the necessary temperature set point is not met through setting of the Staging Differential Set to "00" to disable

ADVANCED SETTINGS - HEAT PUMP

ADVANCED SETTINGS - HUMIDITY SETTINGS



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).



> IMPORTANT: The Automatic Humidity Control feature can only be activated when used with the Climatouch™ Outdoor Wireless Temperature Transmitter and Receiver. Please install the Climatouch™ Outdoor Wireless Temperature Transmitter and Receiver before activating this feature.

Automatic Humidity Control: Automatic humidity control is an option that lets your system automatically adjust indoor humidity based on current outdoor conditions. This function minimizes destructive condensation build-up on your windows.

- ## HUM FAN: 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.
- **III DH FAN: ON** fan runs when there is an independent demand to dehumidify. **OFF**: fan only runs when there is a demand to dehumidify while cooling.
- ## DH REVERSE: 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.
- ## DH CONTROL COMPRESSOR: 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 relay and can be used for a variable speed fan or separate dehumidifier or air exchanger)

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ADVANCED SETTINGS - HUMIDITY SETTINGS

ADVANCED SETTINGS - HUMIDITY SETTINGS



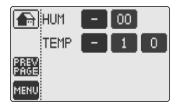
> Operating Tips

- ## HUMIDIFICATION FAN should be set to ON when running steam or mist humidifiers.
- **## HUMIDIFICATION FAN** should be set to **OFF** when running drum humidifiers or any other humidifier that requires the furnace to run in order to make humidity.
- **III** DE-HUMIDIFICATION FAN (DH) should be set to on when running separate dehumidification equipment.
- **EXECUTE:** DE-HUMIDIFICATION FAN (DH) may be set to off when using the air conditioning as a means of de-humidification. It may advantageous in some environments to turn the fan on independently when there is a call for DH in order to distribute the humidity level more evenly.
- **III DH REVERSE** function can be configured to meet the requirements of many variable speed fans, consult the manual of your variable speed fan and determine if an "open" or "closed" contact results in slowing fan operation.



> De-humidification options for increasing comfort and efficiency

- ## HRV/ERV units can be controlled by simply connecting the DH terminal on the thermostat to the terminal DH of the HRV/ERV. Most HRV/ERV units will control properly with the DH REVERSE feature turned off (contact normally open).
- **3.1 OPTION 1:** In Advanced Settings choose DHControlComp, set to ON then lower the temperature to a minimum safe set point, finally set the desired de-humidity level, de-humidify will control the compressor (unless minimum temperature set point is reached) whichever comes first.
- **3.1 OPTION 2**: Connect terminal DH to Y1 and set thermostat to de-humidify mode then regardless of temperature the de-humidification setting will have priority. Caution: This method will run the compressor until the de-humidification level is reached and may cause overcooling.
- **SETTING 3:** Connect the DH terminal to a variable speed fan control, (set DH REVERSE to control the fan so that low speed is activated to de-humidify). This method provides maximum comfort while maintaining the temperature in cooling mode.

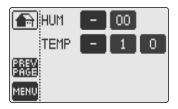


Calibration of Temperature or Relative Humidity

Your Climatouch™ Thermostat is rated for an accuracy of +/-1 degree with temperature and +/- 4% for Relative Humidity

If you have determined due to drafts, sunlight or other environmental factors that your thermostat requires calibration, follow this easy guide. Common cause of offset are lack of air circulation, drafts or skylights in the direct vicinity of your Climatouch unit.

Measure humidity with a conventional hygrometer or any other device that provides a accurate reading. Then compare to the reading on your Climatouch $^{\rm m}$ and calibrate by up to +/- 15 degrees.



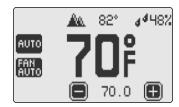
Temperature Calibration Table

Determine the temperature difference using an accurate thermometer, then use the following table to adjust your thermostat calibration.

THERMOSTAT CALIBRATION NUMBER	FAHRENHEIT CHANGE	CELSIUS Change
+3.0	+6°F	+3.0°C
+2.5	+5°F	+2.5°C
+2.0	+4°F	+2.0°C
+1.5	+3°F	+1.5°C
+1.0	+2°F	+1.0°C
+0.5	+1°F	+ .5°C

FACTORY SETTING	RELATIVE HUMIDITY CHANGE	NO CORRECTION REQUIRED
-0.5	-1°F	5°C
-1.0	-2°F	-1°C
-1.5	-3°F	-1.5°C
-2.0	-4 °F	-2.0°C
-2.5	-5°F	-2.5°C
-3.0	-6°F	-3.0°C

SIMPLE THERMOSTAT MODE



- ※ Climatouch™ can also function as a virtual non-programmable thermostat after it has been switched to a "SIMPLE MODE".
- 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 immediately, and
 Climatouch™ becomes a simplified non-programmable thermostat.
- * "SIMPLE MODE" has the following temperature control modes:







* "SIMPLE MODE" has the following fan operation modes:





Please note that when entering "Simple Mode" all configurations and settings are stored permenantly.

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 then the temperature set point set point. DHCONTROLCOMP is turned ON and dehumidify set point has been reached. This will cause air conditioning to turn off. Lower Setpoint Page 17, 21; Dh CONTROLCOMP Page 39.
- Air conditioning turns on in HEAT mode and heating turns on in COOL mode.
 Reverse the OB valve (see "Advanced Settings" Page 36).
- 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 turns 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 one 250 ohm 10 watt resistor in the HVAC room, for cooling problems between C and W or in the case of heating problem between C and Y1.
- 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.

IMPORTANT NOTICE

WARRANTY

WHEN USING THIS THERMOSTAT WITH A GAS FURNACE A COMMON WIRE (C) MUST BE CONNECTED.

When working without a common wire:

- A confirm in HEAT MODE the cooling does not switch on or B confirm in COOL MODE the heat does not switch on.
- If test A or B fail or the thermostat shuts down in either HEAT or COOL MODE then it is necessary to connect a common wire, (C), alternatively it may be possible to solve this issue by simply connecting the 250 ohm 10 watt resistor between C and W (in the case of a cooling problem - see B) or between C and Y1 (in the case of a heating problem - see A) at the HVAC equipment.
- ** When working without a common wire, A confirm that when there is a call for heat, cooling does not also activate, and when there is a call for cool, heating does not also activate.
- If using the configuration of Heat Pump and Furnace with no Common Wire confirm that when Heat Pump and Furnace are working together (both stages are operating at the same time) that the display does not go blank, if so you must use a Common Wire.
- This thermostat is equipped to run with two separated power transformers if required RC and RH. Terminals RC and RH are internally connected together however you should wish to use two transformers simply cut with a blade the copper trace on the printed circuit board located between the C and Y2 screw terminals.

HARDWARE

AED Electronics, Inc. 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 Electronics, Inc. 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 Electronics, Inc., Customer's sole and exclusive remedy will be, at AED Electronics, Inc.'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 Electronics, Inc. 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.

ORTAINING WARRANTY SERVICE

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

DISCLAIMER

NEITHER AED Electronics, Inc. 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 Electronics, Inc. HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. AED Electronics, Inc.: SENTIRE LIABILITY SHALL BE LIMITED TO REPLACEMENT OR REPAIR OF THE PRODUCT.

TECHNICAL SUPPORT: 1-866-90TOUCH (1-866-908-6824)

PHYSICAL DIMENSIONS

Case: 5.75" x 4.75" x 1.25" (145mm x 120mm x 30mm)

Screen: 4.1875" (106mm)

ELECTRICAL RATING

24 volt AC/DC Class 2 maximum 4 amps

Temperature Accuracy ±1°F (±0.5°C)

Humidity Accuracy ±5%RH

PATENTS

7,156,318; 7,145,110; 7,050,026; 7,028,912; 6,902,117; 6,786,421; Other Patents Pending

AED Electronics, Inc. 5758 Royalmount Ave., Montreal, QC, H4P 1K5, Canada





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 INDESIRED OPERATION