DAIKIN

TSTATD2200C-2
COMMERCIAL

Non-Programmable
Digital Thermostat
with Humidity Control • Multi Stage 2+2

**for
Commercial Use**

**Owner's
Manual**

and

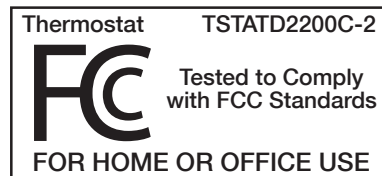**Installation
Instructions**

⚠ **CAUTION**

Follow the Installation Instructions before proceeding. Set the thermostat mode to "OFF" prior to changing settings in setup or restoring Factory Defaults.

NOTE: Due to variations in environmental conditions, it is not always possible to achieve the desired humidification or dehumidification setpoint.

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 undesired operation.

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LISTED
4Z95

Thermostat	TSTATD2200C-2
FC	Tested to Comply with FCC Standards
FOR HOME OR OFFICE USE	

PAGE I

Glossary of Terms

Auto-Changeover: A mode in which the thermostat will turn on the heating or cooling based on room temperature demand.

Cool Setpoint: The warmest temperature that the space should rise to before cooling is turned on (without regard to deadband).

Deadband: The number of degrees the thermostat will wait, once a setpoint has been reached, before energizing heating or cooling.

Dehumidify: To reduce the amount of moisture in the air.

Differential: The forced temperature difference between the heat setpoint and the cool setpoint.

Heat Setpoint: The coolest temperature that the space should drop to before heating is turned on (without regard to deadband).

Humidify: To increase the amount of moisture in the air.

Icon: The word or symbol that appears on the thermostat display.

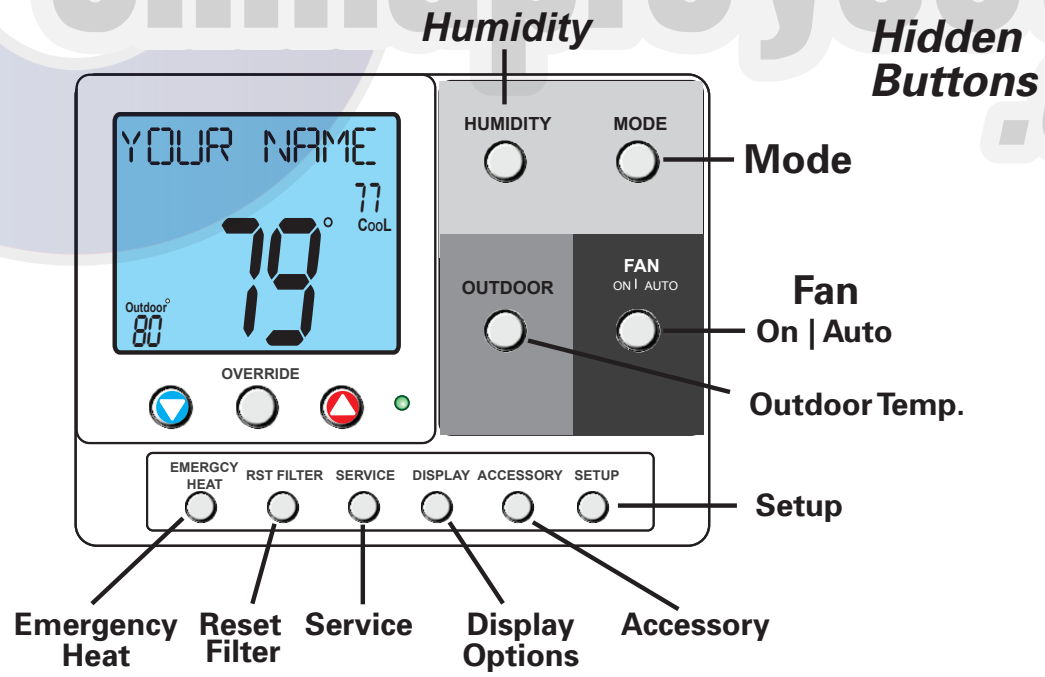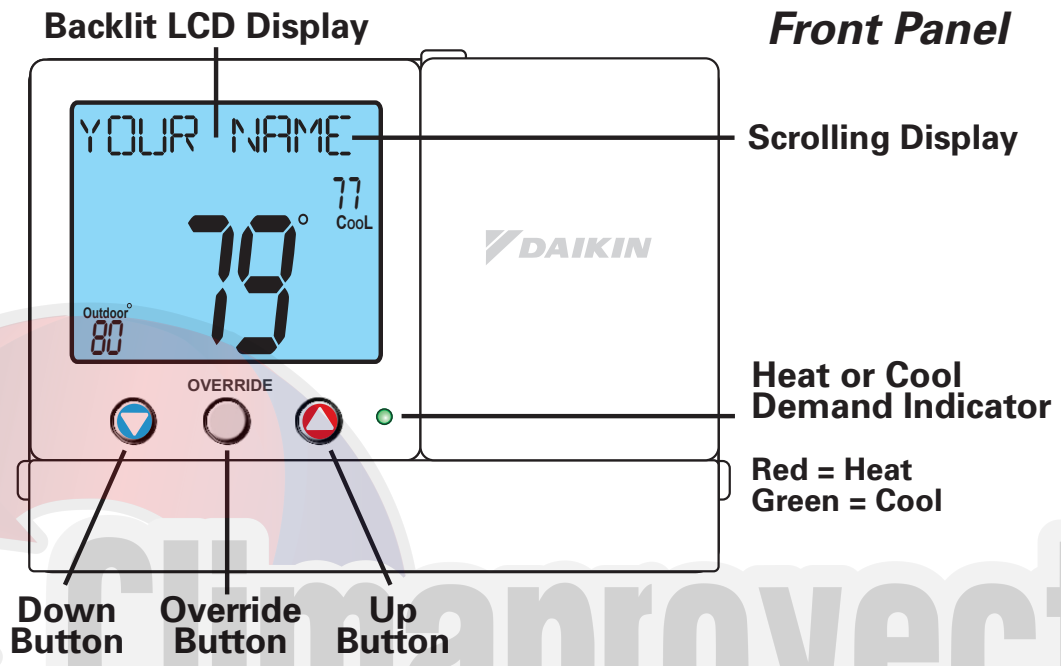**Mode:** The current operating condition of the thermostat (i.e. Off, Heat, Cool, Auto, Program On).

Non-Programmable Thermostat: A thermostat that does not have the capability of running Time Period Programming.

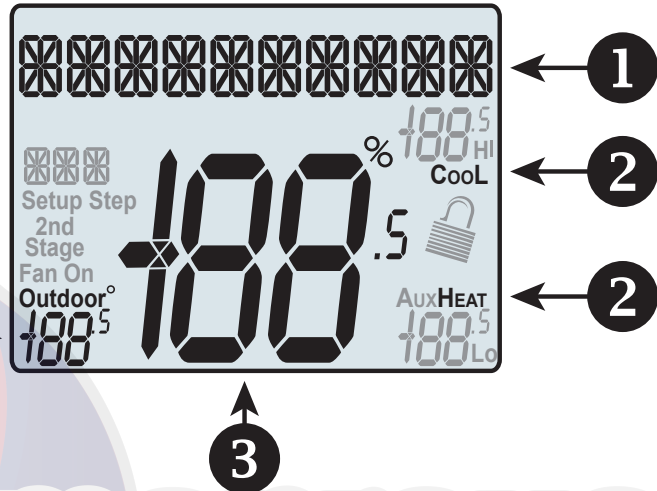**Temperature Swing:** Same as Deadband.

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Get to Know Your Thermostat

Backlit LCD Display

Front Panel

YOUR NAME

77 CooL

79°

Outdoor° 80

OVERRIDE

Scrolling Display

DAIKIN

Heat or Cool Demand Indicator

Red = Heat
Green = Cool

Down Button   **Override Button**   **Up Button**

Humidity

Hidden Buttons

YOUR NAME

77 CooL

79°

Outdoor° 80

OVERRIDE

HUMIDITY   MODE

OUTDOOR   FAN ON | AUTO

EMERGCY HEAT   RST FILTER   SERVICE   DISPLAY   ACCESSORY   SETUP

Mode

Fan
On | Auto

Outdoor Temp.

Setup

Emergency Heat   **Reset Filter**   **Service**   **Display Options**   **Accessory**

PAGE 1

Get to Know Your Thermostat

Display Features

1 The scrolling display will be used to help you easily navigate the setup screens in the thermostat.

2 Mode Indicators
    Selects the operational mode of the equipment.
        HEAT - Indicates the heating mode.
        COOL - Indicates the air conditioning mode.
        HEAT & COOL - Indicates the system will automatically change-
            over between heat and cool modes as the temperature varies.
        OFF - Indicates heating and cooling is turned off.

3 Room Temperature Display
        Indicates the <u>current</u> room temperature and displays the outdoor
        temperature when selected.

4 **Outdoor** icon
        Indicates the temperature displayed is from the optional outdoor
        sensor.

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Get to Know Your Thermostat
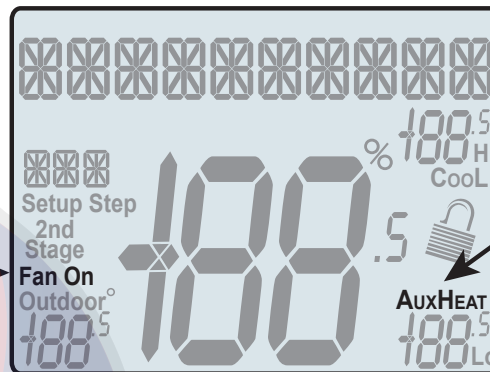
Display Features
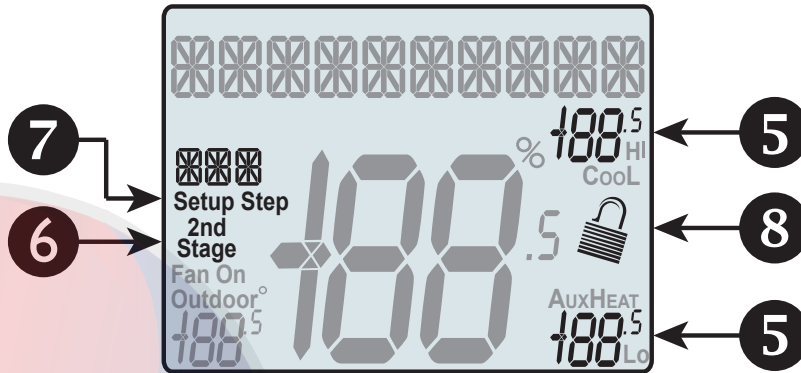
5 Desired Set Temperature
   Indicates <u>desired</u> room temperature(s).

6 **2nd Stage icon**
   Indicates what stage of cooling or heating is currently energized.

7 **Setup Step** icon
   Indicates the step number when the thermostat is in the
   setup mode.

8 🔒 icon
   Indicates the keypad has been locked.

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Get to Know Your Thermostat

Display Features

9 AuxHeat icon
Indicates 2nd stage electric strip heat is being used when the thermostat is programmed for Heat Pump operation.

10 Fan On icon
Indicates constant, continuous fan operation.
When **Fan On** is not lit - indicates the fan will only operate when necessary to heat or to cool.
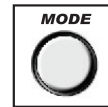
PAGE 4

Quick Start

During Setup and Programming:

Press the UP or DOWN buttons to modify the selection.

Press the MODE button to advance and <u>confirm</u> through the setup steps.

Selecting the Heat or Cool Mode

Select mode by pressing the MODE button.

Heating Only - The HEAT setting indicates the temperature the room has to reach before the furnace will turn on to heat the room.

Cooling Only - The COOL setting indicates the temperature the room has to reach before the air conditioner will turn on to cool the room.

Heating or Cooling (Auto-Changeover) - AUTO will automatically select heat or cool based on room temperature demand.

OFF - OFF indicates both heating and air conditioning systems are turned off.

Selecting Your Desired Temperature

AUTO-CHANGEOVER MODE - Pressing the UP or DOWN buttons in Auto mode will adjust **both** the heat and cool setpoints simultaneously. To adjust heat and cool setpoints individually, choose HEAT mode to adjust the heat setpoint and COOL mode to adjust the cool setpoint, then return to AUTO mode.

HEAT OR COOL MODE - Pressing the UP or DOWN buttons in Heat or Cool mode will adjust only the heat or cool setpoints individually displayed.

NOTE - This thermostat has a fixed two degree deadband. With a Cool setpoint of 72 degrees Fahrenheit, cooling will energize at a room temperature of 74 degrees. With a Heat setpoint of 68 degrees Fahrenheit, heating will energize at 66 degrees.

Using the Reset Filter Button

Reset Filter - Press the RST FILTER button to view the current filter runtime. Press the OUTDOOR button to reset the filter runtime counter to 0. Press the RST FILTER button again to return to normal operation.

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Quick Start

Using the Override Button

Unoccupied Operation - During a Dry Contact forced unoccupied period pressing the OVERRIDE button will force the thermostat into the mode it was in before the Dry Contact forced it into the Unoccupied mode. For example: if the thermostat was in the Auto mode and the Dry Contact forced it into Unoccupied mode, pressing OVERRIDE will force the thermostat back into the Auto mode. The remaining override time will be displayed in the upper left corner of the display. Each press of the OVERRIDE button will add another 30 minutes of time for up to 4 hours. If the maximum time has been set, the next press of the OVERRIDE button will reset the timer and return the thermostat to the Unoccupied mode.

Viewing the Outdoor and Remote Temperature Sensors

OUTDOOR TEMP - Press the OUTDOOR button to view the current outdoor temperature. Pressing the OUTDOOR button again to return to normal operation.

Note: If no outdoor sensor is connected, 2 dashes [- -] will appear with the first button press.

REMOTE TEMP - Press the ACCESSORY button to enter the accessory setup screen. Press the UP button to view linked wireless and wired sensors and other accessories. Press the ACCESSORY button to return to the main screen.

Viewing and Setting the Indoor Humidity Sensor

IMPORTANT: Allow at least 2 minutes after the thermostat is powered on for the humidity to read correctly.

Press the HUMIDITY button to display the current humidity measured at the thermostat. The room relative humidity is displayed in the top left corner. The humidification setpoint appears in the larger center display and can be adjusted using the UP or DOWN buttons. Press the MODE button to view and adjust the dehumidification setpoints. Press the HUMIDITY button again to confirm settings and return to normal operation.

Note: Due to variations in environmental conditions, it is not always possible to achieve the desired humidification or dehumidification setpoint.

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Installation Instructions

Remove & Replace the Old Thermostat

To install the thermostat properly, please follow these step by step instructions. If you are unsure about any of these steps, call a qualified technician for assistance.

- Assemble tools: Flat blade screwdriver, wire cutters and wire strippers.
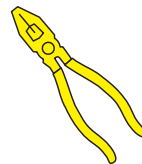
- Make sure your Heater/Air Conditioner is working properly before beginning installation of the thermostat.

- Carefully unpack the thermostat. Save the screws, any brackets, and instructions.

- Turn off the power to the Heating/Air Conditioning system at the main fuse panel. Most residential systems have a separate breaker for disconnecting power to the furnace.

- Remove the cover of the old thermostat. If it does not come off easily, check for screws.

- Loosen the screws holding the thermostat base or subbase to the wall and lift away.

- Disconnect the wires from the old thermostat. Tape the ends of the wires as you disconnect them, and mark them with the letter of the terminal for easy reconnection to the new thermostat.

- Keep the old thermostat for reference purposes, until your new thermostat is functioning properly.

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Installation Instructions
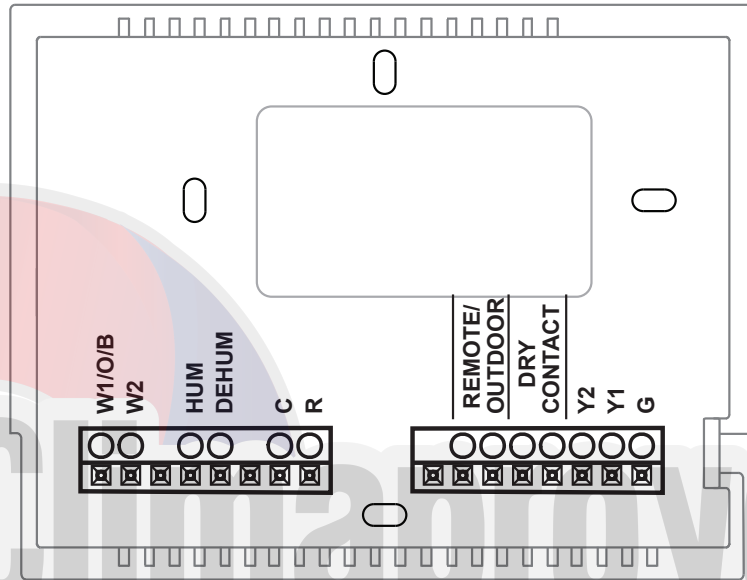
Wire Connections

If the terminal designations on your old thermostat do not match those on the new thermostat, **refer to the chart below or the wiring diagrams that follow.**

Wire from the old thermostat terminal marked	Function	Install on the new thermostat connector marked
G or F	Fan	G
Y1, Y or C	Cooling	Y1
W1, W or H	Heating	W1/O/B
Rh, R, M, Vr, A	Power	R
C	Common	C
O/B	Rev. Valve	W1/O/B*
W2	2nd Stage Heat	W2
Y2	2nd Stage Cooling	Y2
H, HUM	Humidity	HUM
D, DEHUM	Dehumidity	DEHUM
Ck1	Dry Contact Switch	DRY CONTACT
CKGND	Dry Contact Switch	DRY CONTACT
S1, OUT -	Remote/Outdoor Sensor	REMOTE/ OUTDOOR
S2, OUT +	Remote/Outdoor Sensor	REMOTE/ OUTDOOR

* O/B is used if your system is a Heat Pump.

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Installation Instructions

The TSTATD2200C-2 Thermostat Backplate

W1/O/B	1st stage heat/reversing valve
W2	2nd stage heat circuit
HUM	Humidifier control circuit
DEHUM	Dehumidifier control circuit
C	24 VAC common
R	24 VAC Return

REMOTE/ OUTDOOR	Remote/Outdoor sensor connections
DRY CONTACT	Dry Contact connections
Y2	2nd stage compressor
Y1	1st stage compressor
G	Fan relay

IMPORTANT: This thermostat requires <u>both</u> R (24 VAC Return) and C (24 VAC Common) be connected to the backplate terminals.

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Installation Instructions

Explanation of Thermostat Jumpers

Jumpers are located on the back of the thermostat
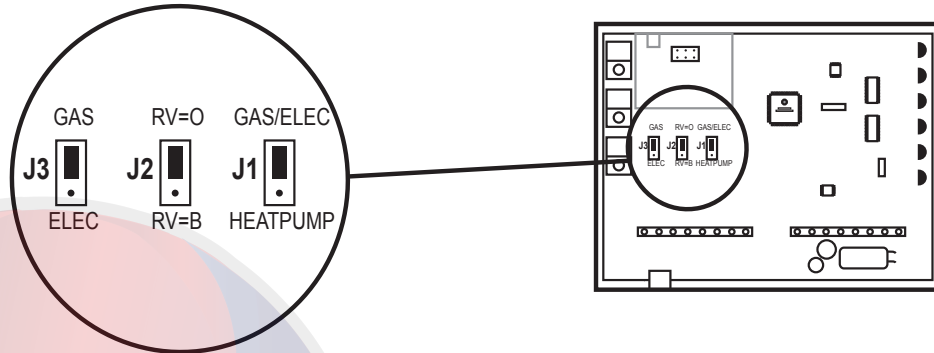
This jumper configures the thermostat to control a conventional gas/electric system or a heat pump. If your system is anything other than a heat pump, leave this jumper set for GAS/ELEC.*

For some commercial heat pumps, this jumper will need to be set for GAS/ELEC. Consult the commercial heat pump literature.

When J1 is configured to control a heat pump, this jumper (J2) must be set to control the appropriate reversing valve. If RV=O is chosen, the W1/O/B terminal will energize in cooling. If RV=B is chosen, the W1/O/B terminal will energize in heating.

When J1 is set for GAS/ELEC:
This jumper (J3) controls how the thermostat will control the Fan (G) terminal in heating mode. When <u>GAS</u> is chosen, the thermostat <u>will not</u> energize the Fan (G) terminal in heating. When <u>ELEC</u> is chosen the thermostat <u>will</u> energize the fan in heating.

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Installation Instructions

Sample Wiring Diagrams

Conventional Heating and Cooling Systems

3 Wire, Heat Only
Residential & Commercial 1 Stage Heating with no **Fan**.

R	24VAC Power
C	24VAC Common
W1/O/B	1st Stage Heat

J1	=	Gas/Elec
J2	=	O (not used)
J3	=	Gas

4 Wire, Cool Only
Residential & Commercial 1 Stage Cooling.

R	24VAC Power
C	24VAC Common
Y1	1st Stage Cool
G	Fan

J1	=	Gas/Elec
J2	=	O (not used)
J3	=	Gas

5 Wire, 1 Stage Cooling, 1 Stage Heat
Residential & Commercial 1 Stage Cooling, with 1 stage Gas **Heat**.

R	24VAC Power
C	24VAC Common
W1/O/B	1st Stage Heat
Y1	1st Stage Cool
G	Fan

J1	=	Gas/Elec
J2	=	O (not used)
J3	=	Gas

5 Wire, 1 Stage Cooling, 1 Stage Heat
Residential & Commercial 1 Stage Cooling, with 1 stage Elec**tric Heat**.

R	24VAC Power
C	24VAC Common
W1/O/B	1st Stage Heat
Y1	1st Stage Cool
G	Fan

J1	=	Gas/Elec
J2	=	O (not used)
J3	=	Electric

7 Wire, 2 Stage Cooling, 2 Stage Heat
Residential & Commercial 2 Stage Cooling, with 2 stage Gas **Heat**.

R	24VAC Power
C	24VAC Common
W1/O/B	1st Stage Heat
W2	2nd Stage Heat
Y1	1st Stage Cool
Y2	2nd Stage Cool
G	Fan

J1	=	Gas/Elec
J2	=	O (not used)
J3	=	Gas

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Installation Instructions

Sample Wiring Diagrams

Heat Pump Systems

5 Wire, 1 Stage Cooling, 1 Stage Heat
Residential & Commercial **Heat Pump** with
'**O**' Reversing Valve

R	24VAC Power
C	24VAC Common
W1/O/B	Reversing Valve
Y1	1st Stage Compressor (Cool or Heat)
G	Fan

J1	=	Heat Pump
J2	=	O
J3	=	Gas

6 Wire, 1 Stage Cooling, 2 Stage Heat
Residential & Commercial **Heat Pump** with
'**O**' Reversing Valve

R	24VAC Power
C	24VAC Common
W1/O/B	Reversing Valve
Y1	1st Stage Compressor (Cool or Heat)
W2	Aux Heat
G	Fan

J1	=	Heat Pump
J2	=	O
J3	=	Electric

7 Wire, 2 Stage Cooling, 2 Stage Heat
Residential & Commercial **Heat Pump** with
'**O**' Reversing Valve.

R	24VAC Power
C	24VAC Common
W1/O/B	Reversing Valve
Y1	1st Stage Compressor (Cool or Heat)
Y2	2nd Stage Compressor (Cool or Heat)
G	Fan

J1	=	Heat Pump
J2	=	O
J3	=	Electric

Setup Step 26 is set to 2
(Number of Compressor Stages)

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Installation Instructions

Sample Wiring Diagrams

Humidification or Dehumidification

Humidification System

W1/O/B W2 | HUM DEHUM | C R | REMOTE/ OUTDOOR DRY CONTACT | Y2 Y1 G

Dehumidification Terminal on Equipment

DEHUM/ HUM
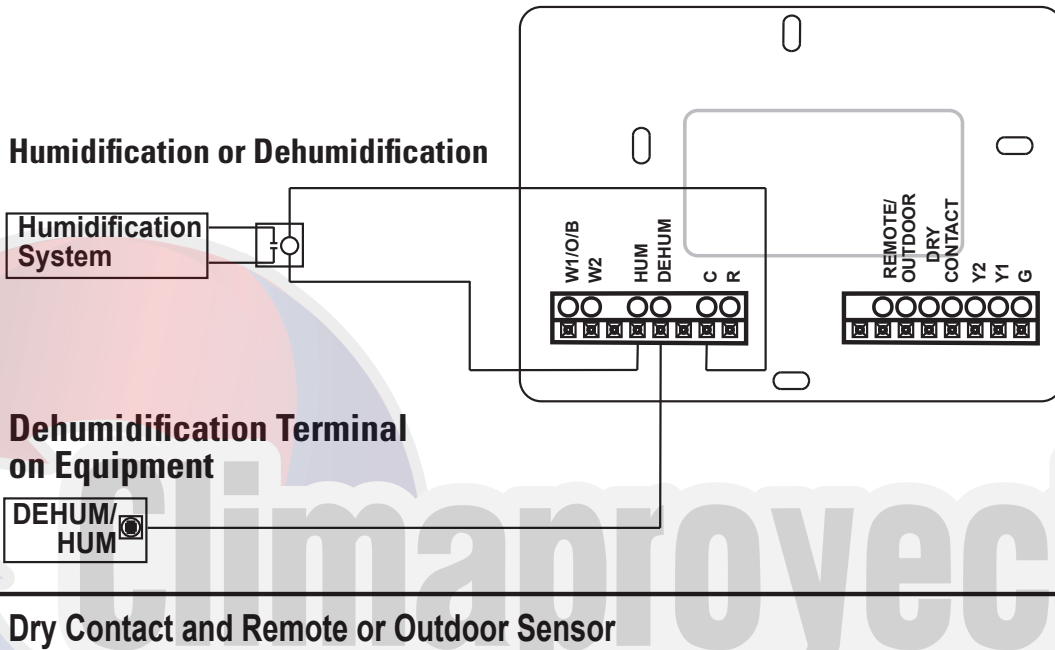
Dry Contact and Remote or Outdoor Sensor

W1/O/B W2 | HUM DEHUM | C R | REMOTE/ OUTDOOR DRY CONTACT | Y2 Y1 G

10K Thermistor Remote or Outdoor Sensor

Time Clock

TSTATGAC-WS or TSTATGTAC-OS

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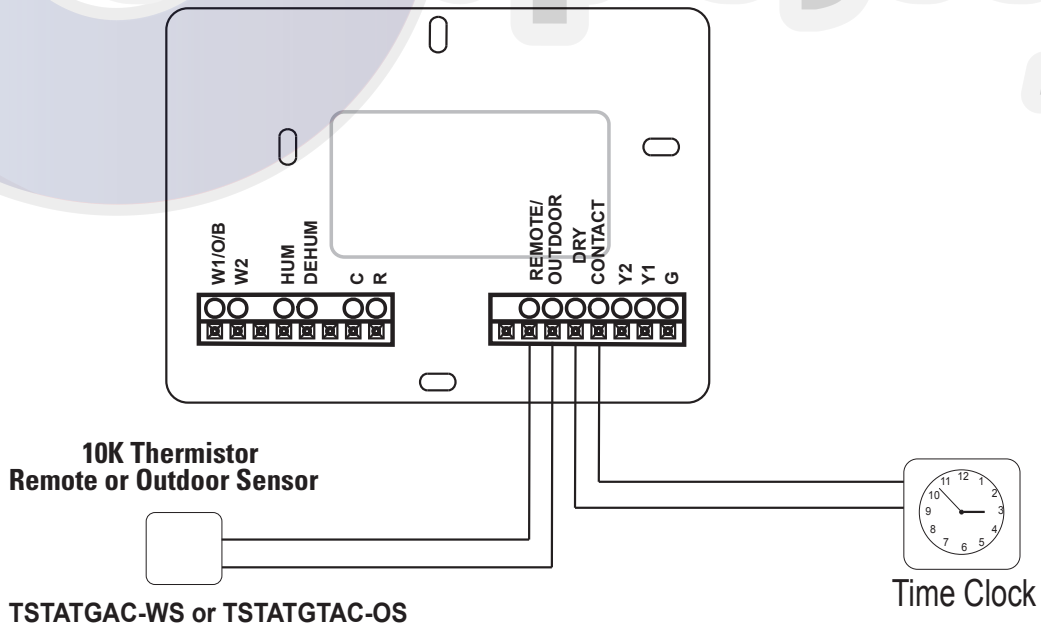
Installation Instructions: Test Operation

This thermostat has a diagnostic feature that enables testing of all outputs. This feature is contained in Technician Setup.

To enter Technician Setup, press and hold the SETUP button for 5 seconds until all the icons appear. Follow the next steps to view settings and test equipment.

1. Press MODE to view the version numbers of the thermostat.

2. Press MODE again to view the jumper settings and current state of the Dry Contact terminals.

3. Press MODE again and the scrolling display will read "TURN ON EQUIPMENT?" Press UP for Yes or DOWN for No.

   If Yes is chosen, press UP to turn on heat or DOWN to turn on Cooling. The scrolling display will read "NOTHING ON." Next:

   Press UP to turn on and cycle up through the heating stages. Press DOWN to turn the heating stages off. Press MODE to exit.

   Press DOWN to turn on and cycle down through the cooling stages. Press UP to turn the cooling stages off. Press MODE to exit.

4. Press MODE until "CALIBRATE SENSORS?" appears on the scrolling display. Press UP for Yes or DOWN for No. Press MODE to select which sensor to calibrate. Use UP or DOWN to modify your selection.

5. Press MODE until "CONTROL HUM?" appears on the scrolling display. Press UP for On or DOWN for Off. Press MODE to continue.

6. Press MODE until "CONTROL DEHUM?" appears on the scrolling display. Press UP for On or DOWN for Off. Press MODE to continue.

To exit Technician Setup at any time, press the SETUP button. Technician Setup will automatically exit after 10 minutes if no buttons are pressed.

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User Setup: Backlight Operation

How to Change Settings in the Setup Screens

To enter Advanced Setup, press the SETUP button, then press MODE. Use the UP or DOWN buttons to adjust the value of your selection. Press MODE to advance to the next setup step. Press SETUP again to leave the setup screens.
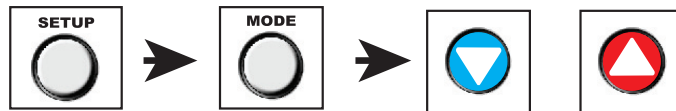
Backlight (Setup Step 3)

The thermostat backlight may be set to be always on, on temporarily with any button press, on throughout the evening, or always off. (For always off, see Backlight Level)

Press the SETUP button, then press MODE repeatedly until the Backlight setup step appears. Use the UP or DOWN buttons to make selection. Press MODE to advance to the next step. Press SETUP to leave the setup screens.

Backlight Off - Backlight turns on with any button press and turns off after 8 seconds.
Backlight On - Backlight is on continuously.

Backlight Level (Setup Step 4)

The backlight can be adjusted between always off and seven levels of brightness. **Press the SETUP button, then press MODE repeatedly until the Backlight setup step appears. Use the UP or DOWN buttons to adjust the brightness. Press MODE to advance to the next step. Press SETUP to leave the setup screens.**
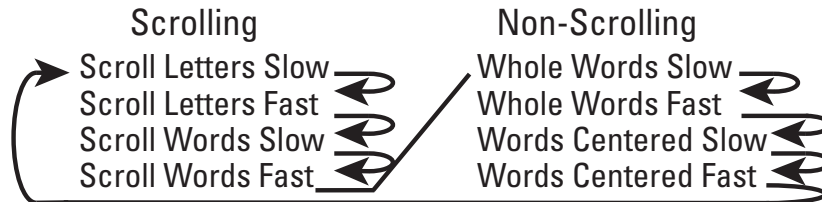
Language (Setup Step 18)

Setup step instructions on the scrolling display can be set for English, Spanish, or French.

Press the SETUP button, then press MODE repeatedly until the Language setup step appears. Use the UP or DOWN buttons to make selection. Press MODE to advance to the next step. Press SETUP to leave the setup screens.
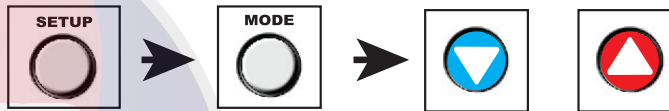
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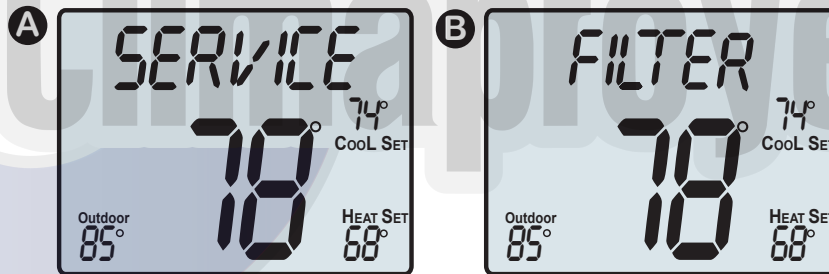# User Setup: Scrolling Screen and Display Options

Scrolling Display Method (Setup Step 19)

This option allows the user to choose how the scrolling text is displayed. Options are:

Scrolling	Non-Scrolling
Scroll Letters Slow	Whole Words Slow
Scroll Letters Fast	Whole Words Fast
Scroll Words Slow	Words Centered Slow
Scroll Words Fast	Words Centered Fast

Press the SETUP button, then press MODE repeatedly until the Scrolling Method setup step appears. Use the UP or DOWN buttons to make a selection. Press MODE to advance to the next step. Press SETUP to leave the setup screens.

SETUP ➤ MODE ➤

Example of "Whole Words Centered":

A SERVICE 78 74° CooL Set Outdoor 85° HEAT SET 68°

B FILTER 78 74° CooL Set Outdoor 85° HEAT SET 68°

Display

This option allows the user to "de-clutter" the thermostat display screen by removing icons from the main display. The room temperature will always be shown. Service information may also be viewed by pressing and holding the DISPLAY button.

Each press of the DISPLAY button will remove icons. Keep pressing DISPLAY to make icons reappear.

DISPLAY

Show All
Remove Scrolling Text
Remove Outdoor Temp
Remove Setpoint
Remove Mode
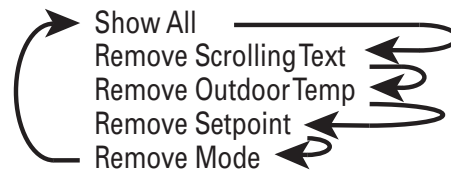
Press and hold DISPLAY for 5 seconds to view a name and phone number to call for service.

Any removed icons will be displayed temporarily when a setting change is made.

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User Setup

Emergency Heat

The Emergency Heat function is only available if your thermostat is set to control a Heat Pump.

To initiate the Emergency Heat feature, **Press and hold the EMERGCY HEAT button for 2 seconds.** During Emergency Heat operation the thermostat will turn on the fan and auxiliary stages of heat when there is a demand for heat. The 1st stage of heating and all stages of cooling will be unavailable. To exit Emergency Heat, press the EMERGCY HEAT button.

Accessory

The optional RF Module must be installed to link and view wireless accessories.

The ACCESSORY button allows the user to view wired and wireless sensors and "link" these and other wireless devices to the thermostat via an optional RF module. Press the ACCESSORY button to enter the Accessory setup screen. Press UP to view linked and wired accessories. Follow the instructions included with the wireless accessory to begin linking process. Next, press DOWN to enter the wireless linking mode. Press MODE to initiate linking. Press ACCESSORY to return to the main screen. **NOTE:** A wired outdoor sensor's temperature reading is updated once every minute; a wireless outdoor sensor's temperature reading is updated once every 5 minutes.

Using the Fan Button

Fan On indicates constant fan operation. Pressing the FAN button toggles this feature on or off.

Using the Service Button

SERVICE - Press the SERVICE button to display who to call for heating and cooling system repair. Press the SERVICE button again to return to normal operation.

Note: The TSTATGAC-UP USB Programmer will need to be used to program the service information into the thermostat.

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User Setup: System Runtimes

These setup steps allow the user to monitor equipment runtimes and program service alerts.

Runtime hours or days appear here in the display.

`RUNTIME`
`30`
`05`
Setup Step

System Runtimes (Setup Steps 6-17)

Press the SETUP button, then press MODE repeatedly until the desired setup step appears. Use the UP or DOWN buttons to make selection. Press MODE to advance to the next step. Press SETUP to leave the setup screens.

SETUP   ➤   MODE   ➤   🔽   🔺

Current Service Filter Runtime Hours (Setup Step 6) - This counter keeps track of the number of hours of fan runtime in the Heating mode, Cooling mode, and in stand alone Fan operation. Press OUTDOOR to reset.

Current Service Filter Calendar Days (Setup Step 7) - This counter displays the total number of calendar days that have elapsed since the counter was reset to help the user track Fan runtime. Press OUTDOOR to reset.

Current Override Hours (Setup Step 11) - This counter displays the number of hours the system has run in Override. Press OUTDOOR to reset.

Current UV Lamp Calendar Days (Setup Step 12) - This counter displays the total number of calendar days that have elapsed to help the user track UV lamp runtime. Press OUTDOOR to reset.

Current Humidifier Calendar Days (Setup Step 13) - This counter displays the total number of calendar days that have elapsed to help the user track the Humidifier runtime. Press OUTDOOR to reset.

Set Service Filter Runtime Hours (Setup Step 14) - This timer allows the user to specify the number of hours the fan will run before the "Replace Filter" alert will be displayed. Press DOWN continuously until OFF is displayed to disable this alert.

Set Service Filter Calendar Days (Setup Step 15) - This timer allows the user to specify the number of calendar days before the "Replace Filter" alert will be displayed. Press DOWN continuously until OFF is displayed to disable this feature.

Set UV Lamp Calendar Days (Setup Step 16) - This timer allows the user to specify the number of calendar days the UV Lamp will operate before the "Replace UV Lamp" alert will be displayed. Press DOWN until OFF appears to disable this alert.

Set Humidifier Calendar Days (Setup Step 17) - This timer allows the user to specify the number of calendar days the Humidifier will run before the "Service Humidifier" alert will be displayed. Press DOWN continuously until OFF appears to disable this alert.

Installer Setup

How to Change Settings in the Setup Screens

To enter Advanced Setup, press the SETUP button, then press MODE. Use the UP or DOWN buttons to adjust the value of your selection. Press MODE to advance to the next setup step. Press SETUP again to leave the setup screens.
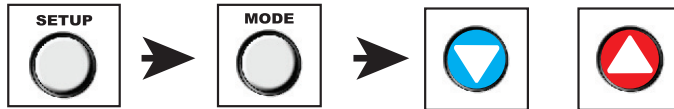
Selecting Your Available Modes (Setup Step 2)

Auto-Changeover - Allows the thermostat to turn on heating or cooling based on room temperature demand. Also allows the manual selection of HEAT only or COOL only and OFF.

Heat and Cool - Allows the thermostat to turn on heating or cooling depending on which one has been manually selected. Auto-Changeover is not available when this is selected.

Heat Only - Allows the thermostat to only turn on HEAT or OFF modes.

Cool Only - Allows the thermostat to only turn on COOL or OFF modes.

Setpoint Limits (Setup Step 20)

This feature allows the user to set 4 different levels of security: (0 - 3).

No Setpoint Limits (0) - When this level is selected, no restrictions are activated.

Use Setpoint Limits (1) - When this level is selected, the heat and cool setpoints can be restricted to preset levels, set in setup steps 21 and 22.

   Maximum Heat Setpoint (Setup Step 21) - (35˚- 99˚).

   Minimum Cool Setpoint (Setup Step 22) - (35˚- 99˚).

Force Current Mode (2) - When this level is selected, the heat and cool setpoints can be restricted to preset levels, set in setup steps 21 and 22 and the thermostat is locked into the current mode.

Setpoints Frozen (3) - When this level is selected, the heat and cool setpoints and the current mode settings are locked.

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Installer Setup

Cycles Per Hour (Setup Step 23)

The Cycles Per Hour setting may limit the number of times per hour your HVAC unit may energize. For example, at a setting of 6 cycles per hour the HVAC unit will only be allowed to energize once every 10 minutes. The Cycles Per Hour limit may be overridden and reset by pressing the UP or DOWN buttons on the thermostat. Settings are No Limit, 2, 3, 4, 5, or 6.

Compressor Minimum Off Minutes (Setup Step 24)

This feature allows the user to set a minimum off time for the compressor. Settings are 5 mins., 3 mins., or 0 mins.

Minimum Heat/Cool Setpoint Difference (Setup Step 25)

This feature allows the user to set the minimum gap between Heat and Cool setpoints in **AUTO** mode. Select from 0 to 6. If setup step 2 is not set for **AUTO-CHANGEOVER**, this step will not appear.

Number of Compressor Stages (Setup Step 26)

This feature is for heat pump applications only.

This feature allows the thermostat to control 1 or 2 compressor stages when configured for heat pump.

Wired Sensor Use (Setup step 38)

This feature allows the user to choose if the wired sensor will be used as an indoor or outdoor sensor.

Control To Temp Source (Setup Step 39)

This feature allows the user to specify which temperature sensor source the thermostat will use to measure room temperature. The choices are:

Thermostat: Uses the internal thermostat sensor only.

Remote Sensor: Uses wireless or wired sensors only.

NOTE: If a remote sensor is being used, the degree icon on the large room temperature display will blink.

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Installer Setup

Humidity and Dehumidity (Setup Steps 40-44, 75-76)

Humidity Only With Heat (Setup Step 40) - When this step is set to ON, Humidity will not run without a demand for Heat.

Fan With Humidity Demand (Setup Step 41) - Specifies if the fan should be turned on with a demand for Humidity. (This step will only appear if step 40 is set to OFF.)

Cool To Dehumidify (Setup Step 43) - Specifies if the cooling equipment is allowed to turn on exclusively to lower room humidity. (If set to OFF the following two steps will not appear.)

Max Dehum Overcool (Setup Step 44) - Specifies how many degrees below the Cool setpoint the air conditioning will run to satisfy a Cool to Dehumidify demand. ($0°$ - $5°$)

Humidty Output Polarity (Setup Step 75)

Humidity Output Normally Open - means no voltage is sent to the HUM output when there is no demand for humidity.

Humidity Output Normally Closed - means voltage is sent to the HUM output when there is no demand for humidity.

Dehumidify Output Polarity (Setup Step 76)

Dehumidify Output Normally Open - means no voltage is sent to the DEHUM output when there is no demand to dehumidify.

Dehumidify Output Normally Closed - means voltage is sent to the DEHUM output when there is no demand to dehumidify.

Fahrenheit or Celsius (setup step 56)

This feature allows the thermostat to display temperature in Fahrenheit or Celsius.

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Installer Setup

Dry Contact Operation *(setup step 70 - 73)*

Dry Contact Polarity (Setup Step 70)

Open (Normally Open) - The dry contact is open until the connected device closes the circuit.

Closed (Normally Closed) - The dry contact is closed until the connected device opens the circuit.

 'Idle'   'Active'   'Idle'   'Active'

Dry Contact Use (Setup Step 71)

PAN - If PAN is selected when the dry contact is active, the thermostat will lockout the compressor terminal(s) and "SERVICE DRAIN PAN" will appear on the display

FORCE UNOCCUPIED - If Force Unoccupied is selected in step 71, when the dry contact is energized the thermostat will be forced into or out of Unoccupied setpoints. To adjust the Unoccupied setpoints follow the setup steps below.

*This setting may be used with time clocks or twist timers to force the thermostat from Occupied to Unoccupied.

Set Unoccupied Cool Setpoint (Setup Step 72) - Press the Up or Down buttons to adjust the Unoccupied cool setpoint desired.

Set Unoccupied Heat Setpoint (Setup Step 73) - Press the Up or Down buttons to adjust the Unoccupied heat setpoint desired.

Press Outdoor To Clear All Messages *(setup step 79)*

This feature allows the user to clear all current error messages from the display.

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Installer Setup

Locking/Unlocking the Keypad

To prevent unauthorized use of the thermostat, the front panel buttons may be disabled. To disable, or 'lock' the keypad, press and hold the MODE button. While holding the MODE button, press the UP and DOWN buttons together. The 🔒 icon will appear on the display, then release the buttons.

Press all three buttons in the order outlined above for keypad lockout
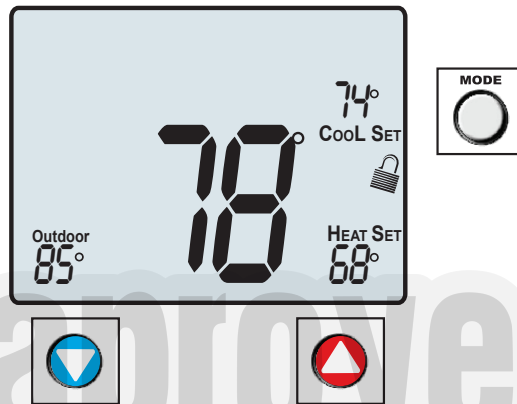
To *unlock* the keypad, press and hold the MODE button. While holding the MODE button, press the UP and DOWN buttons together. The 🔒 icon will disappear from the display, then release the buttons.

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Installer Setup

## Resetting the Thermostat to the Factory Default Settings (for default values see page 34)

If, for any reason, you desire to return all the stored settings back to the factory default settings, follow the instructions below.

WARNING: This will reset all Advanced Programming to the default settings. Any information entered prior to this reset may be permanently lost.

1 Press and hold SETUP for 5 seconds. All icons will appear on the display.
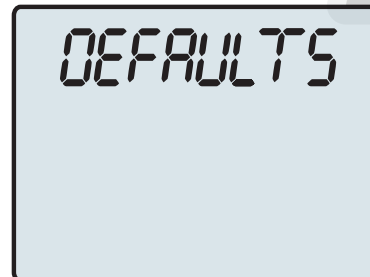
SETUP

Keep pressing the SETUP button until you see this screen. →
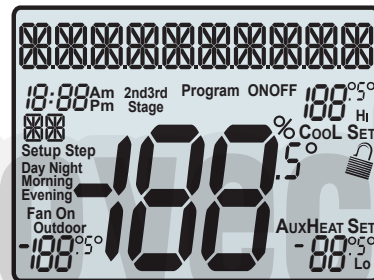
2 After all the icons appear, release SETUP. Press and hold OUTDOOR for 5 seconds. DEFAULTS will appear on the display.

OUTDOOR

Keep pressing the OUTDOOR button until you see this screen. →

DEFAULTS

3 After DEFAULTS appears, release OUTDOOR. Press SETUP to return to normal operation.
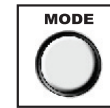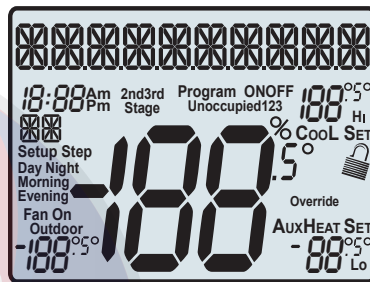
→ **SETUP**

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Technician Setup

To enter Technician Setup, press and hold the SETUP button for 5 seconds. After all the icons appear, press MODE. The version numbers of the thermostat will appear in the scrolling text. Press MODE to advance to the next step. Use the UP or DOWN buttons to adjust the value of your selection. To leave Technician Setup, press SETUP.

Hold for 5 seconds   All icons appear   Press MODE to advance through the setup steps

Press UP or DOWN to alter the selection

Technician Setup is for diagnostic and testing purposes and is intended for use by a qualified technician. See page 14 for more detailed instructions.

Technician Setup contains the following options:

● View the version number of the thermostat.

● View the jumper setting of **J1** (Gas/Electric or Heat Pump), **J2** (Reversing Valve: RV=O or RV=B), and **J3** (Fan: Gas or Electric) jumpers located on the back of the thermostat. (Remove thermostat from backplate for access)

● View the state of the Dry Contact terminals.

● Turn on equipment outputs for testing.

● Calibrate thermostat, remote, and humidity sensors.

● Control HUM output (On or Off)

● Control DEHUM output (On or Off)

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TroubleShooting

● **SYMPTOM:** The air conditioning does not attempt to turn on.
CAUSE: The compressor timer lockout may prevent the air conditioner from turning on for a period of time.
REMEDY: Consult the Owner's Manual in the Installer Setup section to defeat the Cycles Per Hour (page 22).

● **SYMPTOM:** The display is blank.
CAUSE: Lack of proper power.
REMEDY: Make sure the power is on to the furnace and that you have 24vac between **R** & **C**.

● **SYMPTOM:** The air conditioning does not attempt to turn on.
CAUSE: The cooling setpoint is set too high.
REMEDY: Lower the cooling setpoint or lower the cooling setpoint limit. See Setpoint Limits (page 22).

● **SYMPTOM:** The heating does not attempt to turn on.
CAUSE: The heating setpoint is set too low.
REMEDY: Raise the heating setpoint or raise the heating setpoint limit. See Setpoint Limits (page 22).

● **SYMPTOM:** When controlling a residential heat pump, and asking for cooling, the heat comes on.
CAUSE: The thermostat reversing valve jumper is set for "**B**".
REMEDY: Set the reversing valve jumper for "**O**".

● **SYMPTOM:** When calling for cooling, both the heat and cool come on.
CAUSE: The thermostat equipment jumper is configured for "HP" and the HVAC unit is a Gas/Electric.
REMEDY: Set the equipment jumper for "**Gas**".

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Advanced Setup Table	-2200C-2	Df = Factory Default Setting		
Step#	Description	Pg#	Range	Df
2	Available Modes	19	Heat/Cool/Auto/Off, Heat/Cool/Off, Heat/Off, Cool/Off	Heat/Cool/Auto/Off
3	Backlight	15	On, Off	Off
4	Backlight Level	15	Off-7 levels of brightness	Level 5
6	Current Service Filter Runtime Hours	18	0-1999	0
7	Current Service Filter Calendar Days	18	0-1999	0
11	Current Override Hours	18	0-1999	0
12	Current UV Lamp Calendar Days	18	0-1999	0
13	Current Humidifier Calendar Days	18	0-1999	0
14	Set Service Filter Runtime Hours	18	0-1950	0
15	Set Service Filter Calendar Days	18	0-720	0
16	Set UV Lamp Calendar Days	18	0-720	0
17	Set Humidifier Calendar Days	18	0-720	0
18	Language	15	English,Espanol,Francais	English
19	Scrolling Method	16	L-R Slow,L-R Fast,Word L-R Slow,Word L-R Fast, Whole Word L Slow, Whole Word L Fast, Whole Word Ctr Slow, Whole Word Ctr Fast	Whole Word Ctr Fast
20	Setpoint Limits	19	No, Use, Force Current Mode, Setpoints Frozen	No
21	Max Heat Setpoint	19	35°- 99°	80°
22	Min Cool Setpoint	19	35°- 99°	65°
23	Cycles Per Hour	20	No Limit, 2, 3, 4, 5, 6	6
24	Compressor Minimum Off Minutes	20	0,3,5	5
25	Minimum Heat/Cool Setpoint Difference	20	0°- 6°	2°
26	Number Of Compressor Stages	20	1 or 2	1
38	Wired Sensor Use	20	Indoor, Outdoor	Outdoor
39	Control To Temp Source	20	Tstat, Remote	Tstat
40	Humidity Only With Heat	21	On,Off	Off
41	Fan With Humidity Demand	21	Fan On,Fan Off	Fan Off
43	Cool To Dehumidify	21	On, Off	Off
44	Maximum Dehum Overcool	21	0°- 5°	2°
56	F/C	21	Fahrenheit, Celsius	F
70	Dry Contact Polarity	22	Open, Closed	Open
71	Dry Contact Use	22	Pan, Unoccupied	Unoccupied
72	Set Unoccupied Cool Setpoint	22	35°- 99°	85°
73	Set Unoccupied Heat Setpoint	22	35°- 99°	55°

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Advanced Setup Table Df = Factory Default Setting

Step#	Description	Pg#	Range	Df
75	Humidity Polarity	21	Open,Closed	Open
76	Dehumidify Polarity	21	Open,Closed	Open
79	Press Outdoor To Clear All Messages	22	N/A	N/A

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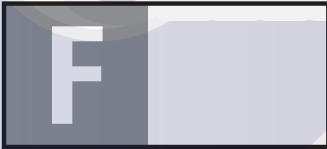service pan, 22
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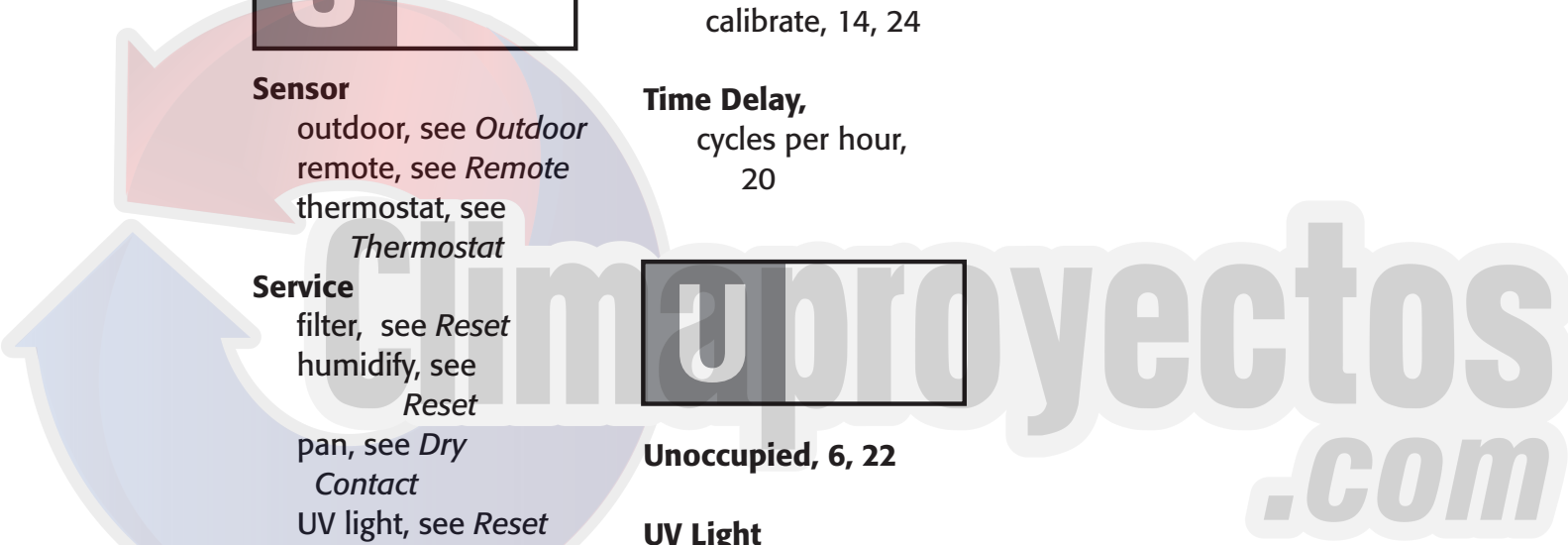
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Warranty

Five-Year Warranty - This Product is warranted to be free from defects in material and workmanship. If it appears within five years from the date of original installation, whether or not actual use begins on that date, that the product does not meet this warranty, a new or remanufactured part, at the manufacturer's sole option to replace any defective part, will be provided without charge for the part itself provided the defective part is returned to the distributor through a qualified servicing dealer.

THIS WARRANTY DOES NOT INCLUDE LABOR OR OTHER COSTS incurred for diagnosing, repairing, removing, installing, shipping, servicing or handling of either defective parts or replacement parts. Such costs may be covered by a separate warranty provided by the installer.

THIS WARRANTY APPLIES ONLY TO PRODUCTS IN THEIR ORIGINAL INSTALLATION LOCATION AND BECOMES VOID UPON REINSTALLATION.

LIMITATIONS OF WARRANTIES – ALL IMPLIED WARRANTIES (INCLUDING IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE AND MERCHANTABILITY) ARE HEREBY LIMITED IN DURATION TO THE PERIOD FOR WHICH THE LIMITED WARRANTY IS GIVEN. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE MAY NOT APPLY TO YOU. THE EXPRESSED WARRANTIES MADE IN THIS WARRANTY ARE EXCLUSIVE AND MAY NOT BE ALTERED, ENLARGED, OR CHANGED BY ANY DISTRIBUTOR, DEALER, OR OTHER PERSON WHATSOEVER.

ALL WORK UNDER THE TERMS OF THIS WARRANTY SHALL BE PERFORMED DURING NORMAL WORKING HOURS. ALL REPLACEMENT PARTS, WHETHER NEW OR REMANUFACTURED, ASSUME AS THEIR WARRANTY PERIOD ONLY THE REMAINING TIME PERIOD OF THIS WARRANTY.

THE MANUFACTURER WILL NOT BE RESPONSIBLE FOR:
1. Normal maintenance as outlined in the installation and servicing instructions or owner's manual, including filter cleaning and/or replacement and lubrication.
2. Damage or repairs required as a consequence of faulty installation, misapplication, abuse, improper servicing, unauthorized alteration or improper operation.
3. Failure to start due to voltage conditions, blown fuses, open circuit breakers or other damages due to the inadequacy or interruption of electrical service.
4. Damage as a result of floods, winds, fires, lightning, accidents, corrosive environments or other conditions beyond the control of the Manufacturer.
5. Parts not supplied or designated by the Manufacturer, or damages resulting from their use.
6. Manufacturer products installed outside the continental U.S.A., Alaska, Hawaii, and Canada.
7. Electricity or fuel costs or increases in electricity or fuel costs for any reason whatsoever including additional or unusual use of supplemental electric heat.
8. ANY SPECIAL INDIRECT OR CONSEQUENTIAL PROPERTY OR COMMERCIAL DAMAGE OF ANY NATURE WHATSOEVER. Some states do not allow the exclusion of incidental or consequential damages, so the above may not apply to you.

This warranty gives you specific legal rights and you may also have other rights which may vary from state to state.

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Notes:

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