Installation Tips

TP-S-855CRH

Vive Comfort

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Hours of Operation: M-F 9AM - 6PM Eastern

Thermostat Application Guide

Description	
Gas or Oil Heat	Yes
Electric Furnace	Yes
Heat Pump (No Aux. or Emergency Heat)	Yes
Heat Pump (With Aux. or Emergency Heat)	Yes
Multi-Stage Systems	Yes
Heat Only Systems	Yes
Cool Only Systems	Yes
Millivolt	Yes
Wired Remote Sensing	Yes
Any HVAC system up to 3H/2C with standard low voltage controlled humidifier.	Yes
Any HVAC system up to 3H/2C with standard low voltage controlled de-humidifier.	Yes

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Power Type

Battery Power Hardwire (Common Wire) Hardwire (Common Wire) with **Battery Backup**

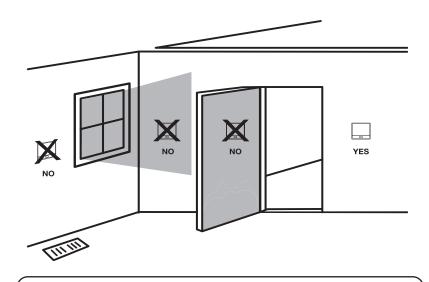
A trained, experienced technician must install this product.

Carefully read these instructions. You could damage this product or cause a hazardous condition if you fail to follow these instructions.

Una version en espanol de este manual se puede descargar en la pagina web de la compania.

Wall Locations

The thermostat should be installed approximately 4 to 5 feet above the floor. Select an area with average temperature and good air circulation.



Do not install thermostat in these locations:

- Close to hot or cold air ducts
- That are in direct sunlight
- · With an outside wall behind the thermostat
- In areas that do not require conditioning
- Where there are dead spots or drafts (in corners or behind doors)
- Where there might be concealed chimneys or pipes



Installation Tip

Pick an installation location that is easy for the user to access. The temperature of the location should be representative of the building.

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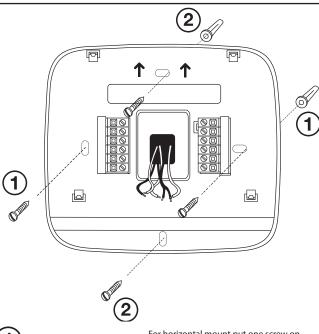
Installation Tips

Subbase Installation

Rev. 2028

Installation Tips

Mount Thermostat



Horizontal Mount

For horizontal mount put one screw on the left and one screw on the right.

Vertical Mount

For vertical mount put one screw on the top and one screw on the bottom.



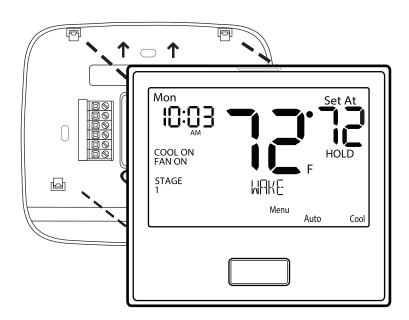
Installation Tip: Electrical Hazard

Failure to disconnect the power before beginning to install this product can cause electrical shock or equipment damage.



Mercury Notice

All of our products are mercury free. However, if the product you are replacing contains mercury, dispose of it properly. Your local waste management authority can give you instructions on recycling and proper disposal.



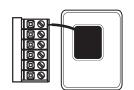
Align the 4 tabs on the subbase with corresponding slots on the back of the thermostat, then push gently until the thermostat snaps in place.

Note: To ensure a solid fit between the thermostat and the subbase:

- 1. Mount subbase to a flat wall
- **2.** Use screws provided
- 3. Drywall anchors should be flush with the wall
- 4. Wires should be pushed into the wall

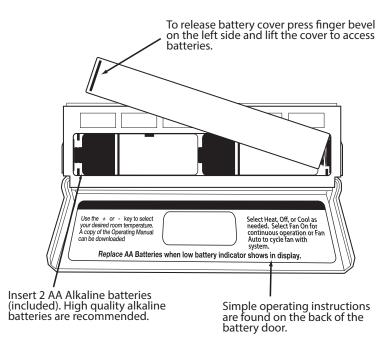
Battery Installation

Battery installation is recommended even if the thermostat is hardwired (C terminal connected). When the thermostat is hardwired and batteries are installed, the thermostat will activate a compressor delay of 5 minutes when it detects a power outage from the hardwired power supply.

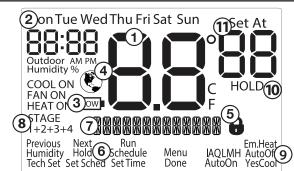


Important:

High quality alkaline batteries are recommended. Rechargeable batteries or low quality batteries do not guarantee a 1-year life span.



Getting to know your thermostat



- 1 Displays the current room temperature
- (2) Time and day of the week / Sensor / Humidity
- (3) Low Battery Indicator: Replace batteries when this indicator is shown.
- (4) Energy Efficient Globe: Indicates you are making energy efficient choices.
- (5) **Keypad Lockout:** Lock the thermostat
- (6) Program Menu Options: Show different options during programming.
- (7) Program Time Periods Residential: Uses 4 time periods WAKE, RETURN, LEAVE & SLEEP. Commercial: Uses 2 or 4 time periods that appear in the text field Occupied & Unoccupied.
- **8** Staging Indicators: +1 will appear in the display when second stage of heat or cool is on. +2 will appear for the third stage of heat.
- System Operation Indicators: If these or the Fan indicator are flashing, it means that the system is in a delay of some type (compressor delay, cooling fan delay, staging delay).
- (10) Hold: is displayed when the thermostat program is permanently overridden.
- **11) Setpoint:** Displays the user selectable setpoint temperature.

6

6

Wiring

Caution: Electrical Hazard

Failure to disconnect the power before beginning to install this product can cause electrical shock or equipment damage.

Warning:

All components of the control system and the thermostat installation must conform to Class II circuits per the NEC Code.

Wiring

- If you are replacing a thermostat, make note of the terminal connections on the thermostat that is being replaced. In some cases the wiring connections will not be color coded. For example, the green wire may not be connected to the **G** terminal.
- Loosen the terminal block screws. Insert wires then retighten the terminal block screws.
- **3.** Place nonflammable insulation into the wall opening to prevent drafts.



Installation Tip

Do not overtighten terminal block screws, as this can damage the terminal block. A damaged terminal block can keep the thermostat from fitting on the subbase correctly or cause system operation issues.

Max Torque = 6in-lbs.

Wiring Tips

C Terminal

The C (common wire) terminal does not have to be connected when the thermostat is powered by batteries.

Wire Specifications

Use shielded or non-shielded 18-22 gauge thermostat wire.

Note:

In many heat pump systems with no emergency heat relay, a jumper can be installed between **E** and **W2** to turn thermostat into a single stage control for Emergency Heat Operation.

Note

Outdoor temperature sensor, Indoor temperature sensors, and Slab sensor wiring diagrams are located in R250S and R251S manuals.

Wiring

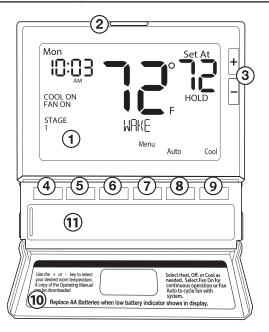
Terminal Designations

This thermostat is shipped from the factory to operate a conventional heating and cooling system. This thermostat may also be configured for a heat pump system. See the "heat pump" configuration step on page 17 of this manual to configure the thermostat for heat pump applications.

Terminal	2 Heat 2 Cool Conventional System	2 Heat 1 Cool Heat Pump System	4 Heat 2 Cool Heat Pump System	5 Heat 3 Cool Heat Pump System
RC	Transformer power (cooling)	Transformer power (cooling)	Transformer power (cooling)	Transformer power (cooling)
RH	Transformer power (heating)	Transformer power (heating)	Transformer power (heating)	Transformer power (heating)
С	Transformer common	Transformer common	Transformer common	Transformer common
В	Reversing valve / configurable terminal	Reversing valve / configurable terminal	Reversing valve / configurable terminal	Reversing valve / 3rd stage of heat & cool
0	Reversing valve / configurable terminal	Reversing valve / configurable terminal	Reversing valve / configurable terminal	Reversing valve / 3rd stage of heat & cool
G	Fan relay	Fan relay	Fan relay	Fan relay
W/E	First stage of heat	Emergency Heat	First stage of auxiliary heat	First stage of auxiliary heat (4th stage of heat)
Υ	First stage of cool	First stage of heat & cool	First stage of heat & cool	First stage of heat & cool
Y2	Second stage of cool	N/A	Second stage of heat & cool	Second stage of heat & cool
W2	Second stage of heat	Auxiliary heat	Second stage of auxiliary heat	Second stage of auxiliary heat (5th stage of heat)
S1/S2	Remote Sensor	Remote Sensor	Remote Sensor	Remote Sensor
Н	Humidify	Humidify	Humidify	Humidify
D	Dehumidify	Dehumidify	Dehumidify	Dehumidify

Thermostat Quick Reference

Getting to know your thermostat



- (1) LCD Display
- (2) Glow in the dark light button
- (3) Setpoint buttons
- (4-6) Program buttons
- (7) Menu button
- (8) Fan button
- (9) System button
- (10) Button/battery access door
- (11) Battery cover

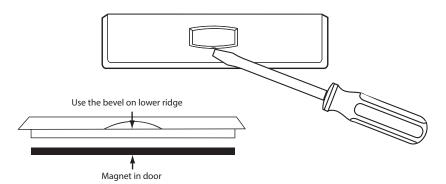


Important

The low battery icon is displayed when the AA battery power is low. Whenever the thermostat detects low battery voltage from the AA batteries, the low battery icon will begin flashing on the screen for 21 days (if the batteries are not changed). If the batteries are not changed 22 days after the thermostat detects low battery voltage, the thermostat screen will only show the flashing battery icon until buttons are pressed. If the batteries are not changed 43 days after the thermostat detects low battery voltage, the thermostat screen will only show the flashing battery icon until buttons are pressed and the set points will offset to 85°F/29°C in cooling and 55°F/13°C in heating. At this stage, set point changes can be made temporarily but, the set points will change back to defaulted values after a 4-hour period. The thermostat will continue to perform this low battery flashing, temperature offset condition until the internal voltage threshold is reached. When the thermostat internal voltage threshold is reached, all relays will be opened and the thermostat will become inoperable until new batteries are installed

About The Badge

All of our thermostats use the same universal magnetic badge. Visit the company website to learn more about our free private label program.



Gently slide a screwdriver into the bottom edge of the badge. Gently turn the screwdriver counter clockwise. The badge is held on by a magnet in the well of the battery door. The badge should pry off easily. DO NOT USE FORCE.



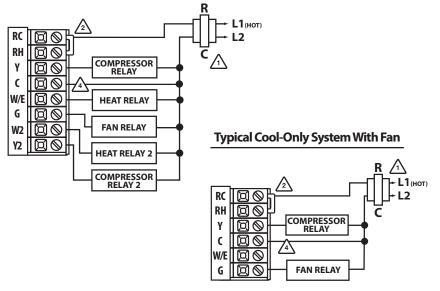
(8)

Wiring Diagrams

∕1 Power supply

🛕 Factory-installed jumper. Remove only when installing on 2-transformer systems 👍 Optional 24 VAC common connection when thermostat is used in battery power mode

Typical 2H/2C System: 1 Transformer

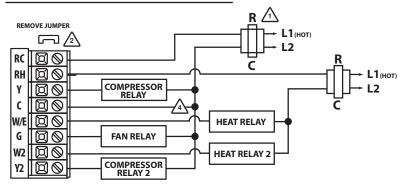


Wiring Diagrams

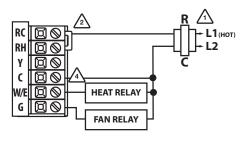
Use either O or B terminals for changeover valve

If DEHUM relay requires a normally-energized input, set Dehumidify relay to NC in Technician Setup.

Typical 2H/2C System: 2 Transformer



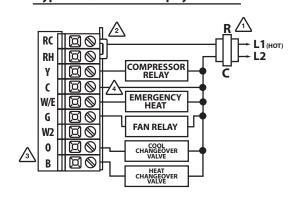
Typical Heat Only System With Fan



Note:

In many systems with no emergency heat relay a jumper can be installed between E and W2.

Typical 2H/1C Heat Pump System





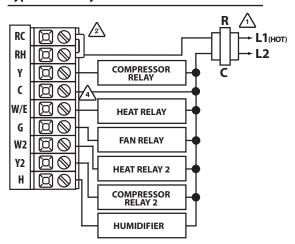
Wiring Diagrams

1 Power supply

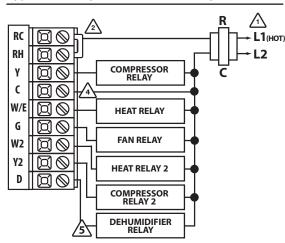
 $\stackrel{\textstyle \sim}{2}$ Factory - installed jumper. Remove only when installing on 2 transformer systems.

 $\sqrt{3}$ Use either O or B terminals for changeover valve.

Typical 2H/2C system with 24 VAC Humidifier



Typical 2H/2C system with Dehumidify Terminal

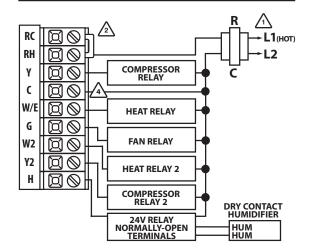


Wiring Diagrams

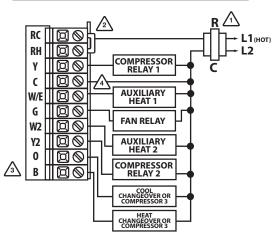
Optional 24 VAC common connection when thermostat is used in battery power mode.

If DEHUM relay requires a normally-energized input, set Dehumidify relay to NC in

Typical 2H/2C system with Dry Contact Humidifier



Typical 5H/3C Heat Pump System





Technician Setup Menu

Technician Setup Menu

Tech Setup St	teps	LCD Will Show	Adjustment Options	Default	Tech Setup St	eps	LCD Will Show	Adjustment Options	Default
System Stages	This setting allows you to select the number of heat and cool stages.	SET STRGES	Use the → and → buttons to select 1H/1C, 2H/1C, 2H/2C, 3H/1C, 3H/2C, 3H/3C, 4H/2C, 4H/3C, 5H/3C. Note: Heat and cool choices are limited based on conventional, heat pump, or PTAC system configuration.	2H	Satisfy Setpoint Staging (Only displayed if there are more than one stage of heat or cool)	This feature allows the thermostat to keep multiple stages of heat or cool energized until the setpoint is satisfied.	SS STREINS	Use the → or → buttons to turn on of off.	OFF
Third Stage of Cool Terminal Designation (Only displayed if stages of cool is set to three on previous setting)	This setting allows the 0 or B terminal to be selected as the third stage of cool. The selected terminal will not be used for reversing valve functions in heat pump mode.	1 500 T504	Use the 🛨 and 🖃 buttons to select O/B.	0	Staging Delay (Only displayed if there are more than one stage of heat or cool)	This feature allows a delay to occur if an additional stage is needed. This allows the previous stage extra time to satisfy the setpoint. Note: Will not show if using outdoor sensor with balance point temperature.	STRE ING	Use the 🛨 or 🖃 key to select OFF, 5, 10, 15, 30, 45, 60, or 90 minutes.	OFF
System Set	You can configure the system switch for the particular application. Heat - Off - Cool, Heat - Off, Cool - Off, Heat - Off - Cool - Auto. Note: Emergency Heat is available in heat pump mode only.	SYSTEM SET AutoOff Em.Heat Cool		Heat Off Cool	Minimum Compressor On Time	This feature allows the installer to select the minimum run time for the compressor. For example, a setting of 4 will force the compressor to run for at least 4 minutes every time the compressor turns on, regardless of the room temperature.	OF MIN COMP ON	You can set the minimum compressor run time to "OFF", "3", "4", or "5" minutes. If 3, 4 or 5 is selected, the compressor will run for at least the selected time before turning off. Use the □ and □ buttons to change the setting.	OFF
Dual Fuel Auxiliary For Heat Pump (Only displayed if heat pump is set to ON)	This setting allows the system to run Gas, Oil, Propane or any other types of auxiliary heat. The thermostat will default to electric auxiliary heat in heat pump applications.	DURL FUEL	Use the and buttons to select ON/OFF.	OFF	Compressor Short Cycle Delay	The compressor short cycle delay protects the compressor from "short cycling". This feature will not altlow the compressor to be turned on for 5 minutes after it was last turned off.	COMP DELRY	Selecting "ON" will not allow the compressor to be turned on for 5 minutes after the last time the compressor was on. Select "OFF" to remove this delay. Use the 🛨 and 🖃 buttons to change the setting.	ON
Electric or Gas Fan Operation (Only displayed if heat pump is set to ON)	Select GAS to have the system control the fan during a call for heat, select Electric to have the thermostat control the fan during a call for heat. Note: If heat pump is set to "ON" this step will not show, and will default to ELECTRIC.	GRS FAN SET	Use	GAS	Cooling Fan Delay	The cooling fan delay setting will delay the fan from coming on in cool mode and keep it running after the compressor shuts off for a short time to save energy in some systems.	OF COOL FRN OL	You can set the cooling fan delay to OFF, 10, 30, 60 or 90 seconds. If 10, 30, 60, or 90 is selected the fan will not turn on for that many seconds when there is a call for cool and will run for that many seconds after satisfying a call for cool.	OFF

4

Technician Setup Menu

This thermostat has a technician setup menu for easy installer configuration. To set up the thermostat for your particular application:

- 1. Press the **MENU** button.
- 2. Press and hold the **TECH SET** button for 3 seconds. This 3 second delay is designed so that homeowners do not accidentally access the installer settings.
- 3. Configure the installer options as desired using the table below.

Use the + or - keys to change settings and the **NEXT** or **PREV** key to move from one step to another.

Note: Only press the DONE key when you want to exit the Technician Setup options.

4. Press the **DONE** key to exit.

Tech Setup St	eps	LCD Will Show	Adjustment Options	Default
Filter Change Reminder	This feature will flash a reminder after the elapsed run time to remind the user to change the filter. A setting of "OFF" will disable this feature.	FILTER	You can adjust the filter change reminder from "OFF" to 2000 hours of runtime in 50 hour increments.	OFF
Room Temperature Calibration	This feature allows the installer to change the calibration of the room temperature display. For example, if the thermostat reads 70° and you would like it to read 72° then select +2.	ERL IBRRTE	You can adjust the room temperature display to read up to 4° above or below the factory calibrated reading.	0°F
Cooling Swing	The swing setting often called "cycle rate", "differential" or "anticipation" is adjustable. A smaller swing setting will cause more frequent cycles and a larger swing setting will cause fewer cycles.	0.5 600L SA INS	The cooling swing setting is adjustable from 0.2° to 2°. For example: A swing setting of 0.5° will turn the cooling on at approximately 0.5° above the setpoint and turn the cooling off at approximately 0.5° below the setpoint.	0.5°

Swing Setting Tip

The second stage will turn on at 2x the swing setting. The second stage will turn off when 1x the swing is reached. For example, if the swing setting is .5 $\,$ degrees for heating and the thermostat is set at 70°F, the first stage will turn on at approximately 69.5°F. The second stage will turn on at 69°F. The second stage will turn off at 69.5°F and the first will turn off at 70.5°F. If the third stage is used, it will turn on at 68.5°F and turn off at approximately 69°F.

Technician Setup Menu

Tech Setup Sto	eps	LCD Will Show	Adjustment Options	Default
Heating Swing	The swing setting often called "cycle rate", "differential", or "anticipation" is adjustable. A smaller swing setting will cause more frequent cycles and a larger swing setting will cause fewer cycles.	HERT SAINS	The heating swing setting is adjustable from 0.2° to 2°. For example: A swing setting of 0.5° will turn the heating on at approximately 0.5° below the setpoint and turn the heating off at 0.5° above the setpoint.	0.4°
PTAC Mode	This setting allows the thermostat to operate a PTAC. This will allow for multiple fan speeds selectable in the next two tech settings.	PTRC MODE	Use the 🛨 and 🖃 buttons to select ON/OFF.	ON
PTAC Fan Speeds (Only displayed if PTAC mode is ON)	This setting allows you to choose the number of fan speeds the thermostat will control. G = Low Speed Fan B/0 = Medieum Speed Fan Y2 = High Speed Fan	FRN SPEEDS	Use the 🛨 and 🖃 buttons to select , 2 or 3. 1. Speeds: ON, Auto 2. Speeds: Low, High, Auto 3. Speeds: Low, Med, High, Auto	2
PTAC Medium Fan Speed Terminal (Only displayed if PTAC mode is ON and PTAC fan speeds is set to 3)	This setting will select the terminal for medium fan speed operations. The selected terminal cannot be used for reversing valve operations when heat pump is enabled.	neo fan Tern	Use the → and → buttons to select O/B terminals.	0
Heat Pump	When turned on the thermostat will operate a heat pump. EM. Heat will show as an option in the system switch tech setting. Use the 🛨 and 🖃 button to adjust.	HERT PUMP	OFF configures the thermostat for conventional systems. ON configures the thermostat for heat pump systems.	OFF

System Mode	Default Heat	Heat Options	Cool Default	Cool Options
PTAC (conventional)	1	1	1	1
PTAC (Heat Pump)	2	2, 1	1	1
Heat Pump		5, 4, 3, 2, 1	2	3, 2, 1
Conventional	2	2, 1	2	3, 2, 1

the + and - keys for 3 seconds. You will see a lock in the display. To unlock the display hold down the + and - keys for 3 seconds.

Technician Setup Menu

Technician Setup Menu

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Tech Setup St	teps	LCD Will Show	Adjustment Options	Default	Tech Setup St	eps	LCD Will Show	Adjustment Options	Default
	You can configure this thermostat to have a 7 day program, a 5+1+1 program or No program.		Use the and button to select 7d for 7 day, 5d for 5+1+1, or 0d for non-programmable.			Keypad lockout allows you to configure the thermostat so some or all of the keys don't function.		Use the + and - buttons to select OFF, BASC, PART, FULL OF - OFF= keypad lock-out has been disabled.	
	Note: If 7d is selected, in set schedule you will program all seven days individually.				Keypad			BA - BASIC = basic keypad lockout locks the menu key. PA - PARTIAL = partial keypad	OFF
Program Options	If 5d is selected, in set schedule you will program Monday — Friday together and Saturday and Sunday individually.	bď		5d	Lockout		יים	lockout, which locks all the keys except the or setpoint keys. FU - FULL= full keypad lockout, which locks out all	OH
	If Od is selected the thermostat becomes non-programmable and the Set Schedule button goes away in Menu.	PR05R8M					KEY LOCKOUT	the keys.	
Time a Davia da	You can configure this thermostat to have 2 or 4 programmable time periods per day.		Use the 🛨 and 🖃 buttons to select 4, 2C, or 4C time periods per day.			Keypad lockout with code shows only when Keypad Lock is set to BASIC, PARTIAL or FULL		1. When ON you must enter the code after pressing the → and → buttons toegether for 3 secounds to take the thermostat in or out of keypad	
(Only displayed if program optioin is set to 5d or 7d)		L .	4: Wake, Leave, Return & Sleep. 2C: time periods are Occupied & Unoccupied. 4C: time periods are Occupied	4	Keypad Lockout Code			lockout. You will then be taken to a screen that allows you to enter the code. 2. Use and to change	OFF
		T IME PER IODS	1, Unoccupied 1, Occupied 2, & Unoccupied 2		(Only displayed if keypad lockout is set to Basic.			each number. Use the Previous and Next keys to change from one number to the next. The number you are currently on	
D D	This feature will start heating and cooling early to bring the building temperature to its programmed setpoint by the beginning of the		Use the 🛨 or 🖃 key to select on or off.	ON	Partial, or Full)			will blink. 3. Press Done when	
Pro Recovery	WAKE, RETURN and OCCUPIED time periods.	PRO RECOVERY						completed. If entered correctly the thermostat will be re- moved from keypad lockout.	
	This setting maximizes efficiency		Use the 🛨 or 🖃 key to				KEY CODE		
Cycle Minimizer	and equipment longevity by increasing the heating and cooling swing settings to 2°		select on or off.		(1/2-1-1	La de la Martina Thanas I an			
(Only displayed if program optioin is	during the unoccupied and leave time periods. This will result in			OFF	be activate procedure	Lockout Note: The select ted after exiting tech setu e, all keys will function fro	up. If you do eely. To lock	not perform this the keypad hold down	n



program optioin is set to 5d or 7d)

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Technici	an Setup Menu				Technici	an Setup Menu			
Tech Setup St	eps	LCD Will Show	Adjustment Options	Default	Tech Setup St	eps	LCD Will Show	Adjustment Options	Defau
	Keypad lockout with code creation is displayed when Keypad Lockout Code is turned on (Basic, Partial or Full is selected).	0000	OFF= Code is disabled and the lock icon is used to lock and unlock the display.		°For°C	This feature allows you to display temperatures in either Fahrenheit or Celsius.	op	°F for Fahrenheit °C for Celsius	°F
	(,		ON = Create a 4 digit code that locks and unlocks the display.				FIORICISET		
Keypad Lockout Code			NOTE: In this tech setting, the clock field will show all four characters as 0s, with the first 0 blinking.		12 or 24 Hour Clock	You can select either a 12 or 24 hour clock setting.	CLOCK SET	Use the 🛨 or 🖃 key to select 12 or 24 hour clock.	121
Creation (Only displayed if keypad lockout is set to Basic, Partial, or Full)			Select the numbers of the code by using the 🛨 and 🖃 buttons and switch between numbers by using the "next" and "previous" buttons. After DONE is pressed, the created code will be saved and will be needed to activate or deactivate keypad lockout functions. The master code will override any	0000	Pre Occupancy Fan	The pre-occupancy fan settings will energize the fan before the occupied time to provide ventilation prior to scheduled occupancy time periods. This feature only shows if the technician setup step for time periods is set to 2C or 4C. Use the *and buttons to adjust.	PRE-OCC FAN	You can select the pre-occupancy fan from OFF, 1, 2, or 3 hours. If 1, 2, or 3 is selected, the fan will turn on that many hours prior to the scheduled occupied time period.	OFI
		KEA CODE	created keypad lock code.			The display light can be configured to stay on all the time or turn on when any key is pressed. There are LOW and	dL	Use the 🛨 and 🖃 buttons to select OFF, LOW, or HIGH. OFF configures the display	OFI If Batter
Heat Setpoint Limit	This feature allows you to set a maximum heating setpoint limit. The setpoint temperature cannot be raised above this value.	HERT L IM IT	Use the 🛨 or 🖃 key to select the maximum heat setpoint and the minimum cooling setpoint.	90°F		HIGH selections for continuous ON selection. NOTE: The thermostat will need to be hardwired in order for the LOW and	RUANS ON LIF	light to come on when the light key or any button is pressed. LOW configures the display	Power
Cool Setpoint Limit	This feature allows you to set a minimum cooling setpoint limit. The setpoint temperature cannot be lowered below this value.	COOL L IM IT	Use the 🛨 or 📑 key to select the minimum cooling setpoint.	44°F	Display Light	HIGH display light functions to work properly. "ALWAYS ON LIT" will alternate in the text field with "HARDWIRE ONLY" when HIGH is selected. These prompts will alternate every three seconds.		light to stay on at a low intensity constantly. When a button is pressed, the display light will transition to high intensity. HIGH configures the display	
Temporary Hold Hours (Only displayed if program option is	This feature will select a temporary hold time frame for the programmable mode of the thermostat. When the setpoint is changed, the thermostat will enter into a temporary hold for the number of hours selected	4	Use the 🛨 and 🖃 buttons to select 0, 1, 2, 3, 4, 5 and 6.	4		If the thermostat is hardwired this feature will default to LOW.	dL	light to remain on at high intensity all the time.	LOV
set to 5d or 7d)	from this tech setting.	TEMP HOLDERS					HANDIN INE ONLY		Hardwii
D									6
echnicia	an Setup Menu				Technici	an Setup Menu			
Tech Setup St	teps	LCD Will Show	Adjustment Options	Default	Tech Setup St	reps	LCD Will Show	Adjustment Options	Defau
Fresh Air Minutes	This setting selects the minimum number of minutes that the fresh air damper will be energized.	FRESH RIP MIN	Use the + and - buttons to select 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55 or 60 minutes.	5	Local Temp Sensor	You can disable the sensor on the thermostat. At least one indoor remote sensor must be connected to disable the local thermostat sensor. Note: Will only show if		ON enables local T855SH sensor. OFF disables local T855SH sensor.	10
Fresh Air Terminal	This setting provides the option to select a terminal for Fresh Air damper functions. The selected terminal cannot be used for		Use the <u>+</u> and <u>-</u> buttons to select O/B.		if remote sensor setting is set to 1)	remote sensor is set to 1.	LOCAL TEMP		
(Only displayed if fresh air mode	reversing valve operations when the heat pump setting is turned				Number of Indoor	Enables the use of up to sixteen indoor sensors. Note: Will only		You can use 1, 4, 9, or 16 indoor sensors. Refer to the	

lechnicia	ın Setup Menu				Technici	an Setup Menu			
Tech Setup St	eps	LCD Will Show	Adjustment Options	Default	Tech Setup St	eps	LCD Will Show	Adjustment Options	Default
Fresh Air Minutes	This setting selects the minimum number of minutes that the fresh air damper will be energized.	FRESH R R M N	Use the → and → buttons to select 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55 or 60 minutes.	5	Local Temp Sensor (Only displayed	You can disable the sensor on the thermostat. At least one indoor remote sensor must be connected to disable the local thermostat sensor. Note: Will only show if remote sensor is set to 1.		ON enables local T855SH sensor. OFF disables local T855SH sensor.	ON
Fresh Air Terminal	This setting provides the option to select a terminal for Fresh Air damper functions. The selected		Use the + and - buttons to select O/B.		if remote sensor setting is set to 1)	remote sensor is see to 1.	LOCAL TEMP		
(Only displayed if fresh air mode is turned ON. This setting cannot be used with PTAC, three stages of cool, or economizer turned on)	terminal cannot be used for reversing valve operations when the heat pump setting is turned on.	FRESH R IR TRI		0	Number of Indoor Remotes (Only displayed if remote sensor setting is set to 1)	Enables the use of up to sixteen indoor sensors. Note: Will only show Remote Sensor is set to 1 and Local Temp Sensor is set to on.	NUMBER REMOTE	You can use 1, 4, 9, or 16 indoor sensors. Refer to the R251S Install Manual for de- tailed connection information	1
Remote Sensor Operation (Only displayed if a sensor is connected to S1 and S2 terminals)	You can configure the thermostat for one of three remote sensor applications: 0 No Sensor, 1 Indoor, 2 Outdoor, 3 Floor.	REMOTE MODE	Use the left and right arrows to select one of three options. View the S1/S2 terminal chart on next page for an explanation of these options.	0	Dual Fuel Balance Point (Only displayed if remote sensor setting is set to 2 and Dual Fuel AUX = On)	An outdoor temperature above balance point will cause the thermostat to energize the Y terminal(s) only in calls for heat. An outdoor temperature below balance point will cause the thermostat to energize the W2 terminal only in calls for heat.	OF SERICE POINT	Use the <u>+</u> and <u>-</u> buttons to select OFF, 10, 15, 20, 25, 30, 35, 40, 45, 50 degrees.	OFF
Option 1 2 3	Indoor The local and re Outdoor The outdoor to	2 Termina Description mote temperature temperature is fla	res are averaged. R257 ashed in clock. R250	IS OS	Balance Point Electric AUX Cut Out (Only displayed if remote sensor setting is set to 2 and Duel Fuel Aux if Off)	Balance point with electric auxiliary will optimize heat pump usage. When the outdoor temperature is above the AUX CUT OUT selection, the thermostat will only allow the Y terminal(s) will energize and lockout the W2 terminal. When the outdoor temperature falls below the AUX CUT OUT selection and sits above the AUX CUT IN selection, the thermostat will allow the Y terminal(s) and the W2 terminal to energize. When the outdoor temperature is below the AUX CUT IN selection, the thermostat	AUX CUT OUT	Use the * and	OFF

CUT IN selection, the thermostat will only energize the W2 terminal and lockout the Y terminal(s).





Technicia	an Setup Menu				Technici	an Setup Menu			
Tech Setup St	eps	LCD Will Show	Adjustment Options	Default	Tech Setup St	eps	LCD Will Show	Adjustment Options	Default
Contractor Call Number	This feature allows you to put your phone number in the display. You can choose ON or OFF. Notes: If contractor call number is selected ON, the phone number entered will show in the display if there has been a continuous call for heating or cooling for 24 hours or if the light button is held down for 3 seconds. To remove the phone number from the		If selected ON, you will see the input screen after pressing NEXT STEP. Use the 1 put on to select the desired number and the FAN or SYSTEM key to move from one character to another. See note below for operation.	OFF	Economizer Mode (This feature cannot be used with non-programmable PTAC mode, three stages of cool, fresh air, of free cooling mode)	When this feature is enabled, the economizer terminal is energized in the WAKE, RETURN, SLEEP or OCCUPIED time periods. This feature will remain disabled if programming is OFF (OD). This feature will use one of the configurable terminals (O/B) to connect to the economizer.	ECONOM IZER	Use the 🛨 and 🖃 buttons to select ON or OF.	OFF
IAQ Mode Cycle	display, hold the light button down for 3 seconds. This feature will configure the fan to run a selected number of cycles per hour. Note: This mode can be enabled or disabled at anytime during normal operation by selecting IAQ mode with the fan key. Turning this feature on shows IAQ option in fan key. Notes: This programmable/selectable mode will operate the fan 1-4 cycles per hour, 1-45 minutes per cycle. Once programmed in tech setup, to enable this mode select "IAQ" with the fan	PHOE NUMBER	Select OFF, 1, 2, 3 or 4 with the	OFF	Economizer Terminal Designation (Only displayed if economizer is turned on) Fresh Air Mode (This setting cannot be used with PTAC,	This setting provides the option to select a terminal for Economizer functions. The selected terminal cannot be used for reversing valve operations when the heat pump setting is turned on. This feature allows fresh air into a unit for a selectable amount of time. When Fresh Air Mode is enabled, the fan and the fresh air damper terminal will energize simultaneously.	ECON TERMINAL	Use the 🛨 and 🖃 buttons to select O/B. Use the 🛨 and 🖃 buttons to select OFF, OC ON or ON. OFF: Thermostat does not enable Fresh Air Mode. OC ON: Fresh Air Mode is enabled during the OCCUPIED, WAKE, RETURN, and SLEEP time periods (It will not bring in the occuping the or of the original of the occuping the occu	O OFF
IAQ Minutes Per Cycle	key. Disable this mode by selecting "ON" or "AUTO" with the fan key. This allows you to select the minimum number of minutes that the fan will run per IAQ mode cycle. The thermostat will keep track of fan runtime from normal heat and cool operation. If additional fan runtime is needed, the thermostat will run the fan to satisfy the IAQ mode minutes. Notes: This programmable/selectable mode will operate the fan 1-4 cycles per hour, 1-45 minutes per cycle. Once programmed in tech setup, to enable this mode select "IAQ" with the fan key. Disable this mode by selecting "ON" or "AUTO" with the fan key.	RO HODE CHOL	Select 1, 5, 10, 15, 20, 30 or 45 minutes. When IAQ fan mode is enabled, it will ensure the fan runs at least the selected number of minutes per IAQ Mode Cycle. This step will not appear if previous step is set to "OFF".	1	If contractered will heating a second light but A Note a This progper hour	tor Call Number Note ctor call number is select il show in the display if the or cooling for 24 hours or its. To remove the phone ton down for 3 seconds. about IAQ Mode grammable/selectable m i, 1-45 minutes per cycle. his mode select "IAQ" with	ere has been fif the light k number fror ode will ope Once progra	n a continuous call for outton is held down for in the display, hold the rate the fan 1-4 cycles immed in tech setup,	or e
23 Technicia	an Setup Menu					g "ON" or "AUTO" with the	fan key.		2
Tech Setup St	eps	LCD Will Show	Adjustment Options	Default	Tech Setup St	teps	LCD Will Show	Adjustment Options	Default
Balance Point Electric AUX Cut In (Only displayed if remote sensor setting is	Balance point with electric auxiliary will optimize heat pump usage. When the outdoor temperature is above the AUX CUT OUT selection, the thermostat to only allow the Y terminal(s) to energize and lockout the W2 terminal. When the outdoor temperature falls below the AUX CUT OUT selection and sits above the AUX CUT IN selection, the thermostat to allow the Y	40	Use the ** and ** buttons to select 10, 15, 20, 25, 30, 35, 40, 45, 50 degrees.	40	Free Cooling Terminal (Fresh air mode and free cooling can be used together. Free cooling cannot be used with PTAC mode, three stages of heat, or economizer mode)	This setting provides the option to select a terminal for Free Cooling functions. The selected terminal cannot be used for reversing valve operations when the heat pump setting is turned on.		Use the 🛨 and 🖃 buttons to select 0/B.	0
set to 2 and Duel Fuel Aux if Off)	terminal(s) and the W2 terminal to energize. When the outdoor temperature below the AUX CUT IN selection, the thermostat will only energize the W2 terminal and lockout the Y terminal(s).	AUX EUT IN			Floor Temperature (Only displayed if remote sensor setting is set to 3)	The temperature of the floor sensor will be displayed. Note: Only shows when REOP is set to 3. Use + and buttons to adjust.	FLOOR TEMP	N/A	N/A
Balance Point Run Time (Only displayed if remote sensor setting is set to 2)	Balance point run time will allow the W2 auxiliary terminal to ener- gize even if outdoor temperature is above selected balance point temperature. If enabled, auxiliary will energize for the current cycle after the balance point run time has expired. Note: Only shows if Balance Point is set to an outdoor temperature.	OF.	Off, 15, 30, 45, 60, 75, 90	OFF	Floor High Limit (Only displayed if remote sensor setting is set to 3)	This setting allows you to set a maximum floor temperature limit for heat. Heat will be locked out when the floor temperature is above this value. Note: Only shows when REOP is set to 3.	85	Use the en or buttons to select the High Limit for the floor sensor.35 - 120	86
Free Cooling (Only displayed if remote sensor setting is set to 2)	This feature will bring in outside air for first stage cooling operations, if the outdoor temperature is 5 (or more) degrees lower than the setpoint temperature. This setting can only be enabled if the thermostat is in cooling mode.	3P RUN T ME	Use the 🛨 and 🖃 buttons to select ON/OFF.	OFF	Floor Low Limit (Only displayed if remote sensor setting is set to 3)	This setting allows you to set a minimum floor temperature limit for heat. Heat will turn on automatically when the floor temperature is below this value. Note: Only shows when REOP is set to 3.	50	Use the + or - keys to select the Low Limit for the floor sensor. 35 - 120	50



Technician Setup Menu Tech Setup Steps LCD Will Show Adjustment Options Default This feature adds humidity when Use the 🛨 and 🖃 key to turn on or off. If ON is selected system key is in HEAT. the humidity will be displayed on the main screen and HUM Humidify **OFF** terminal will energize when humidity setpoint is above ambient humidity in Heat HUM (3) IFY This feature removes humidity Use the 🛨 and 🖃 key to turn on or off. If ON is selected the humidity will be displayed on the main screen and DUM when system key is in COOL. **OFF Dehumidify** terminal will energize when humidity setpoint is below ambient humidity in Cool DEHUM ID IFY Use the left and right arrows to adjust the calibration +/-3. This feature allows the installer Humidity to change the calibration of the ambient humidity displayed. Each one unit of adjustment amounts to approximately 5%. Calibration 0 (Only shows if Humidify or Dehumidify is set to "ON") HUM ID ITY CAL This feature forces the A/C to run Use the \rightarrow and \rightarrow buttons to select Off, 2, 3, 4, 5 longer to remove humidity when If selected a number is needed. The A/C will "over cool" selected the thermostat will use the air condition to "over the room a few degrees until humidity reaches the desired cool" to control humidity in setpoint. The numbers below Cool mode. If Off is selected Dehumidify are the maximum number of the system will not use over degrees the thermostat will With AC overcool to satisfy humidity. For 0FF example, If temperature set point Only shows if is 70 and humidity set point is imidify is set to "on" 50 and swing is 1 degree and "Dehumidify with AC" is set to 3 and the ambient is 68 and indoor humidity is 60 ... the thermostat will continue to run

DEHUM ID PY RE

This table references different humidity levels the thermostat will conform to, based on the outdoor temperature measurements. When the Automatic Humidity Adjusting tech setting selection is ON1 or ON2, the thermostat humidity will stay adjusted to the humidity level that correspond to the outdoor temperature

Technician Setup Menu

based on the chart index below.

Automatic Humidity Adjusting Index									
When The Outdoor Temperature Is:	On 1	On 2							
>+40°F	45%	50%							
+30°F to 40°F	40%	45%							
+20°F to 29°F	35%	40%							
+10°F to 19°F	30%	35%							
0°F to 9°F	25%	30%							
-1°F to -10°F	20%	25%							
-11°F to -20°F	15%	20%							
<-20	10%	15%							

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air conditioning until 67 degree to try to satisfy the humidity set

point of 50

Technician Setup Menu

(30

Tech Setup Sto	eps	LCD Will Show	Adjustment Options	Default
Summer Away Mode Humidity (Only displayed if summer away mode is turned on)	This tech setting will select the desired humidity level for Summer Away Mode. Note: The thermostat will default to the Dehumidify set point when this feature is enabled.	Humidity%	Use the 🛨 and 🖃 buttons to select the humidity level for Summer Away Mode.	N/A
Comfort Temperature (Only displayed if humidity is turned on)	This feature uses both air temperature and the relative humidity to control the indoor temperature based on how it actually feels for people to maximize comfort.	OFORT TEAP	If ON is selected the ambient temperature will operate off of a combination of the air temperature and the relative humidity. When OFF the ambient temperatures will operate off of the air temperature only. The thermostat will show the comfort index in the ambient temp area and drive the heating and cooling based on this.	OFF
Humidity Pad Reminder	Enables a reminder for the user to change the humidity pad.	OFF	Use the 🛨 or 🖃 key to select OFF, 600, 1000, 1500, or 2000. These represent hours of heat operation.	OFF
UV Lamp Reminder	Enables a reminder for the user to change the UV light bulb.	OFF	Use the → or → key to select OFF, 1 YR, 2 YR	OFF
IAQ Cell Reminder	Enables a reminder for the user to change the IAQ Cell after 25,000 hrs.	OFF	Use the 🛨 or 🖃 buttons to select OFF, or 25 (stands for 25,000 hours).	OFF

IRO CELL

Setting the Humidity

Comfort Temperature Index Ambient 20%-25% 26%-35% 36%-45% 46%-55% 56%-65% 66%-75% 76%-85% 86%-90% Temperature 50 50 50 50 50 50 50 50 50 51 50.6 50.7 50.7 50.9 51 51 51 51.2 52 51.2 51.5 51.5 51.7 52 52 52 52.5 53 52.3 52.5 52.5 52.8 53 53 53 53.5 54 52.9 53.3 53.3 53.6 54 54 54 54.8 55 53.5 54 54.5 55 55 55 56 54.7 54.6 55.3 56 54.1 56 56 56 54.7 55.4 56.9 56.9 56.9 57.9 57 55.2 56.2 58.1 58.1 59.1 55.8 56.3 56.6 57.3 58.1 58 59 56.4 56.9 57.3 58.2 59 59 59 60 60 60 60 61 58 58.9 58.5 59.4 61 59.1 60.1 60.9 60.9 61.1 61.9 60.1 62 61.1 61.9 61.9 62.1 62.9 63 60.1 60.6 61.4 62.4 63.1 63.1 63.4 64.1 64 61 61.6 62.4 63.4 64.1 64.1 64.4 65.1 62 62.7 62.5 63.3 65 65.9 65 65.9 65 63.5 64.5 65.5 66 64.3 65.3 66.9 66.5 66 63.4 64.1 65.1 66.8 66.8 67.6 67 66.1 67.8 64.6 68.2 68.9 68 65.4 66.4 67.4 68.2 69.2 69 65.3 66.2 67.2 68.2 69.1 69.1 70 70.1 70 71 71 66 67 68 69 70 70 71 72 67.2 68.2 69.1 70.1 71.1 71.4 72.4 72.6 68.3 69.3 70.3 71.3 72.3 72.8 73.8 74.3 73 69.7 70.7 71.7 72.7 73.7 74.2 75.2 75.8 74.9 70.8 71.9 72.9 73.9 75.6 76.6 77.4 75 74 72 73 75 76 77 78 79 74.9 77.1 79.6 72.9 73.9 78.6 80.6 76 76.1 74.7 73.8 75.7 77.2 78.2 80.2 81.2 82.7 78 75.2 76.3 78.8 79.8 81.8 82.8 84.3 76.1 77.1 78.1 79.9 80.9 83.4 84.4 86.2 79 80 81 86 81 77.9 79.1 80.3 82.3 83.6 86.6 88.3 91 82 78.7 80.2 81.7 83.7 85.1 88.1 90.6 94.1 83 84 80.3 81.8 83.3 85.3 86.9 89.9 92.4 96 91.4 99 81.1 82.9 84.7 86.7 88.4 94.7 93 95.8 82 84 86 88 90 97 102 82.8 92 87.3 100.5 85.1 89.5 106.4 87 94.1 91.1 98.5 104 110.9 83.7 86.1 88.6 88 85.3 87.9 92.9 96 100.5 106.1 113.1 90.4 89 91.7 86.2 88.9 103.2 109.5 117.6 90 93 100 113



Technician Setup Menu LCD Will Show Adjustment Options **Tech Setup Steps** The amount of over cooling Over Cool allowed when using A/C to remove humidity. This screen is arrows to select the maximum number of degrees of over cool. Limit only shown when ON is selected

in the Dehumidify with AC tech

Options for how the HUM

Options for how the DHM

terminal energizes.

See chart below

terminal energizes.

See chart below

setup step.

	Technician Setup Menu
Default	Tech Setup Steps

3

ON

ON

ech Setup Steps This feature will adjust the indoor humidity as the outdoor temperature changes. When will constantly stay at the same percentage. When ON is selected,

LCD Will Show | Adjustment Options Use the 🛨 and 🖃 buttons to select OFF, ON 1 or ON 2. When ON 1 or ON 2 is

OFF

Automatic Humidity Adjusting (Only displayed if remote sensor setting is set to 2

OFF is selected, the humidity the indoor humidity will fluctuate based on outdoor temperature.

selected and humidity level is adjusted, the thermostat will revert to the original humidity level after four hours. See Automatic Humidity Adjusting chart for humidity ranges humiditý ranges.

AUTO HUM ID ITY

Please see revious page for

Dehumidify

Relay

(Only shows if

dehumidify is set

to "on")

turned on)

You can configure the D terminal as Normally-Open or Normally-Closed.

NO = Normally Open

NC = Normally Closed

DHM RELAY D/C

Use the or key to select NO or NC. If NO is selected D will energize to dehumidify. If NC is selected D will be normally energized. D will de-energize to dehumidify.

NO

Only displayed if Dehumidify with AC is turned on

HUM

Terminal

Only shows if

humidify is set to "on"

DUM

Terminal

Only shows if dehumidify is set to "on"

	RA	To		ina
υп	IVI	ıe	rm	ına

Options are: 2,3,4,5

Use the left and right arrows to select one of the four options.

below for an explanation of

Use the left and right arrows to select one of the four

View the DHM M terminal chart below for an

explanation of these

these options.

options.

DVER COOL LMT

HUM TERM INRL

DLM TERM NAL

HUM Terminal		DHM	Terminal
OPTIONS	HUM terminal energizes when the ambient humidity is	OPTIONS	DHM terminal energizes when the ambient humidity is
1	Below the humidity setpoint and heat or fan is energized.	1	Above the humidity setpoint and cool or fan is energized.
2	Below the humidity setpoint and heat is energized.	2	Above the humidity setpoint. It will also energize the fan during a call for dehumidity.
3	Below the humidity setpoint. It will also energize the fan during a call for humidity.	3	Above the humidity setpoint.
4	Below the humidity setpoint.	4	Above the humidity setpoint and the compressor is not running.

Summer away mode protects the home in long unoccupied periods of time in hot climates by maintaining a safe temperature and humidity level. When activated SUMMER AWAY MODE will be displayed in the text field in addition to HOLD. When Summer activated, the system will hold the current Set At temperature Away Mode and the humidity level set in the following setting. (Only displayed if dehumidity is

Use the + and - buttons to select ON/OFF. When ON is selected, Summer Away Mode is activated by pressing and holding the "HOLD" key on the thermostat screen, for 3 seconds.

OFF

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Setting the Humidty

Setting Target Humidity Setpoint

Follow the steps below to change your target humidity setpoint.

Press the **HUMIDITY** key

Use the + or - key to select the target humidity setpoint. Press **DONE** when completed.

Setting the Humidity

Setting Target Humidity Setpoint

Ambient humidity will flash in the time field when Humidify or De-Humidify is set to ON.

SUMMER RWRY

HON will also flash when the Humidity terminal is energized. **dON** will also flash when the De-Humidify terminal is energized.



36 Humidity





DAY AND TIME

AMBIENT HUMIDITY

HON (Humidity Energized)

d₀N (De-Humidity Energized)

Note:

The target humidity setpoint is not programmable. Unlike temperature, humidity does not change quickly and should not be programmed.

Humidity is only energized during heat. Dehumidify is only energized during cool. Heat and Cool each have their own target

Mon **Humidity Reading** STAGE MUKE Auto Cool Press key for **Humidity Reading** Replace AA Batteries when low battery indicator shows in display

Recommended Heating Settings:

Increasing Humidity

The table below shows recommended indoor humidity levels in relation to outdoor temperatures during heating (adding humidity).

Recommended Cooling Settings:

Consult your professional HVAC technician for recommended settings for vour climate.

Outside Temperature (0°F)	Recommended Relative Humidity
+20° and above	35% to 40%
+10°	30%
0°	25%
-10°	20%
-20°	15%

Programming	Programming
Set Time	Set Program Schedule For Four Time Periods
Follow the steps below to set the day of the week and current time:	(WAKE, LEAVE, RETURN, SLEEP or OCCUPIED 1, UNOCCUPIED 2, UNOCCUPIED 2)
·	To customize your 5+1+1 Program schedule, follow these steps:
1. Press the MENU button.	Weekday:
2. Press SET TIME. 3. Day of the week is flashing. Use the	 Select HEAT or COOL with the system switch. Note: You have to program heat and cool each separately.
select the current day of the week. 4. Press NEXT. 5. The current hour is flashing. Use the	Press the MENU button (If menu does not appear first press RUN SCHED).
select the current hour. When using 12-hour time, make sure the correct a.m. or p.m. choice is selected. 6. Press NEXT.	 Press SET SCHED. Note: Monday-Friday is displayed and the WAKE/OCC1 icon is shown. You are now programming the WAKE/OCC1 time period for the weekday setting.
7. Minutes are now flashing. Use the or key to select current minutes. 8. Press DONE when completed.	4. Time is flashing. Use the + or - key to make your time selection for the weekday WAKE/OCC1 time period. Note: If you want the fan to run continuously during this time
Programming	period, select ON with the FAN key. If you want to use IAQ mode during this time period, select IAQ with the FAN key.
All our programmable thermostats are shipped with an energy saving default	5. Press NEXT.
program. You can customize this default program by following the instructions in the set program schedule section starting on page 24.	6. The setpoint temperature is flashing. Use the + or - key to make your setpoint selection for the weekday WAKE/OCC1
Your thermostat can be programmed to have each day of the week programmed uniquely (7 days), all the weekdays the same with a separate	period.
program for Saturday and a separate program for Sunday (5+1+1), or non-programmable. For the 7-day and 5+1+1 programming modes, there are	7. Press NEXT.
three time period options. 1. "4" Residential (WAKE, LEAVE, RETURN, SLEEP) 2. "2C" Commercial (OCCUPIED, UNOCCUPIED)	Repeat steps 4 through 7 for the weekday LEAVE/UNOCC1 time period, for the weekday RETURN/OCC2 time period, and for the weekday SLEEP/UNOCC2 time period.
3. "4C" Commercial (OCCUPIED 1, UNOCCUPIED 1, OCCUPIED 2, UNOCCUPIED 2)	Saturday:
This thermostat has a programmable fan feature, which allows you to run the fan continually during any time period.	Repeat steps 4 through 7 for the Saturday WAKE/OCC1 time period, for the Saturday LEAVE/UNOCC1 time period, for the Saturday RETURN/OCC2 time period, and for the Saturday SLEEP/UNOCC2
Reminders Once a reminder has been turned on and set the clansed time can be checked	time period.
Once a reminder has been turned on and set, the elapsed time can be checked by navigating to its tech setup step. The elapsed time will then appear in the text field. It can also be reset at that time by holding down the set time/run sched button for 3 seconds. Resetting an expired reminder can be done without entering tech setup, by holding down the set time/run sched button for 3 seconds from the home screen.	Sunday: Repeat steps 4 through 7 for the Sunday WAKE/OCC1 time period, for the Sunday LEAVE/UNOCC1 time period, for the Sunday RETURN/OCC2 time period, and for the Sunday SLEEP/UNOCC2 time period.
Staging Delay Note: This step will not appear if using an outdoor balance point temperature.	38
Programming	Programming
Set Program Schedule For Two Time Periods (OCCUPIED, UNOCCUPIED)	To customize your 7 day 2 time period program schedule, follow these steps:
To customize your 5+1+1 Program schedule, follow these steps:	Monday:
Weekday:	1. Select HEAT or COOL with the SYSTEM key.
 Select HEAT or COOL with the SYSTEM key. Note: You have to program heat and cool each separately. 	Note: You have to program heat and cool each seperately.
2. Press the MENU button (If menu does not appear first, press RUN SCHED).	Press the MENU button (If menu does not appear first press RUN SCHED).
3. Press SET SCHED. Note: Monday-Friday is displayed and the	3. Press SET SCHED. Note: Monday is displayed and the OCCUPIED text is shown. You are now programming the

- **OCCUPIED** text is shown. You are now programming the **OCCUPIED** time period for that day.
- 4. Time is flashing. Use the + or key to make your time selection for the weekday OCCUPIED time period.

 Note: If you want the fan to run continuously during this time period, select ON with the FAN key. If you want to use IAQ mode during this time period, select IAQ with the fan key.
- **6.** The setpoint temperature is flashing. Use the + or key to make your setpoint selection for the weekday **OCCUPIED** period.
- **7.** Press **NEXT.**
- 8. Repeat steps 4 through 7 for the weekday UNOCCUPIED time period.

Saturday:

Repeat steps 4 through 7 for the Saturday **OCCUPIED** time period and for the Saturday **UNOCCUPIED** time period.

Sunday:

Repeat steps 4 through 7 for the Sunday **OCCUPIED** time period, and for the Sunday **UNOCCUPIED** time period.

- **OCCUPIED** time period for that day.
- **4.** Time is flashing. Use the + or key to make your time selection for that day's **OCCUPIED** time period. **Note:** If you want the fan to run continuously during this time period, select **ON** with the **FAN** key. If you want to use **IAQ** mode during this time period, select **IAQ** with the fan key.
- 5. Press NEXT.
- **6.** The setpoint temperature is flashing. Use the + or key to make your setpoint selection for that day's **OCCUPIED** period.
- 7. Press NEXT.
- 8. Repeat steps 4 through 7 for that day's UNOCCUPIED time period.

Repeat steps 4 through 8 for the remaining days of the week.

A Note About Programmable Fan:

The programmable fan feature will run the fan continuously during any time period it is programmed to be on. This is the best way to keep the air circulated and to eliminate hot and cold spots in your building. If using IAQ mode, set fan to IAQ for any time period.

Programming

Custom Program				
Day of the Week	Events	Time	Setpoint Temperature (HEAT)	Setpoint Temperature (COOL)
	Wake/OCC1			
	Leave/UNOCC1			
Weekday	Return/OCC2			
,	Sleep/UNOCC2			
	Occupied			
	Unoccupied			
	Wake/OCC1			
	Leave/UNOCC1			
C	Return/OCC2			
Saturday	Sleep/UNOCC2			
	Occupied			
	Unoccupied			
	Wake/OCC1			
Sunday	LeaveUNOCC1			
	Return/OCC2			
	Sleep/UNOCC2			
	Occupied			

Programming

To customize your 7 day 4 time period Program schedule, follow these steps:

Monday:

- 1. Select **HEAT** or **COOL** with the **SYSTEM** key. **Note:** You have to program heat and cool each separately.
- **2.** Press the **MENU** button (If menu does not appear first, press **RUN SCHED**).
- **3.** Press **SET SCHED**. **Note:** Monday is displayed and the **WAKE/OCC1** icon is shown. You are now programming the **WAKE/OCC1** time period for that day.
- 4. Time is flashing. Use the + or + key to make your time selection for that day's WAKE/OCC1 time period.

 Note: If you want the fan to run continuously during this time period, select ON with the FAN key. If you want to use IAQ mode during this time period, select IAQ with the FAN key.
- 5. Press NEXT.
- **6.** The setpoint temperature is flashing. Use the to make your setpoint selection for that day's **WAKE/OCC1** period.
- 7. Press NEXT.
- **8.** Repeat steps 4 through 7 for that day's **LEAVE/UNOCC1** time period, for that day's **RETURN/OCC2** time period, and for that day's **SLEEP/UNOCC2** time period.

Repeat steps 4 through 8 for the remaining days of the week.

A Note About Auto Changeover:

In Auto you have the ability to switch between Auto Heat or Auto Cool by pressing the system key. This can be done once the current mode has reached its setpoint. For example: if in Auto Heat, the heat setpoint must be satisfied before the thermostat will allow you to switch to Auto Cool. You can switch out of Auto by holding down the system key. To get back into Auto, you must toggle the system key to Auto.

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Programming

Default Programming

Unoccupied

Factory Default Program					
Day of the Week	Events	Time	Setpoint Temperature (HEAT)	Setpoint Temperature (COOL)	
	Wake/OCC1	6 AM	70°F (21°C)	75°F (24°C)	
Wookday	Leave/UNOCC1	8 AM	62°F (17°C)	83°F (28°C)	
Weekday	Return/OCC2	6 PM	70°F (21°C)	75°F (24°C)	
	Sleep/UNOCC2	10 PM	62°F (17°C)	78°F (26°C)	
Saturday	Wake/OCC1	6 AM	70°F (21°C)	75°F (24°C)	
	Leave/UNOCC1	8 AM	62°F (17°C)	83°F (28°C)	
	Return/OCC2	6 PM	70°F (21°C)	75°F (24°C)	
	Sleep/UNOCC2	10 PM	62°F (17°C)	78°F (26°C)	
Sunday	Wake/OCC1	6 AM	70°F (21°C)	75°F (24°C)	
	LeaveUNOCC1	8 AM	62°F (17°C)	83°F (28°C)	
	Return/OCC2	6 PM	70°F (21°C)	75°F (24°C)	
	Sleep/UNOCC2	10 PM	62°F (17°C)	78°F (26°C)	

Programming

Default Programming

Factory Default Program for 2 Time Periods					
Day of the Week	Events	Time	Setpoint Temperature (HEAT)	Setpoint Temperature (COOL)	
We alder	OCCUPIED	8 AM	70°F (21°C)	78°F (26°C)	
Weekday	UNOCCUPIED	6 PM	62°F (17°C)	83°F (28°C)	
Saturday	OCCUPIED	8 AM	70°F (21°C)	78°F (26°C)	
	UNOCCUPIED	6 PM	62°F (17°C)	83°F (28°C)	
Sunday	OCCUPIED	8 AM	70°F (21°C)	78°F (26°C)	
	UNOCCUPIED	6 PM	62°F (17°C)	83°F (28°C)	

You can use the table on the next page to plan your customized program schedule if using 5+1+1.



Features

Filter Change & Other Reminders

If the filter change reminder is enabled, you will see a reminder in the display when your air filter needs changed. The reminder will be shown in the display after your system has run long enough to require an air filter change.

Resetting The Filter Change Reminder: When the reminder is displayed, you should change your air filter and reset the reminder by holding down the 3rd button from the left side of the thermostat for 3 seconds.

3 seconds.

| Total Control Co

This thermostat also has other maintenance reminders (Humidity Pad, UV lamp, and IAQ Cell), that are reset with the same procedure.

Temporary & Permanent Hold Feature

Temporary Hold: The thermostat will display **HOLD** and **RUN SCHED** on the bottom of the screen when you press the + or key. If you do nothing, the temperature will remain at this setpoint temporarily for 4 hours. The program setpoint will then replace the temporary setpoint.

Permanent Hold: With a temporary hold set, If you press the **HOLD** key at the bottom of your screen, you will see **HOLD** appear below the setpoint temperature in the display. The thermostat will now permanently stay at this setpoint and can be adjusted using the **+** or **-** keys.

To Return To Program: Press the **RUN SCHED** key at the bottom of the screen to exit temporary and permanent holds.

Remote Sensor Operation

Remote Sensor Operation Options

Option #1 - Indoor / Local Temperature Sensor "ON":

- **1.** The displayed room temperature will display the average temperature of the thermostat and all remote sensors.
- **2.** By pressing the far left (Prev Step) button, the average temperature of just the remote sensor(s) will be displayed briefly in the clock field.

Option #1 - Indoor / Local Temperature Sensor OFF":

1. The displayed room temperature will only show the average temperature of the remote sensor(s).

Option #2 - Outdoor:

1. The outdoor temperature will alternate briefly with the clock display.

Option #3 (Floor)

1. By pressing the far left (Prev. Step) button, the temperature of the floor sensor will be displayed briefly in the clock field.





Specifications

Specifications

The display range of temperature	41°F to 95°F (5°C to 35°C)
The display lange of temperature	44°F (00°F (7°C (20°C)
The control range of temperature	44 F to 90 F (7 C to 32 C)
Load Rating	1 amp per terminal, 1.5 amp
=	maximum all terminals combined
Swing (cycle rate or differential)	Heating is adjustable from 0.2° to 2.0°
	Cooling is adjustable from 0.2° to 2.0° 18 to 30 VAC, NEC Class II, 50/60 Hz
Daywar sayirsa	10 to 20 VAC NEC Class II F0/60 II-
Power source	18 to 30 VAC, NEC Class II, 50/60 HZ
	for hardwire
	Battery power from 2 AA Alkaline batteries
	la etta di la
	patteries
Operating ambient	32°F to +105°F (0°C to +41°C)
Operating humidity	00% non condensing maximum
Operating humidity Dimensions of thermostat	90% Horr-condensing maximum
Dimensions of thermostat	4./" W x 4.3" H x 0.9" D

