

Control4® Wireless Thermostat by Aprilaire®

User Guide



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Contents

About your new thermostat	1
Supported model	1
Important safety instructions	1
Thermostat features	1
Quick reference to controls and display	1
Operation	2
Select system mode (Em Heat/Heat/Off/Cool/Auto)	2
Change temperature setpoint	2
Select fan setting (On/Auto/Circ)	2
Maintenance reminders	2
Screen lockout	2
Power and battery replacement	3
Indoor Air Quality functions	3
Event-Based™ air cleaning	3
Humidifier control	3
Automatic mode	3
Manual mode	4
Dehumidifier control	4
If dehumidification is installed	4
If dehumidification is done with the air conditioner	4
Fresh air	5
Program schedule and holds	5
Understanding program schedules	5
Progressive recovery	5
Equipment wait	5
Program schedule holds	6
2 Hour	6
Permanent	6
Next Event	6
Timed	6
Presets	6
Scheduling	6

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Supported model

C4-THERM-WH Thermostat

Important safety instructions

Warning! Install in accordance with all national and local electrical codes.

Warning! This product is not intended for use with line-voltage baseboard heaters.

Important: Improper use or installation can cause **loss/damage of property.**

Important: Operate within the limits of this device as specified in this *Control4 Wireless Thermostat by Aprilaire User Guide* and *Control4 Wireless Thermostat by Aprilaire Safety and Installation Instructions*.

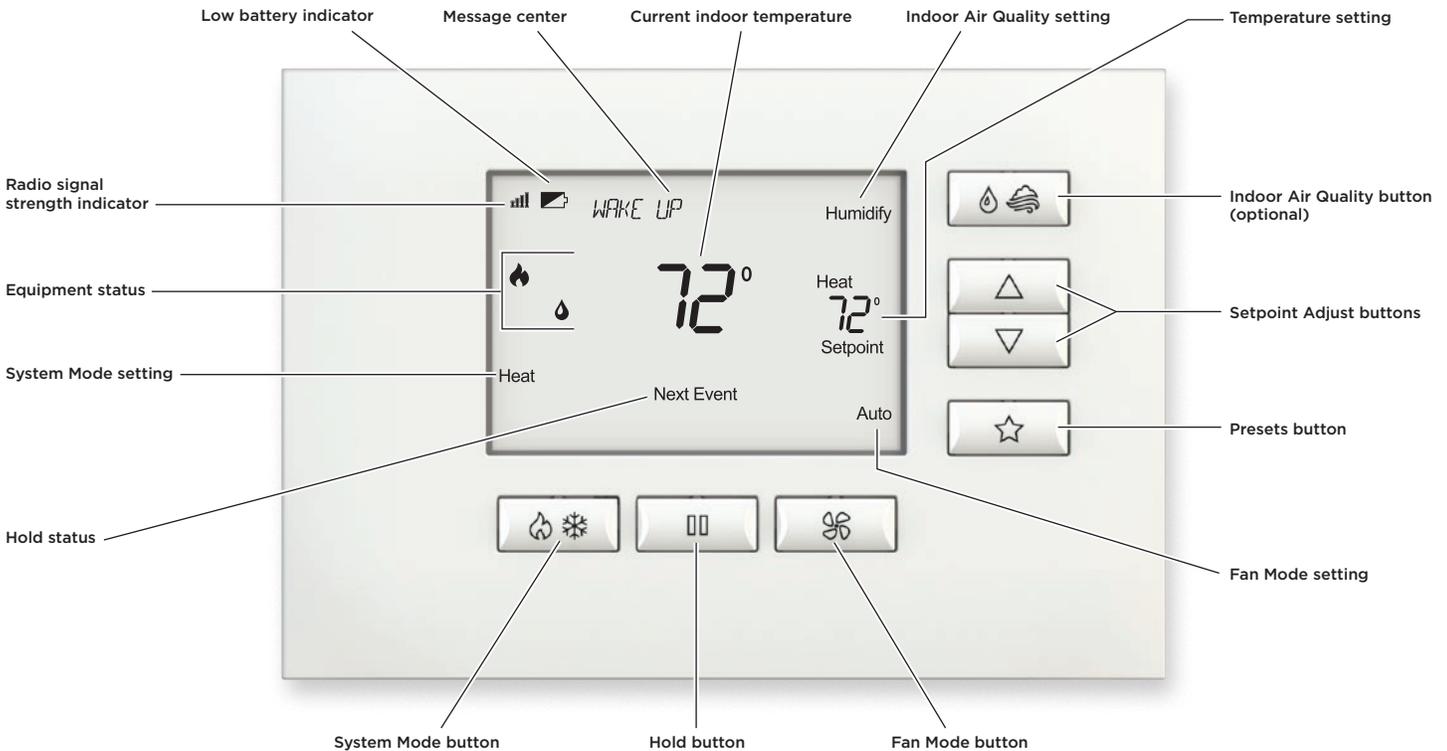
Important: Using this product in a manner other than outlined in this document voids your warranty. Further, Control4 is *not* liable for any damage incurred with the misuse of this product. See the warranty information on the Control4 website at www.control4.com/warranty.

Thermostat features

- Up to 4 stage heat and 2 stage cool operation.
- Indoor air quality control.
 - Humidification (automatic or manual control).
 - Dehumidification.
 - Event-Based™ air cleaning.
 - Ventilation with temperature and humidity limits.
- Temperature control.
- Message center provides feedback and instructions.
- Dual power option (24VAC or battery).
- Programmable fan control with fan circulation mode.
- Easy-to-use temperature control can override program schedule at any time.
- Progressive recovery ensures proper temperature at the start of a program event.
- Built-in compressor protection prevents damage to your equipment.
- System test mode.

Quick reference to controls and display

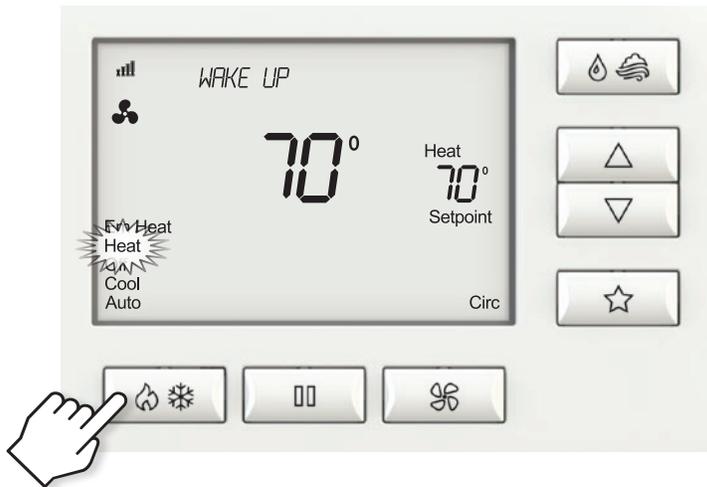
Home screen



Note: Backlight is activated with the first button press and automatically turns off.

Operation

Select system mode
(Em Heat/Heat/Off/Cool/Auto)



Press button to select:

Em Heat: (only for heat pumps with auxiliary heat) Thermostat controls auxiliary heat. Heat pump will not operate in **Em Heat** mode.

Heat: Thermostat controls only the heating system.

Off: Heating and cooling systems are off.

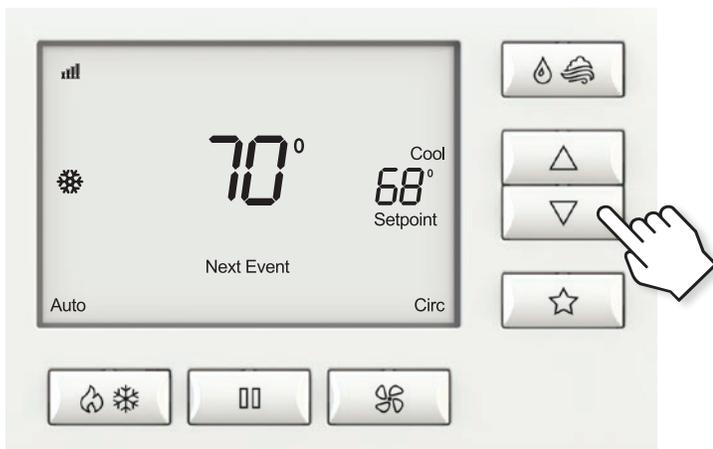
Cool: Thermostat controls only the cooling system.

Auto: (if enabled in installer setup) Thermostat automatically selects heating or cooling depending on the indoor temperature.

The current system mode selection will flash. After 5 seconds without any button presses, the selected system mode will be accepted by the thermostat.

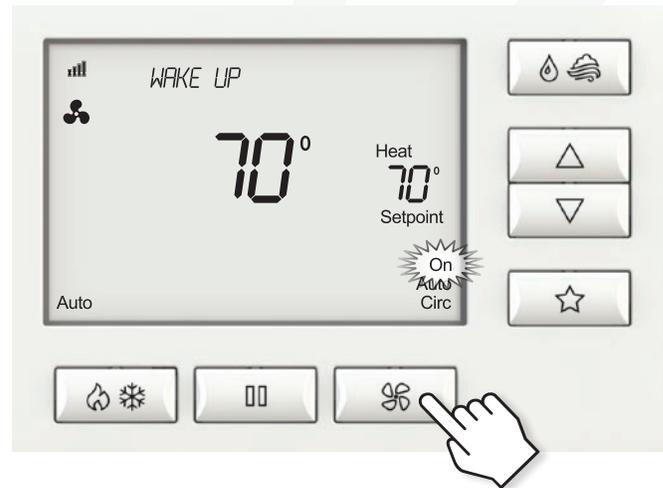
Change temperature setpoint

Press or buttons to adjust the current setpoint. See **Program schedule and holds** on pages 5-6 for more information.



Select fan setting (On/Auto/Circ)

When the fan mode is changed during a program event it remains in that mode until the next event starts. The fan must be programmed to FAN ON in the schedule to run continuously through all events.



Press button to select:

On: Fan runs continuously. Use this mode for maximum air circulation/filtering.

Auto: Fan runs only when the heating or cooling system is on.

Circ: Same as **Auto**, but ensures the fan is on for at least 30 minutes per hour. Use this mode for a balance of energy savings and air circulation/cleaning.

The current fan selection will flash. After 5 seconds without any button presses, the selected fan mode will be accepted by the thermostat.

Maintenance reminders

Maintenance reminders are set up by the installer to indicate when the equipment is due for service. If a maintenance reminder is displayed, call your HVAC dealer for service. Maintenance reminders can be cleared by setting the system mode to off and then holding the button continuously for 5 seconds. When prompted to Service Reminders, press the or button to select **Yes**, then press button (Next). Press or button to select **Yes** for each reminder you would like to reset. Press button (Next) to go to the next reminder or button (Back) to go to a previous reminder. Press button (Done) to reset the selected service reminders.

Maintenance reminders can also be reset from the Control4 system. Refer to the *Control4 End User Climate Control instructions* for specific instructions on how to reset maintenance reminders.

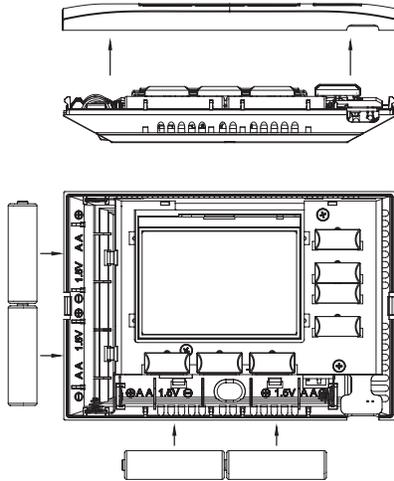
Screen lockout

Certain features of the thermostat can be locked so that changes at the thermostat are not allowed. This feature can be overridden by pressing and holding button for 5 seconds.

Power and battery replacement

This thermostat can be AC powered, battery powered, or both (to provide backup power for communication with the Control4 system). The thermostat uses four alkaline AA batteries.

The thermostat has a memory backup that saves the thermostat settings in case of a power interruption. The system settings will be retained, but the clock resets after both battery and AC power are removed. Clock synchronization comes from the connection to the Control4 system. To access the batteries for replacement, remove the bezel as shown.



Indoor Air Quality functions

Event-Based™ air cleaning

If installed, air cleaning can be controlled through the Control4 system. See the *Control4 End User Climate Control instructions* for specific instructions on this feature. Note that air cleaning cannot be controlled directly from the thermostat itself.

Air cleaning will activate the fan for the purpose of air cleaning and can operate in five different modes as defined on this page.

Off: The air cleaner will not call the fan for the purpose of air cleaning.

 **Note:** If air cleaning is installed, air cleaning will still occur during normal fan operation during heating, cooling or other indoor air quality events.

Constant Clean: This option will provide the maximum amount of air cleaning available. The air cleaner will be active for 24 hours a day, seven days a week.

Automatic: The air cleaner will run a minimum of 30 minutes every hour. The air cleaner will monitor the amount of time your heating and cooling system runs; if 30 minutes is not reached the air cleaner will automatically turn on. This will maximize the amount of air cleaning while minimizing energy consumption.

Event Clean (3 hour cycle): When selected, the air cleaner will run for 3 hours continuously and then return to the most recent mode of **Off**, **Automatic**, or **Constant Clean**. This option only cleans the air when needed; an example would be after vacuuming.

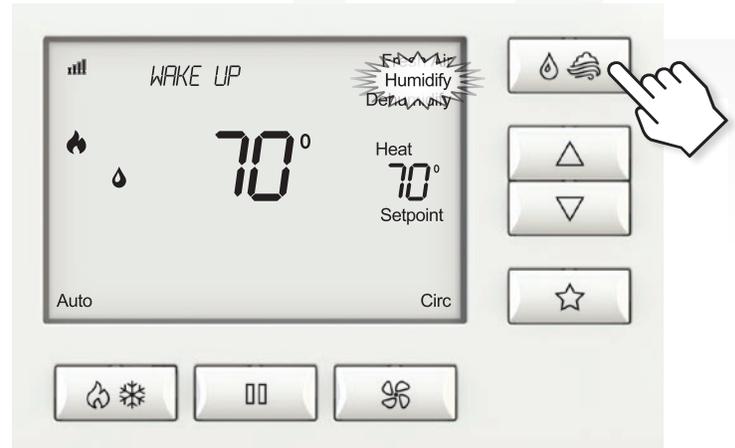
Allergies (24 hour cycle): When seasonal allergies spike and outside air quality is at its worst, choose this option. Your air cleaner will run continuously for 24 hours, then return to the most recent mode of **Off**, **Automatic**, or **Constant Clean**.

 **Note:** The thermostat will manage fan and air cleaning selections when the selections overlap.

Humidifier control

If humidification is installed it can be controlled in two modes, automatic or manual.

Press  button to select **Humidify** and enter the Humidifier Control screen.



Automatic or manual mode is configured by the installer. To determine which mode the thermostat is set to, see the diagrams on pages 3 and 4.

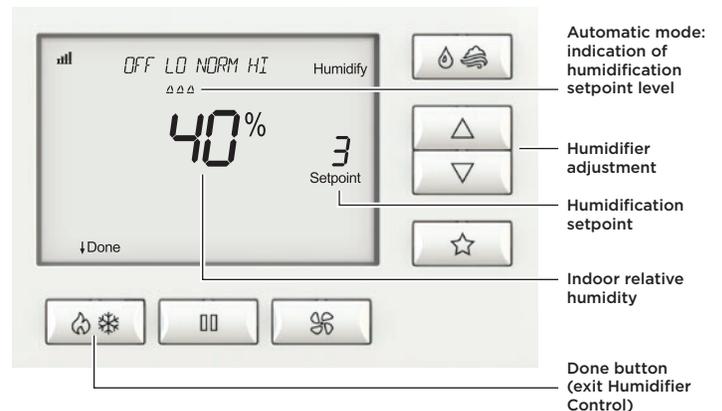
In **automatic mode** you will receive the optimum amount of humidity so that your home and its furnishings are protected from the damaging effects of excess condensation or low humidity during heating season. The thermostat automatically adjusts your home's relative humidity based on the outdoor temperature.

The humidity setting needs to be set initially to meet your home's conditions. Follow these steps when adjusting your thermostat.

- 1 Adjust the humidity setting to "3" which is within normal range. During the next 24-48 hours it may be necessary to adjust the setting for more or less humidity, depending on your personal comfort and home's requirements.
- 2 During the coldest portion of the first heating season, minor adjustments may be necessary. This is dependent upon your home's construction.

The relative humidity in your home will now be accurately controlled to meet your needs and should not need further adjustment during future heating seasons.

Humidifier Control screen for humidification in automatic mode

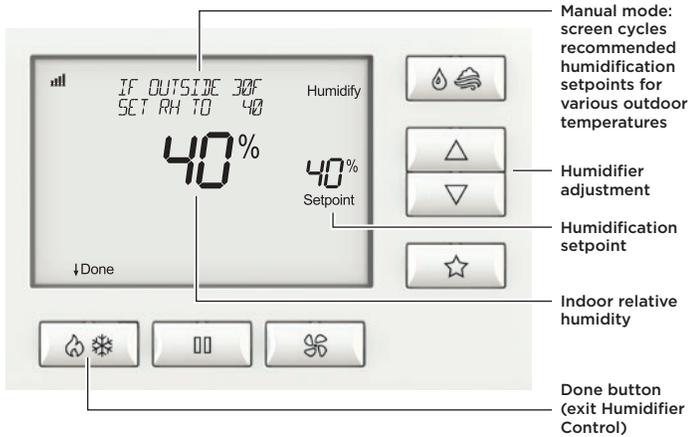


In manual mode it is important to anticipate a drop in outdoor temperature and reduce the setting accordingly to avoid excessive condensation. Use the following table to determine the proper relative humidity setting.

Outdoor temperature/indoor relative humidity

Outside temperature	Recommended relative humidity
+50°F	50%
+40°F	45%
+30°F	40%
+20°F	35%
+10°F	30%
0°F	25%
-10°F	20%
-20°F	15%

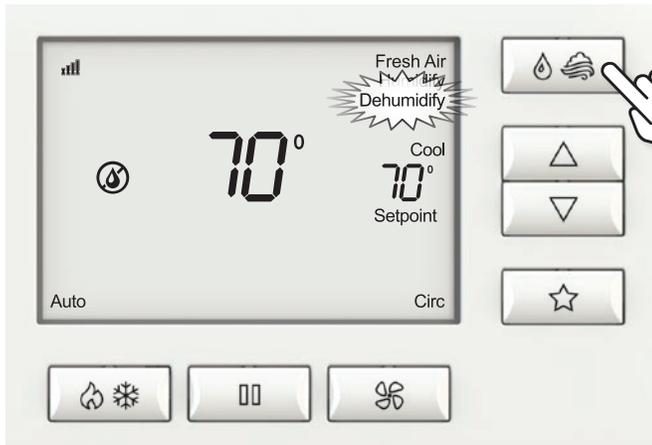
Humidifier Control screen for humidification in manual mode



Dehumidifier control

If dehumidification is installed the thermostat can be configured, through the installer set-up, to control dehumidification with either a whole home dehumidifier or with the air conditioner (cooling unit).

Press button to select **Dehumidify** and enter the Dehumidifier Control screen.



The thermostat will allow you to set the desired humidity (% relative humidity) level in your home and can be used to turn the dehumidification On or Off.

Use the dehumidification adjustment to set the dehumidification setpoint to 60% when first installed. Allow dehumidification to run until the initial setpoint is reached, before deciding if you want to change the humidity setting.

- △ **Raise the setting if you prefer the air to be less dry;** this will reduce the amount of time that dehumidification runs.
- ▽ **Lower the setting if you prefer the air to be more dry;** this will increase the amount of time that dehumidification runs.

Your comfort is the best measure of how to adjust your setting. When first installed, your dehumidifier has to remove all the moisture that is initially in your home. The home acts like a sponge so the moisture in the materials of your home is at the same level as the air. After drying the air, the materials of the home will release the moisture back into the air until they are again at the same level. As a result, it is not uncommon for dehumidification to operate for an extended period of time when it is first installed.

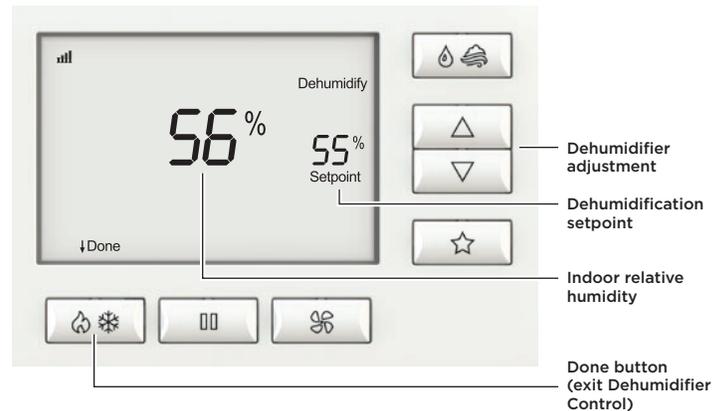
Energy Saving Tip #1:

Adjust the setting to be as high as is comfortable to reduce dehumidification run time - if it feels clammy or smells damp or moldy lower the setting. To save energy, turn the dehumidifier control OFF when you open your windows just as you would with air conditioning.

Energy Saving Tip #2:

If vacating your home for an extended period in the summer, set the relative humidity at 60% and set the cooling setpoint as high as you are comfortable setting it to in cooling mode. Consult with appropriate professionals regarding the highest temperature that is safe for your pets or possessions. This will keep the humidity at a controlled level to help prevent mold while minimizing the amount of the cooling energy used.

Dehumidifier Control screen

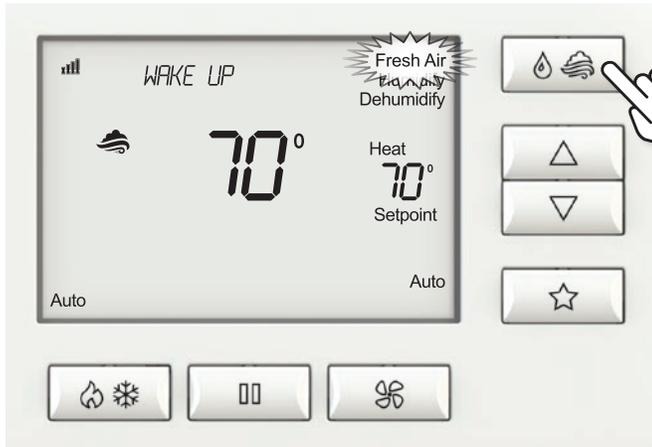


If dehumidification is done with the air conditioner, the thermostat will cool up to 3°F beyond the cooling setpoint for dehumidification. Note overcooling may not be sufficient to meet the dehumidification setpoint.

Fresh Air

If ventilation is installed, Fresh Air can operate in four different modes as defined on this page.

Press  button to select **Fresh Air** and enter the Fresh Air screen.



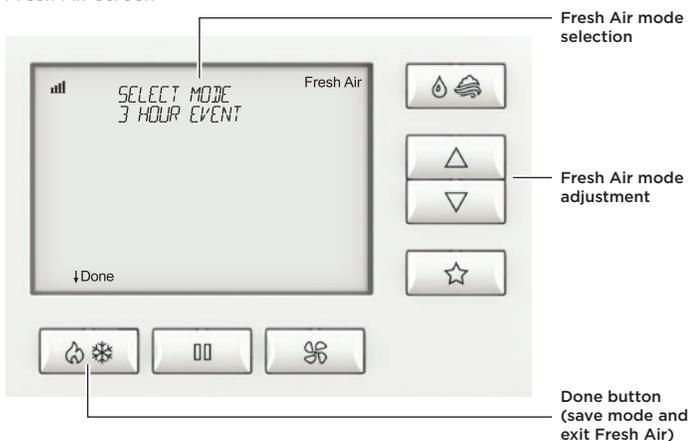
Off: Ventilation will not run.

Automatic: Ventilation will cycle based on the parameters set by the installer to meet your home's ventilation requirements.

3 Hour Event: Ventilation will be constantly energized for 3 hours and then the fresh air mode will return to **Off** or **Automatic** depending on which was mode was most recently active. This option is used when fresh air is needed. An example would be after cooking.

24 Hour Event: Ventilation will be constantly energized for 24 hours and then the fresh air mode will return to **Off** or **Automatic** depending on which was mode was most recently active. This option is used when a large amount of fresh air is desired. An example would be a day with desirable outdoor conditions.

Fresh Air screen



Program schedule and holds

Understanding program schedules

Setting the schedule for the thermostat is done at the Control4 system. Refer to the *Control4 End User Climate Control instructions* for specific instructions for managing the thermostat schedule.

The thermostat is shipped with programming disabled. Schedules and program hold functionality will not be available until programming is enabled by the Control4 system. If programming is disabled, a program disabled message will appear in the message center when the  button is pressed.

Progressive recovery

The Progressive Recovery feature allows the thermostat to activate the heating and cooling equipment **prior** to a scheduled event in order to reach the desired temperature at the start of that scheduled event.

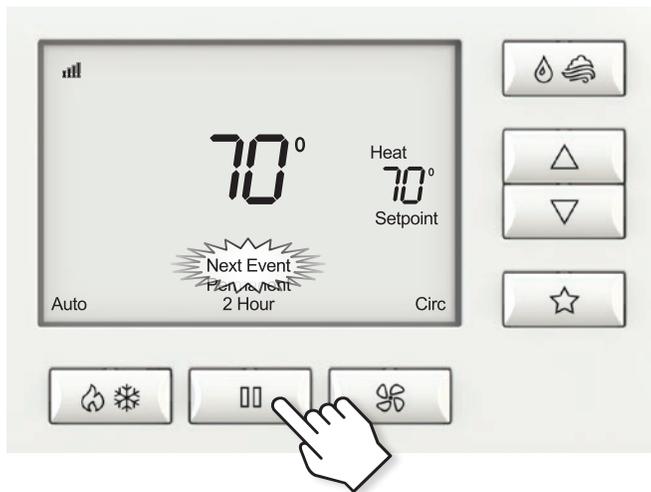
Example: If the Next Event time is 6 a.m., and the temperature is 70°, the heat will come on before 6 a.m., so the temperature is 70° by 6 a.m.

Equipment wait

The thermostat implements equipment protection by enforcing minimum equipment on and off times. If equipment is prevented from coming on due to equipment protection an equipment wait message will appear in the message center and the corresponding equipment status icon will flash.

Program schedule holds

Press **|||** button to initiate a **Next Event**, **Permanent** or **2 Hour** hold. All options will be displayed and the current hold selection will flash.



After 5 seconds without any button presses the selected hold will be accepted by the thermostat. After the option of **2 Hour** if **|||** button is pressed again, no hold options will be displayed. This indicates no hold option is to be selected and can be used to cancel any active holds. Pressing **|||** button again will display all hold options with **Next Event** selected.

While in **Next Event**, **Permanent** or **2 Hour** hold, the temperature setting and fan mode can be adjusted and will stay at that setting until the hold ends or is cancelled.

Next Event hold will override the temperature setting and fan mode for the current schedule event and will remain active until the next schedule event occurs.

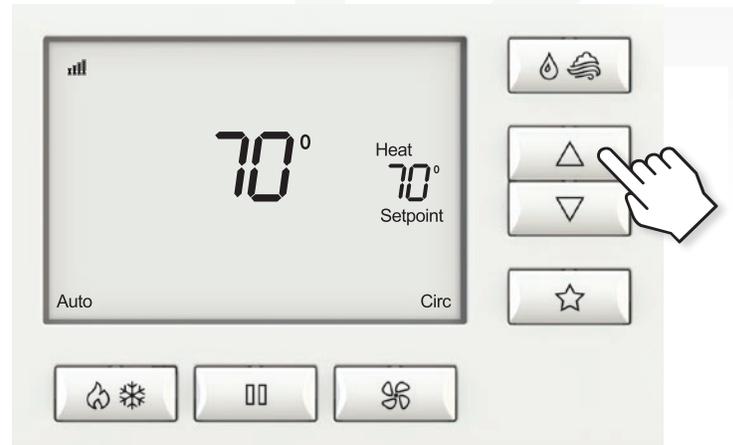
2 Hour hold will override the temperature setting and fan mode for the schedule events and will remain active for two hours from the time the hold is initiated.

Permanent hold will override the temperature settings for all schedule events.

Next Event hold

Press the **△** or **▽** button to immediately adjust the temperature when the schedule is running. This will hold the temperature setting until the next scheduled event.

A **Next Event** hold can also be initiated by pressing **|||** button and selecting **Next Event**.



Timed hold

Timed hold will override the scheduled temperature and fan settings until a specified date and time. **Timed** hold can only be set from the Control4 touchscreen, on-screen, or mobile device interface. It cannot be set from the thermostat. To set a **Timed** hold from the Control4 user interface, navigate to the thermostat control screen, tap the **Hold** button, select "Hold Until...", and then pick a date and time that the **Timed** hold should end.

Presets

The Presets feature makes it easy to switch between frequently used settings. Example presets might include "Home," "Away," or "Vacation." Unlike a traditionally scheduled thermostat in which these settings followed a strict schedule, the Control4 thermostat allows you to quickly change to a different preset at any time. For example, if you come home from work early one day, simply change to the "Home" preset without having to wait for the thermostat's schedule to catch up to yours.

Presets can be created and edited from a Control4 touchscreen, on-screen, or mobile device interface. Previously created presets can be selected from the thermostat by pressing **☆** until the desired preset is displayed in the message center. Presets can also be selected from the thermostat control screen in any Control4 user interface.

Scheduling

All scheduling for this thermostat is managed from the Control4 user interface. It is not possible to adjust schedules from the thermostat itself. Scheduling is made easy by using the Presets feature described above. Creating a scheduled event simply requires picking a time of day and the preset that should be activated at that time. Each day can be scheduled individually and the schedule can be quickly copied from one day to another. There is no limit to the number of scheduled events that can occur per day.



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