

ENERGY
select[®]

Saving money, conserving energy, and helping the environment

Customer Guide

Overview

The state-of-the-art programmable communicating thermostat offers many flexible, user-friendly features, and is designed to meet ENERGY STAR specifications.

The lower portion of the front of the thermostat is a door that you can open to access the buttons to operate and program the thermostat.

Open the thermostat door:

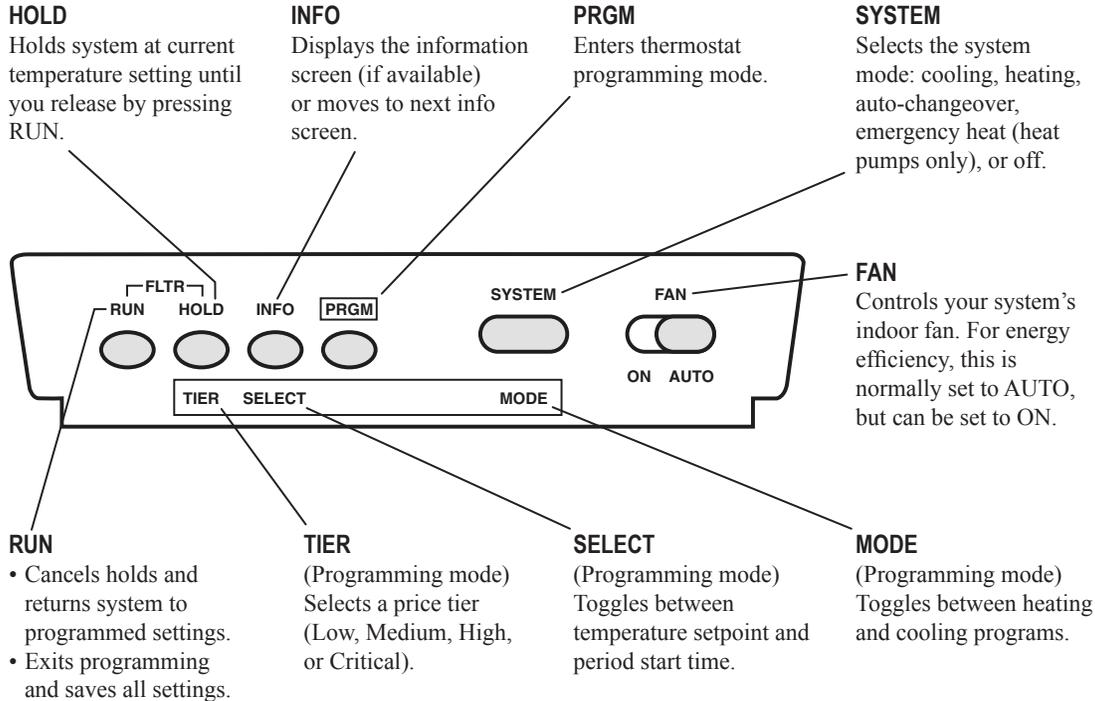
- Gently pull the door down so the buttons are visible, as shown on the right.

Close the thermostat door:

- Push the door up until it snaps into place.



Thermostat Buttons



Programming Functions

The functions that appear below the buttons (TIER, SELECT, MODE) become active when you press PGRM to enter programming mode. Otherwise, these buttons perform their alternate functions, which appear above the buttons.

Thermostat Display

MESSAGE AREA

Indicates the current period of the day. Also displays other messages such as "AUX" if the strip heat of a heat pump system is turned on.

DAY OF THE WEEK

Indicates the current day of the week.

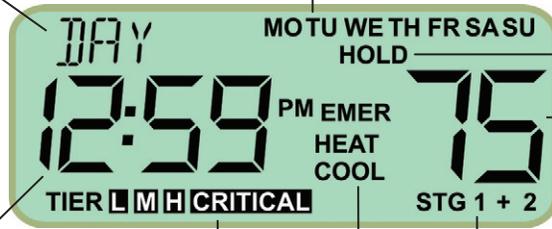
HOLD

- Flashing – Indicates a temporary system temperature hold.
- Solid (not flashing) – Indicates a permanent system temperature hold.



Note:

Sometimes your thermostat display will include additional messages. For details, see "Thermostat Display Messages".



ROOM TEMPERATURE

Displays the current room temperature.

TIME/TEMPERATURE SETPOINT

Displays the current time. Press up arrow, down arrow, or RUN once to display the current temperature setpoint. Displays OFF when the HVAC system is turned off.

TIER BAR

L – Low
M – Medium
H – High
CRITICAL – Critical

SYSTEM INDICATOR

- COOL – Air conditioning is active
- HEAT – Heat is active
- COOL/HEAT – Auto-changeover is active (also displayed when system is off)
- EMER – Emergency heat (heat pump only) is active
- STG 1 – First stage of cool or heat is running
- STG 1+2 – First and second stage of cool or heat (if used) are running

Normal Thermostat Display



The “normal” thermostat display is what displays on your thermostat during normal operation. The following display elements appear in normal display:

- Time period – Top left. DAY in this example.
- Day of the week – Top. MO (for Monday) in this example.
- Current time – Left center. 7:00 AM in this example.
- System mode – Center. COOL in this example.
- Current room temperature – Right. 75 in this example.
- Current tier – Bottom left. M (for Medium) in this example.

Sometimes your thermostat display will include additional messages. For details, see “Thermostat Display Messages”.

Displaying the Current Temperature Setpoint

To display the current temperature setpoint, press  or  once. The setpoint appears in the left center area where the time is normally displayed.



Note:

Pressing the up or down arrow key more than once will change the temperature setpoint temporarily (see “Setting Temporary Holds”).

Selecting Cooling and Heating

Use the **SYSTEM** button to select your thermostat system mode. The possible system modes are:

- Cooling – Displays on the thermostat as COOL.
- Heating – Displays on the thermostat as HEAT.
- Auto-changeover (see below) – Both COOL and HEAT are displayed.
- Emergency heat – Displays EMER (flashing) and HEAT.
- Off – Displays on the thermostat as OFF.

When cooling or heating is called, STG 1 or STG 1+2 will display (depending on how many stages of cooling/heating your system is configured for).

Auto-Changeover Mode

When the thermostat is in auto-changeover mode, it automatically switches between your cooling and heating programmed schedules to maintain your home temperature within your cooling and heating programs. The thermostat will call for cooling and heating as needed, but never both at the same time. Auto-changeover is convenient during the fall and spring when days may be cool in the early morning hours and hot in the afternoons.



Important:

- *In auto-changeover mode, the programmed heat setpoint must be at least 2 degrees lower than the cool setpoint.*
- *Keep the windows in your home closed when auto-changeover mode is in effect to avoid wasting cooling or heating energy.*

Special Modes for Heat Pumps Only

Emergency Heat

EMER HEAT (backup heat) as displayed on the thermostat screen turns off the heat pump compressor and turns on the emergency or backup heating system. Normally, this will be electric strip or resistance heat. Typically, the only reason to use emergency heat is when the heat pump's outdoor compressor unit is not working properly. To activate emergency heat, press **SYSTEM** until EMER HEAT is displayed on the screen. When EMER HEAT is selected, HEAT is displayed and EMER will flash. STG 1 will be displayed if the temperature setpoint is increased 1 degree above room temperature. If the temperature setpoint is increased 3 degrees or more above room temperature STG 1+2 will be displayed.

Auxiliary Heat

A heat pump's auxiliary heat (Aux) is activated either automatically or manually when the heat pump is operating under extreme conditions. If Aux heat is activated, AUX will display in the upper left and +2 will flash in the lower right.

If you want a rapid increase in temperature, you can manually activate the Aux heat by increasing the heating setpoint 3 degrees or more. The Aux heat will activate automatically if the outdoor temperature is very cold (usually below freezing) and the compressor cannot maintain the thermostat's setpoint. Normally, Aux heat will not automatically be operated from a temperature increase coming out of a programmed set-back period (NHT to MOR, or DAY to EVE). Instead, the thermostat will attempt to raise the temperature using the more economical heat pump compressor alone. If the difference between the home temperature and the new setpoint is so large that after a certain time frame the thermostat determines the heat pump compressor cannot raise the temperature within that time frame, Aux heat will activate to assist the heat pump compressor.

Special Modes for Heat Pumps Only

Selecting Cooling or Heating

Follow this procedure to select the system mode.

Quick Guide	Procedure	Display
<p>SYSTEM</p>  <p>Press one or more times to select the desired mode.</p>	<p>Press the SYSTEM button one or more times to select the desired mode.</p> <ul style="list-style-type: none">• When cooling is selected, COOL is displayed.• When heating is selected, HEAT is displayed.• When auto-changeover mode is selected, both COOL and HEAT are displayed.• When emergency heat is selected (heat pumps only), EMER HEAT is displayed (EMER flashes).• When the system is off, OFF displays to the left. <p>When cooling or heating is called (compressor turned on), STG 1 or STG 1+2 will display (depending on how many stages of cooling/heating your system is configured for).</p>	<p><i>Cooling on:</i></p>  <p><i>System off:</i></p> 

Resetting the FLTR Display

If FLTR appears in your thermostat display, this is a reminder that you need to change or clean the filter in your HVAC system. After you change or clean the filter, you can reset the display so FLTR no longer appears.

Note: The FLTR reminder will display again after a preset number of hours of system operation.

	Quick Guide	Procedure	Display
RUN 	Press both buttons at the same time.	Press the RUN and HOLD buttons at the same time. The FLTR display no longer appears on the thermostat.	<i>FLTR indicator displayed:</i> 
HOLD 			

Overview

Conserve Energy While Maximizing Comfort

The thermostat's programming options help you maximize comfort during the times when you are typically at home. You can also conserve energy during the times when you are typically away from home or sleeping by allowing the temperature in your home to increase (summer) or decrease (winter).

Periods of the Day

Your thermostat allows you to program 4 different periods of the day:

- MOR (morning)
- EVE (evening)
- DAY
- NHT (night)

You select the start time and temperature for each period. Press **PRGM** to cycle through the periods.

Day of the Week Groups

You can program days of the week individually or in groups, to create cooling and heating programs that work with your schedule.

- Weekday schedule – Programs 5 weekdays together (displays as MO TU WE TH FR)
- Weekend schedule – Programs Saturday and Sunday together (displays as SA SU)
- Individual day schedule
- Each day or group includes the 4 periods described above

Press **PRGM** to cycle through the days and periods.

Programming Tips

Skipping a Day or Group

If you don't want to program a particular day or group, you can skip it. Press **PRGM** one or more times until you reach the day or group you want to program.

Programming Days in a Group

If you want to program the days in a group basically the same with only slight differences, program the group first, then program individual days as needed. The individual day program overrides the group program for that day.

Switching Between Cooling and Heating

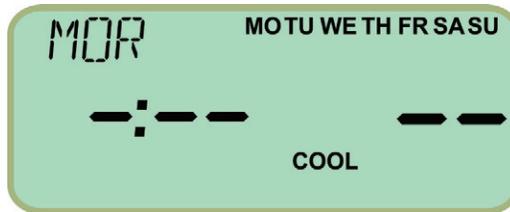
At any point in the programming process, you can switch between cooling and heating programs by pressing **MODE**.

Programming Tips

Display of -- or --:-- when Programming TOD

If the temperature shows "--" while in the programming mode for a group of days, it indicates that at least one of the days in the group has a different temperature program than the other days.

If the time shows "--:--" while in the programming mode for a group, it indicates that at least one of the days in the group has a different period start time than the other days. To find out which one is different, press **PRGM** to cycle through the individual days. You can make the setting the same for all the days within the group by changing the item (setpoint or time).



Programming Cooling and Heating

Quick Guide	Step	Description	Display
<p>PROGRAM Press twice.</p>  <p>MODE Press only if you want to program heating.</p> 	1	<p>Press PRGM twice. The thermostat enters cooling programming mode (COOL displays). If you want to program heating, press MODE (HEAT displays). Programming starts with the weekday schedule. The programmed temperature for the first period (MOR) flashes.</p> <p>Note: If you do not want to program the 5 weekdays together, press PRGM multiple times until you reach the day of the week you want to program.</p>	<p><i>Temperature will flash:</i></p> 
 <p>Press to select desired temperature.</p> 	2	<p>Press the up or down arrow button to change the temperature to the desired setting for the MOR period.</p>	<p><i>Temperature will flash:</i></p> 

Programming Cooling and Heating

	Quick Guide	Step	Description	Display
SELECT   	Press once. Press to select desired start time for MOR period.	3	Press SELECT . The programmed start time for the MOR period flashes. Press the up or down arrow button to select the desired start time for the MOR period. The time changes in 15 minute increments.	<i>Time will flash:</i> 
PROGRAM 	Press once.	4	Press PRGM to move on to the next period (DAY). The start time for the DAY period flashes.	<i>Time will flash:</i> 
SELECT 	Press once.	5	Press SELECT . The programmed temperature for the DAY period flashes.	<i>Temperature will flash:</i> 

Programming Cooling and Heating

Quick Guide	Step	Description	Display
Repeat steps 2 and 3.	6	Repeat steps 2 and 3 to select the temperature and start time for the DAY period.	
PROGRAM 	Press and repeat steps 2 and 3 for EVE and NHT.	7	Press PRGM and repeat steps 2 and 3 for the EVE and NHT periods.
PROGRAM 	Press once.	8	Press PRGM to move on to the weekend schedule.



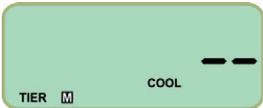
Programming Cooling and Heating

Quick Guide	Step	Description	Display
Repeat steps 2 through 7 for the weekend schedule.	9	If you want to program Saturday and Sunday together, repeat steps 2 through 7 to program the periods of the day for the weekend schedule. Note: If you do not want to program the 2 weekend days together, press PRGM multiple times until you reach the day of the week you want to program.	
PROGRAM 	10	If you want to program any days of the week individually, press PRGM one or more times to select the day you want to program. The individual day schedule overrides the weekday or weekend schedule for the selected day.	
Repeat steps 2 through 7 for the selected day.	11	Repeat steps 2 through 7 to program the periods of the day for the selected day.	

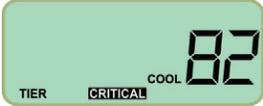
Programming Cooling and Heating

Quick Guide	Step	Description	Display	
Repeat steps 10 and 11.	12	Repeat Steps 10 and 11 for any additional days you want to program individually.		
 TIER	Press to begin configuring tier responses	13	Press the TIER button when the thermostat is in the programming mode to display the Medium tier setpoint.	
 	Press to select the desired temperature	14	Press the up or down arrow to adjust the temperature setting for this tier.	

Programming Cooling and Heating

Quick Guide	Step	Description	Display
<p>SELECT</p>  <p>Press once to ignore this tier.</p>	15	Press the SELECT button to ignore this tier. In this example, the thermostat will follow your time of day schedule when it is in the Medium tier.	
<p>TIER</p>  <p>Press once.</p>	16	Press the TIER button once to select the High tier for adjustment.	
  <p>Press to adjust.</p>	17	Press the up or down arrow to adjust the temperature setting for the High tier.	

Programming Cooling and Heating

Quick Guide	Step	Description	Display
 TIER	18	Press the TIER button once to select the Critical tier for adjustment.	
 	19	Press the up or down arrow to adjust the temperature setting for the Critical tier.	
SYSTEM 	20	Press the SYSTEM button once to begin programming the tier responses for heat.	

Programming Cooling and Heating

Quick Guide	Step	Description	Display
 TIER  	21	Press the TIER button and up and down arrows. Repeat steps 14 through 21 to configure the heat mode tier settings.	
	22	Press the RUN button once to save and exit programming. Your thermostat is now ready to provide maximum comfort and efficiency.	

Setting Holds

You can override your cooling or heating program by setting a temporary or permanent hold. To clear holds, see “Clearing Holds”.

Temporary Holds

A temporary hold is when you override a programmed setting to be in effect until the next programmed time period begins (Morning, Day, Evening, or Night). You do not have to manually clear a temporary hold. When your next programmed time period begins or a price tier changes, the temporary hold ends and the setting for the next time period is in effect. If desired, however, you can manually clear the hold at any time by pressing the **RUN** button.

Permanent Holds

A permanent hold is when you override a programmed setting for an indefinite period of time. A permanent hold lasts until you manually clear it. The thermostat display indicates a permanent hold by displaying the HOLD icon below the Day of the Week bar.



Tip:

Use a permanent hold when you go on vacation or have guests in your home and want to override your programmed settings for an extended period of time. Don't forget to clear it when you come back home or your guests leave.

Setting Temporary Holds

Quick Guide



Press to change the setpoint to the desired temperature.

Description

Be sure your screen shows the normal display. Press the up or down arrow to change the temperature setpoint higher or lower.

The first time you press an arrow button, the current temperature setpoint will display. Press the up or down arrow again to select the desired temperature. The HOLD icon flashes, indicating a temporary hold.

The system will return to its normal, pre-programmed schedule at the beginning of the next period of the day.

Display

HOLD flashes:



Tip: To clear a temporary or permanent hold at any time, press the **RUN** button.

Setting Permanent Holds

Quick Guide	Step	Description	Display
	1	Be sure your screen shows the normal display. Press the arrow buttons to change the temperature setpoint higher or lower. The HOLD icon flashes, indicating a temporary hold.	<p><i>HOLD flashes:</i></p> 
HOLD 	2	Press the HOLD button. The HOLD icon stops flashing, indicating that you have placed the system on permanent hold.	<p><i>HOLD stops flashing:</i></p> 

Clearing Holds

Quick Guide		Description	Display
RUN 	Press once in normal display.	Make sure your display shows the normal display. Press the RUN button. The HOLD icon disappears, indicating that you have cleared the hold. This action clears temporary and permanent holds on cooling and heating.	<i>HOLD flashes:</i> 

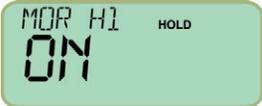


Tip: You do not have to manually clear temporary holds. When your next programmed time period begins, the temporary hold ends and the setting for the next time period is in effect.

Setting Temporary Hold ON for Your Water Heaters, Pool Pumps, and Appliances

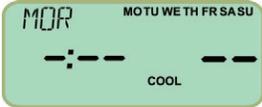
Quick Guide	Step	Description	Display
INFO 	1	Press INFO to access the appliance display which displays your appliance(s), pool pump(s), and water heater(s).	<i>Appliance 1 is displayed:</i> 
SYSTEM 	2	Press SYSTEM one or more times until the desired appliance (Ax – appliance, Hx – water heater, Px – pool pump [where “x” is 1 to 8]) is displayed. Pressing SYSTEM cycles through the appliances one at a time, displaying current settings. When the last appliance is shown, pressing SYSTEM returns you to the normal display. Note: After returning to the normal display, additional presses of SYSTEM will cycle your heating and cooling system through each mode (HEAT, COOL, HEAT COOL, EMER HEAT).	<i>Water Heater 1 is OFF:</i> 

Setting Temporary Hold ON for Your Water Heaters, Pool Pumps, and Appliances

Quick Guide	Step	Description	Display
	3	<p>Press the up arrow key to set a Temporary Hold ON for the displayed appliance. The display will change from OFF to ON.</p> <p>The HOLD icon will begin to flash, indicating that you have placed a Temporary Hold ON for the displayed appliance. Appliances will return to their normal programmed settings at the beginning of the next tier change or time period.</p>	<p><i>Hold will flash, indicating a temporary hold:</i></p> 
RUN	4	<p>To clear the Temporary Hold ON, while the correct appliance is displayed, press the RUN button. The display will change from ON to OFF and the HOLD icon will no longer be displayed.</p>	<p><i>Water Heater 1 is off:</i></p> 
		<p>Note: If the appliance is programmed to be on, ON and a padlock icon will be displayed on the thermostat display. The padlock icon indicates that Temporary Hold ON is not available because the appliance is already programmed ON.</p>	<p><i>Padlock icon is displayed:</i></p> 

Thermostat Display Messages

This section describes the messages that you may see displayed on your thermostat. They are listed in alphabetical order.

Display	Description	Example
-- or --:--	<p>In programming mode, "--" indicates the temperature setpoint is different among the days within the group that's being programmed. Similarly, "--:--" indicates the start time is different among the days within the group of days that you are programming.</p> <p>To find out which day within the day group is different, select the individual days by pressing the PRGM button until day of the week is flashing and then press  or  until the desired day is flashing.</p>	
AUX	Indicates that the supplemental heat strip is turned on.	

Thermostat Display Messages

Display	Description	Example
EMER HEAT	<p>EMER HEAT (backup heat) as displayed on the thermostat screen turns off the heat pump compressor and turns on the emergency or backup heating system. Normally, this will be electric strip or resistance heat.</p>	<p><i>EMER will flash:</i></p>  <p>The thermostat display shows the time 7:00, the day MOR, and the temperature 65. The words EMER HEAT are displayed in the center, and FR is in the top right corner.</p>
FLTR	<p>This is a reminder that you need to change or clean the filter in your HVAC system.</p> <p>After you change or clean the filter, you can reset the display so FLTR no longer appears by pressing the RUN and HOLD buttons at the same time.</p> <p>Note: The FLTR reminder will display again after a preset number of hours of system operation.</p>	 <p>The thermostat display shows the time 6:20 PM, the day MOR, and the temperature 70. The words FLTR are displayed in the top right, and COOL and STG 1 are at the bottom.</p>

Thermostat Display Messages

Display	Description	Example
HOLD (flashing)	Indicates a temporary hold on cooling or heating.	<p><i>HOLD will flash:</i></p> 
HOLD (not flashing)	Indicates a permanent hold on cooling or heating.	<p><i>HOLD displays (not flashing):</i></p> 
MOR, DAY, EVE, or NHT (Time period)	The time period appears on the normal display only when the Base temperature setpoint is in effect. If the Medium, High, or Critical tier is in effect and if you have specified a different temperature setpoint from the Base temperature setpoint for that tier, the time period does not display.	<p><i>Time period displayed:</i></p>  <p><i>Time period not displayed:</i></p> 

Thermostat Display Messages

Display	Description	Example
STG 1 or STG 1 + 2	<p>Cooling If you have a two-stage air conditioner or heat pump, and if the temperature setpoint is decreased 3 degrees or more below room temperature or if high speed is required, STG 1+2 will be displayed; otherwise STG 1 will be displayed.</p> <p>Heating When heating with a furnace, electric heat, or single-stage heat pump, STG 1 will be displayed if the temperature is increased 1 degree above room temperature or the unit operates normally because of a room temperature decrease.</p> <p>When heating with a two-stage heat pump or furnace, and high speed is required, STG 1+2 will be displayed on the screen.</p> <p>In a heat pump system, if the auxiliary heat is needed or if the temperature setpoint is increased 3 degrees or more above room temperature, Aux will be displayed, STG 1+2 will be displayed, and +2 will be flashing.</p>	 A digital thermostat display with a light green background. The display shows 'AUX' in the top left, 'FR' in the top right, '6:20 PM HEAT' in the center, '75' in the center right, and 'STG 1 + 2' in the bottom right.