



An Exelon Company



# PECO Smart A/C Saver Commercial Thermostat Guide

Installed by: \_\_\_\_\_

Number of Thermostats: \_\_\_\_\_

Date: \_\_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Call **1-888-5-PECO-SAVE** (1-888-573-2672) or visit us online at [www.peco.com/SmartIdeas](http://www.peco.com/SmartIdeas).

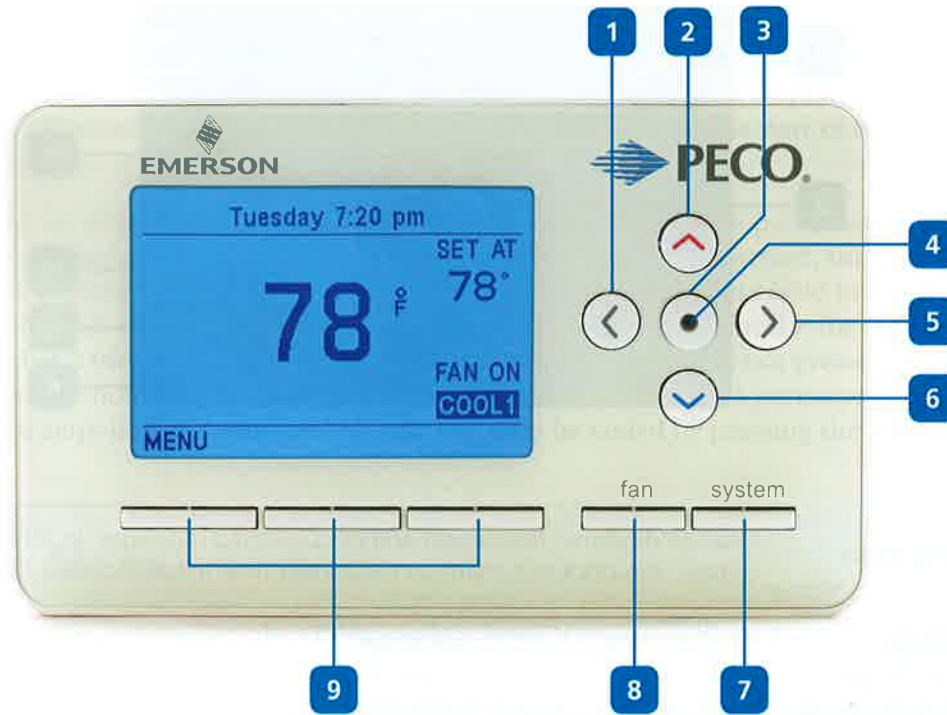


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# STEP 1: GETTING STARTED GUIDE

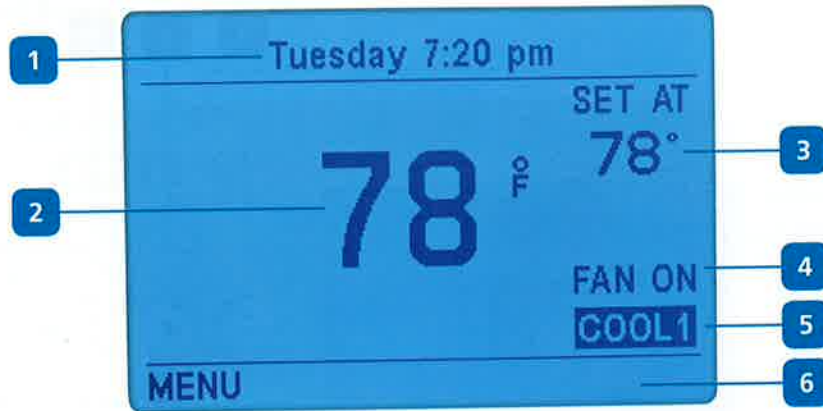
## A. The Thermostat Buttons and Indicators



1	<b>Left Arrow</b>	Navigates menu items
2	<b>Up Arrow</b>	Raises temperature setpoint/changes selected item
3	<b>Action Button</b>	Selects action of selected menu item
4	<b>LED</b>	Indicates occurrence of curtailment event
5	<b>Right Arrow</b>	Navigates menu items
6	<b>Down Arrow</b>	Lowers temperature setpoint/changes selected item
7	<b>SYSTEM Button</b>	Changes system selection (OFF, COOL, HEAT, AUX [displayed on heat pump units only])
8	<b>FAN Button</b>	Change fan setting (Auto/On)
9	<b>Soft Keys</b>	Perform action listed on display above the button

# STEP 1: GETTING STARTED GUIDE



## B. The Thermostat Display



<b>1</b>	<b>Messaging Area</b>	Displays day/time, thermostat and PECO-related messages. In the event of a power outage, the clock will maintain the correct time for 48 hours.
<b>2</b>	<b>Temperature</b>	Displays current room temperature
<b>3</b>	<b>Setpoint Temperature</b>	Displays current desired temperature <ul style="list-style-type: none"><li>• Blank when system is in <b>OFF</b> mode</li><li>• SET AT changes to HOLD AT when in temporary or permanent hold</li></ul>
<b>4</b>	<b>FAN Status</b>	Blank when in auto mode—displays <b>"FAN ON"</b> when fan is on continuously
<b>5</b>	<b>System Status</b>	Displays current operation mode according to system configuration <ul style="list-style-type: none"><li>• <b>OFF</b> – system is OFF</li><li>• <b>COOL</b> – system is in COOL mode but no call for cool</li><li>• <b>COOL1</b> – call for first stage of cool</li><li>• <b>COOL2</b> – call for second stage of cool (multistage units only)</li><li>• <b>AUX</b> – system is in AUX heat mode but no call for heat (HP only)</li><li>• <b>AUX1</b> – call for first stage of Auxiliary heat (HP only)</li><li>• <b>AUX2</b> – call for second stage of Auxiliary heat (multistage HP only)</li><li>• <b>HEAT</b> – system is in HEAT mode but no call for heat</li><li>• <b>HEAT1</b> – call for first stage of heat</li><li>• <b>HEAT2</b> – call for second stage of heat (multistage units only)</li><li>• <b>HEAT3</b> – call for first stage of auxiliary heat (HP only)</li><li>• <b>HEAT4</b> – call for second stage of auxiliary heat (multistage HP only)</li></ul>
<b>6</b>	<b>Soft Keys</b>	Actions to be performed when corresponding button is pressed

## STEP 1: GETTING STARTED GUIDE




### C. Temporary versus Permanent Hold

A temporary hold can be set when operating in any mode except for **OFF**. A temporary hold is set by pressing the  or  on the thermostat to adjust the desired temperature. The SET AT indication of the temperature setpoint will change to HOLD AT and a message will be cycled in the thermostat messaging display area to confirm that a temporary hold is set. A temporary hold setpoint will then be maintained until the start of the next programmed time period or the RUN softkey is pressed.

A permanent hold can be set when operating in any mode except for **OFF**. To set a permanent hold, change the temperature just like setting a temporary hold. When the desired setpoint is entered, the user will have approximately 4 seconds to press the PERM HOLD softkey to convert the temporary hold into a permanent hold. The SET AT by the setpoint will change to HOLD AT and a message will be cycled in the thermostat messaging display area to confirm that a permanent hold is set. If the PERM HOLD softkey is not pressed within 4 seconds, the hold will remain a temporary hold and the softkey will change to a RUN softkey. A permanent hold setpoint will override the programmed setpoints and time periods and can only be ended by pressing the RUN softkey.


## STEP 2: MAIN MENU

The programming menu table summarizes the configuration items that the facility owner has access to set. For more details on each programming menu option, see “Description of Menu Options” on page 8. To enter the Programming menu:















1. Ensure the thermostat is at the idle screen (display with the room temperature displaying).
2. Press the MENU soft key. The display will show the first level of the Programming Menu.
3. While in the Programming Menu:
  - The  and  scrolls the cursor up and down, respectively
  - The softkey labeled HOME exits the programming menu back to the IDLE screen (**Note:** when the HOME softkey is pressed, any changes made on the current menu item are not saved)
  - The  button selects the highlighted menu item
  - The BACK softkey goes back one menu level
  - When changes are made to a menu item, the BACK softkey changes to SAVE, then when pressed saves the changes and goes back one menu level
4. To exit the menu and return to the program operation, press HOME (when available).

If no keys are pressed within two minutes, the thermostat will revert to normal operation.

## STEP 2: MAIN MENU

Menu Name	Submenu	Press  or  to Select Other Options (Defaults in BOLD)	Comments
<b>Programming</b>			
Heat Programming	Mon–Fri	Defaults settings:	Use the   to scroll through items to change
	Sat–Sun	<b>Morning</b> <b>6:00 am</b> <b>70°</b>	Use   to increment/decrement values
		<b>Day</b> <b>8:00 am</b> <b>62°</b>	
7 Days	<b>Evening</b> <b>5:00 pm</b> <b>70°</b> <b>Night</b> <b>10:00 pm</b> <b>62°</b>	When complete, press SAVE to save settings or <b>GO TO COOL</b> to program cool settings	
Cool Programming	Mon–Fri	Defaults settings:	Use the   to scroll through items to change
	Sat–Sun	<b>Morning</b> <b>6:00 am</b> <b>78°</b>	Use   to increment/decrement values
		<b>Day</b> <b>8:00 am</b> <b>85°</b>	
7 Days	<b>Evening</b> <b>5:00 pm</b> <b>78°</b> <b>Night</b> <b>10:00 pm</b> <b>82°</b>	When complete, press SAVE to save settings or <b>GO TO HEAT</b> to program heat settings	

## STEP 3: OTHER SETTINGS MENU

Menu Name	Submenu	Press  or  to Select Other Options (Defaults in <b>BOLD</b> )	Comments
Backlight: (Auto/On)		<b>Auto</b> On	Use   to change values When complete press SAVE
Temperature Limits		Min Cool Set Point: <b>45°F</b>  Max Heat Set Point: <b>99°F</b>	Use the   to select setpoint to change  Use   to increment/ decrement value  When complete, press SAVE to save settings or HOME to exit without saving
Adjust Temp Display		Current Room Temp (measured temp) Desired Offset <b>0°</b>	Use   to increment/ decrement value  When complete, press SAVE to save settings or HOME to exit without saving
Time Based Programming			Not Currently Used
Energy Management Recovery		<b>Off</b> On	Use   to change selection  When complete, press SAVE to save settings or HOME to exit without saving
°F/°C		<b>°F</b> °C	Use   to change selection  When complete, press SAVE to save settings or HOME to exit without saving



# DESCRIPTION OF MENU OPTIONS

The following are detailed descriptions of your PECO Smart A/C Saver thermostat configuration menu options.

## 1. Programming – Heat/Cool Programming

The PECO Smart A/C Saver thermostat can be programmed as a 7-day or 5-2 day thermostat. Using a 7-day programming profile, you can program each day of the week with its own individual setpoint profile. With a 5-2 day programming profile, Monday–Friday each has the same setpoint profile while Saturday–Sunday can be programmed with its own setpoint profile.

## 2. Other Settings – Backlight

This menu item controls the display backlight. You can choose either:

- **AUTO** – (Default) Backlight comes on when you press any key. Backlight goes off after a short delay when there is no button pressed
- **ON** – Backlight is always On.

## 3. Other Settings – Temperature Limits

Temperature limits can be used to set limits on how high your heating temperature can be set and how low your cooling temperature can be set. The range for both values is from 45°F to 99°F.

- **Cool Setpoint** – 45°F (default)
- **Heat Setpoint** – 99°F (default)

## 4. Other Settings – Adjust Temp Display

This allows you to adjust the displayed temperature up to 5° higher or lower than the actual room temperature.

Your thermostat was accurately calibrated at the factory, but you have the option to change the display temperature to match your previous thermostat. The current or adjusted room temperature will be displayed on the left side of the display while your desired offset will be displayed on the right side of the display.

Options for this menu item include:

- **+1° through +5°** – Adjusts the displayed temperature the specified number of degrees higher than the measured room temperature.
- **0** – (Default) Displays the measured room temperature.
- **-1° through -5°** – Adjusts the displayed temperature the specified number of degrees lower than the measured room temperature.

## 5. Other Settings – Energy Management Recovery

Options for this menu item include:

- **OFF** – (Default) The system starts heating or cooling at the start time for the program period.
- **ON** – The system starts heating or cooling before the start time for the program period so that the room temperature reaches the program setpoint at the period start time.

**Example:** You select EMR ON and have your heat (conventional heating system) programmed to 65° at night and 70° at 7:00 AM (a difference of 5°). Allowing 7 minutes per degree, the thermostat will start calling for heat prior to the 7:00 AM period start time in an attempt to reach the 70° setpoint by 7:00 AM. With EMR OFF, the thermostat will wait until the 7:00 AM period start time to begin heating the facility.



# DESCRIPTION OF MENU OPTIONS

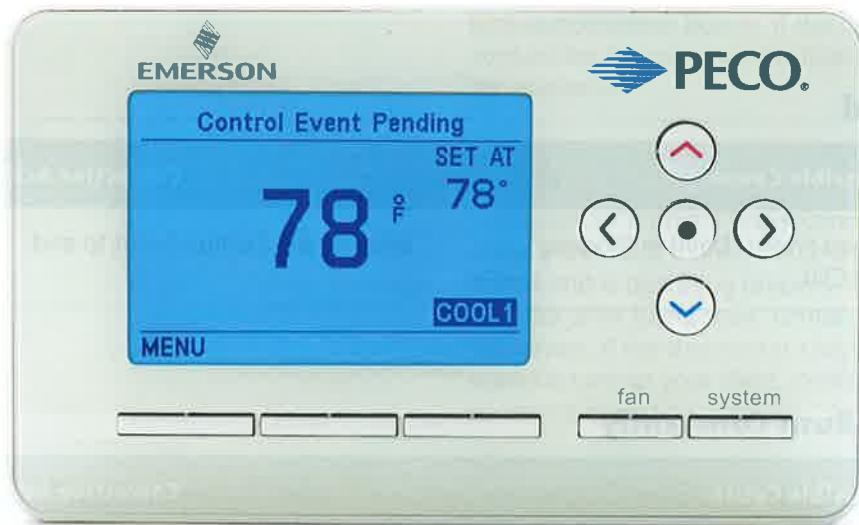
## 6. Other Settings – °F/°C

You can display temperature in either:

- °F – (Default) Fahrenheit
- °C – Celsius (Centigrade)

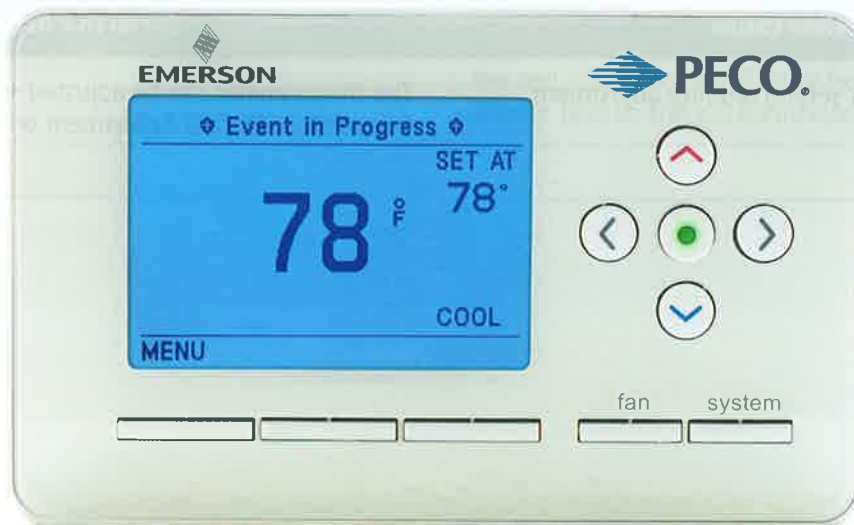
## 7. Other Settings – “Control Event Pending”

The phrase “Control Event Pending” will appear in the message rotation at the top of the display screen prior to the onset of a PECO Smart A/C Saver conservation event. The LED at the center of the control arrows will flash until the event begins.



## 8. Other Settings – “Event in Progress”

At the onset of a PECO Smart A/C Saver conservation event, the phrase **Event in Progress** will be displayed in the message rotation at the top of the display screen. The LED at the center of the control arrows will maintain a steady light for the duration of the event.



# TROUBLESHOOTING ASSISTANCE GUIDE

## No Heat/No Cool/No Fan (Common Problems)

Possible Cause	Corrective Action
Blown fuse or tripped circuit breaker.	Replace fuse or reset breaker.
Furnace power switch set to <b>OFF</b> .	Turn switch to <b>ON</b> .
Furnace blower compartment door or panel is loose or not properly installed.	Replace door panel in proper position to engage safety interlock or door switch.

## No Heat or No Cool

Possible Cause	Corrective Action
Thermostat may be in Load Shed (“Event in Progress” displayed on top line of LCD).	Wait for the Control Event to end.

## Heat, Cool, or Fan Runs Constantly



Possible Cause	Corrective Action
Fan set to <b>ON</b> .	Change Fan to <b>AUTO</b> .

## Thermostat Setting and Thermometer Disagree

Possible Cause	Corrective Action
Thermostat thermometer setting requires adjustment.	The thermometer can be adjusted +/- 5 degrees. See Temperature Display Adjustment on page 8.

# TROUBLESHOOTING ASSISTANCE GUIDE

## No Heat



Possible Cause	Corrective Action
Pilot light not lit.	Re-light pilot.
System switch not set to HEAT.	Press SYSTEM button one or more times to select <b>HEAT</b> and press  to raise the temperature setpoint above room temperature.
Furnace Lock-Out Condition. Heat may also be intermittent.	Many furnaces have safety devices that shut down when a lock-out condition occurs. If the heat works intermittently, contact the furnace manufacturer or your HVAC contractor for assistance.
Heating system requires service or thermostat requires replacement.	<b>Diagnostic:</b> Press SYSTEM button to select <b>HEAT</b> and press  to raise the temperature setpoint above room temperature. Within a few seconds the thermostat should make a soft click sound. This sound usually indicates the thermostat is operating properly. If the thermostat does not click after being reset, contact PECO Smart A/C Saver for service. If the thermostat clicks, contact the furnace manufacturer or your HVAC contractor to verify the heating is operating correctly.

## Furnace (Air Conditioner) Cycles Too Fast or Too Slow (Narrow or Wide Temperature Swing)

Possible Cause	Corrective Action
The location of the thermostat and/or the size of the heating system may be influencing the cycle rate.	Electronic thermostats normally provide precise temperature control and may cycle faster than some older mechanical models. A faster cycle rate means the unit turns on and off more frequently, but runs for a shorter time so there is no increase in energy use.

# TROUBLESHOOTING ASSISTANCE GUIDE

## No Cool

Possible Cause	Corrective Action
System switch not set to COOL.	Press SYSTEM button to select <b>COOL</b> and press  to lower the temperature setpoint below room temperature.
Loose connection to thermostat or system.	Contact PECO Smart A/C Saver
Outdoor unit disconnect or breaker tripped.	Verify the outdoor unit disconnect or breaker has not been tripped.
Cooling system requires service or thermostat requires replacement.	<b>Diagnostic:</b> Press SYSTEM button to select <b>COOL</b> and press  to lower the temperature setpoint below room temperature. Within a few seconds the thermostat should make a soft click sound. This sound usually indicates the thermostat is operating properly. If the thermostat does not click after being reset, contact us for a replacement.

## Second, Third, and/or Fourth Stage Won't Come On

Possible Cause	Corrective Action
Your thermostat is designed to determine the optimum time to activate the second stage. Simply raising the temperature in heating or lowering it in cooling will not always force the thermostat to bring the second stage on quickly. There is a time delay from 0–30 minutes depending on the performance of the first stage of the system.	Wait for the second, third, and/or fourth stage to come on.