

Honeywell



OWNER'S GUIDE



As an ENERGY STARSM partner, Honeywell has determined that this product meets the ENERGY STARSM guidelines for energy efficiency.



69-0891-2

Congratulations! You made a smart choice when you purchased your Perfect Climate Comfort Center™ Control System!

The Perfect Climate Comfort Center™ Control System is more than just a thermostat. It keeps you comfortable by:

- Controlling temperature.
- Controlling humidity.
- Controlling indoor air quality.

From your Perfect Climate Comfort Center™ Control System you can:

- Program the fan.
- Program the ventilation.
- Select separate setting for frost control.
- Saving energy by automatically setting back the heating or air conditioning while you sleep or when you are away from home.

A few words about the ENERGY STARSM logo on your programmable thermostat...

The ENERGY STARSM logo on your thermostat means that it is designed to save you money by reducing your energy bills while improving your comfort. The logo ensures that this thermostat meets the highest efficiency standards: accuracy maintained within 2°F of the temperature that you set; a recovery system that ensures desired temperatures at the time you choose; separate weekday and weekend schedules, and a hold feature so that you can easily override settings temporarily. The logo also means that this thermostat is easy to use and comes with the highest level of customer support available.

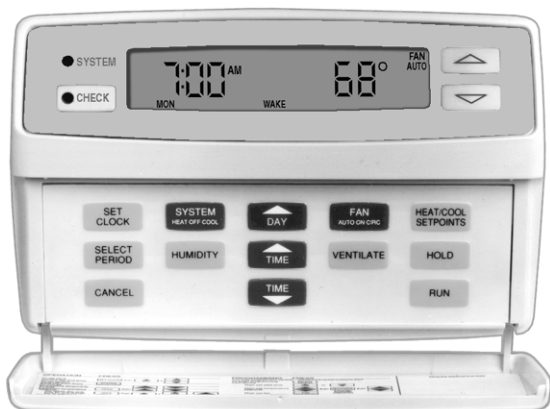
The ENERGY STARSM logo makes it easy for you to identify products that are the most efficient for your home and the environment. Products that reduce power consumption reduce pollution, and earn the ENERGY STARSM designation from the U.S. Environmental Protection Agency (EPA).

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FEATURES

- Program up to four different time periods in each daily schedule.
- Set different schedules for each day of the week.
- Monitor system operation; review current system settings at a glance.
- System light indicates when heating or cooling equipment is operating.
- Backlit for easy readability of display at all times.
- Temporarily set the temperature warmer or cooler.
- Select system and fan operation with separate keys.
- Program ventilation.
- Select humidity setting.
- CHECK light glows as a prompt to press CHECK key and examine messages in CHECK LIST.
- Vacation HOLD feature allows energy savings for one to seven days.
- Indefinite HOLD allows longer than seven days.



PROGRAMMING YOUR PC8900

First, you need to set the current day and time, as directed in Step 1, Setting the Current Day and Time. Setting the day and time activates the preprogram in your new Perfect Climate Comfort Center™ Control System.

Period	Start Time	Heating Temp	Cooling Temp	Fan Setting	Vent Setting
WAKE	(6:00 AM)	(70°F)	(78°F)	(AUTO)	(OFF)
LEAVE	8:00 AM	62°F	85°F	AUTO	OFF
RETURN	6:00 PM	70°F	78°F	AUTO	OFF
SLEEP	(10:00 PM)	(62°F)	(82°F)	(AUTO)	(OFF)

1. Setting the Current Day and Time

You can program the Perfect Climate Comfort Center™ Control System only when it is installed on the wall and power is connected.

- NOTE:
- Always press the keys with your fingertip or similar blunt tool. Sharp instruments like a pen or pencil point can damage the keyboard.
 - Check the Glossary section for definitions of unfamiliar words.

- a. Press **SET CLOCK**. The display shows a time and day.



- b. Press and hold **DAY** until the current day appears in the display.



- c. Press and hold a **TIME** key until the current time appears in the display. Be sure AM or PM appears as desired.



- d. Press **RUN** to exit the SET CLOCK program mode.



You have programmed the current day and time. The preprogrammed schedule is now activated. You can change the preprogrammed schedule or clear the preprogrammed schedule and start again. Or you can use the preprogrammed schedule as is. To change the preprogram or create a new program, follow the steps in the Setting Your Customized Program section. The Operating Your PC8900 section shows you how to make any temporary changes you might want.

Setting Your Customized Program

Planning your program...

You can use the following tables to plan your schedule before you begin programming. If you choose to change the default settings, refer to Clearing Current Program section.

The humidity setting is the same for all days and periods. When an outdoor sensor is part of the system, enter a frost setting that is also the same for all days and periods. See Default Settings.

Period	Start Time	Heating Temp	Cooling Temp	Fan Setting	Vent Setting
---------------	-------------------	---------------------	---------------------	--------------------	---------------------

Monday

WAKE					
LEAVE					
RETURN					
SLEEP					

Tuesday

WAKE					
LEAVE					
RETURN					
SLEEP					

Wednesday

WAKE					
LEAVE					
RETURN					
SLEEP					

Thursday

WAKE					
LEAVE					
RETURN					
SLEEP					

Period	Start Time	Heating Temp	Cooling Temp	Fan Setting	Vent Setting
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Friday

WAKE					
LEAVE					
RETURN					
SLEEP					

Saturday

WAKE					
LEAVE					
RETURN					
SLEEP					

Sunday

WAKE					
LEAVE					
RETURN					
SLEEP					

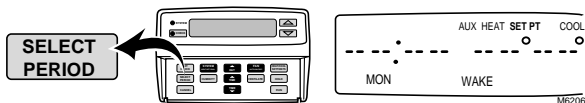
Programming the First Day

You can erase the entire preprogrammed schedule, or make minor changes to the program. When you want to make only minor changes to the program, go to step 7a. When you choose to clear the current program (or preprogram) and start over, proceed as follows:

NOTE: Press the **RUN** key at any time to exit the programming mode.

1. Clearing Current Program

- a. Press **SELECT PERIOD**.



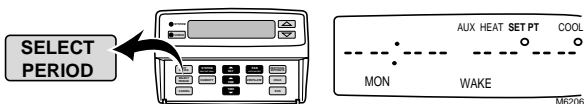
- b. Hold **CANCEL** until display shows *PROG CLR*.



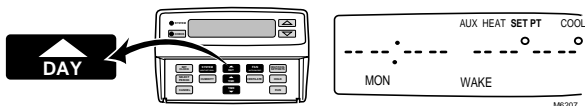
NOTE: If you choose, you can stop now and the PC8900 will be on HOLD permanently.

2. Setting Day, Time, and Setpoints

- a. Press **SELECT PERIOD** until display shows *WAKE*.



- b. Press **DAY** until display shows *MON*.



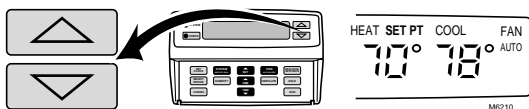
- c. When the display reads *COOL SET PT*, press **HEAT/COOL SETPOINTS** to switch to *HEAT SET PT*.



- d. Press and hold a **TIME** key until the display shows the desired starting time for the WAKE period. The time changes in ten-minute increments.



- e. Press and hold the ▲ or ▼ arrowhead key until the display shows the desired temperature.

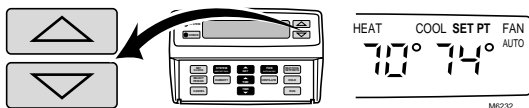


- f. Press **HEAT/COOL SETPOINTS** to switch to *COOL SET PT.*



NOTE: The starting time for the WAKE period is the same for both heating and cooling for this particular day. When you change the time while setting the cooling temperatures, the starting time is also changed for heating.

- g. Press and hold the ▲ or ▼ arrowhead key until the display shows the desired temperature.



- NOTE:
- When the numbers do not move while you are holding the ▲ or ▼ arrowhead key, you have reached the setting limit (88°F and 45°F).
 - When set for auto changeover, there is a 3°F automatic field-installed differential between the heating and cooling setpoints. (When you are in cooling with the heating setpoint at 68°F, the cooling setpoint can be no lower than 71°F.) And when you program the cooling setpoint for 70°F, the heating setpoint changes to 67°F. The PC8900 automatically pushes the alternate setpoint so you can adjust the setpoint to the desired setting.
 - When set for manual changeover, the 3°F differential between the heating and cooling setpoint does not apply.

IMPORTANT

The FAN settings are the same for heating and cooling.

3. Setting Fan



- a. Press **FAN** until *FAN AUTO*, *FAN ON* or *FAN CIRC* is displayed, as desired, for the WAKE period.

- NOTE:
- AUTO means the fan only runs when your heating or cooling is running.
 - ON means the fan runs during this entire period.
 - CIRC means the fan runs at least 30 percent of the time during this period, including when your heating or cooling system is running.

4. Setting Ventilator

IMPORTANT

The VENTILATOR settings are the same for heating and cooling.



- a. Press **VENTILATE** to display **VENT** when increased ventilation is desired during the WAKE period.



- b. If normal ventilation is desired during the WAKE period, press **VENTILATE** until **VENT** is not displayed.

5. Programming LEAVE, RETURN and SLEEP

- a. Repeat steps 2a through 4b for each period you want programmed on Monday.

You have completed the PC8900 program for Monday.

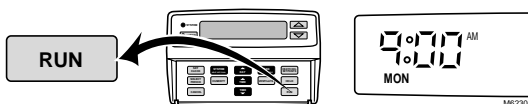
Programming the Remaining Days

6. Copying the First Day Program

- a. Hold down the **DAY** key until all the days of the week have appeared on the display.



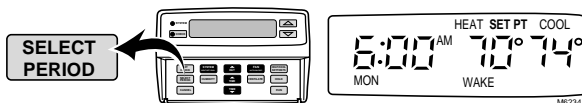
- b. Press the **RUN** key to save and start the program.



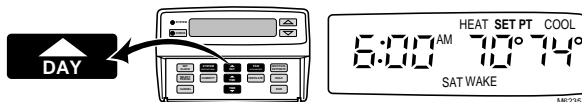
You have now copied your Monday program to all seven days of the week.

7. Customizing Your Program

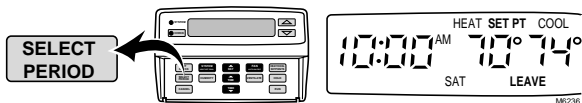
- a. Press **SELECT PERIOD** to enter the programming mode.



- b. Press **DAY** until the day you want to change is displayed.



- c. Press and hold **SELECT PERIOD** until the period you want to change is displayed.



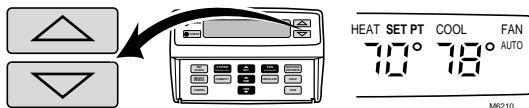
- d. Press **HEAT/COOL SETPOINTS** to switch between *HEAT SET PT* and *COOL SET PT*.



- e. Press and hold a **TIME** key until the display shows the desired period starting time.



- f. Press and hold the ▲ or ▼ arrowhead key until the display shows the desired temperature.



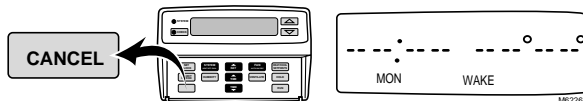
- g. Follow steps 3a and 4a when changes to the fan and ventilator settings are desired.

8. Canceling One Program Period

IMPORTANT

*When in a program, pressing the **CANCEL** key for more than three seconds (until **PROGRAM CLR** appears) cancels all your program settings so you need to begin again with step 2.*

- a. Press **CANCEL** while you are in the period you choose to cancel. The programmed time, temperature, vent and fan settings for that period and day will disappear.



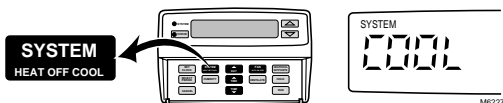
9. Starting the Program

- Press **RUN** to start the program.



10. Programming the System Setting

- Press **SYSTEM** until desired setting (*HEAT*, *OFF*, *COOL*, *AUTO*, *EM. HT.*) is displayed in the LCD.



HEAT: The PC8900 controls your heating system.

OFF: Both your heating and cooling systems are off.

COOL: The PC8900 controls your cooling system.

AUTO: The PC8900 automatically changes between heating and cooling, depending on the indoor temperature. (AUTO must be configured by the installer.)

EM. HT. (Select Models Only): The PC8900 controls the emergency heat and not the compressor.

11. Programming Humidity Setting

- Press **HUMIDITY**. The display shows *HUMID* and a percentage.

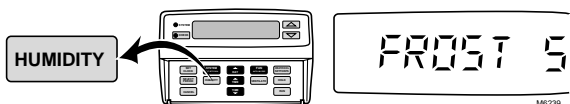


- b. Press and hold the **up** or **down** arrowhead key until desired humidity setting is displayed. The available choices range from 10 percent to 80 percent, in 5 percent increments.



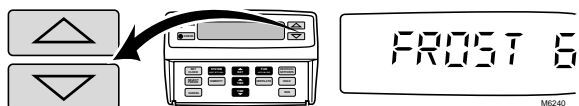
12. Programming Frost Setting (If Applicable)

- a. Press **HUMIDITY** a second time and the display shows *FROST* and a frost setting number.



NOTE: The factory frost setting is 5, but the range is 0 to 10. When there is too much condensation on your windows, lower the number; if the air is dry, raise the setting to a higher number.

- b. Press the **up** or **down** arrowhead key until desired setting is displayed.



- c. Press **RUN** to exit the program mode.



You have now completed setting your customized PC8900 program.

OPERATING YOUR PC8900

Changing Current Period Settings

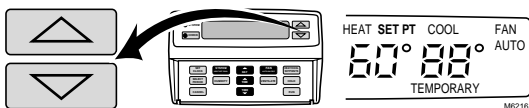
This feature lets you customize the program for those times when someone comes home early, stays up late, or plans to be out for the evening. These settings will be in effect until the next regularly scheduled period starts or the **RUN** key is pressed.

1. Temperature Setpoint

- Press **HEAT/COOL SETPOINTS** to display either *HEAT SET PT* (to change heat setpoint) or *COOL SET PT* (to change cool setpoint).



- Press and hold the ▲ or ▼ arrowhead key until the desired temperature is displayed.



2. Fan Setting

- Press **FAN** to display the *AUTO*, *ON* or *CIRC* fan setting as desired.



3. Ventilation Setting

- a. Press **VENTILATE** to display *VENT* or not, as desired.

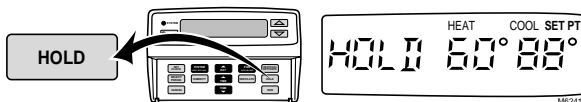


Changing Settings for One Week or Less

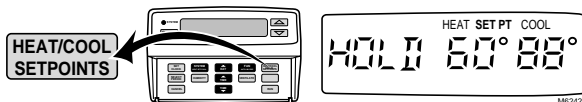
This feature lets you set one temperature that the PC8900 will hold continuously for up to one week until the day and time you program into the PC8900. The PC8900 will then return to your normal program at the designated time.

4. Programming Hold for 1 to 7 Days

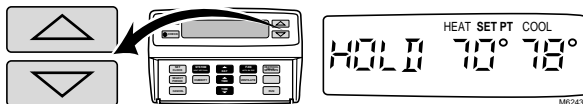
- a. Press **HOLD**.



- b. Press **HEAT/COOL SETPOINTS** to display either *HEAT SET PT* (when holding heat setpoint) or *COOL SET PT* (when holding cool setpoint).



- c. Press and hold the ▲ or ▼ arrowhead key until desired holding temperature is displayed.



- d. Press **FAN** for fan setting and **VENTILATE** for ventilation setting during hold.



- e. Press **DAY** until the day you want the hold to end is displayed.



- f. Press a **TIME** key until the time you want the hold to end is displayed.



NOTE: To cancel steps 4a through 4f, press the **CANCEL** key.



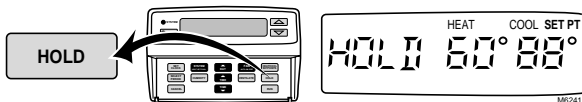
These temperature, fan and ventilation settings will be in effect until the day and time you have selected. At that time, the PC8900 will return to your regularly programmed schedule.

Changing Settings for Indefinite Time Period

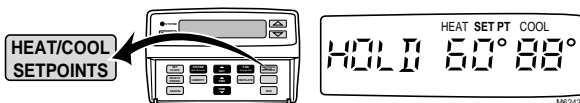
This feature lets you set one temperature that the PC8900 will hold continuously until you decide to resume your preset schedule.

5. Programming Indefinite Hold

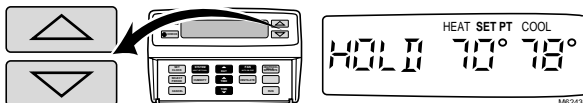
- a. Press **HOLD**.



- b. Press **HEAT/COOL SETPOINTS** to display either *HEAT SET PT* (when holding heat setpoint) or *COOL SET PT* (when holding cool setpoint).



- c. Press and hold the **up** or **down** arrowhead key until the desired holding temperature is displayed.



- d. Press **FAN** for desired fan setting. Press **VENTILATE** for desired ventilation setting during hold.



- e. Press **CANCEL** to resume your program.

Canceling Program Settings

Each setting can be canceled separately for each day.

6. Canceling Period

- a. Press **DAY** until the desired day appears in the display.



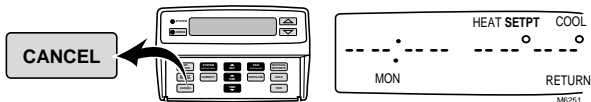
- b. Press and hold **SELECT PERIOD** until the desired period to cancel for that day appears in the display.



IMPORTANT

*When in a program, pressing the **CANCEL** key for more than three seconds (until **PROGRAM CLR** appears), cancels all your programs so you will need to start again with step 2 in the Programming Your PC8900 section.*

- c. Press **CANCEL**. The time and temperature will disappear from the display.



- d. Press **RUN** to return to normal operation.



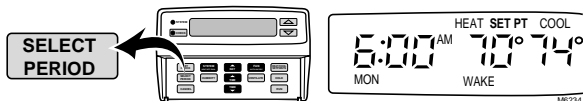
Reviewing Program Settings and Current Readings

1. Review All Program Settings

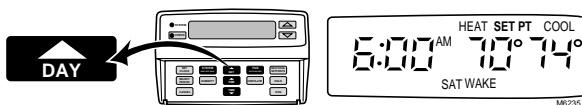
IMPORTANT

You can make changes to your program when you use this review process.

- a. Press **SELECT PERIOD** to enter the program.



- b. Press **DAY** to change the day. Then press **SELECT PERIOD** to review each period. Press **SELECT PERIOD** three more times to review all the period settings for today.



- c. Press **RUN** to exit the review.

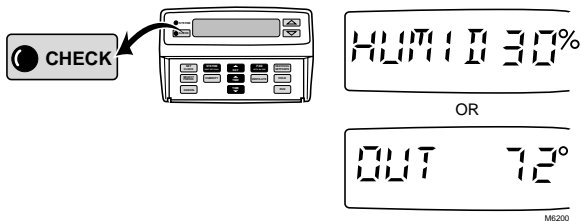


2. Review Current Period Setpoints and Readings

Use the following instructions to check your setpoints for just the current period and see the actual humidity and outdoor temperature readings.

NOTE: You can return to your program at any time by pressing the **RUN** key.

- a. Press **CHECK** to display the current indoor humidity or outside temperature (if outside sensor is installed).



- b. Press **CHECK** to display the current indoor humidity.



- c. Press **HUMIDITY** to display the humidity setpoint.



- d. Press **CHECK** to display either the *HEAT SET PT* or *COOL SET PT*.



- e. Press **HEAT/COOL SETPOINTS** to display the other setpoint.



- f. Press **CHECK** to display the current FAN setting.



- g. Press **CHECK** to display the current VENTILATOR setting.



- h. Press **CHECK** to display the system setting.



- i. Press **CHECK** or **RUN** to return to your program.



Activating or Deactivating Keyboard Lockout

When keyboard lockout is activated, the programs, time and day, and humidity information cannot be changed. However, HOLD, temporary settings and the SYSTEM settings can be changed.

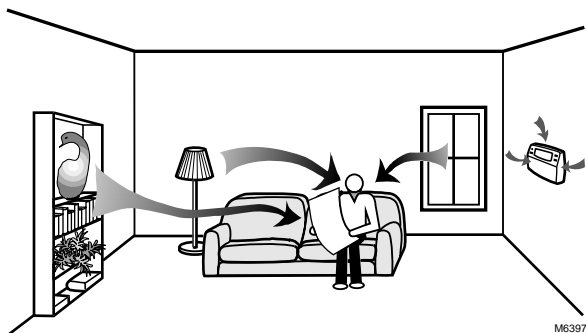
1. Keyboard setting

Use the following steps to check or change the keyboard setting:

- Press and hold **RUN** until *OPEN KEY* (not locked out) or *LOCK KEY* (locked out) show in the display (approximately three seconds). The display returns to normal when you stop pressing **RUN**.
- To change the setting, press and hold **RUN** a second time until the desired display appears.

ADAPTIVE INTELLIGENT RECOVERY™

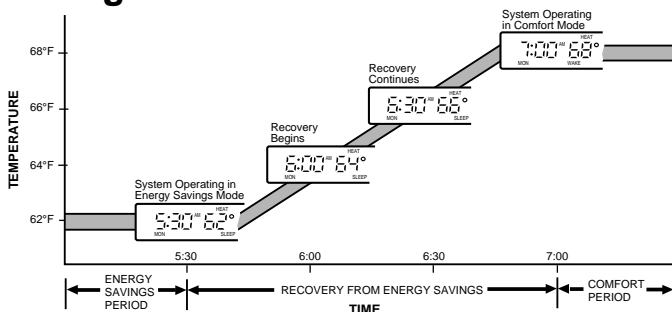
Breakthrough Technology Senses Temperature More Like You Do



Your Perfect Climate Comfort Center™ Control System is so smart, it's almost human.

- Your body perceives temperature from a variety of sources, not only from the air in the room, but also from your surroundings—walls, windows and furnishings.
- Humans feel differences in temperature as slight as two degrees Fahrenheit.
- Common household thermometers and standard thermostats sense only air temperature, which may or may not reflect how hot or cold the room actually feels to humans.
- Your new Perfect Climate Comfort Center™ Control System reads both the temperature of the wall and the air—and responds to temperature changes as little as one degree Fahrenheit—so room temperature is more likely to feel right to you and your family.

The Optimum Comfort and Energy Savings Solution



THE PC8900 USES THE SAME SCHEME TO RETURN TO LOWER COMFORT TEMPERATURE DURING THE COOLING SEASON.

M6351

The Perfect Climate Comfort Center™ Control System is actually a small but powerful computer. When calculating the time to turn on your heating or cooling system, it considers (1) air temperature, (2) wall temperature, and (3) the time you want the room to be comfortable.

- During the Adaptive Intelligent Recovery™ time, the Perfect Climate Comfort Center™ Control System immediately increases the temperature setpoint from the energy savings to the comfort temperature, and leaves the equipment running continuously. This saves energy by avoiding cycling the equipment and overshooting the comfort temperature. You can see the current control temperature anytime during recovery by pressing **HEAT/COOL SETPOINTS**.
- This Perfect Climate Comfort Center™ Control System learns from experience. Each day it checks how closely it hit the recovery target and adjusts the next day recovery start time accordingly.
- It typically takes four to eight days after installation for the Perfect Climate Comfort Center™ Control System to adjust to the local weather, your lifestyle, the construction of your home and your heating/cooling system. The Perfect Climate Comfort Center™ Control System calculates the LEAVE/RETURN recovery separately from the SLEEP/WAKE recovery.

- With the PC8900, you can choose whether you want to use the Adaptive Intelligent Recovery™ setting or the conventional recovery. The PC8900 comes preset to the Adaptive Intelligent Recovery™ setting. When conventional recovery is desired, call your service technician for assistance. Use the Adaptive Intelligent Recovery™ setting when you want to choose the exact time that the room reaches your comfort temperature. Use conventional recovery when you prefer to choose the exact time your heating or cooling system comes on to start recovery.

CONTROL OPTIONS

Frost Control

If your Perfect Climate Comfort Center™ Control System is equipped with an outdoor temperature sensor and a humidifier, you can use the frost control feature to control window condensation during the heating season. Frost control works by reducing humidification when conditions indicate that condensation or frost can occur.

The degree of frost control is determined by the setting you choose between 0 and 10. Press HUMIDITY twice. The display shows FROST and a number from 0 to 10. When the factory setting (5) results in too much condensation or frost on the windows, lower the setting. When the air seems too dry, raise the setting.

Ventilation Control

When the system is equipped with a self-powered ventilation system or a damper and the PC8900 is set up by the installer for ventilation or damper control, the ventilation is energized in response to any one of the following conditions:

- If you request ventilation from the Perfect Climate Comfort Center™ Control System.
- If a high carbon dioxide condition is present and a CO₂ monitor is installed.
- If a high humidity condition is present while in heating mode.

After a change in ventilation is requested, it can take up to 20 seconds for the requested change to begin or end.

Fan Control

Your fan will be on when any of these conditions are present (it can take up to 20 seconds for the fan to turn on).

FAN ON: This setting means that your fan runs 100 percent of the time during this period.

FAN AUTO: The AUTO setting means the fan runs only with your heating or cooling system.

FAN CIRC: In this setting, the fan runs at least 30 percent of the time, including the time the fan is on while the heating or cooling system is running. When the heating or cooling system is not running at all, the fan runs for ten minutes on and 20 minutes off. Protection against fan short cycling is built into the device.

The installer setup has the ability to extend fan operation following a cooling cycle. When selected, the fan run time at the end of a cooling cycle is extended 80 seconds.

Humidity Control with Fan

Select models of the W8900 can be configured to control humidity levels while the fan is energized. This type of humidity control does not require the heat output to be energized. For the humidity terminals (HUM) to energize, the following conditions must be met:

1. System must be in the heat mode.
2. The call for humidity (Sensed relative humidity, RH, is below RH setpoint).
3. Fan terminal (G) must be energized through programming or by pressing the fan button on the PC8900.

Cool Mode Humidity Control (Select Models Only)

Cool dehumidification is activated when there is a call for cooling or the sensed RH is above the setpoint. This can cause overcooling; see Cool Mode with Reheat Feature.

Cool Mode with Reheat Feature (Select Models Only)

The reheat feature is designed to keep you comfortable. When the cooling setpoint is reached, but the dehumidification setpoint is not satisfied, the control turns on the heat. If the heat raises the temperature so there is a call for cooling and the dehumidification requirement is still not met, the cooling starts. This switching continues until the dehumidification and cooling setpoints are met. This feature assures that you will not experience excessive temperature drop due to the need for dehumidification.

ANSWERS TO COMMON QUESTIONS ABOUT THE PC8900

- Q.** *The temperature displayed on the PC8900 doesn't always match the room temperature on a thermometer located right next to it. Why?*
- A.** The PC8900 is a very accurate instrument designed to sense both air temperature and wall temperature like your body does, and give an average reading. Thermometers measure only the room temperature, and don't compensate for the wall temperature.
- Q.** *How many hours in advance of my WAKE time should the furnace come on?*
- A.** The time varies, up to 24 minutes per degree Fahrenheit difference between the energy saving and comfort temperatures, depending on outside temperature and performance during the past 24 hours. A microcomputer with the Adaptive Intelligent Recovery™ algorithm allows the Perfect Climate Comfort Center™ Control System to think for itself and adjust the heating or cooling recovery time to reach your desired comfort temperature at the programmed time. Whenever the temperature is more than one degree hotter or colder than the comfort temperature at the programmed time, recovery begins earlier the next day. This approach assures the temperature won't over- or under-shoot the setpoint and allows the proper amount of time for recovery. Another factor that varies the time is the change of seasons. The Perfect Climate Comfort Center™ Control System accommodates the change in seasons by requiring more or less recovery time, as necessary.

Q. *What does the **HOLD** key do?*

A. It bypasses the program settings and holds the temperature, fan and ventilation to whatever is set. To change the settings, press the appropriate keys. Pressing the **CANCEL** key on the PC8900 returns the device to the programmed operations.

Q. *How long does the **HOLD** mode hold?*

A. You can choose to have **HOLD** in effect as long as you want, until you cancel it by pressing the **CANCEL** key. Or you can set it for any amount of time less than one week. See the two Changing Settings sections for details.

Q. *How can the Perfect Climate Comfort Center™ Control System save energy when it comes on so early in the morning?*

A. It saves energy (and money) by setting back the temperature for optimum blocks of time during the day or night. Honeywell experts have invested years of engineering and in-home testing to assure that this is the most effective way to set back and save energy while maximizing your comfort.

Q. *Sometimes my Perfect Climate Comfort Center Control System doesn't allow the house temperature to drop to my **SLEEP** setting before it starts bringing the heat on. Why?*

A. Many factors affect your comfort and energy savings. If those factors, such as weather and humidity, were always consistent, an unchanging program would always work. But factors change. The whole idea of the Adaptive Intelligent Recovery™ setting is to save energy without sacrificing comfort. When necessary, the Adaptive Intelligent Recovery setting overrides your temperature settings to assure accurate temperature recovery with maximum comfort and energy savings for the current conditions.

Q. *What is the function of the **CHECK** key and light?*

A. The **CHECK** key can be used to review the outdoor temperature, humidity setpoint and fan and ventilation settings. However, if the **CHECK** LED is lit, pressing the **CHECK** key displays the messages in the **CHECK LIST** section. The messages appear in the order shown in the list, if they apply to your model.

When the CHECK light is lit, press the **CHECK** key to reveal the problem. Refer to the message list for an explanation. When any message occurs other than those listed, call your service person for maintenance or advice.

Additional Questions? Call Honeywell Consumer Services: 1-800-468-1502, Monday-Friday, 7:00 a.m. to 5:30 p.m., Central time.

Message on Display	Explanation
OUT 46°	PC8900 is configured for outdoor sensor, and is displaying outdoor temperature.
HUMID 30%	PC8900 is displaying current humidity level.
DIS 112°	PC8900 is configured for discharge air sensor, and is displaying discharge air temperature.
HEAT COOL SET PT 70° 74°	PC8900 is displaying temperature setpoints.
FAN AUTO	PC8900 is displaying current fan setting.
VENT OFF	PC8900 is configured for ventilation control, and is displaying the current ventilation setting.
SYSTEM COOL	PC8900 is displaying the current system setting.
FILTER OR FLT CHG	Indicates air cleaner filter requires changing or cleaning. Press CANCEL to delete message.

(Continued)

Message on Display	Explanation
SENS OUT	Outdoor sensor has failed or PC8900 is configured for outdoor sensor but sensor is not present.
OUT ----°	PC8900 is set up for outdoor sensor, but outdoor sensor has failed or is not connected.
HUMIDITY----%	Humidity sensor failure.
DIS ----°	PC8900 is configured for discharge air sensor, but discharge air sensor has failed or is not connected.

CHECK LIST

SAVING ENERGY ACROSS THE UNITED STATES

- Save up to 30 percent in energy costs. The Perfect Climate Comfort Center™ Control System offers you complete comfort and a low-cost easy way to save on your energy bills.
- The energy-saving percentages on the following maps are based on setting the PC8900 down in the winter and up in the summer for eight hours. When the time period you choose for setback is longer, you could realize even greater energy savings. The energy saving period must be for at least two hours to save any energy.

Find the city closest to your home. The energy savings listed are similar to the savings you can expect.

PERCENTAGE OF HEATING ENERGY YOU CAN SAVE

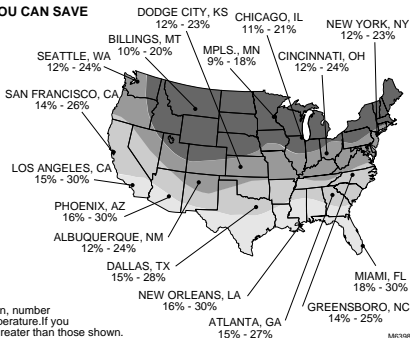
ONE 10°F ENERGY SAVINGS PERIOD*
70° TO 60°F; 8 HRS/DAY

- 9% TO 13%
- 14% TO 15%
- 16% TO 18%
- 19% TO 23%

TWO 10°F ENERGY SAVINGS PERIODS*
70° TO 60°F; 8 HRS/DAY, 8 HRS/NIGHT

- 17% TO 21%
- 22% TO 29%
- 30% TO 35%
- UP TO 40%

* Savings for a 5°F heating setback are at least 1/2 of savings for a 10°F setback. Actual savings depend on your home, geographic location, number of energy saving periods and energy savings temperature.If you have a heat pump, your heating savings may be greater than those shown.



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PERCENTAGE OF COOLING ENERGY YOU CAN SAVE

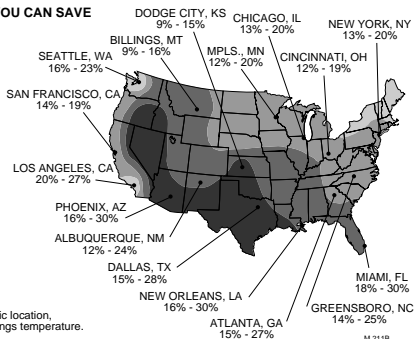
ONE 5°F ENERGY SAVINGS PERIOD*
75° TO 80°F; 8 HRS/DAY

- 7% TO 9%
- 10% TO 11%
- 12% TO 14%
- 15% TO 18%

TWO 5°F ENERGY SAVINGS PERIODS*
75° TO 80°F; 9 HRS/DAY, 7 HRS/NIGHT

- 11% TO 15%
- 16% TO 18%
- 19% TO 22%
- 23% TO 33%

* Actual savings depend on your home, geographic location, number of energy saving periods and energy savings temperature.



M 211B

GLOSSARY

Adaptive Intelligent Recovery™ Setting

The time when the PC8900 operates the heating or cooling equipment to return the house from the energy savings to the comfort temperature. The PC8900 starts the recovery period earlier than the WAKE or RETURN period so the house will be at the comfort setting by the time you've chosen.

CHECK light (red)

This light glows as a prompt to examine messages in the CHECK LIST section.

Comfort temperature

The temperature you want in the morning when you get up (WAKE period) and in the evening (RETURN period) when you're home.

Conventional Recovery Setting

The time when the PC8900 starts operating the heating and cooling equipment to reach the set temperature from the energy savings temperature (LEAVE, SLEEP) to the comfort temperature (WAKE, RETURN).

Daily program schedule

The schedule of WAKE, LEAVE, RETURN and SLEEP period start times, temperatures, fan and ventilation that you program to run for each individual day.

Energy-saving temperature

The lower (heating) or higher (cooling) temperature that lets you save on heating and cooling costs when you're asleep or away. Also called the setback (winter) or setup (summer) temperature.

Outdoor temperature

In systems with an outdoor sensor, the temperature reading at the sensor. Reading is available by pressing the CHECK key until the display shows OUT and the temperature.

SELECT PERIOD key

Key that starts the program mode. It also lets you choose WAKE, LEAVE, RETURN or SLEEP period to review or program.

Preprogrammed schedule

The schedule programmed into your PC8900 at the factory. It sets a night program that provides energy savings if you don't set your own program, or if your personal program is lost for any reason. The program, which is the same for all days of the week, is:

Period	Start Time	Heating Temp	Cooling Temp	Fan Setting	Vent Setting
WAKE	(6:00 AM)	(70°F)	(78°F)	(AUTO)	(OFF)
LEAVE	8:00 AM	62°F	85°F	AUTO	OFF
RETURN	6:00 PM	70°F	78°F	AUTO	OFF
SLEEP	(10:00 PM)	(62°F)	(82°F)	(AUTO)	(OFF)

Program

The times, temperatures, fan and ventilation settings you choose to define the comfort periods (WAKE, RETURN) and energy savings periods (LEAVE, SLEEP) for each daily schedule.

Set back

Reducing the temperature in the house for a set period every day during heating season for energy savings. The lower temperature is the energy savings temperature.

Set up

Raising the temperature in the house for a set period every day during cooling season for energy savings. The higher temperature is the energy savings temperature.

Setpoint

The temperature, humidity or frost setting you program on the PC8900. The PC8900 turns the appropriate equipment on and off to maintain this setting until another setting goes into effect.

SYSTEM light (yellow)

This light is on the PC8900 and glows when there is a call for heating or cooling.

Time period

One of four program periods: WAKE, LEAVE, RETURN and SLEEP available with the PC8900. One period begins when the previous period ends.

WAKE—The time period when you want the house at a comfortable temperature while the family gets up and gets ready to leave for work and school.

LEAVE—The time period when you can set back (winter) or set up (summer) the temperature for energy savings because the family is usually away from home.

RETURN—The time period when you want the house at a comfortable temperature for family activities in the evening before bedtime.

SLEEP—The time period when you can set back (heating) or set up (summer) the temperature for energy savings because cooling family is sleeping. Set it to start at your family's normal bedtime. Often, energy savings is only set for heating so family members can sleep cool in air conditioning.

TROUBLESHOOTING GUIDE

<i>IF...</i>	<i>THEN...</i>
Display does not come on.	<ul style="list-style-type: none">• Check fuse or circuit breaker and replace or reset if necessary.• Make sure PC8900 is correctly mounted on wiring wallplate.
Display flashes during operation.	<ul style="list-style-type: none">• Set clock.
Temperature change occurs at the wrong times.	<ul style="list-style-type: none">• Check the program times for the period in question. Be sure that AM and PM indications are correct. Make sure the current day and time are correct. Reprogram if necessary.• Remember that with the Adaptive Intelligent Recovery™ setting, the heating or cooling system comes on before the WAKE and RETURN start times so the house is at the desired temperature when the period starts.

(Continued)

Troubleshooting (Continued)

<i>IF...</i>	<i>THEN...</i>
Heating does not come on.	<ul style="list-style-type: none">• Check the fuse or circuit breaker and replace or reset if necessary.• Check that PC8900 is set to HEAT or AUTO.• The PC8900 has a built-in time delay that can add to time delays in the heating equipment. Allow up to five minutes after changing the setting before the compressor starts.• If heat setpoint is higher than current room temperature, and SYSTEM light is on, contact your heating and air conditioning contractor.
Cooling does not come on.	<ul style="list-style-type: none">• Check the fuse or circuit breaker and replace or reset if necessary.• Check that PC8900 is set to COOL or AUTO.• The PC8900 has a built-in time delay that can add to time delays in the cooling equipment. Allow up to five minutes after changing the setting before the compressor starts.• If cool setpoint is lower than current room temperature, and SYSTEM light is on, contact your heating and air conditioning contractor.• Humidity control is set too high. Lower humidity setting.
Ventilation equipment runs independently of PC8900	<ul style="list-style-type: none">• A remote sensor is calling for ventilation.• A CO₂ monitor has detected a high CO₂ level.

(Continued)

Troubleshooting (Continued)

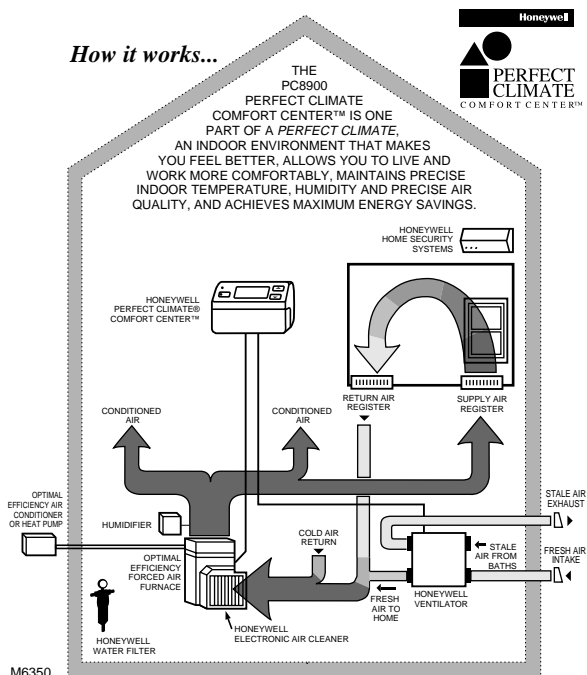
IF...	THEN...
CHECK light comes on.	<ul style="list-style-type: none">• Press CHECK key. If the display message says <i>FILTER</i> or <i>FILT CHG</i>, change or clean the air cleaner filter, then press CANCEL to clear the message. If a different message is displayed, contact your heating and air conditioning contractor.
Heat is delivered while set to COOL. Your program just went into a setup period and heat was added until the setup temperature was reached.	<ul style="list-style-type: none">• Your reheat controller saw a need to reduce humidity levels when setup occurred. This is the proper equipment response when dehumidification needs to occur but no cooling is currently required. If this response to setup is undesirable, you can avoid setup during extremely humid seasons. By maintaining a constant cooling setpoint, you experience improved, more consistent temperature and humidity control in extremely humid conditions.
Humidity setpoint is higher than humidity readout but your humidifier is not on. (You have an outdoor sensor and your heating system is on.)	<ul style="list-style-type: none">• Frost control is preventing additional moisture from being introduced by the humidifier to prevent condensation on your exterior windows. <i>FROST</i> appears next time your system turns on and off to determine if humidity levels are reduced enough to warrant adding additional moisture to your house. You can adjust your frost index if you do not have a condensation problem at the time the above situation occurs.• Check that the humidifier is powered.

(Continued)

Troubleshooting (Continued)

<i>IF...</i>	<i>THEN...</i>
System fan is running independent of heating or cooling equipment.	<ul style="list-style-type: none">• Check FAN setting:<ul style="list-style-type: none">– AUTO means the fan runs only when the heating or cooling is running.– ON means the fan runs during this entire period.– CIRC means the fan runs at least 30 percent of the time during this period, including when the heating or cooling system is running.• A CO₂ monitor has detected a high CO₂ level.
Heat and cool setpoints adjusted regularly	Reprogram PC8900 to make permanent changes to program.

CONSIDER THE COMPLETE PACKAGE FOR PERFECT CLIMATE® FOR YOUR HOME



1. Honeywell PC8900 Perfect Climate Comfort Center™ Control System.
2. Honeywell F50, the air cleaners of choice.
3. Honeywell Home Ventilation Systems.
4. Honeywell Braukmann Water Filter.
5. Honeywell Home Security Systems.

Perfect Climate®

Describing Perfection

The most convenient, most energy efficient, cleanest, healthiest and most comfortable indoor environment possible today! Perfect climate is achieved when the five core components of a home climate system work together:

- Optimal efficiency heating and cooling equipment.
- Precise, programmable temperature control.
- Effective indoor air quality control.
- Controlled humidity.
- Proper ventilation and air distribution.

Products for a Perfect Climate

Your heating and cooling system is the workhorse of your indoor climate system. Good advice is to have your local heating/cooling contractor tune up your system annually for comfort, safety and economy reasons.

If your heating plant is old, think about replacing it with a modern and improved unit. Advances in product technology have very impressively increased the efficiency of equipment. Sometimes the improved performances pay back most of the cost in a few short years.

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