

# Honeywell

## **Operating Manual**

## UtilityPRO<sup>™</sup> Series

**Touchscreen Programmable Demand Control Thermostat** 





**BE CAREFUL!** Never use sharp instruments, such as a pencil or pen, to press touchscreen keys. To prevent damage to the thermostat, always press keys with your fingertip.

This thermostat contains a Lithium battery which may contain Perchlorate material. Perchlorate Material—special handling may apply. See www.dtsc.ca.gov/hazardouswaste/perchlorate

#### Need Help?

For assistance or warranty information please call your local Utility at the number found on the front of the thermostat.

## Read and save these instructions.

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#### **Battery Replacement**



Insert the coin cell battery in the coin cell battery tray and push it inside the battery cover assembly

The UtilityPRO has a coin cell battery that retains the time and date during a power failure. Under normal circumstances the coin cell should last five years. Should the time and date need to be reset after a power failure, this is an indication that the coin cell needs to be replaced. You should replace the battery every five years, or before leaving home for an extended period.

The UtilityPRO is shipped from the factory with the coin cell installed. To keep the battery from discharging during shipment and storage, the UtilityPRO is shipped from the factory with a plastic tab inserted in the battery holder. This tab must be removed before the thermostat is mounted on the wall. Simply pull the plastic tab out of the thermostat. To replace the battery, remove the battery tray using a screw driver. Place a new coin cell (type CR2032 or equivalent) observing the correct polarity and push the battery tray into the battery cover assembly.

## FCC Part 15 Notice

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. Operation is subject to the following two conditions:

1) This device may not cause harmful interference.

2) This device must accept any interference received, including interference that may cause undesired operation.

Class B limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy, and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- · Reorient the receiving antenna.
- · Increase the distance between the equipment and the receiver.
- · Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- · Consult the installer or an experienced radio/TV technician for help.

#### **Industry Canada Requirements**

Operation of this device is subject to the following two conditions:

- 1) This device may not cause interference.
- 2) This device must accept any interference, including interference that may cause undesired operation of the device.

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#### This thermostat is ready to go!

Your new thermostat is preprogrammed and ready to go. See <u>page 15</u> to check settings.



#### CAUTION: EQUIPMENT DAMAGE

HAZARD. To prevent possible compressor damage, do not operate cooling system when outdoor temperature is below 50°F (10°C).

#### **UtilityPro<sup>™</sup> Features**

Congratulations! You've just purchased the world's most advanced, easy-to-use thermostat. It has been designed to give you many years of reliable service and touchscreen climate control.

## **Features**

- Provides Utility information messages.
- Provides Utility billing information.
- 5/1/1 and 5/2-day program schedules maximize comfort and economy.
- Demand response thermostat programmed to aid you in your savings.
- One-touch temp control overrides program schedule at any time.
- Precise comfort control keeps temperature within 1°F of the level you set.
- Provides demand control messages.
- Large touchscreen display with backlight is easy to read—even in the dark.

## **Quick Reference to Controls**



## **Quick Reference to Status Display**



#### **Demand Control**

This is an energy saving device. At times, thermostat operation may be temporarily adjusted by a small amount as outlined in your energy provider's associated program literature. This is normal operation and is part of the program for which you have enrolled.

Thank you for your participation.

## **Utility Usages**

Usage is a service provided by the utility provider. Depending on the various services provided by the utility provider, Usage may contain vital information for your use. It may display your electricity bill, water consumption bill, gas bill, and so on. Usage also has a feature wherein you can compare your present consumption against your last year's consumption for the same time period. For example, it displays your current electricity bill along with the previous year's electricity bill for the same month.

Usage also displays the rate of electricity at peak times and off peak times. Thus you can adjust your electricity consumption accordingly.

## **Utility Messages**

Messages are also a part of the services provided by the service utility provider. Messages are sent by the service provider to assist you with additional information. These messages may contain weather warnings, greetings, reminders, information about discounts running at a shop, system maintenance messages, and so on.

#### **View Messages**

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Press — J on your screen. The message icon blinks when you receive a new message.

The Message screen appears. Use the arrow buttons to view the messages. There can be a maximum of five messages. The message scrolls automatically if it has more than 21 characters.

In case there are no messages, the message icon does not appear.

Press **Delete** to delete the displayed message.

Press Exit to go to the main screen.

## **Usage and Billing**

Press used on your screen.

The Usage screen appears. Navigate using the arrow buttons to view the billing consumption of water, gas, electricity, and so on\*.

In case there are no utility messages, the utility message icon does not appear.

Press Exit to go to the main screen.



\* subject to Contract Agreement with the Utility Provider.

#### **Fan Settings**



**Note:** If a fan schedule is programmed, "Auto" runs the fan schedule.

Press FAN to select fan operation, then press DONE.

- ON: Fan is always on.
- Auto: Fan runs only when the heating or cooling system is ON.
- **Circ:** Fan runs randomly, about 35% of the time, not counting any run time with the heating or cooling system.

You can press FAN to override the fan settings you've programmed for different time periods. If you select ON or Circ, the setting you select remains active until you press FAN again to select <u>Auto</u>.

## **System Settings**



Press the SYSTEM button to select one of the following, then press DONE.

- Heat: Thermostat controls only the heating system.
- **Cool:** Thermostat controls only the cooling system.
- Off: Heating and cooling systems are OFF.
- Auto: Thermostat automatically selects heating or cooling depending on the indoor temperature.
- Em Heat (only for heat pumps with auxiliary heat): Thermostat controls Emergency and Auxiliary Heat.

## **Schedule Settings**



Set time for program period to start

- 1. Press SCHED, then EDIT.
- 2. Press day buttons to select day(s). There are three groups (MON-FRI), (SAT), and (SUN).
- Press ▲ or ▼ to set Wake time for selected day(s).
- 4. Press ▲ or ▼ to set Heat and Cool temperature for this time period.
- 5. Press other time periods (LEAVE, RETURN, SLEEP) to set time and temperatures for each.
- 6. Press DONE to save & exit (or press CANCEL to exit without saving changes).

Note: You can press CANCEL PERIOD to eliminate any unwanted time period.

**Note:** Press FAN to customize fan settings for any time period.

## **Program Schedule Override (Temporary)**



Press  $\blacktriangle$  or  $\checkmark$  to immediately adjust the temperature. This temporarily overrides the temperature setting for the current time period.

The new temperature is maintained only until the next programmed time period begins (see page 15). For example, if you want to turn up the heat early in the morning, it will automatically be lowered later, when you leave for the day.

To cancel the temporary setting at any time, press **CANCEL** (or **SCHED**). The program schedule resumes.

#### **Program Schedule Override (Permanent)**



Press **HOLD** to permanently adjust the temperature. This turns off the program schedule.

Whatever temperature you set is maintained 24 hours a day until you manually change it or press **CANCEL** (or **SCHED**) to cancel "Hold" and resume the program schedule.

## **Clock Settings**



Adjust time, then press DONE

To set the current time display, press **CLOCK**, then press  $\blacktriangle$  or  $\checkmark$  to adjust the time. <u>Press</u> and hold  $\blacktriangle$  or  $\checkmark$  to advance the time more quickly.

Press **DONE** to save & exit (or press **CANCEL** to exit without changing the time).

**Note:** The real-time clock should never require adjustment since it automatically updates for daylight savings time, and stores all date/time information.

**Note:** To change the current week day display, see page 21.

**Note:** If the clock button is not visible, the time displayed is being controlled by the utility. If the time displayed ever varies from the actual local time by more than a few minutes, please contact your utility as this may indicate a communications problem.

#### Save Money by Setting Program Schedules

It is easy to program your system for maximum energy savings. You can program four time periods each day, with different settings for weekdays and weekends.



Set to the <u>time you awaken</u> and the temperature you want during the morning, until you leave for the day.





Set to the <u>time you leave home</u> and the temperature you want while you are away (usually an energy-saving level).



Set to the time you return home and the temperature you want during the evening, until bedtime.



**SLEEP** 10:00 pm Set to the <u>time you go to bed</u> and the temperature you want overnight (usually an energy-saving level).

## **Recommended Settings for Maximum Cost Savings**

We recommend these settings, since they can reduce your heating/cooling expenses by as much as 33%.



#### **Special Features**

**Auto Changeover:** When set to <u>Auto</u>, the thermostat automatically selects heating or cooling depending on the indoor temperature.

Adaptive Intelligent Recovery<sup>™</sup>: This feature allows the thermostat to "learn" how long the furnace and air conditioner take to reach programmed temperature settings, so the temperature is reached at the time you set. For example: Set the Wake time to 6 am, and the temperature to 70°. The heat comes on <u>before</u> 6 am, so the temperature is 70° by the time you wake at 6. The message "Recovery" is displayed when the system is activated before a scheduled time period.

**Compressor Protection:** This feature forces the compressor to wait a few minutes before restarting, to prevent equipment damage. During the wait time, the message "Wait" is displayed on screen.

## **Screen Lock**



To prevent tampering, the screen can be partially or fully locked.

When partially locked, the screen displays **SCREEN LOCKED** for several seconds if a locked key is pressed. To unlock the screen, press any <u>unlocked</u> key while **SCREEN LOCKED** appears on the screen.

When the screen is fully locked, no keys function. To lock or unlock the screen, see advanced function **0670** on page 23.

#### **Screen Cleaning**



Screen lock timer (30 seconds)

Clean Screen?

Press **SCREEN** to go to the cleaning screen. Press **OK** to lock the screen for cleaning. The screen remains locked for 30 seconds so you can clean the screen without disturbing any settings.

After 30 seconds, press **CANCEL** to resume normal operation, or press **OK** if you require more time for cleaning.

**Note:** <u>Do not</u> spray any liquid directly on the thermostat. Spray liquids onto a cloth, then use the damp cloth to clean the screen. Use water or household glass cleaner. Avoid abrasive cleansers.

1. Press SYSTEM.



2. <u>Press and hold</u> blank center key until the display changes.

3. Change settings as required (see pages 21-23).

4. Press DONE to exit & save changes.



#### Year setting (first two digits)

Function Press ▲/▼ to change the first two digits of the year: 0120

Options: 20 = Year 20xx 21 = Year 21xx

#### Year setting (second two digits)

Function Press ▲/▼ to change the last two digits of the year: 0130

Options: 01 - 99 (i.e., 2001 - 2099)

#### Month setting

Function Press ▲/▼ to change the current month: 0140

Options: 01 - 12 (i.e., January - December)

#### **Date setting**

Function Press ▲/▼ to change the current date: 0150

Options: 01 - 31

#### **Program schedule ON/OFF**

Function Press  $\blacktriangle/\forall$  to turn the program schedule ON or OFF: 0160

Options: 1

- 5/2 [programmable weekdays and weekends].
  - 2 5/1/1 [weekdays, Saturday, and Sunday programmable].

Temperature format (°F/°C)			
Function 0320	Press $\blacktriangle/\blacksquare$ to set the temperature display format:		
Options:	0 Fahrenheit 1 Celsius		

#### **Backlight Settings**

Function Press  $\blacktriangle/\forall$  to change the backlight settings: 0280

- Options: Backlight ON for approx. 8 seconds after keypress 0
  - Backlight always on low intensity, with full brightness after keypress (requires 1 24VAC connection)

#### **Daylight savings time ON/OFF**

Function The thermostat is pre-programmed to automatically adjust to daylight savings time. 0330 Press  $\blacktriangle/\forall$  to select an option:

Options: 0 OFF: No adjustment for daylight savings time

- ON: Auto-change to daylight savings time (through 2006, and for areas that do not use the new 2007 DST calendar)
- 2 ON: Auto-change to daylight savings time (2007 and beyond, for areas that use the new 2007 DST calendar)

#### **Program schedule periods**

Function Press  $\blacktriangle/ \bigtriangledown$  to set the number of program periods: 0540

Options: 4 4-4 program periods (WAKE, LEAVE, RETURN, SLEEP)

- 2 2-2 program periods (WAKE and SLEEP)
- 3 3-2 program periods (LEAVE and RETURN)

#### **Clock format**

Function Press ▲/▼ to set the clock display format:

Options: 12 12-hour clock (i.e., "3:30 pm") 24 24-hour clock (i.e., "15:30")

#### **Screen lock**

Function Press ▲/▼ to choose a screen lock setting (see page 18):

Options: 0 Screen is unlocked (fully functional)

- 1 All functions locked except temperature controls and CANCEL key
- 2 Screen is fully locked

## Troubleshooting

If you have difficulty with your thermostat, please try the following. Most problems can be corrected quickly and easily.

Display is blank	<ul> <li>Check circuit breaker and reset if necessary.</li> <li>Make sure power switch at heating &amp; cooling system is ON.</li> <li>Make sure furnace door is closed securely.</li> </ul>
No response to key presses (or temperature does not change)	<ul> <li>Check to make sure the thermostat is not locked (see page 18).</li> <li>Make sure heating and cooling temperatures are set to acceptable ranges:</li> <li>Heat: 40° to 90°F (4.5° to 32°C)</li> <li>Cool: 50° to 99°F (10° to 37°C)</li> </ul>
Backlight is dim	• If thermostat is AC powered, a dim display is normal. The backlight remains ON at a low level, and brightens when a key is pressed.
No "CLOCK" button	• If the clock button is not visible, the time displayed is being controlled by the utility. If the time displayed ever varies from the actual local time by more than a few minutes, please contact your utility as this may indicate a communications problem.

#### Troubleshooting

#### Heating or cooling system does not respond

- Press **SYSTEM** to set system to <u>Heat</u>. Make sure the temperature is set higher than the Inside temperature.
- Press SYSTEM to set system to <u>Cool</u>. Make sure the temperature is set lower than the Inside temperature.
- Check circuit breaker and reset if necessary.
- Make sure power switch at heating & cooling system is ON.
- · Make sure furnace door is closed securely.
- If "Wait" is displayed, the compressor protection timer is ON. Wait 5 minutes for the system to restart safely, without damaging the compressor.

Display shows Fan Auto and ON or Auto and Circ at the same time

 This is normal operation. Auto indicates the thermostat is following the programmed fan setting. If Auto and ON is shown, the fan is scheduled for "ON" during this period (see page 9).

Thermostat shows the calendar screen (year, date, & month) when the power is restored

 This indicates that the coin cell battery has drained out. Replace the coin cell battery immediately.

#### **Automation and Control Systems**

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