

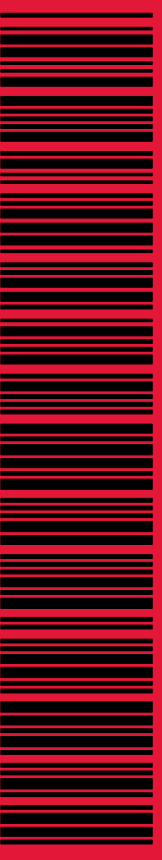
Honeywell

Operating Manual

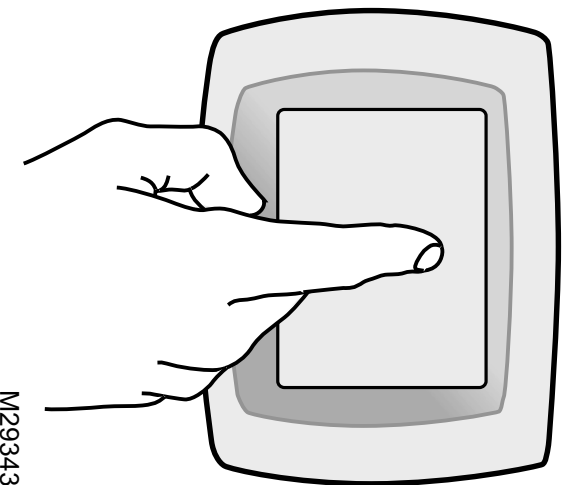


VisionPRO® TH8000 Series

Touchscreen Programmable Thermostat



69-1894EFS-01



M29343



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 manual covers the following models

TH8110U: For 1 Heat/1 Cool systems

TH8320U: For up to 3 Heat/2 Cool systems

TH8321U: For up to 3 Heat/2 Cool systems with dehumidification
(Pull thermostat from wallplate and turn over to find model number)

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 with this product please visit <http://yourhome.honeywell.com> or call Honeywell Customer Care toll-free at **1-800-468-1502**

Read and save these instructions.

® U.S. Registered Trademark.

US Patent No. 6595430, D509151 and other patents pending.

Copyright © 2009 Honeywell International Inc. All rights reserved.

69-1894EFS-01

Table of contents

About your new thermostat

Thermostat features 2
Programming at a glance 3
Quick reference to controls 4
Quick reference to status display 5

Programming & Operation

Clock setting..... 6
Fan setting..... 7
System setting..... 8
Using program schedules..... 9
Program schedule overrides 12
Vacation hold..... 14
Special features..... 15
Screen lock..... 16
Screen cleaning..... 17
Humidity display & control..... 18

Appendices

Battery replacement..... 20
Advanced functions 21
In case of difficulty..... 26
Optional remote sensors 28
Limited warranty..... 29

This thermostat is ready to go!

Your new thermostat is pre-programmed and ready to go. See [page 3](#) 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).

About your new thermostat

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

- 7-day program schedules maximize comfort and economy.
- Armchair programming: Just pull thermostat from the wall to set schedules.
- EnergyStar[®] compliant to greatly reduce your heating/cooling expenses.
- One-touch temp control overrides program schedule at any time.
- Precise comfort control keeps temperature within 1°F of the level you set.
- Change/check reminders let you know when to service or replace filters, batteries and other critical components.
- Large touchscreen display with backlight is easy to read—even in the dark.
- Select models display and control summer humidity.
- Select models accommodate optional outdoor or indoor remote sensors.

This thermostat is ready to go!

Your new thermostat is pre-programmed and ready to go. Just set the time and day. Then check the settings below and change if needed:

1. **Set clock**..... *See page 6*
2. **Select fan setting:** Preset to Auto *See page 7*
3. **Select system setting:** Preset to Heat *See page 8*
4. **Program schedules:** Preset to energy-saving levels while you're at work or asleep (assumes you wake at 6 am, leave at 8 am, return at 6 pm and go to bed at 10 pm) *See pages 10-13*

 **ONE-TOUCH TEMP CONTROL:** You can override the program schedule at any time, and manually adjust the temperature (see pages 12-14).

Quick reference to controls

Press day(s) to set program schedule (see page 11)

Press to select fan operation (see page 7)

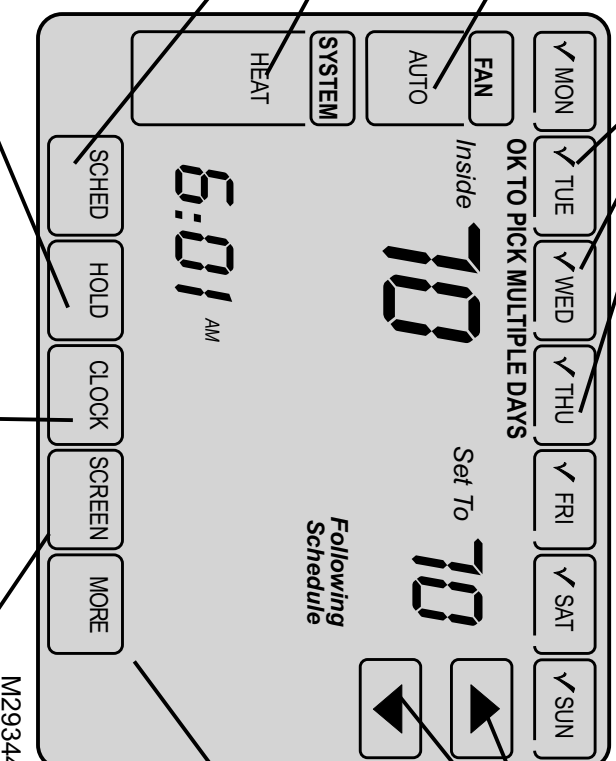
Press to select system type (see page 8)

Press to set program schedule (see page 11)

Press to override program schedule (see pages 12-14)

Press to set clock (see page 6)

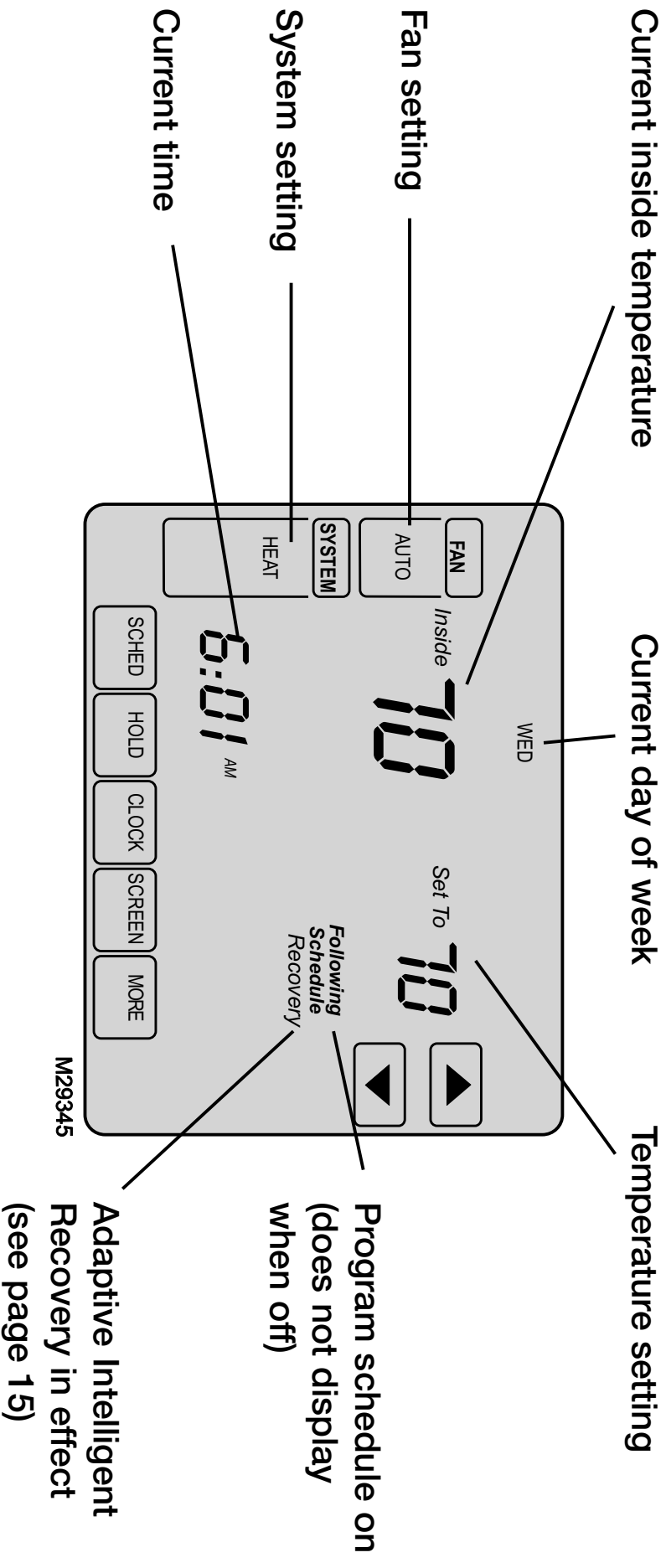
Press to lock keypad for 30 seconds to clean screen (see page 17)



Press to adjust temperature settings (see pages 11-14)

Press for more options (select models only)

Quick reference to status display

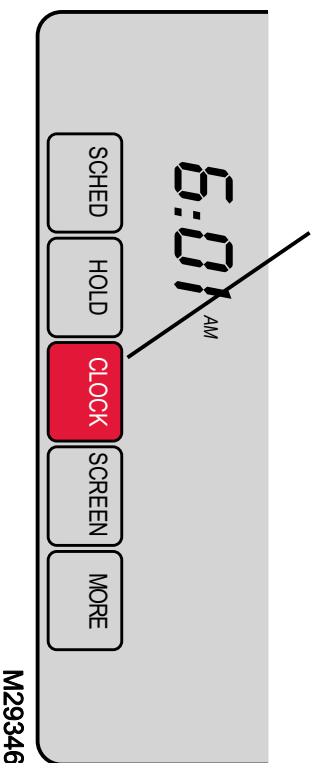


Other display messages:

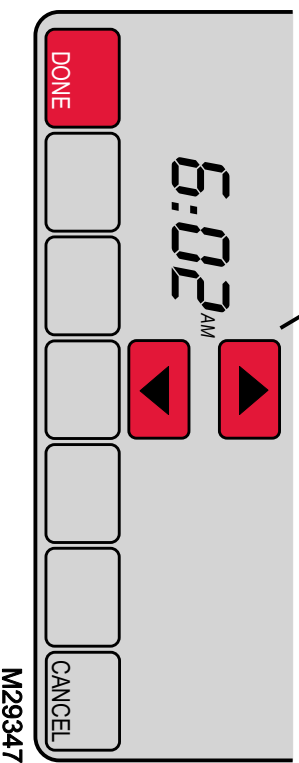
- **Cool On:** Cooling system is activated
- **Heat On:** Heating system is activated
- **Aux Heat On:** Auxiliary heating system is activated

Clock setting

Press **CLOCK**



Adjust time, then press **DONE**



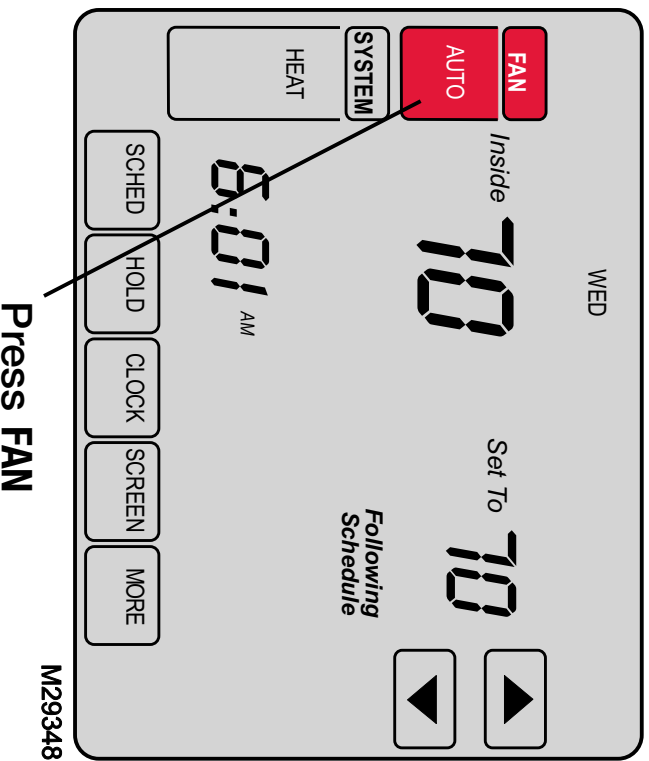
To set the current time display, press **CLOCK**, then press ▲ or ▼ to adjust the time. Press and hold ▲ or ▼ to advance the time more quickly.

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 22.

Fan setting



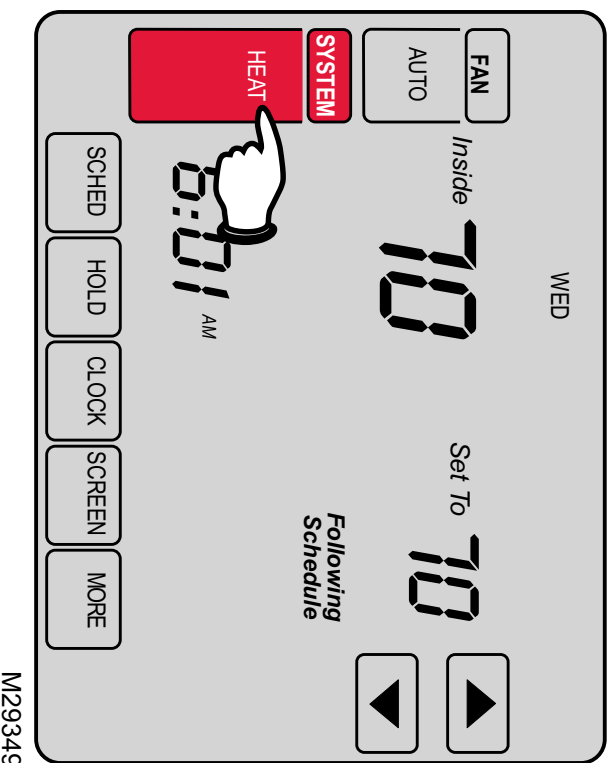
Note: If a fan schedule is programmed, “Auto” will run the fan schedule.

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 (see page 11). If you select On or Circ, the setting you select will remain active until you press **FAN** again to select Auto (see page 27 for more information).

System setting



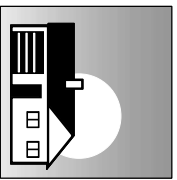
Press the **SYSTEM** button to select, then press **DONE**.

- **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. Compressor is locked out.**

** Select models only

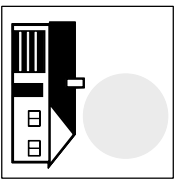
Save money by setting program schedules

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



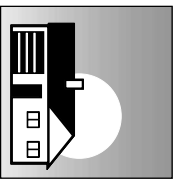
WAKE
6:00 am
70°

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



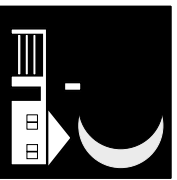
LEAVE
8:00 am
62°

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



RETURN
6:00 pm
70°

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







SLEEP
10:00 pm
62°

Set to the time you go to bed and the temperature you want overnight (usually an energy-saving level).

EnergyStar® settings for maximum cost savings

This thermostat pre-set uses EnergyStar® program settings. We recommend these settings, since they can reduce your heating/cooling expenses by as much as 33%. (See next page to adjust times and temperatures of each time period.)

	Heat (Mon-Fri)	Cool (Mon-Fri)	Heat (Sat-Sun)	Cool (Sat-Sun)
Wake (6:00 am) 	70°	78°	70°	78°
Leave (8:00 am) 	62°	85°	62° [Or cancel period]	85° [Or cancel period]
Return (6:00 pm) 	70°	78°	70° [Or cancel period]	78° [Or cancel period]
Sleep (10:00 pm) 	62°	82°	62°	82°

To adjust program schedules

Press **SCHEd**



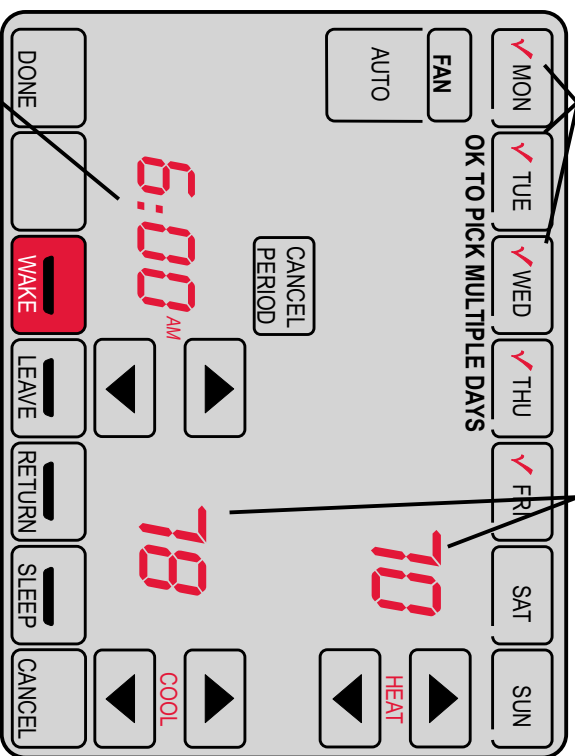
M29350

Press **EDIT**



M29351

Select day(s) Set heat/cool levels



M29352

Set time for program period to start

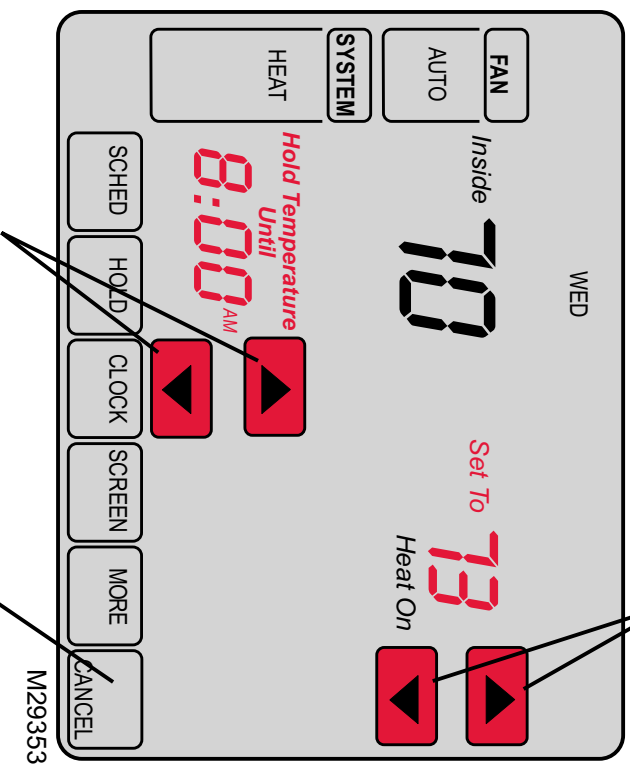
1. Press **SCHEd**, then **EDIT**.
2. Press day buttons (**MON-SUN**) to select day(s).
3. Press ▲ or ▼ to set Wake time for selected day(s).
4. Press ▲ or ▼ to set Heat and Cool temperature for this time period.
5. Press other time periods (**LEAVE, RETURN, SLEEP**) to set time and temperatures for 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 (see page 7).

Program schedule override (temporary)

Adjust temperature



Press to set timer

Press **CANCEL** (or **SCHEM**) to resume program schedule

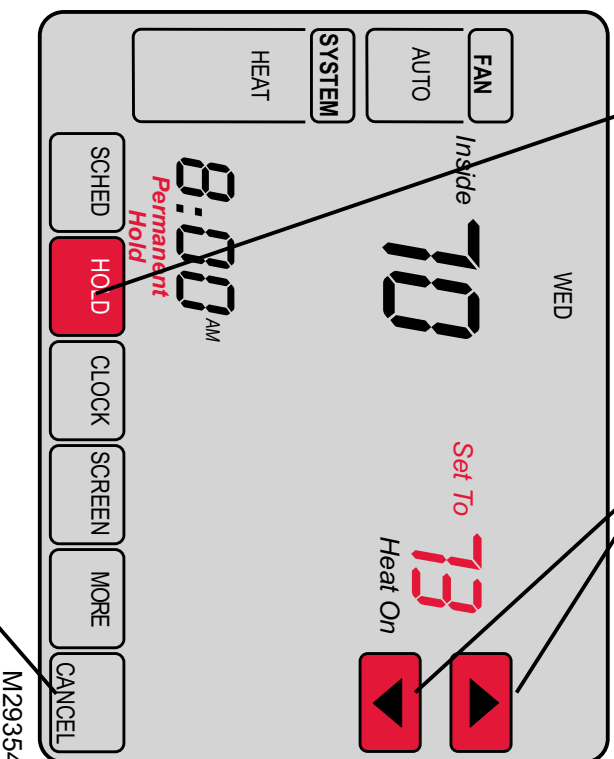
Press ▲ or ▼ to immediately adjust the temperature. This will temporarily override the temperature setting for the current time period. The new temperature will be maintained only until the time you set. When the timer expires, the program schedule will resume and set the temperature to the level you've programmed for the current time period.

To cancel the temporary setting at any time, press **CANCEL** (or **SCHEM**). The program schedule will resume.

Program schedule override (permanent)

Press **HOLD**

Adjust temperature



Press **CANCEL** (or **SCHEM**) to resume program schedule

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

Whatever temperature you set will be maintained 24 hours a day until you manually change it or press **CANCEL** (or **SCHEM**) to cancel “Hold” and resume the program schedule.

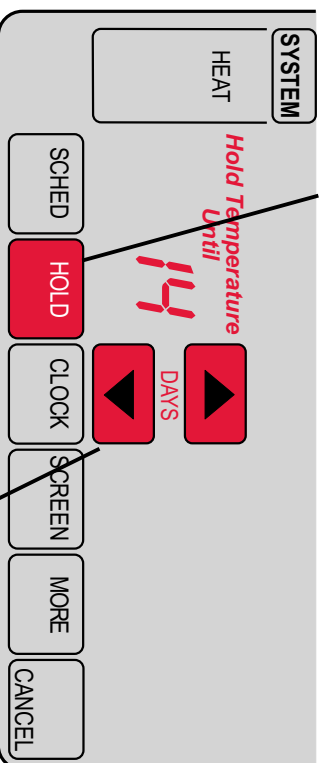
Vacation hold

ENGLISH



M29355

2. Press to set time for schedule to resume



M29356

4. Press to select number of days

69-1894EFS-01

This feature can suspend the program schedule for extended periods of time.

Press ▲ or ▼ to set the temperature you want, then press ▲ or ▼ to set the time of day you want the schedule to resume when you return. Press **HOLD** twice, then press ▲ or ▼ to select the number of days.

Whatever temperature you set will be maintained 24 hours a day for the number of days you select. After this number of days have elapsed, the previously programmed schedule will resume at the time you set.

If you return earlier than expected, press **CANCEL** (or **SCHE**D) to cancel “Hold” and resume the program schedule.

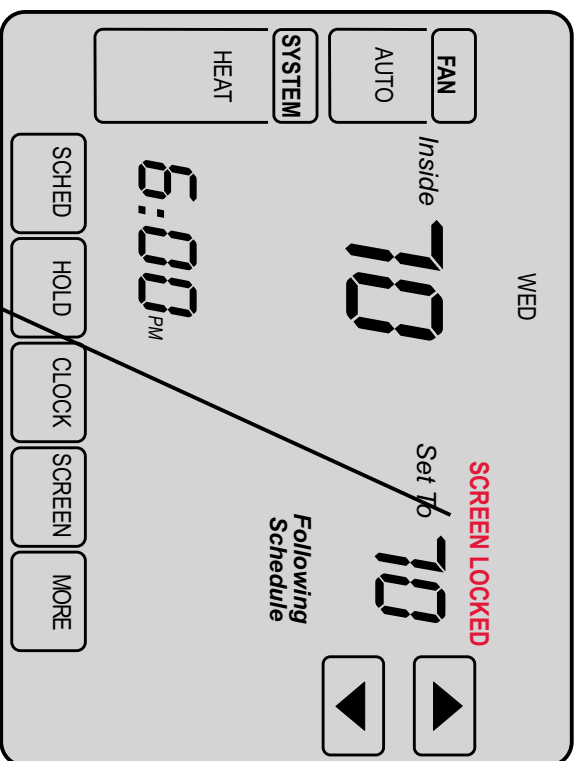
Special features

Auto Changeover: When set to Auto, the thermostat automatically selects heating or cooling depending on the indoor temperature.

Adaptive Intelligent Recovery: 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 will come on before 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



See advanced function
0670 (page 25) for
screen lock options

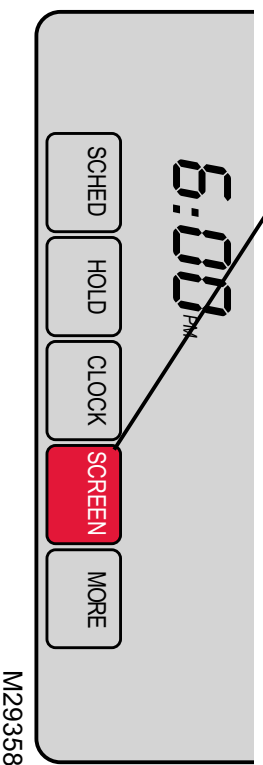
To prevent tampering, the screen can be partially or fully locked.

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

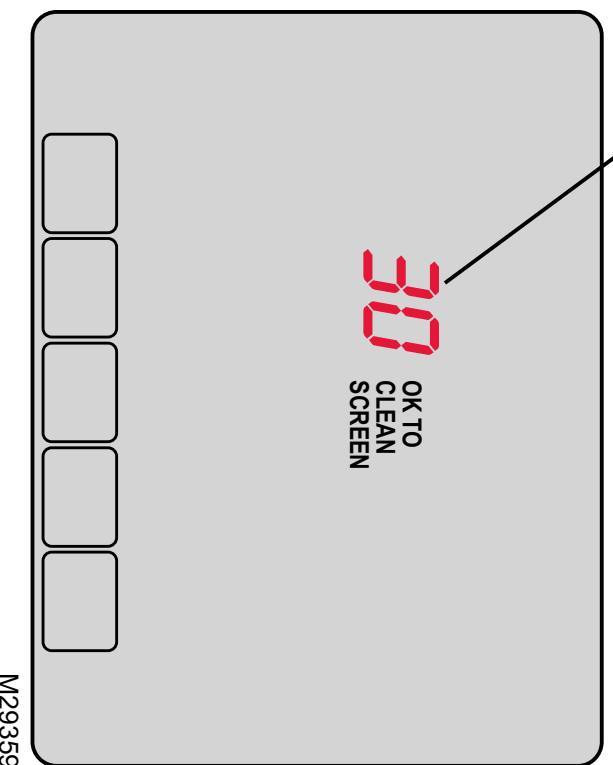
When the screen is fully locked, no keys function. To lock or unlock the screen, see advanced function **0670** on page 25.

Screen cleaning

Press **SCREEN**



Screen lock timer (30 seconds)



Press **SCREEN** to lock the screen for cleaning. The screen will remain locked for 30 seconds so you can clean the screen without changing any settings.

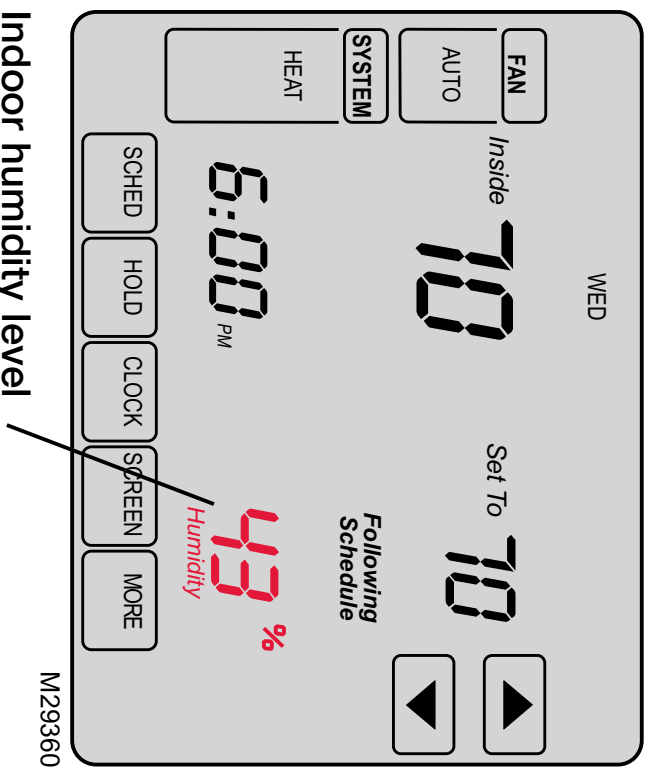
After 30 seconds, press **DONE** to resume normal operation, or press **SCREEN** again if you require more time for cleaning.

Note: Do not 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.

Humidity level display (select models)

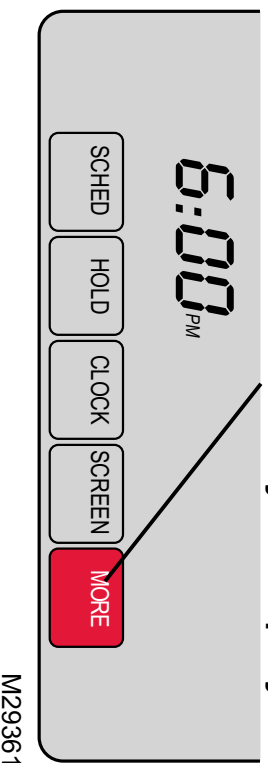
Select models can display the current indoor humidity level.

(If an optional outdoor sensor is installed, the outdoor temperature is shown instead of the humidity level. Press **MORE** to display the humidity level.)

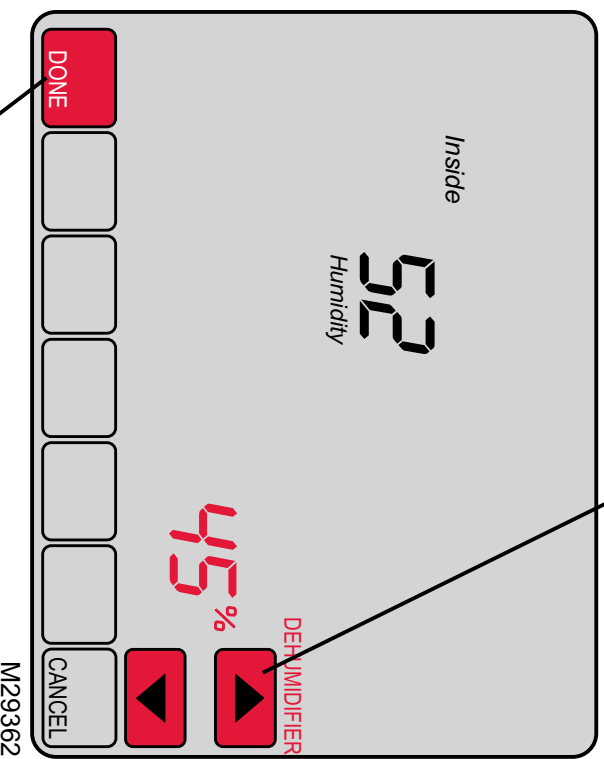


Dehumidification control (select models)

Press **MORE** until humidity is displayed



Press to set desired humidity



Press to save & exit

Select models allow you to decrease summer humidity.

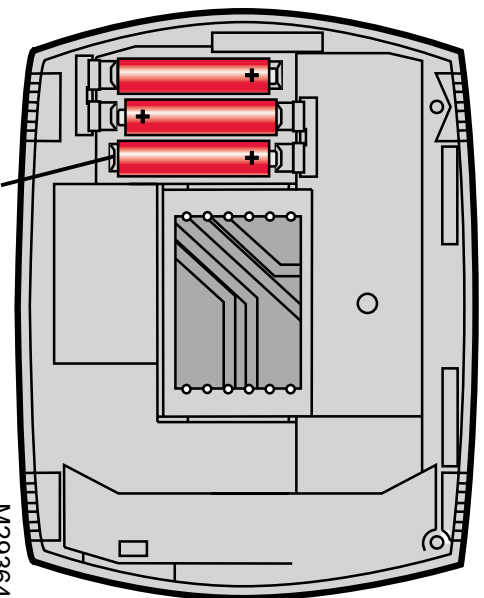
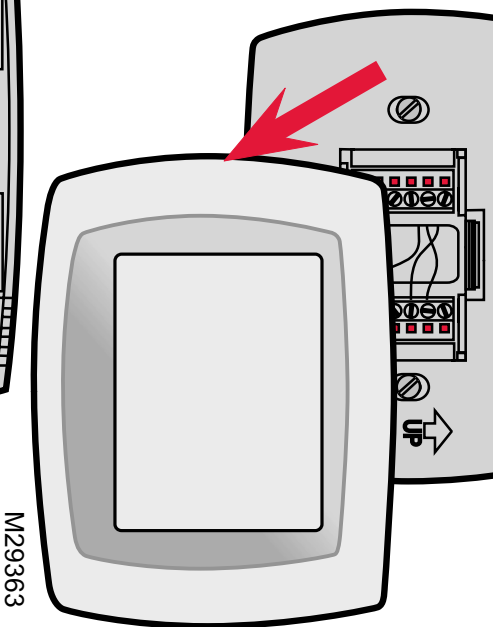
The thermostat monitors humidity. When humidity increases, the thermostat runs the air conditioner longer to reduce humidity (up to 3°F below your cooling temperature setting).

Press **MORE** until the humidity screen is displayed, then press ▲ or ▼ to set the desired humidity level.

Press **DONE** to save and exit, or press **CANCEL** to exit without saving changes.

Battery replacement

Grasp thermostat and pull to remove from wallplate



Insert 3 fresh AAA alkaline batteries

69-1894EFS-01

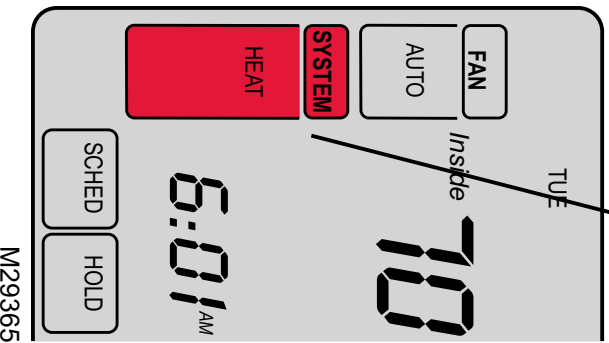
Batteries are optional (to provide backup power) if your thermostat was wired to run on AC power when installed.

Install fresh batteries immediately when the **L0 BATT** warning begins flashing. The warning flashes about 30 days before batteries are depleted.

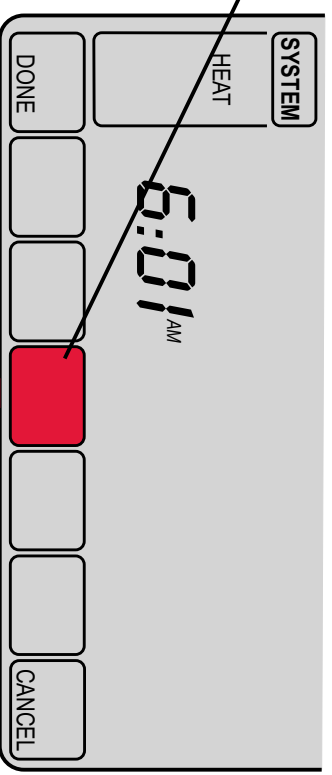
Even if the warning does not appear, you should replace batteries once a year, or before leaving home for more than a month.

Advanced functions

1. Press **SYSTEM**.

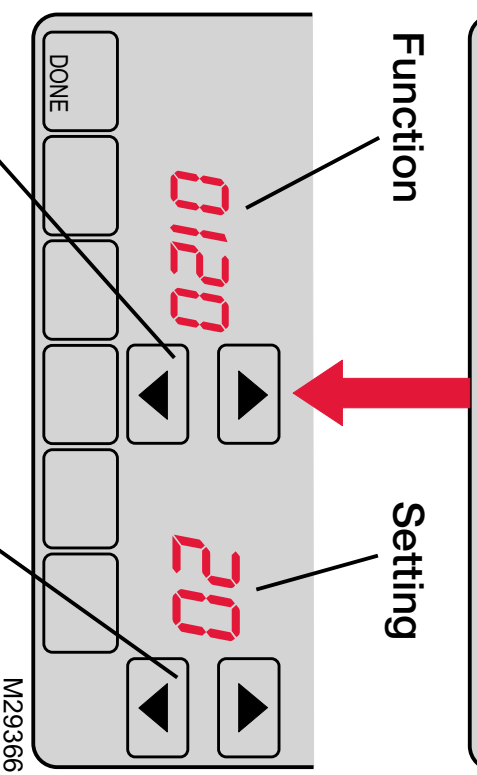


2. Press and hold **blank center key** until the display changes.



blank center key until the display changes.

3. Change settings as required (see pages 22-25).



4. Press **DONE** to exit & save changes.

Press ▲/▼ to select function

Press ▲/▼ to change setting

Advanced functions

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: 1 - 12 (i.e., January - December)

Date setting

Function Press ▲/▼ to change the current date:

0150

Options: 1 - 31

Advanced functions

Program schedule on/off

Function **0160** Press ▲/▼ to turn the program schedule on or off:

- Options:
- 0** Program schedule is off. Thermostat is non-programmable.
 - 4** Program schedule is on (7-day programmable).

Temperature format (°F/°C)

Function **0320** Press ▲/▼ to set the temperature display format:

- Options:
- 0** Fahrenheit
 - 1** Celsius

Daylight savings time on/off

Function **0330** The thermostat is pre-programmed to automatically adjust to daylight savings time. Press ▲/▼ to select an option:

- Options:
- 0** Off: No adjustment for daylight savings time
 - 1** 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)

Advanced functions

Furnace filter change reminder

Function

This feature displays an alert to remind you to change the furnace filter.

0500

Press ▲/▼ to set the desired reminder interval:

Options: 0 Off (no reminder to change furnace filter)

- 1 Reminder after 10-day run time (about 1 month)
- 2 Reminder after 30-day run time (about 3 months)
- 3 Reminder after 60-day run time (about 6 months)
- 4 Reminder after 90-day run time (about 9 months)
- 5 Reminder after 120-day run time (about 1 year)
- 6 Reminder after 365-day run time (about 3 years)

Note: Press **RESET** to cancel the alert

Humidifier pad change reminder

Function

This feature displays an alert to remind you to change the humidifier pad.

0510

Press ▲/▼ to set the desired interval:

Options: 0 Off (no reminder to change humidifier pad)

- 1 Reminder after 3 months
- 2 Reminder after 6 months
- 3 Reminder after 1 year

Note: Press **RESET** to cancel the alert

Advanced functions

UV lamp change reminder

Function This feature displays an alert to remind you to change the ultraviolet lamp.

0520 Press ▲/▼ to set the desired interval:

- Options:
- 0** Off (no reminder to change UV lamp)
 - 1** Reminder after 1 year

Note: Press **RESET** to cancel the alert

Program schedule periods

Function Press ▲/▼ to set the number of program periods:

0540

- Options:
- 2** Two program periods (Wake, Sleep)
 - 4** Four program periods (Wake, Leave, Return, Sleep)

Clock format

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

0640

- 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 16):

0670

- Options:
- 0** Screen is unlocked (fully functional)
 - 1** All functions locked except temperature controls and **CANCEL** key
 - 2** Screen is fully locked

In case of difficulty

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

Display is blank

- 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 thermostat is battery powered, make sure fresh AAA alkaline batteries are correctly installed (see page 20).

No response to key presses (or temperature will not change)

- Check to make sure the thermostat is not locked (see page 25).
Make sure heating and cooling temperatures are set to acceptable ranges:
- Heat: 40° to 90°F (4.5° to 32°C)
- Cool: 50° to 99°F (10° to 37°C)

Backlight is dim

- If thermostat is battery powered, make sure fresh AAA alkaline batteries are correctly installed (see page 20).
- 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.

In case of difficulty

Heating or cooling system does not respond

- Press **SYSTEM** to set system to Heat. Make sure the temperature is set higher than the Inside temperature.
- Press **SYSTEM** to set system to Cool. 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 (see page 15).

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

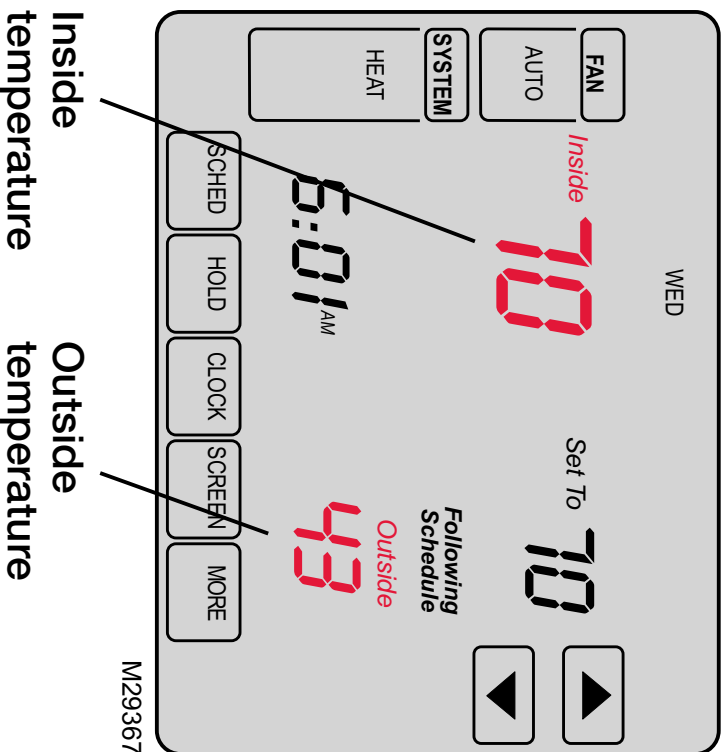
- This is normal operation. Auto indicates the thermostat is following the programmed fan setting. If Auto and On is shown, the fan is scheduled for “On” during this period (see page 7).

Optional remote sensors (select models)

If an outdoor sensor is installed, the current outdoor temperature is displayed.

If an indoor remote sensor is installed, the display shows the indoor temperature at the location of the sensor. (The internal sensor in the thermostat is disabled.)

If more than one indoor sensor is installed, the display shows an average of temperature readings from all sensors.



5-year limited warranty

Honeywell warrants this product, excluding battery, to be free from defects in the workmanship or materials, under normal use and service, for a period of five (5) years from the date of purchase by the consumer. If at any time during the warranty period the product is determined to be defective or malfunctions, Honeywell shall repair or replace it (at Honeywell's option).

If the product is defective,

- (i) return it, with a bill of sale or other dated proof of purchase, to the place from which you purchased it; or
- (ii) call Honeywell Customer Care at 1-800-468-1502. Customer Care will make the determination whether the product should be returned to the following address: Honeywell Return Goods, Dock 4 MN10-3860, 1885 Douglas Dr. N., Golden Valley, MN 55422, or whether a replacement product can be sent to you.

This warranty does not cover removal or reinstallation costs. This warranty shall not apply if it is shown by Honeywell that the defect or malfunction was caused by damage which occurred while the product was in the possession of a consumer.

Honeywell's sole responsibility shall be to repair or replace the product within the terms stated above. HONEYWELL SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE OF ANY KIND, INCLUDING ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING, DIRECTLY OR INDIRECTLY, FROM ANY BREACH OF ANY WARRANTY, EXPRESS OR IMPLIED, OR ANY OTHER FAILURE OF THIS PRODUCT. Some states do not allow the exclusion or limitation of incidental or consequential damages, so this limitation may not apply to you.

THIS WARRANTY IS THE ONLY EXPRESS WARRANTY HONEYWELL MAKES ON THIS PRODUCT. THE DURATION OF ANY IMPLIED WARRANTIES, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IS HEREBY LIMITED TO THE FIVE-YEAR DURATION OF THIS WARRANTY. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

This warranty gives you specific legal rights, and you may have other rights which vary from state to state.

If you have any questions concerning this warranty, please write Honeywell Customer Relations, 1985 Douglas Dr, Golden Valley, MN 55422 or call 1-800-468-1502. In Canada, write Retail Products ON15-02H, Honeywell Limited/Honeywell Limitée, 35 Dynamic Drive, Toronto, Ontario M1V4Z9.

Automation and Control Solutions

Honeywell International Inc.

1985 Douglas Drive North

Golden Valley, MN 55422

<http://yourhome.honeywell.com>

Honeywell Limited-Honeywell Limitée

35 Dynamic Drive

Toronto, Ontario M1V 4Z9



Printed in U.S.A. on recycled
paper containing at least 10%
post-consumer paper fibers.

® U.S. Registered Trademark.

© 2009 Honeywell International Inc.

US Patent No. 6595430, D509151; other patents pending
69-1894EFS—01 M.S. 05-09

Honeywell