Aprilaire®

8400 Series Thermostats

Owner's Manual

Includes Operating Instructions and Warranty Information

READ AND SAVE THESE INSTRUCTIONS

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ABOUT YOUR NEW THERMOSTAT

THERMOSTAT FEATURES

All 8400 series thermostats

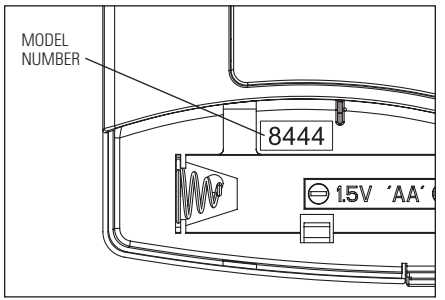
- Large, clear, backlit display is easy to read – even in the dark.
- Displays room temperature, temperature setting, and optional outdoor temperature.
- Front battery door access for fast, easy replacement.
- Built in compressor protection.
- Circulation fan mode for air cleaning.
- Air filter, humidifier, dehumidifier, and HVAC service reminders.
- Auto backlight (activated with first button press).

Programmable models only (8463, 8465, 8466)

- Separately programmable weekday/weekend schedules.
- Easy to use temperature control can override program schedule at any time.
- Progressive recovery.

HOW TO IDENTIFY YOUR THERMOSTAT'S MODEL NUMBER

To locate the model number, remove the battery cover.



Model 8444 Heat/Cool Non-Programmable

Model 8446 Heat Pump Non-Programmable

Model 8448 Heat/Cool or Heat Pump Multi-Stage Non-Programmable

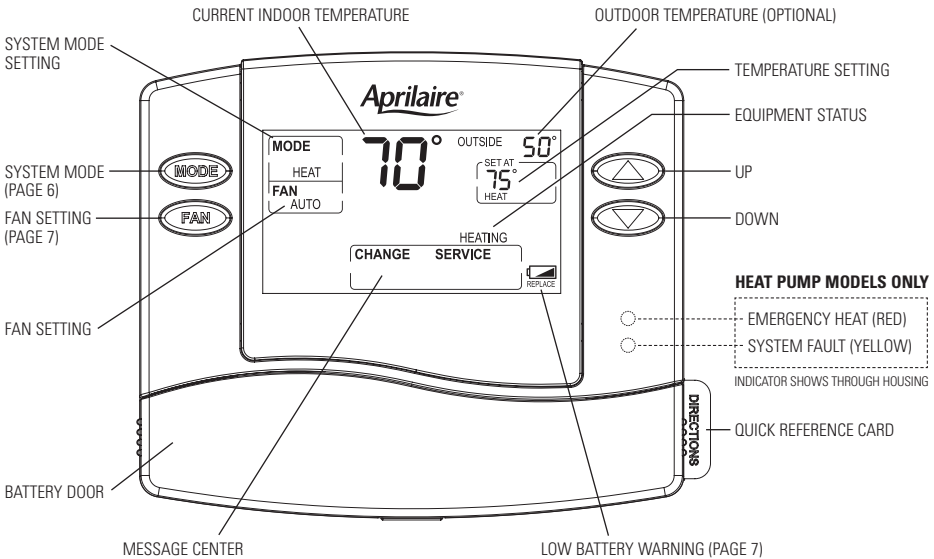
Model 8463 Heat/Cool Programmable

Model 8465 Heat Pump Programmable

Model 8466 Heat/Cool or Heat Pump Multi-Stage Programmable

ABOUT YOUR NEW THERMOSTAT – NON-PROGRAMMABLE MODELS

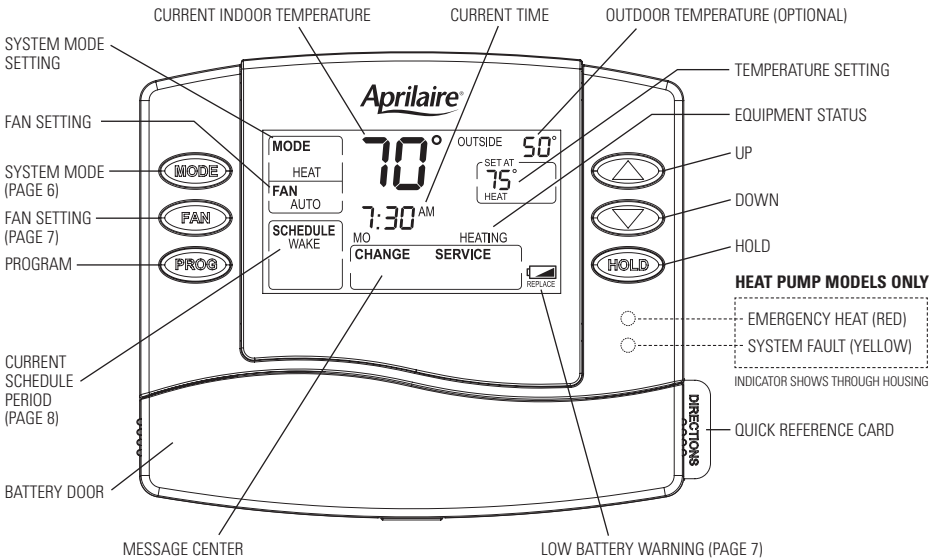
CONTROLS & DISPLAY OVERVIEW – MODELS 8444, 8446, 8448



NOTE: BACKLIGHT IS ACTIVATED WITH FIRST BUTTON PRESS AND AUTOMATICALLY TURNS OFF.

ABOUT YOUR NEW THERMOSTAT – PROGRAMMABLE MODELS

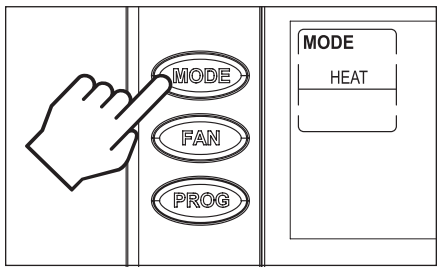
CONTROLS & DISPLAY OVERVIEW – MODELS 8463, 8465, 8466



NOTE: BACKLIGHT IS ACTIVATED WITH FIRST BUTTON PRESS AND AUTOMATICALLY TURNS OFF.

OPERATION – ALL MODELS

SELECT SYSTEM MODE (OFF/HEAT/EM-HEAT/COOL/AUTO)



Press (MODE) to select:

AUTO: Thermostat automatically selects heating or cooling depending on the indoor temperature.

OFF: Heating and cooling systems are off.

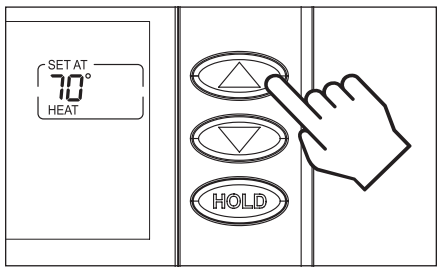
HEAT: Thermostat controls only the heating system.

COOL: Thermostat controls only the cooling system.

EM-HEAT: Thermostat controls emergency/auxiliary heat. Heat pump will not operate. (Only for heat pumps with auxiliary heat on models 8446, 8465, 8448HP and 8466HP.)

CHANGE TEMPERATURE SETTING

Applies to programmable models (8463, 8465, 8466) when in HOLD mode and to non-programmable models (8444, 8846, 8448).

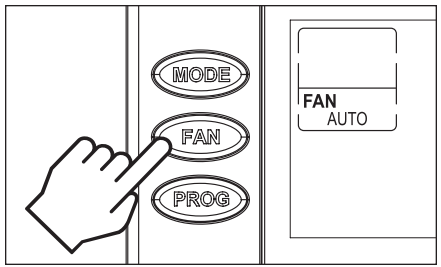


Press (▲) or (▼) to adjust the current setting.

In AUTO use (MODE) to switch between the HEAT and COOL setting.

OPERATION – ALL MODELS

SELECT FAN SETTING (ON/AUTO/CIRC)



Press (FAN) to select:

ON: Fan runs continuously. Use this mode for maximum air circulation/air cleaning.

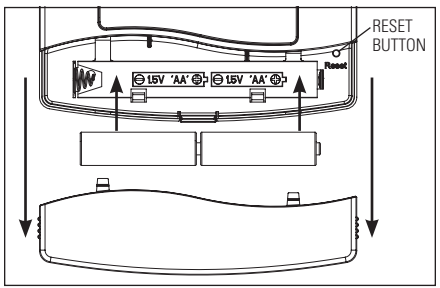
AUTO: Fan runs only when the heating or cooling system is on.

CIRC: Same as AUTO, but ensures the fan is on for at least 20 minutes per hour. Use this mode for a balance of energy savings and air circulation/cleaning.

RESET SERVICE REMINDER MESSAGES

Press and hold (▲) and (▼) together for three seconds to reset a service reminder message.

BATTERY INSTALLATION AND RESET BUTTON



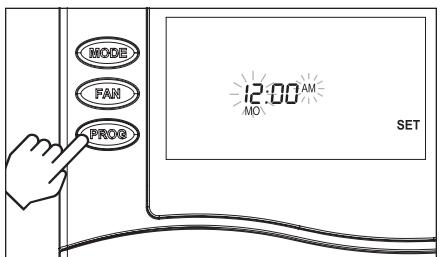
The thermostat can either be AC or battery powered, or both. When wired to be AC powered, the batteries are optional and only provide backup power to the clock.

The thermostat has a memory backup that saves the thermostat's settings in case of a power interruption.

The reset button located under the battery cover can be used to reset the thermostat back to factory defaults.

SET TIME AND DAY

1. **Press** (PROG) to enter time setting mode. Hour and AM/PM are flashing.



2. **Press** (▲) or (▼) to adjust the hour.
3. **Press** (MODE), the minutes flash. **Press** (▲) or (▼) to adjust the minutes.
4. **Press** (MODE), the day flashes. **Press** (▲) or (▼) to adjust day.
5. **Press** (MODE) to end. "DONE" will display.

The thermostat will save changes and return to Normal mode if no key is pressed in 20 seconds.

UNDERSTANDING PROGRAM SCHEDULES

The daily schedule is split into four sections:

WAKE: 6:00 AM - 8:00 AM – Temperature you would prefer to wake up to, until you leave for the day.

LEAVE: 8:00 AM - 5:00 PM – Temperature when you are away from the house during the day.

RETURN: 5:00 PM - 10:00 PM – Temperature you would prefer to return to, until bedtime.

SLEEP: 10:00 PM - 6:00 AM – Temperature you would prefer during the night.

The times shown are the defaults. The start time and temperature of each section can be changed to fit your schedule (see page 10).

OPERATION & PROGRAMMING – PROGRAMMABLE MODELS ONLY (8463, 8465, 8466)

UNDERSTANDING PROGRAM SCHEDULES (CONTINUED)

Event	Event designator	Start time	Set temps	
			Heat	Cool
1	WAKE	6:00 AM	70°F (21°C)	78°F (26°C)
2	LEAVE	8:00 AM	62°F (17°C)	85°F (29°C)
3	RETURN	5:00 PM	70°F (21°C)	78°F (26°C)
4	SLEEP	10:00 PM	62°F (17°C)	82°F (28°C)

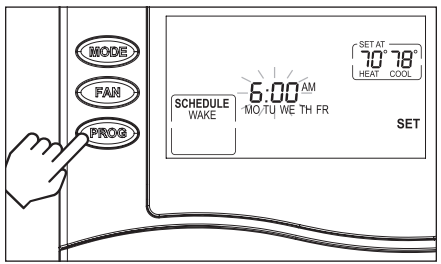
PROGRESSIVE RECOVERY

The Progressive Recovery feature, if enabled by the installer, allows the thermostat to activate the heating and cooling equipment **PRIOR** to a scheduled event in order to reach the desired temperature at the start of that scheduled event. When a heating or cooling call is active for Progressive Recovery, the current event schedule will flash.

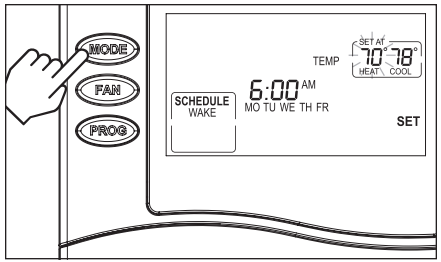
Example:
Set the Wake time to 6:00 AM, and the temperature to 70°. The heat will come on before 6:00 AM, so the temperature is 70° by the time you wake at 6:00.

CHANGING PROGRAM SCHEDULES

1. **Press** (PROG) twice to enter program setting mode. If the backlight is not already active the first button press will activate the backlight and two additional button presses are required. Start time of the WAKE event is flashing.



2. **Press** (▲) or (▼) to adjust the start time
3. **Press** (MODE), HEAT setting flashes. **Press** (▲) or (▼) to adjust the heat setting.



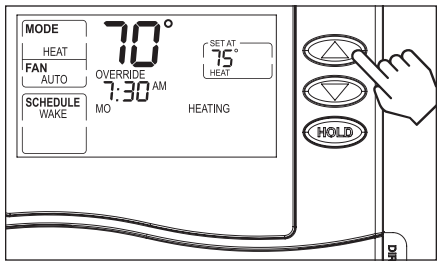
4. **Press** (MODE), COOL setting flashes. **Press** (▲) or (▼) to adjust the cool setting.
5. **Press** (MODE) to advance the next event, and repeat steps 2-5 for LEAVE, RETURN and SLEEP events.
6. **Press** (MODE) to change to weekend program. Repeat steps 2-5 for the weekend program.
7. **Press** (MODE) to end. "DONE" will display.

The thermostat will save changes and return to Normal mode if no key is pressed in 20 seconds.

OPERATION & PROGRAMMING – PROGRAMMABLE MODELS ONLY (8463, 8465, 8466)

PROGRAM SCHEDULE OVERRIDES (TEMPORARY, PERMANENT)

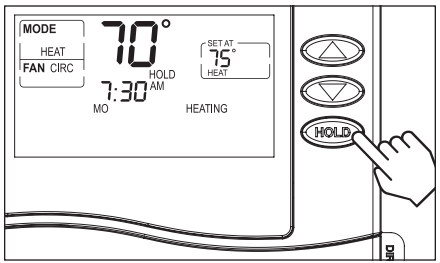
Temporary program override



Press (▲) or (▼) to immediately adjust the temperature. This will temporarily override the temperature setting for the current programmed time period. The new temperature setting will be maintained until the next time period of the programmed schedule.

To cancel the temporary override, adjust the temperature setting back to the programmed temperature, or **press** (HOLD) twice. If the backlight is not already active the first button press will activate the backlight and two additional button presses are required.

Permanent program override



Press (HOLD) to permanently hold the temperature at its current setting. This will override the temperature settings for all time periods of the programmed schedule. With the thermostat in permanent override, the thermostat temperature can be manually adjusted and will stay at that setting until the override is cancelled.

To cancel the permanent override **press** (HOLD).

ELECTRONIC THERMOSTAT FIVE YEAR LIMITED WARRANTY

Your Research Products Corporation Aprilaire® Thermostat unit is expressly warranted for five (5) years from date of installation to be free from defects in materials or workmanship.

Research Products Corporation's exclusive obligation under this warranty shall be to supply, without charge, a replacement for any thermostat which is found to be defective within such five (5) year period and which is returned, together with the date of installation, no later than thirty (30) days after said five (5) year period by you to either your original supplier or to Research Products Corporation, Madison, Wisconsin 53701.

THIS WARRANTY SHALL NOT OBLIGATE RESEARCH PRODUCTS CORPORATION FOR ANY LABOR COSTS AND SHALL NOT APPLY TO DEFECTS IN WORKMANSHIP OR MATERIALS FURNISHED BY YOUR INSTALLER AS CONTRASTED TO DEFECTS IN THE THERMOSTAT ITSELF.

IMPLIED WARRANTIES OF MERCHANTABILITY OF FITNESS FOR A PARTICULAR PURPOSE SHALL BE LIMITED IN DURATION TO THE AFORESAID FIVE YEAR PERIOD. RESEARCH PRODUCTS CORPORATION'S LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, OTHER THAN DAMAGES FOR PERSONAL INJURIES, RESULTING FROM ANY BREACH OF THE AFORESAID IMPLIED WARRANTIES OR THE ABOVE LIMITED WARRANTY IS EXPRESSLY EXCLUDED. THIS LIMITED WARRANTY IS VOID IF DEFECT(S) RESULT FROM FAILURE TO HAVE THIS THERMOSTAT INSTALLED BY A QUALIFIED HEATING AND AIR CONDITIONING CONTRACTOR. IF THE LIMITED WARRANTY IS VOID DUE TO FAILURE TO USE A QUALIFIED CONTRACTOR, ALL DISCLAIMERS OF IMPLIED WARRANTIES SHALL BE EFFECTIVE UPON INSTALLATION.

Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above exclusions or limitations may not apply to you.

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

This equipment if installed in strict accordance with the manufacturer's instructions, complies with the limits for a Class B computing device pursuant to Subpart J of Part 15 of FCC Rules.

WARRANTY REGISTRATION

Visit us on-line at www.aprilaire.com to register your Aprilaire product. If you do not have on-line access, please mail a postcard with your name, address, phone number, product purchased and date of purchase to: Research Products Corporation, P.O. BOX 1467, Madison, WI 53701.

Your Warranty Registration information will not be sold or shared outside of this company.

Aprilaire®

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P.O. Box 1467 • Madison, WI 53701-1467
Phone: 800/334-6011 • Fax: 608/257-4357
www.aprilaire.com

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