

Aprilaire®

Model 8800 Universal Communicating Thermostat



Owner's Manual

Includes
Operating Instructions and
Warranty Information

READ AND SAVE THESE INSTRUCTIONS

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ABOUT YOUR NEW THERMOSTAT

WARNING

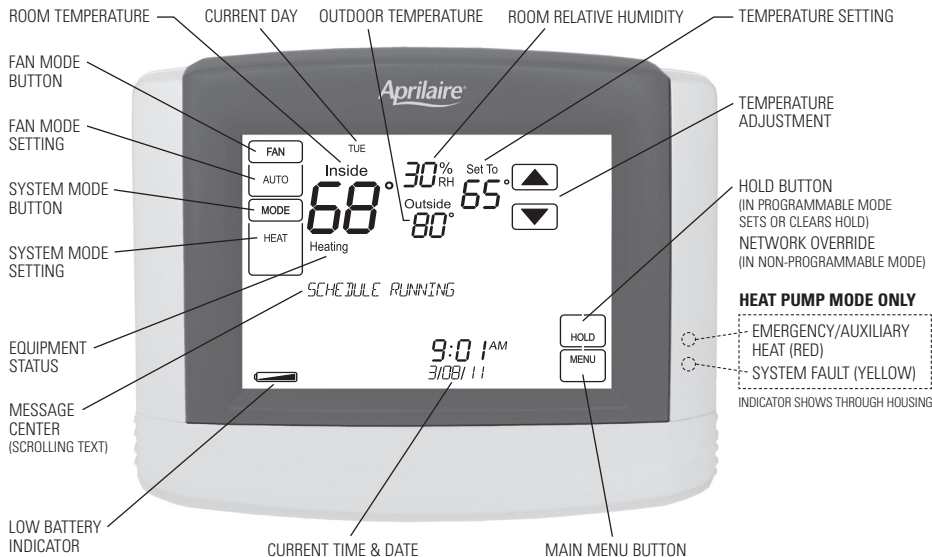
Do not use sharp instruments to press touch screen. Only use your fingertips.

THERMOSTAT FEATURES

- Large touch screen with adjustable backlight – constant backlight available.
- Message center provides feedback and instructions.
- 7 day programmability or separately programmable weekday/weekend schedules.
- Thermostat can be removed from the wall for easy programming (batteries must be installed).
- Front battery door access for fast, easy replacement.
- Displays room temperature, room humidity, temperature setting, and optional outdoor temperature.
- Air filter, humidifier, dehumidifier, and HVAC service indicators.
- Programmable fan control with fan circulation mode.
- Easy to use temperature control can override program schedule at any time.
- Progressive recovery ensures proper temperature at the start of a program event.
- Built in compressor protection prevents damage to your equipment.
- RS485 communications ready.
- Universal system compatibility.
- Configurable to control a humidifier and dehumidifier.

ABOUT YOUR NEW THERMOSTAT

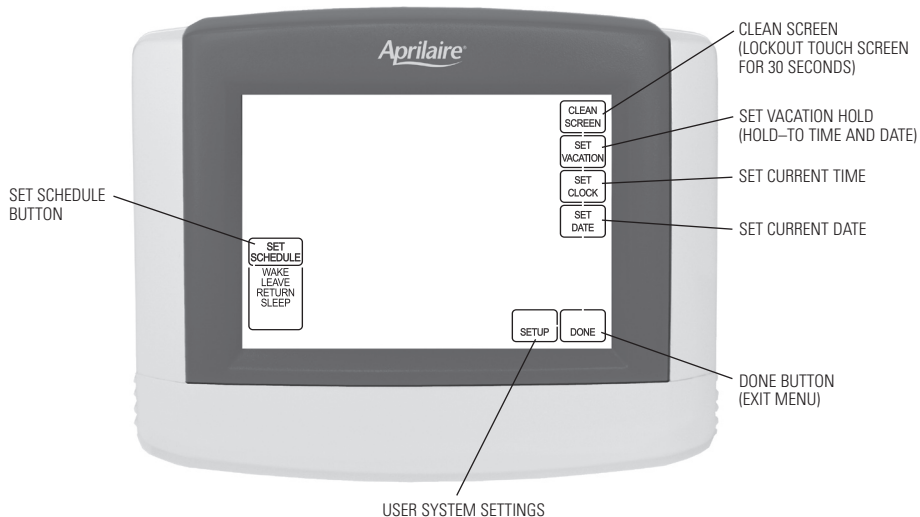
CONTROLS & DISPLAY OVERVIEW – HOME SCREEN



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

ABOUT YOUR NEW THERMOSTAT

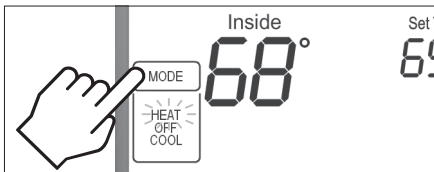
CONTROLS & DISPLAY OVERVIEW – MAIN MENU



OPERATION

SELECT SYSTEM MODE

(EM HEAT/HEAT/OFF/COOL/AUTO)



Press **[MODE]** to select:

EM HEAT: (only for heat pumps with auxiliary heat)
Thermostat controls auxiliary heat. Heat pump will not operate in EM HEAT mode.

HEAT: Thermostat controls only the heating system.

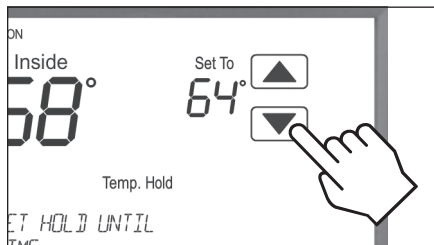
OFF: Heating and cooling systems are off.

COOL: Thermostat controls only the cooling system.

AUTO: (if enabled in installer setup) Thermostat automatically selects heating or cooling depending on the indoor temperature.

Press **[DONE]** to save and exit, or **[CANCEL]** to exit without saving. The thermostat will save and exit if nothing is pressed within 10 seconds.

CHANGE TEMPERATURE SET POINT

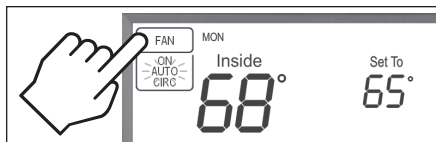


Press **▲** or **▼** to adjust the current set point.
(See Program Schedule Holds on pages 17-19 for more information.)

OPERATION

SELECT FAN SETTING (ON/AUTO/CIRC)

When the fan mode is changed during a program event it remains in that mode until the next event starts. The fan must be programmed to FAN ON in the schedule to run continuously through all events.



Press **[FAN]** to select:

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

Press **[DONE]** to save and exit, or **[CANCEL]** to exit without saving. The thermostat will save and exit if nothing is pressed within 10 seconds.

CLEAN SCREEN

Press **[MENU]** to enter the main menu.

Press **[CLEAN SCREEN]** to disable the touch screen for 30 seconds for cleaning.

Note: Use a soft damp cloth to clean the screen. Use water or household glass cleaner. Do not spray liquids directly on the screen.

MAINTENANCE REMINDERS

Maintenance reminders are set up by the installer to indicate when the equipment is due for service. If a maintenance reminder is displayed, call your HVAC dealer for service. They can be cleared by pressing **[MENU]** to enter the main menu, then **[Next]** to clear each reminder.

OPERATION

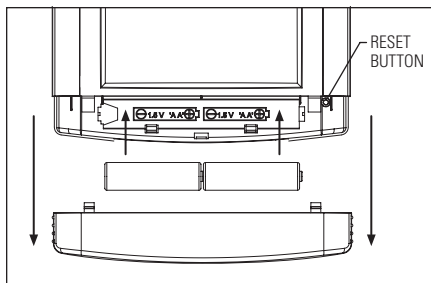
BATTERY REPLACEMENT

Batteries are not required for proper operation. The thermostat is a 24VAC powered device with a battery back-up for the clock.

The thermostat has a memory backup that saves the thermostat's settings in case of a power interruption. The system settings will be retained but the clock will reset after 90 seconds with no battery or AC power.

Replace the batteries every year or when the low battery indicator comes on.

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



WARNING

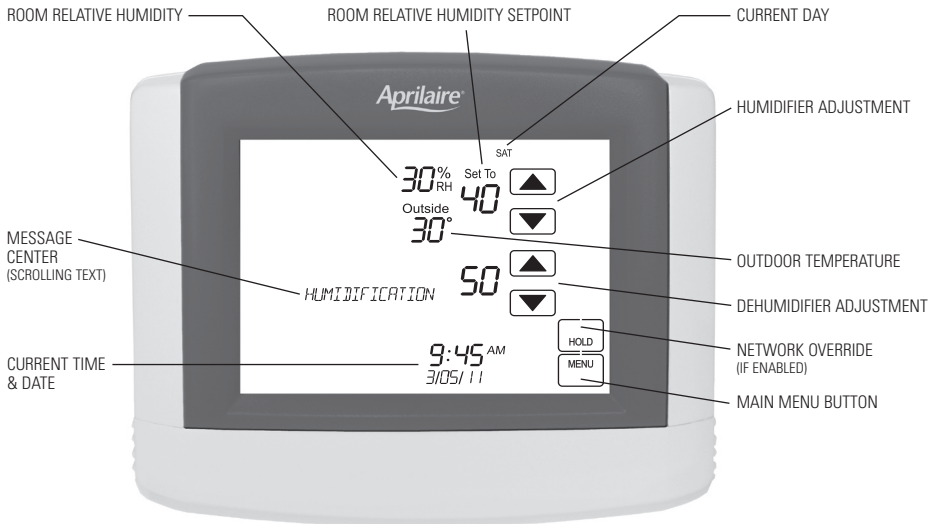
The reset button should only be used by the installer.

HUMIDISTAT FUNCTIONS

HUMIDISTAT CONTROL SCREEN

The Model 8800 has the option of being configured as a humidistat that can control a humidifier and dehumidifier.

Note: Humidistat mode is selected in the user setup menu.

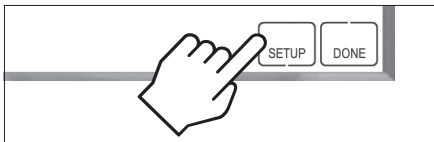


HUMIDISTAT FUNCTIONS

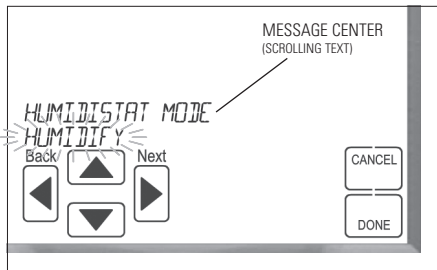
HOW TO ENTER THE SETUP MENU TO CHANGE HUMIDISTAT MODE

Press **[MENU]** to enter the main menu.

Press **[SETUP]** to enter the setup menu.



Press **[Next]** or **[Back]** to page through the settings, until you get to the Humidistat Mode Setting (the setting is displayed in the message center).



Press **▲** or **▼** to adjust the setting. (Selected option flashes.)

Press **[DONE]** to save and exit, or **[CANCEL]** to exit without saving.

The thermostat will discard changes and exit if nothing is pressed within 60 seconds.

NETWORK FEATURES

NETWORK OVERRIDE

The network override feature is only available to be enabled when the thermostat is set to non-programmable mode or humidistat mode. When enabled, this feature can be used by **pressing [HOLD]**.

SECURITY

A four digit security PIN can be enabled to restrict access to the system. If you forget your PIN, you can access the thermostat with the master PIN 7777.

STATUS INDICATORS

The status indicator is located at the top of the screen. When the thermostat sends or receives messages, the bars flash across the screen. The message center will display "COMMUNICATION LOST" if the thermostat has not received communications in the last 15 minutes.

BARS FLASH
ACROSS SCREEN

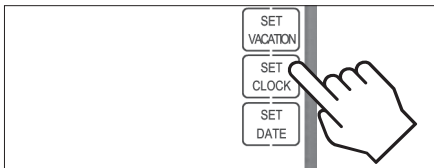


PROGRAMMING

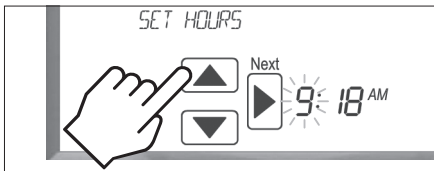
SET TIME

Press **[MENU]** to enter the main menu.

Press **[SET CLOCK]** to enter clock menu.



Press **▲** or **▼** to set the hour.



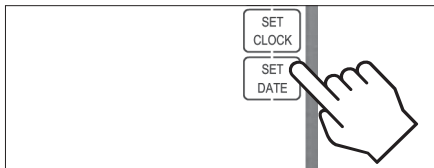
Press **[Next]**, then **▲** or **▼** to set the minute.

Press **[DONE]** to save and exit, or **[CANCEL]** to exit without saving. The thermostat will save and exit if nothing is pressed within 20 seconds.

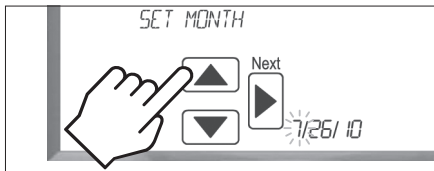
SET DATE

Press **[MENU]** to enter the main menu.

Press **[SET DATE]** to enter date menu.



Press **▲** or **▼** to set the month.



Press **[Next]**, then **▲** or **▼** to set the day.

Press **[Next]**, then **▲** or **▼** to set the year.

Press **[DONE]** to save and exit, or **[CANCEL]** to exit without saving. The thermostat will save and exit if nothing is pressed within 20 seconds.

PROGRAMMING

UNDERSTANDING PROGRAM SCHEDULES

The daily schedule is split into four events:

WAKE: temperature you would prefer to wake up to.

LEAVE: temperature when you are away from the house.

RETURN: temperature you would prefer to return home to.

SLEEP: temperature you would prefer while sleeping.

The times shown in the table below are the defaults. The start time and temperature of each section can be changed to fit your schedule. (See Changing Program Schedules section on pages 15-16.)

This thermostat is pre-set to use the following program settings recommended by the Department of Energy (see table below). These settings are intended to reduce your heating/cooling expenses. The fan program is pre-set to AUTO for all events.

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

PROGRAMMING

UNDERSTANDING PROGRAM SCHEDULES (CONTINUED)

Optionally, the thermostat can be set to a two event or commercial schedule. (See Setup Menu on page 20.)

Event designator	Start time	Set temperature		Fan
		Heat	Cool	
WAKE/OCCUPIED	6:00AM	70°F (21°C)	78°F (26°C)	AUTO
LEAVE/UNOCCUPIED	10:00PM	62°F (17°C)	82°F (28°C)	AUTO

PROGRESSIVE RECOVERY

The Progressive Recovery feature allows the thermostat to activate the heating and cooling equipment prior to an event in order to reach the desired temperature at the start of the next scheduled event.

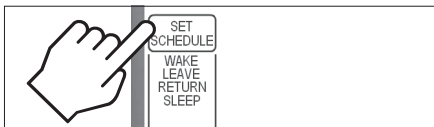
Example: If the WAKE time is 6 am, and the temperature is 70°, the heat will come on before 6 am, so the temperature is 70° by the time you wake at 6 am.

PROGRAMMING

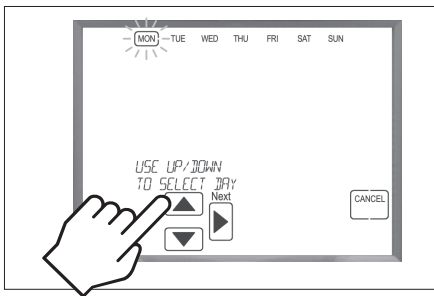
CHANGING PROGRAM SCHEDULES

Press [MENU] to enter the main menu.

Press [SET SCHEDULE] to enter schedule programming.



Press ▲ or ▼ to select the day.

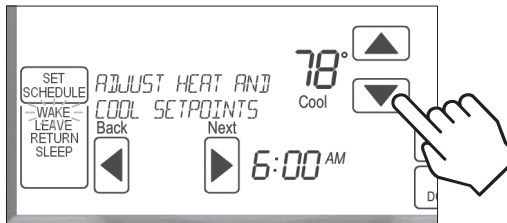


Note: This step is not displayed for weekday/weekend schedules.

Press [Next], then ▲ or ▼ to set the start time of the first event.



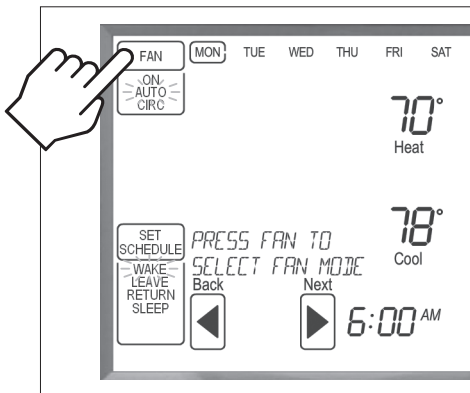
Press [Next], then ▲ or ▼ to set the setpoints of the first event.



PROGRAMMING

CHANGING PROGRAM SCHEDULES (CONTINUED)

Press **[Next]**, then **[FAN]** to set the fan mode of the first event.

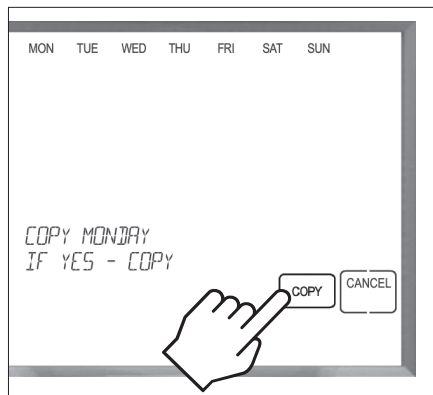


Press **[Next]** to advance to the next event.

Repeat above process for each remaining event.

Press **[DONE]** to save the schedule for the day.

The thermostat will display the COPY option.



Press **[COPY]** to copy the schedule of the day just programmed to any other day.

OR

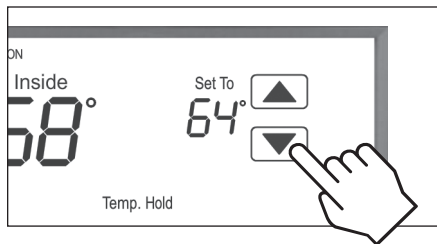
Press **[CANCEL]** to proceed to the next day and repeat the above process.

PROGRAMMING

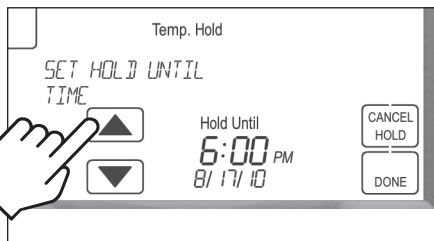
PROGRAM SCHEDULE HOLDS – TEMPORARY

TEMPORARY PROGRAM HOLD

Press ▲ or ▼ to immediately adjust the temperature when the schedule is running. This will temporarily hold the temperature setting until the next scheduled event.



Press ▲ or ▼ to adjust the end time of the hold. If end time is not adjusted, the Temporary Hold will end at the start of the next event.



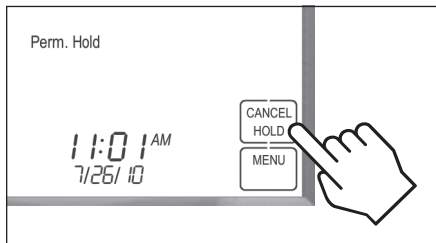
To cancel the Temporary Hold, press **[CANCEL HOLD]**.

PROGRAMMING

PROGRAM SCHEDULE HOLDS – PERMANENT

PERMANENT PROGRAM HOLD

Press **[HOLD]** to permanently hold the temperature at its current setting while the schedule is running. This will override the temperature settings for all events. With the thermostat in Permanent Hold, the temperature setting and fan mode can be adjusted and will stay at that setting until the hold is cancelled.



To cancel the Permanent Hold, press **[CANCEL HOLD]**.

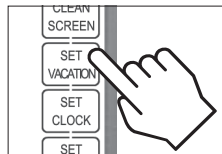
PROGRAM SCHEDULE HOLDS – VACATION

VACATION PROGRAM HOLD

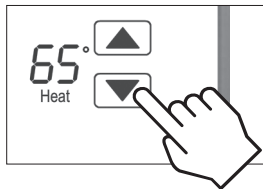
This energy saving feature allows you to suspend the programmed schedule for extended periods of time. The temperature you select will be maintained 24 hours a day until the vacation program hold end date and time. Once the end date and time have been surpassed, the previously programmed schedule will resume. If you return earlier than expected, press **[CANCEL HOLD]** to resume the programmed schedule.

Press **[MENU]** to enter the main menu.

Press **[SET VACATION]** to enter vacation program hold.



Press **▲** or **▼** to adjust the temperature setting.

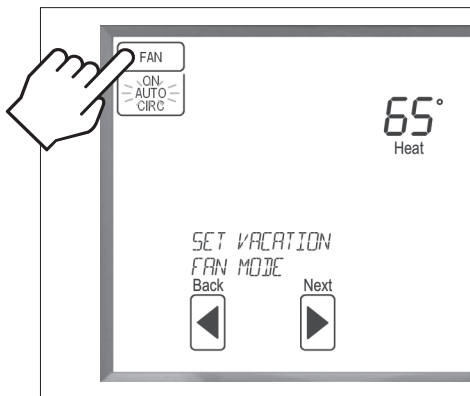


PROGRAMMING

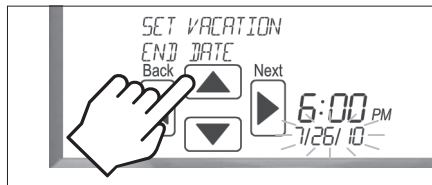
PROGRAM SCHEDULE HOLDS – VACATION (CONTINUED)

VACATION PROGRAM HOLD (continued)

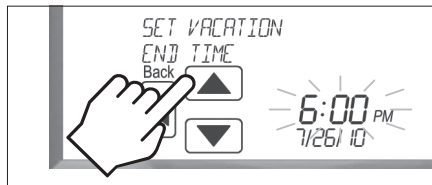
Press **[Next]**, then **[FAN]** to set the fan mode.



Press **[Next]**, then ▲ or ▼ to set end date.



Press **[Next]**, then ▲ or ▼ to set end time.



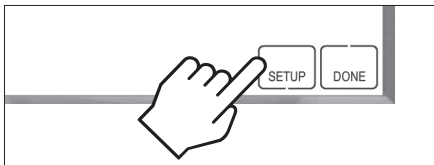
Press **[DONE]** to save and exit, or **[CANCEL]** to exit without saving. The thermostat will save and exit if nothing is pressed within 20 seconds.

SETUP MENU

HOW TO ENTER THE SETUP MENU TO CHANGE SETTINGS

Press **[MENU]** to enter the main menu.

Press **[SETUP]** to enter the setup menu.

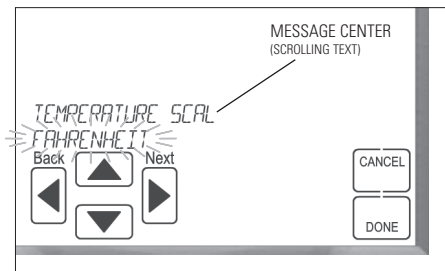


Press **▲** or **▼** to adjust the setting. (Selected option flashes.)

Press **[DONE]** to save and exit, or **[CANCEL]** to exit without saving.

The thermostat will discard changes and exit if nothing is pressed within 60 seconds.

Press **[Next]** or **[Back]** to page through the settings (the setting is displayed in the message center).



SETUP MENU

USER SYSTEM SETTINGS TABLE

The following table is the list of the settings and their details. Default settings are shown in **bold**.

System setting	Description	Factory default setting (bold) and setting range
HUMIDISTAT MODE	(only available if controller type is set to humidistat)	HUMIDIFY DEHUMIDIFY AUTO OFF
TEMPERATURE SCALE	Set the thermostat to Fahrenheit or Celsius mode	FAHRENHEIT CELSIUS
AUTO DAYLIGHT SAVINGS	Enable or disable auto daylight savings	MARCH – Second Sunday in March to the first Sunday in November APRIL – First Sunday in April to the last Sunday in October OFF
BACKLIGHT INTENSITY	Backlight intensity as a percentage of full on	100 PERCENT Selection of 0 – 100%
EVENTS PER DAY	Number of program events per day	FOUR EVENTS PER DAY TWO EVENTS PER DAY
SECURITY	Enable PIN code security feature (only available if enabled in installer setup)	DISABLED ENABLED
SECURITY PIN	Sets security PIN code. The thermostat can also be accessed with the master PIN 7777 (only available if Security is enabled)	#### 4-digit numeric PIN

SETUP MENU

USER SYSTEM SETTINGS TABLE (CONTINUED)

System setting	Description	Factory default setting (bold) and setting range
LOCKOUT TYPE	Level of lockout (only available if Security is enabled)	OFF: No lockout PARTIAL lockout FULL lockout
MODE LOCKOUT	System mode lockout setting (only available in partial lockout)	OFF: No lockout FULL: no system mode changes allowed
FAN LOCKOUT	Fan mode lockout setting (only available in partial lockout)	OFF: No lockout TIMED: changes revert after temporary change period FULL: no fan mode changes allowed
SETPOINT LOCKOUT	Setpoint lockout setting (only available in partial lockout)	OFF: No lockout TIME-LIMITED: changes revert after temporary change period RANGE-LIMITED: set by max setpoint lockout TIME AND RANGE: set by max setpoint lockout and temporary change period FULL: no setpoint changes allowed
MAX SETPOINT CHANGE IN LOCKOUT	Setpoint range limit for temperature and humidity adjustments (only available in partial lockout)	±5° F or C, ±5% RH OFF to ±20° F or C, OFF to ±20% RH
TEMPORARY CHANGE PERIOD	Time-limited lockout temporary change period (only available in partial lockout)	60 MINUTES 0 to 255 MINUTES

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

Please... Take a few minutes to 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.



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

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