Aprilaire®

Model 8600 Universal Touch Screen Thermostat

Owner's Manual

**Includes
Operating Instructions and
Warranty Information**

READ AND SAVE THESE INSTRUCTIONS

TABLE OF CONTENTS

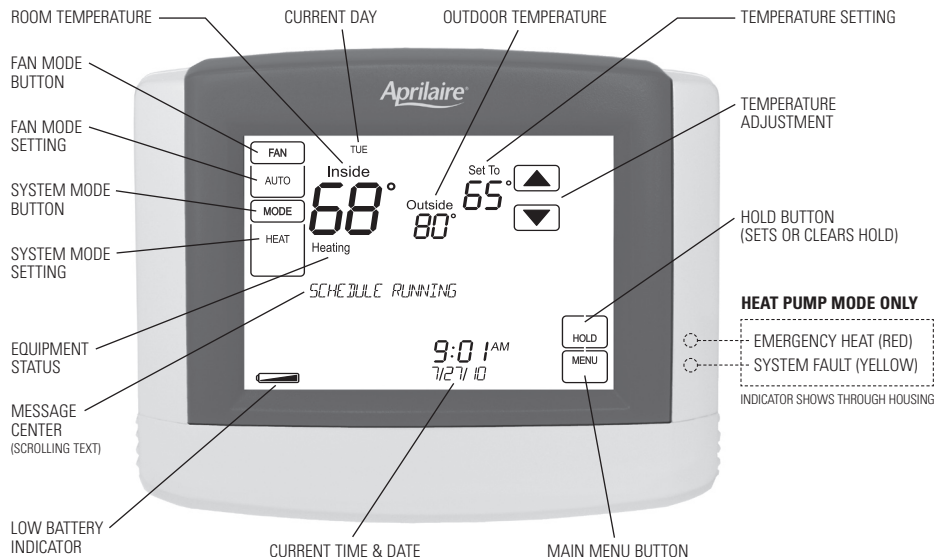# ABOUT YOUR NEW THERMOSTAT

⚠ 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, 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.
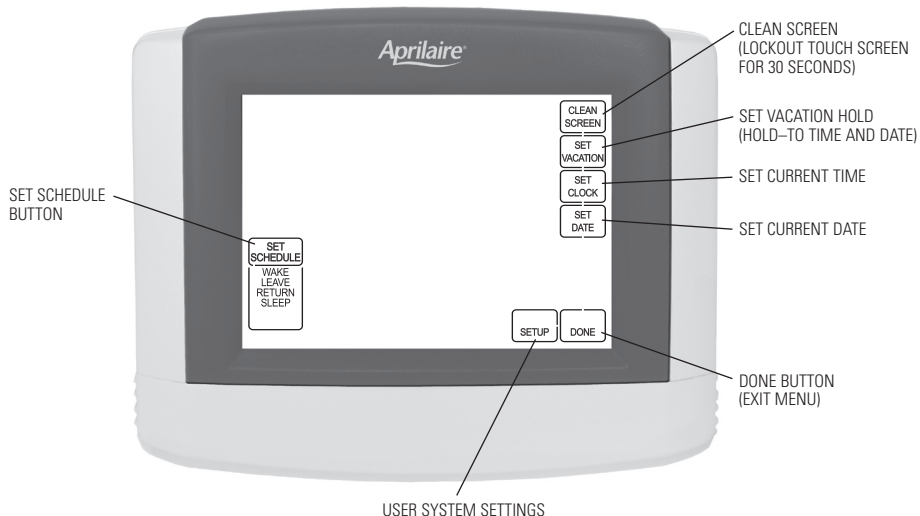
ABOUT YOUR NEW THERMOSTAT

CONTROLS & DISPLAY OVERVIEW – HOME SCREEN

ROOM TEMPERATURE

CURRENT DAY

OUTDOOR TEMPERATURE

TEMPERATURE SETTING

FAN MODE BUTTON

FAN MODE SETTING

SYSTEM MODE BUTTON

SYSTEM MODE SETTING

TEMPERATURE ADJUSTMENT

HOLD BUTTON (SETS OR CLEARS HOLD)

EQUIPMENT STATUS

MESSAGE CENTER (SCROLLING TEXT)

LOW BATTERY INDICATOR

HEAT PUMP MODE ONLY

EMERGENCY HEAT (RED)

SYSTEM FAULT (YELLOW)

INDICATOR SHOWS THROUGH HOUSING

Aprilaire

TUE

Inside

68°

Outside

80°

Heating

SCHEDULE RUNNING

9:01 AM

7/27/10

Set To

65°

FAN

AUTO

MODE

HEAT

HOLD

MENU

CURRENT TIME & DATE

MAIN MENU BUTTON

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

ABOUT YOUR NEW THERMOSTAT

CONTROLS & DISPLAY OVERVIEW – MAIN MENU

CLEAN SCREEN (LOCKOUT TOUCH SCREEN FOR 30 SECONDS)

SET VACATION HOLD (HOLD–TO TIME AND DATE)

SET CURRENT TIME

SET CURRENT DATE

SET SCHEDULE BUTTON

DONE BUTTON (EXIT MENU)

USER SYSTEM SETTINGS

OPERATION

SELECT SYSTEM MODE
(EM HEAT/HEAT/OFF/COOL/AUTO)
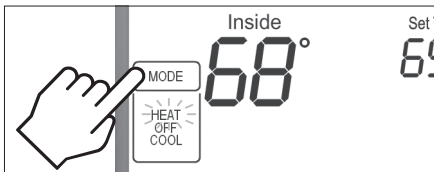
Press [MODE] to select:

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
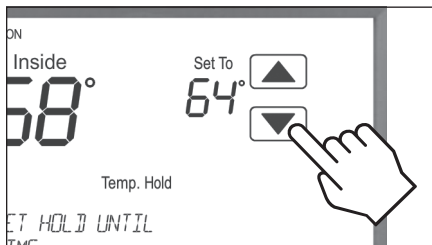
Press ▲ or ▼ to adjust the current set point.
(See Program Schedule Holds on pages 14-16 for more information.)

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.
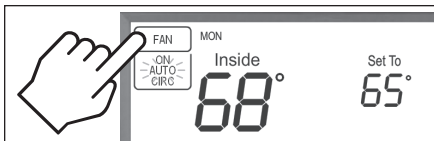
Press [FAN] to select:

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

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.

SCREEN LOCKOUT

The user can disable certain features of the thermostat. (See User System Setting Table on page 18 for details.) This feature can be overridden by pressing and holding **[MENU]** for 7 seconds.

OPERATION

BATTERY INSTALLATION

The thermostat can either be AC or battery powered, or both. If the thermostat was wired to be AC powered when installed, **batteries are optional** (to provide backup power for 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.

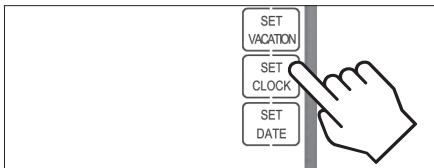The reset button located under the battery cover can be used to reset the thermostat to factory defaults.
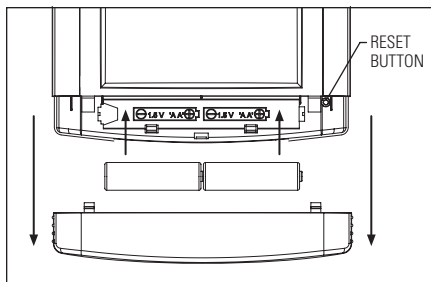
RESET BUTTON

⚠ WARNING

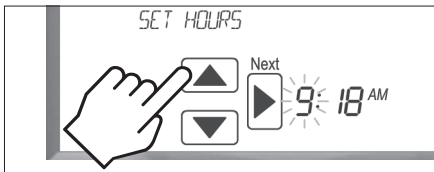**The reset button should only be used by the installer.**

PROGRAMMING

SET TIME

Press [MENU] to enter the main menu.

Press [SET CLOCK] to enter clock menu.

Press ▲ or ▼ to set the hour.

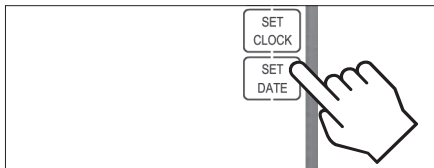**Press [Next]**, then ▲ or ▼ to set the minute.

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.
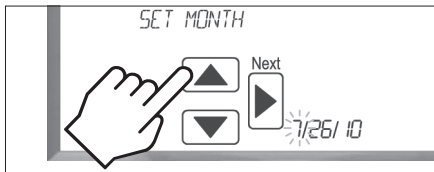
SET DATE

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.

9

PROGRAMMING

UNDERSTANDING PROGRAM SCHEDULES

The daily schedule is split into four sections:

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 12-13.)

This thermostat is pre-set to use the following program settings (see table below). We recommend these settings, since they can reduce your heating/cooling expenses. The fan program is pre-set to AUTO for all events.

		Set temperature		
Event designator	**Start time**	**Heat**	**Cool**	**Fan**
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 17.)

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.
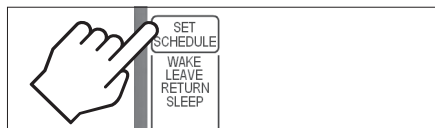
Example: If the WAKE time is 6 am, and the temperature is 70°, the heat will come on before 6 am, so the temperature is 70° by the time you wake at 6 am.
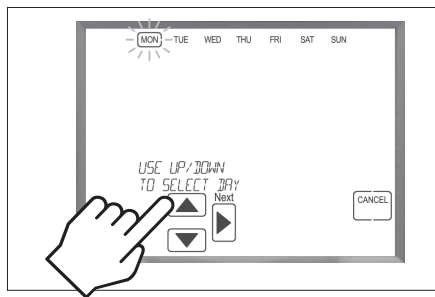
11

PROGRAMMING

CHANGING PROGRAM SCHEDULES

Press [MENU] to enter the main menu.

Press [SET SCHEDULE] to enter schedule programming.
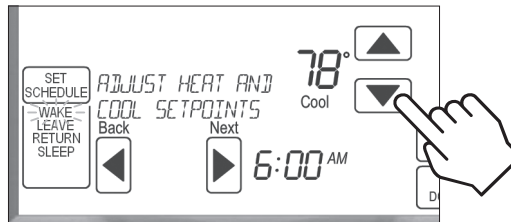

Press ▲ or ▼ to select the day.

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

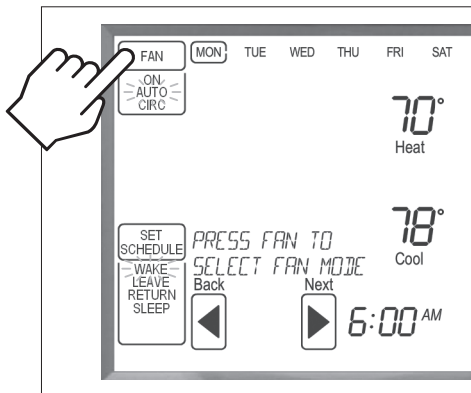**Press [Next]**, then ▲ or ▼ to set the start time of the first event.

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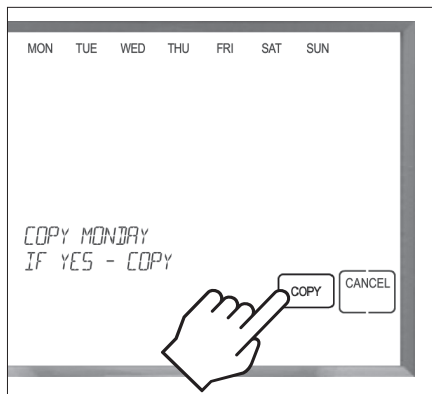
PROGRAMMING

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.
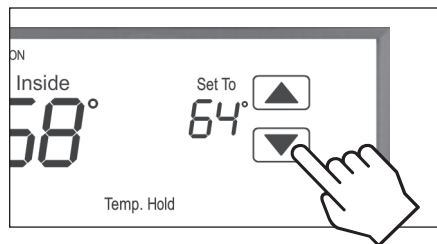
OR

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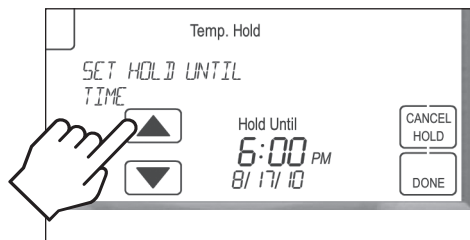
PROGRAMMING

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.
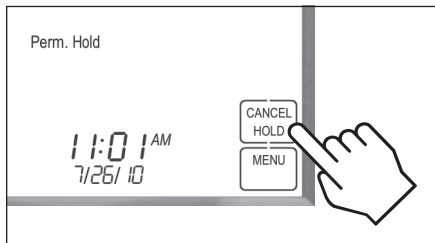

To cancel the Temporary Hold, **press [CANCEL HOLD]**.

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.

Perm. Hold

11:01 AM
7/26/10

CANCEL HOLD
MENU

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

PROGRAM SCHEDULE HOLDS – VACATION
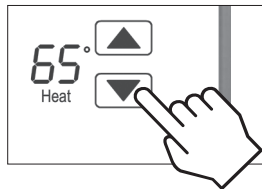
VACATION PROGRAM HOLD

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.

CLEAN SCREEN
SET VACATION
SET CLOCK
SET
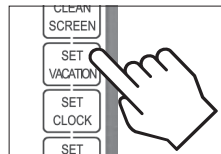
Press ▲ or ▼ to adjust the temperature setting.

65°
Heat

15

PROGRAMMING

VACATION PROGRAM HOLD (continued)

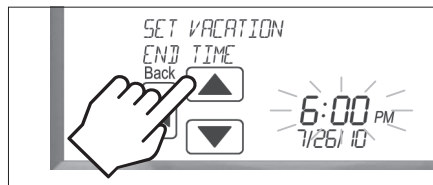**Press [Next]**, then **[FAN]** to set the fan mode.
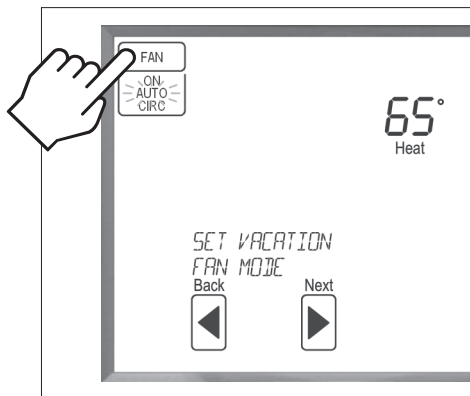
Press [Next], then ▲ or ▼ to set end date.
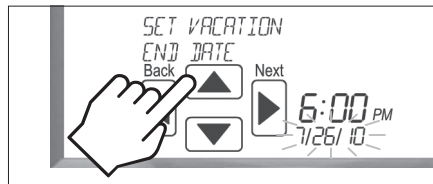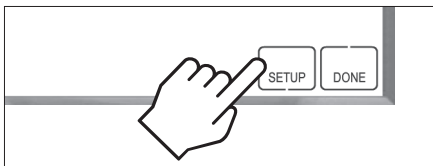

Press [Next], then ▲ or ▼ to set end time.

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.

16

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

MESSAGE CENTER
(SCROLLING TEXT)

TEMPERATURE SCAL
FAHRENHEIT

Back   Next

CANCEL

DONE

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.
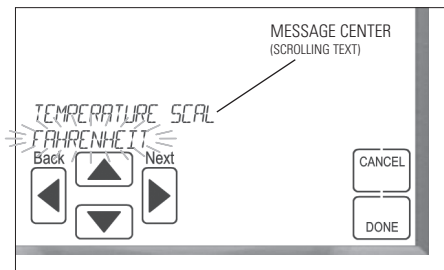
17

SETUP MENU

USER SYSTEM SETTINGS TABLE

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

User system setting	Description	Factory default setting (bold) and setting range
Temperature scale	Set the thermostat to Fahrenheit or Celsius mode	**Fahrenheit** Celsius
Screen lockout	Screen lockout level	**OFF : No lockout** Partial lockout Full lockout
Partial lockout type	(only available when Screen lockout is set to partial lockout)	**Allow changes to Fan Mode, System Mode and Setpoints** Allow changes to Fan Mode and Setpoints only Allow changes to Setpoints only
Setpoint lockout limit	(only available when Screen lockout is set to partial lockout)	**±3° F or C (from current setpoint)** ±1° to 20° OFF indicates no setpoint changes
Events per day	Number of program events per day.	**4 events per day** 2 events per day
Backlight intensity	Backlight intensity as a percentage of full on	**100** Selection of 0 – 100%
Daylight savings	Enable or disable auto daylight savings	OFF **Second Sunday in March to the first Sunday in November** First Sunday in April to the last Sunday in October

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.

Aprilaire®