

# Aprilaire®

## Premium Programmable Thermostat



## Owner's Manual Model 8570



Includes Operating Instructions  
and Warranty Information

**READ AND SAVE THESE INSTRUCTIONS**

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## ENERGYSTAR® PROGRAM INFORMATION

About half of all energy used by households goes to heating and cooling the home. By selecting a programmable Aprilaire® Electronic Thermostat, you have made a significant step toward conserving energy usage and costs, while improving your indoor comfort.

In fact, the Aprilaire® Model 8570 Premium Programmable Thermostat has earned the “ENERGYSTAR®” designation of the U.S. Environmental Protection Agency (EPA). This means that your Aprilaire Thermostat is a highly efficient, cutting edge product that is good for the environment. It saves energy and costs less to operate than similar products that do not qualify for the ENERGYSTAR label.

ENERGYSTAR products help you differentiate between standard efficiency and high efficiency products. By using ENERGYSTAR products, you are helping to prevent air pollution while saving money on your utility bills.

According to the EPA, taking advantage of the times that a home is unoccupied or the occupants are asleep, an ENERGYSTAR thermostat can reduce heating and cooling bills by as much as 30%. The Aprilaire Thermostat has

programmable capabilities that allow you full flexibility to set your heating and cooling systems to meet your comfort and energy needs. As an ENERGYSTAR partner, Aprilaire has determined that this product meets the ENERGYSTAR guidelines for energy efficiency.

Event	Desired Temperature Setting	Daily Time Schedule
Wake	Heat = 70° Cool = 78°	6:00 am
Leave	Heat = 62° Cool = 85°	8:00 am
Return	Heat = 70° Cool = 78°	5:00 pm
Sleep	Heat = 62° Cool = 82°	10:00 pm

## FIGURE 1 – GETTING FAMILIAR WITH YOUR APRILAIRE® 8570 THERMOSTAT

MESSAGE  
CENTER

EQUIPMENT  
STATUS

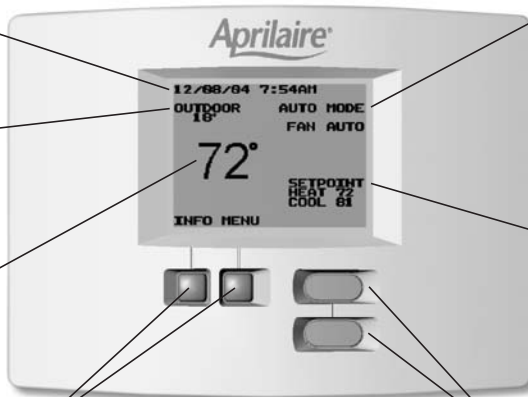
OUTDOOR  
TEMPERATURE

ROOM  
TEMPERATURE

MULTI-FUNCTION  
BUTTONS

SETPOINTS

UP/DOWN  
BUTTONS



## MESSAGE CENTER

Normally this is where you will find the current date and time. If the thermostat is in a Hold State, the thermostat will display when the Hold State is scheduled to end. The area is also used to give information on when you should replace your air filter or UV lamp, when you should service your humidifier and general HVAC equipment.

When installed with an Aprilaire® Automatic Humidifier Control and Humidifier, the message center will also inform you if the humidifier is operating.

When installed with an Aprilaire® Model 6504 Intelligent Zone System, more information is displayed in this area. For instance, if you own an Energy Recovery Ventilator (ERV), or an Electronic Air Cleaner (EAC) the thermostat will be able to display whether they are active.

## EQUIPMENT STATUS

In this area of the display, the thermostat will show the equipment's mode and whether the equipment is active. A typical message in this area would be HEAT MODE when the equipment is not running and HEATING when the equipment is active.

## OUTDOOR TEMPERATURE

The thermostat has terminals that can be hooked up to an outdoor temperature sensor. If this is installed, outdoor temperature will be displayed in this area of the screen.

When installed with an Aprilaire® Automatic Humidifier Control or an Aprilaire® Model 6504 Intelligent Zone System, this information is communicated to the thermostat so there is no need for the extra outdoor temperature sensor.

## ROOM TEMPERATURE

The large temperature on the screen is the room temperature. The scale can be changed from Fahrenheit to Celsius if desired.

## SETPOINTS

The setpoints are the temperatures to which the thermostat is controlling.

## MULTI-FUNCTION BUTTONS

The multi-function buttons are used throughout the thermostat menu system and have many functions. The description on the screen directly above the button is what that button is used for in that particular screen. In **Figure 1**, the left button would be used for INFO and the right button would be used for MENU.

## UP/DOWN BUTTONS

These buttons are used to raise and lower temperature and to navigate through the thermostat's menus.

# OPERATING YOUR THERMOSTAT

## Backlight Operation

When any button is pressed, the backlighting will illuminate. Once the backlight is on, subsequent button presses will perform their respective tasks.

## Using the Up & Down Buttons and Multi-Function Buttons on the Thermostat

This thermostat uses a menu driven display and four (4) buttons. The Up and Down buttons are used to move between selections in the menu and to raise and lower different parameters such as temperature, days, minutes etc., depending on which screen you are viewing. The multi-function buttons have a variety of uses. The portion of screen directly above these buttons will display the button's function. For instance, when the main screen is being viewed, the buttons are

titled INFO and MENU from left to right respectively. To access the menu of the thermostat, press the right multi-function button. From here if you would like to change the fan operation, press the down button until the word FAN is highlighted, then press the multi-function button titled SELECT (right button). Within this screen, use the up and down button to highlight the desired fan operation and press SELECT again and you are done.

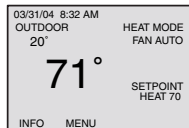
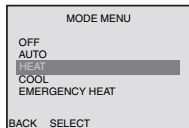
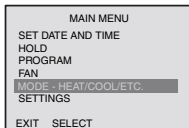
## Notes on Temperature Adjustments

The Cool setting must always be 2° (F or C) higher than the Heat setting. The thermostat will automatically change the temperature setting not being adjusted to maintain this 2° difference, even if both settings are not shown on the display.

## 1. Setting the Mode of Operation – Heat, Cool, etc.

The thermostat can be set to OFF, HEAT, COOL, AUTO and EMERGENCY HEAT (EMERGENCY HEAT for heat pumps only) modes. To set the mode, press the MENU button on the main screen. Once in the Main Menu screen, use the down button to move the highlighted text to MODE. Press SELECT. Once in the Mode Menu, use the Up/Down Buttons to navigate to the desired mode, then press SELECT.

Example: Placing thermostat in HEAT MODE.



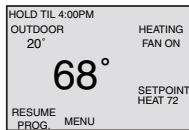
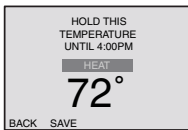
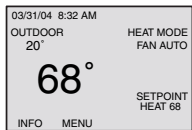
**CAUTION: Do not set to OFF mode during periods when freezing temperatures could occur.**

**NOTE:** When installed with an Aprilaire® Model 6504 you will be given the option to CHANGE ALL THERMOSTATS. If you select YES to this, the mode setting will be set to whatever you have selected for all the thermostats on the system.

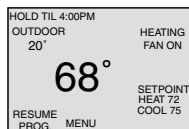
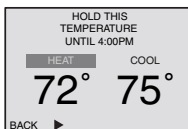
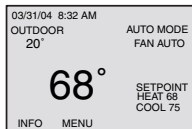
## 2. Temporarily Raising and Lowering the Temperature

You can raise or lower the temperature during the current event of the program by simply pressing the Up/Down buttons.

Example: The Setpoint is at 68°, you want the temperature to be 72°.



If you are in AUTO Mode, both heat and cool settings will be displayed on the hold screen. First you can change the Heat setting, then the Cool setting. If you do not want to change one of these settings, simply press select to go to the next setting or to go to the main screen.



The message center displays when the thermostat will return to programmed operation. Press the RESUME PROG. button to return to programmed operation at any time.

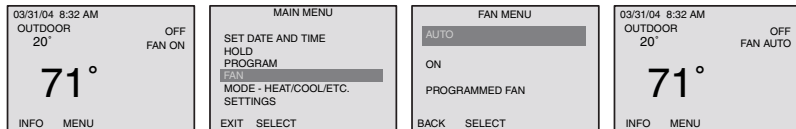


### 3. Fan Operation

The thermostat can operate the fan in 3 ways:

- AUTO (on only during heating and cooling calls)
- ON (always on)
- PROGRAMMED FAN (fan follows the program set in the program screen)

The FAN MENU, located in the MAIN MENU, has these three options for you to choose from.



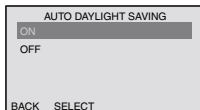
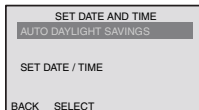
**NOTE:** When installed with an Aprilaire® Model 6504 you will be given the option to CHANGE ALL THERMOSTATS. If you select YES to this, the fan setting will be set to whatever you have selected for all the thermostats on the system.

## 4. Setting the Date and Time

In the SET DATE AND TIME menu, you can set the correct date and time and activate or deactivate the automatic Daylight Savings Time Adjustment.

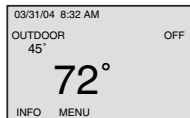
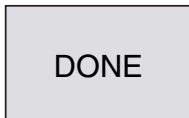
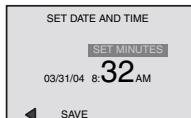
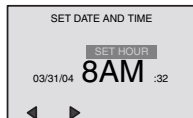
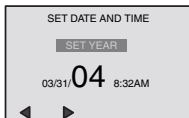
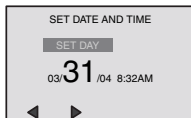
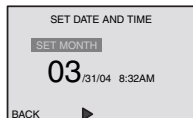
### 4.1 Automatic Daylight Savings Adjustment

When 'AUTO DAYLIGHT SAVINGS' is selected, you have the option of selecting 'ON' or 'OFF'. When this feature is set to ON, the clock will automatically compensate for Daylight Savings Time.



### 4.2 Date & Time Screens

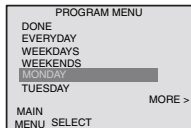
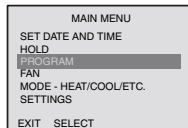
When SET DATE and TIME is selected from the Menu, you will be taken through a series of steps to set the month, day, year, hour and minute. Use the Up/Down buttons to adjust the values.



## 5. Programming Your Thermostat

### 5.1 Programming a Day or Series of Days

The PROGRAM MENU is located in the MAIN MENU. After selecting this menu, you have the option of programming everyday, weekdays, weekends, or individual days. Once you've selected a certain day to program, a screen appears that allows you to set the time, heat setting, cool setting, and fan operation for each event.



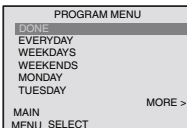
WAKE	MONDAY HEAT	COOL	FAN
6:00A	68	76	ON
LEAVE			
8:00A	62	85	AUTO
RETURN			
4:30P	68	72	ON
SLEEP			
10:00P	65	72	AUTO
DONE			

MONDAY  
HEAT COOL FAN  
OCC  
8:00A 68 72 AUTO  
UNOCC  
5:30P 62 85 ON  
DONE

2-BUSINESS

WAKE	MONDAY HEAT	COOL	FAN
6:00A	68	76	ON
LEAVE			
8:00A	62	85	AUTO
RETURN			
4:30P	68	72	ON
SLEEP			
10:00P	65	72	AUTO
DONE			

CANCEL SAVE



MONDAY  
HEAT COOL FAN  
DAY  
8:00A 68 72 AUTO  
NIGHT  
5:30P 62 85 ON  
DONE

2-RESIDENTIAL

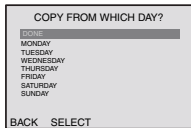
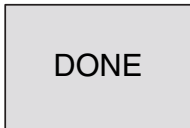
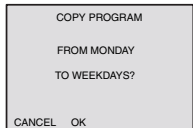
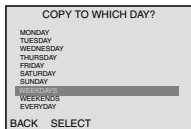
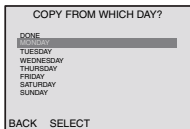
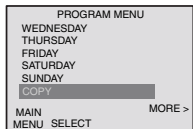
Once you have set the correct times and settings, highlight DONE and push the SAVE button. The DONE screen will appear to let you know your changes are saved. You have now programmed your thermostat.

**NOTE:** The programmed fan operation will only be followed if the PROGRAMMED FAN option is set in the FAN MENU.

**NOTE:** When EVENTS PER DAY are set to 2-BUSINESS or 2-RESIDENTIAL (see page 14) the programming screen will look like above.

## 5.2 Copying a Program from One Day to Another

In the PROGRAM MENU, there is an option to COPY. The option can be used to copy the program from one day to another day or series of days (i.e. weekdays or weekends). After COPY is selected, the thermostat will prompt you for which day to copy. Next, it will prompt you for which day to copy the program to. After selecting this information, it will then confirm what is being copied to where. At this point you have the option of canceling the copy and not saving or saving and continuing. After selecting OK, the DONE screen will appear, then it will send you back to the COPY menu. Selecting DONE here will save your copy and return you to the Main Screen. The BACK button will also save your copy and return you back to the PROGRAM MENU.

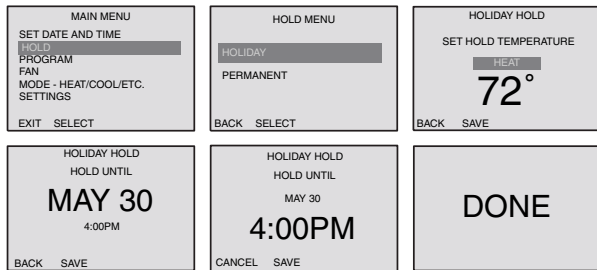


## 6. Holding Temperature

The HOLD MENU, located in the MAIN MENU, allows you to hold a temperature until a set date and time, as would be done during a holiday, or allows you to hold a temperature permanently.

### 6.1 Holiday Hold

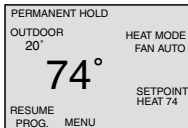
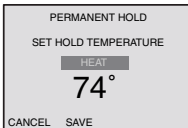
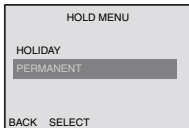
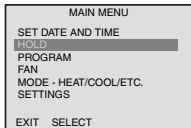
You can program the thermostat to hold a temperature for a period of time. Whether you want to hold a temperature for a few hours or for a few weeks, your thermostat can accommodate your schedule. First the thermostat will prompt you for a temperature to hold. If you are in AUTO MODE you will be prompted for both a heat setting and a cool setting. Next it will prompt you for a date and time that you wish to return to programmed operation. On the Main Screen, the INFO button will change to RESUME PROG. If you choose to cancel the hold, simply press this button and the program will resume.



**NOTE:** When installed with an Aprilaire® Model 6504 you will be given the option to CHANGE ALL THERMOSTATS. If you select YES to this, the hold setting will be set on all the thermostats on the system, and pressing the RESUME button returns all thermostats to programmed operation.

## 6.2 Permanent Hold

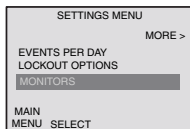
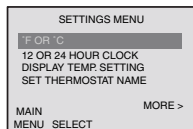
Similar to the Holiday Hold, the thermostat will prompt you to enter the temperature at which you would like to hold. Once you have selected the temperature, you are returned to the Main Screen. In order to resume the program, simply press the RESUME PROG. button.



**NOTE:** When installed with an Aprilaire® Model 6504 you will be given the option to CHANGE ALL THERMOSTATS. If you select YES to this, the hold setting will be set on all the thermostats on the system, and pressing the RESUME button returns all thermostats to programmed operation.

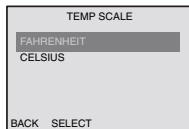
## 7. Settings Menu

The SETTINGS menu has many options for you to customize your thermostat.



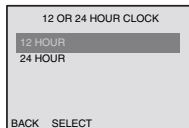
### 7.1 Fahrenheit and Celsius

You can change the temperature scale used by the thermostat. Highlight the scale of your choice and press SELECT.



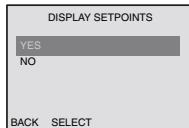
### 7.2 12 OR 24 Hour Clock

Within this menu option, you can change the time displayed by your thermostat to 24 Hour time, (Military Time).



### 7.3 Display Temperature Setting

If you do not want the temperature setting displayed on the Main Screen, you can choose to turn it off in this menu.



## 7.4 Set Thermostat Name

You can give your thermostat a name if you would like. Within this menu, the thermostat gives you some standard choices. Selecting CUSTOM NAME allows you to customize the name for your thermostat.

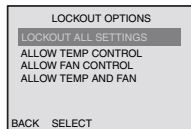
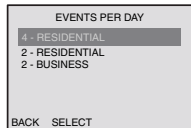
## 7.5 Events Per Day

This is where you can set the number of events per day. (An event is a period of time scheduled with a certain heating and cooling setpoint.) For instance if you are away from your home from 8am to 5pm, make this period of time an event and set the thermostat at an energy saving setting. You have the option of setting the events per day to 4-RESIDENTIAL (4 events), 2-RESIDENTIAL (2 events) or 2-BUSINESS (2 events).

## 7.6 Lockout Options

This menu allows you to enter a pass code to restrict access to changes in the settings. The thermostat gives you four levels of security:

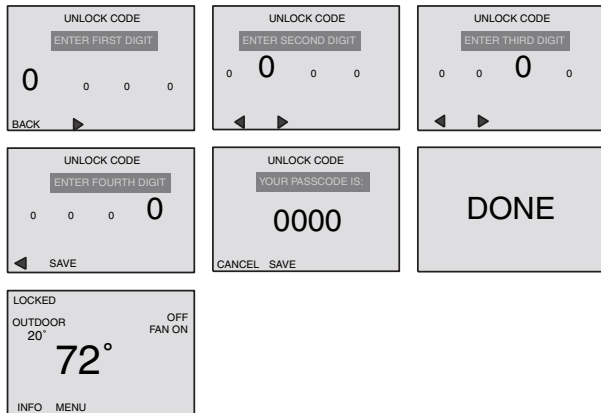
1. LOCKOUT ALL SETTINGS
2. ALLOW TEMP CONTROL ONLY
3. ALLOW FAN CONTROL ONLY
4. ALLOW TEMP AND FAN CONTROL





## 7.6 Lockout Options (continued)

When any of these options are selected, the thermostat will prompt you for a 4 digit code to unlock the thermostat. Use the Up/Down buttons to scroll through the numbers (0-9).

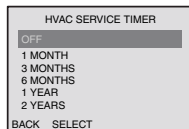
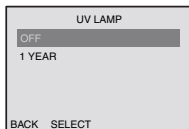
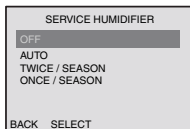
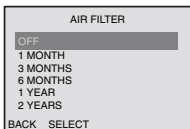
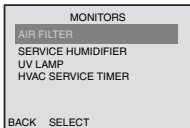


### Unlocking the Thermostat

When attempting to access a locked setting, the thermostat will prompt you to enter your four digit code. Once successfully entered, the thermostat will be unlocked. If you forget your pass code, enter 7777 and press SELECT.

## 7.7 Monitors

The MONITORS Menu is where you can set your HVAC service reminders. The items that the thermostat will remind you of are servicing your air filter, servicing your humidifier, servicing your UV lamp, and a general service check for your entire system.



### To reset an active monitor:

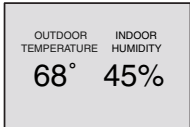
1. Press the CALL DEALER button.
2. Press the RESET button.
3. This will reset the monitor and return you to the main screen.

**NOTE:** When installed with an Aprilaire® Model 6504 the monitor settings need only to be set on one thermostat. The other thermostats in the system will update with the new setting.

**NOTE:** The 'AUTO' option shown above in the SERVICE HUMIDIFIER screen is only available if installed with an Aprilaire® Automatic Humidifier Control.

## 8. Info Screen

The Info Screen can be accessed through the Main Screen by pressing the button corresponding to INFO on the screen. When pushed, the screen will show the outdoor temperature and indoor relative humidity (when connected to an Aprilaire® Automatic Humidifier Control). Then the thermostat will display the contact information for your HVAC dealer should you have any problems or need any supplies.

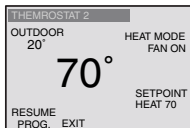
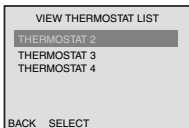


If there is not an Aprilaire® Automatic Humidifier Control installed, the following screen will be displayed instead of the temperature and humidity.



## 9. Viewing Other Thermostats on the System (Model 6504 Installation Only)

If installed with an Aprilaire® Model 6504, you have another option in the MAIN MENU. This option is to VIEW OTHER THERMOSTATS. When this is selected a list of other thermostats on the system will be displayed. If you have programmed a name in the THERMOSTAT(S), their respective name(s) will be displayed. If no names are given, you will see default names such as THERMOSTAT 2.



When viewing other thermostats, you have the option of temporarily changing the temperature setting or resuming the program. Note that the left multi-function button, says RESUME PROG. at all times in this screen. This button would be used to resume the program, for the thermostat being viewed, if it is in hold. Either RESUME PROG. or EXIT returns you to the local thermostat's screen.

## **10. In Case of Power Failure**

This thermostat does not require a battery. If the power goes out, the screen is blank. During the period the power is off, the heating/cooling system will not operate. When power is restored, the thermostat will return to the previous settings. If the power is off for more than 2 hours, you will need to reset the clock on the thermostat but all other information will be stored. You will not have to reprogram your thermostat or change any settings that you have previously set.

## **11. Cleaning**

If the surface of the thermostat becomes dirty it can be cleaned with plain water or many non-abrasive household cleaners, including glass cleaner. When using any cleaner be careful not to get any into the interior of the thermostat. Do not spray any liquid directly onto the thermostat. Spray the cleaner onto a soft cloth and wipe the surface of the thermostat.

# WARRANTY

## **ELECTRONIC THERMOSTAT TWO YEAR LIMITED WARRANTY**

Your Research Products Corporation Aprilaire® Thermostat unit is expressly warranted for two (2) years from date of installation to be free from defects in materials and 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 a two (2) year period and which is returned, together with the date of installation, no later than thirty (30) days after said two (2) year period by you to either your original supplier or to Research Products Corporation, Madison, Wisconsin 53701.

THIS WARRANTY SHALL NOT OBLIGE 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 TWO 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 exclusion of 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 1828  
Madison, WI 53701

# Thank you!

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

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