

# Owner's Manual



***Aprilaire***<sup>®</sup>

**ZONE CONTROL SYSTEM**

Custom Comfort Throughout Your Home<sup>®</sup>

## **Preface**

Thank you for purchasing a new Aprilaire® Zone Control System. We sincerely appreciate your business and are pleased to add your name to our growing list of customers. With this purchase, you have invested in the highest quality equipment currently available.

Please be assured that in addition to product quality, we are committed to product performance and complete customer satisfaction. It should be of equal significance to you that we have a network of dealers throughout North America that sell, install, and service our products to help back up our commitment to quality and performance.

## **Overview**

The Aprilaire Zone Control System has been designed to increase comfort in your home and reduce energy costs. It's able to do this because it solves the problem caused by various areas of the home gaining and losing heat at different rates. Unlike conventional heating and air conditioning systems, Zone Control knows, at any given time, which areas (zones) of your home require conditioned air. With this information, the Zone Control automatically directs the air to the zones that require it. Because of this, it will not only increase the comfort level throughout your home, it will also allow your equipment to work more efficiently, thus reducing your energy costs.

The components that make up the Aprilaire Zone Control System are the following: a Control Panel and air control dampers, as shown in the illustration on the following page. The Control Panel is located on an inside wall near your heating and air conditioning equipment. The dampers are located inside your air ducts in such a way that each zone can be independently controlled. Thermostats, placed in each zone, are directly connected to the Control Panel.

## Model Types

### Models 6202 & 6203

These two models were designed to work with your **single-stage heat/cool equipment** (for example a furnace and an air conditioner). The 6202 is for two zones while the 6203 is for three.

### Models 6302 & 6303

These two models were designed to work with your **heat pump**. Each of these models can handle three stages of heat and two stages of cool. The 6302 is for two zones while the 6303 is for three.

## Basic Operation

Your Aprilaire Zone Control System will allow you to increase your comfort by directing conditioned air to separate areas (zones) based on each zone's thermostat setting. To operate this system, just set or program each zone's thermostat to your desired comfort set points. When there is a heating or cooling call from any zone, the appropriate heating or cooling equipment will be turned on. The dampers to zones not requiring heating or cooling will close and the conditioned air will be directed to the calling zone (s) until the thermostat is satisfied.

If one zone is calling for heat, while another zone is calling for cooling during the minimum off time between cycles, the heat call will be satisfied first. After the heat call is satisfied, the cooling call will be satisfied. The heating and cooling equipment will not operate at the same time.

Your zone control system is designed to direct conditioned air only to the rooms served by that zone's thermostat. However, due to the open design of today's homes, it may not be possible to maintain drastic temperature differences between zones. Closing interior doors is a good way to reduce the air exchange between zones and increase the temperature difference between them.

The following sections describe how to make Heating, Cooling, and Emergency Heat calls.

## **Heating Operation (All Models)**

To start heating:

1. Set your thermostat to the Heat mode. Depending on the thermostat, this is accomplished by either manually moving a switch to the Heat position or digitally selecting Heat mode with a push button. Consult your thermostat Owner's Manual for details.
2. Adjust the thermostat set point to a temperature higher than the displayed room temperature so that a Heat call is initiated. Again, consult your thermostat Owner's Manual for details on how to do this properly.

When you have correctly initiated a Heat call, the Aprilaire Zone Control Panel will start your heating equipment. If the furnace does not come on right away it may be due to the minimum-off time delay. Four minutes must elapse after the last furnace cycle before it can come on again. This built in feature ensures that the furnace does not cycle too frequently, which can reduce the life of your furnace.

## **Cooling Operation (All Models)**

1. To start cooling: Set your thermostat to the Cool mode. Depending on the thermostat, this is accomplished by either manually moving a switch to the Cool position or digitally selecting Cool mode with a push button. Consult your thermostat Owner's Manual for details.
2. Adjust the thermostat set point to a temperature lower than the displayed room temperature so that a Cool call is initiated. Again, consult your thermostat Owner's Manual for details on how to do this properly.

When you have correctly initiated a Cooling call, the Aprilaire Zone Control Panel will start your cooling equipment. If your air conditioning does not come on right away it may be due to the minimum-off time delay. Four minutes must elapse after the last air conditioner cycle before it can come on again. This built-in feature ensures that the air conditioner does not cycle too frequently, which can reduce the life of your equipment.

## **Emergency Heat Operation**

*(Models 6302 & 6303 only)*

Only your Zone 1 thermostat can put the system into the Emergency Heat mode. Most likely the main living area in your home is your Zone 1. The Zone 1 thermostat can

generally be identified by the presence of an additional mode category of Emergency Heat. A call for Emergency Heat will use a source of heating apart from your Heat Pump. To operate Emergency Heat you must do the following:

1. Set your thermostat to Emergency Heat. Depending on the thermostat, this is accomplished by either manually moving a switch to the Emergency Heat position or digitally selecting Emergency Heat mode with a push button. Consult your thermostat Owner's Manual for details.
2. Adjust the thermostat set point to a temperature higher than the displayed room temperature so that a Heat call is initiated. Again, consult your thermostat Owner's Manual for details on how to do this properly.

Once Zone 1 has successfully made an Emergency Heat call, the control panel will remain in the Emergency Heat mode until the Zone 1 thermostat calls for standard Heat Pump Operation or it makes a Cooling call. While your Control Panel is in the Emergency Heat mode, Zones 2 and/or 3 can not call for cooling.

**Note: Emergency Heat is generally much more expensive to operate than the Heat Pump. Use only when necessary. Your equipment may not include Emergency Heat.**

### **Damper Operation (All Models)**

When the Aprilaire Zone Control Panel receives a call and turns on the appropriate equipment, it also automatically closes the dampers that serve the non-calling zones and opens those in the calling zones. When all calls are satisfied, the Control Panel initiates a 1 minute purge cycle during which time the dampers maintain their last position. After this purge all dampers open.

### **Fan Operation for Models 6302 and 6303**

The Model 6302 and 6303 Aprilaire Control Panels allow you to control fan operation through your Zone 1 (usually main living area) thermostat. Fan operation has no effect on damper operation.

### **Fan Operation for Model 6202 and 6203**

The Model 6202 and 6203 Aprilaire Control Panels allow you to control fan operation from any zone. Dampers in zones not calling for fan will close. If continuous fan operation is desired in all zones, the fan must be turned on at the thermostat in each zone.

### **Turning the System Off (All Models)**

**In order to shut off the system and prevent the Aprilaire Control Panel from turning on your equipment, you need to set ALL of your thermostats to the OFF mode.** Depending on your thermostats, this is done manually with a slide switch on your thermostat's sub-base or with a digital push button. Consult the Owner's Manual for your particular thermostat.

If leaving the home for a long period of time, set the Zone 1 thermostat to the Heat mode and adjust the set point to a temperature that will prevent freezing in all areas of the home. It is not recommended to turn off all thermostats for extended periods in climates where freezing temperatures may occur.

### **System Pressure Relief**

With a Zone Control System, some form of pressure relief must be designed into the system to assure proper operation and reduce the possibility of noise due to airflow. The method of pressure relief that has been designed into your system could include use of a bypass damper or the Zone Control strategy of controlled pressure relief. With the Zone Control strategy, a predetermined amount of air is allowed to pass through a closed damper. The amount of air that is passed by each damper (the bypass) is not enough to cause a noticeable temperature change in a non-calling zone, but is enough to relieve the higher system pressures.

**So, if you feel small amounts of air entering into a non-calling zone, what you are feeling is the bypass air. Remember, this bypass is normal and provides pressure relief for the system without causing a noticeable change in temperature within that zone.**

### **Maintenance**

Once your Aprilaire Zone Control System is properly installed, there is no maintenance required.

**Aprilaire**  
ELECTRONIC THERMOSTAT

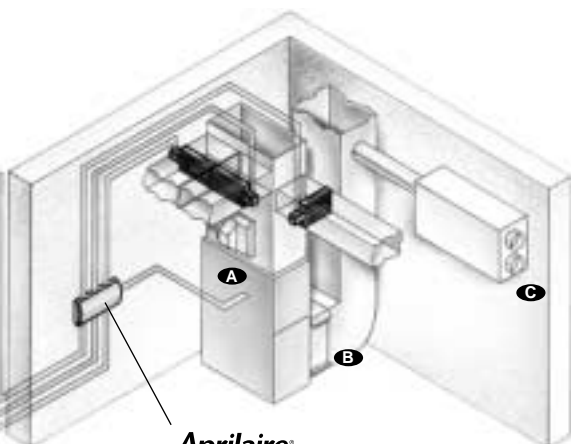
Zone 1  
68°F (20°C)



Zone 2  
70°F (21°C)



Zone 3  
65°F (18°C)



**Aprilaire**  
ZONE CONTROL SYSTEM

The above illustration shows a typical three zone Aprilaire Zone Control system with the following Research Products Corporation components added for the ultimate in indoor air quality and comfort:

(A) **Aprilaire**  
AUTOMATIC HUMIDIFIER  
The Best Cure For Dryness®

- Eliminates dry nose, dry throat, itchy skin.
- Reduces static electricity.
- Reduces heating costs because you feel warmer at lower temperatures.
- Proper humidity helps repel upper respiratory problems caused by excessively dry air. Ask your doctor.
- Protects your home and furnishings from damaging dryness and shrinkage.

(B) **Aprilaire**  
HIGH EFFICIENCY AIR CLEANER  
Nobody Makes Clean Air Easier®

- Reaches 99% efficiency on particles five microns or larger.
- Provides allergy relief.
- Lifetime limited warranty.
- Filtering media lasts one to two years.
- Protects heating and cooling equipment.
- Absolutely silent operation.
- Requires no service calls.
- Uses no electricity.
- Produces no ozone.

(C) **Aprilaire**  
FRESH AIR EXCHANGER  
Only The Freshest Homes Have April Air™

- Provides a constant, controlled supply of fresh air to your home year-round.
- Reduces unhealthy indoor air pollutants, such as radon, formaldehyde, smoke, and odors.
- Handles up to a 3,600 sq. ft. home, and conserves energy by efficiently retaining the energy value from indoor air.
- Helps produce a quiet, safe, secure, healthy indoor environment.

(D) **Aprilaire**  
ELECTRONIC THERMOSTAT  
Energy Efficiency Never Looked So Good™

- Saves energy and energy costs with pinpoint accuracy.
- Ultra-slim, attractive vertical design to enhance any decor.
- Provides ultimate comfort and reliability through state-of-the-art engineering.
- Easy-to-set, easy-to-read controls.

*For information on any of these products, please contact your heating and air conditioning contractor or feel free to write or call us.*

## LIMITED WARRANTY

Your Research Products Corporation Aprilaire® Zone Control System is expressly warranted for two (2) years from date of installation to be free from defects in material or workmanship.

Research Products Corporation's exclusive obligation under this warranty shall be to supply, without charge, a replacement for any part of the zone control system which is found to be defective within such two year period and which is returned not later than thirty (30) days after said two year period by you to either your original supplier or to Research Products Corporation, Madison, Wisconsin 53701, together with the model number, serial number, and installation date of the unit.

THE 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 ZONE CONTROL SYSTEM ITSELF.

IMPLIED WARRANTIES OF MERCHANTABILITY OR 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 THIS UNIT IS NOT 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 OR IMPLIED WARRANTIES SHALL BE EFFECTIVE UPON INSTALLATION.

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



**RESEARCH PRODUCTS CORPORATION**

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*Products For Better Indoor Air Quality™*