

# **Aprilaire**® Automatic Humidifiers



## **Owner's Manual**

For Models 400, 550, 600 & 700

Includes Safety & Operating Instructions  
and Warranty Information

**READ AND SAVE THESE INSTRUCTIONS**

# TABLE OF CONTENTS

Principle of Operation .....	2
Operating Instructions – Model 400, 600 & 700	
• Automatic Mode .....	3
• Manual Mode .....	5
Operating Instructions – Model 550 .....	7
Effect of Water Characteristics .....	7
Annual Maintenance .....	8
Annual Summer Shutdown .....	8
Periodic Preventative Maintenance .....	9
<b>MAINTENANCE INSTRUCTIONS</b>	
Model 400 .....	10
Model 600 .....	11
Model 700 .....	12
Model 550 .....	13
Limited Warranty .....	14

## WARNING

120 volts may cause injury from electrical shock.  
Disconnect power and shut off water supply before servicing.

## CAUTION

Sudden operation may cause personal injury or property damage. Turn the Aprilaire Humidifier Control to "OFF" or lowest setting before servicing.

## INTRODUCTION

Thank you for your recent Aprilaire® Humidifier purchase. We appreciate your business. You have invested in the highest quality equipment available. Aprilaire manufacturers whole-house indoor air quality products and is a recognized leader in the heating and air conditioning industry.

Your unit will require periodic maintenance to assure continued fine performance. See page 8 to obtain service parts and/or replacement Water Panel® evaporators.

This booklet will familiarize you with the benefits you will receive from the equipment you just purchased and help you understand the routine maintenance required. Be sure to register your Humidifier warranty online at: [www.aprilaire.com/warranty](http://www.aprilaire.com/warranty).

**Genuine Aprilaire Replacement Water Panel® evaporators are available from your installing contractor or from most other heating and air conditioning contractors in your area. Use the dealer locator in our web site ([www.aprilaire.com](http://www.aprilaire.com)) or look in the Yellow Pages under Humidifying Apparatus or Heating & Air Conditioning Contractors. Purchase only genuine Aprilaire Water Panels to maintain peak performance.**



## I. PRINCIPLE OF OPERATION

With your purchase of a humidification system, you have invested in a humidifier that operates on the evaporative principle – nature’s own way of adding moisture – providing proper relative humidity throughout the heating season. It is very possible that you have questions concerning your new humidifier – questions on what it can do for you, and what you should do to receive maximum benefits from it. This booklet is intended to provide the answers you need.

Nature, in producing an invigorating comfortable April day, combines just the right temperature and the right amount of moisture. Aprilaire Humidifiers employ the same principle, with refinements, to give you the optimum relative humidity for maximum allowable comfort all winter long.

The important considerations in the evaluation of a humidifier are precise control, sufficient capacity, trouble-free performance and minimum maintenance. The operating principle of your Aprilaire humidifier provides all of these advantages. Here, briefly, is the method:

The Aprilaire Humidifier is installed to operate in conjunction with the furnace blower. When the Aprilaire Humidifier Control calls for humidity and the blower is operating, water flows to the distribution tray located at the top of the unit. The water is uniformly distributed across the width of the tray and through a scientifically designed system of outlets. It flows by gravity over the Water Panel® evaporator, the heart of the unit. Dry, hot air is moved through the moisture-laden Water Panel evaporator where natural evaporation takes place. The now humidified air carrying moisture in vapor form (nature’s own way) is circulated throughout the home.

**The correct water flow is determined by an orifice equipped with each drain type unit. When the unit is operating, there will be a small, steady stream of water to drain, which flushes away most of the trouble-causing minerals.** Do not use the saddle valve to regulate the water flow. It is designed to be completely opened or closed. The minerals and solid residue not trapped by the replaceable Water Panel evaporator are flushed down the drain in the Models 550, 600 and 700. This is the most effective and least expensive method to dispose of trouble-causing minerals. The drain also eliminates the problems caused by stagnant water.

There are some homes where drain facilities are not accessible or available. For these situations, or where high water hardness is not a problem, the newest Aprilaire, Model 400, is designed to satisfy these applications.

Capacity is high because an average-size home (10,000 cu. ft.) requires the addition of approximately 9 gallons of water per day to maintain 35% relative humidity when the outside temperature is 20°. The smallest Aprilaire Humidifier under most operating conditions, has this humidifying capacity. Trouble-free performance and minimum maintenance are assured by the design features of the Aprilaire Humidifier. All unit housing parts that come in contact with water are non-metal and will never rust or corrode. Neither heat nor water will affect them under normal operating conditions.

The Water Panel® evaporator, designed especially for uniform, high evaporation, and the Scale Control Insert efficiently traps mineral deposits which are often the cause of damage to working parts in ordinary humidifiers. No “white dust” can be distributed throughout the living quarters. The Water Panel evaporator is the heart of the unit and must be in good condition to assure high capacity trouble-free performance. It should be changed once a year with the exception of the Model 400 which should be changed twice a heating season.

Older design water distribution trays have a granular coating in the bottom of the distribution tray to provide even water flow to each of the openings and over the Water Panel evaporator. **Do not clean the mineral scale off the bottom of the water distribution tray at the end of the humidification season.** If the granular coating is removed, it is not necessary to purchase a new distribution tray, simply apply a small amount of liquid dishwashing soap over the entire inside surface of the water distribution tray. This will allow the water to flow evenly to the water panel, provided the unit is level in order to achieve maximum capacity.

The current distribution tray incorporates a synthetic fabric liner that replaces the granular coating and is designed to deliver water uniformly over the entire top surface of the Water Panel evaporator. It is normal for some mineral deposits to form in the distribution tray as it dries out between humidification cycles. These deposits can actually help distribute water in the tray, but if they block the openings, they should be removed as described in the “Periodic Preventative Maintenance” section of this manual.

There are many humidifiers on the market. They all add moisture... with varying degrees of efficiency. None, however, can provide the features, design, and performance incorporated into your Aprilaire Humidifier.

## II. OPERATING INSTRUCTIONS – 400, 600 & 700

There are 2 possible modes of operation of your Aprilaire Humidifier Control – Automatic and Manual. An explanation of both modes follows:

### **Automatic Mode: (Manual Mode-see pg 5)**

Your Aprilaire Humidifier Control is installed in the cold air return duct.

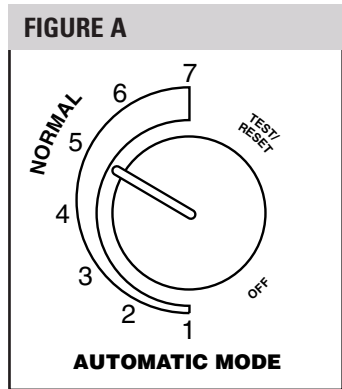
**During the first heating season**, your Humidifier Control needs to be set initially to match your home's condition. Please follow these steps when adjusting your control (refer to Figure A).

1. Turn the dial setting knob to "5," which is within the normal range.  
During the next 24-48 hours it may be necessary to adjust the dial for more or less humidity, depending on your personal comfort and home's requirements. Refer to the "Operation Guide" (Table 1).
2. During the coldest portion of the first heating season, minor adjustments may be necessary. This is dependent upon your home's construction. Refer to the "Operation Guide" (Table 1).

**TABLE 1 – Operation Guide**

<b>Condition</b>	<b>Solution</b>
Condensation on windows	Reduce the setting on the control dial by 1 increment.
Lack of humidity	Increase the setting on the control dial by 1 increment.
Humidifier does not operate	Turn dial to "Test/Reset." Make certain furnace is operating in heat mode. If unit still doesn't operate, contact your heating contractor.
Humidifier won't shut off	Turn dial to "Off." If unit continues to operate, contact your heating contractor.
Test mode	System operation is checked by setting the knob to "Test/Reset." Make certain furnace blower is operating and furnace is calling for heat. Humidifier will operate for one minute. Be sure to turn the control knob back to the prior setting after checking humidifier operation.
Reset Water Panel change indicator	Turn the control knob to the "Test/Reset" position until the "Change Water Panel" light blinks to reset the water panel change indicator timer. (Blower must be operating and furnace calling for heat.) <b>Be sure to turn the control knob back to the prior setting after resetting the timer.</b>

The relative humidity in your home will now be accurately controlled to meet your needs and should not need further adjustment during future heating seasons. Make note of the dial setting in the event you temporarily move the knob when performing annual maintenance of your Aprilaire Humidifier.



Your Aprilaire Automatic Humidifier, is a high precision system that will accurately maintain the relative humidity in your home to a maximum of 45% RH and a minimum of 10% RH. For every 1° change in outdoor temperature, the control will automatically adjust the indoor relative humidity (RH) by 1/2%. If you would like to determine the RH in your home, follow these steps:

1. Determine the outdoor temperature.
2. Activate the furnace blower by setting your thermostat to a higher temperature.
3. Turn the humidifier control dial setting to the "Off" position. Then, slowly turn the dial clockwise until you hear the solenoid valve on the humidifier "click on." Next, slowly turn the dial counter clockwise until you hear the solenoid valve "click off". At this point, make note of the dial setting.
4. Locate your dial setting on Table 2. Follow the dial setting to the right until it intersects with the current outdoor temperature. This is the relative humidity in your home under existing conditions.
5. Return the thermostat and the Humidifier Control to their original settings.

The values of outdoor temperature and dial settings may fall in between or outside of the listed values in Table 2. In these cases, you can only approximate your home's actual indoor RH.

**TABLE 2 – % Relative Humidity Guide**

		Outdoor Temperature (°F)					
		-10	0	10	20	30	40
Dial Setting	1	10	10	10	15	20	25
	2	10	10	15	20	25	30
	3	10	15	20	25	30	35
	4	15	20	25	30	35	40
	5	20	25	30	35	40	45
	6	25	30	35	40	45	45
	7	30	35	40	45	45	45

As an example, if the outdoor temperature is 20°F, and, following step 3, the humidifier turns off at “5” on the dial range, then the RH in your home is 35%.

### **Manual Mode: (Automatic Mode – see pg 3)**

Your Aprilaire Humidifier Control is installed in the cold air return. It is important to anticipate a drop in outdoor temperature and reduce the setting accordingly to avoid excessive condensation. For example, with an outdoor temperature of 20° the correct setting will be 35% relative humidity. If the temperature is expected to fall to 0° that evening, then merely reduce the setting to 25% several hours prior to the temperature change.

The recommended settings on the Humidifier Control are based on years of research and experience (see Table 3). These settings represent a compromise between RH levels that would be most desirable for comfort reasons and humidity levels that are suitable for protection of your home and to avoid condensation on your windows. For example, a wintertime indoor RH of 50% may be considered ideal, but unfortunately, it probably would result in damage to your home. Observance of the recommended RH levels on your Humidifier Control, therefore, is an important safeguard. Condensation of water on inside windows in the form of fogging or frost is usually an indication of too much relative humidity. This same condensation can take place in other areas in your home with the possibility of damage resulting.

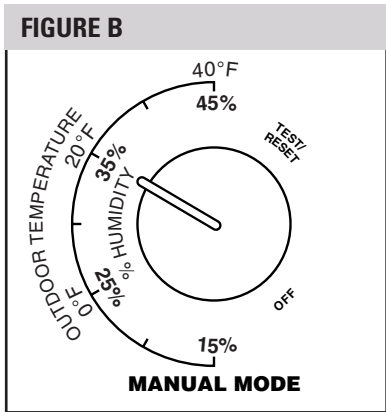
**TABLE 3 – Outdoor-Indoor Relative Humidity**

Outside Temperature	Recommended RH
+40°F	45%
+30°F	40%
+20°F	35%
+10°F	30%
0°F	25%
-10°F	20%
-20°F	15%

Your Aprilaire Humidifier Control is a precision instrument that can be used to determine the RH accurately in your home during the winter.

To do this, follow these steps:

1. Activate the furnace blower by setting your thermostat to a higher temperature.
2. Turn the control dial setting to the "Off" position. Then, slowly turn the dial clockwise until you hear the solenoid valve on the humidifier "click on." Next, slowly turn the dial counter clockwise until you hear the solenoid valve "click off." At this point, read the RH on the dial. This will be very close to the actual RH in your home. (See Figure B)



To check the humidifier operation, set the knob to "Test/Reset", make sure that the water saddle valve is open and that there is electricity to the unit. The furnace blower motor must be operating and the furnace calling for heat for the Aprilaire Humidifier to function. Note: Turning the knob to "Test/Reset" resets the "Change Water Panel" internal timer. After the humidifier has operated for one minute and water is entering the unit and coming out at the drain, reduce the humidistat setting to the recommended inside relative humidity, depending on the outside temperature. **DO NOT LEAVE IN TEST MODE AS HUMIDIFIER WILL NOT OPERATE.** Follow the suggested settings prior to a drop in the outside temperature.



### **III. OPERATING INSTRUCTIONS – 550**

Your new Aprilaire Humidifier is controlled by a manual humidistat installed either in the living area or in the cold air return. It is important to anticipate a drop in temperature and reduce the setting accordingly to avoid excessive condensation. For example, with an outside temperature of 20° the correct setting will be 35% relative humidity. If the temperature is expected to fall to 0° that evening, then merely reduce the setting to 25% several hours prior to the temperature change.

### **IV. ADDITIONAL INFORMATION FOR ALL MODELS**

Be sure to keep fireplace dampers closed when not in use. They provide an excellent escape route for heat, as well as humidity.

On occasion, indoor moisture producing activities such as clothes drying, cooking, showers, etc., may raise the relative humidity level higher than it should be, even though the Aprilaire Humidifier is not operating. Telltale indications, again, are condensation or frost on cold surfaces such as windows, doors, walls, etc. If such condensation persists for several hours, your home should be ventilated to dissipate the potential damaging excess moisture levels.

### **V. EFFECT OF WATER CHARACTERISTICS**

Your humidifier will operate effectively using either hot, cold, hard or mechanically softened water. Whether to use available tap water, even though it may be quite hard, or chemically softened water, is a common question of homeowners when installing a humidifier.

Water used in homes contains varying amounts of minerals. The residue remaining as a result of hard water evaporation is primarily calcium and magnesium components and is usually quite hard, scaly, and dense.

Residue from softened water tends to be soft and fluffy and has a greater volume than hard water scale. In either case, the service life of a Water Panel evaporator will be virtually the same. The Water Panel evaporator should be changed once a year with the exception of the Model 400 which should be changed twice a heating season. In the drain-equipped models, most of these solids are effectively controlled by flushing them down the drain.

Service hot water, 140° maximum, is recommended with drain type units for increasing capacity and for heat pump applications.

## VI. ANNUAL MAINTENANCE

For best performance, we recommend that you replace the Water Panel evaporator in your Aprilaire Humidifier annually with the exception of Model 400 which should be changed twice a season. If you have a Humidifier Control equipped with a "Change Water Panel" indicator light, it will be lit (during operation only) when it is time to change your Water Panel. See individual model instructions for additional maintenance.

To purchase a new Water Panel:

- Call the installer of your Aprilaire Humidifier. This information is often found on your equipment.
- Call your heating and air conditioning dealer.
- Use our "Dealer Locator" at: [www.aprilaire.com](http://www.aprilaire.com)
- Look in the Yellow Pages under Humidifying Apparatus or Heating & Air Conditioner Contractors.
- If none of the above is successful and you still need information, please feel free to write us.
- Purchase only Genuine Aprilaire Water Panels to maintain performance.

If your humidifier is equipped with an automatic control, after replacing the Water Panel, turn the control knob to the "Test/Reset" position until the "Change Water Panel" light blinks to reset the Water Panel change indicator timer. (Blower must be operating and furnace calling for heat.) Be sure to turn the control knob back to it's original setting.

## VII. ANNUAL SUMMER SHUTDOWN

1. For Models 400, 550, and 600 close the bypass damper, which is a part of the unit, with the use of the small damper handle. For older Model 550s without a built in damper, closer the bypass which is installed in the bypass pipe.
2. Shut off the water supply to the humidifier by closing the saddle valve.

Humidifier Control:

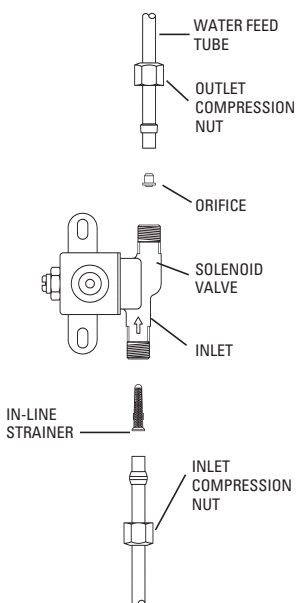
There is no adjustment to the Humidifier Control required for summer shutdown. (Applies to both Automatic and Manual Mode.)

## VIII. PERIODIC PREVENTATIVE MAINTENANCE

NOTE: Periodic inspection and preventative maintenance of your total heating system is important for efficient and safe operation. Your heating contractor should include humidifier service at the same time.

All models are equipped with an in-line water strainer and orifice as shown below. These parts should be inspected and cleaned periodically to assure continued proper unit performance.

### INSPECTION AND SERVICE INSTRUCTIONS

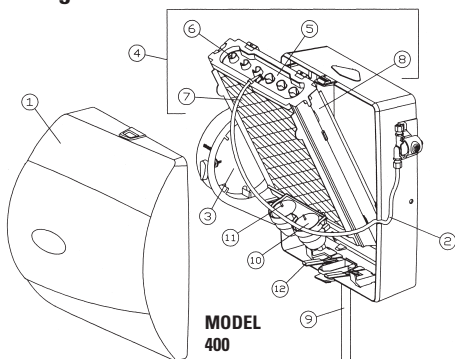


1. Disconnect electrical power to the furnace and shut off water supply.
2. Disconnect the water line at the inlet compression nut.
3. Remove the in-line strainer from inside the inlet side of the valve by using a small nail or wire.
4. Flush the in-line strainer clean or replace with a new strainer, Service Department, Part No. 4004.
5. Reconnect the inlet water line. **(Double Wrench To Prevent Leaking.)**
6. Disconnect the water feed tube at the outlet compression nut.
7. Inspect the water feed tube by gently flexing it and looking for cracks or signs of wear. Replace tube if it is cracked, brittle, or has been damaged.
8. Remove the orifice from the copper or plastic water feed tube and make sure this small opening is unplugged.
9. Replace the orifice and reconnect the water feed tube. **(Double Wrench To Prevent Leaking.)**
10. Remove the drain hose from the bottom of the unit and flex it to loosen any mineral deposits or blockage. Then flush it with water under pressure and slip it back onto the drain fitting. Make sure the drain hose has a constant downward slope and is not flattened or blocked.
11. Turn on water supply and reconnect electrical power to the furnace.

# MAINTENANCE INSTRUCTIONS FOR APRILAIRE HUMIDIFIER MODEL 400

**CAUTION! Sudden operation may cause personal injury or property damage. Turn Humidifier Control to "off" or lowest setting before servicing.**

1. Front Cover
2. Feed Tube
3. Integral Bypass Damper
4. Water Panel Evaporator Assembly
5. Distribution Tray
6. "V" Notches
7. Water Panel
8. Scale Control Insert/Float Chamber
9. Overflow Hose
10. Float Cover
11. Float
12. Water Level Sensor Assembly

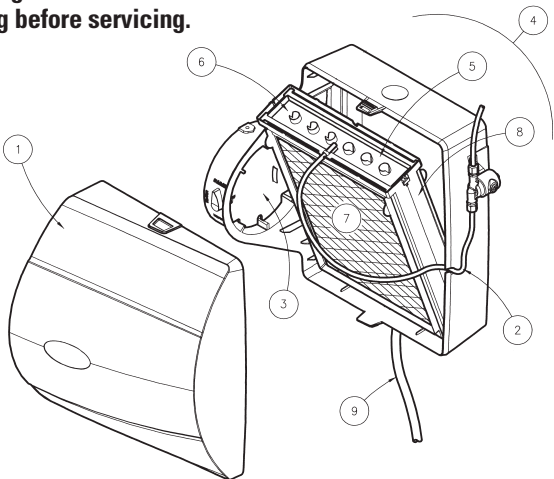


1. Note Humidifier Control setting and turn dial to the "Off" position.
2. Turn off water supply. Turn the integral bypass damper (3) to the SUMMER position.
3. Press the tabs in the latches on the top and bottom of front cover (1) and pull cover off base with both hands.
4. Carefully pull the plastic feed tube (2) out of the distribution tray (5) at the top of the Water Panel evaporator assembly (4). Tip the Water Panel evaporator assembly forward and lift it out of the humidifier. **Do not** tip the Water Panel evaporator assembly more than needed to clear the housing to avoid over-bending the water level sensor assembly (12).
5. Unsnap the distribution tray (5) from the scale control insert (8). Follow the instructions below depending upon the type of distribution tray in your humidifier:  
For trays with a synthetic fabric liner: Lightly scrape out or brush off any mineral deposits, being careful not to stretch or loosen the synthetic fabric liner. Soaking the tray in vinegar or a lime-removing agent is helpful when trying to remove stubborn mineral deposits.  
For trays with granular coating: **Do not scrape off the granular coating**, but lightly scrape out any mineral deposits and clean the "V" notches (6). This textured surface helps ensure even water flow for maximum performance. See page 3 if removed.
6. Slide the used water panel (7) out of the scale control insert/float chamber and dispose of the water panel.
7. Remove the float cover (10) and inspect the floats (11) and float chamber for mineral build-up. Remove deposits as needed from floats, float chamber and scale control insert. Wash the parts with a disinfecting cleaner. Reassemble the floats and float cover. Make sure stems of both floats extend through openings in float cover and that floats move freely up and down.
8. Inspect the plastic feed tube (2) by gently flexing it and looking for cracks or signs of wear. Replace tube if it is cracked, brittle, or has been damaged.
9. Slide a new Aprilaire No. 45 water panel (7) into the scale control insert/float chamber (8). Snap the distribution tray (5) back on the scale control insert (8).
10. Re-install the Water Panel evaporator assembly (4) into the humidifier. Take care not to over-bend the water level sensor assembly. Push the top of the Water Panel evaporator assembly firmly back until it snaps into place.
11. Push the end of the feed tube back firmly into the distribution tray. Replace the front cover.
12. Remove the overflow hose (9) from the bottom of the unit and flex it to loosen any mineral deposits or blockage. Then flush with water under pressure and slip it back onto the drain fitting. Make sure the drain hose has a constant downward slope and is not flattened or blocked.
13. Turn on the water supply. Return integral bypass damper to appropriate position.
14. Check system operation:  
Humidifier Control: (Automatic or Manual) Check system operation and reset change water panel indicator by setting the knob to "Test/Reset". With furnace blower operating and furnace calling for heat, humidifier will operate for one minute. **DO NOT LEAVE IN TEST MODE AS HUMIDIFIER WILL NOT OPERATE.**
15. Reset Humidifier Control to its original position.

# MAINTENANCE INSTRUCTIONS FOR APRILAIRE HUMIDIFIER MODEL 600

**CAUTION!** Sudden operation may cause personal injury or property damage. Turn Humidifier Control to "off" or lowest setting before servicing.

1. Front Cover
2. Feed Tube
3. Integral Bypass Damper
4. Water Panel Evaporator Assembly
5. Distribution Tray
6. "V" Notches
7. Water Panel
8. Scale Control Insert
9. Drain Hose

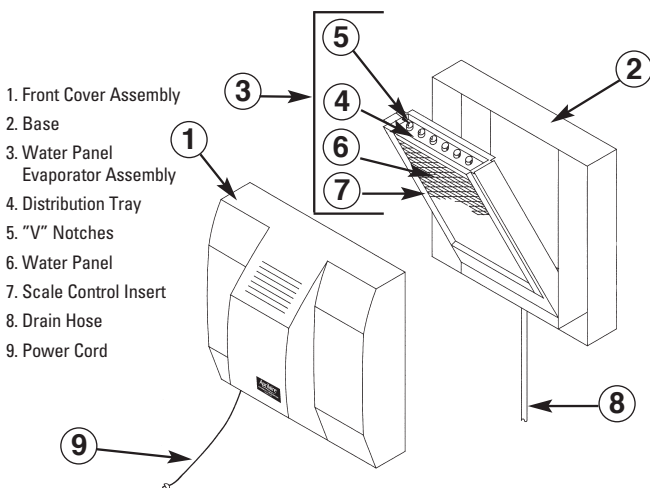


**MODEL 600**

1. Note Humidifier Control setting and turn dial to the "OFF" position.
2. Turn off water supply. Turn the integral bypass damper (3) to the SUMMER position.
3. Press the tabs in the latches on the top and bottom of front cover (1) and pull cover off base with both hands. Set aside.
4. Carefully pull the plastic feed tube (2) out of the distribution tray (5) at the top of the Water Panel evaporator assembly (4). Pull this assembly out by grasping at top and tipping out.
5. Unsnap the distribution tray (5) from the scale control insert (8). Follow the instructions below depending upon the type of distribution tray in your humidifier:  
For trays with a synthetic fabric liner: Lightly scrape out or brush off any mineral deposits, being careful not to stretch or loosen the synthetic fabric liner. Soaking the tray in vinegar or a lime-removing agent is helpful when trying to remove stubborn mineral deposits.  
For trays with granular coating: **Do not scrape off the granular coating**, but lightly scrape out any mineral deposits and clean the "V" notches (6). This textured surface helps ensure even water flow for maximum performance. See page 3 if removed.
6. Slide the Water Panel evaporator (7) out from the Scale Control Insert (8). Clean the insert frame of calcium deposits. Replace the Water Panel evaporator (Stock No. 35) and with a new Genuine Aprilaire Water Panel. Slide the Water Panel back into the scale control insert with the colored spot up and snap the distribution tray back into place.
7. Inspect the plastic feed tube (2) by gently flexing it and looking for cracks or signs of wear. Replace tube if it is cracked, brittle, or has been damaged.
8. Re-install the Water Panel evaporator assembly (4) into the unit by fitting its drain into the round receptacle at the base of the unit. Push the assembly in at the top against the beveled tabs that will hold it in place. Push the end of the feed tube back firmly into the distribution tray and replace the front cover.
9. Remove the drain hose (9) from the bottom of the unit and flex it to loosen any mineral deposits or blockage. Then flush it with water under pressure and slip it back onto the drain fitting. Make sure the drain hose has a constant downward slope and is not flattened or blocked.
10. Turn on the water supply. Return integral bypass damper to appropriate position.
11. Check system operation:  
Humidifier Control: (Automatic or Manual) Check system operation and reset change water panel indicator by setting the knob to "Test/Reset". With furnace blower operating and furnace calling for heat, humidifier will operate for one minute. **DO NOT LEAVE IN TEST MODE AS HUMIDIFIER WILL NOT OPERATE.**
12. Set Humidifier Control to its original position.

# MAINTENANCE INSTRUCTIONS FOR APRILAIRE HUMIDIFIER MODEL 700

**WARNING! 120 volts may cause serious injury from electrical shock. Disconnect power and shut off water supply before servicing.**

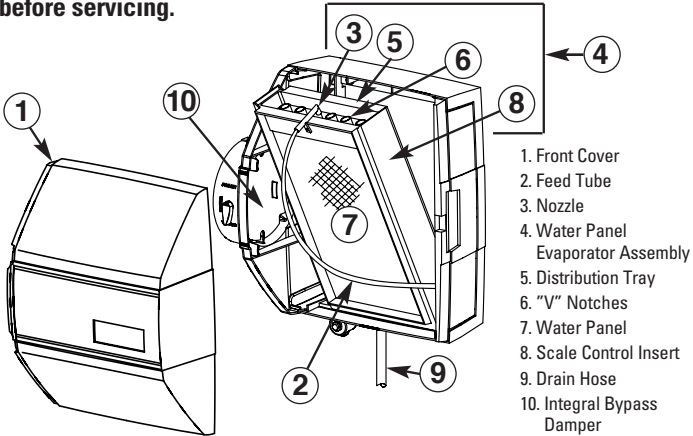


- Note Humidifier Control setting and turn dial to the "OFF" position.
- Disconnect electrical power and turn off water supply.
- Unlatch humidifier front cover assembly (1) from base assembly (2) at the bottom of the cover, lift, and set aside.
- Pull out the water panel evaporator assembly (3) by grasping at the top and tipping out.
- Unsnap the distribution tray (4) from the scale control insert (7). Follow the instructions below depending upon the type of distribution tray in your humidifier:  
For trays with a synthetic fabric liner: Lightly scrape out or brush off any mineral deposits, being careful not to stretch or loosen the synthetic fabric liner. Soaking the tray in vinegar or a lime-removing agent is helpful when trying to remove stubborn mineral deposits.  
For trays with granular coating: **Do not scrape off the granular coating**, but lightly scrape out any mineral deposits and clean the "V" notches (5). This textured surface helps ensure even water flow for maximum performance. See page 3 if removed.
- Slide the Water Panel evaporator (6) out from the Scale Control Insert (7). Clean the Scale Control Insert by twisting and flexing it to loosen the calcium deposits. Replace the Water Panel evaporator (Stock No. 35) and with a new Genuine Aprilaire Water Panel. Slide the Water Panel evaporator back into the scale control insert with the colored spot up and snap the distribution tray (4) back into place.
- Inspect the plastic feed tube by gently flexing it and looking for cracks or signs of wear. Replace tube if it is cracked, brittle, or has been damaged.
- Re-install the Water Panel evaporator assembly (3) into the base assembly (2). Push it in at the top between the retaining ribs that hold the assembly in place in a vertical position.
- Remove the drain hose (8) from the bottom of the unit and flex it to loosen any mineral deposits or blockage. Then flush it with water under pressure and slip it back onto the drain fitting. Make sure the drain hose has a constant downward slope and is not flattened or blocked.
- Re-install front cover assembly (1) by hooking at the top of the base assembly (2) and latching at the bottom.
- Reconnect electrical power (9) and turn on the water supply.
- Check system operation:  
Humidifier Control: (Automatic or Manual) Check system operation and reset change water panel indicator by setting the knob to "Test/Reset". With furnace blower operating and furnace calling for heat, humidifier will operate for one minute. **DO NOT LEAVE IN TEST MODE AS HUMIDIFIER WILL NOT OPERATE.**
- Set Humidifier Control to its original position.

NOTE: The motor is permanently lubricated and does not need to be oiled.

## MAINTENANCE INSTRUCTIONS FOR APRILAIRE HUMIDIFIER MODEL 550

**CAUTION!** Sudden operation may cause personal injury or property damage. Turn Humidistat to "off" or lowest setting before servicing.



- Note Humidistat setting and turn dial to the "OFF" position.
- Turn off water supply. Turn the integral bypass damper (10) to the SUMMER position.
- At the side of the unit opposite the airflow duct pull front cover (1) off holding with both hands and set aside.
- Carefully pull the plastic feed tube (2) out of the nozzle (3) at the top of the Water Panel evaporator assembly (4). Pull this assembly out by grasping at top and tipping out.
- Unsnap the distribution tray from the scale control insert (8). Follow the instructions below depending upon the type of distribution tray in your humidifier:  
For trays with a synthetic fabric liner: Lightly scrape out or brush off any mineral deposits, being careful not to stretch or loosen the synthetic fabric liner. Soaking the tray in vinegar or a lime-removing agent is helpful when trying to remove stubborn mineral deposits.  
For trays with granular coating: **Do not scrape off the granular coating**, but lightly scrape out any mineral deposits and clean the "V" notches (6). This textured surface helps ensure even water flow for maximum performance. See page 3 if removed.
- Slide the Water Panel evaporator (7) out from the Scale Control Insert (8). Clean the insert frame by twisting and flexing it to loosen the calcium deposits. Replace the Water Panel evaporator (Stock No. 10) and with a new Genuine Aprilaire Water Panel. Slide the pad back into the insert frame with color mark up and snap the distribution tray back into place.
- Inspect the plastic feed tube (2) by gently flexing it and looking for cracks or signs of wear. Replace tube if it is cracked, brittle, or has been damaged.
- Re-install the Water Panel evaporator assembly (4) into the unit by fitting its drain into the round receptacle at the base of the unit. Push the assembly in at the top against the beveled tabs that will hold it in place. Push the end of the feed tube (2) back firmly into the nozzle and replace the front cover.
- Remove the drain hose (9) from the bottom of the unit and flex it to loosen any mineral deposits or blockage. Then flush it with water under pressure and slip it back onto the drain fitting. Make sure the drain hose has a constant downward slope and is not flattened or blocked.
- Turn on the water supply.
- Check system operation:  
Humidistat: With the furnace blower operating and the furnace calling for heat, turn up Humidistat and check system operation .
- Set Humidistat to its original position.

## LIMITED WARRANTY

Your Research Products Corporation Aprilaire® Humidifier unit is expressly warranted for one (1) year from date of installation to be free from defects except, however, for the disposable Water Panel which will have to be replaced from time to time depending upon the amount of use.

Research Products Corporation's exclusive obligation under this warranty shall be to supply, without charge, a replacement for any part of the humidifier which is found to be defective within one (1) year period and which is returned not later than thirty (30) days after said one (1) year period by you to either your original supplier or to Research Products Corporation, Madison, Wisconsin 53701, together with the model number, manufacturing code number and installation date of the humidifier.

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 HUMIDIFIER ITSELF.

IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE SHALL BE LIMITED IN DURATION TO THE AFORESAID ONE 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 UNIT 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 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.

## WARRANTY REGISTRATION

Visit us on-line at [www.aprilaire.com](http://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

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

# Thank you!

## Intelligent Solutions for Indoor Environments



An entire line of indoor air quality products that are the best in their categories. Together they set a new standard for intuitive use, performance and reliability. Aprilaire products enhance your comfort, health and energy efficiency:

- Zoned Comfort Control • Automatic Humidifiers
- Electronic Thermostats • Ventilation • UV Germicidal Lamps
- High Efficiency Air Cleaners • Whole-Home Dehumidifiers



**RESEARCH PRODUCTS CORPORATION**

PO BOX 1467 • MADISON, WI 53701-1467

DP 10006405 01.05  
B2203619C

- 14 -

©2005 Research Products Corporation