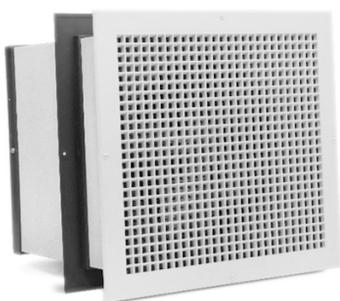


**Aprilaire®**

**Humidifiers**



## **Owner's Manual**

**For Models 350, 360, 400, 500, 600 & 700**

**Includes Safety & Operating Instructions  
and Warranty Information**

**READ AND SAVE THESE INSTRUCTIONS**

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### **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 and are pleased to add your name to our growing list of customers. You have invested in the highest quality equipment available. Aprilaire manufactures whole-house indoor air quality products and is a recognized leader in the heating and air conditioning industry.

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

Now, please take a few minutes and read this booklet. This will familiarize you with the benefits you will receive from the equipment you just purchased and help you understand the routine maintenance that will be 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.**



## PRINCIPLE OF OPERATION

With your purchase of this humidification system, you have invested in a humidifier that operates on the evaporative principle – nature’s own way of adding moisture – providing optimum 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 answer these questions.

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:

Except for Models 350 and 360, the Aprilaire Humidifier is installed to operate in conjunction with the furnace blower motor. When the Aprilaire Humidifier Control calls for humidity and the blower motor is operating, water flows to the distribution tray located at the top of the humidifier. 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 humidifier. 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.

Models 350 and 360 use service hot water (140°F maximum) for a heat source, as heat is needed for evaporation. While the water going to the humidifier is hot, the flushing water to the drain will be cold. The heat is extracted during the evaporation process.

**The correct water flow is determined by an orifice equipped with each drain type humidifier. When the humidifier 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 open or closed.**

The minerals and solid residue not trapped by the replaceable Water Panel evaporator are flushed down the drain in the Models 350, 360, 500, 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.

Trouble-free performance and minimum maintenance are assured by the design features of the Aprilaire Humidifier. All humidifier 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 (which encases the Water Panel) efficiently traps mineral deposits which are often the cause of damage to working parts in ordinary humidifiers. When properly maintained, no “white dust” will be distributed through the living quarters. **The Water Panel evaporator is the heart of the humidifier and must be in good condition to assure high capacity trouble-free performance. It should be changed at least annually with the exception of the Model 400 which should be changed twice per 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 humidifier is mounted 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, provided the humidifier is mounted level. 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, offer the features, design, and performance incorporated into your new Aprilaire Humidifier.

## OPERATING INSTRUCTIONS – MODELS 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.

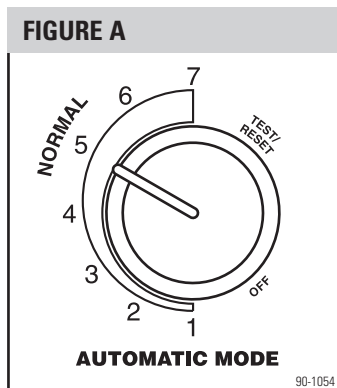
**During the first heating season**, your Humidifier Control needs to be set initially to match your home's condition. Please follow these steps when adjusting your control (refer to Figure A).

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 "TABLE 1 – Operation Guide".
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 "TABLE 1 – Operation Guide".

**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 humidifier still doesn't operate, contact your heating contractor.
Humidifier won't shut off	Turn dial to "Off." If humidifier 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. <b>Be sure to turn the control knob back to the prior setting after checking humidifier operation.</b>
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 to "OFF" 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°F change in outdoor temperature, the control will automatically adjust the indoor relative humidity by 1/2% (RH). 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%.

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### **Manual Mode: (Automatic Mode – see page 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°F the correct setting will be 35% relative humidity. If the temperature is expected to fall to 0°F 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**

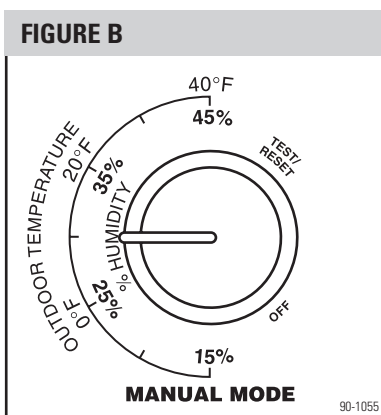
Outside Temperature	Recommended RH
+40°F	45%
+30°F	40%
+20°F	35%
+10°F	30%
0°F	25%
-10°F	20%
-20°F	15%

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 humidifier. 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. In addition, at this setting, the humidifier will only operate for 1 minute. 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.

## OPERATING INSTRUCTIONS – MODELS 350, 360 & 500

Your 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. To determine the RH level in your home, follow Steps 1 & 2 on page 6.

## 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.

## EFFECT OF WATER CHARACTERISTICS

Whether to use available tap water, even though it may be quite hard, or chemically softened water, is a common question homeowners have when their dealer is installing a humidifier. Your humidifier is designed to operate effectively using hot, cold, hard or mechanically softened water. (Hot water is recommended for Models 350 and 360.)

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.

Hot supply water, 140°F maximum, is recommended with drain type humidifiers for increasing capacity and is required for heat pump applications.

### **WARNING**

**RISK OF SCALDING.** Water temperature over 125°F can cause severe burns and scald instantly. Shut off the hot water supply before disconnecting or tapping into any hot water supply line.

## ANNUAL MAINTENANCE

**For best performance, we recommend that you replace the Water Panel evaporator in your Aprilaire Humidifier at least annually with the exception of Model 400 which should be changed twice per heating 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 Humidifier Control with Water Panel change indicator, after replacing the Water Panel, turn the control knob to the “Test/Reset” position until the “Change Water Panel” light blinks to reset its timer. (Blower must be operating and furnace calling for heat.) Be sure to turn the control knob back to it’s original setting.

## ANNUAL SUMMER SHUTDOWN

1. For Models 400, 500, and 600 close the bypass damper, which is a part of the humidifier, with the use of the small damper handle.
2. Shut off the water supply to the humidifier by fully closing the saddle valve.

Humidifier Control:

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

## DEALER INSTRUCTIONS FOR PREVENTATIVE MAINTENANCE

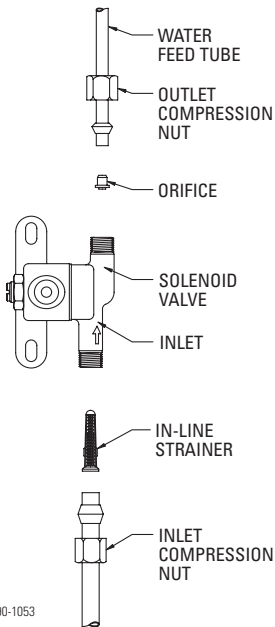
NOTE: Annual inspection and preventative maintenance of your total heating system is important for efficient and safe operation. Call your Aprilaire dealer for humidifier service and maintenance inspection.

## 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 a water delivery system that includes a water feed tube, in-line water strainer and orifice as shown below. These parts should be inspected and/or cleaned periodically to assure continued proper humidifier performance. Inspect more often if seeing "white dust".

### WATER LINE INSPECTION AND SERVICE INSTRUCTIONS

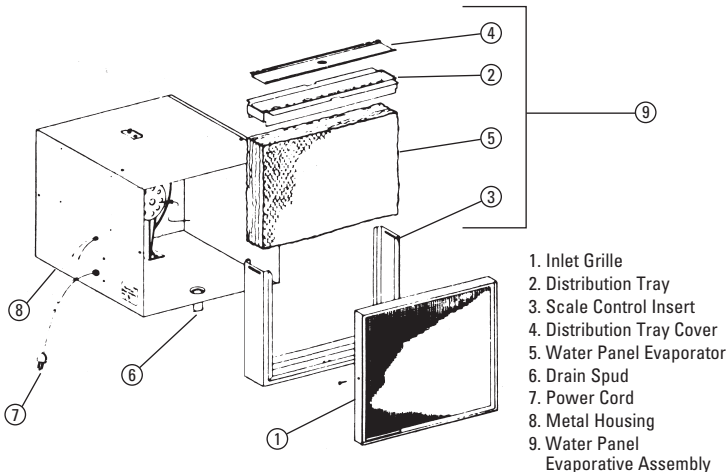


1. Disconnect electrical power to the furnace and shut off water supply.
2. Disconnect the water line at the inlet compression nut.
3. Remove the in-line strainer from inside the inlet side of the valve by using a small nail or wire.
4. Flush the in-line strainer clean or replace with a new strainer, 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 line from the bottom of the humidifier. If applicable, flex it to loosen any mineral deposits or blockages. Flush the drain line with water under pressure to clear it of any debris, and slip it back onto the drain fitting. If drain line does not clean properly, replace it. Inspect the drain line to make sure it has a constant downward slope and is not flattened or blocked.
11. Turn on water supply and reconnect electrical power to the furnace.

# REQUIRED MAINTENANCE INSTRUCTIONS (APRILAIRE HUMIDIFIER MODELS 350 & 360)

## WARNING

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



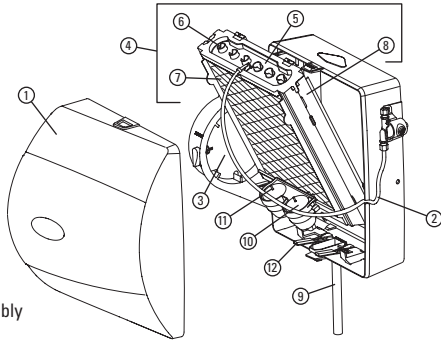
1. Note Manual Humidistat setting and turn dial to the "OFF" position.
2. Disconnect electrical power and turn off water supply.
3. Remove screws of the inlet grille (1). The grille can now be removed from the metal housing (8).
4. Lift the Water Panel evaporative assembly (9) out of the humidifier housing (8).
5. To remove the distribution tray (2) from Water Panel evaporative assembly (9), push down on tray and pull out scale control insert (3). To clean the "V" openings of the tray, it will be necessary to gently pry the distribution tray cover (4) from the tray. Follow 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. This textured surface helps ensure even water flow for maximum performance. See page 2 if removed.
6. Slide the Water Panel evaporator (5) out from the scale control insert (3). Clean the scale control insert of mineral deposits. Replace the Water Panel evaporator (Stock No. 35) with a Genuine Aprilaire Water Panel. Slide the Water Panel back into the scale control insert (3) and snap the distribution tray cover (4) into the distribution tray (2). Then snap the distribution tray back into the scale control insert.
7. 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.
8. Remove the drain line from the bottom of the humidifier and flex it to loosen any mineral deposits or blockage. Then flush it with water under pressure. If it does not properly clear, replace it. Slip the drain line back onto the drain fitting (6). Make sure the drain line has a constant downward slope and is not flattened or blocked.
9. Reinstall Water Panel evaporative assembly (9) and intake grille (1).
10. Reconnect electrical power (7) and turn on water supply.
11. Turn up Manual Humidistat and check system operation.
12. Set Manual Humidistat to its original position.

# REQUIRED MAINTENANCE INSTRUCTIONS (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 Evaporative Assembly
5. Distribution Tray
6. "V" Notches
7. Water Panel Evaporator
8. Scale Control Insert/Float Chamber
9. Overflow Drain Line
10. Float Cover
11. Float
12. Water Level Sensor Assembly



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MODEL 400

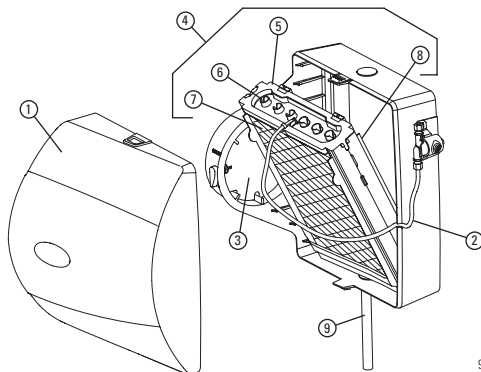
1. Note Humidifier Control setting and turn dial to the "OFF" position.
2. Turn off water supply. Turn the integral bypass damper (3) to the "SUMMER" position.
3. Press the tabs in the latches on the top and bottom of front cover (1) and pull cover off base with both hands.
4. Carefully pull the plastic feed tube (2) out of the distribution tray (5) at the top of the Water Panel evaporative assembly (4). Tip the Water Panel evaporative assembly forward and lift it out of the humidifier. **Do not** tip the Water Panel evaporative 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 2 if removed.
6. Slide the used Water Panel evaporator (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 evaporator (7) into the scale control insert/float chamber (8). Snap the distribution tray (5) back on the scale control insert (8).
10. Reinstall the Water Panel evaporative assembly (4) into the humidifier. Take care not to over-bend the water level sensor assembly. Push the top of the Water Panel evaporative 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. Under normal operation the overflow drain line (9) will never have water in it. However, inspect it for mineral deposits and replace if necessary. Make sure the drain line 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 mode) 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. Set Humidifier Control to its original position.

# REQUIRED MAINTENANCE INSTRUCTIONS (APRILAIRE HUMIDIFIER MODELS 500 & 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 Evaporative Assembly
5. Distribution Tray
6. "V" Notches
7. Water Panel Evaporator
8. Scale Control Insert
9. Drain Line



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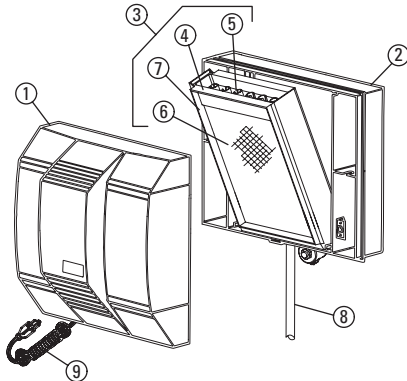
1. Note Humidifier Control setting and turn dial to the "OFF" position.
2. Turn off water supply. Turn the integral bypass damper (3) to the SUMMER position.
3. Press the tabs in the latches on the top and bottom of front cover (1) and pull cover off base with both hands. Set aside.
4. Carefully pull the plastic feed tube (2) out of the distribution tray (5) at the top of the Water Panel evaporative 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 2 if removed.
6. Slide the Water Panel evaporator (7) out from the scale control insert (8). Clean the scale control insert of mineral deposits. Replace the Water Panel evaporator (Stock No. 35 for Model 600 and Stock No. 10 for Model 500) 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 (5) 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. Reinstall the Water Panel evaporative assembly (4) into the humidifier by fitting its drain into the round receptacle at the base of the humidifier. Push the assembly in at the top until it snaps into place. Push the end of the feed tube back firmly into the distribution tray and replace the front cover.
9. Remove the drain line (9) from the bottom of the humidifier. If applicable, flex it to loosen any mineral deposits or blockage. Then flush it with water under pressure. If it does not properly clear, replace it. Slip drain line back onto the drain fitting. Make sure the drain line 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:  
**Manual Humidistat (Model 500):** With the furnace blower operating and the furnace calling for heat, turn up Humidistat and check system operation.  
**Humidifier Control (Model 600):** (Automatic or Manual mode) 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 Manual Humidistat or Humidifier Control to its original position.

# REQUIRED MAINTENANCE INSTRUCTIONS (APRILAIRE HUMIDIFIER MODEL 700)

## WARNING

**ELECTRICAL SHOCK HAZARD.** Can cause injury or death. Disconnect all electrical power supplies before servicing. Shut off water supply before disconnecting or tapping into any water supply line.

1. Humidifier Cover Assembly
2. Base Assembly
3. Water Panel Evaporative Assembly
4. Distribution Tray
5. "V" Notches
6. Water Panel Evaporator
7. Scale Control Insert
8. Drain Line
9. Power Cord



90-1075

MODEL 700

1. Note Humidifier Control setting and turn dial to the "OFF" position.
2. Disconnect electrical power and turn off water supply.
3. Unlatch humidifier front cover assembly (1) from base assembly (2) at the bottom of the cover, lift, and set aside.
4. Pull out the Water Panel evaporative assembly (3) by grasping at the top and tipping out.
5. 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 2 if removed.
6. Slide the Water Panel evaporator (6) out from the scale control insert (7). Clean the scale control insert of mineral deposits. Replace the Water Panel evaporator (Stock No. 35) 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.
7. 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.
8. Reinstall the Water Panel evaporative assembly (3) into the humidifier by fitting its drain into the round receptacle at the base of the humidifier. Push the assembly in at the top between the retaining ribs that hold the assembly in place in a vertical position.
9. Remove the drain line (8) from the bottom of the humidifier. If applicable, flex it to loosen any mineral deposits or blockage. Then flush it with water under pressure. If it does not clear, replace it. Slip drain line back onto the drain fitting. Make sure the drain line has a constant downward slope and is not flattened or blocked.
10. Reinstall front cover assembly (1) by hooking at the top of the base assembly (2) and latching at the bottom.
11. Reconnect electrical power (9) and turn on the water supply.
12. Check system operation:  
**Humidifier Control:** (Automatic or Manual mode) 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.
13. Set Humidifier Control to its original position.

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

## LIMITED WARRANTY

Your Research Products Corporation Aprilaire® Humidifier unit is expressly warranted for five (5) years from date of installation to be free from defects in materials or workmanship 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 such five (5) year period and which is returned not 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, together with the model 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 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 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 installation 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.**

# Thank you!

 **RESEARCH PRODUCTS CORPORATION**  
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