

AprilAire® Dehumidifier

INSTALLATION & OWNER'S MANUAL

Model E070

70 PPD Professional-Grade,
Crawl Space Dehumidifier

Installed By:

Installer Phone:

Date Installed:



PLEASE LEAVE THIS MANUAL WITH THE DEHUMIDIFIER OWNER

Product Info &
Digital Manual

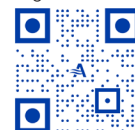


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SPECIFICATIONS

| | Model E070 | |
|---|--|---------------|
| Unit Weight | 56 lbs. | |
| Capacity 80°F, 60% RH Conditions | 70 pints per day @ 200 CFM | |
| Power 115 VAC, Single Phase, 60 Hz | 5.8A operating current | |
| Dehumidifier Inlet Air Conditions | Dehumidification: 50°F–104°F, 40°F dew point minimum Ventilation: 40°F–140°F, 0% RH–99% RH (non-condensing) | |
| Filter | MERV 8, washable | |
| Airflow | External Static Pressure ("WC) | Airflow (CFM) |
| | 0.0 | 200 |
| | 0.2 | 170 |
| | 0.4 | 140 |

NOTE: Rated capacity and current draw measured at 80°F/60% RH inlet conditions at 0.0 external static pressure.

SAFETY INSTRUCTIONS

Be sure to read and understand all safety precautions and instructions before installing and operating the unit.

WARNING

The following precautions indicate a hazardous situation that, if not avoided, *could* result in death or serious injury.

- Always disconnect electrical power before starting installation or servicing to avoid electric shock.
- Always wear glasses/goggles and gloves when installing the unit. Sharp edges may cause serious cuts. Use care when cutting plenum openings and handling ductwork.
- Be sure to use caution when handling the unit. Dropping the unit may cause personal injury or equipment damage.

CAUTION

Be sure the installation, service and maintenance are performed by a qualified service technician. Improper installation may cause injury or property damage.

- This unit is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the unit by a person responsible for their safety.
- Be sure to supervise children to ensure that they do not play with the unit.
- Be sure to replace a damaged supply cord. It must be replaced by a special cord or assembly available from the manufacturer or its service agent.

NOTICE

The following statements indicate a situation which can cause damage to the equipment and personal property, or cause the equipment to operate improperly.

- Do not use in pool applications. Pool chemicals can damage the dehumidifier.
- Do not use solvents or cleaners on or near the circuit board. Chemicals can damage circuit board components.
- Wait 24 hours before running the unit if it was not shipped or stored in the upright position.

Do not use dehumidification to prevent window condensation in the winter. To address window condensation, use ventilation to lower indoor humidity in the winter.

CRAWL SPACE DEHUMIDIFICATION

The AprilAire® Dehumidifier controls the humidity level in your crawl space. A powerful blower inside the dehumidifier draws air into the cabinet where it is filtered before having moisture removed. A sealed refrigeration system removes moisture by moving the air through a series of tubes and fins that are kept colder than the dew point of the incoming air. The dew point is the temperature at which moisture in the air will condense, much like what occurs on the outside of a cold glass on a hot summer day. The condensed moisture drips into the dehumidifier drain pan to a drain tube routed to the nearest floor drain or condensate pump. After the moisture is removed, the air moves through a second coil where it is reheated before being sent back into the crawl space. The air leaving the dehumidifier will be warmer and drier than the air entering the dehumidifier.

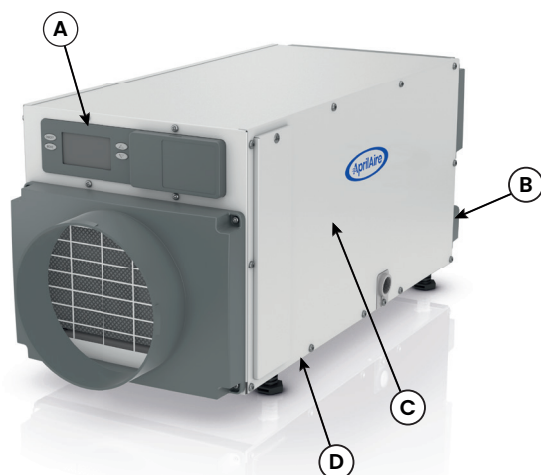
You can reduce the amount of humidity that enters the home by closing windows, doors and fireplace flues when outdoor humidity is high, and by drying clothes outside. Direct exhaust from kitchen vents and bath fans is the best means of controlling humidity due to cooking and showers/baths. The dehumidifier is not designed to prevent window condensation in winter. Use ventilation to lower indoor humidity levels in the winter.

OPERATING THE DEHUMIDIFIER

1. If equipped, use the ON/OFF Power Switch, located by the power cord, to apply power to the dehumidifier.

NOTE: The unit can remain plugged in with the ON/OFF Power Switch on (if equipped) unless the unit will not be used for an extended period. Use the ON/OFF Button on the user interface to turn the unit off for short durations. When the unit is idle (neither the fan nor the compressor running) the unit will use less than 3W of power.

FIGURE 1: EXTERIOR COMPONENTS OF THE DEHUMIDIFIER

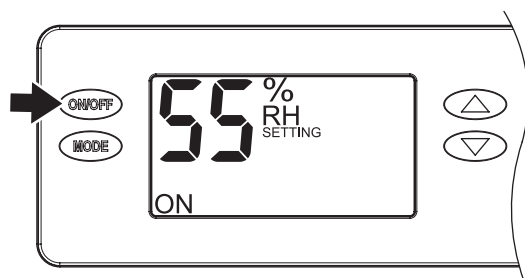


- | | |
|--|---|
| A. USER INTERFACE | C. FILTER ACCESS DOOR RETAINING SCREW |
| B. ON/OFF POWER SWITCH (SELECT MODELS) | D. FILTER ACCESS DOOR |

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2. Use the ON/OFF Button (see **FIGURE 2**) on the user interface to turn the dehumidifier ON. **The first press of a button will turn on the display light**, so if the display was dark, you might need to press it again. Once ON, the display will show the current dehumidifier setting.

FIGURE 2: TURNING DEHUMIDIFIER ON

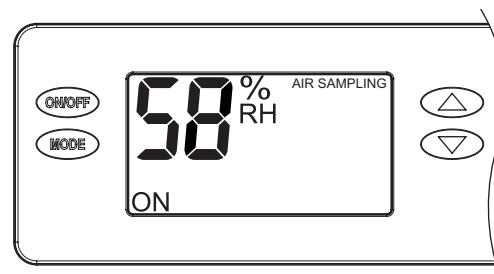


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3. The dehumidifier blower will turn on, the word **SETTING** disappears from the display, and the words **AIR SAMPLING** appear (see **FIGURE 3**). This wording indicates that the dehumidifier is sampling the air to determine if dehumidification is needed and shows the measured humidity level.

If the control is already ON, lowering the setting will initiate air sampling.

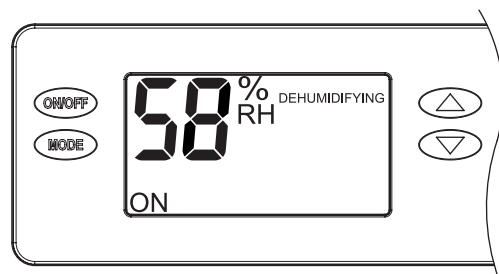
FIGURE 3: AIR SAMPLING



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4. After sampling the air for 3 minutes, if the Relative Humidity (RH) is above the setting, the compressor turns on to dehumidify the space. The word **DEHUMIDIFYING** appears when the compressor is turned on (see **FIGURE 4**).

FIGURE 4: DEHUMIDIFYING



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ENERGY SAVINGS TIPS

ENERGY SAVINGS TIP #1:

Adjust the humidity setting to be as high as is comfortable to reduce dehumidifier run time. If it feels clammy or "smells musty," lower the humidity setting. To save energy, turn the dehumidifier to OFF when you open your windows, just as you would with air conditioning.

ENERGY SAVINGS TIP #2:

If vacating your home for an extended period in the summer, set the RH at 55% and set your thermostat as high as you are comfortable setting it to in the cooling mode. This will keep the humidity at a controlled level while minimizing the amount of cooling energy used.

MAINTENANCE

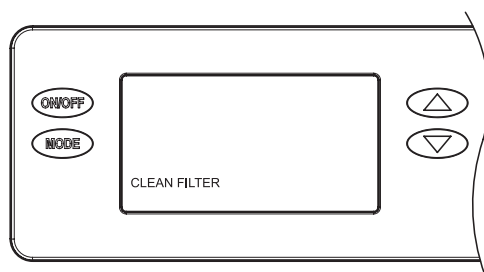
CLEANING THE FILTER

After initial installation the air filter and drain should be checked and cleaned every 6 months.

1. Press the ON/OFF Button on the user interface to turn the unit OFF.
2. Loosen the retaining screw on the filter access door (see **FIGURE 1**) from the drain side of the dehumidifier until it releases and then remove the filter door.
3. Slide the filter out of the dehumidifier.
4. Rinse the filter with water to remove dust and collected particles from the filter.
5. Shake off excess water from the filter.
6. Clean the drain as described in **CLEANING THE DRAIN** on page 5.
7. Reinstall the filter. An arrow on the filter frame shows the direction of airflow and it should point into the dehumidifier.
8. Replace the filter access door and tighten the retaining screw.
9. Press the ON/OFF Button to turn the dehumidifier back ON.

The **CLEAN FILTER** service reminder (see **FIGURE 5**) will display on the control every 6 months. **To clear the service message, press the ▲ or ▼ buttons simultaneously for 3 seconds.**

FIGURE 5: CLEAN FILTER SERVICE REMINDER

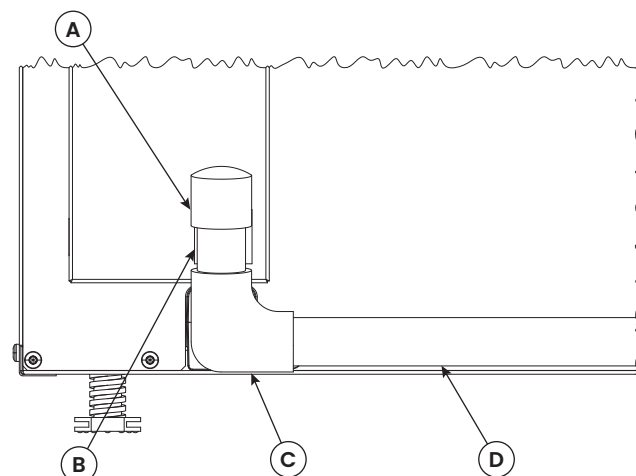


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CLEANING THE DRAIN

1. With the filter door on the drain side of the dehumidifier removed, clean the accessible portion of the drain pan using a mild detergent.
2. If the drain has a capped tee or elbow to allow cleaner to be poured directly in the drain, remove the cap and pour approximately one cup of white vinegar into the tube (see **FIGURE 6**). If there is no visible access to the drain line from outside of the dehumidifier, pour approximately one cup of vinegar into the drain pan of the dehumidifier.

FIGURE 6: CAPPED DRAIN ACCESS FOR CLEANING



- A. CAP
- B. SMALL SECTION OF DRAIN TUBE
- C. 3/4" 3-WAY ELBOW OR TEE AND BELOW
- D. CONDENSATE DRAIN LINE

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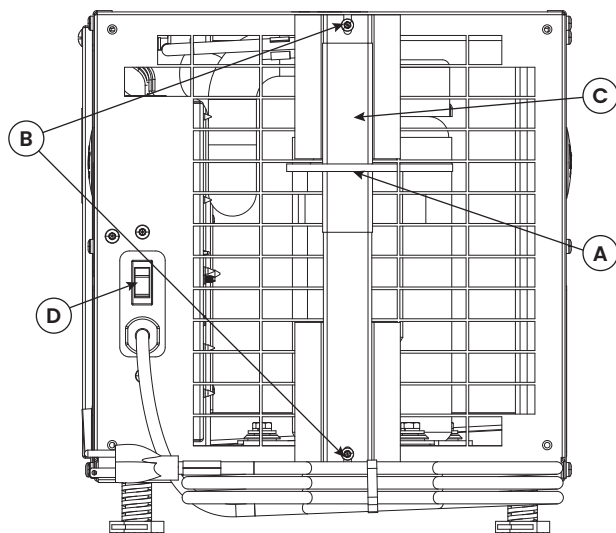
3. If the dehumidifier has clear flexible drain tubing, look for excess buildup in the drain line that might prevent water flow, and replace as needed. Clear, smooth, flexible 3/4" Inside Diameter (ID) drain tubing is available in most hardware stores or Do-It-Yourself (DIY) retail stores.

PREPARING THE UNIT FOR INSTALLATION

IMPORTANT: Cut the strap securing the compressor shipping support bracket and remove the strap and shipping bracket. See **FIGURE 7**.

1. Clip off and remove the plastic straps securing the compressor to the shipping bracket.
2. Remove the two screws securing the shipping bracket to the housing. Remove and discard the shipping bracket, and reinstall the two screws in the dehumidifier.

FIGURE 7: PREPARING THE UNIT FOR INSTALLATION



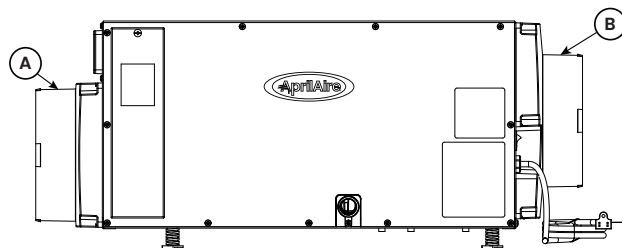
- A. PLASTIC STRAP
- B. SCREWS
- C. SHIPPING BRACKET
- D. ON/OFF POWER SWITCH (SELECT MODELS)

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INSTALLING THE DUCT COLLARS

Use the screws in the parts bag to attach the duct collars to the inlet and outlet of the dehumidifier.

FIGURE 8: INSTALL DUCT COLLARS



- A. INLET DUCT COLLAR
- B. OUTLET DUCT COLLAR

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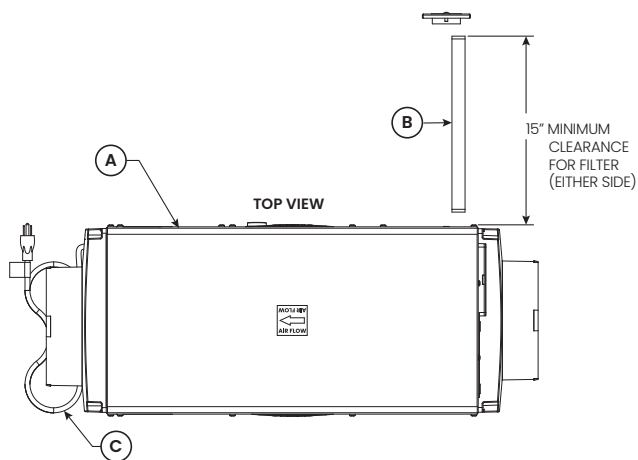
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INSTALLING THE DEHUMIDIFIER

DEHUMIDIFIER LOCATION

- Electrical service access and drain cleaning will require the removal of the electrical service side panel (see **FIGURE 9**). Allow sufficient space for service on this side of the unit.
- Allow sufficient space for the filter to be removed and reinstalled.
- If locating the unit where it is not readily accessible (such as a crawl space, an attic or even a basement for some individuals), consider controls such as the Model 76 Dehumidifier Control, which can be mounted in the living space and wired to the dehumidifier.
- For attic installations, suspending the dehumidifier is recommended to reduce noise transference.
- Always install the dehumidifier in or above a condensate pan when locating in or above a finished space.

FIGURE 9: FILTER ACCESS CLEARANCE



- A. ELECTRICAL SERVICE ACCESS THIS SIDE
- B. FILTER
- C. 8' POWER CORD

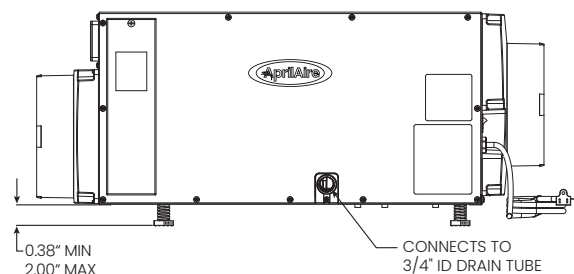
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LEVELING AND RAISING THE DEHUMIDIFIER

The feet can be adjusted to level the unit and accommodate drain fittings and condensate pans as required. Leveling is required to ensure proper drainage from the dehumidifier.

If installing a condensate pump (see **FIGURE 11**) to the side of the unit more elevation than can be provided by the adjustable feet may be needed. Risers (Part #5879) or hanging kits (Part #5822) are available to lift the dehumidifier higher off the floor.

FIGURE 10: LEVELING THE UNIT



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INSTALLING A CONDENSATE PAN UNDER THE DEHUMIDIFIER

Always install the dehumidifier in or above a condensate pan when locating it above a finished space. Adhere to local codes regarding draining of the condensate pan. If a condensate pump is needed, make sure it is in the condensate pan as well. Install a float switch in the condensate pan and/or use the overflow wires/terminals on the condensate pump to stop the dehumidifier should overflow occur. See **WIRING TO A FLOAT SWITCH** on page 9.

INSTALLING THE DRAIN

USING HARD PIPE:

- Install a 3/4" PVC slip x 3/4" MNPT PVC fitting to the dehumidifier and use 3/4" nominal PVC Schedule 40 pipe to run the condensate line to the nearest floor drain or to an outside location that slopes away from the building.
- **Always maintain a constant downward slope in drain piping. Ensure that drain tubing does not interfere with removal of the side panel or filter door.**
- **Do not use metal fittings and only hand-tighten threaded fittings.** PTFE thread seal tape is recommended for threaded connections.
- Install a tee or three-way elbow at the dehumidifier outlet with a small, capped vertical tube (do not cement cap in place) to allow for cleaner to be poured into the drain line (see **FIGURE 6**).
- PVC primer and cement is recommended for slip-fit connections (do not cement threaded connections).

USING FLEXIBLE TUBING:

- Install the provided 3/4" NPT x 3/4" hose barb fitting and use 3/4" I.D. flexible drain tubing. **Hand-tighten the fitting to the dehumidifier.** PTFE thread seal tape is recommended for threaded connections.
- **Always maintain a constant downward slope from the dehumidifier to the nearest floor drain or condensate pump, and do not allow soft tubing to curl up, which may result in air lock.**

INSTALLING THE CONDENSATE PUMP

- The AprilAire Model 4856 condensate pump is capable of lifting water up to 22 feet.
- The dehumidifier can be elevated (while remaining level) to increase downward slope for proper draining.
- Wire the float switch terminals to the normally closed contacts on the condensate pump (see **FIGURE 14**).

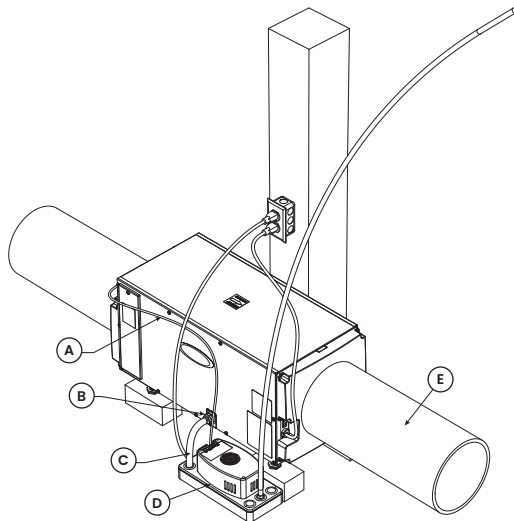
INSTALLING DUCTWORK

Add ductwork to the inlet and outlet of the dehumidifier to ensure dehumidified air is circulated throughout the crawl space and reduce the noise level of the dehumidifier. Point the inlet and outlet ducts in opposite directions to minimize recirculation of dehumidified air.

- Maximum recommended total duct length is 100 feet.
- To avoid pulling in dirt and other particles, do not lay intake duct on the floor of the crawl space.

NOTE: Maximum allowable static pressure for this unit is 0.4" w.c.

FIGURE 11: DRAIN AND CONDENSATE PUMP INSTALLATION



- | | |
|--|---|
| A. FLOAT SWITCH WIRE | D. CONDENSATE PUMP (PART #4856) |
| B. 3/4" MNPT x 3/4" BARB FITTING (INCLUDED) | E. 8" DIAMETER INSULATED FLEX DUCT |
| C. 3/4" CLEAR PVC TUBING (INCLUDED) | |

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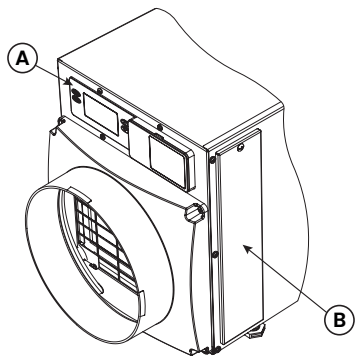
WIRING

No additional wiring is needed unless:

- a separate, remote control such as a dehumidistat is to be used
- a float switch, either integral to a condensate pump or mounted to the condensate pan, is used

Use 18–22 AWG wire for any needed wiring. Access the dehumidifier wiring terminals by pulling off the wiring access cover near the dehumidifier control display (see **FIGURE 12**). Snap the wiring access cover back into place after completing all wiring.

FIGURE 12: WIRING ACCESS COVER LOCATION



A. USER INTERFACE

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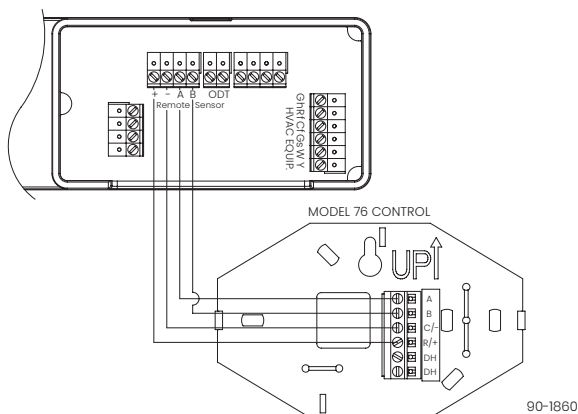
WIRING TO REMOTE CONTROL

The Model 76, when used as a **remote control**, allows the user to see the humidity sensed by the dehumidifier and adjust the dehumidifier setting from a remote location. This is most often used when the dehumidifier serves a hard-to-reach location such as a crawl space or basement.

If using the AprilAire Model 76 as a **remote control**, wire to the {+ – A B} terminals. Refer to the installation instructions for the control being used for wiring details.

NOTE: Air cycling is not an option when using a Model 76 as a remote control.

FIGURE 13: MODEL 76 CRAWL SPACE/SEALED ATTIC (REMOTE) WIRING

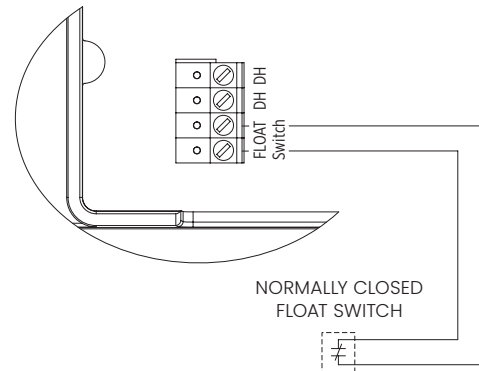


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WIRING TO A FLOAT SWITCH

Use only if the installation includes a float switch or a condensate pump. The dehumidifier leaves the factory with a jumper wire installed in the float switch terminals. Remove the jumper and wire the float switch terminals to the float switch or condensate pump overflow switch as shown in **FIGURE 14**.

FIGURE 14: FLOAT SWITCH WIRING



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AIR CYCLING

The dehumidifier has an optional ventilation feature that can be used to circulate air through the dehumidifier, to promote uniform humidity levels throughout the space. When this feature is enabled, the dehumidifier fan can be set to run from 0 minutes (no air cycling) to 60 minutes (continuous) per hour.

NOTE: The on-board control must be used when Air Cycling.

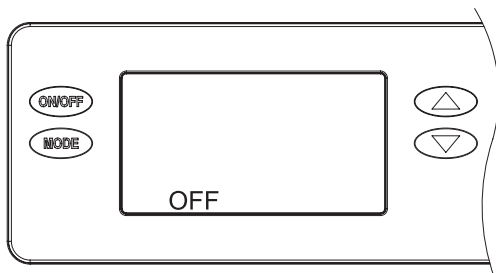
INSTALLER SETUP

Enter the setup menu if:

- remote control will be used
- ventilation/air cycling will be used

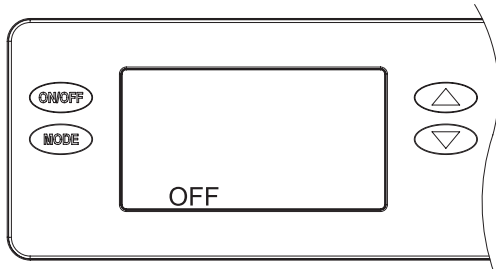
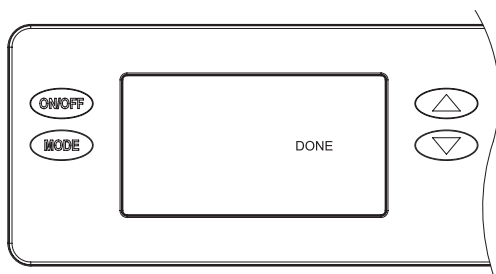
1. Plug unit in and turn the power switch ON (if equipped)
2. The onboard control screen should display **OFF**. If not OFF, press the ON/OFF button to turn the unit OFF.

NOTE: If the display backlight is not on, the first button press (any button) will only turn on the backlight. Press the button a second time to achieve function.



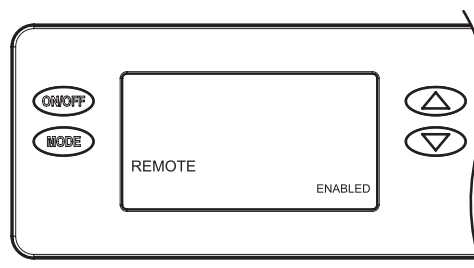
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3. Hold the MODE button on the onboard control for 3 seconds to enter the installer setup menu.
4. Navigate through the following screens to set up the dehumidifier for the installed application.
5. Use the ▲ or ▼ button to select items and use the MODE button to switch to the next setup option. To exit the installer setup, scroll through all options using the MODE button.
6. After the installer setup options have been completed, the word **DONE** will blink for 3 seconds and the control will return to the **OFF** screen.



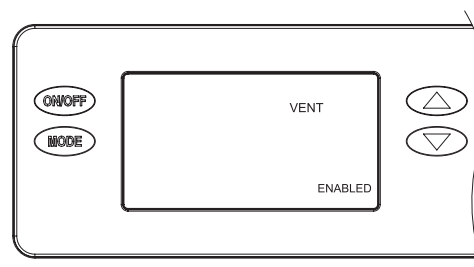
SETTING UP REMOTE CONTROL – CRAWL SPACE/ SEALED ATTIC

If wiring to a Model 76 for remote control (see page 9 for details) press the ▲ or ▼ button to **ENABLE**.



SETTING UP VENTILATION / AIR CYCLING

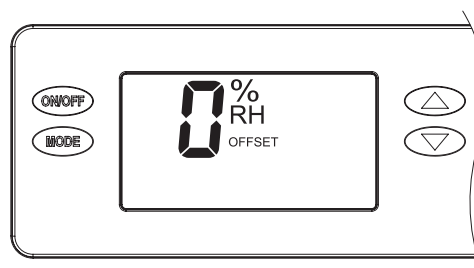
1. If using the dehumidifier for air cycling (see page 9 for details) press the ▲ or ▼ button to **ENABLE** then press the MODE button.



2. Press MODE at the **VENT TIMED** screen to go to ventilation time selection screen.
3. Press the ▲ or ▼ arrows to adjust the ventilation time per hour from 0 to 60 minutes.

APPLYING AN RH OFFSET

An offset can be applied to the onboard humidity reading to avoid discrepancies with other humidity-measuring devices in the home. Use the ▲ or ▼ button to select an offset from -5% to 5%. Press the MODE button to exit the installer setup screens.



STARTING UP THE UNIT AND SEQUENCE OF OPERATION

Ensure unit is plugged in and if equipped use the **ON/OFF Power Switch** near the power cord to apply power to the dehumidifier.

USING THE DEHUMIDIFIER CONTROL ONLY

1. Press the **ON/OFF** Button to turn the dehumidifier control **ON**. The display will show the current humidity setting, and the dehumidifier blower will turn on to start sampling.

The setting will be replaced by the measured humidity and the words **AIR SAMPLING** appear on the display.
2. Use the ▲ or ▼ button to adjust the humidity setting as desired. The recommended initial setting is between 55% and 59%.
3. After three (3) minutes of sampling, the measured humidity will be compared to the setting:
 - a. If the humidity is above the setting, the dehumidifier compressor turns on and the words **AIR SAMPLING** will be replaced by the word **DEHUMIDIFYING**. The compressor remains on until the measured humidity falls 3% RH below the setting.
 - b. If the measured humidity is below the setting, the blowers turn off and the display returns to showing the RH setting.
4. The dehumidifier will sample again every 60 minutes, or at any time if the humidity setting is lowered.

USING A MODEL 76 AS A REMOTE CONTROL

1. Press the **ON/OFF** button to turn the dehumidifier control **ON**. The display will show the word **REMOTE** to indicate that a remote control is to be used to control the dehumidifier.
2. At the Model 76, press the **ON** button; the Model 76 will display the RH measured at the dehumidifier, and the dehumidifier blower will turn on to start sampling the air.
3. Use the ▲ or ▼ button on the Model 76 to adjust the dryness level as desired. The dryness levels range from 1 to 7, with 1 being least dry and 7 being most dry; the recommended initial setting is 3.
4. After three (3) minutes of sampling, the measured humidity will be compared to the setting:
 - a. If the humidity is above the setting, the dehumidifier compressor turns on and the word **ON** flashes on the Model 76 display.
 - b. If the measured humidity is below the setting, the dehumidifier blower turns off.
5. The dehumidifier will sample again every 60 minutes, or at any time if the dryness level is increased.

TROUBLESHOOTING

Technical support is available Monday through Friday 7:00 a.m. to 5:00 p.m. CST at 800.334.6011. Use the guides on the following pages to identify and correct system faults. Contact Technical Support before replacing the unit or any components and for additional troubleshooting.

DIAGNOSTIC CODES

When an error occurs, the Diagnostic Code along with **SERVICE REQUIRED** will be displayed on the user interface screen.

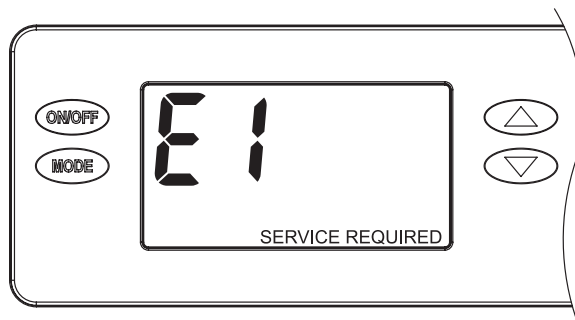


TABLE 1: DIAGNOSTIC CODES

| Diagnostic Code | Failure Mode | Action | Reset |
|-----------------|---|--|-----------------|
| E1 | Internal Humidity or Temperature Sensor Open or Shorted | <ol style="list-style-type: none"> 1. Cycle power to clear error code. Unplug the unit from the outlet or switch the ON/OFF Power Switch (if equipped) to the OFF position for at least 10 seconds before restoring power. 2. If error code reoccurs, replace User Interface, Part #5445. | Cycle Power |
| E2 | High Refrigeration Pressure | <ol style="list-style-type: none"> 1. Verify that the fan works, the backflow damper swings freely, and there is no blocked or restricted ductwork. 2. If the fault persists, call Technical Support. | Cycle Power |
| E3 | Model 76 Remote Control Communication Loss | <ol style="list-style-type: none"> 1. Check connections between Model 76 and dehumidifier user interface. Terminals should be fully inserted and secured in the user interface and Model 76 control terminals. 2. If connections are correct and secure, turn off the dehumidifier and remove the Model 76. Use a short section of 4-wire cable to reconnect the Model 76 to the user interface. Turn the dehumidifier back on and increase the dryness level setting on the Model 76. If the dehumidifier turns on, a problem exists with the wiring between the dehumidifier and control. 3. If the dehumidifier does not turn on, call Technical Support. | Self-Correcting |
| E4 | Insufficient Capacity | <ol style="list-style-type: none"> 1. Check the frost sensor connection at the power board. The terminal should be fully seated on the power board pins. 2. Remove the side access panel and verify that the sensor is secured to the suction line. 3. If the sensor is connected and secured to the refrigeration line, proceed to the next step. 4. Reset the fault by cycling power to the dehumidifier. 5. Turn the humidity setting down (below room/home humidity level) to make a dehumidification call. 6. Allow the fan and compressor to run for approximately 10-15 minutes and then enter diagnostic test mode by simultaneously pressing the ▲ button and MODE button for 3 seconds. The LCD will display: <ul style="list-style-type: none"> • the temperature measured by the internal sensor while also displaying the words AIR SAMPLING and ON • the humidity measured by the internal sensor while also displaying %RH and the word ON • the frost sensor temperature while also displaying the word ON. Scroll through these values and by using the ▲ or ▼ button. 7. Record values and call Technical Support. | Cycle Power |
| E5 | High Temperature Thermistor Failure | <ol style="list-style-type: none"> 1. Check the high temperature sensor connection at the power board. The terminal should be fully seated on the power board pins. 2. Remove the side access panel and verify the sensor is not damaged and connected to the refrigeration line coming from the compressor. 3. If the sensor is connected and secured to the refrigeration line, it may need to be replaced with Part #5456 – contact Technical Support to confirm. | Cycle Power |

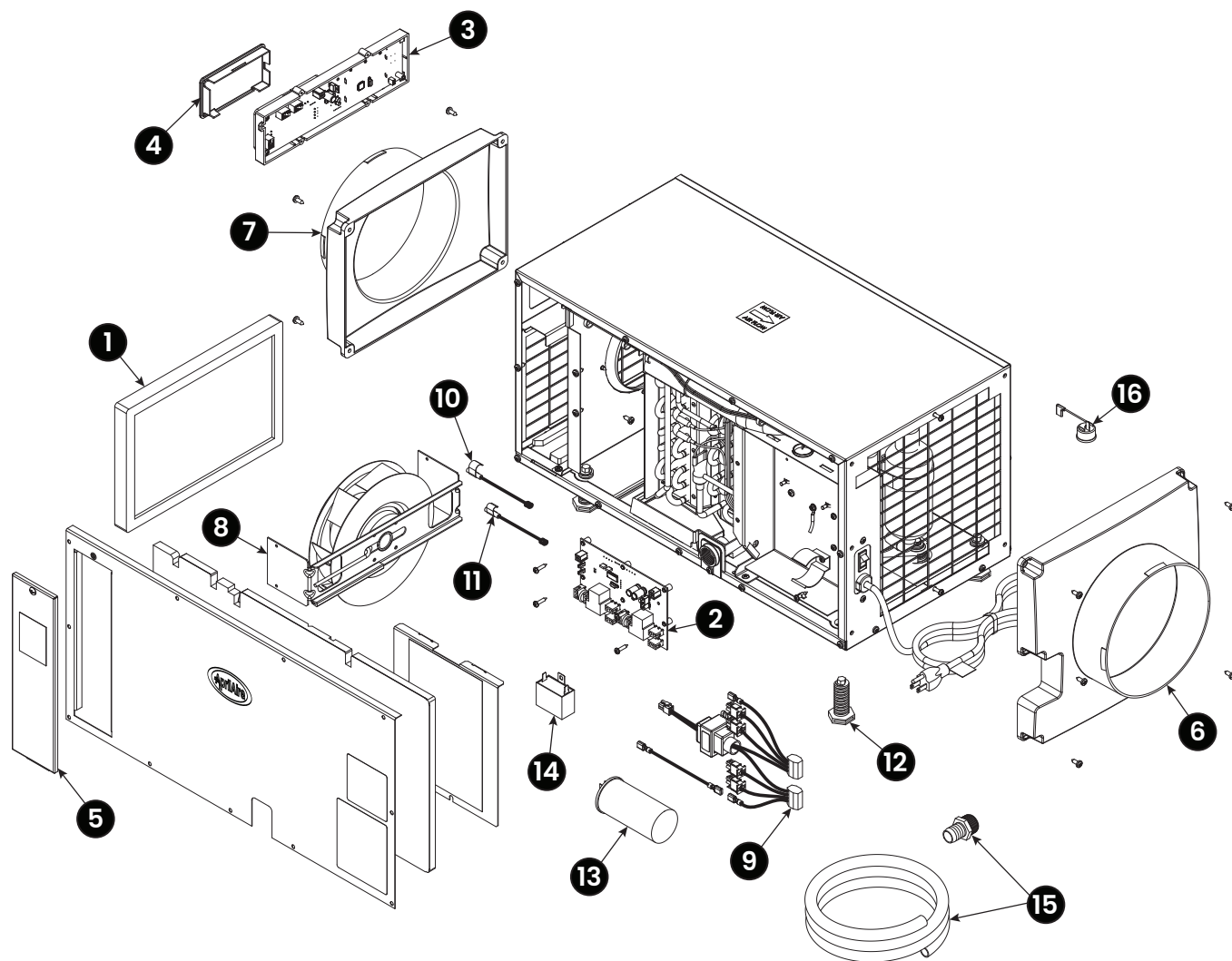
TABLE 1: DIAGNOSTIC CODES

| Diagnostic Code | Failure Mode | Action | Reset | | | | | | | | | | | | | | |
|---------------------|--|---|---------------------|------------|-----|-------------|------|-------------|------|-------------|------|-------------|------|------------|-------|------------|-----------------|
| E6 | Low Temperature Thermistor Failure | <ol style="list-style-type: none">1. Check the low temperature sensor connection at the power board.2. Remove the side access panel and verify the sensor is not damaged and connected to the suction line.3. If the sensor is connected and secured to the refrigeration line, it may need to be replaced with Part #5455 – contact Technical Support to confirm. | Cycle Power | | | | | | | | | | | | | | |
| E7 | Float Switch Open | <ol style="list-style-type: none">1. Empty the condensate pan.2. Check the float switch connection at the user interface.3. If not using a float switch, verify jumper is between float switch terminals on dehumidifier user interface.4. If the problem persists, replace the float switch. | Self-Correcting | | | | | | | | | | | | | | |
| E8 | Inlet Air Temperature Out of 50°F–104°F Range, or Dew Point Below 40°F | <ol style="list-style-type: none">1. Verify all ductwork is properly sealed.2. Check for air leakage that might affect the temperature or RH of the incoming air.3. If the air temperture is in range and the dew point is above 40°F, contact Technical Support. | Self-Correcting | | | | | | | | | | | | | | |
| E9 | Outdoor Temperature Sensor Open or Shorted | <div><div><ol style="list-style-type: none">1. Check the sensor connection at the power board.2. Remove the wires from the terminals and measure the resistance. A short circuit will have a resistance very close to 0 Ohms and an open circuit will have a very high resistance. Use the Ohms chart at right to approximate the resistance based on outdoor temperature.3. If the sensor is not reading correctly, replace the sensor, Part #8052.</div><table><tr><th>Outdoor Temperature</th><th>Resistance</th></tr><tr><td>0°F</td><td>84,500 Ohms</td></tr><tr><td>20°F</td><td>46,000 Ohms</td></tr><tr><td>40°F</td><td>26,000 Ohms</td></tr><tr><td>60°F</td><td>15,500 Ohms</td></tr><tr><td>80°F</td><td>9,500 Ohms</td></tr><tr><td>100°F</td><td>6,000 Ohms</td></tr></table></div> | Outdoor Temperature | Resistance | 0°F | 84,500 Ohms | 20°F | 46,000 Ohms | 40°F | 26,000 Ohms | 60°F | 15,500 Ohms | 80°F | 9,500 Ohms | 100°F | 6,000 Ohms | Self-Correcting |
| Outdoor Temperature | Resistance | | | | | | | | | | | | | | | | |
| 0°F | 84,500 Ohms | | | | | | | | | | | | | | | | |
| 20°F | 46,000 Ohms | | | | | | | | | | | | | | | | |
| 40°F | 26,000 Ohms | | | | | | | | | | | | | | | | |
| 60°F | 15,500 Ohms | | | | | | | | | | | | | | | | |
| 80°F | 9,500 Ohms | | | | | | | | | | | | | | | | |
| 100°F | 6,000 Ohms | | | | | | | | | | | | | | | | |

TABLE 2: TROUBLESHOOTING GUIDE

| Symptom | Failure Mode | Action | |
|---|---|--|--|
| Dehumidifier does not turn on/run. | No power to unit. | <ul style="list-style-type: none">• Check that the dehumidifier is plugged in.• Check that the power switch is turned ON (if equipped).• Check that the user interface is turned ON.• Check that the circuit breaker has not tripped. | |
| Dehumidifier blower is running but with little or no airflow. | Pressure drop across dehumidifier is higher than 0.4" w.c. for Model E080 or 0.6" w.c. for Model E100/E100H. | <ul style="list-style-type: none">• Check dehumidifier air filter and wash or replace.• Check for blocked ductwork and clear.• Verify that the outlet collar with backflow damper is installed on the outlet side of the dehumidifier.• Check if backflow damper is blocked or stuck and remove obstruction. | |
| Dehumidifier blower is running but compressor is not. | Float Switch open (E7 appears on display). | <ul style="list-style-type: none">• If float switch is installed, check connections at user interface and empty the condensate pan.• If no float switch is installed, check that the jumper is installed at the float switch terminals on the user interface. | |
| | Unit is defrosting. | <ul style="list-style-type: none">• Frosting occurs when the incoming air is cool and dry, normally during Spring or Fall, or the airflow is restricted. Frosting due to cold/dry conditions is a normal part of operation and DEFROSTING will show on the display. If it is not cool and dry, look for blocked ductwork or a dirty filter. | |
| | Inlet air temperature is outside of the 50°F–104°F range or the dew point is below 40°F and there is a demand for dehumidification. | <ul style="list-style-type: none">• Verify all ductwork is properly sealed. Dehumidification will restart by itself when the incoming air temperature is within range and the dew point is above 40°F. E8 appears on the display when inlet air conditions prevent operation. | |
| When zoned, the dehumidifier damper does not open in INSTALLER TEST mode. | Incorrect damper wiring or bad connection. | <ul style="list-style-type: none">• Verify wiring between dampers and 24 VAC transformer.• If wired for Two Zone operation, verify that 24 VAC transformer is 40 VA minimum.• Check all wiring connections between dampers and user interface.• Verify the normally closed dampers are in the Primary Zone ductwork and the normally open dampers are in the Secondary Zone ductwork. | |
| The ventilation damper does not open when the HVAC fan is active. | Cycle time has been met. | <ul style="list-style-type: none">• The damper will not open if the ventilation time has already been met. | |
| | Incorrect transformer wiring. | <ul style="list-style-type: none">• Verify wiring between damper, VENT terminal, and 24 VAC transformer. These should be wired in series.• Verify that 24 VAC transformer is 10 VA minimum and voltage is present. | |
| | ODT error or outdoor air outside of ODT range. | <ul style="list-style-type: none">• Check that the ODT is wired correctly to the dehumidifier user interface and connections are secure.• Check that the ODT is installed in the outdoor air intake according to the setup specified in VENTILATION on page 14.• Remove the ODT leads from the dehumidifier user interface and check the resistance. Compare the reading with the chart on the right. | |
| | | | |
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| | | | |
| Dehumidifier is not draining properly. | Drain line blocked or unit not level. | <ul style="list-style-type: none">• Verify that the unit is level.• Check the drain line blockages and check for a continuous downward slope.• Verify presence and condition of drain cover insert. See MAINTENANCE on page 5 for cleaning procedure, or replace with Part #5885 if missing or damaged. | |
| The HVAC fan turns on unexpectedly. | Dehumidifier is sampling or ventilation in progress. | <ul style="list-style-type: none">• The dehumidifier will turn on the HVAC fan during air sampling or as needed to meet the ventilation time. | |
| Dehumidifier is producing hot air. | Normal function. | <ul style="list-style-type: none">• Air is reheated across the condenser coil, resulting in a temperature rise between inlet and outlet. | |

SERVICE PARTS



90-2298

| No. | Part Description | Part No. |
|-----|------------------------------|----------|
| 1 | Filter, 8" x 11.75" x 1" EZK | 5695 |
| 2 | Internal Control Board | 5444 |
| 3 | User Interface Assembly | 5445 |
| 4 | Wiring Access Door | 5446 |
| 5 | Door, Filter Access | 5696 |
| 6 | Outlet Duct Panel | 5698 |
| 7 | Inlet Duct Panel | 5699 |
| 8 | Fan with 6MFD Capacitor | 5694 |
| 9 | Wire Harness, Power | 5454 |
| 10 | Sensor, Low Temperature | 5455 |

| No. | Part Description | Part No. |
|-----------------------------|----------------------------|----------|
| 11 | Sensor, High Temperature | 5456 |
| 12 | Leveling Foot | 5457 |
| 13 | Capacitor, 45MFD, 370 VAC | 5458 |
| 14 | Capacitor, 6MFD, 250 VAC | 5582 |
| 15 | Drain Tube + Fitting | 5692 |
| 16 | Compressor Overload Switch | 5697 |
| NOT SHOWN | | |
| Condensate Pump with Tubing | | 4856 |

LIMITED WARRANTY

Terms of Coverage

Your AprilAire® Dehumidifier is expressly warranted to be free from defects in materials or workmanship for five (5) years from date of purchase.

What Is Covered

The exclusive obligation of AprilAire under this Limited Warranty shall be, at the sole discretion of AprilAire, to supply, without charge, a replacement for any component or product which is found to be defective. A defective part will be replaced pursuant to this Limited Warranty with a genuine AprilAire part. A defective product will be replaced pursuant to this Limited Warranty with a new AprilAire product of equal or similar features and functionality if the original product has been discontinued or is no longer available.

Not Covered by the Limited Warranty

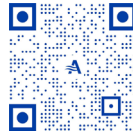
- Consumable or maintenance products, such as, but not limited to: Air Filters, Evaporative Humidifier Water Panels, Steam Canisters, or Steam Humidifier Electrode Wires.
- Products purchased from third parties that were previously used, such as previously-used products purchased from eBay, similar third party/auction sites, or individuals selling used products.
- Labor charges, shipping costs, removal fees, service fees, or reinstallation costs.
- Materials furnished by the installer.
- Damage caused by misuse, abuse, improper installation, or failing to install, use, or maintain the product in accordance with the instructions provided.
- Damage to HVAC equipment caused by improper installation(s) or misapplication installation(s).
- Modifications, changes, repurposing, or alterations to the AprilAire product.
- Extended warranties or satisfaction guarantees offered by third parties.
- Cosmetic damage or normal wear and tear, including, but not limited to: scratches, peeling finish, or dents that do not impede the mechanical functionality of the product.
- Damage caused by acts of nature, including but not limited to: fire, collision, flood, wind, power surge, lightning strike, or mold.
- Damage caused during transit.
- Damage caused during installation due to failure to follow local, state, or federal laws, statutes, codes, or ordinances.
- Damage caused by defects in materials furnished by the installer.

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Register Your AprilAire® Product



Thank you for choosing AprilAire. Register your product at aprilaire.com/warranty to receive important updates and notifications, and to streamline the process in the unlikely event you file a claim.

Your warranty registration information will not be sold or shared outside of this company.

Make a Warranty Claim

For questions regarding the Limited Warranty or to initiate a claim, contact AprilAire Customer Service at 1.800.334.6011 Monday through Friday, 7:00 a.m. – 5:00 p.m. Central Time.

At the sole discretion of AprilAire, you may be required to: return the product not later than thirty (30) days after the warranty period to the place of purchase or (if directed) to AprilAire, contact a professional contractor to provide warranty service, submit a product for testing related to a warranty claim, and/or send pictures of the original product with the serial number (if applicable) to AprilAire Technical Support for inspection as a condition to reviewing a claim and/or receiving a replacement product under this Limited Warranty.

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