

## Aprilaire 4655

# AprilAire 4655 Manual Humidifier Control Humidistat User Manual

Model: 4655

## 1. INTRODUCTION AND OVERVIEW

The AprilAire Model 4655 is a 2-wire manual humidifier control, also known as a humidistat, designed to work with AprilAire Whole Home Humidifiers. This device accurately maintains the relative humidity in your home by allowing manual adjustment of the humidity setting through a simple dial. It utilizes a mechanical filament to measure humidity changes and provides a dry-contact closure compatible with various AprilAire Whole House Humidifier series, including 400, 500, 600, 700 Evaporative Humidifiers, and 800 Steam Humidifiers.

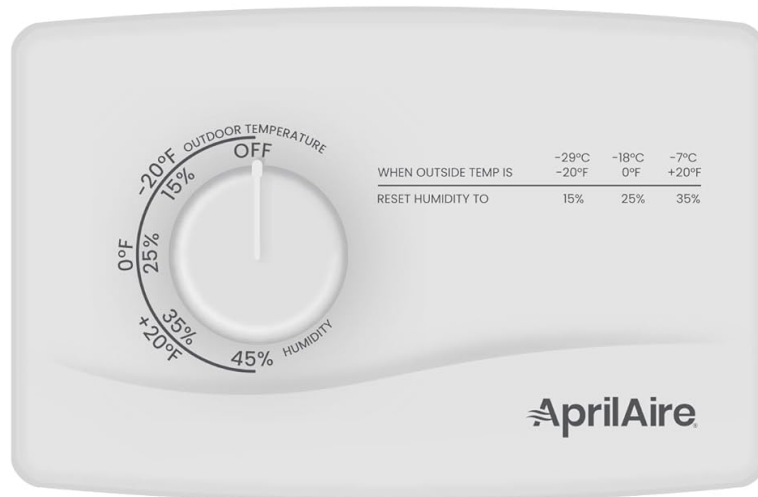


Figure 1: Front view of the AprilAire 4655 Manual Humidifier Control Humidistat.

## 2. PRODUCT FEATURES

- **Compatibility:** Designed to integrate with AprilAire Whole Home Humidifiers for optimal performance.
- **Manual Control:** Allows for convenient and simple adjustment of your home's Relative Humidity (RH) with a turn of the dial.
- **Healthy Humidity Range:** Helps maintain indoor relative humidity within the recommended 40-60% RH range, which can contribute to a healthier indoor environment by reducing airborne irritants and preserving household items.
- **Low Voltage Operation:** Operates on low voltage (24VAC) for controlling humidification equipment.
- **Flexible Mounting:** Offers installation options for duct mounting near your HVAC equipment or wall mounting in your living space.

## 3. INSTALLATION AND SETUP

The AprilAire 4655 humidistat can be installed in two primary locations: on an interior wall or duct-mounted.

### 3.1 Package Contents

- AprilAire 4655 Wall-Mount Control
- Mounting Screws
- Drywall Anchors
- Gasket (for duct mounting)
- Instruction Manual

### 3.2 Mounting Options

#### Wall Mounting:

- Mount on an interior wall, approximately 5 feet (1.5 meters) off the floor.
- Ensure the location is away from direct drafts, heat sources, or cold spots that could affect humidity readings.
- The included gasket is not required for wall mounting.

#### Duct Mounting:

- Mount on the furnace return air plenum or duct.
- Position the humidistat at least 6 inches (15 cm) upstream of the humidifier, humidifier bypass ductwork (if applicable), or fresh air intake ductwork (if applicable).
- Use the provided template for cutting the correct duct opening size: 4.15625 inches H x 2.4375 inches W (approximately 10.56 cm H x 6.19 cm W).
- The included gasket should be used to help reduce air leakage between the duct and the control housing.

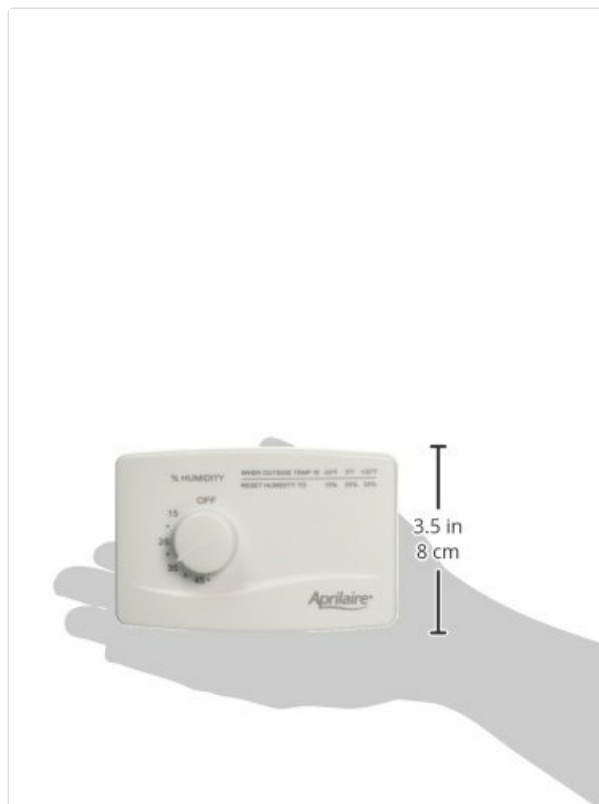


Figure 2: AprilAire 4655 Humidistat demonstrating its compact size.



*Figure 3: Side view showing the gasket for duct mounting.*

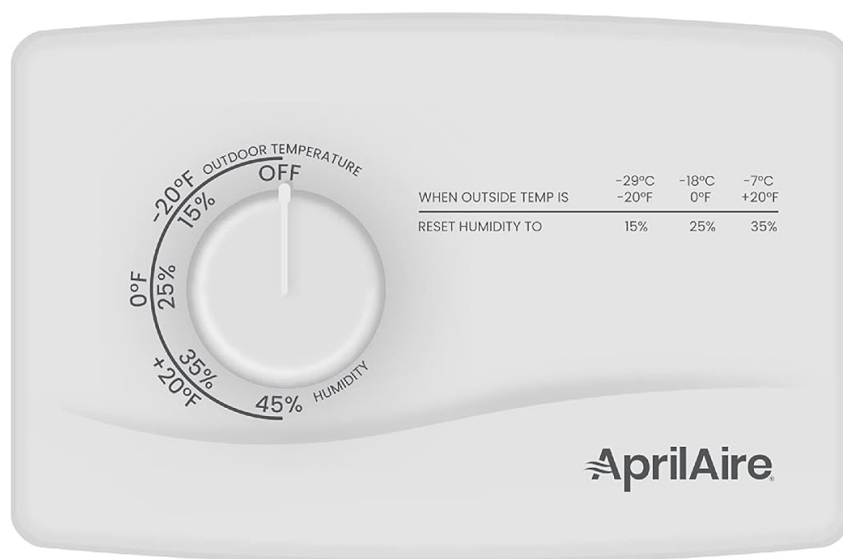
### 3.3 Wiring

The AprilAire 4655 is a 2-wire system designed for low voltage (24VAC) service. Connect the two wires from your AprilAire Whole Home Humidifier to the terminals on the back of the humidistat. Polarity is typically not a concern for these low-voltage dry-contact closures.

*Note: If you are unsure about wiring, consult a qualified HVAC technician.*

## 4. OPERATION

The AprilAire 4655 humidistat operates in manual mode, allowing you to directly set the desired relative humidity level in your home using the control dial.



# MANUAL CONTROL

Manually Set and Maintain  
Balanced Humidity

Figure 4: The control dial for manual humidity adjustment.

## 4.1 Setting Humidity Levels

1. Locate the control dial on the front of the humidistat.
2. Turn the dial to your desired relative humidity percentage (e.g., 15%, 25%, 35%, 45%).
3. The humidistat will activate your humidifier when the indoor humidity falls below the set point and deactivate it when the set point is reached.

## 4.2 Outdoor Temperature Guide

The humidistat includes a guide on its face to help you select an appropriate indoor humidity level based on the outdoor temperature. This helps prevent condensation on windows and other surfaces during colder weather.

### Recommended Humidity Settings Based on Outdoor Temperature

When Outside Temp Is	Reset Humidity To
-29°C (-20°F)	15%
-18°C (0°F)	25%

When Outside Temp Is	Reset Humidity To
-7°C (+20°F)	35%

Adjust the dial to the recommended humidity percentage corresponding to your current outdoor temperature. If the outdoor temperature is between the listed values, choose an intermediate setting or the lower humidity setting to be safe.

### 4.3 Turning Off the Humidifier

To turn off the humidifier, rotate the control dial to the 'OFF' position.

## 5. MAINTENANCE

The AprilAire 4655 Manual Humidifier Control Humidistat itself requires minimal maintenance. Keep the exterior clean and free of dust. Do not attempt to open or repair the unit yourself.

For maintenance of your AprilAire Whole Home Humidifier, refer to the specific instruction manual provided with your humidifier model. Regular maintenance of the humidifier, such as replacing water panels or cleaning components, is crucial for its efficient operation and the longevity of the entire humidification system.

## 6. TROUBLESHOOTING

If your humidifier system is not operating as expected, consider the following basic troubleshooting steps:

- **No Humidification:** Ensure the humidistat dial is set to a humidity percentage higher than the current indoor humidity and is not in the 'OFF' position.
- **Excessive Humidification/Condensation:** Lower the humidity setting on the dial, especially if outdoor temperatures are very low. Refer to the outdoor temperature guide in Section 4.2.
- **Humidifier Not Responding:** Check all wiring connections to ensure they are secure. Verify that the humidifier itself is receiving power and is functioning correctly according to its own manual.

If issues persist, consult the instruction manual for your specific AprilAire Whole Home Humidifier or contact AprilAire customer support or a qualified HVAC technician.

## 7. SPECIFICATIONS

- **Model Number:** 4655
- **Brand:** AprilAire
- **Operation Mode:** Manual
- **Voltage:** 24VAC (Low Voltage)
- **Accuracy:** +/-5% RH
- **Color:** Gray
- **Product Dimensions:** 5.13 inches (W) x 1.94 inches (D) x 3.38 inches (H) (13.03 cm x 4.93 cm x 8.59 cm)
- **Weight:** 5.6 ounces (158.76 grams)
- **Manufacturer:** Research Products Corporation
- **First Available:** February 23, 2010


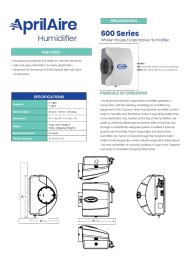



## 8. WARRANTY AND SUPPORT

For information regarding the warranty of your AprilAire 4655 Manual Humidifier Control Humidistat, please refer to the warranty documentation included with your purchase or visit the official AprilAire website. For technical support, troubleshooting assistance, or to locate authorized service providers, please contact AprilAire customer service directly.

### AprilAire Contact Information:

- Visit the [AprilAire Official Website](#)
- Refer to your product packaging for specific customer service phone numbers or email contacts.

### Related Documents - 4655

 <p>Manual Humidifier Control Safety and Installation Instructions READ COMPLETE INSTALLATION INSTRUCTIONS AND TEMPLATE BEFORE STARTING. <b>WARNING</b> ATTENTION INSTALLER: This product must be installed by a qualified heating and air conditioning contractor. Failure to follow instructions may result in injury from electrical shock.</p>	<p><a href="#">AprilAire Manual Humidifier Control Installation and Safety Instructions</a></p> <p>Comprehensive guide for installing the AprilAire Manual Humidifier Control (Part 4655), covering safety precautions, location selection, wall and duct mounting procedures, and specifications. Includes detailed instructions and diagram descriptions.</p>
 <p>AprilAire Humidifier 600 Series Whole-House Evaporative Humidifier Operating Instructions READ COMPLETE INSTALLATION INSTRUCTIONS AND TEMPLATE BEFORE STARTING.</p>	<p><a href="#">AprilAire 600 Series Whole-House Evaporative Humidifier: Specifications &amp; Operation</a></p> <p>Comprehensive guide to the AprilAire 600 Series Whole-House Evaporative Humidifier, detailing its features, specifications, principle of operation, sizing guidelines, control options, and maintenance procedures.</p>
 <p>Manual Humidifier Control Safety and Installation Instructions READ COMPLETE INSTALLATION INSTRUCTIONS AND TEMPLATE BEFORE STARTING. <b>WARNING</b> ATTENTION INSTALLER: This product must be installed by a qualified heating and air conditioning contractor. Failure to follow instructions may result in injury from electrical shock.</p>	<p><a href="#">AprilAire Manual Humidifier Control: Safety and Installation Guide</a></p> <p>Comprehensive safety and installation instructions for the AprilAire Manual Humidifier Control (Part 4655) by Research Products Corporation. Learn how to properly install and operate your humidifier control for optimal performance.</p>
 <p>Automatic Digital and Manual Humidifier Control Models 60, 62 &amp; 4655 Operating Instructions READ COMPLETE INSTALLATION INSTRUCTIONS AND TEMPLATE BEFORE STARTING.</p>	<p><a href="#">AprilAire 60, 62 &amp; 4655 Automatic Digital and Manual Humidifier Control Operating Instructions</a></p> <p>Operating instructions for AprilAire Automatic Digital and Manual Humidifier Controls, Models 60, 62, and 4655. Learn how to set up, operate, and maintain your home's humidity for optimal comfort and protection.</p>
 <p>AprilAire Humidifier 400 Series Whole-House Evaporative Humidifier Operating Instructions READ COMPLETE INSTALLATION INSTRUCTIONS AND TEMPLATE BEFORE STARTING.</p>	<p><a href="#">AprilAire 400 Series Whole-House Evaporative Humidifier Specification Sheet</a></p> <p>Detailed specification sheet for the AprilAire 400 Series whole-house evaporative humidifier, covering features, principle of operation, specifications, sizing guidelines, control options, and maintenance.</p>



[Aprilaire 440 Owner's Manual: Operation, Maintenance, and Warranty Guide](#)

This owner's manual provides comprehensive instructions for the Aprilaire 440 whole-house humidifier, covering setup, operation, maintenance procedures, troubleshooting, and warranty information from Research Products Corporation.