

# **AIRTAP SERIES**

**AC INFINITY** 

### **WELCOME**

Thank you for choosing AC Infinity. We are committed to product quality and friendly customer service. If you have any questions or suggestions, please don't hesitate to contact us. Visit www.acinfinity.com and click contact for our contact information.

### **MANUAL CODE AT2402X1**

#### **PRODUCT**

AIRTAP T4, Bronze 4" x 10" AIRTAP T4, White 4" x 10" AIRTAP T4, Bronze 4" x 12" AIRTAP T4, White 4" x 12" AIRTAP T6, Bronze 6" x 10" AIRTAP T6, Bronze 6" x 12" AIRTAP T6, White 6" x 12"

### MODEL

AC-RBF4-B AC-RBF4-W AC-RBF42-B AC-RBF42-W AC-RBF6-B AC-RBF6-B AC-RBF62-B AC-RBF62-W

#### UPC-A

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### **PRODUCT WARNING**







TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS, OBSERVE THE FOLLOWING:

- 1. Ensure your power source conforms to the electrical requirements of this product.
- Check your local code restrictions for additional safety measures that may be needed for a proper code compliant installation.
- 3. Read all instructions before installing and using this product.
- 4. If you are unfamiliar or have doubts about performing this product's installation, seek the services of a qualified, trained, and licensed professional. Inappropriate installation will void this product's warranty.
- Do not attempt to hardwire this product. Performing any retrofitting actions may result in personal injury and/or electrical damage, and will void this product's warranty.
- This product must not be used in potentially hazardous locations such as flammable, explosive, chemical-laden, or wet atmospheres.
- 7. Do not cover power cords with rugs or other fabric materials.
- This product has rotating parts. Safety precautions should be exercised during the installation, operation, and maintenance of this product.
- Do not insert or allow fingers or foreign objects to enter any ventilation or exhaust openings as it may cause electric shock, fire, or damage to this product. Do not block or tamper with this product in any manner while it is in operation.
- Do not depend on the on/off programming as the sole means of shutting power from this product.
  Unplug the power cord before installing, servicing, or moving this product.
- 11. Do not operate this product while its cord is damaged, or if it malfunctions, has been dropped, or is damaged in any manner.

### **KEY FEATURES**

#### **ALUMINUM FRAME**

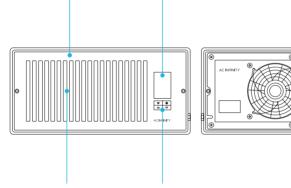
Features an aluminum frame with CNC-machined corners and a white or bronze finish to give cabinets a clean look.

### **SMART CONTROLLER**

Enables temperature monitoring, hot and cold temperature triggers, and fan speed control.

#### **DUAL BALL BEARINGS**

Enables unit to be mounted in any direction. Motor contains dual-ball bearings with a 67,000 hours lifespan.



#### QUIET PWM MOTOR

PWM-controlled motor features precise speed control, reduced noise, and energy-efficient DC power.

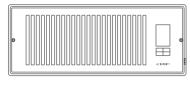
#### **REMOTE ACCESS**

App-compatible to wirelessly program this booster fan when installed in hard-to-reach registers.

#### PROTECTIVE BACK

Enclosed in a thermoplastic casing with fan guards to protect users from high speed fans and prevent clogging.

# **PRODUCT CONTENTS**

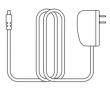


REGISTER FAN (x1)



WOOD SCREWS (WALL HANG)

(x2)



POWER ADAPTER

(x1)



WIRE TIE

(x1)

AIRTAP T4 Shown

# **INSTALLATION**

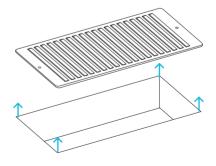
### STEP 1

Measure your register vent to make sure this model will fit. Standard sizes come in 4x10", 4x12", 6x10", 6x12" etc.



### STEP 2

Remove your register grille. You may need to use a Philips screwdriver to remove the mounting screws.



# **INSTALLATION**

### STEP 3

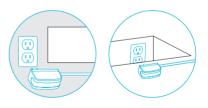
Plug the power adapter's cord into the power receptacle of the register fan unit.



### STEP 4

Before mounting the register fan, locate your nearest outlet. The outlet may be next to your register or inside your register.

If the outlet is inside your register, plug the power adapter into the outlet. If the outlet is outside your register, do not plug it in until after the fan is mounted.

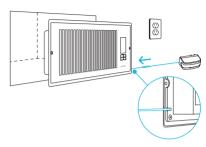


# **INSTALLATION**

#### STEP 5

Position the register fan to be mounted.

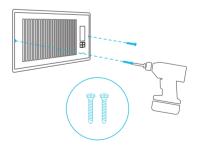
If you are powering the register fan with an external outlet, make sure the cord runs through the gap between the wall and mounting plate.



#### STEP 6

Drill your existing screws into the mounting holes to secure the register fan. If needed, use the screws included with your register fan.

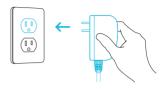
If the screw holes do not align, you may need to drill new holes into your wall.



# **POWERING AND SETUP**

### STEP 1

If the outlet is outside your register, plug the power adapter into the nearest outlet to power the fan



### STEP 2

Check the LCD display to see if it is lit and shows a number reading.



#### 1. MODE BUTTON

Cycles through the unit's modes: OFF, ON, AUTO (2 triggers), TIMER TO ON, TIMER TO OFF, and CYCLE (ON and OFF).

#### 2. SETTING BUTTON

Cycles through the controller's settings: DISPLAY, °F / °C, CALIB. T°, and TRANS. T°.

### 3. UP/DOWN BUTTON

Adjusts the value of your current mode. The up button increases and down button decreases the setting. Hold both to reset values to OFF/Default.

### 4. TEMPERATURE DISPLAY

Displays the current temperature that is measured by the probe. Used as the default display.



### 5. ALERT ICONS

Displays alerts and statuses of the controller, including the controller lock, CLIMATE alert, and TIMER alert.

#### 6. CONTROLLER MODE

Displays the controller's current mode. Pressing the mode button cycles through the available modes

#### 7. FAN SPEED

Displays the Fan Speed. Includes a trend indicator that signals if the setting is currently rising, falling, or holding steady.

### 8. COUNTDOWN

Displays the countdown of the TIMER TO ON, TIMER TO OFF, or CYCLE mode which activates or deactivates the devices. TO ON shows the amount of time left before the devices turn on. TO OFF shows the amount of time left before the device turn off.

### 9. USER SETTING

Displays the value of your current mode. Use the up or down buttons to adjust the value.

#### **CONTROLLER MODES**

Pressing the mode button will cycle through the controller's available programming modes: OFF, ON, AUTO (2 triggers), TIMER TO ON, TIMER TO OFF, and CYCLE (ON and OFF).

#### **OFF MODE**

Your devices will not run while in this mode. The OFF Mode setting also serves as the minimum level the other modes will run at while triggered OFF.

#### MINIMUM LEVEL

Your devices will run at the level set in OFF Mode, as the minimum level, when triggered to turn OFF. These other modes include the AUTO Mode, TIMER TO ON Mode, TIMER TO OFF Mode, and CYCLE Mode.

They will run continuously until triggered ON, at which point they will run at the level set in ON Mode.

If you want your devices to turn off completely when they're triggered to be OFF, set the OFF Mode level to zero.





\*Example shown



#### **ON MODE**

Your devices will actively run at the level set here, regardless of the probe's reading. The ON Mode setting also serves as the maximum level the other modes will run at.

#### **MAXIMUM LEVEL**

Your devices will run at the level set in ON Mode, as the maximum level, when triggered ON, as well as in the AUTO Mode, CYCLE Mode, TIMER TO ON Mode, and TIMER TO OFF Mode.

Do not set the ON Mode figure to zero or your devices will turn off when it's triggered ON in all modes.



\*Example shown



#### **AUTO MODE (HIGH TEMPERATURE TRIGGER)**

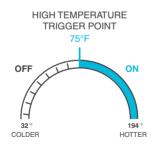
Pressing the up or down button sets the high temperature trigger. The devices will activate if the probe's reading meets or exceeds this threshold.

Once triggered, the devices will gradually ramp up to the level set in ON mode. If the probe's reading falls below this trigger point, the devices will gradually slow down to a stop or at the level set in OFF mode.

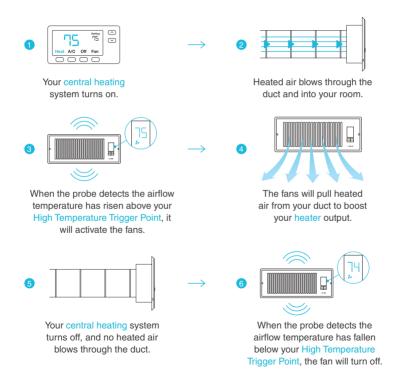
### **EXAMPLE**

In this example, if you set a high temperature trigger of 75°F, then your device will activate when the temperature reaches 75°F or higher, and turn off when it falls below 75°F.





### **AUTO MODE (HIGH TEMPERATURE TRIGGER)**



#### **AUTO MODE (LOW TEMPERATURE TRIGGER)**

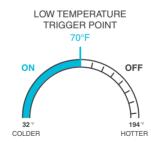
Pressing the up or down button sets the low temperature trigger. The devices will activate if the probe's reading meets or falls below this threshold.

Once triggered, the devices will gradually ramp up to the level set in ON mode. If the probe's reading rises above this trigger point, the devices will gradually slow down to a stop or at the level set in OFF mode.

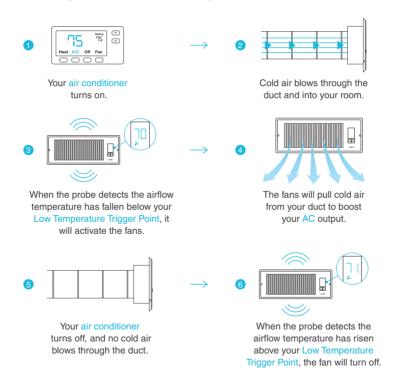
### **EXAMPLE**

In this example, if you set a low temperature trigger of  $70^{\circ}$ F, then your device will activate when the temperature reaches  $70^{\circ}$ F or lower, and turn off when it rises above  $70^{\circ}$ F.





### **AUTO MODE (LOW TEMPERATURE TRIGGER)**



#### TIMER TO ON MODE

Pressing the up or down button sets a countdown time. During the countdown, your device will be set to OFF. Once the timer ends, your device will trigger to turn on. If there is a level set in OFF Mode, the devices will run at that level during the countdown and when triggered to turn off.

The countdown will begin if no buttons are pressed for 5 seconds. The time left on the countdown is shown on the lower right corner of the display above the setting. Leaving the timer mode while the countdown is running will pause it until you return to this mode.





### TIMER TO OFF MODE

Pressing the up or down button sets a countdown time. During the countdown, your device will be set to ON. Once the timer ends, your device will trigger to turn off. If there is a level set in OFF Mode, the devices will run at that level after the end of the countdown.

The countdown will begin if no buttons are pressed for 5 seconds. The time left on the countdown is shown on the lower right corner of the display above the setting. Leaving the timer mode while the countdown is running will pause it until you return to this mode.





### **CYCLE MODE (ON AND OFF)**

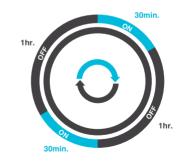
Set an on duration and an off duration for the devices to cycle through continuously. Press the up or down button to first set a duration for the devices to activate. Then press the mode button again and set a duration for the devices to deactivate.

When the devices are activated, they will run at the level set in ON Mode. When the devices are deactivated, they will run at the level set in OFF Mode.

The countdown will begin if no buttons are pressed for 5 seconds. The time left on the countdown before the next ON or OFF phase is displayed below the current level. Leaving the cycle mode while the countdown is running will pause it until you return to this mode.







#### **CONTROLLER SETTINGS**

Pressing the setting button will cycle through the controller's available settings: DISPLAY,  $^{\circ}F$  /  $^{\circ}C$ , CALIB.  $T^{\circ}$ , and TRANS.  $T^{\circ}$ .

#### **DISPLAY SETTING**

Adjusts the display brightness and autodimming. In settings 1, 2 and 3, the display will stay at that brightness level and will not automatically dim the display.

A2 and A3 will set the brightness level at 2 and 3, respectively, and will dim down the brightness level 1 when the controller is not being used after 15 seconds.



### TOGGLING THE DISPLAY

Lock the controller by holding the setting button.

Press the setting button to turn the display off. Pressing the setting button again will turn the display back on.

Programs will still run in the background while the LCD screen is off.



#### °F/°C SETTING

Changes the displayed units to Fahrenheit or Celsius. Press the up or down button to cycle through F and C. All displayed units will automatically convert when adjusting this setting.



### CALIBRATION TEMPERATURE SETTING

Adjusts the temperature reading the sensor probe is measuring. Press the up or down button to increase or decrease the data figure in 1° increments. The calibration cycle ranges from -20°F to 20°F (or -10°C to 10°C) and will be applied to the sensor probe's measurements.



#### TRANSITION TEMPERATURE SETTING

Adjusts how gradually your device will shift between levels when triggered ON by the AUTO Mode's temperature trigger. This will determine how much the probe temperature needs to increase to step up to the next level setting.

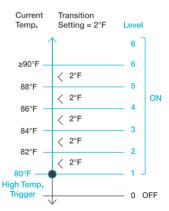
The higher the transition setting is, the wider the temperature gap is between levels. The lower the transition setting is, the smaller the temperature gap is between levels. If this figure is set to zero, your device will jump to your maximum level when triggered ON.

Press the up or down button to set a transition threshold between 0°F and 20°F (0°C and 10°C). When the sensor temperature first reaches or crosses the temperature trigger point, the level will increase by one (exiting OFF Mode). Each time the threshold level is crossed, the level will ramp up by one until it reaches the level set in ON Mode.

#### **EXAMPLE**

In this example, your high temperature trigger is set at 80°F, the OFF Mode level is 0, and the ON Mode level is 6. If the transition threshold is set to 0°F, then once the sensor temperature reaches or exceeds 80°F, the devices will trigger to run at level 6. However, if the transition threshold is set to 2°F, then the devices will trigger to run at level 1 when the temperature reaches or exceeds 80°F. It will then ramp up to level 2 when the temperature reaches or exceeds 82°F, level 3 at 84°F, etc. From 90°F on, it will run at level 6, the level set in ON Mode.



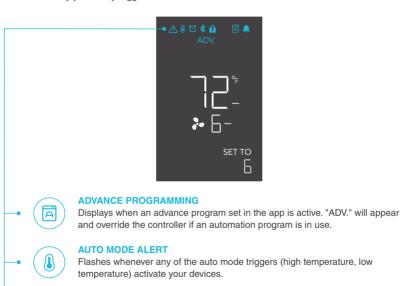


TIMER ALERT

or CYCLE

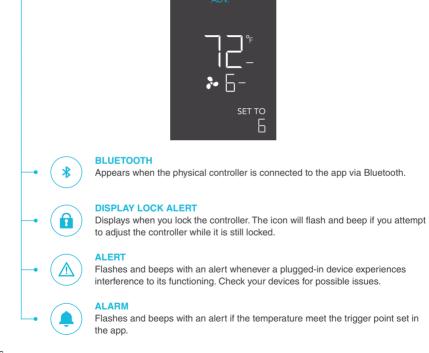
#### **ALERT ICONS**

The alert icons are displayed at the top of the screen. Icons may flash when the controller signals an alert to notify you of any triggered function or alarm.



Flashes when a countdown has completed for TIMER TO ON, TIMER TO OFF,

25



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### **OTHER SETTINGS**

#### **FACTORY RESET**

Holding the mode, up, and down buttons together for 5 seconds will reset your controller and restore factory settings. This clears all user parameters in each controller mode and setting.









#### **CONTROLLER LOCK**

Holding the setting button will lock the controller in your current mode. While your controller is locked, no parameters may be adjusted, nor will you be able to switch modes. Holding the setting button again will unlock the controller.

#### **HIDE SCREEN**

Lock the controller so no settings can be adjusted. See above. Then press the setting button to turn the display off. Pressing it again will turn the display back on. Programs will still run in the background while the LCD screen is off.

#### JUMP TO OFF MODE

Holding the mode button for 3 seconds while in any mode or setting will automatically jump to OFF Mode. This function is disabled if the controller is locked.

#### **RESET TO OFF/DEFAULT**

Holding the up and down buttons together for 2 seconds will reset the value of your current mode or controller setting to default. In AUTO Mode, pressing either the up or down button will return to its previous value.



#### **AUTO INCREASING OR DECREASING**

Holding the up or down button will increase or decrease the user setting automatically until you release them.

HOLD + □

# **DOWNLOAD THE APP**

#### THE AC INFINITY APP

The AC Infinity app enables you to connect with the next generation of our intelligent controllers, giving you access to advance programs and environmental data\*.



Download the AC Infinity app from the App Store or Play Store by searching "AC Infinity".







Open the AC Infinity app and follow the instructions on page 29-31 to pair your controller with the app.



#### HOW TO USE THE APP

Visit our website at www.acinfinity.com or open your smartphone camera and scan the QR code below for more information on the AC Infinity app.

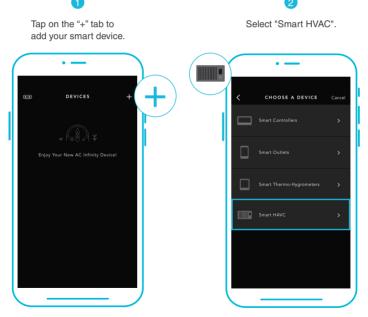


<sup>\*</sup>Appearance and features subject to change.

# **ADD A DEVICE**

#### **SETUP AND PAIRING**

Power your device on before pairing your device with the app. Refer to page 12 for more information regarding controller setup.



Please note: Bluetooth must be enabled on your mobile device before starting the pairing process.

# **ADD A DEVICE**



Select your device to begin pairing.





Tap DONE button to complete the pairing process.



# **ADD A DEVICE**



Your controller will appear in your smart device with a unique ID.



# **AIRTAP FAQ**

- Q: Will I be able to mount this fan on my ceiling?
- A: For safety reasons, we recommend having the fan professionally installed.
- Q: Will I be able to mount this fan on a baseboard style register?
- A: No. Because of the tilted design, the AIRTAP will not have the clearance to be properly mounted.
- Q: My register is bigger than my fan's rear insert. How can I fit this fan onto my register?
- A: We can only recommend using the appropriately sized AIRTAP fan for your register. Contact customer service for any size or installation issues.
- Q: Does this register booster fan have fittings to use a filter with?
- A: This product is not specifically designed to be used with filters.
- Q: How do I turn off the screen and keep the programming running?
- A: To turn off the screen manually, see page 27. Accessing your controller via the app will not light up the screen until you manually unlock it.
- Q: What temperature is the register booster fan detecting?
- A: The AIRTAP's backside probe reads the airflow temperature of your register vent. Please note this temperature may vary from your home thermostat's reading.
- Q: My register booster fan is too loud. How do I decrease the fan noise?
- A: To minimize the noise coming from the AIRTAP, decrease the maximum fan speed. Refer to page 15.
- Q: My fan is constantly running when I don't need it to. How do I turn it off?
- A: Both AUTO Mode triggers may be active at the same time. Disable the trigger you are not using by holding the mode button until the screen displays OFF.

# **AC INFINITY PRODUCTS**

#### **Rack Fans**

The CLOUDPLATE series rack fan system is designed for quietly cooling a wide range of audio, video, home theater, network, and IT equipments racks. The model features a thermal controller with intelligent programming that will automatically adjust the fan speeds in response to changing temperatures.



#### Inline Duct Fans

The CLOUDLINE series is a line of duct fans designed to quietly ventilate AV rooms and closets, as well as various DIY air circulation and exhaust projects. Features a thermal controller with intelligent programming that will automatically adjust duct fan speeds in response to changing temperatures.



#### **Project Muffin Fans**

The AXIAL series fan kit is designed for various DIY projects that requires cooling or ventilation; or as a replacement fan for many products on the market. Each fan kit includes fan guards and everything needed to mount the unit onto a wall and power it through a wall outlet. S-series models include a speed controller.



# **WARRANTY**

This warranty program is our commitment to you, the product sold by AC Infinity will be free from defects in manufacturing for a period of two years from the date of purchase. If a product is found to have a defect in material or workmanship, we will take the appropriate actions defined in this warranty to resolve any issues.

The warranty program applies to any order, purchase, receipt, or use of any products sold by AC Infinity or our authorized dealerships. The program covers products that have become defective, malfunctioned, or expressively if the product becomes unusable. The warranty program goes into effect on the date of purchase. The program will expire two years from the date of purchase. If your product becomes defective during that period, AC Infinity will replace your product with a new one or issue you a full refund.

The warranty program does not cover abuse or misuse. This includes physical damage, submersion of the product in water, incorrect Installation such as wrong voltage input, and misuse for any reason other than intended purposes. AC Infinity is not responsible for consequential loss or incidental damages of any nature caused by the product. We will not warrant damage from normal wear such as scratches and dings.

Contact our dealers department at dealers@acinfinity.com or (626) 838-4656 for more information about our dealers and distributors program. Contact our customer service department at <a href="mailto:support@acinfinity.com">support@acinfinity.com</a> or 626-923-6399 for product and warranty assistance. Our business hours are Monday through Friday, 9:00 am to 5:00 pm PST.



If you have any issues with this product, contact us and we'll happily resolve your problem or issue a full refund!



