



AC INFINITY

AIRLIFT SERIES

SHUTTER EXHAUST FAN SYSTEM

USER MANUAL

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.

EMAIL

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WEB

www.acinfinity.com

LOCATION

Los Angeles, CA

MANUAL CODE AL2104X1

PRODUCT	MODEL	UPC-A
AIRLIFT S10	AC-ALS10	819137021433
AIRLIFT S12	AC-ALS12	819137021440
AIRLIFT S14	AC-ALS14	819137021457
AIRLIFT S16	AC-ALS16	819137021464
AIRLIFT T10	AC-ALT10	819137020900
AIRLIFT T12	AC-ALT12	819137020917
AIRLIFT T14	AC-ALT14	819137020924
AIRLIFT T16	AC-ALT16	819137020948
AIRLIFT T18	AC-ALT18	819137020948
AIRLIFT T20	AC-ALT20	819137020955
AIRLIFT T22	AC-ALT22	819137020962
AIRLIFT T30	AC-ALT30	819137020986
AIRLIFT T36	AC-ALT36	819137020993



SERIOUS INJURY OR DEATH. Please do not touch the fan's impeller and blades. Secure all nearby objects including wires and cables from coming into contact with the fan's impeller and blades. Use caution when deciding where to install this fan.

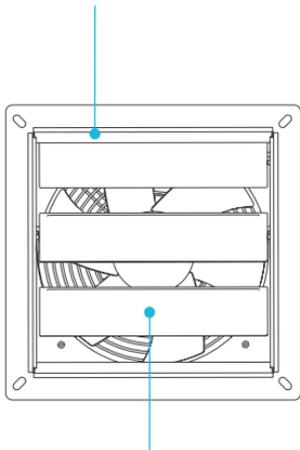
MANUAL INDEX

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KEY FEATURES

HEAVY DUTY BUILD

Fans are enclosed in steel and wire guards to withstand shocks and harsh environments.

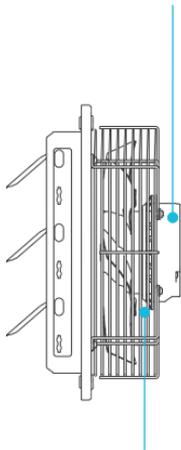


WEATHERPROOF

The shutter fan unit is sealed to Ingress Protection 44 standards to be resistant to liquid and dust.

EFFICIENT EC-MOTOR

PWM controlled EC-motor enables precise speed control, low noise, and higher energy efficiency.

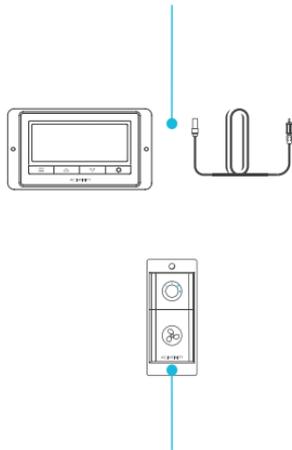


DUAL BALL BEARINGS

Long life bearings rated at 67,000 hours. Also allows the fan to be mounted in any direction.

SMART CONTROLLER

Features automation controls that activate the fan according to temperature, humidity, timer, and schedules.



SPEED CONTROLLER

Single button controller with circular readout display that enables fan speed control in eight speeds.

PRODUCT CONTENTS

AIRLIFT S-SERIES



SPEED
CONTROLLER
(x1)



MACHINE SCREWS
(WALL MOUNT)
(x2)



WOOD SCREWS
(WALL MOUNT)
(x2)

AIRLIFT T-SERIES



SMART
CONTROLLER
(x1)



SENSOR
PROBE
(x1)



MACHINE SCREWS
(WALL MOUNT)
(x2)



WOOD SCREWS
(WALL MOUNT)
(x2)



WOOD SCREWS
(WALL HANG)
(x2)

FAN UNIT



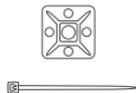
SHUTTER
FAN UNIT
(x1)



MACHINE SCREWS
(SHUTTER MOUNT)
(x4)



WOOD SCREWS
(SHUTTER MOUNT)
(x4)



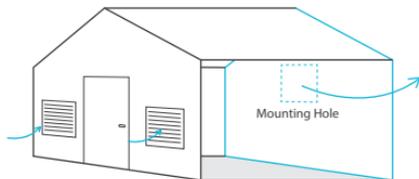
WIRE
TIES
(x4)

INSTALLATION

STEP 1

When installing in a large room like a green house, barn, or garage, it is recommended that the shutter fan should be mounted on the opposite side of any ventilation openings for better air circulation.

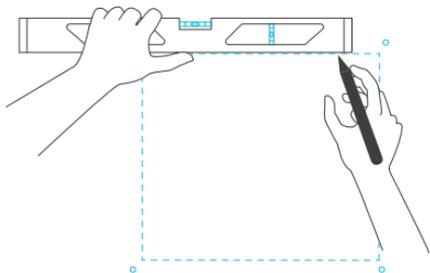
The fan should also be positioned higher in the room to exhaust out heated air, which will rise on its own due to natural convection.



STEP 2

Measure the dimensions of the shutter fan's mounting frame which will go through the wall. Select a location on the wall where you will be mounting the fan. Please make sure that the wall is free of any wires or pipes.

Using the measurements of the shutter fan, use a level and ruler to draw an outline of the area to be drilled and cut.

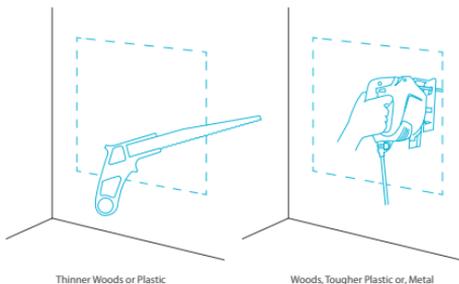


INSTALLATION

STEP 3

Depending on your mounting surface material, use the appropriate tools to cut into the wall.

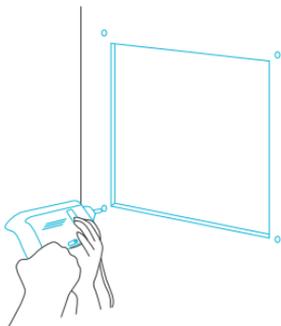
Use a drill or a hand saw to create an opening large enough to insert a saw blade or jigsaw inside the outlined area of the wall panel.



STEP 4

Position the shutter fan through the hole cut in step 3. Use it to measure the positioning of the mounting screws then remove the fan unit.

Then using a drill bit, create the four mounting holes.

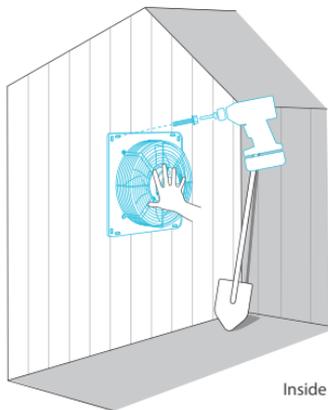


INSTALLATION

STEP 5

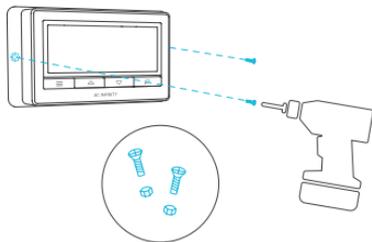
From inside the room, position the shutter fan back into the opening of the fan. Make sure the controller connectors and power cord is on the inside of the room. Then, use the included hardware to secure the fan.

If you are using your own shutter, remove the AIRLIFT's shutter by unscrewing the nuts and bolts from the fan guard. Reassemble the fan guard onto your existing shutter by reapplying the nuts and bolts in the same mounting locations.



STEP 6

Once the fan is mounted securely you can then mount the controller using the included hardware. Place the controller near the fan in order to power the controller.

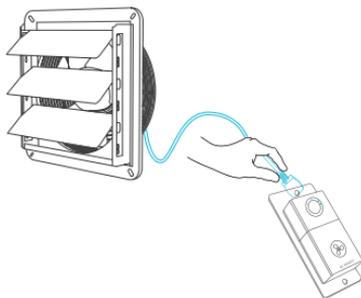


POWERING AND SETUP

S-SERIES

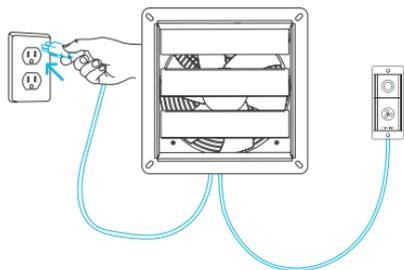
STEP 1

Plug the shutter fan's 4-pin Molex connector into the speed controller's port at the top.



STEP 2

Plug the fans power cord into an AC power outlet to power the fan and controller.

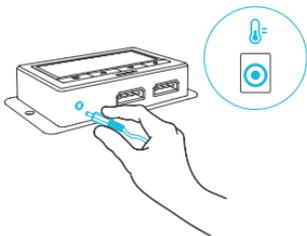


POWERING AND SETUP

T-SERIES

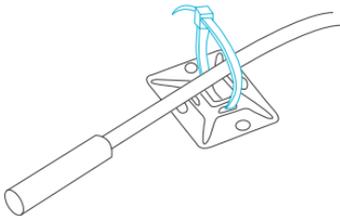
STEP 1

Locate the connector plug of the sensor probe and plug it into the bottom of the thermal controller.



STEP 2

Secure the sensor probe head near by, preferably in the hottest area of the room. You can use the wire tie to secure the probe away from the fan blades.

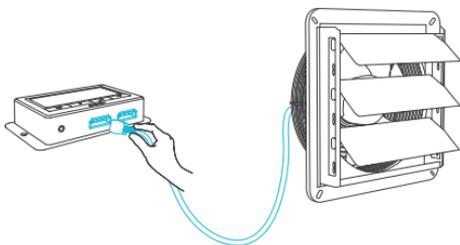


POWERING AND SETUP

T-SERIES

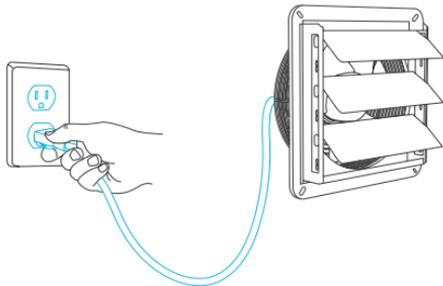
STEP 3

Connect the Molex end from the fan into the bottom of the controller.



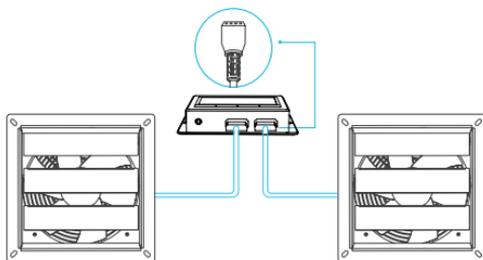
STEP 4

Plug the fans power cord into an AC power outlet to power the fan and controller.

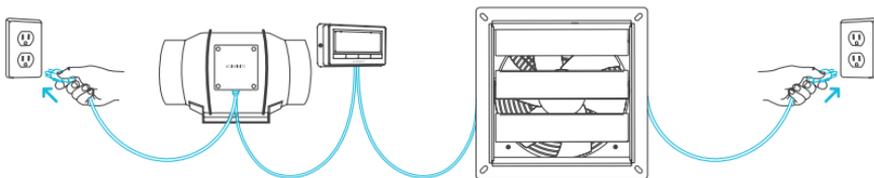


DAISY CHAIN AND SETUP

The fan controller can power up to two compatible fans to share the same programming. (The illustration below is for T-Series model only.)



The controller included is compatible with AC Infinity fan models that contain an EC-motor. Typically, EC-motor fans will have a separate cord coming out of it for the power and the controller. The compatible fans do not need to be the same model or part of the same product series.

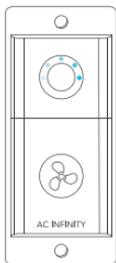


EC Motor - Compatible

PROGRAMMING

FAN SPEED ADJUSTING

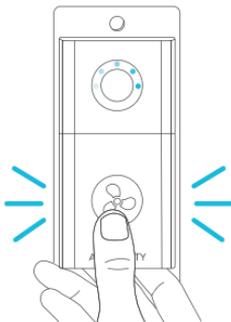
The controller features a single button that controls the fan speed from 0-8. Pressing the speed button increases the fan speed in one unit increments. Pressing the button at the 8 setting will set the fan speed back to 0.



Fan Speed Indicator

POWERING ON AND OFF

Holding the speed button for 4 seconds will turn the fan OFF. Pressing it again from OFF will turn the fan ON at its last speed setting.



PROGRAMMING

1. MODE BUTTON

Cycles through the controller's available modes: OFF, ON, AUTO (4 triggers), TIMER TO ON, TIMER TO OFF, CYCLE (On and Off), and SCHEDULE (On and Off).

2. UP/DOWN BUTTONS

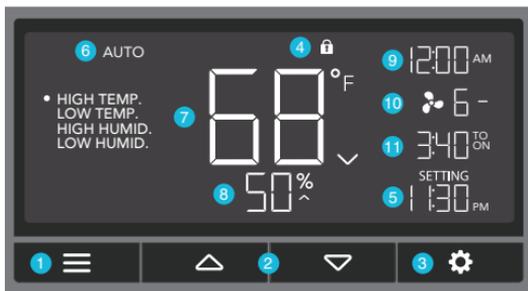
Adjusts the value of your current mode. The up button increases and down button decreases the setting. Hold both to reset values to OFF or 0.

3. SETTING BUTTON

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

4. STATUS ICONS

Flashes or displays the alert icons from the controller. Icons include Timer Alert and Display Lock.



5. USER SETTING

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

6. CONTROLLER MODE

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

7. PROBE TEMPERATURE

Displays the current temperature that the probe is detecting. Shows "--" if no probe is plugged in. Includes a trend indicator that signals a rise, steady, or fall in temperature within the last hour.

8. PROBE HUMIDITY

Displays the current humidity that the probe is measuring. Shows "--" if no probe is plugged in. Includes a trend indicator that signals a rise, steady, or fall in temperature within the last hour.

9. CURRENT TIME

Displays the current time. The internal battery sustains the clock so it does not default to 00:00 if power is cut off. Please see page 23 for instructions on how to set up the clock time.

10. FAN SPEED

Displays the current speed in which the fan is running. Includes a trend indicator that signals if the fan is currently rising, falling or holding steady.

11. COUNTDOWN

Displays the countdown of the TIMER TO ON, TIMER TO OFF, CYCLE, or SCHEDULE modes. TO ON shows the amount of time left before the fan turns on. TO OFF shows the amount of time left before the fan turns off.

PROGRAMMING

CONTROLLER MODES

Pressing the mode button will cycle through the controller's available programming modes: OFF, ON, AUTO (4 triggers), TIMER TO ON, TIMER TO OFF, CYCLE (On and Off), and SCHEDULE (On and Off).

OFF MODE

Your fan will not run while in this mode. However, the fan speed set while in this mode establishes the minimum speed in other modes. When the fan is triggered to turn OFF in all other modes, it will instead run at the speed set here.



ON MODE

Your fan will actively run at the speed set here, regardless of the probe's reading. The ON mode also serves as the maximum speed setting the other modes will run in.



AUTO MODE (HIGH TEMPERATURE TRIGGER)

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

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

You may set this trigger below the low temperature trigger to create a specific range in which the fan is active.



Note that this trigger can activate as long as you are in AUTO Mode, even if you are viewing a different trigger within AUTO Mode.

If there is a speed set in OFF Mode other than zero, the fans will run at that speed when triggered to turn off.

PROGRAMMING

AUTO MODE (LOW TEMPERATURE TRIGGER)

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

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

You may set this trigger above the high temperature trigger to create a specific range in which the fan is active.



Note that this trigger can activate as long as you are in AUTO Mode, even if you are viewing a different trigger within AUTO Mode.

If there is a speed set in OFF Mode other than zero, the fans will run at that speed when triggered to turn off.

AUTO MODE (HIGH HUMIDITY TRIGGER)

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

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

You may set this trigger below the low humidity trigger to create a specific range in which the fan is active.



Note that this trigger can activate as long as you are in AUTO Mode, even if you are viewing a different trigger within AUTO Mode.

If there is a speed set in OFF Mode other than zero, the fans will run at that speed when triggered to turn off.

PROGRAMMING

AUTO MODE (LOW HUMIDITY TRIGGER)

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

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

You may set this trigger above the high humidity trigger to create a range in which the fan is active.



Note that this trigger can activate as long as you are in AUTO Mode, even if you are viewing a different trigger within AUTO Mode.

If there is a speed set in OFF Mode other than zero, the fans will run at that speed when triggered to turn off.

TIMER TO ON MODE

Pressing the up or down button sets a countdown time. Once the timer ends, the fans will trigger to run at the speed set in ON Mode. If there is a speed set in OFF Mode, the fans will run at that speed during the countdown.

The countdown will begin if no buttons are pressed for 5 seconds. The time left on the countdown is displayed below the current fan speed. Leaving the timer mode while the countdown is running will pause it until you return to this mode.



If there is a speed set in OFF Mode other than zero, the fans will run at that speed when triggered to turn off.

PROGRAMMING

TIMER TO OFF MODE

Pressing the up or down button sets a countdown time. The fans will run at the speed set in ON Mode until the countdown ends. If there is a speed set in OFF Mode, the fans will run at that speed 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 displayed below the current fan speed. Leaving the timer mode while the countdown is running will pause it until you return to this mode.



If there is a speed set in OFF Mode other than zero, the fans will run at that speed when triggered to turn off.

CYCLE MODE (ON AND OFF)

Set an on duration and an off duration for the fan to cycle through continuously. Press the up or down button to first set a duration for the fan to activate. Then press the mode button again and set a duration for the fan to deactivate. When the fan is activated, it will run at the speed set in ON Mode. When the fan is deactivated, it will run at the speed 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 fan speed. Leaving the cycle mode while the countdown is running will pause it until you return to this mode.



If there is a speed set in OFF Mode other than zero, the fans will run at that speed when triggered to turn off.

PROGRAMMING

SCHEDULE MODE (ON AND OFF)

Sets an on clock-time and an off clock-time schedule for the fan to follow daily. Press the up or down button to first set up an on clock-time to trigger ON mode, then press the mode button to set an off clock-time to trigger OFF mode. Please be sure to set the current clock time under settings.

When the fan is triggered to activate, it will run at the speed set in ON Mode. When the fan is triggered to deactivate, it will run at the speed 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 fan speed. The fan will not follow this schedule if you leave this mode. If you re-enter the Schedule Mode, it will continue to follow the latest schedule you have set.



If there is a speed set in OFF Mode other than zero, the fans will run at that speed when triggered to turn off.

PROGRAMMING

CONTROLLER SETTINGS

Pressing the setting button will cycle through the controller's available settings: DISPLAY, °F/°C, CLOCK, CALIB. T°, CALIB. H%, TRANS. T°, and TRANS. H%.

DISPLAY SETTING

Adjusts the display brightness and auto-dimming. Press the up or down button to cycle through levels 1, 2, 3, A2 and A3; 3 being the highest brightness setting, while 1 is the lowest. 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.



°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.



PROGRAMMING

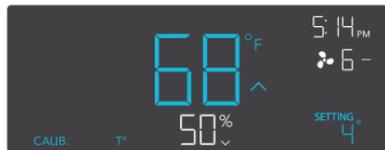
CLOCK SETTING

Adjusts the current clock time. Press the up or down button to increase or decrease the time. Once you cycle through 12:00 each time, the units will automatically change to AM or PM. The clock time is located at the top right corner of the display.



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 2°F (or 1°C) increments. The calibration cycle ranges from -8°F to 8°F (or -4°C to 4°C) and will be applied to the sensor probe's measurements.



CALIBRATION HUMIDITY SETTING

Adjusts the relative humidity 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 -8% to 8% and will be applied to the sensor probe's measurements.



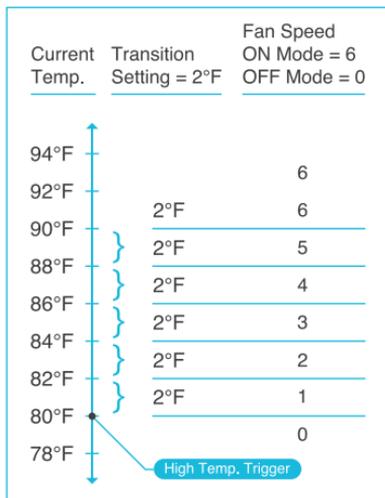
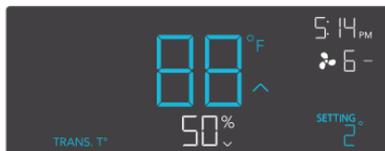
PROGRAMMING

TRANSITION TEMPERATURE SETTING

Adjusts the transition threshold between the fan speeds in the AUTO Mode temperature triggers.

Press the up or down button to cycle through 0°F to 8°F (0°C to 4°C) and set a transition threshold. The fan speed will be set one level above the OFF Mode speed when the sensor temperature first meets or exceeds the high temperature trigger. For every transition threshold crossed, the fan speed will ramp up by one speed level, up until it reaches the speed set in ON Mode.

In this example, your high temperature trigger is set at 80°F, the OFF Mode speed is 0, and the ON Mode speed is 6. If the transition threshold is set to 0°F, then the fan will trigger to run at speed 6 when the sensor temperature meets or exceeds 80°F. However, if the transition threshold is set to 2°F, then the fan will trigger to run at speed 1 when it meets or exceeds 80°F. It will then step up to speed 2 when meeting or exceeding 82°F, speed 3 at 84°F, speed 4 at 86°F, and speed 5 at 88°F. From 90°F on, it will run at speed 6, the speed set in ON Mode.



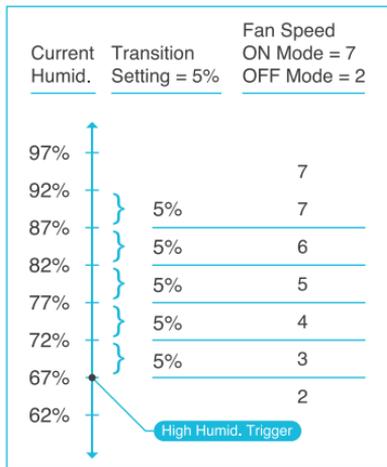
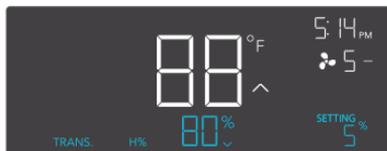
PROGRAMMING

TRANSITION HUMIDITY SETTING

Adjusts the transition threshold between the fan speeds in the AUTO Mode humidity triggers.

Press the up or down button to cycle through 0% to 8% to set a transition threshold. The fan speed will be set one level above the OFF Mode speed when the sensor humidity first meets or exceeds the high temperature trigger. For every transition threshold crossed, the fan speed will ramp up by one speed level, up until it reaches the speed set in ON Mode.

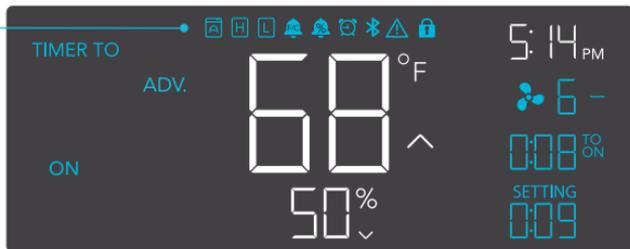
In this example, your high humidity trigger is set at 67%, the OFF Mode speed is 2, and the ON Mode speed is 7. If the transition threshold is set to 0%, then the fan will trigger to run at speed 7 when the sensor temperature meets or exceeds 67%. However, if the transition threshold is set to 5%, then the fan will trigger to run at speed 3 when it meets or exceeds 67%. It will then step up to speed 4 when meeting or exceeding 72%, speed 5 at 77%, speed 6 at 82%, and speed 7 at 87%. From 87% on, it will run at speed 7, the speed set in ON Mode.



PROGRAMMING

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.



ADVANCE PROGRAMMING

Displays when an advance program set in the app is active. "ADV." will appear and override the controller if an automation program is in use.



HIGH TEMPERATURE ALARM

Flashes and beeps with an alert if the temperature rises above the trigger point set in the app. Continues to flash until the temperature falls below the trigger point.



LOW TEMPERATURE ALARM

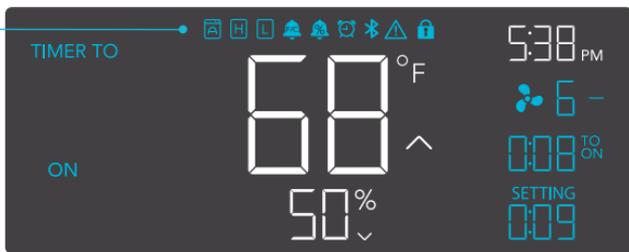
Flashes and beeps with an alert if the temperature falls below the trigger point set in the app. Continues to flash until the temperature rises above the trigger point.



HIGH HUMIDITY ALARM

Flashes and beeps with an alert if the humidity rises above the trigger point set in the app. Continues to flash until the humidity falls below the trigger point.

PROGRAMMING



LOW HUMIDITY ALARM

Flashes and beeps with an alert if the humidity falls below the trigger point set in the app. Continues to flash until the humidity rises above the trigger point.



TIMER ALERT

Flashes when a countdown has completed for TIMER TO ON, TIMER TO OFF, CYCLE, or SCHEDULE Mode.



BLUETOOTH

Appears when the physical controller is connected to the app via Bluetooth.



CHECK FAN ALERT

Flashes when the fan's probe senses interference to its functioning. Check the fan for possible issues. If the fan is not working, please see the warranty page for replacement information.



DISPLAY LOCK ALERT

Displays when you lock the controller. The icon will flash and beep if you attempt to adjust the controller while it is still locked.

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 power 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 OR ZERO (0)

Holding the up and down buttons together for 2 seconds will reset the value of your current mode to OFF or 0. Pressing either the up or down button will return the value to the mode's last setting.



OTHER SETTINGS

AUTO INCREASING OR DECREASING

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

HOLD + 

HOLD + 

BLUETOOTH RESET

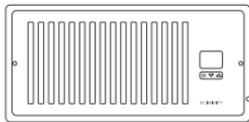
Hold the mode and settings buttons simultaneously for 5 seconds to clear advance programming from the controller. The app will disconnect from the controller and will have to be paired again to re-establish Bluetooth connection. All sensor data, controller programming, and settings will be retained.

HOLD +  

AC INFINITY PRODUCTS

Register Booster Fans

The AIRTAP series is a line of register booster fans designed to quietly increase airflow coming from your central heat and air conditioning systems, increasing comfort for your home. Features a thermal controller with intelligent programming that will automatically adjust airflow strength in response to heating and cooling temperatures you have set.



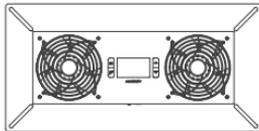
Duct Fans

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.



Crawlspace Fans

The AIRTITAN is a line of weather-proof fans designed to provide ventilation, odor, and moisture control for crawl spaces and basements. It features a digital controller with intelligent programming that will adjust airflow strength in response to high and low temperatures, as well as humidity.



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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.

To initiate a product warranty claim, please contact our customer service team at support@acinfinity.com



If you run into any issues with this product, contact us and we'll happily issue a replacement or a full refund!

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