AC INFINITY

CLOUDRAY

WHOLE HOUSE 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
support@acinfinity.com

WEB
www.acinfinity.com

LOCATION
Los Angeles, CA

MANUAL CODE CR1907X1

PRODUCT	MODEL	UPC-A
CLOUDRAY T10	AC-CRT10	819137021082
CLOUDRAY T12	AC-CRT12	819137021099
CLOUDRAY T14	AC-CRT14	819137021136
CLOUDRAY T16	AC-CRT16	819137021143
CLOUDRAY T18	AC-CRT18	819137021150

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.

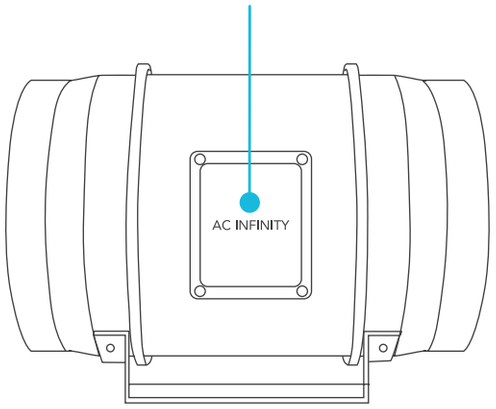
MANUAL INDEX

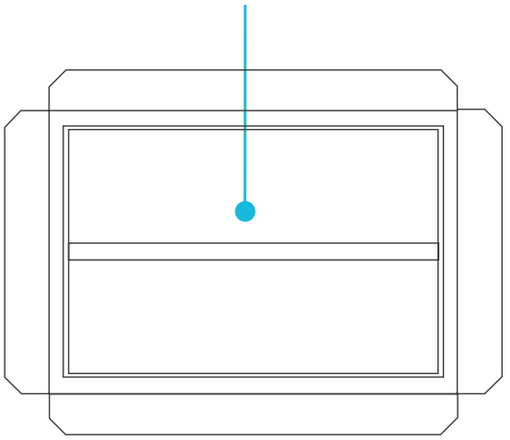
KEY FEATURES

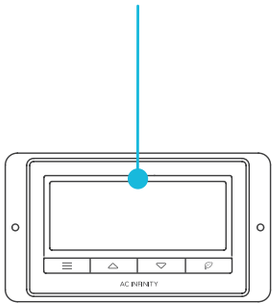
QUIET PWM MOTOR
PWM-controlled motor features precise speed control, reduced rotor noise, and energy efficient EC Voltage.

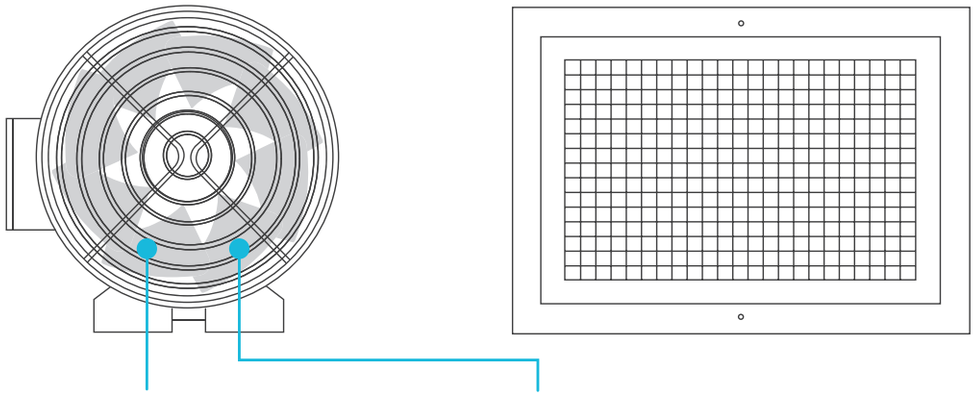
AUTOMATIC SHUTTERS
Automatic shutters that open and close in response to airflow. And closes completely when airflow stops.

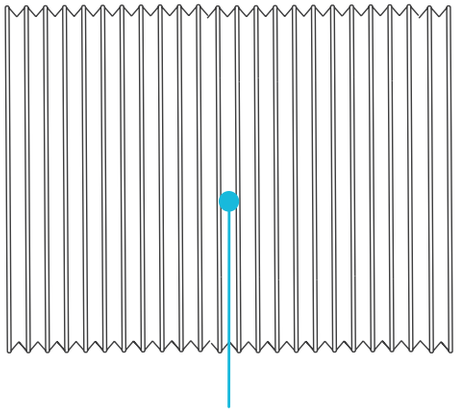
SMART CONTROLLER
Display with probe enables monitoring, thermal & humidity control, fan speed control, alarms, and eco-energy mode.











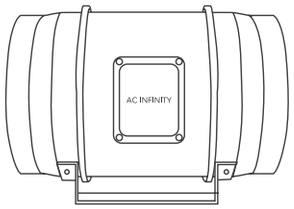
STATOR BLADE FANS
The system with high static pressure rating can deliver high airflow even when air movement is being restricted.

IP-44 PROTECTION
The blower unit is sealed to Ingress Protection 44 standards to be highly resistant to liquid and dust.

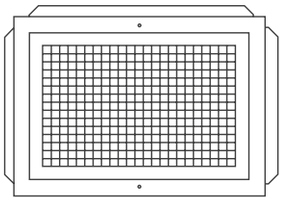
INSULATED DUCTING
The outer layer is made of dual PVC thermoplastic that protects the aluminum from cuts and tears.

PRODUCT CONTENTS

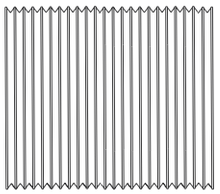
CLOUDRAY WHOLE HOUSE FAN SYSTEM (Included in all series)



DUCT FAN SYSTEM (x1)

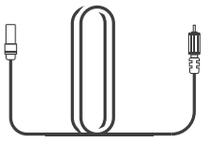


DAMPER BOX & GRILLE (x1)

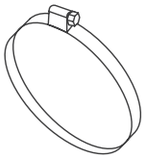


DUCT TUBE (x1)

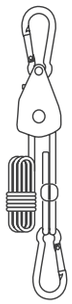
SMART CONTROLLER (x1)



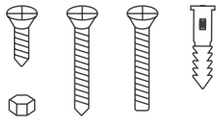
SENSOR PROBE (x1)



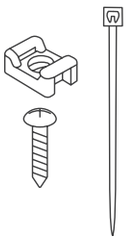
DUCT CLAMP (x2)



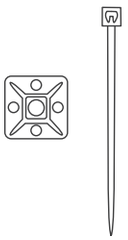
ROPE CLIP (x2)



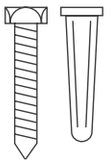
CONTROLLER SCREW SET (x2)



WIRE MOUNT (x6)

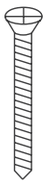


PROBE MOUNT (x6)



FAN SCREW (x4)

DAMPER SCREW (x8)

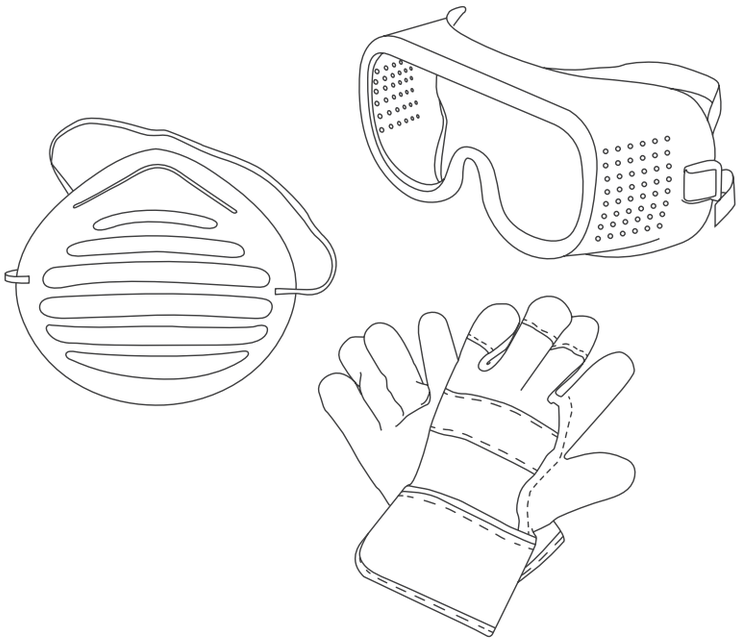


GRILLE SCREW (x4)

INSTALLATION GUIDE

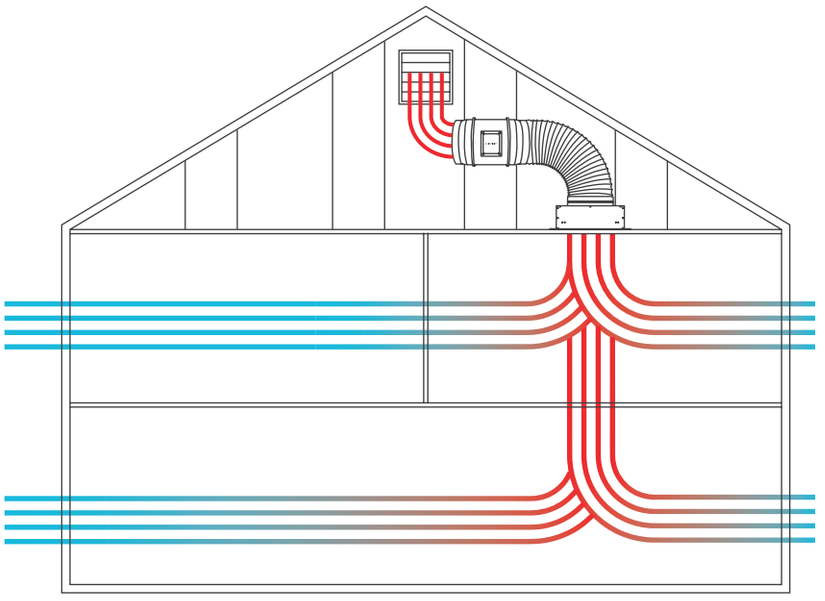
PROTECTIVE GEAR

Before you begin, make sure to protect yourself from potential injuries by wearing protective gear including: safety goggles to prevent any drywall dust or insulation from getting in your eyes, gloves to avoid direct contact with insulation, and a dust mask to avoid inhaling dust as a result of cutting into the drywall and insulation.



FAN POSITIONING

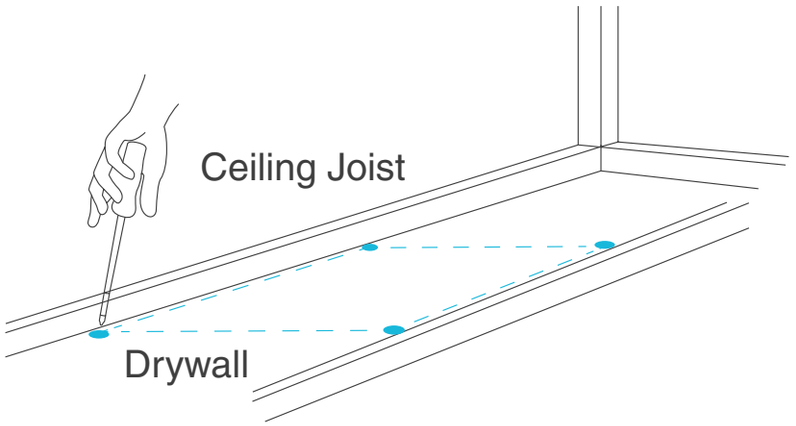
A whole house fan is installed in the ceiling of a home and moves air from the living space into the attic. It forces hot air out of the attic and pulls cooler air from the outside of the house into the living space, which is ideal for people who come home to a hot house when it is cooler outside.



MOUNTING

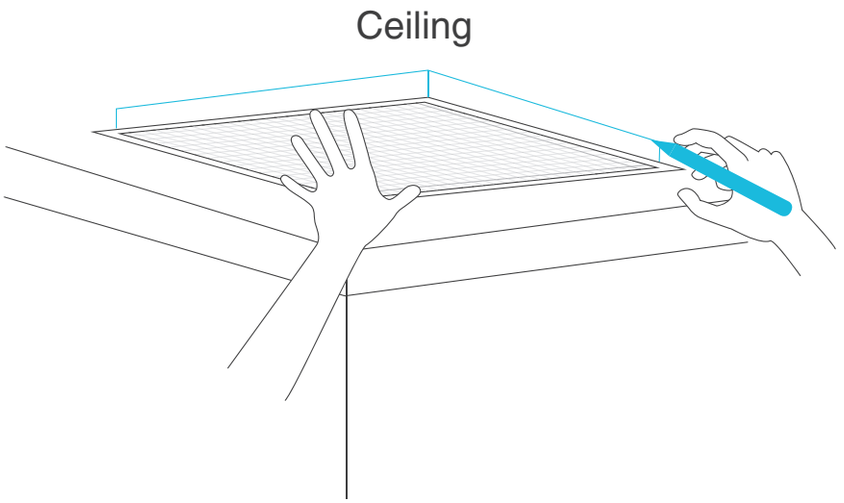
STEP 1

Before installing the whole house fan, find a location in the hallway or staircase central to the home. In the attic, mark the corners using grille plate in between the ceiling joists. Then press each corner with a screwdriver or drill until it reaches the other side.



STEP 2

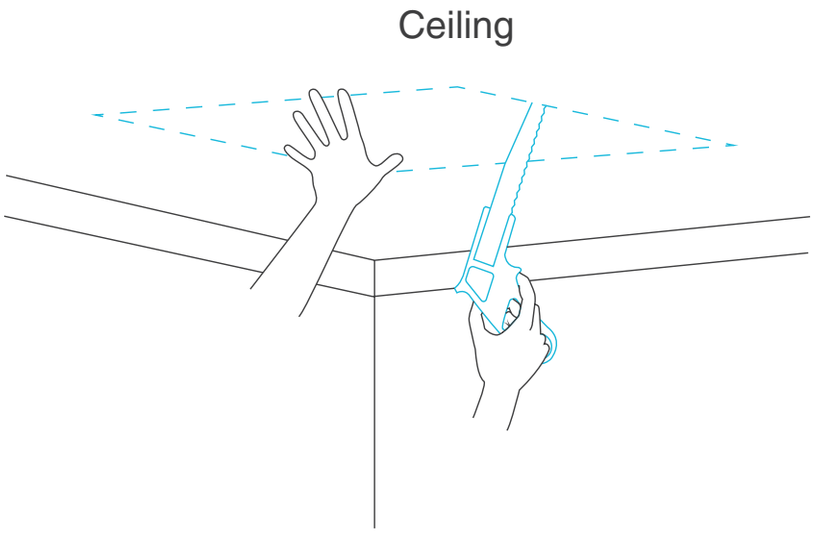
Line up the grille plate with the reference holes made in the attic. Mark around the grille plate to create a cutout guide.



MOUNTING

STEP 3

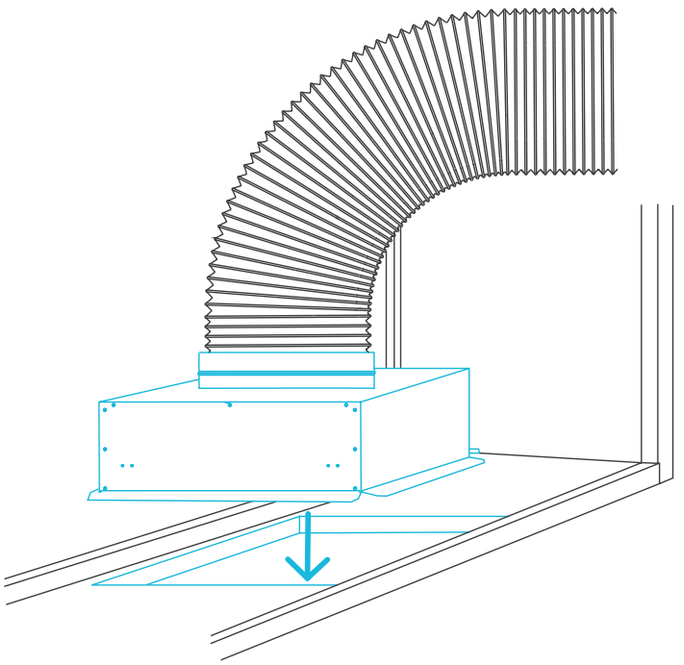
Check your location and measurements before cutting into the drywall. Use a drywall saw or jigsaw to cut out the marked location.



STEP 4

Remove the white grille plate off the damper box. Place the damper box inside the attic vent side down onto the cut hole, as shown in the image.

The black damper screws may also used to secure the damper box to the drywall. Drill through the metal to mount the damper box.

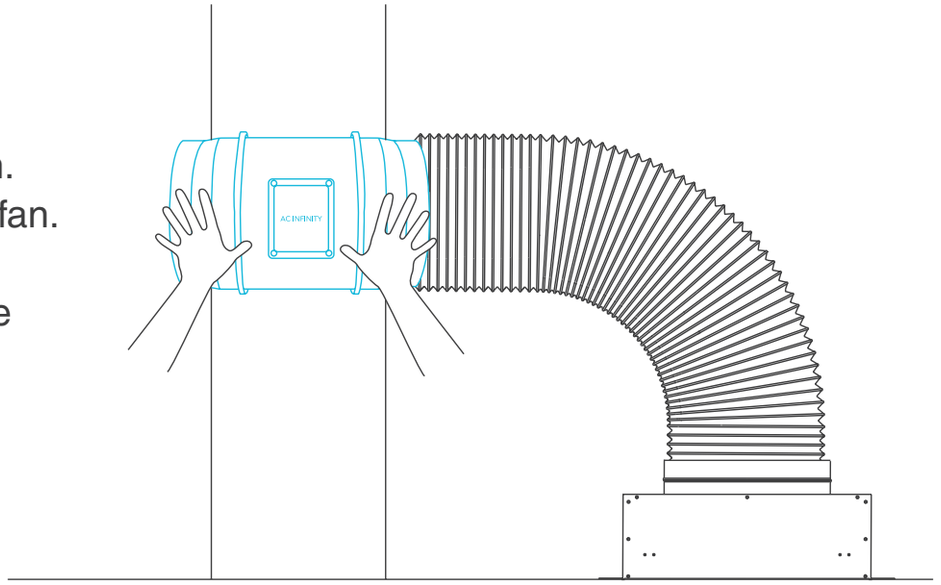


MOUNTING

STEP 5

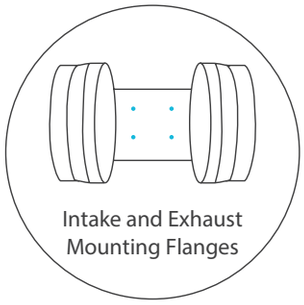
Loosely attach the duct tube to the fan to determine the mounting area. Position the fan in an area where you can mount the fan. Remove the duct tube after positioning the fan.

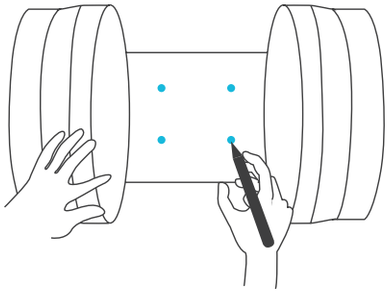
As an option you may use the included rope clips to hang your fan from a support beam instead of mounting it.



STEP 6

Once a location has been set for the fan, remove the metal rings so you can pull out the center motor. Use the mounting flanges to help you position the fan to your desired mounting location. Use a pen or pencil to mark the four mounting holes.

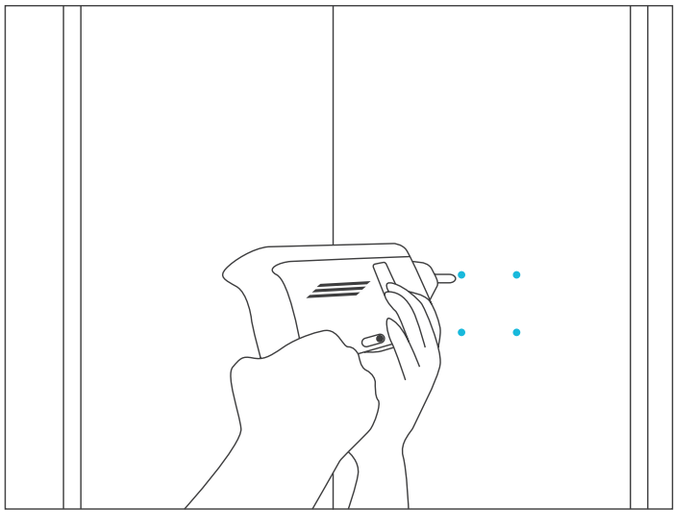




MOUNTING

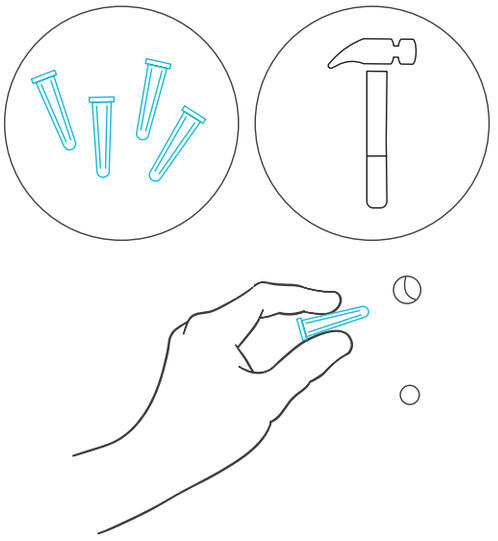
STEP 7

Double check to make sure the location is structurally sound and free from obstruction. Use a power drill to drill the four mounting holes.



STEP 8

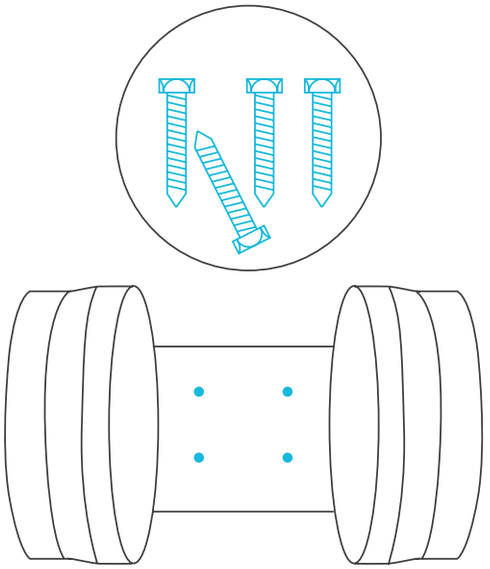
If you are mounting onto anything other than a wood support or stud, insert the included four wall anchors into the drilled mounting holes. You may need to use a hammer to secure them through the holes.



MOUNTING

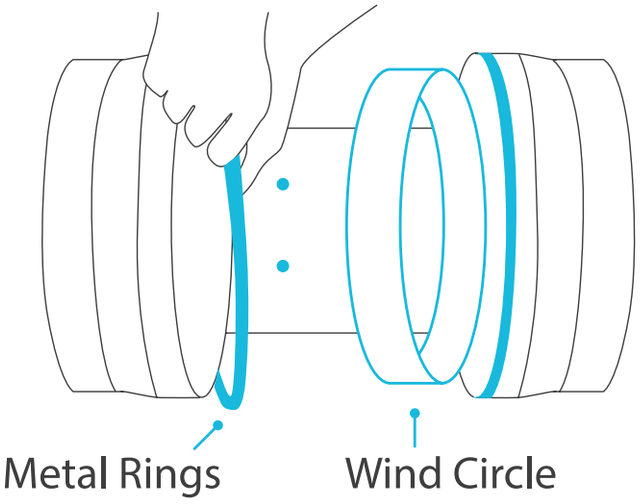
STEP 9

Position the mounting flanges and align the mounting holes with the wall anchors. Use a screw driver or drill to secure the four wood screws through the mounting frame and into the wall anchors or stud. Make sure the arrow is pointing in your desired direction.



STEP 10

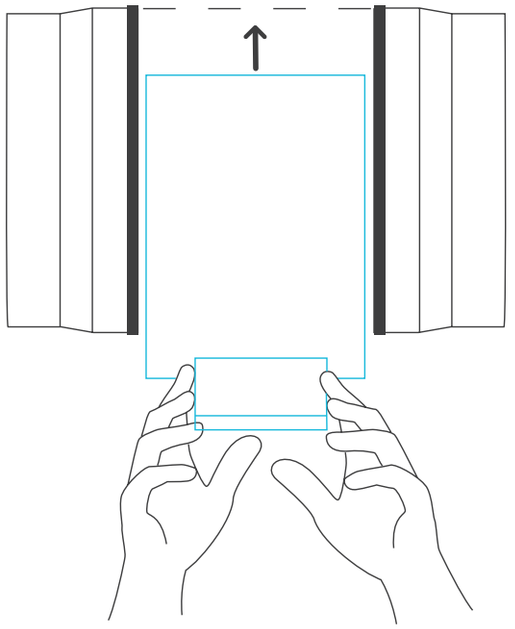
Place the metal rings back onto the flanges. Position the wind circle back into the flange. Do not tighten the screws yet.



MOUNTING

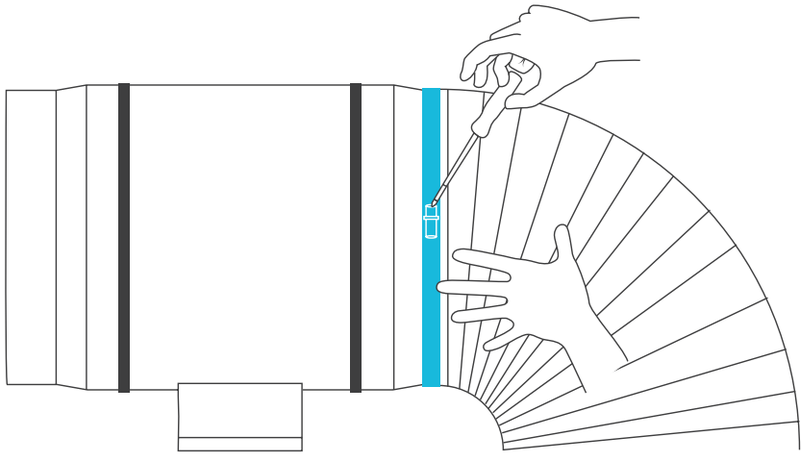
STEP 11

Secure the motor box back onto the mounting flanges. Make sure the arrow on the motor box points in the same direction as the arrow on the exhaust flange.



STEP 12

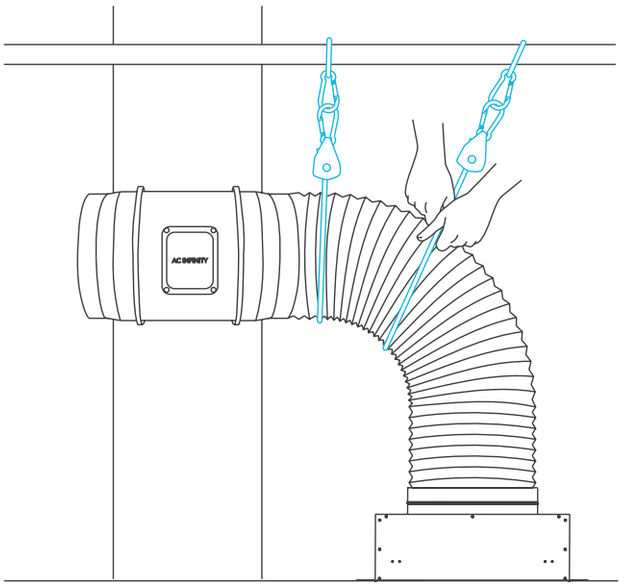
Connect the duct tube to the intake flange. Secure the duct clamp over the duct tube and tighten it with a flathead screw driver.



MOUNTING

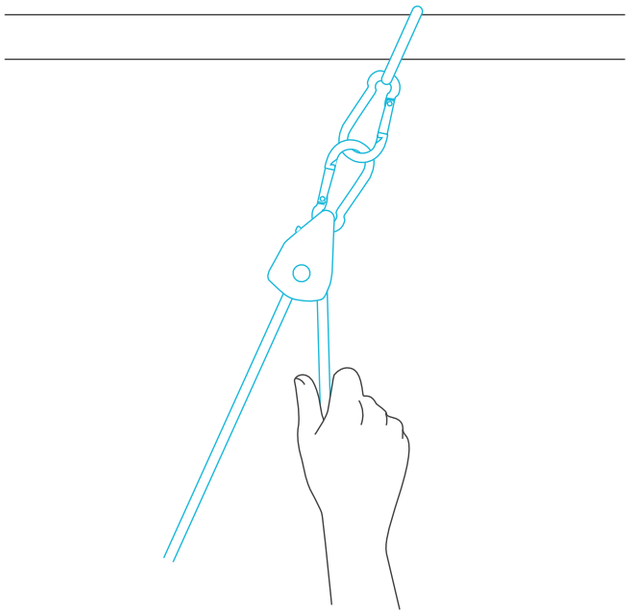
STEP 13

Use the included rope clips to support the duct tube. Clip them onto a nearby beam. If there is no beam or an area to hang the rope clips, secure a nail nearby to hook the rope onto.



STEP 14

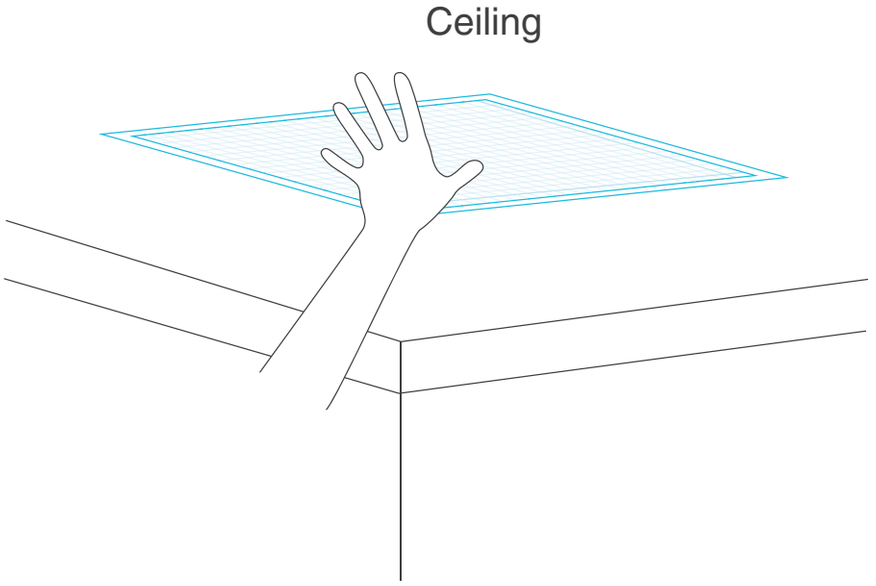
To tighten the rope, pull the loose end until the duct tube feels secured. Avoid sharply bending the tube so airflow won't be restricted.



MOUNTING

STEP 15

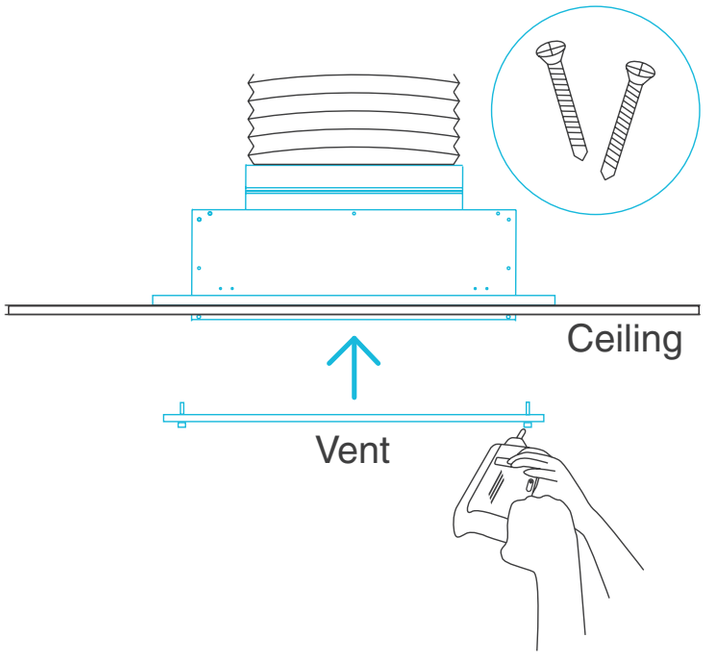
Place the vent onto the dampener through the opening from below the ceiling.



STEP 16

Secure the vent using the included four white screws into the drywall.

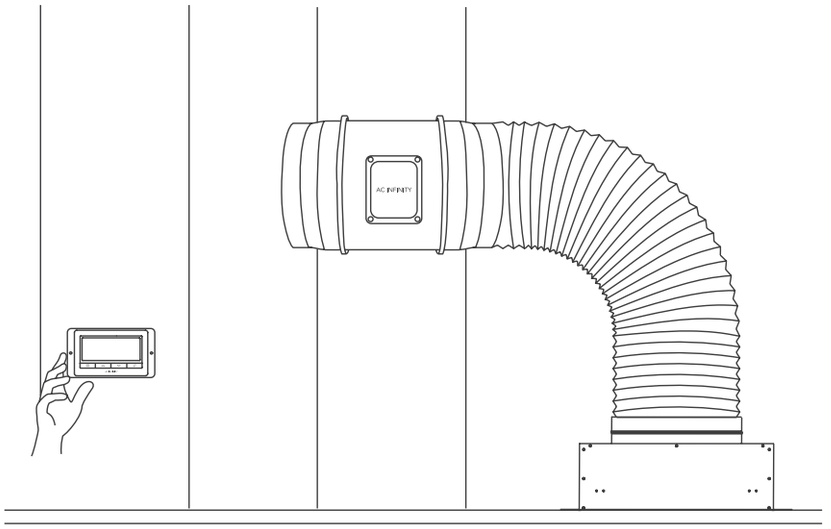
*Note: The screws will only secure the vent to the ceiling drywall. The damper will rest on the drywall and vent.



MOUNTING

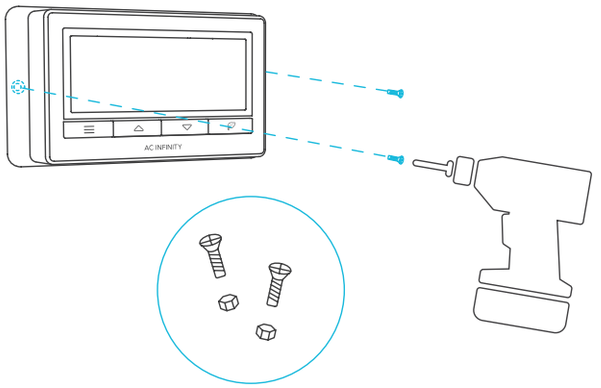
STEP 17

Position the controller close to the fan and inside the attic so that the power cord reaches the controller.



STEP 18

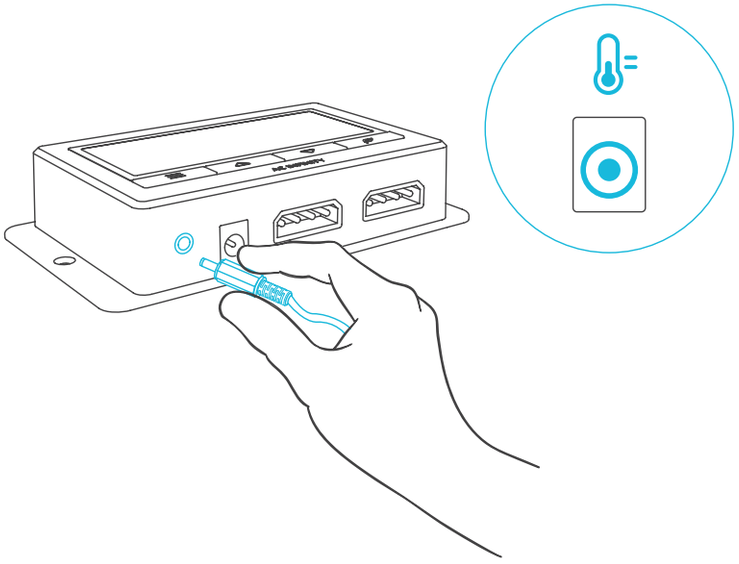
To mount the controller, use the appropriate screws included for your mounting location.



POWERING AND SETUP

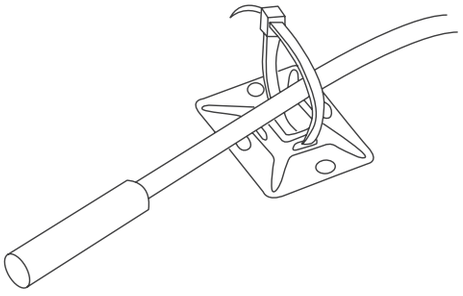
STEP 1

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



STEP 2

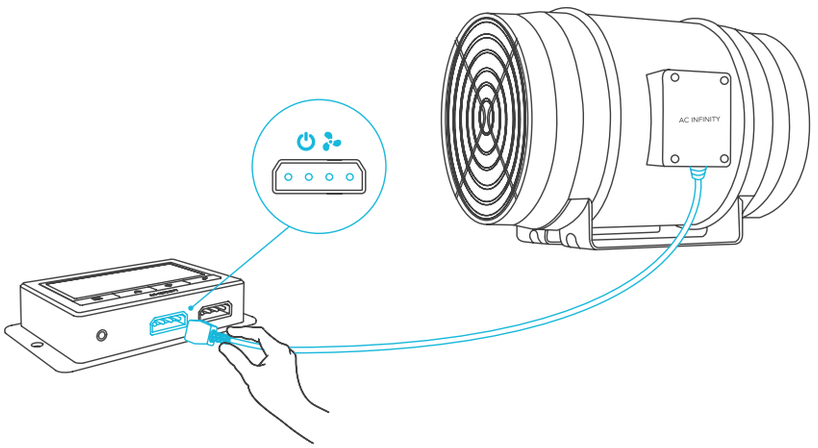
Secure the sensor probe head, preferably near the hottest area of the attic. Screw in the square tabs once you find a suitable location. Then use the included zip ties to secure the probe.



POWERING AND SETUP

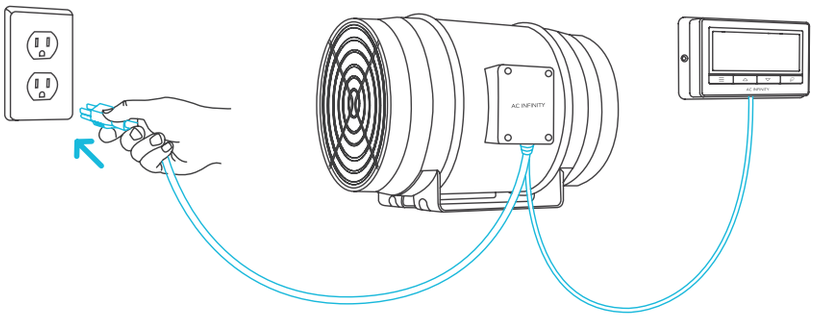
STEP 3

Connect the molex end from the fan into the bottom of the Universal Controller. Be sure to plug it into the left molex 4 pin connector that has the power and fan icon. This plug is meant to power the controller.



STEP 4

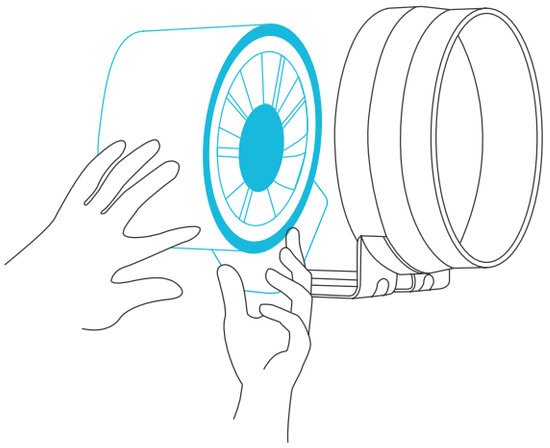
Plug the fans power cord into an AC power outlet to power both the fan and the controller.



CLEANING

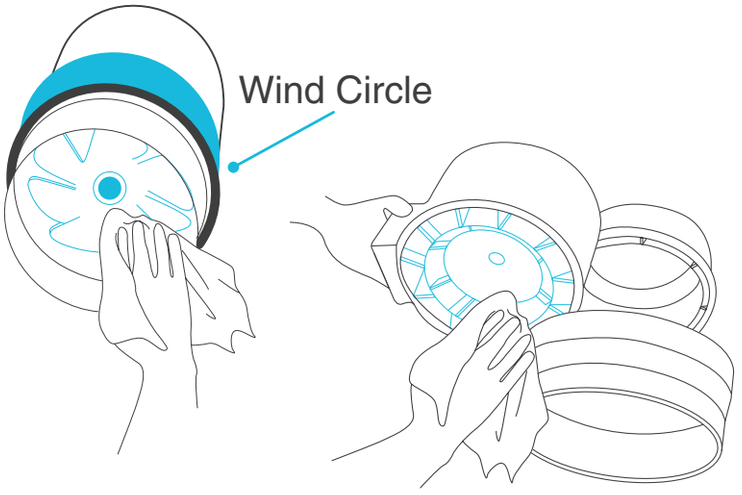
STEP 1

Remove the motor box from the mounting flange to remove any dust or build up. Use a damp cloth to clean the dust and dirt off the impeller and fan blades.



STEP 2

Clean the dust and dirt off the stator blades on the opposite side. Remember to clean the area inside the output and exhaust flanges. Lastly secure the motor box onto the mounting flanges. Secure the motor box with the metal rings.

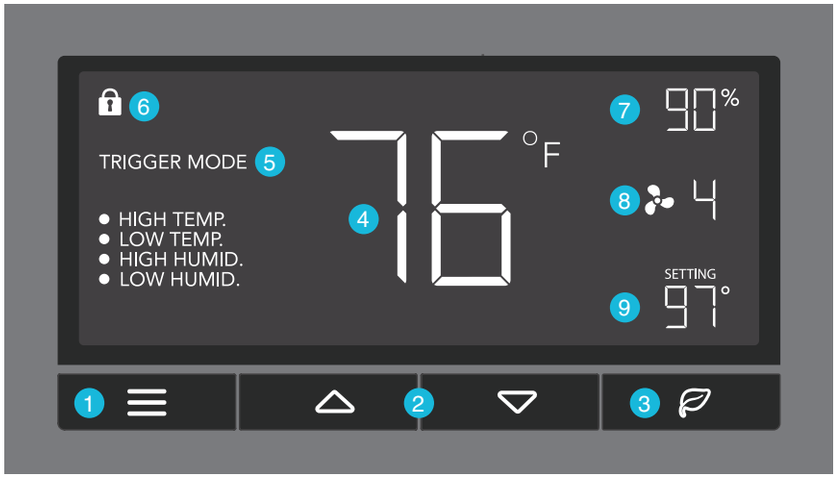


PROGRAMMING

1. MODE BUTTON
Cycles through each of the controller's modes: ON, OFF, TIMER, AUTO (4 triggers), and ALARM (4 settings).

2. UP / DOWN BUTTON
Adjusts the settings of the mode that you are in. Up button raises and down button lowers.

3. LEAF BUTTON
Turns the display off while programs run in the background. Hold for two seconds to lock or unlock the display.



4. PROBE TEMP.
Displays the current temperature that the corded sensor probe is measuring. Shows “- -” if no probe is plugged in.

5. CONTROLLER MODE
Displays the mode that the controller is currently in. Pressing the Mode Button cycles through the modes.

6. ALERT ICONS
Displays the alerts and statuses from the controller, including the alarm and the screen lock.

7. PROBE HUMIDITY
Displays the current humidity that the corded sensor probe is measuring. Shows “- -” if no probe is plugged in.

8. FAN SPEED
Displays the current speed the fan is running at, or what speed it should be running at if no fans are plugged in.

9. SETTING
Displays the value you have set for the current mode. Pressing the up or down button changes the value.

PROGRAMMING

MODE SETTING

Pressing the Mode button will cycle through the controller's available programming modes and settings: ON Mode, OFF Mode, TIMER Mode, AUTO Mode (4 triggers), ALARM Settings (4 settings).

ON MODE

In this mode, the fans will run continuously regardless of temperature or humidity. The speed set in this mode will go as fast as the fan's speed number you leave it on.

OFF MODE

In this mode, the fans will not run regardless of temperature or humidity. While in this mode, pressing the up or down button will change the display's brightness. There are four settings for brightness, (Setting:1/2/3/A3). On setting A3, if the device is left unattended for 30 seconds, the display will automatically dim its brightness back to setting 1. Holding up or down button will change the display's units F or C.

TIMER MODE

In this mode, press the up or down button to set a time for the timer. The fans will run at the speed set in ON Mode until the timer's clock runs out, in which the fans will stop running. The clock will begin counting down if no buttons are pressed for 3 seconds. Leaving the timer mode while the countdown is running will pause the clock until you return to this mode.

PROGRAMMING

AUTO MODE: HIGH TEMP.

In this mode, press the up or down button to set a high temperature trigger. The fans will activate if the probe's measured temperature exceeds the temperature you have set in this mode. The activated fans will slowly increase in speed until it reaches the speed set in ON Mode. Whenever the measured temperature falls below your set temperature, the fans will slowly decrease in speed until the fans stop. You may also hold the up and down button simultaneously to turn off this trigger in which the digits under settings will show OFF.

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.

AUTO MODE: LOW TEMP.

In this mode, press the up or down button to set a low temperature trigger. The fans will activate if the probe's measured temperature falls below the temperature you have set in this mode. The activated fans will slowly increase in speed until it reaches the speed set in ON Mode. Whenever the measured temperature rises above your set temperature, the fans will slowly decrease in speed until the fans stop. You may also hold the up and down button simultaneously to turn off this trigger, in which the digits under settings will show OFF.

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.

PROGRAMMING

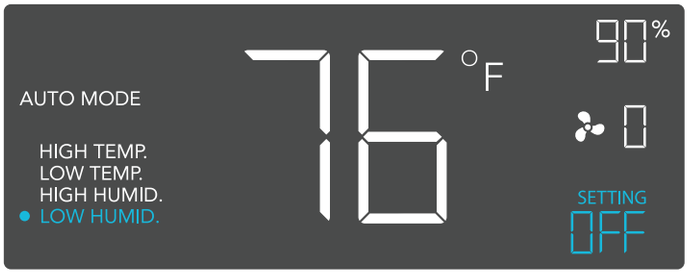
AUTO MODE: HIGH HUMID.

In this mode, press the up or down button to set a high humidity trigger. The fans will activate if the probe's measured humidity exceeds the humidity you have set in this mode. The activated fans will slowly increase in speed until it reaches the speed set in ON Mode. Whenever the measured humidity falls below your set humidity, the fans will slowly decrease in speed until the fans stop. You may also hold the up and down button simultaneously to turn off this trigger, in which the digits under settings will show OFF.

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.

AUTO MODE: LOW HUMID.

In this mode, press the up or down button to set a low humidity trigger. The fans will activate if the probe's measured humidity falls below the humidity you have set in this mode. The activated fans will slowly increase in speed until it reaches the speed set in ON Mode. Whenever the measured humidity rises above your set humidity, the fans will slowly decrease in speed until the fans stop. You may also hold the up and down button simultaneously to turn off this trigger, in which the digits under settings will show OFF.



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.

PROGRAMMING

ALARM SETTING: HIGH TEMP.

In this settings mode, press the up and down button to set a high temperature alarm. The alarm will activate if the probe's measured temperature exceeds the temperature you have set in this mode. When the alarm triggers, the fan will start spinning gradually to max speed regardless of your other settings. You may also hold the up and down button simultaneously to turn off this alarm, in which the digits under settings will show OFF. You will need to be in AUTO, ON, or TIMER mode for this alarm to be able to activate.

Note that alarm triggers can only activate in AUTO, ON, or TIMER Mode. Please leave ALARM SETTING to arm the controller.

ALARM SETTING: LOW TEMP.

In this settings mode, press the up and down button to set a low temperature alarm. The alarm will activate if the probe's measured temperature falls below the temperature you have set in this mode. When the alarm triggers, the fan will start spinning gradually to max speed regardless of your other settings. You may also hold the up and down button simultaneously to turn off this alarm, in which the digits under settings will show OFF. You will need to be in AUTO, ON, or TIMER mode for this alarm to be able to activate.

Note that alarm triggers can only activate in AUTO, ON, or TIMER Mode. Please leave ALARM SETTING to arm the controller.

PROGRAMMING

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Note that alarm triggers can only activate in AUTO, ON, or TIMER Mode. Please leave ALARM SETTING to arm the controller.

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Note that alarm triggers can only activate in AUTO, ON, or TIMER Mode. Please leave ALARM SETTING to arm the controller.

PROGRAMMING

FAHRENHEIT OR CELSIUS

To change to displayed units between Fahrenheit and Celsius, set the controller to OFF Mode, then hold the up button for Fahrenheit (°F) or hold the down button for Celsius (°C).

DISPLAY BRIGHTNESS

To adjust the brightness of the display, set the controller to OFF Mode, then press the up or down button to increase or decrease the brightness level. Four brightness settings are available.

TEMPERATURE CALIBRATION

To adjust the temperature that the probe sensor is measuring, press the MODE and UP button simultaneously. This can be done while the controller is any mode or setting. The calibration cycle ranges from -8°F to 8°F (or -4°C to 4°C) and will be applied to the probe sensor's measurements.

HUMIDITY CALIBRATION

To adjust the humidity that the probe sensor is measuring, press the MODE and DOWN button simultaneously. This can be done while the controller is any mode or setting. The calibration cycle ranges from -8% to 8% and will be applied to the probe sensor's measurements.

CONTROLLER LOCK

To lock the controller to prevent settings to be changed accidentally, hold the LEAF button for two or more seconds. While the display is locked, you will not be able to switch modes or changes any settings. You will only be able to put the controller in ECO display by pressing the LEAF button. Holding the LEAF button for two or more seconds will unlock the controller.

ECO-MODE

The controller can be put into ECO display in which the screen will be turned off but all programs, settings, and alarms will be running in the background. This can be done by pressing the LEAF button. You may also do this while the controller is locked. To exit ECO display, simply press any buttons.

PROGRAMMING

ALERT ICONS

On the top left of the display is the alert icon section. Icons may flash when the controller wishes to alert you that a particular function or alarm is being triggered.

DISPLAY LOCK ALERT

This icon is visible when the controller has been locked. The icon will flash to alert you that the controller is locked if you try to change the mode or settings.

HUMIDITY ALARM ALERT

This icon will flash when the high or low humidity alarm that you have set has been triggered.

TEMPERATURE ALARM ALERT

This icon will flash when the high or low temperature alarm that you have set has been triggered.

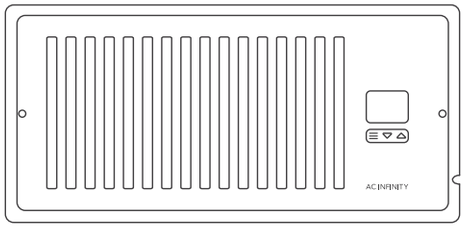
CHECK FAN ALERT

This icon will flash when the fan's sensor detects interference to its operation. Please check the fan for possible issues. If the fan is rotating, it may just be static pressure resistance and operating as intended. If the fan is not rotating, please see the warranty page for replacement information. (This feature is only available on certain model.)

AC INFINITY PRODUCTS

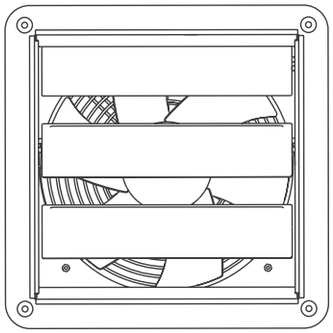
Register Booster Fans

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.



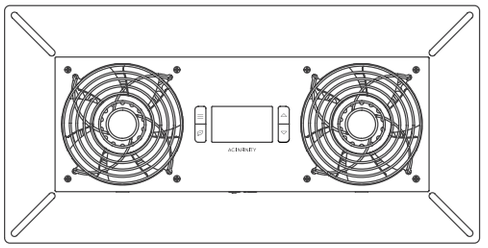
Shutter Fans

The AIRLIFT series is a line of shutter exhaust fans designed to expel heat, moisture, odor, and dust from spaces like greenhouses, garages, attics, and sheds. It features an intelligent controller that includes temperature and humidity programming, adjustable fan speed controls, a timer, and an alarm system.



Crawlspace Fans

The AIRTITAN is a line of weather-proof fans designed to provide ventilation, as well as odor and moisture control for crawl spaces and basements.



Discover the latest innovations in cooling and ventilation at acinfinity.com

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.

For more information about our dealers and distributors, please contact our customer service at support@acinfinity.com or (626) 923-6399 Monday to Friday (9:00 am to 5:00 pm PST).

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

www.acinfinity.com