AC INFINITY

CLOUDLINE SERIES

MIXED FLOW DUCT 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 CL1809X1

PRODUCT	MODEL	UPC-A
CLOUDLINE S4	AI-CLS4	819137020290
CLOUDLINE S6	AI-CLS6	819137020306
CLOUDLINE S8	AI-CLS8	819137020849
CLOUDLINE S10	AI-CLS10	819137020856
CLOUDLINE T4	AI-CLT4	854759004785
CLOUDLINE T6	AI-CLT6	854759004792
CLOUDLINE T8	AI-CLT8	819137020276
CLOUDLINE T10	AI-CLT10	819137020283

Fan units and controllers are not interchangeable between sizes. For example, the controller for CLOUDLINE T6 is not compatible with duct fan from CLOUDLINE T4 and S4. Please see page 20 for more information.

MANUAL INDEX

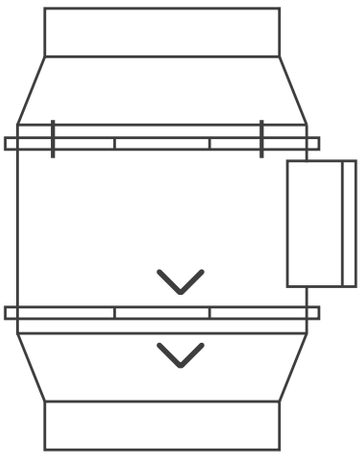
Manual Index ..... Page 5
Key Features ..... Page 6
Product Contents ..... Page 7
Installation ..... Page 9
Powering and Setup (S-SERIES) ..... Page 14
Powering and Setup (T-SERIES) ..... Page 15
Adding More Fans ..... Page 19
Cleaning ..... Page 20
Controller Programming (S-SERIES) ..... Page 22
Controller Programming (T-SERIES) ..... Page 23
Other AC Infinity Products ..... Page 31
Warranty ..... Page 32

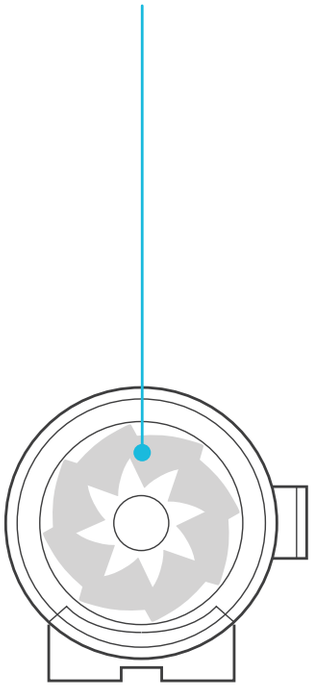
KEY FEATURES

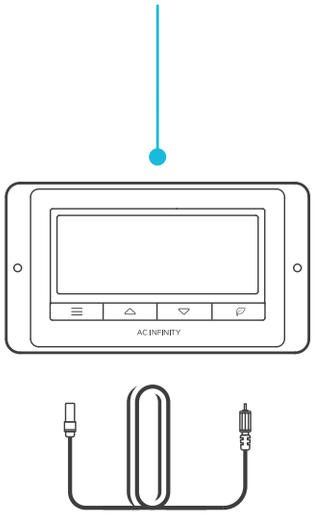
QUIET PWM MOTOR
PWM-controlled motor features precise speed control, reduced rotor noise, and energy efficient DC voltage.

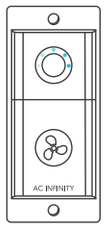
STATOR BLADE DESIGN
Hydro mechanical stator blades enables air flow to travel farther even in high static pressure environments.

UNIVERSAL CONTROLLER
LCD display with probe enables monitoring, thermal control, fan speed control, alarms, and SMART energy mode.









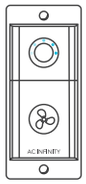
IP 44 PROTECTION
Fans are IP44 rated; is highly resistant to liquids and dust; able to withstand hot and humid environments.

DUAL BALL BEARINGS
Motor contains ball bearings rated at 67,000 hours. Also enable the duct fan to be mounted in any direction.

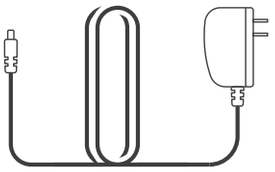
SPEED CONTROLLER
PWM-controller enables fan speed control without generating heat or noise. Eights speeds available.

PRODUCT CONTENTS

CLOUDLINE S-SERIES



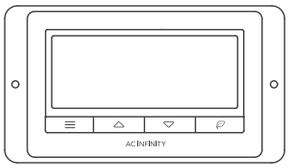
SPEED CONTROLLER (x1)



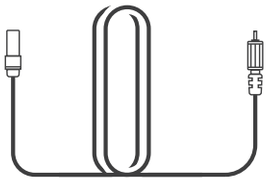
POWER ADAPTER (x1)

CONTROLLER SCREW SET (x2)

CLOUDLINE T-SERIES AC adapter for models CLT4 and CLT6 only

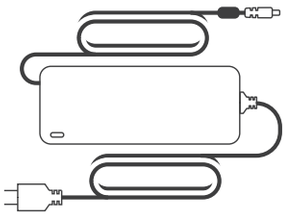


UNIVERSAL CONTROLLER (x1)



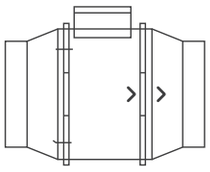
THERMAL PROBE (x1)

CONTROLLER SCREW SET (x2)

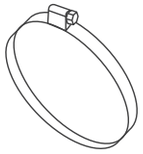


AC ADAPTER (x1)

CLOUDLINE S-SERIES // T-SERIES (Included in both series)



DUCT FAN SYSTEM (x1)



DUCT TUBE CLAMPS (x2)

DUCT FAN Wall Anchor (x4)

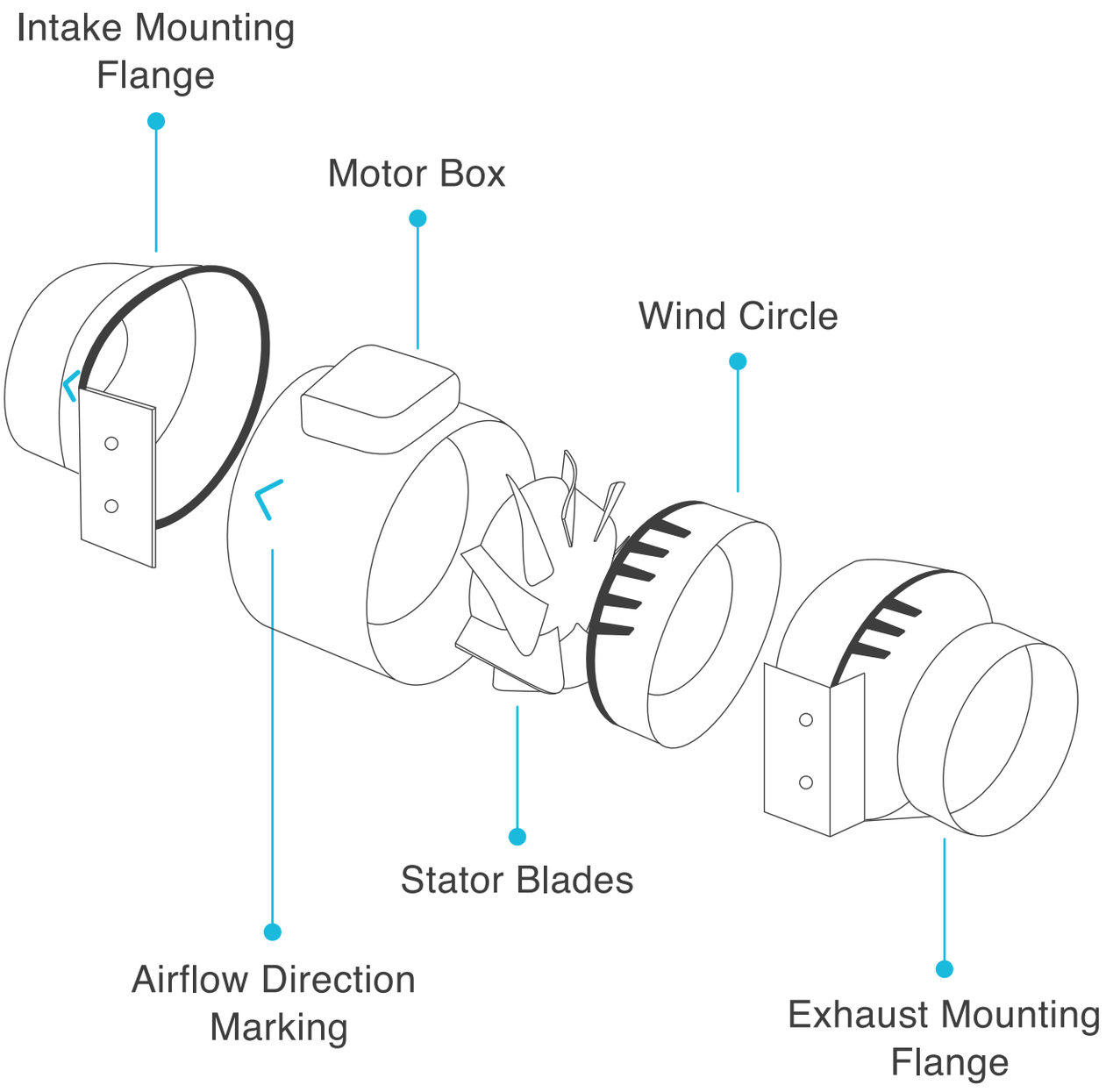
WIRE TIE (x6)

CABLE TIE MOUNT (x6)

WOOD SCREW (x6)

DUCT FAN SCREW SET (x4)

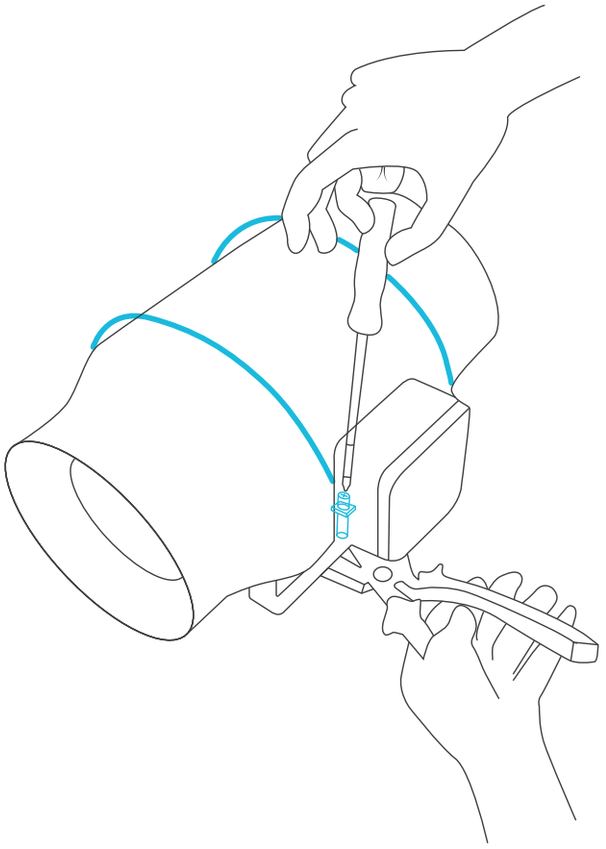
PRODUCT CONTENTS



INSTALLATION

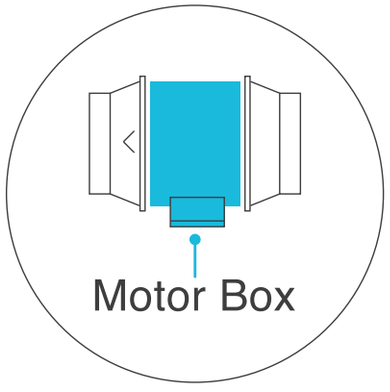
STEP 1

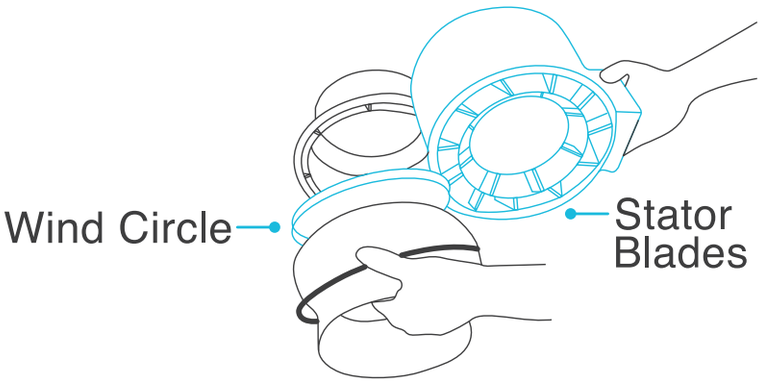
If your model has fixing clamps, use a phillips screw driver and pliers to unscrew the clamps. If your model has built in plastic clamps, pull on the buckle to release it.



STEP 2

After loosening the fixing clamps, carefully remove the motor box from the intake and exhaust mounting flanges. Also remove the wind circle found between the motor box and intake flange.

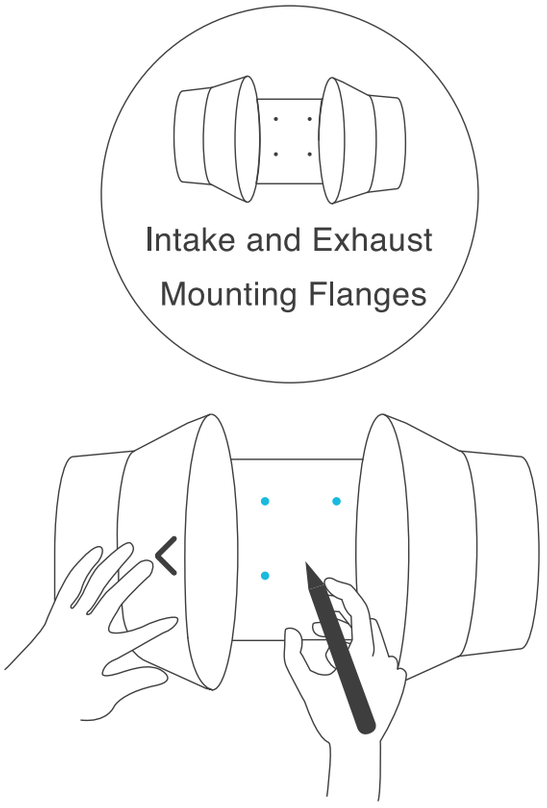




INSTALLATION

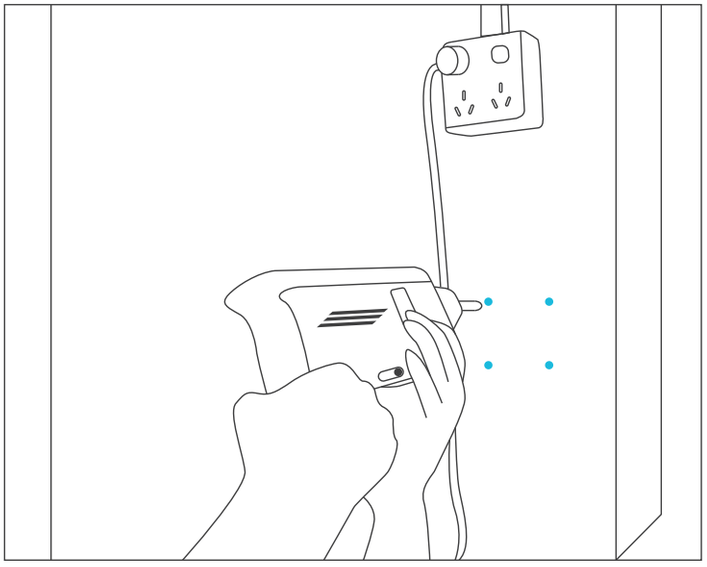
STEP 3

Use the intake and exhaust mounting flanges to position where you wish the mount the duct fan. Use a pen or pencil to mark the four mounting holes.



STEP 4

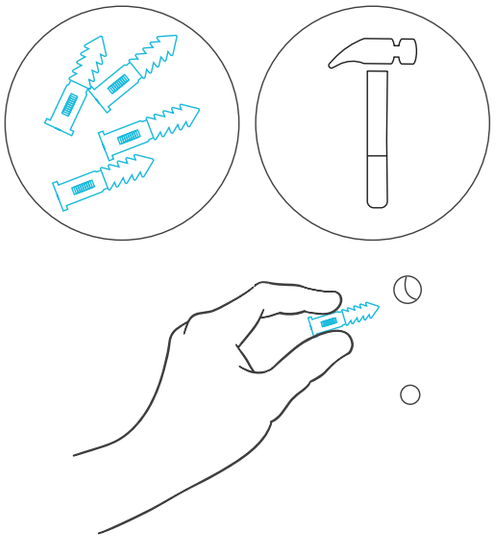
Double check to make sure the location is structurally sound and free from obstructions. Use a power drill to drill the four mounting holes.



INSTALLATION

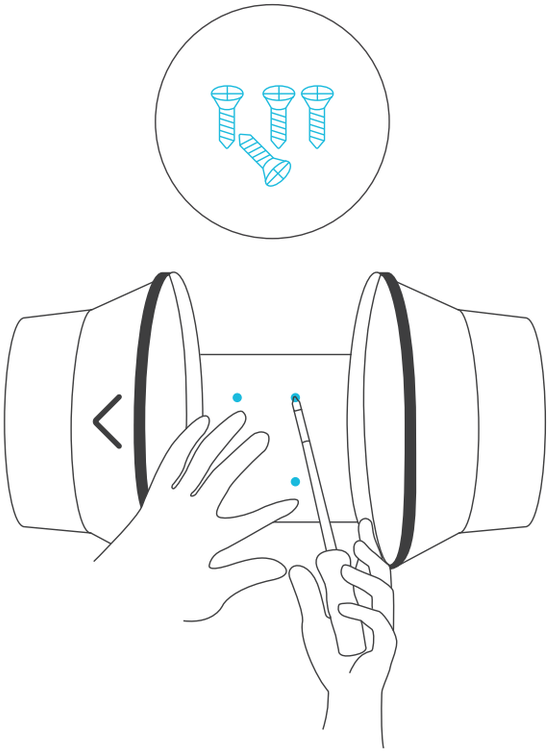
STEP 5

Insert the four wall anchors included with this product in each of the drilled mounting holes. You may need to use a hammer to secure them through the holes.



STEP 6

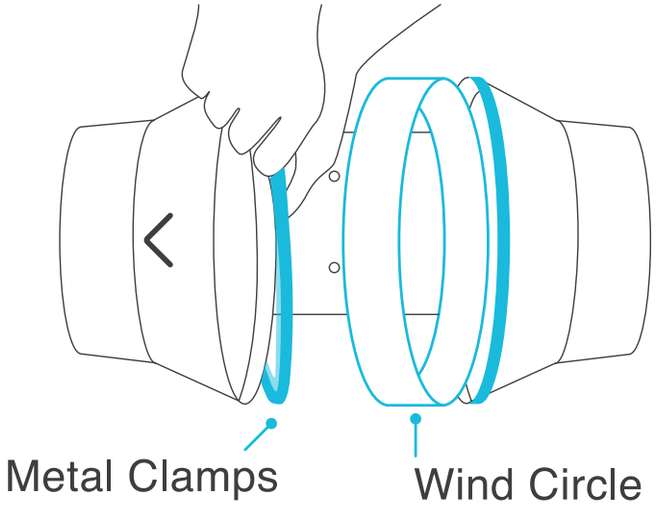
Position the mounting flanges and align the mounting holes with the wall anchors. Use a screw driver or drill to secure the four wood screws through the mounting frame and into the wall anchors. Please make sure the airflow direction marking is aligned with your intended direction.



INSTALLATION

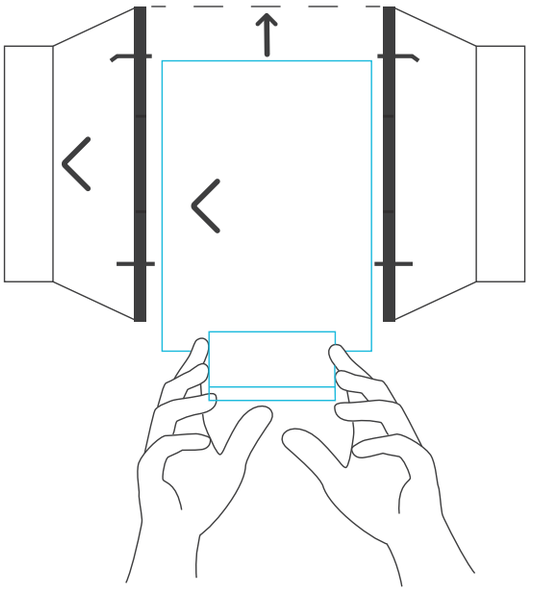
STEP 7

If your model has metal fixing clamps, position them back onto the input and exhaust flanges. Also, remember to position the wind circle back to the flange. Do not tighten the screws yet.



STEP 8

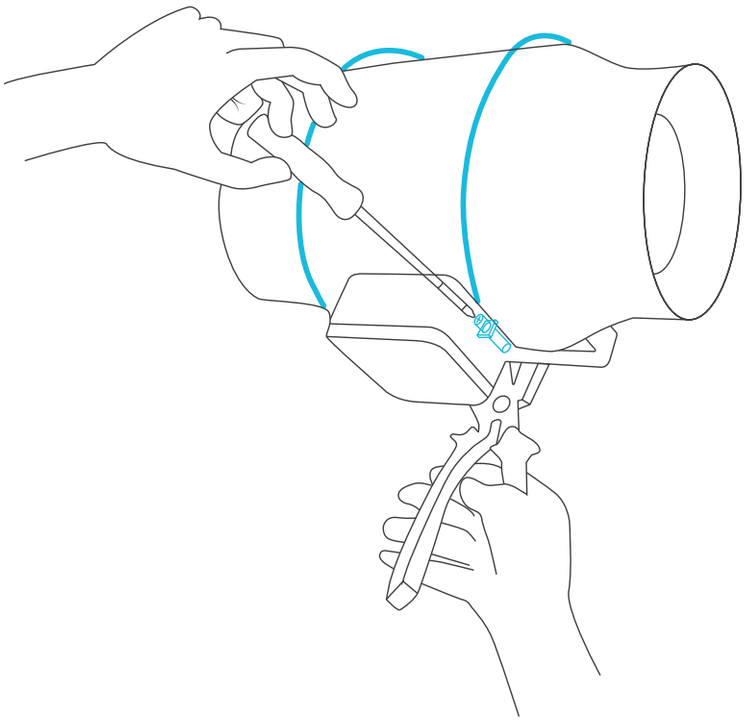
Secure the motor box back onto mounting flanges. Please make sure the airflow direction marking on the motor box matches the marking on the exhaust flange.



INSTALLATION

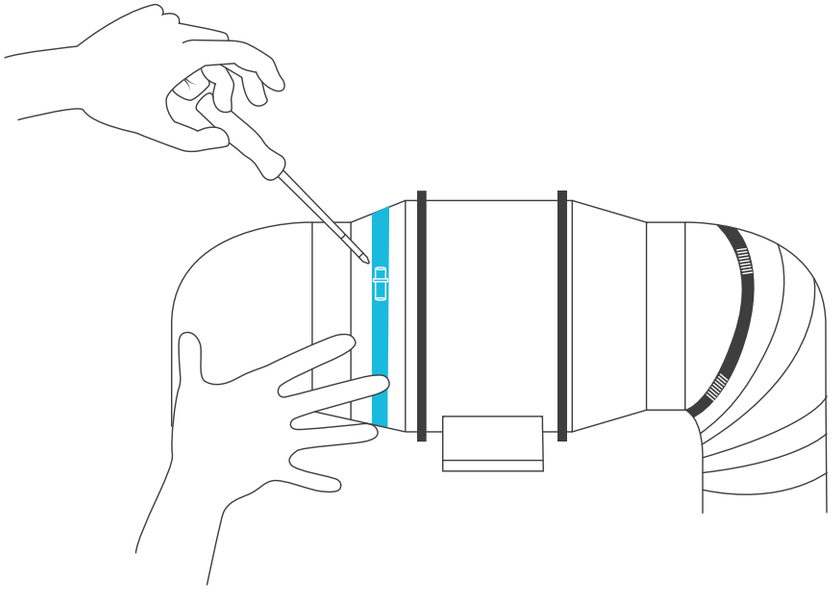
STEP 9

If your model has metal clamps, tighten the clamps using a phillips screw driver and pliers. If your model has plastic clamps, push the buckle back down to tighten.



STEP 10

If using a duct tube, position it to fully cover the hole of the exhaust or intake flange. Secure the fan included duct tube clamp over it and tighten with a flathead screw driver.

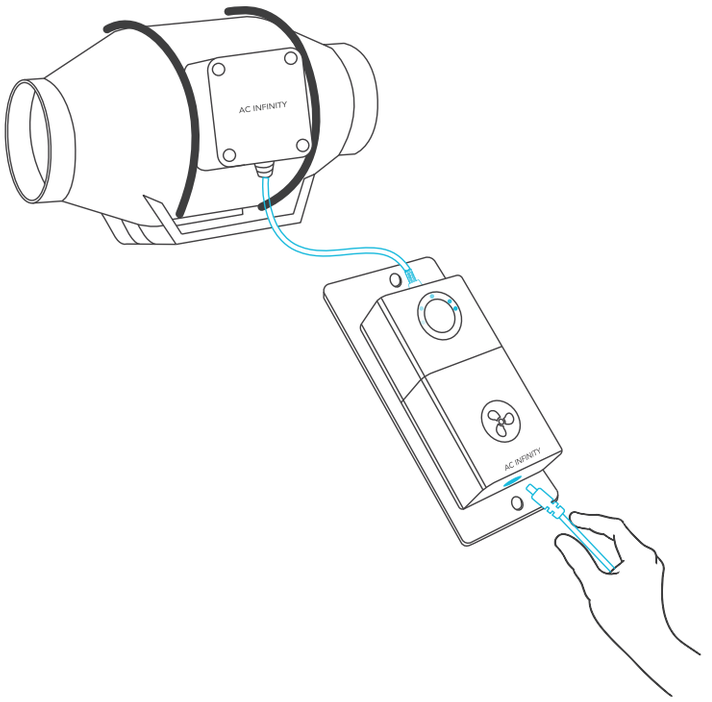


POWERING AND SETUP

S-SERIES

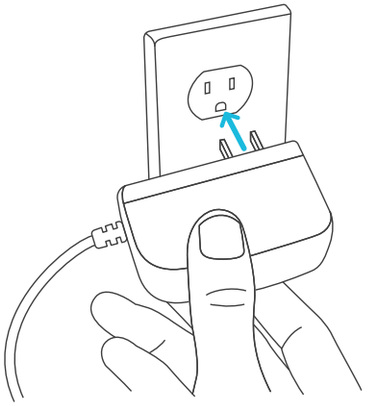
STEP 1

Connect the 4-pin molex cord from the fan to the top of the controller. Plug the DC connector of the power adapter to the bottom of the controller.



STEP 2

Lastly, plug the power adaper into an AC power outlet. The adapter is rated at 100 to 240V AC 50/60 Hz and a plug adapter can be attached to make it compatible to various outlet types. Note that S8 and S10 are EC models which can be powered directly through an outlet without an AC power adapter.

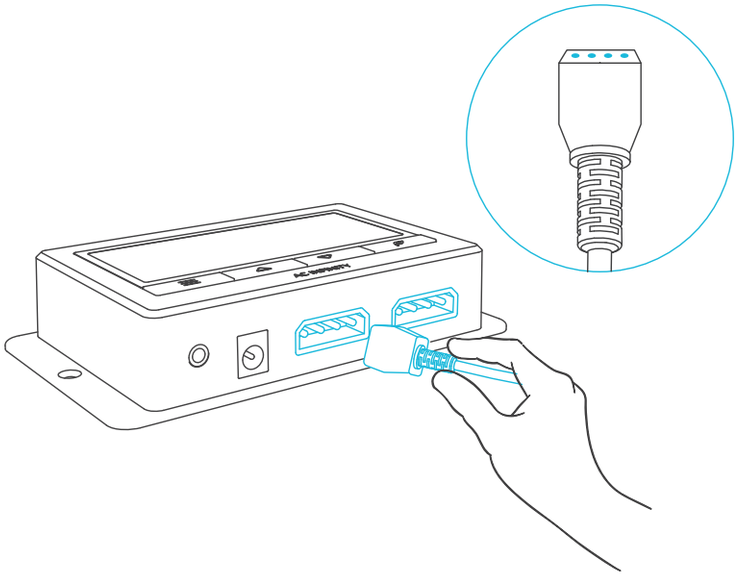


POWERING AND SETUP

T-SERIES

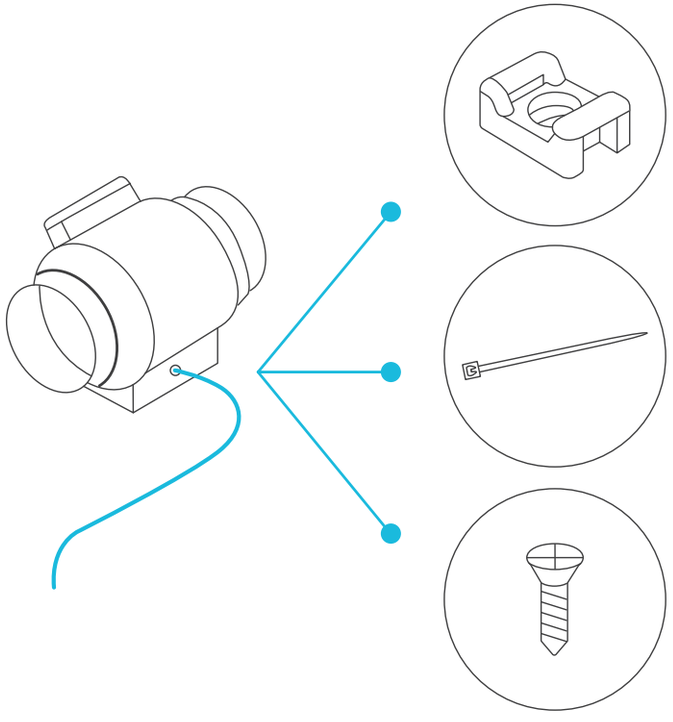
STEP 1

The duct fan unit comes corded with a 4-pin molex connector. Locate the connector and plug it into the bottom side of the universal controller.



STEP 2

Remember that cord length can be organized using the tie mount, wood screw, and wire tie included with your product. You can secure the tie mount onto a surface using the wood screw. Then wrap the wire tie around the powercord into the tie mount.

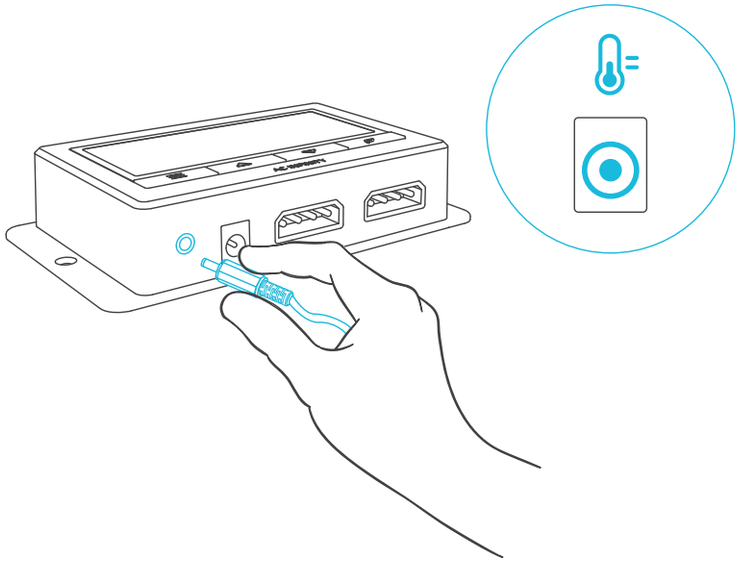


POWERING AND SETUP

T-SERIES

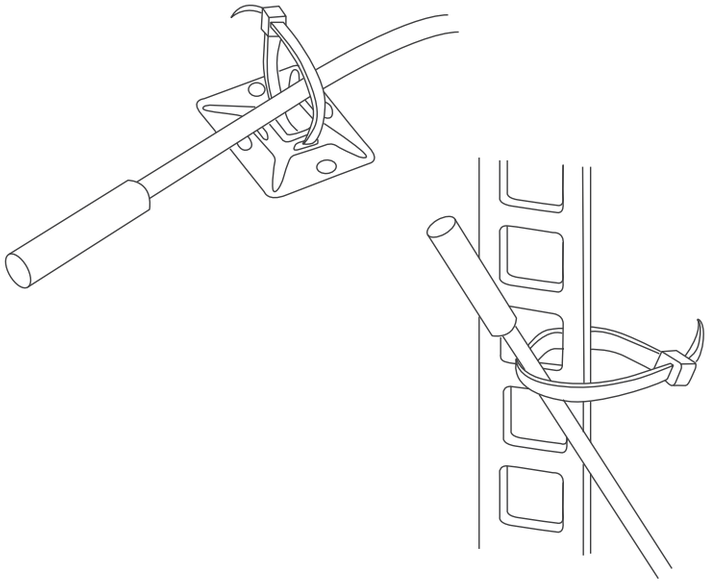
STEP 3

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



STEP 4

Secure the thermal probe head next your electrontics, preferably near the hottest device. You can use the wire tie to secure the probe onto a rack rail or the cable tie mount to a surface.

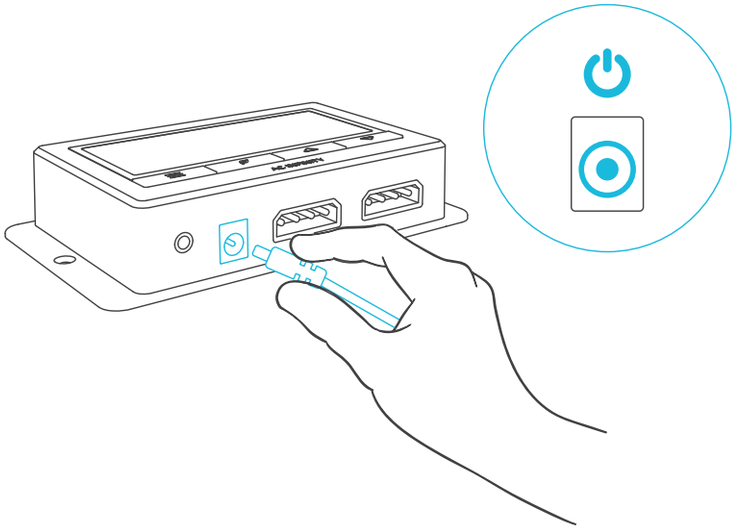


POWERING AND SETUP

T-SERIES

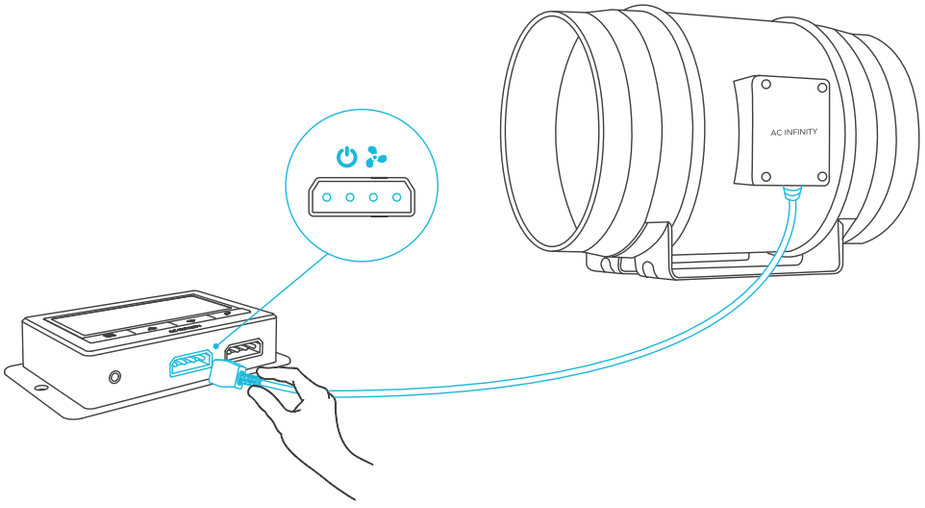
STEP 5 - T4 and T6

For models CLT4 and CLT6, plug the male connector of the corded power adapter into the designated power port located at the bottom side of the controller.



STEP 5 - T8 and T10

For models CLT8 and CLT10, 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.

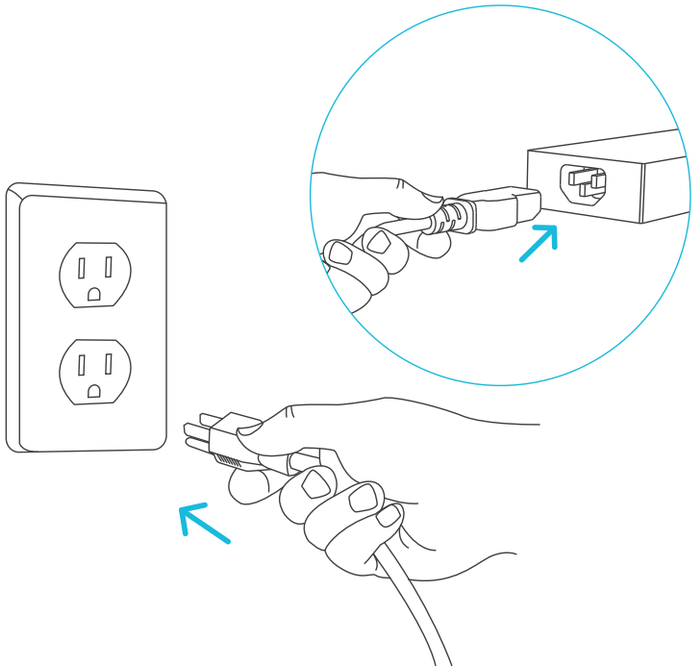


POWERING AND SETUP

T-SERIES

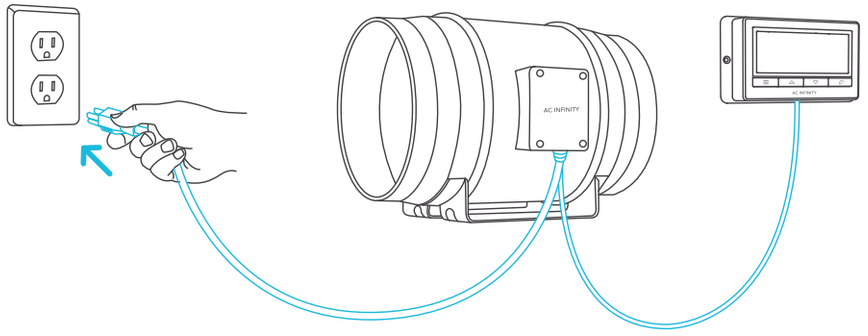
STEP 6 - T4 and T6

Lastly, plug in the female connector into the AC adapter. After that is secure, plug the other end of the connector into AC power outlet.

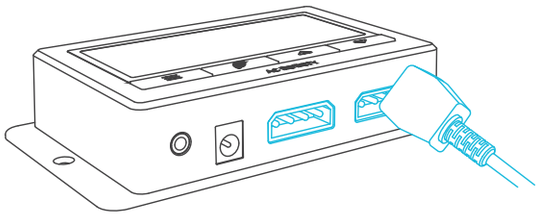


STEP 6 - T8 and T10

Lastly, to power both the fan and controller, plug the fans power cord into an AC power outlet.



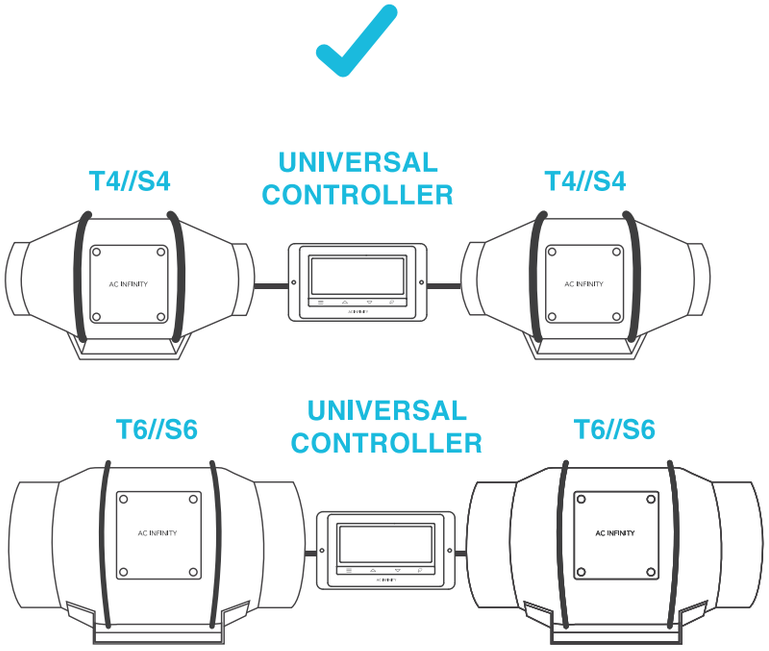
ADDING MORE FANS

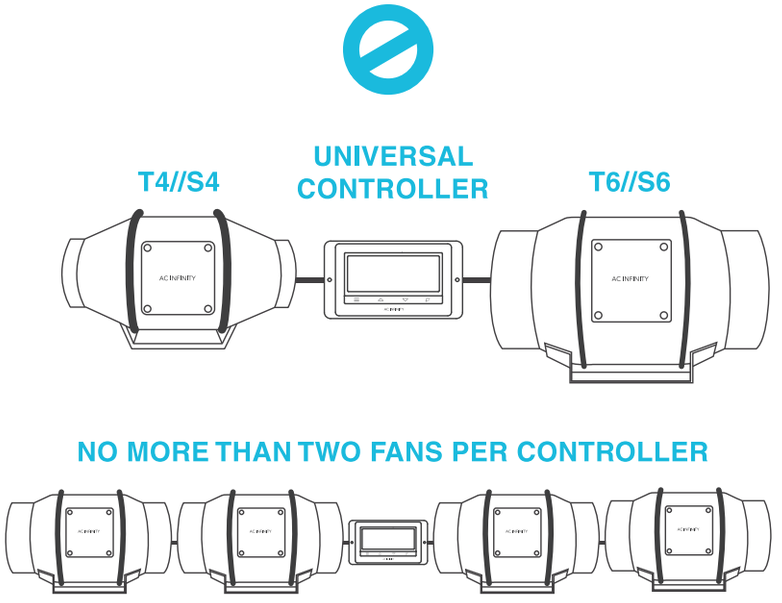


The universal controller for CLOUDLINE T4, T6, T8, and T10 contains an extra port so that another S-Series duct fan can be powered using the same controller. Please see below for limitations.

T-SERIES CONTROLLER

The CLOUDLINE T4, T6, T8, T10 thermal controllers can power up to two duct fans but they are not interchangeable. For example, the CLOUDLINE T4 can support only another S4 unit, and the CLOUDLINE T6 can support only another S6 unit, and a CLOUDLINE T8 can support another S8 unit. Mixing the controllers and fans such as using a CLOUDLINE T6 controller with a T4 or S4 duct fan will damage the units.

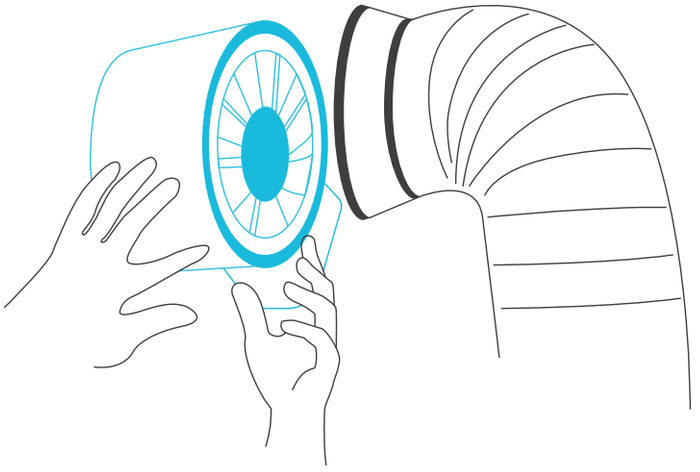




CLEANING

STEP 1

Remove the motor box from the mounting flange. Please refer to steps 1 and 2 on page 9 for more information on proper motor box removal.



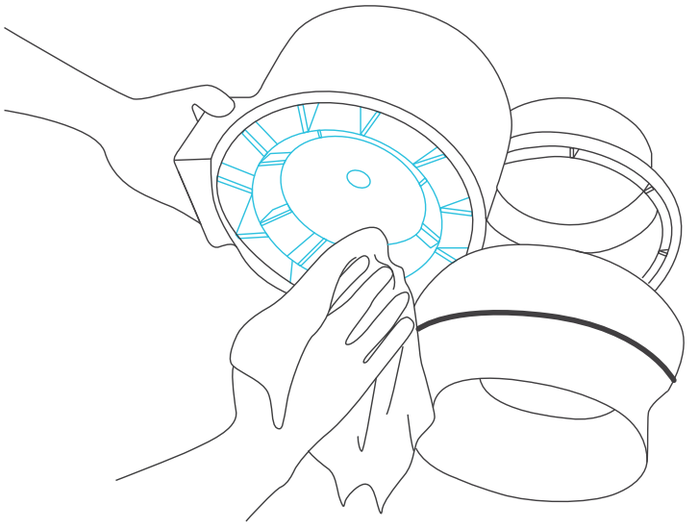
STEP 2

Use a damp cloth to clean the dust and dirt off the impellar and fan blades. Remove the wind circle that's between the motor box and input flange for cleaning.

CLEANING

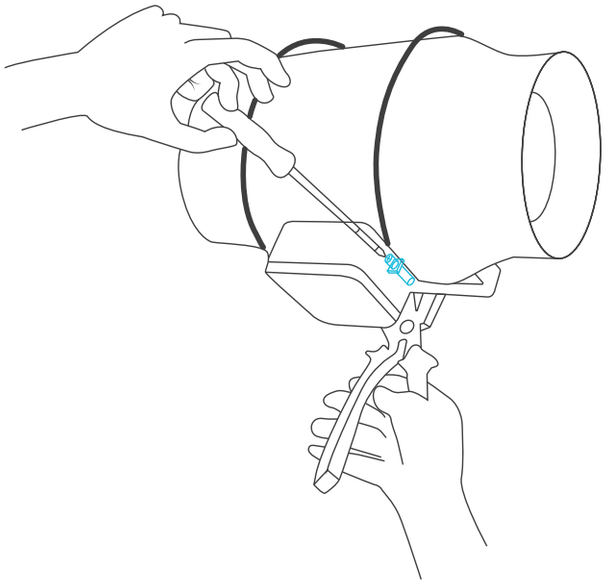
STEP 3

Clean the dust and dirt off the stator blades on the opposite side. Remember to clean the area inside the output and exhaust flanges.



STEP 4

Lastly, secure the motor box back onto the mounting flanges. Please refer to steps 7 through 9 on page 12 and 13 for more information on securing the motor box.

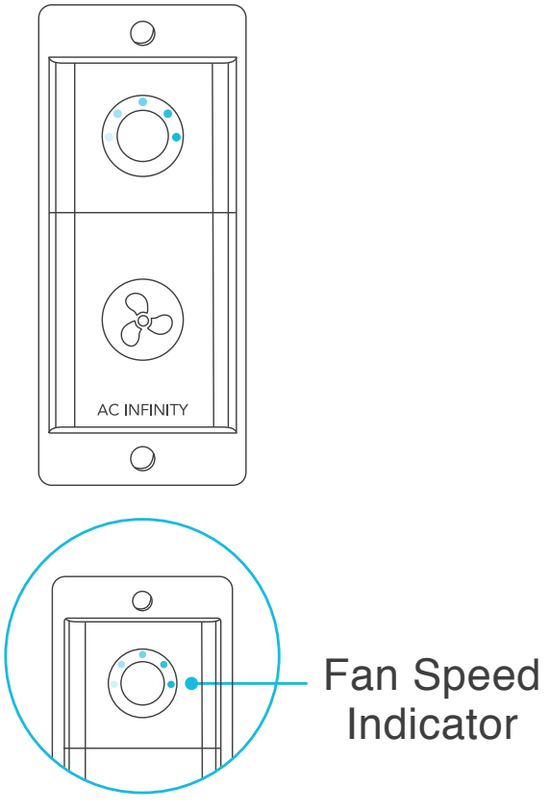


CONTROLLER PROGRAMMING

S-SERIES

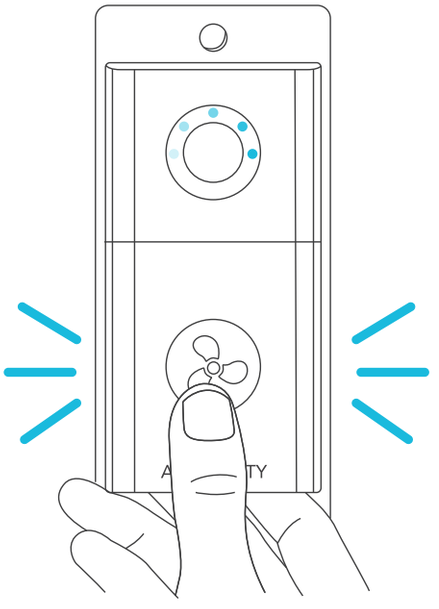
ADJUSTING FAN SPEED

The S-Series speed controller enables you to set the duct fan's speed. Press the speed button located on the controller to increase the fan speed by one increment. There are eight speeds available which will start over from zero if you press the speed button when it's at its max speed.



POWERING ON AND OFF

When the duct fan is running at any speed, holding the speed button for 3 or more seconds will turn the duct fan off. Pressing the speed button while the duct fan is off will turn it back on and the fan will start running at its last set speed.



CONTROLLER PROGRAMMING

T-SERIES

1. MODE BUTTON

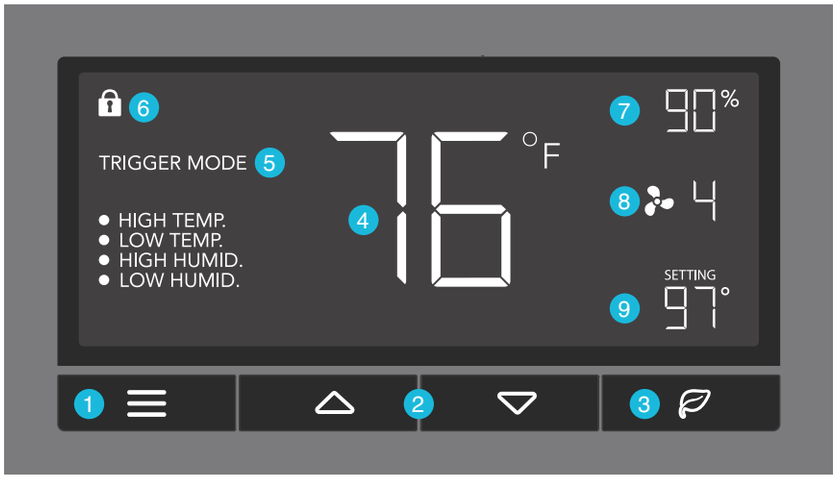
This button cycles through each of the controller's modes: ON, OFF, TIMER, AUTO (4 triggers), and ALARM (4 settings).

2. UP / DOWN BUTTON

The up and down buttons adjusts the settings of the mode that you are in. Up button increases and down button decreases.

3. LEAF BUTTON

This 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

This area displays the mode that the controller is currently in. Press the Mode Button to cycle through the modes.

6. ALERT ICONS

This area displays the alerts and statuses from the controller including alarms and 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. Press the up or down button to change.

CONTROLLER PROGRAMMING

T-SERIES

Press the mode button as shown on page 23 to cycle through the following modes

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. 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.

CONTROLLER PROGRAMMING

T-SERIES

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.

CONTROLLER PROGRAMMING

T-SERIES

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 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.

CONTROLLER PROGRAMMING

T-SERIES

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.

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.

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

CONTROLLER PROGRAMMING

T-SERIES

ALARM SETTING: HIGH HUMID.

In this settings mode, press the up and down button to set a high humidity alarm. The alarm will activate if the probe's measured humidity exceeds the humidity 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.

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

ALARM SETTING: LOW HUMID.

In this settings mode, press the up and down button to set a low humidity 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.

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

CONTROLLER PROGRAMMING

T-SERIES

FAHRENHEIT OR CELSIUS

To change to displayed units between Fahrenheit and Celsius, please 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, please set the controller to OFF Mode, then press the up or down button to increase or decrease the brightness level. Three brightness settings are available.

TEMPERATURE CALIBRATION

To adjust the temperature that the probe sensor is measuring, please 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, please 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.

CONTROLLER PROGRAMMING

T-SERIES

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.

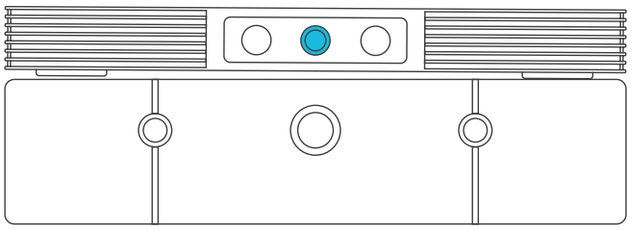
FAN FAILURE ALERT

This icon will flash when the controller sense that the fans have failed. Please note that not all controllers have this feature. Please see the warranty page for product replacement information.

AC INFINITY PRODUCTS

AIRCOM SERIES

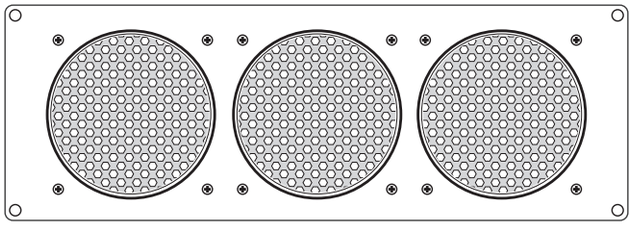
The AIRCOM component fan system cools receivers, amplifiers, and other AV components. S-Series models feature a thermal trigger and speed control. T-Series features a LCD digital display with thermal and speed control, alarm alerts, failure triggers, and backup memory.



PRODUCT	MODEL	DIMENSIONS
AIRCOM S6	AI-ACS6	11.6 x 6.3 x 1.5 in.
AIRCOM S7	AI-ACS7	11.6 x 6.3 x 1.5 in.
AIRCOM S8	AI-ACS8	17 x 13.5 x 1.5 in.
AIRCOM S9	AI-ACS9	17 x 13.5 x 1.5 in.
AIRCOM T8	AI-ACT8	17 x 13.5 x 1.5 in.
AIRCOM T9	AI-ACT9	17 x 13.5 x 1.5 in.

AIRPLATE SERIES

The AIRPLATE series is designed to cool home theater and audio video cabinets. The fans be powered by USB port or power outlet. Includes an inline speed controller and Boost Speed Adapter. The fans can also be temperature controlled with an Advance Thermal Controller (sold separately).



PRODUCT	MODEL	DIMENSIONS
AIRPLATE S1	AI-CFS80BA	4.6 x 4.6 x 1.3 in.
AIRPLATE S3	AI-CFS120BA	6.3 x 6.3 x 1.3 in.
AIRPLATE S5	AI-CFD80BA	8.4 x 4.4 x 1.3 in.
AIRPLATE S7	AI-CFD120BA	11.7 x 6.1 x 1.3 in.
AIRPLATE S9	AI-APS9	17.5 x 6.1 x 1.3 in.

WARRANTY

This warranty program is our commitment to you, the original purchaser, that each 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 from AC Infinity. 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.

If you are not 100% satisfied with this product, we will be happy to replace it or issue you a full refund. Please contact us!

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