CLOUDPLATE SERIES

AC INFINITY

WELCOME

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

EMAIL
support@acinfinity.com

WEB
www.acinfinity.com

LOCATION
Los Angeles, CA

MANUAL CODE CP2407X1

PRODUCT	MODEL	UPC-A
CONTROLLER 12	AI-CTB12	819137020047
CLOUDPLATE T1	AI-CPT1	854759004976
CLOUDPLATE T1-N	AI-CPT1-N	854759004983
CLOUDPLATE T2	AI-CPT2	854759004990
CLOUDPLATE T5	AI-CPT5	819137020009
CLOUDPLATE T6	AI-CPT6	819137020016
CLOUDPLATE T7	AI-CP2L	854759004501
CLOUDPLATE T7-N	AI-CP2H	854759004518
CLOUDPLATE T9	AI-CPT9	819137020023
CLOUDPLATE T9-N	AI-CPT9-N	819137020030
CLOUDPLATE T12	AI-CPT12	819137020054
RACK ROOF FANS	AC-RRF7	819137020061

MANUAL INDEX

PRODUCT WARNING

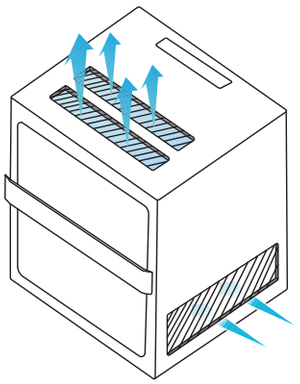
TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS, OBSERVE THE FOLLOWING:

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

RACK COOLING GUIDE

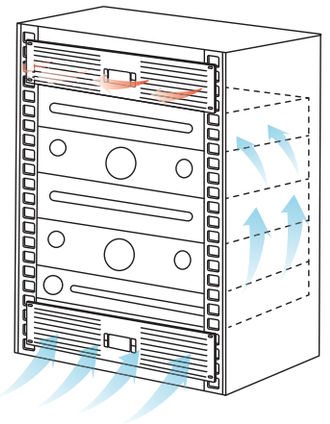
ACCESS TO OUTSIDE AIRFLOW

For the fan system to work properly, the rack fan must have access to outside air. It can be ventilation holes on the rack or on the cabinet if it's holding an open frame rack. The holes allow the rack fan to exhaust warm air and intake cool air.



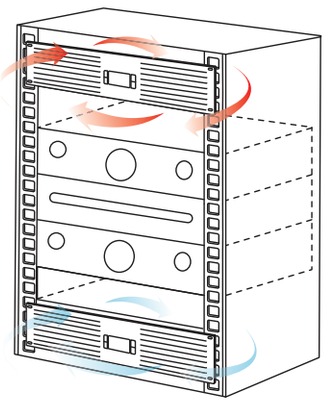
INTAKE AND EXHAUST

All rack fan systems should contain an intake and exhaust variable. To assist with natural convection, position fans near the top of the rack configured to exhaust out the warm air and fans near the bottom to push in cool air.



OPTIMIZING AIRFLOW

To optimize airflow circulation, we recommend using blank panels to fill the empty spaces on the rack. This increases the efficiency of the fan systems by preventing warm air from escaping midway and being recycled back into the rack.

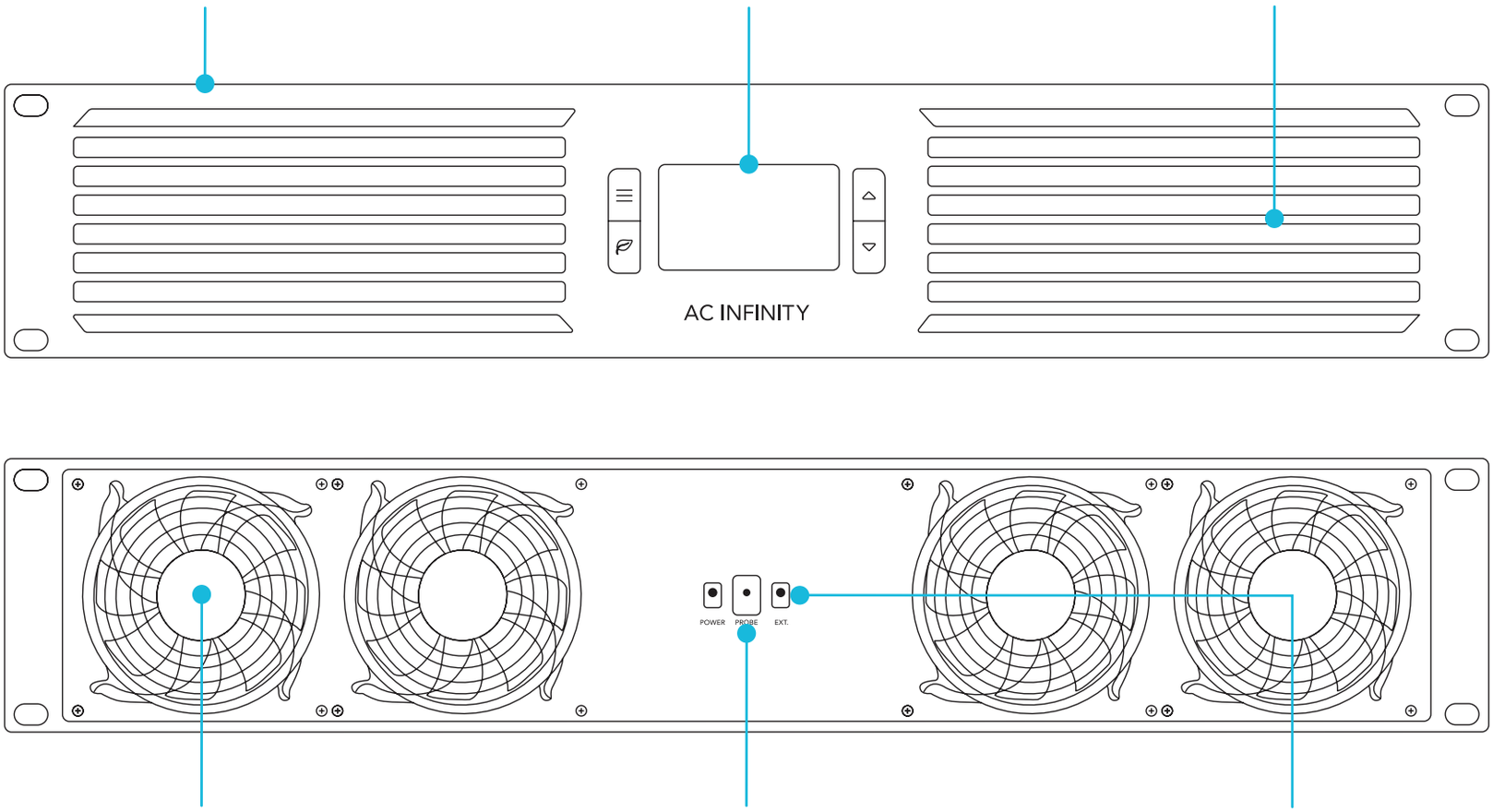


KEY FEATURES

ALUMINUM FRAME
Features an aluminum frame with a brushed black finish and CNC machined corners give cabinets a clean look.

SMART CONTROLLER
LCD display enables temp monitoring, thermal control, speed control, alarms, and SMART energy mode.

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



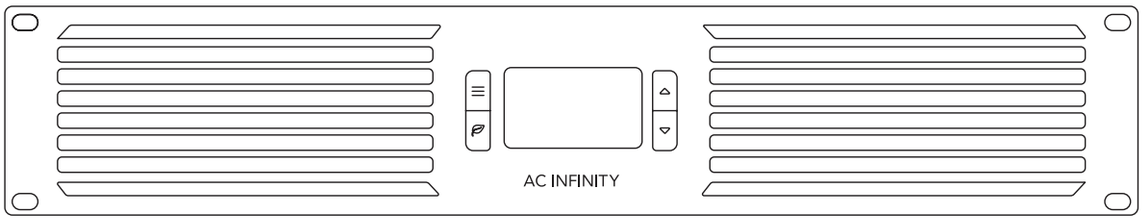
DUAL BALL BEARINGS
Fans contain long-life ball bearings rated at 67,000 hours. Also enables fans to be mounted in any direction.

THERMAL PROBE
The corded precision sensor probe constructed of stainless steel ensures an accurate temperature reading.

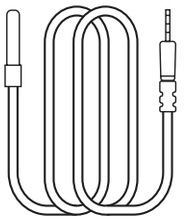
EXPANSION PORTS
Each unit contains a DC connector port which can be used to control another rack fan unit or rack roof fan kit.

PRODUCT CONTENTS

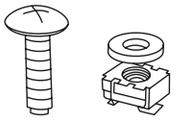
CLOUDPLATE T1	AI-CPT1
CLOUDPLATE T1-N	AI-CPT1-N
CLOUDPLATE T2	AI-CPT2
CLOUDPLATE T5	AI-CPT5
CLOUDPLATE T6	AI-CPT6
CLOUDPLATE T7	AI-CP2L
CLOUDPLATE T7-N	AI-CP2H
CLOUDPLATE T9	AI-CPT9
CLOUDPLATE T9-N	AI-CPT9-N



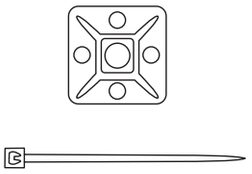
COOLING
FAN UNIT
(x1)



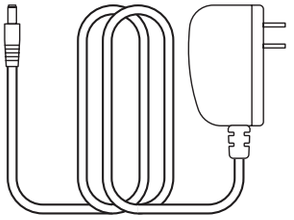
SENSOR
PROBE
(x1)



MOUNTING
SCREWS
(x4)



WIRE
TIES
(x1)



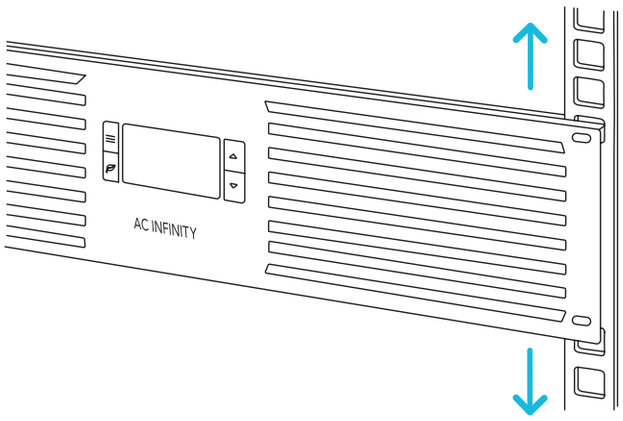
POWER
ADAPTER
(x1)

RACK ROOF FANS	AC-RRF7	Roof Fans + Screws + Power Adapter + Speed Controller
CONTROLLER 12	AI-CTB12	Controller + Probe + Screws + Power Adapter
CLOUDPLATE T12	AI-CPT12	Controller + Probe + Roof Fans + Screws + Adapter

INSTALLATION

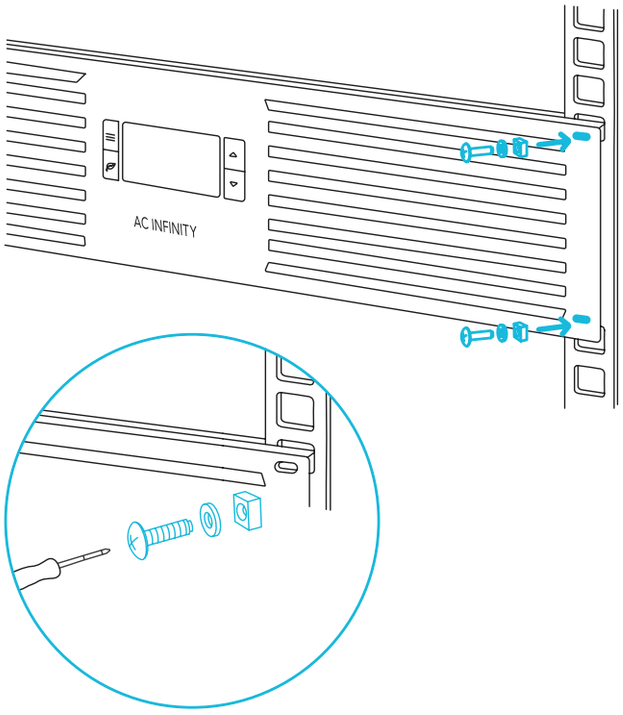
STEP 1

Position the rack fan unit to your desired mounting location on your rack. Refer to the Rack Cooling Guide section for suggested fan placements.



STEP 2

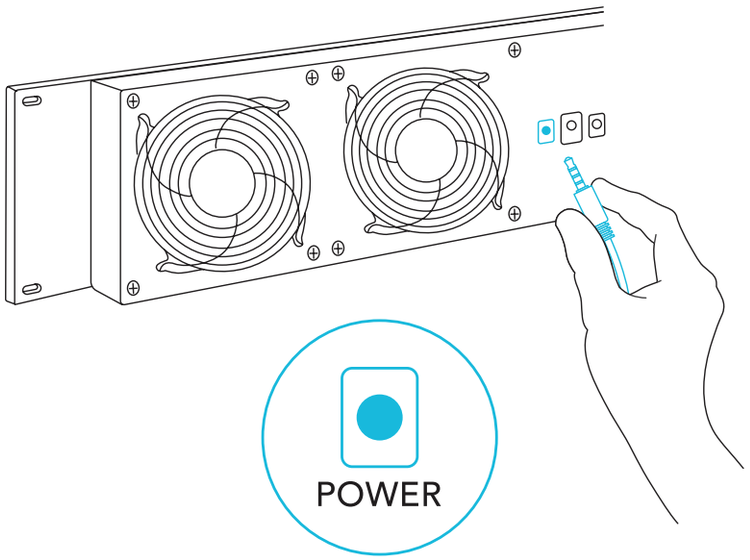
Mount the rack fan unit to your rack using the included mounting hardware and a screwdriver. Use cage nuts if necessary.



INSTALLATION

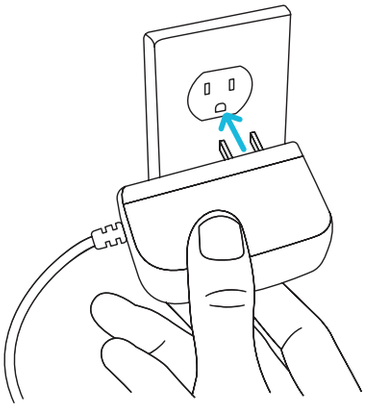
STEP 3

Plug in the DC connector to the POWER port on the backside of the rack fan unit.



STEP 4

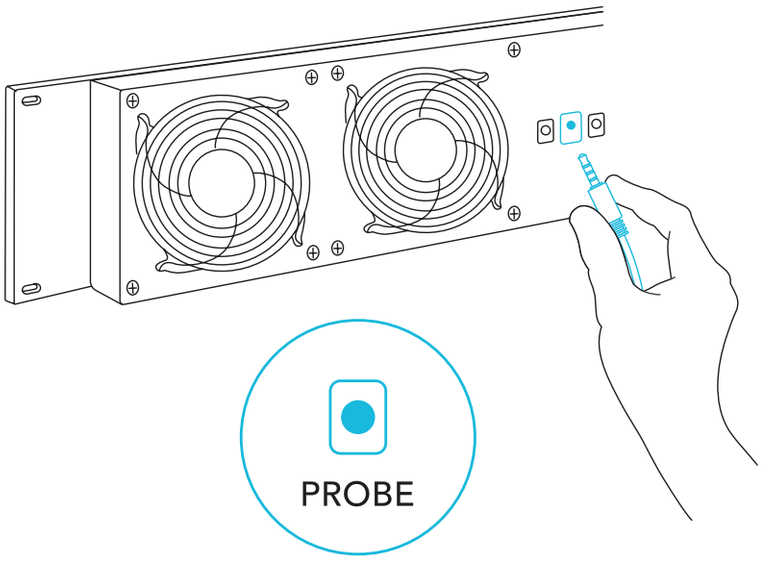
Plug the AC power adapter into a standard power outlet. Check to see if the LCD screen is displaying content. The probe's temperature reading will not be displayed until the probe is connected.



INSTALLATION

STEP 5

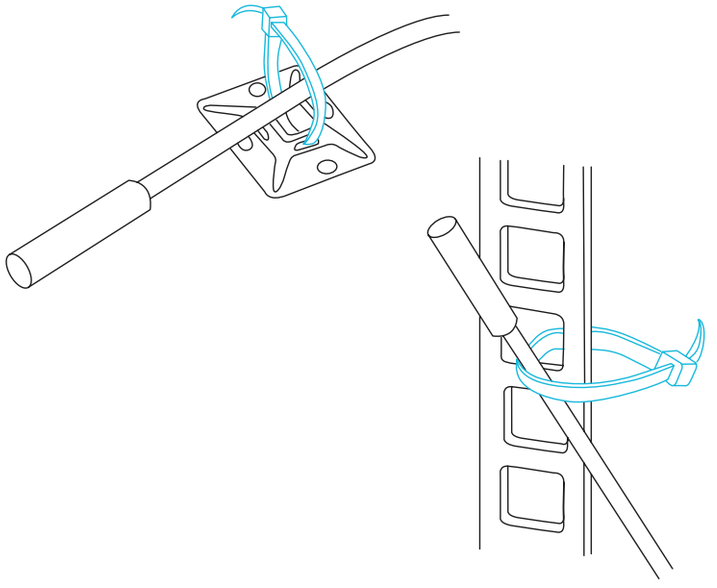
Plug the thermal probe into the PROBE port on the backside of the rack fan unit. Check to see if the LCD screen is displaying the probe's temperature reading.



STEP 6

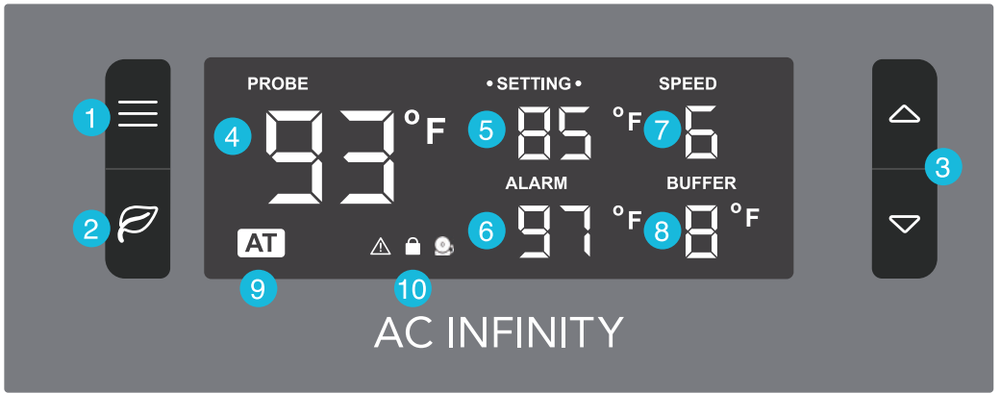
Set the head of the probe near your hottest rack equipment and away from any fans. This is to ensure your rack fan unit is accurately detecting the internal temperature.

Secure the probe onto your rack using the included wire ties.

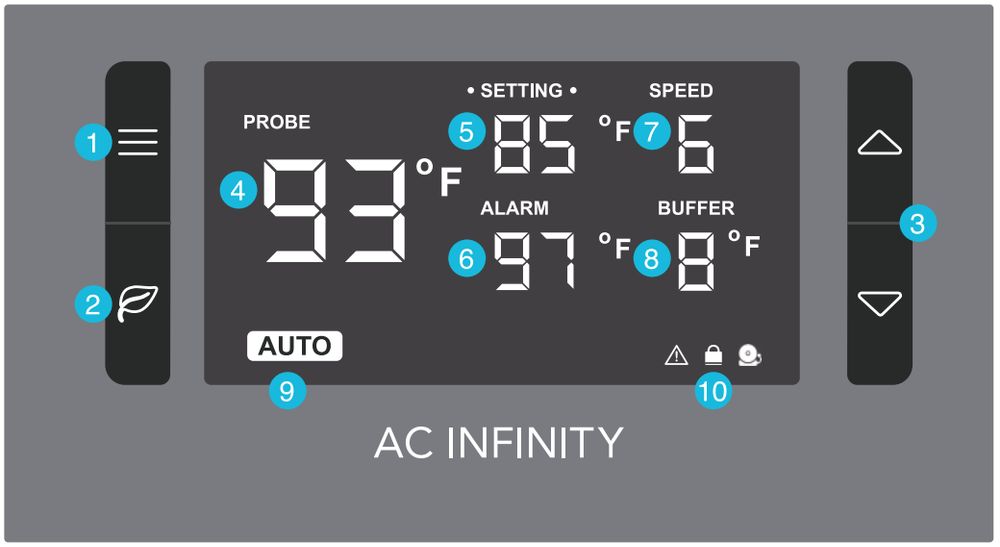


PROGRAMMING

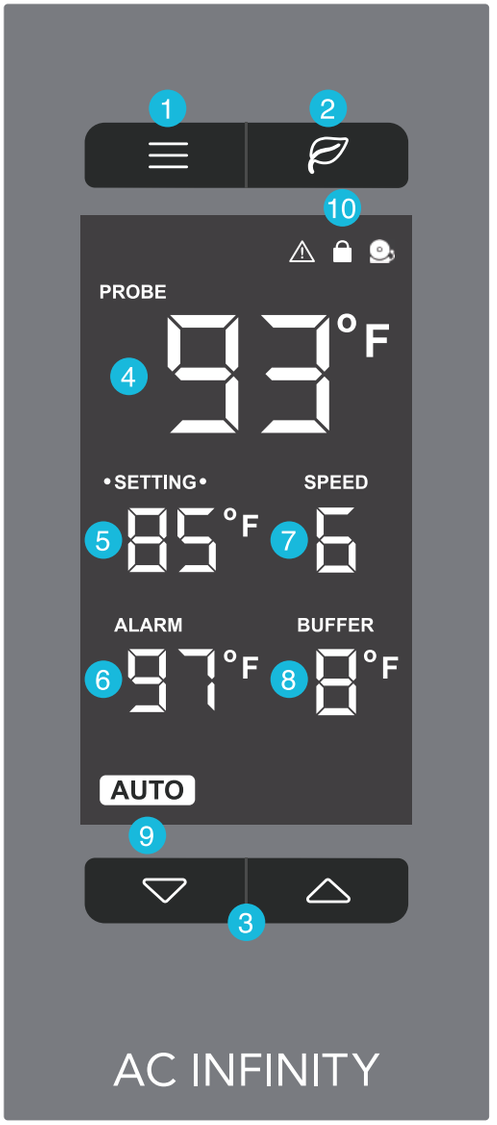
CONTROLLER 12, CLOUDPLATE T1, CLOUDPLATE T1-N CLOUDPLATE T2, CLOUDPLATE T5, CLOUDPLATE T6 CLOUDPLATE T12



CLOUDPLATE T7, CLOUDPLATE T7-N



CLOUDPLATE T9, CLOUDPLATE T9-N



PROGRAMMING

1. MODE BUTTON
Cycles through the controller's five modes: AUTO, SMART, SPEED, ALARM, and BUFFER. Holding the mode button for three seconds will lock or unlock the display.

2. LEAF BUTTON
Turns the screen off while programs run in the background. Holding this button for three seconds will switch the temperature scale between Fahrenheit and Celsius.

3. UP / DOWN BUTTON
Adjusts the settings of the mode that you are in. Up button increases and down button decreases.

4. PROBE TEMP.
Displays the current temperature that the corded sensor probe is measuring. Shows "—" if no probe is plugged in.

5. SETTING TEMP.
Displays the temperature set for AUTO and SMART mode, which shares the same temperature setting.

6. ALARM TEMP.
Displays the temperature set for the fan's alarm system.

7. FAN SPEED
Displays the current fan speed, ranging from 0-6. Pressing the up and down buttons will adjust this setting.

8. BUFFER
Displays the buffer range set for AUTO and SMART mode.

9. MODE
Displays the mode that the controller is currently in. Pressing the mode button cycles through the modes.

10. ALERT ICONS
Displays the check fan, alarm, and display lock icons. These icons will flash and beep when its corresponding function is triggered.

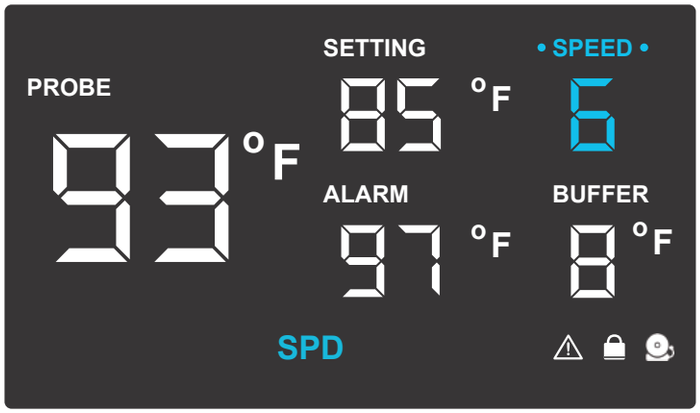
PROGRAMMING

QUICK START

Press the MODE button until you are on AUTO mode. This mode works like a thermostat. Press the up and down triangle buttons to change the SETTING temperature on the screen. The PROBE temperature is what the thermal probe is measuring. When the PROBE temperature exceeds the SETTING temperature, the fans will start running.

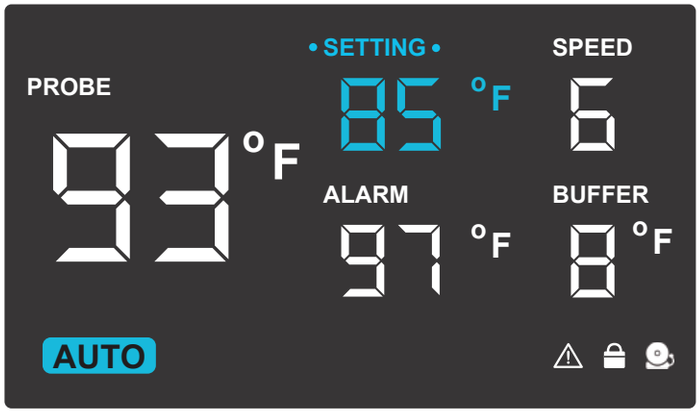
SPEED SETTING

In this mode, the fans will run continuously regardless of the temperature. Use this mode to set the fan's maximum blowing strength, ranging from 0-6, in AUTO mode and SMART mode.



AUTO MODE

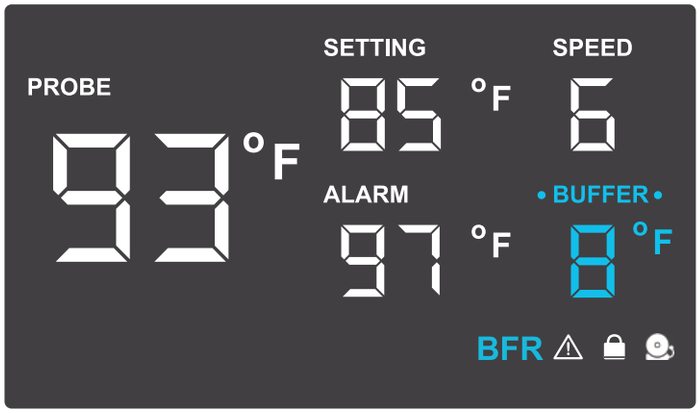
In this mode, the fan will start running when the probe temperature meets or exceeds the set temperature. Press the up and down buttons to set the temperature at which the fan starts spinning. The fan will stop running when the probe temperature falls below the setting temperature by at least 2°F (1°C). See the next page for more information on this buffer.



PROGRAMMING

BUFFER SETTING

Pressing the up and down button sets the buffer that creates a temperature range between each speed level. The buffer can be set in 2°F, 4°F, 6°F, or 8°F (1°C, 2°C, 3°C, or 4°C) increments. This prevents the fan from haphazardly turning on/off or changing speeds due to small changes in temperature.

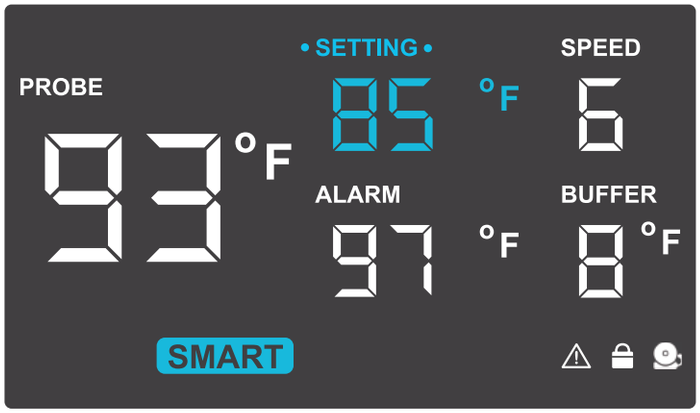


SMART MODE

In this mode, the fans will change speeds depending on the probe temperature to conserve energy.

Pressing the up and down buttons will adjust the set temperature. The fan speed steps down for every 2°F (1°C) increment the probe reading is below the set temperature, and vice versa.

This increment can be adjusted in the buffer setting, while the maximum fan speed can be set in the speed mode.

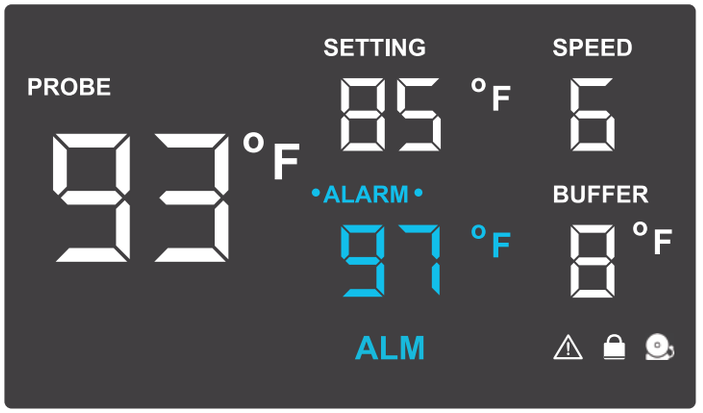


PROGRAMMING

ALARM SETTING

Pressing the up and down button sets a high temperature alarm. If the probe's reading exceeds the set temperature, the alarm will sound, its icon will flash, and the fan will run at max speed regardless of fan speed settings in other modes.

To activate the alarm, leave the alarm mode. The alarm will turn off if the probe's reading falls below the set temperature or if any button is pressed. You can also disable the alarm by cycling the temperature setting until it displays OFF.



PROGRAMMING

FAHRENHEIT OR CELSIUS

To switch between Fahrenheit and Celsius readings, hold the LEAF button until the scale switches between °F and °C. Digits displayed will convert to the designated scale as well.

DISPLAY BRIGHTNESS

To adjust the brightness of the display, hold the MODE button while pressing the up or down button to increase or decrease the brightness level. The brightness range is 1/2/3.

CONTROLLER LOCK

To lock the controller and prevent accidental setting changes, hold the LEAF button for three or more seconds. While the display is locked, you will not be able to switch modes or adjust settings. You will only be able to put the controller in ECO display. Holding the LEAF button for three or more seconds will unlock the controller.

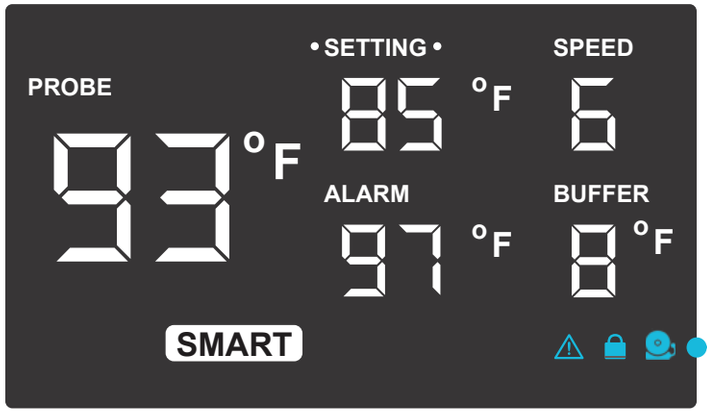
ECO-DISPLAY

To turn off the LCD display, press the LEAF button. While the screen is off, all programs, settings, and alarms will run in the background. You can activate ECO Mode while the controller is locked. To exit ECO Mode, press any button.

PROGRAMMING

ALERT ICONS

The bottom right of the display shows the alert icons. Icon placement will differ between models. Icons may flash when the controller signals an alert to tell you if a function or alarm is being triggered.



CHECK FAN ALERT

This icon will flash when the fan's probe senses interference to its functioning. Check the fan for possible issues. If the fans are not spinning, please see the warranty page for replacement information.

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.

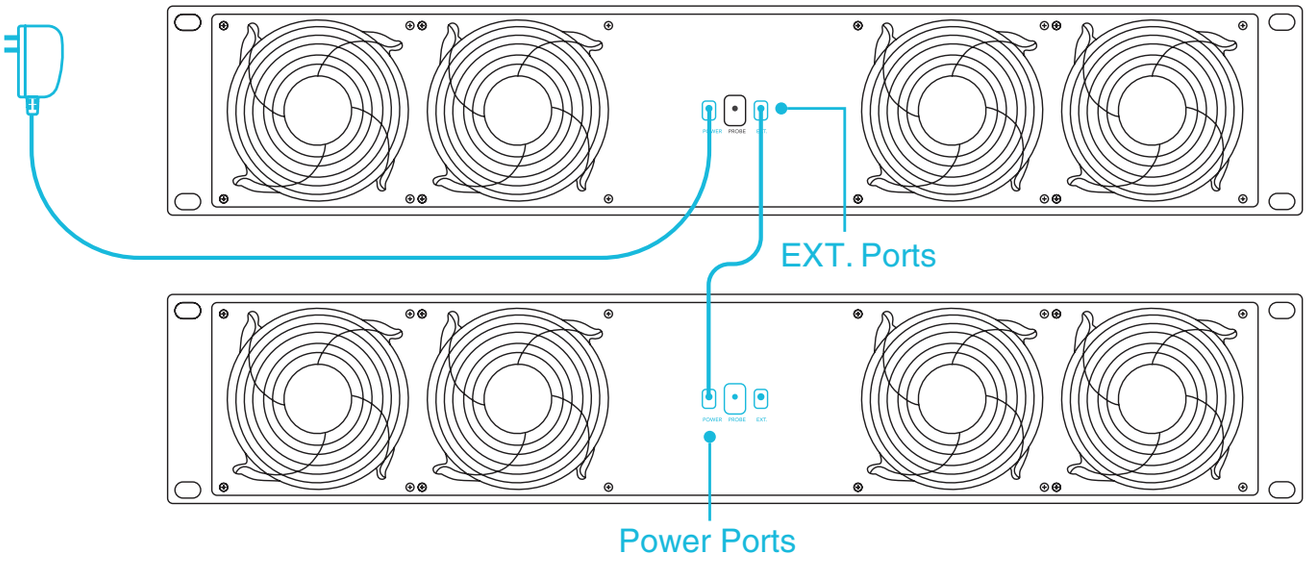
ALARM ALERT

This icon will flash when the high temperature alarm has been triggered.

ADDING MORE FANS

CLOUDPLATE SERIES

The extension (EXT) port allows you to connect an additional unit (secondary), which can be controlled using the parent unit (primary) and will share the same temperature control settings. To sync the two CLOUDPLATE fans' settings, set the secondary unit's fan speed to max, turn off its alarm setting and leave it in SPEED mode.



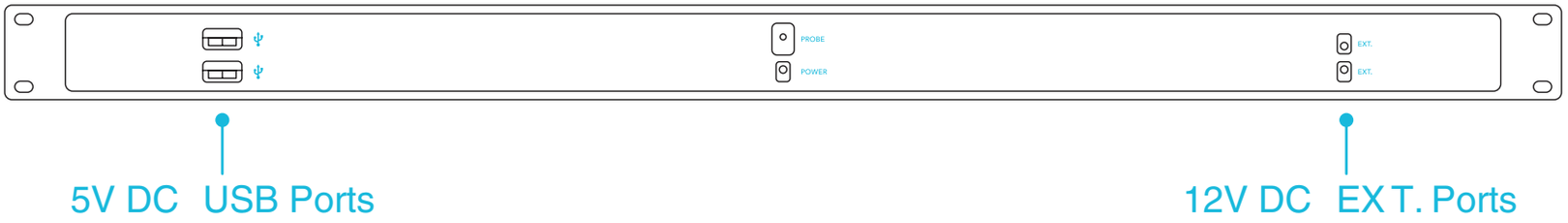
To daisy chain two units together, plug in a daisy chain cord (sold separately) into the primary unit's EXT port. Plug the cord's other end into the secondary unit's power port.

Your parent unit will override all on-board settings, assume control (parameters must be adjusted on your parent unit), and shut off your secondary unit's display when connected in this manner.

ADDING MORE FANS

CONTROLLER 12

CLOUDPLATE fans can also be controlled using the CONTROLLER 12 rack cabinet unit. All CLOUDPLATE fan units (secondary) must set their fan speeds to max, disable their alarms, and left on SPEED mode, and be connected to the 12V DC EXT ports in order to be controlled by the CONTROLLER 12 (primary).

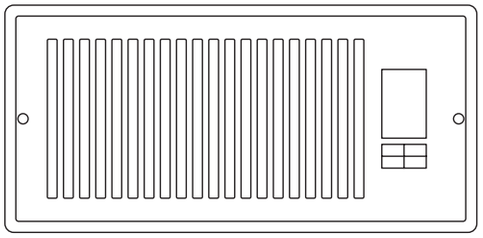


The two 5V DC USB ports are used to support AIRPLATE cabinet fans and MULTIFAN component USB fans. Connected units (secondary) must have their fan speed set to max in order to be controlled by the CONTROLLER 12 (primary). No settings are required if the USB fans are not equipped with a speed controller.

AC INFINITY PRODUCTS

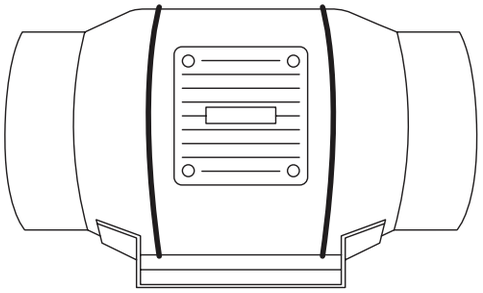
Register Booster Fans

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.



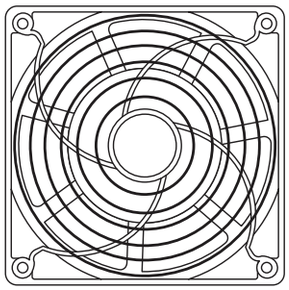
Duct Fans

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.



Project Muffin Fans

The AXIAL series fan kit is designed for various DIY projects for require cooling or ventilation purposes, or to replace fans in existing products on the market. Each fan kit includes fan guards, power cables, and everything you need to mount the fan. S-Series models include a speed controller.



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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. Commercial grow lights sold by AC Infinity receive a five year warranty period. 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 (five years from the date of purchase of commercial grow lights). If your product becomes defective during that period, AC Infinity will replace your product with a new one or issue you a full refund.

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

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

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

www.acinfinity.com