AC INFINITY

# SMART OUTLET ENVIRONMENTALLY CONTROLLED

**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 SOT2207X1

#### PRODUCT

CONTROLLER 79 CONTROLLER 75 MODEL CTR79A CTR75A UPC-A 819137023680 819137022508

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### **PRODUCT WARNING**



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

- 1. Ensure your power source conforms to the electrical requirements of this product.
- Check your local code restrictions for additional safety measures that may be needed for a proper code compliant installation.
- 3. Read all instructions before installing and using this product.
- 4. When cutting or drilling into a wall or ceiling, do not damage electrical wiring and other hidden utilities.
- 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.
- 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.
- This product must not be used in potentially hazardous locations such as flammable, explosive, chemical-laden or wet atmospheres.
- 8. Do not cover power cords with rugs or other fabric materials.
- 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.
- Do not operate this product while its cord is damaged, or if it malfunctions, has been dropped, or is damaged in any manner.
- 11. Use this product only as intended by the manufacturer.

### **INTERFERENCE from MH and HPS LIGHTS**

Certain grow light models with HID\* ballasts that do not use electromagnetic shielding will create an area of radio frequency interference (RFI). This can distort nearby frequency-sensitive components like internet lines and climate sensors. RFI can be emitted from the ballast's cords or the ballast itself.

Follow these steps to ensure proper functionality and to prevent radio frequency interference from affecting your sensor probe:

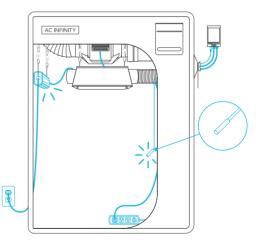
#### TIP 1

Keep the probe cord far away from your ballast's cords to ensure the controller properly detects climate conditions.

You may also wrap the probe cord and create a cone around the sensor head with aluminum foil tape.

#### TIP 2

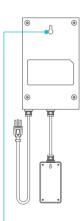
Do NOT plug your grow light and inline fan into the same duplex outlet. Plug your grow light and inline fan into separate power strips and electrical sockets.



# **KEY FEATURES**

#### **SMART CONTROLLER**

Features automation controls that power devices based on temperature, humidity, timers, and schedules.



#### WALL MOUNTING

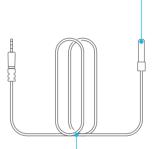
Hard black housing and fire-resistant casing with keyhole hanger for easy mounting on any hook or screw.

#### **ACTIVE MONITORING**

LED display shows key data like outlet power status, temperature, humidity, trends, clock, and countdowns.

#### **SENSOR PROBE**

Corded probe made of stainless steel to ensure precise temperature and humidity readings.



#### **DUAL OUTLETS**

AC INFINITY

Built with a detached electrical socket module that allows for powering and controlling two devices at the same time.

#### **EXTRA CORD LENGTH**

Extended cord length of 144 inches (12 feet) for ease of management and flexible mounting options.

## **PRODUCT CONTENTS**

#### CTR79A



#### CTR75A



### **POWERING AND SETUP**

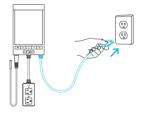
#### **STEP 1**

Plug the sensor probe into the 3.5mm port located at the bottom side of your controller.



#### **STEP 2**

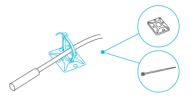
Insert the power plug into a wall outlet to power your controller.



### **POWERING AND SETUP**

#### **STEP 3**

Position the corded sensor probe and secure it by using the included zip ties and tie mounts.



#### **STEP 4**

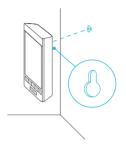
Locate a spot free of obstruction and secure the anchor into your wall. Twist the wood screw into the anchor.



### **POWERING AND SETUP**

#### **STEP 5**

Hang your controller by the screw using the hole located on its backside.



#### **STEP 6**

Plug your device (not included) into one of the two sockets to power it with your controller.





#### **1. OUTLET BUTTON**

Cycles through the two outlet devices. Each outlet device is programmed independently, or together when navigating to ALL.

#### 2. MODE BUTTON

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

#### 3. 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.

#### 4. SETTING BUTTON

Cycles through each of the controller's settings: DISPLAY BRIGHTNESS, °F/ °C, CLOCK, CALIBRATION (Temperature and Humidity), and BUFFER (Temperature and Humidity).

#### 5. OUTLETS

Displays the outlet controller's power status, indicating whether or not electricity is being fed to your device. ON will display if your devices are being powered and OFF will display if your devices are not being powered.

#### **6. PROBE TEMPERATURE**

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

#### 7. PROBE HUMIDITY

Current humidity the probe is detecting. Displays "--" if no probe is plugged in. Includes a trend indicator that signals a rise, fall or no change in humidity within the last hour.

#### 8. CONTROLLER MODE

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

#### 9. STATUS ICONS

Flashes or displays the alert icons of the controller. The icons include TIMER ALERT and DISPLAY LOCK.

#### **10. 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.

#### **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 your devices power on. TO OFF shows the amount of time left before your devices power off.

#### 12. USER SETTING

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

#### OUTLETS

Pressing the outlet button will cycle through the controller's available outlets: ALL, 1, and 2. Dot indicates the current outlet.

#### **ALL OUTLETS**

Navigate to the ALL outlet to set simultaneous programming for all plugged in devices.

Programming set in this outlet mode applies to all plugged in devices, but will not be active if you navigate to other outlets. Re-entering the ALL outlet will resume its programming.



#### **INDIVIDUAL OUTLET**

Navigate to a numbered outlet with a plugged in device to set individual programming.

Programming will run in the background even while you navigate to other numbered outlets.



#### **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 device will remain off regardless of temperature, humidity, or time-based triggers.

Jump back to OFF Mode anytime by holding the MODE button while in other modes or settings.



#### **ON MODE**

Your device will stay on regardless of temperature, humidity, or time-based triggers.



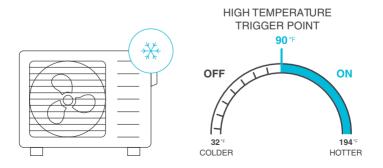
#### AUTO MODE (HIGH TEMPERATURE TRIGGER)

Pressing the up or down button sets the high temperature trigger. Your device will turn on if the probe's reading meets or exceeds this threshold.

If the probe's reading falls below this trigger point, your device will turn off. This shut off point can be adjusted using the buffer setting as shown on page 27.

This is typically used with devices like air conditioners and cooling fans to help lower the temperature when it gets too hot. For example, if you set a high temperature trigger of 90°F, then your device will activate when the temperature reaches 90°F or higher, and turn off when it falls below 90°F. Products shown here may still be in development.





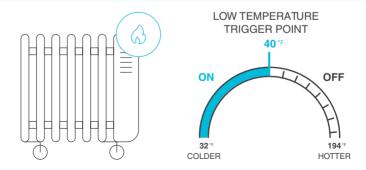
#### AUTO MODE (LOW TEMPERATURE TRIGGER)

Pressing the up or down button sets the low temperature trigger. Your device will turn on if the probe's reading meets or falls below this threshold.

If the probe's reading rises above this trigger point, your device will turn off. This shut off point can be adjusted using the buffer setting as shown on page 28.

This is typically used with devices like heaters and seedling mats to help raise the temperature when it gets too cold. For example, if you set a low temperature trigger of  $40^{\circ}$ F, then your device will activate when the temperature falls to  $40^{\circ}$ F or lower, and turn off when it rises above  $40^{\circ}$ F. Products shown here may still be in development.





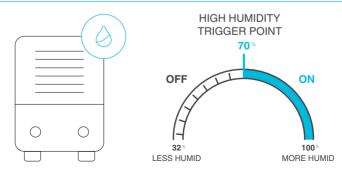
#### AUTO MODE (HIGH HUMIDITY TRIGGER)

Pressing the up or down button sets the high humidity trigger. Your device will turn on if the probe's reading meets or exceeds this threshold.

If the probe's reading falls below this trigger point, your device will turn off. This shut off point can be adjusted using the buffer setting as shown on page 29.

This is typically used with devices like dehumidifiers to help lower the humidity when it gets too humid. For example, if you set a high humidity trigger of 70%, then your device will activate when the humidity rises to 70% or higher, and turn off when it falls below 70%. Products shown here may still be in development.





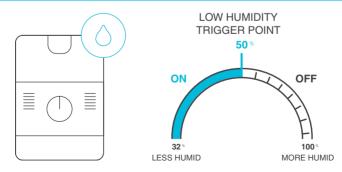
#### AUTO MODE (LOW HUMIDITY TRIGGER)

Pressing the up or down button sets the low humidity trigger. Your device will turn on if the probe's reading meets or falls below this threshold.

If the probe's reading rises above this trigger point, your device will turn off. This shut off point can be adjusted using the buffer setting as shown on page 30.

This is typically used with devices like humidifiers to help raise the humidity when it gets too dry. For example, if you set a low humidity trigger of 50%, then your device will activate when the humidity falls to 50% or lower, and turn off when it rises above 50%. Products shown here may still be in development.





#### TIMER TO ON MODE

Pressing the up or down button sets a countdown time. During the countdown, your device will be set to OFF. Once the timer ends, your device will trigger to turn on.

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





#### TIMER TO OFF MODE

Pressing the up or down button sets a countdown time. During the countdown, your device will be set to ON. Once the timer ends, your device will trigger to turn off.

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

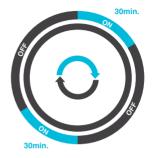




#### CYCLE MODE (ON AND OFF)

Sets an ON duration and an OFF duration for your device to cycle through continuously. Press the up or down button to set a countdown for your device to turn on. Then press the mode button and use the up or down button to set a countdown for your device to turn off.

The countdown will begin if no buttons are pressed for 5 seconds. Leaving the CYCLE mode while the countdown is running will pause it until you return to this mode.



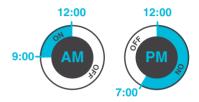




#### SCHEDULE MODE (ON AND OFF)

Sets an ON clock-time and an OFF clock-time schedule for your device to follow daily. Press the up or down button to set a clock time for your device to turn on. Then press the mode button again to set a clock time for your device to turn off.

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 shown on the lower right corner of the display above the setting. Your device 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.







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### PROGRAMMING

#### **CONTROLLER SETTINGS**

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



#### **TOGGLING THE DISPLAY**

Lock the controller by holding the setting button.

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

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



#### °F/°C SETTING

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



#### **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 lower left 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 value by  $2^{\circ}F$  (or  $1^{\circ}C$ ) increments. The calibration cycle ranges from -20°F to 20°F (or -10°C to 10°C) and will be applied to the sensor probe's measurements.

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#### **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 by 1% increments. The calibration cycle ranges from -10% to 10% and will be applied to the sensor probe's measurements.



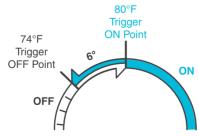
#### **BUFFER SETTING**

This setting modifies AUTO Mode programming by creating a buffer for temperature and humidity triggers. This sets a different trigger-off point for the triggers, generating an on and off band that prevents the device from triggering too quickly from small climate fluctuations. You can set a buffer figure for temperature triggers, and a buffer figure for humidity triggers. The buffer figure affects high triggers differently than low triggers. On the controller, the buffer setting can be accessed by pressing the gear button until you reach buffer temperature and buffer humidity. This setting is only available on Smart Outlet Controllers.

#### **BUFFER SETTING (HIGH TEMPERATURE TRIGGER)**

For High Temperature Triggers, this buffer figure will create a trigger-off point below your set trigger point. For example, if you had set a High Temperature Trigger at 80°F and set a Temperature Buffer at 6°F. Then your device will trigger on when it meets or rises above 80°F, and only trigger off when it falls below 74°F. The 74°F figure is obtained by taking your High Temperature Trigger of 80°F and subtracting your Temperature Buffer of 6°F.

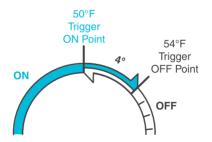




#### **BUFFER SETTING (LOW TEMPERATURE TRIGGERS)**

For Low Temperature Triggers, this buffer figure will create a trigger-off point above your set trigger point. For example, if you had set the Low Temperature Trigger at  $50^{\circ}$ F and set the Temperature Buffer at  $4^{\circ}$ F. Then your device will trigger on when it meets or falls below  $50^{\circ}$ F, and only trigger off when it rises above  $54^{\circ}$ F. The  $54^{\circ}$ F figure is obtained by taking your Low Temperature Trigger of  $50^{\circ}$ F and adding your temperature buffer of  $4^{\circ}$ F.

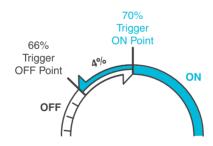




#### **BUFFER SETTING (HIGH HUMIDITY TRIGGERS)**

For High Humidity Triggers, this buffer figure will create a trigger-off point below your set trigger point. For example, if you had set a High Humidity Trigger at 70% and set a Humidity Buffer at 4%. Then your device will trigger on when it meets or rises above 70%, and only trigger off when it falls below 66%. The 66% figure is obtained by taking your High Humidity Trigger of 70% and subtracting your Humidity Buffer of 4%.

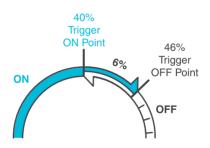




#### **BUFFER SETTING (LOW HUMIDITY TRIGGERS)**

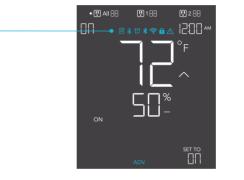
For Low Humidity Triggers, this buffer figure will create a trigger-off point above your set trigger point. For example, if you had set the Low Buffer Trigger at 40% and set the Humidity Buffer at 6%. Then your device will trigger on when it meets or falls below 40%, and only trigger off when it rises above 46%. The 46%F figure is obtained by taking your Low Humidity Trigger of 40% and adding your humidity buffer of 6%.





#### **ALERT / STATUS 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.





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#### **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.

#### **AUTO MODE ALERT**

Flashes whenever any of the auto mode triggers (high temperature, low temperature, high humidity, or low humidity) activate your devices.

#### TIMER ALERT

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





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#### **BLUETOOTH**

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

#### **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.

#### **TEMPERATURE/ HUMIDITY ALARM**

Flashes and beeps with alarm if the temperature/ humidity meet the trigger point set in the app.

## **OTHER SETTINGS**

#### **CONTROLLER LOCK**

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

#### **HIDE SCREEN**

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

#### JUMP TO OFF MODE

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

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

Holding the up and down buttons together for 2 seconds will reset the value of your current mode or controller setting to OFF/Default. Pressing either the up or down button will return to the previous value.

#### AUTO INCREASING OR DECREASING

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

#### 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.



PRESS +

HOLD + =





### **DOWNLOAD THE APP**

#### THE AC INFINITY APP

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



#### HOW TO USE THE APP

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

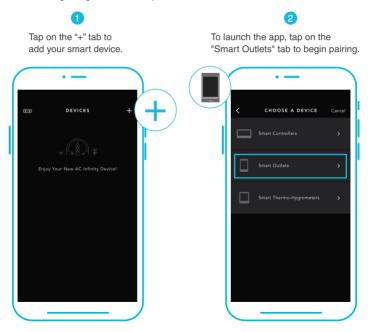


\*Appearance and features subject to change.

## **ADD A DEVICE**

#### **SETUP AND PAIRING**

Power your device on before pairing your device with the app. Refer to pages 10-12 for more information regarding controller setup.

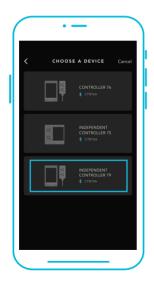


Please note: Bluetooth must be enabled on your mobile device before starting the pairing process.

## **ADD A DEVICE**

3

Select CONTROLLER 79 to begin pairing.



4

Hold the port button for 5 seconds to activate Bluetooth. Wait for the Bluetooth icon to start flashing on your controller's screen.



### **ADD A DEVICE**

Tap DONE button to complete the pairing process.



6

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



Please note: When pairing the app around multiple controllers, move your mobile device closer to your desired controller.

### FAQ

Q: Where is the best place to position the sensor probe?

A: Place the sensor probe as close as possible to the hottest or most humid spot in your space.

Q: Do I need to remove the plastic cap from the probe?

A: Yes. You will need to remove the plastic cap so the probe can accurately read climate conditions.

Q: Is this outlet controller waterproof?

A: No, it does not have any Ingress protection against water and dust. Place this controller in a dry location to ensure proper operation.

Q: Will I be able to use this controller with my own fan?

A: Yes. This controller can be used with any fan with Type-A or Type-B AC power plugs.

Q: Does the controller retain its settings after power is shut off?

A: Yes. If the controller's power is cut off and is powered on afterwards, your settings will remain.

Q: My controller isn't pairing with the app. How do I fix this?

A: If the pairing process isn't successful, turn off your Bluetooth and re-enable it to try again. When starting the pairing process around multiple Bluetooth controllers, move your smart device closer to the controller you wish to connect the app with.

### FAQ

Q: How do I stop my device from turning on and off too quickly in AUTO mode? A: The figure set in the BUFFER section will determine how easily the device can turn off again once it has been triggered on.

Access this section under SETTINGS by clicking the sprocket icon at the top right. Set a buffer number X. Once your device is triggered ON, it would require X amount to fall below your trigger point for it to trigger OFF again. The lower the buffer number is set to, the easier it will be for the device to trigger back to OFF. If set to zero, the device will trigger ON and OFF immediately whenever the trigger point is crossed. This may cause the device to turn on and off quickly if the climate fluctuates back and forth. Increase the buffer number to help reduce this from occurring. Please also check your high and low triggers point which can all activate concurrently. Turn off any trigger points that are not in use.

**Q**: Why is my humidifier not turning on or off when I programmed it to do so under AUTO mode? **A**: If this is occurring in AUTO mode for humidity triggers, please note that the HIGH HUMIDITY trigger turns the device ON when the humidity number you have set is exceeded. If you want the device to turn OFF when the humidity number you have set is exceeded, please set this using the LOW HUMIDITY trigger instead.

Typically, the HIGH HUMIDITY trigger is used with dehumidifiers which should turn on when the humidity gets too high. The LOW HUMIDITY trigger, which turns on the device when the humidity gets too low, is more suitable for humidifiers.

All the four high and low temperature and humidity trigger points can activate concurrently so turn off any triggers that are not in use. Also, check that the buffer number you have set is appropriate as it may delay the program from turning your device on and off. Lastly, please check if you have any active programming on the app under the ADVANCE TAB which can override any control programming.

## **AC INFINITY PRODUCTS**

#### Seedling Mats

The SUNCORE series is a line of seedling mat designed to improve dermination success and accelerate your seeds' growth process by emitting steady heat. Each mat is lined with an innovative far-infrared film that provides even heating distribution.

#### Booster Duct Fans

An inline fan for duct boosting designed to improve airflow in heating and air conditioning applications, and ventilate home rooms like attics, workshops, bathrooms, and kitchens, Each fan uses an easyto-use knob controller that adjusts fan speed for vour specific airflow boosting needs.

#### **Axial Fans**

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







### WARRANTY

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

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

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

Contact our dealers department at dealers@acinfinity.com or (626) 838-4656 for more information about our dealers and distributors program. Contact our customer service department at 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 run into any issues with this product, contact us and we'll happily issue a replacement or a full refund!

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### www.acinfinity.com