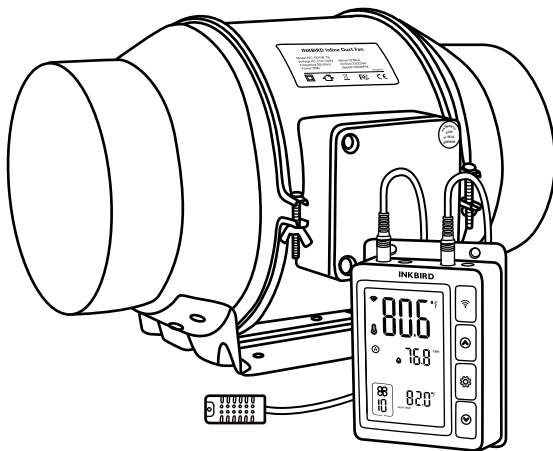


INKBIRD

FOR SMART HOME LIVING

Inline Duct Fan with Smart Controller



IVC-001W

U S E R M A N U A L





Warm tips

- To quickly jump to a specific chapter page, click on the relevant text on the contents page.
- You can also use the thumbnail or document outline in the top left corner to quickly find a specific page.

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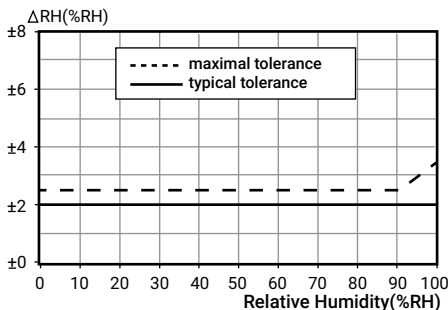
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01 Overview

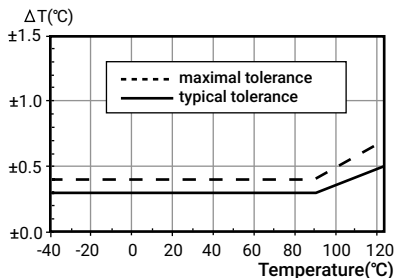
The duct fan has large air volume, low noise, and fast speed and has the functions of ventilation, deodorization, dehumidification, and temperature regulation. With a Wi-Fi-enabled smart controller with automatic, manual, and timer modes, we can remotely control the fan anytime, anywhere, creating a comfortable living environment for our family, plants, and pets.

02 Features & Specifications

- Product Name: Duct Fan with Smart Controller
- Model: IVC-001W
- Duct Fan Power: 110~240Vac 50/60Hz, T4 40W, T6 50W, T8 70W
- Smart Controller Power: DC24V, 0.2A
- Four Control Modes: Manual/Automatic/Timer/Shutdown Mode
- Temperature Display Accuracy: 0.1°C/°F (<100°C/°F), 1°C/°F (≥100°C/°F)
- Humidity Display Accuracy: 0.1%RH
- Relative Humidity Detection Range: 0~100%RH
- Relative Humidity Detection Accuracy (at 25°C): typical value $\pm 2\%$ RH, as shown in the figure:



- Temperature Detection Range: -40°C~100°C/-40°F~212°F
- Temperature Detection Accuracy: typical value $\pm 0.3^{\circ}\text{C}/\pm 0.5^{\circ}\text{F}$, as shown in the figure:



- Working Temperature: Room Temperature
- Storage Condition:
Temperature: 0°C~60°C/32°F~140°F
Humidity: 20~80%RH (Unfroze or condensation state)
- Product Warranty: 2 Years

03 Product Contents

Smart Controller Unit



**SMART
CONTROLLER**
(X1)



**SENSOR
PROBE**
(X1)



**MACHINE SCREWS
(WALL MOUNT)**
(X2)

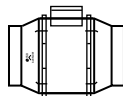


**WOOD SCREWS
(WALL MOUNT)**
(X2)



**WOOD SCREWS
(WALL HANG)**
(X2)

Inline Duct Fan Unit



**INLINE DUCT
FAN SYSTEM**
(X1)



**DUCT
CLAMP**
(X2)



**WIRE
TIE**
(X6)



**CABLE TIE
MOUNT**
(X6)



**WOOD
SCREWS**
(X6)



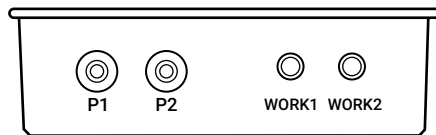
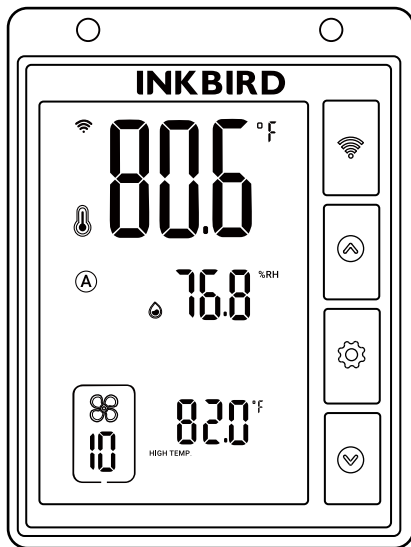
**DUCT FAN
SCREW SET**
(X6)

04 INKBIRD App



- Search the keyword “INKBIRD” in App Store or Google Play, or scan the left QR code to download and install the app.
- Open the app and follow the operation instructions to register on the app and set up a connection with the device.

05 Smart Controller Instructions



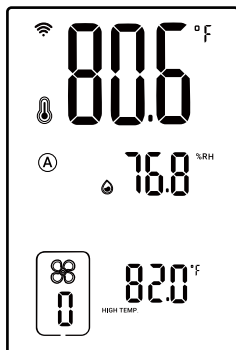
-  : Press and hold it for 2 seconds to reset the Wi-Fi connection; press it to toggle between SmartConfig connection mode and AP connection mode.
-  : In the working state, press it to select automatic mode/manual mode/timer mode/shutdown mode. Press and hold it for 2 seconds to enter or quit the setting of each mode. In the setting state, press it to select the setting menu.
-  : In the setting state, press it to increase the parameter value and hold it down for quick adjustment. In the working state, press it to enter the quick setting state of every mode.
-  : In the setting state, press it to decrease the parameter value and hold it down for quick adjustment. In the working state, press it to enter the quick setting state of every mode.
-  +  : Press both buttons simultaneously and hold for 2 seconds to enable/disable the child lock.
- P1 & P2: Temperature and humidity probe ports
- WORK1 & WORK2: Duct fan probe ports

06 Automatic Control Mode Instructions

The fan will run at the set fan speed according to the relationship between the current temperature and humidity and the trigger target temperature and humidity.

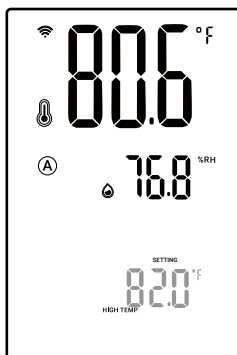
How to set the fan to run at a fan speed of 10 to keep the temperature at 81.0°F to 82.0°F and the humidity at 70.0%RH to 80.0% RH?

Step1: Press the  button to select automatic control mode, in which the  symbol is displayed.

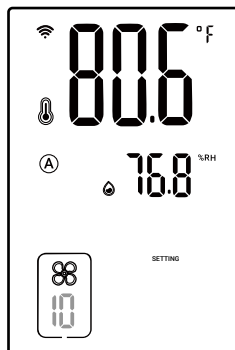


Step3: Press the  button to select the high-temperature trigger value. “HIGH TEMP” is displayed and the corresponding parameter flashes.

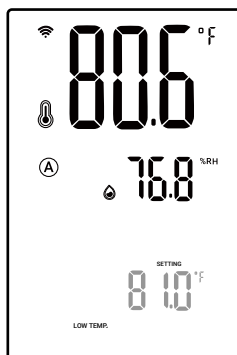
Press the  or  button to adjust the high-temperature trigger value to 82.0°F.



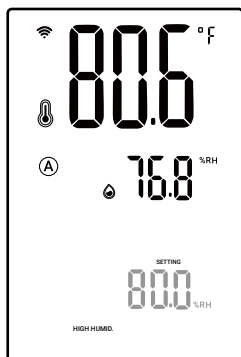
Step2: Press and hold the  button for 2 seconds to enter the setting mode, or press  or  button to enter the quick setting mode, in which “SETTING” is displayed. Press the  button until the fan speed parameter flashes, then press the  or  button to adjust the fan speed to 10.



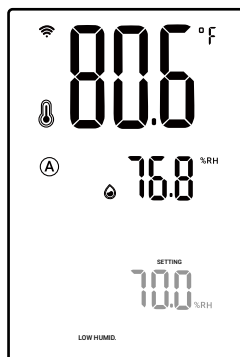
Step4: Press the  button to select the low-temperature trigger value. “LOW TEMP” is displayed and the corresponding parameter flashes. Press the  or  button to adjust the low-temperature trigger value to 81.0°F.



Step5: Press the  button to select the high-humidity trigger value. "HIGH HUMD." is displayed and the corresponding parameter flashes. Press the  or  button to adjust the high-humidity trigger value to 80.0%RH.

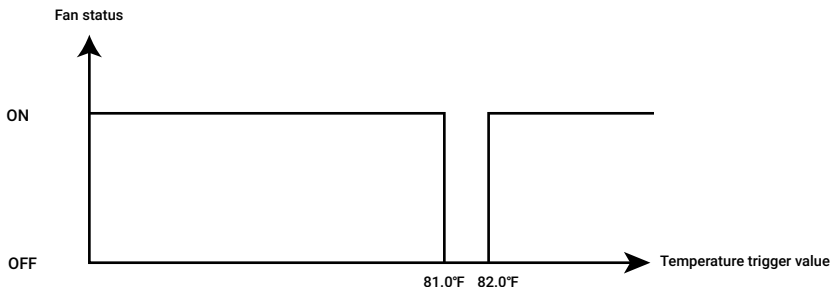


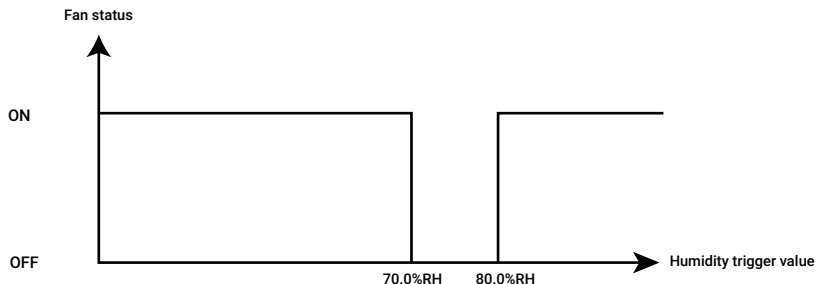
Step6: Press the  button to select the low-humidity trigger value. "LOW HUMD." is displayed and the corresponding parameter flashes. Press the  or  button to adjust the low-humidity trigger value to 70.0%RH.



Step7: Press and hold  button for 2 seconds or no operation for 60 seconds (or 10 seconds in the quick setting mode) to quit the setting state and save the set parameters.

Following the above steps, the fan will run at the fan speed of 10, the temperature will be controlled at 81.0°F~82.0°F, and the humidity will be controlled at 70.0%RH~80.0%RH, as shown below:

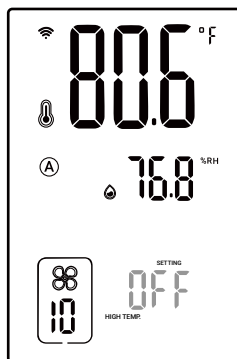
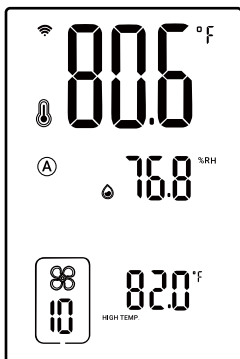




How to disable the high-temperature trigger function?

Step1: Press the  button to select automatic control mode, in which the  symbol is displayed.

Step2: Press and hold the  button for 2 seconds to enter the setting mode. Press the  button to select the high-temperature trigger value. "HIGH TEMP." is displayed and the corresponding parameter flashes. Press both  and  buttons simultaneously and hold for 2 seconds to display OFF and turn off the high-temperature trigger function.



Step3: Press and hold the  button for 2 seconds or no operation for 60 seconds to quit the setting state and save the set parameters.

Low-temperature trigger, high-humidity trigger, and low-humidity trigger functions can be turned off by referring to the above steps. Note that at least one trigger function should remain on.

How to set temperature unit/temperature alarm value/humidity alarm value/calibration value?

Step1: Press and hold the  seconds for 2 seconds to enter the setting mode, in which “SETTING” is displayed.

Step2: Press the  button to select the parameter to set and the corresponding characters flash. Press the  or  button to adjust the parameter.



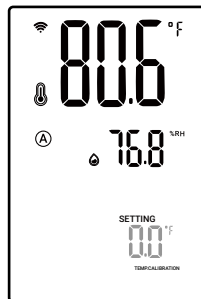
Temperature Unit



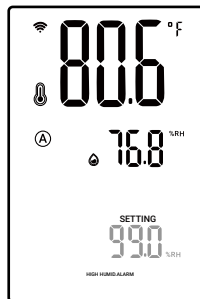
High Temperature Alarm Value



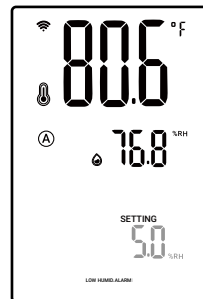
Low Temperature Alarm Value



Temperature Calibration Value



High Humidity Alarm Value



Low Humidity Alarm Value



Humidity
Calibration Value

Step3: Press and hold the button for 2 seconds or no operation for 60 seconds to quit the setting state and save the set parameters.

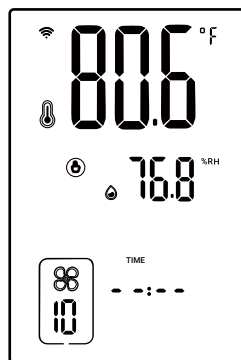
Note: When setting the high-temperature alarm value/low-temperature alarm value/high-humidity alarm value/low-humidity alarm value, press and hold the and buttons simultaneously for 2 seconds to display OFF and disable the corresponding alarm function.

07 Manual Control Mode Instructions

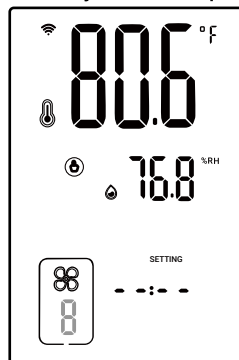
The fan will continuously run at the set fan speed (from 0~10) and the running time, regardless of the current temperature and humidity. When --- is displayed, it means that the fan is not limited by time.

How to set the fan to run at the set fan speed without a time limit? For example, the fan runs continuously at a fan speed of 8 until manually turned off.

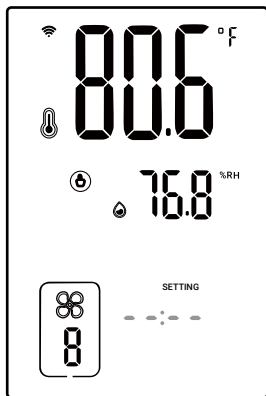
Step1: Press the button to select the manual mode, in which the symbol is displayed.



Step2: Press and hold the button for 2 seconds to enter the setting mode, or press or button to enter the quick setting mode, in which "SETTING" is displayed and the fan speed parameter flashes. Press the or button to adjust the fan speed to 8.



Step3: Press the  button to select the fan run time. Press the  or  button to adjust the time display - :- -.



Step4: Step4: Press and hold  button for 2 seconds or no operation for 60 seconds (or 5 seconds in the quick setting mode) to quit the setting state and save the set parameters.

Following the above steps, the fan will run continuously at a fan speed of 8 until manually turned off.

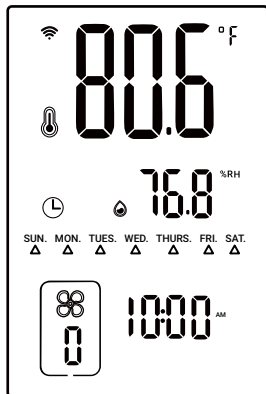
08 Timer Control Mode Instructions

The fan will run at the set fan speed according to the start time and running time of the day you choose.

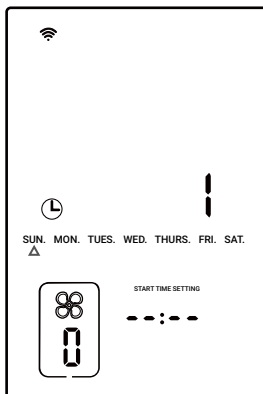
How to set the fan to run at different speeds within different run times and at multiple start times on different days? For example, how can we set the fan to run on the following schedule?

	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
Seg.1	Start at: 7:00 Speed: 8 Duration: 2hrs		Start at: 6:00 Speed: 8 Duration: 2hrs		Start at: 8:00 Speed: 7 Duration: 1hrs	Start at: 5:00 Speed: 7 Duration: 2hrs
Seg.2	Start at: 11:00 Speed: 10 Duration: 3hrs		Start at: 10:00 Speed: 10 Duration: 3hrs		Start at: 12:00 Speed: 10 Duration: 3hrs	Start at: 8:00 Speed: 10 Duration: 3hrs
Seg.3	Start at: 18:00 Speed: 9 Duration: 2hrs		Start at: 16:00 Speed: 9 Duration: 3hrs		Start at: 17:00 Speed: 9 Duration: 3hrs	Start at: 12:00 Speed: 10 Duration: 3hrs
Seg.4			Start at: 20:00 Speed: 7 Duration: 3hrs			Start at: 16:00 Speed: 10 Duration: 2hrs
Seg.5						Start at: 20:00 Speed: 6 Duration: 1hrs

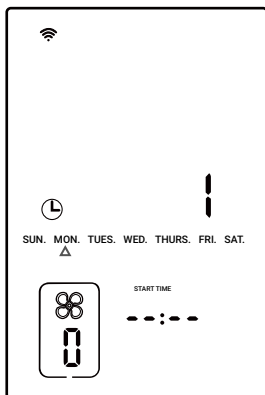
Step1: Press the  button to select the timer mode, in which the  symbol is displayed.



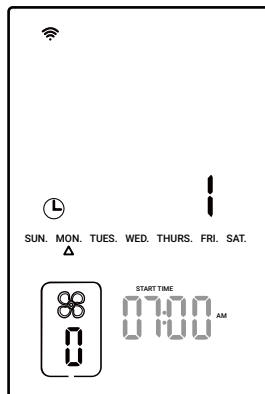
Step2: Press and hold the  button for 2 seconds, or press the  or  button to enter the setting mode.



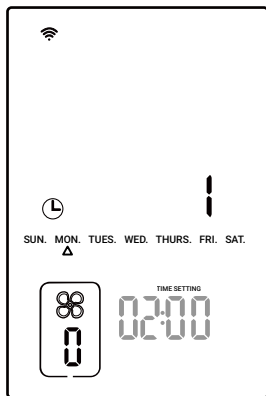
Step3: Press the  or  button to select the day to be set. Here we choose Monday as an example.



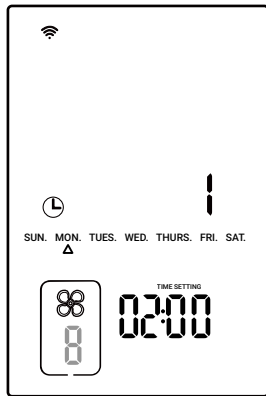
Step4: Press the  button to enter the setting of active time segments, in which "START TIME" is displayed. Press the  or  button to adjust the start time of segment 1 to 07:00.



Step5: Press the ⚙ button to set the run time of segment 1, and “TIME SETTING” is displayed. Press the ▲ or ▼ button to adjust the run time to 02:00.



Step6: Press the ⚙ button to set the fan speed of segment 1, and the fan symbol is displayed. Press the ▲ or ▼ button to adjust the fan speed to 8.



Step7: Repeat steps 4 to 6, and set the start time of segment 2 to 12:00, the run time to 03:00, and the fan speed to 10; set the start time of segment 3 to 18:00, the run time to 02:00, and the fan speed to 9.

Step8: When the start time is displayed as ----, press the ⚙ button to return to Step 3 and set the running state for other days.

Step9: Repeat steps 3 to 8 to set the running state parameters for Wednesday, Friday, and Saturday.

Step10: Press and hold the ⚙ button for 2 seconds or no operation for 60 seconds to quit the setting state and save the set parameters.

The above steps can realize the daily running state of the fan in timer mode.

09 Shutdown Mode

All control functions are disabled.

Press the  button to select the shutdown mode, in which all functional controls are turned off.

10 Lock Mode

In the non-setting state, press and hold the  and  button for 2 seconds simultaneously to turn on/off the lock function. When the lock function is on, the  symbol is displayed.

11 ECO Mode

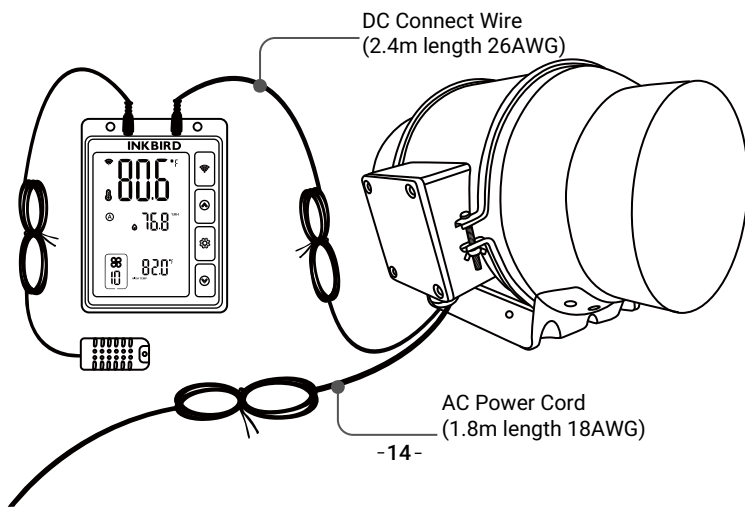
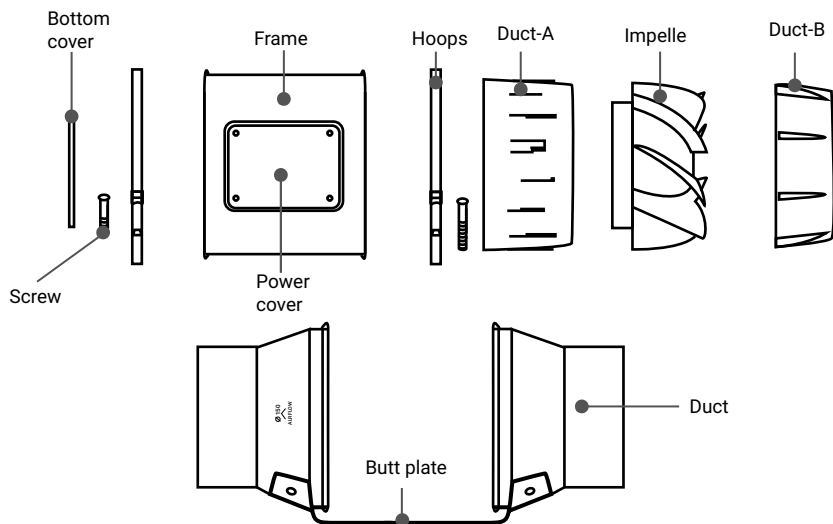
In the power-off state, press and hold the  button for 2 seconds to enter the setting of backlight brightness. Press the  or  button to adjust the brightness percentage. After 30 seconds of no operation, the device enters ECO mode.

12 Parameter Factory Setting

After powering off, press the  button, then power on the device again. All parameters in all modes will be restored to default data.

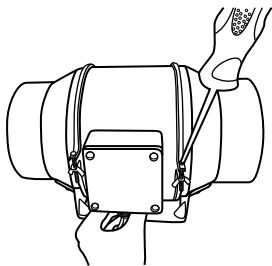
Note that the buzzer will beep once to remind us that all parameters have been restored to default data.

13 Duct Fan Instructions

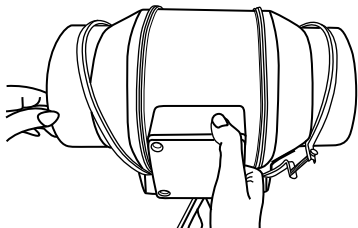


► Installation Instructions

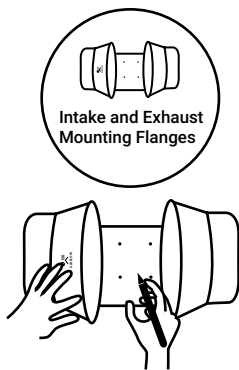
Step1: Unscrew the annular threaded nail of the duct fan.



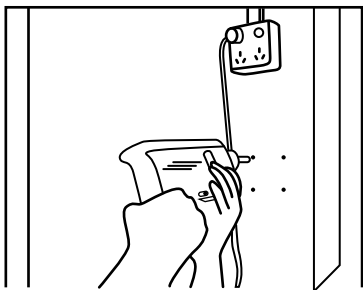
Step2: Remove the power supply chassis from the rack.



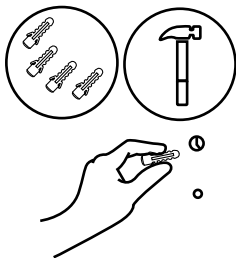
Step3: Use the mounting holes of the flange bracket to mark the position to be mounted. (Pay attention to the direction of intake/exhaust during installation, referring to the instructions for intake/exhaust.)



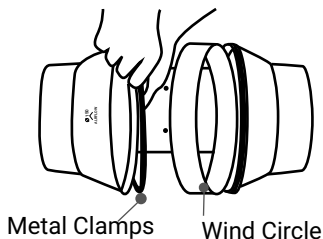
Step4: Drill four holes at the marked locations. Make sure the installation area is well constructed and free of obstructions.



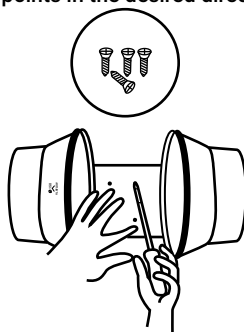
Step5: If you need plastic expansion tubes, insert the included 4 expansion tubes into the drilled holes and fix them in the holes with a hammer.



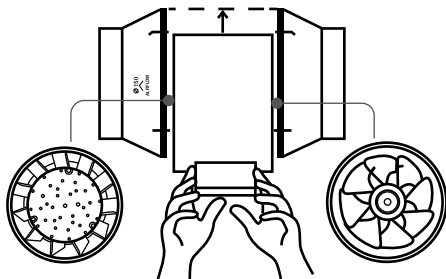
Step7: Put the wind circle back on the intake flange and reposition the flange on the appropriate metal clips.



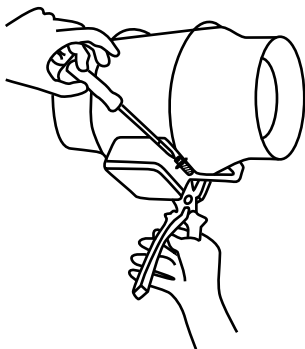
Step6: Align the hole of the flange bracket with the wall anchor, and use a screwdriver or drill to insert the four screws to fix the flange bracket. Make sure the airflow arrow points in the desired direction.



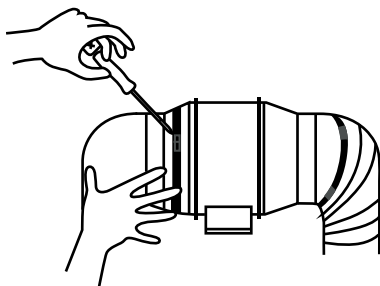
Step8: Move the power supply chassis back onto the flange bracket, making sure that the bulging part of the power supply chassis is installed in the direction of the flange bracket arrow. Use a Phillips screwdriver and pliers to tighten the metal clips and secure the power supply chassis.



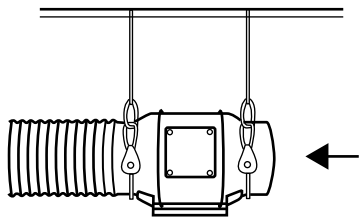
Step9: Put the metal ring back onto the flange and tighten the screws to fix the fan.



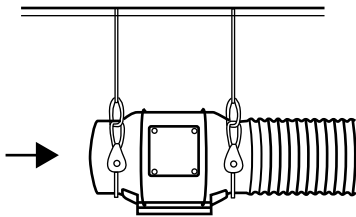
Step10: When installing the duct, use the included duct clamps to secure it to either end of the duct fan, making sure it is tightly sealed. Use a flat-head screwdriver to tighten the duct clamps.



Step11 A: Hang Up— If using a rope bridge (not included) for installation, wrap the rope around the flange and tighten the rope to secure the fan.

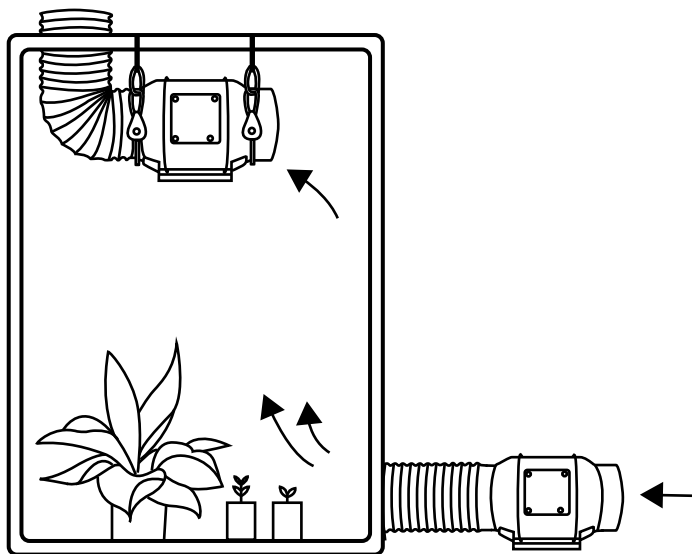


Step11 B: Hang Down— You can also wrap the rope around the fan mounting plate to hang the fan. Tighten the rope to secure the fan and make sure the fan airflow arrow points in the desired direction.



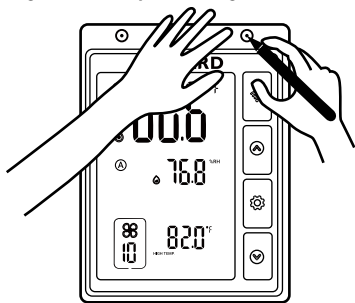
► Intake & Exhaust

This duct fan can be used as an intake machine or exhaust machine in greenhouses and large grow tents. For optimal ventilation of the space, intake fans or openings (without fans) must be placed in the bottom corners of the growing space, and exhaust fans must be hung (as shown below) or mounted in the corresponding highest corners. Make sure the airflow arrow of the intake fan points towards the growing space and the arrow of the exhaust fan points away from the growing space.

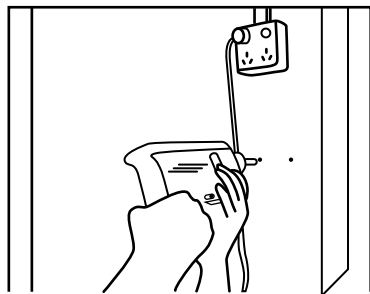


► Controller Power Up and Setting

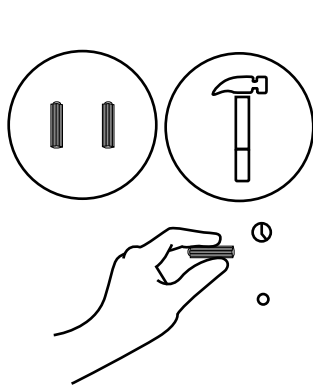
Step 1: Mark the locations to be mounted with the mounting holes on the controller. Pay attention to the fan power cable length and the probe length.



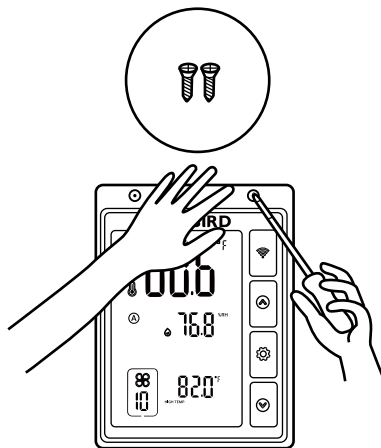
Step2: Drill 2 holes at the marked locations.



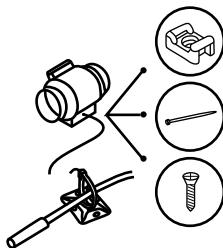
Step3: If you need plastic expansion tubes, insert the included 2 expansion tubes into the drilled holes and fix them in the holes with a hammer.



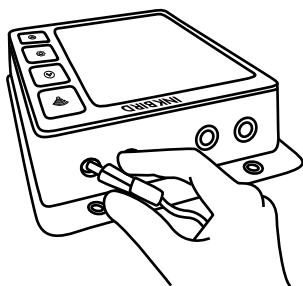
Step4: Align the mounting holes on the controller with the wall anchor, and insert the two screws with a screwdriver or drill.



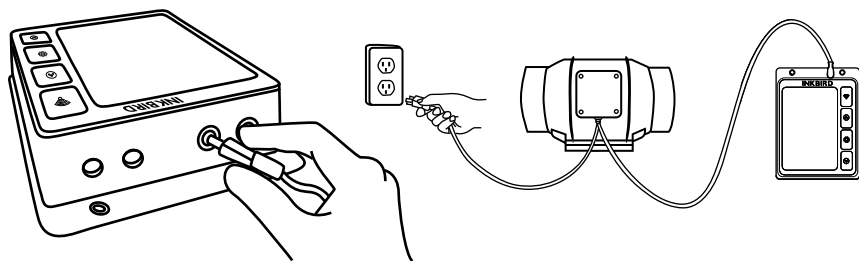
Step5: You can organize your cables using the included tie bracket, screws, and cable ties. Use screws to secure the cable tie to the surface. Wrap the cable tie around the rope and put it into the tie bracket.



Step6: Insert the probe of the duct fan into the WORK1/WORK2 port of the controller.



Step7: Insert the temperature and humidity sensor probe into the P1/P2 port of the controller. Then, place the probe near the plant in the grow tent for the most accurate reading.

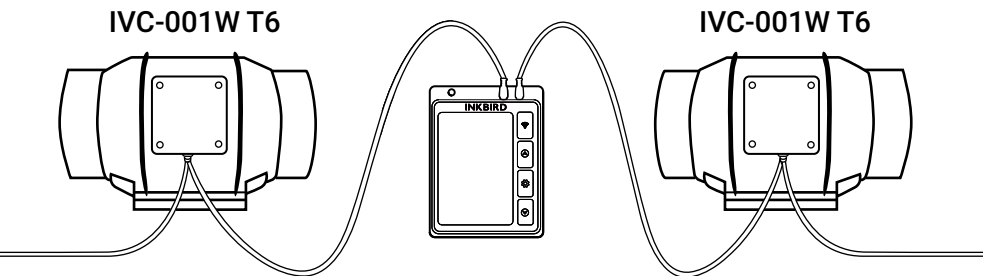


Step8: Finally, plug the fan power cable into the power socket.

► Add More Fans

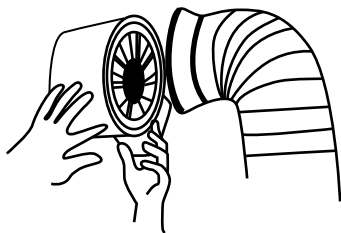
This smart controller can control two fans simultaneously. Insert the two fans into the WORK1 and WORK 2 ports separately, as shown below:

Dual Connection

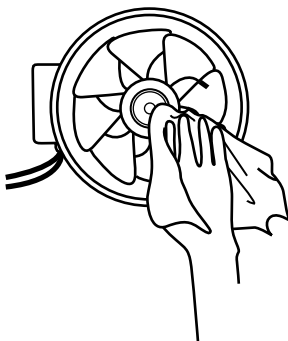


► Cleaning & Maintenance

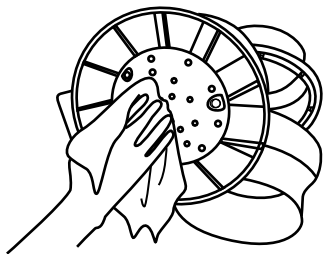
Step1: Remove the power supply chassis from the flange. (See steps 1 and 2 in the installation instructions on how to remove the power supply chassis.)



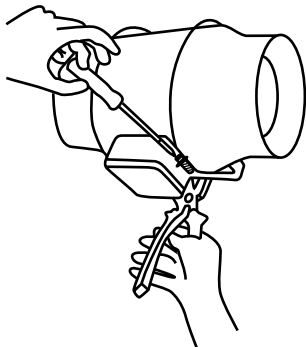
Step2: Use a wet cloth to remove dust and debris from the wind circle and fan blades.



Step3: Remove dust and debris from the other side of the stator blade and clean the inner areas of the intake and exhaust flanges.



Step4: See steps 7 to 9 in the installation instructions to secure the power supply chassis on the flange.



14 FCC Requirement

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator & your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Attached Table 1: Parameter Description In Manual Mode

Icon	Function	Setting Range	Default Setting
	Fan Speed	0~10	10
TIME	Fan running time	--:-- or 00:01~09:00	--:-- means no time limit.

Attached Table 2: Parameter Description In Automatic Mode

Icon	Function	Setting Range	Default Setting
CF: F	Temperature Unit	°C or °F	°F
	Fan Speed	0~10	10
High Temp.	High-temperature trigger value	-40°C~100°C/-40°F~212°F or OFF (disable high-temperature trigger)	25.0°C/77.0°F
Low Temp.	Low-temperature trigger value	40°C~100°C/-40°F~212°F or OFF (disable low-temperature trigger)	20.0°C/68.0°F
High Temp. Alarm	High-temperature alarm value	-40°C~100°C/-40°F~212°F or OFF (disable high-temperature alarm)	100°C/212°F
Low Temp. Alarm	Low-temperature alarm value	-40°C~100°C/-40°F~212°F or OFF (disable low-temperature alarm)	40.0°C/-40.0°F
Temp. Calibration	Temperature calibration value	-4.9°C~4.9°C/-9.9°F~9.9°F	0.0°C/0.0°F
High Humid.	High-humidity trigger value	0.0%RH~100%RH or OFF (disable high-humidity trigger)	50.0%RH
Low Humid.	Low-humidity trigger value	0.0%RH~100%RH or OFF (disable low-humidity trigger)	45.0%RH
High Humid. Alarm	High-humidity alarm value	0.0%RH~100%RH or OFF (disable high-humidity alarm)	99.0%RH
Low Humid. Alarm	Low-humidity alarm value	0.0%RH~100%RH or OFF (disable low-humidity alarm)	5.0%RH
Humid. Calibration	Humidity calibration value	-20.0%RH~20.0%RH	0.0%RH

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