EC Frequency
Activated Carbon Filter Duct Fan
Operating instructions

Product Warranty Card

User Name		Phone Number	
Product Name		Model	
Purchase Date			
Fault Description			
Maintenance Record			

Warranty Terms

1.The product warranty period is 3 years.

2.Consumers can receive warranty services for faults due to manufacturing or component reasons within one year after the purchase date under normal usage conditions.

3.The following situations are not covered under the company's free service scope: faults caused by disassembly, modification, or repairs performed by technicians not authorized by the company.

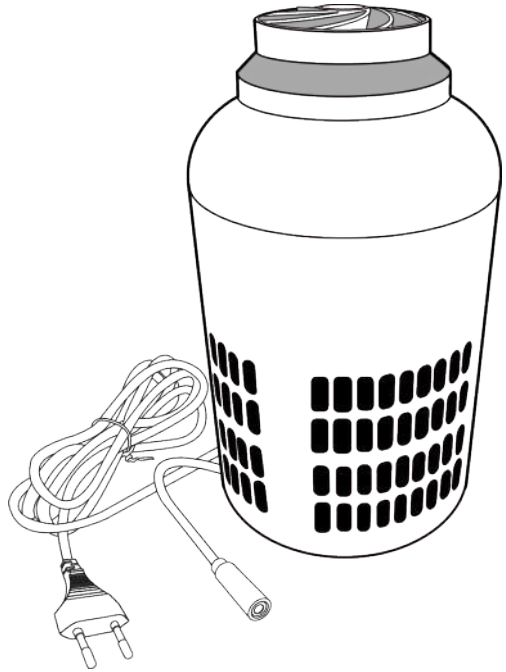
Application warning:

1.Regular maintenance should be conducted annually, checking for any damage to the power cord. Before maintenance, ensure the power is disconnected to prevent danger. Replacement should be done by a professional.

2.Do not use gasoline, benzene, diluents, or other corrosive chemicals to clean the fan. Do not allow water to enter the motor or electrical components. Do not immerse plastic parts in water exceeding 60°C.

3.This product is not suitable for use by individuals with disabilities, intellectual disabilities, mental disorders, or those lacking experience or professional knowledge (including children) for maintenance and operation.

4.This product is not suitable for use in environments with high flammability, explosiveness, severe corrosion, or temperatures exceeding 45 degrees Celsius.



Before installing, using, and maintaining this product, please read the installation and usage guide carefully. Failure to follow these instructions may result in personal injury or property damage. Please keep this operation guide properly for future reference during use.

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- Wiring Guide
- Protection Functions
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- Control Operation
- Maintenance
- Basic Troubleshooting
- Safety Precautions
- Warranty Card and Warranty Terms

Product Overview

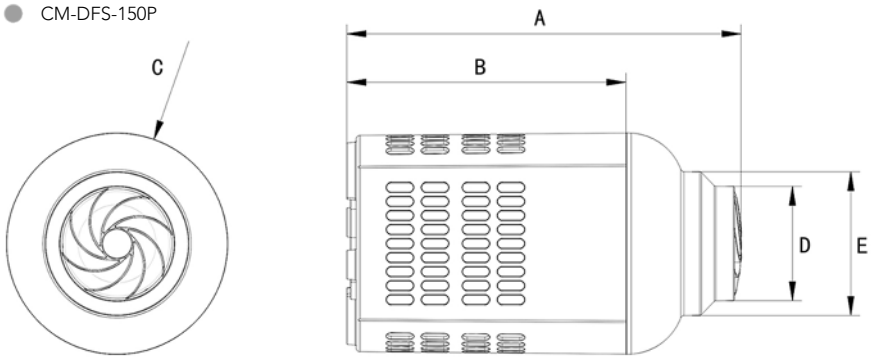
- This product utilizes an EC variable frequency brushless motor design, combining the functions of an energy efficiency EC duct fan and an activated carbon filter canister for enhanced optimization.
- It is highly efficient and quiet, helping growers improve air quality, regulate temperature and humidity. The fan's lightweight ABS blades increase air volume and ensure air circulation within the growing system.
- The duct fan kit can be connected with knob speed controller or smart controller to allow for humidity and temperature customization.
- It is suitable for various ventilation applications, including grow tents, greenhouses, cultivation and breeding environments, kitchens, basements, bathrooms, or commercial HVAC systems. It is an efficient ventilation device designed to optimize air circulation in enclosed spaces.



Dimensions and Performance Parameters

- Dimensions Table:

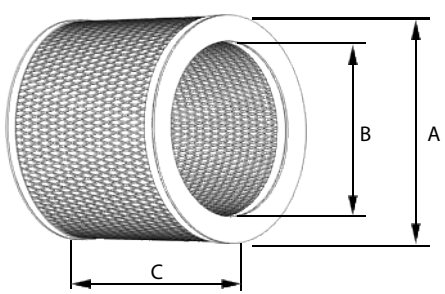
- CM-DFS-150P



MODEL	A	B	C	D	E	Product Size (MM)
CM-DFS-150P	337	239	190	98	123	190*190*337

Motor	Voltage (AC/V)	Frequency (Hz)	Power (W)	Speed (RPM)	Air Flow (m^3/h)	Noise (dB)	Working Temp Range (°C/°F)	Weight (KG)	Package Size (MM)
EC-Motor	100-240	50/60	24	3300	550 (395CFM)	≤32	0-60°C (0-140°F)	NW:2.2 GW:2.4	215*215*365

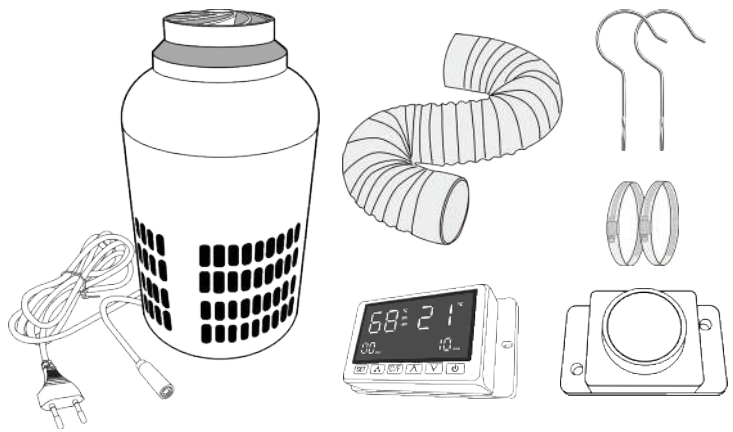
- CM-CF-1015



Model	A	B	C	Replacement Cycle (day)	Weight (KG)	Product Size (MM)	Package Size (MM)
CM-CF-1015	163	125	160	60-90	NW:0.9 GW:0.95	φ165*H165	175x175x180

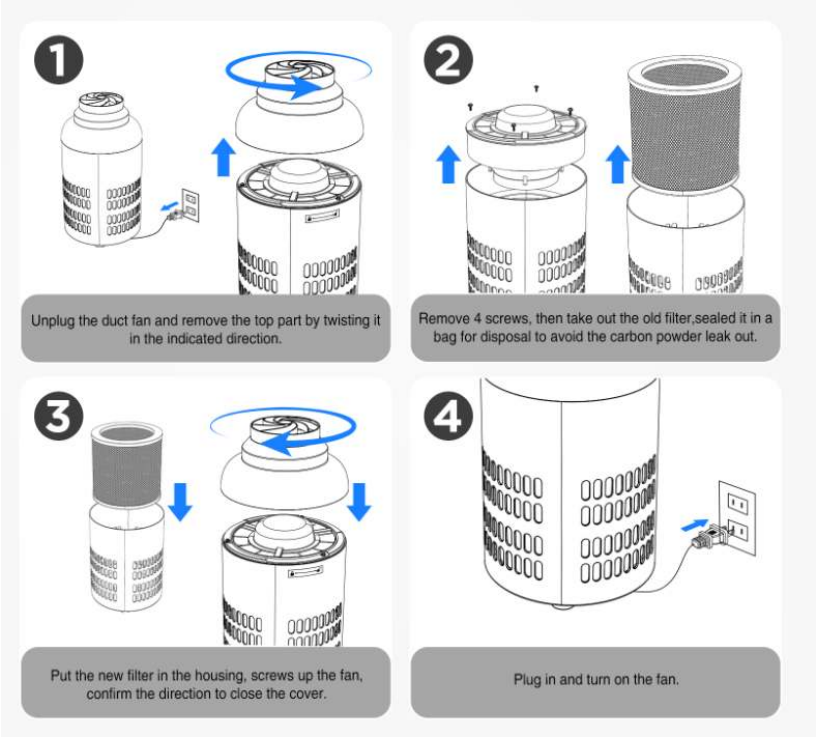
Pre-Installation Inspection

- Check Packaging Integrity: Inspect the packaging for any damage or missing parts.
- Parts Inspection: Verify that the product and all its accessories are complete and intact.



Part Name	Quantity	
2-In-1 Carbon Filter Duct Fan	1 piece	Standard Configuration
Hanging Hooks	2 piece	Standard Configuration
Power Cord (US/EU//UK/AU Standard)	1 piece	Standard Configuration
φ4"/100mm Air Ducting	Optional Configuration	
Digital Display Controller	Optional Configuration	
Knob Speed Controller	Optional Configuration	

Filter Replacement Diagram



Notes:

- Please use the original factory-certified filters (model: CM-CF-1015).
- Non-designated filters may cause air leakage or a decrease in purification efficiency by more than 30%.
- The used filters should be sealed in a bag for disposal to avoid the release of activated carbon powder.
- If the equipment shows a reduction in airflow by 20% or unusual odors or sounds, please replace the filter immediately.
- To ensure the high efficiency of the filtration system, it is recommended to replace the filter every 3 months (in heavily polluted environments, the replacement period can be shortened to 2 months).
- It is recommended to establish a filter replacement log, recording each replacement and maintenance date.

Wiring Guide

- Power Connection: Ensure the power cord is properly connected to avoid any loose connections or poor contact.
- Controller Connection: Provide detailed instructions for connecting the controller to the fan, ensuring stable signal transmission.
- Grounding Requirements: Ensure the fan is properly grounded to prevent any risk of electric leakage.

Control Line	1	2	3	4
Color	Red RD	Black BK	Yellow YE	White WH
Function	Vcc (+10VDC)	GND (Negative)	PWM/Vsp (0-10V Speed Control)	FG (Signal Feedback)

Power Line	1	2	3
Color	Brown BR	Blue BU	Yellow/Green YE/GN
Function	Live Wire (L)	Neutral Wire (N)	⏚ Ground (PE)

Protection Functions

1.Overcurrent protection function

2.Soft-start function;

Soft-start time delay of less than 20S to reach full speed;

3.Circuit board over-temperature protection function;

4.Open-phase protection;

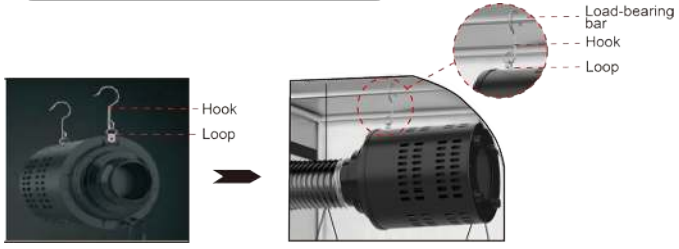
5.The locked motor protection;

6.Under-voltage and Over-voltage lockout protection;

Initial Startup

- Pre-Startup Inspection: Ensure all connections are correct and the power switch is in the off position.
- Test Run: For the initial startup, it is recommended to run the fan under no-load conditions for 5-10 minutes to confirm there are no abnormal sounds or vibrations.

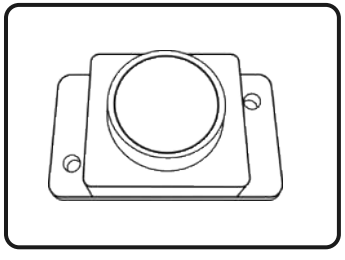
Installation Diagram



- Put the hook through the loop on the fan then hang it on the load-bearing bar.

Control Operation

Knob Control



1.Before use, ensure the Knob Controller cable connect with the fan are tightly to guarantee the stable signal transmission. Then Rotate the knob to turn on the fan.

2.The knob controller is a no wind speed level adjustment, users can easily adjust the operating speed of the fan. Whether fast or slow operation you needed, it can be achieved by simply rotating the knob.

3.The knob controller is flexible and convenient, users can adjust the product speed according to actual needs, thereby improving work efficiency and ensuring operating accuracy.

Digital Display Smart Controller / Intelligent Controller





- Use the control cable to connect the controller with the fan. The smart controller has a temperature and humidity sensor probe that can detect the current environmental temperature and humidity. You can set parameters such as temperature, humidity, and time to achieve intelligent control of the fan as needed.

- The fan control modes include:
  Automatic mode: high temperature, low temperature
  Automatic mode: high humidity, low humidity
  Alarm mode: high temperature, low temperature, high humidity, low humidity
  Timer mode.

- Temperature and humidity can be adjusted according to the actual application scenario.

- For detailed operating instructions, please refer to the controller manual.

Maintenance

- **Regular Cleaning:** It is recommended to dust the air ducts every quarter to keep the airflow unobstructed.
- **Professional Maintenance:** The carbon canister should be removed and placed in the sunlight for about 10 hours every quarter.
- **Fastener Inspection**: Regularly check the tightness of all fasteners to prevent loosening caused by vibration.

Basic Troubleshooting

Abnormal situations	Inspection Items
Fan Not Starting	• Check if the power cord is damaged and if it is connected properly. • Check if the voltage is within the fan's operating range.
Abnormal Heating	• Inspect if there are any foreign objects blocking the airflow. • Check if the blades are deformed.
Overheat Protection	• Check if the ambient temperature is higher than the operating temperature. • Check if there is overload or poor ventilation.

WARNING If the power cord is damaged, it must be replaced by a professional from the manufacturer's service department in order to avoid a hazard.

Safety Precautions

Before use, check if all voltages match the machine voltage.	Before use, check the power cord and plug for any damage. • Do not bend or pull the power cord to prevent poor contact.
Turn off the power before unplugging the plug.	Assembling must be completed before use.
Do not use in places with obstructions • it may cause motor failure.	Unauthorized repair personnel are not allowed to repair or modify the machine by themselves.
Do not allow people with intellectual disabilities, the elderly, patients, etc., to operate professionally.	Do not insert fingers or sharp objects into the unit while the fan is running. • This may cause product damage. Caution: Children!
Do not spray volatile agents or insecticides as it may cause deterioration, damage, or aging of the unit.	Do not use in high temperatures (above 45°C) or extremely harsh working environments. • This may cause malfunctions or product deformation.
When not in use for a long time, please disconnect the power supply.	