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Coway Airmega 450

COWAY Airmega 450 Air Purifier Instruction Manual

Model: Airmega 450 (AP-2524B(W))

Brand: Coway

1. INTRODUCTION

The COWAY Airmega 450 Air Purifier is designed to provide clean and healthy air for large rooms, covering up to 3,285 sq ft in 60 minutes. It features HyperVortex air technology for optimized airflow and filtration efficiency, ensuring quiet operation at 21.6 dB. This unit is equipped with a custom 3-in-1 filter system to effectively remove smoke, allergens, pet dander, odors, and various particulate matter (PM1, PM2.5, PM10).

Key features include a real-time air quality indicator, smart modes (Auto, Sleep, Eco, Turbo) for adaptive purification, and Energy Star certification for energy efficiency. The Airmega 450 is built for reliability and comes with a 3-year manufacturer's limited warranty.

Airmega 450, The Key to Your Safe Sanctuary



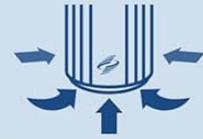
HyperVortex™
Air technology



Smart Modes
(Auto, Sleep, Turbo, Eco)



Whisper Quiet
23.7 dB



360° + Bottom
Air Intake



PM 1, 2.5, 10
& Real-time AQI



3-in-1
Custom Filter

Figure 1: COWAY Airmega 450 Air Purifier highlighting HyperVortex technology, 360° + Bottom Air Intake, 4 Smart Modes, PM(1, 2.5, 10) & Real-time AQI, Whisper Quiet operation, and 3-in-1 Custom Filter.

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Video 1: Overview of the Airmega 350 & 450, showcasing their award-winning design and features.

2. SETUP

2.1 Unpacking and Placement

Carefully remove the air purifier from its packaging. Place the unit on a flat, stable surface, ensuring there is adequate space around it for optimal airflow. Avoid placing it directly against walls or furniture that might obstruct air intake or output.

2.2 Filter Installation

The Airmega 450 utilizes a 3-stage filtration system. The filters are typically pre-installed but should be checked and unwrapped before first use.

1. **Open the Front Cover:** Gently pull the front cover of the unit to detach it.
2. **Remove and Unwrap Filters:** Locate the pre-filter, activated carbon filter, and HEPA filter. Remove them from their protective plastic packaging.
3. **Reinstall Filters:** Insert the filters back into the unit in the correct order: first the HEPA filter, then the activated carbon filter, and finally the pre-filter. Ensure they are securely seated.
4. **Close the Front Cover:** Reattach the front cover, ensuring it clicks firmly into place.



Figure 2: Illustration of the 3-stage filtration system: Vacuumable Pre-Filter, HEPA Filter, and Activated Carbon Filter.

3. OPERATING MODES

The Airmega 450 offers various operating modes to suit different needs and environments.

- **Auto Mode:** The unit automatically adjusts fan speed based on real-time air quality readings. This is the recommended default mode for continuous operation.
- **Sleep Mode:** Operates at the lowest fan speed and noise level, with all indicator lights dimmed or off, ideal for nighttime use.

- **Eco Mode:** Optimizes energy consumption by operating at a low fan speed and only increasing airflow when air quality requires it.
- **Turbo Mode:** Runs the fan at maximum speed for rapid air purification, suitable for quickly clearing pollutants or odors.

3.1 Real-Time Air Quality Indicator (AQI)

The Airmega 450 continuously monitors air quality using a laser particle sensor for PM1, PM2.5, and PM10. The LED ring on the top of the unit changes color to indicate the current air quality:

- **Blue:** Good air quality
- **Green:** Moderate air quality
- **Yellow:** Unhealthy air quality
- **Red:** Very unhealthy air quality

3-Stage Filtration

Captures up to 99.999%¹ of particles down to 0.01 micron

Activated Carbon Filter

Purifies Smoke & Gas Particles

HEPA² Filter

Removes Extra Fine Particles

Vacuumable Pre-Filter

Captures Large Particles

*** Filters are not separable and can be damaged by water.**

¹ Tested to the Korea Air Cleaning Association standard (SPS-KACA 002-132:2022 Modified).

² Tested to IEST-RP-CC007 standard at speed level 1.

New

Used

Figure 3: The four smart operating modes of the Airmega 450.

Hyper Vortex™ Air Technology

EAGLE VANE™

Winged blades stabilize airflow with controlled vortices

VORTEX GENERATOR FAN™

Aerodynamic blades create powerful airflow and volume

DIMPLE DUCT™

Reduces resistance for optimal air intake



Figure 4: Detailed view of the intuitive control panel, including air quality indicators and mode selection.

Your browser does not support the video tag.

Video 2: Demonstrates the Airmega's quick response to changes in air quality, activating purification as needed.

4. FILTRATION SYSTEM

The Airmega 450 features a comprehensive 3-stage custom filter system designed to capture a wide range of airborne pollutants.

- **Vacuuable Pre-Filter:** Captures larger particles such as dust, pet hair, and lint, extending the life of subsequent filters.
- **Activated Carbon Filter:** Absorbs odors, volatile organic compounds (VOCs), and harmful gases.
- **HEPA Filter:** Traps up to 99.999% of particles as small as 0.01 microns, including pollen, dust mites, fungi, and pet dander.

4.1 Custom Filter Options

The Airmega 450 offers specialized custom filters to address specific air quality concerns:

- **Fresh Starter+ Filter:** An all-around filter for odors, mold, and micro-sized pollutant removal (included with product).
- **Allergen+ Filter:** Extra effective against pet, pollen, and mite matter allergens.
- **Intense Smoke+ Filter:** Carbon-upgraded protection against wildfire smoke, gas, and VOCs.

A Auto
Adjusts speed based on air quality

Sleep
Quiet for the best sleep quality

Turbo
Fast and powerful air purification

Eco
Save power based on air quality

Airmega 450 4 Smart Modes

CALIFORNIA AIR RESOURCES BOARD

ENERGY STAR

coway AIRMEGA

reddot design award

iF DESIGN AWARD 2024

Figure 5: Overview of the three available custom filter types for personalized air care.

5. MAINTENANCE

Regular maintenance ensures optimal performance and longevity of your Airmega 450.

5.1 Pre-Filter Cleaning

The pre-filter should be cleaned regularly, typically every 2-4 weeks, depending on usage and air quality. It is vacuumable and washable.

1. **Power Off and Unplug:** Always turn off and unplug the unit before performing any maintenance.
2. **Remove Front Cover:** Detach the front cover.
3. **Remove Pre-Filter:** Gently unclip and remove the pre-filter.
4. **Clean Pre-Filter:** Use a vacuum cleaner to remove dust and debris. For a deeper clean, wash it with mild soap and water. Ensure it is completely dry before reinstallation.
5. **Reinstall Pre-Filter:** Place the clean, dry pre-filter back into its slot and secure it.

5.2 HEPA and Activated Carbon Filter Replacement

The HEPA and activated carbon filters are combined into a single unit and typically need replacement every 12 months, or when the filter replacement indicator light illuminates.

1. **Power Off and Unplug:** Turn off and unplug the unit.
2. **Remove Front Cover:** Detach the front cover.
3. **Remove Used Filter:** Carefully pull out the combined HEPA/Activated Carbon filter.
4. **Install New Filter:** Insert a new genuine COWAY Airmega replacement filter into the unit, ensuring correct orientation.
5. **Close Front Cover:** Reattach the front cover.
6. **Reset Filter Indicator:** With the unit powered on, press and hold the 'Filter Reset' button for 3 seconds until the indicator light turns off.

Cleaner Air, Less Noise, Better Sleep

coway
5-Way Noise Test

60dB
Air Conditioner

30dB
Normal Conversation

23.7dB
Airmega 450
Whisper Quiet

10dB
Normal Breathing

Display On/Off

Night Light On/Off

coway AIRMEGA

Figure 6: Step-by-step guide for replacing the 3-in-1 filter.

6. TROUBLESHOOTING

If you encounter issues with your Airmega 450, refer to the following common troubleshooting steps:

- **Unit Not Turning On:** Ensure the power cord is securely plugged into a working outlet. Check if the power button has been pressed.
- **Poor Airflow/Purification:** Check if the filters are installed correctly and unwrapped. Clean the pre-filter if it appears dirty. Replace the HEPA/Activated Carbon filter if the indicator light is on.

- **Unusual Noise:** Ensure the unit is on a flat, stable surface. Check for any foreign objects obstructing the fan or filters.
- **Air Quality Indicator Always Red/Yellow:** This indicates high levels of pollutants. Ensure the unit is operating in Auto or Turbo mode for effective cleaning. If the issue persists in a clean environment, the sensor may need cleaning (refer to the full user manual for sensor cleaning instructions).
- **Filter Replacement Light Remains On After Replacement:** Ensure you have reset the filter indicator by pressing and holding the 'Filter Reset' button for 3 seconds.

7. SPECIFICATIONS

Brand	Coway
Model Number	AP-2524B(W)
Color	White
Product Dimensions	13.4"D x 13.4"W x 29.6"H
Item Weight	24.9 pounds
Floor Area Coverage	Up to 3285 Square Feet (in 60 minutes)
Noise Level	23.7 Decibels (lowest setting)
Filter Class	HEPA
Particle Retention Size	0.3 Micron
Contaminant Filtration Capability	Dust, Odors, Pet Dander, Pollen, Volatile Organic Compounds (VOCs)
Controller Type	Touch
Wattage	72 watts
Power Source	Corded Electric
Special Features	Filter Life Indicator, Real Time Air Quality Indicator, Smart Mode
Certifications	CARB Certified, ETL Certified, Energy Star Certified

8. WARRANTY AND SUPPORT

8.1 Manufacturer's Limited Warranty

The COWAY Airmega 450 Air Purifier is backed by a 3-year manufacturer's limited warranty. This warranty covers defects in materials and workmanship under normal use. Please retain your proof of purchase for warranty claims.

8.2 Customer Support

For further assistance, technical support, or warranty inquiries, please contact Coway customer service. Refer to the contact information provided in your product packaging or visit the official Coway website.



