



Powerology

Powerology Nival Portable 500 W Air Conditioner

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Product Introduction

The Powerology Nival Portable 500 W Air Conditioner is a compact, high-quality portable air conditioning unit designed for household indoor use. Powered from a standard 220–240 V~, 50/60 Hz AC outlet, it consists of a main board, remote control, display panel, sensor, compressor, internal and external motors, an internal condensate tank and drain pump, and offers four working modes – Cooling, Sleep, Dehumidification and Fan (air supply) – with anti-freezing protection, a 3-minute compressor protection delay, fault protection and power-loss memory for reliable everyday operation.

Safety Information

Warning:

1. Do not immerse the unit, power cord, or plug in water or any liquid.
2. Do not use the appliance near open flames, heat sources, or flammable materials; the R290 refrigerant is combustible.
3. Do not puncture, drill into, or damage the refrigerant circuit inside the unit.
4. Do not disassemble, modify, or attempt to repair the compressor or sealed system yourself.
5. Do not operate the unit with a damaged power cord or plug; contact qualified service personnel for replacement.
6. Only connect to a properly grounded AC 220V outlet that matches the rated power; do not use extension cords or multi-plug adapters.
7. Do not insert fingers or objects into the air intake, exhaust ducts, or fan grilles while the unit is running.
8. Do not tip, drop, or operate the appliance on an unstable or inclined surface; keep it upright during use and transport.
9. Do not cover the air inlets or exhaust outlets during operation, as this may cause overheating or fire.
10. Keep the appliance out of reach of children and do not allow it to be used as a toy.

11. Do not use the unit in bathrooms, laundry rooms, or other high-humidity or wet locations where it may contact water.
12. The exhaust hose and exhaust outlet become hot during operation — keep skin, children and heat-sensitive materials clear, and allow the unit to cool fully before handling, cleaning or storage.
13. R290 refrigerant is flammable: do not use mechanical devices or any means to accelerate defrosting or cleaning other than those recommended by the manufacturer, and do not pierce or burn any part of the refrigerant circuit.
14. Servicing of the refrigerant circuit must be performed only by technicians certified to handle flammable refrigerants (R290); the unit contains 70 g of R290 and must be installed and operated in a room with a floor area of at least 4 m² for the refrigerant charge.
15. This appliance may be used by children aged 8 and above and by persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, only if they have been given supervision or instruction concerning safe use and understand the hazards involved; cleaning and user maintenance must not be performed by children without supervision.
16. Only connect to a properly grounded AC 220–240 V~, 50/60 Hz outlet that matches the rated power; do not use extension cords or multi-plug adapters.
17. Do not install or operate the unit in a room smaller than 4 m² of floor area, as required for the R290 refrigerant charge.
18. In the event of a suspected refrigerant leak, immediately switch off and unplug the unit, extinguish all open flames and ignition sources, thoroughly ventilate the room, evacuate occupants, and contact certified service personnel — do not restart the appliance until it has been inspected.

Attention:

1. Follow all instructions in this manual before operation.
2. Leave at least 30cm of clearance around the air intake and exhaust ducts to ensure proper airflow and prevent overheating.
3. Install and route both exhaust ducts to the outside so hot air is vented away from the cooled area.
4. Place the unit on a level, stable surface and keep it upright for at least 2 hours before first use after transport.
5. Empty the condensate water tank regularly and before storage to prevent leakage or odor.
6. Clean or rinse the air filter periodically to maintain cooling efficiency.
7. Use the appliance only within its rated coverage area of up to 10m² for effective cooling performance.
8. When stored for long periods, drain any residual water, clean the filter, and keep the unit in a dry, upright position.
9. In case of any malfunction, unusual noise, or refrigerant odor, switch off, unplug the unit, and contact customer service.
10. Operate the appliance only within the rated ambient temperature range of 16 °C – 35 °C; store the unit between -10 °C and 50 °C in a dry, upright position to preserve anti-freeze protection and refrigerant integrity.
11. Install the unit only in a room with a minimum floor area of 4 m² and use it within its rated coverage area of up to 10 m² for effective cooling performance and safe operation of the R290 refrigerant system.

Operation

1. Package Contents

In the box: the unit, remote control, exhaust hose, window kit and drain hose.

A separate collection bucket is not supplied; the unit uses its integrated tank with the pump/hose for drainage.

2. Power Connection

If the appliance has just been moved, wait at least half an hour before switching it on.

Confirm your mains supply matches the voltage and frequency shown on the nameplate (220–240 V~, 50/60 Hz).

Plug the appliance directly into a properly earthed wall socket suitable for its rated current — do not use extension cables.

Ensure the socket circuit has a grounding connection; the manufacturer is not liable for damage caused by use without proper earthing.

Make sure the unit is placed upright on a level, stable surface before power-on.

3. Power On / Off

Press the Power (Switch) key once to turn the unit on from standby.

The last used mode and settings are restored automatically thanks to power-loss memory.

Press the Power key again to return the unit to standby.

Note: after switch-off, the compressor requires a minimum 3-minute delay before it will restart.

4. Selecting a Mode

Press MODE to cycle through Cool → Sleep → Dry (Dehumidification) → Fan.

In Cool mode, use + / - to set the target temperature (16 °C – 32 °C).

In Sleep mode, the unit runs quietly with gently adjusted temperature for overnight comfort.

In Dry mode, the appliance dehumidifies the room; fan-speed adjustments are disabled.

In Fan mode, air is circulated without cooling; use Fan Speed to choose High, Medium or Low.

Note: The °C/°F display toggle is available in Cool or Sleep mode – press and hold + and – together for approximately 3 seconds.

5. Fan Speed and Temperature

Press Fan Speed to switch between High, Medium and Low airflow (available in Cool and Fan modes).

Use the + key to raise the set temperature and the – key to lower it, in 1-degree steps.

In Cool or Sleep mode, hold + and – together for approximately 3 seconds to switch the display between °C and °F.

6. Timer

The Timer function is available on the remote control only.

While the unit is running, press TIMER, then use + / – to set the number of hours until automatic shutdown (1–12 hours).

While in standby, press TIMER and use + / – to set a delayed switch-on time.

Press TIMER again to cancel a scheduled action.

7. Draining Condensate

During cooling and dehumidification, condensate collects in the internal collection tank.

For continuous drainage, connect the supplied drain hose to the drain outlet before starting the pump.

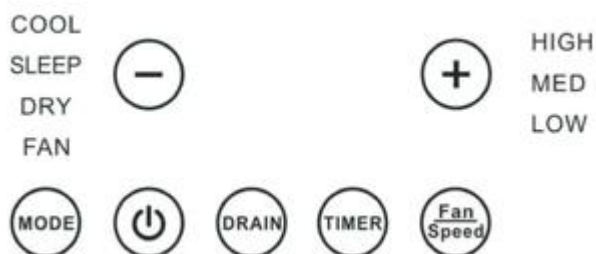
Press DRAIN once to start the internal drain pump; press again to stop it.

Do not start the drain pump without the drain hose connected, as water may overflow.

In very humid conditions the internal tank may still need to be emptied manually – drain any residual water before transporting or storing the unit.

Control Panel

The control panel provides access to all main functions of the air conditioner. Use MODE to cycle through Cool, Sleep, Dry and Fan; use Fan Speed to switch between High, Medium and Low; use the – and + keys to adjust the set temperature, and DRAIN and TIMER for water discharge and scheduled operation.



1. MODE – switch between Cool, Sleep, Dry and Fan modes
2. Power (Standby) – turn the unit on or place it into standby
3. DRAIN – start or stop the internal drain pump (Dehumidification)
4. TIMER – set delayed on / off (remote control only)
5. Fan Speed – select High, Medium or Low fan output
6. – key – decrease set temperature (hold +/- together for 3 s to toggle °C/°F)
7. + key – increase set temperature (hold +/- together for 3 s to toggle °C/°F)
8. Mode indicators – COOL, SLEEP, DRY, FAN
9. Fan-speed indicators – HIGH, MED, LOW

Installation Example

The unit is designed for indoor household use and can be installed with its exhaust hose routed through a suitable opening – for example, a tent window or wall vent – to expel warm air outside while the conditioned air is delivered into the space. Keep the appliance upright on a level surface, with the air inlet and outlet unobstructed.

Name and content of harmful substances in the product						
Part name	Hazardous substances					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent chromium (Cr(VI))	Polybrominated biphenyls (PBBs)	Polybrominated diphenyl ethers (PBDE)
Compressors and accessories	X	O	X	O	O	O
Heat exchanger	O	O	O	O	O	O
Piping fittings and valves	X	O	O	O	O	O
Refrigerants	O	O	O	O	O	O
Motor	X	O	O	O	O	O
Control box and electrical components	X	O	X	O	O	O
Power cords and cables	O	O	O	O	O	O
Fasteners such as screws and gaskets	O	O	O	O	O	O
Rubber parts	O	O	O	O	O	O
Other metal parts	O	O	O	O	O	O
Other plastic parts	O	O	O	O	O	O
Printed copy	O	O	O	O	O	O

Specifications

Rated Power (input)	500 W
Rated Voltage	220–240 V~, 50/60 Hz
Refrigerant Type	R290
Refrigerant Charge	70 g
Cooling Technology	Compressor Cooling
Operating Modes	Cooling / Sleep / Dehumidification / Fan
Exhaust System	Single exhaust hose (supplied)
Area Coverage	Up to 10 m ²
Cooling Set-Point Range	16 °C – 32 °C
Operating Ambient Temperature	16 °C – 35 °C
Storage Ambient Temperature	-10 °C – 50 °C
Minimum Installation Room Area	4 m ²
Product Weight	13 kg
Product Size	500 × 280 × 305 mm
Model Number	PWV1PRO

Key Features

1. Four working modes: Cooling, Sleep, Dehumidification and Fan (air supply).
2. Compact, portable 13 kg body with 500 W rated input power.

3. Low-noise operation designed for comfortable bedroom and living-room use.
4. Three-speed fan control — High, Medium and Low — for tailored airflow.
5. Anti-freezing protection, 3-minute compressor protection and fault protection for safer, longer service life.
6. Power-loss memory automatically restores the last settings after a power interruption.
7. Environmentally friendly R290 refrigerant with low greenhouse-effect value.
8. Remote control with timer function (on/off scheduling from 1 to 12 hours).

Maintenance Tips

1. Routine Care

Unplug the appliance from the mains before any cleaning or maintenance.

Allow the exhaust hose and exhaust outlet to cool before handling, cleaning or storing the unit.

Clean the filter screen regularly to maintain airflow and cooling efficiency.

Keep the air inlet and outlet grilles free of dust, curtains or other obstructions.

Wipe the outer housing with a soft, slightly damp cloth — never use solvents, petrol or abrasive cleaners.

Check the exhaust hose and its connections periodically for kinks, blockages or leaks.

Keep the unit at least 45 cm away from flammable materials such as alcohol or aerosol cans.

Do not place heavy or hot objects on top of the appliance.

When transporting, keep the appliance upright; drain any residual condensate first and wait 30 minutes before restarting after transport.

Frequently Asked Questions

1. How do I switch between Celsius and Fahrenheit on the display?

In Cool or Sleep mode, press and hold the + and - keys together for about 3 seconds. The temperature display will toggle between °C and °F.

2. Why does the compressor take a while to restart?

The unit includes a 3-minute compressor protection. After a shutdown or power interruption the compressor will not restart for at least 3 minutes, which protects the refrigeration system and prolongs service life.

3. Which refrigerant does this air conditioner use?

The unit is charged with R290 refrigerant (70 g), an environmentally friendly gas that does not damage the ozone layer and has a very low greenhouse-effect value. Only technicians certified for flammable refrigerants may open the refrigeration circuit.

4. Can I use the appliance outdoors?

No. The appliance is designed for household indoor use only. Store and operate it in a well-ventilated room; do not install it in rooms containing natural gas, petrol or sulphur, or close to a heat source.

5. Do I need to drain the water manually?

Under most conditions the built-in drain pump handles condensate via the supplied drain hose — press DRAIN when required. In very humid conditions, empty the internal collection tank manually, especially before moving or storing the unit.

6. The Timer button does not respond on the display panel.

Why?

The Timer function is available only on the remote control, not on the on-unit display panel. Use the remote to set delayed on/off schedules from 1 to 12 hours.

Troubleshooting

Problem	Likely Cause	Solution
The unit cannot be turned on	Not plugged in, plug loose, or unit switched off	Ensure the plug is fully inserted into the socket and press the Power key once
The unit cannot be turned on	Internal connecting cable disconnected	Open the large cover and reconnect the internal cable, or contact after-sales service
Cooling effect is not good	Filter screen covered in dust	Clean the filter screen
Cooling effect is not good	Air inlet or outlet blocked	Remove any obstruction from the inlet and outlet
Cooling effect is not good	Room too large, doors/windows open, or extra heat sources present	Close doors and windows, remove heating equipment, use in an appropriately sized room
Cooling effect is not good	Exhaust pipe not connected or blocked	Reattach or clean the exhaust duct
Water leakage from the unit	Unit not placed horizontally, or drain blocked	Place the unit on a level surface and clean the drain pipe

Problem	Likely Cause	Solution
Water leakage from the unit	Too much accumulated condensate	Drain the internal condensate tank using the drain hose and pump
Excessive noise or vibration	Unit not placed level, or filter mesh blocked	Level the unit and clean the filter screen
Excessive noise or vibration	Loose objects on or against the unit	Remove any items touching the appliance
Strange odour	Unit unused for a long time and has absorbed smells from the surroundings	Run the unit for 2–5 minutes; the odour will disappear as air circulates
Fault code EI on the display	Indoor ambient temperature sensor open or short-circuit	Unit will halt; contact an authorised service centre for sensor inspection

Disposal

This product must not be disposed of as unsorted household waste. It is important to separate such waste for proper treatment and recycling, in compliance with local waste management regulations.

Warranty

Products that you buy directly from our Powerology website or shop come with a 24-month warranty.

The 24-month warranty applies to products purchased directly from our Powerology website or store. If Powerology products are bought

from any of our verified retailers, then the product is eligible for only a 12-month warranty. To extend your product's warranty, visit our website www.powerology.me/warranty and fill in your details in the provided form along with an uploaded picture of the product to process your request. Once approved, you will receive a confirmation email of the extended product warranty. Upload the required information within 48 hours of purchase to be eligible for a 24-month warranty period.

For more info, please check: www.powerology.me/warranty

Contact Us

Email: **hey@powerology.me**

Website: **www.powerology.me**

Instagram: **powerology_official**

Facebook: **powerology.ME**