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Nu-Calgon 4900-20

Nu-Calgon 4900-20 i-Wave Air Purification System

Model: 4900-20 | Brand: Nu-Calgon

1. INTRODUCTION

The Nu-Calgon 4900-20 i-Wave is an advanced air purification system designed to enhance indoor air quality within HVAC duct systems. This unit utilizes needlepoint ionization technology to reduce airborne pathogens, allergens, odors, and other particles. Its versatile design allows for easy integration into various HVAC setups, providing a cleaner and healthier living or working environment.



Image showing the compact design of the Nu-Calgon 4900-20 i-Wave unit with its wiring harness.

2. KEY FEATURES

- **Patent-Pending Self-Cleaning Design:** Eliminates the need for maintenance and cartridge replacements.
- **Duct System Compatibility:** Suitable for duct systems up to 6 tons (2400 CFM).
- **Universal Voltage:** Operates with 24VAC to 240VAC power supplies, automatically adapting to the detected voltage.
- **Universal Mounting:** Features integrated magnets for easy attachment to metal surfaces or can be screwed into ductwork.
- **Air Purification:** Effectively reduces pet dander, cooking smells, cigarette smoke, mold, mildew, and bacteria.

3. INSTALLATION

Proper installation ensures optimal performance of your i-Wave air purification system. It is recommended to install the unit between the air filter and the blower motor to maximize airflow through the ionization field.

3.1 Mounting Options

- **Magnetic Mounting:** The i-Wave unit is equipped with powerful magnets on its back. For metal furnace or air handler sidewalls, simply attach the unit magnetically. This method simplifies installation by avoiding the need to cut into ductwork.
- **Screw-in Mounting:** If magnetic attachment is not feasible, cut an appropriately sized hole in the ductwork. The unit can then be secured by screwing it into place using the designated screw points.

3.2 Wiring

The i-Wave unit features universal voltage compatibility, automatically detecting and adapting to 24VAC, 120VAC, or 240VAC power sources. Connect the following wires:

- **Ground Wire:** Connect to a suitable ground.
- **Black Wire:** Connect to the live/hot terminal.
- **White Wire:** Connect to the neutral terminal.
- **Maroon Wires (Optional Sensor):** Two maroon wires are provided for an optional sensor connection. This sensor can be integrated with building management systems or external indicators to monitor the unit's operational status.

Ensure all electrical connections are secure and comply with local electrical codes.

4. OPERATION

The Nu-Calgon 4900-20 i-Wave operates whenever your HVAC system's fan is actively circulating air. The ionization process begins immediately, releasing ions into the airstream to neutralize pollutants. For continuous air purification, it is recommended to set your HVAC fan to run continuously, especially during periods of high occupancy or when specific air quality concerns are present.

5. MAINTENANCE

One of the primary benefits of the Nu-Calgon 4900-20 i-Wave is its minimal maintenance requirement. The unit features a patent-pending self-cleaning design that automatically cleans the ionization needles every three days. This eliminates the need for manual cleaning or the replacement of expensive cartridges, ensuring consistent performance with virtually no user intervention.

6. TROUBLESHOOTING

If you encounter issues with your Nu-Calgon 4900-20 i-Wave, consider the following:

- **Unit Not Operating:**

- Verify that the HVAC system's fan is running. The i-Wave only operates when air is circulating.
- Check all electrical connections (ground, black, white wires) to ensure they are secure and receiving power.
- If using the optional sensor (maroon wires), ensure it is correctly connected and not indicating a fault.

- **Persistent Odors or Poor Air Quality:**

- Confirm the unit is installed in the optimal location (between the filter and blower) for maximum air exposure.
- Ensure the HVAC fan is running for sufficient periods to allow for effective air treatment.

For issues not resolved by these steps, contact Nu-Calgon customer support or a qualified HVAC technician.

7. SPECIFICATIONS

Brand	Nu-Calgon
Model Number	4900-20
Color	Black
Product Dimensions	9"D x 6"W x 4"H
Item Weight	0.01 ounces
Duct System Capacity	Up to 6 Tons (2400 CFM)
Universal Voltage	24VAC to 240VAC
Special Features	Patented Self-Cleaning Design, Needlepoint Ionization
Filter Class	Ionization
Specification Met	UL 867
UPC	681001490023

8. WARRANTY AND SUPPORT

The Nu-Calgon 4900-20 i-Wave Air Purification System comes with a **3-year warranty** from the date of

purchase. This warranty covers defects in materials and workmanship under normal use and service. For warranty claims, technical assistance, or further product information, please visit the official Nu-Calgon website or contact their customer support directly. Keep your proof of purchase for warranty validation.