# hvac SALES

# Instruction Bulletin

# **Specifications:**

Input Voltage: 24VAC or 110 - 240VAC

 Power (VA):
 12 VA

 Frequency:
 50/60 HZ

Fusing: Internal auto-reset circuit breaker

System Size Up to 12 tons (4800 CFM)\*

**Dimensions:** 4" W x 7" H x 7" L

Weight: 3 lbs.

**Electrical Approvals:** UL and cUL approved **Plasma Output:** Over 200,000,000 ions/cc

**Indication:** LED display

Alarm: Includes optional alarm contact

Mounting: Duct mount

Orientation: Mount unit so air flows across brushes

like a football through a field goal post

\*For systems beyond 12 tons, multiple iWave-Cs can be used. Install a minimum of two feet apart for maximum ion output.

# Packaging:

1 each 4900-10

#### Installation:

The iWave-C is designed for metal duct mounting applications. The preferred mounting location is after a prefilter and before the cooling coil. An alternate mounting location is the supply air duct or the return air duct. The weatherproof housing will allow mounting indoor or outdoor.

Step 1. Turn power off to the unit.

**Step 2.** After finding the appropriate location, cut or drill a 4 inch (100mm) round hole. Insert the unit into the 4 inch (100mm) round hole and secure with four self tapping screws provided. Please note, if the unit is being mounted to duct board, the included spring loaded wing nuts and bolts will be required.

#### Wiring:

Confirm power is off prior to wiring. Follow all local and national electric, mechanical and building codes when installing and wiring. The iWave-C can be powered with a 24VAC low voltage circuit or 110VAC to 240VAC high voltage circuit. The face panel of the unit is labeled showing which terminals are 24VAC, 110-240VAC input and neutral and come prewired from the factory. Opening the unit is not necessary for installation. Please note, use only one voltage source at a time and never connect low and high voltage simultaneously! Whichever voltage is not used, use a wire nut to protect the unused wire. The unit is provided with 6 feet of liquid-tight flex conduit to reach a junction box for wiring.

Indoor Air Quality

iWave<sup>™</sup>-C

Commercial Air Cleaner



The wires are color coded as follows:

- Black wire = 110-240VAC input
- White wire = Neutral
- Orange (or gray) wire = 24VAC input
- Purple wire = Alarm Dry Contact

The unit is provided with alarm contacts for use with a building management system. When the unit is powered and there are no faults, the alarm "dry" contacts will be closed, providing continuity. The contacts are rated up to 250VAC at 1A.

**CAUTION!** NEVER TOUCH BRUSHES WHILE OPERATING. SHOCK MAY OCCUR. DO NOT CONNECT WITH AN EXTENSION CORD.



### Operation:

Once powered, the unit initiates an internal check of all systems. After initializing, the display will blink between "On", "GPS" and the number of days the unit has been powered. If there is a fault, the unit display will show "FALT".

Cleaning Cycle — The iWave-C comes with a preset cleaning cycle designed to clean the brushes every 5 days. At any time, the cleaning cycle test button on the front panel may be pushed and the unit will initiate a cleaning cycle. While the cleaning cycle is engaged, the display will change to "CLEA". To change the cycle frequency, hold the cleaning cycle button in for 5 seconds once the display shows "CLEA" and then press it until you see the number of days you want it to wait between cycles, 1, 5, 10 and 20. Most applications will never require reprogramming.

#### **Maintenance:**

The iWave-C is designed to be maintenance free for years of trouble-free operation with the patent pending self-cleaning system; eliminating the need to replace expensive UV lights/cells every couple of years as with competing technologies. Although extensively tested for durability, it's possible over years of self-cleaning cycles, the carbon fiber brushes can wear from friction and require replacement. With the unit powered off, remove the iWave-C from the duct. Remove the two Phillips screws that fasten the brushes to the iWave-C. Pull the brushes out of the electrical connector and insert new brushes (available through Nu-Calgon). Replace the Phillips screws and attach the iWave-C into the duct and reenergize the device to initiate normal operation.

# Troubleshooting:

<u>Problem</u>	Solution
Unit won't power up	Confirm proper voltage is applied and to the correct terminal
Display shows "FALT"	Remove power, wait one minute and reapply power. If "FALT" still appears, try using alternate power source, i.e. low voltage input versus high voltage input or vice versa. If FALT still shows, call Nu-Calgon.
No Display / LED	If the correct voltage source has been confirmed and the unit does not power up contact Nu-Calgon.

# **Limited Warranty:**

The iWave-C is warranted for three years and covers any defects in material or workmanship under normal use. If during the warranty period a claim is made, the product will be replaced. GPS' warranty does not cover labor, return shipping charges, damage from connecting the unit to the wrong voltage, or improper iWave-C installation in system. See GPS' standard warranty, terms and conditions available at www.nucalgon.com for further information. Contact your local Nu-Calgon account manager with further questions.

