

## FLEXIBLE AIR IONIZATION SYSTEM FOR DUCTLESS AND OTHER HVAC SYSTEMS

- Special ion needles routed in a flexible bar circuit
- Compact design to fit most ductless cooling coils up to 1,600 CFM
- iWave is UL 867 ozone standard certified to produce no unsafe levels of ozone
- Can flex easily in the field to accommodate virtually any application - ideal for ductless systems
- Chemical and temperature resistant, durable for long service life
- No replacement parts
- Multi-voltage input - 110VAC to 240VAC
- Reduces certain bacteria and viruses
- Reduces odors, smoke and airborne particles
- Keeps coil cleaner
- UL and cUL recognized
- Three-year warranty

### Description

iWave-M is a flexible ion-generating bar that can treat IAQ in nearly any HVAC application. The air ionization system provides the highest level of ionization energy in the most compact size available in the market, producing 35 million ions/cc per foot. The highly versatile iWave-M is low maintenance with no replacement parts. As the air flows past the iWave-M, the device emits positive and negative ions that treat the air, reducing certain bacteria and viruses in the coil and living space. The ionization process also reduces smoke, odors (cooking, pet, VOCs), as well as other particles (no more sunbeams) in the air. iWave is UL 867 ozone standard certified to produce no unsafe levels of ozone.

### Application

iWave-M's revolutionary circuit bar with special integrated ion-generating needles fits almost all ductless cooling coils up to 1,600 CFM. The circuit bar is chemical resistant and highly durable for long service life. Plus, it can be folded to length in the field to any size and uses hook and loop for the flexible bar and power pack for easy installation. It is perfect for ductless HVAC systems - specifically mini-splits, commercial VRF coils, PTAC systems - plus some residential and commercial duct systems, packaged systems, transport cooling coils or even in ice machines. The iWave-M is the most versatile and novel product on the market to address air quality for any HVAC system, in particular to solve certain bacteria issues common in hard-to-clean ductless systems.

### Packaging

1 each

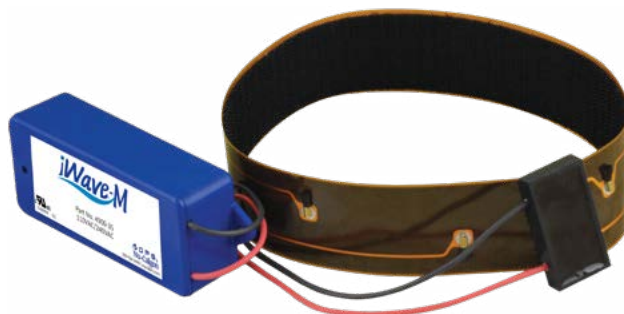
4900-35



## Indoor Air Quality

### iWave®-M

#### Mini Flexible Air Ionization System



### Specifications

<b>Input Voltage:</b>	110VAC to 240VAC
<b>Power (VA):</b>	5 Watts
<b>Frequency:</b>	50/60 HZ
<b>Ion Output:</b>	35 million ions/cc per foot
<b>Output Voltage:</b>	5 KV
<b>Power Supply Dimensions:</b>	2.0" W x 1.0" H x 3.0" L
<b>Flexible Bar Dimensions:</b>	1.25" W x 0.05" H x 18" L
<b>Power Supply Weight:</b>	0.5 lb.
<b>Electrical Approvals:</b>	UL and cUL recognized
<b>Service Temp. Range:</b>	-40°F to 140°F

### iWave-M Installation Instructions

The iWave-M is a highly versatile ion generating device that is designed to be typically installed at the base of the cooling coil for ductless and duct air conditioning systems; but the device can be installed in supply air as well. The iWave-M is an ideal, no replacement part device that can be integrated into wall or ceiling cassette indoor coils of mini-splits to inhibit certain bacteria in ice machine applications. For coils beyond the 18 inch ionizer length, simply center the ionizer bar on the coil to make sure the ionization best covers the coil width. For coils shorter than 18 inches, see the section on iWave-M modification directions on the back page. Simply use the hook and loop backing on the power pack and ionization bar and stick it across the width of the coil, near its base so the iWave-M treats the coil as well as the breathing zone. Connect the appropriate leads of the iWave-M to 110VAC to 240VAC power and reassemble the equipment and turn on power to the unit.

**More Instructions on Back.**

## Mini-Split Instructions:

1. Turn power off to mini-split.
2. Open front cover of indoor unit.
3. Remove filter screens.
4. Measure the length of coil and affix ionizer bar to solid surface (often plastic) on top of the coil. The width of the plastic region will easily accommodate the iWave-M ionizer bar so it can treat the coil, barrel blower and breathing zone of the room. For coils between 18-36 inches, center the ionizer bar on top of the coil and affix. For coils less than 18 inches, refer to the iWave-M modification directions below.
5. Depending on mini-split model, the area available to mount power pack will vary. Either affix with hook and loop backing to back cabinet wall or side of coil.
6. Run wires to the electrical compartment to hook up to 110VAC to 240VAC power source to where iWave-M will power on with the indoor fan. For 110/120VAC and 208/240VAC input, connect black wire (hot) and white wire (Neutral or Other AC Phase) to applicable electrical terminal block.
7. Trim wires to length hook up to appropriate terminal connections and connect. Harness/secure wires within the equipment as necessary.
8. Reassemble filter screens, close the front cover and turn on power to mini-split.

## iWave-M Modification Directions:

When the iWave-M is too long for the coil which it's being applied, perform the following steps:

1. Measure how much past the end of the coil the iWave-M lays.
2. Bend the iWave-M back on top of itself (DO NOT bend under with hook and loop backing facing each other) so the brush pairs on the top will lay next to the brush pairs on the bottom, shown in Figure 1.
3. Using the provided hook and loop strip attach the iWave-M to the cooling coil starting at the power entry side of the iWave-M. DO NOT press down on the end of the iWave-M that will need folded to shorten the length. See Figure 2.
4. Fold the iWave-M back to achieve the length required, lining up the bottom and top layer brush pairs as shown in Figure 2, and place a piece of electrical tape across the joint. See Figure 3.
5. Continue to use electrical tape down the iWave-M towards the end, making sure that the tape joints are between the brush pairs. DO NOT allow the tape to cover the brush pairs. See Figure 3.
6. DO NOT crease the end of the iWave-M flat. As a guide, use a #2 Phillips screwdriver inside the fold joint to ensure the proper bend is achieved. See Figure 4.
7. Once the iWave-M has been folded and taped to the length required, push it down on the coil.
8. A successful fold procedure will create "pockets" for the carbon fiber brushes to emit the ions.



Figure 1



Figure 2



Figure 3



Figure 4

## Typical Location Install on Ductless Wall System:

Figure 5

Affix iWave-M power pack to back of cabinet.



Affix iWave-M to the top of coil on plastic strip (or top of fins) to treat coil, blower and living space.

**Cleaning:** If required, use a wet wipe or damp cloth to clean the ionizer bar. A soft bristle brush, like toothbrush, can also be used to clean debris from ion emitters. Do not expose the iWave-M to corrosive cleaners. Contact Nu-Calgon for further guidance with coil cleaner options.