# Nu-Calgon Product Bulletin

# FLEXIBLE AIR PURIFIER FOR DUCTLESS AND OTHER HVAC SYSTEMS

- Special ion needles routed in a flexible bar circuit
- Compact design applicable for HVAC cooling coils up to 48" wide
- 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
- Flexible voltage input 110VAC to 240VAC
- Kills mold, bacteria and viruses
- Reduces allergens, odors, smoke, static electricity and airborne particles
- Reduces ventilation requirements
- Keeps coil cleaner
- UL and cUL approved
- Three-year warranty

#### **Description**

iFlex is a flexible ion-generating bar that can treat IAQ in nearly any HVAC application. The air purifier provides the highest level of ionization energy in the most compact size available in the market, producing 240 million ions/cc per linear feet. The highly versatile iFlex is low maintenance with no replacement parts. As the air flows past the iFlex, the device emits positive and negative ions, creating a plasma region that purifies the air, killing mold, bacteria and viruses in the coil and living space. The ionization process also reduces allergens, smoke and static electricity, as well as controlling odors (cooking, pet, VOCs) and other particles (no more sunbeams) in the air without creating ozone or any harmful byproducts.

## Application

iFlex's revolutionary circuit bar with special integrated iongenerating needles fits any HVAC cooling coil up to 48" wide. 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 engineered double-sided adhesive 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 residential and commercial duct systems, packaged systems, transport cooling coils or even in ice machines. iFlex can also be used to reduce outside air for commercial applications per ASHRAE 62.1 IAQP. The iFlex is the most versatile and novel product on the market to address air quality for any HVAC system, in particular to solve mold issues common in hard-to-clean ductless systems.

#### Packaging

1 each

4900-30



#### **Indoor Air Quality**

**iFlex**™ Cold Plasma Air Cleaner



## **Specifications**

Input Voltage:Power (VA):Power (VA):SFrequency:SOutput VoltageSPower Supply Dimensions:SFlexible Bar Dimensions:SPower Supply Weight:SElectrical Approvals:S

110VAC to 240VAC 5 Watts 50/60 HZ 5 KV 2.0" W x 1.0" H x 3.0" L 1.25" W x 0.05" H x 36" L 0.5 lb. UL and cUL approved

## iFlex Installation Instructions

The iFlex 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 iFlex is an ideal, no replacement part device that can be integrated into wall or ceiling cassette indoor coils of mini-splits, PTAC units or commercial systems where there may not be enough room to install the iClean between the filter and coil or to inhibit mold in ice machine applications. The 36 inch ion generating bar can be used for coils up to 48 inches wide. For coils beyond the 36 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 36 inches, see the section on iFlex modification directions on the back page.

Simply peel back the sticky backing to the power pack and ionization bar and stick it across the width of the coil, near its base so the iFlex treats the coil as well as the breathing zone. Connect the appropriate leads of the iFlex to 110VAC to 240VAC power and reassemble the equipment and turn on power to the unit.

#### More Instructions on Back.

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## **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 iFlex ionizer bar so it can treat the coil, barrel blower and breathing zone of the room. For coils between 36-48 inches, center the ionizer bar on top of the coil and affix. For coils less than 36 inches, refer to the iFlex modification directions below.
- 5. Depending on mini-split model, the area available to mount power pack will vary. Either affix with adhesive 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 iFlex will power on with the indoor fan. For 110/120VAC input, connect the black wire (hot) and white wire (neutral). For 208/240VAC input, connect black wire (hot) and red wire (other hot leg) to applicable electrical terminal block. **Important:** Always add a wire nut to wire not being used (red or white) depending on voltage input.
- 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.

## iFlex Modification Directions:

When the iFlex 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 iFlex lays.
- 2. Bend the iFlex back on top of itself (DO NOT bend under with sticky 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. Peel the backing off of the iFlex and press it down to the cooling coil starting at the power entry side of the iFlex. DO NOT press down on the end of the iFlex that will need folded to shorten the length. See Figure 2.
- 4. Fold the iFlex back to achieve the length required, lining up the bottom and top layer brush pairs as shown in Figure 1, and place a piece of electrical tape across the joint. See Figure 3.
- 5. Continue to use electrical tape down the iFlex 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 4.
- 6. DO NOT crease the end of the iFlex flat. As a guide, use a #2 Phillips screwdriver inside the fold joint to ensure the proper bend is achieved. See Figure 5.
- 7. Once the iFlex 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 4



Figure 5

