

Installation, Operation & Maintenance Manual

GPS-iRIB[®]-18 & GPS-iRIB[®]-36



NOTICE: This product is to be used only as directed. Read entire manual before use. Do not use unless properly installed.



Thank you for purchasing a GPS-iRIB® air ionization system from Global Plasma Solutions. The GPS-iRIB is a highly versatile device designed to be installed on the coiling coil of ductless systems or PTACs. The units can be installed on systems where there may not be enough room between the filter and the coil for traditional GPS products. The unit comes with adhesive-backed hook and loop tape for ease of installation.

Ductless Mini-Split and PTAC Mounting and Wiring Instruction

1. Turn off the power to the air handling unit (AHU). Follow all local and national electrical and building codes.
2. Remove the filter screens and the cover to expose the coil surface and the power box.
3. Determine where you want to mount the ionization strip on the AHU.
4. Peel off the loop section from the GPS-iRIB and then peel off the paper layer to expose the adhesive.
5. Carefully attached the adhesive backed loop on the AHU at the desired location. Some mini split systems come with a plastic strip along the top of the coil. If so, mount the GPS-iRIB to the plastic strip. Otherwise mount the GPS-iRIB on the finned surface. See [FIGURE 1](#).



CAUTION: *Keep the emitter tips away from loose wires or any grounded parts.*

CAUTION: MAKE SURE POWER IS DISCONNECTED TO THE HVAC EQUIPMENT BEFORE INSTALLATION

6. Each AHU brand will have different space constraints for the power supply. Find an appropriate space to mount the power supply using the included hook and loop tape. Press the power supply firmly to the mounting location. See [FIGURE 1](#).
7. Run the wires to the electrical compartment. Connect the black wire to 100-240VAC and the white wire to neutral. For 208-240VAC installations, connect the white wire to the other hot leg, depending on the power supplied.
8. Trim the wires to length and connect to the appropriate power terminals, normally L1 and L2. Secure wires properly with wire ties or other NEC approved methods.

Figure 1



Operation

1. Turn on power to the AHU.
2. The ion device will be powered when power is applied to the AHU. Note: the ion device is designed to remain energized 24/7 and does not have to cycle with the fan.
3. Once unit is energized, the integral LED on the power pack will illuminate, indicating the unit is active.

BAS Alarm Operation

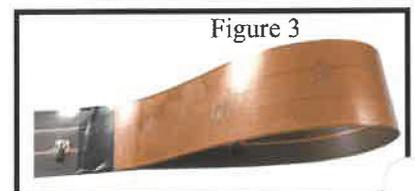
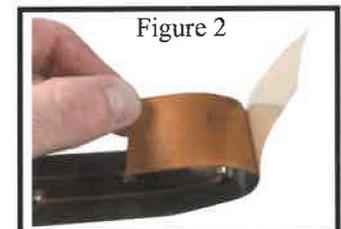
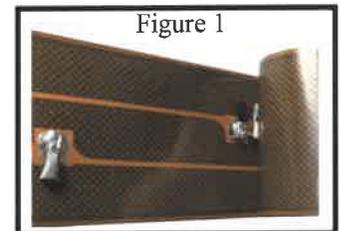
1. The purple wires connect to the integral alarm relay. When the unit is powered and there are no faults, the alarm contacts will be closed. When there is a fault, the contact will open.

Maintenance

1. Remove power from the AHU and remove the required parts to access the iRIB. Confirm the iRIB power supply LED is not illuminated. It is good practice to ensure all voltage is removed from the iRIB. Take a screwdriver with insulated handle and touch a carbon fiber brush brass connector on one side to another on the opposite side. This will discharge any remaining voltage that could cause a potential shock hazard during maintenance.
2. Use a wet wipe or damp cloth to clean the iRIB. A soft bristle brush, like a toothbrush, can also be used to clean debris from ion emitters. Do not expose the iRIB to corrosive cleaners.

How to Reduce the Length of the Flexible Ion Bar:

3. Measure how much past the end of the coil the flexible ion bar extends
4. Bend the bar back on top of itself (DO NOT bend under with the stiky 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. The brass housings should be touching.
5. Peel the backing off of the ion bar and press it down to the cooling coil starting at the power entry side of the device. DO NOT press down on the end of the ion bar that will need to be folded to shorten the length. See figure 2.
6. Fold the ion bar 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. DO NOT flatten section of folded over as this may damage the bar. See Figure 3.



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