

INSTALLATION, OPERATION & MAINTENANCE MANUAL

PLASMA AIR MODEL BAR-X

REV 2018



INTRODUCTION

The Plasma BAR-X is a commercial quality, needle point ion generator intended for installation on the upstream side of the cooling coil in air handling (AHU) and rooftop units (RTU). The Plasma BAR-X is available in lengths of 18 inches up to 144 inches in custom lengths to suit a wide variety of AHU or RTU size applications.

The Plasma BAR-X is effective in reducing harmful pollutants and odors by introducing positive and negative ions into the system airflow which is then delivered to the space. The length and quantity of the BAR-X ionization units are dependent on the internal cross-sectional dimensions of the applicable AHU or RTU coil and the severity of the indoor air pollutants. The Plasma BAR-X ionization assembly is powered with a remote Control Panel provided by Plasma Air. One control panel can power up to two (2) Plasma BAR-X's per AHU or RTU.

INSTALLATION INSTRUCTIONS - GENERAL MOUNTING CRITERIA:

Warning: This product is intended for mounting into metallic construction only. Installation must be such that the structural integrity or function of any heat transfer coil is not compromised. Do not fasten the Plasma BAR-X directly onto the fins or tubes of a coil.

- 1) The preferred mounting location for the Plasma BAR-X is on the entering face of the cooling coil inside of an Air Handling Unit (see Figure 1a). The mounting brackets provided shall be secured to the structural frame of the coil without damaging the coil's fins or tubes. Vertical Uni-strut, by others, may be utilized to aid in mounting of the Plasma BAR-X if necessary (See Figure 1b).
- 2) Once the Plasma BAR-X is securely fastened inside the AHU, mount the factory furnished Control Panel at a nearby location to allow easy connection of the BAR-X wiring harness to the control panel controls (Figure 1a or Figure 1b).
- 3) Connect the power and ground wires to the control panel, connect the ground wire(s) to the Plasma bar(s).
- 4) Set the voltage selector switch to the correct voltage.
- 5) Turn the switch to the "ON" position.
- 6) Install Plasma BAR-X such that ionization needles are pointed down toward the floor of the AHU.
- 7) Do not mount the BAR-X upstream of the system filter.

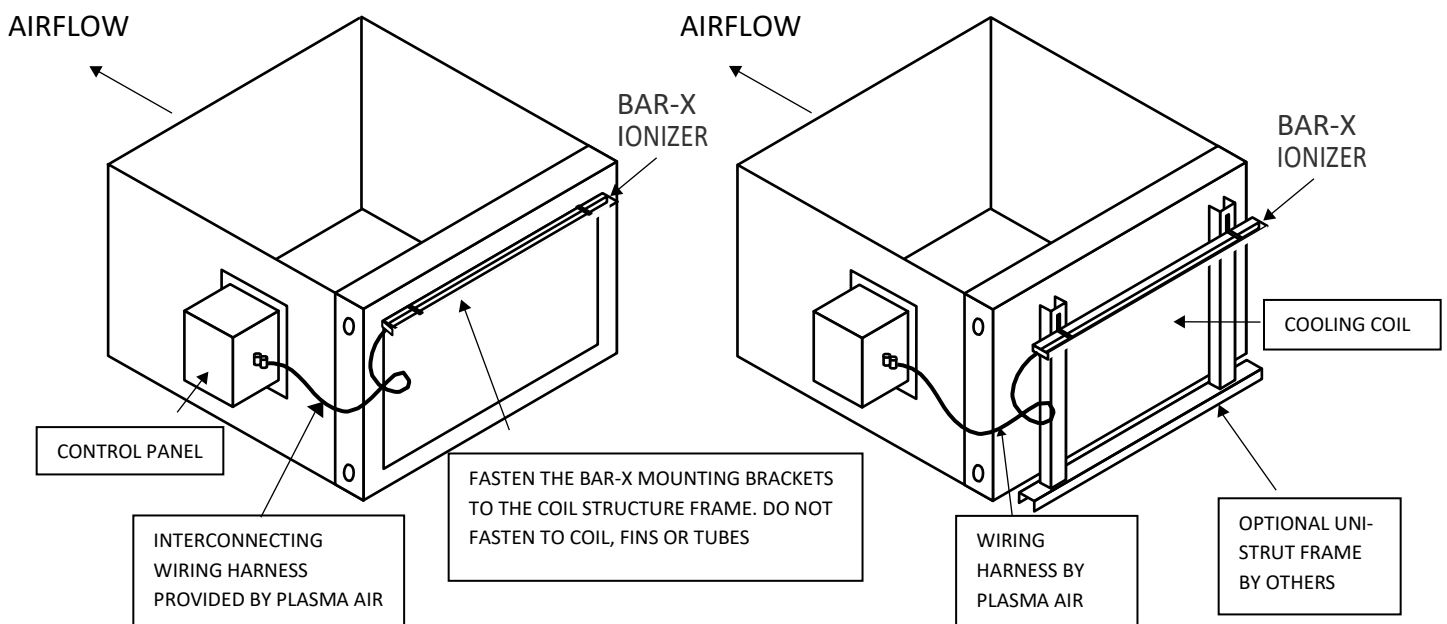


FIGURE 1a

FIGURE 1b

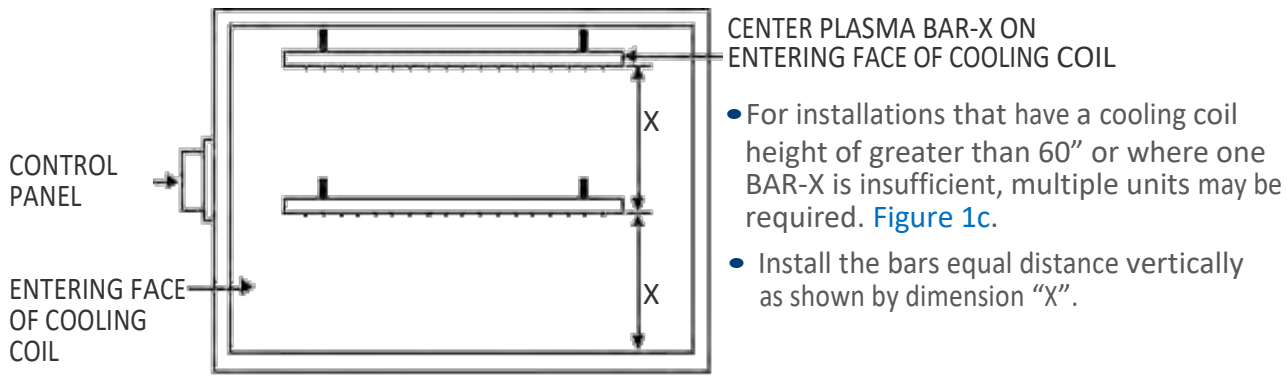


FIGURE 1c Installation for Air Handlers Requiring Multiple BAR-X ionizers.

Always disconnect power to the unit before handling any of the unit components. When connecting (2) Plasma Bar-X to a single power supply connect the wiring harness from each bar to one of the AC out ports of the power supply. Connect the ground wire from each Plasma Bar-X to the ground stud on the power supply.

PLASMA AIR MODEL #PBX-XXX	018	024	030	036	042	048	054	060	066
AIRFLOW TREATED (CFM)	3,750	5,000	6,250	7,500	8,750	10,000	11,250	12,500	13,750
LENGTH OF PLASMA BAR-X (inches)	18	24	30	36	42	48	54	60	66
WEIGHT (LBS)	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5
PLASMA AIR MODEL #PBX-XXX	072	078	084	090	096	108	120	132	144
AIRFLOW TREATED (CFM)	15,000	16,250	17,500	18,750	20,000	22,500	25,000	27,500	30,000
LENGTH OF PLASMA BAR-X (inches)	72	78	84	90	96	108	120	132	144
WEIGHT (LBS)	6.0	6.5	7.0	7.5	8.0	9.0	10.0	11.0	12.0

OPERATION

- 1) When power is supplied to the Control Panel and the switch is in the "on" position, the ionizer is active.
- 2) The ionization unit is self-balancing and does not require any type of adjustment.
- 3) The benefit of the ionization system is realized only when the supply fan is running. Therefore, to achieve improved air quality, interlock the Control Panel to be activated when the supply fan is powered.

TROUBLESHOOTING

If the Plasma BAR-X ionization unit is not working, check that:

- 1) The control panel power switch is in the "on" position, the supply fan is running, and the power indicator light is illuminated.
- 2) The power input connections to the control panel are properly connected. Verify all connections are correct and securely tightened. Reconnect any loose wires.



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