

**MANUAL** – INSTALLATION + OPERATION

# **Bipolar Ionisation** BPI-24V

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## **BIPOLAR IONISATION**

## **INSTALLATION & MOUNTING INSTRUCTIONS**

## Introduction

The BPI-24V is a needlepoint brush type ioniser producing an equal amount of positive and negative ions. This ionisation equipment is effective in reducing harmful pollutants and odours by introducing positive and negative ions into the system airflow. This unit can be found in the RAP. The BPI-24V is self contained in a potted enclosure which has molded flanges with mounting holes. Model is available to accept 24V AC without the use of an external power supply.

## **Electrical Installation Instructions**



Do not connect to power before installation is complete. Always disconnect power to the ioniser before handling.

- All field wiring to be in accordance with NEC and Authorities Having Jurisdiction (AHJ).
- Connect power to the ioniser using appropriate voltage for BPI-24V (24V AC). See figure 3.
- 3. For the best results, wire the ioniser to the fan power.
- 4. Apply power to unit. Confirm that the green indicator light illuminates indicating that the ioniser is functioning properly.

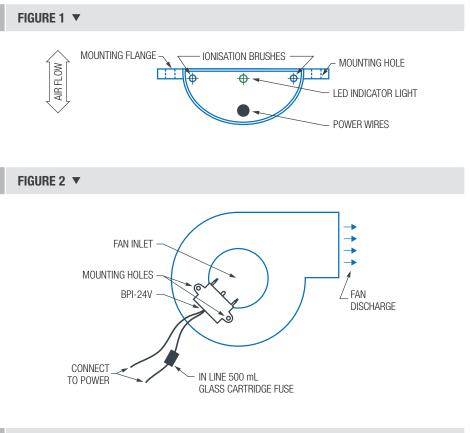
## **Operation**

- When power is supplied to the ioniser, the ioniser will be activated and the green ion indicator light will illuminate.
- 2. The ionisation unit is self balancing and does not require any type of adjustment.

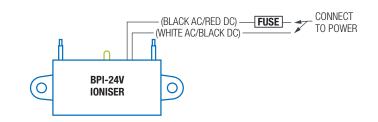
## **Mechanical Installation Instructions**

### **General Mounting Criteria**

- 1. Do not connect to power before mechanical installation is complete.
- 2. Mount ionisation unit to allow access for general maintenance.
- 3. Mount the unit at or near the fan inlet using the holes in the mounting flanges, ensuring that the air stream flows over the 2 brushes simultaneously. See figures 1 & 2.
- 4. The unit should be mounted downstream of a filter.







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## **Specifications**

Airflow Capacity	1130l/s
Pressure Drop	Less than 2.5Pa
Housing Material	ABS
Weight	90g
Maximum Operating Temperature	e 93°C
Electrical	
Voltage Input	24V AC
Power Consumption	Less than 1 watt
Frequency	50/60 hertz
Over Current Protection	500mA Glass Cartridge Fuse
Lead Wires	1.27m
Ionisation Output:	
Mode of Operation	Needlepoint Type
Needle Configuration	Brush Type

#### DIMENSIONS **V** MOUNTING IONISATION BRUSHES MOUNTING TAB TAB 0 \_⊕\_ ₹4.8mm AIR FLOW LED INDICATOR 79.4mm LIGHT **TOP VIEW** IONISATION BRUSHES I FAD LED INDICATOR WIRFS LIGHT ABS POTTED BOX WITH TABS AND MOUNTING HOLES MOUNTING TAB - 5.1mm ⊕ Ð 15.9mm 57.2mm 69.9mm FRONT VIEW LED INDICATOR LIGHT IONISATION LEAD BRUSHES (TYP.) WIRES MOUNTING TAB

25.4mm

SIDE VIEW

31.8mm

Approvals Intertek/ETL Standard UL 867

## Troubleshooting

If the unit is not working, check the following:

- 1. The supply fan is running and that the green light illuminates.
- 2. Check the power input connections to the ionisation unit. Verify all connections are correct and tightened. Reconnect any loose wires as necessary.

## **Sequence Of Operation**

When wired to the fan supply control, the BAS controls the start/stop of the supply fan and bipolar ioniser. When supplied as stand alone for a ducted system, the bipolar ioniser is typically on.