

INTRODUCTION:

The iO HVAC Controls **iO-Nizer**, Ion Generator, electrically charges extremely small particles causing them to attract into clusters large enough to be captured by a quality air filter. It also breaks down VOCs and reduces Odors.

The **iO-Nizer** works with any ducted HVAC system and mounts internally or externally with adjustable position Plasma Ionization Electrodes.

FEATURES:

- Works with HVAC systems up to 6 tons of cooling
- Produces no Ozone
- 3 times more powerful than typical designs
- Stainless Steel enclosure
- Compact to fit strategic locations
- Magnetic mount for internal installation
- 24Volt operation
- 6', 2-wire power cord included
- Mounting hardware included
- 5 Year Warranty

iO HVAC Controls recommends the **iO-Nizer** be installed and serviced by a Licensed HVAC contractor.

iO HVAC Controls does not support installation or product issues where a licensed contractor is not involved.



Basic Electrical Requirements:

The **iO-Nizer** operates on 24 VAC. It is recommended that the device be connected to a dedicated transformer. However, there are other options in this manual that can be considered for powering the device.

Flexible Installation Options:

The **iO-Nizer** is uniquely designed to be installed externally on the metal return air duct prior to the system filter which ensures that charged particulate matter will be collected on the filter. This also allows for easy access when maintenance is required. The HVAC contractor must take all variables into consideration when selecting the installation point.

Package Contents:

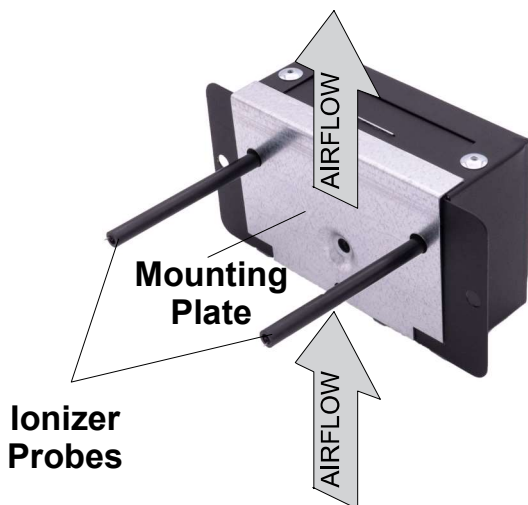
- 1 **iO-Nizer**, Ion Generator
- 1 6', 2-conductor power cord
- 1 Return duct mounting plate
- 1 Industrial mounting magnet
- 2 Self tapping 3/4" hex screws
- 3 1/4" Phillips head screw for mounting plate and optional magnet
- 2 circular foam gaskets

External

Installation: (Recommended)

1. Disconnect main power to the HVAC system.
2. Determine a location on the return air duct prior to the system filter. Use the external mounting plate supplied with the **iO-Nizer** and mark the location of both probe inserts on the duct work.

Note: The airflow should pass across both probes at the same time.



3. Drill 2, 1/4" dia. holes where the probes will be inserted.
4. Rotate the **iO-Nizer** probes 90 degrees and attached to the mounting plate using the 10-32, 1/4" screw.

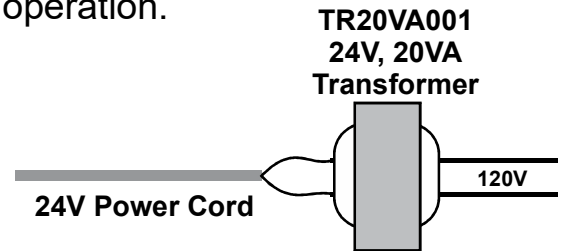
5. Insert a foam gasket over each probe and mount the **iO-Nizer** to the duct using the supplied self-tapping 3/4" hex screws.

Wiring:

Listed below are three options for providing power to the **iO-Nizer**.

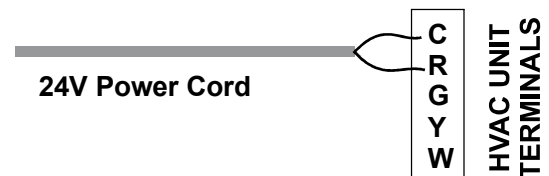
Option 1: (Recommended)

Install a separate 24Volt, 20VA transformer and wire the leads of the provided 2-conductor power cord to the 24 volt side of the transformer. Polarity is not a concern. When power is applied to the **iO-Nizer**, it will remain on continuously but does not affect its operation.



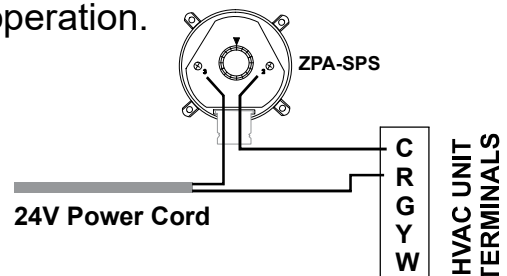
Option 2: (Continuous ON)

This option is the same as Option 1 with the exception that the power cord is wired directly to the 24 Volt HVAC unit terminals **C** (24V Common) and **R** (24V Hot).



Option 3: (Intermittent Operation)

The **iO-Nizer** can also be wired to the HVAC unit terminals using a ZPA-SPS static pressure sensor for intermittent fan operation.



6. After all wiring is completed, plug the power cord into the **iO-Nizer** and restore power. If the unit was wired to the system fan as in Option 3, turn the air handler on at the thermostat.

7. Confirm that the green power LED is illuminated. If the LED is not illuminated, check for 24 volts power at the transformer or HVAC unit terminals where the power cord wires are landed.

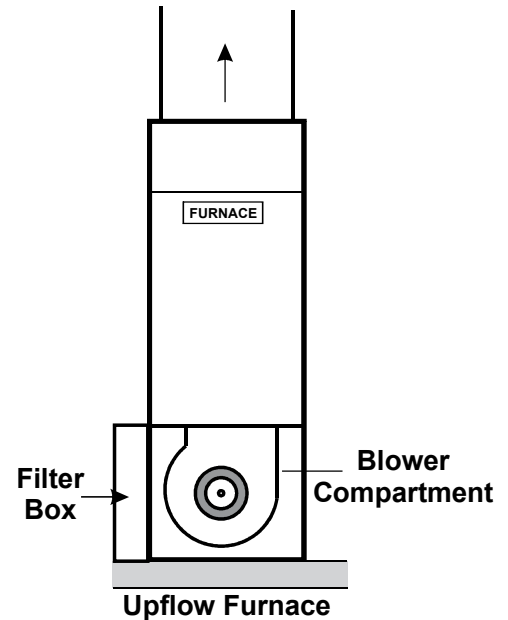
Note: The iO-Nizer is internally fuse protected at 400mA. However, it is recommended that a transformer with circuit breaker or inline fuse be used when possible.

Internal Installation: (Optional)

Although the **iO-Nizer** can be mounted internally in the HVAC equipment blower compartment, it is more labor intensive and does not provide ionized particulate to be filtered before entering the air stream. However, based on the equipment configuration such as an upflow furnace that only has a filter box, internal installation may be the only choice. The **iO-Nizer** will still allow airborne particulate to be captured when air is re-circulated through the filter as well as break down VOCs and reduce odors.

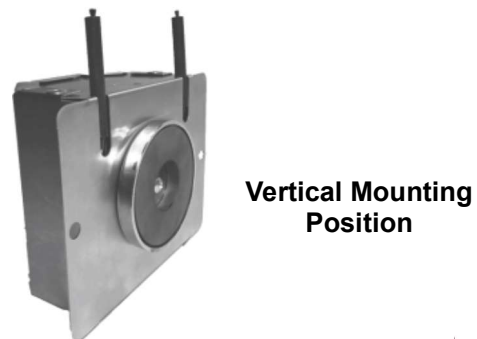
1. Disconnect main power to the HVAC system.
2. Access the HVAC system and remove the blower compartment door.

The illustration shows an upflow furnace with a filter box and no return duct work.



3. The **iO-Nizer** can be mounted using either the industrial magnet or the screws supplied with the product. When using the magnet, the **iO-Nizer** can be mounted on a vertical metal surface or horizontal metal surface of the blower cabinet.

Note: It's important that the ionizing probes be positioned as shown for both vertical and horizontal mounting.



4. Select the best wiring option for the application.
5. After all wiring is completed, plug the power cord into the **iO-Nizer** and restore power. If the unit was wired to the static pressure control, Option 3, turn the air handler on at the thermostat.
6. Confirm that the green power LED is illuminated. If the LED is not illuminated, check for 24 volts power at the transformer or HVAC unit terminals where the power cord wires are landed.

Note: The iO-Nizer is internally fuse protected at 400mA. However, it is recommended that a transformer with circuit breaker or inline fuse be used when possible.

7. When power to the **iO-Nizer** is confirmed, replace the blower access door.

Maintenance:

Periodically it is recommended that the ionization brushes be cleaned to ensure optimum performance. This is a common practice when changing filters or during scheduled service of the HVAC system. Cleaning is as simple as disconnecting power and removing the **iO-Nizer** so brushes can be accessed and cleaned with compressed air or a clean rag to dislodge any accumulated dust.

Specifications:

Power:	24V AC/DC
Amperage:	25 mA
Wattage:	0.6 W @ 24V AC
Dimensions:	4" W x 2.75" H x 1.75" D
Enclosure:	22 gauge galvanized
Finish:	Black Powder Coat
Temp Range:	-4F to 158F
Certification:	UL 867

The iO HVAC iO-Nizer has been designed, manufactured and tested using the most advanced state of the art components available to assure reliability and the highest efficiency.

Although great care has been taken in the preparation of this manual, iO HVAC Controls takes no responsibility for errors or omissions contained herein. It is the responsibility of the installer to ensure that this product and the equipment connected to it operate in a safe and efficient manner.

Due to ongoing product improvements, iO HVAC Controls reserves the right to change the specifications of the iO-Nizer or its components without notice.

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