Installation, Operation & Maintenance Manual

GPS-DM48™-AC

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

For technical product queries, please reach out to techsupport@gpsair.com

Thank you for purchasing a GPS-DM48-AC™ air ionization system from GPS Air.

Hardware Provided by GPS
Before you start, confirm the contents of your shipment. Each GPS-DM48-AC will consist of the following:
1. GPS-DM48-AC with weather tight clear cover and black mounting flange (preinstalled).
2. Weathertight conduit (preinstalled on unit).
3. Self-tapping sheet screws (4).
4. Expanding anchors with screws (4).

Hardware Required by Others
1. Electrical wiring, junction box, or receptacle to provide power to the GPS-DM48-AC.
2. Sealant to make duct watertight after installation, if required.
3. 4-inch hole saw or snips.

As part of the installation process, a Startup Document should be completed. For the latest version of the document, visit our website or utilize the QR code.

GPS-DM48-AC startup

Installation Location
⚠️ **CAUTION:** MAKE SURE POWER IS DISCONNECTED TO THE HVAC EQUIPMENT BEFORE INSTALLATION

GPS recommends mounting the GPS-DM48-AC downstream of the last filter in the HVAC system. Alternate mounting locations are on the supply air duct or the return air duct after the filter. The duct must have a depth greater than 8 inches for the unit to operate properly. The weatherproof housing will allow mounting indoors or out.

NOTE: *Use Temperature - Maximum Ambient temperature in which unit shall be used: 140 degree F/ 60°C*

Mechanical Installation
1. Ensure power to the HVAC equipment and the GPS-DM48-AC has been disconnected.
2. Find an appropriate location. Verify the 8-inch depth clearance for the GPS-DM48-AC.
3. Cut a 4-inch round hole in the duct.
4. Install the GPS-DM48-AC so that airflow is passing by both emitters at the same time (like a football through goalposts). The conduit and connection grommet should be pointed down or to the side. Secure to the duct with provided screws. Do not rely on the face of the display screen as a method of aligning the product to the proper orientation. See FIGURE 1. below.

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Figure 1

Wiring

1. Confirm the power is off prior to wiring. Follow all local and national electrical and building codes.
2. GPS recommends the GPS-DM48 be powered constantly and NOT switched with the system or blower.
3. The GPS-DM48-AC will self-adjust to voltages from 24VAC to 240VAC. Output and performance will not be affected by choice of input voltage. Connect the power wires as follows:

> Black 24 - 240VAC
> White Neutral or L2
> Green Ground
> Brown Dry Contacts/BAS terminals

4. Wire in BAS terminals (optional). The GPS-DM48-AC is equipped with dry contacts that are normally open and close when the GPS-DM48-AC is on and has no faults. The contacts are rated up to 250VAC and 1A.

Operation

⚠️ **CAUTION!** NEVER TOUCH BRUSHES WHILE OPERATING - SHOCK MAY OCCUR

Once powered, the unit initiates an internal check of all systems. After initializing the display will blink between "ON", "GPS", and the number of days the unit has been powered. If there is a fault, "FALT" will be displayed.

Cleaning Cycle

The GPS-DM48-AC comes with a factory preset cleaning cycle designed to clean the emitters once per day. The cleaning process can be activated by pressing the test button labeled "Cleaning Cycle Test" below the display. See **FIGURE 2**. During the cleaning process "CLEA" will be displayed. To access the test button, remove the clear faceplate by using a Phillips head screwdriver to remove the mounting screws. Take care with the screws and gasket.

Change Cleaning Cycle Frequency

Press the test button so the display reads "CLEA." Hold the test button down for 5 seconds until the current cleaning frequency is shown on the display. Repeatedly press the test button until the desired cleaning frequency is shown. The choices are 1, 3, 5, 10, 15 or 20 days. The factory preset is sufficient for most applications.

Figure 2

Safety Instructions:

⚠️ **CAUTION:** *This product shall not be installed behind a suspended floor/ceiling or a structural wall, ceiling, or floor.*

⚠️ **CAUTION:** *This product is suitable for mounting to duct of metallic construction only. Installation must be such that the structural integrity of the ducting is not compromised.*

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Troubleshooting

1. Unit will not power up, no display
   a. Confirm proper voltage is applied to the correct terminal(s).

2. Display shows "FALT"
   a. Remove power, wait 1 minute, and reapply power.
   b. If "FALT" is still displayed, try an alternate power source. If using 24v try using 120v or vice versa.

3. Wiper sticks or stops on emitters
   a. Adjust height of emitters: loosen screw at base of emitter and gently push or pull emitter brush to a height where the wiper just contacts emitter brush. Hold the emitter in place and tighten screw. Verify correct height after tightening screw.

2. Wiper does not clean/ contact emitters
   a. Adjust height of emitters: loosen screw at base of emitter and gently push or pull emitter brush to a height where the wiper just contacts emitter brush. Hold the emitter in place and tighten screw. Verify correct height after tightening screw.
   b. If the emitter is worn to the point where there is no adjustment, order replacement emitters from GPS. Remove the screw and the emitter base, unplug the emitter from the connector. Plug the new emitter in, reinstall base, adjust emitter height and tighten screw.

3. If unit does not operate properly after verifying the above instructions
   a. Contact GPS for additional assistance.

Product Registration

By registering your order, the standard limited warranty on eligible products from your purchase is automatically extended to 3 years, at no additional cost.

Register your products at www.gpsair.com/product-registration or scan the QR code.
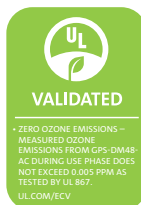

REGISTER

The information provided in this manual is up to date at the time of printing. Any revisions to this document will supersede the content included. For the latest applicable version of this manual, visit our website or utilize the QR code.

GPS-DM48-AC IOM

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VALIDATED
• ZERO OZONE EMISSIONS – MEASURED OZONE EMISSIONS FROM GPS-DM48-AC DURING USE PHASE DOES NOT EXCEED 0.005 PPM AS TESTED BY UL 867.
UL.COM/ECV

CERTIFIED

To access a list of applicable patents, please visit www.gpspatents.com

PATENTS

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