GPS-FC-48-AC IOM

Installation

The GPS-FC48-AC is designed for mounting to the fan inlet or inside wall of HVAC systems. The preferred mounting location is on the fan inlet, after a particle filter and before the cooling coil. Alternate mounting locations are in the supply air duct or the return air duct after the system filter.

Step 1. Power off the HVAC system the unit will be added.

Step 2. After finding the appropriate location, install the magnets provided using the provided nuts and bolts to the front panel brackets or the bottom brackets, whichever provides the best installation. The magnets are not required and sheet metal screws may be used instead of the magnets.

Step 3. Make sure the wiper blade has clearance and does not contact the fan blades or anything else. Figure 2 below shows how the unit is mounted high enough on the fan housing to clear the fan wheel. Figure 1 shows how the magnets are being applied through the front brackets to hold the unit in place.

NOTE: Make sure the unit is mounted such that the air flows through the brushes like a football through a field goal post. This is especially important if you are mounting to the interior wall of the air handler and not the fan inlet as shown in Figure 3.

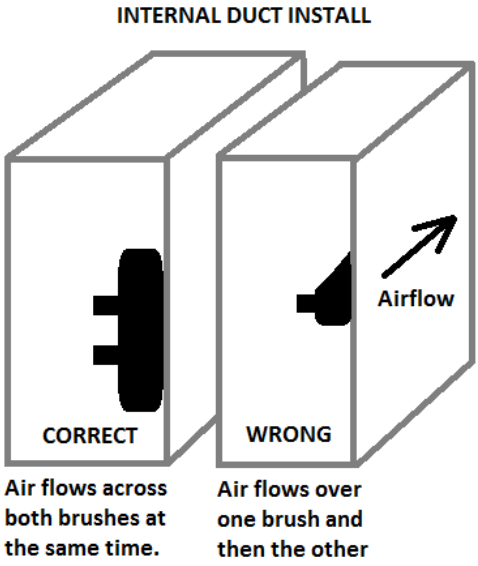
CAUTION: 1. This product shall not be installed behind a suspended floor/ceiling or a structural wall, ceiling or floor

2. This product is designed for mounting to duct of metallic construction only. Installation must be such that the structural integrity of the ducting is not compromised.

Figure 1

Figure 2

Figure 3



Wiring

Confirm power is off prior to wiring. Follow all local and national electric, mechanical and building codes when installing and wiring. The GPS-FC48-AC can be powered with any voltage from 24VAC to 240VAC. The wires are color coded as follows:

Black = 24-240VAC input White = Neutral Green = Ground Brown and Brown = Alarm Dry Contact

The unit is provided with alarm contacts for use with a building management system. When the unit is powered and there are no faults, the alarm "dry" contacts will be closed, providing continuity. The contacts are rated up to 250VAC at 1A.

CAUTION! NEVER TOUCH BRUSHES WHILE OPERATING. SHOCK MAY OCCUR. DO NOT CONNECT WITH AN EXTENSION CORD.

CAUTION! KEEP ALL WIRES AND ANY ITEMS GROUNDED AT LEAST TWO INCHES FROM THE CARBON FIBER BRUSHES!

Operation

Once powered and the inline switch is "on", the unit initiates an internal check of all systems. If the self-cleaning wiper blade is not in the "home" position, it will move to the home position in series with the airflow.

Cleaning Cycle — The unit comes with a preset cleaning cycle designed to clean the brushes every 3 days. At any time, the cleaning cycle can be tested by pushing the test button on the top panel and the unit will initiate a cleaning cycle. To change the cycle frequency, press the cleaning cycle button once, and while it's moving, hold the cleaning cycle button in for 5 seconds. The LED will start flashing, pressing the cycle button again will change the days and the LED will flash at the rate selected, i.e., every day is one blink per second, 3 days is 3 blinks per second and every 5 days is 5 blinks per second. Stop pressing the button once you see the number of blinks desired. In most applications, the unit will never require programming in the field. Once programmed, the cycle is saved to internal memory regardless of power loss.

Maintenance

The GPS-FC48-AC is designed to be maintenance free, thanks to the patent-pending self-cleaning system. Over time and hundreds of self cleaning cycles, the carbon fiber brushes may wear down due to mechanical friction and require replacement. With the unit powered off, remove the two Phillips screws holding the brushes down. Pull the brushes out of the electrical connector and insert the new brushes. Replace the Phillips screws and energize the unit. Press the cleaning cycle button and make sure the wiper pushes through the carbon fibers without issue.

Troubleshooting

Problem	Solution
Unit won't power up	Confirm proper voltage is applied and to the correct terminals. Confirm the inline on/off switch is in the "on" position.
No LED	If the correct voltage source has been confirmed, switch is on and the unit does not power up, contact your installing contractor or the GPS factory for servicing.
Wiper Blade Sticking on Brushes	The brushes are designed to move up and down. Push or pull the brushes gently using a pair of needle nosed pliers until the wiper blade barely touches the brushes.

Unit Ratings:

Airflow Capacity: 0 to 4,800 CFM / up to 12 tons

Temperature: -20F to 140F Operating Range

Electrical Ratings: 24-240VAC Input / 10VA

Fusing: Internal auto-reset circuit breaker

UL Disclaimer: "The health aspects associated with the use of this product and its ability to aid in disinfection of environmental air have not been investigated by UL LLC."

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