
INSTALLATION INSTRUCTIONS

MOTORIZED FRESH AIR DAMPER

Model
MFAD-5



Bard Manufacturing Company
Bryan, Ohio 43506

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GENERAL INFORMATION

DESCRIPTION

The motorized fresh air damper MFAD-5 is an internally mounted damper designed to bring up to 25% fresh air. The damper blade is powered by a 24 VAC motor with spring return on power loss. The damper is powered open anytime the unit blower motor is energized.

APPLICATION

The amount of outside fresh air brought into the structure is dependent on the supply and return duct static pressure present in the duct system. Refer to Table 2 for ventilation air that will be supplied at different duct static pressures.

For free blow applications with return air filter grille and supply grille use 0.00 supply air static pressure and 0.1 return air static pressure.

TABLE 1
MFAD-5
SUITABLE FOR THESE UNITS

WA423-A WA423-B WA423-C WA423-E WA423-F	WA484-A WA484-B WA484-C WA484-E WA484-F	WA602-A WA602-B WA602-C WA602-E WA602-F	SH431-A SH431-B SH431-C
WH421-A WH421-B WH421-C	WH483-A WH483-B WH483-C	WH602-A WH602-B WH602-C	SH491-A SH491-B SH491-C
WH421LA WH421LB WH421LC	WH483LA WH483LB WH483LC	WH602LA WH602LB WH602LC	SH611-A SH611-B SH611-C

TABLE 2
MFAD-5
VENTILATION AIR SUPPLIED AT VARIOUS STATIC PRESSURES
FOR WA423, WA484, WA602, WH421, WH483 AND WH602

Blower Speed High	Ventilation Airflow (CFM)				
Non-ducted *	285	305	390	455	545
Return Air Static Pressure	0.00	0.05	0.10	0.15	0.20

Blower Speed Low	Ventilation Airflow (CFM)				
Non-ducted *	240	280	360	435	525
Return Air Static Pressure	0.00	0.05	0.10	0.15	0.20

* With supply grille installed

TABLE 3
VENTILATION AIR SUPPLIED AT VARIOUS STATIC PRESSURES
FOR SH431, SH491 AND SH611

Blower Speed High	Ventilation Airflow (CFM)				
Non-ducted *	195	260	365	450	540
Return Air Static Pressure	0.00	0.05	0.10	0.15	0.20

Blower Speed Medium	Ventilation Airflow (CFM)				
Non-ducted *	170	250	355	440	530
Return Air Static Pressure	0.00	0.05	0.10	0.15	0.20

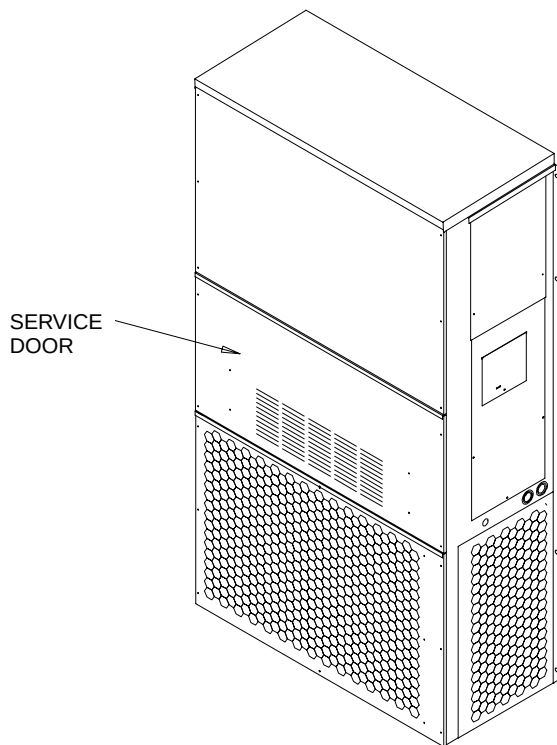
Blower Speed Low	Ventilation Airflow (CFM)				
Non-ducted *	145	240	345	430	520
Return Air Static Pressure	0.00	0.05	0.10	0.15	0.20

* With supply grille installed

INSTALLATION

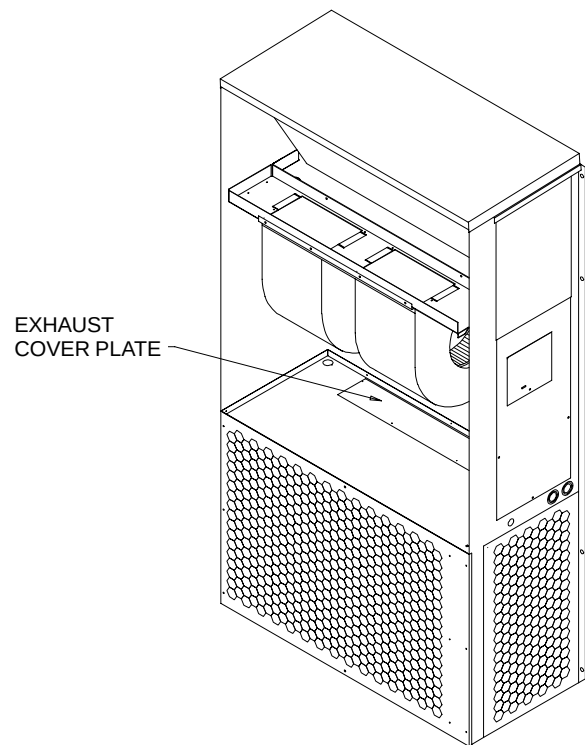
1. Disconnect all power to wall mount unit before installing MFAD.
2. Remove service door. (See Figure 1.) Remove fresh air damper or blank off plate if installed on service door. Remove 4 screws from top of front condenser grille. (See Figure 3A.)
3. The “exhaust cover plate” **must be** in place when an MFAD-5 is installed. (See Figure 2.)
4. Install MFAD with notch in front lip of MFAD centered over hole in condenser partition. (See Figure 3A.)
5. Position MFAD with front lip over condenser partition and under front grille. (See Figure 3B.) *This is important to insure proper drainage of any water entering damper assembly.*
6. Use a self drilling screw through hole provided in left mounting flange to secure MFAD in position.
7. Route wires as shown in Figure 3A into unit low voltage terminal strip area. For left hand units unclip 2 wire ties on right half of the MFAD. Reroute wire down the left side. Route wires into low voltage terminal strip area.
8. Connect black wire to C terminal of low voltage block. Connect red wire to G terminal of low voltage block. See wall mount low voltage connection diagram in the unit installation instructions for wiring diagram.
9. Check MFAD for proper operation. MFAD should open whenever the blower is energized.
10. Replace 4 screws in front condenser grille and replace service door. Plug 4 holes in service door with plastic plugs provided.

FIGURE 1



MIS-383

FIGURE 2



MIS-356

FIGURE 3A

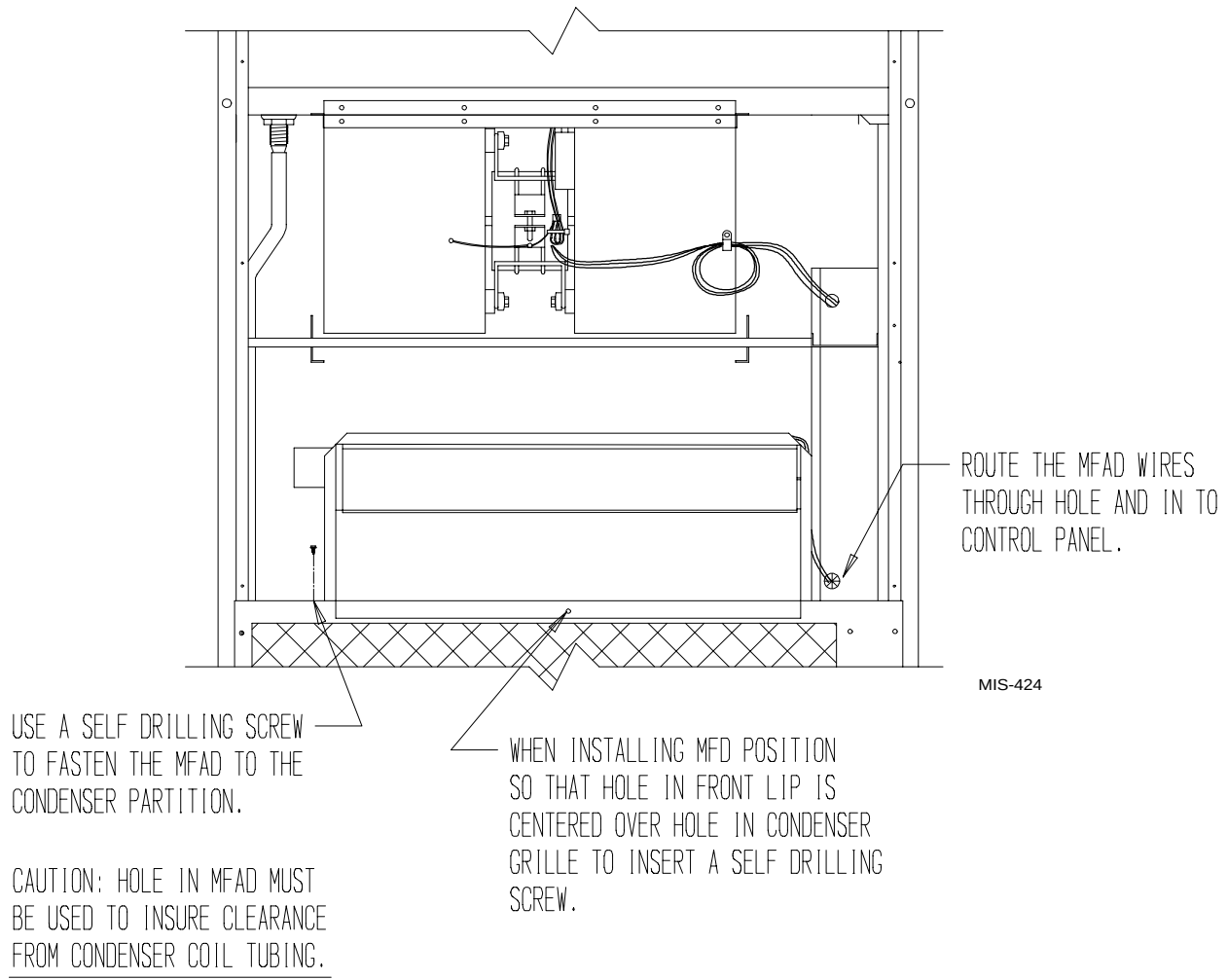


FIGURE 3B

