INSTALLATION INSTRUCTIONS

MOTORIZED FRESH AIR DAMPER

MODELS
MFAD-2
MFAD-3

Bard Manufacturing Company
Bryan, Ohio 43506

Since 1914...Moving ahead, just as planned.

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DESCRIPTION

The motorized fresh air damper MFAD-2 and MFAD-3 are internally mounted dampers 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

SUITABLE FOR THESE UNITS

MFAD-2	MFAD-3	
WA181-A WA241-A WA241-B	WA301-A WA301-B WA301-C WA301-D	WA361-A WA361-B WA361-C WA361-D WA361-E WA361-F
WH181-A WH241-A WH241-B WH241-C	WH301-A WH301-B WH301-C	WH361-A WH361-B WH361-C
WH241LA	WH301LA WH301LB	WH361LA WH361LB

TABLE 2

MFAD-2
VENTILATION AIR SUPPLIED AT STATIC PRESSURES

Ventilation Air (CFM)	85	135	190	240	295
Return Air Static Pressure	.00	.05	.10	.15	.20

TABLE 3

MFAD-3
VENTILATION AIR SUPPLIED AT STATIC PRESSURES

HIGH SPEED						
		Ventilation Air (CFM)				
Supply Air ESP	.00 .20 .40	65 45 25	90 70 50	230 210 190	280 270 N/A	330 330 N/A
Return Air Static Pressure		.00	.05	.10	.15	.20

LOW SPEED				
Ventilation Air (CFM)	50	100	240	300
Return Air Static Pressure	.00	.05	.10	.15

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-2 or MFAD-3 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

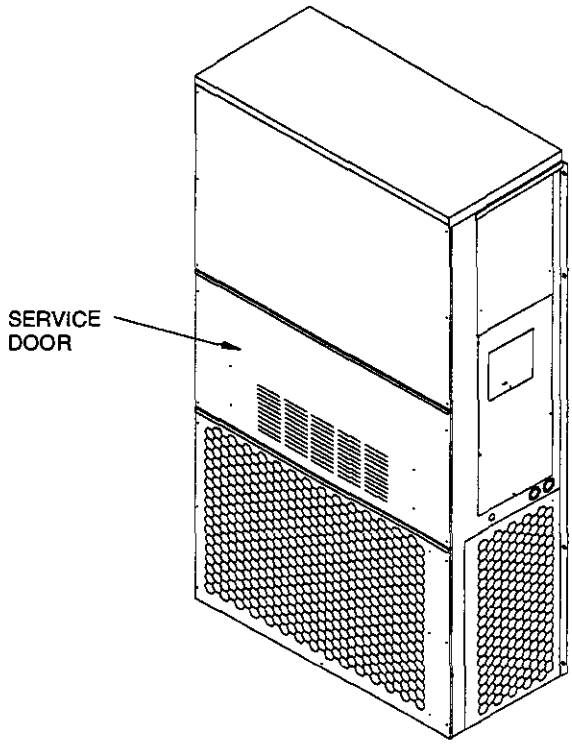

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FIGURE 2

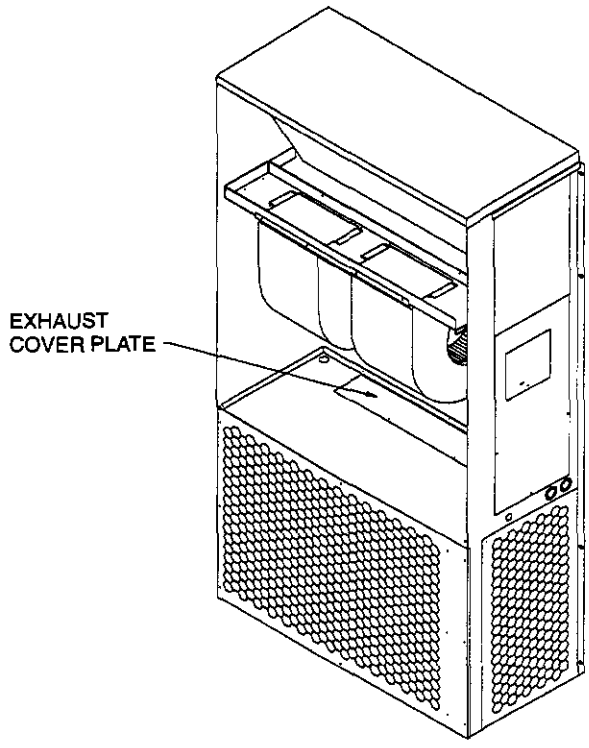

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FIGURE 3A

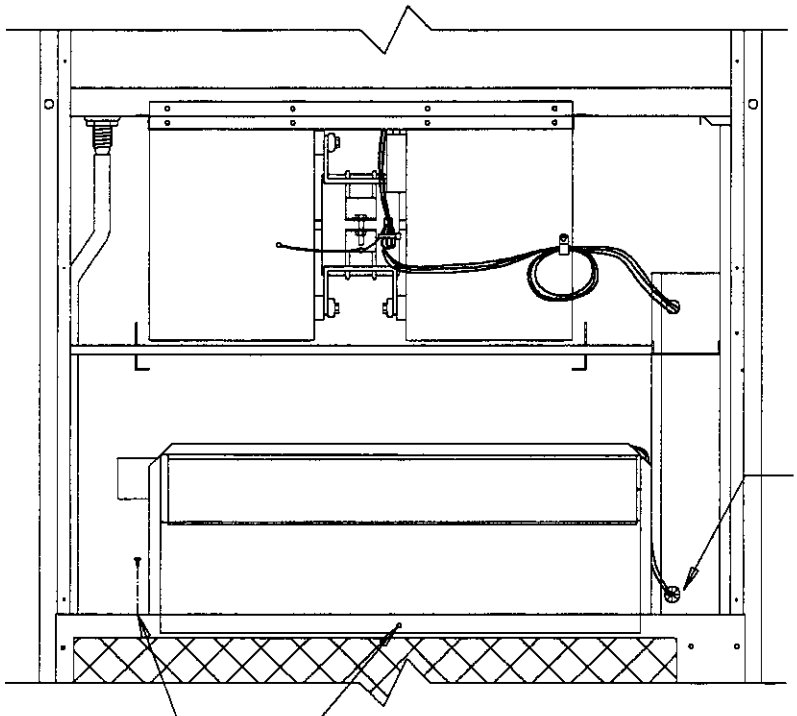

FIGURE 3B