# **INSTALLATION INSTRUCTIONS**

# MOTORIZED FRESH AIR DAMPER W/PLUG-IN CONNECTIONS AND BLOWER LATCHING RELAY FOR DEMAND VENTILATION

Models:

WMFADP2 WMFADP3 WMFADP5



Bard Manufacturing Company, Inc. Bryan, Ohio 43506 www.bardhvac.com Manual: 2100-637 Supersedes: **NEW** Date: 8-25-15

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### **DESCRIPTION**

The motorized fresh air damper WMFADP2, WMFADP3 and WMFADP5 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.

# WMFADP2, WMFADP3 Suitable for These Units

**TABLE 1A** 

WMFADP2	WMFADP3			
W18A*-A W18A*-D W24A*-A W24A*-B W24A*-D W24A*-F	W30A*-A W30A*-B W30A*-C W30A*-D W30A*-F	W36A*-A W36A*-B W36A*-C W36A*-D W36A*-E W36A*-F		
W18H*-A W24H*-A W24H*-B W24H*-C	W30H*-A W30H*-B W30H*-C	W36H*-A W36H*-B W36H*-C		
W24H*LA	W30H*LA W30H*LB	W36H*LA W36H*LB		
	S31H*-A S31H*-B S31H*-C	S38H*-A S38H*-B S38H*-C		

<sup>\*</sup> Latest Revision Letter

### **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 Tables 2-5 for ventilation air that will be supplied at different duct static pressures.

For duct-free applications with return air filter grille and supply grille, use 0.00 supply air static pressure and 0.10 return air static pressure.

### TABLE 1B WMFADP5 Suitable for These Units

WMFADP5						
W42A*-A	W48A*-A	W60A*-A	W72A*-A			
W42A*-B	W48A*-B	W60A*-B	W72A*-B			
W42A*-C	W48A*-C	W60A*-C	W72A*-C			
W42A*-E	W48A*-E	W60A*-E	W72A*-E			
W42A*-F	W48A*-F	W60A*-F	W72A*-F			
W42H*-A	W48H*-A	W60H*-A				
W42H*-B	W48H*-B	W60H*-B				
W42H*-C	W48H*-C	W60H*-C				
W42H*LA	W48H*LA	W60H*LA				
W42H*LB	W48H*LB	W60H*LB				
W42H*LC	W48H*LC	W60H*LC				

<sup>\*</sup> Latest Revision Level

### TABLE 2 WMFADP2 Ventilation Air Supplied at Various Static Pressures

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

### TABLE 3 WMFADP3

# Ventilation Air Supplied at Various Static Pressures for Models W30A\*, W36A\*, W30H\* and W36H\*

Blower Speed High	Ventilation Airflow (CFM)					
Non-Ducted ①	75	235	410	545	615	
Return Air Static Pressure	0.00	0.05	0.10	0.15	0.20	

Blower Speed Low	Ventilation Airflow (CFM)					
Non-Ducted ①	50	225	405	510	N/A	
Return Air Static Pressure	0.00	0.05	0.10	0.15	0.20	

① With supply grille installed

### TABLE 4 WMFADP3 Ventilation Air Supplied at Various Static Pressures for Models S31H\* and S38H\*

Blower Speed High	Ventilation Airflow (CFM)					
Non-Ducted ①	40	235	380	460	N/A	
Return Air Static Pressure	0.00	0.05	0.10	0.15	0.20	

Blower Speed Low	Ventilation Airflow (CFM)					
Non-Ducted ①	30	225	370	450	N/A	
Return Air Static Pressure	0.00	0.05	0.10	0.15	0.20	

① With supply grille installed

### TABLE 5 WMFADP5

Ventilation Air Supplied at Various Static Pressures for Models W42A\*, W48A\*, W60A\*, W72H\*, W42H\*, W48H\* and W60H\*

Blower Speed High	Ventilation Airflow (CFM)					
Non-Ducted ①	285	305	390	455	545	
Return Air Static Pressure	0.00	0.05	0.10	0.15	0.20	

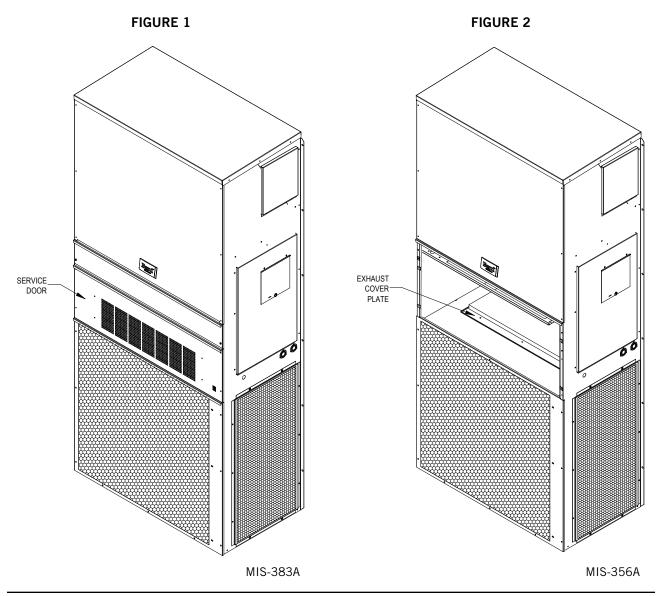
Blower Speed Low	Ventilation Airflow (CFM)					
Non-Ducted ①	240	280	360	435	525	
Return Air Static Pressure	0.00	0.05	0.10	0.15	0.20	

① With supply grille installed

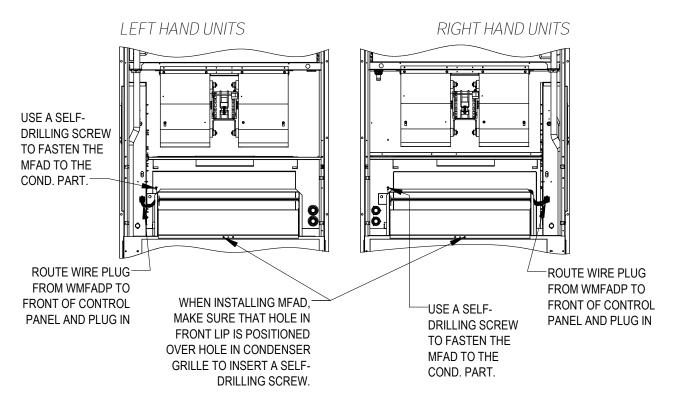
### **INSTALLATION**

- 1. Disconnect all power to wall mount unit before installing WMFADP.
- 2. Remove service door (see Figure 1). Remove fresh air damper or blank off plate if installed on service door. Remove four (4) screws from top of front condenser grille (see Figure 3A on page 6).
- 3. The exhaust cover plate *must be* in place when an WMFADP2, -3 or -5 is installed (see Figure 2).
- 4. Install WMFADP with notch in front lip of WMFADP centered over hole in condenser partition (see Figure 3A).
- 5. Position WMFADP with front lip over condenser partition and under front grille as shown in Figure 3B on page 6. *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 WMFADP in position.
- 7. Route wires to control panel as shown in Figure 3A and plug vent into mating connector. For left hand units, unclip two (2) wire ties on right half of the WMFADP. Reroute wire down the left side.
- 8. Check WMFADP for proper operation. WMFADP should open whenever an occupancy call exists on the "A" low voltage terminal and the blower should energize.
- 9. Replace four (4) screws in front condenser grille and replace service door. Plug four holes in service door with plastic plugs provided.



### FIGURE 3A



<u>CAUTION:</u> HOLE IN MFAD MUST BE USED TO ENSURE CLEARANCE FROM CONDENSER COIL TUBING.

### FIGURE 3B

