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# INSTALLATION INSTRUCTIONS

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## MOTORIZED FRESH AIR DAMPER

MODEL  
WGMFAD-5



Bard Manufacturing Company  
Bryan, Ohio 43506

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

Manual : 2100-362  
Supersedes:  
File: Volume III Tab 19  
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Manufactured under U.S. patent number:

5,485,878

## DESCRIPTION

The motorized fresh air damper WGMFAD-5 is an internally mounted damper designed to bring in 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 1 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.

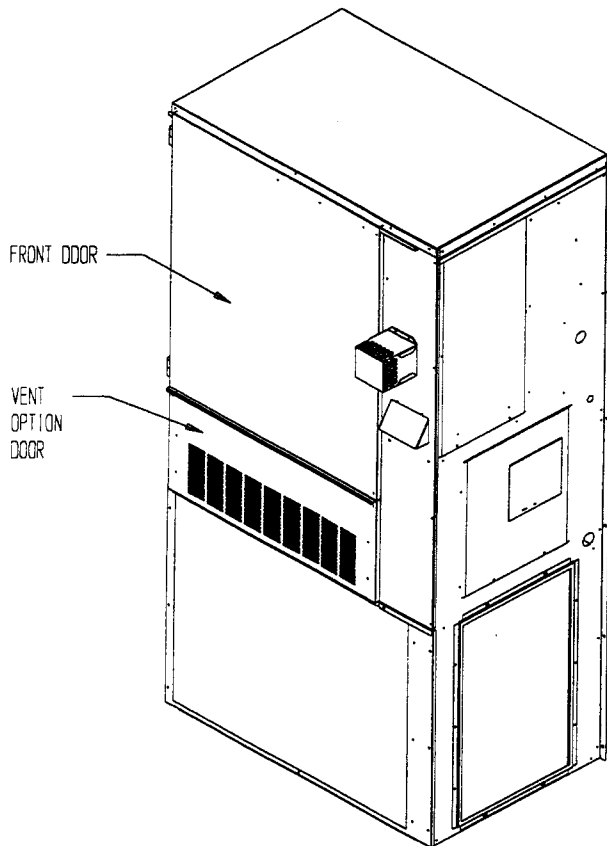
## INSTALLATION

- Step 1. Disconnect all power to unit before installing WGMFAD.
- Step 2. Remove vent option door. (See Figure 1.)  
Remove fresh air damper or blank off plate if installed on vent option door.
- Step 3. The "exhaust cover plates" *must be* in place when a WGMFAD is installed. (See Figure 2.)
- Step 4. Install WGMFAD with notch in front lip of WGMFAD centered over hole in condenser partition. (See Figure 3A.)

**TABLE 1**  
**WGMFAD-5 VENTILATION AIR**

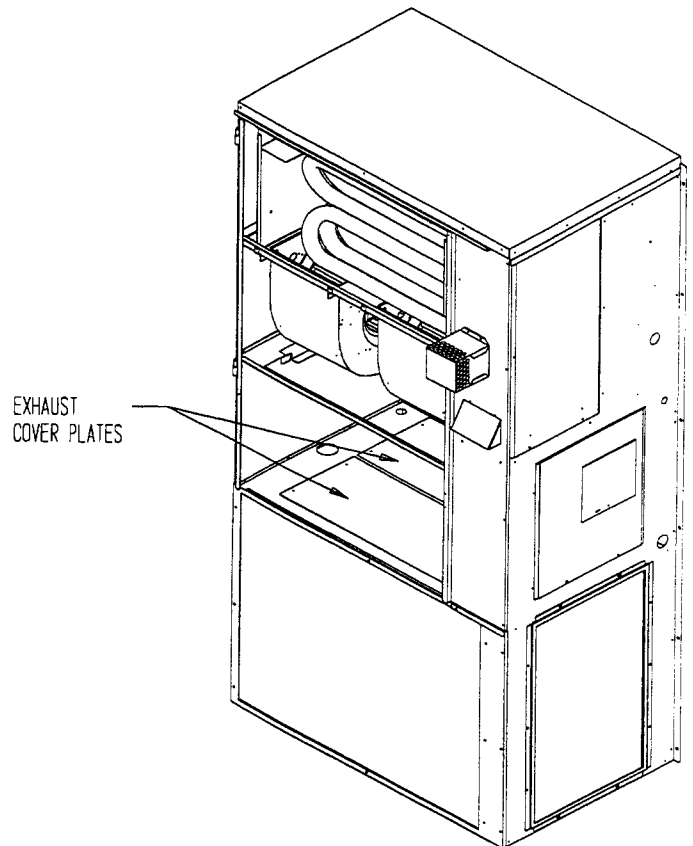
HIGH SPEED							
Supply Air Static	Ventilation Air / Total Air (CFM)						
0.00	140/1930	190/1910	235/1880	295/1840	355/1810	400/1770	440/1725
0.20	160/1650	205/1640	250/1625	335/1570	420/1515	450/1475	475/1430
0.40	175/1375	235/1340	295/1310	350/1240	465/1170	515/1085	565/1000
<b>Return Static</b>	<b>0.00</b>	<b>0.05</b>	<b>0.10</b>	<b>0.15</b>	<b>0.20</b>	<b>0.25</b>	<b>0.30</b>
MEDIUM SPEED							
Supply Air Static	Ventilation Air / Total Air (CFM)						
0.00	110/1615	160/1595	250/1575	300/1535	395/1500	450/1475	500/1445
0.20	130/1415	190/1380	270/1350	345/1300	380/1265	470/1200	555/1140
0.40	150/1135	215/1080	305/1030	375/965	475/895	540/790	600/680
<b>Return Static</b>	<b>0.00</b>	<b>0.05</b>	<b>0.10</b>	<b>0.15</b>	<b>0.20</b>	<b>0.25</b>	<b>0.30</b>
LOW SPEED							
Supply Air Static	Ventilation Air / Total Air (CFM)						
0.00	45/1190	150/1175	260/1165	350/1135	435/1105	530/1070	620/1030
0.20	65/1010	180/980	290/950	390/910	490/865	560/800	635/735
0.40	85/790	210/725	355/660	415/600	495/535	NA	NA
<b>Return Static</b>	<b>0.00</b>	<b>0.05</b>	<b>0.10</b>	<b>0.15</b>	<b>0.20</b>	<b>0.25</b>	<b>0.30</b>

FIGURE 1



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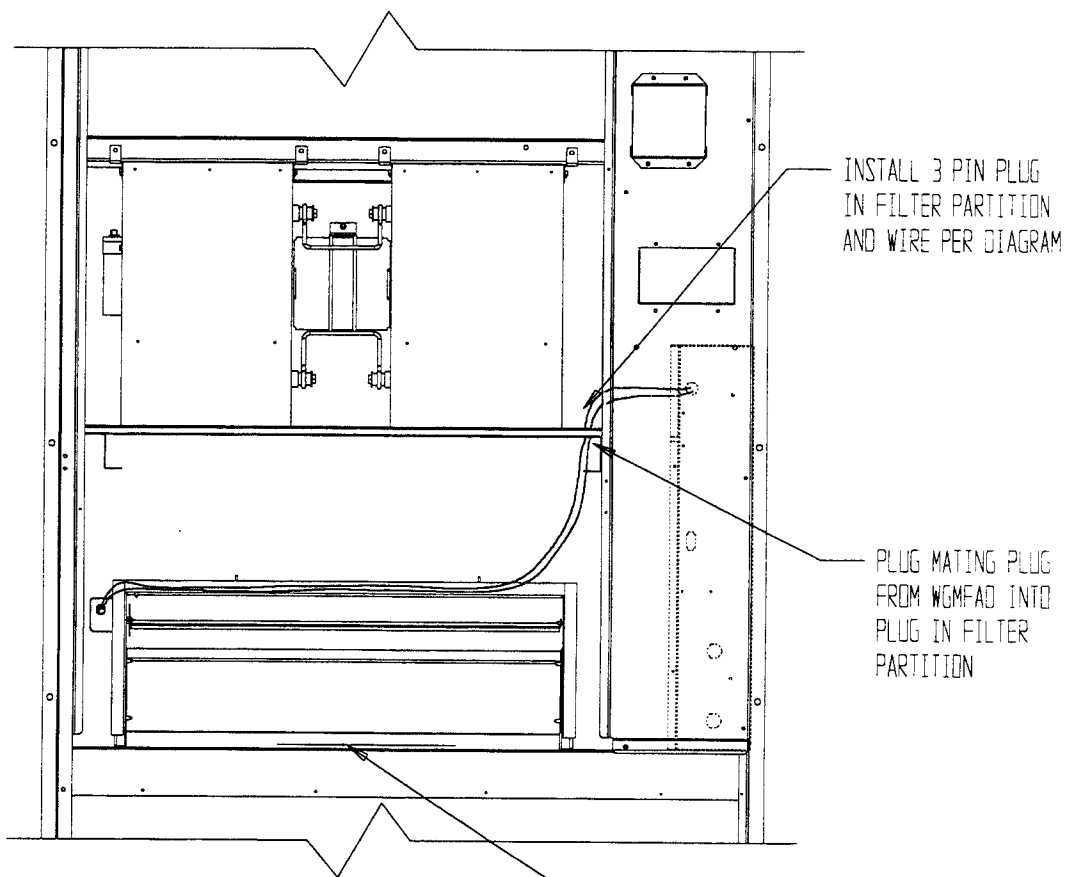
FIGURE 2



- Step 5. Position WGMFAD with front lip over condenser partition and front grille. (See Figure 3B.) ***This is important to insure proper drainage of any water entering damper assembly.***
- Step 6. Route wires as shown in Figure 3A into unit low voltage terminal strip area.
- Step 7. Connect black wire to C terminal of low voltage block. Connect orange wire to G terminal of low voltage block. Connect blue wire to W1 terminal of low voltage block. See wall mount low voltage connection diagram in the unit installation instructions for wiring diagram.

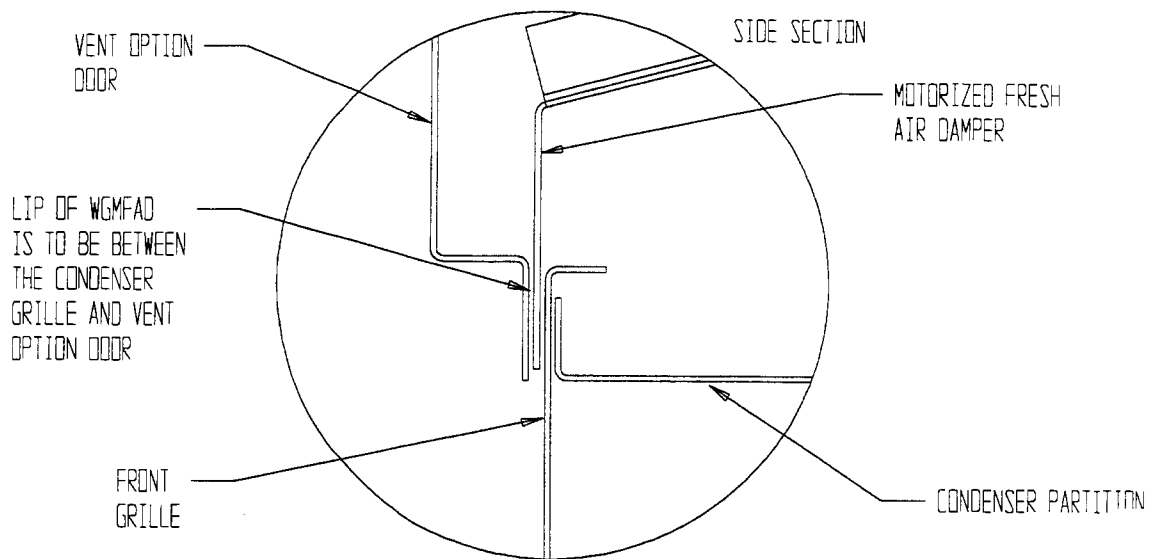
- Step 8. Check WGMFAD for proper operation. WGMFAD should open whenever the blower is energized.
- Step 9. Plug 4 holes in vent option door with plastic plugs provided and replace vent option door.

FIGURE 3A

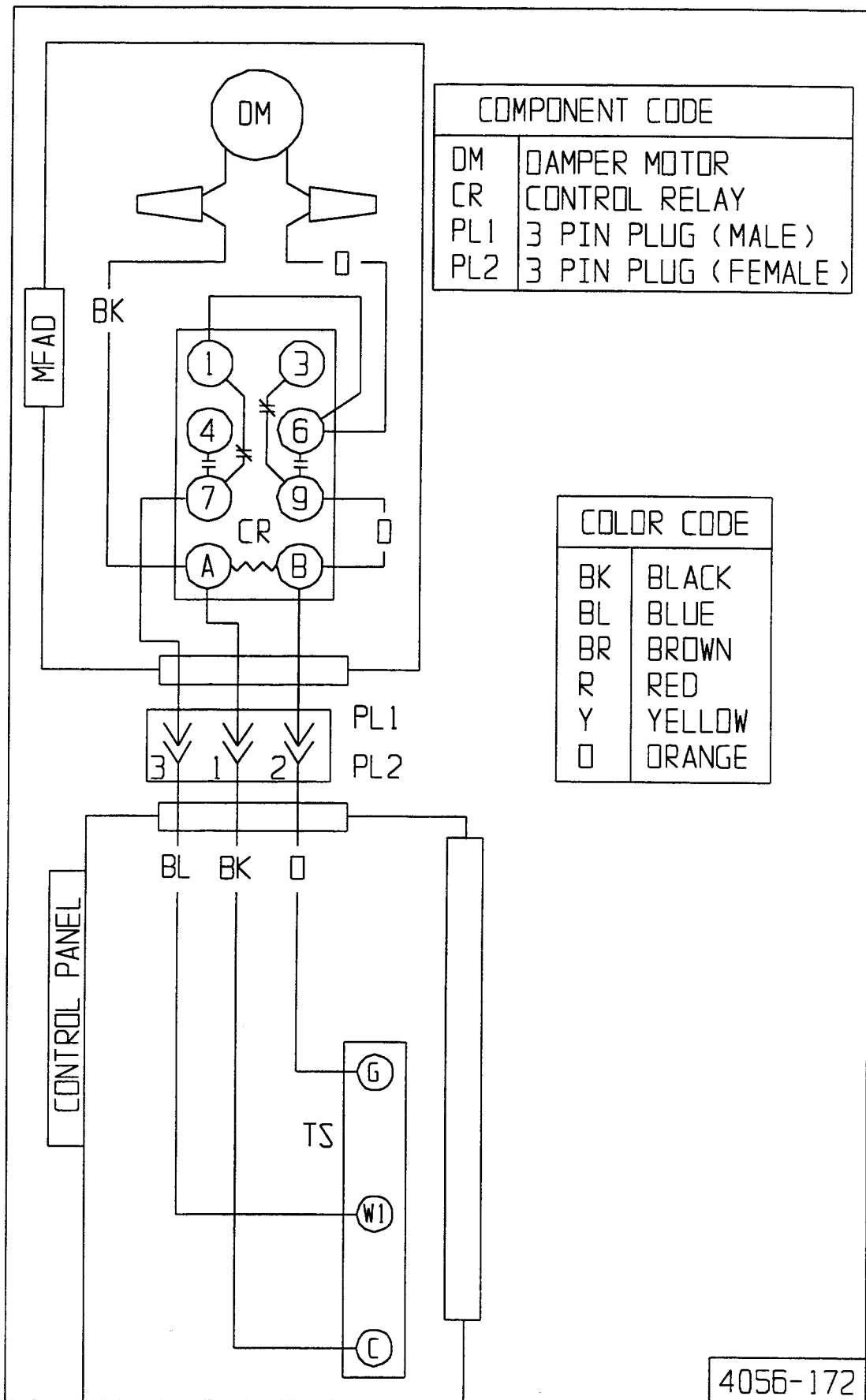


WHEN INSTALLING WGMFAD POSITION SO THAT HOLE IN FRONT LIP IS CENTERED OVER HOLE IN CONDENSER GRILLE TO INSERT A SELF DRILLING SCREW

FIGURE 3B



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