INSTALLATION INSTRUCTIONS

MODEL
MFAD-5

MOTORIZED FRESH AIR DAMPER

PATENT PENDING
DATE: 03-15-93

MANUAL 2100-224 REV. A
SUPERSEDES REV.
FILE VOL. III, TAB 19
TABLE OF CONTENTS

Description .................................................. 1
Application ................................................... 1
Installation ................................................... 3
DESCRIPTION
The motorized fresh air damper MFAD-5 is an internally mounted dampers 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 Page 2 for ventilation air that will be supplied at different duct static pressures.

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

<table>
<thead>
<tr>
<th>MFAD-5</th>
</tr>
</thead>
<tbody>
<tr>
<td>MA621-A</td>
</tr>
<tr>
<td>MA621-B</td>
</tr>
<tr>
<td>MA621-C</td>
</tr>
<tr>
<td>MA621-E</td>
</tr>
<tr>
<td>MA621-F</td>
</tr>
</tbody>
</table>

Suitable for use with:
- MA681-A
- MA681-B
- MA681-C
- MA681-E
- MA681-F
### MOTORIZED FRESH AIR DAMPER
**MFAD-5**

#### Supply Air [BSP]
<table>
<thead>
<tr>
<th>Return Air Static Pressure</th>
<th>.00</th>
<th>.05</th>
<th>.10</th>
<th>.15</th>
<th>.20</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIGH SPEED</td>
<td>.00</td>
<td>180</td>
<td>265</td>
<td>350</td>
<td>420</td>
</tr>
<tr>
<td></td>
<td>.20</td>
<td>175</td>
<td>255</td>
<td>335</td>
<td>410</td>
</tr>
<tr>
<td></td>
<td>.40</td>
<td>165</td>
<td>245</td>
<td>325</td>
<td>405</td>
</tr>
</tbody>
</table>

#### Ventilation Air [CFM]
<table>
<thead>
<tr>
<th>Return Air Static Pressure</th>
<th>.00</th>
<th>.05</th>
<th>.10</th>
<th>.15</th>
<th>.20</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOW SPEED</td>
<td>125</td>
<td>225</td>
<td>330</td>
<td>415</td>
<td>500</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Return Air Static Pressure</th>
<th>.00</th>
<th>.05</th>
<th>.10</th>
<th>.15</th>
<th>.20</th>
</tr>
</thead>
</table>
INSTALLATION

STEP 1. Disconnect all power to wall mount unit before installing MFAD.

STEP 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)

STEP 3. The “exhaust cover plate” must be in place when an MFAD-5 is installed. (See Figure 2)

STEP 4. Install MFAD with notch in front lip of MFAD centered over hole in condenser partition. (See Figure 3A)

STEP 5. Position MFAD 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. Use a self drilling screw through hole provided in left mounting flange to secure MFAD in position.

STEP 7. Route wires as shown in Figure 3A into unit low voltage terminal strip area.

STEP 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.

STEP 9. Check MFAD for proper operation. MFAD should open whenever the blower is energized.

STEP 10. Replace 4 screws in front condenser grille and replace service door. Plug 4 holes in service door with plastic plugs provided.

FIGURE 1

FIGURE 2
FIGURE 3A

Route the MFAO wires through hole and in to control panel.

Use a self drilling screw to fasten the MFAO to the condenser partition.

When installing MFAO position so that hole in front lip is centered over hole in condenser grille to insert a self drilling screw.

CAUTION: Hole in MFAO must be used to insure clearance from condenser coil tubing.

FIGURE 3B

SIDE SECTION

Motorized fresh air damper

Service door

Lip of MFAO is to be between the condenser grille and service door.

Front grill

Condenser partition