

<b>WARREN ELECTRIC</b> HEATER MODEL WEH SERIES	<b>INSTALLATION INSTRUCTIONS</b>  Date: 11/05/09	<b>ICP</b> MODULAR BLOWERS  MF08 - MF20 MV08 - MV20
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### GENERAL

This electric heater series is engineered, designed, and approved to be installed in the ICP MF (size 08-20) and MV (size 08-20) modular blowers series B. Before proceeding, check the heater label for correct voltage and KW requirements.

**Installation and servicing of this equipment should only be performed by trained and qualified personnel.** Before proceeding with the heater installation, inspect thoroughly for shipping damage. Notify the shipper immediately if any damage is found. Check all porcelain insulators for breakage and inspect heater element wire to see that none have been deformed. Clean all dirt, dust and moisture from equipment. **Check for proper clearances of live parts, between phases, and to ground.** Make sure that all required barriers are in place. Check conductors run in multiple to insure that they are properly wired. Refer to installation instructions for complete unit installation details. **Verify that all elements are properly secure in their ceramic holders.**

### **WARNING**

Before performing service or maintenance operations on system, turn off all main power switches. There may be more than one disconnect. Turn off accessory heater power switch if applicable. Electrical shock can cause personal injury. **TAG DISCONNECT SWITCH(ES) WITH A SUITABLE WARNING LABEL.**

### HEATER INSTALLATION

1. Refer to the base unit installation instructions as required  
Affix Warren Installer label to the equipment access panel.
2. Remove front access panel of air handler.
3. Remove cover plate in front of blower assembly.
3. Remove adapter plate to heater if required to match opening in cabinet.
6. Carefully slide the heater assembly (fig. 1) into the blower section through the access opening. Be sure the heater assembly or elements do not rub or scrape against the metal edges or components in the electrical box. Secure the heater assembly into place with screws provided.
7. Refer to ELECTRICAL CONNECTIONS SECTION for heater 9-pin plug connection (see fig. 1).
8. Remove the supplied wiring diagram backing and place it on the control box for future reference.
9. Secure cabinet door and refer to START UP and CHECK-OUT section.



**Fig. 1 - Installed heater**

#### **HEATERS WITH CIRCUIT BREAKERS:**

1. Remove circuit breaker knockout(s) in unit access panel as required and cut out the insulation in the opening.
2. Install the **transparent breaker cover** seal on the outside of the unit door breaker opening. Before installing transparent breaker cover clean sheetmetal surface around breaker door knock-outs. Remove backing from the cover seal and press it firmly around the edges of the breaker knock-out.

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## **ELECTRICAL CONNECTIONS**

1. All electrical connections, wire sizes and type and conduit sizes shall meet the National Electric Code, State and Local Codes. Main power supply, minimum wire sizes, circuits, fusing, etc. is shown on schematic wiring diagrams.  
**NOTE:** Use copper wire only.
2. Refer to base unit instructions for recommended wiring procedures.
3. Connect the 9-pin heater wiring harness to the matching receptacle located inside cabinet. Harness contains 24V and power for the Blower.
4. Separate all wires from incoming power leads.
5. **Be sure that all electrical terminal connections, clamps, screws, etc. are tight before proceeding. verify that there are no possible shorts to ground.**
6. Check wiring diagram supplied with heater for specific connections and information.
7. Check operation as described in start-up section.

## **START-UP AND CHECK-OUT**

**CAUTION:** Before proceeding, verify that all wiring is correct per factory approved schematic. Notify factory immediately of any discrepancies.

1. **Refer to base unit installation instructions as required.**
2. Check for loose terminal connections.
3. Check that all fuse and circuit breaker short circuit interrupting ratings are adequate.
4. Turn on unit and heater power.
5. Set thermostat to call for heat.
6. Check operation of heater.
7. **Air flow requirements are different between MF and MV modular blowers. Refer to unit installation instruction for Air flow information. Check that Air flow across the heater is at or above minimum recommended speed.**
8. Any modification or repairs to this equipment without written permission from the factory will be done at the installer's own risk and expense.

## **SERVICE**

**Circuit Breaker** - Malfunction will interrupt power to unit. *Check for cause of failure, correct, and reset circuit breaker.*

**Limit Switch** - Malfunction prevents heating element(s) from being energized. *Replace switch if malfunction occurs.*

## **ELECTRIC HEATER PACKAGE CONTENTS**

1. Heater assembly
2. Installation Instructions
3. Installer label
4. Schematic
5. (4) Mounting screws
6. Breaker cover (breaker models only)

**USER CAUTION:** The use of improperly selected air filters/ and or operation with dirty filters may result in insufficient airflow which may result in abnormal operation of electric heaters and tripping of temperature safety limits. Also, insufficient airflow will degrade the efficiency of the system (SEER rating) and excessive wear and premature failure of the system compressor may result. Other conditions, such as undersized or obstructed ductwork, may also cause insufficient airflow. It is recommended that a qualified technician be consulted to ensure proper airflow and air filtration selection and application. See ([www.lowairflow.com](http://www.lowairflow.com)) for more information.