

# INSTALLATION & OPERATING INSTRUCTIONS for HKR & HKRF SERIES of ELECTRIC HEAT KITS



## WARNINGS

- ◆ THIS KIT IS TO BE INSTALLED ONLY IN "AR, AER, ARUF, ARPT, ARPF, AEPT" SERIES OF AIR HANDLERS MANUFACTURED BY GOODMAN MANUFACTURING COMPANY, L.P.
- ◆ ENSURE THAT ALL POWER IS DISCONNECTED PRIOR TO ATTEMPTING INSTALLATION OF THIS HEATER KIT. BE MINDFUL THAT THERE MAY BE MORE THAN ONE DISCONNECT SERVICING THIS EQUIPMENT.
- ◆ WHEN INSTALLED IN A GARAGE, THE ELEMENTS MUST BE AT LEAST 18" ABOVE THE FLOOR.
- ◆ FAILURE TO FOLLOW THESE INSTRUCTIONS CAN CAUSE FIRE, EXPLOSION, ELECTRICAL SHOCK, PROPERTY DAMAGE, PERSONAL INJURY, OR DEATH.
- ◆ IF THIS APPLIANCE IS INSTALLED IN AN ENCLOSED AREA SUCH AS A GARAGE OR UTILITY ROOM WITH ANY CARBON MONOXIDE (CO) PRODUCING APPLIANCE (i.e. AUTOMOBILE, FURNACE, WATER-HEATER ETC.), ENSURE THE AREA IS PROPERLY VENTILATED.
- ◆ A MEANS OF STRAIN RELIEF AND CONDUCTOR PROTECTION MUST BE PROVIDED AT THE SUPPLY WIRE ENTRANCE.
- ◆ THIS APPLIANCE MUST BE INSTALLED FOLLOWING THE ANSI/NFPA70 (NATIONAL ELECTRICAL CODE) AND OTHER APPLICABLE CODES. IF IN DOUBT, CONTACT THE LOCAL AUTHORITY HAVING JURISDICTION.

**USE COPPER CONDUCTORS ONLY**

Some localities require the installer be licensed. Contact the local authority if in doubt.

Refer to the series and rating plate for proper application.

The supply power must be in the off position.

There may be more than one means of disconnect servicing this product.

### Standard Installation

- 1) Check for physical damage. If any is observed, **DO NOT** install this kit.
- 2) Remove the upper access panel from the air handler.
- 3) Remove the block-off plate from the air handler.
- 4) Slide the heater kit into the slot following the direction of airflow decal attached to the heater faceplate and secure using the screws previously removed.

### Items 5 through 8 & 11 pertain to kits that contain circuit breakers.

- 5) Remove the circuit breaker mounting bracket, leaving the circuit breakers connected.
- 6) Mount the circuit breaker mounting bracket in the upper right. Screws should be inserted through the blower deck from the blower side. The plastic mounting pin should be inserted in the hole provided on the upper right side of the jacket.
- 7) The breaker must be inserted in the correct orientation (i.e. the "off" position is down). When installed in the horizontal position, the direction does not matter.

In some cases, it will be easier to wire the breakers before reinserting them into the mounting bracket.

- 8) Insert power leads into the lugs provided on the circuit breaker and tighten.

**THE POWER LEADS MUST BE ROUTED THROUGH A MEANS OF STRAIN RELIEF AS THEY ENTER THE CABINET.**

- 9) Remove the multi-pin connector with the jumper wire and discard. Insert the one contained in the kit. It can be inserted in one position only.
- 10) Insert the ground wire into the lug(s) provided for that purpose.
- 11) Break out the appropriate area of the plastic circuit breaker cover on the access panel on the air handler. Rotate if necessary.
- 12) Replace panel and check operation.


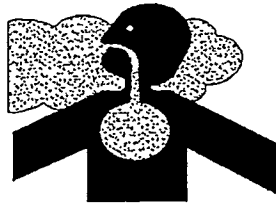
- 13) Apply the wiring diagram over the one found on the air handlers. On the "AER & AEPT" Airhandler wiring diagram which is included, mark an "X" on the wiring diagram according to the number of Heater Element rows installed.

### 3 Phase Unit Installation

- 1). Follow steps 1 through 4 from above.
- 2). Using the two 1" screws provided, mount the terminal block on the right hand side of the heater panel on the airhandler (mounting holes are provided).
- 3). Wire the terminal block leads to the transformer as per the wiring diagram.
- 4). Insert 1 phase power leads into lugs provided on the terminal block and tighten
- 5). Insert 3 phase power leads into lugs provided on the contactor and tighten.

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- 6). Follow steps 9, 10, 12, and 13 from above.

 <b>DANGER</b> <b>PELIGRO</b>

<b>CARBON MONOXIDE POISONING HAZARD</b>
Special Warning for Installation of Furnaces or Air Handling Units in Enclosed Areas such as Garages, Utility Rooms or Parking Areas
Carbon monoxide producing devices (such as an automobile, space heater, gas water heater, etc.) should not be operated in enclosed areas such as unventilated garages, utility rooms or parking areas because of the danger of carbon monoxide (CO) poisoning resulting from the exhaust emissions. If a furnace or air handler is installed in an enclosed area such as a garage, utility room or parking area and a carbon monoxide producing device is operated therein, there must be adequate, direct outside ventilation.
This ventilation is necessary to avoid the danger of CO poisoning which can occur if a carbon monoxide producing device continues to operate in the enclosed area. Carbon monoxide emissions can be (re)circulated throughout the structure if the furnace or air handler is operating in any mode.
CO can cause serious illness including permanent brain damage or death.
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