

NATIONAL COMFORT PRODUCTS

HEATING & A/C EQUIPMENT

Heating Comfort for Multi-Family Construction

Installation Guide

Electric Heat Kit for use in
P-Series Air Handler

This unit is designed to
be installed with

NCPAH

Series:

24-P

36-P

*Please read the entire installation guide
before starting the installation.
All phases of this installation must comply
with National, State and Local codes.*

National Comfort Products®

A Division of National Refrigeration & Air Conditioning Products, Inc.

539 Dunksferry Road • Bensalem, PA 19020 • (215) 244-1400 • **1-800-523-7138** • Fax: (215) 639-1674

Electric Heat Kit Installation Instructions

Models: EHK3-05B, EHK3-08B, EHK3-10B



WARNING

Improper installation, adjustment, alteration, service, or maintenance can cause injury or property damage. For assistance or additional information, consult a qualified installer or service agency.



WARNING

Installation and servicing of air conditioning equipment can be hazardous due to internal refrigerant pressure and live electrical components. Only trained and qualified service personnel should install or service this equipment. Installation and service performed by unqualified persons can result in property damage, personal injury, or death.

These instructions are intended as a general guide only, for use by qualified personnel and do not supersede any national or local codes in any way. Installation must conform with the local building codes and with the latest editions of the National Electrical Code.

Read these instructions thoroughly before starting installation. Only qualified installers or technicians should install the electric heat section and all other equipment used in HVAC systems. Federal, state, and local codes must be followed when installing this or any other HVAC equipment.



WARNING

If this unit is to be installed in a mobile or manufactured home application, the ductwork must be sized to achieve static pressures within the manufacturer's guidelines. All other installation guidelines must also be followed. Failure to do so may result in equipment damage, personal injury, and improper performance of the unit.



WARNING

If these instructions and/or codes are not followed or if the equipment is not properly installed, possible injury or death could occur during installation or operation.



WARNING

Sharp metal edges can cause injury. When installing the unit, use care to avoid sharp edges.



WARNING

Be sure to disconnect all power to the unit while installing and servicing this equipment. Turn off accessory heater power switch if applicable. Be mindful that there may be more than one disconnect servicing this equipment. Use proper tools and protective equipment during installation and service. TAG Disconnect switch(es) with a suitable WARNING LABEL.



CAUTION

The installation of this appliance must conform to the requirements of the National Fire Protection Association; the National Electrical Code, ANSI/NFPA No.70 (latest edition) in the United States; the Canadian Electrical Code Part 1, CSA 22.1 (latest edition) in Canada; and any state or provincial laws or local ordinances. Local authorities having jurisdiction should be consulted before installation is made. Such applicable regulations or requirements take precedence over the general instructions in this manual.

Save these instructions for future reference

Electric Heat Kit Installation Instructions

Inspection of Shipment

Before proceeding with the heater installation, inspect thoroughly for shipping damage. Notify the shipper immediately if any damage is found. Check all ceramic 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 ensure that they are properly wired. Refer to base installation instructions for complete unit installation details.



WARNING

- When installing in a garage, the elements must be at least 18" above the floor.
- 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.

Attention Installing Personnel

As a professional installer, you have an obligation to know the product better than the customer. This includes all safety precautions and related items.

Prior to actual installation, thoroughly familiarize yourself with the Instruction Manual. Pay close attention to all safety warnings. Often during installation or repair, it is possible to place yourself in a position which is more hazardous than when the unit is in operation.

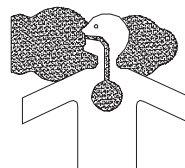
Remember, it is Your responsibility to install the product safely and to know it well enough to be able to instruct a customer on its safe use.

Safety is a matter of thinking before acting. Most dealers have a list of specific good safety practices ... follow them.

The precautions listed in this installation manual are intended as supplemental to existing practices. However, if there is a direct conflict between existing practices and the content of this manual, the precautions listed here are to take precedence.



DANGER PELIGRO



Carbon Monoxide Poisoning Hazard

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 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.




WARNING

Reminder: If these instructions and/or codes are not followed or if the equipment is not properly installed, possible injury or death could occur during installation or operation.


Electric Heat Kit Installation Instructions


Introduction

This electric heater kit is designed to provide power directly to the unit from the electric heater kit's power supply eliminating the need for additional circuits. The power and control wiring use a single polarized plug to connect the heater and the unit.

**WARNING**

HIGH VOLTAGE
Risk of electrical shock.
Before installing or servicing unit, be sure ALL power to the units is OFF. More than one disconnect switch may be present. Failure to disconnect power supplies can result in property damage, personal injury, or death.



**CAUTION**

To avoid possible personal injury, use extreme caution if using power tools to remove the small breaker mounting brackets. The brackets may quickly rotate and cause injury.

Reminder: The power must be in the OFF position. There may also be more than one means of disconnect servicing this product.

Electric Heater Kit Installation

NOTE: If physical damage is observed during the inspection DO NOT install this kit.

Before installing the unit, check the information on the unit rating plate to ensure that the unit meets the job specification, proper electrical power is available, and the proper duct clearances are maintained.

Refer to base unit installation instructions as required.

1.) Remove the control box cover.

- 2.) Remove the screws that attach the control box to the fan coil, and take the control box off of the fan coil. Leave the blower motor wires attached. (See Fig. 1)
- 3.) Remove the heater opening cover plate and retain the screws for the heater kit installation.
- 4.) Align the heater assembly controls with the opening in the fan coil control box and secure in place with the previously removed screws from step 3. (See Fig. 1)
- 5.) Insert the assembled heater and control box into the blower-compartment opening, taking care not to damage the coils.
- 6.) Secure the control box back to the fan coil using the previously removed screws from step 1.
- 7.) Attach the 6-wire harness connector on the fan coil to the mating 6-wire harness connector on the heater assembly.
- 8.) Use the two wire nuts provided with the heat kit to attach the Red & Black wires on the fan coil pigtail to the Red & Black wire of the heater kit pigtail. BE SURE TO ATTACH LIKE COLORS.
- 9.) Ground heater per NEC & local codes.
- 10.) Make sure all wires are routed away from and protected from sharp edges.
- 11.) Place heat kit wiring diagram in appropriate area on unit wiring diagram.
- 12.) Replace the control box cover and check for proper operation.

NOTE: Verify minimum CFM / Fan Speed requirements from Table 1.

Electric Heat Kit Installation Instructions

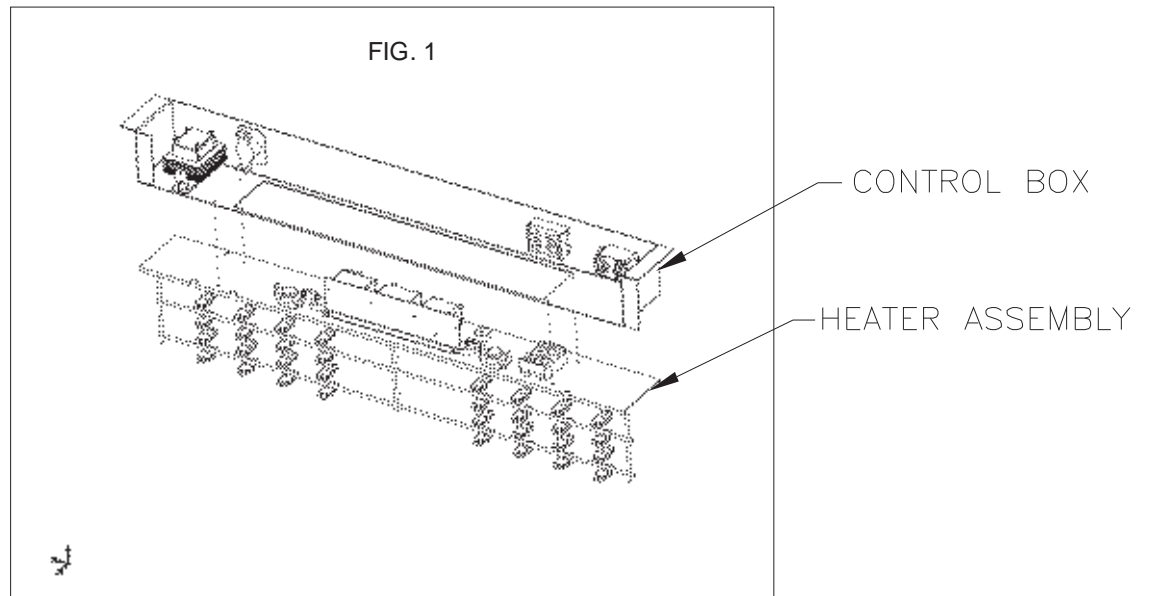


Table 1

Fan Coil Unit Size - Minimum CFM*			Fan Coil Unit Size - Minimum CFM*			
Electric Heater Part Number	Units Sizes Used With	kW	18	24	30	36
EHK3-05B	24-36	5	325	450	575	700
EHK3-08B	24-36	7.5	350	475	600	725
EHK3-10B	24-36	10	375	500	625	750

* - Simultaneous electric heat and heat pump operation may require higher cfm or fan speed if applicable.

Electric Heat Kit P Series MCA/MOP Data

Heat Kit Model	Air Handler Model	(kW) Electric Heat	MIN Circuit Ampacity		MAX Fuse or Breaker (HACR) Ampacity	
			208	240	208	240
EHK3-05B	24	5.0	23.9	27.3	25	30
EHK3-08B		7.5	35.1	40.4	40	45
EHK3-10B		10	44.6	51.3	45	60
EHK3-05B	36	5	24.9	28.3	25	30
EHK3-08B		7.5	36.1	41.4	40	45
EHK3-10B		10	45.6	52.3	50	60



HEATING & A/C EQUIPMENT

National Comfort Products

539 Dunksferry Road | Bensalem, PA 19020-5908

(800) 523-7138

Fax (215) 639-1674