

# INSTALLATION INSTRUCTIONS

## Breeze AHU Electric Heater Kits

**\*\* Read the entire instruction manual before starting the installation.\*\***

### WARNINGS & SAFETY CONSIDERATIONS

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.

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.

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

When working on this equipment, observe precautions in the literature, on tags, and on labels attached or shipped with the unit and other safety precautions that may apply.

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 be followed. Failure to do so may result in equipment damage, personal injury, and improper performance of the unit.

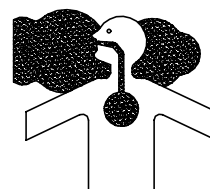
The installation of this appliance must conform to the requirements of the National Fire Protection Association; the National Electrical Code, ANSI/NFPA No. 70(latest edition) in the United States; the Canadian Electrical Code Part 1, CSA 22.1 (latest edition) in Canada; and any state or provincial laws 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.

Sharp metal edges can cause injury. When installing this unit, use care to avoid sharp edges. Wear proper personal protective equipment at all times. Have a fire extinguisher available. Read these instructions thoroughly and follow all warnings and cautions included in literature and attached to the unit.

**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.



**DANGER  
PELIGRO**



**Carbon Monoxide Poisoning Hazard**

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 et.), ensure the area is properly ventilated. A means of strain relief and conductor protection must be provided at the supply wire entrance.

Before proceeding with heater installation, inspect thoroughly for shipping damage. Notify shipper immediately if any damage is found. Clean all dirt, dust and moisture from heater package. 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 unit installation instructions for complete unit installation details.



**WARNING**

#### **ELECTRICAL SHOCK HAZARD**

Before performing installation, service or maintenance operations on this system, turn off all main power to system. There may be more than one disconnect switch. Turn off accessory heater power switch if applicable. Lockout and tag switch with a suitable warning label.

### **NOTE: USE COPPER CONDUCTORS ONLY**

#### **ATTENTION INSTALLING PERSONNEL**

Prior to installation, thoroughly familiarize yourself with the Instruction Manual. Pay close attention to all safety warnings. 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.

HEATER INSTALLATION

Refer to the package unit installation instructions for proper installation of this heater. Control wiring connections are made by a (3) pin plug connection in the unit. Make power supply circuit connections.

To install the heater kit accessory:

- 1. DISCONNECT all incoming power to the unit.
- 2. Remove the blower access panel.
- 3. Remove necessary heater block-off plate(s) and save the block-off plate screws for mounting of heater kit (FOR 5, 7.5, & 10KW KITS, REMOVE THE TOP BLOCK-OFF PLATE).
- 4. Insert the heater into the blower section and secure using screws from block-off plate. Make sure the airflow label will match the actual air flow.
- 5. Place the circuit breakers onto the breaker bracket as shown.
- 6. Secure the breaker bracket to the cabinet mounting rail with screws provided, making sure that all wiring is routed away from sharp edges.
- 7. Wire incoming power supply to circuit breaker(s) on the heater kit refer to product specifications on page 3.
- 8. Connect the 4-pin plug to the control circuit board of the air handler.
- 9. Ground per NEC requirements. Lugs are provided on heat kit.

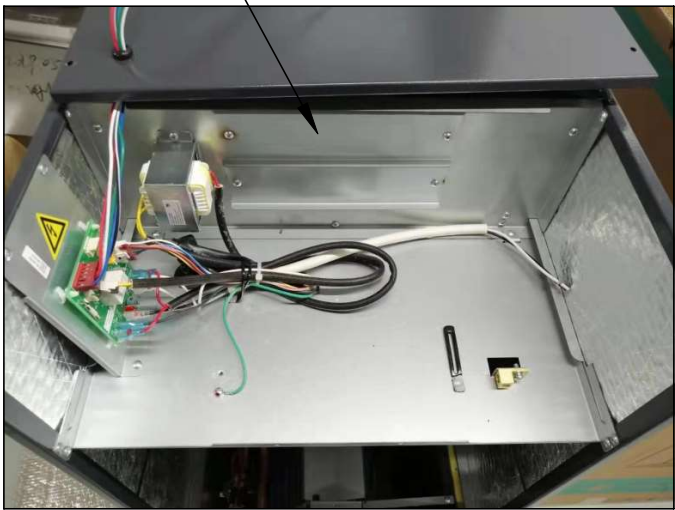
Upon completion of installation, affix heater wiring diagram, supplied, next to the basic unit wiring diagram for future reference. Test the heater to insure it runs properly.

CAUTION

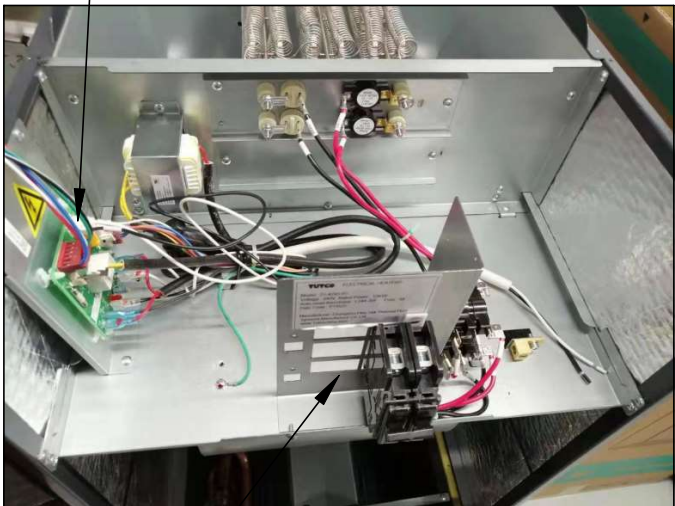
BEFORE INSTALLING ELECTRIC HEATER PACKAGES, OBSERVE & FOLLOW ALL REQUIRED UNIT, PLENUM, & DUCT CLEARANCES AS STATED ON THE UNIT RATING PLATE.

Store these instructions along with the package unit instructions in a safe place for future use.

HEATER  
BLOCK-OFF  
PLATE



4-PIN PLUG



BREAKER BRACKET

Heater Kit	Description	Applicable Air Handler (AHU)			
AUX5KW	5.0KW Heater Kit w/ Circuit breaker	WFH24Z193C	WFH36Z193C	WFH48Z223C	WFH60Z223C
AUX7KW	7.5KW Heater Kit w/ Circuit breaker	WFH24Z193C	WFH36Z193C	WFH48Z223C	WFH60Z223C
AUX10KW	10KW Heater Kit w/ Circuit breaker	WFH24Z193C	WFH36Z193C	WFH48Z223C	WFH60Z223C
AUX15KW	15KW Heater Kit w/ Circuit breaker	WFH36Z193C	WFH48Z223C	WFH60Z223C	
AUX20KW	20KW Heater Kit w/ Circuit breaker	WFH48Z223C	WFH60Z223C		

# Product Specifications

## Breeze AHU Electric Heat Kits

### Heating kW Correction Factor

Supply Voltage	240	230	220	210	208	
Correction Factor	1	0.92	0.84	0.77	0.75	

### Standard Features

Controlled by Relays or Contactors

Plug-in wiring harness for ease on installation into air handler UL certified

### Electrical Data ✱

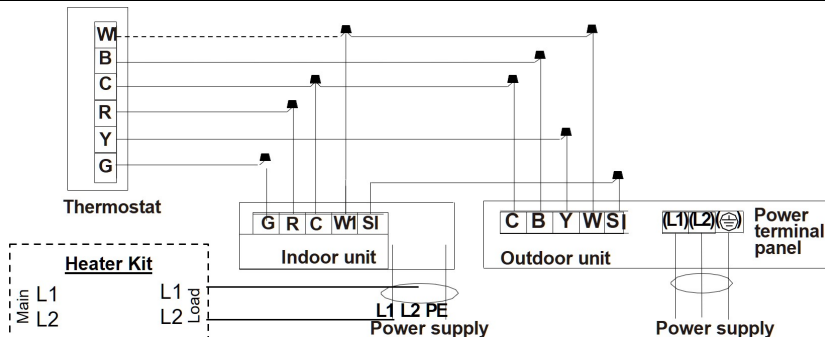
#### Air Handlers

Model and Heat Kit Usage	Phase	Unit MCA ‡	CIRCUIT #1		CIRCUIT #2		Coil Qty Used	ACTUAL kW @ 240V
			MCA	MOP	MCA	MOP		
<b>24K AHU</b>	Ø	3.3						
AUX5KW	1		29.3	30	-----	-----	1	5
AUX7KW			42.5	45	-----	-----	2	7.5
AUX10KW			55.4	60	-----	-----	2	10
<b>36K AHU</b>	Ø	4.8						
AUX5KW	1		30.8	30	-----	-----	1	5
AUX7KW			43.9	45	-----	-----	2	7.5
AUX10KW			56.9	60	-----	-----	2	10
AUX15KW			45.9	50	39.1	40	4	15
<b>48k/60K AHU</b>	Ø	6.8						
AUX5KW	1		32.8	35	-----	-----	1	5
AUX7KW			45.9	50	-----	-----	2	7.5
AUX10KW			58.9	60	-----	-----	2	10
AUX15KW			45.9	50	39.1	40	4	15
AUX20KW			58.9	60	52.1	55	4	20

‡ - Please refer to Units Series and Rating plate for confirmation of MCA & MOP values.

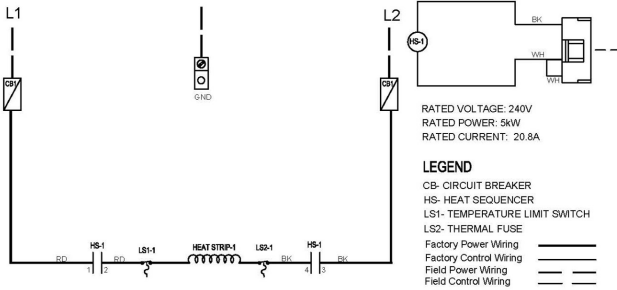
\* - Please refer to Unit Specifications for Single point and additional electrical ratings data

The electric heat kits designed for use with these units may include a combination of 15 through 60 amp circuit breakers to provide an electrical disconnect for service personnel that are intended to help protect internal electrical components in the event of a short circuit of ground fault. As designed, the circuit breakers supplied do not provide over-current protection of the branch circuit(s). Therefore, the branch circuit(s) shall be sized and protected according to the nameplate.



Note: When Heater Kit is installed, connect AHU power (White/Black pigtail) to load side of appropriate breaker to power AHU. For 15KW/20KW connect to "CB1" which is L1/L2 of the included wiring diagram.

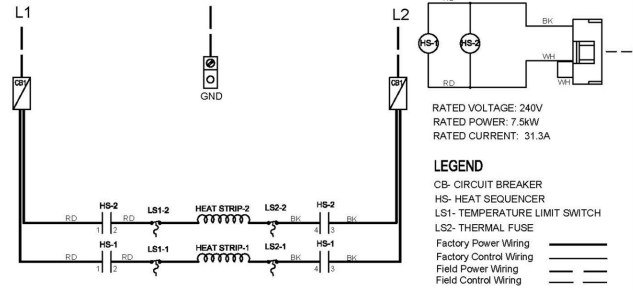
AUX5KW SCHEMATIC DIAGRAM 5kW



Notes:

1. For AHUs with electric heater kits, connect the supply power to circuit breaker.
2. Use copper wire (167°F / 75°C Min) only between disconnect switch and Unit.
3. Must be wired in accordance with NEC and local codes.
4. If any of the original wires as supplied must be repaired or replaced, use the same or equivalent type wire.

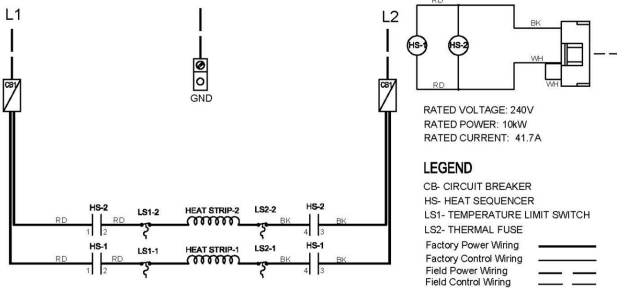
AUX7KW SCHEMATIC DIAGRAM 7.5kW



Notes:

1. For AHUs with electric heater kits, connect the supply power to circuit breaker.
2. Use copper wire (167°F / 75°C Min) only between disconnect switch and Unit.
3. Must be wired in accordance with NEC and local codes.
4. If any of the original wires as supplied must be repaired or replaced, use the same or equivalent type wire.

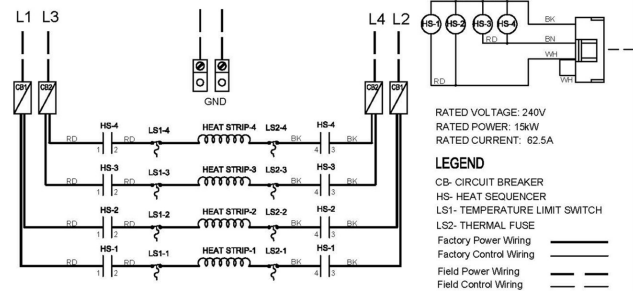
AUX10KW SCHEMATIC DIAGRAM 10kW



Notes:

1. For AHUs with electric heater kits, connect the supply power to circuit breaker.
2. Use copper wire (167°F / 75°C Min) only between disconnect switch and Unit.
3. Must be wired in accordance with NEC and local codes.
4. If any of the original wires as supplied must be repaired or replaced, use the same or equivalent type wire.

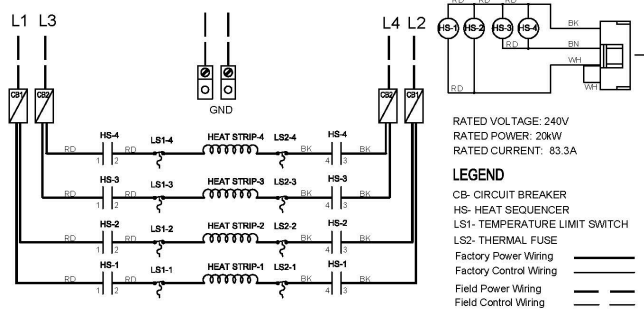
AUX15KW SCHEMATIC DIAGRAM 15kW



Notes:

1. For AHUs with electric heater kits, connect the supply power to circuit breaker.
2. Use copper wire (167°F / 75°C Min) only between disconnect switch and Unit.
3. Must be wired in accordance with NEC and local codes.
4. If any of the original wires as supplied must be repaired or replaced, use the same or equivalent type wire.

AUX20KW SCHEMATIC DIAGRAM 20kW



Notes:

1. For AHUs with electric heater kits, connect the supply power to circuit breaker.
2. Use copper wire (167°F / 75°C Min) only between disconnect switch and Unit.
3. Must be wired in accordance with NEC and local codes.
4. If any of the original wires as supplied must be repaired or replaced, use the same or equivalent type wire.