
INSTALLATION INSTRUCTIONS

ELECTRIC HEAT PACKAGES

Models:

EHW4TA-A05L	EHWA03-B09LB	EHWA4S-A20LB
EHW4TA-C09L	EHWA03-C15L	EHWA5S-A05LB
EHW4TA-C15L	EHWA05-A05LB	EHWA5S-A08LB
EHW6TA-A05L	EHWA05-A10LB	EHWA5S-A10LB
EHW6TA-F14L	EHWA05-A15LB	EHWA5S-A15LB
EHW02A-A08LB	EHWA05-B09LB	EHWA5S-A20LB
EHW70A-B09LB	EHWA05-B15LB	EHWA5S-B06LB
EHW72A-A10LB	EHWA05A-C09L	EHWA5S-B09LB
EHW72A-A15LB	EHWA05A-C15L	EHWA5S-B15LB
EHWA02-A10LB	EHWA24-B06LB	EHWA5S-C06L
EHWA02A-A05LB	EHWA37-B15LB	EHWA5S-C09L
EHWA03-A05LB	EHWA3S-B06LB	EHWA5S-C15L
EHWA03-A08LB	EHWA4S-A05LB	EHWA60-B09LB
EHWA03-A10LB	EHWA4S-A10LB	EHWA70-A05B
EHWA03-A15LB	EHWA4S-A15LB	EHWC03-C09L

For Use with SH, WA and WH Series
Wall-Mounted Air Conditioners and Heat Pumps
(See Tables 1 A – 1F for Model Usage Matrix)



Climate Control Solutions

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GENERAL INFORMATION

DESCRIPTION OF EQUIPMENT

The EHWA, EHWH and EHWC Series electric heater packages are field-installable heater packages suitable for use with Bard wall mount air conditioners and heat pumps. The packages consist of the electric heat strip, the heater control base which includes the heat contactors, and circuit breaker, rotary or toggle disconnects, installation instructions and wiring diagrams. See tables for nominal electrical data and BTU output. ***Before installation, check unit serial plate to insure the heater package model to be installed is a listed heater package that is suitable for use with the Bard wall mount unit (see Figure 6 on page 15).***

IMPORTANT

The equipment covered in this manual is to be installed by trained, experienced service and installation technicians.

SHIPPING DAMAGE

Upon receipt of equipment, the carton should be checked for external signs of shipping damage. If damage is found, the receiving party must contact the last carrier immediately, preferably in writing, requesting inspection by the carrier's agent.

WARNING

Only use factory-provided heaters in approved combinations of heater models to unit models as shown in tables 1A –1I. Failure to use approved combinations as shown or modification to heaters could result in fire causing damage, bodily injury or death.

UNPACKING ELECTRIC HEAT PACKAGE

Remove the heat package from the shipping carton. The heat package must consist of the following:

1. Basic heater.
2. Electric heat control base and wiring.
3. Installation instructions.
4. Two wiring diagrams, one to be applied to unit.
5. Adhesive label to re-mark serial plate to indicate new model number. This is attached to the front of these instructions.

TABLE 1A
R-410A Approved Heater Usage Matrix

240/220V 1 Phase	W17L#-A	W18L#-A	W24L#-A	W30L#-A	W36L#-A	W42L#-A	W48L#-A	W60L#-A	W70L#-A	WL3S#-A	WL4S#-A	WL5S#-A
	EHWA02A-A05LB	X	X	X								
EHWA02A-A08LB	X	X	X									
EHWA02A-A10LB	X	X	X									
EHWA03-A05LB				X	X							
EHWA03-A08LB				X								
EHWA03-A10LB				X	X							
EHWA03-A15LB				X	X							
EHWA05-A05LB						X	X	X				
EHWA05-A10LB						X	X	X	X			
EHWA05-A15LB						X	X	X	X			
EHWA4S-A05LB										X	X	
EHWA4S-A10LB										X	X	
EHWA4S-A15LB										X	X	
EHWA4S-A20LB										X	X	
EHWA5S-A05LB												X
EHWA5S-A08LB										X	X	X
EHWA5S-A10LB												X
EHWA5S-A15LB												X
EHWA5S-A20LB												X
EHWA70-A05B									X			

– Indicates numeric revision level (e.g., 1, 2, 3, ...)

TABLE 1B
R-410A Approved Heater Usage Matrix

240/220V 1 Phase	W18L*-A	W24L*-A	W30L*-A	W36L*-A	W42L*-A	W48L*-A	W60L*-A	W72L*-A
	EHWA02A-A05LB	X	X					
EHWA02A-A08LB	X	X						
EHWA02A-A10LB	X	X						
EHWA03-A05LB			X	X				
EHWA03-A08LB			X					
EHWA03-A10LB			X	X				
EHWA03-A15LB			X	X				
EHWA4TA-A05L					X	X	X	
EHWA05-A10LB					X	X	X	
EHWA05-A15LB					X	X	X	
EHWA6TA-A05L								X
EHWA72A-A10LB								X
EHWA72A-A15LB								X

* – Indicates alphabetic revision level (e.g., A, B, C, ...)

TABLE 1C
R-410A Approved Heater Usage Matrix

240/220V 230/208V 3 Phase	W24L#-B	W30L#-B	W36L#-B	W42L#-B	W48L#-B	W60L#-B	W70L#-B	WL3S#-B	WL4S#-B	WL5S#-B
EHWA03-B09LB		X	X							
EHWA05-B09LB				X	X					
EHWA05-B15LB				X	X	X	X			
EHWA24-B06LB	X									
EHWA37-B15LB		X	X							
EHWA3S-B06LB								X		
EHWA5S-B06LB									X	X
EHWA5S-B09LB								X	X	X
EHWA5S-B15LB								X	X	X
EHWA60-B09LB						X				
EHW70A-B09LB							X			

– Indicates numeric revision level (e.g., 1, 2, 3, ...)

TABLE 1D
R-410A Approved Heater Usage Matrix

240/220V 230/208V 3 Phase	W24L*-B	W30L*-B	W36L*-B	W42L*-B	W48L*-B	W60L*-B	W72L*-B
EHWA03-B09LB		X	X				
EHWA05-B09LB				X	X		
EHWA05-B15LB				X	X	X	X
EHWA24-B06LB	X						
EHWA37-B15LB		X	X				
EHWA60-B09LB						X	
EHW70A-B09LB							X

* – Indicates alphabetic revision level (e.g., A, B, C, ...)

TABLE 1E
R-410A Approved Heater Usage Matrix

415V 460V 3 Phase	W30L#-C	W36L#-C	W42L#-C	W48L#-C	W60L#-C	W70L#-C	WL3S#-C	WL4S#-C	WL5S#-C
EHWC03-C09L	X	X							
EHWA05A-C09L			X	X	X	X			
EHWA05A-C15L			X	X	X	X			
EHWA5S-C06L							X	X	X
EHWA5S-C09L							X	X	X
EHWA5S-C15L							X	X	X

– Indicates numeric revision level (e.g., 1, 2, 3, ...)

TABLE 1F
R-410A Approved Heater Usage Matrix

415V 460V 3 Phase	W30L*-C	W36L*-C	W42L*-C	W48L*-C	W60L*-C	W72L*-C
EHWC03-C09L	X	X				
EHW4TA-C09L			X	X	X	X
EHW4TA-C15L			X	X	X	X

* – Indicates alphabetic revision level (e.g., A, B, C, ...)

TABLE 2
Electrical Data and BTU Output

Heater Package Model	Volts	Phase	Nominal KW	Nominal BTU
EHWA02A-A05LB	240/208	1	5/3.75	17,065/12,800
EHW02A-A08LB	240/208	1	8/6	27,300/20,475
EHWA02-A10LB	240/208	1	10/7.5	34,130/25,600
EHWA03-A05LB	240/208	1	5/3.75	17,065/12,800
EHWA03-A08LB	240/208	1	8/6	27,300/20,475
EHWA03-A10LB	240/208	1	10/7.5	34,130/25,600
EHWA03-A15LB	240/208	1	15/11.25	51,195/23,035
EHWA05-A05LB	240/208	1	5/3.75	17,065/12,800
EHW4TA-A05L	240/208	1	5/3.75	17,065/12,800
EHWA05-A10LB	240/208	1	10/7.5	34,130/25,600
EHW72A-A10LB	240/208	1	10/7.5	34,130/25,600
EHWA05-A15LB	240/208	1	15/11.25	51,195/23,035
EHW72A-A15LB	240/208	1	15/11.25	51,195/23,035
EHWA4S-A05LB	240/208	1	5/3.75	17,065/12,800
EHWA4S-A10LB	240/208	1	10/7.5	34,130/25,600
EHWA4S-A15LB	240/208	1	15/11.25	51,195/23,035
EHWA4S-A20LB	240/208	1	20/15	68,260/51,200
EHWA5S-A05LB	240/208	1	5/3.75	17,065/12,800
EHWA5S-A08LB	240/208	1	8/6	27,300/20,475
EHWA5S-A10LB	240/208	1	10/7.5	34,130/25,600
EHWA5S-A15LB	240/208	1	15/11.25	51,195/23,035
EHWA5S-A20LB	240/208	1	20/15	68,260/51,200
EHWA70-A05B	240/208	1	5/3.75	17,065/12,800
EHW6TA-A05L	240/208	1	5/3.75	17,065/12,800
EHWA03-B09LB	240/208	3	9/6.75	30,715/23,035
EHWA05-B09LB	240/208	3	9/6.75	30,715/23,035
EHWA05-B15LB	240/208	3	15/11.25	51,195/38,400
EHWA24-B06LB	240/208	3	6/4.5	20,475/15,350
EHWA37-B15LB	240/208	3	15/11.25	51,195/38,400
EHWA3S-B06LB	240/208	3	6/4.5	20,475/15,350
EHWA5S-B06LB	240/208	3	6/4.5	20,475/15,350
EHWA5S-B09LB	240/208	3	9/6.75	30,715/23,035
EHWA5S-B15LB	240/208	3	15/11.25	51,195/38,400
EHWA60-B09LB	240/208	3	9/6.75	30,715/23,035
EHW70A-B09LB	240/208	3	9/6.75	30,715/23,035
EHWC03-C09L	480	3	9	30,715
EHWA03-C15L	480	3	15	51,195
EHWA05A-C09L	480	3	9	30,715
EHW4TA-C09L	480	3	9	30,715
EHWA05A-C15L	480	3	15	51,195
EHW4TA-C15L	480	3	15	51,195
EHWA5S-C06L	480	3	6	20,475
EHWA5S-C09L	480	3	9	30,715
EHWA5S-C15L	480	3	15	51,195

WIRING MAIN POWER

1. On all installations, size unit power supply wiring for the minimum circuit ampacity requirement for the unit and heater package combination listed on the unit serial plate.

⚠ WARNING

Install properly sized power supply leads for the unit/heater combination minimum circuit ampacity as listed on the unit serial plate. Hazard of fire. Failure to install properly sized conductors could result in fire causing damage, bodily injury or death.

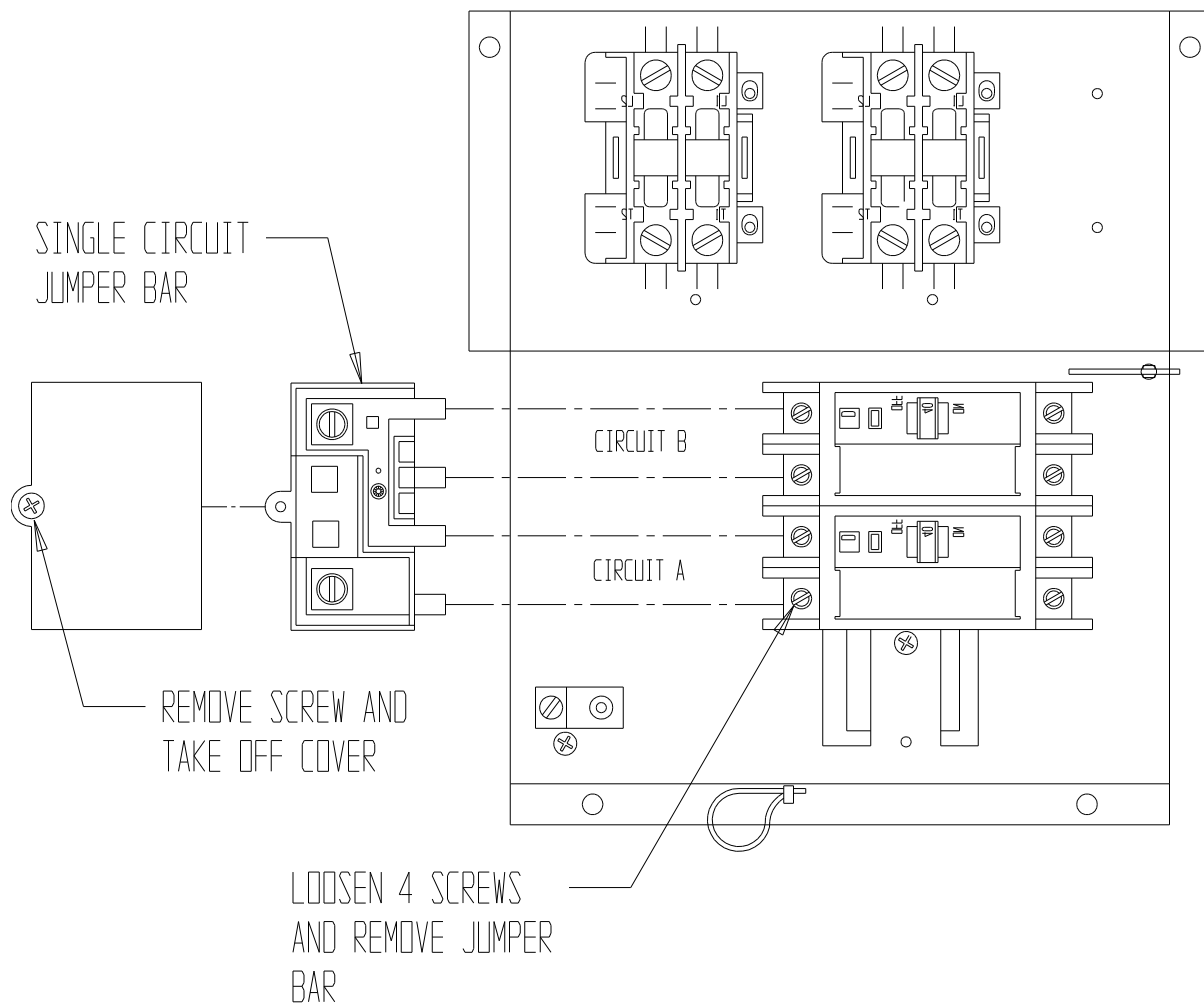
2. All heater packages covered by this manual are factory wired for single supply circuit. The following heater packages are field-convertible to a dual supply circuit if required or desired:

EHW72A-A10LB	EHWA4S-A10LB
EHW72A-A15LB	EHWA4S-A15LB
EHWA03-A15LB	EHWA5S-A10LB
EHWA05-A15LB	EHWA5S-A15LB

3. To convert the above heater packages to dual circuit configuration before installation, loosen four (4) screws holding jumper bar in place. Remove jumper bar. Circuits A + B are now identified on the heater package (see Figure 1).

Wire should be sized to the minimum circuit ampacity as specified on the serial plates of units that accept these heater packages for circuits A + B.

FIGURE 1
Electrical Connections



MIS-2907

INSTALLATION OF HEATER PACKAGE

1. Disconnect all power to unit before installation.

WARNING

Disconnect all power to unit before installing heater package. Hazard of electrical shock. Failure to disconnect power could result in injury or death.

2. Before installation, check unit serial plate to insure that the heater package model to be installed is listed as a heater package suitable for use with the unit.

Under no circumstance shall a heater package be installed in a unit if the model number of the heater package does not appear on the unit serial plate.

WARNING

Install only heater packages listed on unit serial plate. Hazard of fire or electrical shock. Failure to install listed heater package could result in fire, injury or death.

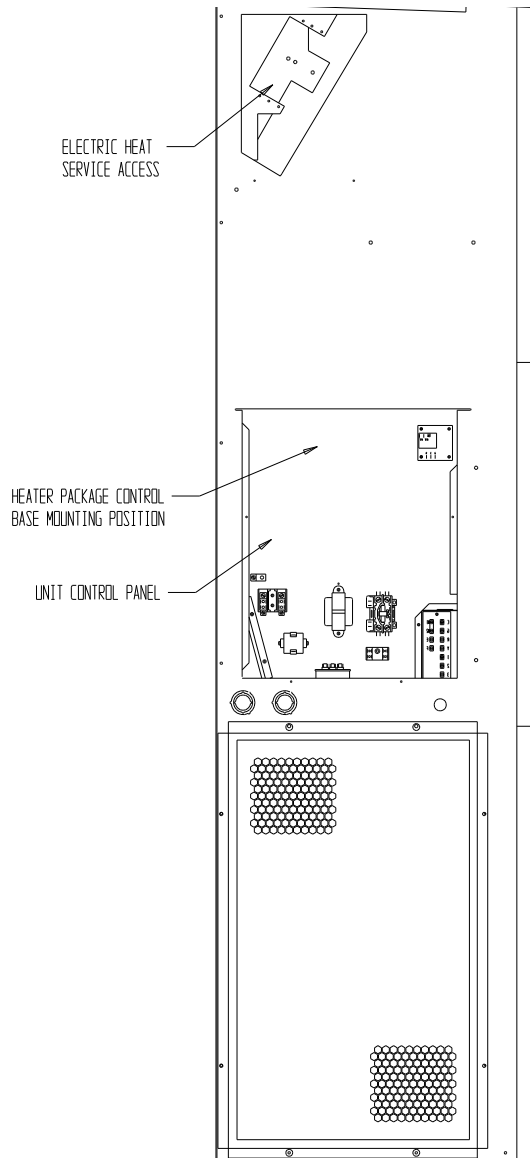
3. Remove electric heater access panel and control panel cover, both inner and outer (see Figure 2 on page 10).
4. All heaters are installed with the thermal cutoffs positioned to the top of the unit. Install heat strip(s) through heater access opening. Position heat strip support rod in heater support hole 1, 2 or 3 as indicated in Table 3 (page 11) and Figure 3 (page 10).

On heater packages with two (2) heat strips, install 9KW heater first in position closest to the outlet air frame (see Figures 4E – 4G on page 13).

5. Install heater control base into top of control panel as shown in Figure 5 on page 14. Secure with four (4) sheet metal screws provided.
6. Plug male 6-pin connector into mating connector mounted in control panel (see Figure 5).

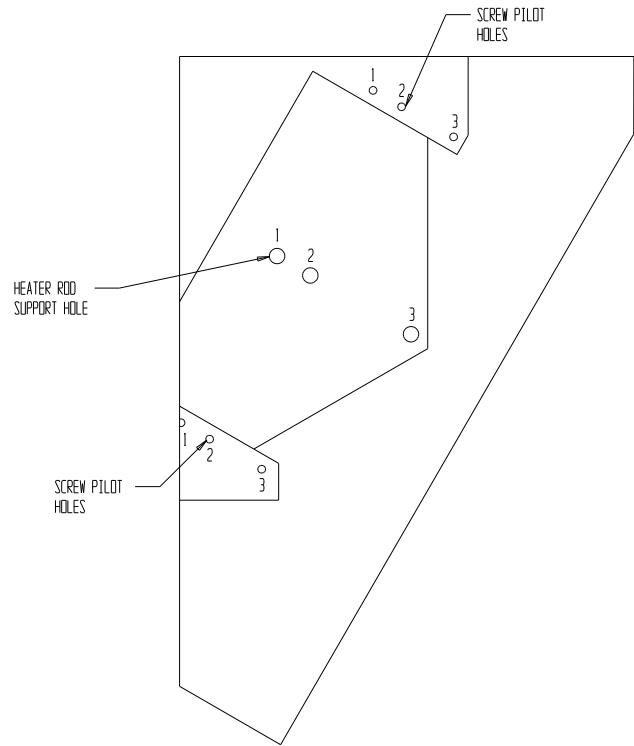
7. Connect red compressor supply lead to L1 of terminal block. Connect black compressor supply lead to L2 of terminal block. If three phase, connect yellow supply lead to L3 of terminal block. See Figure 5 and wiring diagram.
8. Route wires from heater control base up through raceway in top right corner of control panel to the heaters (see Figure 5).
9. Wire heater package per wiring diagram supplied with this heater package. All wires are stamped with wire numbers that correspond with terminal numbers on the wiring diagram and stamped numbers on the heat strip. Limit switch wires are terminated with insulated quick connect terminals. See Figure 5.
10. Attach adhesive wiring diagram directly above unit wiring diagram on inner control panel cover.
11. Recheck all wiring. Break out appropriate circuit breaker tabs on inner control panel cover to allow trip lever to protrude. Replace control panel and heater access panels.
12. Resupply power to the unit and check for proper operation.
13. Re-mark serial plate with self-adhesive label attached to the front of this manual (see Figure 6 on page 15).

FIGURE 2
Electric Heater Access Panel
and Control Panel Cover Locations



MIS-2906

FIGURE 3
Screw Mounting Holes



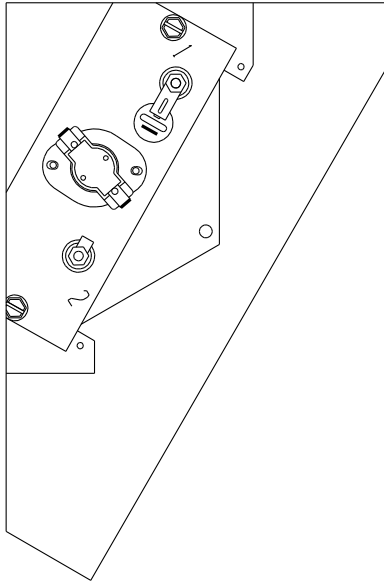
MIS-2905

TABLE 3
References to Figures 3 and 4 by Model Number

Heater Package Model Number	Figure 3 Rod Support and Screw Mounting Position	Figure 4 Heater Terminal Identification Drawing
EHWA02A-A05LB	1	4A
EHWA02A-A08LB	1	4B
EHWA02A-A10LB	1	4B
EHWA03-A05LB	1	4A
EHWA03-A08LB	1	4B
EHWA03-A10LB	1	4B
EHWA03-A15LB	2	4D
EHWA05-A05LB, EHW4TA-A05L	1	4A
EHWA05-A10LB, EHW72A-A10LB	1	4B
EHWA05-A15LB, EHW72A-A15LB	1 + 3	4E
EHWA4S-A05LB	1	4A
EHWA4S-A10LB	1	4B
EHWA4S-A15LB	2	4D
EHWA4S-A20LB	1 + 3	4F
EHWA5S-A05LB	1	4A
EHWA5S-A08LB	1	4B
EHWA5S-A10LB	1	4B
EHWA5S-A15LB	2	4D
EHWA5S-A20LB	1 + 3	4F
EHWA70-A05B, EHW6TA-A05L	1	4A
EHWA03-B09LB	1	4C
EHWA05-B09LB	1	4C
EHWA05-B15LB	1 + 3	4G
EHWA24-B06LB	1	4C
EHWA37-B15LB	1 + 3	4D
EHWA3S-B06LB	1	4C
EHWA5S-B06LB	1	4C
EHWA5S-B09LB	1	4C
EHWA5S-B15LB	1 + 3	4G
EHWA60-B09LB	1	4C
EHW70A-B09LB	1	4C
EHWC03-C09L	1	4C
EHWA03-C15L	1 + 3	4G
EHWA05A-C09L, EHW4TA-C09L	1	4C
EHWA05A-C15L, EHW4TA-C15L	1 + 3	4G
EHWA5S-C06L	1	4C
EHWA5S-C09L	1	4C
EHWA5S-C15L	1 + 3	4G

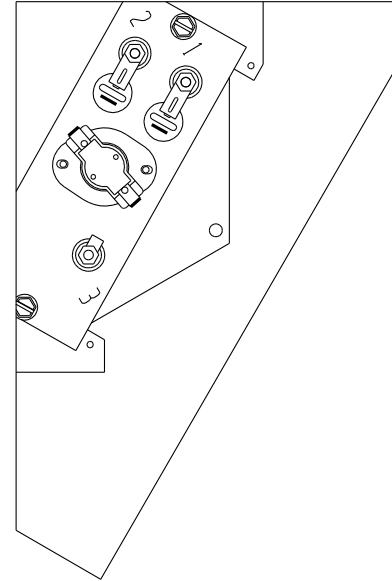
**FIGURE 4
A Through D**

FIGURE 4A



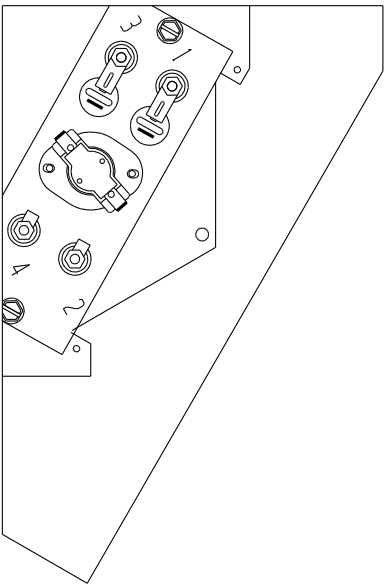
EHWA02A-A05LB
 EHWA03-A05LB
 EHWA05-A05LB
 EHWA4S-A05LB
 EHWA5S-A05LB
 EHWA70-A05B
 EHW4TA-A05L
 EHW6TA-A05L

FIGURE 4C



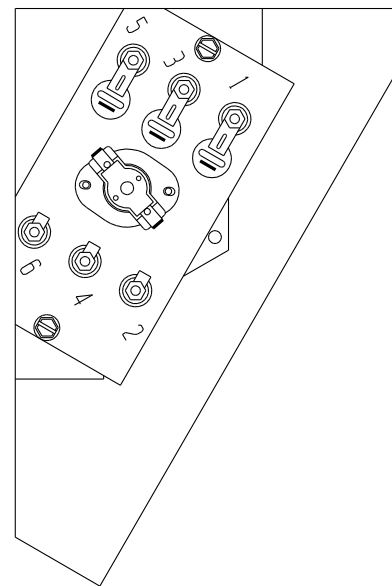
EHWA03-B09LB
 EHWA05-B09LB
 EHWA24-B06LB
 EHWA3S-B06LB
 EHWA5S-B06LB
 EHWA5S-B09LB
 EHWA60-B09LB
 EHW70A-B09LB
 EHW03-C09L
 EHWA05A-C09L
 EHWA5S-C06L
 EHWA5S-C09L
 EHW4TA-C09L

FIGURE 4B



EHW02A-A08LB
 EHWA02-A10LB
 EHWA03-A08LB
 EHWA03-A10LB
 EHWA05-A10LB
 EHWA4S-A10LB
 EHWA5S-A08LB
 EHWA5S-A10LB
 EHW72A-A10LB

FIGURE 4D



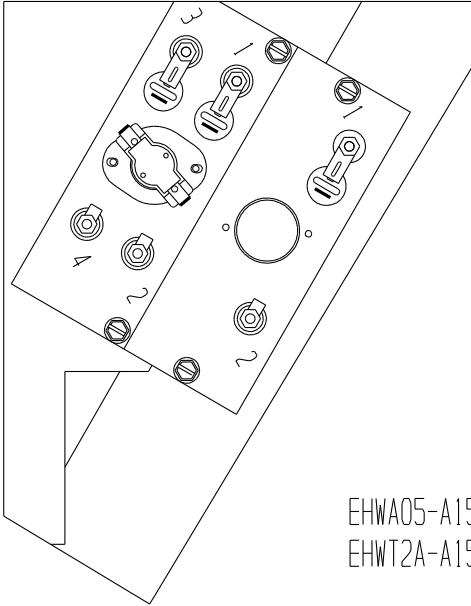
EHWA03-A15LB
 EHWA4S-A15LB
 EHWA5S-A15LB
 EHW37-B15LB

NOTE: THERMAL CUTOFFS TO BE AT
 TOP OF AIR FRAME WHEN INSTALLING.

MIS-2910 B

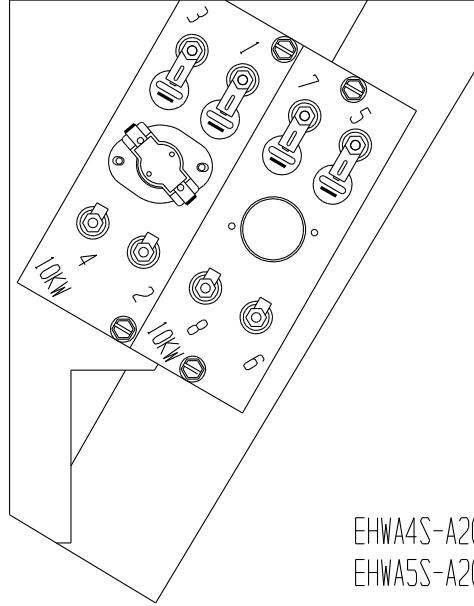
**FIGURE 4
E Through G**

FIGURE 4E



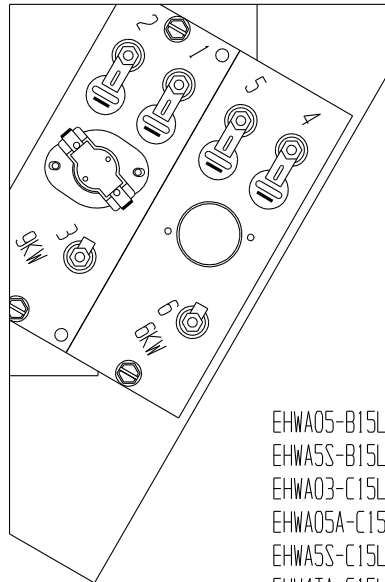
EHWA05-A15LB
EHWT2A-A15LB

FIGURE 4F



EHWA4S-A20LB
EHWA5S-A20LB

FIGURE 4G

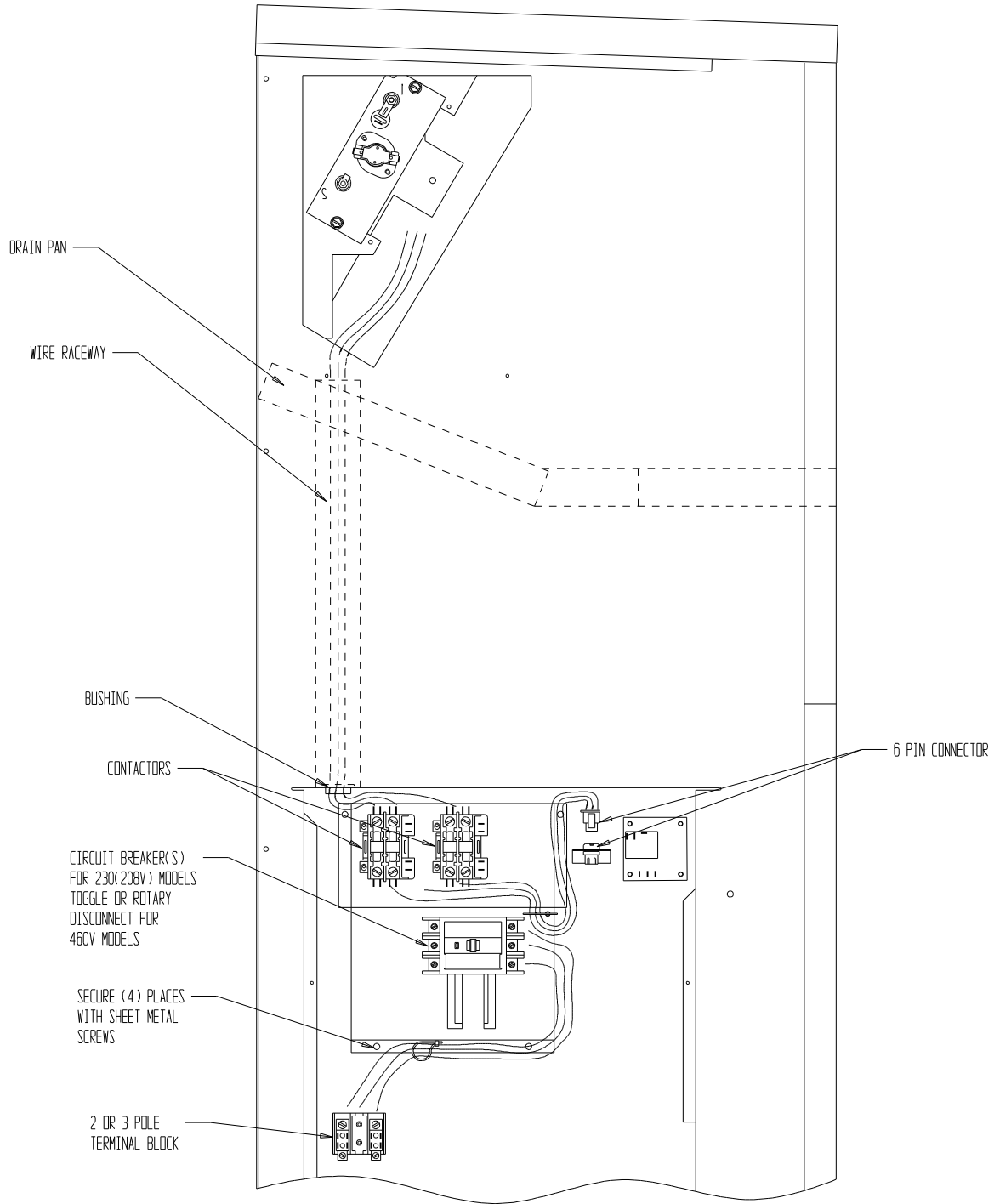


EHWA05-B15LB
EHWA5S-B15LB
EHWA03-C15L
EHWA05A-C15L
EHWA5S-C15L
EHW4TA-C15L

NOTE: THERMAL CUTOFFS TO BE AT
TOP OF AIR FRAME WHEN INSTALLING.

MIS-2911 B

FIGURE 5
Installing Heater Base and Connecting Wiring



MIS-2904

**FIGURE 6
Serial Plate Label**

INSTALL ONLY HEATER PACKAGES LISTED HERE.

BARD MANUFACTURING COMPANY, 1914 RANDOLPH DRIVE

(1)
APPROVED
HEATER
PACKAGE

MODEL	VAC	HZ
WA361-A0012345	230/208	60
WA361-A0512345	230/208	60
WA361-A0812345	230/208	60
WA361-A1012345	230/208	60
WA361-A1512345	230/208	60

BRANCH CIRCUIT SELECT CURRENT 17 OPERATION

SERIAL NUMBER 125H920711193-01 UL FILE NO.

SUITABLE FOR OUTDOOR USE

	VAC	HZ	PH	ELECTRICAL HP
COMPRESSOR	230/208	60	1	
OUTDOOR MOTOR	230/208	60	1	1/5
INDOOR MOTOR	230/208	60	1	1/3

HEATER PACKAGE	VAC	HZ	KW
EHWA03-A05	240/208	60	5/3.75
EHWA03-A08	240/208	60	8/6
EHWA03-A10	240/208	60	10/7.5
EHWA03-A15	240/208	60	15/11.25

FACTORY CHARGED R22: 68 OZ. DESI

-- FACTORY
-- CLEAR

(X)	()	()	()	()	()
()	(X)	()	()	()	()
()	()	(X)	()	()	()
()	()	()	(X)	()	()
()	()	()	()	(X)	()

ASSURE THAT SERIAL PLATE IS CLEAN AND DRY, REMOVE APPROPRIATE LABEL STRIP FOR KW REQUIRED AND REMARK SERIAL PLATE AS SHOWN FOR THE HEATER PACKAGE THAT IS INSTALLED

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