
INSTALLATION INSTRUCTIONS

ELECTRIC HEAT PACKAGES

Models:

EHW02A-A08B	EHWA03-A10B	EHWH02A-A08B
EHW24H-A04B	EHWA03-A15B	EHWH03-B06B
EHW24H-A08B	EHWA03-A10D	EHWH03-B09B
EHW24H-B06B	EHWA03-B06B	EHWH03A-C15
EHW36A-B06B	EHWA03-B09B	EHWH24-B06B
EHW36H-B06B	EHWA03-B15	EHWH24B-C06
EHW36H-B09B	EHWA03A-C15	EHWH30-A05B
EHW36H-B15B	EHWA24-B06B	EHWH30-A10B
EHWA02-A05B	EHWA24A-A04B	EHWH31-C06
EHWA02A-A08B	EHWA37-B15B	EHWH36-A05B
EHWA02A-A10B	EHWC03A-C06	EHWH36-A10B
EHWA03-A05B	EHWC03A-C09	EHWH36-A15B
EHWA03-A08B	EHWH02A-A04B	EHWH36-B15

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



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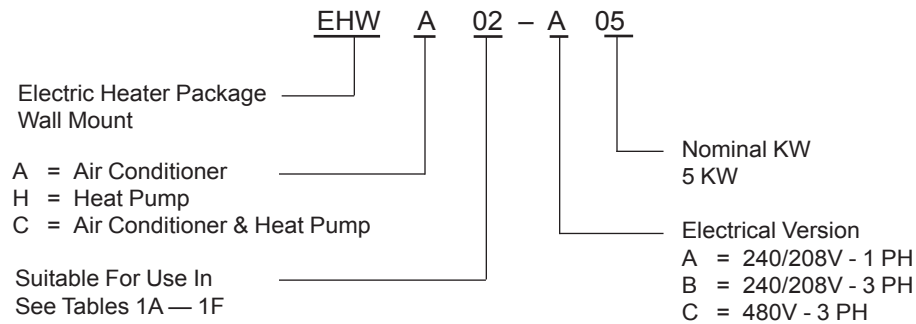
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BARD MANUFACTURING COMPANY, INC.
BRYAN, OHIO 43506

MODEL NOMENCLATURE LEGEND



DESCRIPTION

The EHWA, EHWH and EHWC series electric heater packages are field installable heater packages suitable for use with Bard wall mount hi boy 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 or pull disconnects, installation instructions and wiring diagrams. See Table 1 for nominal electrical data and BTU output. ***Before installation, check unit serial plate to insure the heater package model that you intend to install is a listed heater package that is suitable for use with the Bard wall mount hi boy unit.*** See Figure 6.

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.

UNPACKING THE 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. Wiring diagram (2), one to be applied to unit
5. Adhesive label to remark serial plate to indicate new model number. This is attached to the front of these instructions.

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.

**TABLE 1A
R-22 APPROVED HEATER USAGE MATRIX**

240/220V 1 Phase	WA182-A	WA182-D	WA242-A	WA242-D	WA242HA	WA253-A	WA253-D	WA302-A	WA302-D	WA361-A	WA361-D	WA372-A	WA372-D	WE252-D	WE301-D	WE371-D	WH183-A	WH242-A	WH242DA	WH261-A	WH301-A	WH301DA	WH301LA	WH311-A	WH361-A	WH361DA	WH361HA	WH361LA	SH311DA	SH261DA	SH311-A	SH261-A		
EHWA02-A05B	X	X	X	X		X	X	X	X	X	X	X	X	X																				
EHWA02A-A08B	X	X	X	X		X	X	X	X	X	X	X	X	X																				
EHWA02A-A10B	X	X	X	X		X	X	X	X	X	X	X	X	X																				
EHWA03-A05B								X	X	X	X	X	X		X									X										
EHWA03-A08B								X	X	X	X	X	X		X									X										
EHWA03-A10B								X	X	X	X	X	X		X									X										
EHWA03-A15B								X	X	X	X	X	X		X																			
EHWA24A-A04B						X																												
EHWH02A-A04B					X															X	X													
EHWH02A-A08B					X															X	X													
EHWH30-A05B																				X	X													
EHWH30-A10B																				X	X													
EHWH36-A05B																				X	X													
EHWH36-A10B																				X	X													
EHWH36-A15B																				X	X													

**TABLE 1D
R-410A APPROVED HEATER USAGE MATRIX**

240/220V 1 Phase	W18A*-A	W24A*-A	W24A*-D	W30A*-A	W30A*-D	W36A*-A	W36A*-D	S26H*-A	S26H*DA	S31H*-A	S31H*DA	W18H*-A	W24H*-A	W24H*DA	W26H*-A	W30H*-A	W30H*DA	W31H*-A	W36H*-A	W36H*DA
EHW02A-A08B	X	X																		
EHW24H-A04B													X	X						
EHW24H-A08B													X	X						
EHWA02-A05B	X	X	X																	
EHWA02A-A08B			X																	
EHWA02A-A10B	X	X																		
EHWA03-A05B				X	X	X	X													
EHWA03-A08B				X		X														
EHWA03-A10B				X	X	X	X													
EHWA03-A15B				X		X														
EHWA24A-A04B		X																		
EHWH02A-A04B												X								
EHWH02A-A08B												X								
EHWH30-A05B																X				
EHWH30-A10B																X				
EHWH36-A05B																	X	X	X	
EHWH36-A10B																	X	X	X	
EHWH36-A15B																		X		

**TABLE 1E
R-410A APPROVED HEATER USAGE MATRIX**

240/220V 230/208V 3 Phase	W24A*-B	W30A*-B	W36A*-B	W36A*-E	S26H*-B	S26H*DB	S31H*-B	S31H*DB	W24H*-B	W24H*DB	W26H*-B	W30H*-B	W30H*DB	W31H*-B	W36H*-B	W36H*DB
EHW24H-B06B									X	X						
EHW36A-B06B			X													
EHW36H-B06B														X	X	
EHW36H-B09B												X				X
EHW36H-B15B														X		
EHWA03-B06B		X		X												
EHWA03-B09B		X	X													
EHWA24-B06B	X															
EHWA37-B15B		X	X													
EHWH03-B06B												X	X			
EHWH03-B09B												X			X	

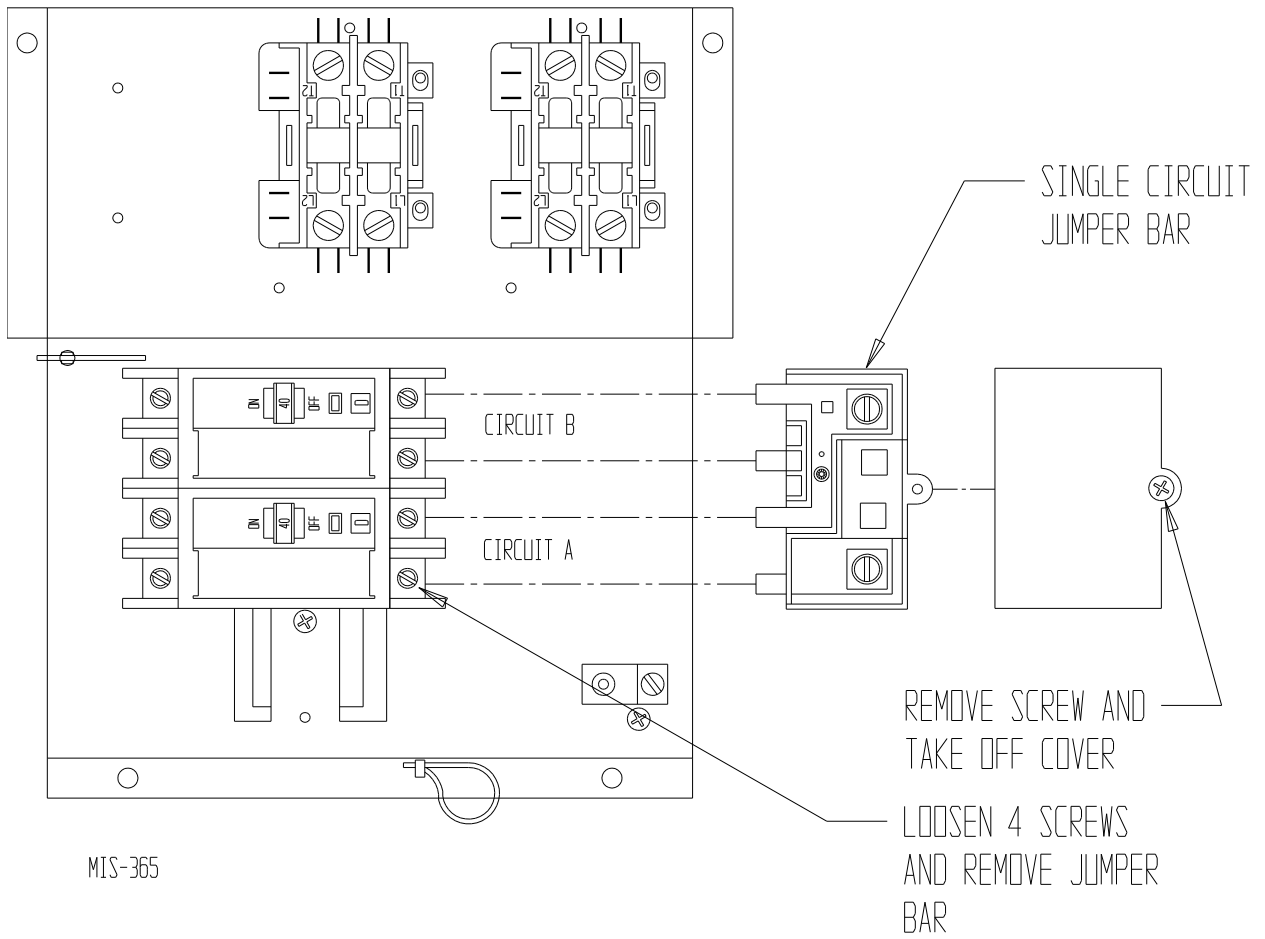
**TABLE 1F
R-410A APPROVED HEATER USAGE MATRIX**

415V 460V 3 Phase	W24A*-C	W24A*-F	W24H*-C	W24H*DC	W30A*-C	W30A*-F	W36A*-C	W36A*-F	S26H*-C	S26H*DC	S31H*-C	S31H*DC	W26H*-C	W30H*-C	W30H*DC	W31H*-C	W36H*-C	W36H*DC
EHWA03A-C15					X	X	X	X										
EHWC03A-C06					X		X							X	X		X	X
EHWC03A-C09					X	X	X	X						X	X		X	X
EHWH03A-C15														X			X	
EHWH24B-C06	X	X	X	X														

**TABLE 2
ELECTRICAL DATA AND BTU OUTPUT**

Heater Package Model	Volts	Phase	Nominal KW	Nominal BTU
EHWA24A-A04B	240/208	1	4 / 3	13,650 / 10,240
EHWA02-A05B	240/208	1	5 / 3.75	17,065 / 12,800
EHWA02A-A08B	240/208	1	8 / 6	27,300 / 20,475
EHWA02A-A10B	240/208	1	10 / 7.5	34,130 / 25,600
EHWA24-B06B	240/208	3	6 / 4.5	20,475 / 15,350
EHWH02A-A04B	240/208	1	4 / 3	13,650 / 10,240
EHWH02A-A08B	240/208	1	8 / 6	27,300 / 20,475
EHWH24-B06B	240/208	3	6 / 4.5	20,475 / 15,350
EHWH24B-C09	480	3	9	30,715
EHWA03-A05B	240/208	1	5 / 3.75	17,065 / 12,800
EHWA03-A08B	240/208	1	8 / 6	27,300 / 20,475
EHWA03-A10B	240/208	1	10 / 7.5	34,130 / 25,600
EHWA03-A15B	240/208	1	15 / 11.25	51,195 / 23,035
EHWA03-B06B	240/208	3	6 / 4.5	20,475 / 15,350
EHWA03-B09B	240/208	3	9 / 6.75	30,715 / 23,035
EHWA03-B15	240/208	3	15 / 11.25	51,195 / 38,400
EHWA03A-C15	480	3	15	51,195
EHWA37-B15B	240 / 208	3	15 / 11.25	51,195 / 38,400
EHWH30-A05B	240/208	1	5 / 3.75	17,065 / 12,800
EHWH30-A10B	240/208	1	10 / 7.5	34,130 / 25,600
EHWH36-A05B	240/208	1	5 / 3.75	17,065 / 12,800
EHWH36-A10B	240/208	1	10 / 7.5	34,130 / 25,600
EHWH36-A15B	240/208	1	15 / 11.25	51,195 / 38,400
EHWH03-B06B	240/208	3	6 / 4.5	20,475 / 15,350
EHWH03-B09B	240/208	3	9 / 6.75	30,715 / 23,035
EHW36H-B06B	240/208	3	6 / 4.5	20,475 / 15,350
EHWH36-B15	240/208	3	15 / 11.25	51,195 / 38,400
EHWC03A-C06	480	3	6	20,475
EHWC03A-C09	480	3	9	30,715
EHWH03A-C15	480	3	15	51,195
EHWH31-C06	480	3	6	20,475
EHW24H-A04B	240/208	1	4 / 3	13,650 / 10,240
EHW24H-A08B	240/208	1	8 / 6	27,300 / 20,475
EHW24H-B06B	240/208	3	6 / 4.5	20,475 / 15,350
EHW36H-B09B	240/208	3	9 / 6.75	20,475 / 15,350
EHW36H-B15B	240/208	3	15 / 11.25	51,195 / 38,400
EHW36A-B06B	240/208	3	6 / 4.5	20,475 / 15,350
EHW02A-A08B	240/208	1	8 / 6	27,300 / 20,475
EHWA03-A10D	240/208	1	10 / 7.5	34,130 / 25,600

FIGURE 1
WIRING – MAIN POWER



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:

EHWA03-A15B

EHWH30-A10B

EHWH36-A10B

EHWH36-A15B

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.

INSTALLATION

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 that you intend to install 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

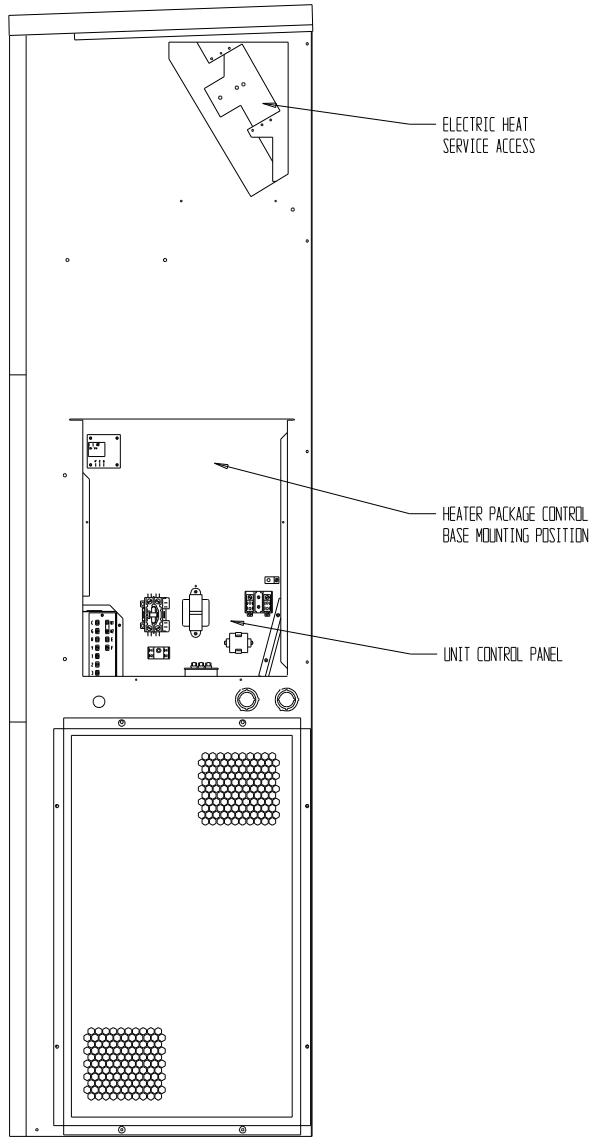
Install only heater packages listed on unit serial plate. Hazard of fire or electrical shock. Failure to install listed heater package could result in fire, injury or death.

3. Remove electric heater access panel and control panel cover, both inner and outer. See Figure 2.
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 1 and Figure 3.

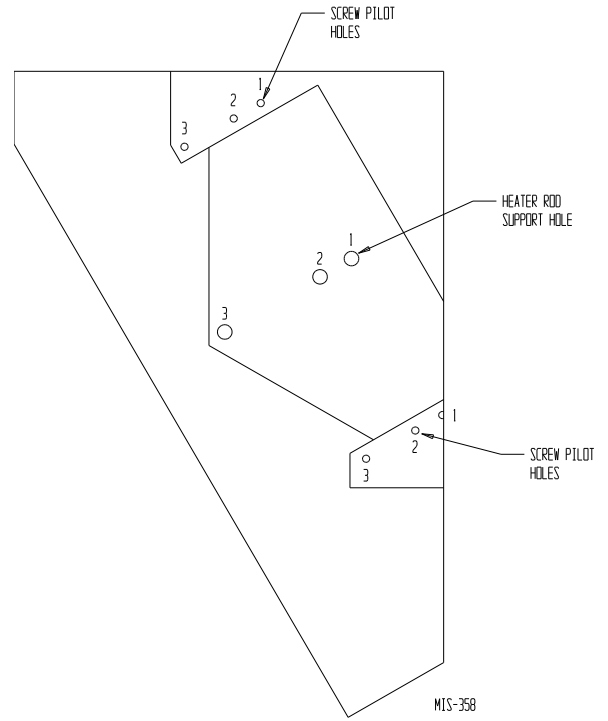
On heater packages with two (2) heat strips, install 9KW heater first in position closest to the outlet air frame. See Figure 4E.

5. Install heater control base into top of control panel as shown in Figure 4. Secure with four (4) sheet metal screws provided.
6. Plug mail six (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 4 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 4.
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. Remark serial plate with self-adhesive label attached to the front of this manual. See Figure 6.

**FIGURE 2
ELECTRIC HEATER ACCESS PANEL
AND CONTROL PANEL COVER LOCATIONS**



**FIGURE 3
SCREW MOUNTING HOLES**



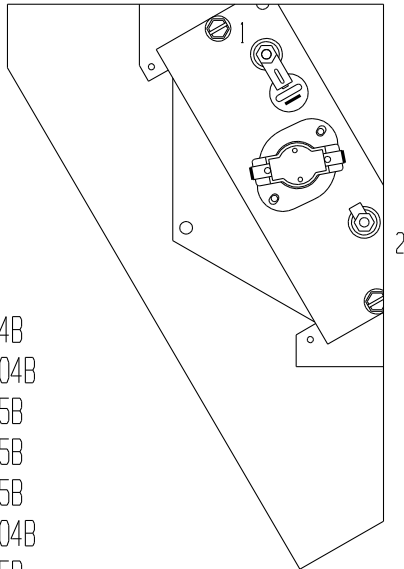
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**TABLE 3
REFERENCES TO FIGURES 3 AND 4
FOR MODEL NUMBER**

	Heater Package Model Number	Figure 4 Heater Terminal Identification Drawing	Figure 3 Rod Support and Screw Mounting Position
1.	EHWA02-A05B	4A	1
2.	EHWA02A-A08B	4B	1
3.	EHWA02A-A10B	4B	1
4.	EHWA03-A05B	4A	1
5.	EHWA03-A08B	4B	1
6.	EHWA03-A10B	4B	1
7.	EHWA03-A15B	4D	2
8.	EHWA03-B06B	4C	1
9.	EHWA03-B09B	4C	1
10.	EHWA03-B15	4D	2
11.	EHWA03A-C15	4E	1 + 3
12.	EHWA24-B06B	4C	1
13.	EHWA37-B15B	4D	1 + 3
14.	EHWC03A-C06	4C	1
15.	EHWC03A-C09	4C	1
16.	EHWH02A-A04B	4A	1
17.	EHWH02A-A08B	4B	1
18.	EHWH03-B06B	4C	1
19.	EHWH03-B09B	4C	1
20.	EHWH03A-C15	4E	1 + 3
21.	EHWH24-B06B	4C	1
22.	EHWH24B-C06	4C	1
23.	EHWH30-A05B	4A	1
24.	EHWH30-A10B	4B	1
25.	EHWH36-A05B	4A	1
26.	EHWH36-A10B	4B	1
27.	EHWH36-A15B	4D	2
28.	EHW36H-B06B	4C	1
29.	EHWH36-B15	4E	1 + 3
30.	EHWA24A-A04B	4A	1
31.	EHWH31-C06	4C	1
32.	EHW24H-A04B	4A	1
33.	EHW24H-A08B	4B	1
34.	EHW24H-B06B	4C	1
35.	EHW36H-B09B	4C	1
36.	EHW36H-B15B	4E	1 + 3
37.	EHW36A-B06B	4C	1
38.	EHW02A-A08B	4B	1

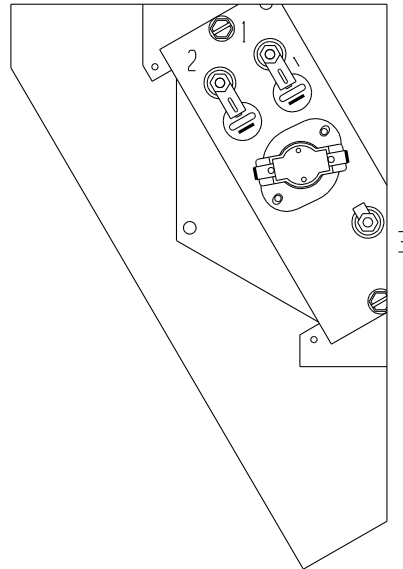
**FIGURE 4
A THROUGH D**

FIGURE 4A



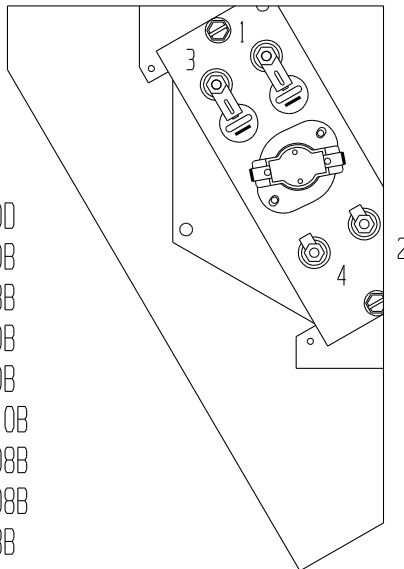
EHSH31-A04B
 EHWA24A-A04B
 EHHW36-A05B
 EHHW30-A05B
 EHWA03-A05B
 EHHW02A-A04B
 EHWA02-A05B
 EHW24H-A04B

FIGURE 4C



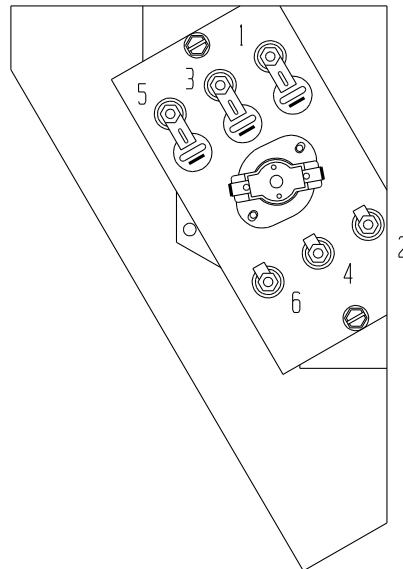
EHWA03-B06B
 EHWA03-B09B
 EHW03A-C06
 EHW03A-C09
 EHHW03-B06B
 EHHW03-B09B
 EHHW24-B06B
 EHWA24-B06B
 EHHW24B-C06
 EHSH31-C06
 EHSH31-B06B
 EHHW31-C06
 EHW24H-B06B
 EHW36H-A08B
 EHW36H-B06B
 EHW36H-B09B
 EHW36A-B06B

FIGURE 4B



EHWA03-A10B
 EHWA03-A10B
 EHWA03-A08B
 EHHW30-A10B
 EHHW36-A10B
 EHWA02A-A10B
 EHWA02A-A08B
 EHHW02A-A08B
 EHSH31-A08B
 EHW24H-A08B
 EHW02A-A08B

FIGURE 4D

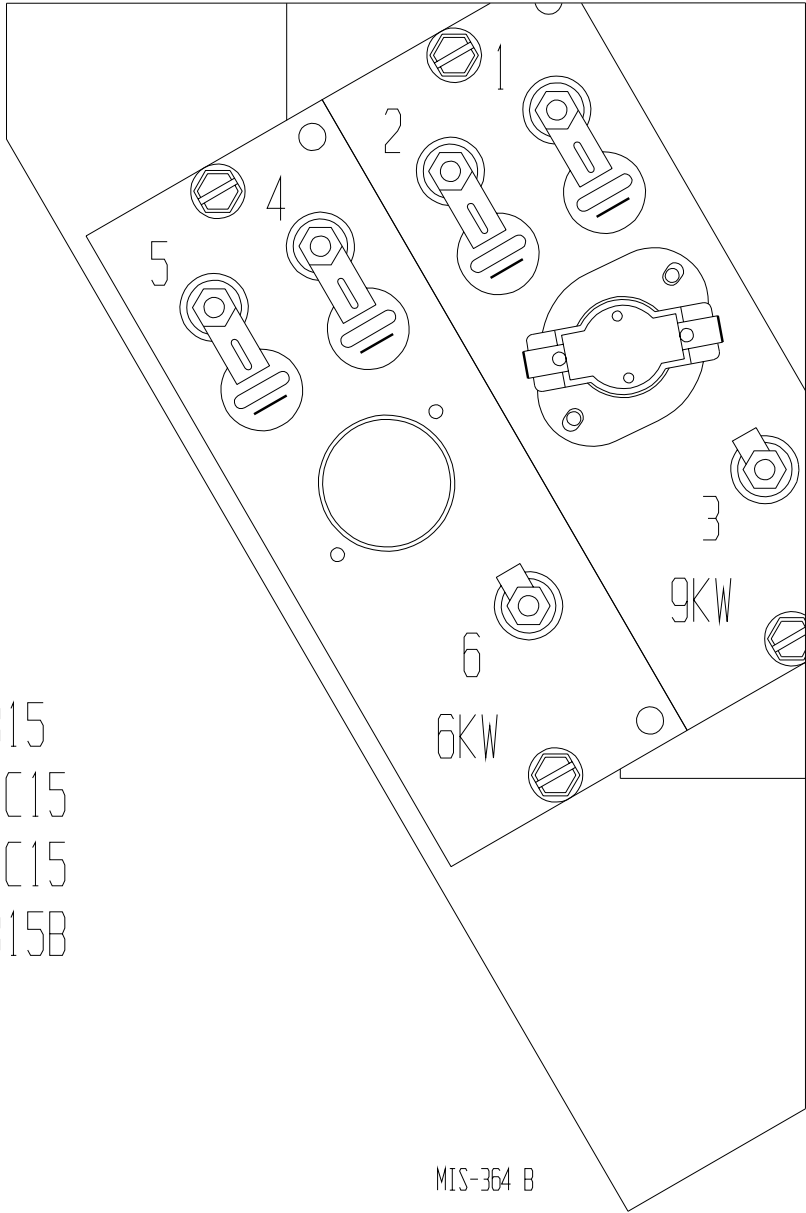


EHHW36-A15B
 EHWA03-A15B
 EHWA03-B15B
 EHWA37-B15B

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

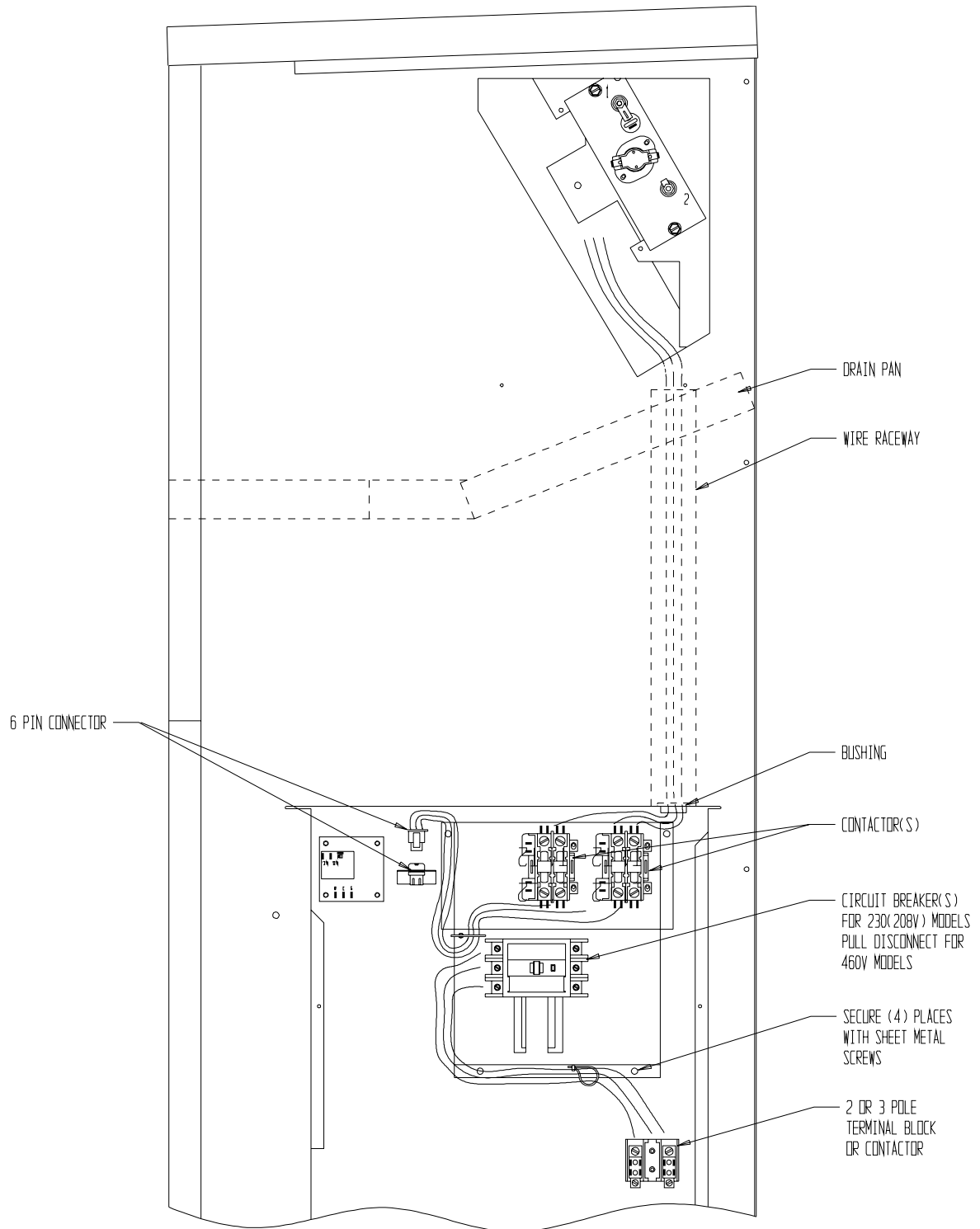
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FIGURE 4E
INSTALL HEATER PACKAGE WITH
TWO HEAT STRIPS



EHWH36-B15
EHWH03A-C15
EHW A03A-C15
EHW36H-B15B

**FIGURE 5
INSTALLING HEATER BASE
AND CONNECTING**



MIS-422 A

**FIGURE 6
SERIAL PLATE SHOWING
APPROVED HEATER PACKAGES**

INSTALL ONLY HEATER PACKAGES LISTED HERE.

BARD MANUFACTURING COMPANY, 1914 RANDOLPH DRIVE

(1)
APPROVED
HEATER
PACKAGE

MODEL	VAC	HZ
() JWA361-A0012345	NONE	230/208 60
() JWA361-A0512345	EHWA03-A05	230/208 60
(X) JWA361-A0812345	EHWA03-A08	230/208 60
() JWA361-A1012345	EHWA03-A10	230/208 60
() JWA361-A1512345	EHWA03-A15	230/208 60

BRANCH CIRCUIT SELECT CURRENT 17 OPERATION

SERIAL NUMBER 125H920711193-01 U/L FILE NO.

SUITABLE FOR OUTDOOR USE

	VAC	HZ	PH	ELECTRICAL HP
COMPRESSOR	230/208	60	1	1/5
OUTDOOR MOTOR	230/208	60	1	1/3
INDOOR MOTOR	230/208	60	1	1/3
HEATER PACKAGE				KW
EHWA03-A05	240/208	60	1	5/3.75
EHWA03-A08	240/208	60	1	8/6
EHWA03-A10	240/208	60	1	10/7.5
EHWA03-A15	240/208	60	1	15/11.25

-- FACTORY
FACTORY CHARGED R22: 68 OZ. DESI
-- 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