

INSTALLATION INSTRUCTIONS

MODELS

EHWH02-A04	EHWA24-A04
EHWH02-A08	EHWA02-A05
EHWH24-B06	EHWA02-A08
EHWH24-C09	EHWA02-A10
EHWH30-A05	EHWA24-B06
EHWH36-A05	EHWA03-A05
EHWH30-A10	EHWA03-A08
EHWH36-A10	EHWA03-A10
EHWH36-A15	EHWA03-A15
EHWH03-B06	EHWA03-B06
EHWH03-B09	EHWA03-B09
EHWH36-B15	EHWA03-B15
EHWH03-C15	EHWA03-C15
EHWC03-C06	
EHWC03-C09	

ELECTRIC HEAT PACKAGES

**For 1-1/2, 2, 2-1/2, 3 Ton WA and WH
Series Wall Mounted Air Conditioners
and Heat Pumps**

MANUAL 2100-202 REV. A
SUPERSEDES REV.
FILE VOL. III, TAB 18

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BARD MANUFACTURING COMPANY
BRYAN, OHIO 43506

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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 listed as a heater package that is suitable for use with the Bard wall mount hi boy unit. See Figure 6.

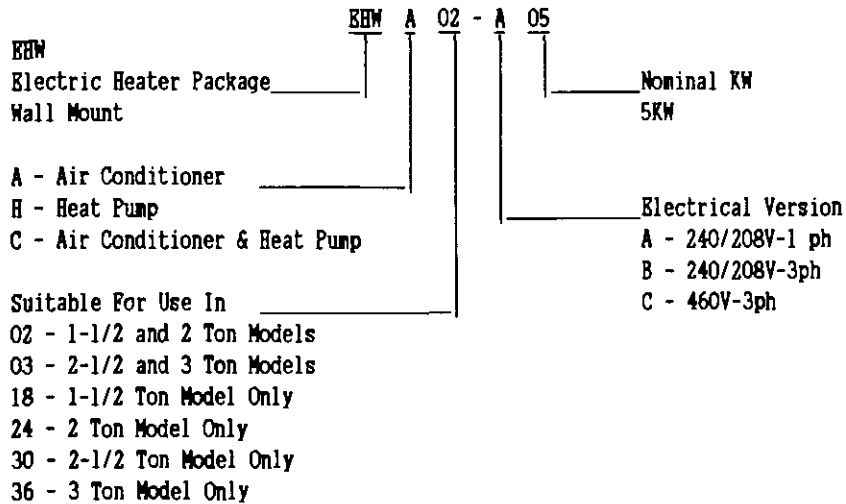
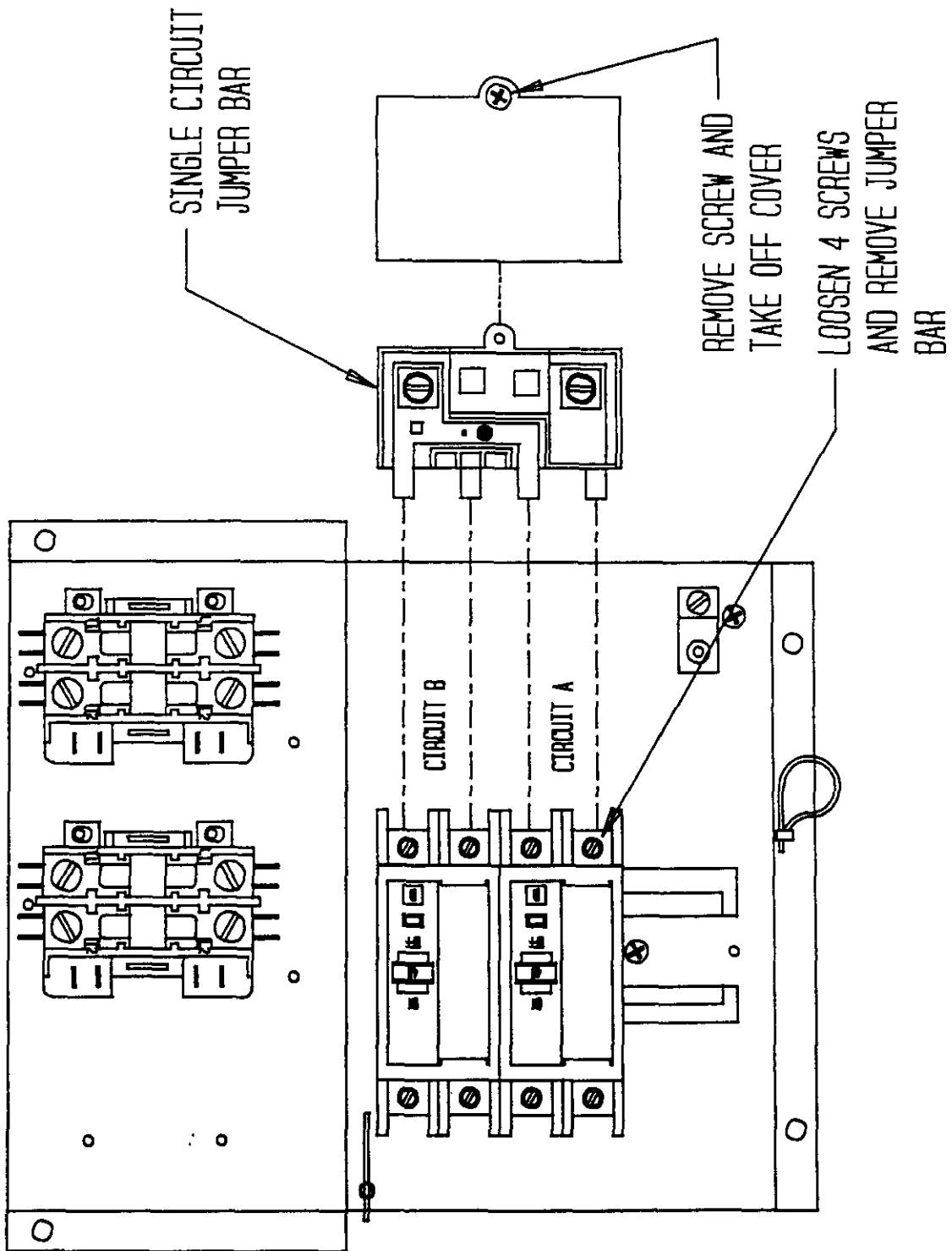


TABLE 1

Heater Package Model	Volts	PH	Nominal KW	Nominal BTU
EHWA24-A04	240/208	1	4/3	13650/10240
EHWA02-A05	240/208	1	5/3.75	17065/12800
EHWA02-A08	240/208	1	8/6	27300/20475
EHWA02-A10	240/208	1	10/7.5	34130/25600
EHWA24-B06	240/208	3	6/4.5	20475/15350
EHWH02-A04	240/208	1	4/3	13650/10240
EHWH02-A08	240/208	1	8/6	27300/20475
EHWH24-B06	240/208	3	6/4.5	20475/15350
EHWH24-C09	480	3	9	30715
EHWA03-A05	240/208	1	5/3.75	17065/12800
EHWA03-A08	240/208	1	8/6	27300/20475
EHWA03-A10	240/208	1	10/7.5	34130/25600
EHWA03-A15	240/208	1	15/11.25	51195/38400
EHWA03-B06	240/208	3	6/4.5	20475/15350
EHWA03-B09	240/208	3	9/6.75	30715/23035
EHWA03-B15	240/208	3	15/11.25	51195/38400
EHWA03-C15	480	3	15	51195
EHWH30-A05	240/208	1	5/3.75	17065/12800
EHWH30-A10	240/208	1	10/7.5	34130/25600
EHWH36-A05	240/208	1	5/3.75	17065/12800
EHWH36-A10	240/208	1	10/7.5	34130/25600
EHWH36-A15	240/208	1	15/11.25	51195/38400
EHWH03-B06	240/208	3	6/4.5	20475/15350
EHWH03-B09	240/208	3	9/6.75	30715/23035
EHWH36-B15	240/208	3	15/11.25	51195/38400
EHWC03-C06	480	3	6	20475
EHWC03-C09	480	3	9	30715

FIGURE 1



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.

For existing installations, addition or upgrading of a heater package may require that larger supply wires be run to the unit. Resize all power supply wires for the minimum circuit ampacity rating listed on the unit serial plate that is applicable for your combination of unit and heater package.

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.

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

EHWA03-A15

EHWB30-A10

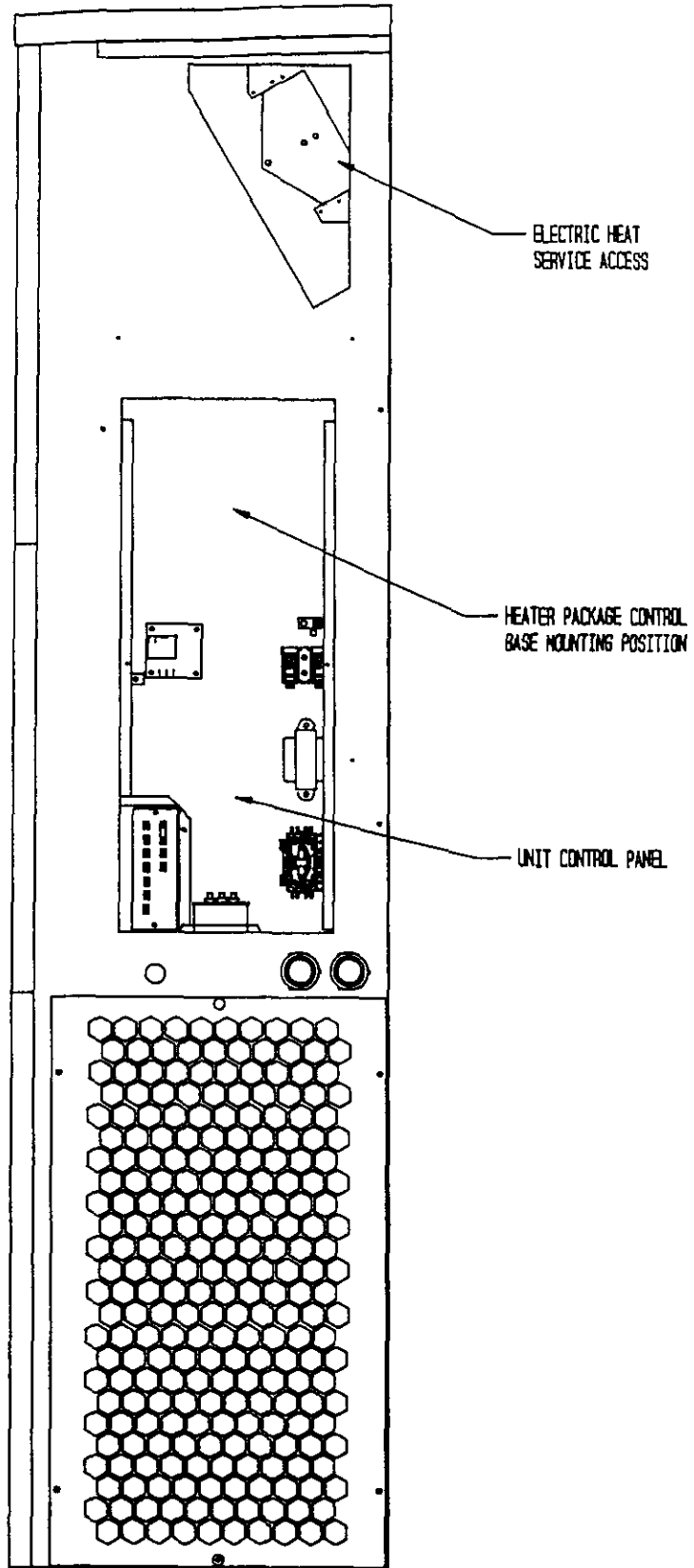
EHWB36-A10

EHWB36-A15

3. To convert the above heater packages to dual circuit configuration before installation, loosen 4 screws holding jumper bar in place. Remove jumper bar. Circuit 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 2



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 circumstances 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. Secure in place with 2 sheet metal screws in mounting holes as indicated in Table 1 and Figure 3.

On heater packages with 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 5. Secure with 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 3 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 bushing 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)

TABLE 2

	FIGURE 4 Heater Terminal Identification Drawing	FIGURE 3 Rod Support and Screw Mounting Position
1	ERMA02-A05 4A	1
2	ERMA02-A08 4B	1
3	ERMA02-A10 4B	1
4	ERMA03-A05 4A	1
5	ERMA03-A08 4B	1
6	ERMA03-A10 4B	1
7	ERMA03-A15 4C	1
8	ERMA03-B06 4D	2
9	ERMA03-B09 4D	1
10	ERMA03-B15 4C	1
11	ERMA03-C15 4E	2
12	ERMA24-B06 4D	1 + 3
13	ERMA03-C06 4D	1
14	ERMA03-C09 4D	1
15	ERMA02-A04 4A	1
16	ERMA02-A08 4B	1
17	ERMA03-B06 4D	1
18	ERMA03-B09 4D	1
19	ERMA03-C15 4E	1
20	ERMA24-B06 4D	1 + 3
21	ERMA24-C06 4D	1
22	ERMA30-A05 4A	1
23	ERMA30-A10 4B	1
24	ERMA36-A05 4A	1
25	ERMA36-A10 4B	1
26	ERMA36-A15 4C	1
27	ERMA36-B15 4E	2
28	ERMA24-A04 4A	1 + 3
		1

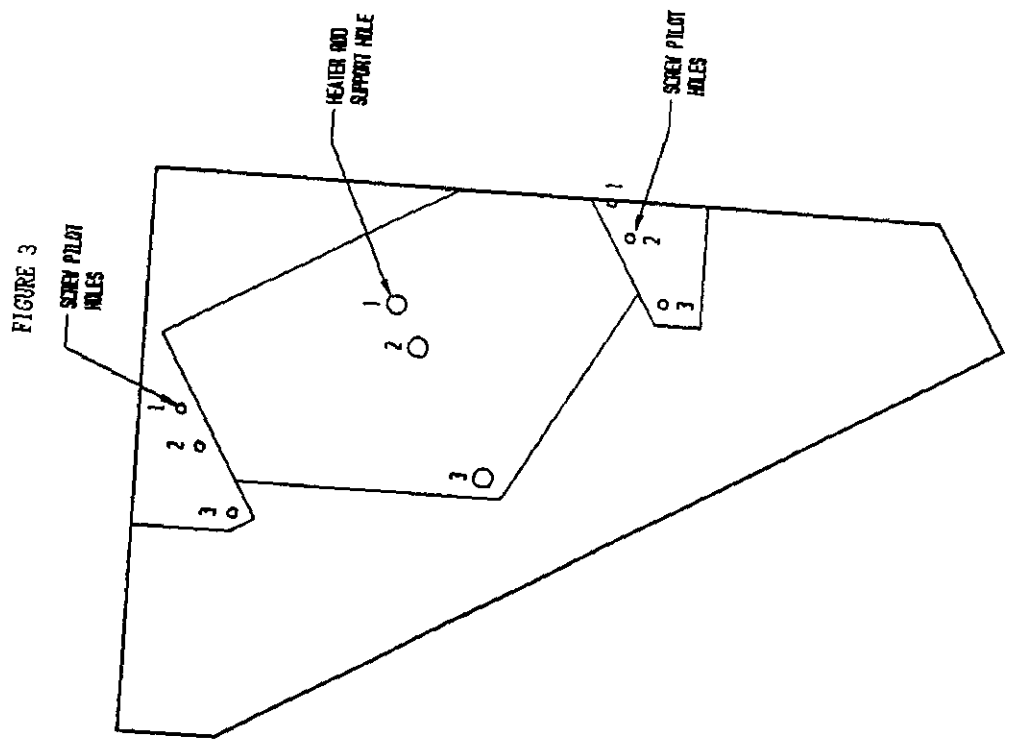
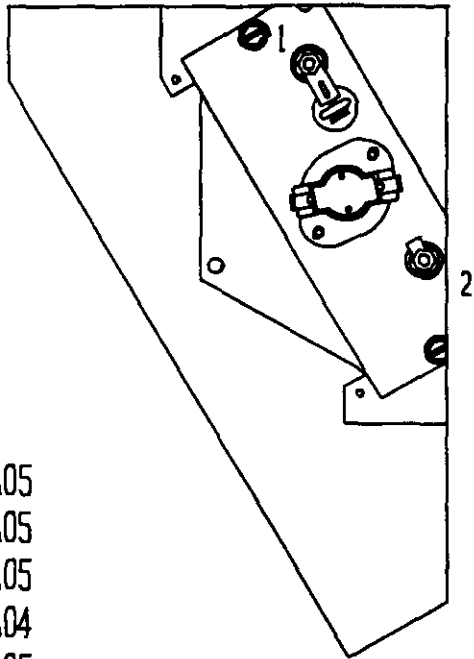
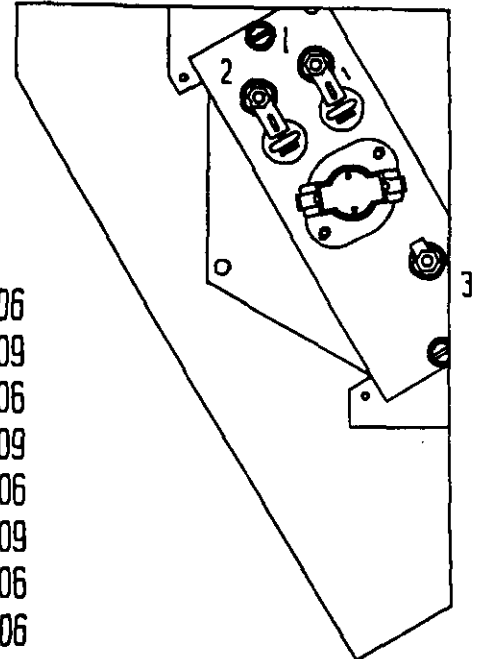


FIGURE
4A



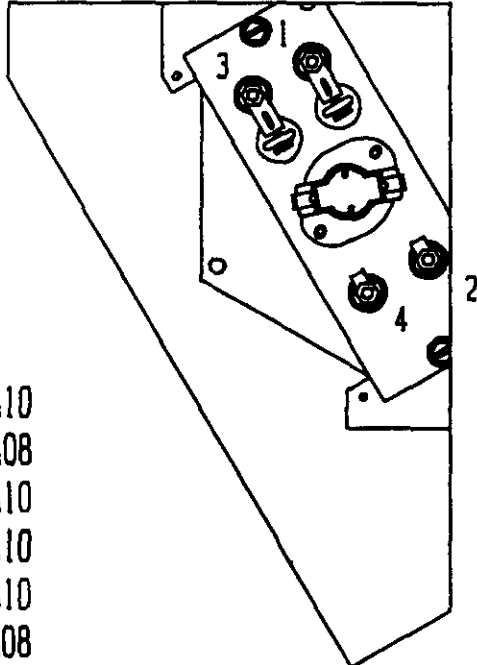
EHWH36-A05
 EHW30-A05
 EWA03-A05
 EWH02-A04
 EWA02-A05
 EWA24-A04

FIGURE
4D



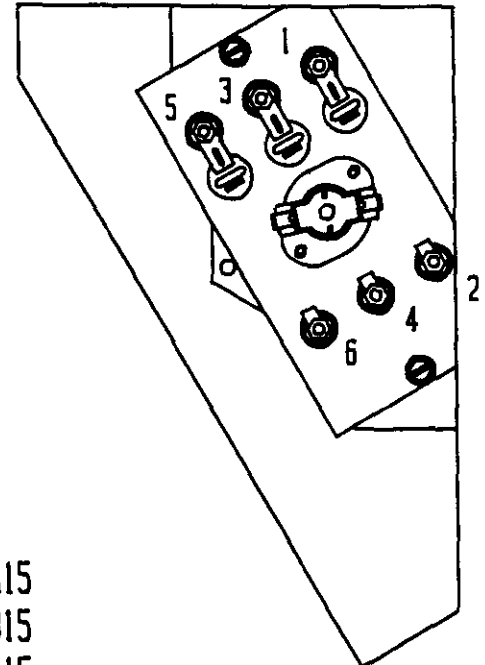
EWA03-B06
 EWA03-B09
 EWC03-C06
 EWC03-C09
 EWH03-B06
 EWH03-B09
 EWH24-B06
 EWA24-B06
 EWH24-C06

FIGURE 4B



EWA03-A10
 EWA03-A08
 EWH30-A10
 EWH36-A10
 EWA02-A10
 EWA02-A08
 EWH02-A08

FIGURE 4C



EWH36-A15
 EWH36-B15
 EWA03-A15

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

FIGURE 4E

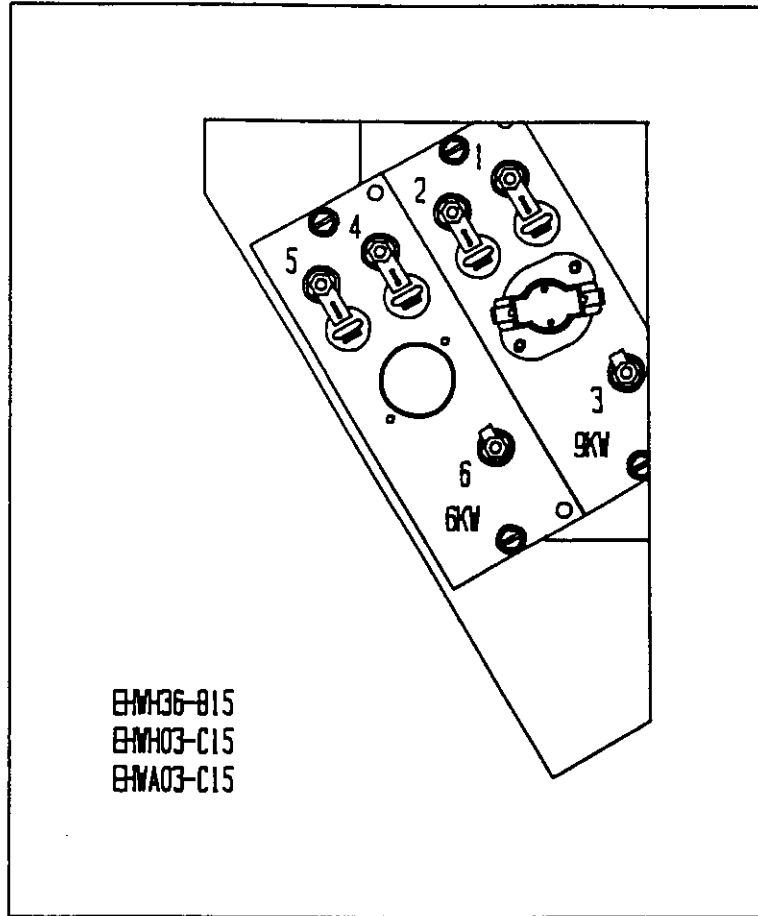


FIGURE 5

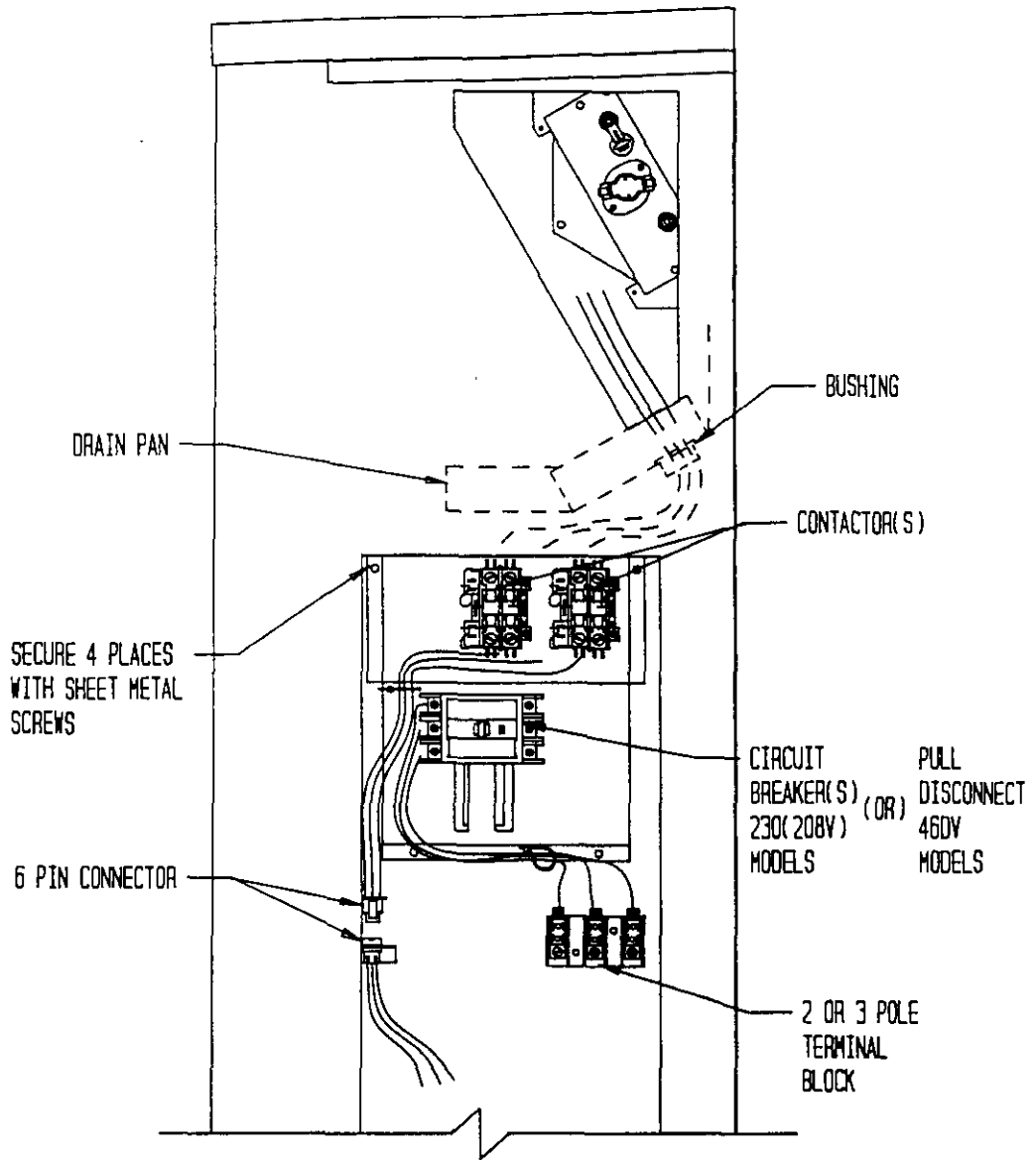


FIGURE 6

INSTALL ONLY HEATER PACKAGES LISTED HERE.

BARO MANUFACTURING COMPANY, 1914 RANDOLPH DRIVE

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

(1)
APPROVED
HEATER
PACKAGE

MODEL	APPROVED HEATER PACKAGE	VAC	HZ
MA361-A0012345	NONE	230/208	60
WA361-A0512345	EHWA03-A05	230/208	60
MA361-A0812345	EHWA03-A08	230/208	60
WA361-A1012345	EHWA03-A10	230/208	60
MA361-A1512345	EHWA03-A15	230/208	60

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

BRANCH CIRCUIT SELECT CURRENT 17 OPERATION

SERIAL NUMBER 125H920711193-01 UL FILE NO.

SUITABLE FOR OUTDOOR USE

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

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