
INSTALLATION INSTRUCTIONS

ELECTRIC HEAT PACKAGES

Models:

EHW18H-A04	EHW2TH-A04	EHW3HB-A15
EHW18H-A08	EHW2TH-A08	EHW3HB-B05
EHW2HB-A04	EHW30HB-A05	EHW3HB-C05
EHW2HB-A08	EHW30HB-A10	EHW3HBDA05
EHW2HB-B05	EHW30HB-B05	EHW3HBDA10
EHW2HB-C05	EHW3HB-A05	EHW3HBDC05
EHW2HBDA05	EHW3HB-A10	

For Use with W**HB Series
Wall-Mounted Heat Pumps



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GENERAL INFORMATION

Description

The EHWH series electric heater packages are field-installable heater packages suitable for use with Bard wall mount heat pumps. The packages consist of the electric heat strip, the heater control base (which includes the heat contactors and circuit breaker or toggle or rotary disconnects), installation instructions and wiring diagrams. See Table 1 on page 4 for nominal electrical data and BTU output. **Before installation, check unit serial plate to ensure 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 14).

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. 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 1
Electrical Data and BTU Output

Heater Package Model	Volts	Phase	Nominal KW	Nominal BTU
EHW18H-A04	240/208	1	4/3	13,650/10,240
EHW18H-A08	240/208	1	8/6	27,300/20,475
EHW2HB-A04	240/208	1	4/3	13,650/10,240
EHW2HB-A08	240/208	1	8/6	27,300/20,475
EHW2HB-B05	240/208	3	5/3.75	17,065/12,799
EHW2HB-C05	240/208	3	5	17,065
EHW2HBDA05	240/208	1	5/3.75	17,065/12800
EHW2TH-A04	240/208	1	4/3	13,650/10,240
EHW2TH-A08	240/208	1	8/6	27,300/20,475
EHW30HB-A05	240/208	1	5/3.75	17,065/12800
EHW30HB-A10	240/208	1	10/7.5	34130/25600
EHW30HB-B05	240/208	1	5/3.75	17,065/12,799
EHW3HB-A05	240/208	1	5/3.75	17,065/12800
EHW3HB-A10	240/208	1	10/7.5	34130/25600
EHW3HB-A15	240/208	1	15/11.25	51200/38400
EHW3HB-B05	240/208	3	5/3.75	17,065/12,799
EHW3HB-C05	480	3	5	17,065
EHW3HBDA05	240/208	1	5/3.75	17,065/12800
EHW3HBDA10	240/208	1	10/7.5	34130/25600
EHW3HBDC05	480	3	5	17,065

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:

EHW2HB-A08

EHW2TH-A08

EHW30HB-A10

EHW3HB-A10

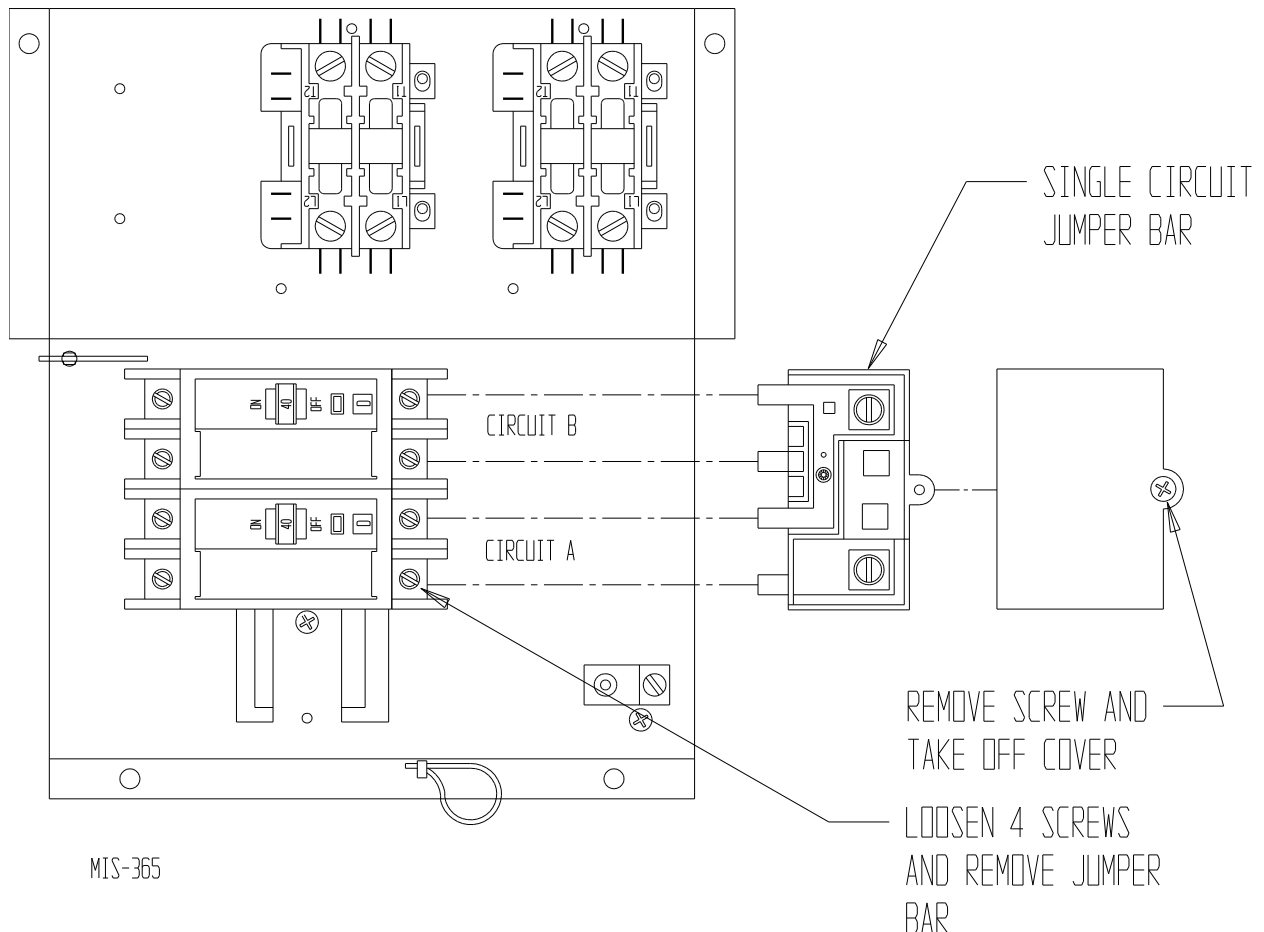
EHW3HB-A15

EHW3HBDA10

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

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

FIGURE 1
Wiring – Main Power



INSTALLATION

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 ensure 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

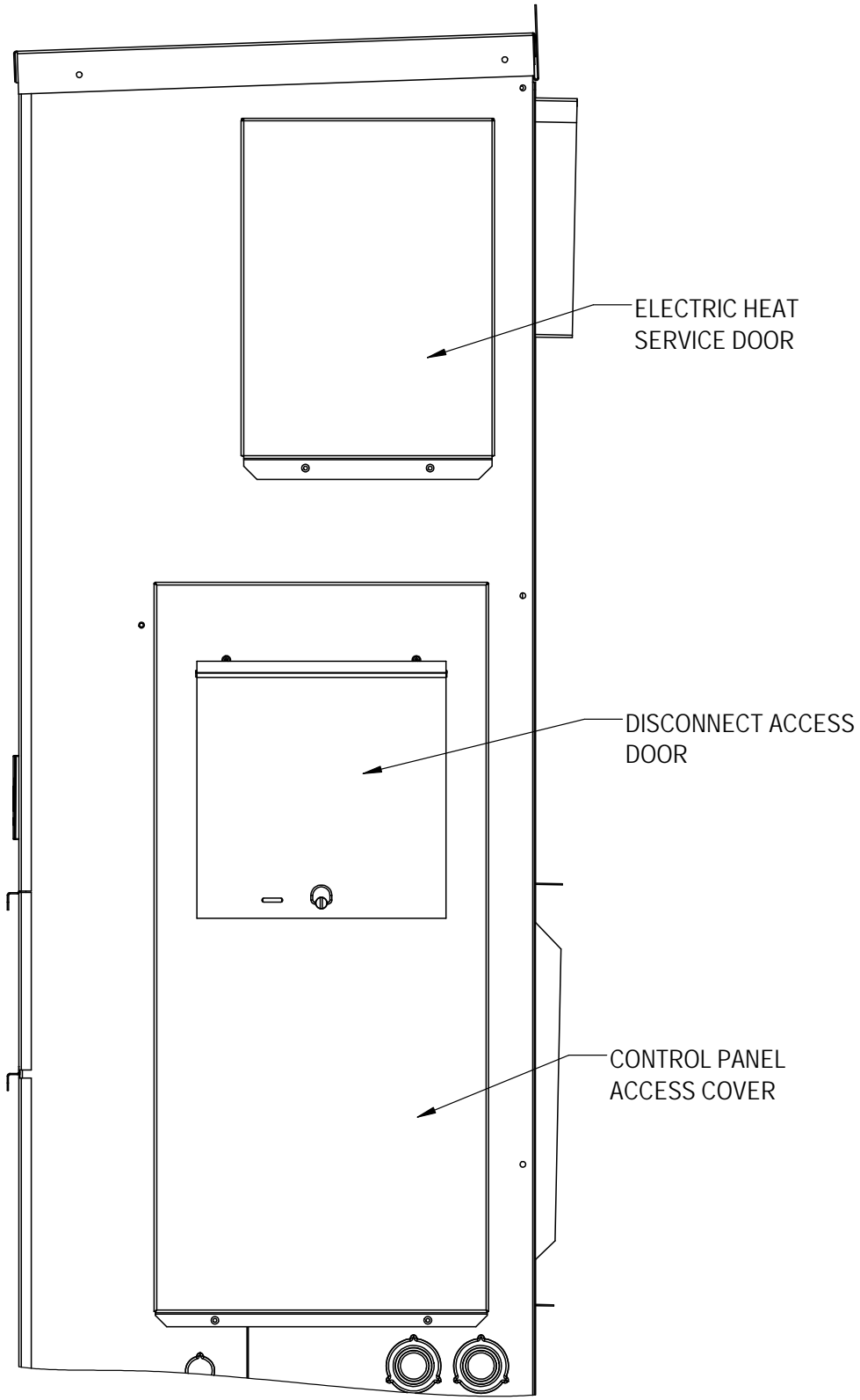
Install only heater packages listed on unit serial plate. Hazard of fire or electrical shock. Failure to install listed heater package could result in fire, injury or death.

3. Remove electric heater access panel and control panel cover, both inner and outer (see Figure 2).
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 2 on page 8 and Figure 3 on page 9.

On heater packages with two heat strips, install 9KW or 10KW heater first in position closest to the outlet air frame (see Figure 4E on page 11 or Figure 4F on page 12).
5. Install heater control base into top of control panel as shown in Figure 5 on page 13. 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 the 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 14).

FIGURE 2
Electric Heater Access Panel and Control Panel Cover Locations



MIS-4117

TABLE 2
References to Figures 3 and 4 for Model Number

Heater Package Model Number	Figure 3 Rod Support and Screw Mounting Position	Figure 4 Heater Terminal Identification Drawing
EHW18-A04	1	4A
EHW18-A08	1	4B
EHW2HB-A04	1	4A
EHW2HB-A08	1	4A
EHW2HB-B05	1	4C
EHW2HB-C05	1	4B
EHW2HBDA05	1	4A
EHW2TH-A04	1	4A
EHW2TH-A08	1	4A
EHW30HB-A05	1	4A
EHW30HB-A10	1	4C
EHW30HB-B05	1	4C
EHW3HB-A05	1	4A
EHW3HB-A10	1	4C
EHW3HB-A15	1 + 3	4E
EHW3HB-B05	1	4C
EHW3HB-C05	1	4B
EHW3HBDA05	1	4A
EHW3HBDA10	1	4B
EHW3HBDC05	1	4C

FIGURE 3
Screw Mounting Holes

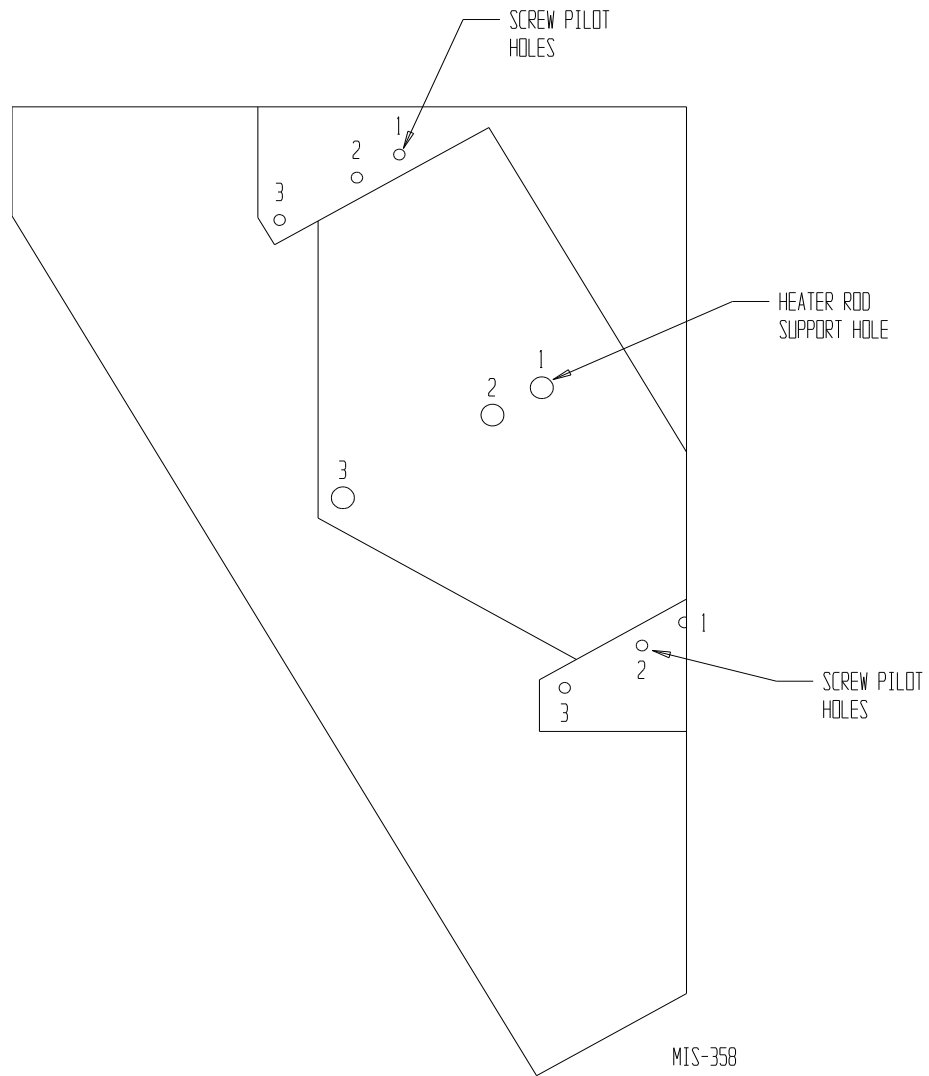


FIGURE 4A-D

FIGURE 4A

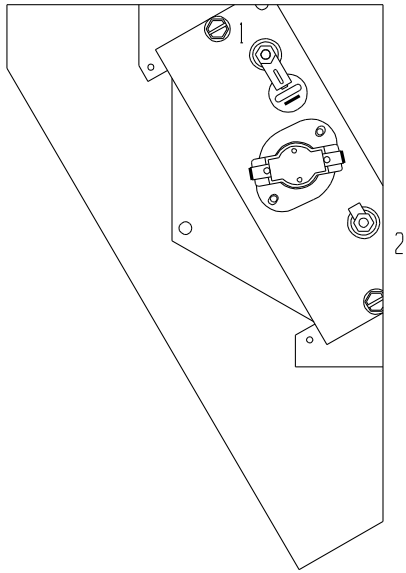


FIGURE 4C

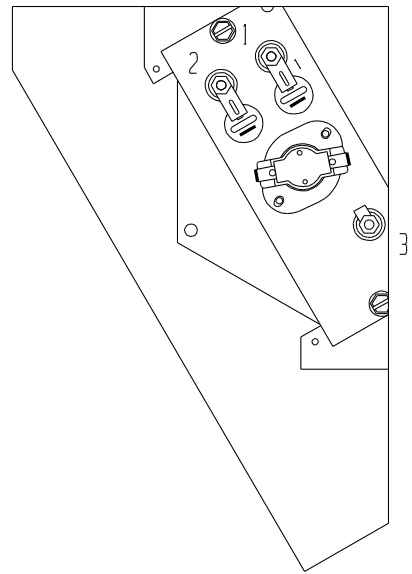


FIGURE 4B

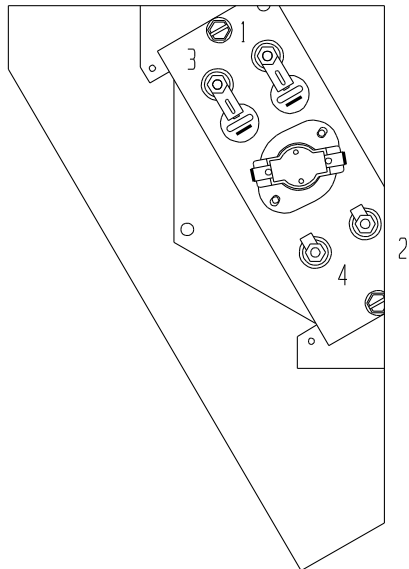
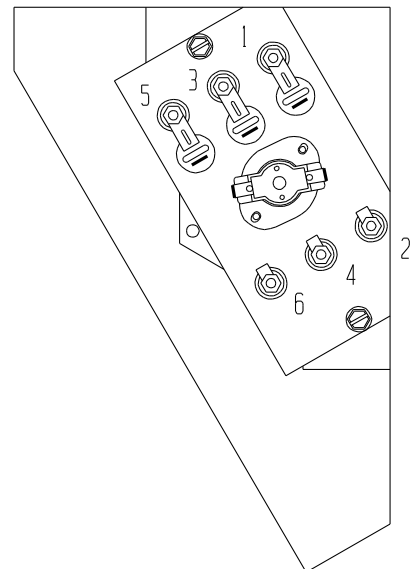


FIGURE 4D



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

MIS-363 H

FIGURE 4E
Installing Heater Package with
Two Heat Strips

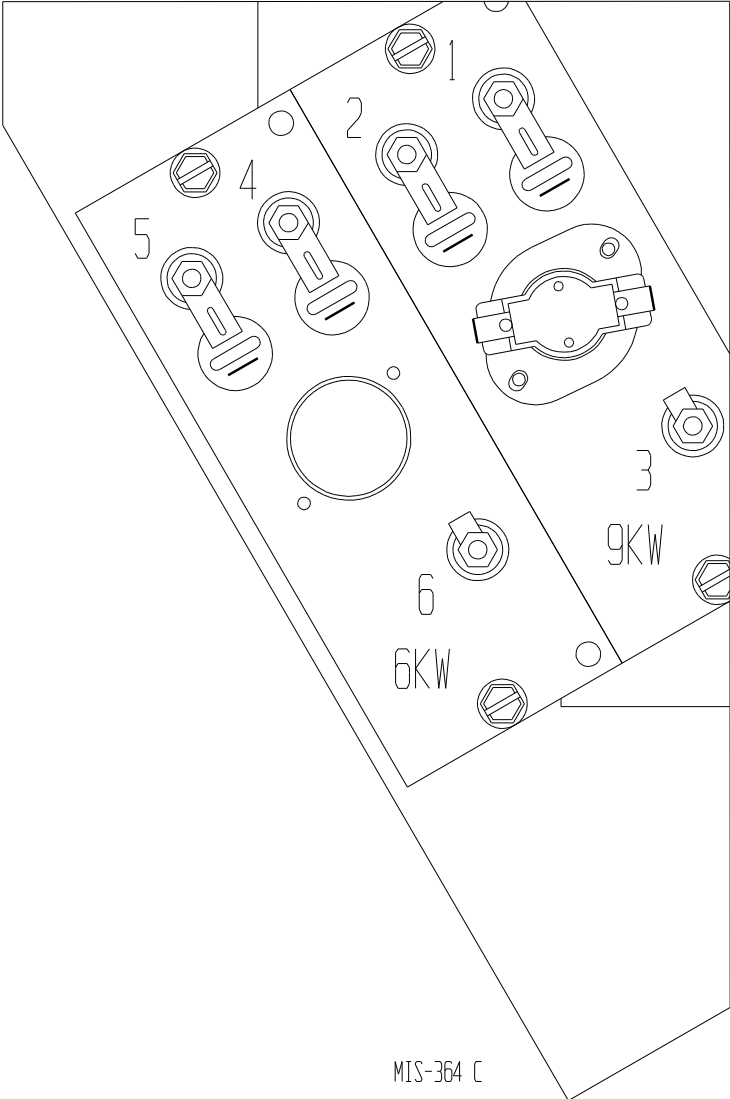
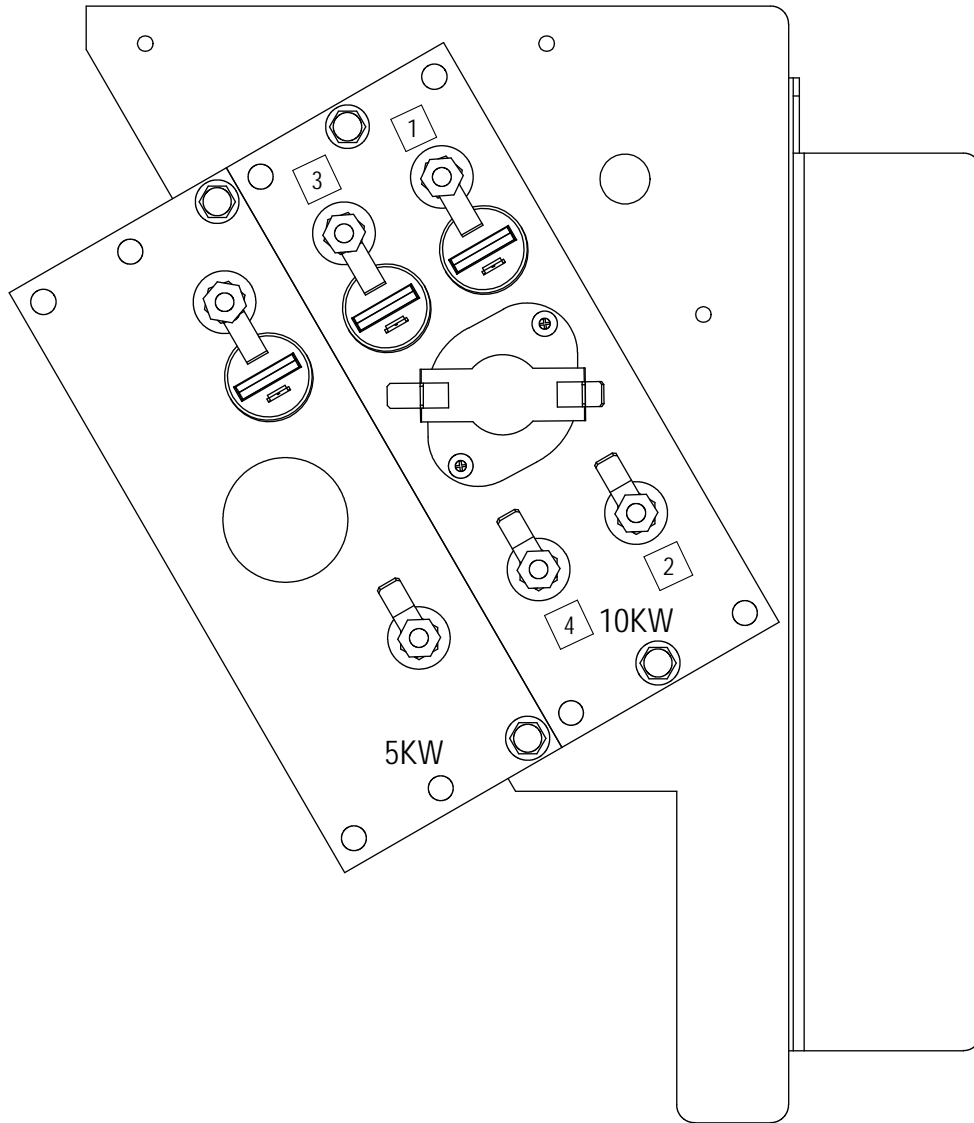
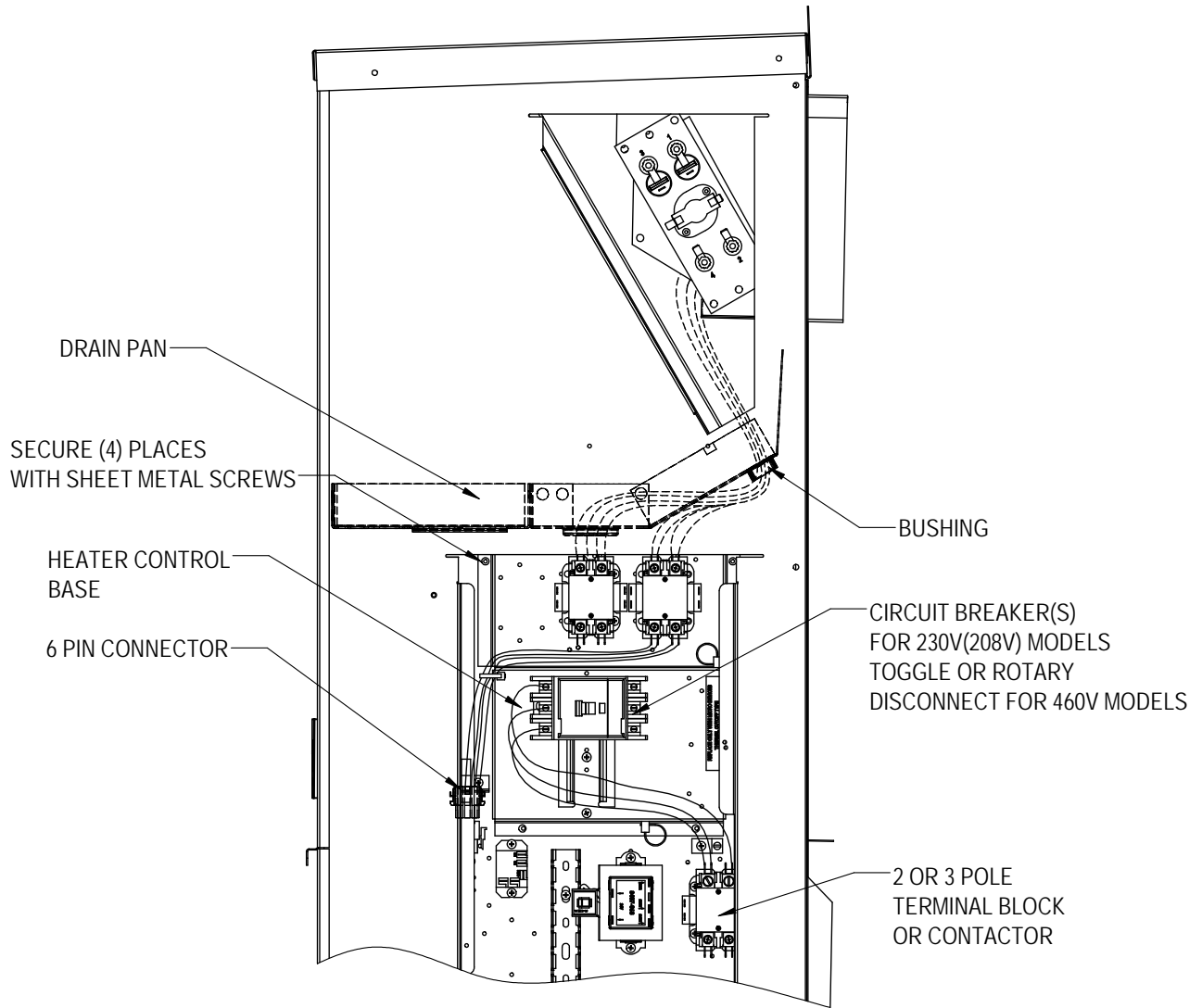


FIGURE 4F
Installing Heater Package with
Two Heat Strips



MIS-3819 A

FIGURE 5
Installing Heater Base
and Connecting Wiring



MIS-4118

FIGURE 6
Serial Plate Showing
Approved Heater Packages

INSTALL ONLY HEATER PACKAGES LISTED HERE.

BARD MANUFACTURING COMPANY, 1914 RANDOLPH DRIVE

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

BRANCH CIRCUIT SELECT CURRENT 17 OPERATION

SERIAL NUMBER 125H920711193-01 UL FILE NO.

SUITABLE FOR OUTDOOR USE

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