

INSTALLATION INSTRUCTIONS

MODELS

EH5RA-A05

EH5RA-A10

EH5RA-A15

EH5RA-A20

EH5RA-A25

EH5RA-B06

EH5RA-B09

EH5RA-B12

EH5RA-B15

EH5RA-B18

EH5RA-B21

EH5RA-B24

EH5RA-C06

EH5RA-C09

EH5RA-C12

EH5RA-C15

EH5RA-C18

EH5RA-C21

EH5RA-C24

OPTIONAL ELECTRIC HEAT PACKAGES

**FOR USE WITH MODELS
RPMA42, RPMA48, RPMA60
RPMH42, RPMH48, RPMH60**

MANUAL 2100-111 REV. C
SUPERSEDES REV. B
FILE VOL. II, TAB 12

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BRYAN, OHIO**

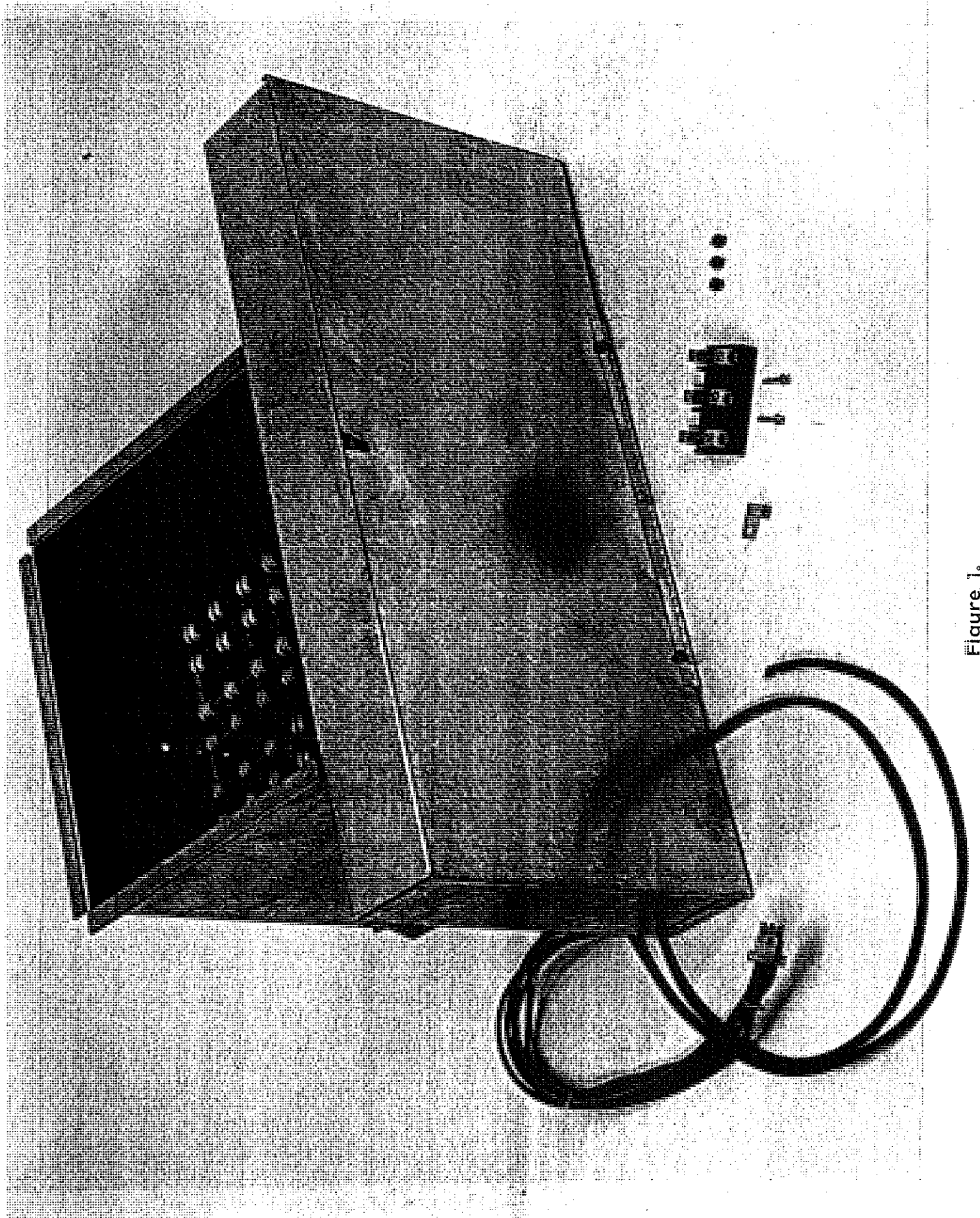


Figure 1.

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 HEAT PACKAGE

Remove the heat package from the shipping carton. The heat package must consist of the following: (See Figure 1)

1. Basic heater enclosure with controls and installation instructions.
2. Plastic bag containing (1) 230V terminal block, (1) grounding lug, (3) #10-16 x 1/2 screws and (2) #8-18 x 3/4" screws.

INSTALLATION

Disconnect all power supplies to the air conditioner or heat pump. Remove the blower service door located to the right of the unit control panel. Remove the two screws used to secure the blower housing to the slide mount (Figure 2). Remove the blower assembly from the slide mount taking care to protect all blower motor leads from damage.

Install the basic heater enclosure into the slide mount previously used for mounting the blower. Secure the heater enclosure to the slide mount with the two screws that were removed earlier from the blower housing.

Slide the blower housing into the heater enclosure slide mount located on the top of the enclosure. Secure the blower housing to the heater enclosure with two screws (shipped in plastic bag).

IMPORTANT

The optional heat packages in conjunction with models RPMH42 or RPMH48 are internally wired to allow a maximum of 15Kw of electric heat to be energized during heat pump operation. Any additional installed Kw over 15Kw will operate only during the emergency heat mode.

A maximum of 25Kw may operate in conjunction with model RPMH60 during heat pump operation.

A maximum of 25Kw may operate in the heating mode for models RPMA42, RPMA48 and RPMA60.

WIRING CONNECTIONS

Connect the wires exiting the rear of the heater package into the unit circuit by plugging in the plastic snap lock fitting into the mating fitting located on the insulated partition between the control panel and the blower area.

IMPORTANT: A separate power supply must be provided for use with any optional heater package. DO NOT attempt to connect a heater package with a basic unit to a single power supply.

Remove the unit control panel cover and the inner $6\frac{1}{4}$ " x $6\frac{1}{4}$ " cover. By removing this cover an isolated area is exposed. Install the 230 volt terminal block and the grounding lug using the enclosed screws into prepunched holes supplied.

Route the two 44" long wires from the heater package through the provided hole in the insulated partition to the newly installed 230 volt terminal block.

Inspect all wiring for damage and secure any loose wiring. See Figure 3 for completed assembly. Replace the terminal block cover, control box cover and blower service door.

Energize both power supplies and check for proper system operation.

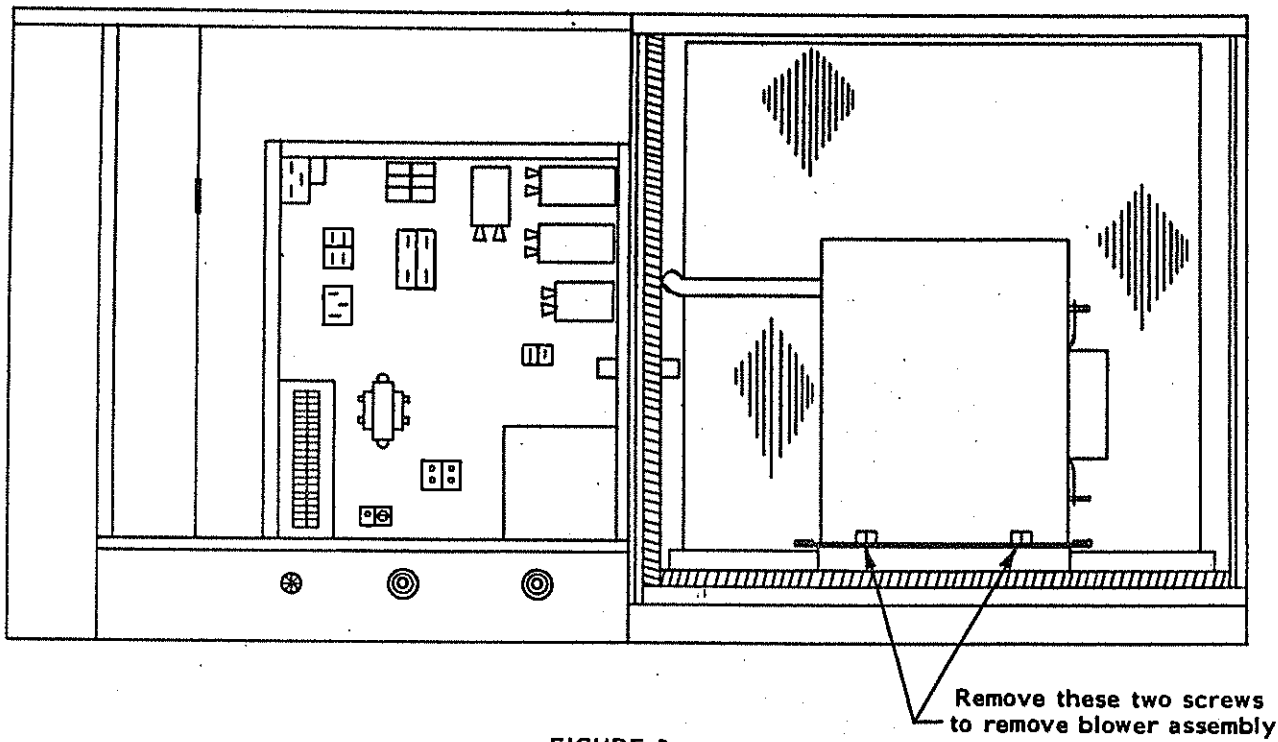
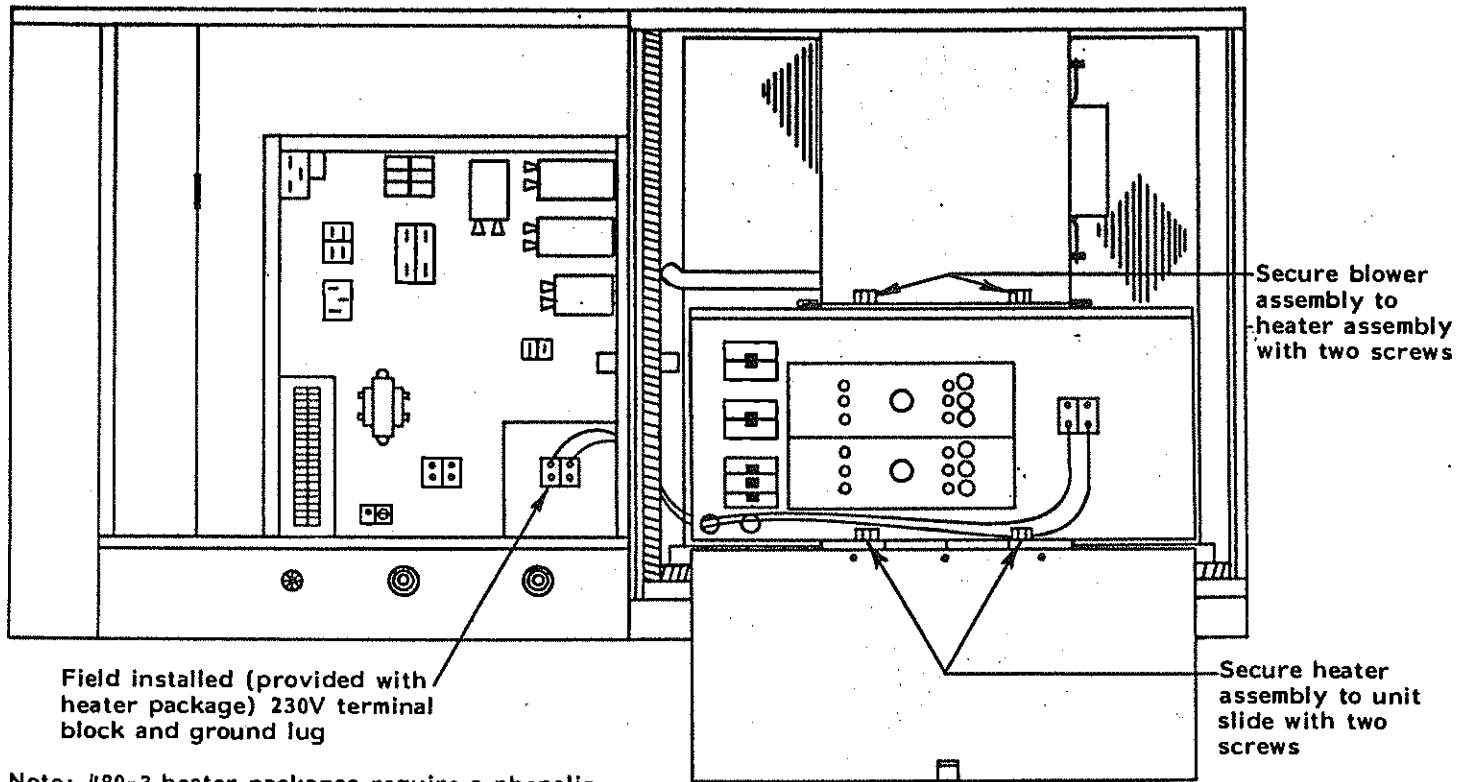


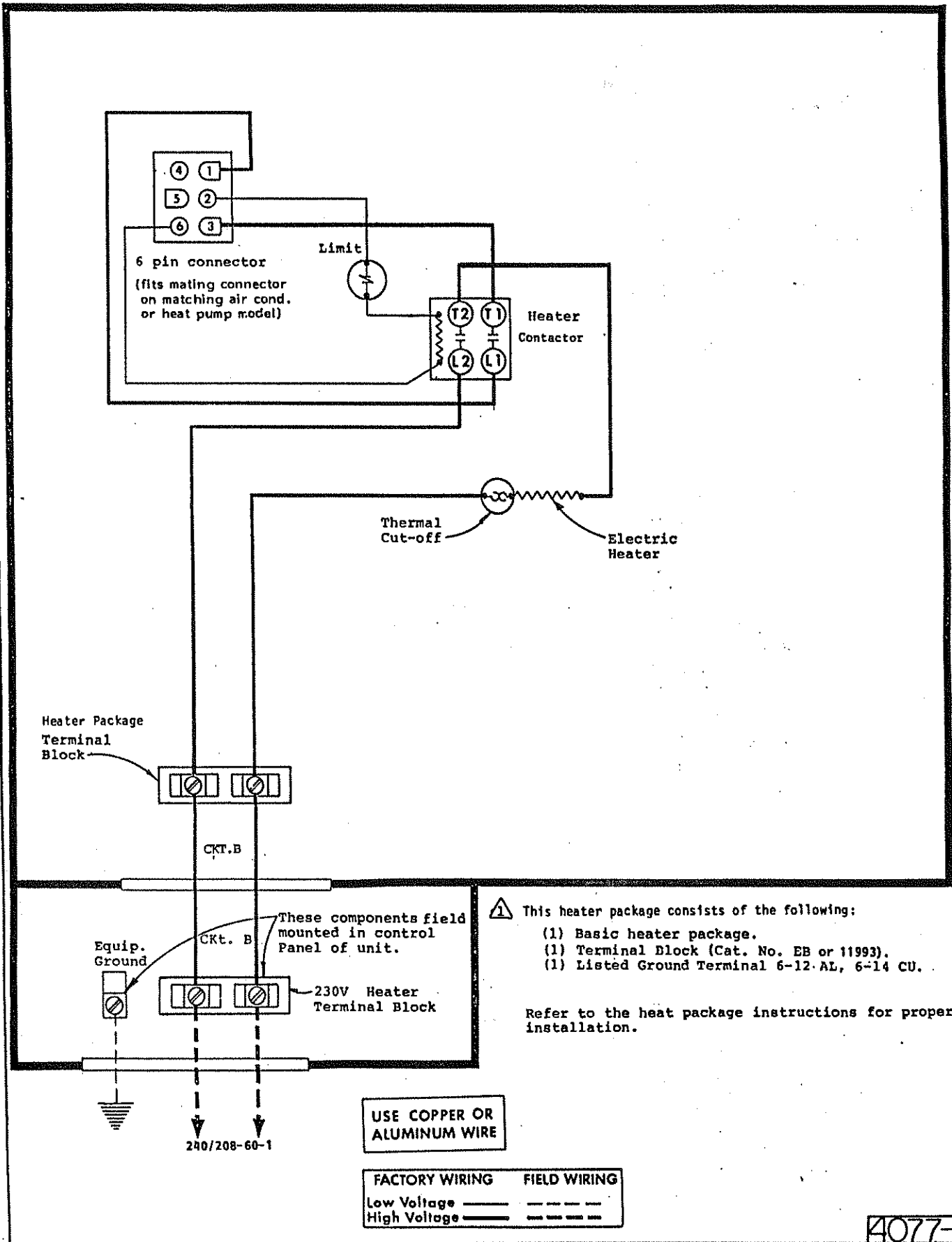
FIGURE 2.



Field installed (provided with heater package) 230V terminal block and ground lug

Note: 480-3 heater packages require a phenolic insulator (provided with package) be installed between the terminal block and control panel.

FIGURE 3.

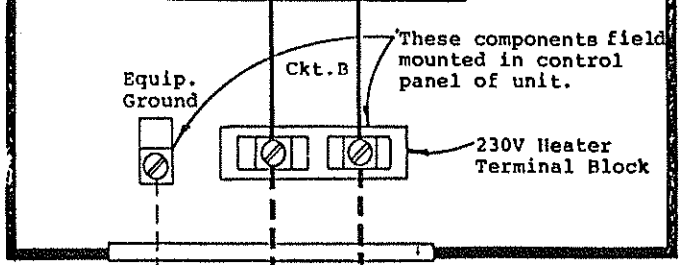
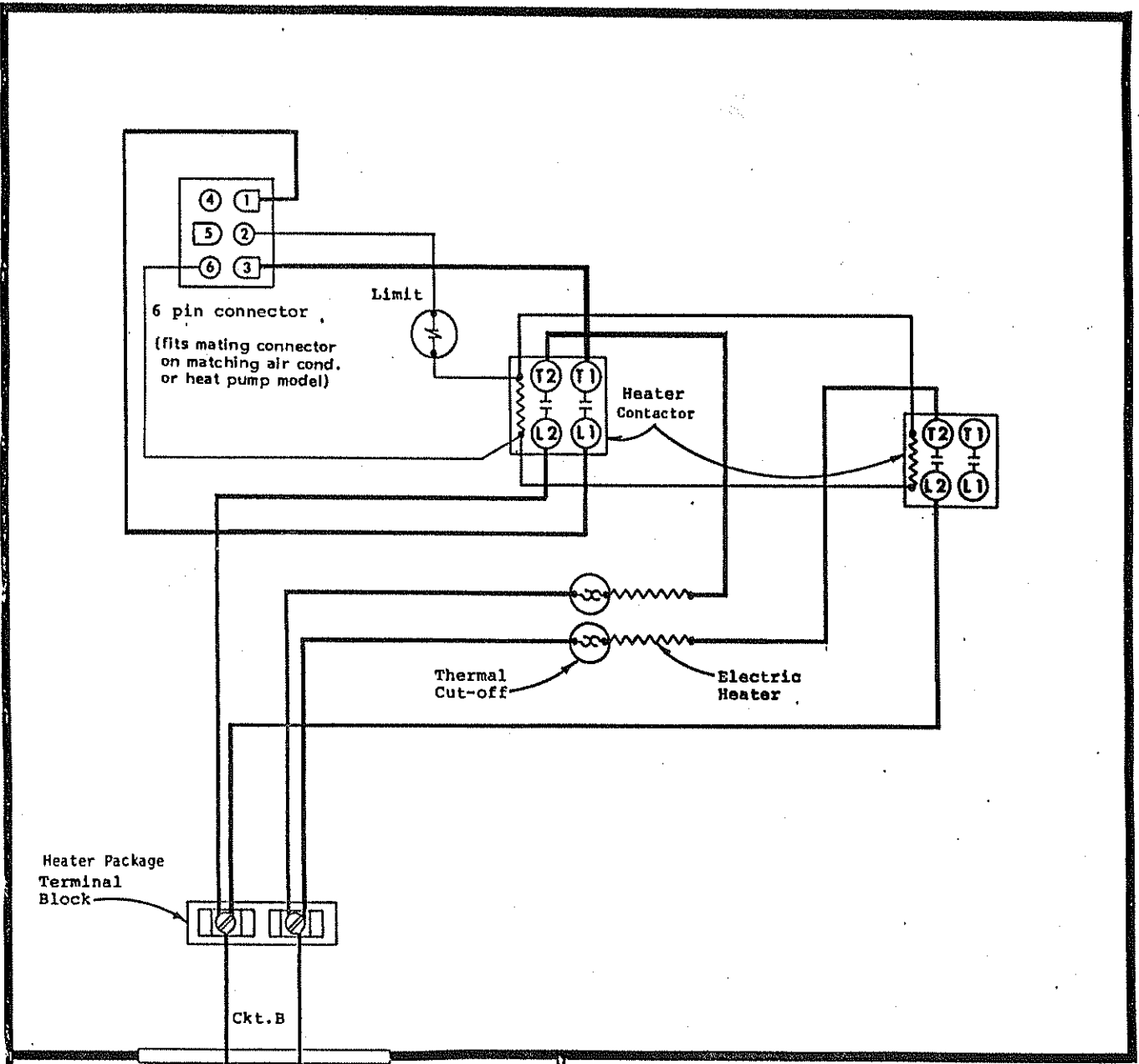


- ⚠ This heater package consists of the following:
- (1) Basic heater package.
 - (1) Terminal Block (Cat. No. EB or 11993).
 - (1) Listed Ground Terminal 6-12-AL, 6-14 CU.

Refer to the heat package instructions for proper installation.

USE COPPER OR ALUMINUM WIRE

FACTORY WIRING	FIELD WIRING
Low Voltage ———	-----
High Voltage ———	-----



⚠ This heater package consists of the following:

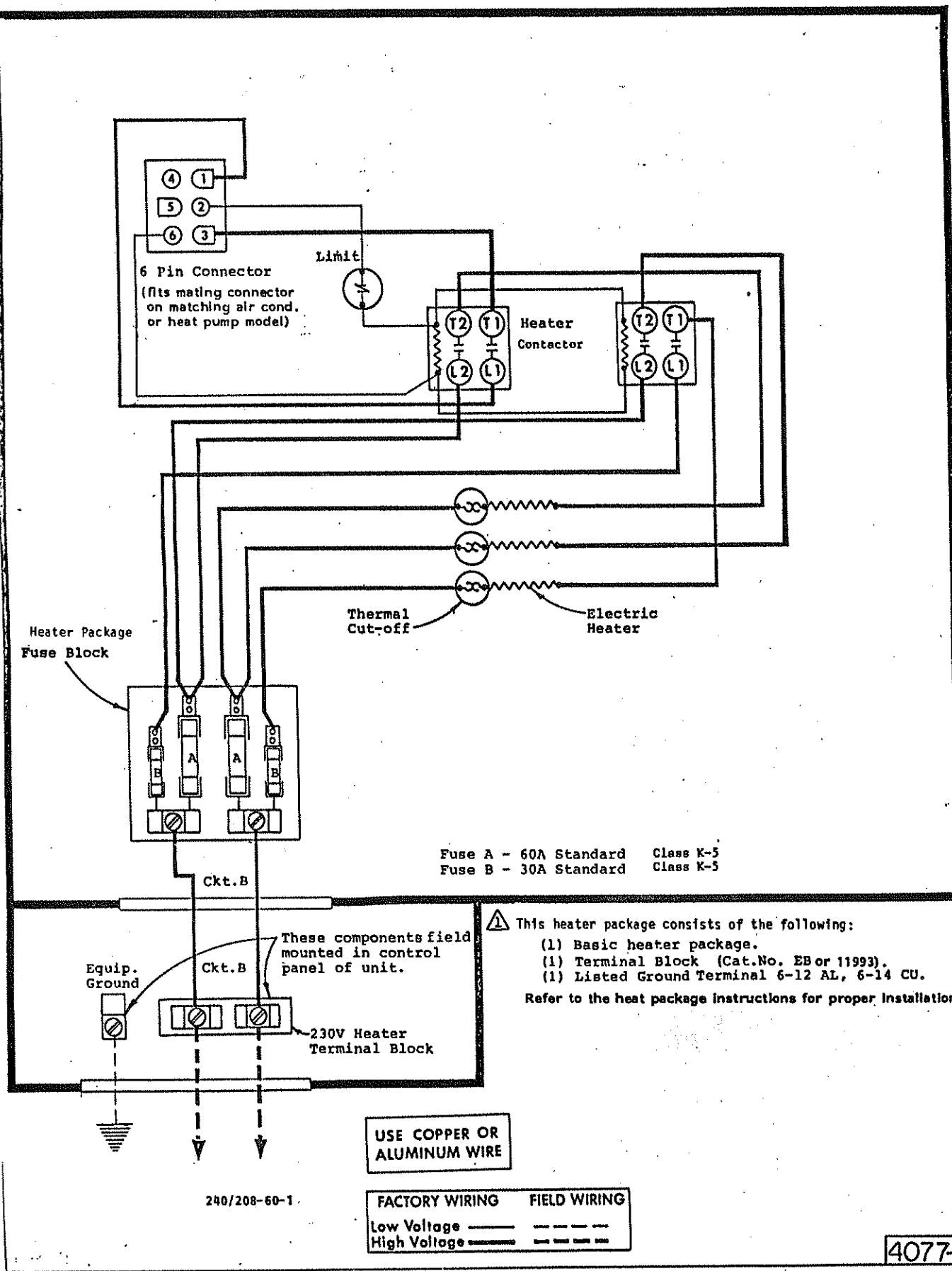
- (1) Basic heater package.
- (1) Terminal Block (Cat.No. EB or 11993).
- (1) Listed Ground Terminal 6-12AL, 6-14 CU.

Refer to the heat package instructions for proper installation.

USE COPPER OR ALUMINUM WIRE

	FACTORY WIRING	FIELD WIRING
Low Voltage	—————	- - - - -
High Voltage	—————	- - - - -

240/208-60-1



6 Pin Connector
(fits mating connector
on matching air cond.
or heat pump model)

Limit

Heater
Contactor

Thermal
Cut-off

Electric
Heater

Heater Package
Fuse Block

Fuse A - 60A Standard Class K-5
Fuse B - 30A Standard Class K-5

Ckt. B

⚠ This heater package consists of the following:
 (1) Basic heater package.
 (1) Terminal Block (Cat.No. EB or 11993).
 (1) Listed Ground Terminal 6-12 AL, 6-14 CU.
 Refer to the heat package instructions for proper installation.

Equip.
Ground

Ckt. B

These components field
mounted in control
panel of unit.

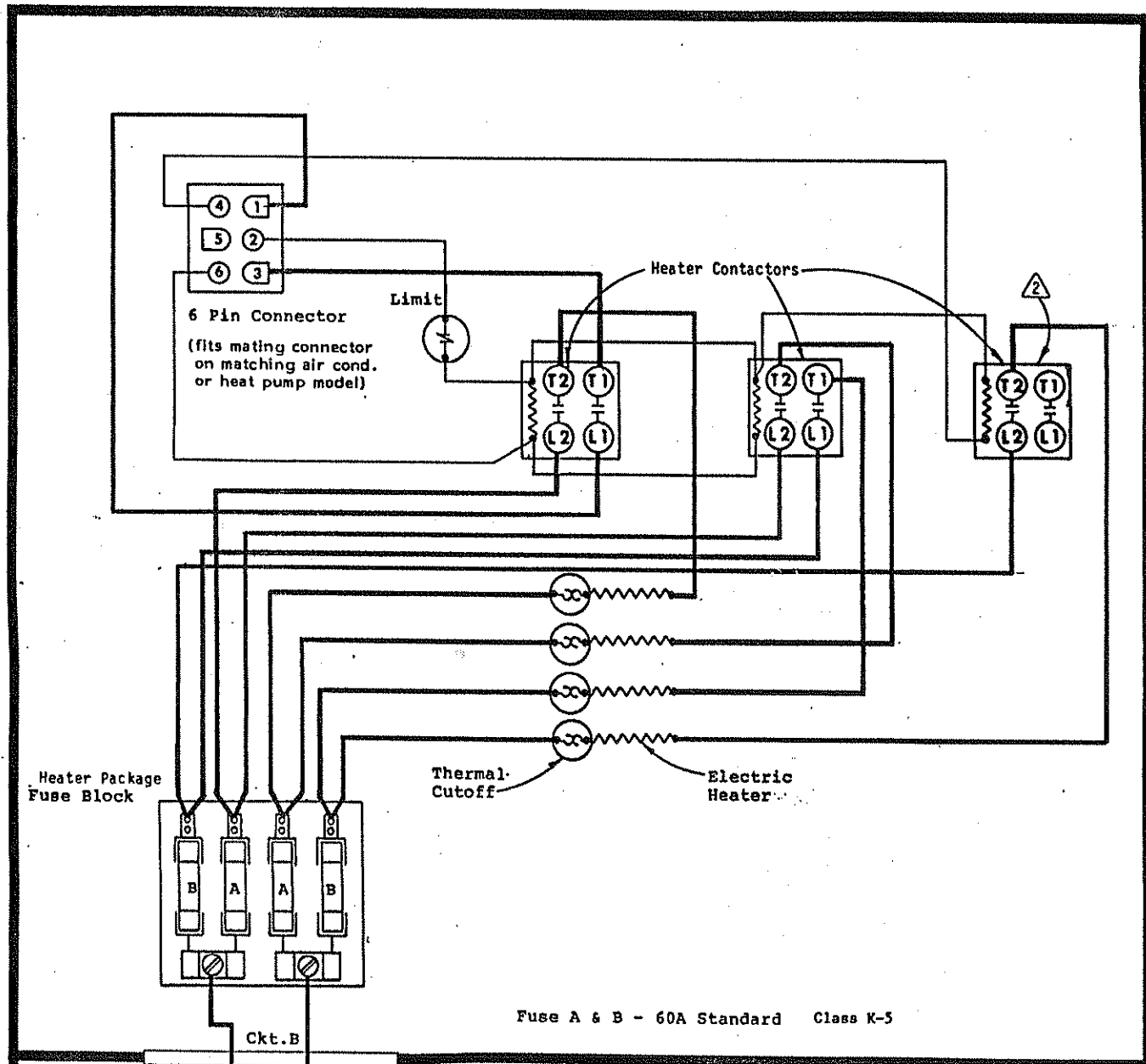
230V Heater
Terminal Block

USE COPPER OR
ALUMINUM WIRE

240/208-60-1

	FACTORY WIRING	FIELD WIRING
Low Voltage	—————	- - - - -
High Voltage	—————	- - - - -

4077-130 B



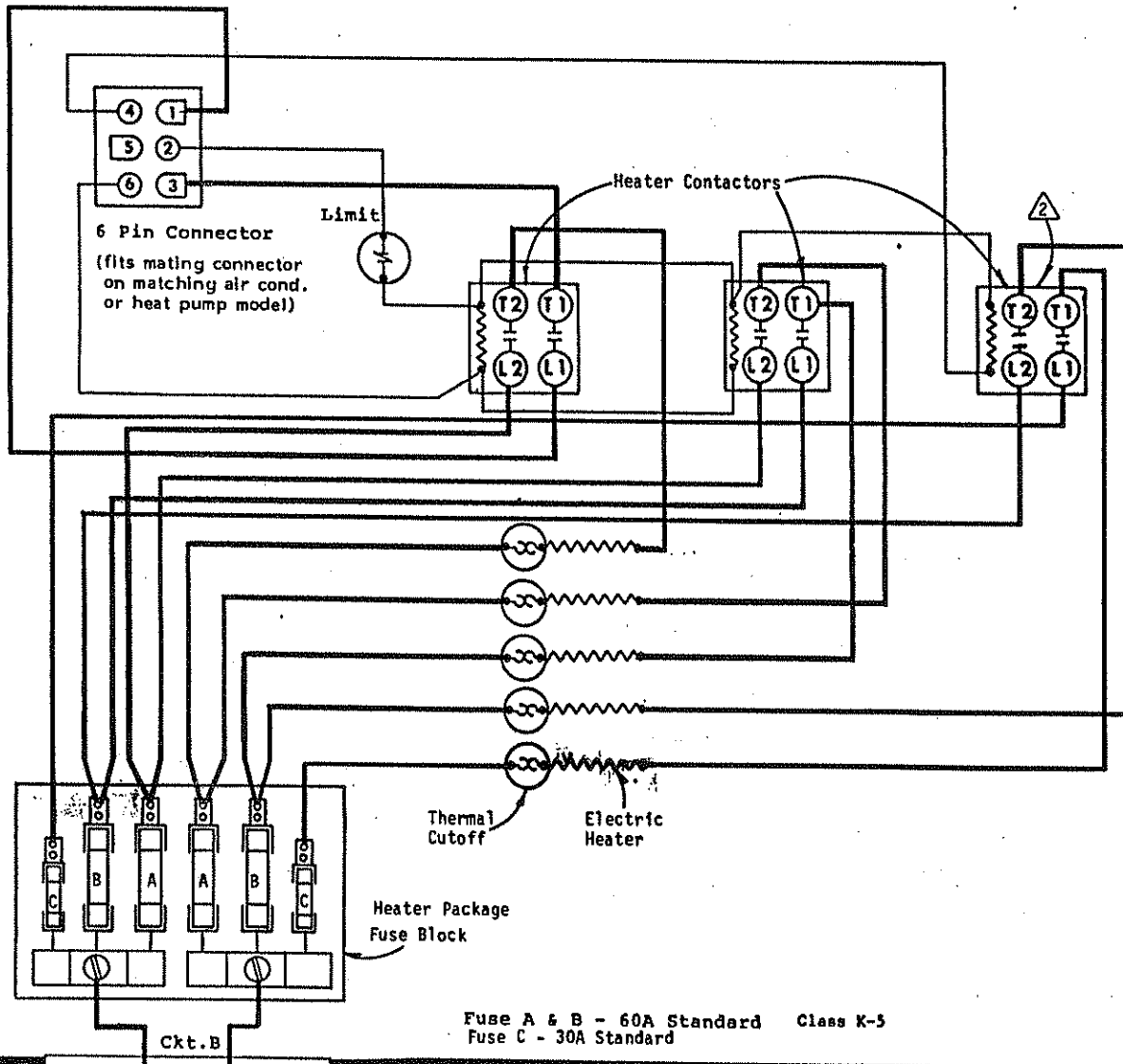
Fuse A & B - 60A Standard Class K-5

- ⚠** This heater package consists of the following:
- (1) Basic heater package.
 - (1) Terminal Block (Cat. No. EB or 11993).
 - (1) Listed Ground Terminal 6-12 AL, 6-14 CU.
- Refer to the heat package instructions for proper installation.
- ⚠** 3rd heat contactor operates only during emergency heat or compressor cut-off.

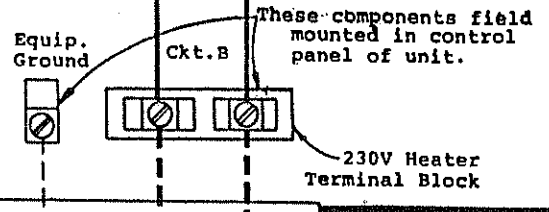
For supply connections use No. 2 AWG (240V) or No. 3 AWG (208V) or larger wires suitable for at least 75°C (167°F).

USE COPPER OR ALUMINUM WIRE

FACTORY WIRING	FIELD WIRING
Low Voltage ———	-----
High Voltage ———	-----



Fuse A & B - 60A Standard Class K-5
 Fuse C - 30A Standard

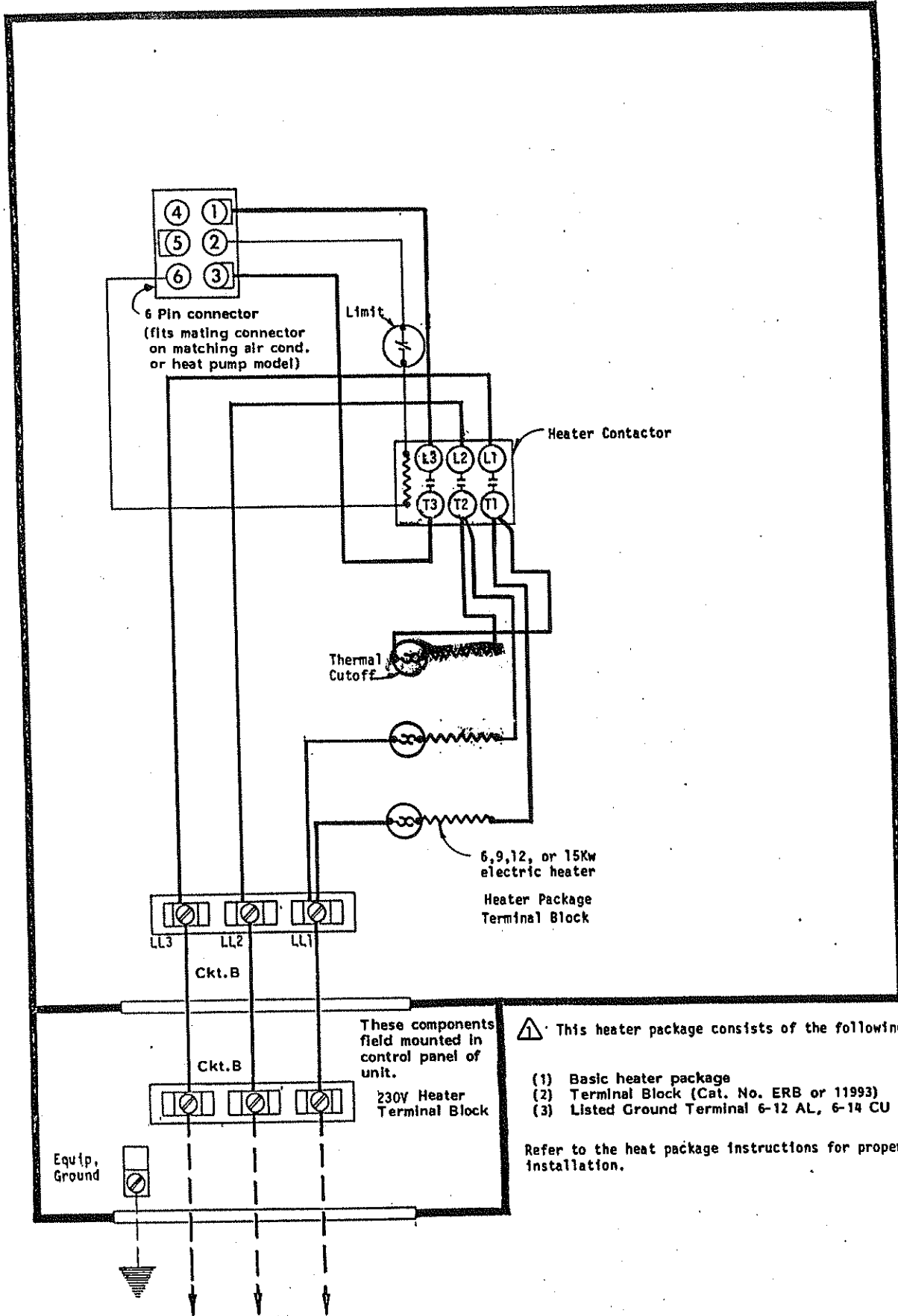


- ⚠ This heater package consists of the following:
- (1) Basic heater package.
 - (1) Terminal Block (Cat. No. EB or 11993).
 - (1) Listed Ground Terminal 6-12 AL, 6-14 CU.
- Refer to the heat package instructions for proper installation.
- ⚠ 3rd heat contactor operates only during emergency heat or compressor cut-off.

USE COPPER OR ALUMINUM WIRE

For supply connections use No. 1 AWG (240V) or No. 2 AWG (208V) or larger wires suitable for at least 75°C (167°F).

FACTORY WIRING	FIELD WIRING
Low Voltage ———	-----
High Voltage ———	-----



6 Pin connector
(fits mating connector
on matching air cond.
or heat pump model)

Limit

Heater Contactor

Thermal
Cutoff

6,9,12, or 15Kw
electric heater
Heater Package
Terminal Block

LL3 LL2 LL1
Ckt. B

Ckt. B
230V Heater
Terminal Block

Equip.
Ground

These components
field mounted in
control panel of
unit.

⚠ This heater package consists of the following:

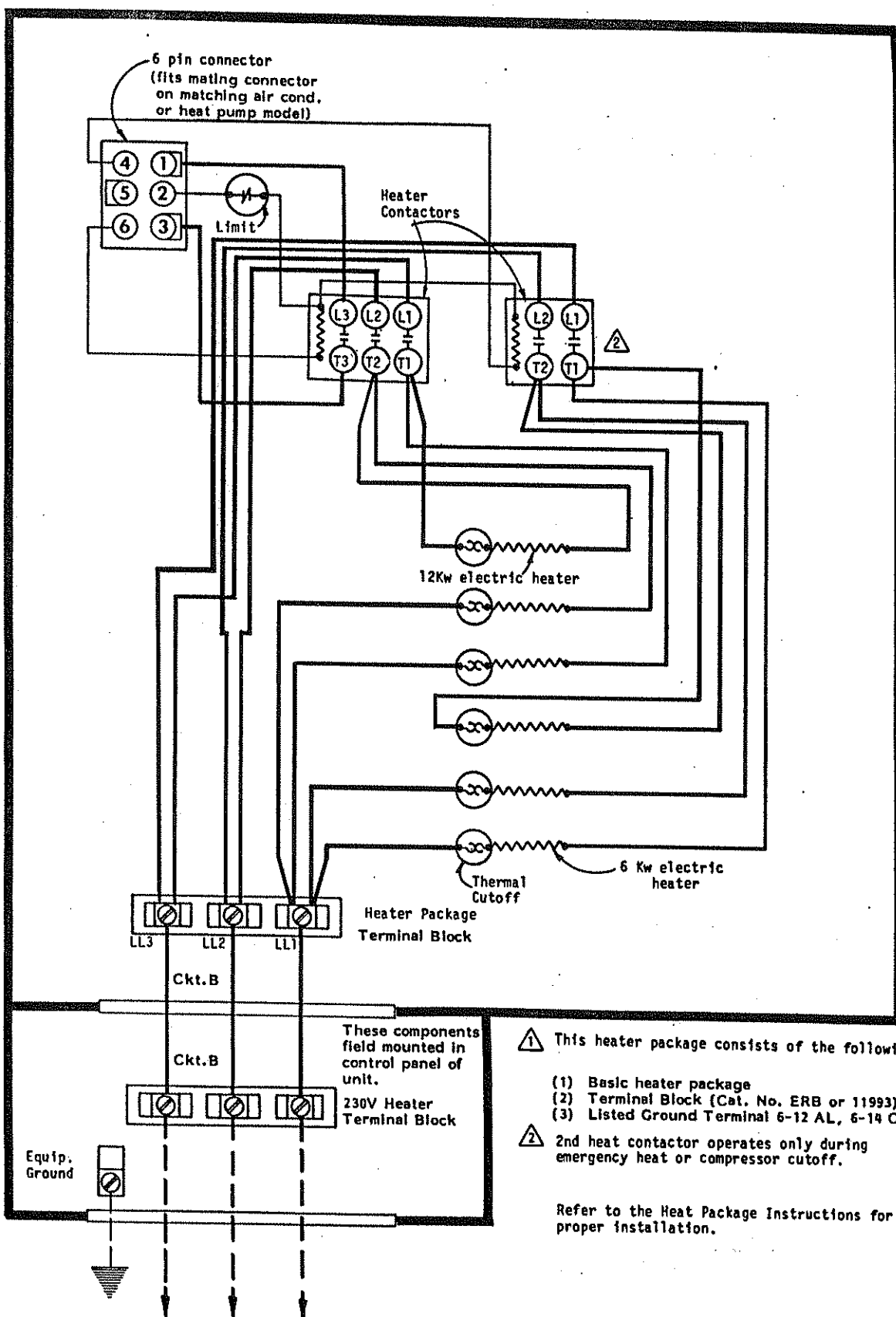
- (1) Basic heater package
- (2) Terminal Block (Cat. No. ERB or 11993)
- (3) Listed Ground Terminal 6-12 AL, 6-14 CU

Refer to the heat package instructions for proper installation.

USE COPPER OR
ALUMINUM WIRE

240/208-60-3

FACTORY WIRING	FIELD WIRING
Low Voltage	-----
High Voltage	-----



⚠ This heater package consists of the following:

- (1) Basic heater package
- (2) Terminal Block (Cat. No. ERB or 11993)
- (3) Listed Ground Terminal 6-12 AL, 6-14 CU

⚠ 2nd heat contactor operates only during emergency heat or compressor cutoff.

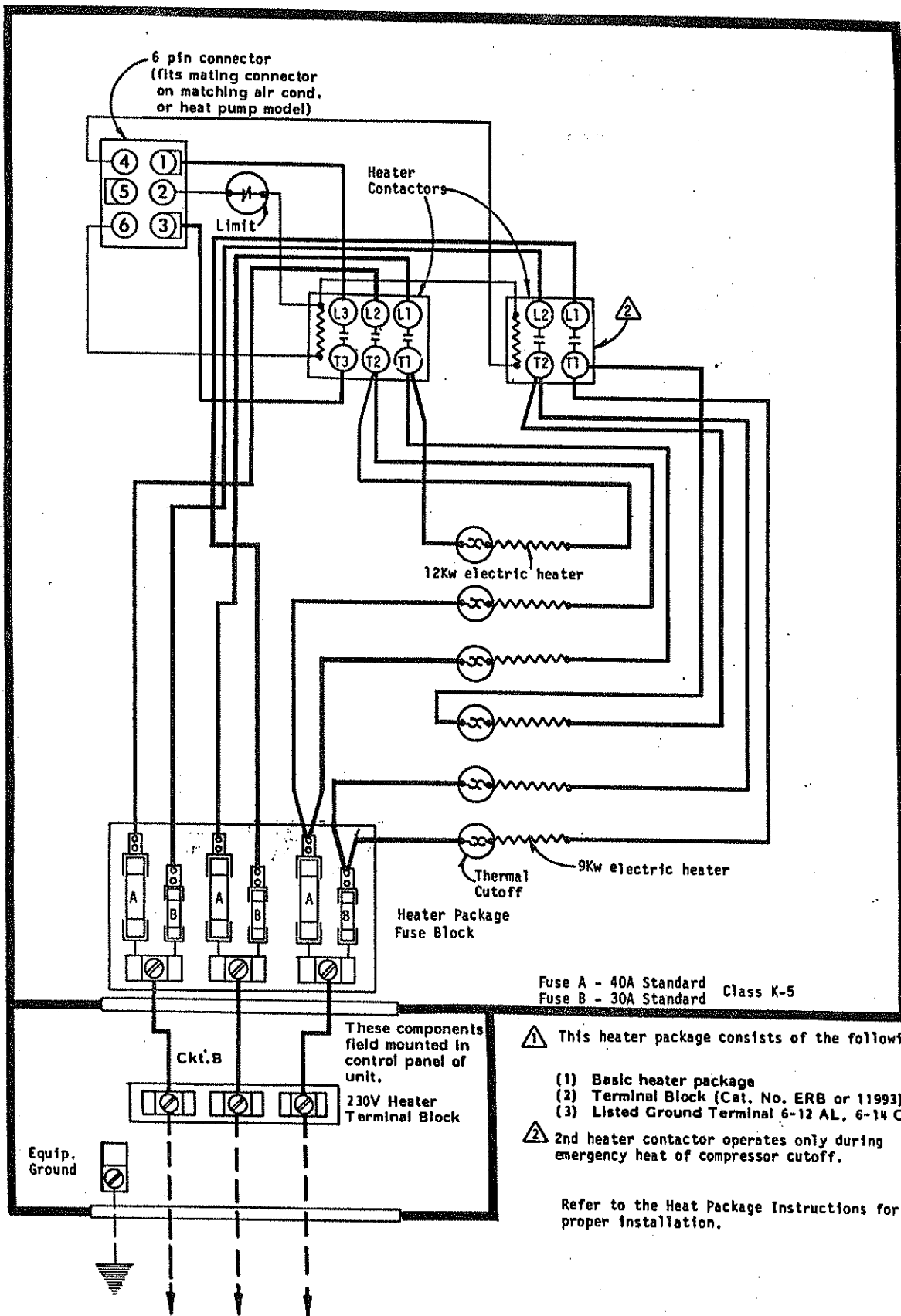
Refer to the Heat Package Instructions for proper installation.

USE COPPER OR ALUMINUM WIRE

240/208-60-3

FACTORY WIRING	FIELD WIRING
Low Voltage ———	-----
High Voltage ———	-----

4077-220c



Fuse A - 40A Standard Class K-5
 Fuse B - 30A Standard Class K-5

⚠ This heater package consists of the following:

- (1) Basic heater package
- (2) Terminal Block (Cat. No. ERB or 11993)
- (3) Listed Ground Terminal 6-12 AL, 6-14 CU

⚠ 2nd heater contactor operates only during emergency heat of compressor cutoff.

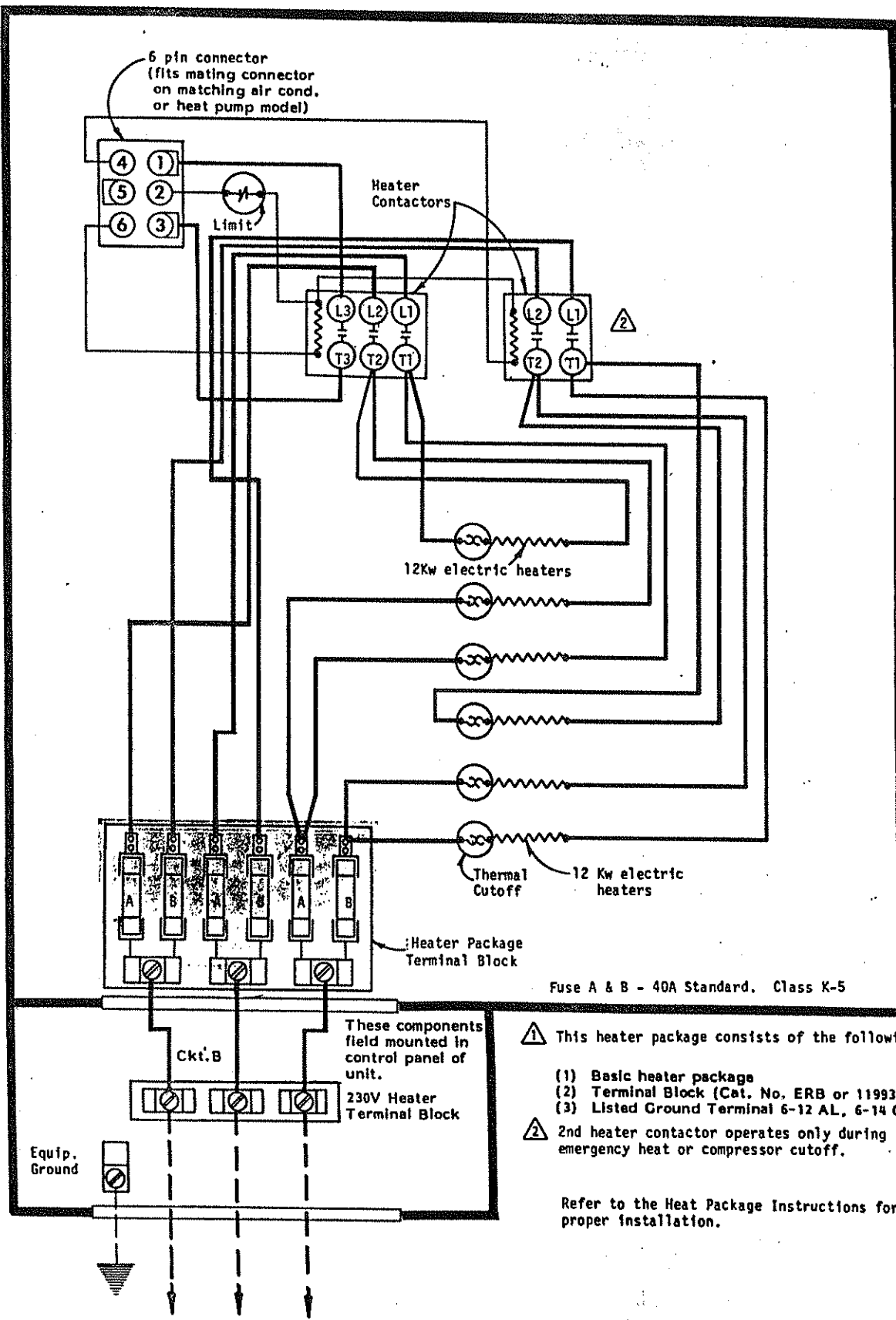
Refer to the Heat Package Instructions for proper installation.

USE COPPER OR ALUMINUM WIRE

240/208-60-3

FACTORY WIRING	FIELD WIRING
Low Voltage ———	-----
High Voltage ———	-----

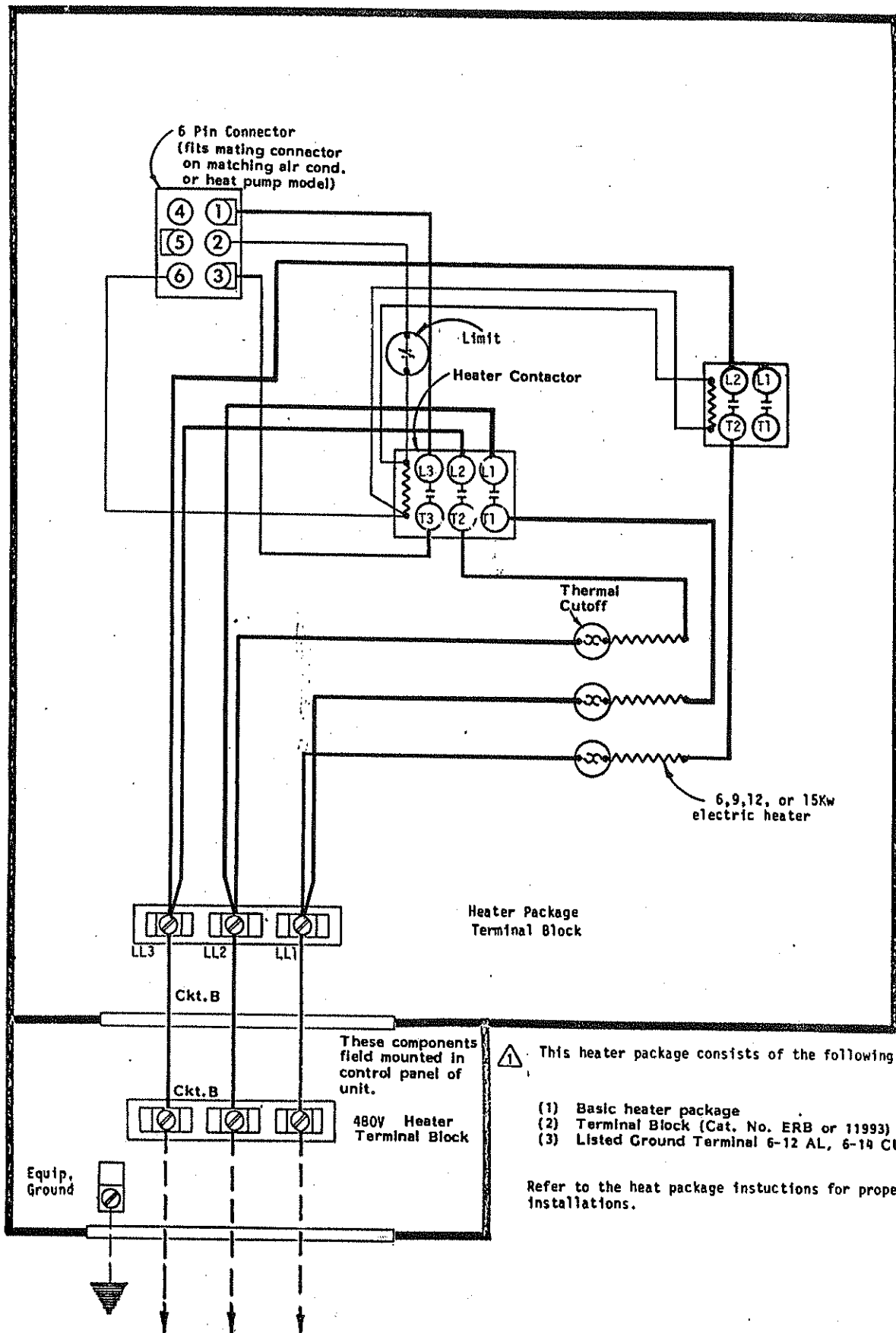
4077-230c



USE COPPER OR ALUMINUM WIRE

240/208-60-3

FACTORY WIRING	FIELD WIRING
Low Voltage ———	-----
High Voltage ———	-----



6 Pin Connector
(fits mating connector
on matching air cond.
or heat pump model)

Limit
Heater Contactor

Thermal
Cutoff

6,9,12, or 15Kw
electric heater

Heater Package
Terminal Block

LL3 LL2 LL1

Ckt. B

These components
field mounted in
control panel of
unit.

480V Heater
Terminal Block

Equip.
Ground

⚠ This heater package consists of the following:

- (1) Basic heater package
- (2) Terminal Block (Cat. No. ERB or 11993)
- (3) Listed Ground Terminal 6-12 AL, 6-14 CU

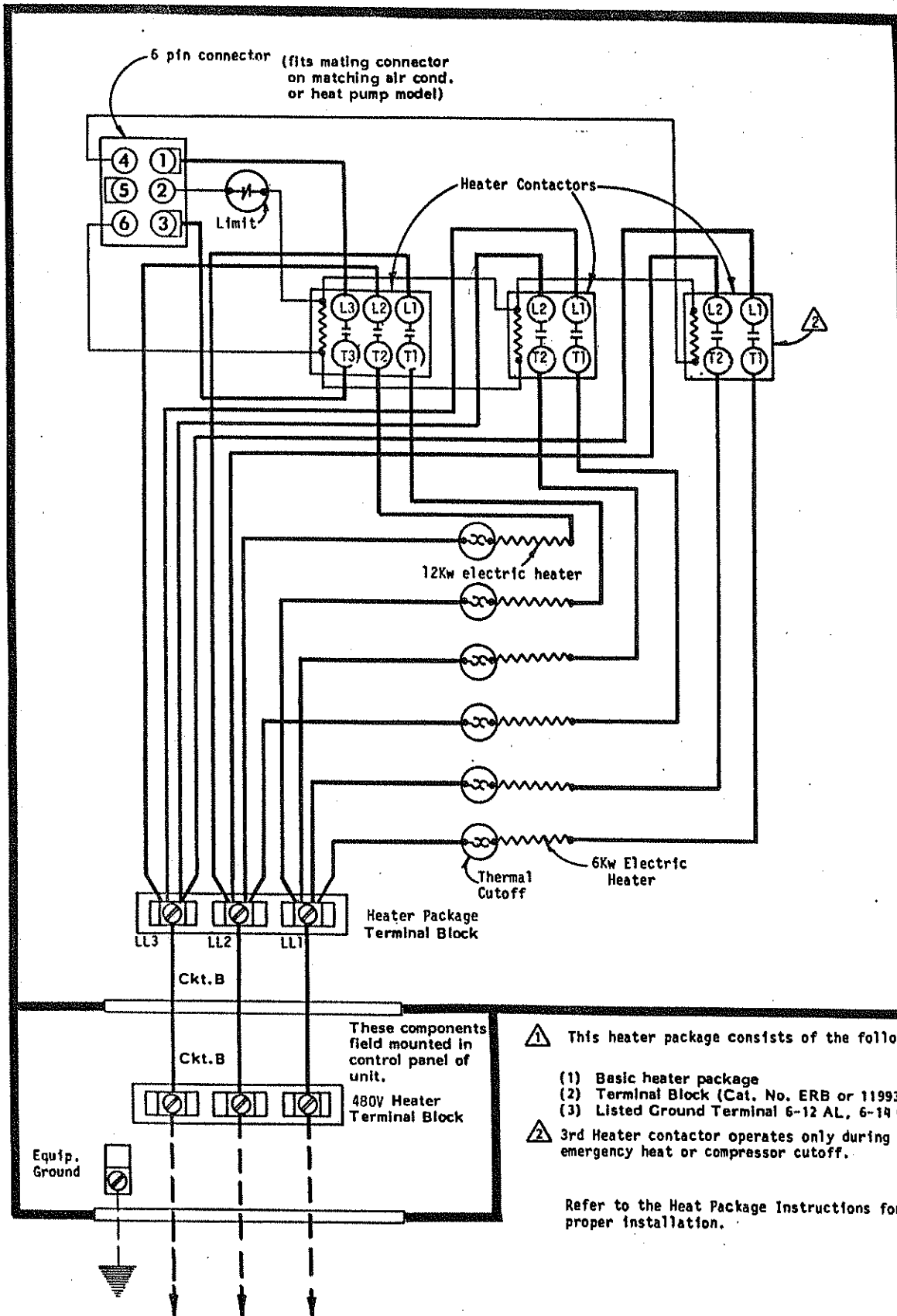
Refer to the heat package instructions for proper installations.

480-60-3

USE COPPER OR
ALUMINUM WIRE

FACTORY WIRING	FIELD WIRING
Low Voltage	-----
High Voltage	-----

4077-310 c



⚠ This heater package consists of the following:

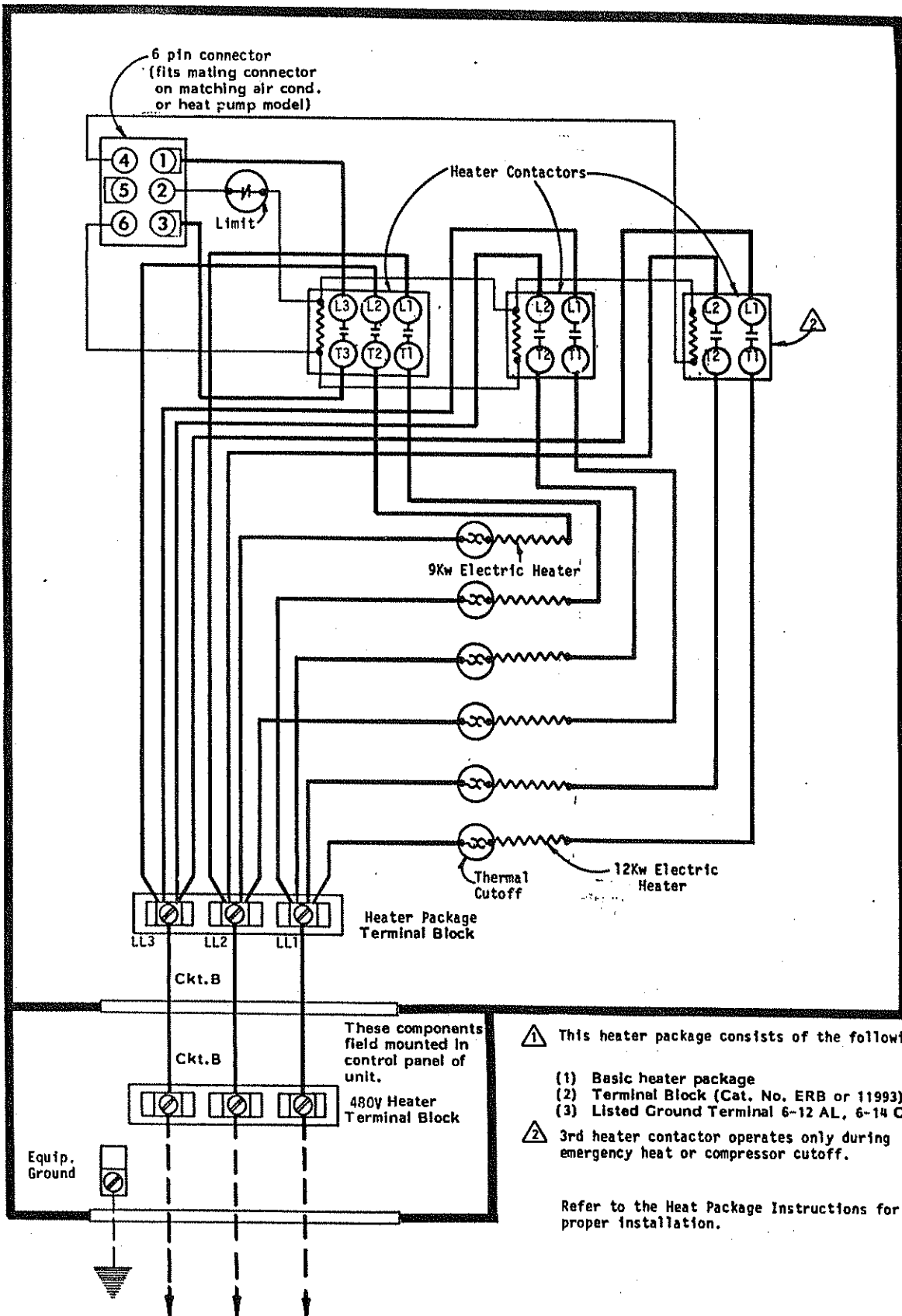
- (1) Basic heater package
- (2) Terminal Block (Cat. No. ERB or 11993)
- (3) Listed Ground Terminal 6-12 AL, 6-14 CU

⚠ 3rd Heater contactor operates only during emergency heat or compressor cutoff.

Refer to the Heat Package Instructions for proper installation.

USE COPPER OR ALUMINUM WIRE

FACTORY WIRING	FIELD WIRING
Low Voltage ———	-----
High Voltage ———	-----



6 pin connector
(fits mating connector
on matching air cond.
or heat pump model)

Heater Contactors

Limit

9Kw Electric Heater

12Kw Electric Heater

Thermal Cutoff

Heater Package Terminal Block

LL3 LL2 LL1

Ckt. B

Ckt. B

These components
field mounted in
control panel of
unit.

480V Heater Terminal Block

Equip. Ground

⚠ This heater package consists of the following:

- (1) Basic heater package
- (2) Terminal Block (Cat. No. ERB or 11993)
- (3) Listed Ground Terminal 6-12 AL, 6-14 CU

⚠ 3rd heater contactor operates only during emergency heat or compressor cutoff.

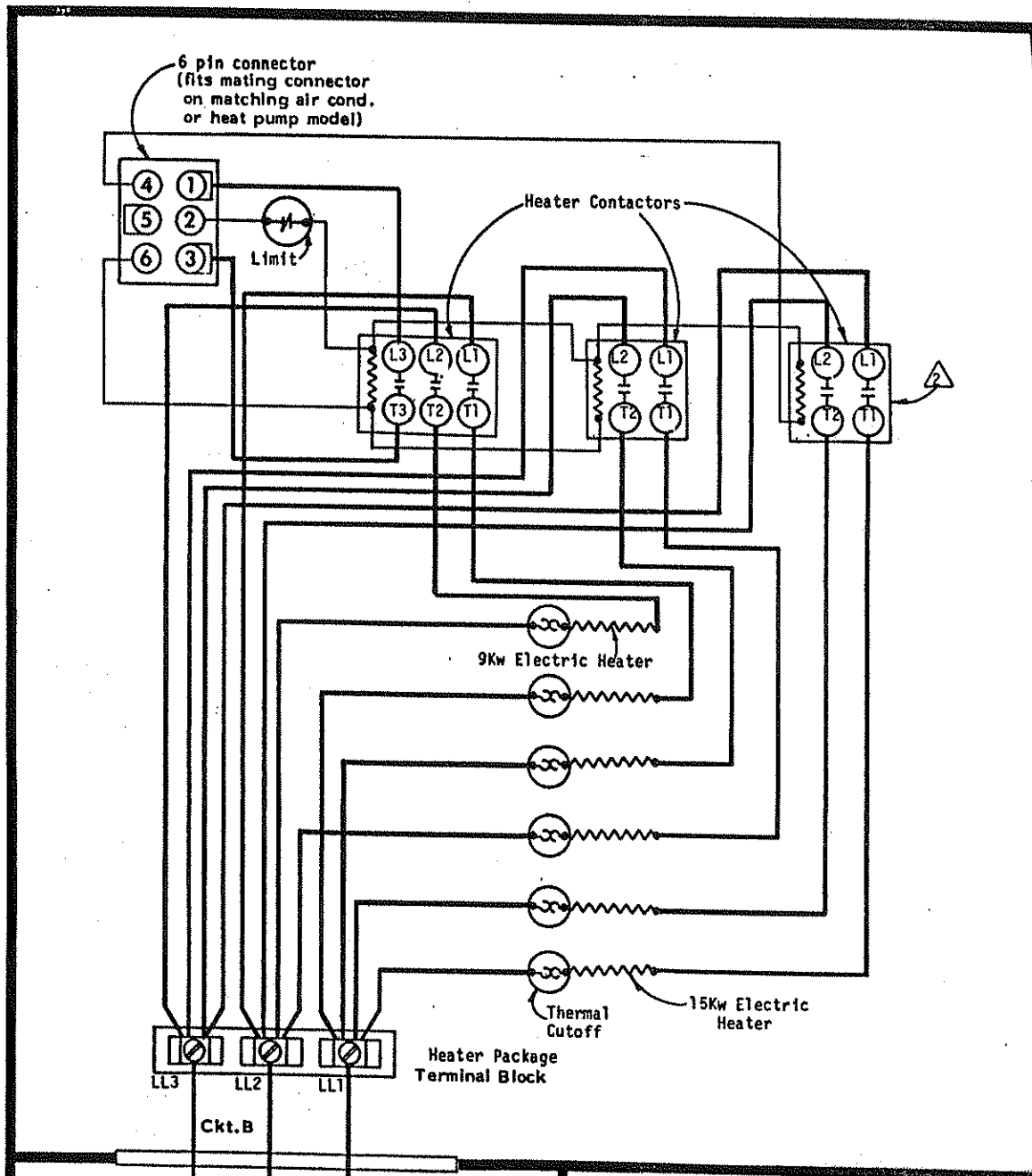
Refer to the Heat Package Instructions for proper installation.

USE COPPER OR ALUMINUM WIRE

480-60-3

FACTORY WIRING	FIELD WIRING
Low Voltage ————	-----
High Voltage ————	-----

4077-330 c



⚠ This heater package consists of the following:

- (1) Basic heater package
- (2) Terminal Block (Cat. No. ERB or 11993)
- (3) Listed Ground Terminal 6-12 AL, 6-14 CU

⚠ 3rd heater contactor operates only during emergency heat or compressor cutoff.

Refer to the Heat Package Instructions for proper installation.

USE COPPER OR ALUMINUM WIRE

FACTORY WIRING	FIELD WIRING
Low Voltage ————	-----
High Voltage ————	-----