April, 1994

WIRING DIAGRAMS
Models PAE/BAE gas-fired unit heaters
Manufactured after September, 1993

(for units manufactured between April 1991 and September 1993, see bulletin 6-443.
For units manufactured before April 1991, contact your local representative).

DIAGRAM SELECTION

Diagrams are provided for both single- and three-phase circuits, and are readily identified in the Selection Table on the following page. The Selection Table enables easy selection of the correct wiring diagram after the electrical components of the unit heater have been determined. The control codes are listed to aid in locating the correct diagram.

DIAGRAM INTERCHANGEABILITY

The following gas-fired unit heater wiring diagrams are for either 115-volt, 60-Hertz, single-phase power, or for 230-volt, 60 Hertz, three-phase electrical service.

The 115v/60Hz/1ϕ diagrams may also be utilized for 230v/60Hz/1ϕ by substituting 230-volt components for the 115-volt shown.

The 230v/60 Hz/3ϕ diagrams may be modified to 460v/60 Hz/3ϕ by adding a 460v to 230v step down transformer and wiring the unit as shown in the wiring "inset" on all 3-phase wiring diagrams.

NOTE: As indicated in every diagram, all wiring must comply with the National Electrical Code and all local codes. All components must agree with their respective power source.

ABBREVIATIONS AND SYMBOLS

To facilitate interpretation and enable simplification the abbreviations and symbols have been selected as recommended by ANSI (American National Standards Institute) and NEMA (National Electrical Manufacturers Association) standards.

XFMR or TR	Transformer
V	Volts
Hz	Cycle or Hertz
ϕ	Phase
LC	Limit Control
THERM or TH	Thermostat
MV	Main Valve
PV	Pilot Valve
SO	Shut Off
RC	Relay Contact or Coil
G	Ground
H	Hot
SW	Switch
EPS	Electric Pilot Switch
HI	High
Lo	Low
C	Common
"J" Box	Junction Box
H1, H2, etc.	Transformer Primary Terminals
SUM	Summer Contact (Summer/Winter Switch)
WIN	Winter Contact (Summer/Winter Switch)
S-W	Summer/Winter Switch
O.L.C.	Overload Contact
C.S.	Power Venter Centrifugal Switch
FTc	Fan Timer Contact
SPDT	Single-Pole Double-Throw Switch
VA	Volt-Ampere
W	Watts

WIRE COLOR CODING

BK	Black
BL	Blue
R	Red
W	White
Y	Yellow
X1,X2, etc.	Transformer Secondary Terminals
L1, L2, etc.	Electric Load Terminals
T1, T2, etc.	Starter or Motor Terminals

POWER REQUIREMENTS (AMPS) – PAE MODELS

Power Supply	PAE 30, 50	PAE 75, 100	PAE 125	PAE 145, 175, 200, 225	PAE 250, 300	PAE 350, 400
115v/1ϕ	1.3	2.3	2.7	3.1	5.7	9.1
230v/1ϕ	.6	1.4	1.4	1.7	2.8	4.6
200v/3ϕ	–	–	–	–	2.3	3.9
230v/3ϕ	–	–	–	–	2.4	3.9
460v/3ϕ	–	–	–	–	1.2	1.95

POWER REQUIREMENTS (AMPS) – BAE MODELS

Power Supply	HP	BAE 50	BAE 75	BAE 100	BAE 125	BAE 145	BAE 175	BAE 200	BAE 225	BAE 250	BAE 300	BAE 350	BAE 400
115v/1ϕ	1/4	5.7	5.7	5.7	5.7	–	5.7	–	–	–	–	–	–
230v/1ϕ	1/4	2.9	2.9	2.9	2.9	–	2.9	–	–	–	–	–	–
200v/3ϕ	1/4	1.8	1.8	1.8	1.8	–	1.8	–	–	–	–	–	–
230v/3ϕ	1/4	1.6	1.6	1.6	1.6	–	1.6	–	–	–	–	–	–
460v/3ϕ	1/4	.8	.8	.8	.8	–	.8	–	–	–	–	–	–
115v/1ϕ	1/3	4.9	4.9	4.9	4.9	4.9	4.9	4.9	–	–	–	–	–
230v/1ϕ	1/3	2.5	2.5	2.5	2.5	2.5	2.5	2.5	–	–	–	–	–
200v/3ϕ	1/3	2.0	2.0	2.0	2.0	2.0	2.0	2.0	–	–	–	–	–
230v/3ϕ	1/3	1.8	1.8	1.8	1.8	1.8	1.8	1.8	–	–	–	–	–
460v/3ϕ	1/3	.9	.9	.9	.9	.9	.9	.9	–	–	–	–	–
115v/1ϕ	1/2	–	8.8	8.8	8.8	8.8	8.8	8.8	8.8	–	–	–	–
230v/1ϕ	1/2	–	4.0	4.0	4.0	4.0	4.0	4.0	4.0	–	–	–	–
200v/3ϕ	1/2	–	2.7	2.7	2.7	2.7	2.7	2.7	2.7	–	–	–	–
230v/3ϕ	1/2	–	2.8	2.8	2.8	2.8	2.8	2.8	2.8	–	–	–	–
460v/3ϕ	1/2	–	1.4	1.4	1.4	1.4	1.4	1.4	1.4	–	–	–	–
115v/1ϕ	3/4	–	11.3	–	11.3	11.3	11.3	11.3	11.3	11.3	–	–	–
230v/1ϕ	3/4	–	5.7	–	5.7	5.7	5.7	5.7	5.7	5.7	–	–	–
200v/3ϕ	3/4	–	3.4	–	3.4	3.4	3.4	3.4	3.4	3.4	–	–	–
230v/3ϕ	3/4	–	3.2	–	3.2	3.2	3.2	3.2	3.2	3.2	–	–	–
460v/3ϕ	3/4	–	1.6	–	1.6	1.6	1.6	1.6	1.6	1.6	–	–	–
115v/1ϕ	1	–	–	–	–	13.7	13.7	13.7	13.7	13.7	13.7	13.7	–
230v/1ϕ	1	–	–	–	–	6.9	6.9	6.9	6.9	6.9	6.9	6.9	–
200v/3ϕ	1	–	–	–	–	4.2	4.2	4.2	4.2	4.2	4.2	4.2	–
230v/3ϕ	1	–	–	–	–	4.0	4.0	4.0	4.0	4.0	4.0	4.0	–
460v/3ϕ	1	–	–	–	–	2.0	2.0	2.0	2.0	2.0	2.0	2.0	–
115v/1ϕ	1-1/2	–	–	–	–	–	–	15.6	15.6	15.6	15.6	15.6	15.6
230v/1ϕ	1-1/2	–	–	–	–	–	–	7.8	7.8	7.8	7.8	7.8	7.8
200v/3ϕ	1-1/2	–	–	–	–	–	–	5.8	5.8	5.8	5.8	5.8	5.8
230v/3ϕ	1-1/2	–	–	–	–	–	–	5.4	5.4	5.4	5.4	5.4	5.4
460v/3ϕ	1-1/2	–	–	–	–	–	–	2.7	2.7	2.7	2.7	2.7	2.7
200v/3ϕ	2	–	–	–	–	–	–	–	7.1	7.1	7.1	7.1	7.1
230v/3ϕ	2	–	–	–	–	–	–	–	6.8	6.8	6.8	6.8	6.8
460v/3ϕ	2	–	–	–	–	–	–	–	3.4	3.4	3.4	3.4	3.4
200v/3ϕ	3	–	–	–	–	–	–	–	–	10.8	10.8	10.8	10.8
230v/3ϕ	3	–	–	–	–	–	–	–	–	9.0	9.0	9.0	9.0
460v/3ϕ	3	–	–	–	–	–	–	–	–	4.5	4.5	4.5	4.5
200v/3ϕ	5	–	–	–	–	–	–	–	–	–	–	14.5	14.5
230v/3ϕ	5	–	–	–	–	–	–	–	–	–	–	13.4	13.4
460v/3ϕ	5	–	–	–	–	–	–	–	–	–	–	6.7	6.7

WIRING DIAGRAM SELECTION

A. Field and Submittal Wiring Diagram Selection

Wiring in the field changes little when the brand of the controls furnished on the unit heater changes. Select correct wiring diagrams as follows:

1. Determine unit heater model and size.
2. Select control code number from Table 1.
3. Reference unit heater model in the Page Location Index with control code number and determine correct page number for single-phase or three-phase control. Single-phase wiring diagram page numbers are in the unshaded areas and three-phase diagrams are in the shaded areas.

B. Service and Troubleshooting

Because internal or factory wiring may vary depending on controls manufacturer, the wiring diagrams must be selected with the series identity number when servicing or troubleshooting unit heater control system. Wiring diagrams in this bulletin are for unit heaters manufactured after September 1993 and the series identity number is the 5th thru the 7th digits of the unit heater serial number.

EXAMPLE: Serial No. – 01121010691 has a series identity number of 101.

To select the correct wiring diagram:

1. Determine unit heater model and size from serial plate located on the side of the unit.
2. Determine the control code numbers from box marked *Control Code*, also on the serial plate.
3. Determine the *series identity number* of the unit heater, then proceed with Step 3 of Field and Submittal Wiring Diagram Selection.

EXAMPLE SELECTION

Select correct single-phase wiring diagram for a PAE 175A Control Code 11, series identity number 101.

Locate the Page Location Index which shows the page numbers for PAE and BAE units with series identity number 101 (see page c). Select the page number where the column for the PAE 175 intersects with the line for control code 11. The correct single phase wiring diagram for this unit is found on page 1 in the unshaded area.

TWO-IN-ONE DIAGRAMS

Two wiring diagrams are furnished for each circuit configuration in this manual. Included are a connection diagram at the left for field installation and circuit schematic at the right to aid in continuity and trouble shooting.

The heavier lines in the connection diagram indicate line voltage; the lighter lines are for low voltage. Solid lines show pre-wiring performed at the factory; dotted lines inform the installer of connections required to put the heater in operation.

TABLE 1 – CONTROL CODES

Control Code Number	Description
08, 09	Single-Stage, Intermittent Pilot Ignition, Non-100% Shut-Off, Natural Gas
11, 12	Single-Stage, Standing Pilot, 100% Shut-Off, Natural Gas.
81, 82	Same as Control Codes 11 & 12 only Propane Gas.
25, 26	Two-Stage, Standing Pilot, 100% Shut-Off, Natural Gas.
83, 84	Same as Control Codes 25 & 26 only Propane Gas.
30, 31	Single-Stage, Intermittent Pilot Ignition, 100% Shut-Off with Continuous Retry.
85, 86	Same as Control Codes 30 & 31 only Propane Gas.
51, 52	Mechanical Modulation with Automatic Pilot Ignition, Non-100% Shut-Off, Natural Gas, BAE only.
55, 56	Two-Stage, Intermittent Pilot Ignition, Non-100% Shut-Off, Natural Gas.
59, 60	Mechanical Modulation with Automatic Pilot Ignition, 100% Shut-Off with Continuous Retry, BAE only.
89, 90	Same as Control Codes 59 & 60 only Propane Gas.
63, 64	Two-Stage, Intermittent Pilot Ignition, 100% Shut-Off with Continuous Retry, Natural Gas.
87, 88	Same as Control Codes 63 & 64 only Propane Gas.

WIRING DIAGRAM INDEX FOR MODELS PAE AND BAE MANUFACTURED AFTER SEPTEMBER 1993

SERIES 101

Control Code	PAE 30	PAE/ BAE 50	PAE/ BAE 75	PAE/ BAE 100	PAE/ BAE 125	PAE/ BAE 145	PAE/ BAE 175	PAE/ BAE 200	PAE/ BAE 225	PAE/ BAE 250	PAE/ BAE 300	PAE/ BAE 350	PAE/ BAE 400
08, 09	9 / 10	9 / 10	9 / 10	9 / 10	9 / 10	9 / 10	9 / 10	9 / 10	9 / 10	9 / 10	9 / 10	9 / 10	9 / 10
11, 12	1 / 2	1 / 2	1 / 2	1 / 2	1 / 2	1 / 2	1 / 2	1 / 2	1 / 2	1 / 2	1 / 2	– / –	– / –
81, 82	1 / 2	1 / 2	1 / 2	1 / 2	1 / 2	1 / 2	1 / 2	1 / 2	1 / 2	1 / 2	1 / 2	1 / 2	1 / 2
25, 26	5 / 6	5 / 6	5 / 6	5 / 6	5 / 6	5 / 6	5 / 6	5 / 6	7 / 8	7 / 8	7 / 8	7 / 8	7 / 8
83, 84	5 / 6	5 / 6	5 / 6	5 / 6	5 / 6	5 / 6	5 / 6	5 / 6	5 / 6	5 / 6	7 / 8	7 / 8	7 / 8
30, 31	9 / 10	9 / 10	9 / 10	9 / 10	9 / 10	9 / 10	9 / 10	9 / 10	9 / 10	9 / 10	9 / 10	9 / 10	9 / 10
85, 86	9 / 10	9 / 10	9 / 10	9 / 10	9 / 10	9 / 10	9 / 10	9 / 10	9 / 10	9 / 10	9 / 10	9 / 10	9 / 10
51, 52	11 / 12	11 / 12	11 / 12	11 / 12	11 / 12	11 / 12	11 / 12	11 / 12	11 / 12	11 / 12	11 / 12	11 / 12	11 / 12
55, 56	13 / 14	13 / 14	13 / 14	13 / 14	13 / 14	13 / 14	13 / 14	13 / 14	13 / 14	13 / 14	13 / 14	13 / 14	13 / 14
59, 60	17 / 18	17 / 18	17 / 18	17 / 18	17 / 18	17 / 18	17 / 18	17 / 18	17 / 18	17 / 18	17 / 18	17 / 18	17 / 18
89, 90	17 / 18	17 / 18	17 / 18	17 / 18	17 / 18	17 / 18	17 / 18	17 / 18	17 / 18	17 / 18	17 / 18	17 / 18	17 / 18
63, 64	19 / 20	19 / 20	19 / 20	19 / 20	19 / 20	19 / 20	19 / 20	19 / 20	19 / 20	19 / 20	19 / 20	19 / 20	19 / 20
87, 88	19 / 20	19 / 20	19 / 20	19 / 20	19 / 20	19 / 20	19 / 20	19 / 20	19 / 20	19 / 20	19 / 20	19 / 20	19 / 20

WIRING DIAGRAM INDEX FOR MODELS PAE AND BAE MANUFACTURED AFTER SEPTEMBER 1993

SERIES 102

Control Code	PAE 30	PAE/ BAE 50	PAE/ BAE 75	PAE/ BAE 100	PAE/ BAE 125	PAE/ BAE 145	PAE/ BAE 175	PAE/ BAE 200	PAE/ BAE 225	PAE/ BAE 250	PAE/ BAE 300	PAE/ BAE 350	PAE/ BAE 400
08, 09	15 / 16	15 / 16	15 / 16	15 / 16	15 / 16	15 / 16	15 / 16	15 / 16	15 / 16	15 / 16	15 / 16	15 / 16	15 / 16
11, 12	1 / 2	1 / 2	1 / 2	1 / 2	1 / 2	1 / 2	1 / 2	1 / 2	3 / 4	3 / 4	3 / 4	3 / 4	3 / 4
81, 82	1 / 2	1 / 2	1 / 2	1 / 2	1 / 2	1 / 2	1 / 2	1 / 2	3 / 4	3 / 4	3 / 4	3 / 4	3 / 4
25, 26	– / –	– / –	5 / 6	– / –	– / –	– / –	– / –	– / –	– / –	– / –	– / –	– / –	– / –
83, 84	– / –	– / –	5 / 6	– / –	– / –	– / –	– / –	– / –	– / –	– / –	– / –	– / –	– / –
30, 31	21 / 22	21 / 22	21 / 22	21 / 22	21 / 22	21 / 22	21 / 22	21 / 22	21 / 22	21 / 22	21 / 22	21 / 22	21 / 22
85, 86	21 / 22	21 / 22	21 / 22	21 / 22	21 / 22	21 / 22	21 / 22	21 / 22	21 / 22	21 / 22	21 / 22	21 / 22	21 / 22
51, 52													
55, 56	– / –	– / –	13 / 14	– / –	– / –	– / –	– / –	– / –	– / –	– / –	– / –	– / –	– / –
59, 60													
89, 90													
63, 64	– / –	– / –	19 / 20	– / –	– / –	– / –	– / –	– / –	– / –	– / –	– / –	– / –	– / –
87, 88	– / –	– / –	19 / 20	– / –	– / –	– / –	– / –	– / –	– / –	– / –	– / –	– / –	– / –

WIRING DIAGRAM INDEX FOR MODELS PAE AND BAE MANUFACTURED AFTER SEPTEMBER 1993

SERIES 103

Control Code	PAE 30	PAE/ BAE 50	PAE/ BAE 75	PAE/ BAE 100	PAE/ BAE 125	PAE/ BAE 145	PAE/ BAE 175	PAE/ BAE 200	PAE/ BAE 225	PAE/ BAE 250	PAE/ BAE 300	PAE/ BAE 350	PAE/ BAE 400
08, 09	– / –	– / –	9 / 10	– / –	– / –	– / –	– / –	– / –	– / –	– / –	– / –	– / –	– / –
11, 12	– / –	– / –	– / –	– / –	– / –	– / –	– / –	– / –	3 / 4	3 / 4	3 / 4	3 / 4	3 / 4
81, 82	– / –	– / –	– / –	– / –	– / –	– / –	– / –	– / –	3 / 4	3 / 4	3 / 4	3 / 4	3 / 4
25, 26													
83, 84													
30, 31	– / –	– / –	9 / 10	– / –	– / –	– / –	– / –	– / –	– / –	– / –	– / –	– / –	– / –
85, 86	– / –	– / –	9 / 10	– / –	– / –	– / –	– / –	– / –	– / –	– / –	– / –	– / –	– / –

WIRING DIAGRAM INDEX FOR MODELS PAE AND BAE MANUFACTURED AFTER SEPTEMBER 1993

SERIES 104

Control Code	PAE 30	PAE/ BAE 50	PAE/ BAE 75	PAE/ BAE 100	PAE/ BAE 125	PAE/ BAE 145	PAE/ BAE 175	PAE/ BAE 200	PAE/ BAE 225	PAE/ BAE 250	PAE/ BAE 300	PAE/ BAE 350	PAE/ BAE 400
08, 09	– / –	– / –	15 / 16	– / –	– / –	– / –	– / –	– / –	– / –	– / –	– / –	– / –	– / –
11, 12	– / –	– / –	1 / 2	– / –	– / –	– / –	– / –	– / –	3 / 4	3 / 4	3 / 4	3 / 4	3 / 4
81, 82	– / –	– / –	1 / 2	– / –	– / –	– / –	– / –	– / –	3 / 4	3 / 4	3 / 4	3 / 4	3 / 4
25, 26													
83, 84													
30, 31	– / –	– / –	21 / 22	– / –	– / –	– / –	– / –	– / –	– / –	– / –	– / –	– / –	– / –
85, 86	– / –	– / –	21 / 22	– / –	– / –	– / –	– / –	– / –	– / –	– / –	– / –	– / –	– / –

WIRING DIAGRAM INDEX FOR MODELS PAE AND BAE MANUFACTURED AFTER SEPTEMBER 1993

SERIES 105

Control Code	PAE 30	PAE/ BAE 50	PAE/ BAE 75	PAE/ BAE 100	PAE/ BAE 125	PAE/ BAE 145	PAE/ BAE 175	PAE/ BAE 200	PAE/ BAE 225	PAE/ BAE 250	PAE/ BAE 300	PAE/ BAE 350	PAE/ BAE 400
08, 09													
11, 12	– / –	– / –	1 / 2	– / –	– / –	– / –	– / –	– / –	– / –	– / –	– / –	– / –	– / –
81, 82	– / –	– / –	1 / 2	– / –	– / –	– / –	– / –	– / –	– / –	– / –	– / –	– / –	– / –

WIRING DIAGRAM INDEX FOR MODELS PAE AND BAE MANUFACTURED AFTER SEPTEMBER 1993

SERIES 106

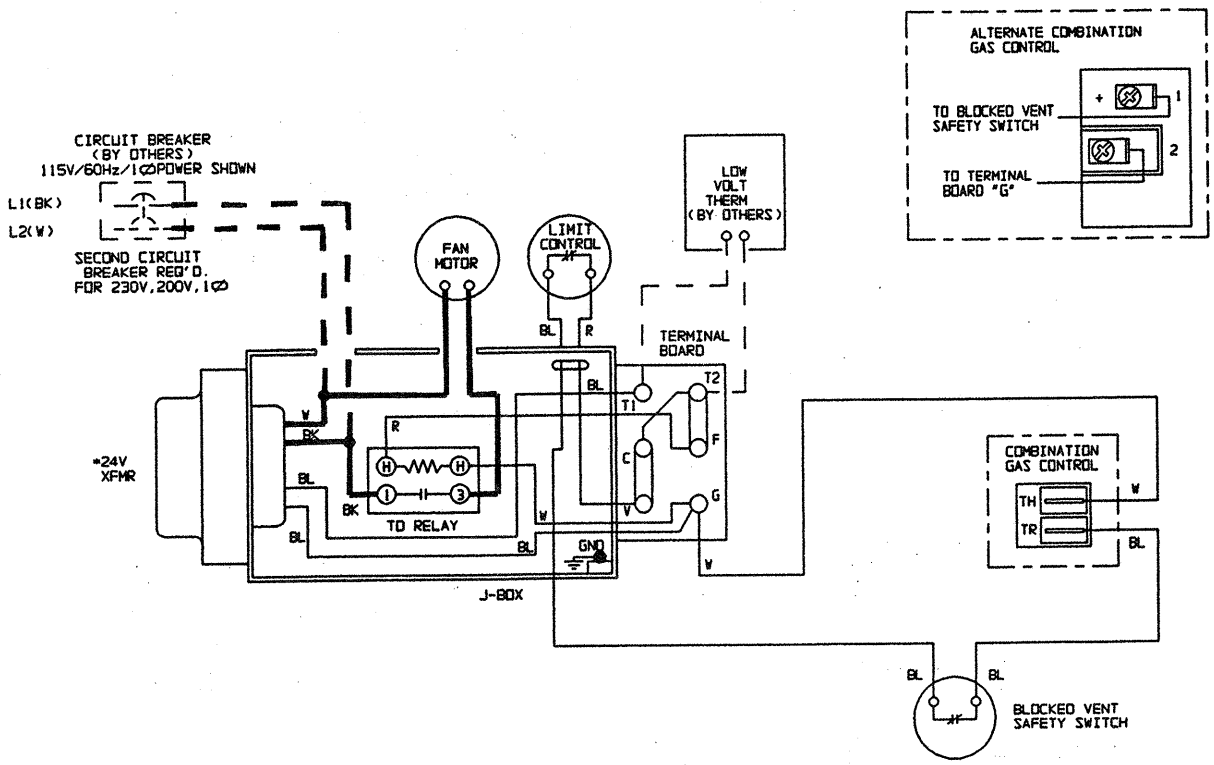
Control Code	PAE 30	PAE/ BAE 50	PAE/ BAE 75	PAE/ BAE 100	PAE/ BAE 125	PAE/ BAE 145	PAE/ BAE 175	PAE/ BAE 200	PAE/ BAE 225	PAE/ BAE 250	PAE/ BAE 300	PAE/ BAE 350	PAE/ BAE 400
08, 09													
11, 12	– / –	– / –	– / –	– / –	– / –	– / –	– / –	– / –	– / –	– / –	– / –	3 / 4	3 / 4
81, 82	– / –	– / –	– / -	– / –	– / –	– / –	– / –	– / –	– / –	– / –	– / –	3 / 4	3 / 4

MODINE®

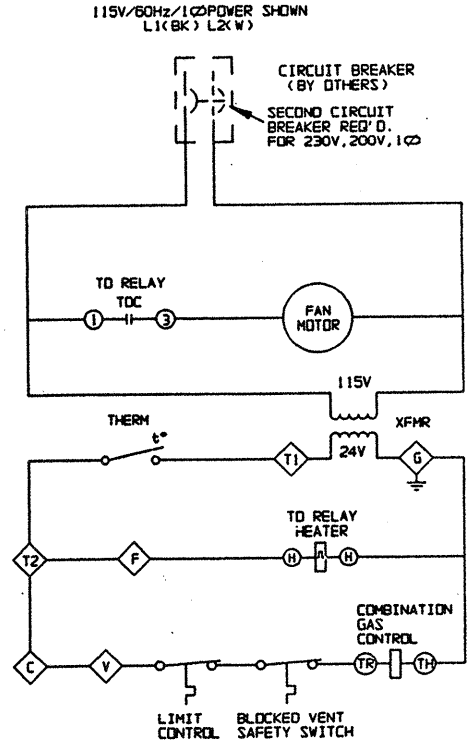
WIRING DIAGRAM

CAUTION
FAILURE TO WIRE THIS UNIT ACCORDING TO THIS WIRING DIAGRAM MAY RESULT IN INJURY TO THE INSTALLER OR USER. FOR DEVIATIONS CONTACT THE FACTORY.

WIRING LEGEND		
FACTORY FIELD WIRE NUT	LINE	24V.



* ALTERNATE XFMR.
PRIMARY XFMR WIRES
230V/60Hz/1Ø-BK & Y (OR O)
200V/60Hz/1Ø-BK & R
WIRE NUT THE WIRE NOT USED.



◇ INDICATES TERMINAL BOARD CONNECTION

NOTE TO INSTALLER:
ATTACH THIS DIAGRAM NEAR HEATER.

ALL WIRING MUST COMPLY WITH NATIONAL ELECTRIC CODE AND ALL LOCAL CODES.

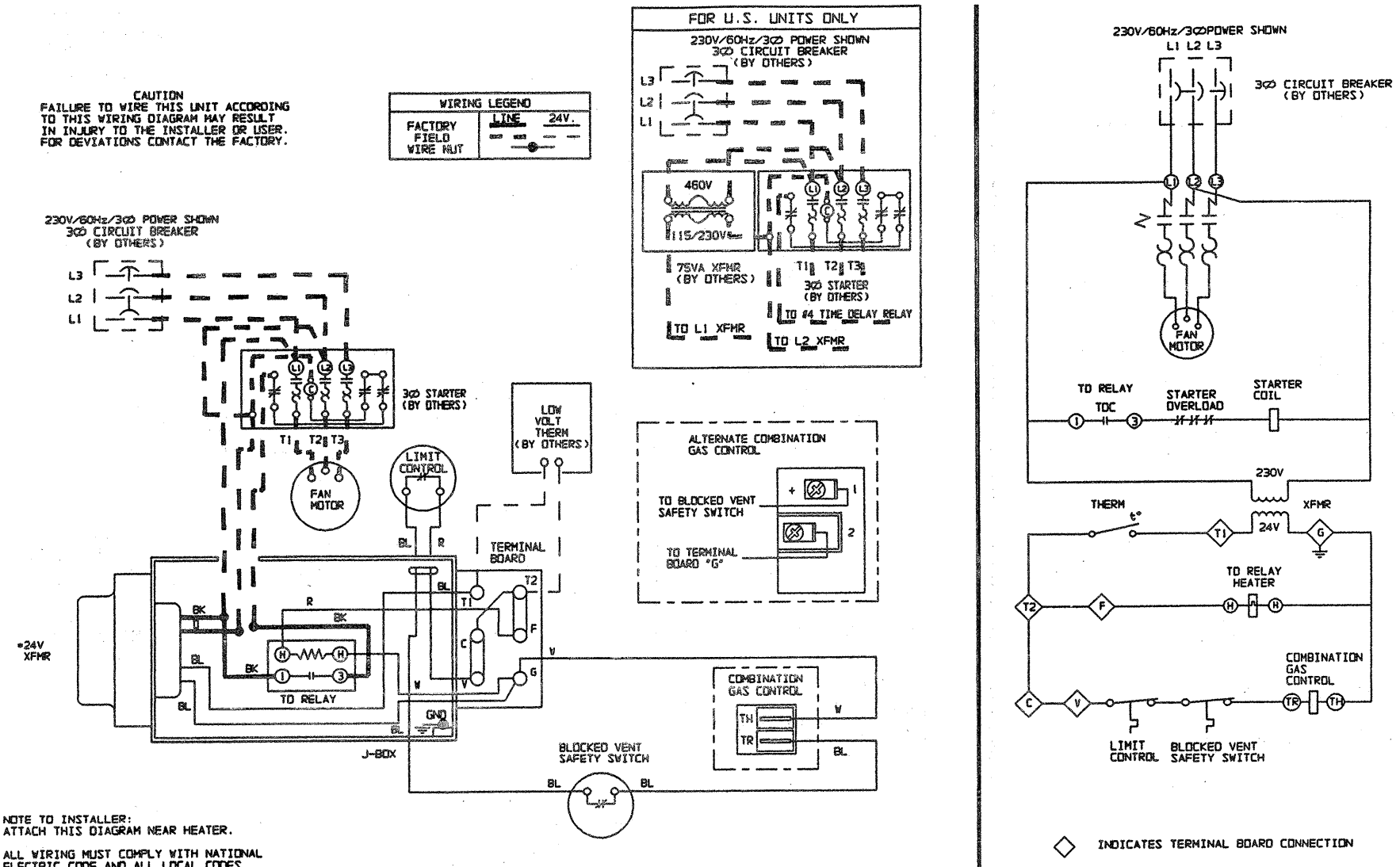
ALL COMPONENTS MUST AGREE WITH THEIR RESPECTIVE POWER SOURCE.

USE 105°C WIRE FOR REPLACEMENTS.

5H73095C2 (REV.- B)

Single-phase, standing pilot, 100% shut-off, fan time delay, low-voltage thermostat.

MODINE® WIRING DIAGRAM



NOTE TO INSTALLER:
ATTACH THIS DIAGRAM NEAR HEATER.

ALL WIRING MUST COMPLY WITH NATIONAL ELECTRIC CODE AND ALL LOCAL CODES.

ALL COMPONENTS MUST AGREE WITH THEIR RESPECTIVE POWER SOURCE.

USE 105°C WIRE FOR REPLACEMENTS.

* ALTERNATE XFMR.
PRIMARY XFMR WIRES
230V/60Hz/1∅-BK & Y (OR O)
200V/60Hz/1∅-BK & R
WIRE NUT THE WIRE NOT USED.

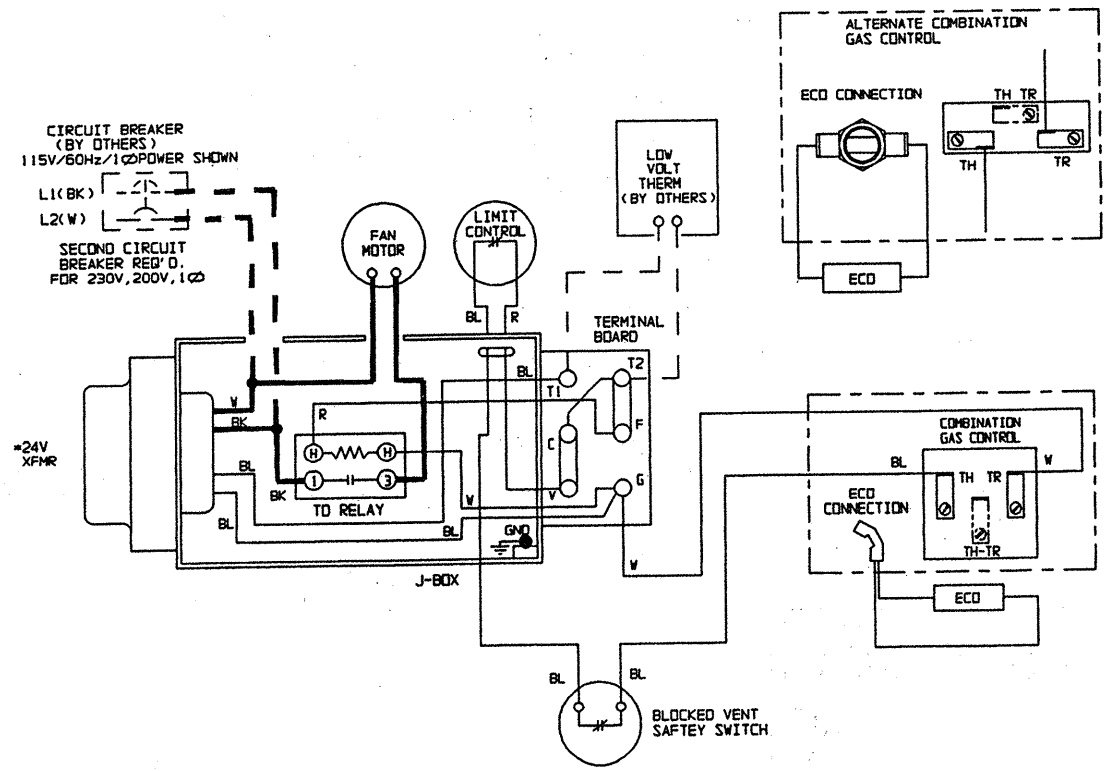
Three-phase, standing pilot 100% shut-off, fan time delay, low-voltage thermostat.

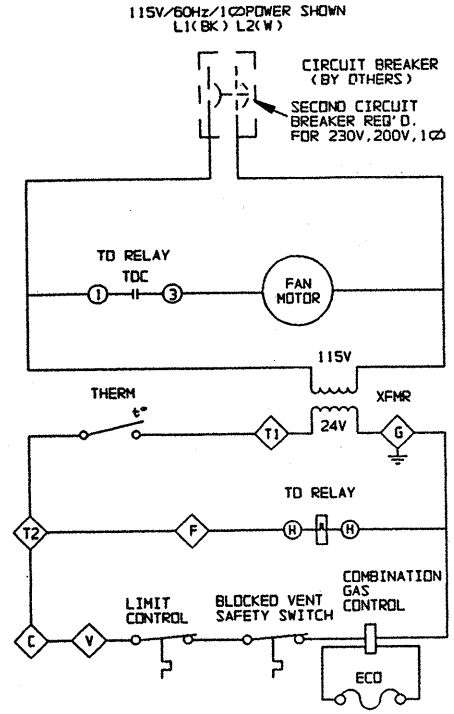
MODINE®

WIRING DIAGRAM

CAUTION
FAILURE TO WIRE THIS UNIT ACCORDING TO THIS WIRING DIAGRAM MAY RESULT IN INJURY TO THE INSTALLER OR USER. FOR DEVIATIONS CONTACT THE FACTORY.

WIRING LEGEND		
FACTORY FIELD WIRE NUT	LINE	24V.





◇ INDICATES TERMINAL BOARD CONNECTION

NOTE TO INSTALLER:
ATTACH THIS DIAGRAM NEAR HEATER.

ALL WIRING MUST COMPLY WITH NATIONAL ELECTRIC CODE AND ALL LOCAL CODES.

ALL COMPONENTS MUST AGREE WITH THEIR RESPECTIVE POWER SOURCE.

USE 105°C WIRE FOR REPLACEMENTS.

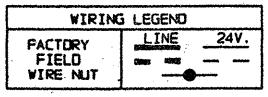
* ALTERNATE XFMR.
PRIMARY XFMR WIRES
230V/60Hz/1∅-BK & Y (OR O)
200V/60Hz/1∅-BK & R
WIRE NUT THE WIRE NOT USED.

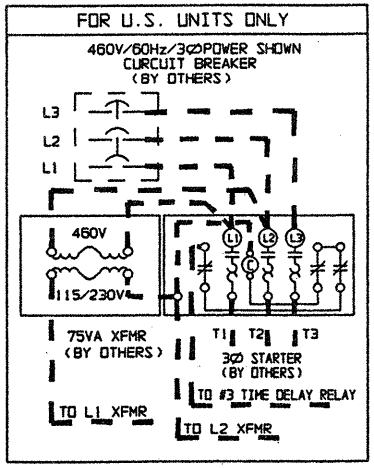
5H73095C3 REV B Single-phase, standing pilot, 100% shut-off, fan time delay, low-voltage thermostat.

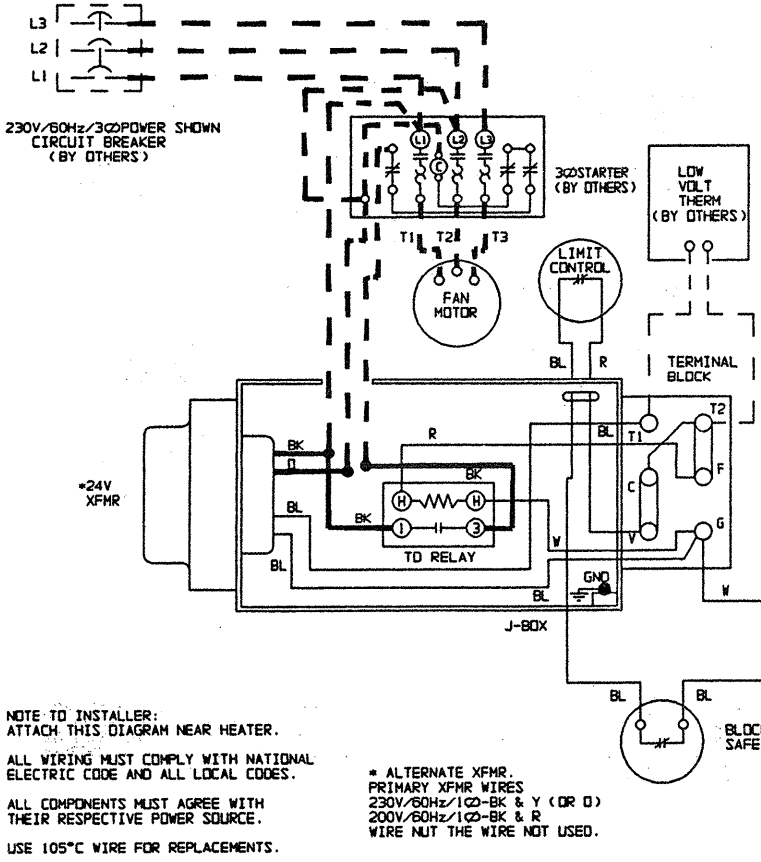
MODINE®

WIRING DIAGRAM

CAUTION
FAILURE TO WIRE THIS UNIT ACCORDING TO THIS WIRING DIAGRAM MAY RESULT IN INJURY TO THE INSTALLER OR USER. FOR DEVIATIONS CONTACT THE FACTORY.







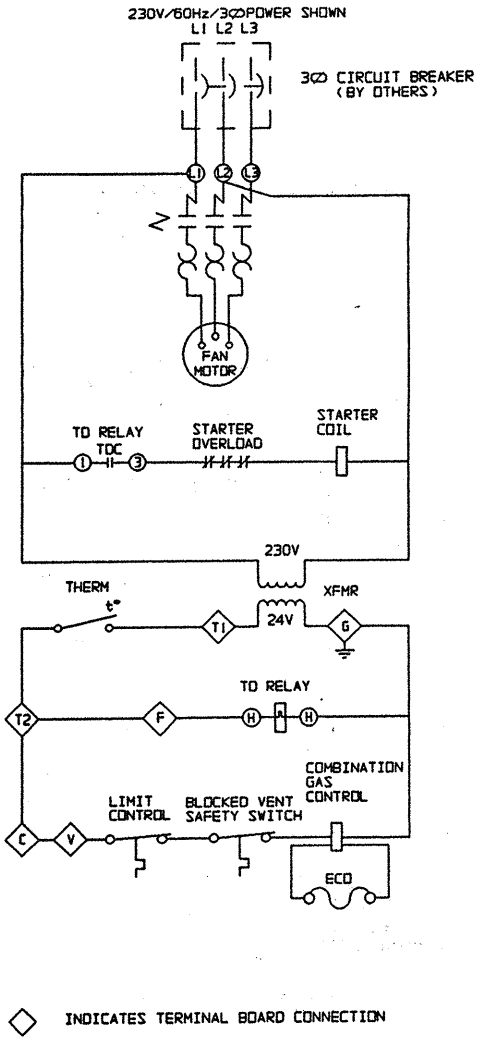
NOTE TO INSTALLER:
ATTACH THIS DIAGRAM NEAR HEATER.

ALL WIRING MUST COMPLY WITH NATIONAL ELECTRIC CODE AND ALL LOCAL CODES.

ALL COMPONENTS MUST AGREE WITH THEIR RESPECTIVE POWER SOURCE.

USE 105°C WIRE FOR REPLACEMENTS.

* ALTERNATE XFMR.
PRIMARY XFMR WIRES
230V/60Hz/1∅-BK & Y (OR O)
200V/60Hz/1∅-BK & R
WIRE NUT THE WIRE NOT USED.



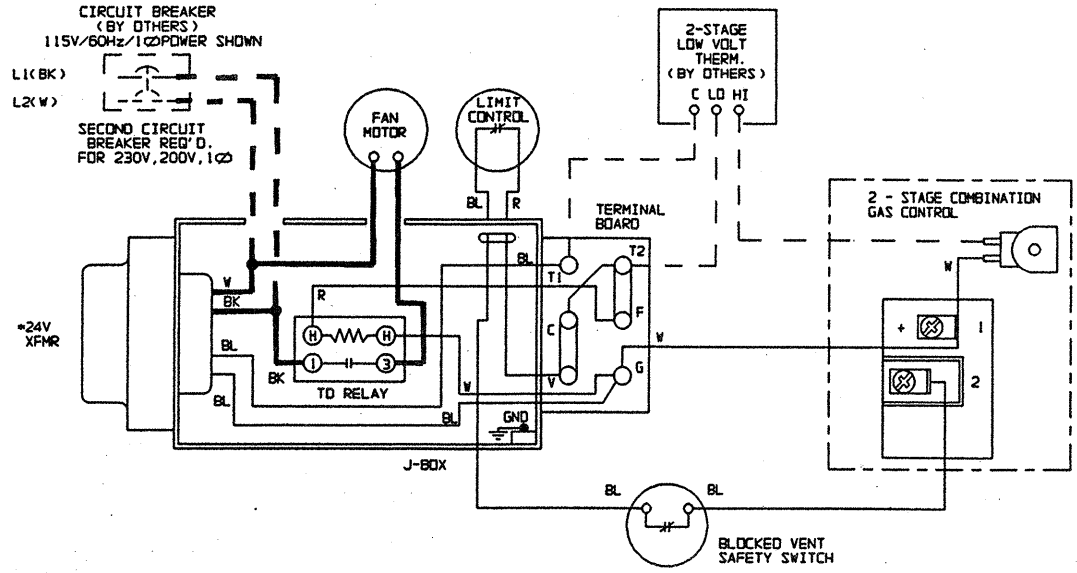
◇ INDICATES TERMINAL BOARD CONNECTION

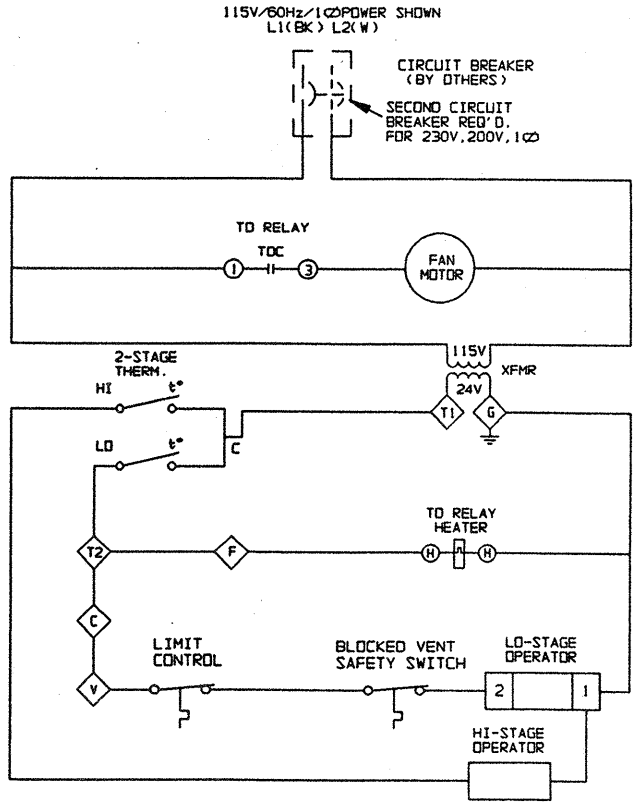
5H73095C3 REV B Three-phase, standing pilot, 100% shut-off, fan time delay, low-voltage thermostat.

MODINE® WIRING DIAGRAM

CAUTION
FAILURE TO WIRE THIS UNIT ACCORDING TO THIS WIRING DIAGRAM MAY RESULT IN INJURY TO THE INSTALLER OR USER. FOR DEVIATIONS CONTACT THE FACTORY.

WIRING LEGEND		
FACTORY FIELD WIRE NUT	LINE	24V.





* ALTERNATE XFMR.
PRIMARY XFMR WIRES
230V/60Hz/1∅-BK & Y (OR O)
200V/60Hz/1∅-BK & R
WIRE NUT THE WIRE NOT USED.

NOTE TO INSTALLER:
ATTACH THIS DIAGRAM NEAR HEATER.

ALL WIRING MUST COMPLY WITH NATIONAL ELECTRIC CODE AND ALL LOCAL CODES.

ALL COMPONENTS MUST AGREE WITH THEIR RESPECTIVE POWER SOURCE.

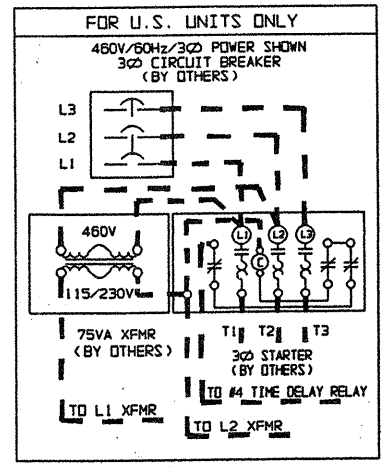
USE 105°C WIRE FOR REPLACEMENTS.

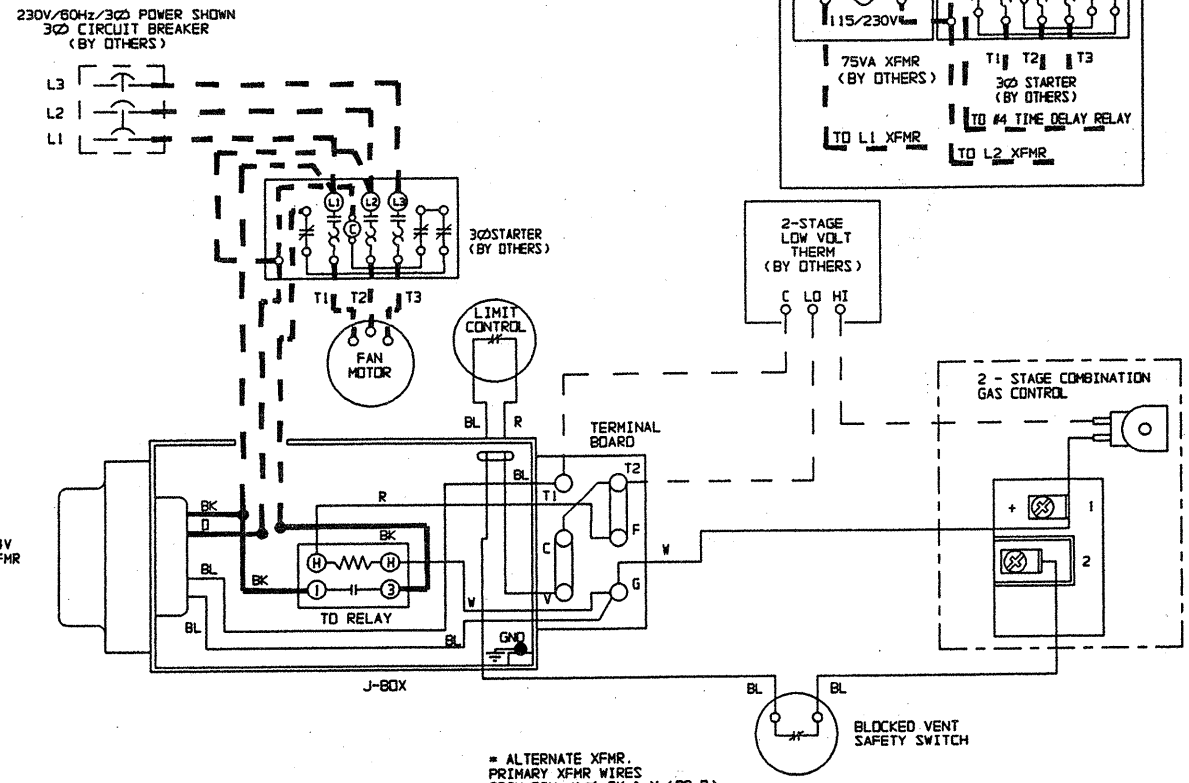
5H73095C4 REV A Two-Stage, Standing Pilot Ignition, 100% Shut-off, Single-phase.

MODINE® WIRING DIAGRAM

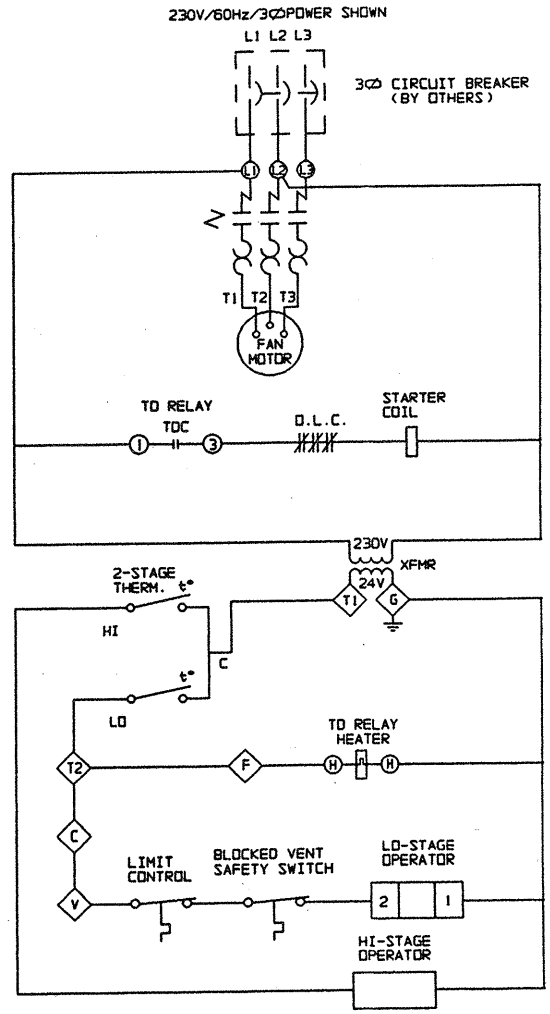
CAUTION
FAILURE TO WIRE THIS UNIT ACCORDING TO THIS WIRING DIAGRAM MAY RESULT IN INJURY TO THE INSTALLER OR USER. FOR DEVIATIONS CONTACT THE FACTORY.

WIRING LEGEND		
FACTORY FIELD WIRE NUT	LINE	24V.





* ALTERNATE XFMR.
PRIMARY XFMR WIRES
230V/60Hz/1Ø-BK & Y (OR O)
200V/60Hz/1Ø-BK & R
WIRE NUT THE WIRE NOT USED.



◇ INDICATES TERMINAL BOARD CONNECTION

NOTE TO INSTALLER:
ATTACH THIS DIAGRAM NEAR HEATER.

ALL WIRING MUST COMPLY WITH NATIONAL ELECTRIC CODE AND ALL LOCAL CODES.

ALL COMPONENTS MUST AGREE WITH THEIR RESPECTIVE POWER SOURCE.

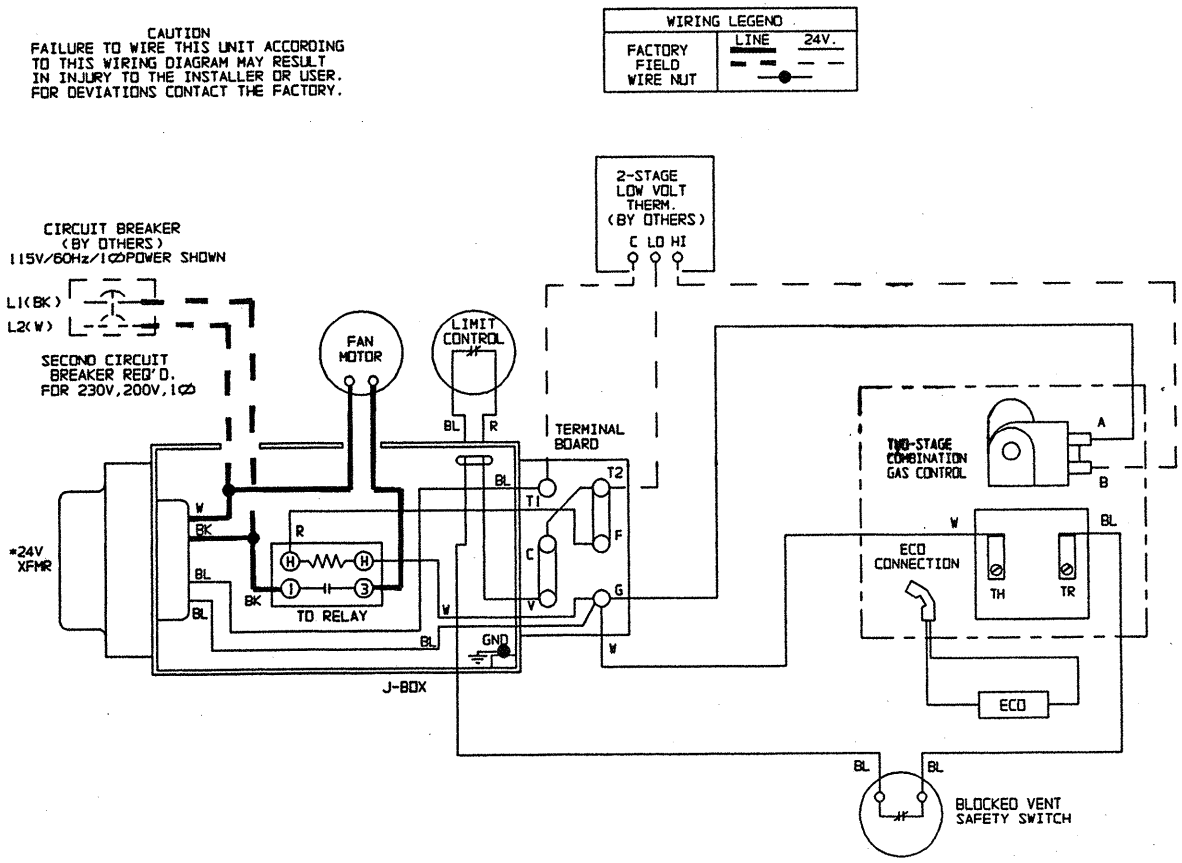
USE 105°C WIRE FOR REPLACEMENTS.

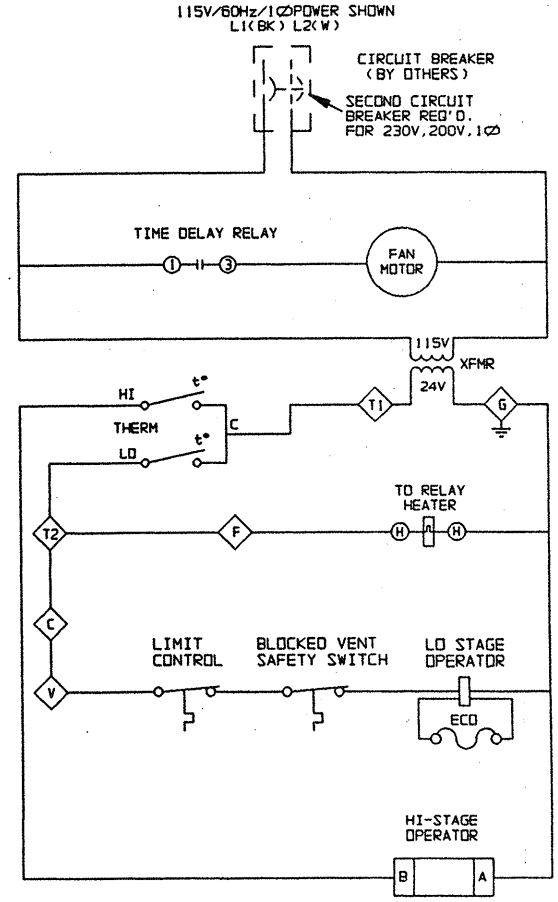
5H73095C4 REV A

Two-Stage, Standing Pilot Ignition, 100% Shut-off, Three-phase

MODINE® WIRING DIAGRAM

CAUTION
FAILURE TO WIRE THIS UNIT ACCORDING TO THIS WIRING DIAGRAM MAY RESULT IN INJURY TO THE INSTALLER OR USER. FOR DEVIATIONS CONTACT THE FACTORY.





◇ INDICATES TERMINAL BOARD CONNECTION

* ALTERNATE XFMR.
PRIMARY XFMR WIRES
230V/60Hz/1∅-BK & Y (OR O)
200V/60Hz/1∅-BK & R
WIRE NUT THE WIRE NOT USED.

NOTE TO INSTALLER:
ATTACH THIS DIAGRAM NEAR HEATER.

ALL WIRING MUST COMPLY WITH NATIONAL ELECTRIC CODE AND ALL LOCAL CODES.

ALL COMPONENTS MUST AGREE WITH THEIR RESPECTIVE POWER SOURCE.

USE 105°C WIRE FOR REPLACEMENTS.

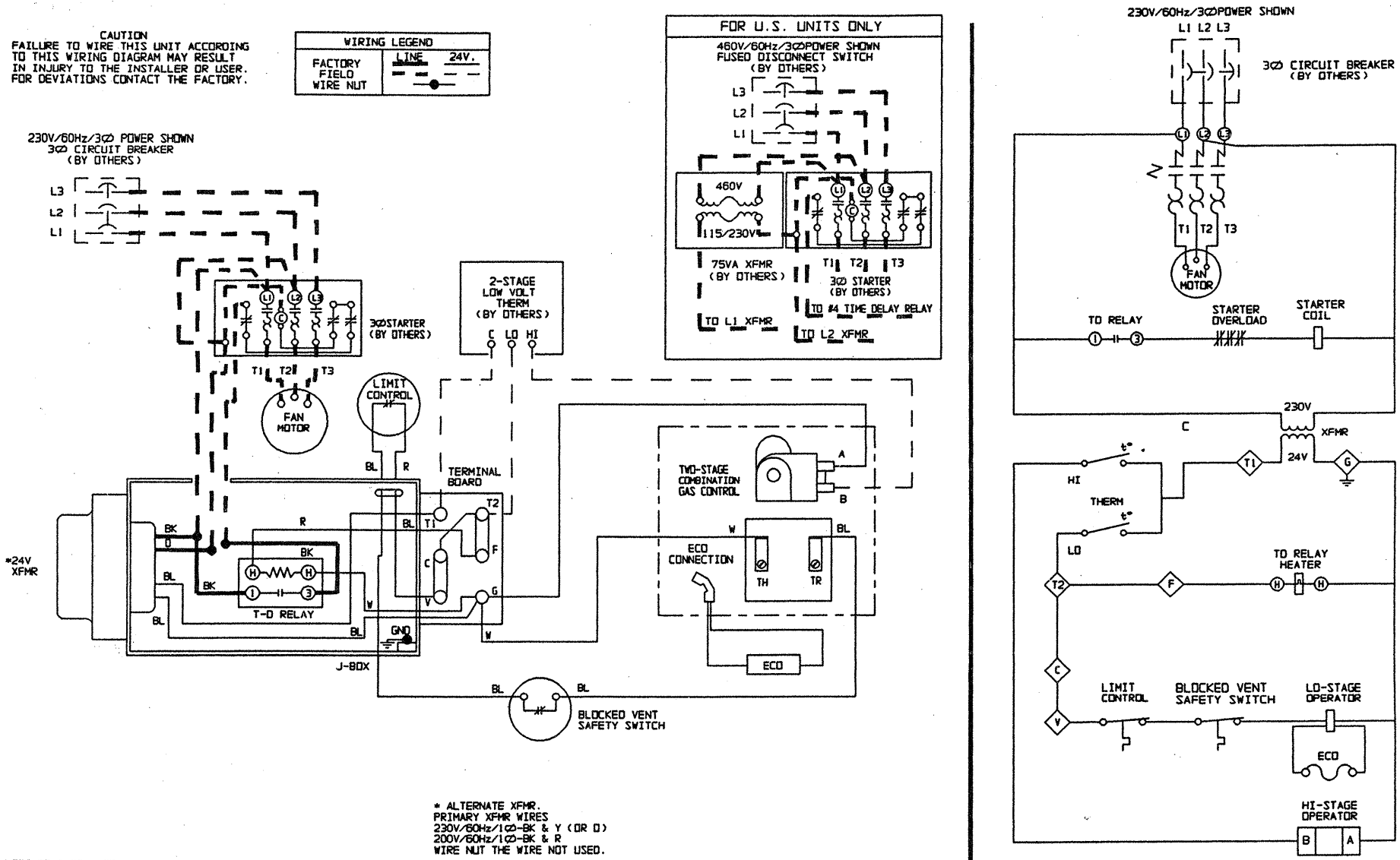
5H73095C5 REV A Two-Stage, Standing Pilot Ignition, 100% Shut-Off, Single-phase.

MODINE®

WIRING DIAGRAM

CAUTION
FAILURE TO WIRE THIS UNIT ACCORDING TO THIS WIRING DIAGRAM MAY RESULT IN INJURY TO THE INSTALLER OR USER. FOR DEVIATIONS CONTACT THE FACTORY.

WIRING LEGEND		
FACTORY FIELD WIRE NUT	LINE	24V.



* ALTERNATE XFMR.
PRIMARY XFMR WIRES
230V/60Hz/1∅-BK & Y (OR O)
200V/60Hz/1∅-BK & R
WIRE NUT THE WIRE NOT USED.

◇ INDICATES TERMINAL BOARD CONNECTION

NOTE TO INSTALLER:
ATTACH THIS DIAGRAM NEAR HEATER.

ALL WIRING MUST COMPLY WITH NATIONAL ELECTRIC CODE AND ALL LOCAL CODES.

ALL COMPONENTS MUST AGREE WITH THEIR RESPECTIVE POWER SOURCE.

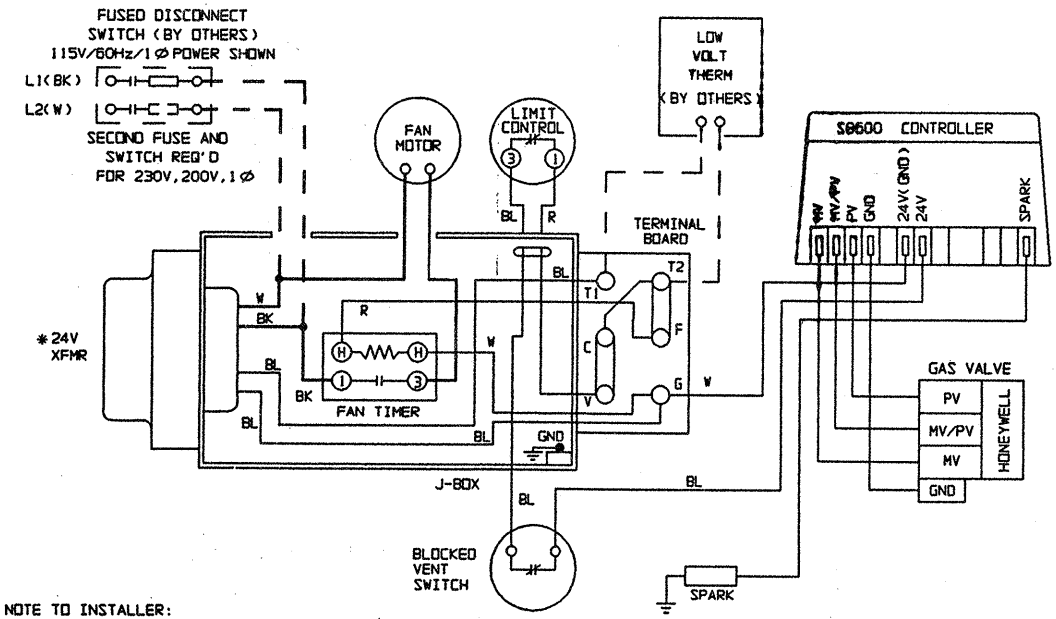
USE 105°C WIRE FOR REPLACEMENTS.

5H73095C5 REV A Two-stage, Standing Pilot Ignition, 100% Shut-off, Three-phase

MODINE® WIRING DIAGRAM

CAUTION
FAILURE TO WIRE THIS UNIT ACCORDING TO THIS WIRING DIAGRAM MAY RESULT IN INJURY TO THE INSTALLER OR USER. FOR DEVIATIONS CONTACT THE FACTORY.

WIRING LEGEND		
FACTORY FIELD WIRE NUT	LINE	24V.



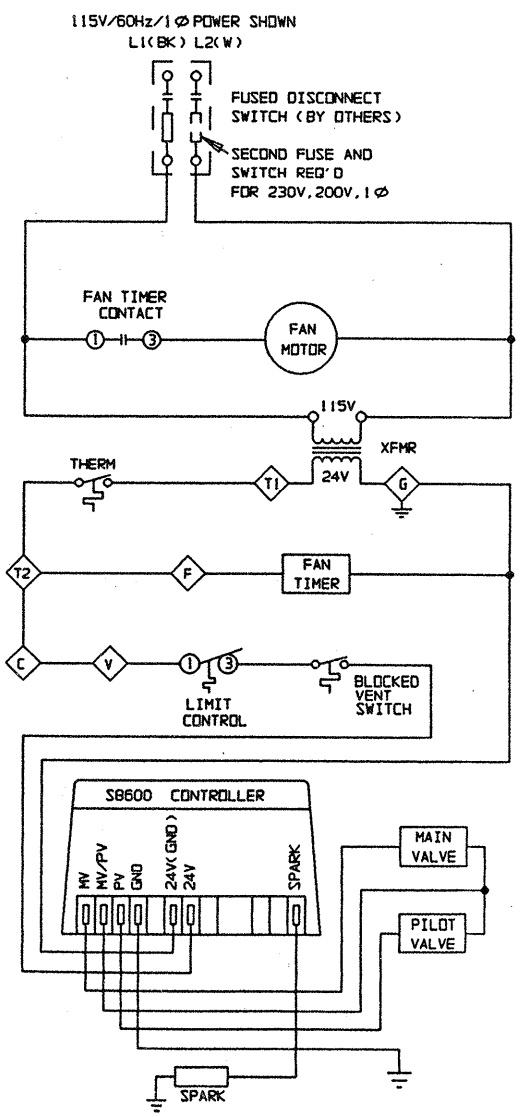
NOTE TO INSTALLER:
ATTACH THIS DIAGRAM NEAR HEATER.

ALL WIRING MUST COMPLY WITH NATIONAL ELECTRIC CODE AND ALL LOCAL CODES.

ALL COMPONENTS MUST AGREE WITH THEIR RESPECTIVE POWER SOURCE.

USE 105°C WIRE FOR REPLACEMENTS.

*ALTERNATE XFMR.
PRIMARY XFMR WIRES
230V/60Hz/1Ø-BK&O
200V/60Hz/1Ø-BK&R
WIRE NUT THE WIRE NOT USED

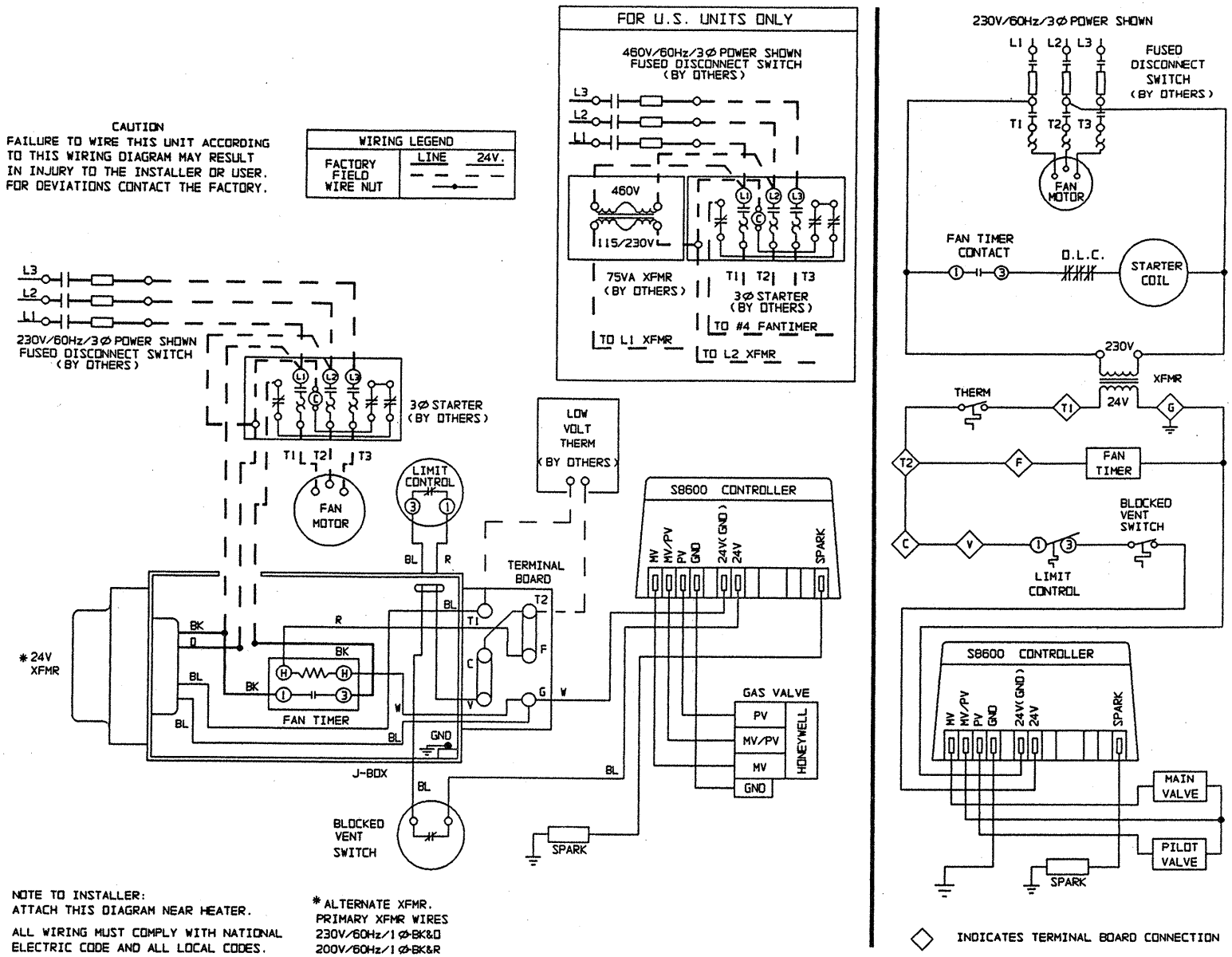


◇ INDICATES TERMINAL BOARD CONNECTION

5H73095B6 REV. B

Single-phase, intermittent pilot ignition, non-100% shut-off, or 100% shut-off with lockout, or 100% shut-off with continuous retry, fan time delay, low voltage thermostat.

MODINE® WIRING DIAGRAM



NOTE TO INSTALLER:
ATTACH THIS DIAGRAM NEAR HEATER.

ALL WIRING MUST COMPLY WITH NATIONAL ELECTRIC CODE AND ALL LOCAL CODES.

ALL COMPONENTS MUST AGREE WITH THEIR RESPECTIVE POWER SOURCE.

USE 105°C WIRE FOR REPLACEMENTS.

* ALTERNATE XFMR.
PRIMARY XFMR WIRES
230V/60Hz/1Ø-BK&O
200V/60Hz/1Ø-BK&R
WIRE NUT THE WIRE NOT USED

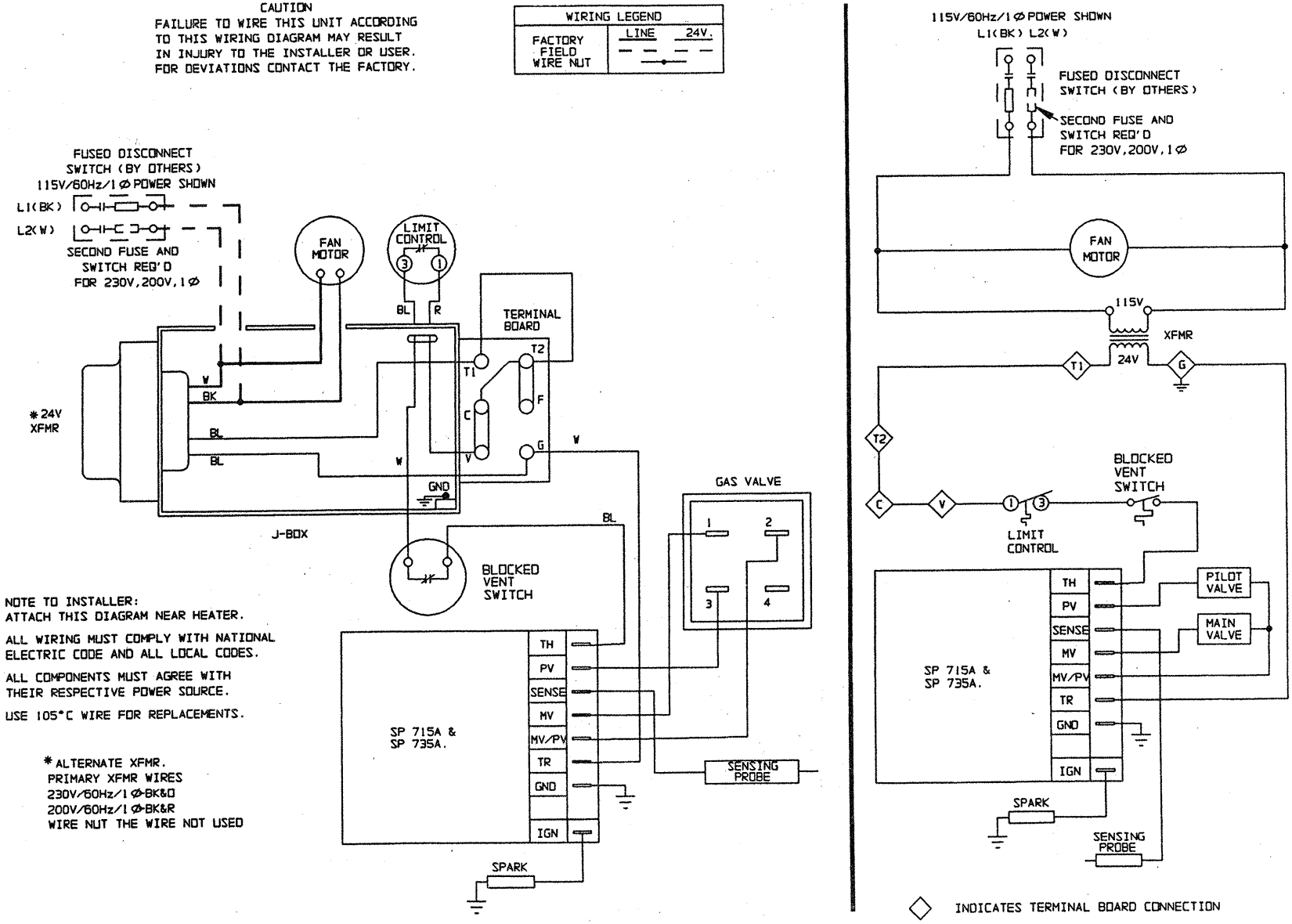
5H73095B6 REV. B

Three-phase, intermittent pilot ignition, non-100% shut-off, 100% shut-off with lockout, or 100% shut-off with continuous retry, fan time delay, low voltage thermostat.

MODINE WIRING DIAGRAM

CAUTION
FAILURE TO WIRE THIS UNIT ACCORDING TO THIS WIRING DIAGRAM MAY RESULT IN INJURY TO THE INSTALLER OR USER. FOR DEVIATIONS CONTACT THE FACTORY.

WIRING LEGEND		
	LINE	24V.
FACTORY FIELD WIRE NUT	— — — —	— — — —



NOTE TO INSTALLER:
ATTACH THIS DIAGRAM NEAR HEATER.

ALL WIRING MUST COMPLY WITH NATIONAL ELECTRIC CODE AND ALL LOCAL CODES.

ALL COMPONENTS MUST AGREE WITH THEIR RESPECTIVE POWER SOURCE.

USE 105°C WIRE FOR REPLACEMENTS.

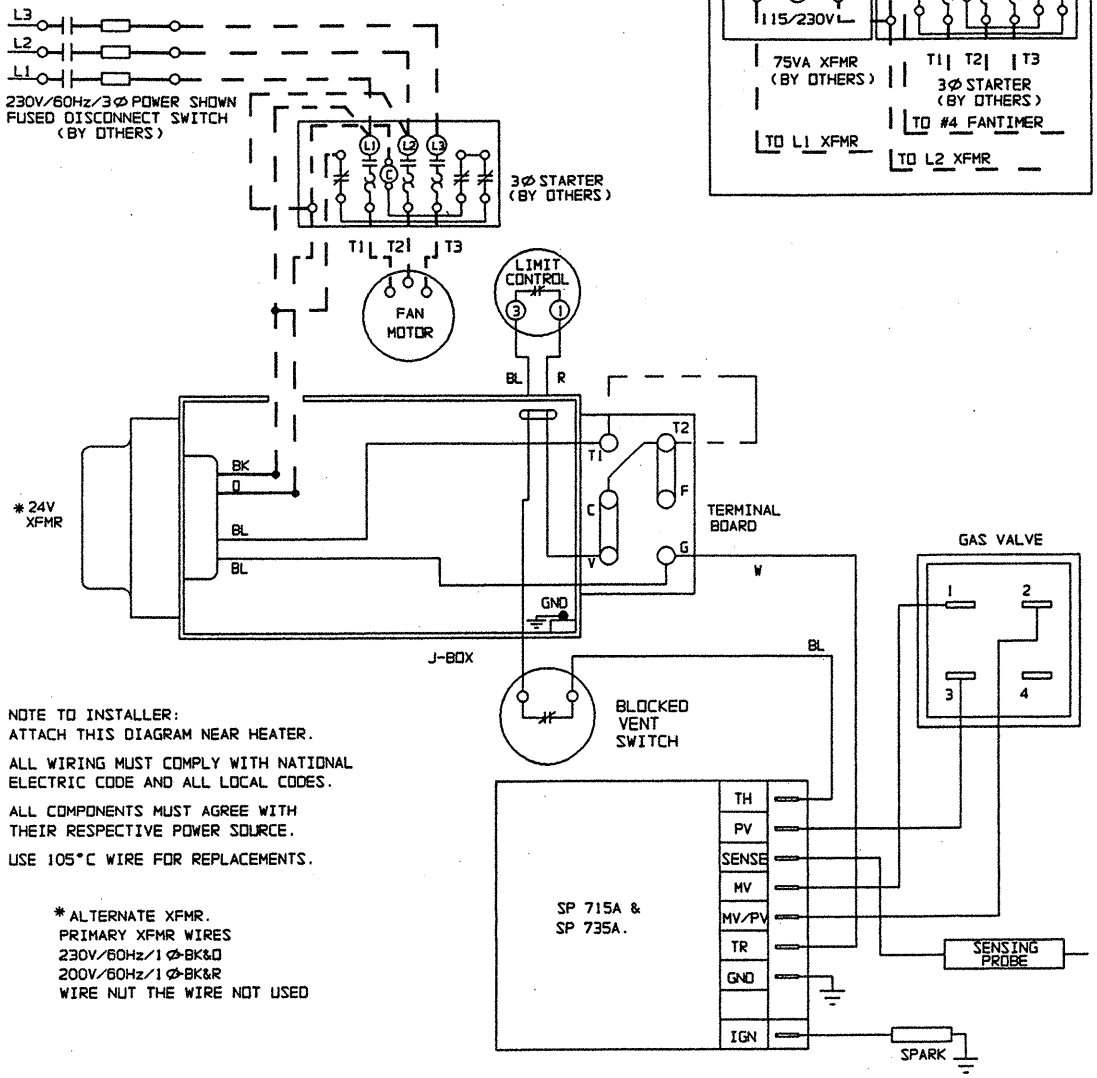
*ALTERNATE XFMR.
PRIMARY XFMR WIRES
230V/60Hz/1Ø-BK&□
200V/60Hz/1Ø-BK&R
WIRE NUT THE WIRE NOT USED

5H73095B7 REV. A Single-phase, mechanical modulation, intermittent pilot ignition, non-100% (and 100%) shut-off.

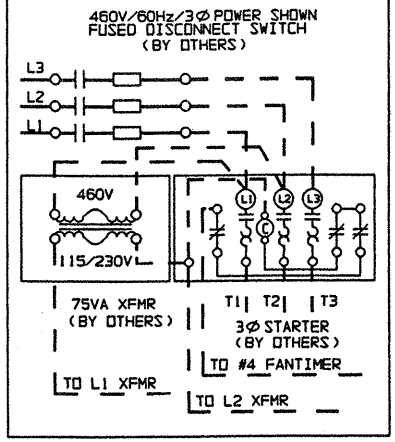
MODINE WIRING DIAGRAM

CAUTION
FAILURE TO WIRE THIS UNIT ACCORDING TO THIS WIRING DIAGRAM MAY RESULT IN INJURY TO THE INSTALLER OR USER. FOR DEVIATIONS CONTACT THE FACTORY.

WIRING LEGEND		
FACTORY FIELD WIRE NUT	LINE	24V.



FOR U.S. UNITS ONLY



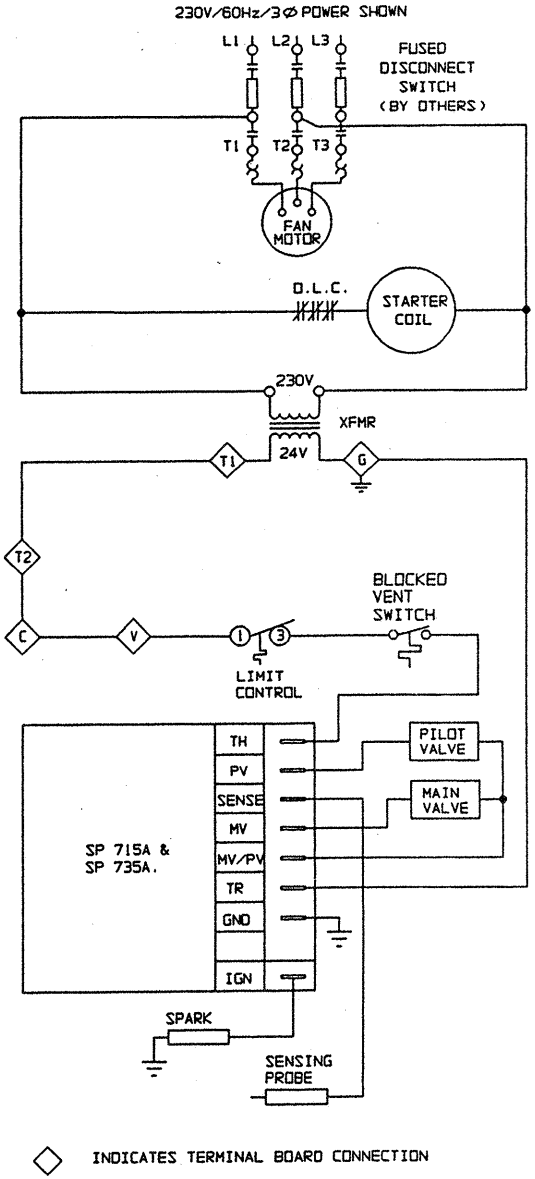
NOTE TO INSTALLER:
ATTACH THIS DIAGRAM NEAR HEATER.

ALL WIRING MUST COMPLY WITH NATIONAL ELECTRIC CODE AND ALL LOCAL CODES.

ALL COMPONENTS MUST AGREE WITH THEIR RESPECTIVE POWER SOURCE.

USE 105°C WIRE FOR REPLACEMENTS.

*ALTERNATE XFMR.
PRIMARY XFMR WIRES
230V/60Hz/1Ø-BK&O
200V/60Hz/1Ø-BK&R
WIRE NUT THE WIRE NOT USED

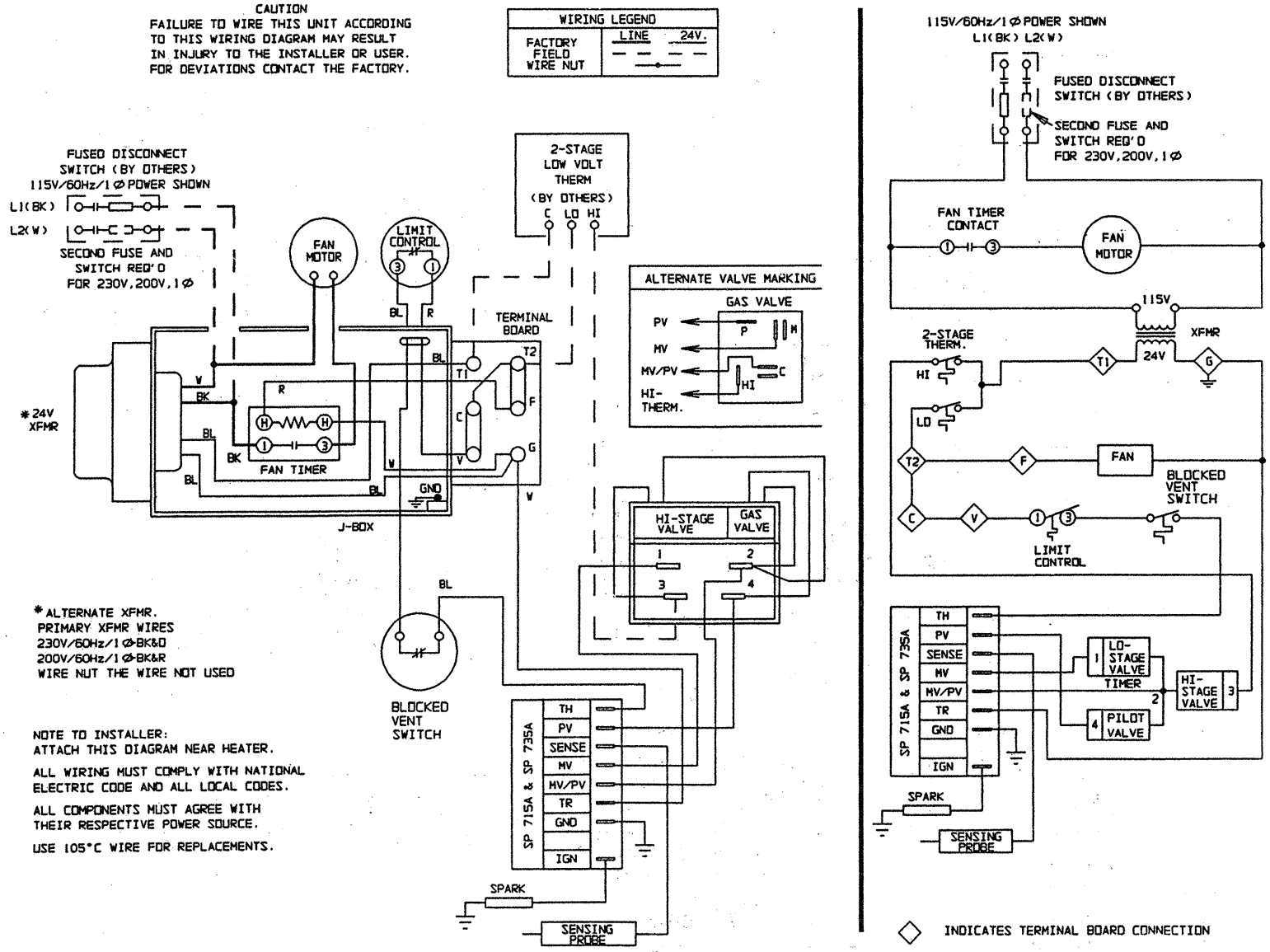


◇ INDICATES TERMINAL BOARD CONNECTION

5H7309587 REV. A

Three-phase, mechanical modulation, intermittent pilot ignition, non-100% (and 100%) shut-OFF.

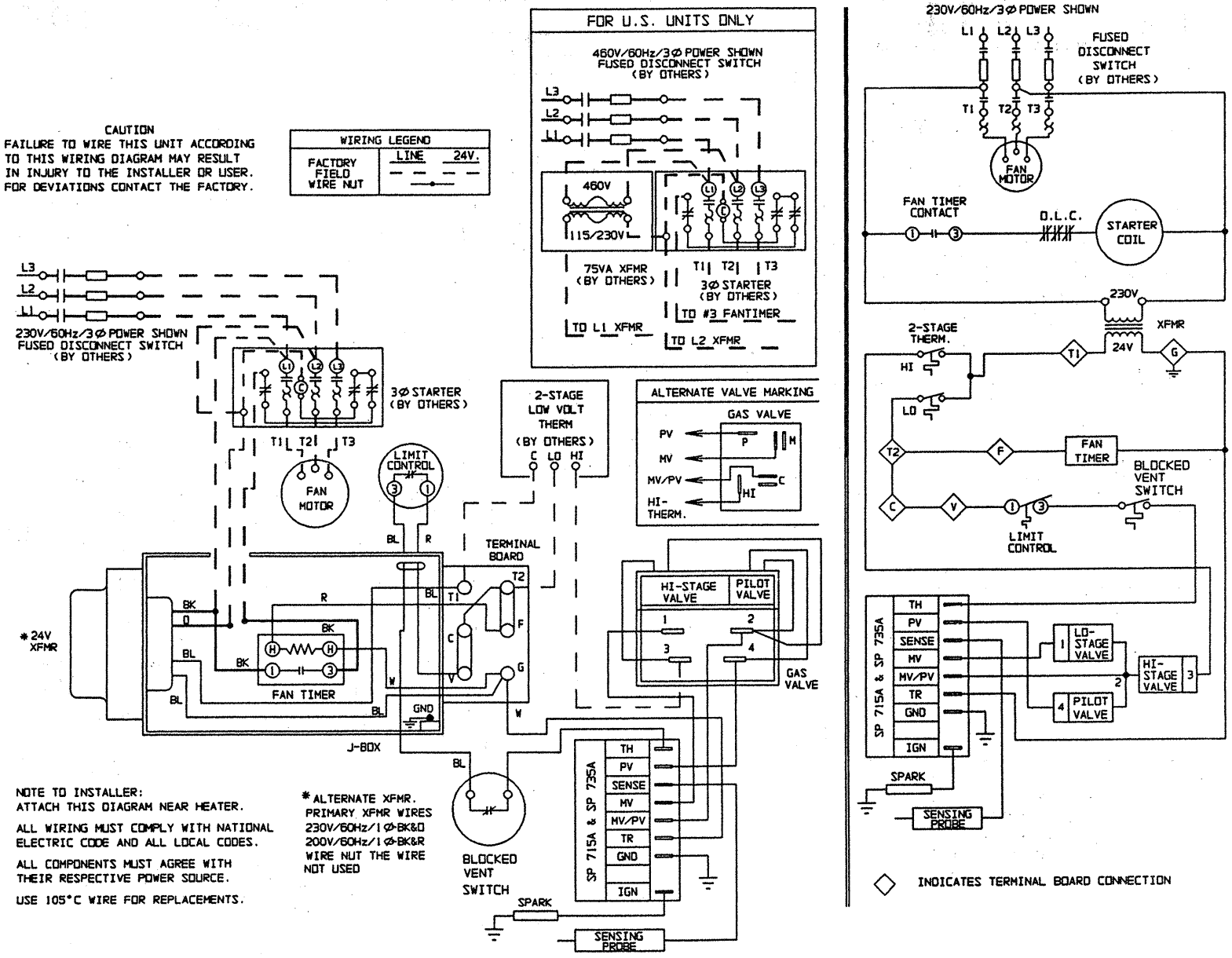
MODINE® WIRING DIAGRAM



5H73095B8 REV B

Single-phase, 2-stage gas valve, interrittent ignition, non-100% (and 100%) shut-off, fan tine delay, 2-stage low-voltage thernostat.

MODINE® WIRING DIAGRAM



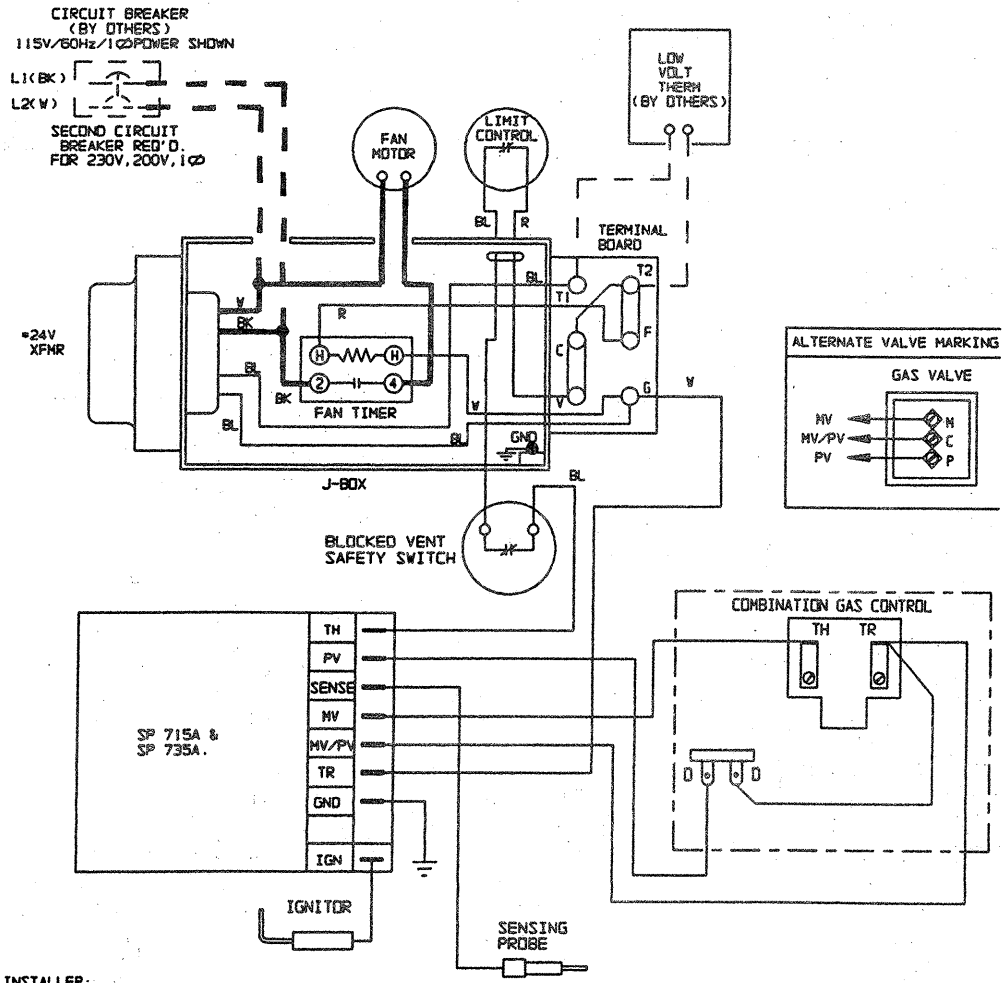
5H73095B8 REV B Three-phase, 2-stage gas valve, intermittent ignition, non-100% (and 100%) shut-off, fan time delay, 2-stage low-voltage thermostat.

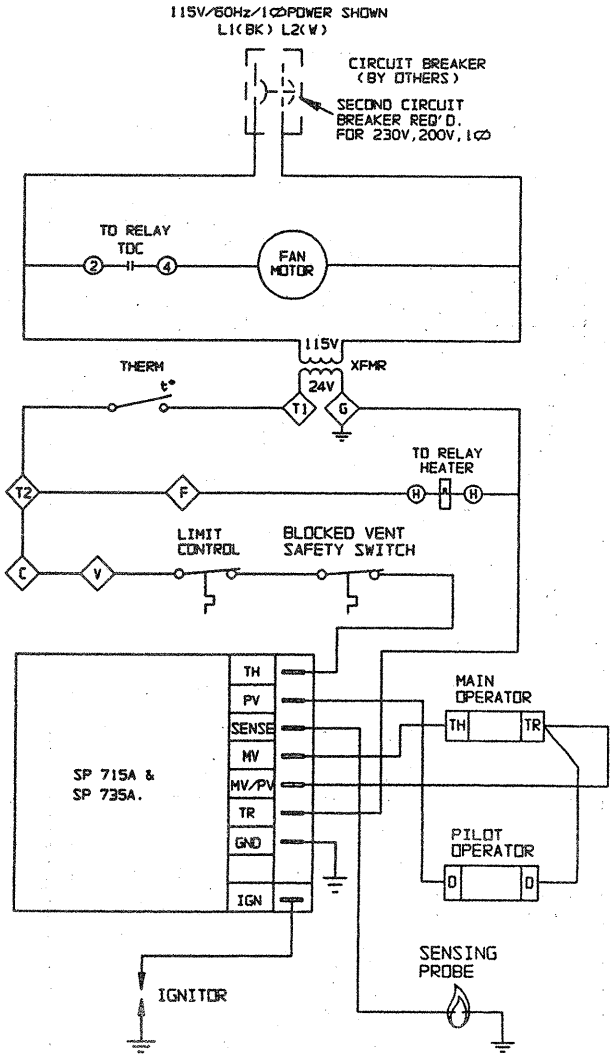
MODINE®

WIRING DIAGRAM

CAUTION
FAILURE TO WIRE THIS UNIT ACCORDING TO THIS WIRING DIAGRAM MAY RESULT IN INJURY TO THE INSTALLER OR USER. FOR DEVIATIONS CONTACT THE FACTORY.

WIRING LEGEND		
FACTORY	LINE	24V.
FIELD		
WIRE NUT		





NOTE TO INSTALLER:
ATTACH THIS DIAGRAM NEAR HEATER.

ALL WIRING MUST COMPLY WITH NATIONAL ELECTRIC CODE AND ALL LOCAL CODES.

ALL COMPONENTS MUST AGREE WITH THEIR RESPECTIVE POWER SOURCE.

USE 105°C WIRE FOR REPLACEMENTS.

* ALTERNATE XFMR.
PRIMARY XFMR WIRES
230V/60Hz/1Ø-BK & Y (OR O)
200V/60Hz/1Ø-BK & R
WIRE NUT THE WIRE NOT USED.

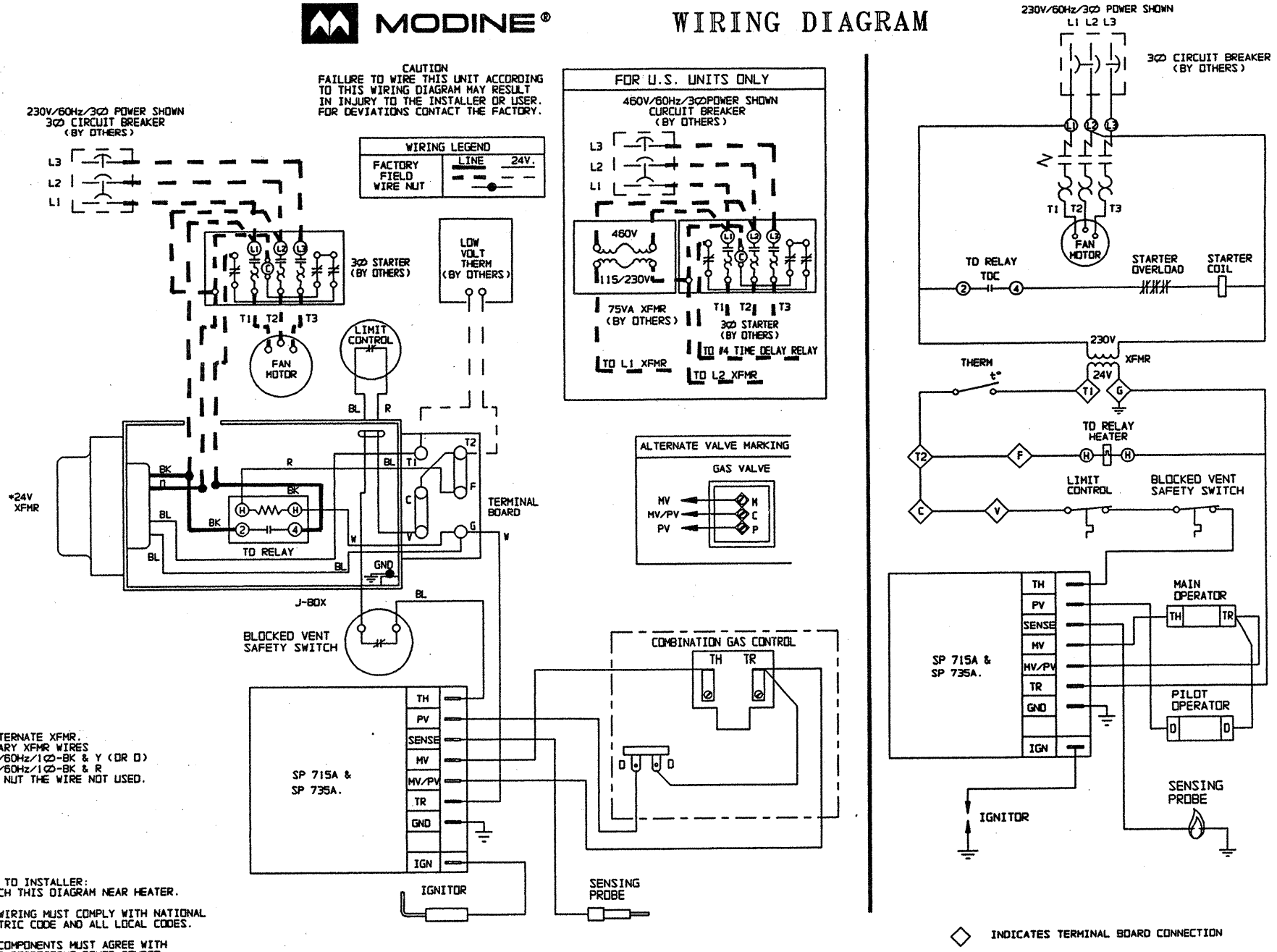
◇ INDICATES TERMINAL BOARD CONNECTION

5H73095C9 REV

Single-Stage, Internittent Pilot Ignition, Non-100% (and 100%) Shut-off, Single-phase.

MODINE®

WIRING DIAGRAM



* ALTERNATE XFMR.
PRIMARY XFMR WIRES
230V/60Hz/1Ø-BK & Y (OR O)
200V/60Hz/1Ø-BK & R
WIRE NUT THE WIRE NOT USED.

NOTE TO INSTALLER:
ATTACH THIS DIAGRAM NEAR HEATER.

ALL WIRING MUST COMPLY WITH NATIONAL ELECTRIC CODE AND ALL LOCAL CODES.

ALL COMPONENTS MUST AGREE WITH THEIR RESPECTIVE POWER SOURCE.

USE 105°C WIRE FOR REPLACEMENTS.

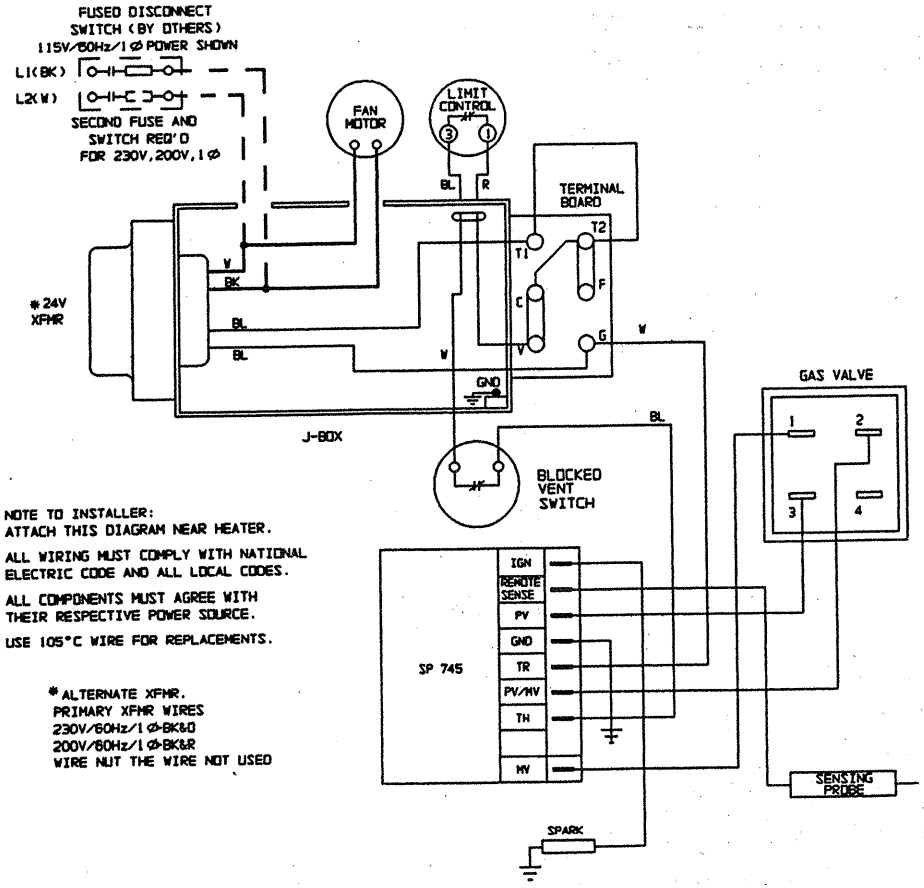
5H73095C9 REV

Single-Stage, Intermittent Pilot Ignition, Non-100% (and 100%) Shut-off, Three-phase.

MODINE® WIRING DIAGRAM

CAUTION
FAILURE TO WIRE THIS UNIT ACCORDING TO THIS WIRING DIAGRAM MAY RESULT IN INJURY TO THE INSTALLER OR USER. FOR DEVIATIONS CONTACT THE FACTORY.

WIRING LEGEND		
FACTORY FIELD WIRE NUT	LINE	24V.



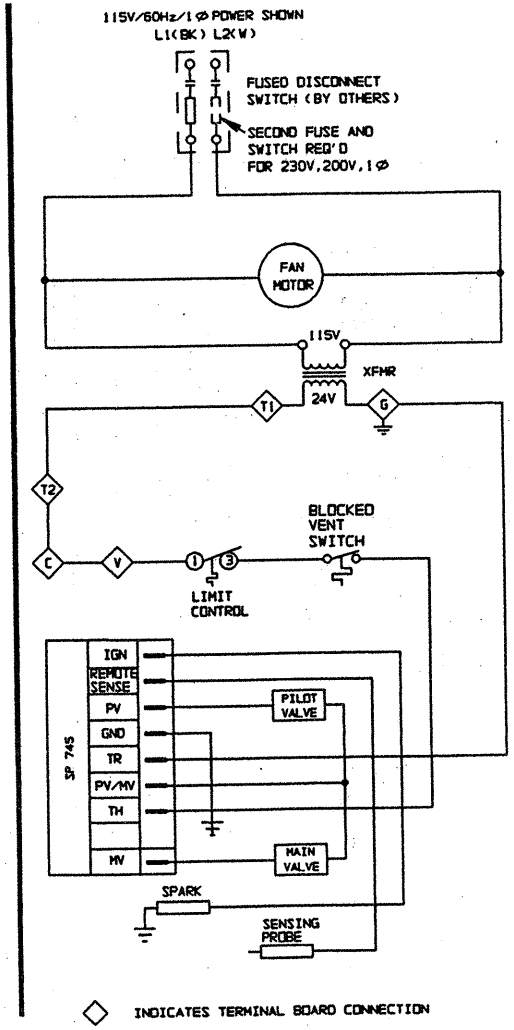
NOTE TO INSTALLER:
ATTACH THIS DIAGRAM NEAR HEATER.

ALL WIRING MUST COMPLY WITH NATIONAL ELECTRIC CODE AND ALL LOCAL CODES.

ALL COMPONENTS MUST AGREE WITH THEIR RESPECTIVE POWER SOURCE.

USE 105°C WIRE FOR REPLACEMENTS.

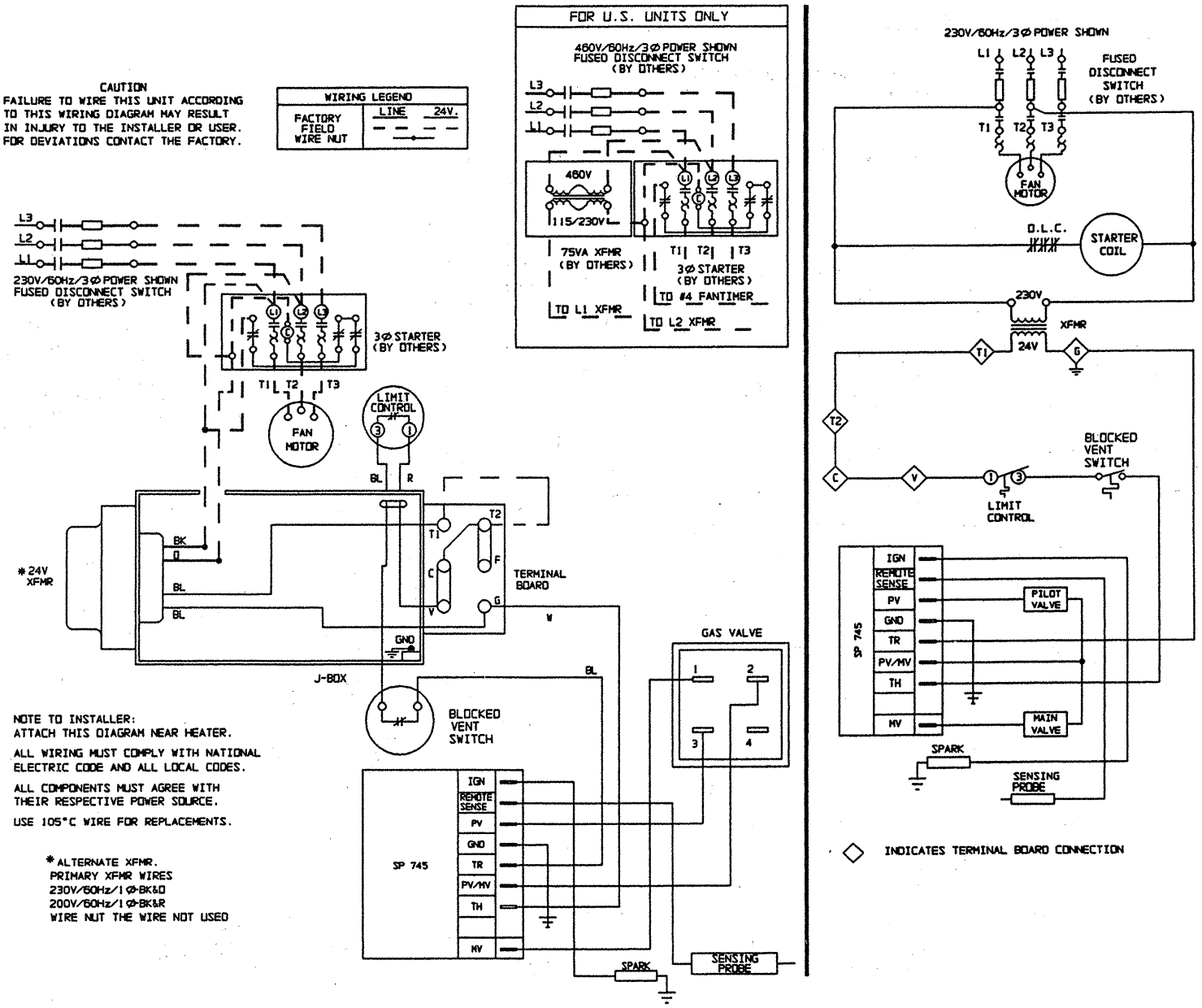
*ALTERNATE XFMR.
PRIMARY XFMR WIRES
230V/60Hz/1Ø-BK&O
200V/60Hz/1Ø-BK&R
WIRE NUT THE WIRE NOT USED



5H73095810

Single-phase, mechanical modulation, intermittent pilot ignition, 100% shut-off with continuous retry.

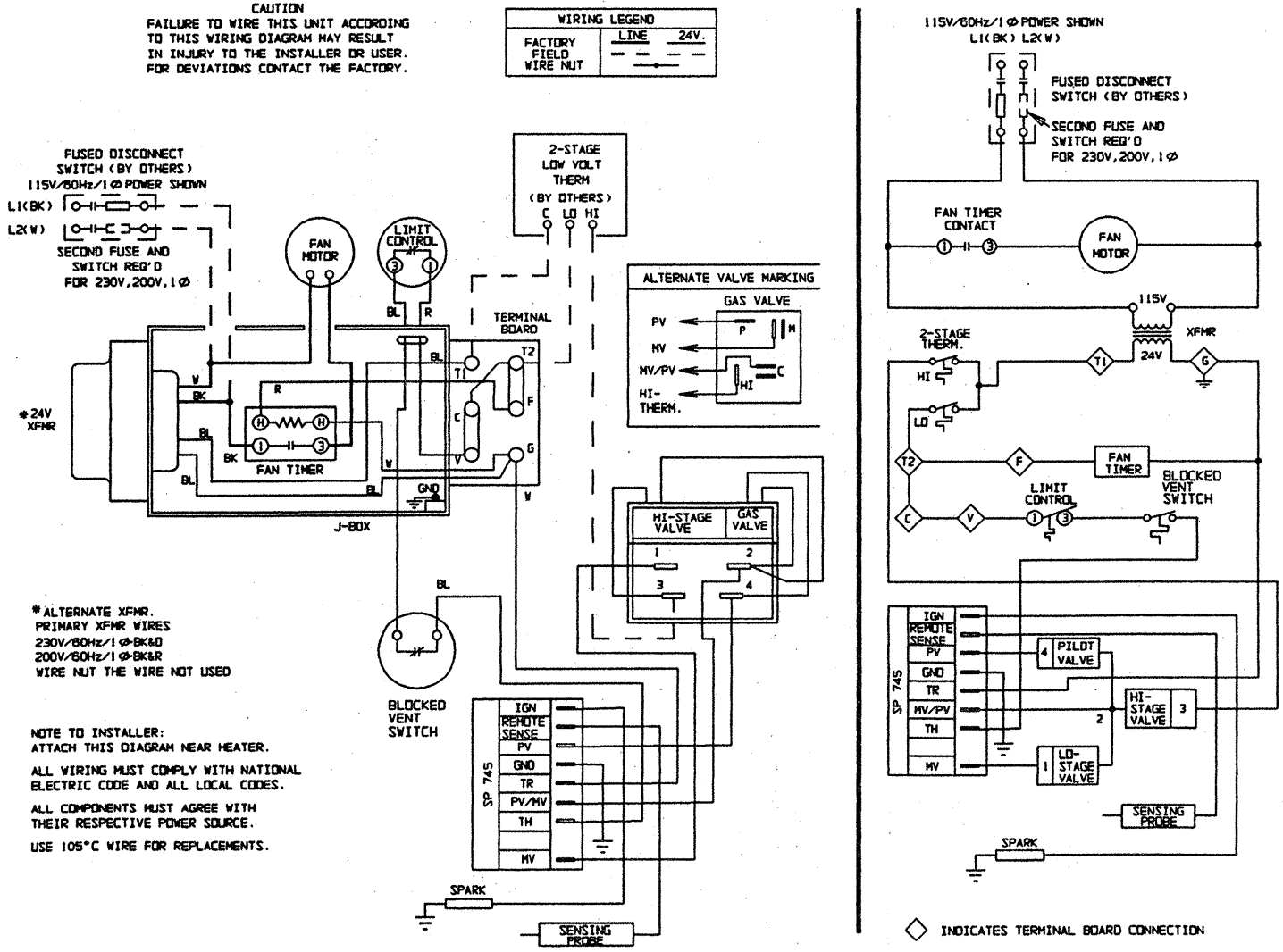
MODINE® WIRING DIAGRAM



5H73095810

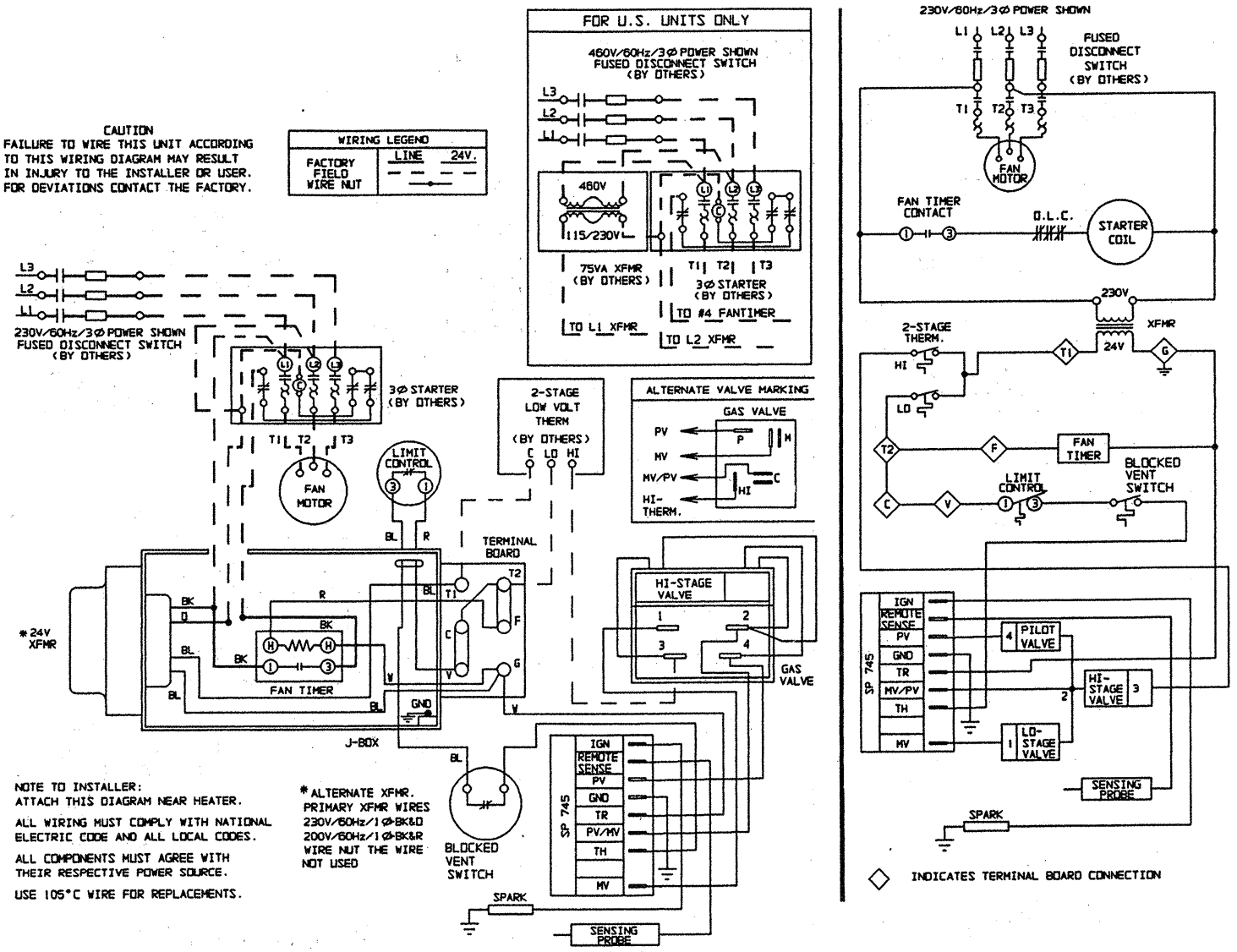
Three-phase, mechanical modulation, intermittent pilot ignition, 100% shut-off with continuous retry.

MODINE® WIRING DIAGRAM



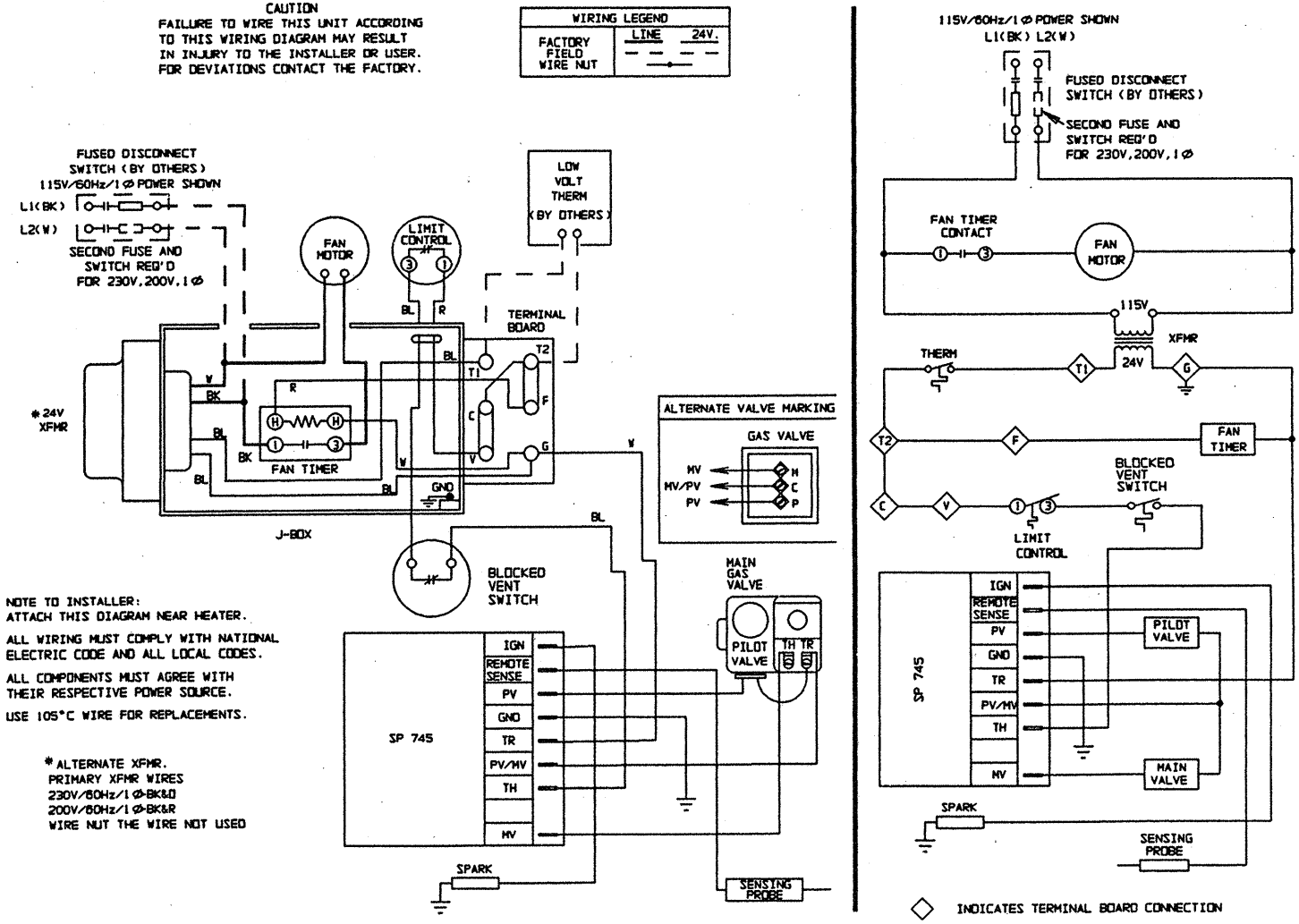
5H73095B11 REV-A Single-phase, 2-stage gas valve, intermittent ignition, 100% shut-off with continuous retry, fan time delay, 2-stage low-voltage thermostat.

MODINE® WIRING DIAGRAM



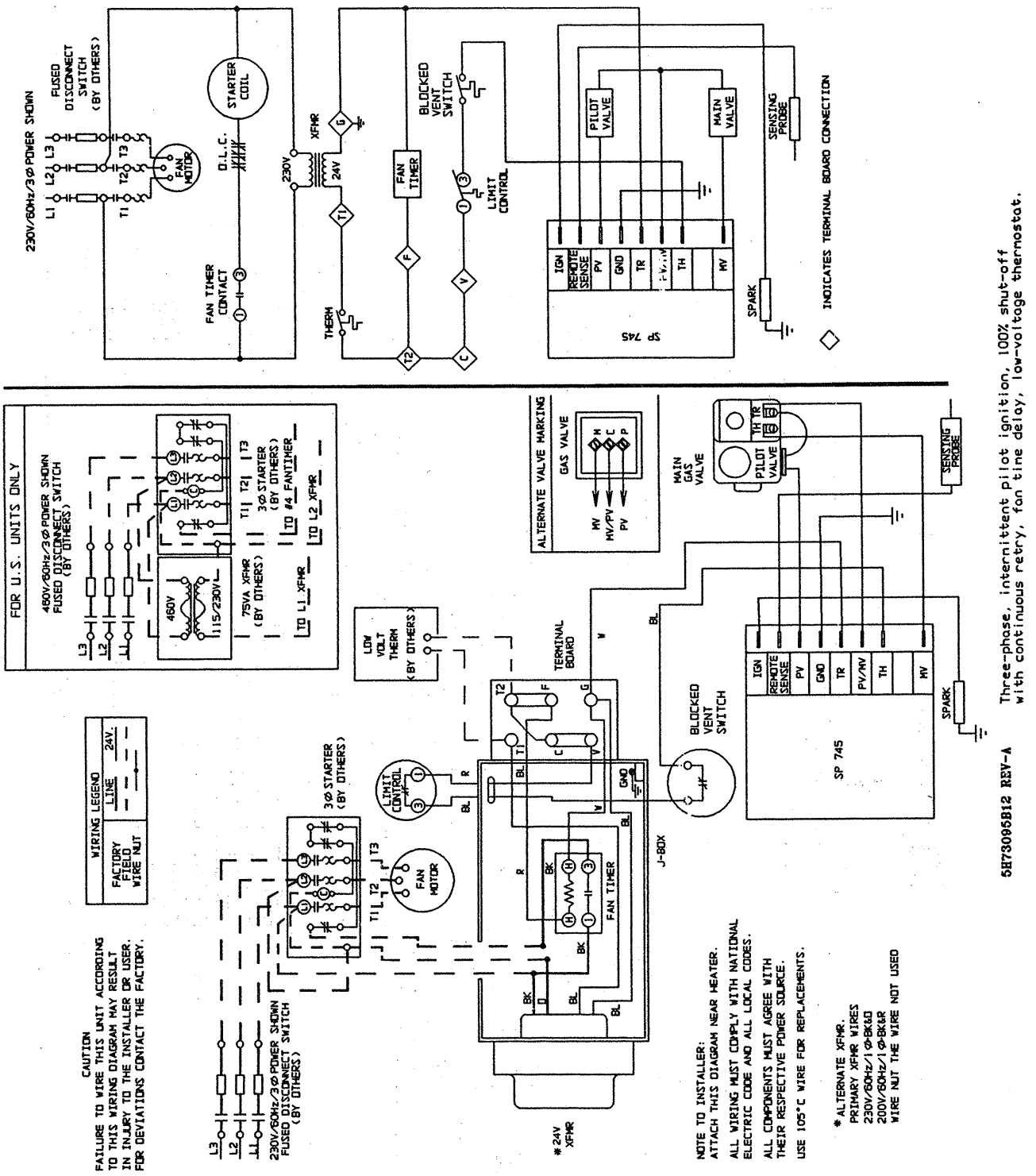
5H73095B11 REV-A Three-phase, 2-stage gas valve, interrittent ignition, 100% shut-off with continuous retry, fan tine delay, 2-stage low-voltage thernostat.

MODINE® WIRING DIAGRAM



5H73095B12 REV-A Single-phase, intermittent pilot ignition, 100% shut-off with continuous retry, fan time delay, low-voltage thermostat.

MODINE® WIRING DIAGRAM



As Modine Manufacturing Company has a continuous product improvement program, it reserves the right to change design and specifications without notice.

To prevent premature heat exchanger failure to not locate ANY gas-fired unit in areas where chlorinated, halogenated or acid vapors are present in the atmosphere.

For SERVICE contact your local qualified installation and service contractor or appropriate utility company

MODINE

Heating Division
Modine Manufacturing Company
1221 Magnolia Avenue
Buena Vista, VA 24416
Telephone: 703/261-2166
FAX: 703/261-1563

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