WIRING DIAGRAMS
Models PAE/BAE
gas-fired unit heaters
manufactured after March 1991
(for units manufactured between August 1984
and September 1986, see bulletin 6-441)

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/60 Hz/1φ diagrams may also be utilized for 230v/60 Hz/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.

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<th>ABBREVIATIONS AND SYMBOLS</th>
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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

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<th>PAE 30, 50</th>
<th>PAE 75, 100</th>
<th>PAE 125</th>
<th>PAE 145, 175, 200, 225</th>
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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.
4. Wiring diagrams for unit heater accessories are listed in Table 2. Use these accessory diagrams along with the unit wiring diagrams for complete wiring instructions.

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 March 1991 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 from unit serial number.
4. Select the Page Location Index which corresponds to the series identity number of the unit heater, then proceed with Steps 3 and 4 of Field and Submittal Wiring Diagram Selection.

EXAMPLE SELECTION


Locate the Page Location Index which shows the page numbers for PAE and BAE units with series identity number 101 (see page i). 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. If this unit also has a summer/winter switch the accessory wiring diagram found on page 1A, as per Table 2, would also be required for complete wiring information.

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 a circuit schematic at the right to aid in continuity and trouble shooting.

The heavier lines in the connection diagram indicate live 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.

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<td>11, 12 Standing Pilot, 100% Shut-Off, Fan-Time Delay, Low Voltage Thermostat, Natural Gas.</td>
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<td>25, 26 Two Stage, Standing Pilot, 100% Shut-Off, Low Voltage Thermostat, Natural Gas.</td>
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<td>83, 84 Two Stage, Standing Pilot, 100% Shut-Off, Low Voltage Thermostat, Propane Gas.</td>
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<td>28, 29 Intermittent Pilot Ignition with Lockout, Fan-Time Delay, Low Voltage Thermostat, Natural Gas.</td>
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<td>1B Power Venter</td>
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<td>2A Combination Summer/Winter Switch and Power Venter</td>
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<td>2B Energy Saver</td>
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## Wiring Diagram Index for Models PAE and BAE

### Manufactured After March 1991

#### Series 101

<table>
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WIRING DIAGRAM INDEX FOR MODELS PAE AND BAE
MANUFACTURED AFTER MARCH 1991

**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       |        |            |            |             |             |             |             |             |             |             |             |             |             |             |
| 11, 12       |        |            |            |             |             |             |             | 3           | 3           |             |             | 3           | 3           |
| 81, 82       |        |            |            |             |             |             |             | 3           | 3           |             |             | 3           | 3           |
| 25, 26       |        |            |            |             |             |             |             | 3           | 3           |             |             | 3           | 3           |
| 83, 84       |        |            |            |             |             |             |             |             |             |             |             |             |             |
| 28, 29       |        |            |            |             |             |             |             |             |             |             |             |             |             |
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| 65, 66       |        |            |            |             |             |             |             |             |             |             |             |             |             |
| 95, 96       |        |            |            |             |             |             |             |             |             |             |             |             |             |
UNIT HEATER 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/480Vac/1G-60K & B Y (OR G)
200V/200Vac/1G-60K & R
Wire nut the wire not used.

5H73095C2 REV E  Single-Stage, Standing Pilot, 100% Shut-Off, Single-Phase.
UNIT HEATER 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 Xfr.
Primary Xfr wires
230V/60Hz/120V-BK & Y (OR G)
208V/60Hz/120V-BK & R
Wire nut the wire not used.

5H73095C2 REV E
Single-Stage, Standing Pilot, 100% Shut-Off, Three-Phase.
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.

5W73095C3 REV E

Single-Stage, Standing Pilot, 100% Shut-Off, Single-Phase.
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.

Single-Stage, Standing Pilot, 100% Shut-Off, Three-Phase.
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°F wire for replacements.

* Alternate Xfmr.
Primary Xfmr Wires
230V/60Hz/120-BK & Y (DR G) 208V/60Hz/120-BK & R Wire nut the wire not used.

5H73095C4 REV C Two-Stage, Standing Pilot, 100% Shut-Off, Single-Phase.
UNIT HEATER WIRING DIAGRAM

230V/60Hz/3kW Power Shown
Circuit Breaker (By Others)

300 Starter (By Others)

Two-Stage Low Volt
Therm (By Others)
Low High

Fan Motor

Blocked Vent Safety Switch

Limit Control A

TD Relay J

Terminal Board

24V Xfmr

R

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.

SH73095C4 REV C

Two-Stage, Standing Pilot, 100% Shut-Off, Three-Phase.
 UNIT HEATER 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 Xfrm.
Primary Xfrm Wires
230V/50Hz/1Ø-BK & V (OR G)
200V/60Hz/1Ø-BK & R
Wire nut the wire not used.

5873095CS REV D Two-Stage, Standing Pilot, 100% Shut-Off, Single-Phase.
UNIT HEATER WIRING DIAGRAM

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.

Two-Stage, Standing Pilot, 100% Shut-Off, Three-Phase.

5873095C5 REV D
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.

5H73095C6 REV E

Single-Stage, Intermittent Pilot, Non-100% Shut-Off, or 100% Shut-Off with Lockout, or 100% Shut-Off with Continuous Retry, Single-Phase.
UNIT HEATER WIRING DIAGRAM

230V/60Hz/3Ph Power Shown
Circuit Breaker (By Others)

30A Starter (By Others)

Low Volt Thermostat (By Others)

Fan Motor

Ignition Control Honeywell S8600

Terminal Board

Combination Gas Control

TD Relay

230V Xfmr

TD Relay Heater

Limit Control Blocked Vent Safety Switch

Ignition

Single-Stage, Intermittent Pilot, Non-100% Shut-Off, or 100% Shut-Off with Lockout, or 100% Shut-Off with Continuous Retry, Three-Phase.

Failure to wire this unit according to the wiring diagram may result in injury to the installer or user. For deviations contact the factory.

Wire nut the wire not used.

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/120-BK & Y (OR D) 200V/60Hz/120-BK & R

5873095C6 REV E
UNIT HEATER 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

FUSED DISCONNECT SWITCH (BY OTHERS)
115V/60Hz/1Ø POWER SHOWN
L1(BK) O-H C -
L2(V) O 4-H C 3 -
SECOND FUSE AND SWITCH REG'D FOR 230V.200V.1Ø

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.

*24V XFMR
*ALTERNATE XFMR.
PRIMARY XFMR WIRES
230V/60Hz/1Ø-BKRD
200V/60Hz/1Ø-BKRD
WIRE NUT THE WIRE NOT USED

SP 715A & SP 735A

SPARK

115V/60Hz/1Ø POWER SHOWN
L1(BK) L2(V)
FUSED DISCONNECT SWITCH (BY OTHERS)
SECOND FUSE AND SWITCH REG'D FOR 230V.200V.1Ø

INDICATES TERMINAL BOARD CONNECTION

5H73095C7 REV B  Mechanical Modulation, Intermittent Pilot Ignition, Non-100% (and 100%)
Shut-off, Single-phase.
UNIT HEATER WIRING DIAGRAM

WIRING LEGEND

FACTORY FIELD WIRED NUT

LINE 24V

FOR U.S. UNITS ONLY

230V/50Hz/3Ph POWER SHOWN
30A CIRCUIT BREAKER (BY OTHERS)

L3 L2 L1

230V/60Hz/3Ph POWER SHOWN
30A CIRCUIT BREAKER (BY OTHERS)

L3 L2 L1

30A STARTER (BY OTHERS)

2-Stage Low Vol Temperature (BY OTHERS)

C L O H1

TD XRMR

TD #3 TIME DELAY RELAY

ALTERNATE VALVE MARKING

GAS VALVE

PV

MV

MV/PV

H1 THERM.

2-STAGE COMBINATION GAS CONTROL

TH

PV

SENSE

MV

MV/PV

TR

GND

IGN

INDICATES TERMINAL BOARD CONNECTION

NOTE TO INSTALLER:
ATTACH THIS DIAGRAM NEAR HEATER.

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

ALL COMPONENTS MUST AGREE WITH THEIR RESPECTIVE POWER SOURCE.

USE 105°C WIRE FOR REPLACEMENTS.

5H73095C8 REV C Two-stage, Intermittent Pilot Ignition, Non-100% (and 100%) Shut-off, Three-phase
UNIT HEATER WIRING DIAGRAM

WIRING LEGEND

FACTORY LINE 24V.
FIELD WIRE NUT

CIRCUIT BREAKER (BY OTHERS)
115V/208v/1GPOWER SHOWN
L1(BK) L2(W)
SECOND CIRCUIT BREAKER REQ'D.
FOR 230V, 208v, 1G

=24V XPHR

FAN MOTOR
LIMIT CONTROL
TERMINAL BOARD

J-BOX
BLOCKED VENT SAFETY SWITCH

SP 715A & SP 735A.

TH
PV
MV
MY
MV/PV
TR
GD
IGN
IGNITOR
SENSING PROBE

ALTERNATE VALVE MARKING

GAS VALVE

MV
MV/PV
PV

THERM

115V 24V XPHR

TO RELAY
TH M P

1

CIRCUIT BREAKER (BY OTHERS)
SECOND CIRCUIT BREAKER REQ'D.
FOR 230V, 208v, 1G

TO RELAY

LIMIT CONTROL

BLOCKED VENT SAFETY SWITCH

SP 715A & SP 735A.

THERM

1

Sensing Probe

IGNITOR

INDICATES TERMINAL BOARD CONNECTION

5973096C9 REV B
Single-Stage, Intermittent Pilot Ignition, Non-100% (and 100%)
Shut-off, Single-phase.
5873095C9 REV B  Single-Stage, Intermittent Pilot Ignition, Non-100% (and 100%) Shut-off, Three-phase.
NOTE: SUMMER/WINTER SWITCH ACCESSORY (PART NO. 78727) WIRING DIAGRAM USED ON MODELS PAE/BAE. THIS TO BE USED IN CONJUNCTION WITH UNIT WIRING DIAGRAM.

MODELS PAE/BAE
Typical Summer/Winter Switch Wiring (taken from 6-554.5, page 1)

CAUTION: Before proceeding with wiring the accessories described, make sure the unit has been installed, vented, piped and wired according to the Installation/Service Manual and Standard Wiring Diagram furnished with the unit heater.

WARNING: TURN OFF ALL POWER AND GAS TO UNIT BEFORE WIRING. FAILURE TO WIRED THIS UNIT ACCORDING TO THIS WIRING DIAGRAM MAY RESULT IN INJURY TO THE INSTALLER OR USER — READ INSTRUCTIONS CAREFULLY BEFORE WIRING UNIT!

WIRING INSTRUCTIONS
1. Remove the factory installed bus bar (jumper) from between terminals “T2” and “F” of terminal board.
2. Connect common of summer/winter switch to terminal “F” on terminal board.
3. Connect normally open switch of summer/winter switch to terminal “T1” on terminal board.
4. Connect normally closed switch of summer/winter switch to terminal “T2” on terminal board.
5. Connect thermostat between terminals “T1” and “T2” on terminal board.

CHECK-OUT PROCEDURE
With the power and gas supply turned off, set the thermostat to its lowest setting and place the summer/winter switch to the winter position. After making these adjustments proceed as follows:
1. If the unit has a standing pilot, turn on the gas supply only, and light the pilot according to the instructions on the unit's serial plate, then proceed with Step 2. If the unit is equipped with an intermittent pilot ignition system, turn on gas supply to unit and proceed with Step 2.
2. Turn on power supply to the unit. Nothing should happen.
3. Place the summer/winter switch in the summer position. After a delay of approximately 30 seconds the fan motor should start.
4. While the summer/winter switch is still in the summer position, and with the fan motor running, turn the thermostat up to call for heat. The main burner should now fire.
5. Turn the thermostat down again. The main burner should shut off and the fan motor should continue to run. During this step, allow the fan to run at least 1 1/2 minutes to make sure it will continue running. Modine units are equipped with a fan timed delay relay and the motor will run approximately 1 to 1 1/2 minutes after the fan timer has been de-energized.
6. After ensuring that the fan motor will continue to run in the summer position, and with the thermostat set to its lowest setting, place the summer/winter switch in the winter position and wait for the fan time delay to turn the fan motor off.
7. After the fan motor has stopped, and with the summer/winter switch in the winter position, turn the thermostat up to call for heat. The main burner should fire and after a delay of approximately 30 seconds, the fan motor should run.

If the above sequence of operation does not occur, recheck all wiring until the necessary correction to the wiring is found and corrected. Set the thermostat to the desired set point and place summer/winter switch in desired position. Unit is now ready for use.
NOTE: POWER VENTER ACCESSORY WIRING DIAGRAM USED ON MODELS PAE/BAE. THIS TO BE USED IN CONJUNCTION WITH UNIT WIRING DIAGRAM.

MODELS PAE/BAE
Typical Power Venter Wiring (taken from 6-554.5, page 2)

CAUTION: Before proceeding with wiring the accessories described, make sure the unit has been installed, vented, piped and wired according to the Installation/Service Manual and Standard Wiring Diagram furnished with the unit heater.

WARNING: TURN OFF ALL POWER AND GAS TO UNIT BEFORE WIRING. FAILURE TO WIRE THIS UNIT ACCORDING TO THIS WIRING DIAGRAM MAY RESULT IN INJURY TO THE INSTALLER OR USER — READ INSTRUCTIONS CAREFULLY BEFORE WIRING UNIT!

WIRING INSTRUCTIONS

1. Remove the factory installed bus bar (jumper) from between terminals "C" and "V" of terminal board.
2. Connect one red lead from centrifugal switch (CS) of power venter to terminal "C" on terminal board. Connect the other red lead from centrifugal switch (CS) to terminal "V" of terminal board.
3. Connect terminal (3) of power venter relay to terminal "T2" of terminal board.
4. Connect terminal (1) of power venter relay to terminal "G" of terminal board.
5. Connect terminal (2) of power venter relay to L1 of power supply in unit junction box.
6. Connect L2 lead from power venter motor to L2 lead of power supply in unit junction box.
7. Connect thermostat between terminals "T1" and "T2" of terminal board.

CHECK-OUT PROCEDURE

With the power and gas supply turned off, set the thermostat to its lowest setting.

1. If the unit has a standing pilot, turn on the gas supply only and light the pilot according to the instructions on the unit's serial plate, then proceed with Step 2. If the unit is equipped with an intermittent pilot ignition system, turn on the gas supply to unit and proceed with Step 2.
2. Turn on power supply to unit. Nothing should happen.
3. Turn up the thermostat to call for heat. The power venter motor should start, the centrifugal switch of the power venter should close, and the main burner should light. After a delay of approximately 30 seconds, the fan motor should start.
4. Turn the thermostat down again. The main burner and power venter motor should shut off. The fan motor should continue to run for approximately 1 to 1½ minutes. Modine units are equipped with a fan delay relay, and the fan motor is delayed for approximately 30 seconds on start-up, and 1 to 1½ minutes on shut-down.
5. Check the power venter centrifugal switch for proper function. To do this, remove the centrifugal switch lead from terminal "V" of the terminal board. Turn up the thermostat to call for heat. The power venter motor should run, but the main burner should not light. After a 30 second delay, the fan motor should operate. The main burner should still not light.
6. Turn down the thermostat and allow the power venter motor and fan motor to stop running. Reconnect the centrifugal switch lead to terminal "V" of the terminal board. Recycle the unit as described in Steps 3 and 4. If the unit does not operate in the sequence described above, recheck all wiring until the necessary correction to the wiring is found and corrected. Set the thermostat to the desired set point. The unit is now ready for use.
CAUTION: Before proceeding with wiring the accessories described, make sure the unit has been installed, vented, piped and wired according to the Installation/Service Manual and Standard Wiring Diagram furnished with the unit heater.

WARNING: Turn off all power and gas to unit before wiring. Failure to wire this unit according to this wiring diagram may result in injury to the installer or user — read instructions carefully before wiring unit!

WIRING INSTRUCTIONS

1. Remove the factory installed bus bars (jumpers) between terminals “T2” and “F”, and between terminals “C” and “V”.
2. Connect common of summer/winter switch to terminal “F” of terminal board.
3. Connect normally closed switch of summer/winter switch to terminal “T2” of terminal board.
4. Connect normally open switch of summer/winter switch to terminal “T1” of terminal board.
5. Connect one red lead from centrifugal switch (CS) of power venter to terminal “C” of terminal board, and connect the other red lead from centrifugal switch (CS) to terminal “V” of terminal board.
6. Connect terminal (3) of power venter relay to terminal “T2” of terminal board.
7. Connect terminal (1) of power venter relay to terminal “G” of terminal board.
8. Connect terminal (2) of power venter relay to L1 of power supply in unit junction box.
9. Connect L2 lead from power venter motor to L2 lead of power supply in unit junction box.
10. Connect thermostat between terminals “T1” and “T2” of terminal board.

CHECK-OUT PROCEDURE

With the power and gas supply turned off, set the thermostat to its lowest setting and place the summer/winter switch in the winter position. After making these adjustments, proceed as follows:

1. If the unit has a standing pilot, turn on the gas supply only, and light the pilot according to the instructions on the unit’s serial plate, then proceed with Step 2. If the unit is equipped with an intermittent pilot ignition system, turn on gas supply to the unit and proceed with Step 2.
2. Turn on power supply to the unit. Nothing should happen.
3. Place the summer/winter switch in the summer position. After a delay of approximately 30 seconds the fan motor only should start.
4. While the summer/winter switch is still in the summer position, and with the fan motor running, turn the thermostat up to call for heat. The power venter motor should come on, the centrifugal switch should close, and the main burner should light.
5. Turn the thermostat down again. The main burner and power venter motor should shut off, but the fan motor should continue to run. During this step, allow the fan to run at least 1½ minutes to make sure it will continue running. Modine units are equipped with a fan timed delay relay and the motor will run approximately 1 to 1½ minutes after the fan timer has been de-energized.
6. After ensuring that the fan will continue to run in the summer position, and with the thermostat at its lowest setting, place the summer/winter switch in the winter position and wait for the fan time delay to turn the fan motor off.
7. After the fan motor has stopped, and with the summer/winter switch in the winter position, turn the thermostat up to call for heat. The power venter should start, the centrifugal switch should close and the main burner should light. After a delay of approximately 30 seconds the fan motor should run.
8. Turn the thermostat down again. The main burner and power venter motor should shut off. The fan motor should continue to run for approximately 1 to 1½ minutes and then shut off.
9. Check the power venter centrifugal switch for proper function. To do this, remove the centrifugal switch lead from terminal “V” of the terminal board. Turn up the thermostat to call for heat. The power venter motor should run, but the main burner should not light. After a 30 second delay, the fan motor should operate. The main burner should still not light.
10. Turn down the thermostat and allow the power venter motor and fan motor to stop running. Reconnect the centrifugal switch lead to terminal “V” of the terminal board. Recycle the unit as described in Steps 7 and 8.

If the unit does not operate in the sequence described above, recheck all of the wiring until the necessary connection to the wiring is found and corrected. Set the thermostat to the desired set point and switch the summer/winter switch to the desired position. The unit is now ready for use.
NOTE: ENERGY SAVER ACCESSORY (PART NO. 79200) WIRING DIAGRAM
USED ON MODELS PAE/BAE. THIS TO BE USED IN CONJUNCTION
WITH UNIT WIRING DIAGRAM.

MODELS PAE/BAE
Typical Energy Saver Kit Wiring (taken from 75-507.4)

CAUTION: Before proceeding with wiring the accessories described, make sure the unit has been installed, vented, piped and
wired according to the Installation/Service Manual and Standard Wiring Diagram furnished with the unit heater.

WARNING: TURN OFF ALL POWER AND GAS TO UNIT BEFORE WIRING. FAILURE TO WIRE THIS UNIT ACCORDING TO
THIS WIRING DIAGRAM MAY RESULT IN INJURY TO THE INSTALLER OR USER — READ INSTRUCTIONS
CAREFULLY BEFORE WIRING UNIT!

WIRING INSTRUCTIONS
1. Connect “R” of controller to fan-timer contact terminal #2.
2. Connect “W” of controller to fan-timer contact terminal #4.
3. Follow operational check-out.

OPERATIONAL CHECK
1. Set room thermostat to its lowest setting and restore power supply to unit heater.
2. Turn the adjustment knob of the thermostat to move the temperature dial across the indicator and back again. When the control is wired for ventilating application (R to W), turning the dial clockwise to a lower setting simulates a rise in temperature and only the unit heater fan should come on. If the wiring is correct, the controlled equipment will switch on and off as the temperature dial indicates the approximate space temperature.
3. If the controlled equipment does not start and stop as the thermostat dial is turned, disconnect the power supply and check the wiring and terminal connections.
4. If the controlled equipment operates opposite to the sequence desired, shut off the power and check for reversed leads on the switch.
5. After checkout, reset room thermostat to desired comfort level. Set energy-saver control 3 to 6 degrees above room thermostat (depending on mounting height, room conditions, etc.) for ceiling air circulation.

(Figure 4)
Typical Wiring — Energy Saver Kit
For SERVICE contact your local qualified installation and service contractor or appropriate utility company

MODINE

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