

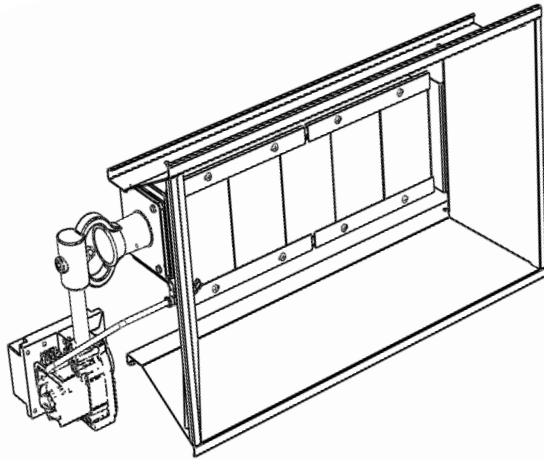
OPERATING INSTRUCTIONS AND OWNER'S MANUAL

HEATSTAR High-Intensity Infrared Heaters

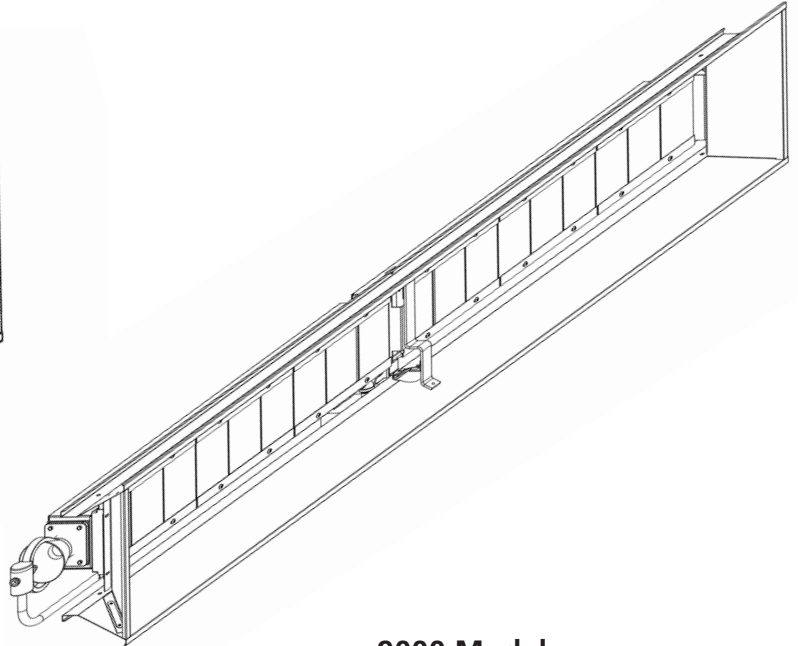
MODELS

HS4030	HS8070	HS9100
HS4040	HS9080	HS9120
HS8050	HS9090	HS9140
HS8060	HS9100S	

READ INSTRUCTIONS CAREFULLY: Read and follow all instructions. Place instructions in a safe place for future reference. Do not allow anyone who has not read these instructions to assemble, light, adjust or operate the heater.



4000 & 8000 Models



9000 Models

⚠ WARNING: If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

- Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- WHAT TO DO IF YOU SMELL GAS
 - Open Windows
 - **DO NOT** try to light any appliance.
 - **DO NOT** use electrical switches.
 - **DO NOT** use any telephone in your house. Immediately call your local gas supplier from a telephone remote from the area of the leak. Follow the gas supplier's instructions.
 - **DO NOT** touch any electrical switch; do not use any phone in your building.
 - Installation and service must be performed by a qualified installer, service agency or the gas supplier.
 - If you cannot reach your gas supplier, call the Fire Department.

⚠ WARNING: Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death. Read the installation, operation, and maintenance instructions thoroughly before installing or servicing this heater. For assistance or additional information consult a qualified installer, service agency, or gas supplier.

This is an unvented gas-fired heater. It uses air (oxygen) from the area in which it is used. Adequate combustion and ventilation air must be provided. Refer to page 5.

⚠ WARNING: READ THIS OWNER'S MANUAL CAREFULLY AND COMPLETELY BEFORE TRYING TO ASSEMBLE, OPERATE, OR SERVICE THIS HEATER. IMPROPER USE OF THIS HEATER CAN CAUSE SERIOUS INJURY OR DEATH FROM BURNS, FIRE, EXPLOSION, ELECTRICAL SHOCK, AND CARBON MONOXIDE POISONING.

⚠ WARNING: WHEN USED WITHOUT FRESH AIR, HEATER MAY GIVE OFF CARBON MONOXIDE, AN ODORLESS POISONOUS GAS. OPEN WINDOW AN INCH OR TWO FOR FRESH AIR WHEN USING HEATER.

⚠ WARNING: This heater is equipped with a PILOT LIGHT SAFETY SYSTEM. DO NOT TAMPER WITH PILOT LIGHT SAFETY SYSTEM.

⚠ WARNING: If heater shuts off, do not relight until you provide fresh air. If heater keeps shutting off, have it serviced. Open door for 5 minutes.

- Keep burner and ignition control clean.
- Maintain clearances as shown in Table 1 or on heater rate tag.
- DO NOT USE MATCH OR OTHER FLAME FOR LEAK TESTING.
- DO NOT EXCEED 1/2 PSI INLET PRESSURE TO HEATER.

⚠ WARNING: Fuels used in liquefied propane gas appliances, and the products of combustion of such fuel, can expose you to chemicals including benzene, which is known to the state of California to cause cancer and cause birth defects or other reproductive harm, for more information go to www.P65Warnings.ca.gov

Carbon Monoxide Poisoning:

Early signs of carbon monoxide poisoning resemble the flu, with headaches, dizziness, or nausea. If you have these signs, the heater may not be working properly. Get fresh air at once! Have heater serviced. Some people are more affected by carbon monoxide than others. These include pregnant women, persons with heart or lung disease or anemia, those under the influence of alcohol, and those at high altitudes.

DANGER:

Carbon Monoxide poisoning may lead to death.

CAUTION:

- Never connect gas valve or thermostat to line voltage or a transformer.
- If the infra-red color of the grid becomes dull when the building furnace is operating, consult gas supplier on correct gas supply piping sizes.
- This heater is for indoor installation only!

NOTE Gasket binder material used in this heater assembly will temporarily emit an odor and/or vapor. This condition will clear up in approximately 20 minutes and thereafter will not reoccur. Refer to page 5 for ventilation.

⚠ WARNING: THIS PRODUCT CAN EXPOSE YOU TO CHEMICALS INCLUDING LEAD AND LEAD COMPOUNDS, WHICH ARE KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER AND BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM. FOR MORE INFORMATION VISIT WWW.P65WARNINGS.CA.GOV

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LANGUAGES

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1. GENERAL INFORMATION

- Your heater comes fully assembled and is tested at the factory for proper gas and input as stated on the name plate.
- Before proceeding with the installation, be sure to inspect for damages. The freight company that delivered the heater must be notified of any damages prior to installation. HEATSTAR will send replacement parts for damaged parts only after receiving a signed inspection report to prove the liability of the freight company.
- Do not attempt to operate heater with any other gas than that indicated on the heater name plate.
- Installation of the heater must conform with local building codes or, in absence of local codes, with the National Fuel Gas Code, ANSI Z223.1/NFPA54. In Canada, refer to CAN 1-B146.1.
- Plugged 1/8" N.P.T. Test Gage Connection is located on the Heater Gas Control or a N.P.T. Connection is located on the outside of the Cast Venturi.
- For indoor installation only. Not for use in residential dwellings. NOTE: A residential dwelling is a domicile intended for use by one or more persons and that includes one or more areas, such as those used for cooking, eating, living, sleeping, or a sanitary facility. A residential dwelling does not include an attached and detached garage, workshop, or outdoors.

2. CLEARANCES Minimum clearances to combustibles. (Refer to Table 1)

Provide adequate clearance to combustibles, Figure 1, between control end of heater for servicing and minimum on top and sides for ventilation and combustion air supply.

A minimum clearance of 8' above floor for public garages in accordance with ANSI/NFPA No. 88 most recent edition or Table 1; whichever is larger. In Canada refer to CAN 1-B149.1 Installation codes for Gas burning appliances.

A minimum clearance of 10' from the bottom of heater to top of wing, or engine enclosure, where aircraft are housed, and 8' above floor in other areas of the hanger in accordance with ANSI/NFPA No. 409 most recent edition, or Table 1; the larger dimension of ANSI/NFPA No. 409 or Figure 1 is to be used. In Canada refer to CCA B149-1-M91.

WARNING: MAINTAIN CLEARANCES AS SHOWN IN FIGURE 1 OR ON HEATER NAMEPLATE, IN GARAGE INSTALLATIONS WHERE PARKED VEHICLES ARE DIRECTLY BELOW THE HEATER.

3. SUSPENSION

Heater has four mounting holes, two on each end, for attaching rod or angle iron brackets and shall be safely and adequately fixed in position independent of gas and electric supply lines. Refer to Figures 4, 5, and 7 on

pages 13 and 14 for recommended suspensions.

4. GAS SUPPLY

Provide adequate gas supply for rated input of each heater using American Standard Installation of gas piping and gas appliances in building ANSI/223. 1a/NFPA54 Pamphlet, Table C-3 shows capacity of pipe of different diameters and lengths in cubic feet per hour for Natural Gas with pressure drop of 0.3 inches specify gravity of 0.60. For liquefied Petroleum Gas (LP) capacity refer to Table C-3 and C-15 of the same pamphlet. For recommended heater gas connection refer to Figure No. 5, Page 15. In Canada refer to CAN 1-B149.1, and CSA B63.

If gas lines are to be pressure tested with compressed air, disconnect each heater to prevent control damage and cap outlets. After reconnecting all heaters, purge gas lines of air and check all connections for leaks using soap solution.

WARNING: DO NOT USE MATCH OR OTHER FLAME FOR LEAK TESTING.

5. PIPING REQUIREMENTS

All piping installed must comply with local codes and ordinances or with the National Fuel Gas Code, ANSI Z223.1 (NFPA 54), whichever takes precedence. When installing piping, the following requirements must be taken into consideration:

- Use new properly reamed black pipe free from chips.
- Apply a good quality pipe compound to all male threads prior to assembly. If L.P. gas is the fuel, ensure that pipe compound is resistant to L.P. gas. DO NOT USE TEFLON™ tape.
- Prior to installation, apply pipe compound to all male threads as shown in Figure 1
- Male threads on pipe to be installed into gas valve shall meet the requirements of Figure 2. Threads longer than those shown in the figure may cause gas valve distortion and malfunction.
- A sediment trap meeting the typical requirements of Figure 3 shall be installed in the line to the gas valve.
- A dedicated shutoff valve for the heater must be installed in the gas supply line.

Figure 1. Pipe Compound Application

USE MODERATE AMOUNT OF PIPE DOPE

LEAVE FIRST 2 THREADS BARE

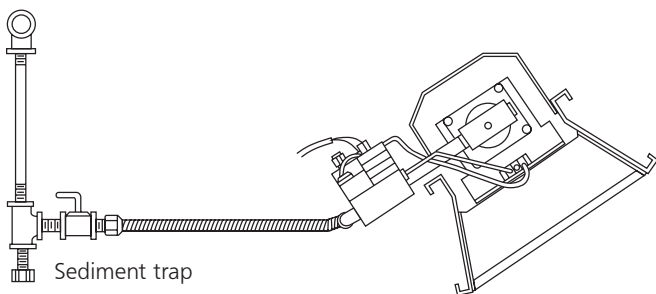
3/4" MAXIMUM THREAD LENGTH
1/2" BLACK PIPE
TO GAS VALVE BODY

Figure 2.
Gas valve
connection
requirements

NOTE:

1. Only Use A Pipe Compound Which Is Resistant To Liquefied Gases On L.P. Installations.

2. Fittings Shown Are Not Included With Heater.

Figure 3. Typical Piping Installation**6. GAS PRESSURE**

When a higher than the maximum recommended gas pressure is being maintained at the main gas line, a separate regulator must be installed ahead of the heater. Refer to Table 2 for maximum allowable pressure for stated model and gas.

See heater rating plate for minimum gas supply pressure "For the Purpose of Input Adjustment"

On a multiple heater installation it may be possible to use one large capacity regulator or an individual regulator for each heater. Nevertheless, it is recommended practice to make the entire pipe system a loop. Contact your local representative or the factory for proper gas pressure reducing design stage.

⚠ WARNING: DO NOT EXCEED ½ P.S.I. INLET PRESSURE TO HEATERS SHOWN IN TABLES 1 AND 2

TABLE 1

MODEL NO.	BTU/HR. RATING		NORMAL MOUNTING POSITION	CLEARANCES TO COMBUSTIBLES			
	GAS			TOP	SIDES	BACK	BELOW
	NATURAL	PROPANE					
4030**	30,000	30,000	Horiz.-45	30"	30"	30"	54"
4040*	40,000	40,000	Horiz.-45	34"	30"	30"	68"
8050**	50,000	50,000	Horiz.-45	36"	30"	30"	78"
8060*	60,000	60,000	Horiz.-45	40"	30"	30"	84"
8070**	70,000	—	Horiz.-45	40"	30"	30"	84"
9080**	80,000	80,000	Horiz.-45	46"	40"	40"	104"
9090**	90,000	90,000	Horiz.-45	46"	46"	46"	114"
9100S*	100,000	100,000	Horiz.-45	48"	46"	46"	118"
9100**	100,000	100,000	Horiz.-45	44"	40"	40"	104"
9120*	120,000	120,000	Horiz.-45	46"	46"	46"	114"
9140**	140,000	—	Horiz.-45	46"	46"	46"	114"

*High Intensity Heaters are only sold as 4040, 8060, 9100S, and 9120

**Different model numbers are achieved by using supplemental orifices included with heaters to change heat output.

The clearances to combustibles represent a surface temperature of 90 F (32 C) above room temperature. Building materials with low heat tolerance may be subject to degradation at lower temperatures. It is the installer's responsibility.

7. ELECTRICAL

All external wiring must be in accordance with the existing electrical code. Use wiring diagram furnished with heater. Be sure electric supply characteristics match those called for on the name plate. The unit must be electrically grounded in accordance with the National Electrical Code, ANSI/NFPA70, latest revision. In Canada refer to Canadian electrical code CSA C22.1

8. THERMOSTAT & LOCATION

Make sure that the electrical characteristics of the thermostat match those of the heater controls. For best results thermostat should be positioned 5 ft. above floor where air can circulate freely around it. DO NOT MOUNT directly to cold-side wall, in direct drafts or directly beneath the infra-red heater.

9. VENTILATION

- The minimum intake and exhaust air openings shall provide for not less than 400 CFM for every 100,000 BTU input except that the infiltration area may be included in the intake area. The exhaust fan must be interlocked with the heater thermostat. If a power exhaust fan is used, it should be controlled by the thermostat or humidistat
- Where natural ventilation (gravity) is provided for exhaust, the openings must be distributed above the heaters (preferably at the peak of the roof) and the areas of openings shall not be less than 300 square inches for every 100,000 BTU input.

10. OPERATIONS

Upon completion of electrical wiring, gas piping and purging of gas lines to heaters, refer to the lighting instruction plate attached to heater for proper lighting procedure.

11. CLEANING INFORMATION

Blow out Venturi and burner face with compressed air (25psi max. pressure); also clean orifices (see Figure 2 for correct size drill). For detailed maintenance and cleaning instructions contact your local representative or factory.

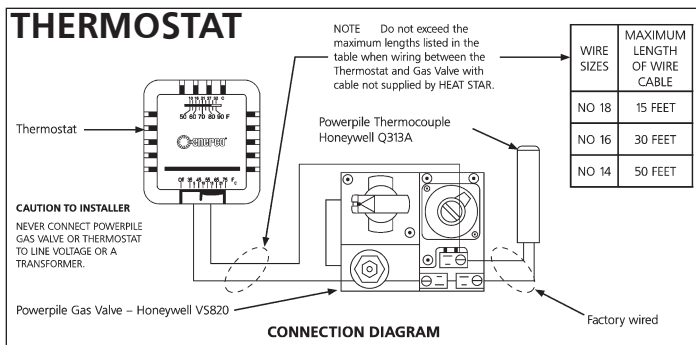
⚠ WARNING: GASKET BINDER MATERIAL USED IN THIS HEATER ASSEMBLY WILL TEMPORARILY EMIT AN ODOR AND/OR VAPOR. USE VENTILATION (a OR b) AND THIS CONDITION WILL CLEAR UP IN APPROXIMATELY 20 MINUTES AND WILL NOT REOCCUR.

⚠ WARNING: DO NOT ATTEMPT TO IGNITE THE PILOT BY HAND ON HEATERS EQUIPPED WITH AUTOMATIC SPARK IGNITION.

⚠ NOTE: USE LATEST EDITION FOR ALL ANSI STANDARD AND CANADIAN STANDARDS.

TABLE 2

MODEL NO.	BTU/HR. RATING		GAS SUPPLY PRESSURE (W.C.)						ORIFICE SIZE	
	GAS		MIN.		MAX.		MANIFOLD			
	NATURAL	PROPANE	NAT.	L.P.	NAT.	L.P.	NAT.	L.P.	NAT.	L.P.
4030	30,000	30,000	6.6"	11"	14"	14"	5.6"	10"	43	52
4040	40,000	40,000	6.8"	11"	14"	14"	5.8"	10"	37	49
8050	50,000	50,000	7.0"	11"	14"	14"	4.3"	10"	30	45
8060	60,000	60,000	7.0"	11"	14"	14"	5.8"	10"	30	43
8070	70,000	—	7.0"	—	14"	—	6.0"	—	29	—
9080	80,000	80,000	7.0"	11"	14"	14"	5.8"	10"	37	49
9090	90,000	90,000	7.0"	11"	14"	14"	5.0"	10"	32	47
9100S	100,000	100,000	7.0"	11"	14"	14"	5.0"	10"	31	46
9100	100,000	100,000	7.0"	11"	14"	14"	4.3"	10"	30	45
9120	120,000	120,000	7.0"	11"	14"	14"	5.8"	10"	30	43
9140	140,000	—	7.0"	—	14"	—	5.5"	—	29	—



12. START-UP PROCEDURE

OPEN THE GAS SUPPLY VALVE OR VALVES.

Set the thermostat to the OFF position. See Figure 5. If the manual gas control knob on the gas valve is not in the OFF position, partially depress the knob and rotate to the OFF position. See Figure 6.

Wait 5 minutes to allow gas that may have accumulated in the main burner to escape (especially important after installation).

Turn the manual gas control knob to the PILOT position.

Depress the manual gas control knob. Using a match, light the pilot light. See Figure 6. Hold the knob down for approximately 30 seconds to allow any air in gas lines to pass through pilot and, once the pilot is lit, allow the thermocouple to heat up enough to activate the safety valve in an open position.

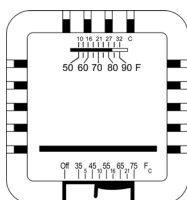


Figure 5.
Thermostat controls

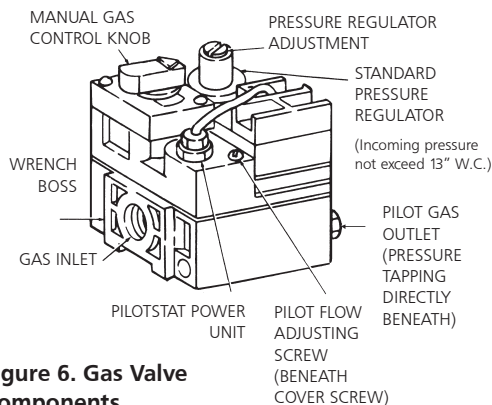


Figure 6. Gas Valve Components

Release manual gas control knob and turn to ON. Reset thermostat to desired temperature.

NOTE:

During the initial startup of MR. HEATER an odor and, perhaps, some vapor will come from the heater. This is the gasket binding material emitting this odor and/or vapor. After approximately 20 minutes this odor will disappear and not occur again.

13. SHUTDOWN

1. Turn thermostat to OFF.
2. Turn manual gas control knob on gas valve to PILOT position.
3. Partially depress knob and rotate to the OFF position.
4. Close gas supply valves.

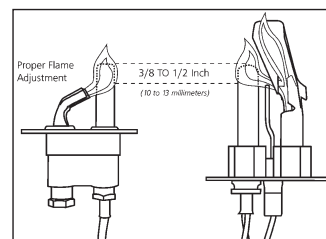
14. OPERATOR MAINTENANCE INSTRUCTIONS

1. TROUBLESHOOTING

- a. Table 4 lists system issues which may occur during the operation or maintenance of your heater.
- b. In the event, results cannot be obtained after performing all listed solutions, call your Mr. Heater dealer, or the factory customer service department at 1-866-447-2194.

2. ADJUSTING THE PILOT FLAME

The pilot flame should envelope $\frac{3}{8}$ to $\frac{1}{2}$ in. (10 to 13mm) of the tip of the thermocouple or generator. To adjust the pilot flame:



- a. Remove pilot adjustment cover screw. Refer to Figure 8.
- b. Turn inner adjustment screw clockwise to decrease or counterclockwise to increase pilot flame.
- c. Always replace cover screw after adjustment and tighten firmly to ensure proper operation.

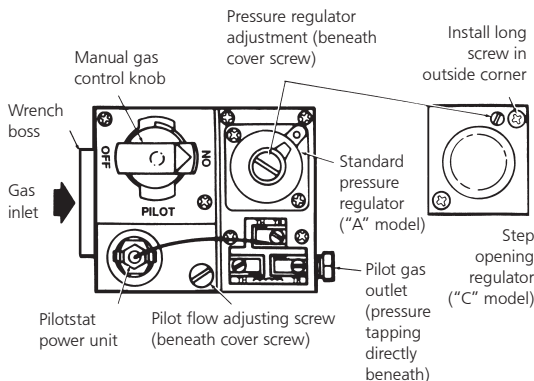


Figure 8.
Top view of standard capacity gas control.

3. REPLACING THE GAS VALVE UNIT

- a. Remove the two gas valve unit wires at the gas control valve labeled "PP."
- b. Unscrew gas valve from gas piping.
- c. Reconnect gas valve and unit wires to terminals "PP." Be sure to leave thermostat wire on one terminal.

15. FREQUENCY OF OPERATOR CHECKS

Intermittent Use

Appliances that are used seasonally should be checked before shutdown and again before the next use.

In dusty, wet or corrosive environment the system should be checked more often since these environments can cause the gas control to deteriorate more rapidly.

The gas control should be replaced if:

- a. It does not perform properly on checkout or troubleshooting.
- b. The gas control knob is hard to turn or push down, or it fails to pop back up when released.

TABLE 4. TROUBLESHOOTING CHART

Below in chart form are various symptoms of a malfunctioning system, possible defects that will cause there symptoms and suggested corrective measure. The chart assumes that the proper gas pressure is available to the heater and that the lighting procedure is as stated on the plate attached to the heater.

SYMPTOMS	CAUSES	SOLUTIONS
Burner light off very slow	Partially blocked pilot orifice	Re-adjust pilot
	Pilot out of adjustment	Replace
Burner light off very slowly, color stays dull	Partially blocked burner orifice	Replace
Burner flashback (roaring noise during operation and ceramic grid surface will be dark)	Low gas pressure	Correct line pressure or call your gas supplier
	Damaged burner	Replace
Ceramic grid or burner sooting up (when new or after cleaning)	First check for damaged burner orifice	Replace if damaged
	Checked for damaged manifold	Replace
Pilot cannot be ignited	Blocked pilot orifice	Replace
	Gas knob not in correct position	Gas control knob must be turned to pilot and held depressed
	Pilot gas flow adjustment screw may be closed	Open and adjust (see figure 8)
Pilot lights but goes out	Defective thermocouple	Replace
	Defective control	Replace
Pilot stays lit but main burner will not light	Loose wire or improperly wired	Tighten connections, check wiring diagram
	Defective control	Replace
	Blocked burner orifice	Clean orifice or replace
Failure to ignite	Main gas off	Turn on main gas
	Air in gas line	Bleed gas line
	Loose wire connections	Tighten wire connections
	Dirty wire connections	Clean terminals and secure connections

HIGH ALTITUDE OPERATION

1. Installation of this appliance at altitudes above 2,000 ft (610m) shall be in accordance with local codes, or in the absence of local codes, the National Fuel Gas Code, ANSI Z223.1/NFPA 54 or National Standard of Canada, Natural Gas and Propane Installation Code, CSA B149.1.

HIGH INTENSITY OVERHEAD CONVERSION KITS

SP (Electric Spark)

STOCK#	DESCRIPTION	SERIES
00277A	NG to LP Kit	4040
00278A	LP to NG Kit	4040
00279A	NG to LP Kit	8060
00280A	LP to NG Kit	8060
00283A	NG to LP Kit	9100S
00284A	LP to NG Kit	9100S
00281A	NG to LP Kit	9120
00282A	LP to NG Kit	9120

PP (Power Pile)

STOCK#	DESCRIPTION	SERIES
00285A	NG to LP Kit	4040
00286A	LP to NG Kit	4040
00287A	NG to LP Kit	8060
00288A	LP to NG Kit	8060
00291A	NG to LP Kit	9100S
00292A	LP to NG Kit	9100S
00289A	NG to LP Kit	9120
00290A	LP to NG Kit	9120

CONNECTION DIAGRAM FOR FLAME ROD CURRENT FOR FLAME RECTIFICATION SYSTEMS (SP-MODELS)

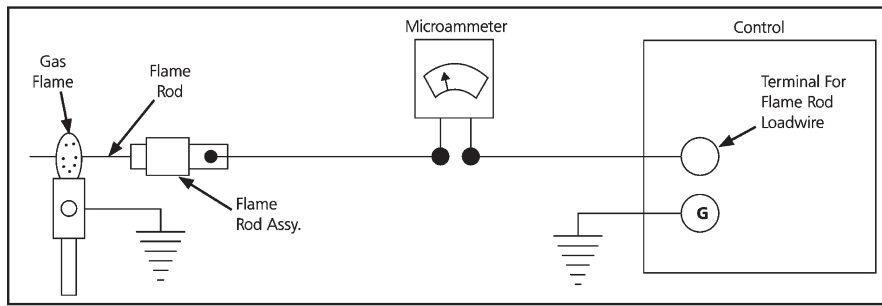


Figure 3 – Using a microammeter to prove adequate grounding area.

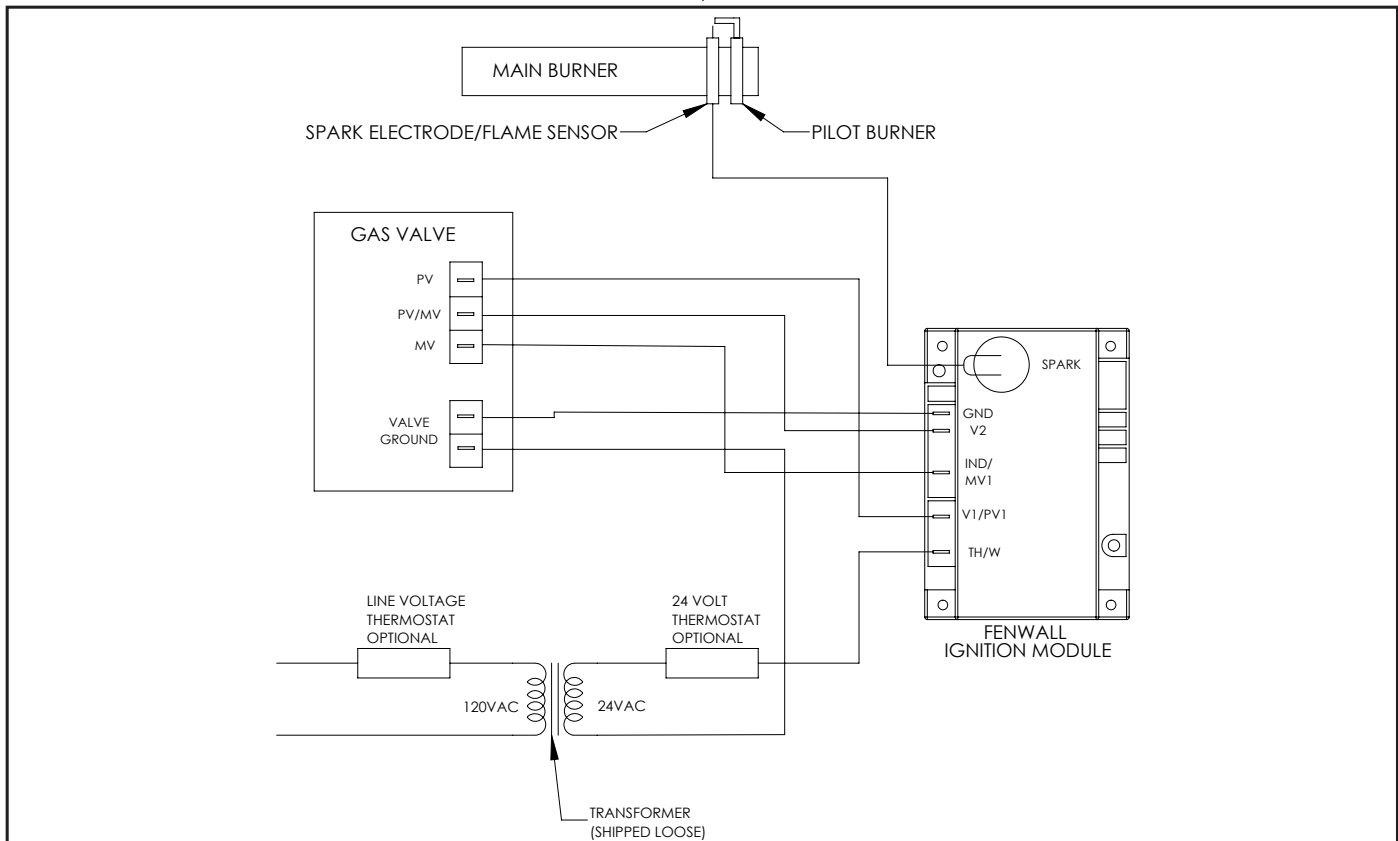
MEANS OF PROVING ADEQUATE GROUNDING AREA

The proper flame-rod-to-ground-area ratio cannot always be determined by visual examination or physical measurement. A positive means of checking the installation is the measurement of the flame rod current under actual firing conditions. It is definitely recommended that the installer measure the current flow between the lead of the flame rod unit and the terminal in the control terminal board (see Figure 3). Measure the current with a DC Microammeter or equal. We recommend a steady output of .9 microamperes

or more. A steady flow of current in this amount under actual firing conditions will generally indicate adequate grounding of the pilot flame.

NOTE:

1. Read all control data sheet supplied with this heater.
2. Check flame rod for any contact to heater parts. Flame rod must be free of any contact to heater. Contact with heater will short circuit flame rod.
3. Cracked porcelain on flame rod will short circuit sensor. Replace flame rod.

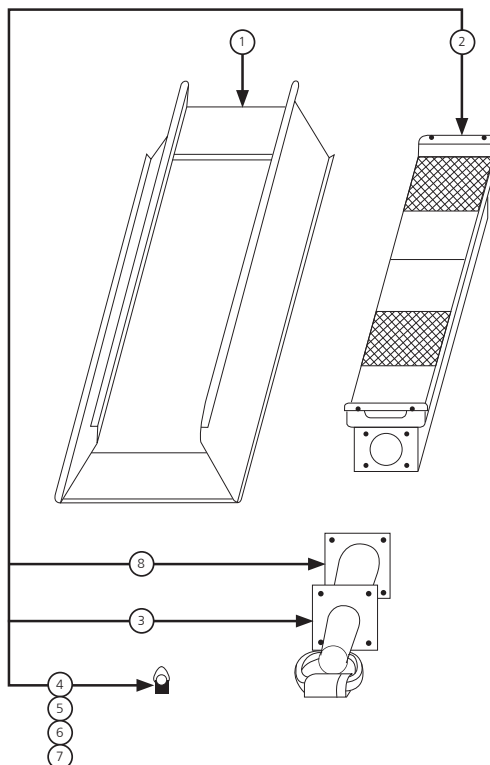


NG/LP Conversion Kits

STOCK#	DESCRIPTION
00152	NG Rate Conversion Kit - 30K to 40K BTU/HR
00153	LP Rate Conversion Kit - 30K to 40K BTU/HR
00275	Gas Conversion Kit - NG to LP
00276	Gas Conversion Kit - LP to NG

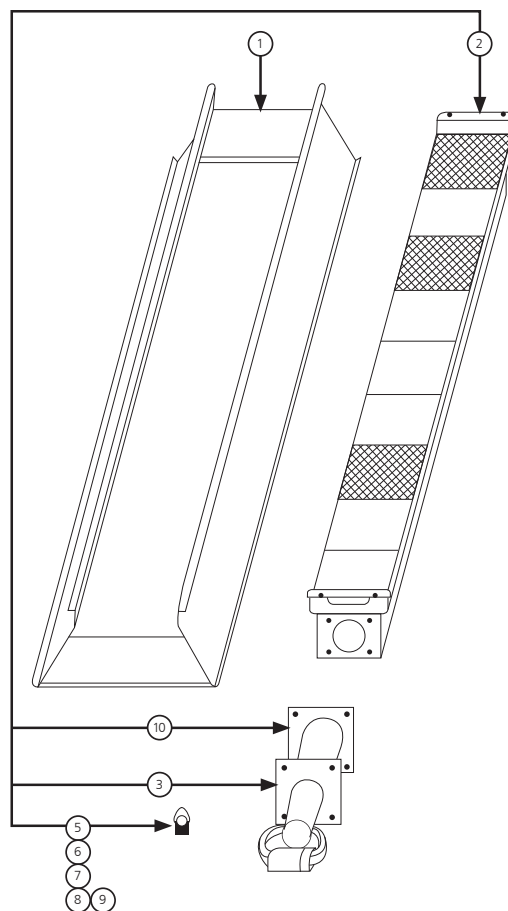
Replacement Parts List For Heaters 4000 Series Models / Less Control

Item No.	No. Req'd.	Stock No.	Description
1	1	00435A	Reflector Assembly
2	1	02523A	Burner Assembly
3	1	03397P	Venturi
4	1	05437	Burner Orifice N.G. 4040
5	1	05443	Burner Orifice N.G. 4030
6	1	05449	Burner Orifice L.P. 4040
7	1	05452	Burner Orifice L.P. 4030
8	1	12366	Gasket – Venturi
<div> <div>4040 Nat. Gas</div> <div> <div>1</div> <div>3</div> <div>4</div> <div>8</div> </div> <div>or 2</div> </div>			
<div> <div>4030 Nat. Gas</div> <div> <div>1</div> <div>3</div> <div>5</div> <div>8</div> </div> <div>or 2</div> </div>			
<div> <div>4040 Propane</div> <div> <div>1</div> <div>3</div> <div>6</div> <div>8</div> </div> <div>or 2</div> </div>			
<div> <div>4030 Propane</div> <div> <div>1</div> <div>3</div> <div>7</div> <div>8</div> </div> <div>or 2</div> </div>			



Replacement Parts List For Heaters 8000 Series Models / Less Control

Item No.	No. Req'd.	Stock No.	Description
1	1	00442A	Reflector Assembly
2	1	02524A	Burner Assembly
3	1	03421P	Venturi
4	1	05429	Orifice – Br. N.G. 8070
5	1	05430	Orifice – Br. N.G. 8060
6	1	05430	Orifice – Br. N.G. 8050
7	1	05443	Orifice – Br. L.P. 8060
8	1	05445	Orifice – Br. L.P. 8050
9	1	12366	Gasket – Venturi
<div> <div>8070 Nat. Gas</div> <div> <div>1</div> <div>3</div> <div>4</div> <div>9</div> </div> <div>or 2</div> </div>			
<div> <div>8060 Nat. Gas</div> <div> <div>1</div> <div>3</div> <div>5</div> <div>9</div> </div> <div>or 2</div> </div>			
<div> <div>8050 Nat. Gas</div> <div> <div>1</div> <div>3</div> <div>6</div> <div>9</div> </div> <div>or 2</div> </div>			
<div> <div>8060 Propane</div> <div> <div>1</div> <div>3</div> <div>7</div> <div>9</div> </div> <div>or 2</div> </div>			
<div> <div>8050 Propane</div> <div> <div>1</div> <div>3</div> <div>8</div> <div>9</div> </div> <div>or 2</div> </div>			



Replacement Parts List For Heaters 9000 Series Models / Less Control

Item No.	No. Req'd.	Stock No.	Description
1	1	00444A	Reflector Assembly
2	2	02694	Burner Assembly
3	2	03421P	Venturi
4	2	05429	Orifice – Br. N.G. 9140
5	2	05430	Orifice – Br. N.G. 9120
6	2	05430	Orifice – Br. N.G. 9100
7	2	05443	Orifice – Br. L.P. 9120
8	2	05445	Orifice – Br. L.P. 9100
9	2	06396	Manifold Assembly
10	2	12366	Gasket – Venturi
11	1	14639	Center Saddle Bracket
12	1	11381	Center Support Ass'y

9140 Nat. Gas

1

3

4

9

10

11

12

or 2

9120 Nat. Gas

1

3

7

9

10

11

12

or 2

9100 Nat. Gas

1

3

6

9

10

11

12

or 2

9120 Propane

1

3

7

9

10

11

12

or 2

9100 Propane

1

3

8

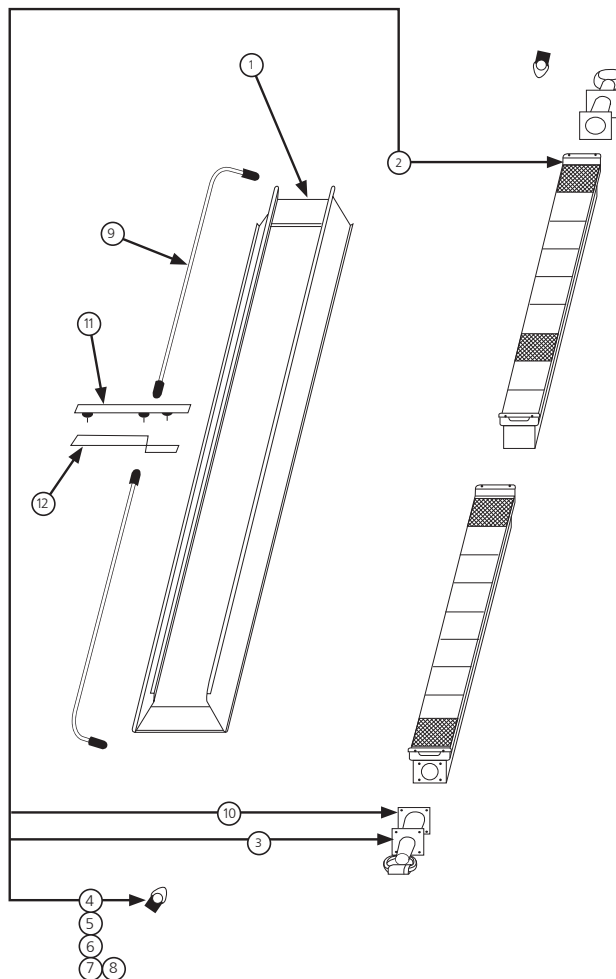
9

10

11

12

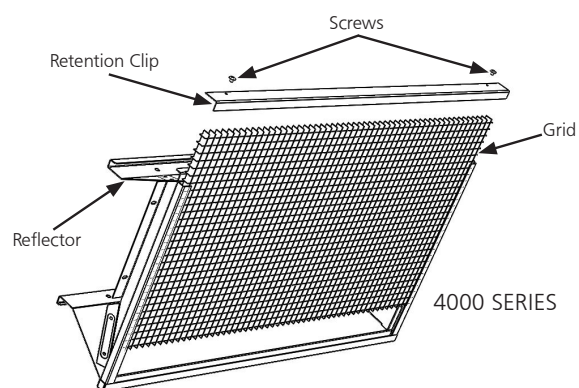
or 2



Replacement Parts for Retro Grid Kits 4000 Series Models and 8000 Series Models ONLY

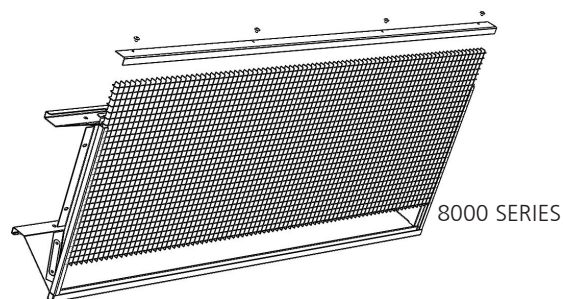
4000 Series Models

F104440	GRID KIT	Grid, Screws, Retention Clip
F104441	RETRO GRID KIT	Reflector, Grid, Screws, Retention Clip, Rate Tag



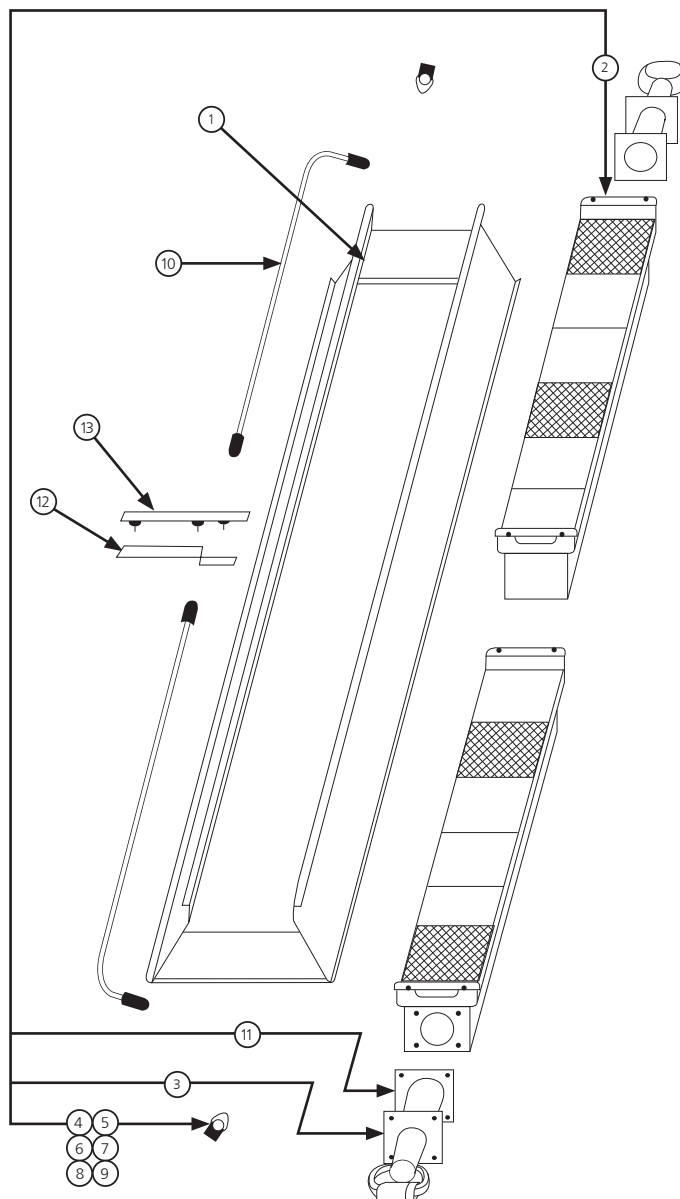
8000 Series Models

F104445	GRID KIT	Grid, Screws, Retention Clip
F104446	RETRO GRID KIT	Reflector, Grid, Screws, Retention Clip, Rate Tag



Replacement Parts List For Heaters
9100S Series Models / Less Control

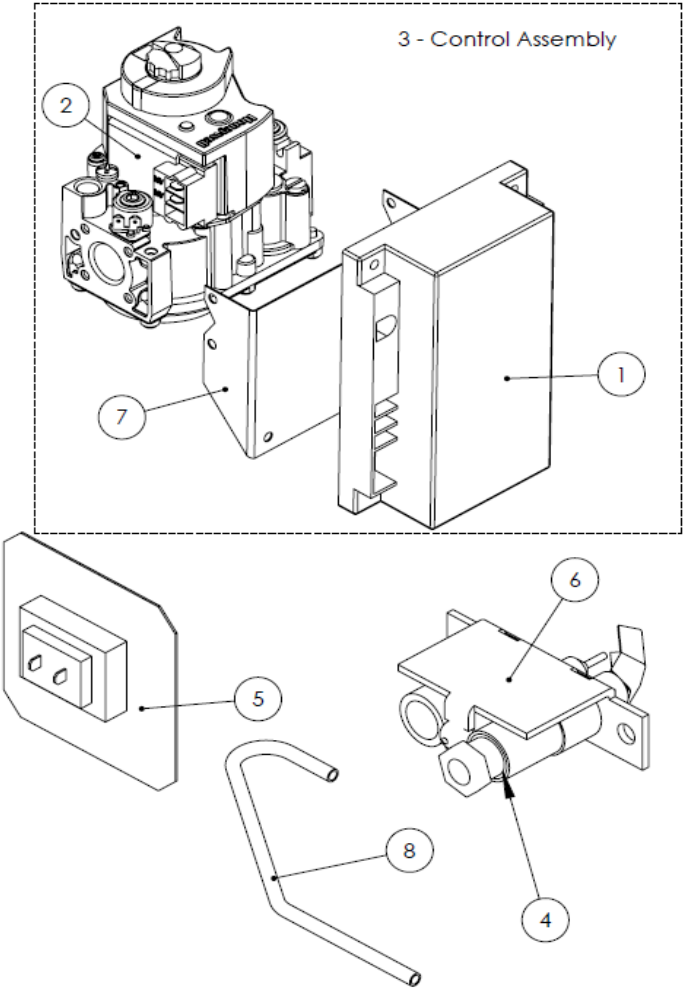
Item No.	No. Req'd.	Stock No.	Description
1	1	00443A	Reflector Assembly
2	2	02508A	Burner Assembly
3	2	03421P	Venturi
4	2	05431	Orifice – Br. N.G. 9100S
5	2	05432	Orifice – Br. N.G. 9090
6	2	05437	Orifice – Br. N.G. 9080
7	2	05446	Orifice – Br. L.P. 9100S
8	2	05447	Orifice – Br. L.P. 9090
9	2	05449	Orifice – Br. L.P. 9080
10	2	06398	Manifold Assembly
11	2	12366	Gasket – Venturi
12	1	14639	Center Saddle Bracket
13	1	11381	Center Support Assembly
9100S Nat. Gas			
1	3	4	10
11	12	13	or 2
9090 Nat. Gas			
1	3	5	10
11	12	13	or 2
9080 Nat. Gas			
1	3	6	10
11	12	13	or 2
9100S Propane			
1	3	7	10
13	12	13	or 2
9090 Propane			
1	3	8	10
13	12	13	or 2
9080 Propane			
1	3	9	10
13	12	13	or 2



HEATSTAR SERIES 4000SP , 8000SP (NG)

REPLACEMENT PARTS LIST FOR CONTROL
SYSTEM SUFFIX SPARK MODELS

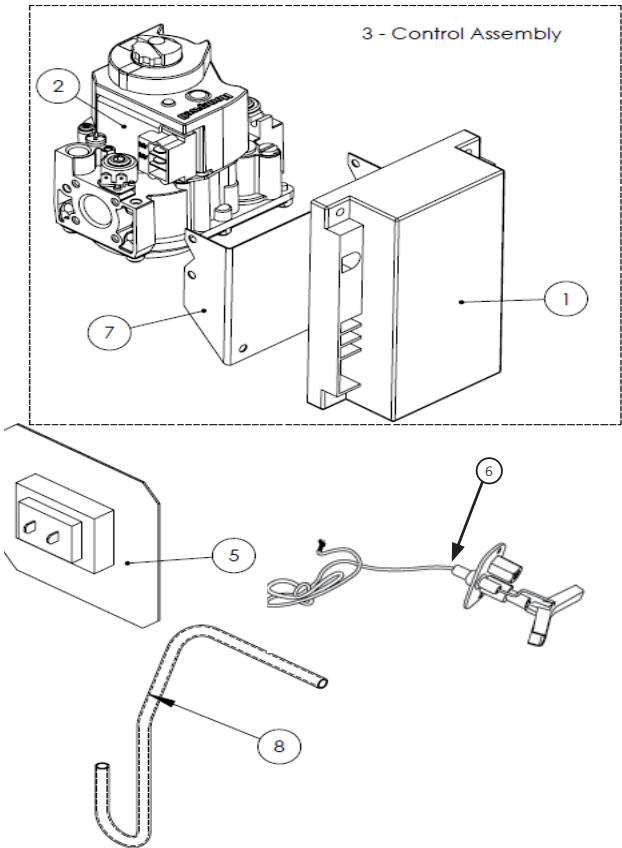
ITEM NO.	NO. REQ'D	STOCK NO.	DESCRIPTION
1	1	00063	IGNITION MODULE, FENWAL
2	1	00037	GAS VALVE - NG
3	1	00236	CONTROL ASSY. NG
4	1	05573	ORIFICE PILOT NG.
5	1	08353	TRANSFORMER 40VA
6	1	11403	PILOT BURNER ASSY.
7	1	14619	MOUNTING BRACKET
8	1	16437	PILOT TUBE W/FITTINGS



HEATSTAR SERIES 9000SP, 9000SSP (NG)

REPLACEMENT PARTS LIST FOR CONTROL
SYSTEM SUFFIX SPARK MODELS

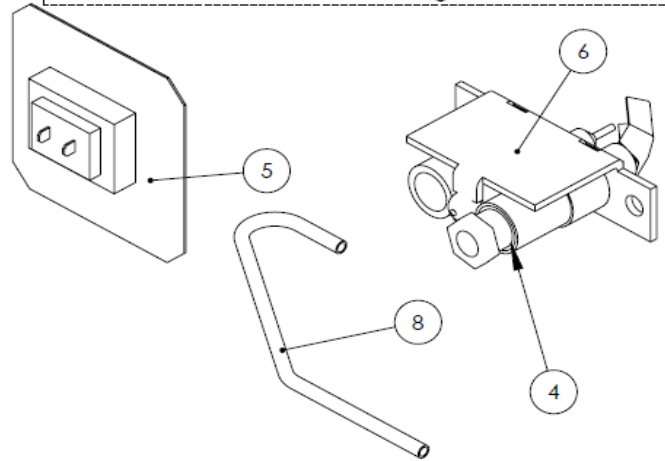
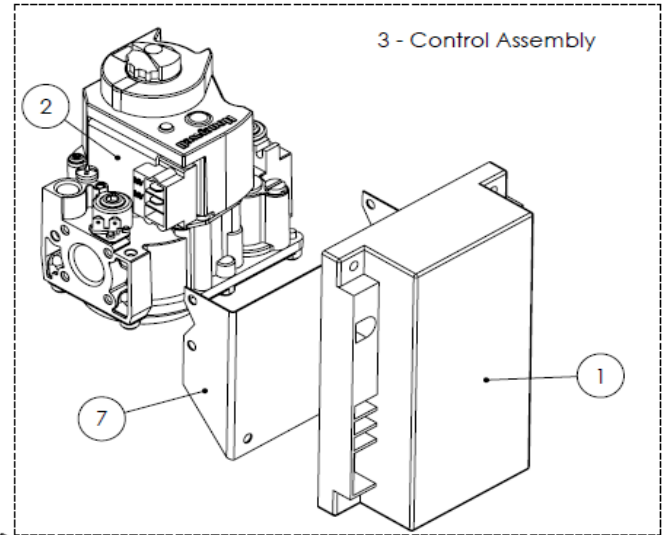
ITEM NO.	NO. REQ'D	STOCK NO.	DESCRIPTION
1	1	00063	IGNITION MODULE, FENWAL
2	1	00037	GAS VALVE - NG
3	1	00236	CONTROL ASSY. NG
4	1	05383	ORIFICE PILOT - NG
5	1	08353	TRANSFORMER 40VA
6	1	11385	PILOT BURNER ASSY.
7	1	14619	MOUNTING BRACKET
8	1	16453	PILOT TUBE W/FITTINGS



HEATSTAR SERIES 4000SP, 8000SP (LP)

REPLACEMENT PARTS LIST FOR CONTROL SYSTEM SUFFIX SP

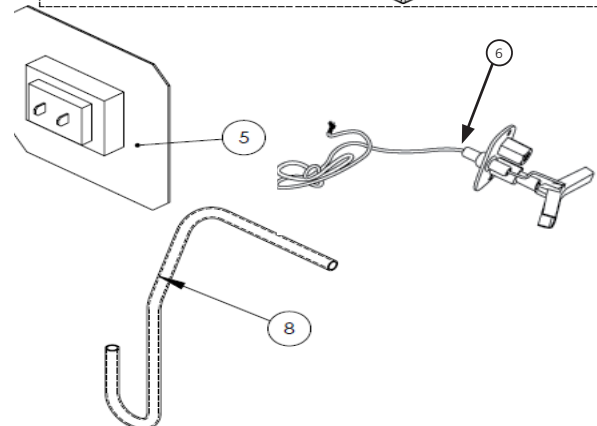
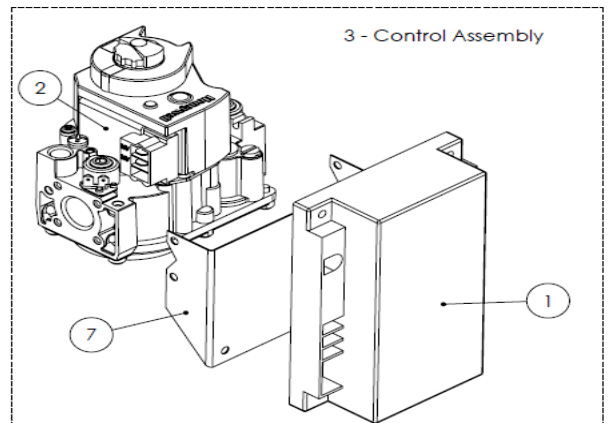
ITEM NO.	NO. REQ'D	STOCK NO.	DESCRIPTION
1	1	00063	IGNITION MODULE, FENWAL
2	1	00036	GAS VALVE - LP
3	1	00336	CONTROL ASSY. LP
4	1	05577	ORIFICE PILOT – LP
5	1	08353	TRANSFORMER 40VA
6	1	11407	PILOT BURNER ASSY.
7	1	14619	MOUNTING BRACKET
8	1	16437	PILOT TUBE W/FITTINGS



HEATSTAR SERIES 9000SP, 9000S (LP)

REPLACEMENT PARTS LIST FOR CONTROL SYSTEM SUFFIX SP

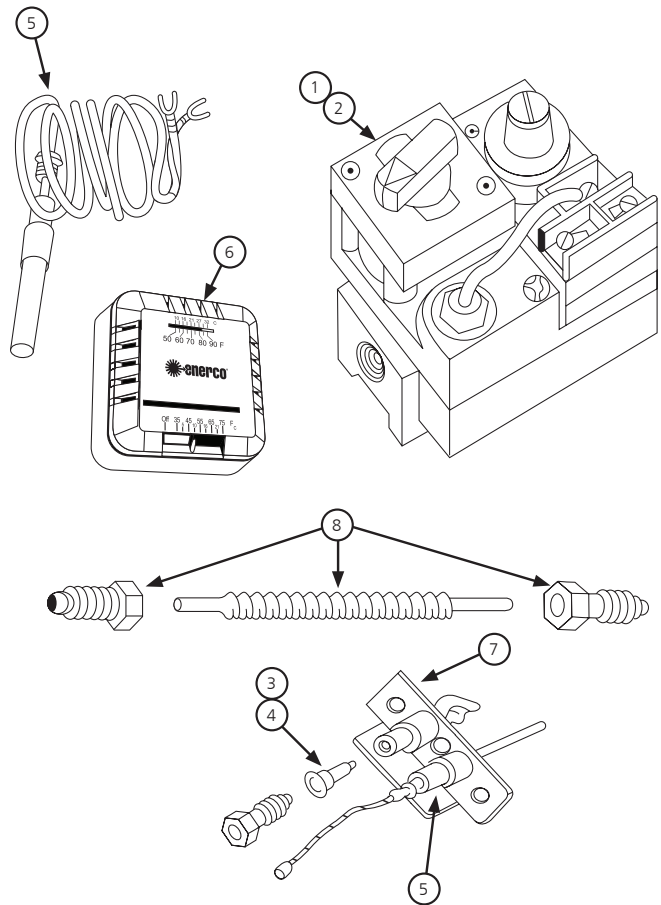
ITEM NO.	NO. REQ'D	STOCK NO.	DESCRIPTION
1	1	00063	IGNITION MODULE, FENWAL
2	1	00036	GAS VALVE - LP
3	1	00336	CONTROL ASSY. LP
4	1	05384	ORIFICE PILOT – LP
5	1	08353	TRANSFORMER 40VA
6	1	11385	PILOT BURNER ASSY.
7	1	14619	MOUNTING BRACKET
8	1	16453	PILOT TUBE W/FITTINGS



FOR HEATSTAR SERIES 4000, 8000

REPLACEMENT PARTS LIST FOR
CONTROL SYSTEM SUFFIX PP(NG) & PP(LP)

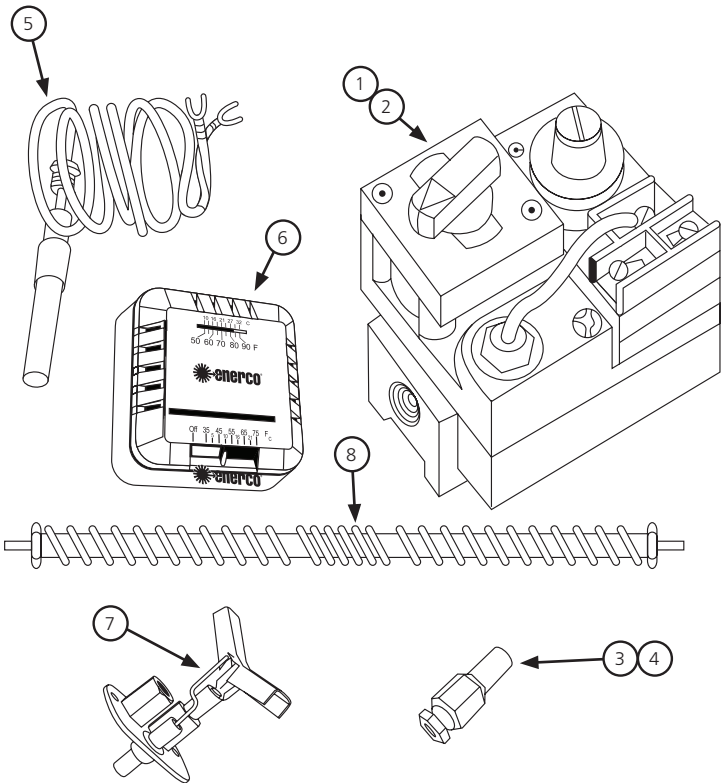
ITEM NO.	NO. REQ'D	STOCK NO.	DESCRIPTION
1	1	00024	GAS VALVE - NG
2	1	00025	GAS VALVE - LP
3	1	05577	ORIFICE PILOT LP
4	1	05573	ORIFICE PILOT NG
5	1	09360	THERMOCOUPLE PP HONEYWELL
6	1	10367	THERMOSTAT "PP" HEAT STAR
7	1	11405	PILOT-PP-4K, 8K HTR NG
7	1	11408	PILOT-PP-4K, 8K HTR LP
8	1	16433	PILOT TUBE WITH FITTINGS
PPNG			(1) (4) (5) (6) (7) (8)
PPLP			(2) (3) (5) (6) (7) (8)



OR HEATSTAR SERIES 9000, 9000S

REPLACEMENT PARTS LIST FOR
CONTROL SYSTEM SUFFIX PP(NG) & PP(LP)

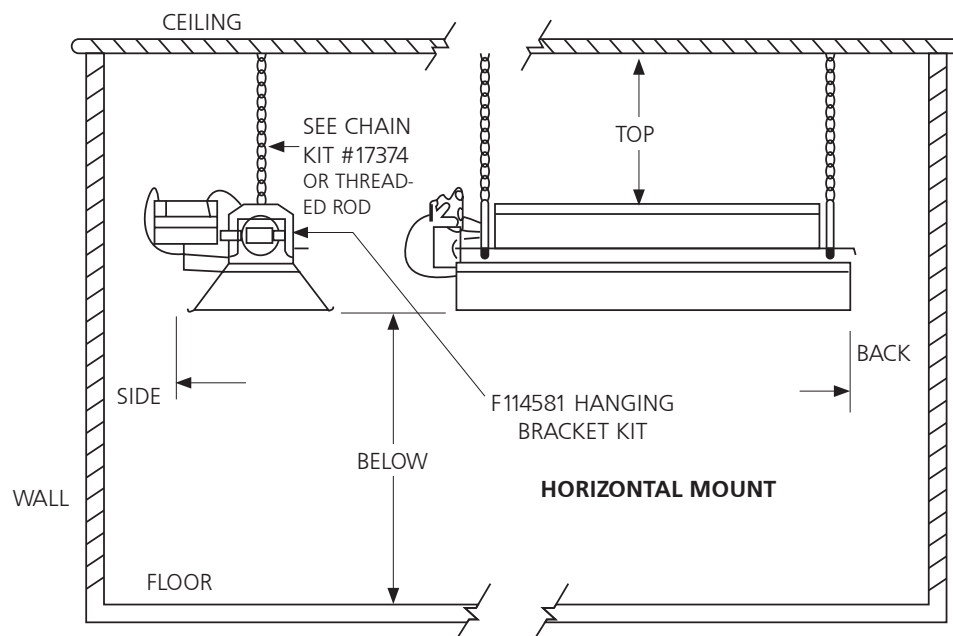
ITEM NO.	NO. REQ'D	STOCK NO.	DESCRIPTION
1	1	00024	GAS VALVE - NG
2	1	00025	GAS VALVE - LP
3	1	05384	ORIFICE PILOT LP
4	1	05383	ORIFICE PILOT NG
5	1	09360	THERMOCOUPLE PP HONEYWELL
6	1	10367	THERMOSTAT "PP" HEAT STAR
7	1	11385	PILOT BURNER-9000HTR
8	1	16454	PILOT TUBE WITH FITTINGS
PPNG			(1) (4) (5) (6) (7) (8)
PPLP			(2) (3) (5) (6) (7) (8)



NOTE: 1 – WHEN ORDERING SPARE PARTS ALWAYS GIVE HEATER MODEL NO., STOCK NO., SERIAL NO., AND TYPE OR GAS USED.

2 – WHEN DISASSEMBLING PARTS FROM HEATER FOR REPAIR, CAREFULLY NOTE ORIENTATION OF PARTS, AND THEN REVERSE PROCEDURE WHEN ASSEMBLING.

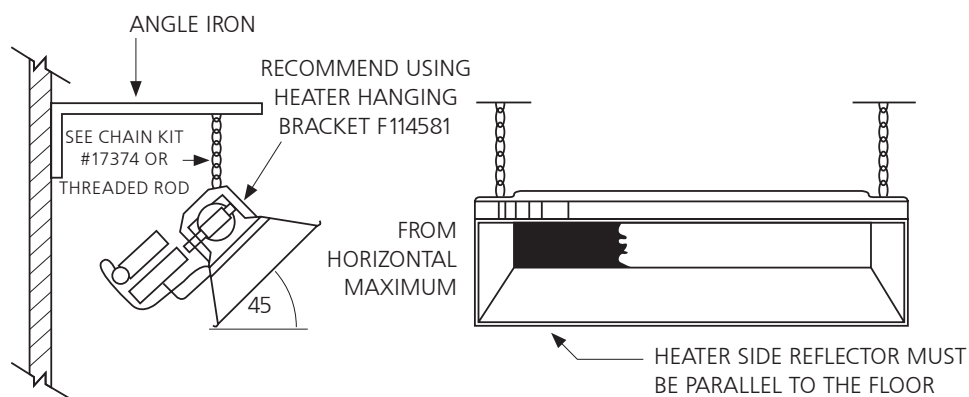
FIGURE 4 CLEARANCES TO COMBUSTIBLES



SEE INSTALLATION INSTRUCTIONS FOR DETAILED CLEARANCES INFORMATION

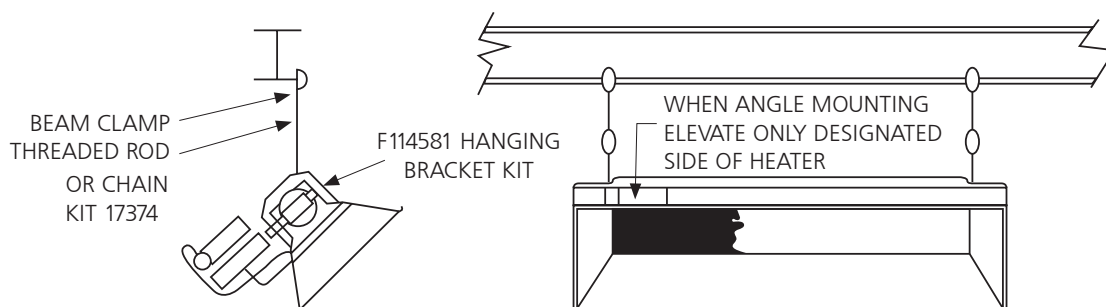
FIGURE 5 MOUNTING

TYPICAL WALL MOUNT



TYPICAL BEAM MOUNT

SUGGESTED HANGING METHOD
MODEL: 4000, 8000, 9000, MH40



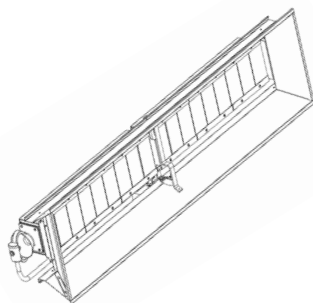
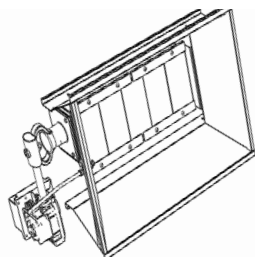
OPERATING INSTRUCTIONS AND OWNER'S MANUAL

HEATSTAR High-Intensity Infrared Heaters

MODELS

HS4030 HS8070 HS9100
HS4040 HS9080 HS9120
HS8050 HS9090 HS9140
HS8060 HS9100S

READ INSTRUCTIONS CAREFULLY: Read and follow all instructions. Place instructions in a safe place for future reference. Do not allow anyone who has not read these instructions to assemble, light, adjust or operate the heater.



WARNING: USE ONLY MANUFACTURER'S REPLACEMENT PARTS. USE OF ANY OTHER PARTS COULD CAUSE INJURY OR DEATH. REPLACEMENT PARTS ARE ONLY AVAILABLE DIRECT FROM THE FACTORY AND MUST BE INSTALLED BY A QUALIFIED SERVICE AGENCY.

PARTS ORDERING INFORMATION:

PURCHASING: Accessories may be purchased at any Mr. Heater/HeatStar local dealer or direct from the factory

FOR INFORMATION REGARDING SERVICE

Please call Toll-Free 866-447-2194 • www.enerco-mrheater.com

Our office hours are 8:00 AM – 5:00 PM, EST, Monday through Friday.

Email to: techservice@enerco-mrheater.com

Please include the model number, date of purchase, and description of problem in all communication.

LIMITED WARRANTY

The company warrants this product to be free from imperfections in material or workmanship, under normal and proper use in accordance with instructions of The Company, for a period of one year from the date of delivery to the buyer. The Company, at its option, will repair or replace products returned by the buyer to the factory, transportation prepaid within said one year period and found by the Company to have imperfections in material or workmanship.

Pro-rated 10-year warranty on the burner assembly only.

If a part is damaged or missing, call our Technical Support Department at 866-447-2194.

Address any Warranty Claims to the Service Department, Enerco Group, Inc., 4560 W. 160th St., Cleveland, Ohio 44135. Include your name, address and telephone number and include details concerning the claim. Also, supply us with the purchase date and the name and address of the dealer from whom you purchased our product.

The foregoing is the full extent of the responsibility of the Company. There are no other warranties, express or implied. Specifically there is no warranty of fitness for a particular purpose and there is no warranty of merchantability. In no event shall the Company be liable for delay caused by imperfections, for consequential damages, or for any charges of the expense of any nature incurred without its written consent. The cost of repair or replacement shall be the exclusive remedy for any breach of warranty. There is no warranty against infringement of the like and no implied warranty arising from course of dealing or usage of trade. This warranty will not apply to any product which has been repaired or altered outside of the factory in any respect which in our judgment affects its condition or operation.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This Warranty gives you specific legal rights, and you may have other rights which vary from state to state.

Enerco Group, Inc., reserves the right to make changes at any time, without notice or obligation, in colors, specifications, accessories, materials and models.

PRODUCT REGISTRATION: Thank you for your purchase.

Please log in to <http://www.egiregistration.com> to register your product.



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