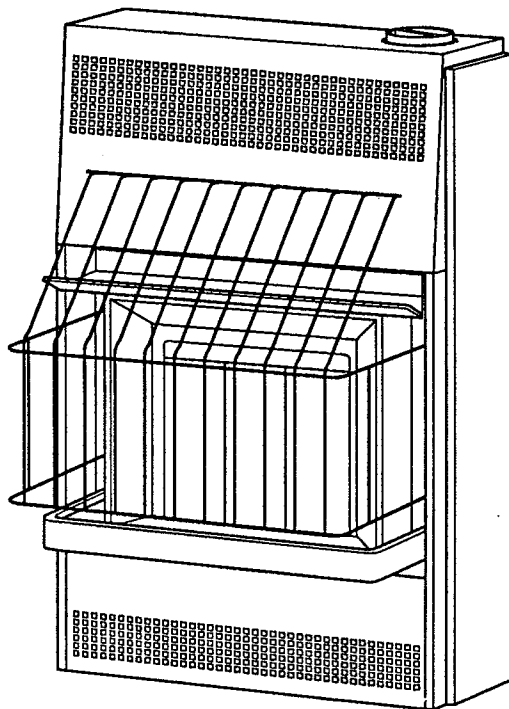


Comfort Glow

UNVENTED GAS HEATER



OWNER'S OPERATION AND INSTALLATION MANUAL MODELS DP16 AND DN17

FOR YOUR SAFETY

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

CAUTION:

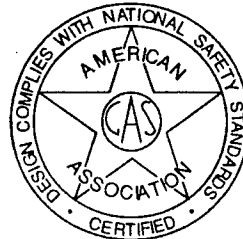
Read all instructions carefully before starting the installation.

DO NOT use this heater in sleeping quarters, trailers or recreational vehicles..

FOR YOUR SAFETY

If you smell gas:

1. Open windows.
2. Don't touch electrical switches.
3. Extinguish any open flame.
4. Immediately call your gas supplier.



Save this manual for future reference.

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SAFETY REQUIREMENTS

⚠ WARNINGS

IMPORTANT: Read this Owner's Manual carefully and completely before attempting to assemble, operate or service this heater. Improper use of heater can result in serious bodily injury or death due to hazards of fire, explosion, and carbon monoxide poisoning. Make certain you have read and understood all Warnings. Keep this manual for reference. It is your guide to safe and proper operation of this appliance.

1. Improper use of this heater can result in serious bodily injury or property damage.
2. Any change to this heater or its controls can be dangerous.
3. Read these warnings and the instructions carefully.
4. Installation and repair should be done by a qualified service person. The room heater should be inspected before use and at least annually by a professional service person. More frequent cleaning may be required due to excessive lint from carpeting, bedding material, etc. It is important that control compartments, burners and circulating air passageways of the room heater be kept clean.
5. **CAUTION:** Use only the type of Gas specified.
6. **DO NOT** place the Liquid Propane (LP) supply tank inside any structure (model DP16 only). The LP supply tank **MUST** be located **OUTDOORS**.
7. If you smell gas:
 - a. Open windows.
 - b. **DO NOT** touch electrical switches.
 - c. Extinguish any open flame.
 - d. Immediately call your gas supplier.
8. **DO NOT** install this heater in **SLEEPING QUARTERS**, trailers or recreational vehicles.
9. **DO NOT** operate heater in areas where flammable liquids, vapors or high dust content exist.
10. **DO NOT** store or use gasoline or other flammable vapors and liquids in the vicinity of this heater.
11. **DO NOT** locate heater in high traffic areas or in windy or drafty locations.
12. Keep combustible materials, such as furniture, draperies and clothing at least three (3) feet away from the front, top and sides of the heater.
13. Open a door to an adjacent room to assure adequate ventilation. Never operate heater in a small closed room.
14. Front surface and grill are hot during operation and may cause serious burns if touched. Young children should be carefully supervised when they are in the same room as the heater.
15. **ANY SAFETY SCREEN** or guard removed for maintaining the room heater must be replaced prior to operating the heater.
16. Always operate the heater at the low, medium or high locked position. Never operate the heater at a setting between the locked positions, as this may result in improper combustion and increased emission of carbon monoxide.
17. Children and adults should be alert to the hazards of high surface temperatures and should stay away to avoid burns or clothing ignition.
18. Installation and operation of heater should be done so **ONLY** in accordance with local ordinances and codes.

UNPACKING

1. Remove all protective materials which may have been applied to the heater for shipment.
2. Remove the heater from carton.
3. Check the heater for possible shipping damage. If any damage is found immediately notify the dealer from whom heater was purchased.

INTRODUCTION

Please read these instructions and check all local codes before you have your heater installed. This will help you obtain the full value from your heater. It will also help you avoid needless service costs that result from causes we cannot control or cover in our warranty.

This appliance is design certified by the American Gas Association Laboratories as an unvented gas heater.

This heater has been designed for wall mounting. If you want to locate your heater on a floor, away from a wall, an optional floor mounting kit is available. See below.

Models DP16 and DN17 use kit # GA1000B

An optional fan kit # GA2100B is available.

SPECIFICATIONS

	DP16	DN17
BTU Setting	15,000	18,000
Fuel	Liquid Propane	Natural Gas
Ignition	Piezo	Piezo
No. of Radiants	3	3
Pressure Regulator Setting	8.0"	6.0"
Orifice Drill Size	.028	.043
Inlet Gas Pressure (Inches of Water)*		
Maximum	14"	7.0"
Minimum	11"	5.0"

	DP16	DN17
Dimensions, Inches		
Heater (HxWxD)	24 1/4 x 16 1/2 x 7 3/4	
Carton (HxWxD)	25 1/2 x 17 1/4 x 8	
Weight, Lbs.		
Heater	18.1	18.1
Shipping	22	22

* **CAUTION:** The L.P. gas DP16 model requires an external regulator to reduce the L.P. tank pressure to a maximum of 14" w.c. Never connect this product directly to the supply tank.

INSTALLATION

I. GENERAL

The installation requirements vary with the locality. The installation must conform with local codes. In the absence of local codes, the installation must conform with the National Fuel Gas Code ANSI Z223.1.1984, also known as NFPA 54*. Only qualified (licensed or trained) personnel should install the product. This heater contains an Oxygen Depletion Safety System. If the normal oxygen content is reduced to 18%, the pilot and main burner will shut off.

II. LOCATION

⚠ The following safety precautions should be kept in mind when determining the location of the heater.

- DO NOT** install this heater in sleeping quarters, trailers or recreational vehicles.
- Select a location for the heater that will provide exposure of the radiant surface to the room but will not be submitted to accidental contact.
- The heater should be located to give ready accessibility for operating the controls and for servicing.
- This heater has been designed for wall mounting. The clearances from the heater to combustible surfaces **MUST NOT** be less than shown in Figure 1. These are absolute minimum clearances and greater clearances should be allowed wherever possible. The minimum floor clearance must be maintained above the top surface of carpeting, tile or other combustible covering. A minimum of 6 inches is required for both sides of the heater.
- DO NOT** install in areas where curtains, drapes, clothing or other flammable materials are within 36 inches of the front, top and sides of the heater.

If the heater is installed in a residential garage, the following precautions should be taken.

- The heater pilot and burners must be at least 18 inches above the floor.
- The heater must be located or reasonably protected, so as not to be subjected to damage by a moving vehicle.

* Available from the American National Standards Institute, Inc., 1430 Broadway, New York, NY 10018 or from the National Fire Protection Association Inc., Batterymarch Park, Quincy, MA 02269.

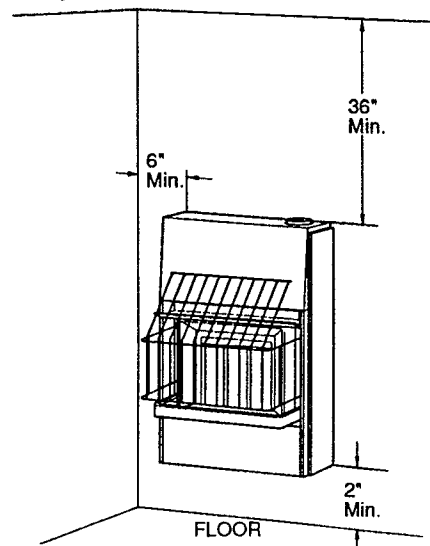


Figure 1 - Clearances

INSTALLATION (cont.)

III. INSTALLING HEATER TO WALL

1. Install the four (4) mounting screws supplied, using the enclosed paper template for proper location of holes. Plastic anchors should be used when mounting heater to plaster walls. Be sure to provide minimum clearances from side walls, floor, and ceiling, as shown in Figure 1.
2. After mounting screws are installed, hang heater on mounting screws in holes provided in back of heater.

NOTE: For installation with fan accessory kit # GA2100B, follow the instructions provided with the fan accessory kit.

IV. GAS CONNECTION

⚠ WARNING

Installation and repair should be done by a qualified service person. The room heater should be inspected before use and at least annually by a professional service person. More frequent cleaning may be required due to excessive lint from carpeting, bedding material etc. It is imperative that the control compartments, burners and circulating air passageways of the room heater be kept clean.

⚠ CAUTION

Model DP16 requires an external appliance regulator to reduce the LP tank pressure to a maximum of 14" w.c. **NEVER** connect this product directly to the supply tank.

1. **NOTICE:** An additional gas regulator will be necessary if the local natural gas pressure exceeds the heater's rated maximum inlet pressure. If in doubt, contact the local gas utility.
2. We recommend using only new black iron or steel pipe. Copper tubing may be acceptable. **CHECK LOCAL CODES.**
3. The gas supply line shall be sized and installed to provide a sufficient supply of gas to meet the maximum demand of the heater without undue loss of pressure.
4. Piping sealant compounds shall be a type that is resistant to the action of the gas. Apply sealant lightly to male threads to ensure excess sealant does not enter lines.
5. The regulator has a 3/8 NPT inlet for gas supply. A 1/2 x 3/8 NPT adaptor is supplied, separately packaged, with the heater to enable either 3/8 or 1/2 inch supply fittings to be used.

⚠ CAUTION: DO NOT twist gas regulator during piping.

6. The supply system must include a manual shut-off valve and a union in the line, so the heater can be disconnected for servicing. Unions in gas lines must be of ground joint type.
7. Include a drip let (trap) and a plugged 1/8 NPT tapping in the line. The tapping should be accessible for test gauge connections upstream of the gas supply connection to the heater.

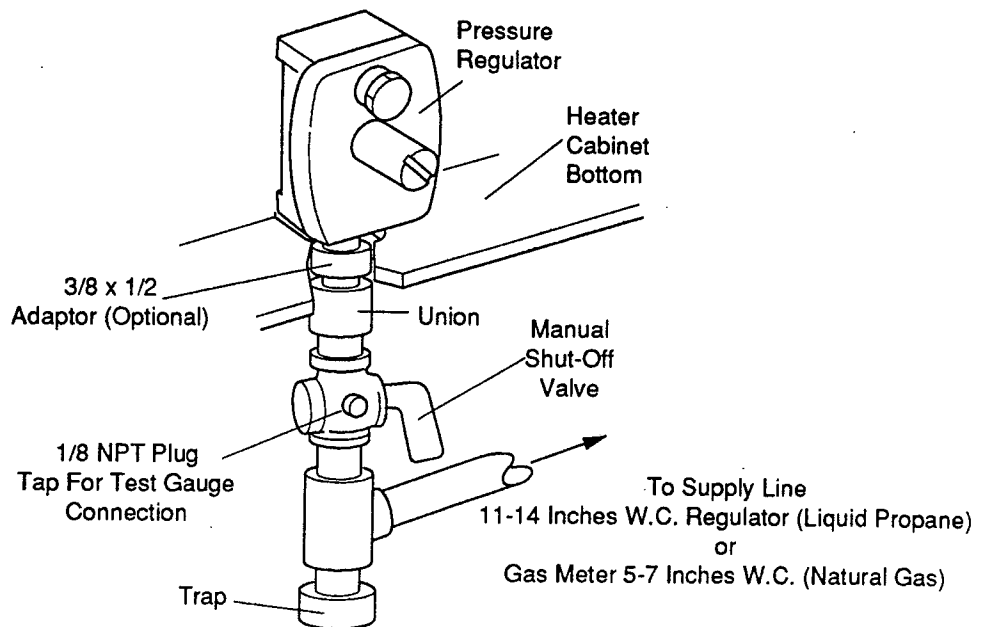


Figure 2 - Gas Connection

INSTALLATION (cont.)

V. CHECKS AFTER GAS CONNECTION

⚠ WARNING

All gas piping and connections must be tested for leaks after installation or servicing. All leaks must be corrected immediately.

1. Make sure the control of the heater is in the "OFF" position.
2. To remove the lower front panel, first remove the side trim strips by depressing the spring clips with a screwdriver, as shown in Figure 3. Press in on the sides of the front panel and remove, as shown in Figure 4.

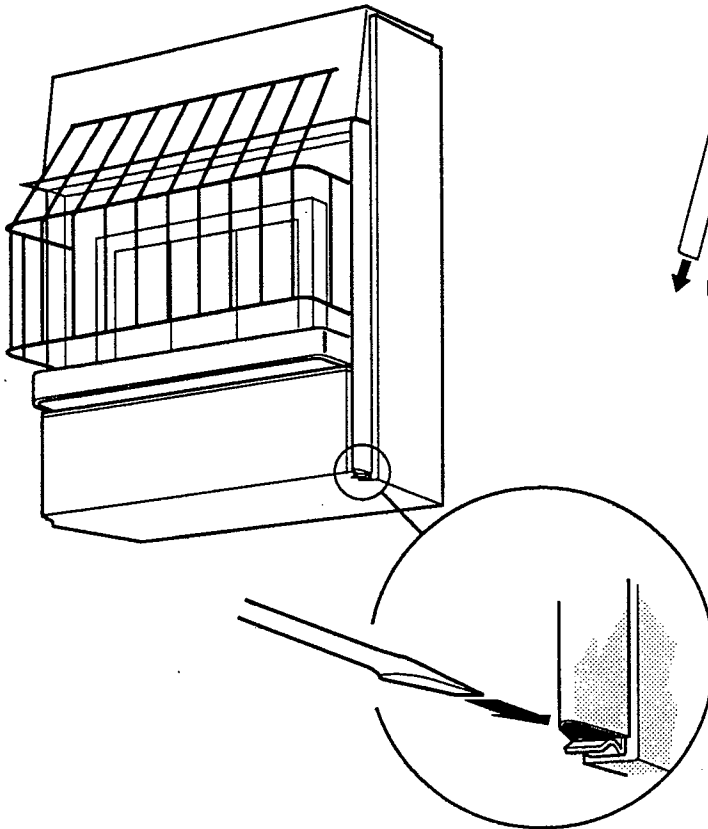


Figure 3 - Side Trim Strips Removal

3. Open the manual shut-off valve. Test for leaks by applying a liquid detergent to ALL JOINTS.

⚠ CAUTION: NEVER use an open flame to check for leaks.

4. Correct any leak detected at once. (Bubbles forming indicate a gas leak.)

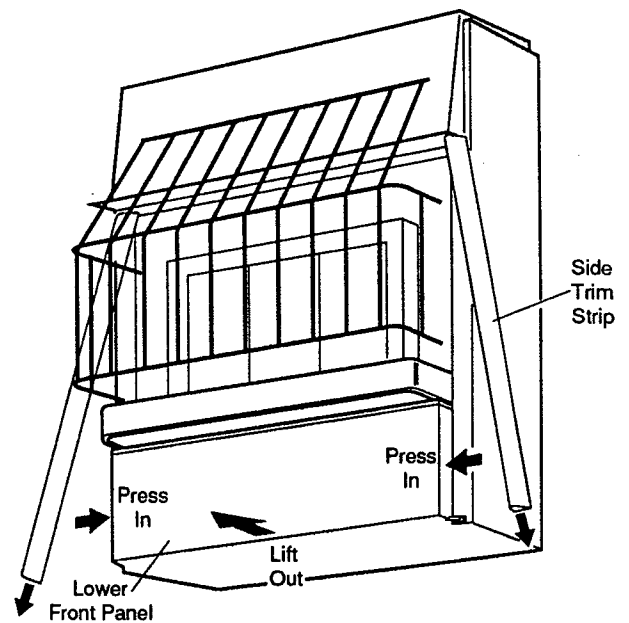


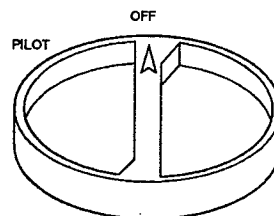
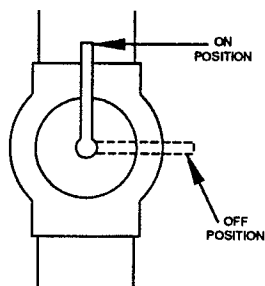
Figure 4 - Front Panel Removal

VI. PRESSURE TESTING SUPPLY LINE

1. The heater and its individual manual shut-off valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of 1/2 PSIG.
2. The heater must be isolated from the gas supply piping system by closing its individual manual shut-off valve during any pressure testing of the gas supply piping system at pressures equal to or less than 1/2 PSIG.

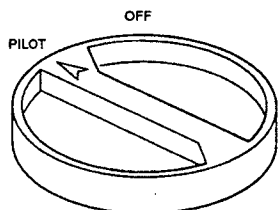
OPERATING PROCEDURE

I. TO TURN ON

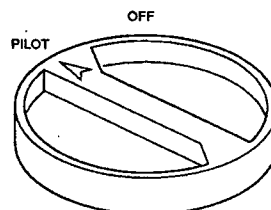


1. Check that the manual shut-off valve is on.

3. Release control knob pressure and return to OFF position.



2. Turn the control knob counterclockwise to PILOT and depress knob for 5 seconds. **NOTE:** The first time the heater is operated after connecting to the gas supply, the control knob should be depressed for about 30 seconds. This will allow air to bleed from the gas lines.



4. Depress control knob while in OFF position, then turn back to PILOT position while holding down. **NOTE:** This should cause the spark from the piezo ignitor to light the pilot gas. **KEEP CONTROL KNOB DEPRESSED FOR 10 SECONDS BEFORE RELEASING.**

If pilot does not light, repeat steps 2, 3 and 4.

II. TO SELECT HEATING LEVEL DESIRED

To select the heating level desired, partially press down the control knob and rotate counterclockwise to the LOW, MEDIUM or HIGH position.

IMPORTANT: Release the downward pressure on the knob while continuing to turn until the knob locks at the desired setting position. **DO NOT** operate between the locked positions, as this may result in improper combustion and increased emission of carbon monoxide.

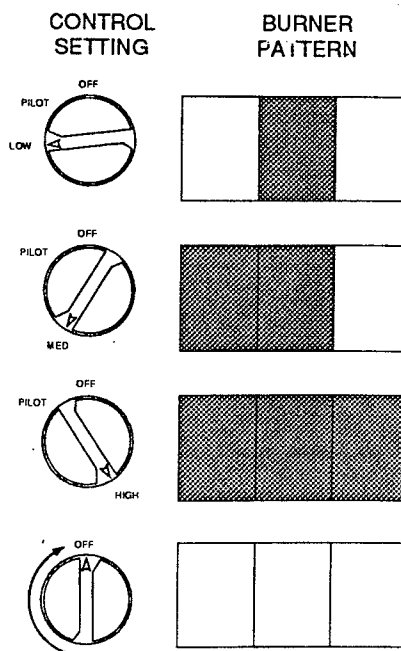
III. TO TURN OFF

Partially depress the control knob and turn fully clockwise to the "OFF" position.



CAUTION

Wait five (5) minutes before re-lighting heater.



BURNER INSPECTION

A periodic visual check of the pilot flame and burner pattern should be made.

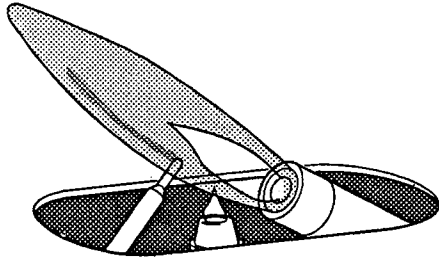


Figure 5A - Correct Pilot Flame Pattern

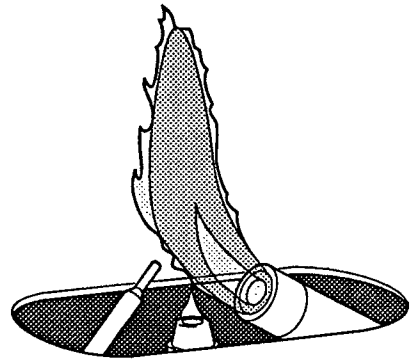


Figure 5B - Incorrect Pilot Flame Pattern

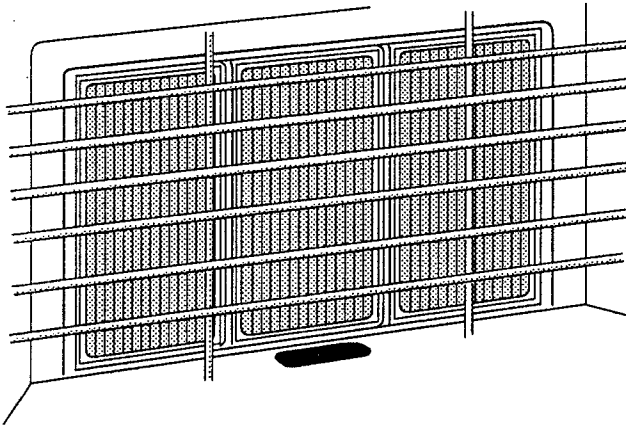


Figure 6A - Correct Burner Flame Pattern

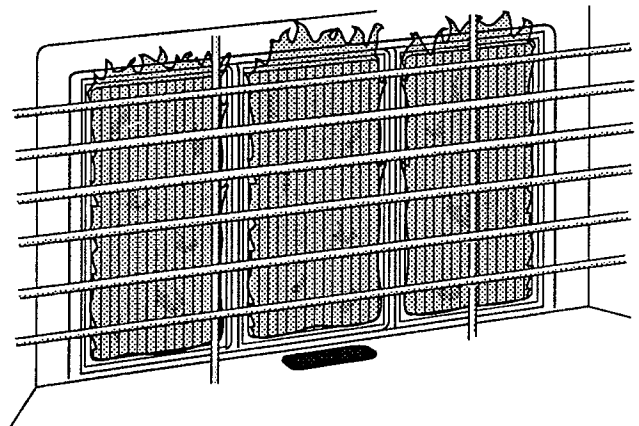


Figure 6B - Incorrect Burner Flame Pattern

If maximum flame pattern exceeds Figure 6A, turn off heater.

If burner radiants do not glow evenly over their entire surface when lit, see Troubleshooting section.

Cleaning

All cleaning should be done with the heater cold and the gas shut off. Dusting or wiping with a soft cloth and mild soap is all that should be required to keep the casing clean. The remaining parts of the heater should only need occasional dusting with a dry cloth.

TROUBLESHOOTING

PROBLEM	REASON	SOLUTION
Smell of gas.	1. Gas leak.	1a. Shut off gas and open windows. b. Don't touch electrical switches. c. Extinguish any open flame. d. Immediately call your gas supplier.
Pilot or heater will not ignite.	1. Gas supply valve is closed. 2. Improper lighting procedure. 3. Damaged ignition device. 4. Low pressure in gas line.	1. Open gas supply valve. 2. See lighting procedures. 3. Contact your qualified service person. 4. Contact your qualified service person.
Burner radiant(s) do not glow.	1. Damaged radiant(s). 2. Low pressure in gas line.	1. Contact your qualified service person. 2. Contact your qualified service person.
Burner radiant(s) do not glow evenly.	1. Low pressure in gas line. 2. Obstruction in radiant or radiant supply line.	1. Contact your qualified service person. 2. Clean or clear obstructions.
Whistling noise during ignition or operation.	1. Incorrect burning.	1. Turn off heater immediately. Re-light. If whistling noise continues, contact your qualified service person.
Heater automatically extinguished during use.	1. Lack of ventilation. 2. Low pressure in gas line. 3. Damaged heater.	1. Open door and/or window. 2. Contact your qualified service person. 3. Contact your qualified service person.
SERVICE HINTS		
Heater will not ignite.	1. Low gas pressure. 2. Air in gas line. 3. Obstruction between electrode and pilot. 4. Broken electrode wire. 5. Defective electrode. 6. Defective piezo device on gas valve.	1. Check pressure. 2. Bleed system. 3. Clean or clear obstructions. 4. Replace*. 5. Replace*. 6. Replace*.
Pilot flame goes out when knob is released.	1. Loose thermocouple connection. 2. Defective thermocouple.	1. Tighten. 2. Replace*.
Pilot is on, burner won't light.	1. Gas valve passage blocked or defective. 2. Orifice plugged.	1. Replace*. 2. Clean or replace*.
Burner is noisy.	1. Gas input amount is incorrect. 2. Gas regulator pressure is incorrect. 3. Burner unit damaged.	1. Check orifice size. 2. Check pressure. 3. Replace*.
Radiants do not glow bright.	1. Low gas pressure. 2. Orifices and/or radiants blocked or damaged.	1. Check pressure. 2. Clean or replace*.

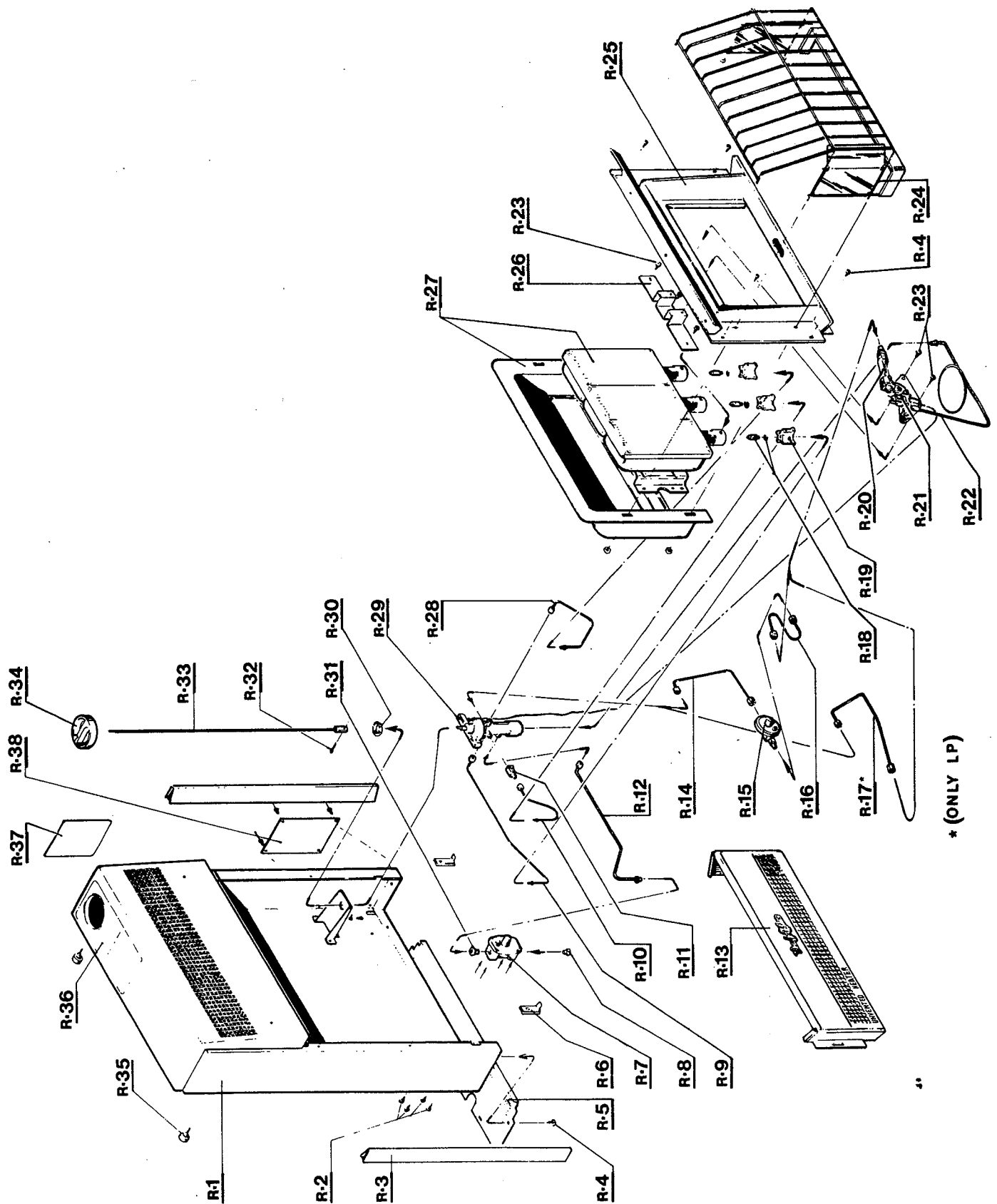
***NOTE:** If for any reason the heater needs replacement parts, the following procedure should be followed:

1. The pilot orifice requires no adjustments and must remain with the bracket assembly.
2. The radiants are not field serviceable. The entire burner unit must be replaced even if only one radiant is defective.
3. The gas regulator is factory preset and can not be adjusted.

⚠ WARNING

Never use wire, needle or similar object to clean the pilot. This can damage the pilot unit.

ILLUSTRATED PARTS LIST



*(ONLY LP)

ILLUSTRATED PARTS LIST

KEY NO.	DESCRIPTION	QTY. REQD.	PART NUMBER	
			MODEL DP16	MODEL DN17
R-1	Body Assembled Includes R-35, R-36, R-37 and R-38	1	2.99.001	2.99.001
R-2	Regulator Mounting Screws	4	1.54.101	1.54.101
R-3	Side Moldings	2	2.04.389	2.04.389
R-4	Screws, Burner Surround and Base Plate	8	1.54.182	1.54.182
R-5	Base Plate	1	2.04.734	2.04.734
R-6	Clip, Side Moldings	2	2.99.002	2.99.002
R-7	Inlet Regulator	1	1.57.503	1.57.502
R-8	Inlet Adaptor (3/8" x 1/2")	1	2.04.381	2.04.381
R-9	L.H. Burner Pipe	1	2.05.505	2.05.505
R-10	Center Burner Pipe	1	2.05.452	2.05.452
R-11	Pressure Test Fitting	1	2.99.009	2.99.009
R-12	Connection, Inlet Regulator To Valve	1	2.05.702	2.05.702
R-13	Lower Front Panel	1	2.99.003	2.99.003
R-14	Connection, Valve To Regulator	1	-	2.05.453
R-15	Pilot Regulator With Fittings	1	-	2.99.012
R-16	Connection, Regulator To Pilot	1	-	2.05.453
R-17	Connection, Valve To Pilot	1	2.05.455	-
R-18	Injector and Washer	3	2.99.005	2.99.004
R-19	Injector Support	3	2.11.401	2.11.401
R-20	Bracket and Pilot	1	2.99.014	2.99.006
R-21	Ignitor	1	1.46.202	1.46.202
R-22	Thermocouple	1	1.43.401	1.43.401
R-23	O.D.S. and Sup. Bracket Screws	5	1.54.101	1.54.101
R-24	Grill Guard, With Side Deflectors	1	2.99.011	2.99.010
R-25	Burner Surround	1	2.04.905	2.04.905
R-26	Pilot Bracket	1	2.02.573	2.02.573
R-27	Chamber and Burner Assembly	1	2.99.008	2.99.007
R-28	R.H. Burner Pipe	1	2.05.452	2.05.452
R-29	Valve	1	1.41.118	1.41.118
R-30	Valve Nut	1	2.04.805	2.04.805
R-31	Regulator Outlet Fitting	1	2.04.812	2.04.812
R-32	Control Rod Pin	1	1.53.302	1.53.302
R-33	Control Rod	1	2.99.013	2.99.013
R-34	Control Knob	1	1.50.304	1.50.304
R-35	Rubber Pads For Back	4	1.50.401	1.50.401
R-36	Control Position Decal	1	16.415	16.415
R-37	Operating Instructions Decal	1	16.416	16.416
R-38	Warning Label	1	16.414	16.414
R-39	Owner's Manual (not shown)	1	1.60.603	1.60.603
R-40	Wall Mounting Screws (not shown)	4	1.54.123	1.54.123
R-41	Hang tag LPG (not shown)	1	16.417	-

REPLACEMENT PARTS

Contact authorized dealers of this product. If they are unable to supply original replacement part(s), call DESA International at 1-800-323-5190. Be prepared to indicate name, address, model number, and how heater was malfunctioning, type of gas used and purchase date. In most cases, the defective part will be requested to be returned to the factory.

WARRANTY INFORMATION

KEEP THIS WARRANTY

Model _____

Serial No. _____

Date Purchased _____

ALWAYS SPECIFY MODEL AND SERIAL NUMBERS WHEN COMMUNICATING WITH THE FACTORY.

WE RESERVE THE RIGHT TO AMEND THESE SPECIFICATIONS AT ANY TIME WITHOUT NOTICE. THE ONLY WARRANTY APPLICABLE IS OUR STANDARD WRITTEN WARRANTY. WE MAKE NO OTHER WARRANTY, EXPRESSED OR IMPLIED.

LIMITED WARRANTY COMFORT GLOW GAS HEATERS

DESA International warrants this product to be free from defects in materials and components for one (1) year from the date of first purchase, provided that the product has been properly installed, operated and maintained in accordance with all applicable instructions. To make a claim under this warranty the Bill of Sale or cancelled check must be presented.

This warranty is extended only to the original retail purchaser. This warranty covers only the cost of part(s) required to restore this heater to proper operating condition. Warranty part(s) MUST be obtained through authorized dealers of this product and/or DESA International who will provide original factory replacement parts. Failure to use original factory replacement parts voids this warranty. The heater MUST be installed by a qualified installer in accordance with all local codes and instructions furnished with the unit.

This warranty does not apply to parts that are not in original condition because of normal wear and tear, or parts that fail or become damaged as a result of misuse, accidents, lack of proper maintenance or defects caused by improper installation. Travel, diagnostic cost, labor, transportation and any and all such other costs related to repairing a defective heater will be the responsibility of the owner.

TO THE FULL EXTENT ALLOWED BY THE LAW OF THE JURISDICTION THAT GOVERNS THE SALE OF THE PRODUCT; THIS EXPRESS WARRANTY EXCLUDES ANY AND ALL OTHER EXPRESSED WARRANTIES AND LIMITS THE DURATION OF ANY AND ALL IMPLIED WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE TO ONE (1) YEAR FROM THE DATE OF FIRST PURCHASE; AND DESA INTERNATIONAL'S LIABILITY IS HEREBY LIMITED TO THE PURCHASE PRICE OF THE PRODUCT AND DESA INTERNATIONAL SHALL NOT BE LIABLE FOR ANY OTHER DAMAGES WHATSOEVER INCLUDING INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES.

Some states do not allow a limitation on how long an implied warranty lasts or an exclusion or limitation of incidental or consequential damages, so the above limitation on implied warranties, or exclusion or limitation on damages may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.

For information about this warranty write:

DESA[®]
INTERNATIONAL

2701 Industrial Drive
Bowling Green, KY 42101