

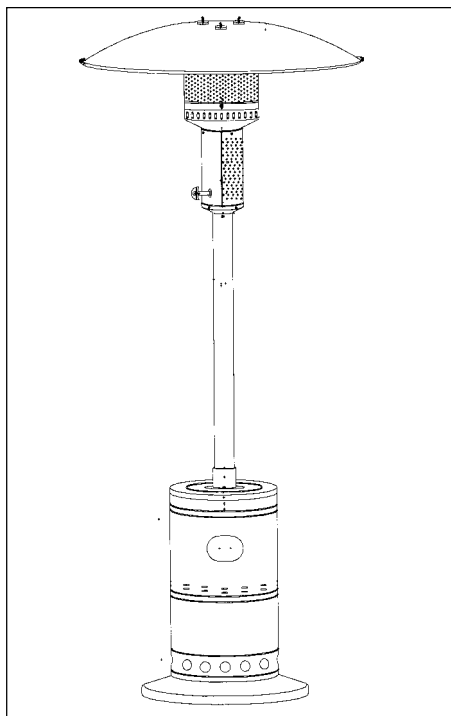
INSTRUCTIONS AND PARTS LIST

National-Riverside
Universal
Model 44-PH

ALL PURPOSE
PROPANE
HEATER

SPC
ALL-PRO
MODEL SPC-44PH

40,000 BTU/HR



Type of Gas.....For use with Propane Only
Input rating.....40,000 BTU/hr
Manifold Pressure.....11" W.C.
Orifice Size.....1.90mm
Max. Supply Inlet Pressure.....100 psi
Min. Supply Inlet Pressure.....5 psi

**YOUR SAFETY IS IMPORTANT TO YOU AND TO OTHERS,
SO PLEASE READ THESE INSTRUCTIONS BEFORE YOU
OPERATE THIS HEATER.**

WARNING: For Outdoor Use Only



GENERAL HAZARD WARNING:

IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION, SERVICE OR MAINTENANCE CAN CAUSE INJURY OR PROPERTY DAMAGE. READ THE INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS THOROUGHLY BEFORE INSTALLING OR SERVICING THIS EQUIPMENT.

FOR YOUR SAFETY

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

**RETAIN THESE INSTRUCTIONS FOR FUTURE REFERENCE
INSTALLER - LEAVE THESE INSTRUCTIONS WITH CONSUMER**

SCHEUPRODUCTSCOMPANY, INCORPORATED

Mail: P.O. Box 250, Upland, CA 91785
Plant: 8855 Baker Ave., Rancho Cucamonga, CA 91730
Telephone: 909 981-5343

8339
September 2001

OPERATING INFORMATION

This is a propane, direct-fired heater.

Propane is heavier than air. If propane leaks from a connection or fitting, it sinks to the floor, collecting there with the surrounding air, forming a potentially explosive mixture. Obviously, propane leaks should be avoided, so set up the propane supply with utmost care. Leak check new connections or reconnections with a soap and water solution and follow all connection instructions herein. Also, ask your propane dealer for advice on the propane supply installation and ask him to check it if there are any questions.

Direct-fired means that all of the combustion products enter the heated space. Even though this heater operates very close to 100 percent combustion efficiency, it still produces small amounts of carbon monoxide. Carbon monoxide (called CO) is toxic.

CO can build up in a heated space and failure to provide adequate ventilation could result in death. The symptoms of inadequate ventilation are:

headache
dizziness
burning eyes and nose
nausea
dry mouth or sore throat

So, be sure to follow advice about ventilation in these operating instructions.



WARNING: FIRE, BURN, INHALATION, AND EXPLOSION HAZARD. KEEP SOLID COMBUSTIBLES, SUCH AS BUILDING MATERIALS, PAPER OR CARDBOARD, A SAFE DISTANCE AWAY FROM THE HEATER AS RECOMMENDED BY THE INSTRUCTIONS. NEVER USE THE HEATER IN SPACES WHICH DO OR MAY CONTAIN VOLATILE OR AIRBORNE COMBUSTIBLES, OR PRODUCTS SUCH AS GASOLINE, SOLVENTS, PAINT THINNER, DUST PARTICLES OR UNKNOWN CHEMICALS.

FOR YOUR SAFETY

If you smell gas:

- 1. Shut off gas to the appliance.**
- 2. Extinguish any open flame.**
- 3. If odor continues, immediately call your gas supplier.**

Tools Required

8 mm Socket and Driver or Screwdriver
#2 & #3 Philips Head Screwdriver
Open End Wrenches: 10mm, 11mm, 12mm, 3/4"
Teflon Tape - Pipe Thread Sealer

SAFETY PRECAUTIONS

1. Check the heater thoroughly for damage. DO NOT operate a damaged heater.
2. DO NOT modify the heater or operate a heater which has been modified from its original condition.
3. Use only propane gas.
4. Use only VAPOR WITHDRAWAL propane supply. If there is any question about vapor withdrawal, ask your propane dealer.
5. Never use the heater if the ballast weight is not assembled onto the base. The base must be weighted to avoid tipping.
6. Use only the hose and regulator assembly provided with the heater. Inspect hose assembly before each use of the heater. If there is excessive abrasion or wear, or hose is cut, replace with hose assembly listed on parts list before using heater.
7. This heater is for outdoor use only, even so make sure that there is ample fresh air ventilation. Do not use in buildings, garages or other enclosed spaces.
8. If at any time gas odor is detected, IMMEDIATELY DISCONTINUE operation until the source of gas has been located and corrected.
9. Install the heater such that it is not directly exposed to water spray, rain and/or dripping water or wind.
10. Maintain minimum clearance to people or normal combustible material (like paper) of 3 feet from top, 2 feet from the reflector.
11. Operate only on a stable, level surface.
12. Do not move, handle or service while hot or burning.
13. Use only in accordance with local codes or, in the absence of local codes, with the National Fuel Gas Code ANSI Z223.1.
14. Do not hang or attach clothing or any other combustible materials from, on or near the heater.
15. Check control compartment burners and circulation air passageways for free air passage, make sure that there are no obstructions. These areas are a common location for spider webs, which can present a dangerous condition, damage the heater and render it unsafe for use. The heater must be checked if any of the following conditions exist:
 - a) Gas smell along with predominate yellow tipping of the burner flames.
 - b) Heater does not reach temperature.
 - c) Uneven burner glow.
 - d) Burner makes popping noises during normal use, other than during shutdown.
16. Care must be taken for the supervision of children in the vicinity of an operating heater.
17. Due to high surface temperatures adults and children must observe clearances to avoid burns or clothing ignition.

GAS REQUIREMENTS

The heater comes with a regulator/hose assembly for hook-up to a standard 20 pound LP gas tank (18- 1.4" high, 12- 1/4" diameter). **The LP tank is not included. A dented or rusty LP tank may be hazardous and should be checked by your LP supplier. Never use an LP tank with a damaged valve.** The LP tank must be arranged to provide for vapor withdrawal from the operating cylinder. Never connect an unregulated LP tank to the heater. The heater is shipped from the factory for LP use, never substitute gases

LP Gas Hook-up:

The heater is designed to house a 20 pound gas cylinder in the base assembly. Lift the cylinder cover, and place the LP cylinder into the housing. The regulator can then be screwed into the LP cylinder, the regulator and the tank have right-handed threads (clockwise to tighten. No teflon tape is required). When tightening be careful not to put too much force on the LP cylinder valve.

ASSEMBLY INSTRUCTIONS

NOTE: *Assembly of this heater requires basic mechanical skills. Proper assembly is the responsibility of the installer. Installation and repair should be done by a qualified service person.*

STEP 1:

Attach the three base support legs on the base using three (3) M6-1.25 x 20mm hex head bolts, three (3) M6 lock washers, six (6) flat washers, and three (3) M6-1.25 nuts.

STEP 2:

Place the ballast weight plate under the base. Tighten the weight and base together using four (4) M6-1.25 x 25mm hex head bolts, four (4) M6 lock washers, eight (8) M6 flat washers and four (4) M6-1.25 nuts.

STEP 3:

Place the post support on the base support legs (see figure 1). Tighten the post support and the base support legs together using six (6) M6-1.25 x 20mm hex head bolts, six (6) M6 lock washers, twelve (12) M6 flat washers, and six (6) M6-1.25 nuts.

NOTE: Make sure that all bolts are tightened before proceeding to the next assembly step.

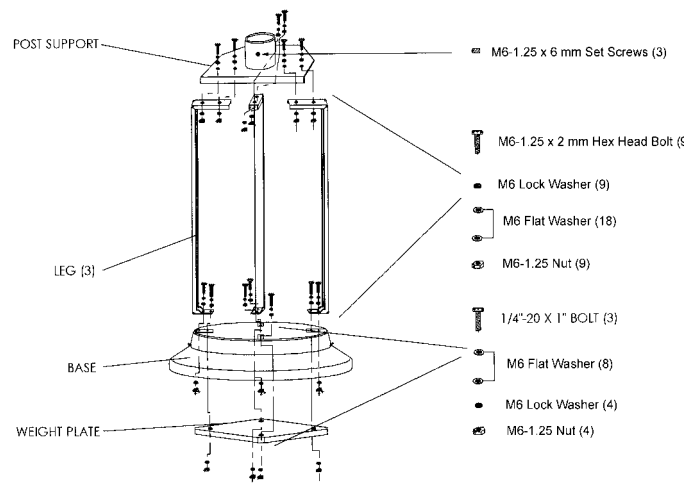


Figure 1: Step 1, 2 & 3

STEP 4:

Slide the cylinder cover over the base module assembled in the previous steps. See figure 2.

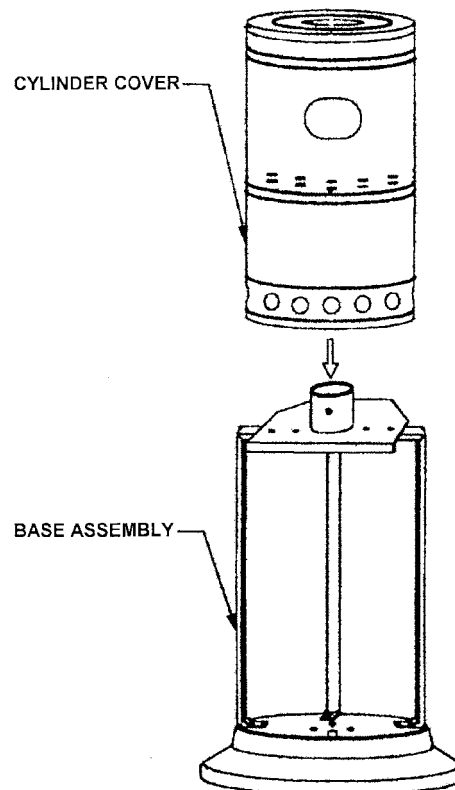


Figure 2: Step 4

STEP 5:

Remove one protective end cap from the end of the fuel line with the male pipe thread. Wrap the male pipe threads with Teflon tape (not included). Set the burner assembly on a flat surface. Screw the gas line into the main burner inlet fitting and tighten using a $\frac{3}{4}$ " wrench. Make sure that the connection between the gas line and the main burner inlet fitting is tight. See figure 3.

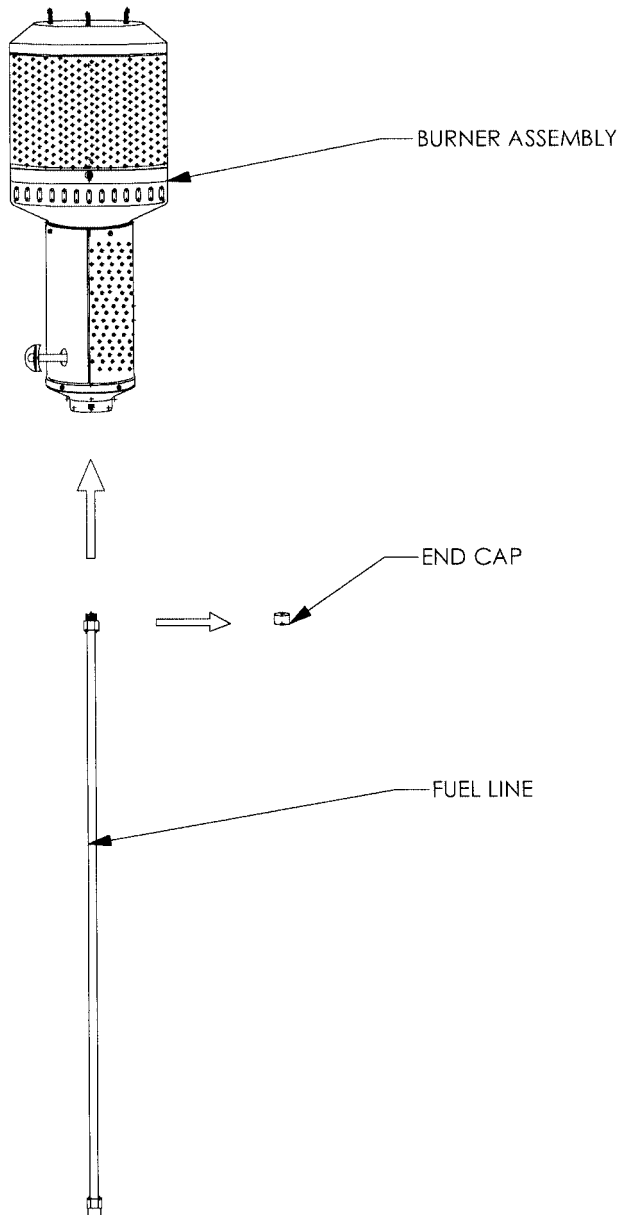


Figure 3: Step 5

STEP 6:

Slide the post over the fuel line. Push the post over the lower end of the main burner housing. The post end with the three holes goes first. Attach the post to the main burner using three (3) M6 lock washers, three (3) M6 flat washers, and M6 phillips head screws. See figure 4.

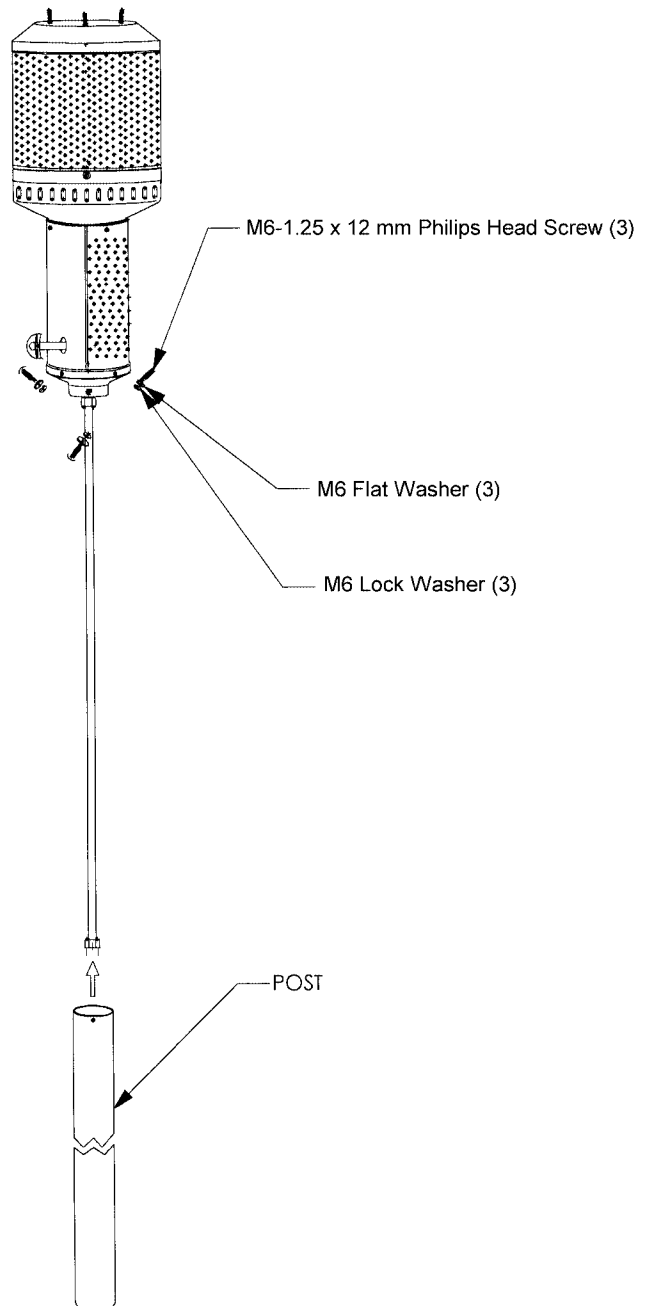


Figure 4: Step 6

STEP7:

Carefully insert the post into the post support socket (base assembly) and make sure that the lower end of the fuel line passes through the hole in the post support plate. Using three (3) M6-1.25 setscrews secure the post into the support socket with the supplied Allen wrench. Make sure that the setscrews firmly grip the post. See figure 5.

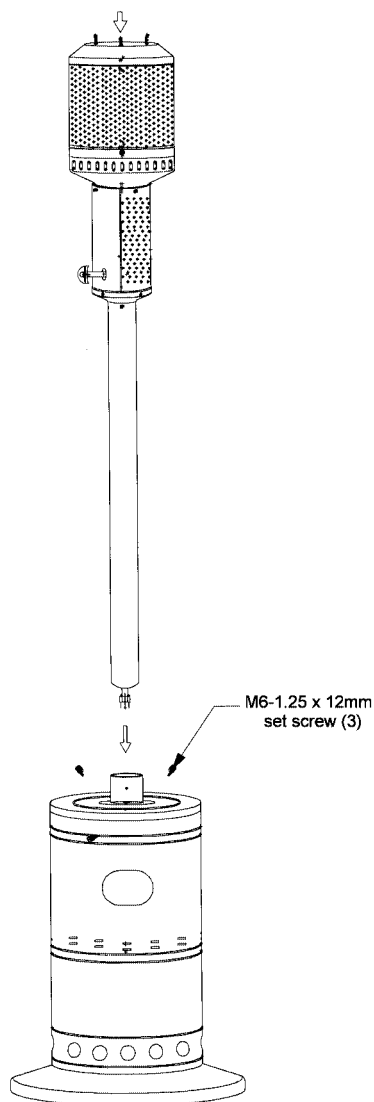


Figure 5: Step 7

STEP8:

Secure the reflector onto the three reflector brackets on the burner assembly using three (3) M8-1.5 hex nuts and three (3) M8 washers. Make sure that the nuts are tight before moving on to step 9. See figure 6.

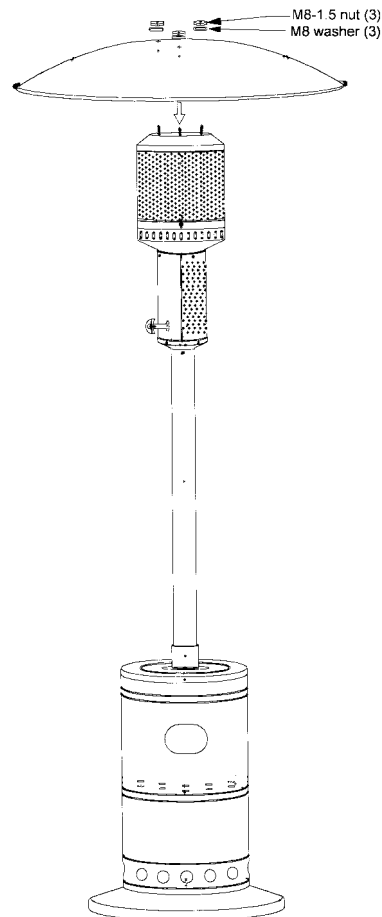


Figure 6: Step 8

STEP10:

Lower the cylinder cover down to cover the cylinder compartment.

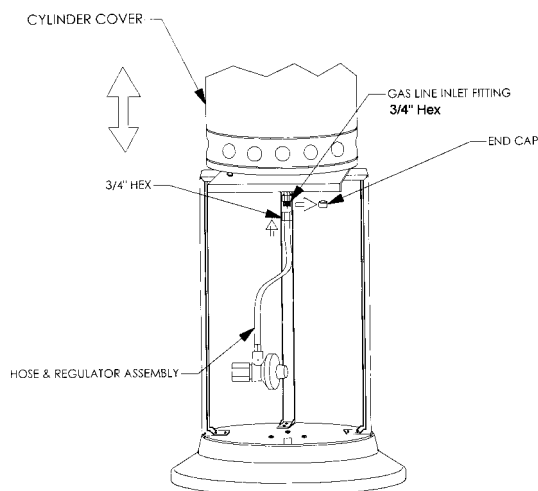


Figure 7: Step 9 & 10

STEP9:

Carefully lift up the cylinder cover. Tilt the cylinder cover bottom and set its bottom edge onto the post support plate. Make sure that the cylinder cover is at the stable position. Remove the other protective end cap from the fuel line inlet fitting. Hold the fuel line inlet fitting with an $\frac{3}{4}$ " wrench and tighten the hose & regulator assembly onto the fuel line inlet fitting with another $\frac{3}{4}$ " wrench. See figure 7.

NOTE: Make sure that patio heater stands vertically. If it does not slightly loosen the setscrews, then retighten them after making corrections. All fuel connections must be checked for leaks, using a soap and water solution, upon initial operation of the heater.

GENERAL INFORMATION

During use, liquid propane in a container vaporizes. As it vaporizes, the propane cools itself. If this cooling process continues long enough and proceeds fast enough, the propane temperature and pressure will fall so low that heater operation may be improper or even impossible even though plenty of propane remains in the container. Often frost forms on the outside of the propane container as a warning of excessive refrigeration.

Recommendations to reduce the ill effects of refrigeration are:

- Provide considerably more propane than you plan to consume. As a rule of thumb, provide twice as much.
- Fill containers frequently, especially in cold weather. Never allow propane to fall below one-third of container capacity.
- If possible, keep containers in a warm area. Under no circumstances should a heater exhaust be directed toward the propane cylinder.

OPERATING INSTRUCTIONS

FUEL CONNECTION:

- 1) Use a 20-pound (5-gallon) vapor withdrawal propane cylinder. Not supplied with the heater.
- 2) Place the cylinder in the heater base with the valve accessible.
- 3) Connect the POL fitting of the hose & regulator assembly to the propane cylinder by rotating the plastic POL nut clockwise into the propane cylinder's valve outlet and securely tighten.
- 4) Make sure that the safety valve is turned off then open the cylinder's valve and check all gas connections with a soap and water solution. **DO NOT USE A FLAME.** The gas connections to check include those in the heater base and the connections in the burner assembly.

⚠ CAUTION

When the heater is to be operated in the presence of other people the user is responsible for properly acquainting those present with safety precautions, and other hazards involved.

START:

- 1) Lift the Cylinder cover on the base, and set it on top of the post socket plate.
- 2) Check all propane connections as described in the fuel connection section of this manual.
- 3) Fully open the valve on the propane cylinder.
- 4) Turn the safety valve control knob to pilot.
- 5) Push and hold the control knob then push and release the ignition button repeatedly until there is a flame at the pilot. If the ignition button does not work the pilot can be match-lit through the access hole, found under the emitter base.
- 6) Continue to hold the gas valve control knob depressed for 30 seconds after pilot ignition, then release.
- 7) Turn the burner on to maximum rate then reduce to desired setting.
- 8) Lower the cylinder cover onto the base to cover the propane cylinder.

STOP:

- 1) Turn the gas valve control knob to "off" position.
- 2) If heater is not to be used, securely close the valve at the propane cylinder.
- 3) Do not attempt to relight the heater for 5 minutes, after the propane cylinder valve has been closed.

RESTART AFTER SHUTDOWN:

- 1) Turn the gas valve control knob to the "off" position.
- 2) Wait 5 minutes.
- 3) Restart following "start" procedure.

MAINTENANCE AND STORAGE:

- 1) A qualified person should inspect the heater before each use, and at least annually.
- 2) Before each use, check the POL fitting for any damage, and replace if any damage is found.
- 3) Turn off the propane vapor supply at the cylinder when the heater is not to be used.
- 4) Spiders and insects can nest and live in outdoor appliances, especially in the burners and orifices. This will interrupt the normal flow of LP-gas to the heater and can be a very dangerous situation. The heater must be inspected for insect infiltration of the burner / orifice annually, or when one of the following occur:
 - a. Gas smell along with predominate yellow tipping of the burner flames.
 - b. Heater does not reach temperature.
 - c. Uneven burner glow.
 - d. Burner makes popping noises during normal use, other than during shutdown.
- 5) When the heater is to be stored indoors, the connection between the LP-gas supply cylinder and the heater must be disconnected and the cylinder removed from the heater and stored in accordance with chapter 5 of the standard for Storage and Handling of Liquefied Petroleum Gases ANSI/NFPA 58.

WARNING:

Local codes for installation of propane systems may vary considerably. Therefore, ask your local propane supplier for advice on propane system installation in your particular area. In the absence of local codes, install in accordance with American National Standards Institute (ANSI)/National Fire Protection Association (NFPA) publication "**Standard for the Storage and Handling of Liquefied Petroleum Gases ANSI/NFPA 58 and National Fuel Gas Code ANSI Z223.1.**" Your propane supplier, fire marshal or library should have a copy.

The propane supply system must be arranged for vapor withdrawal. Propane cylinders must be secured in the base and chained in the upright position to keep them from falling or being knocked over.

PARTS LIST

Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.
1	8320	Dome (Reflector)	1	25	8301	Thermocouple	1
2	8235	Emitter	1	26	8303	Orifice	1
3	8314	Plate, Valve, Heat Shield	1	27	8305	Ignition Wire Shield	1
4	8321	Emitter Bottom	1	*	8339	Instruction Manual	1
5	8238	Pilot Cover	1	28	8262	Nut, Brass	1
6	8239	Burner	1	29	8263	Bolt, Dome Mounting	3
7	8240	Pilot	1	30	8264	Washer, Flat, 8mm, SS	6
8	8241	Valve Housing, Front	1	31	8319	Washer Lock	3
9	8242	Knob	1	32	8266	Nut, Hex Dome Support, SS	6
10	8243	Valve Support	1	33	8304	TE Valve	1
11	8244	View Hole Cover	1	34	8306	Pilot Orifice/Pilot Tube	1
12	8308	Fitting, TE Valve	1	35	8269	Screw, SS	23
13	8248	Fuel Line	1	36	8270	Screw, Burner to Tube, SS	3
14	8249	Valve Housing, Wrap	1	37	8302	Electrode	1
15	8250	Upper Post Connector	1	38	8272	Set Screw, Tube Mounting	3
16	8251	Piezo Igniter	1	39	8273	Screw, Base Assembly	9
17	8252	Post	1	40	8274	Washer Lock, Base Assembly	16
18	8253	Cylinder Cover	1	41	8275	Washer Flat, Base Assembly	29
19	8254	Post Support	1	42	8276	Nut, Hex, Base Assembly	16
20	2075	Hose & Regulator Assembly	1	43	8277	Bolt, Ballast Weight	4
21	8255	Legs, Base	3	* Not Shown			
22	8256	Base	1				
23	8257	Ballast Weight	1				
24	8258	Fuel Line, Fixed Plate	1				

INSTRUCTIONS FOR ORDERING PARTS -

All parts orders must show Heater Model No., Item No., Part No. and Description. We recommend that only parts supplied by the manufacturer be used on this unit. A locally purchased part may appear to be identical, although in reality it might endanger the heater or the persons operating the heater.

The heater should be serviced only by a trained, experienced service person. Read the section on "Servicing" before ordering parts.

For parts order, call (909) 981-5343 or visit our website at www.scheuco.com.

SERVICING

A hazardous condition may result if a heater is used that has been modified or is not functioning properly. When the heater is working properly:

- * The flame is contained within the heater.
- * The flame is essentially blue.
- * There is no strong disagreeable odor, eye burning or other physical discomfort.
- * There is no smoke or soot internal or external to the heater.
- * There are no unplanned or unexplained shut downs of the heater.

The parts list shows the heater as it was constructed. Do not use a heater which is different from that shown. In this regard, use only the hose, regulator and cylinder connection fitting (called a POL fitting) supplied with the heater. Do not use alternates. For this heater, the regulator must be set to supply 11" W.C. outlet pressure. If there is any uncertainty about the regulator setting, have it checked.

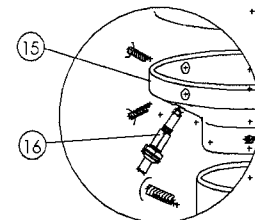
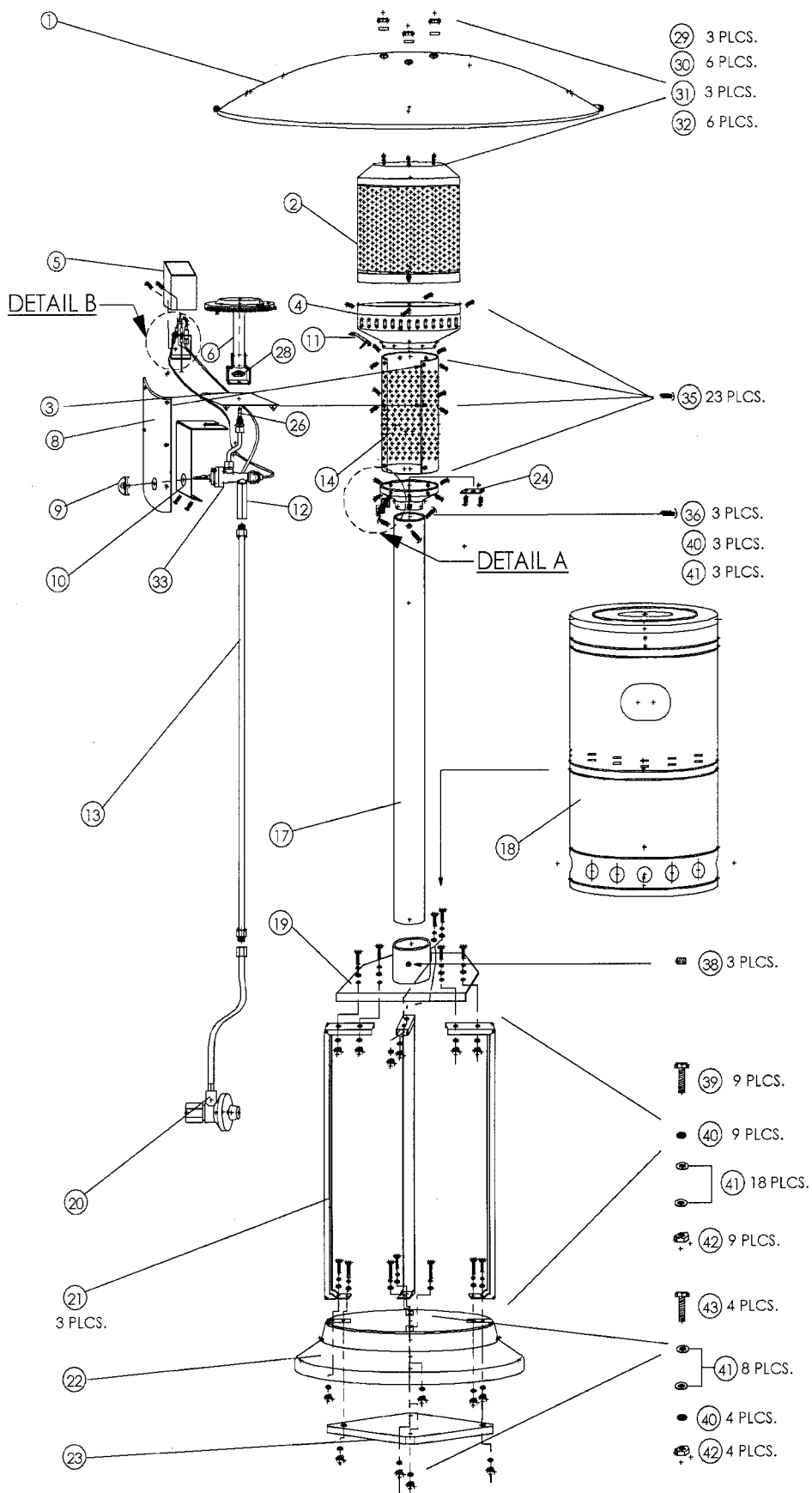
A heater which is not working right must be repaired, but only by a trained, experienced service person. Contact the factory for the service center closest to you, phone number (909) 981-5343.

You may also obtain in-warranty or out-of-warranty service by returning the product postage prepaid to:

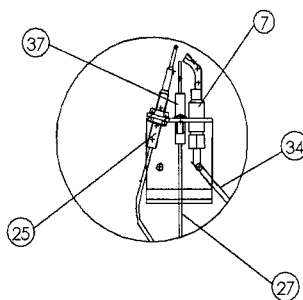
Scheu Products Company
8855 Baker Avenue
Rancho Cucamonga, CA 91730

In-warranty products returned to the Service Department will be repaired with no charge for either parts or labor and will be returned to you freight prepaid. Please include a brief statement indicating date, place of purchase, the nature of the problem and proof of purchase.

Out-of-warranty products returned to the Service Department will be repaired with a charge for parts and labor and will be returned to you freight collect.



DETAIL A



DETAIL B