

SCHEU PRODUCTS COMPANY, INCORPORATED

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**ASSEMBLY AND OPERATING INSTRUCTIONS
MODELS 100-RA/SPC-100RA
CONSTRUCTION HEATER**

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



GENERAL HAZARD WARNING:

FAILURE TO COMPLY WITH THE PRECAUTIONS AND INSTRUCTIONS PROVIDED WITH THIS HEATER, CAN RESULT IN DEATH, SERIOUS BODILY INJURY AND PROPERTY LOSS OR DAMAGE FROM HAZARDS OF FIRE, EXPLOSION, BURN, ASPHYXIATION, AND CARBON MONOXIDE POISONING. ONLY PERSONS WHO CAN UNDERSTAND AND FOLLOW THE INSTRUCTIONS SHOULD USE OR SERVICE THIS HEATER. IF YOU NEED ASSISTANCE OR HEATER INFORMATION SUCH AS AN INSTRUCTIONS MANUAL, LABELS, ETC. CONTACT THE MANUFACTURER.



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.

OPERATING INFORMATION

Intended use is primarily the temporary heating of buildings under construction, alteration or repair.



WARNING

NOT FOR HOME OR RECREATIONAL VEHICLE USE.

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.

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. Mount the propane cylinders vertically (shutoff valve up). Secure them from falling or being knocked over and protect them from damage.
6. Locate propane containers at least 7 ft. from the heater and **do not** direct exhaust toward containers.
7. 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.
8. For indoor use only. Area must be well ventilated. Provide minimum openings of 2 sq. ft. near the floor and 2 sq. ft. near the ceiling (also see "Operating Information").
9. If at any time gas odor is detected, IMMEDIATELY DISCONTINUE operation until the source of gas has been located and corrected.
10. Install the heater such that it is not directly exposed to water spray, rain and/or dripping water or wind.
11. Maintain minimum clearance from normal combustible material (like paper) of 6 ft. in all directions. Locate 10 ft. from canvas or plastic tarpaulins or similar coverings and secure them to prevent flapping or movement due to wind action.
12. Operate only on a stable, level surface.
13. Do not use on combustible floors.
14. Caution: Do not touch heater surface during operation or for 30 minutes after shutdown. It can cause serious burns.
15. Do not move, handle or service while hot or burning.
16. Use only in accordance with local codes or, in the absence of local codes, with the Standard for the Storage and Handling of Liquefied Petroleum Gases ANSI/NFPA 58-1998.

OPERATING INSTRUCTIONS

PREPARING FOR OPERATION

1. Check the heater for possible shipping damage. If any is found, immediately notify your dealer.
2. Follow all of the "Safety Precautions" on page 1, "Propane Fuel Information" on page 4 and "Operating Information" on page 1.
3. Connect the POL fitting of hose and regulator assembly to the propane cylinder by rotating the POL nut counter clock wise into the propane cylinder's valve outlet and securely tighten with a wrench.
4. Connect the hose to the heater.
5. Securely tighten all gas connections.
6. Open the cylinder's gas valve and check all gas connections with a soap and water solution. **DO NOT USE A FLAME.**

START

1. **WARNING: BEFORE LIGHTING PILOT, fully close the ball valve (turn handle perpendicular to valve body).**
2. Fully open the valve on the propane cylinder.
3. Depress red button on safety pilot valve admitting gas to the pilot. Push and release the piezo button until the pilot lights, multiple tries may be necessary. Alternately place a lighted match near the pilot (pilot is above cutout in the middle pan). If the hose is filled with air, allow a few minutes for gas to reach the pilot.
4. When the pilot lights, continue to hold the button on the safety pilot valve depressed for 30 seconds, then release.
5. If the pilot goes out, wait 5 minutes and repeat the start procedure.
6. When the pilot remains lit, open the ball valve to light the main burner (turn handle parallel with valve body) .

CAUTION: Adjusting burn rate to lower than design can cause sooting.

STOP

1. Securely close valve on the propane cylinder.
2. Close the ball valve (handle perpendicular to valve body).

RESTART AFTER SAFETY SHUTDOWN

1. Securely close valve at propane cylinder.
2. Wait 5 minutes.
3. Restart following "Start" procedure.

MAINTENANCE AND STORAGE

1. The heater should be inspected before each use, and at least annually by a qualified person.
2. Before each use, check the soft "O" ring seat at the bull-nose of the POL fitting. If the "O" ring is cut, scuffed, otherwise damaged, replace it with part number 6681.
3. Turn off the gas at the LP-gas supply cylinder(s) when the heater is not in use.
4. When the heater is to be stored indoors, the connection between the LP-gas supply cylinder(s) and the heater must be disconnected and the cylinder(s) removed from the heater and stored outdoors and in accordance with Chapter 5 of the standard for Storage and Handling of Liquefied Petroleum Gases ANSI/NFPA 58-1998.



CAUTION

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

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 shutdowns 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. 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 :

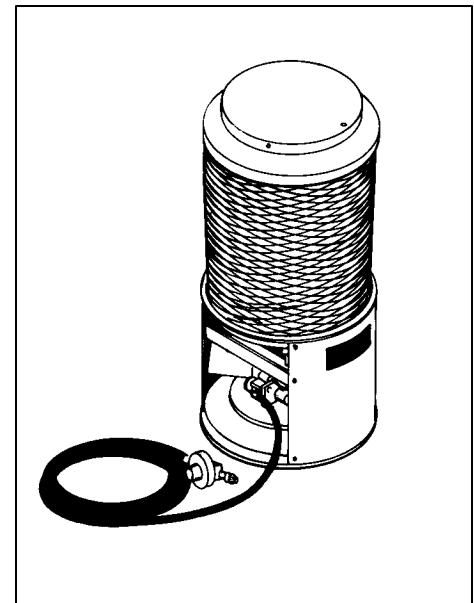
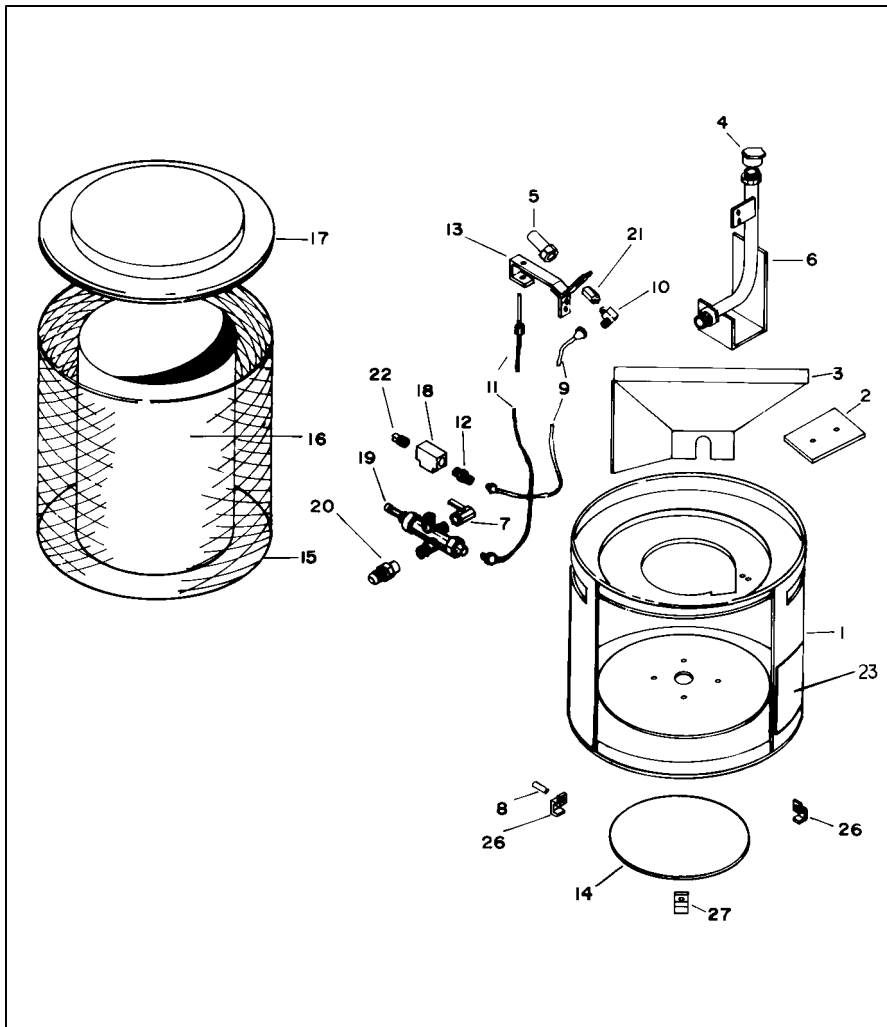
Scheu Products Company
8855 Baker Avenue
Rancho Cucamonga, CA 91730

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 postage 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 postage collect.

SCHEU PRODUCTS COMPANY, INC.
P.O. BOX 5050
UPLAND, CA 91785-5050

MODEL 100-RA/SPC-100



TYPE OF GAS For use with Propane Only
INPUT RATING 100,000 BTU/hr
MANIFOLD PRESSURE 9.5" Water Column
MAX. GAS SUPPLY PRESS Bottle Pressure
MIN. GAS SUPPLY PRESSURE 5 psi
MIN. AMBIENT TEMPERATURE RATING 0°F

PARTS LIST

Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.
1	0814	Base Assembly	1	15	1098	Emitter Grill	1
2	3095	Ballast	1	16	3101	Louvered Emitter	1
3	1074	Valve Shield Assembly	1	17	3102	Pan Hood	1
4	6112	Orifice, #68 Drill	1	18	7286	Fitting, Female Tee	1
5	1510	Pilot, LP Assembly	1	19	6104	Valve, Thermoelectric	1
6	1072	Manifold Assembly	1	20	7125	Fitting, Female Connector	1
7	6655	Ball Valve	1	21	7157	Orifice Pilot	1
8	6067	Spacer	5	22	7287	Fitting, Male Plug	1
9	1593	Tube, Pilot Assembly, 100-RA	1	23	6391	Label, Model/Operating Instructions	1
10	6137	Female Elbow Fitting	1	*	4222	Bracket, Piezo	1
11	6234	Thermocouple, 14"	1	*	6473	Ignitor, Piezo	1
12	6505	Fitting, Male Connector	1	26	3106	Leg Base, Side	2
13	1594	Pilot Mounting Bracket Assembly	1	27	3105	Leg Base, Front	1
14	3683	Floor Shield	1	*	7161	Nut, Piezo	1
*	6712	Label, Hangtag, LP Hose	1	*	6152	Hose Assembly	1
*	6433	POL/Excess Flow Check Valve	1	*	6255	Regulator, 11" W.C.	1
*	8129	Electrode	1				
*	2116	Wire, Hi-Temp Assembly, 15"	1				
						*Item not Shown	

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, <http://scheuco.com>
or call (909) 981-5343.

PROPANE FUEL INFORMATION

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 58-1998. Your 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 upright position to keep them from falling or being knocked over.

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 the heater exhaust be directed toward the propane cylinder.
- * If particularly cold weather is expected, install a vaporizer (consult your propane supplier).
- * Watch for and avoid frost formation on containers. If it occurs, discontinue use of the heater and refill container.

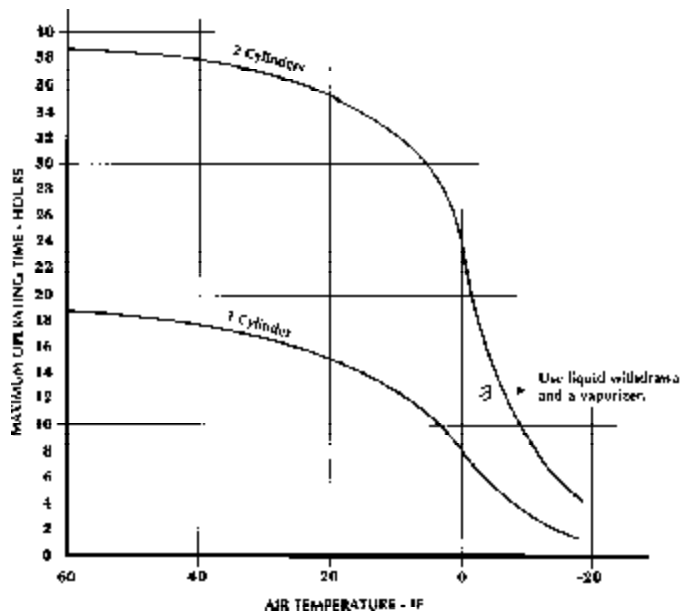
SIZE AND CAPACITY OF PROPANE

The chart below shows the approximate number of cylinders required for this heater. To use the chart:

1. Select the lowest air temperature expected (at the bottom of the chart).
2. Move straight up to time of operation desired (left side of chart).
3. Read the number of cylinders required. Rather than using several 100-lb. cylinders, it may be preferable to use a larger container installed outside (consult your propane supplier).

NOTE: The chart applied only when you have:

- * Full cylinders, 100-lbs. capacity
- * Good air circulation
- * No frost on cylinders (Note: If frost accumulates on cylinders, divide maximum operating time on chart by 3.)



ANSI Z83.7b-1993/CGA 2.14-1972
Construction Heater

P/N 7289G
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