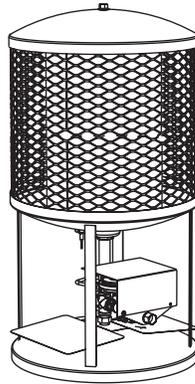


Printed in U.S.A.



## INSTALLATION AND OPERATION INSTRUCTIONS

### RFPA10C CONSTRUCTION HEATER FLOOR MODEL



#### **WARNING**

##### **IMPROPER INSTALLATION**

Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death. Read the installation, operating and maintenance instructions thoroughly before installing or servicing this equipment.

##### **WHAT TO DO IF YOU SMELL GAS**

- \* **DO NOT** try to light any appliance.
- \* **DO NOT** touch any electrical switch; **DO NOT** use any phone in your building.
- \* **Immediately** call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- \* If you cannot reach your gas supplier, **CALL** the fire department.

#### **SAVE FOR FUTURE REFERENCE**

Space-Ray Division, Gas Fired Products, Inc. P.O. Box 36485, Charlotte, NC 28236 (704) 372-3485



**LIMITED WARRANTY:** Gas-Fired Products, Inc., the manufacturer, warrants to the original owner of any Space-Ray infrared gas heater that said heater will be free from defects in material or workmanship under normal use and service. The heater(s) shall be installed, used and maintained strictly in accordance with the manufacturer's instructions. The manufacturer's sole obligation under this warranty shall be limited to furnishing replacement parts, F.O.B. Charlotte, NC, for 12 months from the date of installation, or 18 months from the date of shipment by the manufacturer, whichever period shall expire first. Labor charges for removal of defective parts and the installation of the replacement parts are not included. This warranty applies only within the USA and Canada.

**WARNING:** Manufacturer's warranty shall not apply: (a) to damage to the heater when used in an atmosphere containing halogenated hydrocarbons or other corrosive chemicals. Some compounds in the air can be ingested into the equipment and can cause an accelerated rate of corrosion of some of the parts of the heating components. The use of such chemical compounds in or near the operating environment of the heater should be avoided where a longer heater life is desirable; (b) to any heater or components which have been repaired or replaced with other than factory parts, modified in any way, misused or damaged, or which have been used contrary to the manufacturer's written instructions. Replacement parts are available through Space-Ray representatives or their distributors.

**LIMITATION OF WARRANTY:** THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. WITHOUT LIMITING THE FOREGOING, THE MANUFACTURER EXPRESSLY EXCLUDES ANY AND ALL IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE AND ANY IMPLIED WARRANTY OF MERCHANTABILITY FOR ITS PRODUCTS.

If any provision of this warranty is found to be void, unenforceable or unconscionable, then the same is hereby severed and the remainder of this warranty is hereby saved and shall remain in force.

**EXCLUSIVE REMEDY:** The sole and exclusive remedy under this warranty is the replacement of the defective parts or heaters as hereinabove specified. THE MANUFACTURER DOES HEREBY EXPRESSLY EXCLUDE ANY AND ALL LIABILITY FOR INCIDENTAL AND CONSEQUENTIAL DAMAGES UNDER THIS OR ANY OTHER WARRANTY. Without intending to limit the aforesaid exclusion, THE MANUFACTURER DOES HEREBY EXCLUDE ANY LIABILITY UNDER THIS OR ANY OTHER WARRANTY FOR INJURIES AND COMMERCIAL LOSSES TO PROPERTY THAT RESULT FROM THE OPERATION, PROPER OR IMPROPER, OF ITS PRODUCTS.

**ADDITIONAL WARRANTY ON HEAT EMITTING SURFACE AND BURNER:** Manufacturer warrants to the original owner of any CSA design certified heater that, if installed, used and maintained strictly in accordance with the printed instructions received with the heater, the manufacturer will at any time during the below listed time periods, furnish at no cost to the original owner, replacement emitters or burners which have become inoperative by reason of any defect in our workmanship, materials or construction. The manufacturer's obligation under this warranty shall be limited to furnishing replacements under the following time periods from the date of installation:

	<u>EMITTER</u>	<u>BURNER</u>
<b>RFPA SERIES</b>	<b>1 Year</b>	<b>10 Years</b>

The manufacturer will not be responsible for labor charges incurred for removal or installation of emitters. Any transportation charges involved in the return or repair are excluded.

**ADDITIONAL TERMS:** Manufacturer assumes no liability for delay in performing its obligations under the aforesaid warranty. Manufacturer assumes no liability for failure in performing its obligations there under if failure results directly or indirectly from any cause beyond its control, including but not limited to acts of God, acts of Government, floods, fires, shortages of materials, strikes and other labor difficulties or delays or failures of transportation facilities.

**THIS IS A NON-RESIDENTIAL PRODUCT.** Installation and service shall be by a Licensed Contractor and in accordance with National and Local Codes.

When presenting warranty claims, proof of date of purchase must be submitted.

No Representative is authorized to assume for the manufacturer any liability except as set forth above.

In case of claim under this warranty, contact:  
Space-Ray P.O. Box 36485 305 Doggett Street (28203)

## TABLE OF CONTENTS

SECTION 1	GENERAL INFORMATION.....	3
SECTION 2	SPECIFICATIONS .....	4
SECTION 3	ADDING OPTIONAL REFLECTOR.....	4
SECTION 4	MINIMUM CLEARANCES TO COMBUSTIBLES .....	5
SECTION 5	GAS CONNECTIONS AND REGULATION ... ..	6
SECTION 6	INSTRUCTIONS FOR PRESSURE TEST GAUGE CONNECTION ...	6
SECTION 7	INFORMATION FOR LP GAS FLOOR MODEL HEATERS ONLY ....	7
SECTION 8	VENTILATION AND COMBUSTION AIR .....	10
SECTION 9	LIGHTING AND SHUTDOWN INSTRUCTIONS .....	10
SECTION 10	CLEANING AND ANNUAL MAINTENANCE .....	11
SECTION 11	REPLACING PARTS .....	12
SECTION 12	REPLACEMENT PARTS LIST RFPA10C ... ..	12

## LIST OF FIGURES

FIGURE 1	OPTIONAL REFLECTOR ASSEMBLY .....	5
FIGURE 2	REGULATOR AND HOSE ASSEMBLY .....	9
FIGURE 3	GAS CONTROL KNOB SETTING POSITION . .....	11
FIGURE 4	REPLACEMENT PARTS ... ..	14

## LIST OF TABLES

TABLE 1	MODEL INPUT RATING .....	4
TABLE 2	MODEL DIMENSIONS .....	4
TABLE 3	RFPA10C CLEARANCES TO COMBUSTIBLES .....	5
TABLE 4	GAS SUPPLY PRESSURES . .....	6
TABLE 5	MAXIMUM CONTINUOUS FLOW IN BTU/HR. AT VARIOUS TEMPERATURES (DEGREES F) .....	7
TABLE 6	REPLACEMENT PARTS ... ..	12

## SECTION 1:RFP10C GENERAL INFORMATION

**INSTALLER:** This manual is the property of the owner. Please present this manual to the owner when you leave the job site.

This heater is a self-contained infrared floor model heater for use in the temporary heating of buildings under construction, repair or alteration.

 <b>WARNING</b>
<p><b>GENERAL HAZARD</b></p> <p>FAILURE TO COMPLY WITH THE PRECAUTIONS AND INSTRUCTIONS PROVIDE WITH THIS HEATER, CAN RESULT IN DEATH, SERIOUS BODILY INJURY AND PROPERTY LOSS OR DAMAGE FROM THE HAZARDS OF FIRE, EXPLOSION, BURN, ASPHYXIATION, CARBON MONOXIDE POISONING, AND/OR ELECTRICAL SHOCK.</p> <p>ONLY PERSONS WHO CAN UNDERSTAND AND FOLLOW THE INSTRUCTIONS SHOULD SERVICE THIS HEATER.</p> <p>IF YOU NEED ASSISTANCE WITH THIS HEATER OR INFORMATION SUCH AS AN INSTRUCTIONS MANUAL, LABEL, ETC., CONTACT THE MANUFACTURER.</p>

 <b>WARNING</b>
<p><b>FIRE, BURN, INHALATION, AND EXPLOSION HAZARD</b></p> <p>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.</p>

 <b>WARNING</b>
<p>NOT FOR HOME OR RECREATIONAL USE.</p>

### INSTALLATION REQUIREMENTS

The heater is designed and approved for use as a construction heater in accordance with Standard ANSI.Z83.7 – CGA 2.14. **CHECK WITH YOUR LOCAL FIRE SAFETY AUTHORITY IF YOU HAVE ANY QUESTIONS ABOUT APPLICATIONS.** Other standards govern the use of fuel gases and heat producing products in specific applications. Your local authority can advise you about these.

This heater is intended for use in the temporary heating of buildings or structures under construction, alteration or repair.

Installation of this heater must be in accordance with all applicable codes shown in the instructions and/or the local codes and authorities having jurisdiction. Heaters shall be installed by a licensed contractor or licensed installer. Clearances to combustibles as outlined in this manual should always be observed.

Every heater shall be located with respect to building construction and other equipment so as to permit access to the heater. Each installer shall use good installation practices when locating the heater and must give consideration to service accessibility. The heater should be inspected before each use, and at least annually by a qualified service person.

This heater is for **INDOOR INSTALLATION ONLY**. While the products of combustion are expelled into the building, national codes require ventilation in the building to dilute these products of combustion. The ventilation may be provided by gravity or mechanical means. Refer to Section 8 “VENTILATION AND COMBUSTION AIR” on page 10 of this manual for minimum requirements for ventilation and combustion air.

The heater must not be installed where it is directly exposed to water spray, rain and/or dripping water.

Copies of the National Fuel Gas Code (ANSI Z22.3.1 – latest edition) are available from the American Gas Association Laboratories, 8501 E. Pleasant Valley Road, OH 44131. All NFPA codes are available from the National Fire Protection Association, Batterymarch Park, Quincy, MA 02269.



## SECTION 2: SPECIFICATIONS

Table 1: Model input rating

MODEL NO	GAS TYPE	INPUT BTU/HR	ORIFICE SIZE
RFPA10C	NATURAL	100,000	#12 (.1890)
RFPA10C	PROPANE	95,000	7/64 (.1094)

Gas Pipe connection: 1/2" NPT Female

### MODEL SUFFIXES:

- N Natural Gas
- L Propane Gas
- 6 Standing Pilot Ignition, 100% Safety Shutoff, Manual Valve (Baso)
- 6C Standing Pilot Ignition, 100% Safety Shutoff, Manual Valve (WhiteRodgers)
- 9A Standing Pilot Ignition, 100% Safety Shutoff, Thermostatic Controlled Valve (Robertshaw)

Table 2: Model Dimensions

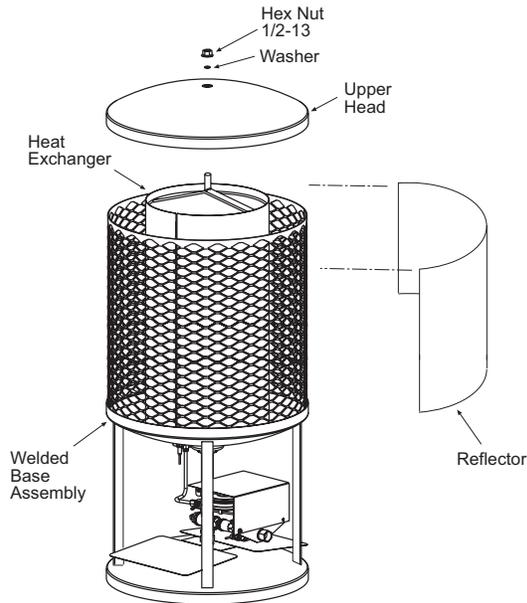
DIMENSIONS	RFPA10C
HEATER	18" Dia. x 32-3/4"
PACKAGED	18-1/2" x 18-1/2" x 34"
SHIPPING WEIGHTS	55 LBS.

## SECTION 3: ADDING OPTIONAL REFLECTOR

A 180 reflector can be used where it is desirable to direct the heat into a specific work area. This may be ordered as an accessory item, Part No. 04310030 for Model **RFPA10C**.

## INSTALLATION INSTRUCTIONS

- 3.1. Loosen and remove the 1/2-13 hex nut and washer from the heater assembly.
- 3.2. Lift the head from the heater.
- 3.3. Place reflector on outside of expanded metal guard with bottom edge inside lip of the base head assembly.
- 3.4. Replace upper head with lip over the expanded guard and reflector.



## SECTION 4: MINIMUM CLEARANCES TO COMBUSTIBLES

The heater shall be operated only on a **NON-COMBUSTIBLE**, level floor. Minimum clearances to combustible walls and ceilings are listed below:

Table 3: RFPA10C Clearances to combustibles.

MODEL RFPA10C	FRONT	SIDES	REAR	TOP	CLEARANCE FROM PROPANE CYLINDER
WITH REFLECTOR	120"	60"	48"	54"	10 FEET
WITHOUT REFLECTOR	----	60"	----	54"	10 FEET

## SECTION 5: GAS CONNECTIONS AND REGULATION

- 5.1. The installation must conform with local codes, or in absence of local codes, with the standard for the storage and handling of Liquefied Petroleum Gases, ANSI/NFPA 58 and the Natural Gas and Propane Installation Code, CSA B149.1.
- 5.2. This heater is intended for construction heating and it must never be used for residential/domestic heating.
- 5.3. Connect to the supply tank or manifold in accordance with the latest edition of National Fuel Gas Code (ANSI Z223.1/NFPA 54) and local building codes. Authorities having jurisdiction should be consulted before the installation is made.
- 5.4. Pipe joint compounds must be resistant to the action of liquefied petroleum gases.
- 5.5. Where local codes do not prohibit, a C.S.A or U.L. approved flexible connection is recommended between the rigid piping and the heater. A union and an approved shutoff valve should be installed before the control valve inlet. The shutoff valve should be installed within 6 feet of the union.
- 5.6. This appliance is equipped with a manual gas valve and an appliance regulator. The maximum supply pressure to the appliance is 14" W.C. or ½ P.S.I. If the line pressure is more than the maximum supply pressure, then use a line regulator which corresponds to the supply pressure.
- 5.7. After gas connections have been made, make sure the heater and all gas outlets are turned off before the main gas supply is turned on. Turn the gas pressure on and check for leaks. To check for leaks, apply a solution of soap suds to all connections and joints or check by one of the methods listed in Appendix D of ANSI Z223.1/NFPA 54 (latest edition) Natural Fuel Gas Code. **DO NOT USE AN OPEN FLAME OF ANY KIND TO TEST FOR LEAKS.**

## SECTION 6: INSTRUCTIONS FOR PRESSURE TEST GAUGE CONNECTION

- 6.1. Supply Pressure: Installer to provide a 1/8" N.P.T. plugged tapping, accessible for test gauge connection immediately upstream of the gas supply connection to the heater.
- 6.2. Manifold Pressure: Turn gas valve to "OFF" position. Remove 1/8" plug from manifold downstream from the valve and connect 1/8" nipple to the tapped hole. Connect gauge to nipple. Turn on the gas supply.
- 6.3. With the main burner operating, check burner manifold pressure using a water manometer (see Table 4 on page 6 for correct setting pressures). If adjustment is required, remove cover screw of the appliance regulator . Using a small screwdriver, turn adjustment screw clockwise ☺ to increase or counter clockwise ☹ to decrease pressure to burner. Replace cover screw.
- 6.4. Gauges which measure in pounds per square inch or ounces per square inch are not accurate enough to measure or set the manifold pressure. Use a water manometer.

Table 4: Gas supply pressures

GAS TYPE	MANIFOLD PRESSURE	MINIMUM*	MAXIMUM
Natural	3.5" W.C.	5" W.C.	14" W.C.
Propane	10" W.C.	11" W.C.	14" W.C.

\*Minimum permissible gas supply pressure for purpose of input adjustment.

## SECTION 7: INFORMATION FOR LP GAS FLOOR MODEL HEATERS ONLY

Heaters used with LP gas must be installed in accordance with the latest edition of the National Fuel Gas Code NFPA54, Standard for the Storage and Handling of LP Gas - NFPA 58, all state and local codes or the authority having jurisdiction. See Section 7.1 "LP models only - Regulator and hose assembly instructions" on page 8 for specific LP connection information.

### **RFPA10C** Installation and Operation Instructions

The heater must be connected to the tank or cylinder by a UL Listed hose assembly or hard piping. A 15 foot assembly of UL Listed hose is included with each heater from **Space-Ray** under Part No. 30522020. A single stage LP gas regulator (operation range: 10150 PSIG inlet and 11.0" W.C. outlet) having a POL fitting with an excess flow valve is included with each hose assembly as Part No. 30524000 (LP Cylinder Kit).

The hose assembly must be visually inspected prior to each use of the heater. If it is evident there is excessive abrasion or wear, or the hose is cut, it must be replaced prior to the heater being put into operation. The replacement hose must be a UL Listed hose assembly.

The volume of a given quantity of liquid LP gas in a container is directly related to its temperature. As a result, the vaporization rate of a tank or cylinder will decrease as the temperature drops and as the percentage of liquid in the container becomes smaller. Table 5 on page 7 shows the approximate vaporization rate of a 100 lb. cylinder.

Table 5: Maximum Continuous Flow in BTU/Hr. At Various Temperatures (Degrees F)

Lbs. of Propane in Cylinder	20 °F	40 °F	60 °F	70 °F
100	167,000	214,000	277,000	300,000
80	137,000	180,000	214,000	236,000
60	109,000	140,000	176,000	197,000
40	**	105,000	131,000	141,000
30	**	**	107,000	118,000

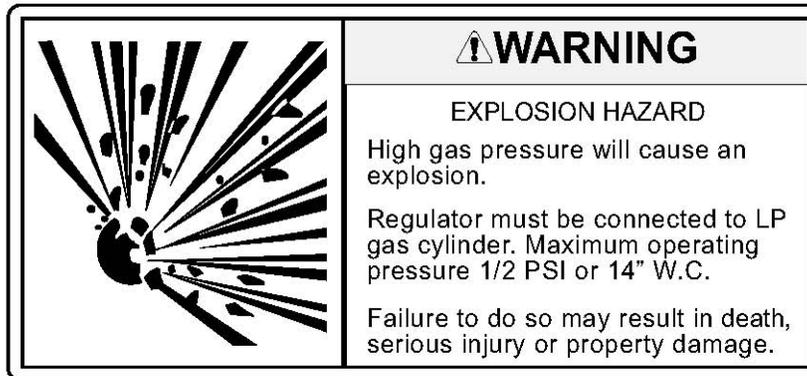
\*\* Rate of vaporization drops below the heater input rate.

**WARNING:** Due to the continuous length of time the heater might be in operation, a 100 lb. LP gas cylinder may not be sufficient in size. Manifolding several cylinders together is a practical way of increasing the time of operation of these heaters. Operation of the heater with insufficient sized cylinders or when the liquid level becomes too low will result in poor heater performance and can cause sooting. Consult your LP gas dealer for proper sizing of container.

Always turn the gas off at the tank or cylinder when the heater is not in use. When in operation, keep the heater a safe distance from the LP gas container and combustible materials as indicated on the heater and in the instructions. Fasten LP cylinders securely so they cannot be knocked over.

When the heater is to be stored indoors, the connection between the propane supply cylinder(s) and the heater must be disconnected and the cylinder(s) removed from the heater and stored in accordance with the Standard for the Storage and Handling of Liquefied Petroleum Gases, ANSI/NFPA 58 and CSA B149.1, Natural Gas and Propane Installation Code.

7.1. LP models only – Regulator and hose assembly instructions

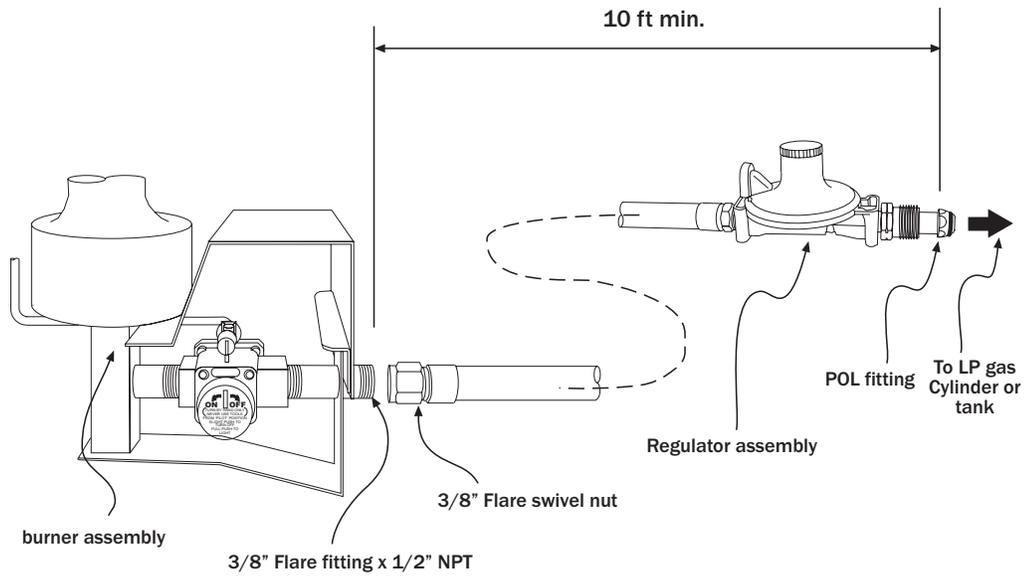


- 7.1.1. Attach the POL fitting on the regulator to the LP gas tank / cylinder as shown in Figure 2 "Regulator and hose assembly" on page 6. Use a wrench to tighten the connection. **Note:** This fitting has left hand threads (like a gas barbecue and tank). Screw the POL fitting counter clockwise.

**CAUTION: DO NOT** try to overtighten this connection. Overtightening may damage the "Excess flow control safety device" in the POL fitting regulator.

- 7.1.2. Remove the plastic cap from the end of the 3/8" flare fitting. Connect the 3.8" flare swivel nut on the end of the regulator/hose assembly to the 3/8" flare tube fitting on the burner assembly, as shown in Figure 2 "Regulator and hose assembly" on page 9. Use two wrenches to tighten this connection, screwing the swivel nut clockwise onto the supported 3/8" flare fitting.
- 7.1.3. After all the connections are made, they must be checked for leaks prior to operation. The following instructions describe the leak checking procedure.
- i. Make sure the control knob on the heater is turned to "**OFF**" prior to opening the valve on the LP tank/cylinder.
  - ii. Open the tank/cylinder valve fully (turn tank knob counterclockwise). Apply a rich soap and water solution to the POL fitting into the tank/cylinder as well as the 3/8" flare swivel fitting at the heater. Bubbles indicate leaks which must be fixed before the heater is operated.
  - iii. Tighten the joints to stop any leaks. Repeat steps i. and ii. after any tightening. If you are unable to stop the leaks, **DO NOT** operate the heater. Contact your local LP dealer.

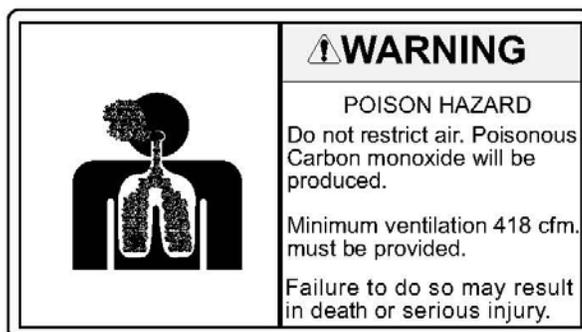
Figure 2: Regulator and hose assembly



	<b>⚠ WARNING</b>
	<p><b>FIRE HAZARD</b> Never use an open flame to check for gas leaks.</p> <p><b>DO NOT</b> operate a heater that has a leak</p> <p>Any leaks must be repaired before use.</p> <p>Failure to do so may result in death, serious injury or property damage.</p>

## SECTION 8: VENTILATION AND COMBUSTION AIR

---



This heater requires ventilation in the building to dilute the products of combustion and provide fresh air for combustion. The minimum recommended vent flow required is 418 cfm.

The combustion air enters through the heater base and must not be restricted. **DO NOT** block or enclose any part of the heater base. All ventilation in the building must be at a level above the height of the heater.

## SECTION 9: LIGHTING AND SHUTDOWN INSTRUCTIONS

---

### 9.1. MODELS WITH IGNITION SUFFIX "-6"

- 9.1.1. Pull lock and turn gas control knob to "OFF" position. Allow 5 minutes for any gas to escape before lighting.
- 9.1.2. Pull lock and turn gas control knob to "PILOT" position. Push down on flow index button and light the pilot with a match. Hold this knob down for approximately 30 seconds after lighting the pilot.
- 9.1.3. When the flow index button is released, the pilot should continue to burn. If the pilot goes out, repeat Steps 1 and 2 again.
- 9.1.4. Rotate the gas control knob from "PILOT" to "ON". The main burner will ignite.
- 9.1.5. If the main or pilot burners extinguish, turn the gas control knob to the "OFF" position, wait 5 minutes and repeat the above lighting procedure.

### 9.2. MODELS WITH IGNITION SUFFIX "-6C"

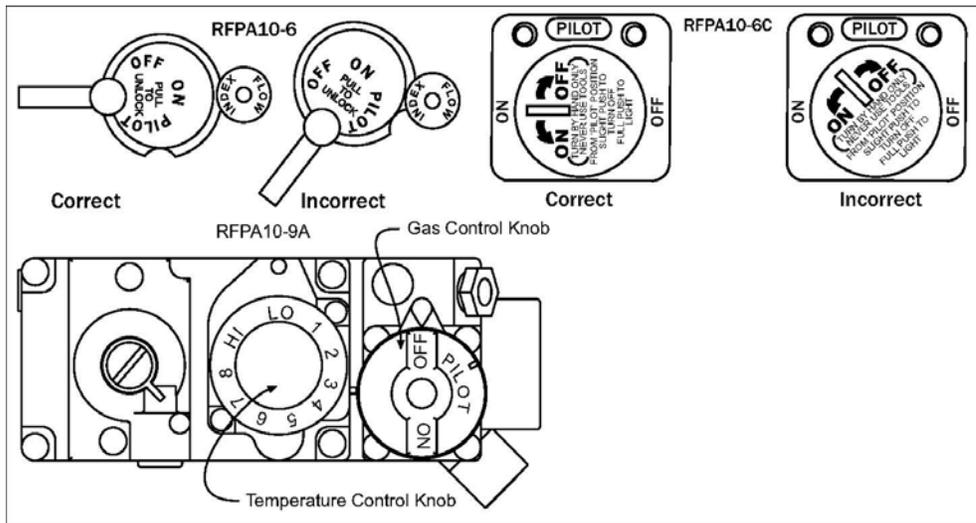
- 9.2.1. Turn gas control knob to "OFF" position. Allow 5 minutes for any gas to escape before lighting.
- 9.2.2. Turn gas control knob to "PILOT" position. Push down on gas control knob and light the pilot with a match. Hold this knob down for approximately 60 seconds after lighting the pilot.
- 9.2.3. When the gas control knob is released, the pilot should continue to burn. If the pilot goes out, repeat Steps 1 and 2 again.
- 9.2.4. Push the knob down slightly and rotate the gas control knob from "PILOT" to "ON". The main burner will ignite.
- 9.2.5. If the main or pilot burners extinguish, depress and turn the gas control knob to the "OFF" position, wait 5 minutes and repeat the above lighting procedure.

**CAUTION: DO NOT OPERATE MAIN BURNER AT ANY SETTING LESS THAN FULL "ON" POSITION. SOOTING WILL OCCUR!**

### 9.3. MODELS WITH IGNITION SUFFIX "-9A"

- 9.3.1. Turn gas control knob to "OFF" position. Allow 5 minutes for any gas to escape before lighting.
- 9.3.2. Turn gas control knob to "PILOT" position. Push down on gas control knob and light the pilot with a match. Hold this knob down for approximately 60 seconds after lighting the pilot.
- 9.3.3. When the gas control knob is released, the pilot should continue to burn. If the pilot goes out, repeat Steps 1 and 2 again.
- 9.3.4. Rotate the gas control knob from "PILOT" to "ON". The main burner will ignite.
- 9.3.5. If the main or pilot burners extinguish, depress and turn the gas control knob to the "OFF" position, wait 5 minutes and repeat the above lighting procedure.
- 9.3.6. Turn the temperature control knob to the desired setting.

Figure 3: Gas control knob setting position



## SECTION 10: CLEANING AND ANNUAL MAINTENANCE

This heater must be cleaned and serviced at least once before the start of each heating season or at any time the infrared emitter show signs of collecting any foreign material on its surface. Maximum heating efficiency and clean combustion will be maintained by keeping the emitter and burner clean. To clean the heater, follow these instructions:

10.1. Turn off the gas supply to the heater.

10.2. Remove and clean the burner.

10.2.1. Remove the three (3) piece burner alignment brackets.

10.2.2. Unscrew the burner from burner fitting on which it is mounted.

10.2.3. Remove three (3) fillister head screws holding burner cap in place.

10.2.4. Burner ports are formed by grooves on underside of burner cap; burner ports may be cleaned with a wire brush.

10.2.5. Removal of burner cap also makes mixing tube of burner accessible for cleaning with a round wire brush.

10.2.6. After cleaning, reassemble burner cap on burner base with the three (3) 8 32 fillister head screws.

10.2.7. Screw burner all the way down on burner fitting and install burner alignment brackets.

10.3. If the emitter shows any accumulation of material in the ports, remove the heater top and the expanded metal guard to expose the emitter and use a high pressure air hose to blow the ports clean. If this does not clean the holes, remove the four (4) screws holding the emitter to its mounting ring and remove the emitter so that it can be cleaned both inside and out with a wire brush and then blown out with a high pressure air hose.

10.4. Inspect the pilot burner and remove any foreign material with a brush or an air hose.

10.5. Reassemble the heater, test all connections for leaks and test the heater to be sure it is now operating properly.

## SECTION 11: REPLACING PARTS

At all times when parts are being replaced, ensure that both gas and electrical supplies are disconnected. Various parts are available from the factory for replacement by a licensed service person. Refer to exploded parts guide in Section 12 for all replacement parts.

Date of Installation \_\_\_\_\_

Heater Model Number RFPA \_\_\_\_\_ N = Natural Gas

Heater Serial Number \_\_\_\_\_ L = Propane Gas

## SECTION 12: REPLACING PARTS LIST – RFPA10C

Table 6: Replacement parts

ITEM NO.	PART NO.	DESCRIPTION	MODEL USED ON
1	02127150	Hex Nut 1/2-13	RFPA10C (ALL MODELS)
2	02129160	Flat Washer 1/2	RFPA10C (ALL MODELS)
3	04114000	Upper Head	RFPA10C (ALL MODELS)
4	04593020	Expanded Metal Guard	RFPA10C (ALL MODELS)
5	04362020	Heat Exchanger Assembly	RFPA10C (ALL MODELS)
6	04380000	Main Burner Assembly (complete)	RFPA10C (ALL MODELS)
7	41859000	Burner Cap	RFPA10C (ALL MODELS)
8	41858000	Burner Base	RFPA10C (ALL MODELS)
9	40584000	Burner Alignment Bracket Assembly	RFPA10C (ALL MODELS)
10	04094010	Shutter Plate - Fixed	RFPA10C (ALL MODELS)
11	04783010	Base Assembly	RFPA10C (ALL MODELS)
12	41806020	Label Mounting Plate	RFPA10C (ALL MODELS)
13	41847000	Washer - Burner Fitting	RFPA10C (ALL MODELS)
14	02247010	Machine Screw 1/2-13 x 1	RFPA10C (ALL MODELS)
15	41795020	Pilot Shield - Outer	RFPA10C (ALL MODELS)
16	41795010	Pilot Shield - Inner	RFPA10C (ALL MODELS)
17	03399020	Pilot Burner & Orifice Fitting - Nat. #J129DDA3223	RFPA10C-N6,N6C,N9A
18	03399030	Pilot Burner & Orifice Fitting - LP #J129DDA4212	RFPA10C-L6,L6C,L9A
19	03345010	Pilot Orifice - Nat (.023") #Y90AA - 3223	RFPA10C-N6,N6C,N9A
20	03345020	Pilot Orifice - LP (.012") #Y90AA - 4212	RFPA10C-L6,L6C,L9A
21	03437000	Pilot Burner less Orifice #J129DDA	RFPA10C (ALL MODELS)
22	03401030	Thermocouple	RFPA10C (ALL MODELS)
23	41799000	Pilot Tubing - White-Rodgers valve	RFPA10C-6C

24	04659000	Pilot Tubing - Baso valve	RFPA10C-6
25	43137010	Pilot Tubing - Robertshaw valve	RFPA10C-9A
26	03527000	Break Away Fitting - included w/Valve & Pilot Orifice	RFPA10C (ALL MODELS)
27	03339020	Plug - 1/8" (pressure tap)	RFPA10C (ALL MODELS)
28	41834000	Burner Fitting Assembly	RFPA10C (ALL MODELS)
29	03258120	Main Burner Orifice (Nat.) #12	RFPA10C-N6,N6C,N9A
30	03258910	Main Burner Orifice (LP) 7/64"	RFPA10C-L6,L6C,L9A
31	30091010	Gas Valve - White-Rodgers #764-2	RFPA10C-6C
32	03695000	Gas Valve - Baso	RFPA10C-6
33	30640010	Gas Valve - Robertshaw (Nat 3.5" w.c.)	RFPA10C-N9A
34	30640000	Gas Valve - Robertshaw (LP 10" w.c.)	RFPA10C-L9A
35	03307100	Regulator - RV48 (Nat.)	RFPA10C-N6,N6C
36	30524000	*Regulator - 230 (LP) POL x 3/8" (not shown)	RFPA10C-L6,L6C,L9A
37	03333100	Nipple 1/2 x 3	RFPA10C-6C
38	03333040	Nipple 1/2 x 1-1/2	RFPA10C-N6
39	30241010	Flare Fitting 3/8" Tube x Male 1/2" NPT	RFPA10C-L6,L9A
40	30630010	Flare Fitting 3/8" Tube x Female 1/2" NPT	RFPA10C-L6C
41	30528030	Adaptor Fitting 1/2" FPT x 1/2" NPT	RFPA10C-N9A
42	43136000	Manifold Support	RFPA10C-6,6C
43	43136050	Manifold Support (for Robertshaw valve)	RFPA10C-9A
44	41357040	Instruction Manual (Not Shown)	RFPA10C (ALL MODELS)
45	41848010	Control Arm - Nat (Baso)	RFPA10C-N6
46	41848050	Control Arm - LP (Baso)	RFPA10C-L6
47	41783010	Control Arm - Nat (White-Rodgers)	RFPA10C-N6C
48	41783030	Control Arm - LP (White-Rodgers)	RFPA10C-L6C
49	43138090	Control Arm - Nat (Robertshaw)	RFPA10C-N9A
50	43138100	Control Arm - LP (Robertshaw)	RFPA10C-L9A
51	41870050	Bulb Retainer	RFPA10C-9A
52	02152010	Hex Head Thread Cut Screw #10-24 x 3/8" (2 each)	RFPA10C (ALL MODELS)
53	02215040	Hex Washer Head Machine Screw #8-32 x 1 (4 each)	RFPA10C (ALL MODELS)
54	02186040	Hex Nut #8-32 (4 each)	RFPA10C (ALL MODELS)
55	02166010	Pan Head Machine Screw #8-32 x 3/8 (2 each)	RFPA10C (ALL MODELS)
56	02004040	Round Head Machine Screw #10-32 x 3/4 (3 each)	RFPA10C (ALL MODELS)
57	02126060	Square Nut #10-32 (5 each)	RFPA10C (ALL MODELS)
58	02240010	Hex Washer Head Sheet Metal Screw #12 x 3/4 (4ea)	RFPA10C (ALL MODELS)
59	02129050	Flat Washer #10 (4 each)	RFPA10C (ALL MODELS)
60	02104060	Speed Nut #10 (4 each)	RFPA10C (ALL MODELS)
61	02004030	Round Head Machine Screw #10-32 x 1-1/8 (2 each)	RFPA10C (ALL MODELS)
62	41988990	Plate, Label Holder	RFPA10C (ALL MODELS)

**MODEL NUMBER SUFFIXES**

N - Natural Gas

L - LP Gas

6 - 100% Gas Shutoff Control - Manually Operated (Baso valve)

6C - 100% Gas Shutoff Control - Manually Operated (White-Rodgers valve)

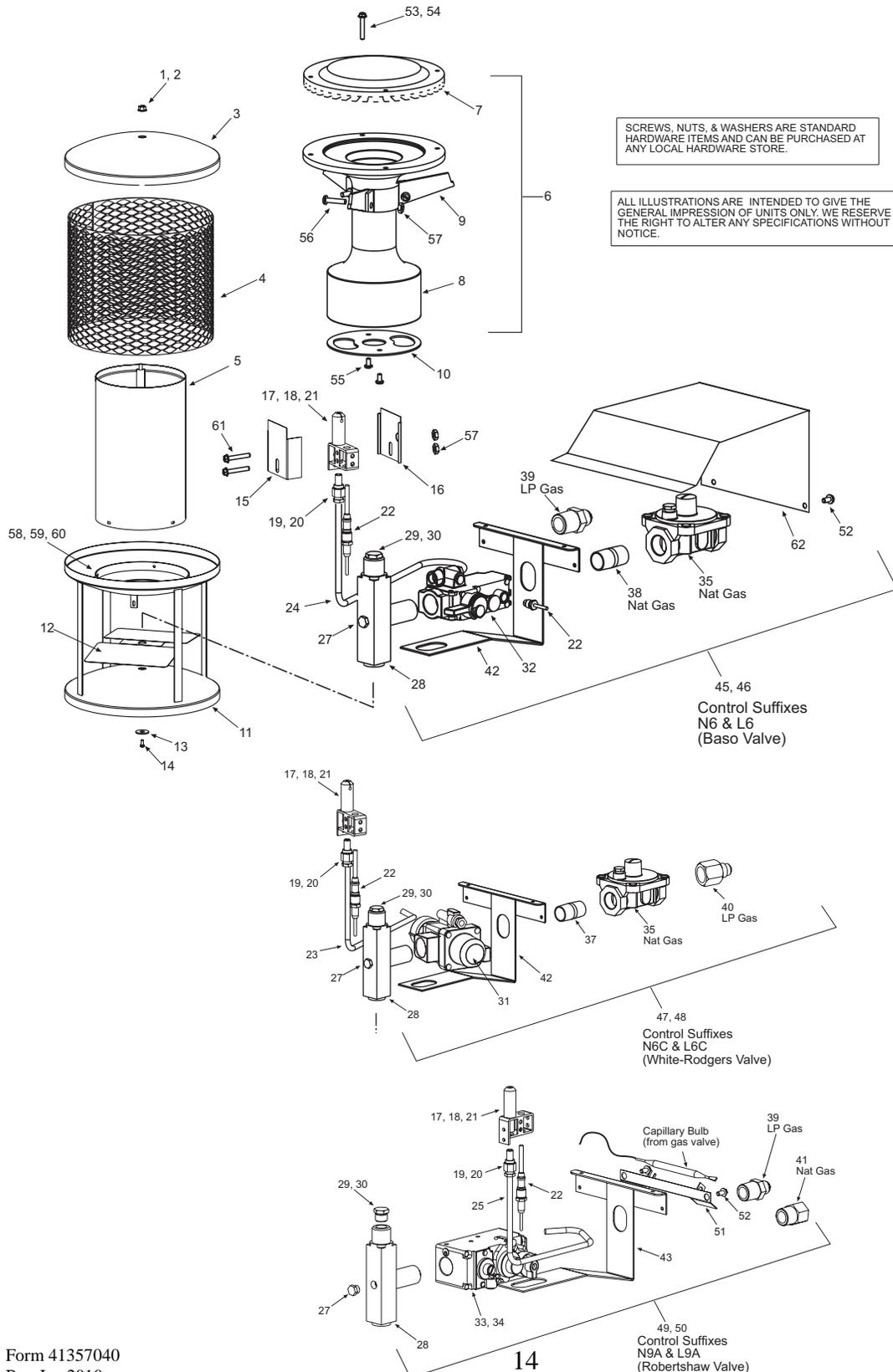
9A - 100% Gas Shutoff Control - Thermostatically Operated (Robertshaw valve)

**IMPORTANT**

**PLEASE ORDER BY PART NUMBER - NOT BY ITEM NUMBER.**

**ALSO REFER TO COMPLETE MODEL NUMBER WHEN ORDERING.**

**ALL REPLACEMENT PART PRICES AVAILABLE WHEN ORDERING.**



SCREWS, NUTS, & WASHERS ARE STANDARD HARDWARE ITEMS AND CAN BE PURCHASED AT ANY LOCAL HARDWARE STORE.

ALL ILLUSTRATIONS ARE INTENDED TO GIVE THE GENERAL IMPRESSION OF UNITS ONLY. WE RESERVE THE RIGHT TO ALTER ANY SPECIFICATIONS WITHOUT NOTICE.