

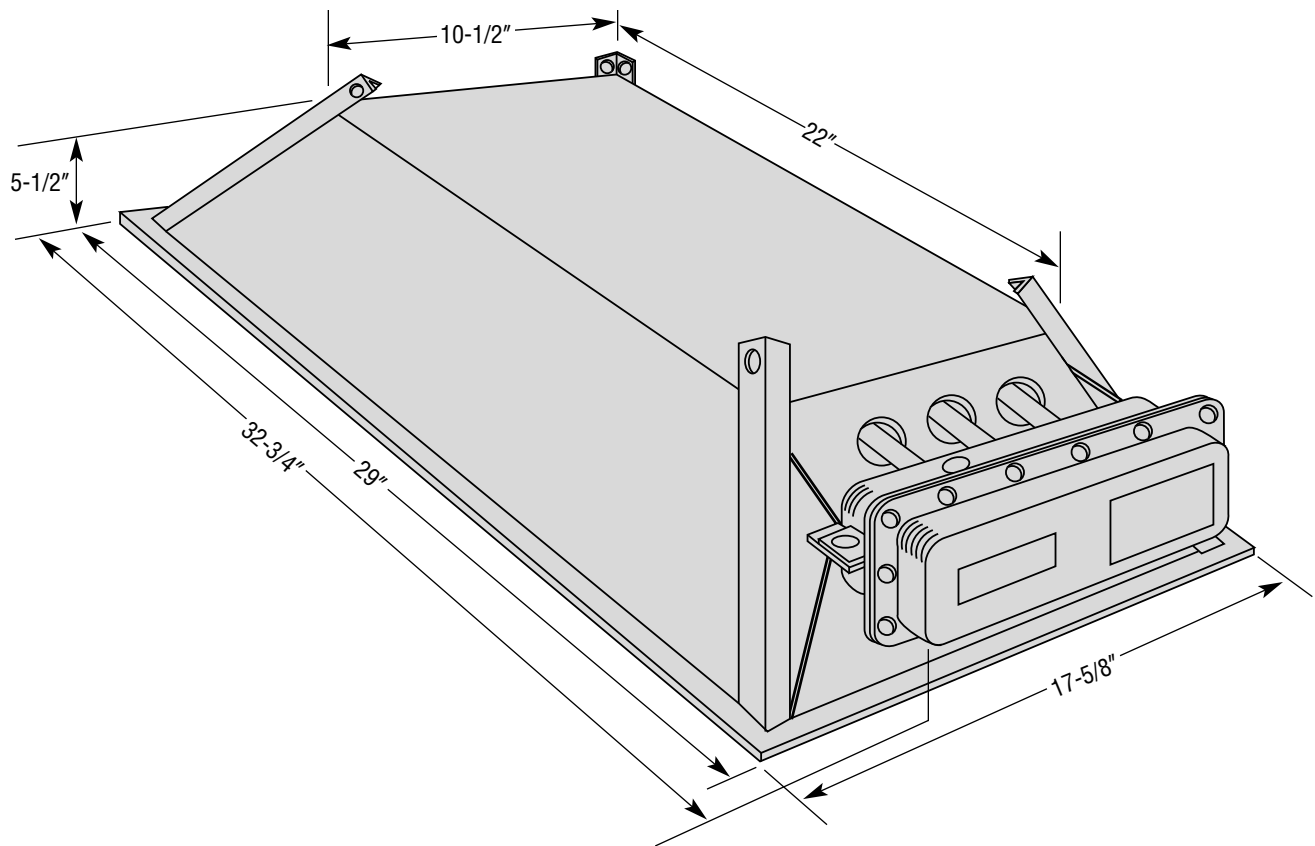
Chromalox®

Installation Operation and **RENEWAL PARTS IDENTIFICATION**

SERVICE REFERENCE

DIVISION 4	SECTION RBC
SALES REFERENCE (Supersedes PG416-3)	PG416-4
161-025617-001	
DATE	MARCH, 1999

Type RBC-3 Radiant Heater



Model	Volts	kW	Amperage		BTU	No. Elements	Net Weight (Lbs.)
			1 Phase	3 Phase			
RBC-31280	208	1,200	5.8	—	4,094	1	8
RBC-31220	240		5.0	—			
RBC-31240	480		2.5	—			
RBC-32480	208	2,400	11.5	—	8,188	2	8-3/4
RBC-32420	240		10.0	—			
RBC-32440	480		5.0	—			
RBC-33680	208	3,600	17.3	10.0	12,272	3	9-3/4
RBC-33620	240		15.0	8.7			
RBC-33640	480		7.5	4.3			

GENERAL

The Chromalox Type RBC-3 Radiant Heater is designed primarily as an indoor comfort heater to be used where supplemental heat is needed or for spot heating in unheated areas and damp locations.

Its aluminum construction and consequent light weight make it ideal for suspension with the No. 2 size chain and "S" hooks provided. Aluminum reflector housing requires no painting and is easily cleaned.

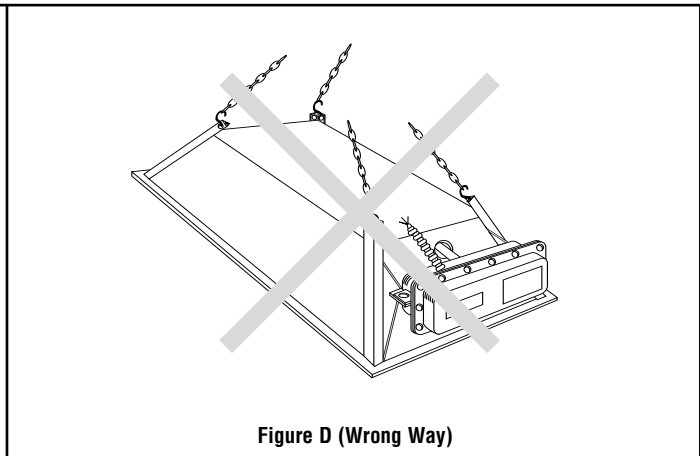
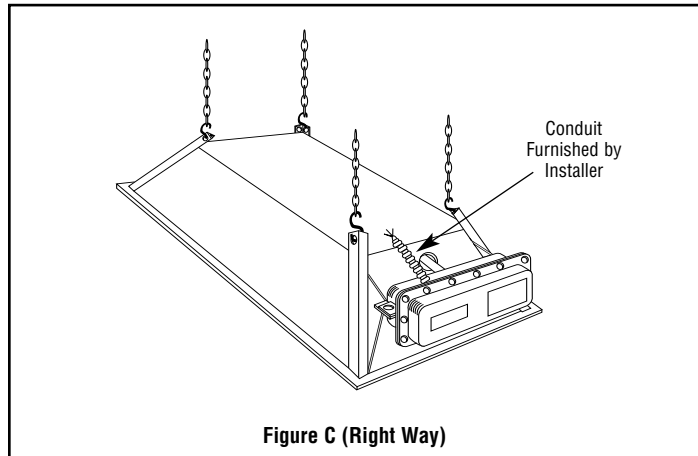
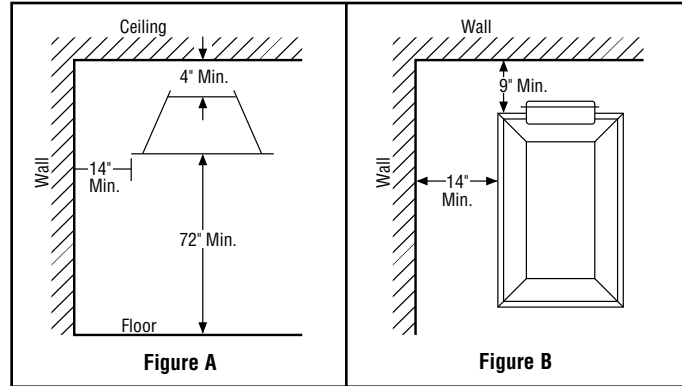
WARNING: Users should install adequate controls and safety devices with their electric heating equipment. Where the consequences of failure may be severe, back-up controls are essential. Although the safety of the installation is the responsibility of the user, Chromalox will be glad to assist in making equipment recommendations.

MOUNTING

WARNING: Hazard of Electric Shock. Disconnect all power before installing heater.

Minimum mounting distances for all heaters are as shown in Figures A and B. Using the No. 2 size chain and "S" hooks furnished, heaters are to be suspended in a horizontal position only.

NOTE: For proper balance, it is suggested that each of the four corners be individually suspended (rather than gathered into a common center mounting point, see Figure C and D).



WIRING

WARNING: Hazard of Electric Shock. Any installation involving electric heaters must be effectively grounded in accordance with the National Electrical Code to eliminate shock hazard.

Electric wiring to heater must be installed in accordance with

the National Electrical Code and with local codes by a qualified person. **WARNING: Use copper conductors only.**

WARNING: To prevent electrical wiring problems due to overheating, route wiring conduit to avoid contact with reflector housing.

Table B — Wiring Diagram

Model	1 Phase			3 Phase		
	208V Fig.	240V Fig.	480V Fig.	208V Fig.	240V Fig.	480V Fig.
RBC-31280	1	—	—	—	—	—
RBC-31220	—	1	—	—	—	—
RBC-31240	—	—	1	—	—	—
RBC-32480	2	—	—	—	—	—
RBC-32420	—	2	—	—	—	—
RBC-32440	—	—	2	—	—	—
RBC-33680	3	—	—	4	—	—
RBC-33620	—	3	—	—	4	—
RBC-33640	—	—	3	—	—	4

WIRING DIAGRAMS

For supply connection use 14GA. min. wire suitable for at least 75°C.

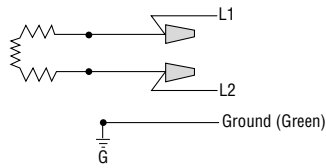


Figure 1

For supply connection use 14GA. min. wire suitable for at least 90°C.

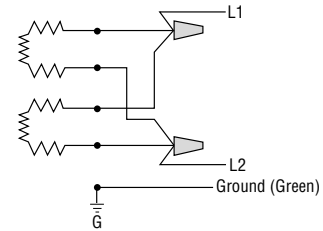


Figure 2

For supply connections use wire suitable for at least 90°C (see below)

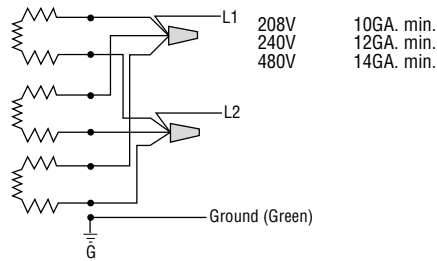


Figure 3

For supply connection use 14GA. min. wire suitable for at least 90°C.

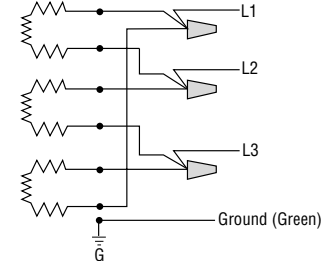


Figure 4

OPERATION

WARNING: This heater is not intended for use in hazardous atmospheres where flammable vapors, gases, liquids or other combustible atmospheres are present as defined in the National Electrical Code. Failure to comply can result in explosion or fire.

1. Minimum spacing from front of heater case to combustible material is: 4 ft. — RBC3-12 (1200W)
7 ft. — RBC3-24 or RBC3-36 (2400W or 3600W)
2. Avoid temperatures in excess of 194°F on nearby combustible surfaces.
3. Do not operate heaters at voltages in excess of that stamped on heater nameplate since excess voltage will shorten heater life.

4. CONTROLLING RADIANT INTENSITY —

When it is desirable to reduce radiant intensity, Input Controllers may be used. These motor-driven cycling devices can be used to vary heater output capacity from 4% to 100%. Cycling devices are usually connected in holding coil circuit of magnetic contactors. For further information regarding Input Controllers and Contactors, see Chromalox catalog and/or contact your local Chromalox representative.

5. **WARNING: Because of the possibility of someone unknowingly exposing the heater to combustible hazards, the heater should not be left in operation while unattended.**

MAINTENANCE

WARNING: Hazard of Severe Shock. Disconnect all power to heater before servicing these heaters.

A. Element Replacement (See Figure E)

1. Remove Terminal housing cover and gasket.
2. Disconnect element leads from external leads.

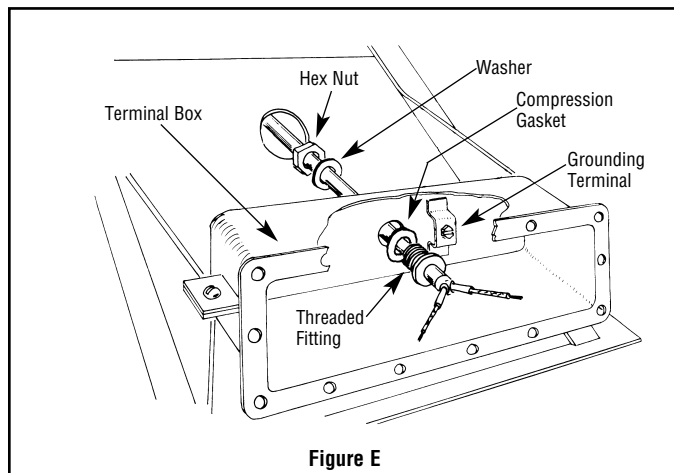


Figure E

3. Loosen and disengage hex nut and washer from threaded fitting.
4. Pull element out of reflector housing and terminal box.
5. Slide new gasket (see Renewal Parts) onto threaded fitting of replacement element. **Note:** Filler side of gasket faces away from flange of threaded fitting. Insert new element through terminal box opening, and slip on washer and hex nut before element enters reflector housing. Tighten hex nut until element mounting is secure.

6. Reconnect power supply leads to element terminals. Install new terminal cover gasket (see Renewal Parts). Install terminal box cover. Reconnect power to heater circuit.

B. Care of Reflector

The reflectors should be kept clean to obtain the maximum radiant output. The entire assembly should be washed or brushed off periodically to remove dust and dirt. However, if the inside of the reflector gets badly soiled, a mild soap and water solution may be used. Wipe reflecting surface dry to prevent permanent water marks. For extreme cases of soil which do not yield to mild soap cleaning, use plastic or fine steel wool type scouring pads commonly used on cooking utensils. Avoid use of ammonia or alkaline cleaners which will etch the aluminum surfaces.

Note: Avoid hosing down the heater assembly because conduit may not be waterproof.

RENEWAL PARTS IDENTIFICATION

Common Parts	
Heating Element Gasket	Terminal Cover Gasket
132-047675-004	132-012603-004

Heating Element Part No.	Volts	kW
322-874016-003	208	1.2
322-874016-001	240	1.2
322-874016-002	480	1.2

Limited Warranty:

Please refer to the Chromalox limited warranty applicable to this product at <http://www.chromalox.com/customer-service/policies/termsofsale.aspx>.

Chromalox[®]
PRECISION HEAT AND CONTROL

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