

Chromalox®

Installation, Operation and RENEWAL PARTS IDENTIFICATION

SERVICE REFERENCE

DIVISION 4	SECTION UB
SALES REFERENCE (Supersedes PF415-9)	PF415-10
161-049029-001	
DATE	MARCH, 1999

Type UB-23E and UB-32E Forced-Air Heater With or Without Switch

Dimensions —

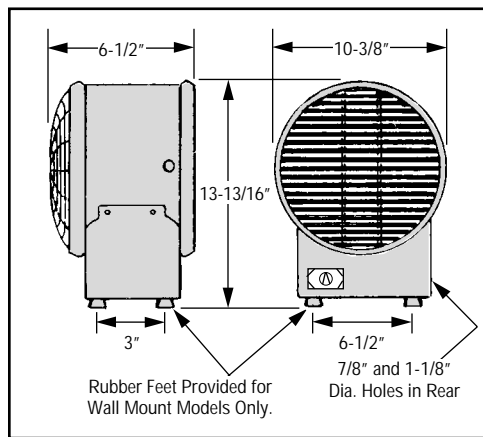
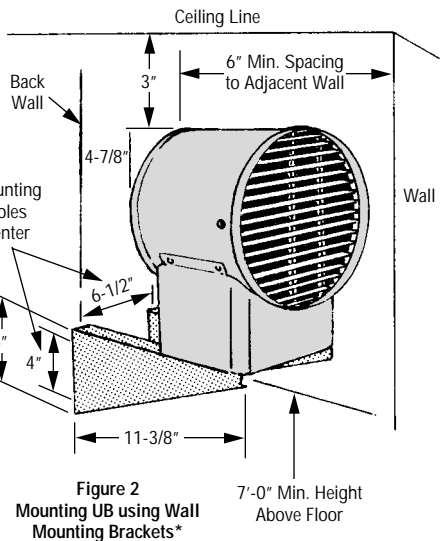
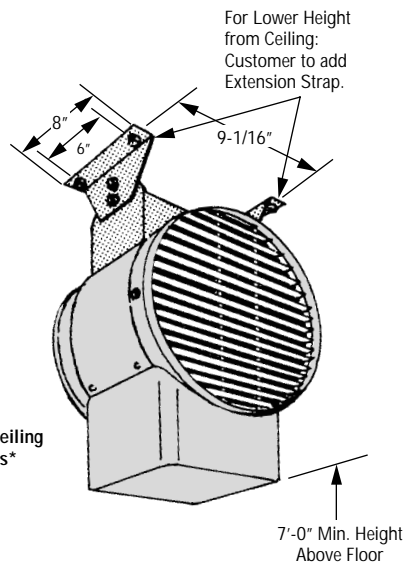


Figure 1
Mounting UB using Ceiling
Mounting Brackets*



*Wall and/or Ceiling Mounting Brackets are available as an accessory option — Contact local sales representative.

Specifications —

Model*	Volts	Phase	kW	Horizontal Air Discharge
UB-23E	120, 208, 240	1	2	10'
UB-32E	120, 208, 240	1	3	10'

*Note: Model Numbers with suffix "A" added do not include a switch. Model Numbers with suffix "B" added include a switch (switch not available on UB-32E rated 120V).

MOUNTING

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

Note: These heaters are designed for wall or ceiling mounting only. Other modes of mounting voids factory warranty.

1. Height above floor

- In areas where ceiling height is more than 12 feet, recommended mounting height is approximately 10 feet to underside of heater.
- For ceiling heights of 12 feet or less, maximum mounting height is determined by use of ceiling mounting brackets offered for these heaters. Minimum spacing to ceiling is 3" (see Figure 2).

- In either case, the minimum mounting height is 7 feet from floor to bottom of heater. (See Figures 1 and 2.)
- Spacing to adjacent walls
 - Rear of case to back wall 4-7/8" minimum (see Figure 2).
 - Side of case to side wall 6" minimum (see Figure 2).
- If two or more units are operated in the same enclosed space, their discharges should be directed to aid in development of mass air movement for uniform heat dispersal.
- Controlling thermostats to individual heaters should be mounted at shoulder height on inside walls or columns.

WIRING

Note: All wiring should be done in accordance with local codes and the National Electrical Code by a qualified person.

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.*

1. Connect heater according to the voltage and frequency specified on the nameplate and using the appropriate wiring diagram (Figures 3 and 4).
2. Motor connections: 120V — white and black, 208/240V — white and blue. Insulate (wire nut or tape) unused leads.

3. Protection against overheating is provided by an internal automatic thermal cutout which opens the electric circuit if the normal air-flow is restricted or stopped. Cutout automatically energizes heater on removal of the obstruction.

WARNING: *Users should install adequate back-up 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 make equipment recommendations.*

OPERATION

DANGER:

1. Do not restrict air-flow through the heater by placing fabric or other obstructions in front of or behind the heaters. With some combustible materials, the resulting high discharge temperatures could cause a fire.

2. 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. For these applications see PDS CXH-EP (PF305).

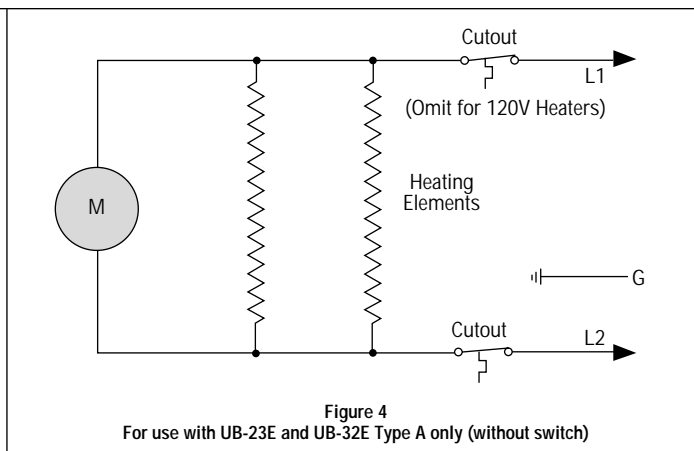
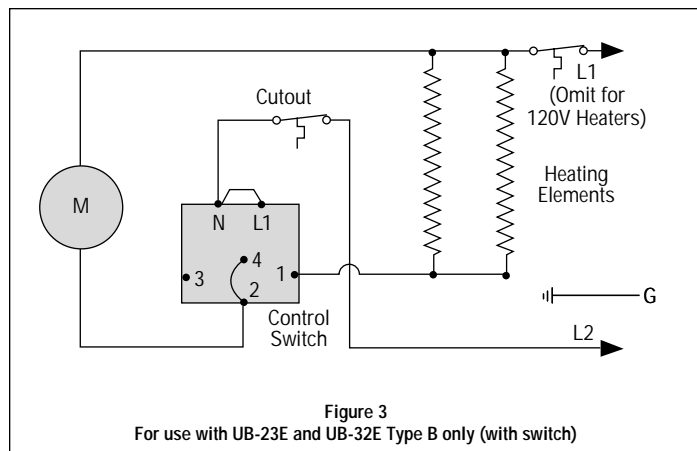
MAINTENANCE

WARNING: *Turn off all power to service heater. Do not attempt to service heater while unit is operating as there is hazard of electric shock, injury from operating fan, and burns from hot heating elements.*

1. Fan motors in these heaters are provided with sealed ball bearings, factory lubricated, requiring no further lubrication under normal service conditions.

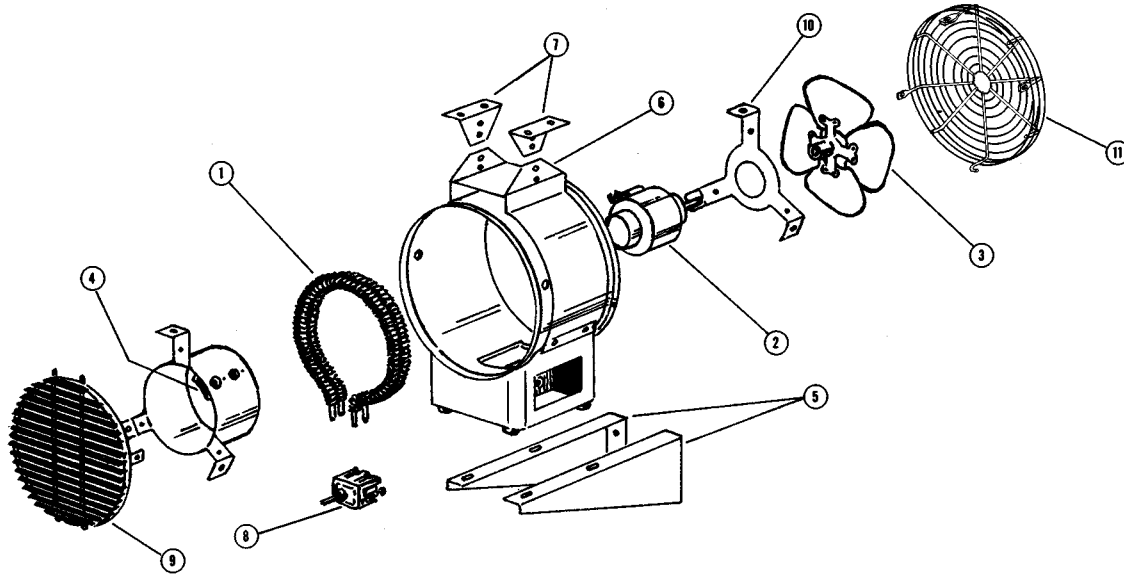
2. Following long periods of idleness, heater should be vacuumed before start-up, to remove accumulated combustible particles which otherwise may smoke or incinerate on initial heat up.
3. Periodically inspect all electrical connections and terminals to avoid electrical wiring difficulties. Inspect all wiring for frayed or worn insulation.

WIRING DIAGRAMS



RENEWAL PARTS IDENTIFICATION

WARNING: *Hazard of Electric Shock. Disconnect all power before servicing these heaters.*



Model	Voltage	① Heating Element	② Motors	⑧ Switch (Type B Only)
UB-23E	120	118-045404-001	193-302120-001	292-018604-001
	208	118-045404-003	193-302120-001	292-018604-001
	240	118-045404-005	193-302120-001	292-018604-001
UB-32E	120	118-045404-002	193-302120-001	-----
	208	118-045404-004	193-302120-001	292-018604-001
	240	118-045404-006	193-302120-001	292-018604-001

PARTS COMMON TO ALL HEATERS

- ③ Fan112-047538-003
- ④ Thermal Cutout300-057589-001
- ⑤ Wall Bracket Set168-026844-001
- ⑥ Ceiling Mounting Support Set (Includes ⑦) ..027-044419-001
- ⑦ Ceiling Suspension Brackets027-033363-001 (2)
- ⑨ Louver182-047073-001
- ⑩ Motor Mounting Frame194-045324-001
- ⑪ Grille134-119147-001

Part numbers or Model Numbers suffixed by a number in () indicates the quantity of same part number used. For prevailing prices of parts shown or for ordering of parts, please contact your local Chromalox Representative.

WARRANTY AND LIMITATION OF REMEDY AND LIABILITY

Chromalox warrants only that the Products and parts manufactured by Chromalox, when shipped, and the work performed by Chromalox when performed, will meet all applicable specification and other specific product and work requirements (including those of performance), if any, and will be free from defects in material and workmanship under normal conditions of use. All claims for defective or nonconforming (both hereinafter called defective) Products, parts or work under this warranty must be made in writing immediately upon discovery, and in any event, within one (1) year from delivery, provided, however all claims for defective Products and parts must be made in writing no later than eighteen (18) months after shipment by Chromalox. Defective and nonconforming items must be held for Chromalox's inspections and returned to the original f.o.b. point upon request. THE FOREGOING IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES WHATSOEVER, EXPRESS, IMPLIED AND STATUTORY, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

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