

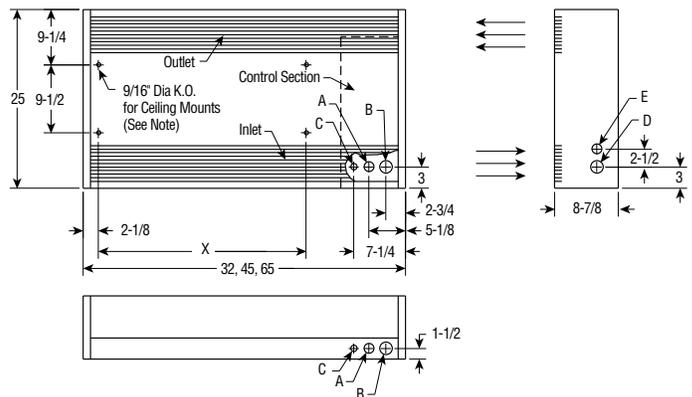
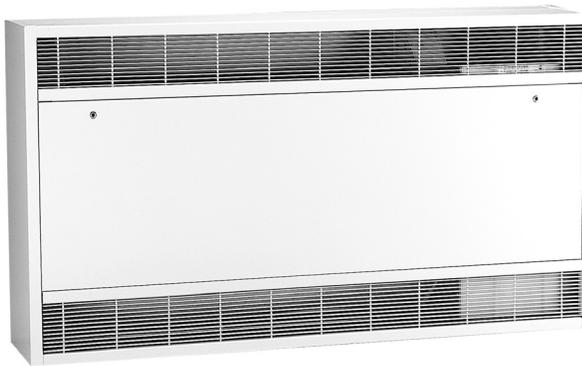
Chromalox®

Installation, Operation and MAINTENANCE

SERVICE REFERENCE

DIVISION 4		SECTION CCH	
SALES REFERENCE	(Supersedes PF474-1)	PF474-2	
		161-506132-001	
DATE		JULY, 2002	

Type CCH — Cabinet Blower Heater



Specifications –

Model	Description	Volts	Watts (kW)	BTUH	Weight (Lbs.)	Stock	PCN
CCH-3x02xx0	32" Cabinet with: Fan Motor - 1050 RPM HI/800 RPM LO	ALL	2.0/1.0	6824/3412	105.0	NS	
CCH-3x03xx0	Air Flow - 250 CFM HI/200 CFM LO	ALL	3.0/2.0	10236/6824	105.0	NS	
CCH-3x04xx0	1 Blower Motor & 1 Wheel Throw Away Filter	ALL	4.0/2.0	13648/6824	105.0	NS	
CCH-3x05xx0		ALL	5.0/3.0	17060/10236	105.0	NS	
CCH-3x06xx0		ALL	6.0/3.0	20472/10236	105.0	NS	
CCH-4x04xx0	45" Cabinet with: Fan Motor - 1050 RPM HI/800 RPM LO	ALL	4.0/2.0	13648/6824	145.0	NS	
CCH-4x06xx0	Air Flow - 500 CFM HI/400 CFM LO	ALL	6.0/4.0	20472/13648	145.0	NS	
CCH-4x08xx0	1 Blower Motor & 2 Wheels Throw Away Filter	ALL	8.0/4.0	27296/13648	145.0	NS	
CCH-4x10xx0		ALL	10.0/6.0	34120/20472	145.0	NS	
CCH-4x12xx0		ALL	12.0/6.0	40944/20472	145.0	NS	
CCH-6x06xx0	65" Cabinet with: Fan Motor - 1050 RPM HI/800 RPM LO	ALL	6.0/3.0	20472/10236	240.0	NS	
CCH-6x09xx0	Air Flow - 750 CFM HI/600 CFM LO	ALL	9.0/6.0	30708/20472	240.0	NS	
CCH-6x12xx0	2 Blower Motor & 3 Wheel Throw Away Filter	ALL	12.0/6.0	40944/20472	240.0	NS	
CCH-6x15xx0		ALL	15.0/9.0	51180/30708	240.0	NS	
CCH-6x18xx0		ALL	18.0/9.0	61416/30708	240.0	NS	
CCH-7x08xx0	78" Cabinet with: Fan Motor - 1050 RPM HI/800 RPM LO	ALL	8.0/4.0	27296/13648	275.0	NS	
CCH-7x12xx0	Air Flow - 1000 CFM HI/800 CFM LO	ALL	12.0/8.0	40944/27296	275.0	NS	
CCH-7x16xx0	2 Blower Motors & 4 Wheels Throw Away Filter	ALL	16.0/8.0	54592/27296	275.0	NS	
CCH-7x20xx0		ALL	20.0/12.0	68240/40944	275.0	NS	
CCH-7x24xx0		ALL	24.0/12.0	81888/40944	275.0	NS	

NOTES:

- When ordering, specify volts, phase, wattage and any optional features required.
- 208 to 600V units are available in both 1 and 3 phase, all others are single phase only.
- All heaters rated over 48 amps require two circuits.
- All heaters equipped with fusing where necessary to meet N.E.C. and UL requirements.
- Fan Motor - Permanent split capacitor type - built-in overload protection - lifetime lubricated - resiliently mounted - totally enclosed - 2 speed - direct drive - 1/20 HP.
- Motor volts same as heater volts except 277/480V 3-phase, 4 wire heaters use 277V motor. 480V 3-phase, 3 wire heaters have integral transformer to transform line voltage to 230V motor.

Optional Accessories –

Model	Description	Weight (Lbs.)	Stock	PCN
CCH-39004105	32" Trim Frame - Recess Mount	6.0	NS	
CCH-39004106	45" Trim Frame - Recess Mount	7.0	NS	
CCH-39004107	65" Trim Frame - Recess Mount	10.0	NS	
CCH-39004108	78" Trim Frame - Recess Mount	11.0	NS	
CCH-39004154	32" Permanent Washable Filter	12.0	NS	
CCH-39004155	45" Permanent Washable Filter	15.0	NS	
CCH-39004156	65" Permanent Washable Filter	17.0	NS	
CCH-39004157	78" Permanent Washable Filter	18.0	NS	
CCH-2-12kW	208V, 1-Phase Built-in Circuit Breaker		NS	
CCH-2-12kW	208V, 3-Phase Built-in Circuit Breaker		NS	
CCH-16-24kW	208V, 3-Phase Built-in Circuit Breaker		NS	
CCH-2-12kW	240V, 1-Phase Built-in Circuit Breaker		NS	
CCH-2-12kW	240V, 3-Phase Built-in Circuit Breaker		NS	
CCH-16-24kW	240V, 3-Phase Built-in Circuit Breaker		NS	
CCH-2-12kW	277V, 1-Phase Built-in Circuit Breaker		NS	
CCH-2-24kW	480V, 3-Phase Built-in Circuit Breaker		NS	
CCH-BG	Architectural Cabinet Bar Grill		NS	
CCH-N	Control Option for Low Voltage Night Setback		NS	
CCH-R	Control Option for Line Voltage Wall Thermostat		NS	
CCH-3	Control Option for Built-in Line Voltage Thermostat		NS	
CCH-X	Ceiling Mount Kit		NS	

NOTE: -3 and -n provided with a built-in snap action hydraulic action thermostat. The sensing bulb is located in the air intake portion of the heater. Range 45-90°F. The -R option includes a thermostat for remote wall mounting with a temperature range of 35-90°F (shipped with heaters).

INSTALLATION

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

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.

WARNING: Do not store or use gasoline or other flammable vapors and liquids in the vicinity of the heater. Failure to comply can result in explosion or fire.

An exploded view of the major components of the Cabinet Blower Heater is shown in Figure 1. The Cabinet Blower Heater is completely assembled when shipped and must be partially dismantled for installation.

Removing Front Panel —

To remove front panel, insert Allen wrench in each of two holes at the upper right and left corners of the panel and turn counterclockwise. After panel is swung open, pull the two spring-loaded hinges (located at each end of the panel) towards the center of the panel and remove panel. Units shipped with doors in position for upflow application. If unit is to be installed as downflow, both doors can be removed and installed in reverse position.

Fastening To Wall —

For floor-mounted units it is necessary to use only the holes marked "A" in Figure 3 in order to secure unit to the wall. The motor and blower assembly need not be removed. The filter may be removed to assist in installation.

For wall-mounted units, in order to ensure adequate support, a greater number of mounting holes may be used. To gain access to them, the motor and blower assembly and filter must first be removed. Remove the screws at each end of the assembly as shown in Figure 2, then pull out assembly. Be sure to disconnect Molex plug at the blower deck removing assembly. Slide out filter as shown. The unit is now ready for securing to the wall.

With ceiling mounted units, use the same procedure as in the wall-mounted units.

Semi and Full-Recessed Applications —

For either semi- or full-recessed applications, care must be taken to provide the proper size of opening in the wall or ceiling. See Figure 4 for dimensions. On the length and width dimensions, 1/4 inch must be allowed to insert trim frame.

In a semi-recessed application, the unit can be recessed to any depth except when the inlet and/or discharge are on the top or bottom of the cabinet as opposed to the front.

The trim frame is used in recessed applications. See Figure 5 for a typical application. Refer to Table 1 for proper ordering information.

Accessory Trim Frame Assembly —

Refer to Figure 6 for assembly. Assemble heater frame on a flat surface. Insert "L" shaped splices into each corner as shown. Use carpenter's square to be sure of exact 90° angle at corners. Square up one corner at a time, then center punch one at a time to crimp down inside flange onto "L" shaped splice. Trim frame can be secured to wall with screws (not provided), cement or adhesive.

Table 1 Trim Frame —

For recessed mounting in wall or ceiling.

Trim Frame Part No.	Cabinet Length
CCH - 39004105	32"
CCH - 39004106	45"
CCH - 39004107	65"
CCH - 39004108	78"

Servicing —

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

1. All motors are equipped with lifetime lubrication, consequently no oiling is required.
2. If motors or blowers need servicing, they can easily be removed by removing screws as illustrated in Figure 2. Complete assembly then slides out, after Molex connector is unplugged.
3. If heat sections need servicing, they can easily be removed by removing screws as illustrated in Figure 7. The complete heat section assembly then slides out, after all wires into the terminal block are removed. Care must be taken to assure that all wires are replaced in the correct terminal block, per wire numbering or coding. The limit control and elements can be readily serviced when the heat section is removed.
4. All controls are readily accessible through the inner control door. All controls can be serviced through this control door.
5. Filter is accessible after the front panel is opened. Slide filter out and through the use of a built-in filter track, clean or replace a minimum of twice per heating season. Optional permanent type filter can be cleaned with water and detergent or any available filter cleaning solution.

Wiring Information —

1. For service entrance refer to Figure 4 for knockout sizes available and their locations.
IMPORTANT: For upflow application, control section and knockouts are located on lower right hand side of unit and for downflow application they will be on upper left hand side of unit.
2. 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.**
3. Refer to data plate and wiring diagram for correct voltage and amperage ratings. These must be considered in the sizing of field wiring.
4. When wiring "-N" and "-R" type heaters, control circuit field wiring to be suitable for 600 volts.

INSTALLATION ILLUSTRATIONS

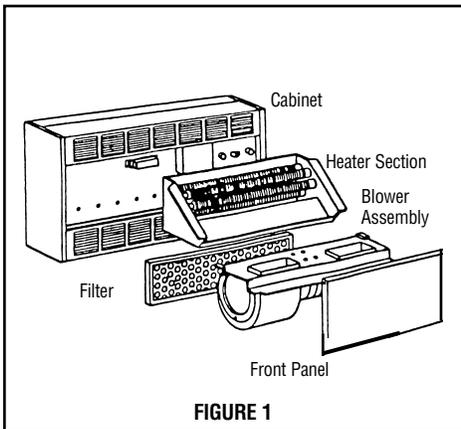


FIGURE 1

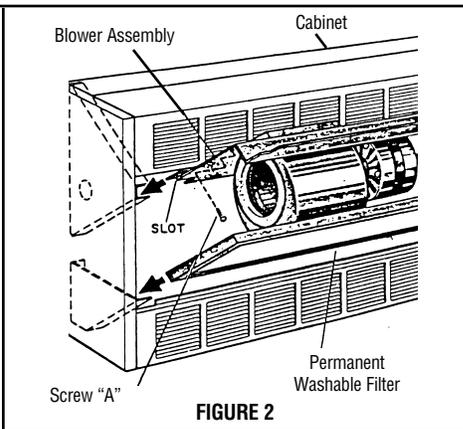


FIGURE 2

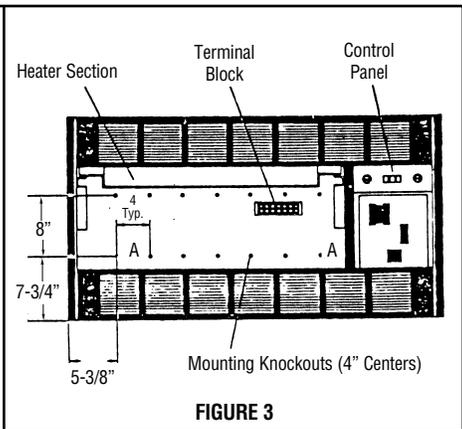


FIGURE 3

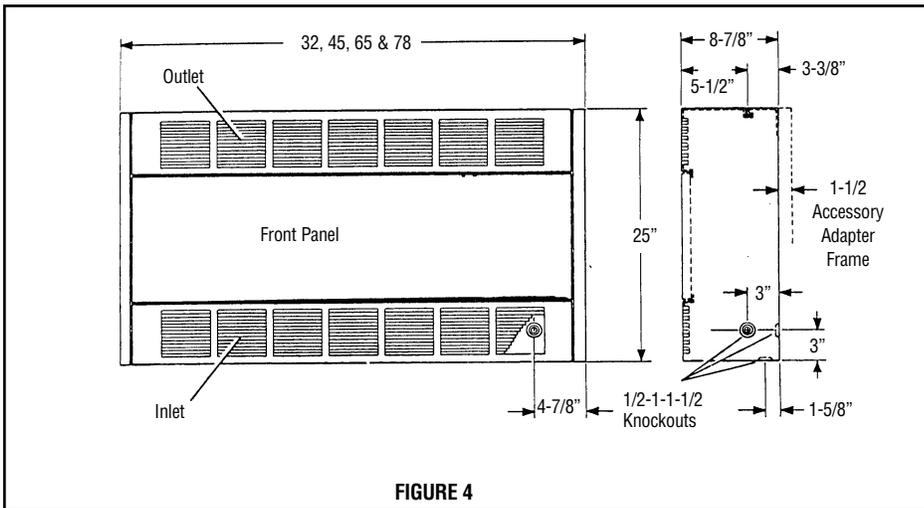


FIGURE 4

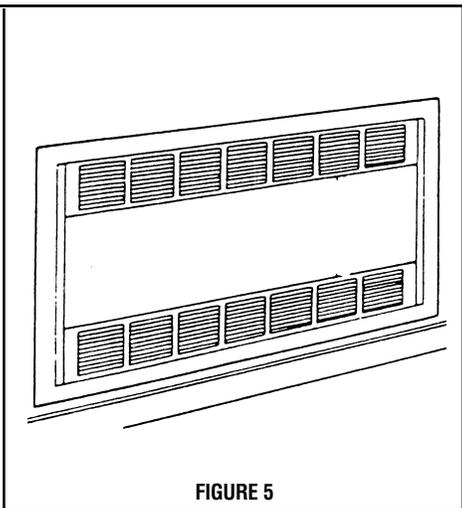


FIGURE 5

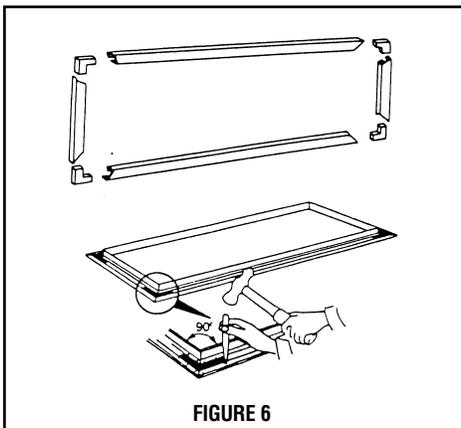


FIGURE 6

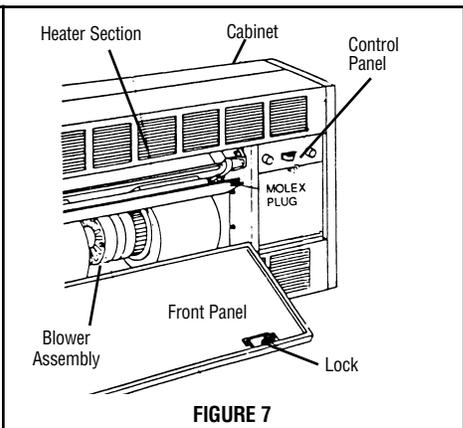


FIGURE 7

MAINTENANCE

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

Accumulated dust and lint inside the heater should be removed at the beginning of each heating season.

REPLACEMENT PARTS

For replacement parts, please consult with the Product Service Center listed below.

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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