

Toester

Product Data

Hydronic Kickspace Heaters



Kickspace heaters are for use with forced hot water residential heating systems and consist of a copper tube, aluminum finned heating element, with an electric motor and blower of unique cross flow design. Their purpose is to deliver a comfortable stream of warmed air, at or near floor level, and their construction is extremely compact so minimum space is required for installation. The type K heater is primarily used in horizontal floor installation, for example: under a kitchen counter cabinet, or bathroom sink enclosure. They are ideal for radiant systems with the use of a low temperature aquastat designed to turn the unit on at 110°F. Type W is for vertical mounting, fully recessed in the wall studs, with the air discharged upward through a flush mounted, louvered front panel. Type F is a surface mounted wall unit, with the air discharged evenly through a louvered front panel in an upward direction. All types have heating elements with 1/2" nominal (5/8 O.D.) copper tube connections, and 115V. electric blower motor, interwired with a 120°F (49°C) reverse acting aquastat that prevents operation until hot water is circulating. These units are **NOT** intended to be used on one or two pipe steam systems. For gravity fed systems, it is recommended that a separate circulator pump be installed for the kickspace heater.

Heating Capacity (BTU/Hr. *) for All Models

Entering Water Temperature (°F)	WATER FLOW RATE (GALLONS PER MINUTE)								
	1 Gal.			2 Gal.			3 Gal.		
	Model 42	Model 84	Model 120	Model 42	Model 84	Model 120	Model 42	Model 84	Model 120
**110	1480	3370	8425	1520	3440	8535	1560	3515	8730
120	1800	4055	8875	1840	4145	8995	1875	4230	9205
130	2175	4770	9330	2220	4875	9455	2260	4980	9680
140	2590	5540	9780	2640	5670	9915	2690	5795	10150
150	3050	6300	10230	3120	6440	10375	3190	6585	10625
160	3510	7000	10685	3590	7155	10835	3670	7310	11100
170	3895	7730	11135	3980	7900	11295	4065	8070	11570
180	4278	8460	11585	4375	8650	11755	4470	8840	12045

Coils tested at 150 PSI

*Based on 65°F entering air temperature with fan at high speed including the heating effect factor. Ratings reduced by 15% at low speed.

**Blower operates at water temperature above 120°F with standard self-contained aquastat. Optional low temperature aquastat available for low temperature applications.

Supply and return connections are 1/2" nominal. Units are not recommended for use with steam.

Standard Aquastat Range 120°F – 105°F

Low Temp Aquastat Range 110°F – 95°F

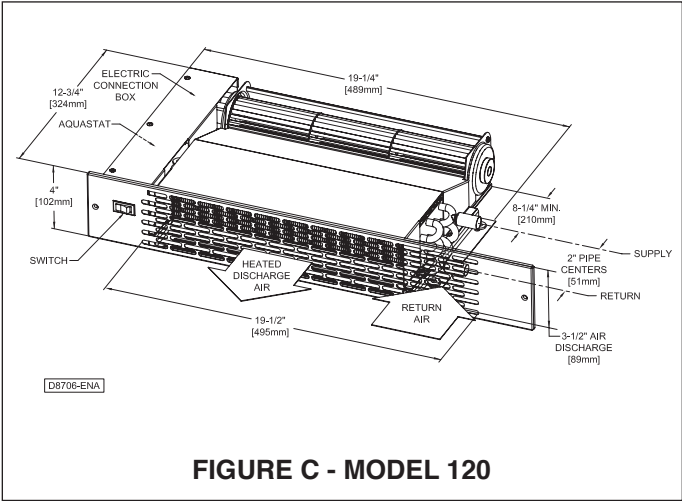
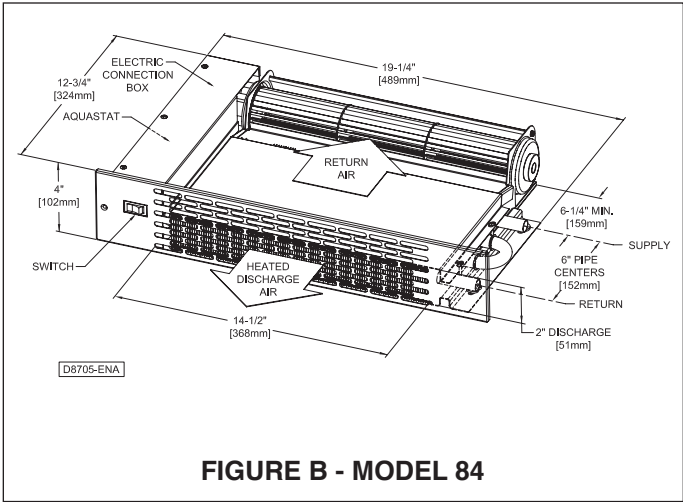
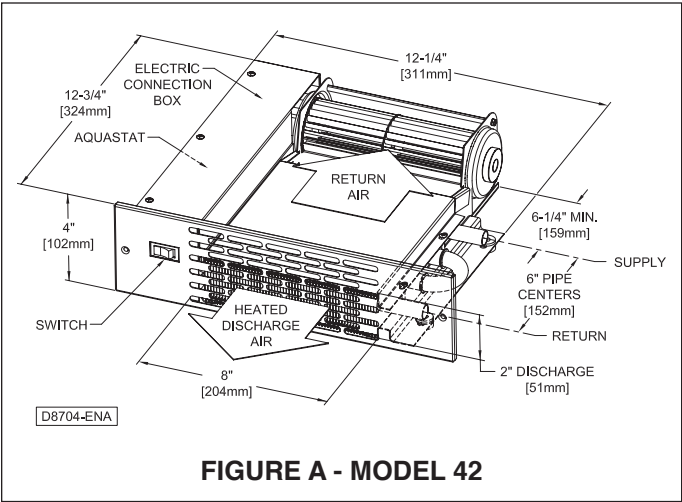
Specifications

MOTOR INFORMATION						
MODEL	AMP	WATT	RPM	HP	VOLTAGE	CFM (HIGH SPEED)
42	.50	30.7	3200	.034	115	53
84	.50	30.7	3200	.034	115	103
120	.74	66.8	3200	.068	115	127

FRICTION LOSS (HEAD)			
MODEL	42	84	120
1 GALLON	.17'	.22'	.43'
2 GALLONS	.8'	.95'	1.45'
3 GALLONS	1.2'	1.5'	2.97'

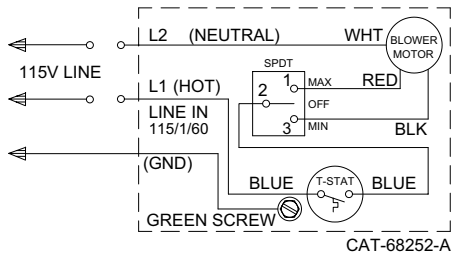


Dimensional Data

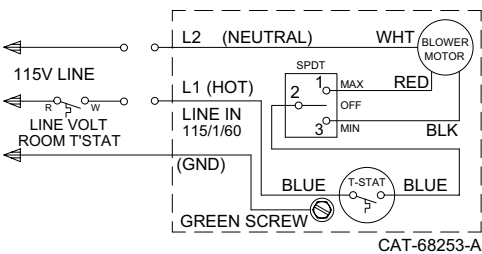


Dimensions shown in English and metric ().

Electrical Connections Must use wires suitable for at least 194°F (90°C).

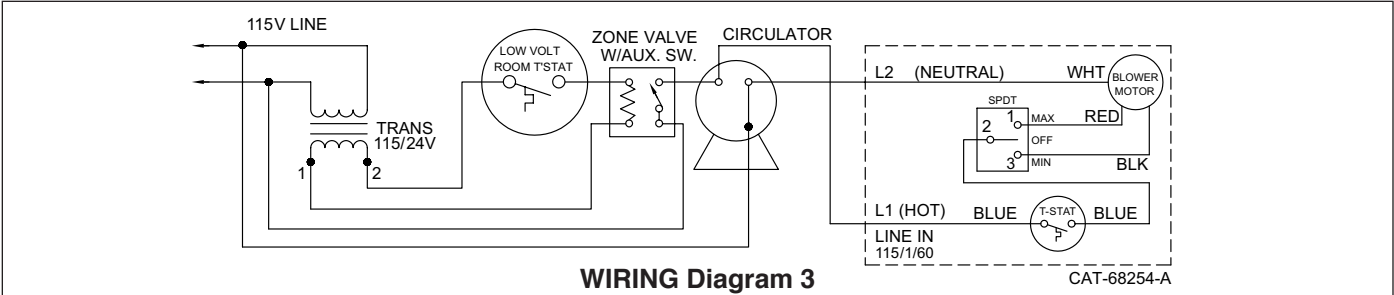


WIRING DIAGRAM 1 Direct 115V line



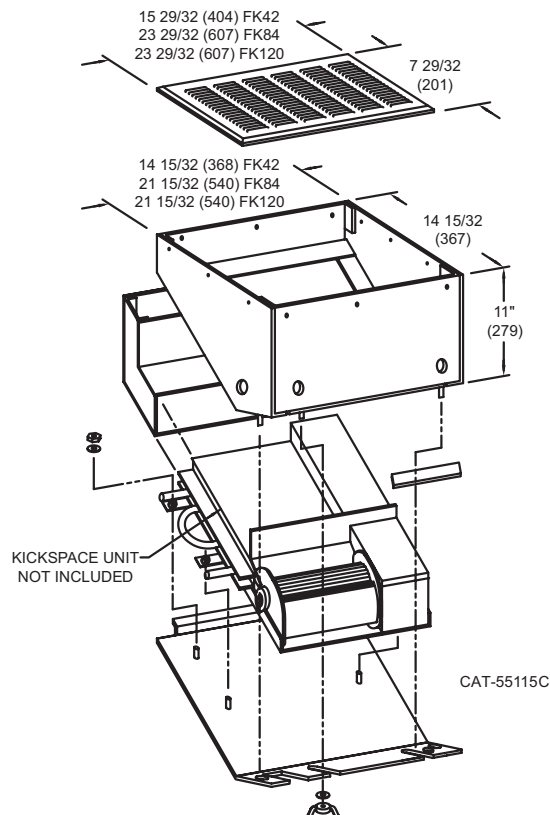
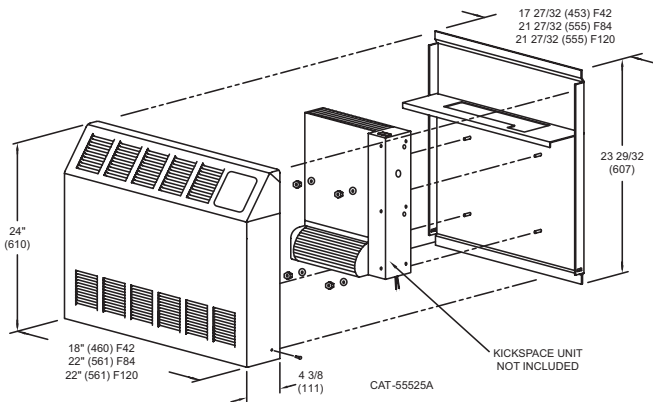
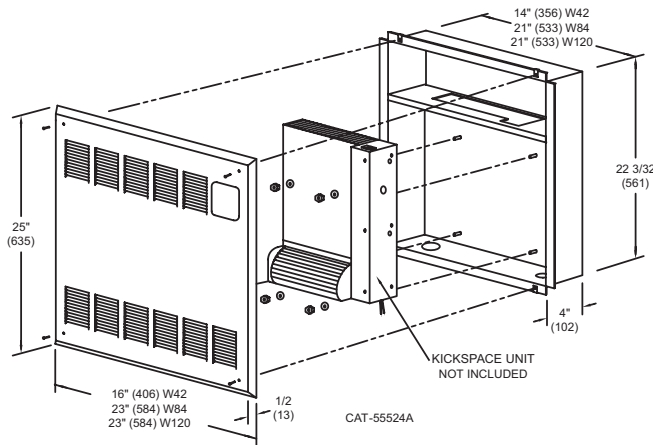
WIRING DIAGRAM 2 Line voltage type room thermostat

Connection through a circulator or zone auxiliary switch may also be used to permit instant shutdown of the blower as the circulator stops (see diagram #3).



WIRING Diagram 3

Installation Kits (Optional)



Recessed • W42 • W84 • W120

Recessed kits fit into wall recesses so they're ideal for narrow hallways, mud rooms, laundry areas, and other tight locations. The smaller Model W42 fits in between standard 16" center studs.

- Galvanized steel inner cabinet
- Eggshell baked enamel finish
- Color coordinated screw covers and rounded edges for neat appearance

Surface • F42 • F84 • F120

Surface kits install quickly and easily — directly to a wall surface. They add warmth to cold hallways, bathrooms, kitchens, laundry rooms, family rooms, work shops, and additions.

- Galvanized steel inner cabinet
- Eggshell baked enamel finish
- Sloped top and rounded edges for neat appearance

Floor • FK42 • FK84 • FK120

Where glassed-in walls or sliders leave little room for heating units, Floor kits install easily between standard floor joists. The grille provides a choice of forward or rear directional air flow and easy accessibility for routine maintenance.

- Heavy 16-gauge steel grill can be rotated for front or rear discharge
- Protective screen under grill
- Eggshell baked enamel finish

Optional Accessories

Low Temperature Aquastat

Easy Connect Hose Kit

- 1/2" 5 Layer Oxygen Barrier
- Maximum Working Temperature 180°F at 100 PSI
- Barbed Fittings
- SelfTite™ Clamps

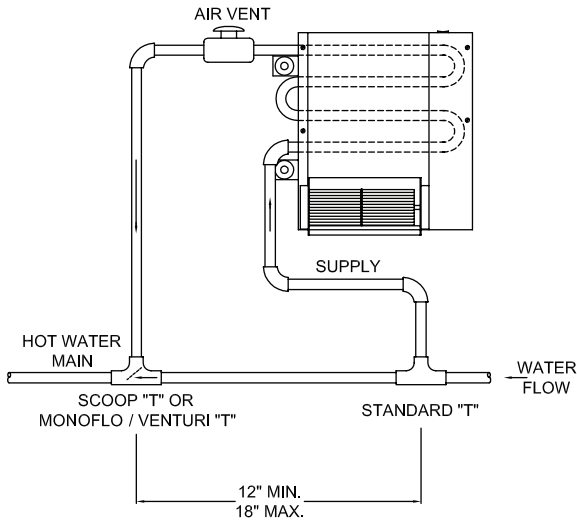
Grille/Installation Kits

- Available in a Variety of Colors

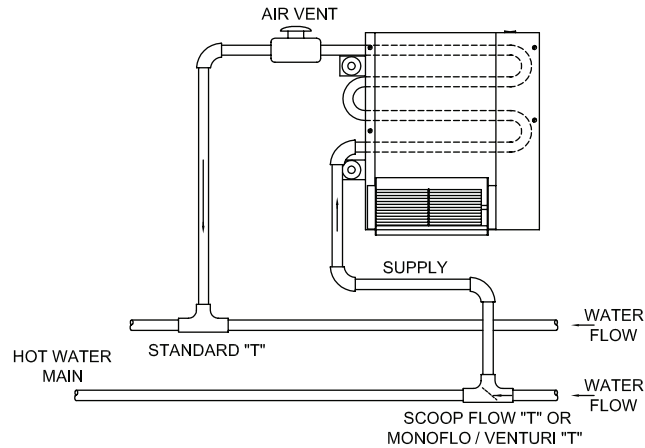
NOTE: Dimensions in "()" are shown in millimeters

Piping Charts

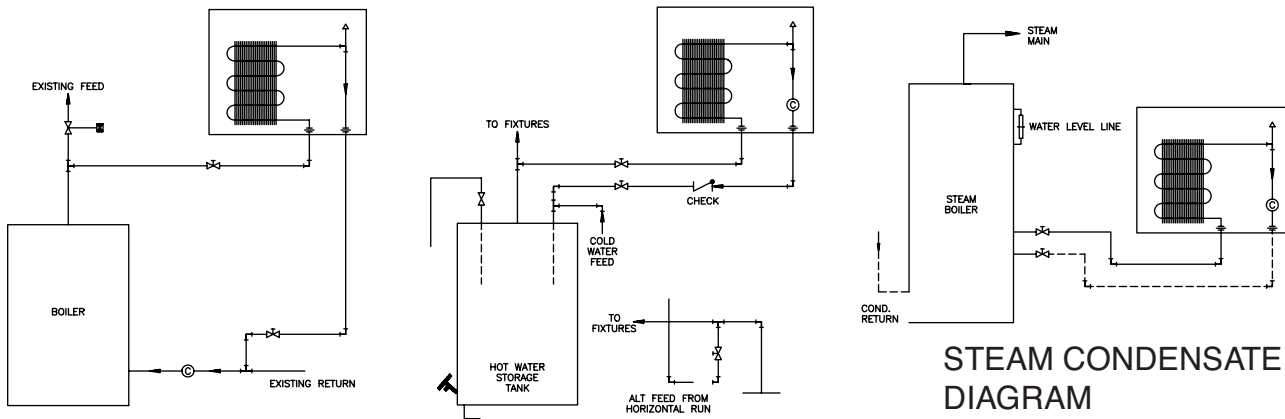
ONE PIPE SYSTEM
UP FEED



TWO PIPE SYSTEM



CAT-68214



STEAM CONDENSATE
DIAGRAM

NOTE: In an up feed system, unit is located above hot water supply line. In a down feed system, unit is located below hot water supply line.

For One Pipe System Down Feed, two directional flow tees should be used. They should be spaced 12 to 18 inches apart. The directional arrow on the directional flow 'T' at the return side should point towards the supply directional flow 'T'.

Maintenance and Service

Properly installed, the Kickspace heater should require very little attention. Since the heating element is carefully constructed and tested, and of non-ferrous materials, it should never require service. The cross-flow blower has been thoroughly engineered, with ball bearings for 10,000 hrs. bearing life expectancy. **As with any electrical rotating device, a yearly inspection and cleaning is recommended.** Wherever there is air movement, there will be some accumulation of dust and lint. In this case it will collect on the rotor blades and air passage of the unit. Regular cleaning with a vacuum cleaner tool is advised, with frequency determined by prevailing conditions. **Always make sure that the air grille is not blocked by foreign objects or materials.**