



BOILER CONVERSION

STEAM TO ELECTRIC

STEAMED AT YOUR BOILER?

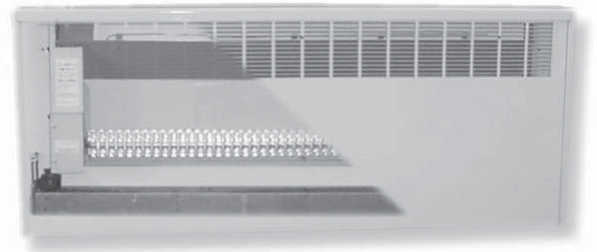
CONVERT TO ELECTRIC!

Converting your existing steam or hot water heating system is easy with the King electric heating unit! It is ETL approved for any appropriate sized steam heating cabinet – and there are countless sizes to fit your radiator cabinets! No need to remove the steam coil, just add the electric unit to the cabinet and feed wires creating a thermostat in-between.

- Tenants can now be billed independently
- No boiler technician needed to maintain the boiler
- ETL approved
- Simple and easy to install

There are three standard interior cabinet sizes to accommodate your retrofit!

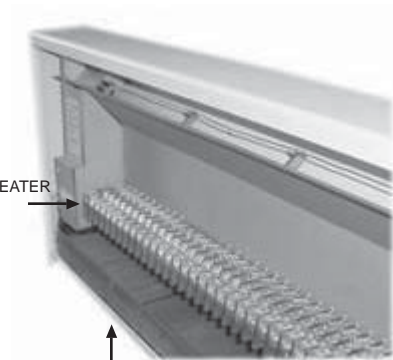
MODEL (HI Series)	MINIMUM REQUIRED CABINET SIZE (larger is acceptable)	INSTALLED HEATER SECTION	WATTS	VOLTS AVAIL.
HI2-	29" x 20" x 4 1/4"	18" x 14" x 3 3/4"	563/844	208/ 240/ 277
HI3-	40" x 20" x 4 1/4"	31" x 14" x 3 3/4"	844/1126	
HI4-	49" x 20" x 4 1/4"	42" x 14" x 3 3/4"	1500/ 1687/ 2250	



WITHOUT CONVERSION

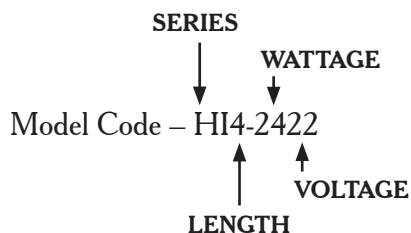


WITH CONVERSION



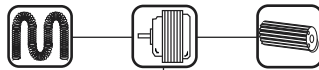
NEW ELECTRIC HEATER

EXISTING HOT WATER COIL



AIR HANDLER

AH
SERIES



FEATURES:

- Open Coil Element
- Efficiency Motor
- Dual Inlet Squirrel Cage Blower
- 16" x 20" x 1" Filter
- Insulated Outlet
- All Position Mounting Contactors
- Silent Relays or Sequencers are used for Maximum Dependability
- Circuit Breaker Protection
- Baked Enamel Paint
- Permanently Lubricated Motor
- Thermally Protected Motor
- Silent Contactors
- 3-Speed Blower Motor
- 24 Volt Control
- Horizontal or Vertical Mount
- Fan Relay
- Galvanized Steel Construction

The Air Handler is typically used where air moving from zone to zone is required without the addition of heat. It can also be used to provide fresh outside make-up air to a larger system or to move air from zone to zone, especially extra heat on one side of a building from solar gain. A

16" x 20" x 1" Intake Filter, 24 Volt Control Circuit and an Insulated Outlet make this compact Air Handler great for solar heating projects as well.

Two speeds can be selected from the three available. The Air Handler can be mounted in any position.

ENGINEERING SPECIFICATIONS:

Contractor shall supply and install, AH-Series air handlers, manufactured by King Electrical Mfg. Company. Furnaces shall be of the wattage and voltage as indicated on the plans.

Transformer: Each furnace is equipped with a heavy duty low voltage, 40 VA (24 Volt) transformer for the thermostat control circuit powered from the line voltage.

Terminal Block: For Field Wiring (Optional Special Order) KFSTB

Air Filter: Convenient access for replacement of standard 16" x 20" x 1" filter.

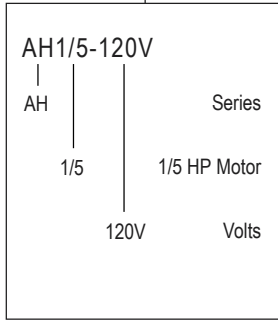
Motor: Long life thermally protected, permanently lubricated, direct drive motor - no belts to adjust or slip. This low noise three speed

motor is designed for use with air conditioning capability as well as heating, only one speed is in use at a time out of the possible two.

Overcurrent Protection: 60 Amp Circuit breakers may be built in to comply with code requirements and offer ultimate safety in overcurrent protection. Front mounted for easy reset. Single power source connection on all size units.

Fan Relay: Heavy duty dual speed fan relay may be ordered with furnaces for air conditioning or summer fan.

Low Voltage Terminal Block: Provides convenient control connection points.

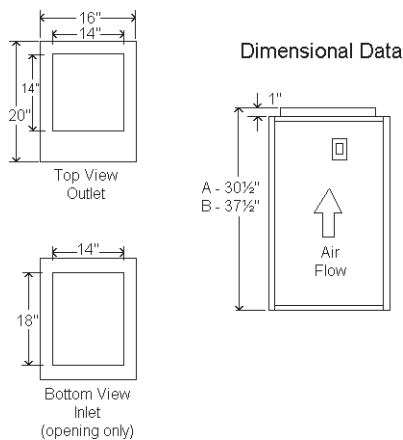
MODEL CODE:

SELECTION:

120V		208V		240V		277V		480V		WEIGHT (lbs.)
MODEL	UPC #093319 PART NO.	MODEL	UPC #093319 PART NO.	MODEL	UPC #093319 PART NO.	MODEL	UPC #093319 PART NO.	MODEL	UPC #093319 PART NO.	
AH1/5-120V	14500	AH1/5-208V	14501	AH1/5-240V	14502			AH1/5-480V	14503	45
AH1/3-120V	14504	AH1/3-208V	14505	AH1/3-240V	14506	AH1/3-277V	14507	AH1/3-480V	14508	
AH1/2-120V	14509	AH1/2-208V	14510	AH1/2-240V	14511	AH1/2-277V	14512	AH1/2-480V	14513	
OPTIONS										
MODEL	DESCRIPTION									
AH-INS	Fully Insulated Cabinet									

TECHNICAL DATA:

MODEL NUMBER	MOTOR HP	BLOWER WHEEL DIMENSIONS		BLOWER WHEEL DRIVE	STATIC PRESSURE APPROX	CFM APPROX AT MOTOR SPEEDS			CABINET DIMENSIONS			EXHAUST	INTAKE	
		WIDTH	DIAMETER			LOW	MED	HIGH	HEIGHT	WIDTH	DEPTH			
AH 1/5	1/5	9.18	x 7.81	Direct	.5 IWG	600	750	900	30½"	16"	20"	14x14	18x14	
AH 1/3	1/3	10.5	x 8.81			1000	1200	1450	37½"	16"	20"			
AH 1/2	1/2					1200	1400	1650						
Please Specify Voltage Required by adding Suffix shown - Example AH 1/3 - 277														
MODEL NUMBER	MOTOR HP	VOLTAGES AVAILABLE				PHASE	NO. OF SPEEDS*	AMPS						
		-120	-208 -240	-277	-480*			120	208	240	277	480		
AH 1/5	1/5	-120	-208 -240	-277	-480	1	3	5.0	3.3	3.3	N/A	2.3		
AH 1/3	1/3	-120	-208 -240	-277	-480			6.0	3.5	3.5	3.2	2.5		
AH 1/2	1/2	-120	-208 -240	-277	-480			8.3	4.5	4.5	4.4	3.0		

*480V Motors are Single Speed Only.

DIMENSIONS

AIR DELIVERY CHART:

MOTOR HP	MOTOR SPEED							
	MOTOR LOAD		LOW		MED		HIGH	
	VOLTAGE	AMPS	CFM	FPM	CFM	FPM	CFM	FPM
1/5	230	3.4	775	570	860	630	1000	735
	380/460	1.7						
1/3	230	3.2	1100	810	1250	920	1540	1130
	380/460	1.7						
1/2	230	3.8	1250	920	1540	1130	1750	1285
	380/460	1.9						
MOTOR WIRE COLOR			RED	BLUE	BLACK			
Air Volume= Cubic Feet Per Minute (CFM) Air Velocity=Feet Per Minute (FPM)								

DIMENSIONAL CLEARANCE

CABINET SIDES	1 INCH
CABINET FRONT	0 INCH
EXHAUST DUCT WITHIN 3 FEET OF FURNACE	1 INCH
RETURN AIR PLENUM	0 INCH

BASEBOARD HEATER

CB
SERIES

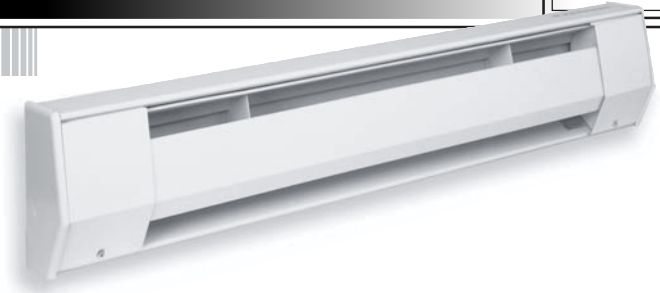
CONVECTION

CERAMIC ELEMENT CORE



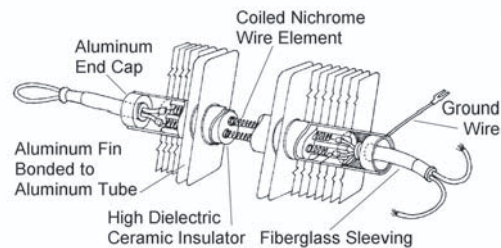
FEATURES:

- Convection Heat
 - Ceramic Element
 - Quiet Running
- Low Density Heat
 - Built-in Wireway
 - Standard Color - Almond
 - Two high grade nichrome coil elements with nickel connectors and stranded nickel wire insure failure-proof operation by having no dissimilar metal components within the ceramic-enclosed dielectric heating area.
 - Fluid-free High Mass Heating Element provides safe operation without the fear of leaks.
 - Optional Color - Bright White
 - Optional 1-Pole or 2-Pole unit mount thermostat 45°-80°F operating range.



This baseboard has a High Mass element and a lower, surface temperature that makes it much different from the standard basboard. This element has seen over 40 years experience and is an excellent choice when considering the more costly and temperamental water or oil filled baseboard heater. The ceramic thermal storage core will never leak out into your room or explode due to the high pressure that builds up in the fluid filled baseboards. If safety, lower surface temperatures and a better price are your concern, this fluidless design is the baseboard for you.

Highmass Ceramic Element



ENGINEERING SPECIFICATIONS:

Contractor shall supply and install, CB ceramic baseboard heaters, manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

Typical Application: The rugged construction makes this a very durable heater suitable as a primary heat source for everyday use.

Element: The superior performance comes from the proven technology of the ceramic thermal storage heater core. A 7/8" diameter aluminum tube is filled with a special high density ceramic that stores the thermal energy. The oversized fins (4.875 in²) are made from durable (0.015 inch thick) high grade aluminum which produces better heat transfer than other elements. The benefit of the high technology comes when the thermostat is turned off and the element continues to radiate heat. It also reduces temperature swings by heating and cooling more evenly.

Safety: The large heating element and low watt density produce low surface temperatures making it very safe.

Thermal Cutout: A continuous capillary sensor extends the full length of the baseboard, turning the element off when an over temperature condition occurs. Automatically resets when the normal temperature returns.

Construction: Expansion noise is eliminated by welding the junction boxes and element hangers to the baseboard case. 20 gauge steel adds strength across the entire length of the baseboard.

Easy Installation: Mounting dimples located every inch above and below the element cover help to locate studs, and hold a nail or power screw steady during installation.

Quick Wiring: Identical junction boxes with knockouts in the rear, side and bottom allow the baseboard to be wired from either end. One screw makes quick access to the wiring compartment.

Exterior: Durable baked enamel finish. Decorator colors include evening white standard, and bright white as an option. (Custom colors on request.)

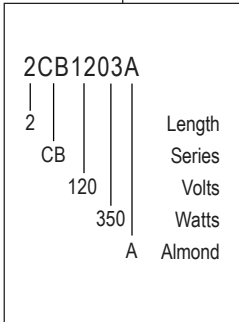
Commercial Construction: Optional 18 gauge front cover for commercial use.

Options: Single Pole or Double Pole unit mount thermostat 45°-80°F.

Quiet: The low temperature element heats cleanly and quietly.

Warranty: 5 year product warranty.

MODEL CODE:



SELECTION:

WATTAGE	120V		208V		240V		LENGTH	WEIGHT (lbs)
	*MODEL	UPC #093319 PART NO.	*MODEL	UPC #093319 PART NO.	*MODEL	UPC #093319 PART NO.		
350	2CB1203A	11200	2CB2003A	11250	2CB2403A	11305	27"	8
500	3CB1205A	11210	3CB2005A	11260	3CB2405A	11315	3ft	10
750	4CB1207A	11220	4CB2007A	11270	4CB2407A	11325	4ft	14
1000	5CB1210A	11230	5CB2010A	11280	5CB2410A	11335	5ft	16
1250	6CB1212A	11240	6CB2012A	11285	6CB2412A	11345	6ft	19
1500			8CB2015A	11295	8CB2415A	11355	8ft	25

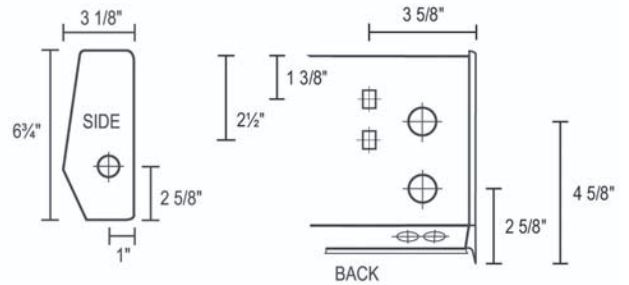
*Add Suffix (-BW) for optional Bright White finish

ACCESSORIES:

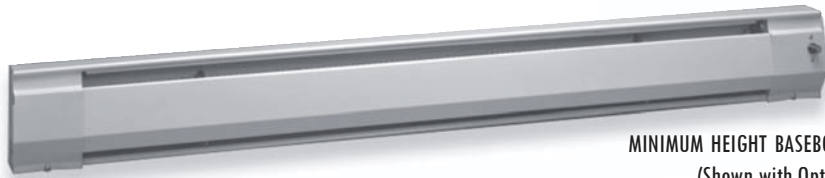
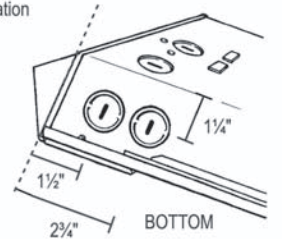
*MODEL	DESCRIPTION	UPC #093319 PART NO.	WEIGHT
BKT1	Built-In Thermostat Kit SPST	11496	.5
BKT2	Built-In Thermostat Kit DPST	11502	.5
BKT1TP	Built-In Tamper Proof Thermostat Kit SPST	11528	.5
BKT2TP	Built-In Tamper Proof Thermostat Kit DPST	11530	.5

*Add Suffix (-BW) for optional Bright White finish

DIMENSIONS



⊕ = Knockout Location



MINIMUM HEIGHT BASEBOARD
(Shown with Optional BTA-1 installed)

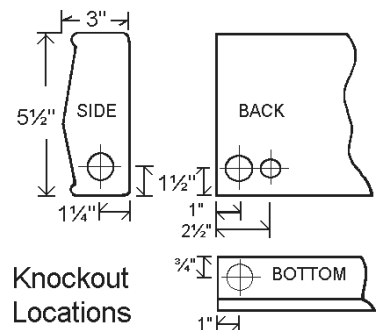
SELECTION:

WATTAGE	208V	240V	LENGTH	WEIGHT (lbs)
	MODEL	MODEL		
335	2M2003	2M2403	27"	7
500	3M2005	3M2405	3ft	9
670	4M2006	4M2406	4ft	13
835	5M2008	5M2408	5ft	15
1000	6M2010	6M2410	6ft	18
1170	7M2011	7M2411	7ft	21
1350	8M2013	8M2413	8ft	24
1500	9M2015	9M2415	9ft	26
1675	10M2016	10M2416	10ft	29

ACCESSORIES

MODEL	DESCRIPTION	UPC PART NO.	WEIGHT
BTA-1	BB Stat Kit SP	10186	.5
BTA-2	BB Stat Kit DP	10192	.5
BTA-1TP	BB Tamper Proof Stat Kit SP	10195	.5
BTA-2TP	BB Tamper Proof Stat Kit DP	10196	.5

DIMENSIONS



Knockout Locations

FEATURES:

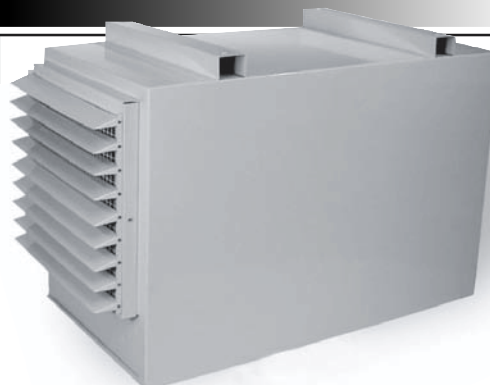
- Convection Heat
- Ceramic Element
- Quiet Running

- 5 1/2" Tall
- No Wireway
- Non Stock Item

PLENUM HEATER

CK
SERIES

3000 WATTS TO 33,000 WATTS



FEATURES:

- Spiral Steel Fin Element
- Double Inlet Blower
- Totally Enclosed 3R Motor
- Nema 12 Construction
- Steel Spiral Fin Element
- Adjustable Louver Hood
- Control Options
- Optional Nema 4X Thermostat
- Optional 120 Volt Control
- Optional Element Step Control
- Optional Disconnect Switch
- Optional Motor HP Upgrades
- Optional No Diffuser Louvers
- Optional Remote Fuse Panel

The CK model is a special application unit heater that is approved for use in concealed areas of a building. It is specifically designed for High-Rise Buildings, Office Buildings, Factories, Auto Body Shops, Food Processing Plants, Plating Shops, Machine Shops.

an inaccessible area such as between a concrete ceiling and a drop tile ceiling, in an open plenum or ducted system. The heater is designed to withstand a dirty, dusty, moist or mildly corrosive environment. It is not intended for use where flammable vapors, gases, liquids or other combustibles are present.

This heater may be installed in

ENGINEERING SPECIFICATIONS:

Contractor shall supply and install, CK-Series plenum heaters, manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

Construction: The heater case is fabricated from high tensile electro galvanized steel that is welded together forming a durable unibody cabinet. Heater is finished with a rust inhibiting epoxy coating.

Adjustable Outlet Louver: Louvers direct air up or down as needed for the heating application.

Intake and Discharge Screen: Heavy gauge steel screen protects against foreign objects entering the heater. A 1"x16"x20" filter is provided to prevent dirt and dust build up in the heater.

Nema 12 Wiring Compartment: The wiring compartment is sealed with a 1/4" Poron high density polyurethane gasket. This provides excellent protection against moisture, dust and dirt from invading the electrical components and wiring. All optional control accessories are nema 12 rated.

Spiral Fin Elements: The metal sheath element is brazed with spiral fins and then molded into a coil configuration. This combination produces the best heat transfer while eliminating the potential for hot spots by positioning the element in the maximum airflow stream.

Blower & Motor: Totally enclosed outdoor ball bearing fan motor. Permanently lubricated, class B insulation, auto protected, permanent split capacitor and 60 C Ambient. Large capacity dual inlet blower handles high static pressure and moves large air vol-

ume. Motor leads are enclosed in a sealtight raceway to prolong equipment life and reduce maintenance.

Air Intake Temperature Control: A built-in thermostat located at the intake blower is factory set at 100 F which prevents the heater from operating when the ambient temperature exceeds this limit. This will prevent the heater from wasting energy, and is an extra measure of safety.

Auto-Reset Thermal Cutout: Power is disconnected from the element if an over heated condition occurs. The fan continues to run to dissipate excess heat from the element. The element is reenergized automatically when the normal operating temperature returns.

Internal Controls: Magnetic contactors are standard on all units. A transformer is provided for 24 volt control. This enables the customer to use a standard low voltage thermostat. Subcircuit fusing is provided when the heater ampacity exceeds 48 amps to comply with NEC standards. A fan delay is provided standard on models 12.5-KW and above to dissipate residual heat from the heating elements.

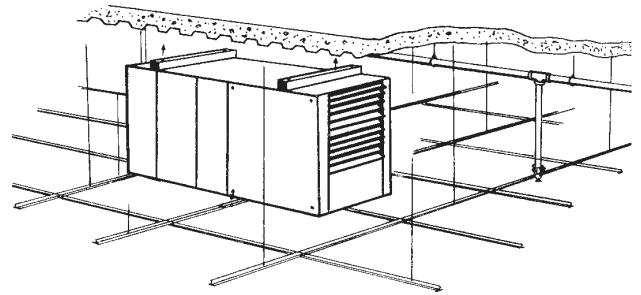
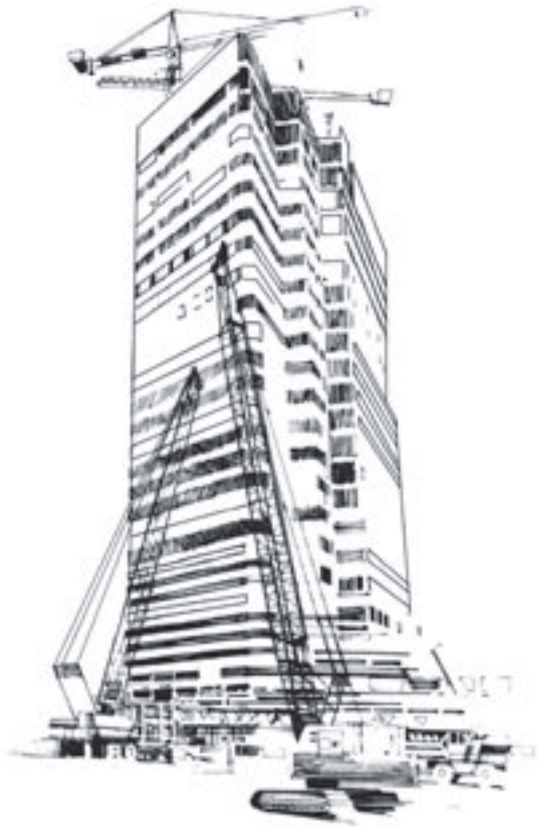
Easy Wiring: A large wiring compartment with easy access allow for a quick installation.

Listing: Heater is approved for installation in enclosed plenum areas under ETL File Number 50050.

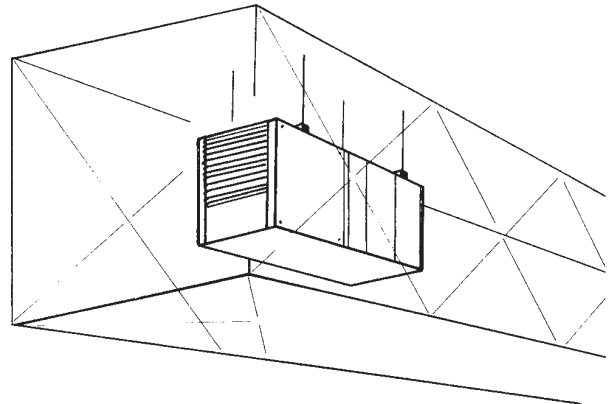
Mounting: CK heater comes with two brackets welded on top to be hung from the ceiling or beam using threaded rod.

Factory Installed Options:

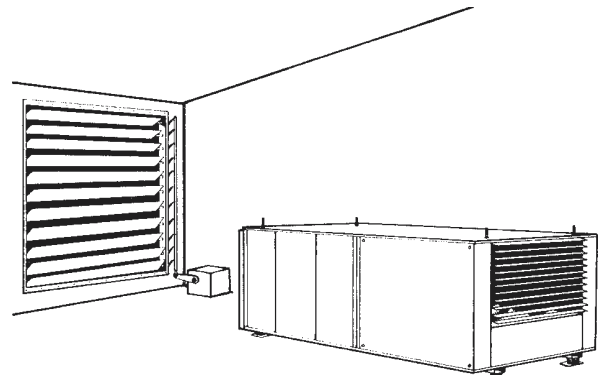
- Thermostat:** A Nema 4X Thermostat can be provided on the heater.
- 120 Volt Control:** Control components modified to accept 120V control. Circuit outboard supply - customer provided.
- Element Step Control:** CK heaters can be provided with 2 stage control. Additional steps can be added for improved energy management, refer to table.
- Disconnect Switch:** The CK is available with a 3-Pole non-fused disconnect that is door interlocking and has a padlock provision can be provided as an option.
- Motor HP Upgrades:** Standard models are listed with motors that will provide sufficient CFM for the KW they are designed for. Where additional CFM is required a larger motor and blower can be provided. Refer to the table for available CFM/Motor combinations.
- No Diffuser:** Used when the heater will be connected to ductwork.
- Remote Fuse Panel:** A remote fuse panel can be provided when the heater is mounted in an inaccessible area. This allows the fuses to be located in an electrical closet where they can be serviced.



CK Heater installed above a ceiling in a concealed area. Heaters are used for constant environmental temperature control. Freeze safety for sprinkler systems in concealed areas.



CK Heater installed inside a plenum area for inline ducted air and heat boost in large commercial HVAC systems.



CK Model for heating large HVAC air intake systems. Pre-heating for controlled HVAC multiple floor supply systems in high rise building. Ducted heated air supply for garage ventilation systems.

SELECTION/TECHNICAL DATA:

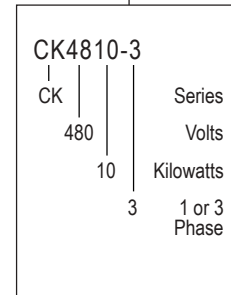
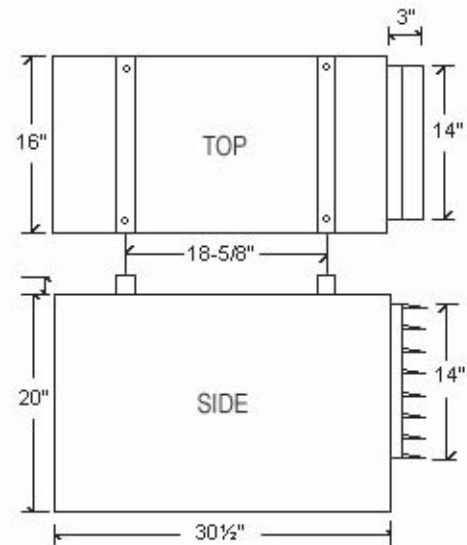
 380V 3Ø Heaters are available
in most KW ratings.

CATALOG NO.	PHASE	KW	BTUH (000)	VOLTS	AMPS*	MOTOR HP	CFM	TEMP RISE	WT (LBS.)
CK2003-1 CK2403-1	1	3.3	10	208 240	14.4 12.5		600	17.4°	75
CK2005-1 CK2405-1	1	5	17	208 240	24.0 20.8		600	26.3°	75
CK4805-1	1	5	17	480	10.4		1000	15.8°	75
CK2007-1 CK2407-1 CK4807-1	1	7.5	23.9	208 240 480	33.6 29.2 14.6	1/4	1000	23.7°	80
CK2010-1 CK2410-1 CK4810-1	1	10	34.1	208 240 480	48.1 41.7 20.8	1/4	1000	31.6°	80
CK2012-1 CK2412-1 CK4812-1	1	12.5	41	208 240 480	57.7 50.0 25.0	1/4	1000	39.5°	85
CK2015-1 CK2415-1 CK4815-1	1	15	51.2	208 240 480	72.1 62.5 31.3	1/4	1000	47.4°	85
CK2003-3 CK2403-3	3	3	10	208 240	8.3 7.2		600	17.4°	90
CK2005-3 CK2405-3	3	5	17.1	208 240	13.8 12.1		600	26.3°	90
CK4805-3	3	5	17.1	480	6.0		1000	15.8°	90
CK2007-3 CK2407-3 CK4807-3	3	7.5	23.9	208 240 480	19.5 16.9 8.4	1/4	1000	23.7°	90
CK2010-3 CK2410-3 CK4810-3	3	10	34.1	208 240 480	27.8 24.1 12.0	1/4	1000	31.6°	90
CK2012-3 CK2412-3 CK4812-3	3	12.5	41	208 240 480	33.3 28.9 14.5	1/4	1000	39.5°	90
CK2015-3 CK2415-3 CK4815-3	3	15	51.2	208 240 480	41.6 36.1 18.0	1/4	1000	47.4°	90
CK2020-3 CK2420-3 CK4820-3	3	20	68.3	208 240 480	55.5 48.1 24.1	1/2	1250	50.6°	95
CK2025-3 CK2425-3 CK4825-3	3	25	85.3	208 240 480	69.4 60.1 30.1	1/2	1250	63.2°	95
CK2030-3 CK2430-3 CK4830-3	3	30	102.4	208 240 480	83.3 72.2 36.1	1/2	1500	63.2°	100
CK2033-3 CK2433-3 CK4833-3	3	33	112.6	208 240 480	91.7 79.5 39.7	1/2	1500	84.3°	120

*Does not include motor load.

KW Rating load tolerance is plus 5% minus 10%

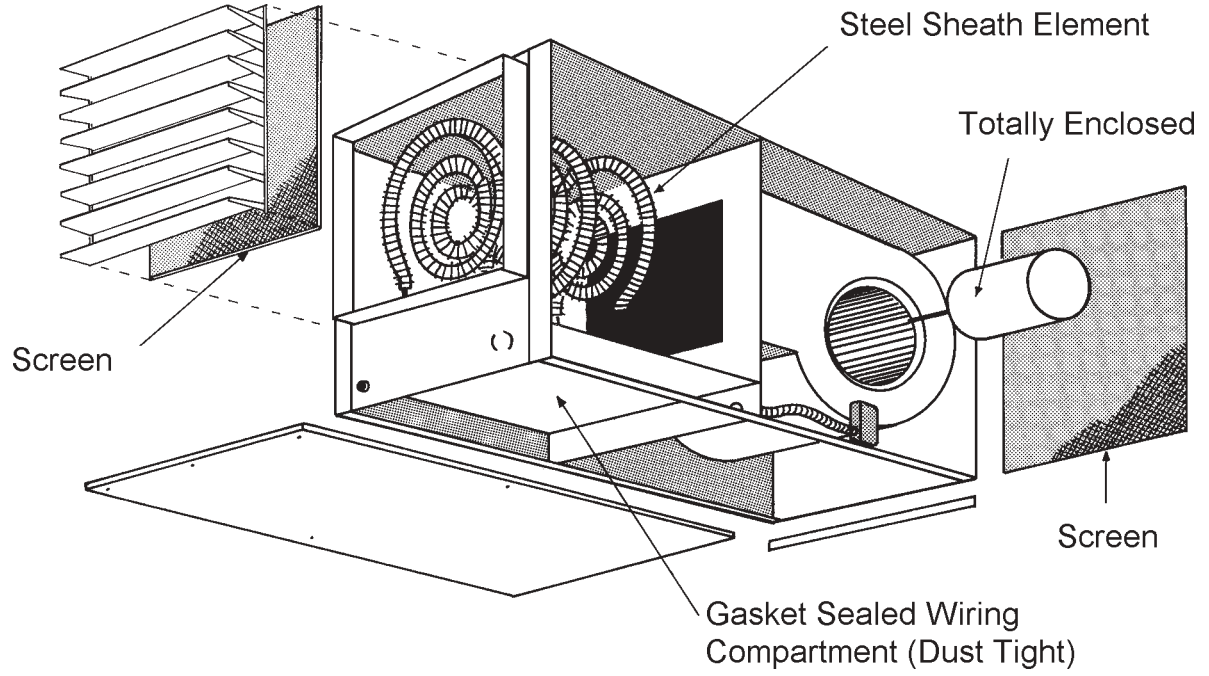
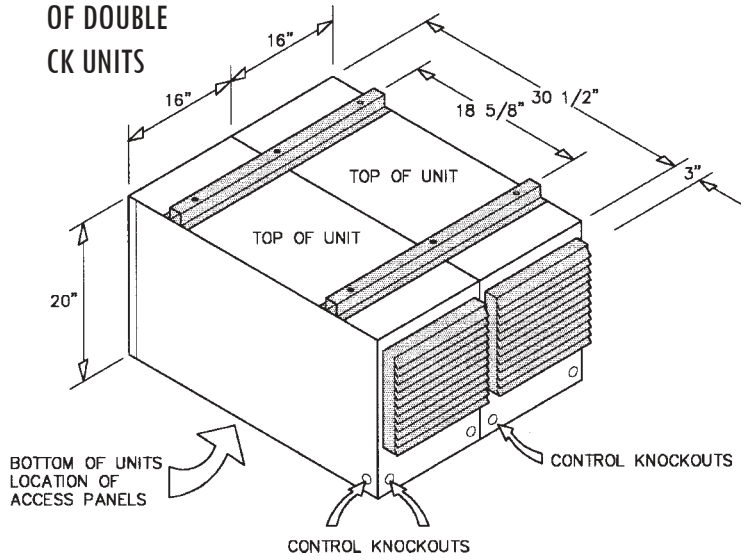
Consult factory for special wattages and voltages.

MODEL CODE:

DIMENSIONS


OPTIONS:

ADD SUFFIX:	DESCRIPTION
-T	For SP Stat, Nema 4X
-C120	For 120 Volt Control
-1/4HP	For Substitute 1/4 HP Motor (1000 CFM)
-1/3HP	For Substitute 1/3 HP Motor (1250 CFM)
-1/2HP	For Substitute 1/2 HP Motor (1500 CFM)
-3/4HP	For Substitute 3/4 HP Motor (2000 CFM)
-DS30	For 30 AMP, 3-Pole Disconnect Switch
-DS40	For 40 AMP, 3-Pole Disconnect Switch
-DS80	For 80 AMP, 3-Pole Disconnect Switch
-DS100	For 100 AMP, 3-Pole Disconnect Switch
-SSR25	For Solid State Relays 25 AMP Max
-SSR45	For Solid State Relays 45 AMP Max
-SSR75	For Solid State Relays 75 AMP Max
-C1025	For Modulating Stat for SSR Control
-220068	For Duct Sensor for Modulating Stat
-ND	For No Diffuser

DIMENSIONS OF DOUBLE CK UNITS



WALL HEATER

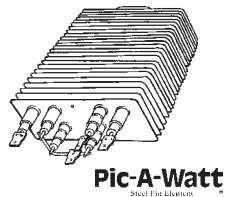


PIC-A-WATT FAMILY - DIAL-A-WATT
FAN FORCED - RV/MARINE



FEATURES:

- Pic-A-Watt® Element
 - C-Frame Motor
 - Squirrel Cage Blower
 - Quiet Running
- Dial-A-Watt Switch
 - Multiple Wattage Selection
 - 20 Gauge Powder Coated Grill with contemporary die formed round corners.
 - Standard Color - Bright White
 - Green Pilot Light indicates when heat is on.
 - Bimetallic limit turns the element off when an over temperature condition occurs and automatically
- resets when the normal temperature returns or is manually reset by thermostat.
 - 1-Pole or 2-Pole unit mount thermostat 45°-80°F
 - Optional Surface Wall Box
 - Available in Stainless Steel Refer to Index



Shown with Optional PT-1
Thermostat Kit Installed

A heavy duty industrial switch mounted on the grill allows easy choice of 7 different heat settings with ease. Use where higher wattage is not required during unoccupied periods and freeze protection may be achieved with energy savings. Quiet operating tangential blower and commercial grade element make the Dial-A-Watt the heater of choice for people on the

booths, motor home/RV, pleasure craft, and cabins. By providing air movement and dry heat, must and mold odors are reduced and interior fabric life is maximized.

During use, the heater load (Amperage) can be adjusted to the receptacle or cord size that is feeding the RV. This prevents damage to plugs and receptacles due to over loading. During lay-up periods, wattage can be adjusted to the correct level.

Typical installations are toll

ENGINEERING SPECIFICATIONS:

Contractor shall supply and install, DAW-series wall-mounted forced-air electric heaters, manufactured by King Electrical Mfg. Company, of the wattage and voltage as indicated on the plans.

Ratings: Heaters shall be available in wattages of 250 to 2,250 at 120, 208, 240, or 277 volts.

Blower and Motor: A tangential cylindrical blower, delivering 65 CFM, shall be driven by a shaded pole, permanently lubricated, C-frame type motor with impedance protection and sealed bearings. Motors shall be the same voltage as the heater.

Elements: Elements assemblies shall be non-glowing design. Element assemblies shall consist of three steel sheathed heating tubes in a furnace brazed, plate finned, block design. Each sheathed tube shall contain coiled Ni-Chrome wire, embedded in an insulator of magnesium oxide. The element assembly shall provide a minimum of seven (7) possible wattage configurations available for selection during field installation. The use of external resistors, diodes, or other weak links to obtain multiple wattages will not be acceptable.

Thermal Overload: Heaters shall be equipped with thermal overload protection, which disconnects elements in the event normal operating temperatures are exceeded. The thermal overload protection device shall automatically reset when normal operating temperatures are reached or manually reset by the thermostat.

Wall Can: The wall can shall be 20 gauge electro-galvanized steel and shall contain a minimum of three (3) knockouts through which power leads are brought. The wall can shall have a depth gauge indicator, and a factory installed, insulated and stranded copper grounding wire. Minimum Clearance to Floors and Sidewalls. Zero clearance to combustibles.

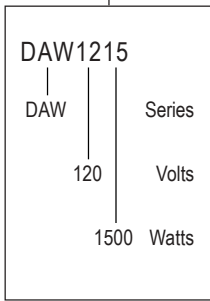
Grill: The grill shall be louvered, one piece design with rounded edges on all four sides, with rounded corners to prevent snags from contact with other materials. The grill shall be epoxy powder coated in the color specified on the plans.

Approval: Heaters shall be listed and approved by Underwriters' Laboratories or equal.

Selector Switch: Shall provide 7 wattage settings adjustable from switch on front of heater.

Indicator: Light designates heater is operating.

MODEL CODE:

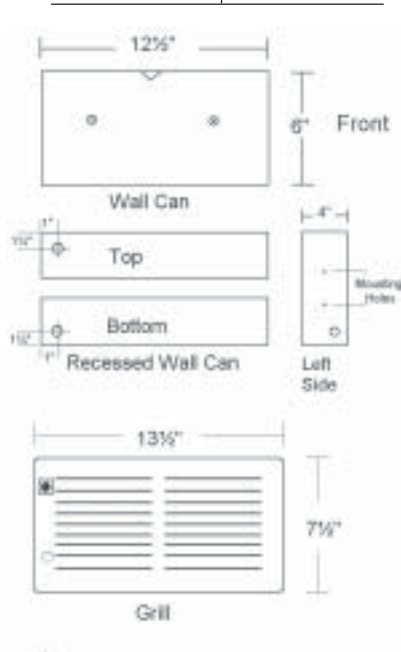


Standard Color: Bright White

SELECTION:

WATTAGE	120V		208V		240V		WEIGHT (lbs)
	MODEL	UPC #093319 PART NO.	MODEL	UPC #093319 PART NO.	MODEL	UPC #093319 PART NO.	
250-500-750-1000-1250-1500	DAW1215	19250					10
500-750-1000-1250-1500-1750-2250			DAW2022	19207	DAW2422	19254	
OPTIONS							
ADD PREFIX:	DESCRIPTION						
D-	For Decade Motor - Not Available with Inbuilt T-Stats due to Motor Size						11.5

DIMENSIONS



ACCESSORIES:

MODEL	DESCRIPTION	UPC #093319 PART NO.	WEIGHT
PAWS	Pic-A-Watt Surface Can - White	16305	4
PT-1	Stat Kit SPST	16306	.5
PT-2	Stat Kit DPST	16307	.5



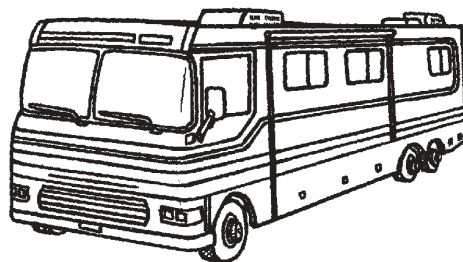
PAWS - White Surface Can

Typical Shore Power Loads:

ITEM	AMPS
Battery Charger	7
Inverter	10/25
Hot Water Tank	12.5
Hair Dryer	14
Microwave	8
Portable Heater	12.5
Stove/Range Top	20
Coffee/Esspresso	6/8
Toaster	11.6
Hot Air Popper	10
Dial-A-Watt	2 to 12.5



Dial-A-Watt Heater Switch

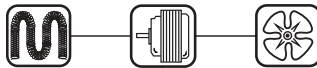


Great for use in RV's and Motor Homes!

WALL HEATER



FAN FORCED - 2000 WATTS TO 4800 WATTS



FEATURES:

- Open Coil Element
- Cast Aluminum Motor
- Aluminum Fan, 5-Blades
- 20 Gauge Powder Coated Grill
- Standard Color - Bright White
- Safety light illuminates when the thermal cutout trips and turns off when the limit resets.
- Safety limit turns off power to the element if it overheats and automatically resets.
- 20 Gauge Electro-Galvanized Steel Recess Can with factory installed ground wire. Approved for direct contact with building insulation.
- Optional 1-Pole or 2-Pole unit mount thermostat 45-80° operating range.
- Optional Retrofit Grill
- Optional Surface Wall Box
- Optional Color - Almond



The EFW heater is designed to be a very affordable, large wattage, wall heater. It is commonly used in apartment construction to heat rooms up to 400 square feet or when a remote thermostat is required on a 4000 Watt style heater. The open coil element design dissipates heat quickly so that it doesn't require a fan delay.

trouble free service. Use it with a wall thermostat or a built-in one that can be field or factory installed.

The large impeller fan produces 185 CFM and the 4-pole cast aluminum unit bearing motor is permanently lubricated for years of



ENGINEERING SPECIFICATIONS:

Contractor shall supply and install, EFW-series wall surface mounted forced-air electric heaters, manufactured by King Electrical Mfg. Company, of the wattage and voltage as indicated on the plans.

Motor: Heavy duty cast aluminum unit bearing, permanently lubricated with 10cc oil reservoir, 1440 RPM. Enclosed impedance protected with intake air cooling motor for increased bearing life.

Fan: High efficiency dynamically balanced 5-blade aluminum impeller fan. 185 CFM.

Elements: Elements assemblies shall be constructed of coiled nickel chromium alloy, corrosion resistant wire strung through a minimum of four rows of mica insulator. Element assemblies shall have factory provided connection to al-

low field modification to 50% wattage.

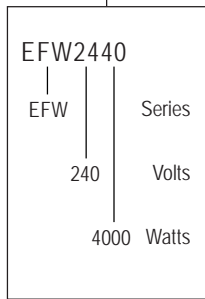
Safety Limit: The thermal cutout turns off power to the heater in the event of overheating, and automatically resets when temperature returns to normal.

Safety Light: Illuminates when the thermal cutout trips and turns off when the limit resets.

Wall Box: 20 gauge electro-galvanized steel with factory installed ground wire. Minimum Clearance to Floors and Sidewalls. Zero clearance to combustibles.

Grill: 20 ga. steel finished in a gloss white powder coated paint.

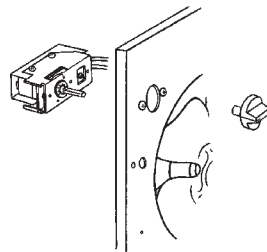
Options: 1-Pole or 2-Pole built in thermostat 45-80° operating range, retrofit grill, and surface wall box.

MODEL CODE:


Standard Color: Bright White

SELECTION:

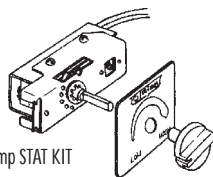
WATTAGE	120V		208V		240V		WEIGHT (lbs)
	MODEL	UPC #093319 PART NO.	MODEL	UPC #093319 PART NO.	MODEL	UPC #093319 PART NO.	
2000	EFW1220	19400	EFW2020	19410	EFW2420	19455	16.5
3000	EFW1230	19406	EFW2030	19413	EFW2430	19424	
4000			EFW2040	19416	EFW2440	19427	
4800					EFW2448	19430	
OPTIONS							
ADD SUFFIX:		DESCRIPTION					
-A		For Alternate Almond Grill Color					16.5
-I		For Interior and Grill only (No Can)					11.5
-H		For Interior only (No Can or Grill)					8.5
-T		1-Pole Thermostat Included					12



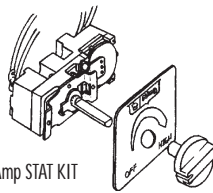
EFW - Thermostat

ACCESSORIES:

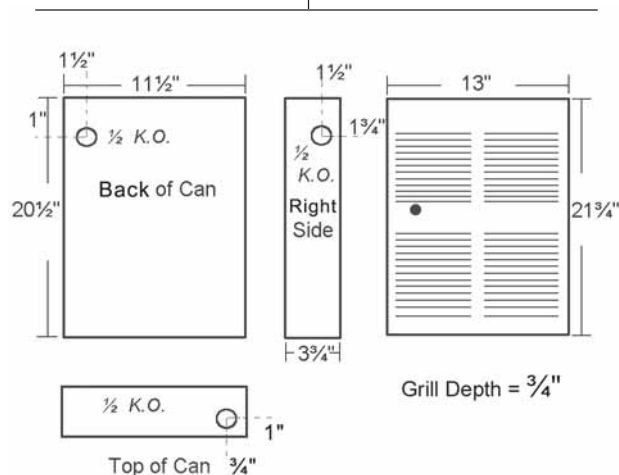
MODEL	DESCRIPTION	UPC #093319 PART NO.	WEIGHT
UWIC	Recess Can	12590	6.5
UWSA	Surface Can - White	12599	7.5
UWSA-A	Surface Can - Almond	12595	7.5
EFWG	Grill Only - White	19439	4.5
EFWG-A	Grill Only - Almond	19440	4.5
EFWG-SS	Grill Only - Stainless Steel	19460	4.5
EFWOG	O-Size Grill 21¾"H x 15½"W	19442	6.0
EFWOG-A	O-Size Grill 21¾"H x 15½"W - Almond	19441	6.0
EFWOG-XL	O-Size Grill 21¾"H x 16½"W	19443	6.5
EFT-1	SP 22 Amp STAT KIT	19445	.5
EFT-2	DP 22 Amp STAT KIT	19448	.5



EFT-1 - SP 22 Amp STAT KIT



EFT-2 - DP 22 Amp STAT KIT

DIMENSIONS

 EFWOG - Oversized Grill
 21¾"H x 15½"W

 EFWOG-XL - Oversized Grill
 21¾"H x 16½"W
 (Shown with Flanges)


UWSA - Surface Can - White

EXPLOSION PROOF UNIT HEATER

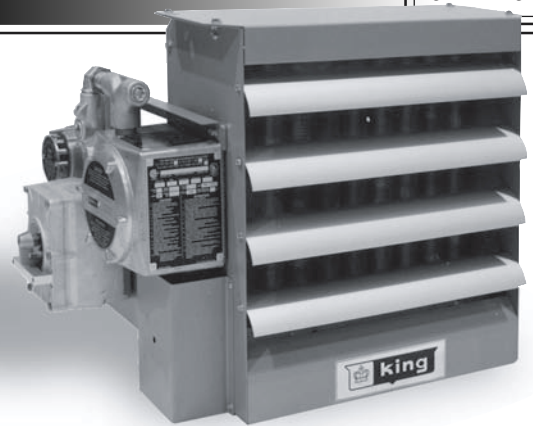
FX SERIES

HAZARDOUS ENVIRONMENT
FAN FORCED · 3 TO 35 KW

FEATURES:

- Evacuated Core
- Greater KW Range - Up to 35 KW
- Split Fan Guard
- Bi-Metal High Limit
- Opt. Built-In Accessories
- Compact Design & Light Wt.
- Large Explosion-Proof Control Box with Screw-On Cover

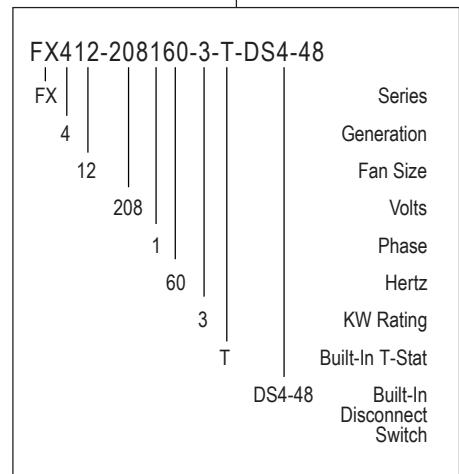
SELECTION:



For hazardous-location heating, rely on the FX heater for the most dependable, trouble-free service available.

NOMINAL WATTAGE (KW)	MODEL	VOLTS	PHASE	TOTAL CURRENT (A)	OPT. BUILT-IN DISCONNECT SWITCH	AIR TEMP. RISE		BTU/HR
						°F	°C	
3	FX412-208160-3	208	1	14.4	DS4-48	19.0	10.5	10,250
	FX412-240160-3	240	1	12.5	DS4-48			
	FX412-208360-3	208	3	8.3	DS4-48			
	FX412-240360-3	240	3	7.2	DS4-48			
	*FX412-480160-3	480	1	6.3	DS4-48			
	FX412-480360-3	480	3	3.6	DS4-48			
	*FX412-600360-3	600	3	2.9	DS4-48			
5	FX412-208160-5	208	1	24.0	DS4-48	31.6	17.6	17,050
	FX412-240160-5	240	1	20.8	DS4-48			
	FX412-208360-5	208	3	13.9	DS4-48			
	FX412-240360-5	240	3	12.0	DS4-48			
	*FX412-480160-5	480	1	10.4	DS4-48			
	FX412-480360-5	480	3	6.0	DS4-48			
	*FX412-600360-5	600	3	4.8	DS4-48			
7.5	FX412-208160-7.5	208	1	36.1	DS4-48	27.9	15.5	25,600
	FX412-240160-7.5	240	1	31.3	DS4-48			
	FX412-208360-7.5	208	3	20.8	DS4-48			
	FX412-240360-7.5	240	3	18.0	DS4-48			
	*FX412-480160-7.5	480	1	15.6	DS4-48			
	FX412-480360-7.5	480	3	9.0	DS4-48			
	*FX412-600360-7.5	600	3	7.2	DS4-48			
10	*FX412-208160-10	208	1	48.1	Not Available	37.2	20.6	34,100
	FX412-240160-10	240	1	41.7	DS4-48			
	FX412-208360-10	208	3	27.8	DS4-48			
	FX412-240360-10	240	3	24.1	DS4-48			
	*FX412-480160-10	480	1	20.8	DS4-48			
	FX412-480360-10	480	3	12.0	DS4-48			
	*FX412-600360-10	600	3	9.6	DS4-48			
15	*FX416-240160-15	240	1	62.5	Not Available	27.1	15.0	51,200
	FX416-208360-15	208	3	41.6	DS4-48			
	FX416-240360-15	240	3	36.1	DS4-48			
	*FX416-480160-15	480	1	31.3	DS4-48			
	FX416-480360-15	480	3	18.0	DS4-48			
	*FX416-600360-15	600	3	14.4	DS4-48			
20	*FX416-208360-20	208	3	55.5	Not Available	36.1	20.1	68,250
	*FX416-240360-20	240	3	48.1	Not Available			
	*FX416-480160-20	480	1	41.7	DS4-48			
	FX416-480360-20	480	3	24.1	DS4-48			
	*FX416-600360-20	600	3	19.2	DS4-48			
	*FX420-240360-25	240	3	60.1	Not Available			
FX420-480360-25	480	3	30.1	DS4-48				
*FX420-600360-25	600	3	24.1	DS4-48				
30	FX420-480360-30	480	3	36.1	DS4-48	26.3	14.6	102,350
	*FX420-600360-30	600	3	28.9	DS4-48			
35	FX420-480360-35	480	3	42.1	DS4-48	28.0	15.6	119,450
	*FX420-600360-35	600	3	33.7	DS4-48			

MODEL CODE:



ACCESSORIES:

MODEL	DESCRIPTION	UPC #093319 PART NO.
WMK	Wall Mount Bracket	14514
KXT-211	SPST 22AMP 480V Exp Stat Feed-Thru	14545
KXT-212	SPDT 22AMP 480V Exp Stat Feed-Thru	14516

*CSA certified ONLY

*Exceeds the 48 AMP. Circuit Limit NEC 424-22.

Please specify CSA or UL heater when ordering.

Heaters are also suitable for voltages of 220, 230, 460 & 575, but subject to derated output.

ENGINEERING SPECIFICATIONS:

The explosion-proof unit heater(s) shall be supplied and installed in accordance with the plans and specifications, with ratings as listed in the schedule of electrical heating equipment, and shall be FX Series Explosion-Proof Electric Air Heaters. 60 Hertz models and be Underwriters Laboratories Inc. listed for use in Class 1, Divisions 1 & 2, Groups C & D; Class II, Division 1, Groups E, F & G; Class II, Division 2, Groups F & G; and Class 1, Zones 1 & 2, Groups IIA & IIB Hazardous Locations, and shall be rated for National Electrical Code Temperature Code T3B, 165°C (329°F). The unit heater(s) shall be manufactured under a registered ISO 9000 quality system.

Heat Exchanger: The heat exchanger shall be fluid-to-air type consisting of steel tubes with roll-formed aluminum fins and be vacuum charged. It shall be protected by a preset 100 psig (690 kPa) pressure-relief valve, aluminum body, no serviceable parts. It shall be filled to design level with a custom-blended, long life solution of ethylene-glycol, water, and corrosion inhibitors. It shall also have three heavy-duty immersion heating elements brazed into a heavy steel bulkhead. The elements shall consist of high-quality resistance wire embedded in a compacted magnesium oxide refractory and sheathed in a metal tubing. The heater is to be protected by a snap-action bi-metal temperature high-limit cut-out rated 100,000 cycles at 10 amps. The high-limit shall not be effected by altitude or changes in atmospheric pressure. The high-limit shall be an automatic reset type, and will shut off the heater if the exchanger temperature rises due to a lack of heat dissipation.

Fan & Motor Assembly: The fan assembly shall include a ball-bearing, permanently lubricated, thermally protected explosion-proof motor rated for continuous duty. The fan blades shall be aluminum to prevent sparking. The fan shall be directly connected to the motor, balanced, and designed specifically for heater application. The fan shall be shielded with a heavy-duty epoxy coated guard. To provide easy maintenance and cleaning of the fan and motor, the fan guard shall be of a two-piece construction. The guard shall not allow a 1/4" or larger probe to enter.

Control Center: The control center shall be completely factory prewired and tested, and enclosed in an explosion-proof control enclosure with a large threaded cover for easy access. It shall include a magnetic contactor sized to handle the heater and motor current. The contactor shall be rated for 500,000 mechanical operations. The coil shall be 120V encapsulated severe duty and separately fuse-protected. The control center shall include a control circuit transformer, the primary voltage being the same as the heater voltage and the secondary being a 120V grounded circuit. It shall also include printed circuit board with a terminal block for room thermostat connection. The control circuit shall include secondary fuse protection on secondary side of transformer. The fuse holder shall be mounted on the printed circuit board and contain both an operating fuse and a spare fuse.

Cabinet Assembly: The cabinet assembly shall be fabricated from 14 gauge steel with a baked epoxy powder coating over a 5-stage pretreatment including iron phosphate, for protection from corrosive atmospheres. The cabinet shall include two (2) 9/16" (14.3mm) mounting holes located on the top. Louvers shall be individually adjustable and made of anodized extruded aluminum.

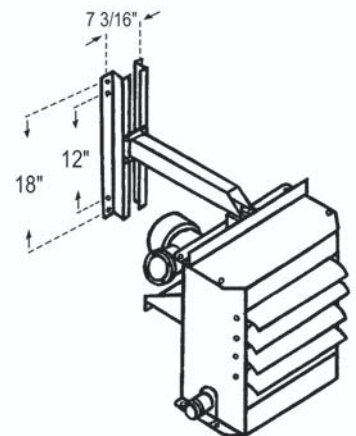
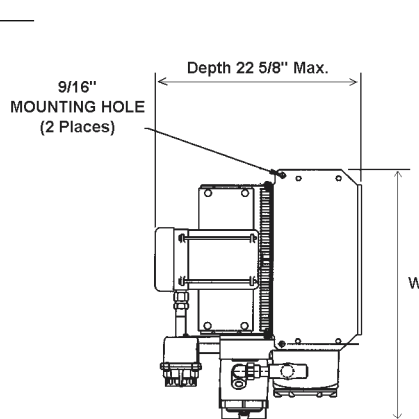
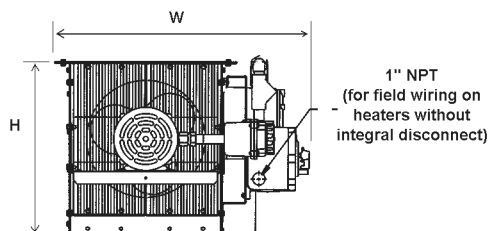
Mounting Kits: The heater shall be provided with a steel mounting kit, with wet applied enamel paint, specifically designed to bear the weight of the heater assembly. The mounting kit shall be: BMK - basic mounting kit, WMK - wall mounting kit, PMK - pipe mounting kit, HMK - hanging mounting kit, SHMK - swivel hanging mounting kit.

Thermostat Options: The heater shall be supplied with either (a) built-in, explosion-proof thermostat mounted on the control enclosure side of the heater, or (b) a kit for field installation, explosion-proof room thermostat.

Disconnect Switch Option: The heater shall be supplied with a factory built-in disconnect switch mounted on the control enclosure side of the heater. The conduit between the heater control enclosure and the switch enclosure shall be factory pre-sealed. The built-in disconnect switch shall be completely factory pre-wired, tested and include a lockout feature. The switch shall be rated for at least full line amperage and 600 VAC.

DIMENSIONS:

KW	2.5 - 10	12.5 - 20	20.9 - 35	Dim. Tol.
Legend				+ / -
W - Width	26-15/16"	31"	34-15/16"	3/8
H - Height	18-1/2"	22-1/2"	26-1/2"	1/8



CERAMIC BASEBOARD



CONVECTION

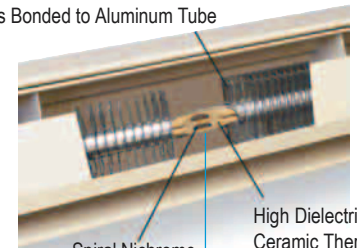
CERAMIC ELEMENT CORE

This baseboard has a High Mass element and a lower, surface temperature that makes it much different from the standard baseboard. This element has seen over 40 years experience and is an excellent choice when considering the more costly and temperamental water or oil filled baseboard heater. The ceramic thermal storage core will never leak out into your room or explode due to the high pressure that builds up in the fluid filled baseboards. If safety, lower surface temperatures and a better price are your concern, this fluidless design is the baseboard for you.



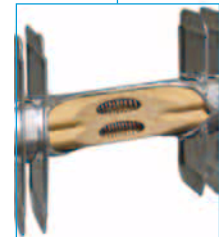
HIGHMASS CERAMIC ELEMENT LIQUIDLESS DESIGN

Aluminum Fins Bonded to Aluminum Tube



Spiral Nichrome Wire Element

High Dielectric Ceramic Thermal Storage Core



SELECTION: LOW DENSITY - 188 WATTS PER LINEAL FOOT

WATTAGE	120V		208V		240V		LENGTH	WEIGHT (lbs)	LIST PRICE
	*MODEL	UPC #093319 PART NO.	*MODEL	UPC #093319 PART NO.	*MODEL	UPC #093319 PART NO.			
350	2CB1203A	11200	2CB2003A	11250	2CB2403A	11305	27"	8	\$ 135.00
500	3CB1205A	11210	3CB2005A	11260	3CB2405A	11315	3ft	10	\$ 161.00
750	4CB1207A	11220	4CB2007A	11270	4CB2407A	11325	4ft	14	\$ 190.00
1000	5CB1210A	11230	5CB2010A	11280	5CB2410A	11335	5ft	16	\$ 224.00
1250	6CB1212A	11240	6CB2012A	11285	6CB2412A	11345	6ft	19	\$ 255.00
1500			8CB2015A	11295	8CB2415A	11355	8ft	25	\$ 291.00

*Add Suffix (-BW) for optional Bright White finish

Typical Application: The rugged construction makes this a very durable heater suitable as a primary heat source for everyday use.

Element: The superior performance comes from the proven technology of the ceramic thermal storage heater core. A 7/8" diameter aluminum tube is filled with a special high density ceramic that stores the thermal energy. The oversized fins (4.875 in²) are made from durable (0.015 inch thick) high grade aluminum which produces better heat transfer than other elements. The benefit of the high technology comes when the thermostat is turned off and the element continues to radiate heat. It also reduces temperature swings by heating and cooling more evenly.

Safety: The large heating element and low watt density produce low surface temperatures making it very safe.

Thermal Cutout: A continuous capillary sensor extends the full length of the baseboard, turning the element off when an over temperature condition occurs. Automatically resets when the normal temperature returns.

Construction: Expansion noise is eliminated by welding the junction boxes and element hangers to the baseboard case. 20 gauge steel adds strength across the entire length of the baseboard.

Easy Installation: Mounting dimples located every inch above and below the element cover help to locate studs, and hold a nail or power screw steady during installation.

Quick Wiring: Identical junction boxes with knockouts in the rear, side and bottom allow the baseboard to be wired from either end. One screw makes quick access to the wiring compartment.

Exterior: Durable baked enamel finish. Decorator colors include almond and bright white. (Custom colors on request.)

Commercial Construction: Optional 18 gauge front cover for commercial use.

Options: Single Pole or Double Pole unit mount thermostat 45°-80°F.

Quiet: The low temperature element heats cleanly and quietly.

Warranty: 5 year product warranty.

FREQUENTLY ASKED QUESTIONS



Q. How does a thermal storage ceramic heater work?

A. The ceramic inside the heater core acts as a heat sink turning the electrical energy into thermal storage. When the thermostat shuts off the heating element retains the thermal energy and therefore continues transferring heat into the room. This means that the room will maintain a more even temperature avoiding temperature swings and thus making you much more comfortable.

Q. Where did this technology come from?

A. Large ceramic storage heaters have been used in industry for many years, King is the first to develop a small compact version for home use.

Q. Are they safe?

A. The King thermal storage ceramic heater uses a special low watt density element that produces much lower surface temperatures than standard baseboard heaters.

Q. Are they long lasting?

A. Yes, in fact the proven reliability of ceramics allows us to offer a 5 year warranty.

Q. Are the heaters efficient?

A. Yes, they are 100% efficient which means that all the electrical energy put into the heater produces heat transfer to the surrounding air. All fossil fuels that produce hot exhaust gases which is wasted heat energy that rises up the chimney flue.

Q. What is the difference between a ceramic heater and a hydronic heater?

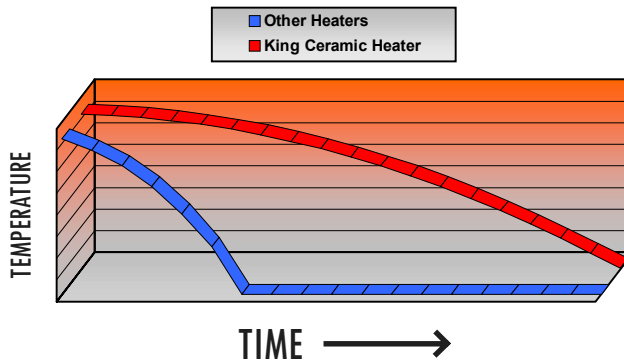
A. The ceramic heater has all the same benefits as the hydronic without the dreaded worry of possible leaks. The ceramic heater is made without liquid chemicals that could leak out and cause damage to carpets and flooring. Ceramic heaters have a solid core that is maintenance free. In addition the very dense ceramic material has superior heating characteristics.

Q. Do hydronic heaters produce moist heat?

A. No, this is a misconception about hydronic heaters. The chemicals inside the hydronic heater do not dissipate. If they could produce moist heat you would have to constantly refill the liquid.

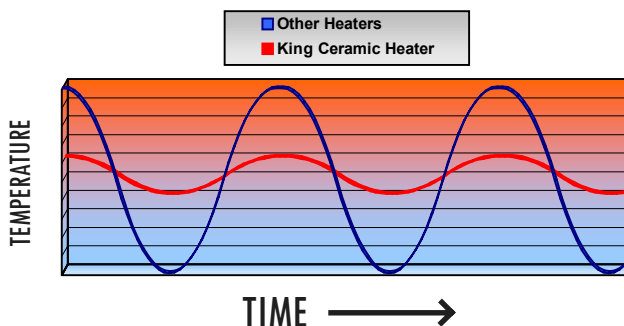
Q. What kind of heat does the ceramic heater produce?

A. The combination of the ceramic core, large fins on the element and low watt density make the ceramic heater the most comfortable of all baseboard heaters. It produces a gentle warmth that does not scorch or dry out the air in room. This heater is often recommended for people with allergies and sinus problems.



Retains Heat Longer

The ceramic filled element retains heat long after the thermostat is turned off.



Reduces Temperature Swings

The ceramic filled element cycles more evenly, eliminating hot and cold temperature swings. Use with a TH110P proportional control thermostat and save up to 40% on your heating costs.

Maintenance Information: The high quality and superior design of this heater will provide years of trouble free performance. Each year the heater should be checked and cleaned for lint and dust accumulation. We recommend using a soft bristled brush to knock off contaminants, then vacuum out.

Warranty: King Electrical Mfg. Co. will repair or replace without charge to the original owner any heater found to be defective or malfunctioning for five years from the date of purchase. If the product becomes defective within the warranty period, contact King for instructions on how to repair or replace heater.

INSTALLATION INSTRUCTIONS

MODEL: DAW1215
120V 1500W

DIAL-A-WATT
Steel Sheath Element

MODEL: DAW2422
240V 2250W

ATTENTION: Before attempting to install your heater verify the power supply wires are the same voltage as the heater you are installing. **240 and 120 Volt heaters are not interchangeable.** Connecting a 240 Volt heater to a 120 Volt circuit will reduce the wattage 75% and cause the motor to rotate slowly, significantly reducing air flow. Connecting a 120 Volt heater to a 240 Volt circuit will destroy the heater, could cause fire damage and voids all warranties. This heater should be installed in compliance with all local and national electrical codes.

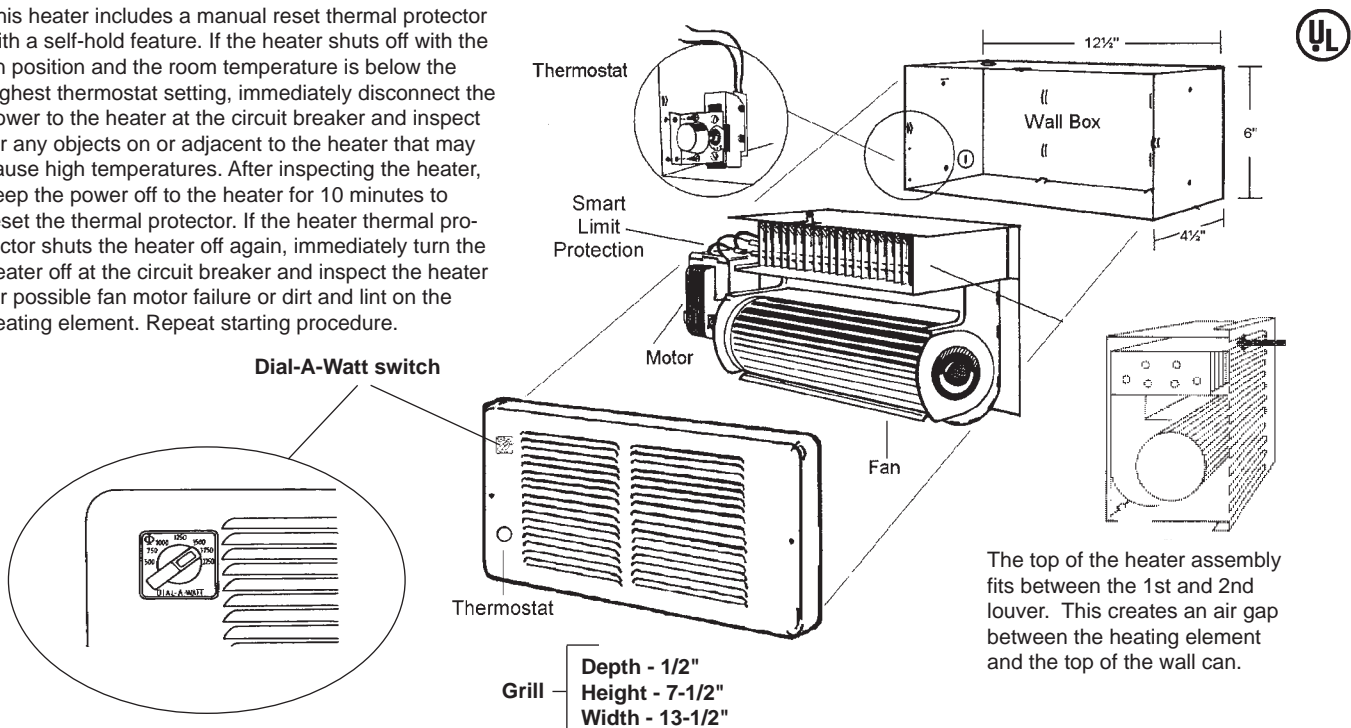


Note: Heaters cannot be installed vertically.

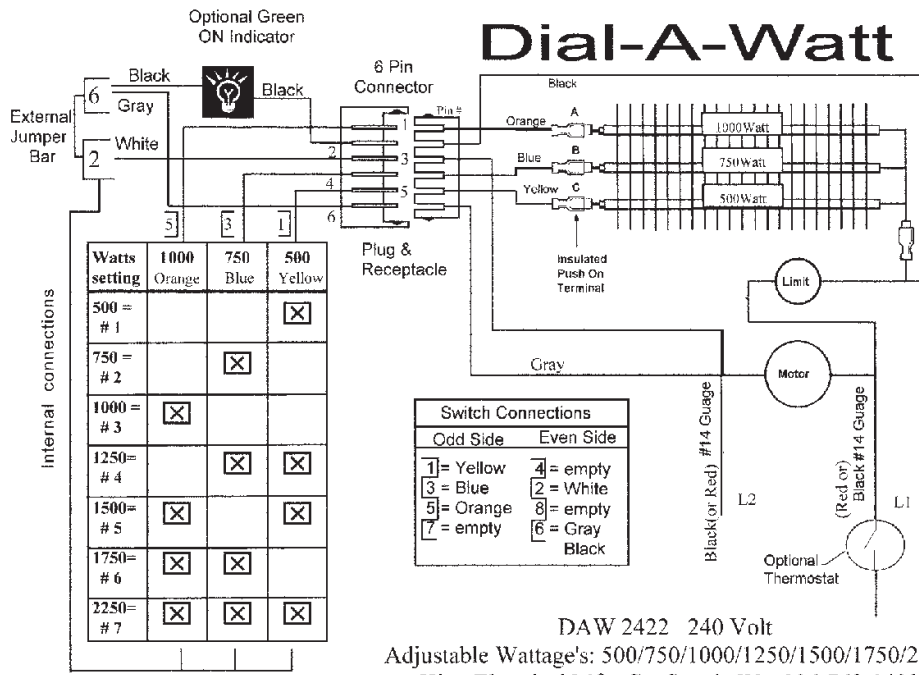
WARNING: Turn off power source to the heater before attempting installation, maintenance, or repairs. Lock, tape or tag circuit breaker or fuse so that power cannot be turned on by accident. Failure to do so could result in personal injury or death.

1. Remove heater from carton. Check to make sure the heater has not been damaged in shipment.
2. Remove the grill by loosening and removing the two screws on the front grill.
3. Remove fan heater assembly by loosening the mounting screw - the assembly will now drop out.
4. Remove one 7/8" knockout and thread the supply wire into the wallbox. Use an approved strain relief bushing to prevent chafing of the supply wires through the opening in the wallbox.
5. Mount heater wall can using flanges on side of can. Install the fan heater assembly at the top of the wallbox with the mounting screw. Connect the supply and groundwires per the diagram on next page and plug harness to Dial-A-Watt switch.
6. Install grill and secure with the two screws provided. The top first louver in the grill must be open into and between wall can and top of heater for proper circulation of air.
7. The installation is now complete and the heater may be energized.
8. Test each wattage setting from 250 to 1500 in 120 Volt or 500 to 2250 Watts in 240 Volt.

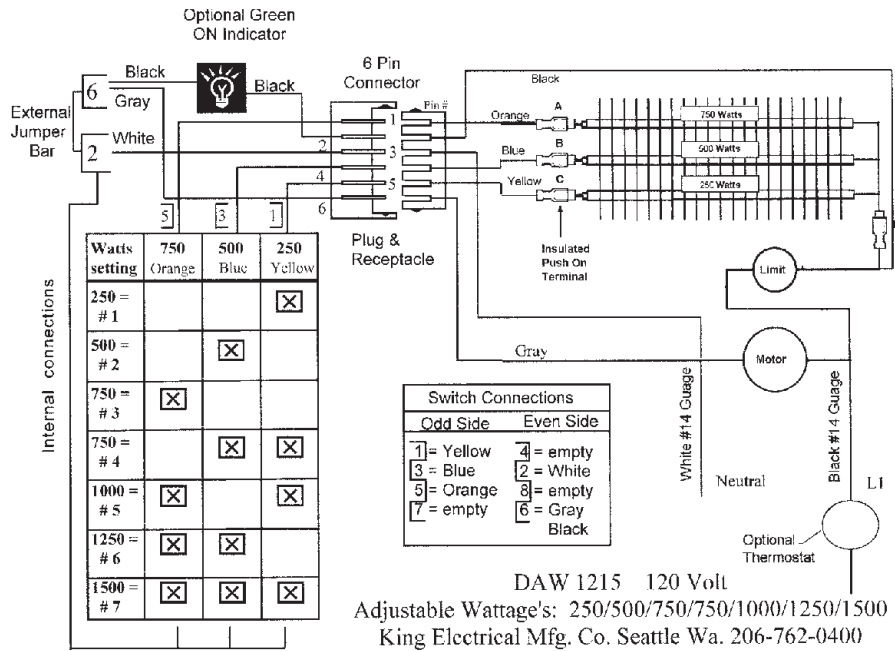
This heater includes a manual reset thermal protector with a self-hold feature. If the heater shuts off with the on position and the room temperature is below the highest thermostat setting, immediately disconnect the power to the heater at the circuit breaker and inspect for any objects on or adjacent to the heater that may cause high temperatures. After inspecting the heater, keep the power off to the heater for 10 minutes to reset the thermal protector. If the heater thermal protector shuts the heater off again, immediately turn the heater off at the circuit breaker and inspect the heater for possible fan motor failure or dirt and lint on the heating element. Repeat starting procedure.



Dial-A-Watt



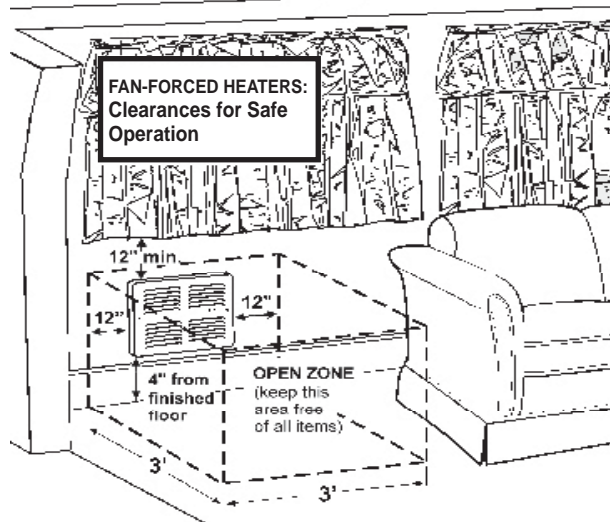
DAW 2422 240 Volt
Adjustable Wattage's: 500/750/1000/1250/1500/1750/2250
King Electrical Mfg. Co. Seattle Wa. 206-762-0400



DAW 1215 120 Volt
Adjustable Wattage's: 250/500/750/750/1000/1250/1500
King Electrical Mfg. Co. Seattle Wa. 206-762-0400

Maintenance Information: The high quality and superior design of this heater will provide years of trouble-free performance. Each year the heater should be checked and cleaned for lint and dust accumulation. King recommends using a soft bristle brush to knock off contaminants, then vacuum out. The motor does not require oiling.

Warranty: King Electrical Mfg. Co. will repair or replace without charge to the original owner any Dial-A-Watt heater found to be defective or malfunctioning for five years from the date of purchase. If the product becomes defective within the warranty period contact King for instructions on how to repair or replace heater. Products returned without authorization will be refused.



INSTALLATION INSTRUCTIONS

EFW - Large Fan Wall Heater

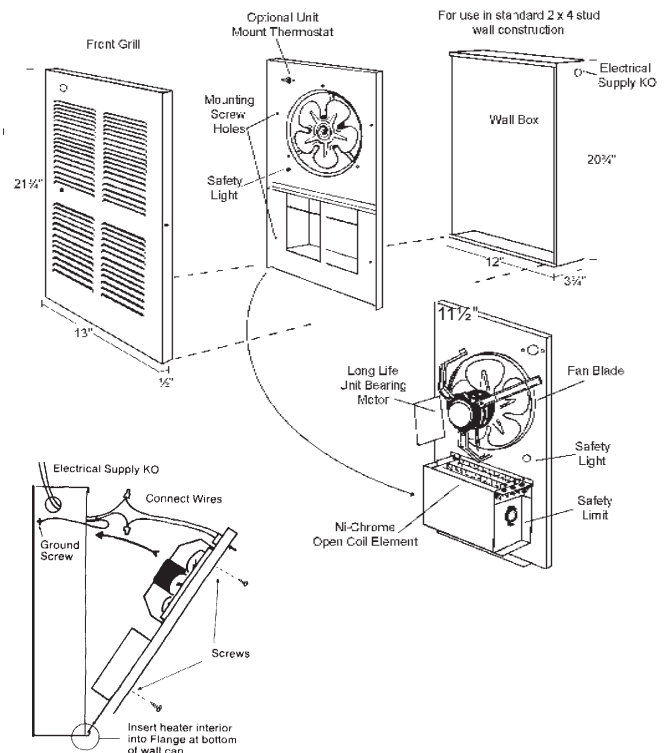
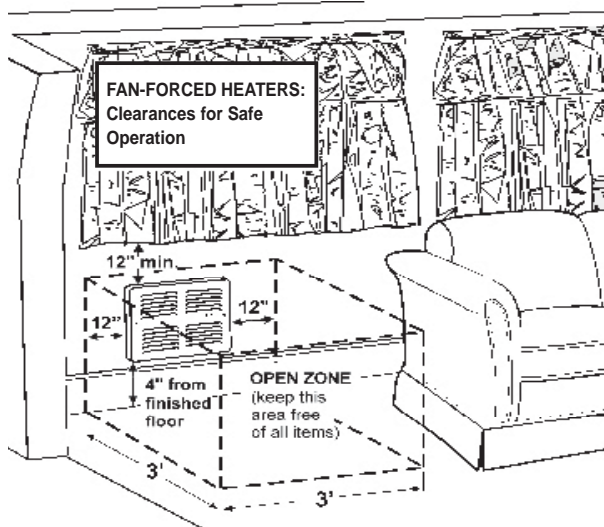


ATTENTION: Before attempting to install your heater verify that the power supply wires are the same voltage as the heater being installed. **240 and 120 Volt heaters are not interchangeable.** Connecting a 240 Volt heater to a 120 Volt circuit will reduce the wattage 75% and cause the motor to rotate slowly, significantly reducing airflow. Connecting a 120 Volt heater to a 240 Volt circuit will destroy the heater, void all warranties and could cause fire damage.

WARNING: Turn off power source to the heater before attempting installation, maintenance or repairs. Lock, tape or tag circuit breaker or fuse so that power cannot be turned on by accident. Failure to do so could result in personal injury.

1. After removing the heater from the carton check to make sure the heater has not been damaged in shipment.
2. Remove the grill by loosening and removing the four screws on the side of the front panel.
3. Detach the interior from the wall can by removing the four screws along each side of the interior. Remove the interior by tilting it away from the wall can to release the bottom edge.
4. Remove one 7/8" knockout and feed the supply wire into the wall box using an approved electrical fitting to prevent chafing of the supply wires.
5. Install the wall can a minimum of 6" from vertical side walls or open edge of door and 10" above the floor.
6. Secure the wall box to 2x4 studs using the holes provided in the sides of the box. The face of the wall box should be flush with the finished wall.
7. Make electrical connections per the wiring diagram. Supply wires L1 and L2 can be connected to the red or black wires on the heater - the order does not matter. Attach the field groundwire to the green screw or pigtail. When installing a built-in thermostat red always connects to the supply wires and black to the heater.
8. Install interior by placing the bottom edge in the wall can and tilting it in toward the wall. Be sure to clear the electrical wires on the side of the interior. Fasten the interior and then the grill with the screws provided.
9. The installation is now complete and the heater is ready to be energized for use.

SAFETY LIGHT: This heater includes a visual alarm to warn that parts of the heater are getting excessively hot. If the alarm flashes, immediately turn the heater off and inspect for any objects on or adjacent to the heater that may cause high temperatures. **Do not operate the heater with the alarm flashing.**



EFW.indd : 4/08

INSTALLATION INSTRUCTIONS

SELECTION CHART

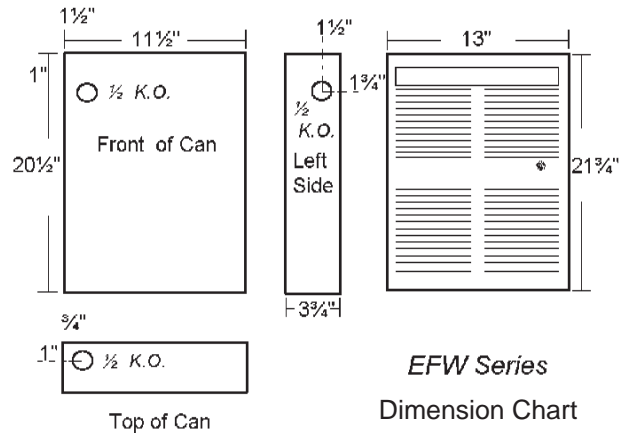
CATALOG No.	VOLTS	WATTAGE	AMPS
EFW1220	120	2000	16.6
EFW1224		2400	20
EFW1230		3000	25
EFW2020 2420	208	2000	9.6
EFW2030 2430	240	3000	14.4
EFW2040 2440		4000	19.2

Maintenance & Warranty Information:

The high quality and superior design of this heater will provide years of trouble-free performance. Each year the heater should be checked and cleaned for lint and dust accumulation. We recommend using a soft bristled brush such as a paint brush to assist in removing contaminants from the heater.

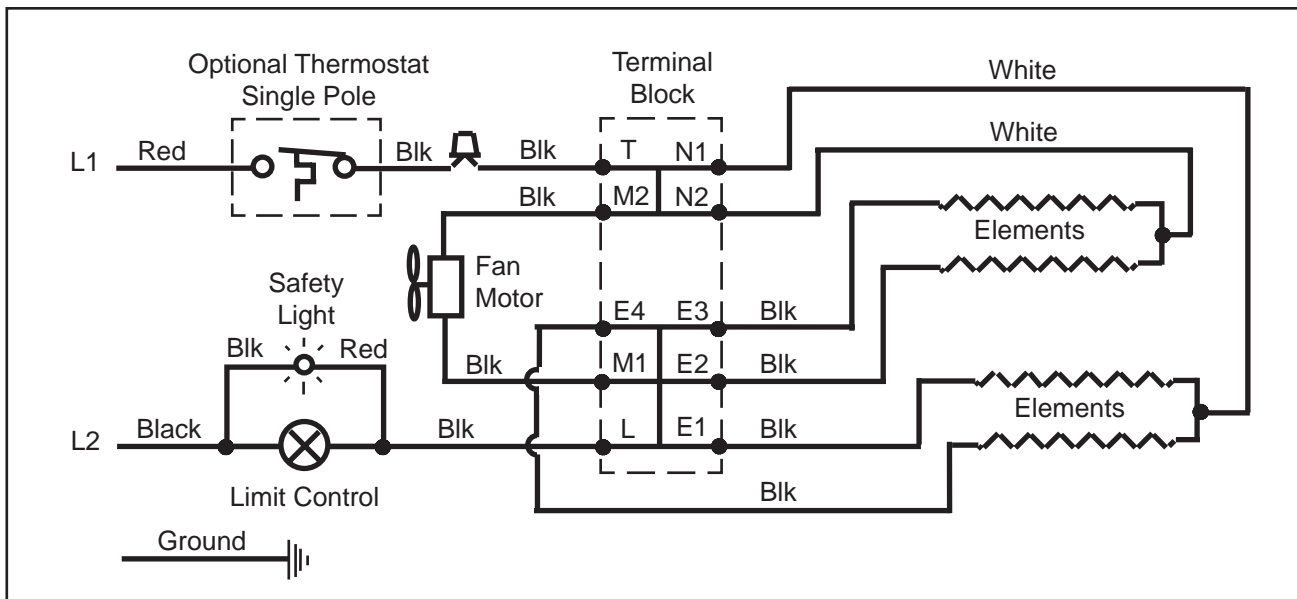
Limited One Year Warranty:

King Mfg. Co. will repair or replace without charge any King product found to be defective or malfunctioning during the first year of purchase to the original owner.



EFW Series
Dimension Chart

Wiring Diagram



EFW.indd : 4/08

PORTABLE HEATER

**HFC
1500
SERIES**

LOW PROFILE • MARINE



FEATURES:

- Open-Coil Element
- C-Frame Motor
- Squirrel Cage Blower
- Built-In Thermostat
- Quiet Running
- Metal case and grill
- Powder-coated finish
- Manual reset limit
- Secondary unit protection: one shot fuse
- Two heat settings: 750/1500 Watts
- Anti-freeze thermostat setting
- Fan-only setting
- Automatic thermostat
- 8 foot, 3-conductor grounded power cord
- Standard color: two-tone light gray / dark gray grill



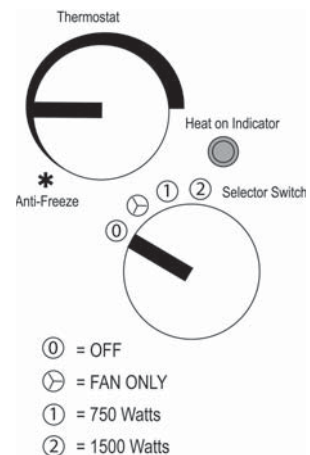
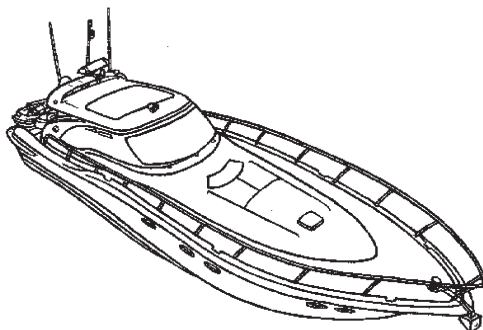
This small, quiet desktop portable is intended for use in the RV and marine environment for quick heating and freeze protection. A 750 Watt setting, along with a low temperature thermostat set-

ting, allows this portable to be used for freeze protection.

The 1500 Watt setting allows it to be a comfort heater. An 8 ft. grounded cord makes it convenient to reach distant power outlets.

SELECTION:

WATTAGES		MODEL	DESCRIPTION	UPC #25526 PART #	VOLTAGE	AMPS		LENGTH OF CORD	DIMENSIONS	WT. (lbs.)	CASE QTY.
LO	HI					LO	HI				
750	1500	HFC 1500	Low Profile Marine	01200	120V	6.25	12.5	8 ft.	10" L x 10 1/4" W x 4 3/4" H	6	6 (38 lbs.)



INSTALLATION INSTRUCTIONS



**KCV SERIES
Cove Heater**



DANGER

ELECTRIC SHOCK OR FIRE HAZARD

Read all wire sizing, voltage requirements and safety data to avoid personal injury and property damage.



WARNING

It is ***extremely important*** to verify the electrical power supply is the same voltage as the heater being installed. ***240 and 120 Volt heaters are not interchangeable.*** Powering a 240 Volt unit with 120 Volt supply wires will reduce heater output by approximately 75%. Powering a 120 Volt unit with 240 Volt supply wires will destroy the heater and voids all guarantees and warranties.

CAUTION: Turn off power source supplying heater before attempting any installation, maintenance or repairs. Lock or tag circuit breaker/fuse panel door. Failure to do so could result in serious electrical shock, burns or possible death.

WARNINGS: To insure proper operation of this heater it should be a minimum of 6 feet above the floor and no closer than 2½" below drywall ceiling (6" vinyl or drop ceilings). Draperies should clear the front and top of this heater by 6". Draperies hung below the heater should have a 2½" clearance. Do not block the heater in any manner. Never paint the heater.

MAINTENANCE & WARRANTY

Following the guidelines herein listed will result in a maintenance-free heater. There are no moving parts or motors to maintain. Periodic dusting of the front panel is all that is suggested.

The KCV Cove Heater carries a one (1) year warranty from date of installation. Please refer to the manufacturer's warranty statement for further information.

GENERAL INFORMATION

Sectional heaters are completely assembled and pre-wired. To prepare the heater for installation, carefully check the voltage to be used is the same as stated on the rating nameplate. Operating voltage can not exceed 5% of nameplate voltage. Operating heater above listed voltage ratings voids all guarantees and warranties.

SAVE THESE INSTRUCTIONS

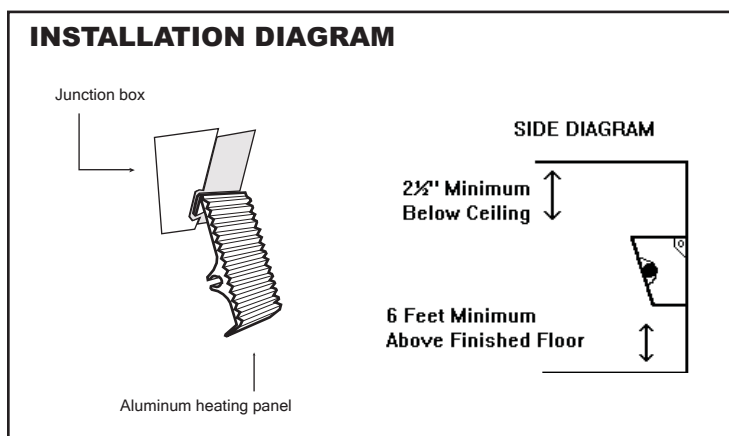
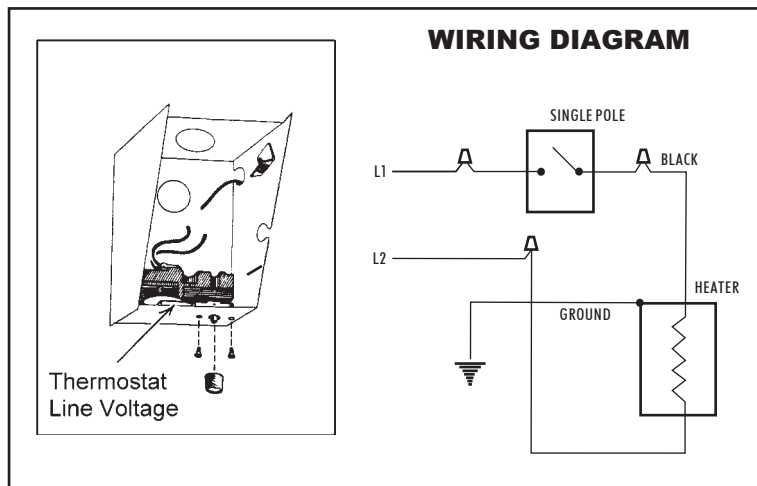
INSTALLATION INSTRUCTIONS

Following are some general guidelines:

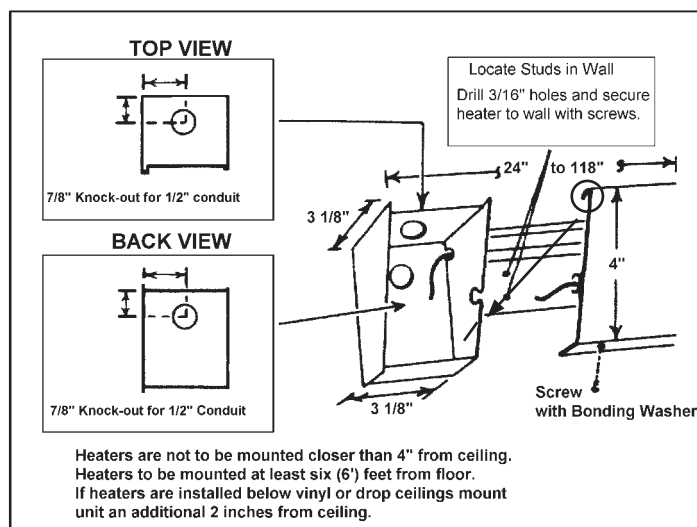
- Do not recess this cove heater.
- Disconnect power at main panel.
- Make certain all wiring is in accordance with all local codes and units are properly grounded.
- Voltage rating of heater should be the same as supply load.
- Do not install the heater on vinyl wall coverings.

INSTALLATION

1. Remove heater from carton. Disassemble the aluminum heating panel from the back support frame. Remove knock out in junction box for electrical supply connections.
2. To install back support frame on the wall locate provided studs and pre-drill 3/16" holes as needed. Use appropriate fasteners to securely mount to wall.
3. Place each end of the aluminum heating panel into the slots in corresponding junction boxes (as shown). This will support the heater while the electrical connections are made. Use the appropriate amperage size insulated wiring connectors for the electrical circuit load.
4. After wiring is complete, install the aluminum heating panel by hanging the top edge onto the top edge of the back support panel. Carefully press the electrical wires into the junction boxes making sure to not pinch any wires between the junction box and the heating panel. Lightly tighten the junction box cover screws provided. **Do not over tighten** as the aluminum heating panel will expand and contract during heating, requiring it to move freely.



DIMENSIONS



The heater should not be covered or blocked in any manner.



File #E41422

SAVE THESE INSTRUCTIONS

KT/MKT Compact Forced Air Heater

****Save These Instructions****

INSTALLATION, OPERATION, AND MAINTENANCE INFORMATION

It is extremely important you verify the electrical power supply is the same voltage as the heater you are installing. 240 and 120 Volt heaters are not interchangeable. Powering a 120 Volt unit with 208/240 Volt supply wires will destroy the heater and voids all warranties.

IMPORTANT INFORMATION

This heater has been designed to give safe and lasting service if installed, operated and maintained properly. This sheet contains important information that should be read completely by the installer before beginning and used as a guide during the installation. This paper should become the property of the homeowner and be used as a guide for operating and maintaining the heater.

Be sure to read carefully the instructions for selecting a location for the heater to assure that flooring materials are not damaged or the heater is located in an area where the heated air will cause discomfort.

The fan in this heater draws air in the outer openings in the grill, forces it over the element and out the center of the grill. The heater may be equipped with a line voltage thermostat in the electrical circuit serving the heater or an optional model T-1 or T-2 thermostat available from your KING dealer. If a line thermostat is chosen it should be rated at 15 Amps for 120 Volt heaters and 10 Amps for 240 Volt heaters.

WARNING: RISK OF ELECTRIC SHOCK. CAN CAUSE INJURY OR DEATH. IMPROPER INSTALLATION, OPERATION, OR MAINTENANCE OF ANY ELECTRICAL HEATER CAN CAUSE FIRE OR ELECTRIC SHOCK HAZARDS. THE ELECTRICAL POWER TO THE HEATER IS TO BE DISCONNECTED BEFORE THE GRILL IS REMOVED FOR CLEANING.

****DO NOT OPERATE THE HEATER WITH GRILL REMOVED****

SELECTING A LOCATION FOR THE HEATER

This heater has been designed to allow it to be recessed at floor level in the toe space of cabinets or counters or at the base of walls. When selecting the location, be sure the materials that will be located in the air heated by this heater (such as floor coverings) will not distort or discolor at temperatures up to 139°F. **DO NOT** select a location directly beneath sinks or other work areas where people are likely to stand for extended periods and will be made uncomfortable by the hot air discharge. **DO NOT** install less than 6 inches from vertical side walls or open edge of door. This heater must have an unrestricted airflow. Do not select a location where it is likely to be blocked by furniture, throw rugs, etc. Be sure the location selected allows sufficient space for the heater as shown by figure 1. Do not locate this heater in an area where combustible vapors, gases, liquids, or excessive lint, dust or moisture is present.

UNPACKING, INSPECTION AND PREPARATION FOR INSTALLATION

All products are subject to possible damage from mishandling and shipping. A damaged heater can be hazardous. Inspect the heater and prepare it for installation as follows:

1. Remove the screw in each end of the grill and remove the grill.
2. Remove the two screws on each side of the heater and remove the cover.
3. Inspect the heater for loose, damaged or missing parts.

Report any damage to your dealer and obtain repairs or replacements before installing heater.

INSTALLATION OF THE HEATER

CAUTION: Open the circuit breaker supplying the heater before attempting installation, maintenance, or repairs. Lock or tag circuit breaker panel door. Failure to do so could result in serious electrical shock, burns, or possible death.

1. Cut a 3-5/8" x 14-1/4" opening at the location selected for the heater.
2. Remove a knockout in the heater wall case and install a cable clamp in the knockout hole.
3. Install a grounded electrical cable from the fuse or circuit breaker box and extend it through the cable clamp.

NOTE: Be sure the cable is proper size for the electrical load of the heater.
The National Electrical Code requires 14 gauge minimum for these heaters.

4. Attach the groundwire to the ground lug on the wall case and tighten the cable clamp.
5. If the heater is to be equipped with an optional integral thermostat install it at this time.
6. Attach the heater leads (and/or thermostat lead) to the electrical cable with appropriate fasteners such as wire nuts or solderless connectors.
7. Replace the heater top and slide the heater into its intended location.
8. Fasten the flanges of the heater to the wall surface with screws and reinstall the grill.
9. If the heater is equipped with an optional thermostat, install the thermostat knob and turn the thermostat knob to its highest setting.
10. Install the fuse or turn the circuit breaker on and check the heater for proper operation.

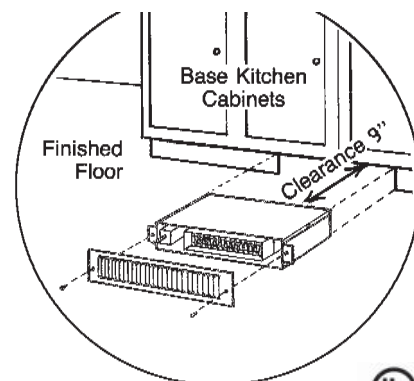


Figure 1



MAINTENANCE OF THE HEATER



**** BE SURE THE ELECTRICAL POWER TO THE HEATER IS DISCONNECTED BEFORE REMOVING THE GRILL**
**** DO NOT OPERATE THE HEATER WITH GRILL REMOVED ****

The heater should be kept free of lint and dust accumulations. Every six months (or more often if lint accumulations are observed) the grill should be removed and the heater blown clean with a vacuum cleaner. While the grill is removed it may be cleaned with a soft damp cloth. Abrasive or solvent cleaners will damage the paint. If repair parts are required use only the proper parts purchased from your KING dealer. Substituting parts may be hazardous and voids all warranties.

FINAL CHECKLIST

1. Read and follow the installation, operation and maintenance sheet.
2. Be sure to comply with applicable building and electrical codes.
3. Locate the heater where it will not blow heated air on objects that will discolor or distort at 140°/150°F.
4. Attach this heater to a properly fused circuit that is free of all other electrical loads.
5. Be sure the heater is supplied with the correct voltage.
6. Be sure the heater is grounded.
7. Keep all flammable liquids, gases, and pressurized containers away from the heater.
8. Instruct all responsible persons in the proper and safe operation of the heater.
9. Instruct all persons, especially children, of the hazards of tampering with the heater.
10. Keep the air passages through the heater clear of obstructions and lint or dust accumulations.
11. Be sure this sheet becomes the property of all future owners of this heater.
12. Keep the heater in good repair.



This heater includes a manual reset thermal protector with a self-hold feature. If the heater shuts off with the on position and the room temperature is below the highest thermostat setting immediately disconnect the power to the heater at the circuit breaker and inspect for any objects on or adjacent to the heater that may cause high temperatures. After inspecting the heater, keep the power off to the heater for 10 minutes to reset the thermal protector. If the heater thermal protector shuts the heater off again, immediately turn the heater off at the circuit breaker and inspect the heater for possible fan motor failure or dirt and lint on the heating element. Repeat starting procedure.

TOE SPACE HEATERS

CAUTION READ BEFORE INSTALLATION

“CAUTION” - HIGH TEMPERATURES. Linoleum and other flooring material must be able to sustain temperatures of 139°F for extended periods of time without discoloring or deterioration. Many linoleums discolor at low temperatures and from sunlight.

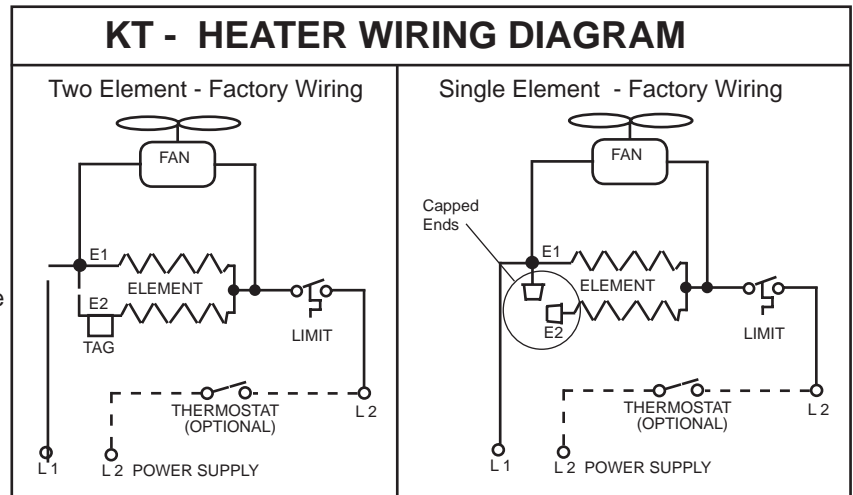
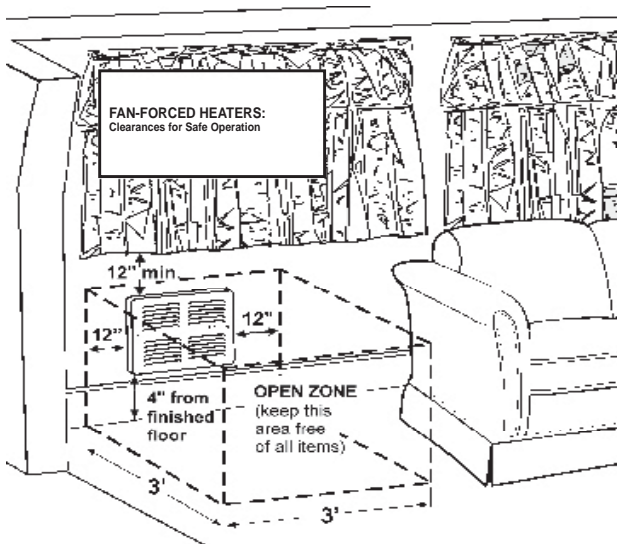
King Electrical Mfg. Company is not responsible for replacement of discolored flooring material due to hot air from this heater. Suitable installation and placement selection for this heater is the responsibility of the end user.

The front cover also has the following markings to caution owners of high temperatures:

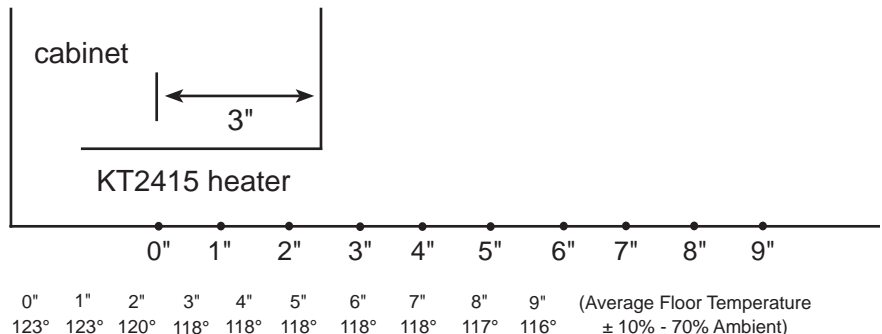
“CAUTION” - SOURCE OF POSSIBLE IGNITION
- HIGH TEMPERATURE -

KEEP COMBUSTIBLE MATERIALS AWAY FROM FRONT OF HEATER. DISCONNECT POWER BEFORE SERVICING.
KEEP ANY COMBUSTIBLE MATERIAL AT LEAST 3FEET (.9m) FROM FRONT OF HEATER AND AWAY FROM SIDES

CLEARANCES



MODEL	VOLTS	2 Element Wattage	1 Element Wattage
KT1210	120	1000	500
KT1212	120	1200	600
KT1215	120	1500	750
KT2410	240	1000	500
KT2412	240	1200	600
KT2415	240	1500	750



INSTALLATION INSTRUCTIONS

SAVE THESE INSTRUCTIONS

LPW1227 120 VOLT MODEL

It is **ALWAYS** recommended to order your unit with or without the thermostat for your particular application. If your unit has been ordered incorrectly please contact the factory and we can exchange it for the proper unit. Adding a built-in thermostat after installation is complicated and could result in creating wiring errors and shorting out this unit.

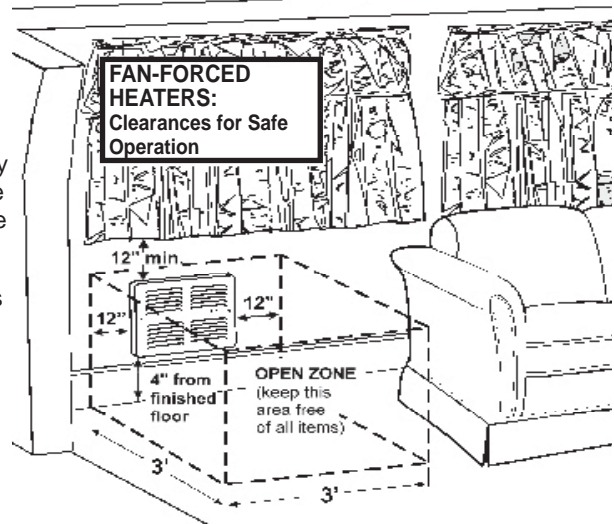
Instructions for wall mount heater

It is **extremely important** to verify the electrical power supply is the same voltage as the heater you are installing. **240 and 120 Volt heaters are not interchangeable.** Powering a 240 Volt unit with 120 Volt supply wires will reduce the heater's output by approximately 75%. Powering a 120 Volt unit with 240 Volt supply wires will destroy the heater and voids all warranties.

NOTICE: For heaters without built-in thermostats - using remote or wall mounted thermostats. The power **must** be brought to the heater first (not to the wall mounted or remote thermostat). This is necessary to provide power for the fan to cool down the element after the thermostat has opened. Use only a single pole line voltage wall thermostat or switch to control this heater.

CAUTION: Disconnect the circuit breaker supplying the heater before attempting installation, maintenance, or repairs. Lock or tag circuit breaker panel door. Failure to do so could result in serious electrical shock, burns, or possible death.

1. Remove heater contents from carton and check for shipping damage.
2. Remove grill by loosening the four mounting screws along the sides of the front panel.
3. Detach interior assembly from the wall can by removing the four screws along each side of the interior panel. Lift and tilt assembly away from the top of the wall can. Free the bottom edge from the metal lip inside the wall can. Place the interior assembly in a safe location until the wall can is mounted.
4. Remove one knockout from the wall can and thread supply wires through the hole. Use an approved cable connector to prevent wires from chafing. Connect groundwire to green pigtail.
5. Mount heater wall can on wall studs a minimum of 6" from side wall and 10" from floor, using the holes provided in the sides of the box. The face of the box should be flush with the finished wall. Installation of the interior and grill to the wallbox cover an approximate 5/8" periphery along the outer area of the opening.
6. After wall can is secured interior assembly leads may be attached supply wires and interior secured to wall can. **NOTE:** The LPW wall heater is equipped with two steel elements having a combined capacity of 2750 Watts. The heater is factory wired at 2750 Watts. To adjust the heater for lower wattages remove the appropriate colored wire according to the illustration and wattage diagram provided on the back side of this sheet. Be sure to insulate and secure the unused lead.
7. Reinstall interior assembly on wallbox using screws provided.
8. Mount grill to interior with screws provided.



VISUAL ALARM

This heater includes a visual alarm to warn that parts of the heater are getting excessively hot. If the alarm flashes immediately turn the heater off and inspect for any objects on or adjacent to the heater that may cause high temperatures. **Do not operate the heater with the alarm flashing.**

Maintenance & Warranty

The high quality and superior design of this unit will enable years of maintenance-free performance. Once yearly the heater should be checked for lint or dust accumulation but no further maintenance is required. The motor is permanently lubricated and sealed. A five year warranty is provided on the Pic-A-Watt® element and 1 year on all materials, components and workmanship.

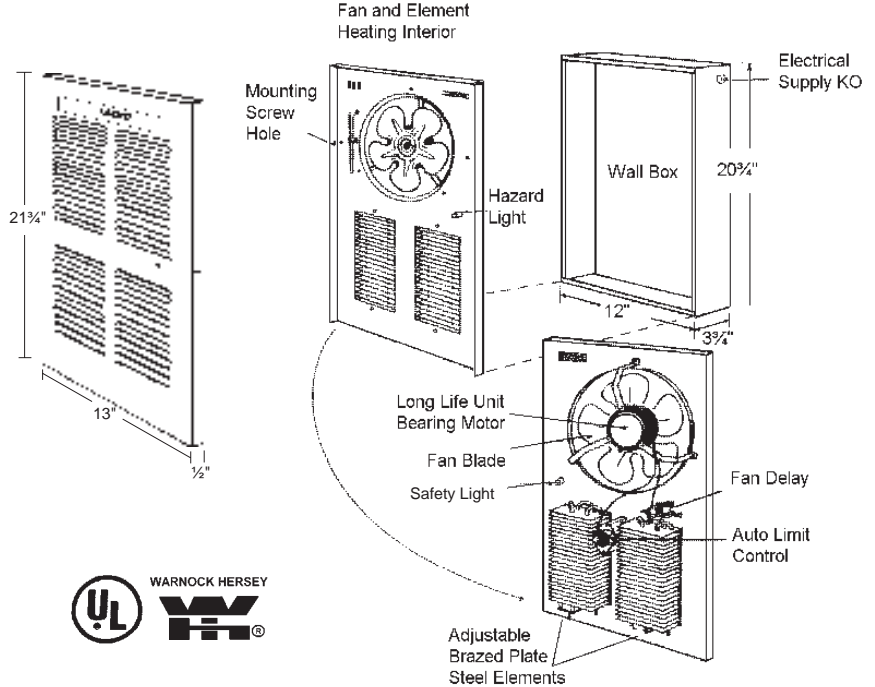
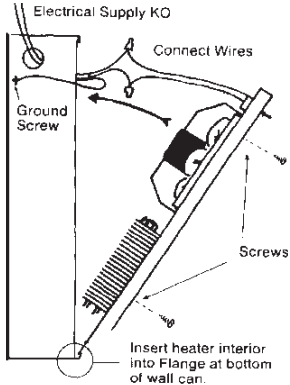
LPW1227.indd : 4/08

OWNERS GUIDE & INSTALLATION INSTRUCTIONS SHOULD BE LEFT WITH HEATER FOR HOME OWNER

INSTALLATION INSTRUCTIONS

SAVE THESE INSTRUCTIONS

This heater includes a visual alarm to warn that parts of the heater are getting excessively hot. If the alarm flashes immediately turn the heater off and inspect for any objects on or adjacent to the heater that may cause high temperatures. Do not operate the heater with the alarm flashing.

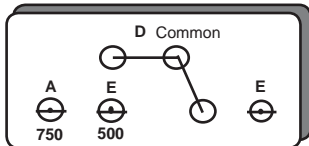
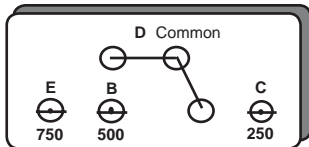


INSTALLATION INSTRUCTIONS

This heater is shipped from the factory wired for maximum wattage of 2750 Watts at 120 Volts. To reduce the wattage unplug (disconnect) an insulated push on terminal and wrap with electrical tape to prevent the possibility of electrical contact with other parts.

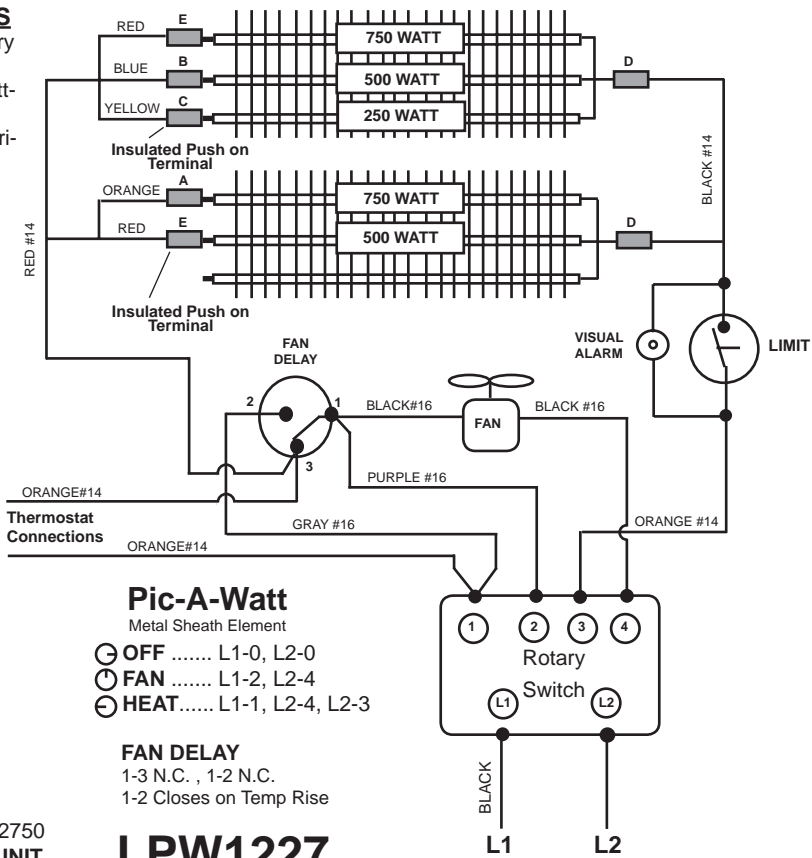
Field Wattage Selection

- A - ORANGE Disconnects 750 Watts
- B - BLUE Disconnects 500 Watts
- C - YELLOW Disconnects 250 Watts
- D - BLACK Do Not Disconnect (Common)
- E - RED Do Not Disconnect



END VIEW OF ELEMENT SHOWING QUICK CONNECT TERMINALS

1250 • 1500 • 1750 • 2000 • 2500 • 2750
WATTAGES AVAILABLE IN ONE UNIT



LPW1227

LPW1227.indd : 4/08

OWNERS GUIDE & INSTALLATION INSTRUCTIONS SHOULD BE LEFT WITH HEATER FOR HOME OWNER

INSTALLATION INSTRUCTIONS

SAVE THESE INSTRUCTIONS

LPW1227C 120 VOLT MODEL

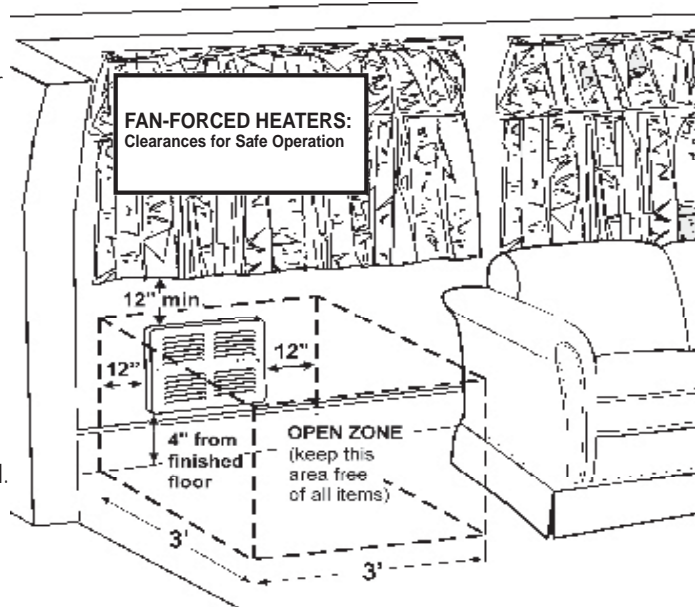
Power must be brought to the heater first - then to wall thermostat

Instructions for ceiling mount unit with remote wall thermostat

It is *extremely important* to verify that the electrical power supply is the same voltage as the heater you are installing. 240 and 120 Volt heaters are *not* interchangeable. Powering a 240 Volt unit with 120 Volt supply wires will reduce the heater's output by approximately 75%. Powering a 120 Volt unit with 240 Volt supply wires will destroy the heater and voids all warranties. **NOTICE:** The power **must** be brought to the heater first (not to the wall mounted or remote thermostat). This is necessary to provide power for the fan to cool down the element after the thermostat has opened. Use a single pole line voltage wall thermostat or switch to control this heater.

CAUTION: Open the circuit breaker supplying the heater before attempting installation, maintenance, or repairs. Lock or tag circuit breaker panel door. Failure to do so could result in serious electrical shock, burns, or possible death.

1. Remove heater contents from carton and check for shipping damage.
2. Remove grill by loosening the four mounting screws along the sides of the front panel.
3. Detach interior assembly from the wall case by removing the four screws along each side of the interior panel. Lift and tilt assembly away from the top of the wall case. Free the bottom edge from the metal lip inside the wall case. Place the interior assembly in a safe location until the wall case is mounted.
4. Mount heater enclosure can on ceiling joists a minimum of 6" from side wall, using the holes provided in the sides of the case. The face of the case should be flush with the finished ceiling surface. Installation of the interior and grill to the wall case will cover an approximate 1/2" periphery along the outer area of the opening.
5. Optional heater wall case on wall studs a minimum of 6" from side wall or open edge of door and 4" from floor, using the holes provided in the sides of the case. The face of the case should be flush with the finished wall. Installation of the interior and grill to the wall case cover an approximate 5/8" periphery along the outer area of the opening.
6. After wall case is secured, interior assembly leads may be attached to supply wires and interior secured to wall case. **NOTE:** The LPW wall heater is equipped with two steel elements having a capacity of 1250 and 1500 Watts, for a combined capacity of 2750 Watts. The heater is factory-wired at 2750 Watts. To adjust the heater for lower wattages remove the appropriate colored wire according to the illustration and wattage diagram provided on the back side of this sheet. Be sure to insulate and secure the unused lead.
7. Reinstall interior assembly on wall case using screws provided.
8. Mount grill to interior with screws provided.
9. Installation is now complete and the heater ready for use.



Maintenance & Warranty

The high quality and superior design of this unit will enable years of maintenance-free performance. Once yearly the heater should be checked for lint or dust accumulation but no further maintenance is required. The motor is permanently lubricated and sealed. A seven year warranty is provided on the Pic-A-Watt element and 1 year on all materials, components and workmanship.

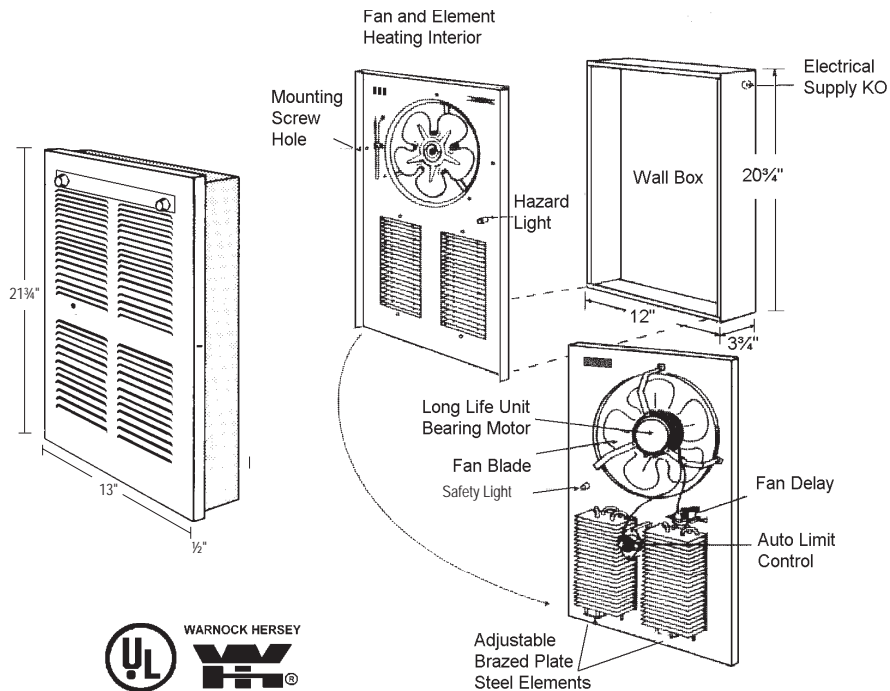
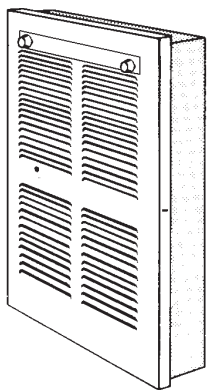
OWNERS GUIDE & INSTALLATION INSTRUCTIONS SHOULD BE LEFT WITH HEATER FOR HOME OWNER

INSTALLATION INSTRUCTIONS

SAVE THESE INSTRUCTIONS

SAFETY LIGHT

NOTICE - The light may illuminate periodically during normal operation for 10 to 45 seconds. This flashing is not a hazard. If the light stays on steadily for 1 to 5 minutes an over-temperature condition probably exists and the heater should be examined.

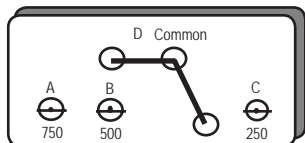


INSTALLATION INSTRUCTIONS

This heater is shipped from the factory wired for maximum wattage of 2750 Watts. To reduce the wattage unplug (disconnect) an insulated push on terminal and wrap with electrical tape to prevent the possibility of electrical contact with other parts.

WIRE COLOR CODING

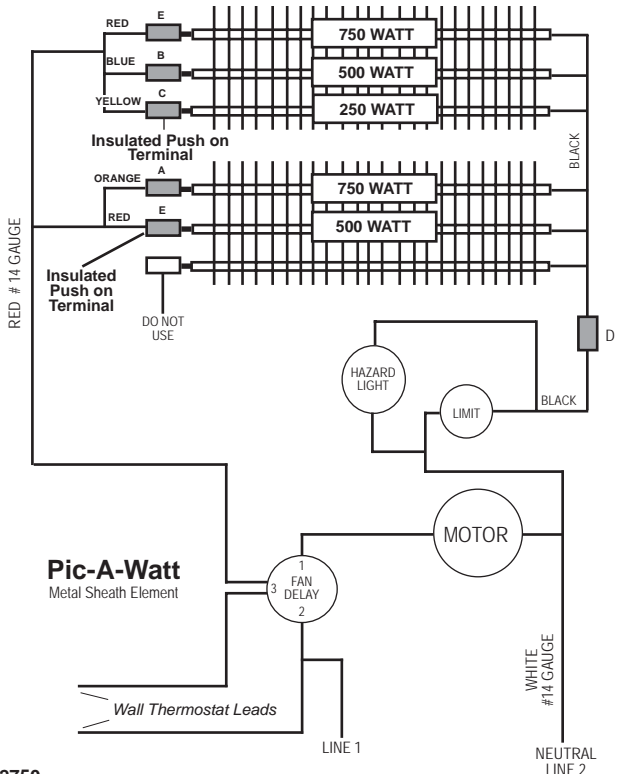
- A - Orange - Disconnects the 750 Watt Element
- B - Blue - Disconnects the 500 Watt Element
- C - Yellow - Disconnects the 250 Watt Element
- D - Black - Energized Common Leg Do Not Disconnect
- E - Red - Do Not Disconnect



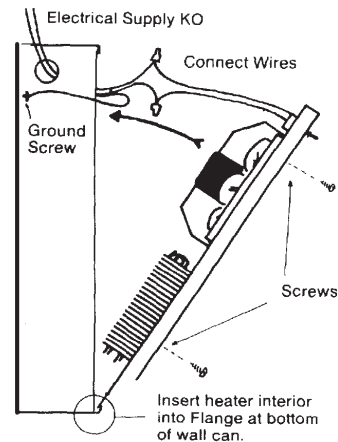
END VIEW OF ELEMENT SHOWING QUICK CONNECT TERMINALS

- A - 750 WATT B - 500 WATT C - 250 WATT
- D - COMMON LEG OF POWER SUPPLY

1250 - 1500 - 1750 - 2000 - 2250 - 2750 WATTAGES AVAILABLE IN ONE UNIT



This heater includes a visual alarm to warn that parts of the heater are getting excessively hot. If the alarm flashes, immediately turn the heater off and inspect for any objects on or adjacent to the heater that may cause high temperatures.



LPW1227C

LPW 1227C.indd : 4/08

OWNERS GUIDE & INSTALLATION INSTRUCTIONS SHOULD BE LEFT WITH HEATER FOR HOME OWNER

INSTALLATION INSTRUCTIONS

SAVE THESE INSTRUCTIONS

LPW2045T 208 VOLT MODEL

It is **ALWAYS** recommended to order your unit with or without the thermostat for your particular application. If your unit has been ordered incorrectly, please contact the factory and we can exchange it for the proper unit. Adding a built-in thermostat after installation is complicated and could result in creating wiring errors and shorting out the unit.

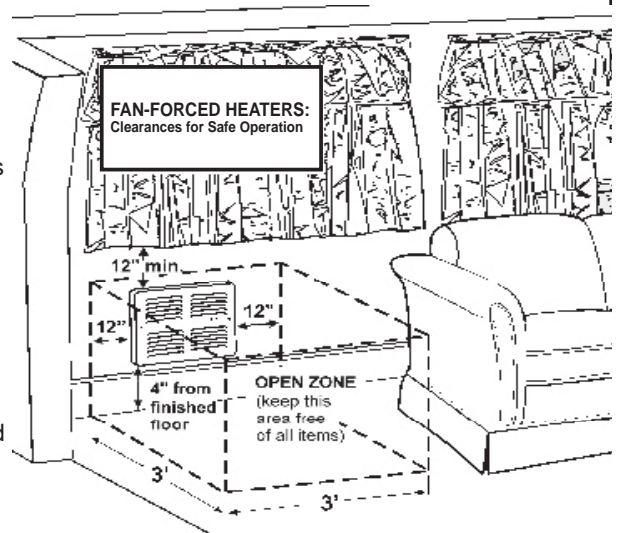
Instructions for wall mount heater with built-in thermostat

It is **extremely important** to verify that the electrical power supply is the same voltage as the heater you are installing. 208 and 120 Volt heaters are **not** interchangeable. Powering a 208 Volt unit with 120 Volt supply wires will reduce the heater's output by approximately 65%. Powering a 120 Volt unit with 208 Volt supply wires will destroy the heater and voids all warranties.

NOTICE: The power **must** be brought to the heater first (not to the wall mounted or remote thermostat). This is necessary to provide power for the fan to cool down the element after the thermostat has opened. Use only a single pole line voltage wall thermostat or switch to control this heater.

CAUTION: Disconnect the circuit breaker supplying the heater before attempting any installation, maintenance, or repairs. Lock or tag circuit breaker panel door. Failure to do so could result in serious electrical shock, burns, or possible death.

1. Remove heater contents from carton and check for shipping damage.
2. Remove grill by loosening the four mounting screws along the sides of the front panel.
3. Detach interior assembly from the wall can by removing the four screws along each side of the interior panel. Lift and tilt assembly away from the top of the wall can. Free the bottom edge from the metal lip inside the wall can. Place the interior assembly in a safe location until the wall can is mounted.
4. Remove one knockout from the wall can and thread supply wires through the hole. Use an approved cable connector to prevent wires from chafing. Connect groundwire to green pigtail.
5. Mount heater wall can on wall studs a minimum of 6" from side wall and 4" from floor, using the holes provided in the sides of the box. The face of the box should be flush with the finished wall. Installation of the interior and grill to the wallbox cover an approximate 5/8" periphery along the outer area of the opening.
6. After wall can is secured, interior assembly leads may be attached to supply wires and interior secured to wall can. **NOTE:** The LPW wall heater is equipped with two steel elements having a capacity of 2250 Watts each for a combined capacity of 4500 Watts. The heater is factory wired at 4500 Watts. To adjust the heater for lower wattages remove the appropriate colored wire according to the illustration and wattage diagram provided on the back side of this sheet. Be sure to insulate and secure the unused lead.
7. Reinstall interior assembly on wallbox using screws provided.
8. Mount grill to interior with screws provided.
9. Installation is now complete and the heater ready for use.



SAFETY LIGHT

This heater includes a visual alarm to warn that parts of the heater are getting excessively hot. If the alarm flashes, immediately turn the heater off and inspect for any objects on or adjacent to the heater that may cause high temperatures. **Do not operate the heater with the alarm flashing.**

Maintenance & Warranty: The high quality and superior design of this unit will enable years of maintenance-free performance. Yearly the heater should be checked for lint or dust accumulation. The motor is permanently lubricated and sealed. No further maintenance is required. A 5 year warranty is provided on the Pic-A-Watt® element and 1 year on all materials, components and workmanship.

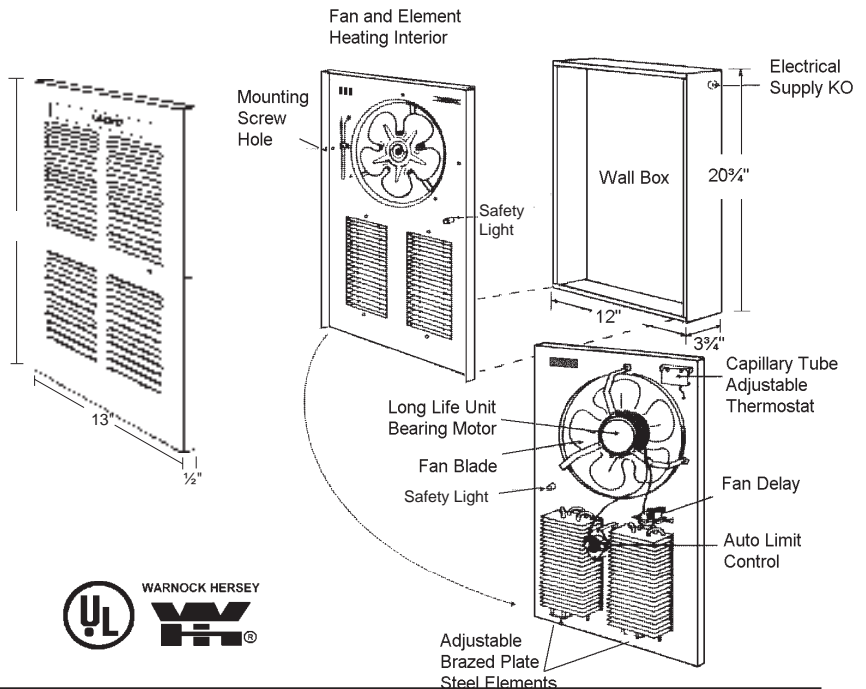
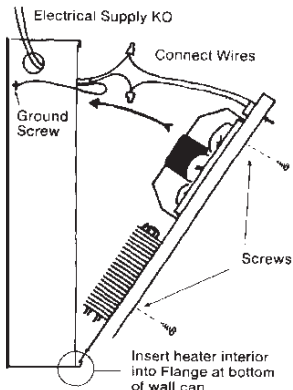
OWNERS GUIDE & INSTALLATION INSTRUCTIONS SHOULD BE LEFT WITH HEATER FOR HOME OWNER

INSTALLATION INSTRUCTIONS

SAVE THESE INSTRUCTIONS

SAFETY LIGHT

NOTICE - The light may illuminate periodically during normal operation for 10 to 45 seconds. This flashing is not a hazard. If the light stays on steadily for 1 to 5 minutes an over-temperature condition probably exists and the heater should be examined.

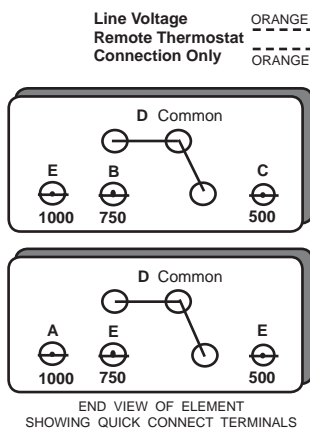


INSTALLATION INSTRUCTIONS

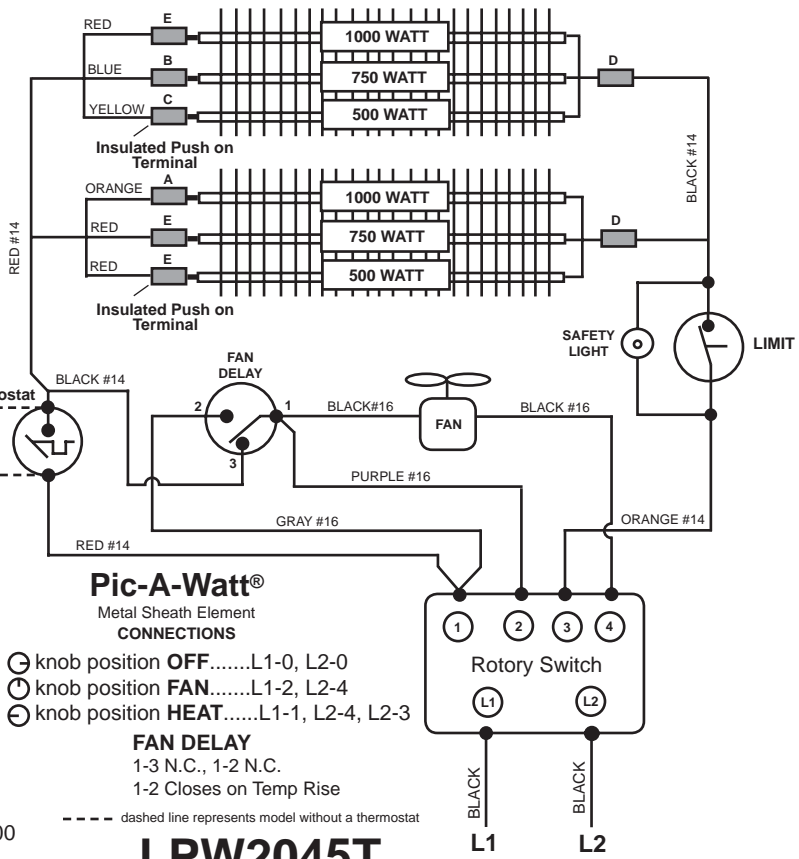
This heater is shipped from the factory wired for maximum wattage of 4500 Watts at 208 Volts. To reduce the wattage unplug (disconnect) an insulated push on terminal and wrap with electrical tape to prevent the possibility of electrical contact with other parts.

Field Wattage Selection

- A - ORANGE Disconnects 1000 Watts
- B - BLUE Disconnects 750 Watts
- C - YELLOW Disconnects 500 Watts
- D - BLACK Do Not Disconnect (common)
- E - RED Do Not Disconnect



2250 • 2750 • 3000 • 3250 • 3750 • 4000 • 4500
WATTAGES AVAILABLE IN ONE UNIT



LPW2045T.indd : 4/08

OWNERS GUIDE & INSTALLATION INSTRUCTIONS SHOULD BE LEFT WITH HEATER FOR HOME OWNER

INSTALLATION INSTRUCTIONS

SAVE THESE INSTRUCTIONS

LPW2445C 240 VOLT MODEL

Power must be brought to the heater first - then to wall thermostat

It is **ALWAYS** recommended to order your unit with or without the thermostat for your particular application. If your unit has been ordered incorrectly, please contact the factory and we can exchange it for the proper unit. Adding an in-built thermostat after installation is complicated and could result in creating wiring errors and shorting out this unit.

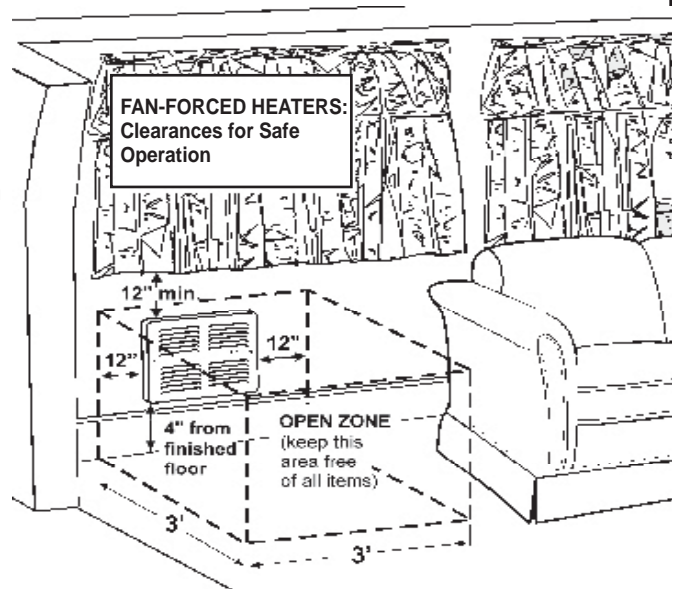
Instructions for ceiling mount unit with remote wall thermostat

It is **extremely important** to verify that the electrical power supply is the same voltage as the heater you are installing. 240 and 120 Volt heaters are **not** interchangeable. Powering a 240 Volt unit with 120 Volt supply wires will reduce the heater's output by approximately 75%. Powering a 120 Volt unit with 240 Volt supply wires will destroy the heater and voids all warranties.

NOTICE: The power **must** be brought to the heater first (not to the wall mounted or remote thermostat). This is necessary to provide power for the fan to cool down the element after the thermostat has opened. Use a single pole line voltage wall thermostat or switch to control this heater.

CAUTION: Open the circuit breaker supplying the heater before attempting installation, maintenance, or repairs. Lock or tag circuit breaker panel door. Failure to do so could result in serious electrical shock, burns, or possible death.

1. Remove heater contents from carton and check for shipping damage.
2. Remove grill by loosening the four mounting screws along the sides of the front panel.
3. Detach interior assembly from the wall case by removing the four screws along each side of the interior panel. Lift and tilt assembly away from the top of the wall case. Free the bottom edge from the metal lip inside the wall case. Place the interior assembly in a safe location until the wall case is mounted.
4. Mount heater enclosure can on ceiling joists a minimum of 6" from side wall, using the holes provided in the sides of the case. The face of the case should be flush with the finished ceiling surface. Installation of the interior and grill to the wall case will cover an approximate 1/2" periphery along the outer area of the opening.
5. Optional heater wall case on wall studs a minimum of 6" from side wall or open edge of a door and 4" from floor, using the holes provided in the sides of the case. The face of the case should be flush with the finished wall. Installation of the interior and grill to the wall case cover an approximate 5/8" periphery along the outer area of the opening.
6. After wall case is secured, interior assembly leads may be attached to supply wires and interior secured to wall case. **NOTE:** The LPW wall heater is equipped with two steel elements having a capacity of 2250 Watts each, for a combined capacity of 4500 Watts. The heater is factory-wired at 4500 Watts. To adjust the heater for lower wattages remove the appropriate colored wire according to the illustration and wattage diagram provided on the back side of this sheet. Be sure to insulate and secure the unused lead.
7. Reinstall interior assembly on wall case using screws provided.
8. Mount grill to interior with screws provided.
9. Installation is now complete and the heater ready for use.



Maintenance & Warranty

The high quality and superior design of this unit will enable years of maintenance-free performance. Once yearly the heater should be checked for lint or dust accumulation but no further maintenance is required. The motor is permanently lubricated and sealed. A five year warranty is provided on the Pic-A-Watt element and 1 year on all materials, components and workmanship.

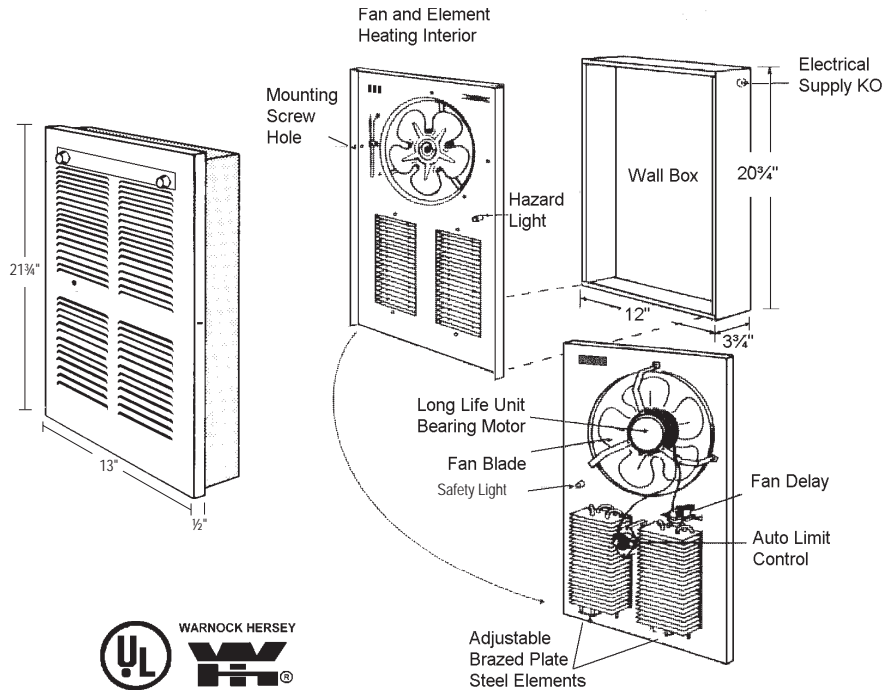
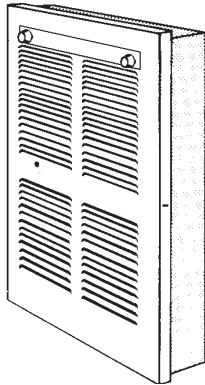
OWNERS GUIDE & INSTALLATION INSTRUCTIONS SHOULD BE LEFT WITH HEATER FOR HOME OWNER

INSTALLATION INSTRUCTIONS

SAVE THESE INSTRUCTIONS

SAFETY LIGHT

NOTICE - The light may illuminate periodically during normal operation for 10 to 45 seconds. This flashing is not a hazard. If the light stays on steadily for 1 to 5 minutes an over-temperature condition probably exists and the heater should be examined.

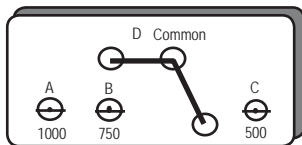


INSTALLATION INSTRUCTIONS

This heater is shipped from the factory wired for maximum wattage of 4500 Watts. To reduce the wattage unplug (disconnect) an insulated push on terminal and wrap with electrical tape to prevent the possibility of electrical contact with other parts.

WIRE COLOR CODING

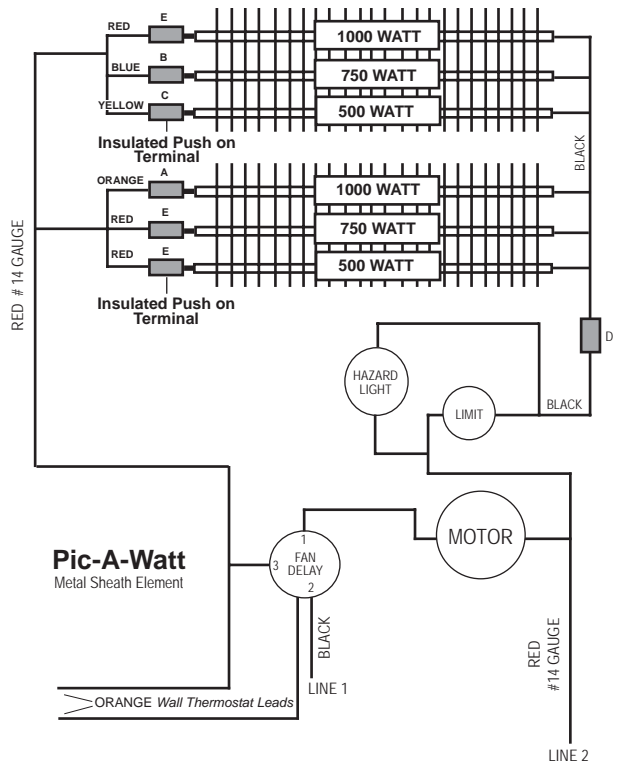
- A - Orange - disconnects the 1000 Watt element
- B - Blue - disconnects the 750 Watt element
- C - Yellow - disconnects the 500 Watt element
- D - Black - Energized Common Leg **Do Not Disconnect**
- E - Red - **Do Not Disconnect**



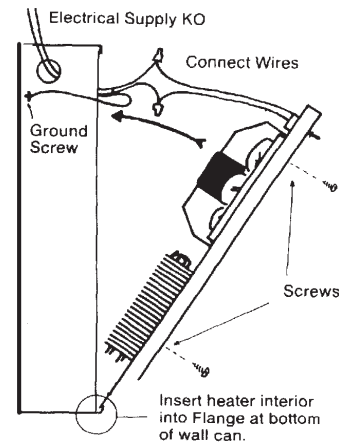
END VIEW OF ELEMENT SHOWING QUICK CONNECT TERMINALS

A - 1000 WATT B - 750 WATT C - 500 WATT
D - COMMON LEG OF POWER SUPPLY

**2250 - 2750 - 3000 - 3250 - 3750 - 4000 - 4500
WATTAGES AVAILABLE IN ONE UNIT**



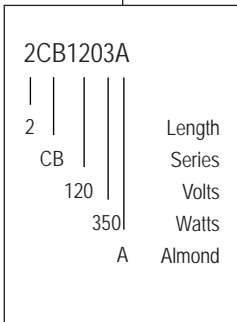
This heater includes a visual alarm to warn that parts of the heater are getting excessively hot. If the alarm flashes, immediately turn the heater off and inspect for any objects on or adjacent to the heater that may cause high temperatures.



LPW2445C

LPW 2445C.indd : 4/08

OWNERS GUIDE & INSTALLATION INSTRUCTIONS SHOULD BE LEFT WITH HEATER FOR HOME OWNER

MODEL CODE:

SELECTION:

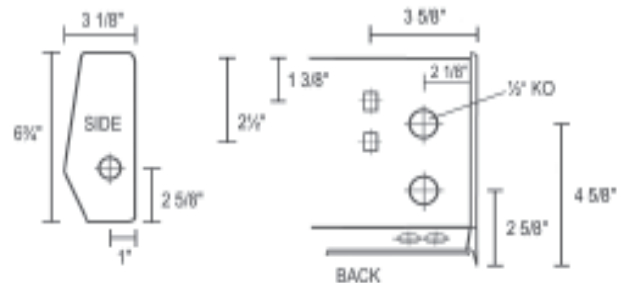
WATTAGE	120V		208V		240V		LENGTH	WT. (lbs.)
	*MODEL	UPC #093319 PART #	*MODEL	UPC #093319 PART #	*MODEL	UPC #093319 PART #		
350	2CB1203A	11200	2CB2003A	11250	2CB2403A	11305	27"	8
500	3CB1205A	11210	3CB2005A	11260	3CB2405A	11315	3 ft.	10
750	4CB1207A	11220	4CB2007A	11270	4CB2407A	11325	4 ft.	14
1000	5CB1210A	11230	5CB2010A	11280	5CB2410A	11335	5 ft.	16
1250	6CB1212A	11240	6CB2012A	11286	6CB2412A	11345	6 ft.	19
1500			8CB2015A	11295	8CB2415A	11355	8 ft.	25

* Add suffix (-BW) for optional bright white finish

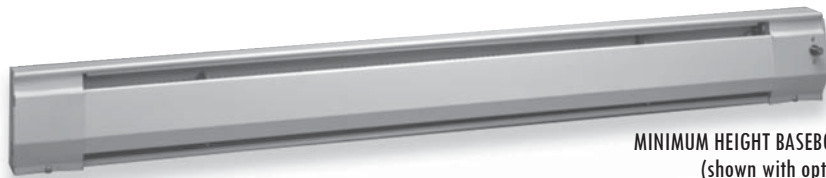
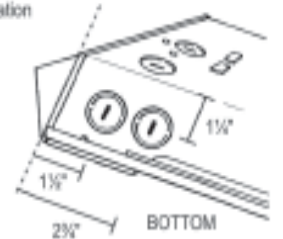
ACCESSORIES:

*MODEL	DESCRIPTION	UPC #093319 PART #	WT. (lbs.)
BKT1	Built-in Single Pole Single Throw Thermostat Kit	11496	.5
BKT2	Built-in Double Pole Single Throw Thermostat Kit	11502	.5
BKT1TP	Built-in Tamperproof Single Pole Single Throw Thermostat Kit	11528	.5
BKT2TP	Built-in Tamperproof Double Pole Single Throw Thermostat Kit	11530	.5

* Add suffix (-BW) for optional bright white finish

DIMENSIONS:


⊕ = Knockout Location

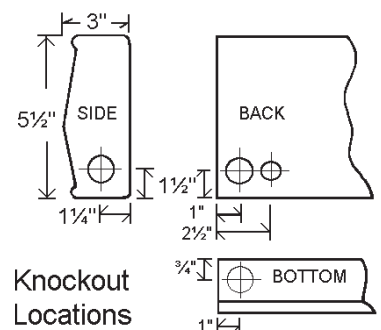


MINIMUM HEIGHT BASEBOARD
(shown with optional BTA-1 installed)

SELECTION:

WATTAGE	208V	240V	LENGTH	WT. (lbs.)
	MODEL	MODEL		
335	2M2003	2M2403	27"	7
500	3M2005	3M2405	3ft.	9
670	4M2006	4M2406	4ft.	13
835	5M2008	5M2408	5ft.	15
1000	6M2010	6M2410	6ft.	18
1170	7M2011	7M2411	7ft.	21
1350	8M2013	8M2413	8ft.	24
1675	10M2016	10M2416	10ft.	29

ACCESSORIES				
MODEL	DESCRIPTION	UPC PART #	WT.	
BTA-1	Baseboard Single Pole Thermostat Kit	10186	.5	
BTA-2	Baseboard Double Pole Thermostat Kit	10192	.5	
BTA-1TP	Baseboard Tamperproof Single Pole Thermostat Kit	10195	.5	
BTA-2TP	Baseboard Tamperproof Double Pole Thermostat Kit	10196	.5	

DIMENSIONS:

FEATURES:

- Convection Heat
- Ceramic Element
- Quiet-running

- 5 1/2" tall
- No wireway
- Non-stock item

INSTALLATION INSTRUCTIONS

PZ SERIES HEATER

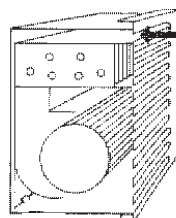
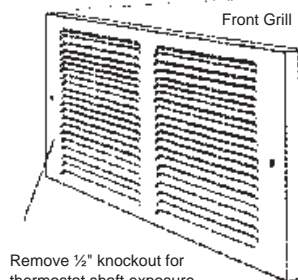
It is **extremely important** you verify the electrical power supply is the same voltage as the heater you are installing. **208/240 and 120 Volt heaters are not interchangeable.** Powering a 208/240 Volt unit with 120 Volt supply wires will reduce the heater output by approximately 75%. Powering a 120 Volt unit with 208/240 Volt supply wires will destroy the heater and voids all warranties.

CAUTION: Turn off power source supplying the heater before attempting installation, maintenance, or repairs. Lock or tag circuit breaker or fuse panel door. Failure to do so could result in serious electrical shock, burns, or possible death.

1. After removing the heater from the carton check to make sure the heater has not been damaged in shipment.
2. Remove the grill by loosening and removing the two screws on the front panel.
3. Remove the fan heater assembly by loosening the mounting screw. The assembly will now drop out.
4. Remove one 7/8" knockout and thread the supply wire into the wallbox. Use an approved strain relief bushing to prevent chafing of the supply wires through the opening in the wallbox.
5. Install wall can a minimum of 6" from vertical side walls and 4" above floor. Secure the wallbox to 2" x 4" studs or adequate support in the wall using the 4 holes provided on each side of the wallbox. **The face of the wall can must be 1/2" beyond the sheet rock or finished wall.**
6. Replace the fan heater assembly by sliding it over the tab at the back bottom inside edge of the wallbox. Replace the screw and tighten assembly mounting screw at the top of the wall can.
7. Attach the field groundwire to the green screw or pig tail.
8. Connect the supply wires to the leads from the heater.
9. Replace the front grill and secure with the two screws provided. The top first louver in the grill must be open in to and between wall can and top of heater for proper circulation of air.
10. The installation is now complete and the heater may be energized for use.

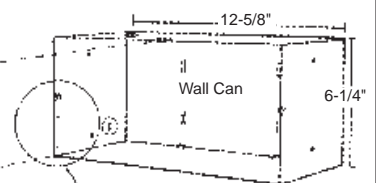
This heater includes a manual reset thermal protector with a self-hold feature. If the heater shuts off with the on position and the room temperature is below the highest thermostat setting, immediately disconnect the power to the heater at the circuit breaker and inspect for any objects on or adjacent to the heater that may cause high temperatures. After inspecting the heater, keep the power off to the heater for 10 minutes to reset the thermal protector. If the heater thermal protector shuts the heater off again, immediately turn the heater off at the circuit breaker and inspect the heater for possible fan motor failure or dirt and lint on the heating element. Repeat starting procedure.

Grill Dimensions
Depth - 3/4"
Height - 7-1/2"
Width - 13-7/8"

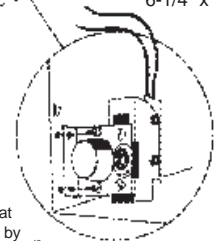


Top first louver in the grill must be open into and between wall can and top of heater interior for proper circulation of air

Metal Sheath Element



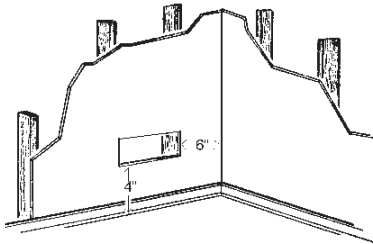
Wall opening
6-1/4" x 12-5/8"



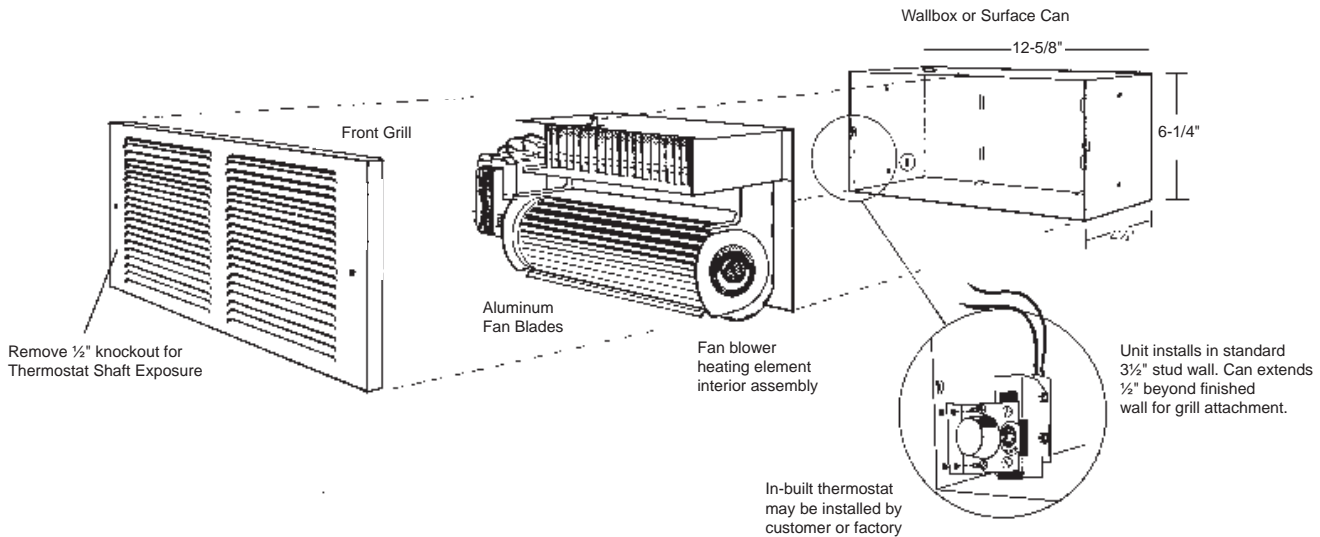
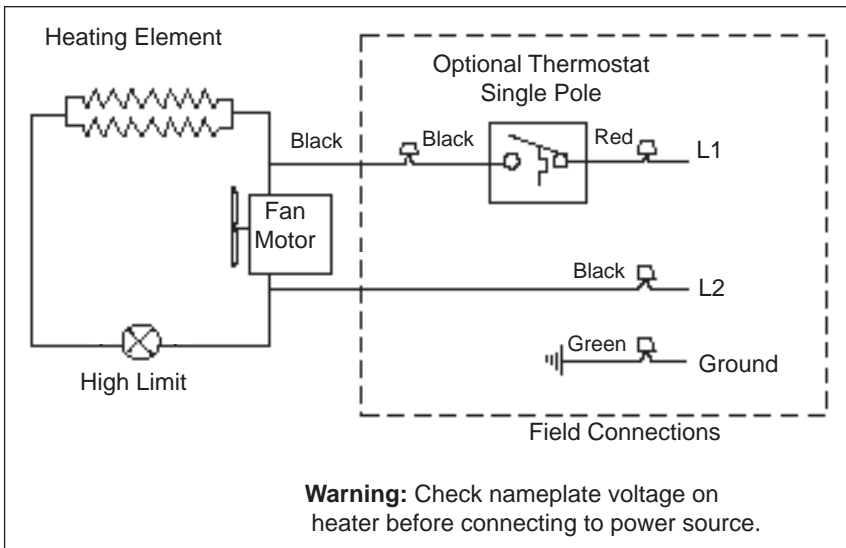
PZ.indd : 4/08

INSTALLATION INSTRUCTIONS

PZ Series Wiring Diagram



Minimum Clearances
 Side Wall - 6"
 Outside Wall - 16" (Recommended)
 Floor - 4" (10" Recommended)

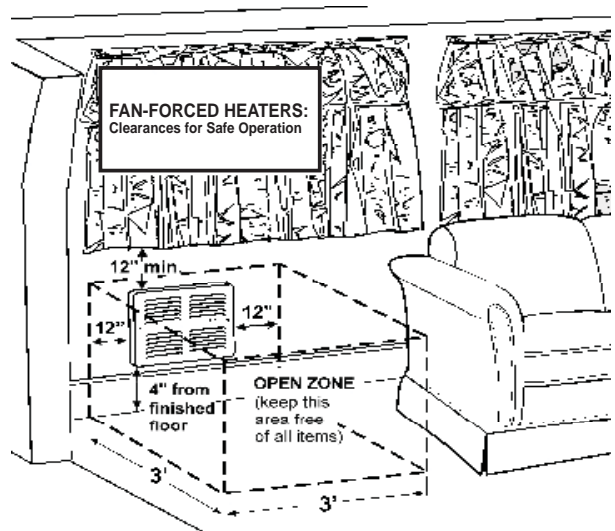


Maintenance & Warranty Information:

The high quality and superior design of this heater will provide years of trouble-free performance. Each year the heater should be checked and cleaned for lint and dust accumulation. We recommend using a soft bristle brush such as a paint brush to assist in removing contaminants from the heater.

Limited One Year Warranty:

King Mfg. Co. will repair or replace, without charge, any King product found to be defective or malfunctioning during the first year of purchase to the original owner. The PZ-Series wall heater carries an **Extended Five Year Warranty** on the heating element.



PZ.indd : 4/08

INSTALLATION INSTRUCTIONS

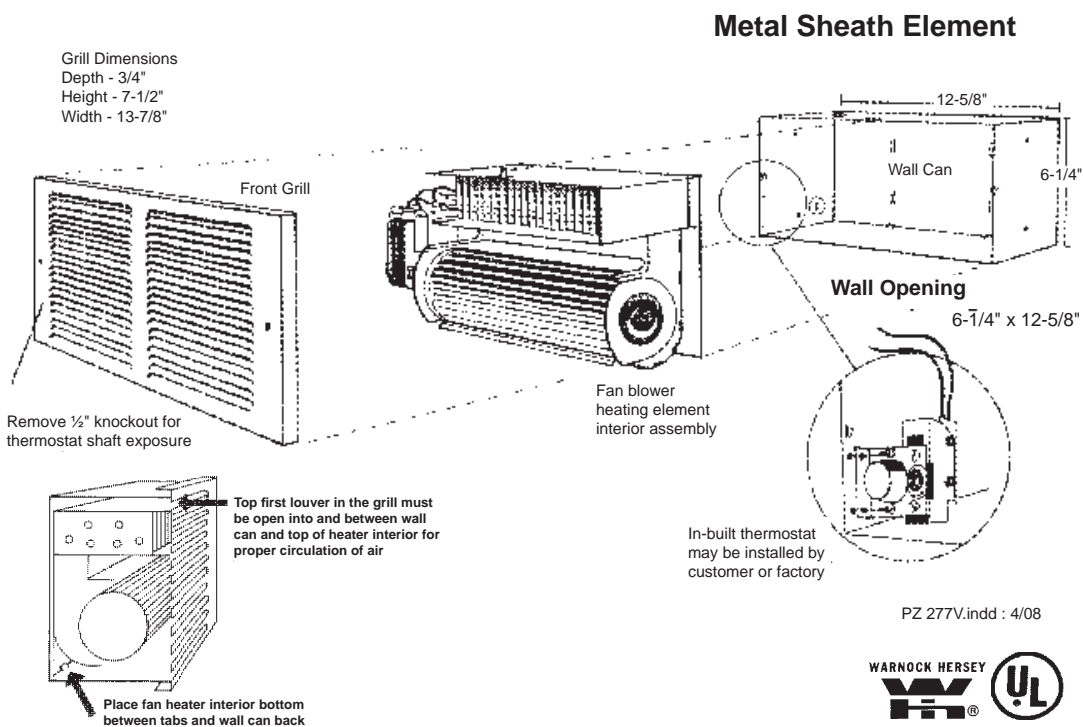
PZ 277 VOLT SERIES HEATER

It is **extremely important** you verify the electrical power supply is the same voltage as the heater you are installing. **277 and 120 Volt heaters are not interchangeable.** Powering a 277 Volt unit with 120 Volt supply wires will reduce the heater output by approximately 75%. Powering a 120 Volt unit with 277 Volt supply wires will destroy the heater and voids all warranties.

CAUTION: Turn off power source supplying the heater before attempting installation, maintenance, or repairs. Lock or tag circuit breaker or fuse panel door. Failure to do so could result in serious electrical shock, burns, or possible death.

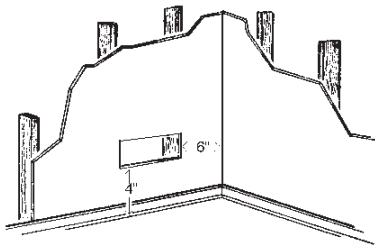
1. After removing the heater from the carton check that the heater has not been damaged in shipment.
2. Remove the grill by loosening and removing the two screws on the front panel.
3. Remove the fan heater assembly by loosening the mounting screw. The assembly will now drop out.
4. Remove one 7/8" knockout and thread the supply wire into the wallbox. Use an approved strain relief bushing to prevent chafing of the supply wires through the opening in the wallbox.
5. Install wall can a minimum of 6" from vertical side walls and 4" above floor. Secure the wall box to 2" x 4" studs or adequate support in the wall using the 4 holes provided on each side of the wallbox. The face of the wall can must be **1/2" beyond** the sheet rock or finished wall.
6. Replace the fan heater assembly by sliding it over the tab at the back bottom inside edge of the wallbox. Replace the screw and tighten assembly mounting screw at the top of the wall can.
7. Attach the field groundwire to the green screw or pigtail.
8. Connect the supply wires to the leads from the heater.
9. Replace the front grill and secure with the two screws provided. The top first louver in the grill must be open in to and between wall can and top of heater for proper circulation of air.
10. The installation is now complete and the heater may be energized for use.

This heater includes a visual alarm to warn that parts of the heater are getting excessively hot. If the alarm flashes immediately turn the heater off and inspect for any objects on or adjacent to the heater that may cause high temperatures. Do not operate the heater with the alarm flashing.

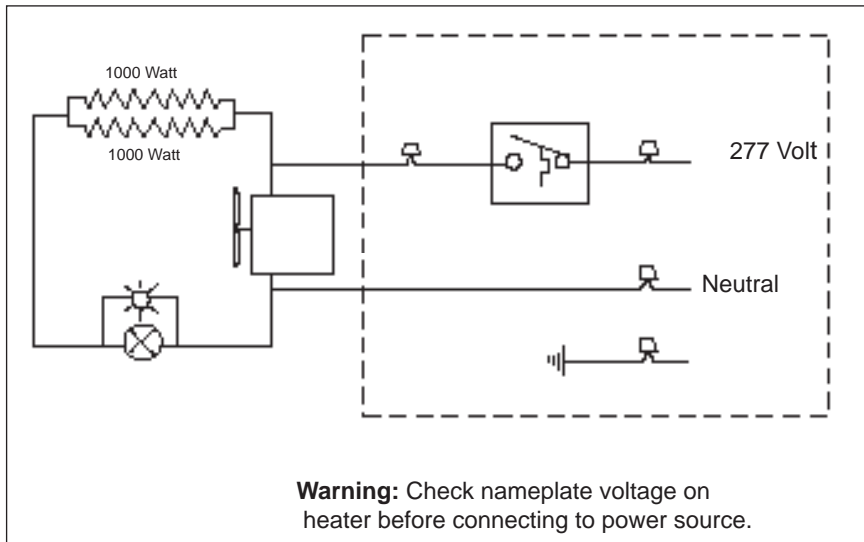


INSTALLATION INSTRUCTIONS

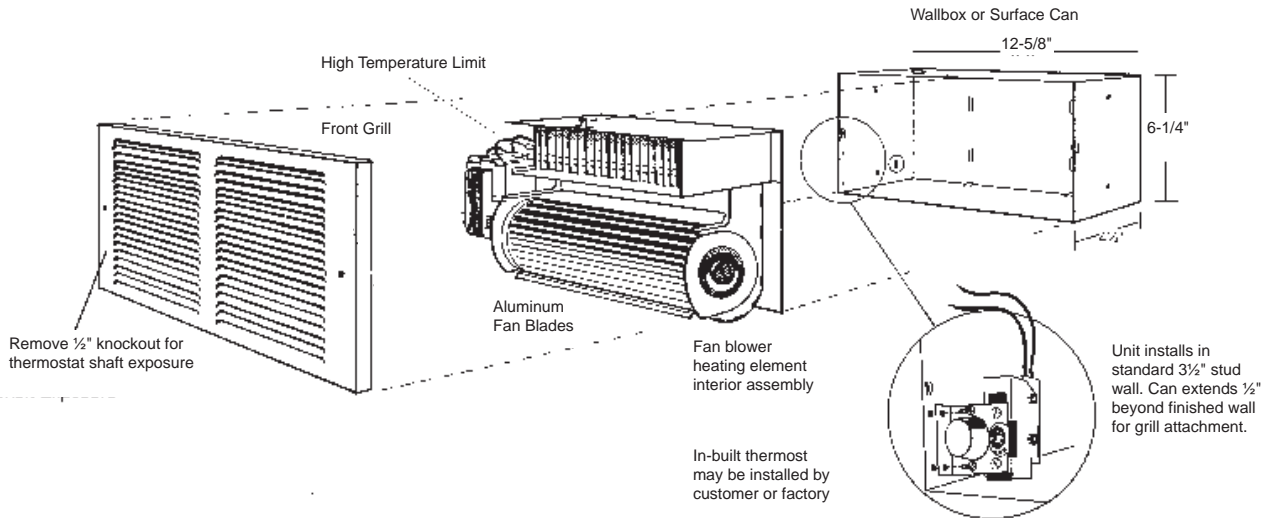
PZ Series Wiring Diagram



Minimum Clearances
 Side Wall - 6"
 Outside Wall - 16" (Recommended)
 Floor - 4" (10" Recommended)



Warning: Check nameplate voltage on heater before connecting to power source.

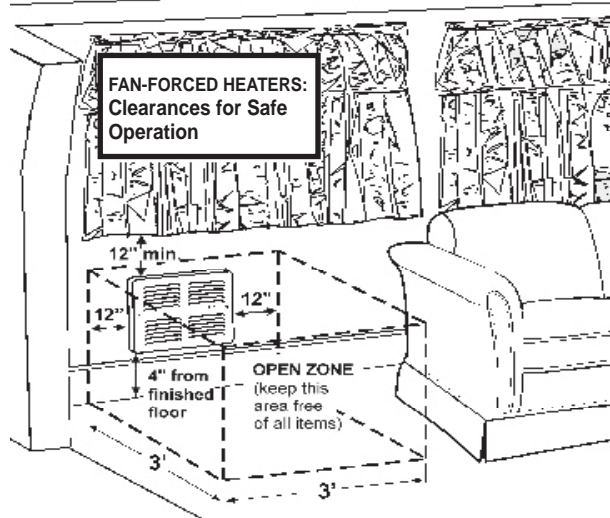


Maintenance & Warranty Information:

The high quality and superior design of this heater will provide years of trouble-free performance. Each year the heater should be checked and cleaned for lint and dust accumulation. We recommend using a soft bristle brush such as a paint brush to assist in removing contaminants from the heater.

Limited One Year Warranty:

King Mfg. Co. will repair or replace, without charge, any King product found to be defective or malfunctioning during the first year of purchase to the original owner. The PZ-Series wall heater carries an **Extended Five Year Warranty** on the heating element.



INSTALLATION INSTRUCTIONS



SMART LIMIT PROTECTION®

W - WHF SERIES

Wall Heaters

Models: 1210 (120V)	1212 (120V)	1215 (120V)
2010 (208V)	2015 (208V)	2020 (208V)
2410 (240V)	2412 (240V)	2415 (240V)
2420 (240V)	2424 (240V)	
2710 (277V)	2715 (277V)	



DANGER

ELECTRIC SHOCK OR FIRE HAZARD

READ ALL WIRE SIZING, VOLTAGE REQUIREMENTS AND SAFETY DATA TO AVOID PROPERTY DAMAGE AND PERSONAL INJURY



It is *extremely important* to verify the electrical power supply is the same voltage as the heater being installed. 240 and 120 Volt heaters are not interchangeable. Powering a 208/240/277 Volt unit with 120 Volt supply wires will reduce heater output by approximately 75%. Powering a 120 Volt unit with 208/240/277 Volt supply wires will destroy the heater and voids all guarantees and warranties.

CAUTION: Keep electrical cords, drapery, furnishings and other combustibles at least 3 feet (.9m) from front of the heater and away from side and rear. Do not block the heater in any manner. To insure proper operation of this heater it should be a minimum of 4 inches above the floor and no closer than 6 inches to the open edge of a door and/or adjacent wall. Never paint the heater grill.

WARNINGS: Turn off the power source supplying the heater before attempting any installation, maintenance or repairs. Lock or tag circuit breaker/fuse panel door. Failure to do so could result in serious electrical shock, burns or possible death.

MAINTENANCE & WARRANTY

The superior quality and design of this heater will provide years of trouble-free performance. Each year the heater should be checked and cleaned for lint and/or dust accumulation. King recommends using a soft bristle brush and vacuum to knock off contaminants. The motor is permanently lubricated and requires no oiling.

W Wall Heaters carry a one (1) year limited warranty on all components from date of installation. WHF Wall Heaters carry a two (2) year limited warranty on all components from date of installation. This warranty requires that the owner or his agent install the equipment in accordance with the National Electrical Code, any other applicable heating or electrical codes, and the manufacturer's installation instructions. It further requires that reasonable and necessary maintenance be performed on the unit. Failure to properly maintain the unit will result in the warranty being voided. The company is not liable for abuse or misuse of product as may be finally determined by the company. The customer shall be responsible for all costs incurred in the removal or reinstallation of products, including labor costs and shipping costs incurred to return products to King Manufacturing. King Manufacturing will repair or replace, at our option, at no charge to the customer with return freight paid by King. King Manufacturing shall not be liable for consequential damages arising with respect to the product, whether based upon negligence, tort, strict liability or contract. No other written or oral warranty applies, nor any warranties by representatives, dealers, employees of King, or any other person. All returns require a King Return Goods Authorization (RGA); Unauthorized returns will be refused. Do not return malfunctioning/defective products to store.

Operating voltage cannot exceed 5% of rated voltage. Operating heater above listed voltage ratings voids all guarantees and warranties.

INSTALLATION INSTRUCTIONS

INSTALLATION

Following are installation guidelines:

- Disconnect power at main panel.
- Make certain all wiring is in accordance with any/all local codes.
- Ensure units are properly grounded.
- Heater voltage rating should be the same as supply load.

1. Remove two screws on front grill. Remove grill. Loosen mounting screw. Remove fan heater assembly.
2. Remove a 7/8" knockout. Thread supply wire into wallbox. Use an approved strain relief bushing to prevent chafing of supply wires through the opening in wallbox.
3. Install wall can a minimum of 6" from vertical sidewalls and 4" above floor. **The front edge of wall can must be 1/2" beyond finished wall.**
4. Secure wallbox to the 2x4 studs using the two (2) holes on each side of wallbox. Secure twist lock to wall stud on opposite side.
5. Reinstall heater assembly at top of wallbox with mounting screw. Connect supply and ground wires. (see diagram)
6. Reinstall grill securely with screws provided. *For proper air circulation, the top louver in grill must open into and between wall can and top of heater.*

FIELD WIRING – 120/277 VOLT:

1. Connect power supply L1 (white neutral wire) to white heater wire.
2. Connect power supply L2 (black hot lead) to black heater wire.
3. Connect groundwire to green wire on wall can.

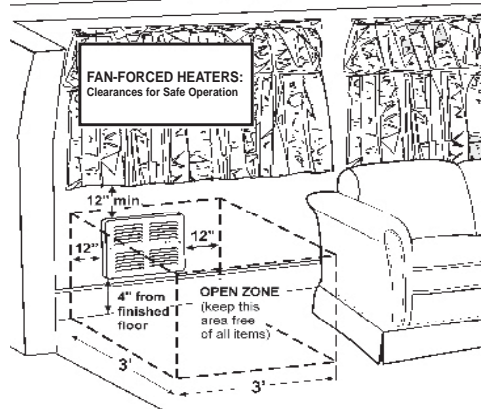
FIELD WIRING – 208/240 VOLT:

1. Connect power supply L1 (hot lead) to a black heater wire.
2. Connect power supply L2 (hot lead) to a black heater wire.
3. Connect groundwire to green wire on wall can.

NOTE: The two black leads on the heater can be connected to either hot lead. There is no polarity. The 208/240 Volt heater does not require a neutral wire from the power panel.



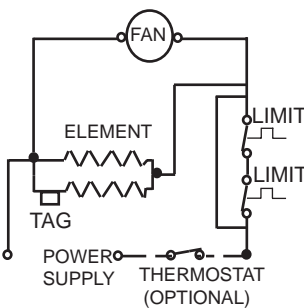
This heater includes a manual reset SLP thermal protector with a self-hold feature. If the heater shuts off in the on position and the room temperature is below the highest thermostat setting, immediately disconnect the power to the heater at the circuit breaker. Inspect for any objects on or adjacent to the heater that may cause high temperatures. After inspecting the heater, keep the power to the heater off for 10 minutes to reset the SLP thermal protector. If the SLP thermal protector shuts the heater off again, immediately turn the heater off at the circuit breaker and inspect the heater for possible fan motor failure or dirt and lint on the heating element. Repeat the starting procedure.



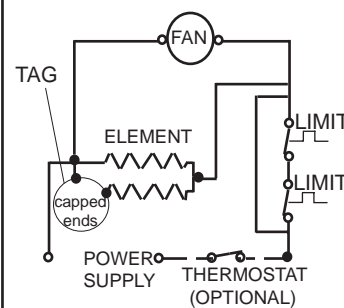
CAUTION
The heater should not be covered or blocked in any manner.

W - WHF WIRING DIAGRAM

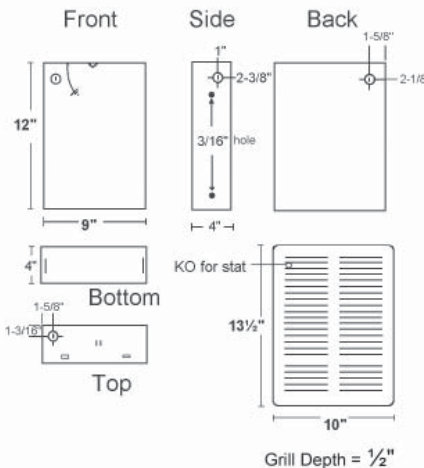
Two Element - Factory Wiring



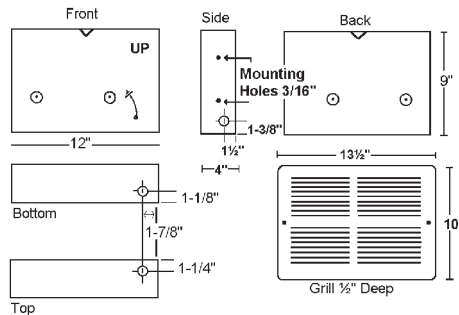
Single Element Factory Wiring



W DIMENSIONS



WHF DIMENSIONS



INSTALLATION INSTRUCTIONS

COMMONLY ASKED QUESTIONS

Q. Will the room heat up faster if I put the thermostat on 90 degrees when I get home?

A. No. The thermostat is just an on-off switch that is temperature sensitive. The heater is either on or off.

Q. My baseboards are on outside walls, should fan heaters be also?

A. No. A fan heater, recessed into an outside wall, will create extra heat loss and air leakage for that room. An inside wall, facing a cold window, is the best location.

Q. My thermostat is above my fan-heater. Why?

A. The fan heater blows warm air away from itself and into the room. By the time the warm air has recirculated and reached the thermostat above the heater, a comfortable room temperature has been achieved.

Q. Will my electric bill be lower if I use 120 volt heaters?

A. No. Same size 120 volt and 240 volt heaters will use the same amount of power, measured in watts or kilowatts. Your electric company charges by kilowatt hours.

Q. Should I clean my heater?

A. Yes. Once a year you must clean and inspect your heaters. You may request a copy of the operation & maintenance for your heater if you have lost it.

Q. Why does my new heater produce smoke when I turn it on?

A. In the manufacturing process a high temperature stove paint is used, which will burn when the heater is energized. The smoke will stop after the heater has fully heated. There is no cause for alarm. It is recommended to open a window during initial operations.

Q. If I need to replace my heater, can I use a higher wattage heater?

A. Your electrical system was sized for the original heater's wattage. A smaller heater would be OK, but a larger heater may create a hazard. Have the circuit checked by a licensed electrician.

Q. Are King heaters actually made in Seattle, Washington?

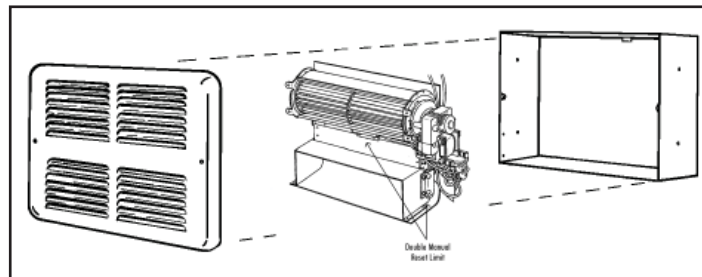
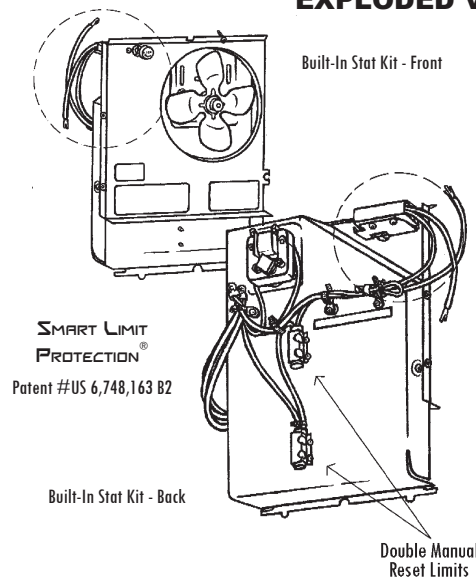
A. Yes. Since 1958 we have made quality residential, commercial and industrial heating products in the same location.

ACCESSORIES

MODEL	DESCRIPTION	UPC# 093319 PART #	WEIGHT
WSC	Surface Can - white	19202	4
WSC-A	Surface Can - almond	19203	4
WG	Grill - white	11914	2.5
WG-A	Grill - almond	12785	2.5
WG-SS	Grill - stainless steel	12780	2.5
WOG	10" x 17" Retrofit Grill	19200	3
WOG-A	10" x 17" Retrofit Grill - almond	18605	3
WT-1	Single Pole Single Throw Built-In Thermostat Kit	12736	.5
WT-2	Double Pole Single Throw Built-In Thermostat Kit	12739	.5
WHSC	Surface Can - white	19204	4
WHSC-A	Surface Can - almond	19205	4
WHFG	Grill - white	12520	2.5
WHFG-A	Grill - almond	12530	2.5
WHFG17W13H	13" H x 17" W Oversize Grill	12523	3.5
WHT-1	Single Pole Single Throw Built-In Thermostat Kit	12099	.5
WHT-2	Double Pole Single Throw Built-In Thermostat Kit	12102	.5

Between 5-10 years you may want to upgrade your thermostat, as the sensing element may not be as accurate as when new. The most accurate thermostats are the electronic ES230 or ESP230 models. If, in the future, you decide to remodel or add rooms to your home, you won't have to worry about the size of your heating system. With electric heat you can add to the heating system, in large or small increments.

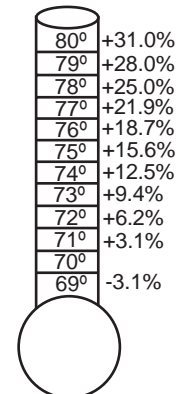
EXPLODED VIEWS



ESP

Zone Control (setting the thermostats):

Thermostat settings are a matter of personal preference. A few days of adjustments will help you determine the setting that is comfortable for you. Most people keep their living quarters at 68 to 72°F (20 to 22°C) and sleeping areas at 65°F (18°C). It is also wise to set living area thermostats back at night, but not below 60°F (16°C).

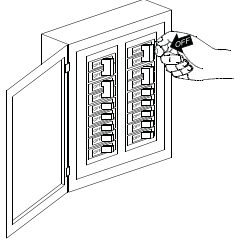


Temperature & cost relationship:

When setting your thermostat, you may want to consider the relative cost of various temperatures. The chart at right shows how much higher your heating bill may be if you like temperatures warmer than 70°F (21°C).

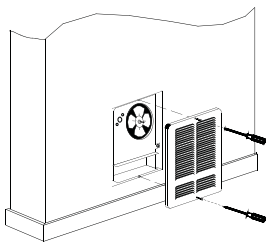


CLEANING & MAINTENANCE GUIDE FOR W - WHF SERIES HEATERS

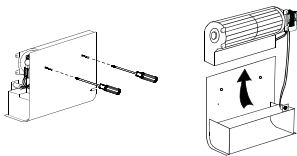
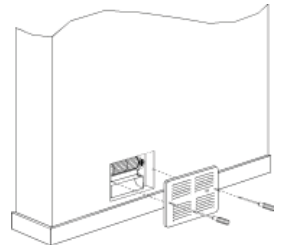


Regular maintenance on an electric wall heater will prolong the life of the product and keep it operating safely. Heaters should be cleaned and inspected every 6 months. This guide will show in detail how to properly clean and maintain your King electric wall heater. It will also show when parts (or perhaps the entire heater) should be replaced. Listed below are step by step instructions for cleaning and maintaining the W and WHF Series Wall Heaters.

WARNING: Take extreme caution when working with electrical heaters. Turn off the electrical power to the heater before removing the grill of the heater. Lock, tape or tag the circuit breaker so that the power cannot be turned on accidentally while working on the heater. Failure to do so can result in serious electrical shock, burns or possible death.



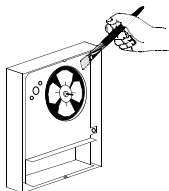
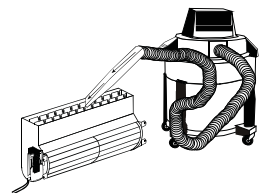
After the power is turned off remove the grill using a #2 square drive or a #2 Phillips head screwdriver. Use the same tool to loosen the screw on the right and left to remove interior. Clean grill before reinstalling.



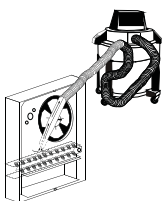
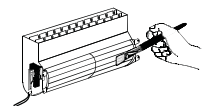
Remove two screws from back of unit to free the blower element housing to complete the rest of the cleaning.



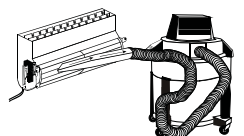
To clean heater start by using a vacuum cleaner nozzle in the blow out mode. Point the nozzle at the element from underneath as shown on the diagram. This will dislodge any contaminants caught on the heating element. Compressed air blown on to the element works well also. If you have another vacuum you can blow out from the bottom and suck the debris from the fan opening at the same time which will minimize dirt and lint being blown into the room.



Use a soft bristled brush such as a paint brush to remove any contaminants from the fan blade. Spin the fan by hand to make sure it spins freely. If it feels like the motor is binding add a drop of sewing machine oil.



Vacuum out any material in the chamber between the fan and heating element by placing the vacuum nozzle into the fan opening. Be careful not to bend the fan blade because it could become out of balance if deformed. The fan can be removed to gain more access to the heater interior by using a 3/32" allen wrench. When done replace the fan in the same position on the shaft as before. Be careful not to bend the squirrel cage because it could become out of balance if deformed.



The useful life of a W or WHF Series heater depends on the amount of use, environment and how often it is cleaned and maintained. Heaters operated beyond their useful life of 5-7 years are more prone to problems. For example, when a motor slows due to wear or lack of cleaning it reduces the CFM and can cause the element to overheat, tripping the limit control. It is much safer to fix the cycling heater before the limit trips.

IN-BUILT LINE VOLTAGE

USED ON WALL UNITS, BASEBOARDS, COVE UNITS, UNDER CABINETS, BATH HEATERS, PORTABLES, ETC.



SINGLE POLE



DOUBLE POLE
(positive off)

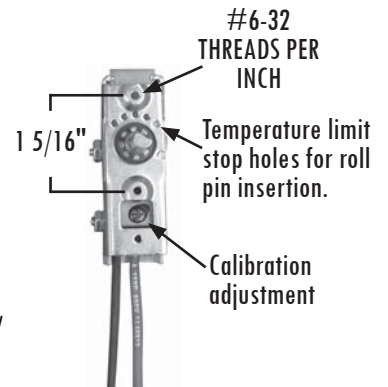
ELECTRICAL RATING CHART

VOLTS	WATTS	AMPS
120	2530	22
208	4576	22
240	5280	22
277	6094	18

SPECIFICATIONS

Control Range:
45°F to 80°F (7°C - 27°C)
Maximum Amps: 22 Amps
Power Source: 125 VAC
250 VAC
277 VAC

Sensing Element:
Snap action switch with fully protected bi-metal sensor
UL Recognized



USE IN MODEL KIT: (short shaft #27)	
MODEL	UPC #093319 PART #
BKT1	11496
EFT1	19445
U-Series (Pumphouse)	

USE IN MODEL KIT: (short shaft #138)	
MODEL	UPC #093319 PART #
BKT2	11502
EFT2	19448

USE IN MODEL KIT: (long shaft #28)	
MODEL	UPC #093319 PART #
WT1	12736
PT1	16306
WHT1	12099
KT1	12298
SLT1	19562

USE IN MODEL KIT: (long shaft #199)	
MODEL	UPC #093319 PART #
WT2	12739
PT2	16307
WHT2	12102
KT2	12301
SLT2	19564

DESIGN FEATURE SPECIFICATIONS

SNAP ACTION SWITCHING: Instant, positive response. No arcing. No burning of contacts to shorten switch life. No TV snow, no radio static. Enclosed for protection against dirt and corrosion.

BI-METAL SENSING ELEMENT: This sensitive element dependably registers the temperature change. Fully protected.

VENTED FRAME: Top and bottom to maintain normal temperature in outlet box.

AIR PASSAGE: No obstruction of air across bi-metal sensor.

FACTORY SEALED and CALIBRATED: Engineered for accurate, dependable performance. Field adjustment not required.

ENCLOSED TERMINALS: To prevent contact with grounded faces.

RATING: 22 Amps continuous at 125, 240 Volts AC. Non-inductive.
18 Amps continuous at 277 Volts AC. Non-inductive.

RANGE: 45° to 80°F

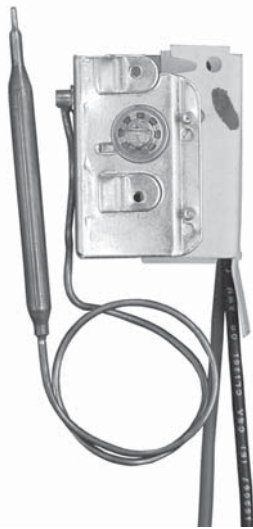
AVERAGE DIFFERENTIAL: Approximately 5°F at 50% of rated load.

CYCLE RATE: Approximately 2 - 4 per hour at 50% of rated load.

LIMIT STOPS (single pole only): Maximum temperature can be set by insertion of a pin.

IN-BUILT LINE VOLTAGE

CAPILLARY TUBE STYLE



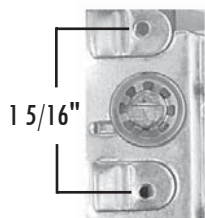
TWO WIRE
single pole
maximum temperature 105° F



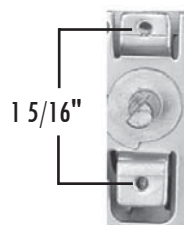
THREE WIRE
single pole
maximum temperature 107° F

Part # 275-2822-00 C1-25
SERIES
KB
KCC
KC
KCF
KFUH

Part # 275-5011-00 C1-25
SERIES
LPW
KBP



1 5/16"



1 5/16"

ELECTRICAL RATING CHART

VOLTS	WATTS	AMPS
120	3000	25
208	5200	25
240	6000	25
277	6925	22

SPECIFICATIONS

Control Range:
40°F to 90°F (4°C - 32°C)

Power Source: 125 VAC
240 VAC
277 VAC

Switch Action: Single Pole,
Single Throw,
make on
temperature rise

Differential: 2°F

Ratings: Non-inductive
25 Amps @ 120VAC
25 Amps @ 240 VAC

Mounting: 6-32 threaded holes
on 1 5/16" (33mm) centers
Shaft: Type 1 (clockwise to raise
temperature setting)

Sensor: Liquid-filled capillary
and bulb

Capillary length: 3 wire: 4 1/16"
2 wire: 3 1/2"

Bulb diameter: 3 wire: 5/16"
2 wire: 1/4"

Weight: .3 lbs/.14kg (single pole)
Lead Wires: 125°C 14AWG
UL File: E16835

DESIGN FEATURE SPECIFICATIONS

SNAP ACTION SWITCHING: Instant, positive response. No arcing. No burning of contacts, to shorten switch life. No TV snow, no radio static. Enclosed for protection against dirt and corrosion.

LIQUID-FILLED SENSING ELEMENT: This extra sensitive remote capillary bulb dependably and accurately registers the slightest temperature change instantly.

VENTED FRAME: Top and bottom to maintain normal temperature in outlet box.

AIR PASSAGE: No obstruction of air across bi-metal sensor.

FACTORY SEALED and CALIBRATED: Engineered for accurate, dependable performance. Field adjustment not required.

ENCLOSED TERMINALS: To prevent contact with grounded faces.

RATING: 25 Amps continuous at 120, 208, 240 Volts AC. Non-inductive.
22 Amps continuous at 277 Volts AC. Non-inductive.

MAXIMUM RANGE: 40° to 117°F (4°C - 47°C)

AVERAGE DIFFERENTIAL: Approximately 5°F at 50% of rated load.

CYCLE RATE: Approximately 2 - 4 per hour at 50% of rated load.

BASEBOARD HEATER

K
SERIES

CONVECTION



FEATURES:

- Convection Heat
- Quiet Running
- Back Wire Design
- Built-in Cable Clamps
- Crushproof Element
- All Aluminum Element Design
- Full Length Safety Cutout
- Baked Enamel Finish
- Standard Color - Almond
- Electro-Galvanized 20 Gauge Front Cover 22 Gauge Back Can
- Reinforced Cover
- Soft Contoured Corners
- All Knockouts are 7/8" in diameter for 1/2" conduit
- Removable Reflector
- Optional 18 Gauge Front Cover
- Single or Double Pole Thermostat
- Standard Optional Colors - Bright White
- Optional 18 Gauge Front Cover

Baseboard heaters are an economical way to provide heat. They are typically used in apartment construction and other rental properties because of the low initial cost and low maintenance.

Quality components guarantee a long lasting reliable heater. Standard color is almond.

Special Colors available: Customer must provide sample or color chip at time of order, however due to our painting system, exact color matching may not be

exact. Four weeks or more lead time is required on all special color baseboard orders. Special pricing will apply.

Institutional grade with 18 gauge front covers and 22 gauge back cans are available for special applications. All other specifications are the same as the standard heater.

NOTE: Baseboard Heaters are to be mounted on outside walls to wash the coldest part of a room with a blanket of heat.

New Die-Formed Corners provide smooth appearance and safety.



ENGINEERING SPECIFICATIONS:

Contractor shall supply and install, K-series electric convection baseboard heaters, manufactured by King Electrical Mfg. Company, of the wattage, voltage and length indicated on the plans.

Construction:

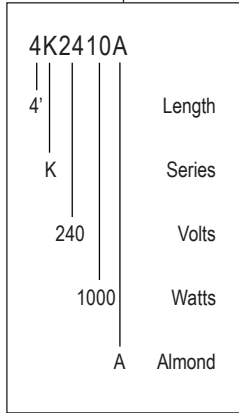
- The heaters shall take room air in the bottom (lower front) and discharge it through the top front.
- The heaters back, bottom, and top shall be fabricated from electro galvanized 22 gauge steel. Front panels shall be fabricated from 20 gauge electro galvanized steel, ribbed longitudinally for extra strength and have center support to resist impact loads.
- The heater casing shall have modern rounded ends and corners to provide a smooth appearance and finished with a baked enamel.
- The heater shall be provided with a continuous capillary sensor tube, for thermal protection, extending the full length of the heating element, rated at 175° F, and be fail-safe type.

- The heater shall have a 44 cubic inch junction box at both ends, furnished with five 1/2" knockouts located on the back, bottom, and side.
- Heater elements shall consist of high quality 80% nickel and 20% chromium alloy resistant wire completely surrounded by magnesium oxide and enclosed and swaged in a rust resistant sheath. Ribbon aluminum fining shall be compression welded to the sheathed element to provide chimney type flue for heat transfer.
- Heaters shall be supplied with a one year limited warranty.

Rating and Approval:

- The heaters shall be available in ratings from 375 through 1,500 Watts at 120 Volts, and 375 to 2,500 Watts at 208-240 and 277 Volts.
- The heaters shall be available in 187 or 250 watts per lineal foot.
- Heaters shall be listed and approved by Underwriters' Laboratories.

MODEL CODE:

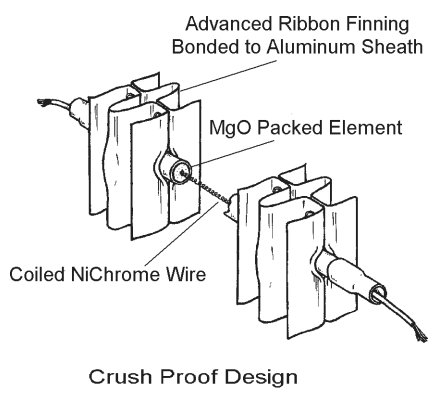


Standard Color: Almond

STANDARD DENSITY: 250 WATTS PER FOOT

WATTAGE	120V		208V		240V		277V		LENGTH	WEIGHT (lbs)
	*MODEL	UPC #093319 PART NO.	*MODEL	UPC #093319 PART NO.	*MODEL	UPC #093319 PART NO.	*MODEL	UPC #093319 PART NO.		
500	2K1205A	11362	2K2005A	11382	2K2405A	11410	2K2403A	11442	27"	7
750	3K1207A	11366	3K2007A	11386	3K2407A	11414	3K2405A	11446	3ft	8
1000	4K1210A	11370	4K2010A	11390	4K2410A	11418	4K2407A	11452	4ft	11
1250	5K1212A	11374	5K2012A	11394	5K2412A	11422	5K2410A	11456	5ft	13
1500	6K1215A	11378	6K2015A	11398	6K2415A	11426	6K2412A	11460	6ft	15
1750					7K2418A	11430			7ft	19
2000			8K2020A	11402	8K2420A	11434	8K2415A	11464	8ft	20
2500			10K2025A	11406	10K2425A	11438	10K2418A	11468	10ft	25

*Add Suffix (-BW) for optional Bright White finish

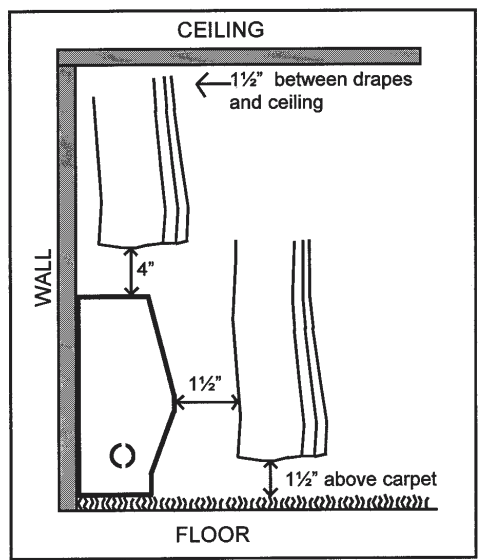


LOW DENSITY: 187 WATTS PER FOOT

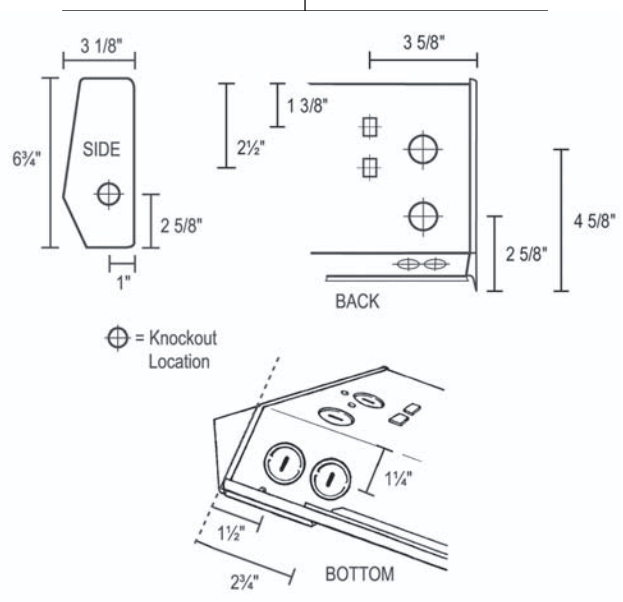
WATTAGE	208V		240V		LENGTH	WEIGHT (lbs)
	*MODEL	UPC #093319 PART NO.	*MODEL	UPC #093319 PART NO.		
375	2K2405A	11410	2K2403A	11442	27"	7
563	3K2407A	11414	3K2405A	11446	3ft	8
750	4K2410A	11418	4K2407A	11452	4ft	11
938	5K2412A	11422	5K2410A	11456	5ft	13
1125	6K2415A	11426	6K2412A	11460	6ft	15
1313	7K2418A	11430			7ft	19
1500	8K2420A	11434	8K2415A	11464	8ft	20
1875	10K2425A	11438	10K2418A	11468	10ft	25

*Add Suffix (-BW) for optional Bright White finish

CLEARANCE MINIMUMS FOR DRAPES



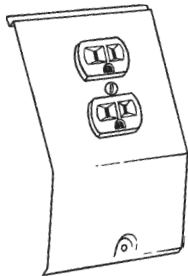
DIMENSIONS



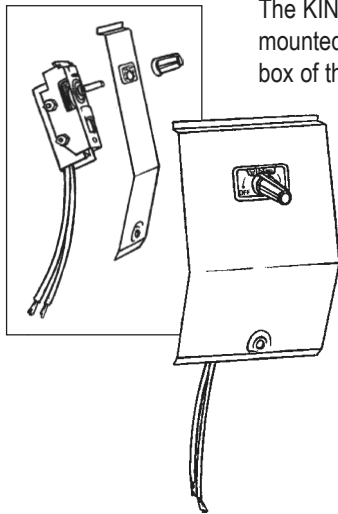
ACCESSORIES:

*MODEL	DESCRIPTION	UPC #093319 PART NO.	WEIGHT
BKR120	Duplex Receptacle Cover Plate (Requires Separate Circuit)	11526	.5
BKLT120	Load Transfer Cover Plate (Heat/Cool/Off) 120V	11522	.5
BKLT240	Load Transfer Cover Plate (Heat/Cool/Off) 240V	11524	.5
BKCB1	4" Relay Control Box (Relay's not included)	11518	1.5
BKCB2	8" Dual Relay Control Box (Relay's not included)	11520	3.0
NT	Baseboard Nailing Tool	10233	.5
BKT1	Built-In Thermostat Kit SPST	11496	.5
BKT2	Built-In Thermostat Kit DPST	11502	.5
BKT1TP	Built-In Tamper Proof Thermostat Kit SPST	11528	.5
BKT2TP	Built-In Tamper Proof Thermostat Kit DPST	11530	.5
19565	Touch-up Paint - Bright White		1.5
19566	Touch-up Paint - Almond		1.5

*Add Suffix (-BW) for optional Bright White finish

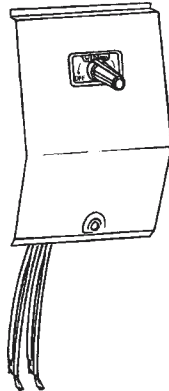


BKR120 - Duplex Receptacle Cover Plate
(Requires Separate Circuit)

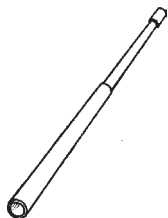


BKT1 - Built-In Thermostat Kit SPST

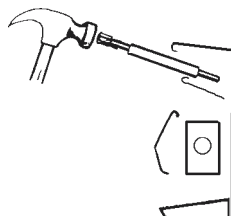
The KING baseboard thermostat may be mounted in either the left or right junction box of the heater.



BKT2 - Built-In Thermostat Kit DPST



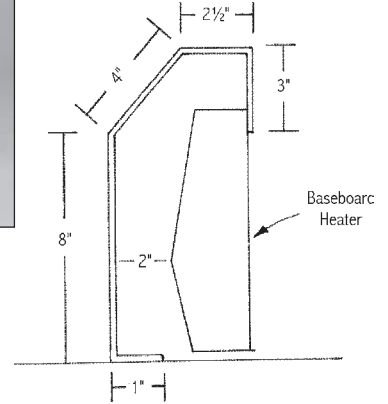
NT - Baseboard Nailing Tool



Nailing Tool

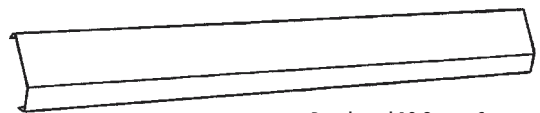


K-Series Heater Shield



*MODEL	SHIELD	UPC #093319 PART NO.
SHIELD-33"	K-Series Heater Shield for 27" Baseboard	10290
SHIELD-42"	K-Series Heater Shield for 3' Baseboard	10291
SHIELD-54"	K-Series Heater Shield for 4' Baseboard	10292
SHIELD-66"	K-Series Heater Shield for 5' Baseboard	10293
SHIELD-78"	K-Series Heater Shield for 6' Baseboard	10294
SHIELD-102"	K-Series Heater Shield for 8' Baseboard	10295

*Add Suffix (-BW) for optional Bright White finish
Requires separate circuit



Baseboard 18 Gauge Cover

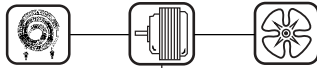
*MODEL	COVER
BB-18ga Cover 2'	18 Gauge Cover for 27" Baseboard
BB-18ga Cover 3'	18 Gauge Cover for 3' Baseboard
BB-18ga Cover 4'	18 Gauge Cover for 4' Baseboard
BB-18ga Cover 5'	18 Gauge Cover for 5' Baseboard
BB-18ga Cover 6'	18 Gauge Cover for 6' Baseboard
BB-18ga Cover 8'	18 Gauge Cover for 8' Baseboard
BB-18ga Cover 10'	18 Gauge Cover for 10' Baseboard

*Add Suffix (-BW) for optional Bright White finish

UNIT HEATER

KB
SERIES

LARGE AREA - 2000 WATTS TO 66,000 WATTS
CEILINGS UNDER 12 FT



FEATURES:

- Spiral Steel Fin Element
- Cast Iron Motor
- Aluminum Fan Blade
- Heavy Gauge Steel Enclosure
- Adjustable Discharge Louvers
- Totally Enclosed Motor
- Control Options
- Auto-Reset Thermal Cutout
- Optional 1-Pole or 2-Pole Thermostat
- Tested Under UL1278
- Optional Summer Fan Switch
- Optional 3-Position Switch (Heat-Off-Fan)
- Optional Two Stage Thermostat
- Optional Pilot Light (Power On Indication)
- Optional Door Interlocking Disconnect
- Optional Wall Mounted Thermostat
- Available in Stainless Steel Refer to Index.



Convenient, small and powerful are great words that describe our unit heaters which have been standard equipment in most high rise buildings, garages, water treatment and fire room vaults to prevent freezing. High mass steel elements and high CFM keeps outlet temperatures low for long life. For KB's under 5KW, use the KBP Series for higher outlet temperatures.

the highest quality components custom designed for use in the KB Series Unit Heater.



Freeze/Moisture Protection in a Generator Vault

Other applications are residential garages and warehouse heating. Long life comes standard with

ENGINEERING SPECIFICATIONS:

Contractor shall supply and install KB Series unit heaters manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

Construction: All exterior and interior metal enclosure parts are made from 20GA electro galvanized steel with a rust inhibiting baked enamel finish. Smooth rounded corners and protective edge trim give an attractive modern appearance.

Adjustable Outlet Louver: Louvers direct air up or down as needed for the heating application.

Rear Intake Screen: Heavy gauge steel screen protects against foreign objects making accidental contact with the rotating fan blade.

Spiral Fin Elements: The metal sheath element is brazed with spiral fins and then molded into a coil configuration. This combination produces the best heat transfer while eliminating the potential for hot spots by positioning the element in the maximum airflow stream.

Totally Enclosed Fan Motor: Permanently lubricated cast iron with 20 cc of oil. Epoxy coated motor with enclosed rotor resists mois-

ture and corrosion for long lasting trouble free operation.

Aluminum Fan Blade: Axial flow type fan mounted directly to the motor shaft for maximum efficiency.

Auto-Reset Thermal Cutout: Power is disconnected from the element if an over heated condition occurs. The fan continues to run to dissipate excess heat from the element. The element is re-energized automatically when the normal operating temperature returns.

Internal Controls: Magnetic contactors are standard on all 480V heaters, all 208V-1Ø, 240V-1Ø, 277V-1Ø heaters above 6-KW, and all 3Ø heaters. The control voltage is equal to the line voltage (208, 240 or 277) except for 480V models where a transformer is provided for 24V Control. Internal circuit fusing is provided when the heater ampacity exceeds 48 amps to comply with NEC standards. A fan delay is provided standard on models 12.5-KW and above to dissipate residual heat from the heating elements.

Easy Installation: A quick access panel located on the bottom of the heater allows for quick wiring and easy maintenance for the life of the heater.

Tested Under UL1278

MODEL CODE:
Factory Installed Options:

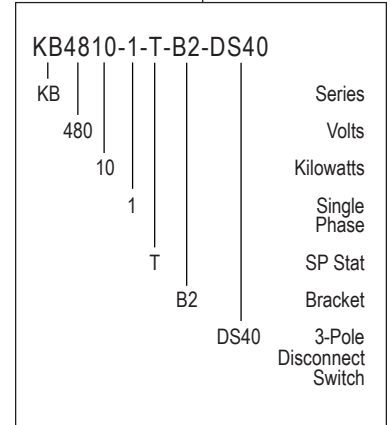
Power Contactor: Standard on heaters above 5KW and on all 3-Phase models, optional on 2 to 6KW 1-Phase heaters.

24 Volt Control: Standard on 480V heaters, optional on all other heaters.

120 Volt Control: Control components will be modified to accept 120V control. (Not Standard)

Mounting: Choose universal or low profile ceiling bracket made from heavy gauge steel.

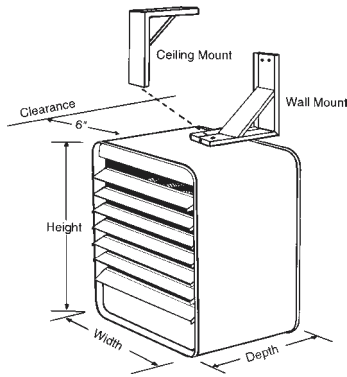
Rough Service: 5-Lugs are provided to securely mount heater in heavy industrial applications or marine vessels where vibration and movement are a concern. Includes 5-Hole Bracket.


Other Control Options:

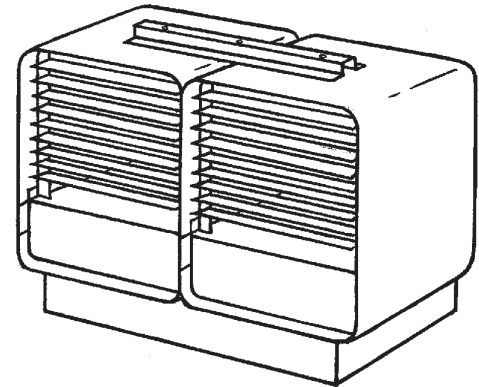
- 1-Pole or 2-Pole Thermostat
- Pilot Light (Power On Indicating)
- Temperature Indicated Label with 44° Energy Code Setting
- Door Interlocking Disconnect
- Summer Fan Switch
- Wall Mounted Thermostat Line or Low Voltage
- 3-Position Switch (Heat-Off-Fan)

QUICK SELECTION CHART:

KILOWATTS	PHASE	208V		240V		277V		480V		WEIGHT (lbs.)
		MODEL	UPC #093319 PART NO.	MODEL	UPC #093319 PART NO.	MODEL	UPC #093319 PART NO.	MODEL	UPC #093319 PART NO.	
3	1	KB2003-1	15003	KB2403-1	15006	KB2703-1	15202	KB4803-1	15009	25
	3	KB2003-3MP	15231	KB2403-3MP	15072			KB4803-3MP	15102	40
4	1	KB2004-1	15012	KB2404-1	15010	KB2704-1	15204	KB4804-1	15015	25
		KB2005-1	15224	KB2405-1	15018	KB2705-1	15206	KB4805-1	15021	
5	3	KB2005-3MP	15228	KB2405-3MP	15075			KB4805-3MP	15105	40
	1			KB2406-1	15024	KB2706-1	15208	KB4806-1	15027	25
6	3			KB2406-3MP	15078			KB4806-3MP	15108	40
	1	KB2007-1	15029	KB2407-1	15030	KB2707-1	15209	KB4807-1	15033	32
7.5	3	KB2007-3MP	15233	KB2407-3MP	15079			KB4807-3MP	15109	40
	1					KB2709-1	15212			
9	3			KB2409-3MP	15081			KB4809-3MP	15111	40
	1	KB2010-1	15226	KB2410-1	15042	KB2710-1	15214	KB4810-1	15045	32
10	3	KB2010-3MP	15230	KB2410-3MP	15082			KB4810-3MP	15113	40
	1	KB2012-1	15227	KB2412-1	15054	KB2712-1	15216	KB4812-1	15057	32
12.5	3	KB2012-3	15235	KB2412-3	15087			KB4812-3MP	15117	40
	1	KB2015-1	15229	KB2415-1	15064	KB2715-1	15221	KB4815-1	15065	32
15	3	KB2015-3	15232	KB2415-3	15090			KB4815-3MP	15120	40
18				KB2418-3	15093			KB4818-3MP	15123	40
20		KB2020-3	15237	KB2420-3	15094			KB4820-3MP	15122	48
25		KB2025-3	15239	KB2425-3	15100			KB4825-3	15130	
30		KB2030-3	15223	KB2430-3	15101			KB4830-3	15162	49
33				KB2433-3	15138			KB4833-3	15165	
40		KB2040-3	15225	KB2440-3	15103			KB4840-3	15169	100
50		KB2050-3	15241	KB2450-3	15148			KB4850-3	15175	
60		KB2060-3	15243	KB2460-3	15153			KB4860-3	15180	



HEATER SIZE	DIMENSIONS		
	HEIGHT	DEPTH	WIDTH
A	16.5"	11"	15"
B	16.5"	18"	15"
C	18.5"	11"	15"
D	18.5"	18"	15"
E	20.5"	18"	15"
F	18.5"	18"	30"
G	20.5"	18"	30"



SINGLE PHASE TECHNICAL DATA

380V 3Ø Heaters are available in most KW ratings.

CATALOG NO.	UPC VENDOR #093319	KW	BTUH (000)	SINGLE PHASE	VOLTS	AMPS	**T-STAT CONTROL VOLTAGE	MOTOR HP	CFM	TEMP RISE	AIR THROW	MAX MTG HT.	*SIZE	WT (LBS.)
KB2003-1	15005	3	10.2	1	208	14.4	208	3 Watt	300	35°	14ft	8ft	A	25
KB2403-1	15006				240/208	12.5/10.8	240							25
KB2703-1	15202				277	10.8	277							25
KB4803-1	15009				480	6.2	24							28
KB2004-1	15012	4	13.5	1	208	19.2	208	9 Watt	400	38°	15ft	8ft	A	25
KB2404-1	15010				240/208	16.6/14.4	240							25
KB2704-1	15204				277	14.4	277							25
KB4804-1	15015				480	8.3	24							28
KB2005-1	15224	5	17.0	1	208	24.0	208	9 Watt	400	40°	16ft	8ft	A	25
KB2405-1	15018				240/208	20.8/18	240							25
KB2705-1	15206				277	18.1	277							25
KB4805-1	15021				480	10.4	24							28
KB2406-1	15024	6	20.5	1	240/208	25/21.6	240	9 Watt	400	45°	16ft	8ft	A	25
KB2706-1	15208				277	21.6	277							25
KB4806-1	15027				480	12.5	24							28
KB2007-1	15029	7.5	25.6	1	208	36.1	208	16 Watt	600	40°	20ft	9ft	C	29
KB2407-1	15030				240/208	31.2/27	240							29
KB2707-1	15209				277	27.0	277							29
KB4807-1	15033				480	15.6	24							32
KB2010-1	15226	10	34.1	1	208	48.1	208	25 Watt	725	44°	24ft	10ft	B	32
KB2410-1	15042				240/208	41.6/36.1	240							32
KB2710-1	15214				277	36.1	277							32
KB4810-1	15045				480	20.8	24							35
KB2012-1	15227	12.5	42.7	1	208	60.1	208	35 Watt	825	48°	30ft	11ft	B	32
KB2412-1	15054				240/208	52/45.1	240							32
KB2712-1	15216				277	45.1	277							32
KB4812-1	15057				480	26.0	24							35
KB2015-1	15229	15	51.2	1	208	72.1	208	35 Watt	925	51°	33ft	12ft	B	37
KB2415-1	15064				240/208	62.5/54.1	240							37
KB2715-1	15221				277	54.2	277							37
KB4815-1	15065				480	31.3	24							40

*Refer to DIMENSIONS Chart

Heater will draw 13% less amps 25% less wattage.

**Over 6KW Line Voltage Control is operating the Contactor Coil only, and will draw under 1 AMP.

Note: Consult factory for special wattages and/or voltages.

Rated KW load tolerance of plus 5% minus 10%.

3-PHASE TECHNICAL DATA CHART:

380V 3Ø Heaters are available
in most KW ratings.

CATALOG NO.	UPC VENDOR # 093319	KW	BTUH (000)	PHASE	VOLTS	AMPS		**T-STAT CONTROL VOLTAGE	MOTOR HP	CFM	TEMP RISE	AIR THROW	MAX MTG HT.	*SIZE	WT (LBS.)
						1-PH	3-PH								
KB2003-3MP	15231	3	11.0	1-3	208	14.4	8.3	208	3 Watt	300	35°	14ft	8ft	B	32
KB2403-3MP	15072				240/208	12.5/10.8	7.2/6.2	240							32
KB4803-3MP	15102				480	6.2	3.6	24							35
KB2005-3MP	15228	5	17.1	1-3	208	24.0	13.9	208	9 Watt	400	40°	16ft	8ft	B	32
KB2405-3MP	15075				240/208	20.8/18	12/10.4	240							32
KB4805-3MP	15105				480	10.4	6.0	24							35
KB2007-3MP	15233	7.5	25.6	1-3	208	36.1	20.8	208	16 Watt	600	40°	20ft	9ft	B	42
KB2407-3MP	15079				240/208	31.2/27	18/15.6	240							42
KB4807-3MP	15109				480	15.6	9.0	24							45
KB2009-3MP	15135	9	30.7	1-3	208	43.2	24.9	208	25 Watt	725	42°	24ft	9ft	B	42
KB2409-3MP	15081				240/208	37.5/32.5	21.6/18.7	240							42
KB4809-3MP	15111				480	18.7	10.8	24							45
KB2010-3	15230	10	34.1	1-3	208		27.7	208	25 Watt	725	44°	24ft	10ft	B	42
KB2410-3MP	15082				240/208	41.6/36.1	24/20.8	240							42
KB4810-3MP	15113				480	20.8	12.0	24							45
KB2012-3	15235	12.5	42.7	1-3	208		34.6	208	35 Watt	825	48°	30ft	11ft	B	42
KB2412-3	15087				240/208		30/26	240							42
KB4812-3MP	15117				480	26.0	15.0	24							45
KB2015-3	15232	15	51.2	1-3	208		41.6	208	35 Watt	925	51°	33ft	12ft	B	46
KB2415-3	15090				240/208		36/31.2	240							46
KB4815-3MP	15120				480	31.2	18.0	24							49
KB2418-3	15093	18	61.4	1-3	240/208		43.3/37.5	240	35 Watt	925	55°	33ft	12ft	B	46
KB4818-3MP	15123				480		21.6	24							49
						37.5									
KB2020-3	15237	20	68.3	3	208		55.5	208	50 Watt	1100	57°	37ft	13ft	D	46
KB2420-3	15094				240/208		48.1/41.6	240							46
KB4820-3MP	15122				480	41.6	24.0	24							49
KB2025-3	15239	25	85.3	3	208		69.4	208	1/4hp	1350	58°	41ft	14ft	E	48
KB2425-3	15100				240/208		60.1/52.1	240	48						
KB4825-3	15130				480		30.1	24	51						
KB2030-3	15223	30	102.4	3	208		83.3	208	1/4hp	1800	53°	48ft	15ft	E	49
KB2430-3	15101				240/208		72.1/62.5	240							49
KB4830-3	15162				480		36.1	24							52
KB2433-3	15138	33	113	3	240/208		79.3/68.8	240	1/4hp	1800	53°	48ft	15ft	E	49
KB4833-3	15165				480		39.7	24							52
KB2040-3	15225	40	136.5	3	208		111.0	208	(2) 50 Watt	2200	57°	53ft	15ft	F	100
KB2440-3	15103				240/208		96.2/83.3	240							100
KB4840-3	15169				480		48.1	24							110
KB2050-3	15241	50	170.6	3	208		138.8	208	(2) 50 Watt	2400	65°	58ft	15ft	F	103
KB2450-3	15148				240/208		120.2/104.2	240							103
KB4850-3	15175				480		60.1	24							113
KB2460-3	15153	60	204.8	3	240/208		144.3/125	240	(2) 1/4hp	2700	70°	65ft	18ft	G	105
KB4860-3	15180				480		72.2	24							115
KB2466-3	15156	66	225	3	240/208		158.7/137.6	240	(2) 1/4hp	2700	70°	65ft	18ft	G	105
KB4866-3	15183				480		79.5	24							115

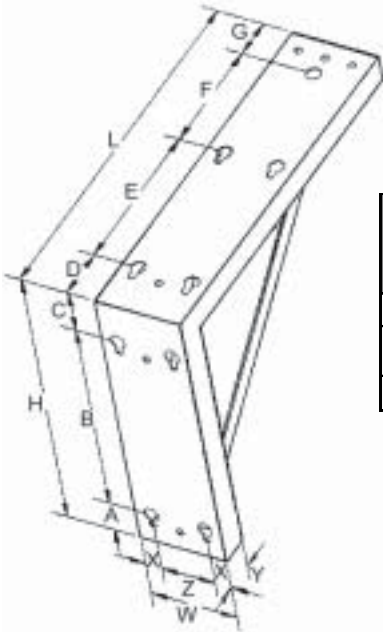
*Refer to DIMENSIONS Chart

Heater will draw 13% less amps 25% less wattage.

**Over 6KW Line Voltage Control is operating the Contactor Coil only, and will draw under 1 AMP.

Note: Consult factory for special wattages and/or voltages.

Rated KW load tolerance of plus 5% minus 10%.



BRACKET NO.	HEATER KW SIZE USED WITH	BRACKET DIMENSIONS												
		L	W	H	A	B	C	D	E	F	G	X	Y	Z
KBB-1	3 to 7.5KW 1-Ph	12-1/2"	3"	10"	1-1/4"	7-1/4"	1-1/2"	1-3/4"	5-1/2"	4"	1-1/4"	1/2"	1"	2"
KBB-2	10 to 15KW 1-Ph, & 3 to 30KW 3-Ph	17"	3"	10"	1-1/4"	7-1/4"	1-1/2"	2"	8-1/2"	5-1/4"	1-1/4"	1/2"	1"	2"
KBB-3	40 to 60KW 3-Ph	19"	6"	12"	3/4"	9-1/4"	2"	18"			1"	3/4"	2"	4-1/2"

KBB-1 & KBB-2 - Unit heat brackets can be used for mounting on ceiling or wall. 3/8" threaded hole on top of unit heater can also be used with threaded rod to drop the unit closer to floor.

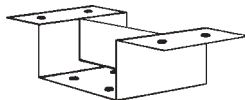


KBT - Capillary bulb style thermostat senses intake air for accurate temperature control. Label is calibrated from 40° to 75°F with a 44°F setting for unoccupied space as some energy codes require.

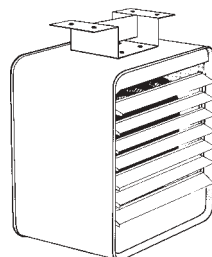
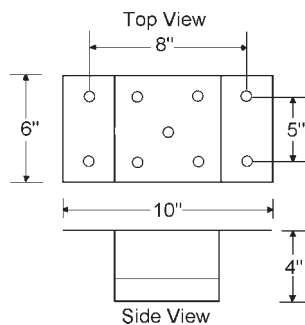
Disconnects can be specified in 30, 40, 80 or 100 amp ratings with door interlock and padlock provision. Standard non-fused interlocking disconnect.



Rough Service/Low Profile · KBB-4 Mounting Bracket

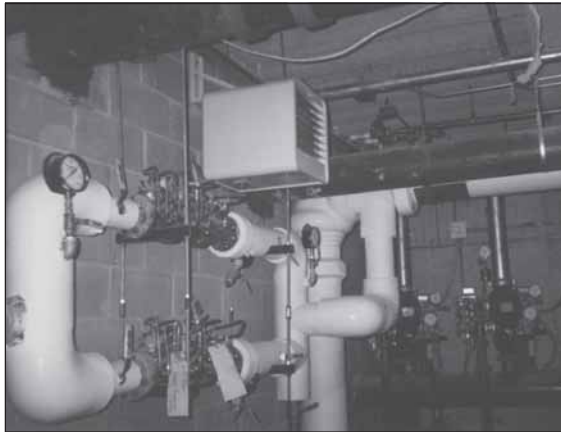


This bracket is manufactured in a Low Profile design with 5 mounting holes. When using this bracket for Low Ceiling Profile installation, use the center hole only. When **rough service support** is necessary, order the Option -5MT (when ordering unit heater). The heater will have four mounting holes fabricated into the top. Attach bracket using the four outside mounting holes to provide a rigid mount. This is ideal for use on Ships, Containers or any application that will cause the heater to experience vibration.



A unit heater being installed in a Chicago high rise electrical room for humidity and freeze protection.

FIELD MOUNT ACCESSORIES:



Water pumping and a water treatment room, protected from freezing and humidity with King KB Unit Heater.

MODEL	DESCRIPTION	UPC #093319 PART NO.	WT.
KBB-1	Universal Wall/Ceiling Small Mounting Bracket for heaters with Size A & C	15192	3
KBB-2	Universal Wall/Ceiling Large Mounting Bracket for heaters with Size B,D & E	15195	4
KBB-3	Universal Wall/Ceiling Double Mounting Bracket for heaters with Size F & G	15350	5
KBB-4	Rough Service or Low Profile Mounting Bracket for any heater. (2 Ea. req. for Size F & G)	15351	4
KBT	Capillary Bulb Style Stat Kit (SPST). 25 AMP	15189	.5
KBT-2	Capillary Bulb Style Stat Kit (DPST). 25 AMP	18209	.5

FACTORY INSTALLED OPTIONS:

ADD SUFFIX:	DESCRIPTION
-T	1-Pole Unit Mounted Thermostat. Temperature range 40°F to 100°F
-T2	2-Pole Unit Mounted Thermostat. Temperature range 40°F to 100°F 6KW and Higher
-B1	Mounting Bracket KBB-1 included with heater size A & C
-B2	Mounting Bracket KBB-2 included with heater size B, D, & E
-B3	Mounting Bracket KBB-3 included with heater size F & G
-SF	Summer Fan Switch
-SFR	Control Relay and 24V Transformer for Remote Summer Fan Operation
-3PS	3-Position Switch (Heat/Fan/Off)
-PL	Pilot Light (Power On Indication)
-CX	Power Contactor for 3KW through 5KW, 1-Phase Models (Line Voltage Coil)
-CT24	Adds Transformer and Converts 208, 240 & 277 Volts to 24V Control Circuit. (Add Power Contactor (-CX) for 3KW through 5KW, 1-Phase Models)
-CT120	Same as CT24 except 120V Control Components. (Add Power Contactor (-CX) for 3KW through 5KW, 1-Phase Models)
-DS30	30 AMP, 3-Pole Disconnect Switch with Door Interlock and Padlock Provision.
-DS40	40 AMP, 3-Pole Disconnect Switch with Door Interlock and Padlock Provision.
-DS80	80 AMP, 3-Pole Disconnect Switch with Door Interlock and Padlock Provision.
-DS100	100 AMP, 3-Pole Disconnect Switch with Door Interlock and Padlock Provision.
-5MT	5 Mounting Weld Nuts are provided on heater for rough service use. Includes KBB-4 5-hole bracket.
-5MT2	Rough Service Mounting Holes (4 Each) fabricated into the top of each heater to accept KBB-4 Mounting Brackets (2 each KBB-4 included)

UNIT HEATER

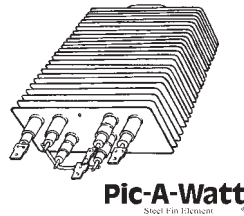
KBP
SERIES

PIC-A-WATT - MULTI-PURPOSE · 950 WATTS TO 6000 WATTS
CEILING UNDER 10 FT



FEATURES:

- Pic-A-Watt® Element
 - Cast Iron Motor
 - Aluminum Fan Blade
 - Built-in Thermostat
 - Quiet Running
- Multiple Wattage Selection
 - Powder Coated Finish
 - Standard Color - Almond
 - Universal Mounting Bracket
 - Fan Delay
 - Selector Switch - Fan / Heat / Off
 - Tested Under UL1278
 - Bimetallic limit turns the element off if an over temperature condition occurs and automatically resets when the normal temperature returns.
 - Optional 30 Amp Plug, Cord, Handle Kit



ENGINEERING SPECIFICATIONS:

Contractor shall supply and install, KBP-Series unit heaters, manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

Pic-A-Watt Heating Element: Exclusive King multi-tap element allows field adjustment to several wattages at time of installation. Steel sheath elements of various resistance are copper brazed to steel plate fins producing a multi-wattage heating element.

Built-in Thermostat: Single pole factory installed hydraulic capillary tube thermostat with precision heating control. Operating range 40° F to 90° F.

Fan / Heat / Off Switch: 3-position switch provides heating and summer fan only operation. The DPST off switch provides a "positive off" that disconnects all ungrounded conductors. Not available in 480V and 3 Phase models.

Fan Delay Switch: The fan continues to operate after the thermostat shuts off in order to remove the residual heat left in the elements.

Universal Mounting Bracket: Combination ceiling/wall/floor bracket is included with every heater.

Unit Bearing Motor: Permanently lubricated cast iron 4 pole motor with 20 cc of oil. Enclosed rotor provides long lasting trouble free operation. Thermally protected, 1300 RPM.

Auto-Reset Thermal Limit Control: Heater shuts off when over temperature conditions exist and automatically resets when the normal operating temperature returns.

Exterior: Textured Acrylic Powder Coating provides an attractive durable finish in almond color.



The KBP is an excellent choice for a garage or shop heater; it easily has the capacity to heat a large space. It has a flow through design which means it pulls the air from the back of the heater and discharges out the front for efficient air movement. This is a rugged heater with quality components that is suitable for commercial applications as well.

It comes standard with a 3-position switch and an accurate built-in thermostat that has degrees on the label for precise temperature control. Also comes with fan delay to help dissipate the heat from

the elements. This heater can be used as a portable by purchasing the -K1 (120 Volt) or -K2 (240 Volt) accessory kit.



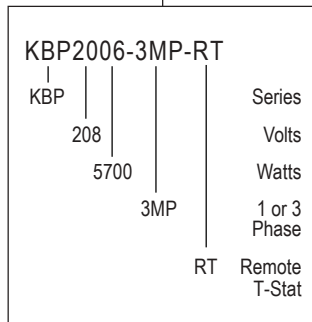
SELECTION:

380V 3Ø Heaters are available in most KW ratings.

MODEL	UPC #093319 PART NO.	VOLTS	PHASE	WATTAGE RANGE	PHASE AMPS 1Ø / 3Ø	MOTOR SIZE	CFM	TEMP RISE °F	AIR THROW	WT. (lbs)
KBP1230	15191	120	1	2850 • 1900 • 950	24	5 W	270	35°	16ft	24
KBP2406	15190	240*	1	5700 • 4750 • 3800 2850 • 1900 • 950	24	5 W	270	70°	16ft	24
KBP2006-3MP	15193	208	1-3	5700 • 2850	27 / 16	5 W	270	70°	16ft	25
KBP2406-3MP	15195	240*	1-3	5700 • 2850	24 / 14	5 W	270	70°	16ft	25
KBP2704	15192	277	1	4000 • 3000 2000 • 1000	15	5 W	270	47°	16ft	24
KBP4804-3MP	15196	480	1-3	4160	9 / 5	5 W	270	49°	16ft	26
KBP4806-3MP	15197	480	1-3	6000	13 / 8	5 W	270	71°	16ft	

*Approved for 208V operation. Heater will draw 13% less amps and 25% less wattage.

MODEL CODE:



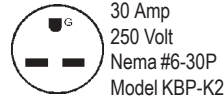
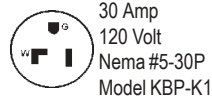
Standard Color: Textured Almond

ACCESSORIES:

MODEL	DESCRIPTION	UPC #093319 PART NO.	WEIGHT
KBP-K1	120V, 1 Phase, 30 Amp, 6FT Cord/Handle Kit	15198	2.0
KBP-K2	240V, 1 Phase, 30 Amp, 6FT Cord/Handle Kit	15199	2.0
KBP-RT	Provision for Remote STAT (Line Voltage)	N/A	N/A
*KBP-RTL1	Provision for Remote STAT, 1 Phase (24 Volt)	N/A	N/A
*KBP-RTL3	Provision for Remote STAT, 3 Phase (24 Volt)	N/A	N/A

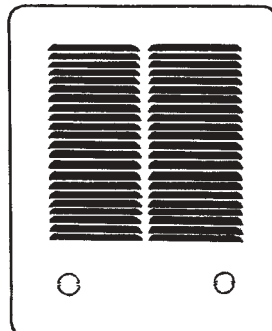
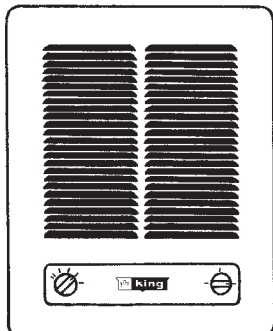
*Factory Installed Only

Receptacle Configurations Needed for Cord Set

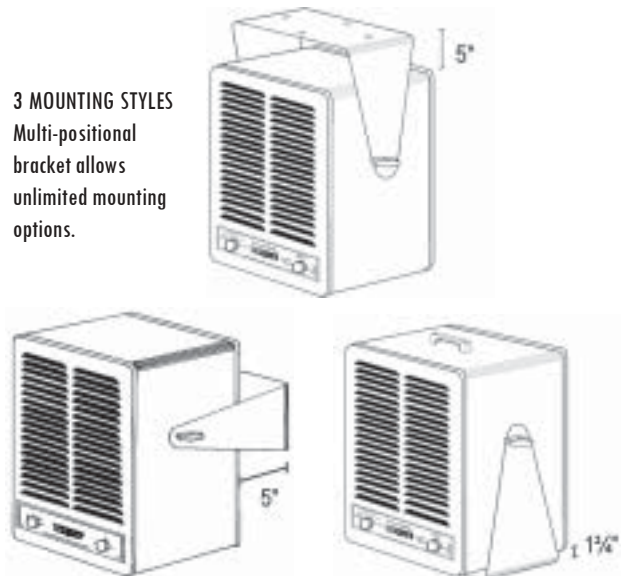


DIMENSIONS

13½" H x 10" W x 11½" D



3 MOUNTING STYLES
Multi-positional bracket allows unlimited mounting options.



STAINLESS STEEL

KBS
SERIES

3000 WATTS TO 20,000 WATTS
CEILINGS UNDER 12 FT



FEATURES:

- 16 GA. Stainless Steel
- Spiral Steel Fin Element
- Cast Iron Motor
- Aluminum Fan Blade
- Adjustable Discharge Louvers
- Monel Element
- Totally Enclosed Motor
- Nema 4 Enclosure
- Control Options
- Auto-Reset Thermal Cutout
- Optional Heavy Gauge Case
- Optional Stainless Steel Bird Screen
- Optional 3-Position Switch (Heat-Off-Fan)
- Optional Two Stage Thermostat
- Optional Pilot Light (Power On Indication)
- Optional Door Interlocking Disconnect



^
Shown with 5 Hole Mount

KBS unit heaters are constructed for specialty heating and freeze protection in areas requiring periodic washing or hose-down cleaning of equipment due to dirty, dusty and corrosive environments. The heater is constructed from 16 GA. type 304 stainless steel throughout and Monel #400 elements making it extremely corrosion resistant. The Nema 4 wiring compartment is sealed and gasketed making it water tight. All

the optional control components are UL listed for use in Nema 4 enclosures. This heater is intended for the following applications:

- Waste Water Treatment Plants
- Car and Truck Washes
- Cement Plants, Steel Mills, and other Heavy Industries
- Canneries and Dairy Facilities
- Ship and Marine Docks
- Fish Processors
- Load Bank for Generators

ENGINEERING SPECIFICATIONS:

Contractor shall supply and install, KBS-Series stainless steel heaters, manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

Stainless Steel Construction: All exterior and interior metal enclosure parts are made from 16 GA. type 304 stainless steel. All fasteners and hardware are stainless steel.

Adjustable Outlet Louver: Stainless steel louvers direct air up or down as needed for the heating application.

Rear Intake Screen: Heavy gauge stainless steel screen protects against foreign objects making accidental contact with the rotating fan blade.

Nema 4 Enclosure: Every electrical component in the wiring compartment is sealed with a polyurethane adhesive. The bottom access panel is sealed with a 1/4" Poron high density polyurethane gasket. This provides excellent protection against corrosion, wind-blown dust, dirt, and rain, splashing water and hose-directed water. All optional control accessories are nema 4X rated.

Monel Spiral Fin Elements: The metal sheath element is brazed with spiral fins and then molded into a coil configuration. This combination produces the best heat transfer while eliminating the potential for hot spots by positioning the element in the maxi-

mum airflow stream. Monel alloy #400 composed of 66.5% Ni and 31.5% Cu increases element life in extremely corrosive environments such as Waste Water Treatment Plants.

Totally Enclosed Fan Motor: Permanently lubricated cast iron epoxy coated motor with enclosed rotor resists moisture and corrosion for long lasting trouble free operation.

Aluminum Fan Blade: Axial flow type mounted directly to the motor shaft for maximum efficiency.

Auto-Reset Thermal Cutout: Power is disconnected from the heater if an over heated condition occurs. The heater is reenergized automatically when the normal operating temperature returns.

Controls: Magnetic contactors are standard on all 480V heaters, all 208V-1Ø, 240V-1Ø, 277V-1Ø heaters 6 KW and above, and all 3Ø heaters. The control voltage is equal to the line voltage (208, 240 or 277) except for 480V models where a transformer is provided for 24V Control. Subcircuit fusing is provided when heater ampacity exceeds 48 amps to comply with NEC standards. A fan delay is provided standard on models 12.5-KW and above to dissipate residual heat from the heating elements.

Optional Coated Fan Blade: Extra corrosion protection.

Factory Installed Options

Heavy Gauge Case: 16 GA. stainless steel can be provided for extra enclosure strength in severe duty applications.

Stainless Steel Bird Screen: Applied to discharge outlet for additional protection from foreign objects.

Fan Delay: (when not standard)

Power Contactor: (when not standard)

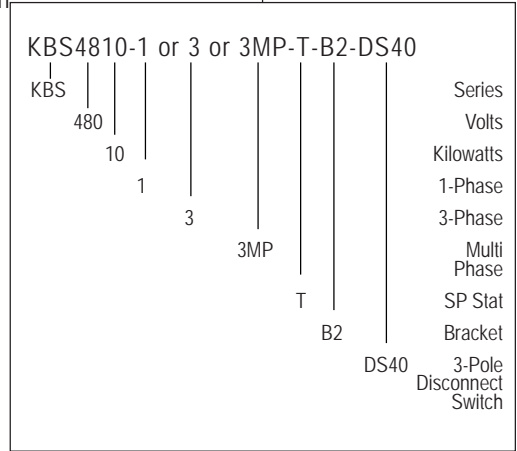
24 Volt Control: (when not standard)

120 Volt Control: Control components modified to accept 120V control.

Mounting: Choose universal or low profile ceiling bracket made from Stainless Steel.

Rough Service: 5 weld nuts are provided to securely mount heater in heavy industrial applications or marine vessels where vibration and movement is a concern.

MODEL CODE:



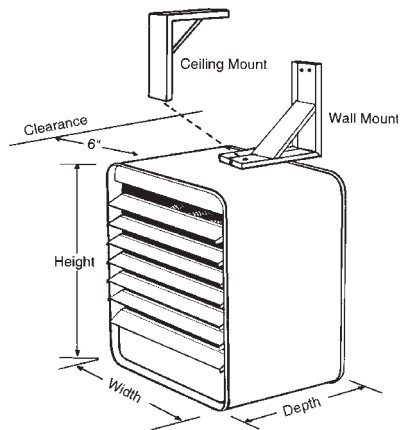
Nema 4 Control Options:

- SPST or DPDT Thermostat
- Two Stage Thermostat
- Summer Fan Switch
- 3-Position Switch (Heat-Off-Fan)
- Pilot Light (power on indicating)
- Door Interlocking Disconnect

QUICK SELECTION CHART:

KILO-WATTS	PHASE	208V			240V			277V			480V		
		MODEL	UPC #093319 PART NO.	WEIGHT (lbs)	MODEL	UPC #093319 PART NO.	WEIGHT (lbs)	MODEL	UPC #093319 PART NO.	WEIGHT (lbs)	MODEL	UPC #093319 PART NO.	WEIGHT (lbs)
3	1	KBS2003-1	19700	25	KBS2403-1	19713	25	KBS2703-1	19706	25	KBS4803-1	19709	28
	3	KBS2003-3MP	19703	25	KBS2403-3MP	19714	25				KBS4803-3MP	19710	28
5	1	KBS2005-1	19712	25	KBS2405-1	19715	25	KBS2705-1	19718	25	KBS4805-1	19721	28
	3	KBS2005-3MP	19748	32	KBS2405-3MP	19751	32				KBS4805-3MP	19754	35
7.5	1	KBS2007-1	19724	29	KBS2407-1	19727	29	KBS2707-1	19730	29	KBS4807-1	19733	32
	3	KBS2007-3MP	19757	42	KBS2407-3MP	19760	42				KBS4807-3MP	19763	45
10	1	KBS2010-1	19736	32	KBS2410-1	19739	32	KBS2710-1	19742	32	KBS4810-1	19745	35
	3	KBS2010-3MP	19766	42	KBS2410-3MP	19769	42				KBS4810-3MP	19772	45
KBS2012-3MP		19775	42	KBS2412-3MP	19778	42				KBS4812-3MP	19781	45	
KBS2015-3MP		19784	46	KBS2415-3MP	19787	46				KBS4815-3MP	19790	49	
20		KBS2020-3	19793	46	KBS2420-3	19796	46				KBS4820-3MP	19799	49

HEATER SIZE	DIMENSIONS		
	HEIGHT	DEPTH	WIDTH
A	16.5"	11"	15"
B	16.5"	18"	15"
C	18.5"	11"	15"
D	18.5"	18"	15"
E	20.5"	18"	15"



ACCESSORIES:

MODEL	DESCRIPTION	UPC #093319 PART NO.	WEIGHT
KBB-1-SS	Mounting Bracket - Small	15254	3
KBB-2-SS	Mounting Bracket - Large	15256	4
KBB-4-SS	Mounting Bracket - Low Profile 5 Hole	15257	4
TF115	SP Wall Mount Stat Nema 4X	19150	1

TECHNICAL DATA CHART:

 380V 3Ø Heaters are available
in most KW ratings.

CATALOG NO.	KW	BTUH (000)	Ø	VOLTS	AMPS		CONTROL VOLTAGE	MOTOR HP	CFM	TEMP RISE	AIR THROW	*SIZE	WT (LBS.)
					1-PH	3-PH							
KBS2003-1	3	11	1	208	14.4		208	3 Watt	300	35°	14ft	A	25
KBS2403-1				240/208	12.5/10.8		240						25
KBS2703-1				277	10.8		277						25
KBS4803-1				480	6.2		24						28
KBS2005-1	5	17.1	1	208	24.0		208	9 Watt	400	40°	16ft	A	25
KBS2405-1				240/208	20.8/18		240						25
KBS2705-1				277	18.1		277						25
KBS4805-1				480	10.4		24						28
KBS2007-1	7.5	25.6	1	208	36.1		208	16 Watt	600	40°	20ft	B	29
KBS2407-1				240/208	31.2/27		240					29	
KBS2707-1				277	27.0		277					29	
KBS4807-1				480	15.6		24					32	
KBS2010-1	10	34.1	1	208	48.1		208	25 Watt	725	44°	24ft	B	32
KBS2410-1				240/208	41.6/36.1		240						32
KBS2710-1				277	36.1		277						32
KBS4810-1				480	20.8		24						35
KBS2005-3MP	5	17.1	1-3	208	24.0	13.9	208	9 Watt	400	40°	16ft	B	32
KBS2405-3MP				240/208	20.8/18	12/10.4	240						32
KBS4805-3MP				480	10.4	6.0	24						35
KBS2007-3MP	7.5	25.6	1-3	208	36.1	20.8	208	16 Watt	600	40°	20ft	B	42
KBS2407-3MP				240/208	31.2/27	18/15.6	240						42
KBS4807-3MP				480	15.6	9.0	24						45
KBS2010-3	10	34.1	1-3	208		27.8	208	25 Watt	725	44°	24ft	B	42
KBS2410-3MP				240/208	41.6/36.1	24/20.8	240						42
KBS4810-3MP				480	20.8	12.0	24						45
KBS2012-3	12.5	42.7	1-3	208		34.6	208	35 Watt	825	48°	30ft	B	42
KBS2412-3				240/208		30/26	240						42
KBS4812-3MP				480	26.0	15.0	24						45
KBS2015-3	15	51.2	1-3	208		41.6	208	35 Watt	925	51°	33ft	B	46
KBS2415-3				240/208		36/31.2	240						46
KBS4815-3MP				480	31.2	18.0	24						49
KBS2420-3	20	68.3	3	240/208		48.1/41.6	240	50 Watt	1100	57°	37ft	B	46
KBS4820-3MP				480	41.6	24.1	24						49

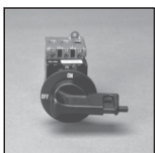
*Refer to DIMENSIONS Chart on previous page.
Heater will draw 13% less amps 25% less wattage.
Note: Consult factory for special wattages and/or voltages.
Rated KW load tolerance of plus 5% minus 10%.

OPTIONS:

ADD SUFFIX:	DESCRIPTION
-T	1-Pole Unit Mounted Thermostat
-B1	Adds Bracket to Box - For Heater W/ KBB-1-SS
-B2	Adds Bracket to Box - For Heater W/ KBB-2-SS
-SF	Summer Fan Switch - For Fan Only Operation
-SFR	Control Relay and 24V Transformer for Remote Summer Fan Operation
-3PS	3-Position Switch (Heat/Fan/Off)
-PL	Pilot Light (Power On Indication)
-CX	Power Contactor for KB2 through KB5, 1-Phase Models (Line Voltage Coil)
-CT24	Converts 208, 240 & 277 Volts to 24V Control. (Add Power Contactor for KB2 through KB5, 1-Phase Models)
-CT120	120V Control Circuit Components. (Add Power Contactor for KB2 through KB5, 1-Phase Models)
-DS40	40 AMP, 3-Pole Disconnect Switch with Door Interlock and Padlock Provision.
-DS60	60 AMP, 3-Pole Disconnect Switch with Door Interlock and Padlock Provision.
-DS80	80 AMP, 3-Pole Disconnect Switch with Door Interlock and Padlock Provision.
-5MT	For Five Hole Mounting for Rough Service



Corrosion resistance for high moisture or chemical treatment areas.

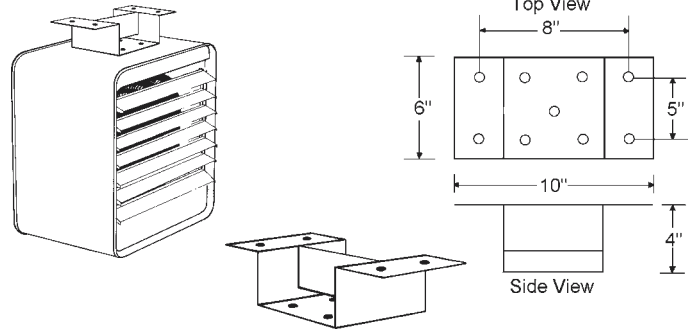


Disconnects can be specified in 40, 60 or 80 amp ratings with door interlock and padlock provision.

Rough Service/Low Profile · KBB-4 Mounting Bracket

This bracket is manufactured in a Low Profile design with 5 mounting holes. When using this bracket for Low Ceiling Profile installation, use the center hole only. When **rough service support** is necessary, order the Option -5MT (when ordering your unit heater). The heater will have four mount-

ing holes fabricated into the top. Attach bracket using the four outside mounting holes to provide a rigid mount. The price of option -5MT includes the KBB-4 bracket. This is ideal for use on Ships, Containers or any application that will cause the heater to experience vibration.



RAINTIGHT, WEATHER RESISTANT, N.E.M.A. 4X THERMOSTAT

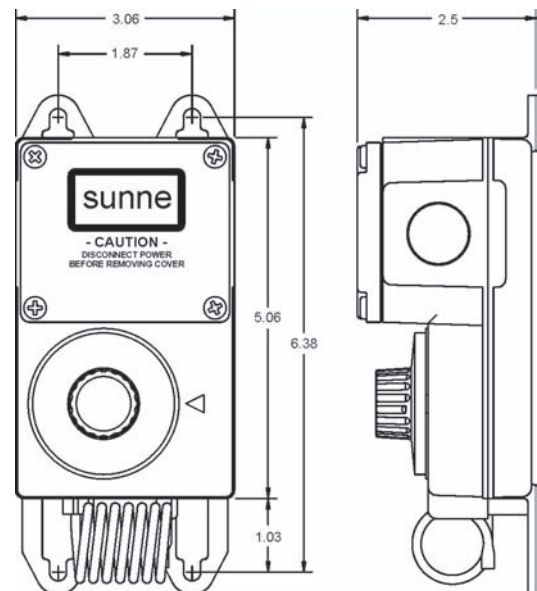
FEATURES:

- N.E.M.A. 4X Enclosure complies with N.E.C. Article 547 when used with appropriate watertight connections.
- Rugged weather resistant enclosure made of corrosion resistant materials for long life.
- Low mass, high surface area of stainless steel coiled sensor provides rapid response to temperature change.
- Large, readily visible dial with 40°-100°F temperature range.
- Multi-positional mounting offers flexibility in either new or existing installations.
- One control for both heating and cooling applications.
- Underwriters Laboratories (U.L.) listed and CSA Certified.



The TF115 N.E.M.A. 4X Thermostat is designed specifically for use in National Electrical Code (N.E.C.) Article 547 applications requiring a rugged, weather resistant, durable control for both heating and cooling (ventilation) in agricultural, industrial and commercial environments. The TF115 is suitable for use in poultry houses, hog houses, livestock barns, brooder houses, and greenhouses as well as factories, warehouses, garages, and gymnasiums.

DIMENSIONS



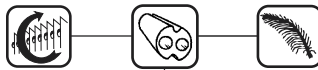
SELECTION:

RATING	120 VAC	240 VAC	277 VAC	480 VAC
FULL LOAD	16.0 AMP	12.0 AMP	10.0 AMP	
LOCKED ROTOR	80.0 AMP	60.0 AMP	50.0 AMP	
NON-INDUCTIVE	25.0 AMP	25.0 AMP	22.0 AMP	5.0 AMP
PILOT DUTY	125 VA	125 VA	125 VA	125 VA

CABINET HEATER

KCC
SERIES

CONVECTION - 2000 WATTS TO 5000 WATTS



FEATURES:

- Convection Heat
- Ceramic Element
- Quiet Running
- 18 Gauge Cabinet
- Aluminum Fin Element
- 1 or 3 Phase
- Powder Coated
- Standard Color - Almond
- Capillary tube limit turns the element off when an over temperature condition occurs and automatically resets when the normal temperature returns.
- Optional 1-Pole or 2-Pole unit mount thermostat 45°-90°
- Optional Tamper Proof Thermostat
- Optional Floor Base
- Optional Terminal Block
- Optional Contactor
- Optional Heat/Fan/Off Switch
- Optional Power Disconnect

ENGINEERING SPECIFICATIONS:

Contractor shall supply and install, KCC-Series cabinet heaters, manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

Construction: Heaters shall be constructed in 18 gauge galvanized steel with epoxy powder coated manufactures standard finish. A louvered front cover with intake and outlet grill will protect element area and provide ample air flow to disappait heated air.

Element: The element will be constructed with aluminum fins and a 7/8 OD center tube. A fired refractory ceramic core with two large diameter nickel chromium coils attached with high temperature nickel connectors and stranded nickel wire and terminated in a junction box.

Controls: A built-in thermal cut out shall automatically shut off the heater in case of over heating. A built-in thermostat for temperature control will have a range from 40°-95°F and be of the high accuracy capillary tube type. Disconnect switches in junction box will be provided if necessary.

The KING versatile cabinet heater has virtually unlimited applications. They make it easy to provide commercial, industrial and institutional buildings with all the advantages of clean electric heat.

They are ideal for use in schools, offices, air terminals, auditoriums, apartments, restaurants, churches, factories, theaters, and other locations where pleasing appearance is an important consideration.

It is available for recessed or surface mounting on the wall and has an optional subbase for floor surface installation.

The compact cabinet, long operating life of the efficient heating elements and the whisper-quiet operation make this unit the ideal choice for your application.

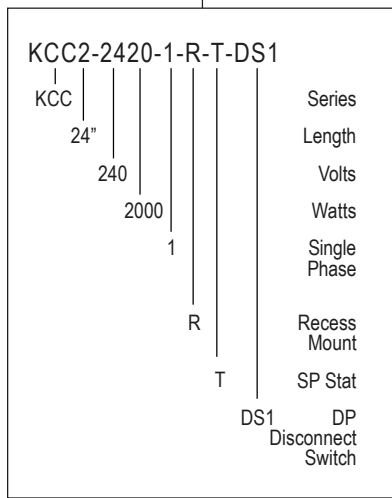
An optional built-in thermostat to permit easy and inexpensive installation of the heater package is also available.

This thermostat can be made tamper proof behind the grill for installations in lobbies, halls, entrance foyers, and in similar applications to avoid temperatures being changed where a high volume of people will be present and have view of the heater.

CONTROL OPTIONS:

Optional manual disconnect switch DPST rated 20 amps, 277 Volts, AC; factory installed on 4" x 4" junction box shall provide tamper-resistant means of disconnecting individual heater power circuit for service of temporary shutdown. Optional comfort control SPST thermostat with adjustment range between 55 to 85°F factory installed in cabinet. Tamper Proof adjustment shall be by inserting narrow-blade screwdriver through access hole by removing plug on front cover. The thermostat shall provide a tamper resistant temperature control of cabinet with sufficient accuracy for corridor, stairwell, rest room or smaller entry way applications. Enclosure shall be chemically treated to resist corrosion and finished in neutral powder coat finish. Finish shall be mar and temperature resistant to retain appearance throughout years of usage.

MODEL CODE:



Standard Color: Almond



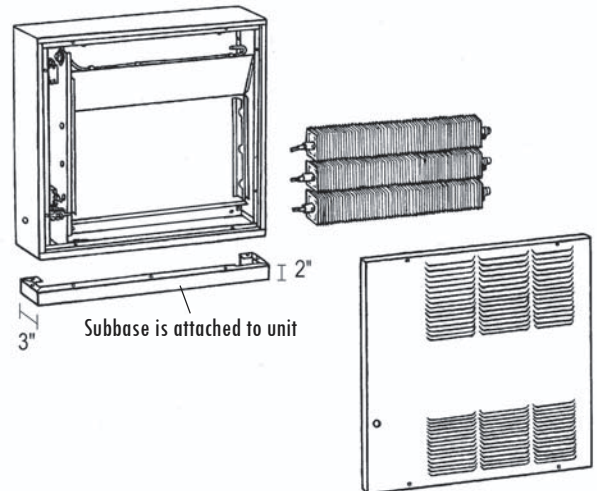
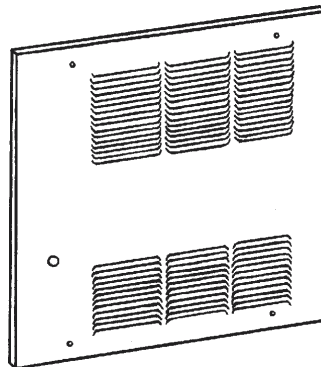
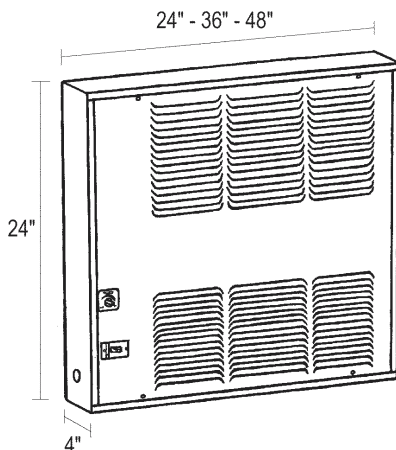
KCC SELECTION/DATA:

WATTAGE	240V		PHASE	BTUH (000)	RECESS OR SURFACE MOUNT	*AMPS		CABINET SIZE	WEIGHT (lbs)
	MODEL					1-PHASE	3-PHASE		
	2000	KCC2-2420-1				1	6.8		
KCC2-2420-3		3		4.8					
3000	KCC3-2430-1	1	10.2	R - Recess Mount	12.5		36"	40	
	KCC3-2430-3	3				7.2			
4000	KCC4-2440-1	1	13.6	OR	16.7		48"	50	
	KCC4-2440-3	3				9.6			
5000	KCC4-2450-1	1	17	S- Surface Mount	20.8		48"	50	
	KCC4-2450-3	3				12			

KCC SELECTION (MADE TO ORDER):

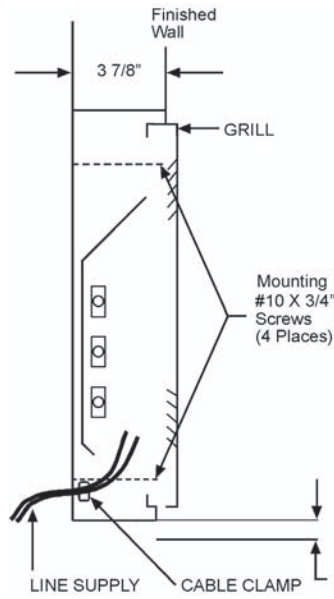
WATTAGE	VOLT	MODEL	PHASE	BTUH (000)	RECESS OR SURFACE MOUNT	*AMPS		CABINET SIZE	WEIGHT (lbs)
						1-PHASE	3-PHASE		
2000	208	KCC2-2020-	Add Suffix:	6.8	Add Suffix:	9.6	5.6	24"	30
	240	KCC2-2420-				8.3	4.8		
	277	KCC2-2720-				7.2			
	480	KCC2-4820-				4.2	2.4		
3000	208	KCC3-2030-	1 - for Single Phase	10.2	R - Recess Mount	14.4	8.3	36"	40
	240	KCC3-2430-				12.5	7.2		
	277	KCC3-2730-				10.3			
	480	KCC3-4830-				6.5	3.6		
4000	208	KCC4-2040-	OR	13.6	OR	19.2	11.1	48"	50
	240	KCC4-2440-				16.7	9.6		
	277	KCC4-2740-				14.4			
	480	KCC4-4840-				8.3	4.8		
5000	208	KCC4-2050-	3 - for Three Phase	17	S- Surface Mount	24.0	13.9	48"	50
	240	KCC4-2450-				20.8	12.0		
	277	KCC4-2750-				18.0			
	480	KCC4-4850-				10.4	6.0		

DIMENSIONS

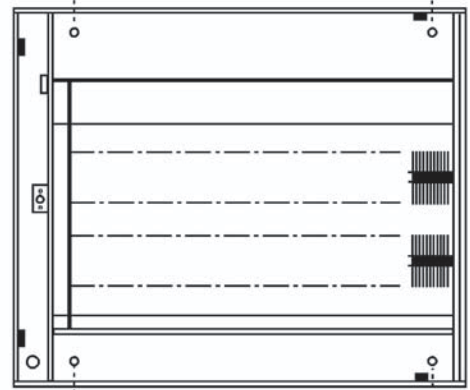


CONTROL OPTIONS:

ADD SUFFIX	DESCRIPTION
-RT	Line Volt Term Block
-CX	Power Contactor
-RT24	Contactor & Transformer (24V)
-3PS	3 Position Switch
-DS1	DP Disconnect Switch, 1-Phase
-DS3	3P Disconnect Switch, 3-Phase
-SB-24	Subbase - 24"
-SB-36	Subbase - 36"
-SB-48	Subbase - 48"
-T	SP STAT
-T2	DP STAT

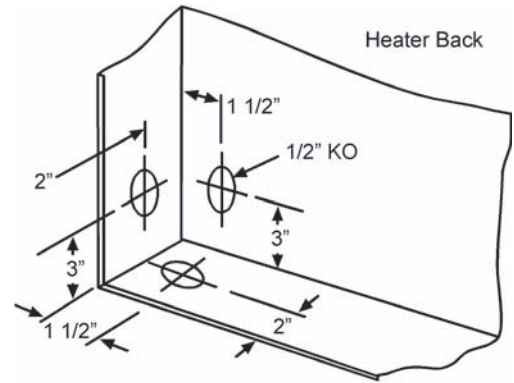
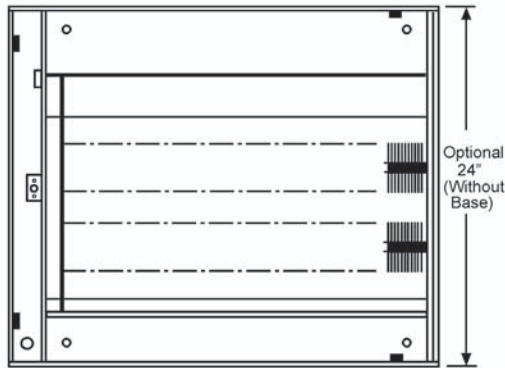
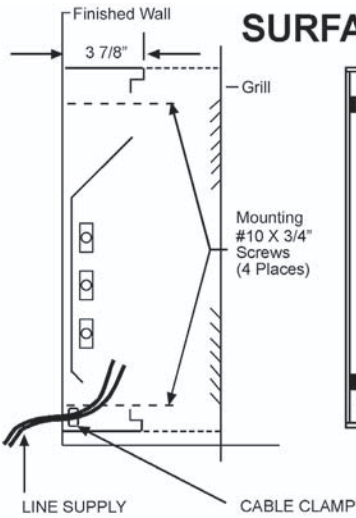


RECESS MOUNTING



1" Minimum Height from finished floor to allow cover clearance on recessed model.

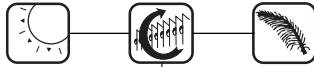
SURFACE MOUNTING



COVE HEATER

KCV
SERIES

CONVECTION - RADIANT



FEATURES:

- Radiant Heat
- Convection Heat
- Quiet Running
- Standard Color - Almond
- Thick Extruded Aluminum Front Panel with a Powder Coated High Temperature Textured Finish
- Ribbed Front for Maximum Surface Radiation
- Junction Box at Each End
- All Knockouts are 7/8" in diameter for 1/2" conduit
- Open Back Design for Maximum Convection Air Flow
- No Moving Parts to Wear Out
- Long Life Elements
- Easy Surface Mount Installation
- Optional 1-Pole or 2-Pole Thermostat mounts in Junction Box

The cove heater is primarily a radiant heater but also produces convection heat by heating the air similar to a baseboard. By combining the quick comfort of radiant heat along with the sustained warmth of convection heat, warm air is uniformly dispersed throughout the room.

The cove heater is mounted a minimum of 4 inches from the ceiling, keeping it out of the way and eliminating any furniture placement problems. It is much lower in surface temperature than a baseboard or fan heater, making it a very pleasant form of heat similar to older ceiling cable heating systems. With no moving parts,

this heater is quiet and maintenance free.

Typical uses are day care centers, housing developments, laundry rooms, bathrooms, bedrooms, living rooms, shops or anyplace a heater is needed and placement too low on the wall is inappropriate or soft heat is the preferred choice.



ENGINEERING SPECIFICATIONS:

Contractor shall supply and install, KCV-series electric cove heaters, manufactured by King Electrical Mfg. Company, of the wattage and voltage as indicated on the plans. The heater shall be designed to provide radiant and convection heat to the space to be heated.

Construction:

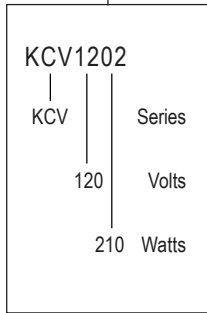
- The heaters shall be constructed of extruded aluminum, with a maximum cross section thickness of .962".
- The heater surface shall have a saw-tooth profile to increase radiating surface area.
- The heater shall be open on top and bottom for maximum convection heating of room air.
- The heater shall have a 32 cubic inch junction box at both ends, furnish with 7/8" knockouts on back and top to facilitate 1/2" conduit.
- The heater shall be powder coated with high temperature resistant paint.

- Heater elements shall be of nichrome wire, embedded in magnesium oxide powder, enclosed and sealed in aluminum metal tubing.
- Heater elements shall have wattage density of approximately 150 watts per lineal foot.
- Heaters shall have full length wall can, constructed of 22 gauge electro-galvanized steel, with baked enamel finish.
- Heaters shall be supplied with a one year limited warranty.

Rating and Approval:

- The heaters shall be available in ratings from 250 through 1500 watts at 120 and 208/240 volts.
- Heaters shall be listed and approved by Underwriters' Laboratories.

MODEL CODE:



Standard Color: Almond

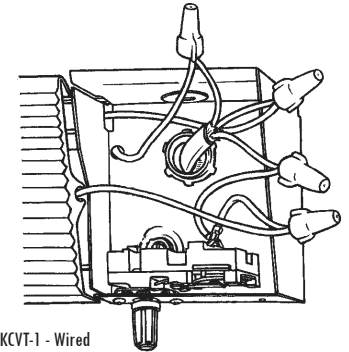
SELECTION:

WATTAGE	120V		240V		LENGTH	WEIGHT (lbs)
	MODEL	UPC #093319 PART NO.	MODEL	UPC #093319 PART NO.		
210	KCV1202	11801			24"	3
420	KCV1204	11800	KCV2404	11824	34"	5
560	KCV1206	11803	KCV2406	11827	47"	7
700	KCV1207	11806	KCV2407	11830	59"	8
840			KCV2409	11833	71"	9
935	KCV1210	11812	KCV2410	11836	83"	11
1125			KCV2412	11839	94"	13
1400			KCV2415	11842	118"	15

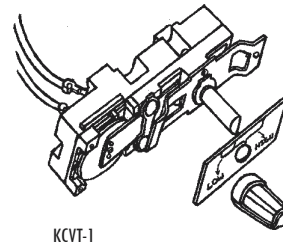
ACCESSORIES:

MODEL	DESCRIPTION	UPC #093319 PART NO.	WEIGHT
KCVT-1	SP STAT KIT	11845	.25
KCVT-2	DP STAT KIT	11848	.25

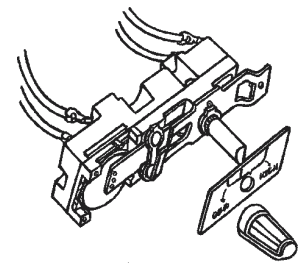
*Remote Wall Mounted Thermostats are recommended for best control



KCVT-1 - Wired

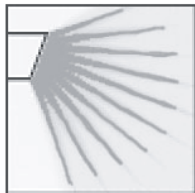


KCVT-1



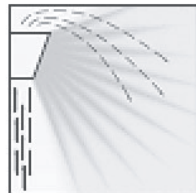
KCVT-2

*Remote Wall Mounted Thermostats are recommended for best control



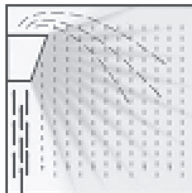
Radiant

A large portion of the heat produced is emitted as radiant infrared invisible rays.



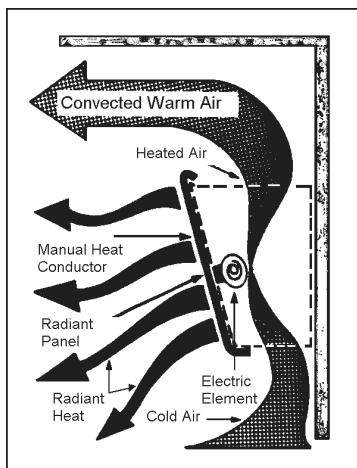
Convection

A portion of the heat produced is transmitted by natural convection from the top of the heater.



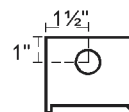
Re-Radiation

The air heated by convection travels horizontally across the ceiling. It also becomes a source of radiant heat and re-radiates heat throughout the entire room.



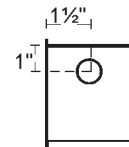
DIMENSIONS

TOP VIEW

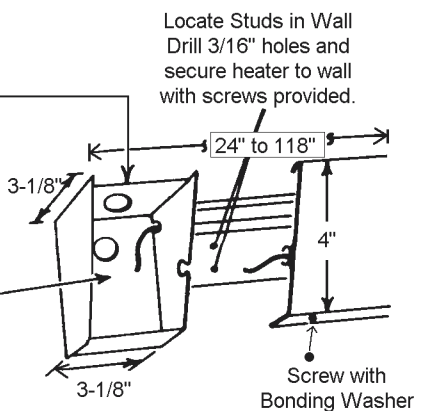


7/8" K.O. for 1/2" Conduit

BACK VIEW



7/8" K.O. for 1/2" Conduit

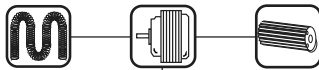


Heaters are not to be mounted closer than 2 1/2" minimum (4" recommended) from ceiling. Heaters to be mounted at least 6' (six feet) from floor. If heaters are installed below vinyl or drop ceilings mount unit an additional 2" from ceiling.

ELECTRIC FURNACE

KFS
SERIES

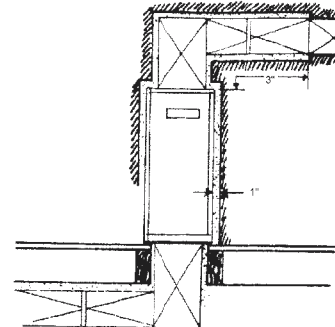
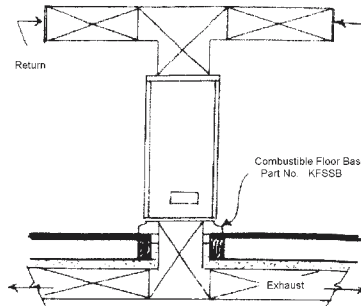
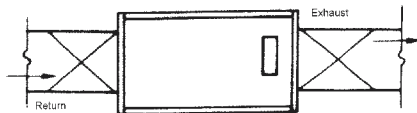
3000 WATTS TO 34,000 WATTS



FEATURES:

- Open Coil Element
- Efficiency Motor
- Dual Inlet Squirrel Cage Blower
- 3-Speed Blower Motor
- 24 Volt Control
- Horizontal or Vertical Mount
- Ni-Chrome Elements
- Fan Relay
- Control Options
- Silent Contactors
- Sequenced Elements
- 60 Amp Disconnect Protection
- Manual Reset Limits on 20 KW and Larger
- Insulated Outlet
- 16" x 20" x 1" Inlet Filter
- Thermally Protected Motor
- Galvanized Steel Construction
- Baked Enamel Finish

The KFS Series furnace is the most compact residential unit in its' class. Quiet operation makes it a great companion. Multi-position mounting allows you to put it almost anywhere it will fit. If its' commercial, residential, or process heating, this air furnace will do the job and give years of excellent maintenance-free service.



ENGINEERING SPECIFICATIONS:

Contractor shall supply and install, KFS-Series electric furnaces, manufactured by King Electrical Mfg. Company. Furnaces shall be of the wattage and voltage as indicated on the plans.

Transformer: Each furnace is equipped with a heavy duty low voltage (24 Volt) transformer for the thermostat control circuit.

Contactor or Time Delay Sequencer: Actuates heating element banks at random intervals to minimize electrical surges in compliance with EEI and NEMA standards.

Heating Elements: Quick heating long life nichrome elements are sized to provide proper watt density for maximum heat dissipation by fan forced air convection currents.

Terminal Block: For Field Wiring (Optional Special Order) KFSTB

Air Filter: Convenient access for replacement of standard 16" x 20" x 1" filter.

Motor: Long life thermally protected, permanently lubricated, direct drive motor - no belts to adjust or slip. This low noise three speed

motor is designed for use with air conditioning capability as well as heating.

Overcurrent Protection: 60 Amp Circuit breakers may be built in to comply with code requirements and offer ultimate safety in overcurrent protection. Front mounted for easy reset. Multiple circuits or single power source options.

Limit Control: Integral automatic high temperature limit control in each heating element bank prevents the delivery of air at unsafe temperatures. 20-35 KW use a manual reset limit control to completely shut the furnace off should an overtemperature occur.

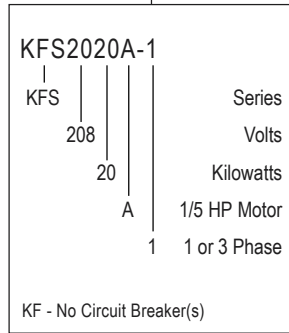
Fan Relay: Heavy duty dual speed fan relay may be ordered with furnaces for air conditioning or summer fan operation.

Mobile Home Bracket: (Optional)

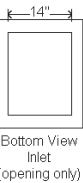
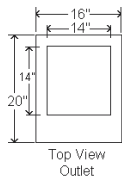
Unique Fan Orifice: Louver directs air over all heating elements and sidewalls evenly insuring longer life performance. No insulation necessary.

Low Voltage Terminal Block: 24 Volt Control.

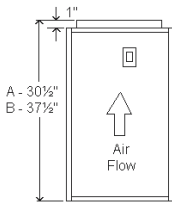
MODEL CODE:



DIMENSIONS



Dimensional Data



The height of the KFS furnace is the only dimension that changes. Please refer to selection chart to determine the size of unit.

DIMENSIONAL CLEARANCE

CABINET SIDES	1 INCH
CABINET FRONT	0 INCH
EXHAUST DUCT WITHIN 3 FEET OF FURNACE	1 INCH
RETURN AIR PLENUM	0 INCH

QUICK SELECTION CHART:

KILO-WATTS	2-STAGE OPTION		PHASE	208V		240V		480V		WT. (lbs.)
	1st.	2nd.		MODEL	UPC #093319 PART NO.	MODEL	UPC #093319 PART NO.	MODEL	UPC #093319 PART NO.	
3			1	KFS2003-1	18000					57
4							KFS2404-1	18003		
5			3	KFS2005-1	18006	KFS2405-1	18009	KF4805-1	18012	?
							KFS2405-3	18070	KF4805-3	
6			1	KFS2006-1	18015					57
8	4	4					KFS2408-1	18090		
9			3	KFS2009-3	18114					74
10	5	5	1	KFS2010-1	18027	KFS2410-1	18030	KF4810-1	18033	65
			3			KFS2410-3	18074	KF4810-3	18076	74
*12			1			KFS2412-1	18036	KF4812-1	18039	65
			3	KFS2012-3	18035	KFS2412-3	18117	KF4812-3	18040	
*15	5	10	1	KFS2015-1	18042	KFS2415-1	18045	KF4815-1	18048	74
			3	KFS2015-3	18120	KFS2415-3	18123	KF4815-3	18127	
18	5.75	11.5	1			KFS2418-1	18051	KF4818-1	18054	74
			3			KFS2418-3	18130	KF4818-3	18133	
20	10	10	1	KFS2020A-1	18057	KFS2420A-1	18060	KF4820A-1	18062	80
			3	KFS2020-1	18066	KFS2420-1	18069	KF4820-1	18081	
22			3			KFS2420-3	18078	KF4820-3	18080	85
				KFS2022-3	18058					
24	12	12				KFS2424-3	18139	KF4824-3	18082	
*25	12	13	1	KFS2025-1	18084	KFS2425-1	18087	KF4825-1	18089	80
			3			KFS2425-3	18086	KF4825-3	18088	
*30	15	15	1	KFS2030-1	18093	KFS2430-1	18096	KF4830-1	18099	85
			3	KFS2030-3	18142	KFS2430-3	18145	KF4830-3	18148	
34.5	17.25	17.25	1			KFS2435-1	18108	KF4835-1	18111	85
			3			KFS2435-3	18102	KF4835-3	18105	

OPTIONS

ADD SUFFIX:	DESCRIPTION
-INS	For Insulated Cabinet
-JB	15KW to 30KW, 1 Phase
-1/3HP	For 1/3 HP Motor & Blower - 3KW to 18KW
-1/2HP	For 1/2 HP Motor & Blower - 3KW to 18KW
-2S1	For Two Stage Control, 1 Phase Models - See Quick Selection Chart
-2S3	For Two Stage Control, 3 Phase Models
*-3S1	For Three Stage Control, 1 Phase Models

AIR DELIVERY CHART:

1E30-910

MOTOR HP	MOTOR SPEED							
	MOTOR LOAD		LOW		MED		HIGH	
	VOLTAGE	AMPS	CFM	FPM	CFM	FPM	CFM	FPM
1/5	230	3.4	775	570	860	630	1000	735
	380/460	1.7						
1/3	230	3.2	1100	810	1250	920	1540	1130
	380/460	1.7						
1/2	230	3.8	1250	920	1540	1130	1750	1285
	380/460	1.9						
MOTOR WIRE COLOR			RED	BLUE	BLACK			
Air Volume= Cubic Feet Per Minute (CFM) Air Velocity=Feet Per Minute (FPM)								

S23-6

ACCESSORIES:

MODEL	DESCRIPTION	UPC #093319 PART NO.
1E30-910	24V Wall Stat, Range 50° to 90°F	19000
S23-6	Subbase for 1E30-910 to Operate Fan	19006
QOU14100BAL	*4 Pole Jumper Bar - 15KW to 20KW	20185
QOU16150BAL	*6 Pole Jumper Bar - 25KW to 30KW	20184
KFS-MB	Mobile Home Mounting Bracket	20183
KFS-SB	Non-Combustable Floor Base	20182
KFS-Q02C	Small Cooling Cabinet 16"L x 22"W x 19 1/2"H - 13 lbs	20181
KFS-Q03C	Large Cooling Cabinet 18"L x 22"W x 19 1/2"H - 15 lbs	20180
KFS-DT	Transition from 14" x 14" Outlet to 12" Round	20187

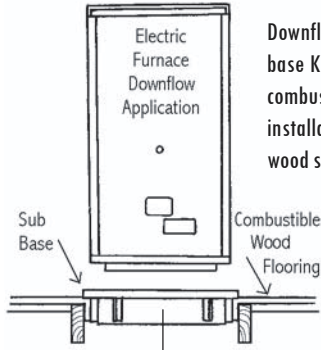
*For Single Strike Connection

TECHNICAL DATA CHART:

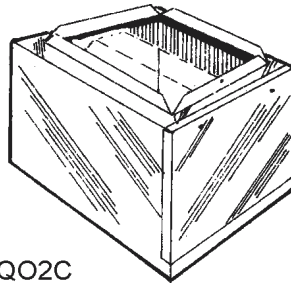
380V 3Ø Heaters are available in most KW ratings.

CATALOG NO.	PHASE	KW	BTU (000)	VOLTS	AMPS*	CIRCUIT PROTECTION								75° WIRE SIZE				NO. OF ELEM.	MOTOR		TEMPERATURE RISE			CABINET SIZE	WT (LBS.)	
						L1	L3	L5	L7	L1	L3	L5	L7	VOLTS	HP	LOW	MED		HIGH							
						L2	L4	L6	L8	L2	L4	L6	L8													
KFS2003-1	1	3	10.2	208	17.8									#10					1	208	1/5	12°	11°	9°	Dim. A	57
KFS2404-1	1	4	13.6	240	20	20								#10					1	240	1/5	16°	15°	13°	Dim. A	57
KFS2005-1	1	5	17.1	208	27.2	40								#8					1	208	1/5	20°	18°	16°	Dim. A	57
KFS2405-1				240	24.2	30					#10															
KF4805-1				480	12.1	15					#14															
KFS2006-1	1	6	20.5	208	32.2	40								#8					2	208	1/5	24°	22°	19°	Dim. A	57
KFS2010-1	1	10	34.1	208	51.4	60								#6					2	208	1/5	41°	37°	32°	Dim. A	65
KFS2410-1				240	45	60					#6															
KF4810-1				480	22.5	30					#10															
KFS2412-1	1	11.5	39.2	240	51.3	70							#8	#10				2	240	1/5	47°	42°	36°	Dim. A	65	
KF4812-1				480	25.7	40					#8															
KFS2015-1	1	15	51.2	208	75.5	40	60							#8	#6				3	208	1/5	61°	55°	47°	Dim. A	74
KFS2415-1				240	65.9	30	60				#10	#6														
KF4815-1				480	32.9	50					#6															
KFS2418-1	1	17.25	58.8	240	75.2	40	60							#8	#6			3	240	1/5	70°	63°	55°	Dim. A	74	
KF4818-1				480	37.6	50					#6															
KFS2020A-1	1	20	68.3	208	99.5	60	60							#6	#6			4	208	1/5	81°	73°	63°	Dim. B	76	
KFS2420A-1				240	86.7	60	60				#6	#6														
KF4820A-1				480	43.4	60					#6															
KFS2020-1	1	20	68.3	208	99.4	60	60							#6	#6			4	208	1/3	57°	51°	41°	Dim. B	76	
KFS2420-1				240	86.5	60	60				#6	#6														
KF4820-1				480	43.4	60					#6															
KFS2422-1	1	22.5	76.8	240	96.9	60	60							#6	#6			4	240	1/3	57°	51°	41°	Dim. B	76	
KF4822-1				480	48.6	60					#6															
KFS2025-1	1	25	85.3	208	123.4	30	60	60						#10	#6	#6		5	208	1/3	72°	63°	51°	Dim. B	81	
KFS2425-1				240	107.4	30	60	60			#10	#6	#6													
KF4825-1				480	53.8	20	60				#12	#6														
KFS2030-1	1	30	102.4	208	147.4	60	60	60						#6	#6	#6		6	208	1/3	86°	76°	62°	Dim. B	85	
KFS2430-1				240	128.2	60	60	60			#6	#6	#6													
KF4830-1				480	65.7	30	60				#10	#6														
KFS2435-1	1	34.5	117.7	240	146.9	15	60	60	60					#14	#6	#6	#6	6	240	1/3	99°	87°	71°	Dim. B	85	
KF4835-1				480	73.6	40	60				#8	#6														

CATALOG NO.	PHASE	KW	BTU (000)	VOLTS	AMPS*	CIRCUIT PROTECTION			75° WIRE SIZE			NO. OF ELEM.	MOTOR		TEMPERATURE RISE			CABINET SIZE	WT (LBS.)	
						L1 / L2 / L3	L1 / L2 / L3	L1 / L2 / L3	VOLTS	HP	LOW		MED	HIGH						
						L1 / L2 / L3	L1 / L2 / L3	L1 / L2 / L3												
KFS2405-3	3	5	17.1	240	15.4			20				3	240	1/5	30°	25°	20°	Dim. A	74	
KF4805-3				480	7.7			10			#10		480							
KF2009-3	3	9	30.7	208	28.3			40			#8	3	208	1/5	37°	33°	28°	Dim. A	74	
KFS2009-3																				
KFS2410-3	3	10	34.1	240	27.4			40			#8	3	240	1/5	41°	37°	32°	Dim. A	74	
KF4810-3				480	13.7								480							
KF2012-3	3	11.25	38.4	208	34.6			40			#8	3	208	1/5	46°	41°	35°	Dim. A	74	
KFS2012-3																				
KFS2412-3	3	12	40.9	240	32.3			40			#8	3	240	1/5	49°	44°	38°	Dim. A	74	
KF4812-3				480	16.1								480							
KFS2015-3	3	15	51.2	208	43.5			60			#6	3	208	1/5	61°	55°	47°	Dim. A	74	
KFS2415-3				240	45	50			#6											
KF4815-3				480	21.4	30			#10											
KFS2418-3	3	17.25	58.8	240	44.8			60			#6	3	240	1/5	70°	63°	55°	Dim. A	74	
KF4818-3				480	22.4	40			#8											
KFS2420-3	3	20	68.3	240	51.3			70			#6	4	240	1/3	57°	51°	41°	Dim. B	74	
KF4820-3				480	25.7	30			#12											
KFS2022-3	3	22.5	76.8	208	65.6			100			#3	6	208	1/3	64°	56°	46°	Dim. B	85	
KFS2424-3	3	24	81.6	240	60.9			75			#4	6	240	1/3	69°	61°	49°	Dim. B	85	
KF4824-3				480	30.5	50			#6											
KFS2030-3	3	30	102.4	208	86.5			110			#2	6	208	1/3	86°	76°	62°	Dim. B	85	
KFS2430-3				240	75.3	100			#3											
KF4830-3				480	37.3	50			#6											
KFS2434-3	3	34.5	117.7	240	86.2			110			#2	6	240	1/3	99°	87°	71°	Dim. B	85	
KF4834-3				480	43	60			#6											

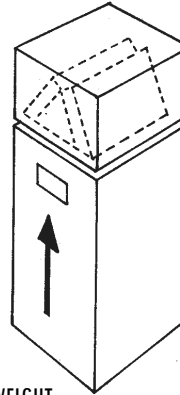


Downflow requires sub base KFSSB in combustible flooring installations like wood subfloor.

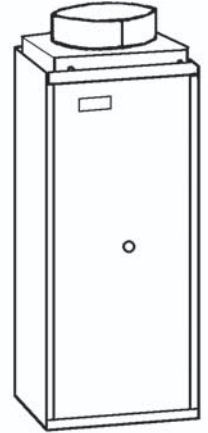
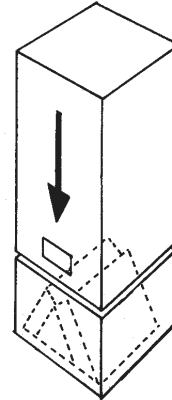


QO2C

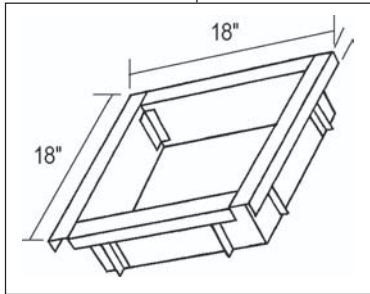
UPFLOW



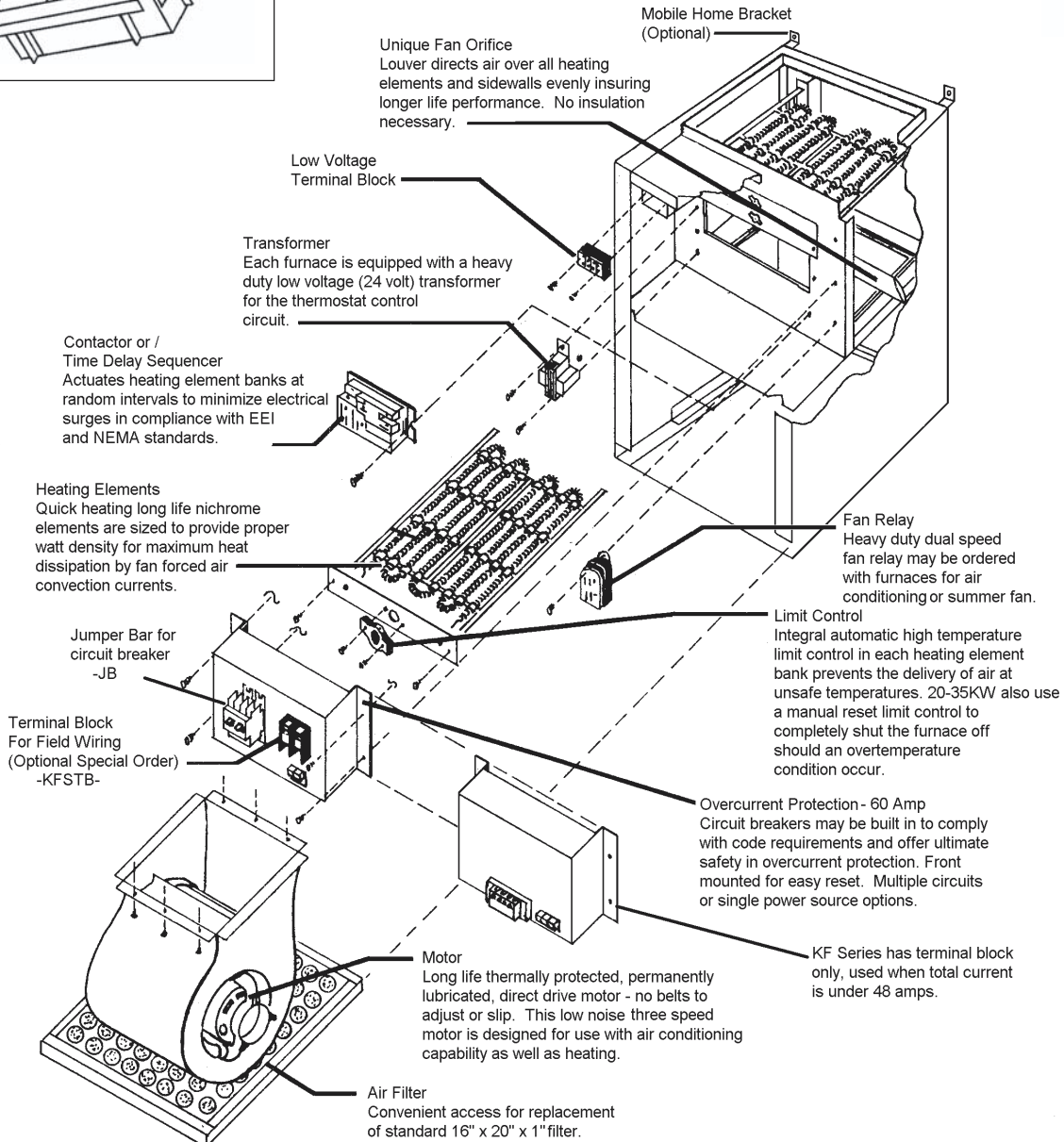
DOWNFLOW



KFS-DT
Duct Transition



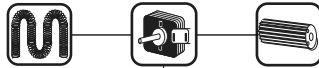
	LENGTH	WIDTH	HEIGHT	WEIGHT
QO2C	16	22	19.5	13
QO3C	18	22	19.5	15



UNIT HEATER

KFUH
SERIES

WAREHOUSE/PARKING GARAGES
CEILINGS OVER 10 FT



FEATURES:

- Open Coil Element
- C-Frame Motor
- Squirrel Cage Blower
- 24 Volt Control
- Horizontal or Vertical Mount
- Adjustable Louver Hood
- Control Options
- Quiet Switching Relays or Sequencers
- Air Over Type Motor rated to -30°F
- Optional Fan Only Relay
- Can Be Ducted on Intake and Outlet



The KFUH series commercial unit heater is an efficient, dependable suspension heater. This heater is perfectly suited for applications in warehouse, parking garages and docks. The three speed, high-capacity motor and blower delivers large volumes of air quietly, ranging from 775 to 1540 CFM.

Commonly used in large high ceiling, stores, garages or warehouses. The heater may be mounted at any angle with the integral suspension ribs welded on unit.

Safety screens are provided at both the air intake and discharge aperture. Filter on intake is replaceable. Thermostat and fan relay may be ordered separately.

FIELD WIRING

208 and 240 Volt heaters are equipped with circuit breakers to provide internal circuit protection and a field disconnect on the unit. A terminal block provides a single strike for field wiring. 480 Volt units do not have circuit breakers but are fused when internal protection is required over 48 amps and are also supplied with terminal blocks for field wiring. Consult the National Electric code for proper wire size and service circuit breaker protection.

CONTROL WIRING

Connect low voltage thermostat to terminals R and W on the low voltage terminal block provided. For optional fan only operation connect terminals R and G with a switch.



High Volume Heater



Air being moved in a circular pattern to heat an event tent.

ENGINEERING SPECIFICATIONS:

Contractor shall supply and install, KFUH-Series unit heaters, manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

Transformer: Each unit is equipped with a heavy duty low voltage (24 Volt) transformer for the thermostat control circuit.

Contact or Time Delay Sequencer: Actuates heating element banks at random intervals to minimize electrical surges in compliance with EEI and NEMA standards.

Heating Elements: Quick heating long life nichrome elements are sized to provide proper watt density for maximum heat dissipation by fan forced air convection currents.

Terminal Block: For Field Wiring

Air Filter: Convenient access for replacement of standard 16" x 20" x 1" filter.

Motor: Long life thermally protected, permanently lubricated, direct

drive motor - no belts to adjust or slip. This low noise three speed motor is designed for maintenance free operation.

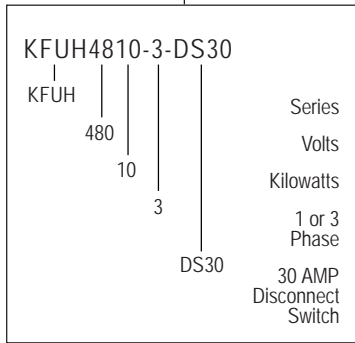
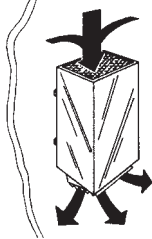
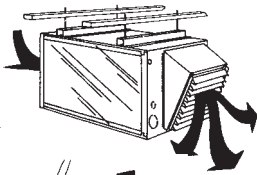
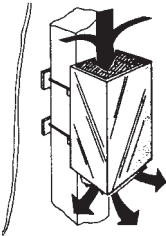
Overcurrent Protection: 60 Amp Circuit breakers may be built in to comply with code requirements and offer ultimate safety in overcurrent protection. Front mounted for easy reset. Single power source.

Limit Control: Integral automatic high temperature limit control in each heating element bank prevents the delivery of air at unsafe temperatures. 20-35 KW use a manual reset limit control to completely shut the furnace off should an overtemperature occur.

Fan Relay: Heavy duty dual speed fan relay may be ordered with furnaces for air conditioning or summer fan operation.

Unique Fan Orifice: Louver directs air over all heating elements and sidewalls evenly insuring long life performance. No insulation necessary in cabinet.

Low Voltage Terminal Block: For 24 Volt Control.

MODEL CODE:

 HORIZONTAL FLOW
CEILING MOUNTED

 VERTICAL FLOW
WALL OR POST MOUNTED

OPTIONS:

ADD SUFFIX	DESCRIPTION
-SF	Summer Fan Switch
-BR	Blower Relay For Remote Fan Only Operation
-2S1	2-Stage Control, 1-Phase Models
-2S3	2-Stage Control, 3-Phase Models
-DS30	30 AMP, 3-Pole Non-Fused Disconnect Switch
-DS40	40 AMP, 3-Pole Non-Fused Disconnect Switch
-DS80	80 AMP, 3-Pole Non-Fused Disconnect Switch
-DS100	100 AMP, 3-Pole Non-Fused Disconnect Switch
-ND	No Diffuser, 1" Duct Collar Provided On Discharge Side For Connection To 14" x 14" Duct
-T	1-Pole STAT
-2TS	2-Stage STAT

QUICK SELECTION CHART:

KILO-WATTS	2-STAGE OPTION (-2S1)		PHASE	208V		240V		480V		WT. (lbs.)
	1st.	2nd.		MODEL	UPC #093319 PART NO.	MODEL	UPC #093319 PART NO.	MODEL	UPC #093319 PART NO.	
3			1	KFUH2003-1	15701					57
4						KFUH2404-1	15702			
5				KFUH2005-1	15705	KFUH2405-1	15700	KFUH4805-1	15703	
6				KFUH2006-1	15706					
8	4	4				KFUH2408-1	15704			65
10	5	5		KFUH2010-1	15713	KFUH2410-1	15712	KFUH4810-1	15715	
11.5	5.75	5.75				KFUH2412-1	15718	KFUH4812-1	15721	
15	5	10		KFUH2015-1	15732	KFUH2415-1	15730	KFUH4815-1	15733	
17.2	5.75	11.5				KFUH2418-1	15742	KFUH4818-1	15745	74
20	10	10		KFUH2020-1	15752	KFUH2420-1	15754	KFUH4820-1	15757	
25	10	15		KFUH2025-1	15780	KFUH2425-1	15778	KFUH4825-1	15781	
30	15	15		KFUH2030-1	15782	KFUH2430-1	15784	KFUH4830-1	15787	
34.5	17.25	17.25				KFUH2435-1	15796	KFUH4835-1	15799	85

3-PHASE

KILO-WATTS	2-STAGE OPTION (-2S3)		PHASE	208V		240V		480V		WT. (lbs.)
	1st.	2nd.		MODEL	UPC #093319 PART NO.	MODEL	UPC #093319 PART NO.	MODEL	UPC #093319 PART NO.	
5			3			KFUH2405-3	15762	KFUH4805-3	15769	74
9				KFUH2009-3	15710					
10	5	5				KFUH2410-3	15764	KFUH4810-3	15766	
12				KFUH2012-3	15722					
15	5	10				KFUH2412-3	15723	KFUH4812-3	15727	85
17.2				KFUH2015-3	15735	KFUH2415-3	15736	KFUH4815-3	15739	
20	10	10				KFUH2418-3	15748	KFUH4818-3	15751	
22.5						KFUH2420-3	15768	KFUH4820-3	15770	
24				KFUH2022-3	15760					85
30	15	15				KFUH2424-3	15772	KFUH4824-3	15775	
34.5	17.25	17.25		KFUH2030-3	15792	KFUH2430-3	15790	KFUH4830-3	15793	
						KFUH2435-3	15802	KFUH4835-3	15805	

Lugs rated for copper and aluminum.

DIMENSIONS

FIGURE A

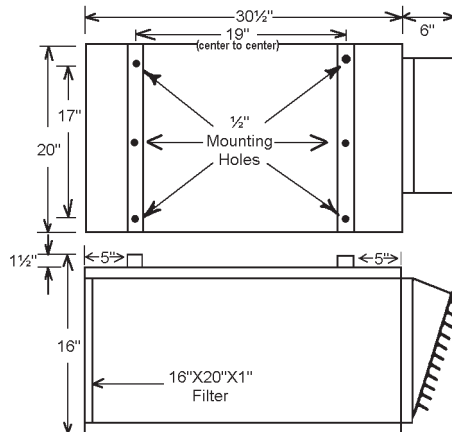
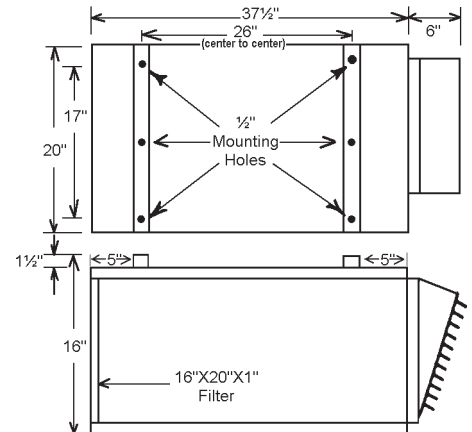


FIGURE B

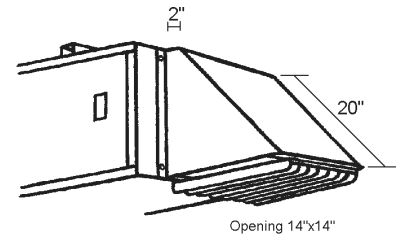


TECHNICAL DATA CHART:

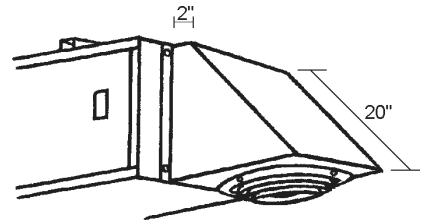
 380V 3Ø Heaters are available
in most KW ratings.

CATALOG NO.	KW	PHASE	BTU (000)	VOLTS	AMPS*	NO. OF ELEM.	MOTOR		TEMPERATURE RISE			CABINET SIZE	WT (LBS.)
							VOLTS	HP	LOW	MED	HIGH		
KFUH2003-1	3	1	10.2	208	14.4	1	208	1/5	12°	11°	9°	Fig. A	57
KFUH2404-1	4	1	13.6	240	16.7	1	240	1/5	16°	15°	13°	Fig. A	57
KFUH2005-1	5	1	17.1	208	24.0	1	208	1/5	20°	18°	16°	Fig. A	57
KFUH2405-1				240	20.8		240						
KFUH4805-1				480	10.4		480						
KFUH2006-1	6	1	20.5	208	25.0	2	208	1/5	24°	22°	19°	Fig. A	57
KFUH2408-1	8	1	26.9	240	33.3	2	240	1/5	33°	29°	25°	Fig. A	64
KFUH2010-1	10	1	34.1	208	48.0	2	208	1/5	41°	37°	32°	Fig. A	65
KFUH2410-1				240	41.7		240						
KFUH4810-1				480	20.8		480						
KFUH2412-1	11.5	1	39.2	240	47.9	2	240	1/5	47°	42°	36°	Fig. A	65
KFUH4812-1				480	23.9		480						
KFUH2015-1	15	1	51.2	208	72.1	3	208	1/5	61°	55°	47°	Fig. A	74
KFUH2415-1				240	62.5		240						
KFUH4815-1				480	31.2		480						
KFUH2418-1	17.25	1	58.8	240	82.9	3	240	1/5	70°	63°	55°	Fig. A	74
KFUH4818-1				480	35.9		480						
KFUH2020-1	20	1	68.3	208	96.2	4	208	1/3	57°	51°	41°	Fig. B	76
KFUH2420-1				240	83.3		240						
KFUH4820-1				480	41.7		480						
KFUH2025-1	25	1	85.3	208	120.2	5	208	1/3	72°	63°	51°	Fig. B	81
KFUH2425-1				240	104.2		240						
KFUH4825-1				480	52.1		480						
KFUH2030-1	30	1	102.4	208	144.2	6	208	1/3	86°	76°	62°	Fig. B	85
KFUH2430-1				240	125.0		240						
KFUH4830-1				480	62.5		480						
KFUH2435-1	34.5	1	117.7	240	143.7	6	240	1/3	99°	87°	71°	Fig. B	85
KFUH4835-1				480	71.8		480						
3-PHASE													
KFUH2405-3	5	3	17.1	240	13.0	3	240	1/5	30°	25°	20°	Fig. A	74
KFUH4805-3				480	7.0		480						
KFUH2009-3	9	3	30.7	208	21.6	3	208	1/5	37°	33°	28°	Fig. A	74
KFUH2410-3	10	3	34.1	240	24.1	3	240	1/5	41°	37°	32°	Fig. A	74
KFUH4810-3				480	12.0		480						
KFUH2012-3	11.25	3	38.4	208	31.2	3	208	1/5	46°	41°	35°	Fig. A	74
KFUH2412-3	12	3	40.9	240	28.9	3	240	1/5	49°	44°	38°	Fig. A	74
KFUH4812-3				480	14.4		480						
KFUH2015-3	15	3	51.2	208	41.6	3	208	1/5	61°	55°	47°	Fig. A	74
KFUH2415-3				240	36.1		240						
KFUH4815-3				480	18.1		480						
KFUH2418-3	17.25	3	58.8	240	43.3	3	240	1/5	70°	63°	55°	Fig. A	74
KFUH4818-3				480	20.7		480						
KFUH2420-3	20	3	68.3	240	48.0	4	240	1/5	57°	51°	41°	Fig. B	85
KFUH4820-3				480	24.0		480						
KFUH2022-3	22.5	3	76.8	208	62.5	6	208	1/3	64°	56°	46°	Fig. B	85
KFUH2424-3	24	3	81.6	240	57.7	6	240	1/3	69°	61°	49°	Fig. B	85
KFUH4824-3				480	28.8		480						
KFUH2030-3	30	3	102.4	208	83.3	6	208	1/3	86°	76°	62°	Fig. B	85
KFUH2430-3				240	72.2		240						
KFUH4830-3				480	36.1		480						
KFUH2435-3	34.5	3	117.7	240	82.9	6	240	1/3	99°	87°	71°	Fig. B	85
KFUH4835-3				480	41.5		480						

*Above units can be doubled for twice the wattage output.
Does not include motor load, refer to Air Delivery Char



KFUH-90D
Typically used in low ceiling height or where a 90° turn is preferred.



KFUH-90RD
Radial diffuser for immediate dispersion of heated air.



KFUH-RD
Wide pattern for radial heat dispersion.

MODEL	DESCRIPTION
1E30-910	24V Wall Thermostat, Range 50°-90°
S23-6	Subbase for 1E30-910 to operate fan only
KFUH-90D	90° Adjustable Louver Diffuser
KFUH-RD	Radial Diffuser
KFUH-90RD	90° Radial Diffuser
KFUH-PTBL	Kit includes casters and mounting bracket to create a Portable KFUH (No power cord)



S23-6

1E30-910

AIR DELIVERY CHART:

MOTOR HP	MOTOR SPEED							
	MOTOR LOAD		LOW		MED		HIGH	
	VOLTAGE	AMPS	CFM	FPM	CFM	FPM	CFM	FPM
1/5	230	3.4	775	570	860	630	1000	735
	380/460	1.7						
1/3	230	3.2	1100	810	1250	920	1540	1130
	380/460	1.7						
1/2	230	3.8	1250	920	1540	1130	1750	1285
	380/460	1.9						
MOTOR WIRE COLOR			RED	BLUE	BLACK			
Air Volume= Cubic Feet Per Minute (CFM) Air Velocity=Feet Per Minute (FPM)								

Mounting

KFUH heaters can be mounted vertically or horizontally as shown. 3/8" weldnuts are welded into brackets and will accept 3/8 threaded rod. A minimum of 6 inches clearance to vertical and horizontal surfaces and 6 feet minimum above floor is required. Louvers can be adjusted for desired air flow.

Application Tips

First, calculate the heating loads in the conventional way using the NEMA handbook or ASHRAE guide. Next determine the quantity and size of unit heaters to be used. In instances where a large group of people are settled and normally in the same location, use a large number of smaller KW unit heaters. (Example: People on a production line or skilled machine operations.) By utilizing heaters in this manner one can best distribute uniform heat, prevent hot drafts, reduce potential noise levels and balance the electrical operating demand.

When considering warehouse areas or storage rooms where heat distribution and constant temperatures are less important, use fewer heaters of higher capacity.

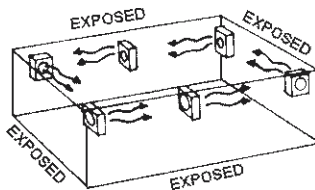
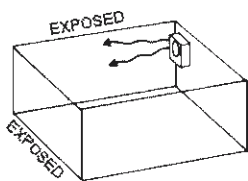
To maintain uniform heat and reduce stratified air it is recommended that the total CFM of the units turn the air over approximately 3 times per hour.

Horizontal Mount

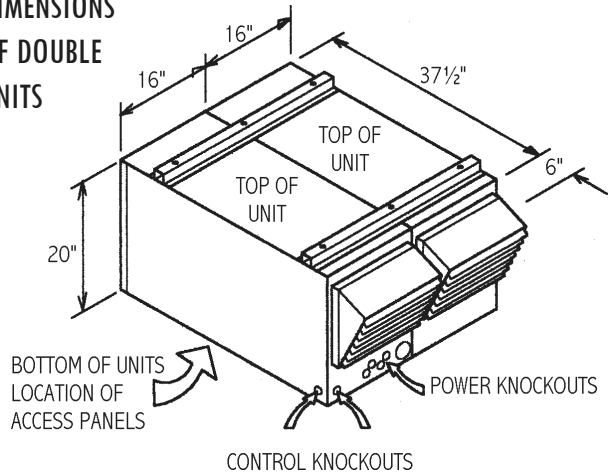
Smaller rooms can be heated by one unit heater. Where two walls are exposed heaters should be mounted as shown.

In larger rooms, units should be located so their air streams wipe exposed walls without blowing at them. Units should be located so that the air stream of one supports that of another thus setting up a circulatory air movement. (Distance between units to be approximately 1 times published air throw).

Units should not be mounted horizontally in areas having ceiling heights in excess of 10 to 12 feet.



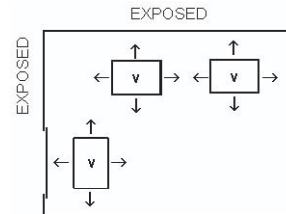
DIMENSIONS OF DOUBLE UNITS



Vertical Mount

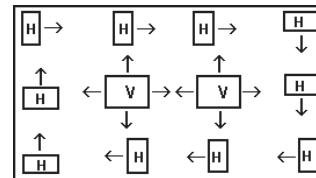
Units should be mounted vertically where they may otherwise interfere with assorted material, handling equipment and in high bay areas. Heaters should be situated to provide free air circulation. Size and selection of units should be based on recommended mounting height.

Unit heaters are frequently used to combat cold air inrush when loading dock doors are opened. For such applications, one or more units should be arranged to blow warm air vertically in front of opening.



Dual Mounting

Where square footage is large and comfort essential, both horizontal and vertical installations may best serve your requirements.



Mounting Limitations

KFUH unit heaters should not be used in potentially explosive atmospheres. The finish is not intended for direct salt spray exposure in marine applications or the highly corrosive atmospheres of swimming pools, chemical storage bins, etc. Please refer to the factory for explosion proof or marine application heater information.

Do not install unit heaters above recommended maximum mounting height. See chart for height information. Obstructions must not block unit heater air inlet or discharge. Heaters must be mounted at least 6' above the floor to prevent accidental contact with the heating element or fan blade which could cause injury.

WALL HEATER ENERGY SAVER

DEC
SERIES

PIC-A-WATT® FAMILY • DECADE

FAN-FORCED • PREMIUM



U.S. PATENT #6,794,183 & #6,794,184 • CAN. PATENT #6,333,882



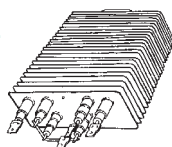
FEATURES:

- SMART LIMIT PROTECTION®
- Pic-A-Watt® Element
- Efficiency Motor
- Squirrel Cage Blower
- Whisper Quiet
- Multiple wattages
- 20 gauge powder-coated grill with contemporary die-formed round corners
- Standard color: bright white
- Safety limit
- Safety thermal cutout trips limiting reset or is manually reset by thermostat

Options:

- Optional surface wall box
- Optional color: almond
- Optional ULTRA custom architectural grill
- Available in stainless steel (refer to index)

ENERGY SAVER
99.4%
EFFICIENT
SEE PAGE 104



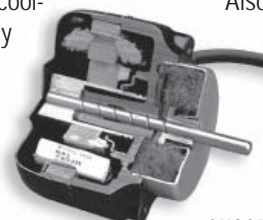
Pic-A-Watt
Next Fan Element



We call it the DECADE heater because of the 10 year warranty. This heater is similar to the PAW except we incorporate a newly developed high-efficiency motor. This motor runs 75% cooler and has an expanded oil reservoir for long life. We expect this heater to outlast all others. If maintenance-free sounds good this is the product for you. The motor using only 15% of the energy of a standard motor gives you an instant return on your investment.

King provides the newest technology available for the educated consumer looking for superior performance from their zonal heating system.

Also available, the DEC-Ultra, a combination of the DEC-Series and the Ultra Grill – all the same features as the DECADE heater except we added a contemporary architectural bar grill made from heavy gauge steel, laser-cut to produce sleek, round corners, then finished in a high-gloss powder-coated finish.



ENGINEERING SPECIFICATIONS:

Contractor shall supply and install DEC Series wall-mounted forced-air electric heaters manufactured by King Electrical Mfg. Company, of the wattage and voltage as indicated on the plans.

Ratings: Heaters shall be available in wattages of 250 to 2,250 at 120, 208, or 240 Volts.

Motor: Cast iron unit bearing housing is of a one-piece design and can dissipate up to 4-times more heat. Efficient internal capacitor-run design allows motor to run 75% cooler than typical shaded pole C frame motors. 30cc of high grade sun F1-932 oil recirculates by means of a constant flow, spiral grooved, hardened shaft within the motor and is filtered then returned to the main reservoir. Second quick-start reservoir provides fast lubrication mid-shaft to cut cold-start lubrication time in half. Quad-coil bi-pole design offers maximum efficiency and long life. Electrically balanced to give hum-free operation.

Fan: Tangential (squirrel cage) blower provides whisper quiet operation 65 CFM.

Elements: Element assemblies shall be non-glowing design. Element assemblies shall consist of three steel sheathed heating tubes in a furnace-brazed, plate-finned, block design. Each sheathed tube shall contain coiled Ni-Chrome wire embedded in an insulator of Magnesium Oxide. The element assembly shall provide a

minimum of seven (7) possible wattage configurations available for selection during field installation. The use of external resistors, diodes, or other weak links to obtain multiple wattages will not be acceptable.

Thermal Overload: Heaters shall be equipped with thermal overload SMART LIMIT PROTECTION®, which disconnects elements and motor in the event normal operating temperatures are exceeded. If thermal overload trips due to abnormal operating temperatures, thermal overload shall remain open until manually reset by turning the heater off for fifteen minutes. Automatic reset of thermal overloads, which allow the element to continue to cycle under abnormal conditions, will not be accepted.

Wall Can: The wall can shall be 20 gauge electrogalvanized steel and shall contain a minimum of three (3) knockouts through which power leads are brought. The wall can shall have a depth gauge indicator, and a factory installed, insulated and stranded copper groundwire. Minimum clearance to floors and sidewalls. Zero clearance to combustibles.

Grill: The grill shall be a louvered, one-piece design with rounded edges on all four sides, with rounded corners to prevent snags from contact with other materials. The grill shall be epoxy powder-coated in the color specified on the plans.

Approval: Heaters shall be listed and approved by Underwriters Laboratories or equal.

MODEL CODE:

DEC1215-A-U			
DEC			Series
12			Volts
1500			Watts
A			Color
U			Ultra Grill

Standard Color: Bright White

SELECTION:

WATTAGE	120V		208V		240V		WT. (lbs.)
	MODEL	UPC #093319 PART #	MODEL	UPC #093319 PART #	MODEL	UPC #093319 PART #	
250 • 500 • 750 • 1000 • 1250 • 1500	DEC1215	19260					11
500 • 750 • 1000 • 1250 • 1500 • 1750 • 2250			DEC2022	19225	DEC2422	19264	
FACTORY INSTALLED OPTIONS							
ADD SUFFIX:	DESCRIPTION						
-A	Almond Color						9
-I	Interior and Grill Only (no wall can)						8.5
-H	Interior Only (no wall can or grill)						7
-U	Heat N' Style™ (DEC heater and ULTRA grill)						13
-SS	Stainless Steel						

Heat 'N Style®


ULTRA Grill (-U)
15 7/8" L x 7 1/4" H
Patent #US D464,718 S
(no built-in thermostat)

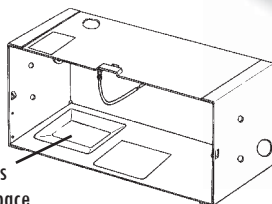


as shown: DEC2422

(DEC + -H = -I)

DEIC - Recess Wall Can

(DEC)



Provides extra space for large motor

(-H)

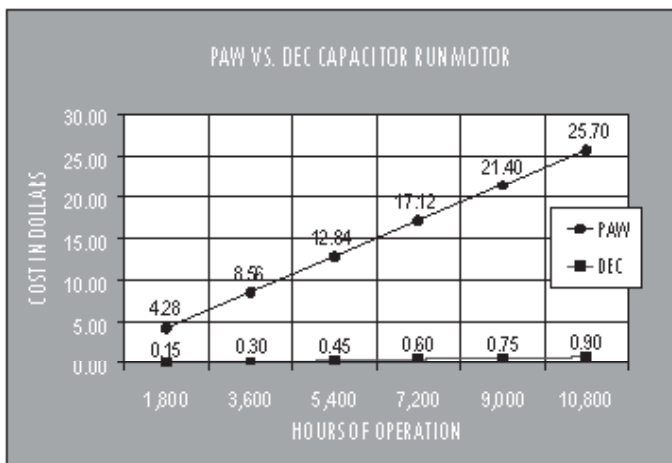
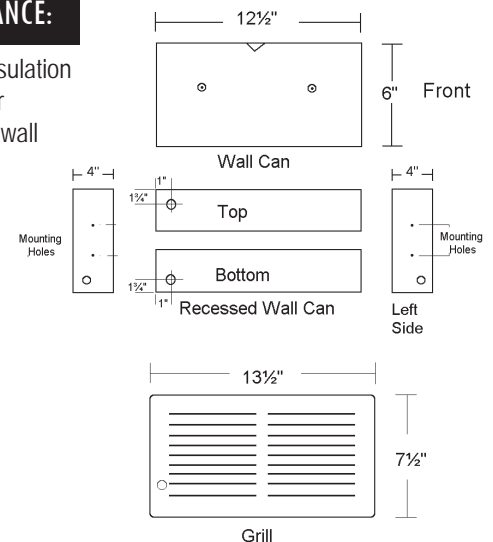


(PAWG)

ACCESSORIES:

MODEL	DESCRIPTION	UPC #093319 PART #	WT. (lbs.)
DEIC	Recess Wall Can	16605	3.5
DEIC-F	Recess Can with Flange	18802	3.5
PAWS	PIC-A-WATT® Surface Can - White 13 1/2" L x 4 1/2" W x 7 1/2" H	16305	4
PAWS-A	PIC-A-WATT® Surface Can - Almond 13 1/2" L x 4 1/2" W x 7 1/2" H	19298	4
PAWG	Grill - White	16304	2
PAWG-A	Grill - Almond	16335	2
PAWG-SS	Grill - Stainless Steel	16330	2
PAW-GUARD	Safety Guard for PAW	16550	3.5
PAWOG-A	13" H x 13 1/2" W x 3/4" D Retrofit Grill	00555	3
PAWOG-B	8 1/2" H x 17" W x 3/4" D Retrofit Grill	00560	3
ULTRA-W	ULTRA Grill - White	18740	4
ULTRA-A	ULTRA Grill - Almond	18745	4

DIMENSIONS:
MINIMUM CLEARANCE:

 Zero clearance to insulation
4" above floor
6" from adjacent wall


INSTALLATION INSTRUCTIONS



SMART LIMIT PROTECTION®

PAW - DEC - SL SERIES

Wall Heaters

Models: 1215 (120V) 2022 (208V)
2422 (240V) 2720 (277V)



It is *extremely important* to verify the electrical power supply is the same voltage as the heater being installed. 240 and 120 Volt heaters are not interchangeable. Powering a 208/240/277 Volt unit with 120 Volt supply wires will reduce heater output by approximately 75%. Powering a 120 Volt unit with 208/240/277 Volt supply wires will destroy the heater and voids all guarantees and warranties.

CAUTION: Keep electrical cords, drapery, furnishings and other combustibles at least 3 feet (.9m) from front of the heater and away from side and rear. Do not block the heater in any manner. To insure proper operation of this heater it should be a minimum of 4 inches above the floor and no closer than 6 inches to the open edge of a door and/or adjacent wall. Never paint the heater grill.

WARNINGS: Turn off the power source supplying the heater before attempting any installation, maintenance or repairs. Lock or tag circuit breaker/fuse panel door. Failure to do so could result in serious electrical shock, burns or possible death.

MAINTENANCE & WARRANTY

The superior quality and design of this heater will provide years of trouble-free performance. Each year the heater should be checked and cleaned for lint and/or dust accumulation. King recommends using a soft bristle brush and vacuum to knock off contaminants. The motor is permanently lubricated and requires no oiling.

PAW Wall Heaters and SL Slim Line Wall Heaters carry a five (5) year warranty on the elements and a two (2) year warranty on components from date of installation. The DEC Wall Heater carries a ten (10) year warranty on the motor and element components from date of installation. This warranty requires that the owner or his agent install the equipment in accordance with the National Electrical Code, any other applicable heating or electrical codes, and the manufacturer's installation instructions. It further requires that reasonable and necessary maintenance be performed on the unit. Failure to properly maintain the unit will result in the warranty being voided. The company is not liable for abuse or misuse of product as may be finally determined by the company. The customer shall be responsible for all costs incurred in the removal or reinstallation of products, including labor costs and shipping costs incurred to return products to King Manufacturing. King Manufacturing will repair or replace, at our option, at no charge to the customer with return freight paid by King. King Manufacturing shall not be liable for consequential damages arising with respect to the product, whether based upon negligence, tort, strict liability or contract. No other written or oral warranty applies, nor any warranties by representatives, dealers, employees of King, or any other person. All returns require a King Return Goods Authorization (RGA); Unauthorized returns will be refused. Do not return malfunctioning/defective products to store.

Operating voltage cannot exceed 5% of rated voltage. Operating heater above listed voltage ratings voids all guarantees and warranties.

INSTALLATION INSTRUCTIONS

INSTALLATION

Following are installation guidelines:

- Disconnect power at main panel.
- Make certain all wiring is in accordance with any/all local codes.
- Ensure units are properly grounded.
- Heater voltage rating should be the same as supply load.

1. Remove two screws on front grill. Remove grill. Loosen mounting screw. Remove fan heater assembly.
2. Remove a 7/8" knockout. Thread supply wire into wallbox. Use an approved strain relief bushing to prevent chafing of supply wires through the opening in wallbox.
3. Install wall can a minimum of 6" from vertical sidewalls and 4" above floor. **The front edge of wall can must be 1/2" beyond finished wall.**
4. Secure wallbox to the 2x4 studs using the two (2) holes on each side of wallbox. Secure twist lock to wall stud on opposite side.
5. Select heater wattage (see diagram). King recommends the installer indicate the selected heater wattage by circling the wattage listed on the nameplate. To prevent the heater from being rewired to a higher wattage, cut the push-on 1/4" female terminal off the disconnected wire (orange, blue or yellow). Tape all exposed wires. By disabling the heater in this manner there is no need to size the circuit beyond the actual connected load. (For future flexibility to increase wattage, size circuit for the maximum 2250 Watts per heater for 208/240 Volt, 1500 Watts per heater for 120 Volt).
6. Reinstall heater assembly at top of wallbox with mounting screw. Connect supply and ground wires. (see diagram)
7. Reinstall grill securely with screws provided. *For proper air circulation, the top louver in grill must open into and between wall can and top of heater.*

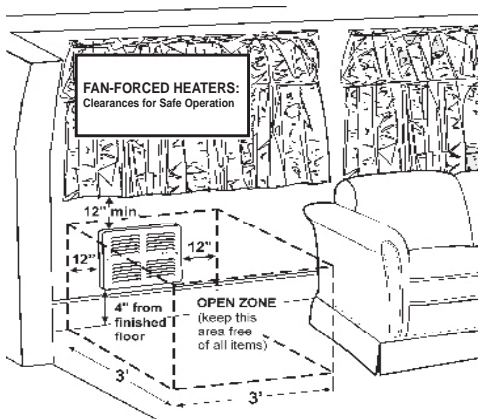
FIELD WIRING – 120/277 VOLT:

1. Connect power supply L1 (white neutral wire) to white heater wire.
2. Connect power supply L2 (black hot lead) to black heater wire.
3. Connect groundwire to green wire on wall can.

FIELD WIRING – 208/240 VOLT:

1. Connect power supply L1 (hot lead) to a black heater wire.
2. Connect power supply L2 (hot lead) to a black heater wire.
3. Connect groundwire to green wire on wall can.

NOTE: The two black leads on the heater can be connected to either hot lead. There is no polarity. The 208/240 Volt heater does not require a neutral wire from the power panel.



CAUTION
The heater should not be covered or blocked in any manner.

WIRING DIAGRAM

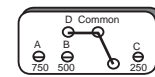
WATTAGE SELECTION

The heater is factory wired to 1500 Watts at 120 Volts. To reduce wattage unplug an insulated push on terminal per color coding below. Wrap with electrical tape to prevent possibility of electrical contact with other parts.

WIRE COLOR CODING

- A Orange** Disconnects the 750 Watt element
- B Blue** Disconnects the 500 Watt element
- C Yellow** Disconnects the 250 Watt element
- D Black** DO NOT DISCONNECT (Common)

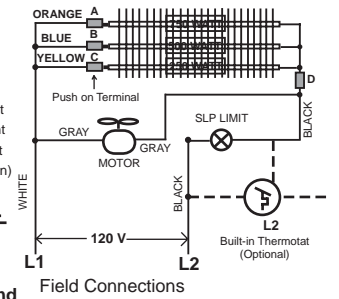
END VIEW OF ELEMENT



- A - 750 W B - 500 W C - 250 W D - Common Leg of Power Supply

PIC-A-WATT

Steel Sheath Element 1215 120V 1500W



Field Connections

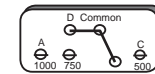
WATTAGE SELECTION

The heater is factory wired to 2250 Watts at 208/240 Volts. To reduce wattage unplug an insulated push on terminal per the color coding below. Wrap with electrical tape to prevent the possibility of electrical contact with other parts.

WIRE COLOR CODING

- A Orange** Disconnects the 1000 Watt element
- B Blue** Disconnects the 750 Watt element
- C Yellow** Disconnects the 500 Watt element
- D Black** DO NOT DISCONNECT (Common)

END VIEW OF ELEMENT

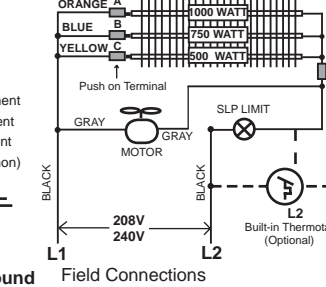


- A - 1000 W B - 750 W C - 500 W D - Common Leg of Power Supply

PIC-A-WATT

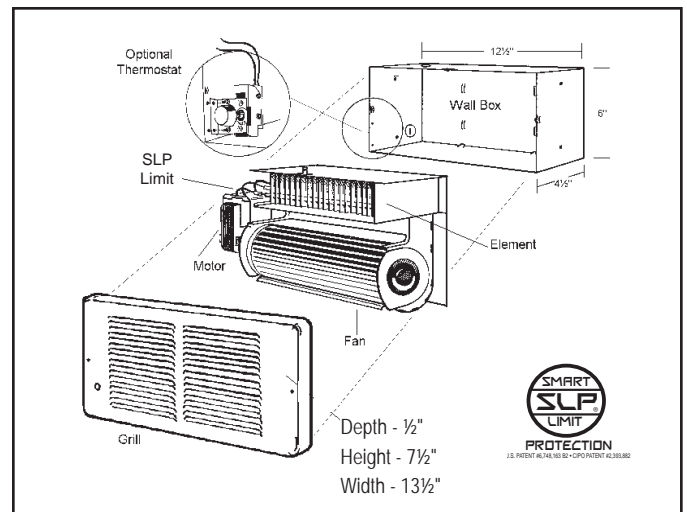
Steel Sheath Element 2022 208V 2250W

2422 240V 2250W



Field Connections

EXPLODED VIEW



This heater includes a manual reset SLP thermal protector with a self-hold feature. If the heater shuts off in the on position and the room temperature is below the highest thermostat setting, immediately disconnect the power to the heater at the circuit breaker. Inspect for any objects on or adjacent to the heater that may cause high temperatures. After inspecting the heater, keep the power to the heater off for 10 minutes to reset the SLP thermal protector. If the SLP thermal protector shuts the heater off again, immediately turn the heater off at the circuit breaker and inspect the heater for possible fan motor failure or dirt and lint on the heating element. Repeat the starting procedure.

INSTALLATION INSTRUCTIONS

COMMONLY ASKED QUESTIONS

Q. Will the room heat up faster if I put the thermostat on 90 degrees when I get home?

A. No. The thermostat is just an on-off switch that is temperature sensitive. The heater is either on or off.

Q. My baseboards are on outside walls, should fan heaters be also?

A. No. A fan heater, recessed into an outside wall, will create extra heat loss and air leakage for that room. An inside wall, facing a cold window, is the best location.

Q. My thermostat is above my fan-heater. Why?

A. The fan heater blows warm air away from itself and into the room. By the time the warm air has recirculated and reached the thermostat above the heater, a comfortable room temperature has been achieved.

Q. Will my electric bill be lower if I use 120 volt heaters?

A. No. Same size 120 volt and 240 volt heaters will use the same amount of power, measured in watts or kilowatts. Your electric company charges by kilowatt hours.

Q. Should I clean my heater?

A. Yes. Once a year you must clean and inspect your heaters. You may request a copy of the operation & maintenance for your heater if you have lost it.

Q. Why does my new heater produce smoke when I turn it on?

A. In the manufacturing process a high temperature stove paint is used, which will burn when the heater is energized. The smoke will stop after the heater has fully heated. There is no cause for alarm. It is recommended to open a window during initial operations.

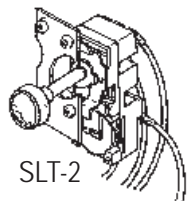
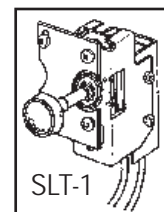
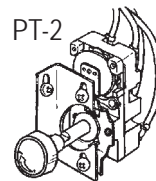
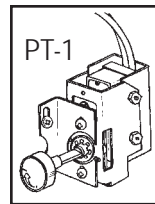
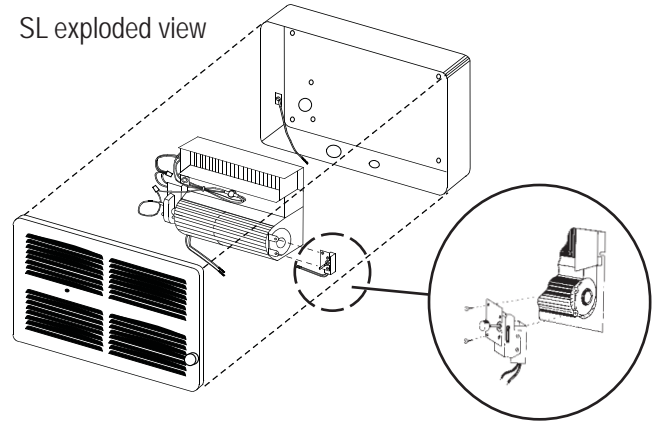
Q. If I need to replace my heater, can I use a higher wattage heater?

A. Your electrical system was sized for the original heater's wattage. A smaller heater would be OK, but a larger heater may create a hazard. Have the circuit checked by a licensed electrician.

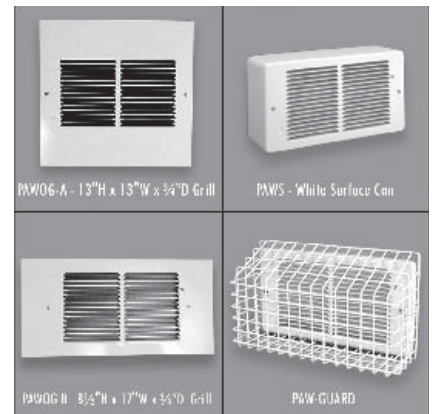
Q. Are King heaters actually made in Seattle, Washington?

A. Yes. Since 1958 we have made quality residential, commercial and industrial heating products in the same location.

SL exploded view



ULTRA GRILL
Depth - 1 1/4"
Height - 7 1/4"
Width - 16"



OPTIONS

MODEL	DESCRIPTION	UPC# 093319 PART #	WEIGHT
PAW - GUARD	PAW Safety Guard	16550	3.5
PAWOG-A	13" x 13" x 3/4" Retrofit Grill	00555	3
PAWOG-B	8 1/2" x 17" x 3/4" Retrofit Grill	00560	3
ULTRA-W	ULTRA Grill (White)	18740	4
ULTRA-A	ULTRA Grill (Almond)	18745	4
PT-1	Single Pole Thermostat Kit	16306	.5
PT-2	Double Pole Thermostat Kit	16307	.5
SLT-1	Single Pole Single Throw Thermostat Kit	19562	.5
SLT-2	Double Pole Single Throw Thermostat Kit	19564	.5
ES230-R	Electronic Line Voltage	10374	1
ESP230-R	7 Day Independent Electronic Programmable	10380	1

Between 5-10 years you may want to upgrade your thermostat, as the sensing element may not be as accurate as when new. The most accurate thermostats are the electronic ES230 or ESP230 models. If, in the future, you decide to remodel or add rooms to your home, you won't have to worry about the size of your heating system. With electric heat you can add to the heating system, in large or small increments.



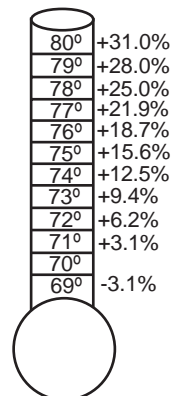
ESP

Zone Control (setting the thermostats):

Thermostat settings are a matter of personal preference. A few days of adjustments will help you determine the setting that is comfortable for you. Most people keep their living quarters at 68 to 72°F (20 to 22°C) and sleeping areas at 65°F (18°C). It is also wise to set living area thermostats back at night, but not below 60°F (16°C).

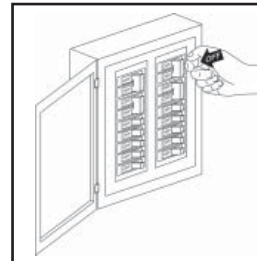
Temperature & cost relationship:

When setting your thermostat, you may want to consider the relative cost of various temperatures. The chart at right shows how much higher your heating bill may be if you like temperatures warmer than 70°F (21°C).



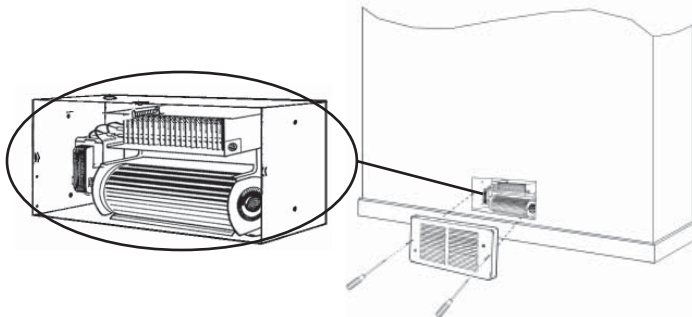
CLEANING & MAINTENANCE GUIDE FOR PAW - DEC - SL SERIES HEATERS

Regular maintenance on an electric wall heater will prolong the life of the product and keep it operating safely. Heaters should be cleaned and inspected every 6 months. This guide will show in detail how to properly clean and maintain your King electric wall heater. It will also show when parts or perhaps the entire heater should be replaced. Listed below are step by step instructions for cleaning and maintaining the PAW Series Wall Heater.



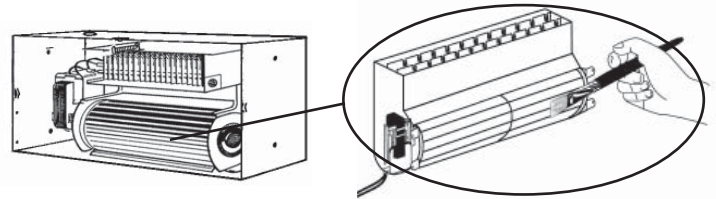
WARNING: Take extreme caution when working with electrical heaters. Turn off the electrical power to the heater before removing the grill of the heater. Lock, tape or tag the circuit breaker so that the power cannot be turned on accidentally while working on the heater.

1. After the power is turned off, remove grill using a #2 square drive or a #2 phillips head screw driver. **DO NOT remove heater interior and wall can from wall!** Clean grill before reinstalling.

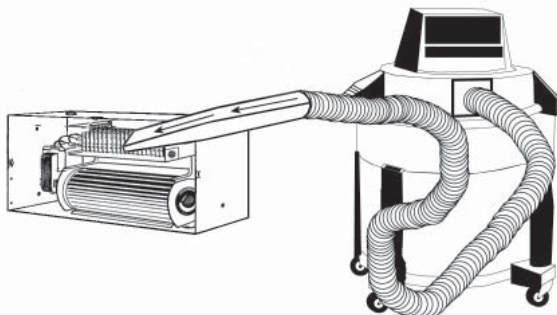


2. Use a soft bristled brush (1" to 2" wide) such as a paint brush to remove any contaminants from the fan cage. Also spin the fan by hand to make sure that it spins freely. If it feels like the motor is binding see instructions below for oiling motor.

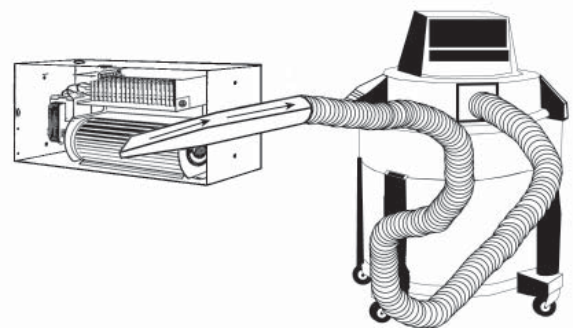
To clean heater, start by using a vacuum cleaner nozzle in the blow out mode.



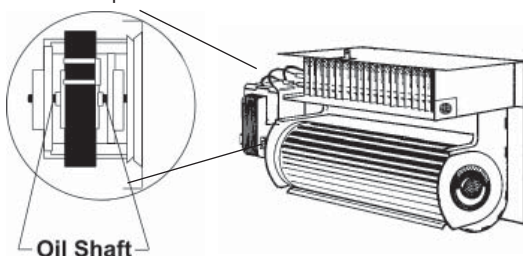
3. To clean the element, point the nozzle at the element as shown on the diagram and blow the dust out. This will dislodge any contaminants caught on the heating element. Compressed air blown onto the element works well also. If you have another vacuum, you can blow out from the bottom and suck the debris from the opening at the same time which will minimize dirt and lint being blown into the room.



4. Vacuum out any material in the squirrel cage by placing the vacuum nozzle close to the fan cage. Be careful not to bend the squirrel cage because it could become out of balance if deformed.

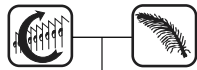
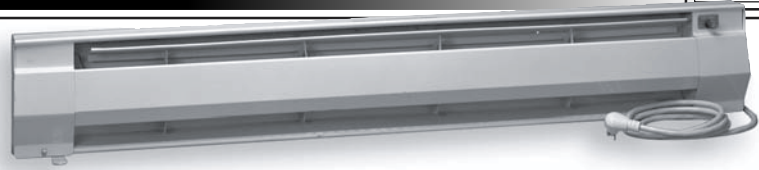


5. After removing contaminants lubricate the motor shaft and bearing with a few drops of S.A.E. 20 synthetic oil at the locations shown. **Do not use WD-40.** If the motor does not spin freely after oiling, it should be replaced. Newer models have capped bearings and cannot be oiled. Inspect the limit and look for signs of overheated wires and parts that may need to be replaced.



The useful life on a PAW - DEC - SL Series Heater depends on the amount of use, environment, and how often it is cleaned and maintained. Heaters operated beyond their useful life are more prone to problems. For example, when a motor slows down due to wear or lack of cleaning it reduces the CFM and can cause the heater to overheat, tripping the limit control. The limit will cycle the heater on and off. It is much safer to fix the cycling heater before it fails. Heaters produced after 1992 have a light which turns on when the limit trips. Heaters prior to that do not have the light and are therefore more difficult to detect a cycling occurrence. One way to tell is by listening for the click that is made when the limit trips. With regular inspection and maintenance, your heater will operate safely and efficiently. Heaters manufactured after 2003 use a manual limit and do not have a light.

PORTABLE BASEBOARD



FEATURES:

- Convection Heat
- Quiet Running
- 3-Wire Cord
- Tip Over Switch
- Carrying Handle
- Built-In Thermostat
- Durable Baked Enamel Finish
- Standard Color - Evening White
- Full Length Safety Cutout
- All Aluminum Element Design

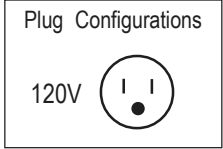
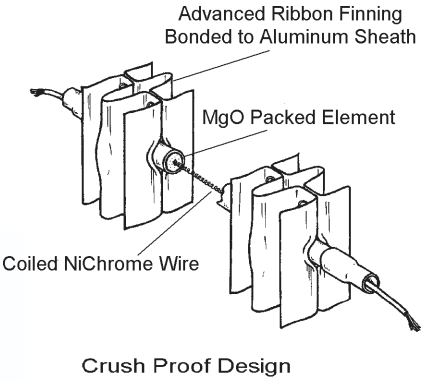
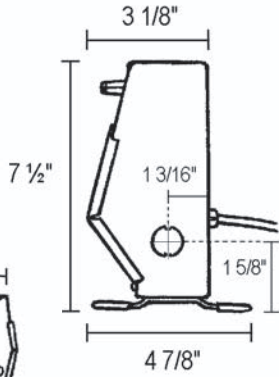
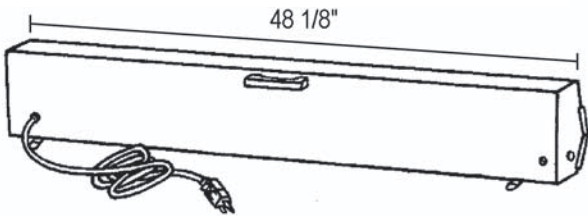
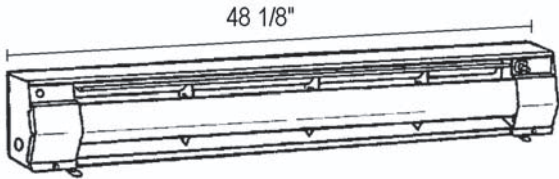
SELECTION:

WATTAGE	120V		BTUH	AMPS	LENGTH	WEIGHT (lbs)
	MODEL	UPC #093319 PART NO.				
1000	KP1210	10142	3143	8.3	4ft	11

A portable baseboard is an easy way to add supplementary heat to any room. The nice advantage of a baseboard is that it's quiet and trouble free. A tip over switch is standard so that if the heater is knocked over, it will shut

off automatically. It has a built-in thermostat and a 6ft, 3-wire grounded outlet plug for additional safety. This heater is so rugged that it is approved for U.S. government contracts.

DIMENSIONS



KICKSPACE HEATER

KT
SERIES

FAN FORCED



FEATURES:

- Smart Limit Protection®
- ◻ Dual Open Coil Element
- ◻ C-Frame Motor
- ◻ Squirrel Cage Blower
- Low Profile
- Dual Wattage
- 20 Gauge Powder Coated Grill
- Standard Color - Bright White
- Safety limit turns off power to the element if it overheats and automatically resets.
- 20 Gauge Electro-Galvanized Steel. Approved for direct contact with building insulation.
- Optional 1-Pole or 2-Pole unit mount thermostat 45° - 80°F operating range.
- Optional Retrofit Grill
- Optional Overlap Grill
- Optional Colors - Almond or Black
- Available in Stainless Steel

This narrow profile heater is only 3½" tall and specifically designed to fit under kitchen or bathroom cabinets, providing warm comfortable air for a cold bathroom or kitchen floor saving valuable floor and wall space.

The squirrel cage blower in this heater has a smaller diameter than the wall heaters and therefore will make more sound than the PAW Series.

The optional KTG-24W Retrofit Grill allows for easy replacement of old style kickspace heaters. Install heater and fit with long grill to cover existing cut-out.

For application other than kickspace, use KTG-OL Grill.

Check vinyl manufactures recommendation for surface temperature. Usually 750 Watts or lower is recommended for vinyl flooring under counters.



Kitchen Installation

ENGINEERING SPECIFICATIONS:

Contractor shall supply and install, KT-Series limited space mounted forced-air electric heaters, manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

Ratings: Heaters shall be available in wattages of 500 to 1,500, at 120 volts or dual rated from 208 volts to 240 volts.

Blower and Motor: A tangential cylindrical blower, delivering 70 CFM, shall be driven by a shaded pole, permanently lubricated, C-frame type motor with impedance protection and sealed bearings. Motors shall be the same voltage as the heater.

Elements: Elements assemblies shall be dual element construction of coiled nickel chromium alloy, corrosion resistant wire strung

through a minimum of four rows of mica insulator. Element assemblies shall have factory provided connection to allow field modification to 50% wattage.

Wall Can: The wall can shall be 22 gauge electro-galvanized steel and shall contain knockouts through which power leads are brought. The wall can shall be supplied with a factory installed grounding wire. Minimum Clearance to Floors and Sidewalls. Zero clearance to combustibles.

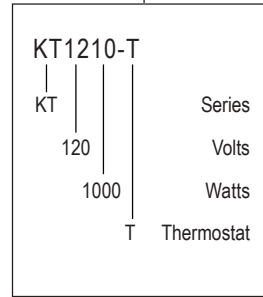
Grill: The grill shall be louvered, one piece design. The grill shall be epoxy powder coated in the color specified on the plans.

Approval: Heaters shall be listed and approved by Underwriters' Laboratories.

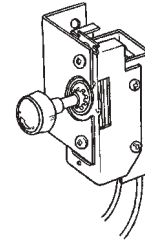
SELECTION:

WATTAGE	120V		208V 240V		WEIGHT (lbs)
	MODEL	UPC #093319 PART NO.	MODEL	UPC #093319 PART NO.	
1000 or 500	KT1210	12256			8
1200 or 600	KT1212	12259			
1500 or 750	KT1215	12262			
1000 or 500 750 or 375			KT2410	12271	
1200 or 600 900 or 450			KT2412	12272	
1500 or 750 1125 or 562			KT2415	12277	
OPTIONS					
ADD SUFFIX:	DESCRIPTION				
-T	1-Pole Thermostat Included				8.5
-T2	2-Pole Thermostat Included				8.5

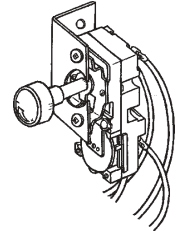
MODEL CODE:



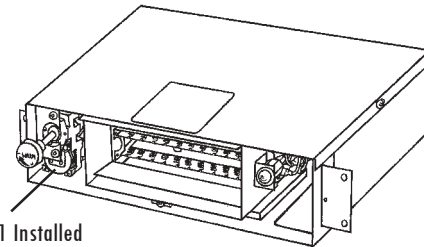
Standard Color: Bright White



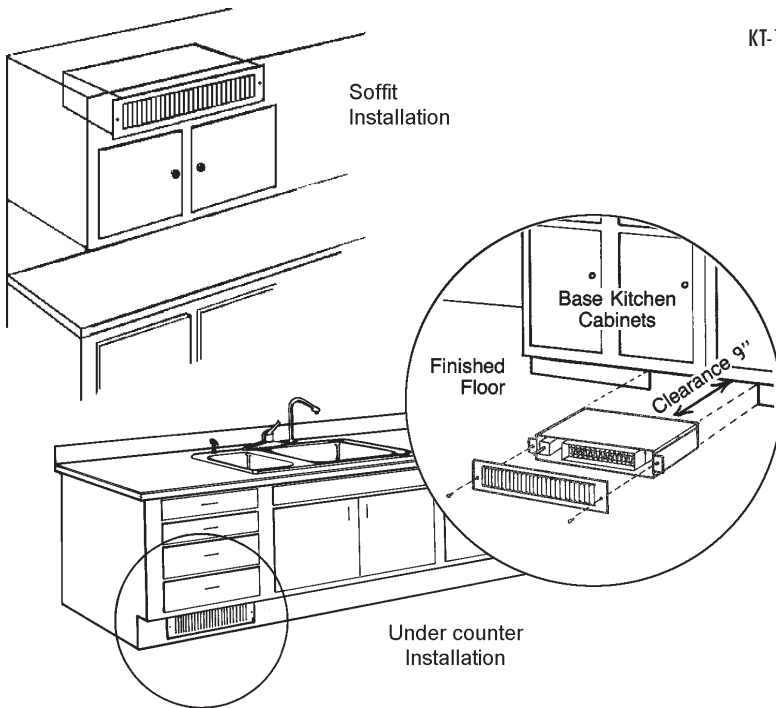
KT-1 - Stat Kit SPST



KT-2 - Stat Kit DPST



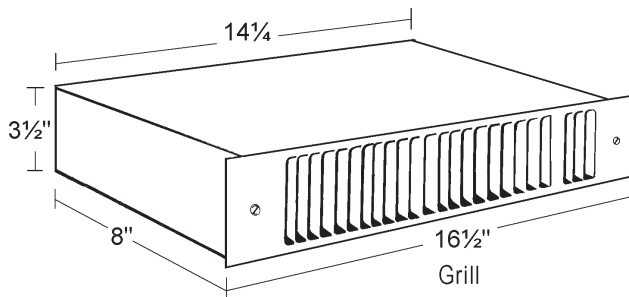
KT-1 Installed



Soffit Installation

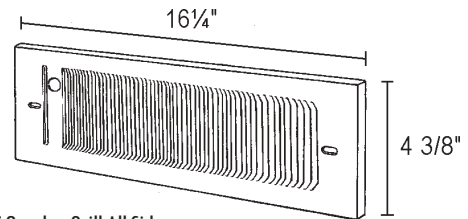
Under counter Installation

DIMENSIONS

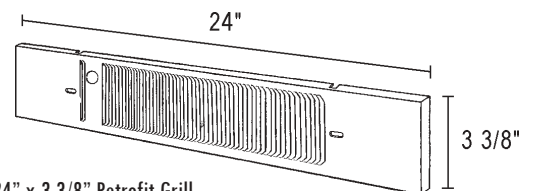


ACCESSORIES:

MODEL	DESCRIPTION	UPC #093319 PART NO.	WEIGHT
KTG	KT Grill - White	12295	1.0
KTG-A	KT Grill - Almond	12296	1.0
KTG-B	KT Grill - Black	12297	1.0
KTG-OL	KT Overlap Grill All Sides	12275	1.0
KTG-24W	24" x 3 3/8" Retrofit Grill	12276	1.5
KT-1	Stat Kit SPST	12298	.5
KT-2	Stat Kit DPST	12301	.5



KTG-OL - KT Overlap Grill All Sides



KTG-24W - 24" x 3 3/8" Retrofit Grill

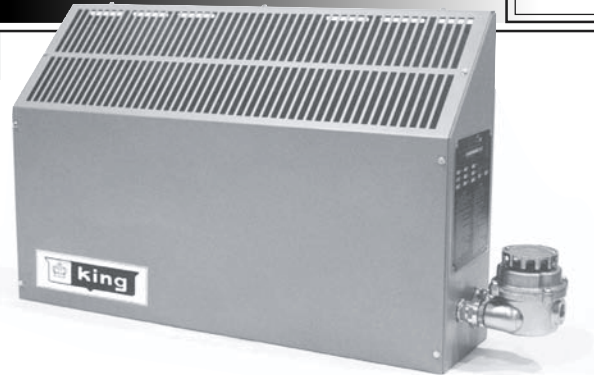
EXPLOSION PROOF WALL HEATER

KX
SERIES

HAZARDOUS ENVIRONMENT
CONVECTION · 1.2 TO 7.6 KW

FEATURES:

- Slope Top Cabinet
- No Exposed Copper or Brass
- 14-Gauge Steel Cabinet
- One of the Shortest Cabinet Lengths Available
- Optional Built-In Thermostat (Group C, D, IIA & IIB Models)
- Incoloy 840 Heating Elements
- Radial-Embossed Aluminum Plate Fins
- Galvanized Steel Mounting Brackets



For hazardous-location heating, rely on the KX heater for the most dependable, trouble-free service available. The harsh operating conditions of this application require the utmost in heater reliability. The unique design features and rugged, quality construction details that have made the KX Series the choice of the oil and gas industry are also appreciated by other heavy-duty industries throughout the world.

Typical installations include paint storage rooms, oil blending rooms, storage areas of flammable liquids and powder blending rooms.

ENGINEERING SPECIFICATIONS:

The explosion-proof convection air heater shall be supplied and installed in accordance with the plans and specifications, with ratings as listed in the schedule of electrical heating equipment, and shall be KX Explosion-Proof Electric Convection Air Heaters. The convection unit heater(s) shall be Underwriters Laboratories Inc. Listed (CE, UL & cUL) for use in Class 1, Divisions 1 & 2, Groups B, C & D; and Class 1, Zones 1 & 2, Groups IIA IIB + H², Hazardous Locations, and shall be rated for National Electrical Code, Temperature Code, and Canadian Electrical Code Temperature Code T2A, 280°C (536°F). The heater shall be a natural convection type intended for wall mounting.

Heating Elements: The heating elements shall consist of high-quality resistance wire embedded in a magnesium oxide refractory and sheathed in an incoloy 840 tube. The elements shall be contained in a 34.4mm (1.35") O.D. aluminum tube assembly with 130.0mm x 95.0mm (5.12" x 3.74") radial-embossed aluminum plate fins spaced at 131 fins per linear meter (40 fins per linear foot). The finned assembly shall be mounted to the rear cabinet panel by galvanized steel brackets.

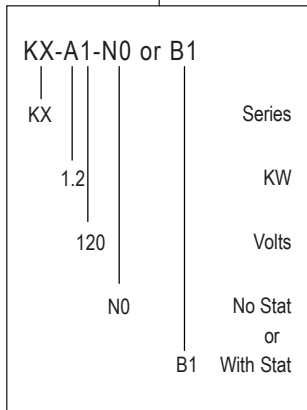
Cabinet Assembly: The front and side cabinet panels shall be fabricated from 14-gauge steel with a baked green-gray epoxy

powder coating over a five-stage pretreatment, including iron phosphate, for protection from corrosive atmospheres. The front cabinet top shall have 9.5mm x 100mm (0.37" x 3.94") slotted openings and shall be sloped 45° to prevent objects from being placed on top causing restricted airflow. The rear cabinet panel shall be fabricated from 14-gauge galvanized steel for protection from corrosive atmospheres.

Mounting Kit: The heater shall be provided with 14-gauge galvanized steel wall mounting brackets for easy installation.

Terminal Enclosure: The terminal enclosure shall be constructed of aluminum, include a grounding lug, and be suitable for Class 1 hazardous locations as indicated in paragraph 1.2.

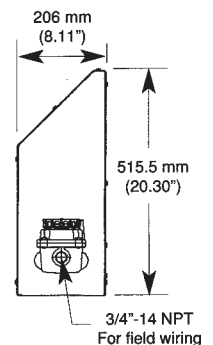
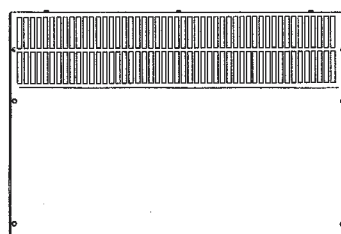
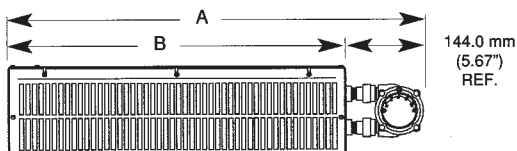
Thermostat Options: The heater shall have available an optional (a) factory, built-in XCT explosion-proof room thermostat with low to high settings (not suitable for Group B & IIC applications or available on all 600-volt heaters or heaters with a current draw greater than 22 amps.), or (b) a remote mounted, explosion-proof room thermostat (not suitable for Group B & IIC applications). Remote contactors required on all 600-volt heaters and heaters with a current draw greater than 22 amps (supplied & installed by others).

MODEL CODE:

SELECTION:

UNIT WATTAGE (KW)	MODEL	PHASE	UNIT OUTPUT (BTU/HR)	CABINET LENGTH (INCHES)	UNIT VOLTAGE (VOLTS)	UNIT CURRENT (AMPS)	*MAXIMUM CIRCUIT FUSE (AMPS)				
WITHOUT XCT BUILT-IN THERMOSTAT - CLASS I, DIV. 1 & 2, GROUPS B, C & D; ZONES 1 & 2, GROUPS IIA, IIB + H,											
1.2	KX-A1-N0	1	4097	31.34	120	10.0	15				
	KX-A2-N0				208	5.8	15				
	KX-A3-N0				240	5.0	15				
	KX-A4-N0				480	2.5	15				
	KX-A5-N0				600	2.0	15				
	KX-A6-N0				277	4.3	15				
1.8	KX-B1-N0	1	6146	31.34	120	15.0	20				
	KX-B2-N0				208	8.7	15				
	KX-B3-N0				240	7.5	15				
	KX-B4-N0				480	3.8	15				
	KX-B5-N0				600	3.0	15				
	KX-B6-N0				277	6.5	15				
3.6	KX-C2-N0	1	12292	31.34	208	17.3	20				
	KX-C3-N0				240	15.0	20				
	KX-C4-N0				480	7.5	15				
	KX-C5-N0				600	6.0	15				
	KX-C6-N0				277	13.0	15				
	4.8				KX-D2-N0	1	16389	49.45	208	23.1	25
KX-D3-N0		240	20.0	25							
KX-D4-N0		480	10.0	15							
KX-D5-N0		600	8.0	15							
KX-D6-N0		277	17.3	20							
7.6		KX-E2-N0	1	25950	59.49				208	36.5	40
	KX-E3-N0	240				31.7	35				
	KX-E4-N0	480				15.8	20				
	KX-E5-N0	600				12.7	15				
	KX-E6-N0	277				27.4	30				
	WITH XCT BUILT-IN THERMOSTAT - CLASS I, DIV. 1 & 2, GROUPS C & D; ZONES 1 & 2, GROUPS IIA, IIB										
1.2	KX-A1-B1	1	4097	31.34	120	10.0	15				
	KX-A2-B2				208	5.8	15				
	KX-A3-B3				240	5.0	15				
	KX-A4-B4				480	2.5	15				
	KX-A6-B6				277	4.3	15				
	1.8				KX-B1-B1	1	6146	31.34	120	15.0	20
KX-B2-B2		208	8.7	15							
KX-B3-B3		240	7.5	15							
KX-B4-B4		480	3.8	15							
KX-B6-B6		277	6.5	15							
3.6		KX-C2-B2	1	12292	31.34				208	17.3	20
	KX-C3-B3	240				15.0	20				
	KX-C4-B4	480				7.5	15				
	KX-C6-B6	277				13.0	15				
	4.8	KX-D3-B3				1	16389	49.45	240	20.0	25
		KX-D4-B4							480	10.0	15
KX-D6-B6		277	17.3	20							
KX-E4-B4		480	15.8	20							

DIMENSIONS:
Physical Dimensions

Heater kW Rating	"A" Dimension	"B" Dimension
1.2 - 3.6	940.0 mm (37.0")	796.0 mm (31.34")
4.8	1400.0 mm (55.125")	1256.0 mm (49.45")
7.6	1654.0 mm (65.125")	1511.0 mm (59.49")

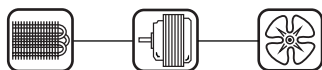


WALL HEATER

LPW
SERIES

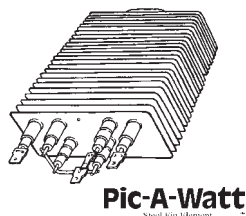
PIC-A-WATT FAMILY - 1250 WATTS TO 4500 WATTS

FAN FORCED - BEST



FEATURES:

- Pic-A-Watt® Element
- Cast Iron Motor
- Aluminum Fan, 5-Blades
- Multiple Wattage
- Selector Switch - Fan / Heat / Off
- 20 Gauge Powder Coated Grill
- Standard Color - Bright White
- Safety light illuminates when the thermal cutout trips and turns off when the limit resets.
- Safety limit turns off power to the element if it overheats and automatically resets.
- 20 Gauge Electro-Galvanized Steel Recess
- Can with ground wire. Approved for direct contact with building insulation.
- Opt. Built-in 1-Pole unit mount thermostat, 40-90°F operating range.
- Optional Retrofit Grill
- Optional Surface Wall Box
- Optional Color - Almond
- Optional Tamperproof Controls
- Available in Ceiling Model Refer to Index



The LPW picks up where the PAW leaves off with a wattage range up to 4500W. This is our most popular large wall heater used in both residential and commercial applications.

ity built-in thermostat has degrees on the label so there is no guessing about the temperature being set.

It comes standard with a rotary 3-position selector switch and has a fan delay to help dissipate the heat from the steel plate fin elements which will prolong the life of the heater and increase energy efficiency since it blows the residual heat into the room. The high qual-



ENGINEERING SPECIFICATIONS:

Contractor shall supply and install, LPW-series wall surface mounted forced-air electric heaters, manufactured by King Electrical Mfg. Company, of the wattage and voltage as indicated on the plans.

Motor: Heavy duty, cast iron, unit bearing, permanently lubricated with 20cc oil reservoir, 1440 RPM. Enclosed impedance protected with intake air cooling motor for increased bearing life.

Fan: High efficiency dynamically balanced 5-blade aluminum impeller fan. 185 CFM.

Elements: Elements assemblies shall be non-glowing design. Element assemblies shall consist of three steel sheathed heating tubes in a furnace brazed, plate finned, block design. Each sheathed tube shall contain coiled Ni-Chrome wire, embedded in an insulator of magnesium oxide. The element assembly shall provide a minimum of seven (7) possible wattage configurations

available for selection during field installation. The use of external resistors, diodes, or other weak links to obtain multiple wattages will not be acceptable.

Fan / Heat / Off Switch: 3-position switch provides heating and summer fan only operation. The DPST off switch provides a "positive off" that disconnects all ungrounded conductors.

Safety Limit: The thermal cutout turns off power to the heater in the event of overheating, and automatically resets when temperature returns to normal.

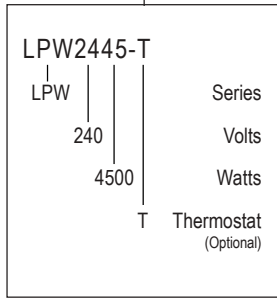
Safety Light: Illuminates when the thermal cutout trips and turns off when the limit resets.

Wall Box: 20 gauge electro-galvanized steel with factory installed ground wire. Minimum Clearance to Floors and Sidewalls. Zero clearance to combustibles.

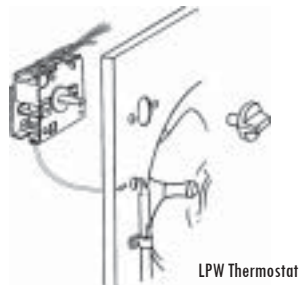
Grill: 20 ga. steel finished in a gloss white powder coated paint.

Options: 1-Pole built in thermostat 45-80° operating range, retrofit grill, and surface wall box.

MODEL CODE:

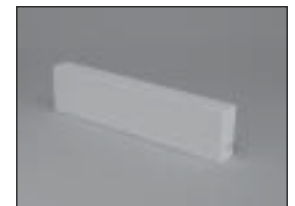


Standard Color: Bright White

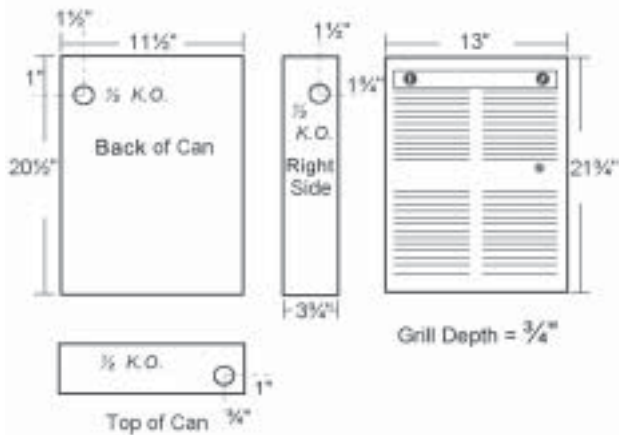


SELECTION:

WATTAGE	120V		208V		240V		277V		WEIGHT (lbs)
	MODEL	UPC #093319 PART NO.	MODEL	UPC #093319 PART NO.	MODEL	UPC #093319 PART NO.	MODEL	UPC #093319 PART NO.	
1250-1500-1750 2000-2250-2750	LPW1227	18189							19
2250-2750-3000 3250-3500-3750 4000-4500			LPW2045	18165	LPW2445	18162			
2000-3000-4000							LPW2740	18167	
OPTIONS									
ADD SUFFIX:	DESCRIPTION								
-I	For Interior and Grill only								15
-H	For Interior only								11.5
-A	For Almond Grill								19
-OG	For Retro Grill								24
-T	For Factory Installed 1-Pole Thermostat								20



DIMENSIONS



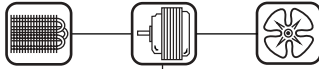
ACCESSORIES:

MODEL	DESCRIPTION	UPC #093319 PART NO.	WEIGHT
UWIC	Recess Can	12590	6.5
UWSA	Surface Can - White	12599	7.5
UWSA-A	Surface Can - Almond	12595	7.5
LPWG	Grill - White	18171	4.5
LPWG-A	Grill - Almond	18285	4.5
LPWG-SS	Grill - Stainless Steel	18280	4.5
LPWOG	Oversized Grill 21¾"H x 15½"W	18159	6.0
LPWOG-XL	Oversized Grill 21¾"H x 16½"W	18184	6.5
LPW-TPC	Tamper Proof Cover for Controls 3¼" x 3¼" x 18¾"	18174	1.5
LPT-1	Replacement Thermostat SPST	18155	.6

ARCHITECTURAL HEATER

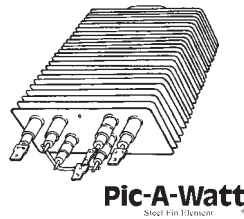


PIC-A-WATT FAMILY



FEATURES:

- Pic-A-Watt® Element
- Cast Iron Motor
- Aluminum Fan, 5-Blades
- Multiple Wattage
- TP Selector Switch (Heat, Off, Fan Only)
- Aluminum Bar Grill
- Safety light illuminates when the thermal cutout trips and turns off when the limit resets.
- Safety limit turns off power to the element if it overheats and automatically resets.
- 20 Gauge Electro-Galvanized Steel Recess
- Can with ground wire. Approved for direct contact with building insulation.
- Optional 1-Pole tamperproof unit mount thermostat, 40°-90°F (TP) operating range.
- Optional Surface Wall Box
- Optional Colors - Bronze and White



Entry ways, corridors and all public areas are best heated with the LPWA Series. The heavy grill and frame can take heavy traffic and abuse.

Tamper resistance screws prevent unwanted disassembly of the grill and the controls are recessed out of reach of fiddling fingers. High wattage and air flow capacities replenish entry ways and hallways to prevent drafts from entering the building's core.



Perfectly suited for entryways.

ENGINEERING SPECIFICATIONS:

Contractor shall supply and install, LPWA-series wall surface mounted forced-air electric heaters, manufactured by King Electrical Mfg. Company, of the wattage and voltage as indicated on the plans.

Grill: Heavy 10 gauge extruded aluminum grill provides high impact resistance to damage. Grill is attached with tamper proof screws (Hex Socket, Pinned). All controls are easily accessed through grill with slotted screw driver. Standard color is Anodized Aluminum. Optional Dark Bronze or White available.

Elements: Elements assemblies shall be non-glowing design. Element assemblies shall consist of three steel sheathed heating tubes in a furnace brazed, plate finned, block design. Each sheathed tube shall contain coiled Ni-Chrome wire, embedded in an insulator of magnesium oxide. The element assembly shall provide a minimum of seven (7) possible wattage configurations available for selection during field installation. The use of external resistors, diodes, or other weak links to obtain multiple wattages will not be acceptable.

Built-in Thermostat: Single pole factory installed hydraulic capil-

lary tube with precision control. Operating range 40°F to 90°F. Thermostat is tamperproof to prevent unauthorized adjustment.

Fan / Heat / Off Switch: Tamper proof 3 position switch provides heating and summer fan only operation. The DPST off switch provides a "positive off" that disconnects all ungrounded conductors. Controls are easily accessed through grill with slotted screw driver. Not available on ceiling models.

Fan Delay Switch: The fan continues to operate after the thermostat shuts off in order to remove the residual heat left in the elements.

Unit Bearing Motor: Permanently cast iron lubricated motor with enclosed rotor provides long lasting trouble free operation and a 20 cc oil reservoir. Thermally protected, 1300 RPM.

Indicator Light: Illuminates when the thermal cutout trips and turns off when the limit resets.

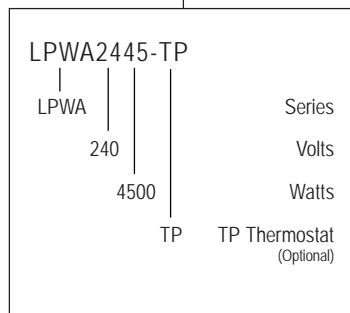
Auto-Reset Thermal Cutout: Heater shuts off when an over-heating condition exists and automatically resets when the normal operating temperature returns.

Wall Box: 20 gauge electro-galvanized steel. Factory installed ground wire. Minimum Clearance to Floors and Sidewalls. Zero clearance to combustibles.

SELECTION:

WATTAGE	120V		208V		240V		277V		WEIGHT (lbs)
	MODEL	UPC #093319 PART NO.	MODEL	UPC #093319 PART NO.	MODEL	UPC #093319 PART NO.	MODEL	UPC #093319 PART NO.	
1250-1500-1750 2000-2250-2750	LPWA1227	18250							24
2250-2750-3000 3250-3500-3750 4000-4500			LPWA2045	18251	LPWA2445	18193			
2000-3000-4000							LPWA2740	18252	
OPTIONS									
ADD SUFFIX:	DESCRIPTION								
-BRONZE	Dark Bronze Grill Color								24
-WHITE	White Grill Color								24
-CT24	For Contactor/24V Transformer for use w/ LV Thermostat								24.5
-CX	For Contactor w/ Coil Voltage same as heater								24.5
-S	For Heater shipped w/ Surface Can								25
-TP	For Built-In Tamper Proof Thermostat								24

MODEL CODE:

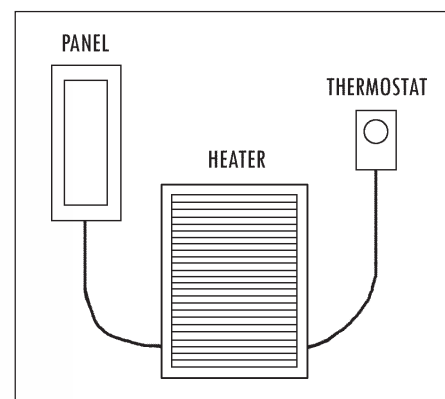


Standard Color: Anodized Aluminum

ACCESSORIES:

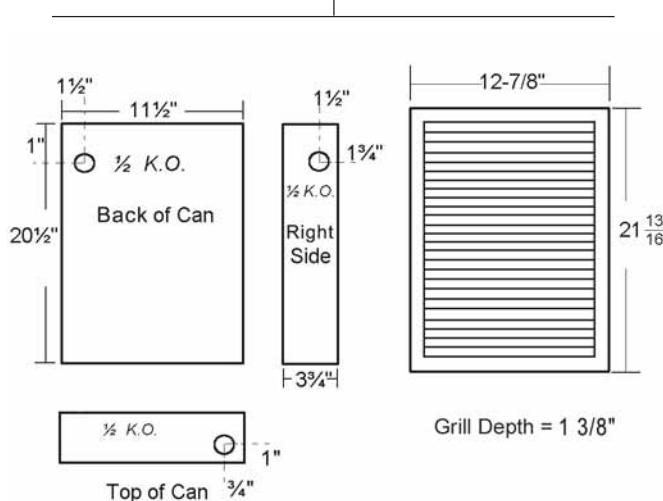
MODEL	DESCRIPTION	UPC #093319 PART NO.	WEIGHT
UWIC	Recessed Wall Can	12590	6.5
LPWASA	Surface Wall Can	18197	7.5
LPWAG	LPWA Series Grill - Anodized Aluminum	18158	7.0
LPWA-TP	Replacement Tamperproof STAT	18140	2.0

LPW & LPWA INSTALLATION WIRING DIAGRAM FOR REMOTE THERMOSTAT



Power must be routed to heater first, then to remote thermostat. This is due to the fan delay circuit needed to cool the elements on shut down.

DIMENSIONS



CEILING HEATER

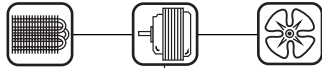
LPW
SERIES

PIC-A-WATT FAMILY - 1250 WATTS TO 4000 WATTS



Grill Dimensions: 13"L x 3/4"W x 2 1/4"H
Rough-In Cut: 11 1/2"L x 3 3/4"W x 20 1/2"H

Photo shown with
Optional T-Bar Panel

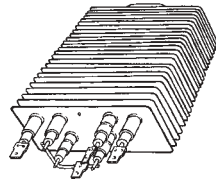


FEATURES:

- Pic-A-Watt® Element
- Efficiency Motor
- Aluminum Fan, 5-Blades

- Ceiling Mount
- Multiple Wattage
- Selector Switch
- 20 Gauge Powder Coated Grill
- Standard Color - Bright White
- Safety limit turns off power to the element if it overheats and automatically resets.
- 20 Gauge Electro-Galvanized Steel Recess Can with ground wire.

- Approved for direct contact with building insulation.
- Optional Retrofit Grill
- Optional Surface Wall Box
- Optional Color - Almond
- Optional Tamperproof Controls



Pic-A-Watt
Steel Fin Element

ENGINEERING SPECIFICATIONS:

Motor: Permanently lubricated unit bearing motor with 20cc of oil. Enclosed rotor provides long lasting trouble free operation. Thermally protected, 1300 RPM.

Fan: High efficiency dynamically balanced, 5-bladed aluminum impeller fan provides 185 CFM.

Elements: Elements assemblies shall be non-glowing design. Element assemblies shall consist of three steel sheathed heating tubes in a furnace brazed, plate finned, block design. Each sheathed tube shall contain coiled Ni-Chrome wire, embedded in an insulator of magnesium oxide. The element assembly shall provide a minimum of seven (7) possible wattage configurations available for selection during field installation. The use of external resistors, diodes, or other weak links to obtain multiple wattages will not be acceptable.

Safety Limit: The thermal cutout turns power off to the element in the event of overheating, and automatically resets when the temperature returns to normal.

Safety Light: Illuminates when the thermal cutout trips and turns off when the limit resets.

3-Position Switch: Heat/Fan/Off Switch allows for heat or summer fan only operation. The DPST switch provides a "positive off" that disconnects all ungrounded conductors. Not available on ceiling models.

Fan Delay Switch: The fan continues to operate after the thermostat shuts off in order to remove the residual heat left in the elements.

Wall Box: 20 gauge electro-galvanized steel. Factory installed ground wire. Zero Clearance to insulation.

Grill: 20 gauge steel finished in a gloss white powder coated paint.

Options: Surface box, retrofit grill, almond grill, tamperproof controls, ceiling models and units without thermostat installed for remote thermostat placement.

SELECTION:

WATTAGE	120V		208V		WEIGHT (lbs)	
	MODEL	UPC #093319 PART NO.	MODEL	UPC #093319 PART NO.		
1250-1500-1750 2000-2250-2750	LPW1227C	18188			20	
	LPW1227C-G	18170				
2250-2750-3000 3250-3500-3750 4000			LPW2045C	18190		
			LPW2045C-G	18172		
WATTAGE	240V		277V			WEIGHT (lbs)
	MODEL	UPC #093319 PART NO.	MODEL	UPC #093319 PART NO.		
2250-2750-3000 3250-3500-3750 4000	LPW2445C	18164				20
	LPW2445C-G	18175				
2000-3000-4000			LPW2740C	18192		
			LPW2740C-G	18177		
OPTIONS						
ADD SUFFIX:	DESCRIPTION					
-I	For Interior and Grill only				15	
-H	For Interior only				11.5	
-G	Panel For Grid T-Bar only - 24" x 24"				24	

MODEL CODE:

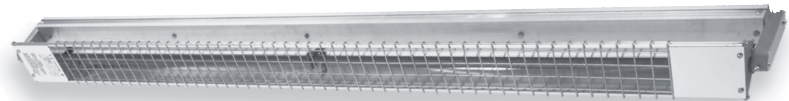
LPW1227C
 LPW | 120 | 2750 | C
 Series | Volts | Watts | Ceiling

Standard Color: Bright White

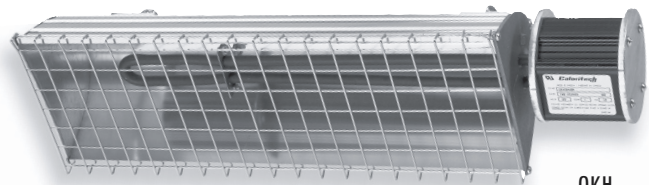
CONSULT FACTORY
FOR AVAILABILITY
AND LEAD TIME

RADIANT HEATER

OK
SERIES



OKB



OKH



FEATURES:

- Radiant Heat
 - Incoloy Element
 - Extruded Aluminum Housing
 - Mounting Hooks (OKH only)
 - 60° Spread
 - Indoor or Outdoor
 - Set Screw Adjustment
 - Eyebolts for Chain Mounting
 - Use 90°C Wire
- OKB Features:
- Anodized Reflector
 - Tilting Swivel Bracket
- OKH Features:
- Hairpin Incoloy Sheathed Element
 - Moisture Resistant Housing
 - Sliding Mounting Pads

The major benefit of infrared heating is its ability to transfer heat to a person or object without heating the surrounding air. The OKB is commonly used for indoor spot heating applications where a great amount of heat is not required and where the mounting height is relatively low. Example installations

would include churches, garages, and indoor pools.

The OKH is excellent for indoor and outdoor areas where increased density. For example: racetracks and other outdoor stadiums, parking garage ramps, aircraft hangars and high bay industrial buildings.

ENGINEERING SPECIFICATIONS:

Contractor shall supply and install, OK-Series radiant heaters, manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

Element: Shall be of Ni-Chrome wire embedded in MgO with an Incoloy metal sheath.

Junction Box: Will be extruded aluminum and provide with heater O-Ring seals which may be used to seal off Junction Box from moisture and are included on OKH units. Units over 3000 Watts shall have single or dual Incoloy® elements and shall swivel to direct radiant pattern to best meet the needs of application.

Mounting: Shall be provided by means of 2 eye hooks per heater.

Radiant Heater Control

TA315



The TA315 is an integration of the selectable heating or cooling

thermostat and the percentage timer.

HEATING MODE: The timer cycle is started when the temperature falls below the setpoint. The thermostat output cycles ON for the percentage on time set by the TIME ADJUST knob and then OFF for the remainder of the time cycle duration. At the end of a timer cycle, a new cycle will begin as long as the temperature remains at or below the setpoint. If at any time the temperature rises more than 2°F above the setpoint,

the current timing cycle will be immediately terminated. After a cycle has been terminated, a new cycle will not be started until the temperature falls below the setpoint.

SPECIFICATIONS:

Input Voltage: 120VAC to 240VAC
 Load: 20 Amps @ 120VAC
 Thermostat Range: 40°F - 110°F
 Time Cycle Duration: 5 or 10 Min.
 Percentage On Time: 10% to 90%
 On/Off Differential: 2°F Nominal
 Housing: UL Listed NEMA 4X

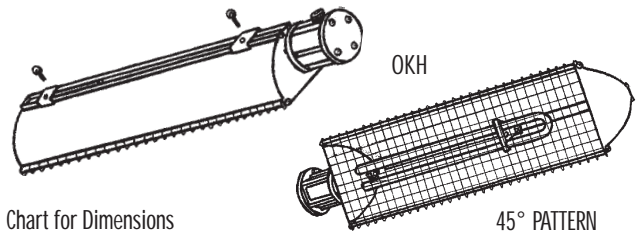
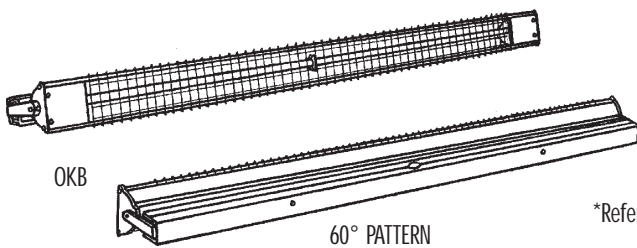
MODEL CODE:

OKB593C6-208V

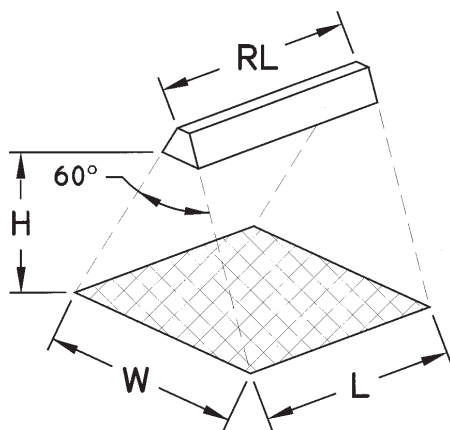
OKB	59"	3000	C6	208	Series	Length	Watts	60° Reflector	Volts
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SELECTION/DATA:

PATTERN SPREAD	WATTAGE	MODEL	UPC #093319 PART NO.	TYPE	VOLTS	AMPS	MTG. HEIGHT (FT.)	COVERAGE			DIMENSIONS			WEIGHT (LBS.)
								WIDTH	LENGTH	FT ²	LENGTH	WIDTH	HEIGHT	
45°	1600	OKH191H6R-120V	11650	Hairpin Element	120-1Ø	13.3	7	4.6	5.6	25.7	23.5"	7"	5"	11
							8	5.8	6.6	37.8				
		OKH191H6R-240V	11655		9	6.9	7.6	52.3						
					10	8.1	8.6	69.1						
60°	3000	OKB593C6-208V	11665	Single Element	208-1Ø	14.4	8	5.8	9.2	52.9	61.5"	4.25"	5"	4
							9	6.9	10.2	70.4				
		OKB593C6-240V	11660		10	8.1	11.2	90.2						
					11	9.2	12.2	112.2						
60°	5000	OKB595E6-208V	11680	Double Element	208-1Ø	24.0	10	8.1	11.2	90.2	61.5"	4.25"	5"	4
							11	9.2	12.2	112.2				
		OKB595E6-240V	11675		12	10.4	13.2	136.6						
					13	11.5	14.2	163.3						
60°	5000	OKB595E6-480V	11685	Double Element	480-1Ø	10.4	14	12.7	15.2	192.3	61.5"	4.25"	5"	4
							15	13.8	16.2	223.6				
		OKB595E6-240V	11675		16	15	17.2	257.1						
					13	11.5	14.2	163.3						
Control		TA315	19140	Percentage Timer/Thermostat	120/240	20					3.75"	3.25"	7.75"	1



*Refer to SELECTION Chart for Dimensions



RL = REFLECTOR LENGTH
H = MOUNTING HEIGHT
W = FLOOR WIDTH
L = FLOOR LENGTH

MODEL	RECOMMENDED MTG. HEIGHT
OKH 1600 WATT	8-10 FT
OKB 3000 WATT	9 - 12 FT
OKB 5000 WATT	11 - 14 FT

MINIMUM SPACE CLEARANCES					
Minimum	WALL	END	CEILING	FLOOR	BETWEEN
Distance to:	24"	24"	24"	72"	36"

Use the table to choose the proper mounting height, heated space coverage, and the desired temperature rise.

For example: a warehouse that is 40°F and has a work space area

of 135ft² that needs to be 60°F to make workers comfortable. This requires a temperature rise of 20°F. Referring to the table, we find that the OKB at 3000 Watts mounted at 12ft would provide the

required coverage. Note that the coverage area and temperature rise are calculated at 3ft above the floor level. This means that a heater mounted at 10ft high from the floor would produce the values

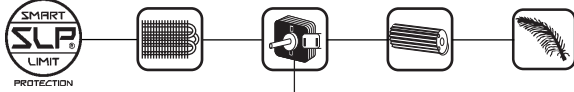
in the table measured 7ft vertically down from the fixture.

DANGER: Take precautions to ensure that combustible materials are kept a safe distance away.

WALL HEATER



PIC-A-WATT® - THE ORIGINAL
FAN FORCED - BEST

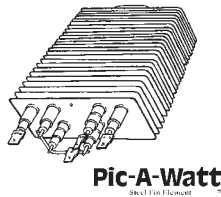


*ENERGY
EFFICIENCY
SEE PAGE 110*



FEATURES:

- Smart Limit Protection®
 - ◻ Pic-A-Watt® Element
 - ◻ C-Frame Motor
 - ◻ Squirrel Cage Blower
 - ◻ Quiet Running
- Multiple Wattage Element
 - 20 Gauge Powder Coated Grill with contemporary die formed round corners.
 - Standard Color - Bright White
 - Bi-Metallic Limit
 - Safety thermal cutout trips and turns off heater.
 - Optional 1-Pole or 2-Pole unit mount thermostat 45°-80°
 - Optional surface wall box
 - Optional Color - Almond
 - Optional ULTRA Custom Bar Grill
 - Available in Stainless Steel Refer to Index



The original multi-watt steel fin heater. This is a unique King design that allows you to change the wattage of the heater by simply disconnecting a color coded terminal. But the best feature of this unique heater is how quiet it is. The high mass steel element transfers heat quietly and efficiently. The sleek appearance gives the desired look of a register grill used in central forced air systems.

This is our most popular heater for a single family residence or upscale condominium. The element has a five year warranty and 12 year history of reliability. For

best results use with an electronic line voltage wall thermostat.



NOTE: Heaters cannot be installed vertically.

ENGINEERING SPECIFICATIONS:

Contractor shall supply and install, PAW-series wall-mounted forced-air electric heaters, manufactured by King Electrical Mfg. Company, of the wattage and voltage as indicated on the plans.

Ratings: Heaters shall be available in wattages of 250 to 2,250 at 120, 208, 240, or 277 volts.

Blower and Motor: A tangential cylindrical blower, delivering 65 CFM, shall be driven by a shaded pole, permanently lubricated, C-frame type motor with impedance protection and sealed bearings. Motors shall be the same voltage as the heater.

Elements: Elements assemblies shall be non-glowing design. Element assemblies shall consist of three steel sheathed heating tubes in a furnace brazed, plate finned, block design. Each sheathed tube shall contain coiled Ni-Chrome wire, embedded in an insulator of magnesium oxide. The element assembly shall provide a minimum of seven (7) possible wattage configurations available for selection during field installation. The use of external resistors, diodes, or other weak links to obtain multiple watt-

ages will not be acceptable.

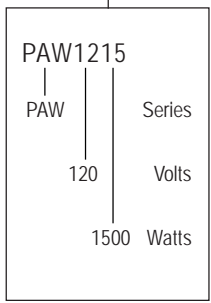
Thermal Overload: Heaters shall be equipped with thermal overload protection, which disconnects elements in the event normal operating temperatures are exceeded. The thermal overload protection device shall automatically reset when normal operating temperatures are reached or manually reset by the thermostat.

Wall Can: The wall can shall be 20 gauge electro-galvanized steel and shall contain a minimum of three (3) knockouts through which power leads are brought. The wall can shall have a depth gauge indicator, and a factory installed, insulated and stranded copper grounding wire. Minimum Clearance to Floors and Sidewalls. Zero clearance to combustibles.

Grill: The grill shall be louvered, one piece design with rounded edges on all four sides, with rounded corners to prevent snags from contact with other materials. The grill shall be epoxy powder coated in white or almond.

Approval: Heaters shall be listed and approved by Underwriters' Laboratories or equal.

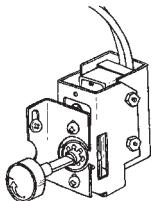
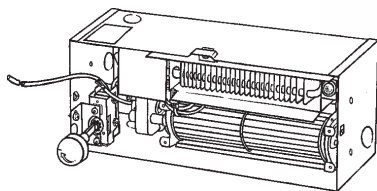
MODEL CODE:



Standard Color: Bright White



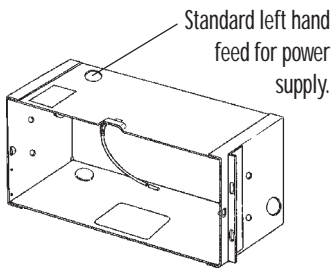
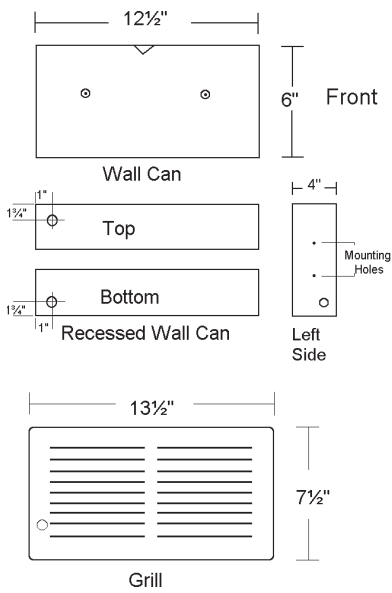
ULTRA Grill
(No Built-In Thermostat)
Patent Pending



PT-1 - Stat Kit SPST

PT-2 - Stat Kit DPST

DIMENSIONS



PAWF - Flanged Wall Can for Remodel Work or Wood Walls.

SELECTION:

WATTAGE	120V		208V		240V		277V		WT. (lbs)
	MODEL	UPC #093319 PART NO.	MODEL	UPC #093319 PART NO.	MODEL	UPC #093319 PART NO.	MODEL	UPC #093319 PART NO.	
250-500-750-1000-1250-1500	PAW1215	16303							9
500-750-1000-1250-1500-1750-2250			PAW2022	00512	PAW2422	16300			
1000-2000							PAW2720	16302	
OPTIONS									
ADD SUFFIX:	DESCRIPTION								
-U	For ULTRA Custom Bar Grill - Not available with built-in thermostat.								12
-I	For Interior and Grill only (No Wall Can)								7.5
-H	For Interior only (No Can or Grill)								6
-OGA	For 13"H x 13 1/2"W Retrofit Grill								11
-OGB	For 8 1/2"H x 17"W Retrofit Grill								11

ACCESSORIES:

MODEL	DESCRIPTION	UPC #093319 PART NO.	WEIGHT
PAWF	Recess Can W/Flange (Remodel)	16319	3.5
PAWIC	Recess Wall Can	00515	3.5
PAWS	PIC-A-WATT Surface Can - White 13 1/2"L x 4 1/2"W x 7 1/2"H	16305	4
PAWS-A	PIC-A-WATT Surface Can - Almond 13 1/2"L x 4 1/2"W x 7 1/2"H	19298	4
PAWG	Grill - White	16304	2
PAWG-A	Grill - Almond	16335	2
PAW-GUARD	Safety Guard for PAW	16550	3.5
PAWOG-A	13"H x 13"W Retrofit Grill	00555	3
PAWOG-B	8 1/2"H x 17"W Retrofit Grill	00560	3
ULTRA-W	ULTRA Grill - White	18740	4
ULTRA-A	ULTRA Grill - Almond	18745	4
PT-1	SP STAT KIT	16306	.5
PT-2	DP STAT KIT	16307	.5
PAW-DISPLAY	Counter Top Display	16308	20



PORTABLE HEATER

PKB
SERIES

UNIT HEATER



FEATURES:

- Spiral Steel Fin Element
- Cast Iron Motor
- Aluminum Fan Blade
- Built-in Thermostat
- Heavy Gauge Steel Enclosure
- Adjustable Discharge Louvers
- Totally Enclosed Motor
- SO Cord (No Plug)
- Tip Over Switch
- Electro-Galvanized Construction
- Baked Enamel Finish
- Handle for Carrying



This workhorse of a portable heater is typically used on jobsites where dry heat is needed in an otherwise moist location. Faster dry times are obtained by using electric instead of propane; therefore, dry times are reduced by at least three times.

the keys to getting the job done right. Temporary heating is the other typical application that these heaters fill, using fewer heaters and providing temporary comfort in time of need. Low temperature rise and high airflow across the coils makes it ideal for dryout applications.

Dry heat and air movement are

ENGINEERING SPECIFICATIONS:

Contractor shall supply and install, PKB-Series portable heaters, manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

Construction: All exterior and interior metal enclosure parts are made from 20GA electro galvanized steel with a rust inhibiting baked enamel finish. Smooth rounded corners and protective edge trim give an attractive modern appearance.

Adjustable Outlet Louver: Louvers direct air up or down as needed for the heating application.

Rear Intake Screen: Heavy gauge steel screen protects against foreign objects making accidental contact with the rotating fan blade.

Spiral Fin Elements: The metal sheath element is brazed with spiral fins and then molded into a coil configuration. This combination produces the best heat transfer while eliminating the potential for hot spots by positioning the element in the maximum airflow stream.

Totally Enclosed Fan Motor: Permanently lubricated cast iron

with 20 cc of oil. Epoxy coated motor with enclosed rotor resists moisture and corrosion for long lasting trouble free operation.

Aluminum Fan Blade: Axial flow type fan mounted directly to the motor shaft for maximum efficiency.

Auto-Reset Thermal Cutout: Power is disconnected from the element if an over heated condition occurs. The fan continues to run to dissipate excess heat from the element. The element is re-energized automatically when the normal operating temperature returns.

Internal Controls: Magnetic contactors are standard on the following models: 1) all 480V heaters, 2) all 208V-1Ø, 240V-1Ø, and 277V-1Ø heaters above 6-KW, 3) all 3Ø heaters. The control voltage is equal to the line voltage (208, 240 or 277) except for 480V models where a transformer is provided for 24V Control. Subcircuit fusing is provided when the heater ampacity exceeds 48 amps to comply with NEC standards. A fan delay is provided standard on models 12.5-KW and above to dissipate residual heat from the heating elements.

Factory Installed Options:

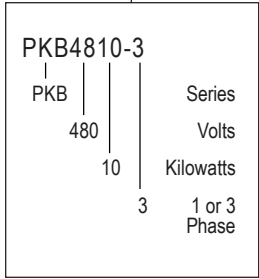
- **Power Contactor:** Standard on heaters above 5KW and on all 3-Phase models, optional on 3 & 5KW 1-Phase heaters.
- **24 Volt Control:** Standard on 480V heaters.

Other Control Options:

- Summer Fan Switch

SELECTION/DATA:

MODEL CODE:



HEATER SIZE	DIMENSIONS		
	HEIGHT	DEPTH	WIDTH
A	20.5"	11"	15"
B	20.5"	18"	15"
C	22.5"	11"	15"
D	22.5"	18"	15"
E	24.5"	18"	15"

HEATER SIZE	BRACKET DIMENSIONS		
	HEIGHT	DEPTH	WIDTH
A, C	4"	10"	14.25"
B, D, E	4"	17"	14.5"

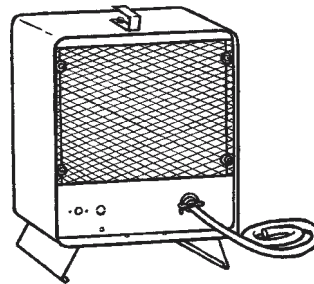
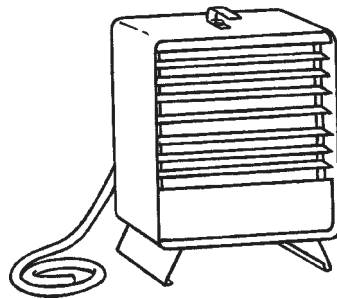
CATALOG NO.	KW	BTUH (000)	Ø	VOLTS	**AMPS	MOTOR HP	CFM	TEMP RISE	AIR THROW	***SIZE	WT (LBS.)
PKB2403-1* PKB4803-1	3	11	1	240 480	12.5 6.3	3 Watt	300	35°	14ft	A	25 28
PKB2405-1* PKB4805-1	5	17.0	1	240 480	20.8 10.4	9 Watt	400	40°	16ft	A	25 28
PKB2407-1* PKB4807-1	7.5	25.6	1	240 480	31.3 15.6	16 Watt	600	40°	20ft	C	29 32
PKB2410-1* PKB4810-1	10	34.1	1	240 480	41.7 20.8	25 Watt	725	44°	24ft	B	32 35
PKB2412-1* PKB4812-1	12.5	42.7	1	240 480	52.1 26.0	35 Watt	825	48°	30ft	B	32 35
PKB2415-1* PKB4815-1	15	51.2	1	240 480	62.5 31.3	35 Watt	925	51°	33ft	B	37 40
3-PHASE											
PKB2407-3* PKB4807-3	7.5	25.6	1-3	240 480	18.0 9.0	16 Watt	600	40°	20ft	B	42 45
PKB2410-3* PKB4810-3	10	34.1	1-3	240 480	24.1 12.0	25 Watt	725	44°	24ft	B	42 45
PKB2412-3* PKB4812-3	12.5	42.7	1-3	240 480	30.1 15.0	35 Watt	825	48°	30ft	B	42 45
PKB2415-3* PKB4815-3	15	51.2	1-3	240 480	36.1 18.0	35 Watt	925	51°	33ft	B	46 49
PKB2420-3* PKB4820-3	20	68.3	3 1-3	240 480	48.1 24.1	50 Watt	1100	57°	37ft	D	46 49
PKB2425-3* PKB4825-3	25	85.3	3	240 480	60.1 30.1	50 Watt	1350	58°	41ft	D	48 51

*Approved for 208 volt operation. Heater will draw 13% less amps and 25% less wattage.

**Does not include motor load.

***Refer to DIMENSIONS Chart

Note: Consult Factory for other voltage's or Hertz requirements.

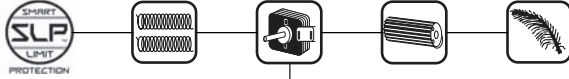


UNIT HEATER

PWH
SERIES

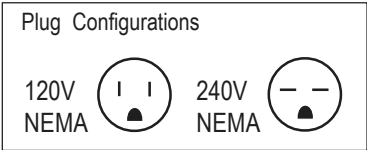
1000 WATTS TO 2400 WATTS

SHOP HEATER



FEATURES:

- Smart Limit Protection™
 - Dual Open Coil Element
 - C-Frame Motor
 - Squirrel Cage Blower
 - Quiet Running
- Wall/Floor Bracket
 - Dual Wattage
 - 20 Gauge Powder Coated Cabinet with contemporary die formed round corners.
 - Standard Color - Bright White
 - Safety limit turns off power to the element if it overheats and automatically resets.
 - 1-Pole built-in capillary tube thermostat, 45°-80° operating range.
- Dimensions:** 13½" L x 4" W x 10" H
Bracket: 14¼" L x 5½" W x 7" H



ENGINEERING SPECIFICATIONS:

Contractor shall supply and install, PWH-Series unit heaters, manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

Ratings: Heaters shall be available in wattages of 250 to 2,400, at 120, 208, or 240 volts.

Blower and Motor: A tangential cylindrical blower, delivering 95 CFM, shall be driven by a shaded pole, permanently lubricated, C-frame type motor with impedance protection and sealed bearings. Motors shall be the same voltage as the heater. The motor and all wiring shall be totally isolated from the heating chamber for protection from heated air.

Elements: Elements assemblies shall be constructed of coiled nickel chromium alloy, corrosion resistant wire strung through a minimum of four rows of mica insulator. Element assemblies shall have factory provided connection to allow field modification to 50% wattage.

Thermal Overload: Heaters shall be equipped with thermal overload **SMART LIMIT PROTECTION™**, which disconnects elements and motor in the event normal operating temperatures are exceeded. If thermal overload trips due to abnormal operating temperatures, thermal overload shall remain open until manually reset by turning the heater off for fifteen minutes. Automatic reset thermal overloads, which allow the element to continue to cycle under abnormal conditions will not be accepted.

Wall Can: The wall can shall be 22 gauge electro-galvanized steel and shall contain knockouts through which power leads are brought. The wall can shall be provided with a depth gauge, extending the full length of the wall can. The wall can shall be supplied with a factory installed grounding wire.

Grill: The grill shall be louvered, one piece design with rounded edges on all four sides, with rounded corners to prevent snags form contact with other materials. The grill shall be epoxy powder coated in the color specified on the plans.

Approval: Heaters shall be listed and approved by Underwriters' Laboratories.



SMART LIMIT PROTECTION™

The PWH works great as a small shop heater as the swivel bracket will wall or ceiling mount. Then the heater can be rotated to direct the warm air right where you need it. It comes with a built-in thermostat and a 6ft, 3-wire plug. The quiet operation allows you to place this heater in and all applications that need heating.

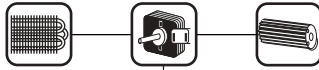
SELECTION/DATA:

WATTAGE	120V			240V			WEIGHT (lbs)
	MODEL	UPC #093319 PART NO.	AMPS	MODEL	UPC #093319 PART NO.	AMPS	
1000	PWH1210	16121	8.3	PWH2410	16123	4.5	10
1500	PWH1215	16120	12.5	PWH2415	16125	6.3	
2000				PWH2420	16124	8.3	
2400				PWH2424	16122	10	

WALL HEATER

PZ
SERIES

FAN FORCED
GOOD



FEATURES:

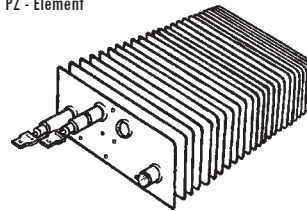
- Steel Fin Element
- C-Frame Motor
- Squirrel Cage Blower
- 20 Gauge Powder Coated Grill with contemporary die formed round corners.
- Standard Color - Bright White
- Bi-Metallic Limit on Manual Reset Limit
- Optional 1-Pole or 2-Pole unit mount thermostat 45°-80°
- Optional Surface Wall Box
- Optional Color - Almond



Used in apartment applications where a high quality dependable heater is desired and the wattage is specified on the plans. This

heater has all the qualities of the famous Pic-A-Watt®, but without the features of picking the wattage at the time of installation.

PZ - Element



NOTE: Heaters cannot be installed vertically.

ENGINEERING SPECIFICATIONS:

Contractor shall supply and install, PZ-series wall-mounted forced-air electric heaters, manufactured by King Electrical Mfg. Company, of the wattage and voltage as indicated on the plans.

Ratings: Heaters shall be available in wattages of 250 to 2,000, at 120, 208, 240, or 277 volts.

Blower and Motor: A tangential cylindrical blower, delivering 65 CFM, shall be driven by a shaded pole, permanently lubricated, C-frame type motor with impedance protection and sealed bearings. Motors shall be the same voltage as the heater.

Elements: Elements assemblies shall be non-glowing design. Element assemblies shall consist of steel sheathed heating tubes in a furnace brazed, plate finned, block design. Each sheathed tube shall contain a coiled Ni-Chrome wire, embedded in an insulator of magnesium oxide. The element assembly shall provide the specific wattage indicated on the plans.

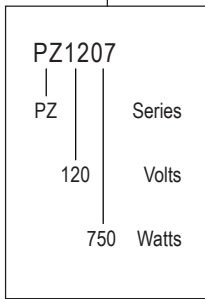
Thermal Overload: Heaters shall be equipped with thermal overload protection, which disconnects elements in the event normal operating temperatures are exceeded. The thermal overload protection device shall automatically reset when normal operating temperatures are reached or manual reset by turning the thermostat down for 15 minutes.

Wall Can: The wall can shall be 20 gauge electro-galvanized steel and shall contain a minimum of three (3) knockouts through which power leads are brought. The wall can shall have a depth gauge indicator, and a factory installed, insulated and stranded copper grounding wire. Minimum Clearance to Floors and Sidewalls. Zero clearance to combustibles.

Grill: The grill shall be louvered, one piece design with rounded edges on all four sides, with rounded corners to prevent snags from contact with other materials. The grill shall be epoxy powder coated in the color specified on the plans.

Approval: Heaters shall be listed and approved by Underwriters' Laboratories or similar agencies.

MODEL CODE:



Standard Color: Bright White

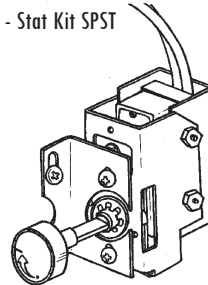
SELECTION:

WATTAGE	120V		208V		240V		277V		WEIGHT (lbs)
	MODEL	UPC #093319 PART NO.	MODEL	UPC #093319 PART NO.	MODEL	UPC #093319 PART NO.	MODEL	UPC #093319 PART NO.	
750	PZ1207	19300	PZ2007	19342	PZ2407	19318			9.5
1000	PZ1210	19306	PZ2010	19348	PZ2410	19324	PZ2710	19366	
1500	PZ1215	19312	PZ2015	19354	PZ2415	19330			
2000			PZ2020	12360	PZ2420	19336	PZ2720	19378	
OPTIONS									
ADD SUFFIX:	DESCRIPTION								
-I	For Interior and Grill only								7.5
-H	For Interior only								6
-RF	Right Hand Power Feed for Replacement of Other Brands								9.5

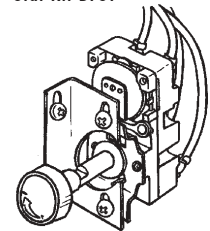
ACCESSORIES:

MODEL	DESCRIPTION	UPC #093319 PART NO.	WEIGHT
PAWF	Recess Can W/ Flange (Remodel)	16319	3.5
PAWIC	Recess Wall Can	00515	3.5
PAWS	Surface Can - White	16305	4
PAWS-A	Surface Can - Almond	19298	4
PAWG	Grill - White	16304	2
PAWG-A	Grill - Almond	16335	2
PT-1	Stat Kit SPST	16306	.5
PT-2	Stat Kit DPST	16307	.5

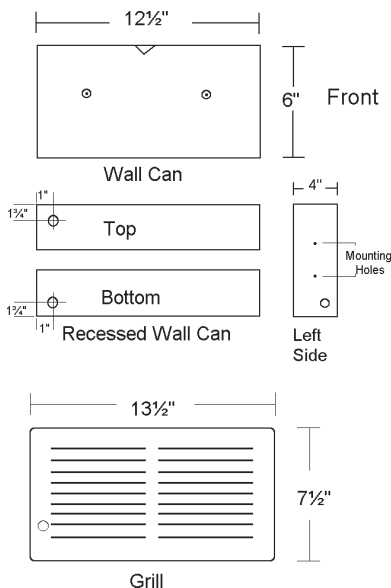
PT-1 - Stat Kit SPST



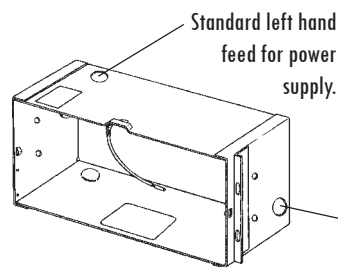
PT-2 - Stat Kit DPST



DIMENSIONS



PAWS - White Surface Can



PAWF - Flanged Wall Can for Remodel Work or Wood Walls.

Used only when -RF Suffix is specified for right hand power supply



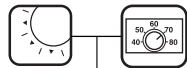
PZ - Single Wattage Element

RF - The RF is used when replacing old heaters and the original feed wires are too short to reach the left side.

WALL HEATER



RADIANT



FEATURES:

- Radiant Heat
- Built-In Thermostat
- Steel Element
- Extruded Aluminum Frame
- 20 Gauge Electro-Galvanized for Recessed or a White Powder Coated Finish for Surface Mount

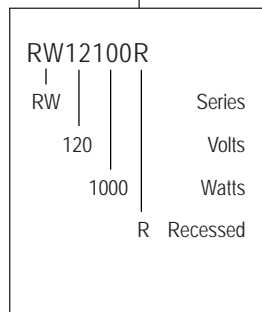
A radiant heater works well in a bathroom because it provides comfortable warm heat like the sun when you stand near it after getting out of the shower or bath. A fan heater can have a cooling effect on wet skin as the air blows over you.

The King RW heater uses a steel element and aluminum reflector to provide the radiant warmth. It has a built-in thermostat so it will turn off once the desired room temperature has been achieved. With no moving parts this heater will be quiet and maintenance free.

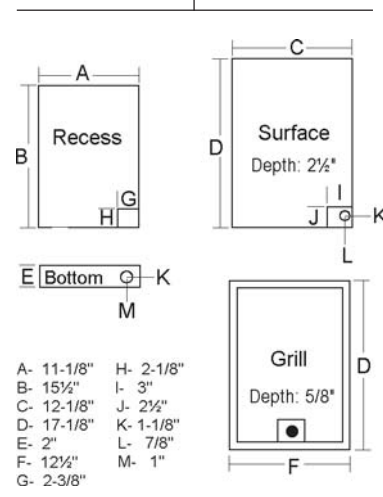
SELECTION:

WATTAGE	120V		240V		WEIGHT (lbs)
	MODEL	UPC #093319 PART NO.	MODEL	UPC #093319 PART NO.	
250	RW1225R	13006	RW2425R	13030	8
	RW1225S	13018	RW2425S	13042	
500	RW1250R	13009	RW2450R	13033	
	RW1250S	13021	RW2450S	13045	
750	RW1275R	13012	RW2475R	13036	
	RW1275S	13024	RW2475S	13048	
1000	RW12100R	13015	RW24100R	13039	
	RW12100S	13027	RW24100S	13051	

MODEL CODE:



DIMENSIONS



ENGINEERING SPECIFICATIONS:

Contractor shall supply and install, RW-Series radiant heaters, manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

Element: 304 or 840 Stainless

Thermostat: Built-in snap action with a range of 45- 80°

Safety Limit: Capillary tube running the full length of the element provides over temperature protection, automatically resets when temperature drops

Wall Box: 20 gauge electro-galvanized for recessed or a white powder coated finish for surface mount

Grill: Attractive anodized aluminum trim with a chrome plated steel screen

DRAFT BARRIERS

SB
SERIES

ARCHITECTURAL - EXTRUDED ALUMINUM

100 WATTS TO 250 WATTS PER LINEAR FT.



FEATURES:

- Convection Heat
- Quiet Running
- Two Piece All Aluminum
- 14 Gauge Front and Back
- Extended Backs and Fronts Available
- 4" Junction Boxes at Each End
- 3/4" EMT Raceway Standard
- 1/2" and 3/4" Knockouts
- Custom selection of cabinet lengths from 2' to 12' in 1/16" increments.
- Multiple heater sections on one common back
- UL Listed & CUL
- Full Length Thermal Limit Switch
- Custom finishes specified by the architect are available.
- Available with optional 2" pedestals and finished back
- Optional 1/4" Pencil Proof Discharge Grill
- Cabinet Size is 3"W x 5"H
- Available with built-in thermostat or disconnect
- Wattages from 100 to 250 watts per foot.
- Control Packages Available



Standard Model - SB

Convection heat and great looks are the purposes for this heater, with its' sleek appearance and continuous look. A complete glass wall can be enamored with warmth and beauty.

Standard colors include white, gray and bronze. They fit most

needs and custom painting is available. Optional aluminum anodized finishes match the window finish which helps blend the heater into the window. The controls can be mounted in ends of heater. Wireway runs full length of heater for feed through wiring.



Optional Front Intake Model - SBF



ENGINEERING SPECIFICATIONS:

Model SB Architectural Draft Barriers shall be 5"H and 3"W. The front cover shall be 14 gauge extruded aluminum construction suitable for architectural, commercial and industrial use with 1/4" pencil proof intake and discharge grills. The one piece cover shall be extruded for maximum strength and shall be available in lengths up to 12'.

The cover shall be linear mount to the 14 gauge heater back with no visible fasteners. The 14 gauge heater back shall be suitable for mullion to mullion mounting.

Standard painted finishes or optional anodizing shall be provided as specified by the architect. Color matching to architects specifications are available as optional finishes.

Heat sections from 2' to 10' are available. All heaters shall contain 3/4" EMT built-in raceway with factory wiring to provide field wiring from either end when optional controls are not included.

1/2" and 3/4" knockouts shall be provided in the side and rear of the heater junction box to permit end to end wiring. All blank sections

shall be fully enclosed to allow branch circuit wiring. All heaters shall contain a full length thermal overheat protector with automatic reset. Wattages shall be available from 100 to 250 watts per foot. Heating elements shall be tubular stainless steel or aluminum tubing with aluminum fins mechanically bonded to ensure efficient heat transfer.

Element fin temperature shall not exceed 350°F to ensure long element life. Elements shall be center anchored and free floating in nylon bushings at each end.

Control sections include 6" or 12" with disconnect, thermostat, pneumatic relay, transformer relay, relay, fused disconnect or duplex receptacle. Standard built-in controls shall include thermostats (single and double pole) and disconnect switches.

Built-in controls shall be tamper proof and shall be adjustable with a blade screwdriver through the discharge louver.

All heaters are Underwriters' Laboratories listed.

DRAFT BARRIERS



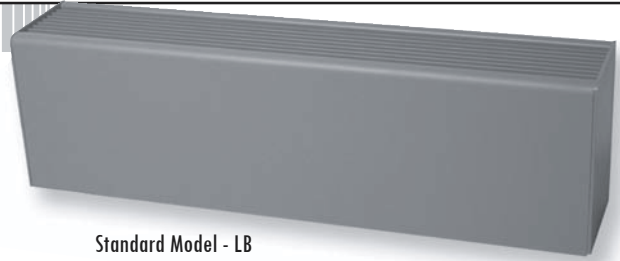
ARCHITECTURAL - EXTRUDED ALUMINUM

100 WATTS TO 500 WATTS PER LINEAR FT.



FEATURES:

- Convection Heat
- Quiet Running
- Two Piece All Aluminum
- 12 Gauge Front and Back
- Extended Backs and Fronts Available
- 4" Junction Boxes at Each End
- 3/4" EMT Raceway Standard
- 1/2" and 3/4" Knockouts
- Custom selection of cabinet lengths from 2' to 12' in 1/16" increments.
- Multiple heater sections on one common back
- UL Listed & CUL
- Full Length Thermal Limit Switch
- Custom finishes specified by the architect are available.
- Available with optional 2" pedestals and finished back
- 1/4" Pencil Proof Discharge Grill
- Cabinet Size is 5"W x 7"H
- Available with built-in thermostat or disconnect
- Wattages from 100 to 500 watts per foot.
- Control Packages Available



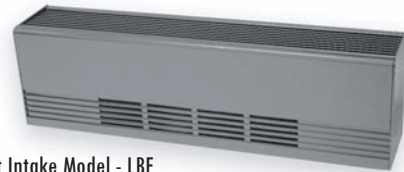
Standard Model - LB

This particular draft heater is mainly used for taller glass walls or complete heating of larger commercial spaces. Excellent sleek lines complement any commercial building. Continuous wall to wall warmth is possible with feed thru-wire ways.

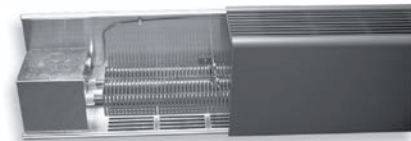
gray and bronze. They fit most needs and custom paint colors are available.

Optional anodized finishes can match window finishes. Controls can be mounted in ends of heater or in separate section. Heated sections can be anywhere within case.

Standard colors include white,



Optional Front Intake Model - LBF



ENGINEERING SPECIFICATIONS:

Model LB Architectural Draft Barriers shall be 7"H and 5"W. The front cover shall be 12 gauge extruded aluminum construction suitable for architectural, commercial and industrial use with 1/4" pencil proof intake and discharge grills. The one piece cover shall be extruded for maximum strength and shall be available in lengths up to 12'.

The cover shall be linear mount to the 12 gauge heater back with no visible fasteners. The 12 gauge heater back shall be suitable for mullion to mullion mounting.

Standard painted finishes or optional anodizing shall be provided as specified by the architect. Color matching to architects specifications are available as optional finishes.

Heat sections from 2' to 10' are available. All heaters shall contain 3/4" EMT built-in raceway with factory wiring to provide field wiring from either end when optional controls are not included.

1/2" and 3/4" knockouts shall be provided in the side and rear of the heater junction box to permit end to end wiring. All blank sections

shall be fully enclosed to allow branch circuit wiring. All heaters shall contain a full length thermal overload protector with automatic reset. Wattages shall be available from 100 to 500 watts per foot. Heating elements shall be tubular stainless steel or aluminum tubing with aluminum fins mechanically bonded to ensure efficient heat transfer.

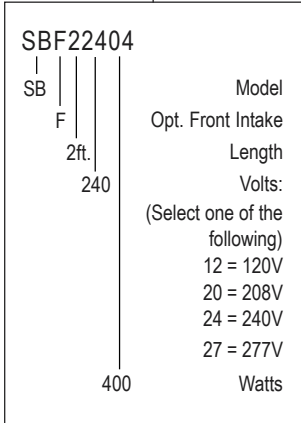
Element fin temperature shall not exceed 350°F to ensure long element life. Elements shall be center anchored and free floating in nylon bushings at each end.

Control sections include 6" or 12" with disconnect, thermostat, pneumatic relay, transformer relay, relay, fused disconnect or duplex receptacle. Standard built-in controls shall include thermostats (single and double pole) and disconnect switches.

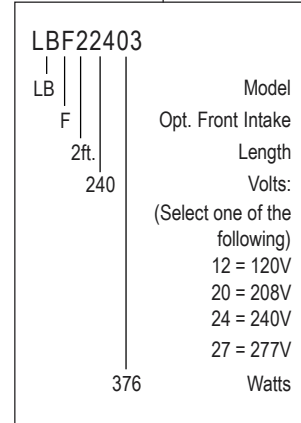
Built-in controls shall be tamper proof and shall be adjustable with a blade screwdriver through the discharge louver.

All heaters are Underwriters' Laboratories listed.

MODEL CODE:



MODEL CODE:



SB SELECTION:

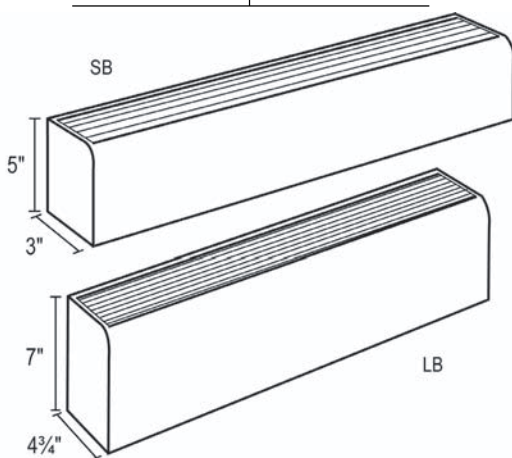
LENGTH	WATTS	STANDARD MODEL (BOTTOM INLET TOP OUTLET)	OPTIONAL FRONT INTAKE (FRONT INLET TOP OUTLET)	VOLTS	NOMINAL WATTS/FT.
2'	400	SB22404	SBF22404	240	200
	500	SB22405	SBF22405		250
3'	600	SB32406	SBF32406	240	200
	750	SB32407	SBF32407		250
4'	800	SB42408	SBF42408	240	200
	1000	SB42410	SBF42410		250
5'	1000	SB52410	SBF52410	240	200
	1250	SB52412	SBF52412		250
6'	1200	SB62412	SBF62412	240	200
	1500	SB62415	SBF62415		250
7'	1400	SB72414	SBF72414	240	200
	1750	SB72417	SBF72417		250
8'	1600	SB82416	SBF82416	240	200
	2000	SB82420	SBF82420		250
9'	2250	SB92422	SBF92422	240	200
	2000	SB92420	SBF92420		250
10'	2000	SB102420	SBF102420	240	200
	2500	SB102425	SBF102425		250

LB SELECTION:

LENGTH	WATTS	STANDARD MODEL (BOTTOM INLET TOP OUTLET)	OPTIONAL FRONT INTAKE (FRONT INLET TOP OUTLET)	VOLTS	NOMINAL WATTS/FT.
2'	376	LB22403	LBF22403	240	188
	500	LB22405	LBF22405		250
	750	LB22407	LBF22407		375
	1000	LB22410	LBF22410		500
3'	564	LB32405	LBF32405	240	188
	750	LB32407	LBF32407		250
	1125	LB32411	LBF32411		375
	1500	LB32415	LBF32415		500
4'	750	LB42407	LBF42407	240	188
	1000	LB42410	LBF42410		250
	1500	LB42415	LBF42415		375
	2000	LB42420	LBF42420		500
5'	940	LB52409	LBF52409	240	188
	1250	LB52412	LBF52412		250
	1875	LB52418	LBF52418		375
	2500	LB52425	LBF52425		500
6'	1125	LB62411	LBF62411	240	188
	1500	LB62415	LBF62415		250
	2250	LB62422	LBF62422		375
	3000	LB62430	LBF62430		500
8'	1500	LB82415	LBF82415	240	188
	2000	LB82420	LBF82420		250
	3000	LB82430	LBF82430		375
	4000	LB82440	LBF82440		500
9'	1692	LB92416	LBF92416	240	188
	2250	LB92422	LBF92422		250
	3375	LB92433	LBF92433		375
	4500	LB92445	LBF92445		500
10'	1875	LB102418	LBF102418	240	188
	2500	LB102425	LBF102425		250
	3750	LB102437	LBF102437		375
	5000	LB102450	LBF102450		500

*Other Voltages Available

DIMENSIONS



*Other Voltages Available

WALL HEATER

SL
SERIES

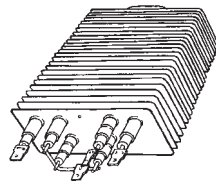
SLIM LINE

PIC-A-WATT - FAN FORCED



FEATURES:

- Smart Limit Protection®
- ◻ Pic-A-Watt® Element
- ◻ C-Frame Motor
- ◻ Squirrel Cage Blower
- Surface Mount
- Multiple Wattage
- 20 Gauge Powder Coated Grill with contemporary die formed round corners.
- Standard Color - Bright White
- Bi-Metallic Limit trips and automatically resets or is manually reset by the thermostat
- Optional 1-Pole or 2-Pole unit mount thermostat 45°-80°F



Pic-A-Watt
Steel Fin Element



The Slim Line heater was specifically designed as an easy replacement for baseboard heaters. This is achieved by using a slim surface mounted wall can that can be mounted down at floor level, unlike all other fan heaters that are required to be installed at least 4" above the floor.

2250W. Same quiet design as the PAW heater in an easy to install package. Just remove the old baseboard and wall mount the Slim Line heater. Use a wall thermostat or built-in thermostat kit.

The Pic-A-Watt® feature easily allows adjustment to the proper baseboard replacement size. For example: 2ft = 500W, 3ft = 750W, 4ft = 1000W, 5ft = 1250W, 6ft = 1500W, 8ft = 1750W, and 10ft =



ENGINEERING SPECIFICATIONS:

Contractor shall supply and install, SL-series wall surface mounted forced-air electric heaters, manufactured by King Electrical Mfg. Company, of the wattage and voltage as indicated on the plans.

Ratings: Heaters shall be available in wattages of 250 to 2,250, at 120, 208, 240, or 277 volts. The heater shall be approved for surface mounting with zero clearance from the floor.

Blower and Motor: A tangential cylindrical blower, delivering 65 CFM, shall be driven by a shaded pole, permanently lubricated, C-frame type motor with impedance protection and sealed bearings. Motors shall be the same voltage as the heater.

Elements: Elements assemblies shall be non-glowing design. Element assemblies shall consist of three steel sheathed heating tubes in a furnace brazed, plate finned, block design. Each sheathed tube shall contain coiled Ni-Chrome wire, embedded in an insulator of magnesium oxide. The element assembly shall provide a minimum of seven (7) possible wattage configurations available for selection during field installation. The use of external resistors, di-

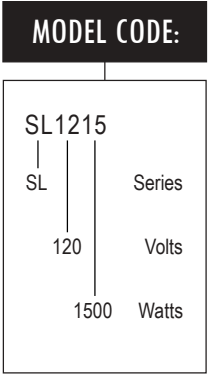
odes, or other weak links to obtain multiple wattages will not be acceptable.

Thermal Overload: Heaters shall be equipped with thermal overload protection, which disconnects elements in the event normal operating temperatures are exceeded. The thermal overload protection device shall automatically reset when normal operating temperatures are reached or manually reset by the thermostat.

Surface Can: The surface can shall be 20 gauge electro-galvanized steel and shall contain a minimum of three (3) knockouts through which power leads are brought. The surface can shall be epoxy powder coated, and contain a stranded grounding wire. Minimum Clearance to Floors and Sidewalls.

Grill: The grill shall be louvered, one piece design with rounded edges on all four sides, with rounded corners to prevent snags from contact with other materials. The grill shall be epoxy powder coated in the color specified on the plans.

Approval: Heaters shall be listed and approved by a nationally recognized testing laboratory to UL standards.



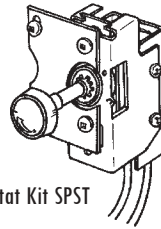
Standard Color: Bright White

SELECTION:

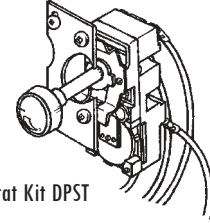
WATTAGE	120V		208V		240V		WEIGHT (lbs)
	MODEL	UPC #093319 PART NO.	MODEL	UPC #093319 PART NO.	MODEL	UPC #093319 PART NO.	
250-500-750-1000-1250-1500	SL1215	19550					11
500-750-1000-1250-1500-1750-2250			SL2022	19555	SL2422	19560	

ACCESSORIES:

MODEL	DESCRIPTION	UPC #093319 PART NO.	WEIGHT
SLT-1	Stat Kit SPST	19562	.5
SLT-2	Stat Kit DPST	19564	.5

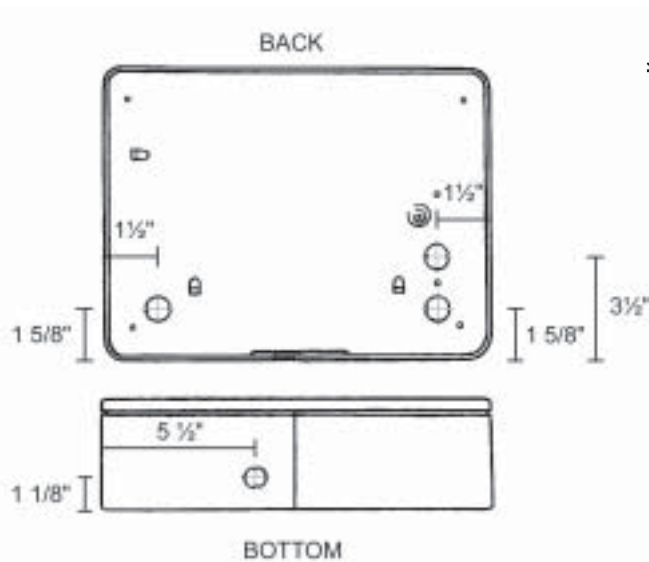
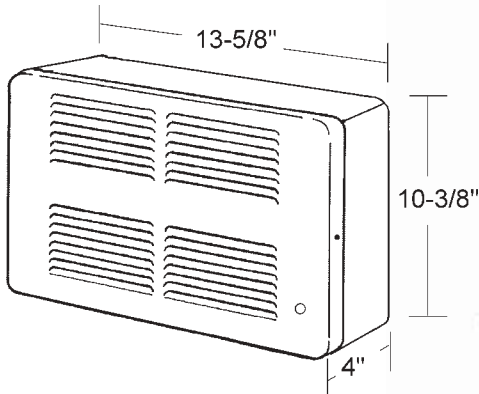


SLT-1 - Stat Kit SPST

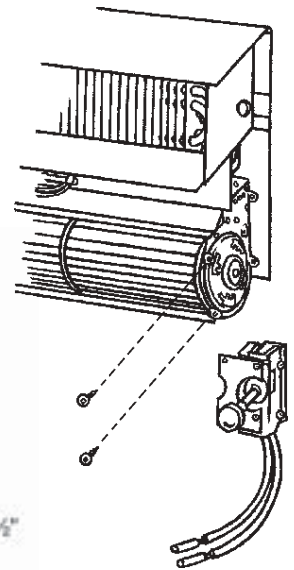


SLT-2 - Stat Kit DPST

DIMENSIONS



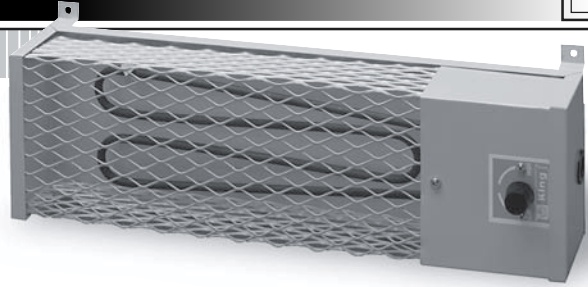
SL Thermostat Kit Location



UTILITY HEATER



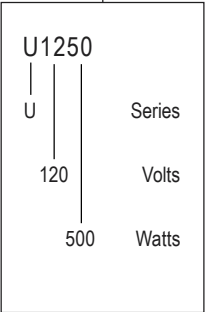
RADIANT/PUMP HOUSE HEATER
FREEZE PROTECTION



FEATURES:

- Radiant Heat
- Convection Heat
- Built-In Thermostat
- Steel Element
- Mounting Feet
- Steel Case with an Expanded Metal Element Shield
- Baked Enamel Protective Coating
- Available in Stainless Steel

MODEL CODE:



SELECTION:

WATTAGE	120V		240V		WEIGHT (lbs)
	MODEL	UPC #093319 PART NO.	MODEL	UPC #093319 PART NO.	
62	U1206	12601			5
125	U1212	12602			
187	U1218	12604			
250	U1225	12600	U2425	12612	
500	U1250	12605	U2450	12615	
750	U1275	12606	U2475	12618	
1000	U12100	12609	U24100	12621	

The U Series heater is designed to keep mechanical equipment from freezing such as pumps, valves, and farm machinery. The radiant heat is absorbed by the metal equipment thus making it more effective than convection heaters. This heater is simple and reliable with no moving parts to wear out or maintain. An inexpensive choice when freeze protection is required.

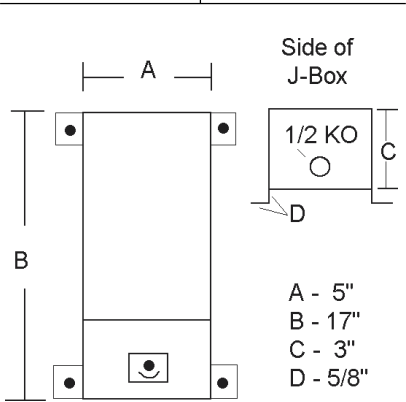
It has a built-in thermostat so it will turn off when the ambient temperature is safely above freezing. The guard keeps foreign objects away from the element.

ENGINEERING SPECIFICATIONS:

Contractor shall supply and install, U Pump House series radiant heaters, manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

Element: 304 or 840 Stainless
Thermostat: Built-in snap action with a range of 40° to 90° F
Safety Limit: Capillary tube running the full length of the element provides over-temperature protection, automatically resets when temperature drops
Enclosure: Steel case with an expanded metal element shield
Finish: Baked enamel protective coating

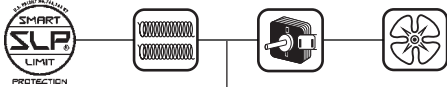
DIMENSIONS



WALL HEATER



FAN FORCED
GOOD



FEATURES:

- Smart Limit Protection®
- ◻ Dual Open Coil Element
- ◻ C-Frame Motor
- ◻ Aluminum Fan, 4-Blades
- New Dual Limit Controls
- Inlet and Outlet Sensing
- Dual Wattage
- 20 Gauge Powder Coated Grill with contemporary die formed round corners.
- Standard Color - Bright White
- 20 Gauge Electro-Galvanized Steel Recess Can with QuickSet™ stop on the side. Factory installed ground wire. Approved for direct contact with building insulation.
- Optional Surface Wall Box
- Optional 1-Pole or 2-Pole unit mount thermostat 45°-80°F operating range.
- Optional Retrofit Grill
- Optional Color - Almond



*ENERGY EFFICIENCY
SEE PAGE 110*

SMART LIMIT PROTECTION™

The W heater is designed to be the highest quality economy heater available. It is commonly used in apartment construction and as a supplemental heater in single family homes.

Use it with a wall thermostat or a built-in one that can be field or factory installed. For surface mounting, a powder coated wall can may be purchased separately.

This heater mounts vertically and produces 85 CFM with a 4-bladed fan. The grill has die formed corners for a modern appearance, and is painted with a powder coated finish for extreme durability. Standard color is bright white, optional colors are avail-



ENGINEERING SPECIFICATIONS:

Contractor shall supply and install, W-Series wall-mounted forced-air electric heaters, manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

Ratings: Heaters shall be available in wattages of 250 to 2,400, at 120, 208, 240, or 277 volts. Heaters shall provide air movement at 85 CFM.

Fan and Motor: Motor shall be shaded pole, permanently lubricated, C-frame type with impedance protection and sealed bearings. Motors shall be the same voltage as the heater. The motor and all wiring shall be totally isolated from the heating chamber for protection from heated air. The motor shall be equipped with a dynamically balanced four bladed aluminum impeller fan, located in the upper portion of the heatbox, and shall provide a down-flow heating pattern

Elements: Assemblies shall be constructed of coiled nickel chromium alloy, corrosion resistant wire strung thru a minimum of four rows of mica insulator. Element assemblies shall have factory provided connection to allow field modification to 50% wattage.

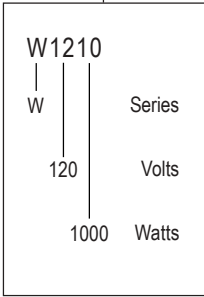
Thermal Overload: Heaters shall be equipped with thermal overload **SMART LIMIT PROTECTION™**, which disconnects elements and motor in the event normal operating temperatures are exceeded. If thermal overload trips due to abnormal operating temperatures, thermal overload shall remain open until manually reset by turning the heater off for fifteen minutes. Automatic reset thermal overloads, which allow the element to continue to cycle under abnormal conditions will not be accepted.

Wall Can: The wall can shall be 22 gauge electro-galvanized steel and shall contain knockouts through which power leads are brought. The wall can shall be provided with a depth gauge, extending the full length of the wall can. The wall can shall be supplied with a factory installed grounding wire. Minimum Clearance to Floors and Sidewalls. Zero clearance to combustibles.

Grill: The grill shall be louvered, one piece design with rounded edges on all four sides, with rounded corners to prevent snags from contact with other materials. The grill shall be epoxy powder coated in the color specified on the by manufacture.

Approval: Heaters shall be listed and approved by Underwriters' Laboratories.

MODEL CODE:



Standard Color: Bright White

SELECTION:

WATTAGE	120V		208V		240V		WEIGHT (lbs)
	MODEL	UPC #093319 PART NO.	MODEL	UPC #093319 PART NO.	MODEL	UPC #093319 PART NO.	
1000 or 500	W1210	12706	W2010	12651	*W2410	12721	8
1200 or 600	W1212	12709			*W2412	12725	
1500 or 750	W1215	12712	W2015	12782	*W2415	12727	
2000 or 1000			W2020	12719	W2420	12730	
2400 or 1200					W2424	12733	

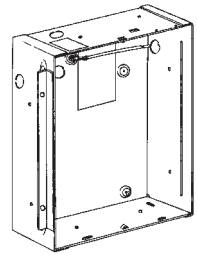
OPTIONS

ADD SUFFIX:	DESCRIPTION	
-I	For Interior and Grill only	5.4
-H	For Interior only	6.0
-T	1-Pole Thermostat Included	8.5
-T2	2-Pole Thermostat Included	8.5

*Do not use models W2420 and W2424 on 208 Volt circuits, order correct 208 Volt models. Models W2410, W2412 and W2415 may be used on 208 Volt circuits for derated wattage.

ACCESSORIES:

MODEL	DESCRIPTION	UPC #093319 PART NO.	WEIGHT
UIC	Recess Wall Can	12640	3.5
UICF	Recess Wall Can W/Flange	12540	3.5
WSC	Surface Can - White	19202	4
WSC-A	Surface Can - Almond	19203	4
WG	Grill - White	11914	2.5
WG-A	Grill - Almond	12785	2.5
WG-SS	Grill - Stainless Steel	12780	2.5
WOG	10" x 17" Retrofit Grill	19200	3
WOG-A	10" x 17" Retrofit Grill - Almond	18605	3
WT-1	Built-in Stat Kit SPST	12736	.5
WT-2	Built-in Stat Kit DPST	12739	.5
W-DISPLAY	Counter Top Display	12771	19

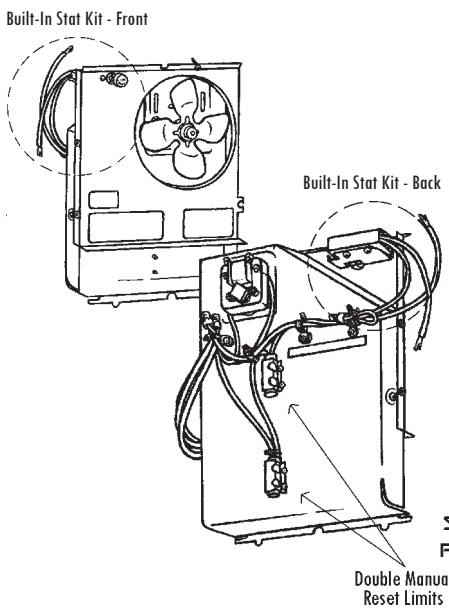


UICF - Recess Wall Can W/Flange For Easy Remodel Placement

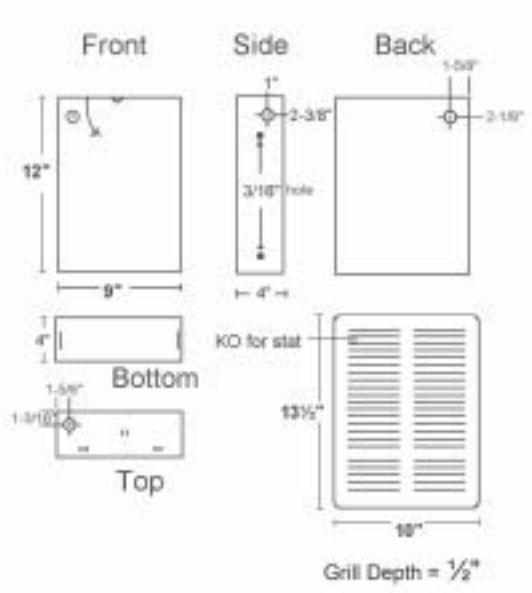


WSC - White Surface Can

DIMENSIONS



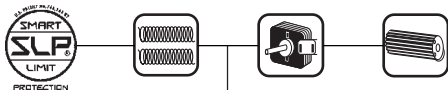
WOG - 10" W x 17" H Retrofit Grill



WALL HEATER

WHF
SERIES

FAN FORCED
BETTER



FEATURES:

*ENERGY
EFFICIENCY
SEE PAGE 110*



**SMART LIMIT
PROTECTION™**

- Smart Limit Protection®
- ◻ Dual Open Coil Element
- ◻ C-Frame Motor
- ◻ Squirrel Cage Blower
- New Dual Limit Controls
- Manual Reset Limits
- Inlet and Outlet Sensing
- Dual Wattage
- 20 Gauge Powder Coated Grill with contemporary die formed round corners.
- Standard Color - Bright White
- 20 Gauge Electro-Galvanized Steel Recess Can with QuickSet™ stop on the side.
- Factory installed ground wire. Approved for direct contact with building insulation.
- Optional Surface Wall Box
- Optional 1-Pole or 2-Pole unit mount thermostat 45° -80°F operating range.
- Optional Retrofit Grill
- Optional Color - Almond

The WHF heater provides extreme value by combining an open coil wire element and a quiet tangential blower. This makes it a relatively quiet heater without the added cost of a high mass element like the Pic-A-Watt. It is commonly used as the first upgrade in apartment construction and an excellent choice for a bathroom heater because of the instant heat from the wire element.

and produces 70CFM. The thermostat control is typically a remote mounted wall stat. An inbuilt thermostat is optional. For best control, use an electronic thermostat.



This heater mounts horizontally

ENGINEERING SPECIFICATIONS:

Contractor shall supply and install, WHF-Series wall-mounted forced-air electric heaters, manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

Ratings: Heaters shall be available in wattages of 250 to 2,400 at 120, 208, or 240 volts.

Blower and Motor: A tangential cylindrical blower, delivering 70 CFM, shall be driven by a shaded pole, permanently lubricated, C-frame type motor with impedance protection and sealed bearings. Motors shall be the same voltage as the heater. The motor and all wiring shall be totally isolated from the heating chamber for protection from heated air.

Elements: Elements assemblies shall be constructed of coiled nickel chromium alloy, corrosion resistant wire strung through a minimum of four rows of mica insulator. Element assemblies shall have factory provided connection to allow field modification to 50% wattage.

Thermal Overload: Heaters shall be equipped with thermal over-

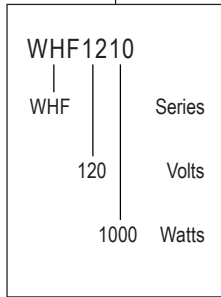
load **SMART LIMIT PROTECTION™**, which disconnects elements and motor in the event normal operating temperatures are exceeded. If thermal overload trips due to abnormal operating temperatures, thermal overload shall remain open until manually reset by turning the heater off for fifteen minutes. Automatic reset thermal overloads, which allow the element to continue to cycle under abnormal conditions will not be accepted.

Wall Can: The wall can shall be 22 gauge electro-galvanized steel and shall contain knockouts through which power leads are brought. The wall can shall be provided with a depth gauge, extending the full length of the wall can. The wall can shall be supplied with a factory installed grounding wire. Minimum Clearance to Floors and Sidewalls. Zero clearance to combustibles.

Grill: The grill shall be louvered, one piece design with rounded edges on all four sides, with rounded corners to prevent snags from contact with other materials. The grill shall be epoxy powder coated in the color specified by manufacture.

Approval: Heaters shall be listed and approved by Underwriters' Laboratories.

MODEL CODE:



Standard Color: Bright White

SELECTION:

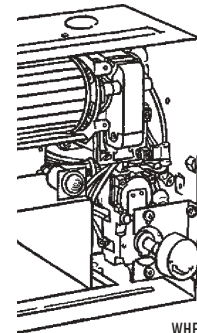
WATTAGE	120V		208V		240V		WEIGHT (lbs)
	MODEL	UPC #093319 PART NO.	MODEL	UPC #093319 PART NO.	MODEL	UPC #093319 PART NO.	
1000 or 500	WHF1210	12012	WHF2010	12445	WHF2410	12027	10
1200 or 600	WHF1212	12015			WHF2412	12215	
1500 or 750	WHF1215	12018	WHF2015	12447	WHF2415	12033	
2000 or 1000			WHF2020	12453	WHF2420	12036	
2400 or 1200					WHF2424	12039	
OPTIONS							
ADD SUFFIX: DESCRIPTION							
-I	For Interior and Grill only						7
-H	For Interior only						6

ACCESSORIES:

MODEL	DESCRIPTION	UPC #093319 PART NO.	WEIGHT
UIC	Recess Wall Can	12640	3.5
UICF	Recess Wall Can W/Flange	12540	4.0
WHSC	Surface Can - White	19204	4.0
WHSC-A	Surface Can - Almond	19205	4.0
WHFG	Grill - White	12520	2.5
WHFG-A	Grill - Almond	12530	2.5
WHFG17W13H	13"H x 17"W Oversize Grill	12523	3.5
WHT-1	Built-in Stat Kit SPST	12099	.5
WHT-2	Built-in Stat Kit DPST	12102	.5
WHF-DISPLAY	Counter Top Display	12011	19

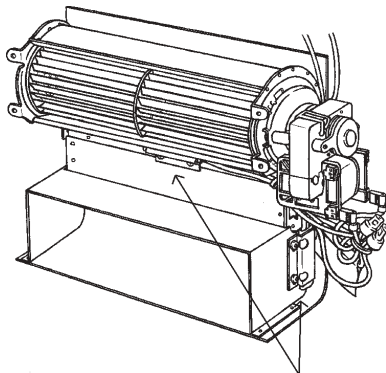


WHSC - White Surface Can



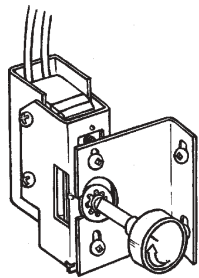
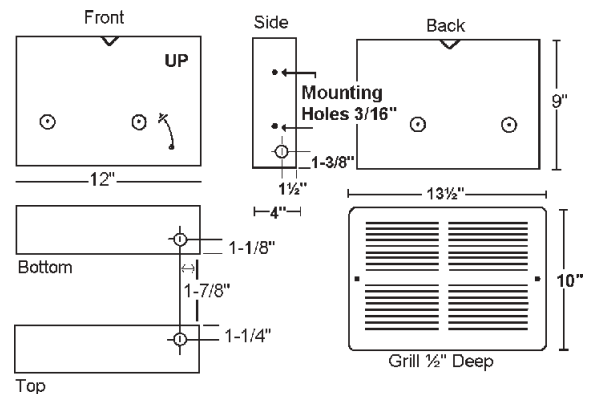
WHF Thermostat Installed

WHF Interior



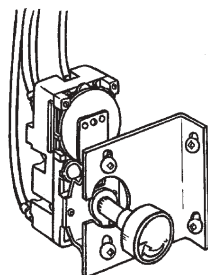
WHFG17W13H - 13" H x 17" W Oversize Grill

DIMENSIONS



WHT-1 - Built-In Stat Kit SPST

Double Manual Reset Limit
SMART LIMIT PROTECTION™



WHT-2 - Built-In Stat Kit DPST

CEILING HEATER

WHFC
SERIES

FAN FORCED - 500 WATTS TO 1500 WATTS



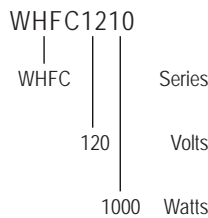
Grill Dimensions: 13½" L x ½" W x 10" H
Rough-In Cut: 12" L x 4" W x 9" H



FEATURES:

- Smart Limit Protection®
- ◻ Dual Open Coil Element
- ◻ C-Frame Motor
- ◻ Squirrel Cage Blower
- Ceiling Mount
- New Dual Limit
- Dual Wattage
- 20 Gauge Powder Coated Grill with contemporary die formed round corners.
- Standard Color - Bright White
- 20 Gauge Electro-Galvanized Steel Recess Can with QuickSet™ stop on the side.
- Factory installed ground wire. Approved for direct contact with building insulation.
- Optional Surface Wall Box
- Optional Color - Almond

MODEL CODE:



SELECTION:

WATTAGE	120V		240V		WEIGHT (lbs)
	MODEL	UPC #093319 PART NO.	MODEL	UPC #093319 PART NO.	
1000 or 500	WHFC1210	12208	WHFC2410	12202	10
1200 or 600	WHFC1212	12532			
1500 or 750	WHFC1215	12210	WHFC2415	12200	
OPTIONS					
ADD SUFFIX:	DESCRIPTION				
-I	For Interior and Grill only				7
-H	For Interior only				6

ACCESSORIES:

MODEL	DESCRIPTION	UPC #093319 PART NO.	WEIGHT
WHIC-C	Universal Recess Can	12650	3.5
WHSC-C	Surface Can - White	12230	4.0

ENGINEERING SPECIFICATIONS:

Contractor shall supply and install, WHFC-Series ceiling-mounted forced-air electric heaters, manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

Ratings: Heaters shall be available in wattages of 500 to 1,500 at 120, 208, or 240 volts.

Blower and Motor: A tangential cylindrical blower, delivering 65 CFM, shall be driven by a shaded pole, permanently lubricated, C-frame type motor with impedance protection and sealed bearings. Motors shall be the same voltage as the heater. The motor and all wiring shall be totally isolated from the heating chamber for protection from heated air.

Elements: Elements assemblies shall be constructed of coiled nickel chromium alloy, corrosion resistant wire strung through a minimum of four rows of mica insulator. Element assemblies shall have factory provided connection to allow field modification to 50% wattage.

Thermal Overload: Heaters shall be equipped with thermal

overload **SMART LIMIT PROTECTION™**, which disconnects elements and motor in the event normal operating temperatures are exceeded. If thermal overload trips due to abnormal operating temperatures, thermal overload shall remain open until manually reset by turning the heater off for fifteen minutes. Automatic reset thermal overloads, which allow the element to continue to cycle under abnormal conditions will not be accepted.

Wall Can: The wall can shall be 22 gauge electro-galvanized steel and shall contain knockouts through which power leads are brought. The wall can shall be provided with a depth gauge, extending the full length of the wall can. The wall can shall be supplied with a factory installed grounding wire.

Grill: The grill shall be louvered, one piece design with rounded edges on all four sides, with rounded corners to prevent snags from contact with other materials. The grill shall be epoxy powder coated in the color specified by manufacture.

Approval: Heaters shall be listed and approved by Underwriters' Laboratories.