king

Smart Heating Solutions

MADE IN USA
With U.S. & Global Materials

SUBMITTAL SHEET

Job Name: _____ Submitted By: Date:

Location: _____ _____ _____

Architect: _____ _____ _____

Engineer: _____ Approved By: Date:

Contractor: _____ _____ _____

Submitted By: _____ _____ _____

King Contact: _____ _____ _____

Quotes@king-electric.com

Date: _____

Tag	Qty	Item Number	Watts	Volts	PH	Amps	Weight

Accessories

Tag	Qty	Item Number

2-Stage Electronic Unit Heater KB ECO2S Series 2

Model Code:

KB	24	05	-1	-S2	-MB	-ECO2S	-R
A	B	C	D	E	F	G	H

A: Series
B: 20 - 208V, 24 - 240/208V
C: kiloWatts (4 - 15)
D: -1 = Single Phase
E: -S2 = Series 2
F: -MB = Mounting Bracket
G: -ECO2S = 2-Stage Electronic Control
H: -R = Color Box Packaging

SMART SLP LIMIT PROTECTION

c UL us LISTED

MADE IN USA
With U.S. & Global Materials

- Smart ECO2S design
- 2-Stage heating
- Hand held remote & wall holder
- Built-In Fan Delay To Dissipate Heat
- Timer & Summer Fan Only Modes
- Temperature Range: 40° to 95°
- High mass steel fin heat exchanger
- Auto Memory Feature: returns units to last settings after power outage
- Permanent lubricated unit bearing motor
- Universal wall/ceiling bracket included
- Auto & Manual Dual Limit Protection System
- Solid riveted construction for consistent, long-term durability
- UL Certified in Canada & US
- Proudly made in the USA with U.S. & Global Materials
- 5-Year Limited Warranty

ECO2S 2-Stage Garage Heater with IR Remote Control

The latest generation of KB ECO2S® unit heaters build on the proven performance of the original KB ECO2S while introducing design improvements that enhance installation, safety and usability. It continues to feature the innovative ECO2S in-built electronic thermostat, delivering energy efficient two stage heating with ECO mode that automatically selects the lowest wattage needed to maintain room temperature. The redesigned compact housing delivers the same powerful heating performance in a smaller, more streamlined design. The new universal mounting bracket features a stronger two-point attachment system for improved stability and supports both wall and ceiling mounting, with fixed angle stops for precise and secure positioning. Safety is enhanced with a dual limit protection system, featuring an automatic reset primary limit and a secondary manual reset safety limit that requires inspection before the heater can be returned to operation. Designed for use as a primary or supplemental heat source, the KB ECO2S is ideal for warehouses, retail spaces and large garages. Spiral steel heating elements combined with high CFM airflow ensure even heat distribution while maintaining cooler element operation to help extend heater life. Built with high quality components and a dynamically balanced fan blade, the KB ECO2S is engineered to deliver years of reliable operation while helping keep heating costs to a minimum.

ECO2S Electronic Controller Features:

- Electronic control for accuracy
- Energy-saving automatic 2-stage heating
- Large LED display
- Remote control and wall bracket included
- Thermostat timer mode (1-9 Hours)
- Fan only mode
- Built-In fan delay

2-STAGE HEATING

Optimizes power usage, high or low, to match the building's heat loss.

HIGH STAGE Raises Temp Quickly

LOW STAGE Maintains Temp

Ordering Information

	MODEL	UPC	kilo WATTS	BTUH (000)	PHASE	VOLTS	AMPS	MOTOR HP	CFM	TEMP. RISE	AIR THROW	MAX MOUNT HEIGHT	SIZE	WT. (lbs.)
208V	KB2004-1-S2-MB-ECO2S	70768	4	13.7	1	208	19.2	16W**	520	24°F	15 ft.	8 ft.	B	30.5
	KB2005-1-S2-MB-ECO2S	70769	5	17.1	1	208	24	16W**	520	30°F	15 ft.	8 ft.	B	30.5
	KB2007-1-S2-MB-ECO2S	70770	7.5	25.6	1	208	36.1	25W**	690	34°F	20 ft.	9 ft.	B	45
	KB2010-1-S2-MB-ECO2S	70771	10	34.1	1	208	48.1	35W**	800	39°F	24 ft.	10 ft.	B	45
	KB2012-1-S2-MB-ECO2S	70772	12.5	42.7	1	208	60.1	50W**	935	42°F	28 ft.	11 ft.	C	50
	KB2015-1-S2-MB-ECO2S	70773	15	51.2	1	208	72.1	50W	1050	45°F	33 ft.	12 ft.	C	50

*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V. **240V motor derated for 208V operation.

2-Stage Electronic Unit Heater KB ECO2S Series 2

Ordering Information

	MODEL	UPC	kilo WATTS	BTUH (000)	PHASE	VOLTS	AMPS	MOTOR HP	CFM	TEMP. RISE	AIR THROW	MAX MOUNT HEIGHT	SIZE	WT. (lbs.)
208V	KB2404-1-S2-MB-ECO2S	70774	4	13.7	1	240/208*	16.7/14.4*	9W	520	24°F	15 ft.	8 ft.	B	30.5
	KB2405-1-S2-MB-ECO2S-R	22038	5	17.1	1	240/208*	20.8/18*	9W	520	30°F	15 ft.	8 ft.	B	30.5
	KB2407-1-S2-MB-ECO2S-R	22040	7.5	25.6	1	240/208*	31.3/27*	16W	690	34°F	20 ft.	9 ft.	B	45
	KB2410-1-S2-MB-ECO2S-R	22042	10	34.1	1	240/208*	41.7/36.1*	16W	800	40°F	24 ft.	10 ft.	B	45
	KB2412-1-S2-MB-ECO2S	22043	12.5	42.7	1	240/208*	52.1/45.1*	35W	935	42°F	28 ft.	11 ft.	C	50
	KB2415-1-S2-MB-ECO2S	22044	15	51.2	1	240/208*	62.5/54.1*	50W	1050	45°F	33 ft.	12 ft.	C	50

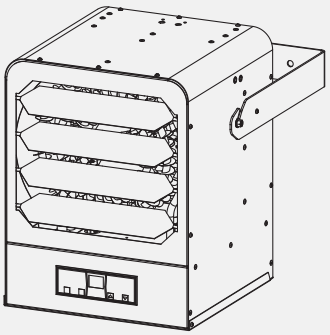
*Dual rated heaters will draw 13% less amps and 25% less wattage when operated at 208V. **240V motor derated for 208V operation.

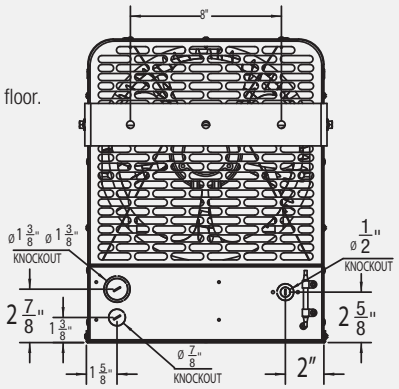
Replacement Accessories

MODEL	UPC	DESCRIPTION	WT. (lbs.)
ECO2S-REMOTE	33489	ECO2S Replacement Infrared Remote Control	0.1
ECO2S-REMOTE-BRACKET	33490	ECO2S Replacement Infrared Remote Control Wall Mount Bracket	.04
KB-S2-SMB	70775	Optional Swivel Mounting Bracket	0.6
KB-S2-MB	70776	Replacement Universal Mounting Bracket	0.4

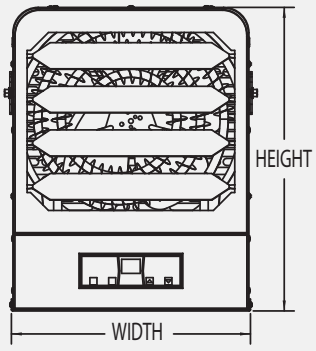
Dimensional Data

Minimum clearance from combustibles: 18" from front,
2" from top, 6" from sides and 5" from rear. Minimum clearance 6' from floor.

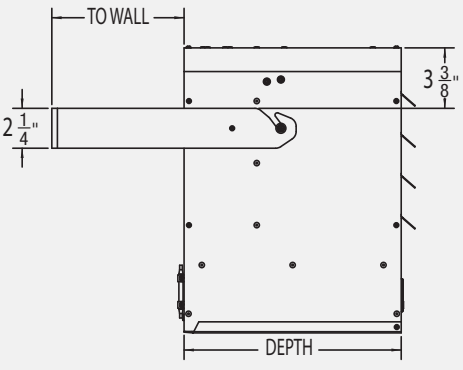




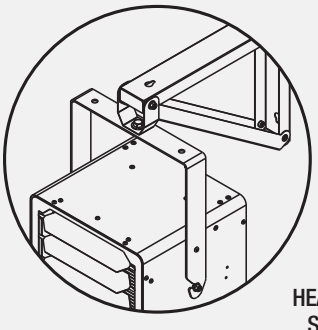
BACK VIEW



FRONT VIEW



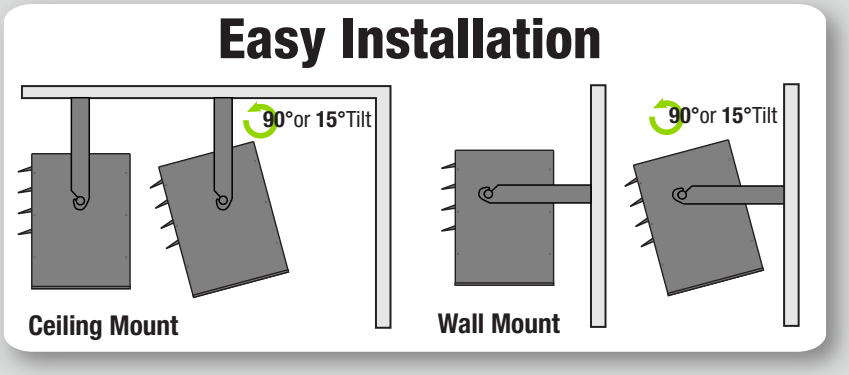
SIDE VIEW

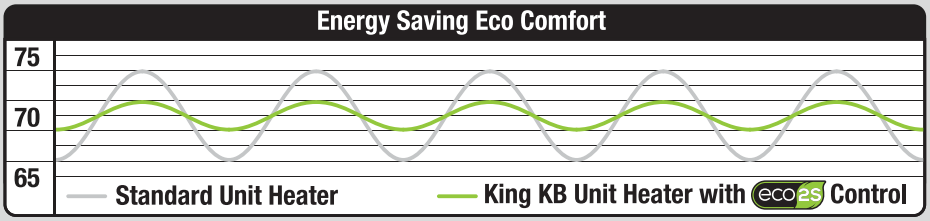


Note: Optional Swivel Mounting Bracket

HEATER SIZE	HEIGHT	DEPTH	WIDTH
B	16"	12.5"	12.75"
C	16"	17.5"	12.75"

2-Stage Electronic Unit Heater KB ECO2S Series 2





*Reduces temperature swings

Engineering Specifications

Contractor shall supply and install KB ECO2S Series 2 garage heaters manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

Construction: AAll exterior and interior enclosure components are fabricated from 20-gauge electrogalvanized steel with a rust-inhibiting baked enamel finish. Components are assembled using solid mechanical rivets rather than spot welding, eliminating heat-affected zones and hidden weld defects. Riveted joints are fully visible and inspectable, providing consistent structural integrity under vibration and thermal cycling. Smooth rounded corners provide a clean, modern appearance.

Auto Memory Feature: Returns Unit To Last Settings After Power Outage.

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 copper brazed with spiral fins 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 long life unit bearing motor with 20cc of oil. Epoxy-coated motor with enclosed rotor resists moisture and corrosion for long-lasting, trouble-free operation.

Aluminum Fan Blade: 5 blade fan mounted directly to the motor shaft for maximum efficiency.

Auto-Reset Thermal Cutout: Power is disconnected from the element if an overheated 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.

Electronic Control: Up, down temperature mode. Start/Stop. Standard on all heaters. The control voltage is equal to the line voltage (208, 240) for 5kW models. Over 5kW the line voltage control is operating the contactors.

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. Includes universal wall/ceiling bracket for simple installation.

Approvals: cULus (E41422)