king

Smart Heating Solutions

MADE IN USA

# 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 |
|---|---|---|---|---|---|---|---|
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## Accessories

| Tag | Qty | Item Number |
|---|---|---|
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# Compact Unit Heater KBP ECO2S PRO Series

king
Pic-A-Watt
Selectable Wattage Element

**Model Code:**

| KBP | 24 | 06 | -1 | -MB | -ECO2S | -PRO |
|---|---|---|---|---|---|---|
| A | B | C | D | E | F | G |

A: Series
B: 12 - 120V, 20 - 208V, 24 - 240/208V
C: Watts (950 to 5700)
D: -1 = Single Phase
E: -Mounting Bracket
F: -ECO2S = 2 Stage Electronic Control
G: -ECO PRO Controller: 7-Day Programmable Thermostat + Remote Temp Sensor

SMART SLP LIMIT PROTECTION
c UL us LISTED
MADE IN USA
With U.S. & Global Materials

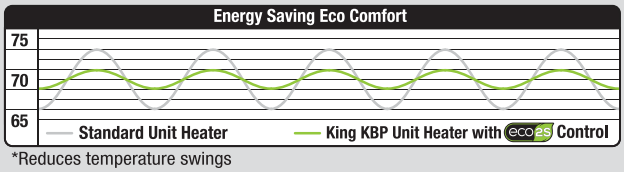
- Energy-Saving ECO2S electronic controller
- 2-Stage heating
- Eco Pro Controller remote thermostat w/ temperature sensor
- 7-Day Programmable Heating Schedule
- Integrated BMS lockout circuit
- Timer & Summer Fan Only modes
- Compatible w/Optional wired or wireless RF window/door /Occupancy sensors
- Thermostat Temperature Range: 40° to 95°
- 385 CFM output
- Auto Memory Feature: returns units to last settings after power outage
- Permanently lubricated unit bearing motor
- Adjustable louvers to direct air
- Solid riveted construction for consistent, long-term durability
- Seattle Energy Code Compliant
- Built-In fan delay to dissipate heat
- Dual Pic-A-Watt® elements
- Patented Smart Limit® Protection
- Universal wall/ceiling bracket included
- Proudly Made in the USA with U.S. & Global Materials
- 5-Year limited warranty

## *KBP ECO2S PRO 2-Stage Compact Unit Heater with RF Wireless 7-Day Programmable Remote Thermostat*

**The KBP ECO2S PRO Series Compact Unit Heater delivers exceptional performance, energy efficiency, and advanced user control, featuring King's innovative ECO2S+ 2-stage design paired with the all-new ECO PRO Controller.** The heater offers energy-efficient 2-stage heating, an Eco Mode that automatically uses the lowest wattage required, integrated fan-only and timer modes, and intuitive wireless control for effortless operation. **With the new ECO PRO Controller, users gain the flexibility of an RF Wireless 7-Day Programmable Thermostat with an integrated temperature sensor.** The heater monitors room conditions, detects cold spots, and automatically adjusts to maintain consistent comfort. Simply place the ECO PRO Controller on a wall or shelf to ensure the ideal temperature exactly where you need it. The system is compatible with both wired or wireless window/door and occupancy sensors, which help reduce energy waste by setting back the temperature when a space is unoccupied or when a window or door is left open. Multiple heaters can also be paired to a single ECO PRO Controller, creating smart heating zones within a space for optimal comfort and control. Combined with summer fan-only and thermostat timer modes, the KBP ECO2S PRO adapts to your needs year-round. Built for rugged performance, the flow-through design efficiently draws air in from the back and discharges it out the front, quickly heating large spaces. An integral fan delay continues to circulate heat during cool-down, maximizing warmth. King's exclusive dual Pic-A-Watt® steel fin elements provide a range of wattage options, allowing the heater to be precisely tailored to any application.

### ECO2S PRO Standard Features:

- Electronic control for accuracy
- Energy-saving automatic 2-stage heating
- 7-Day Programmable Wireless RF Thermostat
- Remote Temperature Sensor
- Create Heat Zones - Connect Multiple Heaters To Single Pro Controller
- Thermostat timer mode (1-9 Hours)
- Fan Only mode
- Built-In fan delay
- Compatible with Option Window, Door & Occupancy Sensors




*Reduces temperature swings

ECO Pro Controller

eco2S PRO CONTROL

# Pic-A-Watt Steel Fin Element — Compact Unit Heater KBP ECO2S PRO Series

## Meet the ECO PRO CONTROLLER:
## 7-Day Programmable Thermostat with Remote Temperature Sensing

PRO CONTROL

Eco Pro Controller

=

7-Day Programmable Heating Schedule

Balanced Heat Throughout the Space

Comfort, Right Where You Want It

Remote Temperature Sensing

### Ordering Information - *Electronic 2-Stage Thermostat*

| MODEL | UPC | PRO CONTROLLER | WATTS | MAX BTUH (000) | PHASE | VOLTS | AMPS | CFM | WT. (lbs.) | TEMP. RISE | AIR THROW | MAX MOUNT HEIGHT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KBP1230-1-MB-ECO2S-PRO | 70719 | INCLUDED | ( 2850-1900-950) | 9,727 | 1 | 120 | 23.8 - 7.9 | 385 | 23°F-8°F | 12 ft. | 8 ft. | 26 |
| KBP2005-1-MB-ECO2S-PRO | 70714 | INCLUDED | (5000-4000-3600-2900-1450-950) | 17,060 | 1 | 208 | 24.0 - 4.6 | 385 | 41°F-8°F | 12 ft. | 8 ft. | 26 |
| KBP2406-1-MB-ECO2S-PRO | 70764 | INCLUDED | (5700-4750-3800-2850-1900-950) | 19,454 | 1 | 240/208* | 23.8 - 4.0 | 385 | 47°F-8°F | 12 ft. | 8 ft. | 26 |

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

### Optional Field-Installed Control Accessories

| MODEL | UPC | DESCRIPTION |
|---|---|---|
| ECO-PRO-RF-PIR-SENSOR | 70422 | RF Battery Powered PIR Occupancy Sensor for ECO Models |
| ECO-PRO-RF-WINDOW-SENSOR | 70423 | RF Battery Powered PIR Window or Door Sensor for ECO Models |
| ECO-PRO-CONTROLLER | 70421 | Replacement Pro Controller - 7-Day Programmable Thermostat/Remote Sensor/Remote |

### Optional Field-Installed Accessories

| MODEL | UPC | DESCRIPTION |
|---|---|---|
| KBP-HFD-KIT | 70470 | KBP Heat/Disconnect Switch, 120-277V, Field Installed Kit |
| KBP-S2-SMB | 70570 | Optional Swivel Mounting Bracket |
| KBP-S2-MB | 70571 | Replacement Universal Mounting Bracket |

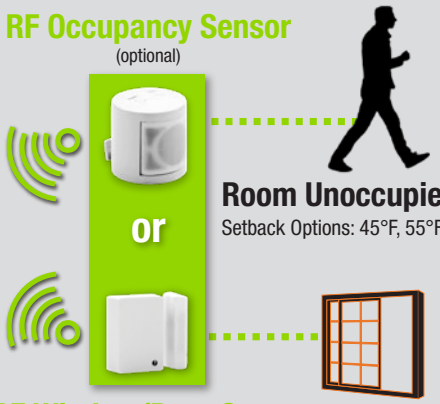
## Expand Your Control w/ Optional Wireless Sensors
*For Automatic Temperature Setbacks*

eco2S PRO CONTROL

**ECO Pro Controller**
Programmable 7-Day Heating Schedule & Remote Temperature Sensor

+

**RF Occupancy Sensor**
(optional)




**Room Unoccupied**
Setback Options: 45°F, 55°F, 60°F or 65°

**RF Window/Door Sensor**
(optional)

**Open Window or Door**
Setback Options: 40°F, 45°F, 50°F or 55°

King Electrical Manufacturing Company / 9131 10th Avenue South, Seattle, WA 98108 / phone 206.762.0400 / fax 206.763.7738 / www.king-electric.com

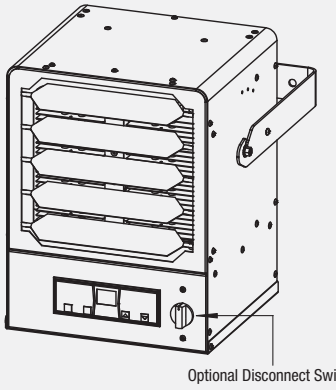
# Compact Unit Heater KBP ECO2S PRO Series

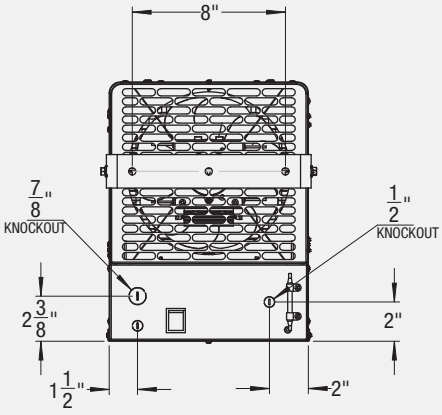
king Pic-A-Watt Selectable Wattage Element

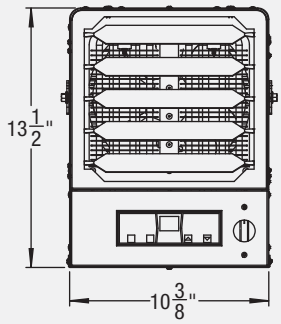
## Dimensional Data

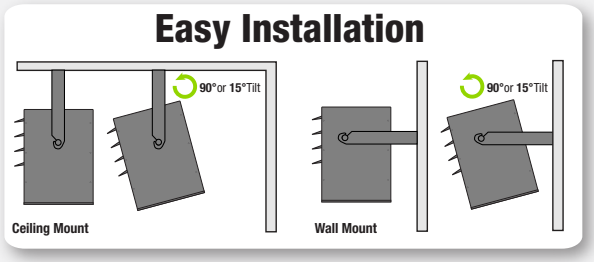
Minimum clearance from combustibles: 18" from front, 2" from top, 6" from sides and 5" from rear. Minimum clearance 6' from floor. (Optional Disconnect Switch Shown)

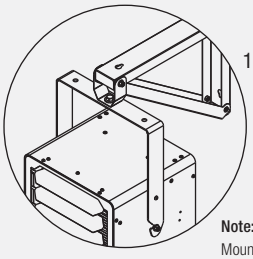
eco2S PRO CONTROL



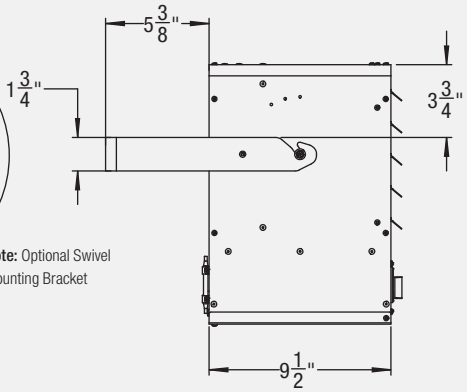



**Note:** Optional Swivel Mounting Bracket




### TEMPERATURE RISE PER WATTAGE CHART

| WATTS | BTUH | CFM | TEMP. RISE | WATTS | BTUH | CFM | TEMP. RISE |
|---|---|---|---|---|---|---|---|
| 950 | 3,242 | 385 | 8 | 3800 | 12,969 | 385 | 31 |
| 1000 | 3,413 | 385 | 8 | 4000 | 13,652 | 385 | 33 |
| 1900 | 6,485 | 385 | 16 | 4160 | 14,198 | 385 | 34 |
| 2000 | 6,826 | 385 | 16 | 4750 | 16,212 | 385 | 39 |
| 2850 | 9,727 | 385 | 23 | 5700 | 19,454 | 385 | 47 |
| 3000 | 10,239 | 385 | 25 | 6000 | 20,478 | 385 | 49 |

## Engineering Specifications

*Contractor shall supply and install KBP ECO2S PRO 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 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.

**ECO2S Electronic Thermostat Control:** Thermostat Temperature Range: 40° to 95°. Up, Down temperature mode. Automatic 2-Stage heating (High & ECO Modes). Start/Stop. Fan Only and Timer (1-9hours) Modes. Standard on all heaters.

**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.

**ECO2S PRO Remote 7-Day Thermostat:** RF 2.4G RF Wireless Protocol. 7-day programmable touch sensitive thermostats with an integrated temperature sensor. Enables custom 7-day programmable heating schedules, functions as both a remote temperature sensor and a handheld remote control for heater operation.

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

**Pic-A-Watt Heating Elements:** 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.

**Unit Bearing Motor:** Permanently lubricated, long life, unit bearing 4-Pole motor with 20 cc of oil. Enclosed rotor provides long-lasting, trouble-free operation. Thermally protected. 1500 RPM.

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

**CFM:** 385

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

**Patented Smart Limit Protection (U.S. Patent #6,748,163 B2):** Equipped with King's patented 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 15 minutes. Automatically reset of thermal overloads, which allow the element to continue to cycle under abnormal conditions, will not be accepted.

**Fan Delay:** The fan continues to operate after the thermostat shuts off in order to remove the residual heat left in the elements. Power must not be interrupted.

**Standard Color:** Onyx Gray

**Easy Installation:** A hingd 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) Seattle Energy Code Compliant