

## KING HT612 4/5-AS/FS-GW

# KING HT612 Hydronic Kickspace Heater User Manual

Model: HT612 4/5-AS/FS-GW

## 1. INTRODUCTION

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This manual provides essential information for the safe and efficient operation of your KING HT612 4/5-AS/FS-GW Hydronic Kickspace Heater. Please read all instructions carefully before installation and use. Retain this manual for future reference.

The KING HT612 is designed to provide supplemental heat in areas where space is limited, such as under cabinets, in toe-kick spaces, or within stair risers. It utilizes a hydronic system, drawing heat from a hot water source.

## 2. IMPORTANT SAFETY INFORMATION

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**WARNING:** Improper installation, adjustment, alteration, service, or maintenance can cause property damage, injury, or death. Read the installation, operating, and maintenance instructions thoroughly before installing or servicing this equipment.

- Always disconnect power before servicing or cleaning the unit.
- Ensure the unit is properly grounded.
- Do not block air intake or exhaust vents.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- Children should be supervised to ensure that they do not play with the appliance.
- Installation must be performed by a qualified technician in accordance with all local codes and ordinances.
- Do not operate the heater if any part has been submerged in water.

## 3. PRODUCT COMPONENTS AND FEATURES

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The KING HT612 Hydronic Kickspace Heater features a compact design for discreet installation. Key components and features include:

- **Squirrel Cage Blower:** Efficiently moves air across the hot water coil.
- **Two-Speed Motor:** Allows for adjustment of air output (Hi/Lo settings).
- **Copper Tubes with Aluminum Fins:** Optimized for fast coil heating and efficient heat transfer.
- **Powder-Coated White Grille:** Durable and aesthetically pleasing finish.
- **Aqua Stat & Fan Switch:** Integrated controls for temperature and fan speed.



Figure 3.1: Front view of the KING HT612 Hydronic Kickspace Heater. This image shows the white grille and the Hi/Lo fan speed switch located on the right side of the unit's faceplate.



Figure 3.2: Side view of the KING HT612 Hydronic Kickspace Heater. This perspective reveals the internal squirrel cage blower mechanism, which is responsible for moving air through the unit.



Figure 3.3: Close-up of the fan speed switch and internal components. This image provides a detailed view of the Hi/Lo switch and the copper tubing with aluminum fins inside the heater, which facilitate heat exchange.

## 4. INSTALLATION AND SETUP

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The HT612 is designed to fit between 16-inch on-center studs and features a top-mounted water feed for flexible placement. Professional installation is highly recommended.

### 4.1 Pre-Installation Checklist

- Verify that the hot water supply lines are accessible and compatible.
- Ensure adequate electrical supply (0.51 Amps, 120V) is available at the installation site.
- Confirm sufficient clearance for air circulation around the unit.
- Gather necessary tools: screwdriver, wire strippers, pipe wrench, level, measuring tape.

### 4.2 Mounting Instructions

1. Select a suitable location, typically under a cabinet or in a toe-kick space, ensuring it is level and secure.
2. Create an opening in the cabinet or wall that matches the dimensions of the heater (refer to specifications for exact measurements).
3. Secure the heater firmly into the opening using appropriate fasteners.

### 4.3 Plumbing Connections

1. Connect the 5/8-inch OD copper tubes of the heater to your hot water supply and return lines.
2. Ensure all connections are watertight and free of leaks.
3. Bleed air from the hydronic system after connections are made and water supply is restored.

## 4.4 Electrical Connections

1. Connect the heater to a dedicated electrical circuit, following all local electrical codes.
2. Ensure proper grounding to prevent electrical shock.
3. Verify all wiring connections are secure before restoring power.

## 5. OPERATING INSTRUCTIONS

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The KING HT612 features a simple two-speed fan control and an integrated aquastat for automatic operation.

### 5.1 Initial Startup

1. After installation and verification of all connections, restore power to the unit.
2. Ensure the hot water supply to the unit is active.

### 5.2 Fan Speed Control

The unit is equipped with a rocker switch on the front grille for fan speed control:

- **"HI" Setting:** Provides maximum air output (up to 120 CFM) for faster heating.
- **"LO" Setting:** Provides reduced air output (down to 50 CFM) for quieter operation and maintaining warmth.
- **"OFF" Setting:** Turns the fan off. The aquastat will still monitor water temperature.

### 5.3 Aquastat Operation

The integrated aquastat automatically activates the fan when the water temperature in the coil reaches a preset level, ensuring that only warm air is circulated. The fan will turn off when the water temperature drops below the set point.

## 6. MAINTENANCE

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Regular maintenance ensures optimal performance and longevity of your KING HT612 heater. Always disconnect power before performing any maintenance.

### 6.1 Cleaning the Grille and Fan

- Periodically wipe the exterior grille with a soft, damp cloth to remove dust and debris.
- For deeper cleaning, the grille can be carefully removed. Use a vacuum cleaner with a brush attachment to gently clean the fan blades and coil fins.
- Do not use abrasive cleaners or solvents.

### 6.2 Motor Maintenance

The motor is permanently lubricated and generally requires no maintenance. In case of issues, the motor is designed for easy removal by a qualified technician for service or replacement.

### 6.3 System Checks

- Annually inspect plumbing connections for any signs of leaks.
- Ensure air vents are clear and unobstructed.

## 7. TROUBLESHOOTING

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Before contacting customer support, please refer to the following troubleshooting guide:

Problem	Possible Cause	Solution
Heater not producing heat.	No hot water supply to the coil. Aquastat not sensing sufficient temperature.	Check hot water circulation. Ensure aquastat is functioning correctly (consult a technician if unsure).
Fan not operating.	Power disconnected. Fan switch in "OFF" position. Motor malfunction.	Check circuit breaker and power connections. Set fan switch to "HI" or "LO". Contact a qualified technician for motor inspection/replacement.
Reduced airflow.	Blocked air intake/exhaust. Dirty fan or coil.	Ensure vents are clear. Clean grille, fan, and coil as per maintenance section.
Unusual noise during operation.	Loose components. Fan obstruction. Motor bearing issue.	Inspect for loose screws or debris. Ensure nothing is obstructing the fan blades. If noise persists, contact a qualified technician.

## 8. SPECIFICATIONS

Feature	Detail
Model Number	HT612 4/5-AS/FS-GW
Brand	KING
BTU Output	4000/5100 BTU (as per model description)
Power Supply	120 Volt
Amperage	0.51 Amps
Fan Speeds	2 (Hi/Lo)
Airflow (CFM)	50 CFM to 120 CFM
Coil Material	5/8-Inch OD Copper tubes, Aluminum fins
Color	White
Form Factor	Cabinet / Kickspace
Item Weight	15 Pounds
Package Dimensions	22.05 x 15.75 x 6.69 inches
Certification	ETL tested to UL1995

## 9. WARRANTY AND SUPPORT

### 9.1 Warranty Information

The KING HT612 Hydronic Kickspace Heater comes with a **1 Year Warranty** from the date of purchase. This

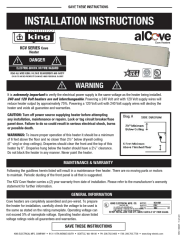
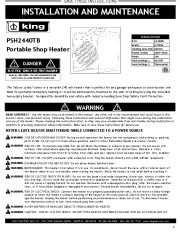


warranty covers defects in materials and workmanship under normal use. It does not cover damage resulting from improper installation, misuse, abuse, accident, or unauthorized repairs.



For specific warranty terms and conditions, please refer to the documentation provided with your purchase or contact KING customer service.

9.2 Customer Support

If you have any questions regarding the installation, operation, or maintenance of your KING HT612 heater, or if you require technical assistance, please contact KING customer support. For more information, you may also visit the official KING store on Amazon: [Visit the KING Store](#).

Related Documents - HT612 4/5-AS/FS-GW

	<p><a href="#">King KCV Series Cove Heater Installation Guide</a></p> <p>Official installation instructions for the King KCV Series Cove Heater (Model KCV1202), detailing safety precautions, electrical setup, mounting, wiring, and maintenance.</p>
	<p><a href="#">King PSH2440TB Portable Shop Heater: Installation, Operation, and Safety Manual</a></p> <p>This comprehensive manual provides essential information for the King PSH2440TB Portable Shop Heater, including installation, safety guidelines, operating instructions, maintenance tips, and troubleshooting solutions. Designed for garage and workshop use, it features 3750W power and 240V operation.</p>
	<p><a href="#">King W Series Electric Space Heater: Installation, Operation, and Maintenance Guide</a></p> <p>Comprehensive guide for King W Series electric space heaters, covering installation, wiring, operation, safety warnings, troubleshooting, maintenance, and warranty information.</p>
	<p><a href="#">King KDSR Series Electric Heater Installation, Operation, and Maintenance Manual</a></p> <p>Comprehensive guide for King KDSR Series electric heaters (2 kW to 5 kW), covering installation, safe operation, and regular maintenance. Includes important safety warnings and instructions for standard and suspended ceiling mounting.</p>

	<p><a href="#">King LPW-ECO Series Heater Installation and Maintenance Guide</a></p> <p>Comprehensive guide for installing, operating, and maintaining King LPW-ECO series electronic heaters, including safety instructions, wiring diagrams, remote sensor setup, and troubleshooting.</p>
	<p><a href="#">King W Series Wall Heater Installation and Maintenance Guide</a></p> <p>Comprehensive installation, maintenance, operating, and troubleshooting guide for the King W Series Wall Heater. Includes safety instructions, wiring diagrams, location selection, and troubleshooting tips.</p>