

OPERATION



Smart Heating Solutions

WINDOW WATCHER™

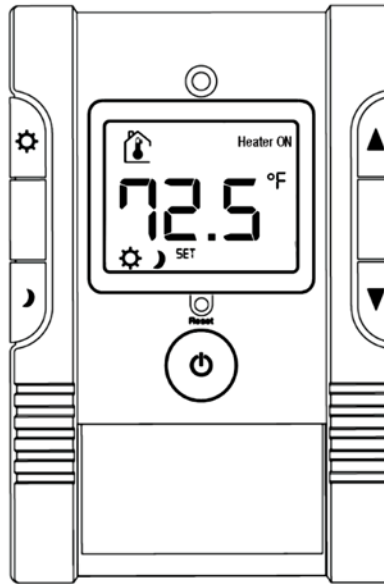
*Designed to reinforce positive energy habits
while limiting landlord energy expenses.*

WR Series

System Matched for King heaters



No Batteries Required



W/O Cover

SPECIFICATIONS:

Temperature range: 40°F/5°C to 74°F/23°C
Temperature Default: Your set point 60°F/16°C to 40°F/5°C

Display Format: Liquid Crystal Display (LCD)

Display size: Large Format

Sample Rate: Every 60 seconds

Heat indicator: LCD "heater on"

Window Contacts OPEN. (LCD) OPN

Relay Rating: 16 Amps inductive or resistive

Accuracy: $\pm 0.9^\circ\text{F}/\pm 0.5^\circ\text{C}$

Maximum Amps: 16 inductive continuous

Maximum Watts: 1875 @ 120V

3328 @ 208V

3840 @ 240V

Total inductive motor load combined can not exceed
16 amps

Minimum Watts: 0

Power Supply Rated 208/240 VAC

Operating Range 200 to 250 VAC

GENERAL INFORMATION

This thermostat is designed to reinforce positive energy habits while limiting landlord energy expenses. For use on 120 Volt AC and a total of 16 Amps load inductive Continuous.

Check the voltage to make sure you have the right thermostat for your heater voltage. A 1-pole or single-wide breaker indicates a 12 Volt circuit.

Be safe and smart! Electricity can cause severe injury or death if not treated with respect and caution.

This thermostat will provide years of comfort control for your family in use with small fan driven electric heaters, baseboards, radiant ceiling, wall panel heaters, cove heaters or any line voltage resistance heating systems that do not have an electric motor over 1/3 hp.

OPERATION:

The **WINDOW WATCHER** is a precision electronic thermostat and uses a very sensitive thermistor near the bottom to sense room air temperature, sending the information on the microprocessor. As the temperature drops, the information sent will indicate if heat is needed. This saves energy and provides the best temperature control of an area.

The **WINDOW WATCHER** thermostat has an extra contact terminal block for remote set back to 40°F/5°C. Intended for window or door open contacts. The 40°F/5°C temperature is a fixed setting and not adjustable. The maximum operating temperature is stopped at 74°F/23°C, helping to change human behaviors that increase energy costs.

INSTALLATION:

This line voltage device should be installed and serviced by a qualified electrician. The thermostat has been designed to mount to a standard 2" x 4" electrical outlet box. Leveling of the thermostat is not required. #6-32 Phillips head mounting screws are provided.

Mount the thermostat in an open area about 5 feet above the floor, avoiding outside walls as they are too cold and will inhibit the thermostats performance. A general rule of thumb is to place the thermostat above the wall switch for that room. This works well for most bedrooms, making it very convenient to turn the heat lower upon leaving. Avoid mounting the thermostat where there may be plumbing pipes in the wall or placing a lamp or TV too close to the thermostat. Heat from such items negatively affect the thermostats performance.

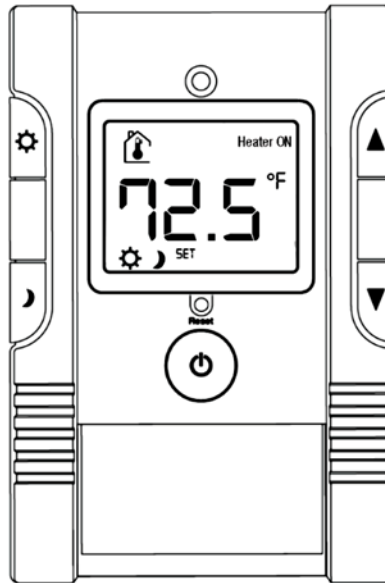
INSTALLATION



WINDOW WATCHER

WR120 & WR230

Series Thermostat



No Batteries Required

W/O Cover

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Heat indicator: LCD "heater on"

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Maximum Watts: 1875 @ 120V

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3840 @ 240V

Total inductive motor load combined can not exceed 16 amps

Minimum Watts: 0

Power Supply Rated 208/240 VAC

Operating Range 200 to 250 VAC



WARNING



READ CAREFULLY—These instructions were written to help prevent difficulties that might arise during thermostat installation. Studying the instructions first may save considerable time and money later. Observing the following procedures will keep installation time to a minimum. Save these instructions for future

Thank you for buying this King thermostat. It should provide years of service and comfort to your home. Inspect the package. Enclosed should be the thermostat with its cover and two screws.

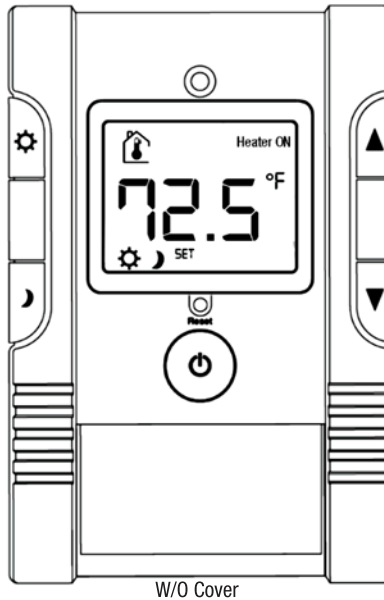
1. Check the total load of the heaters being connected to the thermostat. The maximum wattage at 240 Volts is 3840 Watts, 208 Volts is 3328 Watts, 120 Volt is 1920 Watts. It is important to stay below this total wattage when connecting the thermostat. Lower wattage prolongs the life of the contacts in the relay.
2. To wire the thermostat determine which pair of wires are coming from the breaker panel and which pair lead to the heater.
3. Remove cover of thermostat by placing thumb on LCD display and fingers on top edge of cover. Pull towards you. This will expose the top and bottom mounting screws.
4. There may be a pair of white wires connected in your junction box. If so, leave them alone and work with the black wires. If there is only a black wire and white wire use them. (This is called switch leg—see wiring diagram).
5. Take a black lead and attach it to the black lead on the thermostat.
6. Take the other black heater lead (white if switch leg) and attach it to the red lead on the thermostat. This will provide power to the heater when the thermostat calls for heat.
7. Push the wires carefully into the junction box making sure no wires are pinched or will obstruct the screws mounting the thermostat. Now attach the thermostat to the wall using the #6-32 Phillips head screws provided. Replace cover. Do not over tighten screws.
8. Turn ON power. Test by increasing set point to higher than current room temperature by tapping the ▲UP arrow button. You will hear a small click and "Heater ON" will appear in the LCD display; the heater should be ON now. Turn the thermostat down by tapping on the ▼Down arrow button.
9. You have now verified the thermostat is in perfect working order and ready for years of trouble-free operation.
10. Mounting tips: Make sure nothing is nearby (a.g. plumbing pipes in the wall, a lamp close by, direct sunlight, a T.V. set and/or cold drafts from a door opening) that could affect the average room temperature sensing of the thermostat. Typically the best, most convenient location is on inside walls above the light switch for that room.
11. Cleaning: Canned compressed air works great to clear any dust accumulation, while a damp cloth will additionally clean the plastic case surface of finger prints. Strong spray cleaners may damage the plastic case or remove writing or arrows screen-printed on case. Blow out any dust that may accumulate on top or bottom air vents. Good air circulation is key to long life and accurate operation.
12. Humid locations: Mildly humid location like bathrooms may reduce life due to corrosion on the contact and lint from towels getting into thermostat air vent. To extend life blow out vent regularly and mount thermostat away from shower locations.

ELECTRICIAN WIRING INSTRUCTIONS

king
WINDOW WATCHER
WR120 & WR230
Series Thermostat



No Batteries Required

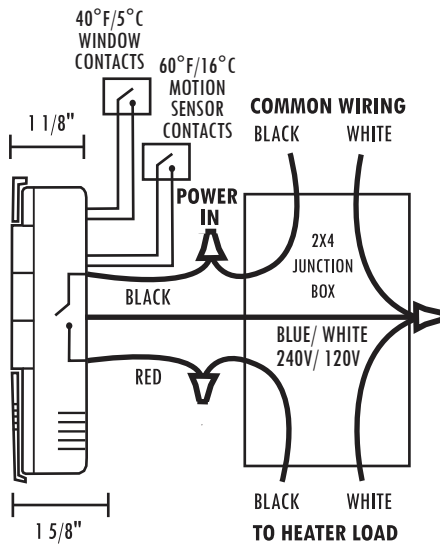


W/O Cover

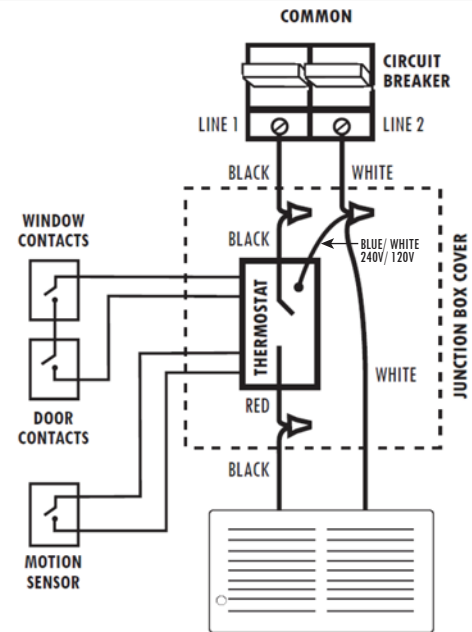
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WIRING DIAGRAMS

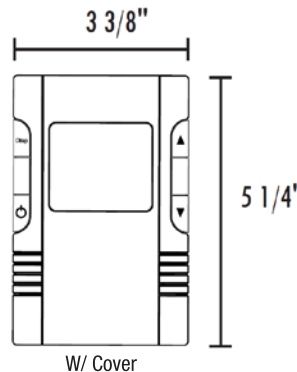


40°F/5°C set back on open contacts
WR-ND Models
No Delay on Setback
WR Models
1 Minute Delay on Setback
Optional:
60°F/16°C set back on open Contact factory.
May need special order

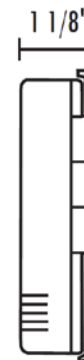


HEATER - UP TO 3840 WATTS

DIMENSIONS:

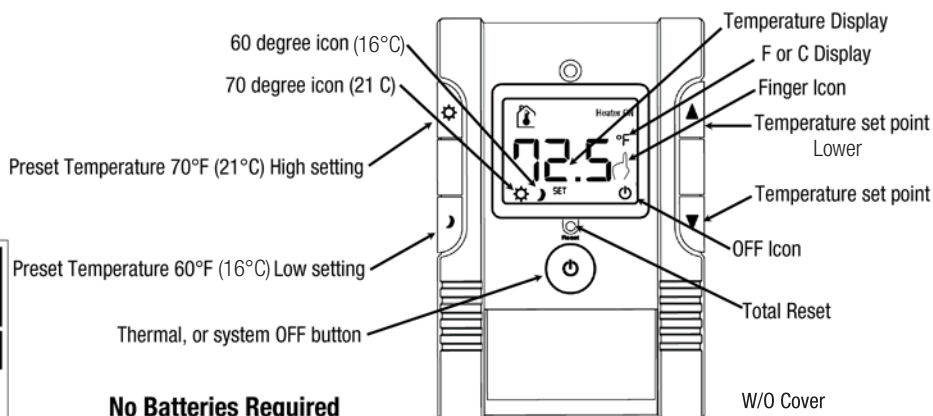


W/ Cover



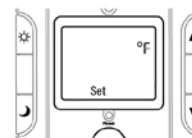
The small 22 gauge wire connection on the back of the thermostat is for the remote 40°/5°C or 60°/16°C activation. This is a volt-free set of control wires that can be used with any switch, such as: window and door contacts, motion sensors, key cards, hotel panels and everything that can make or break contact. 40°/5°C or 60°/16°C set back is activated on contact open.

WR120 OR WR230 OPERATION



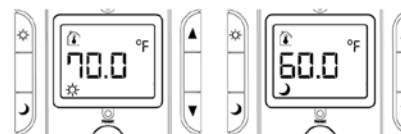
Changing F to C

1. Hold temp up and down for 5 seconds, when display is flashing press the up or down key to change from one standard to another.



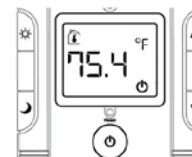
Quick Temperature Presets

2. There are Quick Change preset temperatures programed into the thermostat. The Sun icon ☀ representing Day has a preset of 70°F (21°C). The Moon icon 🌙 representing Night has preset of 60°F (16°C) These are not adjustable but are quick change temperature for convenience.



Stand By Function

3. Press the OFF button will turn off the thermostat, An OFF icon will be displayed on the LCD screen. No adjustment can be made to the thermostat in this stand by mode which is really a 40°F (5°C) low temperature setting for freeze protection, No heat will be provided unless 40°F (5°C) is reached.



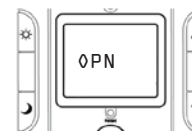
Room Temperature Adjustment

4. When changing the temperature the small finger icon 👉 pointing to the °F or (°C) will blink indicating adjustment is possible. When the display is not flashing the room temperature is being displayed. Note: Maximum high temperature setting is 74° F/23°C. minimum low setting is 40°F/5°C



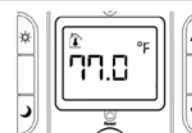
Window Watcher Motion Detector Operation

5. When the window contacts are opened the word OPEN will be quickly displayed in the LCD screen and will go back to shwing the room temperature but without the finger. No adjustments can be made to the thermostat in this OPEN mode which is really a 40°F (5°C Low temperature setting for freeze protection. No heat will be provided unless 40°F/5°C is reached. To return heat to the room, close the window and your presets will be the default return temperature. A second set of contacts drop set point to 60°F/16°C for use with motion sensor. PIR will be displayed.



Resetting Thermostat Electronics

6. If unusual operation is noticed, due to a static charge received by the thermostat, push and hold the reset button with a small tooth pick sized item for 2 seconds, to refresh and reset all electronics.



Motion Detector Interface

7. This second set of contacts will drop the set point to 60°F/16°C If a break in the 22 guage wire is sensed. Typically used with a motion sensor

At 60°F/16°C Motion Detector Contacts Open

