Page 1

## **KICKSPACE HEATER**

Factory Wired 240/208 V.A.C.



## **READ AND SAVE THESE INSTRUCTIONS**

## IMPORTANT INSTRUCTIONS

#### READ ALL INSTRUCTIONS BEFORE INSTALLING OR USING THIS HEATER.

To reduce the risk of fire, electric shock, or injury to persons, observe the following:

- 1. Use this unit only in the manner intended by the manufacturer. If you have questions, contact the manufacturer at the address or telephone number listed in the warranty.
- Before servicing or cleaning unit, switch power off at service panel and lock the service disconnecting means to prevent power from being switched on accidentally. When the service disconnecting means cannot be locked, securely fasten a prominent warning device, such as a tag, to the service panel.
- Installation work and electrical wiring must be done by a qualified person(s) in accordance with all applicable codes and standards, including fire-rated construction codes and standards.
- 4. When cutting or drilling into wall or ceiling, do not damage electrical wiring and other hidden utilities.
- 5. This heater is hot when in use. To avoid burns, do not let bare skin touch hot surfaces. Keep combustible materials, such as furniture, pillows, bedding, papers, clothes, etc. and curtains at least 3 feet (0.9 m) from the front of the heater.
- Extreme caution is necessary when any heater is used by or near children or invalids and whenever the heater is left operating and unattended.
- 7. Do not operate any heater after it malfunctions. Disconnect power at service panel and have heater inspected by a reputable electrician before reusing.
- 8. Do not use outdoors.
- To disconnect heater, turn controls to off, and turn off power to heater circuit at main disconnect panel (or operate internal disconnect switch, if provided).
- Do not insert or allow foreign objects to enter any ventilation or exhaust opening, as this may cause an electric shock or fire, or damage the heater.
- 11. To prevent a possible fire, do not block air intakes or exhaust in any manner.
- 12. A heater has hot and arcing or sparking parts inside. Do not use it in areas where gasoline, paint, or flammable vapors or liquids are used or stored.
- 13. Use this heater only as described in this manual. Any other use not recommended by the manufacturer may cause fire, electric shock, or injury to persons.
- 14. To avoid electrical shock: Do not install unit in a tub or shower enclosure or any location where it may come in contact with water. Never place a switch where it can be reached from a tub or shower.
- 15. Do not connect heater to dimmer switch or speed control.
- 16. Do not install heater upside down or sideways. Heater must be located in the horizontal position.
- 17. Do not recess louvered face of the heater more than three inches from the vertical face of any overhang (cabinet).
- 18. Provide this heater with a separate electrical circuit following directions under "Wiring" section.

- 19. This product is equipped with a thermostat which may start it automatically. Turn off power at service entrance before cleaning or servicing.
- 20. This heater includes a visual alarm to warn that parts are getting excessively hot. If the alarm lights are activated, immediately turn the heater off and inspect for any objects on or adjacent to the heater that may cause high temperatures.
- 21. This product must be grounded.

### SAVE THESE INSTRUCTIONS

### PLANNING

This heater is designed for installation in an enclosed space such as under a counter or kickspace to provide warm, gentle heat at the floor level. Reread Safety Notes 3 through 8 for guidelines in planning the installation.

The Model 114 is factory wired for 240/208 V.A.C. operation. It offers a choice of heat outputs and can be internally connected for multiple wattages at different voltages shown in the table below.

VOLTS	WATTS	AMPS	BTU/HR
240	1500	6.3	5120
208	1125	5.4	3840
120*	1500	12.5	5120
120*	750	6.3	2560

All ratings are 1-Phase, 60 Hertz.

\*See "FIELD CONVERSION TO 120 V.A.C." section.



Cutout dimension: 18-3/8" x 3-5/8"

# NuTone

#### MODEL 114

### INSTALLATION

WARNING: To reduce the risk of fire, do not store or use gasoline or other flammable vapors and liquids in the vicinity of the heater.

CAUTION: High temperature, risk of fire, keep electrical cords, drapery, furnishings, and other combustibles at least 3 feet (0.9 m) from the front of the heater and away from the side and rear.



- Mark the intended mounting location in the base plate under the counter or kickspace, and remove required material to provide for easy insertion and removal of the heater cabinet.
- 2. The unit will be secured in place with screws through the side angle support brackets. Provide adequate material behind side angle support for secure mounting.

#### FIELD CONVERSION TO 120 V.A.C.



- If a 120 V.A.C. circuit is to be used, make wiring changes as follows:
- 1. Disconnect **white** wire from heater element terminal "2" and connect it to terminal "4." The heater will now operate at 120 V.A.C., 750W, 6.3A.
- 2. For 120 V.A.C, 1500W, 12.5A operation, add the short **red** jumper wire (provided) between terminals "1" and "2".
- 3. Remove alarm light wire leads from terminals "1" and "3" of the high temperature limit. Remove white wire lead from limit terminal "1" and reconnect at limit terminal "3". Secure wire leads with wire tie so there is no interference with unit operation.

**NOTE:** Terminal numbers are marked on the side of the blower housing, above the heater elements.

## Page 2 THERMOSTAT INSTALLATION

**NOTE:** The thermostat control circuit must be wired prior to the wiring of the heater unit.

This heater may be thermostatically controlled by either a line voltage wall-mounted thermostat (Model 86W), or an optional built-in thermostat accessory kit (Model 90). Model 90 thermostat kits are designed for easy installation with this heater. Instructions for installing thermostats are provided below and are also supplied with each thermostat kit.

#### **OPTIONAL LINE VOLTAGE WALL-MOUNT THERMOSTAT**



THERMOSTAT

- 1. Locate thermostat on an inside wall away from all drafts and approximately 4-5 feet above the floor.
- 2. Route all wiring through the thermostat first and then to the heater.

#### **OPTIONAL (MODEL 90) UNIT-MOUNT THERMOSTAT**



- 1. Remove the top cover from the heater.
- 2. Remove the 5/8" knockout located on the left side of the front panel (use a screwdriver to remove the knockout). Also remove the two plastic hole plugs (see illustration).

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- 3. Install thermostat from back side of front panel and fasten in place, from front, with two screws and washers provided (see illustrations).
- 4. Attach temperature control knob by gently pushing it on to the thermostat shaft. Flats on shaft and knob must line up for proper installation (do not force control knob onto shaft).
- 5. Remove **black** wire from thermal fuse and attach it to thermostat terminal marked "4".
- 6. Remove **white** wire from temperature limit terminal marked "1" (Note: the other end of this wire is attached to incoming field wiring) and attach it to the thermostat terminal marked "1".
- 7. Attach **black** thermostat wire to thermal fuse and **white** thermostat wire to the temperature limited marked "3".

#### WIRING

Installation work and electrical wiring must be done by a qualified person(s) in accordance with all applicable codes and standards, including fire-rated construction codes and standards.



1. Run electrical power cable to installation location. Provide two feet of slack to allow heater to be pulled out far enough to remove top cover for cleaning or servicing.

**NOTE:** It is recommended that flexible conduit be used for field wiring to the unit to protect the wires from sharp objects or hazardous environments.

**NOTE:** Be sure supply voltage meets the equipment requirement. Refer to the rating plate, unit wiring diagram and specification table.



2. Remove top cover for access to wiring box at rear of heater.

Page 3 3. Remove one of the two GROUND BLACK & WHIT knockouts and SCREW LEADS connect power cable to heater using appropriate connector. Allow at least six inches of wiring inside of KNOCKOUTS wiring box. 4. Connect black to black, white to white and green (or bare wire) to ground screw, as shown. Tuck wires down inside the wiring box.

5. Replace top cover.

- WARNING: Do not operate heater without top cover in place.
- 6. Slide heater into place and secure to mounting surface.

### **OPERATION**

Before using heater, make sure heater has been properly installed according to installation steps beginning with the "PLANNING" section on page 1.

- 1. Turn thermostat counterclockwise to its lowest setting.
- 2. Turn on power to circuit at service entrance.
- 3. Turn thermostat clockwise. The heating element and fan should come on. Set thermostat to desired temperature level. During proper operation, the heater will cycle on and off periodically.

If heater does not come on:

- 1. Return the thermostat to lowest setting.
- 2. Shut off power at service entrance.
- 3. Remove the top cover. Check for proper line voltage and reinspect wiring connections. Reread installation procedure making sure all steps were followed.
- 4. Also check the thermal fuse. It may be open and need to be replaced. Consult the service parts list for the part number of a replacement fuse. Follow the procedure described in the last paragraph of the warranty when ordering replacement parts.

Page 4