

K-15R

Instructions

Repair Parts List



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## Model K-15R Installation Instructions & Repair Parts List

### One Year Limited Warranty

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Henkel, Inc. warrants its products against defects in material and workmanship. Henkel, Inc. will either repair or replace without charge any properly installed product which fails under normal operating conditions within one year from date of installation, provided it is returned to our factory, transportation prepaid, and our inspection determined it to be defective under the terms of this warranty. The warranty covers only equipment manufactured by Henkel, Inc., and does not extend to transportation, installation, or replacement charges at the buyers' facility; nor does it apply to any other equipment of another manufacturer used in conjunctions with Henkel, Inc. equipment. No other warranty, expressed or implied exists beyond that included in this statement.  
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### Recommended Spare Parts

**When it is critical to have continuous operation of this unit;  
we suggest having the following spare parts on hand:**

**Heating Element, Power Cord, Thermostat**

### General Information

The K-15R is a portable oven designed for use in the shop or field. These ovens will protect electrodes from moisture during transfer from a holding oven to the job. They are light and easy to carry. The square shape gives these ovens greater stability vertically and horizontally. They are made of steel, treated, then painted with a chemical-resistant blue paint. All Keen ovens are Mercury free. The addition of an electrical receptical to the model K-15 portable rod oven allows workers to operate 120V power tools without the necessity of using a separate extension cord. Also, welders working in close proximity to each other can daisy chain, or plug one oven into another, again eliminating the need for multiple extension cords. Because the portable rod oven draws very little current, operating power tools or operating ovens in series should not overload electrical currents.

Using the model K-15R oven saves on the expense of extension cords and the labor to place, pick-up, and store the cords.

# Keen Ovens

## Model K-15R

### Specifications

Electrode Capacity	15lbs. 18" rods
Volts	120V AC/DC
Watts	100W
Temperature	100°F - 300°F
Insulation	1"
Interior Dimensions	3.3" D X 19" H
Receptical Output	120V - 12AMP
Net Weight	13lbs.
Shipping Weight	15lbs.
Shipping Dimensions	10.5" X 9" X 22.75"

### Safety Precautions

Read all instructions completely before attempting to operate this unit.

#### **\*\*\* SAVE THESE SAFETY INSTRUCTIONS \*\*\***

To reduce the risk of electrical shock, fire, or personal injury follow the guidelines below:

- Before connecting unit to a power source, be sure the voltage supplied is the same as that specified on the name plate of the unit.
- Check outlet to ensure proper grounding of the electrical cable. Have a licensed electrician check the A/C power outlet if you are not sure.
- Use this unit for its intended purpose as described by literature.
- Make sure power cord is located so that it will not be stepped on, tripped over, or otherwise subjected to stress of heat, oil, or sharp edges. Do not close doors on the cord.
- To reduce the risk of damage to the electric plug and cord, disconnect by plug rather than by the cord.
- Do not use this unit if cord or plug is in poor condition. If it has been exposed to weather or immersed in water, have a qualified serviceman inspect and replace parts as necessary.
- **WARNING! NEVER HANDLE PLUG, CORD, OR UNIT WITH WET HANDS OR WHILE STANDING IN WATER.**

- Use special care when moving heavily loaded units.
- Do not store combustible material on or around the unit.
- Do not operate this unit empty.
- When using the unit at a distance where an extension cord becomes necessary, a 3-conductor grounding cord of adequate size must be used for safety, and to prevent loss of power and overheating. Use only a UL listed extension cord suitable for outdoor use. Make certain wire size is large enough for A/C amperage rating of unit.

## Operation

To load oven, lift handle and place plunger into loading position by hooking tab located on center rod of plunger onto lip of center tube. To unload, simply lift plunger and remove electrodes. The oven capacity is 15 lbs. of 18" electrodes.

To turn on the unit, simply plug the 8' UL listed power cord into power source of appropriate voltage. Oven may be operated on direct current IF AMPLE VOLTAGE IS AVAILABLE. (Check name plate for voltage.) Unit will not heat to capacity without appropriate voltage.

On 240V models, the plug is not supplied due to the many different receptical configurations in the field. When attaching the plug to the power cord, be sure the plug is an approved component and is rated for the proper voltage and amperage. All units meet electrical code requirements when used with a grounding plug and a grounded receptical.

## Temperature Setting

The model K-15R is a non-thermostatically controlled oven with a temperature range of 100°-300°F depending on the length of time used and the amount of electrodes stored. The element wattage in this unit is designed so that temperatures will not exceed 300°F.

## Guide to Storage

See the enclosed guide to storage. This guide may be used in the absence of storage information from the electrode manufacturer. In critical situations, contact your electrode manufacturer.

## Functional Description

Model K-15R ovens are portable units. They are not designed for long-term storage. The units hold 15lbs. of 18" electrodes and are used for transfer of electrodes from holding ovens to the job site.

## Scheduled Maintenance

The manufacturer recommends that the unit be unloaded and cleaned of debris and dust every three months by removing the plunger from center tube and turning unit upside down and tapping gently on bottom. It is recommended to inspect the power supply cord for damage at this time. Replace cord if damaged.

# Troubleshooting

*The Keen oven model K-15R requires a minimal amount of electrical knowledge to repair if necessary.*

## IF OVEN FAILS TO OPERATE – NO HEAT

1. Check power source.
2. Check power cord continuity. Replace cord assembly if faulty.
3. Check heating element continuity. If no continuity is present, replace element.

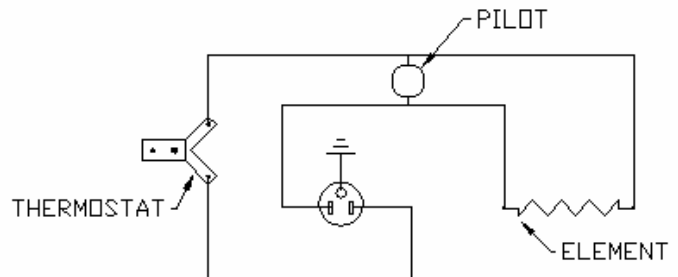
## IF OVEN OVERHEATS

1. If oven overheats, adjust thermostat. (See “Temperature Setting” section.)
2. If thermostat calibration fails to lower temperature, replace thermostat. (See “Corrective Maintenance” section.)

## Corrective Maintenance

### CHANGING ELEMENT FOR K-15R

1. Disconnect power source.
2. Remove two screws from bottom of oven.
3. Remove bottom cover.
4. Remove leads from old element and remove element.
5. Install new element and attach leads.
6. Replace insulation and bottom cover.
7. See wiring diagram.



### CHANGING THE THERMOSTAT: MODEL K-15R

1. Disconnect from the power source.
2. Remove two screws from bottom of oven.
3. Remove bottom corner and insulation.
4. Disconnect wires from thermostat.
5. Remove hex nut and lock washer from mounting bolt; remove thermostat.
6. Replace new thermostat in same position.
7. Rewire as in diagram
8. Replace insulation and bottom, making sure wires are insulated from element.

### THERMOSTAT CALIBRATION: MODEL K-15R

1. Follow instruction is numbers 1, 2, and 3 above.
2. Thermostat is readily visible in bottom of oven. Use small screwdriver and turn set screw. (Turning set screw clockwise decreases temperature. Turning set screw counter-clockwise increases temperature. One-fourth [1/4] turn equals approximately 35°F.)

3. Replace insulation and bottom of oven.

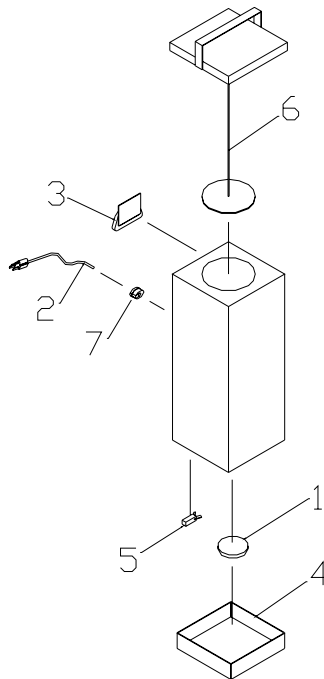
## K-15R

### Model K-15R Repair Parts List

ITEM #	QUANTITY	DESCRIPTION	PART NUMBER
1	1	* Elements 120V	301021
		W/T 120V	301019
		W/T 240V	301020
2	1	Power Cord	301100
3	1	Chest Handle	430103
4	1	Bottom Cover	100103
5	1	Thermostat	301024
6	1	Rod Lifter Assembly	100107
7	1	Strain Relief	301043
8		Neon Pilot Light	301085

\* **Note:** 301021 - 240V 400W used in the K-15 Oven produces 100W output.

\*\* Please state model number and serial number and specify voltage and wattage when ordering repair parts, spare parts, or accessory parts. All necessary attaching hardware is supplied with each part ordered.  
(Item numbers refer to pictorial drawings below for repair parts.)





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## Flux and Electrode Stabilizing Ovens

Type (AWS)	Air Conditioned Storage Before Opening	Dry Rod Oven Holding After Opening	After Exposure to Moisture a Sufficient Time to affect Weld Quality	
			Recondition Step 1	Rebake Step 2
<b>Standard</b> EXX10 EXX11 EXX12 EXX13 EXX20 EXX30	80°F ± 20° 60% ± 10% RH	140°F ± 30°	180°F ± 25° two hours	240°F ± 25° one hour
			Three hour total	
<b>Iron Powder</b> EXX14 EXX24 EXX27	90°F ± 20° 50% RH max	140°F ± 30°	180°F ± 25° two hours	325°F ± 25° one hour
			Three hour total	
<b>Iron Powder-Low Hydrogen</b> EXX18 EXX28	90°F ± 20° 50% RH max	400°F ± 50°	180°F ± 25° two hours	700°F ± 100° one-half hour
			Two & one-half hour total	
<b>Low Hydrogen</b> EXX15 EXX16	90°F ± 20° 50% RH max	400°F ± 50°	180°F ± 25° two hours	600°F ± 100° one-half hour
			Two & one-half hour total	
<b>Low-Hydrogen High Tensile</b> EXXX15 EXXX16	90°F ± 20° 50% RH max	400°F ± 50°	180°F ± 25° two hours	700°F ± 100° one-half hour
			Two & one-half hour total	
<b>Stainless</b> Inconel Monel Nickel Brasses Bronzes Hard Surfacing Special Alloys	90°F ± 20° 50% RH max	225°F ± 50°	180°F ± 25° one hour	350°F ± 50° one hour
			Two hour total	
<b>Granulated or Agglomerated Flux</b>	90°F ± 20° 50% RH max	240° F ± 50°	Not required	700°F ± 100° two hours

**IMPORTANT:**  
This table is offered as a guide to proper storage and oven holding temperatures for the most common electrodes in use today. In addition, recondition/rebake procedures for electrode coatings that have been exposed to moisture for a sufficient period of time to affect the weld quality are included. Good judgment and the manufacturer's recommendations should be your guide.

*Note: In the HTS Stainless electrode groups, and 15 & 16 type coatings, there can be a greater difference in the maximum temperature requirements for rebaking than those shown. This can be handled by special request to the particular manufacturer involved.*

CONTACT YOUR ELECTRODE MANUFACTURER FOR SPECIFIC INFORMATION INVOLVING CRITICAL OPERATIONS.

Electrode coating should not be exposed to the rebaking temperature without first having been reconditioned at a lower temperature. Failure to observe this rule will result in breakdown of electrode coatings.

After rebake, lower temperature to *holding level* until reissue.