

K-50

Instructions

Repair Parts List



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Model K-50 Portable Oven 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 implies 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-50 Keen oven is a portable unit designed for use in the shop or field. This oven will protect electrodes from moisture during transfer from a holding oven to the job. It is light and easy to carry. The square shape gives this oven greater stability vertically and horizontally. It is made of steel, treated, then painted with a chemical-resistant blue paint. All Keen ovens are Mercury free.

Keen Ovens

Model K-50

Specifications

Electrode Capacity	50lbs. 18" rods
Volts (Specify)	120V or 240V AC/DC
Current Draw	1.25 amps
Watts	150W
Thermostat	Factory Preset/Field Adjustable
Temperature	Preset 275°F : Range 100°F-300°F
Insulation	1"
Interior Dimensions	6" X 6 X 19" H
Net Weight	20lbs.
Shipping Weight	21lbs.
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, open latch on lid and simply place desired amount of electrodes in oven. The oven capacity is 50 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-50 oven is thermostatically controlled oven with a temperature range of 100°-300°F. The thermostat is factory preset at 275°F, but it is field adjustable. To change thermostat setting, see "Corrective Maintenance" section.

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

The K-50 oven is a portable oven that holds 50 lbs of 18" electrodes. The oven may be used to transfer welding electrodes from a holding oven to a job site or continuously as a small holding oven.

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-50 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. If power supply cord checks out, disconnect oven from power supply and remove bottom cover and insulation.

4. Remove the two leads from thermostat terminals and check for continuity across terminals. If continuity is not present between thermostat terminals, replace thermostat. (See “Corrective Maintenance” section.)
5. If thermostat is good, check continuity of element. If continuity is not 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

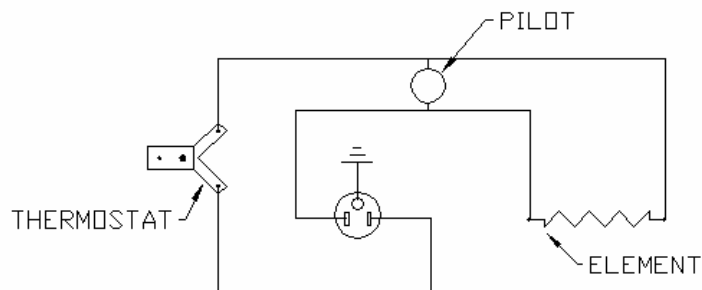
CHANGING ELEMENT

1. Disconnect power source.
2. Remove two screws from bottom of oven.
3. Remove bottom cover and insulation.
4. Disconnect wires on heating element.
5. Remove old element and replace with new one
6. Rewire as in diagram.
7. Replace insulation and oven bottom.

CHANGING THE THERMOSTAT

1. Disconnect from the power source.
2. Remove two screws from bottom of oven.
3. Remove bottom corner and insulation.
4. Disconnect wire terminals on thermostat.
5. Remove old thermostat and replace with new one.
6. Rewire as in diagram
7. Replace insulation and bottom, making sure wires are insulated from element.

Model K-50 Wiring Diagram



THERMOSTAT CALIBRATION & ADJUSTMENT

1. Follow instruction numbers 1, 2, and 3 from Changing the Thermostat.
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.

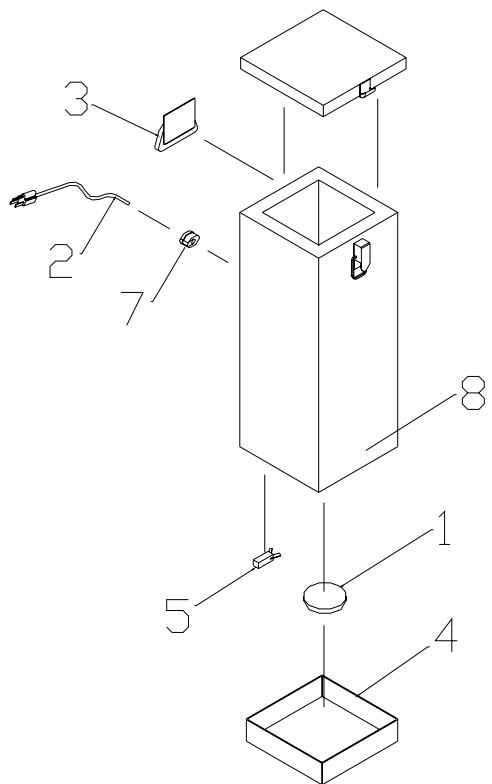
Model K-50 Repair Parts List

ITEM #	QUANTITY	DESCRIPTION	PART NUMBER
1	1	* Elements 120V	301019
		240V	301020
2	1	Power Cord	301155
3	1	Handle	430103
4	1	Bottom Cover	100204
5	1	Thermostat	
		120V	301024
		240V	301024
6	1	Neon Pilot Light	301085
7	1	Strain Relief	301043
8	1	Name Plate	450103

K-50 ACCESSORIES LIST

** 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 Guide

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
Standard 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	
Iron Powder 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	
Iron Powder-Low Hydrogen 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	
Low Hydrogen 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	
Low-Hydrogen High Tensile 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	
Stainless 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	
Granulated or Agglomerated Flux	90°F ± 20° 50% RH max	240° F ± 50°	Not required	700°F ± 100° Ø 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.