



**Electrode Stabilizing**

# DryRod® Ovens

## **I. OPERATING INSTRUCTIONS FOR TYPE 50A SERIES MODELS 7, 9, 10, 11, 14, 15, & 17 PORTABLE ELECTRODE STABILIZATION OVENS**

### TYPE 50A MODEL 14

Three Wire Grounded Circuit:  
120 Volts AC/DC  
Temperature: 300°F Average  
(stabilized temperature)  
Heating Element: Ring Type, 350 Watts, 120 Volts

### TYPE 50A MODEL 15

Three Wire Grounded Circuit:  
240 Volts AC (Only) \*  
Temperature: 300°F Average  
(stabilized temperature)  
Heating Element: Ring Type, 350 Watts, 240 Volts

Type 50A Model, 9, 10, 11, 14, & 17 120V (AC/DC)  
Plug power cord into suitable 120 Volt AC or DC power source.

Type 50A Model 7 & 15, 240V (AC Only)  
Plug power cord into suitable 240 Volt AC (Only) power source.\*

### ELECTRODE HOLDING

1. Open lid of box and allow approximately 20 minutes warm-up to drive out any retained moisture.
2. Place only dry electrodes within box. Keep lid closed but unlatched while plugged into powered receptacle.

### ELECTRODE STORAGE

3. When your job is done, the oven should remain connected to its power source. If it becomes necessary to disconnect from power, keep the lid closed and latched to provide sealed storage of unused electrodes.

4. Your DryRod® oven has been preset at the factory for optimum temperature control. The sealed thermostat is not adjustable, but easily replaced if it fails. Average stabilized temperature of the oven is 300°F with a full load (average 250°F empty). A parts list and wiring diagrams are printed on the reverse side for your convenience.

\*Warranty is void if used with D.C. power source

**\*Caution\* - To avoid oven damage, never place oven in contact with welding current.**

### **\*\*CAUTION\*\***

All wiring should be done by licensed electricians in accordance with State & Local codes plus NEC (National Electric Code) Standards. Improper installation or use may result in serious injury. Always remove oven from power source before troubleshooting or repairing.

## **II. TROUBLESHOOTING - TYPE 50 OVENS**

### **OVEN FAILS TO OPERATE - NO HEAT**

1. If oven will not heat, check power supply.
2. Check plug at outer end of power cord. Check complete power cord for continuity. If defective, replace cord assembly.
3. Disconnect wires from heating element and check heating element for continuity (access through top of

oven). If defective, replace elements.

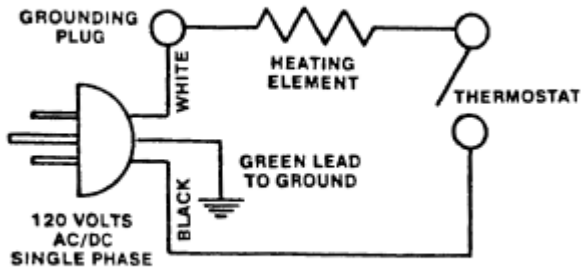
4. On type 50A ovens check thermostat for continuity at ambient temperature (access through top of oven). If defective, replace thermostat.

### **OVEN OPERATES - OVERHEATS**

1. Check thermostat operation as in number 5 (Oven Fails To Operate - No Heat).

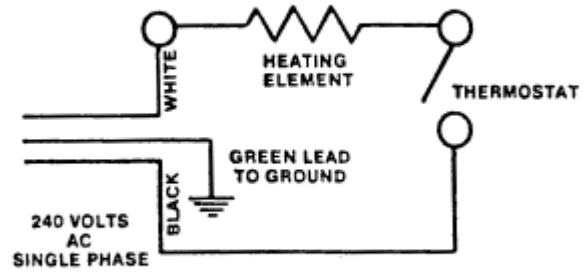
### 50A WIRING DIAGRAM

TYPE 50A MODEL 14, 120V (AC/DC)



### 50A 240V WIRING DIAGRAM

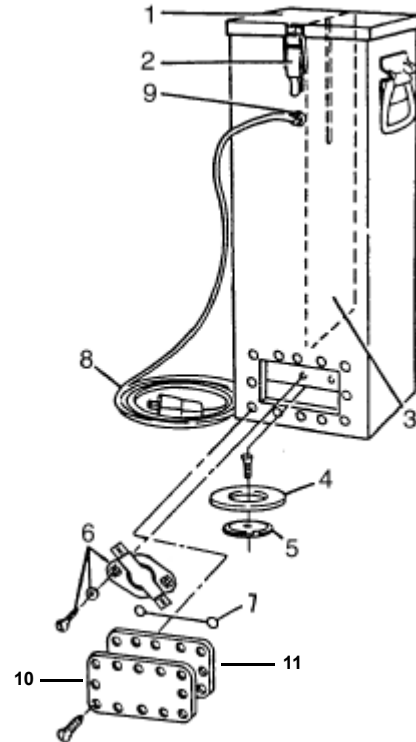
TYPE 50A MODEL 15, 240V (AC ONLY)



### III. TYPE 50A REPAIR PARTS ILLUSTRATION

Item No.	Description	Part Numbers			
		Qty/Oven	120V AC Only	Qty/Oven	240V AC Only
1	Lid Assembly	1	NLA	1	NLA
1A	Lid Gasket (not shown)	1	NLA	1	NLA
2	Pull Catch Loop	1	7201400	1	7201400
3	Compartment Divider	2	NLA	2	NLA
4	Heating Element	1	4402200	1	4401700
5	Heating Element Clamp Assembly	1	NLA	1	NLA
6	Thermostat Kit	1	1257061	1	1257061
Lead Kit includes material to make:					
	Wire Assembly (2 ring terminals)	-		-	
7	Wire Assembly (2 female terminals)	1	1257123	1	1257123
	Wire Assembly (female terminal)	-		-	
	Wire Assembly (2 female terminals)	-		-	
	Fiberglass Sleeve 1.25 Ft.	1		1	
Cord Kit Includes					
8	Cord with Plug, remove plug for 240V	1	1257122	-	1257122
9	Strain Relief Bushing (7P-2)	1		1	
Gasket Kit Includes					
10	Gasket Plate	1	NLA	1	NLA
11	Gasket	1		1	

WHEN ORDERING, SPECIFY PART NUMBER, DESCRIPTION, QUANTITY AND THE FOLLOWING NAMEPLATE DATA: "TYPE, MODEL NO. AND VOLTAGE".



Phoenix International, Inc. warrants its products against defects in material and workmanship. The company will, at its discretion, repair or replace any properly installed Phoenix International manufactured product which fails under normal operating conditions within one year from date of receipt. Contact the factory for return authorization before returning the product to Phoenix International freight prepaid. If our inspection confirms that the product is defective under terms of this warranty, it will be repaired/ replaced and returned freight prepaid.

This warranty applies only to Products sold by Phoenix International, Inc. and specifically excludes installation or de-installation labor, transportation, or equipment of another manufacturer used in conjunction with Phoenix International products. No other warranty, expressed or implied, exists beyond this warranty declaration.

Phoenix constantly strives to improve its products and therefore reserves the right to change design, materials, and specifications without notice.

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**Electrode Stabilizing**

# **DryRod® Ovens**

## **I. OPERATING INSTRUCTIONS FOR TYPE 50 SERIES PORTABLE ELECTRODE STABILIZATION OVENS**

Type	Part #	Description - (All 50-60 cycles)	Temp. Range**
50B/120	1205410	120V AC* @ 350 watts w/ 10' Grounded HD cord	300°F (149°C) Preset Sealed Thermostat
50B/240	1205411	240V AC* @ 350 watts w/ 10' Grounded HD cord, no plug	
50C/120	1205420	120V AC/DC @ 200 watts w/ 10' Grounded HD cord	300°F (149°C) Constant Input, No Thermostat

\*Operation on Direct Current will damage oven and void warranty

\*\*Average Stabilized Temperature @ 70°F Ambient Temperature

### **Electrode Stabilization Ovens General Information:**

**Insulation:** 1" (2.5cm) Glass Fiber Batt

**Chamber Size:** 6" x 6" x 18" (15 x 15 x 46cm)

**Capacity:** 50 lb. (22.7kg) of 18" (45.7cm) electrodes also accepts 10" (25.4cm), 12" (30.5cm), & 14" (36cm)

**Net Weight & Dimensions:** 9" x 9" x 21" (22 x 24 x 54cm) 29 lbs. (13Kg)

**Ship Weight & Dimensions:** 10" x 10" x 24" (25 x 25 x 54cm) 32 lbs. (14.5Kg)



**\*Caution\* - To avoid oven damage, never place oven in contact with welding current.**

## **II. OVEN TYPE DESCRIPTION**

### **Wiring**

Check type and voltage on nameplate.

Types **50B** 120/240V AC only models utilize a tamperproof sealed thermostat, providing a 300°F average stabilized load temperature.

Type **50C**/120V AC/CD (Non-Thermostat model), utilizes constant heat input, providing a 300°F average stabilized load temperature.

**Note:** All current 50B ovens rated at 120 volts have a Model 1 designation, 240 volt ovens have Model 2 designation.

### **Grounding**

1. The 120 volt ovens have a three blade plug cap with grounding prong (NEMA 5-15P) attached to a 10 foot power supply cord. When used with a grounded receptacle, these ovens meet all local electrical code requirements and are U.L. Listed.

2. The 240 volt ovens have a 10 foot power supply cord. When used with a grounding plug cap and a grounded receptacle, these ovens meet all local code requirements.

### **Electrode Holding**

1. Open lid of oven and allow approximately 20 minutes warm-up time to drive out any retained moisture.

2. Place only dry electrodes within oven. Keep lid closed but unlatched while plugged into power receptacle.

### **Electrode Storage**

These ovens are not to be used for rebaking or reconditioning contaminated electrodes. They are designed to accept electrodes in 100% useable condition and to maintain that condition until consumed at the job site. For optimum stabilization, oven should be hot when loaded and kept "on line" as long as electrodes are being stored.

Type 50 series ovens are not airtight and electrodes stored within will start absorbing ambient moisture as soon as the oven cools. We recommend removal of electrodes at shift end and storage of same consumables in suitable larger holding ovens until reissued.

### **Guide to Storage**

In the absence of detailed storage information from your electrode manufacturer, the "Revised Guide To Electrode Storage" (available from Phoenix International, Inc.) may be used as an indication of approximate temperatures for use of the oven. For Specific information involving critical operations be sure to contact your electrode manufacturer for complete information.

**\*\*CAUTION\*\***

All wiring should be done by licensed electricians in accordance with local codes. Improper installation or use may result in serious injury. Always remove oven from power source before troubleshooting or repairing.

**III. TROUBLESHOOTING - TYPE 50 OVENS**

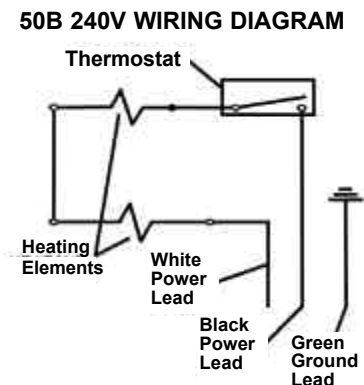
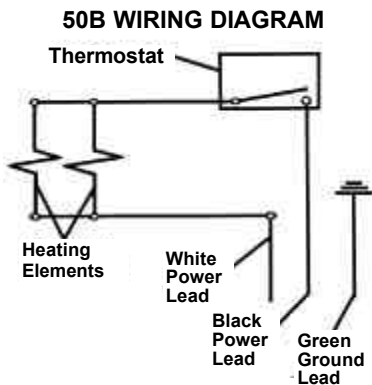
**OVEN FAILS TO OPERATE - NO HEAT**

1. If oven will not heat, check power supply.
2. Check plug at outer end of power cord. Check complete power cord for continuity. If defective, replace cord assembly.
3. Disconnect wires from heating elements and check heating element for continuity (access through top of oven). If defective, replace elements.

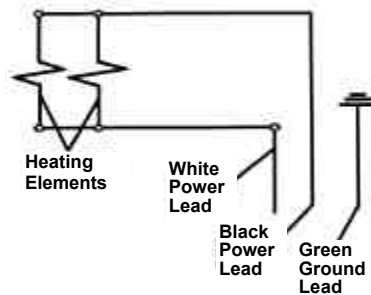
4. On type 50B ovens check thermostat for continuity at ambient temperature (access through top of oven). If defective, replace thermostat.

**OVEN OPERATES - OVERHEATS**

1. Check thermostat operation as in number 5 (Oven Fails To Operate - No Heat).



**50C 120V WIRING DIAGRAM**

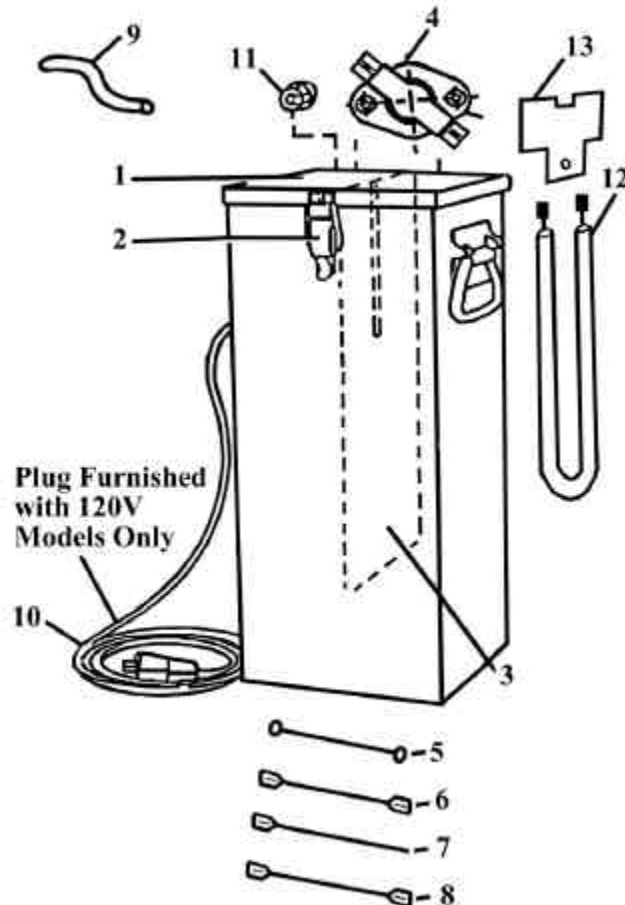


## IV. TYPE 50B & 50C REPAIR PARTS ILLUSTRATION

Item No.	Description	Part Numbers					
		Qty/Oven	120V AC Only	Qty/Oven	240V AC Only	Qty/Oven	50C/120V AC/DC
1	Lid Assembly	1	NLA	1	NLA	1	NLA
1A	Lid Gasket (not shown)	1	NLA	1	NLA	1	NLA
2	Pull Catch Loop	1	7201400	1	7201400	1	7201400
3	Compartment Divider	2	NLA	2	NLA	2	NLA
4	Thermostat Kit	1	1257061	1	1257061	-	-
Lead Kit includes material to make:							
5	Wire Assembly (2 ring terminals)	1	1257123	1	1257123	1	1257123
6	Wire Assembly (2 female terminals)	-		1		-	
7	Wire Assembly (female terminal)	5		1		4	
8	Wire Assembly (2 female terminals)	-		1		-	
9	Fiberglass Sleeve 1.25 Ft.	1		1		1	
Cord Kit Includes							
10	Cord with Plug, remove plug for 240V	1	1257120	-	1257120	1	1257120
11	Strain Relief Bushing (7P-2)	1		1		1	
Heating Element Kit Includes							
12	Heating Element	2	NLA	2	NLA	2	NLA
13	Insulating Shield	2		2		2	

**Note**

Always replace BOTH heating elements if one fails. (Two are required for each oven.) Replacement elements are sold in sets of (2) each only.



## **V. SUGGESTED SPARE PARTS TYPE 50B & 50C OVENS**

Following quantities for each oven:\*

- One heating element kit, No. 1257020 (Type 50B 120 & 240 volt models)
- One thermostat kit, No. 1257061 (Type 50B 120 & 240 volt models)
- One heating element kit, No. 1257071 (Type 50C 120 volt models)
- One (1) 10 foot connection cord with cap & strain relief, No. 1257120 (120 & 240 volt models).

\*For quantities of ovens exceeding 10, we suggest providing approximately 20% more of the above quantities of spares as sufficient for day to day operation.

For overseas operation we suggest a minimum of 30% more for spares.

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## **Phoenix International, Inc.**

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