

# DryRod<sup>®</sup> Ovens

## Operating Instructions

### Type 100FX Series Flux Stabilization Ovens

- Adjustable thermostatic control
- Wheels for ease of movement



Part No.	Description	Temperature Range*	Insulation	Chamber Size	Capacity	Weight	Dimensions
<b>Type 100FX Series Ovens</b>							
1201902	120/240V AC at 1000 watts	100° - 350°F (38° - 177°C) +/-25°F (14°C)	2" fiberglass	2.5 cubic feet (0.07 cubic meter)	100 lb (45 kg) with canisters or 50 lb (23 kg) with one 5 gallon (19 L) pail, or 150 lb bulk-loaded flux	200 lb (90.7 kg)	30" x 30" x 44" (76.2 x 76.2 x 111.8 cm)
1201906	240V AC at 1000 watts	adjustable thermostat control with indicator light					

\* Operation on Direct Current (DC) will damage oven and void warranty. Average stabilized temperature at 70°F ambient temperature.

## Product Description

### **!** CAUTION

- To provide continued protection against risk of electrical shock, power cord must be connected to a properly grounded outlet.
- To avoid damage, never place oven in contact with welding current.
- Store in dry location. Unit not to be exposed to rain or moisture.

### Installation

This oven is crated and packaged for long-distance shipment. Exercise care in removing the oven from the wooden crate.

Open the oven door and remove packing material, manuals and loose parts.

### Wiring

Check type and voltage on nameplate.

100FX (120V AC only) single phase

100FX (240V AC only) single phase

### Amp Draw

Ovens operating on 120 AC voltage draw 8.3 amps. Those operating on 240 AC voltage draw 4 amps.

### Grounding

The 120V ovens have a three blade plug cap with grounding plug (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.

The 240V ovens have a 10 foot power supply cord. When used with a grounded receptacle, these ovens meet all local electrical code requirements.

### Flux Placement

For ease in unloading, Type 100FX ovens can be loaded using filled pails. If preferred, bulk flux can be directly loaded into the oven. This oven will hold four (4) 25 pound capacity pails or 150 pounds of bulk flux.

### Temperature Settings

Temperature range is 100°F (38°C) to 350°F (177°C). The thermostat dial is calibrated from 100° to 550°F. Required oven temperature setting is obtained by rotation of dial to line up desired temperature with indicator light in the thermostat housing.

The indicator light only operates when the voltage is applied to the heating elements. Momentary rotation past desired temperature setting may be necessary to activate the indicator light to locate for indexing purposes.

Thermostat is accurate to +/-25°F (14°C) at the sensing bulb; however, temperature may vary slightly at different areas in the oven chamber because this is a convection type oven.

Excess Heat: At maximum setting, the actual temperature in portions of the oven near the heating elements may exceed the upper range.

### Guide to Storage

Electrodes should be stored according to electrode supplier recommendations. In the absence of storage information from your electrode manufacturer, please reference Phoenix's Guide To Electrode and Flux Stabilization for approximate temperatures, found at [www.dryrod.com/guide](http://www.dryrod.com/guide).

### Troubleshooting

#### **! CAUTION**

- **When replacing heating elements, always replace all elements. Pairing of new element with old elements may cause rapid failure of the old element.**

#### **Oven Fails To Operate: No Heat**

1. If the indicator light does not illuminate, check power supply.
2. Check plug at outer end of power cord and run continuity check on complete power cord. If defective, replace cord assembly.
3. Check indicator light for continuity. See Repair Parts drawing for access details. If defective, replace indicator light.
4. Check thermostat. If indicator light illuminates, power is being supplied through thermostat to heating elements. Turn knob from low to high setting and return. A definite "snap" should be heard at low temperature end and indicator light should turn off and on with each "snap" cycle. If "snap" is not heard and indicator light fails to operate, replace entire thermostat.
5. If thermostat operates satisfactorily, check continuity of heating elements at bottom center of oven. Failure of one element will cause very slow heating.

#### **Oven Operates: Overheats**

1. Check thermostat operation as in Step 4 (Oven Fails to Operate: No Heat) and Step 2 (Oven Operates: Temperature Setting Off).

#### **Oven Operates: Temperature Setting "OFF"**

1. Check thermostat operation as in Step 4 (Oven Fails to Operate: No Heat).
2. If thermostat operates satisfactorily, recalibrate per thermostat calibration adjusting sheet.

### Recommended Spare Parts

For users of large DryRod oven quantities or users not in North America:

For normal daily operation, the following spare parts and quantities are recommended to have inventoried.

Item No.	Spare Part Description	Part No.	Recommended Quantity per 10 Ovens
1	Heating Element Kit (120V)	1257140	1
2	Heating Element Kit (240V)	1257148	1
3	Thermostat Kit (120V)	1257130	1
4	Thermostat Kit (240V)	1257131	1
5	Cord Kit	1257120	1

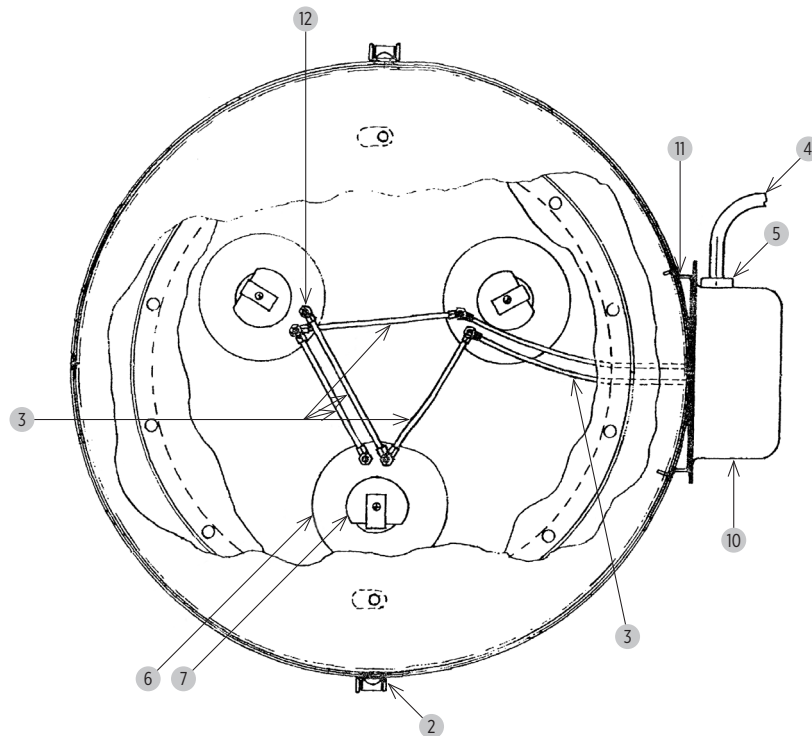
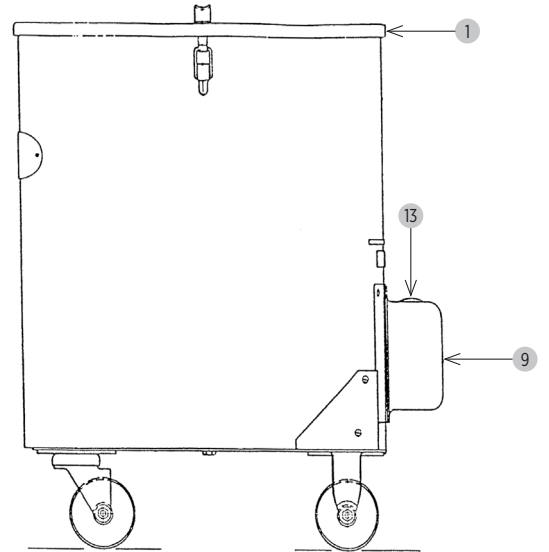
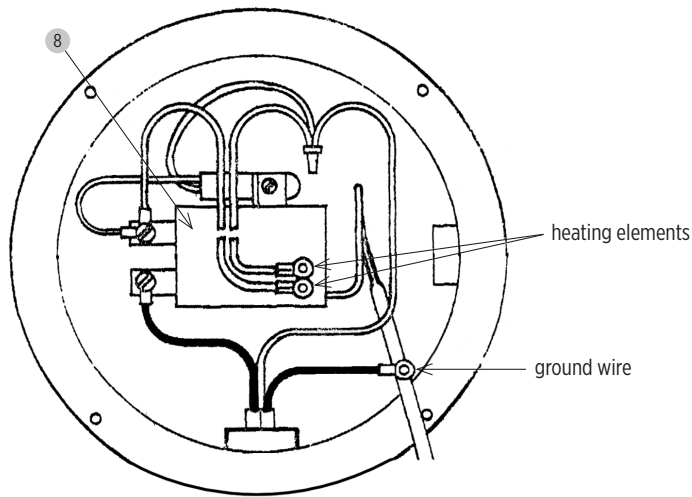
## Replacement Parts

### Ordering Information

To order spare or replacement parts, visit our website: [www.dryrod.com](http://www.dryrod.com). When ordering, please confirm that you are ordering parts for the correct oven.

Item No.	Description	Qty	Part No. for Type 100FX 120V	Part No. for Type 100FX 240V
1	Lid Assembly	1	1812600	1812600
2	Pull Catch	2	7201400	7201400
3	Lead Kit	1	1257124	1257124
	Cord Kit		1257120	1257120
4	Connection Cord	1		
5	Strain Relief (W-2)	1		
	Heating Element Kit		1257140	1257148
6	Heating Element	3		
7	Heating Element Clamp	3		
	Thermostat Kit		1257130	1257131
8	Thermostat	1		
9	Thermostat Knob	1		
	Thermostat Conversion Kit		1255700	1255701
3	High Temperature Wire (7 foot)	1		
4	Cord (remove plug for 240V)	1		
5	Strain Relief (7W-2)	1		
8	Thermostat	1		
9	Thermostat Knob	1		
10	Thermostat Housing	1		
11	Thermostat Housing Mounting Bracket	1		
12	High Temperature Terminal Ring	11		
13	Hole Plug	2		
	Thermostat Element Cover	1		
	Thermostat Element Gasket	1		

### Replacement Parts



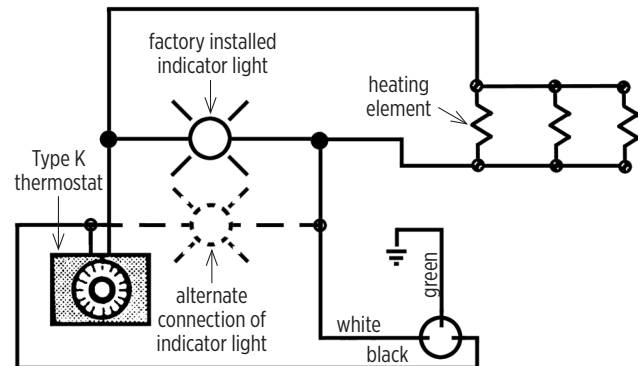
## Wiring

### ! CAUTION

- All wiring should be done by a licensed electrician in accordance with state codes, local codes, and National Electrical Code (NEC) or International Electric Commission (IEC) standards.
- Improper installation or use may result in serious injury.
- Always remove oven from power source before troubleshooting or repairing.
- Disconnect power and make sure oven is cooled before opening or servicing unit.
- Hot Surfaces! Use extreme care to avoid possible burns or personal injury. Protective gloves and personal protective equipment are recommended.

Note: Jumper wires must be installed outside of insulation.

Thermometer probe wire (not shown) must be installed outside of insulation.



## Guide to Electrode & Flux Stabilization

### Eliminate expensive rework and protect welding profits!

This guide explains proper storage and oven holding temperatures:

- Recondition/rebake procedures for electrode coatings exposed to moisture are included.
- Remove electrodes from cardboard containers before placing in ovens.
- Electrode coatings should not be exposed to the re-baking temperature without first being reconditioned at a lower temperature. Failure to do so may result in breakdown of electrode coatings. After re-baking, lower temperature to holding level until reissued.

Download your guide at [www.dryrod.com/guide](http://www.dryrod.com/guide).

## Warranty

Phoenix Ovens International LLC 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.