

DryRod[®] II Ovens

Operating Instructions

Type 2 Series Electrode Stabilization Ovens

- Dual voltage heating element operates between 100–240V while providing consistent oven temperature
- Removable cord secured to oven by locking power inlet allows for easy replacement

Compliances:  



Part No.	Description	Power Cord	Temperature Range*	Insulation	Chamber Size	Capacity (for 18" electrodes)	Weight	Dimensions
Type 2 Series Ovens								
1205510	100-240V AC/DC at 70 watts with digital thermometer	North American	100° - 300°F (38° - 149°C) +/-25°F (14°C) adjustable thermostat	1.5" fiberglass	4" diameter x 20" deep	20 lb (9.1 kg)	15.25 lb (6.9 kg)	7.75" x 9.25" x 23" (19.7 x 23.5 x 58.4 cm)
1215510	100-240V AC/DC at 70 watts with digital thermometer	European/Schuko						
1225510	100-240V AC/DC at 70 watts with digital thermometer	United Kingdom						

*Average stabilized wattage. Draw will increase during initial heating. 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.

Prior to Use

1. Check for correct power supply cord and plug.
2. Verify the oven is empty before heating.
3. Check nameplate for voltage ratings.
4. Check for desired thermometer (if equipped) display units (°F or °C). Unit is set to °F when shipped. To change to °C, see Temperature Indication section in this manual.

Power Supply

DryRod® II ovens are designed to run on either AC or DC voltage and accept voltage between 100-240 volts. When power is supplied, the indicator light will illuminate.

Amp Draw

Ovens operating on 120 AC/DC voltage draw 0.6 amps. Those operating on 240 AC/DC voltage draw 0.3 amps.

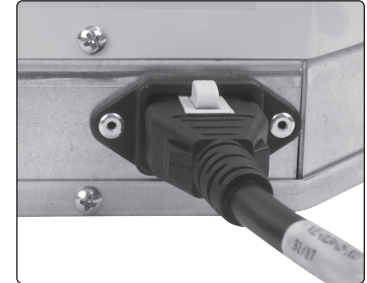
Electrode Storage

DryRod II 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 in suitable larger holding ovens until re-issued.

DryRod II ovens are not to be used for re-baking or re-conditioning contaminated electrodes. They are designed to accept electrodes in 100% usable condition and to maintain that condition until consumed at the job site. For optimum stabilization, oven should be hot when loaded and kept powered as long as electrodes are being stored.

Power Cords

DryRod II ovens are supplied with a female IEC 320 locking power inlet. This inlet accepts a male IEC 320 locking power cord to provide a fixed connection. The secured cord can be removed for replacement by applying pressure to the yellow tab on top of the locking power cord.



Locking power inlet and cord

DryRod II oven power cords are rated for 100-240 volts. When connected to a properly grounded receptacle, these ovens meet the nationally recognized standards for which they are marked.

DryRod II ovens are available with a three blade North American power cord for 120 volt AC operation. The ovens are also available with a European/Schuko plug configuration for operation on 240 volt AC. (See Replacement Parts section in this manual for optional power cords. See front page for standard oven configuration with power cord options.)



North American plug



European/Schuko plug

Temperature Settings

DryRod II ovens utilize a variable thermostat, providing an operating range of 100°-300°F (38°-149°C) average stabilized load temperatures.

The oven operating temperature is set by rotating the thermostat knob clockwise to increase the temperature of the unit. To decrease the temperature, rotate the knob counter clockwise. This setting is approximate and may need slight adjustment once the oven temperature stabilizes.

Temperature Indication

DryRod II ovens (part #1205510) are supplied with an optional battery powered, digital thermometer to indicate the actual temperature inside oven in either °F or °C.

The thermometers are supplied in °F mode. Conversion to °C mode is accomplished by pressing the button located in the battery holder. This will cycle between °F and °C. Thermometers are powered by one AA battery.

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.

Troubleshooting

! CAUTION

- **Disconnect power before opening or servicing unit. Make sure oven is cooled before opening or servicing unit.**
- **Surfaces are hot! Use extreme care to avoid possible burns or personal injury. Protective gloves and personal protective equipment are recommended.**

Oven Fails To Operate: No Heat

1. If the indicator light does not illuminate, check power supply.
2. Confirm cord is plugged fully into power inlet. Check complete power cord for continuity. If defective, replace the entire cord.
3. Check indicator light. Using a volt meter, confirm voltage to the light leads. If voltage is confirmed and light does not illuminate, replace light. Please note the indicator light is neon and cannot be checked for continuity.
4. Disconnect wiring from the thermostat. Turn the thermostat knob to the lowest temperature setting (counter-clockwise). Check for continuity through thermostat. If no continuity, replace thermostat.
5. Open oven shell and base to expose all wiring. Confirm all connections to power inlet and heating element are secure. Reassemble oven and check if oven heats. If no heat, replace heating element.

Oven Operates: Overheats, Low Heat, Does Not Heat to Desired Temperature

1. Check power supply to confirm voltage is within acceptable range of 120-240 volts AC.
2. Check that the variable thermostat is properly set to the desired temperature.

3. Check that enough time has been allowed for heat-up. A cold, fully loaded oven may take up to four hours to fully heat and stabilize.
4. Check that the variable thermostat is securely mounted to the oven chamber and completely covered in insulation. A loosely mounted thermostat will not properly sense the oven temperature.

Thermometer Indicates in Wrong Units: °F or °C (if equipped)

1. Disconnect power from the unit.
2. Remove the bottom cover from the base to expose thermometer battery housing.
3. Changing to either °F or °C is accomplished by pressing the button located in the battery holder.
4. Reinstall the battery and bottom cover prior to putting the oven back in service.

Thermometer Inoperable (if equipped): Replace Battery

Indicated by a weak or absent display.

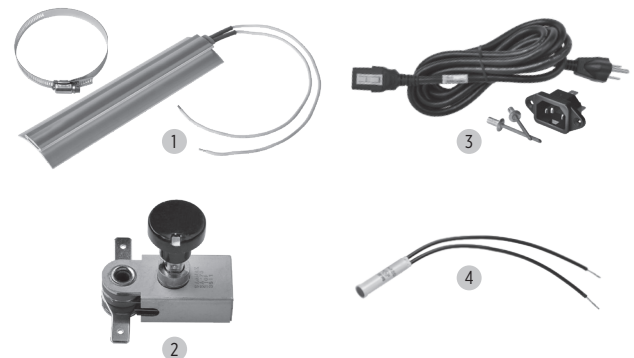
1. Disconnect power from the unit.
2. Remove the bottom cover from the base.
3. Remove the battery from the holder and replace with a fresh AA 1.5V battery. (Alkaline batteries are recommended.)
4. Reinstall the battery and bottom cover prior to putting the oven back in service.

Recommended Spare Parts

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

For normal daily operation, the following spare parts and quantities are recommended to have inventoried for every 10 units of DryRod II Ovens in use.

Item No.	Spare Part Description	Part No.	Recommended Quantity per 10 Ovens
1	Dual Voltage Heating Element Kit	1257318	1
2	Variable Thermostat Kit	1257430	1
3	Locking Power Connection Kit	1257395	1
4	Indicator Light	1257400	1



Replacement Parts

Ordering Information

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

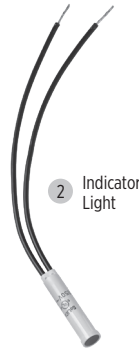
Item No.	Description	Qty	Part No.
1	Thermometer Kit		1257420
	Digital Thermometer	1	
	Screw	2	
	Label	1	
	Cable Tie	1	
2	Indicator Light	1	1257400
3	Lid Assembly Kit		1257230
	Screws	2	
	Lid Assembly	1	
	Insulation	1	
4	Base Cover Kit		1257170
	Base Cover	1	
	Screws	2	
5	Dual Voltage Heating Element Kit		1257318
	Heating Element	1	
	Band Clamp	1	
6	Rod Elevator	1	1257270
7	Power Inlet Kit		1257390
	Rivet	2	
	Locking Power Inlet	1	

Item No.	Description	Qty	Part No.
8	North American Locking Power Connection Kit		1257395
	Rivet	2	
	Locking Power Inlet	1	
	North American Locking Cord	1	1257540
9	Variable Thermostat Kit		1257430
	Variable Thermostat	1	
	Nut	1	
	Knob	1	
10	European/Schuko Power Cord	1	4131046
11	Latch Kit		1257380
	Latch	1	
	Rivet	2	
	Jumper Wire Kit		1257531
	Power Wires	8	
	Ground Wire	1	
	Insulation	1	1257300

Replacement Parts



1 Thermometer Kit



2 Indicator Light



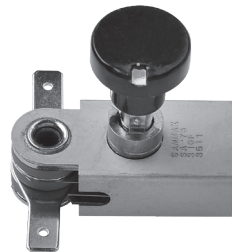
4 Base Cover Kit



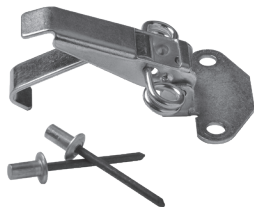
5 Dual Voltage Heating Element Kit



8 North American Locking Power Connection Kit



9 Variable Thermostat Kit



11 Latch Kit



6 Rod Elevator



3 Lid Assembly Kit



7 Power Inlet Kit



10 European/Schuko Power Cord

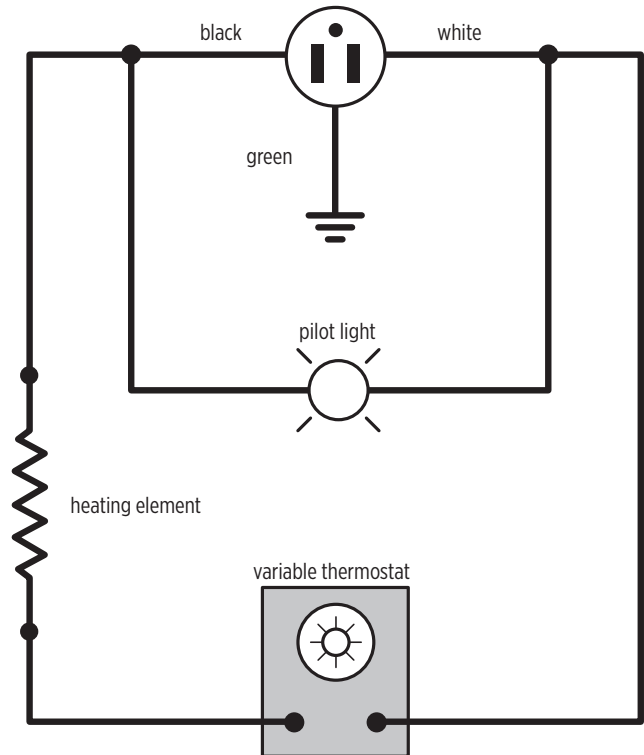
Wiring

! 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.

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.

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.