



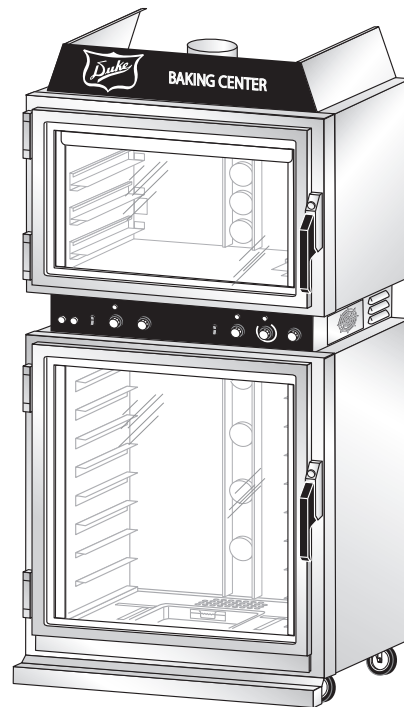
“Your Solutions Partner”

AHPO / EPO PROOFER OVEN

MODELS

AHPO-6/18

EPO-3/9



Please read this manual completely before attempting to install,
operate or service this equipment

This document is prepared for trained Duke service technicians. It is not to be used by anyone not properly qualified to perform these procedures.

This Service Manual is not all encompassing. If you have not been trained on servicing this product, be sure to read the manual completely before attempting servicing. Be sure all necessary tools, test equipment, and skills are available. Those procedures for which you do not have the proper skills and test equipment must be performed only by a qualified Duke trained service technician.

This manual is Copyright © 2009 Duke Manufacturing Co. All rights reserved.
Reproduction without written permission is prohibited. Duke is a registered
trademark of the Duke Manufacturing Co.

Duke Manufacturing Co.

2305 N. Broadway
St. Louis, MO 63102
Phone: 314-231-1130
Toll Free: 1-800-735-3853
Fax: 314-231-5074
www.dukemfg.com

IMPORTANT WARNING AND SAFETY INFORMATION

IMPORTANT FOR YOUR SAFETY

READ THIS MANUAL THOROUGHLY BEFORE OPERATING, INSTALLING OR PERFORMING MAINTENANCE ON THE EQUIPMENT.

⚠ WARNING Failure to follow instructions in this manual can cause property damage, injury or death.

⚠ WARNING Do not store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.

⚠ WARNING This unit is designed for a fixed, permanent (hard) wired connection to an appropriate AC power source as stated on the model label. The external wiring interface must be installed as per the local AC wiring codes.

⚠ WARNING Always lockout / tagout the unit from the main AC power source before removing any sheet metal panels or attempting to service this unit. Failure to comply to this procedure may cause property damage, injury or death.

⚠ WARNING Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death. Read the installation, operating and maintenance instructions thoroughly before installing or servicing this equipment.

⚠ WARNING Do not operate this equipment without properly placing and securing all cover and access panels.

⚠ WARNING In the event of a power failure, do not attempt to operate this device.

TABLE OF CONTENTS

INTRODUCTION	4
INSTALLATION.....	4
OPERATION.....	4
CLEANING	4
TOOLS	4
STANDARD	4
SPECIFICATIONS	5
REMOVAL AND REPLACEMENT OF COMPONENTS.....	6
ELECTRICAL LOCKOUT/TAGOUT PROCEDURE.....	6
COVERS AND PANELS	6
General Service Notes	6
Proofer Rear Panel.....	6
Oven Rear Panels.....	6
Oven Fan Cage and Wire Harness Cover	7
Proofer Floor Panel.....	7
Oven Ceiling Panel.....	8
Control Panel.....	8
AC Power Access Panel	9
AC INPUT VOLTAGE WIRING CONNECTIONS	9
INTERNAL LAMP REPLACEMENT	9
CONTROL PANEL COOLING FAN	10
PROOFER LIGHTS CIRCUIT BREAKER	10
BUZZER	11
OVEN POWER SWITCH	12
OVEN THERMOSTAT.....	12
OVEN TIMER	12
PROOFER POWER SWITCH.....	13
PROOFER THERMOSTAT	13
PROOFER HUMIDITY CONTROL	14
PROOFER TIMER.....	14
PROOFER HEAT ELEMENTS.....	15
PROOFER HUMIDITY ELEMENT	15
PROOFER CIRCULATION FAN.....	16
OVEN HEAT ELEMENTS.....	17
OVEN CIRCULATION FAN	17
OVEN HI-LIMIT THERMOSTAT	18
DOOR GASKET REPLACEMENT	18
OVEN SAFETY SWITCH	18
ADJUSTMENTS	19
DOOR GASKET COMPRESSION CHECK	19
DOOR GASKET ADJUSTMENTS.....	19
AIR WASH DOOR ADJUSTMENT	20
Air Wash Door Adjustment – Hinge Side.....	20
Air Wash Door Adjustment – Handle Side.....	20
MAINTENANCE	21
STAINLESS STEEL CARE.....	21
GENERAL CLEANING	21
TROUBLESHOOTING.....	22
ELECTRICAL SCHEMATIC.....	23

INTRODUCTION

INSTALLATION

For detailed installation instructions, refer to the Owner's Manual (502821A).

OPERATION

For specific operating instructions, refer to the Owner's Manual (502821A).

CLEANING

For specific instructions, refer to the Owner's Manual (502821A).

TOOLS

STANDARD

- Standard set of hand tools.
- VOM with AC current tester. (Any quality VOM or DVM with a sensitivity of at least 20,000 Ohms per Volt can be used.)
- A ladder or other appropriate item to stand on, if servicing the top of the unit.

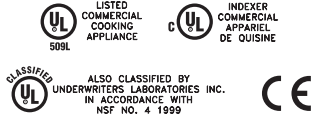

SPECIFICATIONS

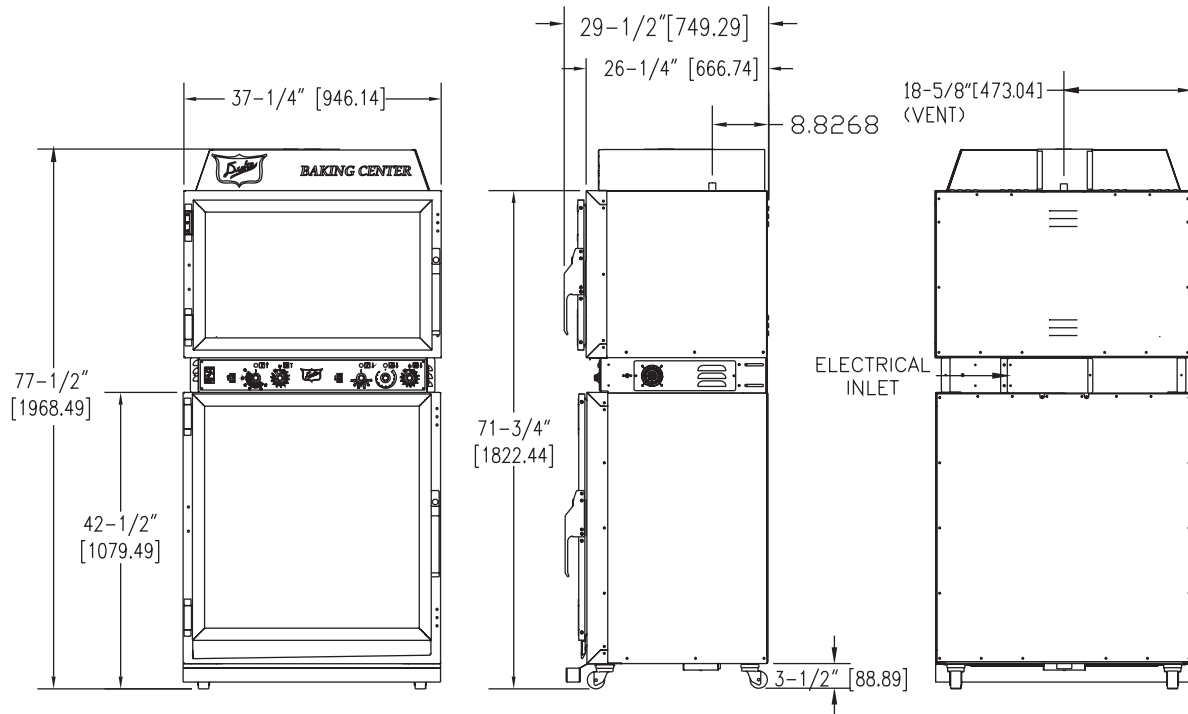
U.S. Patent. Other US and Foreign Patents Pending

Model AHPO or EPO

Shipping Weight: Carton Box	625 lbs / 284 kg
--------------------------------	------------------

Shipping Weight: Wooden Crate	760 lbs / 345 kg
----------------------------------	------------------

	Volts	Phase	Hz	Watts	Amps	
AHPO / EPO	208	1	60	6650	32.0	 
	208	1	50	6650	32.0	
	230 (220-240)	1	60	6650	32.0	
	230 (220-240)	1	50	6650	32.0	
	230 (220-240)	3	60	6650	16.7	
	230 (220-240)	3	50	6650	16.7	
	400 (380-415)	3N	60	6650	16.7	
	400 (380-415)	3N	50	6650	16.7	



REMOVAL AND REPLACEMENT OF COMPONENTS

ELECTRICAL LOCKOUT/TAGOUT PROCEDURE

⚠ WARNING Before performing any service that involves electrical connection or disconnection and/or exposure to electrical components, always follow the Electrical LOCKOUT/TAGOUT Procedure. Disconnect all circuits. Failure to comply can cause property damage, injury or death.

The Electrical LOCKOUT/TAGOUT Procedure is used to protect personnel working on an electrical appliance. Before performing any maintenance or service that requires exposure to electrical components, follow these steps:

1. In electrical box, place appliance circuit breaker into OFF position.
2. Place a lock or other device on electrical box cover to prevent someone from placing circuit breaker ON.
3. Place a tag on electrical box cover to indicate that appliance has been disconnected for service and power should not be restored until tag is removed by maintenance personnel.
4. Disconnect appliance power cord from electrical outlet.
5. Place a tag on the cord to indicate that unit has been disconnected for service and power should not be restored until tag is removed by maintenance personnel.

COVERS AND PANELS

⚠ WARNING Disconnect the electrical power to the unit and follow lockout / tagout procedures.

NOTICE Interior components and surfaces may be hot if the unit has been in recent use.

General Service Notes

- This unit uses water trays for humidity control. Remove any water that might be present in the trays before attempting service of any kind.
- During its installation, this unit is required to be secured to the building structure. There is also a Restraining Device (a heavy, flexible metal cable) that was installed to prevent the unit from moving beyond a certain distance in order to prevent damage to the electrical conduit feeding it.

Most service can be accomplished without moving the unit from its mounted position. However, if the unit is moved during service, then these securing devices must be reinstalled for continued protection against tip-over and to meet other compliance regulations.

Proofer Rear Panel

⚠ WARNING Disconnect the electrical power to the unit and follow lockout / tagout procedures.

Removing the Proofer Rear Panel, gains access to the Proofer Light Fixtures, Proofer Burners connections, and Proofer Wiring Harnesses.

1. Remove all of the self-tapping sheet metal screws that secure the Rear Panel to the Proofer. Set aside for reuse.
2. Remove the Rear Panel to gain access to the components located at the rear of the Proofer.

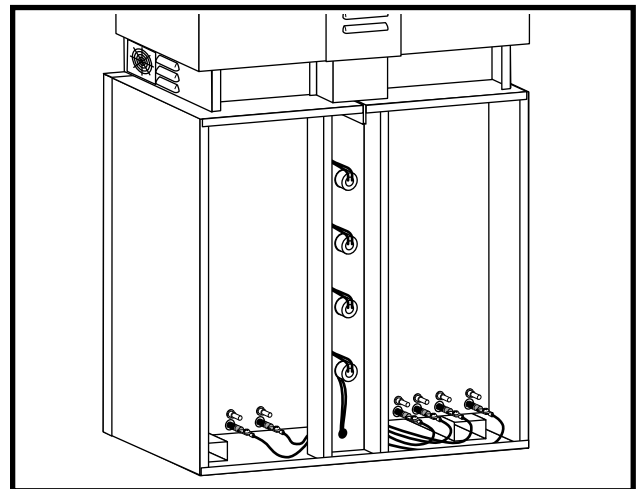


Figure 1. Proofer – Rear Panel Removed

Oven Rear Panels

⚠ WARNING Disconnect the electrical power to the unit and follow lockout / tagout procedures.

The Oven section of the unit has three rear panels. The Center Panel provides access to the Oven Light Fixtures and Oven Light Fixture wiring harness. Right and Left Panels provide access to the Oven Burner Element connections and Element wiring harnesses.

1. Remove the screws securing the Center Panel. Retain for reuse.

- Remove the Center Panel to gain access to Light Fixtures and wiring harness.

NOTICE The Center Panel side screws must be removed when removing either of the side panels.

- Remove the screws securing the Side Panels. Retain for reuse.
- Carefully remove the insulation to gain access to the Oven Burner Element connections and Oven Burner Element wiring harness. Retain the insulation for reuse.

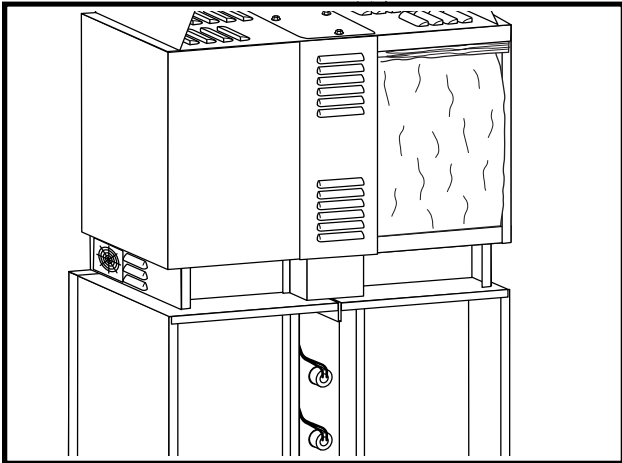


Figure 2. Oven – Right Side Panel Removed

Oven Fan Cage and Wire Harness Cover

WARNING Disconnect the electrical power to the unit and follow lockout / tagout procedures.

- Remove the four screws securing the Oven Fan Cage to the top of the unit. Retain for reuse.
- Remove the Cage to gain access to the Oven Fan Motor.
- Remove the screws securing the Oven Fan Wire Harness Cover to top of unit. Retain for reuse.
- Remove the Oven Fan Wire Harness Cover to gain access to the wiring harness and connections.

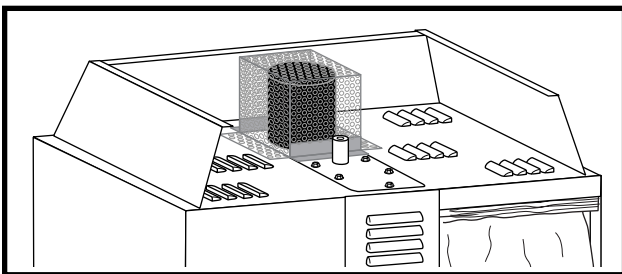


Figure 3. Oven Fan Cage and Wire Harness Cover

Proofer Floor Panel

WARNING Disconnect the electrical power to the unit and follow lockout / tagout procedures.

- Remove screws securing the Proofer Floor Panel.
- Slide the panel out through the front of the unit being careful not to damage the fan blades.

Access to the Proofer Heater Elements, Humidity Element, Proofer Circulating Fan and Sensor is available with the Proofer Floor Panel removed.

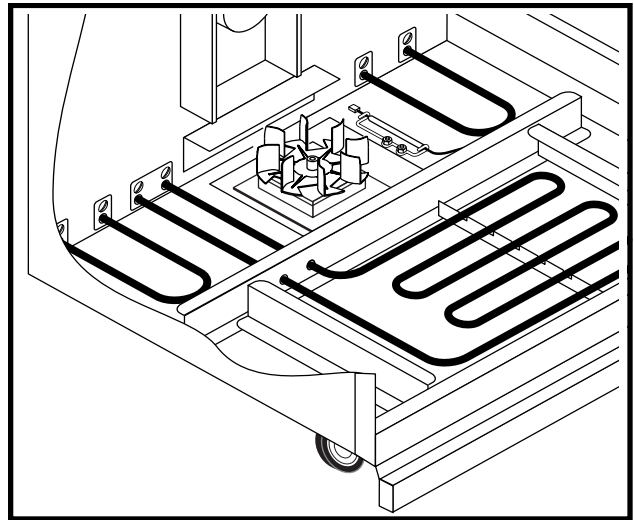


Figure 4. Proofer Components with Floor Panel Removed

Oven Ceiling Panel

WARNING Disconnect the electrical power to the unit and follow lockout / tagout procedures.

- Remove the Humidity Pan.
- Remove the screws securing the panel. Retain screws for reuse.
- It may be necessary to pry the panel forward from the front of the unit. Be careful not to damage the fan blade when removing the panel.

Access to Oven Heating Elements, Fan Blade and Sensors is available with the Oven Ceiling Panel removed.

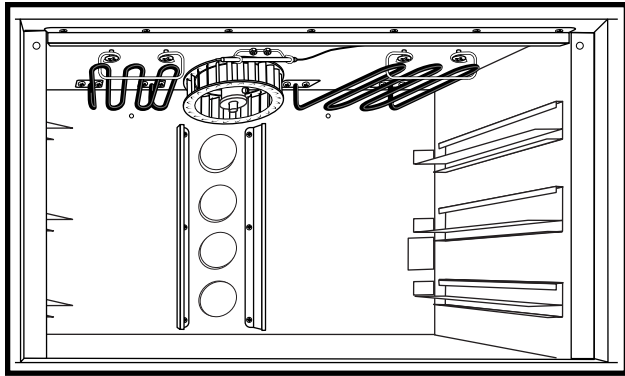


Figure 5. Oven Components with Ceiling Panel Removed

Control Panel

⚠ WARNING Disconnect the electrical power to the unit and follow lockout / tagout procedures.

It is not necessary to move the unit to gain access to the Control Panel. It might become necessary to remove the unit from the wall if troubleshooting leads into other areas. Refer to the specific component section of this manual when replacing a component on the Control Panel.

1. Remove the four screws retaining the Control Panel to the cabinet.
2. Carefully pull the front panel assembly away from the cabinet while observing clearances of the wiring around the controls.

All of the Operator Controls and related wiring are now accessible.

NOTICE DO NOT power on the unit while the Control Panel is removed from the cabinet.

3. To troubleshoot for problems, use visual checks, an Ohmmeter, the proper Schematic and Illustrations pages for the version of the unit being serviced.

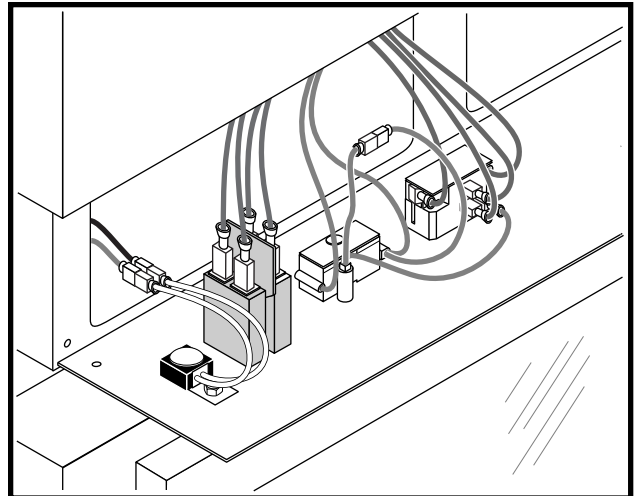


Figure 6. Components on Left Side of Control Panel

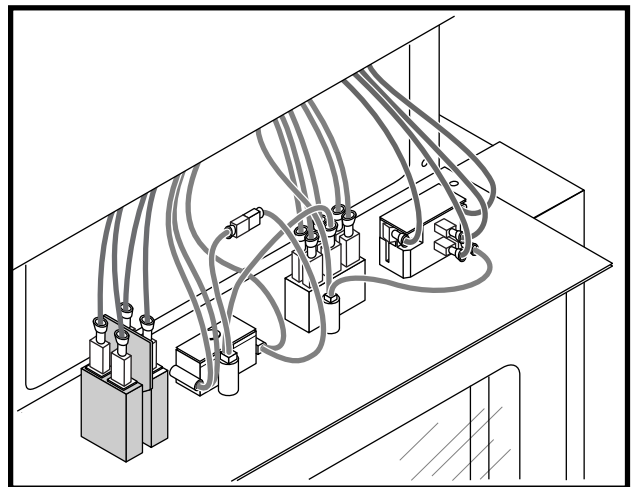


Figure 7. Components on Right Side of Control Panel

NOTICE When reassembling, make sure that wires do not become pinched between the Control Panel and the cabinet surfaces.

4. Replace all securing screws to the Control Panel before re-powering the unit.

AC POWER ACCESS PANEL

⚠ WARNING Disconnect the electrical power to the unit and follow lockout / tagout procedures.

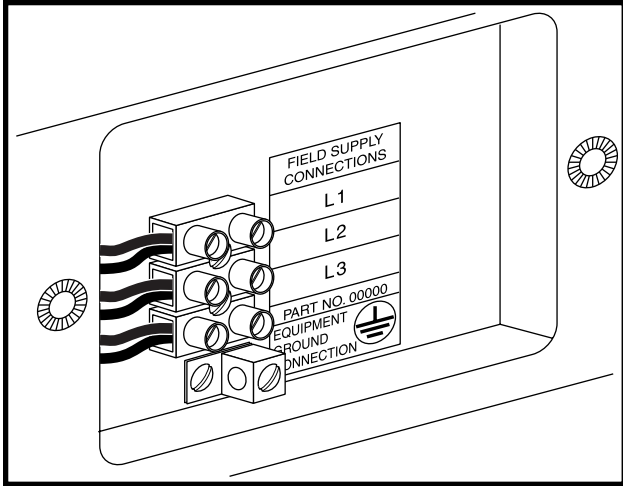


Figure 8. AC Access and Connect Block with Panel Removed

The AC Power Access Panel is located on the right side of the unit next to the Control Cooling Fan.

Remove the two screws securing the panel to the unit to gain access to the AC Connect Block.

AC INPUT VOLTAGE WIRING CONNECTIONS

⚠ WARNING Disconnect the electrical power to the unit and follow lockout / tagout procedures.

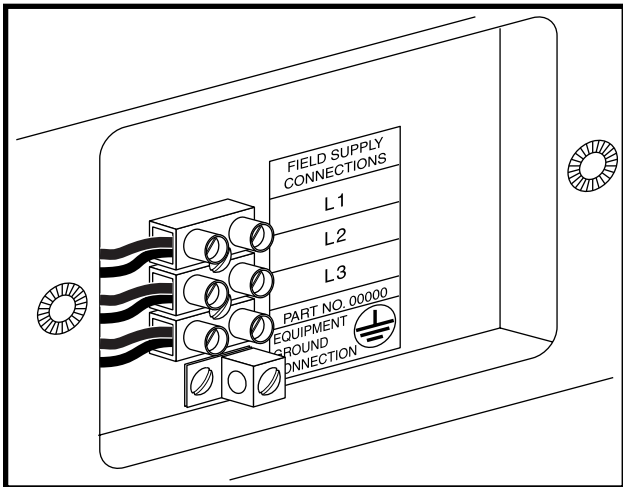


Figure 9. AC Wiring Block

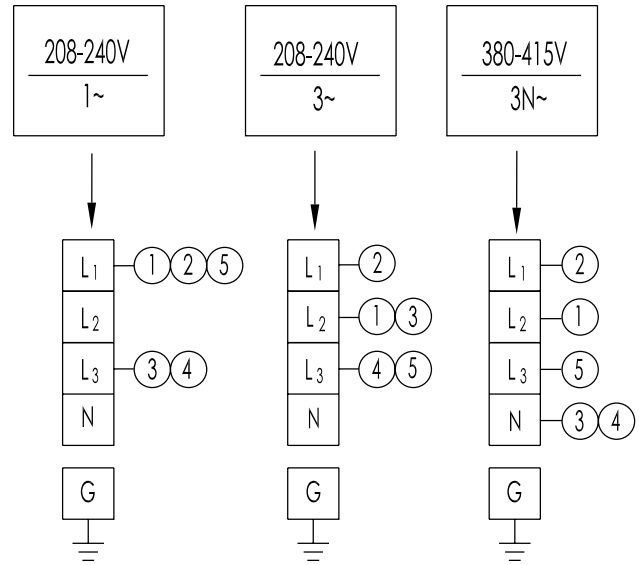


Figure 10. Possible Wiring Block Configurations

If the service procedure requires the removal of any covers or the Control Panel, then verify that there is no voltage present within the unit before removing them.

Refer to the Electrical Schematic at the end of this manual for additional information and a complete wiring diagram.

1. Remove the AC Connect Block Cover Plate. The AC Connect Block Cover Plate is located to the right of the Control Panel Cooling Fan on the right side of the unit.
2. Referring to Figure 9, use a voltmeter to check for the presence of voltage.

⚠ WARNING If aluminum AC supply wire is present, the unit is not properly wired and must be taken out of service until it is properly rewired using copper wire.

3. With AC power removed and proper Lockout and Tagout procedures applied, ensure that the contacts on the Connect Block are properly tightened.

INTERNAL LAMP REPLACEMENT

⚠ WARNING Disconnect the electrical power to the unit and follow lockout / tagout procedures.

Replacing an internal Lamp does not require removal of any panels or covers.

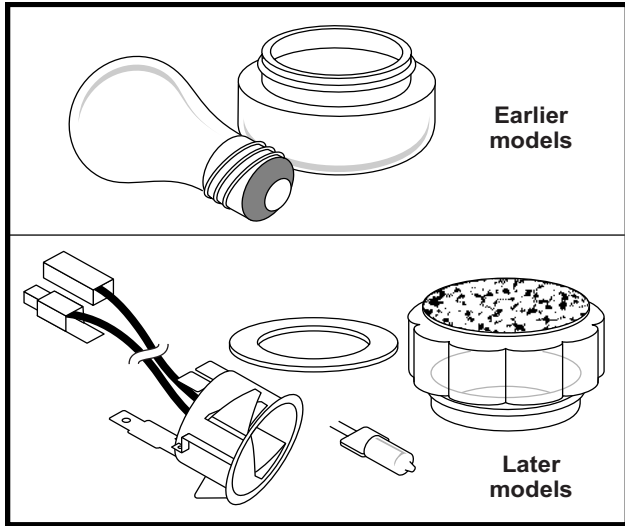


Figure 11. Lamps

Some earlier model units use a standard, clear glass, 120 V lamp which are rated for oven use. Later model units use 12 V Halogen bulbs.

NOTICE Avoid touching the glass envelope of a Halogen bulb with your fingers as this will cause premature failure of the bulb. If the bulb has been touched, clean it off with an alcohol wipe. Always replace a bulb with one of proper ratings for the unit.

1. Turn unit off and allow it to cool.
2. Unscrew and remove the Lens Cover and Lens Gasket.
3. Unscrew (old style) bulb or unplug (new Halogen style) bulb.
4. Screw the new bulb in tight when replacing old style bulbs. Halogen bulbs should be plugged in firmly. Avoid touching the glass bulb with your fingers, use a cloth or cloth gloves when installing a new bulb. If bulb is touched use alcohol wipe to clean it.
5. Briefly turn unit on and check for proper bulb lighting.
6. Turn unit off.
7. Place the Lens Gasket on the Lens Cover. Make sure it is centered properly. If Lens Gasket is damaged replace it.
8. Screw the Lens Cover over the Bulb tight making sure the Lens Gasket seals against the Light Socket.
9. Return the unit to service; ensure it is operating correctly.

CONTROL PANEL COOLING FAN

WARNING Disconnect the electrical power to the unit and follow lockout / tagout procedures.

This fan is mounted to a ventilated metal panel to the right of the Operator's Control Panel and on the right hand side of the unit.

When this panel is removed, you will also have access to the Hi-Limit Thermostat, AC Power Contactor and, on the later units, the Halogen Lamp Transformer and the Oven/Proofer Buzzer.

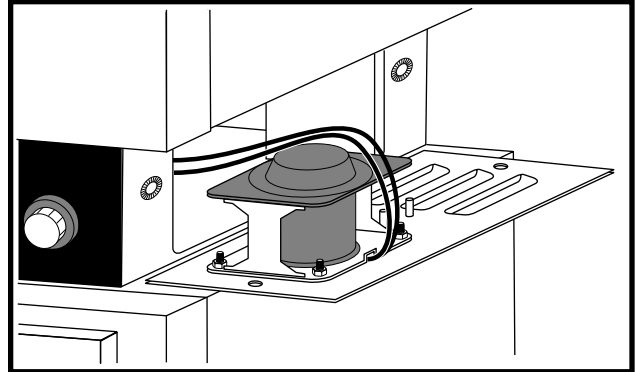


Figure 12. Control Panel Cooling Fan

1. Remove the screws securing the Louvered Vent on the right side of the unit below the Oven Section. Retain the screws for reuse.
2. Tag and disconnect the cooling fan wires.
3. Remove the four nuts securing the fan to the panel. Retain the nuts for reuse.
4. Remove the fan.
5. Reverse this procedure to install replacement fan.
6. Restore the unit to service and check for proper operation. Also, verify proper fan rotation.

PROOFER LIGHTS CIRCUIT BREAKER

NOTE: Installing or replacing the Proofer Lights Circuit Breaker only applies to models with halogen lights.

WARNING Disconnect the electrical power to the unit and follow lockout / tagout procedures.

1. Place the Power Switches in the OFF position and follow the Electrical Lockout and Tagout procedures.
2. Remove two screws securing the Access Panel.
3. Disconnect the jumper wires to the Proofer Lights Circuit Breaker.
4. Squeeze the tabs on the failed Proofer Lights Circuit

Breaker and push it out through the front of the Access Panel.

- Reverse this procedure to install a new Proofer Lights Circuit Breaker.

Use these procedures when installing a new Proofer Lights Circuit Breaker Kit to a unit with halogen lights:

- Place the Power Switches in the OFF position and follow the Electrical Lockout/Tagout procedures.
- Remove two screws securing the Access Panel.
- Tag and disconnect the Cooling Fan wires.
- Remove the four screws securing the Cooling Fan to the Access Panel.
- Discard the old Access Panel.
- Attach the Cooling Fan to the new Access Panel.
- Insert the Proofer Lights Circuit Breaker into the hole provided for it in the Access Panel.
- Affix the Light Circuit Breaker label, above the circuit breaker, onto the Access Panel.

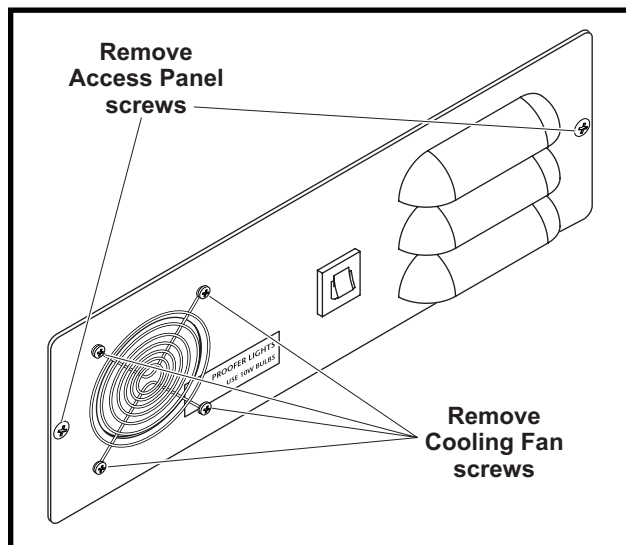


Figure 13. Assembled Access Panel

- Reconnect the Cooling Fan wires.
- Disconnect one leg of the Proofer Lights Transformer secondary winding from the terminal strip and connect it to one side of the circuit breaker.
- Connect one end of the jumper wire to the terminal strip.
- Connect the other end of the jumper wire to the remaining terminal on the circuit breaker.
- Attach the assembled Access Panel to the unit.
- Restore power to the unit and check for proper operation.

Also, observe fan for proper rotation.

BUZZER

⚠ WARNING Disconnect the electrical power to the unit and follow lockout / tagout procedures.

The Buzzer is mounted on the Control Panel. Its exact position on the back of the panel may vary.

- Unscrew the Control Panel; refer to the COVERS AND PANELS section of this manual for specific instructions.
- Tag and disconnect the Buzzer wiring.

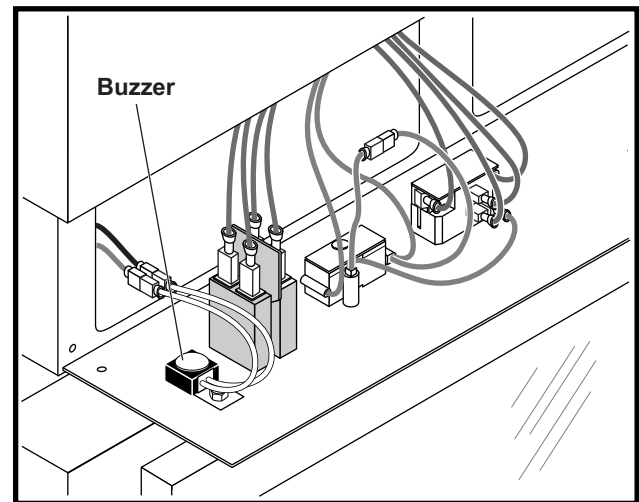


Figure 14. Location of the Buzzer

- The buzzer is secured to the rear of the panel with two-sided tape or cement. Use a putty knife to pry it loose.
- Clean the area on the back of the Control Panel where the new Buzzer will be mounted.
- Secure the new Buzzer and connect its wires.
- Restore power to the unit and test it for proper operation.

OVEN POWER SWITCH

⚠ WARNING Disconnect the electrical power to the unit and follow lockout / tagout procedures.

The Oven controls are located on the left side of the Control Panel.

- Unscrew the Control Panel; refer to the COVERS AND PANELS section of this manual for specific instructions.
- Remove the two screws securing the Oven Power Switch to the Control Panel. The switch is mounted from the

front of the control panel.

3. Tag and disconnect the Oven Power Switch wires.

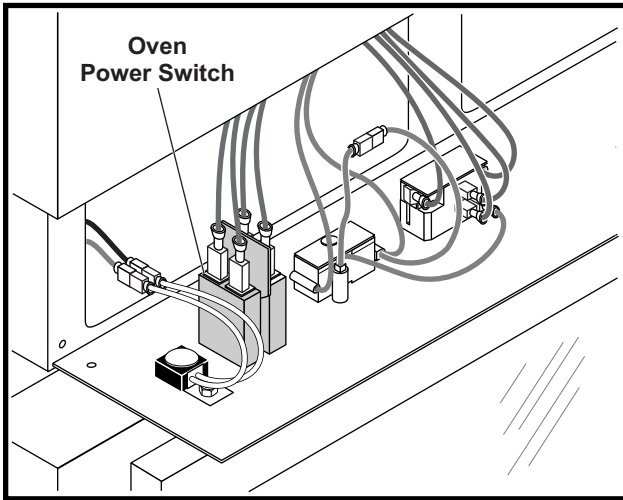


Figure 15. Location of Oven Power Switch

4. Reverse the procedure to install a new Oven Power Switch.

OVEN THERMOSTAT

⚠ WARNING Disconnect the electrical power to the unit and follow lockout / tagout procedures.

1. Unscrew the Control Panel; refer to the COVERS AND PANELS section of this manual for specific instructions.
2. Remove the Oven Ceiling Panel; refer to the COVERS AND PANELS section of this manual for specific instructions.
3. Remove the Thermostat Control Knob.
4. Remove the two screws securing the Oven Thermostat to the Control Panel. Retain the screws for reuse.
5. Tag and disconnect the Oven Thermostat wires.

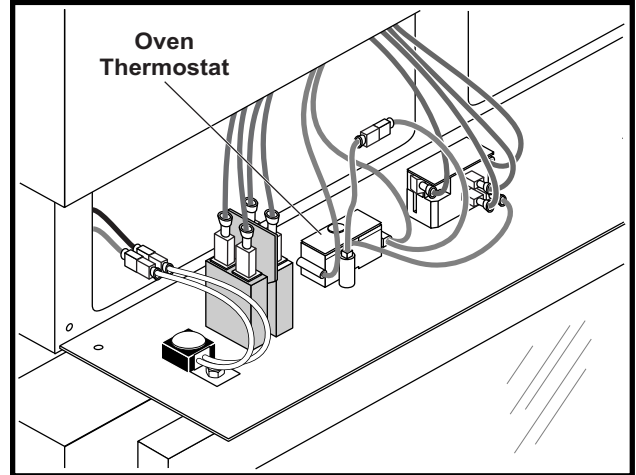


Figure 16. Location of Oven Thermostat

6. Remove the Thermostat Bulb from its wire form support in the top of the oven.

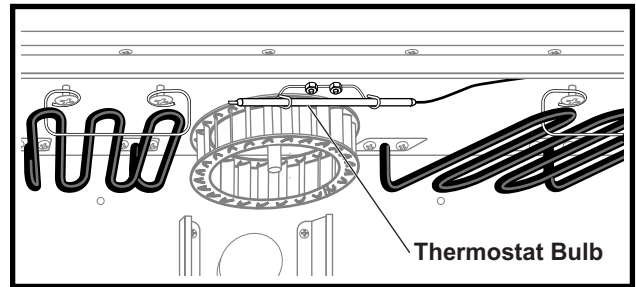


Figure 17. Oven Thermostat Bulb

NOTICE It may be necessary to remove the right side Rack Panel from the inside of the oven to remove the Thermostat Bulb.

7. Reverse this procedure to install a new Oven Thermostat; be careful not to kink the Thermostat Bulb tubing while installing the new Thermostat.

OVEN TIMER

⚠ WARNING Disconnect the electrical power to the unit and follow lockout / tagout procedures.

1. Unscrew the Control Panel; refer to the COVERS AND PANELS section of this manual for specific instructions.
2. Remove the Oven Timer Control Knob.
3. Remove the screws securing the Oven Timer to the Control Panel. Retain the screws for reuse.
4. Tag and disconnect the Oven Timer wires.

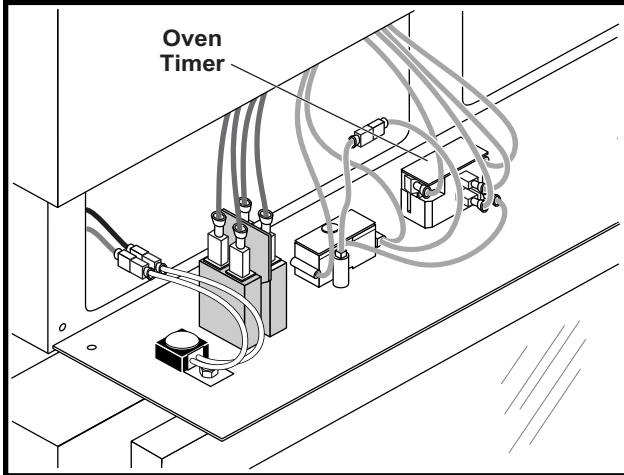


Figure 18. Location of Oven Timer

5. Reverse this procedure to install new Oven Timer.

PROOFER POWER SWITCH

⚠ WARNING Disconnect the electrical power to the unit and follow lockout / tagout procedures.

The Proofer controls are located on the right side of the Control Panel.

1. Unscrew the Control Panel; refer to the COVERS AND PANELS section of this manual for specific instructions.
2. Remove the two screws securing the Proofer Power Switch to the Control Panel. The switch is mounted from the front of the control panel. Retain the screws for reuse.
3. Tag and disconnect Proofer Power Switch wires.

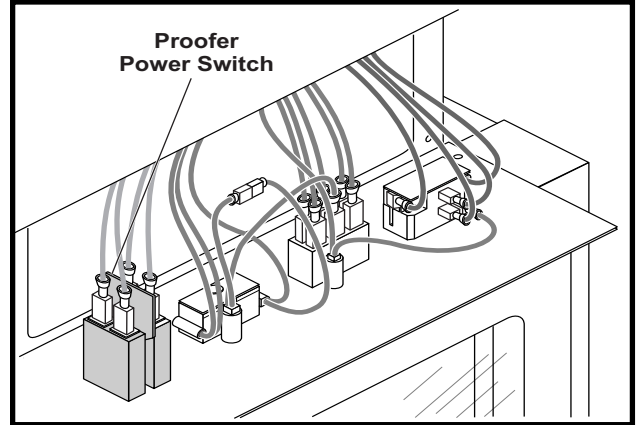


Figure 19. Location of Proofer Power Switch

4. Reverse the procedure to install a new Proofer Power Switch.

PROOFER THERMOSTAT

⚠ WARNING Disconnect the electrical power to the unit and follow lockout / tagout procedures.

1. Unscrew the Control Panel; refer to the COVERS AND PANELS section of this manual for specific instructions.
2. Remove the Proofer Floor Panel; refer to the COVERS AND PANELS section of this manual for specific instructions.
3. Remove the Proofer Thermostat Control Knob.
4. Remove the two screws securing the Proofer Thermostat to the Control Panel. Retain the screws for reuse.
5. Tag and disconnect the Proofer Thermostat wires.

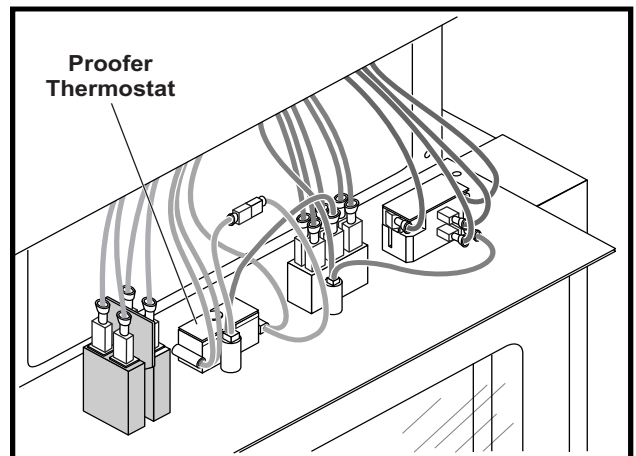


Figure 20. Location of Proofer Thermostat

6. Remove the Thermostat Bulb from its wire form support in the bottom of the proofer.

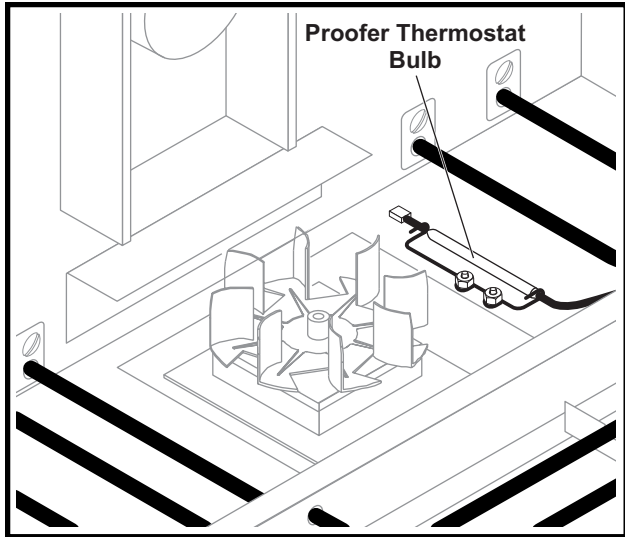


Figure 21. Proofer Thermostat Bulb

NOTICE It may be necessary to remove the right side Rack Panel from the inside of the Proofer to pull the Thermostat Bulb out.

- Reverse this procedure to install a new Proofer Thermostat; be careful not to kink the Thermostat Bulb tubing while installing the new Thermostat.

PROOFER HUMIDITY CONTROL

WARNING Disconnect the electrical power to the unit and follow lockout / tagout procedures.

- Unscrew the Control Panel; refer to the COVERS AND PANELS section of this manual for specific instructions.
- Remove the Proofer Humidity Control Knob.
- Remove the screws securing the Proofer Humidity Control to the Control Panel. Retain the screws for reuse.
- Tag and disconnect Proofer Humidity Control wires.

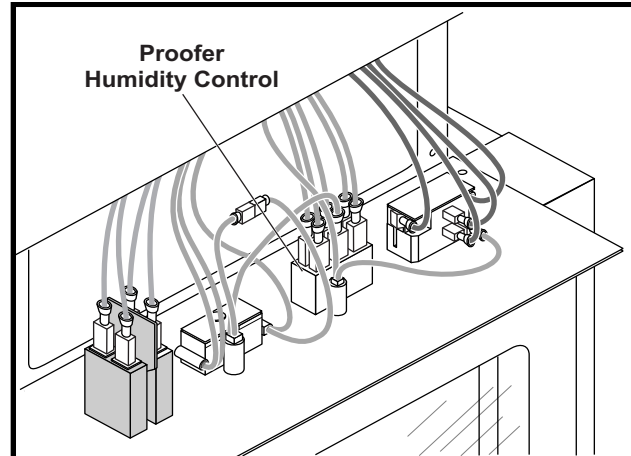


Figure 22. Location of Proofer Humidity Control

- Reverse this procedure to install a new Proofer Humidity Control.

PROOFER TIMER

WARNING Disconnect the electrical power to the unit and follow lockout / tagout procedures.

- Unscrew the Control Panel; refer to the COVERS AND PANELS section of this manual for specific instructions.
- Remove the Proofer Timer Control Knob.
- Remove the screws securing the Proofer Timer to the Control Panel. Retain the screws for reuse.
- Tag and disconnect the Proofer Timer wires.

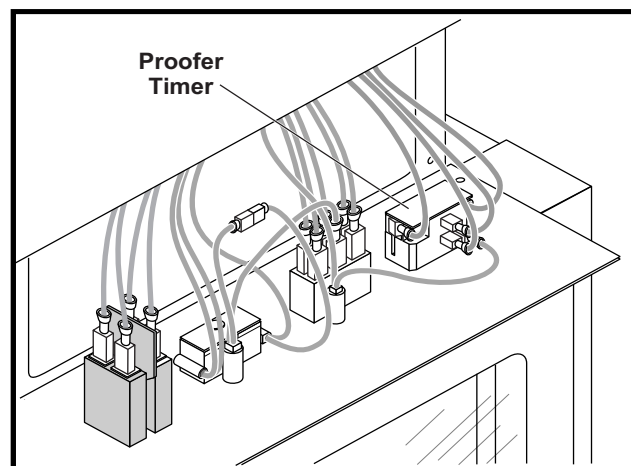


Figure 23. Location of Proofer Timer

- Reverse this procedure to install new Oven Timer.

PROOFER HEAT ELEMENTS

⚠ WARNING Disconnect the electrical power to the unit and follow lockout / tagout procedures.

There are two Heat Elements, one on the left rear and one on the right rear of the Proofer section. It is not necessary to replace both elements if only one has failed.

1. Remove the Proofer Rear Panel. Refer to the **COVERS AND PANELS** section of this manual for specific instructions.
2. Tag and disconnect the wires from the suspect Proofer Heat Element.

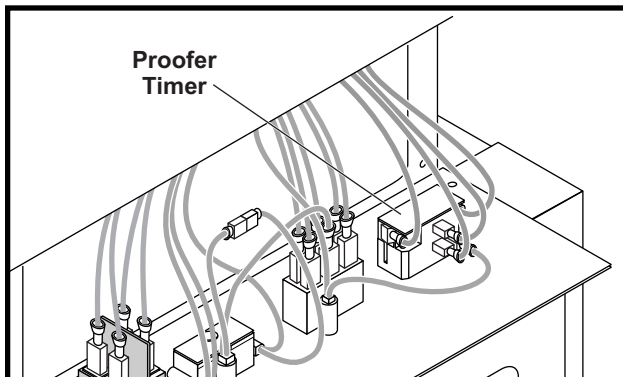


Figure 24. Proofer Heat Element Connections – Left Side Rear

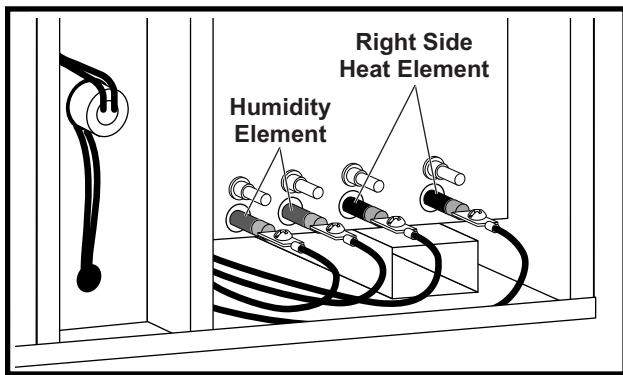


Figure 25. Proofer Heat Element Connections – Right Side Rear

3. Using an Ohmmeter check for continuity; if Element tests OK, repeat procedure on other Element.
4. Remove the Humidity Pan.
5. Remove the Proofer Floor Panel. Refer to the **COVERS AND PANELS** section of this manual for specific instructions.
6. Remove two screws, one at each end of the Heat Element. Retain the screws for reuse.

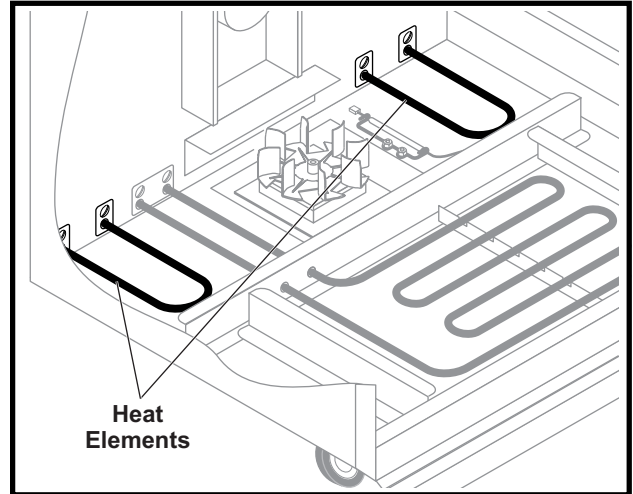


Figure 26. Location of Proofer Heat Elements

7. Pull the Proofer Heat Element away from the back wall.
8. Reverse the procedure to install the replacement Proofer Heat Element.

NOTICE Tighten the Heat Element connection to 30 inch pounds torque.

PROOFER HUMIDITY ELEMENT

⚠ WARNING Disconnect the electrical power to the unit and follow lockout / tagout procedures.

The Humidity Element is located under the Humidity Pan and may be accessed by removing the Proofer Floor Panel.

1. Remove the Humidity Pan; perform visual inspection of Proofer Humidity Element.
2. Remove the Proofer Rear Panel. Refer to the **COVERS AND PANELS** section of this manual for specific instructions.
3. Tag and disconnect the wires from the suspect Proofer Humidity Element.

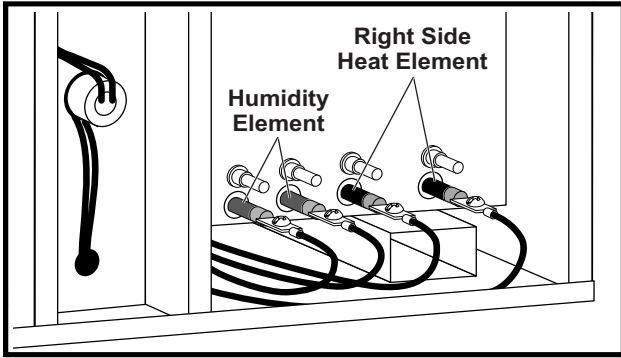


Figure 27. Proofer Heat Element Connections – Right Side Rear

4. Using an Ohmmeter check Humidity Element for continuity.
5. Remove the Proofer Floor Panel. Refer to the COVERS AND PANELS section of this manual for specific instructions.
6. Remove two screws, one at each end of the Humidity Element. Retain the screws for reuse.

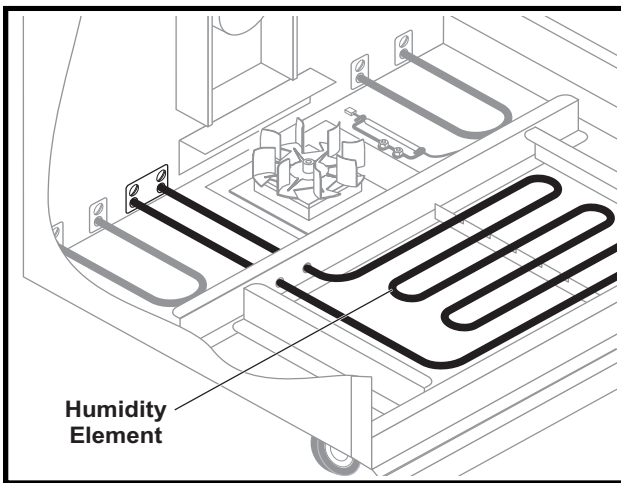


Figure 28. Location of Proofer Humidity Element

7. Lift the front of the Proofer Humidity Element up and gently pull it out of the unit.
8. Reverse the procedure to install the replacement Proofer Humidity Element.

NOTICE The Proofer Humidity Element is fragile; use extreme care when guiding the replacement Element into position.

NOTICE Tighten the Humidity Element connection to 30 inch pounds torque.

PROOFER CIRCULATION FAN

WARNING Disconnect the electrical power to the unit and follow lockout / tagout procedures.

The Proofer Circulation Fan is located in the floor of the Proofer. The floor panel must be removed to gain access to the Proofer Circulation Fan.

1. Remove the Humidity Pan.
2. Remove the Proofer Floor Panel. Refer to the COVERS AND PANELS section of this manual for specific instructions.
3. Remove the fan blade.
4. Remove the four screws securing the Proofer Circulation Fan to the floor of the Proofer. Retain the screws for reuse.
5. The fan assembly is sealed to the bottom of the Proofer with silicone sealant; use a putty knife to pry free.
6. Tag and disconnect Proofer Circulation Fan wires.

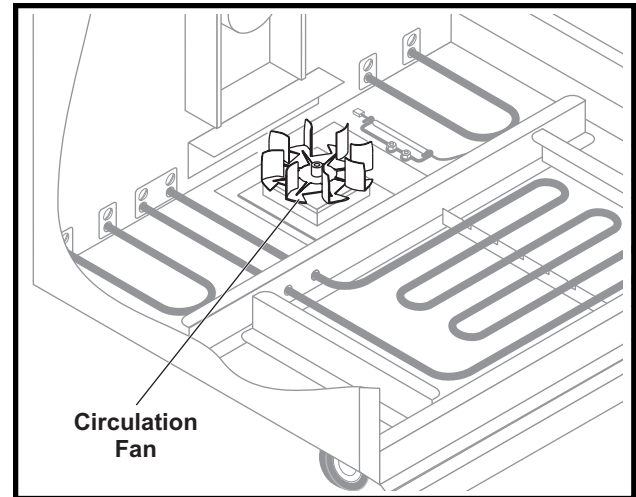


Figure 29. Location of Proofer Circulation Fan

7. Reverse the procedure to install the replacement Proofer Circulation Fan.

NOTICE When installing the new Proofer Circulation Fan assembly, use a heat resistant silicone sealer on the mounting surfaces.

OVEN HEAT ELEMENTS

WARNING Disconnect the electrical power to

the unit and follow lockout / tagout procedures.

There are two Oven Heat Elements, one on each side of oven. The Elements are behind the Oven Ceiling Panel.

1. Remove the Oven Ceiling Cover; refer to the COVERS AND PANELS section of this manual for specific instructions.

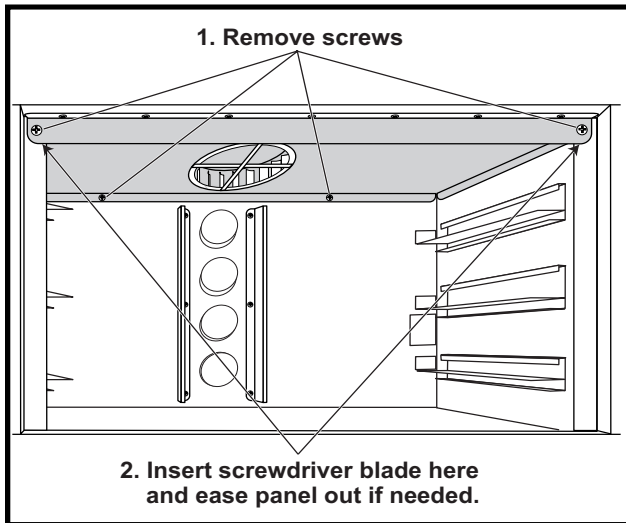


Figure 30. Oven Ceiling Panel Removal

NOTICE Use care when removing the Oven Ceiling Panel to prevent damage to the fan blades.

2. Remove four screws, two at each end of the suspect Element. Retain the screws for reuse.

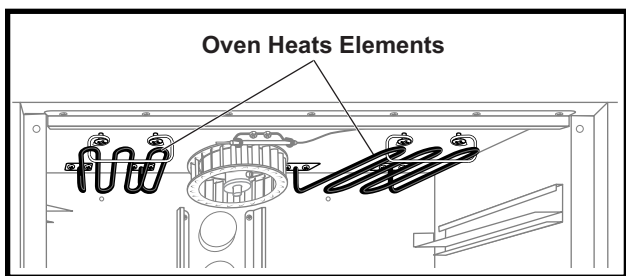


Figure 31. Oven with Oven Ceiling Panel Removed

3. Remove the wire form supports.
4. Drop the Element away from the top wall, being careful not to damage the wire connected to each end of the Element.

NOTICE Pull enough wire through holes so as to not have it pull back into hole when it is removed, as that will likely require you to remove a top panel in order to retrieve the wire.

5. Tag and disconnect the Element wires.
6. Using an Ohmmeter, check the Element for continuity.
7. Repeat these steps on the remaining Element if needed.
8. Reverse these steps to install a new Element.

NOTICE Tighten the Heat Element connection to 30 inch pounds torque.

NOTICE If there is high-temperature silicone caulking around the Heat Element ends where they pass through the top wall, this caulking may be damaged when removing a Heat Element and should be replaced as needed during reassembly.

OVEN CIRCULATION FAN

WARNING Disconnect the electrical power to the unit and follow lockout / tagout procedures.

The Oven Circulation Fan is located on the top of unit.

WARNING Removing the Oven Circulation Fan requires the use of a ladder. Use ladder safety protocols while working on this area of the unit.

1. Remove the Oven Fan Cage and Wire Harness Cover on the top of the unit. Refer to the COVERS AND PANELS section of this manual for specific instructions.
2. Remove the Oven Ceiling Panel; refer to the COVERS AND PANELS section of this manual for specific instructions.
3. Tag and disconnect the wires to the fan motor.
4. Using an Ohmmeter test the motor for short circuits or open conditions. If motor fails these tests, it must be replaced.
5. Remove the bolt that secures the Oven Fan Wheel to the Oven Fan Motor. Retain the bolt for reuse.
6. Remove the Oven Fan Wheel.

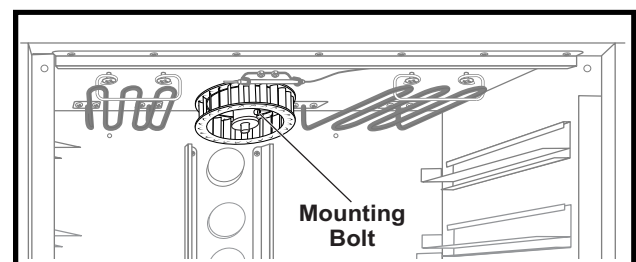


Figure 32. Oven Fan Wheel Mounting Bolt.

7. Remove the four bolts securing the Oven Circulation Fan to the top of the Oven.
8. Lift the Fan Motor out of the unit from the top.
9. Reverse these procedures to install a new Oven Circulation Fan.

OVEN HI-LIMIT THERMOSTAT

⚠ WARNING Disconnect the electrical power to the unit and follow lockout / tagout procedures.

The Oven Hi-Limit Thermostat is located under the Oven Ceiling Panel at the rear center of the oven.

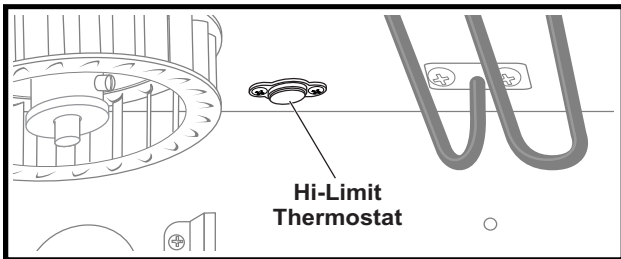


Figure 33. Location of Oven Hi-Limit Thermostat

1. Remove the Oven Ceiling Panel; refer to the COVERS AND PANELS section of this manual for specific instructions.
2. Remove the two screws securing the Oven Hi-Limit Thermostat. Retain the screws for reuse.
3. Pull the Oven Hi-Limit Thermostat down far enough to gain access to its wires. Be careful not to damage the wires when pulling on them.
4. Tag and disconnect Oven Hi-Limit Thermostat wires.
5. Reverse these procedures to install a new Oven Hi-Limit Thermostat.

DOOR GASKET REPLACEMENT

⚠ WARNING Disconnect the electrical power to the unit and follow lockout / tagout procedures.

1. Remove the old gasket by pulling it out of the groove in the door frame.
2. Clean the groove with a screwdriver or other flat-bladed tool to remove any dirt or gasket pieces.
3. Press the new gasket into the groove. Make sure it is fully seated in the groove and flat against the door frame.

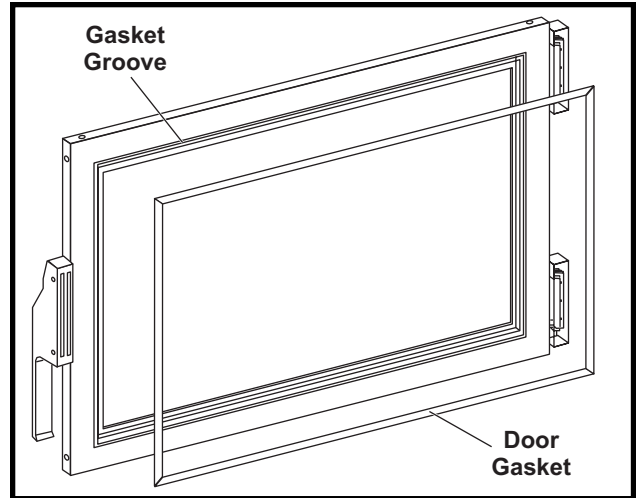


Figure 34. Door and Gasket

4. Check the door adjustment to make sure there are no leaks and that the new gasket is not compressed too much, making the door hard to close. Refer to the DOOR GASKET COMPRESSION CHECK section of this manual for further instructions.

OVEN SAFETY SWITCH

⚠ WARNING Disconnect the electrical power to the unit and follow lockout / tagout procedures.

The Oven Door is equipped with a Safety Switch that turns the Oven Circulation Fan off when the door is open. The Safety Switch is accessed from behind the Control Panel.

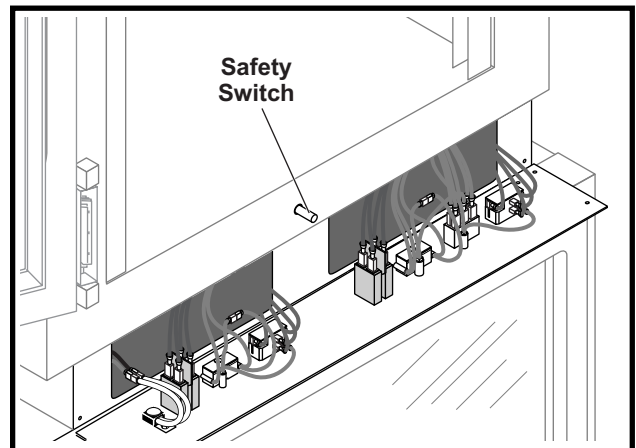


Figure 35. Oven Safety Switch

1. Remove the Control Panel.
2. Remove the right side Ventilation Panel.

3. Remove the two screws that secure the Safety Switch to the oven frame. Retain screws for reuse.
4. Slide the Safety Switch back toward the center of the unit to free its shaft from the oven frame.
5. Pull the Safety Switch out through the front of the unit, being careful not to place excess stress on its wires.
6. Tag and disconnect the Safety Switch Wires.
7. Reverse this procedure to install a new Safety Switch.

ADJUSTMENTS

DOOR GASKET COMPRESSION CHECK

The Door Gasket Compression Check may be performed on all styles of the Proofer Oven doors.

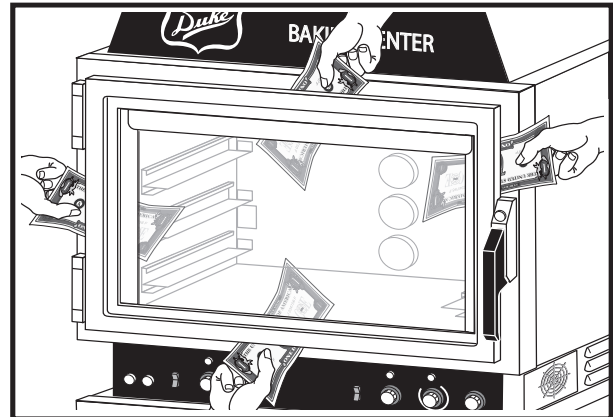


Figure 36. Door Gasket Compression Check

NOTICE Perform the following procedure to determine if door adjustments are necessary:

1. Close the door with a dollar bill between the gasket and the front of the oven. There should be resistance when the dollar bill is pulled free of the door.
2. Perform this check in several places and readjust the door if necessary using one or both of the procedures below.

DOOR GASKET ADJUSTMENTS

To adjust the door on the hinge side, use this procedure:

1. With the door closed, remove the hinge covers and loosen (don't remove) the six screws that hold the hinges to the door.
2. With the screws loosened, the door can be moved in and out on its frame. Move the door to the desired position.

NOTICE When adjusting the door's position in and out, don't over-compress the gasket. This will cause the door to bind on the hinge side.

3. Once the door is positioned properly, tighten the screws and replace the hinge covers.

The door can also be adjusted on the handle side:

1. Loosen, but do not remove, the two screws that hold the handle in place.
2. Adjust the handle to its proper position.
3. Tighten the screws.

AIR WASH DOOR ADJUSTMENT

NOTICE Earlier versions of the Proofer Oven used different door styles; they are not Air Wash doors. There are old style doors with and without hinges and with and without door handles. The older styles are upgradeable to the newer Air Wash style, which has a door handle and two window panes, the inner of which can be opened for cleaning. The conversion is compatible with all of the earlier door styles. Refer to Duke Manufacturing Co. publication 512994 for further information.

The following procedures apply only to the Air Wash door style.

Air Wash Door Adjustment – Hinge Side

1. If open, close and latch the door.
2. Remove the Hinge Covers.
3. Loosen the screws on the hinges.

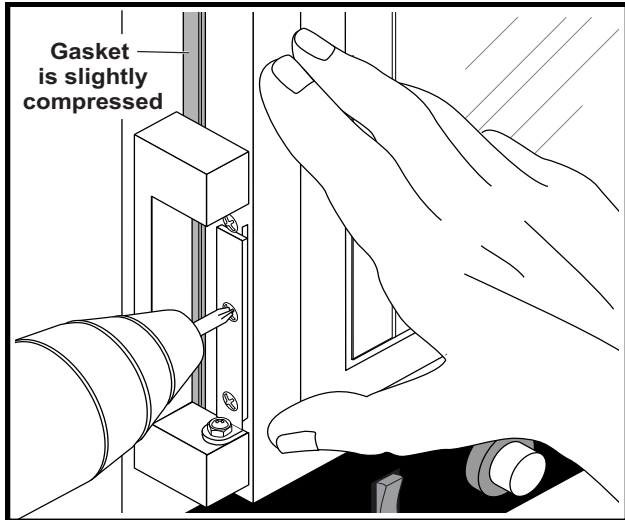


Figure 37. Proper Hinge Side Adjustment

4. Adjust the door position by moving the door frame to seal any gap between the gasket and the oven front near the hinges. Tighten the hinge screws.
5. Perform the DOOR GASKET COMPRESSION CHECK.
6. If needed, repeat the above procedure or go to step 7. Otherwise, replace the Hinge Covers.
7. Perform the Air Wash Door Adjustment – Handle Side procedure, below. (Do not replace the hinge covers yet.)

NOTICE Be careful not to over-compress the gasket or it will cause the door to bind near the hinges.

Air Wash Door Adjustment – Handle Side

1. If open, close and latch the door.
2. Loosen the screws along the outer edge of the Door Handle.
3. Adjust the door position by moving the door frame to seal any gap between the gasket and the oven front near the handle.
4. Tighten the screws.

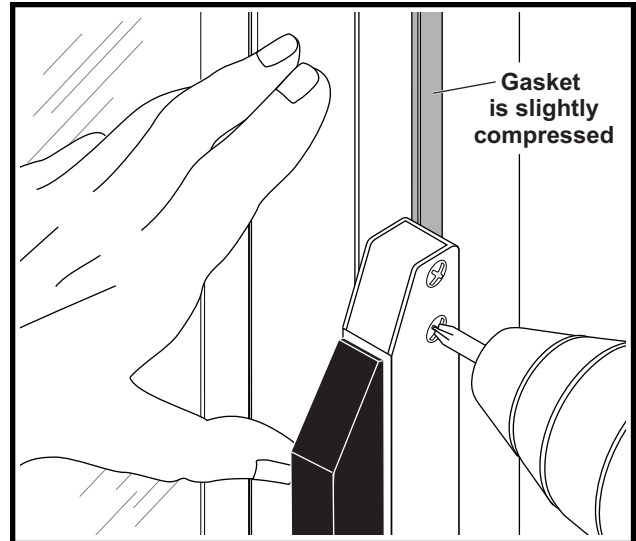


Figure 38. Proper Door Handle Side Adjustment

5. Perform the DOOR GASKET COMPRESSION CHECK.
6. If needed, repeat the above procedure or go to the AIR WASH DOOR ADJUSTMENT – HINGE SIDE procedure.
7. If the Door Handle Adjustment Slots become exposed, use Silicone Sealer to seal the openings.
8. Install the Hinge Covers if they were removed.

NOTICE Be careful not to over-compress the gasket or it will cause the door to bind near the hinges.

MAINTENANCE

STAINLESS STEEL CARE

Cleaning

Stainless steel contains 70-80% iron, which will rust if not properly maintained. It also contains 12-30% chromium, which forms an invisible passive, protective film that shields against corrosion. If the film remains intact, the stainless steel will remain intact. However, if the film is damaged, the stainless steel can break down and rust. To prevent stainless steel breakdown, follow these steps:

CAUTION: Never use any metal tools. Scrapers, files, wire brushes or scouring pads (except for stainless steel scouring pads) will mar the surface.

CAUTION: Never use steel wool, which will leave behind particles that rust.

CAUTION: Never use acid-based or chloride-containing cleaning solutions, which will break down the protective film.

CAUTION: Never rub in a circular motion.

CAUTION: Never leave any food products or salt on the surface. Many foods are acidic. Salt contains chloride.

For routine cleaning, use warm water, mild soap or detergent and a sponge or soft cloth.

For heavy-duty cleaning, use warm water, a degreaser and a plastic, stainless steel or Scotch-Brite pad.

Always rinse thoroughly. Always rub gently in the direction of the steel grain.

Preserving & Restoring

Special stainless steel polishing cleaners can preserve and restore the protective film.

Preserve the life of stainless steel with a regular application of a high quality stainless steel polishing cleaner as a final step to daily cleaning.

If signs of breakdown appear, restore the stainless steel surface. First, thoroughly clean, rinse and dry the surface. Then, on a daily basis, apply a high-quality stainless steel polish according to manufacturer's instructions.

Heat Tint

Darkened areas, called heat tint, may appear on stainless steel exposed to excessive heat, which causes the protective film to thicken. It is unsightly but is not a sign of permanent damage.

To remove heat tint, follow the routine cleaning procedure. Stubborn heat tint will require heavy-duty cleaning.

To reduce heat tint, limit the exposure of equipment to excessive heat.

GENERAL CLEANING

The Proofer Water Pan should be cleaned with a mild soap and warm water solution. After it has been cleaned, remove all soap residue and thoroughly rinse the pan out with fresh water. This will prevent soap flavor transfer to the bread.

Clean the inside of the Proofer and Oven compartments using the tips provided in the STAINLESS STEEL CARE AND CLEANING section of this manual.

Remove the fan cover at the bottom of the Proofer and wipe up any excess water that has accumulated in the bottom of the Proofer.

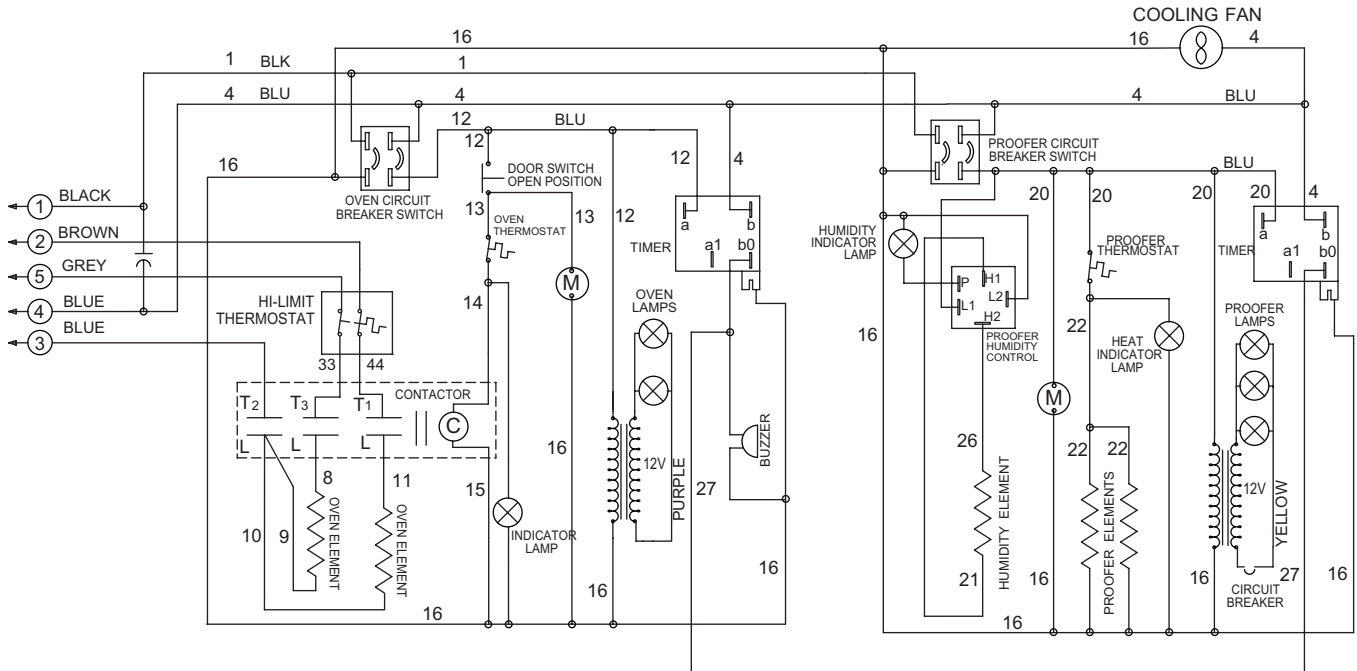
Open the Proofer door and allow it to air dry for several minutes. Turn the Proofer heat on for at least 30 minutes to dry the inside of the oven. Make sure the humidity is turned off. When the Proofer is dry, turn it off and wait ten minutes.

TROUBLESHOOTING

SYMPTOM	CAUSE	REMEDY
Oven and Proofer not working	No power to unit	Check plug for proper connection. If OK, check circuit breaker.
Oven/Proofer Lights not working	Oven Power Switch not turned on	Turn Oven Power Switch on
	Proofer Power Switch not turned on	Turn Proofer Power Switch on
	No power	Check Circuit Breaker
Proofer Humidity not working/insufficient	No water in Humidity Pan	Fill Humidity Pan
	Humidity Control OFF or not set properly	Adjust Humidity Control until proper humidity is achieved
	Humidity Element not working	Replace Humidity Element Replace Humidity Control
Proofer humidity too high	Defective Humidity Control	Adjust Humidity Control until proper humidity is achieved
	Humidity Control set too high	Replace Humidity Control
Oven does not heat	Defective Humidity Control	Turn Oven Power Switch to ON position
	Oven Power Switch not in ON position	Adjust Thermostat to proper setting
	Oven Thermostat not set	Replace Oven Thermostat
	Defective Oven Thermostat	Replace Oven Heat Elements
Oven Fan does not operate	Defective Oven Heat Element/s	Ensure Oven Door is properly closed
	Oven Door not closed	Turn power off and clean debris from fan. Turn power on and check for proper operation.
	Debris in fan wheel causing it to stick	Adjust or replace the Safety Switch as needed
	Defective Safety Switch	Replace Motor
Proofer does not heat	Defective Motor	Turn Proofer Power Switch on
	Proofer Power Switch not turned on	Adjust Thermostat to proper setting
	Proofer Thermostat not set properly	Replace Proofer Thermostat
	Defective Proofer Thermostat	Replace Proofer Heat Element/s
Proofer Circulating Fan not working	Defective Proofer Heat Element/s	Turn Proofer power off and clean fan. Turn power on and check for proper operation.
	Debris caught in fan blades	Replace fan motor
Proofer Lights not on	Defective fan motor	Reset Circuit Breaker. If problem persists, replace light bulbs with 10 watt bulbs.
	Light Circuit Breaker open	

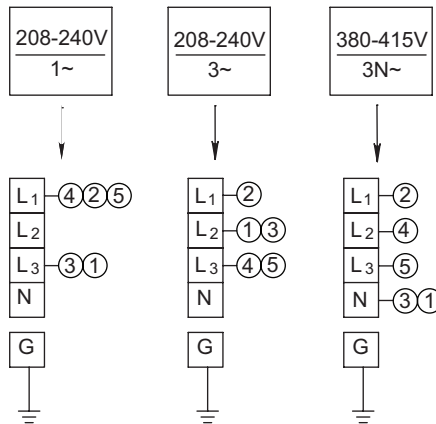
ELECTRICAL SCHEMATIC

WIRING DIAGRAM
AHPO-6/18 & EPO 3/9 (50/60 Hz)



ALL WIRES BLACK UNLESS NOTED

WIRE #	AWG
3	14
2,5,8,9,10,11	16
ALL OTHERS	18





"Your Solutions Partner"

Duke Manufacturing Co.

2305 N. Broadway
St. Louis, MO 63102
Phone: 314-231-1130
Toll Free: 1-800-735-3853
Fax: 314-231-5074
www.dukemfg.com