

Foodservice Equipment Specialists P.O. Box 880 Saco, ME. / U.S.A. 04072 877-854-8006 \* FAX (207) 283-8080

# OPERATIONS AND MAINTENANCE PROCEDURES CONVEYOR OVEN MODELS JSO-14, JPO-14, JPO-18

# FOR SERVICE ASSISTANCE U.S. AND CANADA CALL: 1-877-854-8006 24 HOURS/DAY 7 DAYS/WEEK

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### **UNCRATING AND INSPECTION**

Unpack the unit and components from the shipping container. Remove all visible packing materials including those that may be inside the baking chamber. If damage is discovered, file a claim immediately with the carrier that handled the shipment.

#### ASSEMBLY AND INSTALLATION

The equipment is shipped fully assembled and ready to plug into a matching outlet specified for its specific voltage and amperage rating. Removal or replacement of the power cord and plug will <u>VOID</u> the warranty. For assistance, contact the Belleco, Inc. Service Group at 1-877-854-8006. Please refer to the appropriate schematic at the rear of this manual for plug configurations. Consult with a licensed electrician prior to installation. "Do not operate this equipment without the crumb trays properly installed as this may cause overheating and loss of productivity.

CAUTION – During installation: Do not place on surfaces or near walls, partitions or kitchen furniture and the like – unless they are made of non-combustible material or clad with non-combustible heat-insulating material, and pay attention to fire prevention regulations.

CAUTION – To reduce the risk of fire, the appliance is to be installed in non-combustible surroundings only, with no combustible material within 18 inches of the sides, front, or rear of the appliance or within 40 inches above the appliance. "Food may burn. Therefore equipment must not be used near or below curtains and other combustible materials. They must be watched."

#### **ELECTRICAL INSTALLATION**

WARNING – Disconnect the unit from its power source before installing or removing any parts.

WARNING – Check with your local power company or licensed electrician before installation to determine the actual voltage at the outlet. For a unit rated 208 volts, never plug it into 240 volts as serious overheating and damage could occur. For a unit rated 240 volts, never plug it into 208 volts as the lower voltage will greatly reduce the productivity of the unit.

WARNING – NEVER operate any piece of equipment without proper GROUND connection. Improper grounding may result in serious personal injury or could be fatal!

#### **POWER SWITCH**

**FULL POWER** – In this position, the equipment is at full heat and ready for use.

**OFF** – In this position, the equipment is off however, the cooling fans will continue to operate until the heated chambers are completely cool. This normally takes 15 - 20 minutes.

## **COOKING PROCEDURE**

Bakers with 4" high clearance are equipped with an adjustable heat shield designed to reduce heat loss through the load and exit end of the unit. The shield should be adjusted so that the highest product being toasted/baked fits under it. Excess height will allow heat loss through the front and may reduce capacity.

#### **Toasting JSO Models:**

- Turn the Power Switch to the "ON" position.
- Set the Conveyor Speed Control knob to 50.
- Set each Heat Controller (Top and Bottom) to desired range.
- Allow 15-20 minutes to heat from cold.
- Place a sample of the desired product on the Conveyor Belt to test the settings.
  - If toasting is too light, turn the Speed Control counterclockwise to a slower speed.
  - If toasting is too dark, turn the Speed Control clockwise to a faster speed.

#### Baking JPO Models:

- Turn the Power Switch to the "ON" position.
- Set the Conveyor Speed Control knob to 50.
- Set each Variable Heat Controller (Top and Bottom) to desired range.
- Allow 15-20 minutes to heat from cold.
- Place a sample of the desired product on the Conveyor Belt to test the settings.
  - If product is too light, turn the Speed Control counterclockwise to a slower speed.
  - If product is too dark, turn the Speed Control clockwise to a faster speed.

(NOTE: Some products may require adjustment of the Top and Bottom Heat Controls in order to achieve the desired results. Baking in these units is a combination of heat and belt speed. Some foods may require more top heat than bottom heat or vise versa. Every product should be tested using separate top and bottom heat and variable speed control. When adjusting the heat control, allow 5 minutes for the unit to stabilize at the new heat settings).

#### **Suggested Dough Handling Procedures**

- Remove frozen dough balls from their wrapper and place into a proofing box or on a sheet pan. (Some dough manufacturers provide different techniques for their dough that may not agree with the following therefore, some trials may be required)
- Place the dough balls a few inches apart, lightly spray release over the dough balls then cover with a layer of freezer paper. Refrigerate over night. Only remove enough product from the sheet pan to accommodate what you will require for a few hours.
- Roll the ball flat (onto a light sprinkling of flower, cornmeal or pizza crisp) starting from the center and working your way to the outer edges. Make sure you turn the dough as you work towards the outer edges to maintain a round configuration. Then, use either a rolling pin or dough press or dough sheeter to form the dough to the desired size and thickness.
- Place the flattened shell onto a screen or a seasoned pizza pan. (Shiny aluminum pans may reflect heat away from the pizza preventing browning) Dock it, sauce it, cheese it. Remember to spread the sauce from the center to the outer edges of your crust to ensure a uniformed thickness of sauce. Leave an inch of space to the outer edge of the crust to enable browning (sauce too close to the edge prevents browning).
- When adding vegetables with high moisture contents remember to spread them out and to avoid over saturation of these toppings. Excessive high moisture toppings will prevent baking in the surrounding areas until ALL the moisture has been evaporated.
- Place the prepared pizza at the entry end of the oven and adjust as required. A consistent product going in will result in consistent product coming out.

#### **CLEANING PROCEDURE**

Preventive Maintenance programs on your equipment will provide many years of production at full capacity. Lack of Preventive Maintenance can shorten the life cycle of the equipment and/or result in reduced capacities. The following cleaning guidelines should be performed as shown:

WARNING – ALWAYS DISCONNECT YOUR EQUIPMENT FROM POWER PRIOR TO CLEANING OR MAINTENANCE

WARNING – **NEVER** SPRAY YOUR EQUIPMENT WITH WATER. **NEVER** SUBMERGE INTO WATER.

#### **Cleaning Procedure Con't.**

- Daily -1) Clean the air intake area under the equipment with a slightly dampened cloth.
  - 2) Wipe the conveyor surface and exterior surfaces.
  - 3) Remove and wash the Crumb Trays and then replace the Crumb Trays.
- Weekly 1) Clean the air intake area under the equipment with a slightly dampened cloth.
  - 2) Plug the equipment in but turn both Heat Controls to the lowest position.
  - 3) Turn the Conveyor Speed Control to fastest setting (100).
    - a. For lightly soiled conveyors belts, wipe with a damp cloth.
    - b. For heavily soiled conveyor belts, wipe with a light abrasive pad.

NEVER OPERATE YOUR EQUIPMENT WITHOUT THE CRUMB TRAYS IN PLACE AS THIS MAY CAUSE OVERHEATING IN AND AROUND THE CONTROLS AND MOTORS.

#### **HIGH TEMPERATURE LIMIT**

Belleco equipment is equipped with a high temperature limit switch that prevents overheating in the control box. This switch is re-settable by pushing the button located at the back of the control housing (call the Belleco service team at 1-877-854-8006 for assistance).

#### **GENERAL MAINTENANCE**

- 1. REPLACING HEATER TUBES (Tip replace only one tube at a time to prevent confusion when re-wiring)
  - a. DISCONNECT EQUIPMENT FROM POWER SOURCE.
  - b. Remove both side panels.
  - c. Disconnect heater tube wires from the terminal blocks by pressing firmly on the + where each wire is inserted in the terminal block.
  - d. Slide the heater tube retainer by loosening the screws and sliding the retainer to the side so that the holes line up.
  - e. **Gently** pull the tube to be replaced out of the unit (TIP: Use a long straw or tube as a wire guide when passing wires from one end to the other).
  - f. **Gently** slide the replacement tube into the unit.
  - g. Slide the retainer back in place to secure the tubes in place and tighten the screw.
- 2. REPLACING FAN MOTOR (Tip make note of which side the label on the fan motor is prior to removal)
  - a. DISCONNECT EQUIPMENT FROM POWER SOURCE.
  - b. Remove the bottom cover.
  - c. Unplug the fan motor power supply cord.
  - d. Remove the (4) screws (and grill) that hold the fan motor in place.
  - e. Put the replacement fan motor and grill in place. Using the same (4) screws secure in place in the same manner as removed.
  - f. Reconnect the fan motor power cord.
  - g. Replace panels and test under power.

#### General Maintenance Con't

- 3. REPLACING BELT DRIVE MOTOR (**NOTE**: 208 volt and 240 volt motors have three wires, <u>ONLY USE TWO</u>. For 208 volts, use the <u>white</u> and <u>blue</u> wires. For 240 volts, use the <u>black</u> and <u>blue</u> wires. Use a high temperature electrical tape to cap the unused wire to prevent short circuit)
  - a. DISCONNECT EQUIPMENT FROM POWER SOURCE.
  - b. Remove side and bottom panels.
  - c. Remove the drive sprocket and chain from the drive motor shaft. (Tip Loosen the drive motor mounting screws and slide the motor to loosen the chain)
  - d. Trace and remove the two drive motor wires from the terminal block. (Tip make note of the color of the wires and only use the same colors on the new motor)
  - e. Remove the drive motor mounting screws and slide the motor out of the unit.
  - f. Put the new drive motor in place and loosely replace the mounting screws.
  - g. Replace the drive sprocket and chain. (Tip measure the distance from the inside of each sprocket to the inside wall for perfect alignment)
  - h. Slide the drive motor so the chain has between 1/8" and 1/4" play, and then tighten the four mounting screws.
  - i. Replace panels and test under power.

#### TROUBLESHOOTING GUIDE

- 1) UNIT WILL NOT HEAT, CONVEYOR BELT WILL NOT MOVE.
  - a. Check to make sure the unit is PLUGGED IN.
  - **b.** Check the control settings and make sure the Power Switch is in the "ON" position and that each control is turned on as well.
- 2) UNIT WILL NOT HEAT, CONVEYOR MOVES FREELY.
  - **a.** Push the HIGH TEMPERATURE LIMIT reset button as described on Page 3.
  - **b.** After pushing the reset button, clean the air intake area to prevent further occurrences.
  - c. Make sure that the Crumb Trays are in place. Operating this equipment without the Crumb Trays in place may cause overheating in and around the control housing.
- 3) EITHER TOP OR BOTTOM HEATER TUBES DO NOT HEAT.
  - **a.** Call the Belleco, Inc. service group at 1-877-854-8006 as one or more Heater Tubes may need replacing.

## 4) TESTING FOR AND CLEARING MECHANICAL BINDING

- a. Remove side and bottom panels.
- b. Remove the drive sprocket and chain from the drive motor shaft. (Tip Loosen the drive motor mounting screws and slide the motor to loosen the chain)
- c. Slowly rotate the conveyor belt by hand to see where the binding is taking place. Once it is discovered, clear the jam and re-assemble the unit.
- d. Test under power. If the conveyor belt will not operate, call the Belleco, Inc. service group at 1-877-854-8006 as either the Drive Motor and/or Speed Control may need replacing.

# **HEATER TUBE GUIDE**

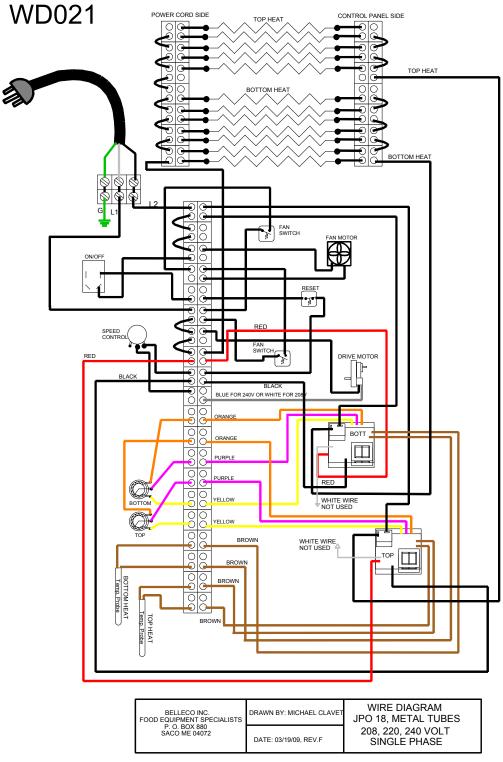
Model #	Voltage	Part#	Wattage	Qty.
JSO-14	208V	204147	600	9
JSO-14	220V	Call Factory	600	9
JSO-14	240V	204145	600	9
JPO-18	208V	402024	525	12
JPO-18	208V	204222 (Quart	z) <b>690</b>	9
JPO-18	220V	Call Factory	690	9
JPO-18	240V	403021	525	12
JPO-18	240V	204225 (Quart	z) <b>690</b>	9



"If the power cord is damaged, it must be replaced by a special cord or assembly available from the manufacturer or its service agent"

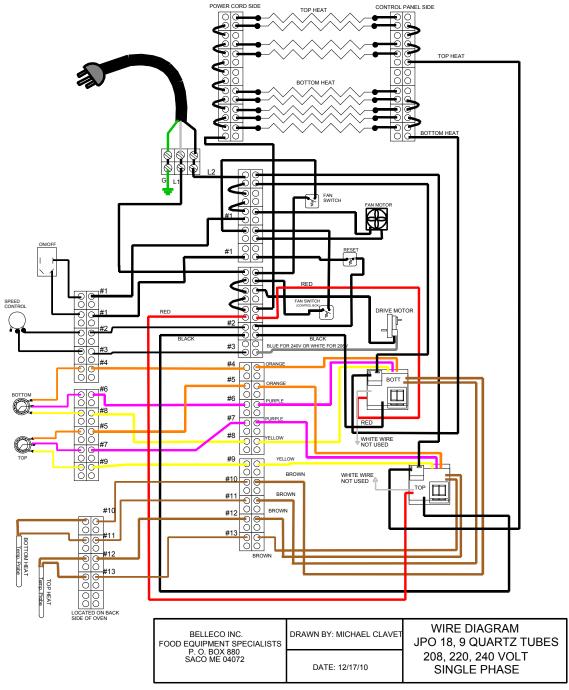
DESCRIPTION	QTY	PART#	DESCRIPTION	QTY	PART#
Drive Motor	1	401203	Conveyor Belt, 14"	1	401333
Drive Sprocket (JPO-18)	1	401301	Conveyor Belt, 18"	1	401336
Driven Sprocket (JPO-18	3) 1	401304	Drive Shaft, JPO 18	1	201987
Drive Chain (JPO-18)	1	401368	Idler Shaft, JPO 18	1	201986
Drive Sprocket (JO-18)	1	401302	Drive Shaft, JPO/JSO 14	1	201984
Driven Sprocket (JSO-14	4) 1	401303	Idler Shaft, JPO/JSO 14	1	201985
Drive Chain (JSO-14)	1	401367	Knob, Speed Control	1	201800
Fan Cord	1	401060	Knob, Heat Control	1	201801
Fan Motor	1	401211	Bushing, Drive Shaft	2	401358
Speed Control	1	200908	Bushing, Idler Shafts	2	305756
Heat Controller, G5	2	401121	Idler Tension Spring	2	400262
ON/OFF Switch	1	401118	Exit Tray, JPO/JSO-14	1	100207
Heat Limit Switch	1	401100	Exit Tray, JPO-18	1	100206
Power Cord	1	401051	Entry Tray, JPO/JSO-14	1	305772
Crumb Trays	2	300226	Entry Tray, JPO-18	1	305744
Grill, Air Intake	1	401220	Fan Switch	2	401107
Legs	4	400301	Probe	2	401120
Potentiometer	2	401122	Phase Control Assembly	2	200116 (JSO-14)
200K Potentiometer	2	200914 (JSO-14)	•		

#### **WIRE DIAGRAM**



#### **WIRE DIAGRAM**

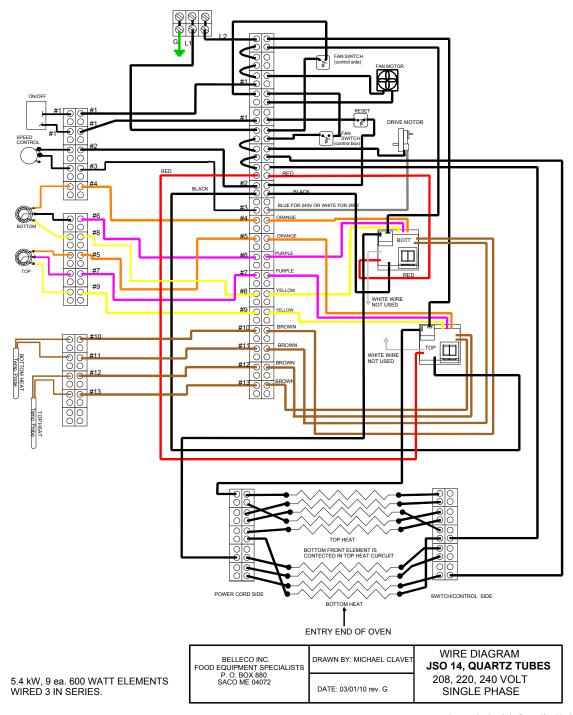
WD020



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### **WIRE DIAGRAM**

# WD019



# **WIRE DIAGRAM**

# WD022

201992

201992

201992

201992

PMAE CONTROL

POWER CORD SIDE

BOTTOM FEAT

SMITCHCONTROL SIDE

BOTTOM FEAT

SMITCHCONTROL SIDE

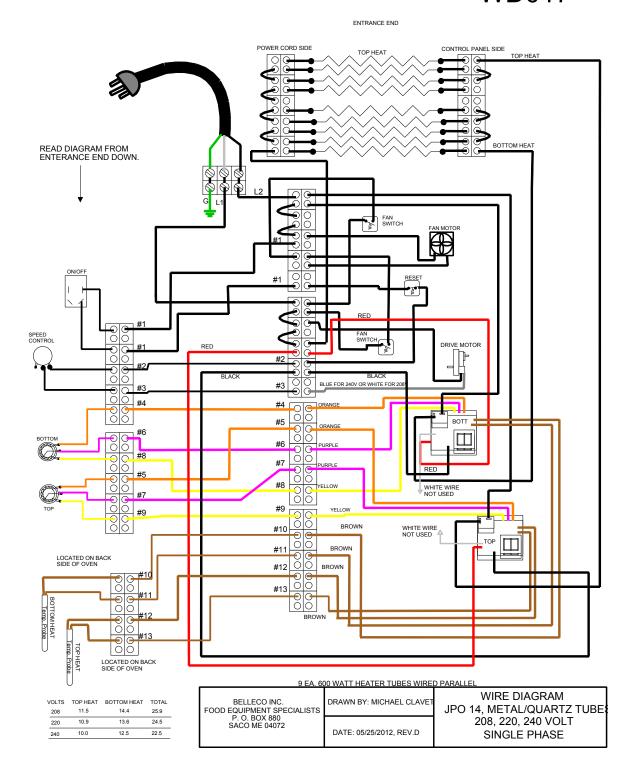
ENTRY END OF OVEN

# JSO-14 WITH PHASE CONTROLS

BELLECO INC. FOOD EQUIPMENT SPECIALISTS	DRAWN BY: MICHAEL CLAVET	JSO 14, QUARTZ TUBES
P. O. BOX 880 SACO ME 04072	DATE: 09/10/10	AND PHASE CONTROLS SINGLE PHASE 208, 220, 240 VOLT

#### **WIRE DIAGRAM**

# WD017



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#### **ORIGINAL EQUIPMENT WARRANTY**

BELLECO, Inc. warrants to the original purchaser, that it's electrically heated cooking equipment shall be free from defects in material and workmanship, subject to the following conditions;

- 1. BELLECO, Inc.'s obligation under this warranty shall be expressly limited to replacing or repairing without charge, any component of the electrically-heated cooking equipment which, in the sole opinion of BELLECO, Inc. is deemed to be defective. This warranty shall be effective for a period of twenty-four (24) months for parts (excluding heater tubes) and twelve (12) months for labor and heater tubes commencing from the date the equipment is INSTALLED BY THE ORIGINAL PURCHASER, WHO SHALL PROVIDE A COPY OF THE SALES INVOICE OR OTHER PROOF OF PURCHASE IF THE WARRANTY PERIOD IS IN QUESTION.
- 2. BELLECO, Inc. agrees to pay any recognized kitchen equipment service agency within the 48 Continental United States and Canada for any FACTORY-AUTHORIZED labor required to repair or replace (does not include general maintenance, cleaning or resetting the thermal overload), at the **sole option** of BELLECO, Inc., any part of the electrically heated cooking equipment which proves to be defective in either material or workmanship provided, however, **that the repairs or replacement have been duly authorized by BELLECO, Inc. before the work is performed.** This warranty includes travel time not to exceed one (1) hour and mileage not to exceed fifty (50) miles (80 km). **Excluded from the travel and mileage coverage are the JW and JT1 series.**
- 3. This warranty does not apply to repairs or replacement of any component(s) of your unit, which have been damaged or abused due to accident, alterations, **unauthorized** repairs, misuse or improper maintenance. **Belleco will NOT assume any responsibility for loss revenue.**
- 4. INSTALLATION TO IMPROPER VOLTAGE WILL VOID ANY AND ALL IMPLIED WARRANTIES.

6. This warranty becomes effective upon e mail registration sent to sales@bellecocooking.com

5. This warranty is expressly in lieu of all warranties and representations expressed or implied INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, and all other obligations or liabilities on the part of BELLECO, Inc.

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Thank you for your purchase of Belleco, Inc. food service equipment. It shall remain our primary goal to ensure your satisfaction. To assist us in our efforts to maintain accurate records, please complete the attachment and return it to our Corporate Headquarters via e-mail (see #6 above) or US Mail. Be sure to include the following details:					
Owners Name:	Model Number:				
Address:	Serial Number:				
	Date Purchased:				
Business Name:	Dealer Name:				
Phone Number:	Comments:				