

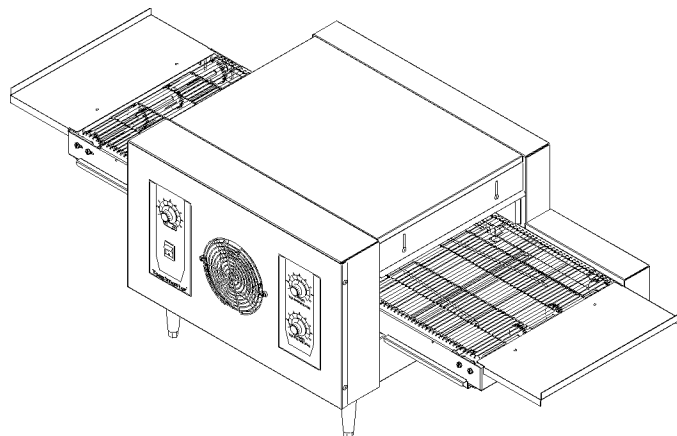


Middleby Cooking Systems Group • 1400 Toastmaster Drive • Elgin, IL 60120 • (847)741-3300 • FAX (847)741-4406

Conveyor Oven

Model TC2000

OWNER'S OPERATING AND INSTALLATION MANUAL



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WARNING: IN CASE OF FIRE

Disconnect the oven from its power source IMMEDIATELY. This allows the unit to cool, making it easier to put out the fire.

WARNING

FOR YOUR SAFETY DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS OR LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE

WARNING

IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION, SERVICE OR MAINTENANCE CAN CAUSE PROPERTY DAMAGE, INJURY OR DEATH. READ THE INSTALLATION AND OPERATING INSTRUCTIONS THOROUGHLY BEFORE INSTALLING OR SERVICING THIS EQUIPMENT.

WARNING

DISCONNECT THE OVEN FROM ITS ELECTRICAL POWER SUPPLY BEFORE CLEANING OR SERVICING.

CAUTION

Using any parts other than genuine Toastmaster factory parts relieves the manufacturer of all liability.

IMPORTANT

Contact your authorized service agent to perform maintenance and repairs. A service agency directory is supplied with your oven.

IMPORTANT

Toastmaster (manufacturer) reserves the right to change specifications and product design without notice. Such revisions do not entitle the buyer to corresponding changes, improvements, additions or replacements for previously purchased equipment.

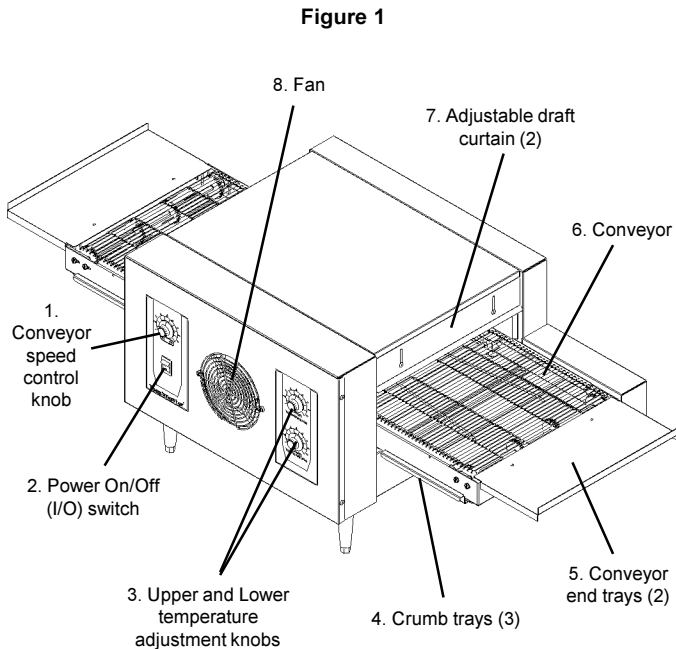
RETAIN THIS MANUAL FOR FUTURE REFERENCE

This manual provides detailed information for the installation and operation of your oven. It also contains information to assist the operator in diagnosing problems in the event of a malfunction. This manual is an important tool for the operator and should be kept readily available.

I. DESCRIPTION AND SPECIFICATIONS

A. Component Location

The major components of the oven are shown in Figure 1 below.



B. Component Function (see Figure 1)

- 1-3. Oven controls - see Section III, **Operation**.
4. Crumb trays - Collect crumbs from the food product. One tray is centered under the conveyor, while another is located under each end of the conveyor. All three trays can be removed for cleaning.
5. Conveyor end trays - Provide additional loading/exit space at the ends of the conveyor.
6. Conveyor - Transports the food product through the oven, between the top and bottom heating elements.
7. Adjustable draft curtains - Reduce draft into the oven and prevent heat loss into the environment.
8. Fan - Cools the interior components of the oven.

C. Oven Information

Pre-Heat Time: 10 minutes

NOTE: Electrical specifications are provided on the wiring diagrams at the back of this Manual.

A. INSTALLATION OPTIONS & KIT AVAILABILITY

IMPORTANT

IT IS THE CUSTOMER'S RESPONSIBILITY TO REPORT ANY CONCEALED OR NON-CONCEALED DAMAGE TO THE FREIGHT COMPANY.

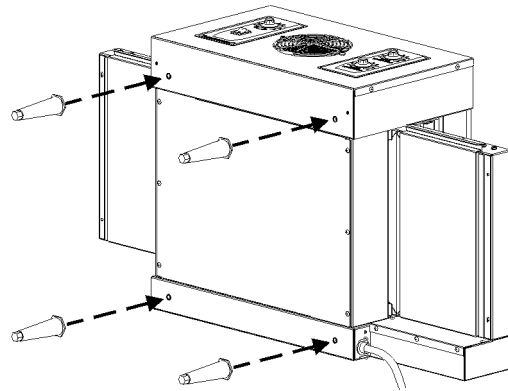
If the installation will require two or three ovens to be stacked, you must use the separately-available Stacking Kit (P/N T2114STACK). One Kit is required for a two-stack, while two kits are required for a three-stack. **Stacking more than three ovens is not permitted.**

Wherever the Stacking Kit's instructions are different from those listed below, follow the instructions provided with the Kit.

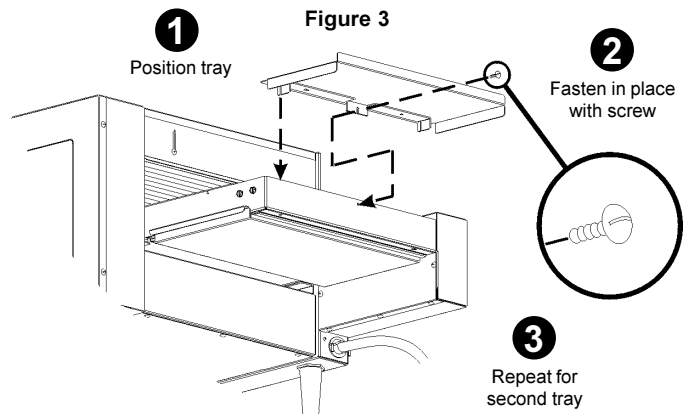
B. ASSEMBLY

1. **Installing the Legs** - see Figure 2.
 - a. Carefully tilt the oven onto its rear side. The front (controller) side should be facing directly upwards.
 - b. Thread the four legs into the four holes provided on the bottom of the oven. Tighten them until they are secure.

Figure 2



2. **Installing the Conveyor End Trays** - see Figure 3.
 - a. Press one of the conveyor end trays down over the end plate of the conveyor frame.
 - b. Fasten the end tray in place with one of the supplied 8-32x3/8" screws.
 - c. Repeat the above steps to install the second end tray at the opposite end of the conveyor frame.



CAUTION

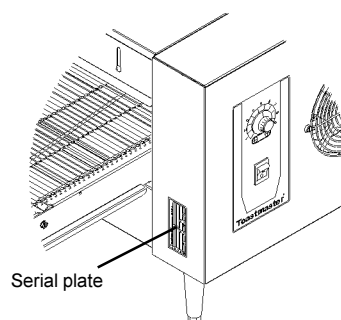
THE SUPPLIED LEGS AND THE END TRAYS MUST BE FASTENED IN PLACE BEFORE OPERATING THE OVEN.

C. ELECTRICAL CONNECTION

IMPORTANT

- *Wiring diagrams for the oven are provided at the back of this Manual.*
- *The electrical connection to the oven requires a circuit breaker/fused disconnect. Consult applicable IEC/CEE and local code requirements to determine the rating of the breaker/disconnect. Electrical specifications are listed on the oven's serial plate (shown in Figure 4) and on the wiring diagrams at the back of this Manual.*
- *The oven must be electrically grounded in accordance with current IEC/CEE and local code requirements. The location of the equipotential ground lug is shown in Figure 5.*
- *Consult all applicable IEC/CEE and local codes for further electrical connection requirements.*

Figure 4



1. Before proceeding with the electrical connection, check that the electrical supply matches the oven's requirements. Refer to the serial plate (Figure 4) and to the electrical specifications shown on the wiring diagrams at the back of this Manual.



WARNING

ENSURE THAT BOTH THE CIRCUIT BREAKER/FUSED DISCONNECT AND THE POWER ON/OFF (I/O) SWITCH ARE IN THE "O" (OFF) POSITION BEFORE PROCEEDING.

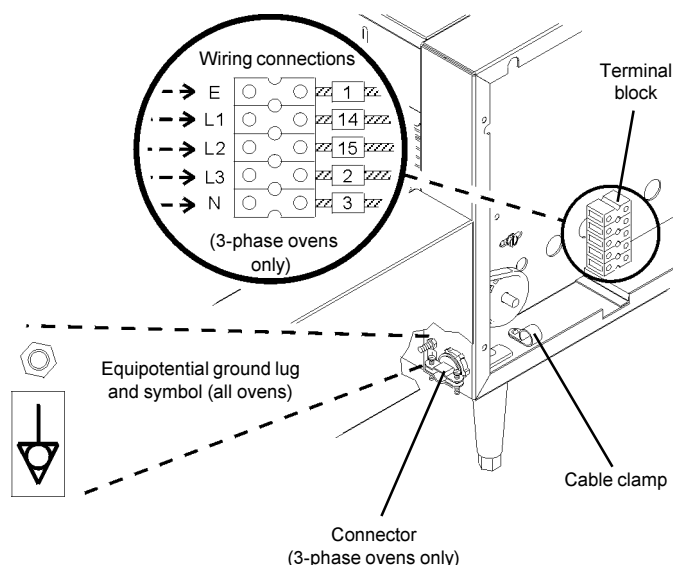


WARNING

ENSURE THAT ANY PACKING MATERIAL RESIDUE HAS BEEN REMOVED FROM INSIDE THE OVEN'S COOKING CHAMBER.

2. *Single-phase ovens only:*
 - Check that the appropriate receptacle is available for the power cord plug.
 - Insert the power cord plug into its receptacle.
3. *Three-phase ovens only:*
 - Remove the two screws that hold the rear cover panel in place; then, remove the cover panel.
 - Insert the end of the electrical supply through the connector shown in Figure 5.
 - Attach the electrical supply wires to their terminal block connections, as shown in Figure 5.
 - Secure the supply wires to the floor of the electrical compartment using the supplied cable clamp. The wires must not interfere with the drive chain and sprocket. See Figure 5.
 - Secure the supply as it passes through the connector on the outside wall of the oven.
 - Replace the rear wall of the oven and fasten it in place.
4. *All ovens:*
Connect an equipotential ground wire to the lug shown in Figure 5. The equipotential ground connection must meet current IEC/CEE and local code requirements.

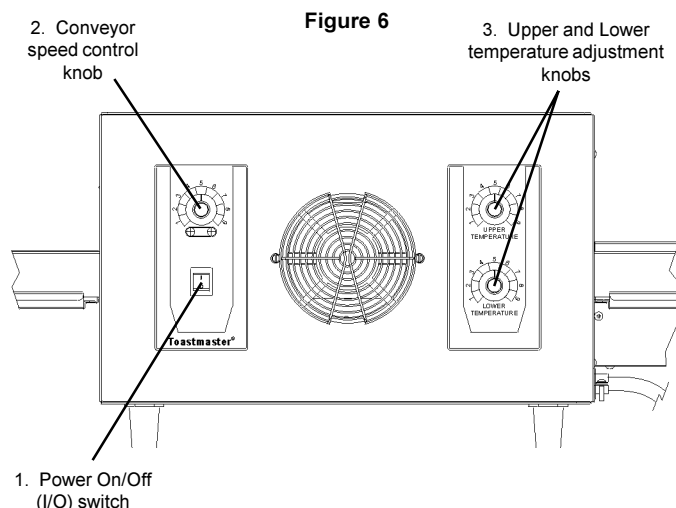
Figure 5



III. OPERATION

A. Location and Function of Controls

This section provides a basic description of the oven controls, their location, and the functions they perform. The operator **MUST** be familiar with the controls. Refer to Figure 6.



1. *Power On/Off (I/O) switch*
Switches the oven ON and OFF.
2. *Conveyor speed control knob*
Adjusts the speed of the conveyor. This controls the bake time.
 - "1" is the minimum speed setting, which produces the longest available bake time.
 - "9" is the maximum speed setting, which produces the shortest available bake time.
- 3-4. *Upper and Lower temperature adjustment knobs*
Adjust the temperature settings of the upper and lower heating zones.
 - "1" is the minimum temperature setting, which sets the heating zone to the lowest available temperature.
 - "9" is the maximum temperature setting, which sets the heating zone to the highest available temperature.

B. Operation Procedure

1. Adjust the position of the draft curtains at the ends of the cooking chamber (if necessary). This procedure is described in detail in Part D, *Draft Curtain Adjustment*, in this section.

IMPORTANT

When cooking at very high temperatures (a setting of "8" or higher on either temperature adjustment knob), the oven should be pre-heated for at least 10 minutes **WITH THE DRAFT CURTAINS IN THE FULLY-LOWERED POSITION**. After pre-heating, the curtains may be repositioned as required.

2. Restore electrical power to the oven at the circuit breaker/fused disconnect.
3. Switch the Power On/Off (I/O) Switch to the ON ("I") position.
4. Adjust the bake time (if necessary) by turning the conveyor speed control knob. Adjust the upper and lower temperature settings (if necessary) by turning the temperature adjustment knobs.
5. Allow the oven to pre-heat for at least 10 minutes.
6. Load the entrance end of the conveyor with the food product. The motion of the conveyor will move the food product into the cooking chamber.

C. Shutdown Procedure

1. Switch the Power On/Off (I/O) switch to the OFF ("O") position.
2. Wait for the oven's cooling fan to turn off.
3. Disconnect electrical power to the oven at the circuit breaker/fused disconnect.

D. Draft Curtain Adjustment

The draft curtains may need to be repositioned to provide adequate clearance for some food products. The curtains should be positioned to prevent drafts into the oven, and heat loss into the environment.

The draft curtains can be removed from the oven to permit the maximum vertical clearance above the conveyor.



WARNING

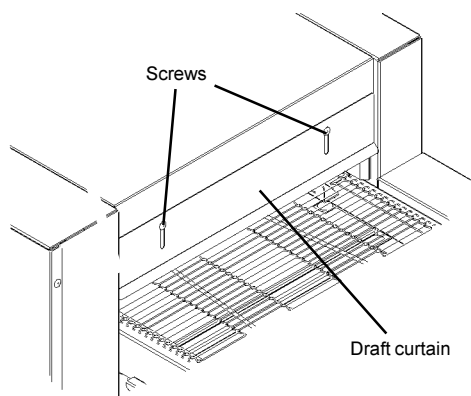
BEFORE ADJUSTING THE DRAFT CURTAINS, SWITCH THE POWER ON/OFF SWITCH TO THE OFF ("O") POSITION.

WHEN REPOSITIONING THE CURTAINS:

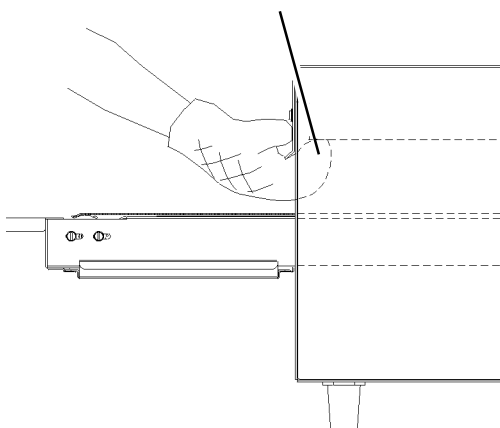
- **WEAR A HEAVY OVEN MITT.**
 - **DO NOT REACH INTO THE OVEN'S COOKING CHAMBER!**
- See Figure 7.

1. To reposition the draft curtains:
 - a. Loosen the two screws that hold the draft curtain in place.
 - b. Slide the curtain to the desired clearance above the conveyor.
 - c. Tighten the two screws to hold the curtain in place.
 - d. Repeat these steps for the curtain at the opposite end of the oven.
2. To remove the curtains from the oven:
 - a. Remove the two screws that hold the draft curtain in place.
 - b. Remove the draft curtain.
 - c. Repeat these steps for the curtain at the opposite end of the oven.

Figure 7



CAUTION - HOT
DO NOT
REACH INSIDE
COOKING CHAMBER!



E. Daily Cleaning



WARNING

WHEN CLEANING THE OVEN:

- **NEVER USE PRESSURIZED WATER.**
- **NEVER USE A CLEANING SOLUTION OTHER THAN SOAP AND WATER ON PORTIONS OF THE OVEN THAT COME INTO CONTACT WITH FOOD PRODUCTS. THESE AREAS INCLUDE THE CONVEYOR BELT AND END TRAYS.**
- **NEVER APPLY ENOUGH LIQUID TO STAND IN PLACE ON THE OVEN. LIQUID INSIDE THE OVEN WILL CAUSE A SEVERE ELECTRICAL HAZARD AND MAY OTHERWISE DAMAGE THE OVEN.**

CAUTION

DO NOT clean your oven using abrasive cleaners or pads. Both will scratch and dull the finish.

1. With the conveyor running, use a brush to clean any crumbs off the conveyor into the crumb trays.
2. Switch the Power On/Off (I/O) switch to the OFF ("O") position, and wait for the cooling fan to turn off.
3. Disconnect electrical power to the oven at the circuit breaker/fused disconnect.
4. Allow the oven to cool.



CAUTION - HOT SURFACES

DO NOT TOUCH HOT SURFACES ON THE OVEN, OR REACH INTO THE COOKING CHAMBER, UNTIL THE UNIT HAS COOLED THOROUGHLY.

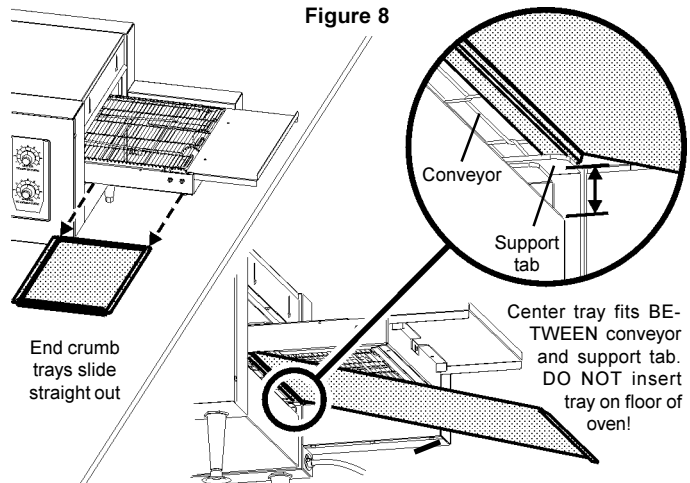
5. Clean the fan grill on the front of the oven using a stiff nylon brush.
6. Clean the end trays **USING SOAP AND WATER ONLY** and towel them dry. If necessary, the end trays can be removed for cleaning by removing the screws that hold them in place. See Figure 3 (in Section II).

IMPORTANT

If the end trays are removed for cleaning, they must be replaced prior to operating the oven.

7. Slide the end crumb trays out from underneath the entrance and exit ends of the conveyor. See Figure 8.

Figure 8

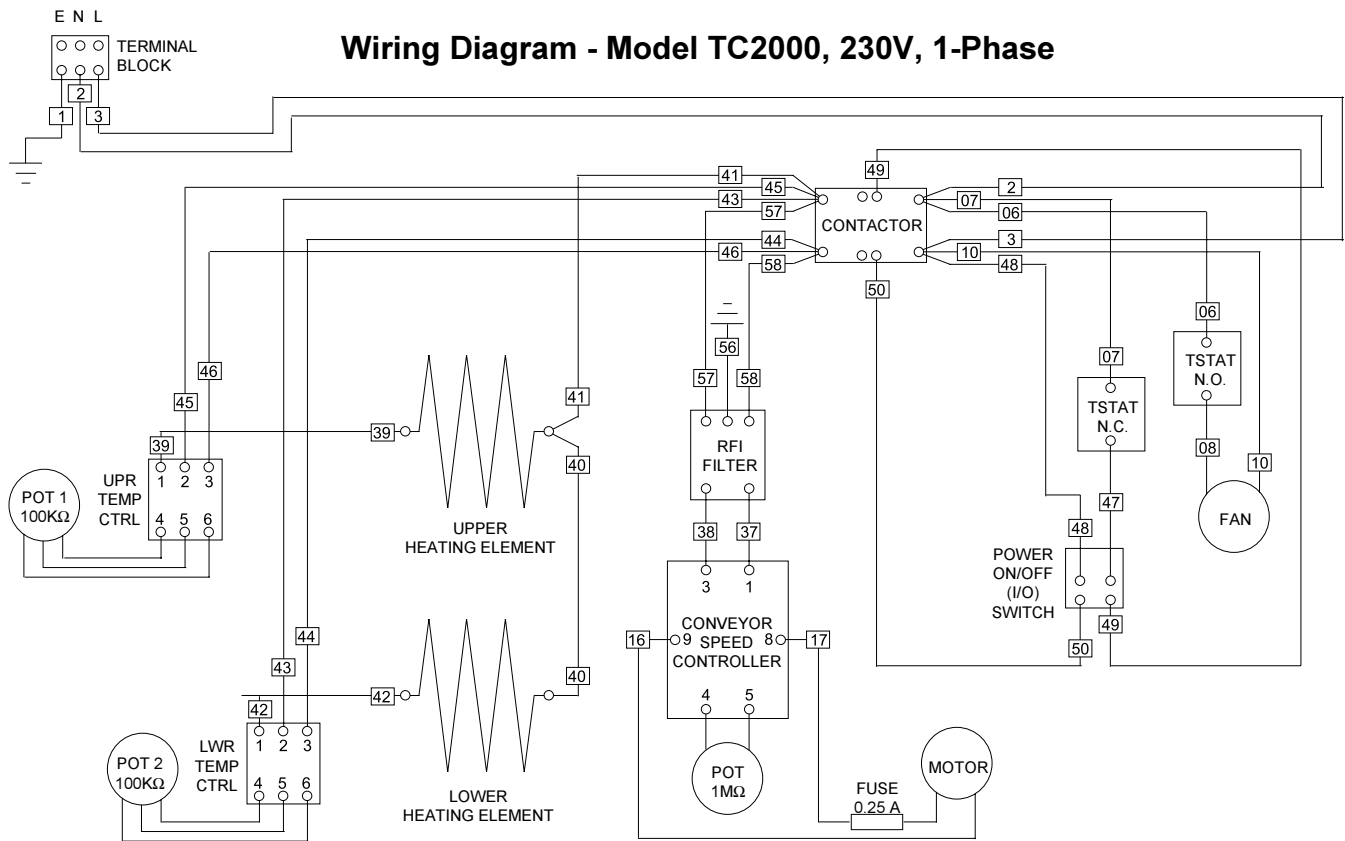


8. Lift **BOTH** ends of the center crumb tray; then, slide the tray out of either end of the oven.
9. Clean all three of the crumb trays using a commercial oven cleaner. If necessary, towel them dry.
10. Replace the center crumb tray in the oven as shown in Figure 8.

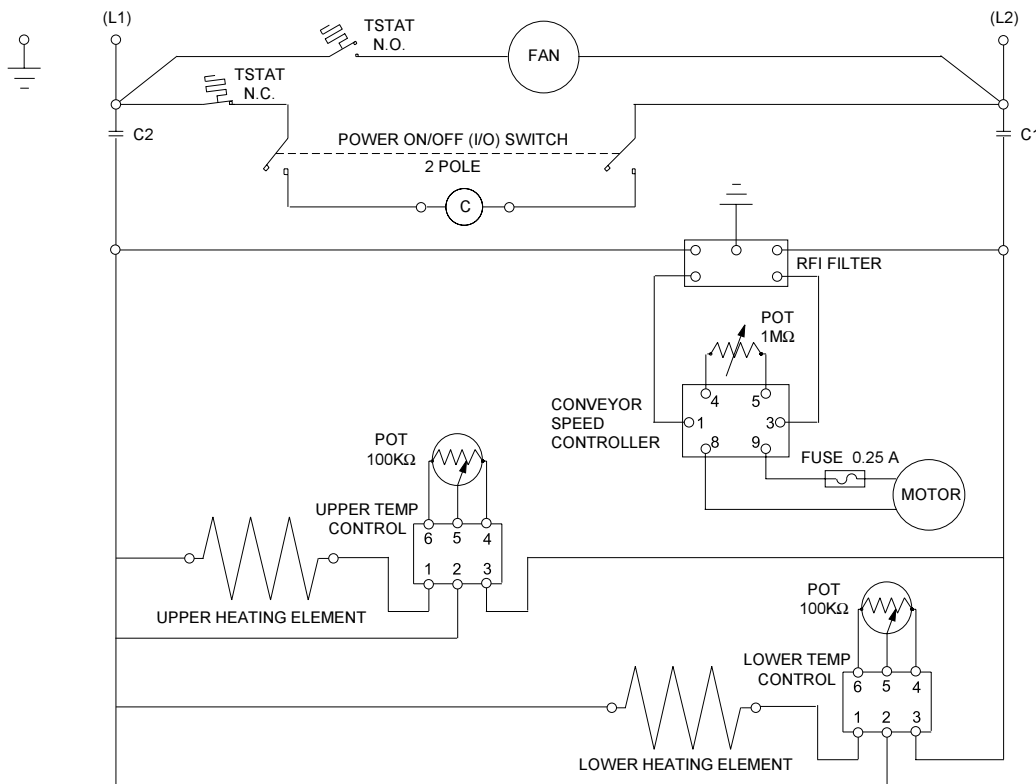
IMPORTANT

Proper positioning of the center crumb tray is REQUIRED for proper cooking. Ensure that the tray is replaced inside the conveyor frame, as shown in Figure 8, and NOT on the floor of the cooking chamber!

11. Replace the two end crumb trays.
12. Clean the outside of the oven using a damp cloth with **EITHER** soap and water **OR** a stainless steel cleaner. Use caution to ensure that liquids do not enter the oven during cleaning.



Electrical Schematic - Model TC2000, 230V, 1-Phase



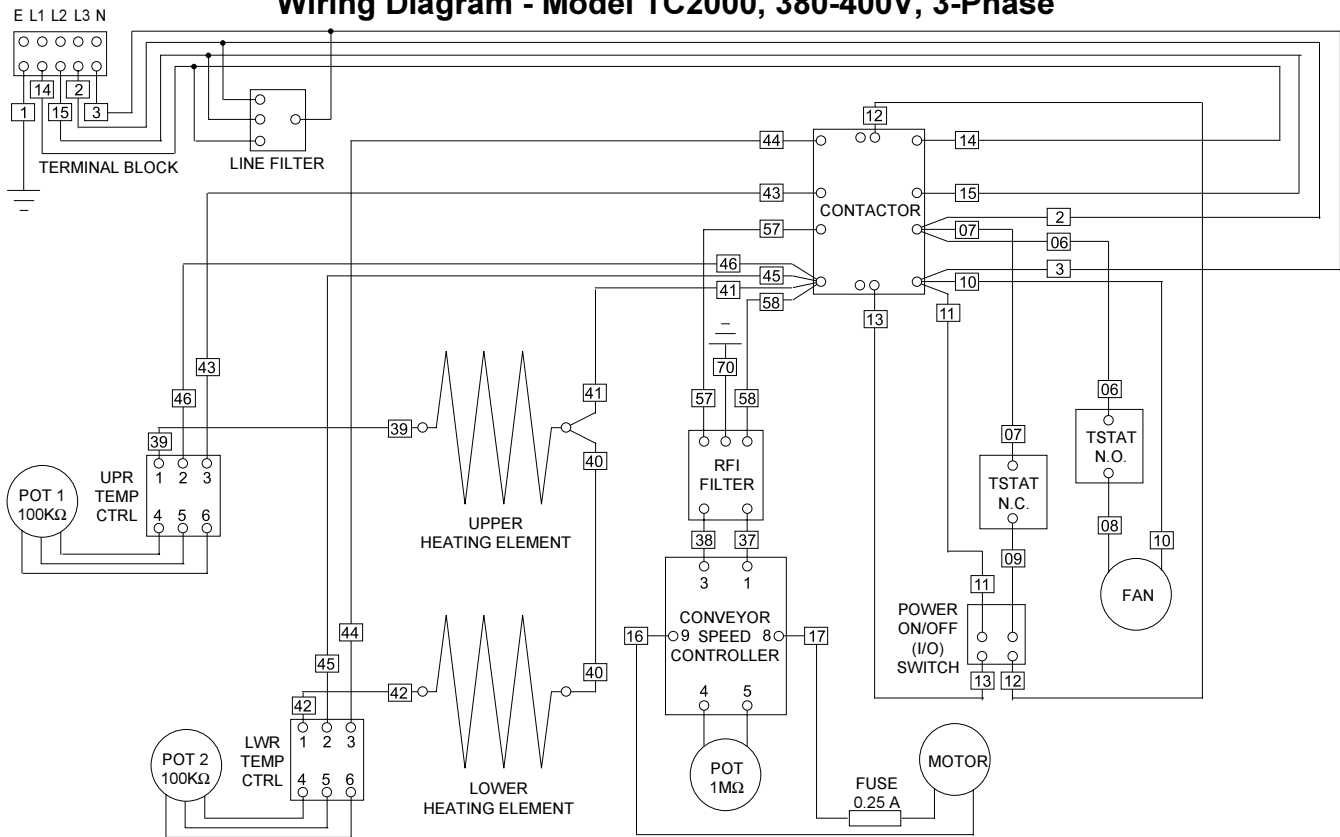
Electrical Specifications:

230V, 50Hz, 1 Ph,
5.0kW, 21.7A

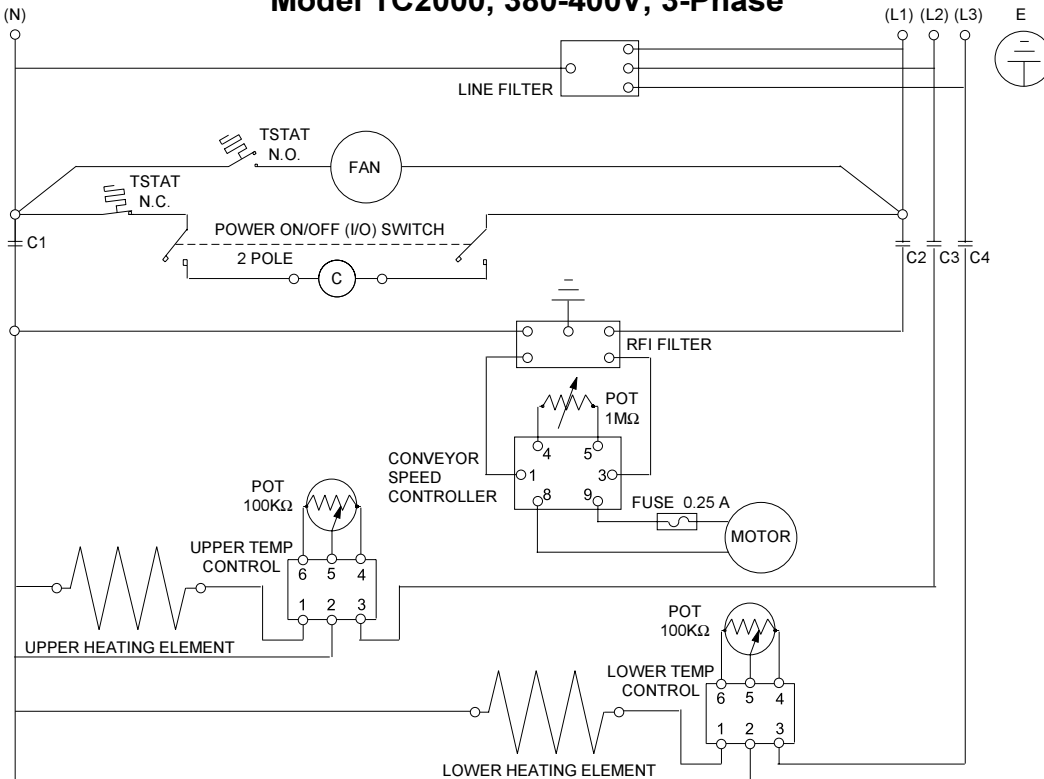
Cord and Plug Information:

Kabelmetal-type
HO7RN-F cord with
3 x 4,0mm conductors and
moulded-on IEC 309 plug.
Plug is rated 230VAC/32A.

Wiring Diagram - Model TC2000, 380-400V, 3-Phase



Electrical Schematic - Model TC2000, 380-400V, 3-Phase



Electrical Specifications:

380-400V, 50Hz,
3 Ph, 5.0kW

Current draw:

N 11.0A

L1 0.6A

L2 11.0A

L3 11.0A

Cord and Plug
Information: N/A

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