INSTRUCTIONS

MODEL HCN SERIES
ELECTRIC BAKE AND ROAST OVENS

MODELS

HCN51	*ML-43782*
HCN52	*ML-43783*
HCN53	*ML-43784*
HCN61	*ML-43785*
HCN62	*ML-43786*
HCN63	*ML-43787*
HCN44	*ML-43788*
HCN45	*ML-43789*
HCN46	*ML-43790*
HCN71	*ML-43791*
HCN72	*ML-43792*
HCN73	*ML-43793*

HOBART
CORPORATION
EXECUTIVE OFFICES
701 RIDGE AVENUE
TROY, OHIO 45374-0001

FORM 18488 (10-92)

Installation, Operation and Care of HCN SERIES ELECTRIC BAKE & ROAST OVENS

SAVE THESE INSTRUCTIONS

GENERAL

Your Hobart electric bake and roast ovens are available in one-, two-, or three-section units and may be installed with or without legs. Each oven section is a complete unit in itself and operates entirely independent of other sections.

Models HCN51, 52, & 53 are Bake ovens. Models HCN61, 62, & 63, are Roast ovens. Models 71, 72 & 73 are Pizza Ovens. Bake and roast ovens may be combined to provide versatility. Models HCN44, 45 & 46 are combinations of the bake and roast oven.

Model numbers can have the following suffixes:

T - Top Oven
M - Middle Oven
B - Bottom Oven
P - Pizza Oven

Tubular heating elements are located at the top of the oven chamber and under the deck. Removable decks are of one-piece steel construction and provide even heat throughout the entire deck surface. The heat is applied to the product inside the oven by conduction (through the bottom deck) and radiation (through the exposed top heating elements).

INSTALLATION

Before installing the oven, verify that the electrical service agrees with the specifications on the data plate located on the front frame flange below the control panel. If the supply and equipment requirements do not agree, do not proceed with the installation. Contact your dealer or local Hobart Service Office immediately without proceeding to the next step.

UNPACKING

Immediately after unpacking the oven,check it for possible shipping damage. If the oven is found to be damaged after unpacking, save the packaging material and contact the carrier within 15 days of delivery.

INSTALLATION CODES AND STANDARDS

In the United States, your Hobart oven must be installed in accordance with state and local codes, or in the absence of local codes, with the National Electrical Code ANSI/NFPA-70 (latest edition).

In Canada, your Hobart oven must be installed in accordance with local codes, or in the absence of local codes, with the Canadian Electrical Code Part 1, CSA Standard C22.1 (latest edition) available from The Canadian Standards Assn., 178 Rexdale Blvd., Rexdale, Ontario, Canada M9W 1R3.

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ASSEMBLY

1. Locate the ovens as close to the installation location as possible.

2. Uncrate bottom deck and base section.

3. Uncrate legs and fasten legs to base section with the hex head bolts, nuts and washers provided.

4. If there are two sections of oven, uncrate the top oven; if there are three sections, uncrate the middle oven.

5. Place the base section in its installation position if sufficient work access area exists, or as near its installation position as possible. Place a piece of 1" lumber (approximately 1" x 4" x 60") across the top of the base section.

6. Lift the middle or top oven up onto the base section. Slide the oven forward until the tabs (Fig. 1) on the body sides engage behind the base section front top.

7. Remove the lumber and lower the rear of the oven onto the base section. Make sure that the vent stacks engage properly.

8. Fasten sides to base section front with the flat head bolts (Fig. 1) provided. Fasten backs with sheet metal screws (Fig. 1) provided.

9. Repeat Steps 4 through 8 to install top deck of a three-section oven.

10. If oven is not in place, move it to its final installed position.

When installing a new oven section without base on a previously installed oven section or sections, the main top should be removed and the new deck installed as in Steps 4 through 8. The main top should then be reinstalled, making sure that the vent stack engages with the vent cover and that the two long screws (Fig. 1) are replaced halfway along the main top sides.

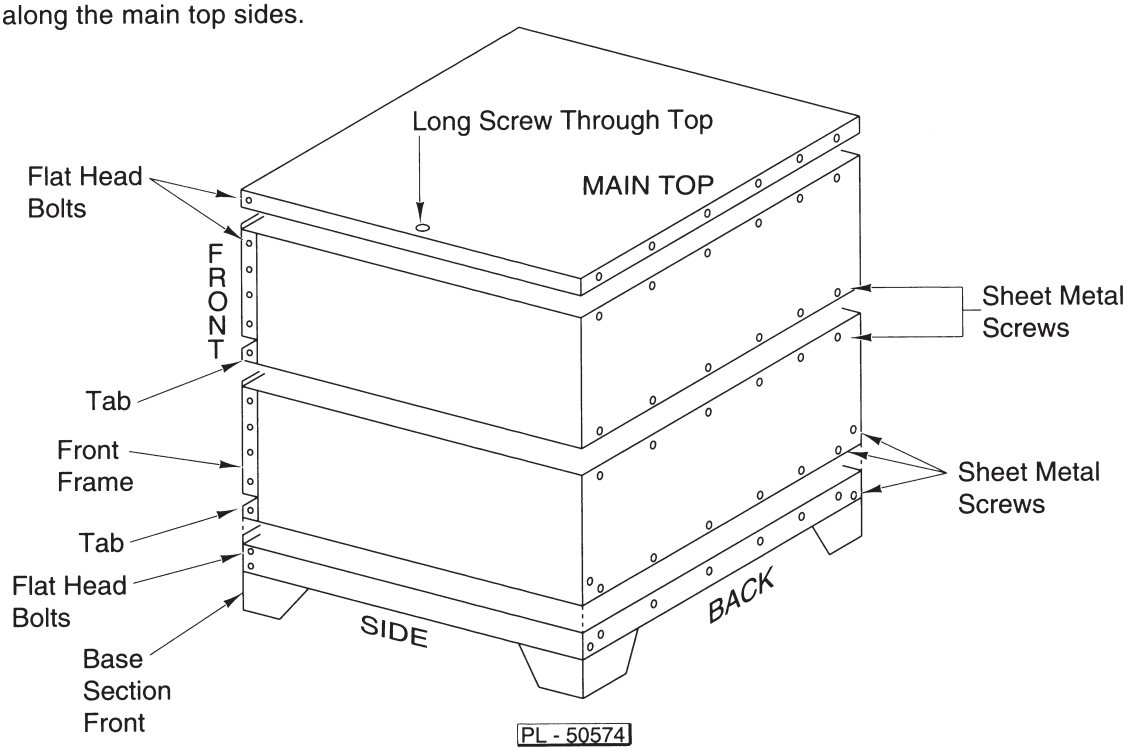

Fig. 1

LEVELING

Using a 24" level, check on the top oven deck, inside the oven, that the ovens are level. Level oven to within 1/8" front-to-back and side-to-side by turning the adjustable feet. If oven is not equipped with adjustable feet, level by using metal shims under the legs or at oven base corners.

ELECTRICAL CONNECTIONS

WARNING: ELECTRICAL AND GROUNDING CONNECTIONS MUST COMPLY WITH THE APPLICABLE PORTIONS OF THE NATIONAL ELECTRICAL CODE AND/OR OTHER LOCAL ELECTRICAL CODES.

WARNING: DISCONNECT ELECTRICAL POWER SUPPLY AND PLACE A TAG AT THE DISCONNECT SWITCH TO INDICATE YOU ARE WORKING ON THE CIRCUIT.

Ensure that the electrical supply agrees with the specifications on the data plate before making wiring connections.

Bring conduit containing the proper supply wire to the oven. Select the size and type of field wire in accordance with National Electrical Code suitable for carrying the equipment's rated amps and voltage. Use field wires suitable for 75°C on ovens carrying more than 80 amps. The conduit can be brought into the oven either through the clearance hole in the back and terminated on the bracket behind the breaker box, or from the bottom of the oven and terminated on the main bottom beneath the terminal block.

Connect the supply leads to the field terminal block, and the green, grounded lead to the labeled ground lug.

On multiple deck ovens, bring the leads connected to the terminal block and the 2-pole porcelain block (on ovens equipped with lights) of the top section through the hole between the ovens and connect them to the lower section ovens as shown in the wiring diagram located on the control panel cover of each specific model.

The oven is now ready for operation. Turn the supply voltage on, the thermostats to mid positions, the 3-heat switches to HI position and measure the amp reading in each line. Compare the amp reading you obtained with the expected nominal values shown in the table on the wiring diagram mounted to the back of the switch panel cover. With proper installation, the two values should match very closely.

When installing a new oven section without base on a previously installed oven section or sections, the wiring from the decks to the terminal block should be rearranged to conform with the diagram for the arrangement which then exists. Check to ensure that the electrical service to the ovens is sufficient for the added load.

ELECTRICAL DATA CHART

NOMINAL AMPS PER LINE WIRE

ALL MODEL OVENS															
No. of Ovens	3 Phase									1 Phase		Total Conn KW	3 Phase Loading		
	208V			240V			480V			208V	240V		KW Per Phase		
	X	Y	Z	X	Y	Z	X	Y	Z				X-Y	Y-Z	X-Z
1	30	18	18	26	15	15	14	7.5	7.5	35	30	7.2	3.6	—	3.6
2	30	45	45	26	39	39	14	20	20	69	60	14.4	3.6	7.2	3.6
3	60	60	60	52	52	52	26	26	26	104	90	21.6	7.2	7.2	7.2

OPERATION

WARNING: THE OVENS AND THEIR PARTS ARE HOT. USE CARE WHEN OPERATING, CLEANING OR SERVICING THE OVENS.

CONTROLS (Fig. 2)

Two 3-Heat Switches - 4-position switches (OFF, LOW, MEDIUM, HIGH) that independently control the top and bottom heating elements for each oven section.

Thermostat - maintains overall interior temperature. Temperature ranges are as follows:

Model	Temperature Range
HCN51, 52, 53 Bake Ovens	150-550°F
HCN61, 62, 63 Roast Ovens	150-550°F
HCN71, 72, 73 Pizza Ovens	300-700°F

Signal Light - when lit, indicates heating elements are providing heat to the oven.

Timer - a 60-minute timer is provided on each oven section.

Damper Control Knob - mounted on each section and regulates moisture and releases cooking vapor through a vent.

Oven Light Switch (in all except pizza ovens) - turns interior oven lights on and off.

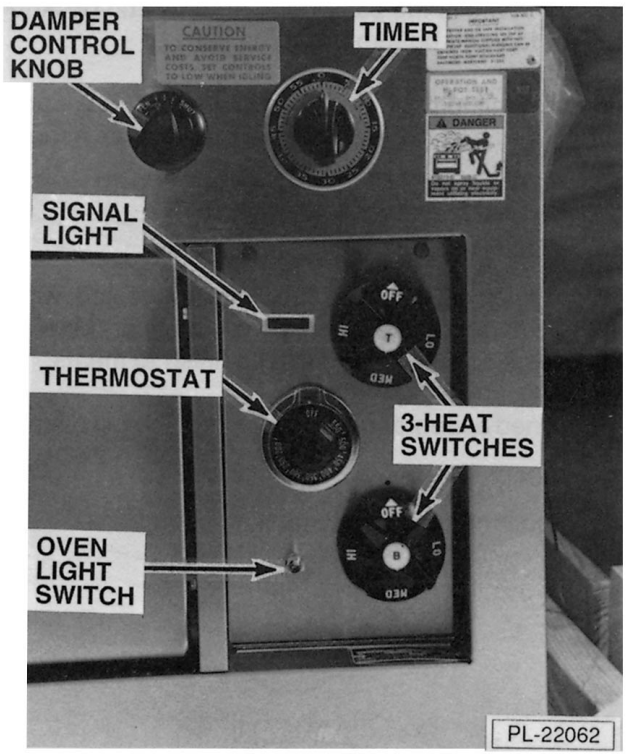

Fig. 2

BEFORE FIRST USE

Clean oven decks with a soft brush.

To release any paint fumes or moisture content, set the thermostat at 300°F and the 3-heat switches to MEDIUM. Allow ovens to operate for 6 to 8 hours with the damper wide open.

PREHEATING

Set both top and bottom 3-heat switches to HIGH and the thermostat to the temperature desired. The signal light will light and remain lit until the selected temperature is reached. Keep the door and damper closed while preheating.

Preheat time to 350°F is about 20 minutes. To ensure optimum heat saturation of the oven chamber, allow approximately an additional 20 minutes before loading.

LOADING THE OVEN

Load product quickly to prevent heat loss from the open oven door. Position pans in rows from rear to front of oven, starting from the right wall. Pans should not touch each other or the walls of the oven; at least 2" clearance is needed to permit air circulation between and around pans.

COOKING

Close oven door and set timer to desired cooking time. Where intermediate oven racks are used for baking (in all-purpose ovens), it is usually necessary to increase the bottom 3-heat switch setting and the time. If both rack and deck are loaded, it may be necessary to move the pans (rack-to-deck and deck-to-rack) when baking is one-half to two-thirds done to obtain desirable top and bottom browning.

Keep door opening during baking to a minimum for best product results. Bake and roast ovens are provided with a light and a door window which may be used to check baking progress as necessary.

MEAT ROASTING

A balanced oven and 3-heat switch position of HIGH and HIGH are suggested, with the temperature control setting at the low temperature of 225-325°F, as recommended by the American Meat Institute and the Department of Agriculture. High top heat results in well colored or carmelized finish to meats.

When roasting fowl and a heavily browned appearance is not desired, the top oven switch should be set at MEDIUM or LOW.

The use of a meat thermometer is recommended for all roasting operations.

OPERATING HINTS

Preheat to cooking temperature.

Avoid excessive door opening; also avoid direct air current on oven.

Load oven decks to capacity at one time (small loads are uneconomical).

Keep lower edge of door free of charred food particles.

Clear decks of carbonized foods after each loading.

Start day's baking with products that require the lowest temperature.

Do not connect oven vent to exhaust ducts.

Do not open damper more than necessary to carry off steam; this may cause uneven baking.

Do not use thermometers to measure oven heat. If performance is not satisfactory, have the oven checked by your local Hobart servicer.

CLEANING

WARNING: DISCONNECT ELECTRICAL POWER SUPPLY BEFORE CLEANING.

Stainless steel oven fronts may be cleaned with a damp cloth. Stubborn soil may be removed with detergent.

Clean porcelain oven linings and door linings with an oven cleaner compound or with a cloth dampened with detergent solution. Rinse thoroughly and dry with a soft clean cloth.

Inspection and light windows may be cleaned in the same manner as the oven liner or with a mild abrasive. Scouring powder should be used only with great care. It will scratch and fog the glass, and it is easy to build up accumulations of excess scouring powder which can damage the oven and is extremely difficult to remove.

Silvertone surfaces may be cleaned with a cloth dampened with detergent solution. Rinse thoroughly and dry with a soft clean cloth.

Steel decks may be removed and scoured at the sink. After scouring, coat the steel decks lightly but thoroughly with oil and allow to season in the oven at 450°F for 30 minutes to an hour. This seasoning will lessen sticking of spillage and inhibit rust.

Brush and scrape oven deck plates regularly. A combination oven brush and scraper does a good job. **Pizza ovens only:** Turning the deck every 30 days will keep it clean looking.

Spillage is more easily removed if lightly sprinkled with salt and the oven heated to 450°F for approximately 30 minutes.

TROUBLESHOOTING GUIDE

Unsatisfactory browning of the products baked is often caused by incorrect installation or operation. The most common problems and their causes are listed below.

PROBLEM	CAUSES
Bottom of product burned - top light, or vice versa	1. Incorrect switch positions. Use next lowest position for overbrowned surface and/or next highest for light surface. 2. Oven heated to temperature above proper baking temperature and insufficient time allowed for cooling. Approximate cooling times for 25°F drop with door open: Tile Deck: 25 Min.; Steel Deck: 10 Min. 3. Products placed on rack at chart-suggested switch setting. Suggested switch settings are for pans directly on deck. 4. Baking on both rack and deck in roast ovens without switching pans when half done (see COOKING in this manual). 5. Baking at consistently high temperatures.
Light sides, back, or front	1. Frequent door opening. 2. Insufficient preheat time to saturate oven, or insufficient time allowed when increasing temperature for different product. 3. Pans touching oven sides or back. Place pans not less than two inches from sides and three inches from door.
Light front and dark back	1. Frequent door opening during baking period. Inspect products through glass in door with inspection light. Establish baking time and leave door closed until time has elapsed. 2. Excessive hooding pulling too much air through vent system. 3. Drafts blowing directly on oven front.
Uneven or spotty browning	1. Warped or dented pans. 2. Accumulation of spillage on deck. 3. Oven deck not level. 4. Pans of different finish or color.