

electromechanical control convection ovens

HOBART

FOOD EQUIPMENT

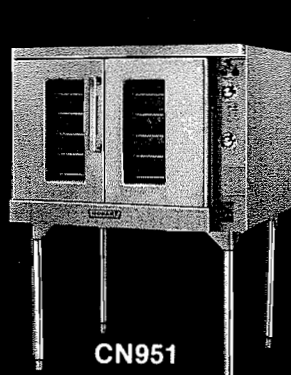
models CN901-CN904,
CN951, CN952 (36" deep)
CN911-CN914 (44" deep)

Installation & Owner's Manual



ENERGY GUIDE

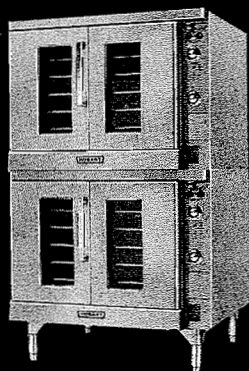
- **PREHEAT TO 350F:**
 - 10 min. (CN90 & CN95 Series)
 - 6 min. (CN91 Series)
- **watts to hold 350F**
 - 1800 (CN90 & CN95 Series)
 - 2100 (CN91 Series)



CN951

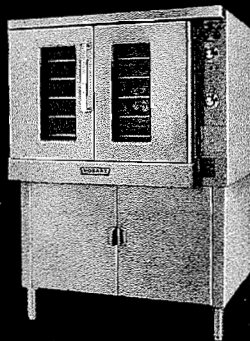
CN901 CN911

CN915 (external view similar)

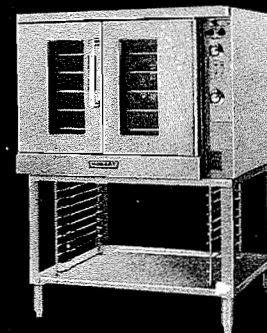


CN952

CN902 CN912



CN903 CN913



CN904 CN914

GENERAL

Congratulations on owning this fine quality product. Its many modern features will make your business day a little more pleasant. Though some of these conveniences are obvious, please read this entire booklet for important, helpful information.

MODEL DESCRIPTIONS

STANDARD (36" deep)

- **CN901** - 1 basic CN90 section on CX280 25 $\frac{3}{4}$ " legs
- **CN902** - 2 basic CN90 sections on 8" CX281 leg & stack set
- **CN903** - 1 basic CN90 section on CA15 storage cabinet with CX112 6" legs
- **CN904** - 1 basic CN90 section on CX286 storage stand with CX112 6" legs

ECONOMY (36" deep)

- **CN951** - 1 basic CN95 section on 25 $\frac{3}{4}$ " legs
- **CN952** - 2 basic CN95 sections on 8" CX281 leg & stack set

DEEP (44" deep)

- **CN911** - 1 basic CN91 section on CX280 25 $\frac{3}{4}$ " legs
- **CN912** - 2 basic CN91 sections on 8" CX281 leg & stack set
- **CN913** - 1 basic CN91 section on CA16 storage cabinet with CX112 6" legs
- **CN914** - 1 basic CN91 section on CX337 storage stand with CX112 6" legs
- **CN915** - 1 basic CN91 section (less racks & rack supports) on CX338 16-5/8" legs (for reheating prepackaged foil containers in school lunch programs - can be converted to conventional operation with addition of racks and rack supports)

INSTALLATION INSTRUCTIONS

GENERAL & DIMENSIONAL DATA

MODEL	OVERALL EXTERNAL DIMENSIONS						COMPARTMENT'S INTERNAL DIMENSIONS						APPROX. WEIGHTS			
	W		D		H		W		D		H		SHIP		NET	
	IN.	MM.	IN.	MM.	IN.	MM.	IN.	MM.	IN.	MM.	IN.	MM.	LBS.	KILOS	LBS.	KILOS
CN901, CN951	38	965	36	914	54.5	1384	29.25	743	20	508	20	508	491	223	471	214
CN902, CN952	38	965	36	914	65.5	1664	29.25	743	20	508	20	508	952	432	912	414
CN903	38	965	36	914	54.5	1384	29.25	743	20	508	20	508	615	279	595	270
CN904	38	965	36	914	54.5	1384	29.25	743	20	508	20	508	588	267	568	258

MODEL	OVERALL EXTERNAL DIMENSIONS						COMPARTMENT'S INTERNAL DIMENSIONS						APPROX. WEIGHTS			
	W		D		H		W		D		H		SHIP		NET	
	IN.	MM.	IN.	MM.	IN.	MM.	IN.	MM.	IN.	MM.	IN.	MM.	LBS.	KILOS	LBS.	KILOS
CN911	38	965	44	1118	54.50	1384	29.25	743	28	711	20	508	555	252	535	243
CN912	38	965	44	1118	65.50	1664	29.25	743	28	711	20	508	1065	483	1040	472
CN913	38	965	44	1118	54.50	1384	29.25	743	28	711	20	508	710	322	690	313
CN914	38	965	44	1118	54.50	1384	29.25	743	28	711	20	508	680	308	660	299
CN915	38	965	44	1118	45.38	1153	29.25	743	28	711	20	508	470	213	450	204

RACK DATA (Pan Capacities Shown For Single Rack)

MODEL	NO. STD. RACKS	STD. RACK SPACING		NO. OPTIONAL RACKS	11 RACK SPACING		RACK SIZE		9" / 229 MM. OD PIE TINS	#200 PANS	18" x 26" / 457 x 660 MM./PANS
		IN.	MM.		IN.	MM.	IN.	MM.			
CN901 CN951	5	2.87	73	6	1.25	32	27.5 x 20	698 x 508	6	2	1
CN902 CN952	10	2.87	73	12	1.25	32	27.5 x 20	698 x 508	6	2	1
CN903	5	2.87	73	6	1.25	32	27.5 x 20	698 x 508	6	2	1
CN904	5	2.87	73	6	1.25	32	27.5 x 20	698 x 508	6	2	1

MODEL	NO. STD. RACKS	STD. RACK SPACING		NO. OPTIONAL RACKS	11 RACK SPACING		RACK SIZE		9" / 229 MM. OD PIE TINS	#200 PANS	18" x 26" / 457 x 660 MM./PANS
		IN.	MM.		IN.	MM.	IN.	MM.			
CN911, CN913, CN914	5	2.88	73	6	1.25	32	27.5 x 28	699 x 711	9	2	1
CN912	10	2.88	73	12	1.25	32	27.5 x 28	699 x 711	9	2	1
CN915	SPECIAL ORDER ONLY. (Racks/supports convert device to conventional convection oven.) Cavity accepts 14 compartmentalized baskets, each w/capacity of 10 individual school lunch foil packs.										

Fig. 1

ELECTRICAL DATA

MODEL	TOTAL KW	3 PHASE LOADING KW PER PHASE						NOMINAL AMPS PER LINE WIRE											
		208, 240V			480V			3 PHASE						1 PHASE					
		L1-L2	L2-L3	L1-L3	L1-L2	L2-L3	L1-L3	L1	L2	L3	L1	L2	L3	L1	L2	L3	208V	240V	480V
CN901, CN903 CN904, CN951	11.0	3.35	3.35	4.30	4.33	3.33	3.33	32.0	27.9	32.0	27.7	24.2	27.7	13.9	12.0	13.9	52.8	45.8	22.9
CN902, CN952	22.0	6.70	6.70	8.60	8.66	6.66	6.66	64.0	55.8	64.0	55.4	48.4	55.4	27.8	24.0	27.8	105.6	91.6	45.8

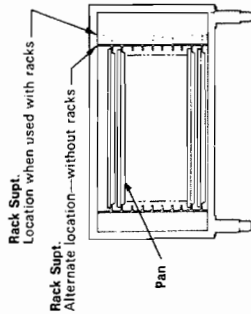
MODEL	TOTAL KW	208-240V 3-PHASE LOADING			NOMINAL AMPERES PER LINE WIRE									480V 3-PHASE LOADING			NOMINAL AMP. PER LINE WIRE			
		KW PER PHASE			3-PHASE						1-PHASE			KW PER PHASE			3-PHASE			1-PHASE
		L1-L2	L2-L3	L1-L3	L1	L2	L3	L1	L2	L3	L1	L2	L3	208V	240V	L1-L2	L2-L3	L1-L3	L1	L2
CN911, 913 CN914, 915	17.65	6.67	6.67	4.33	46.1	55.5	46.1	40.0	48.1	40.0	84.9	73.5	5.16	4.16	8.32	24.6	16.9	22.9	36.8	
CN912	35.30	11.0	13.3	11.0	91.6	101.5	101.5	79.4	87.9	87.9	169.8	147.0	10.3	12.5	12.5	41.2	41.2	45.1	73.6	

Standard voltages are 208, 240, 480 VAC one or three-phase, 60 HZ. The phase of the power system to which an oven model covered by this specification is to be connected must be specified. The ovens leave the factory wired for 3-phase connection and depending on the model may or may not be convertible for 1-phase. Refer to Table 1 or the applicable wiring diagram.

Fig. 2

CA15, CA16 CABINET & CX286, CX337 OPEN STAND

Alternate method of storing pans (Rack supts. & Pans, without racks)



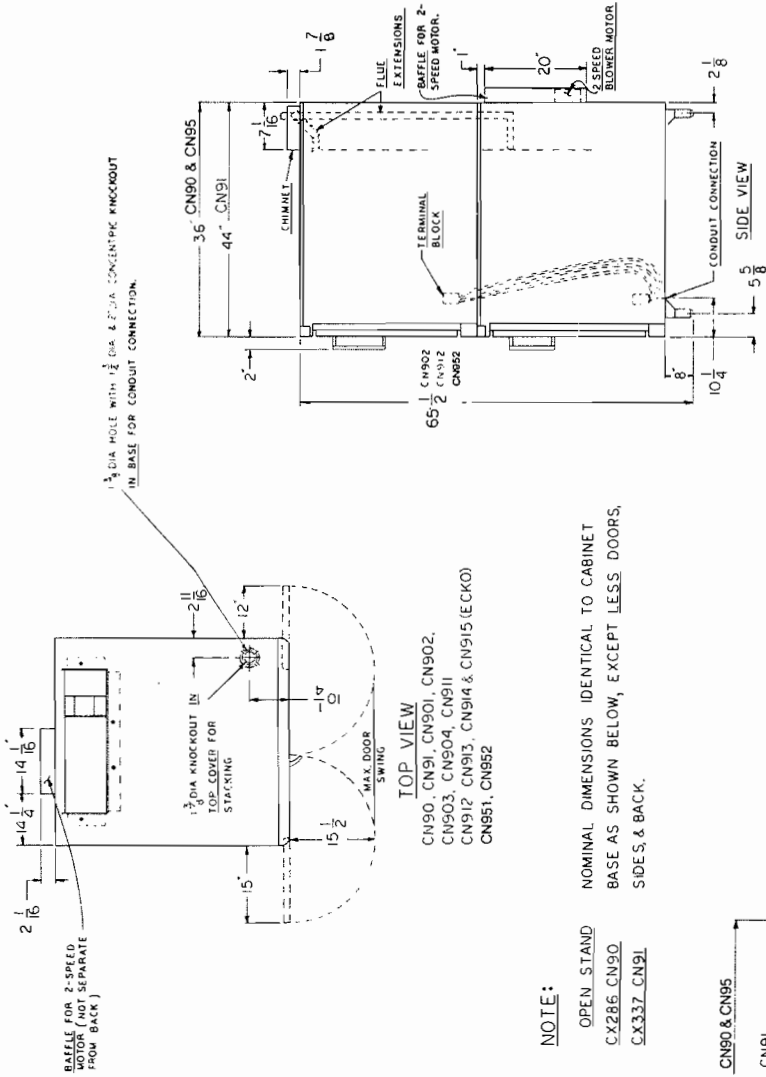
1. Remove pans & racks (if presently utilized).
2. On right side of cabinet or stand, grasp rack support near bottom on runners. Lift runners to top of bottom rack support. Move bottom section of rack support to left. Lower top section of rack support to permit disengagement at top.
3. To relocate the right-hand rack support in its alternate position, insert top of rack support in holes provided at top. Insert bottom of rack support in holes provided in shelf. To lock, lower rack support into position, approx. 1/4" downward.
4. Pans may now be stored on runners of rack supports.

- NOTES:**
1. Components (second oven, cab. base, open stand, legs) shipped disassembled. Electrical connections are made in the field.
 2. To allow motor ventilation and longer motor life) basic oven section (CN90, CN91, CN95) must be mounted on 8" minimum height legs, storage stand, cabinet base, or modular stand.

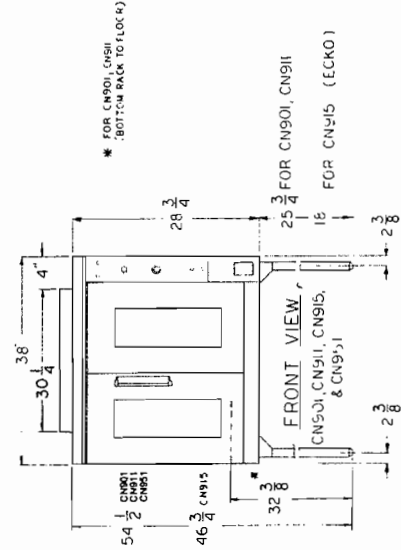
3. Open stand, CX286, CX337 nominal dimensions identical to cabinet base CA15, CA16 except for motor and blower.
4. Special order equipment includes 2-speed motor for blower (extends 2 1/16" beyond oven back) and 5-hour manual timer.
5. Do not install closer to a wall than: sides — .50 in., back — 0 in.

NOTE:
OPEN STAND
CX286, CN90
CX337, CN91
NOMINAL DIMENSIONS IDENTICAL TO CABINET
BASE AS SHOWN BELOW, EXCEPT LESS DOORS,
SIDES, & BACK.

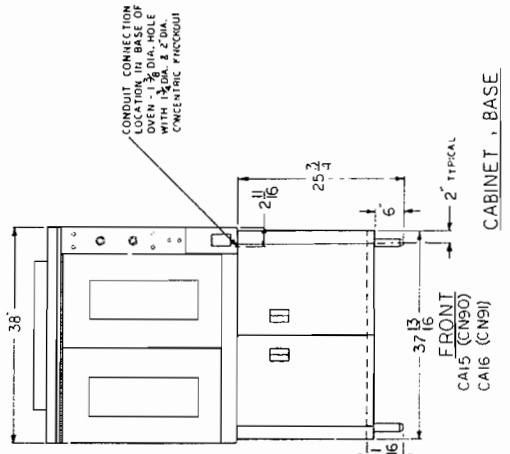
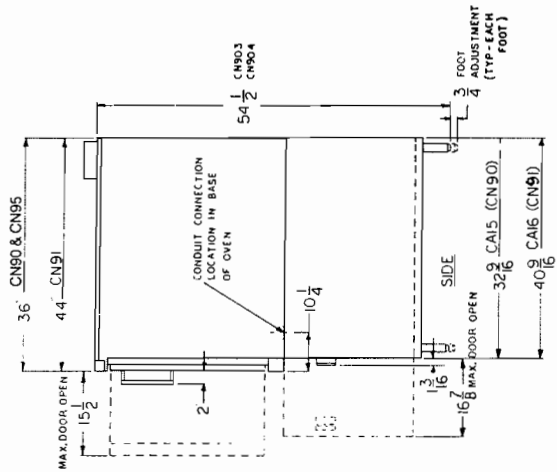
TOP VIEW
CN90, CN91, CN901, CN902,
CN903, CN904, CN911
CN912, CN913, CN914 & CN915 (ECKO)
CN951, CN952



CN902: 2 CN90 OVENS STACKED
CN912: 2 CN91 OVENS STACKED
CN952: 2 CN95 OVENS STACKED



CN901: CN90 OVEN ON CX280 LEGS
CN911: CN91 OVEN ON CX280 LEGS
CN915: CN91 OVEN ON CX338 LEGS
CN951: CN95 OVEN ON CX280 LEGS



CN903: CN90 OVEN ON CA15 CABINET BASE
CN913: CN91 OVEN ON CA16 CABINET BASE

Fig. 3 - Floor Plan 54D107389

INSTALLING BASIC SECTIONS [CN90, CN91, CN95]

These basic sections must be installed on legs - unless they are mounted on a Hobart modular stand. Installations on concrete bases or other supports restricting air circulation on the bottom will void the warranty. If a modular stand is ordered, the oven section must be set on the stand after being uncrated.

All devices must be grounded in accordance with requirements of the National Electrical Code or applicable local code.

INSTALLING SINGLE-SECTION OVENS [CN901, CN903, CN904, CN911, CN913, CN914, CN915, CN951]

■ ASSEMBLING THE LEGS TO THE OVEN

1. Unpack the oven and leg set.
2. Position the oven on its back, taking care not to scratch it.
3. Attach each of the four leg assemblies to the bottom of the oven with the twenty-four bolts and lockwashers.
4. Place the oven in its normal attitude, on its legs, and lower it in the installing position.

■ FOR INSTALLING ON CABINET BASE OR STAND

1. Uncrate oven and stand.
2. Screw two locating studs (found in cabinet base or stand carton) into bottom of basic section (Fig. 4).
3. Mount basic section (Fig. 4).

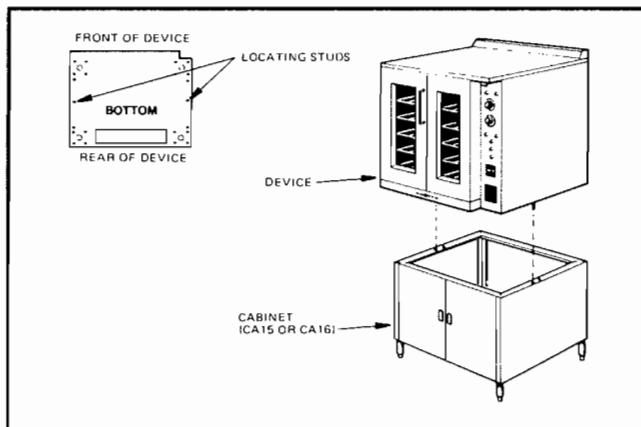


Fig. 4 — Installation of basic oven on cabinet - (procedures identical for installing open stand, CX286 or CA15 or CA16).

■ ASSEMBLING THE DECORATIVE CHIMNEY & FLUE EXTENSION

Remove the oven chimney and flue extension from the rear of the oven (motor compartment) and utilizing the screws provided, fasten the chimney to the top rear of the oven.

NOTE: *The flanges on the chimney are to be positioned under the top cover. Also attach the flue extension as shown on the floor plan.*

■ ELECTRICAL CONNECTIONS (See Fig. 13 thru 23)

1. Insure that the voltage stamped on the oven nameplate matches the available power supply.
2. Remove the wiring compartment cover on the front of the oven (the lower portion of the control panel). Remove the appropriate knock-out on the bottom of the oven and attach the power-supply conduit to the bottom of the oven. Devices must be grounded in accordance with requirements of the National Electrical Code or applicable local code.
3. Not all models are field convertible from one to three phase power. The following table identifies which models are.

CONVECTION OVEN MODELS AND PHASE CONNECTIONS

MODEL NO.	INVOLVES:	208, 240 1 & 3 PH	480 1 & 3 PH	208, 240 1 PH	208, 240 3 PH
CN90 CN901 CN903 CN904	1 OVEN	X	X		
CN902	2 OVENS		X		X
CN91 CN911 CN915 CN913 CN914	1 OVEN		X	X	X
CN912	2 OVENS		X		X
CN95 CN951	1 OVEN	X	X		
CN952	2 OVENS		X		X
		Are field convertible for either 1 or 3 phase power connections.		Are not field convertible to a phase different than what is shown.	

TABLE 1

4. Refer to the appropriate wiring diagram and the phase connection information on it, for making proper line connections to the terminal block.

Interconnection of Stacked Ovens

In a stack arrangement, the two ovens are interconnected with wires provided in the stack set.

The appropriate wiring diagrams should be referred to for proper wiring of the various oven configurations and voltage/phase characteristics.

5. Replace the wiring compartment cover, and energize the power supply.

■ LEVELING

Using a spirit level — adjust the legs to insure that the oven racks are level in the final installed position.

INSTALLING DOUBLE-SECTION OVENS [CN902, CN912, CN952]

■ INITIAL ASSEMBLY

1. Insure that the voltages stamped on the ovens match the power-supply voltage.
2. Uncrate the leg-stack set.
3. Position one oven on its back so that access can be made to the oven bottom. Attach the four leg assemblies with the twenty-four bolts and lockwashers provided.
4. Place this lower oven in its normal position and remove the two 7/16 inch diameter knock-outs on each side of the top cover plus the 1-3/8" diameter knock-out at the right front of the top cover.
5. Install the two locating studs, included in the leg-stack set, into the screw plates on the under side of the upper oven.

■ ASSEMBLING THE DECORATIVE CHIMNEY & FLUE EXTENSION

Remove oven chimneys stored at the rear of both ovens. Discard one chimney. Attach the remaining chimney to the top of the upper oven (without legs).

NOTE: *The flanges on the chimney are to be positioned under the top cover.*

■ FINAL ASSEMBLY

1. Move the oven with legs to the installation position and place the second oven on top of it. Remove the wiring compartment cover from the front of both ovens. Also unfasten the control panel (of the lower oven only) and carefully pull forward. This will facilitate routing the power leads (furnished) to the top oven, as well as attaching the one-inch conduit nipple and lock nut (also furnished).
2. Attach the short flue extension over the exhaust vent at the rear of the upper oven. Slide the long flue extension tube over the exhaust vent at the rear of the lower oven. These extensions should point up and direct the exhaust fumes upwards through and above the top oven.

3. Place the one-inch conduit nipple down thru the 1-3/8" hole in the bottom of the top oven and the top of the bottom oven and clamp the two ovens together with the locknut from the underside.

■ ELECTRICAL CONNECTIONS

1. Attach the power leads to the line side (lower terminals) of the terminal block of the upper oven. Then carefully route these leads (furnished as part of the stack set) down through the conduit nipple and behind the control panel of the lower oven.
2. Attach these leads to the lower oven terminal block per wiring diagram. At the same time attach the power supply conduit to the bottom of the lower oven. Also attach the power supply leads to the line side (lower terminals) of the terminal block. Devices must be grounded in accordance with requirements of the National Electrical Code or applicable local code.
3. Finally, inspect and check all wiring and terminal connections for tightness and proper routing away from any moving parts (relay solenoid core), or pinch points (cover and oven frame). Then carefully replace the lower oven control panel and wiring compartment covers for both ovens.

NOTE: *Only one power-supply connection is necessary for both ovens.*

When devices have to be stacked in the field, electrical inter-connections have to be made in the field.

■ LEVELING

Using a spirit level — adjust the legs to insure that the oven racks are level in the final installed position.

INSTALLING OPTIONAL LINER KITS

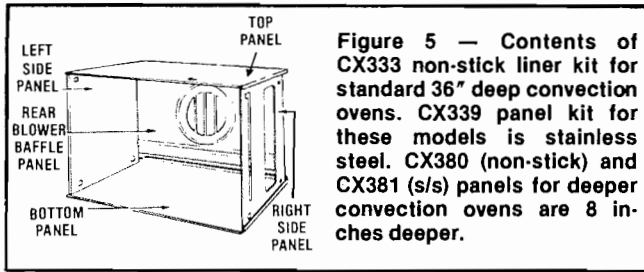


Figure 5 — Contents of CX333 non-stick liner kit for standard 36" deep convection ovens. CX339 panel kit for these models is stainless steel. CX380 (non-stick) and CX381 (s/s) panels for deeper convection ovens are 8 inches deeper.

■ TOOLS REQUIRED

5/16" Hex nut driver, Phillips and common screwdriver.

The CX333 liner kit components (and related CX339, CX380 and CX381 components) are identified above. Please follow the sequence shown below to install these liner panels. NOTE: handle the non-stick panels carefully to prevent marring the finish.

■ STEPS TO ADDING PANELS

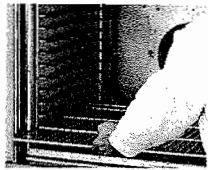


Fig. 6

1. Turn power OFF.
2. Remove *all racks* by pushing down slightly on front of rack top to disengage the positive rack rear locking. When rack back is raised to clear, pull straight out as shown in Fig. 6.

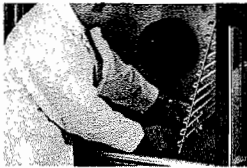


Fig. 7

3. Remove both *left and right rack guides* by lifting them straight up and tilting the bottom of the guides toward the oven center and pulling out, as shown in Fig. 7.

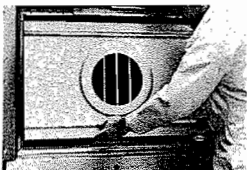


Fig. 8

4. Remove aluminized steel *back blower baffle panel* by lifting straight up, then pulling forward and out. Tilt slightly from left to right to clear side brackets as shown in Fig. 8. Discard this blower baffle panel.

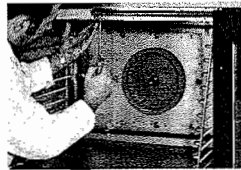


Fig. 9

5. Install *top panel* by inserting screws (3 screws in front, 2 in back) and screwing tight to top of oven interior, as shown in Fig. 9.



Fig. 10

6. Install *new non-stick back blower baffle panel* by tilting the panel slightly from left to right to clear the side rack guide brackets as shown in Fig. 10. Then press panel up against the oven's back interior. Lift and lower panel until it rests on blower baffle supports. No screws are required.

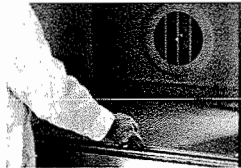


Fig. 11

7. Install *bottom panel* by lifting over rack guide brackets and pushing straight in as shown in Fig. 11.

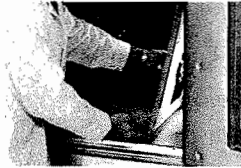


Fig. 12

8. Install *left and right side panels* placing the cut-out notches over light bank (right panel) thermostat bulb guard (right panel) and rack guide support brackets (right and left panels). Fig. 12.

■ REASSEMBLY OF RACK GUIDES AND RACKS

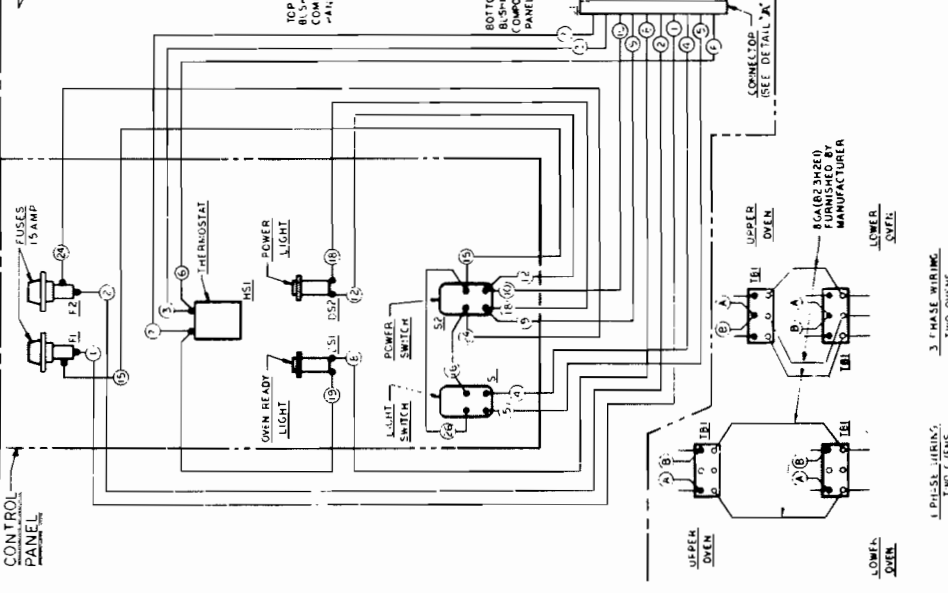
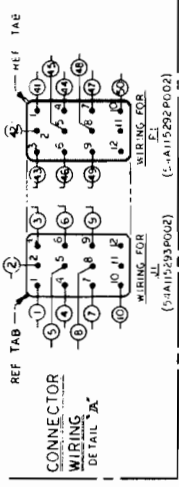
Now that you have the liner panels in place, complete the following steps and your convection oven will be ready for use.

1. Return the *left and right rack guides* by inserting them in support brackets (reverse procedure in Figure 7).
2. Return *racks* by inserting them in rack guides (reverse procedure in Figure 6).

208 OR 240VAC, 60HZ - 1ØR3 PHASE

FOR CONTROL PANEL LEAD SET ASSY SEE: 548115294601
 FOR OVEN LEAD SET ASSY SEE: 548115294602
 FOR COMPONENT PANEL LEAD SET ASSY SEE: 548115294609
 FOR STACKING DEVICES LEAD SET ASSY SEE: 548115294613

- NOTES:**
1. RECOMMENDED INDIVIDUAL BRANCH CIRCUIT WIRE SIZE (MIN.) TO BE 7 (18 AWG) COPPER, UNLESS AS FOLLOWS:
 1 OVEN - 1 PHASE - 14 GA.
 2 OVENS - 1 PHASE - 14 GA.
 1 OVEN - 3 PHASE - 14 GA.
 2 OVENS - 3 PHASE - 14 GA.
 2. WIRING SHOWN FOR 3 PHASE, FOR 1 PHASE MOVE LEAD TO "L" TERMINAL AND LEAD "A" TO "L1" TERMINAL ON TERMINAL BLOCK.
 3. LEAD ITEM NUMBERS TO BE THE SAME AS LEAD MARKER NUMBERS.
 4. LEAD INFORMATION:
 #1 GA. B23H2C1 - LEADS: 29,34,35 & 38
 #2 GA. B23H2A3 - LEADS: 33,36,37,39 & 40
 #3 GA. B23H2C4 - LEADS: 1-3,6,9,10,15,24,28,41-43,46,47 & 49,50
 #4 GA. B23H2C2 - LEADS: 4,7,9,16,26,31,44 & 45
 #8 GA. B23H2C2 - LEADS: 0,12,18,19 & 48



TOTAL KW PER PHASE	3 PHASE LOADING			NOMINAL AMPS PER LINE WIRE		
	1 PHASE	3 PHASE	240V	240V	208V	208V
11.0	3.35	3.35	4.36	17.1	17.1	21.3
22.0	6.70	6.70	8.60	34.2	34.2	42.6
				35.4	35.4	43.8
				44.4	44.4	54.8
				55.4	55.4	68.5

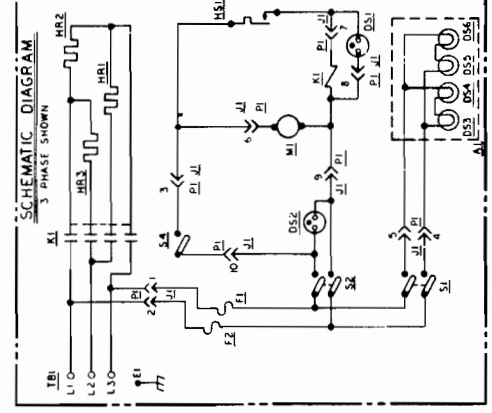


Fig. 13 — Wiring Diagram, CN90 Series - Models CN901, CN902, CN903, CN904 (11 KW) 1-speed motor, 208/240 VAC, 60 Hz, 3-phase - 54D118836

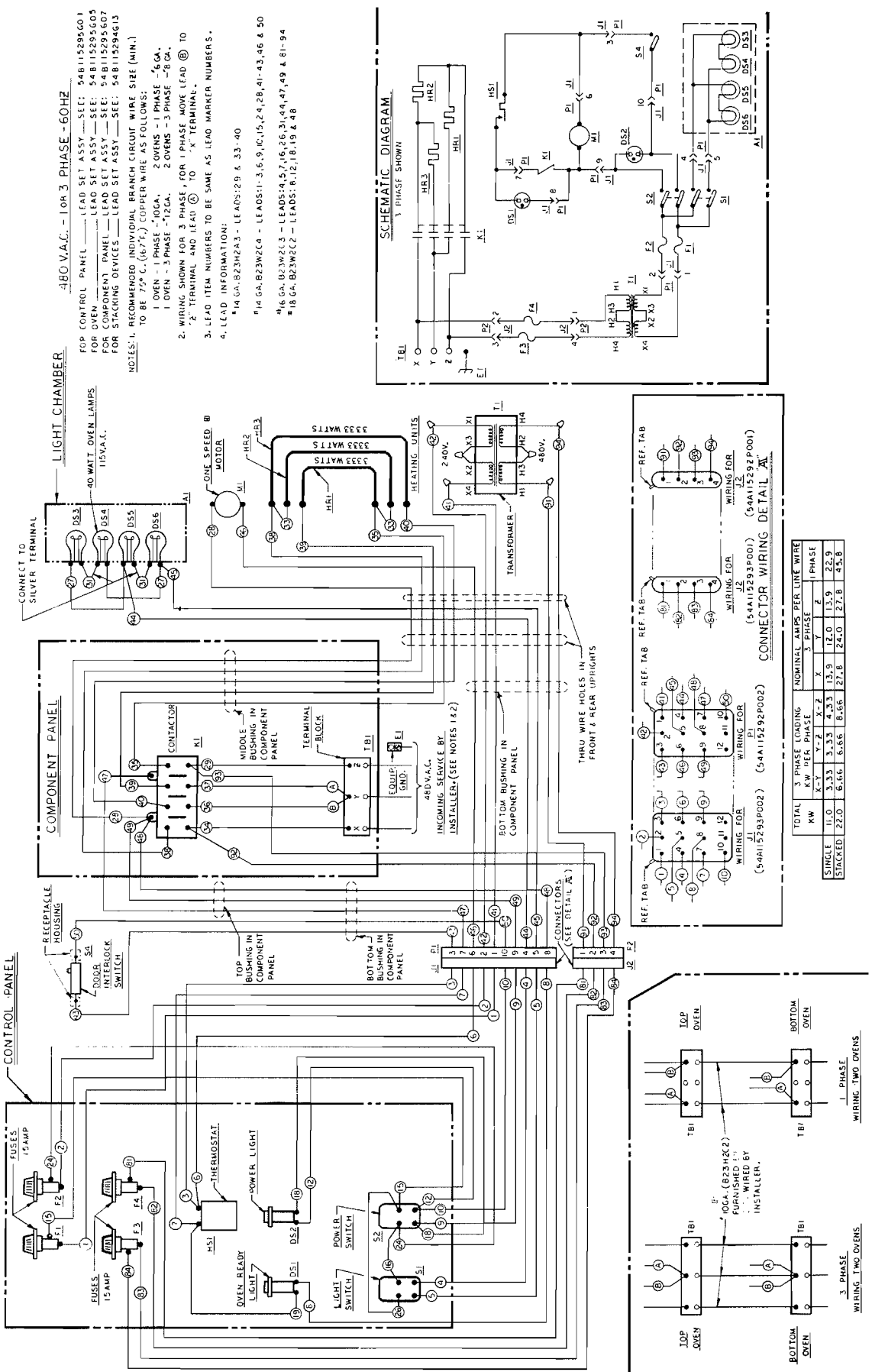
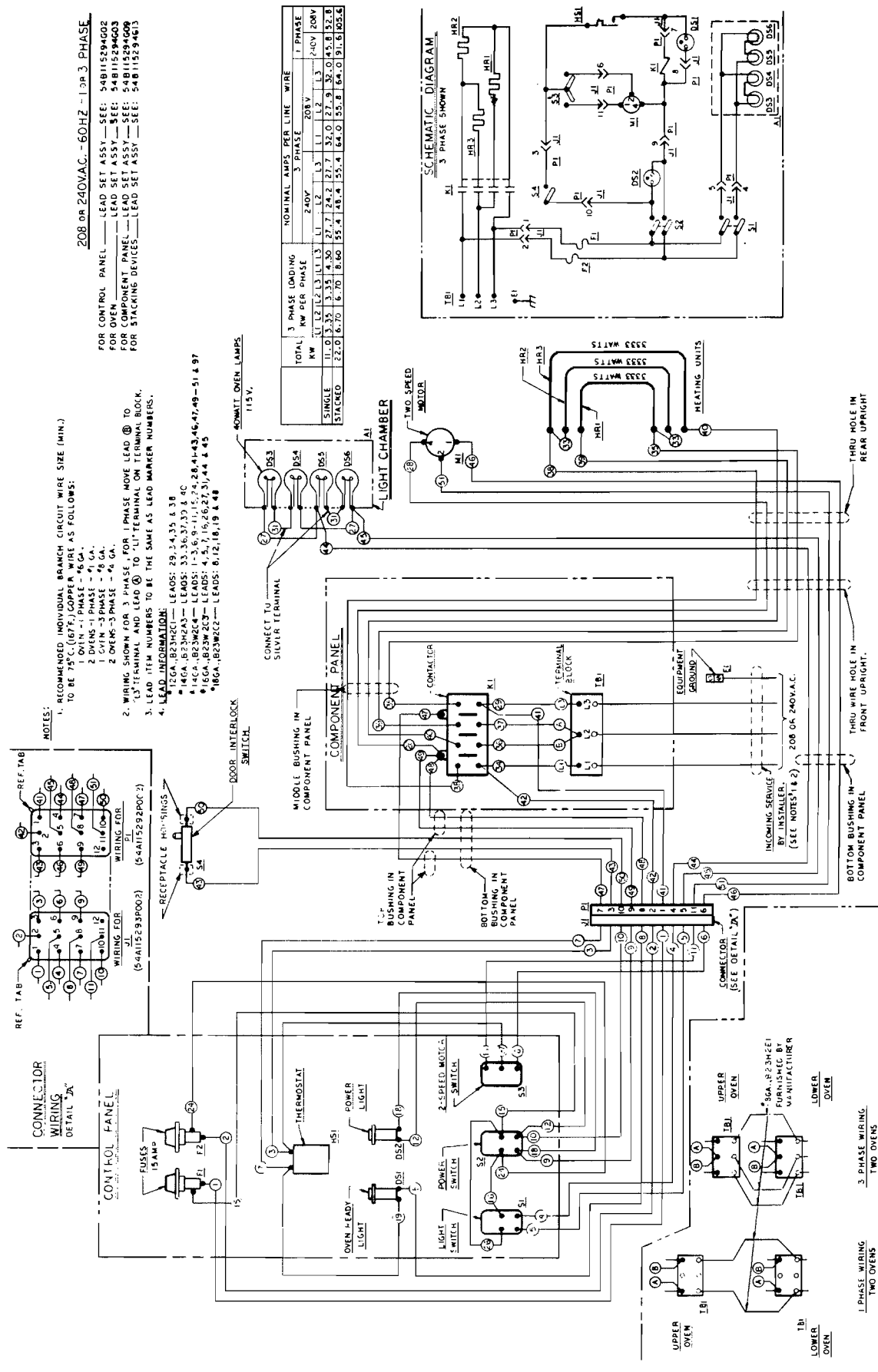


Fig. 14 — Wiring Diagram, CN90 Series - Models CN901, CN902, CN903, CN904 (11 KW) 1-speed motor, 480 VAC, 60 Hz, 1 or 3-phase - 54D115160



208 OR 240VAC - 60HZ - 1 or 3 PHASE

FOR CONTROL PANEL — LEAD SET ASSY — SEE: 548115294G02
 FOR OVEN — LEAD SET ASSY — SEE: 548115294G03
 FOR COMPONENT PANEL — LEAD SET ASSY — SEE: 548115294G09
 FOR STACKING DEVICES — LEAD SET ASSY — SEE: 548115294G13

- NOTES:
1. RECOMMENDED INDIVIDUAL BRANCH CIRCUIT WIRE SIZE (MIN.) TO BE 75 CIRCULAR MILS AS FOLLOWS:
 2 OVENS - 1 PHASE - #16 GA.
 2 OVENS - 1 PHASE - #18 GA.
 2 OVENS - 3 PHASE - #18 GA.
 2 OVENS - 3 PHASE - #16 GA.
 2. WIRING SHOWN FOR 3 PHASE, FOR 1 PHASE MOVE LEAD TO 'L1' TERMINAL AND LEAD TO 'L1' TERMINAL ON TERMINAL BLOCK.
 3. LEAD ITEM NUMBERS TO BE THE SAME AS LEAD MARKER NUMBERS.
 4. LEAD INFORMATION:
 #12 GA. - B23H2C1 — LEADS: 29, 3, 4, 35 & 38
 #14 GA. - B23H2A3 — LEADS: 33, 36, 37, 38 & 40
 #16 GA. - B23H2B5 — LEADS: 1, 5, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45
 #18 GA. - B23H2E2 — LEADS: 0, 12, 18, 19 & 44

TOTAL KW	3 PHASE LOADING KW PER PHASE			NOMINAL AMPS PER LINE WIRE		
	1 PHASE	2 PHASE	3 PHASE	240V	208V	1 PHASE
SINGLE	11.0	3.5	3.5	11.3	11.3	1.7
STACKED	22.0	6.70	6.70	22.7	22.7	3.5
				8.60	55.4	64.0
				55.4	64.0	55.8
				64.0	55.8	64.0
				55.8	64.0	91.0
				64.0	91.0	55.8

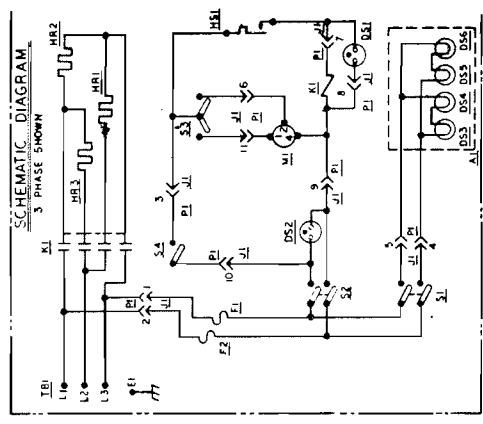


Fig. 15 — Wiring Diagram, CN90 Series - Models CN901, CN902, CN903, CN904 (11 KW) 2-speed motor, 208/240 VAC, 60 Hz, 1 or 3-phase - 54D118835

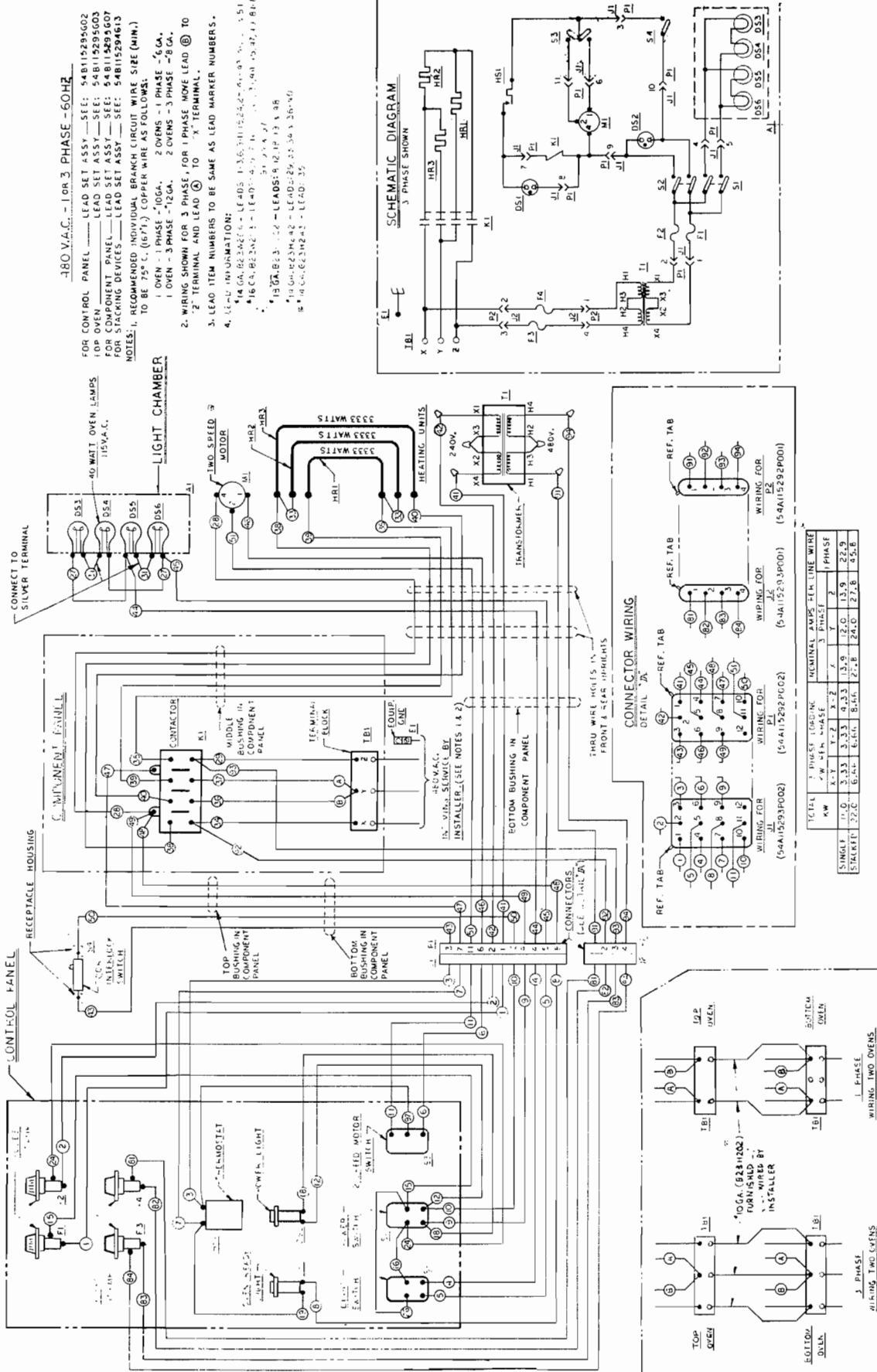


Fig. 16 — Wiring Diagram, CN90 Series - Models CN901, CN902, CN903, CN904 (11 KW) 2-speed motor, 480 VAC, 60 Hz, 1 or 3-phase - 54D115157

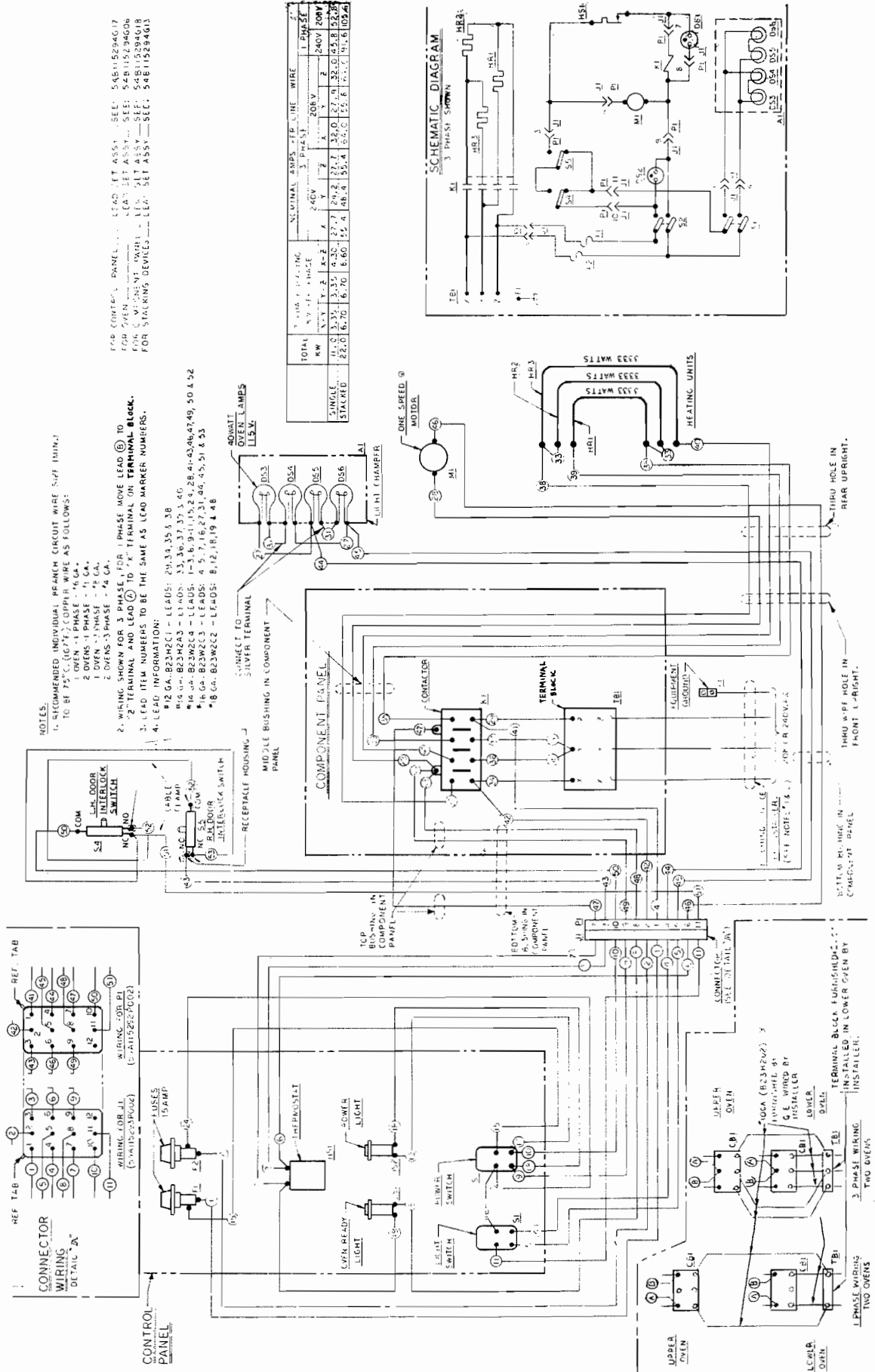


Fig. 17 — Wiring Diagram, CN95 Series - Models CN951, CN952 (11 KW) 1-speed motor, 208/240 VAC, 60 Hz, 1- or 3-phase - 54D118768

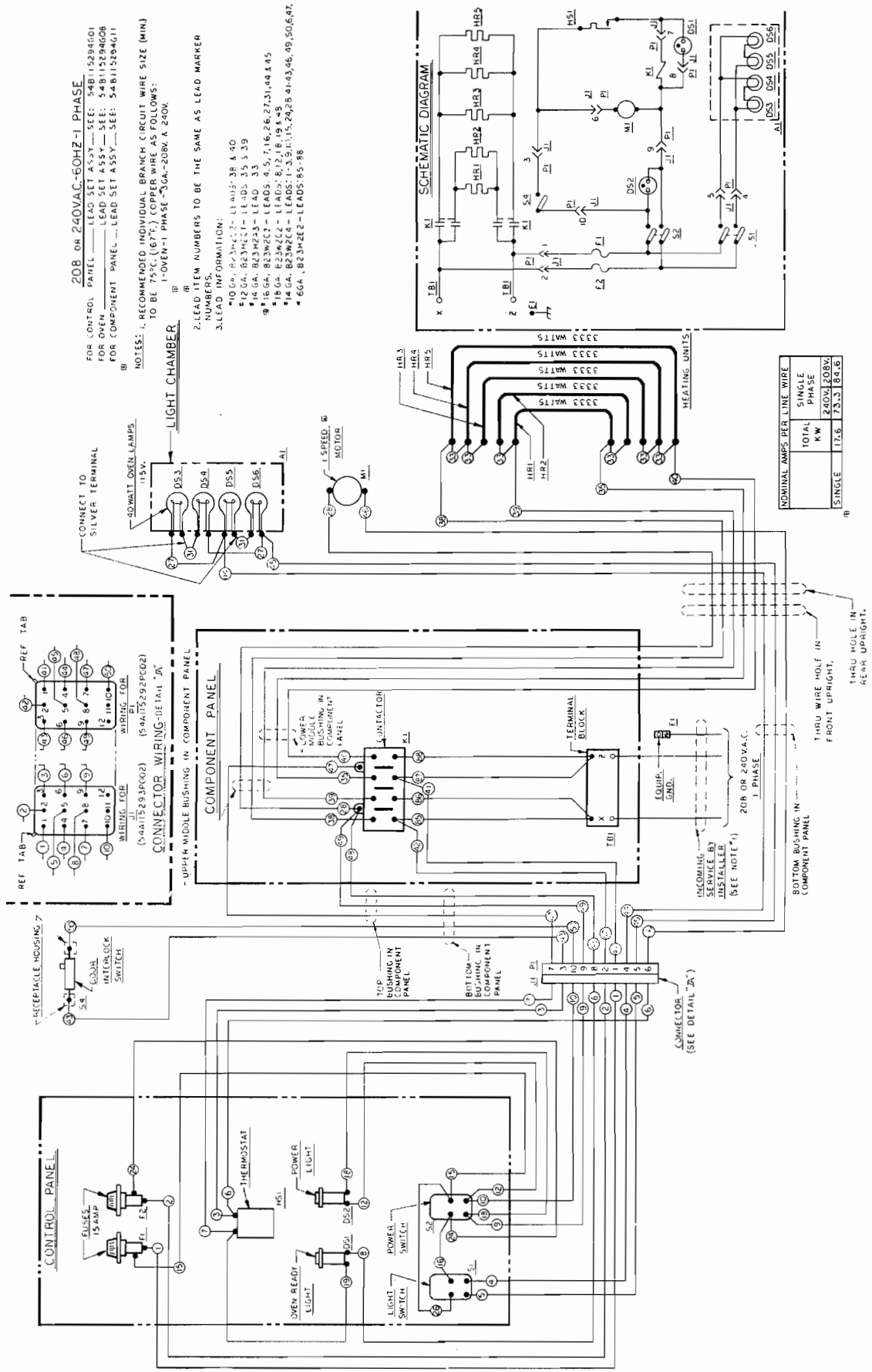
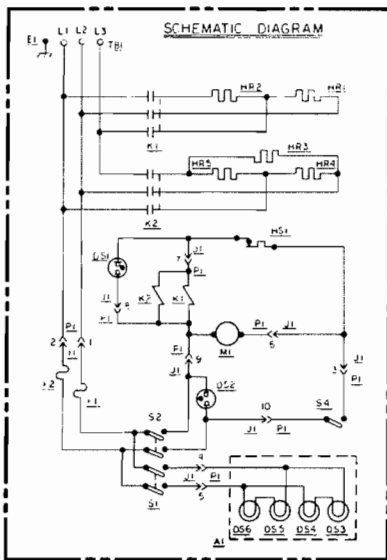
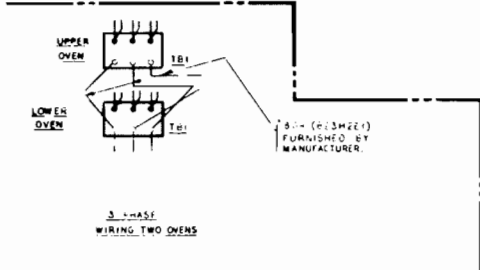
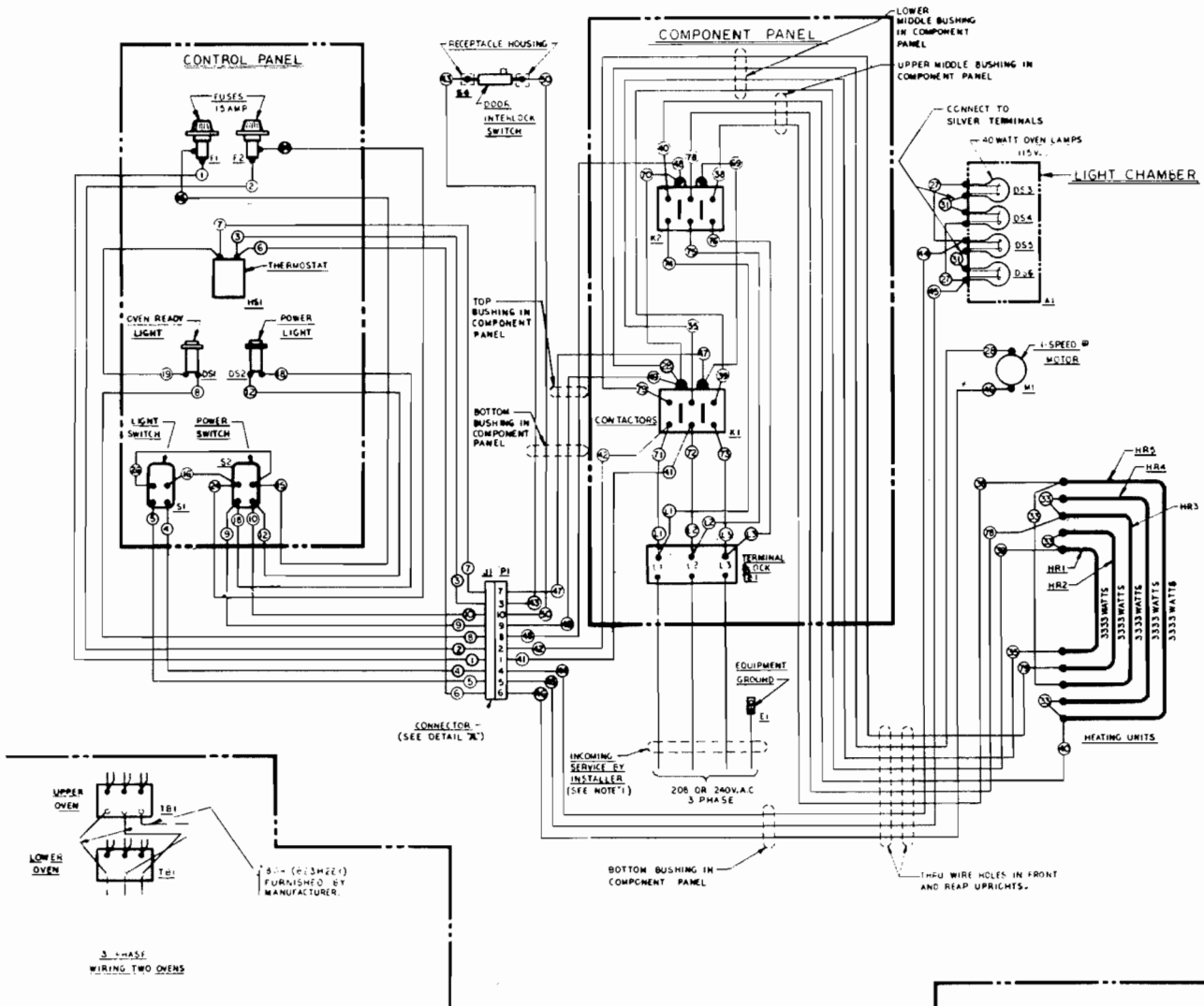


Fig. 18 — Wiring Diagram, CN91 Series - Models CN911, CN912, CN913, CN914, CN915 (17.6 KW) 1-speed motor, 208/240 VAC, 60 Hz, 1-phase - 54D115165

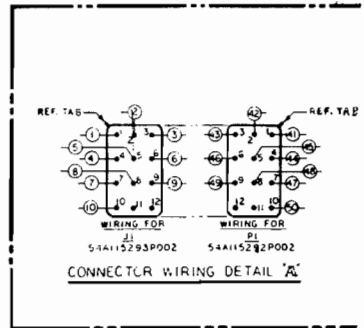


208 OR 240 V.A.C. — 60HZ — 3 PHASE

FOR CONTROL PANEL — LEAD SET ASSY. — SEE: 548115294G01.
 FOR OVEN — LEAD SET ASSY. — SEE: 548115294G07.
 FOR COMPONENT PANEL — LEAD SET ASSY. — SEE: 548115294G10.
 FOR STACKING DEVICES — LEAD SET ASSY. — SEE: 548115294G13

NOTES

- RECOMMENDED INDIVIDUAL BRANCH CIRCUIT WIRE SIZE (MIN.) TO BC 75°C (167°F) COPPER WIRE AS FOLLOWS:
 1 OVEN — #6GA — 208 & 240V.
 2 OVENS — #1GA — 208V.
 2 OVENS — #2GA — 240V.
- LEAD ITEM NUMBERS TO BE THE SAME AS LEAD MARKER NUMBERS.
- LEAD INFORMATION:
 #12GA. B23H2C1 — LEADS: 3F-40 73-76 & 78
 #14GA. B23H2A3 — LEADS: 33, 35, 71, 72 & 74
 #16GA. B23W2C4 — LEADS: 11, 16, 9, 10, 15, 24, 2, 23, 34, 43, 44, 47, 49 & 50
 #16GA. B23W2C3 — LEADS: 4, 5, 7, 16, 24, 27, 34, 44, 45, 69 & 70
 #16GA. B23W2C2 — LEADS: 6, 12, 18, 19 & 48



	3 PHASE LOADING			NOMINAL AMPS PER LINE WIRE						
	TOTAL KW	KW PER PHASE			208V.		240V.			
	L1-L2	L2-L3	L1-L3	L1	L2	L3	L1	L2	L3	
SINGLE	17.67	4.3	6.67	6.67	46.1	46.1	55.0	40.0	40.0	48.0
STACKED	35.34	11.0	13.3	11.0	91.6	101.5	101.5	79.4	87.9	87.9

Fig. 19 — Wiring Diagram, CN91 Series - Models CN911, CN912, CN913, CN914, CN915 (17.6 KW) 1-speed motor, 208/240 VAC, 60 Hz, 3-phase - 54D118838

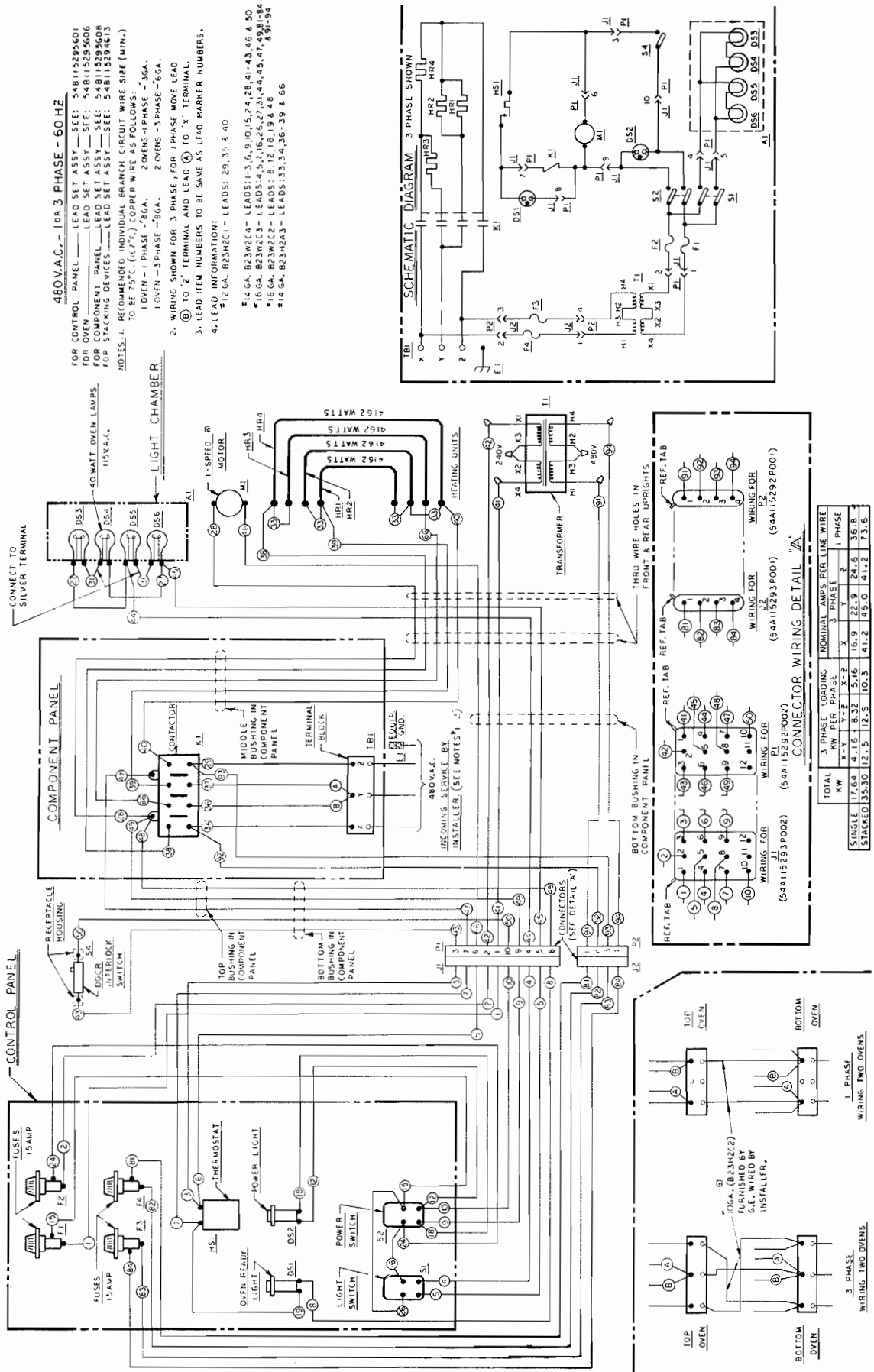


Fig. 20 — Wiring Diagram, CN91 Series - Models CN911, CN912, CN913, CN914, CN915 (17.6 KW) 1-speed motor, 480 VAC, 60 Hz, 1 or 3-phase - 54D115161

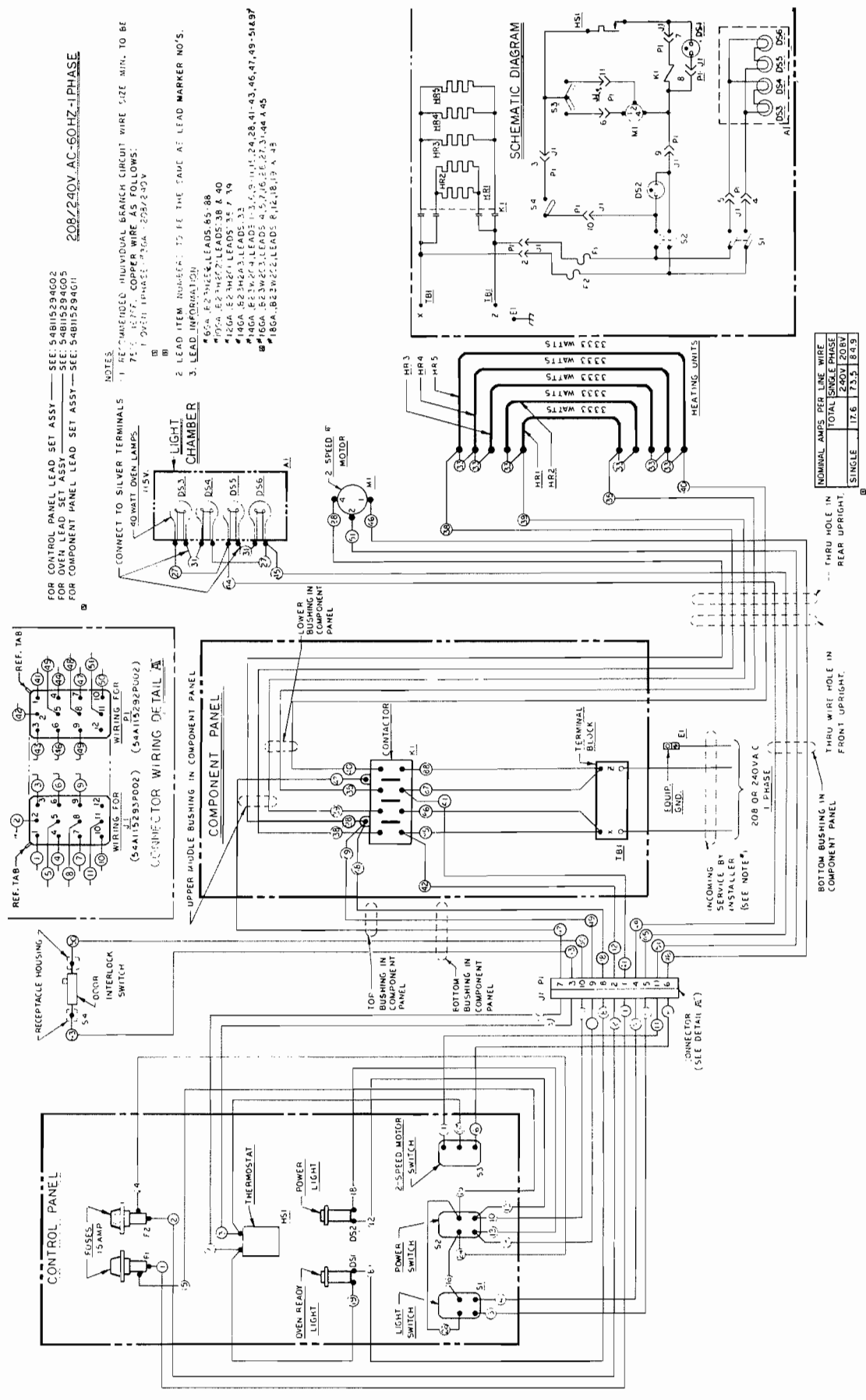
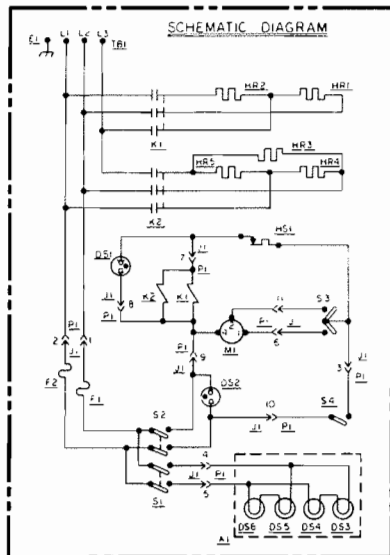
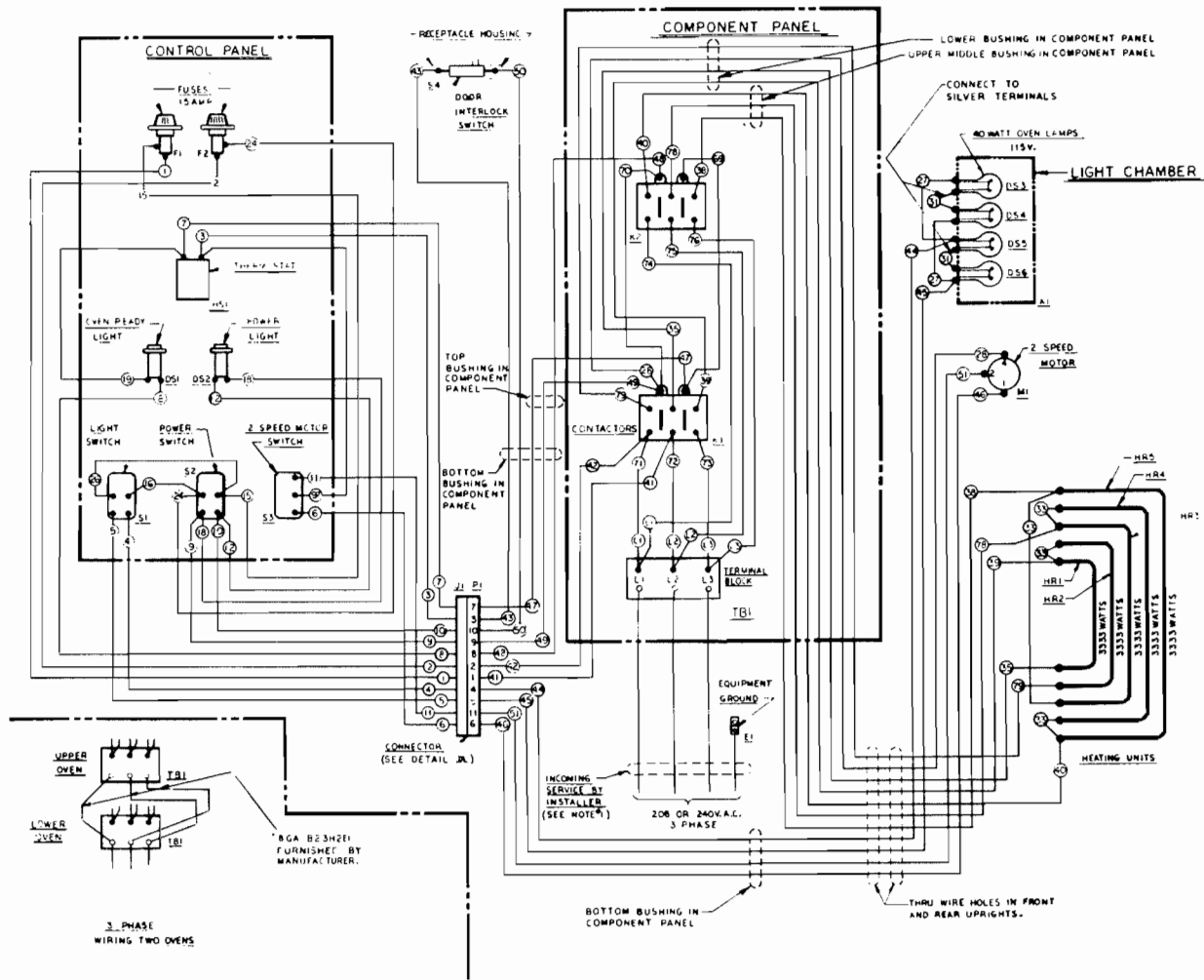


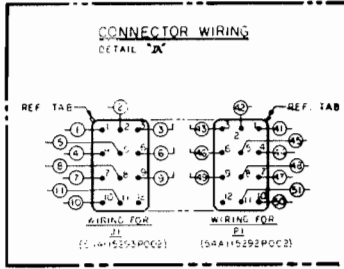
Fig. 21 — Wiring Diagram, CN91 Series - Models CN911, CN912, CN913, CN914, CN915 (17.6 KW) 2-speed motor, 208/240 VAC, 60 Hz, 1-phase - 54D115164



208 OR 240 V A.C. — 60 HZ — 3 PHASE

FOR CONTROL PANEL — LEAD SET ASSY — SEE 548115294002
 FOR OVEN — LEAD SET ASSY — SEE 548115294004
 FOR COMPONENT PANEL — LEAD SET ASSY — SEE 548115294010
 FOR STACKING DEVICES — LEAD SET ASSY — SEE 548115294613

- NOTES
- 1) RECOMMENDED INDIVIDUAL BRANCH CIRCUIT WIRE SIZE (MIN) TO BE 75°C (167°F) COPPER WIRE AS FOLLOWS.
 - 1 OVEN — #10A — 208 & 240V.
 - 2 OVENS — #10A — 208V.
 - 2 OVENS — #12A — 240V.
 - 2) LEAD ITEM NUMBERS TO BE THE SAME AS LEAD MARKER NUMBERS.
 - 3) LEAD IDENTIFICATION
 - #10GA, #23W2C1 — LEADS 18-40, 73-76 & 78
 - #14GA, #23W2A3 — LEADS 33, 35, 71, 72 & 79
 - #14GA, #23W2C4 — LEADS 1-3, 7, 9-11, 15, 21-28, 41-43, 46, 47, 49-51 & 57
 - #10GA, #23W2C3 — LEADS 5, 7, 16, 26, 27, 31, 44, 45, 69 & 70
 - #10GA, #23W2C2 — LEADS 6, 12, 16, 19 & 48



TOTAL KW	3 PHASE LOADING KW PER PHASE			NOMINAL AMPS PER LINE WIRE		
	L1-L2	L2-L3	L1-L3	L1	L2	L3
10000	3333	3333	3333	15.7	15.7	15.7
15000	5000	5000	5000	23.5	23.5	23.5
20000	6667	6667	6667	31.3	31.3	31.3

Fig. 22 — Wiring Diagram, CN91 Series - Models CN911, CN912, CN913, CN914, CN915 (17.6 KW) 2-speed motor, 208/240 VAC, 60 Hz, 3-phase - 54D118839

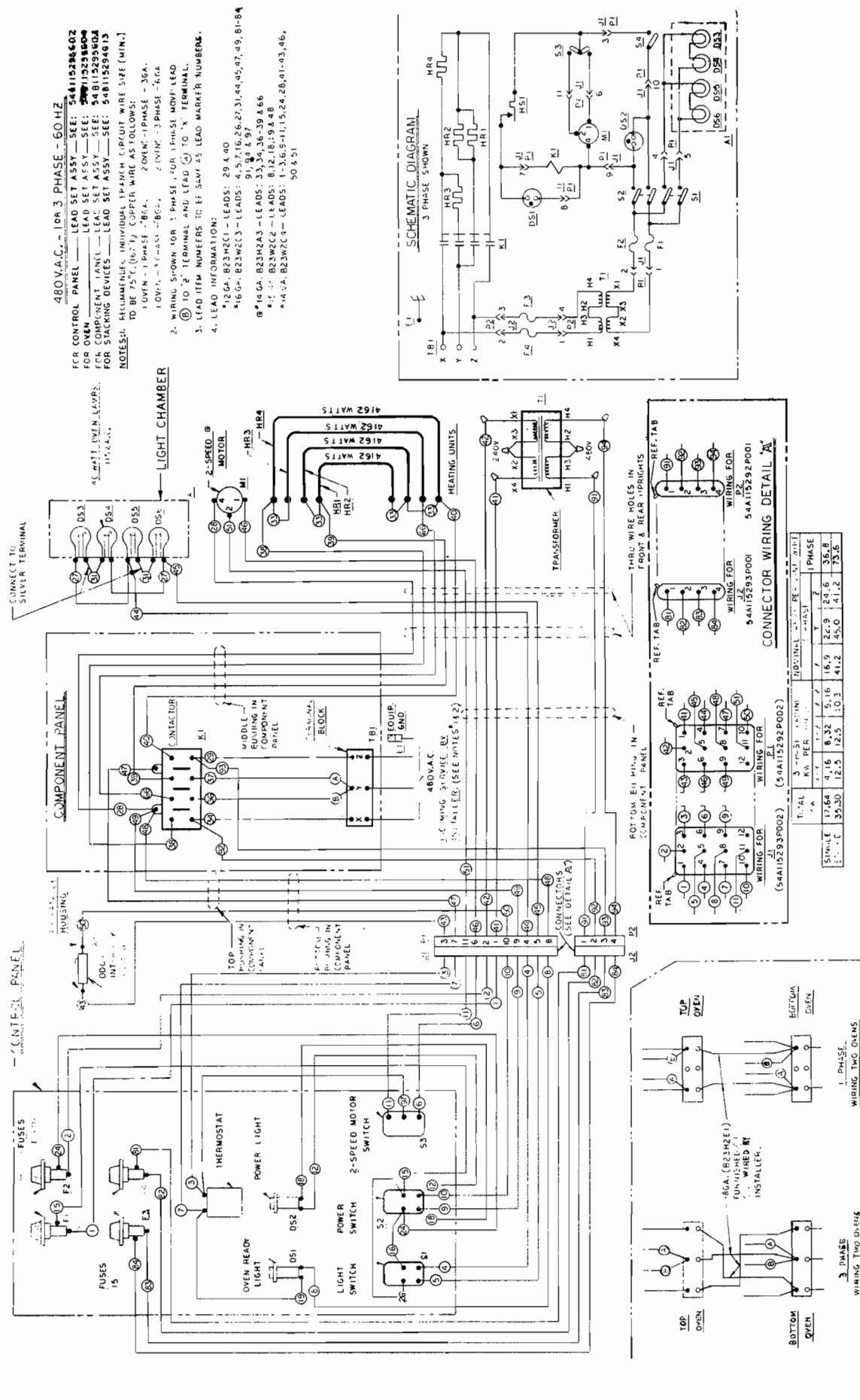


Fig. 23 — Wiring Diagram, CN91 Series - Models CN911, CN912, CN913, CN914, CN915 (17.6 KW) 2-speed motor, 480 VAC, 60 Hz, 1 or 3-phase - 54D115158

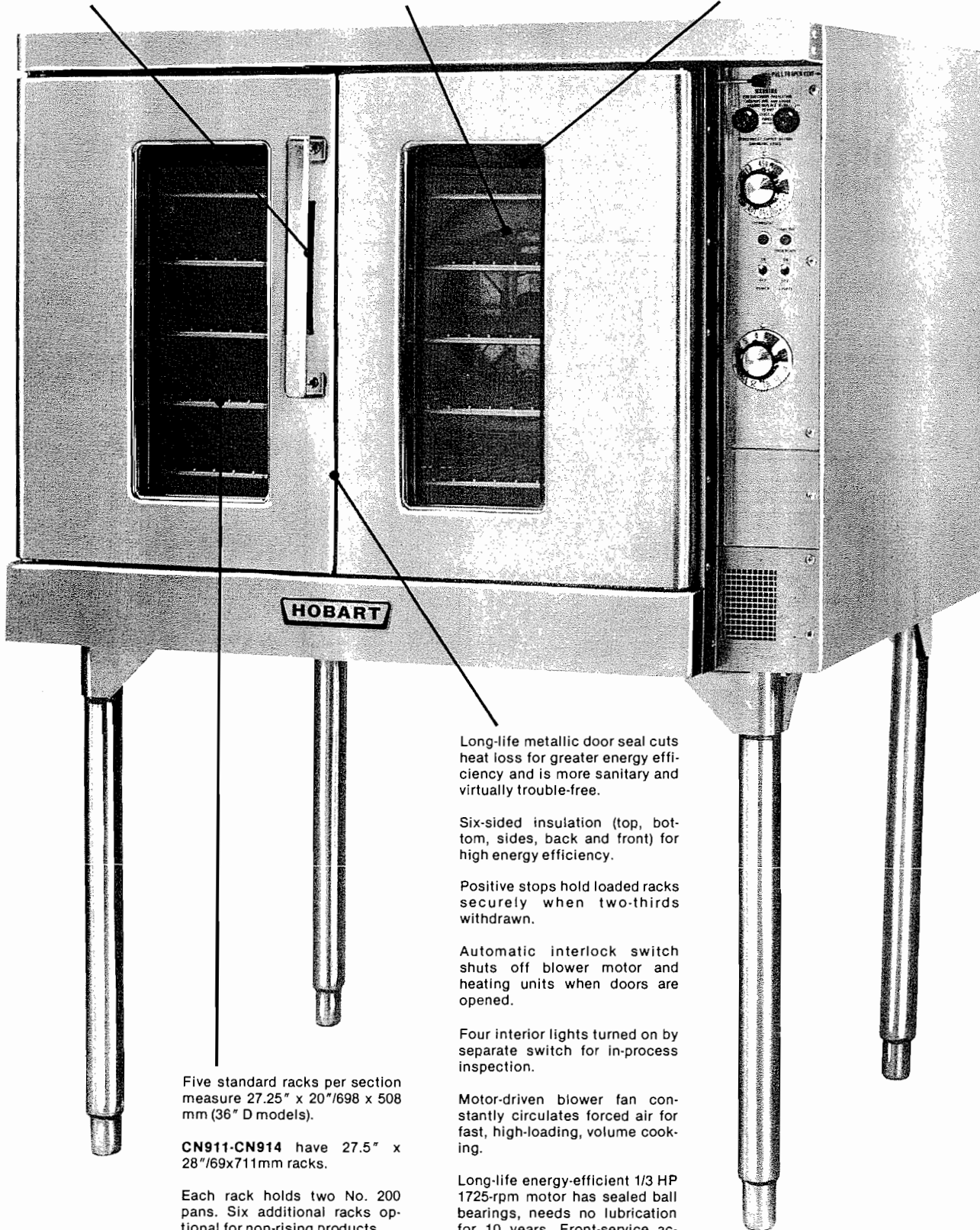
OWNER'S INFORMATION

FEATURES

Cool-to-touch handle opens both doors 180 degrees, simultaneously.

Spacious, sealed "easy-view" double-panel windows for in-process food inspection.

Non-chipping aluminized oven liner. Optional, removable non-stick top, bottom, side and back panels cut clean-up costs. Optional, removable s/s panels also available.



HOBART

Long-life metallic door seal cuts heat loss for greater energy efficiency and is more sanitary and virtually trouble-free.

Six-sided insulation (top, bottom, sides, back and front) for high energy efficiency.

Positive stops hold loaded racks securely when two-thirds withdrawn.

Automatic interlock switch shuts off blower motor and heating units when doors are opened.

Four interior lights turned on by separate switch for in-process inspection.

Motor-driven blower fan constantly circulates forced air for fast, high-loading, volume cooking.

Long-life energy-efficient 1/3 HP 1725-rpm motor has sealed ball bearings, needs no lubrication for 10 years. Front-service access.

Five standard racks per section measure 27.25" x 20"/698 x 508 mm (36" D models).

CN911-CN914 have 27.5" x 28"/69x711mm racks.

Each rack holds two No. 200 pans. Six additional racks optional for non-rising products.

ACCESSORIES

For CN90, CN91, CN95 Series

- CX112** Set of four 6" s/s adjustable legs (for CA15, CA16, CX286, CX337)
- CX280** Set of four 25³/₄" s/s adjustable legs (for CN901, CN911, CN915)
- CX281** Set of four 8" s/s adjustable legs & stack set (CN902, CN952)
- CX282** Set of six racks (CN90, CN915 series)
- CX311** Single rack (CN90, CN915 series)
- CX338** Set of four 18" adjustable legs
- CX333** Non-stick panel liner kit (CN90, CN915 series)
- CX339** Stainless steel panel liner kit (CN90, CN915 series)
- CX376** Stainless steel back

For CN90 Series

- CX136** Modular stand (CN90)
- CX281** Set of four 8" s/s adjustable legs & stack set (CN902)

- CX375** Set of four 8" high casters (CN902)
- CX383** Set of four 8" high casters & stack set (CN902)
- CX391** Modular 7¹/₄" high base (CN90 on modular stand)

For CN91 Series

- CX355** Set of six racks (CN91 series)
- CX356** Single rack (CN91 series)
- CX360** Set of rack guides (CN915)
- CX380** Non-stick panel liner kit (CN91 series - except CN915)
- CX381** Stainless steel panel liner kit (CN91 series - except CN915)

For CN95 Series

- CX281** Set of four 8" s/s adjustable legs & stack set (CN952)

IMPORTANT ENERGY CONSERVATION GUIDELINES*

1. Purchase properly sized equipment for your operation: don't oversize or undersize).
2. Don't oversize ventilating system. Use the size that will provide optimum air flow.
3. Turn off unused equipment.
4. Reduce thermostat settings in slack periods since electric equipment heats up, recovers fast.

5. Adjust menu patterns and cooking and baking schedules: for optimum equipment use.

*Based on National Restaurant Association's "Check-List for energy Control and Conservation."

CONVECTION OVEN OPERATING INFORMATION

■ PREHEAT

Your oven operates only when the doors are closed. An electric interlock is provided that de-energizes the blower and the heating elements whenever the oven door is opened.

With the doors closed, and the thermostat dial set at the desired temperature, preheating is started by flipping on the main power switch. Your oven will preheat to 350F in just 10 minutes (36 in. deep) or 6 minutes (44 in. deep).

■ LOADING

Since the oven chamber opening is large and loading to capacity necessitates keeping the doors open longer than is usual with standard ovens, temperature drops will take place. To offset this it is suggested that while preheating, before the food is introduced, the dial setting be 50F higher than the temperature at which the foods will be cooked. Once the foods are introduced to the chamber, the setting can be returned to what is appropriate for the particular food. In all cases, the oven should be loaded as quickly as possible, keeping the door open for the shortest practicable period.

■ COOKING TEMPERATURES & TIMES

Because the convection oven moves forced heated air around in the oven chamber, the temperature setting for the various products are lower and the cook times are shorter than in a conventional deck-type oven. Since recipes and foods are subject to many variations and tastes, the recommendations about temperature settings and cooking times contained in this manual are *SUGGESTIONS ONLY*. You, the operator, should do

some experimenting in the beginning with your food products, since the oven may open up new vistas of cooking for you, to find what temperatures and times give you the best results.

Model **CN915** is intended primarily for mass school feeding operations. The oven is capable of handling 16 racks (14 racks when optional dollies with cart system are used) each of which can accommodate ten individual refrigerated packs of food in aluminum foil containers. These are reheated at a temperature setting of 350F for 15 to 20 minutes.

■ OPERATING HINTS

1. Do not open the doors unless it is necessary. The windows on the doors allow product inspection without necessitating door opening. There's adequate lighting, too — four lights that go on when needed by turning the light switch on the control panel.
2. Load racks evenly and center the pans on them. Keep them toward the front, to avoid the possibility of light foods being thrown on the motor fan.
3. When using the convection oven for the first time with a particular food, check the degree of doneness periodically before the suggested time has elapsed, to make sure the desired doneness is achieved.
4. Tables of temperature and times for the various products should be completed, as the oven is used, to reflect your own operation.
5. Use interior lights sparingly.

CONVECTION OVEN OPERATION

■ INITIAL OPERATION

With all switches and dials on the oven in the "OFF" position, proceed as follows: (see Fig. 24).

1. Turn on main power switch. Main power signal light will light.
2. Turn on interior lights switch. Four lamps inside oven will light.
3. Open the oven door. Turn thermostat to 300F. Nothing will happen. Close the oven door — the

Blower, Heating Units, and "Oven Ready" Light will light. The "Oven Ready" Light will go out when 300F oven temperature is reached. The blower will continue to operate at all times, except when the oven doors are opened. An interlock de-energizes the blower and heating units when the doors are opened.

4. The timer is purely mechanical and has no control over the functioning of the oven.

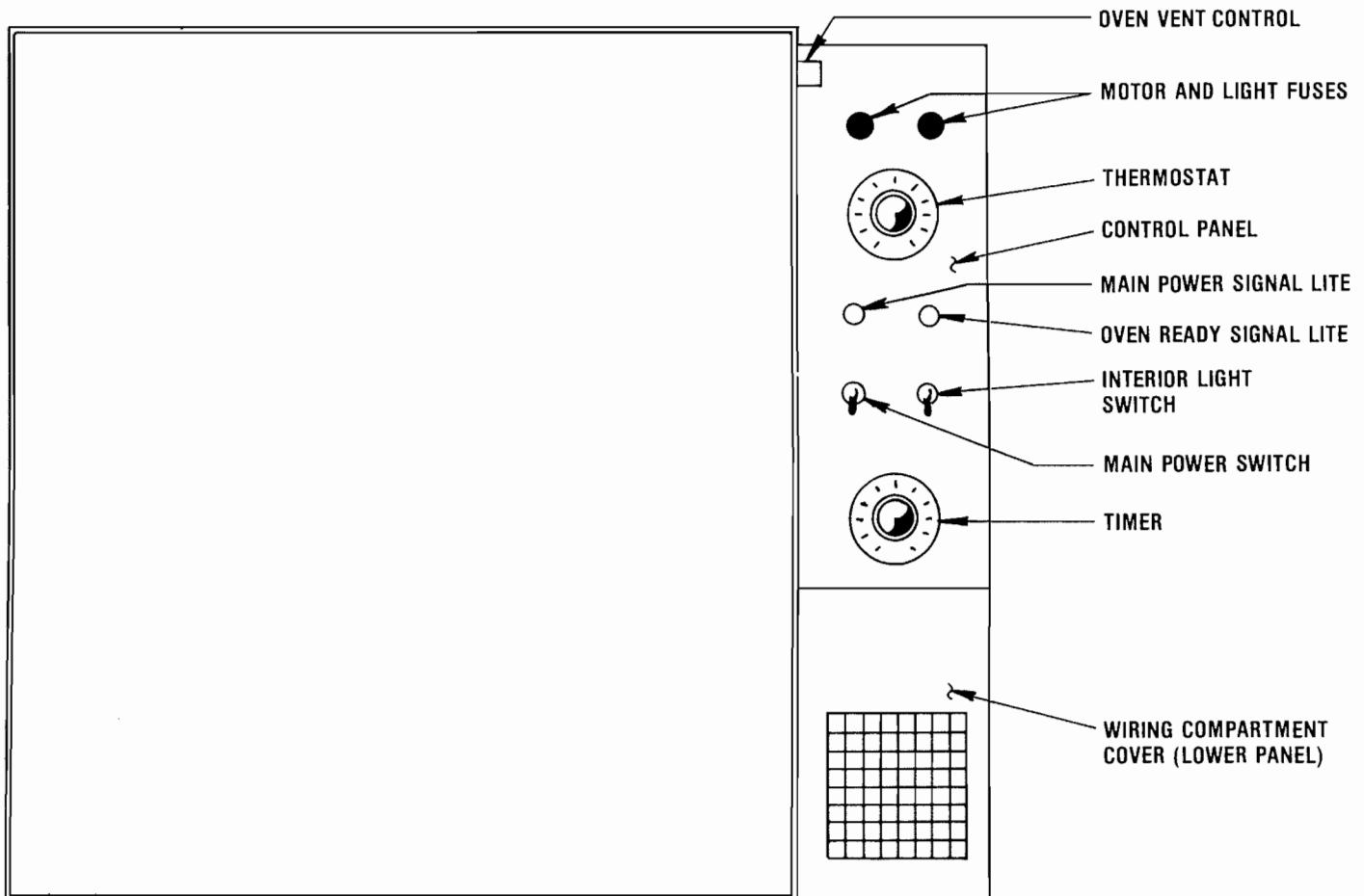


Fig. 24 — Convection Oven Control Panel

■ SUBSEQUENT OPERATIONS

Steps in the operation of the convection oven are:

1. Set the dial temperature to the desired setting.
2. Turn the power switch ON. The power and temperature signal lights will glow.
3. Preheat, as noted above. When the desired temperature is reached the temperature signal light will go off.
4. When the oven is up to temperature, open the doors and load quickly.

5. After loading, close the doors. The oven will resume operation.
6. The timer is strictly a mechanical one — it in no way controls the function of the oven or turns it off. To insure that it will ring when the time at which it was set has elapsed, wind the timer to the maximum setting. Then back-up to the desired setting for the product. This will result in spring tension sufficient to activate the alarm.

SUGGESTED CONVECTION OVEN BAKE & ROAST APPLICATIONS

PRODUCT	TEMPERATURE	TIME	NO. RACKS
BREAD PRODUCTS			
Bread (24, 1-lb. loaves)	340F	30 min.	3 (every other rack starting with bottom rack)
Hamburger Rolls	300F	15 min.	5
Corn Bread	335F	25 min.	5
Yeast Rolls	325F	25 min.	5
Baking Soda Biscuits	400F	6 min.	5
PASTRIES			
Frozen Berry Pies (22 oz.)	350F	34 min.	5 (30 pies)
Frozen Fruit Pies (46 oz.)	350F	45-50 min.	5 (20 pies)
Fresh Apple Pie (20 oz.)	350-375F	25-30 min.	5 (30 pies)
Sheet Cake (5 lbs. per pan)	335F	15 min.	5
Sugar Cookies	300F	15 min.	5
Cherry Crisp	300F	25 min.	5
Chocolate Cake	335F	20 min.	5
Cinnamon Buns	335F	20 min.	5
Brownies	350F	15 min.	5
Danish	335F	12 min.	5
Angel Cakes	250F	25-30 min.	3
Cream Puffs	350F	20-25 min.	5
Pumpkin Pie	300F	30-35 min.	5
Fruit Cakes	275F	70 min.	3
Apple Turnovers	350F	15 min.	5
MEAT			
Hamburger Patties (5 per lb.) (well done)	400F	10-12 min.	11 (264)
Steamship Round (80 lb. quartered)	275F	2¾ hrs. (well done)	2 (2 pans ea. rack)
Steamship Round (whole 60-80 lbs.)	275F	8 hrs. (med.)	1
Rolled Beef Roast (20 lb. avge.)	300F	4 hrs. (med.)	3 (2 roasts per pan)
Prime Ribs	275F	3 hrs. (med.)	2 (2 roasts per pan)
Baked Stuffed Pork Chops	375F	25-30 min.	5
Boned Veal Roast (15 lbs.)	300F	3 hrs. 10 min.	2
Lamb Chops (small lean)	400F	6 min.	5 (24 per pan)
Shell Steaks (10 oz.)	450F	7-8 min.	5 (16-18 per pan)
Meat Loaf	325F	40-45 min.	5 (2 pans per rack)
FISH			
Fish Stix	335F	16-18 min.	11
Baked Stuffed Shrimp	400F	6-7 min.	5
Baked Stuffed Lobster (1½ lbs.)	400F	10 min.	3
Halibut Steaks (Frozen 5 oz.)	350F	30 min.	5
FOWL			
Chicken Breast – Thigh	350F	33-35 min.	5
Chicken Back – Wing	350F	30-33 min.	5
Chicken (2½ lb. quartered)	350F	30 min.	5 (26 per pan)
Turkey Rolled (18 lb. Rolls)	310F	3¾ hrs.	3 (6 pans – 2 rolls ea. rack)
OTHER			
Macaroni and Cheese	350F	30 min.	5
Beef Pot Pies	400F	30-35 min.	5
Turkey Pot Pies	400F	30-35 min.	5
Stuffed Peppers	350F	15-20 min.	3
Melted Cheese Sandwiches	400F	10 min.	5 (120)
Pizza (7" Frozen)	435F	11 min.	6
Idaho Potatoes (120 count)	440F	50 min.	5

*Where the number of racks is 5, insert the first rack on the bottom position and place the others on every other rung.

Fig. 25

HOW TO CARE FOR YOUR OVEN

■ HOW TO CLEAN THE INTERIOR OF YOUR OVEN

A. When the liner features aluminized steel:

Keep the inside of the oven and racks wiped clean. If food particles or carbon accumulate so doors cannot be tightly closed, heat is wasted and the oven will not operate properly. Poorly closed doors permit a constant escape of steam and vapor around the door. This causes a condensation which deteriorates the finish around the oven front and door lining.

When cleaning the interior of your Hobart oven, it is important to bear in mind that the aluminum coating, though tightly adherent, is still a coating. To preserve the coating and for ease of maintenance, clean often when the oven is cold with mild detergent or soap and water. This will prevent food and dirt from "baking on" and will frequently be all the cleaning that is necessary.

Where soil resists soap-water cleaning, use a wooden tool to loosen spillage from the cold oven. Follow with a non-etching cleaner which is specifically recommended for aluminized steel. Use clear water to rinse; dry with a soft clean cloth.

AVOID USING STEEL WOOL, WIRE BRUSHES and CAUSTIC SOLUTIONS such as lye, soda ash, or ammonia.

B. When the liner features stainless steel:

In general, the principles detailed under "A" (above) apply. Soap or detergent and water will usually take care of routine cleaning. Drying is accomplished with a soft clean cloth.

For burnt-on foods and grease which resist simple soap-water cleaning, an abrasive cleaner such as Bon Ami or Ajax, mixed into a paste may be employed. Apply with stainless steel wool or sponge, always rubbing with the "grain".

This treatment is equally effective for "heat tint" (slightly darkened areas caused by oxidation). Again, remember to rub in the direction of the polish lines. Rinse with clear water, and dry with a soft cloth.

C. When non-stick panels are featured:

In order to preserve the easy-care properties of non-stick oven panels, frequent cleaning, dependent on oven usage, is recommended. Panels should be cleaned as soon as soil begins to turn brown. This will minimize the possibility of non-stick finish discoloration. Do not use sharp instruments, abrasive materials or oven cleaners on non-stick surface otherwise the warranty is void. Should the surface be accidentally scratched, the performance feature is not affected.

To clean non-stick panels, remove panels and wash thoroughly with hot, sudsy water using a sponge or web pad supplied with oven. Do not use a harsh abrasive or steel wool type pads. Rinse well and dry. Between these cleanings, everyday oven spatters can be easily sponged off with sudsy sponge or cloth, rinsed, and dried. With non-stick panels, there is never a need for oven cleaners.

Step-by-Step sequence for removing panels:

1. Remove tray racks by pulling straight out.
2. Remove right and left rack guides by lifting straight up.

3. Right and left hand panels may now be removed by moving toward the center and pulling out. To avoid scratching, do not rest panels on bottom panel.
4. Remove bottom panel by pulling straight out.
5. Remove blower baffle by lifting straight up and pulling out toward the front. Care should be exercised to clear brackets on the side. Blower wheel can now be cleaned in place or removed, (Para. D).
6. Top panel and s/s interior door panels can be cleaned while in place. If removal of top panel is desired, unscrew three screws from front top edge of top and two screws from rear flange of top. Slide out toward front.

To reassemble, reverse the above procedure.

D. Cleaning the Blower Wheel

Occasionally it may be desirable to clean the blower wheel. To do this:

1. Remove all racks by pulling forward, lifting up and out.
2. Remove both the right and left rack supports by lifting up.
3. Remove the blower baffle by lifting up and pulling out. Since blower has non-stick finish, wash thoroughly with hot sudsy water using a sponge or plastic web pad. Rinse well and dry.
4. Replace the hardware by reversing the disassembly procedure.

■ HOW TO CLEAN THE EXTERIOR OF YOUR OVEN

A. Washing

Wash all exterior surfaces at least once daily. Use a cloth with warm water and a mild soap or detergent. Where surfaces have been polished, use a cloth lightly — hard rubbing will remove polish. Follow with a clear rinse, then dry. This simple beauty treatment not only keeps your equipment dirt-free and sparkling, but virtually eliminates the danger of grease accumulation — which may form a hard-to-remove stain if left on too long.

B. Permalucent Finish

If grease has accumulated and attacked the PERMALUCENT finish, remove it with any silicon-base polish, follow directions on the container. NEVER use a scouring pad-type cleaner on the PERMALUCENT finish.

If the surface should be accidentally marred, it can be quickly and easily restored to its original beauty with a "PERMALUCENT Touch-Up Kit", available through your Hobart Chicago Heights, Inc. Dealer. Full instructions are in each kit.

C. Cleaning the Stainless Steel

To keep the stainless steel front bright and gleaming at all times, just clean it regularly with a damp cloth and polish with a soft, dry cloth. To remove discolorations which may have formed when regular cleaning was neglected, use any detergent or plain soap and water. For particularly stubborn discolorations, a self-soaping scouring pad may be used.

CAUTION: ALWAYS RUB WITH THE "GRAIN" IN A HORIZONTAL DIRECTION.

D. Plastic Control Knobs

Wash, dry and polish with a soft cloth. Avoid using gritty soaps or harsh cleaners.

■ REPLACING LAMPS

1. Caution — First turn off electric supply.
2. Remove all racks by pulling forward, lifting up and out.
3. Remove both the right and left rack supports by lifting up.
4. Remove ten screws from the light window bezel.
5. Pull out the bezel and window.
6. Replace the burnt-out bulbs, upper two or lower two.
7. Replace the hardware by reversing the disassembly procedure.





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14th & Arnold Streets - Chicago Heights, Illinois 60411
A SUBSIDIARY OF HOBART CORPORATION