



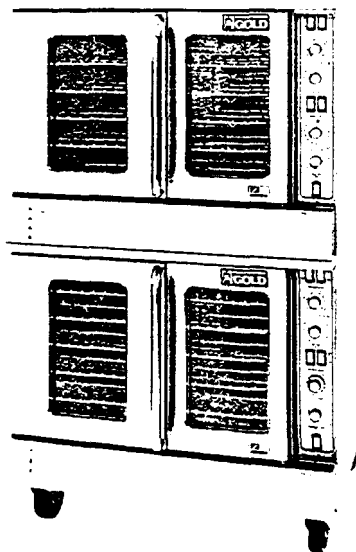
# southbend

A MIDDLEBY COMPANY

## TECHNICAL MANUAL

# MARATHONER GOLD ELECTRIC CONVECTION OVEN

MODEL: SERIES E CONVECTION OVENS  
PREFIX ES, EB  
SUFFIX SC, CC, CH, PC, RT  
MODELS 10, 20



This manual is intended for the use of Southbend Authorized Service Agencies and their associates.

Service work should be performed only by a qualified technician who is experienced in, and knowledgeable with the operation of commercial gas, electric, steam cooking equipment.

**! WARNING:**

**Improper installation, service, or maintenance can cause property damage, injury or death.**

1100 Old Honeycutt Road • Fuquay, NC 27526 • (919) 552-9161 • FAX (919) 552-9798 • (800) 348-2558

Middleby Corp. Service Hot Line (800) 238-8444

\$15.00

**ELECTRIC CONVECTION OVENS  
(Manual Section CO)**

## NOTICE

Warranty will be void if

- (A) Service work is performed by other than a Southbend Authorized Service Agency, or
- (B) Other than Genuine Southbend replacement parts are installed.

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## LOCATION AND IDENTIFICATION OF NAME PLATE

The Serial Plate with all voltage information is located behind the control panel. It is mounted on the left hand side of the control compartment. This can be accessed by removing the screw in the top of the control panel and pulling the control panel forward and down.

TYPE:	PREFIX:	SUFFIX:		
E - Electric	S – Standard	SC-	Standard Controls	PC- Programmable Controls
	B - Bakery	CC-	Cycle Controls	RT- Rack Track Controls
		CH-	Cook & Hold	

## SAFETY PRECAUTIONS

The following words and symbols, found in this manual, alert you to hazards to the operator, service personnel or the equipment. The words are defined as follows:



This symbol warns of imminent hazards which will result in serious injury or death.



This symbol refers to a potential hazard or unsafe practice which could result in serious injury or death.



This symbol refers to a potential hazard or unsafe practice which can result in minor or moderate injury or product or property damage.



This symbol refers to information that needs special attention or must be fully understood even though not dangerous.



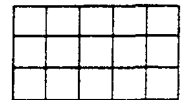
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1100 Old Honeycutt Road  
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# UTILITY INFORMATION

## SPECIFICATIONS

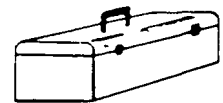


For complete specifications consult the owner's Manual - Part #1175553.

### UTILITY INFORMATION:

ELECTRICAL DATA		AMPS PER LINE				
(Each Oven) Deck	Voltage	1 $\Phi$	3 $\Phi$			
			X	Y	Z	Neut.
12kw Heating Elements and Controls	208 VAC, 60 HZ	58	34	34	31	0
	220-240 VAC, 50 HZ	46	28	28	24	0
	240 VAC, 60 HZ	50	30	30	26	0
	380/220 VAC, 50 HZ	32	17	17	21	4
	415/240 VAC, 50 HZ	50	15	15	19	4
	480 VAC, 60 HZ	25	14	14	13	0

## SERVICE



### TROUBLE SHOOTING GUIDE



#### DANGER

Turning off power switch on control panel DOES NOT de-energize all controls in the control panel. Power can only be totally de-energized by turning off power supply at breaker.

**NOTE:** When control panel is folded down all power to the control panel is cut OFF by the shut down switch. The switch is located directly below the control panel. To re-energize the controls for trouble shooting, pull the white plunger on the shut down switch up. Refer to Figure 1.

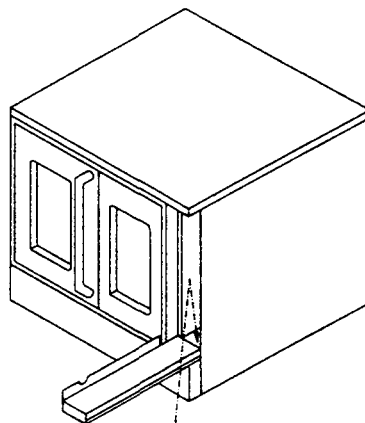
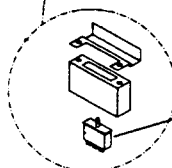
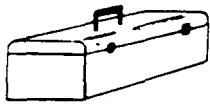


Figure 1



Shut Down Switch



## SERVICE

### TROUBLE SHOOTING GUIDE

**NOTE:** All solutions assume good wire terminal contact. Therefore, always check along with checking components.

Symptom	Possible Cause	Check or Replace
1) <i>Will not hold correct temperature.</i>	A) Temperature Probe.	A) Approximately 1096 ohms at room temperature (70°).
	B) Temperature control not calling for heat.	B) Should read continuity between terminal 6 and 7 on temperature control when it calls for heat.
	C) Incorrect voltage or phase.	C) Check incoming amp draw and voltage.
	D) Inadequate or improper ventilation.	D) Check ventilation hood. Verify draw and make up air adjustment.
	E) Out of calibration.	E) Calibrate according to procedures outlined on page 6.
2) <i>Blower motor will not come on.</i>	A) Is unit electrical supply hooked up.	A) Check incoming power.
	B) Bad contactors.	B) Contactor pull in and supply power to motor. Verify contactor pulling in.
	C) Motor bad.	C) If power is being supplied but motor will not turn. Replace motor.
	D) Shut down switch. Refer to Figure 1 for location.	D) All power except for motor supply comes through shut down switch. Check for continuity.
	E) Fuses.	E) Check for any blown fuse.
3) <i>Contactors chatter.</i>	A) Bad contactor.	A) Replace contactor.
	B) Faulty centrifical switch in motor.	B) Check switch replace motor if necessary.
	C) Low voltage being supplied on oven.	C) Check power supply.
	D) Undersized wiring supplying power to oven.	D) Compare line size to requirement on wiring diagram line amp chart.

## TROUBLESHOOTING:

Models with PC or RT suffix

<b>SYMPTOM</b>	<b>CAUSE</b>	<b>CHECK OR REPLACE</b>
1) Display shows F1	A) Bad temperature controller.	A) Replace temperature controller.
2) Display shows F2	A) Oven interior maximum temperature exceeded.	A) Gas valve stuck open. B) Replace Temperature Controller.
3) Display shows F3	A) Open temperature probe.	A) Check connection. Replace probe if needed.
4) Display shows F4	A) Shorted temperature probe.	A) Check probe wires. Replace probe if needed.
5) Display shows F5	A) Bad temperature controller.	A) Replace temperature controller.
6) Display shows F6	A) Bad temperature controller.	A) Replace temperature controller.
7) Display shows F7	A) Total cook time in a program exceeded 24 hours.	A) Reprogram so that total cook time does not exceed 24 hours.
8) Display shows F8	A) Bad temperature controller.	A) Replace temperature controller.

\*When replacing temperature controller record display.

## **BEFORE STARTING SERVICE, VERIFY:**

Unit is connected to proper electric supply, serial plate showing manufacturing specification is attached to the left front interior wall of the control compartment.

## **TEMPERATURE CONTROLLER ADJUSTMENT:**

**(Units without "PC" or "RT" suffix. Cook Only)**

The calibration of the temperature controller should not be changed until sufficient experience with cooking results has definitely proved that the temperature controller is not maintaining proper oven temperatures. Before any recalibration is attempted, the oven temperature should be checked by this procedure:

1. The oven must be empty of all trays or pans.
2. Place a pyrometer couple or a reliable mercury oven-type thermometer at the center of the middle rack.
3. Set the indicator on the knob to 350° F.
4. The amber "heat on" light will go out when oven temperature is reached.
5. Allow three cycles for the temperature to stabilize.
6. Read the pyrometer or thermometer immediately after the light goes out for the third time, and again immediately after it comes on the next time.
7. If the average of these readings varies by more than 10 degrees from the dial setting, recalibrate by following the instructions outlined below.
8. Recalibration should be attempted only by a competent service technician.

## **TO RECALIBRATE:**

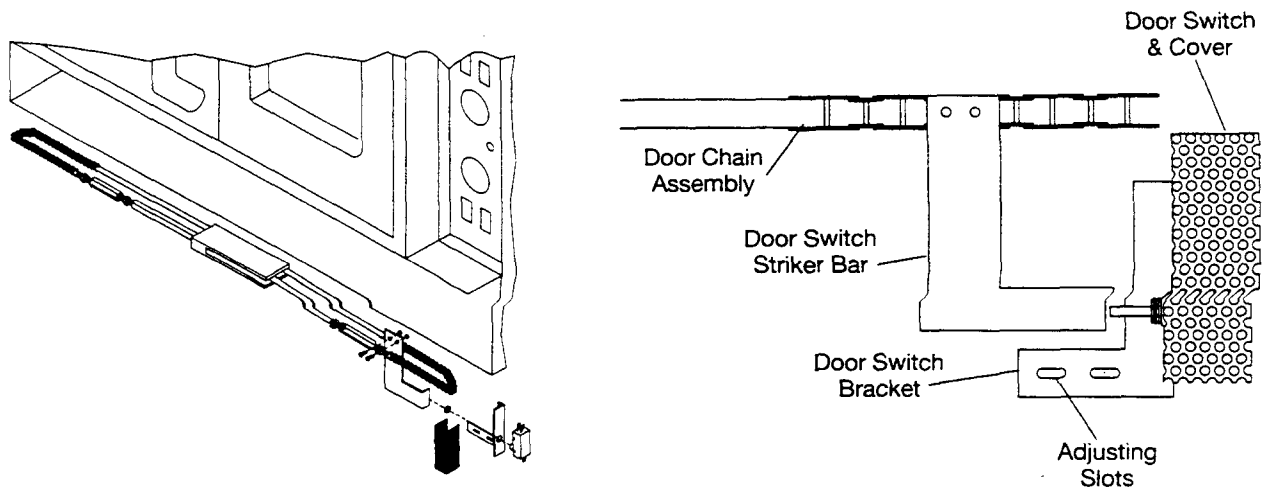
1. Loosen two set screws that secure the temperature knob to the temperature control.
2. Remove knob from shaft of temperature controller. Be careful not to rotate knob when removing.
3. Replace the knob with the indicator pointed directly at the temperature measured at center of the oven.
4. Recheck calibration.

## **BLOWER WHEEL REPLACEMENT:**

1. Remove racks and rack guides.
2. Remove rear air baffle in front of blower wheel.
3. Loosen the two square heads on blower wheel hub.
4. Pull blower wheel from motor shaft. If blower wheel is difficult to pull off, use puller plate mounted on front of blower hub. Screw a 3/8 x 16 bolt into threaded hole in center of blower hub. This will act as a puller and aid in removal of blower wheel.
5. Install new blower wheel on motor shaft. Be sure bolts line up with flat sides of motor shaft. Blower wheel should slide on motor shaft until end of shaft hits rear of puller plate.
6. Torque blower wheel bolts at 150 inch pounds.
7. Reinstall rear air baffle and racks and rack guides.
8. Test motor for program operation.

## Adjusting and Installing Door Chain Mechanism

1. Remove lower front panel covering the chain mechanism.
2. Close both doors.
3. Assemble mechanism as shown below.
4. Adjust turnbuckles by "opening" equally so the mechanism can be installed over the sprockets.
5. Place chains around the sprockets so there are five regular and one master link on the front side of each chain.
6. Adjust the turnbuckles so the right door closes about 1/4 to 1/2 inch ahead of the left door. The left door should be pushed tight over the friction catch so both doors are completely closed against the frame.
7. Install the door switch striker bar in the first and second links following the master link.
8. Secure the turnbuckles by tightening the lock nuts.
9. The door chains and sprockets have been lubricated at the factory with high temperature "Never Seeze" lubricant. After initial usage begins, repeat this process every six months with the above mentioned lube or equivalent.



### To Adjust Door Switch

With doors closed, loosen screws at bottom of door switch bracket. Adjust bracket so that the door switch plunger clicks against the striker bar. Depress the plunger an additional 1/8 inch and set bracket by tightening screws. The fan should run and turn off when the doors are opened approximately 2 to 4 inches. The amount of "door opening" before the fan turns off can be varied by this adjustment.

### CAUTION

*DO NOT ADJUST STRIKER HEAD TOO CLOSE, SO THE PLUNGER ON THE DOOR SWITCH IS COMPLETELY DEPRESSED AND THE STRIKER HEAD IS HITTING ITS THREADED STEM. THIS COULD DISTORT THE STEM AND CAUSE THE PLUNGER TO BIND.*

Try opening and closing the doors several times and adjust striker head until the exact amount of door opening is obtained. **TIGHTEN LOCK NUT.**

**PERFORMANCE STANDARD**

To heat oven from 75° F to 350° F\*  
EB & ES-10 - 8-9 minutes.

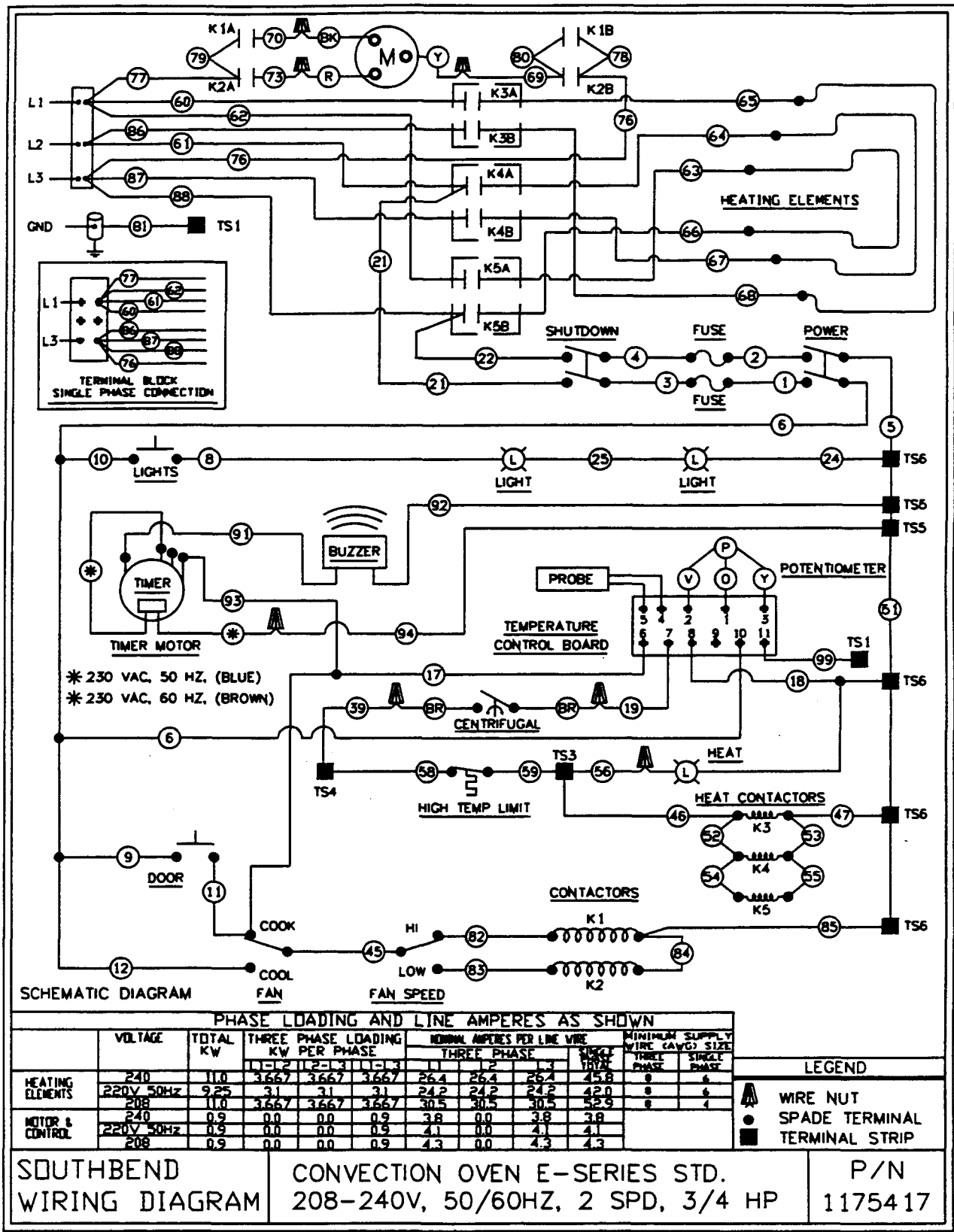
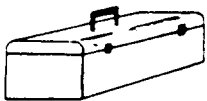
**\*NOTE:** Preheat time will vary depending on proper voltage, ventilation, and vent damper position.

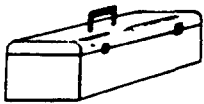
**PERFORMANCE CHECK:**

The following items should be checked before or within the first 30 days of operation by a qualified service technician.

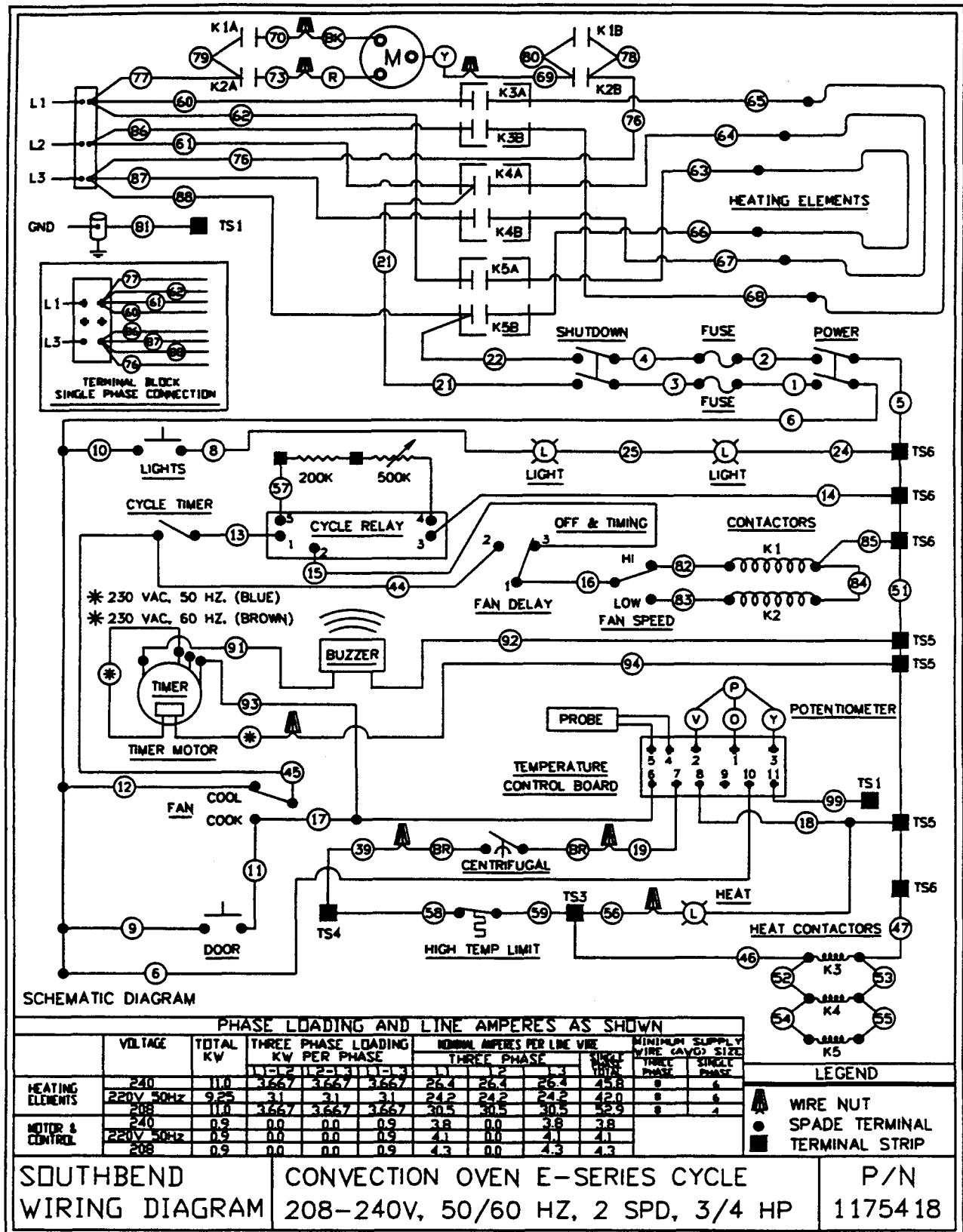
1. Verify equipment is level. (Check interior oven bottom - left to right and front to back.)
2. Verify proper electrical characteristics — Voltage, cycle, phase.
3. Check thermostat operation, calibrate if required.
4. Check ventilation.
5. Check electrical connections — external and internal.
6. Check doors for proper alignment, tension, seal and adjustment.
7. Check timers, switches and motor for proper installation and operation.
8. Check for any damage to unit from shipping or installation.
9. Check for proper clearance from combustible materials.

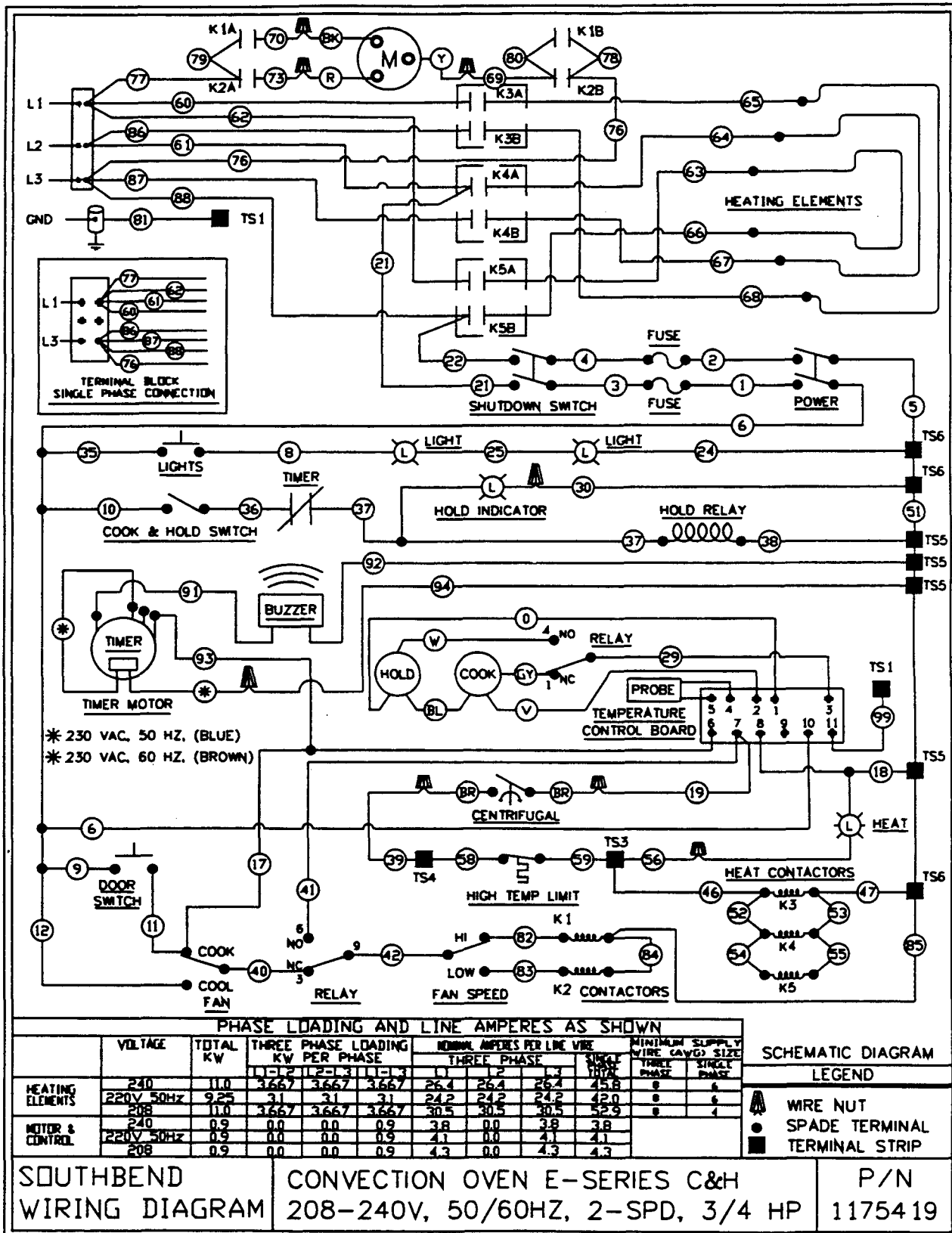
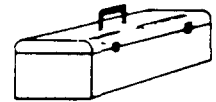


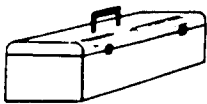




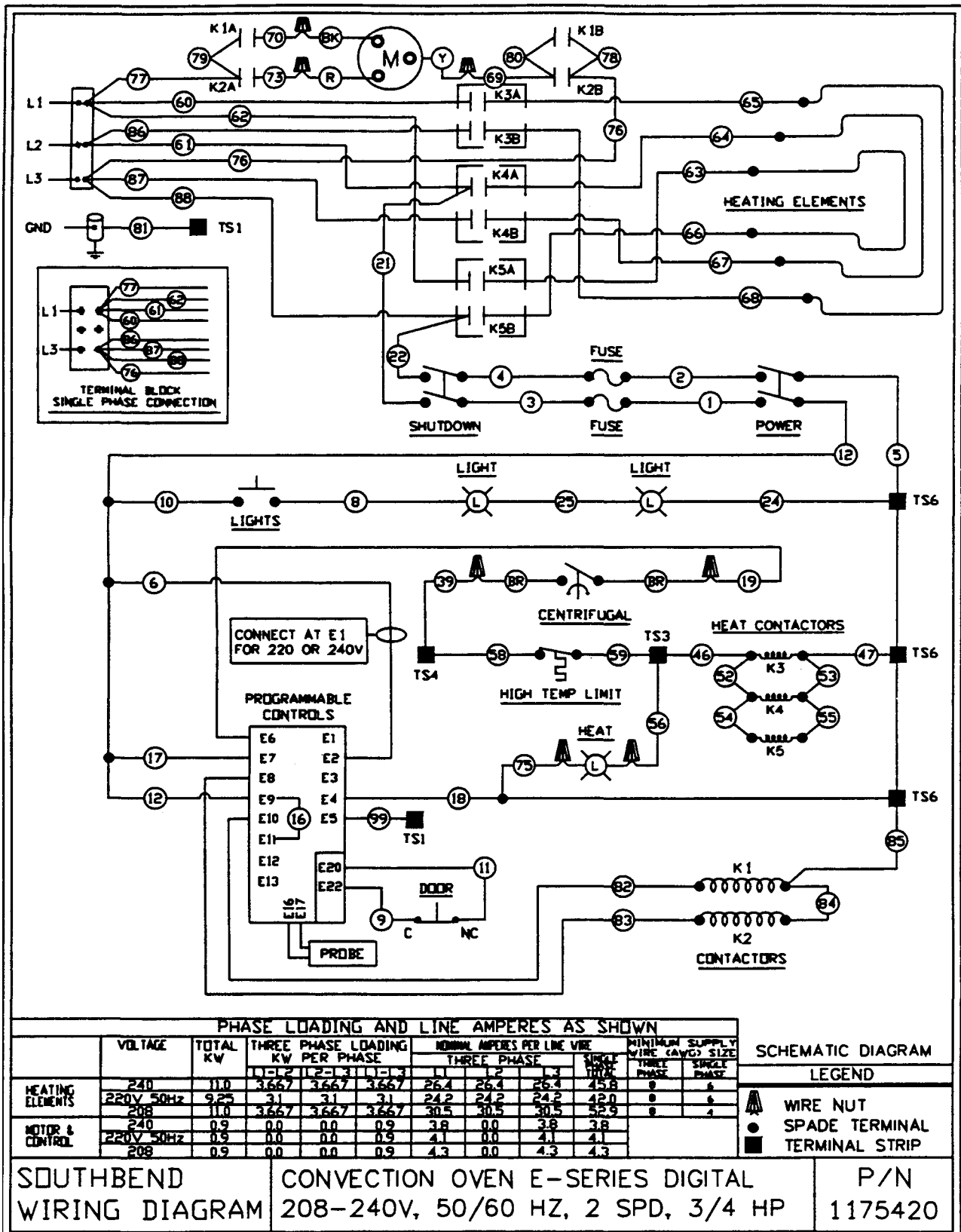
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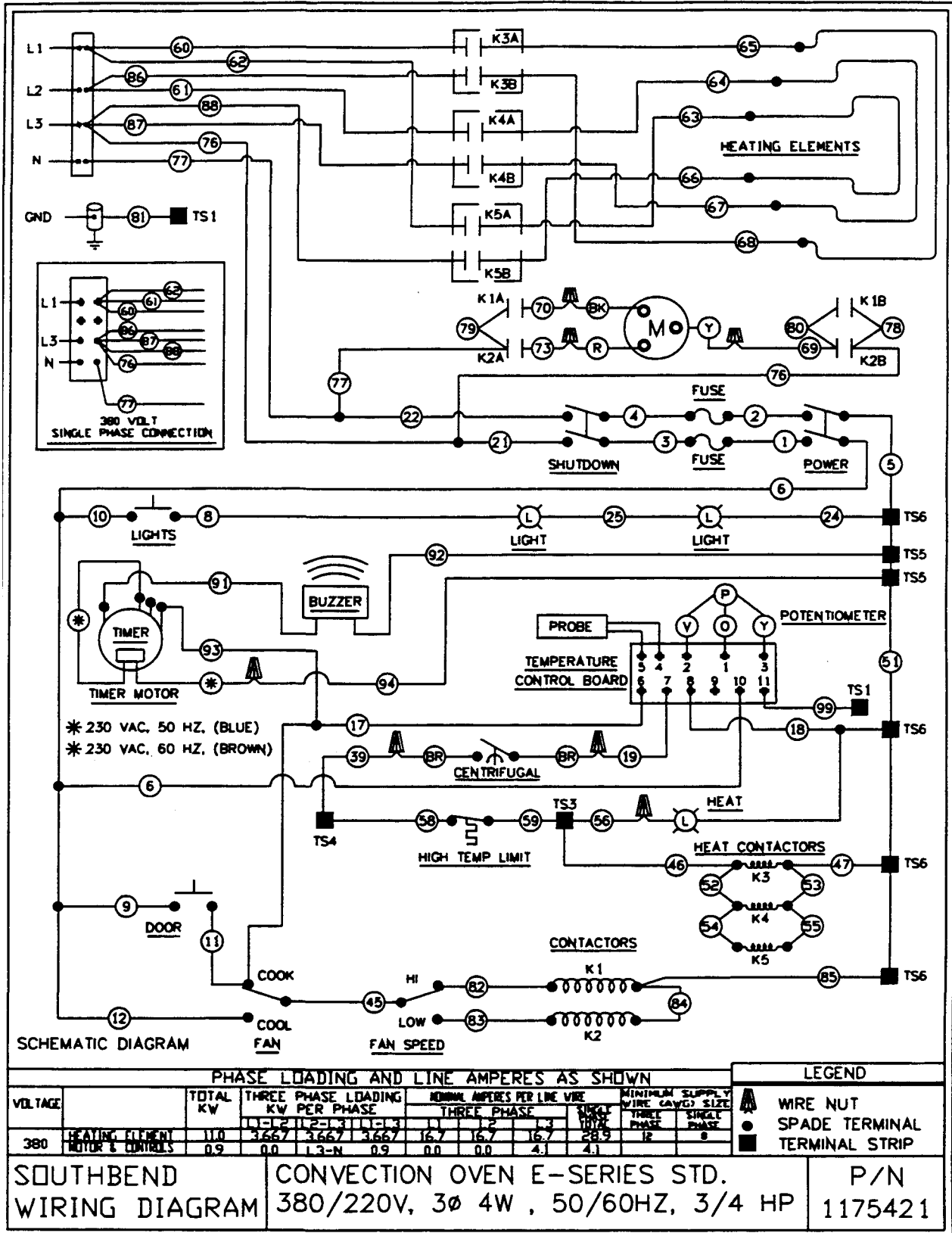
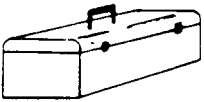


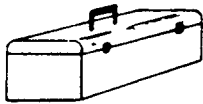




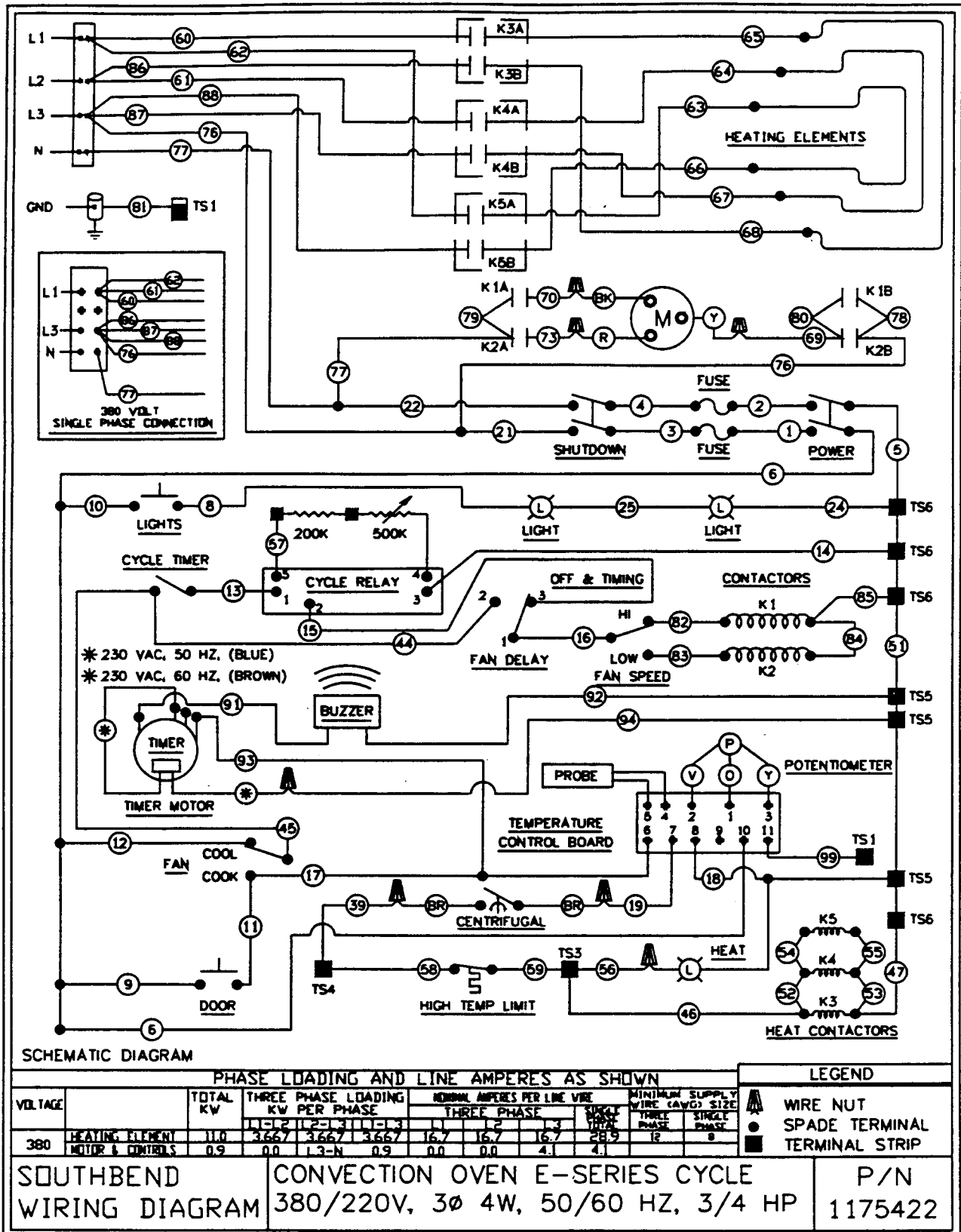
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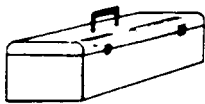




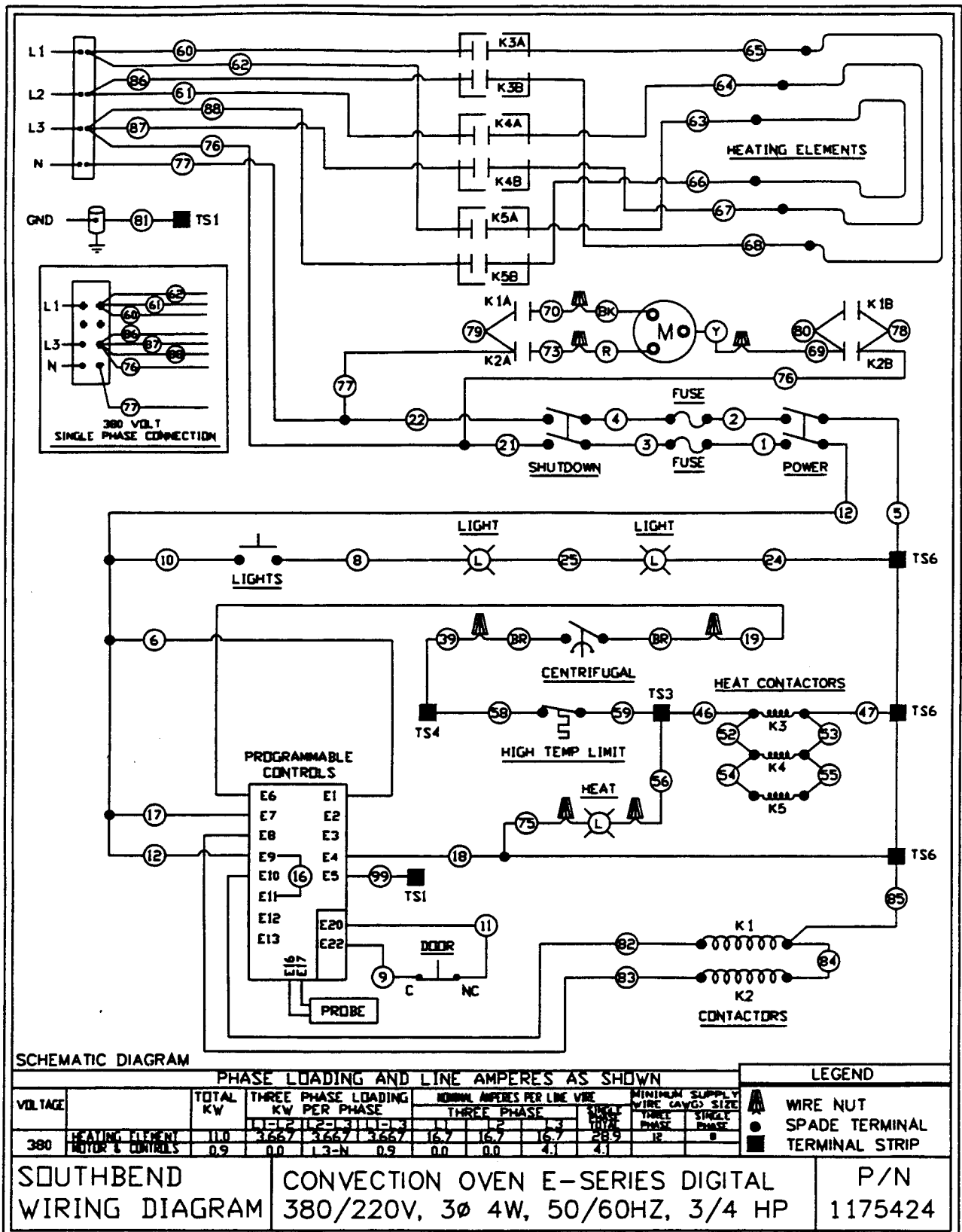


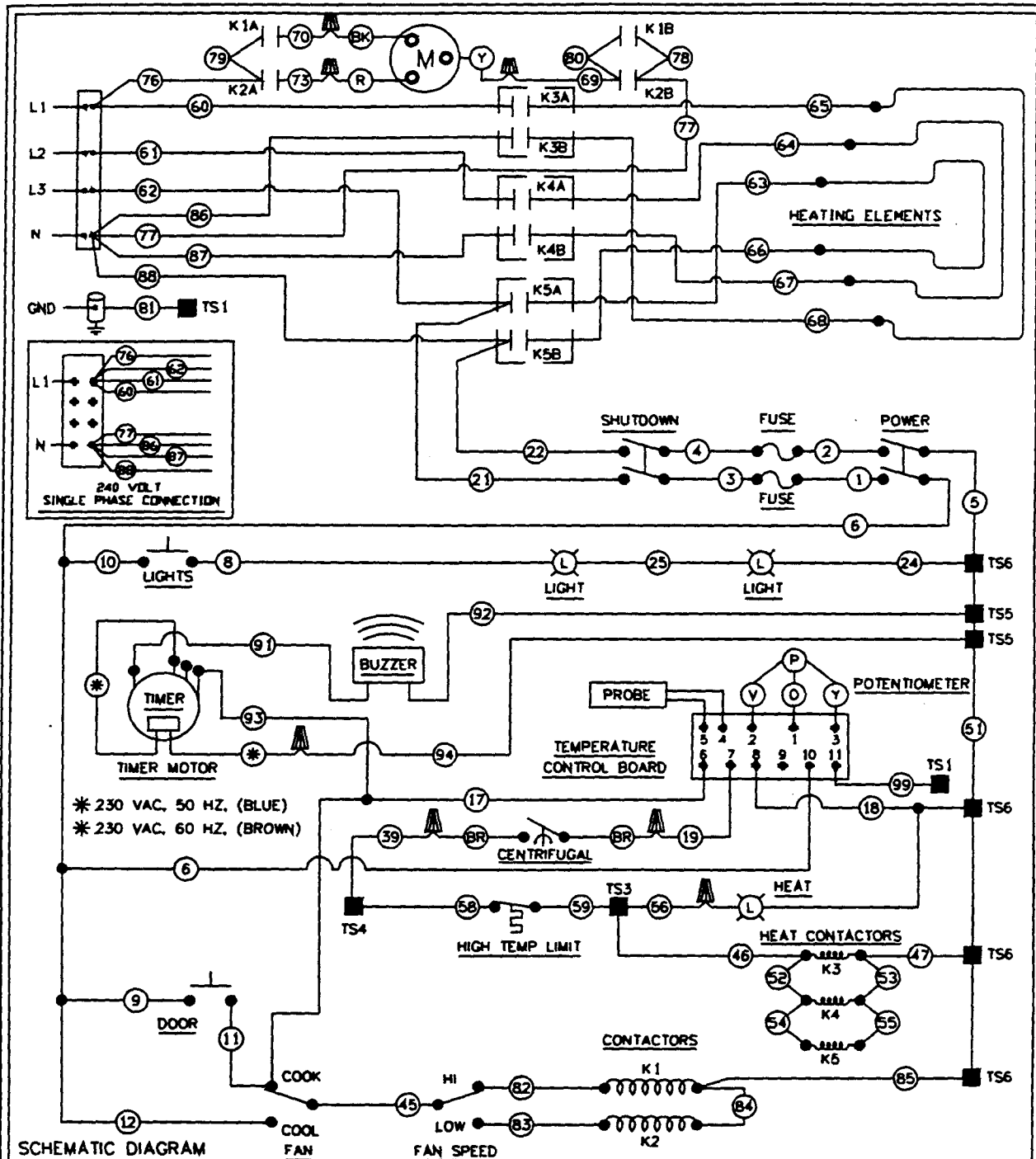
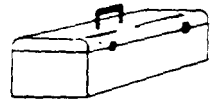
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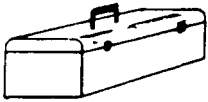




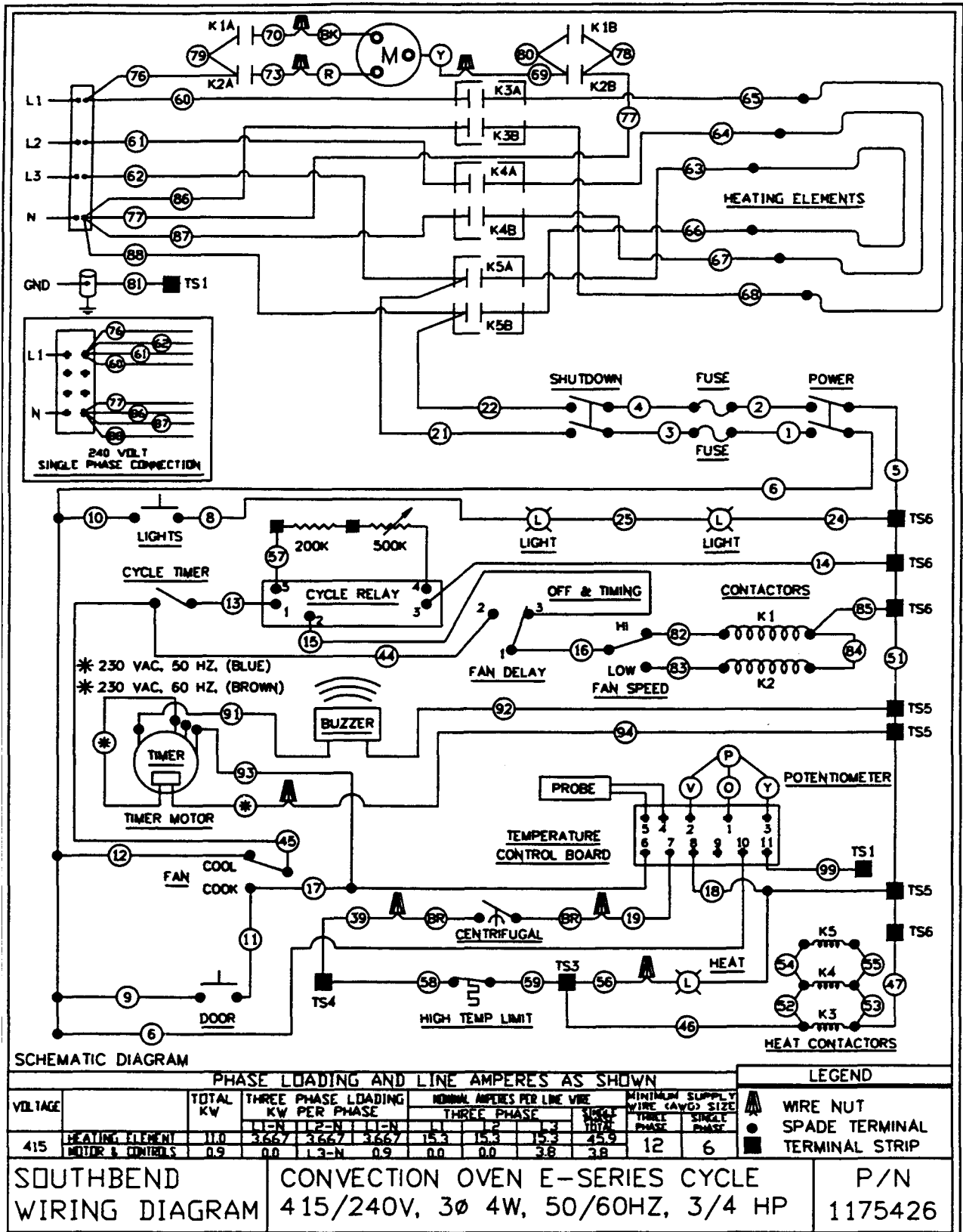
PHASE LOADING AND LINE AMPERES AS SHOWN										LEGEND	
VOLTAGE		TOTAL KW	THREE PHASE LOADING KW PER PHASE			NOMINAL AMPERES PER LINE WIRE THREE PHASE			MINIMUM SUPPLY WIRE (AWG) SIZE	SINGLE PHASE	THREE PHASE
			L1-N	L2-N	L3-N	L1	L2	L3			
415	HEATING ELEMENTS	11.0	3.667	3.667	3.667	15.3	15.3	15.3	12	6	6
	MOTOR & CONTROLS	0.9	0.0	0.0	0.9	0.0	0.0	3.8			

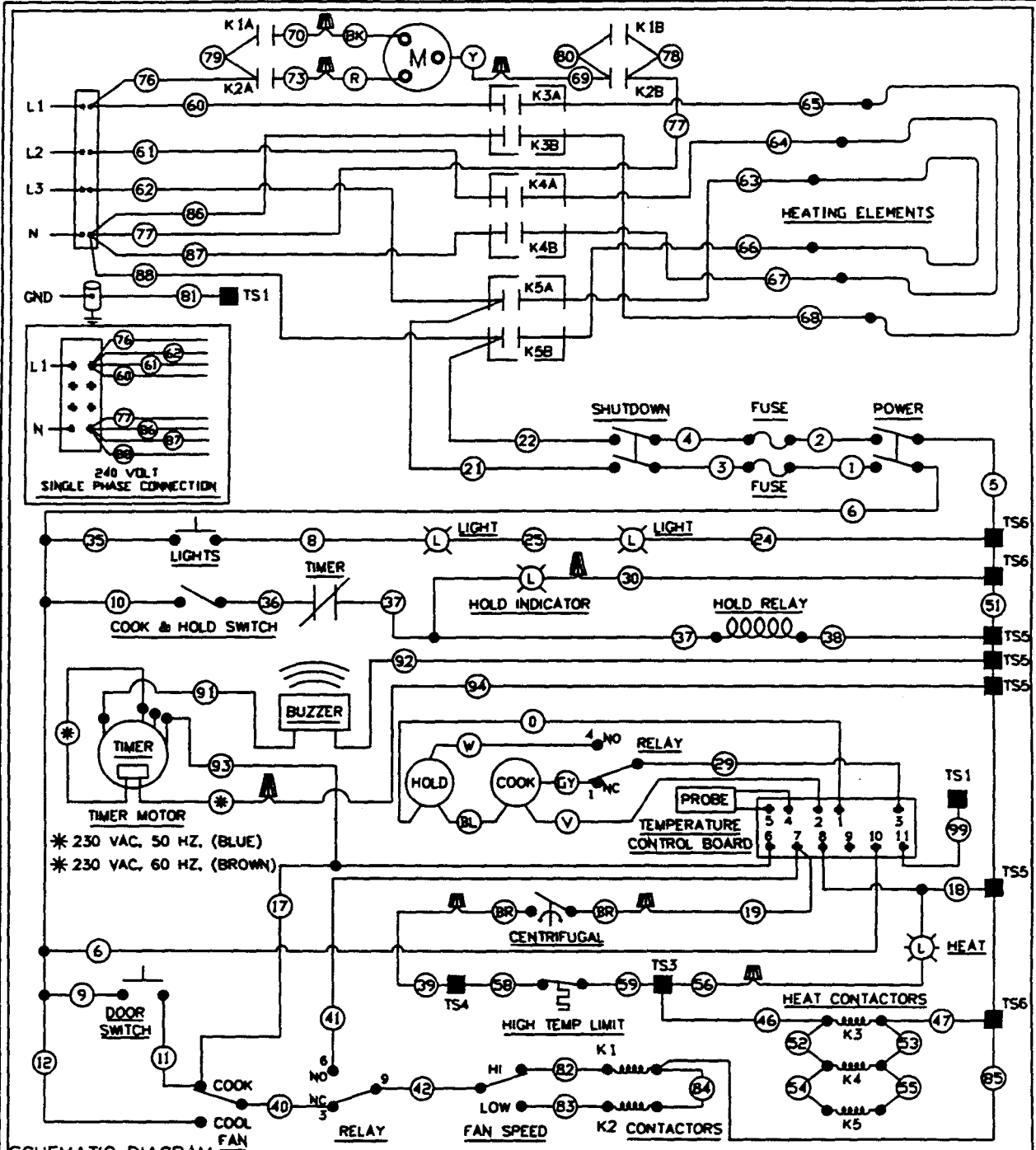
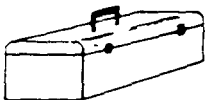
SOUTHBEND CONVECTION OVEN E-SERIES STD P/N 1175425





# SERVICE





SCHEMATIC DIAGRAM

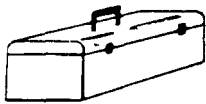
PHASE LOADING AND LINE AMPERES AS SHOWN

LEGEND

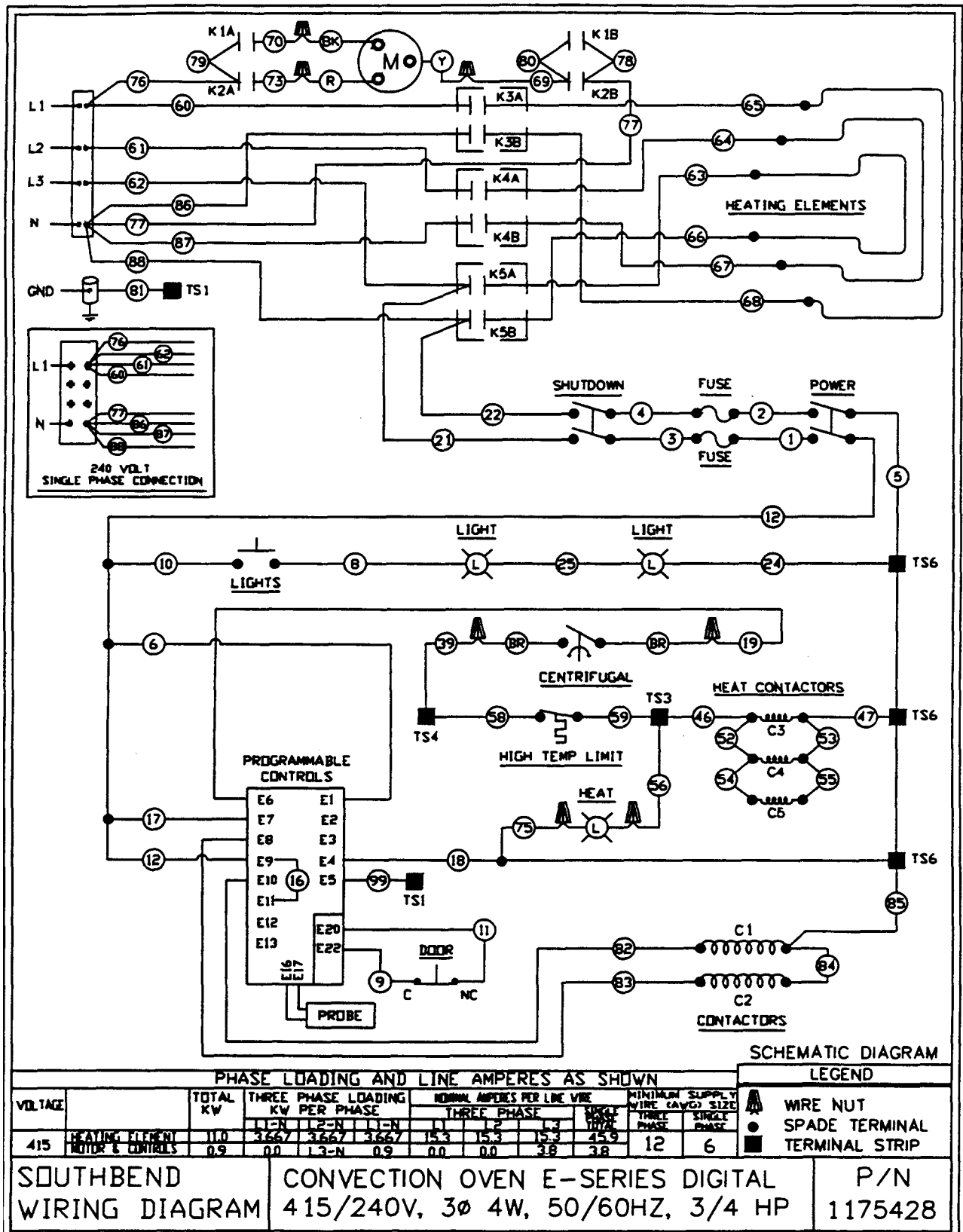
VOLTAGE		TOTAL KW	THREE PHASE LOADING KW PER PHASE			MINIMUM AMPERES PER LINE VOLT			MINIMUM SUPPLY WIRE (AWG) SIZE		
			L1-N	L2-N	L3-N	THREE PHASE	SINGLE PHASE	THREE PHASE	THREE PHASE	SINGLE PHASE	SINGLE PHASE
415	HEATING ELEMENT	11.0	3.667	3.667	3.667	15.3	15.3	15.3	45.9	12	6
	MOTOR & CONTROLS	0.9	0.0	0.0	0.9	0.0	0.0	3.8	3.8		

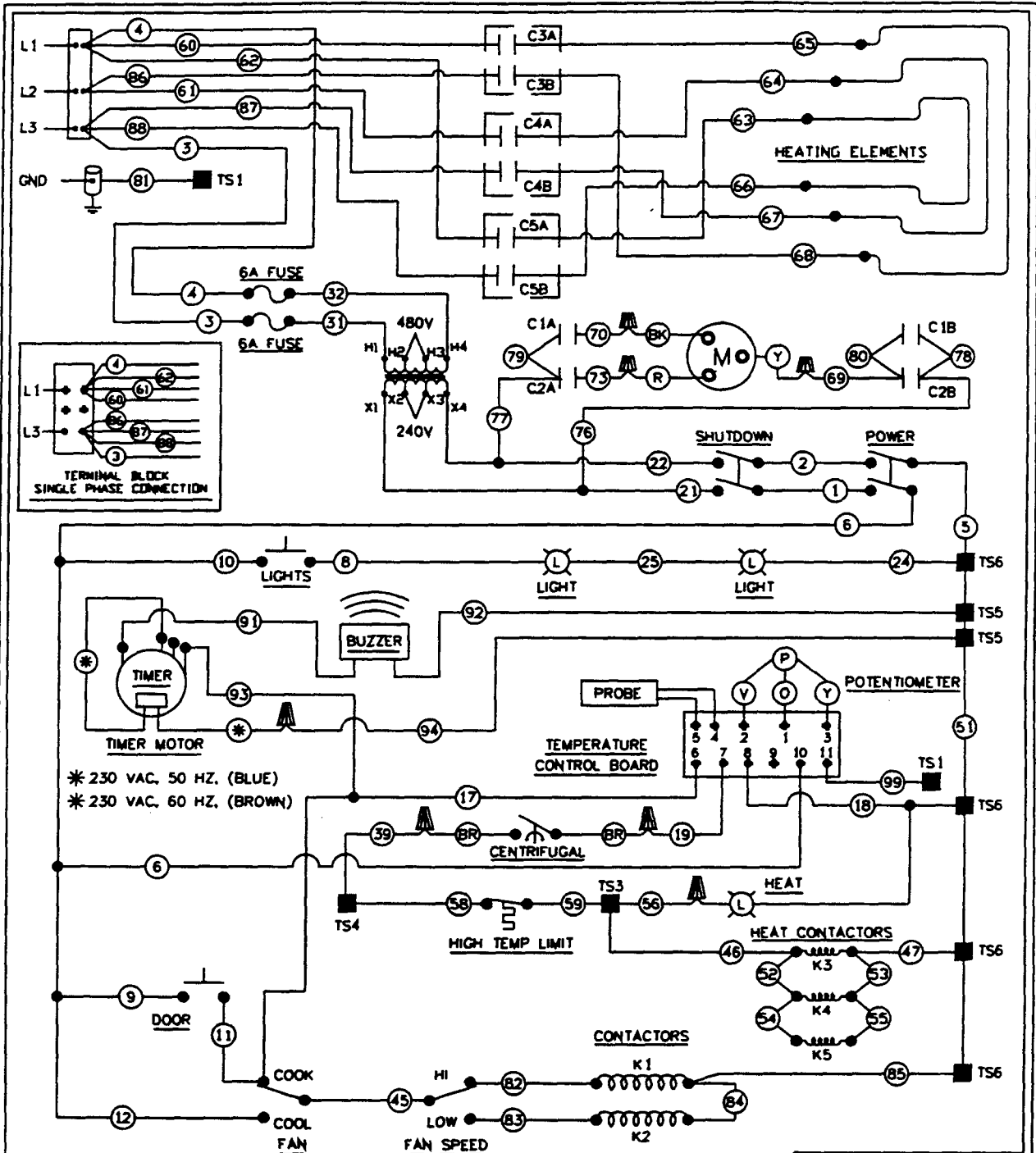
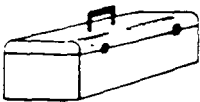
- WIRE NUT
- SPADE TERMINAL
- TERMINAL STRIP

SOUTHBEND WIRING DIAGRAM	CONVECTION OVEN E-SERIES C&H 415/240V, 3Ø 4W, 50/60HZ, 3/4 HP	P/N 1175427
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# SERVICE

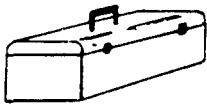




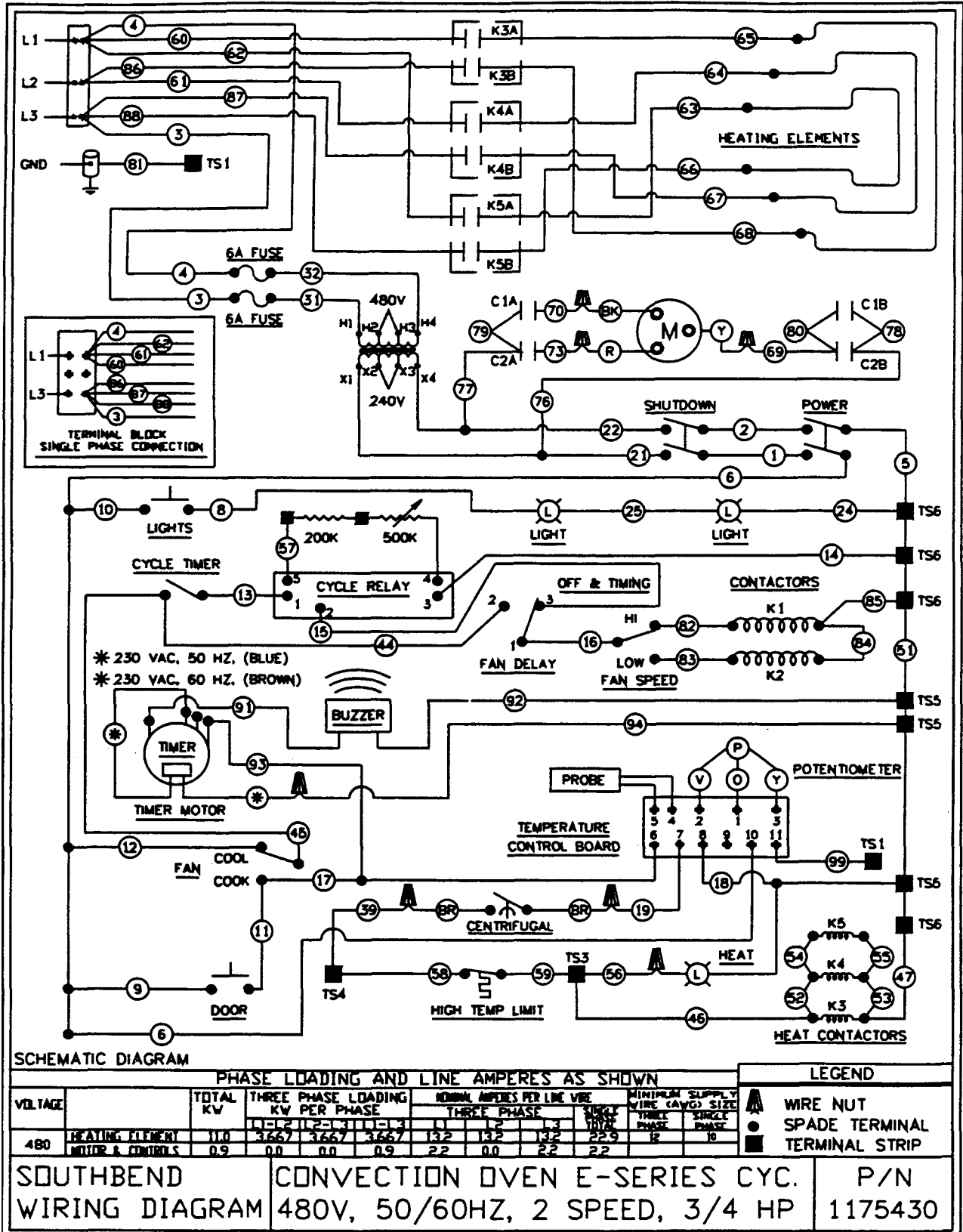
PHASE LOADING AND LINE AMPERES AS SHOWN										LEGEND	
VOLTAGE		TOTAL KW	THREE PHASE LOADING KW PER PHASE				MINIMUM AMPERES PER LINE WIRE				WIRE NUT
			L1=L2=L3	L1=L2=L3	L1=L2=L3	L1=L2=L3	THREE PHASE	SINGLE PHASE	THREE PHASE	SINGLE PHASE	
480	HEATING ELEMENTS	11.0	3.667	3.667	3.667	3.667	13.2	13.2	13.2	22.9	12
	MOTOR & CONTROLS	0.9	0.0	0.0	0.0	0.9	2.2	0.0	2.2	2.2	18

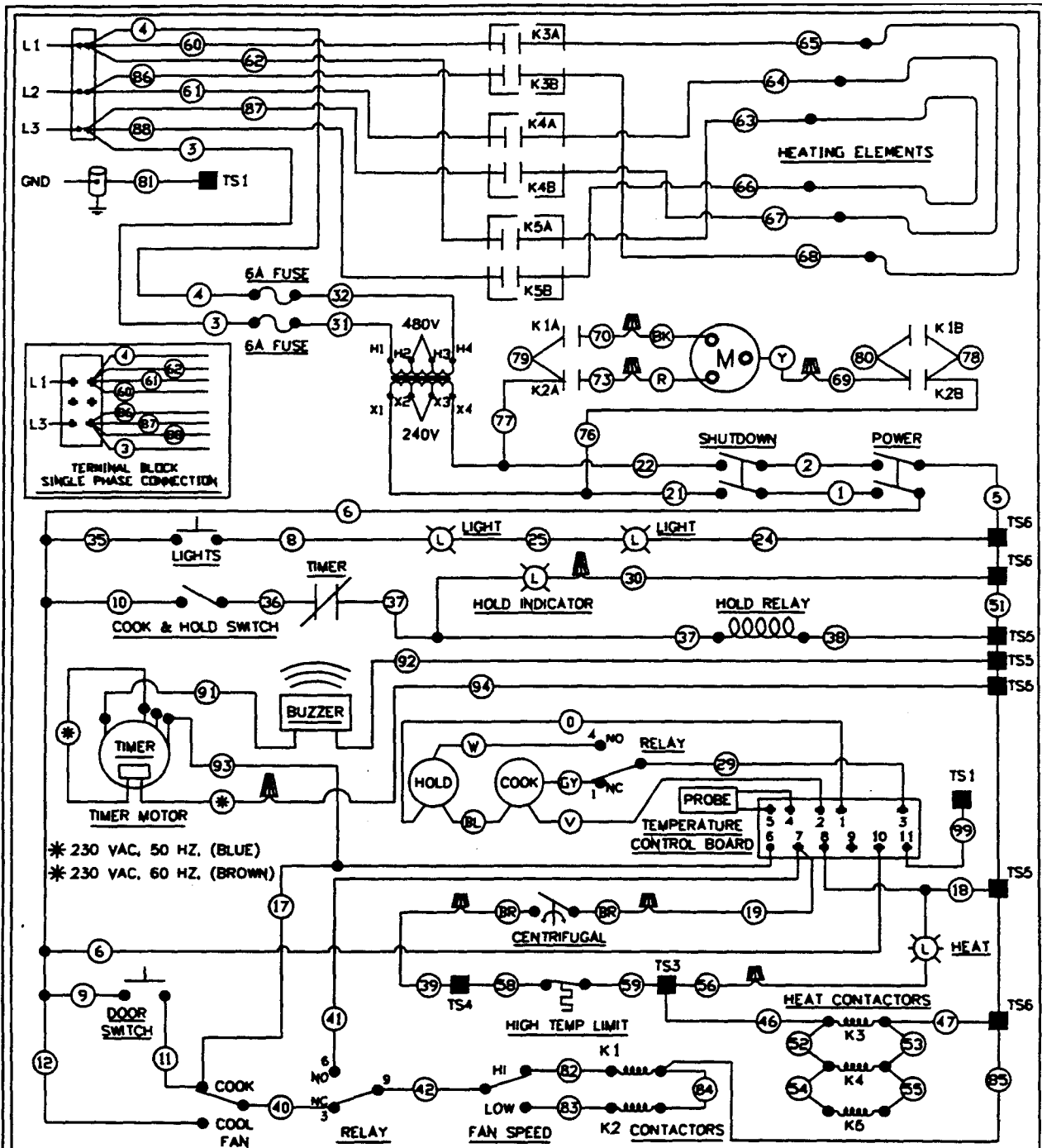
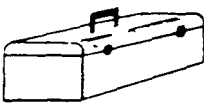
WIRE NUT	●
SPADE TERMINAL	○
TERMINAL STRIP	■

SOUTHBEND	CONVECTION OVEN E-SERIES STD.	P/N
WIRING DIAGRAM	480V, 50/60HZ, 2 SPEED, 3/4 HP	1175429



# SERVICE



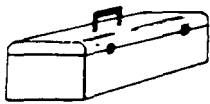


SCHEMATIC DIAGRAM											LEGEND		
PHASE LOADING AND LINE AMPERES AS SHOWN													
VOLTAGE		TOTAL KW	THREE PHASE LOADING KW PER PHASE				NOMINAL AMPERES PER LINE WIRE				MINIMUM SUPPLY WIRE (AWG) SIZE		
			1-2	2-3	3-1	1-3	THREE PHASE			SINGLE PHASE	THREE PHASE	SINGLE PHASE	
480	HEATING ELEMENT	11.0	3.667	3.667	3.667		13.2	13.2	13.2		22.9	12	10
	MOTOR & CONTROLS	0.9	0.0	0.0	0.9		2.2	0.0	2.2	2.2			

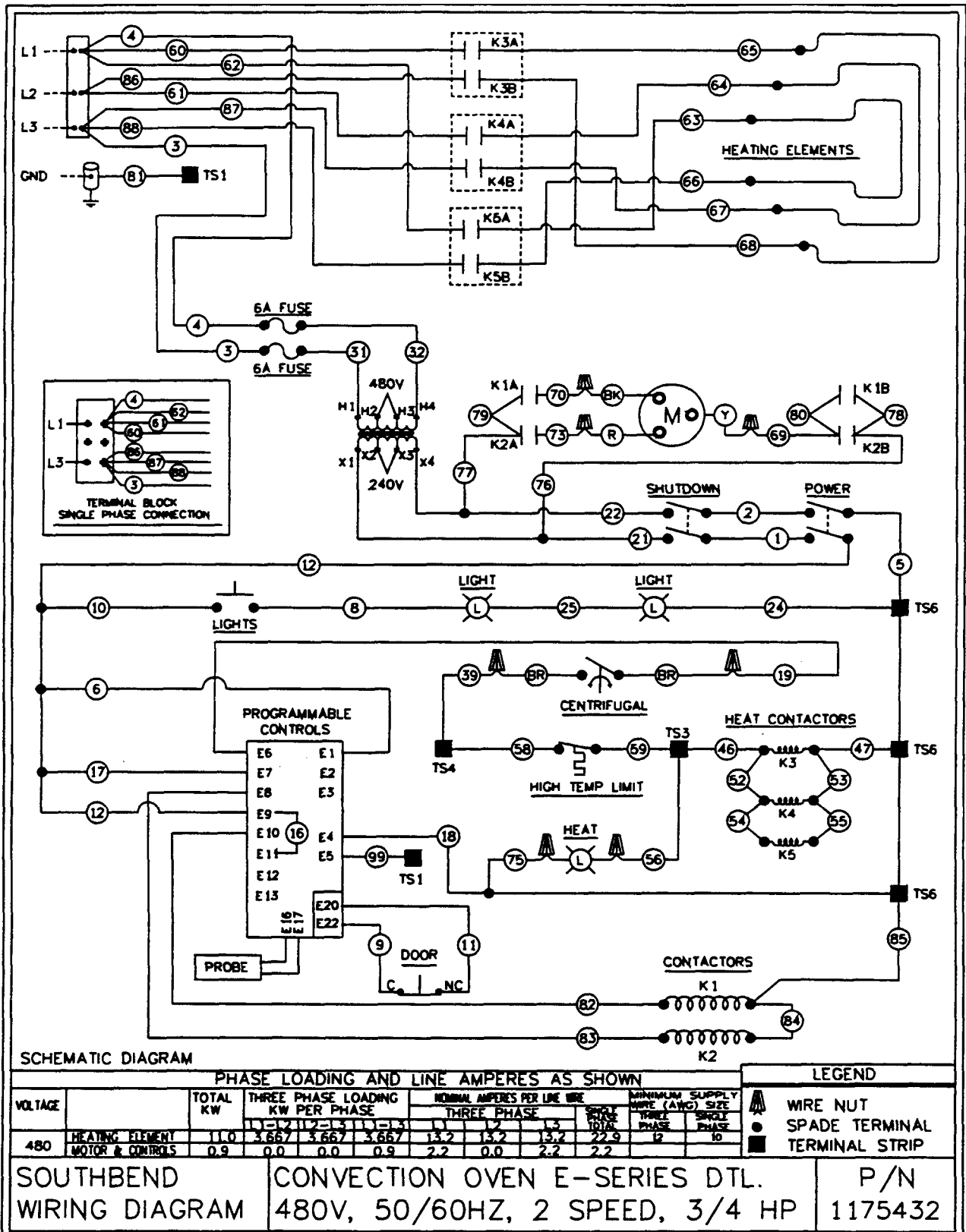
SOUTHBEND  
WIRING DIAGRAM

CONVECTION OVEN E-SERIES C&H  
480V, 50/60HZ, 2 SPEED, 3/4 HP

P/N  
1175431



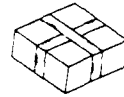
# SERVICE



# ELECTRIC CONVECTION OVEN PARTS



## PARTS



**WARNING:**  
**INSTALLATION OF OTHER THAN GENUINE SOUTHBEND PARTS WILL VOID THE WARRANTY OF THIS EQUIPMENT.**

The serial plate is located inside of the control panel. It is mounted to the left side of control compartment. There is also an Identification Plate mounted to the front of the oven that will supply model and serial number.

Replacement parts may be ordered either through a Southbend Authorized Parts Distributor or a Southbend Authorized Service Agency.

When ordering parts, please supply the Model Number, Serial Number, Part Number, Description, including Finish, and Type of Electrical Characteristics as applicable.

For parts not listed, consult a Southbend Authorized Parts Distributor or Southbend Authorized Service Agency. If necessary, please consult Southbend Parts Department for assistance.

### MODEL PREFIXES

ES = Standard Depth

EB = Bakery Depth

### MODEL SUFFIX'S

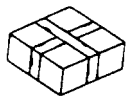
- SC = Standard Controls
- CC = Cycle Controls
- CH = Cook and Hold Controls (Analog)
- PC = Programmable Controls
- RT = Rack Track Controls

### REPLACEMENT PARTS INDEX

#### see pages

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Control Panel - Programmable Controls	(suffix --PC)	40
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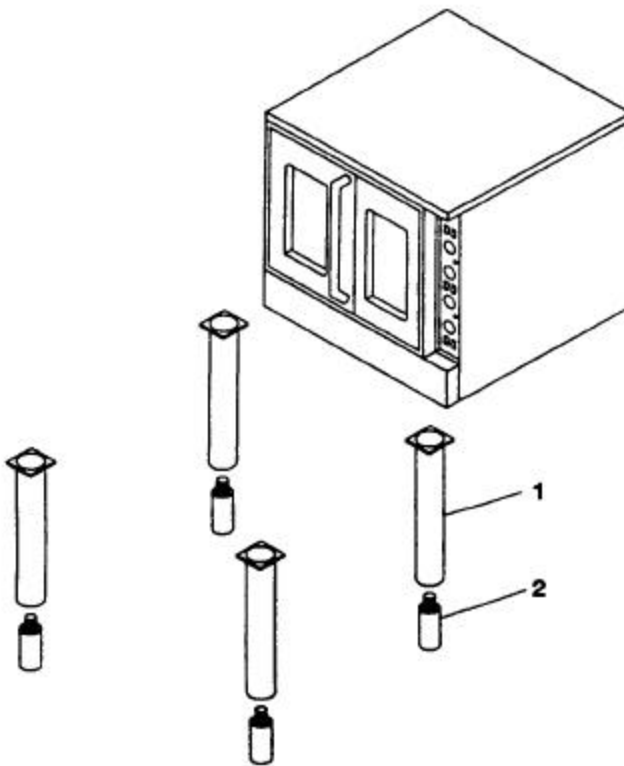
## PARTS

### LEGS FOR SINGLE DECK OVENS

ITEM NO.	PART NO.	DESCRIPTION
*	1146213	BOLT 3/8 16x1 HEX
*	1146513	WASHER 3/8 LOCK
*	1146522	WASHER 3/8 FLAT
1	1175090	SINGLE DECK ADJ. LEG
2	1174266	ADJ. FOOT FOR LEG
†	1173584	FLANGED FOOT FOR LEG

\* Not shown (Qty. 16 used per unit to attach legs to unit).

† Flanged Foot is optional replacement for 1174266.

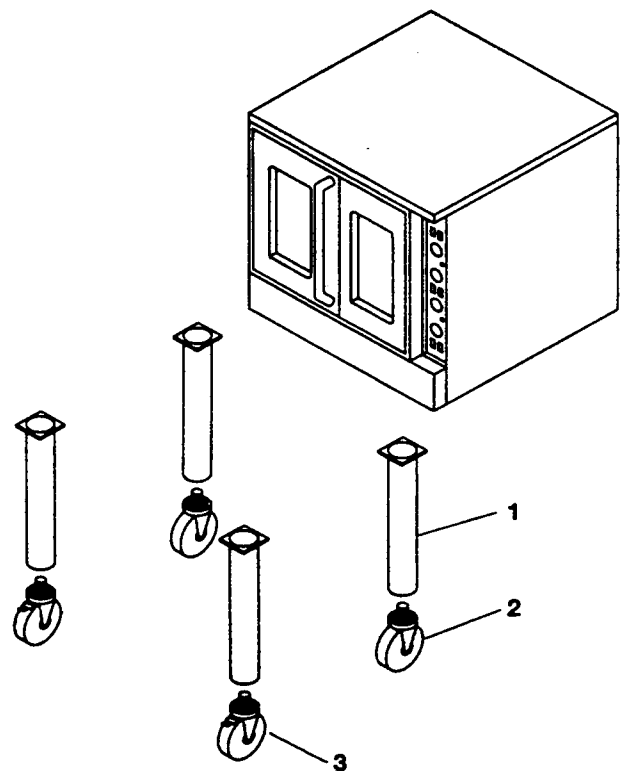


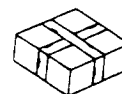
### CASTERS FOR SINGLE DECK OVENS

ITEM NO.	PART NO.	DESCRIPTION
*	1146213	BOLT 3/8 16x1 HEX
*	1146513	WASHER 3/8 LOCK
*	1146522	WASHER 3/8 FLAT
1	1175089	SINGLE DECK CASTER LEG
2	1174263	CASTER LESS BRAKE
3	1174264	CASTER WITH BRAKE
†	1174265	CASTER PACKAGE

\* Not shown (Qty. 16 used per unit to attach legs to unit).

† This package contains 4 casters, 2 with locks, 2 without locks.  
No leg pads, bolts or washers are included with this package.



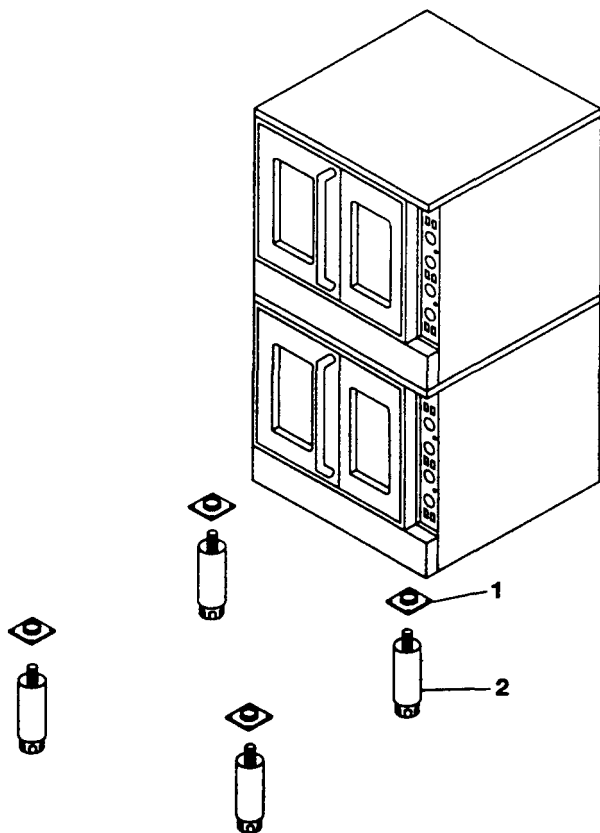


## LEGS FOR DOUBLE STACKED OVENS

ITEM NO.	PART NO.	DESCRIPTION
*	1146213	3/8 x 16 x 1 HEX HEAD BOLT
*	1146513	3/8 LOCK WASHER
*	1146522	3/8 FLAT WASHER
1	1172788	LEG PAD
2	1174259	SS LEG, 3/4 STUD
†	1174260	LEG PACKAGE

\* Bolts, Lock Washers, and Flat Washers not shown. Requires 4 of each per pad for a total of 16 each per double oven.

† This package consists of 4 legs only. No leg pads, bolts or washers are included in this package.

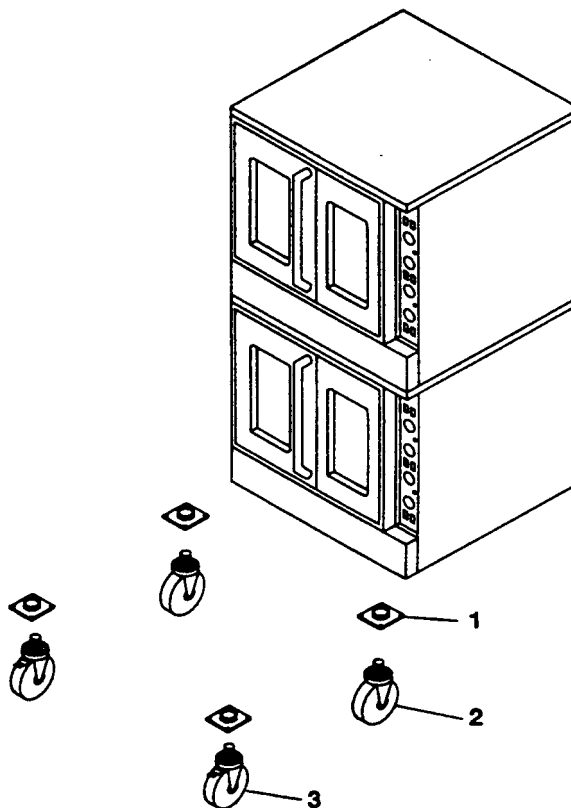


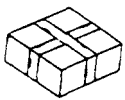
## CASTERS FOR DOUBLE STACKED OVENS

ITEM NO.	PART NO.	DESCRIPTION
*	1146213	3/8 16x1 HEX HEAD BOLT
*	1146513	3/8 LOCK WASHER
*	1146522	3/8 FLAT WASHER
1	1172788	LEG PAD
2	1174263	CASTER, LESS BRAKE
3	1174264	CASTER, WITH BRAKE
t	1174265	CASTER PACKAGE

\* Bolts, Lock Washers, and Flat Washers not shown. Requires 4 of each per pad for a total of 16 each per double oven.

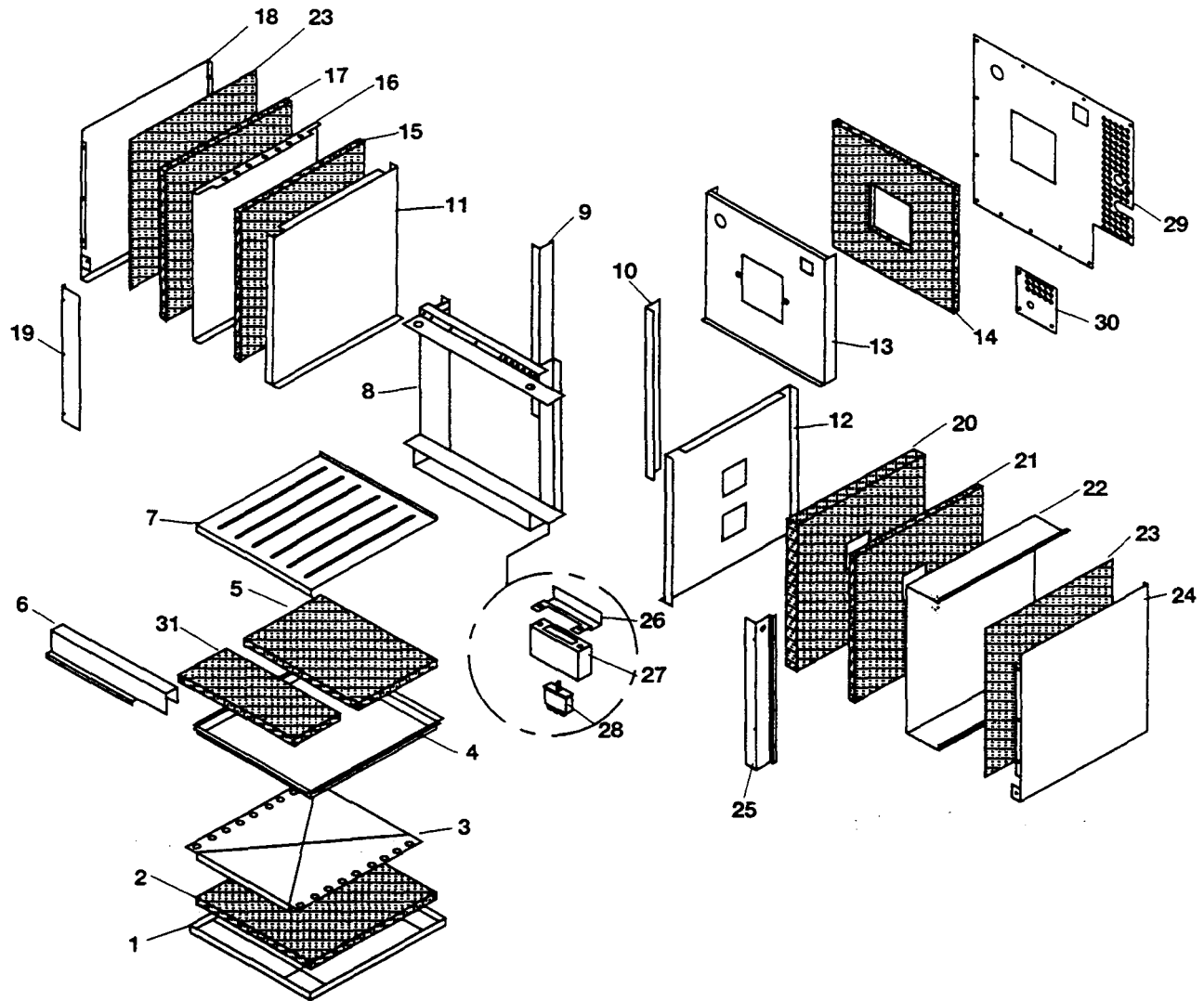
† This package will give you 4 casters, 2 with locks and 2 without. No leg pads, bolts or washers are included in this package.





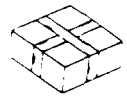
## PARTS

### OVEN BODY SECTION



### OVEN BODY PARTS

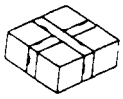
ITEM	PART NO.	DESCRIPTION	ES	EB
1	1175005	Shallow Base	•	
1	1175006	Bakery Base		•
2	1175013	Insulation-Base	•	
2	1175014	Insulation - Deep Base		•
3	1175404	Insulation-Base Retainer	•	
3	1175405	Insulation - Base Retainer Deep		•
4	1175242	Insulation - Pocket	•	
4	1175243	Insulation - Pocket Deep		•
5	1175013	Insulation - Base Retainer	•	
5	1175014	Insulation - Base Retainer		•



## OVEN BODY PARTS - Continued

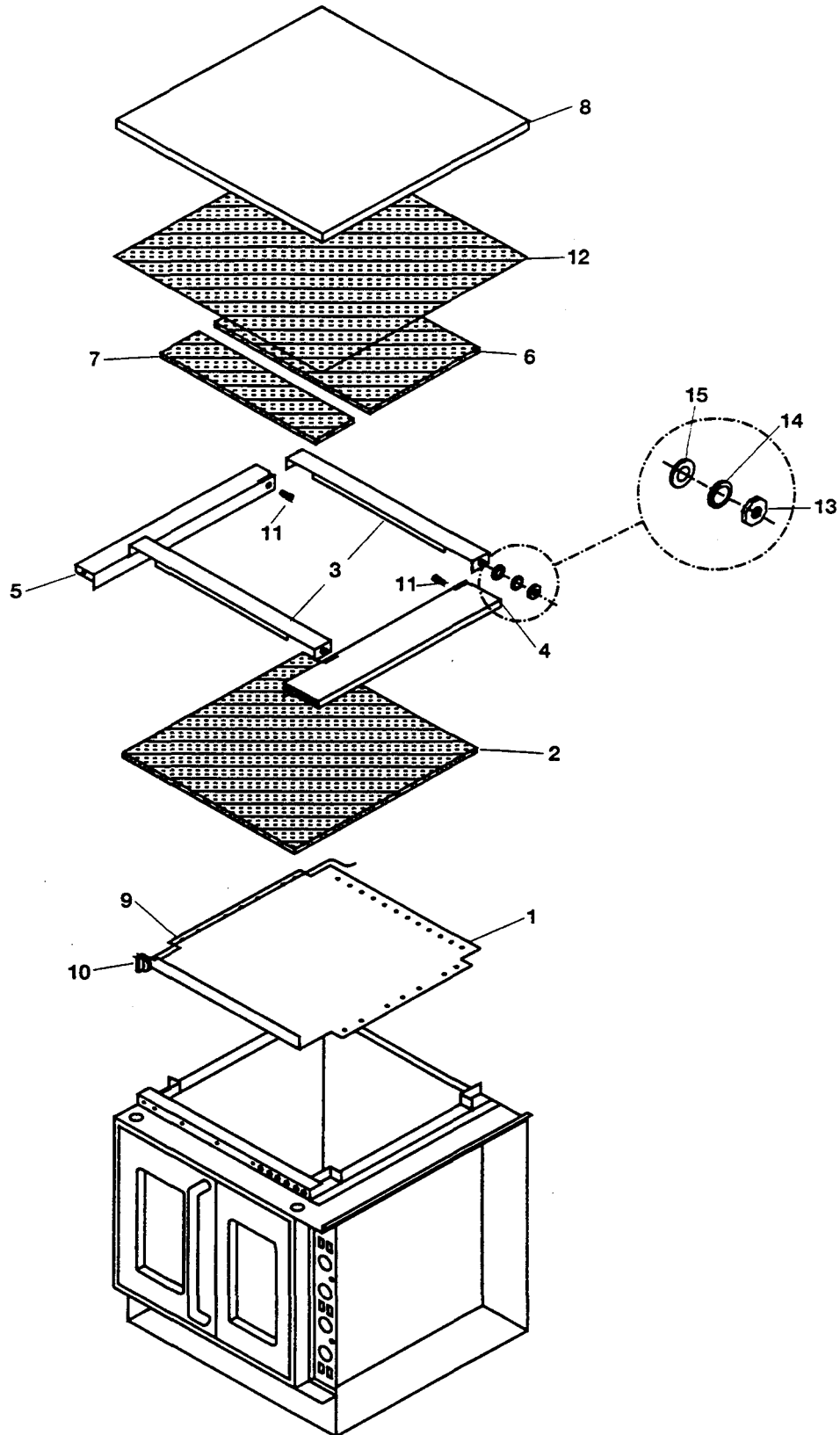
ITEM	PART NO.	DESCRIPTION	ES	EB
6	1175410	Door Switch Shield	•	•
7	1175155	Oven Bottom - Enamel	•	
7	1175157	Oven Bottom - Enamel Deep		•
7	1175205	Stainless Steel Oven Bottom	•	
7	1175206	Stainless Steel Oven Bottom - Deep		•
7	1175354	Oven Bottom Continuous Clean	•	
7	1175355	Oven Bottom Continuous Clean		•
8	1175023	Front Frame	•	•
9	1175019	Left Rear Upright	•	•
10	1175017	Front Left or Right Rear - Upright	•	•
11	1175160	Left Side Enamel Casing	•	
11	1175161	Left Side Enamel Casing - Deep		•
11	1175350	Left Side Continuous Clean Casing	•	
11	1175351	Left Side Continuous Clean Casing		•
11	1175052	Left Side Stainless Steel Casing	•	
11	1175053	Left Side Stainless Steel Casing - Deep		•
12	1175162	Right Side Enamel Casing	•	
12	1175163	Right Side Enamel Casing - Deep		•
12	1175352	Right Side Continuous Clean Casing	•	
12	1175353	Right Side Continuous Clean Casing - Deep		•
12	1175054	Right Side Stainless Steel Casing	•	
12	1175055	Right Side Stainless Steel Casing - Deep		•
13	1175233	Enamel Back Casing	•	•
13	1175467	Continuous Cleaning Back Casing	•	•
13	1175234	Stainless Steel Back Casing	•	•
14	1175366	Body Back Insulation	•	•
15	1175535	Left Side Insulation	•	
15	1175536	Left Side Insulation		•
16	1175032	Left Side Insulation Retainer	•	
16	1175033	Left Side Insulation Retainer		•
17	1175364	Left Body Side Insulation	•	
17	1175365	Left Body Side Insulation		•
18	1175062	Left Body Side	•	
18	1175063	Left Body Side		•
19	1175098	Left Side Trim	•	•
20	1175034	Retainer Side Insulation	•	
20	1175035	Retainer Side Insulation		•
21	1175363	Right Side Insulation	•	
21	1175378	Right Side Insulation		•
22	1175083	Right Side Insulation Retainer	•	
22	1175290	Right Side Insulation Retainer		•
23	1175361	Compartment Board Insulation	•	
23	1175362	Compartment Board Insulation		•
24	1175064	Right Body Side	•	
24	1175065	Right Body Side		•
25	1175099	Right Side Trim	•	•
26	1175298	Bracket	•	•
27	1175297	Support	•	•
28	1175299	Switch	•	•
29	1175266	Body Back Electric CO	•	•
30	1175280	Rear Access Panel	•	•
31	1175357	Insulation Frame Horizontal	•	•

\* Not shown on diagram.



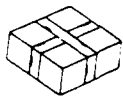
## PARTS

### BODY TOP SECTION



**BODY TOP SECTION PARTS**

ITEM	PART NO.	DESCRIPTION	ES	EB
1	1175237	Casing Top Enamel	•	
1	1175238	Casing Top Enamel		•
1	1175239	Casing Top Stainless Steel	•	
1	1175240	Casing Top Stainless Steel		•
1	1175468	Casing Top Continuous Clean	•	
1	1175469	Casing Top Continuous Clean		•
2	1175588	Top Insulation	•	
2	1175589	Top Insulation		•
3	1175047	Rear Top Support	•	•
4	1175030	Support Right Side-Top	•	
4	1175031	Support Right Side - Top		•
5	1175028	Support Top - Left Side	•	
5	1175029	Support Top - Left Side		•
6	1175564	Insulation, Casing Top Back	•	•
7	1175368	Insulation, Casing Top Front	•	
7	1175371	Insulation, Casing Top		•
8	1175399	Body Top	•	
8	1175400	Body Top		•
9	1175396	Control Rod Vent Mechanism	•	
9	1175397	Control Rod Vent Mechanism		•
10	1175401	Black Knob 1/40 w/Set Screw	•	•
11	1146202	Bolt 1/4" x 20x1"	•	•
12	1175613	Body Top Insulation	•	
12	1175614	Body Top Insulation		•
13	1146413	Nut 1/4 x 20 Hex	•	•
14	1146500	1/4" Lock Washer	•	•
15	1146507	1/4" Flat Washer	•	•



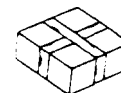
# PARTS

## OVEN INTERIOR PARTS "E" SERIES

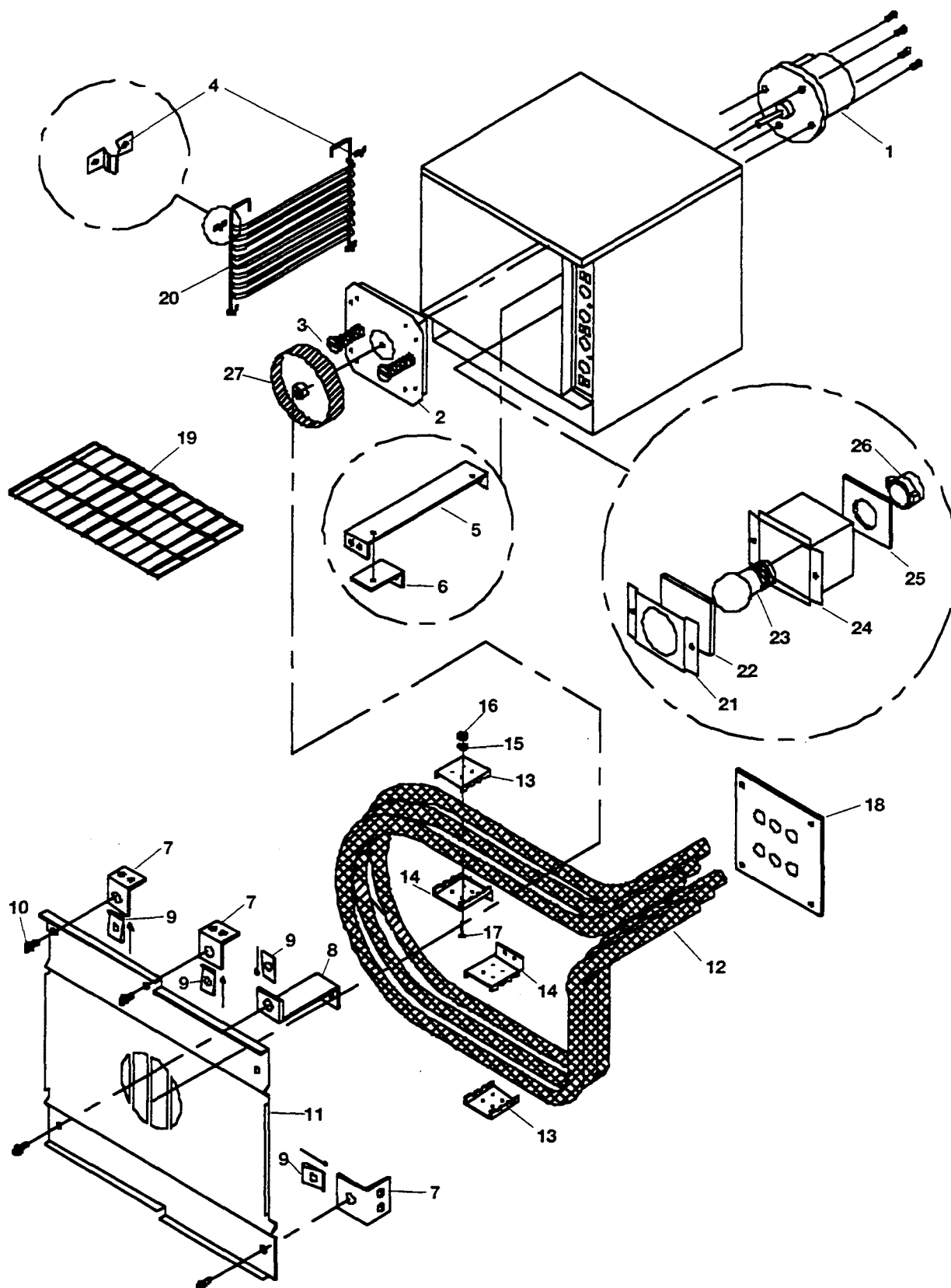
ITEM	PART NO.	DESCRIPTION	ES	EB
1	1175568	Motor 3/4 HP 2 Speed 230V 60 Cy	•	•
	1175570	Motor 3/4 HP 2 Speed 230V 50 Cy	•	•
2	1175695	Motor Pocket Weld Assembly	•	•
3	1175146	Carriage Bolt 3/8 x 4" SS	•	•
	1175334	3/8" SS Hex Nut For 1175146	•	•
4	6660	Side Rack Clip Support	•	•
5	1170328	Probe Bracket	•	•
6	1171710	Probe Bracket Clamp	•	•
7	1175079	Oven Baffle Bracket	•	•
8	1175412	Oven Baffle Bracket	•	•
9	1146502	5/16 Split Lock Washer	•	•
10	1160289	Screw 1/4x20x3/4	•	•
11	1175078	Oven Baffle - Enamel	•	•
	1175141	Oven Baffle - Stainless Steel	•	•
12	1175202	Electric Element - 208V	•	•
	1175203	Electric Element - 240V	•	•
	1175204	Electric Element - 480V	•	•
13	1175250	Element Retainer	•	•
14	1175249	Element Bracket	•	•
15	1146501	3/16 Lock Washer	•	•
16	1146406	Hex Nut-8-32	•	•
17	1146322	Screw 8 - 32 x 1 Round Head	•	•
18	1175251	Element Mounting Plate	•	•
+	1175263	Element Assembly - 208V	•	•
+	1175264	Element Assembly - 240V	•	•
+	1175265	Element Assembly - 480V	•	•
19	1175440	Oven Rack - Shallow	•	
	1175441	Oven Rack - Deep		•
20	1175438	Rack Guide-11 Position	•	
	1175439	Rack Guide-11 Position		•
	1175461	Rack Guide-9 Position	•	
	1175462	Rack Guide - 9 Position		•
21	1051600	Glass Retainer	•	•
22	1032200	Clear Glass Bulb Cover	•	•
23	1160009	40 Watt Clear Oven Light Bulb	•	•
24	1162760	Light Box Weld Assembly	•	•
25	1160032	Light Socket Gasket	•	•
26	1160010	Oven Light Socket Assembly	•	•
*	P6497	Teflon Gasket For Light Socket	•	•
27	1175196	Blower Wheel	•	•

\* Not shown on diagram.

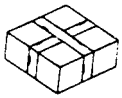
+ This assembly includes Items 12 thru 18.



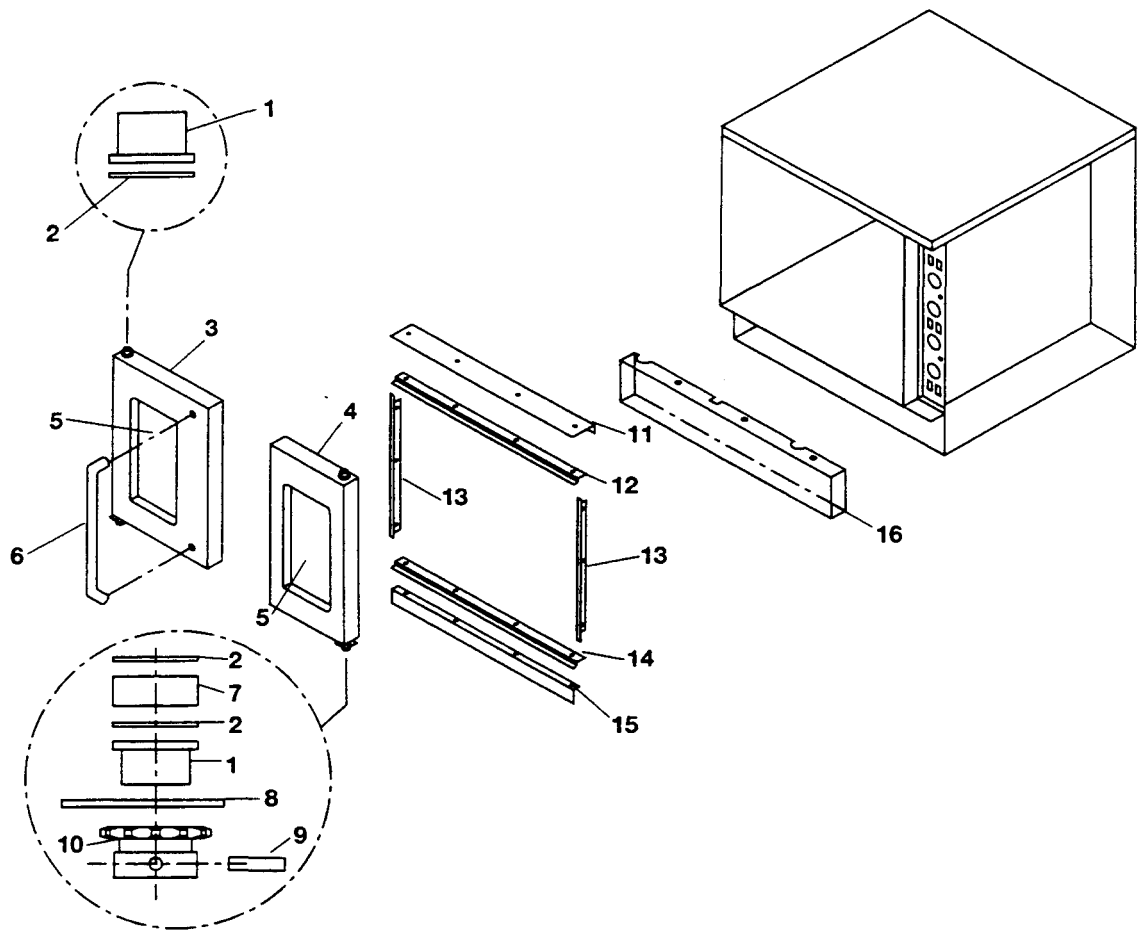
## OVEN INTERIOR PARTS "E" SERIES







## PARTS



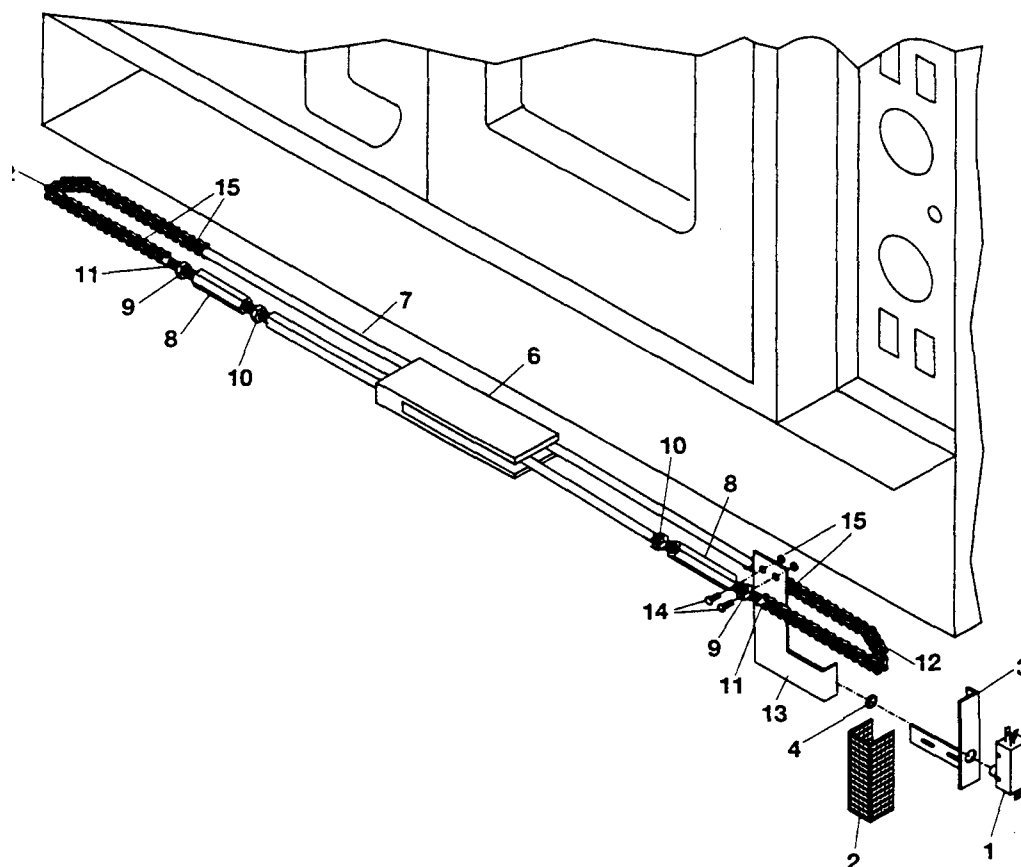
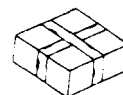
### OVEN DOORS & SEALS

ITEM	PART NO.	DESCRIPTION	ES	EB
1	1164527	Bronze Bushing	!	!
2	1092000	Thrust Bearing	!	!
3	1179127	Left Door Assembly – Window	!	!
*	1179128	Left Door Assembly – Solid	!	!
4	1179129	Right Door Assembly - Window	!	!
*	1179130	Right Door Assembly - Solid	!	!
5	1175111	Window	!	!
6	1175112	Door Handle	!	!
*	1-2476	Plug Button	!	!
7	1164547	Spacer	!	!
8	1175082	Bushing	!	!
9	1041200	Pin	!	!
10	1019100	Sprocket	!	!
11	1175220	Front Top Trim Top	!	!
12	1175172	Door Seal	!	!
13	1175174	Left & Right Door Seal	!	!
14	1175173	Bottom Door Seal	!	!
15	1175221	Bottom Trim	!	!
*	1175117	Center Door Seal	!	!
*	1175118	Door Equalizer	!	!
16	1175252	Panel - (Front Cover)	!	!

\* Not shown on diagram.

† If changing door assembly on ovens with serial #94E or after individual doors can be changed, both left and right doors will have to be changed at the same time.

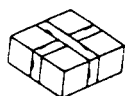
Doors prior to 94E were 21 -5/8" high - these are no longer available. 1179127, 28, 29, 30 are all 22" high.



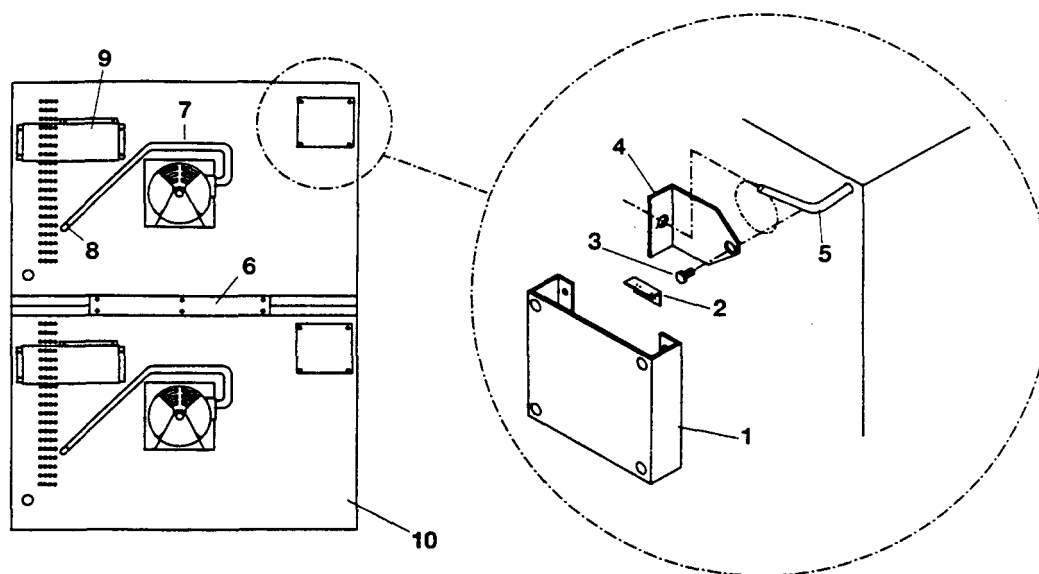
### DOOR CHAIN MECHANISM

ITEM	PART NO.	DESCRIPTION
1	1175300	Door Switch
2	1175086	Door Switch Cover
3	1175557	Door Switch Bracket
4	1175782	Nut (Door Switch)
5	1175210	Door Chain Assembly (Consists of Items 6 thru 15)
6	1175214	Door Mechanism, Weld Assembly
7	1175213	Round Rod
8	1164522	Turn Buckle 2-3/4 Long Brass
9	1164551	Nut 3/8-16 Hex Head Right Hand Thread
10	1164552	Nut 3/8-16 Jam Left Hand Thread
11	1164523	Pivot Rod
12	1175212	Chain
13	1175554	Door Switch Striker Bar
14	1146358	Screw #8 - 32 x 5/8 Round Head
*	1146501	3/16" Lock Washer
*	1146406	8-32 Hex Nut
15	1029501	Chain Link #41
	1175460	Door Switch Assm. (Consist of Items 1 thru 4 above)

\* Not shown on diagram.

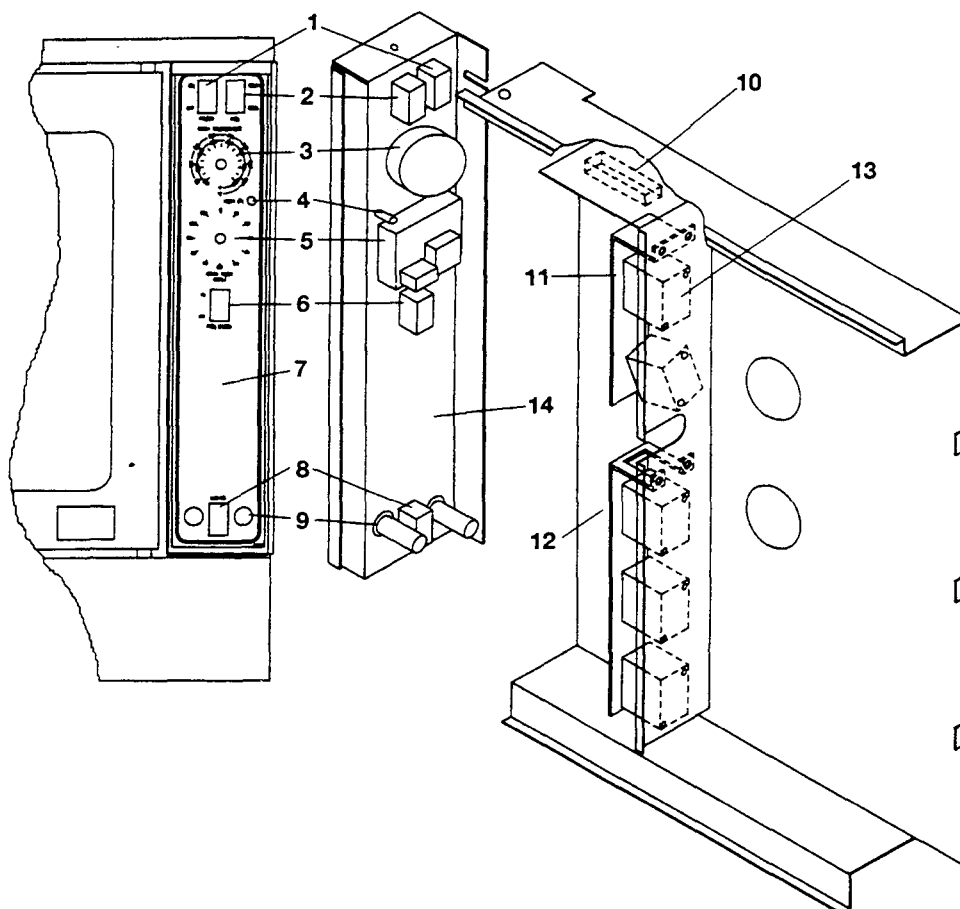


## PARTS



### REAR BODY PARTS

ITEM	PART NO.	DESCRIPTION	ES	EB
1	1175281	Vent Mechanism Cover	!	!
2	1175398	Vent Mechanism Stop Pad	!	!
3	1146304	Screw #10x1/2 Phillips Head	!	!
4	1175277	Vent Handle Paddle	!	!
5	1175396	Vent Mechanism Control Rod	!	!
5	1175397	Vent Mechanism Control Rod	!	!
6	1175085	Rear Tie Strap	!	!
7	1063002	Flex Conduit (Wires Not Included)	!	!
8	1061799	3/8" Squeeze Connector 90°	!	!
9	1175256	Element Terminal Cover	!	!
10	1175266	Body Back	!	!



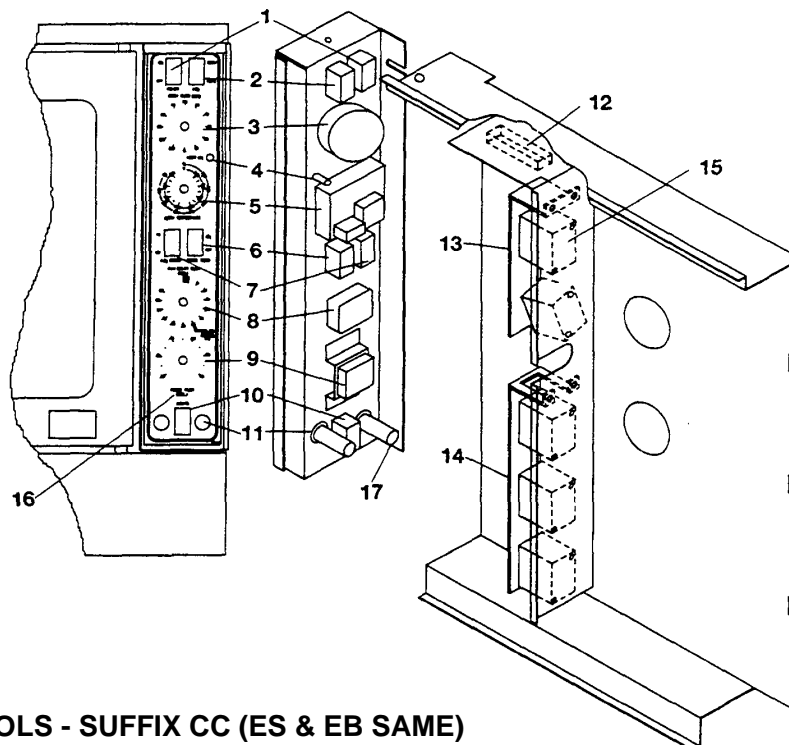
### CONTROL PANEL - STANDARD CONTROLS - SUFFIX SC (ES & EB SAME)

ITEM	PART NO.	DESCRIPTION
1	1170343	Rocker Switch - DPST - (ON-OFF)
2	1170344	Rocker Switch - SPDT (Cook-Cool)
3	1175409	1 Hour Mechanical Timer (If timer is electric refer to page 41.)
j	1172130	Timer Knob - Mechanical
4	1170350	Amber Light (240V)
5	1175024	Temperature Control Board
j	1175025	Potentiometer
j	1175147	Temperature Control Board & Potentiometer Bracket
j	1170337	Temperature Knob
6	1170344	Rocker Switch (Hi-Low) Fan
7	1175041	Poly Panel (Cook Only) If timer is electric, see page 41 for poly panel number.
8	1170346	Rocker Switch - SPST - (MOM ON-OFF)
9	1170424	Fuse Holder
	1170425	Fuse
10	1170336	Marker Strip For Terminal Block
	1170335	Terminal Block
j	1172753	Temperature Probe
11	1175545	Top Contactor Cover
12	1175546	Bottom Contactor Cover
13	1161525	Contactor 2 Pole. 240V, 30 Amp
j	1161998	High Limit Switch
14	1175224	Control Panel (No Components on panel)
j	PE-024	Terminal Block End
j	PE-023	Terminal Block

Ø Not shown on diagram.



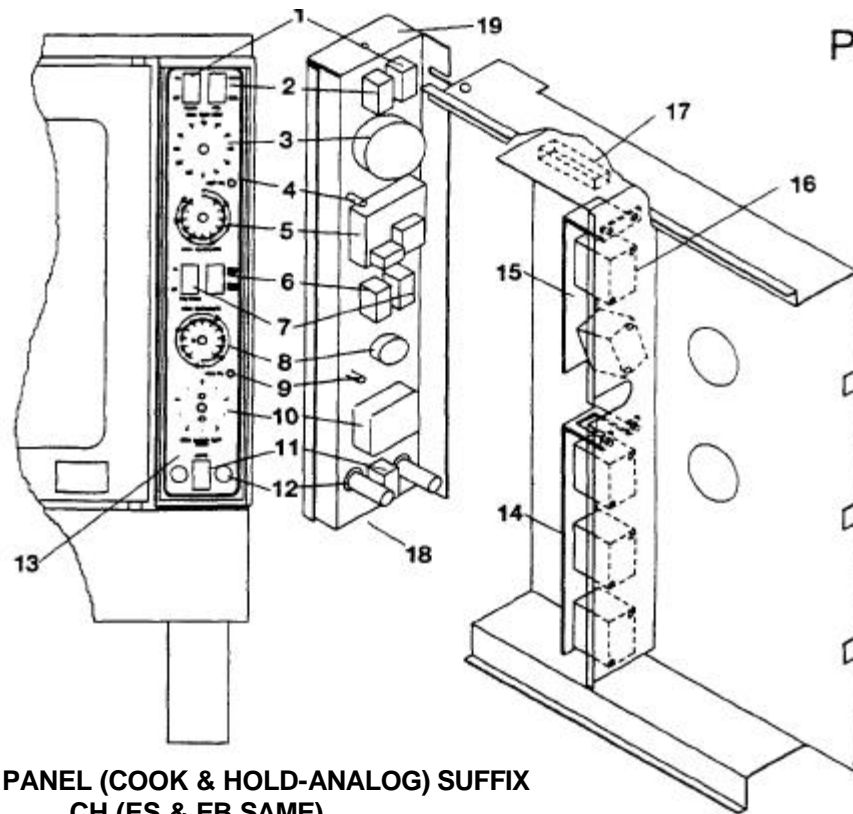
## PARTS



### CONTROL PANEL - CYCLE CONTROLS - SUFFIX CC (ES & EB SAME)

ITEM	PART NO.	DESCRIPTION
1	1170343	Rocker Switch - DPST - (ON-OFF)
2	1170344	Rocker Switch - SPOT (Cook-Cool)
3	1175409	1 Hour Mechanical Timer (If timer is electric refer to page 41.)
	1172130	Timer Knob (For mechanical timer.)
4	1170350	Amber Light (240V)
5	1175024	Temperature Control Board
	1175025	Potentiometer
	1175147	Temperature Control Board & Potentiometer Bracket
6	1170344	Rocker Switch SPDT (Cycle Timer On-Off)
7	1170344	Rocker Switch SPDT (Hi-Low Fan Speed)
8	PE-195	60 Minute Timer
	1172130	Timer Knob
9	1175154	Time Delay Relay (240V)
	1175156	Potentiometer Time Delay
	1175197	Terminal Strip 2 Pos. Cycle
	1175198	Resistor 200K Pulse
	1170337	Knob
10	1170346	Rocker Switch SPST - Light
11	1170424	Fuse Holder
	1170425	Fuse
12	1170336	Marker Strip for Terminal Block
	1170335	Terminal Block
13	1175545	Top Contactor Cover
14	1175546	Bottom Contactor Cover
15	1161525	Contactor 2 Pole 30 Amps
φ	1161998	High Limit Switch
φ	PR-024	Terminal Block END
φ	PE-023	Terminal Block
16	1175043	Poly Panel (Cycle Control) If timer is electric refer to page 41.
17	1175225	Control Panel (No components)
18	1175552	Control Panel Electric, Cycle Control (Includes Item 1 thru 11,16,17)
φ	1172753	Temperature Probe
φ	1172089	Probe Cover
	1173734	Probe Assembly (Includes Probe & Cover)

φ Not Shown on diagram.



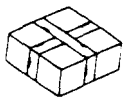
## PARTS



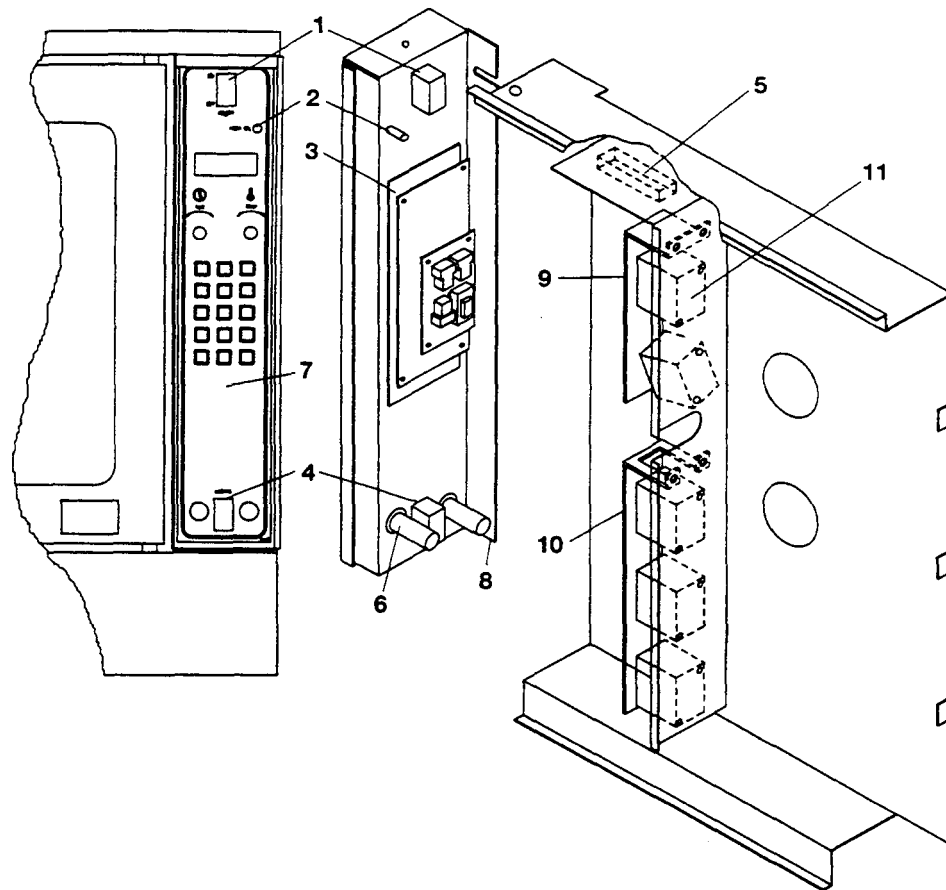
### CONTROL PANEL (COOK & HOLD-ANALOG) SUFFIX CH (ES & EB SAME)

ITEM	PART NO.	DESCRIPTION
1	1170343	Rocker Switch - DPST - (ON-OFF)
2	1170344	Rocker Switch - SPDT (Cook-Cool)
3	1175409	1 Hour Mechanical Timer (If timer is electric refer to page 41.)
⌀	1172130	Timer Knob (For mechanical timer.)
4	1170350	Amber Light (240V)
5	1175024	Temperature Control Board
⌀	1175026	Potentiometer
⌀	1170337	Temperature Control Knob
⌀	1175147	Control Board & Potentiometer Bracket
6	1170344	Rocker Switch SPDT (Cook & Cook/Hold)
7	1170344	Rocker Switch SPDT (Hi-Low Fan)
8	1175026	Potentiometer
⌀	1170337	Knob
9	1170351	Light, White (240V)
10	1175040	Timer (6 Hour)
⌀	1161454	12 Hour Timer
⌀	1175048	12 Hour Timer-Dial
⌀	1172130	Knob (For 6 Hour Timer)
11	1170346	Rocker Switch SPST (Light)
12	1170424	Fuse Holder
⌀	1170425	Fuse
13	1175042	Poly Panel (If 1 hour timer is electric, refer to page 41 for poly panel number.)
14	1175546	Bottom Contactor Cover
15	1175545	Top Contactor Cover
16	1161525	Contactor 2 Pole, 240V, 30 Amp
17	1170336	Marker Strip for Terminal Block
	1170335	Terminal Block
⌀	PE-024	Terminal Block End
⌀	PE-023	Terminal Block
18	1175384	Control Panel Assembly (6 Hr. Timer with Components)
	1175457	Control Panel Assembly (12 Hr. Timer with Components) Optional
19	1175225	Control Panel Only (No Components)
⌀	1161998	High Limit Switch
⌀	1172753	Temperature Probe
⌀	1172089	Probe Cover
	1173734	Probe Assembly (Include Probe & Cover)

⌀ Not shown on diagram.



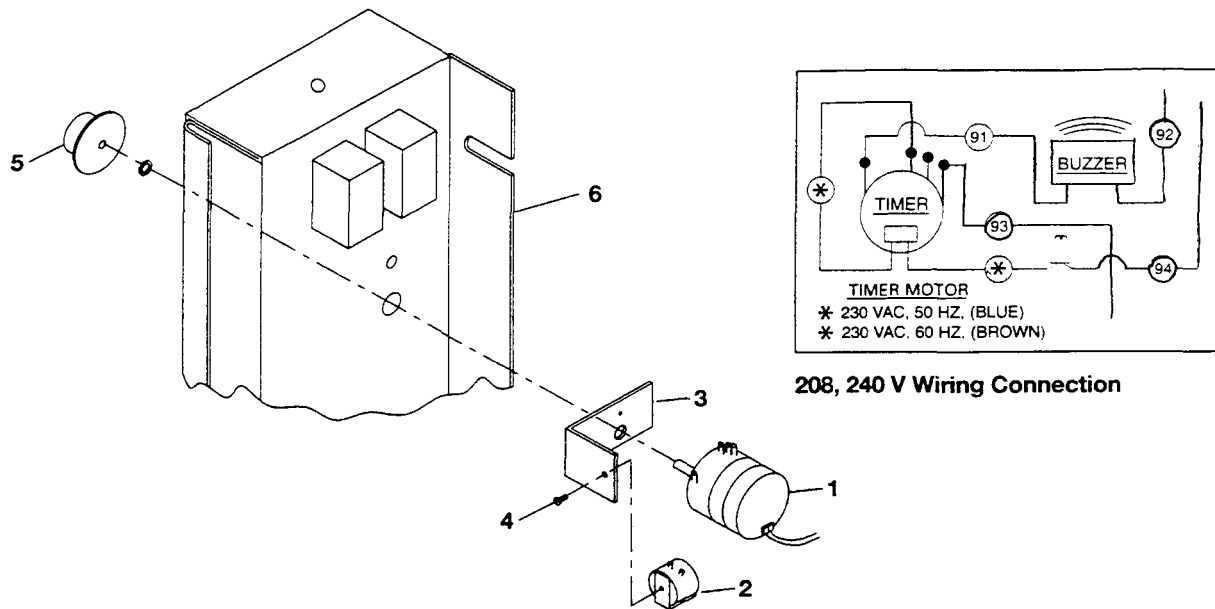
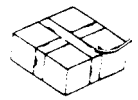
## PARTS



### RACK TRACK & PROGRAMMABLE CONTROL

ITEM	PART NO.	DESCRIPTION	PC	RT
1	1170343	Rocker Switch DPST - Power	?	?
2	1170350	Signal Light - Amber 240V	?	?
3	1173402	Control Rack Track - Deg F.		?
	1172271	Control Programmable	?	
φ	1172275	Knob	?	?
4	1170346	Rocker Switch - SPST Light	?	?
5	1170335	Terminal Strip	?	?
6	1170424	Fuse Holder	?	?
φ	1170425	Fuse	?	?
7	1175044	Poly Panel		?
	1175045	Poly Panel	?	
8	1175335	Front Control Panel (No Components)	?	?
9	1175545	Top Contactor Cover	?	?
10	1175546	Bottom Contactor Cover	?	?
11	1161525	Contactor 2 Pole 240V 30 Amp	?	?
φ	1161998	High Limit Switch	?	?
φ	PE-024	Terminal Block End	?	?
φ	PE-023	Terminal Block	?	?
φ	1172753	Temperature Probe	?	?
φ	1172089	Probe Cover	?	?

φ Not shown on diagram.



### ELECTRICAL TIMER PARTS & WIRING For Ovens with Suffix SC, CC, CH

ITEM	PART NO.	DESCRIPTION
1	1176416	208, 240,60 HZ Electric Timer
	1176436	220V 50 HZ Electric Timer
2	1109900	Buzzer (208, 240V)
3	1175671	Buzzer Mounting Bracket
4	6600334	#6 Screw
5	1170337	Knob
6	1175224	Front Control Panel (Standard Control)
	1175225	Front Control Panel (Cook & Hold, Cycle)
+	1175676	Poly Panel (Standard Control)
+	1175677	Poly Panel (Cook & Hold)
+	1175678	Poly Panel (Cycle)
φ	4440418	208,240V / 60 HZ Timer Conversion Kit
φ	4440419	208 240V / 50 HZ Timer Conversion Kit

+ Not Shown on Drawing.

φ Timer Conversion Kit to convert mechanical timer to electric timer and buzzer. When ordering kit supply model and serial number and voltage with purchase order.