

OPERATING AND INSTRUCTION MANUAL

**LDB1-18, LDB1-23, LDB1-67, LDB2-17, LDB2-28
LEB1-20, LEB1-27, LEB1-75, LEB2-19, LEB2-29**

Manual C-21 Rev 3/77

Despatch Industries

1-800-473-7373

WARNING

1. THE USER(S) OF THIS EQUIPMENT MUST COMPLY WITH OPERATING PROCEDURES AND TRAINING OF OPERATING PERSONNEL AS STATED IN THE OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA) OF 1970, SECTION 5, AND THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA), 86A OF 1973 (ARTICLE 100, SECTION 2D, 5 AND APPENDIX I).
2. DO NOT USE ANY ENCLOSED CONTAINERS, FLAMMABLE SOLVENT, OR OTHER FLAMMABLE MATERIALS IN THIS EQUIPMENT. (EXAMPLES: SPRAY CAN, SEALED JAR OF WATER, ALCOHOL, KEROSENE, OIL, PAPER, ETC.). (SEE DESIGN SPECIFICATION SHEET).
3. DO NOT ATTEMPT ANY SERVICE ON THIS EQUIPMENT WITHOUT OPENING MAIN POWER DISCONNECT SWITCH.
4. DO NOT USE IN DUSTY, WET, CORROSIVE OR EXPLOSIVE ATMOSPHERE.
5. DO NOT OPERATE UNTIL THE RUBBER FEET ARE ATTACHED TO THE BOTTOM CORNERS OF THIS EQUIPMENT. THEY ARE REQUIRED FOR PROPER COOLING OF THE CONTROL COMPARTMENT.
6. DO NOT INSERT ANY OBJECTS INTO THE PERFORATED FLOOR PLATE.
7. DO NOT EXCEED THE MAXIMUM TEMPERATURE OF 204 C. (400°F.)

FAILURE TO HEED THESE WARNINGS CAN RESULT IN EITHER PROPERTY DAMAGE, INJURY, OR DEATH.

RESISTANCE OF BACTERIA TO DRY HEAT

The unusual resistance of bacteria, particularly spores, to dry heat temperatures, has long been recognized. The early findings of Robert Koch and his conferees clearly demonstrated that the spores of *Bacillus anthracis* required a hot air temperature of 284°F. (140°C.) for three hours in order to insure their destructions. A review of the literature has shown that there is a lack of systematic study on death time temperatures of dry heat (hot air) as compared to moist heat or steam. From the available data, it is reasonable to conclude that an exposure to dry heat at 320°F. (160°C.) for 60 minutes is approximately the equivalent of an exposure to moist heat at 250°F. (121°C.) for 10 to 15 minutes.

The resistance of both vegetative bacteria and spores varies considerably with different species, some being killed more rapidly than others. The spores of molds appear to be intermediate in resistance between vegetative and sporulating bacteria in that they require a temperature of 230°F. - 240°F. (110°C. - 115°C.) for 90 minutes for their destruction. The data summarized in Table 1 is descriptive of the finds of various investigators in determining the time-temperature ratios required for destruction of bacterial spores by means of dry heat.

It is of special importance to note that the microbiological action of dry heat is markedly influenced by the nature of the fluid or substance surrounding the organism. In the presence of organic matter such as film or oil or grease the organism is definitely protected or insulated against the action of dry heat. The importance of this factor is dry heat sterilization, particularly in the case of surgical instruments, which, if properly cleaned beforehand, may be sterilized in one hour at 320°F. (160°C.). If oil or grease is present on the instrument, safe sterilization calls for four hours exposure at 320°F. (160°C.).

The thermal death time-temperatures of resistance dry spores in anhydrous oil have been carefully studied by Rodenbeck. The findings of this investigator are deserving of serious consideration in the establishment of safe exposure periods for dry heat sterilization of oils, fats or other anhydrous fluids. For example, it has been determined that at a temperature of 320°F. (160°C.) a period of 160 minutes is required for destruction of resistant spores in anhydrous oil or fat. If the oil is hydrated or contains a small amount of water, as little as 0.5 percent, sterilization may be accomplished in approximately 20 minutes at this temperature. Most oils contain a small amount of water (less than 1 percent) unless subjected to a specific dehydration process.

MINIMUM REQUIREMENTS FOR DRY HEAT STERILIZATION

Due to the various factors involved in dry heat sterilization, it is difficult and somewhat impractical to attempt to establish one time and temperature entirely suitable for all type of loads. Not only must the characteristics of the material undergoing sterilization be known, but strict attention must also be given to the method of preparation, packaging or wrapping, and unloading of the sterilizer to insure that the exposure period selected will be adequate for the destruction of the most resistant and least accessible organisms.

For certain materials, such as glassware, it becomes possible to employ a higher temperature for a shorter period of time than when sterilizing powders which may undergo physical or chemical change unless the temperature is maintained below the critical point of the substance. Instruments represent the ideal for dry heat sterilization because of the heat conducting properties of the metal, but here again the maximum temperature employed for sterilization must be restricted to a safe range beyond which the temperature may be drawn. Everyone concerned with sterilizing techniques should constantly keep in mind that the time required to heat a quantity of one material to sterilizing temperature may differ markedly from that required to heat another material to the same temperature.

The most widely used temperature for dry heat sterilization of hospital supplies is 320°F. (160°C.) for a period of not less than one hour, preferably two hours. This requirement refers to the actual temperature of the load and does not compensate for any appreciable time lag characteristic of a particular load after the sterilizer has reached this temperature. In establishing reliable methods for dry heat (hot air) sterilization, the following time-temperature ratios are recommended:

340°F. (170°C.)	-----	60 Minutes
320°F. (160°C.)	-----	120 Minutes
300°F. (150°C.)	-----	150 Minutes
285°F. (140°C.)	-----	180 Minutes
250°F. (121°C.)	-----	Overnight

TABLE I

DESTRUCTION OF BACTERIAL SPORES BY DRY HEAT AT DIFFERENT TEMPERATURES

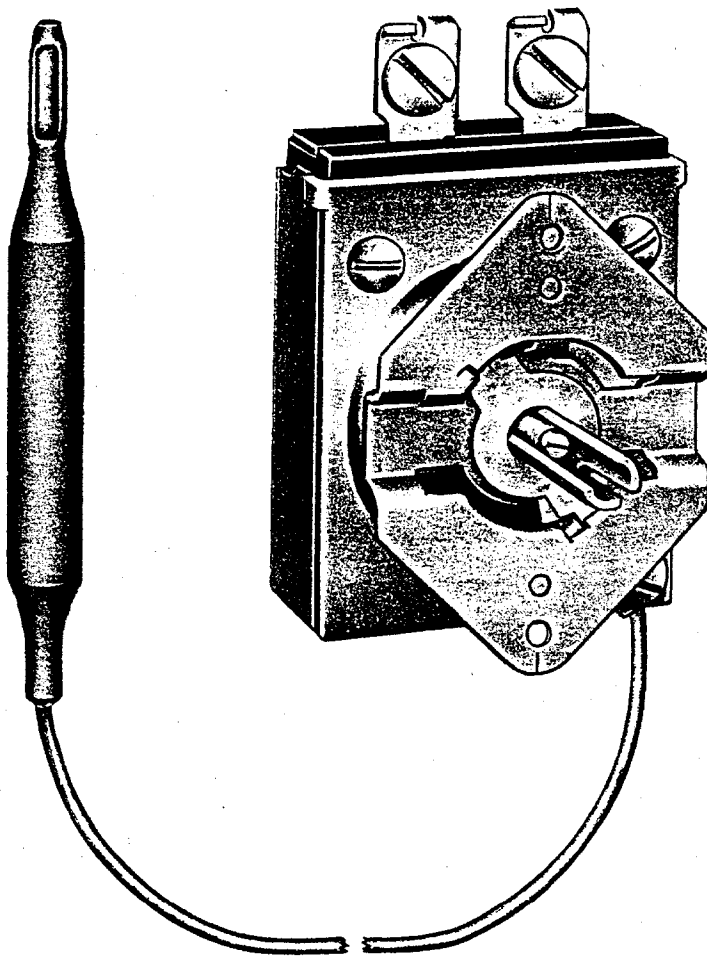
Time-Minutes								
Organism (Dry Spores)	248°F (120°C)	266°F (130°C)	284°F (140°C)	302°F (150°C)	320°F (160°C)	338°F (170°C)	356°F (180°C)	Investi- gator
B. anthracis	45	20						Murray
B. anthracis			180					Koch et al.
B. anthracis				60				Stein & Rogers
B. anthracis			180					Park & Williams
B. anthracis	60				9			Oag
B. subtilis				60				Perkins & Underwood
Cl. botulinum	120	60	60	25	25	15	10	Tanner & Dack
Cl. septicum						7		Oag
Cl. tetani		35	15					Murray & Headlee
Cl. welchii	50	15	5					Headlee
Cl. welchii						7		Oag
Garden Soil					30	15		Ecker & Smith

MODEL B10 is a sensitive, single pole, direct acting thermostat which breaks circuit on rising temperature. MODEL B20 reverse acting makes circuit on rising temperature.

Robertshaw

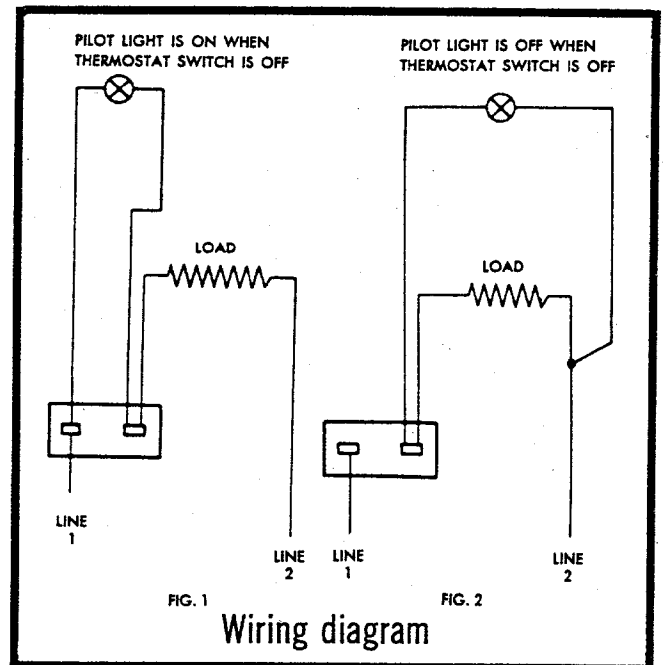
Models B10 and B20 Electric Thermostats

single-pole, slow make-and-break with center stem adjustment



RATING —
20 amperes at 115 volts, AC 15 amperes at 230 volts, AC (This thermostat is not designed for use with direct current)

TEMPERATURE RANGE — (standard)
200° to 550° F.



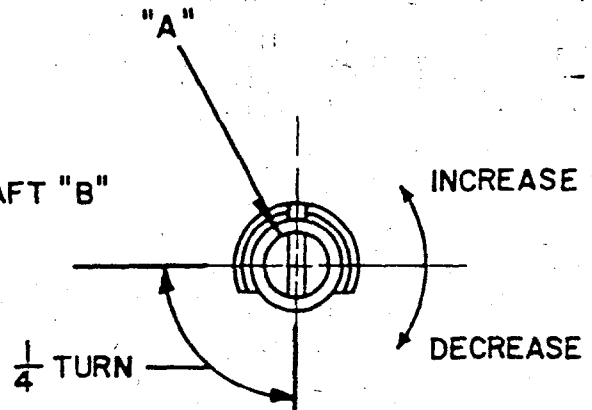
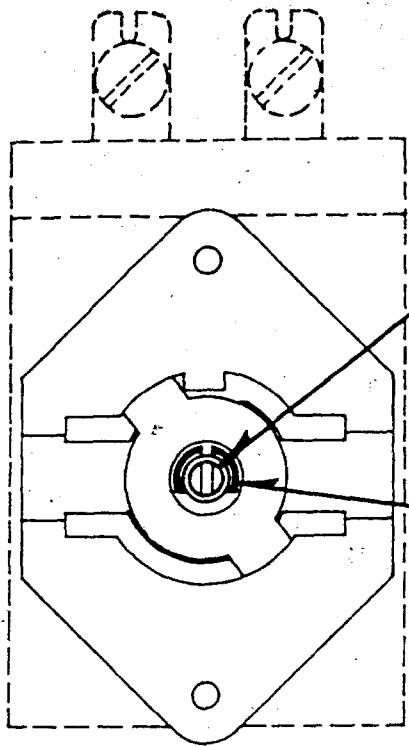
GENERAL INSTRUCTIONS

This thermostat should be protected against moisture, grease, dust, lint, corrosive vapors and mounted preferably in a location which is not subject to vibration. The model B10 and B20 electric thermostats will operate within extremely close temperature differentials when the bulb is located in a liquid. When the bulb is located in air as in ovens, the temperature differential depends upon the rate of heating and cooling. The slower

the heating and cooling rate, the closer the differential. If extremely close temperature control is required, the capacity of the heating element should be in relation to the size of the appliance.

If thermostat is subject to extreme moisture conditions, remove control and return to factory for protective coating (dip seal) to prevent rust and corrosion.

Models B10 and B20 Electric Thermostats



CHECKING CALIBRATION

All Model B10 and B20 Electric Thermostats are adjusted at the factory and calibrated on precision instruments to control temperatures accurately. Adjustment or recalibration is not needed unless the thermostat has been mishandled in transit, or changed or abused while in service.

To Check Calibration

- 1 Use a Robertshaw test instrument or a good grade oven thermometer to determine temperature at the location where temperature regulation is required.
- 2 Turn the dial of the thermostat to a medium temperature setting.
- 3 Allow enough time for temperature to stabilize, or until several temperature readings are identical.

To Recalibrate

- 4 Remove dial from shaft "B".
- 5 With screwdriver, turn screw "A", clockwise to decrease and counter clockwise to increase the temperature.
- 6 Because of the many temperature ranges available in this thermostat 1/4 turn of screw "A" has different values. The chart below shows the approximate value of 1/4 turn of screw "A" when used on the respective temperature ranges.

TYPE THERMOSTAT	TEMP. RANGE IN DEGREES F.	1/4 TURN IN DEGREES F.
OVEN	200° to 550° F.	35° F.
OVEN	300° to 700° F.	35° F.
FRYER	200° to 400° F.	18° F.
STERILIZER	100° to 200° F.	12° F.
COFFEE URN	Boil 3-2-1-Hold	12° F.
SPECIAL	60° to 250° F.	16° F.
SPECIAL	100° to 300° F.	18° F.

- 7 Replace dial.

After a calibration is made let the appliance operate until the temperature has stabilized, then recheck to determine whether or not the calibration has been corrected.



NEW STANTON DIVISION
ROBERTSHAW CONTROLS COMPANY
YOUNGWOOD, PENNSYLVANIA

INSTRUCTIONS FOR OPERATING
DESPATCH OVEN MODELS
LEB1-20, LEB1-27, LDB1-18, LDB1-23

Remove all packing materials and inspect unit and accessories for damage.

Attach rubber feet to the bottom corners of the oven. They are required for proper cooling of the control compartment and to prevent damage to counter surfaces.

Place aluminum vent cap over the exhaust stack. This cap regulates the amount of air exhausted from the oven. Opening this vent more than necessary will waste energy.

Slide rubber retaining washer part way up the thermometer body. Insert thermometer through hole in aluminum vent cap.

Install shelf angles and shelves supplied.

Placing material on the perforated floor plate will cause poor temperature uniformity within the work chamber and the weight may cause shorting out of the heater elements.

WARNING:

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DO NOT ATTEMPT ANY SERVICE ON THIS EQUIPMENT WITHOUT OPENING MAIN POWER DISCONNECT SWITCH.

POWER CONNECTIONS

The twelve prong plug at the rear of the oven is wired for 120/240 dual voltage operation. The operating voltage of the oven is determined by the internal wiring of the power cord socket. The correct power cord for customer's operating voltage is shipped with each new oven. To convert oven from one voltage to the other, purchase power cord wired for the desired voltage from Despatch Oven Company.

POWER CORD SELECTION GUIDE

Model	Voltage	Cord Designation
LEB1-20, LEB1-27	120-1-60	AA-120V
	240-1-60	AB-240V
LDB1-18, LDB1-23	120-1-60	AC-120V
	240-1-60	AD-240V

START-UP

See additional instruction sheet(s) regarding operation of the control thermostat.

Set thermostat to the desired temperature.

Turn fan motor on. (Model LDB1-18 and LDB123 only). The pilot light will indicate when the heater is on. To shut off heater only, turn thermostat to "off" position.

When placing material in the oven, allow the maximum amount of air space around the parts being processed. This will help to equalize the temperature throughout the work chamber.

SHUT DOWN

Turn fan motor off and turn the thermostat to "off" position.

CALIBRATION OF THERMOSTAT

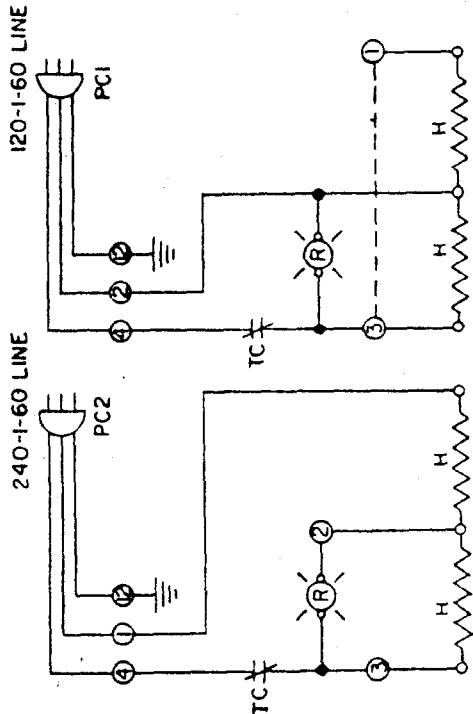
If the temperature indicated on the dial of the Robertshaw thermostat is not the same as the temperature indicated on the thermometer, the thermostat may be recalibrated.

Before making any adjustments, oven should be at operating temperature for one hour. Pull knob from thermostat shaft. Calibrating screw is located in center of thermostat shaft. If the temperature indicated on the dial of the Robertshaw is higher than the temperatures indicated on the thermometer, turn calibrating screw counterclockwise. If the temperature indicated on the dial of the thermostat is lower than the temperature indicated on the thermometer, turn calibrating screw clockwise. 1/4 turn of the calibrating screw equals approximately 20°C. (35°F.). Replace knob on thermostat shaft. Repeat operation in 30 minutes if necessary.

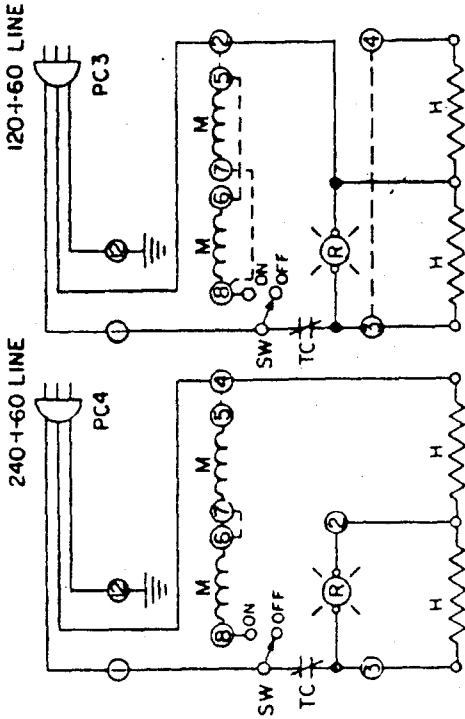
POWER SPECIFICATIONS

MODEL		LEB1-20, LEB1-27	LDB1-18, LDB1-23
AMPS	240 VOLTS	5.0	5.6
	120 VOLTS	10.0	11.2
HEATER CAPACITY (WATTS)		1200	
MAXIMUM TEMPERATURE		204°C. (400°F.)	

LEBI-20 & LEBI-27 SCHEMATIC



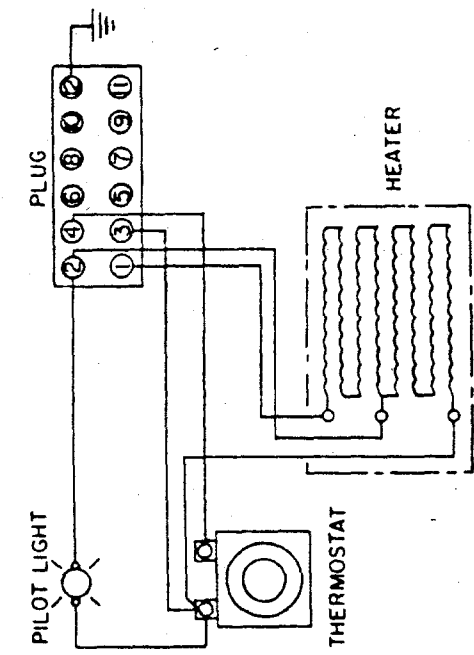
LDBI-18 & LDBI-23 SCHEMATIC



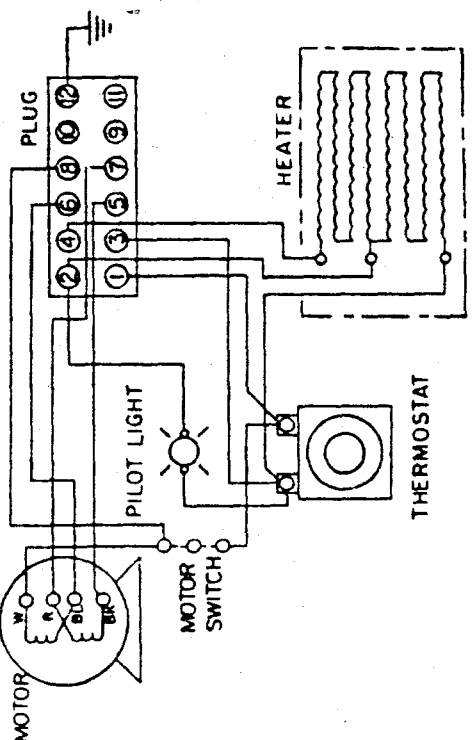
NOTES

- PLUG POINT NUMBER
- JUMPER INSIDE POWER CORD
- H- HEATER, 1200 WATTS
- M- MOTOR
- PC1-AA-120V POWER CORD
- PC2-AB-240V POWER CORD
- PC3-AC-120V POWER CORD
- PC4-AD-240V POWER CORD
- R- RED PILOT LIGHT
- SW- TOGGLE SWITCH
- TC- THERMOSTAT

LEBI-20 & LEBI-27 WIRING DIAGRAM



LDBI-18 & LDBI-23 WIRING DIAGRAM



CURT. NO.	
SERIAL NO.	
DESPATCH OVEN COMPANY	
MINNEAPOLIS, MINNESOTA	
ELECTRICAL DRAWING	
LEBI-20, LEBI-27, LDBI-18, LDBI-23.	
ENGINEER	H.C. WATSON
DATE	MAY 2-9-72
BE-6580-A	

THE DESIGN SHOWN ON THIS DRAWING IS THE EXCLUSIVE PROPERTY OF DESPATCH OVEN COMPANY AND IS SUBJECT TO THE UNDERSTANDING AND AGREEMENT THAT IT IS NOT TO BE REPRODUCED OR COPIED IN ANY MANNER WITHOUT THE WRITTEN CONSENT OF DESPATCH OVEN COMPANY.

Material List

LEB1-20, LEB1-27, LDB1-18, LDB1-23

Item	Part Number	Description
1H	007818	1200 Watt Heater 120/240V
M	205692	Motor Kit (<i>LDB MODELS ONLY</i>)
	007281	Fan Wheel 05.75X1.00X.31
PC*	N/A	PC Power Cord 1 thru 4
SW	012176	Heater Switch
R	008661	#36EN21111-24 Red Light
TC	012383	B-10 Thermostat
HL	097356	Hi-limit Kit
Thermometer	019484	Thermometer -10 to 205C
Grommet	053006	Thermometer Silicone Grommet 1/2"OD by 15/64" ID
Seal	018663	Door Seal
Hinge	007857	Hinge Piano 1.5 Ft Long
Handle	271491	#1000A Lever Handle
Strike Plate	N/A	Strike Plate for Handle
Feet	016700	Rubber Feet

INSTRUCTIONS FOR OPERATING
DESPATCH OVEN MODELS LDB1-67 & LEB1-75

Remove all packing materials and inspect unit and accessories for damage.

Attach rubber feet to the bottom corners of the oven. They are required for proper cooling of the control compartment and to prevent damage to counter surfaces.

Place aluminum vent cap over the exhaust stack. This cap regulates the amount of air exhausted from the oven. Opening this vent more than necessary will waste energy.

Slide rubber retaining washer part way up the thermometer body. Insert thermometer through hole in aluminum vent cap.

Install shelf angles and shelves supplied.

Placing material on the perforated floor plate will cause poor temperature uniformity within the work chamber and the weight may cause shorting out of the heater elements.

WARNING:

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DO NOT ATTEMPT ANY SERVICE ON THIS EQUIPMENT WITHOUT OPENING MAIN POWER DISCONNECT SWITCH.

POWER CONNECTIONS

Connect electric supply directly to unit as indicated on the chart below with all required grounding or safety equipment and in compliance with applicable codes, ordinances and accepted safe practices.

VOLTAGE	CONNECTIONS	MODEL	
		LEB1-75	LDB1-67
240	Jumper terminals 4 & 3	x	z
	Jumper terminals 6 & 7	x	x
	Jumper terminals 8 & 9		x
	Connect line to terminals 1 & 2	x	x
	Connect equipment ground	x	x
120	Jumper terminals 1 & 2	x	x
	Jumper terminals 5 & 7	x	x
	Jumper terminals 4 & 6	x	x
	Jumper terminals 4 & 8		x
	Jumper terminals 3 & 9		x
	Connect hot lead to terminal 1	x	x
	Connect neutral lead to terminal 3	x	x
	Connect equipment ground	x	x

START-UP

See additional instruction sheet(s) regarding operation of the control thermostat.

Set thermostat to the desired temperature.

Turn circuit breaker on. The fan motor will start (Model LDB1-67 only). The pilot light will indicate when the heater is on. To shut off heater only, turn thermostat to "off" position.

When placing material in the oven, allow the maximum amount of air space around the parts being processed. This will help to equalize the temperature throughout the work chamber.

SHUT DOWN

Turn circuit breaker off.

CALIBRATION OF THERMOSTAT

If the temperature indicated on the dial of the Robertshaw thermostat is not the same as the temperature indicated on the thermometer, the thermostat may be recalibrate.

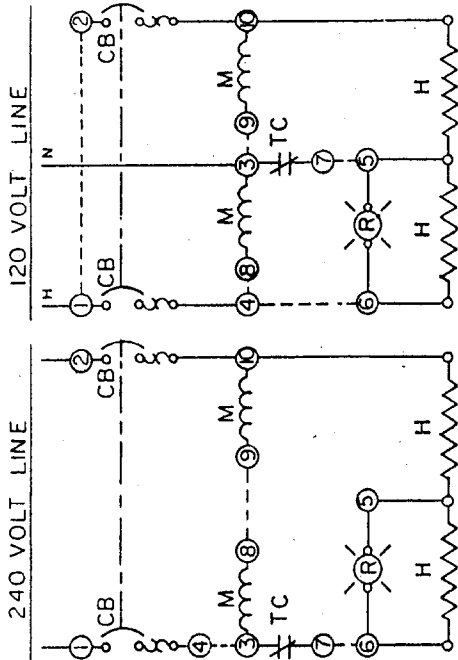
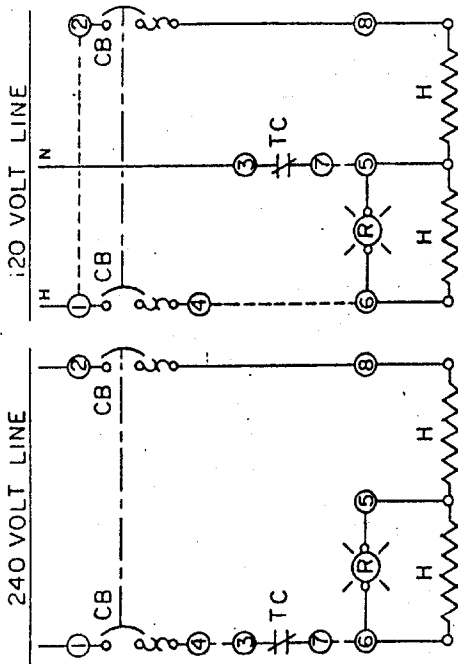
Before making any adjustments, oven should be at operating temperature for one hour. Pull knob from thermostat shaft. Calibrating screw is located in center of thermostat shaft. If the temperature indicated on the dial of the Robertshaw is higher than the temperatures indicated on the thermometer, turn calibrating screw counterclockwise. If the temperature indicated on the dial of the thermostat is lower than the temperature indicated on the thermometer, turn calibrating screw clockwise. 1/4 turn of the calibrating screw equals approximately 20°C. (35°F.). Replace knob on thermostat shaft. Repeat operation in 30 minutes if necessary.

POWER SPECIFICATIONS

MODEL		LDB1-67	LEB1-76
AMPS	240 VOLTS	10.6	10
	120 VOLTS	21.2	20
HEATER CAPACITY (WATTS)		2400	
MAXIMUM TEMPERATURE		204°C. (400°F.)	

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LEBI-75 SCHEMATIC

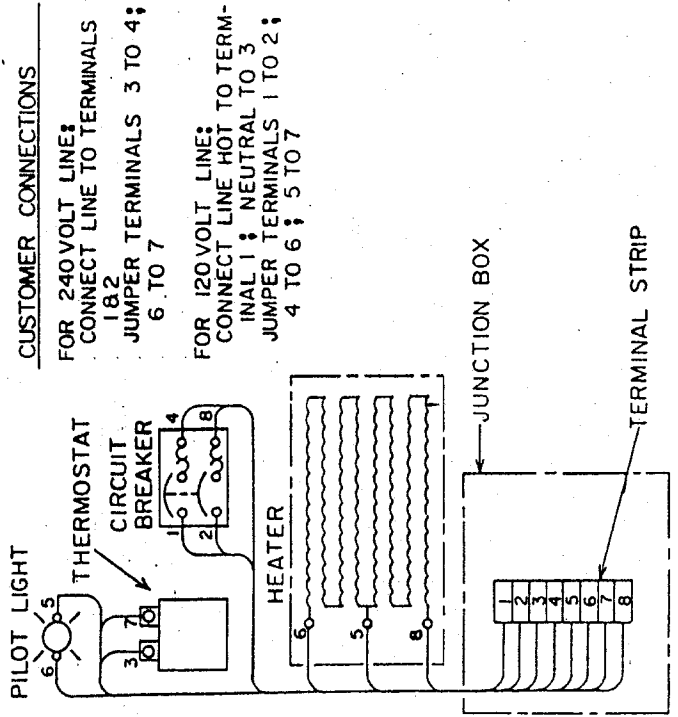


NOTES

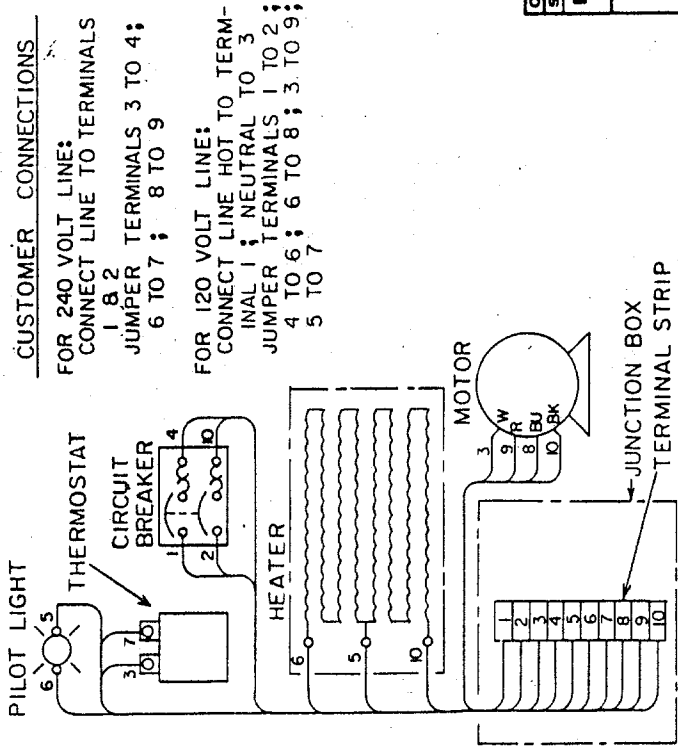
- TERMINAL NUMBERS
- JUMPER ON TERMINAL STRIP
- CB - CIRCUIT BREAKER
- H - HEATER 2400 WATTS
- R - RED PILOT LIGHT
- TC - THERMOSTAT

LDBI-67 SCHEMATIC

LEBI-75 WIRING DIAGRAM



LDBI-67 WIRING DIAGRAM



CUST. NO.	SCALE	DATE
SERIAL NO.	11-17-72	
DESPATCH OVER COMPANY MINNEAPOLIS, MINNESOTA		
ELECTRICAL DRAWING PREPARED FOR		
LEBI-75 & LDBI-67		
DESIGNED BY	CHECKED	APPROVED
BE-6580-5		

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Material List

LEB1-75, LDB1-67

Item	Part Number	Description
1H	007819	2400 Watt Heater 120/240V
M	205692	Motor Kit (<i>LDB MODELS ONLY</i>)
	007281	Fan Wheel 05.75X1.00X.31
CB	005068	Circuit Breaker QCL2020 2 Pole 20 Amp 250V
R	008661	#36EN21111-24 Red Light
TC	012383	B-10 Thermostat
HL	097356	Hi-limit Kit
Thermometer	019484	Thermometer -10 to 205C
Grommet	053006	Thermometer Silicone Grommet 1/2"OD by 15/64" ID
Washer	012760	Washer Fiber.25"ID x .75"OD x .125 Thick
Seal	018663	Door Seal 0.5" x 0.68" x 9.5 Ft. Long
	008057	Door Seal 1.5" x 25.25" Long
Hinge	007857	Hinge Piano 1.5 Ft Long
Handle	005895	Handle 12: Long
Latch	008199	Latch Adjustable
Feet	016700	Rubber Feet

INSTRUCTIONS FOR OPERATING
DESPATCH OVEN MODELS
LEB2-19, LEB2-29, LDB2-17, LDB2-28

Remove all packing materials and inspect unit and accessories for damage.

Attach rubber feet to the bottom corners of the oven. They are required for proper cooling of the control compartment and to prevent damage to counter surfaces.

Place aluminum vent cap over the exhaust stack. This cap regulates the amount of air exhausted from the oven. Opening this vent more than necessary will waste energy.

Slide rubber retaining washer part way up the thermometer body. Insert thermometer through hole in aluminum vent cap.

Install shelf angles and shelves supplied.

Placing material on the perforated floor plate will cause poor temperature uniformity within the work chamber and the weight may cause shorting out of the heater elements.

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DO NOT ATTEMPT ANY SERVICE ON THIS EQUIPMENT WITHOUT OPENING MAIN POWER DISCONNECT SWITCH.

POWER CONNECTIONS

All the ovens are wired for 240 volt operation. If 120 volt operation is required and is specified at the time of purchase, the oven will be factory converted. The oven can also be easily converted in the field; see field conversion constructions.

Connect electric supply directly to unit as indicated below, with all required grounding or safety equipment and in compliance with applicable codes, ordinances and accepted safe practices.

The oven terminal strip is located in the junction box in the rear of the oven. Connect power leads to terminals 1 & 2. If the oven has been factory converted to 120 volt operation, connect power leads to terminals 1 & 3. The oven frame should also be electrically grounded to prevent injury to the operator.

START-UP

See additional instruction sheet(s) regarding operation of the control thermostat.

Set thermostat to the desired temperature.

Turn circuit breaker on. The fan motor will start (Model LDB2-17 and LDB2-28 only). The pilot light will indicate when the heater is on. To shut off heater only, turn thermostat to "off" position.

When placing material in the oven, allow the maximum amount of air space around the parts being processed. This will help to equalize the temperature throughout the work chamber.

SHUT DOWN

Turn circuit breaker off.

CALIBRATION OF THERMOSTAT

If the temperature indicated on the dial of the Robertshaw thermostat is not the same as the temperature indicated on the thermometer, the thermostat may be recalibrated.

Before making any adjustments, oven should be at operating temperature for one hour. Pull knob from thermostat shaft. Calibrating screw is located in center of thermostat shaft. If the temperature indicated on the dial of the Robertshaw is higher than the temperatures indicated on the thermometer, turn calibrating screw counter-clockwise. If the temperature indicated on the dial of the thermostat is lower than the temperature indicated on the thermometer, turn calibrating screw clockwise. 1/4 turn of the calibrating screw equals approximately 20°C. (35°F.). Replace knob on thermostat shaft. Repeat operation in 30 minutes if necessary.

POWER SPECIFICATIONS

MODEL	LEB2-19	LEB2-29	LDB2-17	LDB2-28	
AMPS	240 VOLTS	15	20	16.6	21.6
	120 VOLTS	30	40	33.2	43.2
HEATER CAPACITY (WATTS)	3600	4800	3600	4800	
MAXIMUM TEMPERATURE	400°F.				

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FIELD CONVERSION INSTRUCTIONS

LEB2-29 AND LDB2-28

1. Remove cover from junction box in the rear of the oven.
2. Remove jumper between terminals 10 and 11.
3. Move the jumper between terminals 4 and 7 to 6 and 7.
4. Move the jumper between terminals 9 and 8 to 9 and 10.

(Steps 5 - 9 LDB2-28 Only)

5. Move the White motor leads from both motors from terminal 13 to 3.
6. Move Motor #2 Black lead from terminal 12 to 13.
7. Remove the wire connector jumpering the Red and Blue motor leads.
8. Connect the Red motor leads from both motors to terminal 3.
9. Connect the Blue motor lead from Motor #1 to terminal 12 and the Blue lead from motor #2 to terminal 13.
10. Connect power line neutral wire to terminal 3 and jumper terminals 3 and 5 (12 ga. jumpers should be taped inside junction box)
11. Connect power line hot wire to terminal 1 and jumper terminals 1 and 2.
12. Replace cover on junction box.

FIELD CONVERSION INSTRUCTIONS

LEB2-19 AND LDB2-17

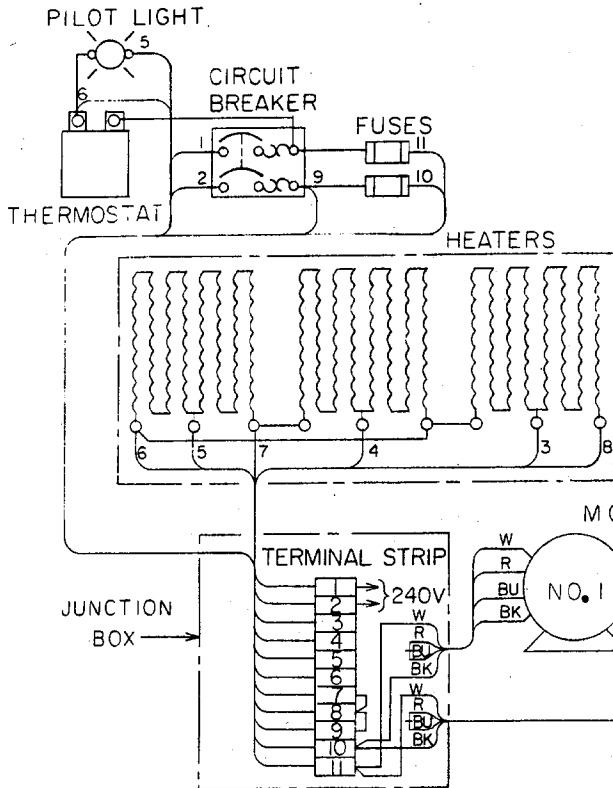
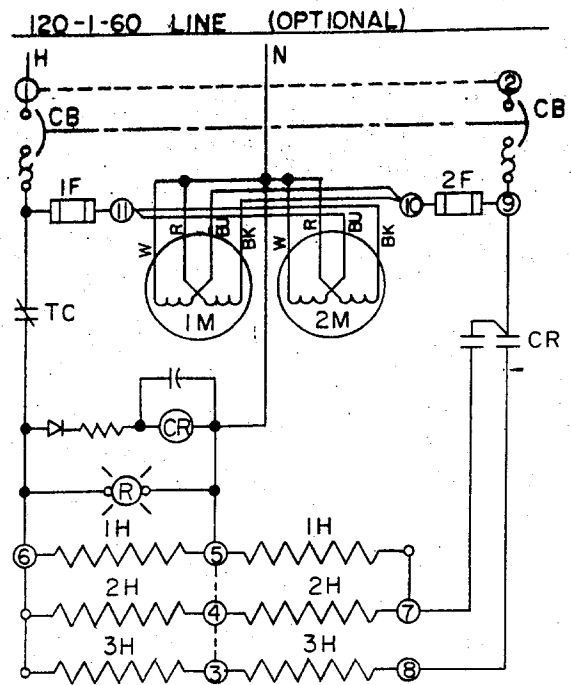
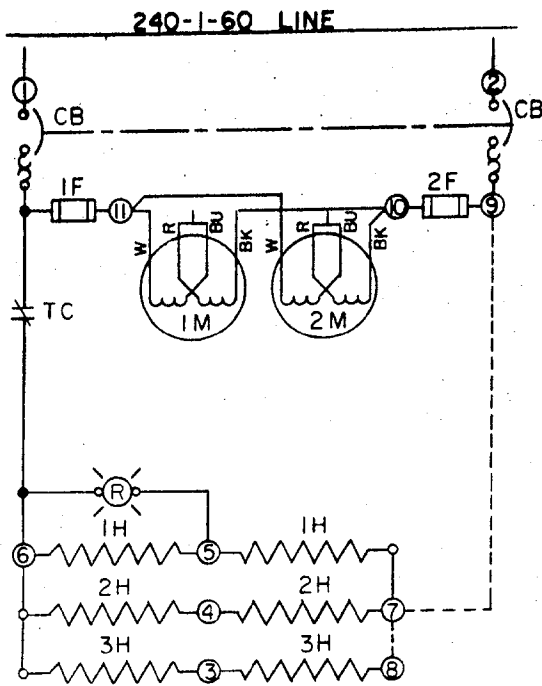
1. Order 120 volt conversion packet.
2. Remove cover from junction box in the rear of the oven.
3. Remove jumpers from terminals 7, 8 and 9.

(Steps 4 - 8 LDB2-17 Only)

4. Move White motor leads for both motors from terminal 11 to 3.
5. Move motor #2's Black lead from terminal 10 to 11.
6. Remove the wire connector jumpering the Red and Blue motor leads.
7. Connect the Red motor leads from both motors to terminal 3.
8. Connect the Blue motor lead from motor #1 to terminal 10 and the Blue motor lead from motor #2 to terminal 11.
9. Open voltage conversion packet. The contents should include a plug-in relay, relay socket with electronic components and leads attached, screws for mounting relay socket and the necessary jumpers for reconnection on terminal strip.
10. Install relay socket in junction box.
11. Connect relay socket terminals to oven terminal strip as follows:

B to 5, 5 to 6, 6 to 7, 4 to 8, and 9 to 9
12. Plug relay into socket.
13. Jumper oven terminals 4 to 5.
14. Connect power line neutral wire to terminal 3 and jumper terminals 3 to 4 with 10 ga. jumper.
15. Connect power line hot wire to terminal 1 and jumper terminals 1 to 2.
16. Replace cover on junction box.

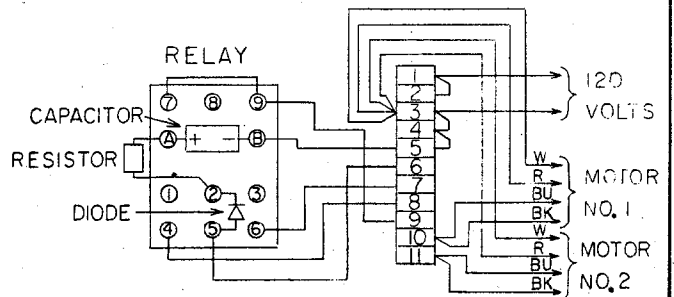
LDB2-17 ELECTRIC SCHEMATIC & WIRING DIAGRAM



NOTES

- TERMINAL NUMBERS
- JUMPER ON TERMINAL STRIP
- CB-CIRCUIT BREAKER
- CR-RELAY
- 1-2F -FUSES
- 1-3H -HEATERS 1200 WATTS EACH
- 1-2M -MOTORS
- R-RED PILOT LIGHT
- TC-THERMOSTAT

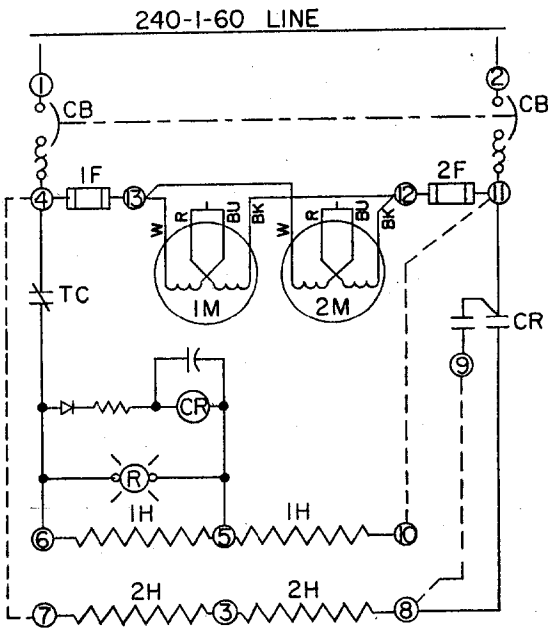
OPTIONAL 120 VOLT CONNECTION



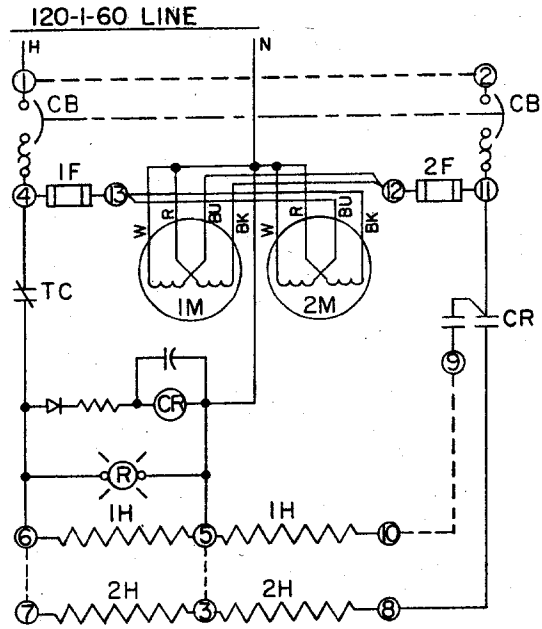
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ENGINE	SCALE	DATE	LDB2-17
CHECK	APPROV.		
DESPATCH OVEN COMPANY			
MINNEAPOLIS, MINNESOTA			
ELECTRICAL DRAWING			
DESIGNED FOR			
LDB2-17			
SERIAL NO.			
CUST. NO.			
BE-6580-4			

LDB2-28 ELECTRIC SCHEMATIC & WIRING DIAGRAM

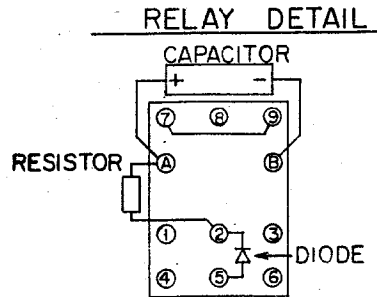
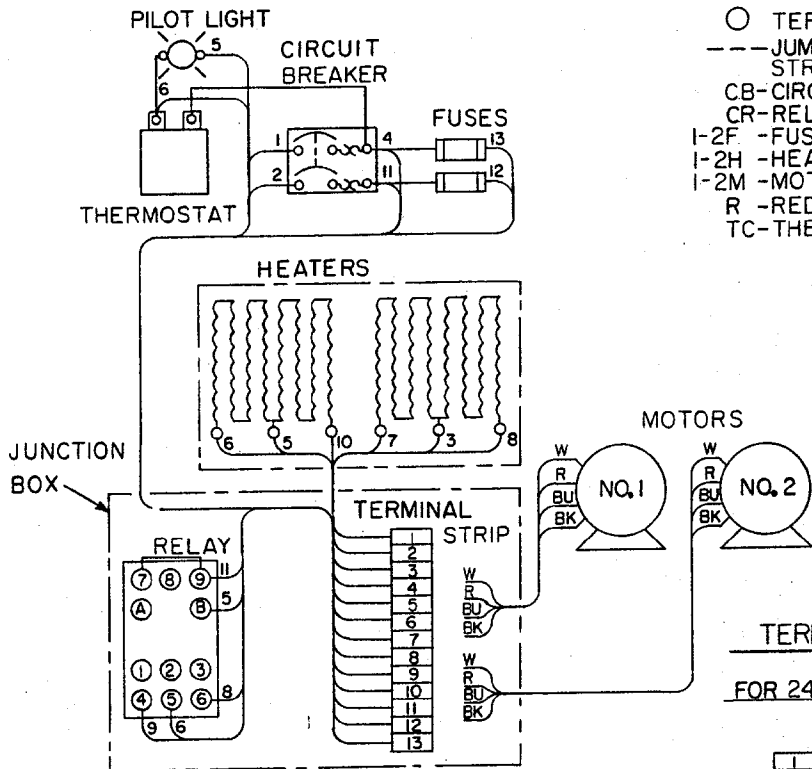


WIRING DIAGRAM

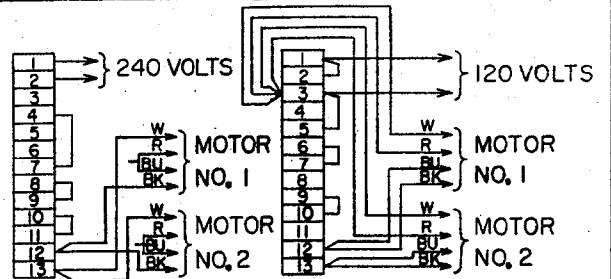


NOTES

- TERMINAL NUMBERS
- JUMPER ON TERMINAL STRIP (SEE TERMINAL STRIP JUMPER DETAIL BELOW)
- CB-CIRCUIT BREAKER
- CR-RELAY
- 1-2F -FUSES
- 1-2H -HEATERS , 2400 WATTS EACH
- 1-2M -MOTORS
- R -RED PILOT LIGHT
- TC-THERMOSTAT



TERMINAL STRIP JUMPER DETAIL
FOR 240 VOLT LINE FOR 120 VOLT LINE



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ENGINEER CHECKED APPROVED RF-6580-3	DATE: 9-72	SERIAL NO. MINNEAPOLIS, MINNESOTA ELECTRICAL DRAWING DESIGNED FOR LDB2-28	CLIENT NO. DESPATCH OVEN COMPANY MINNEAPOLIS, MINNESOTA ELECTRICAL DRAWING DESIGNED FOR LDB2-28
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Material List

LEB2-19, LEB2-29, LDB2-17, LDB2-28

Item	Part Number	Description
1-2FU	007471	HKP Fuse Holder 15 Amp 250V
	007615	Fuse 6Amp 250V (<i>LDB MODELS ONLY</i>)
CB	005068	Circuit Breaker QCL2020 2 Pole 20 Amp 250V (<i>LDB2-17 & LEB2-19 ONLY</i>)
CB	005073	Circuit Breaker QCL2030 2 Pole 30 Amp 250V (<i>LDB2-28 & LEB2-29 ONLY</i>)
CR	208283	Relay 700HB33Z1 110VDC
	250813	Relay Socket
C	004902	Capacitor 200 MFD 150WVDC
RE	010470	Resistor 1K ohm 5W
D	010398	Diode IN5060
TC	012383	B-10 Thermostat
R	008661	#36EN21111-24 Red Light
HL	097356	Hi-limit Kit
1-2M	205692	Motor Kit (<i>LDB MODELS ONLY</i>)
	007281	Fan Wheel 05.75X1.00X.31
1-3H	007818	1200 Watt Heater 120/240V (<i>LDB2-17 & LEB2-19 ONLY</i>)
1-2H	007819	2400 Watt Heater 120/240V (<i>LDB2-28 & LEB2-29 ONLY</i>)
Thermometer	019484	Thermometer -10 to 205C
Grommet	053006	Thermometer Silicone Grommet 1/2"OD by 15/64" ID
Washer	012760	Washer Fiber.25"ID x .75"OD x .125 Thick
Seal	018663	Door Seal 0.5" x 0.68" x 13 Ft. Long
	008057	Door Seal 1.5" x 38.25" Long
Hinge	007857	Hinge Piano 1.5 Ft Long
Handle	005895	Handle 12: Long
Latch	008199	Latch Adjustable
Feet	016700	Rubber Feet