



**AD-100**  
**(Gas, Electric, and Steam)**

**Installation / Service / Parts**  
**Manual**

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ADC Part No. 450083

## SECTION VI

### INSTALLATION

Except where conditions do not allow, the dryer should be handled in an upright position at all times. The console may be removed from the base after uncrating (See Figures 3 and 4, Page 10-5) if headroom is limited. Installation should be performed by competent technicians in accordance with local and state codes.

UNCRATING, Remove slatted crating, sidewall sills, protective cover, and all packing materials. Remove front and rear skid runners (2 bolts...each runner).

LOCATION OF DRYER, Move the dryer into position. (Allow two feet of clearance to rear wall for ease of installation and possible future servicing. Level the dryer by using metal shims under the 4 support plates (See Figure 4, Page 10-5). Shims should not be less than 4 inch squares.)

DRYER ENCLOSURE, Adjacent structures should be made of non-combustible materials. A minimum clearance of 5 inches is suggested between dryers or adjacent side wall structures. Head clearance should not be less than 15 inches, except along the front of the console which may be closed in if desired. (Allowance must be made for opening the control door.)

EXHAUST DUCT AND FRESH AIR SUPPLY, Exhaust duct requirements are discussed on Page 10-2.

Air supply must be given careful consideration to assure proper performance of each dryer. An unrestricted source of air to provide for 1700-2100 cfm is proper for all models except the super steam dryer which requires a 3000 cfm free air supply. It is suggested that an air entrance of 3 to 4 square feet be provided for each dryer requiring 1700 cfm supply air and an entrance of 5-6 square feet for each super steam model. Allowance should be made for remote locations of air entrances or constricting passageways, and also for register/louvre restrictions. Further allowance should be made where dryers are located at excessive altitudes or predominantly low pressure areas. Additional detailed information is provided on Page 10-3.

ELECTRICAL POWER CONNECTIONS, Steam and gas dryers are provided with 3 leads (3Ø power) extending out of the side of the console (upper) junction box located at the rear left of the dryer. These leads are #16 AWG wires. The supply wiring should be #14 AWG minimum.

Check the data plate located on the upper rear panel for proper machine voltage and amperage requirements.

Wire splicing and conduits should be in accordance with local or state regulations and all work should be performed by properly licensed and competent electricians.

Line power source requirements are shown on the motor controls diagram located on the inner side of the Reset (L.H. side) panel. Care must be taken to assure that the impeller rotates in the direction of the arrow shown on the label located on the impeller mounting frame just above the impeller motor. Each dryer must be externally fused. Note: There are no internal fused circuits on gas or steam dryers.

Actual voltage and current should be measured to insure proper operation of the dryer.

(Motors are protected from overload but continuous operation of the motors at above normal temperatures due to a low voltage supply will greatly reduce their operating life.)

Important: Be sure that the dryer is properly grounded in accordance with local and state laws. A ground lug is provided within the console (upper) junction box for this purpose.

ELECTRIC DRYERS. All electric dryers are 3Ø and provided with a 3 pole terminal block for connecting the 3 proper size power cables, and a grounding lug identified for that purpose.

Supply cables must be of copper and all 3 cables should be passed through one large conduit. All electrical work should be performed by qualified electricians in accordance with electric codes of the locale.

GAS CONNECTIONS. All gas dryers are provided with a 3/4" inlet pipe extending to the upper rear of the dryer. (See Figure 28, Page 9-16.) Proper size of gas supply piping should be determined by the local gas supplier and all piping connections should be performed by qualified technicians in accordance with codes of the locale. Access to the gas valve is via the control door at the front of the dryer and is provided with a tap for regulating the gas pressure (natural or mixed gas). The pressure is regulated to 3 1/2" water column pressure at the factory. (No pressure regulation is provided for dryers equipped to operate with liquid petroleum gases. Your gas supplier must regulate the pressure of the gas supply. The dryer should be operated at 10 1/2" W.C. pressure.) Most dryers are provided with a pilot relighter (See Figure 45, Page 9-16). It should be checked periodically for proper operation. A gas supply shut-off valve is provided on all gas dryers and located to the right of the valve.

STEAM CONNECTIONS. Both supply and return steam connections are located at the rear of the heating coil unit ( See Figure 1, Page 10-4) and are 1" NPTF and 1/2" NPTF respectively. Steam dryers are equipped for operation at 125 psig maximum. The dryer may be operated at reduced pressures as low as 15 psig (with correspondingly reduced drying rate). Low pressure operation requires large supply lines. Properly sized steam supply mains, condensate returns, and controls are essential to satisfactory performance. All steam connections should be performed by qualified technicians in accordance with local codes, and operation and system maintenance should be provided by properly licensed and competent personnel. Connections between steam supply and coil must be provided with flexible hoses or couplings to eliminate piping strains.\* Clean lint and dirt from between coil fins regularly for maximum air flow.

\*FAILURE TO PROVIDE FLEXIBLE FITTINGS AND OTHER STEAM SUPPLY & CONDENSATE RETURN LINE COMPONENTS (PG. 10-7) WILL VOID THE WARRANTEE COVERAGE ON YOUR HEAT EXCHANGERS.

MOTOR CONTROLS, The motors are protected from overheating by overload relays. The overload heater elements are selected for the particular motors installed. Do not replace heater elements with sizes greater than those originally supplied with the machine. Consult the Trouble Chart if repeated tripping of the relays occurs. Proper air ventilation and good housekeeping will enhance uninterrupted service and motor life. Low voltage will reduce motor life and should be checked occasionally.

DRYING, WARNING: Dry only articles that have been washed in water. Articles with flammable or explosive soil must be thoroughly and carefully washed. Drying can release volatile vapors which may result in fire or explosion. Drying time depends upon the size of load being dried, the amount of moisture left in the clothes by washer-extractor (extraction) type and mass of clothes, air flow, and adequate heat. "Browning" of cloth is usually due to insufficient rinsing. Do not dry plastic or rubberized articles in tumblers. Damage to clothes can result from improper operation or installation, or material not suited to tumbler drying.

LINT SCREEN, CAUTION: Keep lint compartment clean. The lint basket screen is located in the pull-out drawer behind lint door. Wash basket screen occasionally with a mild detergent to remove caked lint deposits.

## SECTION VII

### OPERATIONAL SEQUENCE MODEL ADG-100

#### PRESTART CONDITIONS.

- a. Light pilot burner.
- b. Depress manual reset thermostat.
- c. Close lint door and main door.
- d. Depress overload reset button.
- e. Depress desired temperature range button.
- f. Turn drying timer clockwise for desired drying time.
- g. Turn cooling timer clockwise for desired cooling time.

OPERATION. Depression of the upper wing of the start switch energizes the motor controls relay via the closed drying timer switch which permits the coil of the blower motor relay contactor to be energized and start the blower motor. It also starts the reversing timer motor. The reversing timer cam rotates to close one of its two switches which then energizes one of the coils of the tumbler drive motor reversing contactor. The drive motor is started and the tumbler is rotated in one direction. Rotary progression of the cam reopens the switch and deenergizes the coil of the first contactor to cut power to the drive motor. After an adjustable coast-down period to allow the motor to come to a complete stop, the cam permits the opposite switch to close and energize the coil of the second contactor of the mechanically interlocked reversing contactor. The cross-phase wiring connections cause the drive motor to rotate in the opposite direction.

On the operating panel, the start switch lamp (optional), the drying cycle indicator lamp, and the temperature range indicator lamp corresponding to the depressed temperature range button will all light. The air switch closes soon after the blower motor is started and the gas valve solenoid is energized to open the valve. Gas flows to the burner and is ignited by the standing pilot flame.

When the temperature at the control thermostats has risen to the cut-off temperature of the thermostat corresponding to the temperature range selected, the bimetal snap-action thermostat opens, the gas valve solenoid is deenergized, the valve closes and the gas flame is extinguished. When the temperature of the air at the thermostats has fallen to the cut-in temperature of the controlling thermostat, the gas valve solenoid is reenergized, gas flows to the burner and ignition is reestablished by the standing pilot flame. This thermostatically controlled cycle continues until the drying timer has returned to the zero-time position. The drying-timer switch opens to deenergize the gas valve solenoid and shut off gas flow to the burner. On the operating panel, the temperature range indicator lamp and the drying cycle indicator lamp turn off, the cooling timer is started and the cooling cycle indicator lamp lights. The motor controls relay is deenergized but its double throw switch maintains current to the motor contactor coils via the cooling timer switch.

When the cooling timer has returned to the zero time position, the timer switch opens to deenergize both motor contactor coils and the reversing timer motor. The cooling cycle indicator lamp turns off and the finish indicator lamp and the audio signal (buzzer) are activated.

Opening the door will turn off the buzzer, the finish indicator lamp, and the start switch lamp (if so equipped). If the door is opened during the cycle, the dryer will turn off completely. The cycle may be continued by closing the door and repushing the start switch.

Each motor is independently protected from overload by a thermal overload relay. If either motor overheats, however, both motors and the reversing timer motor will stop. The gas flame will be extinguished within a few seconds when the air switch opens. The dryer can be restarted after the overload motor has sufficiently cooled by pushing the reset button on the panel. If the air switch fails to open, the high limit thermostat will be heated by the standing burner flame and open to deenergize the gas valve solenoid and shut off the gas flow to the burner.

The manual reset thermostat serves as a protection against the failure of the temperature control thermostats. Should the controlling thermostat fail in the closed condition the manual reset thermostat will open when its higher temperature is reached. It will remain open until manually reset.

## OPERATIONAL SEQUENCE MODEL ADE-100

### PRESTART CONDITIONS.

- a. Depress manual reset thermostat.
- b. Close lint door and main door.
- c. Depress overload reset button.
- d. Depress desired temperature range button.
- e. Turn drying timer clockwise for desired drying time.
- f. Turn cooling timer clockwise for desired cooling time.

OPERATION. Depression of the upper wing of the start switch energizes the motor controls relay via the closed drying timer switch, which permits the coil of the blower motor relay contactor to be energized and start the blower motor. It also starts the reversing timer motor. The reversing timer cam rotates to close one of its two switches, which then energizes one of the coils of the tumbler drive motor reversing contactor. The drive motor is started and the tumbler is rotated in one direction. Rotary progression of the cam reopens the switch and deenergizes the coil of the first contactor to cut power to the drive motor. After an adjustable coast-down period to allow the motor to come to a complete stop, the cam permits its opposite switch to close and energize the coil of the second contactor of the mechanically interlocked reversing contactor. The cross-phase wiring connections cause the drive motor to rotate in the opposite direction.

On the operating panel, the start switch lamp (optional), the drying cycle indicator lamp, and the temperature range indicator lamp (corresponding to the depressed temperature range button will all light. The air-switch closes soon after the blower motor is started and the coils of the oven contactors are energized to supply power to the oven elements.

When the temperature at the control thermostats has risen to the cut-off temperature of the thermostat corresponding to the temperature range selected, the bimetal snap-action thermostat opens, the oven contactor coils are de-energized and the oven contactors open to shut off power to the oven elements. When the temperature of the air at the thermostats has fallen to the cut-in temperature of the controlling thermostat, the oven contactor coils are re-energized and power is returned to the oven elements. This thermostatically controlled cycle continues until the drying timer has returned to the zero time position. The drying timer switch opens to deenergize the oven contactor coils and shut off power to the oven elements.

On the operating panel, the temperature range indicator lamp and the drying cycle indicator lamp turn off, the cooling timer is started and the cooling cycle indicator lamp lights. The motor controls relay is deenergized but its double throw switch maintains current to the motor contactor coils via the cooling timer switch.

When the cooling timer has returned to the zero time position, the timer switch opens to deenergize both motor contactor coils and the reversing timer motor. The cooling cycle indicator lamp turns off and the finish indicator lamp and audio signal (buzzer) are activated.

Opening the door will turn off the buzzer, the finish indicator lamp, and the start switch lamp (if so equipped). If the door is opened during the cycle the dryer will turn off completely. The cycle may be continued by reclosing the door and repushing the start switch.

Each motor is independently protected from overload by a thermal overload relay. If either motor overheats, both motors and the reversing timer motor will stop. The power to the oven will be shut off within a few seconds when the air switch opens. The dryer can be restarted after the overload motor has sufficiently cooled by pushing the reset button on the panel. If the air switch fails to open, the high limit thermostat will be heated by the elements and open to deenergize the oven contactor coils and shut off power to the oven elements.

The manual reset thermostat serves as a protection against the failure of the temperature control thermostats. Should the controlling thermostat fail in the closed condition the manual reset thermostat will open when its higher temperature is reached. It remains open until manually reset.

## OPERATIONAL SEQUENCE MODEL ADS-100

### PRESTART CONDITIONS.

- a. Depress manual reset thermostat.
- b. Close lint door and main door.
- c. Depress overload reset button.
- d. Depress desired temperature range button.
- e. Turn drying timer clockwise for desired drying time.
- f. Turn cooling timer clockwise for desired cooling time.

OPERATION. Depression of the upper wing of the start switch energizes the motor controls relay via the closed drying timer switch which permits the coil of the blower motor relay contactor to be energized and start the blower motor. It also starts the reversing timer motor. The reversing timer cam rotates to close one of its two switches which then energizes one of the coils of the tumbler drive motor reversing contactor. The drive motor is started and the tumbler is rotated in one direction. Rotary progression of the cam reopens the switch and deenergizes the coil of the first contactor to cut power to the drive motor. After an adjustable coast-down period to allow the motor to come to a complete stop, the cam permits the opposite switch to close and energize the coil of the second contactor of the mechanically interlocked reversing contactor. The cross-phase wiring connections cause the drive motor to rotate in the opposite direction.

On the operating panel, the start switch lamp (optional), the drying cycle indicator lamp, and the temperature range indicator lamp corresponding to the depressed temperature range button will all light. The steam valve solenoid is energized to open the valve to let steam flow to the heat exchangers.

When the temperature at the control thermostats has risen to the cut-off temperature of the thermostat corresponding to the temperature range selected, the bimetal snap-action thermostat opens, the steam valve solenoid is deenergized, and the valve closes. When the temperature of the air at the thermostats has fallen to the cut-in temperature of the controlling thermostat, the steam valve solenoid is reenergized, and steam flows to the heat exchangers. This thermostatically controlled cycle continues until the drying timer has returned to the zero-time position. The drying-timer switch opens to deenergize the steam valve solenoid and shut off steam to the heat exchangers. On the operating panel, the temperature range indicator lamp and the drying cycle indicator lamp turn off, the cooling timer is started and the cooling cycle indicator lamp lights. The motor controls relay is deenergized but its double throw switch maintains current to the motor contactor coils via the cooling timer switch.

When the cooling timer has returned to the zero time position, the timer switch opens to deenergize both motor contactor coils and the reversing timer motor. The cooling cycle indicator lamp turns off and the finish indicator lamp and audio signal (buzzer) are activated.

Opening the door will turn off the buzzer, the finish indicator lamp, and the start switch lamp (if so equipped). If the door is opened during the cycle, the dryer will turn off completely. The cycle may be continued by closing the door and repushing the start switch.

Each motor is independently protected from overload by a thermal overload relay. If either motor overheats, however, both motors and the reversing timer motor will stop. The steam valve remains open, but without air circulation the heat is not passed to the load. The dryer can be restarted after the overload motor has sufficiently cooled by pushing the reset button on the panel.

The manual reset thermostat serves as a protection against the failure of the temperature control thermostats. Should the controlling thermostat fail in the closed condition the manual reset thermostat will open when its higher temperature is reached. It remains open until manually reset.

## OPERATING INSTRUCTIONS

### LIGHTING THE PILOT:

- a. Turn on the gas supply to the dryer.
- b. Depress the red reset button on the gas valve.
- c. Pilot relighter will ignite the pilot, but hold the reset button down for thirty to fifty seconds. The pilot should remain on.
- d. The main burner should ignite from the pilot when the dryer is operated.
- e. If for some reason the pilot goes out, the pilot relighter will automatically relight the pilot.
- f. If the pilot relighter fails to relight the pilot, consult Section VIII of this manual.

All dryers are thoroughly tested and inspected before leaving our plant. However, a pre-operational test should be taken before the dryer is used. It is possible that adjustments have changed in transit.

IMPORTANT: The tumbler of the dryer is treated with a protective coating. We suggest tumbling old clothes using a mild detergent to remove this coating.

Reversing Timer Control: Adjust timer to assure that the tumbler stops completely between reversing cycles and remains stopped for two seconds.

### HOW TO OPERATE THE DRYER

- a. Read the danger warning stamped on the main door.
- b. Put the clothes in the dryer making certain that the weight of the clothes does not exceed one hundred pounds when dry.
- c. Make certain that the main door is closed all the way; otherwise, the dryer will not start.
- d. Select the desired temperature low, medium, or high by pushing the designated button. You will find these buttons on the control panel located at the upper right hand corner of the dryer.
- e. Select the desired drying time by turning the upper knob clockwise to the desired number of minutes. At this time you should also select your cool down time, by turning the lower knob clockwise to the desired cooling time wanted. Some cooling time should always be selected but is not necessary for the dryer to operate. (NOTE: Cool down is essential for proper conditioning of most modern fabrics.) The cooling time begins automatically when the drying time is completed.
- f. The dryer may be started by depressing the upper half of the rocker switch located in the lower right corner of the control panel.
- g. The dryer will now start. The indicator light for your desired temperature will light. The drying indicator light will light up also. The drying timer will start to operate counter-clockwise till it reaches "0". At this time the indicator light for drying will go out, and the

cooling light will come on. The cooling timer will start to move counter-clockwise till it reaches "0". Then the cooling light will go off, and the finish light will come on.

- h. A buzzer will sound, indicating end of the complete cycle. You must push the "OFF" side of the rocker switch to shut off the buzzer, and also to put out the finish light.
- i. When the machine stops...Remove the Garments Immediately, Then Hang Or Fold To Reduce Wrinkling.
- j. If no cooling time was selected the finish light will come on when the drying timer has reached "0".
- k. The buzzer will also go of indicating the end of the drying time.
- l. If for some reason the tumbler or any other piece of equipment on this dryer does not function properly, consult the Trouble Chart in Section VIII of this manual.

## MAINTENANCE

CLEANING: Be sure the snap action thermostats are kept free from lint accumulation. Clean the lint from the bottom of the lint chamber and from the lint screen a minimum of once a week. These cleaning suggestions are important for efficient operation.

BELT ADJUSTMENT: Should be done periodically.

LUBRICATION: The bearings are prelubricated with the proper amount of high quality grease. Though greasing interval depends on quality of grease and operating conditions of the bearings, we suggest you grease the bearings monthly. See the instructions printed on the motor back plate for lubrication.

## SECTION VIII

### SERVICING

GENERAL: All electrical service should be made with POWER-OFF. Any service tests requiring POWER-ON should be made only by fully qualified electricians.

ELECTRICAL COMPONENTS: Most electrical components can be checked with the common multimeter. The snap action thermostats have normally closed contacts and open only when the preset temperature is reached. To test a snap action thermostat in the above manner, it must be determined whether the thermostat should be in a closed or an open position. Thermostats may fail in either position.

INDICATOR LIGHTS: These lights indicate the temperature selected and the cycle of operation the dryer is in. They are located on the control panel. (Page 9-2, Figure 16.)

#### TO REPLACE:

- a. Turn power off.
- b. Remove screws holding control panel to dryer.
- c. Disconnect control panel harness and disconnect leads of the defective light from terminal board.
- d. Push defective light out of control panel.
- e. Replace by reversing the procedure.

PUSH BUTTON SWITCH: This switch is used for the selection of temperature and is located on the control panel. (Page 9-2, Figure 9.)

#### TO REPLACE:

- a. Turn power off.
- b. Remove screws holding control panel to dryer.
- c. Disconnect control panel harness and disconnect wires from switch.
- d. Remove screws holding switch. Remove switch and replace.
- e. Connect wiring as shown on schematic located on control door. Replace control panel.

ELECTRIC TIMERS: The upper timer regulates the heating cycle of the dryer. The lower timer regulates the cool down cycle of the dryer. When the time on both expires the dryer stops. They are located on the control panel. (Page 9-2, Figure 11 & 12.)

#### TO REPLACE:

- a. Turn power off.
- b. Remove screws holding control panel to dryer.
- c. Disconnect control panel harness and disconnect timer leads.
- d. Loosen screw holding timer knob and remove knob.
- e. Remove hex nut holding timer to control panel and remove timer.
- f. Install new timer on control panel. (Note: Indexing knob on timer case should be positioned in hole on panel.)
- g. Reconnect wiring as shown on schematic located on control door.

ON-OFF SWITCH: This switch controls all operations of the dryer. (Page 9-2, Figure 13.)

TO REPLACE:

- a. Turn power off.
- b. Remove screws holding control panel to dryer.
- c. Disconnect control panel harness and disconnect leads to switch.
- d. Push switch out of control panel.
- e. Replace by reversing the procedure.

MAIN DOOR SWITCH: This switch interrupts all power to the dryer when door is opened. It is located in the lower right hand corner of the front panel. (Page 9-6, Figure 13.)

TO REPLACE OR ADJUST:

- a. Turn power off.
- b. Open lint door to gain access to switch behind front panel.
- c. Open main door and loosen hex nut holding switch to front panel.
- d. Disconnect leads to switch.
- e. Replace by reversing the procedure.

CONTROL RELAY: This relay permits the motors to continue running independently of whichever timer is controlling the final time cycle to shut the motors down without having to depress the off switch (or open the loading door on machines equipped with a push-to-start switch). (Page 9-2, Figure 6.)

TO REPLACE:

- a. Turn power off.
- b. Remove screws holding control panel to dryer.
- c. Disconnect control panel harness.
- d. Remove screw holding upper relay to rear wall of the controls inclosure.
- e. Disconnect leads of relay from terminal board.
- f. Replace relay and reconnect leads to terminal board as shown on schematic located inside the inclosure.
- g. Reconnect plug and remount control panel.

HOLDING RELAY: This relay is energized when the "Push-To-Start" switch is depressed. It remains energized until the loading door is opened. (Page 9-2, Figure 17.)

TO REPLACE: Follow same procedure for the replacement of the control relay.

**BUZZER:** This device emits a sound at the end of the cycle. The buzzer is located on the back of the control panel just below the cooling timer. (Page 9-2, Figure 7.)

**TO REPLACE:**

- a. Turn power off.
- b. Remove screws holding control panel to dryer.
- c. Unplug control panel.
- d. Disconnect leads of buzzer and separate buzzer from tape.
- e. Replace by reversing the procedure. (Replace tape as required.)

**REVERSING TIMER:** This timer reverses the tumbler at set intervals of time and is located in the enclosure behind the reset panel. (Page 9-4, Figure 20.)

**TO REPLACE:**

- a. Turn power off.
- b. Remove screws holding reset panel to dryer.
- c. Disconnect harness from relay panel.
- d. Remove bolts holding relay panel to rear wall of inclosure.
- e. Remove relay panel.
- f. Disconnect leads from timer and remove timer from relay panel.
- g. Replace by reversing the procedure. Connect wiring to timer as shown on schematic located inside the inclosure.

**TUMBLER MOTOR RELAY:** This relay controls the power to operate the tumbler motor. It is located in the inclosure behind the reset panel. (Page 9-4, Figure 6.) Two relays operate alternately to reverse the motor rotation on dryers equipped with this option.

**TO REPLACE:**

- a. Turn power off.
- b. Remove screws holding reset panel to dryer and remove panel.
- c. Disconnect harness from relay panel and remove bolts holding relay panel to rear wall of inclosure.
- d. Remove relay panel.
- e. Disconnect leads to relay and remove relay from panel.
- f. Replace by reversing the procedure. Connect wiring to relay as shown on schematic located inside the inclosure.

**BLOWER MOTOR RELAY:** This relay controls the power to operate the blower motor. It is located in the inclosure behind the reset panel. (Page 9-4, Figure 18.)

**TO REPLACE:**

- a. Turn power off.
- b. Remove screws holding reset panel to dryer and remove panel.
- c. Disconnect harness from relay panel and remove bolts holding relay panel to rear wall of inclosure.
- d. Remove relay panel.
- e. Disconnect leads to relay and remove relay from panel.
- f. Replace by reversing the procedure. Connect wiring to relay as shown on schematic located inside the inclosure.

OVERLOAD RELAYS: These relays will cut off the power to the motors if an overload condition occurs. They are located in the inclosure behind the reset panel. (Page 9-4, Figure 10.)

### TO REPLACE:

- a. Turn power off.
- b. Remove screws holding reset panel to dryer, and remove panel.
- c. Disconnect harness from relay panel and remove bolts holding relay panel to rear wall of inclosure.
- d. Remove relay panel.
- e. Disconnect the leads to the relay and remove the relay from the panel.
- f. Replace by reversing the removal procedure. Connect wiring to overload relay as shown on schematic located inside the inclosure.

### MAIN DOOR: (Page 9-6, Figure 10.)

1. To Replace Main Door
  - a. Remove screws holding main door to the main door hinge block.
  - b. Replace with new door.
2. To Replace Door Glass Gasket (Optional)
  - a. Press narrow slot of door gasket on to edge of door panel cut-out starting at the bottom.
3. To Replace Main Door Glass
  - a. Start at the seam of door gasket at bottom of door, and spread the gasket with a blunt blade made of plexiglass or wood, and insert the edge of the glass. Work around the gasket with the tool just ahead of the glass.
4. To Replace Door Handle Magnets
  - a. Remove flat head bolt from side of door handle.
  - b. Remove and replace magnets.

LOW, MEDIUM, AND HIGH TEMPERATURE SNAP ACTION THERMOSTATS: These thermostats open or close the circuit to the heating unit. They are located in the box housing adjacent to the lint trap in the lint chamber. (Page 9-9, Figures 11, 12, and 13.)

### TO REPLACE THERMOSTATS:

- a. TURN POWER OFF.
- b. Open lint door for access to the thermostat housing.
- c. Disconnect wire connector.
- d. Remove nuts and washers holding the housing.
- e. Remove screws holding cover housing. Remove nuts and washers holding thermostat.
- g. Disconnect wiring to thermostat and remove.
- h. Replace by reversing the procedure.

MANUAL RESET THERMOSTAT: This thermostat will open the heating unit circuit if an excessive temperature occurs. This excessive temperature will occur if the high, medium, or low temperature snap action thermostat fails to open. The clock, motor, indicator lights and pilot will remain on. A short cool-down period may be necessary before the push button can be reset. Corrective action should be taken before attempting to restart the dryer. The manual reset is located in the box housing adjacent to the lint trap in the lint chamber. (Page 9-9, Figure 4.)

### TO REPLACE MANUAL RESET:

- a. TURN POWER OFF.
- b. Follow the same procedure for replacement of the low, medium, or high temperature thermostats.

LINT COLLECTOR: The lint screen and drawer assembly is located in the lint compartment. (Page 9-9, Figures 1 & 2.) The screen can be removed for easy cleaning.

### TO REPLACE TUMBLER OR TUMBLER SUPPORT:

1. Remove Lint Door (Page 9-7, Figure 1.)
  - a. Open lint door and lift out of slots in base.
2. Remove Control Panel (Page 9-2, Figure 3.)
  - a. Turn power off.
  - b. Remove screws and grommets holding panel to dryer.
  - c. Disconnect control panel harness.
3. Remove Reset Panel (Page 9-4, Figure 4.)
  - a. Remove screws and grommets holding panel to dryer.
4. Open Control Door (Page 9-3, Figure 5.)
  - a. Turn knob latch and swing door up.
  - b. Disconnect control door support rod from its holder, and insert rod end into hole in control door stiffener.
5. Remove Front Panel (Page 9-6, Figure 1.)
  - a. Disconnect wires from main door switch.
  - b. Remove front panel screws and grommets.
  - c. Pull bottom edge of panel away from dryer and remove panel.

6. Remove Backguard (Page 9-14, Figure 1.)
  - a. Remove nuts and washers from the rear of dryer. Remove backguard.
7. Remove Pulley From Tumbler Shaft (Page 9-10, Figure 11.)
  - a. Remove belts from pulley.
  - b. Remove set screws holding pulley to bushing. Thread one set screw into unused hole, and tighten to free pulley from bushing. Remove set screw.
  - c. Remove pulley and key from shaft.
  - d. Tighten set screws evenly when replacing pulley and bushing.
8. Remove Tumbler Assembly and Tumbler Shaft Bearing Support (Page 9-8, Figure 3.)
  - a. Loosen set screws on both bearings.
  - b. Pull tumbler out of bearings.
  - c. If tumbler cannot be removed easily, hold a block of wood against end of shaft and strike with a mallet to move shaft past burrs made by set screws. DO NOT STRIKE END OF SHAFT WITH MALLET DIRECTLY.
  - d. Remove tumbler assembly.
9. Remove Tumbler From Tumbler Support
  - a. Remove screw from center tumbler back wall.
  - b. Remove tie rods holding tumbler to the tumbler support. Retain shims for reassembly.
  - c. To replace, reverse the procedure.

NOTE: Reinstall shims as necessary to align tumbler axis with support shaft.

## TO REPLACE PULLEYS:

1. Tumbler Pulley (Page 9-10; Figure 11.)
  - a. Replace pulley by reversing removal procedure (Paragraph 7, above).
2. Motor and Idler Pulleys (Page 9-11, Figures 17 & 18; Page 9-12, Figure 11.)
  - a. Replace pulleys by reversing removal procedure (steps shown in Paragraph 7, above).

## TO REPLACE BEARINGS:

1. Tumbler Bearings (Page 9-10, Figure 8.)
  - a. Remove belts and tumbler pulley.
  - b. Loosen bearing set screws.
  - c. Back off lateral alignment screws. (Figure 14.)
  - d. Remove bolts from pillow block(s).
  - e. Remove bearing(s).
  - f. Reverse the removal procedure for reinstalling. (Align tumbler horizontally with dryer wrapper cavity before fully tightening the rear bearing bolts using the lateral alignment screws. Align tumbler vertically as required using the vertical alignment screws after fully tightening all bearing bolts.)

2. Idler Shaft Bearings (Page 9-11, Figure 2.)

### Forward Bearing (Nearest Rear Panel):

- a. Remove belts.
- b. Loosen set screws on both bearings.
- c. Remove bolts from pillow block.
- d. Pull idler shaft (with pulleys and forward bearing attached) to rear through rear idler bearing.
- e. Remove end retaining ring and remove bearing from end of idler shaft.
- f. Replace by reversing the procedure.
- g. Align idler pulley with tumbler pulley above before tightening bolts.

### Rear Bearing (Nearest Pulleys):

- a. Remove belts.
- b. Loosen set screws on both bearings.
- c. Remove bolts from both pillow blocks.
- d. Remove retaining rings and remove both bearings from idler shaft.
- e. Replace by reversing the procedure.
- f. Align idler pulleys with tumbler pulley above before tightening bolts.

**MOTORS:** Causes of possible overheating: overloading tumbler, air circulation around motor, drive belts too taut, lint blocking motor vents, bearing failure, or low voltage supply. (Page 9-13, Figure 17 and Page 9-12, Figure 13.)

1. To Replace Drive Motor

- a. Turn power off.
- b. Remove drive belts.
- c. Disconnect wiring harness from motor.
- d. Remove bolts holding motor to mount and replace with new motor. Do not tighten bolts.
- e. Remove pulley from old motor and install on new motor.

- f. Align motor pulley with idler pulley and align motor shaft with idler shaft and tighten bolts.
- g. Replace belts and adjust belt tension by loosening motor bracket mounting bolts and forcing bracket downwards. Tighten bolts.

## 2. To Replace Impeller Motor

- a. Turn power off.
- b. Disconnect motor harness from motor.
- c. Remove nuts and washers holding the motor mount to the rear of the dryer and pull motor mount away.
- d. Remove the two L.H. nuts on the motor shaft retaining the impeller and work the impeller free from the motor shaft by means of an impeller pulley (Part #880400) to prevent damage to the motor shaft.
- e. Remove bolts holding motor to motor mount and replace with new motor.
- f. Align motor with impeller face in plane with the motor mount at no less than 3/16" clearance.
- g. Reinstall the motor mount, and reconnect motor harness.

**IMPELLER:** The impeller is fastened to the motor shaft and should need no replacement for the life of the dryer unless damaged. (Page 9-13, Figure 10.)

**V-BELTS:** The V-belts should have a tension that permits approximately 1/2" of displacement under a normal thumb pressure exerted at mid span. If too loose, belts will slip; if too tight, belts will cause undue wear of the bearings. Misaligned pulleys will cause excessive belt wear. Belts should be periodically cleaned and treated with a proper conditioner for increased life.

### 1. Belt Tension Adjustment (Tumbler to Idler) (See Page 9-11.)

- a. Back off nuts (12) on idler adjustment bolts.
- b. Tighten belts by turning nuts (12a) evenly clockwise. (Turn counter-clockwise to loosen belts.)
- c. Check vertical plane of idler pulleys for parallel alignment with tumbler pulleys and retighten bottom nuts.

### 2. Belt Tension Adjustment (Idler to Motor) (Page 9-13.)

- a. Loosen nuts (18) on bolts holding motor mount to dryer frame.
- b. Raise or lower the motor mount for proper belt tension.
- c. Check motor shaft and pulley for parallel alignment with idler shaft and pulleys.
- d. Retighten bolts.

## ALIGNMENT OF TUMBLER:

1. Vertical Alignment of Tumbler (Page 9-10)
  - a. Loosen top bolts (14) on sides of bearing mount.
  - b. Back off the lock nuts (6) on the adjustment bolts (5).
  - c. Tighten the adjustment bolts evenly to raise the basket.  
(Back off the bolts to lower basket.)
  - d. Retighten the lock nuts and retighten bolts on sides of bearing mount.
  
2. Lateral Alignment of Tumbler (Page 9-10)
  - a. Loosen bolts (1) holding rearmost bearing pillow block to bearing mount.
  - b. Back off lock nuts (17) on the two adjustment bolts on the side of the bearing mount.
  - c. Simultaneously tighten and loosen the adjustment bolts to center basket in the wrapper cavity.
  - d. Tighten lock nuts on adjustment bolts and bolts holding the bearing pillow block to bearing mount.

HIGH LIMIT SNAP ACTION THERMOSTAT: This thermostat serves as a back-up to the sail switch to close the gas valve should the sail switch fail to open in the event of a reduced air flow through the burner. It is located on the left side of the burner box on gas dryers and on the right side of the oven on electric dryers.

1. To Replace
  - a. Turn power off.
  - b. Disconnect wire leads.
  - c. Remove mounting screws and remove thermostat.
  - d. Replace by reversing the procedure.

SAIL SWITCH: The sail switch is located on the right side of the burner on gas and electric models. When the dryer is operating with proper air flow, the sail is drawn in to permit gas or electric power to flow. If an improper air flow occurs the sail will release and the gas or electric power will be turned off.

1. To Replace
  - a. Turn power off.
  - b. Remove screws holding sail switch box to oven or burner.
  - c. Disconnect leads from sail switch.
  - d. Remove screws holding sail switch mounting bracket to sail switch box.
  - e. Remove screws holding sail switch to sail switch mounting bracket.
  - f. Replace and reverse the removal procedure.

## 2. To Adjust

- a. Bend actuator arm as required while listening for switch to close with sail against burner box wall and open when sail hangs freely.

**CAUTION:** Be sure switch opens to shut off gas with loading door open and the machine operating. (Depress and hold door switch to operate machine.)

**MAIN GAS VALVE SOLENOID:** The solenoid is actuated by the snap action thermostat or timers to turn gas on or off. The solenoid may not necessarily be defective if main burners do not light. If it is suspected of being defective, check it with a circuit test lamp or connect it directly to the line voltage terminals on the board. If the solenoid fails to operate on line voltage, replace the unit. If the solenoid operates on line voltage, check wiring circuit.

### 1. To Replace:

- a. Turn power and gas off.
- b. Disconnect leads from terminal board and remove BX cable from valve and controls enclosure.
- c. Remove screws holding solenoid to valve body.
- d. Install new solenoid per manufacturer's instructions provided with kit. Reverse the removal procedures.

**PILOT RESET VALVE:** The pilot reset valve is controlled by the thermocouple. If the gas pilot flame is extinguished, the thermocouple will cool and close the pilot reset valve, which prevents the main gas valve from opening. If the pilot will not remain lit, but the flame is thoroughly in contact with the thermocouple, check the thermocouple output with millivoltmeter (P/N 168000). If voltage output is inadequate, replace the pilot reset valve.

### 1. To Replace

- a. Turn power and gas off.
- b. Disconnect thermocouple and gas supply line from pilot reset valve.
- c. Remove screws holding pilot reset assembly to valve body.
- d. Replace new reset assembly per manufacturer's replacement kit instructions.
- e. Reverse the removal procedure.

**THERMOCOUPLE:** The thermocouple serves as a safety device to shut off all flow of gas if the pilot flame is extinguished or appreciably reduced. It should generate a minimum of fifteen millivolts to keep the pilot reset valve open. In normal operation it generates twenty to twenty-five millivolts. If the output of the thermocouple is low, it should be replaced. Millivolt meters are available (P/N 168000). (Page 9-17, Figure 15.)

## 1. To Replace

- a. Turn power and gas off.
- b. Remove nuts holding burner box to console base and lift box away from burners and pilot assembly.
- c. Disconnect thermocouple from pilot bracket and gas valve.
- d. Replace by reversing the procedure.

PRESSURE REGULATOR: The gas pressure regulator is an integral part of the gas valve. (Page 9-16, Figure 34, d.) It is normally set at 3 1/2 inches water column at the factory. It can be adjusted by removing the cap from the post and inserting a screw driver. Clockwise rotation will raise the pressure and vice-versa. It should not be adjusted to less than 3 inches nor above 4 1/2 inches of water column. A common U tube manometer or pressure gage (P/N 168100 should be used when making adjustments. Remove the plug on the side of the valve body (Figure 34) and attach the manometer tube equipped with a 1/8 NPT tube fitting.

BURNER ASSEMBLY: The burner should need no attention during the life of the dryer. If the dryer is converted to L.P. gas, the pilot orifice and the main burner orifices must be changed. See table for proper orifice sizes. (Page 10-6.)

## TO REPLACE MAIN BURNER ORIFICES (32):

- a. Turn power and gas off.
- b. Remove nuts holding burner box to console base. Remove burner box.
- c. Unscrew burner orifices.
- d. Replace by reversing the procedure.

## TO REPLACE PILOT ORIFICE:

- a. Turn power and gas off.
- b. Remove nuts holding burner box to console base and lift box away from pilot assembly.
- c. Disconnect orifices from pilot bracket and pilot gas supply line.
- d. Replace by reversing procedure. See table for proper pilot size. (Page 10-6.)

ELECTRIC HEATING ELEMENTS: Eighteen heating elements consisting of twelve 3000 watt and six 4000 watt output develop 60 kilowatts at 208/240 volts or 416/480 volts. They are rack mounted in five adjacent bays with three or four elements in each bay to provide a near even distribution of heat to the tumbler. The elements can be individually replaced. Defective elements should be replaced only with an element of identical voltage and wattage rating. (Page 9-18, 21, 22.)

## TO REPLACE:

- a. Turn power off.
- b. Remove screws from terminal housing cover and remove cover.
- c. Remove electrical connecting hardware and insulation from screw terminals of element.
- d. Remove access cover screws and remove cover.
- e. Withdraw element from side rail supports.
- f. Replace element and reverse the procedure.

OVEN RELAY CONTACTOR(S); The contactor(s) control the power supply to the elements. They are located in the power distribution box. (Page 9-20, Figure 6.)

## TO REPLACE CONTACTOR:

- a. Remove screws from distribution box cover and remove cover.
- b. Loosen cable connector screws and remove cables.
- c. Remove wire leads from auxiliary power connections and relay coil.
- d. Remove hardware holding contactor and ground lug to wall.
- e. Replace by reversing the procedure.

AUTOMATIC STEAM VALVE: This valve controls the flow of steam to the heat exchangers. (Page 9-15, Figure 11.)

## TO REPLACE SOLENOID:

- a. Remove operator's control panel and disconnect solenoid wire leads from terminal board.
- b. Remove snap ring from valve solenoid cover and remove solenoid housing from valve.
- c. Separate solenoid by pulling wire leads out of BX conduit until wire splices are exposed.
- d. Cut and remove solenoid with its leads and splices.
- e. Strip wire ends and resplice to new solenoid leads.
- f. Replace by reversing the procedure.

HEAT EXCHANGER: Two heat exchangers are side mounted to a central plenum. They are identical in construction, interchangeable, and easily replaced or repaired. Care should be exercised to avoid stressing the copper construction during installation. Flexible couplings should be provided at inlet and outlets, especially for machines equipped with the reversing tumbler option. Additional installation details are shown on Page 10-7. Together they deliver 356,000 btu/hr. when operating at high pressure (125 p.s.i.) or 235,000 btu/hr. operated at low pressure (15 p.s.i.). The steam supply required is 408 lbs./hr. at high pressure, or 234 lbs./hr. at low pressure, and the approximate temperature of the air entering the tumbler is 285 F. at high pressure or 200 F. at low pressure. The super steam

heat exchangers are of similar construction. Together they deliver 535,000 btu/hr. when operated at high pressure (125 p.s.i.) or 335,000 btu/hr. operated at low pressure (15 p.s.i.). Corresponding steam supply requirements and tumbler entrance air temperatures are 616 lbs./hr. and 265 F. at high pressure, or 358 lbs./hr. and 197 F. at low pressure. The standard model is equipped with a 1 H.P. motor drive blower and requires an air supply of 1,500 cubic feet per minute. The super steam model is equipped with a 3 H.P. motor and requires an air supply of 2,500 cubic feet per minute.

### TO REPLACE HEAT EXCHANGER:

- a. Shut off steam supply.
- b. Turn drying timer on and start dryer to relieve inlet steam pressure.
- c. Turn power off.
- d. Remove inlet manifold plug.
- e. Disconnect inlet and outlet unions to defective unit.
- f. Remove attaching hardware to plenum.
- g. Remove heat exchanger.
- h. Disassemble inlet and outlet nipples and unions from heat exchanger and reinstall on new heat exchanger.
- i. Replace by reversing procedure.

Use 6% silver solder to repair minor leaks at fittings or U tube joints. Leaks in walls of tubes should not be repaired, especially on heat exchangers to be operated at high pressure. Repairs should be made only by qualified technicians.

## TROUBLE CHART

This trouble chart will help to isolate the most probable component(s) associated with the difficulty described. The experienced technician realizes, however, that a loose connection or broken or shorted wire may be at fault where electrical components are concerned...not necessarily the suspect component itself. Electrical parts should always be checked for failure before being returned to the factory.

The chart should not be misconstrued as a device for use by an untrained person toward making repairs. Only properly licensed technicians should service the equipment.

Observe all safety precautions displayed on the equipment or specified in this manual before and while making repairs.

### TROUBLE

### PROBABLE CAUSE AND REMEDY

A. The dryer won't start.

- (1) Open fuse box or circuit breaker switch, or blown fuses.
- (2) Improper power supply voltage.
- (3) Neither of the timers are turned on, or a timer is defective.
- (4) The main door switch is defective.
- (5) The start switch or its holding relay is defective.
- (6) Motor reset is not closed.

B. The tumbler motor runs but the tumbler won't revolve. The heating unit is operating.

- (1) Broken, damaged or loose V-Belts.
- (2) Belts are contaminated (oil, grease, etc.).

C. The dryer starts but the heating unit is not operating.

- (1) The high limit thermostat is defective.
- (2) The lint door is open.
- (3) The sail switch is out of adjustment or is defective.
- (4) A defective control relay.
- (5) A defective relay contactor coil (416/480V electric dryers).
- (6) Defective drying timer.
- (7) A gas supply valve is not open.
- (8) The pilot flame is out.
- (9) A defective high, medium, or low snap action thermostat.
- (10) A defective hi-limit thermostat.
- (11) A defective gas or steam valve solenoid.

## TROUBLE CHART

### TROUBLE

### PROBABLE CAUSE AND REMEDY

- (12) Manual reset thermostat is open or defective.
- (13) Defective heat selector switch.
- (14) Thermostat wiring connector is disconnected.

D. The dryer operates, but is taking too long to dry load.

- (1) An inadequate exhaust system.
- (2) Insufficient make up air openings.
- (3) One of the relay contactor coils is defective (208/240V electric dryers).
- (4) Housekeeping. Clean lint drawer and check exhaust ducts for blockage.
- (5) Make up air openings are closed.
- (6) Extractors are not performing properly.
- (7) An exceptionally cold/humid or low barometric pressure atmosphere.
- (8) The supply gas may have a low heating value. Check with gas supplier.

E. The dryer is overheating.

- (1) A defective high, medium, or low snap action thermostat.

F. The dryer won't stop.

- (1) A defective timer.

G. The pilot won't light or will not stay lit.

- (1) The gas supply valve is turned off.
- (2) The pilot orifice is blocked or partially blocked.
- (3) The pilot line is blocked or partially blocked.
- (4) A defective thermocouple.
- (5) A defective pilot reset valve.
- (6) An external draft.
- (7) The pilot relighter is defective or the electrode is out of position.

H. The tumbler is not reversing.

- (1) Defective reversing timer motor.
- (2) Defective reversing contactor coil.
- (3) Reversing timer control is out of adjustment.

I. One of the motors keeps overheating.

- (1) Either an exceptionally low or high voltage supply.
- (2) Heater elements are defective or undersized.
- (3) Motor bearing failure.
- (4) Motor overload control is defective.
- (5) An idler bearing or tumbler drive bearing failure.
- (6) Motor air vents are blocked with lint.
- (7) Defective motor.

## TROUBLE CHART

### TROUBLE

### PROBABLE CAUSE AND REMEDY

- J. An excessive noise or vibration in the dryer.
- (1) The tumbler is out of adjustment.
  - (2) The V-Belts are too loose or too tight.
  - (3) Loose tumbler rod.
  - (4) Tumbler bearing or idler bearing failure.
  - (5) Tumbler adjustment bolts are loose.
  - (6) Loose motor mount.
  - (7) Loose hardware.
- K. The dryer is cycling on the high limit switch.
- (1) Blower motor failure.
  - (2) An insufficient air supply.
  - (3) Lint trap (basket) needs cleaning.
  - (4) Insufficient exhaust system size or duct restriction.
  - (5) Lint door open.
- L. The impeller motor or the drive motor won't operate.
- (1) The motor relay coil is defective.
  - (2) A defective motor.
  - (3) Motor overload reset is open.
  - (4) Overload heater elements are defective.

## IMPORTANT:

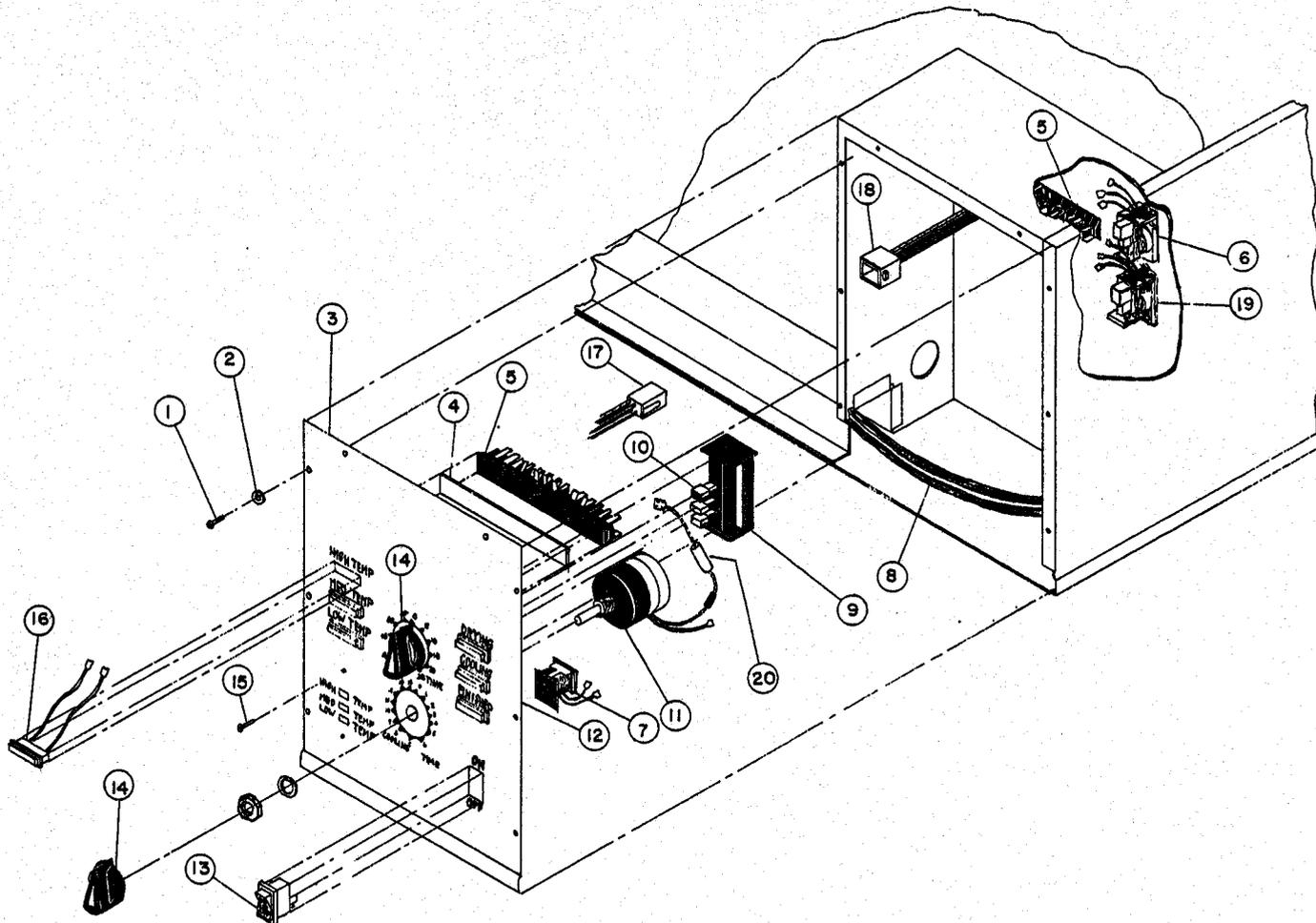
When ordering parts specify dryer Model Number and Serial Number in addition to the Part Number.

## SECTION IX EQUIPMENT ILLUSTRATIONS & DESCRIPTIONS

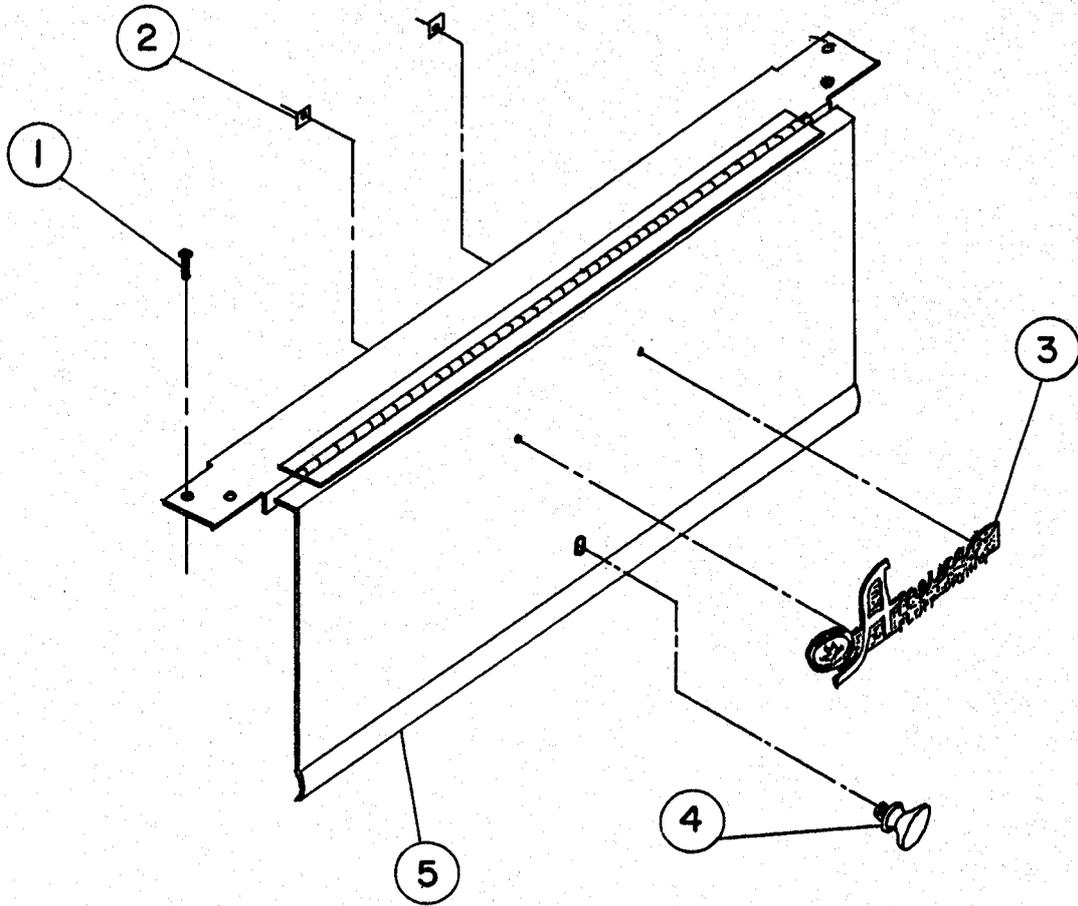
	<u>Page Number</u>
Right Control Panel Assembly.....	9-2
Control Door Assembly.....	9-3
Left Control Panel Assembly.....	9-4,5
Front Panel & Main Door Assembly.....	9-6
Lint Door Assembly.....	9-7
Tumbler Assembly.....	9-8
Lint Chamber Assembly.....	9-9
Tumbler Bearing Mount Assembly.....	9-10
Idler Bearing Mount Assembly.....	9-11
Drive Motor Mount Assembly.....	9-12
Blower Motor Mount Assembly.....	9-13
Back Guard & Harness Boxes Assembly.....	9-14
Steam Coil Assembly.....	9-15
Gas Burner Assembly.....	9-16,17
Electric Burner Assembly.....	9-18,19
Electric Relay Box Assembly.....	9-20,21

## NOTE:

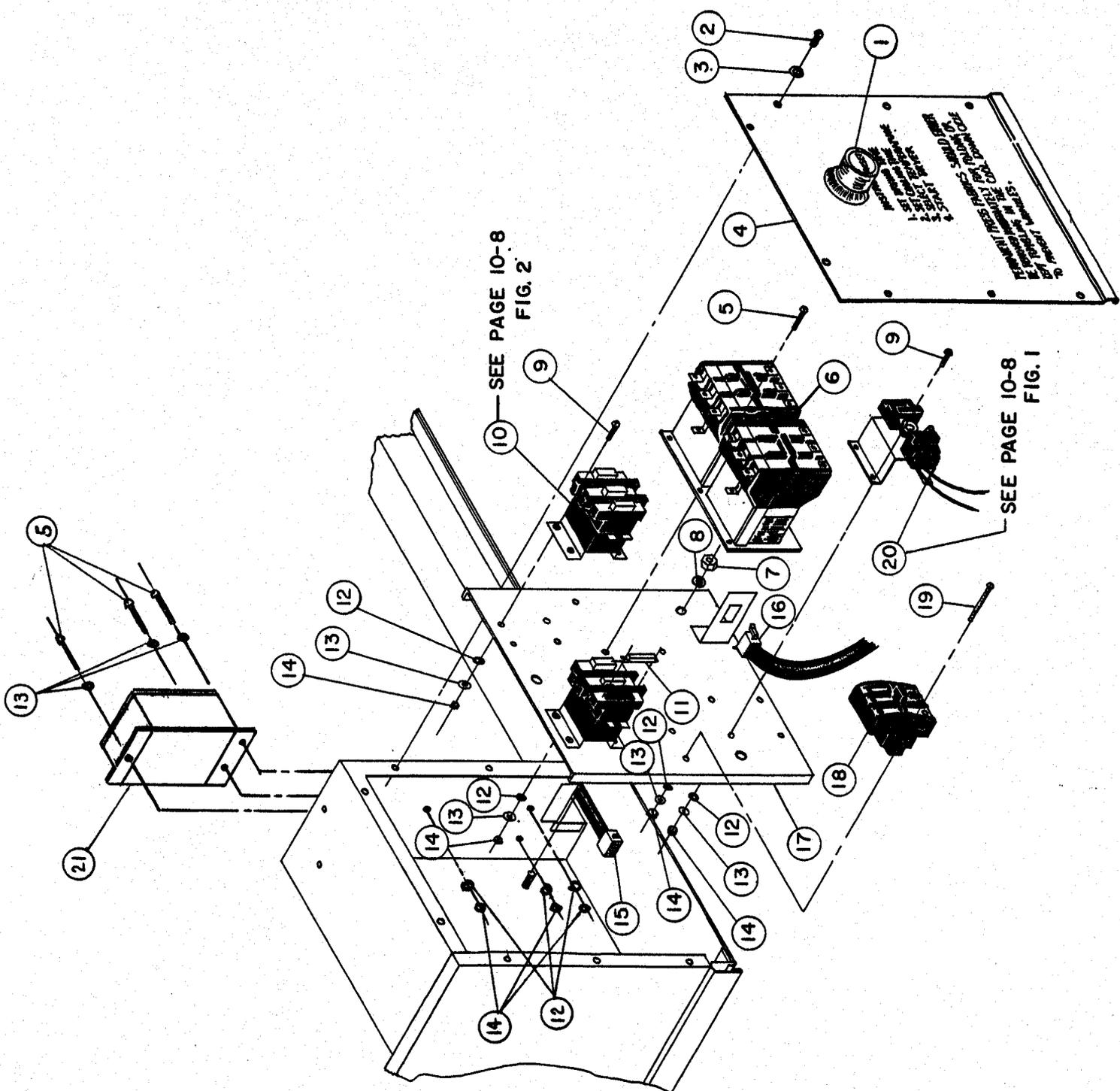
Be sure to check description of the parts thoroughly before ordering.



Illus. No.	Part No.	Description	Qty.	Model Utilizing Part		
				Gas	Electric	Steam
1	150304	#8 x 3/4 Oval Phillip	8	x	x	x
2	150700	#8 Counter Sunk Washer	8	x	x	x
3	803600	Control Panel Only	1	x	x	x
	803601	Control Panel Assy. Comp.	1	x	x	x
4	117500	Trimitape	1	x	x	x
5	120700	Terminal Board	2	x	x	x
6	131020	SPDT 240V Relay	1	x	x	x
7	124801	220V Buzzer	1	x	x	x
8	831800	Power & Control Harness	1	x	x	x
9	122300	Push Button Switch	1	x	x	x
10	122301	Red Push Button	3	x	x	x
11	124005	15 Min. Timer 220V	1	x	x	x
12	124001	60 Min. Timer 220V	1	x	x	x
13	122403	Rocker (On-Off) Switch	1	x	x	x
	122304	Rocker (Push-To-Start) Switch	1	x	x	x
14	124103	Arrow Timer Knob	2	x	x	x
15	150302	#6 - 3/8 SDS	2	x	x	x
16	123206	Red Lense Blank	6	x	x	x
	123112	Red Light Comp. 220V	6	x	x	x
17	830900	Control Panel Harness & Connector Comp.	1	x	x	x
18	830901	Control Box Harness & Connector Comp.	1	x	x	x
19	131020	SPDT 240V Relay	1	x	x	x
20	135001	Resistor 35K	2	x	x	x



Illus. No.	Part No.	Description	Qty.	Model Utilizing Part		
				Gas	Electric	Steam
1	150301	#8 - 18 x 7/16 SDS	4	x	x	x
2	154002	1/8" Push On Fasteners	2	x	x	x
3	112300	American Name Plate	1	x	x	x
4	160200	Knob Latch	1	x	x	x
5	800004	Control Door Assy.	1	x	x	x

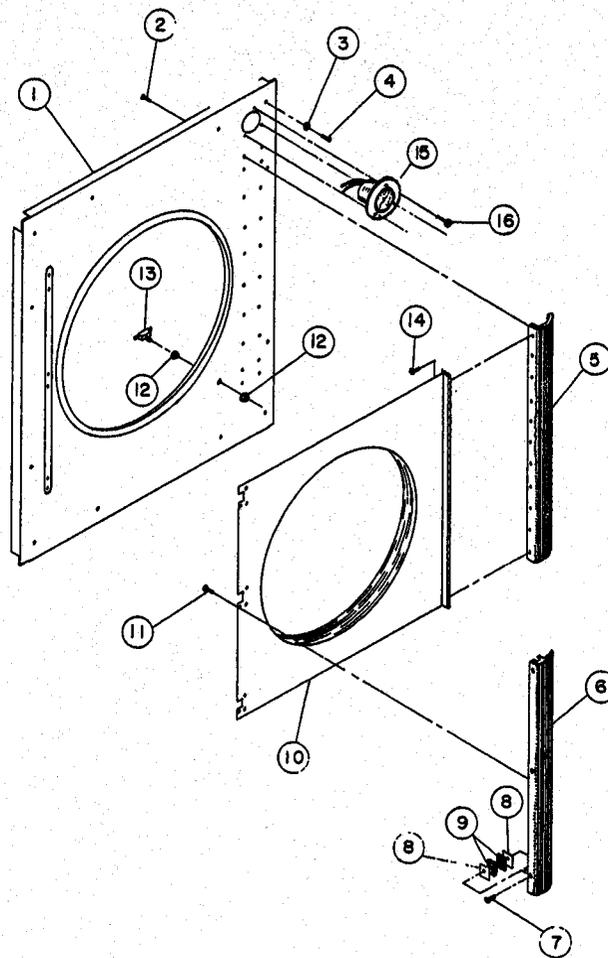


SEE PAGE 10-8  
FIG. 2

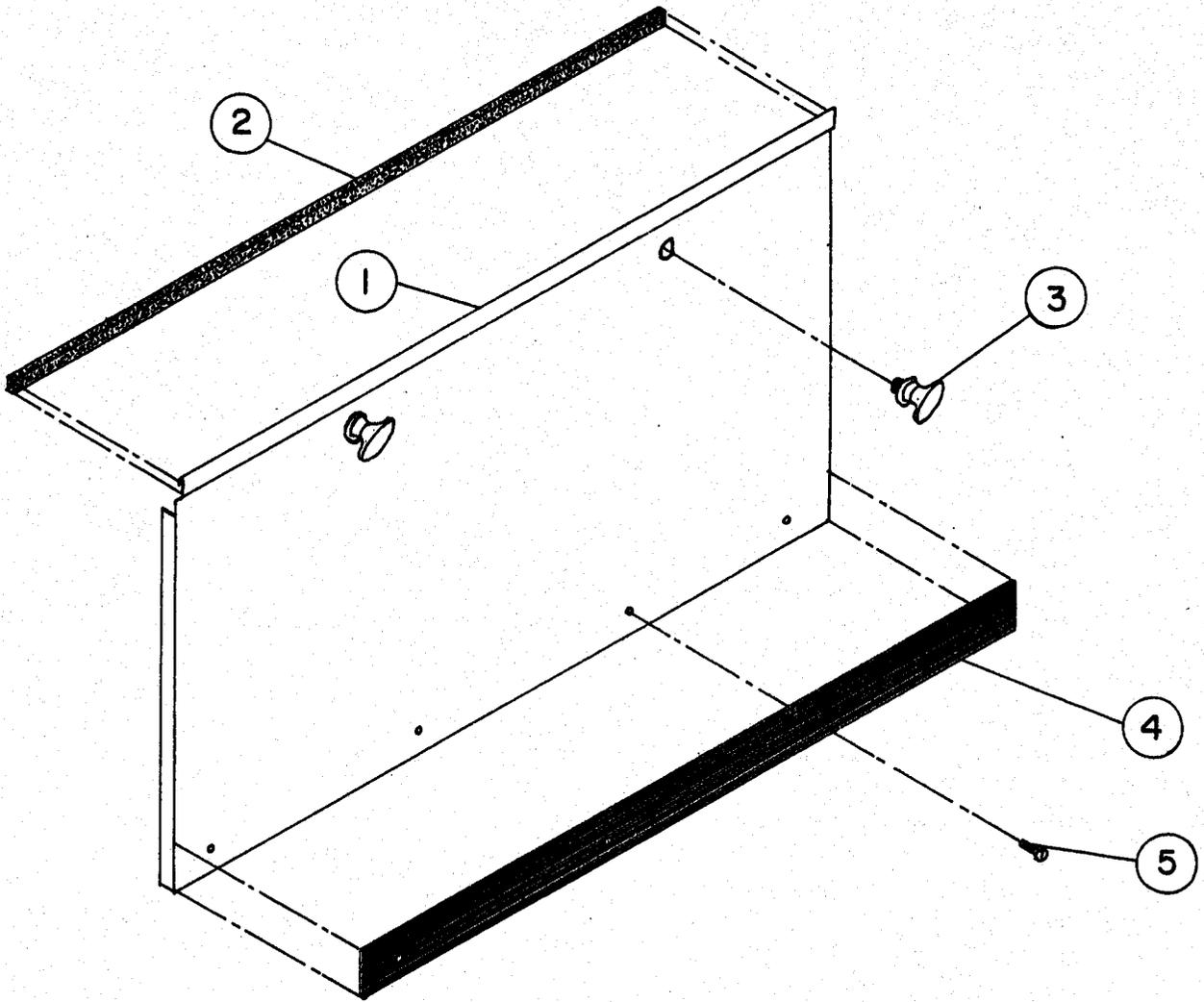
SEE PAGE 10-8  
FIG. 1

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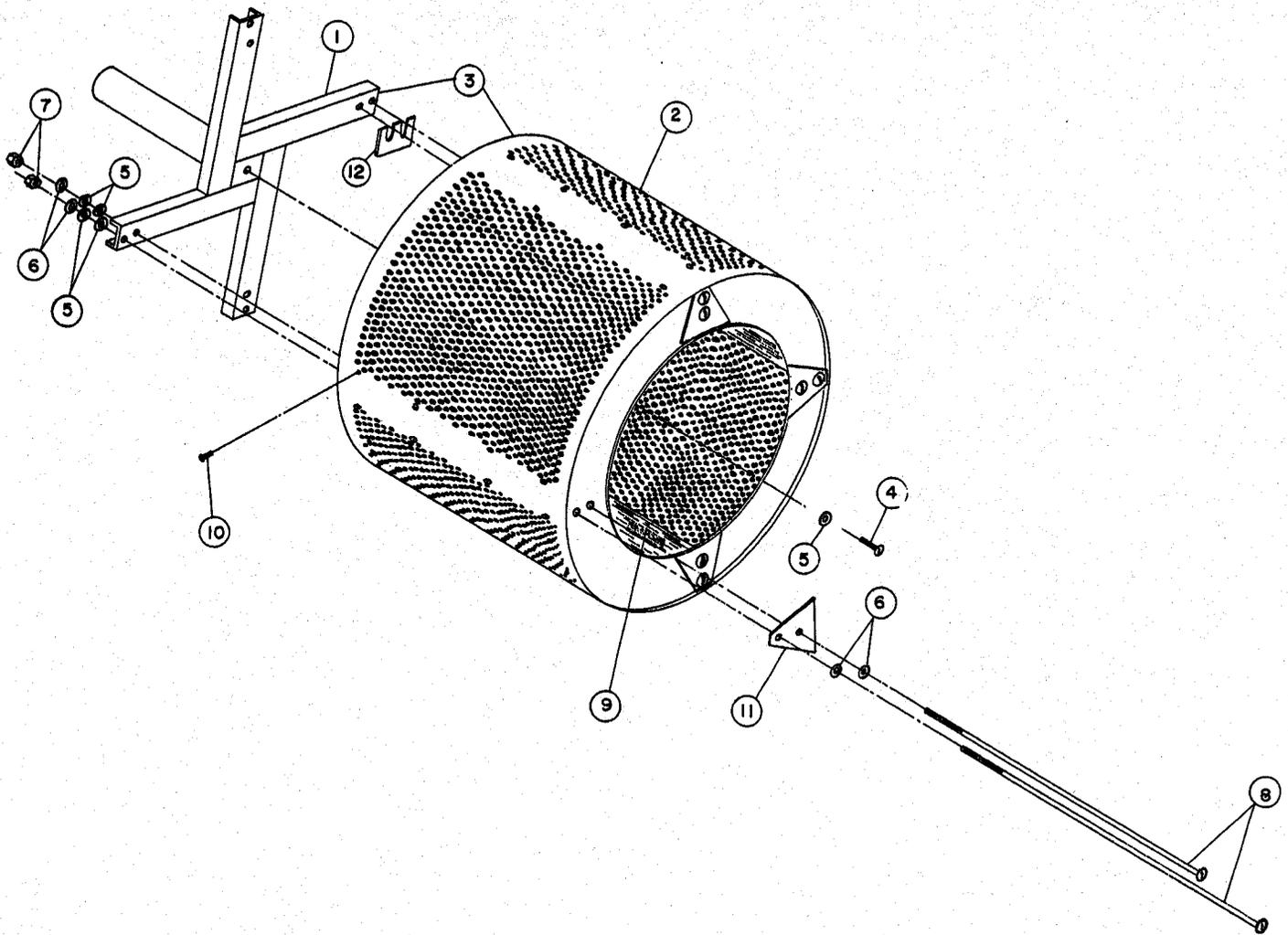
Illus. No.	Part No.	Description	Qty.	Model Utilizing Part		
				Gas	Electric	Steam
1	132100	Overload Reset Kit	1	x	x	x
2	150304	#8 x 3/4" Oval Phillip Screw	8	x	x	x
3	150700	#8 Counter Sunk Washer	8	x	x	x
4	803610	Relay Panel Only	1	x	x	x
	803603	Relay Panel Complete	1	x	x	x
5	150100	8 - 32 x 1/2 PH HD M.S.	7	x	x	x
6	132401	Dual Contactor 240V	1	x	x	x
7	152002	1/4 - 20 Hex Nut	3	x	x	x
8	153007	1/4 Lock Washer	3	x	x	x
9	150102	8 - 32 x 3/8 P.H. M.S.	12	x	x	x
10	132300	Overload Relay	2	x	x	x
11	132XX	Overload Heater Element (E-XX)	6	x	x	x
12	153012	#8 Star Washer	21	x	x	x
13	153000	#8 Washer	21	x	x	x
14	152001	8 - 32 Hex Nut	21	x	x	x
15	831800	Power & Control Harness & Connectors Complete	1	x	x	x
16	830902	Relay Box Harness & Connector	1	x	x	x
17	803604	Relay Mtng. Panel Only	1	x	x	x
	803605	Relay Mtng. Panel 240V 3 PH Reversing Complete	1	x	x	x
	803613	Relay Mtng. Panel 240V 3 PH Complete	1	x	x	x
	803608	Relay Mtng. Panel 480V 3 PH Reversing Complete	1	x	x	x
	803614	Relay Mtng. Panel 480V 3 PH Complete	1	x	x	x
18	132400	Impeller Contactor	1	x	x	x
19	150104	8 - 32 x 1 RD HD M.S.	2	x	x	x
20	132200	Reversing Timer	1	x	x	x
21	132005	Transformer 240/480V 150 V.A.	1	x	x	x



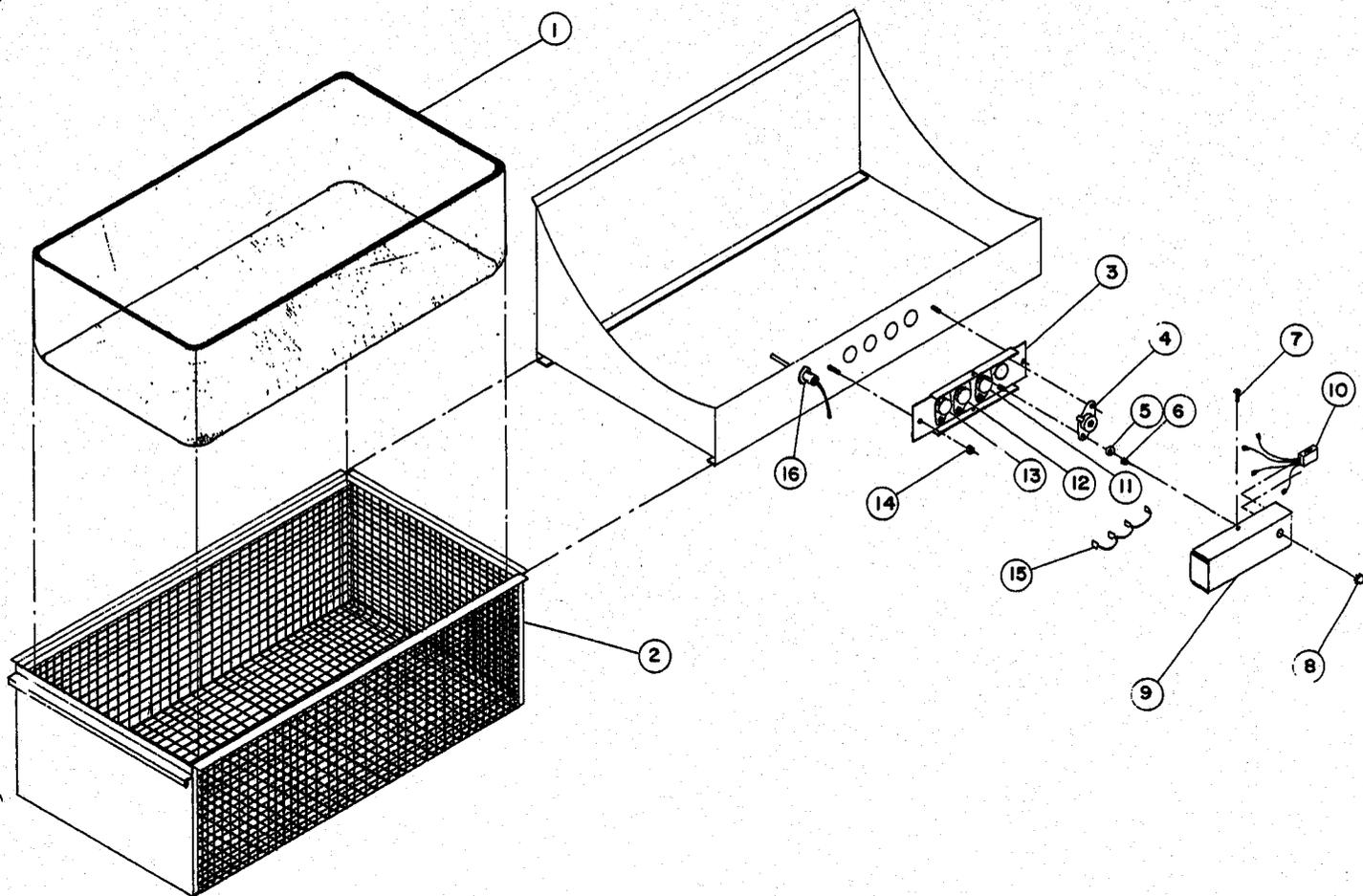
Illus. No.	Part No.	Description	Qty.	Model Utilizing Part		
				Gas	Electric	Steam
1	800318	Right Hand Front Panel	1	x	x	x
	800319	Left Hand Front Panel	1	x	x	x
2	150400	10 - 24 x 1/2 PH Taptite	20	x	x	x
3	150700	#8 Counter Sunk Washer	12	x	x	x
4	150304	#8 x 3/4" Oval Phillip Hd.	12	x	x	x
5	300400	35" Hinge Block	1	x	x	x
6	300301	35" Main Door Handle	1	x	x	x
7	150401	10 - 24 x 1 1/4 PH Taptite	3	x	x	x
8	306801	Magnet Keeper	6	x	x	x
9	102100	Magnets	6	x	x	x
10	800108	Solid Main Door Comp. Assy.	1	x	x	x
	800109	Solid Main Door Only	1	x	x	x
	800110	Main Door Comp. Assy. Conv.	1	x	x	x
	800111	Main Door Comp. Assy. Stop	1	x	x	x
	800112	Main Door Only Conv./Stop	1	x	x	x
11	150400	10 - 24 x 1/2 PH Taptite	9	x	x	x
12	152003	3/8 - 16 x 1/2 x 1/16 Hex Switch Nut	2	x	x	x
13	122100	Door Switch	1	x	x	x
14	150402	10 - 24 x 5/8 Spec. TR H	11	x	x	x
15	168202	Thermometer, Dial	1	x	x	x
16	150301	#8 - 18 x 7/16 PH SDS	3	x	x	x



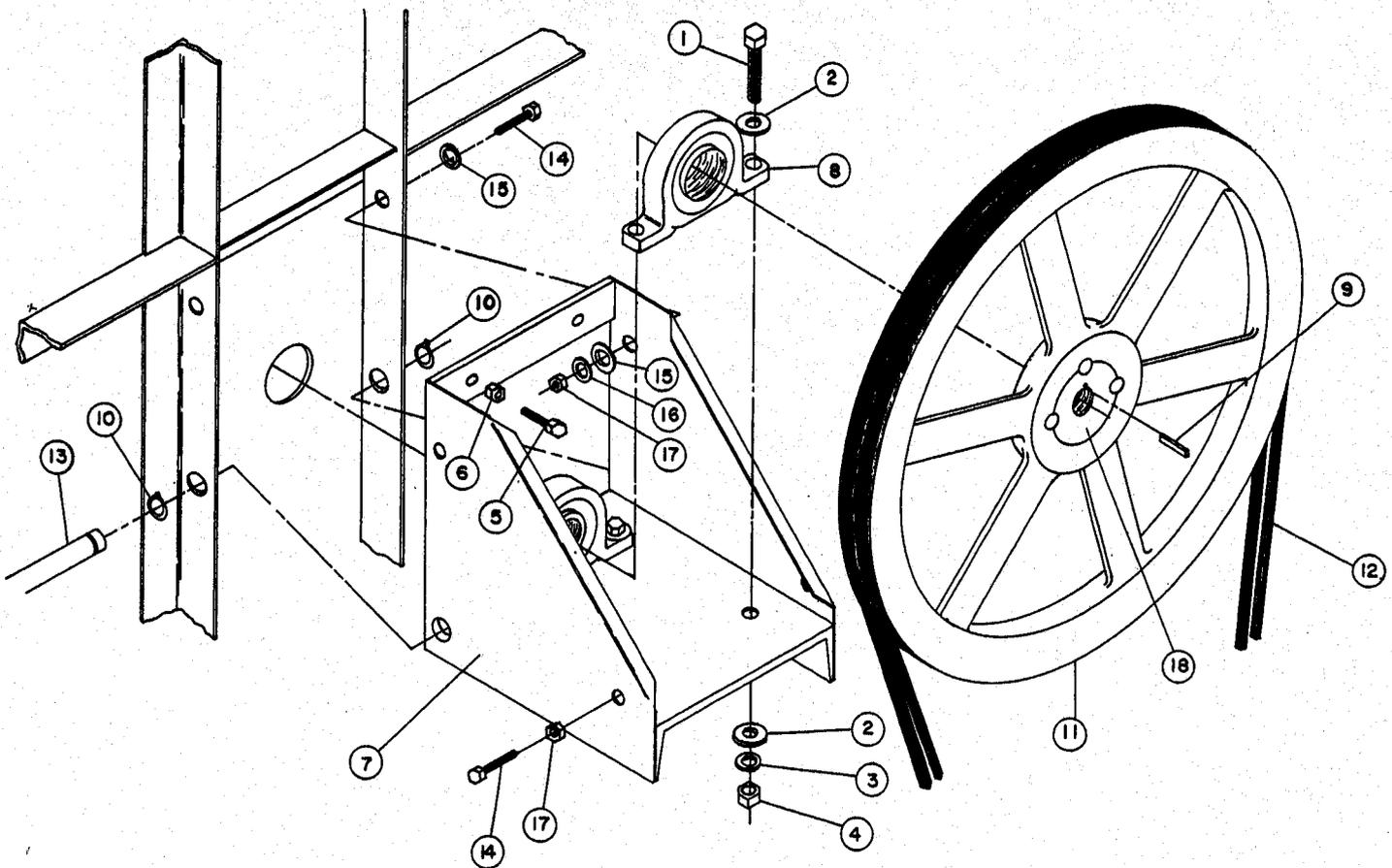
Illus. No.	Part No.	Description	Qty.	Model Utilizing Part		
				Gas	Electric	Steam
1	800213	Lint Door Drop Type	1	x	x	x
2	117600	Noise Suppressor Tape	4	x	x	x
3	160200	Knob Latch	2	x	x	x
4	300005	46" Kick Plate	1	x	x	x
5	150301	#8 - 18 x 7/16" PH S.D.S.	4	x	x	x



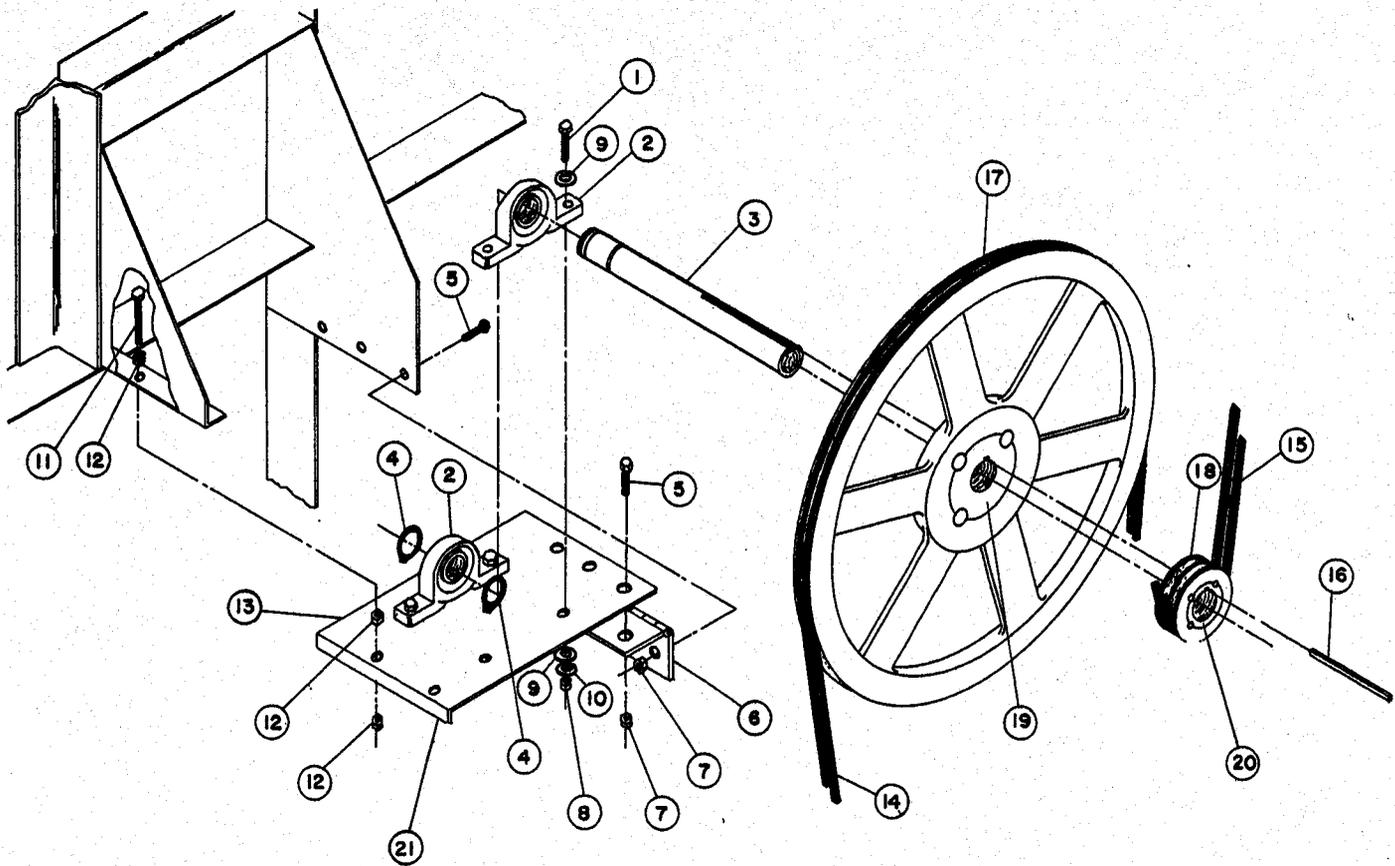
Illus. No.	Part No.	Description	Qty.	Model Utilizing Part		
				Gas	Electric	Steam
1	800607	Tumbler Support	1	x	x	x
2	800707	Tumbler Only	1	x	x	x
3	800807	Tumbler & Support Comp.	1	x	x	x
4	150500	5/16 - 18 x 3/4" SL RD MB PL	1	x	x	x
5	153014	7/16 Flat Washer	17	x	x	x
6	153013	7/16 Lock Washer	16	x	x	x
7	152009	7/16 - 14 Hex Nut	8	x	x	x
8	100904	7/16 - 14 x 43" Tie Rod	8	x	x	x
9	301300	Tumbler Rib	4	x	x	x
10	150301	#8 - 18 x 7/16" #2 SDS	32	x	x	x
11	301700	Tumbler Reinforcing Plate	4	x	x	x
12	301701	Shim	A/R	x	x	x



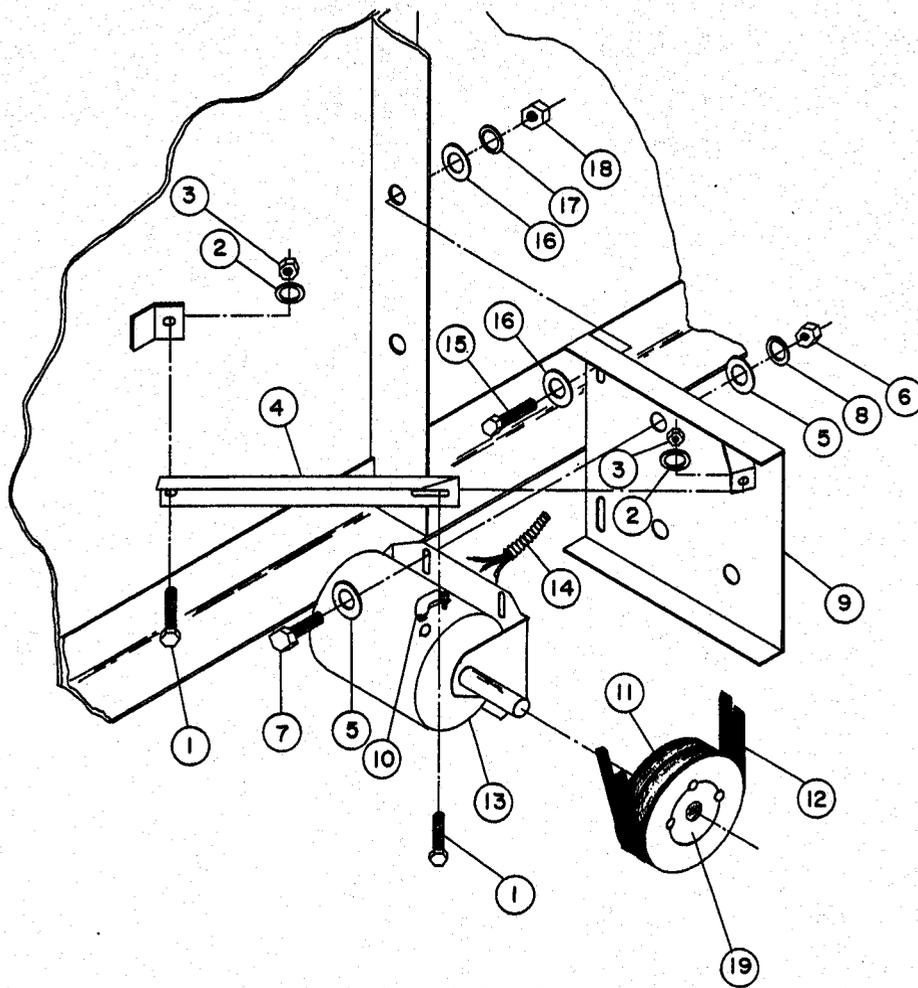
Illus. No.	Part No.	Description	Qty.	Model Utilizing Part		
				Gas	Electric	Steam
1	800502	Lint Screen	1	x	x	x
2	800405	Lint Drawer	1	x	x	x
3	801402	Sensor Holder Only	1	x	x	x
4	130301	Manual Reset Thermostat Lg. L-225	1	x	x	x
5	153008	#6 Lock Washer	8	x	x	x
6	152000	6-32 Hex Nut	8	x	x	x
7	150305	#6 x 1/2 Sheet Metal Screw	2	x	x	x
8	155000	3/8 " Dia. Plug	1	x	x	x
9	305003	Sensor Enclosure	1	x	x	x
10	835100	Sensor Connector & Leads	1	x	x	x
11	130102	L-190 LG Thermostat	1	x	x	x
12	130106	L-170 LG Thermostat	1	x	x	x
13	130100	L-150 LG Thermostat	1	x	x	x
14	152002	1/4 - 20 Hex Nut	2	x	x	x
15	831701	Sensor Jumper	1	x	x	x
16	168282	Thermometer, Dial (Sensor)	1	x	x	x



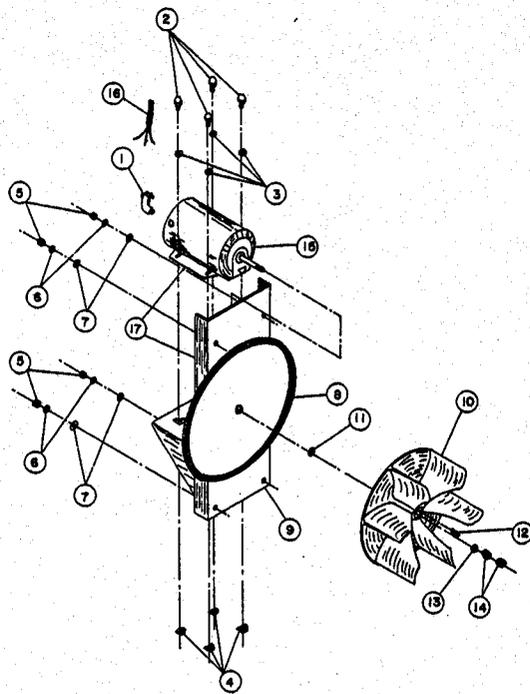
Illus. No.	Part No.	Description	Qty.	Model Utilizing Part		
				Gas	Electric	Steam
1	150602	5/8 - 11 x 3" HH MB PL	4	X	X	X
2	153016	5/8 Flat Washer	8	X	X	X
3	153015	5/8 Lock Washer	4	X	X	X
4	152010	5/8 - 11 Hex Nut	4	X	X	X
5	150603	1/2 - 13 x 3 SQ HD MS PL	2	X	X	X
6	152011	1/2 - 13 Hex Nut	2	X	X	X
7	801102	Bearing Mount	1	X	X	X
8	100204	2 1/4" Pillow Block Bearing	2	X	X	X
9	100703	1/2 x 1/2 x 2 Key	1	X	X	X
10	100801	5/8" Retaining Ring	2	X	X	X
11	101111	Tumbler Pulley 18"	1	X	X	X
12	100104	71V Belt	2	X	X	X
13	103400	Hinge Pin	1	X	X	X
14	150600	3/8 - 16 x 1 1/2 HH MB PL	4	X	X	X
15	153004	3/8 Flat Washer	4	X	X	X
16	153005	3/8 Lock Washer	2	X	X	X
17	152005	3/8 Hex Nut	4	X	X	X
18	101108	Taper Lock Bushing 2 1/4" Bore	1	X	X	X



Illus. No.	Part No.	Description	Qty.	Model Utilizing Part		
				Gas	Electric	Steam
1	150600	3/8 - 16 x 1 1/2 HH MB PL	4	x	x	x
2	100205	1" Pillow Block Bearing	2	x	x	x
3	100401	1" Idler Shaft	1	x	x	x
4	100800	1" Retaining Rings	2	x	x	x
5	150510	1/4 - 20 x 3/4 HH MB	6	x	x	x
6	103005	Idler Adjustment Hinge	1	x	x	x
7	152002	1/4 - 20 Hex Nut	6	x	x	x
8	152005	3/8 Hex Nut	4	x	x	x
9	153004	3/8 Flat Washer	8	x	x	x
10	153005	3/8 Lock Washer	4	x	x	x
11	150509	5/16 - 18 x 3 HH MB PL	2	x	x	x
12	152004	5/16 - 18 Hex Nut	6	x	x	x
13	311401	Idler Bearing Mount	1	x	x	x
14	100102	75V Belt	2	x	x	x
15	100104	71V Belt	2	x	x	x
16	100704	1/4 x 1/4 x 1 3/4 Key	1	x	x	x
17	101112	Idler Pulley 19"	1	x	x	x
18	101113	Idler Sheave 3"	1	x	x	x
19	101107	Taper Lock Bushing 1" Bore	1	x	x	x
20	101110	Taper Lock Bushing 1" Bore	1	x	x	x
21	801001	Idler Mount Comp. Pulleys, Bushings & Belts not included	1	x	x	x
22	153007	1/4 Lock Washer	6	x	x	x
23	153002	5/16 Lock Washer	6	x	x	x
24	153001	5/16 Flat Washer	4	x	x	x

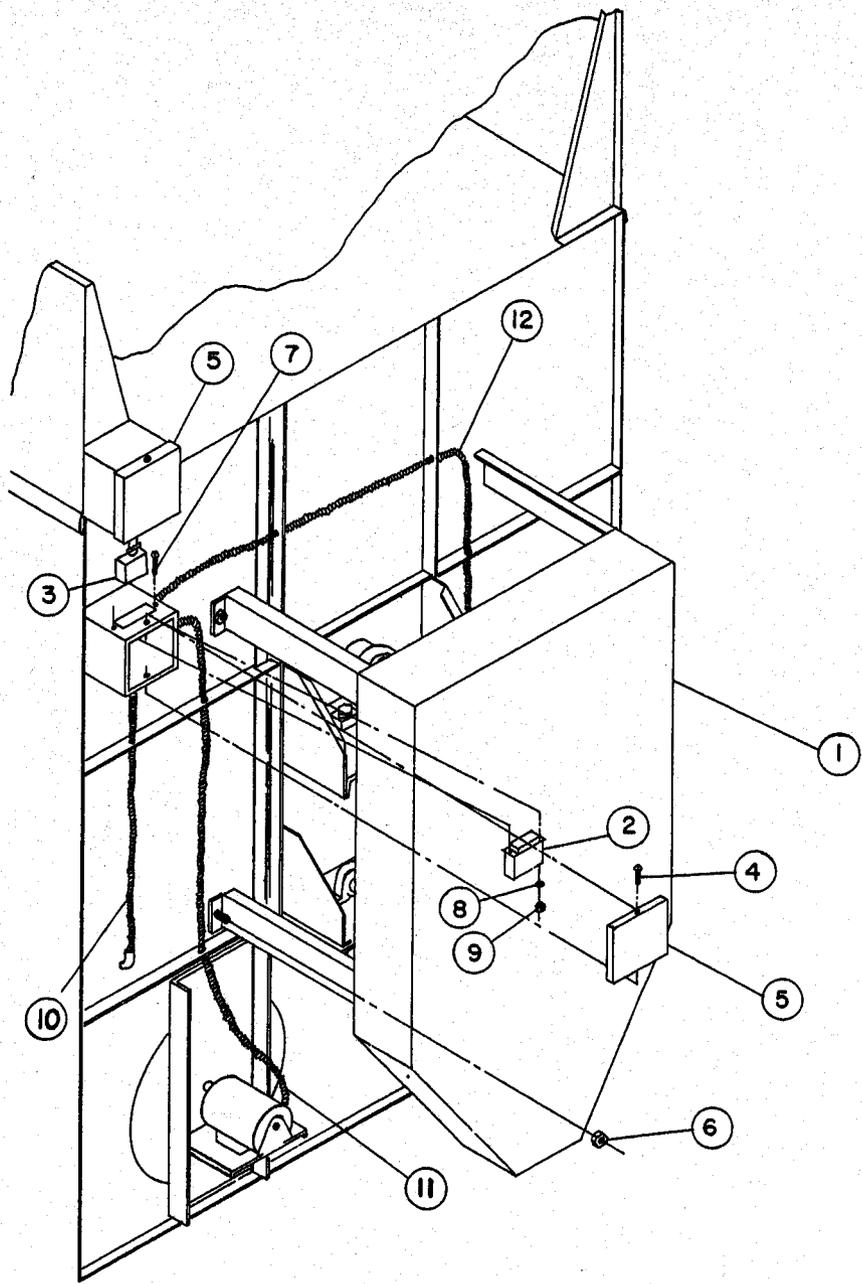


Illus. No.	Part No.	Description	Qty.	Model Utilizing Part		
				Gas	Electric	Steam
1	150510	1/4 - 20 x 3/4 HH MB	2	X	X	X
2	153007	1/4 Lock Washer	2	X	X	X
3	152002	1/4 - 20 Hex Nut	2	X	X	X
4	302300	Drive Motor Mount Brace	1	X	X	X
5	153001	5/16 Flat Washers	8	X	X	X
6	152004	5/16 - 18 Hex Nut	4	X	X	X
7	150513	5/16 - 18 x 1 HH MB PL	4	X	X	X
8	153002	5/16 Lock Washers	4	X	X	X
9	800950	Drive Motor Mount	1	X	X	X
10	120300	3/8 45° Connector	1	X	X	X
11	101114	Motor Sheave 2.65 O.D.	1	X	X	X
12	100102	75V Belt	2	X	X	X
13	100029	3/4 HP 208/230/460/60/3 Motor	1	X	X	X
14	831451	Drive Motor 3Ø Harness	1	X	X	X
15	150600	3/8 - 16 x 1 1/2 HH MB	2	X	X	X
16	153004	3/8 Flat Washer	4	X	X	X
17	153005	3/8 Lock Washer	2	X	X	X
18	152005	3/8 - 16 Hex Nut	2	X	X	X
19	101109	Taper Lock Bushing 5/8" Bore	1	X	X	X

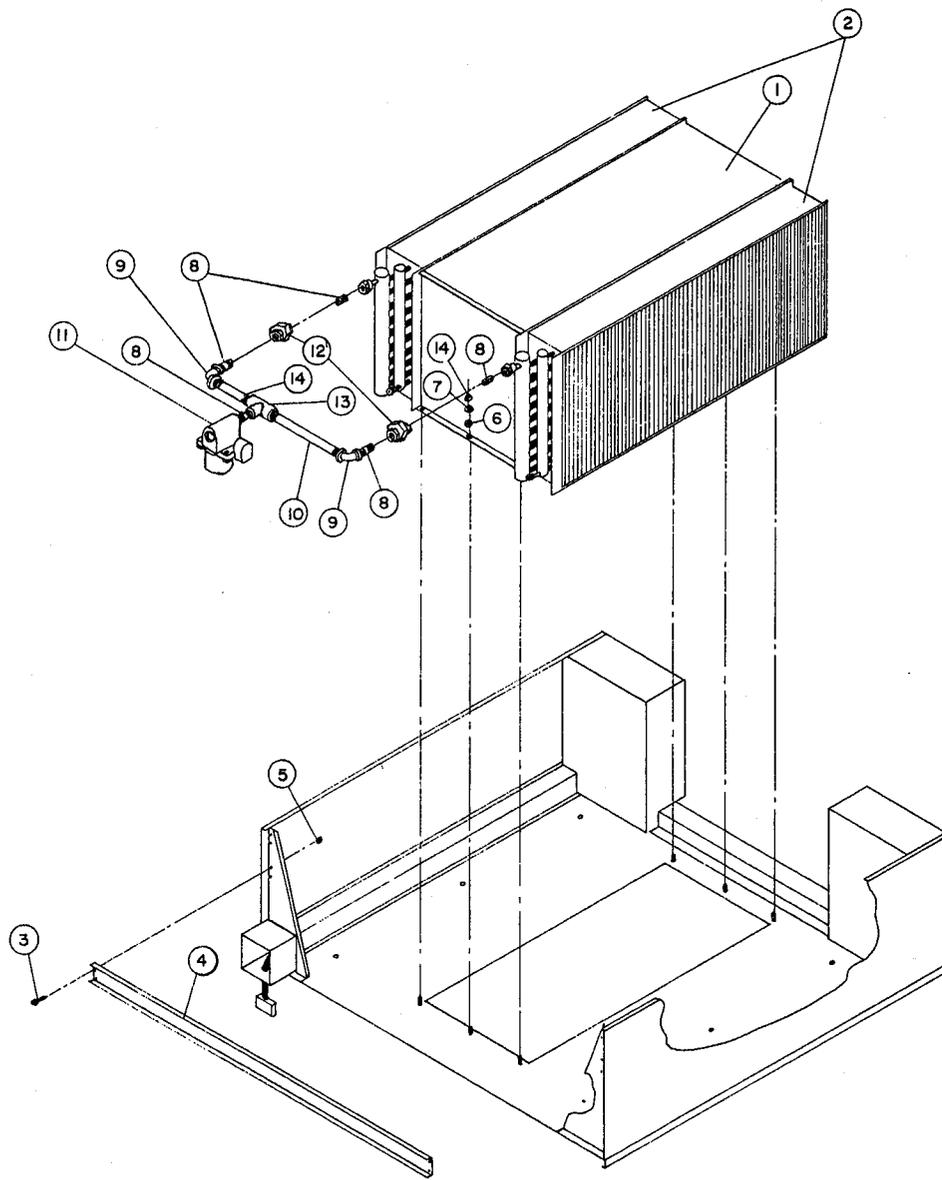


Illus. No.	Part No.	Description	Qty.	Model Utilizing Part		
				Gas	Electric	Steam
1	120200	3/8 90 Connector	1	x	x	x
2	150501	5/16 - 18 x 3/4 HH MB PL	4	x	x	x
3	153002	5/16 Lock Washer	4	x	x	x
4	154000	5/16 - 18 Tinnerman	4	x	x	x
5	152004	5/16 - 18 Hex Nut	4	x	x	x
6	153002	5/16 Lock Washer	4	x	x	x
7	153001	5/16 Flat Washer	4	x	x	x
8	117600	Noise Suppressor Tape	4	x	x	x
9	800907	Motor Mount Only	1	x	x	x
	800913	Motor Mount Only (Super Steam)	1			x
10	100603	16" Impeller	1	x	x	x
	100602	13" Impeller (Super Steam)	1			x
11	153023	3/4 x 1 1/2 Special Motor Washer	1/AR	x	x	x
12	100705	3/16 x 3/16" x 1 3/8" Key	1	x	x	x
13	153024	1/2 x 1 1/4 x 1/16 Flat Washer	1/AR	x	x	x
14	152006	1/2 - 20 LH Jam Nut	2	x	x	x
15	100030	1 HP 208/230/460/60/3 Motor	1	x	x	x
	100023	3 HP 208/230/460/3 Motor	1*			x
16	831453	Blower Motor Harness 3 $\phi$	1	x	x	x
17	803891	1 HP 208/230/460/3 Motor Mount Complete	1	x	x	x
	803892	3 HP 208/230/460/3 Motor Mount Complete	1*			x

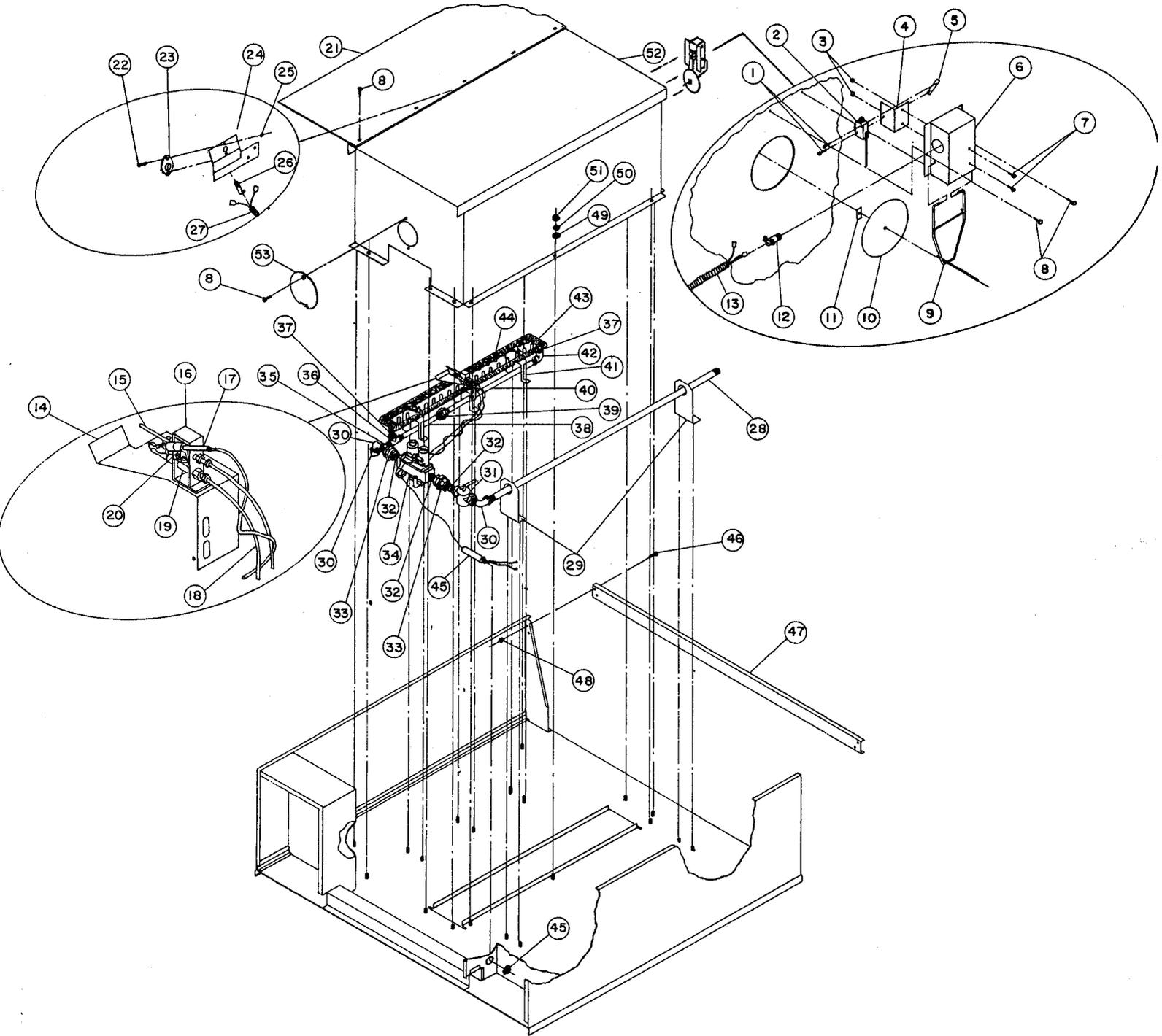
\*Super Steam Model



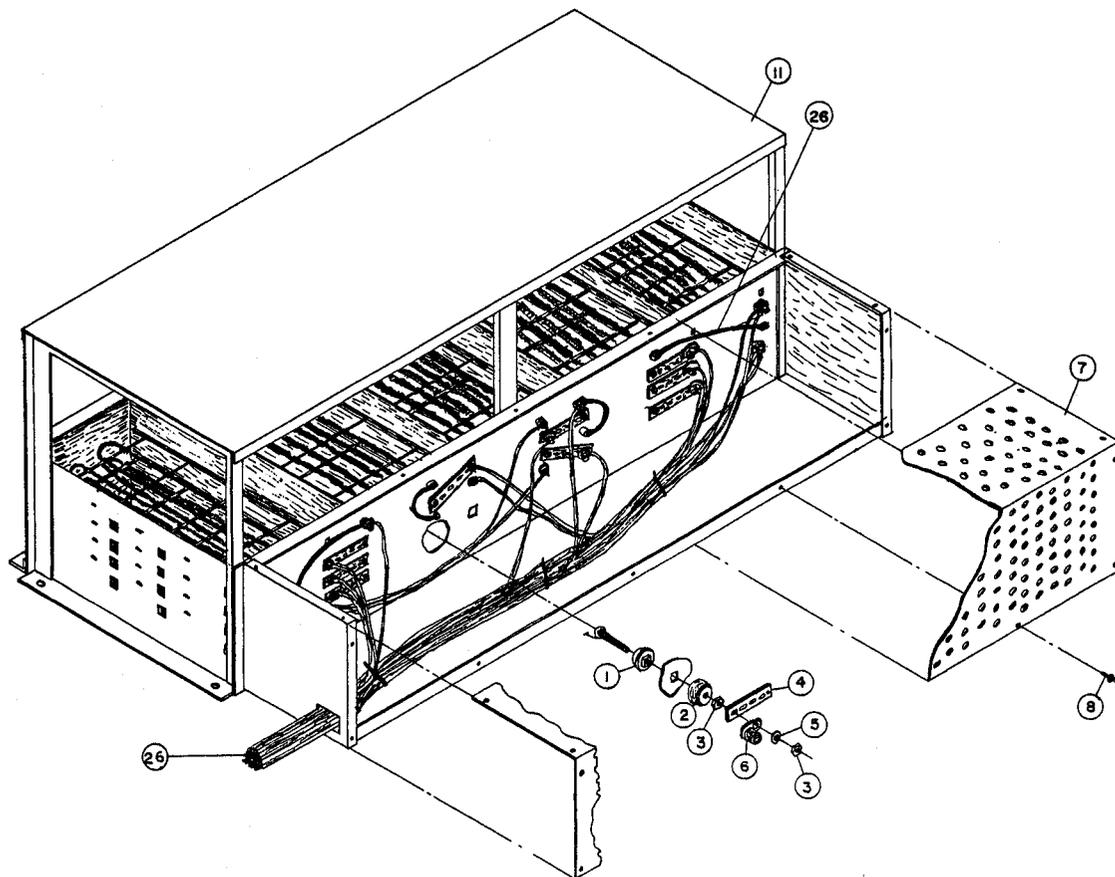
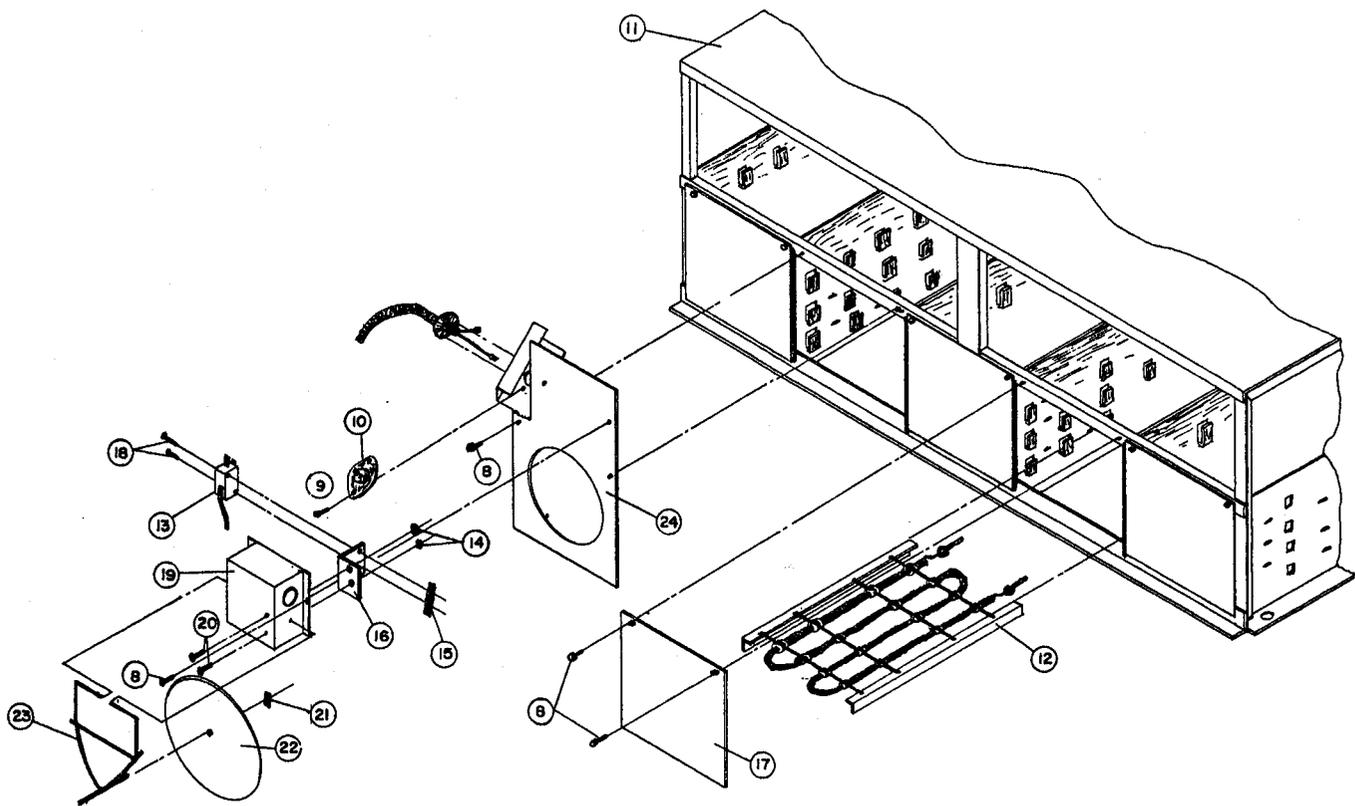
Illus. No.	Part No.	Description	Qty.	Model Utilizing Part		
				Gas	Electric	Steam
1	801509	Back Guard	1	x	x	x
2	122606	12 Pin Male Connector	1	x	x	x
3	831800	Power & Control Harness with Connector	1	x	x	x
4	150301	#8 - 18 x 7/16 #2 SDS	4	x	x	x
5	312100	Harness Box Cover	2	x	x	x
6	152004	5/16 - 18 Hex Nut	4	x	x	x
7	150102	8 - 32 x 3/8 PH MS	2	x	x	x
8	153012	#8 Star Washer	2	x	x	x
9	152001	8 - 32 Hex Nut	2	x	x	x
10	831801	Sensor Harness	1	x	x	x
11	831453	Blower Motor Harness 3Ø	1	x	x	x
12	831451	Drive Motor Harness 3Ø	1	x	x	x



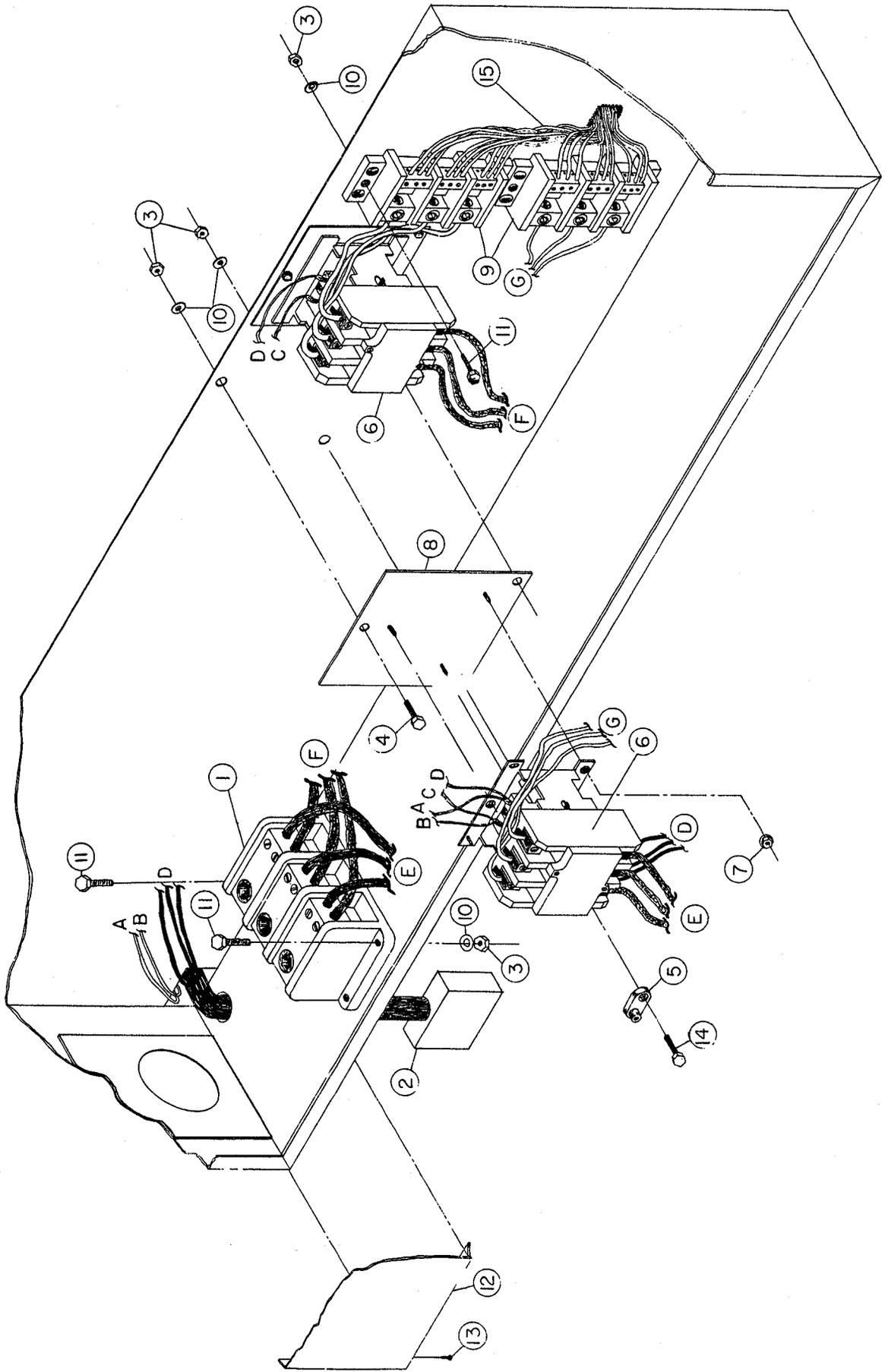
Illus. No.	Part No.	Description	Qty.	Model Utilizing Part		
				Gas	Electric	Steam
1	803504	Steam Plenum	1			x
2	165007	Steam Coil (Super Steam)	2			x
	165004	Steam Coil	2			x
3	150510	1/4 - 20 x 3/4 HH Bolt	4			x
4	312307	Corner Gusset Brace	1			x
5	152002	1/4 - 20 Hex Nut	4			x
6	153001	5/16 Flat Washer	6			x
7	153007	1/4 Lock Washer	6			x
8	142711	1" Close Nipple	4			x
9	142507	1" 90 Street Elbow	2			x
10	142712	1" x 10 Nipple	1			x
11	165101	1" Steam Valve - 220 HP - LP	1			x
12	142602	1" Black Union	2			x
13	142508	1" Tee	1			x
14	152002	1/4 - 20 Hex Nut	6			x
15	142716	1" x 6 Nipple	1			x



Illus. No.	Part No.	Description	Qty.	Model Utilizing Part		
				Gas	Electric	Steam
1	150303	#4 x 5/8" Pan Head	2	x		
2	802801	Sail Switch Comp/Less Harness	1	x		
	122200	Sail Switch	1	x		
3	152001	8 - 32 Hex Nut	2	x		
4	319203	Sail Switch Mounting Brkt.	1	x		
5	154004	Twin Speed Nut	1	x		
6	802800	Sail Switch Box	1	x		
7	150102	8 - 32 x 3/8 Pan Head Screws	2	x		
8	150300	#10 x 1/2 SDS Tekes	15	x		
9	105500	Sail Switch Rod	1	x		
10	319202	Sail Switch Damper	1	x		
11	154001	10 - 24 Speed Nut	1	x		
12	120300	3/8 45° Connector	1	x		
13	830107	Sail Switch Harness	1	x		
14	319103	Pilot Mounting Brkt.	1	x		
	880600	Pilot Mounting Brkt. Comp.	1	x		
15	140601	Thermocouple	1	x		
16	140500	Pilot Burner Frame	1	x		
17	128200	Electrode w/Hardware	1	x		
18	143100	Aluminum Tubing	2	x		
19	140705	Pilot Orifice .032 Nat.	1	x		
	140706	Pilot Orifice .018 LP	1	x		
20	154050	Tinnerman Clip	2	x		
21	319400	Cover, Burner	1	x		
22	150001	6 - 32 x 1/2 R.H.M.S.	2	x		
23	130401	L-330 Hi Limit	1	x		
24	802502	Hi Limit Mounting Brkt.	1	x		
25	802503	Hi Limit Assy. Less Harness	1	x		
	152000	6 - 32 Hex Nut	2	x		
26	120200	90 3/8 Connector	1	x		
27	830108	Hi Limit Harness	1	x		
28	142807	3/4 x 36 Pipe	1	x		
29	318703	Pipe Support Brkt.	2	x		
30	142503	3/4 x 3/4 Street Elbow	3	x		
31	141300	3/4 Union Shut Off	1	x		
32	142701	3/4 Close Nipple	3	x		
33	142601	3/4 Black Union	2	x		
34	140003	3/4 - 220 Baso Gas Valve	1	x		
	140401	3/4 Baso LP Conv. Kit	1	x		
35	142708	3/4 x 3 Nipple	1	x		
36	142505	3/4 x 1/2 x 1/2 Tee Spec	1	x		
37	142700	1/2 Close Nipple	2	x		
38	142710	1/2 x 4 1/2 Pipe	1	x		
39	142600	1/2 Black Union	1	x		
40	142805	1/2 x 24 Pipe	1	x		
41	318903	Burner Rest	3	x		
42	142501	3/4 90° Elbow	1	x		
43	141103	LP Burner	2	x		
	141102	Nat Burner	2	x		
44	140900	Burner LP Orifice	32	x		
	140901	Burner Nat Orifice	32	x		
45	128202	Co-Pilot Control 220	1	x		
46	150510	1/4 - 20 x 3/4 HH Bolt	4	x		
47	312307	Corner Gusset Brace	1	x		
48	152002	1/4 - 20 Hex Nut	4	x		
49	153001	5/16 Flat Washer	10	x		
50	153007	1/4 Lock Washer	10	x		
51	152002	1/4 - 20 Hex Nut	10	x		
52	806507	LP Burner Comp.	1	x		
	806307	Nat. Burner Comp.	1	x		
53	318807	Cover. Port	1	x		



Illus. No.	Part No.	Description	Qty.	Model Utilizing Part		
				Gas	Electric	Steam
1	120081	Internal Ceramic Insulator	36		x	
2	120080	External Ceramic Insulator	36		x	
3	152008	10 - 32 Hex Nut	72		x	
4	880700	Bus Bar Set 208/240V	1		x	
	880701	Bus Bar Set 416/480V	1		x	
5	153009	#10 Lockwasher	36		x	
6	121010	Terminal Lug 208/240V	18		x	
	121010	Terminal Lug 416/480V	9		x	
7	321403	Access. Cover	1		x	
8	150300	#8-18 x 1/2 Tek HH Screw	26		x	
9	150301	#8-18 x 7/16 Tek PH H Screw	2		x	
10	130401	Hi Limit Thermostat L-330	1		x	
11	803002	Electric Oven Only	1		x	
	815800	60KW 208V 3Ø Oven Complete	1		x	
	815802	60KW 240V 3Ø Oven Complete	1		x	
	815805	60KW 416V 3Ø Oven Complete	1		x	
	815806	60KW 480V 3Ø Oven Complete	1		x	
12	120006	3KW 208V Heating Element	12		x	
	120007	3KW 240V Heating Element	12		x	
	120008	4KW 208V Heating Element	6		x	
	120009	4KW 240V Heating Element	6		x	
13	122200	Sail Switch	1		x	
14	152001	8 - 32 Hex Nut	2		x	
15	154004	Twin Speed Nut	1		x	
16	319203	Sail Switch Mtg. Brkt.	1		x	
17	320002	Access Cover, Heating Elements	4		x	
18	150303	#4 x 5/8 Pan H Screw	2		x	
19	802800	Sail Switch Box Assy.	1		x	
20	150102	#8 - 32 x 3/8 Pan H Screw	2		x	
21	154001	10 - 24 Speed Nut	1		x	
22	319202	Sail Switch Damper	1		x	
23	105500	Sail Switch Rod	1		x	
24	321400	Safety Controls Bracket	1		x	
25	834200	Element Intcn. Wire Set 208/240V	1		x	
	834201	Element Intcn. Wire Set 416/480V	1		x	
26	834210	Oven Lead Wire Set 208/240V	1		x	
	834211	Oven Lead Wire Set 416/480V	1		x	



<u>Illus.</u> <u>No.</u>	<u>Part</u> <u>No.</u>	<u>Description</u>	<u>Qty.</u>	<u>Model Utilizing Part</u>		
				<u>Gas</u>	<u>Electric</u>	<u>Steam</u>
1	120710	Terminal Block, Power Input	1		x	
2	831800	Power Control Harness & Connector	1		x	
3	152002	1/4-20 Palnut	7 or 12		x	
4	150512	1/4-20 x 1/2 Hex Hd. Bolt	5		x	
5	121010	Ground Lug L-70	1		x	
6	131309	Relay Contactor 93A 240V	1 or 2		x	
7	152008	#10-32 Palnut	3 or 6		x	
8	803202	Mounting Adapter Plate	1 or 2		x	
9	120706	Terminal Block, Distribution	1 or 2		x	
10	153007	1/4 Lock Washer	7 or 14		x	
11	150511	1/4-20 x 1 1/2 Hex Hd. Bolt	4 or 6		x	
12	320902	Junction Box Cover	1		x	
13	150301	#8-18 x 7/16 PH SDS Screw	14		x	
14	150510	1/4-20 x 3/4 Hex Hd. Bolt	1		x	
15	834210	Oven Lead Wire Set 200/240V	1		x	
	834211	Oven Lead Wire Set 416/480V.	1		x	

SECTION X  
TECHNICAL DATA

a)	EXHAUST SYSTEM	10-2,3
b)	INSTALLATION CONNECTION DATA	10-4,5
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d)	ELECTRIC OVEN SELECTION TABLE	10-6
e)	HEAT EXCHANGER INSTALLATION	10-7
f)	REVERSING TIMER CONTROL ADJUSTMENTS	10-8
g)	MOTOR OVERLOAD CONTROL ADJUSTMENTS	10-8
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i)	POWER DISTRIBUTION 416-480V	10-10
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k)	ELECTRIC OVEN ELEMENT INTERCONNECTIONS 416-480V	10-12
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EXHAUST DUCT AND AIR INTAKE. Where possible, it is desirable to provide a separate exhaust air duct for each dryer. The duct should be 12" or 16" diameter, depending upon the air outlet diameter of the dryer. The duct should go as directly as possible to the outside air. Avoid right angle turns in the ducting; use 30 degree or 45 degree angles instead. The radius of the elbows should preferably be 1 1/2 times the diameter of the duct. To protect the outside end of the duct from the weather, it may be bent downward as indicated in Figure 1. Leave at least twice the diameter of the duct clear between the duct opening and the nearest obstruction. If the exhaust duct goes through the roof, it may be protected from the weather by a hood, or by using a 180 degree turn to point the opening down as indicated in Figure 2. In either case, allow at least twice the diameter of the duct as clearance from the nearest obstruction as indicated above.

Do not use screens or caps on the outside opening of the exhaust duct. The ducting should be smooth inside, with no projections from sheet metal screws or other obstructions which will collect lint. When adding ducts, the duct to be added should overlap the duct that it is to be connected to. Provide inspection

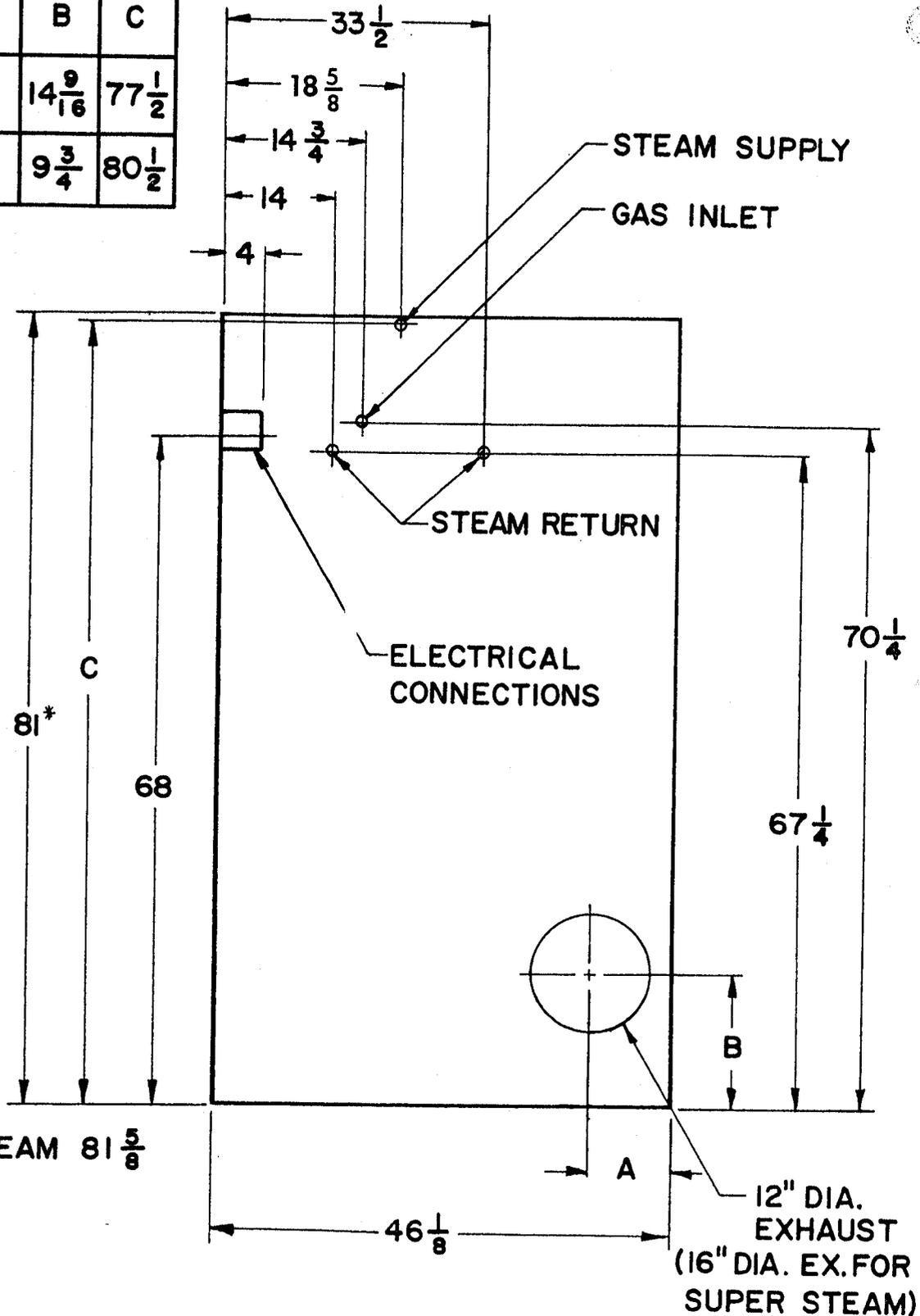
doors for periodic clean-out of lint from the main duct.

If it is not feasible to provide separate exhaust ducts for each dryer, ducts from the individual dryers may be channeled into a common main duct. The individual ducts should enter the bottom or side of the main duct at an angle not more than 45 degrees and should be spaced at least 50" apart. The main duct should be tapered, with the diameter increasing before each individual duct is added. The minimum increase in cross-section area should be 115 square inches for each 12" duct added and 205 square inches for each 16" duct added. Where rectangular main ducting is used the areas shown should be increased 10 square inches, and the ratio of duct width to depth should not be greater than 3 1/2 to 1. Figure 1 shows the minimum cross-section areas of the main duct for either 12" or 16" dryer ducts. These figures should be increased if the main duct is unusually long (20' or over) or has numerous elbows in it.

Openings from the outside air to the room in which the dryers are operating should be provided for make-up air and located as near to each dryer as possible. These openings should be 3 to 4 times the cross-section area of the exhaust ducts.

Inadequate exhaust facilities may cause high temperature limit switches or air flow switches to shut off the dryers. Do not disable the switches, which are provided for your safety. Instead, investigate the exhaust ducting. Any obstruction or air friction due to numerous elbows/fittings in the ducting will slow the passage of air through the system with resulting inefficiency and potential fire hazard.

	A	B	C
STD. CABINET	$8\frac{1}{8}$	$14\frac{9}{16}$	$77\frac{1}{2}$
SUPER STEAM CABINET	$8\frac{7}{16}$	$9\frac{3}{4}$	$80\frac{1}{2}$



\* STANDARD STEAM  $81\frac{5}{8}$

INSTALLATION INFORMATION FOR GAS, STEAM, AND ELECTRICAL CONNECTIONS AND EXHAUST LOCATION.

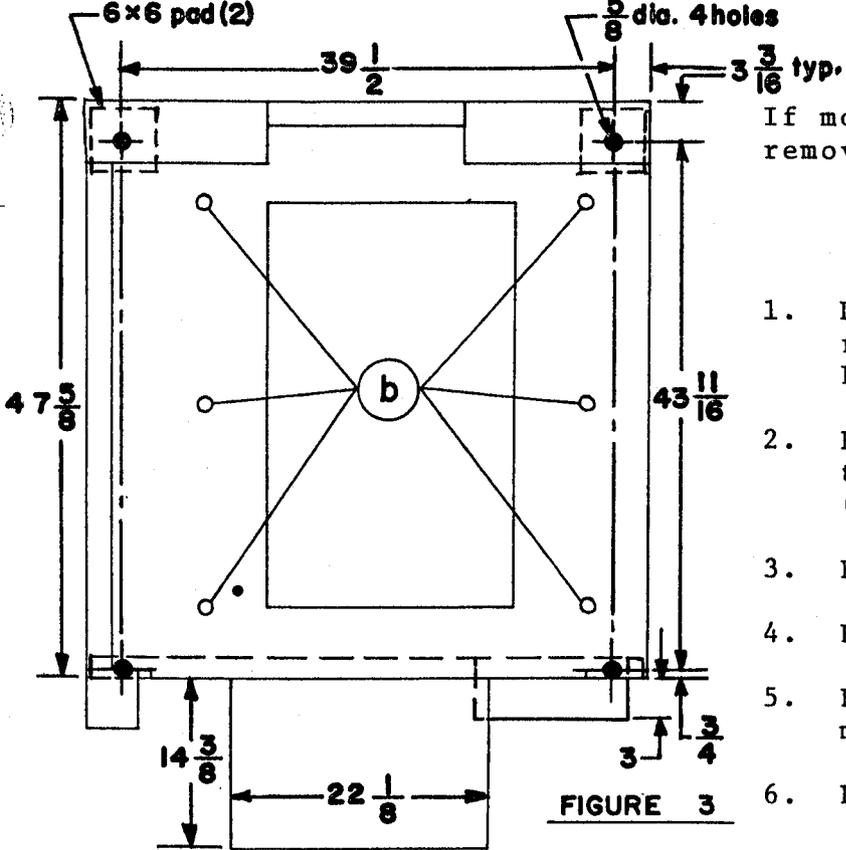


FIGURE 3

If more headroom is needed after removal of the skid:

1. Disconnect the plug (a) at rear of the dryer. (See Figure 4.)
2. Remove the nuts (b) holding the console to the base. (See Figure 3.)
3. Remove control panels.
4. Release control door.
5. Remove burner cover (c) (gas models).
6. Lift the console from the base.

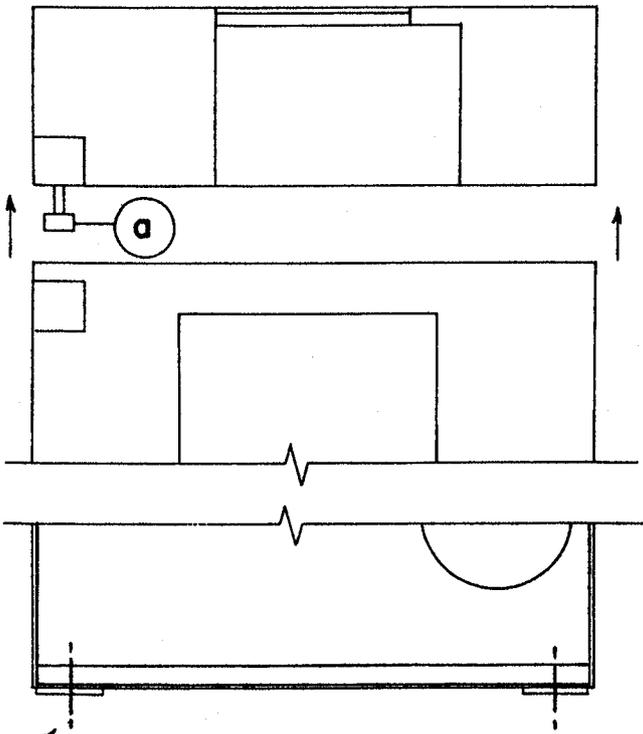


FIGURE 4

To level the dryer:

1. Place 4" square metal shims (c) or other suitable material under the base pads.

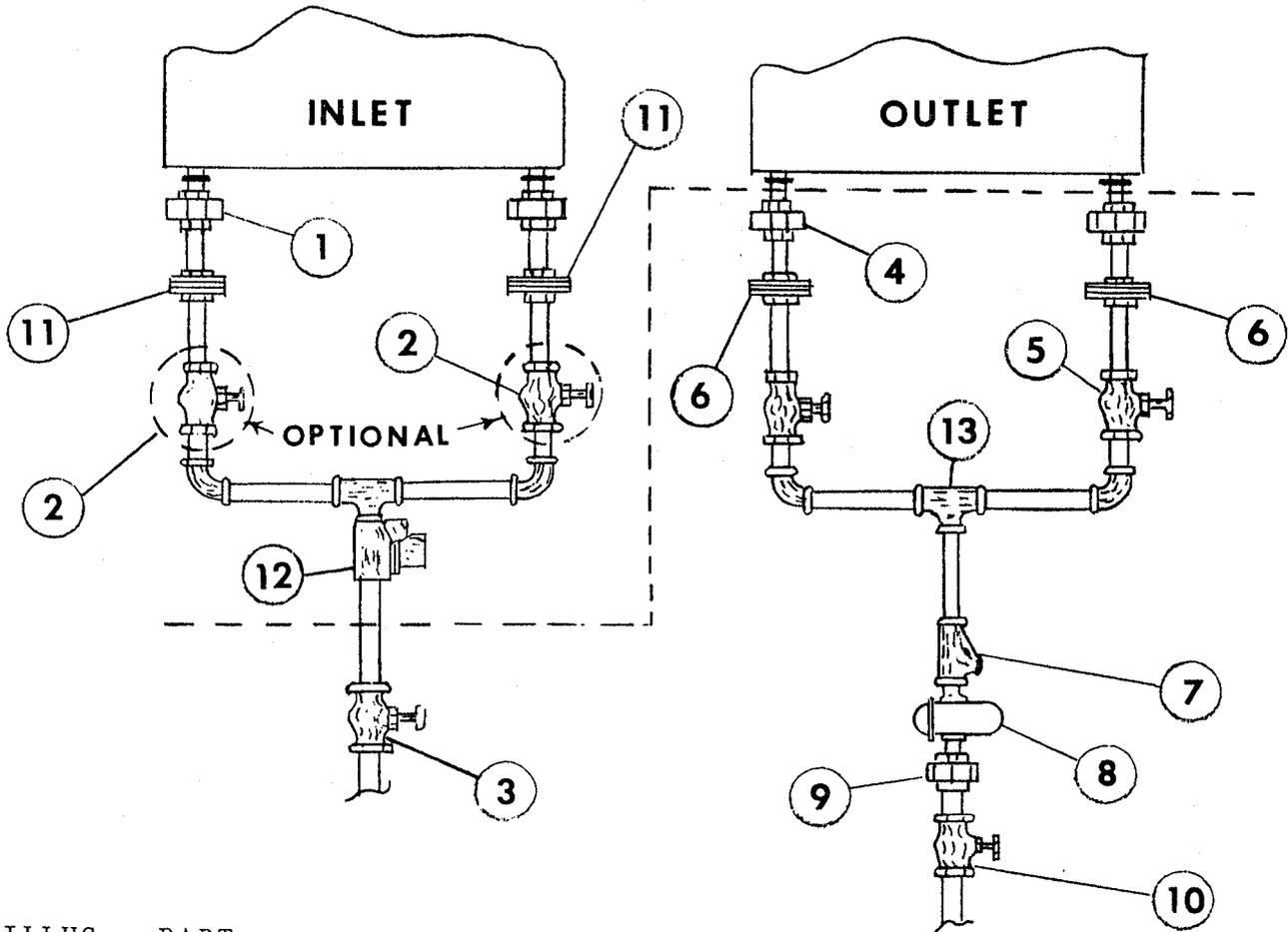
## ORIFICE AND WATER COLUMN TABLE

ADG-100 (250,000 BTU)	NATURAL		LP	
MAIN BURNER ORIFICE	PART NO.	QTY.	PART NO.	QTY.
	140901	32	140900	32
PILOT ORIFICE	PART NO.	SIZE	PART NO.	SIZE
	140705	.032	140706	.018
WATER COLUMN	$3\frac{1}{2}''$		8" to 11"	

## ELECTRIC OVEN SELECTION

KW	EQUIV HEAT B's	SUPPLY VOLTAGE	LINE AMPS	SUPPLY CABLE AWG		
60	204,780	208	167	2/0		
50	170,650	220	132	1/0		
55	187,720	230	138	1/0		
60	204,780	240	145	1/0		
60	204,780	416	83.5	4		
50	170,650	440	66	4		
55	187,720	460	69	4		
60	204,780	480	72.5	4		

# SUGGESTED HEAT EXCHANGER INSTALLATION

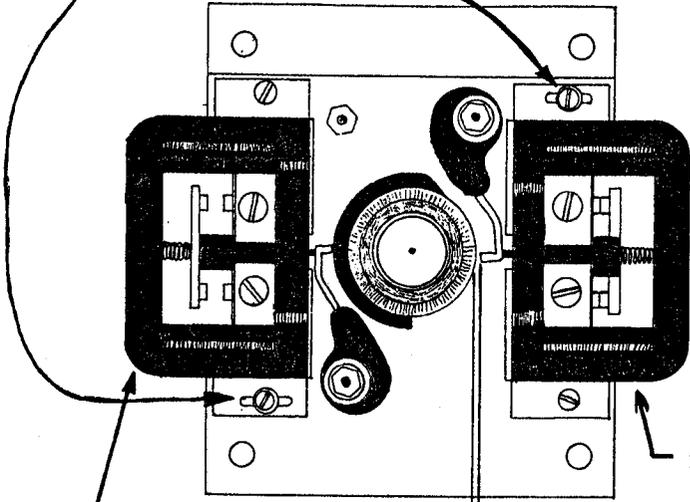


ILLUS. NO.	PART NO.	DESCRIPTION	QTY.	MODEL UTILIZING PART		
				GAS	ELECTRIC	STEAM
* 1	142602	1" Union	2			x
2	143500	1" Gate Valve	2 (Optional)			x
* 3	-	1" Main Supply Valve	1			-
* 4	142600	1/2" Union	2			-
5	143501	1/2" Gate Valve	2 (Optional)			x
* 6	-	3/4" Flexible Coupling	1			-
* 7	-	3/4" Strainer	1			-
* 8	-	3/4" Trap	1			-
* 9	-	3/4" Union	1			-
*10	-	3/4" Main Return Valve	1			-
*11	-	1" Flexible Coupling	1			-
12	165101	1" Automatic Steam Valve 240V	1			x
*13	-	1/2-3/4-1/2 Tee	1			-
14	142508	1" Tee	1			x

\* Not Provided

## REVERSING TIMER CONTROLS

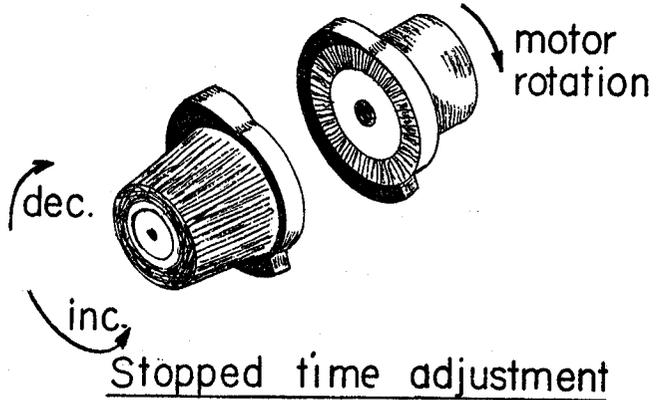
Adjustment screws to maintain  
.025 gap.



switch open  
as shown.

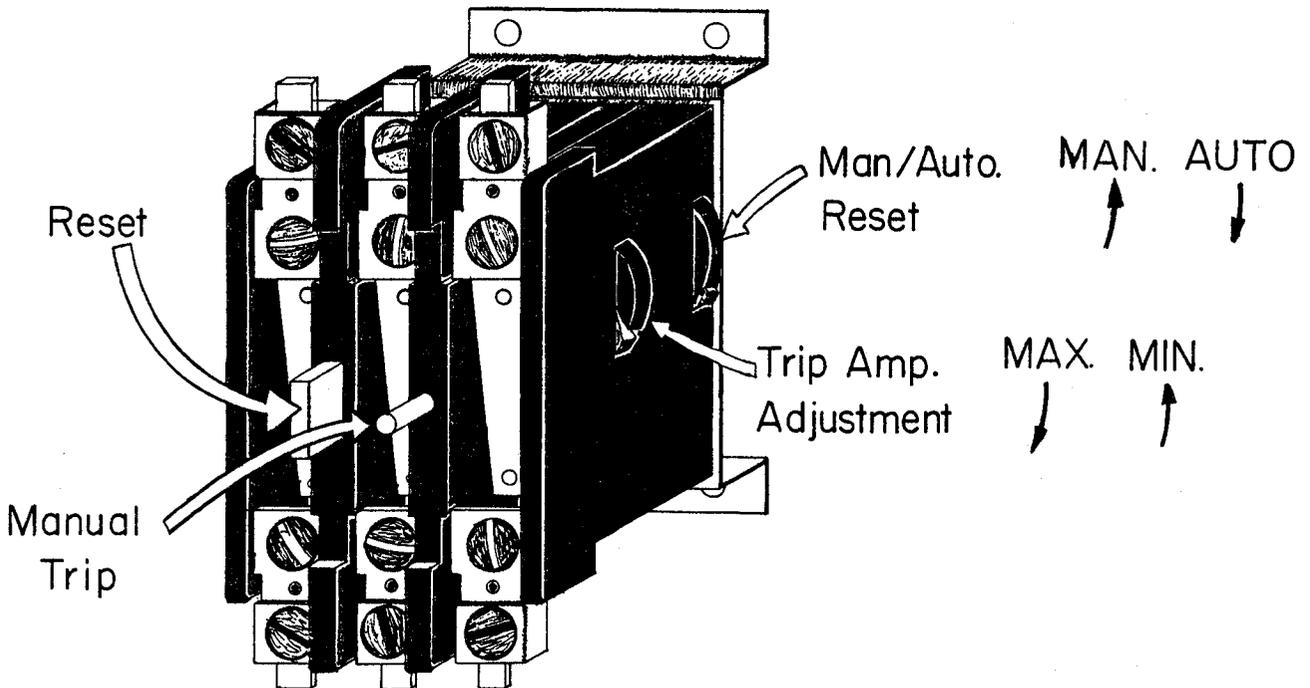
switch closed as shown.

.025 gap; the other lever should  
have the same clearance when the  
cam rotates 1/2 of a revolution.



## MOTOR OVERLOAD RELAY.

Rotate clockwise as far  
as they will go.



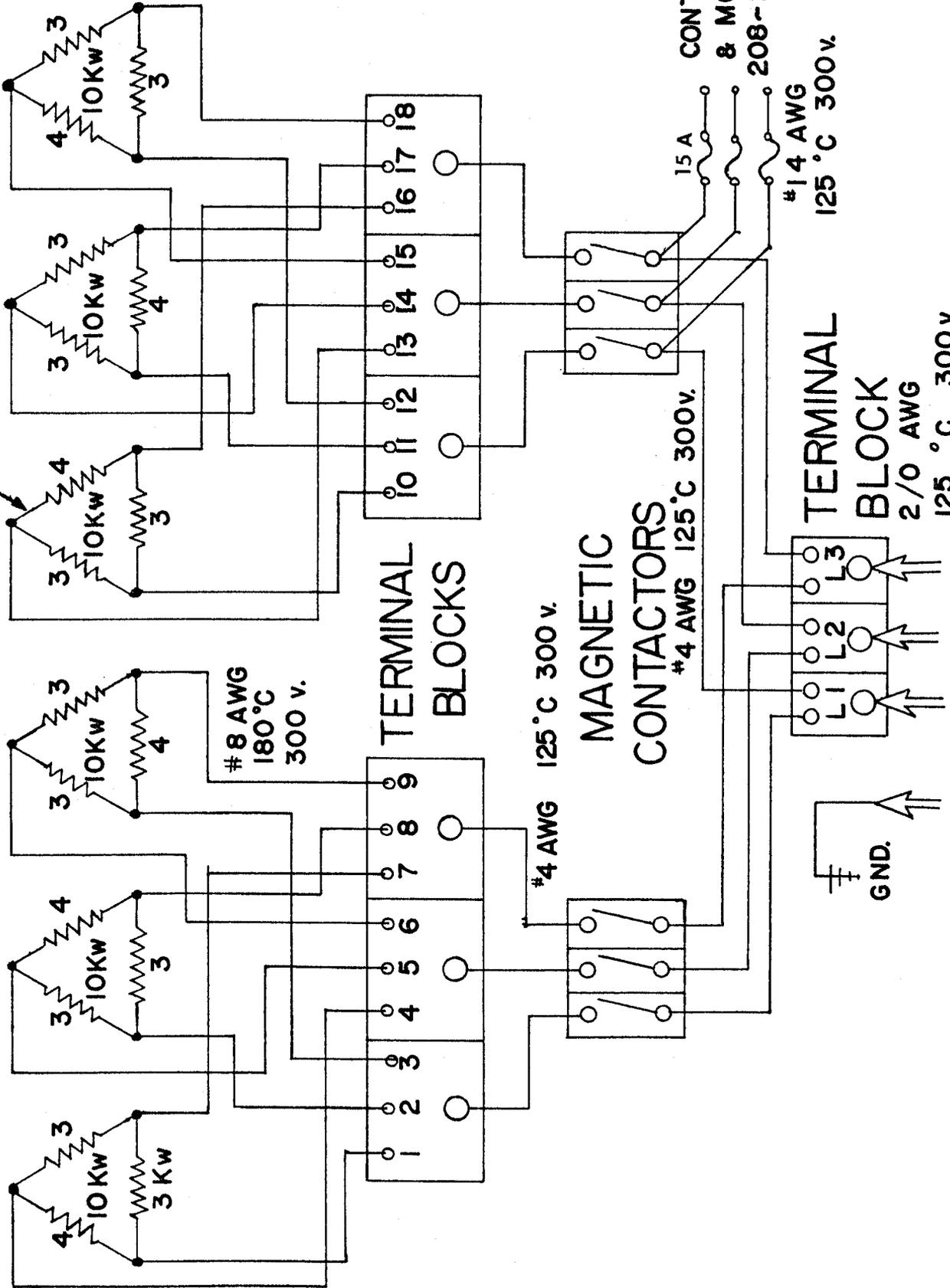
# POWER DISTRIBUTION

# MODEL ADE-100

208-240 v. 3Ø 60HZ.

#10 AWG 180°C 300v.

OVEN



#8 AWG 180°C 300 v.

TERMINAL BLOCKS

#4 AWG 125°C 300 v.

MAGNETIC CONTACTORS

#4 AWG 125°C 300v.

CONTROLS & MOTORS 208-240 v.

#14 AWG 125°C 300v.

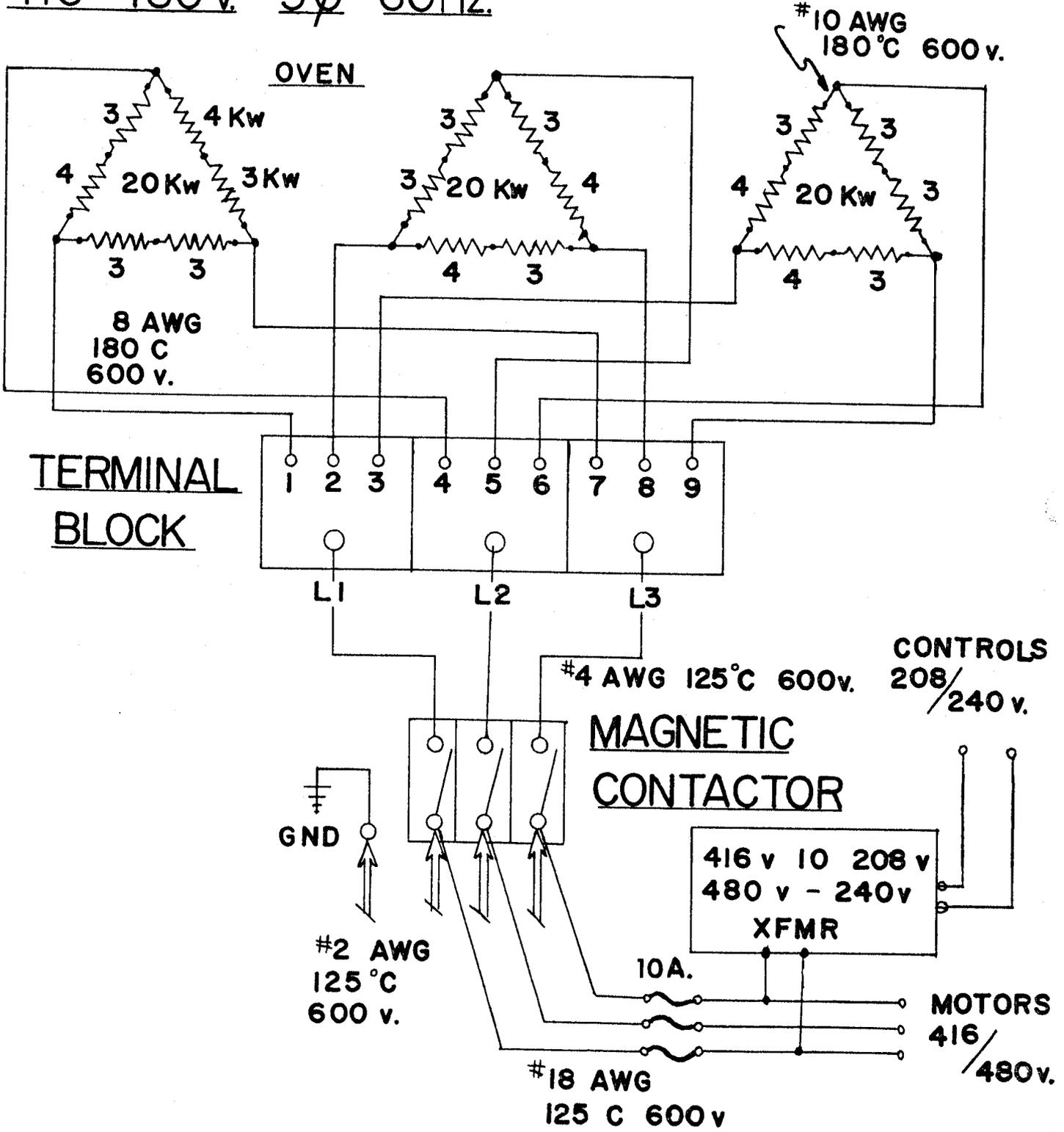
TERMINAL BLOCK 2/0 AWG 125°C 300 v.

GND.

# POWER DISTRIBUTION

MODEL ADE-100

416-480 v. 3 $\phi$  60Hz.

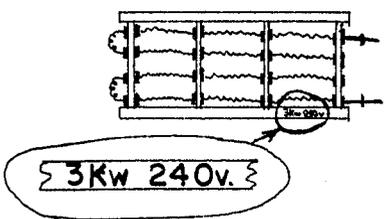
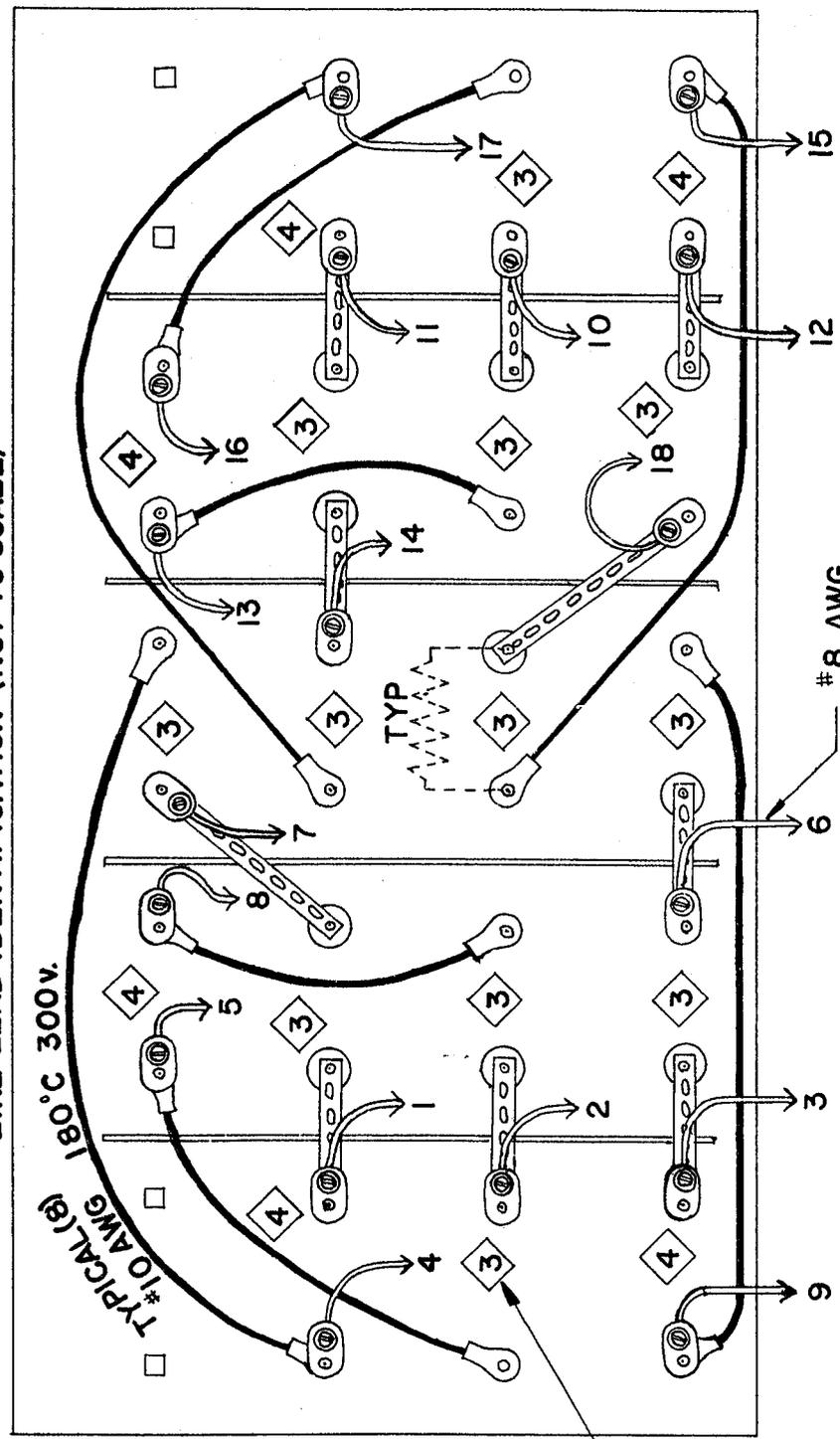


# 208 / 240v. ELEC. OVEN ADE-100

60 Kw, 60 Hz, 3φ

220-240v OVENS  
USE 240v. ELEMENTS

ELEMENT ARRANGEMENT, INTERCONNECTIONS, AND  
LINE LEAD IDENTIFICATION (NOT TO SCALE)



ELEMENT  
KW. RATING  
(3 KW or 4 KW)  
MARKED ON  
ELEMENT  
FRAME

#8 AWG  
180°C 300v.

H= HIGH AMPROBE RDG.  
L= LOW " " READING

10	11	12	13	14	15	16	17	18
○	○	○	○	○	○	○	○	○
L1	L2	L3						

TERMINAL BLOCK #1  
TO CONTACTOR #1

1	2	3	4	5	6	7	8	9
○	○	○	○	○	○	○	○	○
L1	L2	L3						

TERMINAL BLOCK #2  
TO CONTACTOR #2

- TEST
- 1 - H
  - 4 - H
  - 7 - L
  - 10 - L
  - 13 - H
  - 16 - H
  - 2 - L
  - 5 - H
  - 8 - H
  - 11 - H
  - 14 - L
  - 17 - H

- 3 - H
- 6 - L
- 9 - H
- 12 - H
- 15 - H
- 18 - L

84 a.  
TYP.

208 v.

H= 29 A.  
L= 25 A.  
avg.

240 v.

H= 25 A.  
L= 22 A.  
avg.

416 v. OVENS USE  
208 v. ELEMENTS.  
440 - 480 v. OVENS USE  
240 v. ELEMENTS.

ADE - 100



(EXAMPLE)  
208 v 4kw

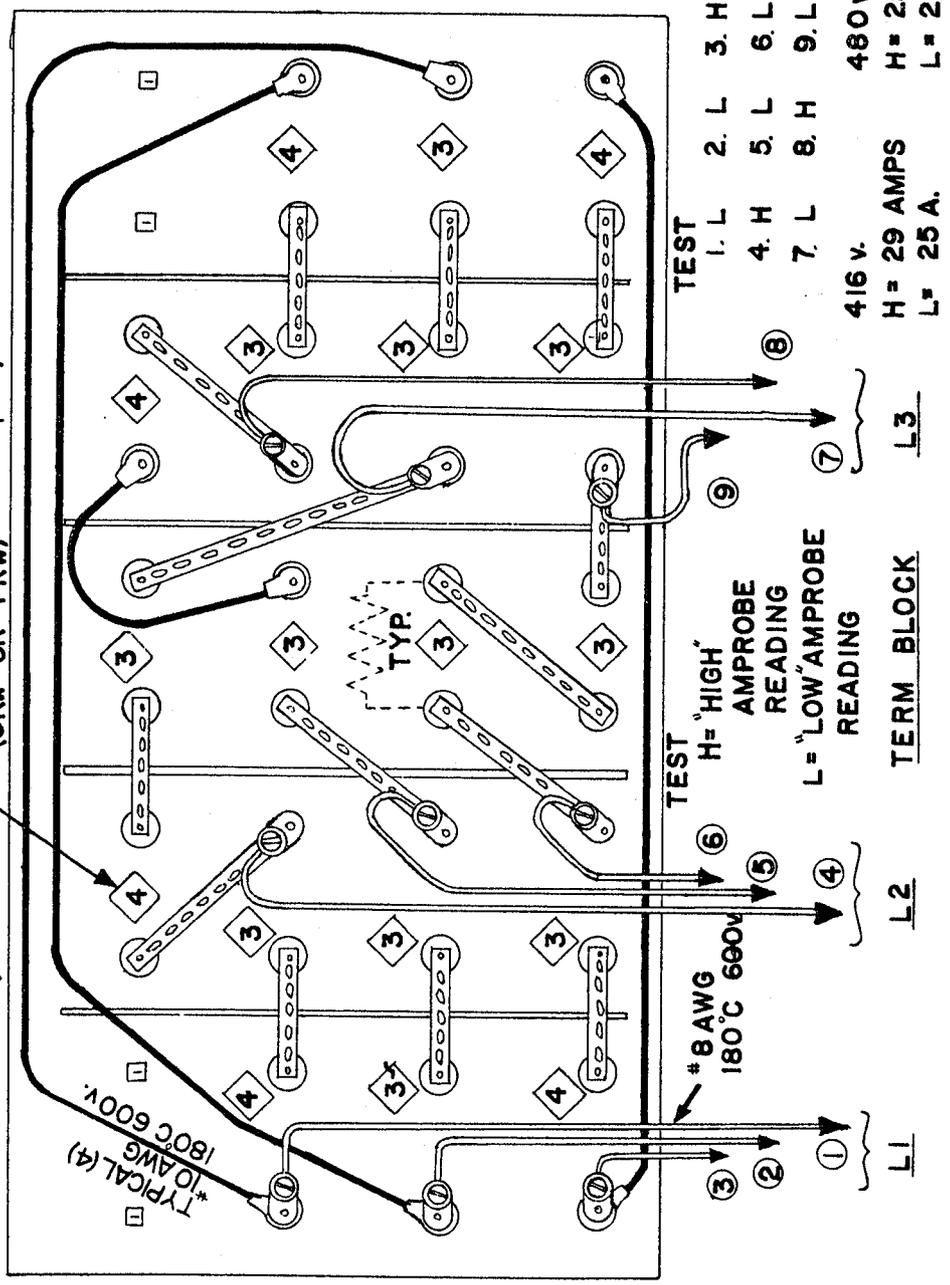
ELEMENT  
KW. RATING  
(3kw OR 4 kw)

416v. / 480v. ELEC. OVEN

ELEMENT ARRANGEMENT,  
INTERCONNECTIONS, &  
LINE LEAD IDENTIFICATION

(NOT TO SCALE)

60KW, 60 Hz. 3φ



TEST

- 1. L 2. L 3. H
- 4. H 5. L 6. L
- 7. L 8. H 9. L

416 v. 480v.  
H = 29 AMPS H = 25 A.  
L = 25 A. L = 22 A.

TEST H = "HIGH"  
AMPROBE  
READING  
L = "LOW" AMPROBE  
READING

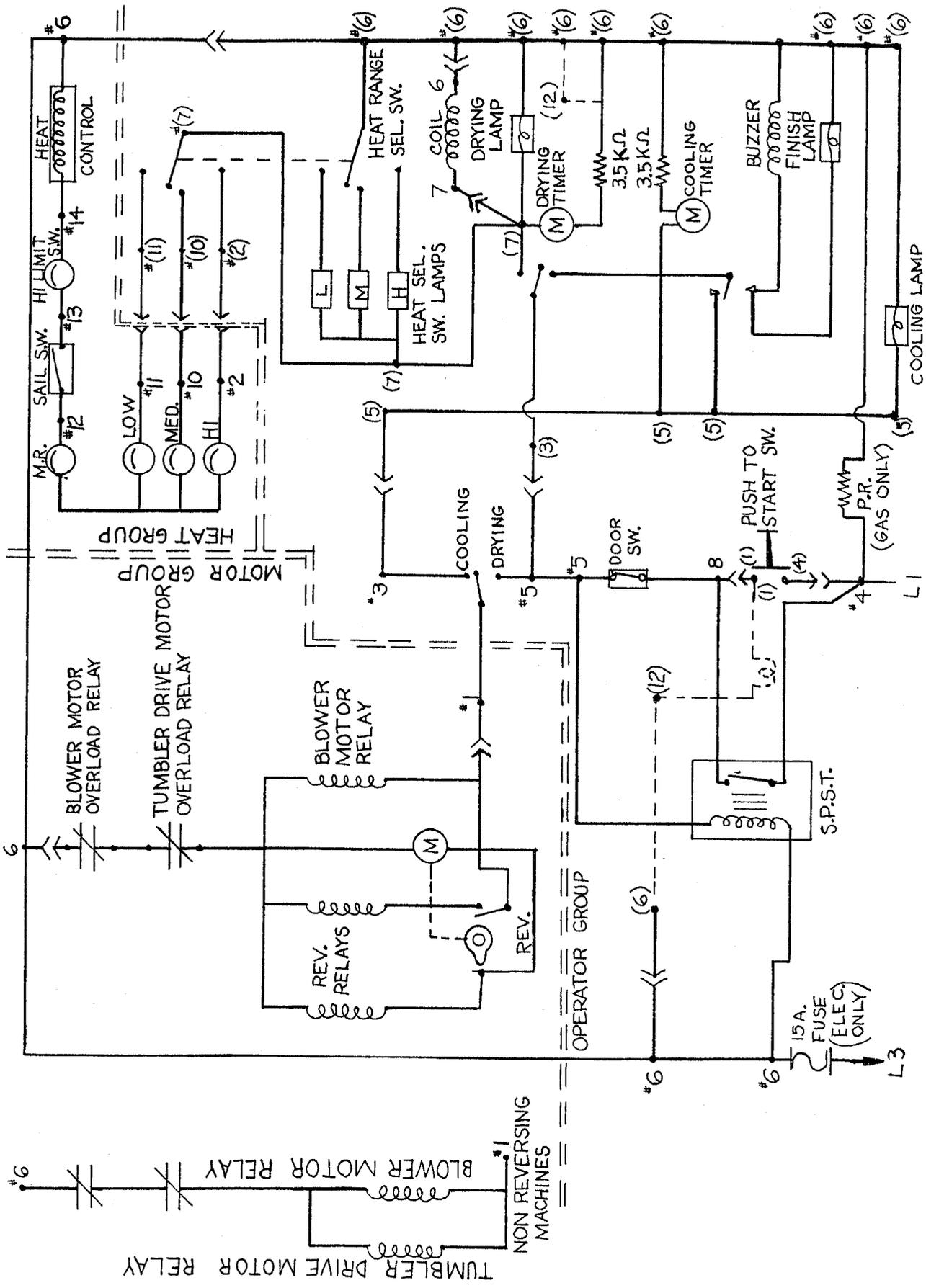
L3

TERM BLOCK

L2

L1

**Dual timer controls with reversing tumbler drive, manual restart, door safety switch, and non-internal thermal protected motors.**



ADC450083 1- 09/16/91-500 2- 09/18/00-25

