

**MAYTAG**

**Maytag**

**"1990" Automatic Dryers  
Service Manual**

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# INTRODUCTION

This service manual is intended to assist you in diagnosing conditions which may develop. Electrical component testing is for the most part, made with an appliance test meter and consists of checking for open or closed circuits. Mechanical checks are made through sight and sound, along with the use of a clamp-on ammeter.

*This manual is designed for the technician who is familiar with the operation and construction of Maytag products. Information contained in this manual is intended for use by a qualified service technician, familiar with proper and safe procedures to be followed when repairing an electrical appliance. All tests and repairs should be performed by a qualified service technician equipped with proper tools and measuring devices. All component replacements should be made by a qualified service technician, using only MAYCOR replacement parts.*

*Improper assembly or adjustment may occur if service or repair is attempted by persons other than qualified service technicians or if parts other than MAYCOR replacement parts are used. Improper assembly or adjustment can cause hazardous conditions.*

*There can be risk of injury or electrical shock while performing services or repairs. Injury or electrical shock can be serious or even fatal.*

The first and most important step of any service call is to accurately determine what the complaint is. This is best accomplished by questioning the customer, finding out what the product is or isn't doing and why they feel a problem exists.

**Section 1** covers Electrical Test Equipment. This section also covers general use of the equipment; an Appliance Test Meter, Clamp-On Ammeter and Motor Test Cord.

**Section 2** covers Electrical-Mechanical Troubleshooting and a list of possible complaints. Find the complaint which you feel best matches that provided by the customer and turn to the appropriate page(s). You will find a list of possible electrical and mechanical problems for the complaint, which have been listed in their order of:

1. Ease in checking.
2. Probability.

Systematically eliminating these possibilities will allow you to find and correct the problem.

**Section 3** covers Service Procedures. This section will provide information on location of components, disassembly and/or reassembly procedures, the purpose and/or function of the part and in some instances specific checks to be made.

**Section 4** covers Pre-Installation Considerations. This provides information on location and exhausting of dryer, main burner adjustment, electrical requirements and connections.

**Section 5** covers General Information. This section covers brief specifications, cycle descriptions and schematics.

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## SECTION 1. ELECTRICAL TEST EQUIPMENT

The equipment required to service Maytag products depends largely upon the condition encountered. Locating a malfunction will often require the use of electrical testing equipment such as:

- Appliance Test Meter
- Clamp-on Ammeter
- Motor Test Cord

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### APPLIANCE TEST METER

An *Appliance Test Meter* is a multi-purpose tester combining an AC-DC voltage tester with a multi-range ohmmeter.



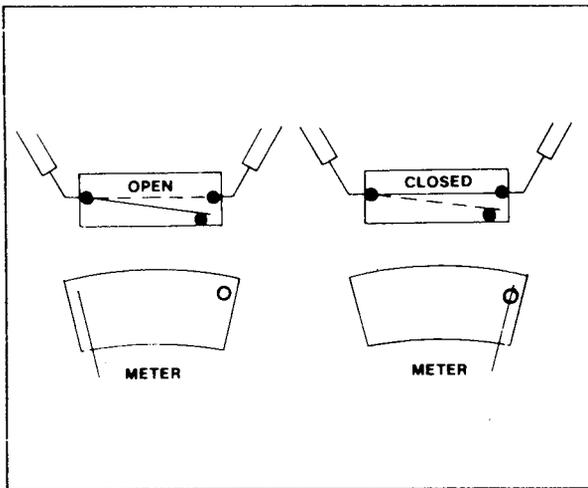
**APPLIANCE TEST METER**

Probably the easiest means of testing electrical components is “continuity testing” with an *Appliance Test Meter*. Continuity is a complete or continuous path from one point in an electrical circuit to another point.

The obvious advantages of being able to check electrical components and circuits without power applied is one of the features of the ohmmeter. Multiple ranges allow accurate determination of resistances of both single components and entire circuit paths. Resistance is measured in “ohms”.

#### **SET METER FOR USE AS FOLLOWS:**

1. Calibrate meter by touching test probes together and turning adjusting dial until meter reads “0” on the ohm scale. Recheck calibration whenever adjusting dial for ohms settings is changed. (Replace battery if adjustment will not bring meter reading to “0”.)
2. Select the scale most easily read and place test probes on respective terminals. When checking a switch, the reading would normally be either open or closed. A reading of 70 on the R x 10 scale would for example be 700 ohms resistance.



### CAUTION

Always be sure the power has been disconnected before making resistance measurements. Failure to do so will result in damage to your meter! Internal batteries provide all the power needed to make resistance checks. They should be checked at least once a year and replaced as needed.

For the most part, we will only be concerned with continuity. Is there a path or not? References are made between a "closed" (continuity) reading and an "open" (no continuity) reading. One note, when you get an "open" reading, try a higher resistance range (setting). A very high resistance appears as an "open" on the lower ranges. For best accuracy always "re-zero" meter when changing ranges and/or the physical position of the meter.

Continuity testing, as related to an electrical component, is the check of a part for an "open" or "closed" circuit.

Electrical components fall into two general categories.

1. **Loads-** Devices that use or consume electricity. Examples

would include drive motor, heating elements, lamps, timer and solenoid coils.

2. **Switches -** Devices that control the supply of electricity to the load or loads in a circuit. Examples include door switches, timer contacts, selector switch and relay contacts.

Continuity test of "load" devices will show varying levels of resistance from very low for some transformer and motor windings to very high for some timer motors and components on electronic control boards. Usually it is more important to know if there is a path for current flow through a device (continuity) than to know the exact resistance (ohms) of the device.

Continuity tests of switches will show virtually no resistance, even low values indicates burned or dirty contacts in a switch.

Continuity testing is a process of eliminating those electrical components involved in a given function of the appliance, until the inoperative part is found. By reviewing the list of possible electrical problems under a given condition, and then performing appropriate continuity checks on the parts involved, you should be able to locate the electrical component which is inoperative.

When checking components or circuit paths for continuity, external wiring should be disconnected to eliminate false readings through external paths. Isolate what you want to test.

The following shows typical resistance values for some of the components found on Maytag dryers.

**Heating Element -- 10.23 ohms.**

## Gas Valve

Disconnect radiant sensor and igniter wires. Measure across igniter wires or igniter plug from valve to get a resistance value of -- *425-450 ohms*.

Measure across sensor wires to get a resistance of -- *450-475 ohms*.

## Drive Motor

Red terminal to Gray terminal -- *1.5 ohms*.

In order to measure the individual windings the red and gray wires will have to be pulled off of the start switch.

Run winding only -- *2.25 ohms*.

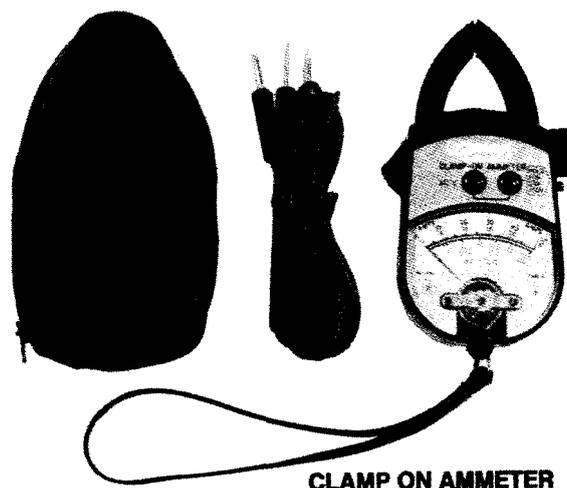
Start winding only -- *3 ohms*.

## Glow Bar Igniter

Because of the make-up of the igniter, the resistance will vary over a rather wide range. Values from 180 ohms to 400 ohms would be typical with an igniter at room temperature.

These values are provided so that you may have an idea of the resistance that you can see in testing. These resistances are not meant to be used as the exact values to determine whether a component should be replaced. They are provided so that you may have an idea of the resistance that you can see in testing components.

## CLAMP-ON AMMETER



Each circuit in an appliance has a "normal" current draw which is an indication of the performance of that circuit. Current draw levels, less than or more than normal, give clues to malfunctions. The clamp-on ammeter measures these currents without breaking the circuit by measuring the strength of the magnetic field developed around each conductor. Current is read by separating the conductors and clamping the jaws of the ammeter around each conductor on which current is to be read. Low amperage readings indicate problems such as damaged heating elements, etc. High amperage readings indicate the unit being tested is operating under an increased mechanical or electrical load.

**Note:** Overloads on a circuit breaker or fuse can be traced to the product being tested or the circuit breaker (or fuse) by checking the product's current draw. If the amperage reading is less than the breaker reading, the breaker or fuse box is at fault.

## MOTOR TEST CORD

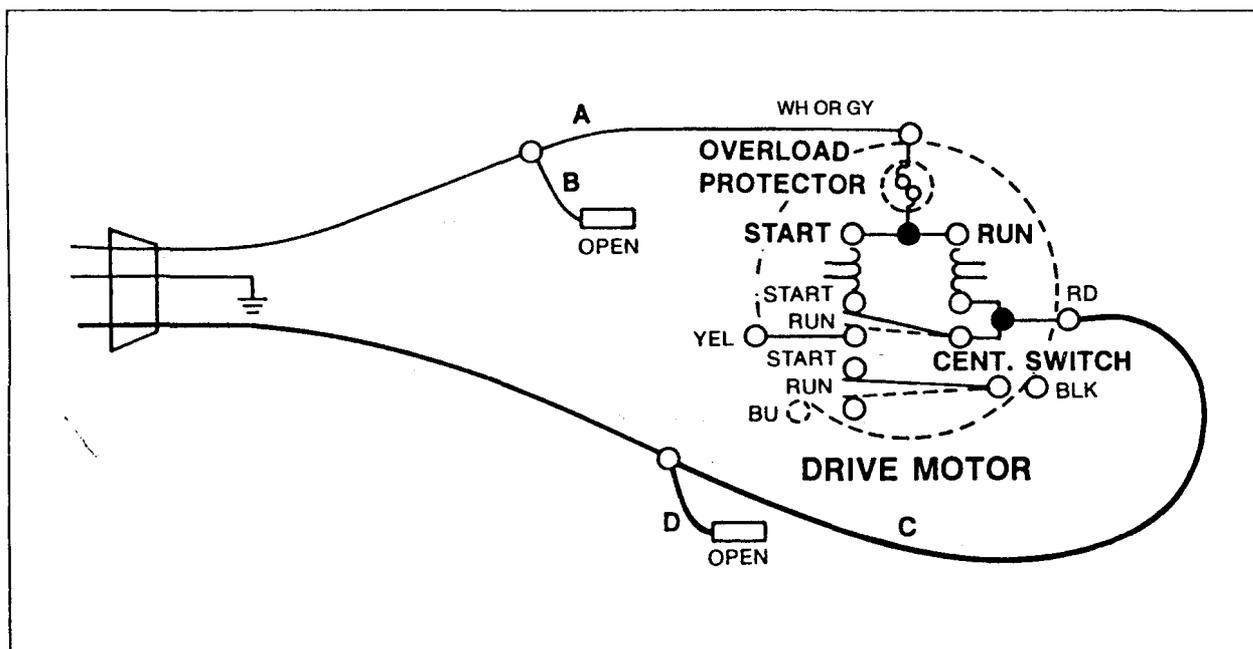


### USE OF AMMETER ON DRYER

There are two currents of concern to us in an electric dryer; the heating element current and the drive motor current. These currents can be measured by use of a "split line cord" extension for the dryer cord or by attaching the ammeter to the respective power line wires at the dryer terminal block. Current measured should be 21 amps on the heating element side of the line, 24 amps on the drive motor side of the line and 4 amps on the center or neutral line.

The motor test cord may be used to electrically check operation of the drive motor while still installed in the unit. Testing of the motor in this manner determines whether or not it will run independently of other electrical components.

Two test leads are required to check operation of the drive motor. To check the motor for running, hook up test cord as shown.



Location of terminals on motor may vary from drawing.

## CHECKING HEAT CONTACTS, MOTOR CENTRIFUGAL SWITCH

1. Disconnect dryer power source.
2. Gain access to motor and remove blue and black leads from motor switch.
3. Use either of the following test methods using appropriate caution.

### A. Live test -- *USE CAUTION*

1. Using a double insulated spade connector, connect blue and black wires removed from motor switch.
2. Reconnect dryer to power and set for heat cycle.
3. Start dryer, if heat is produced, replace motor switch on motor. If no heat, continue additional circuit checks.

### B. Continuity Check

(Insulate wires removed from motor switch.)

1. Using clip adapters, attach meter probes to the blue and black motor switch terminals.
2. Arrange probe leads away from any moving parts and set meter on RX1 range.
3. Reconnect dryer to power source and start dryer, continuity on meter indicates good switch. No continuity, replace motor switch or motor.
4. Open door to stop dryer. When motor stops, motor switch contacts must open, if not replace switch or motor.

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## VOLTAGE CHECKS

For the most part these checks will consist of taking readings at the wall receptacle in order to determine the availability of voltage to the product. Voltage checks on individual components of a product are not recommended due to the possibility of electrical shock. Component part testing is best accomplished through continuity checks with an **Appliance Test Meter**.

**Note:** Use of the meter on voltage higher than the indicated range may cause permanent damage to the meter. To prevent damage, first select highest range for readings which fall within the lower scale.

### SET UP METER FOR USE AS FOLLOWS:

1. Turn selector knob to desired meter function and appropriate range.
2. Plug black lead into socket marked - (negative).
3. Plug red lead into socket marked + (positive).
4. Place test leads into receptacle in order to determine voltage available.

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## **TEMPERATURE READINGS RANGE (50°F. to 300°F.)**

Air temperature readings can be taken at the lint filter by removing the filter and placing the accessory temperature probe (Part NO. 38562) directly in the lint filter opening. Cycling of the thermostats can actually be observed as can the temperature of the exhausted air.

### ***SET UP METER FOR USE AS FOLLOWS:***

1. Turn selector knob to **TEMP.**
2. Insert black negative lead of temperature probe into socket marked - (negative).
3. Insert red positive lead of temperature probe into socket marked + (positive).
4. To calibrate meter, touch black plug from red positive lead to black negative lead and turn calibration dial until needle aligns with **CAL.**
5. Probe is ready to use -- read blue scale on meter face marked **TEMP.**

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## SECTION 2. ELECTRICAL - MECHANICAL TROUBLESHOOTING

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### WILL NOT RUN

#### *Dryer won't start or run.*

- All wires are hooked up to their corresponding terminals.
- Dryer is plugged in.
- Blown fuse or circuit breaker.
- Door switch.
- Push-to-start switch.
- Timer.
- Drive motor.
- Thermal fuse.

#### *Drive motor runs -- drum won't turn.*

- Belt off or broken.
- Motor pulley loose or off.
- Idler tension spring.
- Idler pulley.

#### *Dryer runs a few minutes and then stops --Motor overload protector opens.*

- Lint build-up around drive motor.
- Low voltage.
- Blower impeller blocked.
- Drive motor.

#### *Dryer blows fuses or trips circuit breaker.*

#### **Electric Models**

- The amperage readings are at 240 volts. One line will be 24 amps and the other line will be 21 amps. The neutral line will be at 4 amps. *If you have the above amperage readings, the problem is not the dryer. Check the fuse box, circuit breaker or house wiring.*
- Shorted heating element.
- Incorrect wiring or a wire shorting to ground.
- Drive motor.

#### **Gas Models**

- During ignition the dryer will draw 7 amps. With the burner on, the dryer will draw 4.5 amps. *If the dryer is drawing the above amperage and the fuse blows, the problem is not the dryer. Check the fuse box, circuit breaker or house wiring.*
- Igniter.
- Incorrect wiring or a wire shorting to ground.
- Drive motor.

### CAUTION

Always disconnect power supply before making any continuity checks or resistance readings.

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## WILL NOT DRY

*Dryer won't heat (motor runs).*

### ELECTRIC MODELS

- Blown fuse or tripped circuit breaker.
- Open heating element.
- Hi-limit thermostat.
- Regulating thermostat.
- Temperature selector switch.
- Timer.
- Cycle selector switch (where used).
- Drive motor start switch.

*Improper Drying -- Clothes Wrinkled -- Harsh -- Taking too long*

- Lint filter is clean.
- Restriction in exhaust.
- Exhaust hood door stuck.
- Exhaust too long.
- Poor make-up air.
- Incorrect drum speed. Adjust motor pulley or wrong motor pulley.
- Blower impeller bound.
- Be sure element or gas valve cycles on and off.
- Shorted heating element - electric dryers only.
- Customer overloading dryer.
- Check clothing labels for fabric content.

### CAUTION

Always disconnect power supply before making any continuity checks or resistance readings.

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## WILL NOT SHUT OFF

*Time Dry Models*

- Timer motor.
- Timer.

### AUTO DRY MODELS

- Set timer for time dry. Check voltage across timer motor. If timer will not advance, replace timer.
- When valve or element cycles off, should have power to timer motor, if not, proceed with next check.
- Dryer cycling on hi-limit thermostat. Check following.
  - Lint filter clean.
  - Restriction in exhaust.
  - Exhaust hood door stuck.
  - Exhaust too long.
  - Regulating thermostat.
  - Customer is overloading dryer.

### ELECTRONIC CONTROL MODELS

The electronic control and timer are used to complete the drying cycle and cool-down period for these dryer models. The dryer starts out with the drive motor running, the timer motor running, the heat cycling and the electronic control disabled. As the timer advances to a certain point in the cycle,

the electronic control becomes operational as cam number two opens. A short time later, the timer motor is de-energized when cam number one for the timer motor opens. It is during this stall period that the electronic control system uses the wet clothes falling across the sensor in the drum to discharge the capacitor and keep the dryer running.

There are three dryness levels; More Dry, Normal Dry and Less Dry. These dryness levels have been accomplished by placing resistors on the electronic control (printed circuit board) and routing the bypass wiring accordingly. The level of resistance in the circuit, determined by the dryness level selected, affects the charge-up rate of the capacitor and accomplishes the desired dryness level. As the clothes get dry, the capacitor is able to build up a charge to a point where the neon bulb fires, thus triggering the gate on a SCR. When this happens, a circuit is made through the SCR, energizing the coil in the relay. This takes only a split second and the relay's coil is then held energized through a set of contacts in the relay.

Also, when the coil in the relay is energized, the timer motor is activated through another set of contacts in the relay. The timer advances and opens cam number three for the heater and the dryer begins a timer controlled

cool-down period. The amount of cool-down time will depend upon the cycle selected: Regular - 6 minutes, Permanent-Press - 13 minutes and Permanent-Press with Press Care - 33 minutes. **NOTE:** These times are approximate. The timer then advances to where cam number 1A opens, de-energizing the drive motor and the cycle ends.

## **TROUBLESHOOTING**

When the dryer does not go into cool-down and shut off with dry clothes, you need to know whether you have a control problem or a sensor problem. Troubleshooting the electronic control is made easier if we break the circuit down into parts. We can separate the two parts by disconnecting the W-BU wire in the control panel at the plastic coupler. The upper part contains the electronic control assembly which consists of the edgeboard connector assembly, printed circuit board assembly and relay. The lower part consists of the sensor assembly located on the tumbler front bulkhead.

Separating the two areas by pulling the wires apart at the coupler will show where the problem is located. If the dryer is started without any clothes in the drum and shuts off in about 20 minutes without the sensor circuit hooked up, then the sensor must be keeping the dryer from shutting off.

### **CAUTION**

Always disconnect power supply before making any continuity checks or resistance readings.

**NOTE:** This amount of time is for Regular Fabrics on a Less Dry setting. A setting of Normal Dry or More Dry will add more time before the dryer shuts off. If the dryer does not shut off, then the problem is in the electronic control assembly.

### **Sensor Assembly**

1. Disconnect power supply.
2. Remove front panel.
3. Remove wires going to the sensor bars.
4. Check with ohmmeter to make sure there is **NO** continuity across the sensor bars. If you have continuity across the sensor bars the capacitor cannot build a charge, it will continually bleed off.

#### **CAUTION**

Always disconnect power supply before making continuity or resistance checks.

5. Check to make sure the sensor bar (the one not connected to cabinet ground) is not shorted to cabinet ground. If this sensor bar has a leakage path to cabinet ground, the capacitor cannot build a charge and will continually bleed off. Use ohmmeter to check from sensor bar to cabinet ground.

#### **CAUTION**

Always disconnect power supply before making any continuity checks or resistance readings.

### **Electronic Control Assembly**

If dryer does not go into cool-down and shut off with the sensor disconnected the problem is in the electronic control assembly. While the dryer is running, observe the neon bulb on the electronic control (printed circuit board). When the capacitor reaches approximately 72 volts, the neon bulb "fires" (flashes), the SCR conducts, the relay coil is energized and the contacts in the relay close.

**If neon bulb "FIRES" but timer does not advance (timer motor is not energized):**

1. Check relay coil for continuity or resistance.
  - A. Disconnect power supply.
  - B. Remove BK and BR wires from relay (refer to electrical wiring diagram).
  - C. Attach meter leads across these terminals and complete check. If checking resistance, you should see about 2200 ohms of resistance. No continuity, replace relay.
2. Check continuity across contacts O-BK to RD in relay. When closed, this set of contacts is used to keep the coil energized.
  - A. Disconnect power supply.
  - B. Remove wires O-BK and RD from relay.

- C. Remove BK wire from buzzer.
- D. Attach motor test cord to the BK wire (removed from buzzer) and to the O-BK wire (removed from relay).
- E. Plug motor test cord into outlet (coil in relay should now be energized).
- F. Check for continuity from terminal RD on relay to terminal O-BK on relay. No continuity, replace relay.

**CAUTION SHOULD BE EXERCISED WHENEVER WORKING AROUND LIVE VOLTAGE.**

- 3. Check continuity across contacts W-BK to RD in relay. When closed, this set of contacts is used to energize the timer motor by bringing the neutral side of the power supply through the relay, to the timer motor.
  - A. Disconnect power supply.
  - B. Remove wires W-BK, O-BK and RD from relay.
  - C. Remove BK wire from buzzer.
  - D. Attach motor test cord to the BK wire (removed from buzzer) and to the O-BK wire (removed from relay).
  - E. Plug motor test cord into outlet (coil in relay should now be energized).

- F. Check for continuity from terminal RD on relay to terminal W-BK on relay. No continuity, replace relay.

- 4. Replace electronic control (printed circuit board).

**If neon bulb does not "FIRE":**

- 1. Check capacitor.
  - A. Disconnect power supply.
  - B. Remove electronic control (printed circuit board).
  - C. Set ohmmeter to an ohm scale, such as Rx100.
  - D. Place meter leads into openings in the edgeboard connector where capacitor leads terminate. First, make sure you have discharged the capacitor by shorting the leads. Use a piece of insulated wire with the ends stripped.
  - E. Needle should deflect to one side and then slowly drop back to zero.
  - F. Failure to deflect the needle would indicate an open capacitor. Failure of the needle to drop back would indicate a shorted capacitor. Replace edgeboard connector assembly.
- 2. Replace electronic control (printed circuit board).

**CAUTION**

Always disconnect power supply before making any continuity checks or resistance readings.

## MISCELLANEOUS

### *Dryer noisy.*

- Thumping sound. Check for loose drum baffle.
- Thumping sound. Rear drum roller(s) worn or misaligned.
- Thumping sound. Check drum for rough spots.
- Ticking sound. Loose wire hitting cabinet or other component.
- Ticking sound. Check for an object caught in the blower.
- Scraping sound. Front or rear bulkhead felt seal out of position.
- Scraping sound. Teflon bearings mounted to the front bulkhead worn.
- Popping or squealing sound. Check for a sticky belt or frayed belt.

### *Buzzer will not buzz at end of cycle. (Auto Dry Models)*

- Be sure all wires are connected and wired correctly on the timer, buzzer and drive motor.
- Buzzer.
- Motor centrifugal switch sticking in run position.

### *Buzzer stays on too long or goes off too quickly.*

(Auto Dry Models)

- Length of time the buzzer stays on is dependent upon the time it takes the motor to slow down, allowing the motor switch to reset. The normal time increment is between 2 and 3 seconds.

### *Buzzer will not buzz during Press Care Setting.*

- With dial set on auto dry permanent press and the press care "on" button depressed, the buzzer will sound at the end of the normal 14 minute cool-down. After this, the dryer will continue to tumble clothes in cool air for 24 minutes. If buzzer does not sound, proceed on.
- Buzzer signal on.
- Miswired press care switch or timer.
- Buzzer.
- Timer.

### *Buzzer will not periodically buzz during permanent press cool down.*

- Timer.

## CAUTION

Always disconnect power supply before making any continuity checks or resistance readings.

## MICROPROCESSOR BOARD CONTROL MODELS

The microprocessor board receives input information from the various components involved with the operation of the dryer; such as the dryness sensor and the thermistor. It uses this information to determine the necessary control for the completion of the cycle.

One of the ways it accomplishes this is through the use of control relays. A control relay (S.P.S.T.) is placed in the motor circuit for both the gas and electric dryer. Another relay (S.P.S.T.) is placed in the heat circuit for the electric dryer only. With these relays the microprocessor board is capable of using a low voltage circuit to control a high voltage circuit. We can call these two circuits the control circuit and the controlled circuit. **NOTE:** The control for the gas dryer's gas valve circuit is different and is covered later.

The control circuit for the drive motor consists of the microprocessor board and the Motor Relay's coil. The controlled circuit for the drive motor consists of the Motor Relay's switch contacts, thermal fuse and cut-off, drive motor and door switch. The microprocessor board starts the drive motor by sending 24 VDC to the Motor Relay's coil. When energized, the coil creates a magnetic field that closes the

switch contacts in the relay and provides a path for voltage to the motor. When the microprocessor board determines it needs to stop the motor, it removes the 24 VDC to the relay's coil. The switch returns to its normally open position and the path for voltage to the motor is opened.

The control circuit and controlled circuit for the heating element on the electric dryer operate on the same principle as the motor relay's circuits. When the microprocessor board wants to energize the heating element it sends 24 VDC to the coil in the Heater Relay and a path for voltage is completed through the switch contacts to the heating element. When the 24 VDC are removed from the coil the switch contacts open and the path for voltage to the heating element is opened.

### TROUBLESHOOTING

When trying to determine what is causing the problem (drive motor will not run or heating element will not come on), separate the two circuits to isolate the problem area. Start with the control circuit (it has to function before the controlled circuit will work). Determine what is involved in this circuit and proceed to check the components. If these components are found to be functioning correctly, focus on the controlled circuit. Determine what is involved and proceed in checking the components.

#### CAUTION

Always disconnect power supply before making any continuity checks or resistance readings.

## CONTROL CIRCUIT

Drive motor will not run (gas and electric):

1. Disconnect the power supply.

### CAUTION

Always disconnect power supply before making continuity or resistance checks.

2. Make continuity check or resistance check on Motor Relay's coil.
  - A. Remove wire connectors O-BK and W-BU on the Motor Relay.
  - B. Attach meter leads across terminals O-BK and W-BU. You should see about 470 ohms of resistance if checking resistance.
  - C. No continuity, replace the relay.

### CAUTION:

*Use extreme care when checking voltage.*

3. Check for 24 VDC across the coil on the Motor Relay. To check for this voltage the dryer has to be in a program.
  - A. Place meter leads across wire connectors O-BK and W-BU on the Motor Relay (the relay has two sizes of terminals; the smaller terminals for DC and the larger terminals for AC).

### CAUTION

Always disconnect power supply before making any continuity checks or resistance readings.

**Note:** You are checking DC voltage, set and use meter accordingly.

- B. No voltage, suspect the micro-processor, transformer, edgeboard connector AA or power supply.

## CONTROLLED CIRCUIT

1. Check for continuity across the Motor Relay's switch contacts with the coil energized.

- A. Disconnect power supply.
- B. Remove wire connectors R-BK and GY.
- C. Attach the meter's leads across terminals R-BK and GY.
- D. Connect power supply.

**CAUTION SHOULD BE EXERCISED WHENEVER WORKING AROUND LIVE VOLTAGE.**

- E. No continuity across switch contacts with coil energized, replace the relay.
2. Another method of checking.
    - A. Disconnect the power supply.
    - B. Remove and connect wires R-BK and GY together (the wires connectors are insulated, a jumper will have to be used).

- C. Connect power supply.
  - D. If motor runs, the switch in the relay has failed, replace relay.
3. Check drive motor. Refer to Electrical Test Equipment section for drive motor test.

**CAUTION**

Always disconnect power supply before making continuity or resistance checks.

4. Make continuity checks on thermal fuse and cut-off. No continuity, replace.
5. Make continuity check on door switch with door closed. No continuity, replace.

**CONTROL CIRCUIT**

**No heat (electric dryer):**

1. Check for continuity or resistance across the coil on the Heater Relay.
- A. Disconnect power supply.
  - B. Place meter leads across YL and W-BU.
  - C. Should see about 310 ohms if reading resistance. No continuity, replace relay.

**CAUTION:**

*Use extreme care when checking voltage.*

2. Check 24 DC voltage to relay.
- A. Place meter leads across wire connectors YL and W-BU.

**NOTE:** Checking DC voltage, set and use meter accordingly.

- B. Make voltage check. No voltage, suspect microprocessor board, transformer, edgeboard connector AA or power supply.

**CONTROLLED CIRCUIT**

1. Check for continuity across switch contacts in Heater Relay.
- A. Disconnect power supply.
  - B. Remove wire connectors BK and BK from relay.
  - C. Place meter leads across terminals BK and BK on relay.
  - D. Connect power supply.

**CAUTION SHOULD BE EXERCISED WHEN WORKING AROUND LIVE VOLTAGE.**

- E. Make continuity check. No continuity, replace relay.

**CAUTION**

Always disconnect power supply before making any continuity checks or resistance readings.

2. Another method for testing is to bypass the Heater Relay.
  - A. Disconnect power supply.
  - B. Remove wire connectors BK and BK (wire connectors are insulated, jumper wire will have to be used).
  - C. Connect power supply. If heating element is energized, relay has failed, replace relay.

**CAUTION**

Always disconnect power supply before making continuity or resistance checks.

3. Check for continuity across 160° Limit Thermostat (when cool). No continuity, replace thermostat.
4. Check for continuity across Hi-Limit Thermostat. No continuity, replace thermostat.

**Note:** When checking continuity or resistance always isolate what you want to check.

5. Check for continuity or resistance across the Heater (heating element). Should see about 11 ohms (240 volt element), about 8 ohms (208 volt element) when checking resistance. No continuity, replace heating element.
6. Check continuity across centrifugal switch on motor switch.

**CAUTION**

Always disconnect power supply before making any continuity checks or resistance readings.

- A. Remove wire connectors BU and BK from motor switch.
- B. Attach meter leads across terminals BU and BK on switch.
- C. Use small screwdriver to move centrifugal lever on the drive motor to the "run" position.
- D. Check for continuity across terminals BU and BK, no continuity, replace motor switch.

**HEAT CIRCUIT FOR THE GAS DRYER**

No heater control relay is placed in series with the gas valve on the gas dryer. The control for this circuit is done on the microprocessor board itself. The L1 side of the power supply is routed to the microprocessor board through edgeboard connector BB (refer to schematic). The microprocessor board determines when the gas valve should be energized and relays L1 back through edgeboard connector BB and completes the circuit for the gas valve.

**Will not heat (gas dryer):**

**CAUTION**

Always disconnect power supply before making continuity or resistance checks.

1. Check continuity across 160° Limit Thermostat (when cool). No continuity, replace.

2. Check continuity across Hi-Limit Thermostat. No continuity, replace.
3. Check continuity across centrifugal switch on motor switch.
  - A. Remove wire connectors BU and BK from motor switch.
  - B. Attach meter leads across BU and BK terminals on the switch.
  - C. Use small screwdriver to move the centrifugal lever on the drive motor to "run" position.
  - D. Check for continuity across BU and BK, no continuity, replace motor switch.
4. Check gas valve. Refer to section covering gas valve.
5. Check for the L1 side of the voltage to the gas valve. The L1 side is controlled by the microprocessor board. Wiring is completed through edgeboard connector B (pin 3 and pin 1).

**CAUTION:**

*Use extreme care when checking voltage.*

- A. Dryer must be in a program that is calling for heat.
- B. Use voltmeter to check from terminal BK on 160° Limit Thermostat to cabinet ground (be sure polarity is correct) with dryer calling for heat.
- C. No voltage (120 VAC), suspect microprocessor, edgeboard connector BB, transformer or power supply.

**CAUTION**

Always disconnect power supply before making any continuity checks or resistance readings.

## **DRYER (MICROPROCESSOR BOARD CONTROL)**

A microprocessor board provides the control for this dryer. It accomplishes this control with several components. The components involved are the transformer, thermistor, control relays, dryness sensor and lint filter switch.

To start the dryer the user selects the desired program by pressing the indicated pad on the menu. There are 17 of these pads from which the user can select the programs and options for the dryer. Behind the pads are actuators (push rods) that activate switches on the microprocessor board to initiate the program and options. **NOTE:** An option can be selected only after a program has been selected.

No test board is available to check microprocessors. Therefore, all other components in this section should be checked first. If no problem is found, replace microprocessor.

### **TRANSFORMER**

A step-down transformer, consisting of a primary winding and three secondary windings, is used to provide the necessary voltages to the microprocessor board. The primary side of the transformer receives the voltage (120 volts measure across L1 and Neutral). The transformer then steps this voltage down through the secondary windings into the voltages needed to power the

microprocessor board and provide the voltages that the microprocessor board uses to control or operate the various functions of the dryer. The output voltages on the secondary side are 20.7 VAC, 22.6 VAC and 3.8 VAC (this winding has a center tap that provides 1.9 VAC when measured from the center tap to either of the outside leads).

### **VARISTOR**

The varistor is a semiconductor device (solid state) connected across the primary input terminals on the transformer. Its function is to protect the microprocessor board against voltage surges or spikes. The resistance of the varistor decreases as the voltage across it increases. If the voltage exceeds the "threshold" of the varistor, its resistance will decrease rapidly to the point of providing a short circuit across the primary terminals. This may trip circuit breaker or open fuse or destroy varistor. If varistor is damaged, replace transformer.

### **TROUBLESHOOTING**

Because the transformer provides the power to the microprocessor board it should be checked first if it appears the microprocessor board or any of the components in its circuitry is not func-

tioning properly. In checking or troubleshooting the transformer it is important to remember the transformer only transforms or changes the voltage to different values. It does not rectify the voltage to DC, that is done on the microprocessor board. **NOTE:** There are two sizes of spade terminals used on the transformer. The two large spade terminals are used for the primary winding and the smaller spade terminals are used for the secondary windings.

### **NO POWER**

Primary Side:

1. Is dryer plugged into power supply?
2. Is voltage (120 VAC) present at primary side?

#### **CAUTION:**

*Use extreme care when checking voltage.*

3. Check for voltage (120 VAC).
  - A. Attach meter leads to wire connectors R-BK and W-BR.
  - B. Make voltage check, should see 120 VAC (voltage value may vary), if not, check power supply.
4. Disconnect power.
5. Remove wire connectors R-BK and W-BR from primary side of transformer.

#### **CAUTION**

Always disconnect power supply before making any continuity checks or resistance readings.

6. Check for continuity across these terminals. No continuity, replace transformer. If checking resistance there should be about 42 ohms across primary leads.

6. Remove wire connectors PK and PK from secondary winding.
7. Check for continuity across terminals on this secondary winding. No continuity, replace transformer.

#### Secondary Side:

#### CAUTION

Always disconnect power supply before making continuity or resistance checks.

1. Check for continuity on secondary windings. **NOTE:** The resistance values of the secondary windings are small and may not be detectable unless using a digital meter. These are approximate values: Y-BK to Y-BK 2 ohms, W-OR to W-OR 1 ohm and PK to PK 5 ohms.
2. Remove wire connectors Y-BK and Y-BK from secondary winding.
3. Check for continuity across terminals on this secondary winding. No continuity, replace transformer.
4. Remove wire connectors W-OR, BU and W-OR from secondary winding.
5. Check for continuity from BU to both W-OR terminals. No continuity, replace transformer.

#### Voltage checks on the secondary windings.

#### CAUTION:

*Use extreme care when checking voltage.*

1. Attach meter leads across terminals Y-BK and Y-BK on secondary winding. Should see 20.7 VAC, no voltage replace transformer if primary and power supply check okay.
2. Disconnect power supply.
  - A. Remove wire connectors W-OR, BU and W-OR from secondary winding.
  - B. Attach meter leads across terminals W-OR and W-OR on secondary winding.
  - C. Connect power supply. Make voltage check. Should see 3.8 VAC across W-OR and W-OR (1.9 VAC from BU to either of the W-OR terminals), no voltage, replace transformer if primary and power supply check okay.

#### CAUTION

Always disconnect power supply before making any continuity checks or resistance readings.

3. Attach meter leads across terminals PK and PK. Make voltage check. Should see 22.6 VAC, no voltage, replace transformer if primary and power supply check okay.

**Note:** These voltages may vary slightly.

---

## FAULT CODE

The microprocessor board has the capability to detect certain problems associated with the operation of the dryer. When the microprocessor board detects one of these problems it displays a fault code in the dryer's display window. The fault code is displayed as a letter F followed by a number that corresponds to the problem. The microprocessor board makes the dryer inoperative for all but one of the fault codes. Fault code F-9 is the exception, it does not appear in the display (unless a certain procedure is followed) and does not make the dryer inoperative.

### CAUTION

Always disconnect power supply before making any continuity checks or resistance readings.

## FAULT CODES

### F-1

- Door circuit - board component failure.
- Dryer inoperative.
- Can appear anytime.
- Replace microprocessor board.

### F-2

- Low temperature sensed (40° below zero).
- Dryer inoperative.
- Can appear after the first 1 1/2 minutes of a cycle calling for heat.
- Open in thermistor circuit.
- Room temperature (unlikely).

### F-3

- High temperature sensed (above 200°F.).
- Dryer inoperative.
- Can occur anytime a cycle is calling for heat.
- Check venting.
- Short circuit in thermistor circuit.

#### F-4

- Motor transistor on board failure.
- Dryer inoperative.
- Can occur only on start up.
- Replace microprocessor board.

#### F-9

- Low voltage (below about 95 volts).
- Dryer will operate and fault code is not displayed.
- Can occur anytime but will only show up and be cleared on request.
- To check for F-9, press OFF pad and while holding OFF pad, press the PAUSE/RESUME pad and hold for 2 seconds. This sequence will show all display segments and then display a F-9 if low voltage has occurred **since** last check.
- Check electrical circuit that dryer is on.

#### CLEARING THE FAULT

- Disconnect power supply.
- Correct problem.
- Restore power.

#### **CAUTION**

Always disconnect power supply before making any continuity checks or resistance readings.



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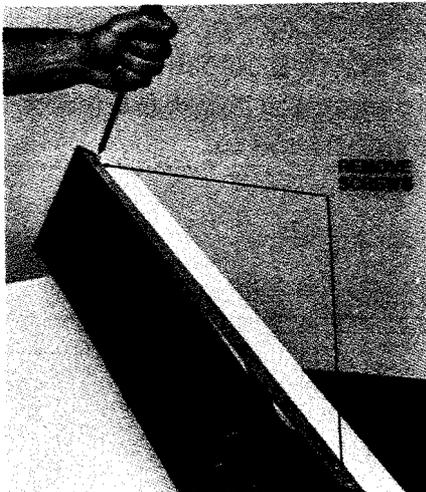
## SECTION 3. SERVICE PROCEDURES

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### ACCESS TO CONTROL PANEL COMPONENTS

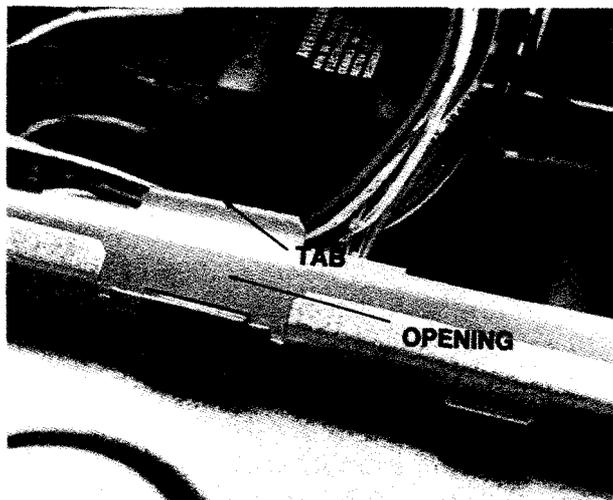
#### ALL MODELS

1. Remove inner screws.



2. Tip control panel assembly forward.

**Note:** When reinstalling, engage tabs on console in openings of backup plate.



### CONTROL PANEL ASSEMBLY COMPONENTS

#### TYPES OF CONTROLS

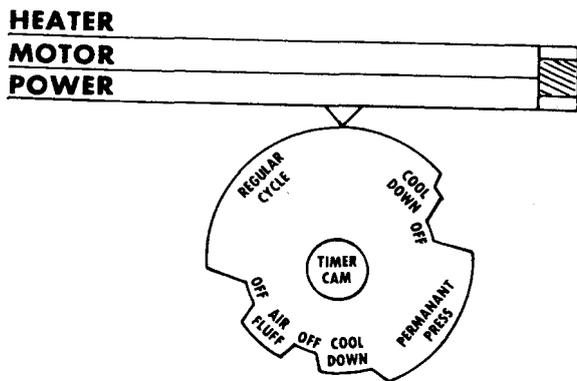
There are four basic types of controls used to determine the operating time of Maytag dryers; they are **Timer, Automatic Control, Electronic Control and Microprocessor.**

#### *Timer Control*

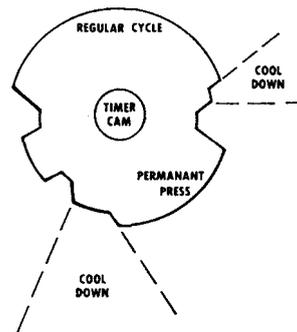
These models utilize an electrical timer which the user sets to the number of minutes recommended in the operating instructions or as experience indicates necessary.

The timer knob and dial are attached to the timer shaft. At the other end of the shaft is a cam which controls both the drying time and the cool-down.

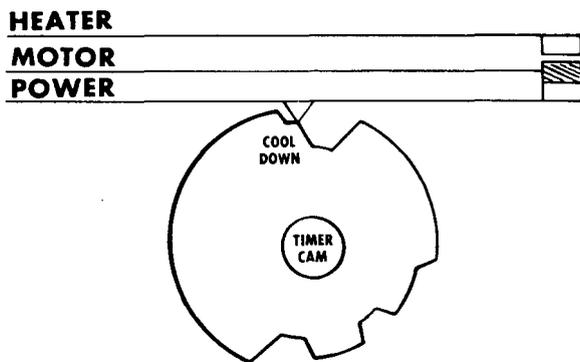
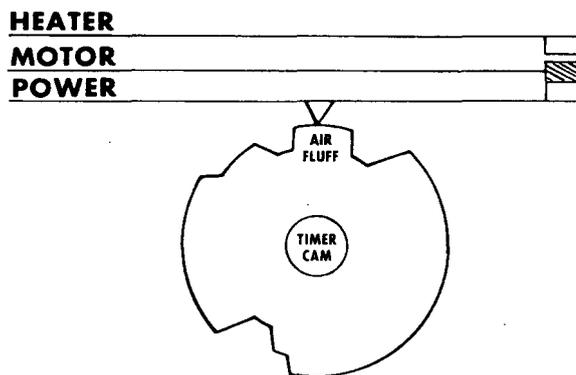
With the timer set at 20 minutes as shown in the drawing the circuit is completed through the timer to the drive motor and heater circuit.



As the timer advances towards the off position, the switch arm drops into step one. This breaks the circuit to the heater. Since the circuit is still made to the drive motor, the tumbler will continue to rotate and the air will continue to be pulled through the tumbler cooling the load before the dryer shuts off.



When an air fluff selection is made, only the circuit to the drive motor and timer motor is made.



The length of the cool-down period depends upon the cycle selection. Permanent Press has an extended cool-down to lower the temperature of the garments so as to minimize wrinkling which would result from the warm garments coming to rest at the bottom of the tumbler.

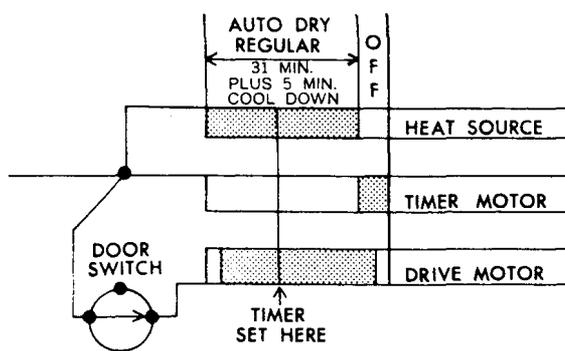
### Auto Dry Models

The auto dry models operate on the principle that as long as the load being dried is damp, and rapid evaporation is taking place, the temperature of the dryer and exhaust air will remain relatively low. It also follows that as the load gives up moisture and the rate of evaporation slows down, less BTU's or heat is used in evaporation and the temperature of the load and exhaust air

increases. With this in mind, let's look at the circuitry.

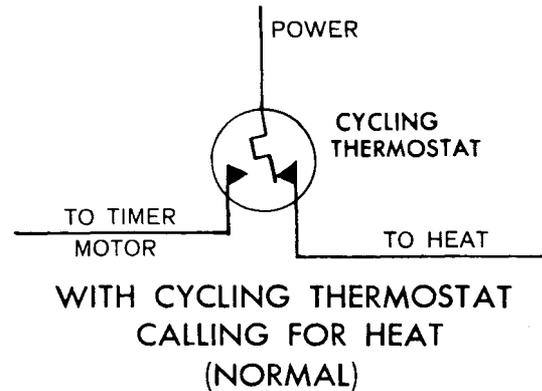
When the timer is set to a degree of dryness, the circuit is completed to the heat source and the drive motor. The difference between this control and a standard timer operated dryer is the fact that the timer motor is not initially in the circuit. To see how the control works, let's assume that the load to be dried is a normal load with the garments of somewhat uniform weight, the auto regular setting is selected and the dial set on the middle mark between "more dry" and "less dry".

As indicated in the timer schematic below, the maximum timer controlled drying time on an auto-dry regular setting is approximately 31 minutes plus a five minute cool-down. Since we set the dial to the middle mark we have set the timer at about the mid point or for approximately 15 minutes of timed dry.

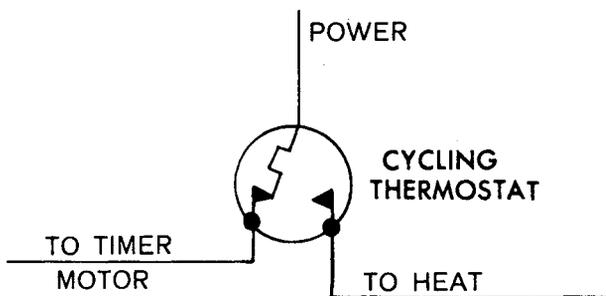


With the timer set in this position, the circuits are completed to the heat source and drive motor.

**Note:** The switch controlling the timer motor is open.



At the beginning of the cycle the load is damp, the heat input is used up in evaporation of the moisture and there is little increase in the air temperature. As the load becomes drier, less heat is used up in evaporation and the temperature of the load and exhaust air starts to rise. The exhaust air is being pushed over the regulating thermostat and as the temperature of the exhaust air rises so does that of the thermostat. Once the thermostat reaches a temperature of approximately 140° F the circuit is broken to the heat source and at the same time is completed to the timer motor.



**CYCLING THERMOSTAT  
HAS REACHED TEMPERATURE  
(OPEN)**

At this point the unheated air is cooling the load and the timer motor is advancing the timer towards the off position.

As the temperature of the tumbler, the items being dried and the exhaust air decrease, so does the temperature of the thermostat. When the thermostat cools to a temperature of approximately 125° F. the thermostat returns to its normal position breaking the circuit to the timer motor and again completing the circuit to the heating element or gas valve.

**Note:** The temperatures quoted are the operating temperatures of the thermostat and not the temperature of the clothing or exhaust air. Because of its mass, the thermostat will heat up and cool down slower than the air temperature.

Because of the moisture content and the evaporation rate, the first temperature rise and cycling of the thermostat

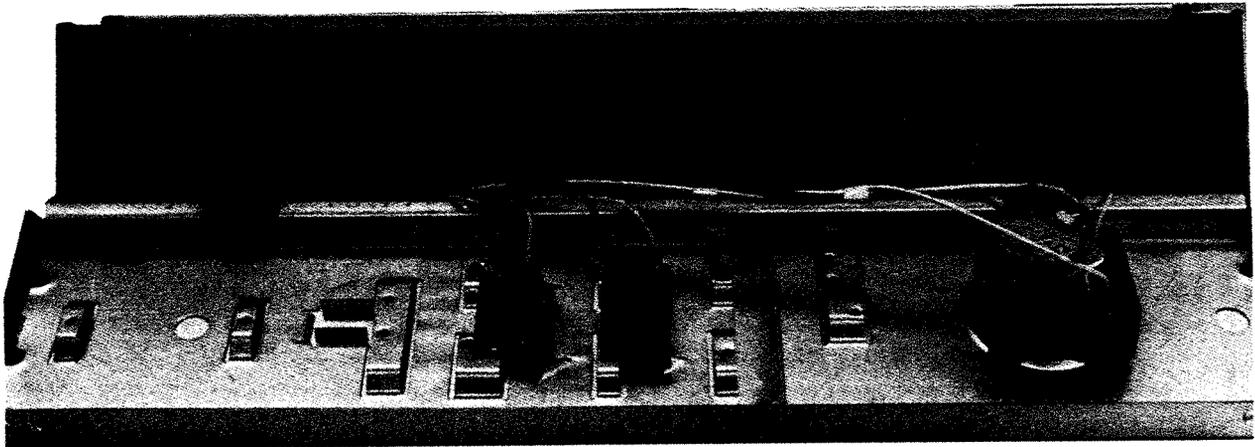
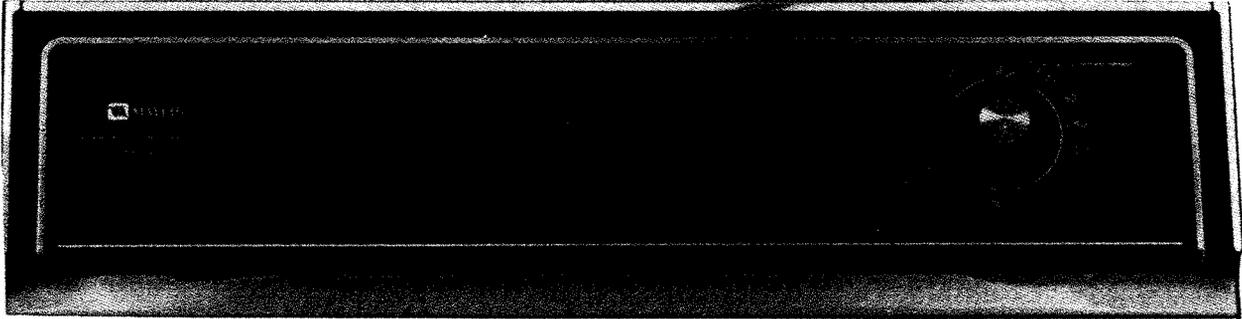
will take a relatively long period of time. By the same token, the moisture content and the evaporation rate taking place during the first heat off period makes it shorter than subsequent heat off periods.

Each time the thermostat cycles the heat period is shorter and the heat off (timer motor on) time is longer.

In this example, after a total of approximately 13 minutes of heat off time the timer will have advanced to the point where Cam 2 closes the timer motor switch which in turn advances the timer out of the heat portion of the cycle and into the cool-down period.

A selection of the middle mark is a good starting point. Experience gained from drying a few loads will enable the operator to pick a point, either more or less dry, which is most pleasing. Once this point is determined, it can be used for most loads as the automatic control, based upon time and temperature, will automatically adjust itself to the size of load.

If the operator is drying a poorly mixed load; bulky items such as cotton socks along with lightweight flat items it would be desirable to move the dial to the "more dry" so that more time is available to condition the load or to allow the moisture to surface on the bulky items. This is not necessary on a more uniform load of either bulky or lightweight items.



### **TIMER**

A timer is a motor driven package of switches that establishes a sequence of operation.

#### **To Replace Timer:**

1. Pry out cap.
2. Remove nut and dial.
3. See Access To Control Panel Components.
4. Remove timer screws.

### **TIMER MOTOR**

1. See Access To Control Panel Components.
2. Remove two screws securing motor to timer.

**Note:** It may be necessary to remove timer.

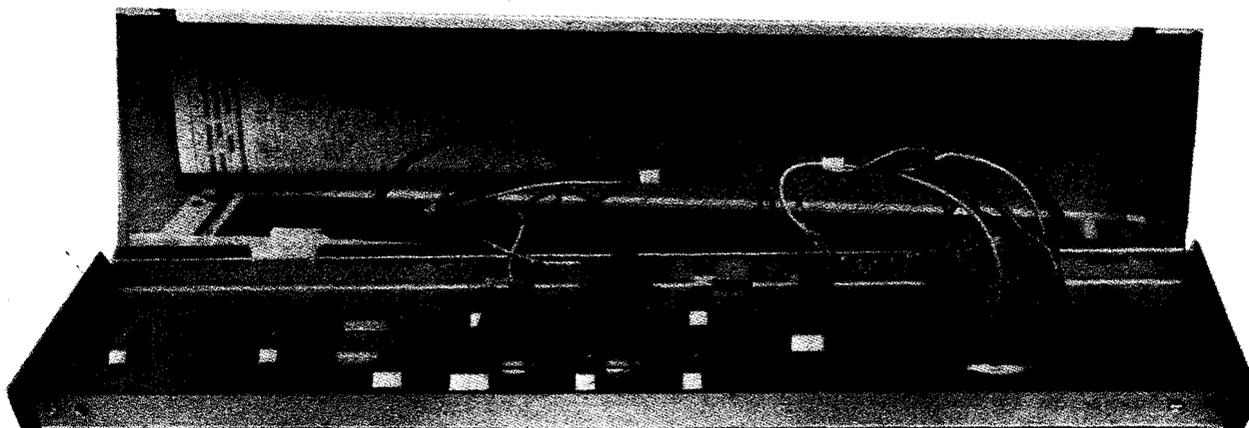
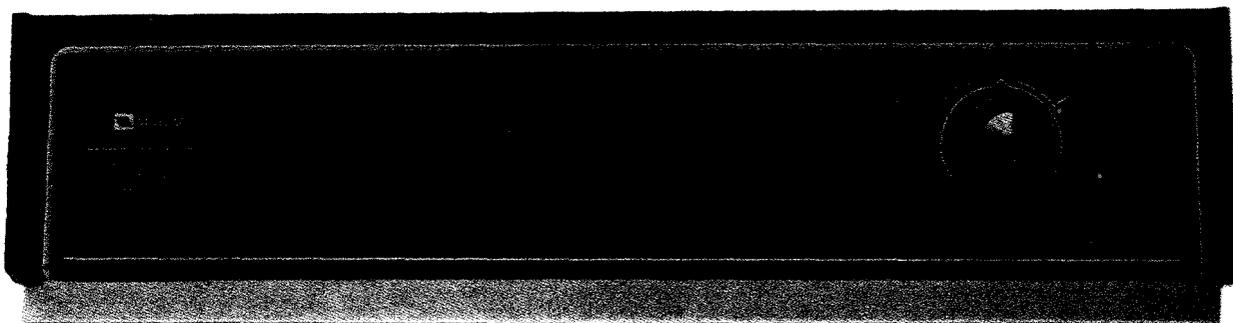
### **TEMPERATURE SWITCH**

A switch that allows selection of temperatures.

1. See Access To Control Panel Components.
2. Remove switch from back-up plate by removing two screws holding switch to back-up plate.

### **CONTROL PANEL**

1. Remove timer dial.
2. See Access To Control Panel Components.
3. Remove end caps.
4. Insert a flat bladed screwdriver between the top portion of the control panel and back-up plate and gently pry the two apart.
5. Disengage notches of control panel from slots in bottom of back-up plate.



## **BUZZER**

Many model dryers incorporate a buzzer which signals the end of the cycle on all dry selections. The buzzer is wired in parallel with the timer contacts for the drive motor.

1. See Access To Control Panel Components.
2. Remove buzzer by removing one screw securing mounting bracket to back-up plate.
3. On some models note the shaft of buzzer and corresponding slot in pivot arm of slide lever.

## **ADJUSTABLE BUZZER - ADJUSTABLE SLIDE LEVER**

The lever on the end of cycle signal can be adjusted by the customer. The signal control lever is raised to increase and lowered to reduce or eliminate the buzzer tone.

1. Remove buzzer. One screw secures buzzer to mounting bracket.
2. Remove slide lever with pivot arm. Note position of pivot arm, slide lever and retaining plate for future mounting procedures. Two screws secure mounting plate for lever.

## **PUSH-TO-START SWITCH**

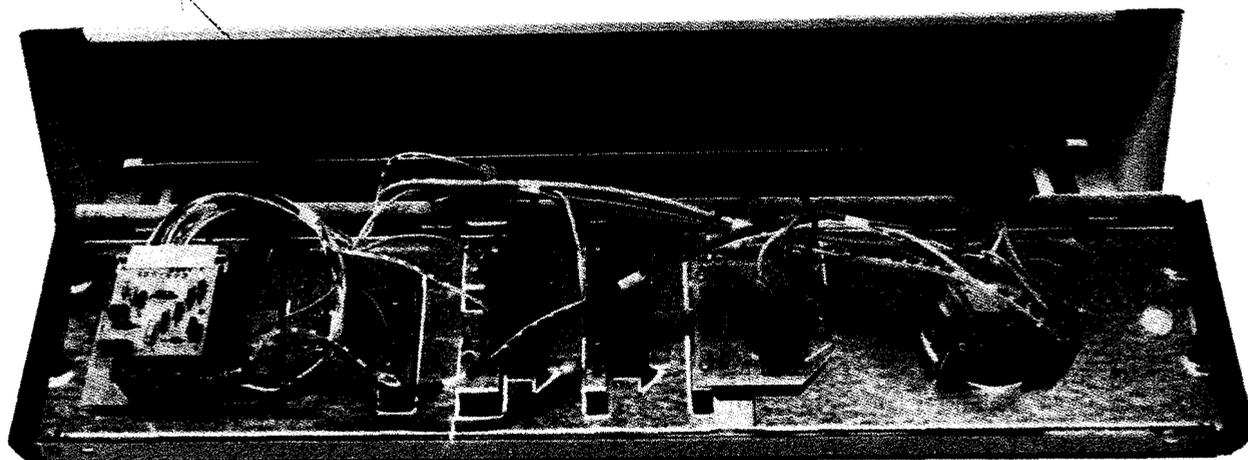
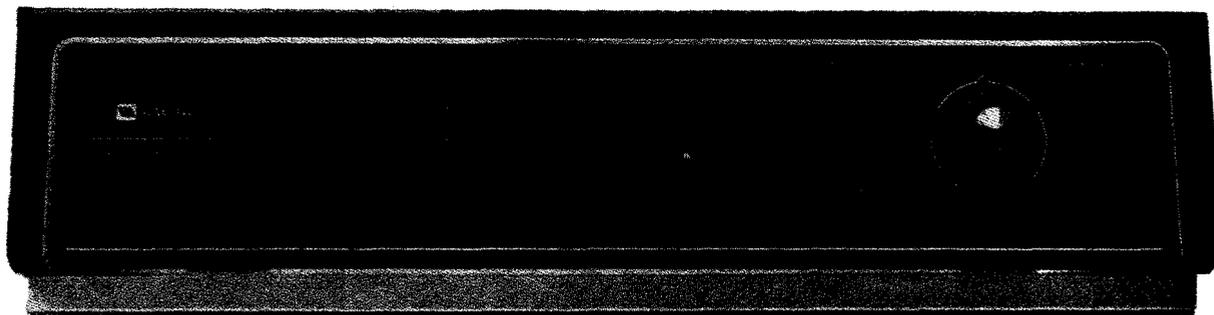
1. See Access To Control Panel Components.
2. Remove two screws holding switch and bracket to back-up plate.

## **AUTO-DRY SWITCH**

1. See Access To Control Panel Components.
2. Remove switch by taking out two screws holding switch to back-up plate.

## **PRESS CARE SWITCH**

1. See Access To Control Panel Components.
2. Remove switch.



## **ELECTRONIC CONTROL MODELS**

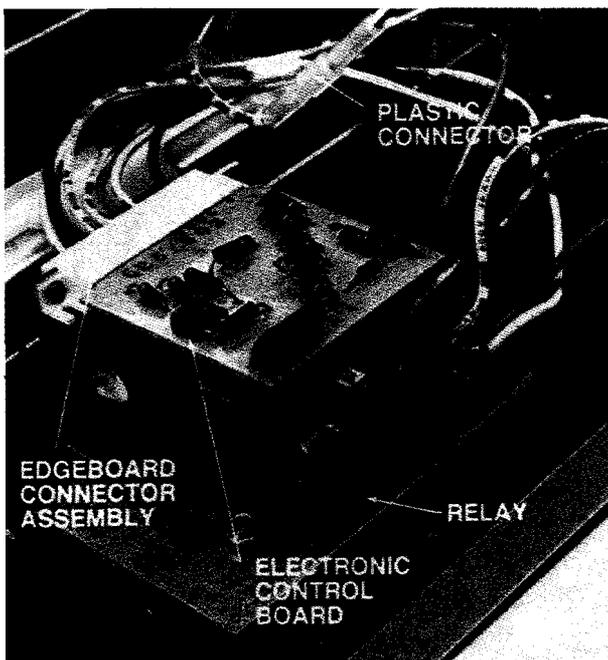
As in the other control systems, the sole purpose of the electronic control is to shut the dryer off at the end of the drying cycle. The electronic control system reacts to moisture in the clothes to keep the dryer running until the clothes are dry.

For testing and electrical operation, see Section 2.

## **CONTROL PANEL REMOVED**

### ***Electronic Control Models***

The electronic control assembly, in conjunction with the sensor assembly, is used for determining when the clothes have reached the selected dryness level. This assembly consists of three components: ***edgeboard connector assembly, relay and electronic control board (printed circuit board)***. These components are located in the left hand corner of the control console.



## **To remove the electronic control assembly components:**

1. Disconnect the power supply.
2. Remove the two inside screws on control panel and tilt panel forward.
3. To remove the electronic control board (printed circuit board).
  - A. Grasp the board on both sides with thumb and fingers.
  - B. Pull straight back while twisting the board back and forth in a side-ways motion. Note which side of the board is facing up.
4. To remove relay:
  - A. Disconnect the wires going to the relay.
  - B. Remove the two screws securing the relay to the bracket.
5. To remove the edgeboard connector assembly:
  - A. Remove the two screws securing the assembly to the back-up plate.
  - B. Disconnect the remaining wires to remove assembly.

## **DRYNESS SWITCH**

1. Gain access to control panel.
2. Remove switch.

---

## **MICROPROCESSOR BOARD CONTROL**

The microprocessor board receives input information from the various components involved with the operation of the dryer; such as the dryness sensor and the thermistor. It uses this information to determine the necessary control for the completion of the cycle.

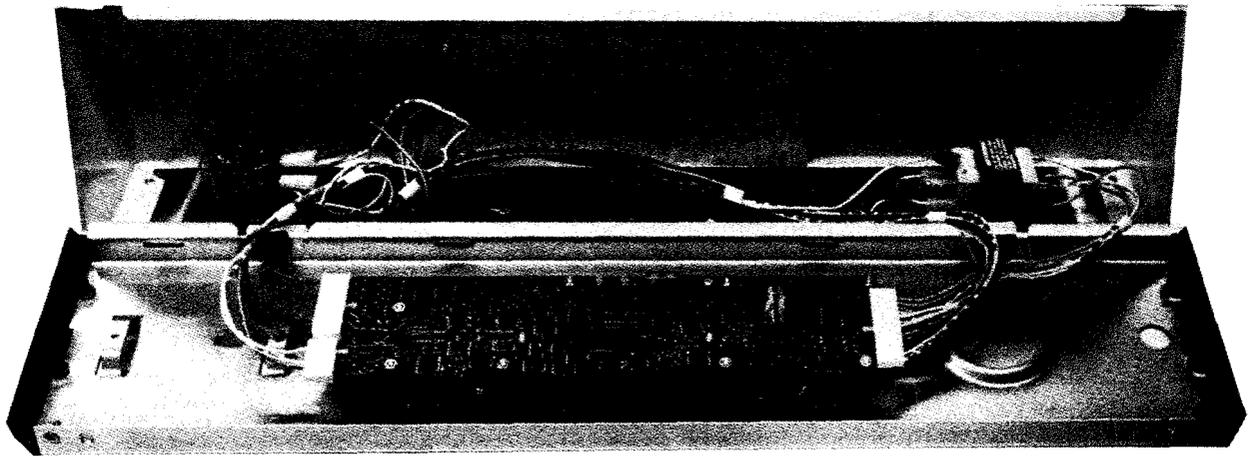
### ***CONTROL PANEL REMOVED - Microprocessor Models***

#### **To remove microprocessor board:**

1. Disconnect power supply.
2. Remove the two inside screws on control panel and tilt panel forward.
3. Disconnect the three edgeboard connectors from the microprocessor board.
4. Remove the eight nuts securing the microprocessor board to the mounting panel.

#### **To remove mounting panel assembly:**

Remove the four nuts securing the mounting panel to the back-up plate.



**To remove transformer:**

1. Disconnect power supply.
2. Remove the two inside screws on control panel and tilt panel forward.
3. Disconnect the wires going to the transformer.
4. Remove the two screws securing the transformer to the dryer top cover.

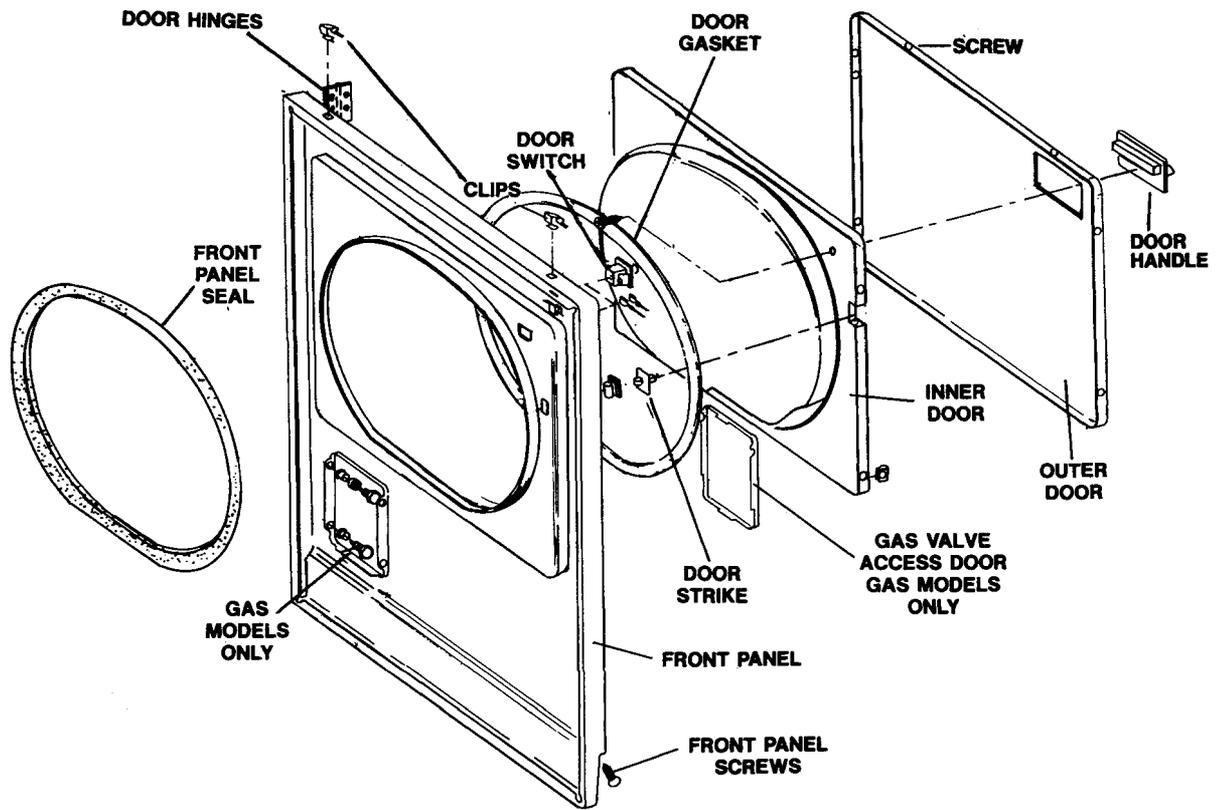
**To remove motor relay:**

1. Disconnect power supply.
2. Remove the two inside screws on the control panel and tilt panel forward.
3. Disconnect the wires going to the relay.
4. Remove the two screws securing the relay to the dryer top cover.

**To remove heater relay (Electronic Dryer Only):**

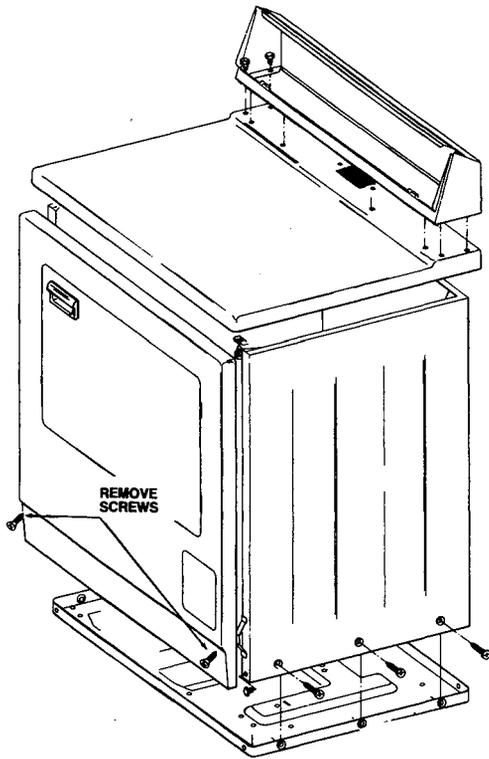
1. Disconnect power supply.
2. Remove the two inside screws on control panel and tilt panel forward.
3. Disconnect the wires going to the relay.
4. Remove the two screws securing the relay to the dryer top cover.

# FRONT PANEL AND COMPONENTS

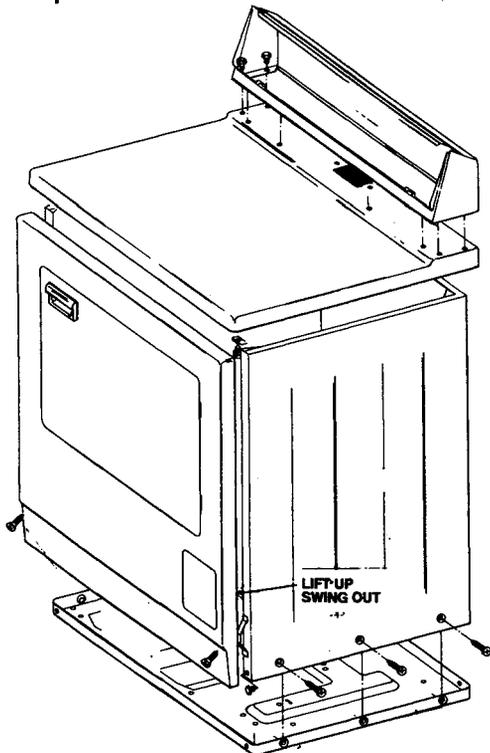


## FRONT PANEL REMOVAL

1. Remove screws.



2. Lift up on front panel and swing bottom of panel away from dryer to disengage top of panel from dryer top.

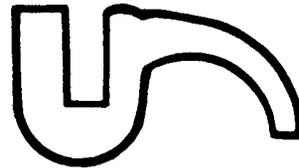


3. Front panel may be set off to one side or if necessary, the door switch

wires may be disconnected and the front panel removed completely from the unit.

## DOOR SEAL

1. Open door.
2. Grasp one end and pull gasket from door.
3. When installing the door gasket, the thicker end fits behind the tabs on the door.



4. Install one end of the gasket at the bottom of the door and work the gasket behind each tab.

**Note:** It may be necessary to cut 1/2" from one end of the replacement gasket.

## DOOR REMOVAL

1. Open door.
2. Support door and remove four screws (two from upper hinge and two from lower hinge) which hold the door.



3. Remove door.

#### **TO DISASSEMBLE DOOR**

1. Remove door hinge screws from door.
2. Remove two screws on edge of door opposite hinges and two screws from bottom of door.
3. Remove screw holding door handle and separate door halves.

#### **FLUSH MOUNTED HANDLE**

1. Remove cross head screw from upper inside door panel securing handle to door.
2. Pull handle out.

#### **DOOR STRIKE**

1. Remove cross head screw on right edge of door panel.
2. Disengage clip and strike from panel.

#### **DOOR HINGES**

1. Remove door from dryer.
2. Remove front panel because each door hinge is backed up by a retaining clip which will fall from place when the hinge is removed.
3. Remove two screws holding each hinge to the front panel.
4. Remove two screws holding hinges to door panel.

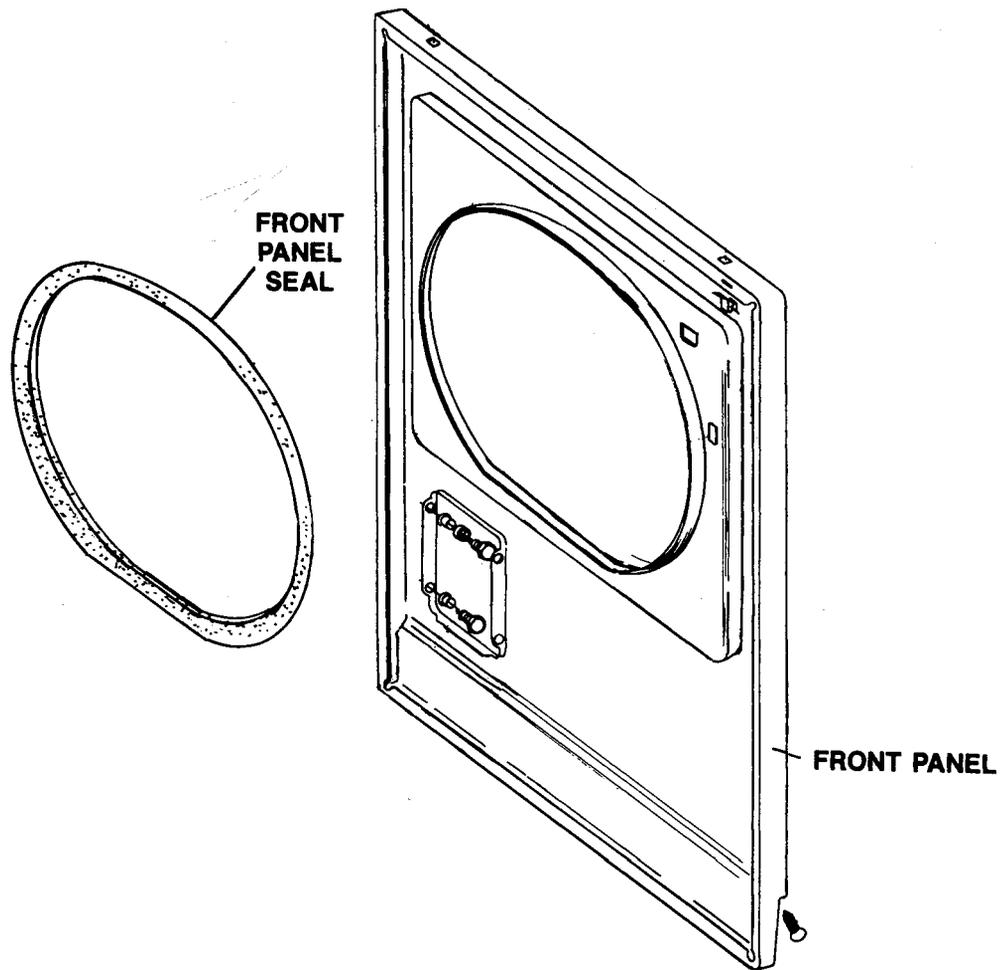
#### **DOOR SWITCH**

1. Remove front panel.
2. Squeeze the expanded end of the latch together and remove latch.

#### **FRONT PANEL SEAL**

To maintain the proper air flow pattern and therefore the desired drying results, the seal which fits around the door opening in the inner front panel must be in place and in good shape.

1. Remove front panel.
2. Remove old seal.
3. Install replacement seal by rolling seal over the front panel lip.





## **DRYNESS SENSOR**

### **To remove the dryness sensor:**

1. Disconnect power supply.
2. Remove the front panel.
3. Remove the wires going to the dryness sensor, W-BK and W-BK.
4. Remove the two screws securing the dryness sensor to the bulkhead.

### **To check the dryness sensor:**

#### **CAUTION**

Always disconnect power supply before making continuity or resistance checks.

1. Disconnect power supply.
2. Remove both wires going to the sensor bars.
3. Check for continuity across the sensors. Attach meter across the terminal on each sensor. If you have continuity, replace dryness sensor.
4. Check for circuit to ground from either sensor bar. Replace both wire connectors on the spade terminals. Place one meter lead on the sensor bar inside the drum and place the other meter lead on cabinet ground. If you have continuity, check to make sure the wire connectors are not making contact with the front bulkhead. The insulated wire connector goes on the terminal closest to the bulkhead.

## **TUMBLER FRONT**

The tumbler front holds the front of the tumbler in the correct position and provides the bearing surfaces for the tumbler to ride on.

1. Remove front panel.
2. Remove four screws holding tumbler front to cabinet.
3. Remove screw holding ground wire to cabinet.
4. Disconnect wires from retainer.
5. Pull tumbler front out and away from tumbler.

**Note:** Two tabs on each side of the tumbler front fit into notches in the front of the cabinet. These must be disengaged to remove tumbler front.

## **LINT FILTER SWITCH**

The lint filter switch produces a "Check Filter" warning in the dryer's display if the lint filter is not removed and replaced after the dryer goes into cool-down at the end of a cycle or at the end of Air Fluff. Leaving the filter out will also activate the warning. The switch is a reed switch mounted on the outlet duct assembly and connected to the microprocessor board through edgeboard connector CC (refer to schematic). Its contacts are closed by a magnet that is staked to one side of the lint filter. The contacts close when the lint filter is inserted into place in the outlet duct assembly. When the lint filter is removed the contacts will open.

**Note:** The switch does not prevent the dryer from operating, its function is to produce a warning to make operator

aware of the necessity for cleaning the lint filter.

**To remove lint filter switch:**

1. Disconnect power supply.
2. Remove the front panel.
3. Separate the plastic wire connector by pulling apart.
4. Remove the two screws that secure the switch to the outlet duct assembly.

**To check the lint filter switch:**

**CAUTION**

Always disconnect power supply before making continuity or resistance checks.

1. Separate plastic connector by pulling apart.
2. Check for continuity. Attach meter across wire BR and BR on switch side of plastic connector. Remove and replace lint filter to check for opening and closing of the switch's contacts.

**COMPLETE OUTLET DUCT**

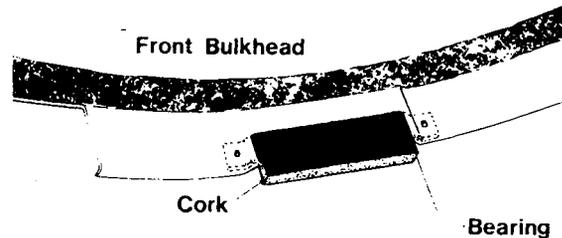
The outer half of the outlet duct is held to the front of the tumbler front.

1. Remove front panel.
2. Remove four hex screws and one pozi-drive screw holding outer outlet duct to tumbler front.
3. Remove front bulkhead.

4. Remove outlet duct.

**TUMBLER FRONT BEARING AND PADS**

At the bottom inside of the tumbler front are two polyteflon bearings which rest on cork pads. These bearings provide a surface for the front of the tumbler to ride on. If it is necessary to replace a front bearing, remove the tumbler front, drill out old rivets and rivet new bearings on. In positioning the bearing and pad, the projections on both should face the tumbler. This allows the bearing to stick out beyond the metal of the tumbler front.



**Note:** Two tabs on each side of the tumbler front fit into notches in the front of the cabinet. These must be disengaged to remove tumbler.

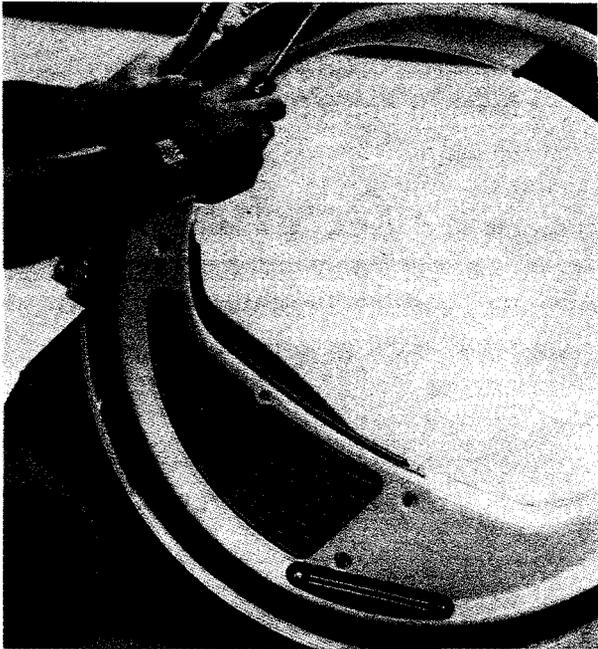
**TUMBLER FRONT SEAL**

The seal fits around the back circumference of the tumbler front. It is a natural felt seal which is doubled over for self-adjusting tension. The surface which comes in contact with the revolving tumbler, is coated with a layer of Teflon to provide a slick durable wear surface.

The seal is held in position by formed locking tabs.

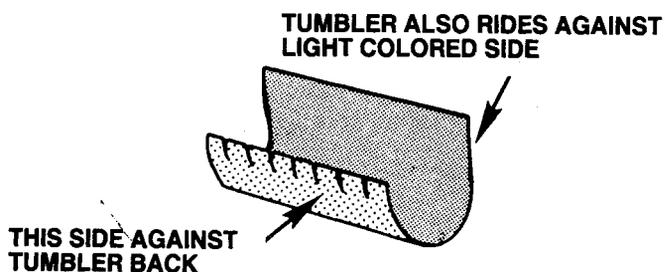
1. Remove tumbler front.

2. Remove the old seal by prying the locking tabs out with a regular screwdriver.



The Teflon coated side (which is the lighter of the two colors) goes against the tumbler. The seal is then looped in a "U" shape so the slot edge of the lighter colored side is to the tumbler front. Rubber adhesive is used to hold the seal overlap.

Bend tabs back over seal with a pair of pliers.



## TUMBLER AND BELT

The tumbler is a round cylinder with no permanently attached front or back. Tumbler speed is 47 RPM. It is designed so there is no front or back. Installation can be made without regard to which way it came out of a dryer.

### To Remove Tumbler and Drive Belt:

1. Remove front panel.
2. Remove tumbler front.
3. Reach under tumbler and remove drive belt from motor and idler pulleys.



4. Slip belt off tumbler.
5. Pull tumbler out of cabinet.

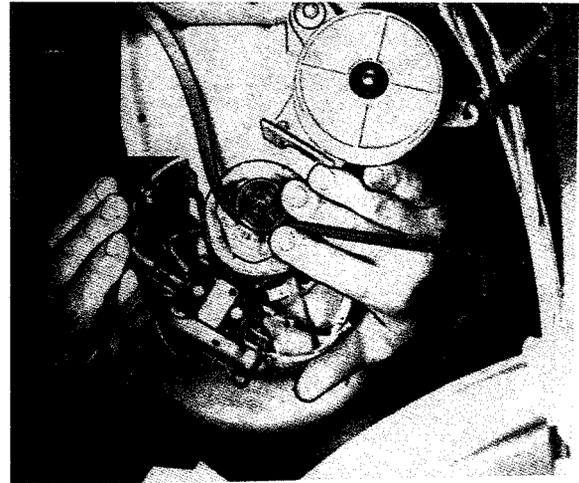
## **INSTALLING DRIVE BELT**

1. Install tumbler.
2. Place belt over the top of the dryer tumbler with the smooth side against the tumbler and position it about 1 1/2" in front of the back screws which hold the clothes lifters. In order to get the belt between the bottom of the tumbler and the blower, it will be necessary to lift up on the tumbler.
3. The best position to take while installing the belt is to sit on the floor facing and as close to the dryer as possible. Place your left arm along the left side of the tumbler and your right arm along the bottom of the tumbler (as close to the blower as possible).



4. With the right hand, loop the belt over the top of the motor pulley making certain the grooves of the belt are against the pulley and that the belt is properly seated into the pulley.

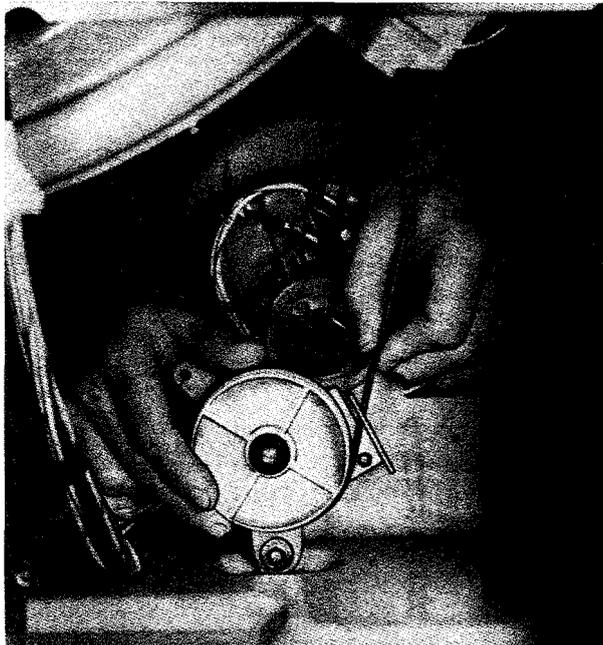
5. With the left hand, loop the belt under the motor pulley.



6. With the right hand, position the belt over the top of the idler pulley and begin to work it around the circumference of the idler pulley while pushing the pulley up and to the left.

**Note:** It is neither necessary nor advantageous to push extremely hard on the pulley. This tends to put the idler pulley and motor pulley in a bind and also puts a strain on the installer so he cannot work efficiently with his hands to complete the belt installation.

7. Once the belt is almost around the entire circumference of the idler pulley, use the left hand to push the belt over the bottom of the idler pulley while at the same time making certain that the belt is between the idler pulley and the belt guide.



8. With the belt completely installed, feel with both hands to see that it is properly positioned in the motor pulley and in the approximate middle of the idler pulley. When you have determined by feeling that it is installed correctly, lift up and push back while slowly turning the tumbler one or two revolutions in a clockwise direction to allow the belt to properly align itself.

### **CLOTHES LIFTER**

There are three tumbler clothes lifters used to aid in tumbling the clothes. Two of the lifters are 1" higher than the other. Location makes no difference.

1. Remove front panel.
2. Remove two screws holding each lifter to the tumbler.

For ease in replacing a clothes lifter you will find a locating tab on the underside of the lifter. Pilot holes are also found in the tumbler. When the clothes lifter is installed, the tab is inserted into the slot in the tumbler. This correctly aligns the screw holes in the lifter with those in the tumbler.

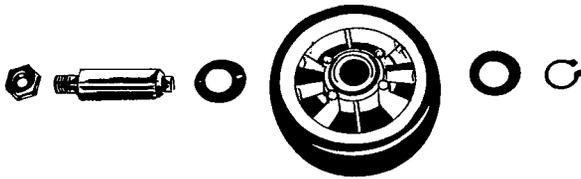
### **ROLLER AND BEARING ASSEMBLY**

The tumbler roller consists of a rubber tire bonded to a plastic hub.

There are two roller and bearing assemblies attached to the tumbler rear. Normally the rollers will run slightly behind the drum radius. If the rollers are riding up on the tumbler radius, check for bent rear roller brackets. If a bracket is bent, replace tumbler rear.

1. Remove front panel.
2. Remove tumbler front.
3. Remove tumbler.
4. Remove retaining ring from groove in shaft.
5. Remove fiber washer.
6. Remove roller.
7. To remove roller shaft remove nut on back.

**Note:** There is a spacer washer behind the roller. When replacing parts be certain the order of the replacement is correct.



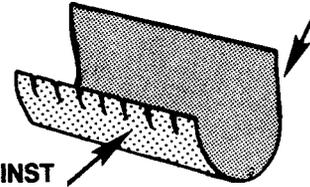
Lubricate with MAYTAG 55975 S.B.L.

### **TUMBLER REAR FELT SEAL**

The seal fits around the front circumference of the tumbler rear. It is a natural felt seal which is doubled over for self-adjusting tension. The surface which comes in contact with revolving tumbler is coated with a layer of Teflon to provide a slick durable wear surface.

1. The felt seal for the rear tumbler can be replaced from the front of the dryer. However, for ease in servicing, we recommend removal of the tumbler rear from the dryer.
2. Remove the old seal by prying the locking tabs out with a regular screw driver.
3. The Teflon coated side (which is the light of the two colors) goes against the tumbler. The seal is then looped in a "U" shape so the slot edge of the light colored side is cemented to the tumbler back. Rubber adhesive is used to hold the seal overlap.
4. Install new seal and bend tabs back over seal with a pair of pliers.

**TUMBLER ALSO RIDES AGAINST LIGHT COLORED SIDE**



**THIS SIDE AGAINST TUMBLER BACK**

### **TUMBLER REAR**

The tumbler rear is secured to the back panel by four screws. It is finished with an epoxy powder coat which is a very smooth surface, resistant to scratches and abrasion.

The tumbler rear acts as a support for two roller assemblies which support the tumbler and weight of the load.

Removal:

1. Remove front panel.
2. Remove tumbler front.
3. Remove tumbler and belt.
4. Remove heat cone.
5. From back of dryer, remove four screws holding tumbler back assembly and remove assembly.

# THERMOSTATS

## THERMOSTATS

There are three different kinds of thermostats in these dryers.

1. Bi-Metal type.
2. Resistance type (Multi-temperature).
3. Thermal Fuse type.

All react essentially to temperature with direct effect on heat on or heat off functions of a dryer.

### To remove those located on blower cover:

1. Remove 2 screws from Front Panel and swing panel out.
2. Remove wires from thermostat.
3. Remove screws securing thermostat to cover.

### 160° THERMOSTAT - Microprocessor Models

#### Bi-Metal Type

The 160° thermostat functions as a back up to the thermistor. It is mounted on the blower cover. The thermistor, in conjunction with the microprocessor board and heater relay, is used to control the cycling of the temperature between 135°F and 155°F. The 160° thermostat is placed in series with the gas valve / heating element and will open the heat circuit in the event the thermistor fails to open the circuit at temperatures above 155°F.

### To remove the 160° thermostat:

1. Disconnect power supply.
2. Remove front panel.
3. Remove the thermostat cover mounted to the base (electric dryer only).
4. Disconnect wires from the thermostat.
5. Remove the two screws securing the thermostat to the blower cover.

### To check the 160° thermostat:

#### CAUTION

Always disconnect power supply before making continuity or resistance checks.

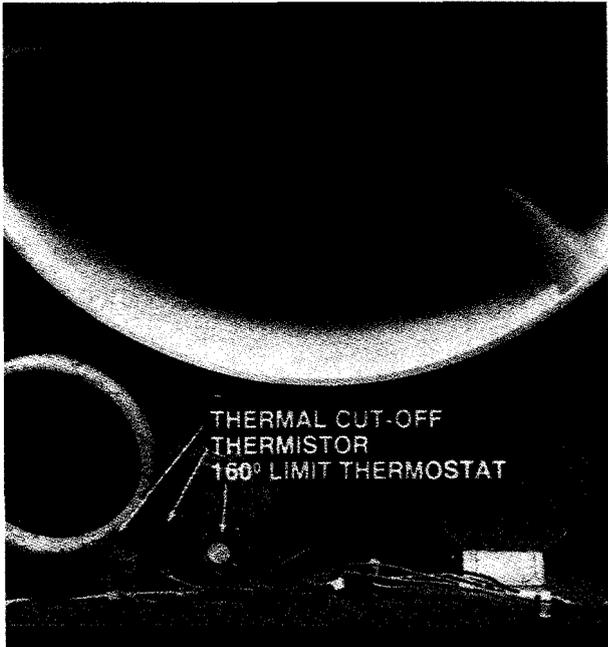
Check for continuity across thermostat at room temperature. Attach meter across terminals BK and PU. No continuity, replace.

### THERMISTOR - Microprocessor Models

#### Resistance Type

The thermistor is a semiconductor device (solid state) that has a negative temperature coefficient of resistance; its resistance decreases as its temperature increases and vice versa. The thermistor functions as the "sensing control" for the dryer's heat circuit. No cycling thermostat is used. It is mounted on the blower cover and is

connected to the microprocessor board through edgeboard connector CC (refer to schematic). Mounted on the blower cover puts the thermistor in the air flow of the air being exhausted from the drum. The increasing or decreasing temperature of the exhausted air changes the resistance of the thermistor. The microprocessor board uses this input information to control the heat circuit. On the electric dryer the microprocessor board controls the 24 DC voltage to the heater relay, on the gas dryer it controls the L1 side of the power supply through edgeboard connector BB (refer to schematic).



#### To remove thermistor:

1. Disconnect power supply.
2. Remove front panel.
3. Remove the thermostat cover mounted to the base (electric dryer only).
4. Remove the two wires, PK-BK and PK-BK, from the thermistor.
5. Remove the two screws that attach the thermistor to the blower cover.

#### Check the thermistor:

1. Remove the two wires on the thermistor, PK-BK and PK-BK.
2. Place ohm meter across these wires and check resistance of the thermistor. At room temperature, 77°F, you should read about 10,000 ohms. At 140°F you should read about 1750 ohms.

**Note:** Do not check with line voltage (120 VAC), the thermistor is part of the low voltage circuitry.

#### THERMAL FUSES

The function of the thermal fuse and thermal cut-off is to stop the dryer in the event an over heating condition should occur. The electric dryer has a thermal fuse mounted on the right side of the heat cone and a thermal cut-off mounted on the blower cover. The gas dryer has a thermal cut-off mounted on the blower cover. Both are referred to as "thermal fuse" on the electrical schematic. The thermal fuse and cut-off are placed in series with the drive motor. If one of these should open, the drive motor will stop and the circuit through the centrifugal switch for the gas valve / heating element will also open, breaking the heat circuit. The thermal fuse and thermal cut-off are not interchangeable or resettable and must be replaced after the over heating problem is corrected.

**Note:** If one of these thermal devices opens, it indicates something has caused an unusual amount of heat to build up around the device. If this happens, depending on the model, **REPLACE** the hi-limit thermostat and cycling thermostat or the hi-limit ther-

mostat and the 160° thermostat and thermistor/microprocessor board combination along with the thermal device that failed.

**To remove thermal fuse or cut-off:**

1. Disconnect power supply.
2. Remove front panel.
3. Remove thermostat cover mounted to the base (electric dryer only).
4. Disconnect the wires from the thermal cut-off.
5. Remove the two screws attaching the thermal cut-off to the blower cover.
6. For the fuse mounted on the heat cone (electric dryer only).
  - A. Remove the screw that secures the fuse bracket to the heat cone.
  - B. Remove wires and the two screws that attach the fuse to the bracket.

**To check the thermal fuse or thermal cut-off:**

**CAUTION**

Always disconnect power supply before making continuity or resistance checks.

1. Disconnect power supply.

2. Remove front panel.
3. Remove wires from the thermal fuse or thermal cut-off.
4. Check for continuity. Attach meter across the terminals of the fuse or cut-off. No continuity, replace fuse.

**MULTI-TEMPERATURE**

**Resistance Type**

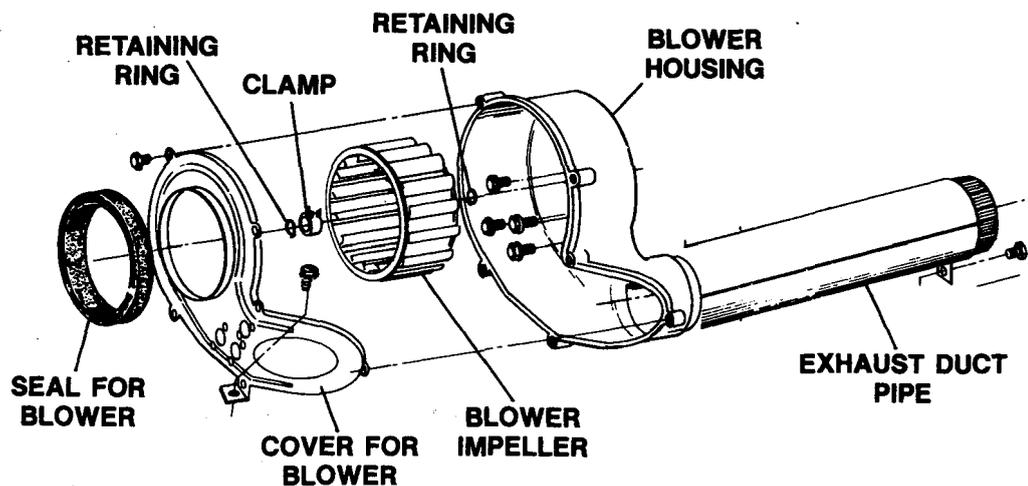
These thermostats have 3 temperature options depending on resistors in the circuit. For example, no resistor (internally in thermostat or at selector switch); cycling temperature will be 150°. Full voltage (through internal resistor in thermostat); cycling temperature will be 140°.

If a series circuit is selected using resistor in thermostat and resistor at selector switch, cycling temperature will be 145°.

**To replace thermostat:**

1. Disconnect power supply.
2. Remove front panel.
3. Remove thermostat cover mounted to the base (electric dryer only).
4. Disconnect wires.
5. Remove two screws attaching thermostat to blower cover.

## BLOWER



### SEAL FOR BLOWER

The felt seal for the blower is secured to the lip of the cover for the blower. If a seal is replaced, clean surface and use Maytag Part No. 55978 rubber adhesive to hold seal.

### COVER FOR BLOWER

1. Remove front panel.
2. Remove tumbler front.
3. Remove six screws holding cover to blower housing.
4. Remove screw holding cover to base.
5. It is not necessary to remove wires from thermostats to gain access to blower. Simply lay blower cover forward.

### BLOWER IMPELLER

The blower impeller is attached directly to the motor shaft and behind the blower cover.

1. Remove blower cover.
2. Remove clip retaining ring.
3. Compress and remove clamp around hub of impeller.
4. Work impeller back and forth while pulling off shaft.

### BLOWER HOUSING

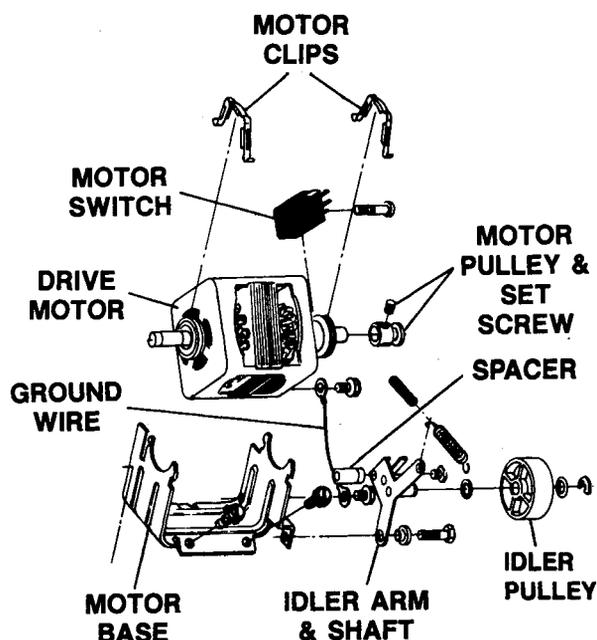
1. Remove blower impeller.
2. Remove clip retaining ring located behind blower impeller.
3. Remove four screws holding blower housing to motor mounting bracket.

4. Remove blower housing.
5. When replacing blower housing be certain the clip retaining ring is properly replaced into the groove in the motor shaft.

### EXHAUST DUCT PIPE

One end of the exhaust duct pipe is held to the back of the cabinet by one screw. It fits over the blower housing on the opposite end.

### DRIVE MOTOR AND IDLER ASSEMBLY



### MOTOR SWITCH

A switching device in a motor used to change the path of electricity from both start and run windings to run winding only. It also completes the circuit to

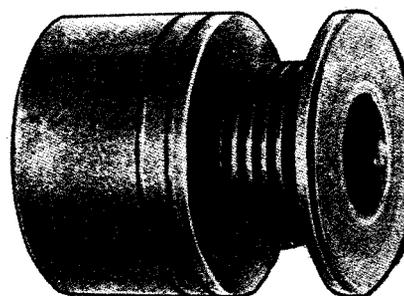
the heat source when motor reaches speed.

The external motor switch is secured to the motor with two screws.

1. Remove front panel.
2. Remove tumbler front.
3. Remove tumbler.
4. Remove two screws holding switch to drive motor.

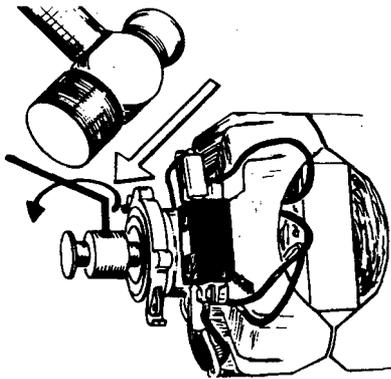
### MOTOR PULLEY

Shown is the 2-groove, 60 Hz, 47 rpm pulley. This identifies the pulley for 60 Hz. operation. 50 Hz. has 3 grooves.



**NOTE GROOVES**

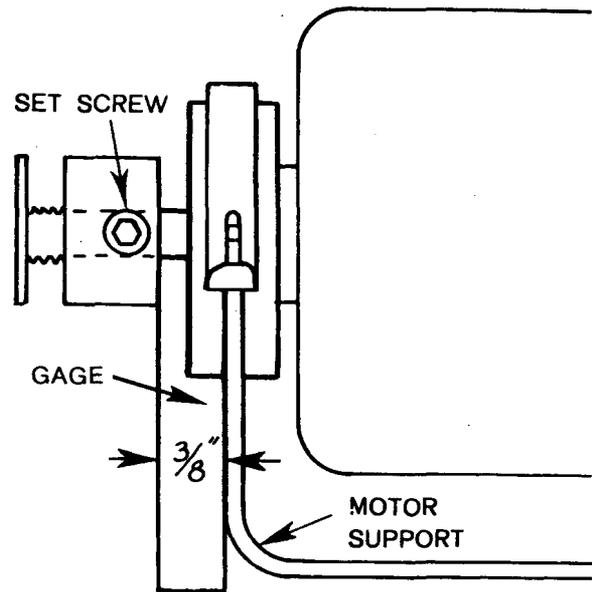
1. Remove front panel.
2. Remove tumbler front.
3. Remove tumbler.
4. Place hexhead wrench in set screw.
5. Using a hammer or rubber mallet, strike the end of the hexhead wrench, as shown.



### **MOTOR PULLEY ADJUSTMENT**

Positioning of the pulley on the motor shaft is important for proper alignment with the idler assembly. The distance from the back of the motor pulley to the face of the motor support must be  $3/8$ ". A metal gage (Maytag Part No. 38623) is available which can be used to properly position the pulley.

To use the gage, simply place the thicker part against the motor support and the thinner end between the pulley and the mounting ring. With the proper  $3/8$ " dimension established, tighten the pulley set screw.



When replacing the motor pulley make sure the set screw aligns with the flat side of the motor shaft. Tighten set screw securely.

### **DRIVE MOTOR AND BASE**

1. Remove front panel.
2. Remove tumbler front.
3. Remove tumbler.
4. Remove two screws securing motor base to base frame.
5. Remove wires from motor and unhook idler spring.
6. Slide motor base tab from base frame.
7. Remove motor and blower assembly from cabinet.
8. Remove blower component from motor.

**Note:** When installing motor, be sure to slide motor base tab into slot in base frame.

9. Using pliers or screwdriver, roll the clips off of the motor mounts.
10. Remove motor from motor base.

#### **IDLER ASSEMBLY**

1. Remove front panel.
2. Remove tumbler front.
3. Remove tumbler.
4. Remove spring and screw holding assembly.

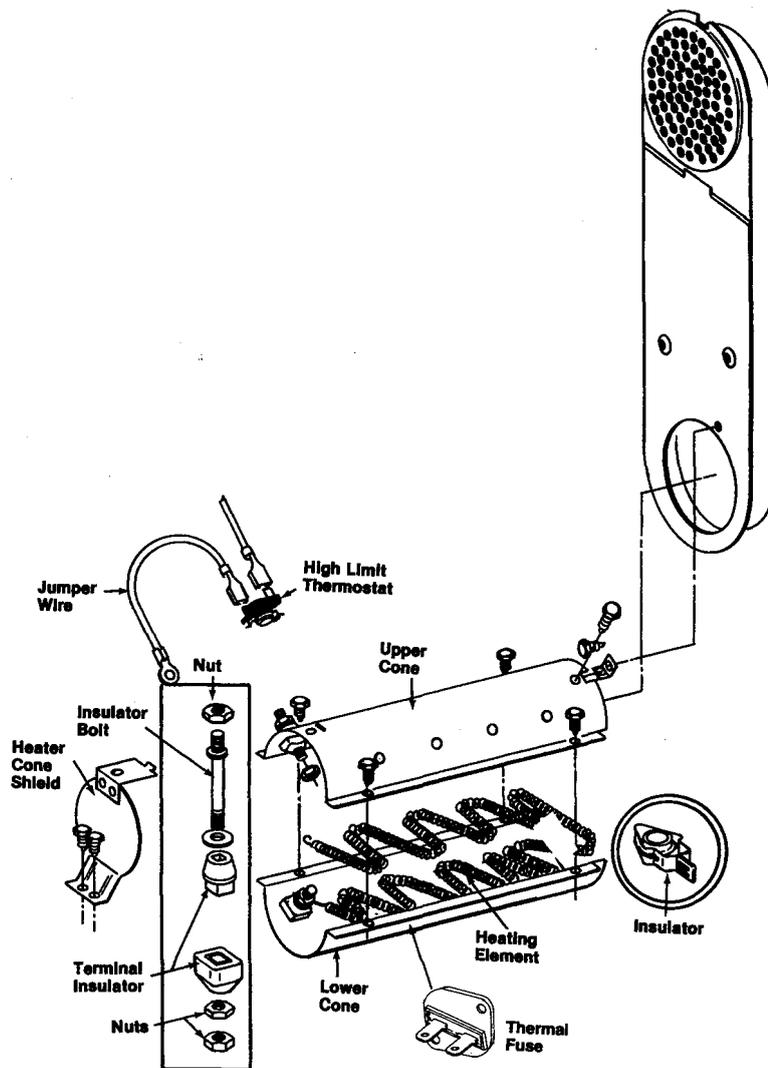
**Note:** When replacing the idler assembly apply a light coating of 56016 Maytag center seal grease to the motor support where it is contacted by the spacer for the idler.



#### **IDLER PULLEY**

1. Pry clip from groove in shaft with a small screwdriver.
2. A fiber washer is located on both sides of the pulley. Be certain these are replaced when you reassemble these parts.

## HEATING ELEMENT AND RELATED COMPONENTS -- ELECTRIC MODELS



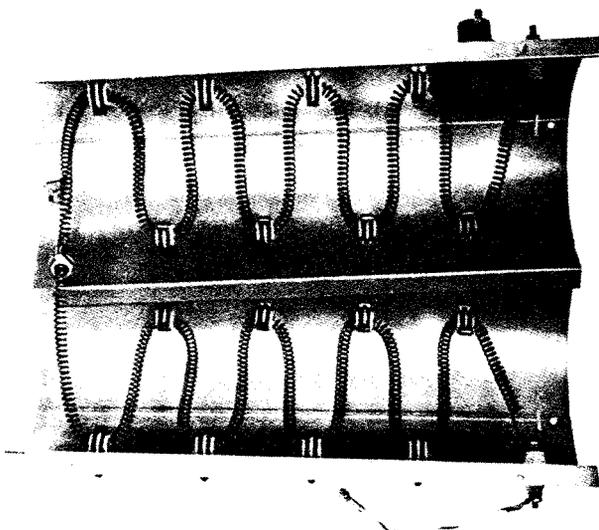
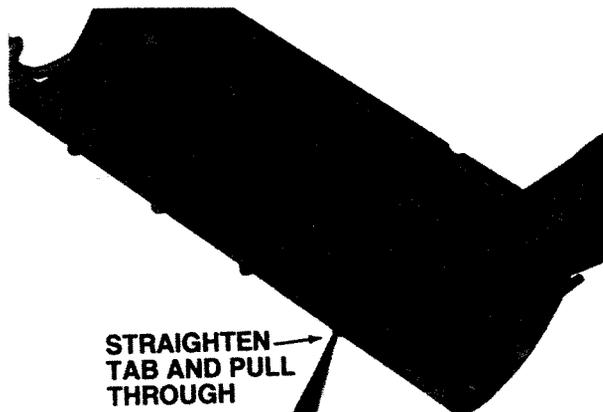
### HEAT CONE

1. Remove front panel.
2. Remove screws holding heater cone shield to base. Remove shield from dryer.
3. Remove screw in front of cone holding cone to base and remove  
screw in back of cone holding cone tab to inlet air duct.
4. Remove wires to terminal posts.
5. Pull cone out of dryer.

## HEATING ELEMENT

The heating element is coiled and strung through insulators in the heat cone. The standard dryer is equipped with a heating element designed to draw approximately 5300 watts when operated on 240 volts.

1. Remove heat cone.
2. Remove four screws holding cone halves together and lay halves side-by-side.



3. Remove nuts from insulators holding ends of element.
4. Using pliers, squeeze and straighten insulator clips and push clips out of heat cone halves. Thread insulators off of original element.
5. Inspect insulators, replace any that are damaged.
6. Drop insulators over new element.
7. Place looped ends of new element over terminal studs and replace nuts. (Don't overtighten, you may crack insulator.)
8. Reinsert insulator clips and secure by twisting tabs with pliers. Maintain slight tension on the element as clips are reinstalled. (See Photo.)
9. Be very careful when installing new element so the element is not stretched. If you come up short or long on element at the end, go back and readjust the element from the beginning. Do not stretch the last part of the element to fit. Check for cracked insulators. Any that are damaged should be replaced.
10. Be sure element does not touch insulators. Also, make sure the electrical connections are tight.

### **HI-LIMIT THERMOSTAT**

The hi-limit thermostat in an electric dryer is located on the heat cone. It is many times referred to as the safety thermostat. This thermostat is located close to the heating element and in the event of an overheating condition, will cycle the heat off quickly. If a dryer is found to be cycling on the hi-limit, check for an air flow restriction.

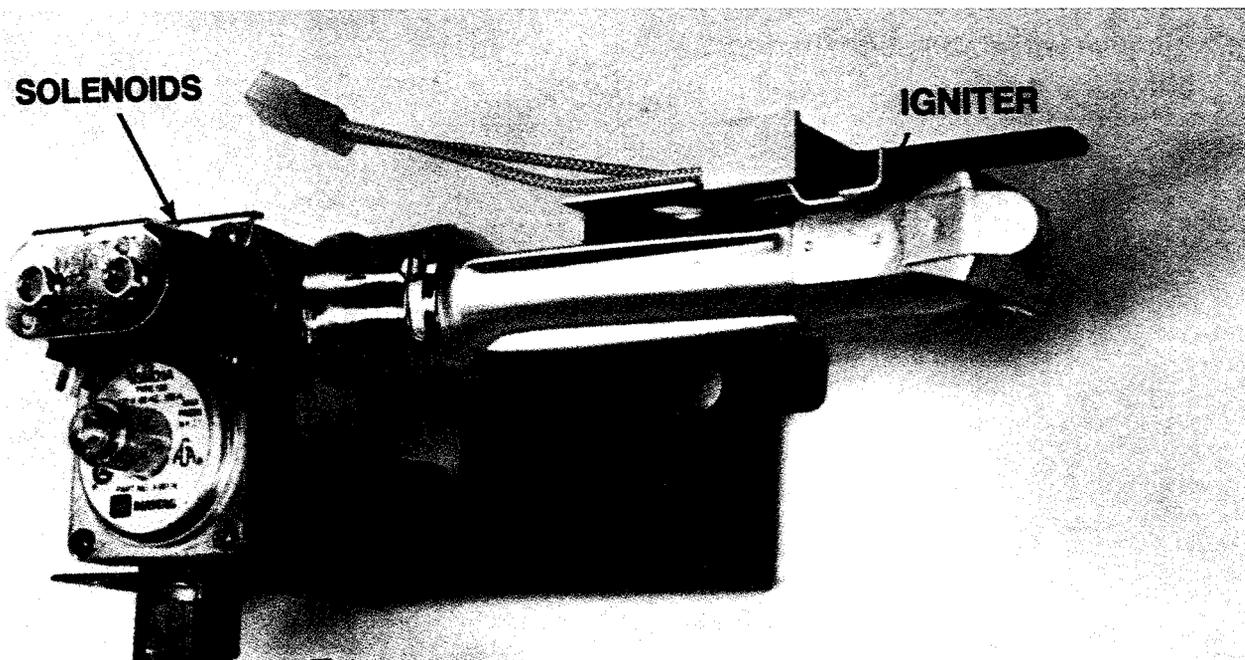
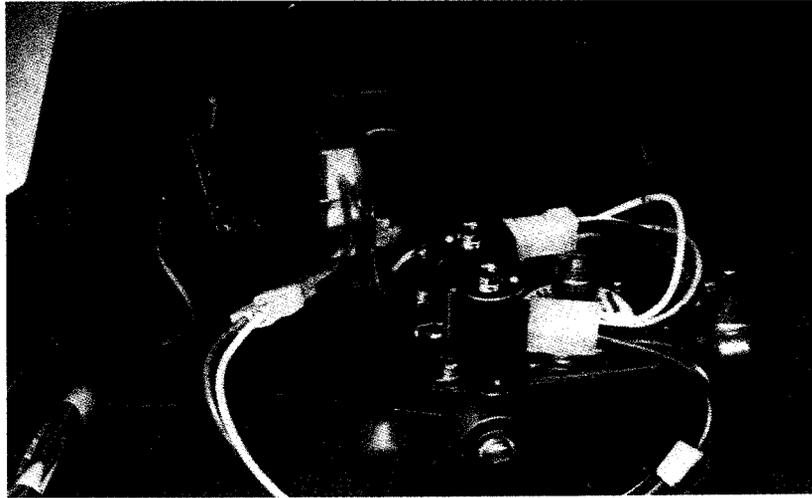
#### **To replace:**

1. Remove front panel.
2. Loosen back screw.
3. Remove front screw.
4. Remove wires and slide thermostat out.

### **INLET DUCT**

To replace the inlet duct, it will be necessary to remove tumbler rear. The inlet duct is secured to the tumbler rear by three screws, one at the top and two at the bottom under the felt seal.

## GAS VALVE AND RELATED COMPONENTS



The gas controls utilize a direct ignition system (there is no pilot light). The three major components of the gas are: Igniter, Radiant Sensor and Gas Valve.

1. **IGNITER** -- When the controls call for heat, line voltage is applied to the igniter. This causes the igniter to heat up becoming cherry red. It can reach a temperature of approximately 2200° F in about 30 seconds.

Gas contacting igniter at this temperature will ignite immediately.

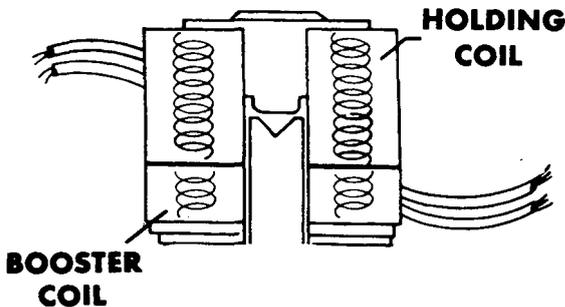
2. **RADIANT SENSOR** -- The radiant sensor operates much like a regular thermostat. It is mounted to the side of the combustion cone over an opening which exposes the sensor to the igniter and burner flame.

In its normal condition, the contacts in the radiant sensor are closed and the circuit is completed to the

igniter. As the igniter heats up, the heat radiated by the igniter causes the radiant sensor contacts to open breaking the circuit to the igniter.

- GAS VALVE** -- The gas valve is actually two gas valves, one in series with the other. This is a safety feature providing added protection against gas released in the event of a failure of one of the valves to seat properly.

The first valve is opened by a solenoid which has two separate coils built into one solenoid. This solenoid uses what is termed a split coil. The coils are referred to as the holding coil and the booster coil.



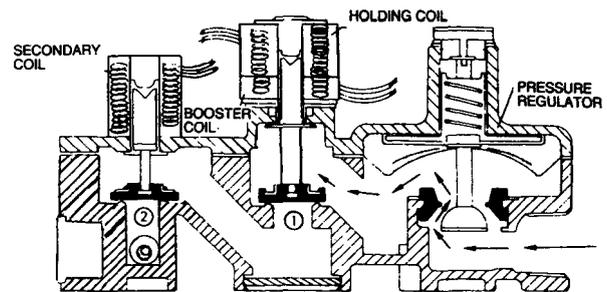
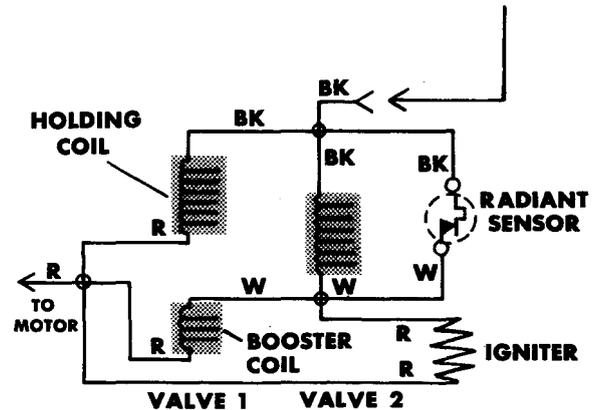
Both coils are needed to lift the armature and open the valve. The holding coil is strong enough to keep the valve open once the armature has been lifted.

The second of the two valves is operated by the traditional one coil solenoid. This is called a secondary coil.

The sensor, igniter and gas valve are all interrelated and function as an ignition and heat source.

**The complete system functions as follows:**

At the start of the cycle, the sensor contacts are closed, the igniter is at room temperature and the gas valve is closed blocking the flow of gas.



First, note on the wiring diagram that the radiant sensor contacts are wired across the secondary coil. This effectively bypasses current around the secondary coil when the radiant sensor

contacts are closed. Valve 2 cannot open with the radiant sensor contacts closed.

The booster coil and the igniter are also wired in parallel. Note that while these two components are in parallel with each other, they are wired in series with the radiant sensor and secondary coil combination. When the radiant sensor contacts are closed, full line voltage is available to the booster coil and to the igniter. When the radiant sensor contacts open current has to flow through the secondary coil on Valve 2 in order to get to the booster coil and to the igniter. A significant voltage drop develops across the secondary coil. While the parallel booster coil and igniter are still in the circuit, they become ineffective due to the greatly reduced voltage available to them.

**Operation: Dryer controls calling for heat.**

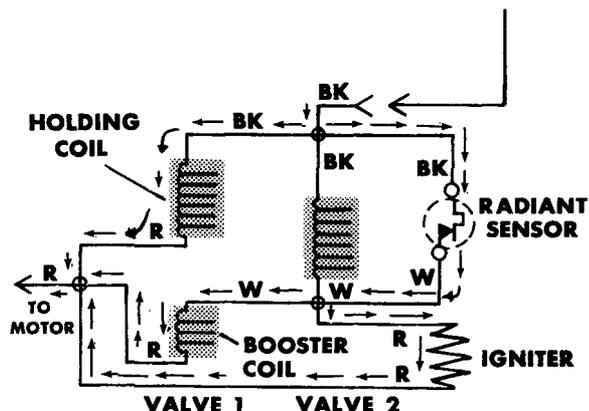
**PHASE I**

Power reaches the valve assembly by means of the Molex wiring connector. The black valve harness wire is normally the "hot" side of the line and the red is normally the neutral side of the line and is completed through the motor centrifugal switch.

**Radiant sensor contacts closed.**

The holding coil, booster coil and igniter all receive line voltage. The holding coil and booster coil develop

the necessary magnetic pull to open Valve 1. The igniter, operating at line voltage, begins to get very hot. The heat radiated by the igniter affects the element of the radiant sensor.



Because the secondary coil on Valve 2 is bypassed by the radiant sensor contacts, Valve 2 remains closed and prevents the release of gas.

**PHASE II**

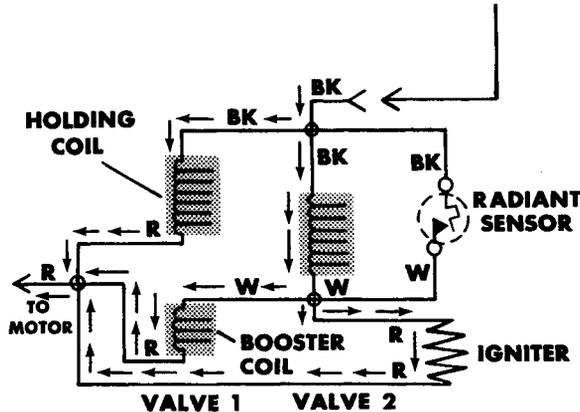
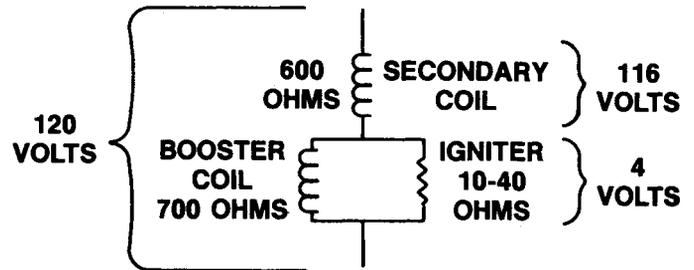
The igniter is now hot and Valve No. 1 is open. With the igniter hot, two things occur:

1. As the igniter is heated, its resistance decreases.
2. The heat from the igniter causes the radiant sensor switch to open.

### PHASE III

Valve 1 is being held open by the holding coil and with the radiant sensor contacts open because of the intense heat from the igniter, the current paths in the circuit change.

1. With the sensor contacts open, the secondary coil is no longer bypassed. It is now in series with the parallel combination of the booster coil and the igniter.



Because of the very low resistance of the hot igniter, most of the line voltage is dropped across the secondary coil. Only a small percentage is dropped across the booster coil and igniter.

2. The secondary coil now opens Valve 2 releasing gas across the still extremely hot igniter. The burner flame is ignited.

While the igniter will cool, the tip is positioned in the burner flame which keeps it hot and the resistance low.

The ignition cycle is now completed and the drying cycle begins.

The gas valve as shipped with the dryer or for repair is set for use with natural gas. Because of differences in operating pressure and heat content of other gases, the valve must be converted to use fuels other than natural gas.

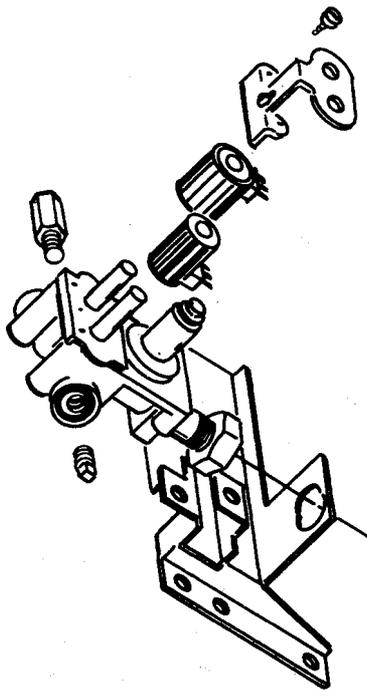
Conversion kits are available to convert from natural to L.P.G. and back from L.P.G. to natural. Check parts catalog for correct part number.

## GAS CHART

GAS TYPE	NATURAL	LPG
BTU PER CU. FT.	1075	2500
PRESSURE INCHES	3.5	11
SPECIFIC GRAVITY	0.65	1.53
DRILL SIZE	42	54

### COIL REPLACEMENT

To replace the coils on this valve, unplug the dryer from the wall receptacle. From the front through the gas valve access door, unplug the wire harness from the gas valve coils. Notice the holding and booster coils are now molded together and a three-prong connector is used to connect them. The secondary coil uses a two-prong connector. Once the coils have been unplugged, remove the two screws that secure the coil holding bracket. Remove the bracket and lift the coils off. Replace coils, bracket and wire harness.

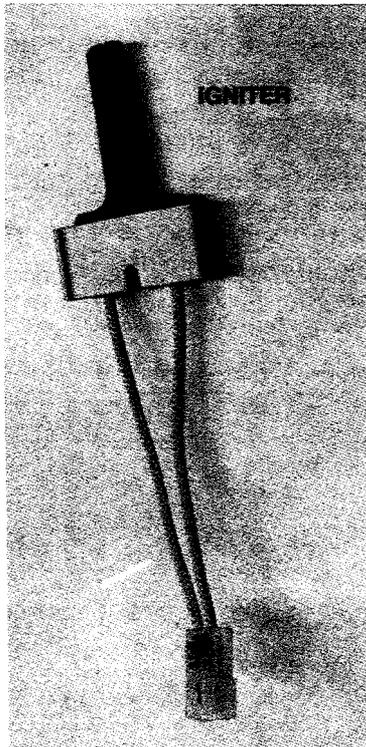


**Note:** The coil positioning tabs and matching holes in the coil holding bracket for each coil.

## **IGNITER**

The igniter is used to ignite the gas as it comes from the gas valve. It is located on the left side of the burner (as viewed from the front of the dryer). The igniter is very fragile and must be handled carefully. Should you find an igniter which has shattered, replace igniter. Operate dryer and see if igniter stays on. If igniter stays on longer than 40 seconds, replace radiant sensor.

1. Remove front panel.
2. Unplug igniter from gas valve (plug type connector).
3. Remove screw and washer holding igniter to burner.



## **RADIANT SENSOR**

The radiant sensor acts much like a thermostat.

1. Remove front panel.
2. Remove wires from sensor.

3. Remove screw holding sensor to heat cone.
4. Pull tab on sensor bracket from slot in heat cone.

## **HI-LIMIT THERMOSTAT**

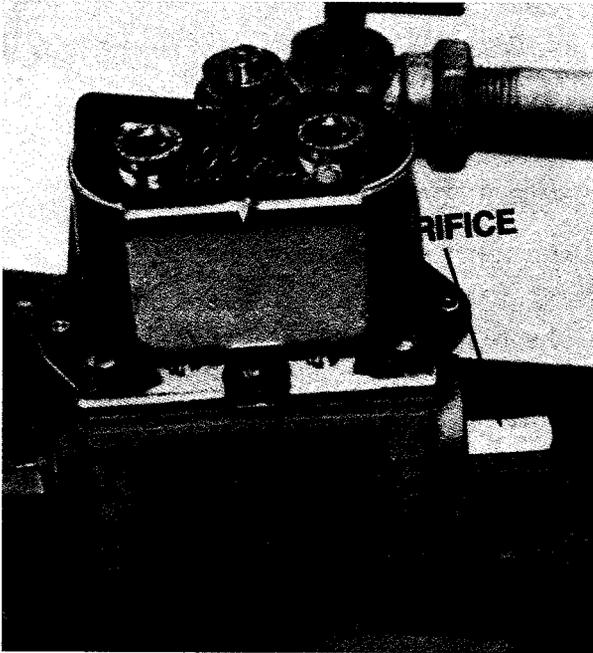
The hi-limit thermostat is many times referred to as the safety thermostat. This thermostat is located close to the heat source.

If a dryer is cycling on the hi-limit thermostat, check for restrictions in the air flow pattern.

1. Remove front panel.
2. Loosen back screw.
3. Remove front screw.
4. Remove wires and slide thermostat out.

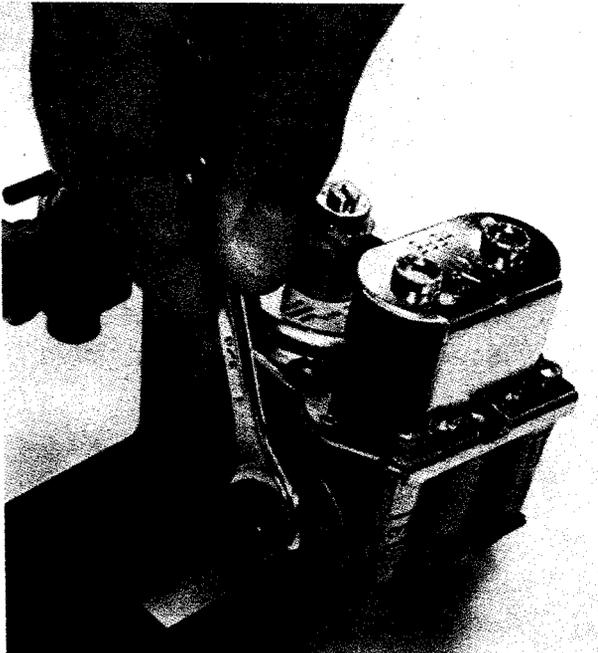
## **GAS VALVE REMOVAL**

1. Remove front panel.
2. Shut off gas supply and disconnect supply line to valve.
3. Remove two screws holding valve and burner assembly to base.
4. Disconnect wire harness' at valve coils.
5. Disconnect wires from radiant sensor molex.
6. Slide valve bracket out of slot in base and remove valve and burner assembly.
7. Remove two screws holding valve bracket and burner to underside of gas valve.



### **ORIFICE**

The orifice can be removed with a 3/8" wrench.



### **HEAT CONE**

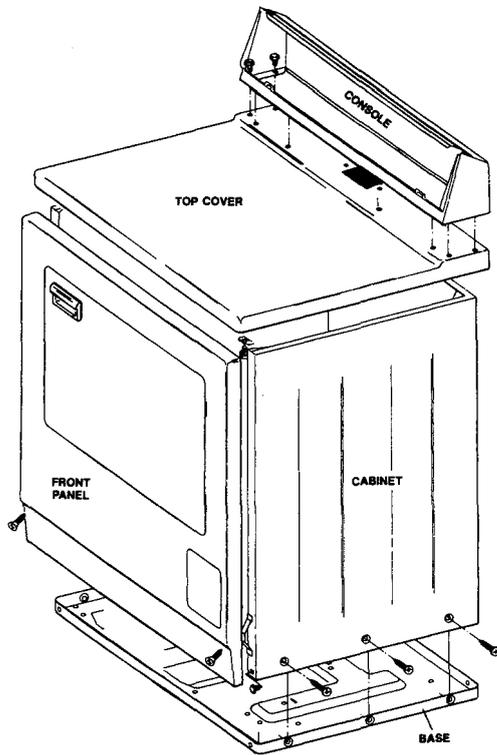
1. Remove front panel.
2. Remove gas valve.
3. Remove screw in front of cone holding cone to base.
4. Remove one screw at back of cone holding cone tab to inlet air duct.
5. Pull cone out of dryer.

### **INLET DUCT**

This duct serves to channel heated air into dryer tumbler.

1. Remove front panel.
2. Remove tumbler front, tumbler and belt.
3. Remove screws securing heat cone to base and to inlet duct.
4. Remove tumbler back. Note four screws are accessible from behind dryer.
5. Remove screws securing inlet duct.

## CABINET AND TOP COVER



### CONSOLE

1. Remove control panel assembly.
2. Remove eight screws, two on each side and four across the front, holding console to top cover.

### TOP COVER

1. Remove front panel.
2. Remove two screws (one in each front corner) which hold top cover to cabinet.
3. Remove main wire harness wiring from components on control panel.
4. Remove control panel assembly.
5. Pull main wire harness through opening in top cover.
6. Remove console.
7. Push top cover back to disengage from cabinet and remove top cover.

### CABINET REMOVAL

1. Remove front panel.
2. Remove top cover assembly.
3. Remove tumbler.
4. Remove tumbler rear.
5. Remove six screws (three on each side) holding cabinet to base frame. Remove screws at front corners and across back. Remove cabinet.



## SECTION 4. PRE-INSTALLATION CONSIDERATIONS

### LOCATING DRYER

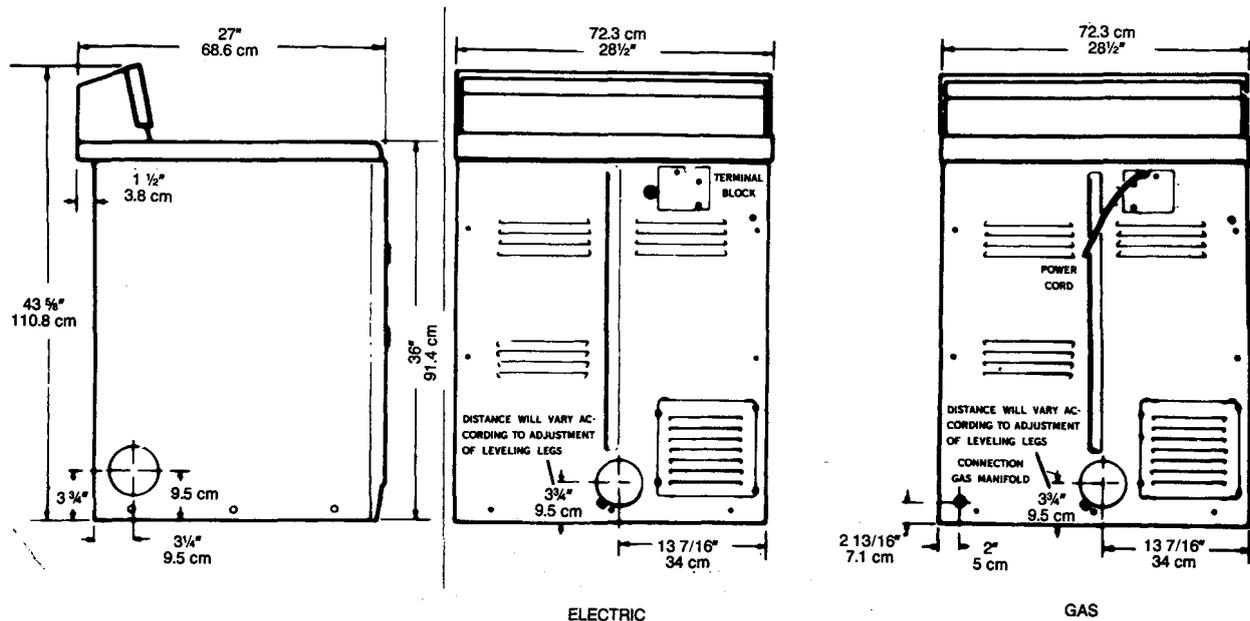
Dryer should be located as close to the washer as possible, considering availability of gas, electricity and location that makes exhausting practical.

For proper operation, it is important to make sure the room where dryer is located has adequate make-up air. This is especially important in any areas such as bedroom, bathroom or closet.

On gas dryers, adequate clearance must be maintained to insure adequate air for combustion and proper operation of the dryer. The area where the dryer is located must not obstruct the flow of combustion or ventilating air. When locating a Maytag dryer, the following dimensions should be taken into consideration.

When installing the dryer the following minimum clearances to combustibles shall apply: clearance to wall: sides - 0 inches, top - 0 inches with outside exhaust, rear - 0 inches with outside exhaust, 6 inches with inside exhaust.

### Dimensions



Plus space between cabinet and floor.

## EXHAUSTING

DO NOT EXHAUST DRYER INTO ANY WALL, CEILING, CRAWL SPACE OR A CONCEALED SPACE OF A BUILDING, VENT CONNECTION, GAS VENT OR CHIMNEY. THIS COULD CREATE A FIRE HAZARD FROM LINT EXPELLED BY THE DRYER. FOR THE SAME REASON, WE RECOMMEND ONLY METAL EXHAUST DUCT TO MINIMIZE RESTRICTED AIR FLOW AND RELIABLY INSURE THE CONTAINMENT OF EXHAUST AIR, HEAT AND LINT. NEVER INSTALL A SCREEN OVER EXHAUST OUTLET. NEVER USE PLASTIC OR OTHER COMBUSTIBLE DUCTWORK. FREQUENTLY CHECK AND CLEAN VENT HOOD TO ASSURE PROPER OPERATION.

A clothes dryer produces combustible lint and the area around the clothes dryer should be kept free of lint. It is recommended that the dryer be exhausted to the outside using 4" rigid or flexible metal ducting.

When located in a bedroom, bathroom or closet, the dryer must be exhausted to the outside of the dwelling.

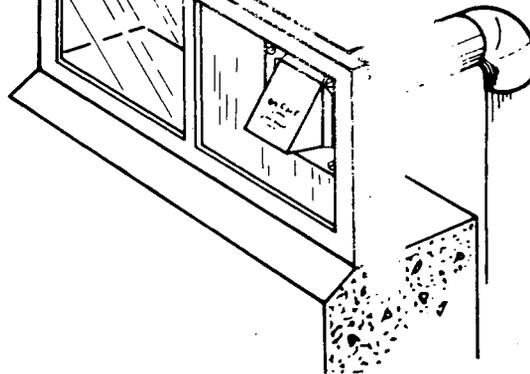
Once location of the exhaust outlet is determined, a 4 1/4" hole should be cut in the wall to accept the exhaust hood. To permit sufficient air circulation under the exhaust hood, there should be no less than a 12" clearance between the bottom of the exhaust hood and the ground. When possible, the exhaust hood should not exhaust

directly into a window well. **DO NOT TERMINATE EXHAUST UNDER A HOUSE OR PORCH.**

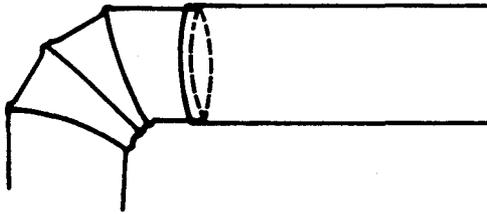
**Note:** Where the exhaust hood is to be installed through masonry, a special masonry saw is necessary to cut the hole.

Install the exhaust hood and secure with screws to the outside wall and seal with caulking compound.

The exhaust hood may also be installed through a window by installing a window plate. Window plates are available. Install as shown.



Install ductwork from the dryer to exhaust hood. All joints must be made so exhaust end of one pipe is inside the intake end of next pipe. On flexible metal ductwork, all joints should be secured with a clamp. **DO NOT** use sheet metal screws when assembling rigid ducting. These should be taped.



### **FLEXIBLE DUCTWORK LIMITATIONS**

Flexible metal ductwork should not exceed 34' of straight 4" ducting. The exhaust hood is equivalent to 8' of duct and each 90 degree bend is equivalent to 8'. As an example, if an exhaust hood is used and two 90 degree bends, the maximum straight run would be 10'.

**Note:** If the radius of a bend with 4" duct is 12" or greater, the bend can be considered a straight run. No more than three 90 degree bends should be used in any run with an exhaust hood.

### **RIGID DUCTWORK LIMITATIONS**

Rigid metal ductwork should not exceed 50' of straight 4" duct. Each 90 degree elbow and the exhaust hood should be considered equivalent to 8' of straight ductwork. For example, if an exhaust hood and two 90 degree elbows are used, the maximum straight duct allowed would be 26'. Not more than three 90 degree elbows should be used in any rigid ductwork run with an exhaust hood. Four feet of straight

duct should be allowed between 90 degree elbows.

### **GUIDE FOR PROPER EXHAUSTING**

1. Keep the duct as short as possible. The longer the duct the more friction and resistance to air flow.
2. Keep the number of elbows and the degree of bend to a minimum to minimize air resistance due to dynamics. We recommend that not over 3 elbows be installed in the duct.
3. The smoother the inside surface of the duct, the less the friction and the greater the air flow. It is because of this that we recommend using smooth rigid aluminum ductwork. Flexible ductwork has a spiral washboard surface which increases friction and sets up dynamic turbulence which decreases air flow.
4. Never reduce the area of the duct. A 4" round duct has an area of approximately 12.57 square inches. The area of the duct should never be reduced below this figure.
5. Dryers should be exhausted to the outside of the building.
6. Do not exhaust dryer into any wall, ceiling, crawl space, a concealed space of a building, vent connection, gas vent or chimney. A lint accumulation in such an area creates a fire hazard.
7. When located in a bedroom, bathroom or closet, the dryer must be exhausted to the outside of the dwelling.
8. Do not install vent hood at ground level. There should be a 12" (30.5cm) clearance between the

bottom of the exhaust hood and the ground.

9. All exhaust duct joints should be taped to prevent lint and moisture laden air from being expelled into the building.
10. The exhaust duct and vent hood should be checked periodically and cleaned as necessary to prevent a lint build-up.

CFM AIR FLOW	PERFORMANCE	LENGTH of STRAIGHT DUCT	
		RIGID	FLEXIBLE *Note 2
160 +	Best	23'	13'
150	Good	34'	18'
140	Acceptable	45'	26"
130	Marginal *Note 1	50'	34'

**NOTE No. 1**

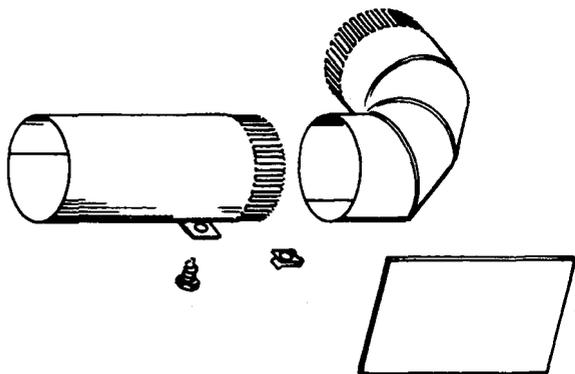
Chart lists this as the maximum for "marginal" operation. Under this condition, the exhaust duct and vent hood must be free of lint, the lint filter must be clean and the dryer must not be overloaded. If these conditions are not met, the dryer could cycle on the hi-limit thermostat extending the dry time. It is for this reason that we list this as "marginal" operation and the maximum ducting.

**NOTE No. 2**

The figures for flexible duct apply only to the flexible metal duct. For other types of flexible ducts, refer to manufacturer's design data concerning air friction loss. Friction loss in inches of water, as measured by a manometer, should never exceed .58" of water column.

## LEFT SIDE OR BASE EXHAUST

If dryer is to be exhausted out the left side or through base, use the accessory 304652 exhaust kit, instructions are included with the kit.



### Nonexhausted Installations

**Always exhaust gas dryers to the outside.**

#### NOTE

IN CANADA, ALL DRYERS MUST BE EXHAUSTED TO THE OUTSIDE.

If the installer has determined that a nonexhausted installation will be made, a 303736 exhaust deflector should be installed. Maintain a 6" clearance between the back of the control panel and the wall.

**Note:** A dacron mesh lint bag, Part No. 3011353, is available for use on nonex-

hausted installations. Although the lint screen and the lint bag will retain most of the lint expelled, a certain amount of lint will be expelled into the laundry area. **AN ACCUMULATION OF LINT CREATES A FIRE HAZARD. THEREFORE, FREQUENT CLEANING OR VACUUMING OF THE LINT ACCUMULATION IS NECESSARY.**

### ADDITIONAL FACTS ABOUT EXHAUSTING

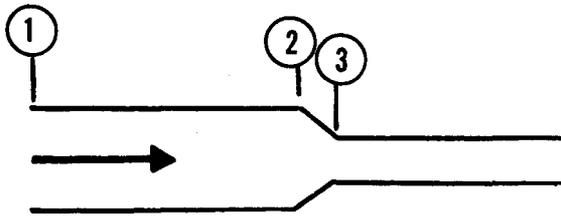
These large capacity Maytag dryers are designed to move 180 cubic feet of air per minute. As exhaust ducting is added, it imposes resistance to the flow of air which must be overcome by the dryer exhaust fan. This resistance is due to static, velocity and dynamic pressure which is expressed in inches of water column as measured by a manometer.

There are two types of pressure losses:

1. Static or **friction** losses and
2. Velocity or **dynamic** losses.

**Static or friction losses.** (We will refer to this as friction.)

Friction losses are caused by the actual rubbing of the air molecules along the sides of the duct. Pressure losses in straight runs of duct are referred to as friction losses. The pressure would drop due to friction losses between points 1 and 2 of the duct in the following drawing.



**Dynamic losses** result from air turbulence which occur when the air flow changes direction or when there is a change in the cross-sectional area of the duct.

1. A change of cross-sectional area is illustrated in the above drawing. The reducer decreases the cross-sectional area which increases the velocity and results in dynamic pressure loss. The amount of friction through a reducer varies directly with the square of the velocity of air. This simply means that the resistance through a reducer is very high as compared to a straight run of duct.

Proper operation and efficient drying is dependent upon proper air flow. The dryer is designed for use of a 4" duct and reductions in the duct are not recommended.

## 2. Dynamics

Between 2 and 3 in the drawing, a reducer has been added to the duct.

The reducer opposes the air flow and sets up air turbulence which results in a pressure loss.

There are many factors influencing air flow such as the considerations listed under Guide for Proper Exhausting. In addition to these items, the operator's practices also affect air flow, efficiency and the resulting drying times.

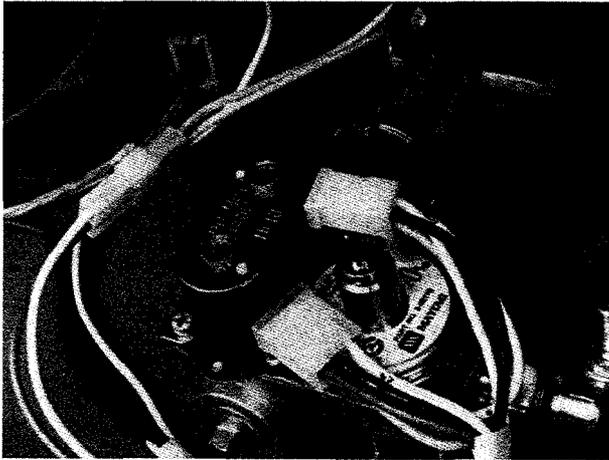
A. Failure to clean the lint filter regularly will result in a reduction in air flow and will cause the dryer to take longer to dry the clothes.

B. Overloading restricts proper air flow through the drum which will also decrease efficiency and extend the dry time.

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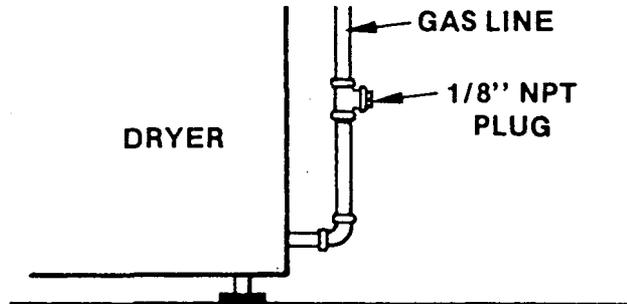
## ADJUSTING MAIN BURNER

To adjust main burner flame, loosen screw holding air shutter and rotate shutter until a yellow flame appears. Then reverse the rotation of the shutter until the yellow disappears and the burner has a steady blue flame. To achieve this, it may be necessary to adjust the flame until only a very small yellow flame is at the tip of the blue flame. After a period of about five minutes, all of the yellow should disappear. If not, readjust the shutter slightly. When the desired results are achieved, tighten the screw to lock the shutter in place.



Additionally, a 1/8" N.P.T. (Natural Pipe Thread) plugged tapping, accessible for test gage connection, must be installed immediately upstream of the gas supply connection to the dryer. Refer to your local gas utility or plumbing contractor should you have questions on the installation of the plugged tapping.

**AGA Recommends:**



**GAS CONNECTION**

Gas operated dryers are equipped with a burner orifice for operation on NATURAL gas. If the dryer is to be operated on LP gas, it must be converted correctly for safety and proper performance. Conversion kits from NATURAL to LPG, or LPG to NATURAL are available. If other conversions are required, check with local gas utility for specific information concerning conversion requirements.

**NOTE**

The conversion should always be performed by a qualified service technician.

A 1/2" gas supply line is recommended and must be reduced to connect to the 3/8" gas line on the dryer.

The dryer and its individual shutoff valve must be disconnected from the gas supply piping system during any pressure testing of the system at test pressures in excess of 1/2 P.S.I.G.

In other words, if the test pressure is above 1/2 P.S.I.G., disconnect pipe for dryer before testing pipe. If it is less than 1/2 P.S.I.G. it's ok to leave connected but shut off internal shut-off valve in dryer.

The gas supply should be connected to the dryer using pipe joint compound or a Teflon® tape on male thread connections.

**Note:** Any pipe joint compound used must be resistant to the action of any liquified petroleum gas.

Turn on gas supply and open the shutoff at the gas valve. Check all gas

connections for leaks using a soap solution. If bubbles occur, tighten connections and recheck. **DO NOT use an open flame to check for gas leaks.**

**Note:** As a courtesy, many local gas utilities will inspect a gas appliance installation. Check with your utility to see if this service is provided in your area.

### **GAS IGNITION**

This dryer uses an automatic ignition system to light the main burner when the dryer is turned on.

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## **ELECTRICAL REQUIREMENTS**

**OBSERVE ALL NATIONAL ELECTRICAL CODES AND LOCAL CODES AND ORDINANCES**

### **ELECTRICAL SERVICE -- GAS MODELS**

#### **120 VOLTS, 60 HZ ONLY**

A 120 volt, 60 Hz, 15 ampere fused electrical supply is required. An individual branch (or separate) circuit serving only this appliance is recommended. **DO NOT USE AN EXTENSION CORD** unless it meets all requirements as outlined for grounding, polarizing (3-wire) and capacity. Wire size should be at least No. 14.

**BEFORE PLUGGING IN POWER CORD, OPERATION, OR TESTING, follow grounding instructions in Grounding Section.**

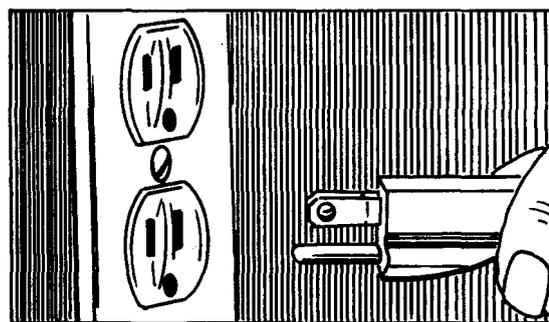
### **GROUNDING -- 120 VOLTS, 60 HZ**

#### **IMPORTANT SAFETY PRECAUTIONS**

**Warning:** To prevent unnecessary risk of fire, electrical shock or personal injury, all wiring and grounding must be done in accordance with the National Electrical Code and local codes and ordinances. It is the personal responsibility and obligation of the appliance owner to provide adequate electrical service for this appliance.

#### **ELECTRICAL GROUND IS REQUIRED ON THIS APPLIANCE**

This appliance is equipped with a power supply cord having a 3-prong grounding plug. For your safety, this cord must be plugged into a mating 3-prong type wall receptacle which is **properly wired, grounded and polarized.**



If a mating wall receptacle is not available, contact a qualified electrician to

have the wall receptacle replaced. If there is any question, local building officials or electrical utility should also be consulted.

**WARNING**

**DO NOT UNDER ANY CIRCUMSTANCES, REMOVE THE ROUND GROUNDING PRONG FROM POWER SUPPLY CORD.**



**ADDITIONAL GROUND PROCEDURE -- WHERE LOCAL CODE PERMITS**

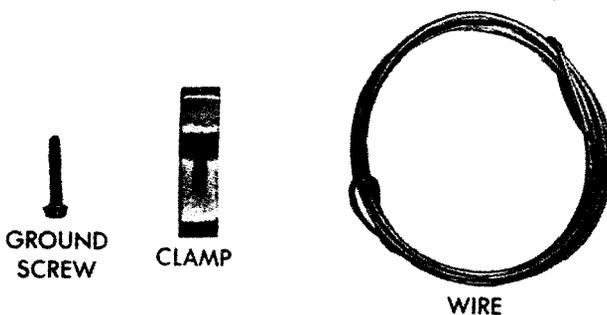
An external ground wire, clamp and screws are provided for assistance in meeting local codes. Where approved, it is recommended this additional ground be installed. A proper external ground **MUST** be determined prior to wire hookup. Consult local building officials and qualified electrician in the event any questions exist.

**WARNING**

**ALL GROUNDING AND WIRING MUST BE DONE IN ACCORDANCE WITH NATIONAL AND LOCAL CODES.**

**U.S. MODELS**

**The National Electrical Code ANSI/NFPA, NO. 70, Latest Revision and local codes and ordinances.**



**CANADIAN MODELS**

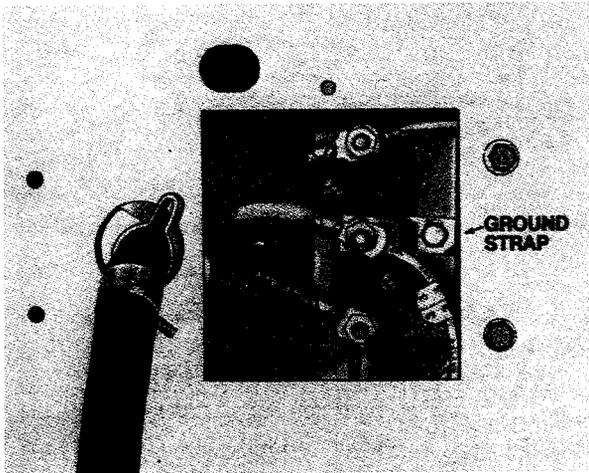
**The Canadian Electrical Code C.22.1 Part 1 and Local Codes.**

**ELECTRIC MODELS**

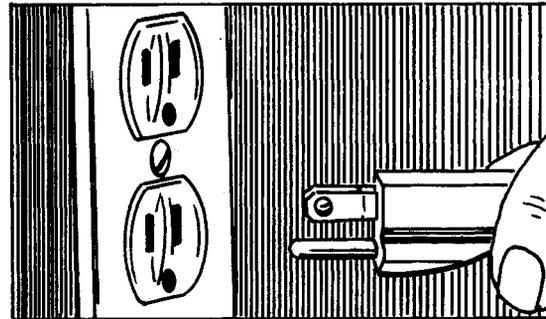
**UNITED STATES ONLY**

Electric models are equipped with a ground strap for grounding the dryer, which is connected at the factory to the P2 terminal post. To avoid the possibility of electrical shock, the dryer must

not be connected to a 120 volt 2-wire circuit.



On gas models, the electrical power cord comes already attached to the dryer. Plug the power cord into a nearby 120 volt, 3-prong properly wired grounded receptacle.



The use of the ground strap is permitted by the national electrical code; however, if use of the ground strap is prohibited by local codes, the dryer must be grounded in accordance with local codes.

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## ELECTRICAL CONNECTIONS

### **GAS MODELS**

Maytag gas operated dryers are designed for operation on 120 volt, 60 Hz AC approved electrical service, protected by a 15 amp fuse or comparable circuit breaker.

### **ELECTRIC MODELS**

#### **Canadian Models - 120/240 Volt**

ALL CANADIAN MODELS ARE SHIPPED WITH THE POWER CORD ATTACHED.

The dryer power cord should be plugged into a 30 amp receptacle and fused through a 30 amp fuse on both sides of the line.

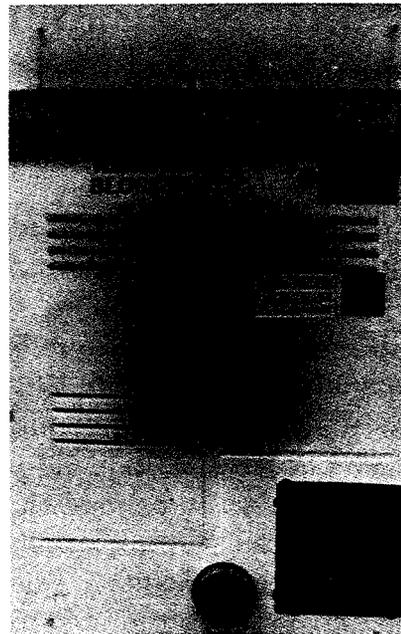
#### **NOTE**

It is not permissible to convert a dryer in Canada to 208 volts.

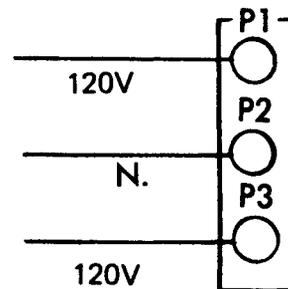
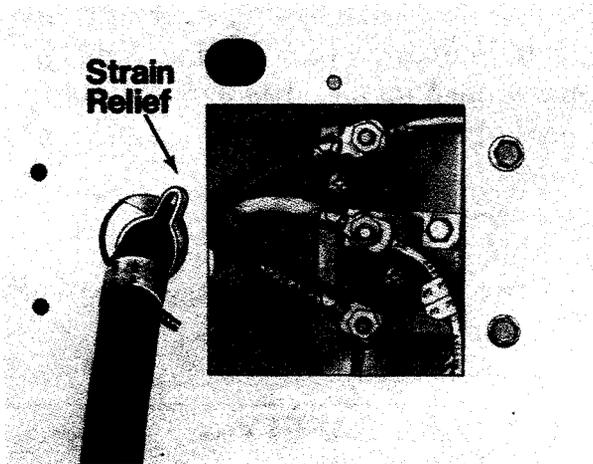
**U.S. Models - 120/240 volt or 120/208 volt**

Maytag electric dryers are manufactured to operate on 120/240 volt, 60 Hz AC approved electrical service. Should the dryer be operated on a 208 volt electrical system, the dryer must be converted. A heating element kit is available, Part No. 304837, which is used to convert the dryer from 240 volt to a 208 volt system.

The circuit should be fused through a 30 amp fuse or comparable circuit breaker, on both sides of the line. The service cord receptacle should be wired with no smaller than a No. 10 wire and be sure a strain relief is used.



2. The neutral line of the service cord must always be connected to the P2 service post. The two 120 volt lines of the service cord then go to the P1 and P3 terminal block posts as shown.



**Note:** The service cord is not provided with electric model dryers. Connect the power cord as follows:

1. Remove the terminal block cover plate on the back panel of the dryer to gain access to the terminal block.
3. Be sure terminal block nuts are tight and replace terminal block cover.
4. Plug power cord into receptacle.

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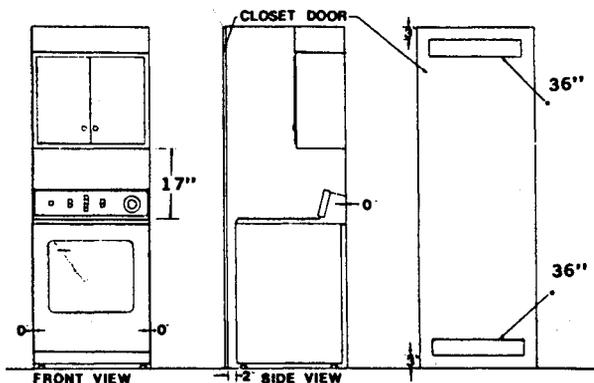
## ADDITIONAL INFORMATION

### ALCOVE OR CLOSET INSTALLATION

When the dryer is to be installed in an alcove area or a closet, clearance should be provided around the dryer for an adequate air supply and for ease of installation and servicing. Clearances for the companion automatic washer should also be considered. An appliance installed in a closet shall have no other fuel burning appliance installed in the same closet. The dryer must be exhausted to the outside to minimize excessive lint accumulation and to maintain good drying. We recommend allowance for more clearance than the minimum installation clearances as shown.

#### Make Up Air Openings.

Each opening area must have a minimum of 36 square inches (more is better). These openings must not be obstructed. (Louvered door with equivalent air opening is acceptable.)



MAKE UP AIR OPENINGS

## MOBILE HOME INSTALLATION

Maytag dryers are certified by the American Gas Association and bearing a label stating they are suitable for installation in mobile homes. When installed in mobile homes, the installation must conform to the Manufactured Home Construction and Safety Standard Title 24 CRF, Part 32-80.

When installing a dryer in a mobile home, provisions for anchoring the dryer should be made. An anchor bracket kit is available, Part No. 303740. Instructions for installing the anchor brackets are contained in each kit.

All mobile home installations must be exhausted to the outside with the exhaust duct termination securely fastened to the mobile home structure, using materials that will not support combustion. Exhaust the dryer using flexible metal exhausting materials, and locate in an area that provides adequate make-up air. The exhaust duct may not terminate beneath the mobile home.

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## PERSONAL SAFETY PRECAUTIONS

With a gas dryer, to prevent the possibility of hazard due to electrical shock, never plug dryer electric cord into a receptacle which is not adequately grounded and in accordance with local and national codes. See installation instructions with dryer.

Electrical dryers with a UL symbol on the data plate have been listed with Underwriters' Laboratories, Inc.; those with a CSA symbol on the data plate have been listed with Canadian Standards Association. Gas dryers with an A.G.A. symbol on the data plate have been listed with The American Gas Association; those with a CGA symbol on the data plate have been listed with the Canadian Gas Association. Nevertheless, as with any equipment using electrical and moving parts, there is a potential hazard. To use this appliance safely, the operator should become familiar with the instructions for operation of the dryer and always exercise care while using the appliance.

1. To avoid possibility of fire or explosion:

A. Items containing foam rubber (may also be labeled Latex foam) or foam rubber-like materials must not be dried on a heat setting. Foam rubber materials, when heated, can under certain circumstances produce fire by spontaneous combustion.

B. Any material on which you have used a cleaning solvent, or which is saturated with flammable liquids or solids, should not be placed in the dryer until all traces of these flammable liquids or solids and their fumes have been removed. There are many highly flammable items used in homes, such as: acetone, denatured alcohol, gasoline, kerosene, some liquid household cleaners, some spot removers, turpentine, waxes and wax removers.

2. CHILDREN SHOULD NEVER BE PERMITTED TO OPERATE, OR PLAY IN, WITH OR AROUND THIS DRYER.



## SECTION 5. GENERAL INFORMATION

GENERAL SPECIFICATIONS		
DIMENSIONS	Height to top of control cover	43-5/8" - 110.8 cm
	Height to top of cabinet	36" - 91.4 cm
	Width	28 1/2" - 72.4 cm
	Depth (including 1 1/2" overhang)	27" - 68.6 cm
CAPACITY		A full washer load is a full dryer load.
MOTOR	Thermoprotected automatic motor.	1/2 HP, 115 V, 60 HZ.
AIR FLOW	Per minute exhausted from dryer.	180 cu. ft.
DRUM SPEED		47 RPM
ROTATION		Clockwise when viewed from the front.

### HEAT SOURCE

#### GAS

1. Single port valve - capable of providing 22,000 BTU.
2. Direct ignition by igniter bar.
3. The circuit should be fused with a 15 amp fuse or comparable circuit breaker. Maximum draw is 6 amps.

#### *ELECTRIC - 240 Volts*

1. Nichrome helix coil rated at 5300 watts at 240 volts, AC.
2. Total wattage - including drive motor - 5600.
3. The circuit should be fused with a 30 amp fuse or comparable circuit breaker on both sides of the line. Maximum draw is 25 amps.

# MODEL CHART

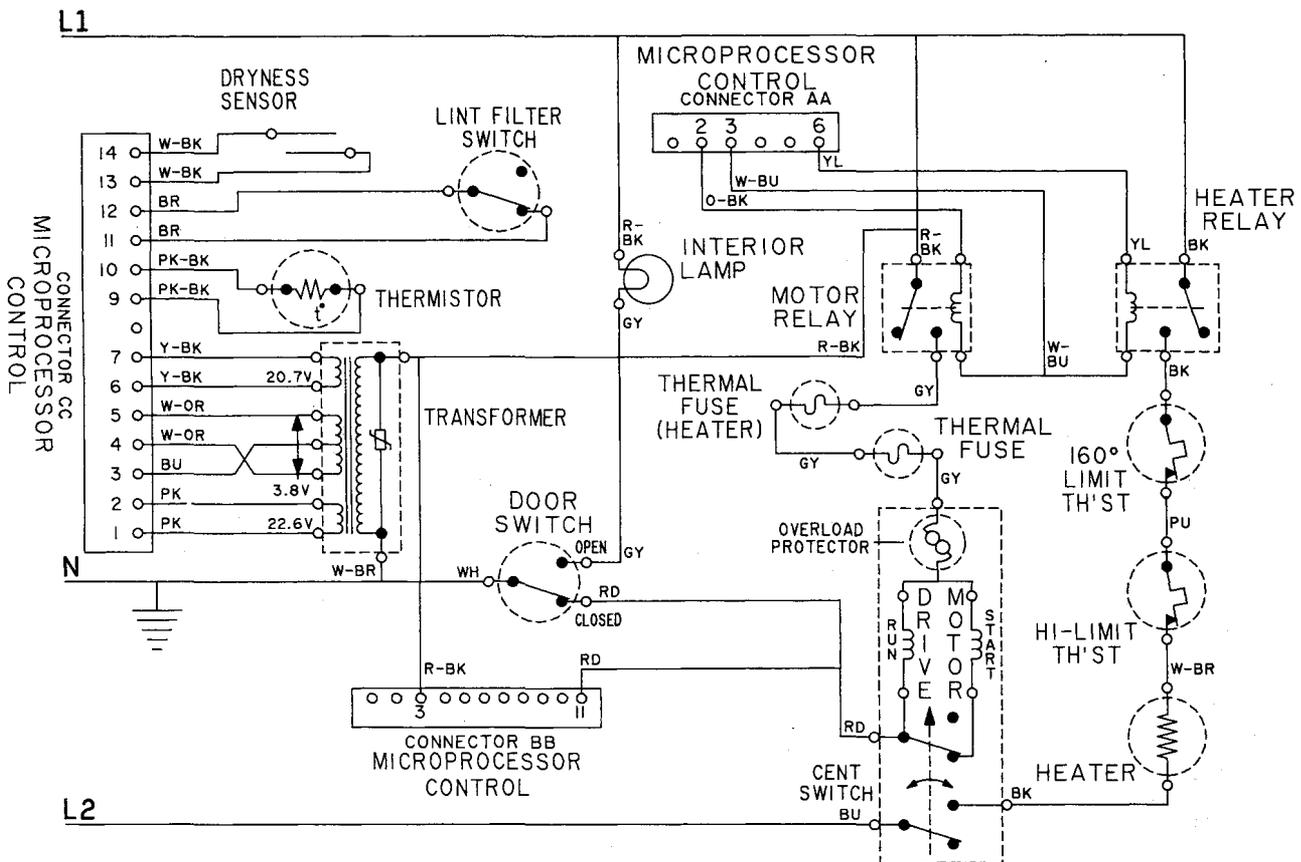
## DRYERS OF THE 1990 LINE

MODELS	CONTROL TYPE	HEAT SETTING	CYCLE SIGNAL	PRESS CARE	DRUM LIGHT	DAMP DRY	WRINKLE RELEASE	AIR FLUFF
D9900	ELEC & TIME	5	ADJUST	OPT	X	X	X	99
D9800 E	ELEC & TIME	3	ADJUST	OPT	X	X	X	20
D9700 E	ELEC & TIME	3	X	OPT	-	X	X	20
D8600 E	AUTO & TIME	2	X	OPT	-	X	X	15
D8500	AUTO & TIME	3	X	OPT	-	X	X	15
D8420 E	AUTO & TIME	2	X	X	-	X	X	20
D8410	AUTO & TIME	1	X	X	-	X	X	20
D8300	AUTO & TIME	2	X	-	-	X	X	15
D8200	AUTO ONLY	2	X	-	-	-	-	25
D8000 E	AUTO ONLY	1	X	-	-	-	-	25
D7800 E	AUTO & TIME	3	X	X	-	X	X	20
D7600 E	AUTO & TIME	3	X	-	-	X	X	15
D7500	AUTO ONLY	2	X	X	-	-	-	60
D7400	TIME DRY	2	-	-	-	X	X	20
D5910	AUTO & TIME	3	X	OPT	-	X	X	15
D4910	AUTO & TIME	2	X	-	-	X	X	15
D4000	AUTO ONLY	1	X	-	-	-	-	25

Abbreviation	Description
E	Canadian Model in Electric Only
OPT	Optional Press Care Feature

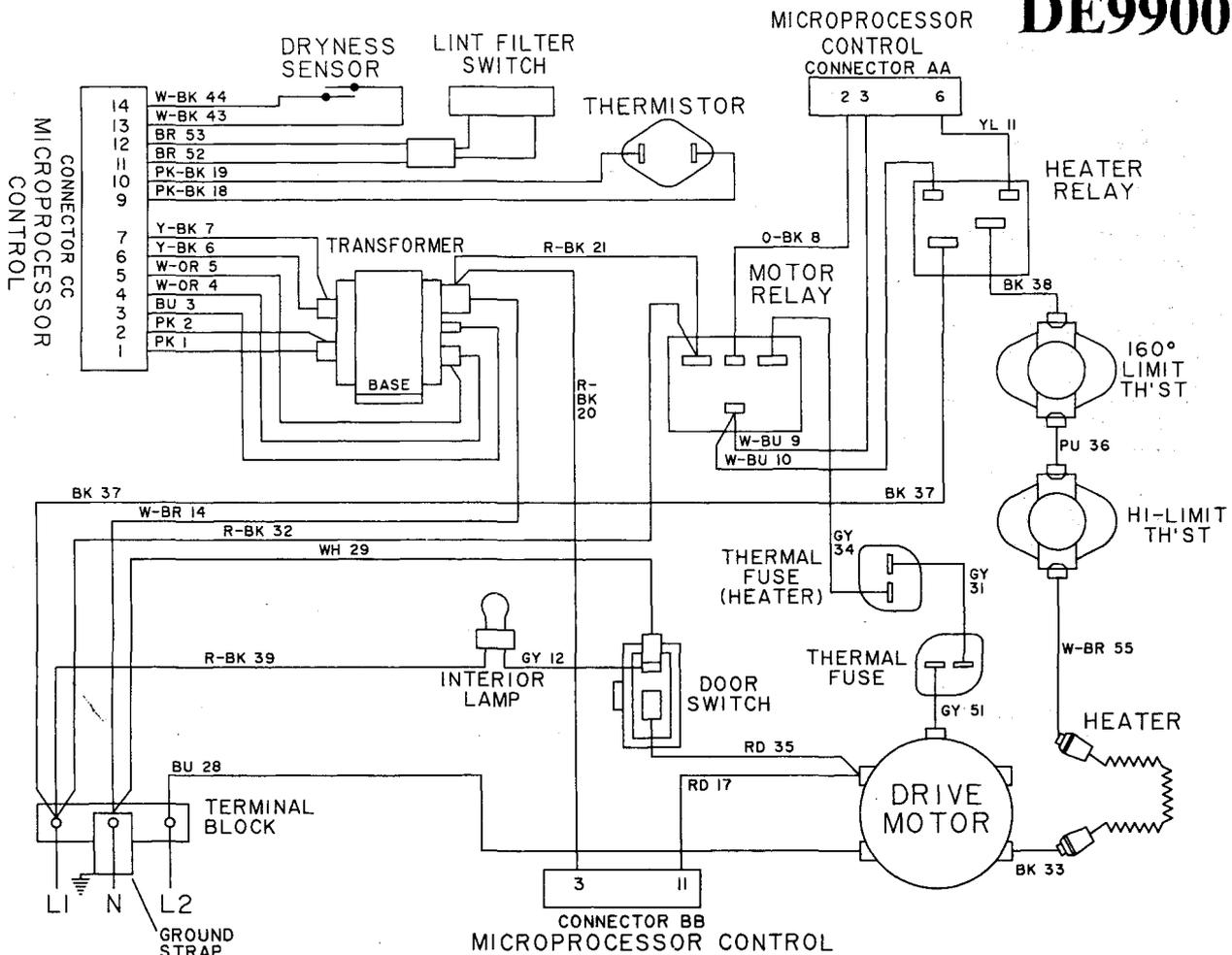
## **SCHEMATICS**

<b>ELECTRIC MODELS</b>	<b>PAGE NUMBER</b>	<b>GAS MODELS</b>	<b>PAGE NUMBER</b>
DE9900	5-4	DG9900	5-5
DE9900 (Canada)	5-32		
DE9800	5-6	DG9800	5-7
DE9800 (Canada)	5-33		
DE9700	5-8	DG9700	5-9
DE9700 (Canada)	5-34		
DE8600	5-10	DG8600	5-11
DE8600 (Canada)	5-35		
DE8500	5-12	DG8500	5-13
DE8420	5-14	DG8420	5-15
DE8420 (Canada)	5-36		
DE8410	5-16	DG8410	5-17
DE8410 (Canada)	5-37		
DE8300	5-18	DG8300	5-19
DE8200	5-20	DG8200	5-21
DE8200 (Canada)	5-38		
DE8000	5-22	DG8000	5-23
DE8000 (Canada)	5-39		
DE7800	5-24	DG7800	5-25
DE7800 (Canada)	5-40		
DE7600	5-26	DG7600	5-27
DE7600 (Canada)	5-41		
DE7500	5-28	DG7500	5-29
DE7500 (Canada)	5-42		
DE7400	5-30	DG7400	5-31
DE7400 (Canada)	5-43		
DE5910	5-12	DG5910	5-13
DE4910	5-18	DG4910	5-19
DE4000	5-22	DG4000	5-23
DE4000 (Canada)	5-39		

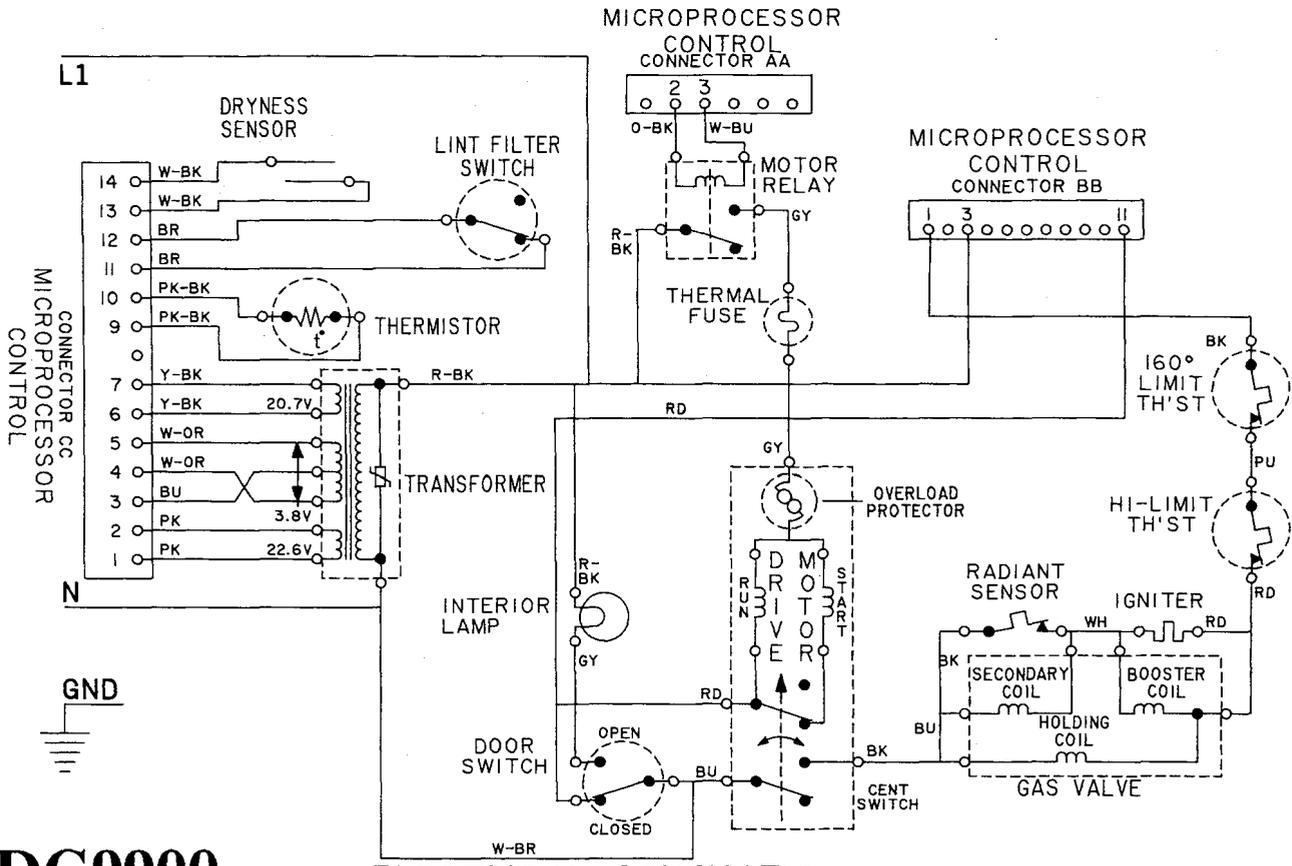


ELECTRICAL SCHEMATIC

DE9900

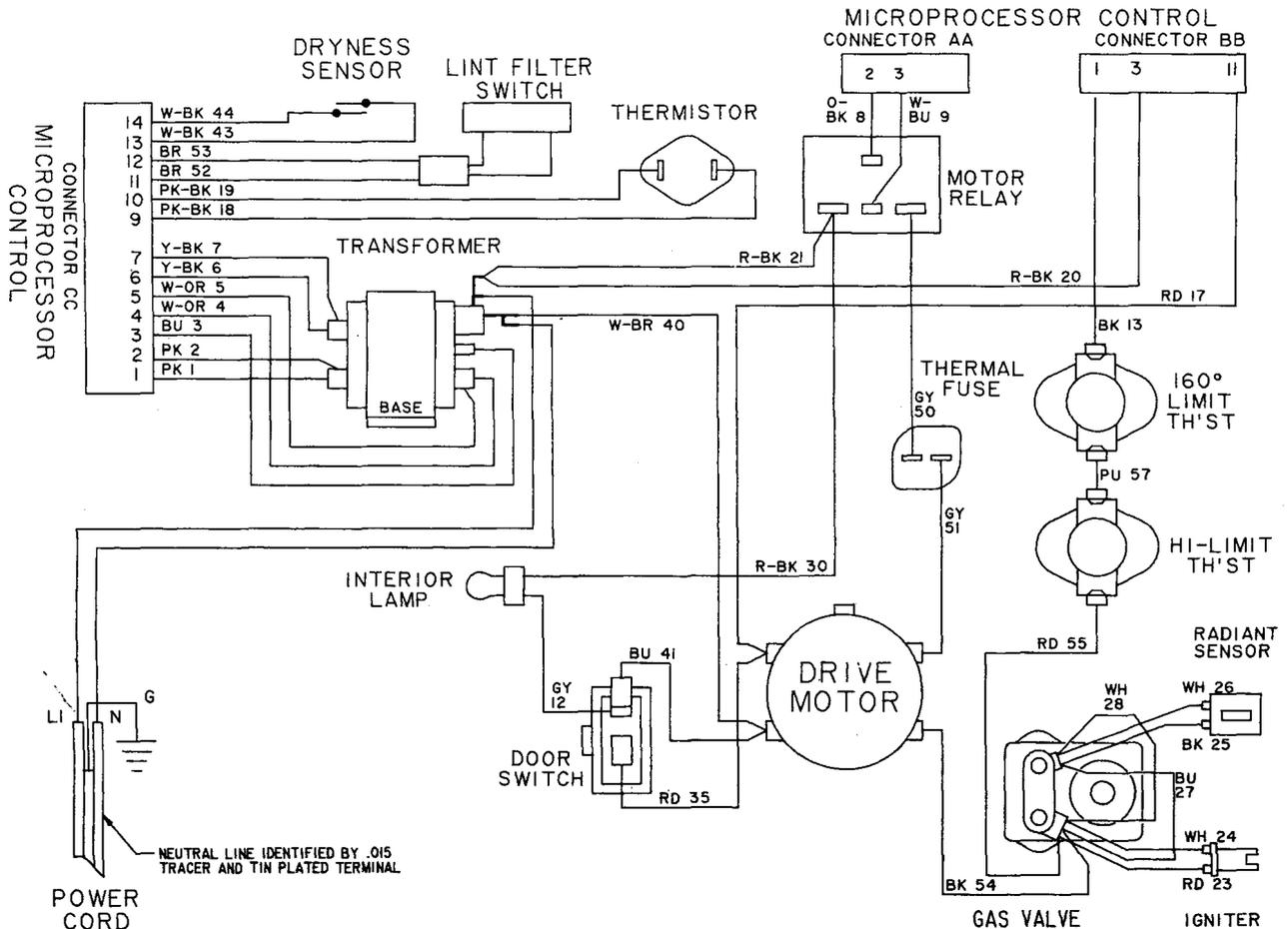


ELECTRICAL WIRING DIAGRAM



**DG9900**

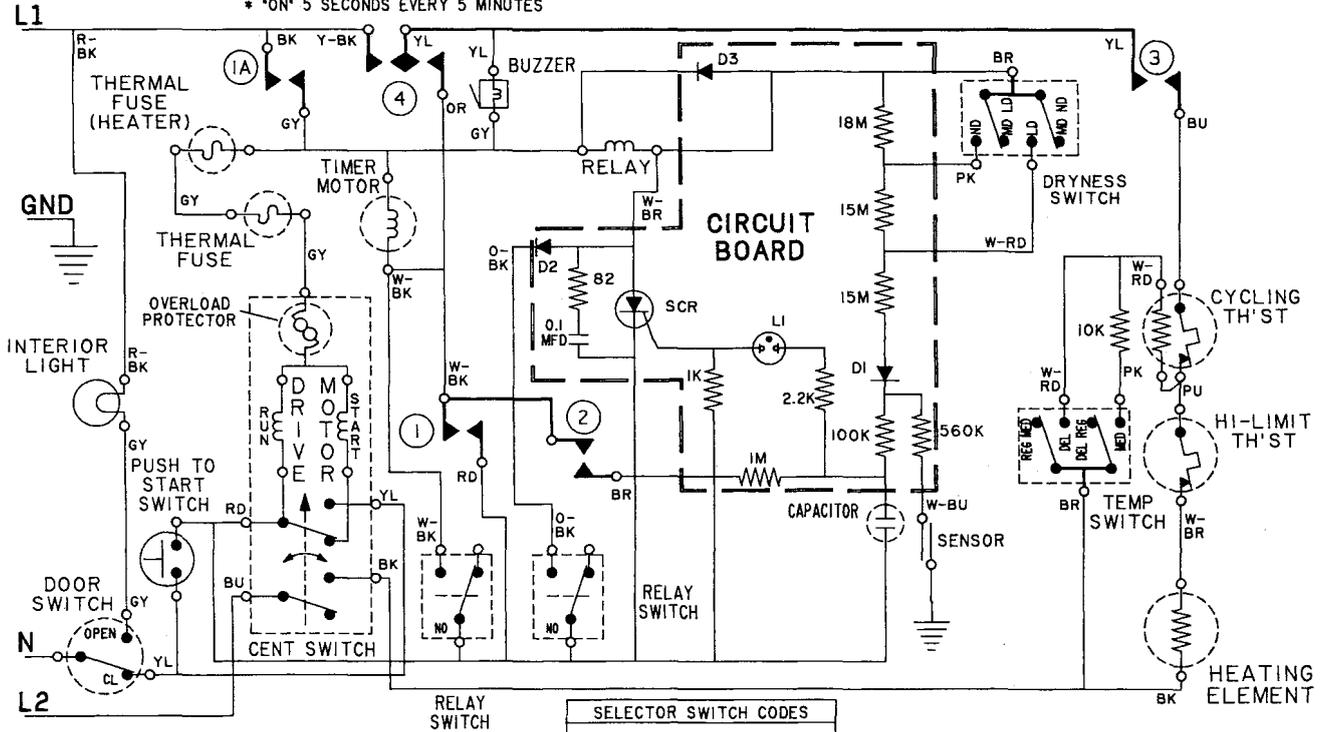
**ELECTRICAL SCHEMATIC**



**ELECTRICAL WIRING DIAGRAM**

CAM INFORMATION AND CONTACT DATA			REG	OFF	PERM PRESS	OFF	PERM PRESS W/ PRESS CARE	OFF	AIR FLUFF	OFF	TIME DRY	OFF
CAM NO.	CIRCUITS	FUNCTION										
1	WB-RD	TIMER MOTOR										
1A	BK-GY	DRIVE MOTOR										
2	WB-BR	ELECTRONIC CONTROL DISABLE										
3	YL-BU	HEATER										
4	YL-YB	HEATER										
	YL-OR	BUZZER/PULSER *										

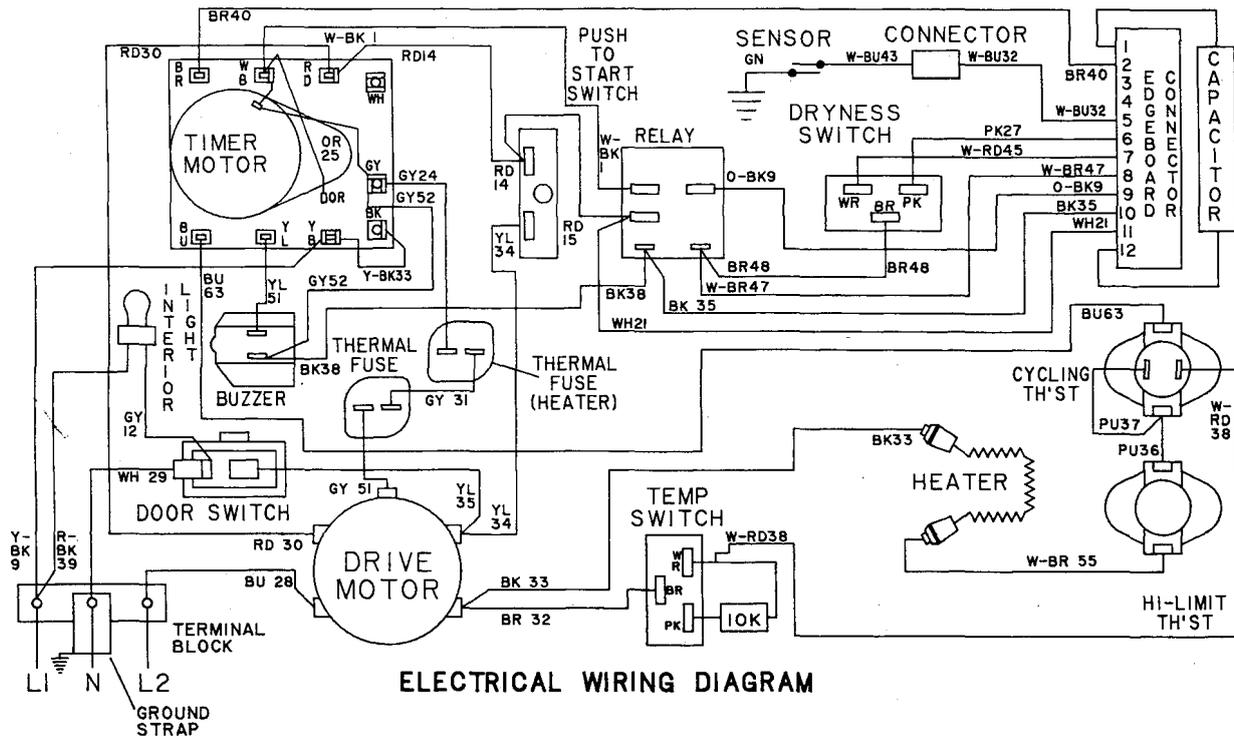
\* 'ON' 5 SECONDS EVERY 5 MINUTES



SELECTOR SWITCH CODES	
DEL- DELICATE	LD- LESS DRY
MED- MEDIUM	ND- NORMAL DRY
REG- REGULAR	MD- MORE DRY

# DE9800

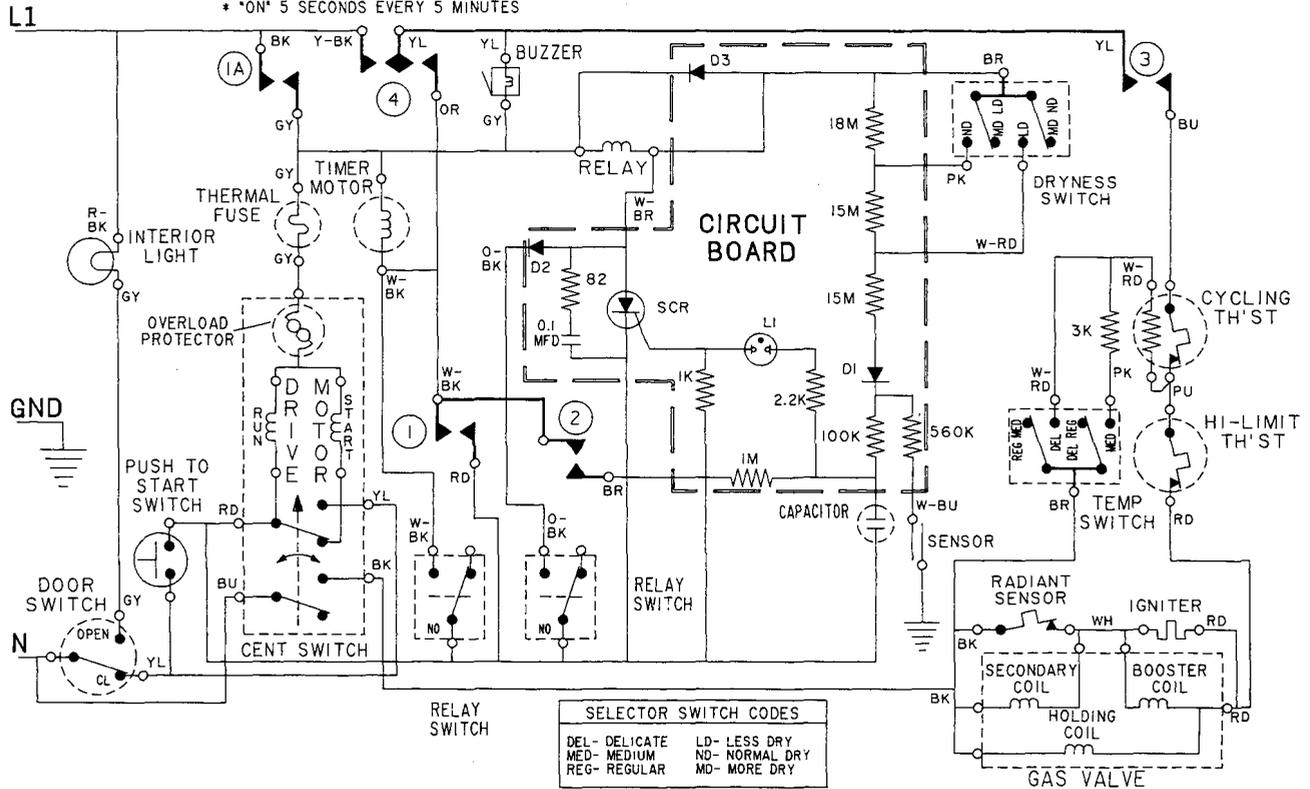
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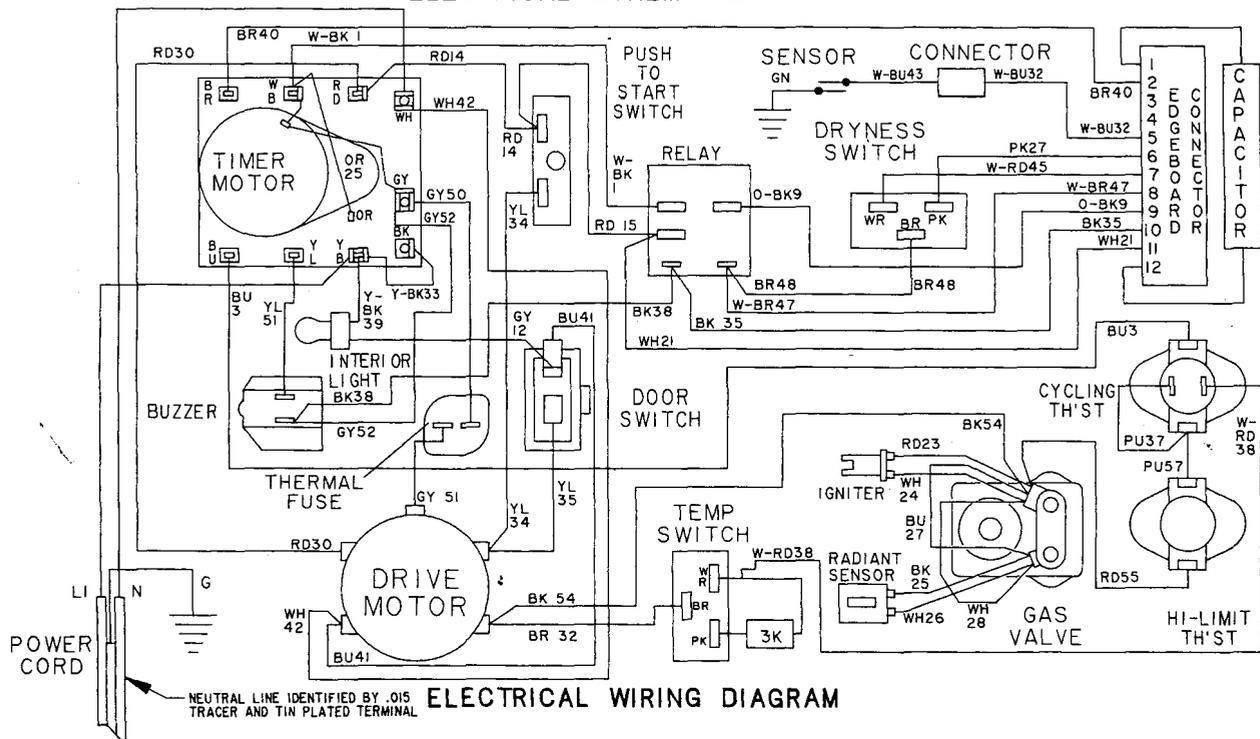
## ELECTRICAL WIRING DIAGRAM

CAM INFORMATION AND CONTACT DATA			REG	OFF	PERM PRESS	OFF	PERM PRESS W/ PRESS CARE	OFF	AIR FLUFF	OFF	TIME DRY	OFF
CAM NO.	CIRCUITS	FUNCTION										
1	WB-RD	TIMER MOTOR	■	■	■	■	■	■	■	■	■	■
1A	BK-GY	DRIVE MOTOR	■	■	■	■	■	■	■	■	■	■
2	WB-BR	ELECTRONIC CONTROL DISABLE	■	■	■	■	■	■	■	■	■	■
3	YL-BU	HEATER	■	■	■	■	■	■	■	■	■	■
4	YL-YB	HEATER	■	■	■	■	■	■	■	■	■	■
	YL-OR	BUZZER/PULSER *	■	■	■	■	■	■	■	■	■	■

\* 'ON' 5 SECONDS EVERY 5 MINUTES

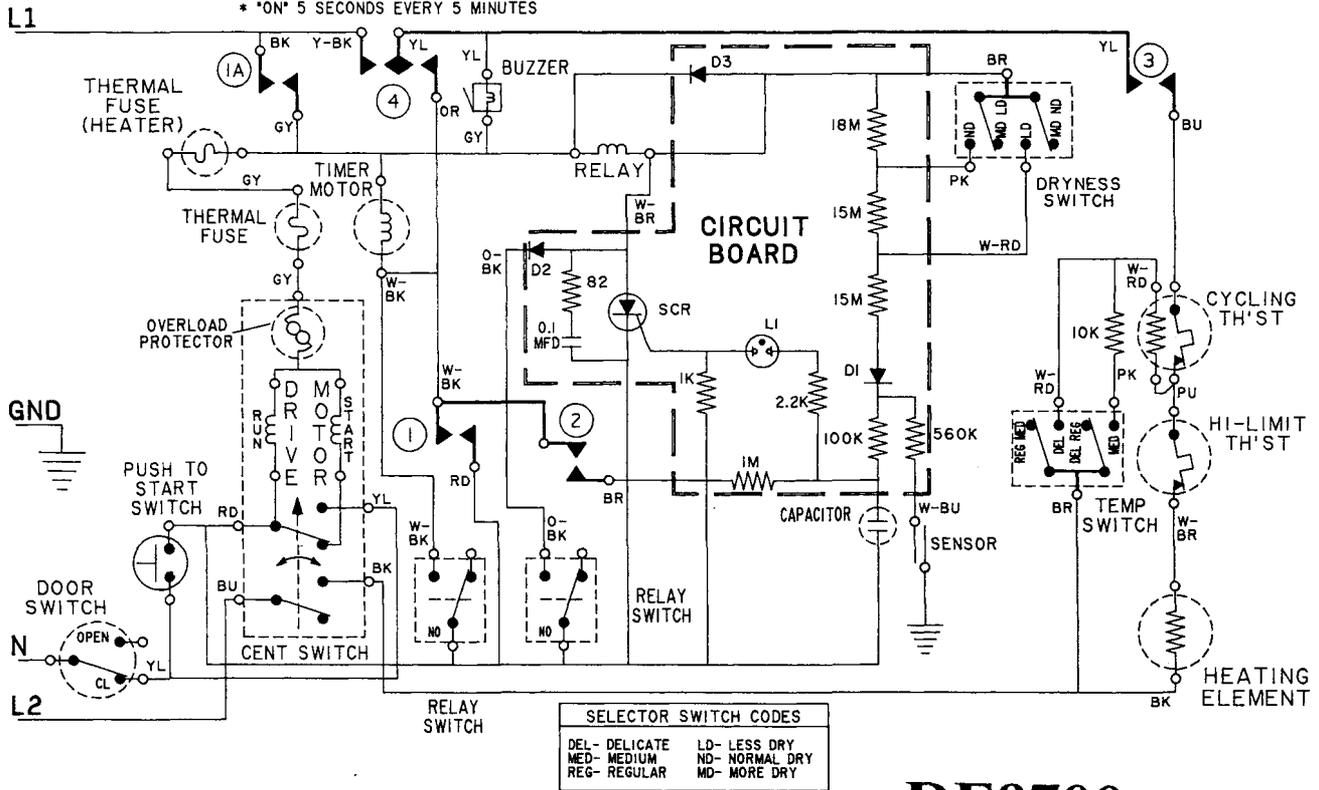


**ELECTRICAL SCHEMATIC**



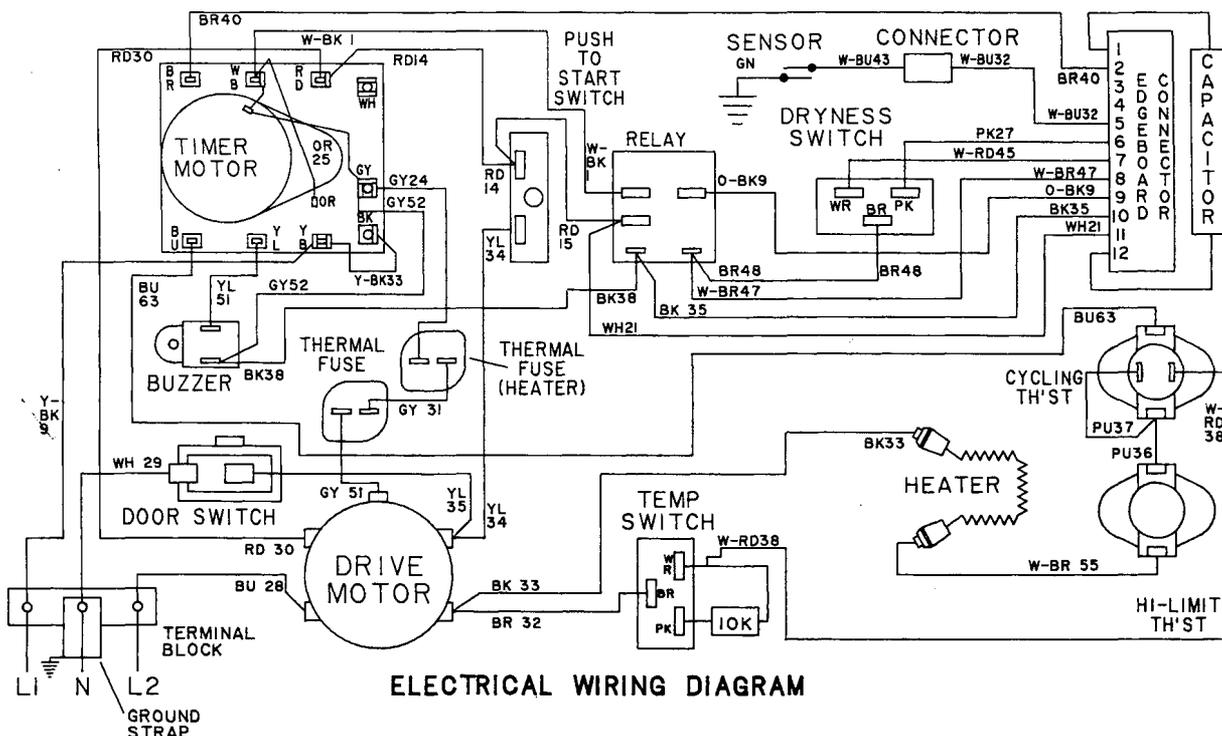
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CAM NO.	CIRCUITS	FUNCTION						
1	WB-RD	TIMER MOTOR						
1A	BK-GY	DRIVE MOTOR						
2	WB-BR	ELECTRONIC CONTROL DISABLE						
3	YL-BU	HEATER						
4	YL-YB	HEATER						
	YL-OR	BUZZER/PULSER *						

\* ON 5 SECONDS EVERY 5 MINUTES



ELECTRICAL SCHEMATIC

# DE9700

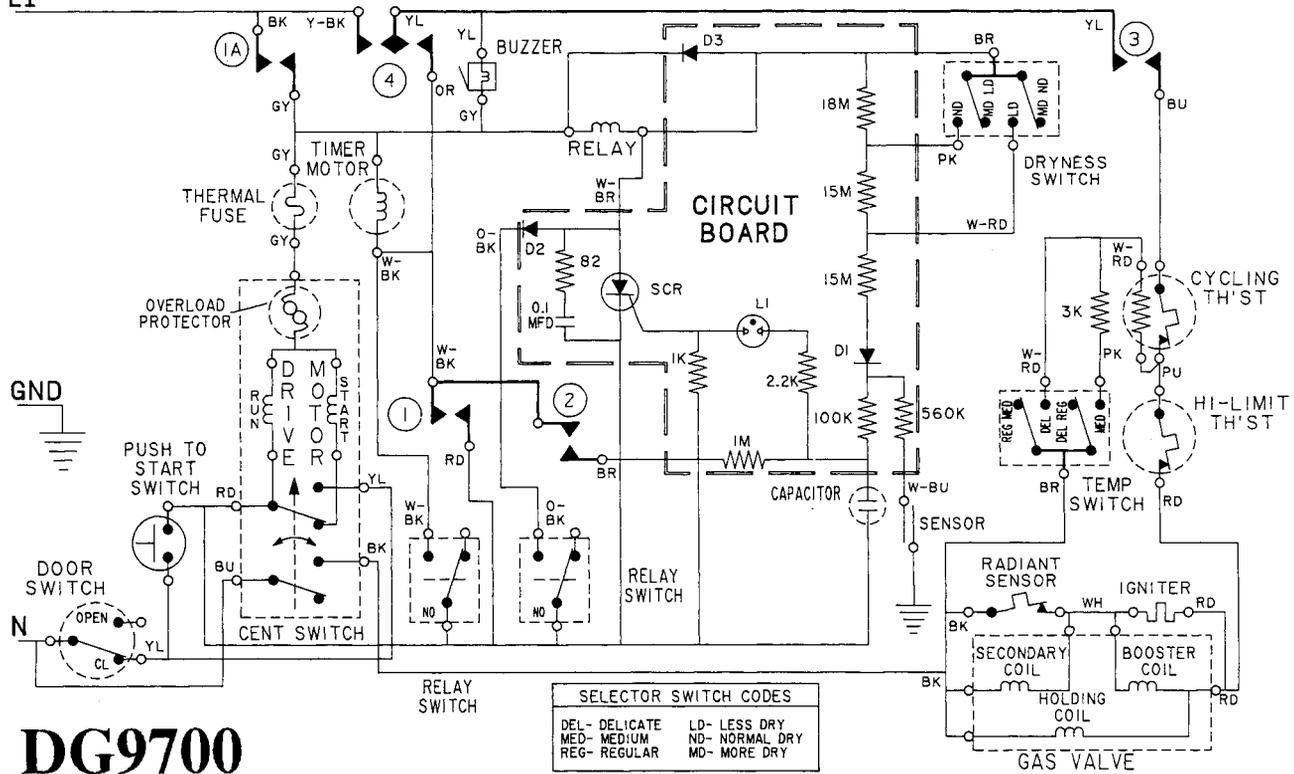


ELECTRICAL WIRING DIAGRAM

CAM INFORMATION AND CONTACT DATA			REG	OF	PERM PRESS	OF	PERM PRESS W/ PRESS CARE	OF	AIR FLUFF	OF	TIME DRY	OF
CAM NO.	CIRCUITS	FUNCTION										
①	WB-RD	TIMER MOTOR										
①A	BK-GY	DRIVE MOTOR										
②	WB-BR	ELECTRONIC CONTROL DISABLE										
③	YL-BU	HEATER										
④	YL-YB	HEATER										
	YL-OR	BUZZER/PULSER *										

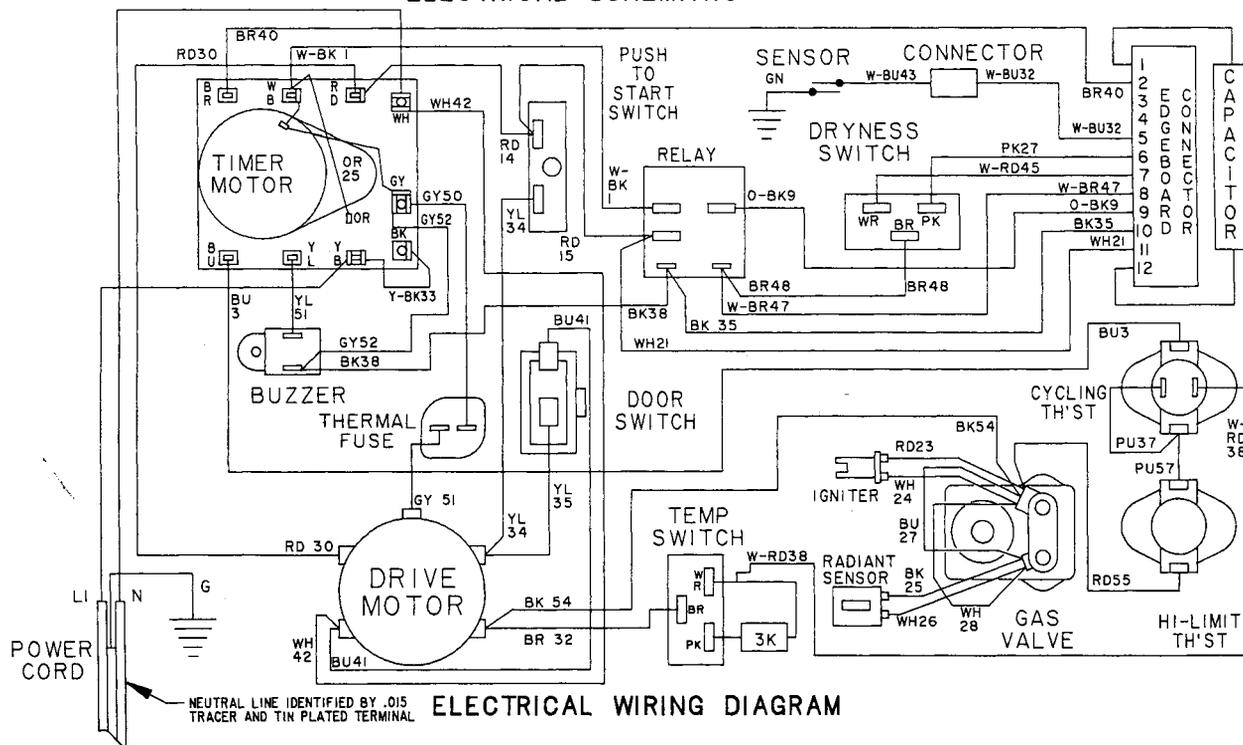
\* \*ON\* 5 SECONDS EVERY 5 MINUTES

L1



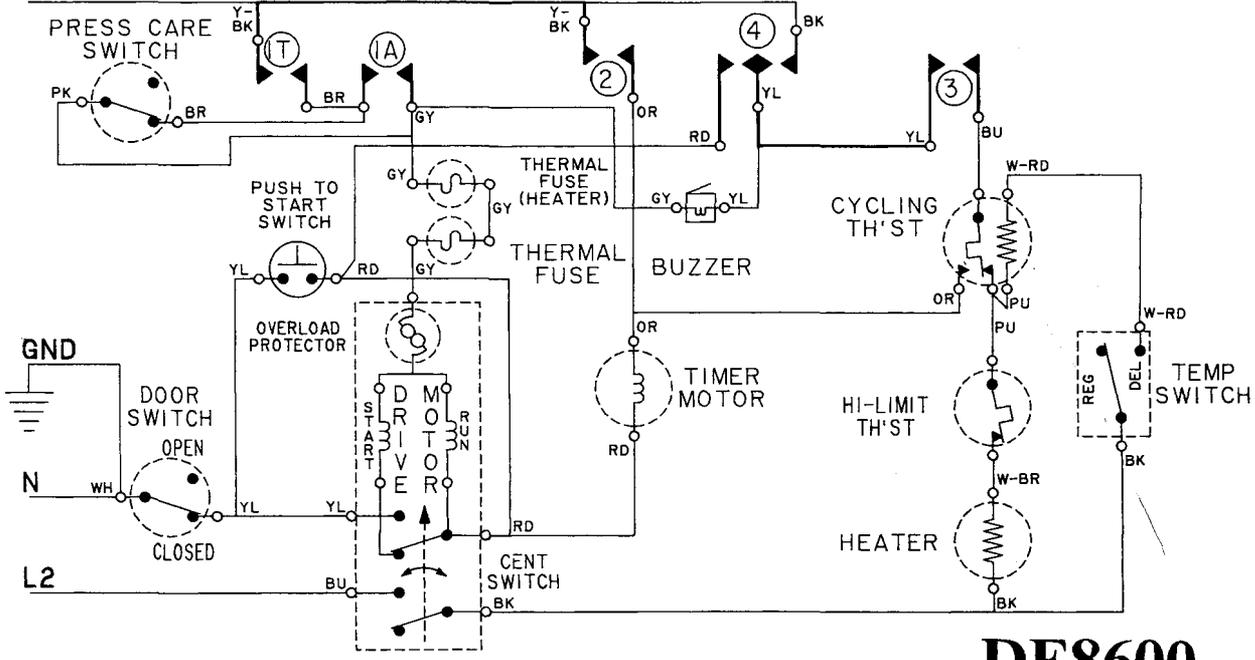
**DG9700**

**ELECTRICAL SCHEMATIC**



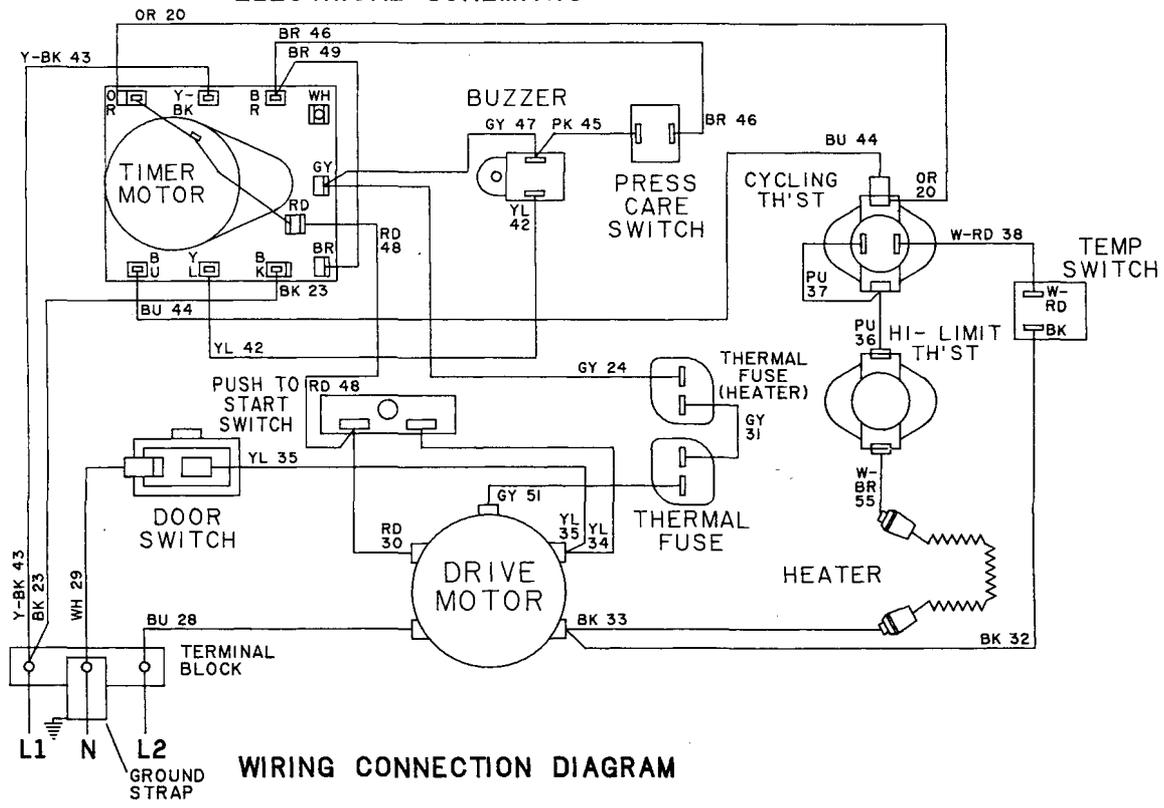
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CONTACT NO.	CIRCUITS	FUNCTION	PERM	CARE	F	REG	F	DRY	F
1T	YB-BR	DRIVE MOTOR	█	█	█	█	█	█	█
1A	GY-BR	PRESS CARE	█	█	█	█	█	█	█
2	YB-OR	TIMER MOTOR	█	█	█	█	█	█	█
3	YL-BU	HEATER	█	█	█	█	█	█	█
4	YL-BK	BUZZER/HEATER	█	█	█	█	█	█	█
	YL-RD	BUZZER/PULSER *	█	█	█	█	█	█	█

L1 \* \*ON\* 5 SECONDS EVERY 5 MINUTES



ELECTRICAL SCHEMATIC

DE8600

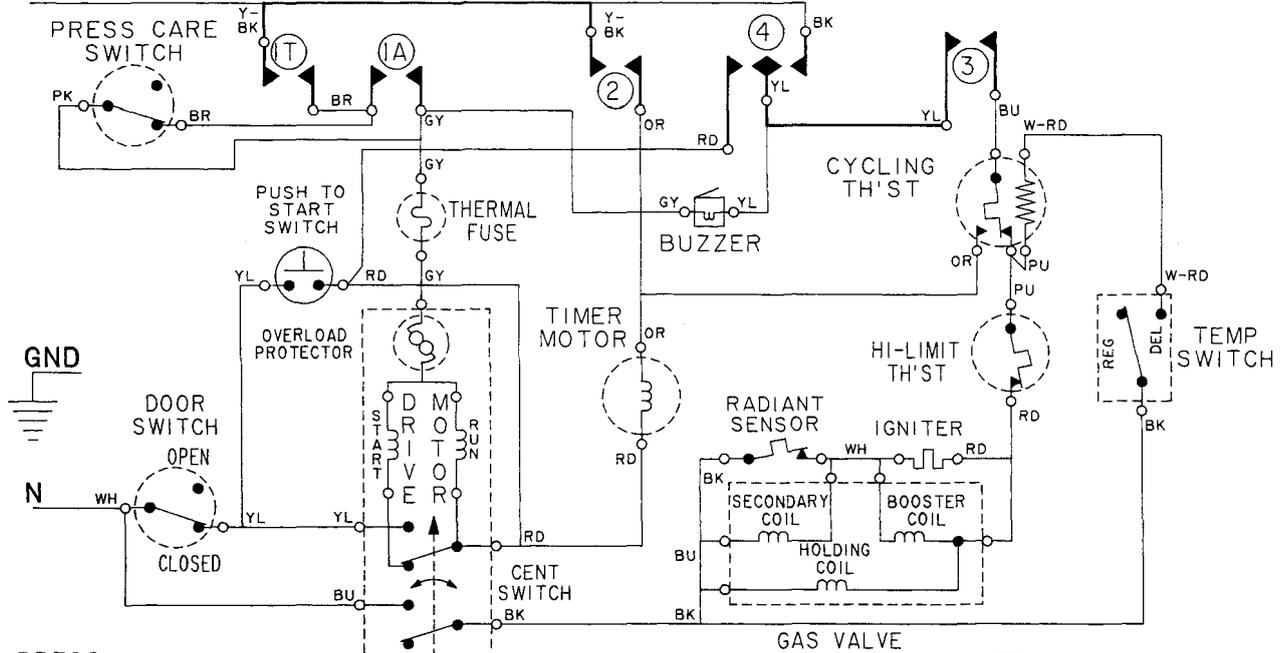


WIRING CONNECTION DIAGRAM

CAM INFORMATION AND CONTACT DATA			AUTO PERM PRESS	AIR FLUFF OR PRESS CARE	OFF	AUTO REG	OFF	TIME DRY	OFF
CONTACT NO.	CIRCUITS	FUNCTION							
1T	YB-BR	DRIVE MOTOR	■	■	■	■	■	■	■
1A	GY-BR	PRESS CARE	■	■	■	■	■	■	■
2	YB-OR	TIMER MOTOR	■	■	■	■	■	■	■
3	YL-PU	HEATER	■	■	■	■	■	■	■
4	YL-BK YL-RD	BUZZER/HEATER BUZZER/PULSER *	■	■	■	■	■	■	■

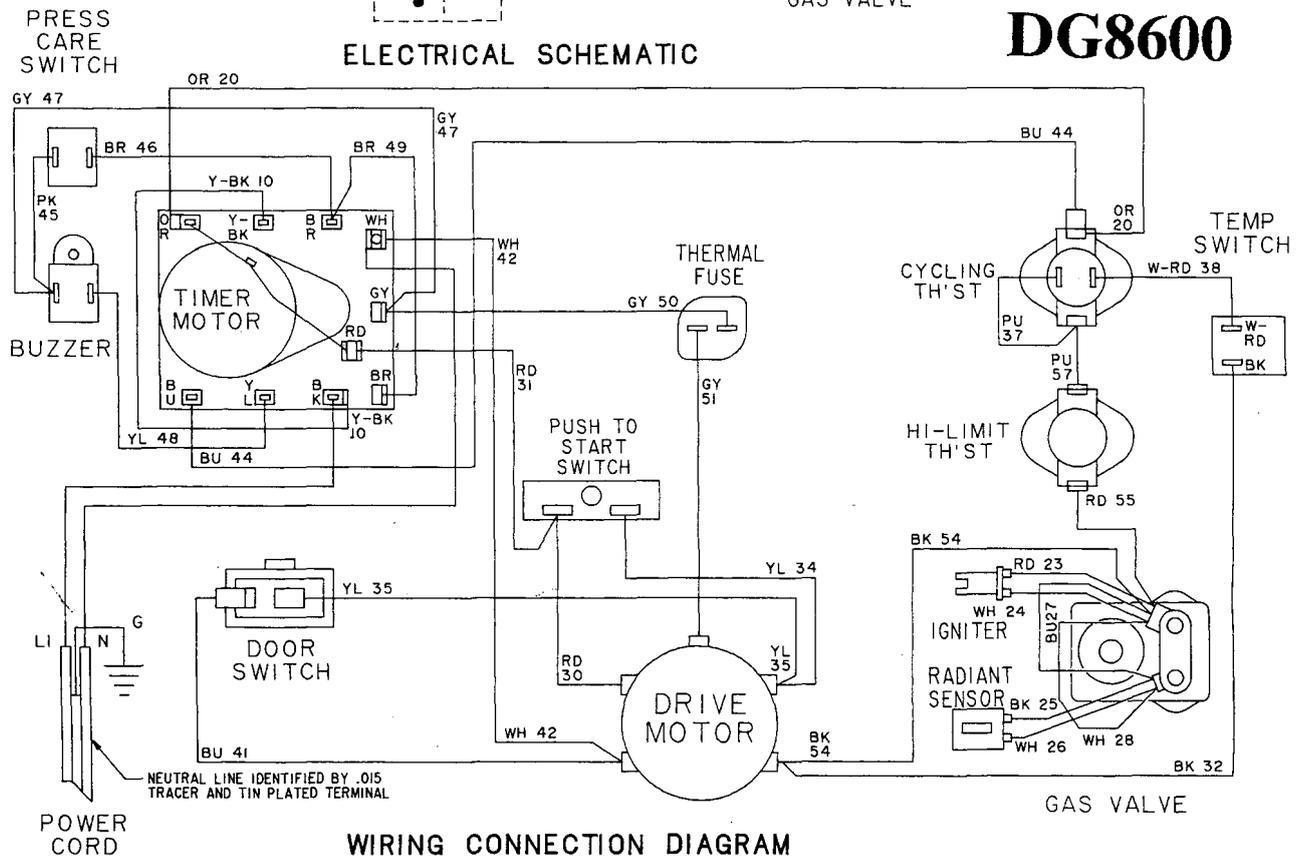
L1

\* 'ON' 5 SECONDS EVERY 5 MINUTES



ELECTRICAL SCHEMATIC

**DG8600**



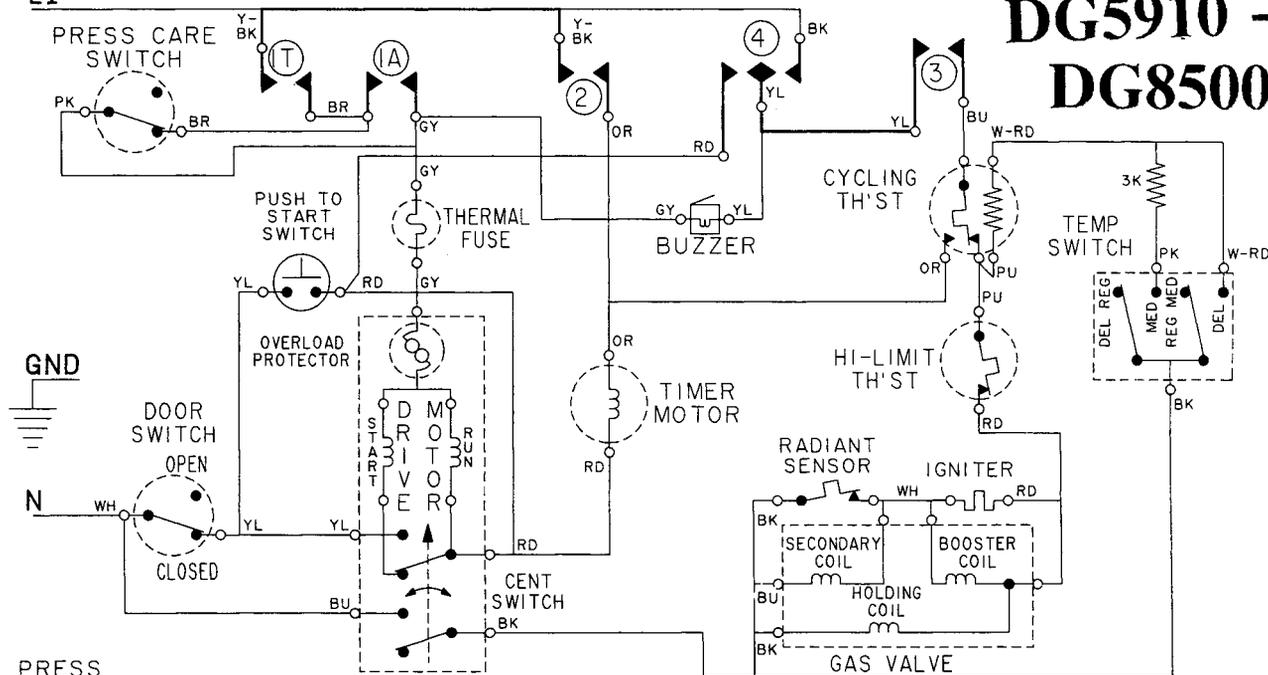
WIRING CONNECTION DIAGRAM



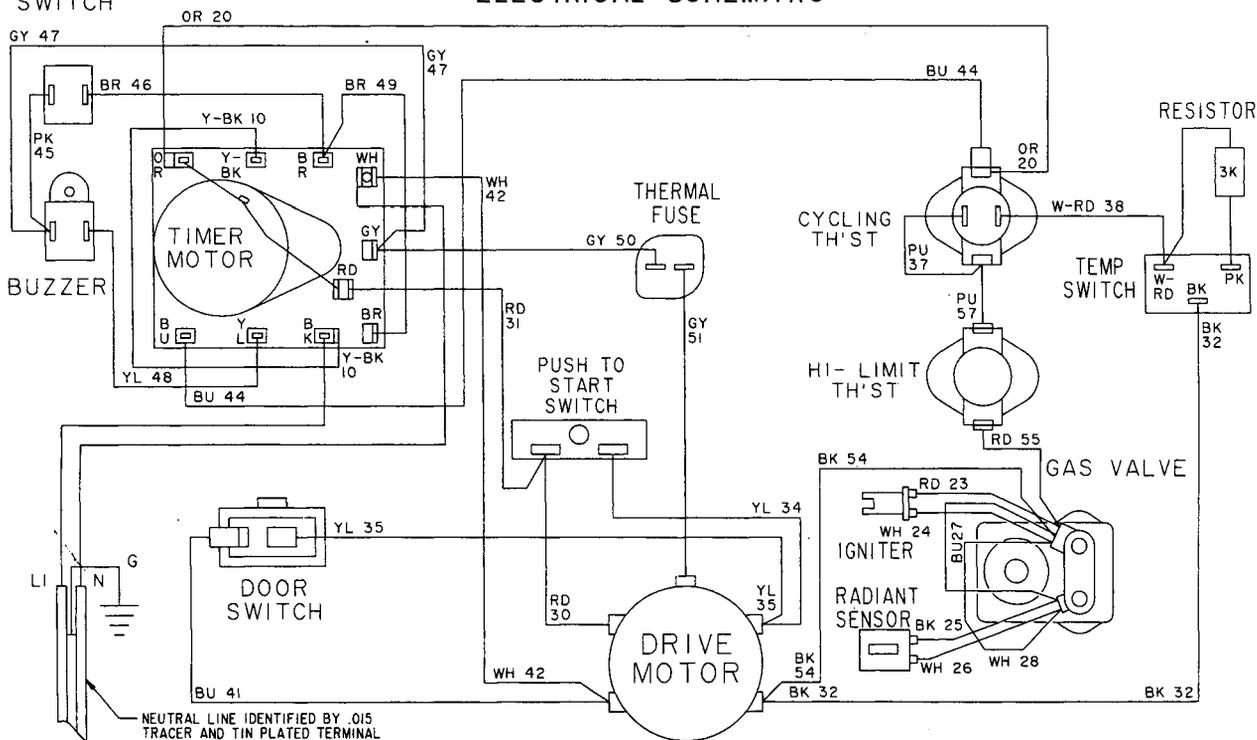
CAM INFORMATION AND CONTACT DATA			AUTO PERM PRESS	AIR FLUFF OR PRESS CARE	OFF	AUTO REG	OFF	TIME DRY	OFF
CONTACT NO.	CIRCUITS	FUNCTION							
1	YB-BR	DRIVE MOTOR	■	■	■	■	■	■	■
1A	GY-BR	PRESS CARE	■	■	■	■	■	■	■
2	YB-OR	TIMER MOTOR	■	■	■	■	■	■	■
3	YL-PU	HEATER	■	■	■	■	■	■	■
4	YL-BK	BUZZER/HEATER	■	■	■	■	■	■	■
	YL-RD	BUZZER/PULSER *	■	■	■	■	■	■	■

L1 \* "ON" 5 SECONDS EVERY 5 MINUTES

# DG5910 - DG8500



ELECTRICAL SCHEMATIC

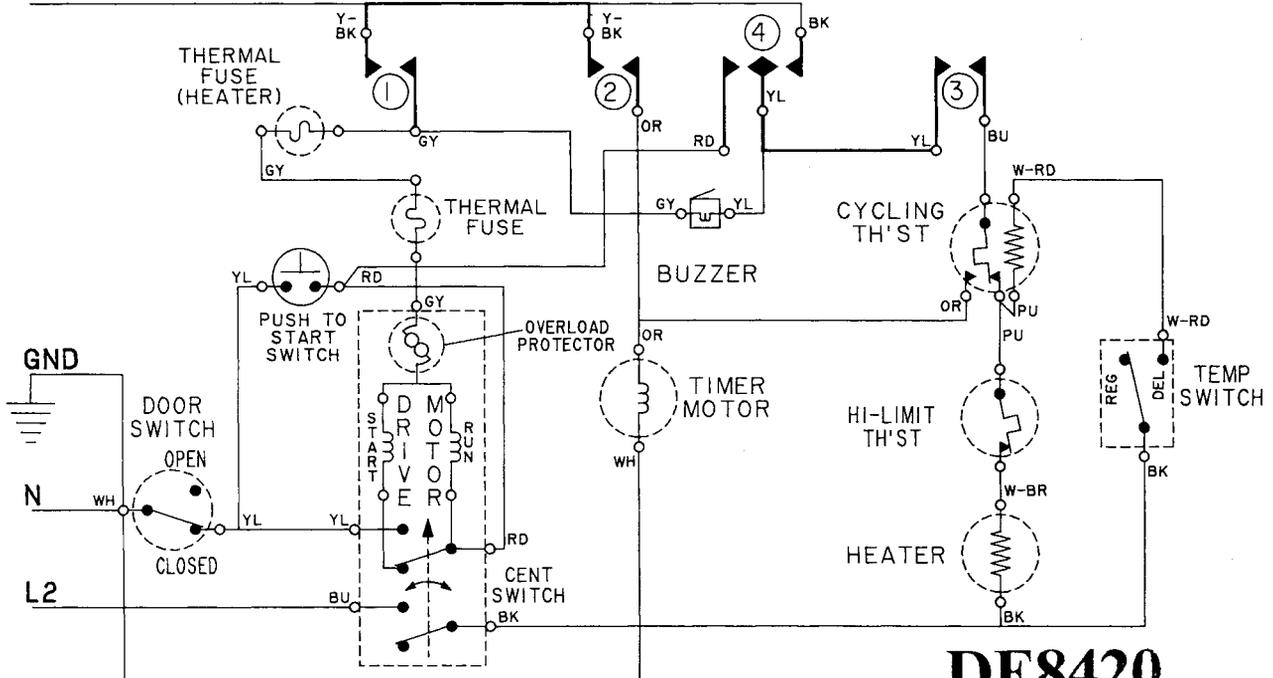


WIRING CONNECTION DIAGRAM

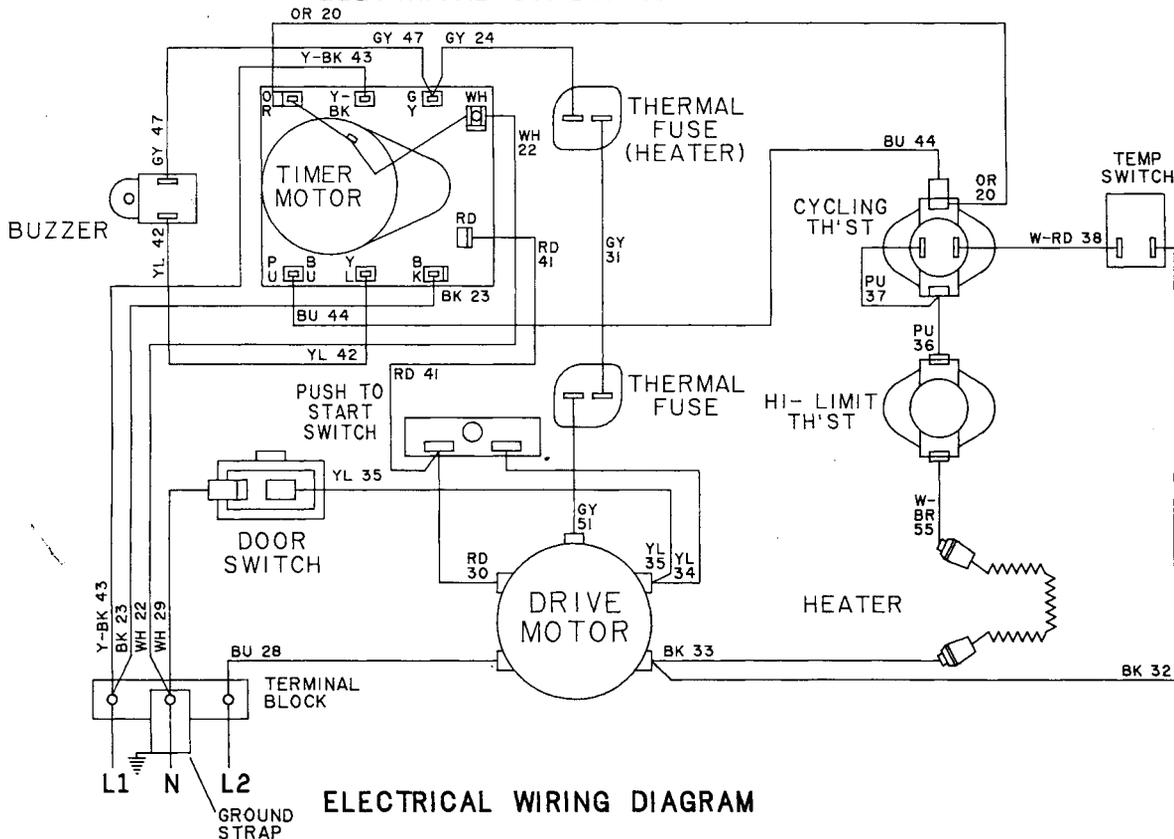
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CONTACT NO.	CIRCUITS	FUNCTION	PERM PRESS	FLUFF	FF	REG	FF	DRY	FF
1	YB-GY	DRIVE MOTOR	■	■	■	■	■	■	■
2	YB-OR	TIMER MOTOR	■	■	■	■	■	■	■
3	YL-BU	HEATER	■	■	■	■	■	■	■
4	YL-BK	BUZZER/HEATER	■	■	■	■	■	■	■
	YL-RD	BUZZER/PULSER *	■	■	■	■	■	■	■

L1

\* \*ON\* 5 SECONDS EVERY 5 MINUTES



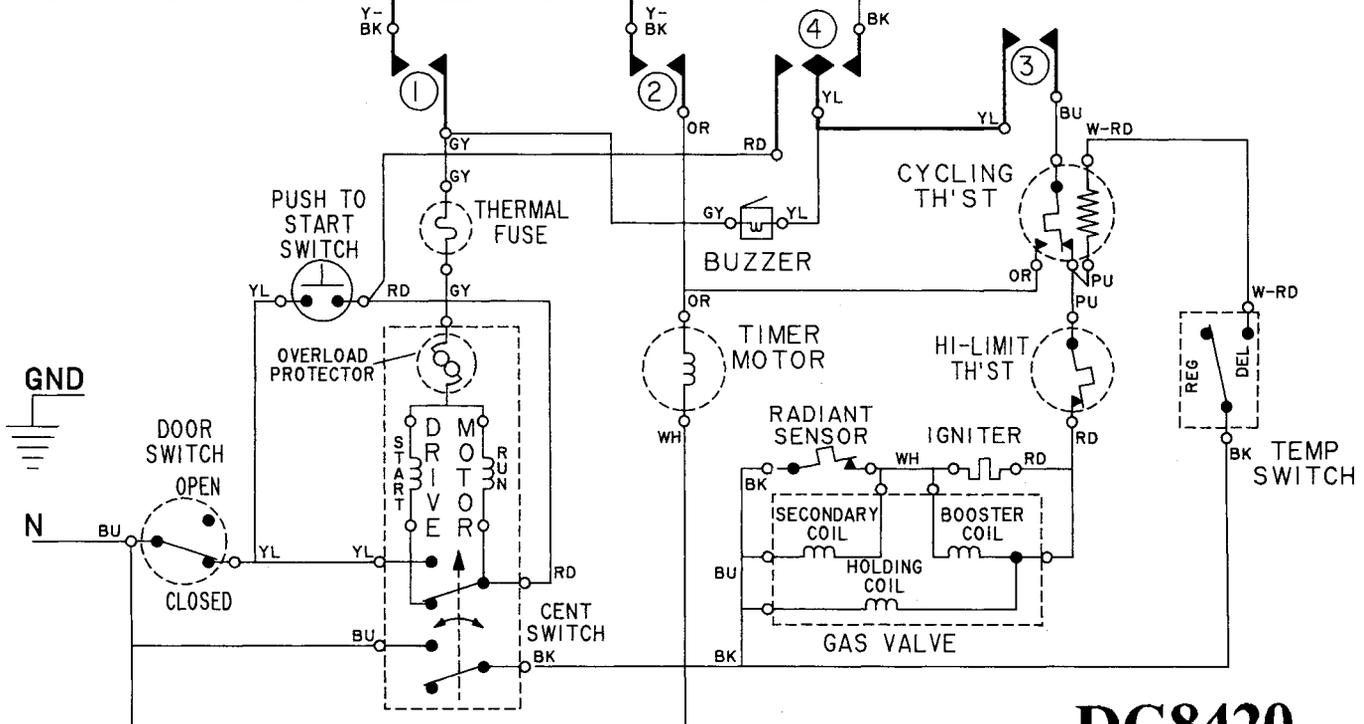
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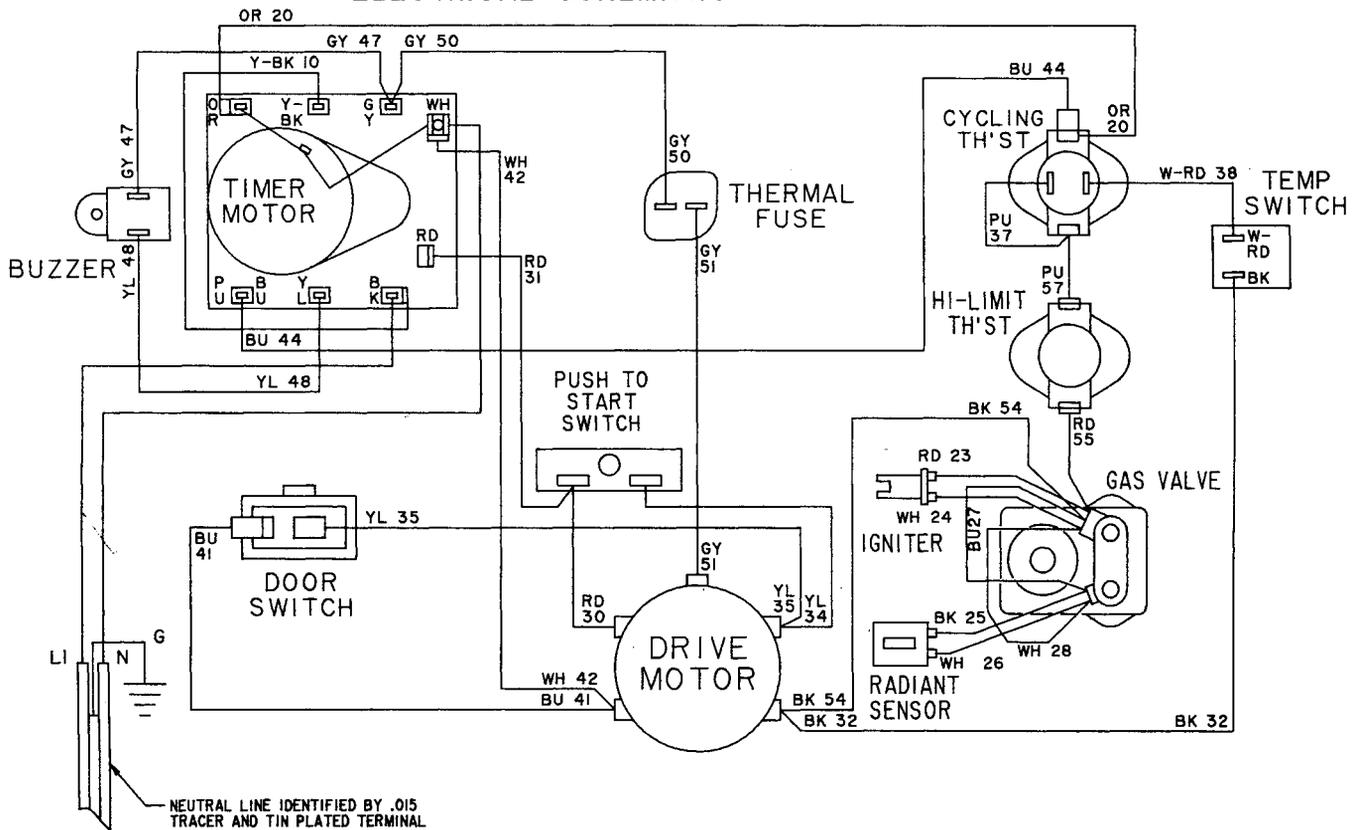
**ELECTRICAL WIRING DIAGRAM**

CAM INFORMATION AND CONTACT DATA			AUTO PERM PRESS	AIR FLUFF	OFF	AUTO REG	OFF	TIME DRY	OFF
CONTACT NO.	CIRCUITS	FUNCTION							
①	YB-GY	DRIVE MOTOR	■	■	■	■	■	■	■
②	YB-OR	TIMER MOTOR	■	■	■	■	■	■	■
③	YL-BU	HEATER	■	■	■	■	■	■	■
④	YL-BK	BUZZER/HEATER	■	■	■	■	■	■	■
	YL-RD	BUZZER/PULSER *	■	■	■	■	■	■	■

\* 'ON' 5 SECONDS EVERY 5 MINUTES



**DG8420**



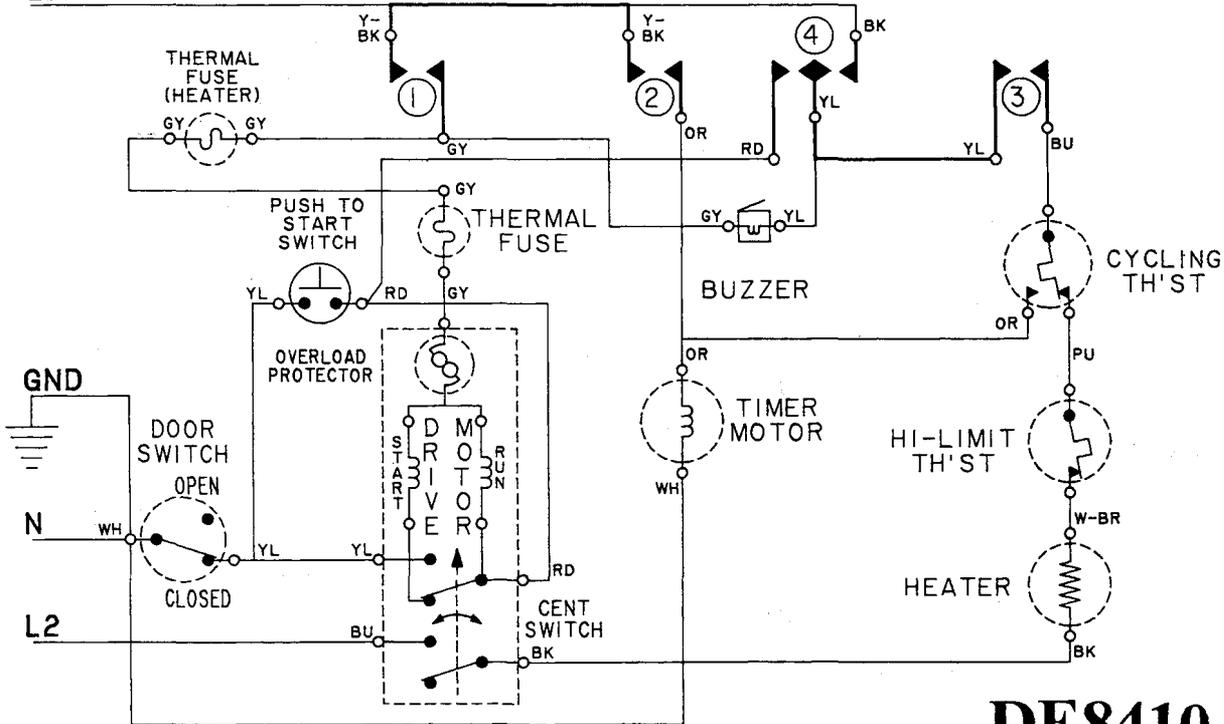
POWER CORD

**ELECTRICAL WIRING DIAGRAM**

CAM INFORMATION AND CONTACT DATA			AUTO PERM PRESS	AIR FLUFF	OFF	AUTO REG	OFF	TIME DRY	OFF
CONTACT NO.	CIRCUITS	FUNCTION							
①	YB-GY	DRIVE MOTOR	■			■		■	
②	YB-OR	TIMER MOTOR		■			■		■
③	YL-BU	HEATER	■					■	
④	YL-BK YL-RD	BUZZER/HEATER BUZZER/PULSER *	■	■				■	■

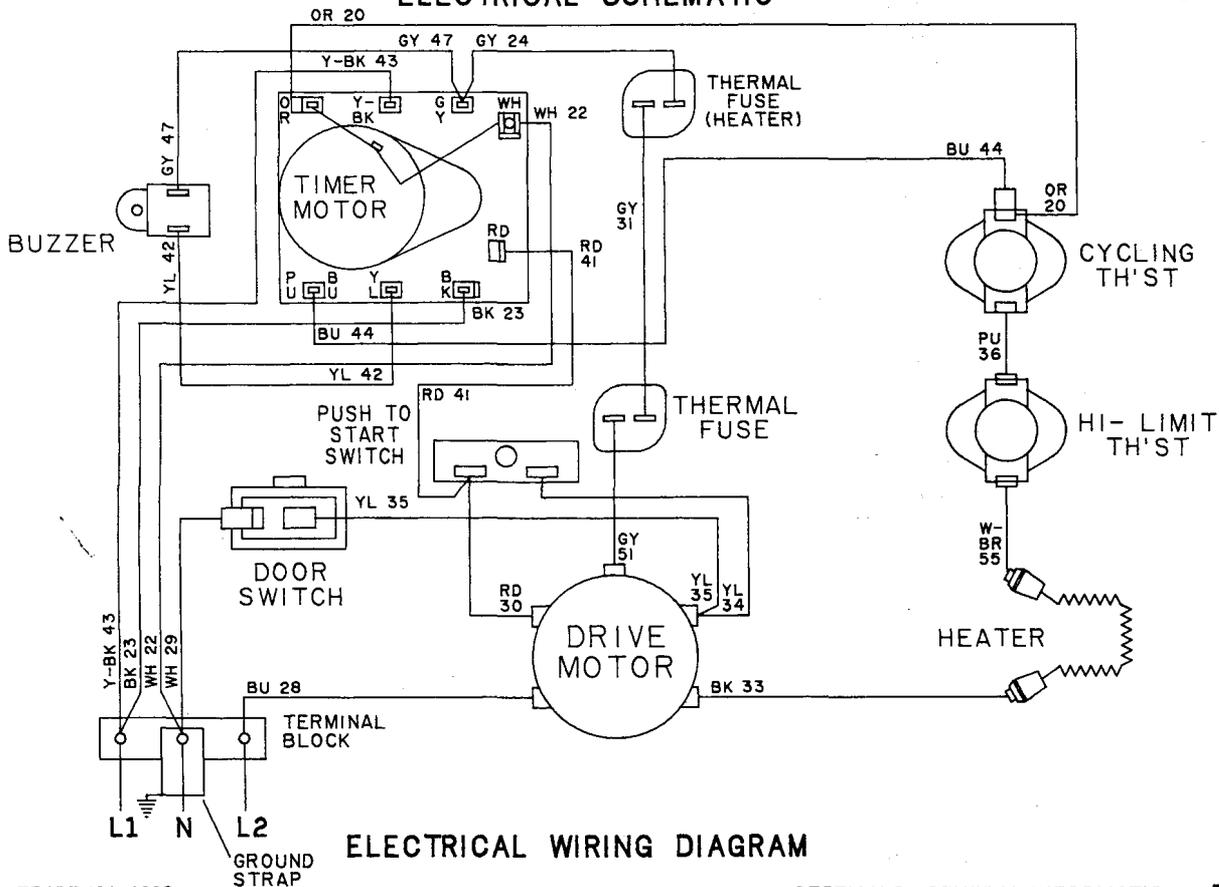
L1

\* 'ON' 5 SECONDS EVERY 5 MINUTES



ELECTRICAL SCHEMATIC

DE8410

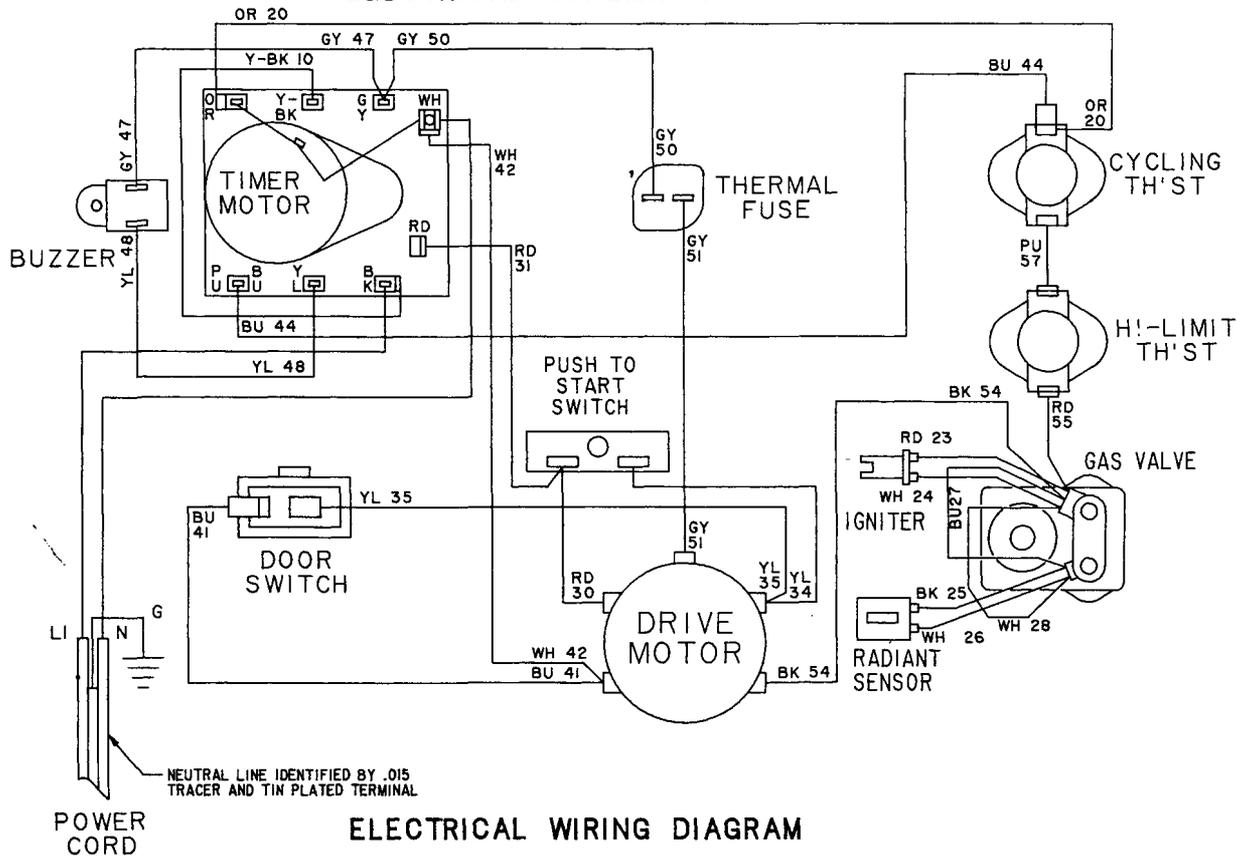
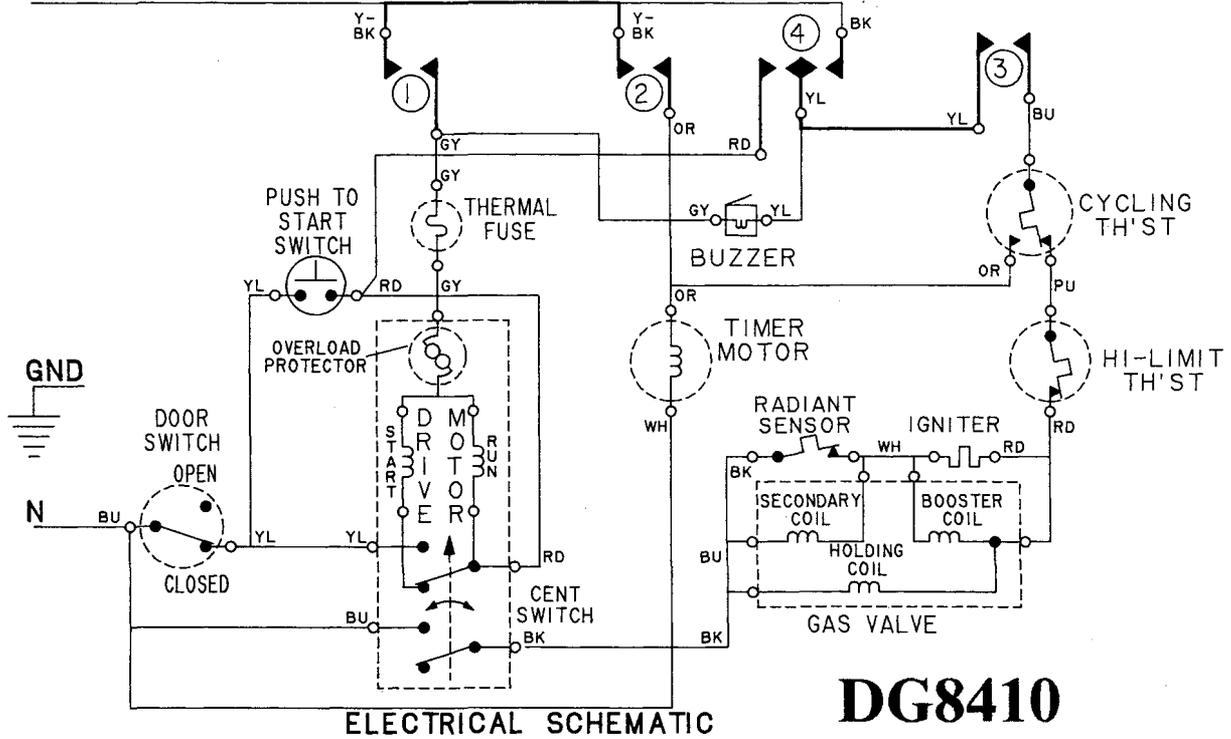


ELECTRICAL WIRING DIAGRAM

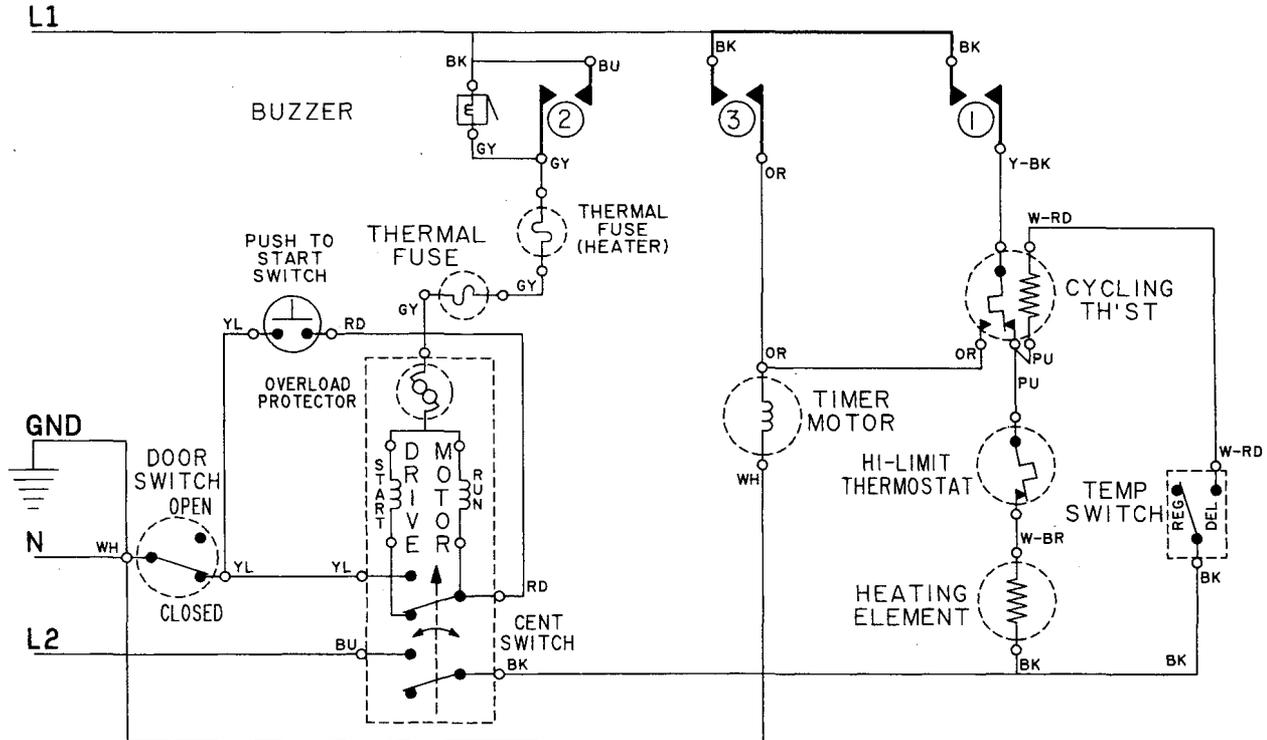
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CONTACT NO.	CIRCUITS	FUNCTION							
1	YB-GY	DRIVE MOTOR	■						
2	YB-OR	TIMER MOTOR		■		■	■	■	
3	YL-BU	HEATER	■			■		■	
4	YL-BK YL-RD	BUZZER/HEATER BUZZER/PULSER *	■	■		■		■	

L1

\* 'ON' 5 SECONDS EVERY 5 MINUTES

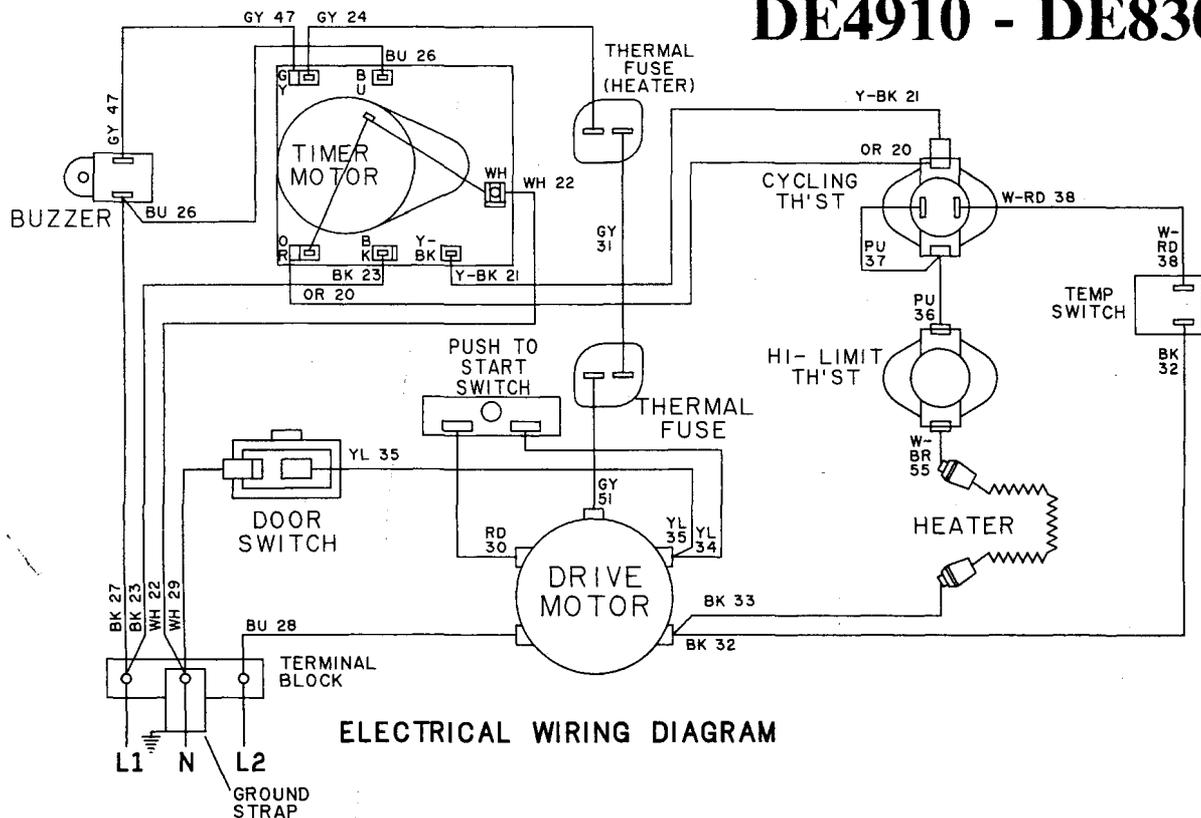


CAM INFORMATION AND CONTACT DATA			AUTO REG	OFF	AUTO PERM PRESS	OFF	TIME DRY	OFF	AIR FLUFF	OFF
CONTACT NO.	CIRCUITS	FUNCTION								
1	BK-YB	HEATER	█	█	█	█	█	█	█	█
2	BU-GY	DRIVE MOTOR	█	█	█	█	█	█	█	█
3	BK-OR	TIMER MOTOR	█	█	█	█	█	█	█	█



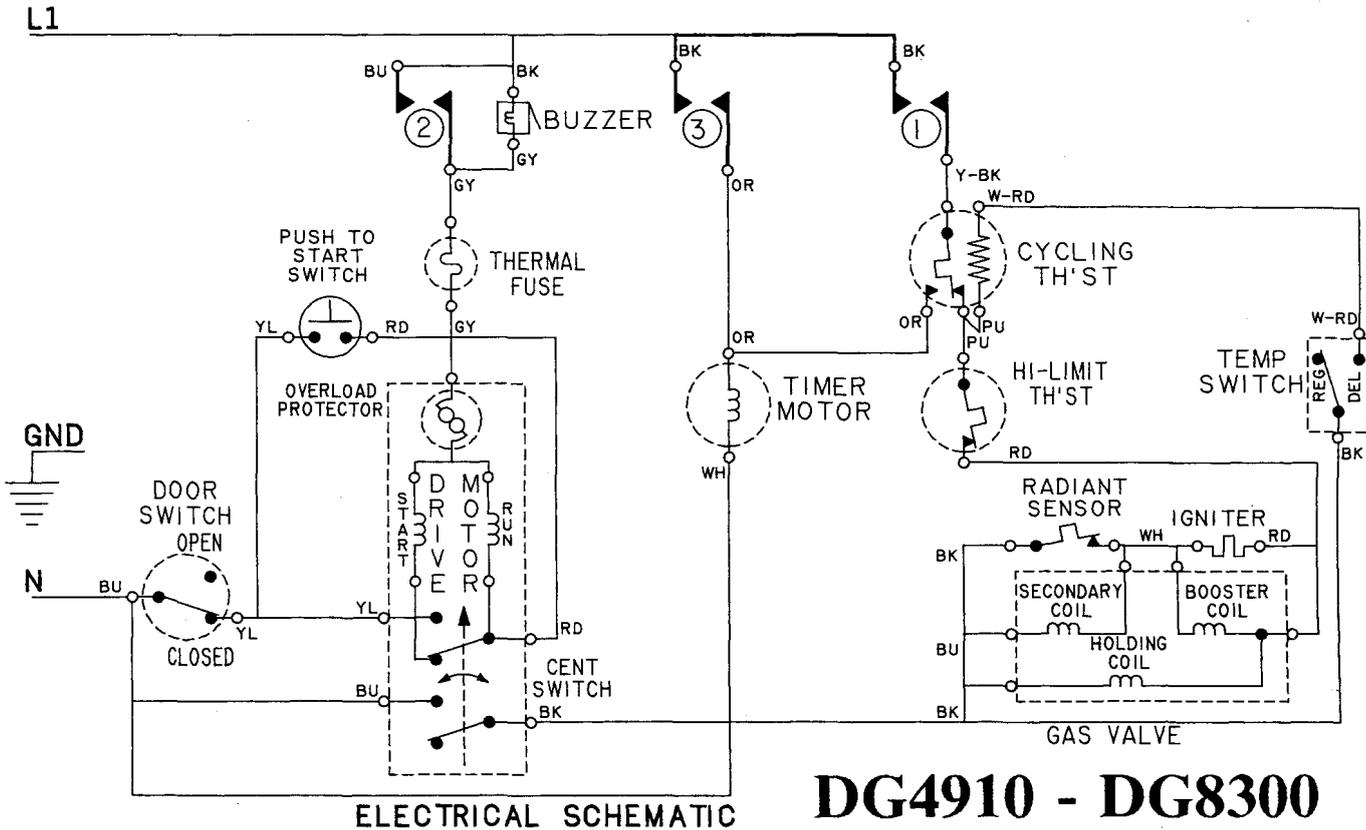
ELECTRICAL SCHEMATIC

# DE4910 - DE8300

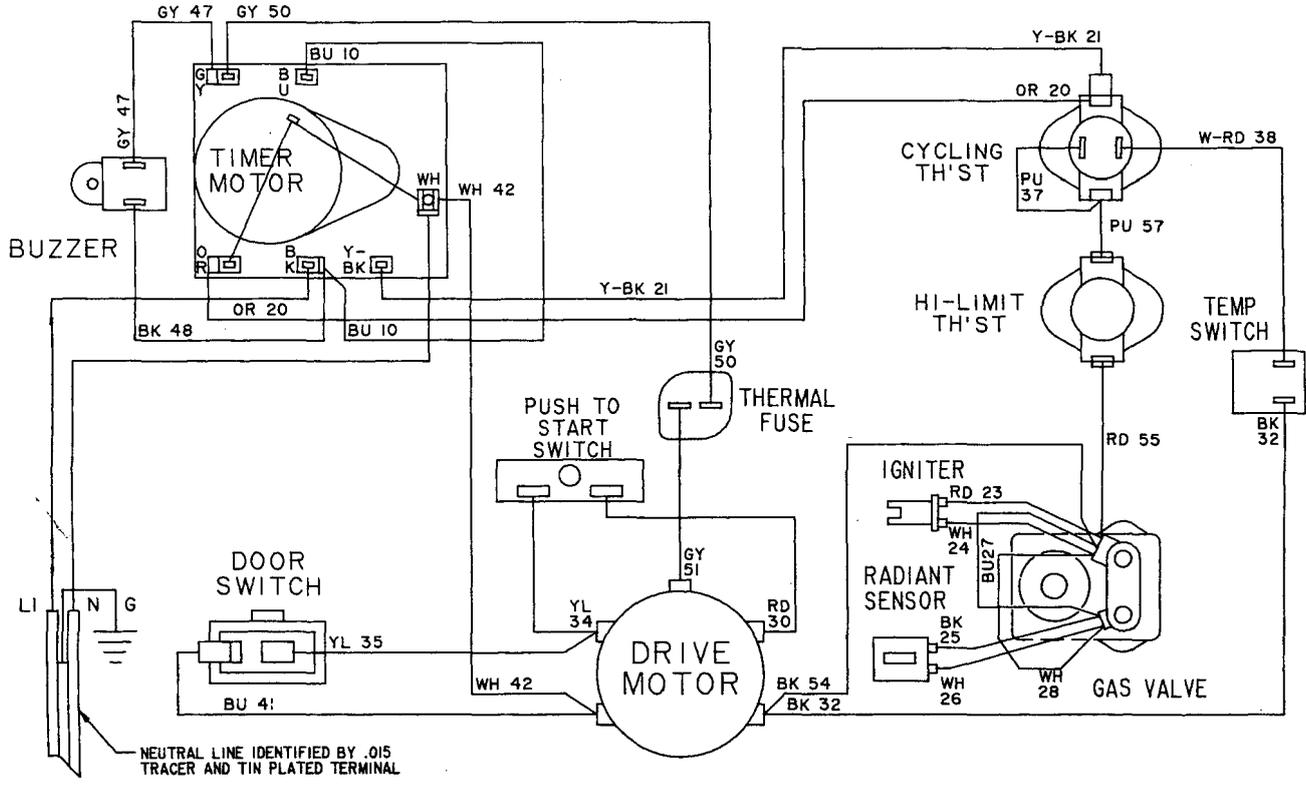


ELECTRICAL WIRING DIAGRAM

CAM INFORMATION AND CONTACT DATA			AUTO REG	OFF	AUTO PERM PRESS	OFF	TIME DRY	OFF	AIR FLUFF	OFF
CONTACT NO.	CIRCUITS	FUNCTION								
①	BK-YB	HEATER	■	■	■	■	■	■	■	■
②	BU-GY	DRIVE MOTOR	■	■	■	■	■	■	■	■
③	BK-OR	TIMER MOTOR	■	■	■	■	■	■	■	■

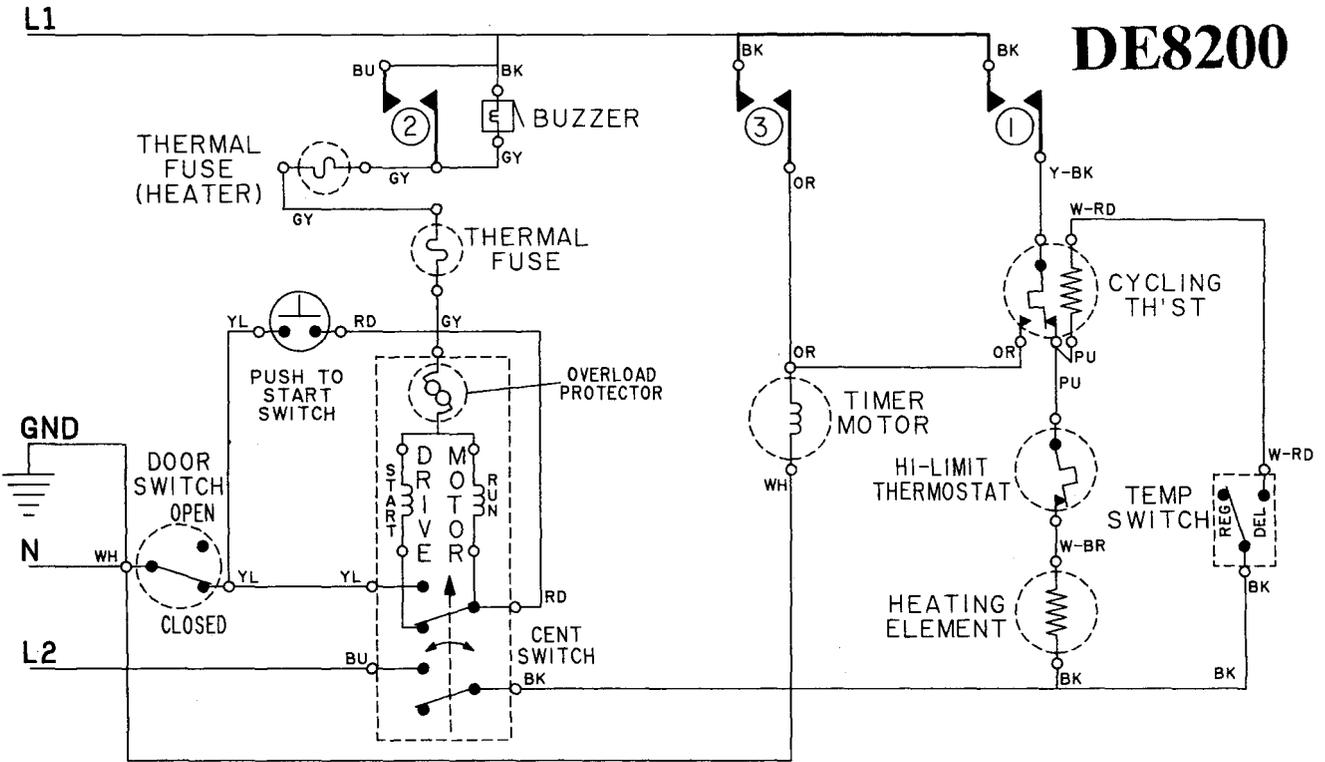


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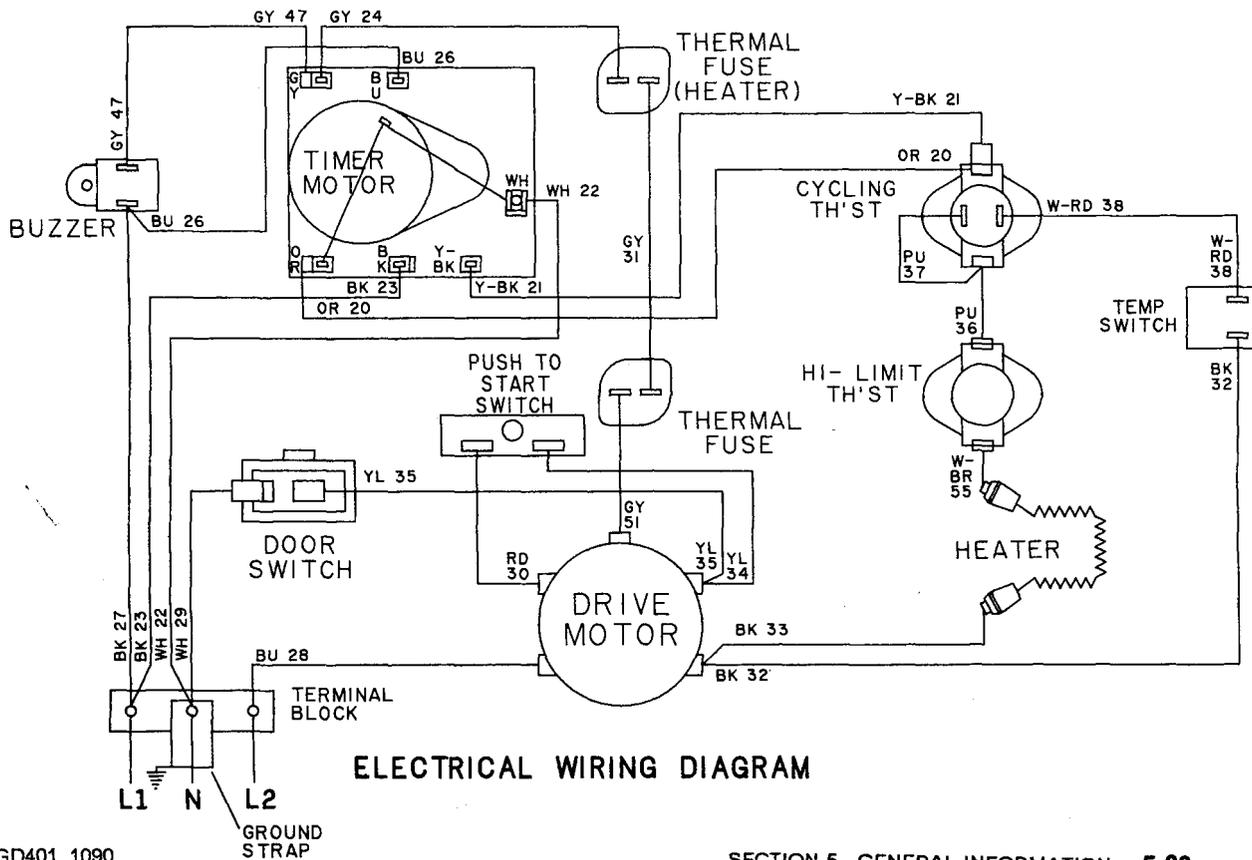


POWER CORD

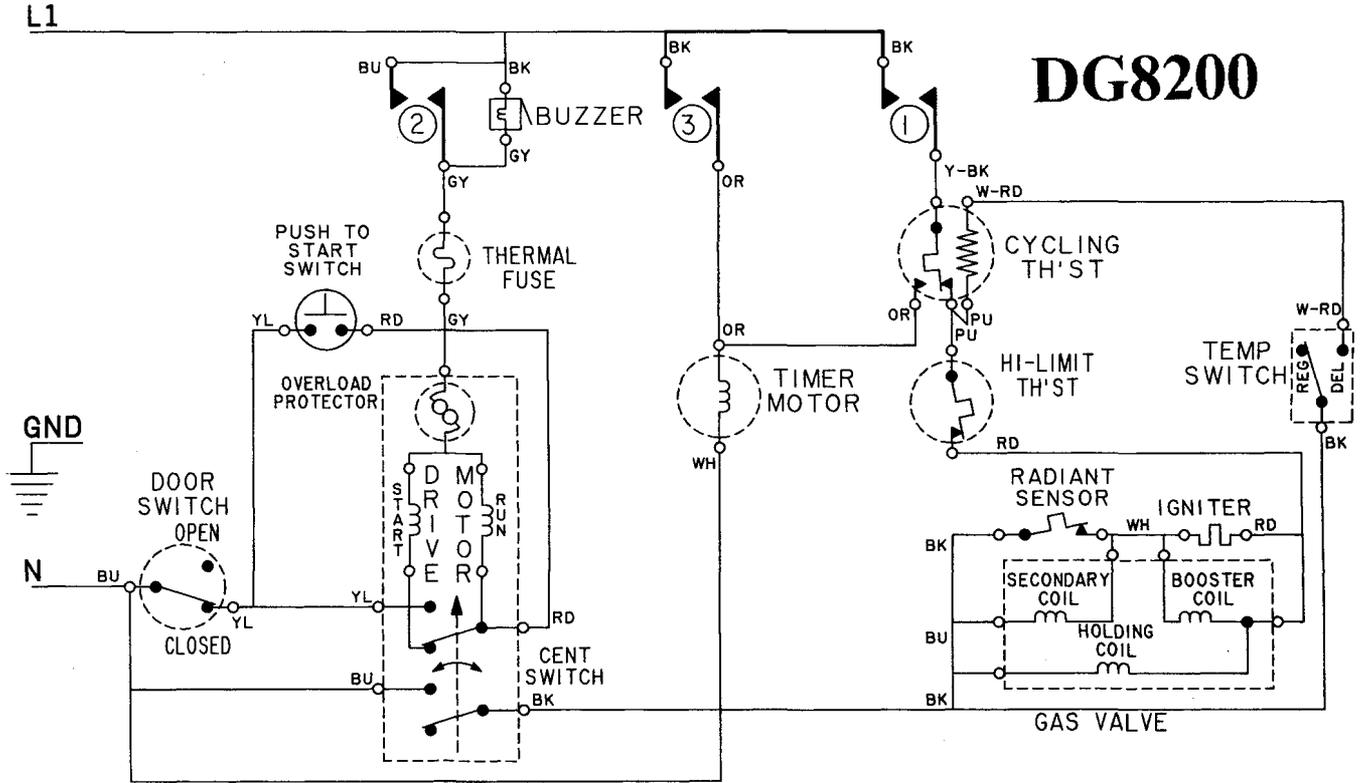
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CONTACT NO.	CIRCUITS	FUNCTION	PERM	PRESS	REG			
①	BK-YB	HEATER	■		■			
②	BU-GY	DRIVE MOTOR	■	■	■	■	■	■
③	BK-OR	TIMER MOTOR	■		■	■	■	■



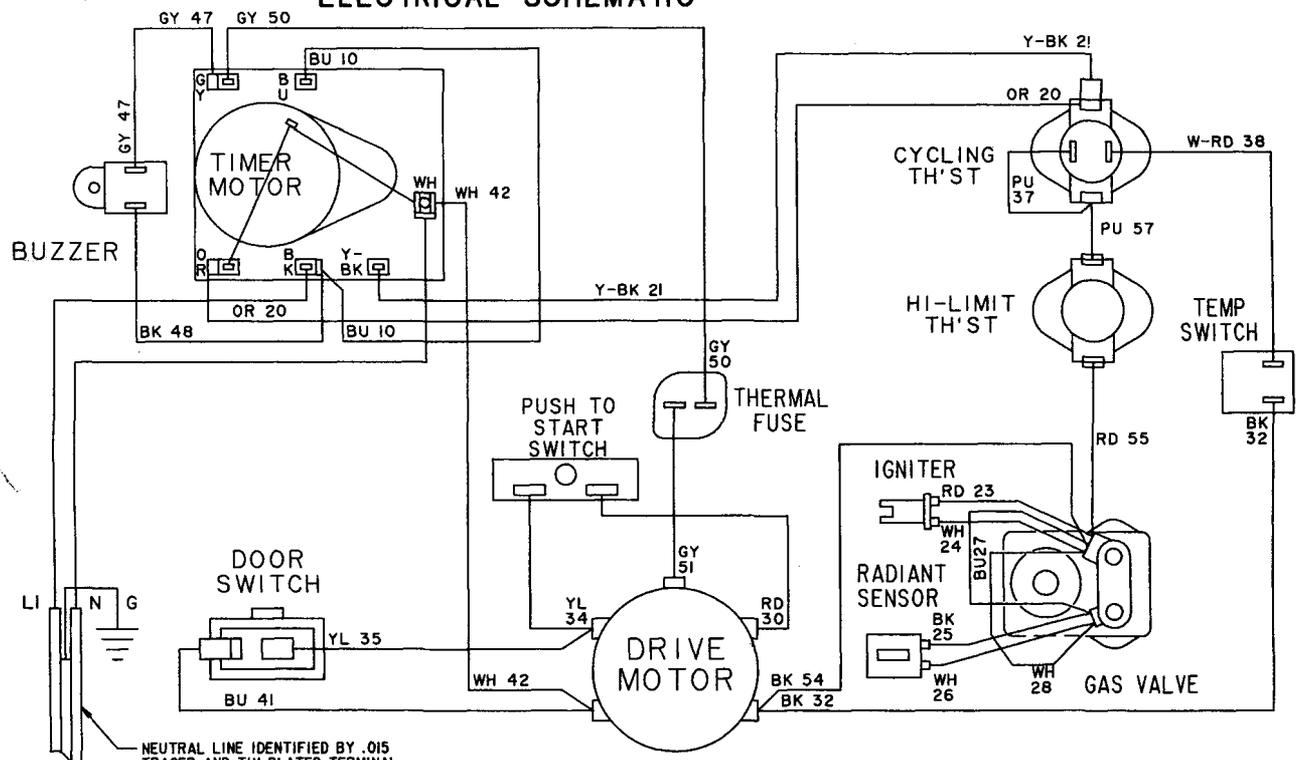
**ELECTRICAL SCHEMATIC**



CAM INFORMATION AND CONTACT DATA			AUTO	OFF	AUTO	OFF	AIR FLUFF	OFF
CONTACT NO.	CIRCUITS	FUNCTION	PERM PRESS	F	REG	F		F
①	BK-YB	HEATER	█		█			
②	BU-GY	DRIVE MOTOR	█	█	█	█	█	█
③	BK-OR	TIMER MOTOR	█		█	█	█	█

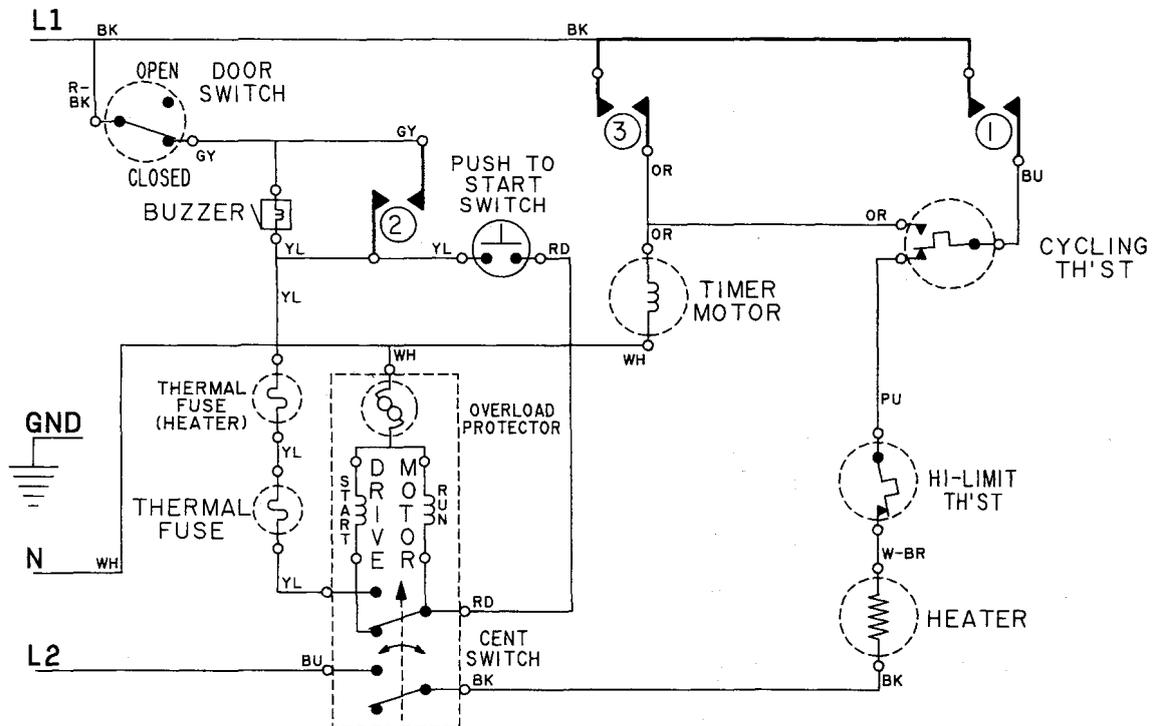


**ELECTRICAL SCHEMATIC**



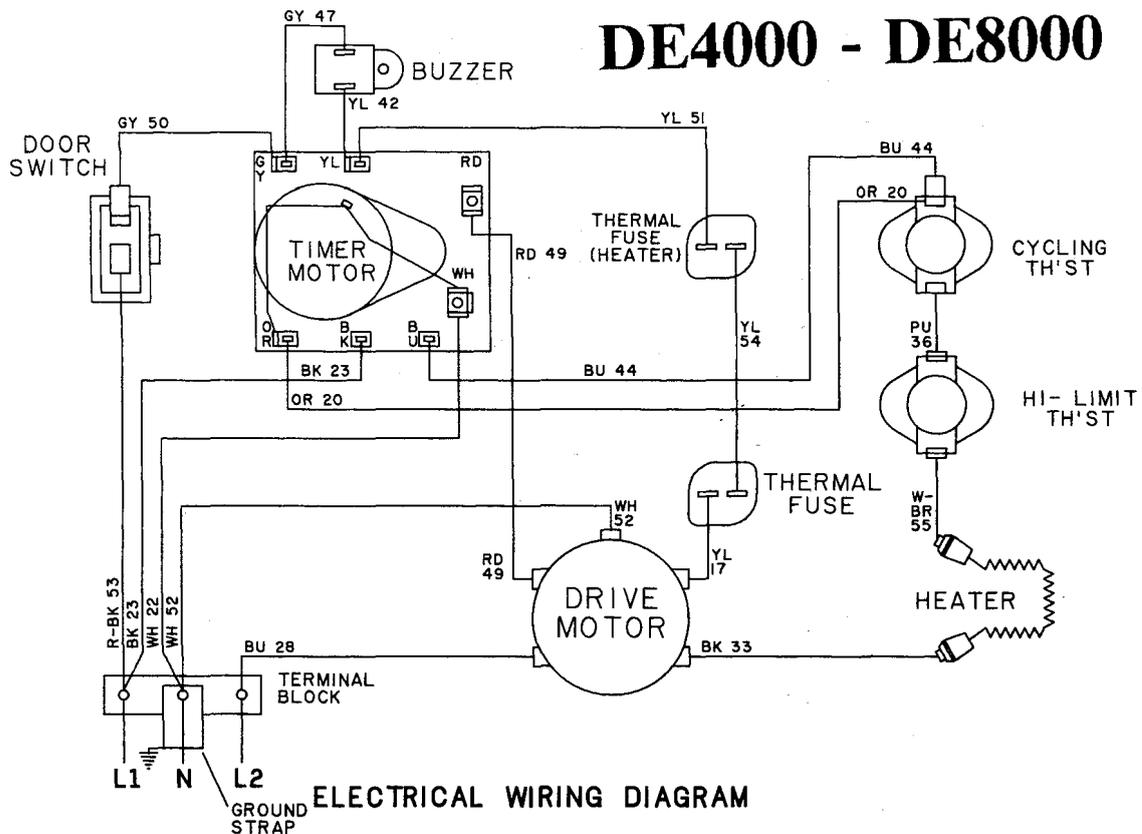
**ELECTRICAL WIRING DIAGRAM**

CAM INFORMATION AND CONTACT DATA			AUTO	OFF	AUTO	OFF	AIR FLUFF	OFF
CONTACT NO.	CIRCUITS	FUNCTION	PERM PRESS	F	REG	F		F
①	BK-BU	HEATER	■		■			
②	GY-YL	DRIVE MOTOR	■		■		■	
③	BK-OR	TIMER MOTOR	■		■		■	



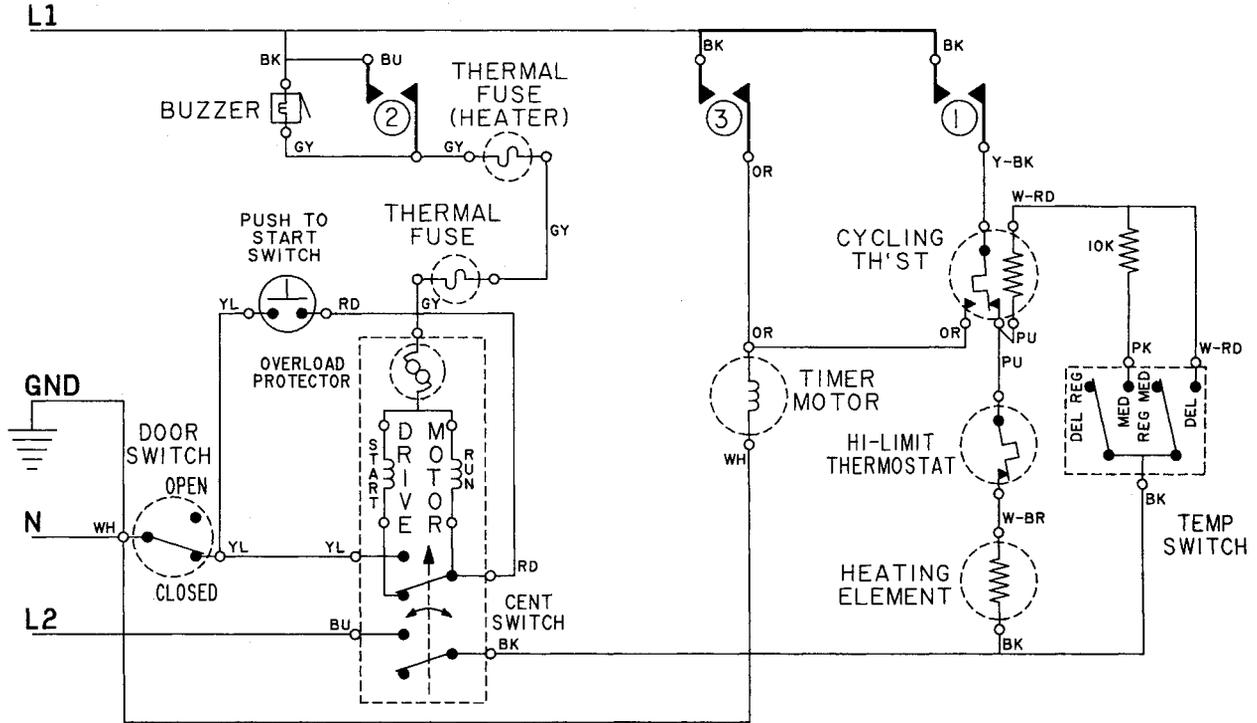
ELECTRICAL SCHEMATIC

# DE4000 - DE8000



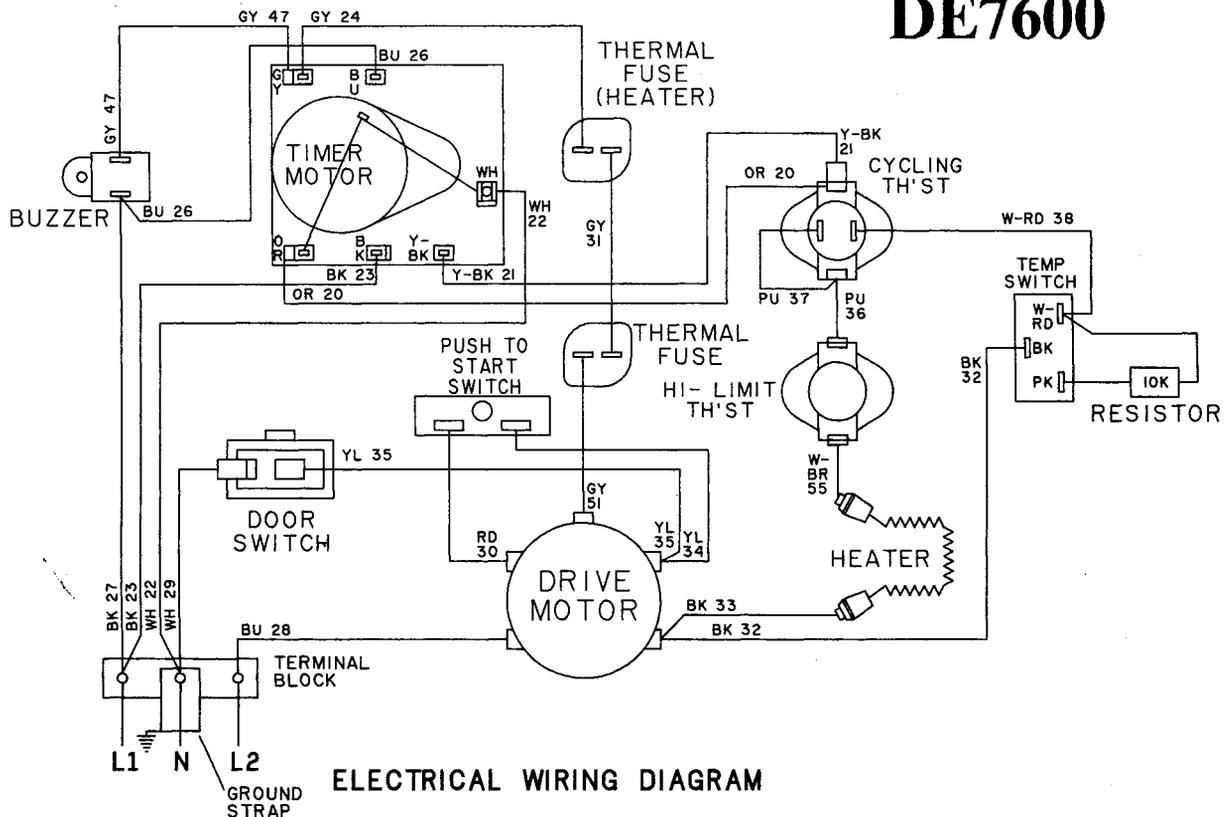
ELECTRICAL WIRING DIAGRAM

CAM INFORMATION AND CONTACT DATA			AUTO REG	O F F	AUTO PERM PRESS	O F F	TIME DRY	O F F	AIR FLUFF	O F F
CONTACT NO.	CIRCUITS	FUNCTION								
①	BK-YB	HEATER	■	■	■	■	■	■	■	■
②	BU-GY	DRIVE MOTOR	■	■	■	■	■	■	■	■
③	BK-OR	TIMER MOTOR	■	■	■	■	■	■	■	■



ELECTRICAL SCHEMATIC

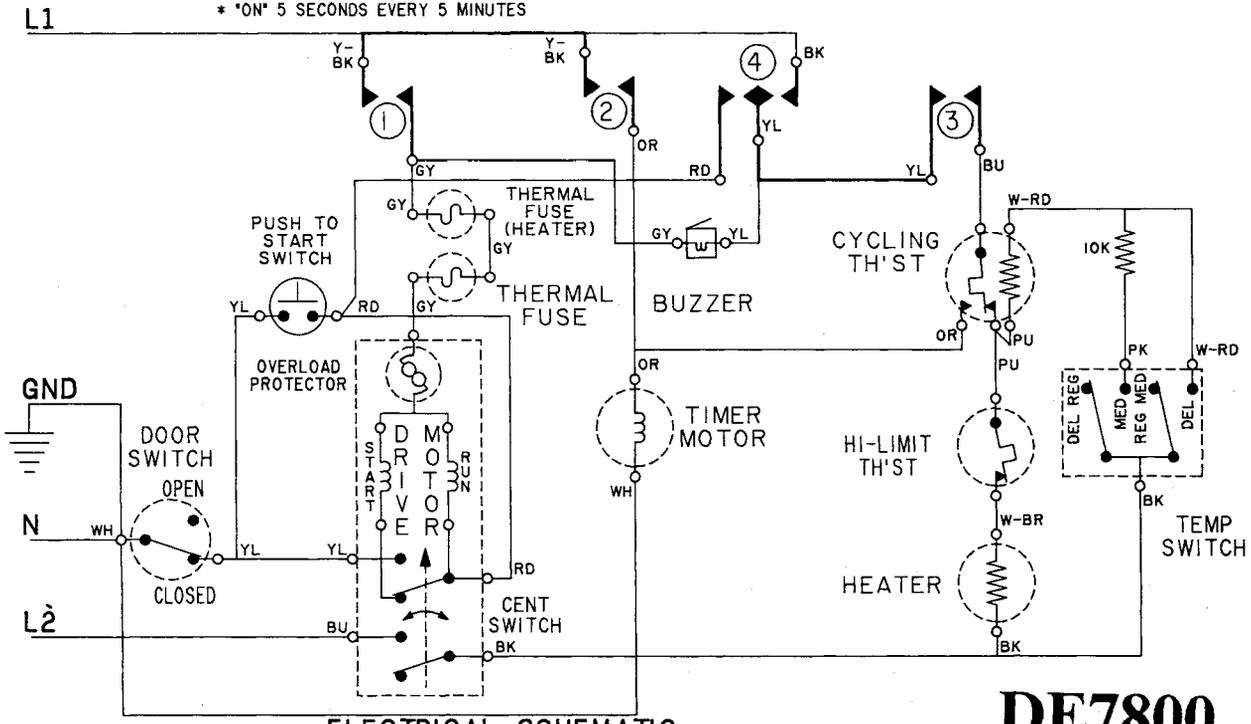
# DE7600



ELECTRICAL WIRING DIAGRAM

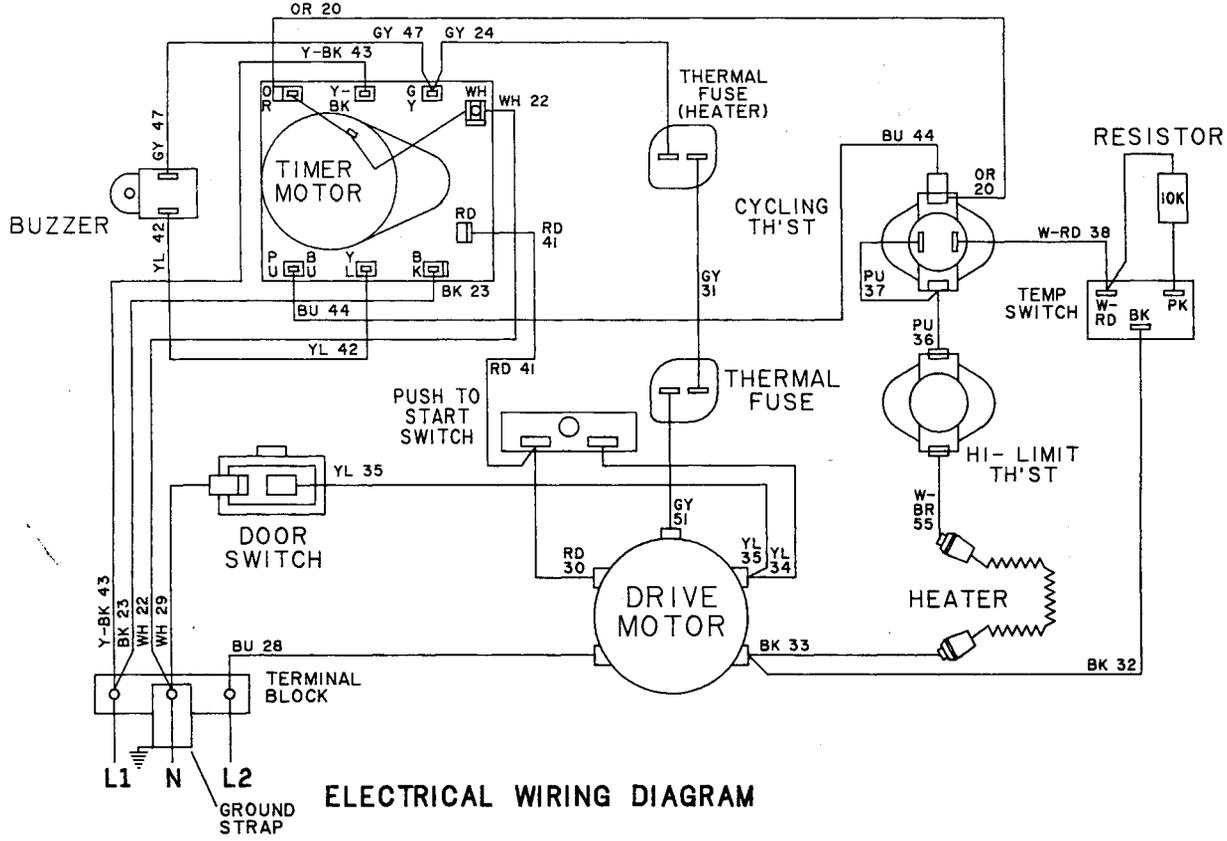
CAM INFORMATION AND CONTACT DATA			AUTO PERM PRESS	AIR FLUFF	OFF	AUTO REG	OFF	TIME DRY	OFF
CONTACT NO.	CIRCUITS	FUNCTION							
①	YB-GY	DRIVE MOTOR	■	■	■	■	■	■	■
②	YB-OR	TIMER MOTOR	■	■	■	■	■	■	■
③	YL-BU	HEATER	■	■	■	■	■	■	■
④	YL-BK	BUZZER/HEATER	■	■	■	■	■	■	■
	YL-RD	BUZZER/PULSER *	■	■	■	■	■	■	■

\* \*ON\* 5 SECONDS EVERY 5 MINUTES



ELECTRICAL SCHEMATIC

DE7800

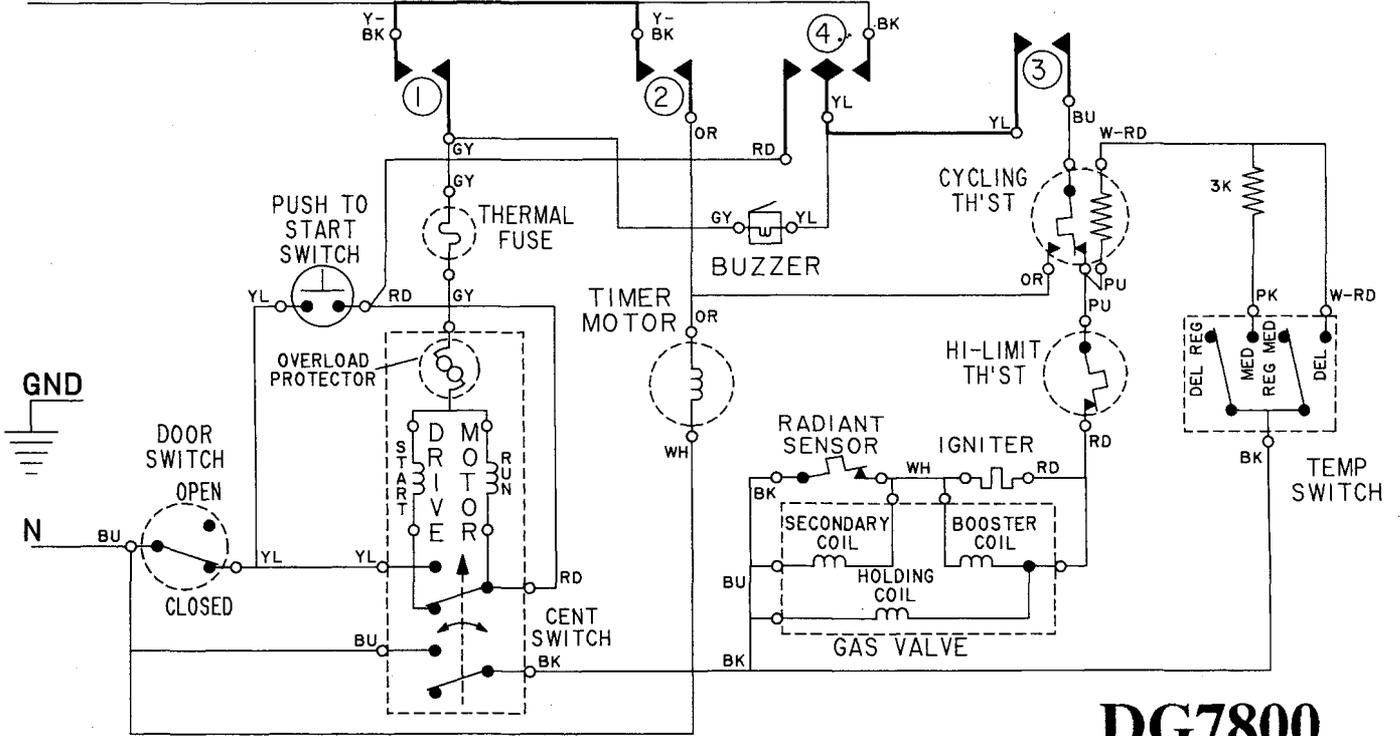


ELECTRICAL WIRING DIAGRAM

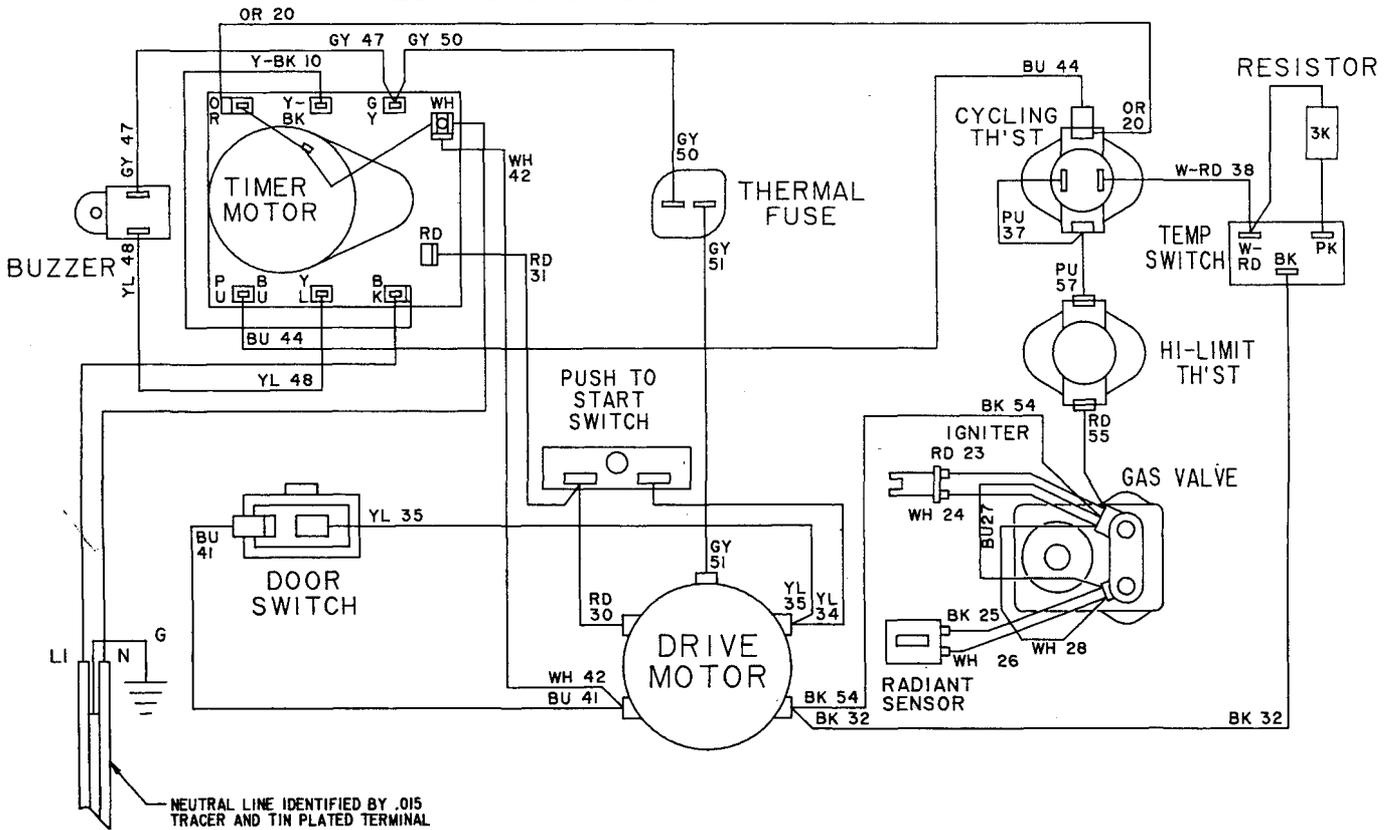
CAM INFORMATION AND CONTACT DATA			AUTO	AIR	O	AUTO	O	TIME	O
CONTACT NO.	CIRCUITS	FUNCTION	PERM PRESS	FLUFF	F F	REG	F F	DRY	F F
①	YB-GY	DRIVE MOTOR	█						
②	YB-OR	TIMER MOTOR		█		█		█	
③	YL-BU	HEATER	█			█		█	
④	YL-BK	BUZZER/HEATER	█			█		█	
	YL-RD	BUZZER/PULSER *	█			█		█	

\* 'ON' 5 SECONDS EVERY 5 MINUTES

L1



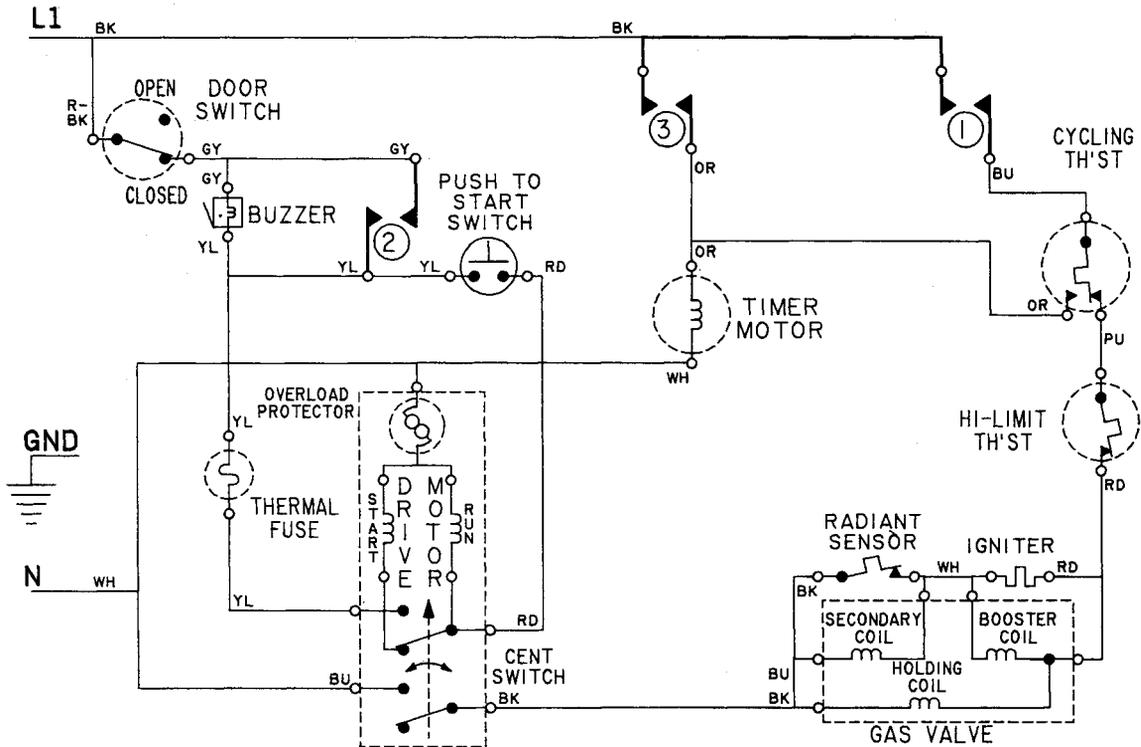
**DG7800**



POWER CORD

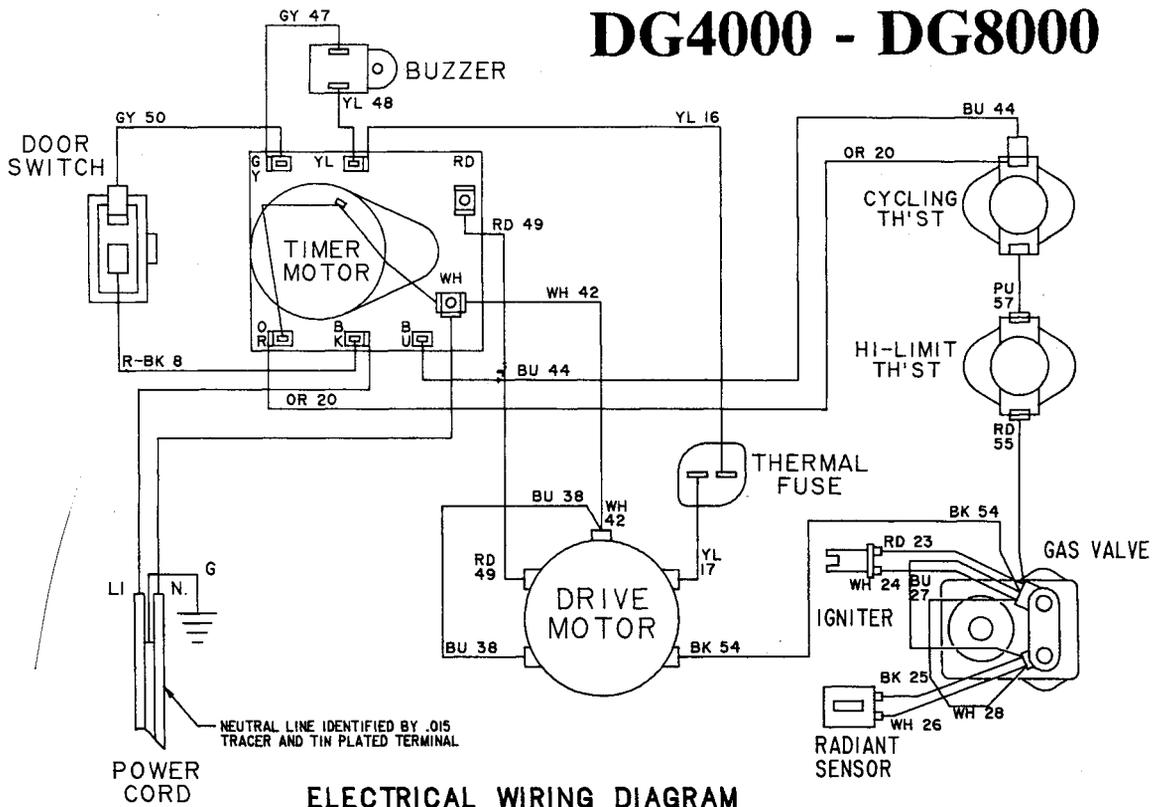
**ELECTRICAL WIRING DIAGRAM**

CAM INFORMATION AND CONTACT DATA			AUTO PERM PRESS	AUTO REG	AIR FLUFF
CONTACT NO.	CIRCUITS	FUNCTION			
1	BK-BU	HEATER	■	■	
2	GY-YL	DRIVE MOTOR	■	■	■
3	BK-OR	TIMER MOTOR	■	■	■



ELECTRICAL SCHEMATIC

# DG4000 - DG8000

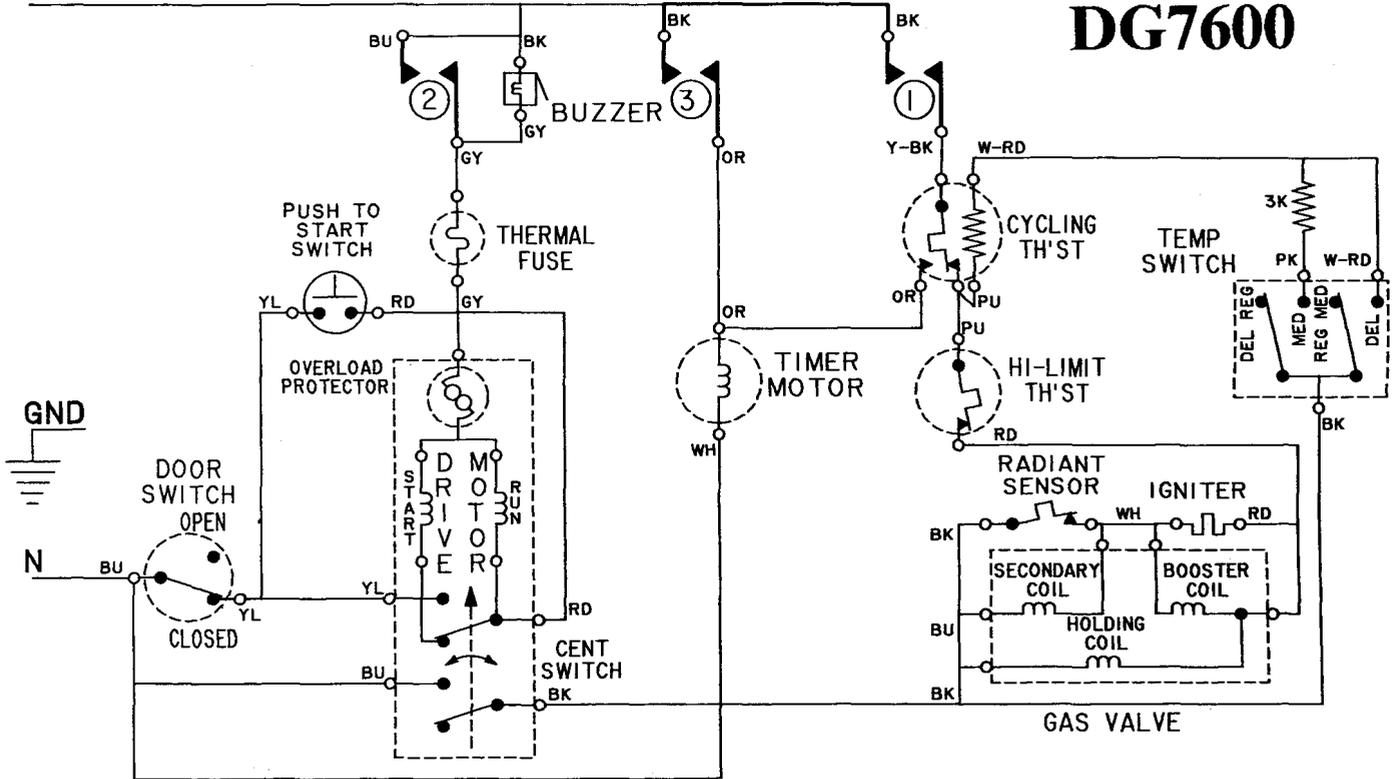


ELECTRICAL WIRING DIAGRAM

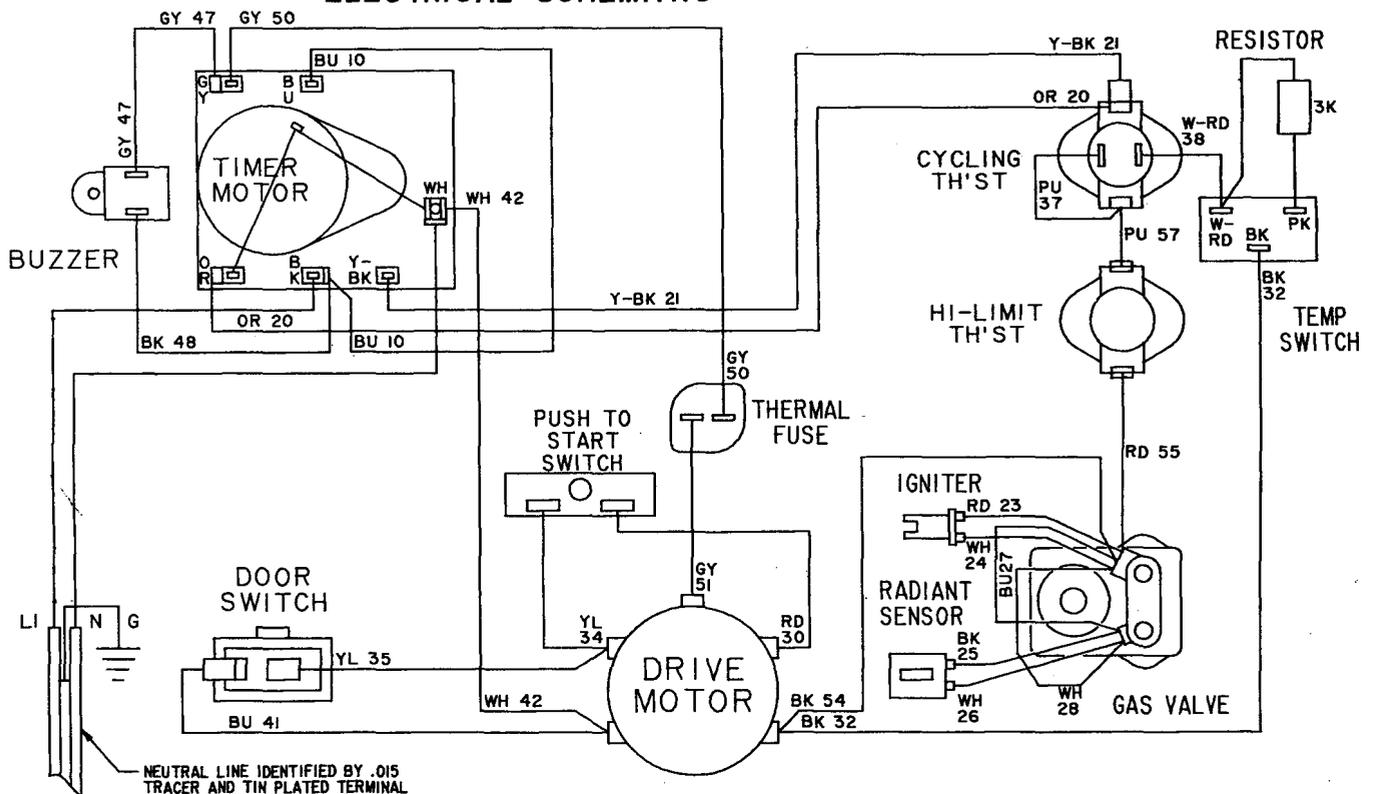
CAM INFORMATION AND CONTACT DATA			AUTO REG	OFF	AUTO PERM PRESS	OFF	TIME DRY	OFF	AIR FLUFF	OFF
CONTACT NO.	CIRCUITS	FUNCTION								
1	BK-YB	HEATER	█		█		█			
2	BU-GY	DRIVE MOTOR	█		█		█		█	
3	BK-OR	TIMER MOTOR	█		█		█		█	

L1

DG7600



ELECTRICAL SCHEMATIC

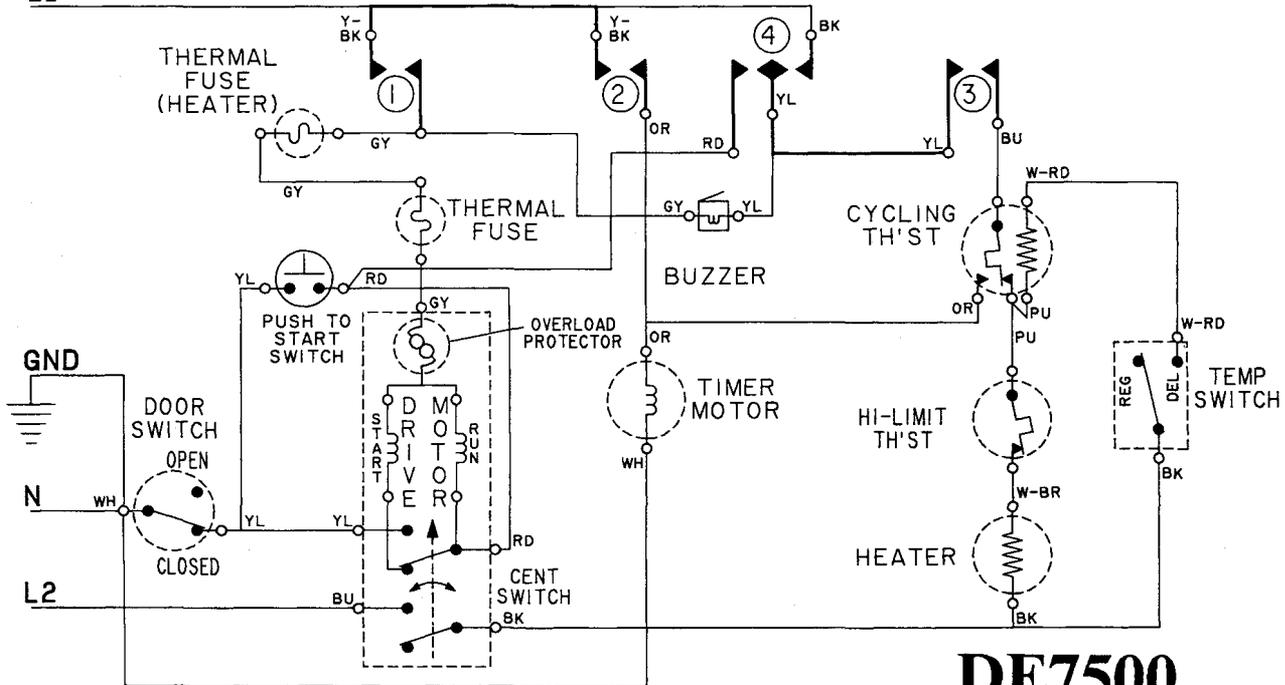


POWER CORD

CAM INFORMATION AND CONTACT DATA			AUTO PERM PRESS WITH PRESS CARE	OFF	AUTO REG	OFF	AIR FLUFF	OFF
CONTACT NO.	CIRCUITS	FUNCTION						
①	YB-GY	DRIVE MOTOR	■	■	■	■	■	■
②	YB-OR	TIMER MOTOR	■	■	■	■	■	■
③	YL-BU	HEATER	■	■	■	■	■	■
④	YL-BK	BUZZER/HEATER	■	■	■	■	■	■
	YL-RD	BUZZER/PULSER *	■	■	■	■	■	■

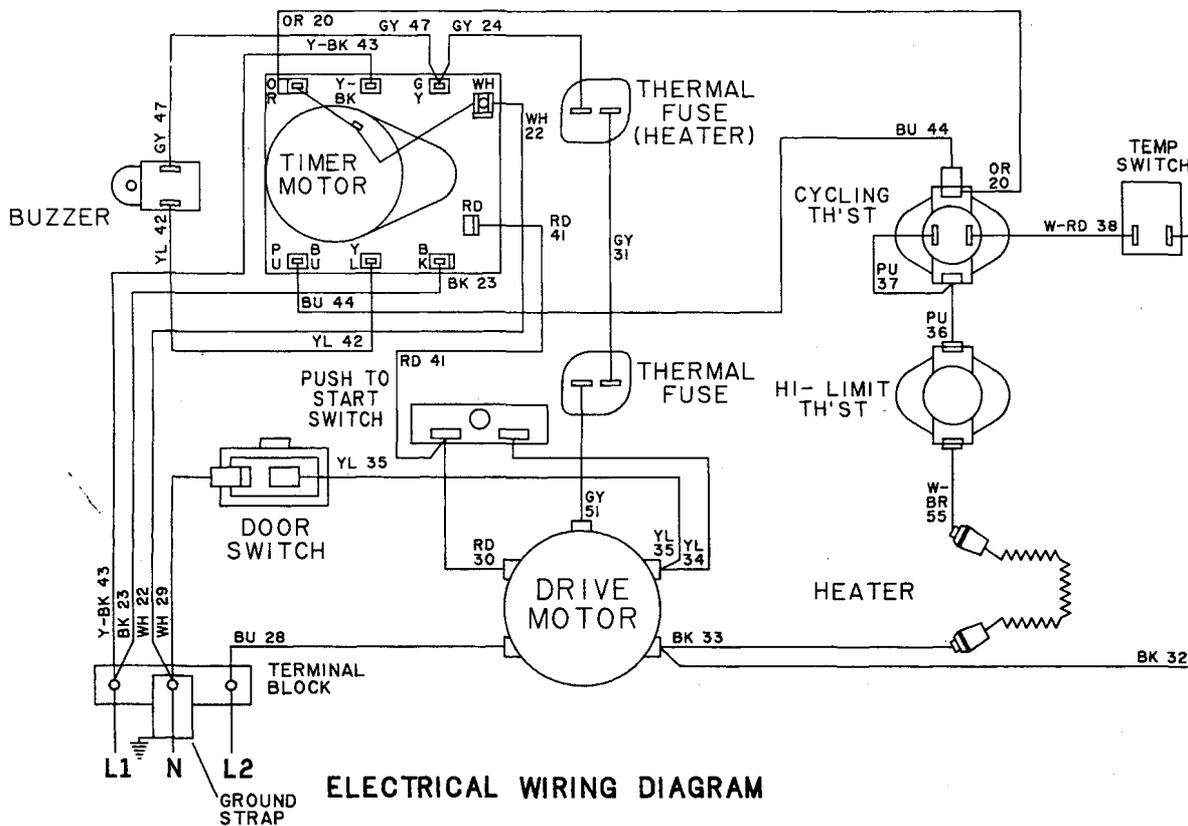
L1

\* \*ON\* 5 SECONDS EVERY 5 MINUTES



**DE7500**

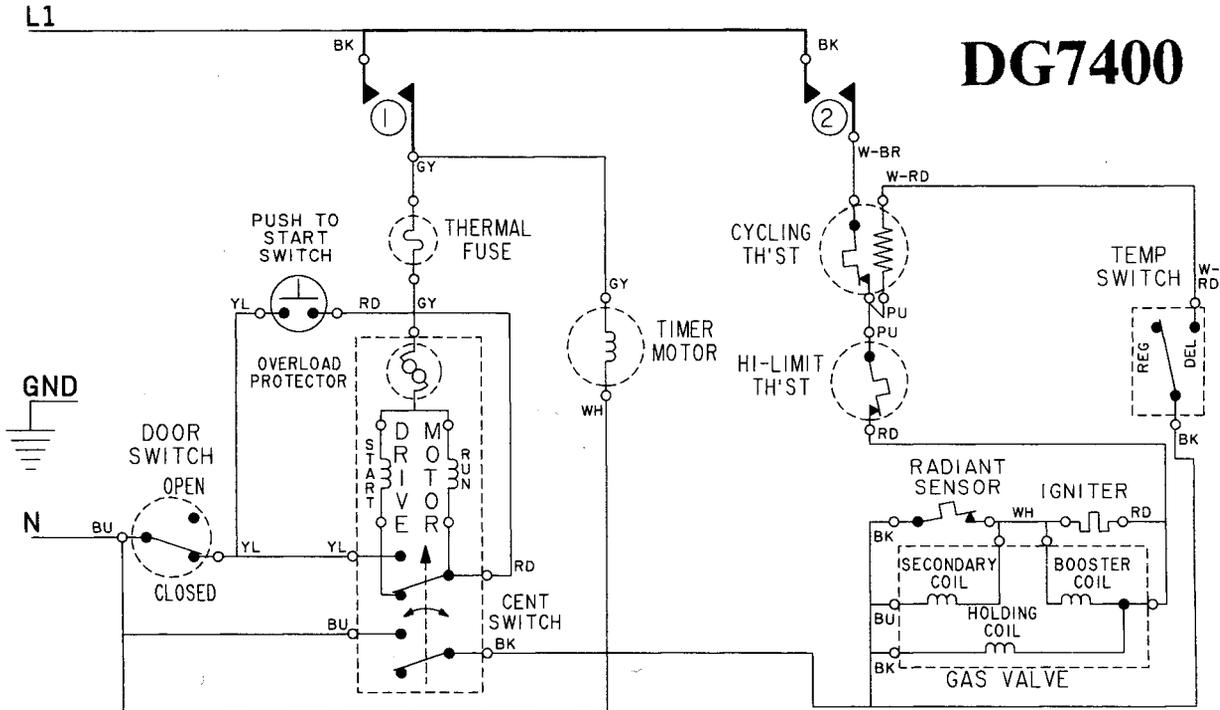
ELECTRICAL SCHEMATIC



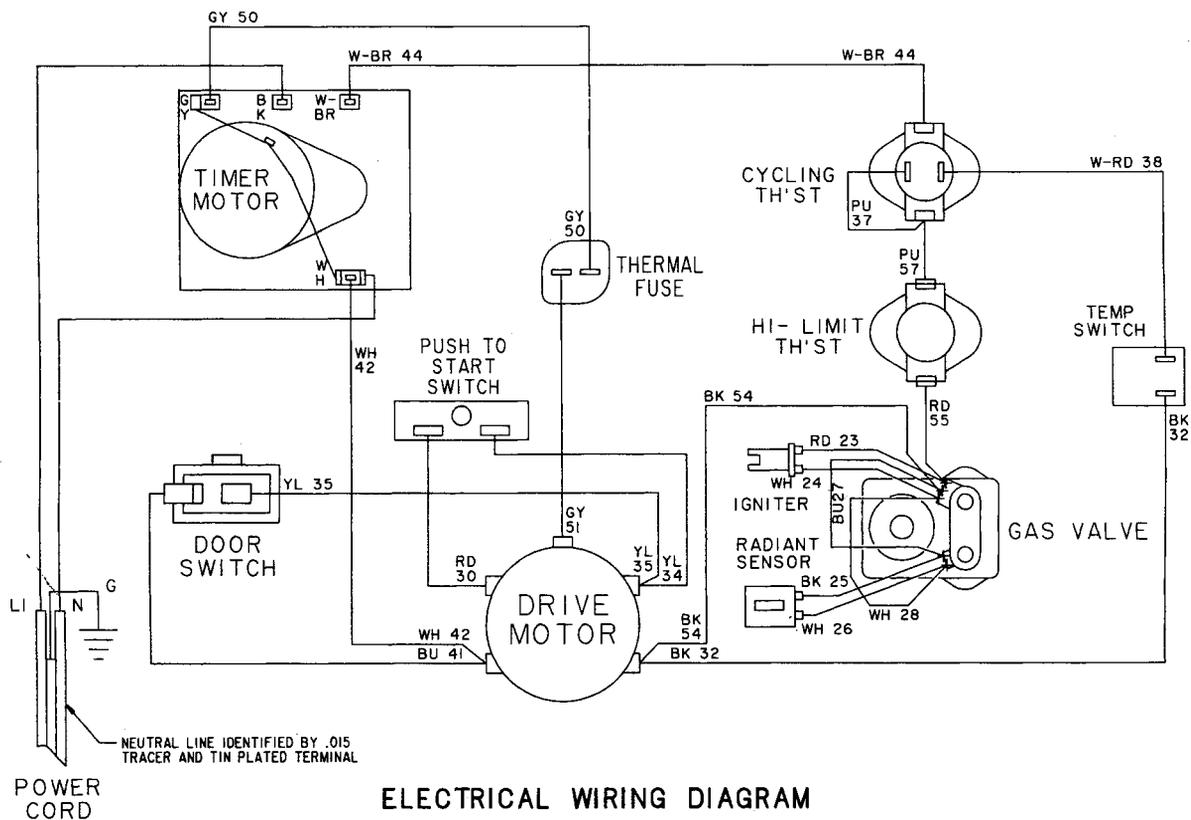
ELECTRICAL WIRING DIAGRAM



CAM INFORMATION AND CONTACT DATA			AIR FLUFF	OFF	TIME DRY PERM PRESS	OFF	TIME DRY REGULAR
CONTACT NO.	CIRCUITS	FUNCTION					
①	BK-GY	DRIVE MOTOR					
②	BK-WB	HEATER					

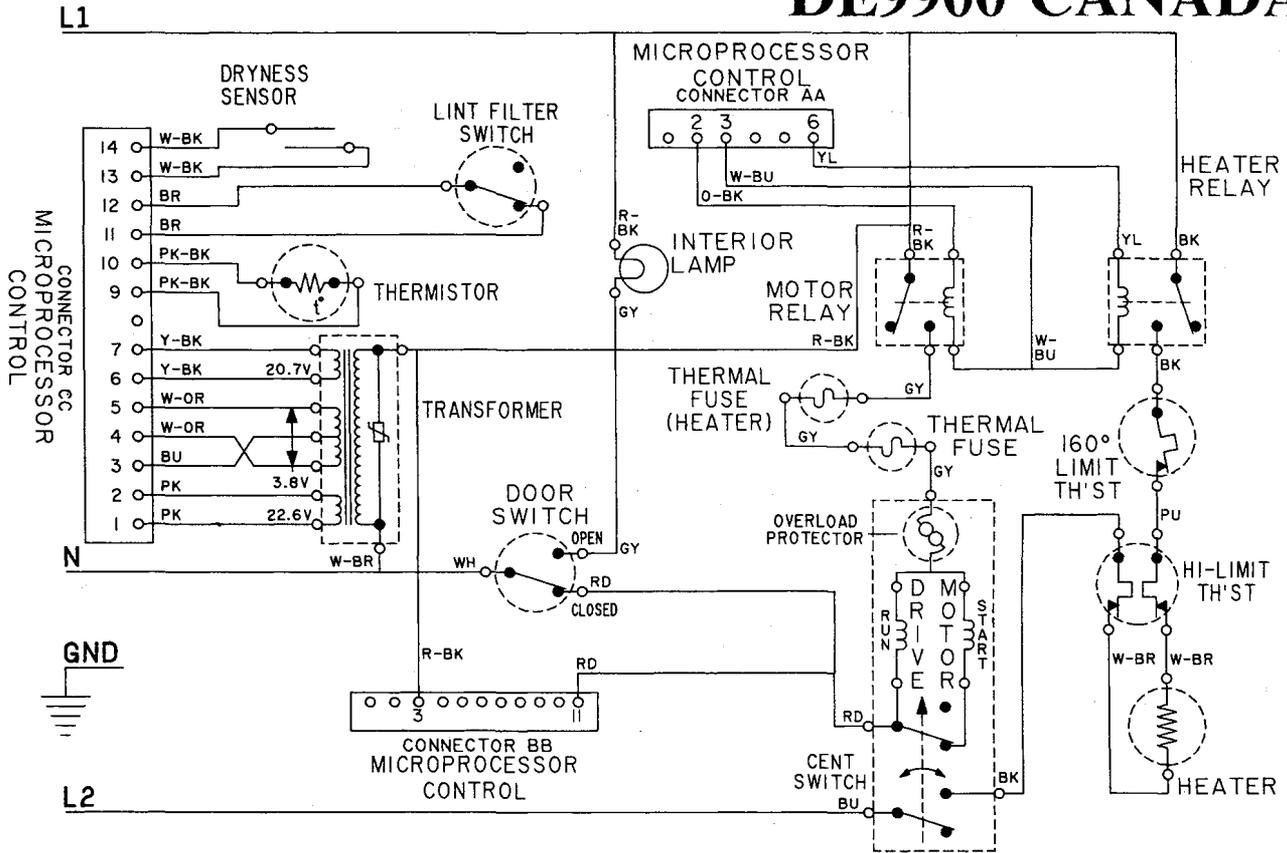


ELECTRICAL SCHEMATIC

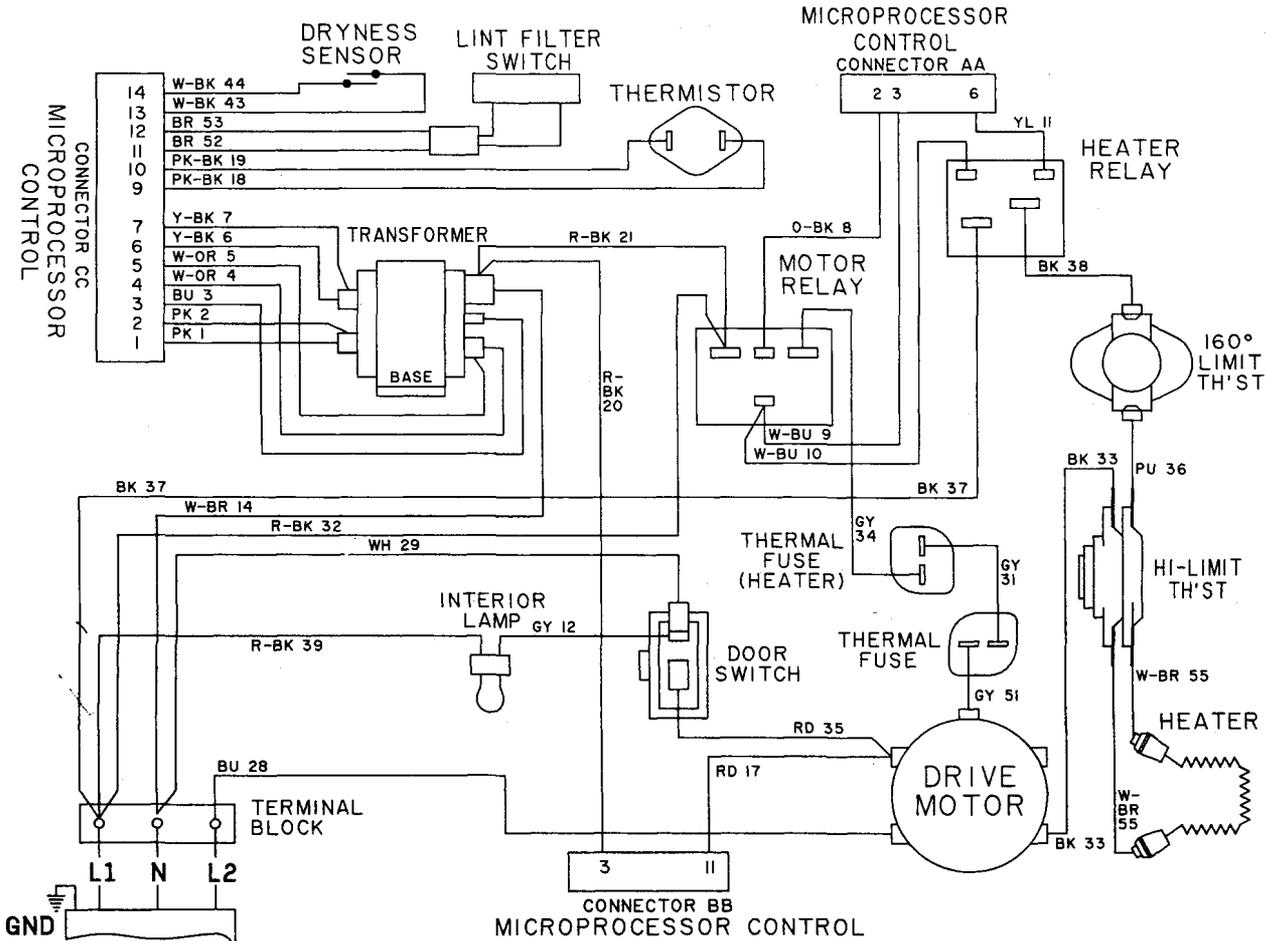


ELECTRICAL WIRING DIAGRAM

# DE9900 CANADA



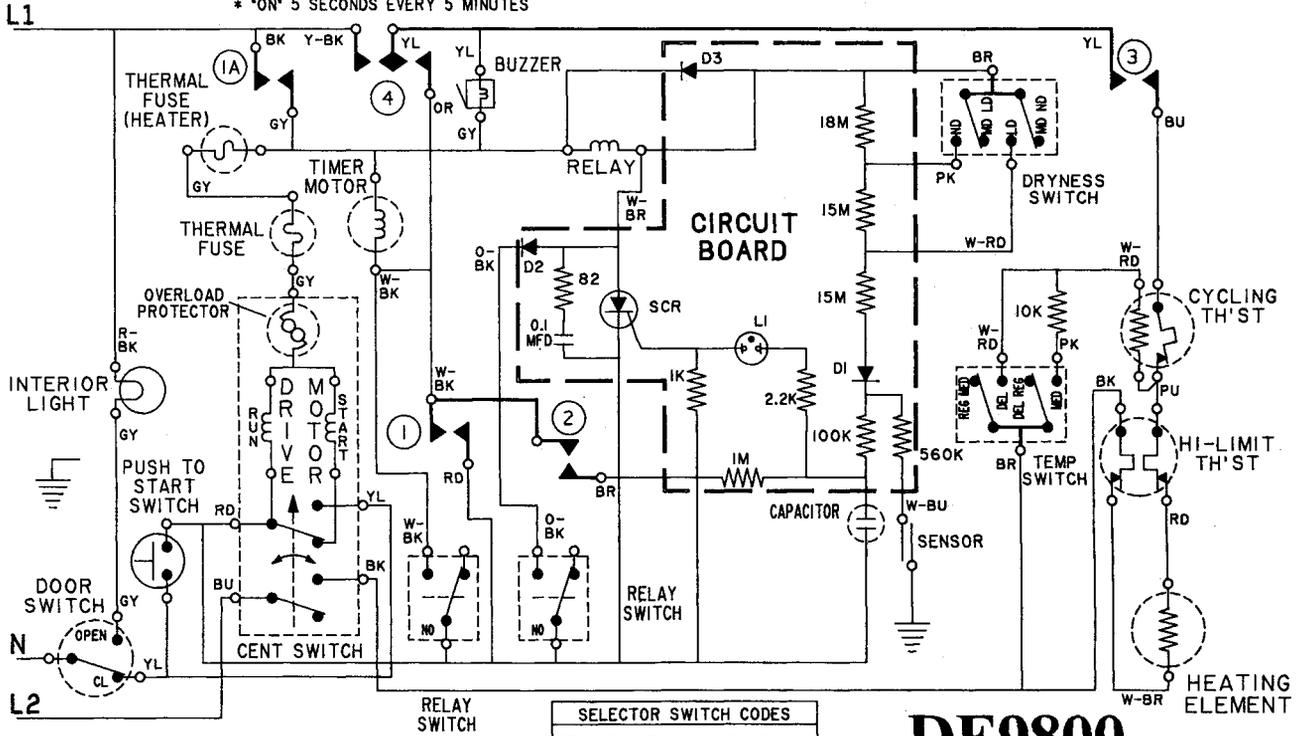
**ELECTRICAL SCHEMATIC**



**ELECTRICAL WIRING DIAGRAM**

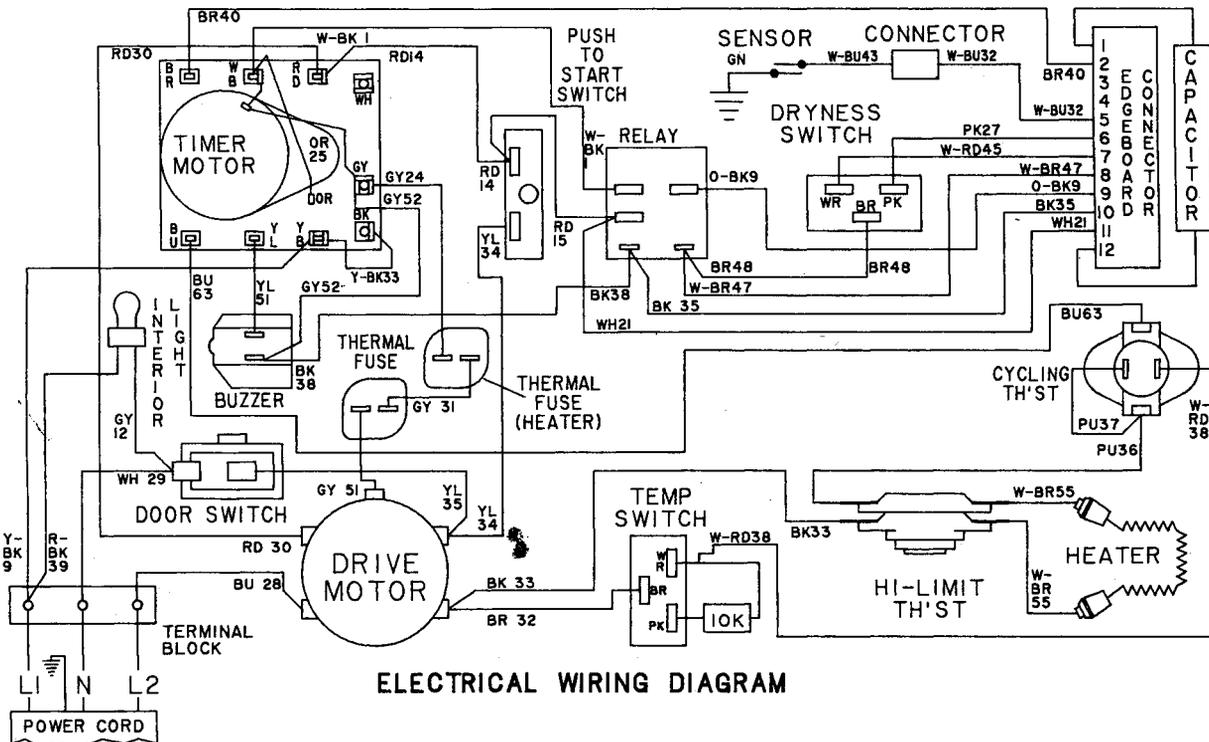
CAM INFORMATION AND CONTACT DATA			REG	OUT	PERM PRESS	OUT	PERM PRESS W/ PRESS CARE	OUT	AIR FLUFF	OUT	TIME DRY	OUT
CAM NO.	CIRCUITS	FUNCTION										
1	WB-RD	TIMER MOTOR										
1A	BK-GY	DRIVE MOTOR										
2	WB-BR	ELECTRONIC CONTROL DISABLE										
3	YL-BU	HEATER										
4	YL-YB	HEATER										
	YL-OR	BUZZER/PULSER *										

\* 'ON' 5 SECONDS EVERY 5 MINUTES



**DE9800  
CANADA**

**ELECTRICAL SCHEMATIC**

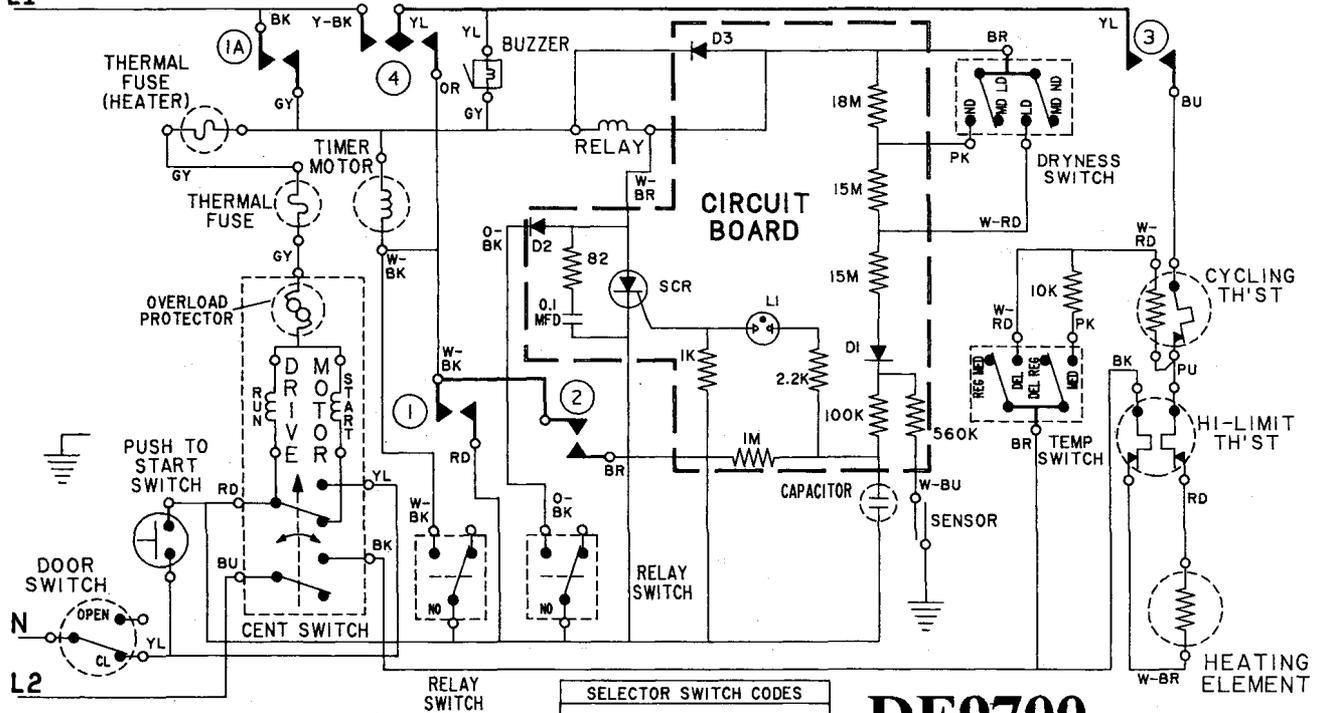


**ELECTRICAL WIRING DIAGRAM**

CAM INFORMATION AND CONTACT DATA			REG	PERM PRESS	PERM PRESS W/ PRESS CARE	AIR FLUFF	TIME DRY
CAM NO.	CIRCUITS	FUNCTION					
1	WB-RD	TIMER MOTOR					
1A	BK-GY	DRIVE MOTOR					
2	WB-BR	ELECTRONIC CONTROL DISABLE					
3	YL-BU	HEATER					
4	YL-YB	HEATER					
	YL-OR	BUZZER/PULSER *					

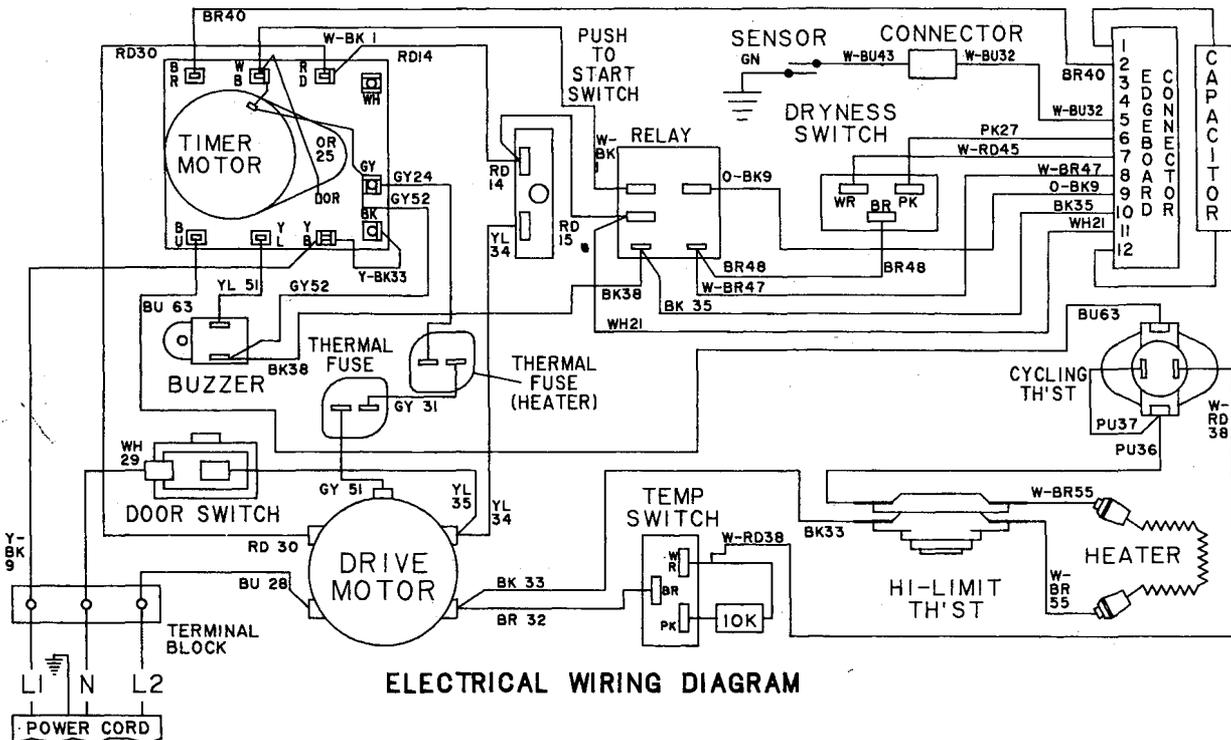
\* 'ON' 5 SECONDS EVERY 5 MINUTES

L1



ELECTRICAL SCHEMATIC

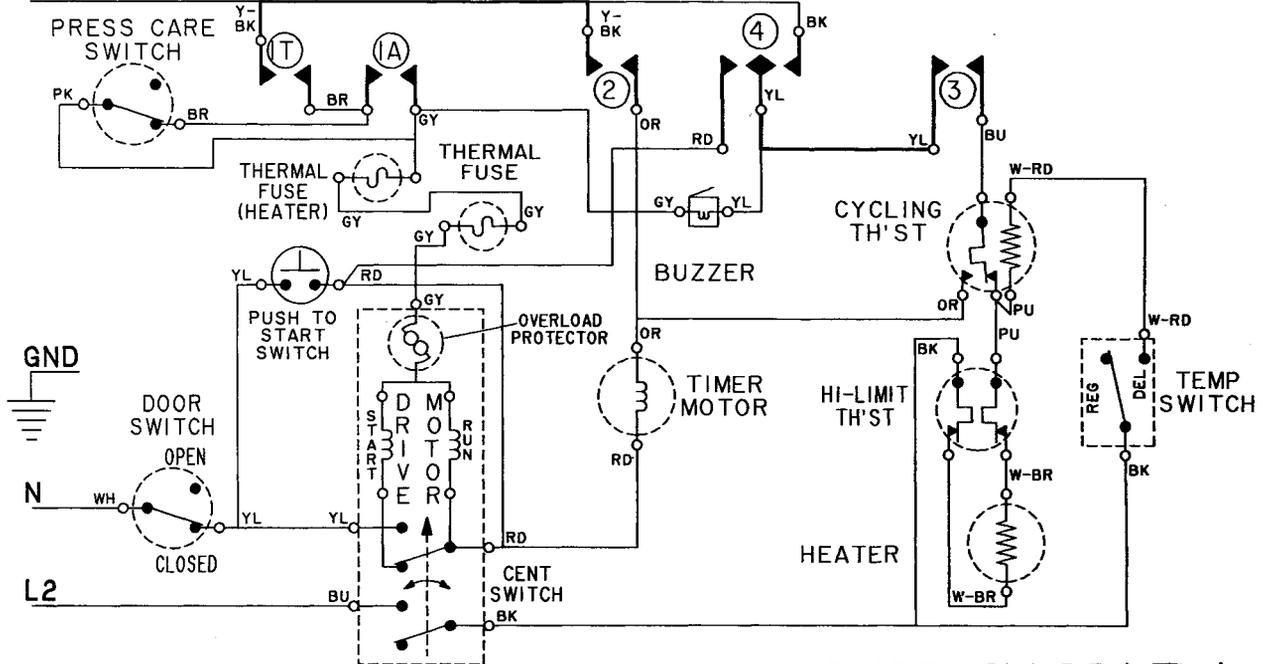
DE9700 CANADA



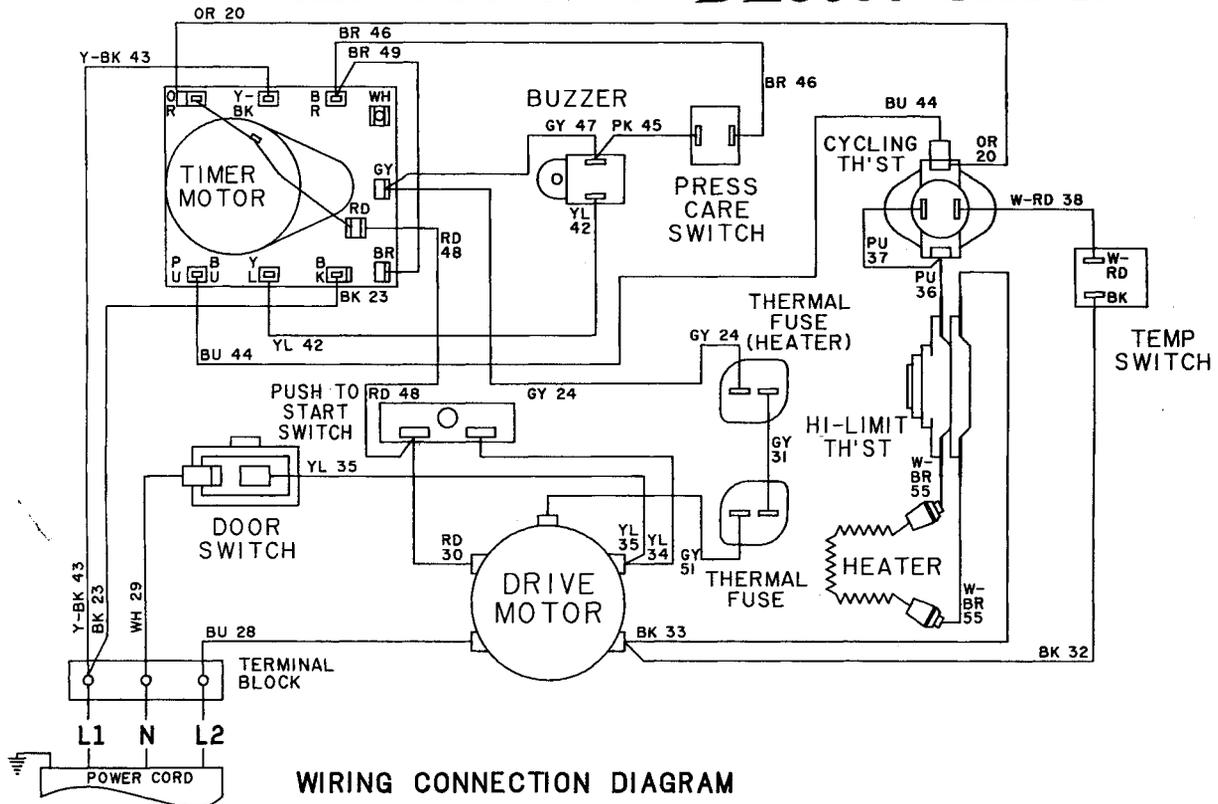
ELECTRICAL WIRING DIAGRAM

CAM INFORMATION AND CONTACT DATA			AUTO PERM PRESS	PRESS CARE	O F F	AUTO REG	O F F	TIME DRY	O F F
CONTACT NO.	CIRCUITS	FUNCTION							
1T	YB-BR	DRIVE MOTOR	█	█	█	█	█	█	█
1A	GY-BR	PRESS CARE	█	█	█	█	█	█	█
2	YB-OR	TIMER MOTOR	█	█	█	█	█	█	█
3	YL-BU	HEATER	█	█	█	█	█	█	█
4	YL-BK YL-RD	BUZZER/HEATER BUZZER/PULSER *	█	█	█	█	█	█	█

L1 \* 'ON' 5 SECONDS EVERY 5 MINUTES



## ELECTRICAL SCHEMATIC DE8600 CANADA



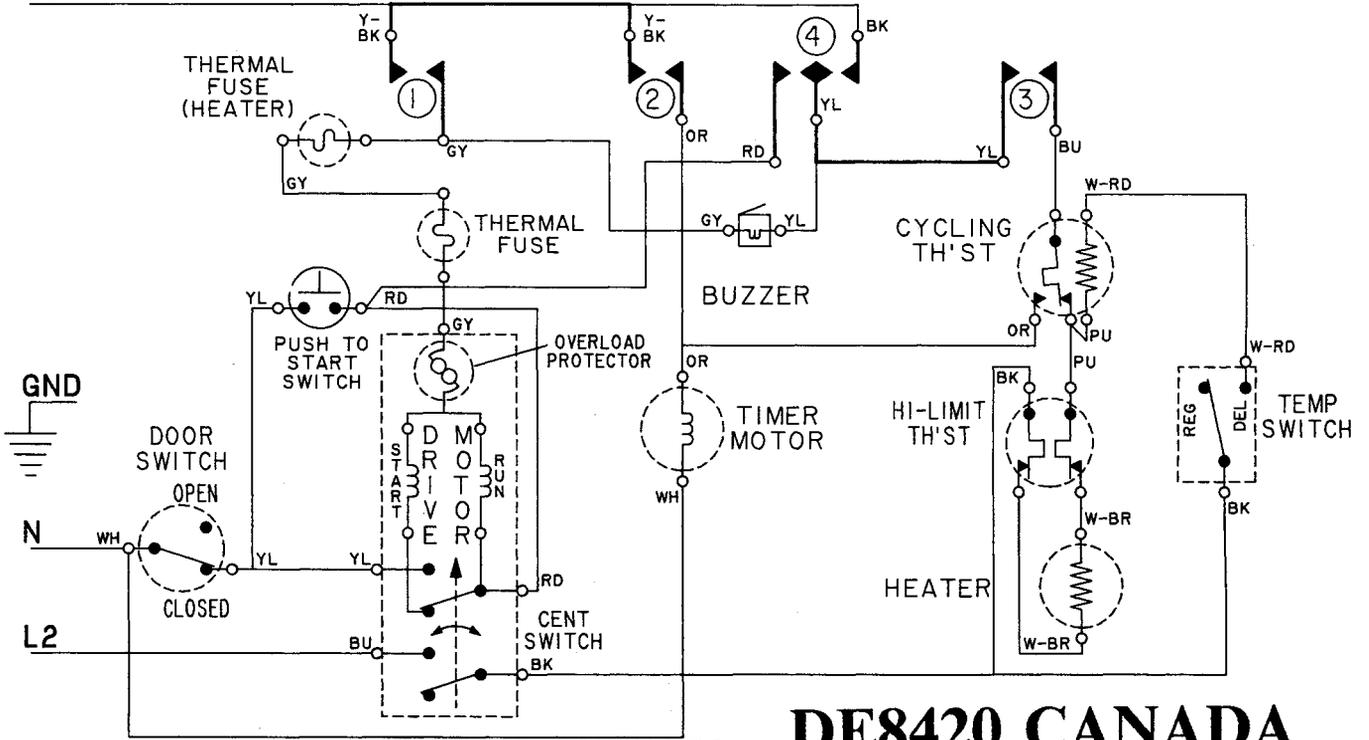
WIRING CONNECTION DIAGRAM



CAM INFORMATION AND CONTACT DATA			AUTO PERM PRESS	AIR FLUFF	O F F	AUTO REG	O F F	TIME DRY	O F F
CONTACT NO.	CIRCUITS	FUNCTION							
①	YB-GY	DRIVE MOTOR	■			■		■	
②	YB-OR	TIMER MOTOR		■			■	■	
③	YL-BU	HEATER	■			■		■	
④	YL-BK	BUZZER/HEATER	■	■		■		■	
	YL-RD	BUZZER/PULSER *	■			■		■	

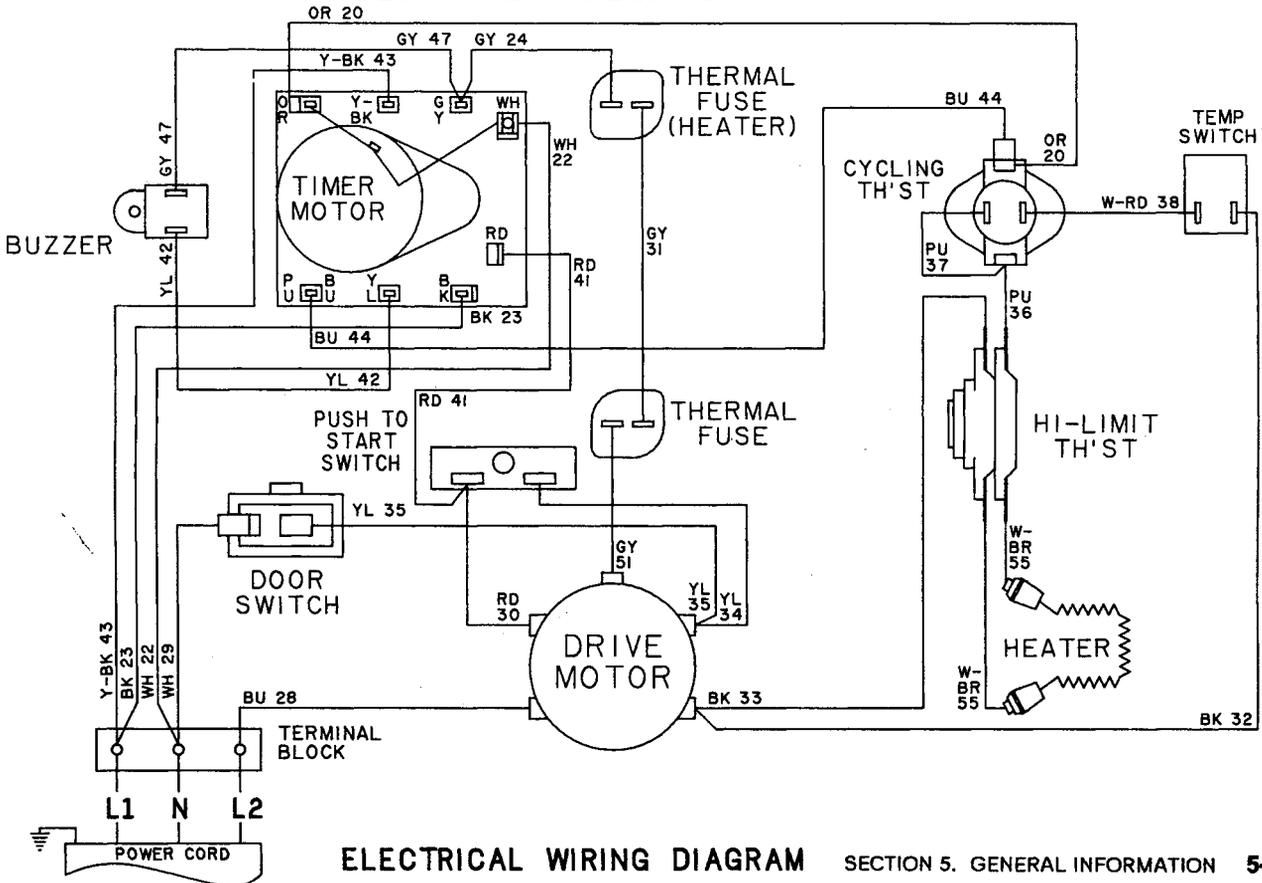
\* "ON" 5 SECONDS EVERY 5 MINUTES

L1



ELECTRICAL SCHEMATIC

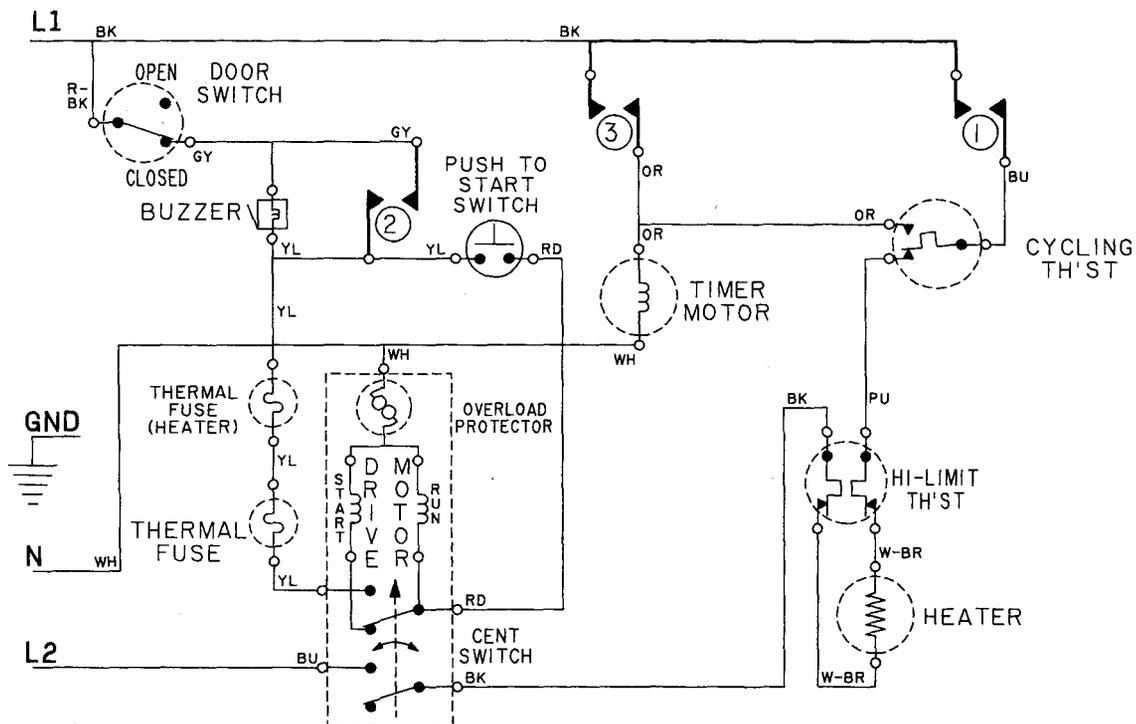
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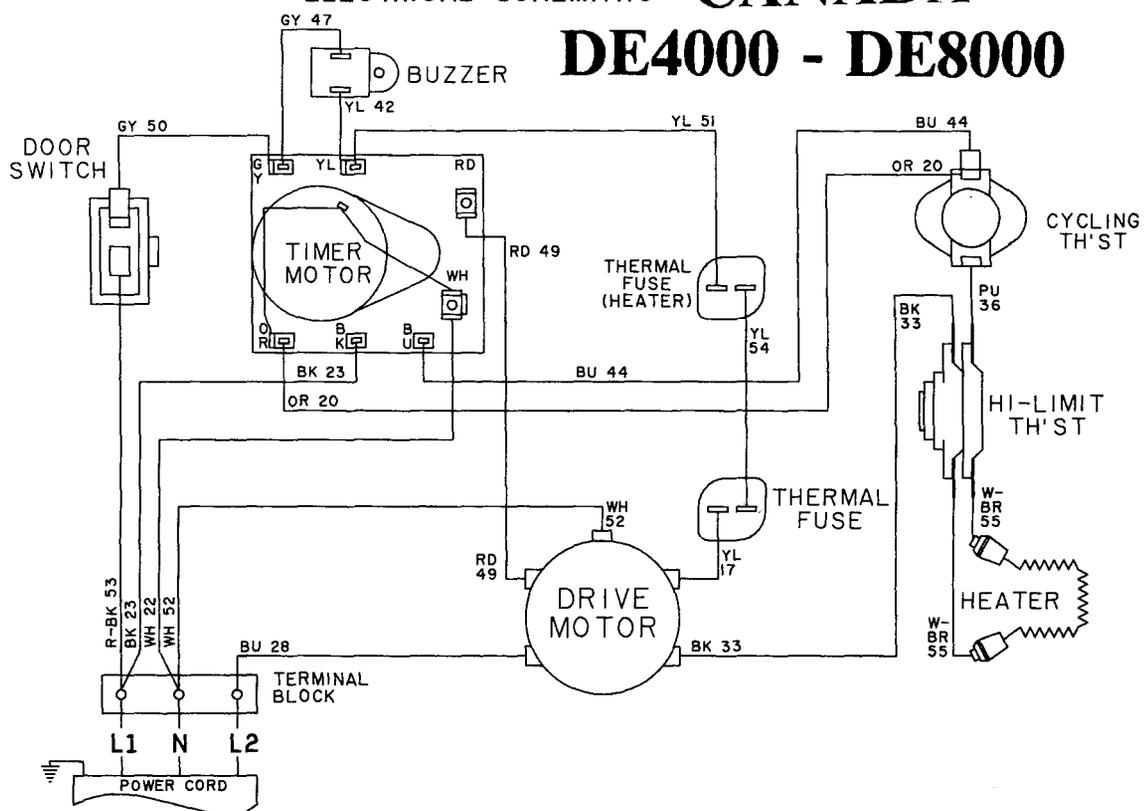
ELECTRICAL WIRING DIAGRAM



CAM INFORMATION AND CONTACT DATA			AUTO PERM PRESS	OFF	AUTO REG	OFF	AIR FLUFF	OFF
CONTACT NO.	CIRCUITS	FUNCTION						
1	BK-BU	HEATER	■		■			
2	GY-YL	DRIVE MOTOR	■		■		■	
3	BK-OR	TIMER MOTOR	■		■		■	



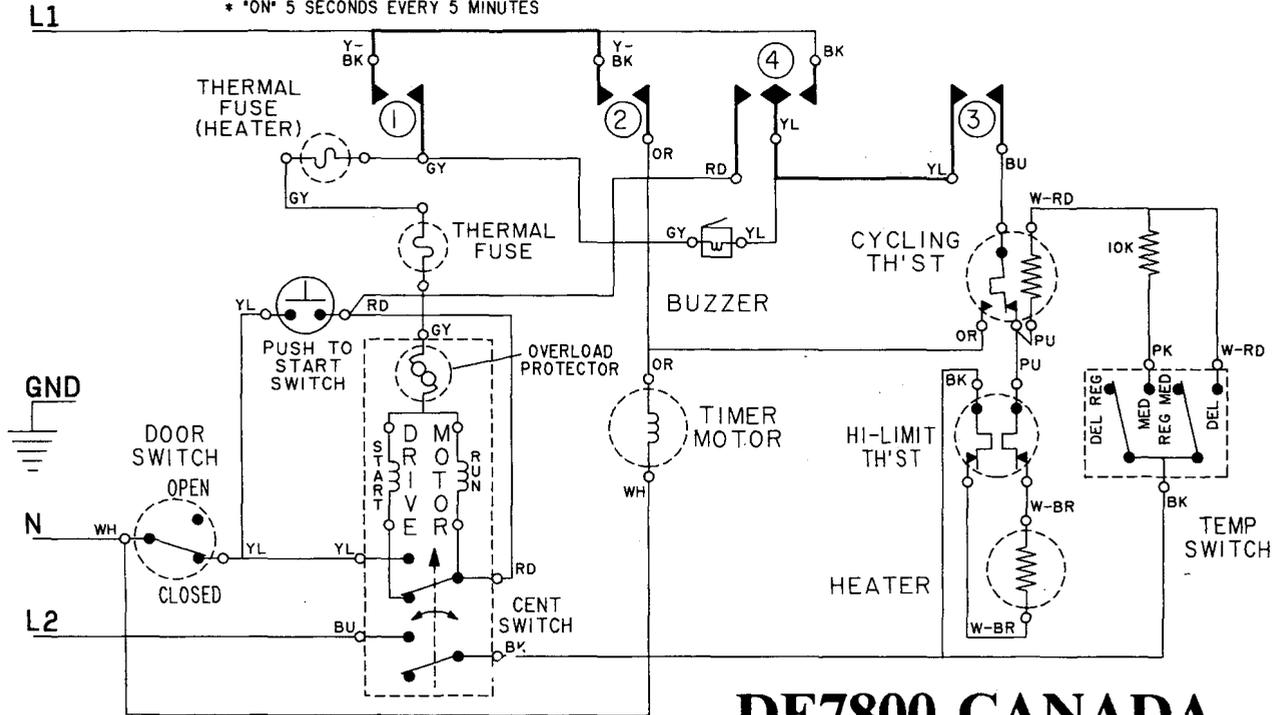
## ELECTRICAL SCHEMATIC CANADA DE4000 - DE8000



ELECTRICAL WIRING DIAGRAM

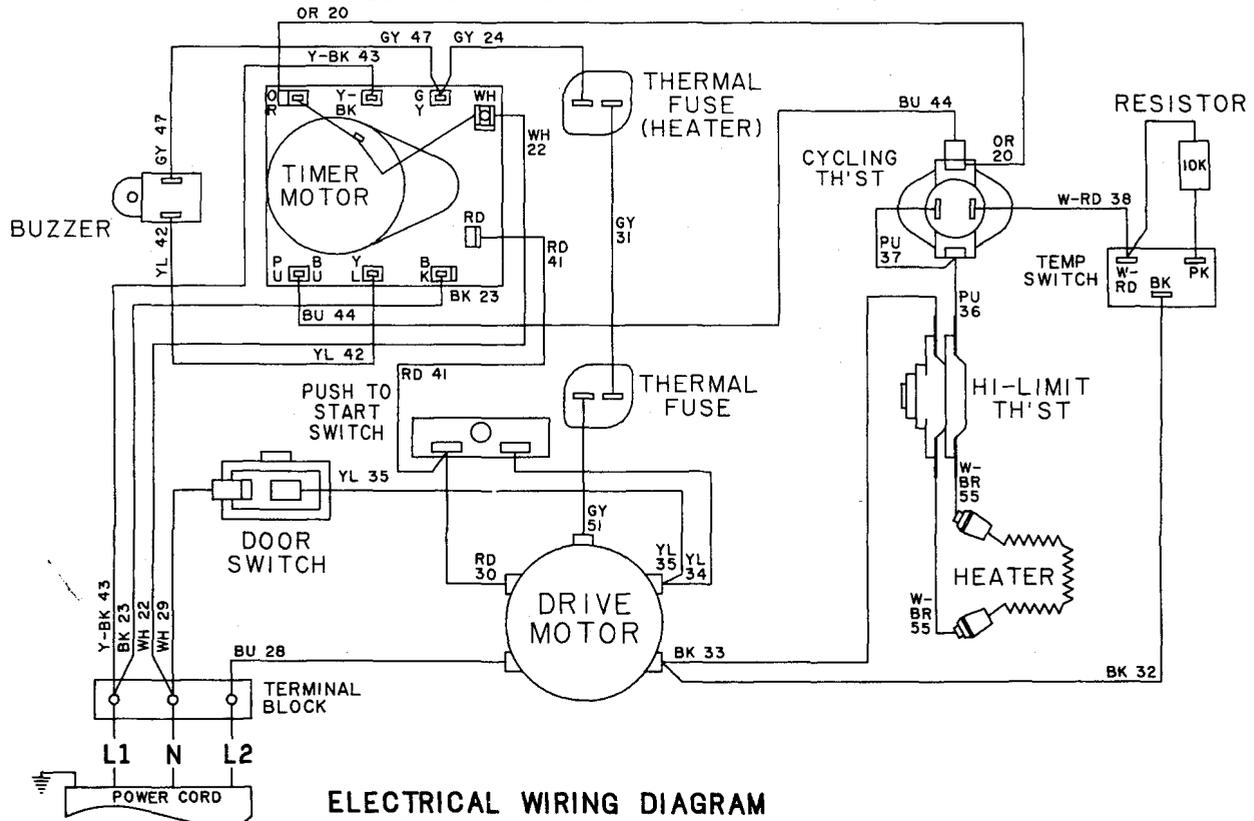
CAM INFORMATION AND CONTACT DATA			AUTO PERM PRESS	AIR FLUFF	O F F	AUTO REG	O F F	TIME DRY	O F F
CONTACT NO.	CIRCUITS	FUNCTION							
①	YB-GY	DRIVE MOTOR	█	█	█	█	█	█	█
②	YB-OR	TIMER MOTOR	█	█	█	█	█	█	█
③	YL-BU	HEATER	█	█	█	█	█	█	█
④	YL-BK	BUZZER/HEATER	█	█	█	█	█	█	█
	YL-RD	BUZZER/PULSER *	█	█	█	█	█	█	█

\* \*ON\* 5 SECONDS EVERY 5 MINUTES



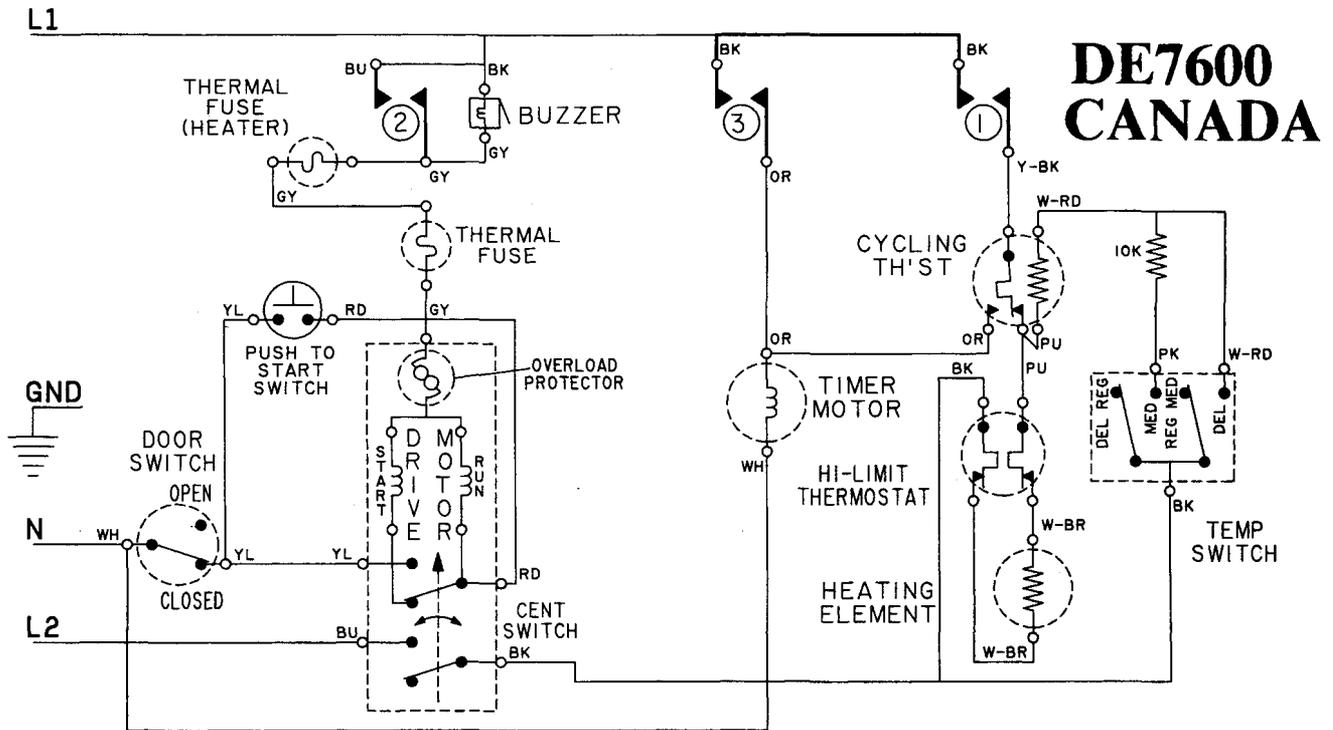
ELECTRICAL SCHEMATIC

**DE7800 CANADA**

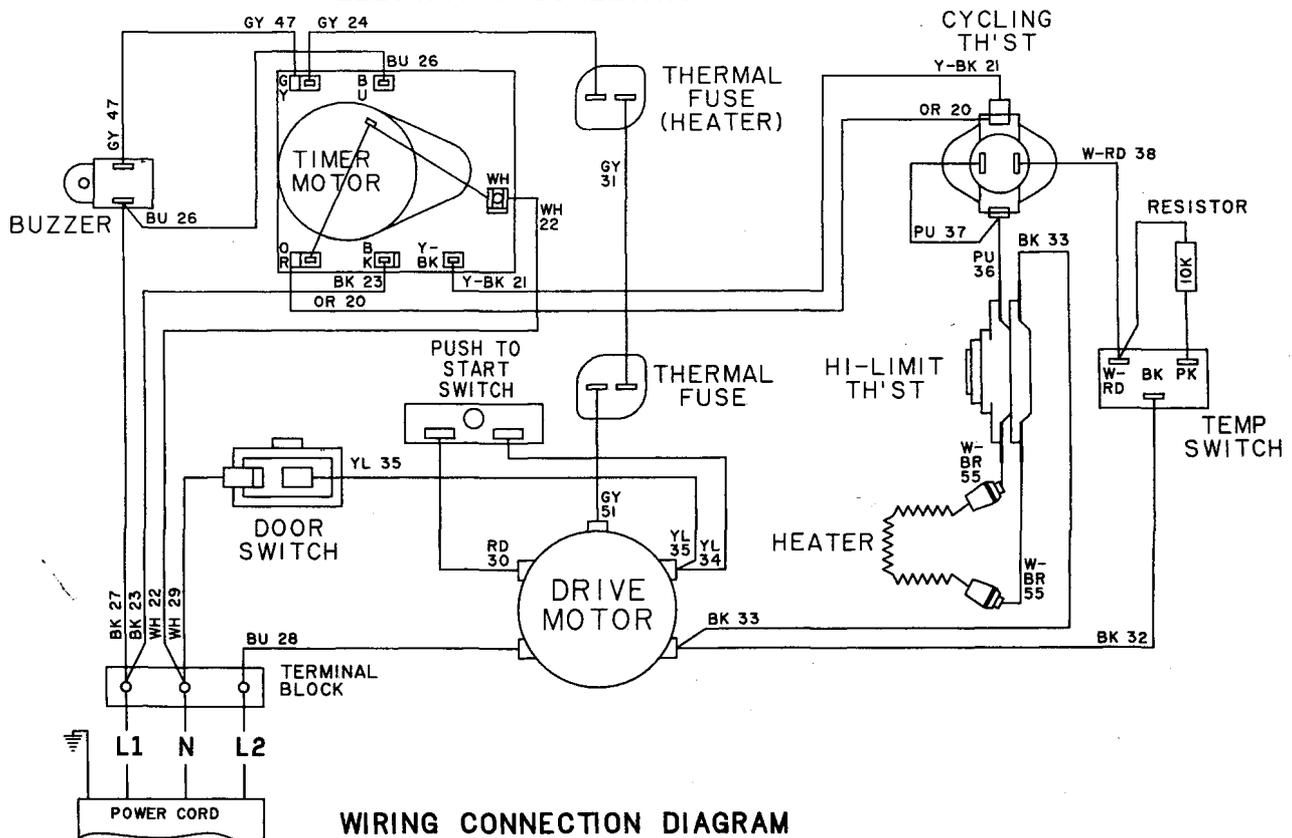


ELECTRICAL WIRING DIAGRAM

CAM INFORMATION AND CONTACT DATA			AUTO REG	OFF	AUTO PERM PRESS	OFF	TIME DRY	OFF	AIR FLUFF	OFF
CONTACT NO.	CIRCUITS	FUNCTION								
1	BK-YB	HEATER	■	■	■	■	■	■	■	■
2	BU-GY	DRIVE MOTOR	■	■	■	■	■	■	■	■
3	BK-OR	TIMER MOTOR	■	■	■	■	■	■	■	■



**ELECTRICAL SCHEMATIC**

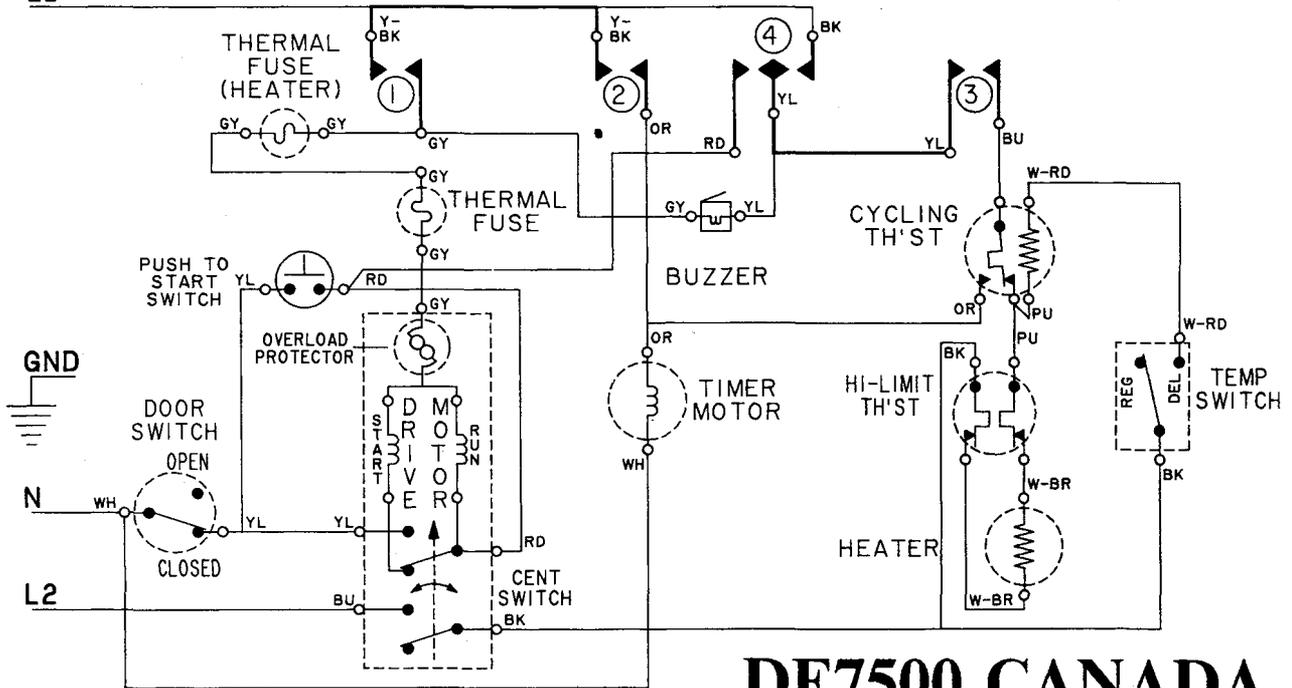


**WIRING CONNECTION DIAGRAM**

CAM INFORMATION AND CONTACT DATA			AUTO PERM PRESS WITH PRESS CARE	OFF	AUTO REG	OFF	AIR FLUFF	OFF
CONTACT NO.	CIRCUITS	FUNCTION						
①	YB-GY	DRIVE MOTOR	■	■	■	■	■	■
②	YB-OR	TIMER MOTOR	■	■	■	■	■	■
③	YL-BU	HEATER	■	■	■	■	■	■
④	YL-BK	BUZZER/HEATER	■	■	■	■	■	■
	YL-RD	BUZZER/PULSER *	■	■	■	■	■	■

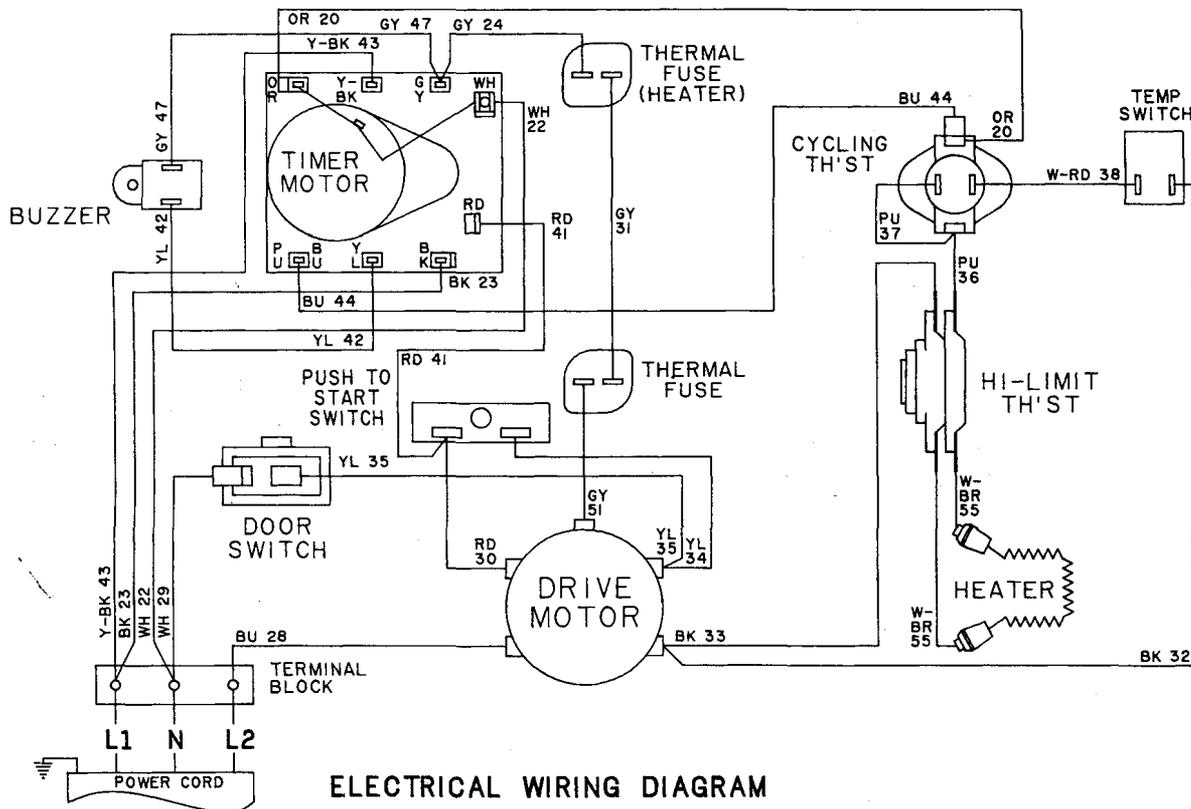
L1

\* 'ON' 5 SECONDS EVERY 5 MINUTES



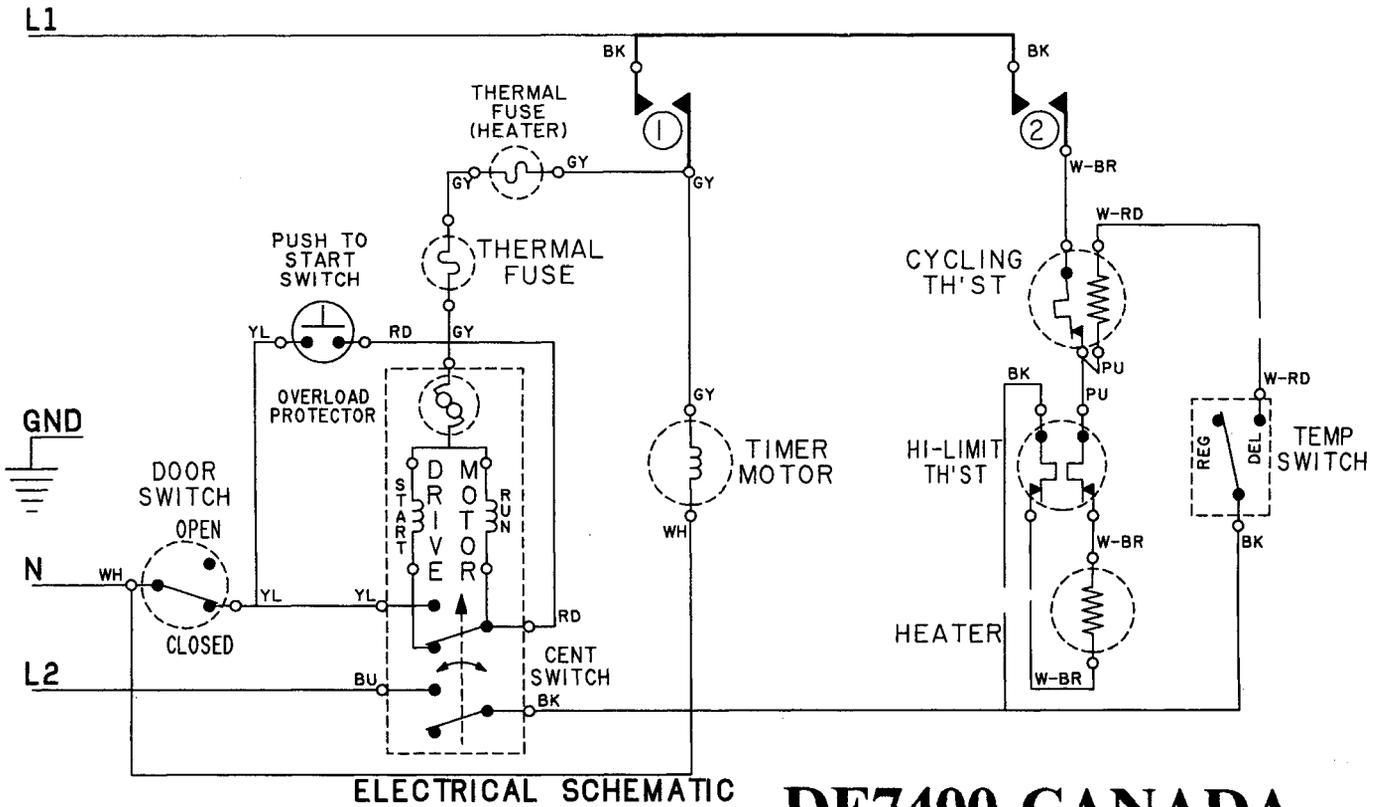
ELECTRICAL SCHEMATIC

**DE7500 CANADA**

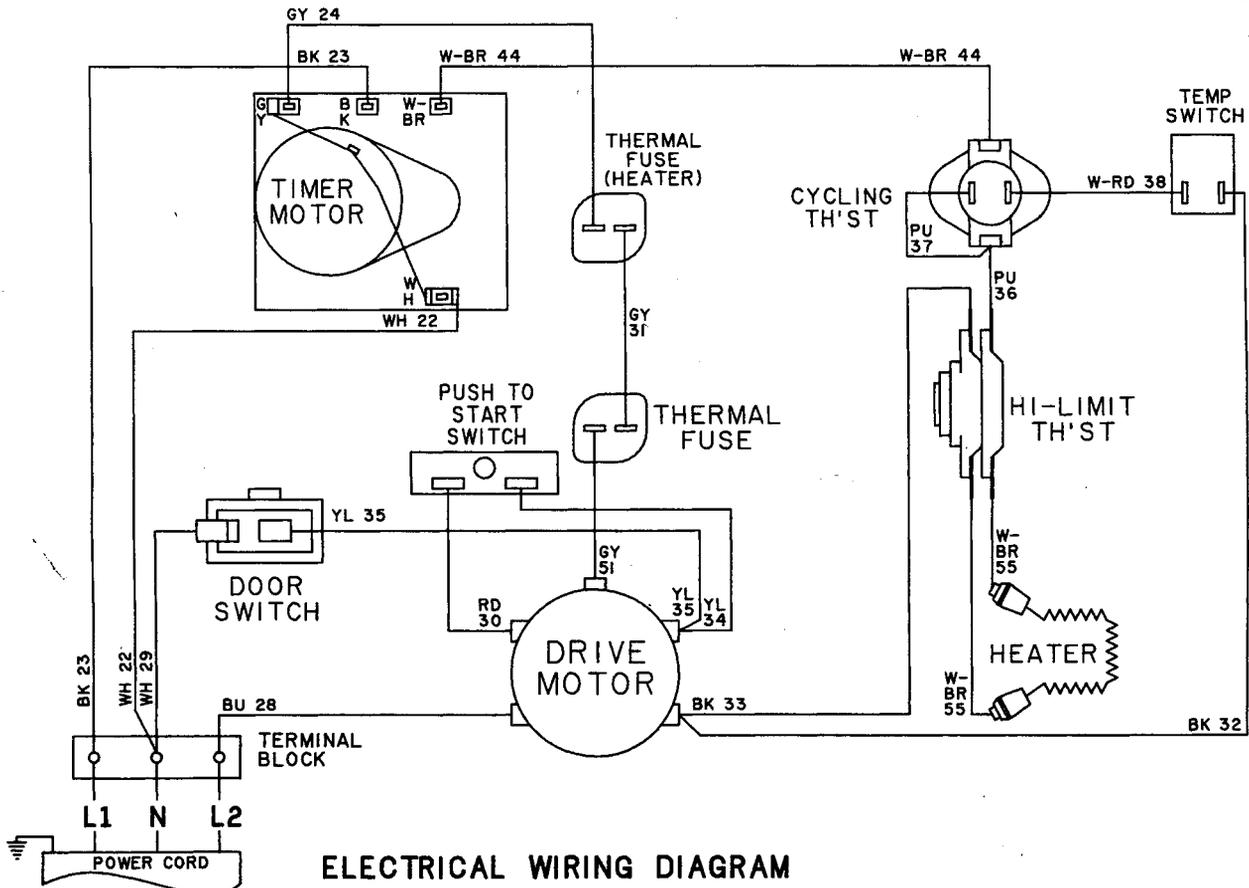


ELECTRICAL WIRING DIAGRAM

CAM INFORMATION AND CONTACT DATA			AIR FLUFF	OFF	TIME DRY PERM PRESS	OFF	TIME DRY REGULAR
CONTACT NO.	CIRCUITS	FUNCTION					
①	BK-GY	DRIVE MOTOR					
②	BK-WB	HEATER					

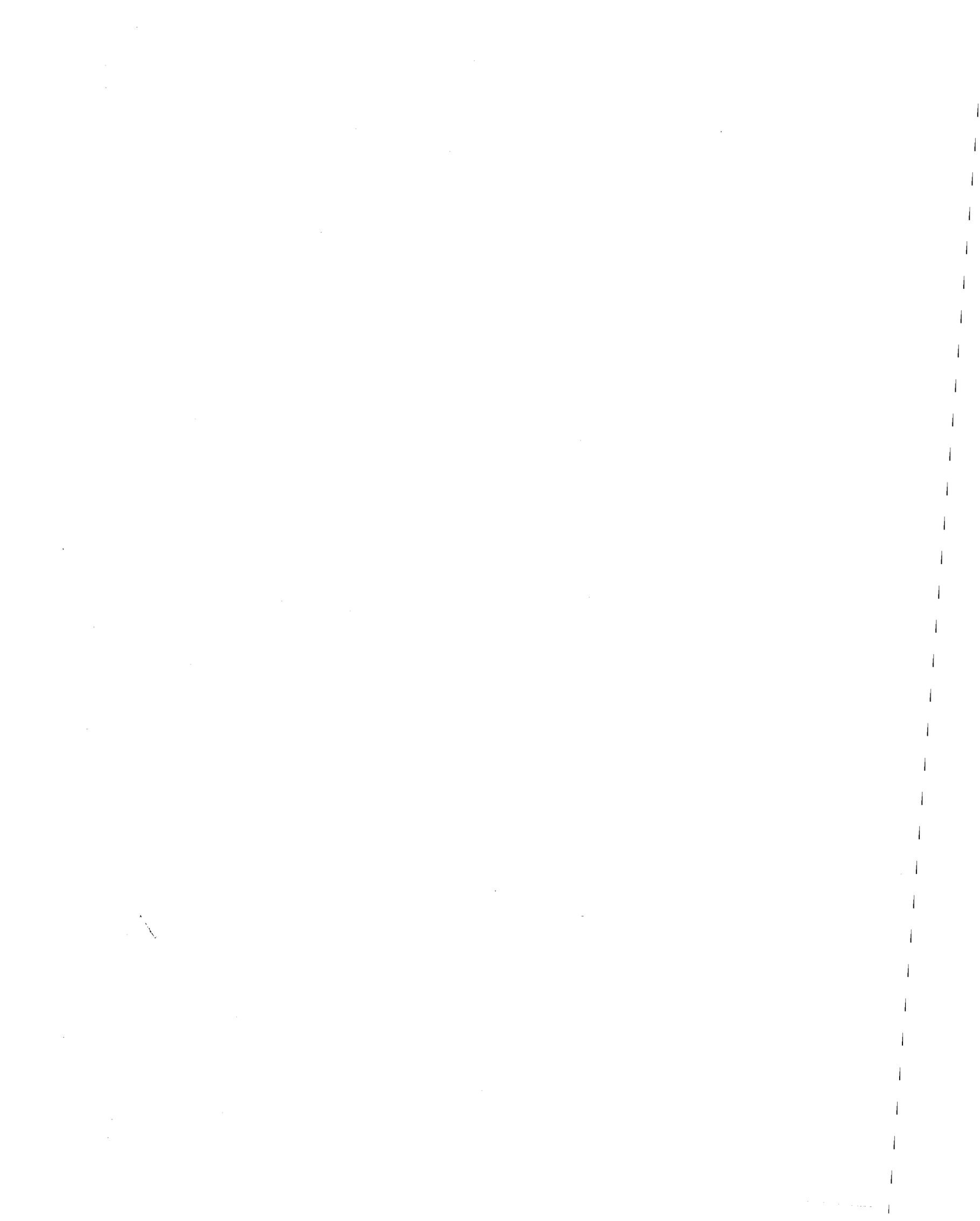


# DE7400 CANADA



ED/GD401 1090





**MAYTAG**

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