MAYTAG

Maytag Commercial

MDE/MDG16
MUE/MUG15
MHE/MHG15
MLE/MLG15

Dryer Service Manual

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Issued 6/98

GENERAL SAFETY PRECAUTIONS

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 qualified service technicians equipped with proper tools and measuring devices. All component replacements should be made by a qualified service technician using only factory approved 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 approved replacement parts are used. Improper assembly or adjustment can create 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. Consequently, extreme caution should be taken when performing voltage checks on individual components of a product. **PLEASE NOTE**: Except as necessary to perform a particular step in servicing a product, the electrical power supply should **ALWAYS** be disconnected when servicing a product.

Further, this appliance **MUST** be properly grounded. Never plug in or direct wire an appliance unless it is properly grounded and in accordance with all local and national codes. See installation instructions that accompany the product for grounding this product.

INTRODUCTION

The information contained in this manual pertains to the service procedures involved in maintaining and/or servicing the Maytag single and stack model dryers. This model is intended for use in commercial laundry facilities.

This manual can be used as a guide to assist in performance evaluation and servicing of the product. As on other dryer models, the importance of proper installation cannot be overemphasized. For additional information, refer to the installation instructions supplied with each dryer.

This manual is divided into five sections. Refer to those sections for general information. If additional information is required, contact your commercial distributor.

Section 1 - Covers general information and electrical test equipment.

Section 2 - Provides information on the location of components and service procedures. The purpose and function of specific components will be covered.

Section 3 - Provides information on programming and set-up procedures.

Section 4 - Covers general troubleshooting using a list of general complaints.

Section 5 - Provides specifications and general wiring diagram information.

MODELS COVERED IN THIS MANUAL

MDE/MDG16
MUE/MUG15
MHE/MHG15
MLE/MLG15

NOTES

CONTENTS

SECTION 1. GENERAL INFORMATION

HOW TO ORDER PARTS

IT IS RECOMMENDED THAT GENUINE FACTORY REPAIR PARTS BE USED. USE OF OTHER PARTS MAY HARM UNIT OR CAUSE OPERATIONAL PROBLEMS.

When ordering parts from your distributor, or when contacting them regarding machine safety or service, always have the following information ready:

Machine Model Number:	
Machine Serial Number:	
Installation Date:	
Distributor's Name:	
Address:	
City, State, Zip Code:	
Person To Contact & Telephone Number:	

UNCRATING

Before removing packaging, inspect for and note any carton damage. Carefully remove any packaging materials. The bottom skid is secured to the bottom frame of the dryer. See instructions for removal procedures of crating.

Inspection

As soon as the crating material is removed, the dryer should be inspected. If any parts are found to be damaged, they must be replaced before installation.

NOTE: ***Never install a machine having damaged parts expecting to replace them at a later date.***

If damage is noticed when the machine is delivered, notation should be placed on the transportation company's freight bill. If damage is discovered, the transportation company must be called to make an inspection. This request should be made within fifteen (15) days of date of delivery. Claims should be filed against the transportation company for this damage after the machine has been repaired. If the machine is damaged beyond repair, it should be refused.

NOTE: ***Our responsibility for a shipment reaching its destination in satisfactory condition ends with the delivery of the machine in good order to the transportation company. All machines should be inspected upon receipt before they are signed for.***

Damage Claim

If the machine, or any part of it, is damaged and a claim is to be filed, the following documents should be presented to the delivering carrier:

1. Original freight bill.
2. Original bill of lading.
3. Copy of original invoice on which merchandise was purchased.
4. Inspection report, if damage is of a concealed nature.
5. Invoice on which replacement parts are purchased.
6. Express receipt of freight bill on any replacement parts.
7. Salvage receipt (general receipt) from the truck line if there are parts which are salvageable turned over to the carrier.

NOTE: ***If damage is suspected, a notation on the freight bill reading "carton scuffed - may contain damage," and signed by the delivering carrier will protect you from a damage claim. This notation should be put on before delivering carrier leaves your premises. This notation MUST be on the carrier's copy and your copy of the freight bill. If a damage claim is to be filed, present the above documents to the delivering carrier.***

TERMINOLOGY/DEFINITIONS

TERM	DEFINITIONS
Amperage	The amount or the rate of flow of electrical current.
Booster Coil	A coil used to assist the holding coil to raise the plunger in the gas valve allowing gas to flow into the second chamber of the valve.
BTU	British Thermal Unit is the quantity of heat required to raise the temperature of one pound of water 1°F.
Centrifugal Switch	A switch device in a motor used to change the path of electricity from both start and run winding to run winding only. It also completes the circuit to the heat source when motor reaches speed.
CFM	Air movement measured in cubic feet per minute.
Clothes Lifters	Devices attached to the inside of the tumbler used to lift and tumble the clothes during operation of the dryer.
Coin Drop	A device which accepts and registers the number and denomination of coins used to start the dryer.
Duct	A construction of aluminum or galvanized steel pipe used to convey moisture laden air from the dryer to the outside.
Evaporation	The process of expelling moisture from garments by heat and/or air movement.
Exhaust Hood	A damper placed at the terminating end of the ducting which prevents air from entering the duct when the dryer is not running.
Glide Strip	A stationary bearing surface at the front on which the dryer tumbler turns.
Holding Coil	A coil used to open the first valve in the gas valve assembly. It holds the valve open after the initial assistance from the booster coil.
Igniter	A silicon carbide igniter located on the burner bracket near the main orifice. It can reach a temperature of 2200°F. in 30 seconds to ignite the gas (when allowed to flow through gas valve orifice).
Light Emitting Diode (LED)	A solid state indicator unit found as a single light and in a display arrangement to form numbers and letters.
Manometer	An instrument for measuring the pressure of gas or air.
Microprocessor	The "brains" of the control board. A solid state "count and switch" device.
OHM	A unit of measurement of resistance (opposition to the flow of current).
Parallel Circuit	A circuit in which there is more than one current path.
Radiant Sensor	Thermostat-like device which reacts to the brightness or radiant energy output of a heat source.

TERM	DEFINITIONS
Relay	A coil-operated switch used to control the dryer motor, heating element or gas valve on computer models.
Resistor	A device used to limit the flow of current or reduce voltage.
Run Winding	The main electromagnetic winding in a motor.
Series Circuit	A circuit in which there is only one current path through all components.
Start Winding	**(Phase winding)** An auxiliary winding used in an A.C. motor to assist the main winding in developing starting torque.
Thermostat	A bimetal switch which reacts to temperature changes.
Tumbler	Cylinder which contains and tumbles clothes.
Voltage	Electric pressure that forces the current to flow in a circuit.
Wattage	Wattage is a unit of measurement of the capability of electricity to do work.

HOW IT WORKS

Incoming air is pulled over and around the exterior of the rotating tumbler. The air passing over the tumbler is preheated from the warm tumbler. This incoming air also passes over the inside of the cabinet lowering the cabinets temperature and minimizing the heat being dispelled into the laundry area.

The pre-conditioned air is pulled through the heat enclosure. As the air passes over the flame or heating element, it is heated causing the air to expand which increases its ability to absorb more moisture.

The heated air is pulled up the stack and through the grid in the tumbler back, through the tumbler, and to the lower area of the tumbler front. The tumbler is rotating in a clockwise direction lifting the garments to the top of the tumbler. The garments fall free of the clothes lifters through the air stream. As this tumbling takes place, the garments keep turning over within the tumbler. Moisture is evaporated from the garments tumbling in the warm, dry air.

After passing through the garments, the air will contain moisture and lint. This air is pulled from the tumbler through a fine mesh filter located in the bottom of the door opening. The quantity of lint collected on the filter is dependent upon the size and type of load being dried.

From the filter, the air is pulled into the exhaust blower and forced out the exhaust system. The high speed blower is capable of moving up to 220 CFM of air. The volume of the tumbling chamber is approximately 6.0 cubic feet.

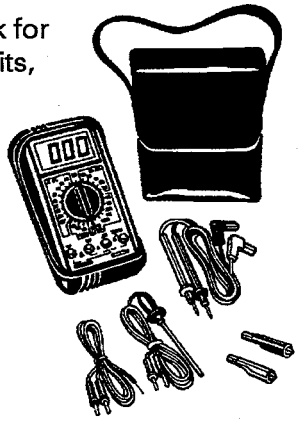
TEST EQUIPMENT

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

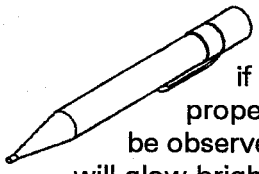
DESCRIPTION	PART NUMBER
Analog Test Meter	20000005
Digital Test Meter	20001001
Clamp-on Ammeter	20000002
AC Voltage Sensor	20000081
Air Test Meter	20000029
Water Column Manometer	038205

Analog Test Meter can be used to check for open or closed circuits, measure resistance, AC and DC volts, and temperature.

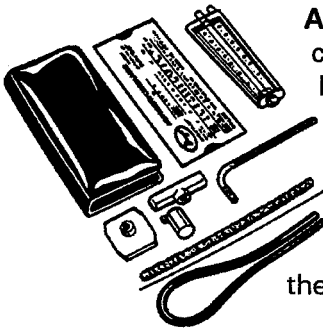
Digital Test Meter can be used to check for open or closed circuits, measure resistance, AC and DC volts, and temperature.



Clamp-On Ammeter can be used to detect shorts. Overloads on the circuit breaker or fuse can be traced to either the dryer or circuit breaker by checking the dryer current draw.

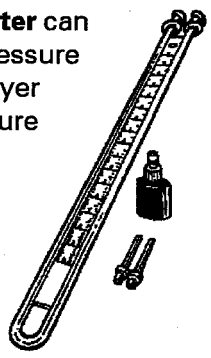


AC Voltage Sensor can be used to alert you if AC voltage is present so proper safety precautions can be observed. The tip of the sensor will glow bright red if voltage is between 110-600 volts AC.



Air Test Meter can be used to check back pressure in the exhaust duct. Vent restriction can cause back pressure and disrupt normal operations of the dryer.

Water Column Manometer can be used to check gas pressure being supplied to the dryer and the outlet tap pressure on the gas valve.



Manometers

Insufficient gas flow can cause problems. Therefore, checking the gas pressure at the time service calls are performed may prevent a return call.

Gas pressure can be checked with an instrument called a "manometer." This device can detect a "low" LP tank, restricted gas flow, bad gas valve, a malfunctioning pressure regulator, too many gas appliances operating off of a small supply line, or an improperly converted appliance from Natural to LP gas.

Other types of manometers exist; however, the type of manometer we will discuss in this manual is a "U" shaped tube in which weight is added. Both ends are open so the water can equalize and seek its own level, which will be the same in both arms of the "U" shaped tube.

A flexible rubber hose is connected to the lower, open end of the manometer and to the gas source. Gas pressure is exerted on one of the water columns, pushing it down. The water level then rises in the other column. The difference in water levels equals the measure of gas pressure.

The water column (W.C.) for a Maytag dryer is 3.5" W.C. for Natural gas and 11" W.C. for LP.

How to Use:

1. Unplug dryer.
2. Remove front panel.
3. Shut off the gas to the dryer.
4. Install a 5/16" tapered fitting at the gas valve pressure tap. Use thread seal tape or compound on fitting, ***(See figure 1-1).***

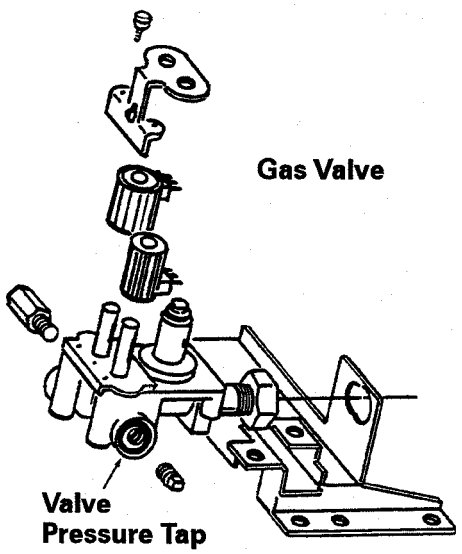


Figure 1-1

5. Fill the manometer tube with water until each side equalizes at "0" water column.
6. Push the end of the manometer hose onto the 5/15" fitting located on the gas valve.
7. Connect hose to one end of the manometer.
8. Turn on the gas and reconnect dryer to power. Run the dryer in a heat cycle. Read the manometer with the burner ON, (check for gas leaks).
9. When the gas is on, the amount of water column present is equal to the total amount of deflection shown in the manometer.

NOTE: ***Once the test is completed, make sure the tapered fitting is removed from the gas valve and the plug is repositioned into the gas valve and resealed with pipe seal. Check for gas leaks again with a soap or bubble solution.*** **NEVER USE OPEN FLAME TO CHECK FOR GAS LEAKS.**

Voltage Checks

Generally, 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 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 the highest range and then lower the 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.

Voltage Check with Voltmeter

Voltage readings may be taken by using the leads supplied with the meter. The meter is preset to read on the 0-300 VAC scale but can be dropped down to 0-150 VAC range by pressing the red button on the side of the meter.

Using Voltmeter as a Continuity Tester

Continuity testing is usually an ohmmeter function, but a voltmeter can also be used, particularly when testing switch contacts. The primary difference is that power is applied to the circuit under test and appropriate caution **MUST** be exercised.

The voltmeter is connected across the component terminals with the wires still in place and the power disconnected. The meter is set for the 300 volt range and power is reconnected. A voltage reading indicates a voltage drop across the component. There should be no voltage drop across closed switch contacts or fuses.

The voltmeter connected across a thermostat terminal, as an example, will show no reading when the thermostat is calling for heat. It will show line voltage when the thermostat cycles, if the timer is in heat cycle.

This type of continuity testing is an excellent method of locating questionable switch contacts. Any voltage drop across closed switch contacts indicates poor electrical contact. The resulting internal heating can shorten component life.

NOTES

SECTION 2. SERVICE PROCEDURES

CAUTION

- ***Extreme caution should be taken when performing voltage checks due to the danger of electrical shock.***
- ***Except as necessary to perform a particular step in servicing a product, the electrical power supply should ALWAYS be disconnected.***

CONTROLS

Dryer operation is controlled by a microprocessor control board and relays. Input from the door switch works in conjunction with a membrane "touch pad" selector to select and start cycles.

Control Console

The control console is secured to the control housing by means of tamper-resistant torx head screws located at the top ends of the aluminum control console. You will need **part number 038227** torx bit (T20H) to remove these screws, ***see Figure 2-1.***

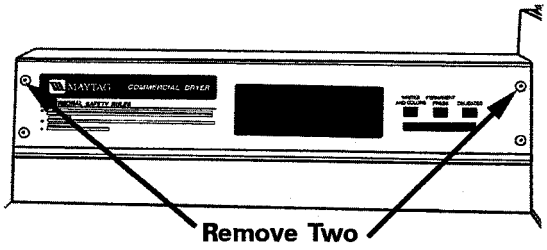


Figure 2-1

Power should be removed from dryer for this procedure. Remove the two top end screws and carefully place the control panel forward. Use a protective cloth to minimize the chance of scratching the panel on the control console.

Microprocessor

All heat and run operations are controlled by a microprocessor control board and board-mounted low voltage relays, ***see Figure 2-2.***

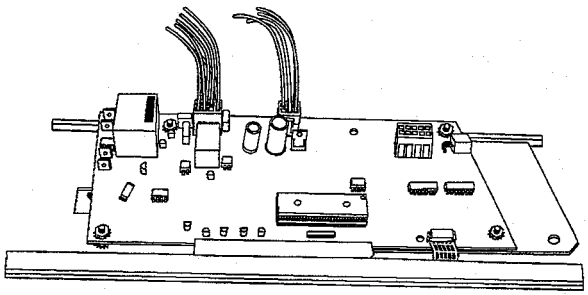


Figure 2-2

Removal

The microprocessor control board is located on the control panel and is secured by four nuts. **Disconnect electrical power to the dryer before servicing.** To gain access, the two top screws that secure the console cover must be removed. Tip the console forward to expose the control board.

Observe the position of the harness connectors plugged into the microprocessor board.

Touch Pad Assembly

With the microprocessor board removed and the ribbon disconnected from the microprocessor board, the touch pad can be removed by removing two screws from the control panel.

NOTE: ***When replacing the touch pad, secure it first to the control panel. Make sure the ribbon connector is properly inserted into the ribbon receptacle.***

Spacer sleeves are used on studs to aid in proper installation of the control board.

Transformer

The transformer has a fast-acting metal oxide varistor surge suppressor connected across the primary, ***see Figure 2-3***. There is an internal one-shot fuse in the primary should excessive current draw on the secondary side.

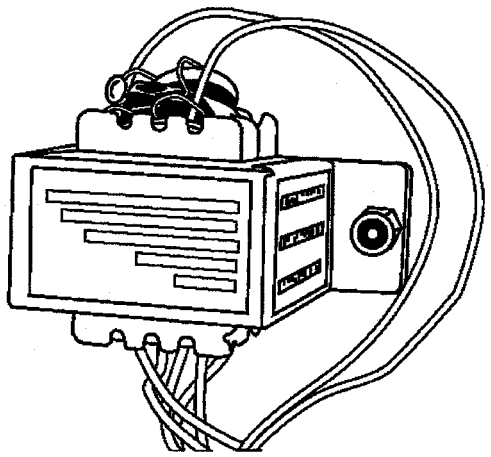


Figure 2-3

Voltage reading may vary, but should be within 10%. The step-down transformer has two secondary windings:

- 22.5 VAC White to White
- 5.3 VAC Blue to Blue

Heater Relay

The heater relay is used on MDE models and is located on the base of the dryer, ***see Figure 2-4***. The relay is energized with 24 VDC signal completing the circuit to the heating element.

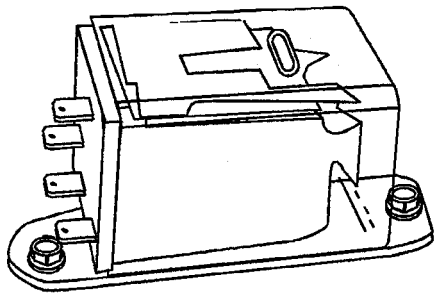


Figure 2-4

METER CASE

The meter case houses the coin vault and coin drop assembly. The meter case is secured to the dryer top by a twin-bolt mounting strap, which ties the top and meter case together.

Removal

1. **Disconnect power to the machine.**

2. Remove the two 9/16" hex nuts. The coin box must be removed for access to the front hold-down studs. This requires a 9/16" socket.

3. Remove the 1/4" hex head screws from inside the console housing, which secure the meter case to the console. Remove the console housing before the meter case is removed.

Service Door & Coin Box Monitor Switches

The service door switch is mounted to a bracket located in the meter case under the service access door. When the service door is closed, the switch plunger is depressed closing the switch. When the service door is lifted, the switch will open for access into the programming modes of the dryer. To remove the service door switch from the meter case:

1. **Disconnect power to the machine.**

2. Remove the 1/4" hex head screw securing the switch mounting bracket and lift the switch from the meter case.

The coin box switch is located close to the bottom of the meter case and access to this switch can be gained through the service access door. When the coin box is in place, the plunger of the switch is depressed. If the switch is not closed, the display on the microprocessor will flash continuously. For removal of this switch, remove the coin box.

1. **Disconnect power to the machine.**
2. Remove service door and coin box.
3. From the service access side of the meter case, squeeze the two tabs on the coin box switch and push the switch through the coin box side.
4. Reverse the procedures for reinstalling the coin box switch.

Coin Drop Acceptor

The coin drop acceptor is used only in the PD model dryers, ***see Figure 2-5***. This is a mechanical coin drop assembly with a coin sensor attached. In normal use, occasional cleaning in hot water is all that is needed to maintain reliable operation of the coin drop acceptor. The coin drop does not need to be oiled, as it will only cause dirt and dust to collect or build up. This can disrupt the operation of the acceptor.

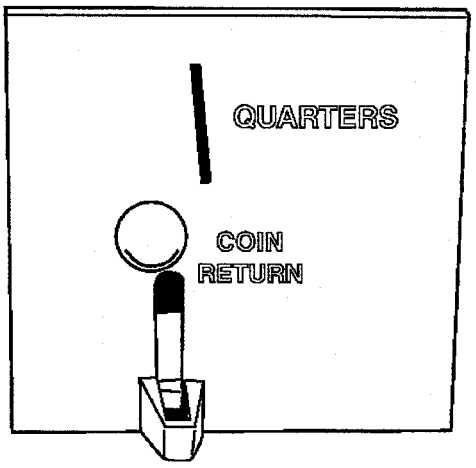


Figure 2-5

The coin drop assembly checks the diameter, thickness and magnetic properties of the coin.

There is a coin return button that can be pressed if the coin jams in the coin acceptor. When it is pressed, the button presses against a tab which is pushed to one side spreading the coin acceptor plates apart. This allows the coin to fall and roll into the coin return bail area. The face plate has a coin bail (arched area for the coin) which is located at the base of the coin return slot. The face plate can be removed from the coin acceptor by removing the two screws from the back side of the face plate.

The coin sensor is mounted to a bar located at the back of the coin acceptor, ***see Figure 2-6***. There is a window period for a coin to pass the coin sensor. If the coin fails to pass through at a certain speed, the microprocessor may assume the machine is being tampered with or it is a non-valid coin. The machine will then go into a standby mode and will not accept coins. The coin sensor is set in position at the time of manufacturing for the proper reading of coins.

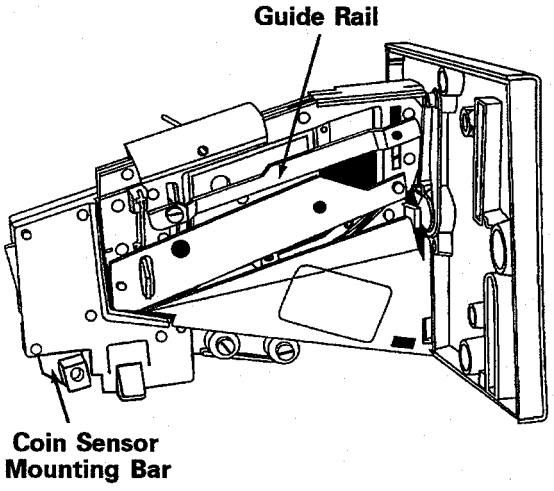


Figure 2-6

A guide rail on the left plate of the coin drop assembly is adjustable (both at the front and rear) to accept proper diameter coins, yet reject oversized coins. Adjust the front and rear pins in the guide rail to just miss the quarter and tighten the front guide rail screws.

TORSION TIMER (CS MODELS)

The timing mechanism can be either accumulative or non-acumulative. To accumulate, this mechanism can be set for one, two, or three actuations of the slide.

When the slide is pushed in, the coin slide will move the actuator arm inward, pivoting the switch actuator. This in turn moves the switch actuator arm toward the timer shaft.

As the slide continues to be pushed inward, it will contact the index wheel driver releasing the index wheel. The index wheel return spring will rotate the index wheel in a counterclockwise direction. It will continue rotating until the switch actuator arm catches a movable return stop. This stops the rotation of the index wheel for the first slide actuation.

During the second coin slide actuation, the switch actuator will move into position, and the index wheel will continue rotating as described in the previous actuation. It will continue rotating until either the switch actuator arm catches a second movable stop, or the index wheel timing lug stops against the timer bracket tab.

When a movable stop is used, a third actuation of the slide is possible. The third actuation will allow rotation of the index wheel counterclockwise until the index wheel timing lug contact stops at the timer bracket tab. No additional drying time can be obtained.

Disassembly Procedures

NOTE: ***Reassembly can be accomplished by reversing the disassembly procedures.***

All components of the non-accumulating torsion timer mechanism are replaceable. If service of the mechanism or timer is required, proceed with the following:

CAUTION

Do not advance the timer manually while under load as damage to the timer may occur.

1. **Disconnect power to the machine.**
2. Remove service door. Remove screw holding timer bracket to control center. Slide assembly forward to remove timer bracket from slot in rear of control center.
3. Tilt forward and lift timer mounting bracket from control center. Disconnect wire harness from timer.
4. Unhook actuator spring from lance on timer bracket, ***see Figure 2-7***.

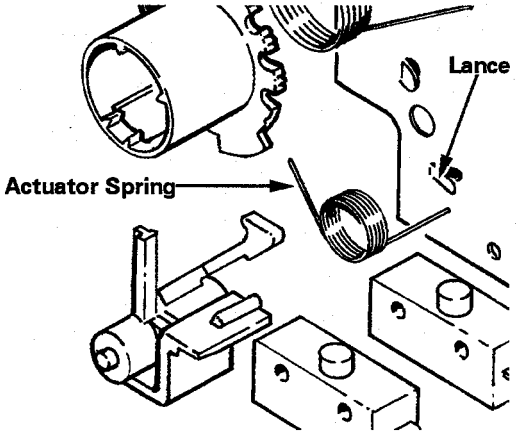


Figure 2-7

5. Remove two nuts, ***see Figure 2-8***, from the thru-bolts holding the switches and switch slider bracket to timer mounting bracket.

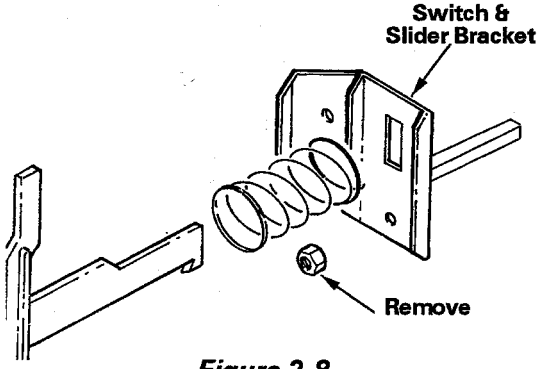


Figure 2-8

6. Remove switch and slider bracket.

7. Remove slider from switch and slider bracket by pushing down and pulling out.

8. Remove helical spring from slider, ***see Figure 2-9***.

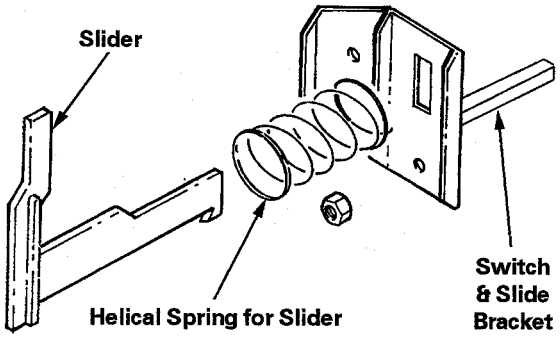


Figure 2-9

9. Disconnect wiring from switches and remove switches.

10. Remove switch actuator and actuator spring from mounting bracket, ***see Figure 2-10***.

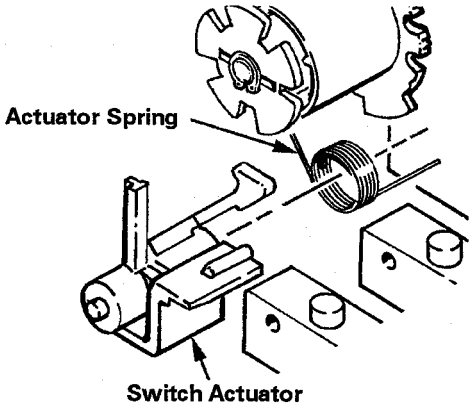


Figure 2-10

NOTE: ***In reassembly, the actuator spring should be held in position by the actuator tab as shown.***

11. Depress driver for index wheel, this relieves spring tension on the timing mechanism, ***see Figure 2-11***.

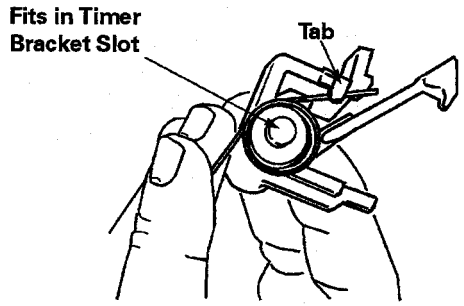


Figure 2-11

12. Remove retaining ring by holding driver for index wheel to timer shaft, ***see Figure 2-12***.

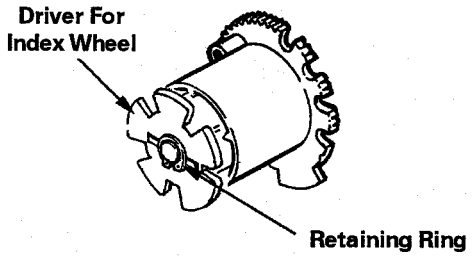


Figure 2-12

NOTE: ***If ring fastener is bent during removal and will no longer hold drive for index wheel to timer shaft, bend the two open ends together slightly.***

13. Remove driver for index wheel from timer shaft.

14. Remove timer spring, ***see Figure 2-13***.

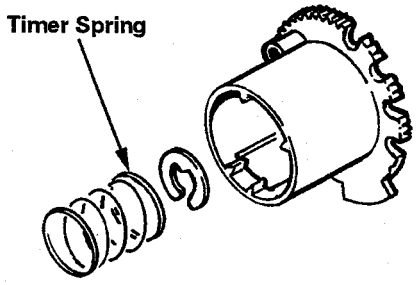


Figure 2-13

NOTE: ***The timer and the helical spring for the slider are not interchangeable.***

15. Unhook torsion return spring from lance on timer mounting bracket, ***see Figure 2-14.***

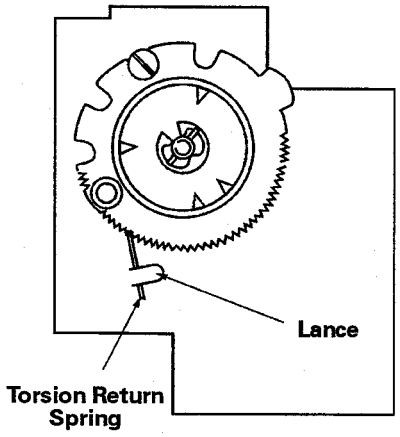


Figure 2-14

16. Remove clip from timer shaft holding index wheel to timer. Remove index wheel from shaft.

    If reassembling, the following photo shows the position needed for the torsion spring and index wheel over the timer shaft, ***see Figure 2-15.***

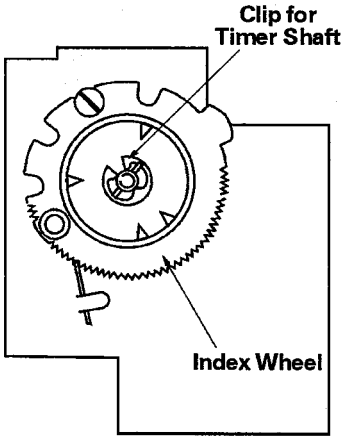


Figure 2-15

NOTE: ***Care should be exercised when installing the index wheel as it can be assembled 180° off.***

NOTE: ***For proper spring tension, the spring will have a 2/3 wrap counterclockwise when the index wheel is in the reset position, see Figure 2-16.***

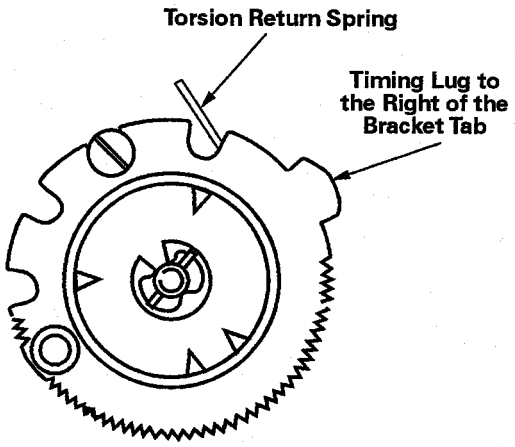


Figure 2-16

NOTE: ***When installing index wheel, apply a light coat of Maytag center-seal grease (part number 056016) to timer face, see Figure 2-17.***

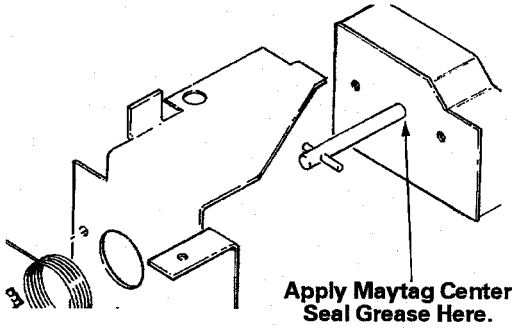


Figure 2-17

17. Remove torsion return spring from index wheel, ***see Figure 2-18.***

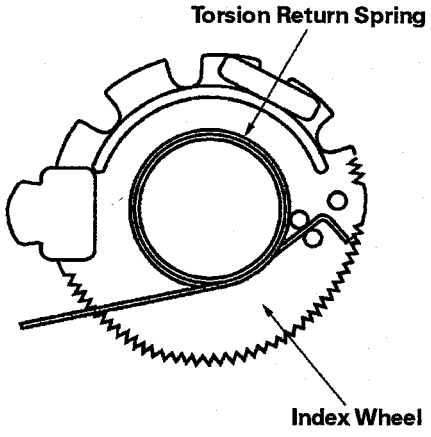


Figure 2-18

18. Remove two screws holding timer to timer mounting bracket. Remove timer from bracket.

PUSH-TO-START SWITCH (CS MODELS)

The push-to-start is used to start the machine after the timer motor has started or the door has been opened and closed during a cycle. **Disconnect electrical power supply.** To gain access to the switch, first remove the knurl nut securing the switch to the control panel. Then, remove the four screws holding the control panel in place, ***see Figure 2-19***. The nut securing the switch to the back-up plate will need to be removed before the switch can be removed from the dryers.

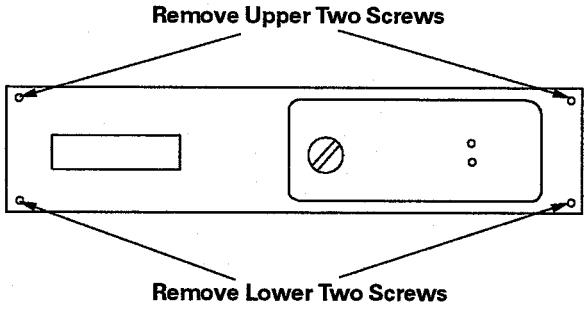


Figure 2-19

NOTE: ***On MN dual pocket dryers, remove the timer knob assembly before removing the control panel screws and any additional screws on the mounting bracket.***

INDICATOR LIGHT (CS MODELS)

The machine-in-use light comes on when the dryer is running during the cycle. **Disconnect electrical power supply.** Remove the screws securing the control panel to the dryer. Slide the molded housing of the indicator light away from the orange lens.

SELECTOR SWITCH (CS MODELS)

The selector switch is a three position rotary switch used to choose the cycles (white, and colors, sturdy permanent press, and delicate permanent press). The switch is located directly behind the selector knob in the control panel, ***see Figure 2-20***. **Disconnect electrical power supply.** To gain access, remove the control panel that is secured by screws first. Then, remove the knob which will expose two 5/16" screws. These screws must be removed before the selector switch can be removed.

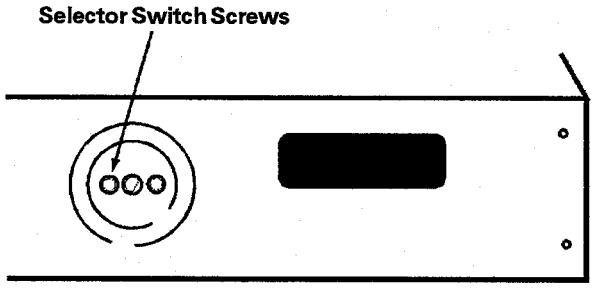


Figure 2-20

Knob (CS MODELS)

The knob is used to select the dryers temperature setting, ***see Figure 2-19***. To remove the selector knob, **disconnect electrical power supply,** remove the screws securing the control panel which will give you access to the knob.

DOOR ASSEMBLY & HINGES

The door assembly is reversible.

Removal

1. Open the door and remove the center screw of each hinge secured to the inner flange of the front panel in the door opening, ***see Figure 2-22.***

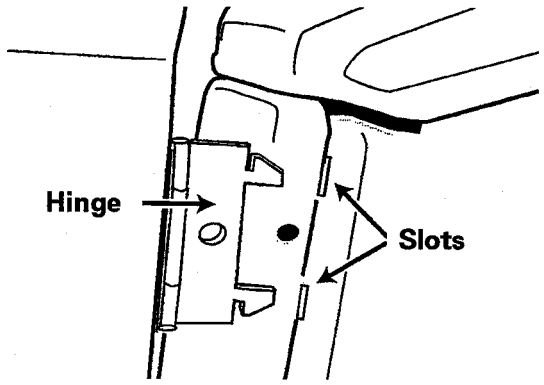


Figure 2-22

2. Grasp the door with both hands and lift in the hinge area. Draw the door assembly away from the machine. This disengages the hinges from the slots in the front shroud.

Reversal

1. Remove the door assembly from the dryer. Remove the plastic hinge hole covers on the opposite side of the door opening.

2. Remove the hinges from the door and relocate them to the other side of the door.

3. Remount the door into the slots on the opposite side in the front shroud. Secure with one screw into each hinge.

4. Mount the plastic hinge hole covers onto the side where the hinges were previously on to cover the slots in the front shroud.

Door Disassembly

1. Remove ten screws located across the bottom and along either side of the door panel. The top edge of the outer door is folded over the inner door plug.

Door Assembly Reversal

1. Remove the hinge hole covers and screws. Remove the cover from the door catch, ***see Figure 2-23***.

2. While supporting the door, remove two screws securing the hinges to the cabinet.

3. Remove the door by slightly lifting and withdrawing the hinge tabs from the hinge slots.

4. Move the following parts to the opposite side of the door:

   •2 hinges and 4 hinge screws.
   •4 door screws, door strike and screw.
   •Inner door cover plate and screw.

5. Attach the door to the opposite side of the cabinet using the two counter sunk hinge screws.

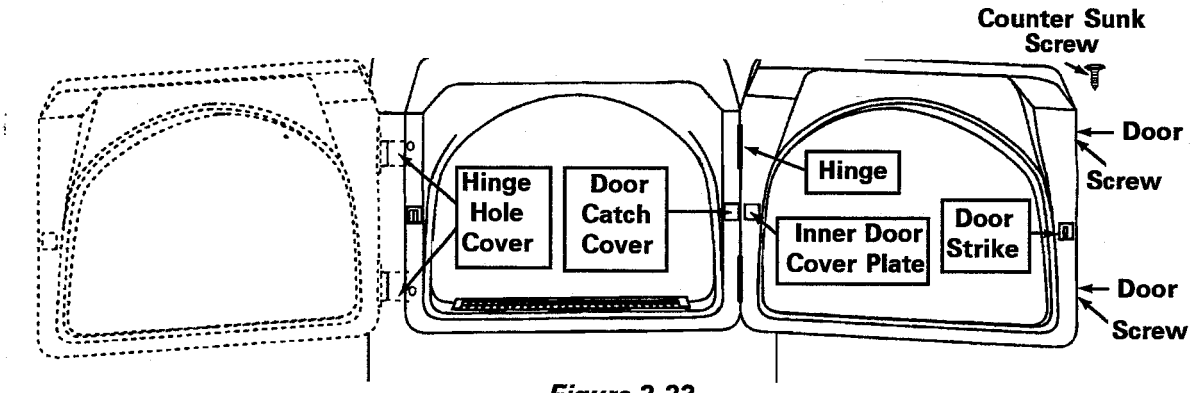


Figure 2-23

6. Transfer the hinge hole and catch plate covers onto the opposite side.

Assemblying Inner Door to Outer Door

1. Attach the hinges first. Install the first two screws into the locating holes (upper most holes).

2. Install the two lower screws on the hinges in any order.

3. Install the screws on the opposite side of the door hinge, starting with upper screws first.

4. Install the lower screws on the under side of the door.

5. Insert the strike bracket on the opposite side of the hinges and insert plugs for inner door.

FRONT PANEL

Removal

1. Open the door and remove the four screws along the inside lip of the door opening, ***see Figure 2-24.*** Two screws are located vertically on either side of the door opening. These screws secure the front panel to the front shroud assembly.

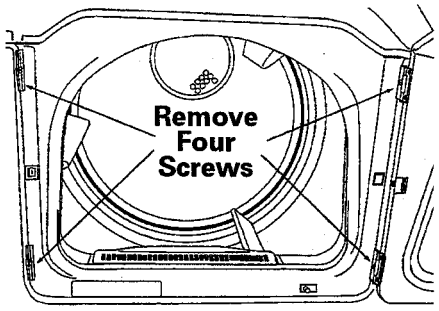


Figure 2-24

2. The front panel is held to the cabinet by clips secured to the cabinet front flange. Small slots in the front panel engage the clips and hold the front panel in place, ***see Figure 2-25***. To remove the front panel, grasp the sides of the front panel 3/4 of the way down and pull the front panel away from the dryer.

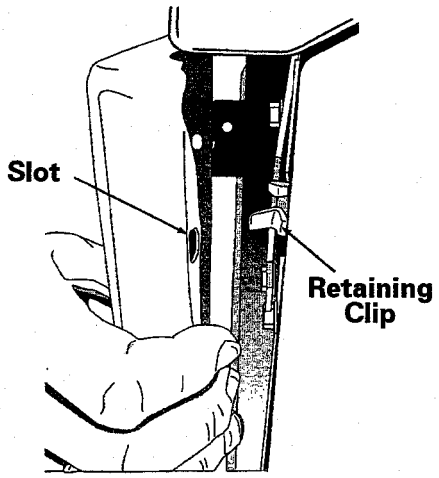


Figure 2-25

3. Tilt the top of the front panel away from the machine and lift the panel off two clips, retaining the front panel to the base frame. Set the front panel away from the machine.

TOP COVER

Removal

1. Remove the front panel, ***(see Front Panel Removal).***

2. Locate and remove two 5/16" hex head screws securing the two hold down brackets for the top cover, ***see Figure 2-26***.

3. To remove the hold down brackets, swing the bracket to the outside and unhook the bracket from the slot in the top cover lip, ***see Figure 2-27***.

4. If the door is still positioned on the front shroud, open the door prior to lifting the front of the top cover and tilt the top cover toward the rear of the machine.

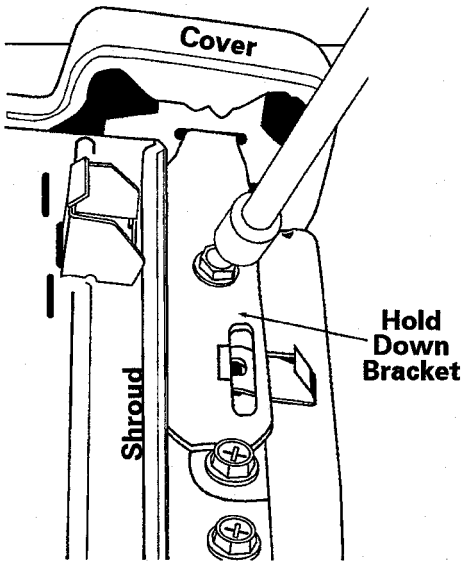


Figure 2-26

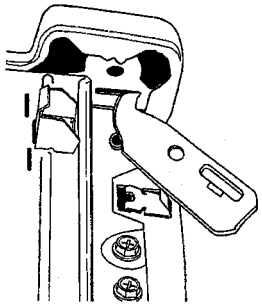


Figure 2-27

DOOR SWITCH

The door switch is located on the front shroud, ***see Figure 2-28***. When removing the front shroud, the wires should be removed from the door switch. When reinstalling the door switch, the door switch button should be offset to the left.

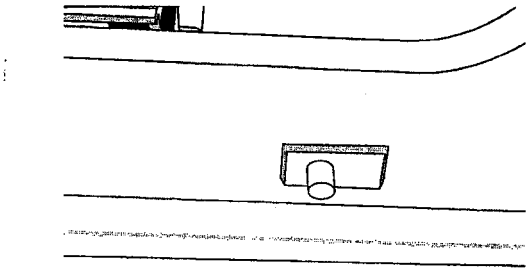


Figure 2-28

Removal

1. **Disconnect power to the machine.**
2. Remove front panel.
3. Remove wires from switch.
4. Squeeze expanded end of switch together and remove switch.

SHROUD & TUMBLER FRONT ASSEMBLY

The shroud and tumbler front assembly holds the front of the tumbler in the correct position and provides support for the ***Rulon***™ bearing surfaces for the front of the tumbler to ride. The air outlet duct with lint filter is located in the assembly and channels the air from the tumbler into the blower assembly.

Removal

1. **Disconnect power to the machine.**
2. Remove front panel and door assembly.
3. Remove hold down brackets.
4. Remove wires from door switch, sensor bar and lamp holder. Unsnap the lamp holder wire harness from the front shroud wire retaining clip.
5. Remove four outer screws holding shroud and tumbler front assembly to the cabinet. **NOTE:** ***Remove the lowest outside screw at each corner and then the top screw on each side. Leave the two inner screws and the two lower middle screws in place, see Figure 2-29.***
6. Pull shroud and tumbler front assembly out and away from tumbler, while partially lifting the top cover.

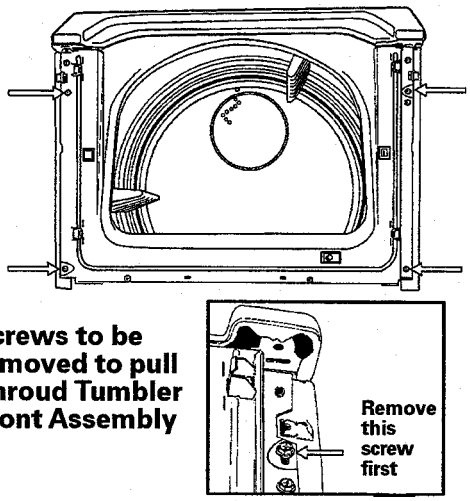


Figure 2-29

Reinstall

Reverse the previous steps.

Note: ***When reinstalling the shroud and tumbler front assembly, lift the front inner edge of the tumbler to allow the front of the tumbler to rest on the teflon (Rulon™) bearings on the shroud and tumbler front assembly. Also, check the front felt seal to ensure it is outside the lip of the tumbler.***

Disassembly of the Outlet Duct, Shroud and Tumbler Front

1. Remove the shroud and tumbler front assembly from the dryer.

2. Remove the two screws securing the shroud to the tumbler front and the two screws securing the shroud to the outlet duct. Pull the shroud free from the assembly, ***see Figure 2-30.***

3. Remove the four 1/4" hex head screws and the one cross recess countersunk screw securing the outlet duct to the tumbler front. **NOTE:** ***Two of the hex head screws are hidden under the felt seal. Pull the outlet duct free from the tumbler front, see figure 2-31.***

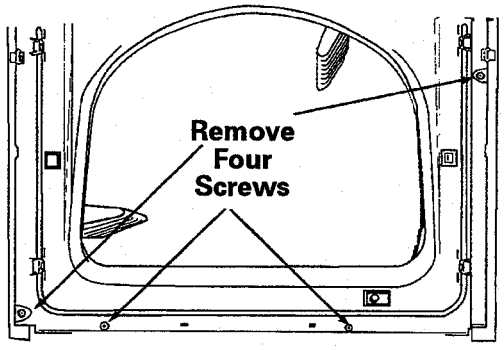


Figure 2-30

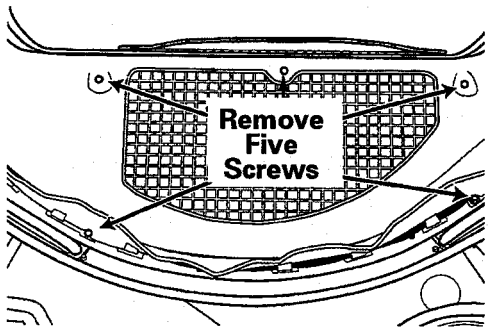


Figure 2-31

4. When reattaching the outlet duct assembly to the tumbler front, install the center screw (found above the grid area) first, followed by the four outside screws in any order, ***see Figure 2-32.***

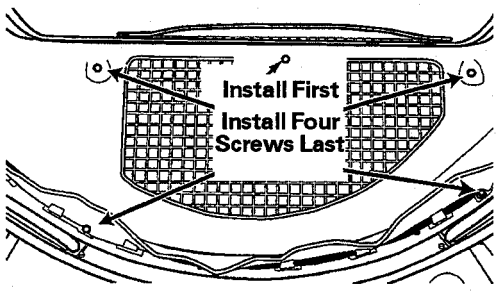


Figure 2-32

LINT FILTER

The lint filter is one piece and can be removed for cleaning, ***see Figure 2-33.***

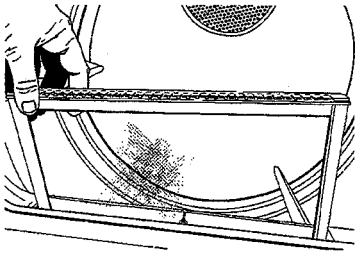


Figure 2-33

BEARING & PADS

At the bottom inside of the shroud/tumbler front assembly there are two teflon **(Rulon™)** bearings which rest on cork pads. These bearings provide a surface for the front of the tumbler to ride.

Removal & Replacement:

1. **Disconnect power to the machine.**

2. Remove the front panel and shroud/ tumbler front assembly.

3. Drill out the old rivets and rivet new bearings in place. In positioning the bearing and cork pad, the face of the bearing should ride against the tumbler, ***see Figure 2-34.***

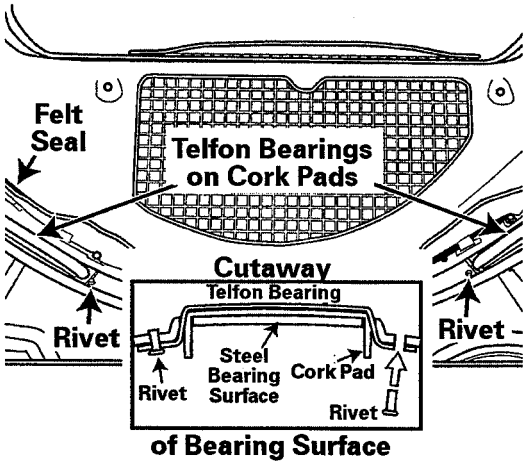


Figure 2-34

TUMBLER FRONT SEAL

The seal fits around the back circumference of the shroud/tumbler front assembly. It is a natural felt seal which is doubled over in order to spring load the seal against the tumbler. The surface which comes in contact with the revolving tumbler is coated with a layer of teflon to provide a slick durable wear surface.

Removal

1. **Disconnect power to the machine.**

2. Remove the front panel and shroud/ tumbler front assembly.

3. Remove the old felt seal by prying the locking tabs up with a flat-blade screwdriver, ***see Figure 2-35.***

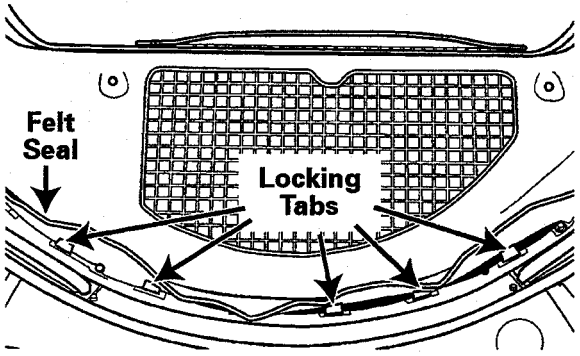


Figure 2-35

NOTE: ***Pay close attention to the location of the seal overlap. This will be important as you reinstall the new seal.***

Reinstall

The seal will be mounted to the tumbler front in a counterclockwise rotation. Start at the 3:00 position and place under the locking tabs. The seal will overlap 1 1/4". The coated side (which is the lighter of the two colors) goes against the tumbler. The felt seal is then looped in a "U"-shape so that the lighter-colored side is against the tumbler front as it is slid in place under the tabs.

Bend tabs back over the felt seal with a flat blade screwdriver.

TUMBLER & BELT

The tumbler is a cylinder with no attached front or back. Tumbler speed is 52 R.P.M. Installation can be made without regard to which way it came out of a dryer.

Tumbler and Drive Belt Removal

1. **Disconnect power to the machine.**
2. Remove front panel and door.
3. Remove shroud/tumbler front assembly.
4. Insert left hand along side of tumbler at the 8 o'clock position. Insert right arm under tumbler (as close to blower as possible), ***see Figure 2-36***.

View From the Back of the Dryer

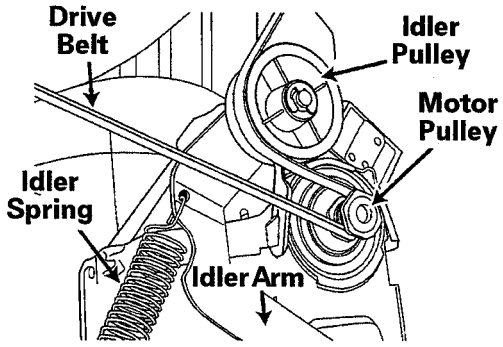


Figure 2-36

5. Grasp the idler pulley in left hand, pull idler upward and to the left. **Note:** ***There is a built-in stop to prevent overstressing of the idler arm spring.*** Slip belt off the motor pulley, ***see Figure 2-37.***
6. Slip the belt off the back of the tumbler.

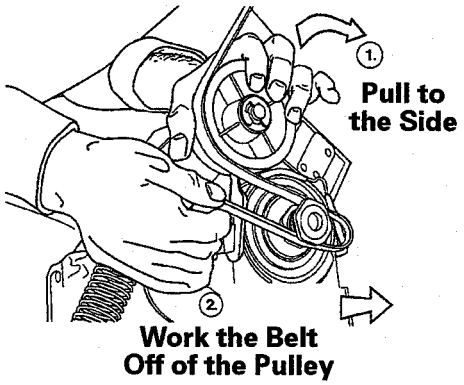


Figure 2-37

7. While lifting top cover, pull tumbler out of cabinet.

Installing Drive Belt

1. **Disconnect power to the machine.**
2. Place belt onto the outside of the tumbler and position the belt 1 1/2" in front of rear baffle mounting screws with ribbed side against tumbler, ***see Figure2-38.***

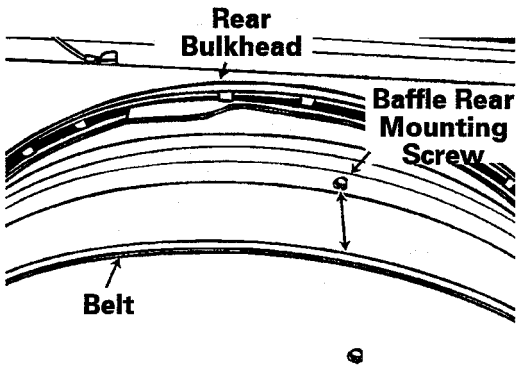


Figure 2-38

3. Position tumbler into the rear felt seal, resting the tumbler onto the rear rollers. Lower the front of the tumbler onto the blower housing.
4. Insert left hand along side of tumbler at 8 o'clock. Insert right arm under tumbler (as close to blower as possible).

5. Locate the belt and create a small loop with your right hand, ensuring the belt is free of twist.

6. Position the open end of the loop (ribbed side down) onto the motor pulley with your right hand.

7. To clear the drive belt, grasp the idler pulley in left hand, pull idler up and to the left. **NOTE:** ***There is a built-in stop to prevent overstressing of the idler arm spring.***

8. Relax your left hand and allow the idler pulley to rest down onto the belt.

9. Grasp baffles with both hands and rotate tumbler 1 or 2 turns clockwise to allow the belt to align itself, ***see Figure 2-39***.

As Viewed From The Front

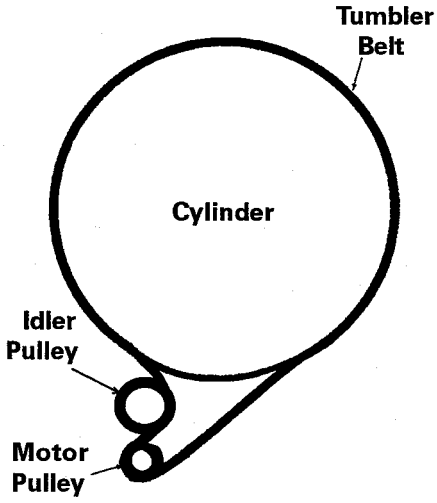


Figure 2-39

BAFFLES

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

Removal

1. **Disconnect power to the machine.**

2. Remove door and front panel.

3. Lift the top cover.

4. Rotate the tumbler until the screws of the baffle to be removed appear at the top of the tumbler.

5. Remove two screws holding the baffle to the tumbler.

TUMBLER BACK ASSEMBLY

The inner wall of the tumbler back or rear bulkhead is coated with an epoxy powder coat which is a very smooth surface, resistant to scratches and abrasion.

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

Removal

1. **Disconnect power to the machine.**

2. Remove front panel and door.

3. Remove shroud/tumbler front assembly.

4. Remove tumbler and belt.

5. Remove burner and igniter on gas models. (Be careful, the igniter is fragile.)

6. Remove heat enclosure.

7. From back of dryer, remove four screws holding tumbler back assembly and remove assembly, ***see Figure 2-40.***

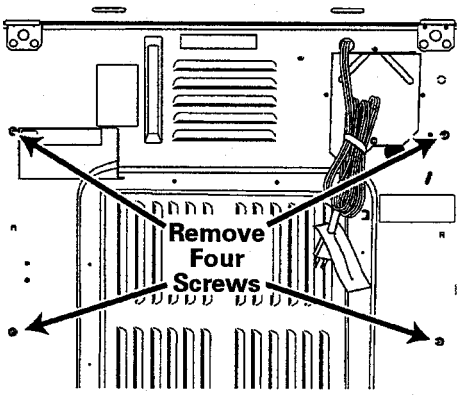


Figure 2-40

TUMBLER BACK SEAL

The felt seal fits around the front circumference of the tumbler back. It is a natural felt seal which is doubled over in order to spring load the seal against the tumbler. The surface which comes in contact with the revolving tumbler is coated with a layer of teflon to provide a slick, durable wear surface.

Removal

1. **Disconnect power to the machine.**

2. For ease in servicing, we recommend removal of the tumbler back assembly from the dryer. This will ensure the felt seal is secured properly.

3. Remove the old felt seal by prying the locking tabs out with a flat-blade screwdriver. Pay close attention to the location of the seal overlap. This will be important as you install the new seal.

Reinstall

The seal will be mounted to the tumbler back in a clockwise rotation. Start at the 11:00 position and place under the locking tabs. The seal will overlap 1 1/4". The 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 lighter colored side is against the tumbler back as it is slid in place under the tabs. Bend tabs back over seal with a flat-bladed screwdriver, ***see Figure 2-41.***

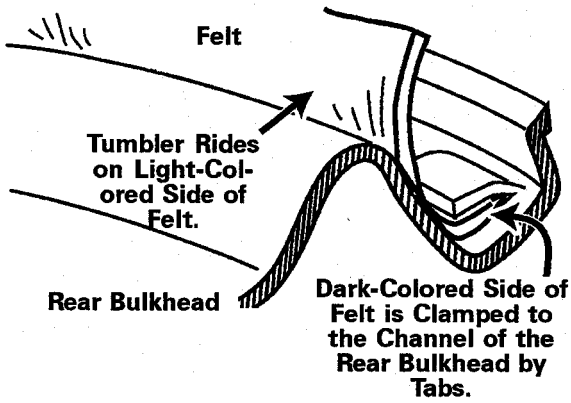


Figure 2-41

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. If the rollers are riding up on the tumbler radius, check for bent rear roller brackets. If a bracket is bent, replace the tumbler back assembly. Rear rollers have self lubricated sintered bearings (lubricate using Maytag SBL oil, **P/N 055975**).

Removal

1. **Disconnect power to the machine.**

2. Remove front panel and door.

3. Remove shroud/tumbler front assembly.

4. Remove tumbler.

5. Remove retaining ring from groove in shaft.

6. Remove fiber washer.

7. Remove roller.

8. Remove roller shaft by removing nut on back.

NOTE: ***There is a spacer washer behind the roller. When replacing parts, be certain of the order of the replacement, see Figure 2-42.***

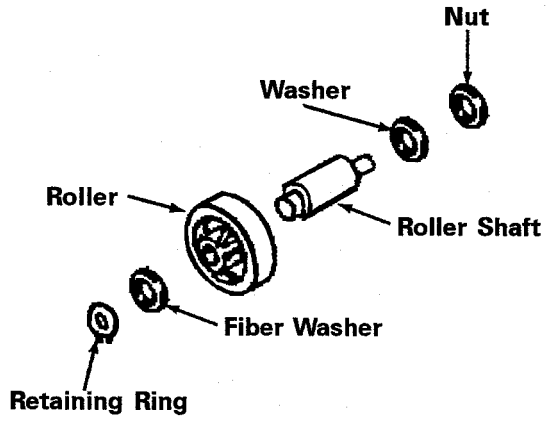


Figure 2-42

CYCLING THERMOSTATS

The cycling temperature thermostat is located on the blower housing cover. This thermostat cycles at approximately 150° F., ***see Figure 2-43.***

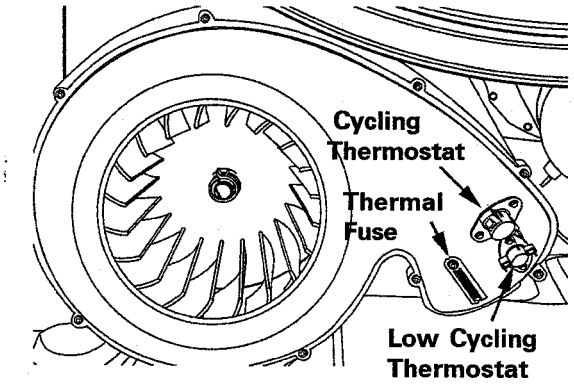


Figure 2-43

Removal

1. **Disconnect power to the machine.**

2. Remove front panel and close the door.

3. Remove the screws securing the thermostat to the cover.

4. Remove wires from thermostat.

5. Remove thermostat and replace with new part.

HI-LIMIT THERMOSTAT

The hi-limit thermostat in the dryer is located on the heater enclosure. The thermostat is located close to the heating source and in the event of an over heating condition, will shut off heat quickly. If the dryer is found to be cycling on the hi-limit, check for an air flow restriction.

Removal

1. **Disconnect power to the machine.**

2. Remove front panel.

3. Remove wires from the thermostat.

4. Loosen the rear mounting screw and remove the front screw. The mounting tabs of the thermostat are open-slotted for easy replacement.

5. Slide thermostat out and replace.

Low Cycling

The 140° F. cycling thermostat is located on the blower cover. It is the lower thermostat on the left side (as viewed from the front of the dryer). It is designed to cycle the heat on and off during the drying process.

Removal

1. **Disconnect electrical power supply.**
2. Remove the front panel.
3. Remove wires from the thermostat.
4. Remove two screws holding the thermostat.
5. Remove the thermostat and replace it.

THERMAL FUSES

The function of the thermal fuse is to stop the dryer in an overheating condition. The electric dryer has two thermal fuses; one mounted on the blower cover is rated at approximately 180°F (84°C) and the other fuse, mounted on the left side of the heater enclosure, is rated at approximately 240°F (117°C). The gas dryer has one thermal fuse rated at approximately 180° F (84°C) and mounts to the blower cover. The thermal fuses for both dryer types are placed in series with the drive motor. If any of the fuses 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 fuses will not reset and must be replaced after the overheating problem is corrected. Check for welded contacts in either the cycling or hi-limit thermostats.

Removal

1. **Disconnect power to the machine.**
2. Remove front panel.
3. Disconnect the wires from the fuse.
4. Remove the screw, attaching the fuse to the blower cover.
5. For the fuse mounted on the heater enclosure, **(electric dryer only).**
   - Remove the screw that secures the fuse bracket to the heater enclosure.
   - Remove wires and the two screws that attach the fuse to the bracket.

Checking the Thermal Fuse

1. **Disconnect power to the machine.**
2. Remove front panel.
3. Remove wires from the thermal fuse.
4. Check for continuity. Attach meter across the terminals of the fuse. If there is no continuity, replace fuse.

BLOWER ASSEMBLY

Seal for Blower

This rubber seal is secured to the outlet duct opening. The seal is fitted around the outer circumference lip of the outlet duct with the flange of the seal facing the blower cover. When installing the shroud/tumbler front assembly, be sure the seal is in place, ***see Figure 2-44.***

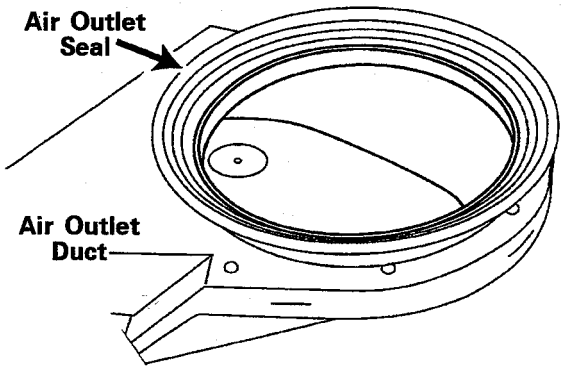


Figure 2-44

Cover for Blower

Removal

1. **Disconnect power to the machine.**
2. Remove eight screws holding cover to blower housing, ***see Figure 2-45.***

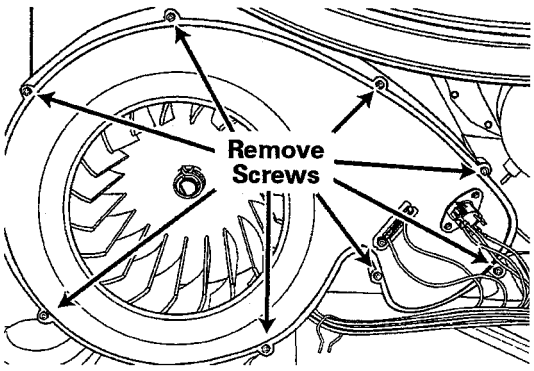


Figure 2-45

3. Remove one screw holding cover to base.
4. It is not necessary to remove wires from thermostats to gain access to blower wheel. Lay the blower cover aside.

Installing Blower Cover

1. **Disconnect power to the machine.**
2. Set the blower cover in place.
3. Install the far right screw closest to the exhaust duct (right most screw), ***see Figure 2-46.***

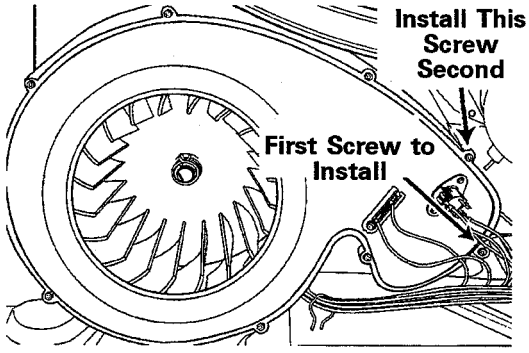


Figure 2-46

4. Continue to assemble, moving to the next screw in a counterclockwise motion around the blower.
5. Install the screw for the blower cover tab to the base frame last.

Blower Wheel

The blower wheel is attached to the motor shaft behind the blower cover. When replacing a blower wheel, always replace the clamp, ***see Figure 2-47.***

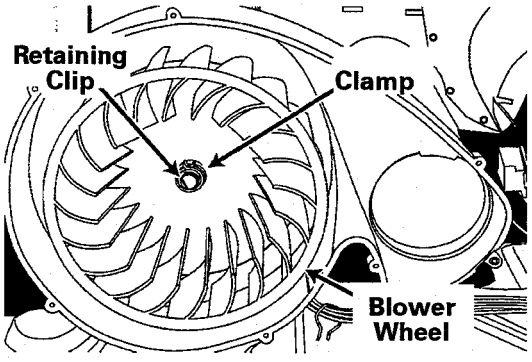


Figure 2-47

Removal

1. **Disconnect power to the machine.**
2. Remove front panel and close door.
3. Remove shroud/tumbler front assembly.
4. Remove blower cover.
5. Remove clip retaining ring.
6. Compress and remove clamp around hub of impeller.
7. Work blower wheel back and forth while pulling off shaft. It may require considerable effort to remove the blower wheel.

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, ***see Figure 2-48***

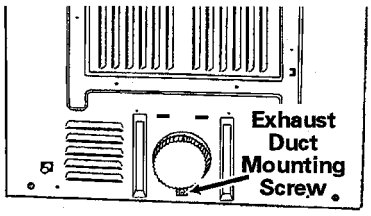


Figure 2-48

DRIVE MOTOR & IDLER ASSEMBLY

Motor Switch

A switching device in the motor is used to change the path of electricity from both start and run windings to run windings only. It also completes the circuit to the heat source when the motor reaches proper speed. The external motor switch is secured to the motor with two screws.

1. **Disconnect power to the machine.**
2. Remove front panel and door.
3. Remove shroud/tumbler front assembly.
4. Remove belts.
5. Remove tumbler.
6 Remove wire harness from motor switch by depressing tabs on either side of the harness connector and lift the connector from the switch.
7. Remove two screws holding switch to drive motor.
8. Disengage the thermal protector switch from the motor switch body. This can be done by either inserting a small flat blade screwdriver into the slot near the switch terminals or breaking the switch body. The thermal protector switch is not replaceable and is part of the motor assembly.

Blower & Motor Assembly

The entire blower and drive motor assembly can be removed for servicing.

Removal of Assembly

1. **Disconnect power to the machine.**
2. Remove front panel and door.
3. Remove shroud/tumbler front assembly.
4. Remove the belt.
5. Disengage the idler pulley spring from the base.
6. Remove tumbler.
7. Remove the screw in front of the blower assembly that secures the assembly to the base frame.
8. Remove wire harness from drive motor and thermostats on blower cover.
9. Remove two screws securing motor to base frame. An extension is required to reach the screws. Screws are located directly behind the blower housing, ***see Figure 2-49.***
10. Carefully lift the front half of the blower assembly and slide forward to disengage the motor base rear tab from the slot in the base frame.

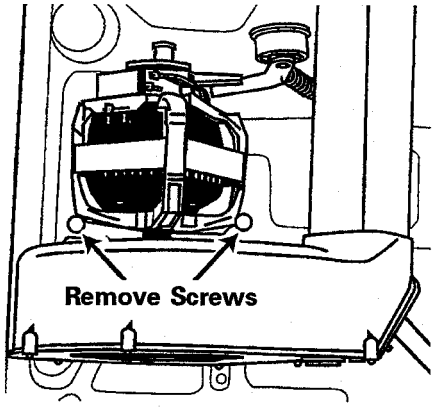


Figure 2-49

Assembly Breakdown

1. Remove blower cover screws.
2. Remove blower wheel.
3. Remove retaining ring clip from motor shaft, positioned behind the blower impeller.
4. Remove the motor support clips which retain the motor to the motor base. Use a nut driver large enough to accept the hook end of the clip. With a downward push of the driver onto the clip, tilt the driver handle toward the motor to unhook the clip from the support.
5. Remove motor from motor base.

Idler Arm Assembly

The motor turns clockwise as viewed from the front. The sleeve for the idler arm acts as a spacer so that the idler can float and aid in alignment of the belt. The idler arm spring maintains proper belt tension keeping it in alignment with the drive pulley.

Removal

1. **Disconnect power to the machine.**
2. Remove front panel and door.
3. Remove shroud/tumbler front assembly.
4. Remove belt and tumbler.
5. Unhook idler spring from the base frame and remove screw securing the assembly to motor support bracket, ***see Figure 2-50.***

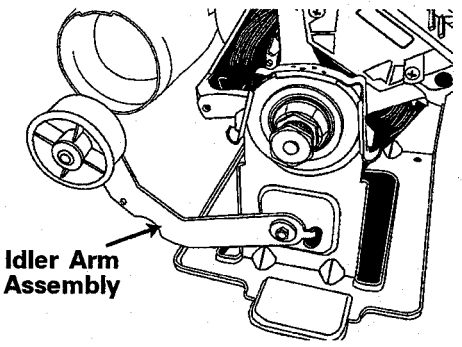


Figure 2-50

Disassembly

1. Remove retaining clip from groove in shaft.
2. Remove fiber washer.
3. Remove idler pulley and bearing.
4. Remove second fiber washer.

NOTE: ***There is a fiber washer between the pulley and the idler arm. When replacing parts, be certain the order of replacement is correct, see Figure 2-51.***

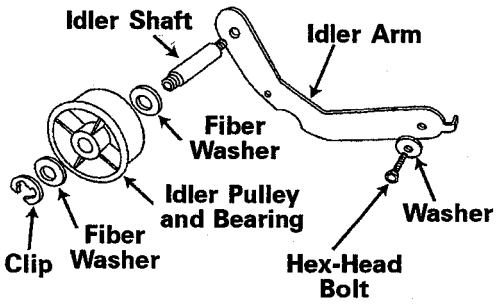


Figure 2-51

IMPORTANT: ***The position of the flange of the idler pulley is important. The flange should be positioned on the side opposite the idler arm.***

Drive Motor Check

The motor features a leadless motor connection, comprised of a quick connector wire harness which connects directly to the motor. The connector has two locking tabs securing the connector to the motor switch. Press on both locking tabs to release the connector from the motor switch, ***see Figure 2-52.***

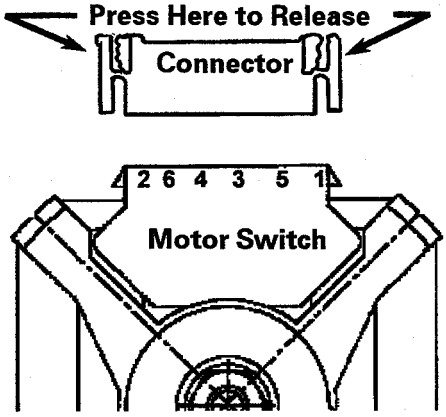


Figure 2-52

With the wire harness connector removed, press inward on the brown actuator disc in the motor. The start and run winding can now be checked for proper ohms. Place the leads from an ohm meter on the proper terminals as listed in the following chart, ***see Figure 2-53.***

Using an ohm meter, you can also check the wiring harness for continuity from the timer to the motor.

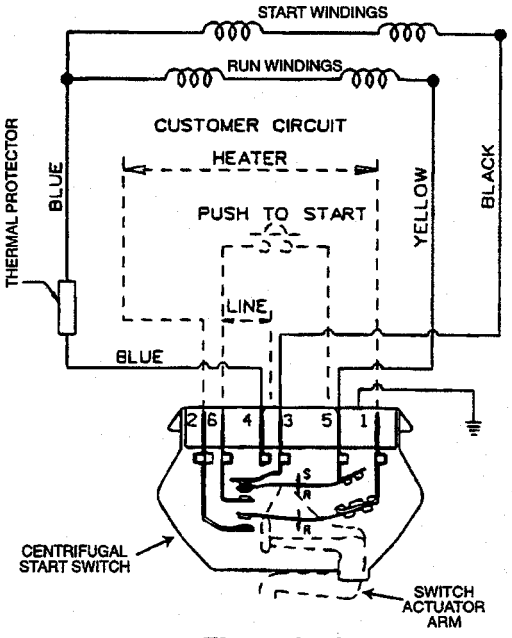


Figure 2-53

Winding	Terminal	Terminal	Ohms
Start	3	4	3.00
Run	5	4	2.25

Motor Test Cord

A motor test cord may be used to electrically check operation of the various electrical components without removing them from the unit. Testing in this manner determines whether or not the part will function independently of other electrical components. In order to make an accurate test, proper connection of the motor test cord is important.

Drive Motor Test

The motor may be checked in the dryer or removed and checked.

Two test leads are required to check operation of the drive motor. To check the motor for operation, hook the test cord to terminals 4 and 5, ***see Figure 2-53.***

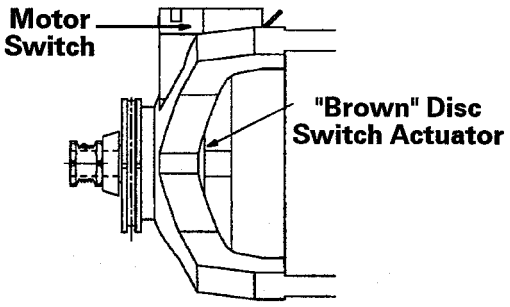
Centrifugal Switch

Checking heater/gas valve motor:

1. Disconnect the wire harness from the motor.

2. Place ohm meter leads to terminals 1 and 2, ***see Figure 2-53.***

3. With your thumbs, depress the BROWN disc located behind the motor switch on the motor shaft, ***see Figure 2-54.*** The BROWN disc actuates the lever of the motor switch when the motor is at rest. At optimum motor speed, the disc moves away from the switch lever. When the disc is pressed in toward the windings, the actuator arm of the centrifugal switch will be relaxed. This allows the contacts to close, completing the heater circuit. If no continuity is found when the disc is depressed, change the centrifugal switch.



Side View of Motor

Figure 2-54

GAS VALVE ASSEMBLY

The gas controls utilize a hot surface ignition system. The three major components of the gas ignition system are: Igniter, Radiant Sensor and Gas Valve, ***see Figure 2-55.***

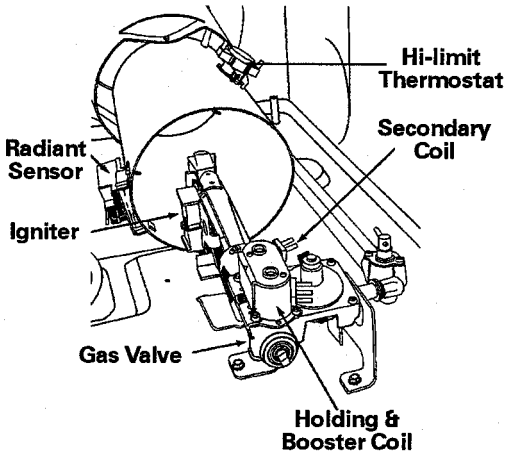


Figure 2-55

Igniter - When the controls call for heat, line voltage is applied to the igniter. This causes the igniter to heat up and glow. It can reach a temperature of approximately 2200° F in approximately 30 seconds. Gas contacting the igniter at this temperature will ignite immediately.

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 heat of 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. The igniter glow causes the radiant sensor contacts to open, thus breaking the circuit to the igniter.

Gas Valve - The gas valve is actually two gas valves, one in series with the other, ***see Figure 2-56.*** 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 a one-coil solenoid. This is called a **Secondary Coil.**

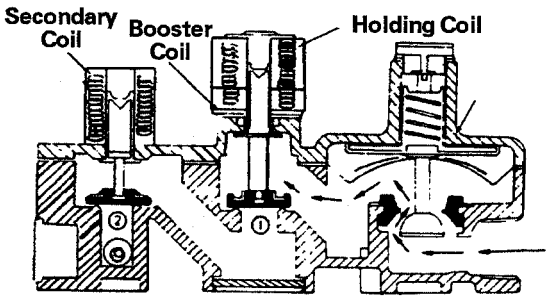


Figure 2-56

Function of Gas Valve System

The sensor, igniter and gas valve are interrelated and function as ignition and heat source. At the start of the cycle, the radiant sensor contacts are closed, the igniter is at room temperature and the gas valve is closed, blocking the flow of gas. **NOTE:** ***On the wiring diagram, the radiant sensor contacts are wired in parallel with the secondary coil, see Figure 2-57.*** This bypasses current around the secondary coil when the radiant sensor contacts are closed. Valve 2 cannot open with the radiant sensor

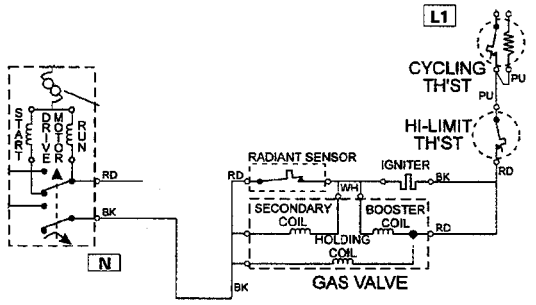


Figure 2-57

contacts closed.
The booster coil and the igniter are wired in parallel. **NOTE:** ***While these two components are in parallel with each other, they are wired in series with both 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 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 their low resistance and the resulting reduced voltage available to them.

Step 1: Operation: Dryer Controls calling for heat:
The red wire in the gas valve harness is normally the "hot" side of the line. Voltage is routed to the gas valve assembly through the cycling thermostat located on the blower cover and the hi-limit thermostat on the heater cone. The black wire to the gas valve is normally the neutral side of the line and is completed through the motor centrifugal switch.

Radiant Sensor Contact Closed

The holding coil, booster coil and igniter all receive line voltage. The holding coil and booster coil open Valve 1. Valve 2 is still closed, prohibiting gas flow to the burner. The igniter, operating at line voltage, begins to get very hot. (As the igniter gets hotter, the resistance of the igniter drops.) The igniter glow radiates heat to the radiant sensor. The secondary coil on Valve 2 is bypassed by the radiant sensor contacts.

Step 2: Radiant Sensor Contact Open:
The igniter is now hot and valve one (1) is open. The heat from the igniter causes the radiant sensor switch contacts to open. With the radiant sensor contacts open, the secondary coil is no longer bypassed. The secondary coil is now in series with the parallel circuit combination of the booster coil and the igniter.

Because of the relatively low resistance of the hot igniter, most of the line voltage is dropped across the secondary coil. The

remaining voltage is dropped across the booster coil and igniter.

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

NOTE: ***Since the igniter will cool, the tip is positioned in the burner flame which keeps it hot and resistance low.***

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

Gas Conversions

The gas valve is set for use with natural gas when shipped from the factory. Because of differences in operating pressure and heat content of gases, the valve must be converted to use fuels other that natural gas.

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

Air Shutter Adjustment

The air shutter has been stamped "LP" and "N" (for Natural). Loosen the screw holding the shutter, rotate the shutter until the end of the slot (labeled for the gas to be used) contacts the screw. Tighten the screw to lock the shutter in place, ***see Figure 2-58.***

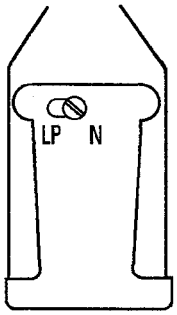


Figure 2-58

Gas Chart

Gas Type	Natural	L.P.
BTU Per Cu. Ft.	1025	2500
Pressure Inches	3.5	11
Specific Gravity	0.65	1.53
Size	41	53

Coil Replacement

To replace the coils on this valve, disconnect electrical power supply. Remove the front panel and unplug the wire harness from the gas valve coils. Once the coils have been unplugged, remove the two screws that secure the coil holding bracket.

Remove the bracket and lift the coils off, ***see Figure 2-59.*** Replace coils, bracket and wire harness.

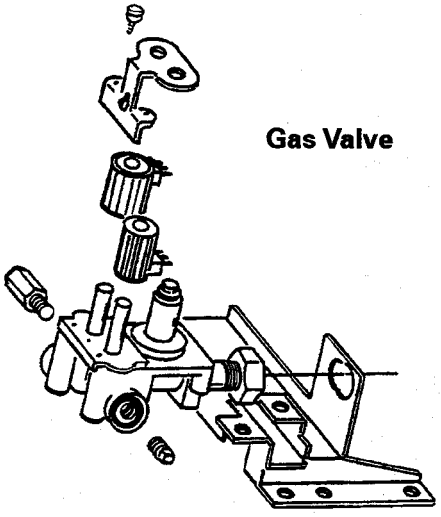


Figure 2-59

NOTE: ***When repositioning the coils onto the valve, align 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, ***see Figure 2-60.*** 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 a broken igniter, replace it. Operate dryer and see if

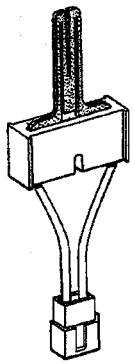


Figure 2-60

igniter stays ON. If igniter stays ON longer than 40 seconds, replace radiant sensor.

1. **Disconnect power to the machine.**
2. Remove front panel and close the door.
3. Unplug igniter from gas valve.
4. Remove screw holding igniter to burner.

Gas Valve Removal

1. **Disconnect power to the machine.**
2. Remove front panel and close the door.
3. Shut off gas supply and disconnect supply line to valve.
4. Disconnect wire harness at valve coils.
5. Disconnect wires from radiant sensor.
6. Loosen brass nut attaching angle connector to gas valve.
7. Remove two screws holding valve and burner assembly to base.
8. Slide valve bracket out of slot in base and remove valve and burner assembly.
9. Remove two screws holding gas valve to bracket on underside.

Orifice Removal

Remove the burner assembly. The orifice can be removed with a 3/8" wrench.

Combustion Cone Removal

1. **Disconnect power to the machine.**
2. Remove front panel and close the door.
3. Remove burner and igniter. Be careful, igniter is fragile.
4. Remove wires from hi-limit thermostat.
5. Remove screw in front of cone holding it to base.
6. Remove screw at back of combustion cone holding cone tab to inlet duct.
7. Pull combustion cone out of dryer.

Inlet Duct

This duct serves to channel heated air into dryer tumbler, ***see Figure 2-61.***

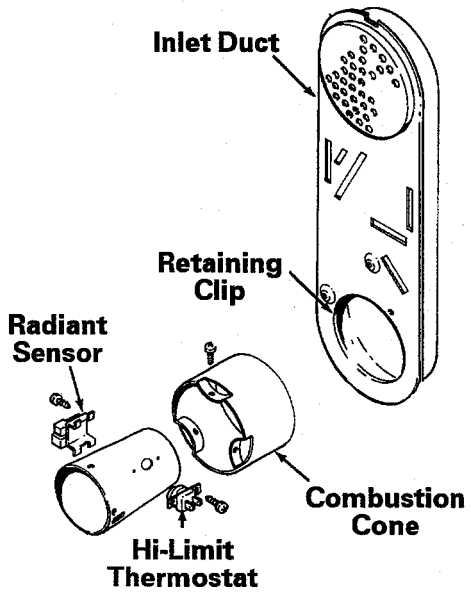


Figure 2-61

1. **Disconnect power to the machine.**
2. Remove front panel and the door.
3. Removal shroud/tumbler front assembly, tumbler and belt.
4. Remove screws securing heat cone to base and to inlet duct.

5. Remove tumbler back assembly. **NOTE:** ***Four screws are accessible from behind dryer.***

6. Remove three screws securing inlet duct to the tumbler back assembly. The two lower screws are under the felt seal of the tumbler back assembly.

NOTE: ***For proper inlet duct to tumbler back assembly alignment when reinstalling, align inlet duct to large hole in the tumbler back assembly and fasten top screw first.***

HEATING ELEMENT & RELATED COMPONENTS

Heating Element

The heater on electric dryers is equipped with a heating element to provide approximately 5600 watts when operated on 240 volts, ***see Figure 2-62.*** The element is divided into six segments on each side of a support plate. This design exposes the element to more airflow and results in a lower maximum coil temperature.

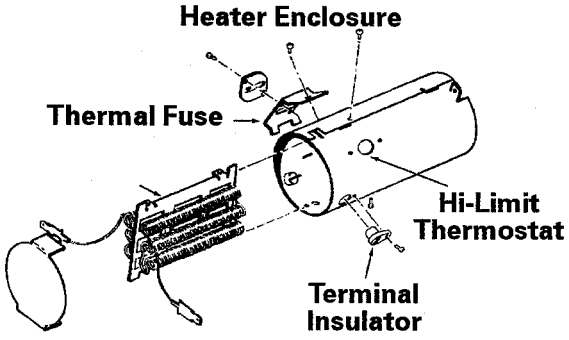


Figure 2-62

Terminal insulators are used on each end of the element which attaches to spade connectors. These spade connectors are "crimped" to the wire and held in the insulator by small barbs on each side of the terminal. The barb must be bent parallel with each terminal before element package can be removed from the enclosure. Three screws hold the element package to the enclosure.

Heater Enclosure

1. **Disconnect power to the machine.**

2. Remove front panel and door.

3. Remove screw holding heater enclosure shield to base. Remove shield from dryer.

4. Remove screw in back of enclosure holding tab to inlet duct.

5. Remove wires from the thermal fuse and heater terminal on left side of enclosure. Remove purple wire from hi-limit thermostat.

6. Pull heater assembly out of dryer.

STACK DRYER

NOTE: ***The following section is exclusive to the stack dryers.***

Service Panel and Switch

1. **Disconnect power to the machine.**
2. Remove three security screws, ***see Figure 2-63 .***

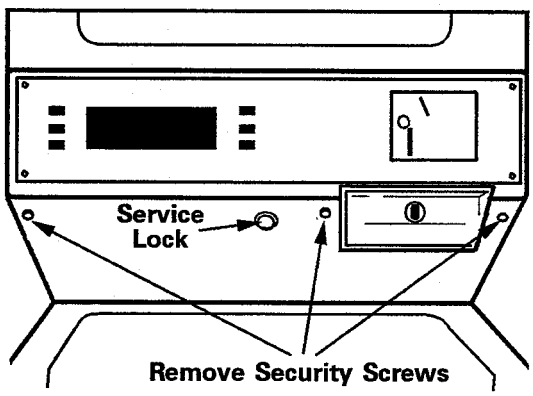


Figure 2-63

3. Unlock the service lock.
4. Pull the service panel down.
5. Disconnect wires to service switch (programing switch), ***see Figure 2-64.***

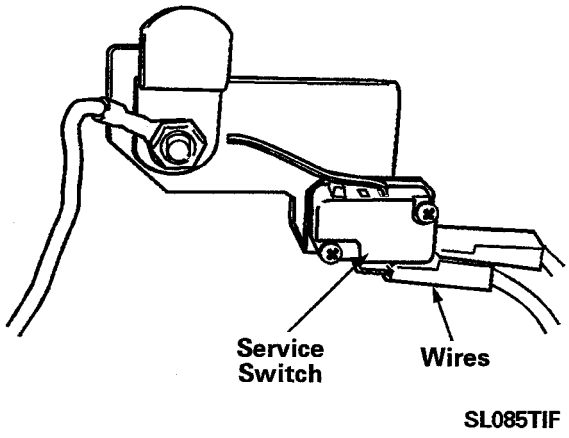


Figure 2-64

Microprocessor

1. **Disconnect power to the machine.**
2. Remove four security screws securing the facia, ***see Figure 2-65.***

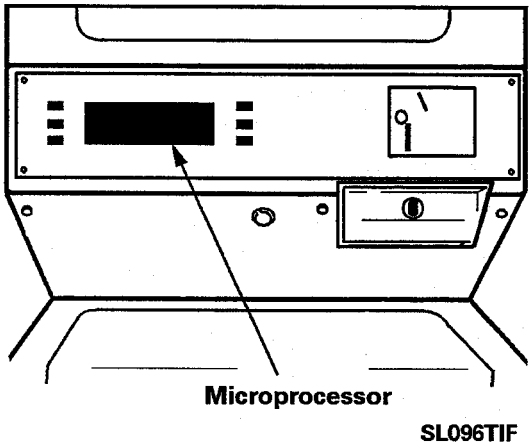


Figure 2-65

3. Remove three screws securing the microprocessor to the control panel, ***see Figure 2-66.***

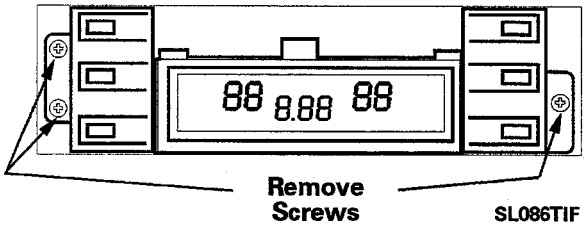


Figure 2-66

4. Observe the position of the harness connector plugged into the microprocessor board, ***see Figure 2-67.***

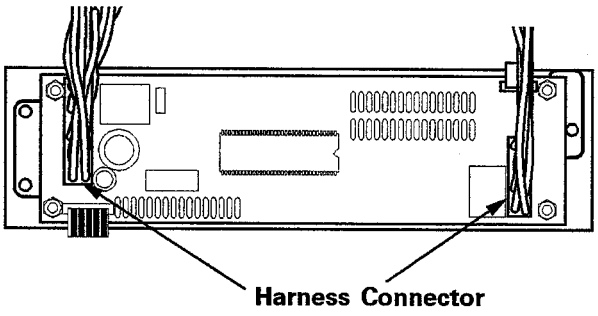


Figure 2-67

Coin Drop

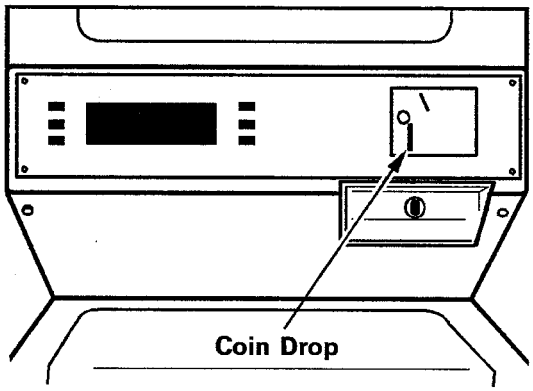


Figure 2-68

1. **Disconnect power to the machine.**

2. Remove the service panel (see service panel removal).

3. Remove three security torx screws and two pozi-drive screws securing the control panel, ***see Figure 2-69.***

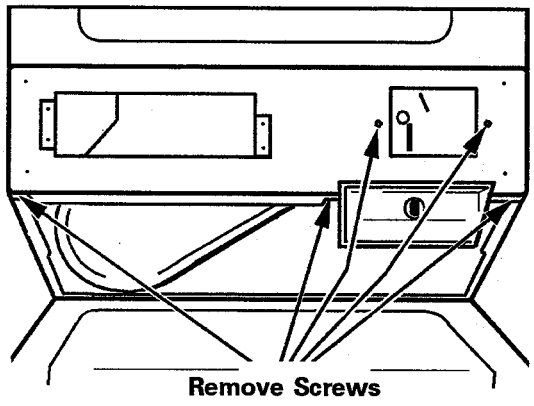


Figure 2-69

4. Lift control panel away from the dryer, ***see Figure 2-70.***

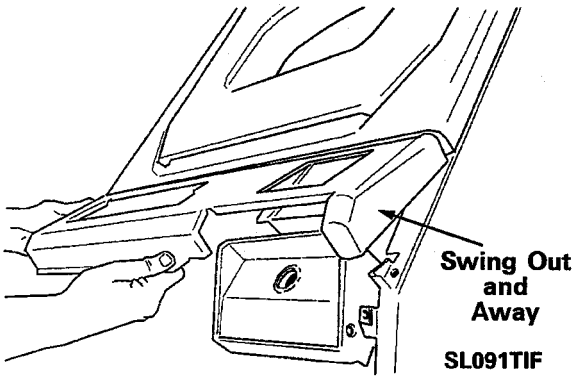


Figure 2-70

5. Remove two 3/8" screws holding coin drop mounting plate, ***see Figure 2-71.***

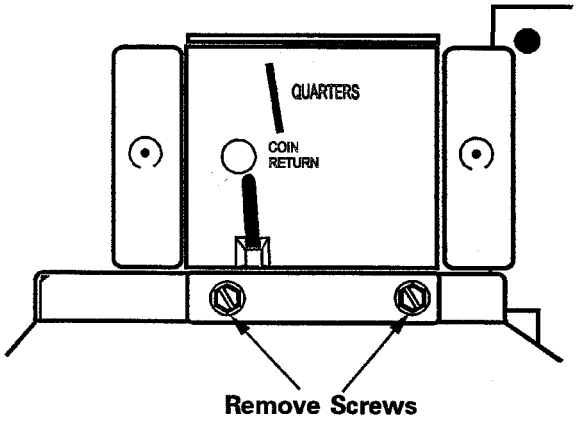


Figure 2-71

6. Remove two screws securing coin drop to mounting plate, ***see Figure 2-72.***

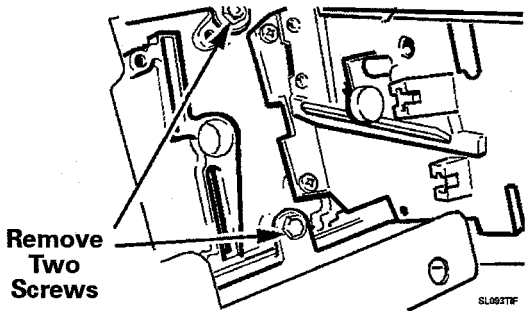


Figure 2-72

Front Panel

1. **Disconnect power to the machine.**

2. Remove the service panel and control panel.

3. Remove two T20 H screws secured into lower flange of the upper front panel, ***see Figure 2-73.***

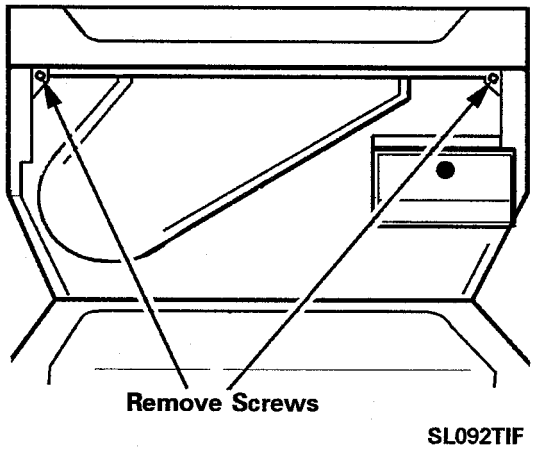


Figure 2-73

4. Remove the two 5/16" hex head screws located in the top right and left front corners of the front panel, ***see Figure 2-74.***

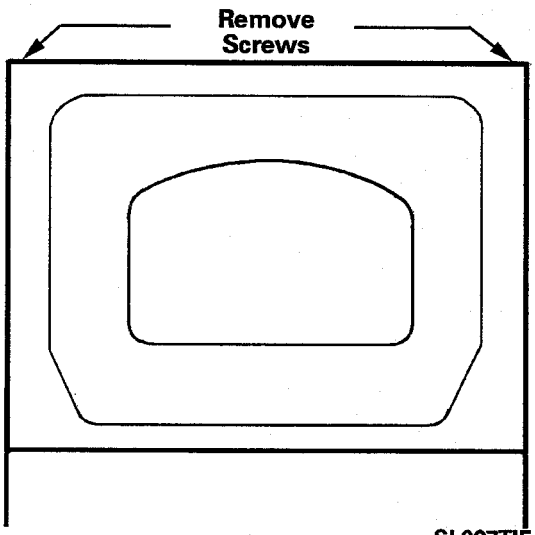


Figure 2-74

5. Tip the top of the front panel forward and slightly lift the front panel at the same time. Then remove the wires from the door switch, ***see Figure 2-75.***

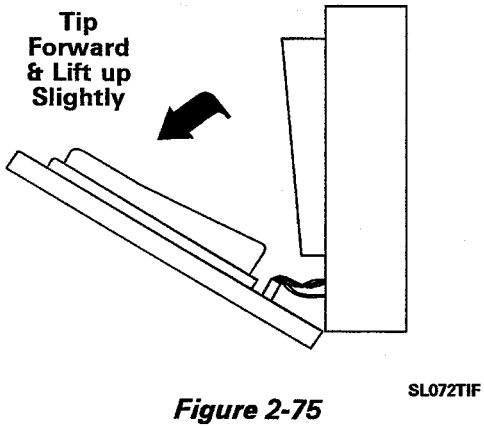
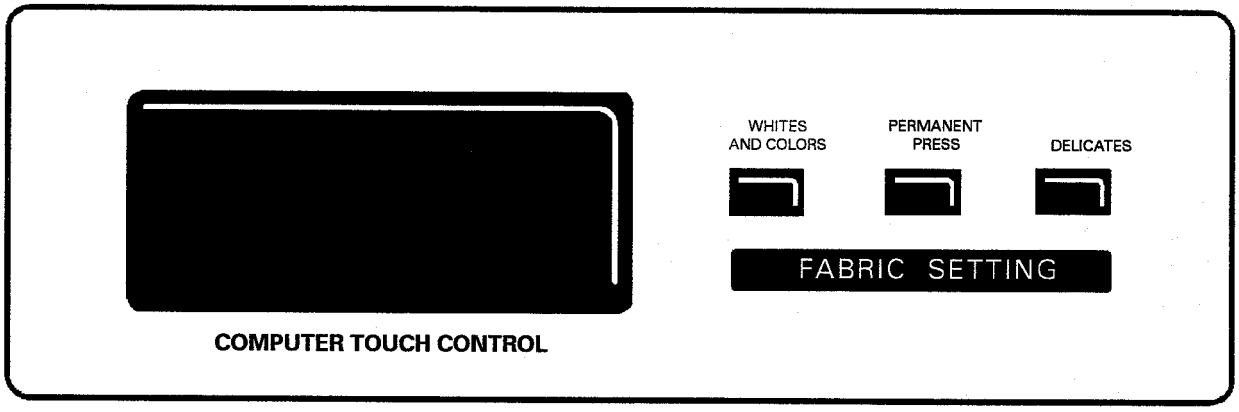


Figure 2-75

6. With the wiring removed from the door switch, continue to tilt the front panel forward while lifting the panel to clear the two lower mounting brackets.

SECTION 3. PROGRAMMING & SET UP PROCEDURES



COMPUTER TOUCH CONTROL

CONTROL SET UP PROCEDURES

Introduction

IMPORTANT

Read all instructions before operating.

The fabric setting pads, along with the digital display, are used to set up the dryer controls, ***see Figure 3-1***.

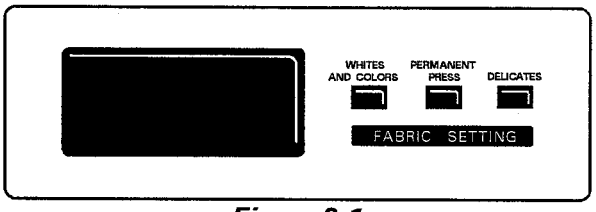


Figure 3-1

The following are step by step procedures which must be followed to properly set the programs.

How to Read the Display

After the unit has been installed and plugged in, the display will show the cycle price and "0" minutes remaining for both dryers, ***see Figure 3-2***.

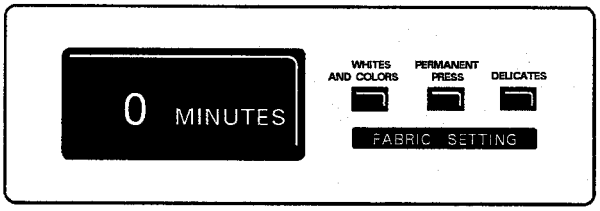


Figure 3-2

The display can contain four (4) numbers and/or letters and a decimal point following the first character. The far left character and the decimal point are used to indicate one of several set up codes available for a specific function, ***see Figure 3-3***. Only the codes appropriate will be shown. The other digits are used to provide information about the code shown.

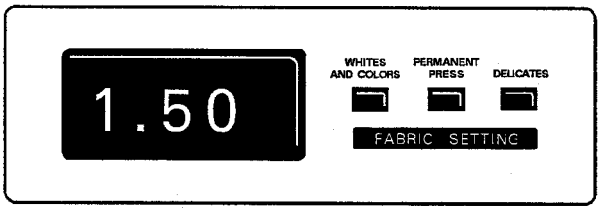


Figure 3-3

How to Use the Keypads to Program the Controls

1. The ***Whites & Colors*** keypad is used to change information in the programming codes, permitting adjustment. Pressing the keypad will change the characters by one (1). Rapid adjusting is possible by holding the keypad down.

2. The ***Permanent Press*** keypad will advance you through the programmed codes. Holding the keypad down will automatically advance through programs at a rate of one (1) per second.

3. The ***Delicates*** keypad is used to select or deselect options. This is an "***OFF***" or "***ON***" selection.

START OPERATING SET-UP

For Single Load PD/PS Models: Insert access door key, turn, and lift to remove access door.

PN Models: Insert service key and turn to "PROGRAM."

PR Models: Once the debit card reader is installed (according to the reader manufacturer's instructions), the set-up mode can be entered by inserting a manual set-up card (supplied by the reader manufacturer) into the card slot.

If manual set-up card is not available, manual set-up mode can be entered by removing connector AA1 on the circuit board.

CAUTION: The console must not be opened unless power is first removed from the dryer. To access connector AA1, remove power, open console, disconnect plug on AA1, close console, apply power to dryer. The dryer is now in the set-up mode.

NOTE: ***Before proceeding please note that an owner can choose to uncrate a new commercial machine, hook it up, plug it in and have a unit which operates.***

PD and PS units are pre-set at the factory for fixed cycle price with top off.

PR and PN units are pre-set for free cycle operation so they can be run without readers or coins.

The appliance is programmed at the factory as follows:

5 minutes dry time/quarter (Coin 1).

$1.50 dry price (Fixed cycle with top off-PD/PS models).

$0.0.0 dry price (Fixed cycle-PR/PN models).

SET UP CODES (MDE/MDG16)

The **PERMANENT PRESS** keypad will advance from code to code. The **WHITES & COLORS** keypad will change the code value. The delicate keypad will select or deselect options.

FOR PS, PR & PN MODELS ONLY: The default codes are the same for setting up the "PD" models. However, additional information may be given that could affect the set up.

CODE		EXPLANTION
606	6	REGULAR CYCLE PRICE
	06	Represents the number of coins. See VALUE OF COIN 1 and COIN 2. Adjustable from 0-39 by pressing the ***Whites & Colors*** keypad. Presently set for six (6) quarters = $1.50.
		PR & PN Models only: Presently set for 0 quarters.
		PS Models ONLY: Represents the number of pushing actuations of the coin slide to start the machine. We recommend "601" setting. This would represent one coin slide option.
		Press ***Permanent Press*** keypad once to advance to next code.
705	7	REGULAR DRYING MINUTES PER COIN.
	05	Represents the number of minutes per coin. Presently set for 5 minutes per coin. Example: Six (6) quarters times (x) five (5) minutes = 30 minutes. Adjustable from 1-99 minutes by pressing the ***Whites & Colors*** keypad.
		PN Models ONLY: Represents the cycle length for free cycles. An example: "730" represents 30 minutes.
		PS Models ONLY: Represents the total number of minutes per slide. Example: "748" represents 48 minutes.
		Press ***Permanent Press*** keypad once to advance to next code.
800	8	TYPE OF DRY TIME.
	00	Fixed cycle with top off. For detailed description see "General User Information." Use ***Delicates*** keypad to make this selection.
	FC	Fixed cycle. For detailed description see "General User Information." Use Delicates keypad to make this selection.
		PR & PN Models ONLY: Presently set for FC.
		Press ***Permanent Press*** keypad once to advance to next code.
900	9	CYCLE COUNTER OPTION
		This option is either ***Selected "ON" or Not Selected "OFF."***
	00	Not Selected or "OFF."
	0C	Selected or "ON." Press Delicate keypad three consecutive times to select "ON." ***Once this option is selected, you cannot go back to "00."***
		Press Permanent Press keypad once to advance to next code.

CODE		EXPLANTION
1.00	1.	MONEY COUNTER OPTION.
		This option is either ***Selected "ON" or Not Selected "OFF."***
	00	Not Selected or "OFF."
	0C	Selected or "ON."
	C0	Press ***Delicates*** keypad three consecutive times to select "ON" and three consecutive times to remove (Not Selected) "OFF." Reset counter by going from "OFF" to "ON." To select "ON" permanently, first select "ON," then within two seconds, press ***Delicates*** twice, ***Permanent Press*** once, and shut the service access door.
		Press Permanent Press keypad once to advance to next code.
2.00	2.	SPECIAL PRICING OPTION.
		This option is either ***Selected "ON" or Selected "OFF."***
	00	Not Selected or ***"OFF."***
	SP	Selected or ***"ON."*** Press ***Delicates*** keypad once for this selection.
Step "3." thru "9." codes are skipped if mode "2.00" is selected.		
		Press ***Permanent Press*** keypad once to advance to next code.
3.06	3.	SPECIAL CYCLE PRICE
	06	Represents the number of coins. See value of coin 1 and coin 2. Adjustable from 00 to 39 by pressing the ***Whites & Colors*** keypad. Presently set for six (6) quarters = $1.50.
		PR & PN Models ONLY: Presently set for 0 quarters.
		Press ***Permanent Press*** keypad once to advance to the next code.
4.05	4.	SPECIAL DRYING MINUTES PER COIN.
	05	Represents the number of minutes per coin. Presently set for 5 minutes per coin. Example: Six (6) quarters times (x) five (5) minutes = 30 minutes. Adjustable from 1-99 minutes, by pressing the ***Whites & Colors*** keypad.
		PN Models ONLY: Represent the cycle length for free cycles. As example: "730" represents 30 minutes.
		Press ***Permanent Press*** keypad once to advance to the next code.
5.00	5.	MINUTES
	00	This selection, "MINUTES," is the time of day clock. Select 00-59 minutes by pressing ***Whites & Colors*** keypad.
6.00	6.	HOURS
	00	This selection, "HOUR," is the time of day clock in hours; using military time (24 hour clock). Select from 00 to 23 by pressing the ***Whites & Colors*** keypad.
		Press ***Permanent Press*** keypad once to advance to the next code.

CODE		EXPLANTION
7.00	7.	STARTING OF SPECIAL PRICING HOUR
	00	This is the selection of the hours using military time (24 hour clock). Select 0 to 23 by pressing the ***Whites & Colors*** keypad.
		Press ***Permanent Press*** keypad once to advance to next code.
8.00	8.	STOPPING OF SPECIAL PRICING DAYS
	00	This is the selection of the hours using military time (24 hour clock). Select 0 to 23 hours by pressing ***Whites & Colors***.
		Press ***Permanent Press*** keypad once to advance to next code.
9.10	9.	SPECIAL PRICE DAYS
	10	Represents the day of the week and if special pricing is to occur on that day. The middle digit is the day of the week, and the last digit is "0" for ***not selected*** or "S" for ***selected***.
		For example: 9.10 Special pricing not selected. 9.1S Special pricing selected for that indvidual day.
		Pressing the ***Delicates*** keypad once to select "0" and once for "S."
		Press ***Whites & Colors*** keypad to advance to the next day of the week.
		You must exit on current day of the week that it is for the special pricing to occur on the correct day. ***Refer to chart for "Special Price Days."***
		Press ***Permanent Press*** keypad once to advance to the next code.
A.00	A.	VAULT VIEWING.
		Once selected (SC), this option may be deselected (00).
	00	Not selected or "OFF."
	SC	Selected or "ON."
		Press ***Delicates*** keypad once to select "SC," the money and/or cycle counter will be viewable when the vault is opened. If "00" is selected, the service door will need to be opened to view the money and/or cycle counter.
		Press ***Permanent Press*** keypad once to advance to next code.
b.05	b.	VALUE OF COIN 1 (QUARTER DROP).
	05	Represents the number of nickels (5 cent increments) given to the *value of each coin* in code 600 "regular cycle price" or 3.00 "special cycle price."
		For example: b. 05 equals five (5) nickels or one (1) quarter. b. 20 equals twenty (20) nickels or one ($1.00) dollar.
		Press ***Whites & Colors*** keypad to advance from 1 to 199 in nickels.
		PS models ONLY: Represents the total vend price in nickels. Example: b30 is equal to $1.50
		Press ***Permanent Press*** keypad once to advance to next code.

CODE		EXPLANTION
C.20	00	VALUE OF COIN 2 (CANADIAN DOLLAR DROP)
	20	Represents the number of nickels (5 cent increments) given to the ***value of each*** Canadian dollar in the dollar coin slot. For example: c. 20 equals twenty (20) nickels or one (1) Canadian dollar. c. 40 equals forty (40) nickels or two (2) Canadian dollars. PR models ONLY: For PR models using enhanced debit, this field represents the value of top off in nickels. For PR & PN models: Presently set for .25 cents. Press ***Whites & Colors*** keypad to advance from 1 to 199 in nickels. Press ***Permanent Press*** keypad once to advance to the next code.
d.00	d.	COIN SLIDE OPTION. Once selected (CS), this option may be deselected (00).
	00	Not Selected or "OFF."
	CS	Selected or "ON." Press ***Delicates*** keypad three (3) consecutive times to select "00" when coin drop is used, and "CS" for models not using a coin drop. When coin slide mode is selected, set "b." equal to value of slide in nickels. Set 606 (regular cycle price) and 3.06 (special cycle price) to number of slide operations. **NOTE**: If the installer sets up "CS" on a coin drop model, it will not register coins. Press ***Permanent Press*** keypad once to advance to the beginning of the program mode.
E.00	E.	Add coins option. Once selected, the (AC) option may be deselected (00). This option causes the customer display to show the number of coins (coin 1) to enter, rather than the dollar-and-cents amount.
	00	Not selected or "OFF."
	AC	Selected or "ON." Press ***Delicates*** keypad three (3) consecutive times for this selection. PR models ONLY: In enhance debit mode, this option is not selectable. Press ***Permanent Press*** keypad once to advance to next code.
J.Cd	J.	Coins/Debit Option.
	Cd	Both coin and debit selected.
	C_	Coins selected.
	_d	Debit card option selected. PN models ONLY: Must be set for _d.

CODE		EXPLANTION
		Press ***Delicates*** keypad three (3) consecutive times for this selection.
	Ed	Enhanced debit is self-selected when a Generation 2 card reader is installed in the dryer. The Ed option cannot be manually selected or deselected.
		Not available on stacked units.
		Press ***Permanent Press*** keypad once to advance to next code.
L.00	L.	Price Suppression Option.
		Once selected (PS), this option may be deselected (00).
		Bypass ***Delicates***. This option causes the customer display to show "Available" or "Add" rather than the amount of money to add. (Used mainly in debit installation.)
	00	Not selected or "OFF."
	PS	Selected or "ON."
		Press ***Permanent Press*** keypad once to advance to next code.
n.CE	n.	Clear Escrow Option.
		When "CE" is selected, the amount remaining in escrow will be "cleared," 30 minutes after the end of the cycle or the last coin is deposited, whichever is later.
	00	Not selected or "OFF."
	CE	Selected or "ON."
		Press ***Delicates*** keypad once to select "00" or "CE."
		Press ***Permanent Press*** keypad once to advance to the next cycle.
U.00	U.	Penny Increment Offset.
	00	This represents the penny increment price offset used in Generation 2 (enhanced debit) PR models choose from 0-4 pennies by pressing the ***Whites & Colors*** keypad.
		Not available on stacked units.
		Press ***Permanent Press*** keypad once to advance to the next cycle.
End of set-up procedures.		
Exit from set-up mode.		
PD/PS Models		Reinstall access door.
PN Models		Turn service key to "Run."
PR Models		Remove power, open console, re-insert plug into AA1, close console and apply power.

SPECIAL PRICING DAYS

In reference to the "Special Price Days," the following will appear when programming that sequence: (The number "5" is read as an "S" to represent special pricing in effect.)

Not Selected	Selected	Day Number	Day of Week
9.10	9.15	Day 1	Sunday
9.20	9.25	Day 2	Monday
9.30	9.35	Day 3	Tuesday
9.40	9.45	Day 4	Wednesday
9.50	9.55	Day 5	Thursday
9.60	9.65	Day 6	Friday
9.70	9.75	Day 7	Saturday
Note: Remember you must show current day of week before proceeding to next code.			

Cycles and Money Counter Options

The following will appear if you selected "0C" in the cycle counter option "900." This is a "***View Only***" and cannot be altered. When cycle counter is selected, the numbers will "***flash***" in sequence.

Example:

100	Represents number of cycles in HUNDREDS	102 = 200
200	Represents number of cycles in ONES	225 = 25
		Total = 225 Cycles

Press ***Permanent Press*** keypad once to advance to next code.

The following will appear if you selected "0C" in the money counter option "1.0C." This is a "***VIEW ONLY***" and cannot be altered. The money counter can be reset by going to ***OFF (00)*** and ***ON (0C)***.

When money counter option is selected, the numbers will "***flash***" in sequence.

Example:

300	Represents number of cycles in HUNDREDS	301 =	$100.00
400	Represents number of cycles in ONES	468 =	68.00
500	Number of CENTS	575 =	.75
		Total =	$168.75

DIAGNOSTIC CODES (15 and 16 Models)

If the set up code is entered, and one of the following circumstances has occured, the appropriate diagnostic code will be in the display.

DIAGNOSTIC CODES (Model 16)	
d1	Door circuit failure on control board (machine nonfunctional).
d4	Motor control circuit failure (machine nonfunctional).
d5	Blocked coin 1 or coin drop control circuit failure (machine nonfunctional). PN models ONLY: Make sure cycle price is selected to zero and coin option is not selected. (Setup mode 6. should be set to 00 for free cycle operation, set-up mode 5. should be set to _d to prevent coin drop diagnostic codes.)
d9	Low voltage detected; less than 90 volt AC for 8 seconds (machine functional).
d12	Motor sensor circuit failure on control board (machine functional).
d13	Blocked coin 2 or coin drop control circuit failure (machine nonfunctional).
Note: Nonfunctional - machine will not operate. Functional - machine will operate.	

DIAGNOSTIC CODES (Model 15)	
d2	Lower dryer thermistor circuit failure (machine non-functional).
d3	Lower dryer temperature too high (machine non-functional).
d4	Lower dryer motor control circuit failure (machine non-functional).
d5	Blocked coin 1 or coin drop control circuit failure (machine non-functional.
d9	Low voltage detected; less than 90 volt AC for 8 seconds. (machine functional).
d12	Lower Motor sensor circuit failure (machine non-functinal).
d13	Blocked coin2 or coin drop control circuit failure (machine non-functional).
d14	Upper motor sense circuit failure (machine non-functional).
d18	Upper dryer thermistor circuit failure (machine non-functional).
d19	Upper dryer temperature too high (machine non-functional).
d20	Upper dryer motor control circuit failure (machine non-functional.
Note: Nonfunctional - machine will not operate. Functional - machine will operate.	

DRYER DIAGNOSTIC CODES

The mode is entered by pressing the ***Delicates*** keypad for one second while in any of the set-up modes one through six (or while dAS displays if operating with Maytag Data Acquisition set up) or with a diagnostic code present. Diagnostic codes are cleared on entry and all display segments should flash.

If a diagnostic code persists, its cause must be corrected before the diagnostic cycle will start. With all segments flashing, the diagnostic cycle is started by pressing the ***Permanent Press*** keypad.

The cycle consists of seven minutes of heat and one (1) minute of cool down. The ***Whites & Colors*** key will increment the diagnostic cycle minutes up to 99, then roll over to two (2) minutes. The ***Permanent Press*** keypad will cancel the cycle and exit the diagnostic mode.

GENERAL USER INFORMATION

Blank Display: This condition indicates that the appliance is inoperative.

"0" Minutes Showing in Display: This condition indicates that the appliance cannot be operated. Coins dropped during this condition will be stored in escrow, but cannot be used until normal operation is restored by opening and closing the door. If the door switch fails, recovery from this condition is impossible without service.

Warm Start - After Power Failure: After a delay of a few seconds, the appliance is restored to the state that existed at the time of power failure. "Reselect Cycle" will flash in the display. Select fabric setting to restart dryer.

Pricing

After the door is opened, following the completion of a cycle, the display indicates the cycle price (unless set for free operation). As coins or debit inputs arrive, the display will change to lead the user through the intiation of a cycle.

There are four (4) types of pricing.

Fixed "Vend" Pricing
A dryer set up for "Fixed Cycle" operation can only accept additional time accumulated by increments equal to the length of a complete dry cycle. A maximum of 99 minutes may be purchased; no additional credit is given when 99 minutes is in the display.

Accumulator Pricing
If the price is equal to the value of coin 1, then accumulator mode is in effect (stacked models also require Fixed Cycle with Top Off option to be selected). Cycle time can be purchased one coin at a time (PD and PS models) up to the maximum time of 99 minutes. While in accumulator pricing, stacked machines will credit all money to a cycle with a single button press.

Fixed Cycle With Top Off Pricing
A dryer set to offer "Top Off" capability will allow time to be added to an existing dry cycle in increments equal to the number of minutes of dry time per quarter (coin 1), up to 99 minutes, regardless of the cost required to start the machine. No credit is given for coins or debit inputs entered when the control is displaying 99 minutes.

PR Models: In Enhanced Debit Mode, the Top Off price can be set independently. (See VALUE OF COIN 2), and the top off time is calculated according to the following equation:

top off price	=	top off time
full cycle price	=	full cycle length

Penny increment offset is not applied to top off purchases.

Free Cycles and PN Models
This is established by setting the cycle price to zero. When this happens, "select cycle" will appear rather than a cycle price. Any cycle started as a free cycle will automatically terminate when the door is opened.

Debit-Card Ready
This appliance is debit-card "cable ready." It will accept a variety of debit card systems, but does NOT come with a debit-card reader. Connection to the control board is by means of a Molex brand connector (housing and terminals.) See your distributor for appropriate connector part numbers.

Dryer Help Mode

The Help Mode is entered by pressing the ***Whites & Colors*** keypad while in special pricing option, step 2.XX (or while dAS displays if operating with Maytag Data Acquisition set up). In help mode, the software revision is displayed in the digits. Press the ***Whites & Colors*** key at anytime to exit help mode.

In help mode, other display symbols and elements are mapped to reflect the state of various input and outputs as follows:

*	Low voltage (below 90 VAC)
Circle above digit	Door closed
&	140° thermostat closed
OR	Motor sensed running
AIR	Heater/gas valve relay on
FLUFF	Motor relay on

SECTION 4. TROUBLESHOOTING (ELECTRICAL & MECHANICAL)

GENERAL INFORMATION

There are factors which can contribute to noisy or improper dryer operation. Some of these are listed along with areas to check for possible corrections.

The malfunction of an electrical circuit cannot be easily diagnosed unless you first understand how it functions when operating normally.

COMPONENTS

There are two basic categories for electrical components, switches and loads. A switch controls the current path to a load component. Door switches and relays are examples of switching components.

An electrical load uses electricity to perform some function. Drive motors convert electricity to magnetic fields and then to mechanical motion. Solenoids use magnetic fields to push or pull. Lamps convert electricity to light.

The main load components in the dryer are the drive motor, gas valve solenoids, and heater.

The schematic wiring diagram is followed much like a road map. The lines represent the wiring connections between components. Connections in the wiring are indicated by a small circle. If the lines cross but no circle is present at the intersection, there is no connection. As much as possible, switches are shown in their normal or most common configuration.

FUNDAMENTAL CHECKS (For CS & MN Models)

Will Not Run

If dryer will not start or run, check the following:

- All wires are hooked up to their corresponding terminals.
- Dryer is plugged in.
- Blown fuse or circuit breaker.
- Door switch functional...door closed.
- Push-to-start switch functional.
- Timer functional...set in a cycle.
- Drive motor functional.
- Blown thermal fuse.

If drive motor runs, but the tumbler will not turn, check the following:

- Belt off or broken/damaged.
- Idler tension spring too weak or stretched.
- Idler pulley jammed or stuck.

If dryer runs a few minutes and then stops - motor overload protector opens, check the following:

- Lint buildup around drive motor.
- Low voltage present.
- Blower impeller blocked in blower housing.
- Drive motor - start switch contacts stuck closed.

CAUTION

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If dryer blows fuses or trips circuit breaker, check the following:

Electric Models

- The amperage readings are at 240 volts. One line will be 24 amps and other line will be 21 amps. The neutral line will be at 4 amps. If the above amperages are present, then the house wiring, fuse box or circuit breaker should be suspected.
- Shorted heating element to housing.
- Incorrect wiring or a wire shorting to ground.
- Drive motor winding shorting to ground.

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 amperages above this, then the house wiring, fuse box or circuit breaker are suspected to be at fault.
- Igniter harness loose and shorted to base.
- Incorrect wiring or wire shorted to ground.
- Drive motor winding shorting to ground.

Will Not Dry

If dryer will not heat (motor runs), check the following:

- Restricted exhaust caused by plastic or thin foil flexible duct.
- Open heating element.
- Hi-Limit thermostat trips too soon or is open.
- Cycling thermostat trips too soon or is open.
- Temperature selector switch mis-wired or contacts open.
- Timer functional.
- Cycle selector switch mis-wired or contacts open.
- Drive motor centrifugal start switch not allowing voltage to gas valve or heating element.

If improper drying/clothes wrinkled/rough texture/taking too long to dry, check the following:

- Restricted exhaust caused by plastic or thin foil flexible duct.
- Lint filter is not clean.
- Restriction in exhaust.
- Outside exhaust hood damper door stuck closed.
- Exhaust too long, too many elbows, flex ductwork installed.
- Poor makeup air available for the dryer.
- Incorrect tumbler speed. Tumbler belt slipping.
- Blower impeller bound; check for foreign material in blower area.
- Customer overloading dryer.
- Check clothing labels for fabric content and cycle selected.
- Gas valve coil opens - weak point in coil opens when stressed under heated conditions.
- Clothes too wet due to insufficient spin-out by washer.

Will Not Shut-Off

On time dry settings, check the following:

- Timer motor receiving proper voltage.
- Check timer motor connections.
- Timer functional.

CAUTION

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Noisy and/Or Vibration

- *Thumping.* Check for loose tumbler baffle, rear tumbler roller(s) worn or misaligned, out-of-round tumbler or high weld seam on tumbler.
- *Ticking.* Check for loose wire harness or object caught in blower wheel area.
- *Scraping.* Check for front or rear bulkhead felt seal out of position or worn tumbler front **Rulon™** bearings.
- *Popping or squealing sound.* Check for a sticky or frayed belt.

CAUTION

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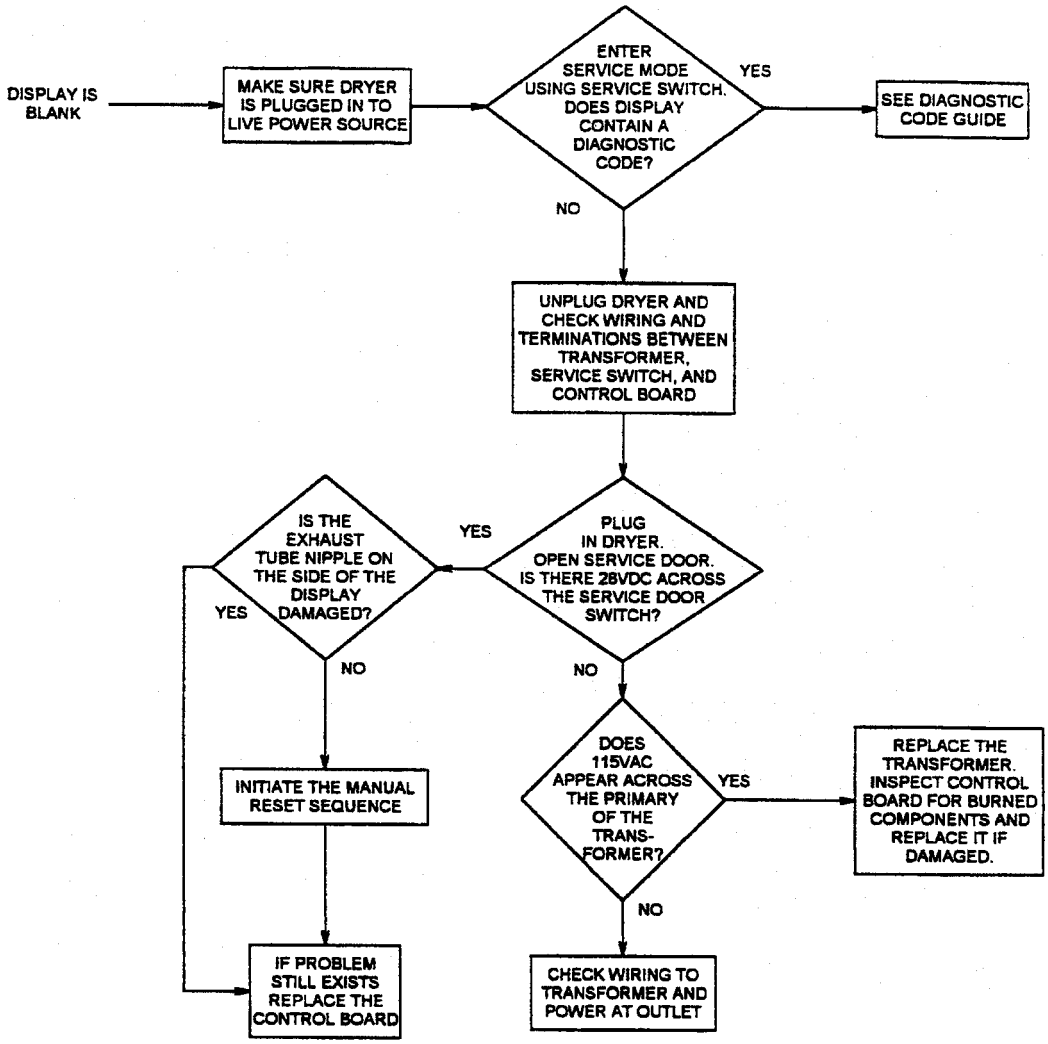
DRYER TROUBLESHOOTING GUIDE (Single Dryer)



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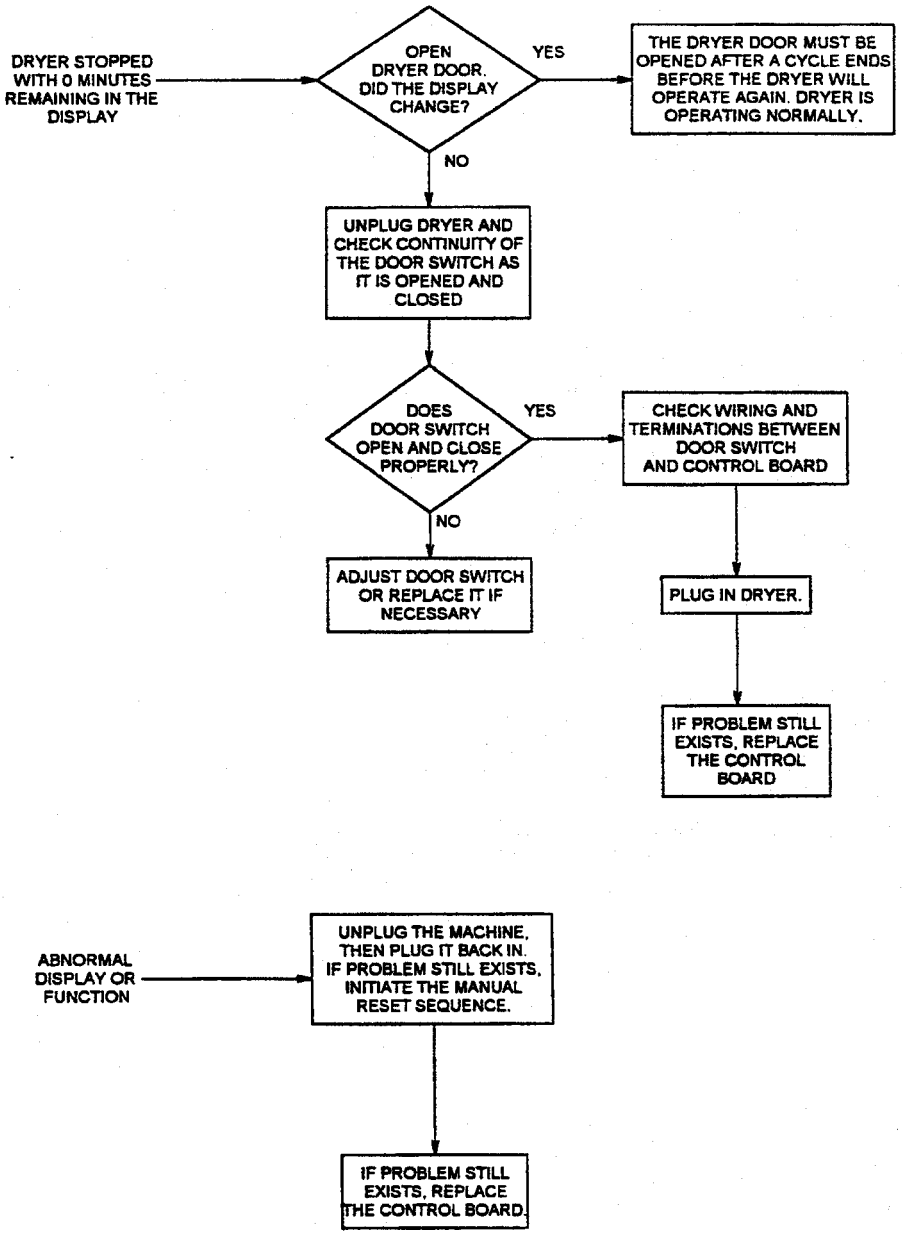

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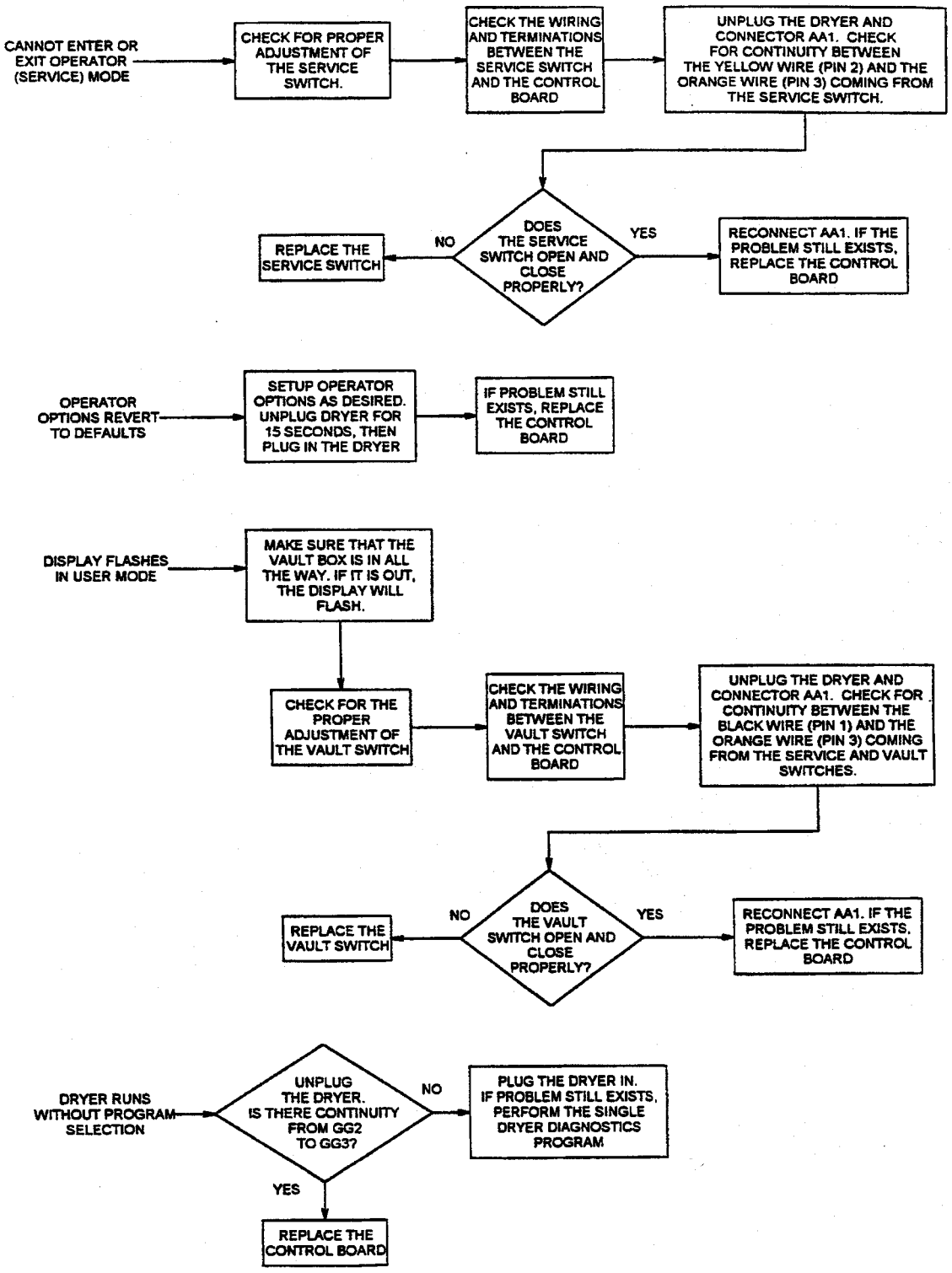

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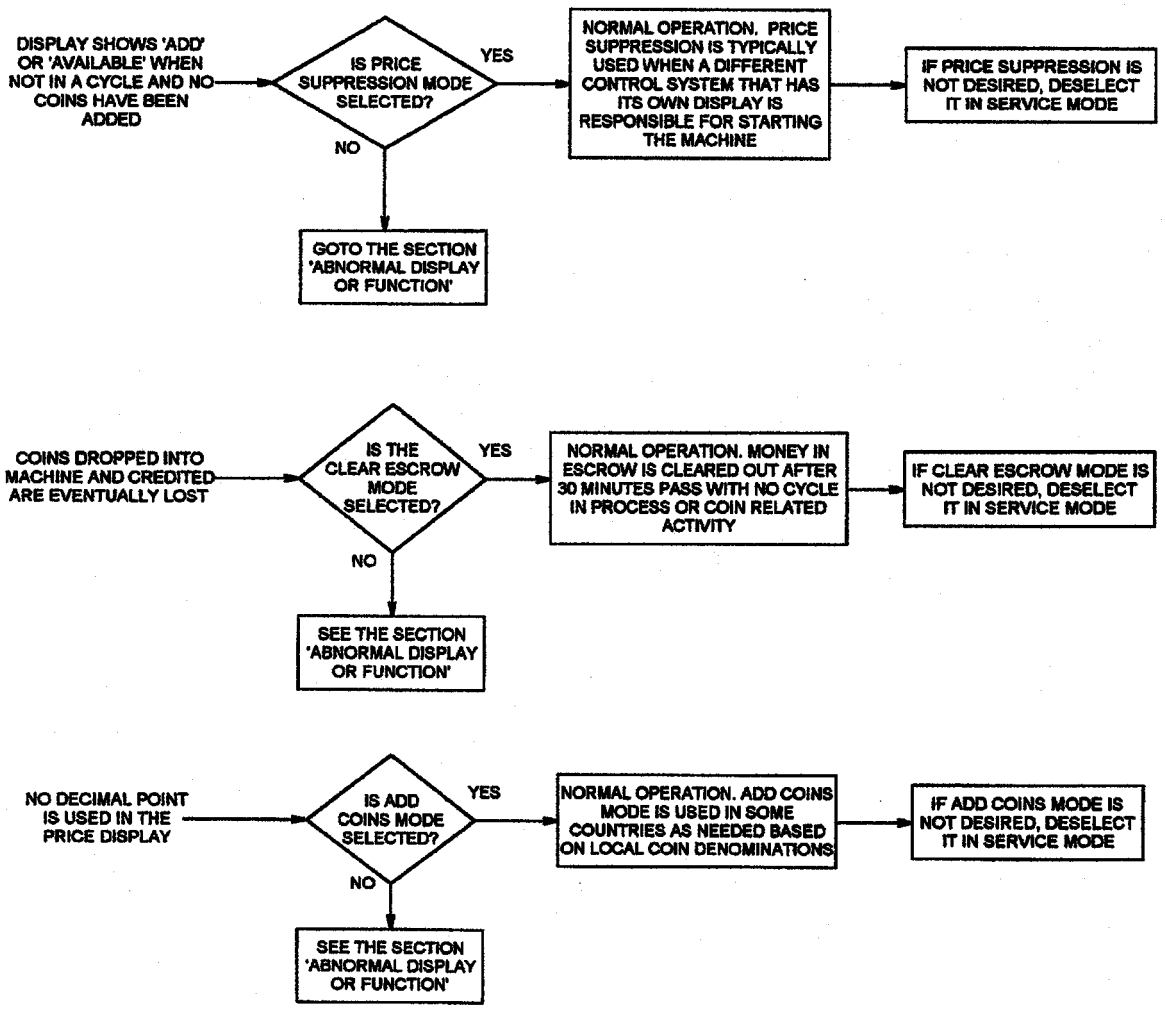

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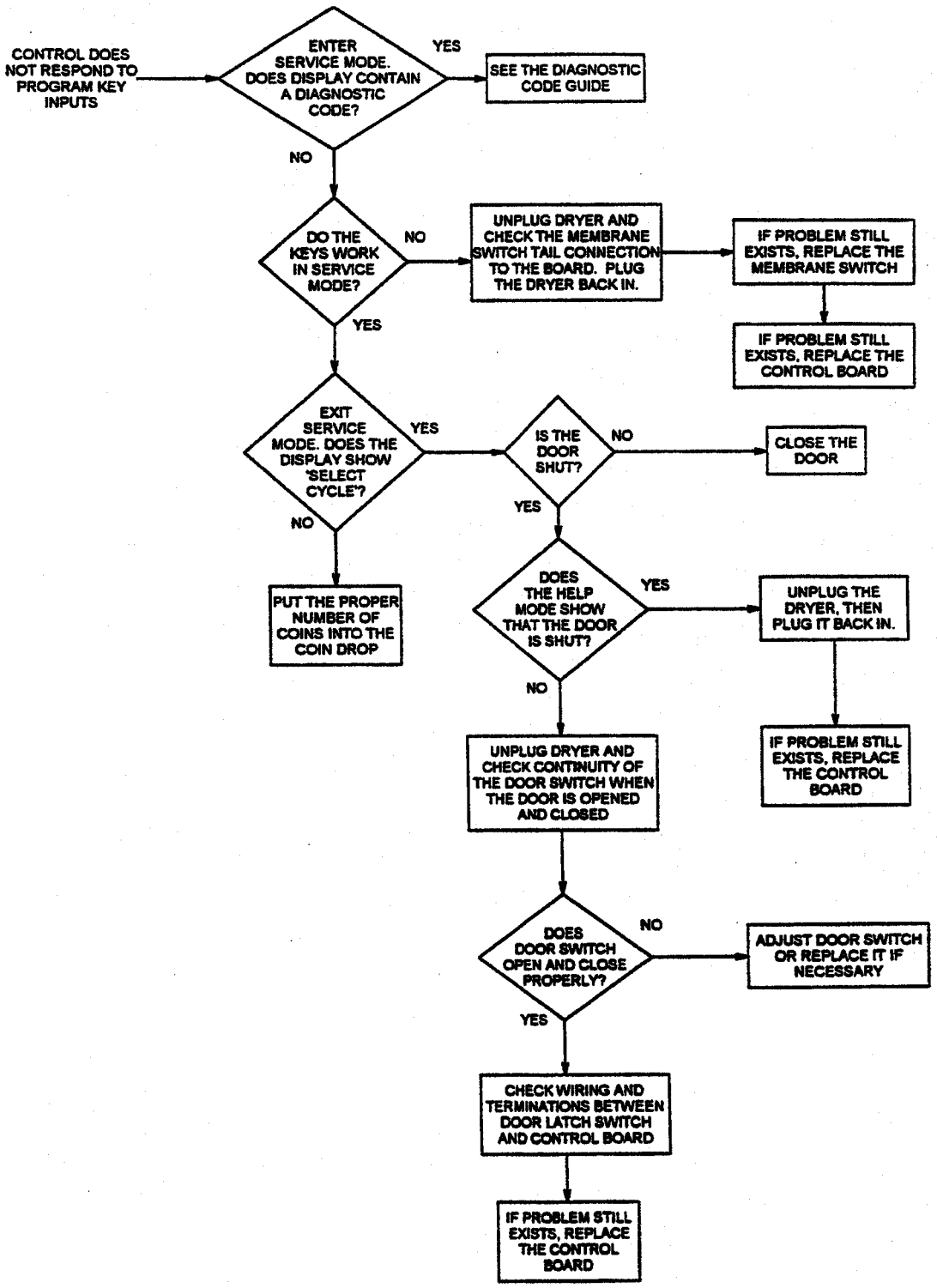

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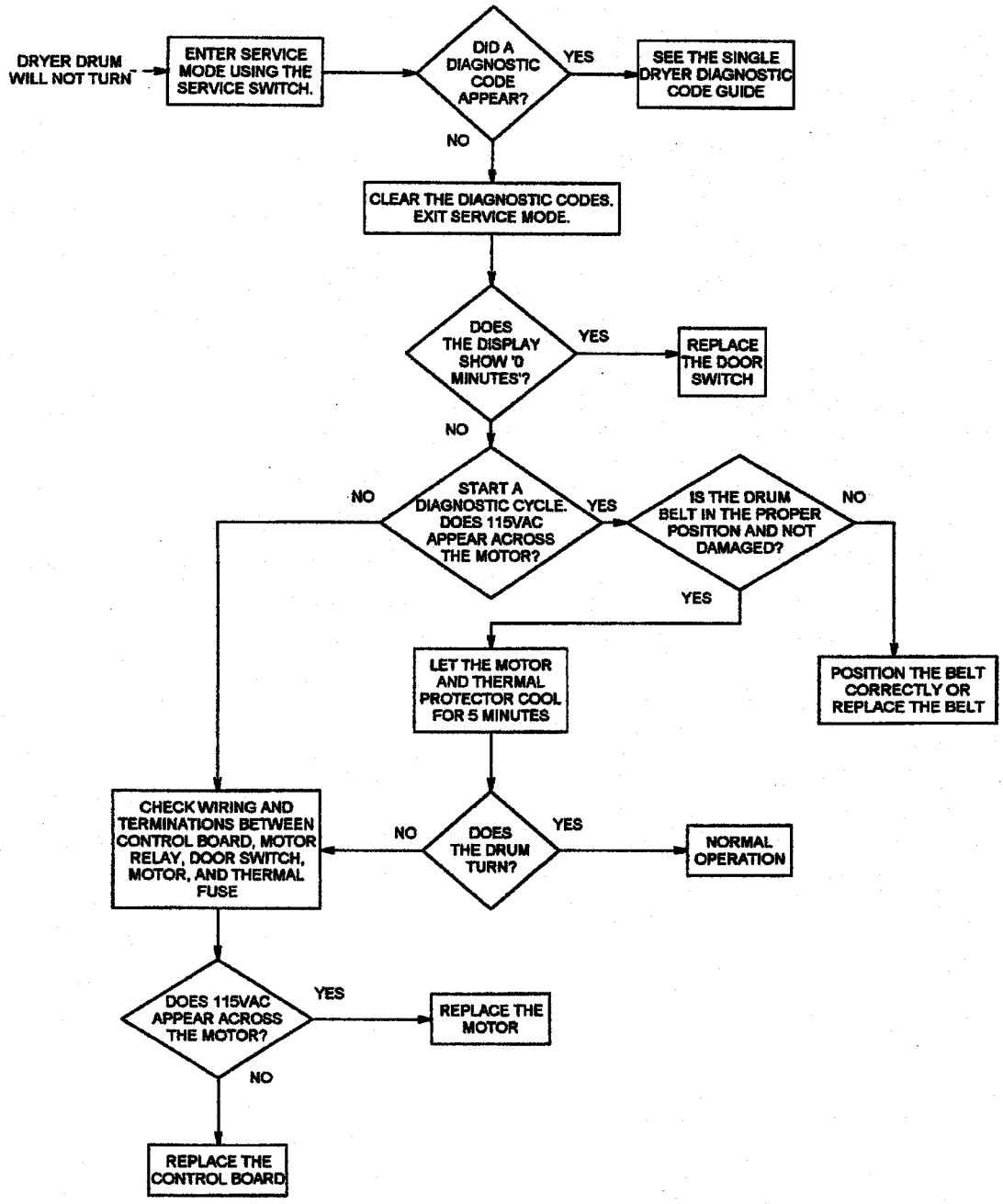

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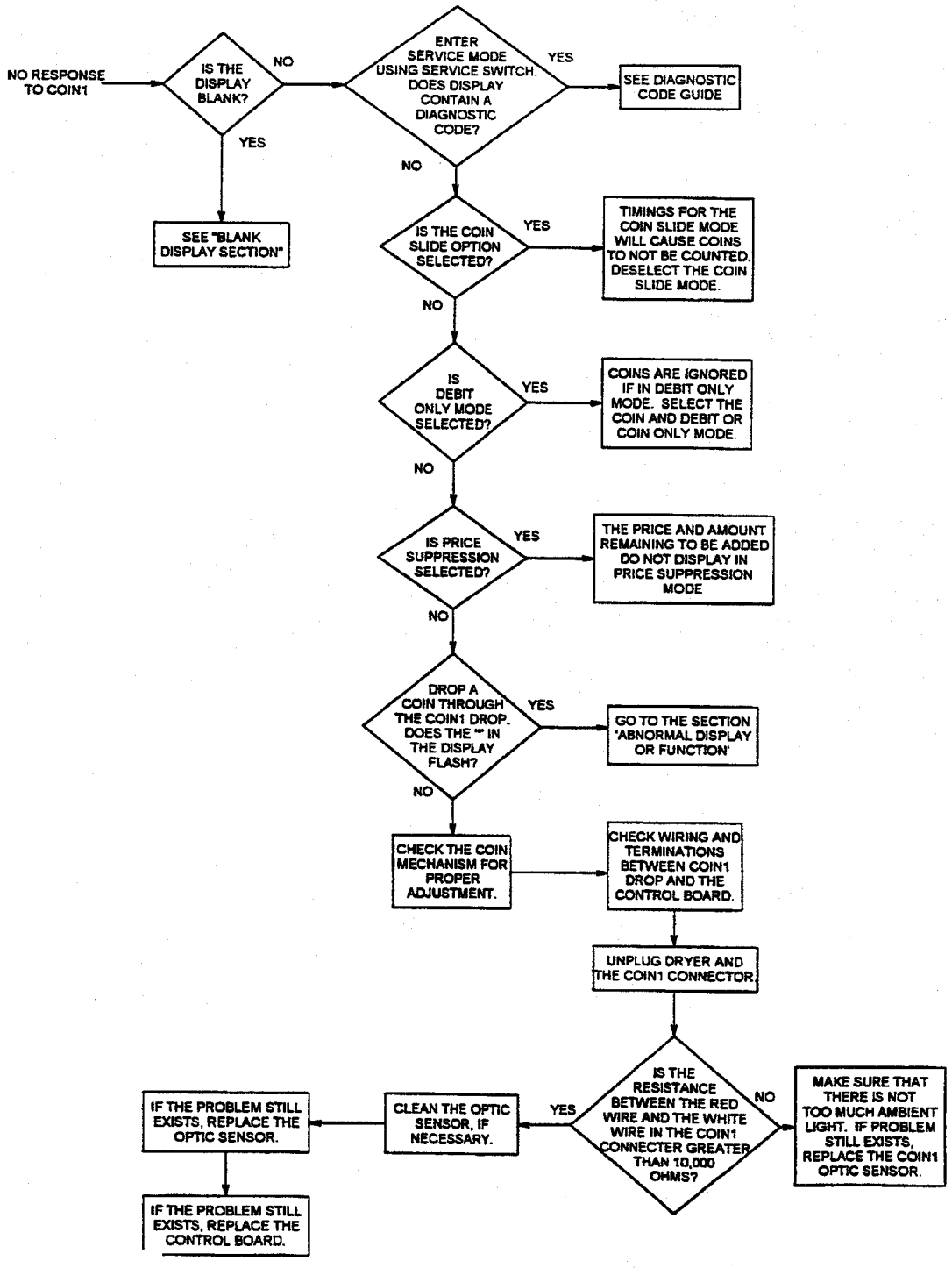

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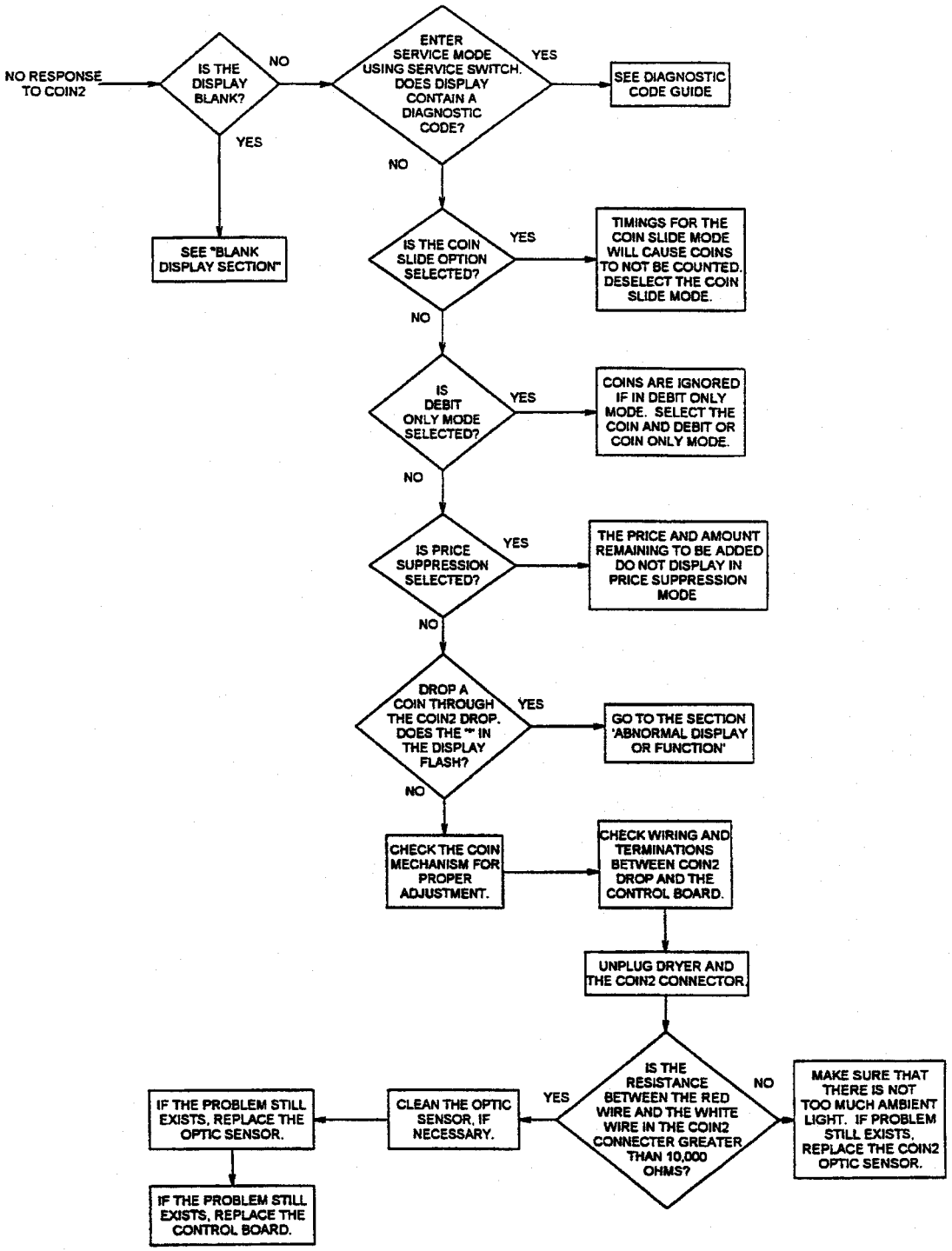

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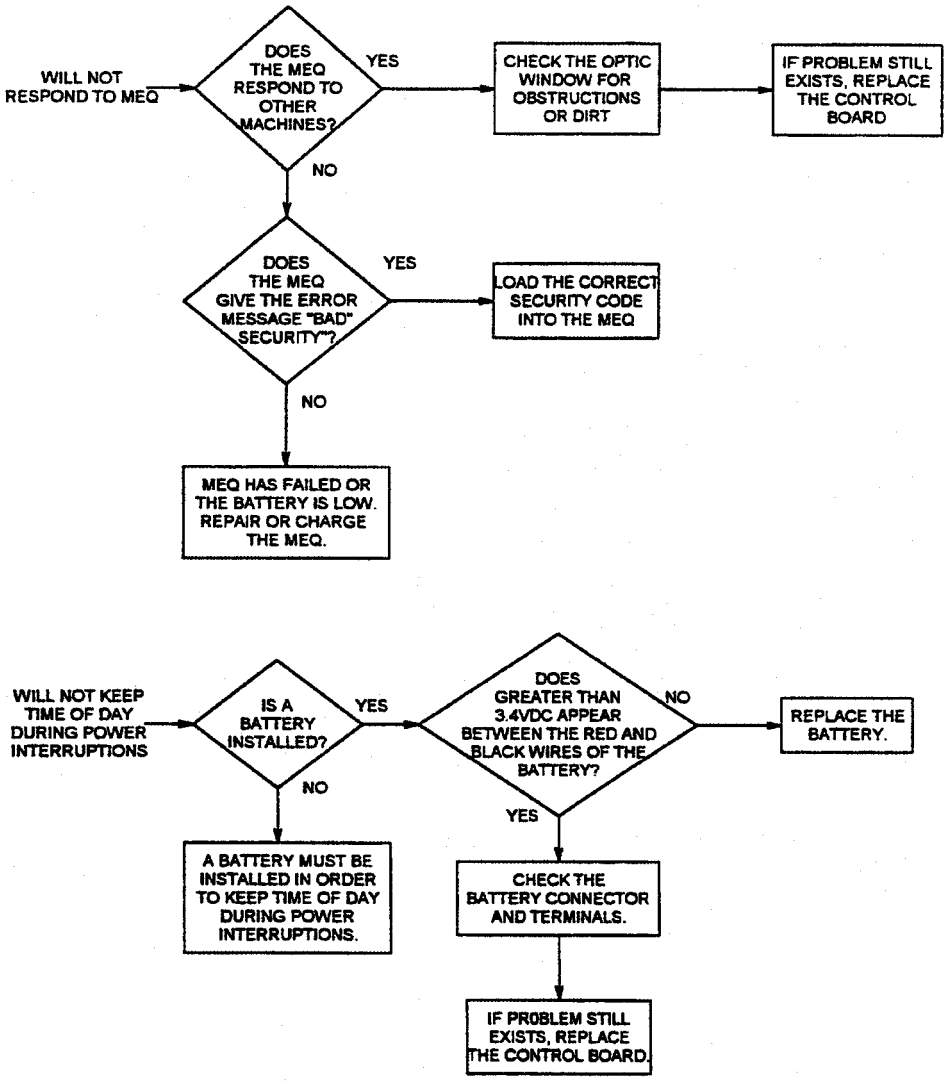

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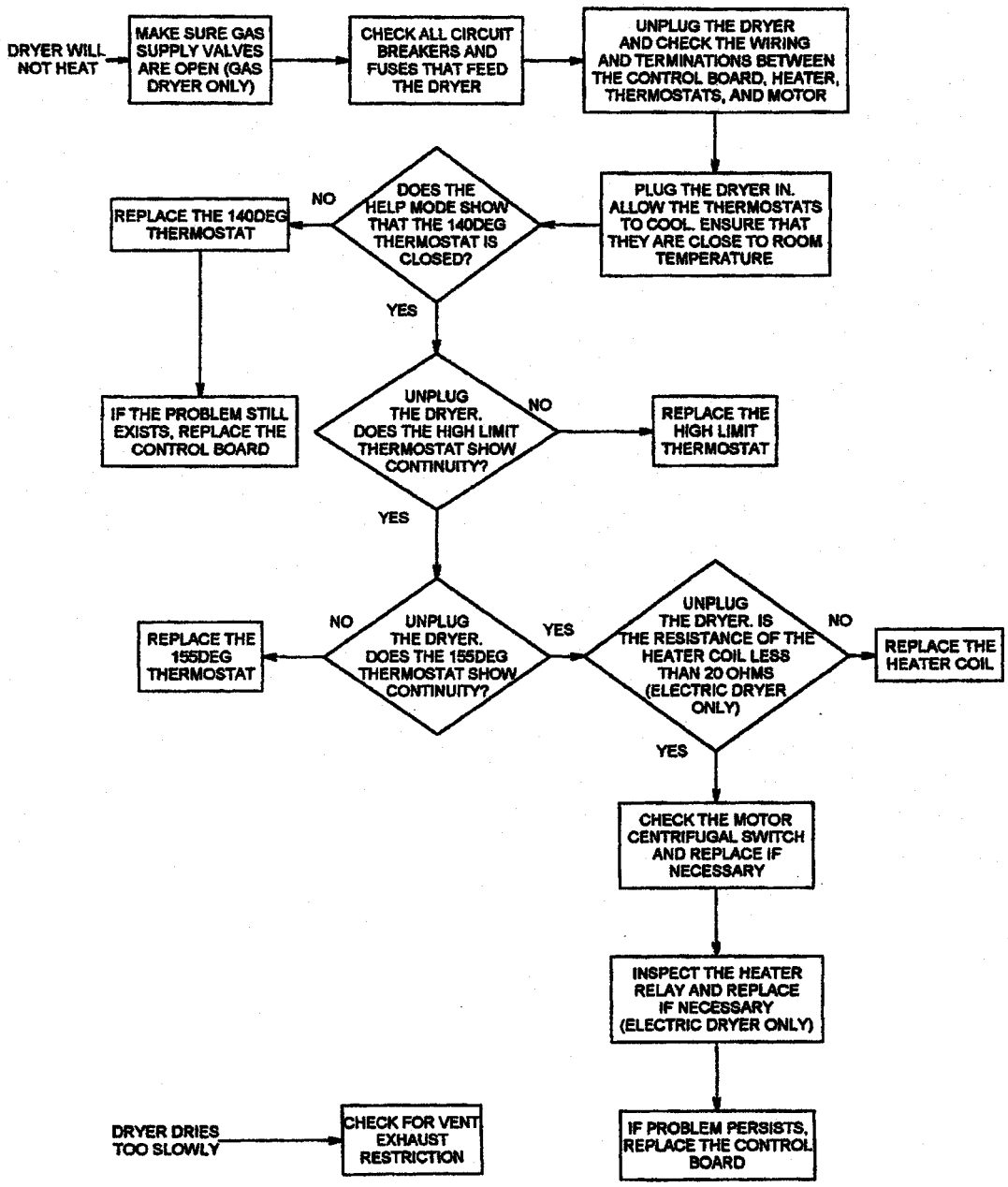

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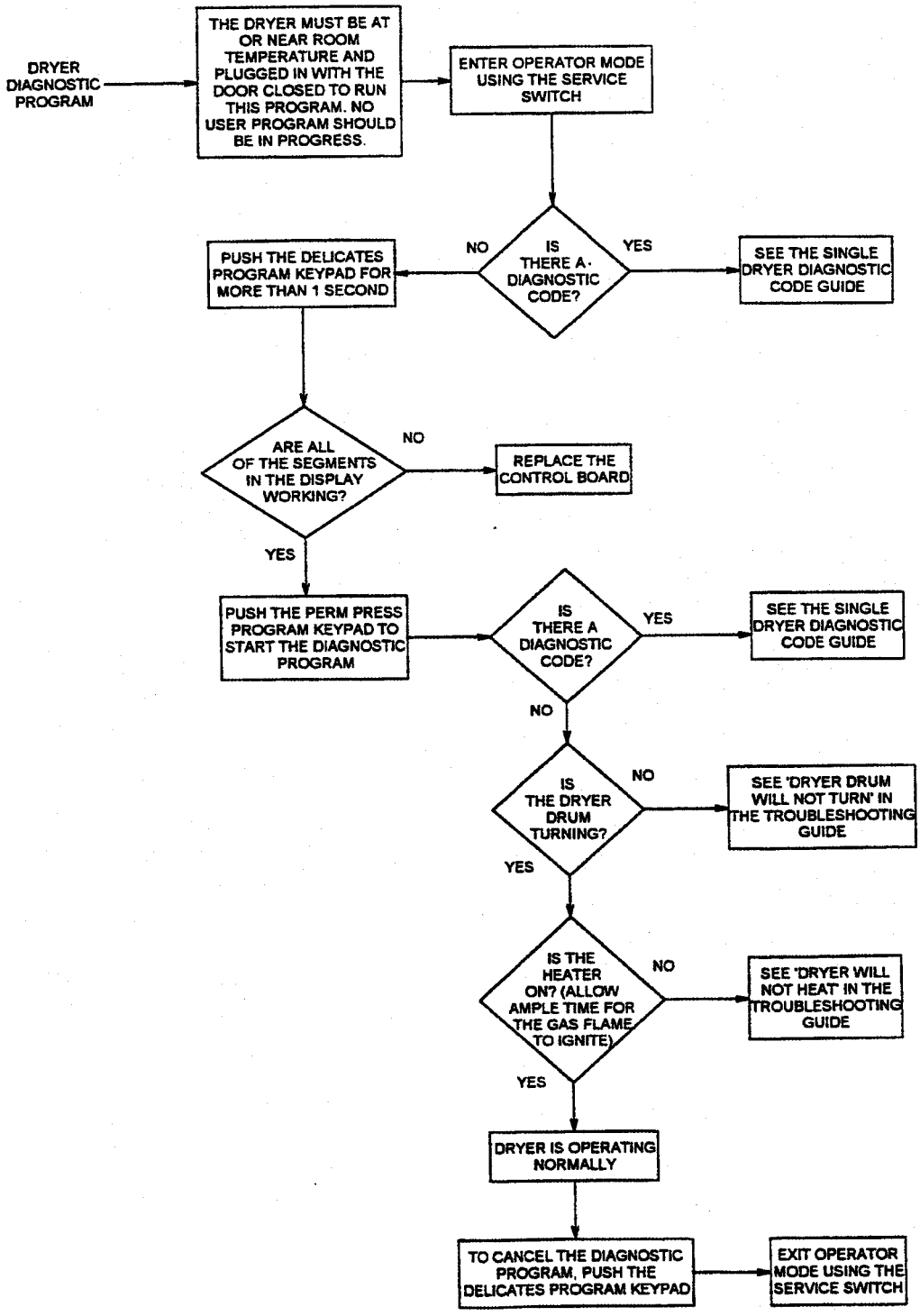
DRYER DIAGNOSTIC PROGRAM (Single Dryer)



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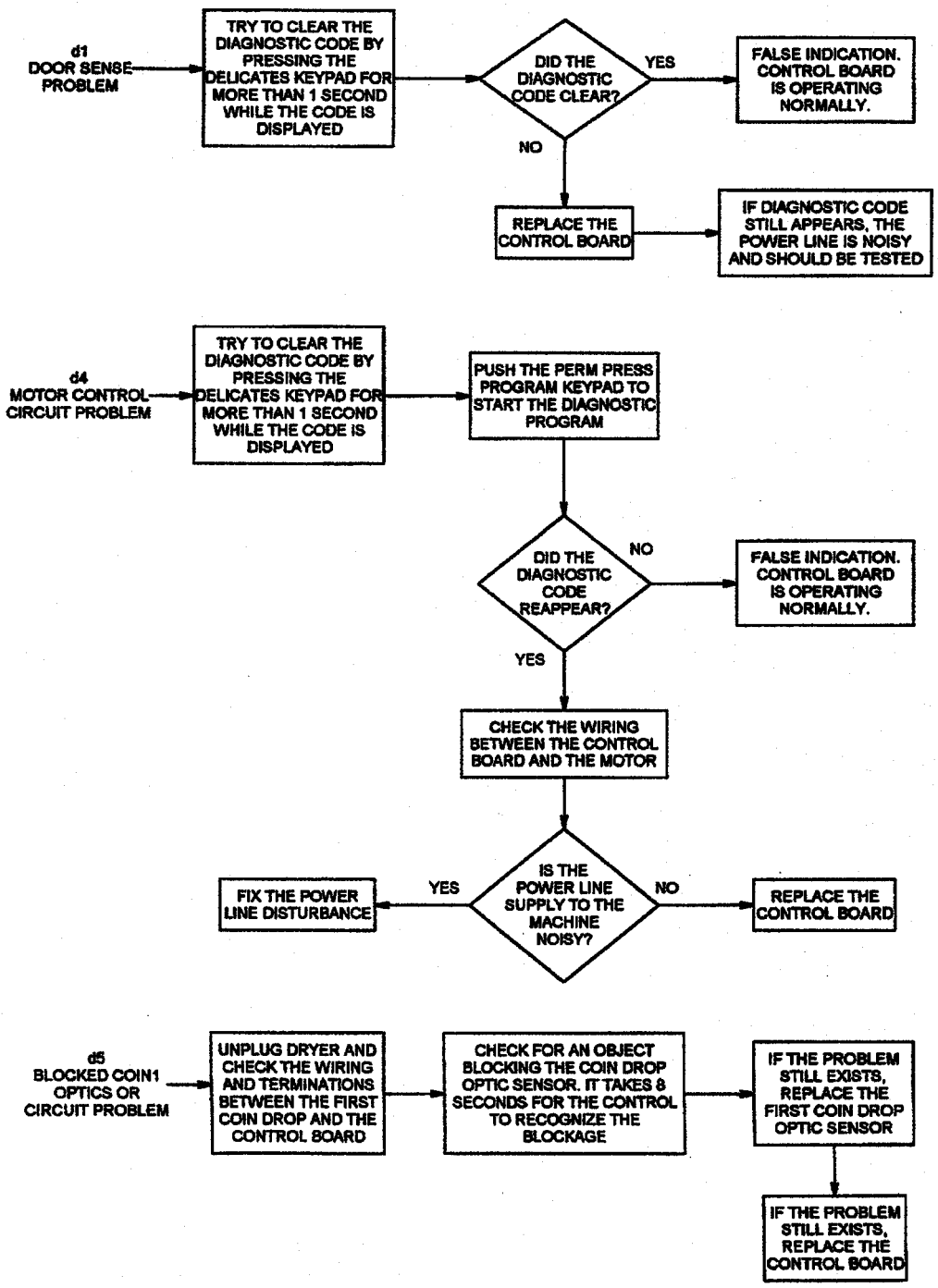
DRYER DIAGNOSTIC CODE GUIDE (Single Dryer)



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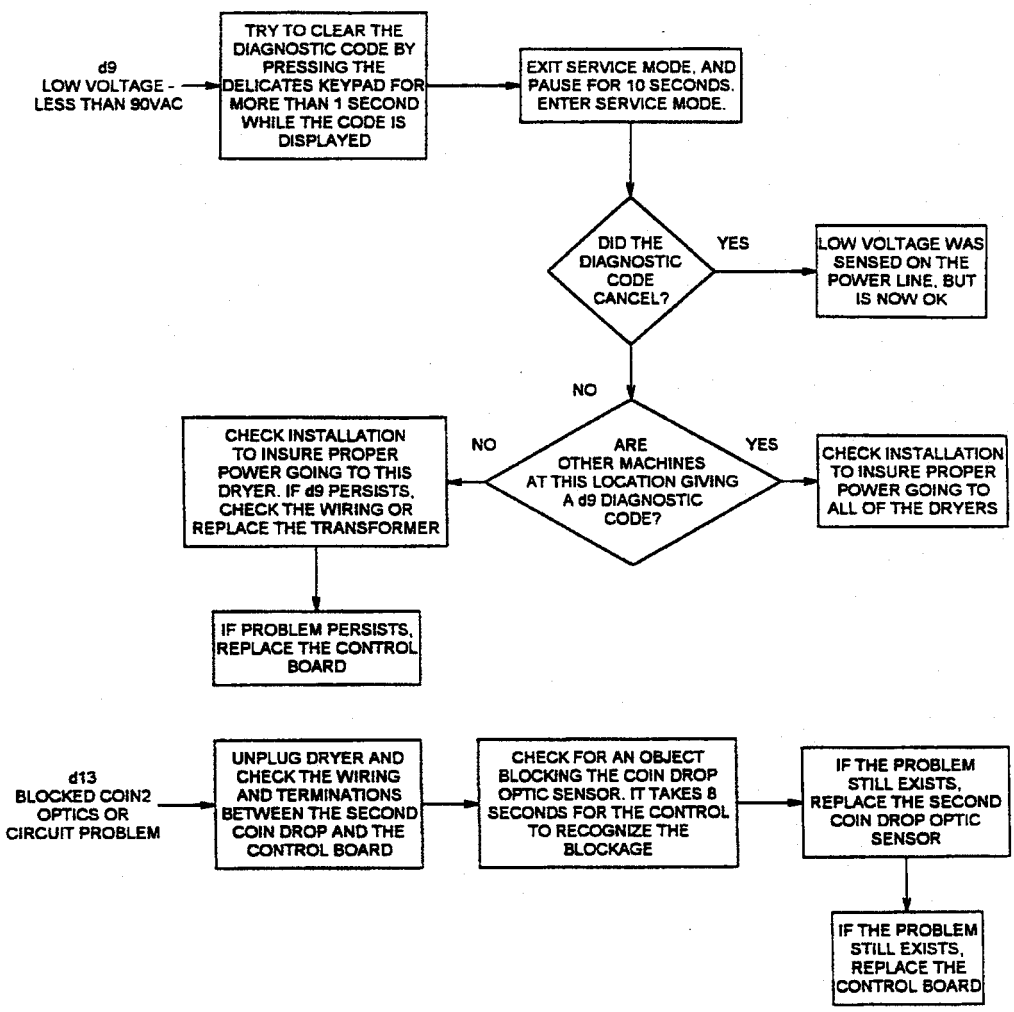

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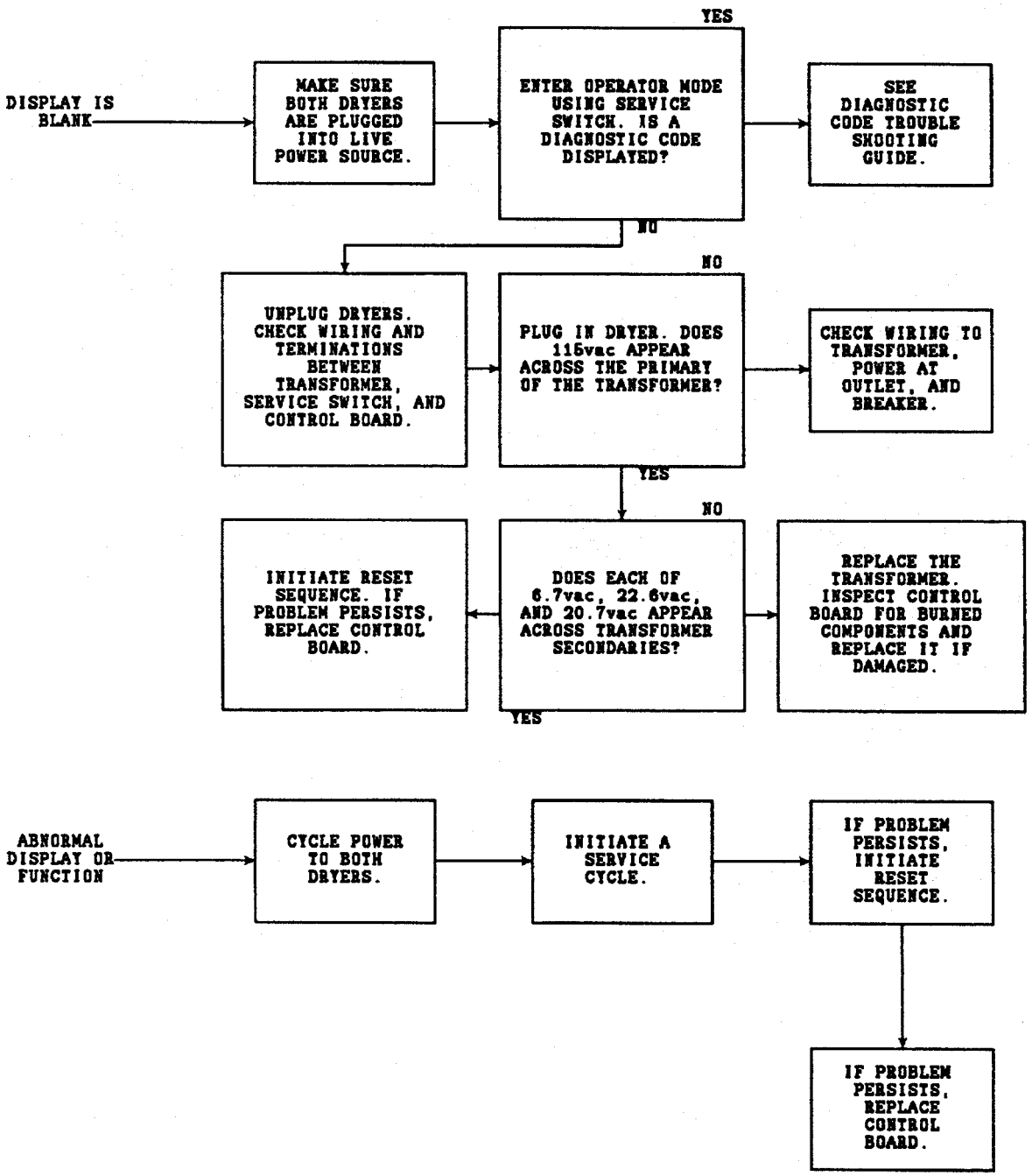
DRYER TROUBLESHOOTING GUIDE (Stack Dryer)



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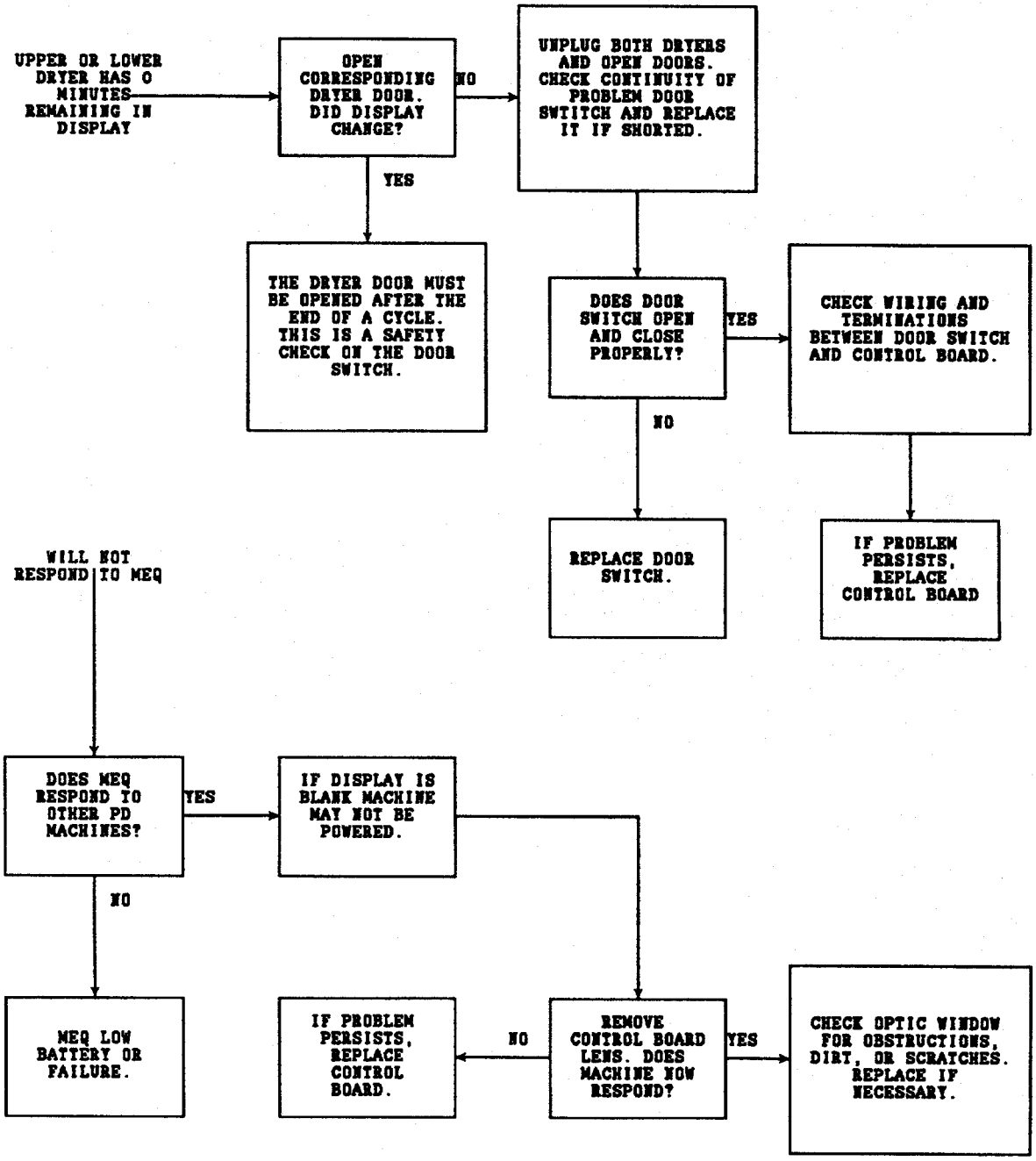

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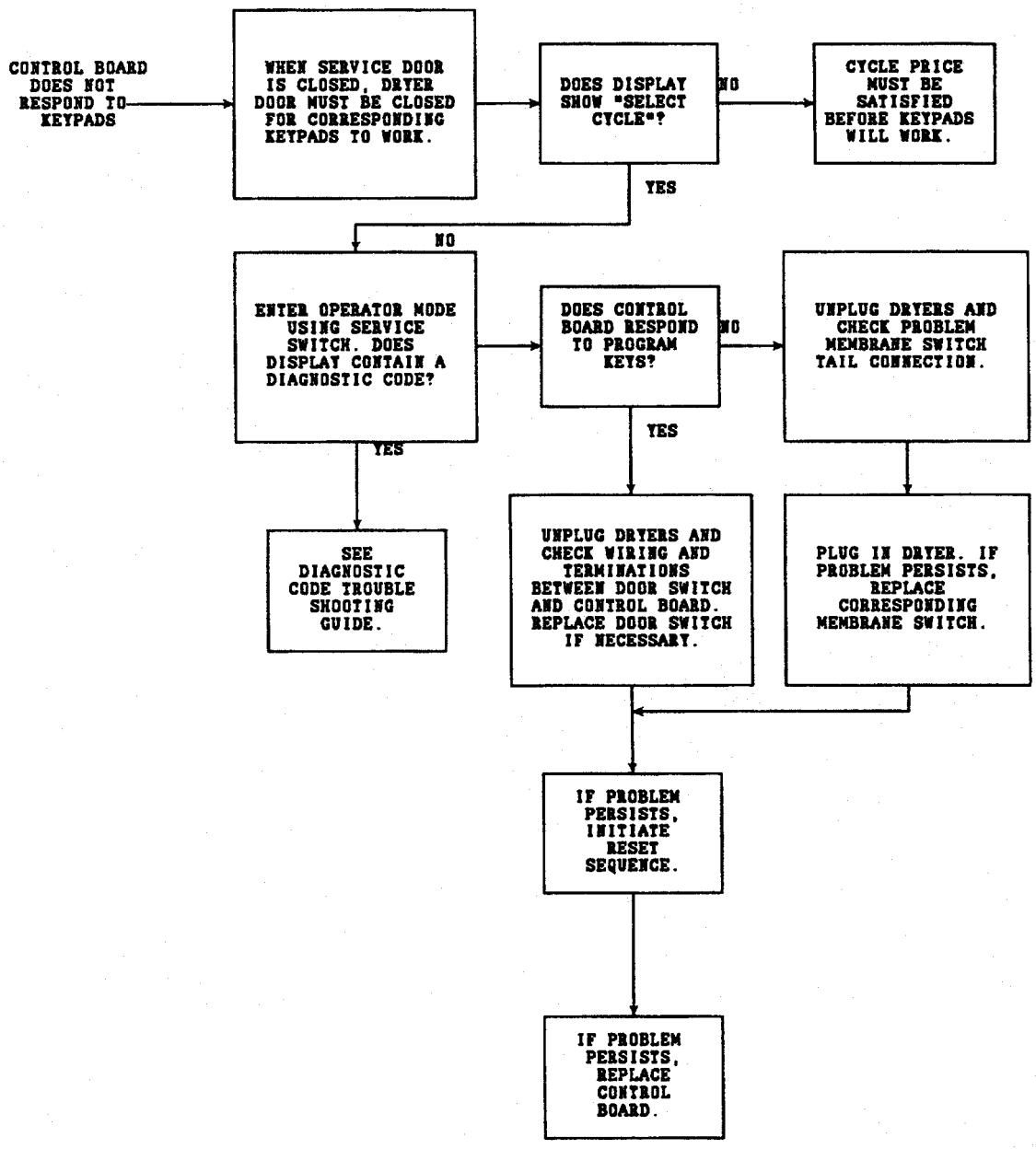

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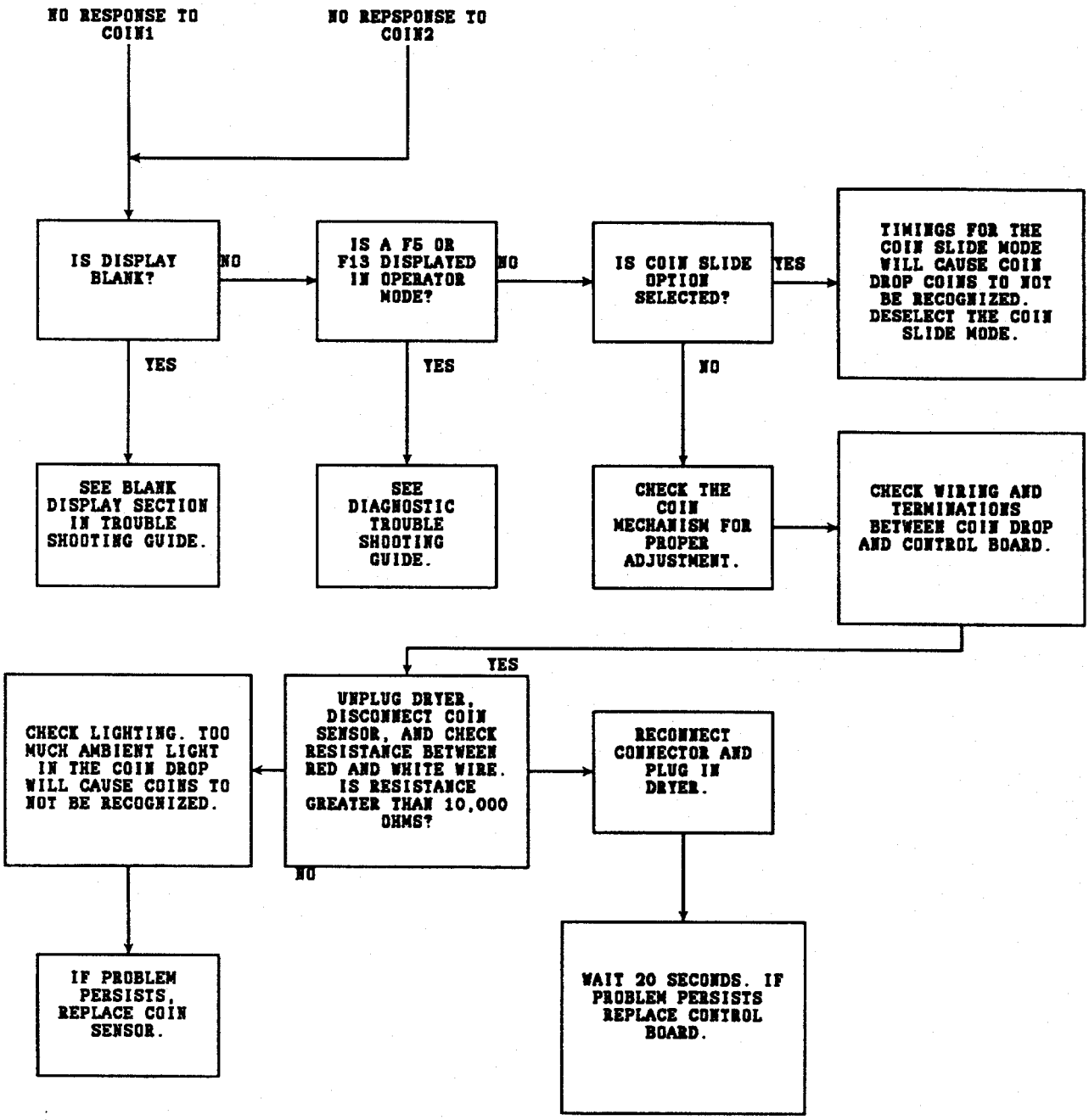

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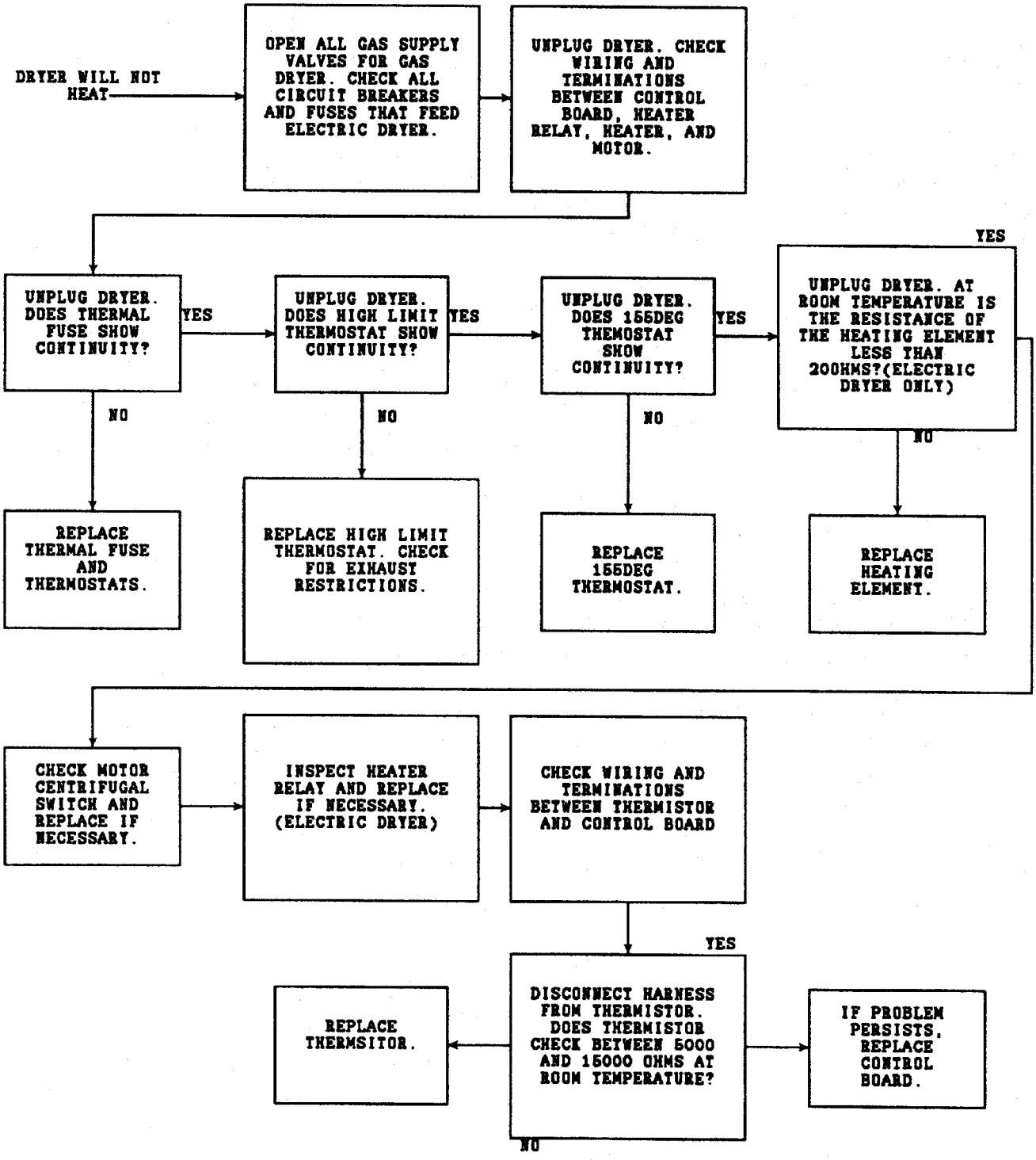

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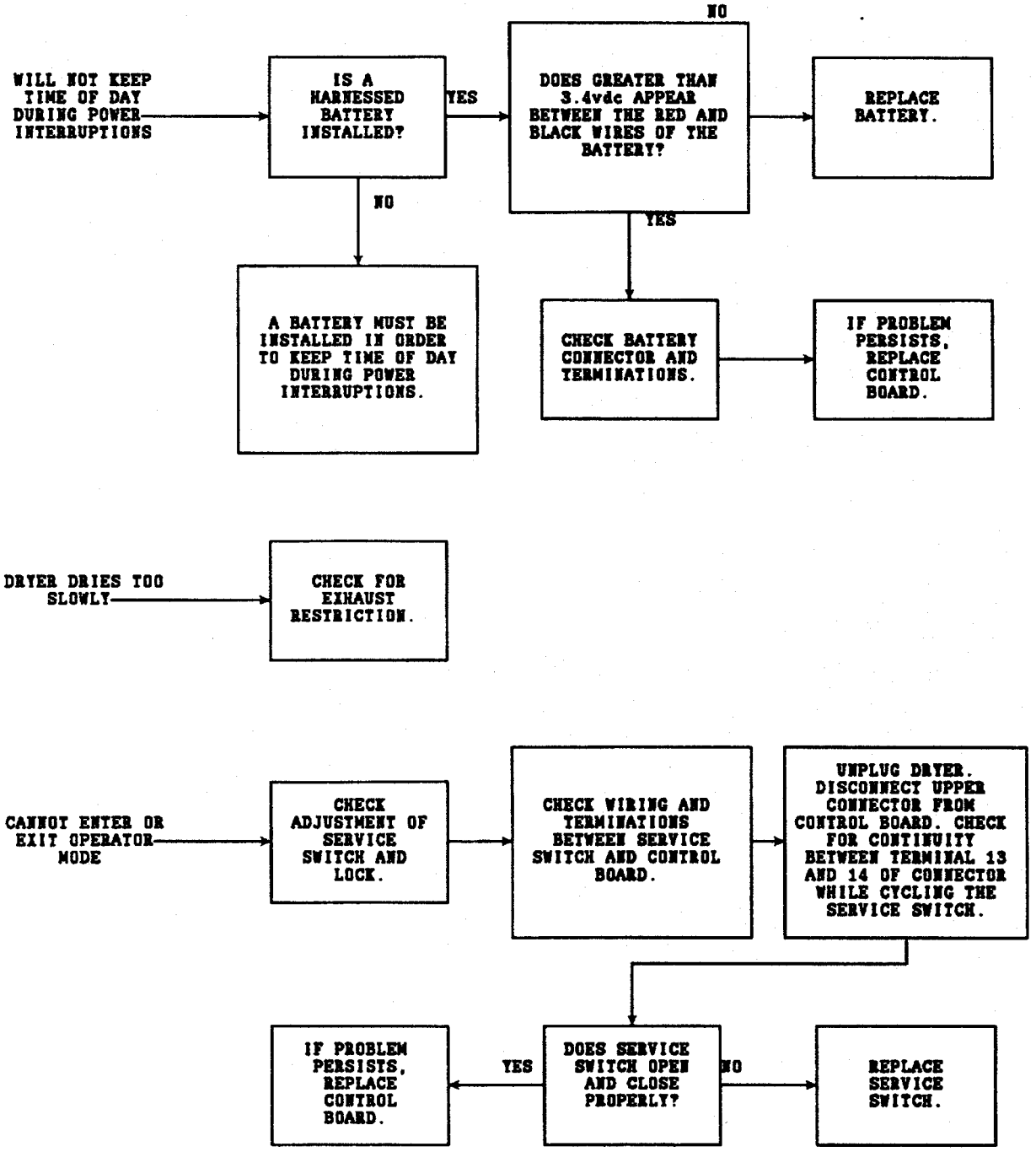

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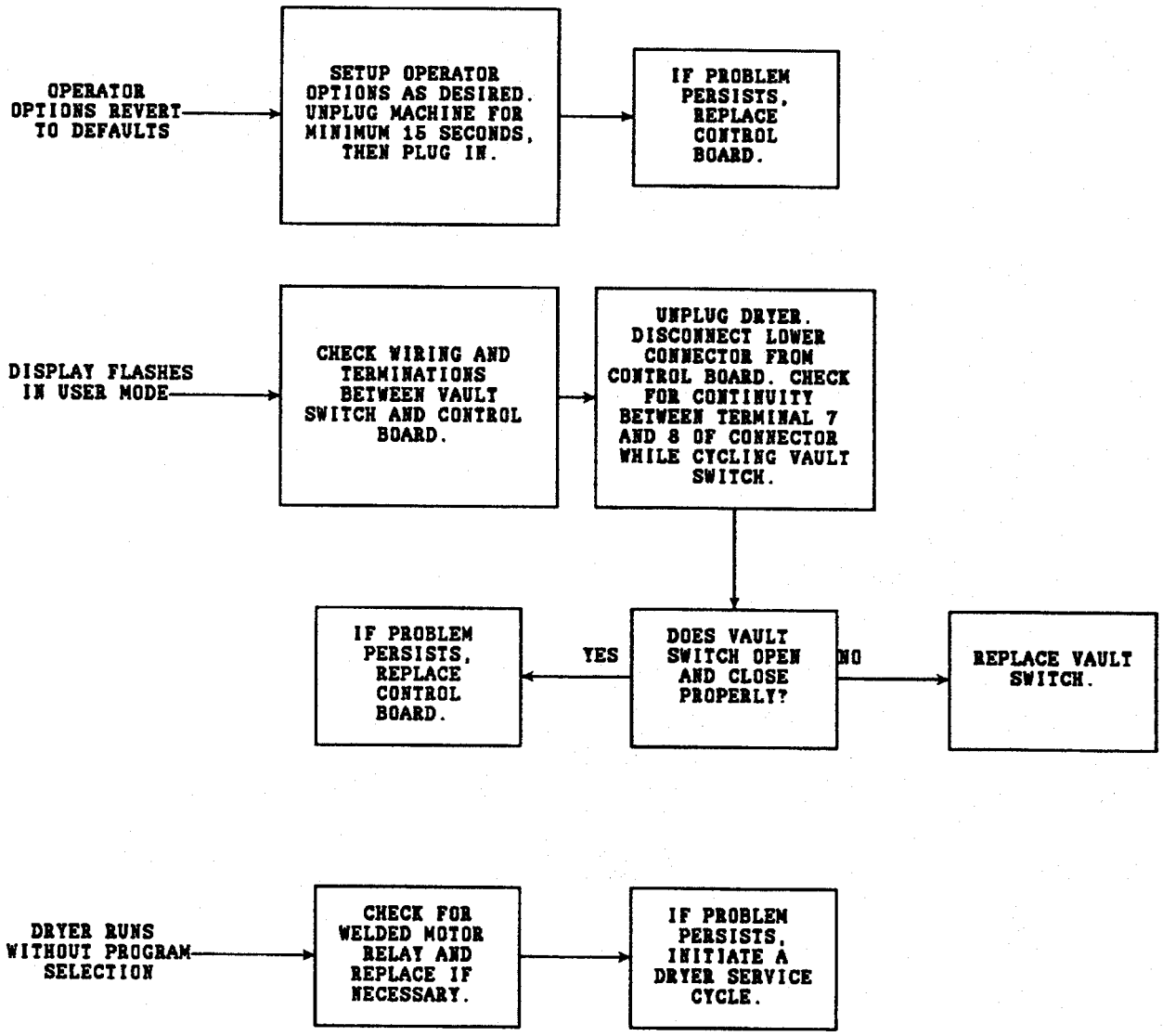

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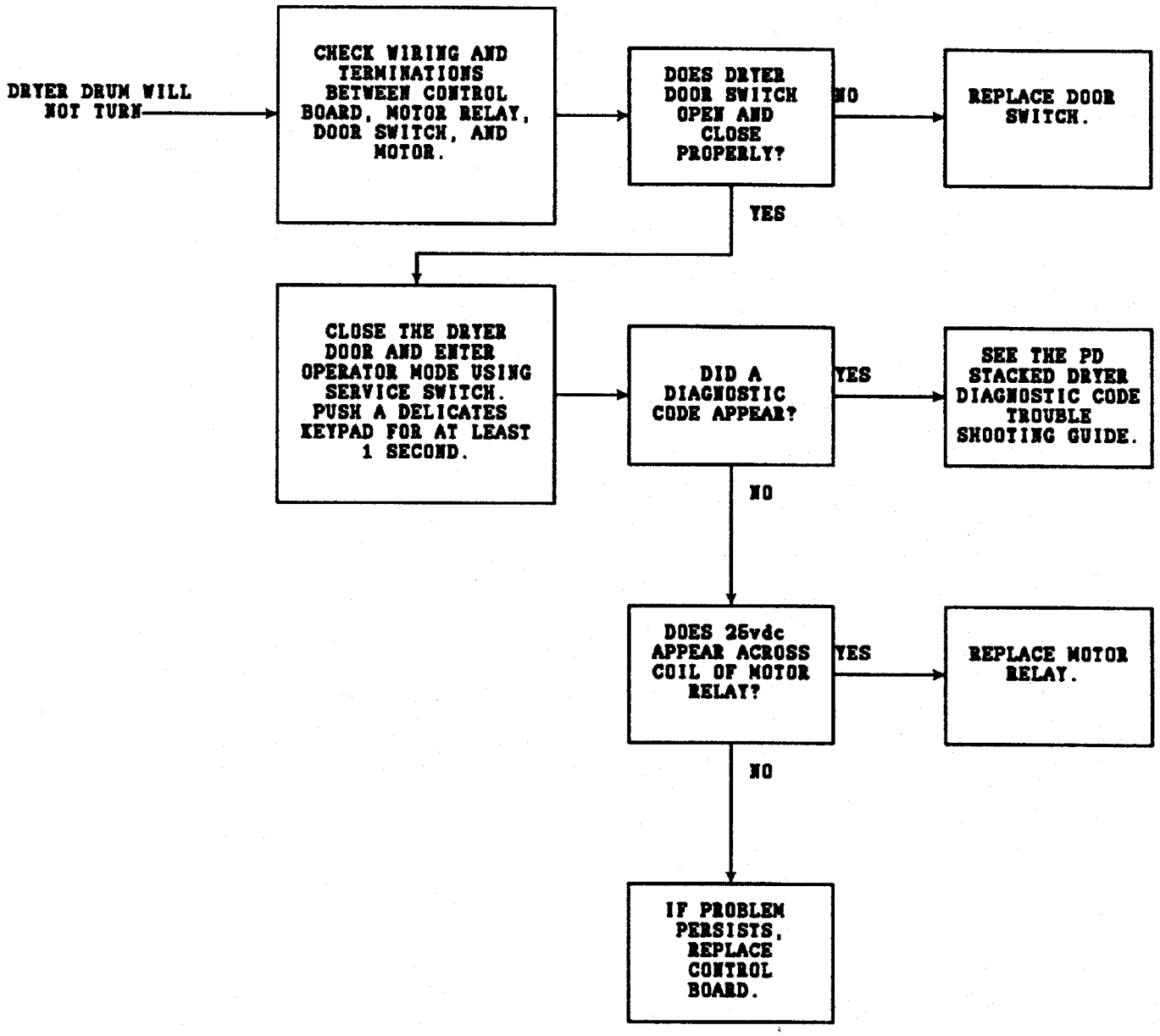

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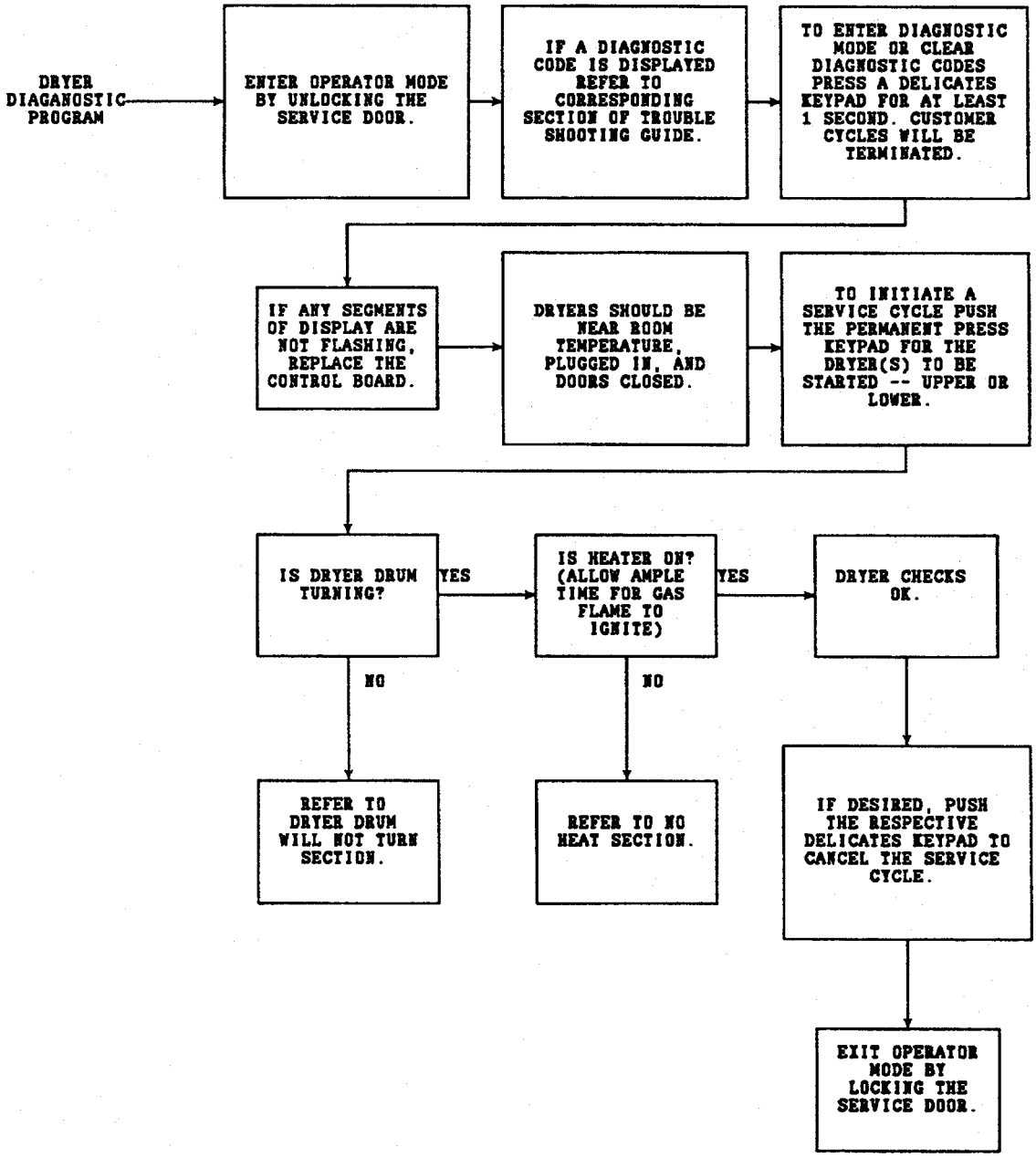
DRYER DIAGNOSTIC PROGRAM (Stack Dryer)



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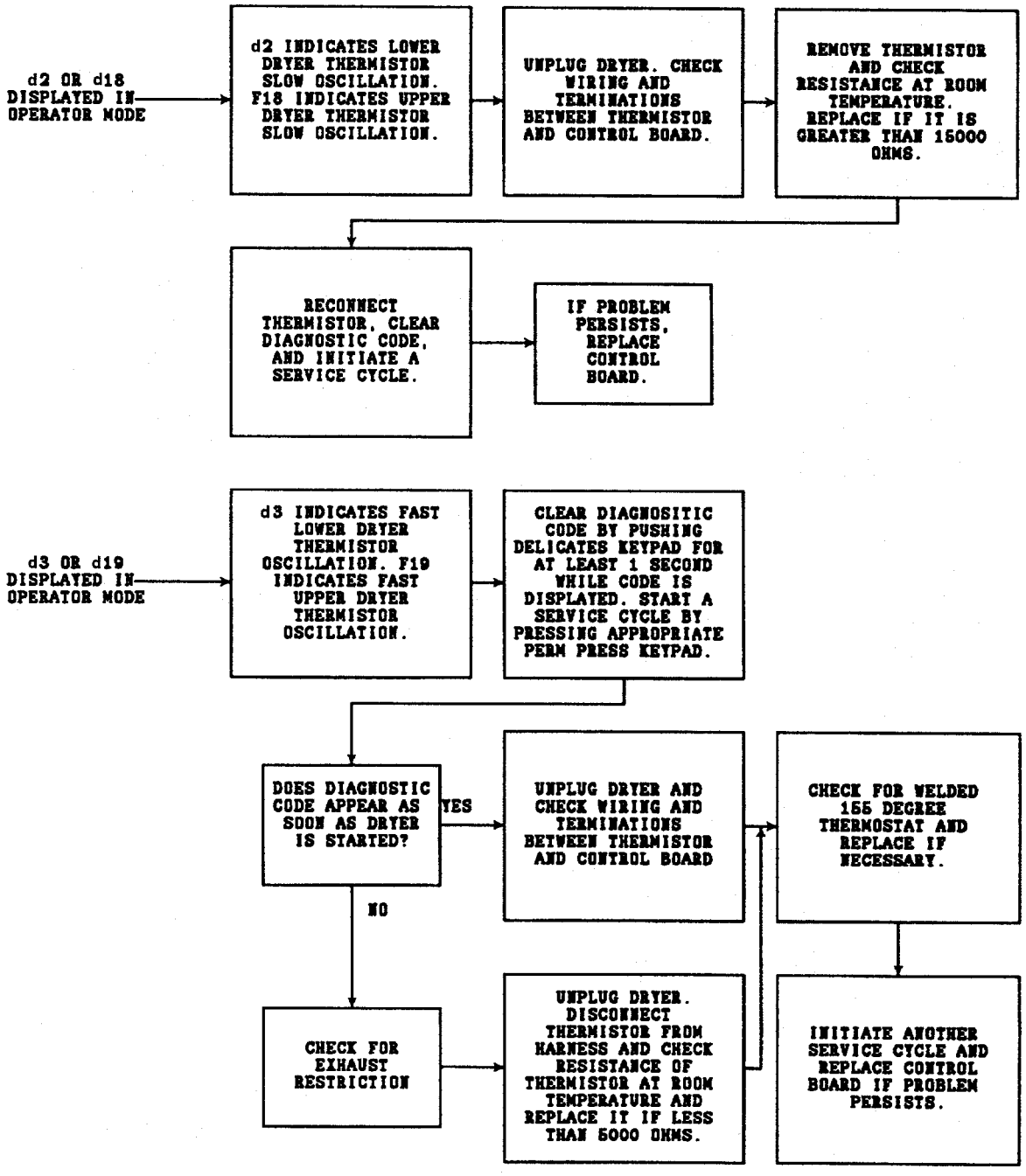

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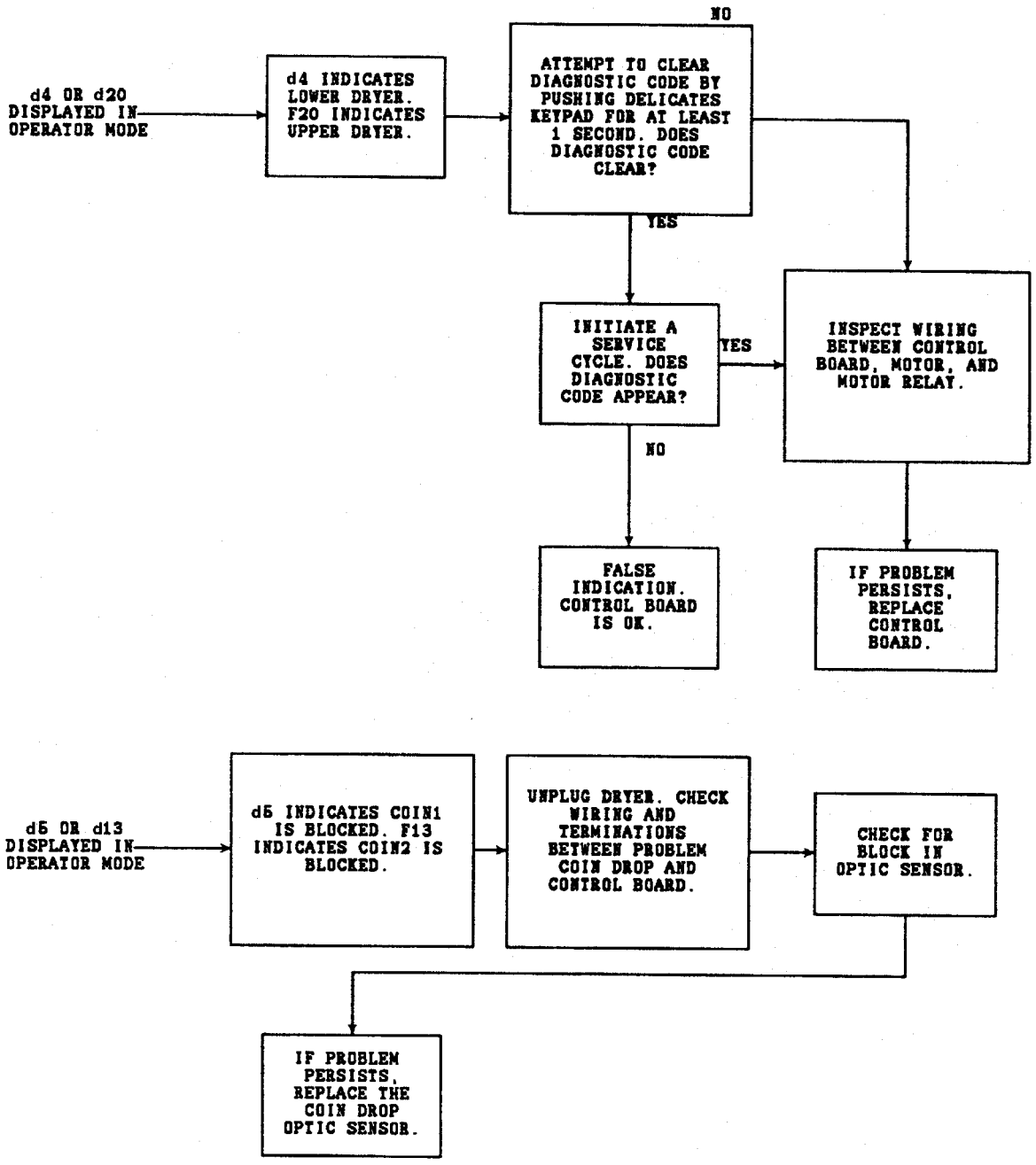

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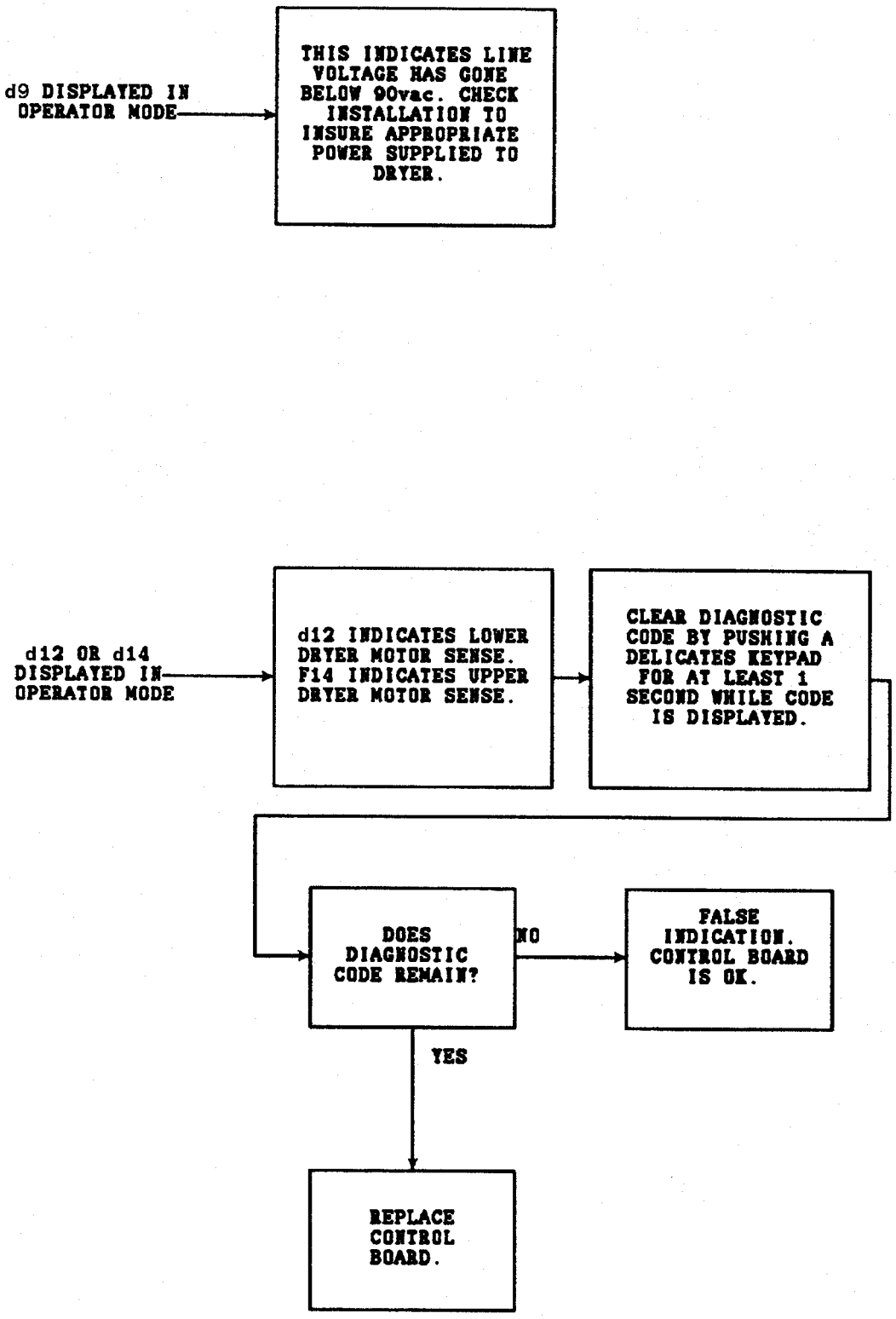

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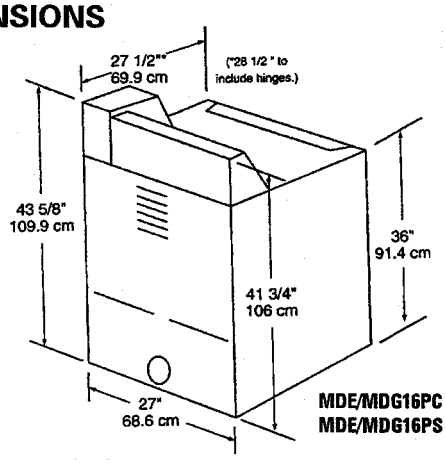
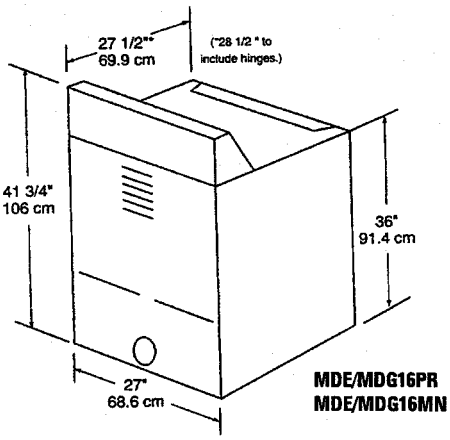
SECTION 5. SPECIFICATIONS & WIRING SCHEMATICS

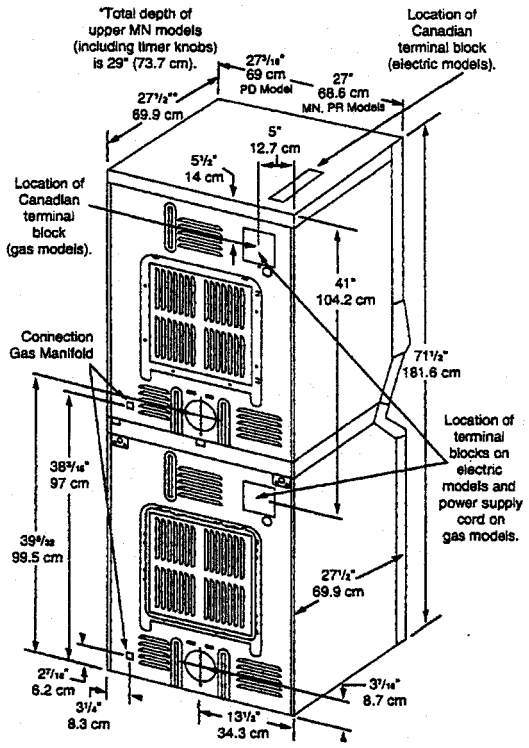
DIMENSIONS



MDE/MDG16PC
MDE/MDG16PS



MDE/MDG16PR
MDE/MDG16MN



MUE/MUG15PD (upper dryer)
MHE/MHG15PD (lower dryer)
MLE/MLG15PD (stacked dryer)

MUE/MUG15MN (upper dryer)
MHE/MHG15MN (lower dryer)
MLE/MLG15MN (stacked dryer)

GENERAL SPECIFICATIONS

Capacity	6.0 Cubic Feet	One top load washer is a full dryer load
Motor	Thermo-portected against overload auto-reset	1/4 HP, 120 Volt, 60 Hz
Amperage	•Gas Models •Electric Models	•7 amps (during ignition) •24 amps
Air Flow	Cubic feet per minute exhausted from dryer	220 CFM (6.24 cubic meter)
Tumbler	Revolution per minute	47.5 RPM + 1.5 RPM
Rotation	Drum Turning, when viewed from the front	Clockwise
Heat Source	•Electric •Gas	•240 volt watts, 30 amp fuse •Singe port burner 24,000 BTU/hr. direct ignition, automatic shut-off
Exhaust	Venting size	4" (10.2 cm) duct, rigid aluminum ductwork. (See installation instructions that are provided with the product for additional information.)
Makeup Air	Free opening	Requires 36 sq. inch per dryer pocket
Static Pressure	Single unit exhausting, 4" round rigid	Should not exceed 0.92" or less than 0 water column inches

***All specifications are approximate.**

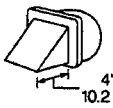
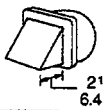
TEST SPECIFICATIONS

DESCRIPTION	WATTS
Gas Dryer	350 Maximum without igniter
Electric	5900 (240V)/5600 208V)
Heating Element	5600 (240V)/5100 (208V)
Igniter ***(NOTE: Ohm room temperature 180-400)***	600

***All specifications are approximate.**

TORSION TIMER SETTING (CS MODELS)

Time Peg Position	Return Stop Position(s)	Time	Time Added		Total
		1st	2nd	3rd	
A	B	20	40	--	60
A	B & D	20	13	27	60
A*	B & E	20	20	20	60
A	C	27	33	--	60
A	C & E	27	13	20	60
A	D	33	27	--	60
A	E	40	20	--	60
B*	D	26.5	26.5	--	53
B	E	33	20	--	53
C	E	27	20	--	47
A	Not Used	Timer will be one-cycle, (non-accumulative)			60
B	Not Used				53
C	Not Used				47
D	Not Used				40
E	Not Used				33

MAXIMUM EXHAUST DUCT LENGTH PER NUMBER OF TURNS		
Number Of 90° Turns	 4" 10.2 cm	 2½" 6.4 cm
Maximum length of 4-inch diameter rigid metal duct.		
0	65 ft. (19.8 m)	59 ft. (18 m)
1	54 ft. (16.5 m)	48 ft. (14.6 m)
2	44 ft. (13.4 m)	38 ft. (11.6 m)
3	36 ft. (11 m)	30 ft. (9.1 m)
4	28 ft. (8.5 m)	22 ft. (6.7 m)
Maximum length of 4-inch diameter flexible stiff-walled metal duct.		
0	36 ft. (11 m)	28 ft. (8.5 m)
1	32 ft. (9.8 m)	24 ft. (7.3 m)
2	28 ft. (8.5 m)	20 ft. (6.1 m)
3	25 ft. (7.6 m)	17 ft. (5.2 m)
4	23 ft. (7 m)	15 ft. (4.6 m)

ELECTRICAL WIRING SCHEMATICS

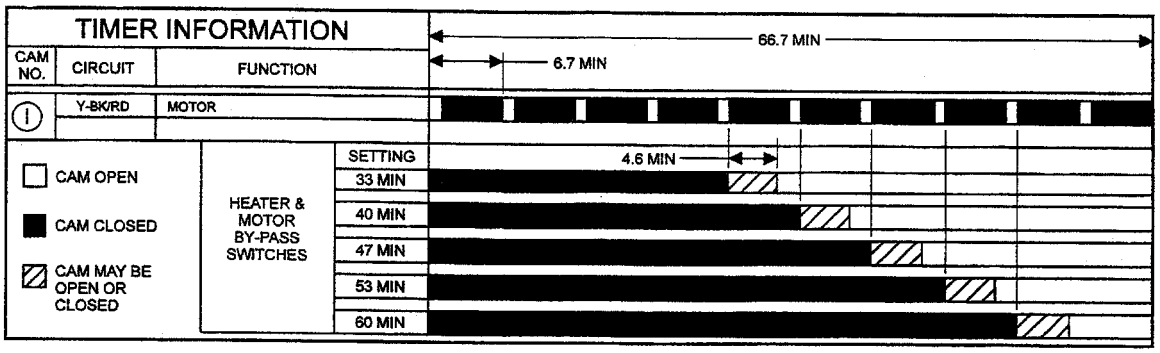
Wiring diagram and electrical schematics are covered in this section. The models covered are MDE/MDG16, MHE/MUE15 and MHG/MUG15 dryers.

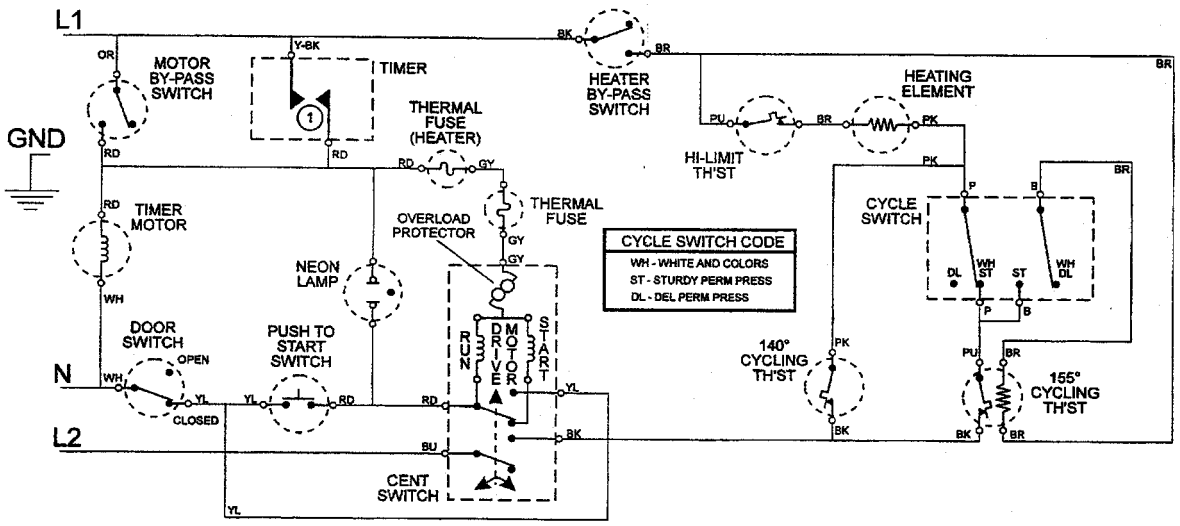
Note: MHE/MHG - lower dryers, MUE/MUG - upper dryers of the stack dryer. A stack dryer is also known as MLE/MLG15 when assembled together.

Consult the wiring diagram and electrical schematic included with all dryers. They will be the latest version as compared to the ones shown in this section.

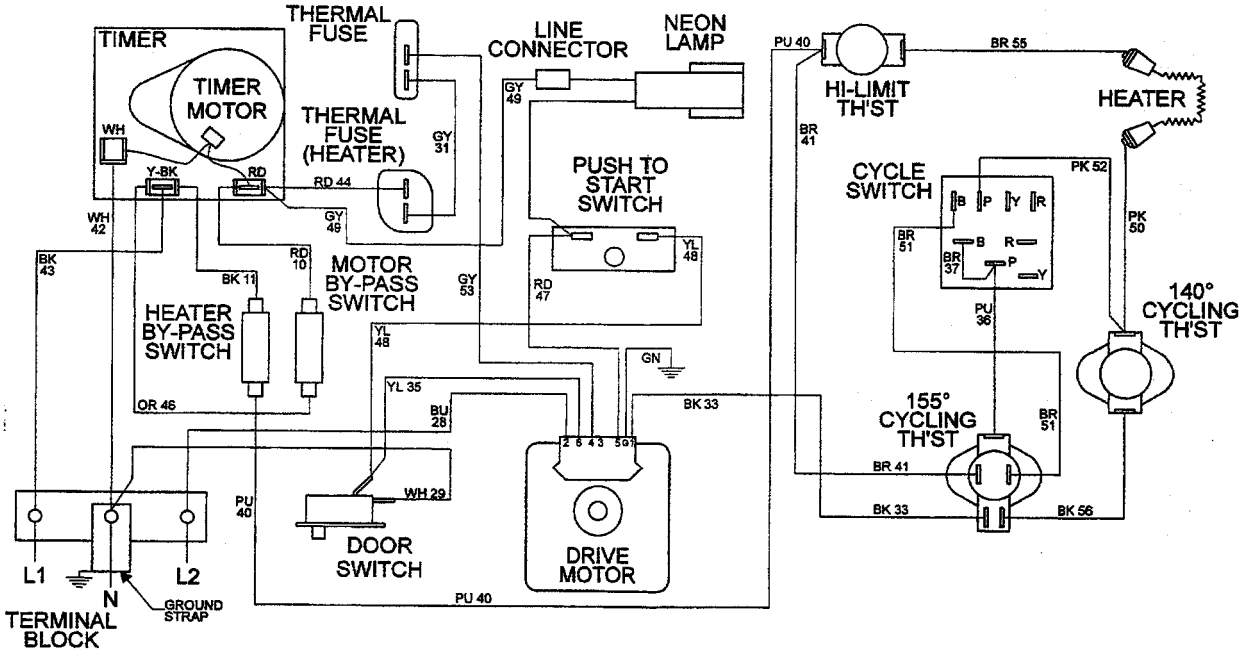
NOTES:

MDE16CS



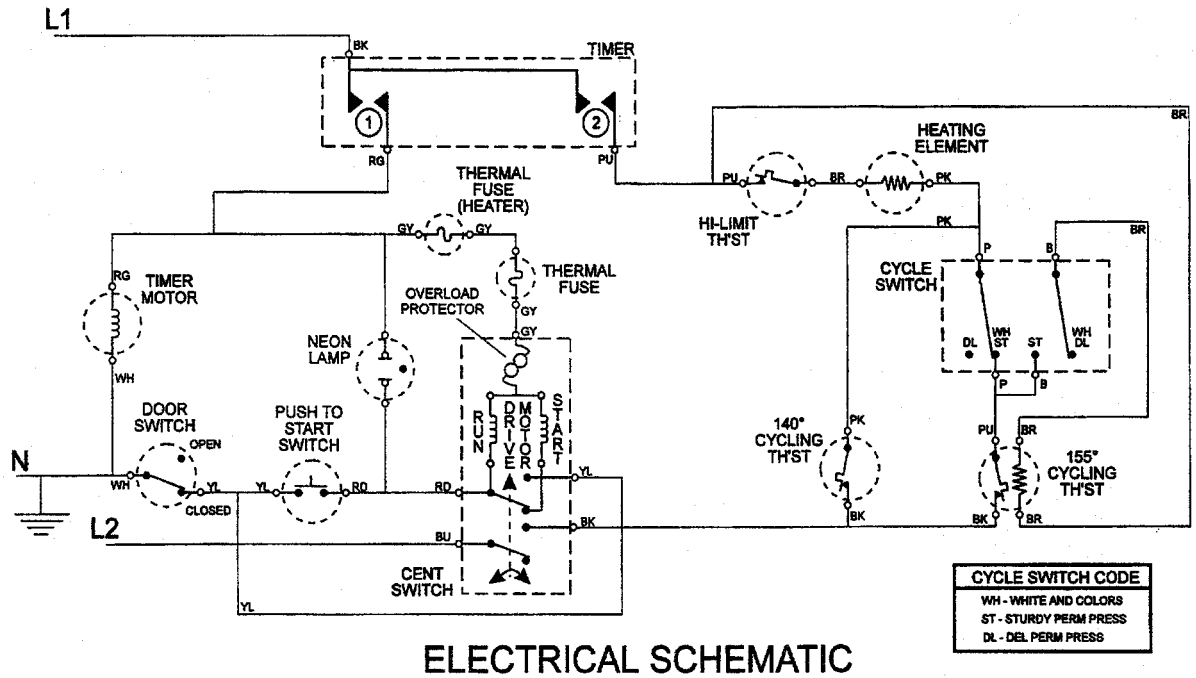


ELECTRICAL SCHEMATIC

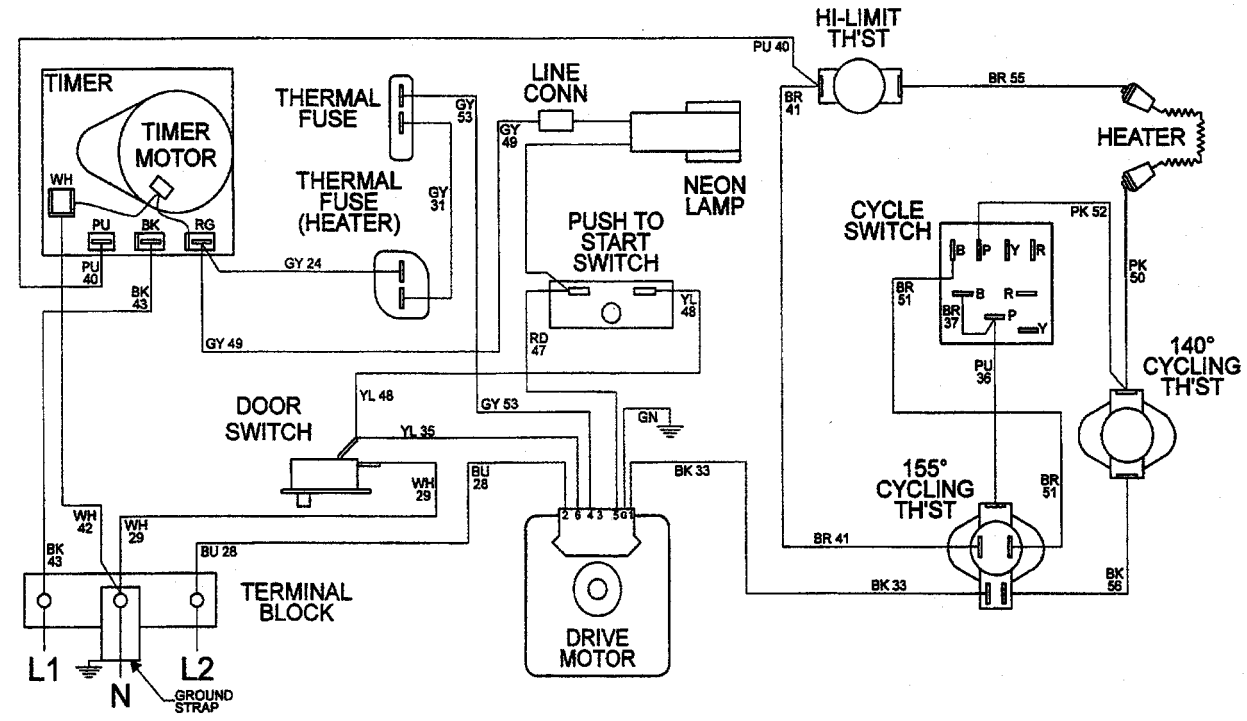


MDE16MN

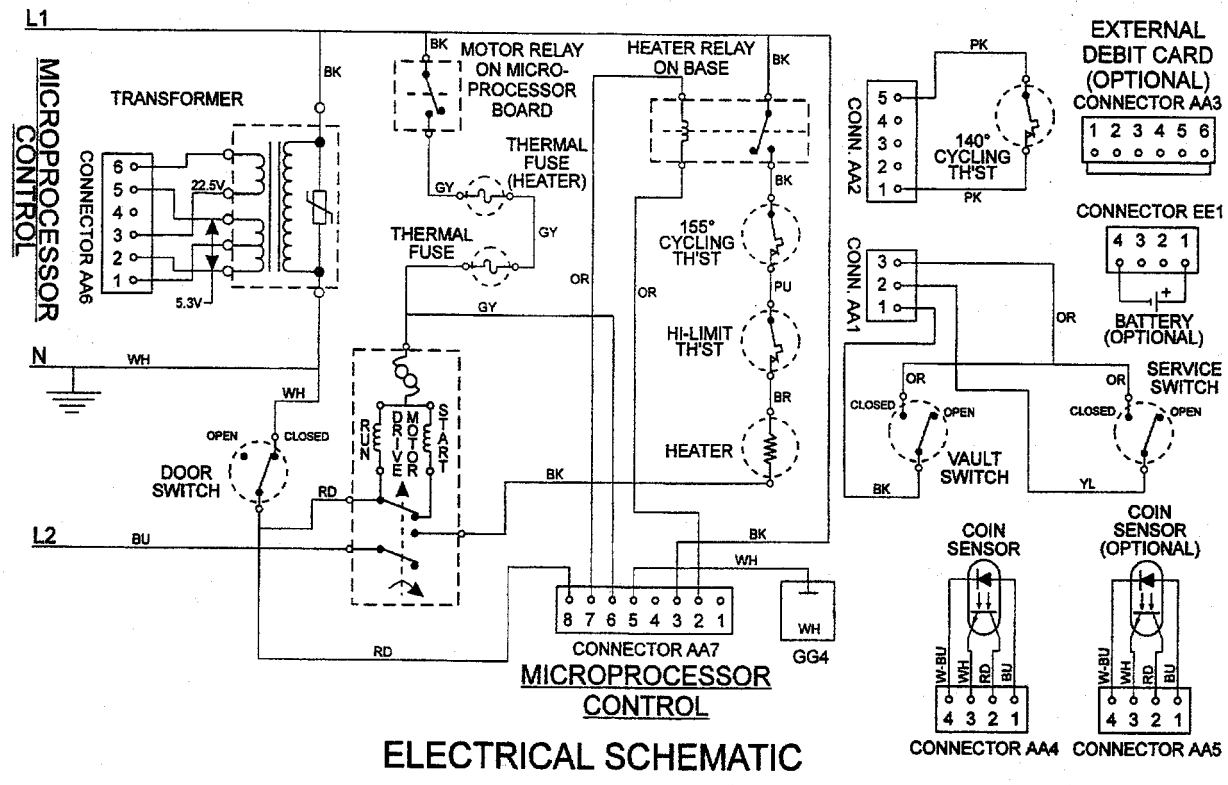
TIMER INFORMATION			115 MIN
CAM NO.	CIRCUIT	FUNCTION	OFF — 3 MIN COOL PERIOD
①	BK-RG	MOTOR	
②	BK-PU	HEATER	



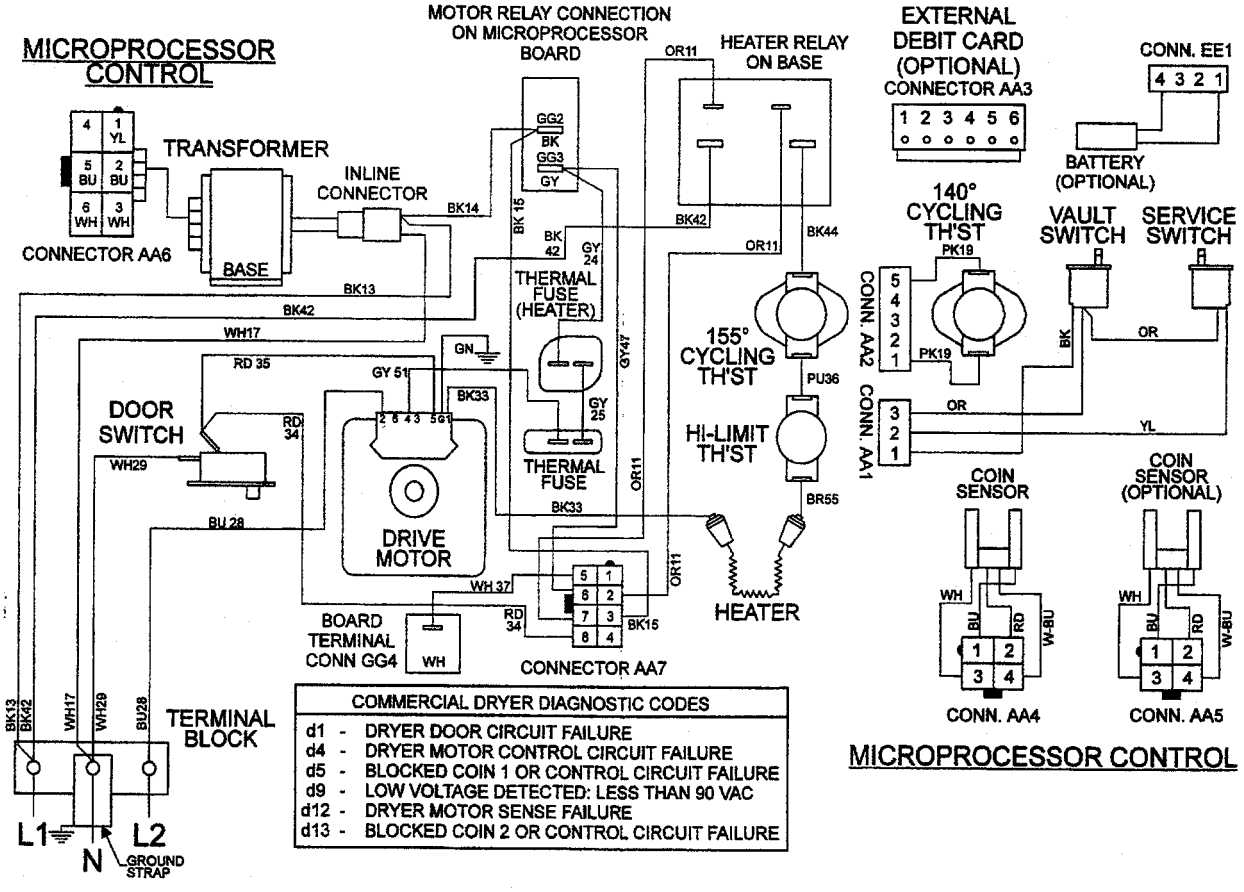
ELECTRICAL SCHEMATIC



MDE16PD, PS

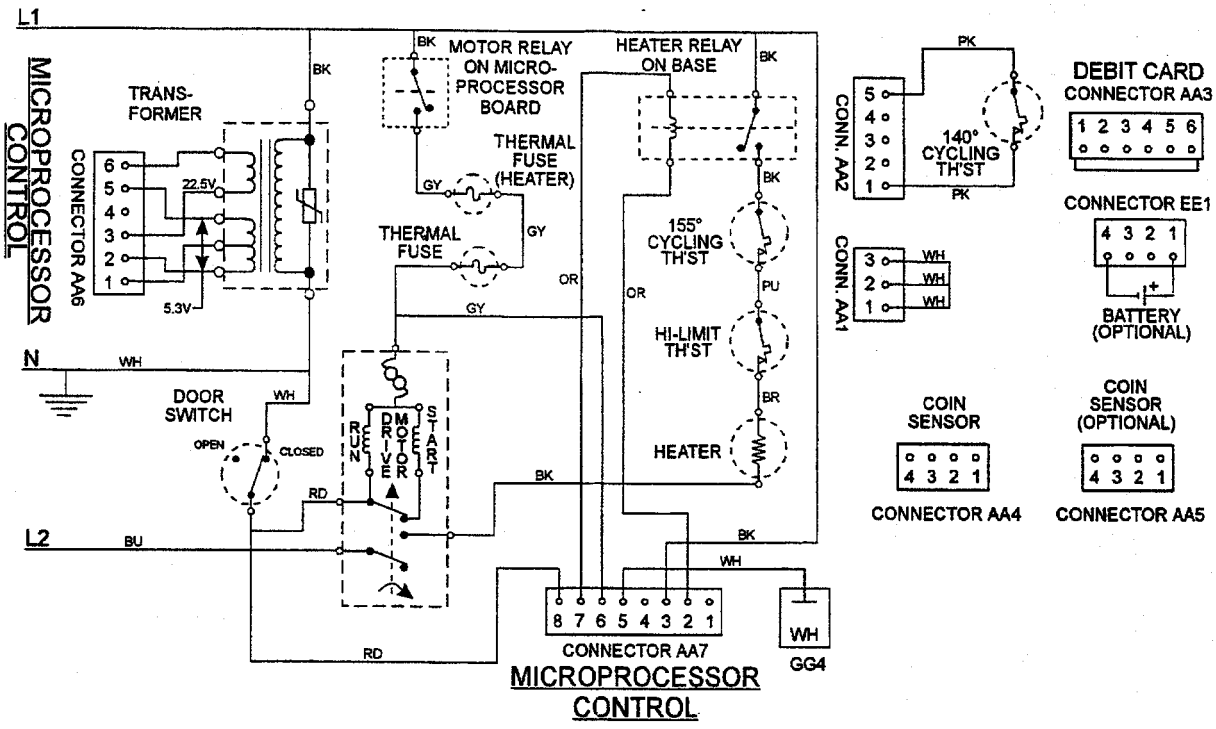


ELECTRICAL SCHEMATIC

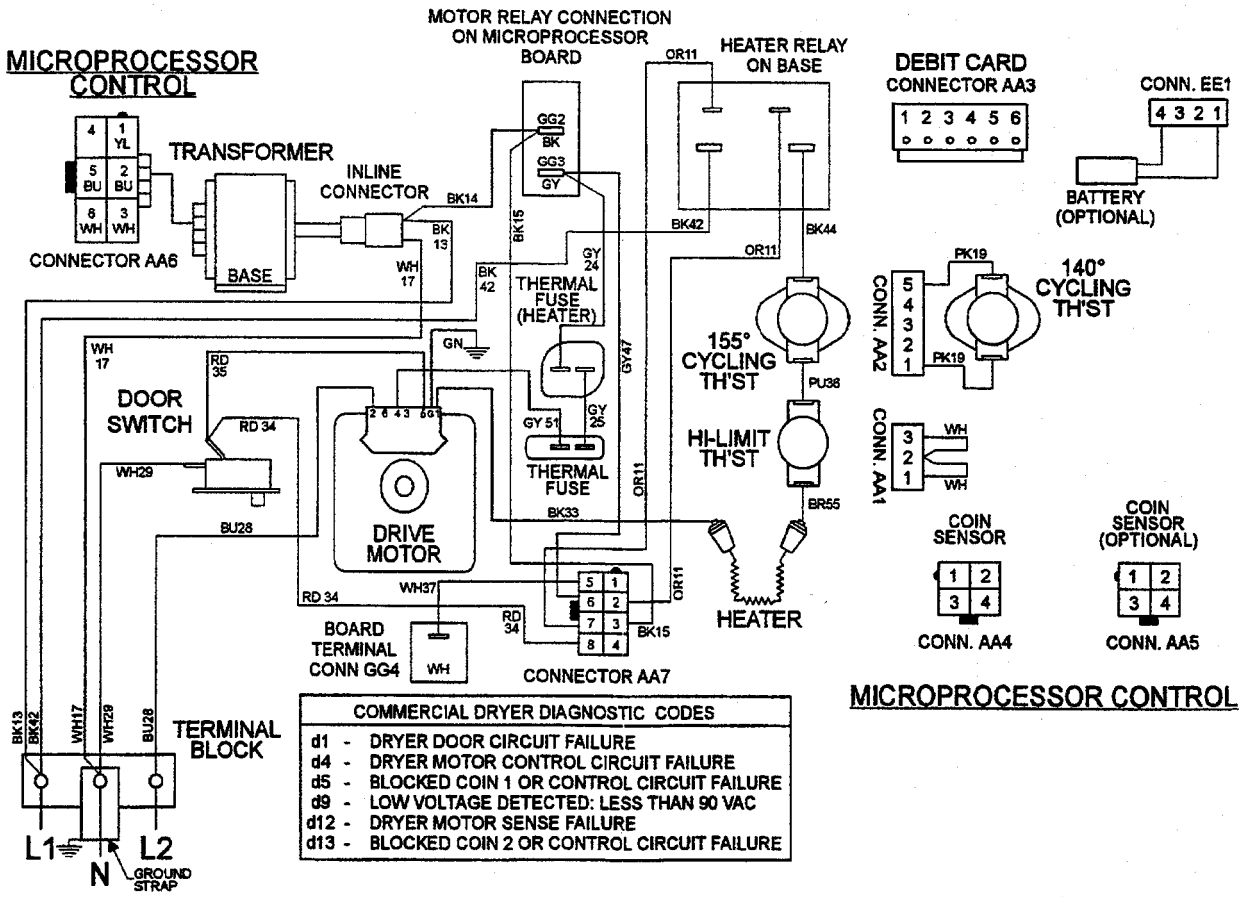


COMMERCIAL DRYER DIAGNOSTIC CODES	
d1	DRYER DOOR CIRCUIT FAILURE
d4	DRYER MOTOR CONTROL CIRCUIT FAILURE
d5	BLOCKED COIN 1 OR CONTROL CIRCUIT FAILURE
d9	LOW VOLTAGE DETECTED: LESS THAN 90 VAC
d12	DRYER MOTOR SENSE FAILURE
d13	BLOCKED COIN 2 OR CONTROL CIRCUIT FAILURE

MDE16PR



ELECTRICAL SCHEMATIC



COMMERCIAL DRYER DIAGNOSTIC CODES	
d1	DRYER DOOR CIRCUIT FAILURE
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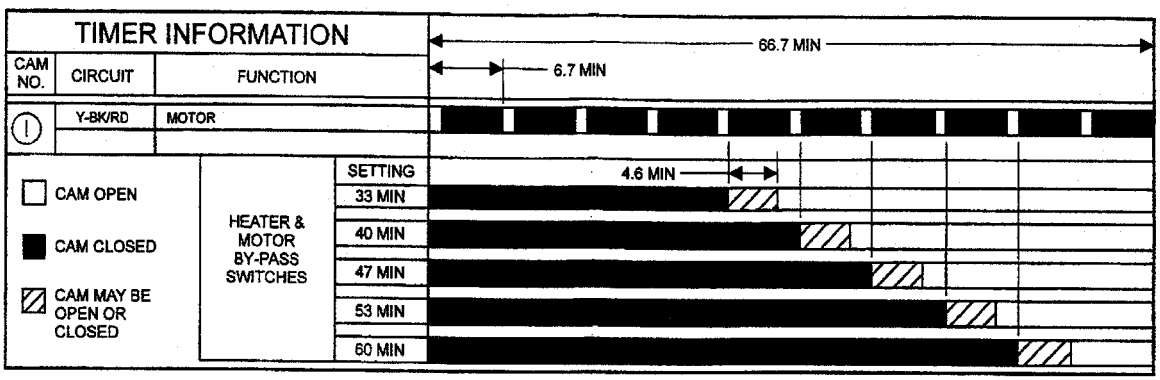
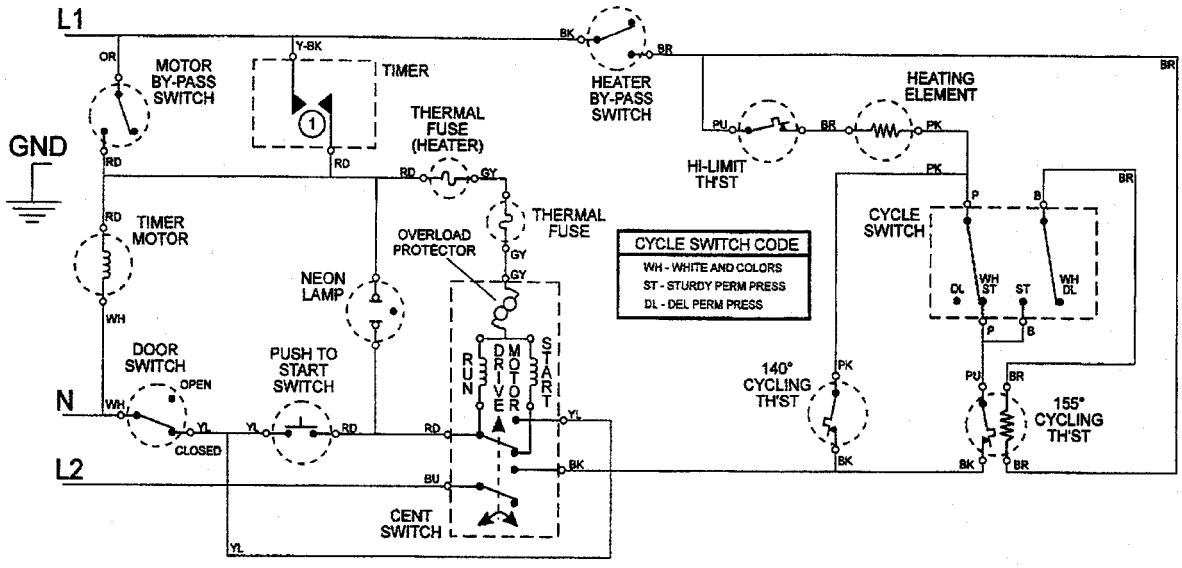
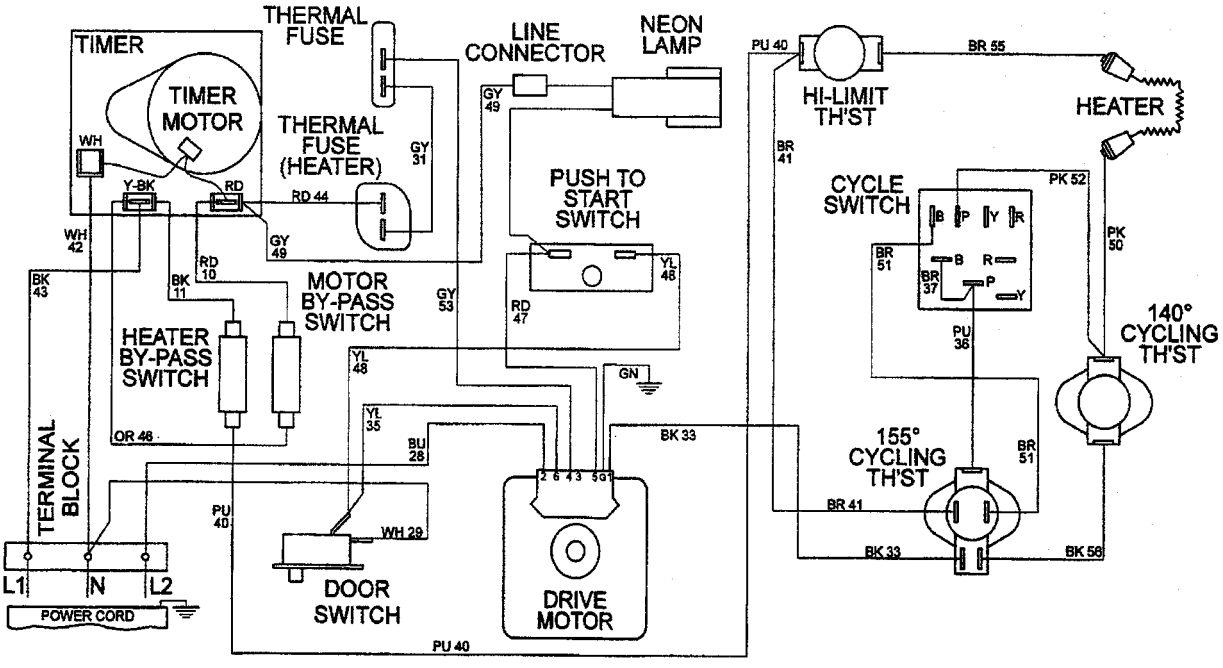
d9	LOW VOLTAGE DETECTED: LESS THAN 90 VAC
d12	DRYER MOTOR SENSE FAILURE
d13	BLOCKED COIN 2 OR CONTROL CIRCUIT FAILURE

MDE16CS-Canada



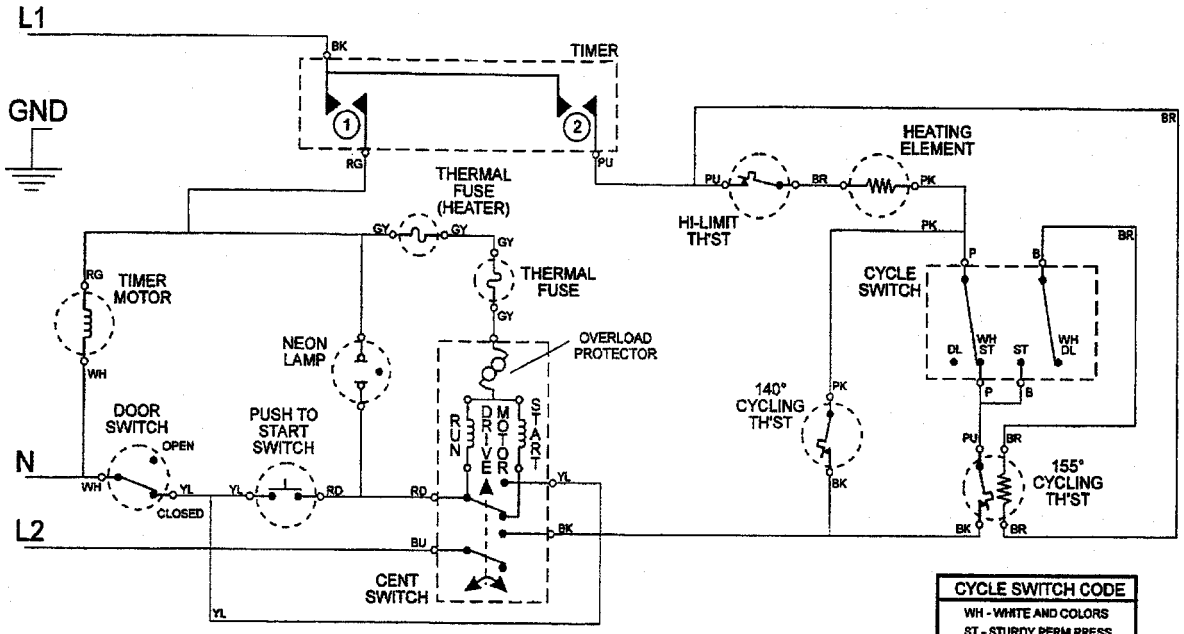


ELECTRICAL SCHEMATIC



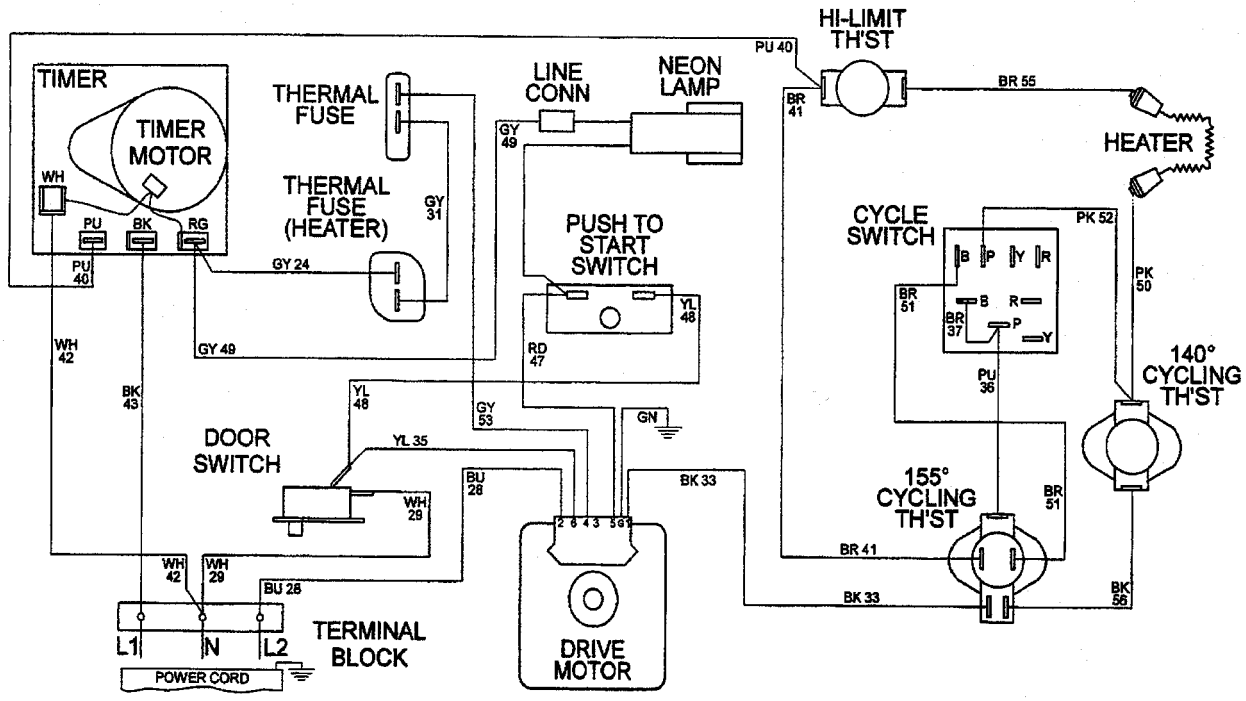
MDE16MN-Canada

TIMER INFORMATION			115 MIN
CAM NO.	CIRCUIT	FUNCTION	OFF — 3 MIN COOL PERIOD
①	BK-RG	MOTOR	
②	BK-PU	HEATER	

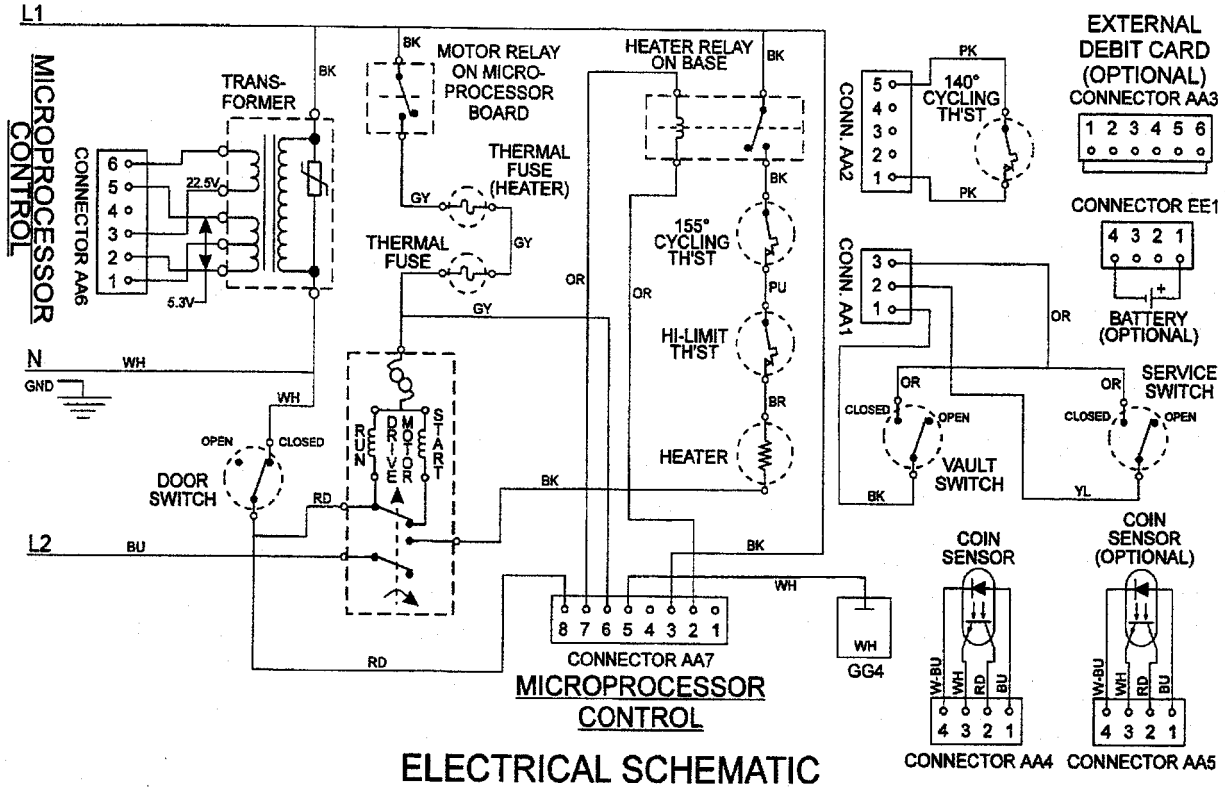


CYCLE SWITCH CODE
WH - WHITE AND COLORS
ST - STURDY PERM PRESS
DL - DEL PERM PRESS

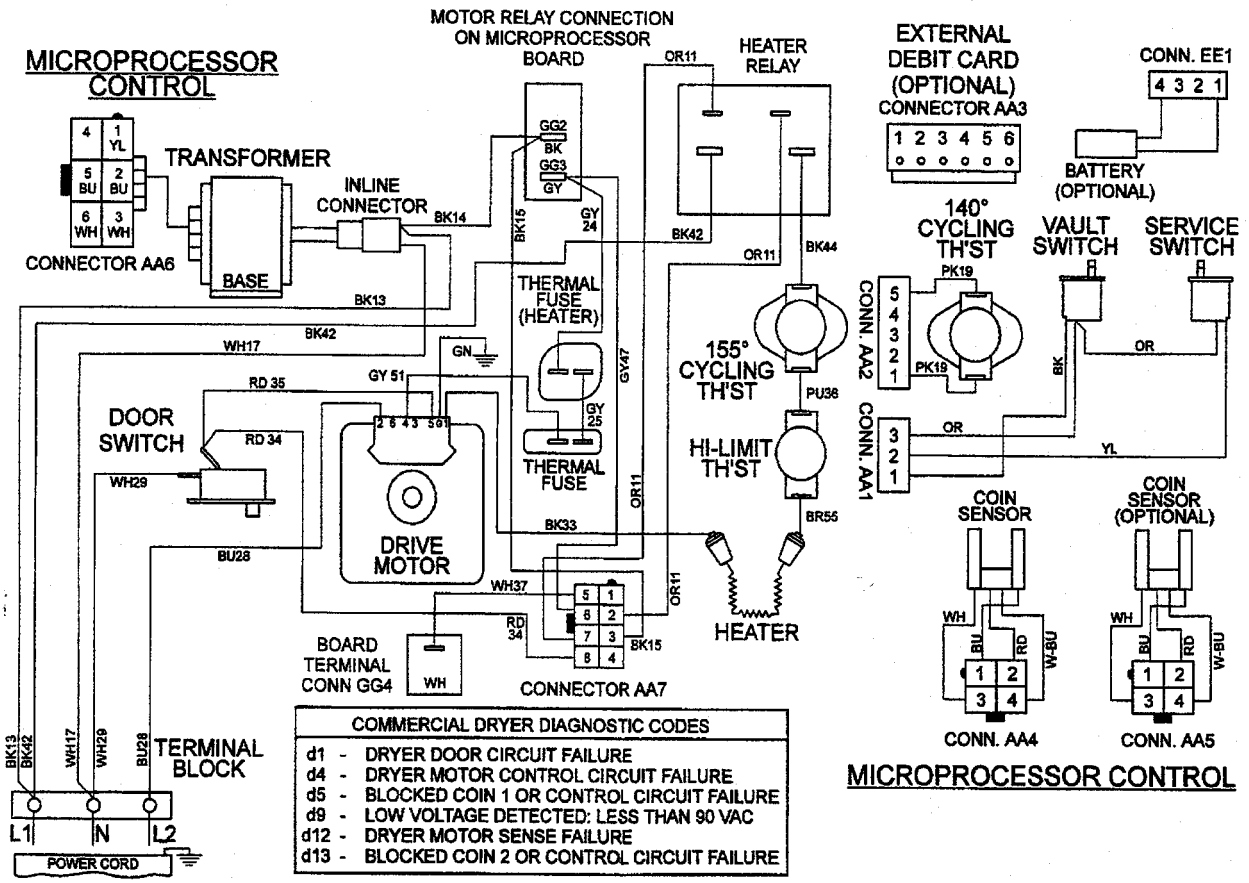
ELECTRICAL SCHEMATIC



MDE16PD, PS-Canada

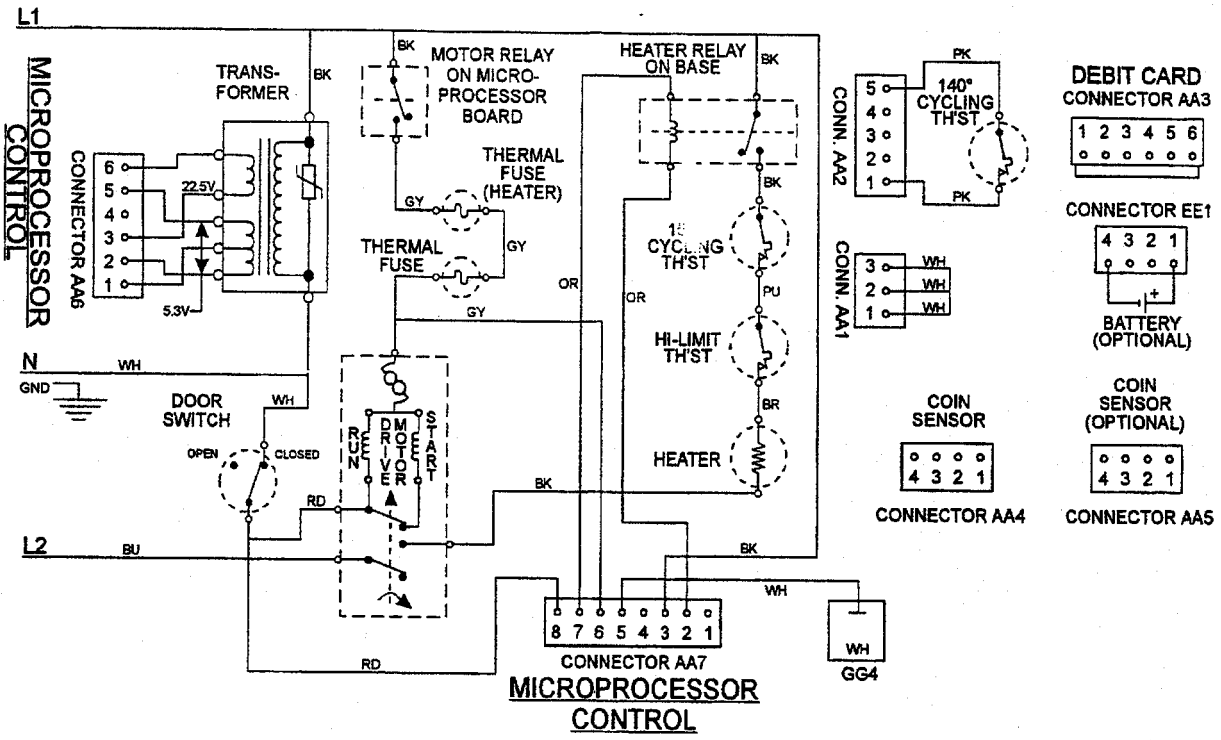


ELECTRICAL SCHEMATIC

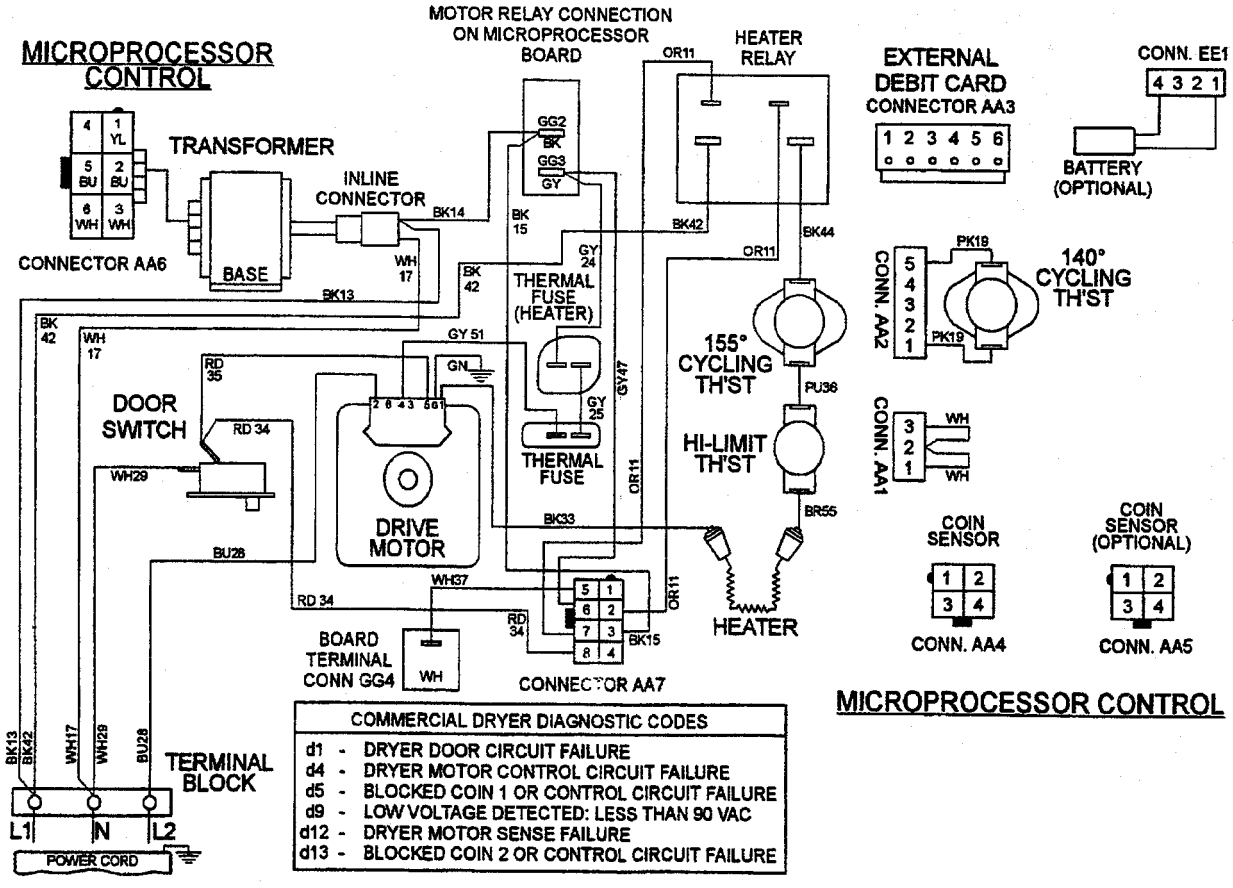


COMMERCIAL DRYER DIAGNOSTIC CODES	
d1	DRYER DOOR CIRCUIT FAILURE
d4	DRYER MOTOR CONTROL CIRCUIT FAILURE
d5	BLOCKED COIN 1 OR CONTROL CIRCUIT FAILURE
d9	LOW VOLTAGE DETECTED: LESS THAN 90 VAC
d12	DRYER MOTOR SENSE FAILURE
d13	BLOCKED COIN 2 OR CONTROL CIRCUIT FAILURE

MDE16PR-Canada



ELECTRICAL SCHEMATIC



COMMERCIAL DRYER DIAGNOSTIC CODES	
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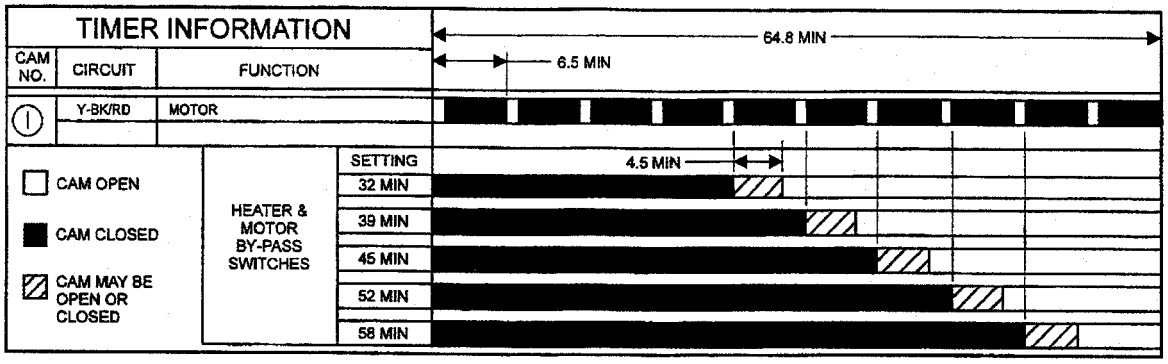
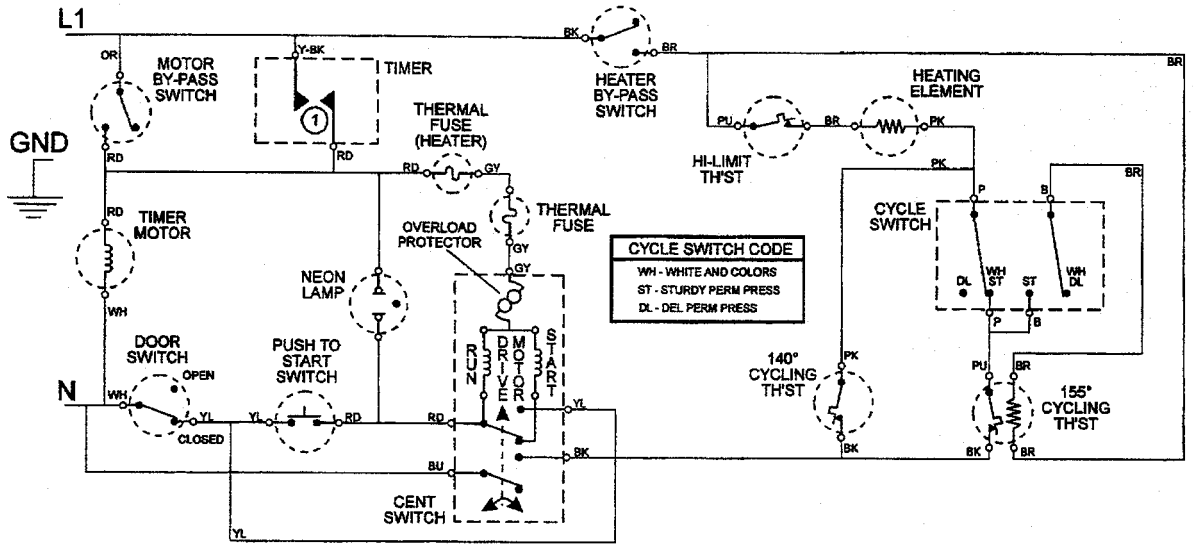
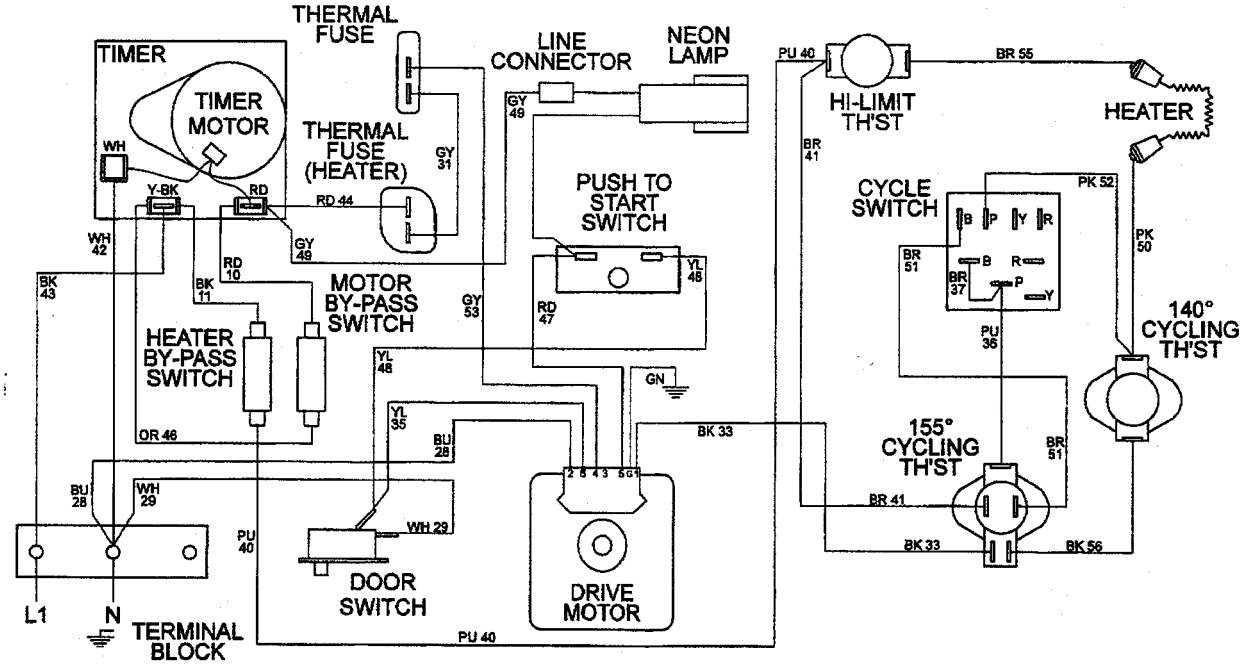
d12	DRYER MOTOR SENSE FAILURE
d13	BLOCKED COIN 2 OR CONTROL CIRCUIT FAILURE

MDE16CS-Export



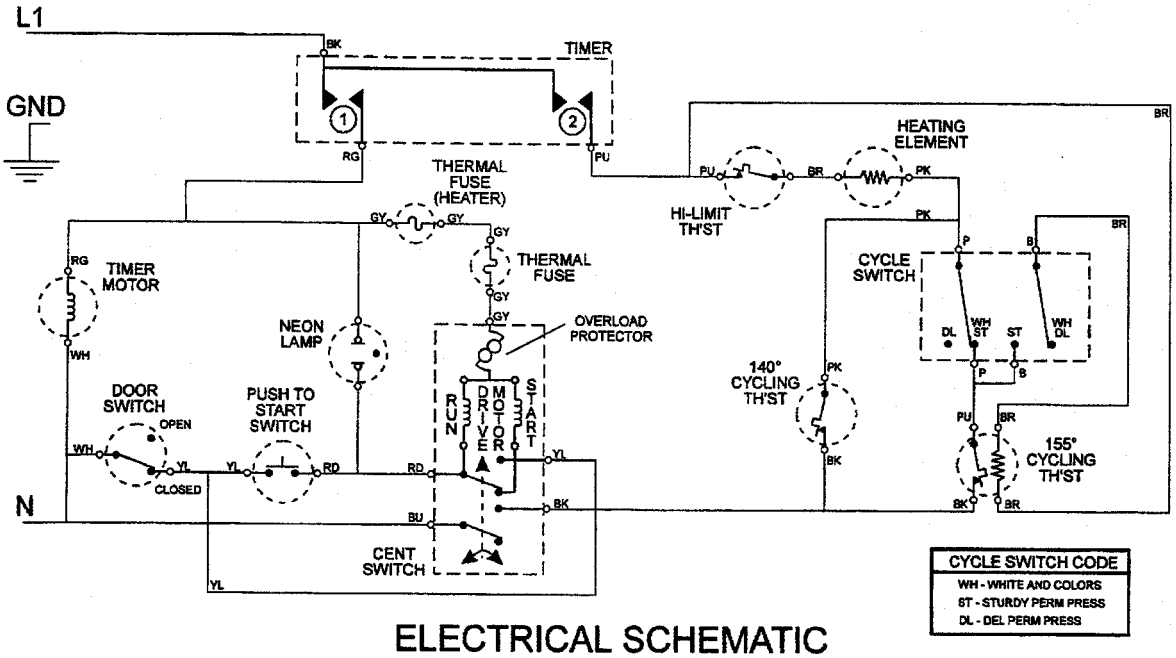


ELECTRICAL SCHEMATIC

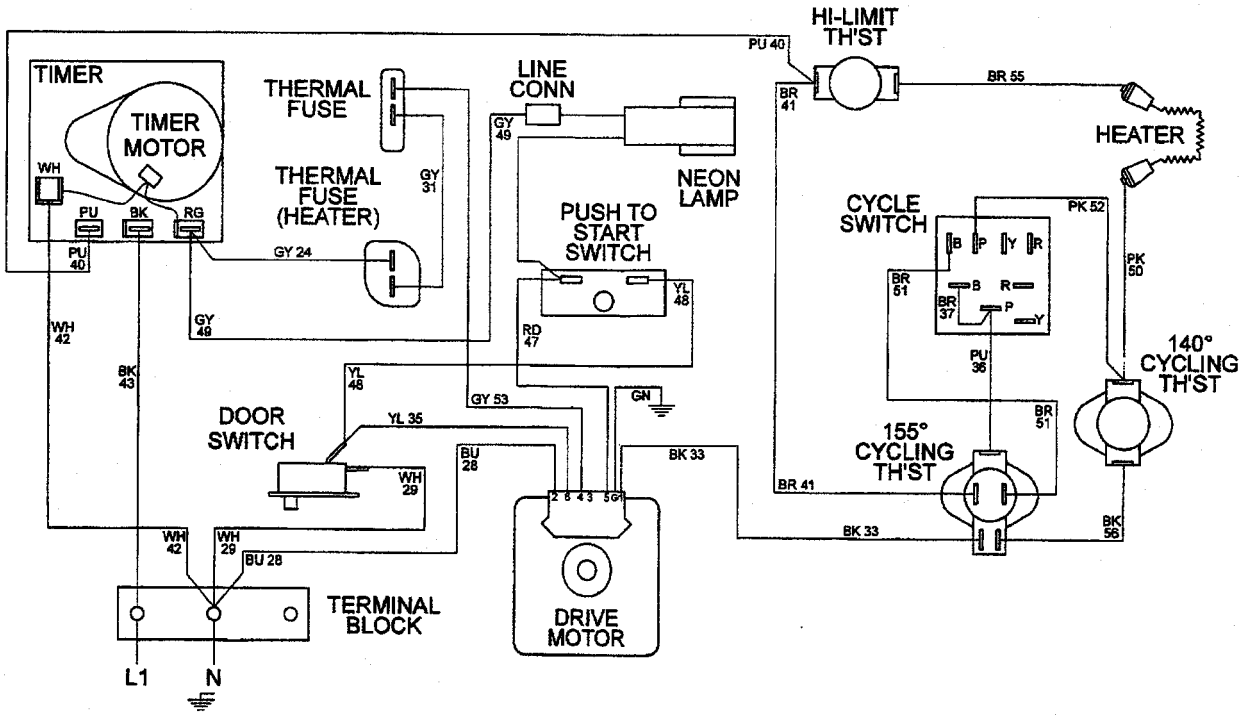


MDE16MN-Export

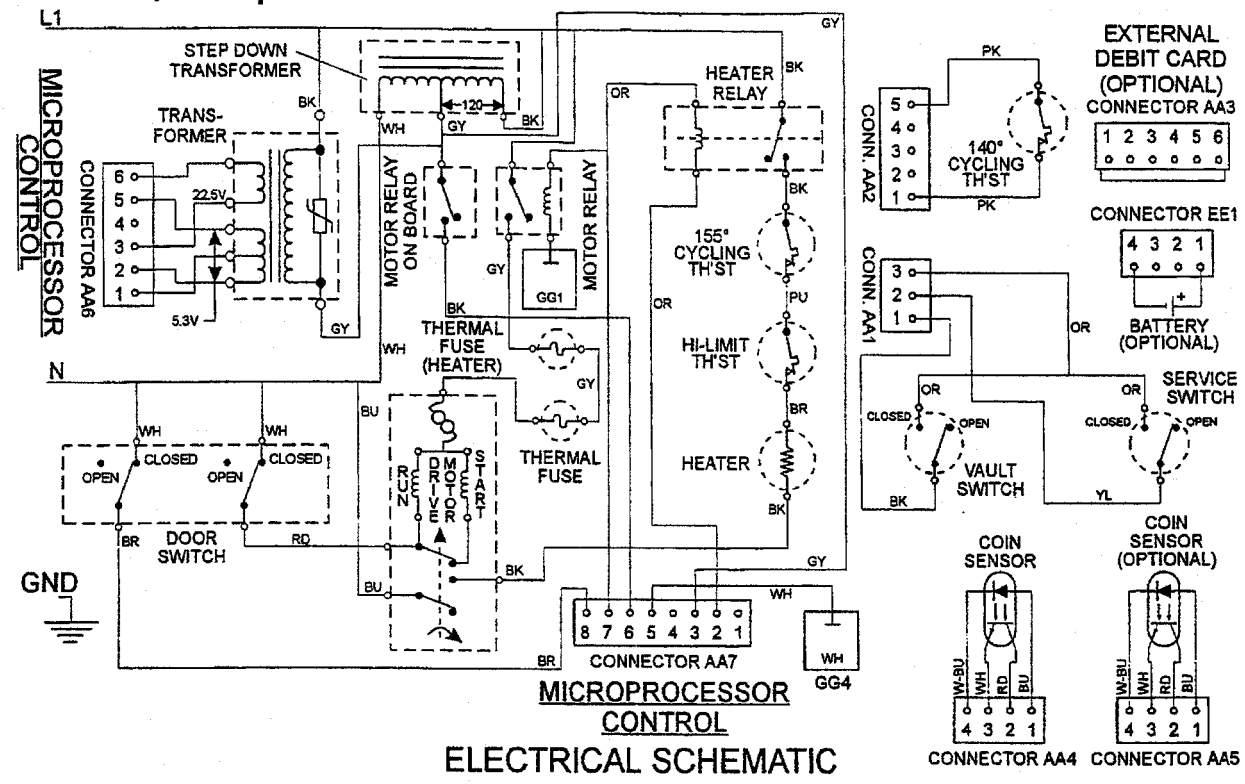
TIMER INFORMATION			115 MIN	
CAM NO.	CIRCUIT	FUNCTION	OFF	3 MIN COOL PERIOD
①	BK-RG	MOTOR		
②	BK-PU	HEATER		



ELECTRICAL SCHEMATIC

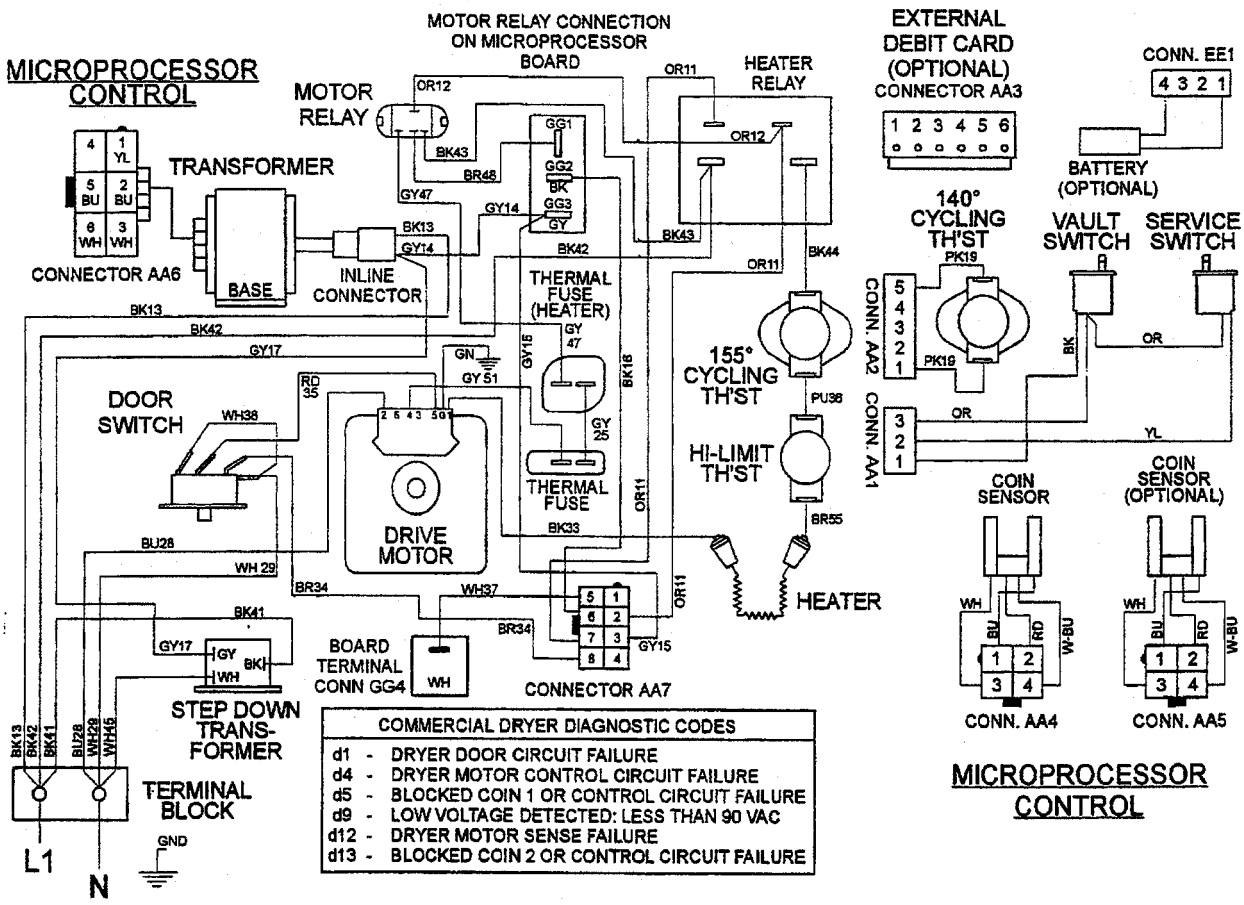


MDE16PD, PS-Export



MICROPROCESSOR CONTROL

ELECTRICAL SCHEMATIC



MICROPROCESSOR CONTROL

COMMERCIAL DRYER DIAGNOSTIC CODES	
d1	DRYER DOOR CIRCUIT FAILURE
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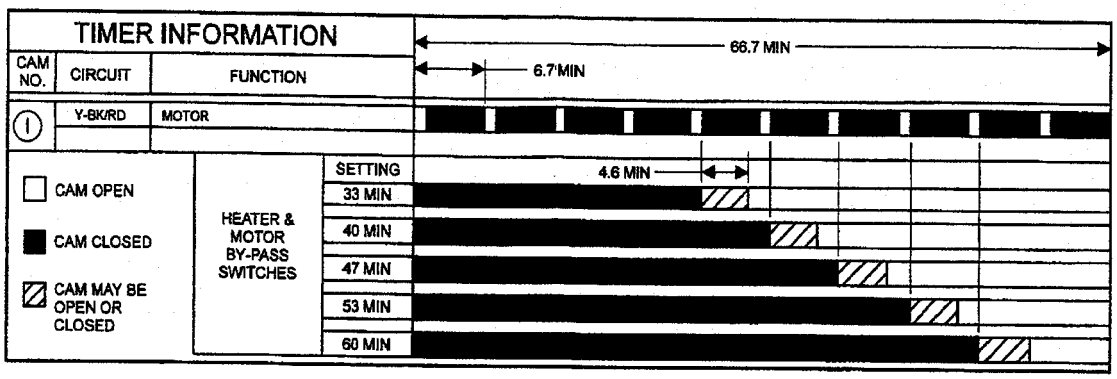
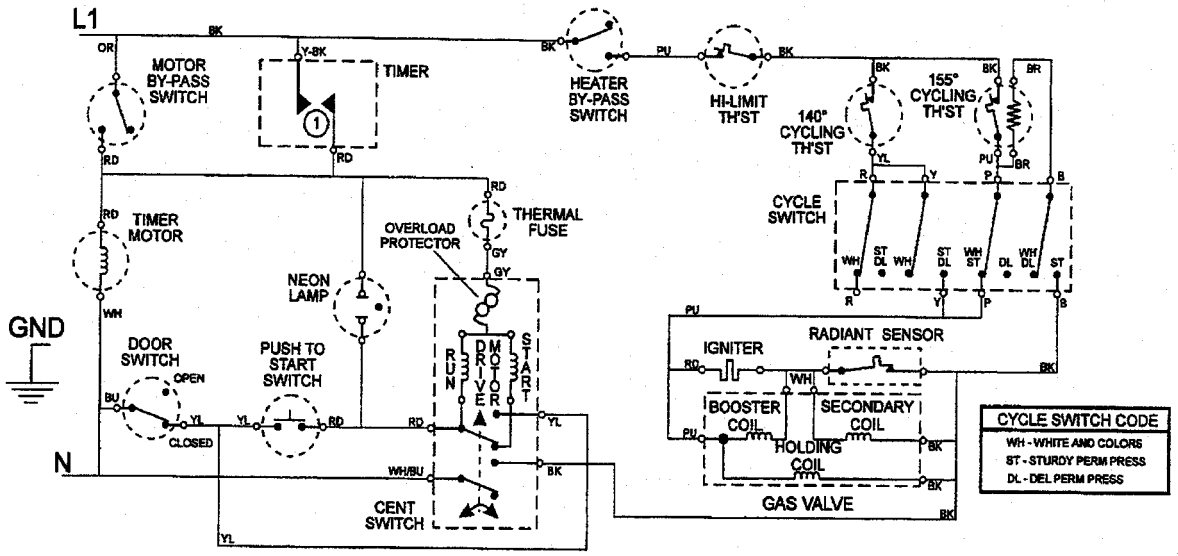
d12	DRYER MOTOR SENSE FAILURE
d13	BLOCKED COIN 2 OR CONTROL CIRCUIT FAILURE

MDG16CS

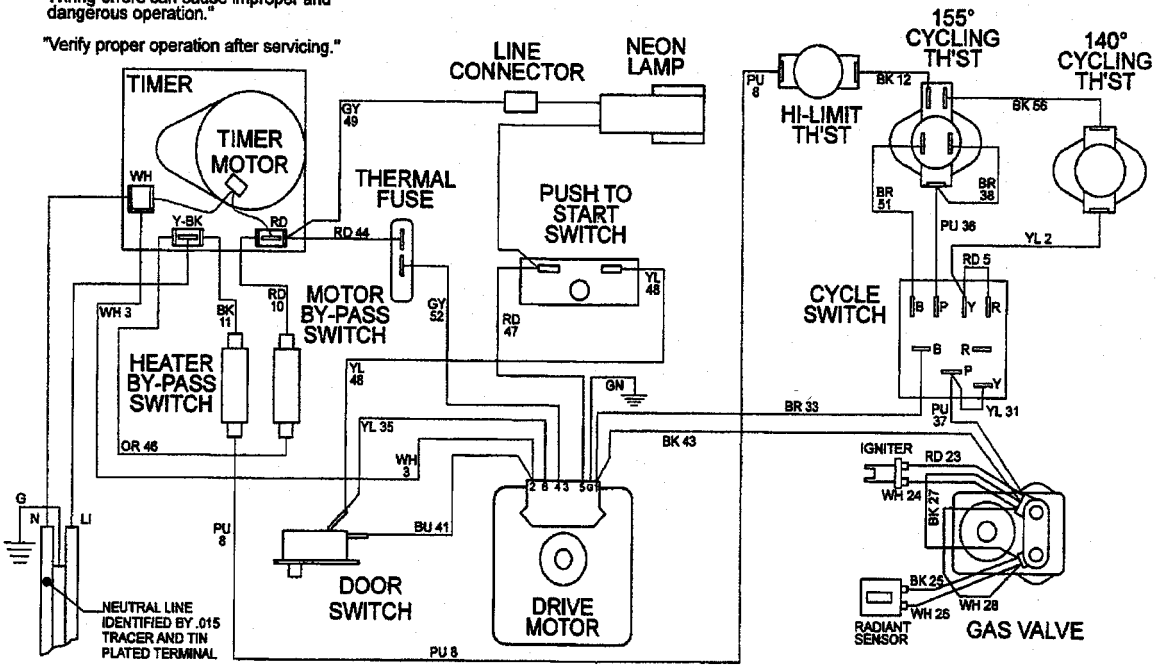




"**CAUTION:** Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation."

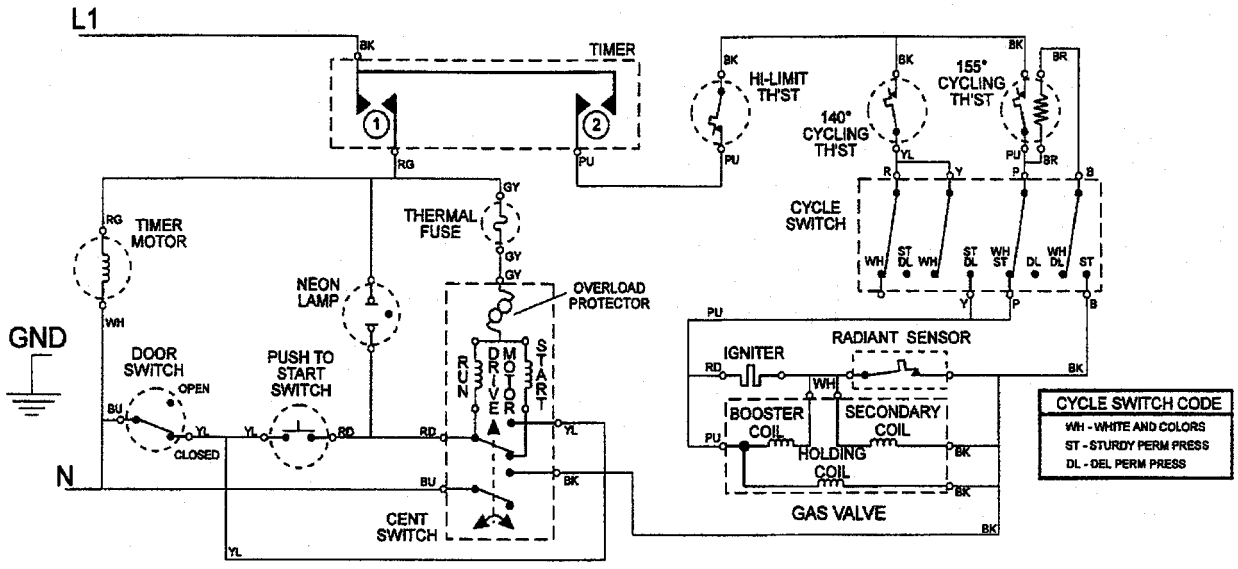
"Verify proper operation after servicing."

ELECTRICAL SCHEMATIC



MDG16MN

TIMER INFORMATION			115 MIN
CAM NO.	CIRCUIT	FUNCTION	OFF — 3 MIN COOL PERIOD
①	BK-RG	MOTOR	
②	BK-PU	HEATER	



ELECTRICAL SCHEMATIC

"CAUTION: Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation."

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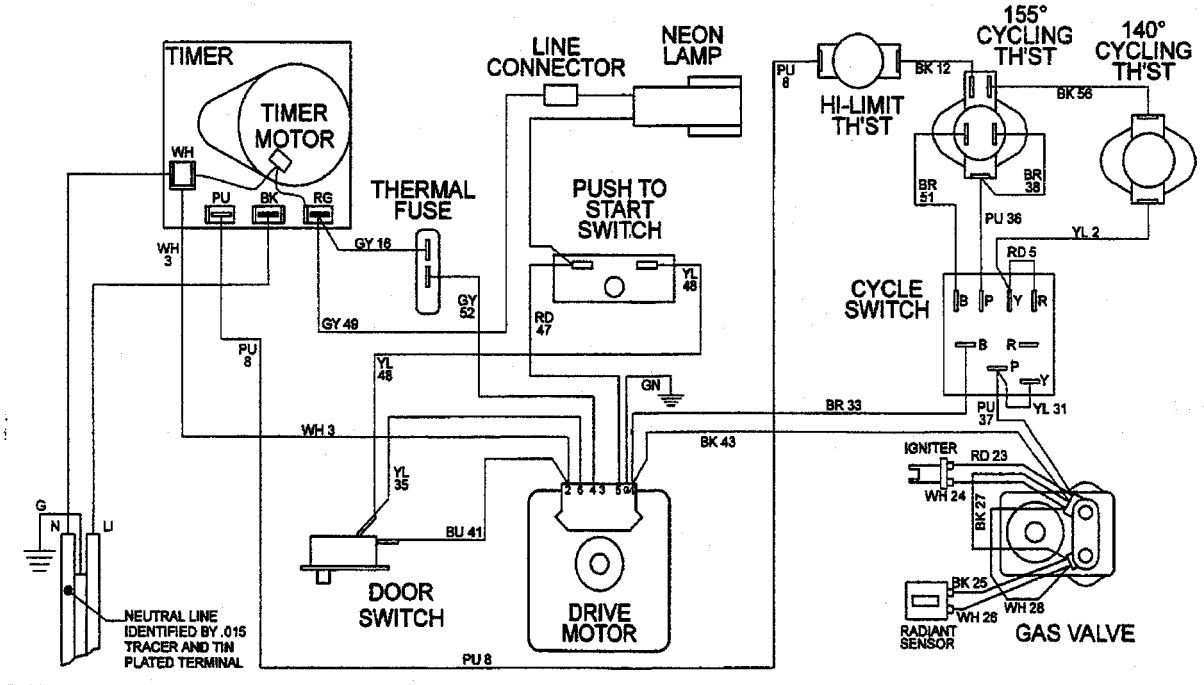
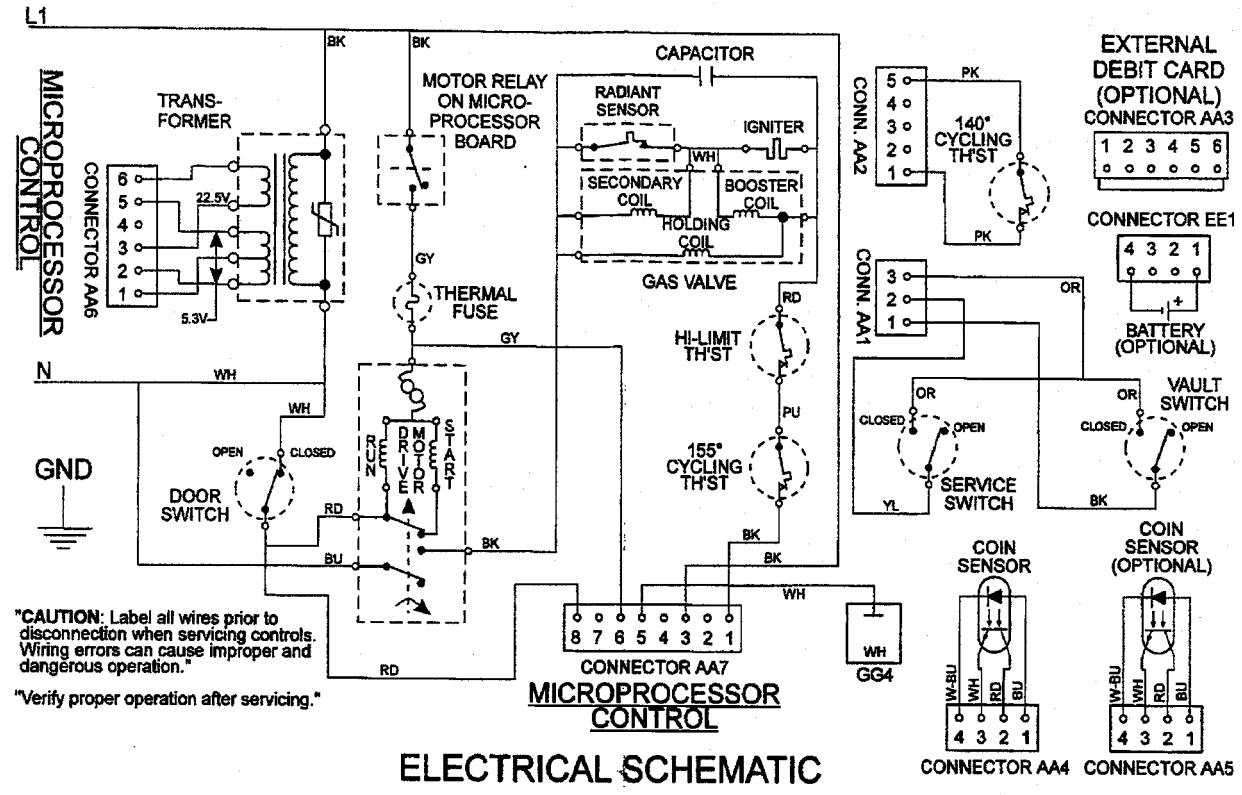


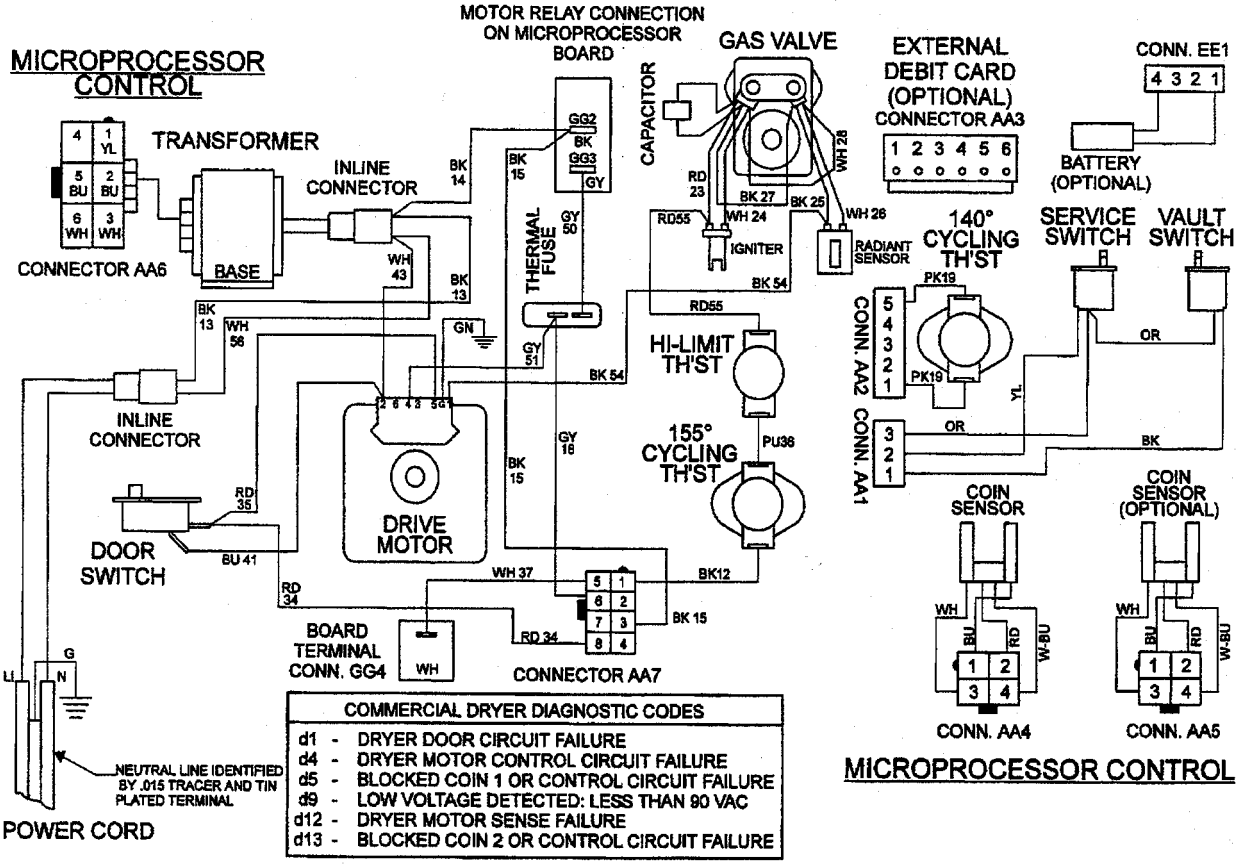
POWER CORD

MDG16PD, PS



MICROPROCESSOR CONTROL

ELECTRICAL SCHEMATIC



COMMERCIAL DRYER DIAGNOSTIC CODES	
d1	DRYER DOOR CIRCUIT FAILURE
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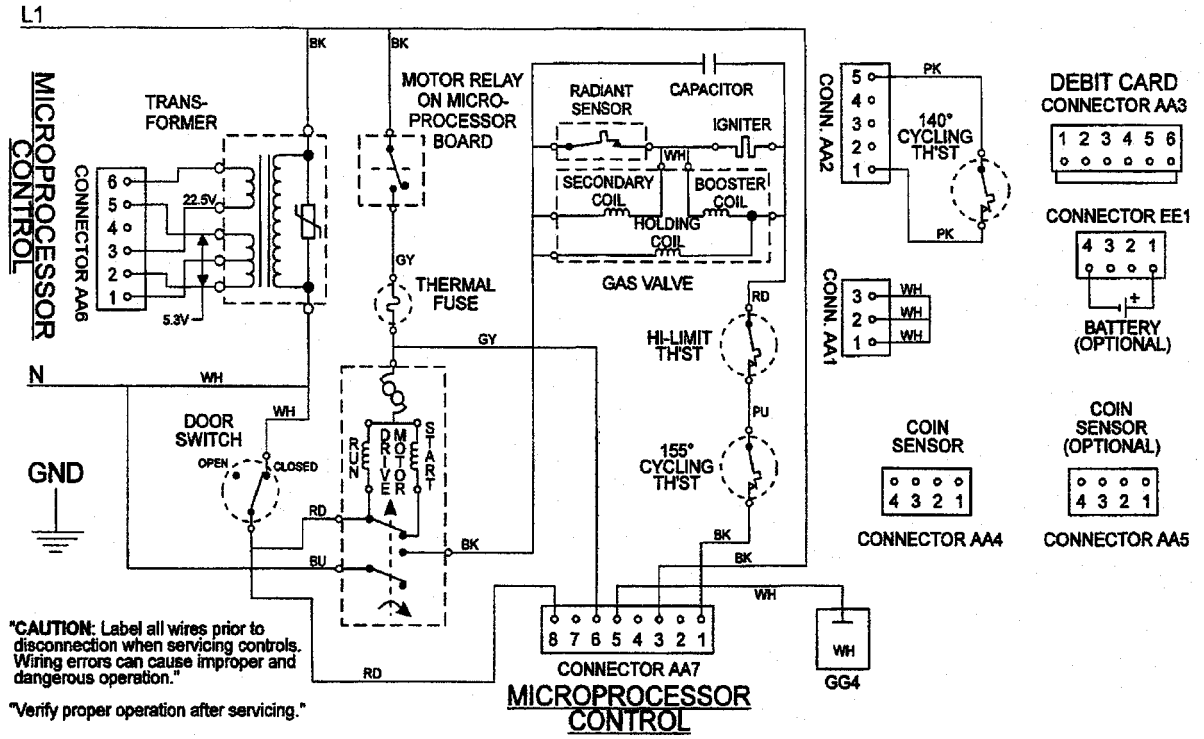
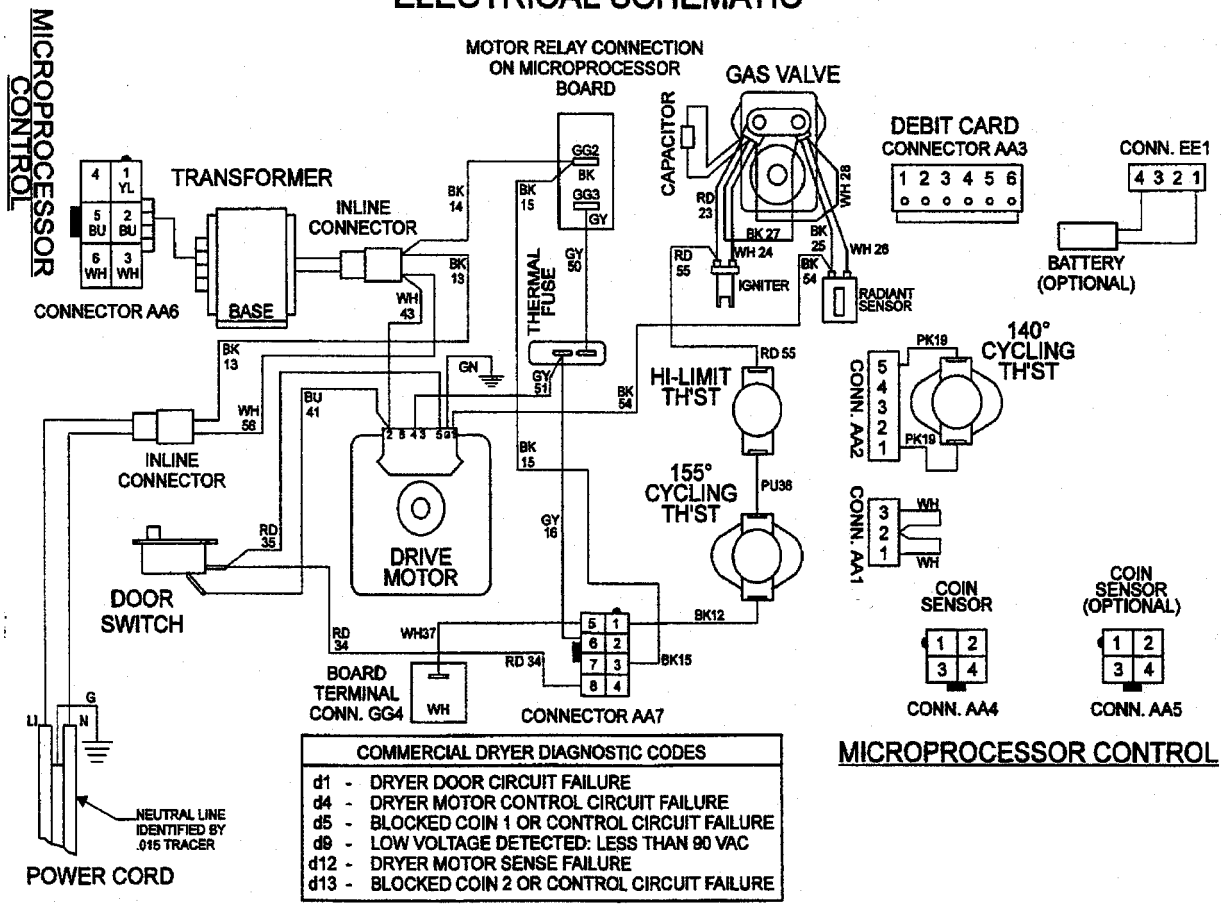
MICROPROCESSOR CONTROL

MDG16PR



ELECTRICAL SCHEMATIC



COMMERCIAL DRYER DIAGNOSTIC CODES	
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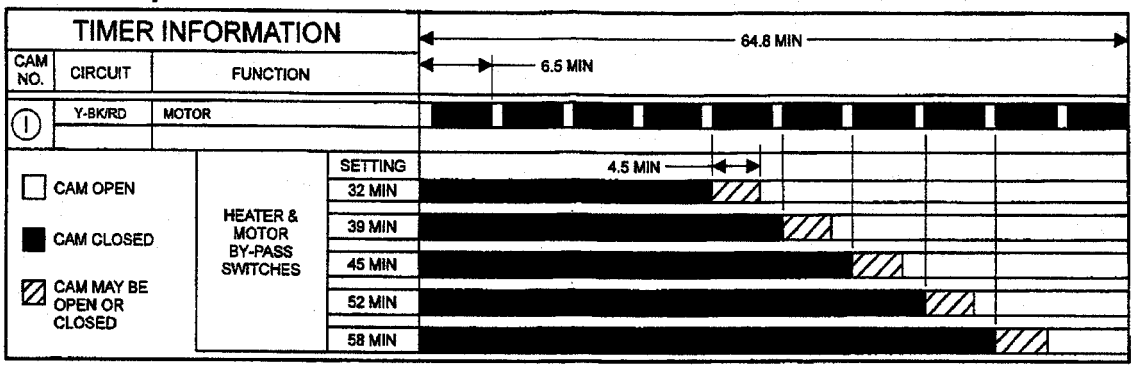
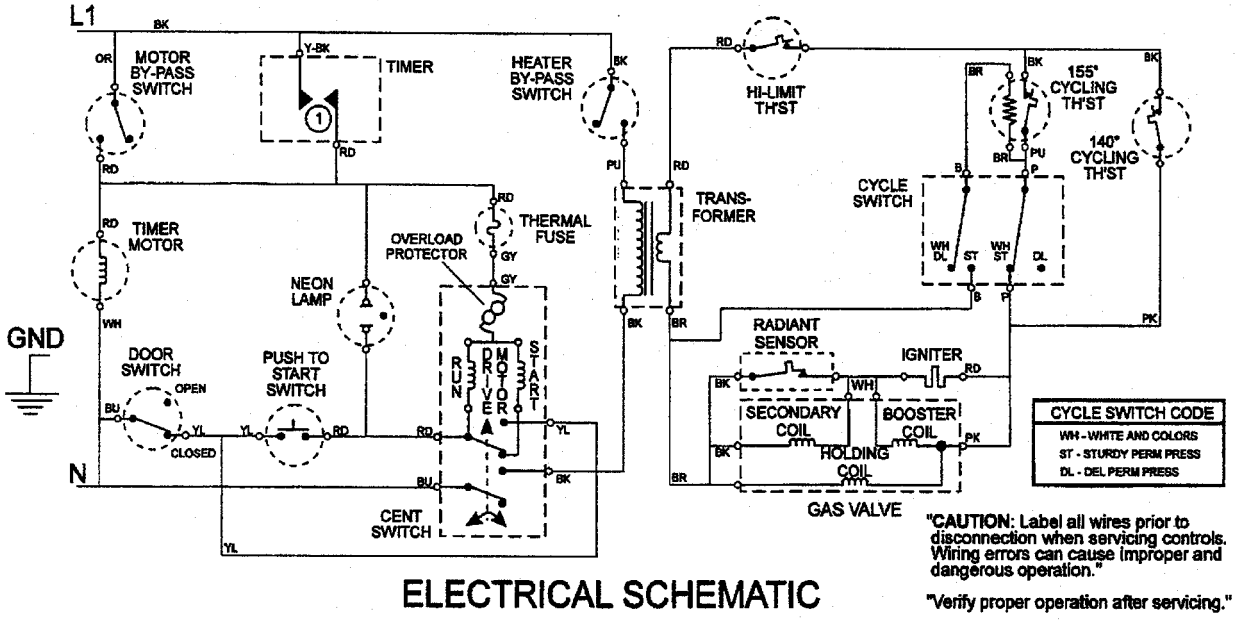
MDG16CS-Export





"CAUTION: Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation."

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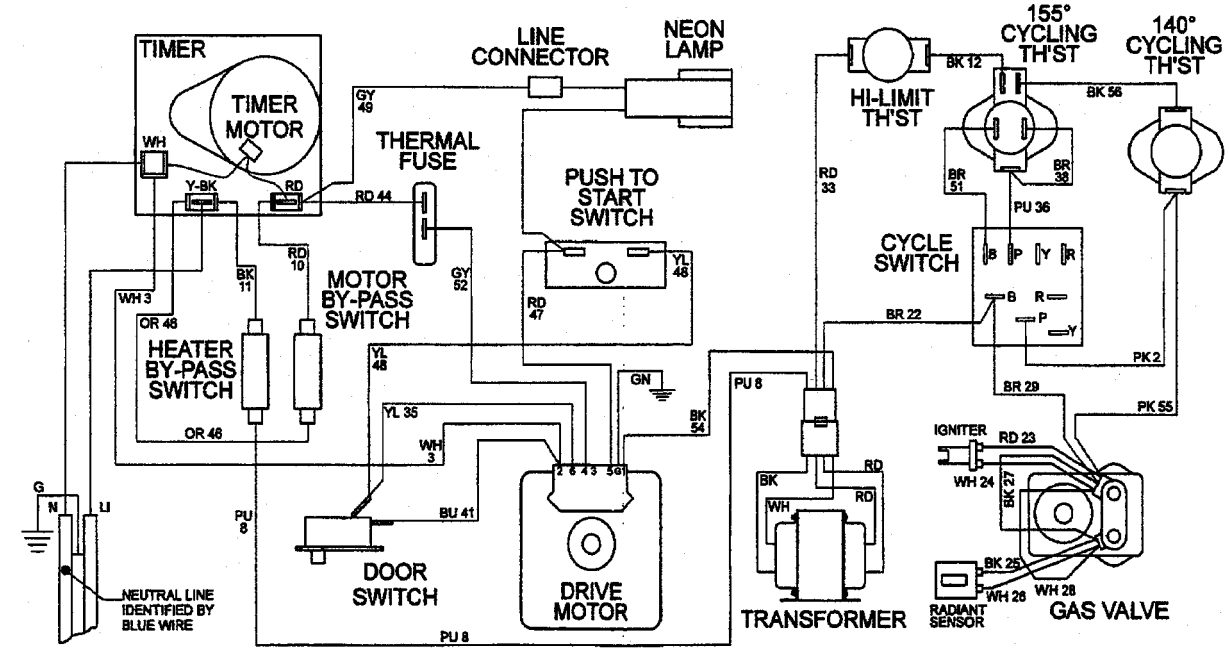
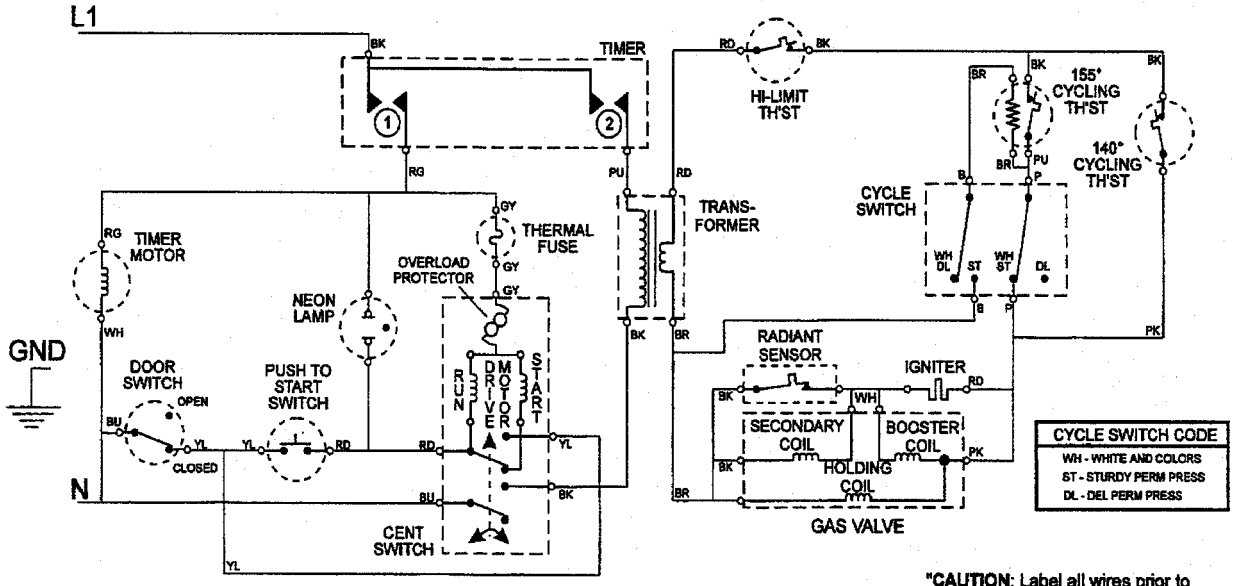
ELECTRICAL SCHEMATIC



MDG16MN-Export

TIMER INFORMATION			115 MIN
CAM NO.	CIRCUIT	FUNCTION	OFF ... 3 MIN COOL PERIOD
1	BK-RG	MOTOR	
2	BK-PU	HEATER	



ELECTRICAL SCHEMATIC

"**CAUTION:** Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation."

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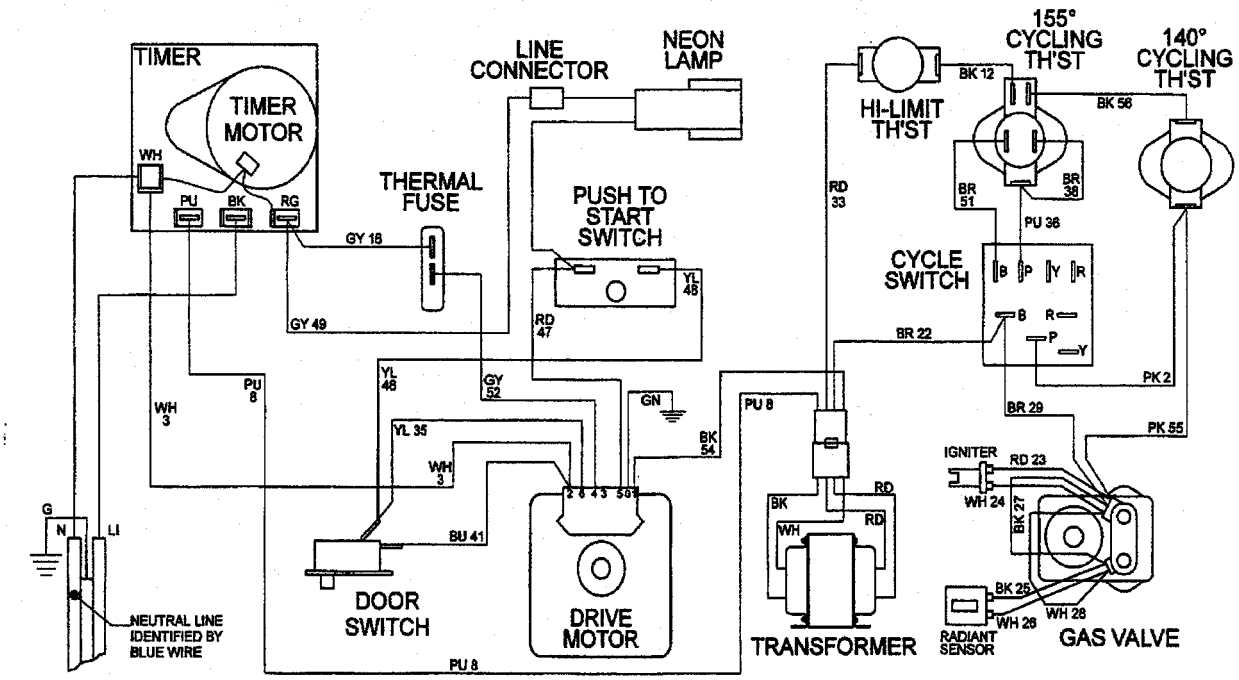
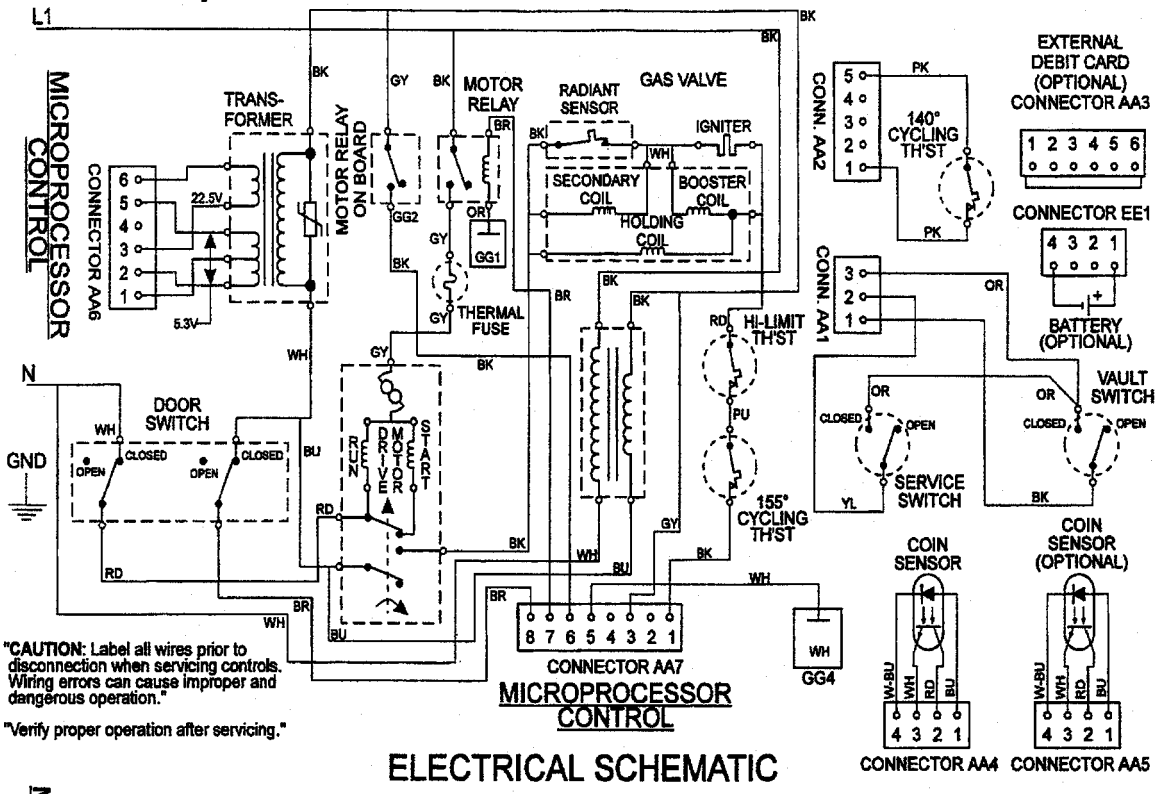
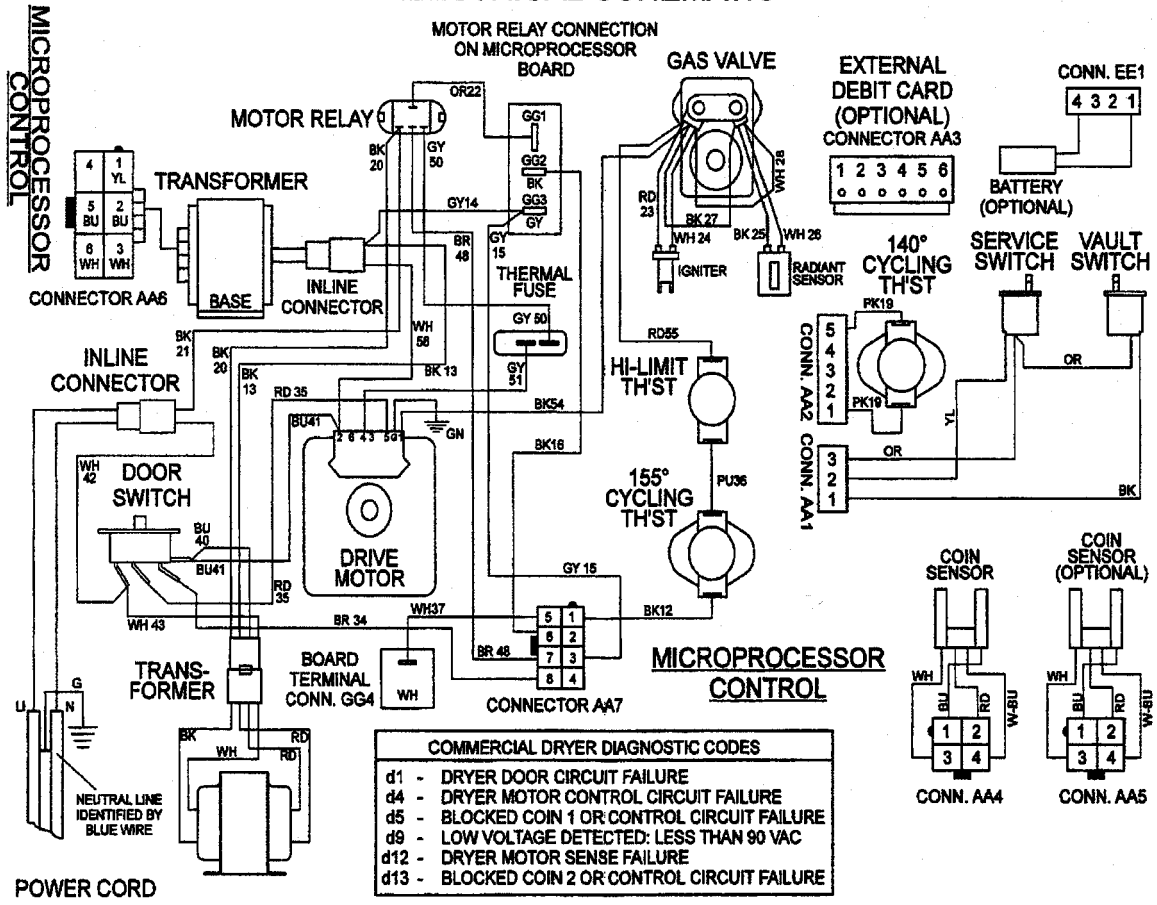


POWER CORD

MDG16PD-Export



ELECTRICAL SCHEMATIC



COMMERCIAL DRYER DIAGNOSTIC CODES
d1 - DRYER DOOR CIRCUIT FAILURE
d4 - DRYER MOTOR CONTROL CIRCUIT FAILURE
d5 - BLOCKED COIN 1 OR CONTROL CIRCUIT FAILURE
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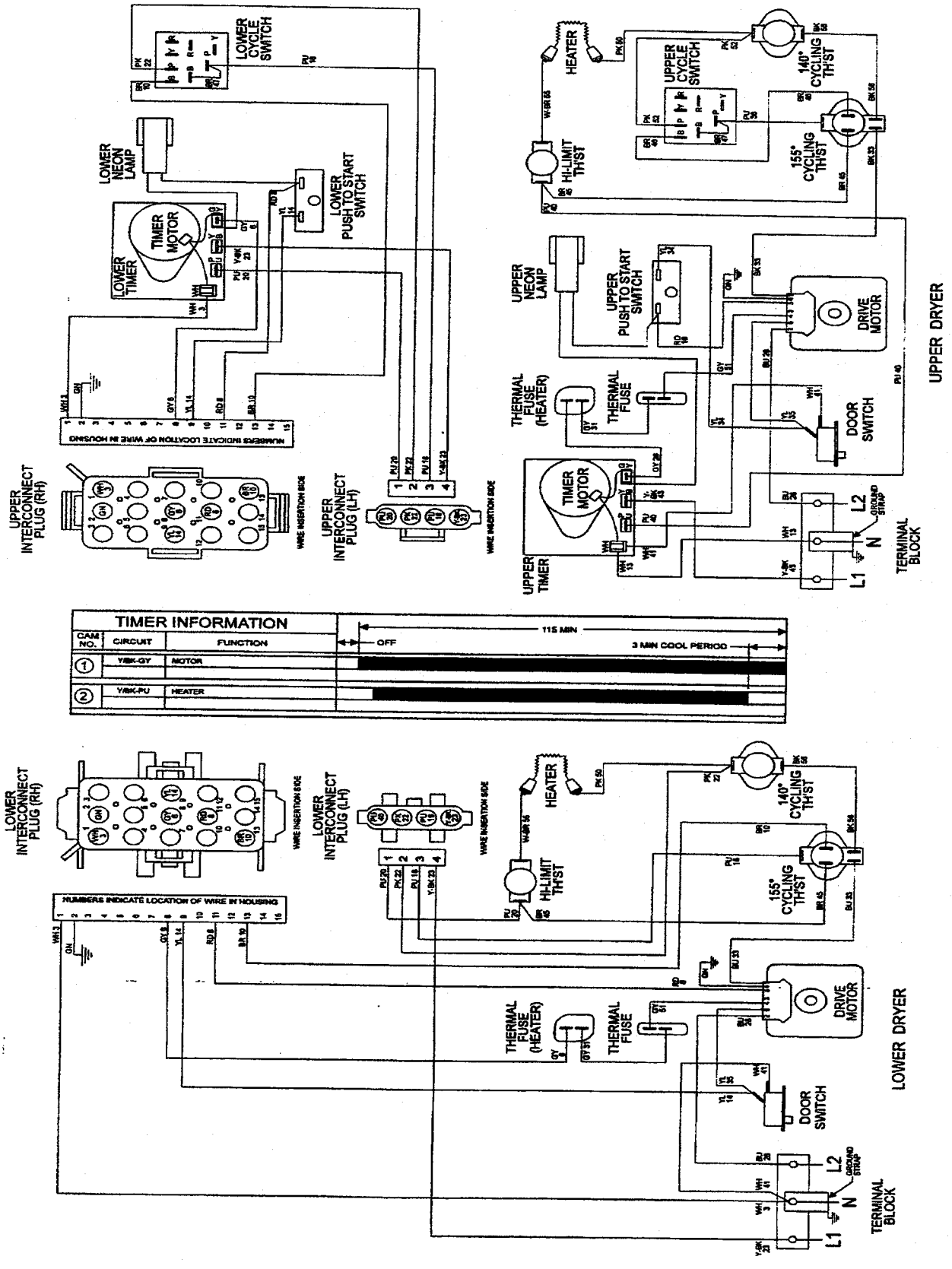
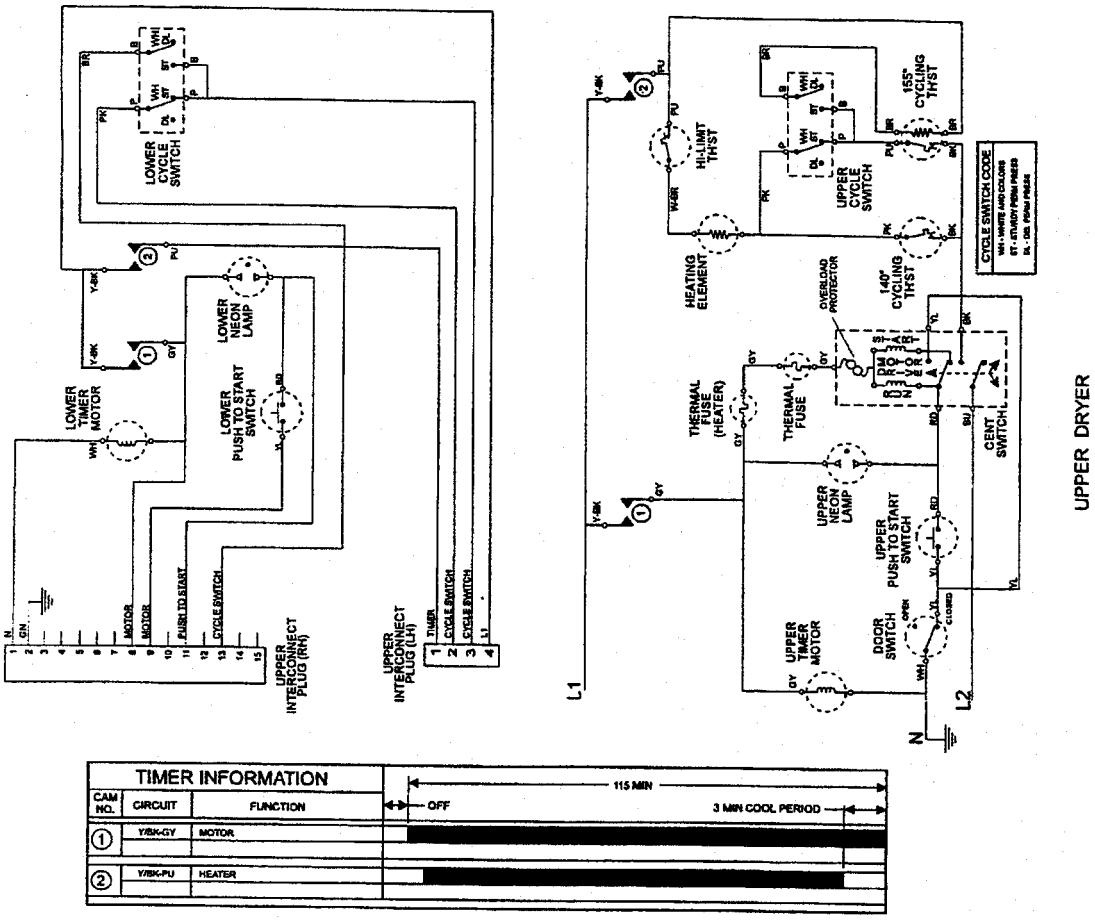
d12 - DRYER MOTOR SENSE FAILURE
d13 - BLOCKED COIN 2 OR CONTROL CIRCUIT FAILURE

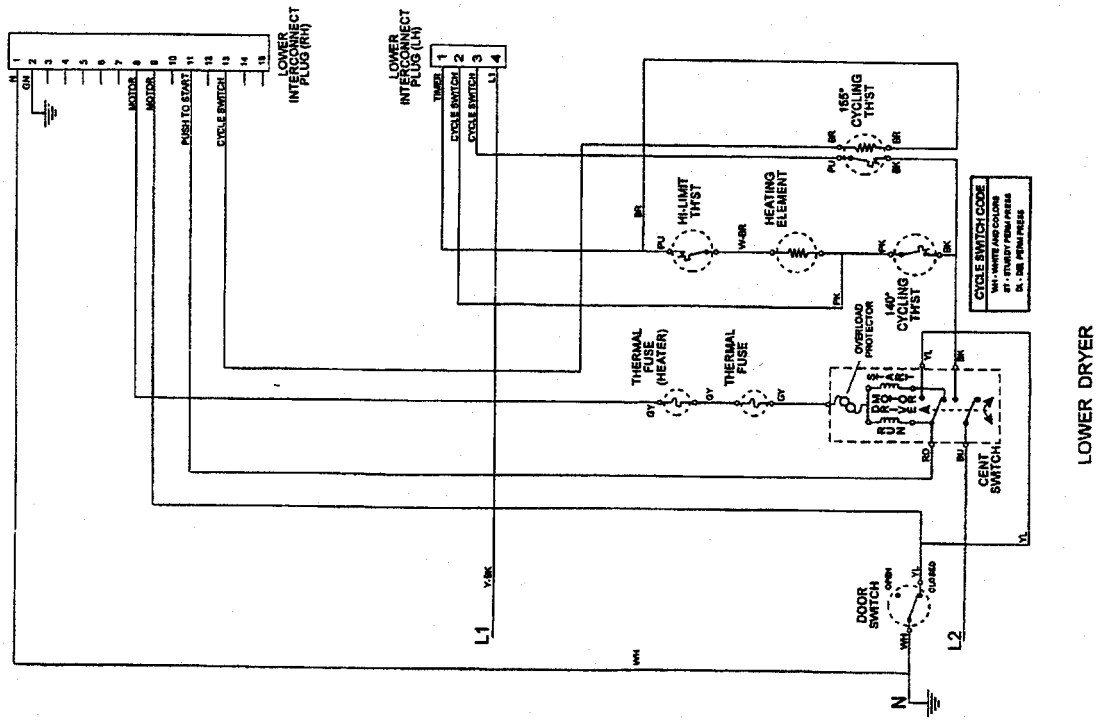
MHE/MUE15MN - WIRING DIAGRAM



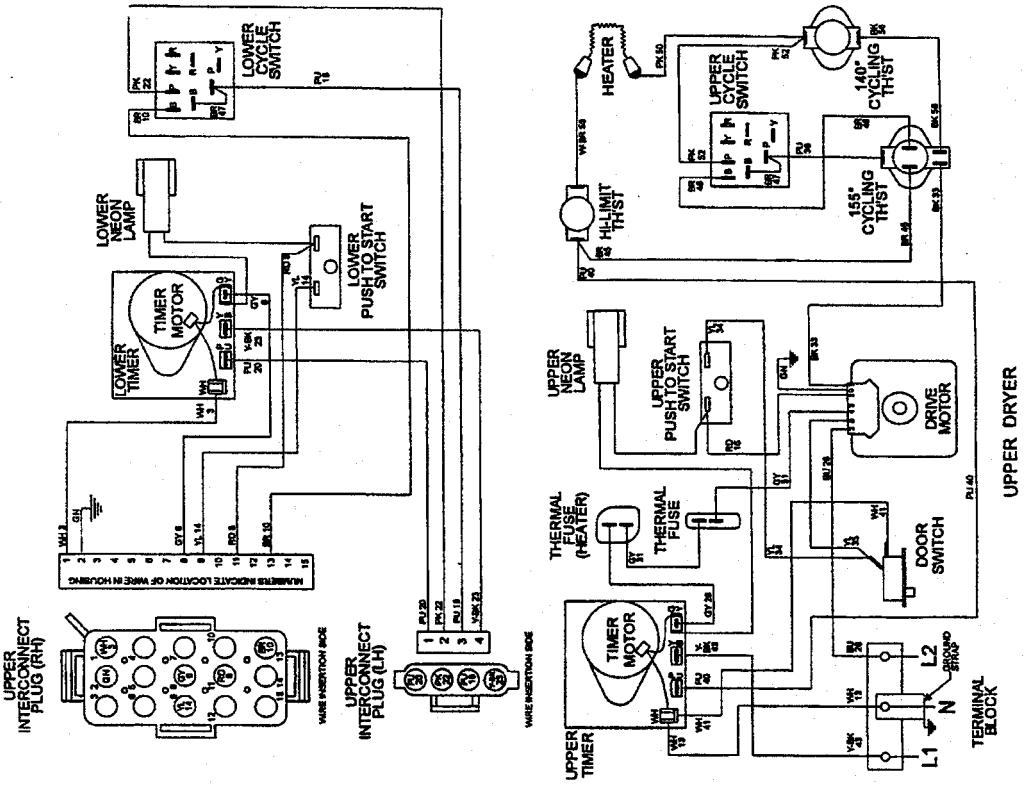
MHE/MUE15MN - ELECTRICAL SCHEMATIC

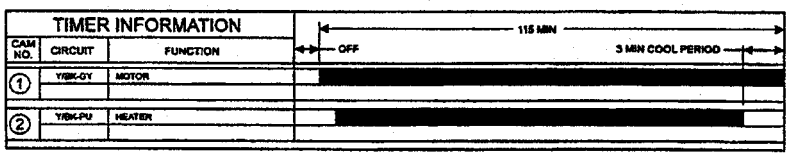


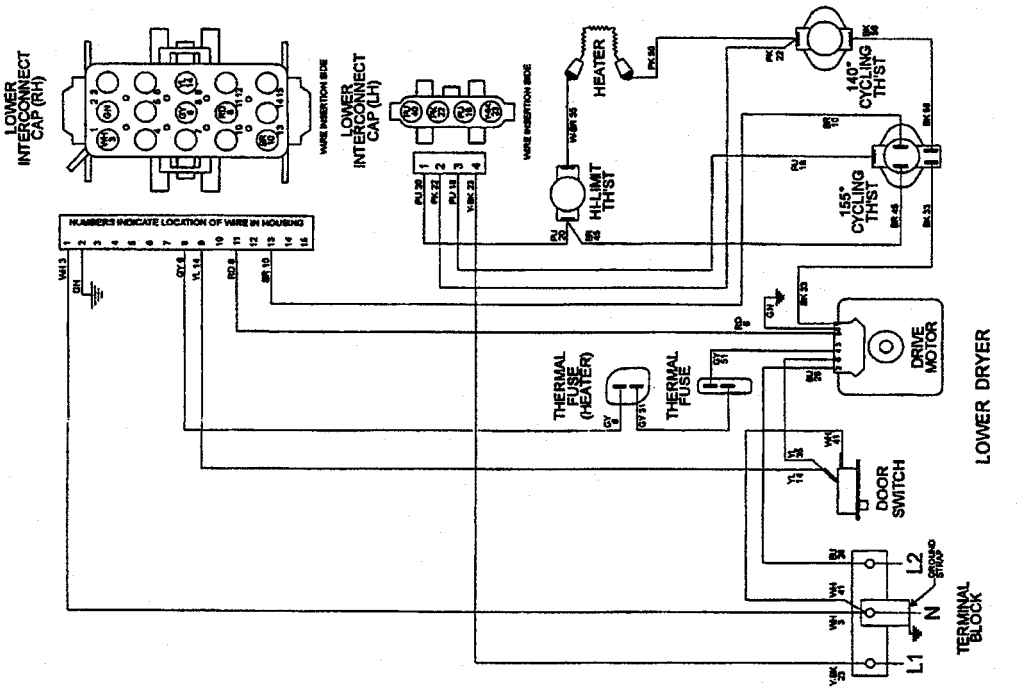
TIMER INFORMATION			115 MIN
CAM NO.	CIRCUIT	FUNCTION	OFF — 3 MIN COOL PERIOD
①	Y/BK-GY	MOTOR	
②	Y/BK-PU	HEATER	



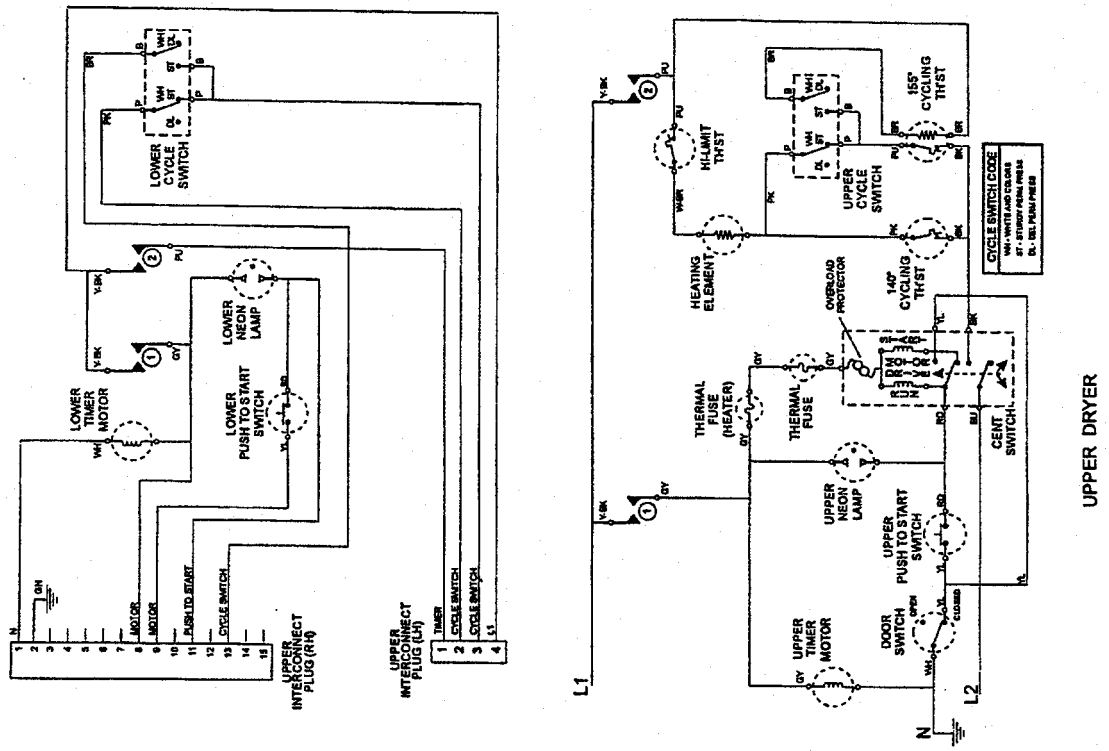
MHE/MUE15MN (REVISED) - WIRING DIAGRAM





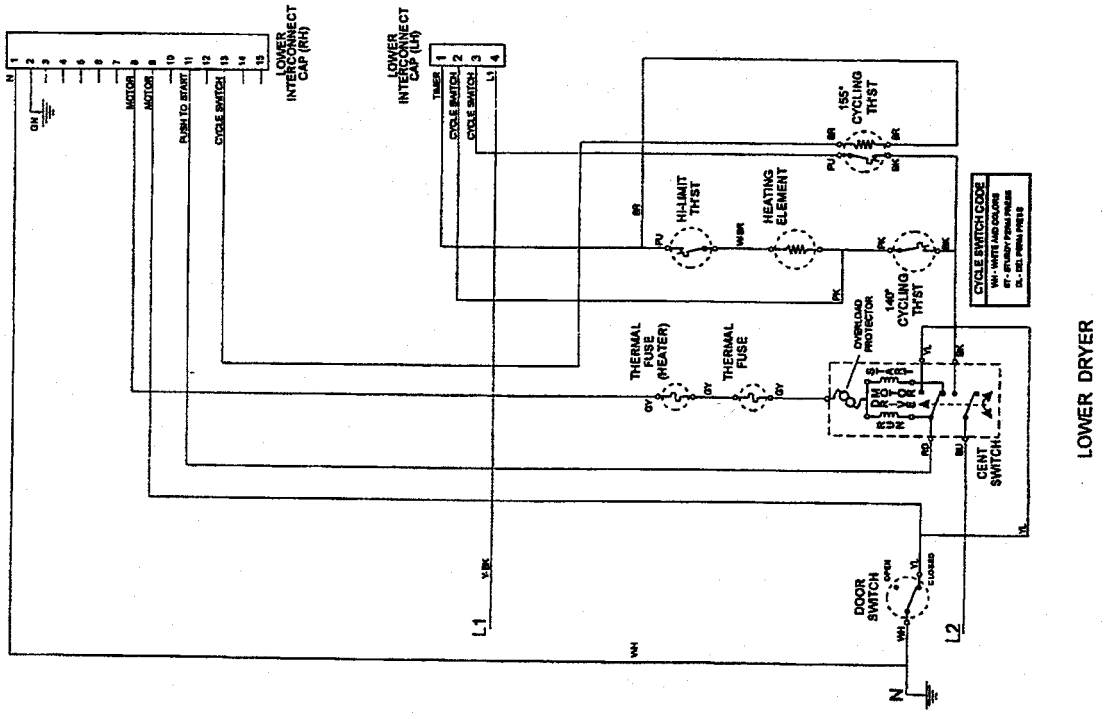


MHE/MUE15MN (REVISED) - ELECTRICAL SCHEMATIC



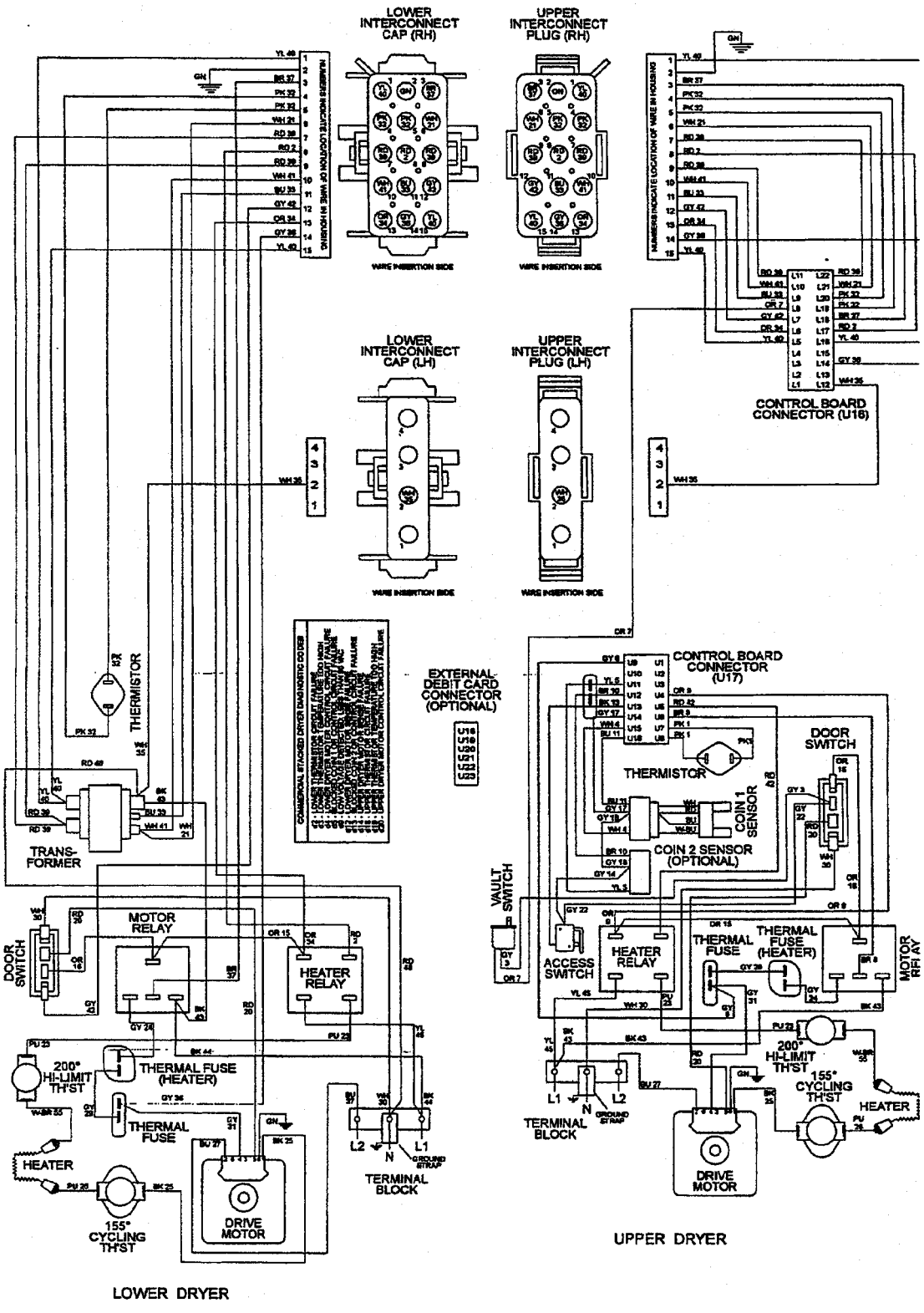
UPPER DRYER

TIMER INFORMATION			
CAM NO.	CIRCUIT	FUNCTION	115 MIN: OFF / 3 MIN COOL PERIOD
①	Y/BK-GY	MOTOR	
②	Y/BK-PU	HEATER	

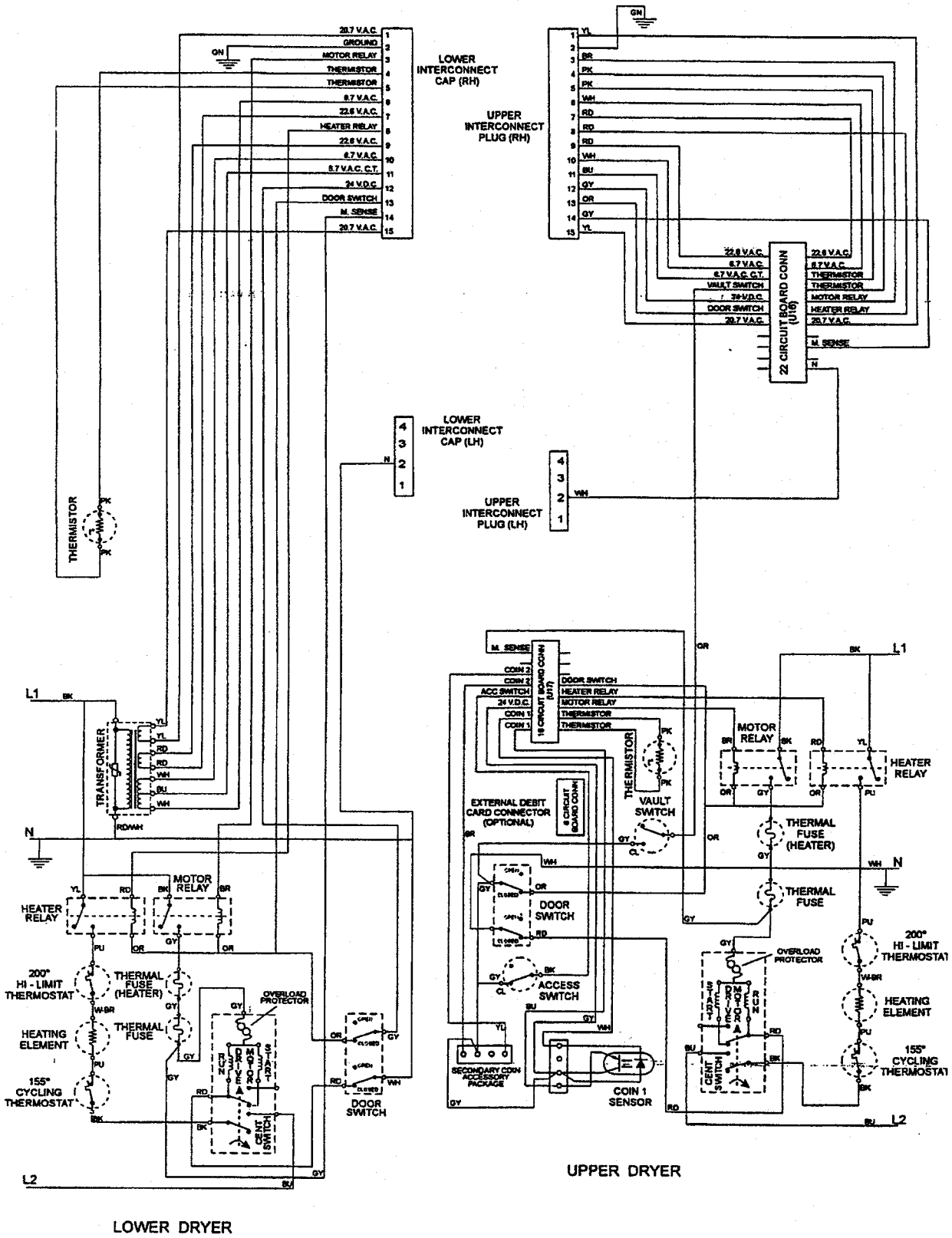


LOWER DRYER

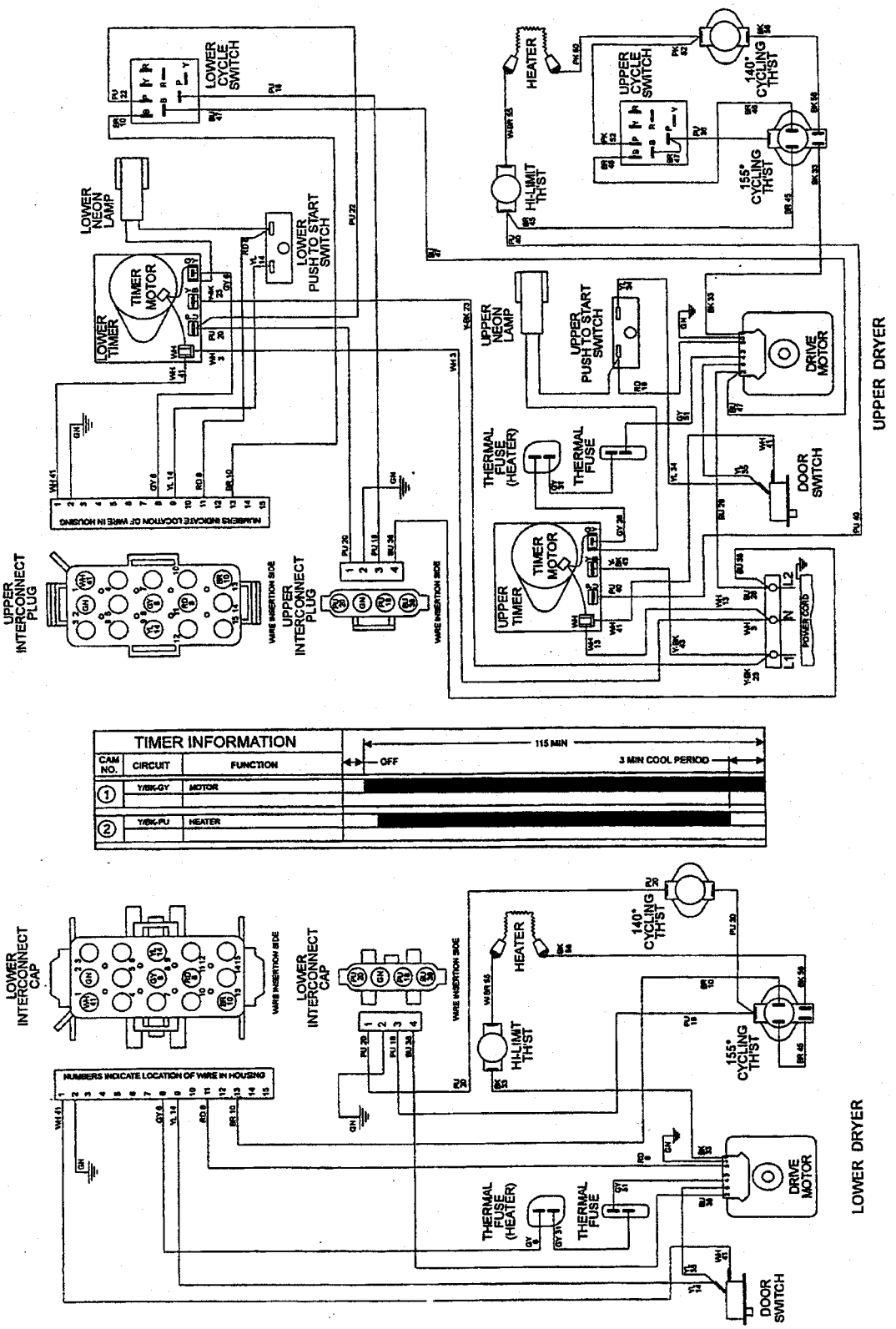
MHE/MUE15PD - WIRING DIAGRAM



MHE/MUE15PD - ELECTRICAL SCHEMATIC

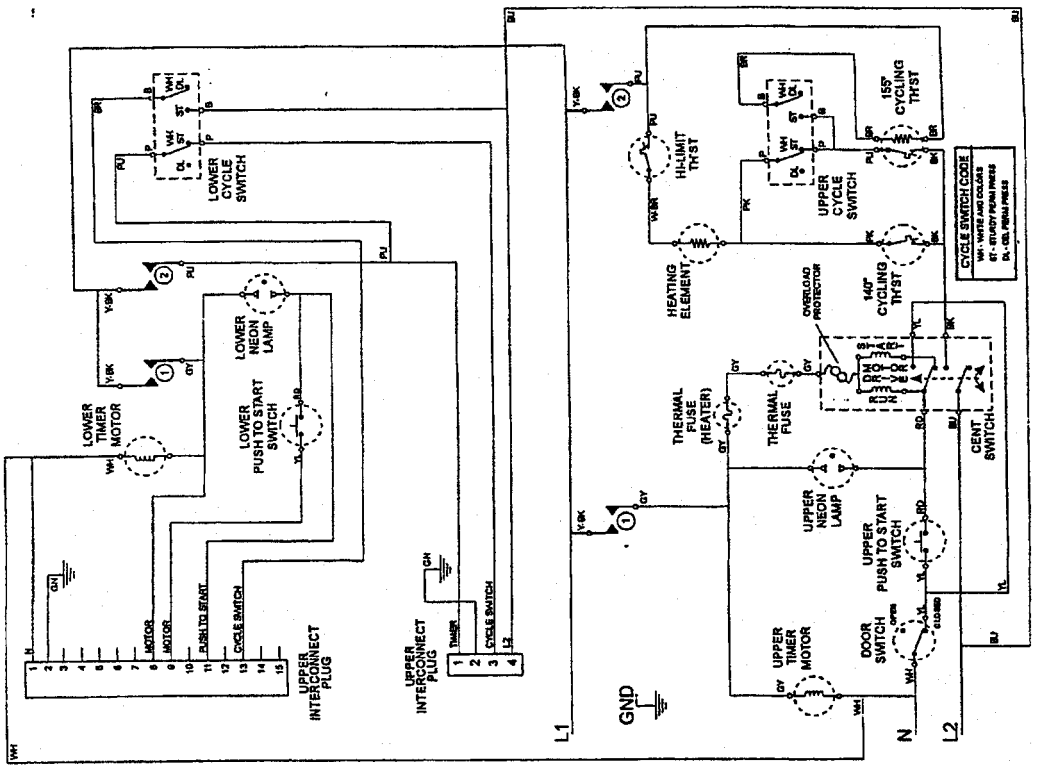


MHE/MUE15MN - CANADA - WIRING DIAGRAM

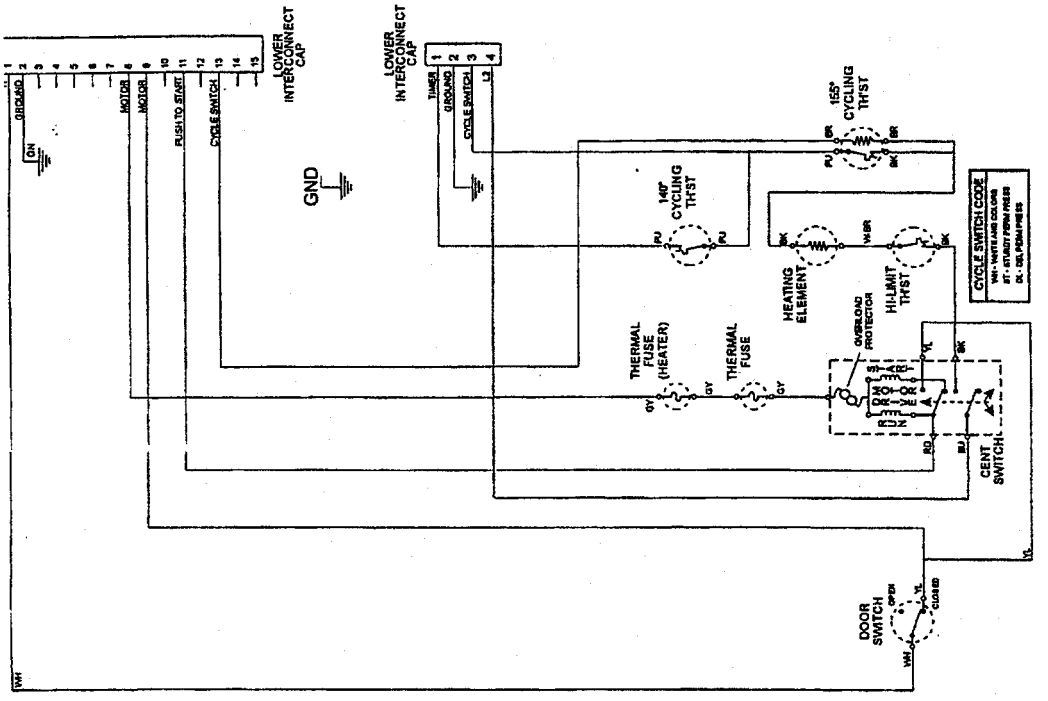


TIMER INFORMATION			115 MIN
CAM NO.	CIRCUIT	FUNCTION	OFF — 3 MIN COOL PERIOD
①	Y/BK-GY	MOTOR	
②	Y/BK-PU	HEATER	

MHE/MUE15MN - CANADA - ELECTRICAL SCHEMATIC



TIMER INFORMATION			115 MIN	
CAM NO.	CIRCUIT	FUNCTION	OFF	3 MIN COOL PERIOD
①	Y/BK-GY	MOTOR		
②	Y/BK-PU	HEATER		



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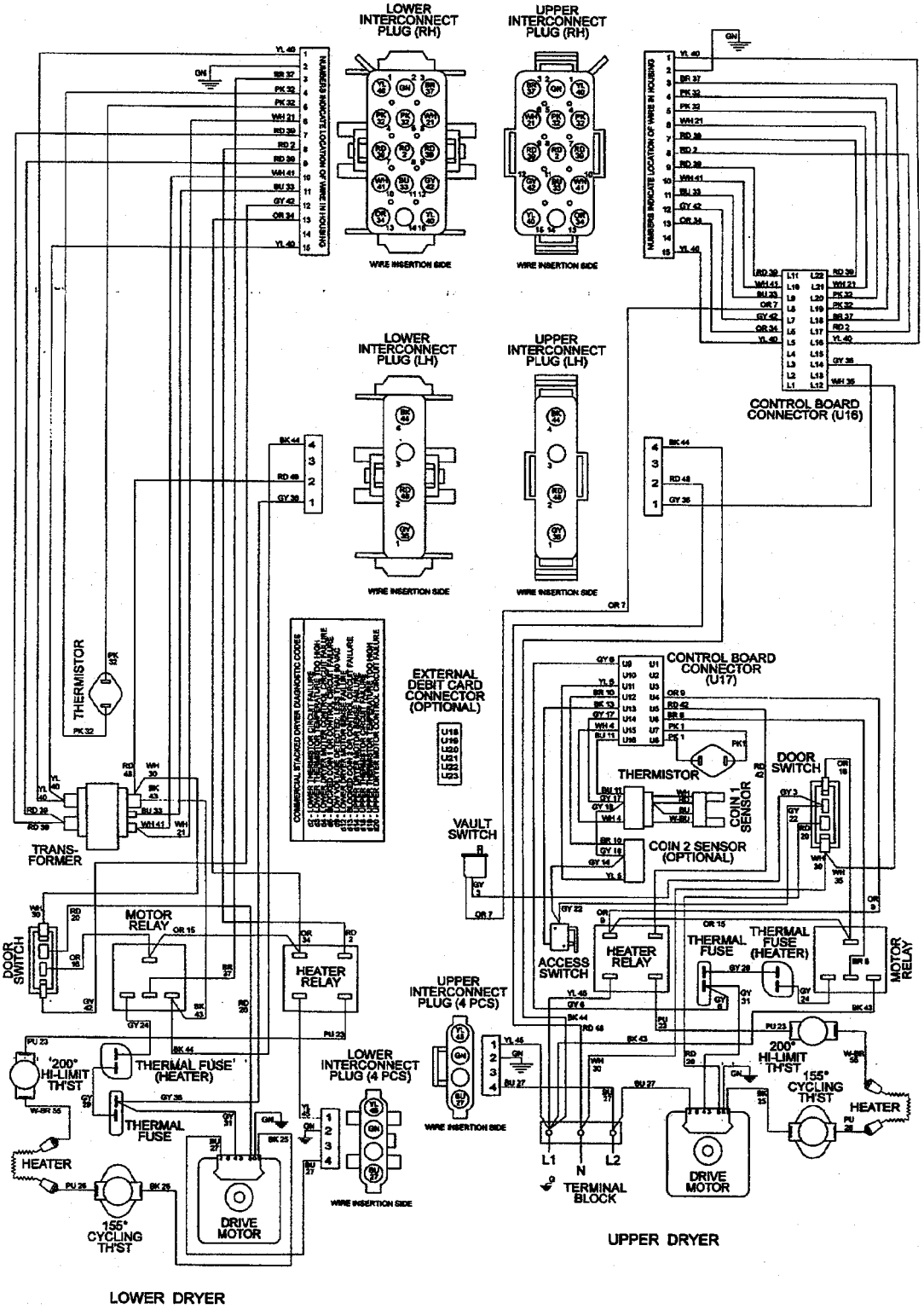
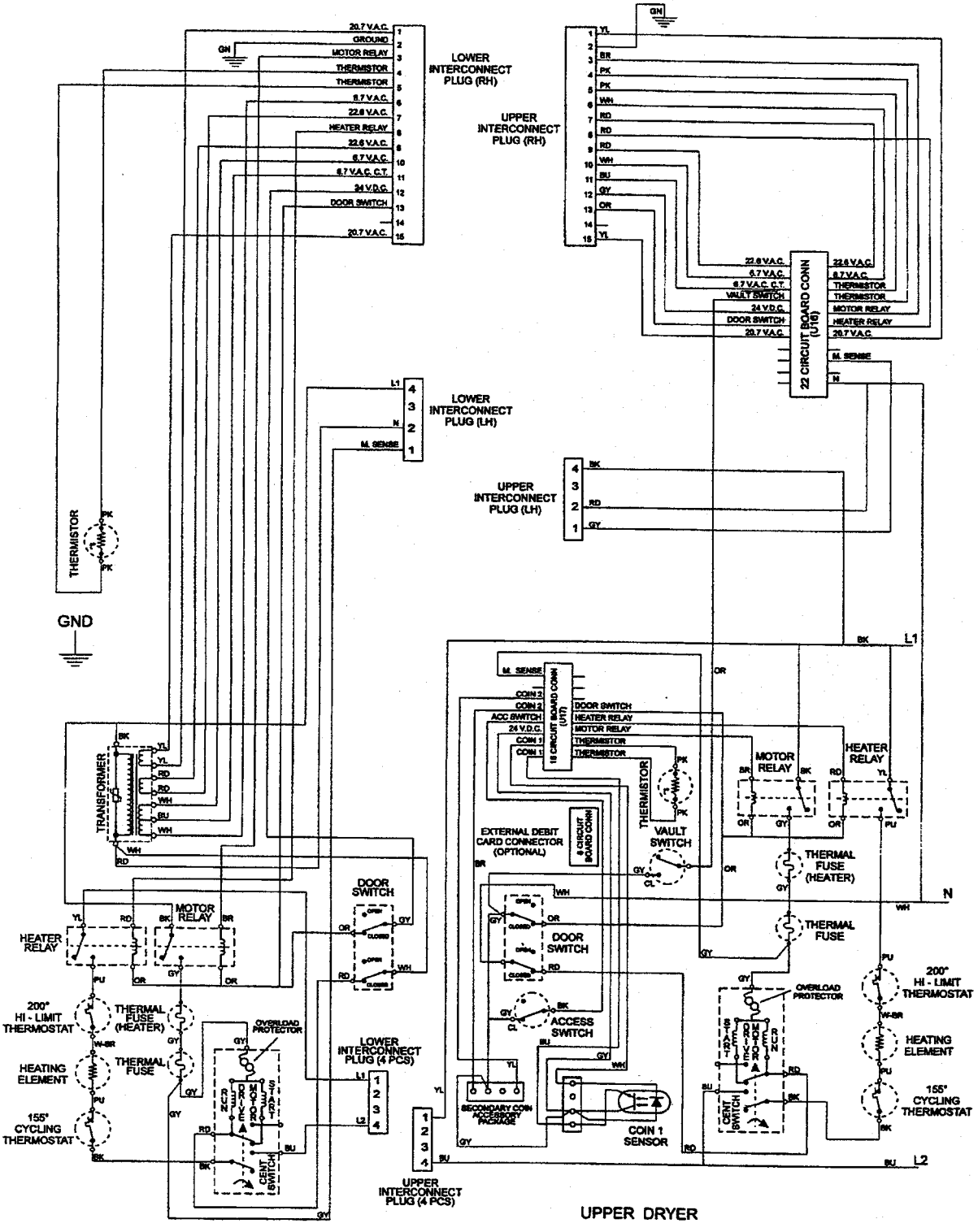
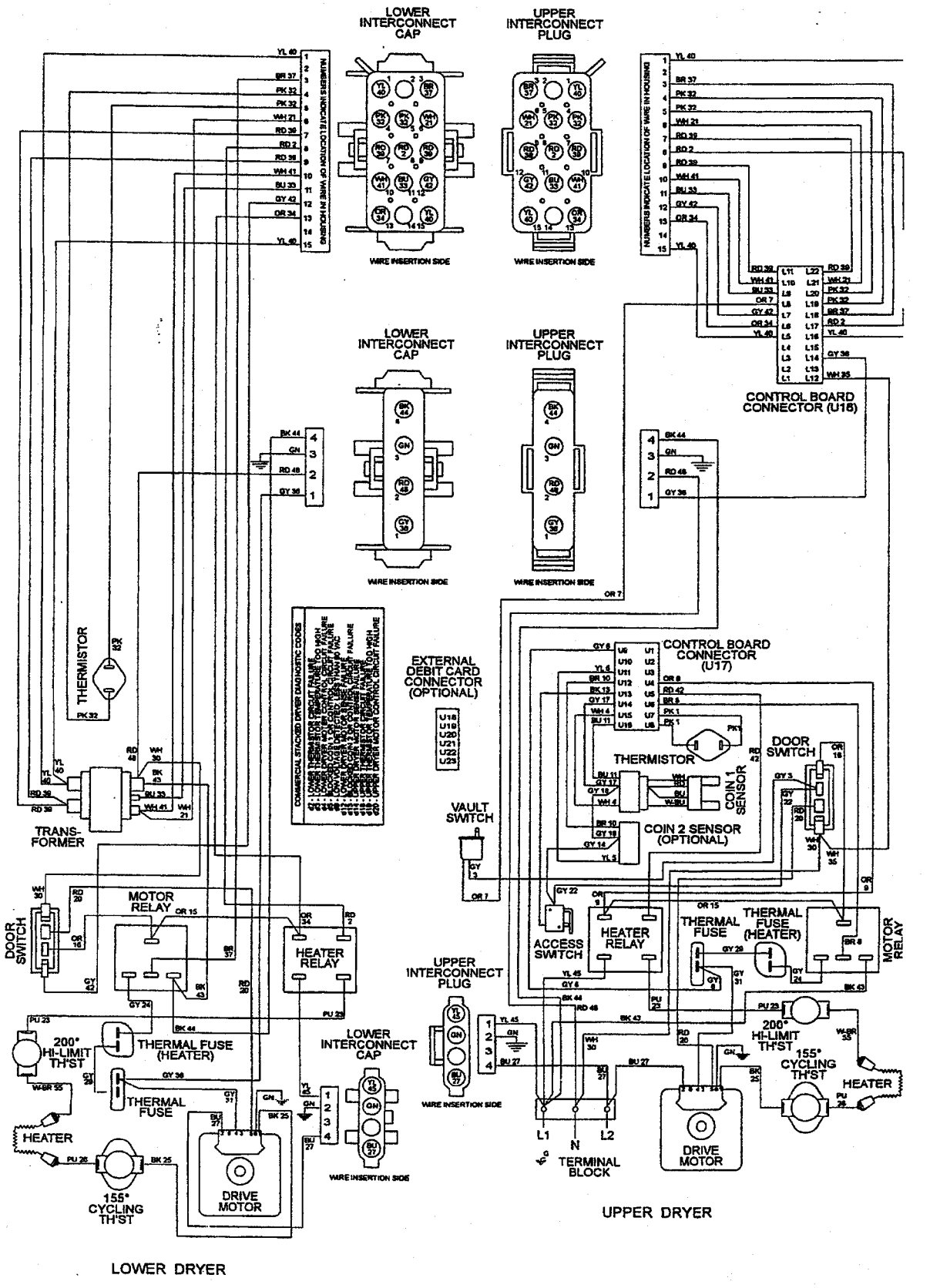


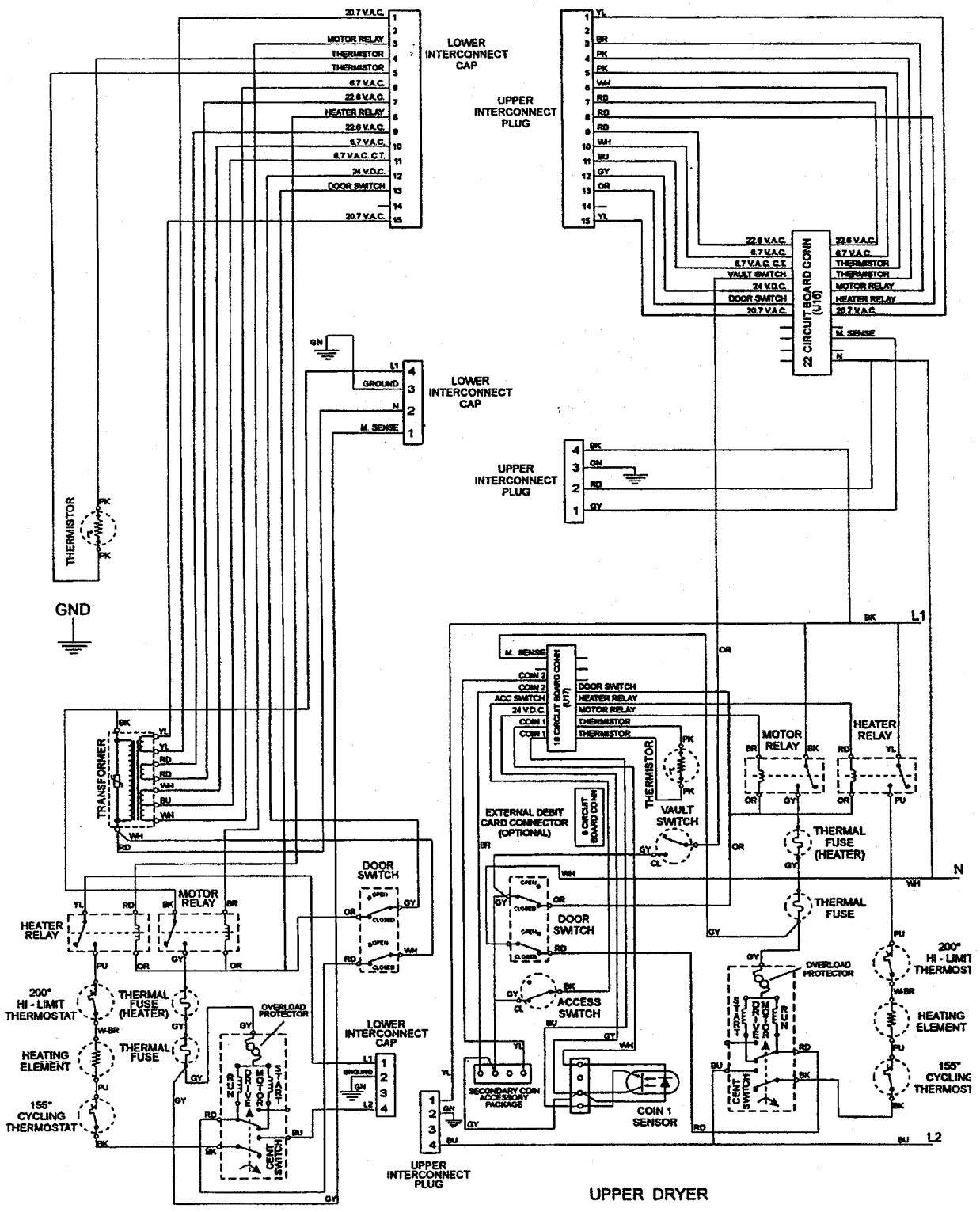
MHE/MUE15PD - CANADA - ELECTRICAL SCHEMATIC



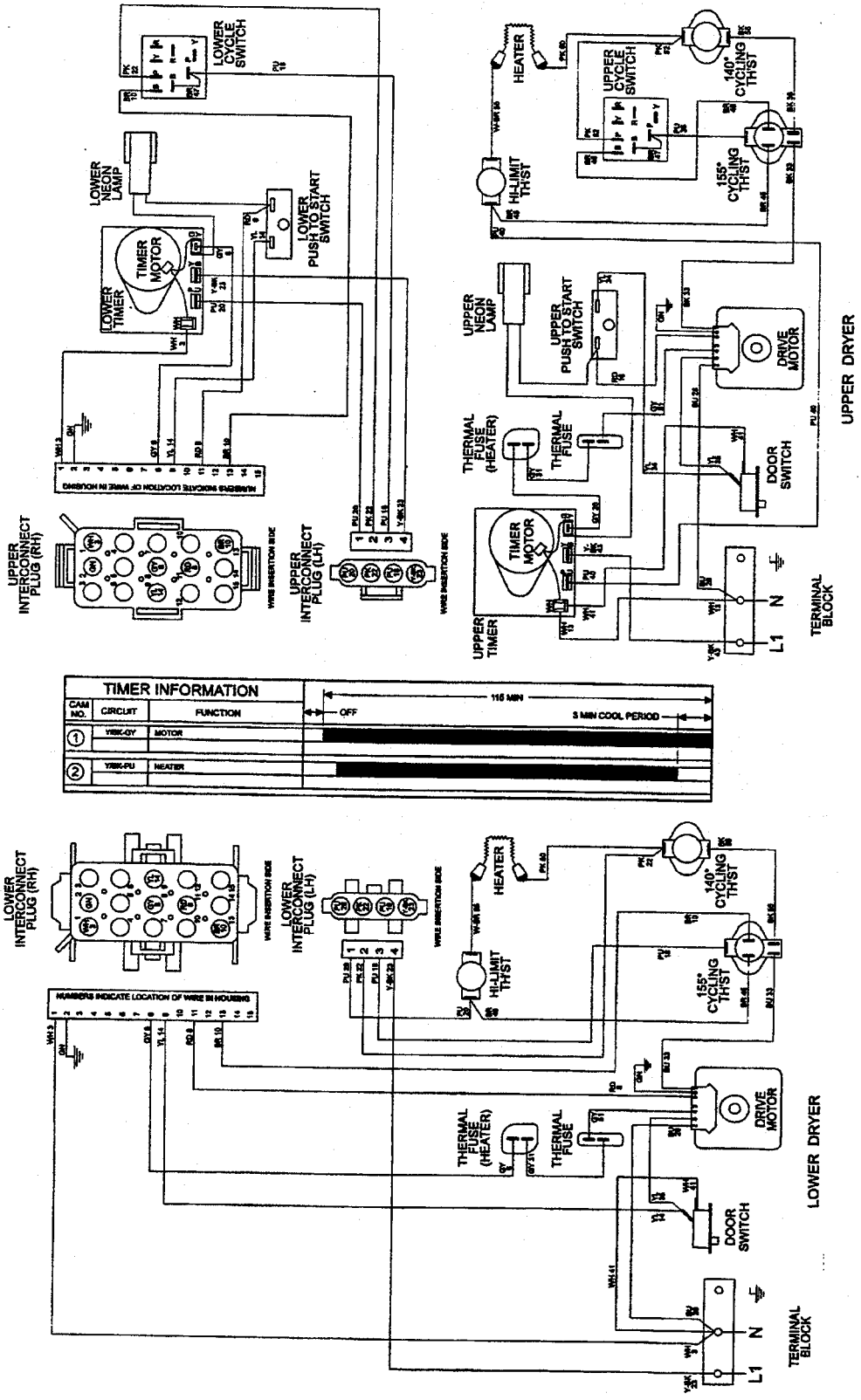
MHE/MUE15PD - CANADA - WIRING DIAGRAM (REVISED)



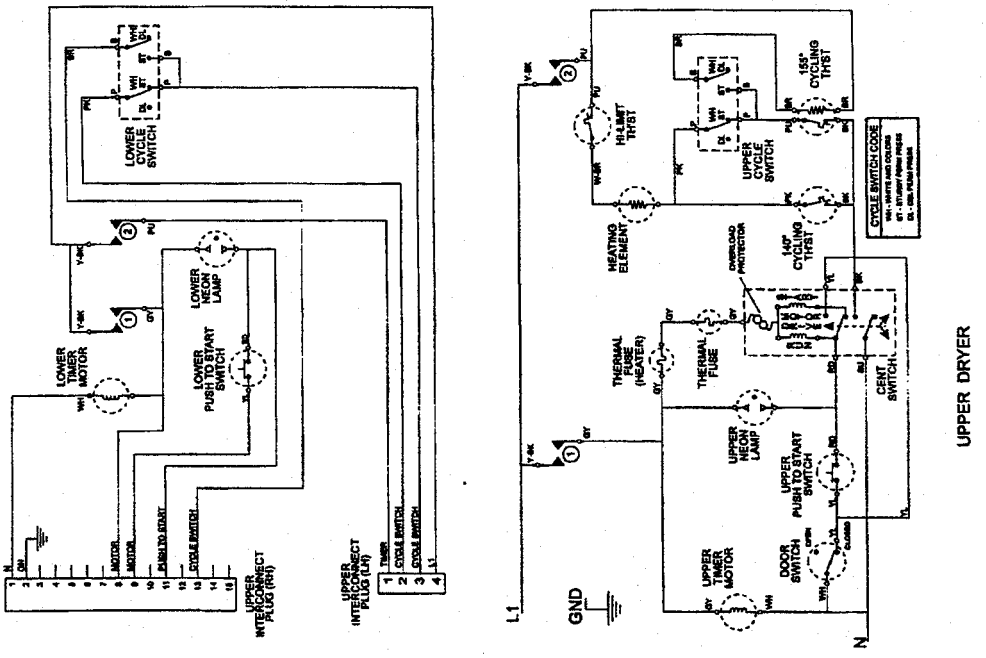
MHE/MUE15PD - CANADA - ELECTRICAL SCHEMATIC (REVISED)

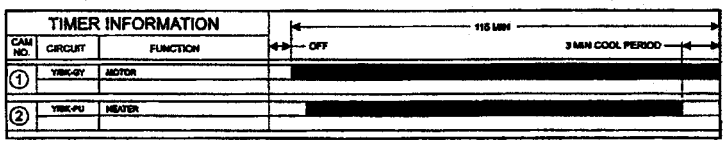


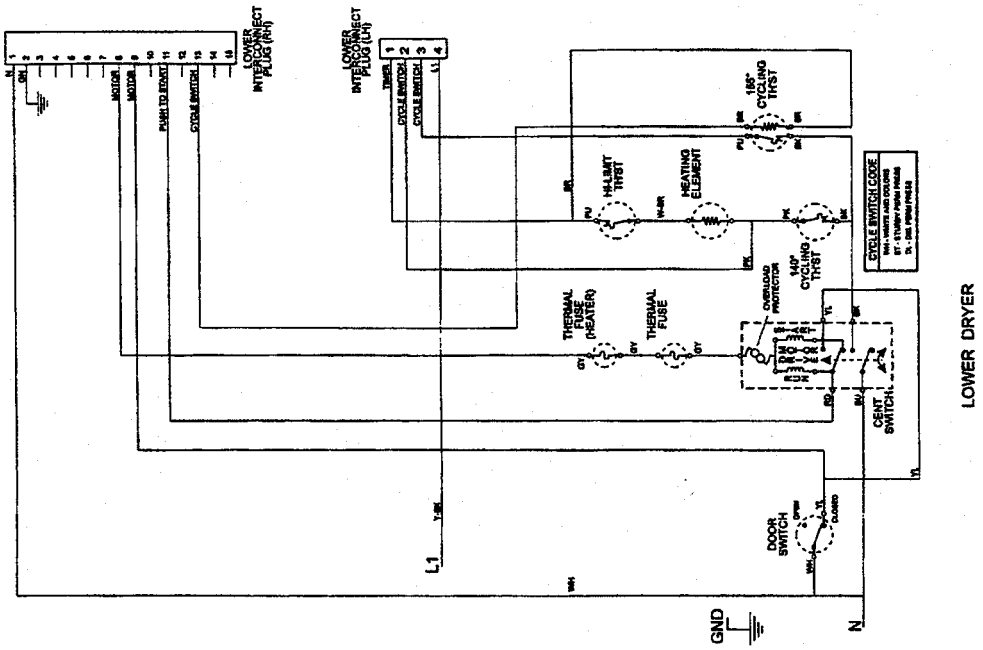
MHE/MUE15MN - EXPORT - WIRING DIAGRAM



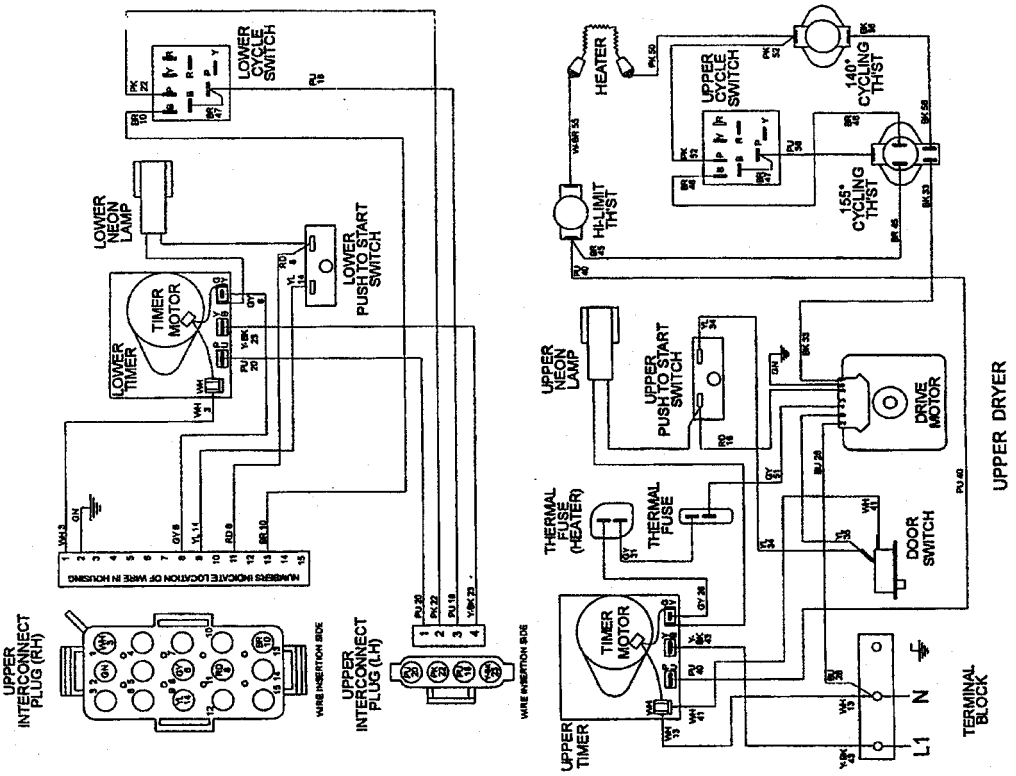
MHE/MUE15MN - EXPORT - ELECTRICAL SCHEMATIC

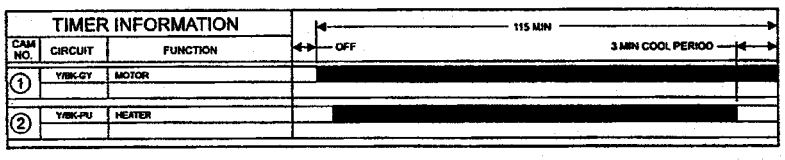


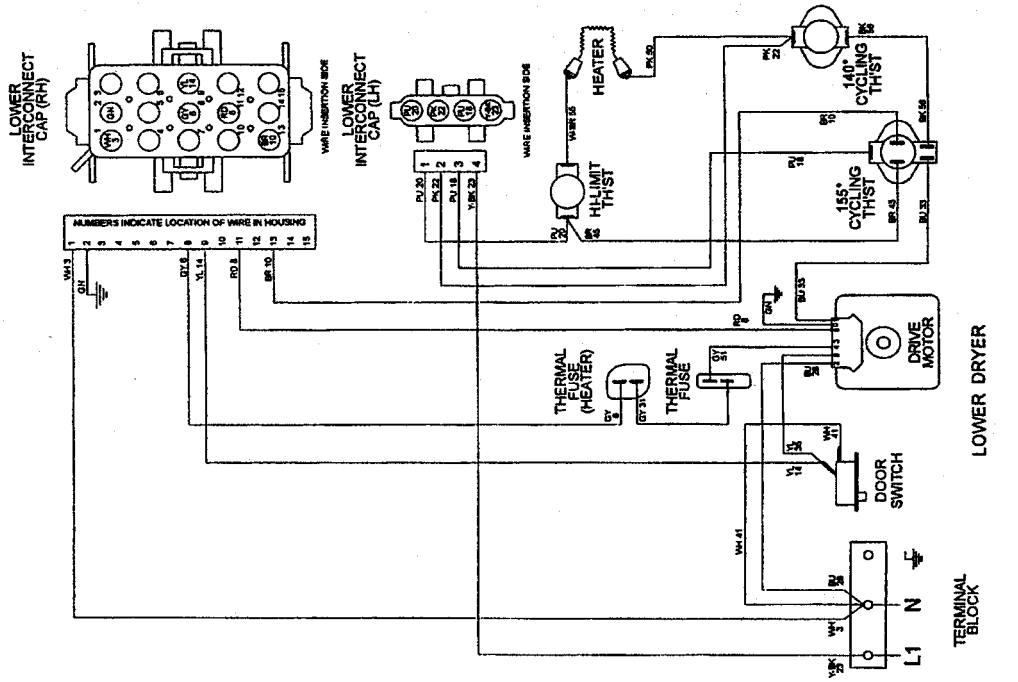




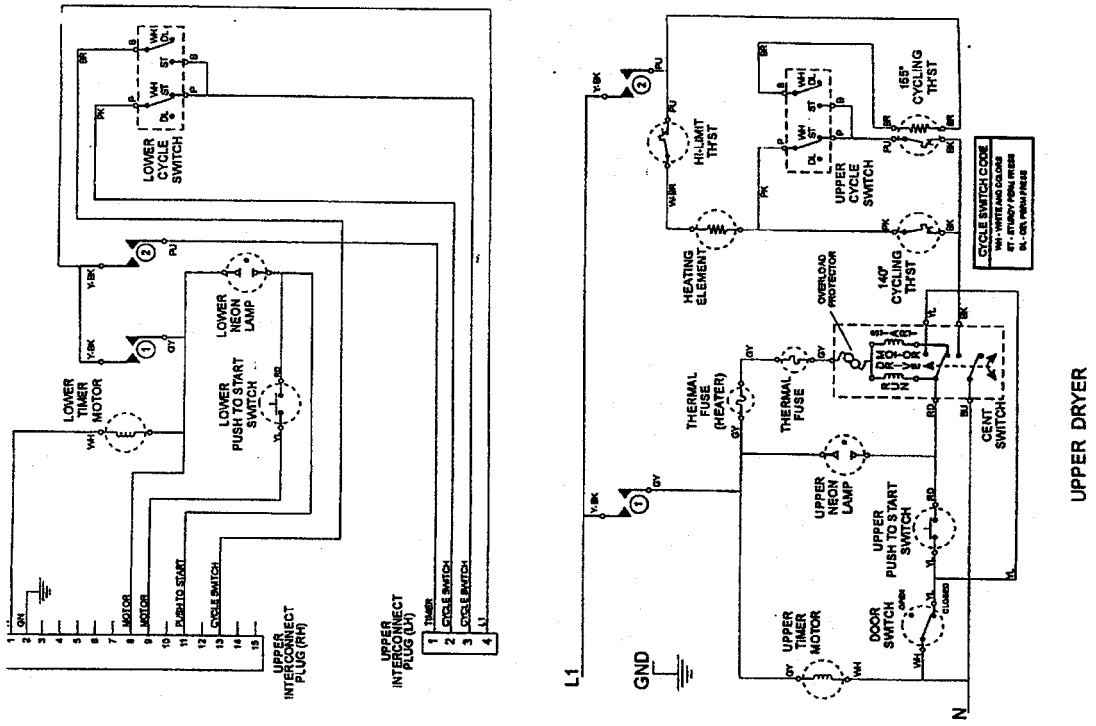
MHE/MUE15MN - EXPORT - WIRING DIAGRAM (REVISED)

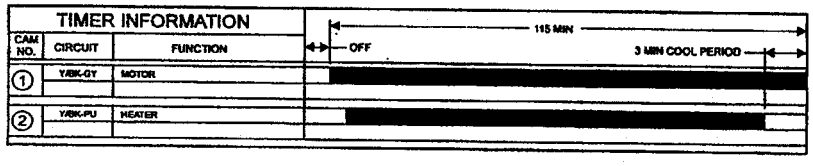


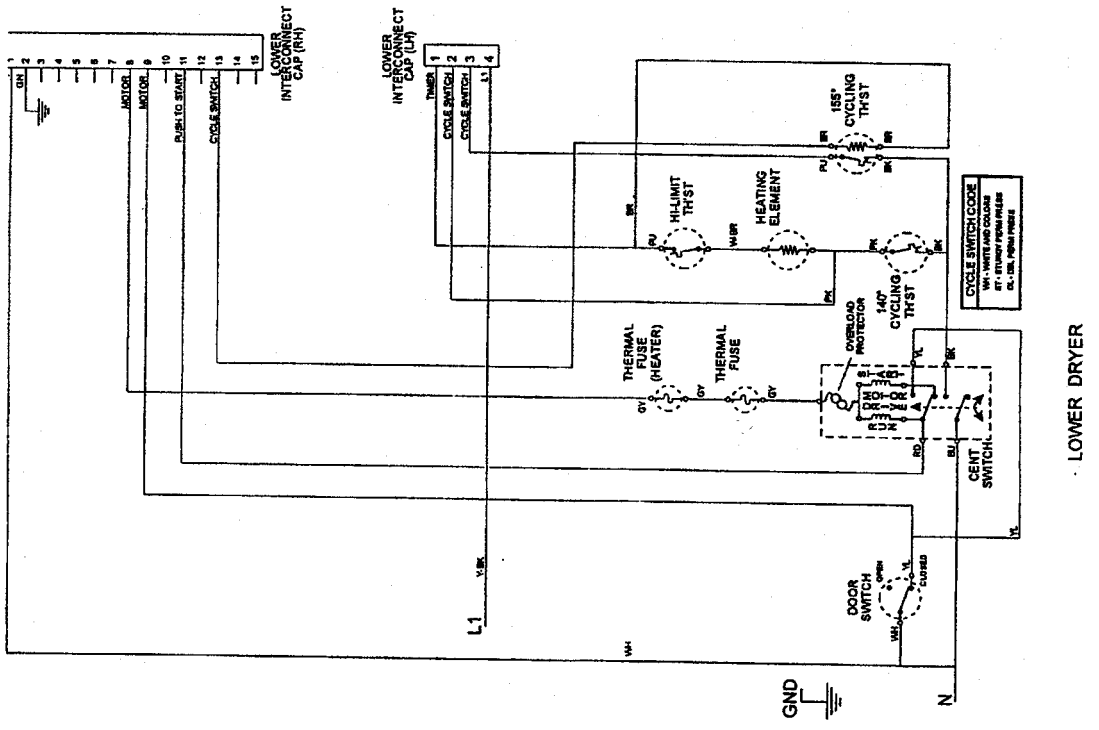




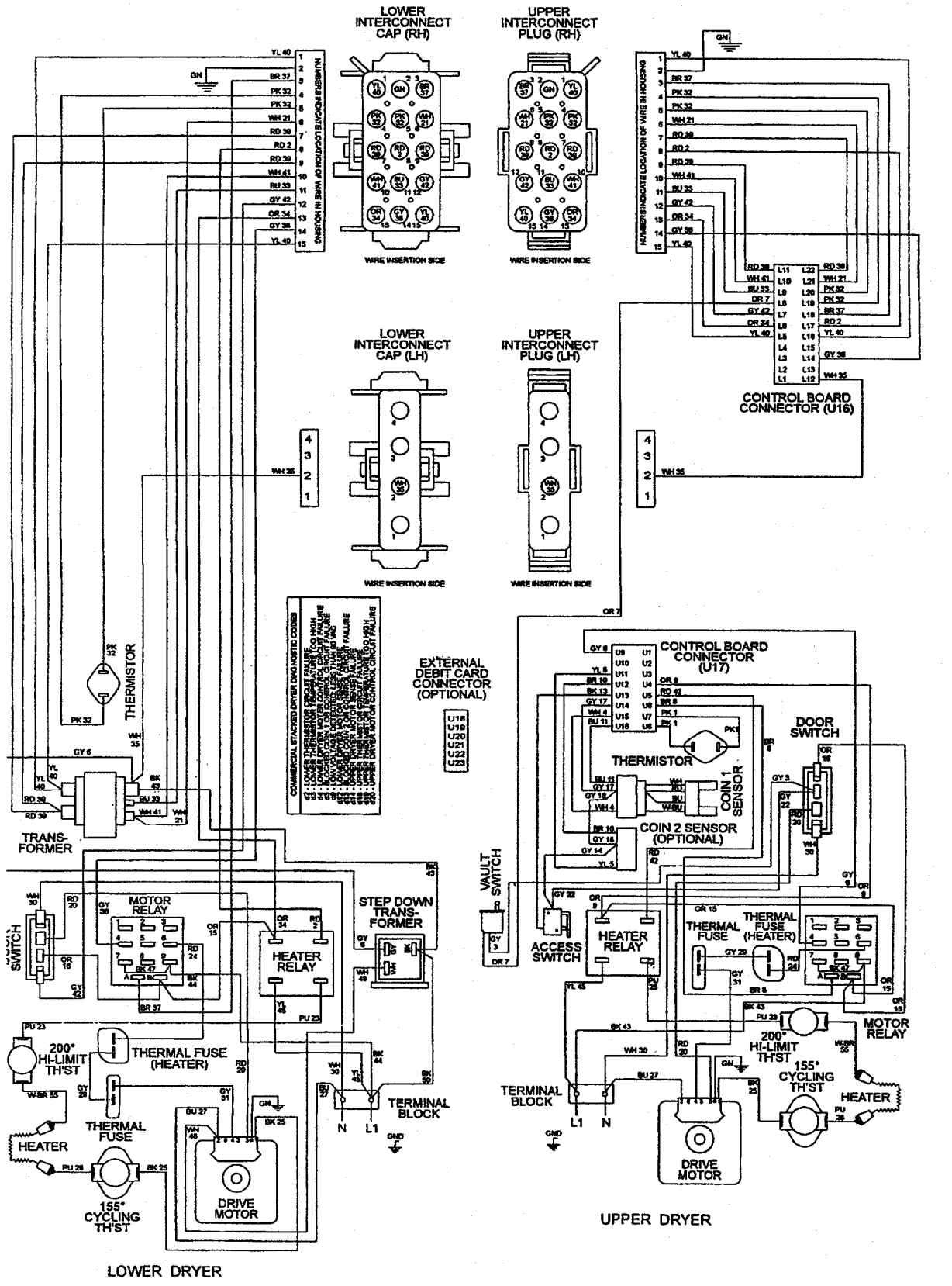
MHE/MUE15MN - EXPORT - ELECTRICAL SCHEMATIC (REVISED)



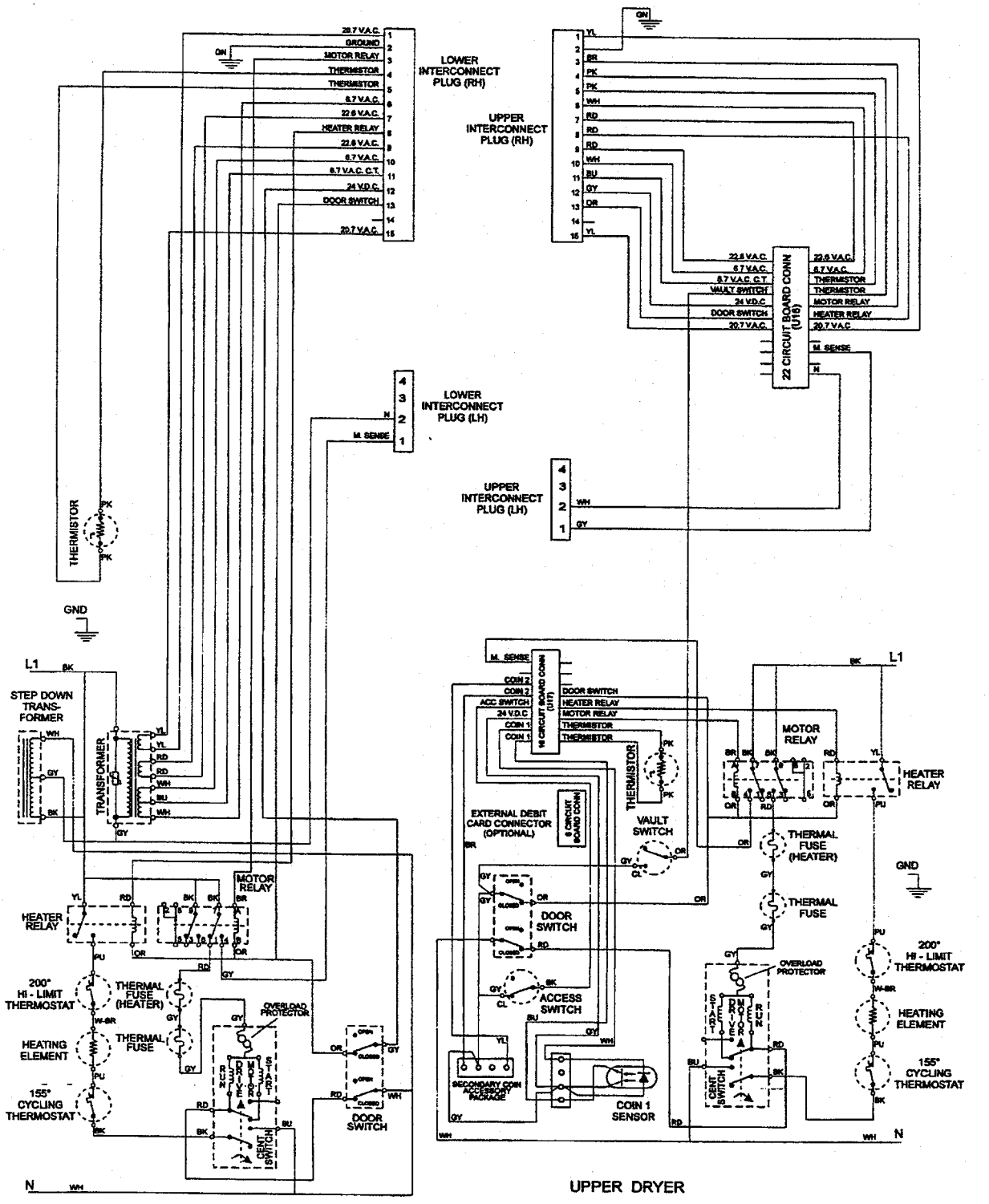




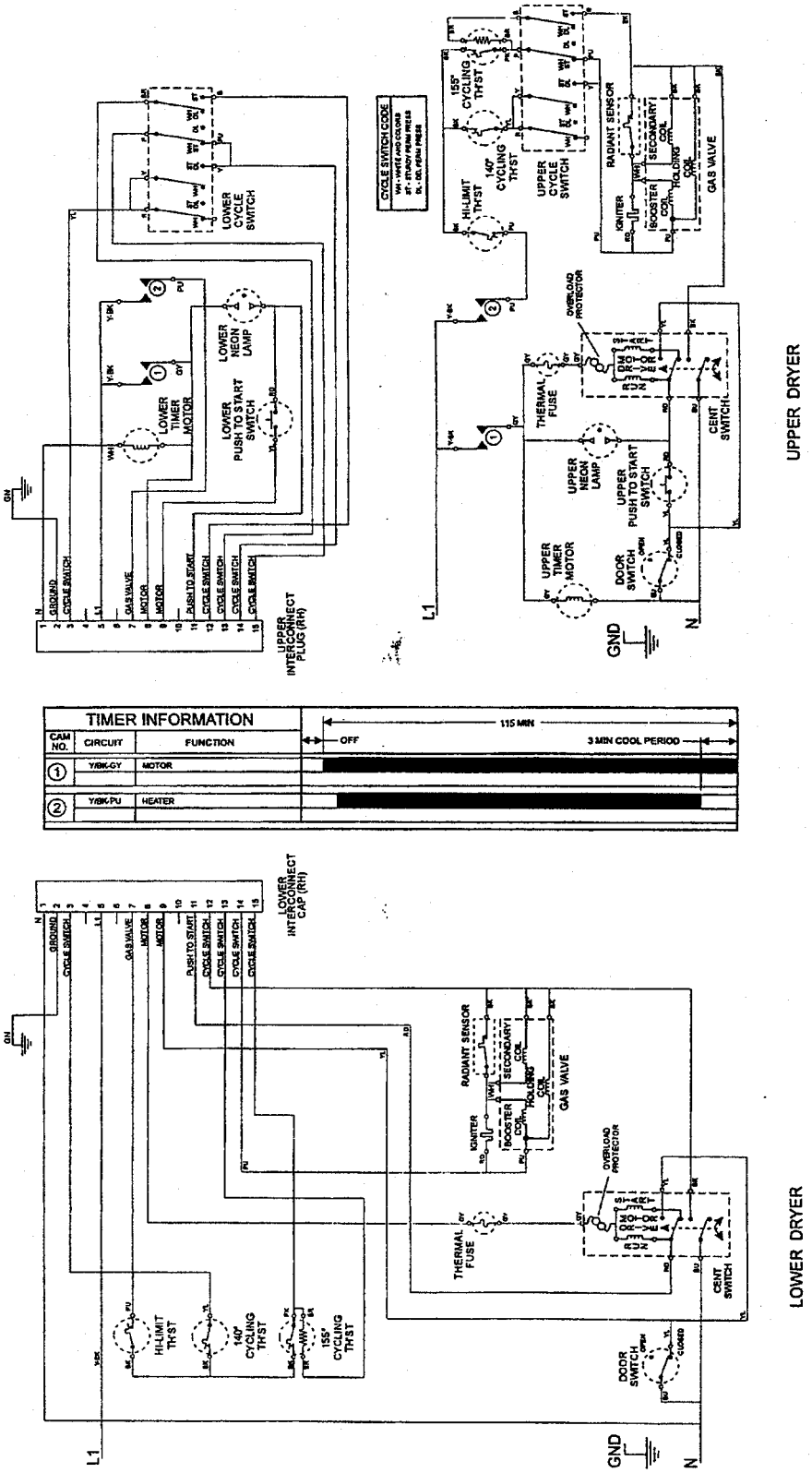
MHE/MUE15PD - EXPORT - WIRING DIAGRAM



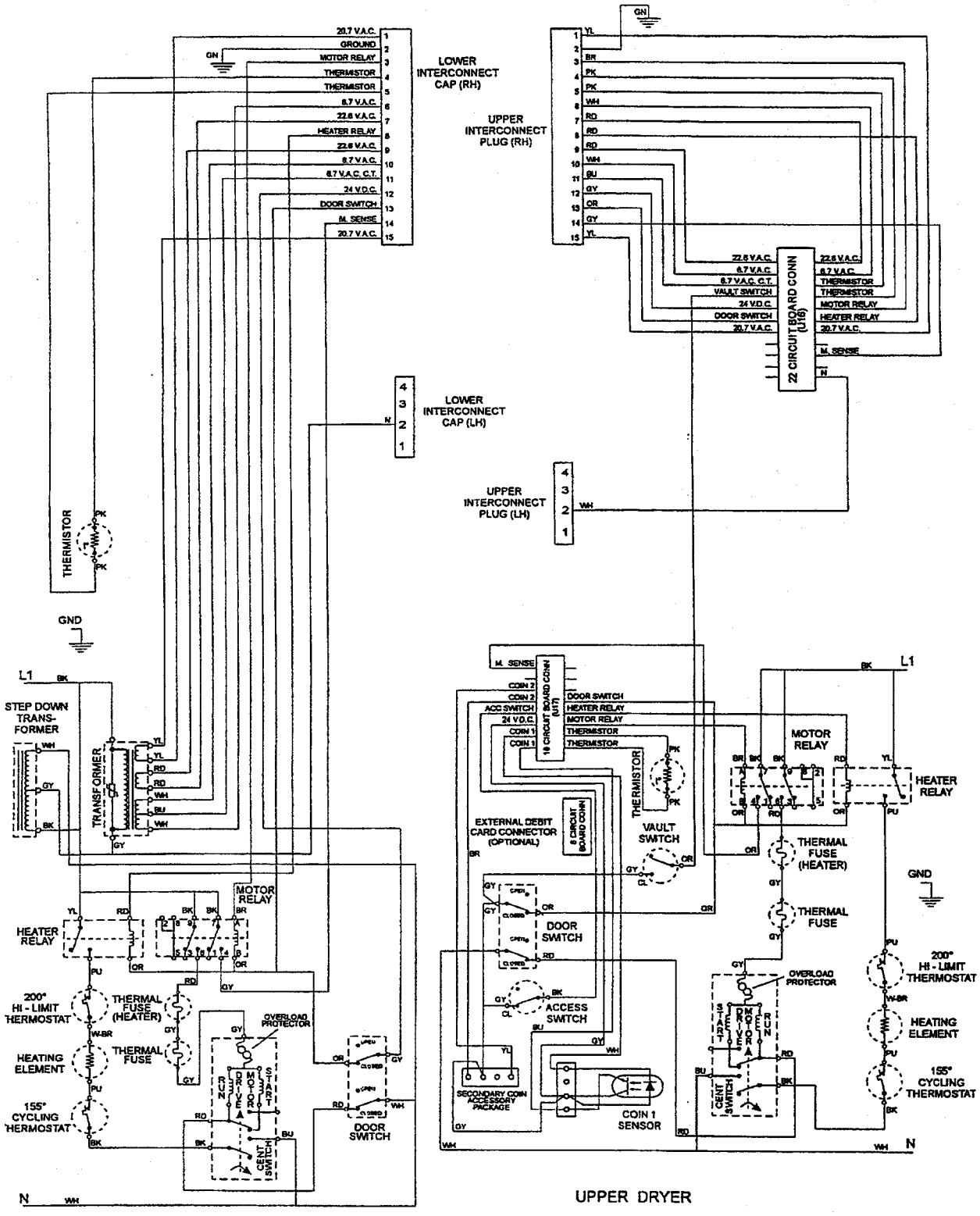
MHE/MUE15PD - EXPORT - ELECTRICAL SCHEMATIC



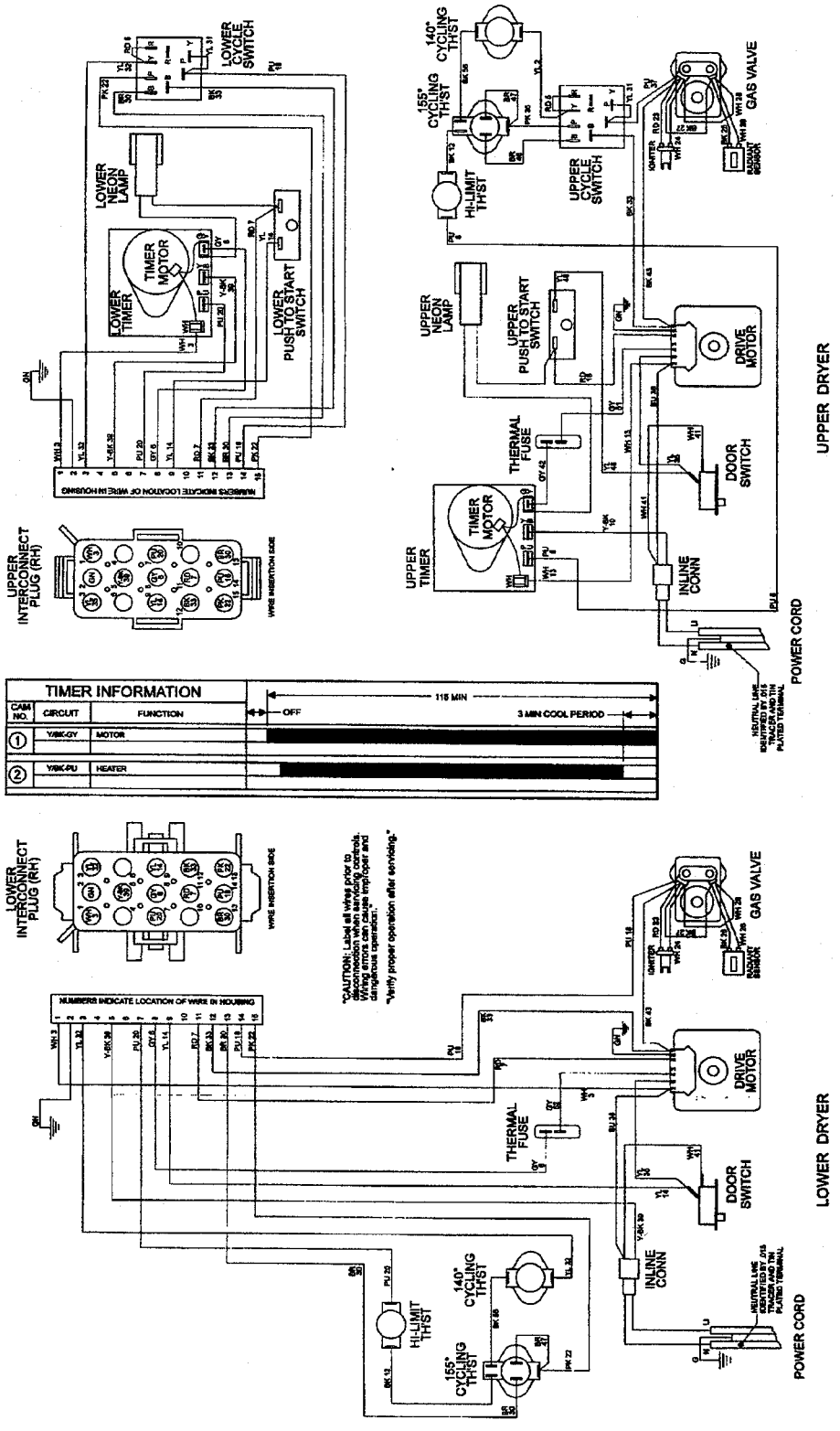
MHE/MUE15PD - EXPORT - WIRING DIAGRAM (REVISED)



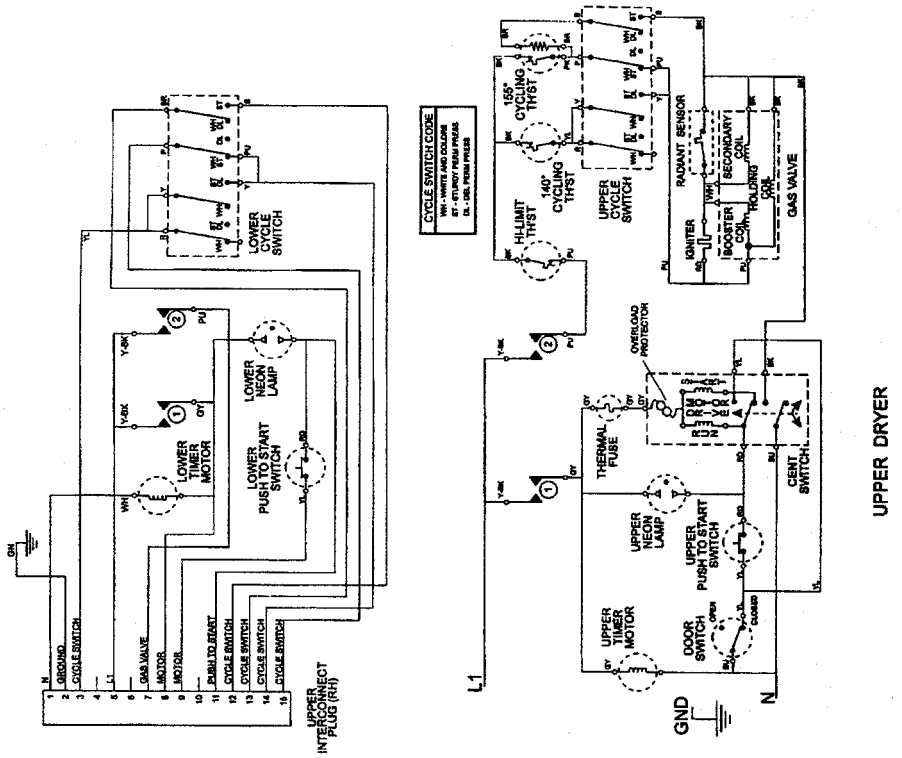
MHE/MUE15PD - EXPORT - ELECTRICAL SCHEMATIC (REVISED)



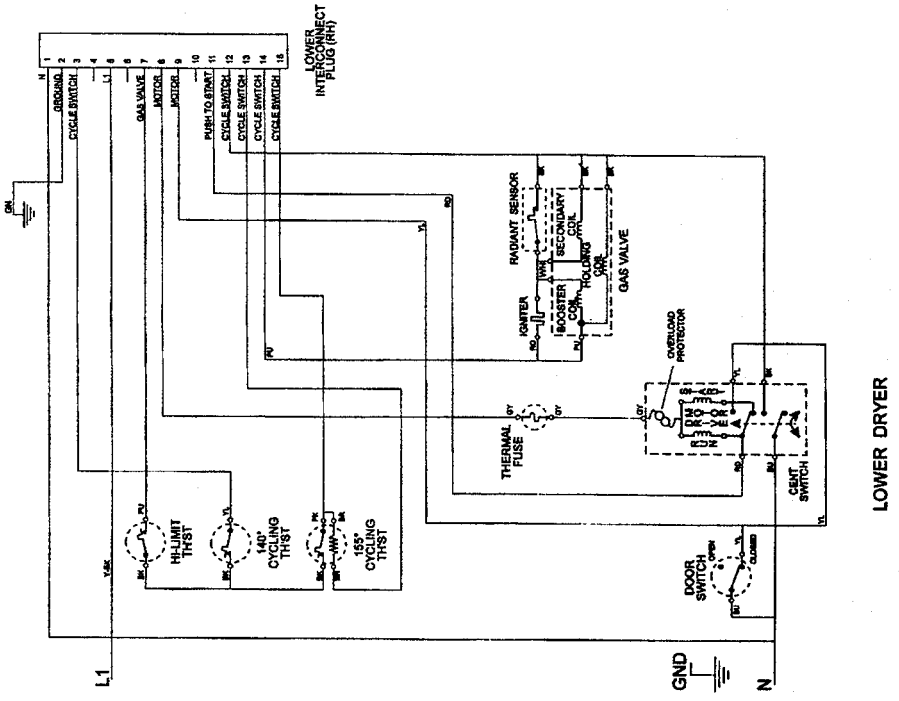
MHG/MUG15MN - WIRING DIAGRAM



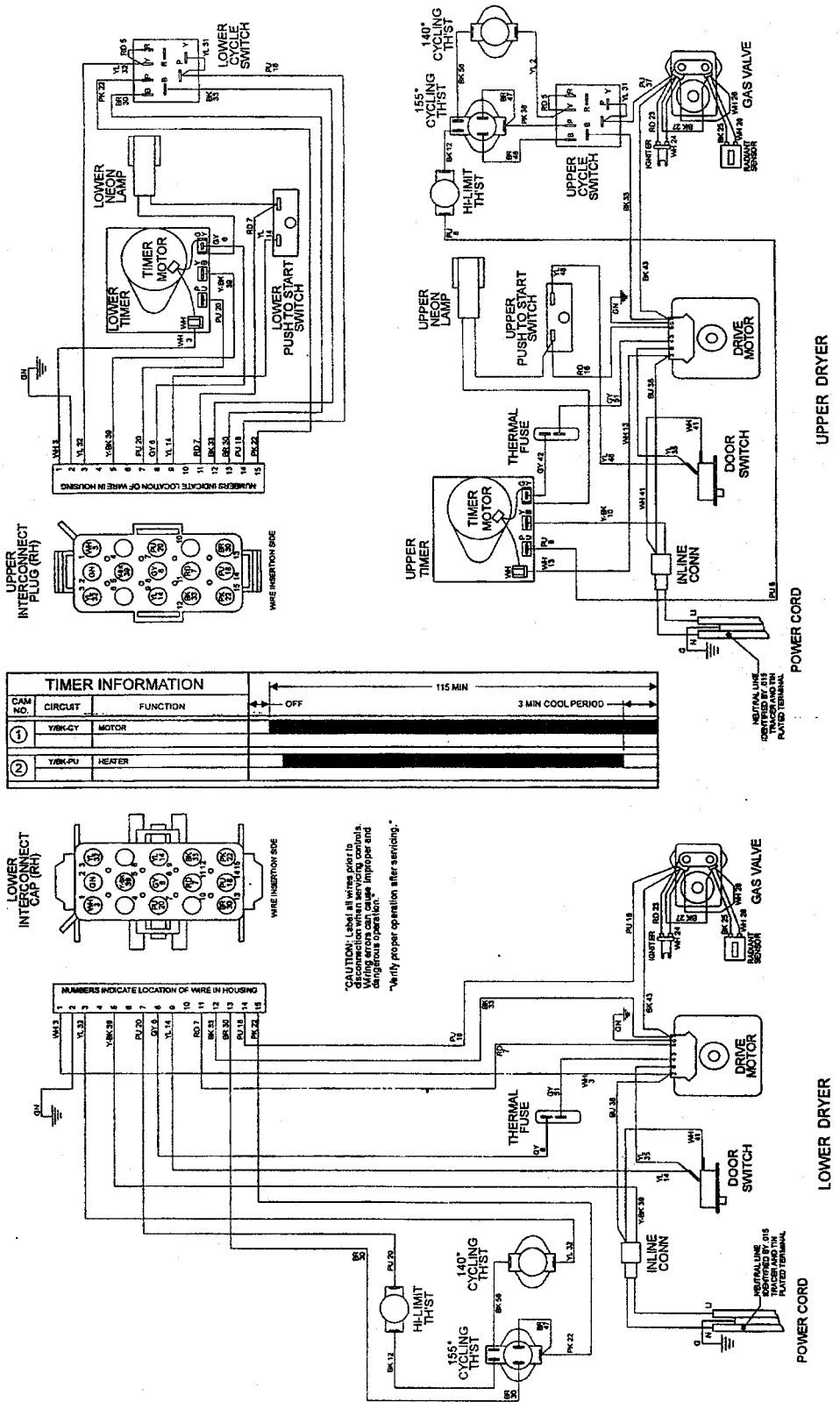
MHG/MUG15MN - ELECTRICAL SCHEMATIC



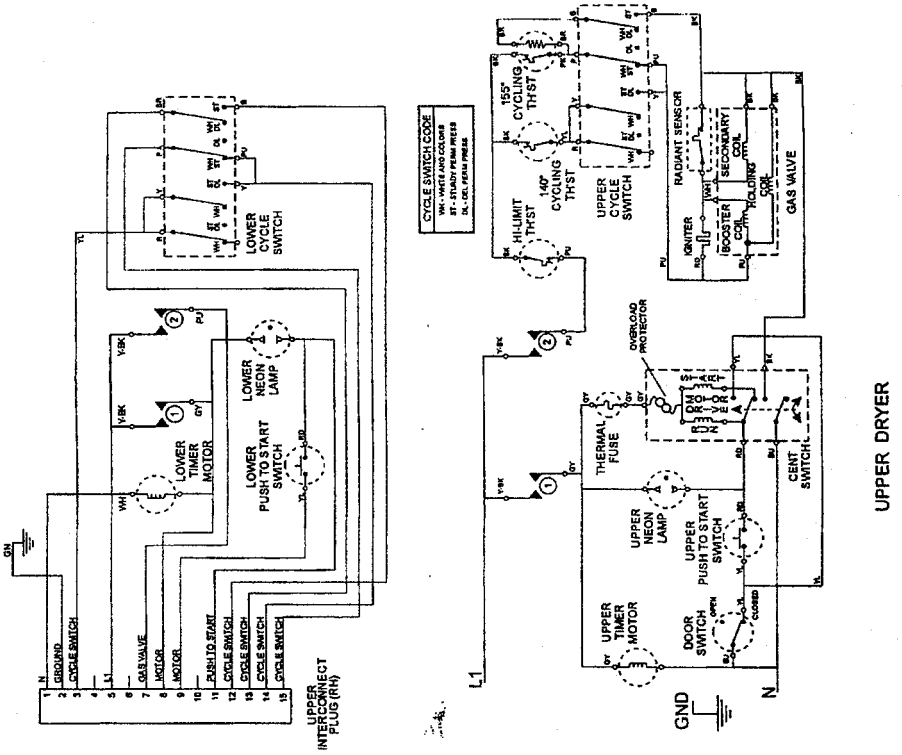
TIMER INFORMATION			115 MIN	
CAM NO.	CIRCUIT	FUNCTION	OFF	3 MIN COOL PERIOD
1	Y/BK-GY	MOTOR		
2	Y/BK-PU	HEATER		



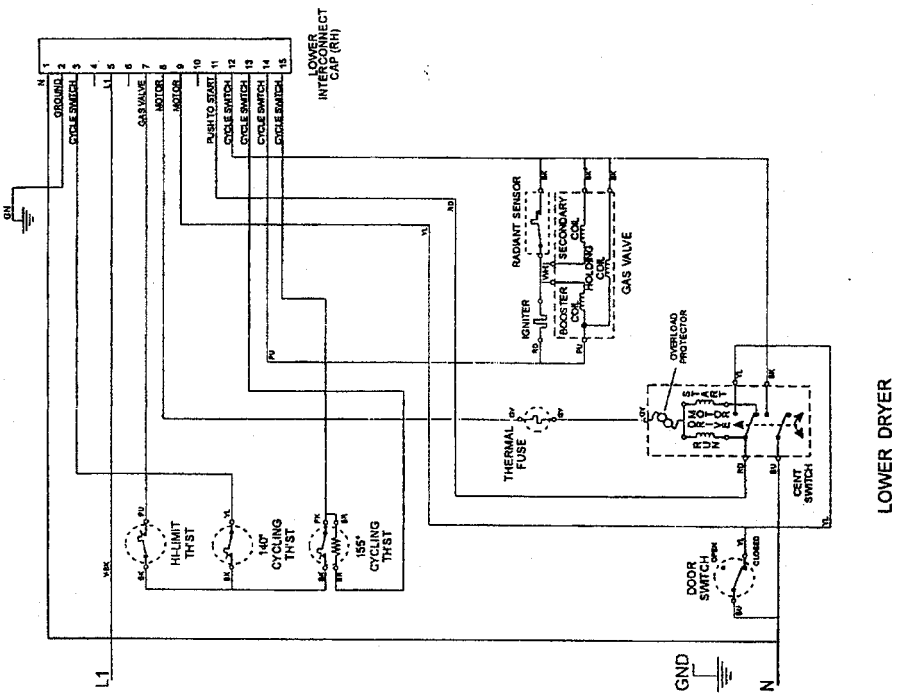
MHG/MUG15MN - WIRING DIAGRAM (REVISED)



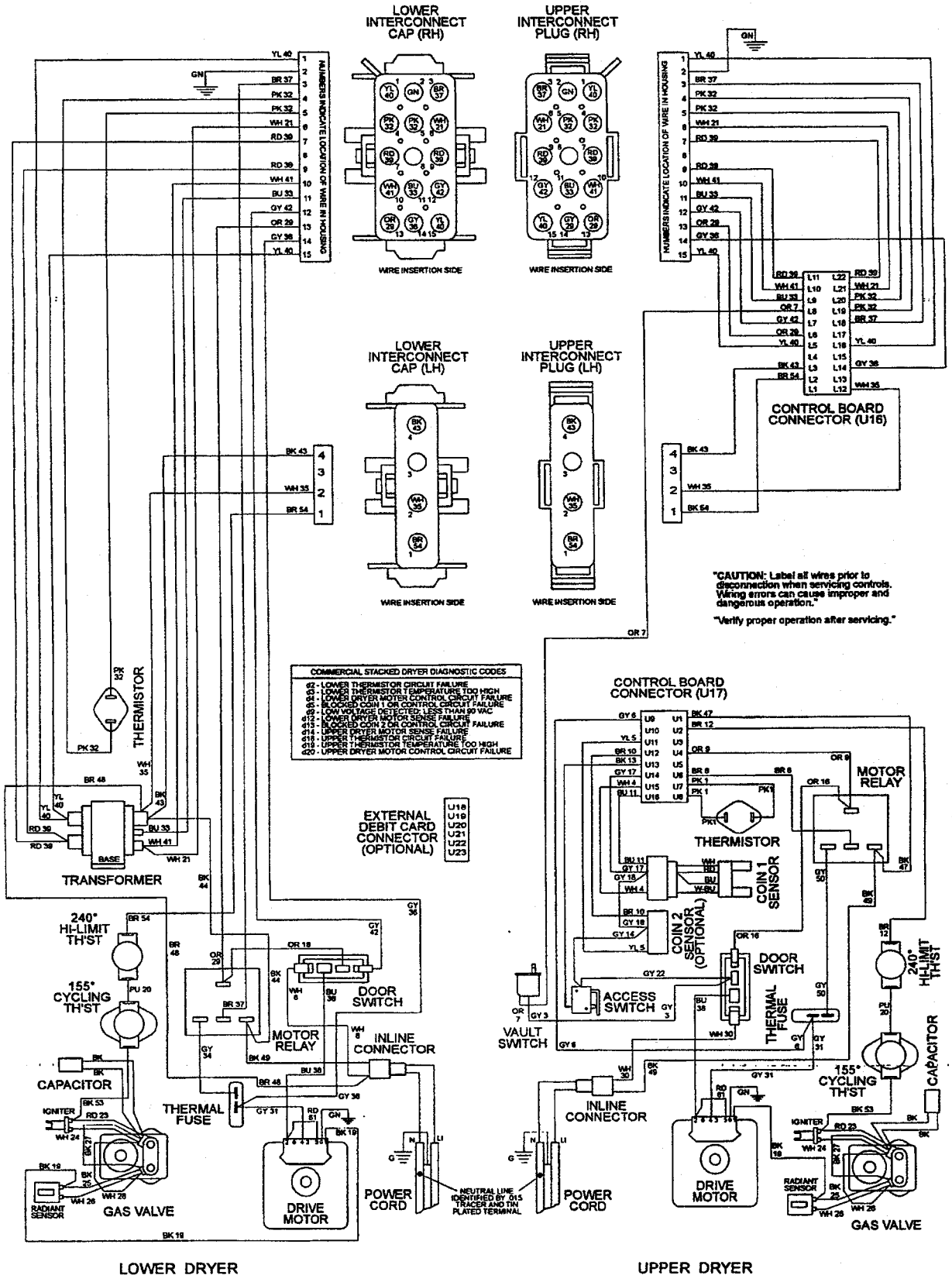
MHG/MUG15PD - ELECTRICAL SCHEMATIC (REVISED)



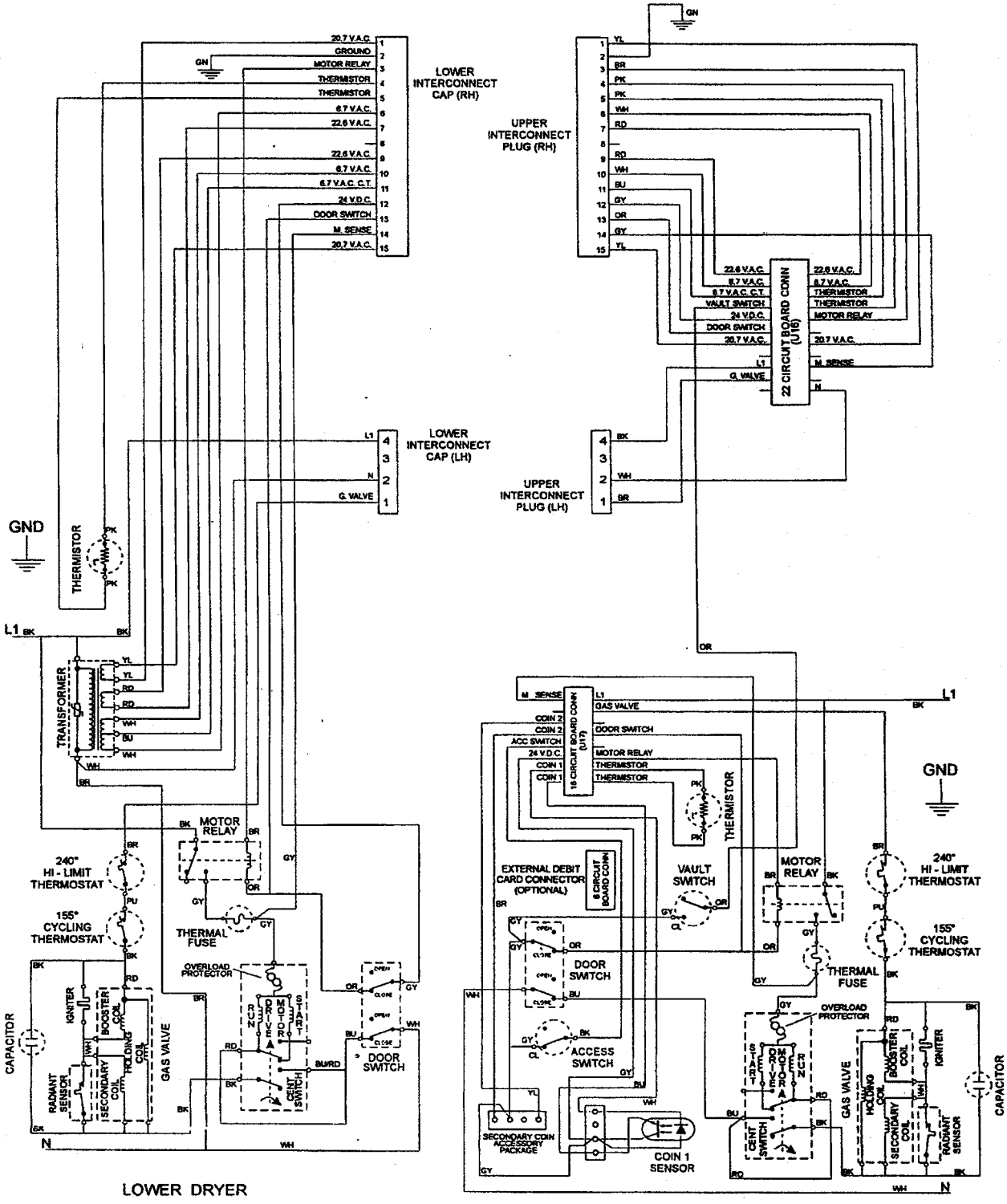
TIMER INFORMATION			115 MIN
CAM NO.	CIRCUIT	FUNCTION	OFF — 3 MIN COOL PERIOD
①	Y/BK-GY	MOTOR	
②	Y/BK-PU	HEATER	



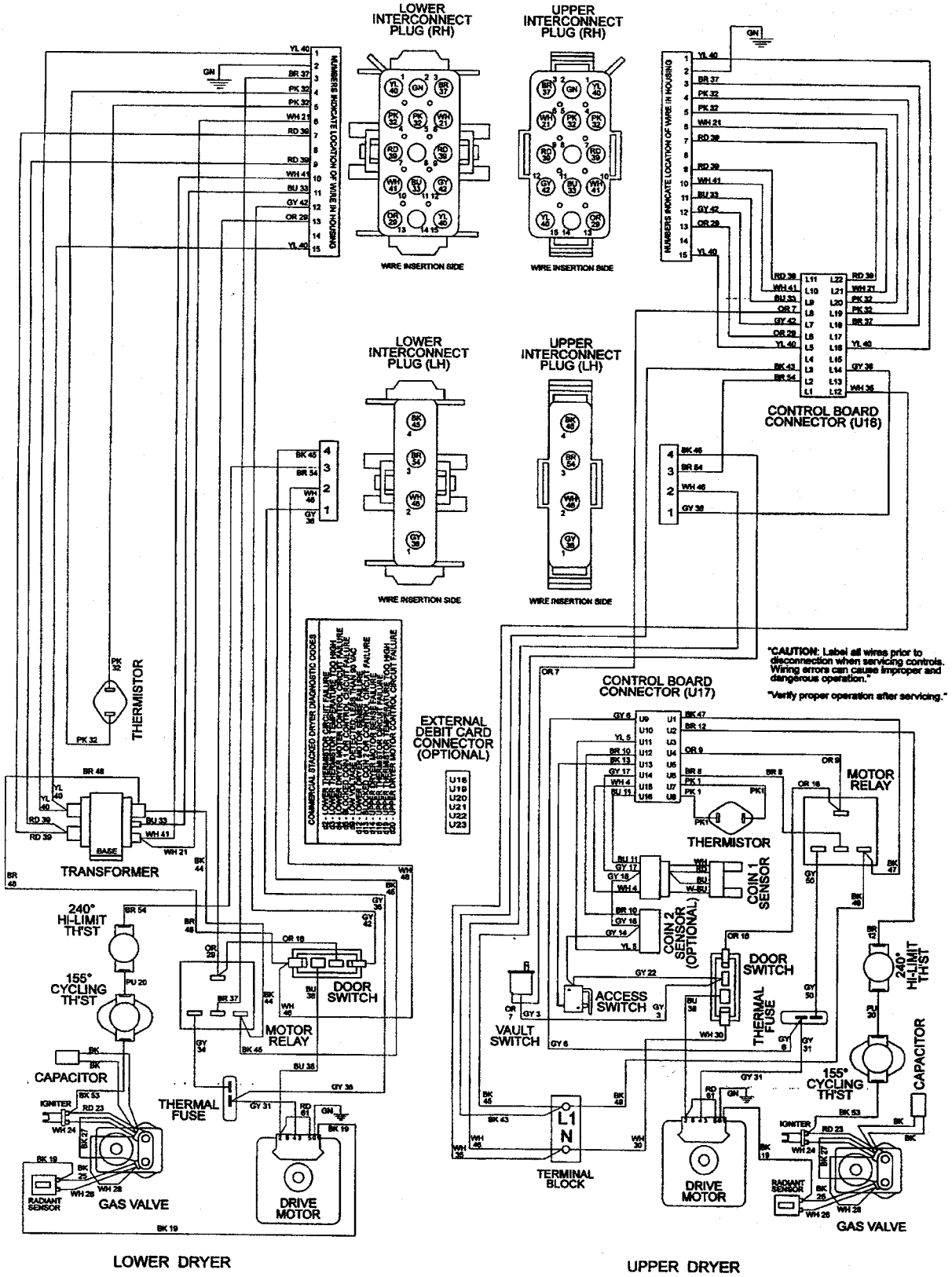
MHG/MUG15PD - WIRING DIAGRAM



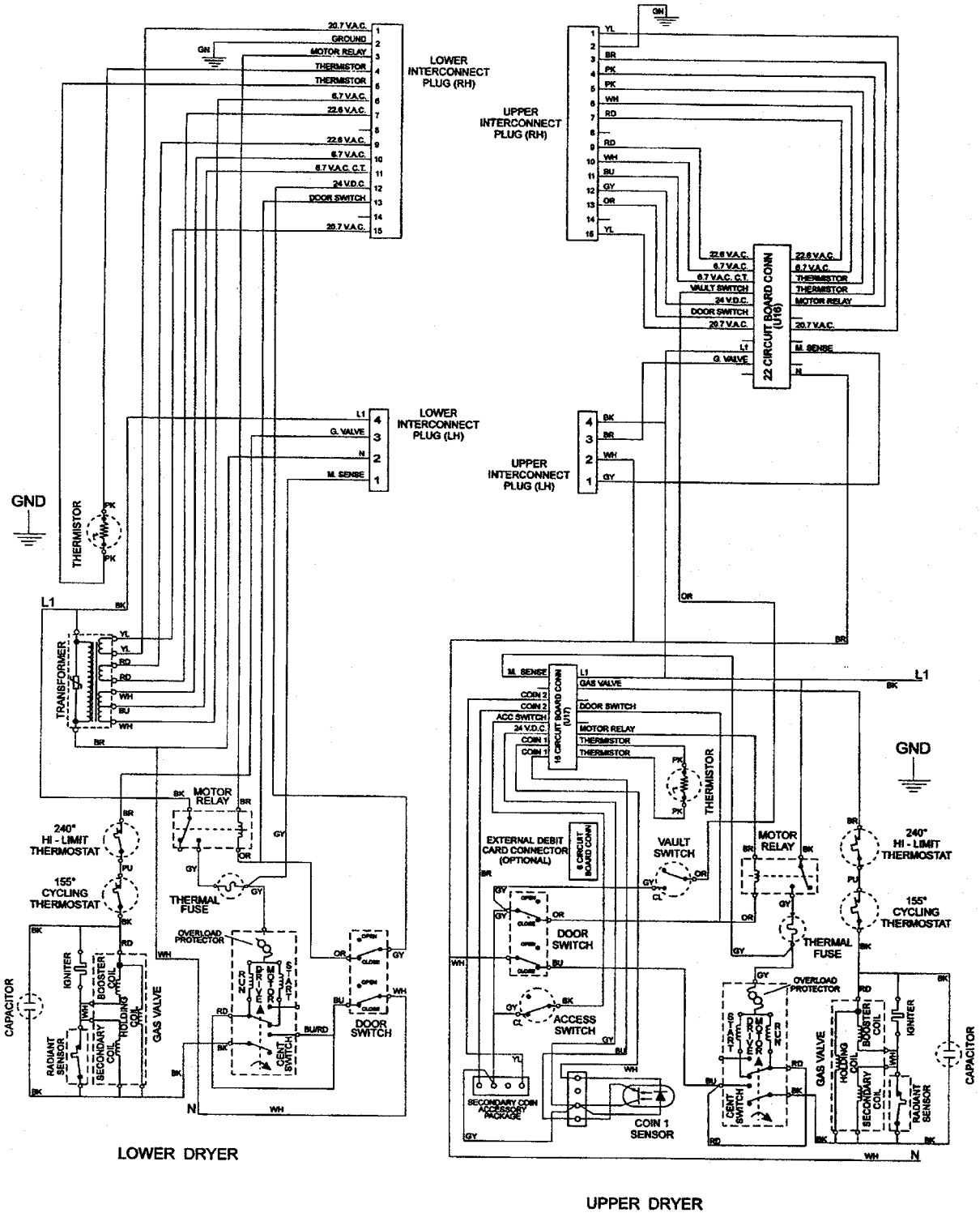
MHG/MUG15PD - ELECTRICAL SCHEMATIC



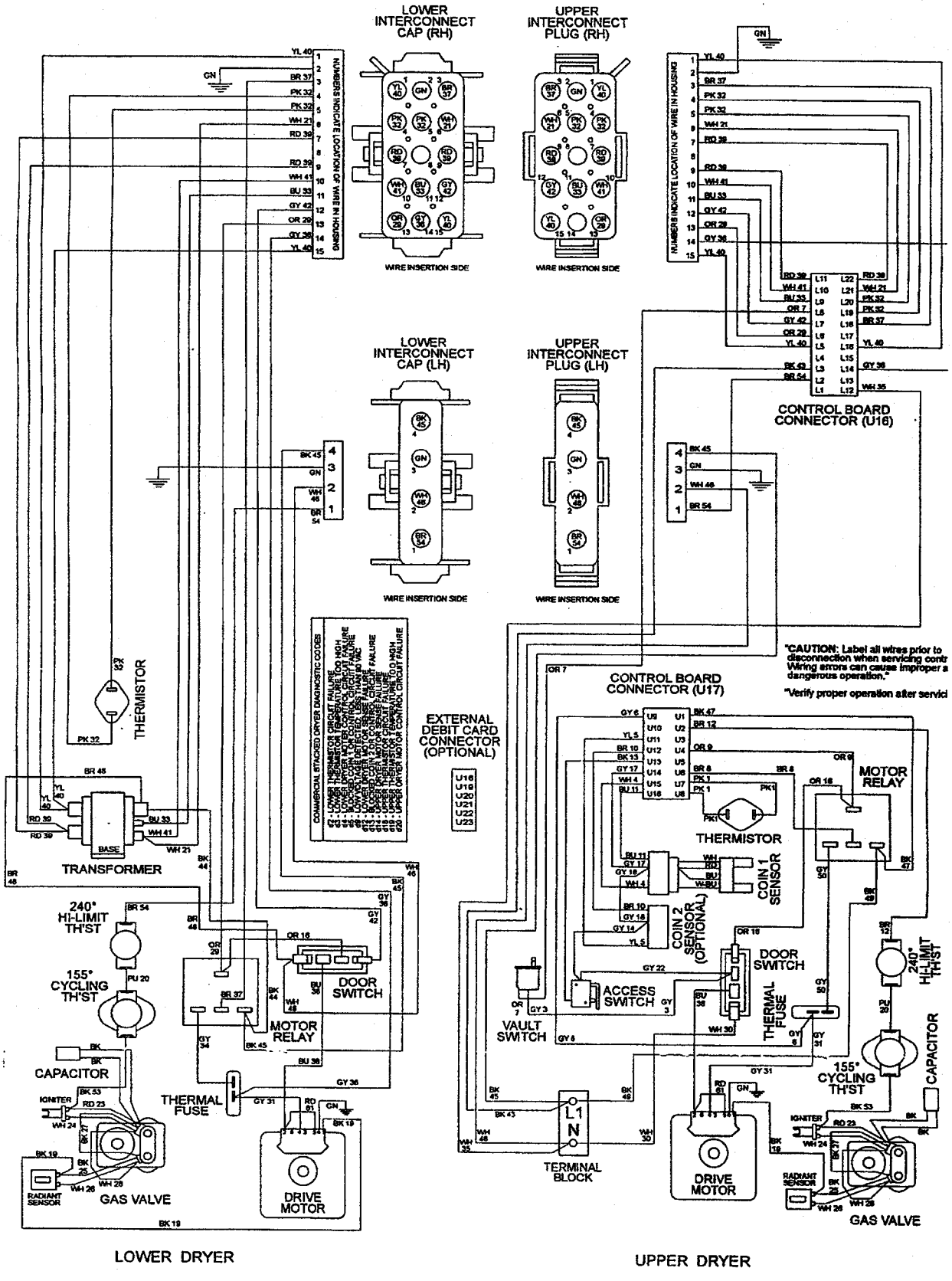
MHG/MUG15PD - U.S. & CANADA - WIRING DIAGRAM



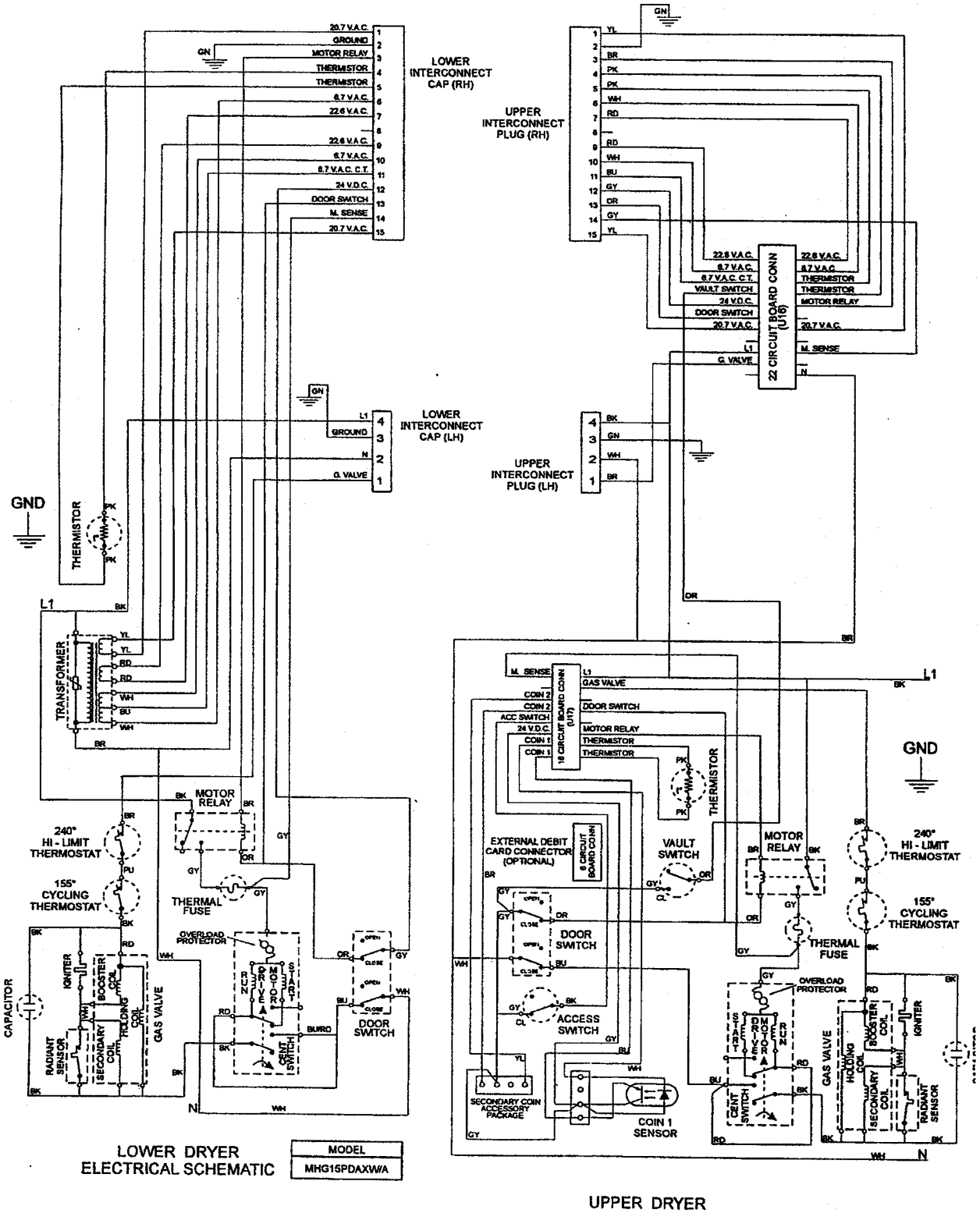
MHG/MUG15PD - U.S. & CANADA - ELECTRICAL SCHEMATIC



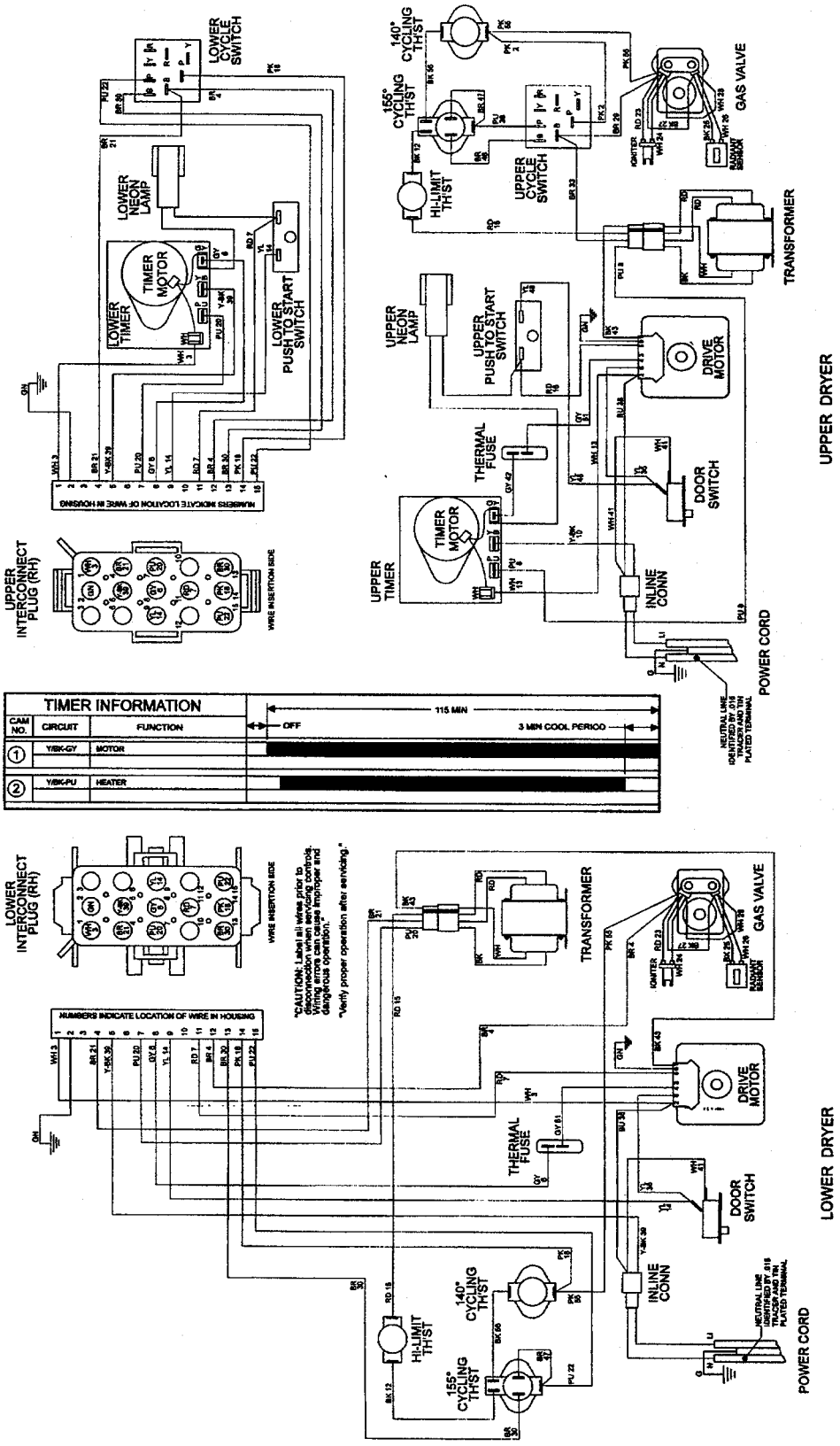
MHG/MUG15PD - U.S. & CANADA - WIRING DIAGRAM (REVISED)



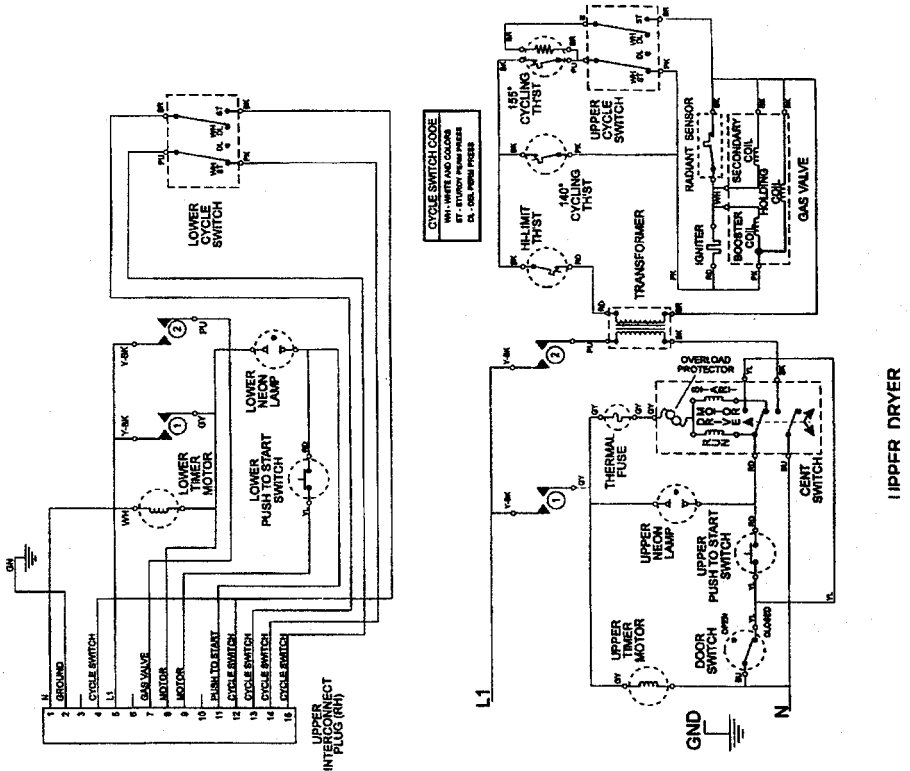
MHG/MUG15PD- U.S. & CANADA - ELECTRICAL SCHEMATIC (REVISED)



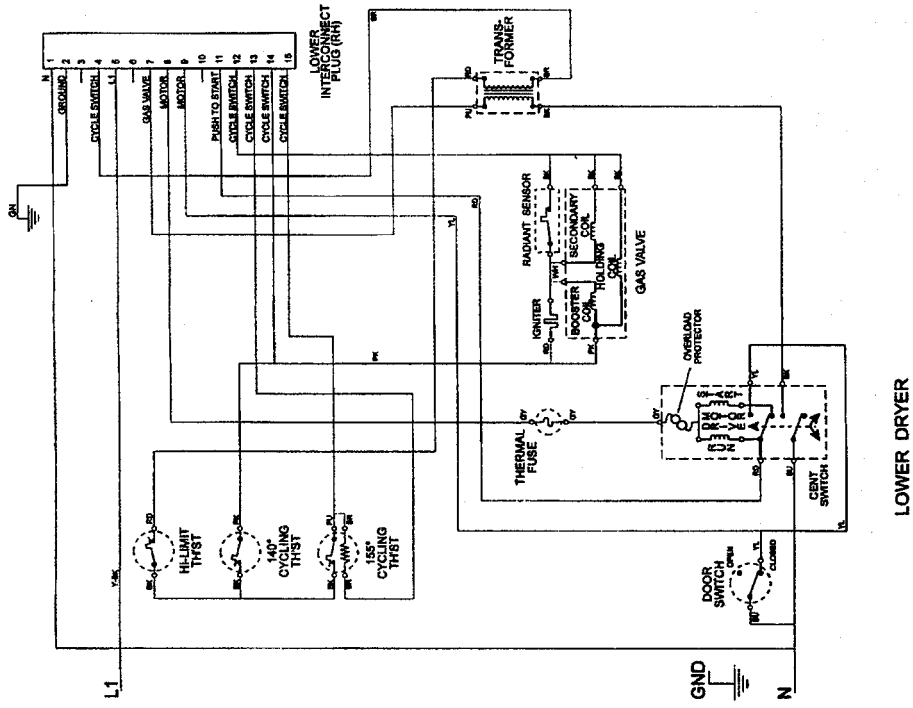
MHG/MUG15MN - EXPORT - WIRING DIAGRAM



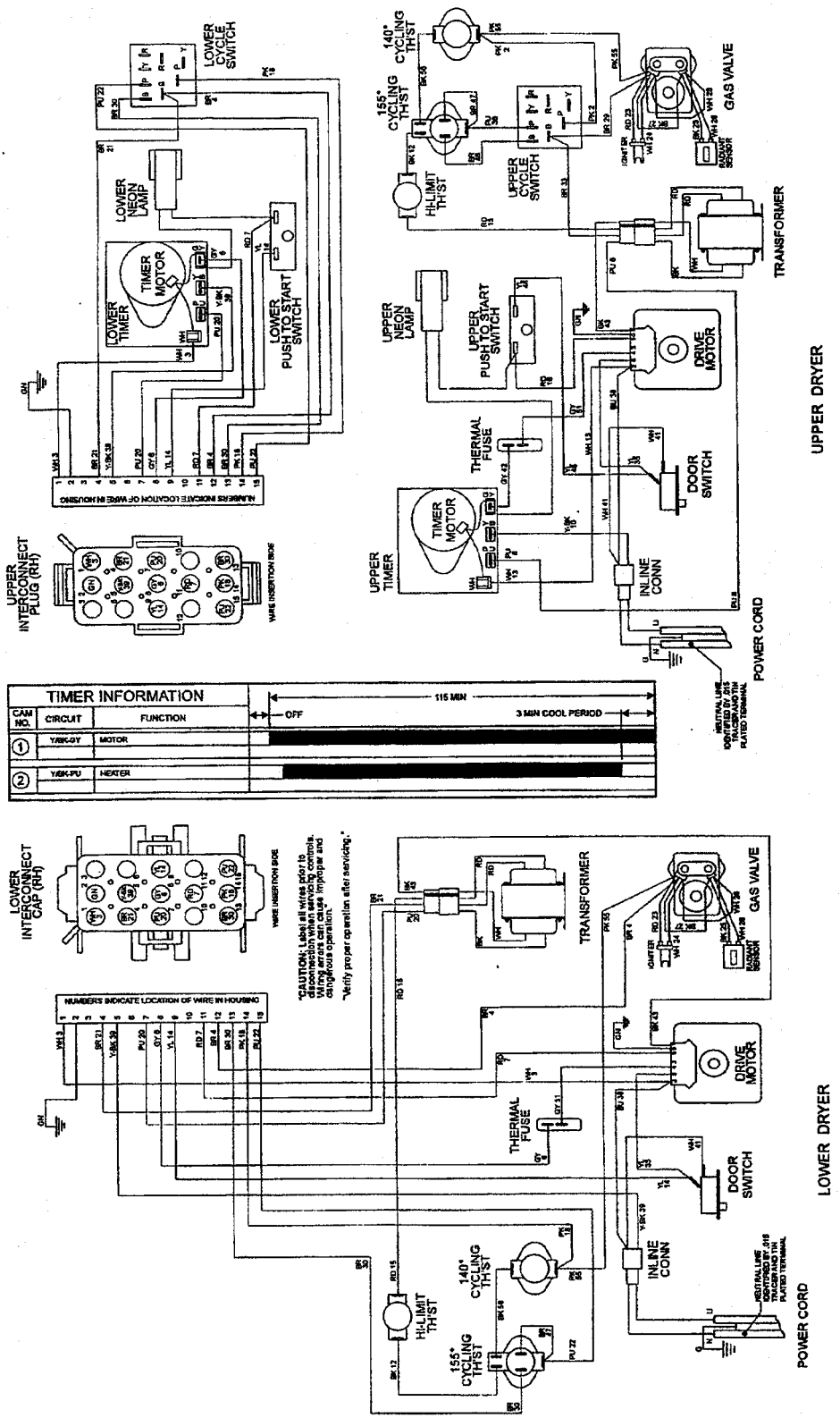
MHG/MUG15MN - EXPORT - ELECTRICAL SCHEMATIC



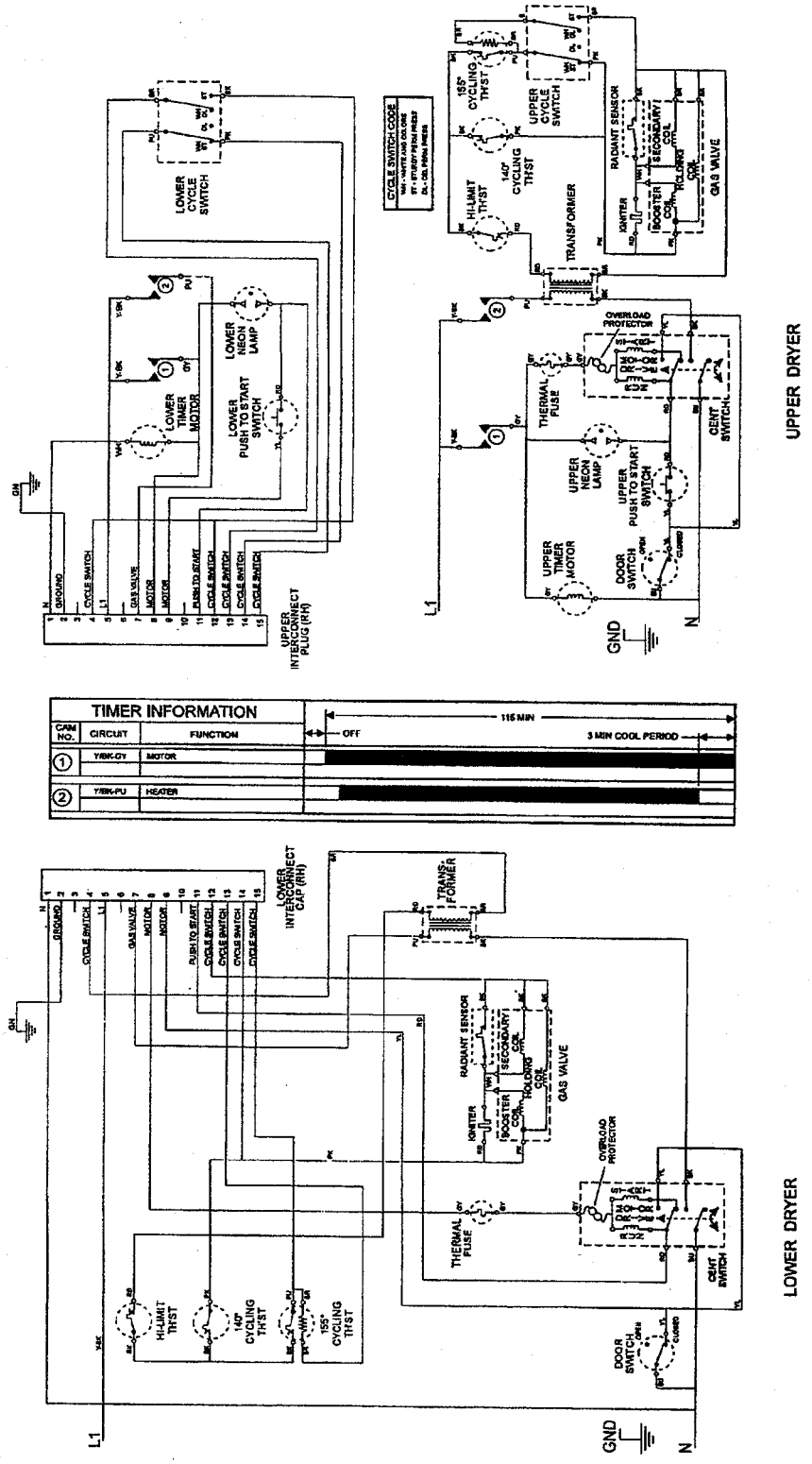
TIMER INFORMATION			115 MIN	
CAM NO.	CIRCUIT	FUNCTION	OFF	3 MIN COOL PERIOD
①	Y/BK-GY	MOTOR		
②	Y/BK-PU	HEATER		



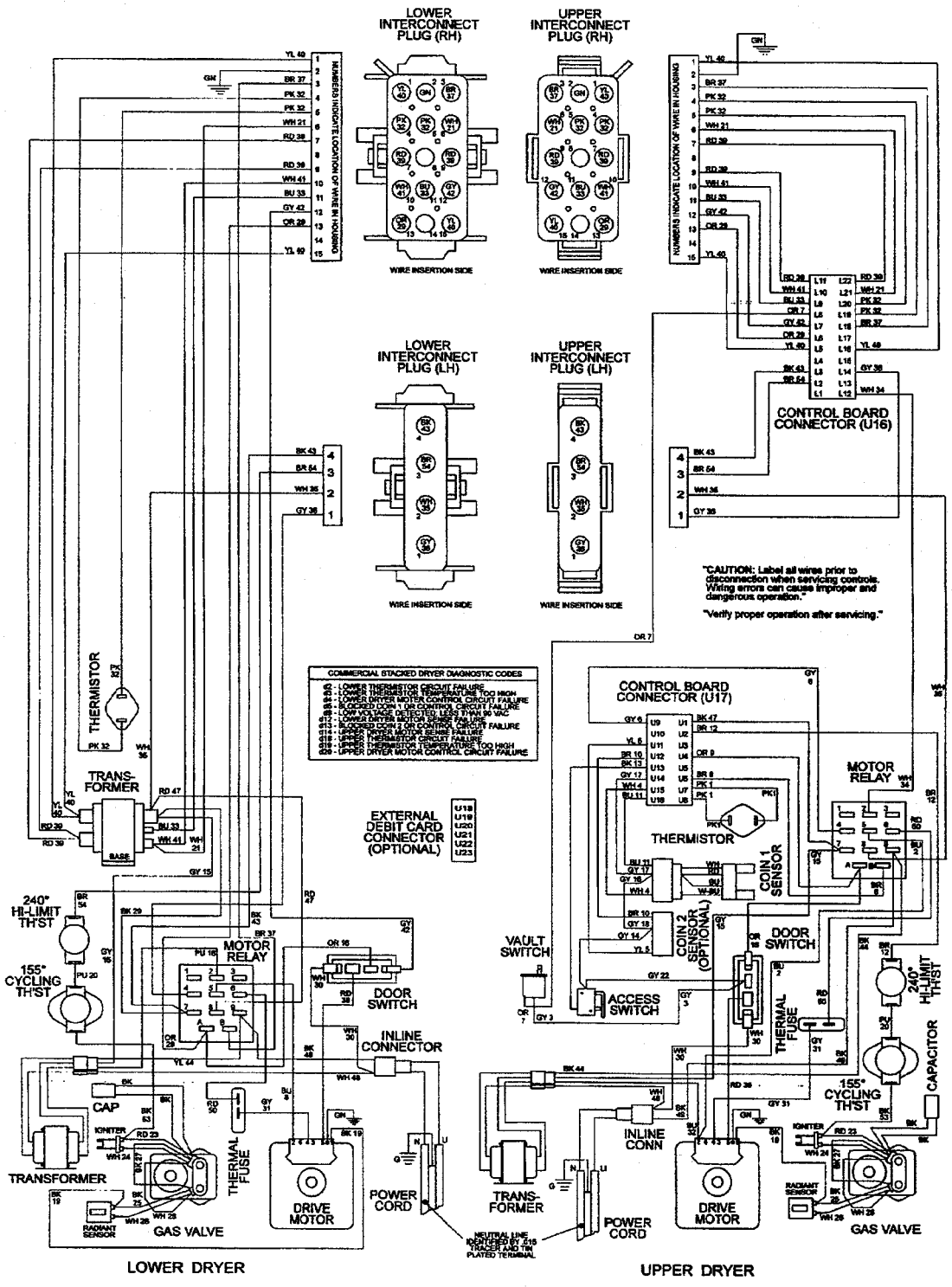
MHG/MUG15MN - EXPORT - WIRING DIAGRAM (REVISED)



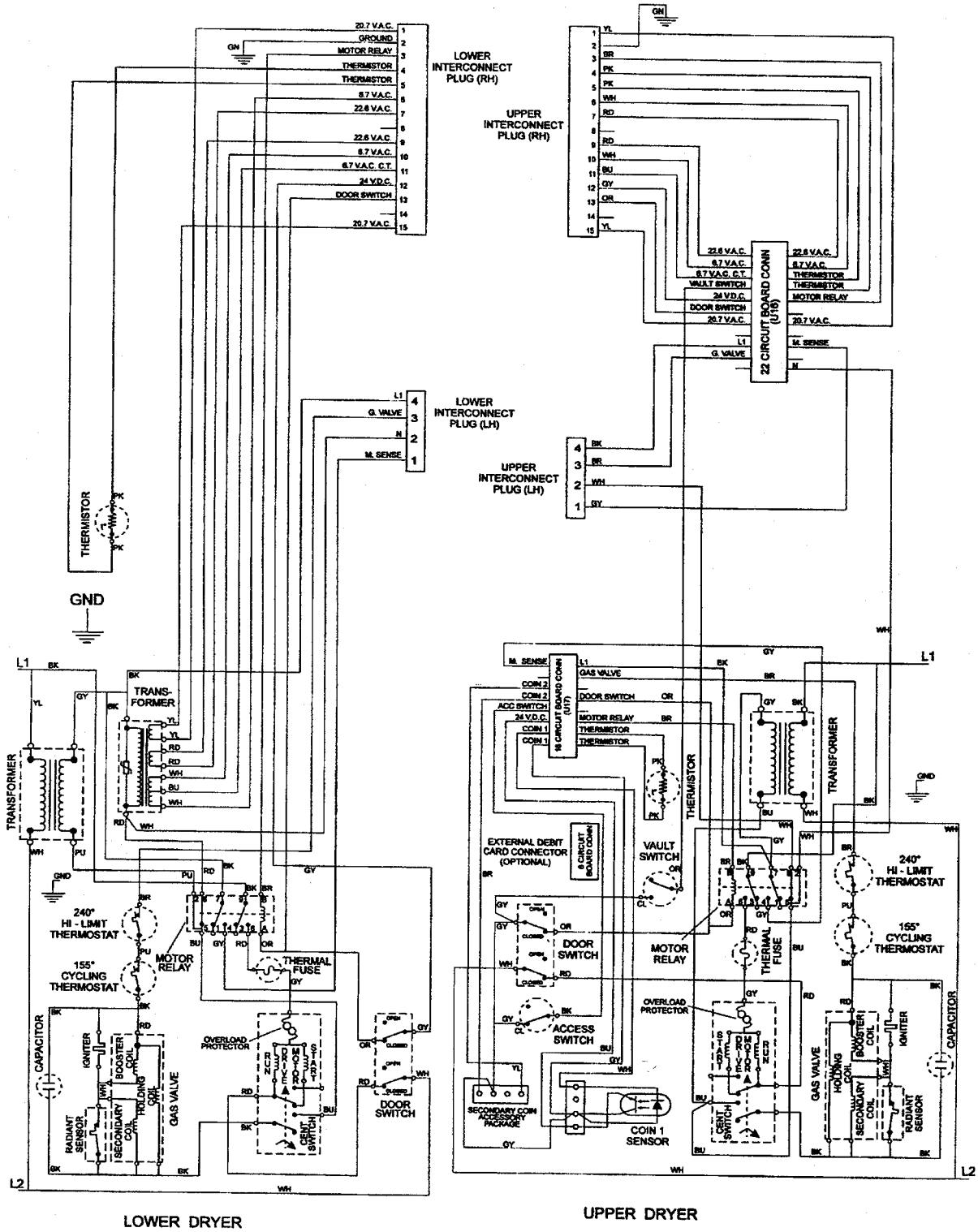
MHG/MUG15MN - EXPORT - ELECTRICAL SCHEMATIC (REVISED)



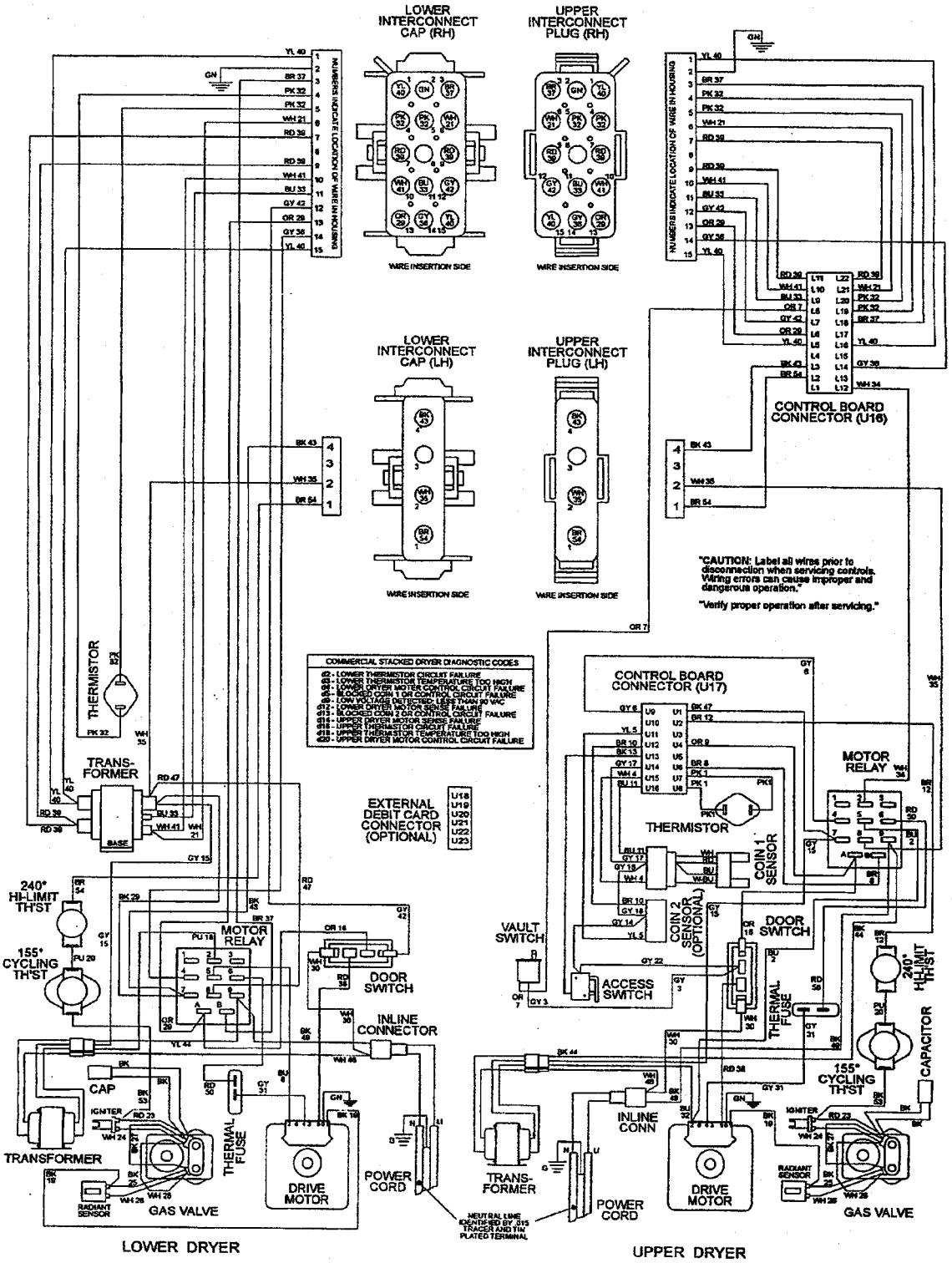
MHG/MUG15PD - EXPORT - WIRING DIAGRAM



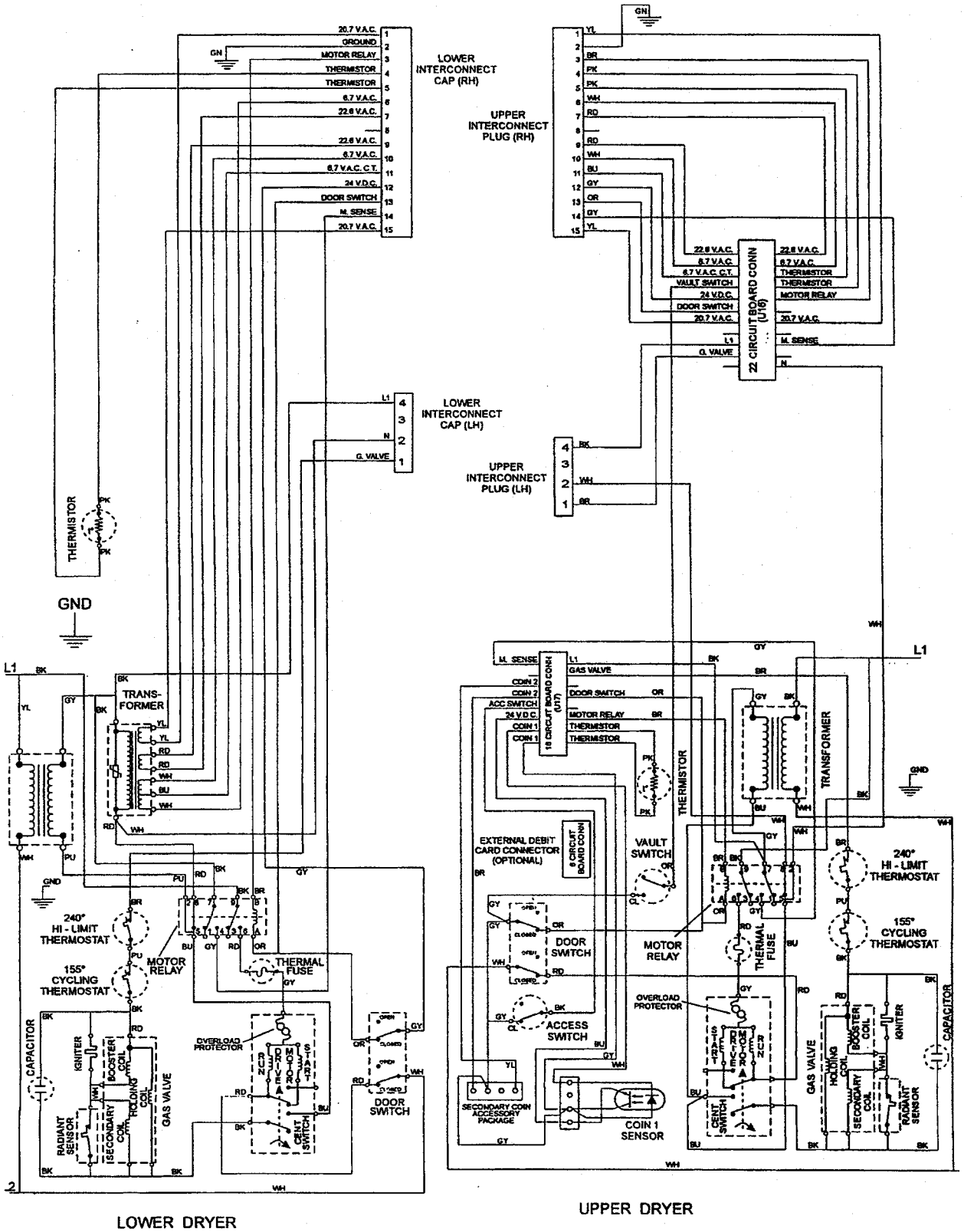
MHG/MUG15PD - EXPORT - ELECTRICAL SCHEMATIC



MHG/MUG15PD - EXPORT - WIRING DIAGRAM (REVISED)



MHG/MUG15PD - EXPORT - ELECTRICAL SCHEMATIC (REVISED)



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