



ELECTROLUX HOME PRODUCTS NORTH AMERICA

# ***SERVICE MANUAL***

## ***27" GAS AND ELECTRIC LAUNDRY CENTERS***

*Frigidaire*

***TAPPAN***

**W** White-Westinghouse

**Gibson**

***Kelvinator*** 

5995381885

February 2003

# SAFE SERVICING PRACTICES - ALL APPLIANCES

To avoid personal injury and/or property damage, it is important that **Safe Servicing Practices** be observed. The following are some limited examples of safe practices:

1. **DO NOT** attempt a product repair if you have any doubts as to your ability to complete it in a safe and satisfactory manner.
2. Before servicing or moving an appliance:
  - Remove the power cord from the electrical outlet, trip the circuit breaker to the OFF position, or remove the fuse.
  - Turn off the gas supply.
  - Turn off the water supply.
3. Never interfere with the proper operation of any safety device.
4. **USE ONLY REPLACEMENT PARTS CATALOGED FOR THIS APPLIANCE. SUBSTITUTIONS MAY DEFEAT COMPLIANCE WITH SAFETY STANDARDS SET FOR HOME APPLIANCES.**
5. **GROUNDING:** The standard color coding for safety ground wires is **GREEN**, or **GREEN** with **YELLOW STRIPES**. Ground leads are not to be used as current carrying conductors. It is **EXTREMELY** important that the service technician reestablish all safety grounds prior to completion of service. Failure to do so will create a hazard.
6. Prior to returning the product to service, ensure that:
  - All electrical connections are correct and secure
  - All electrical leads are properly dressed and secured away from sharp edges, high-temperature components, and moving parts
  - All non-insulated electrical terminals, connectors, heaters, etc. are adequately spaced away from all metal parts and panels
  - All safety grounds (both internal and external) are correctly and securely connected
  - All panels are properly and securely reassembled

## ATTENTION!!!

This service manual is intended for use by persons having electrical and mechanical training and a level of knowledge of these subjects generally considered acceptable in the appliance repair trade. Electrolux Home Products cannot be responsible, nor assume any liability, for injury or damage of any kind arising from the use of this manual.

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# QUICK REFERENCE SHEET

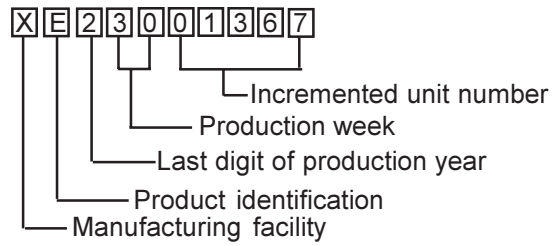
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1. Serial nameplate location:

Dryer door edge



2. Serial number breakdown.



3. Tech sheet location

Back of access panel



**Specifications**

<b>LAUNDRY CENTER WASHER SECTION</b>	<b>ELECTRIC</b>	<b>GAS</b>
<b>Transmission</b>		
Agitate Speed Oscillations Per Minute (High)	71 - 77	71 - 77
Agitate Speed Oscillations Per Minute (Low)	47 - 51	47 - 51
Spin Speed R.P.M. (High Speed)	600 - 640	600 - 640
Spin Speed R.P.M. (Low Speed)	390 - 420	390 - 420
Oil Capacity (Ounces)	32	32
<b>Motor</b>		
Motor HP @ 120V, 60Hz. (Min OP - 100V Internal Thermal	1/2 & 3/4	1/2 & 3/4
Overload Protection, Capacitor Start (189 - 210 Mfd., 135 Volt)		
One Speed (RPM)	1725	1725
Two Speed (RPM)	1150/1725	1150/1725
<b>Agitate</b>		
Agitate Wattage - Full Load (High Speed) Max.	750	950
Agitate Wattage - Full Load (Low Speed) Max.	450	475
<b>Spin</b>		
Full Spin Wattage - No Load (High Speed)	300 - 660	300 - 660
Full Spin Wattage - No Load (Low Speed)	250 - 575	250 - 575
Spin Wattage - No Load (High Speed) Max. After 10 Sec.	800	800
Spin Wattage - No Load (High Speed) Max. After 10 Sec.	700	700
Full Spin Wattage - Full Load (High Speed)	300 - 660	300 - 660
Full Spin Wattage - Full Load (Low Speed)	250 - 575	250 - 575
Spin Wattage - Full Load (High Speed) Max. After 10 Sec.	900	900
Spin Wattage - Full Load (High Speed) Max. After 10 Sec.	700	700
<b>Tub Capacity / Water Usage</b>		
Capacity (Cu. Ft.)	3.0	2.7
<b>Water Level (Inches) Measured from tub bottom</b>		
Large	13.5 - 15.2	10.8 - 13.0
Small	5.5 - 7.8	4.3 - 6.6
<b>Water Supply</b>		
Pressure (P.S.I.) Minimum/Maximum	30/120	30/120
Water Flow Rate (G.P.M.)	3 - 14.6	3 - 14.6
<b>Drain Pumpout</b>		
G.P.M. @ 36" (Min.)	12	12
G.P.M. @ 96" (Min.)	7	7
<b>Agitator Clearance</b>		
Agitator Bottom to Tub	.050 - .300	.050 - .300
<b>Component resistance - Ohms +/- 10% @ 77°F</b>		
<b>Motor</b>		
4 Pole Main Winding (High Speed)	2.4	2.4
6 Pole Main Winding (Low Speed) If 2 Speed Motor	1.5	1.5
<b>Fill Valve</b>		
Hot Water Solenoid	880	880
Cold Water Solenoid	880	880
<b>Timer Motor</b>	2322	2322
<b>Pump Motor - Ohms +/- 7% @ 68°F</b>	12	12

**QUICK REFERENCE SHEET  
DRYER SECTION**

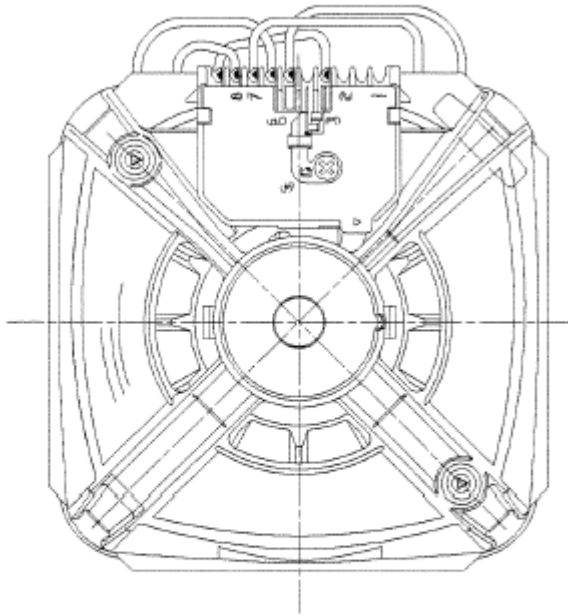
<b>SPECIFICATION</b>	<b>ELECTRIC MODELS</b>	<b>GAS MODELS</b>
<b>Electrical</b>		
Volts 120/208 or 120/240	120/208 or 120/240	120
Amps (circuit)	30	15
Motor wattage	160-350 Watts	160-350 Watts
Heat input (Watts @ 240VAC)	3200/4500	---
Heat input (BTU/Hr.)	---	20,000
Auto. Elec. Ignition	---	Yes
<b>Drum</b>		
Size (Cu. Ft.)	5.7	5.7
Finish	Power Paint Epoxy	Power Paint Epoxy
R.P.M.	48 - 54	48 - 54
<b>Airflow CFM</b>	180	180
<b>DRUM TEMPERATURES (Max. opening on 1st cycle)</b>		
High	155° - 225°	150° - 220°
Medium	150° - 210°	140° - 215°
Low	145° - 205°	135° - 195°
<b>Dimension (Inches)</b>		
Height	75 1/2"	75 1/2"
Width	27"	27"
Depth	30 13/16"	30 13/16"
<b>Vent Capability</b>	4-Way	4-Way

<b>Component Resistances*</b>	<b>Electric Models</b>	<b>Gas Models</b>
<b>Drive motor (120 volt, 60 Hz, 1/4 h.p. 1725 rpm)</b>		
Motor Start Winding	4.5 Ohms	4.5 Ohms
Motor Run Winding	3.8 Ohms	3.8 Ohms
<b>Timer Motor</b>	2280-2300 Ohms	2280-2300 Ohms
<b>Timer Dropping Resistor (located in the harness)</b>	4,400 Ohms	
<b>Heating Element</b>	12.8 Ohms	
<b>Bias Heater on Thermostat</b>	28,000 Ohms	7,000 Ohms
<b>Burner Assembly</b>		
Ignitor	---	50 - 400 Ohms
Secondary Coil	---	1200 Ohms
Booster Coil	---	1320 Ohms

\* +/- 10% @ 77° F

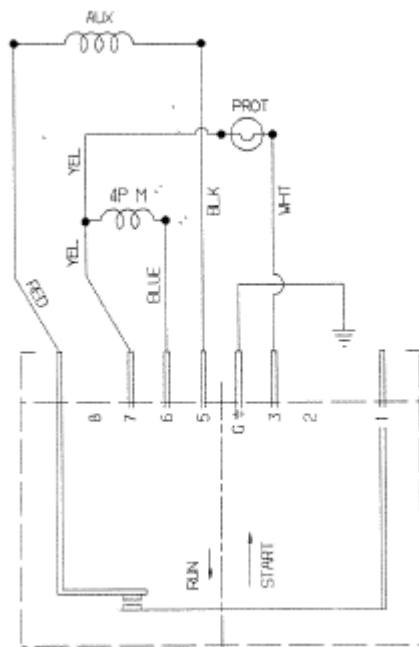
# Connecting Drive Motor for Bench Check

## One Speed



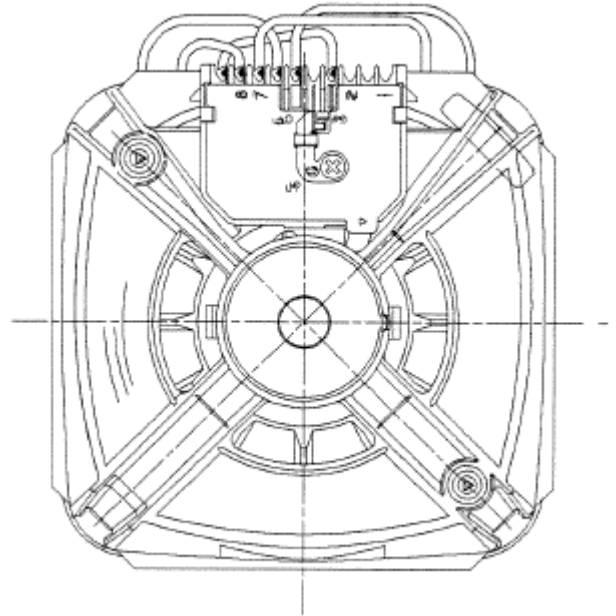
ROTATION GIVEN VIEWING LEAD END

ROTATION	L1	L2	7
CCW	3	6, 5	1
CW	3	6, 1	5



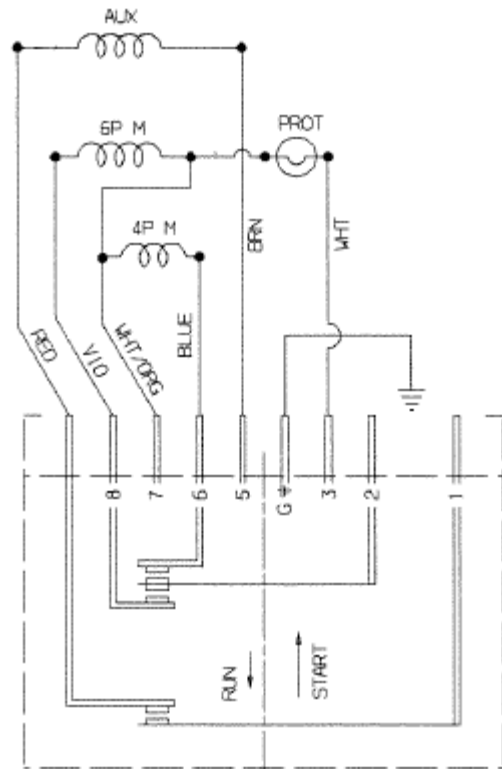
MOTOR SWITCH

## Two Speed

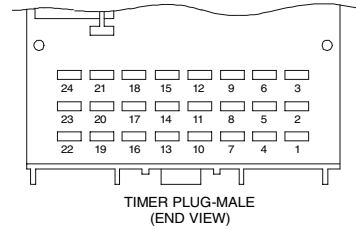
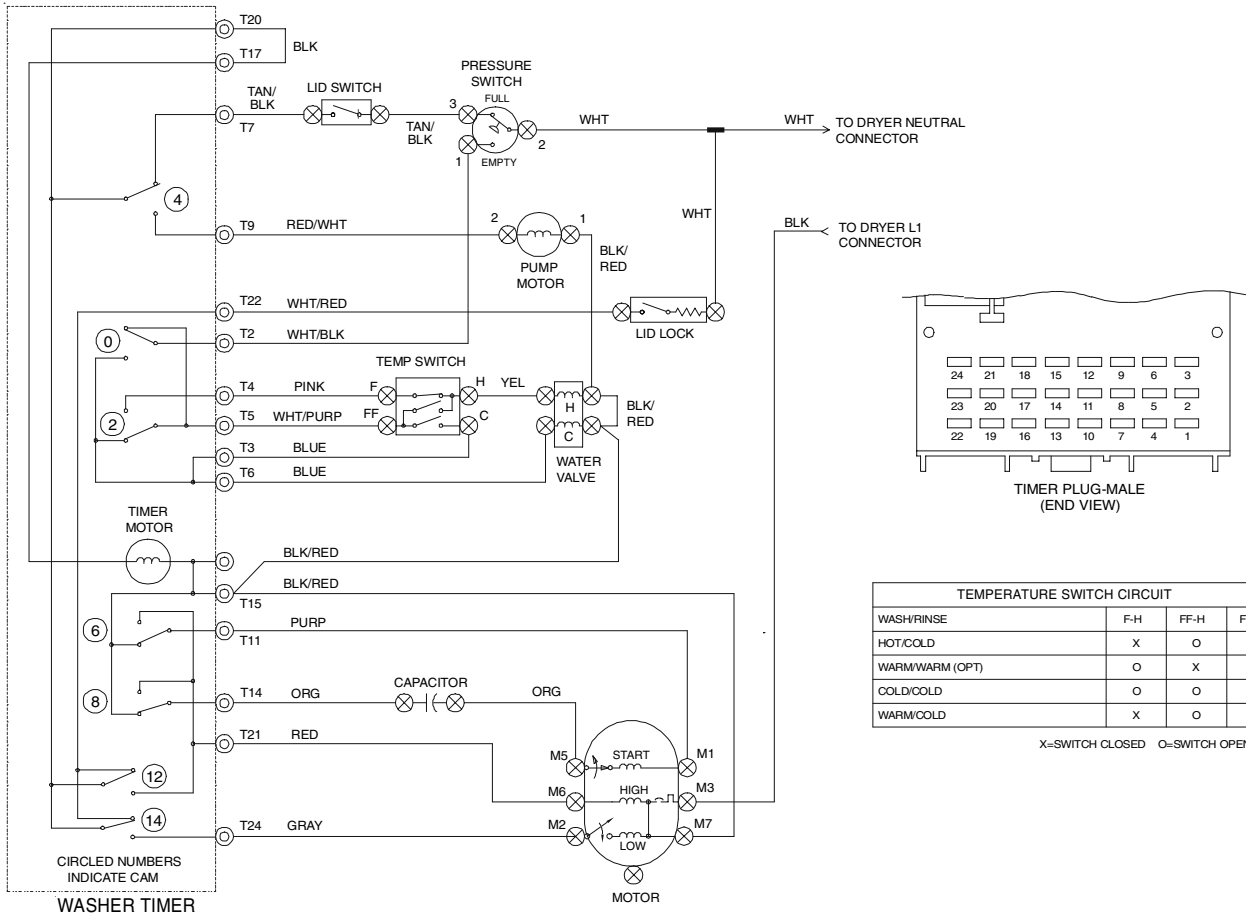


ROTATION GIVEN VIEWING LEAD END

ROTATION	SPEED	L1	L2	7
CCW	HI	3	6, 1	5
CCW	LO	3	2, 1	5
CW	HI	3	6, 5	1
CW	LO	3	2, 5	1



# SAMPLE WASHER SECTION WIRING DIAGRAM

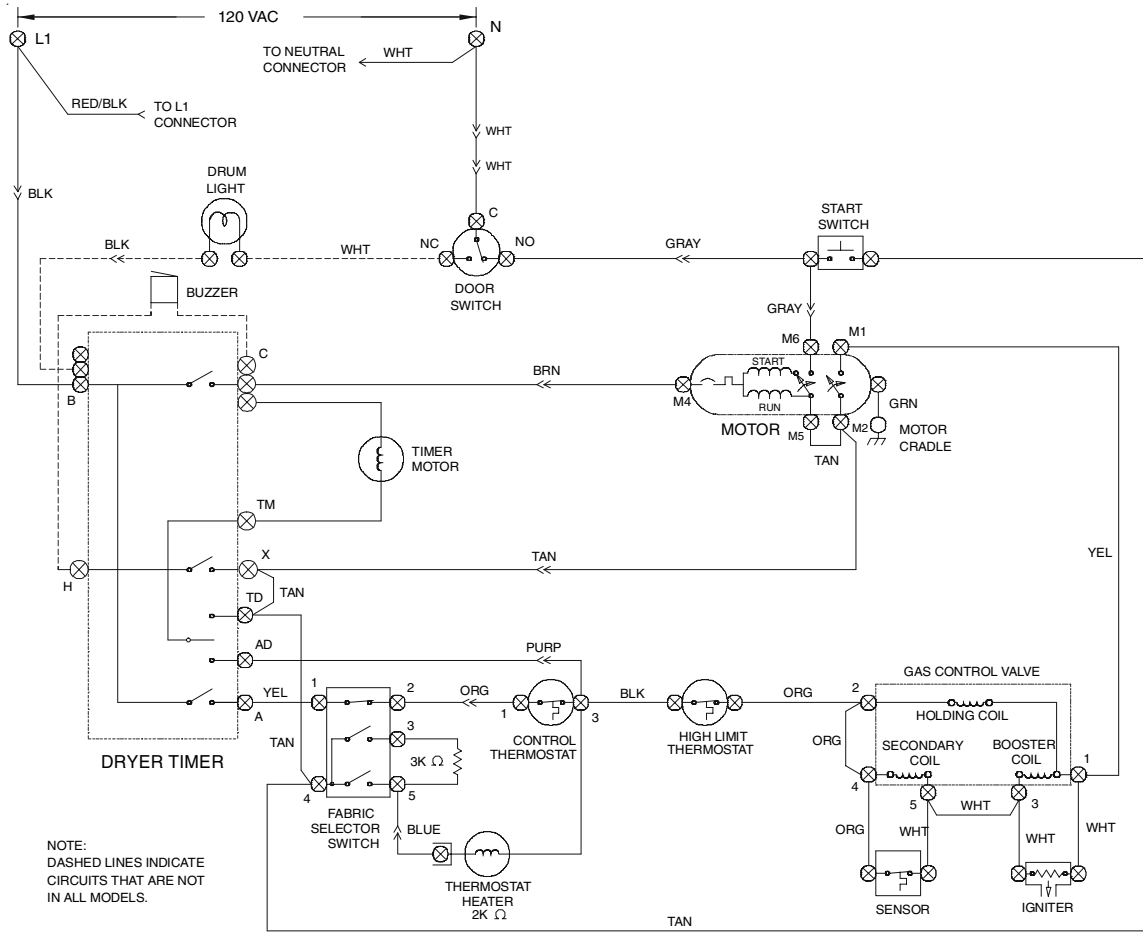


TEMPERATURE SWITCH CIRCUIT			
WASH/RINSE	F-H	FF-H	FF-C
HOT/COLD	X	O	O
WARM/WARM (OPT)	O	X	X
COLD/COLD	O	O	X
WARM/COLD	X	O	X

X=SWITCH CLOSED O=SWITCH OPEN



## SAMPLE GAS DRYER SECTION WIRING DIAGRAM

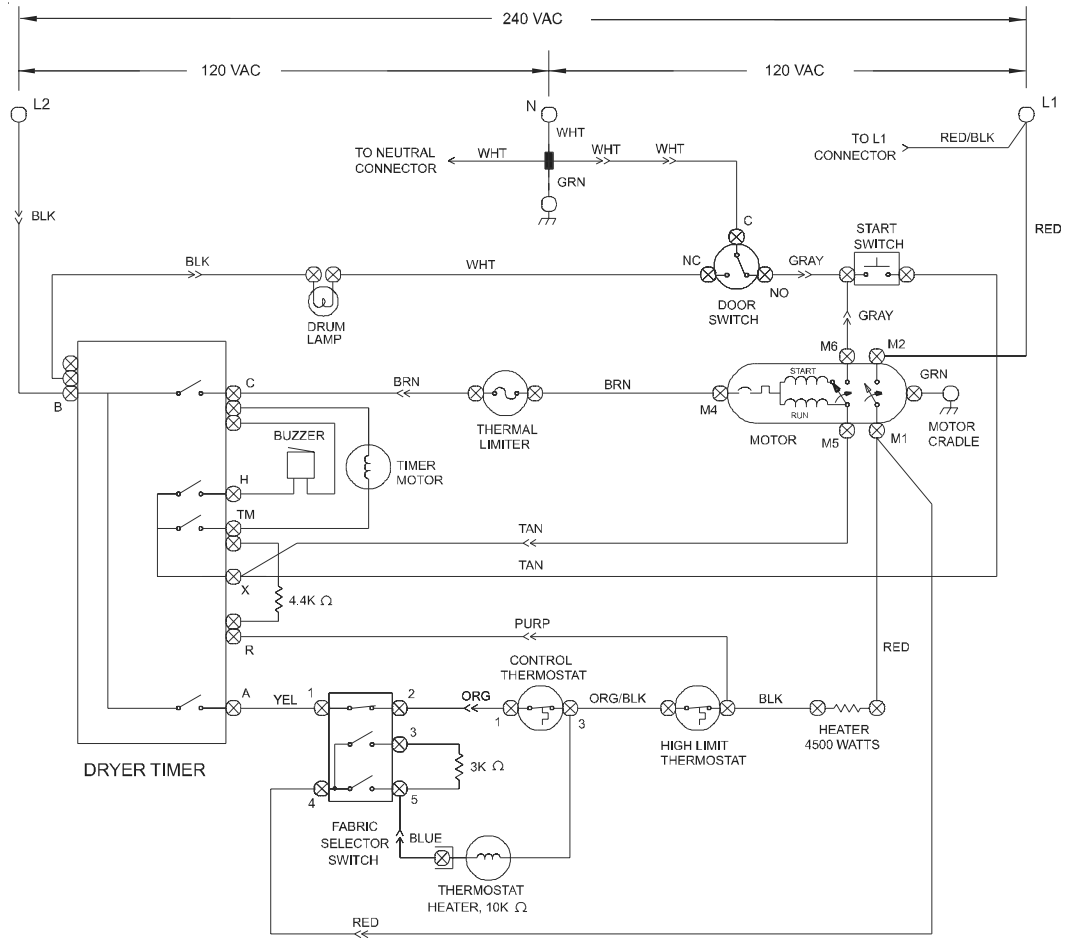


FABRIC SELECTOR SWITCH

POSITION	1-2	3-4	4-5
NO HEAT	O	O	O
LOW HEAT	X	O	X
MEDIUM HEAT	X	X	O
HIGH HEAT	X	O	O

X= CLOSED                      O= OPEN

## SAMPLE ELECTRIC DRYER SECTION WIRING DIAGRAM

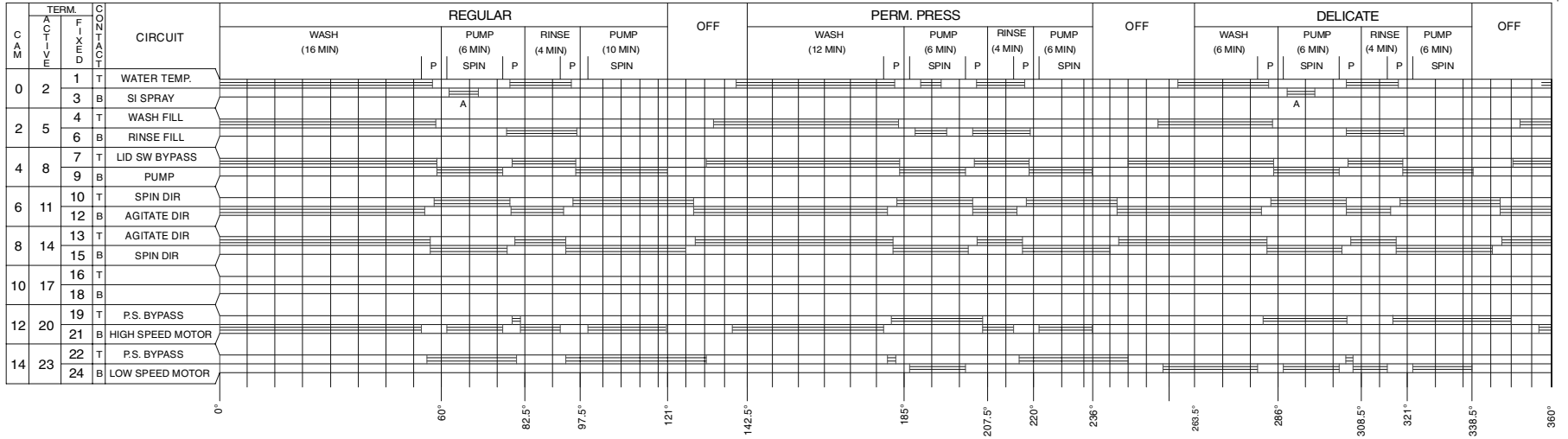


**FABRIC SELECTOR SWITCH**

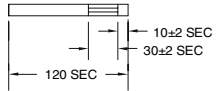
POSITION	1-2	3-4	4-5
NO HEAT	O	O	O
LOW HEAT	X	O	X
MEDIUM HEAT	X	X	O
HIGH HEAT	X	O	O

X=CLOSED      O= OPEN

## SAMPLE WASHER TIMER CYCLE CHART

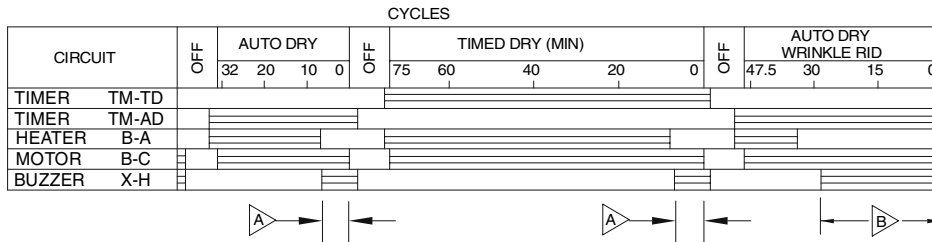


### SUBINTERVAL SPRAY DETAIL



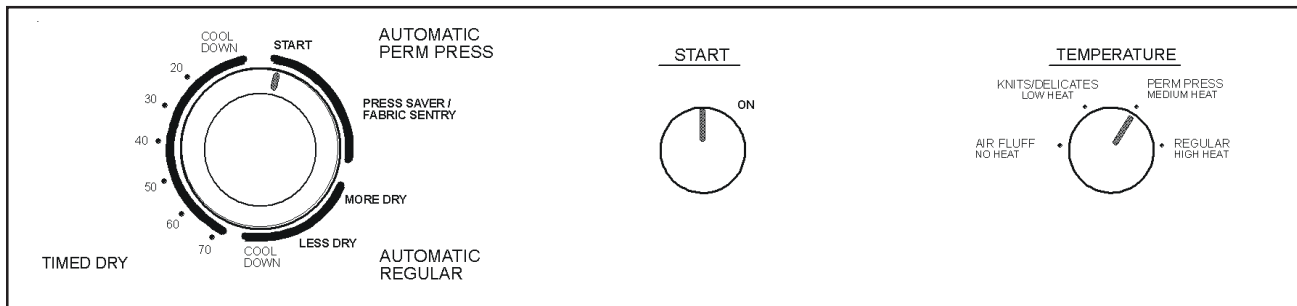
SPRAY TO OCCUR DURING THE INDICATED INTERVAL

## SAMPLE DRYER TIMER CYCLE CHART



## SECTION A - OPERATING INSTRUCTIONS

### Dryer Section



#### Before Operating Your Dryer

**Read your Owner's Guide.** It has important safety and warranty information. It also has many suggestions for best drying results.

**⚠ WARNING** To reduce the risk of fire, electric shock, or injury to persons, read the IMPORTANT SAFETY INSTRUCTIONS in your owner's guide before operating this appliance.

#### Operating Steps

**Read Drying Procedures in your Owner's Guide.** It explains these operating steps in detail.

1. **Prepare items for drying.**
2. **Check that lint screen is clean and in place.**
3. **Load the dryer.** If desired, add a dryer fabric softener sheet.
4. **Close the dryer door.**
5. **Set Temperature controls.**
6. **Turn cycle selector clockwise to desired setting.**
7. **Start dryer.** Turn Start control clockwise to ON. Hold for 1-2 seconds and release.
8. **A signal will sound when the cycle ends.**
9. **Remove items immediately and hang or fold.**
10. **Clean lint screen after every load.**

#### Temperature Selection

**Always follow directions on fabric care labels.**

**⚠ WARNING** To avoid fire hazard, do not use heat to dry items containing feathers or down, foam rubber,

plastics, or similarly textured, rubber-like materials. Use Air Fluff-No Heat setting only.

The **REGULAR-HIGH HEAT, PERM PRESS-MEDIUM HEAT**, and **KNITS/DELICATES-LOW HEAT** temperature settings may be used with any cycle setting. The **AIR FLUFF-NO HEAT** setting can be used only in the Timed Dry cycle.

**AIR FLUFF-NO HEAT** setting tumbles the load without heat. Use Air Fluff to freshen clothing, pillows or blankets, or to dust draperies.

#### Cycle Selection

Turn cycle selector clockwise to desired cycle and setting.

Each cycle ends with a cool down period. The heat automatically turns off and the load continues to tumble for 5-10 minutes. This reduces wrinkling and makes items easier to handle during unloading.

Drying time varies depending on size and dampness of load, weight and fabric type. Room temperature and humidity, type of installation and electrical voltage or gas pressure can also affect drying time.

#### Automatic Perm Press/Delicates Cycle

This cycle is best for permanent press, knit and delicate items. Drying time is determined automatically at the temperature selection of your choice.

- Medium heat is suggested for permanent press items.
- Low heat is suggested for knit and delicate items.

If the dried load cannot be removed promptly, the cycle selector will advance to the **Press Saver/Fabric Sentry** setting. Unheated tumbling continues during Press Saver/Fabric Sentry for approximately 30 minutes to help reduce wrinkling.

The cycle signal will sound briefly every 5 minutes as a reminder to remove the load.

### **Automatic Regular Cycle**

This cycle is best for cotton items that can be tumble dried.

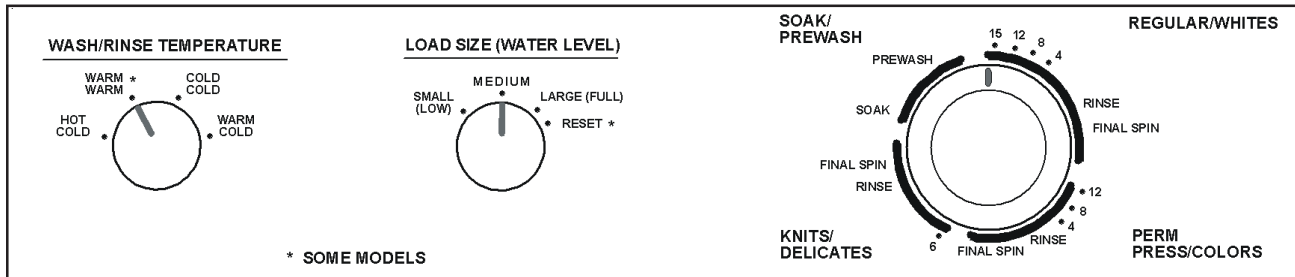
Drying time is determined automatically at the temperature selection of your choice. This cycle is best for items of similar fabric, weight and construction.

- For items requiring more drying time, set cycle selector on **MORE DRY**.
- For items requiring less drying time, set cycle selector on **LESS DRY**.

### **Timed Dry Cycle**

This cycle provides up to 70 minutes of drying time at the temperature selection of your choice.

## Washer Section



### Before Operating Your Laundry Center

**Read your laundry center Owner's Guide.** It has important safety and warranty information. It also has many suggestions for obtaining the best washing results.

**⚠ WARNING** To reduce the risk of fire, electric shock, or injury to persons, read the IMPORTANT SAFETY INSTRUCTIONS in your laundry center Owner's Guide before operating this appliance.

### Operating Steps

- Sort laundry into loads that can be washed together.
- Prepare items for washing.
- Pretreat stains and heavy soil.
- Add the measured amount of detergent to the washer before adding the laundry load.
- If desired, add liquid bleach to the Bleach Dispenser.
- Add the laundry load to the wash tub.
- If desired, add liquid fabric softener to the Fabric Softener Dispenser on some models or during the final rinse.
- Set washer controls according to type, size, and soil level of the load:
  - Wash/Rinse Temperature
  - Load Size/Water Level
- Push in the cycle selector knob and turn it clockwise to the desired wash cycle. See Cycle Selection for cycle descriptions and Control Settings Chart for suggested cycle settings.
- Start the washer by closing the lid and pulling out the cycle selector knob. The washer will operate with the lid open; however, the tub will not spin unless the lid is closed. To stop the washer, push in the cycle selector knob. To change a cycle,

push in the cycle selector knob and turn it clockwise to the desired setting. Pull out the knob to restart the washer.

- Remove items when the cycle is completed.** As a safety measure, the lid will AUTOMATICALLY LOCK during the spin portion of each cycle. The lid will automatically unlock approximately 1 minute after the end of the spin cycle.

### Cycle Selection

For best results, follow the fabric care label directions on items to be washed. Check the **Control Settings Chart** (reverse side) if the care label is not available.

The Regular, Perm Press and Knits / Delicates cycles provide a spray rinse during the first spin, followed by a deep rinse and a final spin.

### Regular/Whites Cycle

Up to 15 minutes of normal agitation followed by a fast spin for most fabrics.

### Perm Press/Colors Cycle

Up to 12 minutes of normal agitation followed by a fast spin for cottons and blends with a no-iron finish.

### Knits/Delicates Cycle

Six minutes of gentle agitation followed by a slow spin for knit and delicate items.

### Soak/Prewash Cycle

- **Soak** - The Soak setting can be used to treat heavily soiled or stained items. It provides 2 minutes of agitation and 12 minutes of soaking time, then advances to the Prewash portion of the cycle. Use the amount of detergent recommended for a normal wash cycle. For colorfast items, bleach or a soaking agent may also be used. Follow manufacturer's directions on the product label.

- **Prewash** - When soaking is not necessary, the Prewash setting can be used alone to help remove protein-based stains such as milk, grass and blood and to help loosen soils before washing. During Prewash, the washer will agitate the load for 2 minutes, then drain, spin and shut off. Use the amount of detergent and other laundry products recommended for a normal wash cycle.

**Note:**

- The Soak water temperature is the same as the rinse water temperature selected; the Prewash water temperature is the same as the wash water temperature selected. To avoid setting protein stains, select cold water.
- These cycle settings should always be followed by a complete wash cycle using the recommended amount of detergent.

**Controls**

Select the desired control settings according to load size, fabric type and degree of soiling. See **Control Settings Chart** below for detailed information on choosing control settings.

**WASH/RINSE TEMPERATURE** determines water temperatures for washing and rinsing.

**LOAD SIZE/WATER LEVEL** determines the amount of wash and rinse water used for the wash load. To increase the water level after the wash cycle begins, turn the Load Size control to "Reset" and hold. When water begins to enter the tub, turn the control to the desired setting.

<b>Control Settings Chart</b>				
Locate fabric type and read across guide for suggested wash and rinse temperatures, wash cycle and cycle setting. <b>This is only a general guide. For best results, follow label directions on specific items to be washed.</b>				
<b>Fabric Type</b>	<b>Temperature (Wash / Rinse)</b>		<b>Wash Cycle</b>	<b>Cycle Setting</b>
<b>REGULAR/WHITES</b> Heavily Soiled Colorfast & White Cotton & Linen	Hot	Cold	Regular	15
Lightly Soiled Colorfast & White Cotton & Linen	Warm	Cold	Regular	8 to 12
Noncolorfast Bright Colors All Fabrics	Cold	Cold	Regular	4 to 8
<b>PERM PRESS/COLORS</b> White or Heavily Soiled	Hot or Warm	Cold	Perm Press	8 to 12
Colored or Lightly Soiled	Warm or Cold	Cold	Perm Press	4 to 8
<b>KNITS/DELICATES</b> Knitted Fabrics Delicates	Cold Cold	Cold Cold	Knits/Delicates Knits/Delicates	6 6
Washable Woolens	Warm	Warm or Cold	Knits/Delicates	6

## SECTION B OWNER GUIDE

**⚠ WARNING** For your safety, the information in this manual must be followed to minimize the risk of fire or explosion or to prevent property damage, personal injury or loss of life.

- Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

- **WHAT TO DO IF YOU SMELL GAS:**

- Do not try to light any appliance.
- Do not touch any electrical switch; do not use any phone in your building.
- Clear the room, building or area of all occupants.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

Installation and service must be performed by a qualified installer, service agency or the gas supplier.

### Versión en español

Si desea obtener una copia en español de este Manual del Usuario, sírvase escribir a la dirección que se incluye a continuación. Solicite la P/N 131878600.

Spanish Owner's Guides  
Frigidaire Home Products  
P.O. Box 212378  
Augusta, GA 30917

### Product Registration

**Thank you for choosing this dryer.** This owner's guide will explain proper operation and care.

#### Record Your Model and Serial Numbers

Record below the model and serial numbers found on the dryer serial plate located on the left side of the door opening. Keep these numbers for future reference.

Model Number \_\_\_\_\_

Serial Number \_\_\_\_\_

Date of Purchase \_\_\_\_\_

#### Register Your Product

The self-addressed **PRODUCT REGISTRATION CARD** should be filled in completely, signed and returned.

### Important Safety Instructions

**Read all instructions before using this dryer.**

**⚠ WARNING** To reduce the risk of fire, electrical shock, or injury to persons when using this dryer, comply with the basic warnings listed below.

**⚠** Failure to comply with these warnings could result in serious personal injuries.

#### Prevent Fire

**⚠ WARNING** Do not wash or dry items that have been previously cleaned in, soaked in, or spotted with gasoline, cleaning solvents, kerosene, waxes, etc. Do not store these items on or near the dryer. These substances give off vapors that could ignite or explode.

**⚠ WARNING** Do not put oily or greasy rags or clothing on top of the laundry center. These substances give off vapors that could ignite the materials.

**⚠ WARNING** Do not add gasoline, cleaning solvents, or other flammable or explosive substances to the wash water. These substances give off vapors that could ignite or explode.

**⚠ WARNING** Under certain conditions, hydrogen gas may be produced in a hot water system that has not been used for 2 weeks or more. **HYDROGEN GAS IS EXPLOSIVE.** If the hot water system has not been used for such a period, before using the washer, turn on all hot water faucets and let the water flow from each for several minutes. This will release any accumulated



hydrogen gas. Hydrogen gas is flammable; do not smoke or use an open flame during this time.

**⚠ WARNING** To prevent fire, do not use heat to dry items containing plastic, foam rubber or similarly textured rubber-like materials, or items containing feathers or down. Use Air Fluff (No Heat) only.

**⚠ WARNING** Clean the lint screen before or after each load. The interior of the dryer, lint screen housing and exhaust duct should be cleaned approximately every 18 months by qualified service personnel. An excessive amount of lint build-up in these areas could result in inefficient drying and possible fire.

**⚠ WARNING** Do not operate the dryer if the lint screen is blocked, damaged or missing. Fire hazard, overheating and damage to fabrics can occur. If your dryer has a drying rack, always replace the lint screen when finished using the drying rack.

**⚠ WARNING** Keep area around the exhaust opening and surrounding areas free from the accumulation of lint, dust and dirt.

**⚠ WARNING** Do not operate the dryer if the lint screen is blocked, damaged or missing. Fire hazard, overheating and damage to fabrics can occur. If your dryer has a drying rack, always replace the lint screen when finished using the drying rack.

**⚠ WARNING** Keep area around the exhaust opening and surrounding areas free from the accumulation of lint, dust and dirt.

**⚠ WARNING** Do not obstruct the flow of ventilating air. Do not stack or place laundry or throw rugs against the front or back of the laundry center.

**⚠ WARNING** Do not spray any type of aerosol into, on or near laundry center at any time.

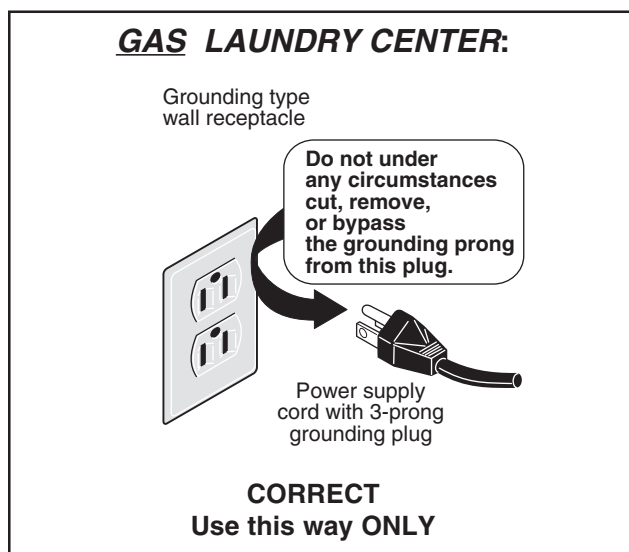
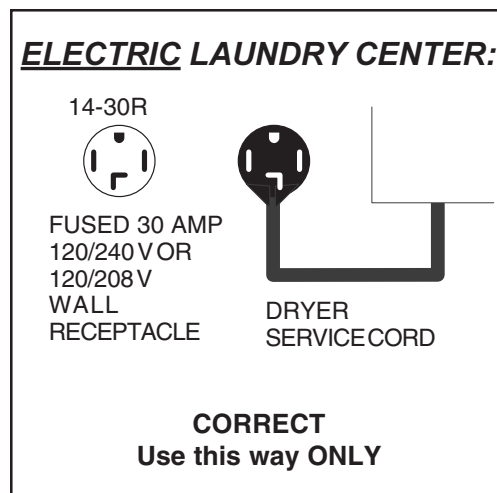
**⚠ WARNING** Do not use fabric softeners or products to eliminate static unless recommended by the manufacturer of the fabric softener or product.

**⚠** Failure to comply with these warnings could result in fire, explosion, serious bodily injury and/or damage to the rubber or plastic parts of the laundry center.

This Owner's Guide provides general operating instructions for your laundry center. It also contains information about features for several other models. Your laundry center may not have every feature included.

Use the laundry center only as instructed in this Owner's Guide.

**⚠ WARNING** Avoid fire hazard or electrical shock. Do not use an adaptor plug or extension cord or remove grounding prong from electrical power cord. Failure to follow this warning can cause serious injury, fire or death.



**Note:** The instructions appearing in this Owner's Guide are not meant to cover every possible condition and situation that may occur. Common sense and caution must be practiced when installing, operating and maintaining any appliance.

### Protect Children

**⚠ WARNING** Do not allow children to play on or in the laundry center. Close supervision of children is necessary when the laundry center is used near children. As children grow, teach them the proper, safe use of all appliances.

**⚠ WARNING** Destroy the carton, plastic bag and other packing materials after the laundry center is unpacked. Children might use them for play. Cartons covered with rugs, bedspreads or plastic sheets can become airtight chambers.

**⚠ WARNING** Keep laundry products out of children's reach. To prevent personal injury, observe all warnings on product labels.

**⚠ WARNING** Before the laundry center is removed from service or discarded, remove the washer lid and dryer door to prevent accidental entrapment.

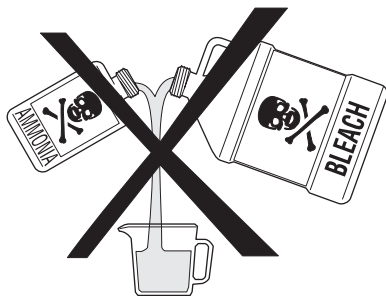
**⚠** Failure to comply with these warnings could result in serious personal injuries.

### Prevent Injury

**⚠ WARNING** To prevent shock hazard and assure stability during operation, the laundry center must be installed and electrically grounded by a qualified service person in accordance with local codes. Installation instructions are packed in the laundry center for the installer's reference. Refer to INSTALLATION INSTRUCTIONS for detailed grounding procedures. If the laundry center is moved to a new location, have it checked and reinstalled by a qualified service person.

**⚠ WARNING** To prevent personal injury or damage to the laundry center, the electrical power cord of a gas laundry center must be plugged into a properly grounded system. **Never ground the laundry center to a gas pipe. Do not use an extension cord or an adaptor plug.**

**⚠ WARNING** Do not use or mix liquid chlorine bleach with other household chemicals such as toilet cleaners, rust removers, acid or products containing ammonia. These mixtures can produce dangerous fumes which can cause serious injury or death.



**⚠ WARNING** Follow package directions when using laundry products. Incorrect usage can produce poisonous gas--resulting in serious injury or death.

- **Do not** combine laundry products for use in 1 load unless specified on the label.

**⚠ WARNING** To prevent serious personal injury and damage to the laundry center:

- **All repairs and servicing must be performed by an authorized servicer** unless specifically recommended in this Owner's Guide. Use only authorized factory parts.
- **Do not** tamper with controls.
- **Do not** install or store the laundry center where it will be exposed to the weather.

**⚠ WARNING** **ALWAYS disconnect** the laundry center from the electrical supply before attempting any service or cleaning. Failure to do so can result in electrical shock or injury.

**⚠ WARNING** Do not use any type spray cleanser when cleaning dryer interior. Hazardous fumes or electrical shock could occur.

**⚠ WARNING** To prevent injury, do not reach into the washer while parts are moving. Before loading, unloading or adding items, push in the cycle selector knob and allow the tub to coast to a complete stop before reaching inside.

**⚠ WARNING** To prevent injury, do not reach into the dryer if the drum is moving. Wait until the dryer has stopped completely before reaching into the drum.

**⚠** A thermal limiter switch automatically turns off the dryer motor in the unlikely event of an overheated situation (electric dryers only). A service technician must replace the thermal limiter switch after correcting the fault.

**⚠** The washer is equipped with an electrical overload protector. The motor will stop if it becomes overheated. The washer will automatically restart after a cool down period of up to 30 minutes, if the washer has not been manually turned off during this time.

**⚠** Failure to comply with these warnings could result in serious personal injuries.

## WASHING PROCEDURES

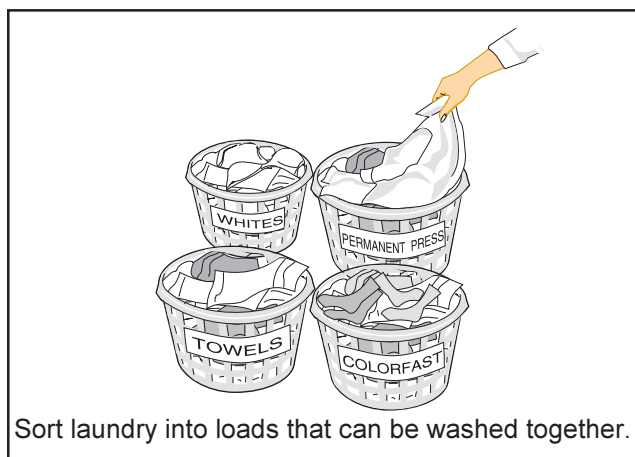
- Follow the guidelines below for preparing the wash load.
- Read the **Washer Operating Instructions** for operating your specific model.
- **Always read and follow fabric care and laundry product labels.**

**⚠ WARNING** To reduce the risk of fire, electrical shock, or injury to persons, read **Important Safety Instructions**, before operating this washer.

### 1. Sort laundry into loads that can be washed together.

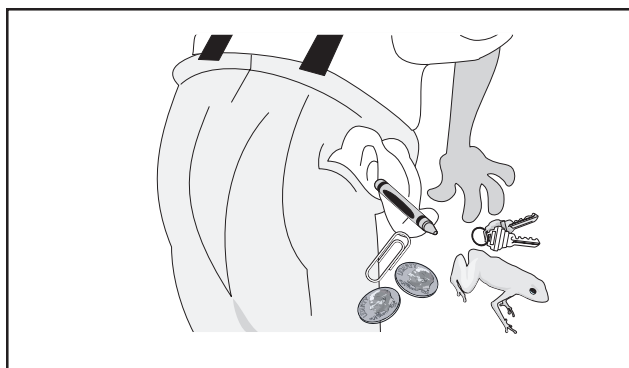
Sort items by recommended water temperatures, wash time, and agitate/spin speeds.

- Separate white, light, and colorfast items from dark and noncolorfast items.
- Separate items which shed lint from items which attract lint. Permanent press, synthetic, knit and corduroy items will pick up lint from towels, rugs and chenille bedsreads.
- Separate heavily soiled items from lightly soiled items.
- Separate lacy, sheer and loosely knit items from sturdy items.

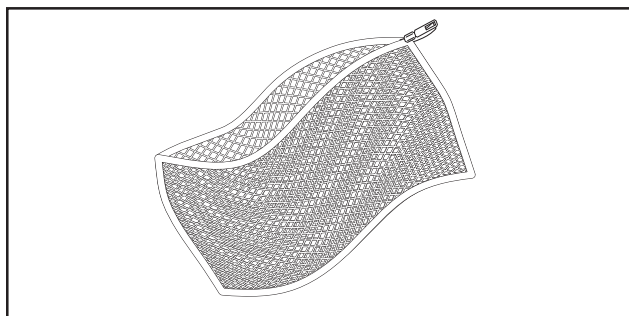


### 2. Prepare items for washing.

- Empty pockets.



- Brush off lint and dirt. Shake out rugs and beach towels.
- Close zippers, fasten hooks, tie strings and sashes, and remove nonwashable trims and ornaments.
- Remove pins, decorative buttons, belt buckles, and other objects which could be damaged. This also helps protect other items in the wash load.
- Mend rips and tears to prevent further damage during washing.
- Place delicate items such as bras, shoulder pads, hosiery, and belts in a mesh bag to prevent tangling during the wash cycle.



- Turn knit items inside out to prevent pilling.

### 3. Pretreat stains and heavy soil.

See **Stain Removal** for details.

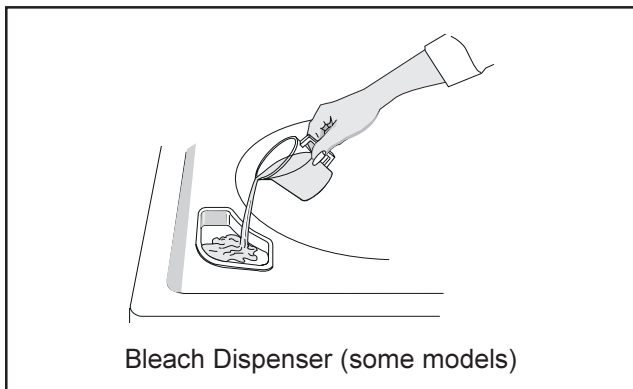
### 4. Add a measured amount of detergent to the wash tub before adding the laundry load.

Follow detergent manufacturer's directions. The amount required depends on type of detergent, load size and soil level, and water hardness.

**5. If desired, add liquid bleach to Bleach Dispenser (some models).**

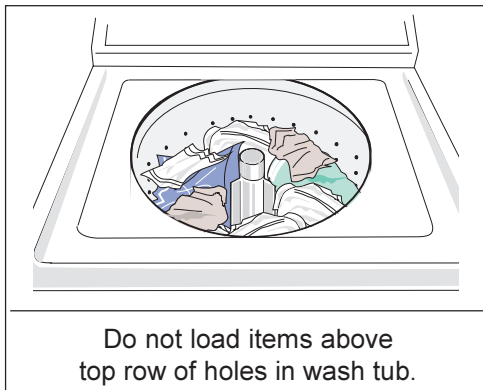
- Before adding the wash load, add liquid bleach to bleach dispenser located in left front corner under the lid:
  - 3/4 cup (180 ml) for small loads
  - 1 cup (240 ml) for large loads
  - 1-1/4 cups (300 ml) for extra-large loads.
- Then add 1 cup (240 ml) water to flush the dispenser.
- Do not use powdered bleach in the bleach dispenser.

**For models without a bleach dispenser,** dilute the recommended amount of liquid chlorine bleach in 1 quart (.95 L) water. Add it to wash water after a few minutes of agitation. **Do not pour bleach directly on wash load.**



**6. Add laundry load to washer.**

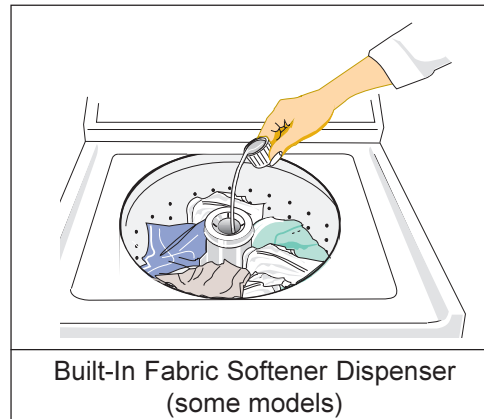
- Dry load level should not be higher than top row of holes in wash tub.  
**Do not overload washer.**



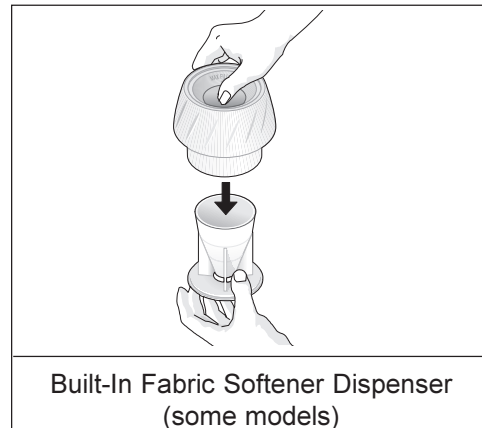
- Do not put items on top of agitator or wrap them around it. Load items evenly.
- Combine large and small items in a load. Load large items first. Large items should not be more than half the total wash load.
- When washing a single heavy item, add 1 or 2 towels to balance the load.

**7. If desired, add liquid fabric softener to Fabric Softener Dispenser (some models).**

**For models with a built-in dispenser:**



1. Add liquid softener to the dispenser, following fabric softener label directions.
2. Add water to bring liquid level to fill line on dispenser cap.
3. Remove the dispenser from the agitator after each use. Rinse both cap and cup with warm water. Replace dispenser in the agitator.

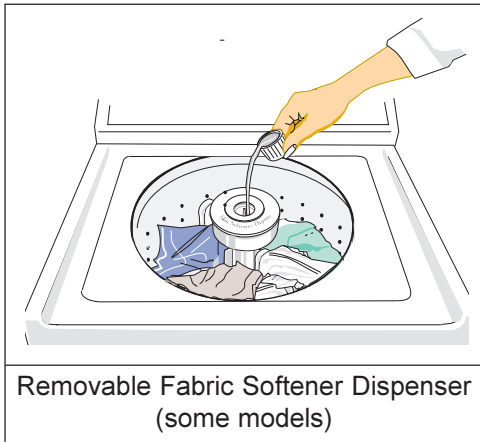


**NOTE:** To separate cap from cup, put thumb into dispenser and push against side of cup (see picture to the left). After cleaning, push cap and cup firmly together. Replace dispenser by lining up the ribs and grooves and snapping it into position.

Fabric softener will be flushed from area under the built-in fabric softener dispenser when Large Load Water Level is selected. If a build-up of fabric softener occurs, clean with hot water. **DO NOT REMOVE SERVICE CAP.**

**For models with a removable dispenser**

1. Attach fabric softener dispenser to top of agitator by pressing down gently.
2. Add softener to the dispenser, following fabric softener label directions.



3. Add water to bring liquid level to top of the peg in the center of the cup.
4. Remove the dispenser from the agitator after each use. Rinse both lid and bowl thoroughly with warm water. Reassemble and place dispenser on agitator or store it nearby.

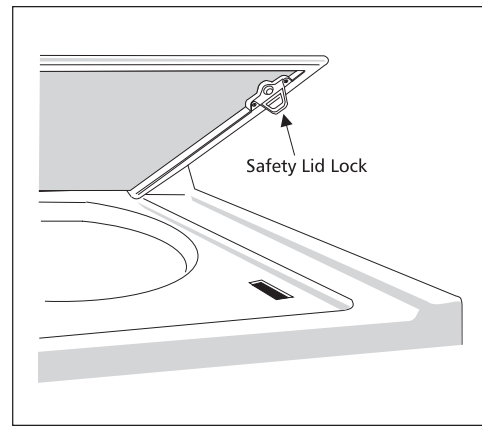
**For models without a fabric softener dispenser,** follow fabric softener label directions. Add diluted fabric softener to the final rinse. **Do not pour fabric softener directly on the wash load.**

8. **Set cycle selector knob and washer controls according to type, size, and soil level of each load, and detergent used.**

See **Operating Instructions** for your specific model controls.

9. **Start the washer.**

Close the washer lid and pull out the cycle selector knob. Washer will fill with the lid open. The tub will not agitate or spin unless the lid is closed.



- To stop the washer, push in the cycle selector knob.
- To change a cycle, push in the cycle selector knob. Turn it clockwise to the desired setting. Pull out the knob to restart the washer.

**10. Remove items when the cycle is completed.**

For your safety, the lid locks when the tub is spinning. It will remain locked for about 1 minute after the tub stops spinning.

- To open the lid during a spin, push in the cycle selector knob and wait about 1 minute for the lid lock to release. Do not force open the locked lid.

Place washed items in automatic dryer, line dry, or dry flat as directed by fabric care label. Excess wrinkling, color transfer or odors may develop in items left in the washer after the cycle has ended.

**⚠ WARNING** To avoid serious personal injury, do not operate washer if safety lid lock is missing or damaged.

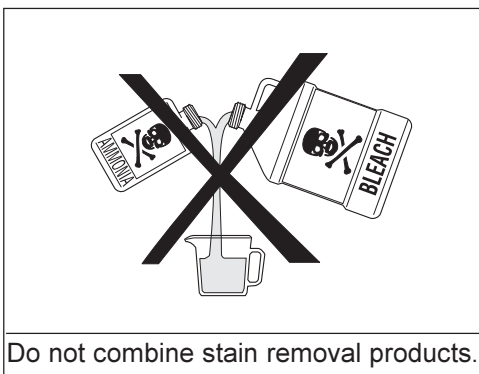
**STAIN REMOVAL**

**Safe Stain Removal Procedures**

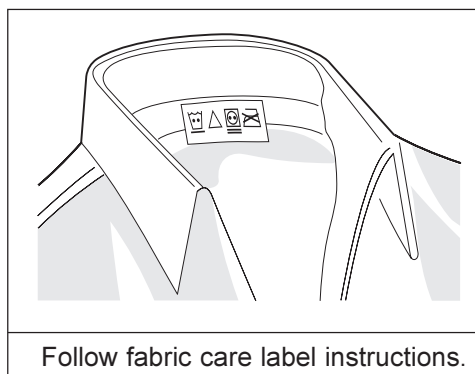
**⚠ WARNING** To reduce the risk of fire or serious injury to persons or property, comply with the basic warnings listed below:

- Read and comply with all instructions on stain removal products.
- Keep products in their original labeled containers and out of children's reach.
- Thoroughly wash any utensil used.

- Do not combine stain removal products, especially ammonia and chlorine bleach. Dangerous fumes may result.
- Determine the kind of stain, then follow recommended treatment in the stain removal chart on the next page.



- To pretreat stains, use a prewash product, liquid detergent, or a paste made from granular detergent and water.
- Use cold water on unknown stains because hot water can set stains.
- Check care label instructions for treatments to avoid on specific fabrics.
- Never wash items which have been previously cleaned in, washed in, soaked in or spotted with gasoline, dry cleaning solvents or other flammable or explosive substances because they give off vapors that could ignite or explode.
- Never use highly flammable solvents, such as gasoline, inside the home. Vapors can explode on contact with flames or sparks.



**For successful stain removal:**

- Remove stains promptly.
- Check for colorfastness by testing stain remover on an inside seam.
- Rinse and wash items after stain removal.

**Stain Removal**

STAIN	TREATMENT
Adhesive tape, chewing gum, rubber cement.	Apply ice. Scrape off excess. Place stain face down on paper towels. Saturate with prewash stain remover or nonflammable dry cleaning fluid.
Baby formula, dairy products, egg.	Use product containing enzymes to pretreat or soak stains. Soak for 30 minutes or more. Wash.
Beverages (coffee, tea, soda, juice, alcoholic beverages).	Pretreat stain. Wash using cold water and bleach safe for fabric.
Blood.	Rinse with cold water. Rub with bar soap. Or, pretreat or soak with product containing enzymes. Wash using bleach safe for fabric.
Candle wax, crayon.	Scrape off surface wax. Place stain face down between paper towels. Press with warm iron until wax is absorbed. Replace paper towels frequently. Treat remaining stain with prewash stain remover or nonflammable dry cleaning fluid. Hand wash to remove solvent. Wash using bleach safe for fabric.
Chocolate.	Pretreat or soak in warm water using product containing enzymes. Wash using bleach safe for fabric.
Collar or cuff soil, cosmetics.	Pretreat with prewash stain remover or rub with bar soap.



STAIN	TREATMENT
Dye transfer on white fabric.	Use packaged color remover. Wash using bleach safe for fabric.
Grass.	Pretreat or soak in warm water using product containing enzymes. Wash using bleach safe for fabric.
Grease, oil, tar (butter, fats, salad dressing, cooking oils, car grease, motor oils).	Scrape residue from fabric. Pretreat. Wash using hottest water safe for fabric. For heavy stains and tar, apply nonflammable dry cleaning fluid to back of stain. Replace towels under stain frequently. Rinse thoroughly. Wash using hottest water safe for fabric.
Ink.	Some inks may be impossible to remove. Washing may set some inks. Use prewash stain remover, denatured alcohol or nonflammable dry cleaning fluid.
Mildew, scorch.	Wash with chlorine bleach if safe for fabric. Or, soak in oxygen bleach and hot water before washing. Badly mildewed fabrics may be permanently damaged.
Mud.	Brush off dry mud. Pretreat or soak with product containing enzymes.
Mustard, tomato.	Pretreat with prewash stain remover. Wash using bleach safe for fabric.
Nail polish.	May be impossible to remove. Place stain face down on paper towels. Apply nail polish remover to back of stain. Repeat, replacing paper towels frequently. Do not use on acetate fabrics.
Paint, varnish.	WATER BASED: Rinse fabric in cool water while stain is wet. Wash. Once paint is dry, it cannot be removed. OIL BASED AND VARNISH: Use solvent recommended on can label. Rinse thoroughly before washing.
Perspiration.	Use prewash stain remover or rub with bar soap. Rinse. Wash using nonchlorine bleach in hottest water safe for fabric.
Rust, brown or yellow discoloration.	For spots, use rust remover safe for fabric. For discoloration of an entire load, use nonchlorine bleach. <b>Do not use chlorine bleach because it may intensify discoloration.</b>
Shoe polish.	LIQUID: Pretreat with a paste of granular detergent and water. PASTE: Scrape residue from fabric. Pretreat with prewash stain remover or nonflammable dry cleaning fluid. Rinse. Rub detergent into dampened area. Wash using bleach safe for fabric.
Urine, vomit, mucus, feces.	Pretreat or soak in product containing enzymes. Wash using bleach safe for fabric.

### Common Washing Problems

Many washing problems involve poor soil and stain removal, residues of lint and scum, and fabric damage. For satisfactory washing results, follow these suggestions provided by The Soap and Detergent Association.

PROBLEM	POSSIBLE CAUSES	SOLUTIONS	PREVENTIVE MEASURES
<b>Blue stains</b>	<ul style="list-style-type: none"> <li>• Detergent or liquid fabric softener did not dissolve or disperse.</li> </ul>	<ul style="list-style-type: none"> <li>• If caused by detergent, mix 1 cup (240 ml) white vinegar with 1 quart (.95 L) water in a plastic container. Soak item 1 hour. Rinse.</li> <li>• If caused by fabric softener, rub stains with bar soap. Wash.</li> </ul>	<ul style="list-style-type: none"> <li>• Add detergent before wash load. Then start washer.</li> <li>• Dilute fabric softener with water.</li> </ul>
<b>Discoloration, graying</b>	<ul style="list-style-type: none"> <li>• Not enough detergent.</li> <li>• Wash water temperature too low.</li> <li>• Incorrect sorting.</li> </ul>	<ul style="list-style-type: none"> <li>• Rewash with correct amount of detergent and hottest water safe for fabric. Add bleach safe for fabric.</li> </ul>	<ul style="list-style-type: none"> <li>• Sort items by soil level and color.</li> <li>• Use correct amount of detergent, hottest water and bleach safe for fabric.</li> </ul>
<b>Greasy, oily stains</b>	<ul style="list-style-type: none"> <li>• Not enough detergent.</li> <li>• Undiluted liquid fabric softener poured directly on fabric.</li> </ul>	<ul style="list-style-type: none"> <li>• Treat with prewash stain remover or liquid detergent.</li> <li>• Increase detergent and water temperature. Rewash.</li> <li>• Rub fabric softener stains with bar soap.</li> </ul>	<ul style="list-style-type: none"> <li>• Use correct amount of detergent and hottest water safe for fabric.</li> <li>• <b>Do not pour liquid fabric softener directly on fabric.</b> See package directions or <b>Washing Procedures</b> for proper diluting.</li> </ul>
<b>Holes, tears, or snags</b>	<ul style="list-style-type: none"> <li>• Incorrect use of chlorine bleach.</li> <li>• Unfastened zippers, hooks, buckles.</li> <li>• Rips, tears and broken threads.</li> <li>• Overloading the washer.</li> <li>• Degradation of fabric.</li> </ul>	<ul style="list-style-type: none"> <li>• May be irreversible if rips, tears and seams cannot be mended.</li> </ul>	<ul style="list-style-type: none"> <li>• Never pour chlorine bleach directly on fabric.</li> <li>• Check condition of items before washing. See <b>Washing Procedures</b> for preparing and loading the wash load.</li> </ul>
<b>Lint</b>	<ul style="list-style-type: none"> <li>• Incorrect sorting.</li> <li>• Tissues left in pocket.</li> <li>• Overloading the washer.</li> <li>• Not enough detergent.</li> <li>• Undissolved detergent has left residue.</li> <li>• Static cling is attracting lint.</li> <li>• Load washed too long.</li> </ul>	<ul style="list-style-type: none"> <li>• Reduce load size. Rewash using correct water temperature, water level, and amount of detergent.</li> <li>• Add nonprecipitating water conditioner to wash water.</li> <li>• Add liquid fabric softener to final rinse.</li> <li>• Dry load in dryer.</li> <li>• Remove lint with lint brush or roller.</li> </ul>	<ul style="list-style-type: none"> <li>• See <b>Washing Procedures</b> for sorting and preparing the wash load.</li> <li>• Do not overload washer.</li> <li>• Use correct amount of detergent, water temperature and water level.</li> </ul>



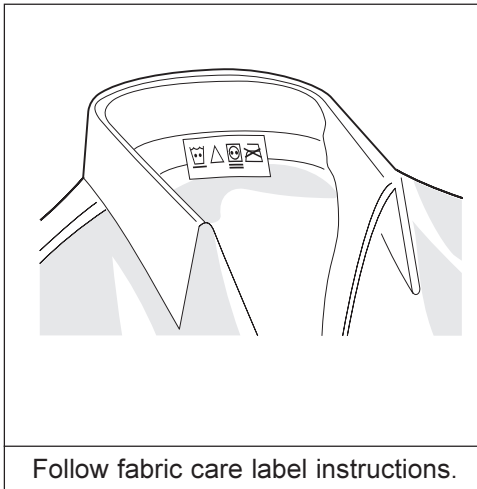
### Common Washing Problems

Many washing problems involve poor soil and stain removal, residues of lint and scum, and fabric damage. For satisfactory washing results, follow these suggestions provided by The Soap and Detergent Association.

PROBLEM	POSSIBLE CAUSES	SOLUTIONS	PREVENTIVE MEASURES
<b>Pilling</b> (Fibers break off, ball up and cling to fabric)	<ul style="list-style-type: none"> <li>•Pilling is normal with synthetic and permanent press fabrics. This is due to abrasion from normal wear.</li> </ul>	<ul style="list-style-type: none"> <li>•Use a lint brush or shaver to remove pills.</li> </ul>	<ul style="list-style-type: none"> <li>•Use fabric softener in the washer to lubricate fibers.</li> <li>•When ironing, use spray starch or fabric finish on collars and cuffs.</li> <li>•Turn items inside out to reduce abrasion.</li> </ul>
<b>Residue or powder on dark items; Stiff, harsh fabrics.</b>	<ul style="list-style-type: none"> <li>•Undissolved detergent.</li> <li>•Some nonphosphate granular detergents can combine with hard water minerals to form a residue.</li> </ul>	<ul style="list-style-type: none"> <li>•Reduce load size.</li> <li>•Add dissolved detergent to tub . Rewash load.</li> <li>•Mix 1 cup (240 ml) white vinegar to 1 gallon (3.8 L) warm water in plastic container. Soak item. Rinse and rewash.</li> </ul>	<ul style="list-style-type: none"> <li>•Increase water temperature using hottest water safe for fabric.</li> <li>•Do not overload washer.</li> <li>•Use liquid detergent or use nonprecipitating water conditioner with nonphosphate granular detergent.</li> </ul>
<b>Wrinkling</b>	<ul style="list-style-type: none"> <li>•Overloading the washer.</li> </ul>	<ul style="list-style-type: none"> <li>•Reduce load size.</li> <li>•Rinse in cold water with liquid fabric softener.</li> </ul>	<ul style="list-style-type: none"> <li>•Do not overload washer.</li> <li>•Remove items from washer as soon as cycle is completed.</li> <li>•Use liquid fabric softener.</li> </ul>
<b>Yellow buildup of body soil on synthetic fabrics</b>	<ul style="list-style-type: none"> <li>•Agitation time too short.</li> <li>•Wash water temperature too low.</li> <li>•Not enough detergent.</li> </ul>	<ul style="list-style-type: none"> <li>•Soak in detergent booster or product containing enzymes.</li> <li>•Wash in hot water (120°F/ 49°C) using full permanent press cycle. Increase detergent. Add bleach safe for fabric.</li> <li>•Or, treat with color remover.</li> </ul>	<ul style="list-style-type: none"> <li>•Wash synthetics frequently using water at least 100°F (37°C ) and correct water level.</li> </ul>
<b>Yellow or brown rust stains</b>	<ul style="list-style-type: none"> <li>•Iron or manganese in water supply, water pipes, or water heater.</li> </ul>	<ul style="list-style-type: none"> <li>•To restore discolored load of whites, use rust remover safe for fabric. <b>Do not use chlorine bleach to remove rust stains. It may intensify discoloration.</b></li> </ul>	<ul style="list-style-type: none"> <li>•Use nonprecipitating water softener.</li> <li>•Before washing, run hot water for a few minutes to clear lines.</li> <li>•Drain water heater occasionally.</li> <li>•For an ongoing problem, install an iron filter in your water supply system.</li> </ul>

## Drying Procedure

- Follow the guidelines below for preparing the load for drying.
- Read the **Dryer Operating Instructions**, pages for operating your specific model.
- **Always read and follow fabric care labels and laundry product labels.**

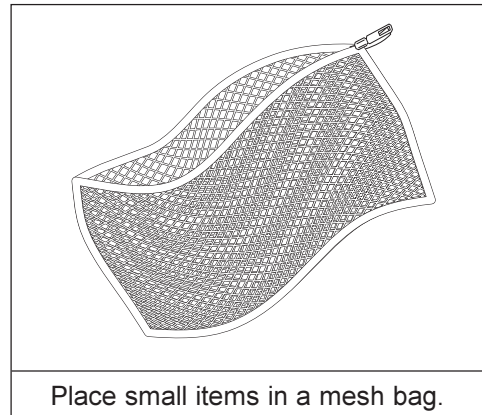


**⚠ WARNING** To reduce the risk of fire, electrical shock, or injury to persons, read **Important Safety Instructions**, before operating this dryer.

### 1. Prepare items for drying.

- Dry items of similar fabric, weight and construction in the same load.
- Separate dark items from light-colored items. Separate items that shed lint from those that attract lint. If an item sheds lint, turn it inside out.
- Be sure buckles, buttons and trim are heatproof and won't damage the drum finish. Close zippers, fasten hooks and Velcro®-like fasteners. Tie strings and sashes to prevent snagging and tangling.
- If possible, turn pockets inside out for even drying.
- Check for stains which may not have been removed in washing. Dryer heat may permanently set some stains. Repeat stain removal process before drying.

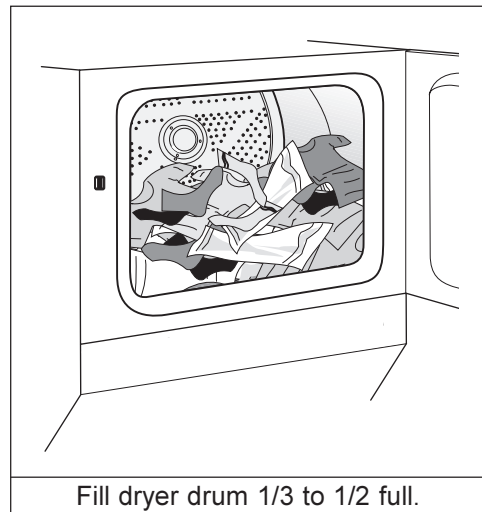
- Place small items in a mesh bag to prevent tangling and for easy removal.



### 2. Check that lint screen is clean and in place.

### 3. Load the dryer.

- The average load will fill the drum 1/3 to 1/2 full. Items need room to tumble freely for even drying and less wrinkling. **Do not overload dryer.**



- When drying large items, dry only 2 or 3 at a time. Fill out the load with small and medium sized items.
- For delicate or very small loads, add 2 lint-free towels for better drying, less wrinkling, and to prevent grease stains caused by fabric softener sheets.
- Do not overdry items. Overdrying can cause wrinkling, shrinkage, harshness, and a build-up of static electricity, which can produce more lint.
- If desired, add a dryer fabric softener sheet.

**4. Close the dryer door and set dryer controls (some models).**

See **Dryer Operating Instructions** card for your specific model controls.

**5. Turn cycle selector clockwise to the desired setting.**

**6. Start the dryer.**

- Turn Start control clockwise to ON. Hold for 1-2 seconds and release.
- To add or remove items when the dryer is running, open the door. The dryer will always stop when the door is opened.
- Allow the drum to come to a complete stop before reaching inside.

**7. When the cycle ends, remove items immediately and hang or fold.** If load is removed before the cycle ends, turn cycle selector to OFF.

**Drying Rack (some models)**

Use the drying rack to dry items which should not be tumble dried.

1. Open the dryer door and remove the lint screen.
2. Insert drying rack into the dryer drum. Place the front bar under the lip of the lint screen opening.
3. Place items to be dried on top of rack. Weight should not exceed 10 lbs. Leave space between items, but do not let items hang over the sides or through the grids. Do not tumble other items when using the drying rack.
4. Select a timed dry setting best suited for items being dried. Use only the Air Fluff (no heat) temperature setting for items containing plastic, foam rubber, rubber-like materials, feathers or down.
5. When items are dry, remove the rack and replace the lint screen. If lint screen is not in place, tumbling items could enter the exhaust system and cause damage to the dryer.

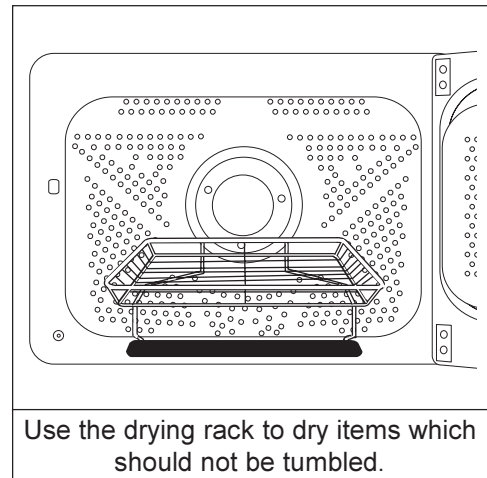
**Features**

**Cycle Signal Control (some models)**

When the Cycle Signal Control is ON, a signal will sound at the end of each cycle and during the Press Saver setting (some models). The volume is adjustable on some models.

**Drum Light (some models)**

A drum light will come on whenever the door is opened to illuminate the dryer drum during loading and unloading. Closing the door turns off the light.



## Common Drying Problems

Many drying problems involve poor cleaning results, poor soil and stain removal, residues of lint and scum, and fabric damage. For satisfactory drying results, follow these suggestions provided by The Soap and Detergent Association.

PROBLEM	POSSIBLE CAUSES	SOLUTIONS	PREVENTIVE MEASURES
<b>Greasy, oily stains</b>	<ul style="list-style-type: none"> <li>• Fabric softener sheet.</li> </ul>	<ul style="list-style-type: none"> <li>• Rub fabric softener stains with bar soap. Rinse and rewash.</li> </ul>	<ul style="list-style-type: none"> <li>• Add a few bath towels to small loads for proper tumbling.</li> <li>• Some "silk-like" fabrics should be air dried.</li> <li>• Use proper drying temperature.</li> <li>• Place fabric softener sheet on top of load before starting the dryer.</li> </ul>
<b>Lint</b>	<ul style="list-style-type: none"> <li>• Overloading.</li> <li>• Overdrying causes static electricity.</li> <li>• Lint screen not clean when cycle began.</li> <li>• Lint is attached to "pills."</li> </ul>	<ul style="list-style-type: none"> <li>• Reduce load size and rewash using liquid fabric softener in the final rinse.</li> <li>• Or, add a fabric softener sheet and tumble without heat.</li> <li>• Use lint brush or roller to remove lint.</li> </ul>	<ul style="list-style-type: none"> <li>• Do not overload dryer.</li> <li>• Use fabric softener in washer or dryer to reduce static electricity.</li> <li>• Remove items when they are slightly damp to avoid overdrying.</li> <li>• Check that lint screen is clean and in place.</li> </ul>
<b>Pilling</b> (Fibers break off, ball up and cling to fabric.)	<ul style="list-style-type: none"> <li>• Pilling is normal with synthetic and permanent press fabrics. This is due to abrasion from normal wear.</li> </ul>	<ul style="list-style-type: none"> <li>• Use a lint brush or shaver to remove pills.</li> </ul>	<ul style="list-style-type: none"> <li>• Use fabric softener to lubricate fibers.</li> <li>• When ironing, use spray starch or fabric finish on collars and cuffs.</li> <li>• Turn items inside out to reduce abrasion.</li> </ul>
<b>Shrinking</b>	<ul style="list-style-type: none"> <li>• Overdrying.</li> </ul>	<ul style="list-style-type: none"> <li>• Irreversible condition.</li> </ul>	<ul style="list-style-type: none"> <li>• Follow fabric care label directions.</li> <li>• If shrinking is a concern, check load often.</li> <li>• Remove items while slightly damp and hang or lay flat to complete drying.</li> <li>• Block knits into shape.</li> </ul>
<b>Wrinkling</b>	<ul style="list-style-type: none"> <li>• Overloading.</li> <li>• Leaving items in dryer after cycle ends.</li> </ul>	<ul style="list-style-type: none"> <li>• Reduce load size and tumble at medium or low heat for 5-10 minutes.</li> <li>• Remove items immediately. Hang or fold.</li> </ul>	<ul style="list-style-type: none"> <li>• Do not overload dryer.</li> <li>• Remove items as soon as cycle ends.</li> </ul>

**⚠ WARNING** To reduce risk of fire or serious injury to persons or property, comply with the basic warnings listed in **Important Safety Instructions** and those listed below.

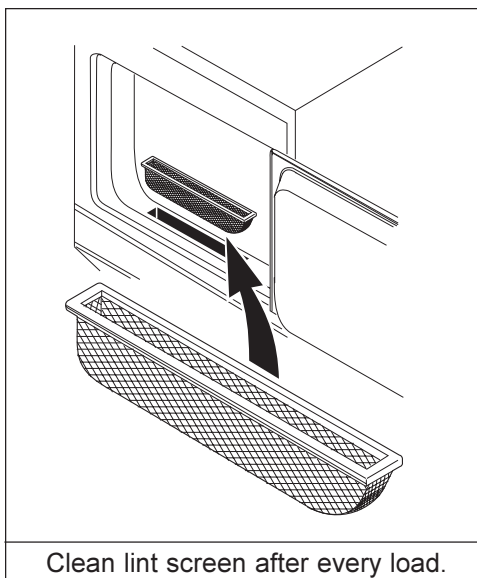
- Before cleaning the washer or dryer interior, **unplug the electrical power cord** to avoid electrical shock hazards.
- Do not use any type spray cleanser when cleaning dryer interior. Hazardous fumes or electrical shock could occur.

### Inside the Washer

- Remove items from the washer as soon as the cycle ends. Excess wrinkling, color transfer, and odors may develop in items left in the washer.
- Dry the washer top, the area around the lid opening, and the underside of the lid. These areas should always be dry before the lid is closed.
- Before cleaning the washer interior, **unplug the electrical power cord** to avoid electrical shock hazards.
- When extremely soiled items have been washed, a dirty residue may remain on the tub. Remove this by wiping the tub with a nonabrasive household cleanser. Rinse thoroughly with water.
- The agitator or tub may become stained from fabric dye. Clean these parts with a nonabrasive household cleanser. This prevents dye transfer to future loads.

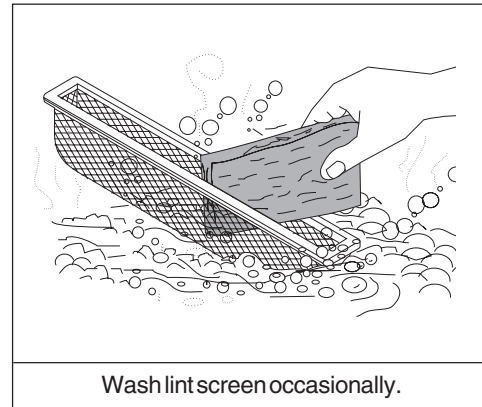
### Inside the Dryer

- Clean the dryer lint screen after every load. Lint build-up in the screen restricts air flow, which causes longer drying times. The screen is located



at the bottom of the door opening. Remove by pulling straight up. Remove the lint and replace the screen.

- Occasionally a waxy build-up may form on the lint screen from using dryer-added fabric softener sheets. To remove this build-up, wash the lint screen in warm, soapy water. Dry thoroughly and replace. Do not operate the dryer without the lint screen in place.



- If the dryer drum becomes stained from noncolorfast fabrics, clean the drum with a damp cloth and a mild liquid household cleanser. Remove cleanser residue before drying the next load.
- Every 18 months an authorized servicer should clean the dryer cabinet interior and exhaust duct. These areas can collect lint and dust over time. An excessive amount of lint build-up could result in inefficient drying and possible fire hazard.

### Outside

- When laundering is completed, wipe cabinet with a damp cloth. Turn water faucets off to prevent pressure build-up in the hoses.
- Clean the cabinet with mild soap and water. **Never use harsh, gritty or abrasive cleansers.** If the cabinet becomes stained, clean with diluted chlorine bleach [1/2 cup (120 ml) in 1 quart (.95 L) water]. Rinse several times with clear water.



3. Plug electrical cord into a properly grounded electrical outlet.
4. Add 1 gallon nontoxic recreational vehicle (RV) antifreeze to empty wash tub. Close lid.
5. Set cycle selector knob at a spin setting. Pull out knob and let washer spin for 1 minute to drain out all water. Not all of the RV antifreeze will be expelled.
6. Push in knob, unplug electrical power cord, dry tub interior, and close lid.
7. Store washer in an upright position.
8. To remove antifreeze from washer after storage, run empty washer through a complete cycle using detergent. **Do not add wash load.**

- Remove glue residue from tape or labels with a mixture of warm water and mild detergent. Or, touch residue with the sticky side of the tape or label.
- **Before moving the laundry center**, place a strip of cardboard or thin fiberboard under the front leveling legs to prevent floor damage.



### Winterizing Instructions

If the laundry center is stored in an area where freezing can occur or moved in freezing temperatures, follow these winterizing instructions to prevent damage to the laundry center:

1. Turn off water supply faucets.
2. Disconnect hoses from water supply and drain water from hoses.

## Avoid Service Checklist

Before calling for service, review this list. It may save both time and expense. The list includes common concerns that are not the result of defective workmanship or materials in this laundry center.

OCCURRENCE	POSSIBLE CAUSE	SOLUTION
<b>WASHER - NOISE</b>		
<b>"Clunking" or gear sounds.</b>	A certain amount of "clunking" or gear sounds are normal in a heavy-duty washer.	This is normal.
<b>Rattling and clanking noise.</b>	Foreign objects such as coins or safety pins may be in tub or pump.	Stop washer and check tub. If noise continues after washer is restarted, objects may be in pump. Call your authorized servicer.
	Belt buckles and metal fasteners are hitting wash tub.	To prevent unnecessary noise and damage to tub, fasten fasteners and turn items inside out.
<b>Squealing sound or hot rubber odor.</b>	Washer is overloaded.	Do not overload washer. Stop washer and reduce load.
<b>Thumping sound.</b>	Heavy wash loads may produce a thumping sound.	This is usually normal. If sound continues, washer is probably out of balance. Stop washer and redistribute wash load.
<b>Vibrating noise.</b>	Laundry center is not resting on a solid, firm floor.	Move laundry center so it rests firmly on solid floor. Additional floor bracing may be needed. Adjust leveling legs. See INSTALLATION INSTRUCTIONS for details.
	Shipping bolt and block have not been removed during installation.	See INSTALLATION INSTRUCTIONS for removing shipping bolt and block.
	Wash load unevenly distributed in tub.	Stop washer and rearrange wash load.
<b>WASHER OPERATING</b>		
<b>Washer does not start.</b>	Electrical power cord may not be plugged in or connection may be loose.	Make sure plug fits tightly in wall outlet.
	House fuse blown, circuit breaker tripped, or a power outage has occurred.	Reset circuit breaker or replace fuse. Do not increase fuse capacity. If problem is a circuit overload, have it corrected by a qualified electrician. If problem is a power outage, call local electric company.
	Water supply faucets are not turned on.	Turn on water supply faucets.
	Cycle selector is not in correct position.	Move indicator clockwise slightly. Pull out knob.
	Motor is overheated.	Washer motor will stop if it becomes overheated. It will automatically restart after a cool down period of up to 30 minutes (if washer has not been manually turned off).



<b>OCCURRENCE</b>	<b>POSSIBLE CAUSE</b>	<b>SOLUTION</b>
<b>Washer won't spin.</b>	Lid is not completely closed.	Close lid completely. Safety lid lock must not be broken.
<b>Residue left in tub.</b>	Heavily soiled items.	Wipe tub with a nonabrasive household cleanser, then rinse. Shake or brush excess dirt and sand from items before washing.
<b>WASHER - WATER</b>		
<b>Wash load too wet after spin.</b>	Washer is overloaded.	Do not overload washer. See <b>Washing Procedures.</b>
	Load is out of balance.	Rearrange load to allow proper spinning.
	Drain hose is kinked.	Straighten drain hose.
<b>Water does not enter washer or it enters slowly.</b>	Water supply is not adequate in area.	Check another faucet in the house. Wait until water supply and pressure increase.
	Water supply faucets are not completely open.	Fully open hot and cold faucets.
	Water is being used elsewhere in the house.	Water pressure must be at least 30 psi (260 kPa). Avoid running water elsewhere while washer is filling.
	Water inlet hoses are kinked.	Straighten hoses.
<b>Water level does not cover load.</b>	Improper water level selection (for models with water level/load size control).	Select higher water level/load size.
	Washer is overloaded.	Do not overload washer. When control is set at highest fill level, dry load level should not be higher than top row of circular holes in wash tub.
<b>Warm or hot water is not hot enough.</b>	Hot water heater is set too low or is a distance from laundry center.	Measure hot water temperature at nearby faucet with candy or meat thermometer. Water temperature should be at least 130°F (70°C). Adjust water heater as necessary.
	Hot water is being used elsewhere in the house.	Avoid using hot water elsewhere before or during washer use. There may not be enough hot water available for proper cleaning. If problem persists, your hot water system may be unable to support more than 1 use at a time.
<b>Water in washer does not drain or drains slowly.</b>	Drain hose is kinked or clogged.	Clean and straighten the drain hose.
<b>Water leaks.</b>	Fill hose connection at faucet or washer.	Check and tighten hose connections. Install rubber sealing washers provided.
	House drain pipes are clogged.	Unclog drain pipes. Contact plumber if necessary.
	Oversudsing.	Use less detergent.
<b>Incorrect wash and rinse temperatures.</b>	Hot and cold water hoses are connected to wrong supply faucets.	Connect hot water hose to hot water faucet and cold water hose to cold water faucet.
<b>Water is entering washer but tub does not fill.</b>	Drain hose standpipe is incorrect height.	Standpipe must be a minimum of 33" (83.82 cm) high to prevent siphoning. See INSTALLATION INSTRUCTIONS.



OCCURRENCE	POSSIBLE CAUSE	SOLUTION
<b>DRYER</b>		
<b>Dryer does not start.</b>	Electrical power cord is not securely plugged in or plug may be loose.	Make sure the plug fits tightly in wall outlet.
	House fuse blown or circuit breaker tripped.	Reset circuit breaker or replace fuse.  Make sure electrical line is not overloaded and the dryer is on a separate circuit.
	Thermal limiter tripped.	Call authorized service person for replacement.
<b>Dryer runs but won't heat.</b>	There are 2 house fuses in the dryer circuit. If 1 of the 2 fuses is blown, the drum may turn but the heater will not operate.	Replace fuse.
	Gas supply valve is not open (gas models).	Check to make sure supply valve is open. See INSTALLATION INSTRUCTIONS for procedure.
	Dryer does not have enough air supply to support the burner flame (gas models).	See INSTALLATION INSTRUCTIONS.
	LP gas supply tank is empty or there has been a utility interruption of natural gas (gas models).	Refill or replace tank.  Dryer should heat when utility service is restored.
<b>Drying cycle takes too long, outside of the dryer feels too hot or smells hot.</b>	Lint screen is clogged with lint.	Make sure all lint has been removed from the dryer lint screen before starting each cycle.
	Exhaust duct requirements have not been met.	Exhaust duct must be at least 4 inches in diameter and made of rigid or flexible metal.  When in place, the duct must have no more than two 90° bends and must not exceed length listed in INSTALLATION INSTRUCTIONS.
	Electric dryer is connected to a 208 volt circuit.	Drying time will be 20% longer than drying on a 240 volt circuit.
	Drying procedures have not been followed.	See <b>Drying Procedures</b> , page 4.
	Outside exhaust hood or exhaust duct may be clogged or restricted.	Clean out any obstruction.
	High humidity.	Use a dehumidifier near the dryer.
	<b>Excessive wrinkling.</b>	Dryer is overloaded.
Items left in dryer too long.		Remove items as soon as cycle ends.
Insufficient sorting of items.		See <b>Drying Procedures</b> .
Drying temperature too high.		Follow fabric care label instructions.

# FRIGIDAIRE LAUNDRY CENTER WARRANTY

Your Frigidaire product is protected by this warranty

Sample warranty always check warranty with product

	WARRANTY PERIOD	FRIGIDAIRE, THROUGH ITS AUTHORIZED SERVICERS, WILL:	THE CONSUMER WILL BE RESPONSIBLE FOR:
<b>FULL ONE-YEAR WARRANTY</b>	One year from original purchase date.	Pay all costs for repairing or replacing any parts of this appliance which prove to be defective in materials or workmanship.	Costs of service calls that are listed under <b>NORMAL RESPONSIBILITIES OF THE CONSUMER.*</b>
<b>LIMITED 2ND - 5TH YEAR WARRANTY</b>	Second through fifth years from original purchase date.	Provide a replacement for a defective or malfunctioning part found in the washer transmission.	Costs for labor and replacement parts other than defective transmission parts.
<b>FULL 25-YEAR INNER WASH BASKET WARRANTY (Excluding Alaska)</b>	25 years from original purchase date.	Provide a replacement and in-home service labor, without charge, for an inner wash basket that breaks due to defective materials or workmanship.	Costs of service calls that are listed under <b>NORMAL RESPONSIBILITIES OF THE CONSUMER.*</b>
<b>LIMITED WARRANTY (Applicable to the State of Alaska)</b>	Time periods listed above.	All of the provisions of the full and limited warranties above and the exclusions listed below apply.	Costs of the technician's travel to the home and any costs for pick up and delivery of the appliance required because of service.

Your appliance is warranted by Frigidaire Home Products, a division of White Consolidated Industries, Inc. We authorize no person to change or add to any of our obligations under this warranty. Any obligations for service and parts under this warranty must be performed by Frigidaire or an authorized Frigidaire servicer.

**\*NORMAL RESPONSIBILITIES OF THE CONSUMER**

**This warranty applies only to products in ordinary household use, and the consumer is responsible for the items listed below:**

1. Proper use of the appliance in accordance with instructions provided with the product.
2. Proper installation by an authorized servicer in accordance with instructions provided with the appliance and in accordance with all local plumbing, electrical and/or gas codes.
3. Proper connection to a grounded power supply of sufficient voltage, replacement of blown fuses, repair of loose connections or defects in house wiring.
4. Expenses for making the appliance accessible for servicing, such as removal of trim, cupboards, shelves, etc., which are not a part of the appliance when it was shipped from the factory.
5. Damages to finish after installation.
6. Replacement of light bulbs and/or fluorescent tubes (on models with these features).

**EXCLUSIONS**

**This warranty does not cover the following:**

1. CONSEQUENTIAL OR INCIDENTAL DAMAGES SUCH AS PROPERTY DAMAGE AND INCIDENTAL EXPENSES RESULTING FROM ANY BREACH OF THIS WRITTEN OR ANY IMPLIED WARRANTY.

*Note: Some states do not allow the exclusion or limitation of incidental or consequential damages, so this limitation or exclusion may not apply to you.*

2. Service calls which do not involve malfunction or defects in workmanship or material, or for appliances not in ordinary household use. The consumer shall pay for such service calls.
3. Damages caused by services performed by servicers other than Frigidaire or its authorized servicers; use of parts other than genuine Frigidaire Home Products parts; obtained from persons other than such servicers; or external causes such as abuse, misuse, inadequate power supply or acts of God.
4. Products with original serial numbers that have been removed or altered and cannot be readily determined.

**IF YOU NEED SERVICE**

Keep your bill of sale, delivery slip, or some other appropriate payment record. The date on the bill establishes the warranty period should service be required. If service is performed, it is in your best interest to obtain and keep all receipts. This written warranty gives you specific legal rights. You may also have other rights that vary from state to state. Service under this warranty must be obtained by contacting Frigidaire Home Products:

800 • 944 • 9044  
Frigidaire Home Products  
P.O. Box 212378  
Augusta, GA 30917



## SECTION C INSTALLATION INSTRUCTIONS

Before beginning installation, carefully read these instructions. This will simplify the installation and ensure the laundry center is installed correctly and safely. Leave these instructions near the laundry center after installation for future reference.

**NOTE:** The electrical service to the laundry center must conform with local codes and ordinances and the latest edition of the *National Electrical Code, ANSI/NFPA 70*, or in Canada, the *Canadian Electrical Code, CSA C22.1*

**NOTE:** The gas service to the laundry center must conform with local codes and ordinances and the latest edition of the *National Fuel Gas Code ANSI Z223.1/NFPA 54*, or in Canada, the *Canadian Natural Gas and Propane Installation Code, CSA B149.1*.

**NOTE:** The laundry center is designed under ANSI Z21.5.1 or ANSI/UL 2158- CAN/CSA C22.2 (latest edition) for HOME USE only. This laundry center is not recommended for commercial applications such as restaurants or beauty salons, etc.

**⚠ WARNING** For your safety the information in this manual must be followed to minimize the risk of fire or explosion or to prevent property damage, personal injury or loss of life.

- Do not store or use gasoline or other flammable vapors and liquid in the vicinity of this or any other appliance.

- **WHAT TO DO IF YOU SMELL GAS**  
Do not try to light any appliance.

Do not touch any electrical switch; do not use any phone in your building.

Clear the room, building or area of all occupants.

Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.

If you cannot reach your gas supplier, call the fire department.

Installation and service must be performed by a qualified installer, service agency or the gas supplier.

## PRE-INSTALLATION REQUIREMENTS

### Tools and Materials Required for Installation:

1. Phillips head screwdriver.
2. Channel-lock adjustable pliers.
3. Carpenter's level.
4. Flat or straight blade screwdriver.
5. Duct tape.
6. Rigid or flexible metal 4 inch (10.16 cm) duct.
7. Vent hood.
8. Pipe thread sealer (Gas).
9. Ratchet with 3/8 inch (0.96 cm) socket.

## ELECTRICAL REQUIREMENTS

### ***ELECTRIC Laundry Center***

**Circuit** - Individual 30 amp branch circuit fused with 30 amp minimum time delay fuses or circuit breakers.

**POWER SUPPLY** - 3-wire or 4-wire , 240 volt single phase, 60 Hz, Alternating Current.

**POWER SUPPLY CORD KIT-** The laundry center **MUST** employ a 3-conductor power supply cord NEMA 10-30 type SRDT rated at 240 volt AC minimum, 30 amp, with 3 open end spade lug connectors with upturned ends or closed loop connector **OR** a 4-conductor power supply cord NEMA 14-30 type SRDT or ST (as required) rated at 240 volt AC minimum, 30 amp, with 4 open end spade lug connectors with upturned ends or closed loop connectors and marked for use with clothes dryers. If being installed in a manufactured (mobile) home, the laundry center **MUST** employ a 4-conductor power supply cord NEMA 14- 30 type SRDT or ST (as required) rated at 240 volt AC minimum, 30 amp, with 4 open end spade lug connectors with upturned ends or closed loop connectors and marked for use with clothes dryers. See ELECTRICAL CONNECTIONS. (Canada - 4-wire power supply cord is installed on laundry center.)

**OUTLET RECEPTACLE** - NEMA 10-30R (3-wire) receptacle or NEMA 14-30R (4-wire) receptacle to be located so the power supply cord is accessible when the laundry center is in an installed position.



NEMA 10-30R



NEMA 14-30R

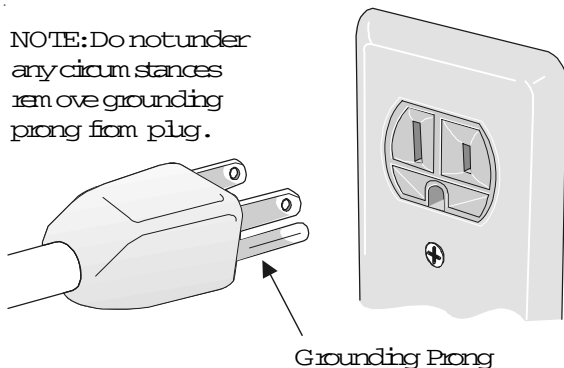
**GAS Laundry Center**

**CIRCUIT** - Individual 15 amp branch circuit fused with a 15 amp maximum time delay fuse or circuit breaker.

**POWER SUPPLY** - 3 wire, 120 volt single phase, 60 Hz, Alternating Current.

**POWER SUPPLY CORD** -The gas laundry center is equipped with a 120 volt 3-wire power cord.

NOTE: Do not under any circumstances remove grounding prong from plug.



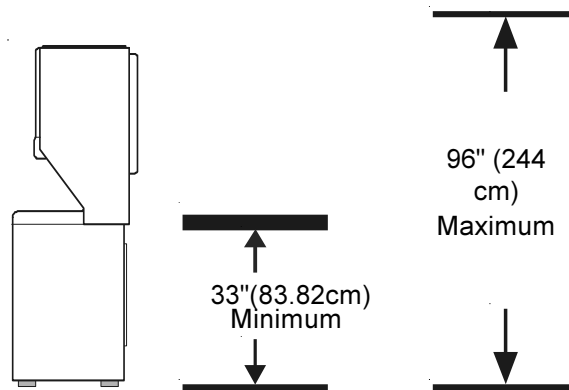
**WATER SUPPLY REQUIREMENTS**

Hot and cold water faucets **MUST** be installed within 42 inches (106.68 cm) of your laundry center's water inlet. The faucets **MUST** be 3/4 inch (1.9 cm) garden hose type so inlet hoses can be connected. Water pressure **MUST** be between 10 and 120 pounds per square inch (maximum unbalance pressure, hot vs. cold, 10 psi). Your water department can advise you of your water pressure. The hot water temperature should be about 140 degrees F.

**DRAIN REQUIREMENTS**

1. Drain capable of eliminating 17 gals. per minute.
2. A standpipe diameter of 1¼ inches (3.18 cm) minimum.

3. The standpipe height above the floor should be:  
Minimum height: 33 inches (83.82 cm)  
Maximum height: 96 inches (244 cm)



Note: For installations requiring a longer drain hose, have a qualified technician install a longer hose, PN 131461201, available from an authorized parts distributor. For drain systems in the floor, install a siphon break kit, available from your local hardware store.

**EXHAUST SYSTEM REQUIREMENTS**

Use only 4 inch (10.16 cm) diameter (minimum) rigid or flexible metal duct and approved vent hood which has a swing-out damper(s) that opens when the dryer is in operation. When the dryer stops, the damper(s) automatically closes to prevent drafts and the entrance of insects and rodents. To avoid restricting the outlet, maintain a minimum of 12 inches (38.5 cm) clearance between the vent hood and the ground or any other obstruction.

**WARNING** The following are specific requirements for proper and safe operation of your laundry center. Failure to follow these instructions can create excessive drying times and fire hazards.

**WARNING** Do not use plastic flexible duct to exhaust the dryer. Excessive lint can build up inside the exhaust system and create a fire hazard and restrict air flow. Restricted air flow will increase drying times. If your present system is made up of plastic duct or metal foil duct, replace it with a rigid or flexible metal duct. Ensure the present duct is free of any lint prior to installing laundry center dryer duct.

**WARNING** If the dryer is not exhausted outdoors, some fine lint will be expelled into the laundry area. An accumulation of lint in any area of the home can create a health and fire hazard. The dryer exhaust system MUST be exhausted to the outside of the dwelling!

**⚠ WARNING** Do not allow combustible materials (for example: clothing, draperies/curtains, paper) to come in contact with the exhaust system. The dryer **MUST NOT** be exhausted into a chimney, a wall, a ceiling, or any concealed space of a building which can accumulate lint, resulting in a fire hazard.

**⚠ WARNING** Do not exceed the length of duct pipe or number of elbows allowed in the "EXHAUST DUCT LENGTHS" chart. Lint can accumulate in the system, plugging the system and creating a fire hazard, as well as increasing drying times.

**⚠ WARNING** Do not screen the exhaust ends of the vent system, nor use any screws or rivets to assemble the exhaust system. Lint can become caught in the screen, on the screws or rivets, clogging the exhaust system and creating a fire hazard as well as increasing drying times. Use an approved vent hood to terminate the duct outdoors, and seal all joints with duct tape. All male duct pipe fittings **MUST** be installed downstream with the flow of air.

### EXHAUST LENGTHS

The maximum length of the exhaust system depends upon the type of duct used, number of elbows and type of exhaust hood. The following chart was developed to illustrate typical systems that could meet the maximum system back pressure for laundry center installations.

In installations where the exhaust system is not described in the chart, the following method must be used to determine if the exhaust system is acceptable.

1. Connect an inclined or digital manometer between the dryer and the point the exhaust connects to the dryer.
2. Set the dryer timer to air fluff or cool down and start the dryer.
3. Read the system back pressure measurement on the manometer.
4. The system back pressure **MUST NOT** be higher than 0.75 inches of water column. If the system back pressure is more than 0.75 inches of water column, the system is too restrictive and the installation is unacceptable.

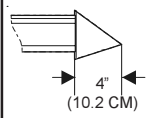
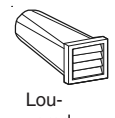
Although vertical orientation of the exhaust system is acceptable, certain extenuating circumstances could affect the performance of the dryer:

- Only rigid metal ductwork should be used.

Venting vertical through a roof may expose the exhaust system to downdrafts causing an increase in vent restriction.

- € Running the exhaust system through an uninsulated area may cause condensation.
- € Compression of the exhaust system will cause an increase in vent restriction.

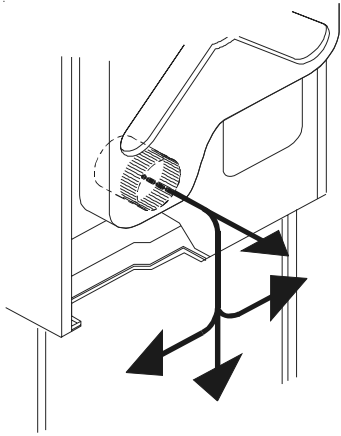
The exhaust system should be inspected and cleaned a minimum of every two years with normal usage. The more the dryer is used, the more often you should check the exhaust system and vent hood for proper operation.

EXHAUST DUCT LENGTHS		
EXHAUST HOOD TYPE		
Number of 90° Turns		
	4" (10.2 CM)	2.5" (6.35 CM)
<b>MAXIMUM LENGTH OF 4-INCH (10.2 CM) DIAMETER RIGID METAL DUCT</b>		
0	56 ft. (17.07 m)	42 ft. (12.8 m)
1	46 ft. (14.02 m)	36 ft. (10.97 m)
2	34 ft. (10.36 m)	28 ft. (8.53 m)
3	32 ft. (9.75 m)	18 ft. (5.48 m)
<b>MAXIMUM LENGTH OF 4-INCH (10.2 CM) DIAMETER FLEXIBLE METAL DUCT</b>		
0	30 ft. (9.14 m)	22 ft. (6.7 m)
1	22 ft. (6.7 m)	14 ft. (4.27 m)
2	16 ft. (4.88 m)	10 ft. (3.05 m)
3	10 ft. (3.05 m)	5 ft. (1.5 m)

The laundry center may be exhausted four (4) ways with rear **flush** installation:

1. **Straight back**
2. **Down** (add an 8 inch (20.32 cm) length of 4 inch (10.16 cm) rigid duct and 1 elbow down)
3. **Left** (add an 8 inch (20.32 cm) length of 4 inch (10.16 cm) rigid duct, 1 elbow down and 1 elbow left)
4. **Right** (add an 8 inch (20.32 cm) length of 4 inch (10.16 cm) rigid duct, 1 elbow down and 1 elbow right)

To exhaust **up**, add an 11 inch (27.94 cm) length of standard 4 inch (10.16 cm) diameter duct and a 90° elbow. The unit will be positioned about 4½ inches (11.43 cm) away from the wall (flush to wall **up** exhausting may be done by going below the dryer then sideways).



### GAS SUPPLY REQUIREMENTS

1. Installation **MUST** conform with local codes, or in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1 (latest edition) or in Canada, the current AN/CGA B149.
2. The gas supply line should be of 1/2 inch (1.27 cm) pipe.
3. If codes allow, flexible metal tubing may be used to connect your dryer to the gas supply line. The tubing **MUST** be constructed of stainless steel or plastic-coated brass.
4. The gas supply line **MUST** have an individual shutoff valve. 5. A 1/8 inch (0.32 cm) N. P. T. plugged tapping, accessible for test gage connection, **MUST** be installed immediately upstream of the gas supply connection to the dryer.
6. The dryer and its individual shutoff valve **MUST** be disconnected from the gas supply piping system during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 psig (3.45 kPa).
7. The dryer **MUST** be isolated from the gas supply piping system by closing its individual manual shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 psig (3.45 kPa).

### LOCATION OF YOUR LAUNDRY CENTER

#### DO NOT INSTALL YOUR LAUNDRY CENTER:

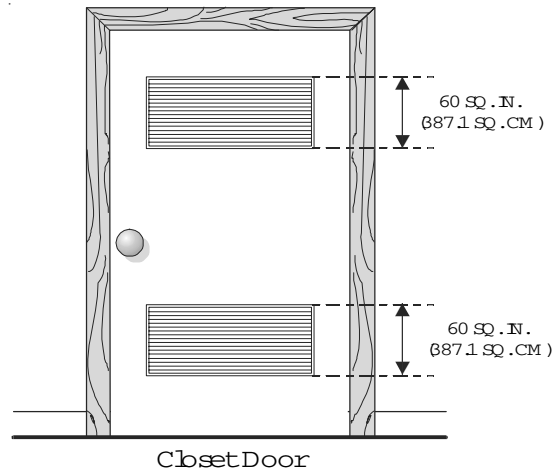
1. In an area exposed to dripping water or outside weather conditions.
2. In an area where it will come in contact with

curtains, drapes or anything that will obstruct the flow of combustion and ventilation air.

3. On carpet. Floor **MUST** be solid with a maximum slope of 1 inch (2.54 cm).

### INSTALLATION IN RECESS OR CLOSET

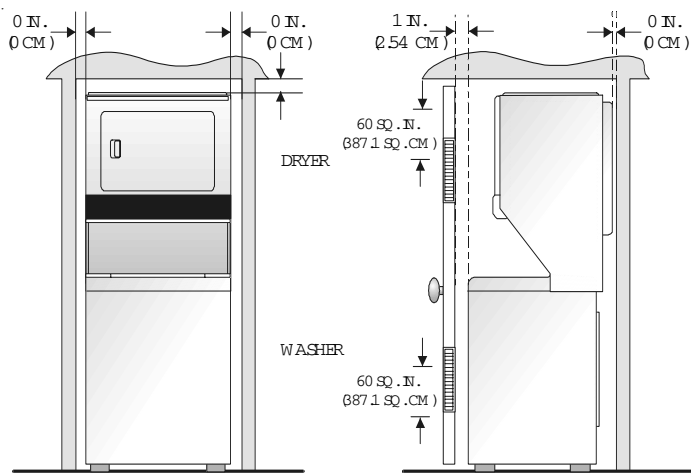
1. A laundry center installed in a bedroom, bathroom, recess or closet, **MUST** be exhausted outdoors.
2. No other fuel burning appliance shall be installed in the same closet as the **Gas** laundry center.
3. Your laundry center needs the space around it for proper ventilation.  
**DO NOT INSTALL YOUR LAUNDRY CENTER IN A CLOSET WITH A SOLID DOOR.**
4. A minimum of 120 square inches (774.2 square cm) of opening, equally divided at the top and bottom of the door, is required. Air openings are required to be unobstructed when a door is installed. A louvered door with equivalent air openings for the full length of the door is acceptable.



**! WARNING** **Explosion hazard** Do not install the laundry center where gasoline or other flammables are kept or stored. If the laundry center is installed in a garage, it must be a minimum of 18 inches (45.7 cm) above the floor. Failure to do so can result in death, explosion, fire or burns.

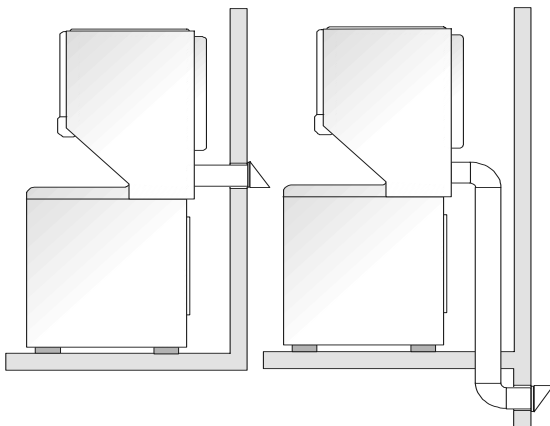
5. The following illustrations show minimum clearance dimensions and air openings for proper operation in a recess or closet installation.





## MOBILE HOME INSTALLATION

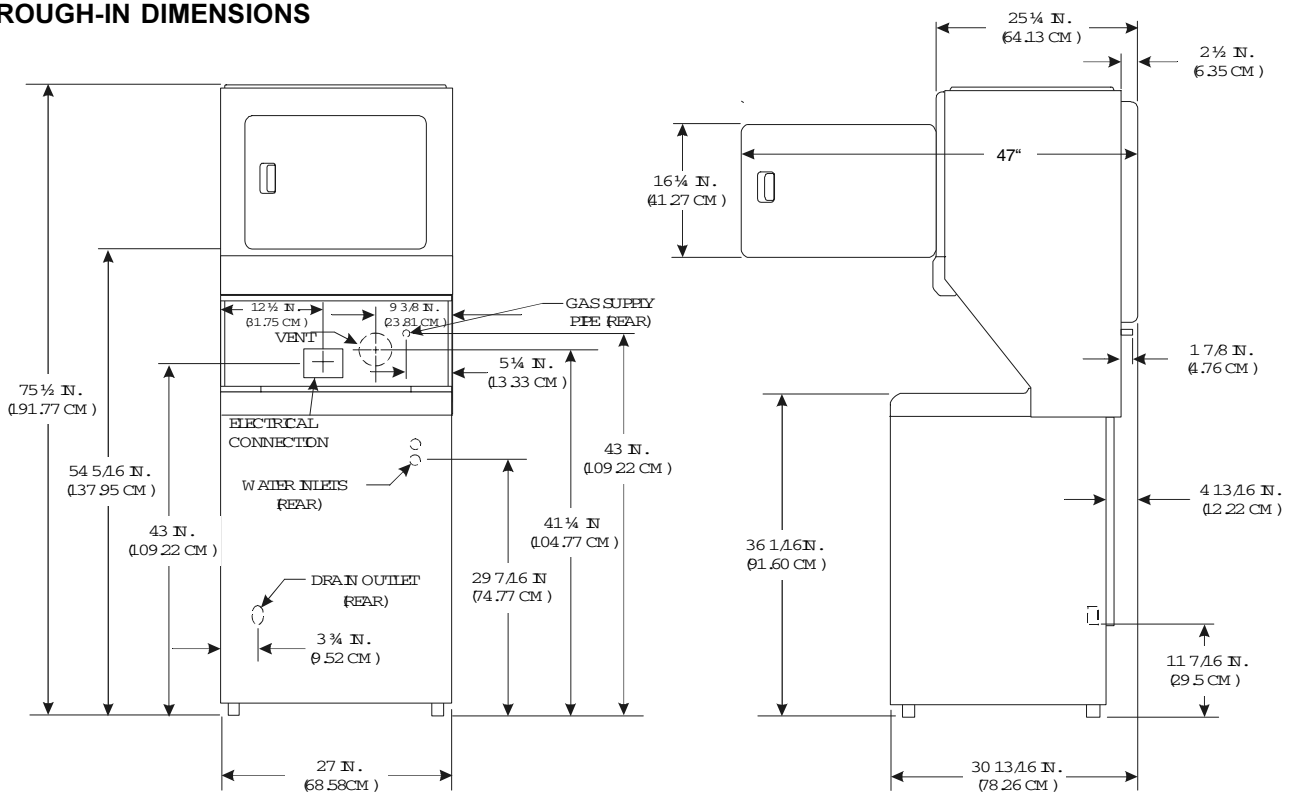
1. Dryer **MUST** be exhausted outside (outdoors, not beneath the mobile home) using metal ducting that will not support combustion. Metal ducting must be 4 inches (10.16 cm) in diameter with no obstructions. Rigid metal duct is preferred.
2. If dryer is exhausted through the floor and area beneath the mobile home is enclosed, the exhaust system **MUST** terminate outside the enclosure with the termination securely fastened to the mobile home structure.



4. When installing a gas dryer into a mobile home, a provision must be made for outside make up air. This provision is to be not less than twice the area of the dryer exhaust outlet.
5. Installation **MUST** conform to current Manufactured Home Construction & Safety Standard (which is a Federal Regulation Title 24 CFR-Part 32-80) or when such standard is not applicable, with American National Standard for Mobile Homes. In Canada, the CSA Z is applicable.

**⚠ WARNING** The laundry center is designed under ANSI Z 21.5.1 for **HOME USE** only.

## ROUGH-IN DIMENSIONS



## UNPACKING

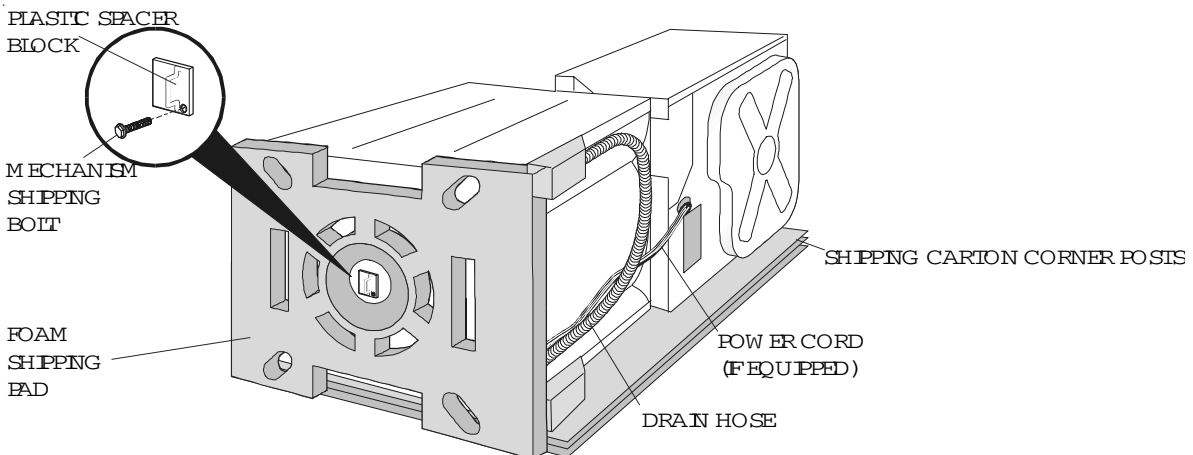
- Using the four shipping carton corner posts (two on each side), carefully lay the laundry center on its left side and remove foam shipping base.
- Using ratchet with 3/8 inch (0.96 cm) socket, remove mechanism shipping bolt and plastic spacer block from center of base.

**NOTE: If the laundry center is to be transported at a later date, the tub blocking pad, shipping bolt, and plastic spacer block should be retained.**

- Return laundry center to an upright position.

- Remove:
  - foam tub blocking pad.
  - foam shipping blocks from rear of unit.
  - tape from dryer door.
  - foam dryer support pads.
  - inlet hoses.
  - enclosure package.
- From the back of the washer, remove the wire shipping clips securing the drain hose and power cord (if equipped). Plastic clamps secure the drain hose to the right side of the washer backsheet. These clamps form a standpipe to prevent water syphoning.
 

**DO NOT REMOVE THESE CLAMPS.**
- Carefully move the laundry center to within 4 feet (1.22 m) of the final location to begin the installation.





## ELECTRICAL INSTALLATION

### ALL ELECTRIC Laundry Centers

**⚠ WARNING** The following are specific requirements for proper and safe electrical installation of your laundry center. Failure to follow these instructions can create electrical shock and/or a fire hazard

**⚠ WARNING** This laundry center **MUST** be properly grounded. Electrical shock can result if the laundry center is not properly grounded. Follow the instructions in this manual for proper grounding.

**⚠ WARNING** Do not use an extension cord with this laundry center. Some extension cords are not designed to withstand the amounts of electrical current this laundry center utilizes and can melt, creating electrical shock and/or fire hazard. Locate the laundry center within reach of the receptacle for the length power cord to be purchased, allowing some slack in the cord. Refer to the pre-installation requirements in this manual for the proper power cord to be purchased.

**⚠ WARNING** A U.L. approved strain relief must be installed onto the power cord. If the strain relief is not attached, the cord can be pulled out of the laundry center and can be cut by any movement of the cord, resulting in electrical shock.

**⚠ WARNING** Do not use an aluminum wired receptacle with a copper Wired power cord and plug (or vice versa). A chemical reaction occurs between copper and aluminum and can cause electrical shorts. **The proper wiring and receptacle is a copper wired power cord with a copper wired receptacle OR aluminum wired power cord with an aluminum wired receptacle.**

**NOTE:** Laundry centers operating on a 208 volt power supply will have longer drying times than laundry centers operating on a 240 volt power supply.

## GROUNDING REQUIREMENTS

**⚠ WARNING** Non-Canadian ELECTRIC Laundry Center Improper connection of the equipment grounding conductor can result in a risk of electrical shock. Check with a licensed electrician if you are in doubt as to whether the appliance is properly grounded.

For a grounded, cord-connected laundry center:

1. The laundry center **MUST** be grounded. In the event of malfunction or breakdown, grounding will

reduce the risk of electrical shock by a path of least resistance for electrical current.

2. If your laundry center is equipped with a power supply cord having an equipment-grounding conductor and a grounding plug, the plug **MUST** be plugged into an appropriate, copper wired receptacle that is properly installed and grounded in accordance with all local codes and ordinances. If in doubt, call a licensed electrician.

For a permanently connected laundry center:

The laundry center **MUST** be connected to a grounded metal, permanent wiring system; or an equipment grounding conductor **MUST** be run with the circuit conductors and connected to the equipment-grounding terminal or lead on the appliance.

### Canadian ELECTRIC Laundry Center

**⚠ WARNING** Improper connection of the equipment grounding conductor can result in a risk of electrical shock. Check with a licensed electrician if you are in doubt as to whether the appliance is properly grounded.

For a grounded cord connected laundry center:

1. The laundry center **MUST** be grounded. In the event of malfunction or breakdown, grounding will reduce the risk of electrical shock by providing a path of least resistance for the electrical current.
2. Since your laundry center is equipped with a power supply cord having an equipment-grounding conductor and a grounding plug, the plug **MUST** be plugged into an appropriate outlet that is properly installed and grounded accordance with all codes and ordinances. If in doubt, call a licensed electrician.

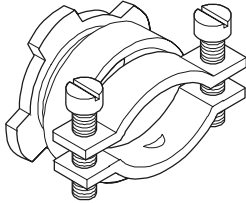
### **ALL GAS Laundry Centers**

1. The laundry center, when installed, **MUST** be electrically grounded in accordance with local codes, or in the absence of local codes, with the National Electrical Codes, ANSI/NFPA (latest edition) or in Canada, CSA C22.1 Canadian Electrical Code Part 1.
2. The laundry center is equipped with a three-prong (grounding) plug for your protection against shock hazard and should be plugged directly into a properly grounded three-prong receptacle. Do not cut or remove the grounding prong from the plug.

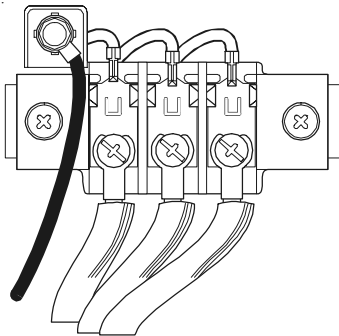
## ELECTRICAL CONNECTIONS FOR A 3-WIRE SYSTEM

### *ELECTRIC Laundry Center*

1. Remove the screw securing the terminal block access cover to the rear panel and remove cover.
2. Install a U.L. approved strain relief connector in the entry hole on the back panel.



3. Insert a NEMA 10-30 Type SRDT U.L. approved power cord through the strain relief.
4. Attach the power cord neutral (central wire) conductor to the silver colored center terminal on the terminal block. Tighten the screw securely.

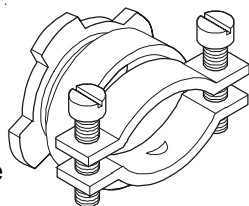


5. Attach the remaining two power cord outer conductors to the outer brass colored terminals on the terminal block. Tighten both screw securely.
6. Tighten the screws securing the cord restraint against the power cord.
7. Reinstall the terminal access cover.

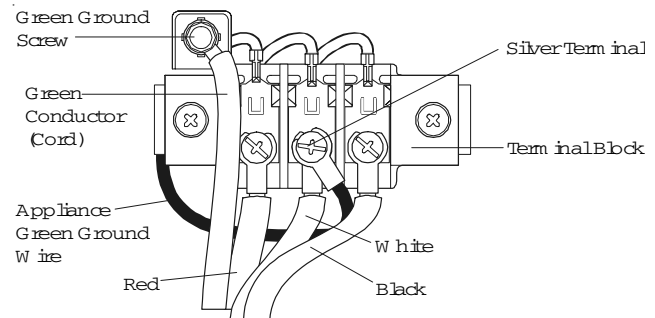
## ELECTRICAL CONNECTIONS FOR A 4-WIRE SYSTEM

### *ELECTRIC Laundry Center*

1. Remove the screw securing the terminal block access cover to the rear panel and remove cover.
2. Install a U.L. approved strain relief connector in the entry hole on the back panel.



3. Remove the green neutral ground wire from the green ground screw located above the terminal block.
4. Insert a NEMA 14-30 Type ST or SRDT, U.L. approved power cord through the strain relief.
5. Attach the green power cord ground wire to the cabinet with the green ground screw
6. Attach the white (neutral) wire from the power cord and the green ground wire from the appliance harness to the silver-colored center terminal on the terminal block. Tighten the screw securely.



7. Attach the red and black wires from the power cord to the outer brass-colored terminals on the terminal block. Tighten both screws securely.
8. Tighten the screws securing the cord restraint firmly against the power cord.
9. Reinstall the terminal block access cover.

## INSTALLATION

1. Run some water from the hot and cold faucets to flush the water lines and remove particles that might clog up the water valve screens.
2. Check inlet hoses to ensure the rubber washers are installed in each end.
3. Carefully connect the inlet hoses to the water valve (on the left side of the washer cabinet), tighten by hand, then tighten another 2/3 turn with pliers.

**CAUTION DO NOT CROSS THREAD OR OVERTIGHTEN THESE CONNECTIONS.**

4. Determine which water faucet is the **HOT** water faucet and carefully connect the bottom inlet hose to the **HOT** water faucet, tighten by hand, then tighten another 2/3 turn with pliers. Carefully connect the top inlet hose to the **COLD** water faucet, tighten by hand, then tighten another 2/3 turn with pliers.



**DO NOT CROSS THREAD OR OVERTIGHTEN THESE CONNECTIONS.**

Turn the water on and check for leaks at both connections.

5. Carefully move the laundry center to its final location.
6. To ensure the laundry center is level and solid on all four legs, tilt the laundry center forward so the rear legs are off the ground. Gently set the laundry center back down to allow the rear legs to self adjust. Place a level on top of the washer. Check it side to side, then front to back. Screw the front leveling legs up or down to ensure the laundry center is resting solid on all four legs (no rocking of the laundry center should exist).

**NOTE:** Keep the leg extension at a minimum to prevent excessive vibration.

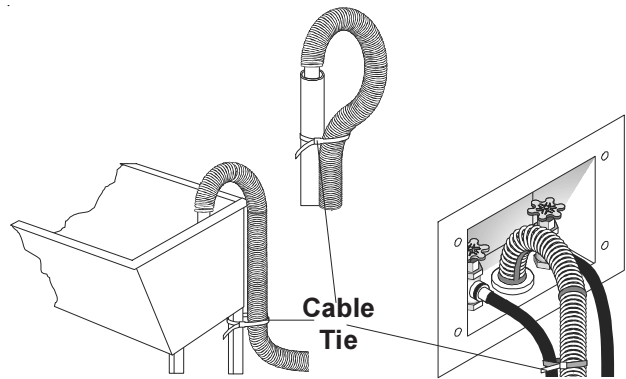
**7. GAS CONNECTION (Gas laundry centers only)**

- a. Remove the shipping cap from gas pipe at the rear of the dryer.

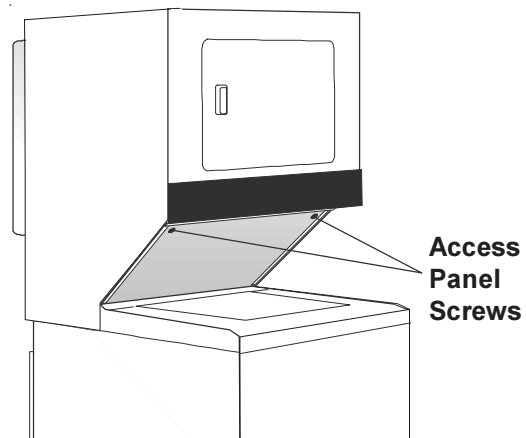
**NOTE: DO NOT** connect the laundry center to L.P. gas service without converting the gas valve. An L.P. conversion kit (P/N 5303937053) must be installed by a qualified gas technician.

- b. Connect a 1/2 inch (1.27 cm) I.D. semi-rigid or approved pipe from the gas supply line to the 3/8 inch (0.96 cm) pipe located on the back of the dryer. Use a 1/2 inch (1.27 cm) to 3/8 inch (0.96 cm) reducer for the connection. Apply an approved thread sealer that is resistant to the corrosive action of liquefied gases on all pipe connections.
- c. Open the shutoff valve in the gas supply line.
- d. Test all connections by brushing on a soapy water solution. **NEVER TEST FOR GAS LEAKS WITH AN OPEN FLAME.**
8. Form a "U" shape on the end of the drain hose with the hose pointed toward the drain. Place the formed end in a laundry tub or a standpipe and secure with a cable tie provided in the enclosure package.

**WATER WILL SYPHON FROM THE WASHER IF THE ABOVE INSTRUCTIONS ARE NOT FOLLOWED.**



9. Remove the two (2) screws securing the dryer front access panel to the dryer cabinet. Lift the panel until the tabs can be disengaged from the cabinet. Remove the panel and set aside.



10. Connect the exhaust duct to outside duct work. Use duct tape to seal all joints.
11. Plug the power cord into a grounded outlet. **NOTE:** Check to ensure the power is off at a circuit breaker/fuse box before plugging the power cord into an outlet.
12. Turn on the power at a circuit breaker/fuse box.



*Before operating the dryer, make sure the dryer area is clear and free from combustible materials, gasoline, and other flammable vapors. Also see that nothing (such as boxes, clothing, etc.) obstructs the flow of combustion and ventilation air.*

13. Reinstall the dryer front access panel.
14. Run the washer and dryer through a cycle. Check for proper operation.

**NOTE:** On gas dryers, before the burner will light, it is necessary for the gas line to be bled of air. If the burner does not light within 45 seconds the first time the dryer is turned on, the safety switch will shut the burner off. If this happens, turn the timer to “OFF” and wait 5 minutes before making another attempt to light.

15. If your laundry center does not operate, please review the “Avoid Service Checklist” located in your Owner’s Guide before calling for service.

16. Place these instructions in a location near the laundry center for future reference.

**NOTE:** A wiring diagram is located behind the dryer front access panel.

## REPLACEMENT PARTS

If replacement parts are needed for your laundry center, contact the source where you purchased your laundry center.

**⚠ WARNING** Destroy the carton, plastic bags, and metal band after the laundry center is unpacked. Children might use them for play. Cartons covered with rugs, bedspreads, or plastic sheets can become airtight chambers causing suffocation. Place all materials in a garbage container or make materials inaccessible to children.

**⚠ CAUTION** Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation. Verify proper operation after servicing.

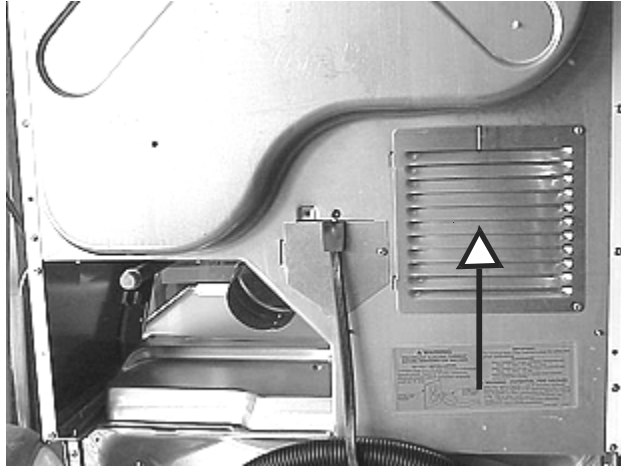
**⚠ WARNING** The instructions in this manual and all other literature included with this laundry center are not meant to cover every possible condition and situation that may occur. Good safe practice and caution **MUST** be applied when installing, operating and maintaining any appliance.

Maximum benefits and enjoyment are achieved when all the Safety and Operating instructions are understood and practiced as a routine with your laundry tasks.

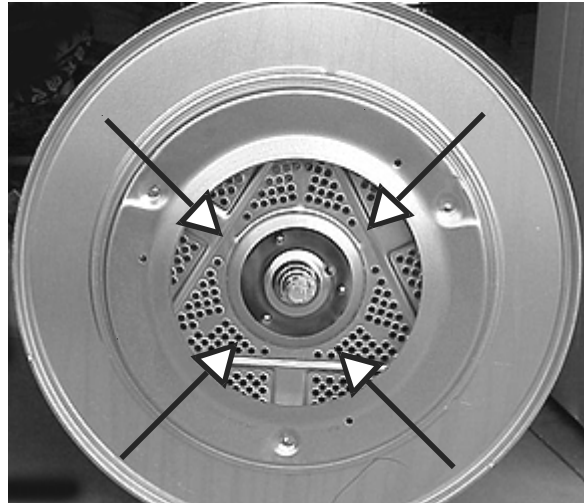
## SECTION D - DRYER SECTION OPERATION

### Airflow Electric Dryers:

Room air enters the dryer section through a louvered panel in the rear of the laundry center.

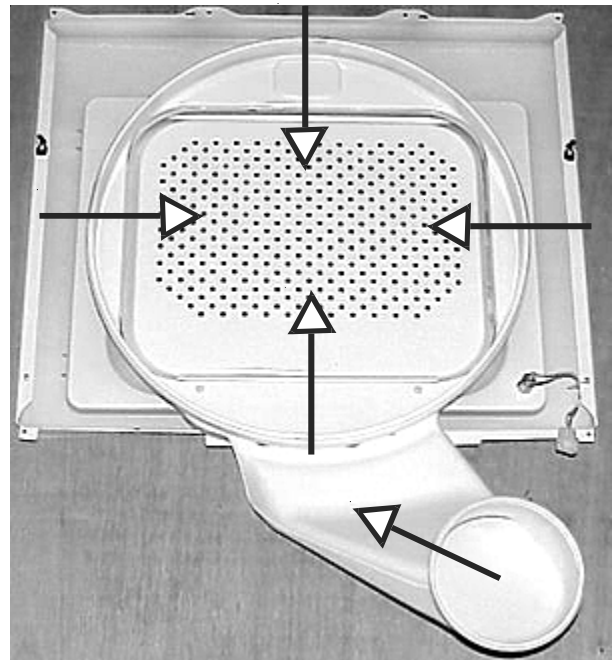
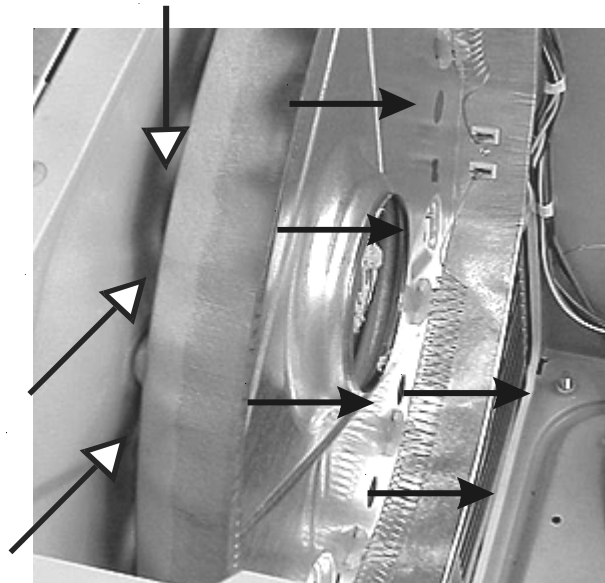


The air then is drawn into the drum through the holes in the rear of the drum.



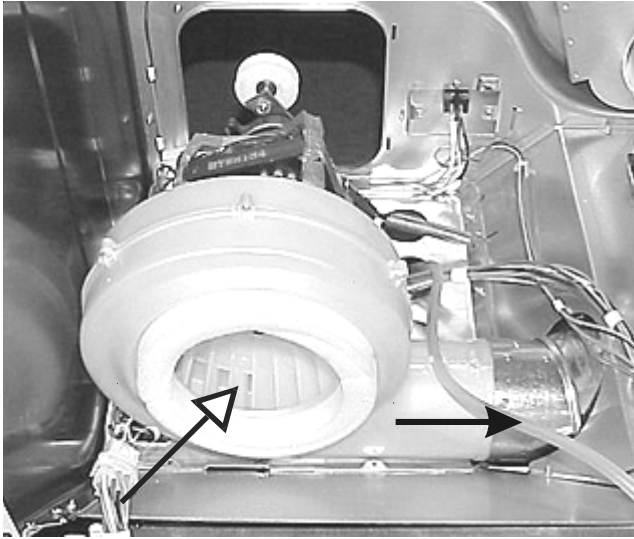
The air passes through the drum picking up moisture and is drawn into the air duct in the door through the lint filter into the ductwork at the front of the dryer.

Once inside the dryer cavity the air is drawn between the rear wall of the dryer and the plenum. The holes in the plenum allow the air to be drawn across heating element. In any cycle, other than Air Fluff, the heating element heats the air as it passes through.



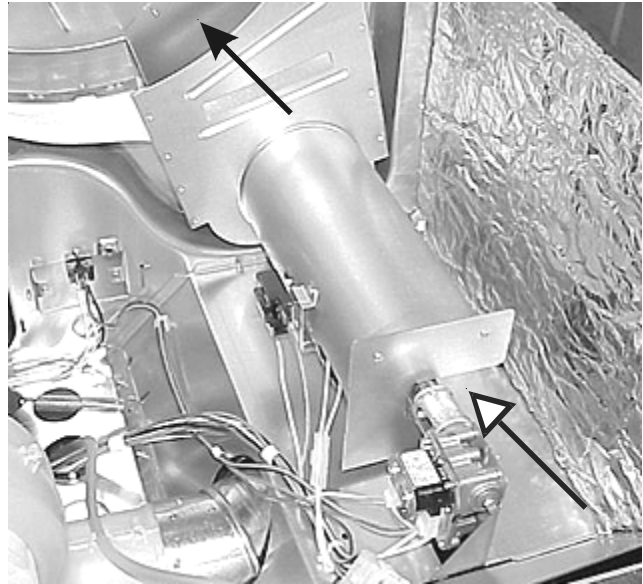


The air enters the fan housing and is pushed out the exhaust vent to the outside of the house.



### Airflow Gas Dryers:

The airflow in gas dryers is the same electric dryer as except for the heat source and the rear of the drum. The air enters the cavity through the louvered opening in the rear of the laundry center. The air is then pulled across the gas burner, through the burner chamber and is ducted to the rear of the drum.



The drum is the same as in the electric dryer except it does not have the heat baffle on it.



### Airflow Problems:

Airflow problems are usually caused by restrictions, leaks or short unrestricted vents resulting in longer dry-

ing times, hotter dryer surfaces and in extreme cases causing the thermal limiter to open on electric dryers.

### Restrictions:

Restrictions can occur any place in the airflow system, but the most common are:

1. Installing the laundry center in a small inclosed area; such as a closet without a louvered door, that reduces the intake air.
2. Fan problems caused by either a slow running motor, a broken or deformed fan blade or a deformed fan housing.
3. A lint restriction in the lint screen area. Operator may not be cleaning the lint screen before using.
4. A restriction in the exhaust system in the house caused by the design of the vent, such as; the diameter of the vent pipe being to small, to long or to many right angles, a collapsed or lint restricted vent pipe.

**Note:** Problems caused by the vent pipe in the house are not cover under the product warranty.

### Air Leaks:

Two types of air leaks may occur:

1. Air being drawn in, usually around the door opening, between the drum and the front panel, or around the foam seal between the front duct and the blower housing, replaces some of the air being drawn through the drum and lower the efficiency of the dryer.

**Note:** An air leak that occurs around the door opening or between the drum and the front panel usually will cause lint to build up on the inner panel of the door.

2. Air being pushed out, usually in the blower housing or vent pipe inside the dryer, allows some of the moisture that has been removed from the clothes to be recirculate.

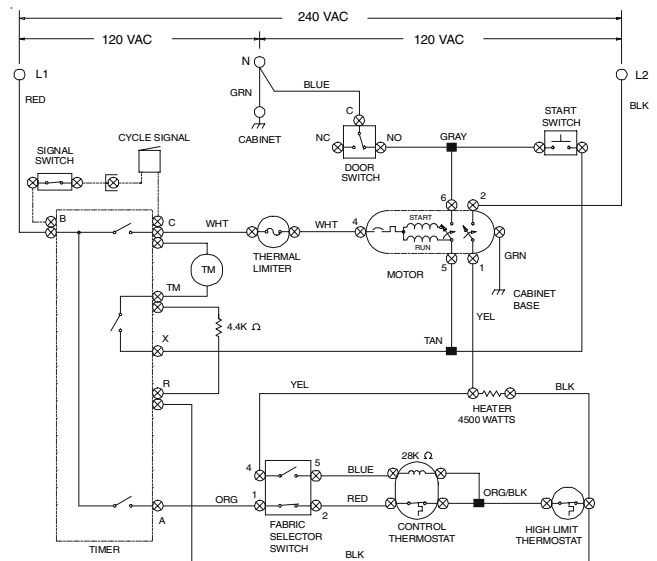
### Short Unrestricted Vents:

The venting system in the dryer is designed to operate under some back pressure. This back pressure is needed to slow the airflow and allow the air to be heated before it passes through the clothes.

**Note:** With short direct vent runs; such as you have when the dryer is installed against an outside wall, use a 2 1/2" vent cap rather than a 4" vent cap.

### Electrical Operation: (Electric Dryer)

**Note:** Always refer to the wiring diagram or schematic with the product.

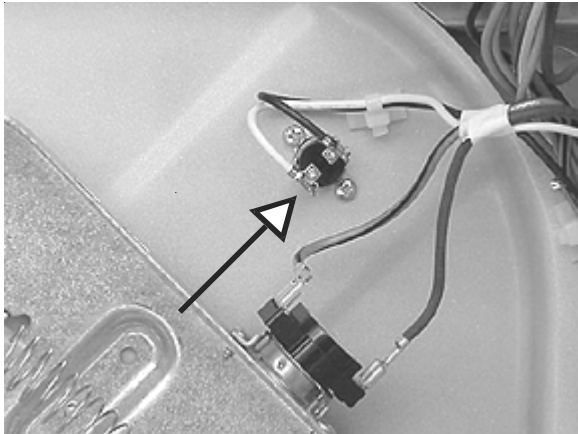


### Automatic Regular Cycle:

When the laundry center is connected to electrical power, line 1 is connected to terminal B of the timer and the input terminal of the cycle signal switch. When the timer is set to the Automatic Regular cycle, contacts B to C and B to A in the timer are closed. This provides power to four circuits; the drive motor circuit, timer motor circuit, heating circuit and cycle signal circuit.

### Drive Motor Circuit:

When contacts B to C are closed, line 1 is applied through the thermal limiter (a non-resettable fuse mounted on the rear wall of the laundry center)



to terminal M4 of the drive motor. Terminal M4 is connected inside the motor to one side of the thermal overload. (The thermal overload protects the motor from being damaged by overheating). The other side of the thermal overload is connected to one end of both the run winding and the start winding of the drive motor. When the motor is not turning the other end of the start winding is connected, internally to terminal M5 of the motor, through the NC contact of the motor centrifugal switch. The other end of the run winding is also connected, internally to terminal M5.

When the motor is not turning, the start winding and the run winding are connected in parallel. Terminal M5 of the motor is connected to the start switch, which is connected to neutral through the door switch. When the start switch is activated, with the dryer door closed, line 1 to neutral voltage is applied across both the start and run windings of the drive motor. With power applied to both the start and run windings, the motor starts to turn.

When the speed of the motor reaches about 80% of its normal run speed the contacts of the centrifugal switch change from NC to NO, opening the circuit to the start winding and connecting the run winding to motor terminal M6. Terminal M6 is connected to neutral through the door switch. The start winding is now out of the circuit and the run winding circuit is bypassing the start switch, so the switch can be released without interrupting power to the run winding.

The drive motor performs two tasks in the dryer. A pulley attached to one end of the motor shaft uses a belt to drive the dryer drum. The blower wheel is attached to the other end of the motor shaft to pull the air

through the clothes and force the air out the exhaust vent.

### The Timer Motor Circuit:

When timer contacts B to C close, line 1 is applied to one end of the timer motor winding. The other end of the timer motor winding is connected through a 4400 Ohm dropping resistor, that allows the timer motor to operate in a 240 volt circuit without burning up, to one end of the heater. The other end of the heater is connected, by a centrifugal switch in the motor, to line 2, whenever the motor is turning. The circuit formed by contacts B and C of the timer, the timer motor and the dropping resistor are in parallel with a circuit form by contacts B and A of the timer, contacts 1 and 2 of the fabric selector switch, the contacts of the control thermostat and the contacts of the high limit thermostat. This circuit has either zero resistance when the contacts of the control thermostat are closed or infinity resistance when the contacts of the control thermostat are open. Since electrical current follows the path of least resistance, when the contacts of the control thermostat are closed, all the current flow is through the circuit formed by contacts B and A of the timer, contacts 1 and 2 of fabric selector switch, the contacts of the control thermostat and the contacts of the high limit thermostat. With no current flowing through the timer motor winding, the timer motor does not turn. When the heat in the dryer opens the contacts of the control thermostat, the only path for current flow is through the circuit formed by the timer motor winding and the dropping resistor. With current flowing through the timer motor winding, the motor turns advancing the timer. At the start of the cycle the amount of heat energy needed to drive the moisture from the clothes slows the temperature rise in the dryer and the contacts of the control thermostat remain closed preventing the timer from advancing. As the clothes dry, it takes less heat energy to maintain the temperature in the drum. This causes the contacts of the control thermostat to be open a higher percentage of the time allowing the timer motor to run more.

### The Heat Circuit:

Timer contacts B to A connect line 1 to terminal 1 of the fabric selector switch. The fabric selector switch allows the dryer to be set to operate at High temperature, Medium temperature, Low temperature and Air Fluff. (In the Air Fluff setting the drum turns but the heater does not operate). Whenever the fabric selector switch is set to either High, Medium or Low contact 1 is closed to contact 2 and line 1 is applied to the control thermostat. When the fabric selector switch is set to either Medium or Low, power is applied to a small heater in the control thermostat, and the contacts of



the control thermostat are cycled by a combination of heat from the heater and the heat in the drum. When the fabric selector switch is set to Medium, contacts 3 to 4 of the switch are closed connecting the series circuit formed by a 3000 Ohm resistor and the small heater in the control thermostat to neutral. When the fabric selector switch is set to Low, contacts 4 to 5 of the switch are closed connecting the small heater in the control thermostat to neutral. Since more current flows through the thermostat heater in the Low setting, the contacts cycle at a lower drum temperature than Medium.

The control thermostat senses the temperature of the air in the blower housing and controls the temperature in the dryer by opening and closing the heater circuit. When the temperature in the drum is below the cycle temperature the contacts are closed, connecting line 1 to the high limit thermostat. The high limit thermostat is a safety device that prevents the dryer from overheating if the contacts of the control thermostat fail closed. The contacts of the high limit thermostat are normally closed and are set to open at a temperature above the cycling temperature of the control thermostat. From the output terminal of the high limit thermostat line 1 is connected to one side of the element. The other side of the heating element is connected to line 2 through the contacts of the second centrifugal switch in the drive motor. This switch prevents power from being applied to the element if the motor is not running.

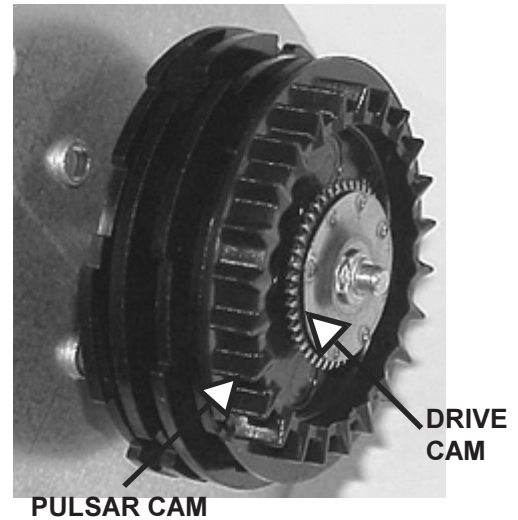
**The Air Fluff Circuit:**

When the fabric selector switch is set to air fluff contacts 1 to 2 are opened, removing power from the element. The drum turns but the element does not heat.

**The Cycle Signal Circuit:**

The cycle signal circuit is made up of the cycle signal (buzzer) and contacts X and H that connect the circuit to neutral. When contacts B to C of the timer are closed, line 1 is connected to one side of the cycle signal. The other side of the cycle signal is connected to terminal H of the timer.

A Pulsar cam, located next to the cycle signal cam and rotating at 12 revolutions per hour, allows contacts H to X to close for 5 seconds +/-3 seconds.



When Timer contacts H to X are closed the cycle signal is connect to neutral through the motor centrifugal switch and the door switch.

**Automatic Perm Press:**

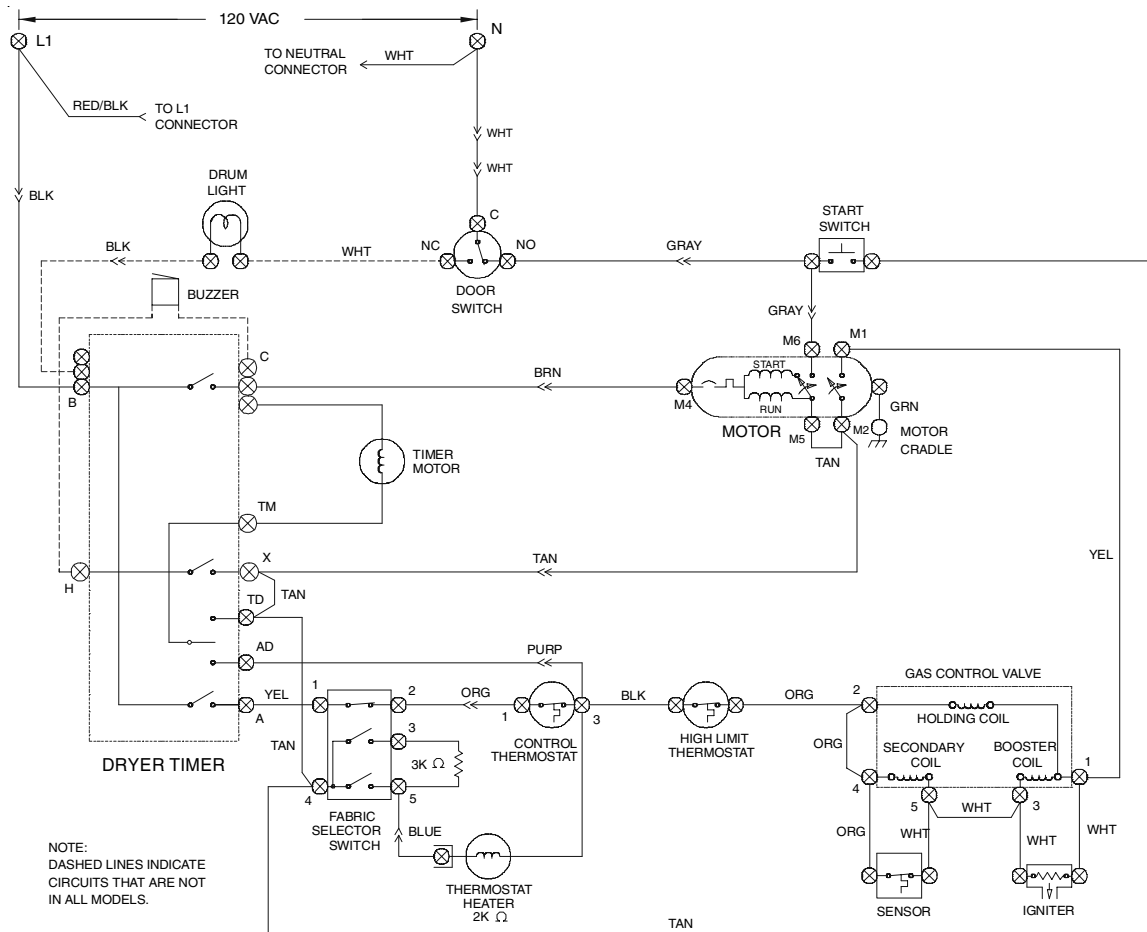
The Automatic Prem Press Cycle operates the same as the Automatic Regular cycle for the first 15 minutes of timer run time. Then contacts B to A open removing power from the heat circuit and causing the timer motor to run continuously for the last 30 minutes. During the last 30 minutes the buzzer will sound 5 or 6 times.

**Timed Dry Cycle:**

The time dry cycle operates the same as the auto dry cycle except for the operation of the timer motor. When the dial is turned to the timed dry section, contacts TM to X in the timer close, connecting the timer motor to neutral through the centrifugal switch in the motor. The timer motor then runs continuously until contacts B to C of the timer opens and the motor stops.

## Electrical Operation (Gas Dryer)

**Note:** Sample wiring diagram. Always refer to the wiring diagram or schematic with the product.



### Auto Dry Cycle:

When the laundry center is connected to electrical power, line 1 is connected to terminal B of the timer and the input terminal of the signal switch. When the timer is set to the Auto Dry cycle, contacts B to C and B to A are closed. This provides power to four circuits; the drive motor circuit, timer motor circuit, heating circuit and cycle signal circuit.

### Drive Motor Circuit:

When contacts B to C are closed line 1 is applied to terminal M4 of the drive motor. Terminal M4 is connected in the motor to one side of the thermal overload. (The thermal overload protect the motor from being damaged by overheating). The other side of the thermal overload is connected to both the run winding and the start winding of the drive motor. When the motor is not turning the other end of the start winding is connected, internally to terminal M5 of the motor, through the NC contact of the motor centrifugal switch.

The other end of the run winding is also connected, internally to terminal M5.

When the motor is not turning, the start winding and the run winding are connected in parallel. Terminal M5 of the motor is connected to the start switch, which is connected to neutral through the door switch. When the start switch is activated, with the dryer door closed, line 1 to neutral voltage is applied across both the start and run windings of the drive motor. With power applied to both the start and run windings, the motor starts to turn.

When the speed of the motor reaches about 80% of its normal run speed, the contacts of the centrifugal switch change from NC to NO, opening the circuit to the start winding and connecting the run winding to motor terminal M6. Terminal M6 is connected to neutral through the door switch. The start winding is now out of the circuit and the run winding circuit is bypassing the start

switch, so the switch can be released without interrupting power to the run winding.

The drive motor performs two tasks in the dryer. A pulley attached to one end of the motor shaft uses a belt to drive the dryer drum. The blower wheel is attached to the other end of the motor shaft to pull the air through the clothes and force it out the exhaust vent.

### The Timer Motor Circuit:

When timer contacts B to C close line 1 is applied to one end of the timer motor winding. The other end of the timer motor is connected to terminal TM of the timer. Terminal TM is connected by an internal contact in the timer to terminal AD of the timer. Terminal AD is connected to the input side of the high limit thermostat. The high limit thermostat is connected to neutral through the coils of the gas valve and the centrifugal switches of the motor, whenever the motor is turning. The circuit formed by contacts B and C of the timer, the timer motor and contacts TM and AD are in parallel with a circuit formed by contacts B and A of the timer, contacts 1 and 2 of the fabric selector switch, and the contacts of the control thermostat. This circuit has either zero resistance when the contacts of the control thermostat are closed or infinity resistance when the contacts of the control thermostat are open. Since electrical current follows the path of least resistance, all the current flow is through the circuit formed by contacts B and A of the timer, contacts 1 and 2 of fabric selector switch, and the contacts of the control thermostat, when the contacts of the control thermostat are closed. With no current flowing through the timer motor, the timer motor does not turn. When the heat in drum opens the contacts of the control thermostat the only path for current flow is through the circuit formed by contacts B and C and contacts TM and AD of the timer and the timer motor winding. With current flow through the motor winding the timer motor turns advancing the timer. At the start of the cycle the amount of heat energy needed to drive the moisture from the clothes slows the temperature rise in the dryer and the contacts of the control thermostat remain closed preventing the timer from advancing. As the clothes dry, it takes less heat energy to maintain the temperature in the drum. This causes the contacts of the control thermostat to be open a higher percentage of the time allowing the timer motor to run more.

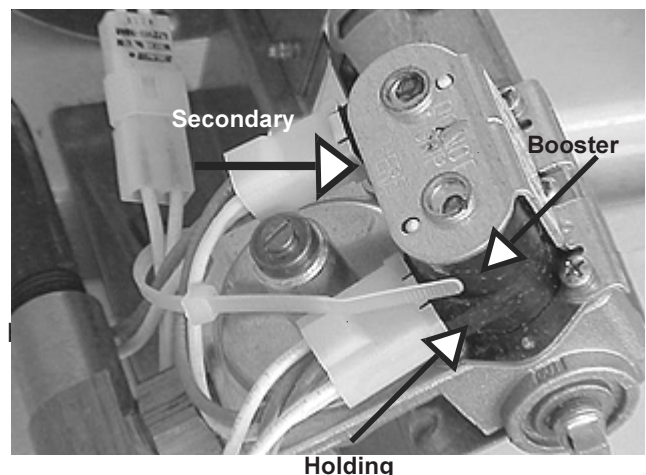
### The Heat Circuit:

Timer contacts B to A connect line 1 to terminal 1 of the fabric selector switch. The fabric selector switch allows the dryer to be set to operate at High temperature, Medium temperature, Low temperature and Air Fluff. (In the Air Fluff setting the drum turns but the

heater does not operate). Whenever the fabric selector switch is set to either High, Medium or Low contact 1 is closed to contact 2 and line 1 is applied to the control thermostat. When the fabric selector switch is set to either Medium or Low, power is applied to a small heater in the control thermostat, and the contacts of the control thermostat are cycled by a combination of heat from the heater and the heat in the drum. When the fabric selector switch is set to Medium, contacts 3 to 4 of the switch are closed connecting the series circuit formed by a 3000 Ohm resistor and the small heater in the control thermostat to neutral. When the fabric selector switch is set to Low, contacts 4 to 5 of the switch are closed connecting the small heater in the control thermostat to neutral. Since more current flows through the thermostat heater in the Low setting the contacts cycle at a lower drum temperature than Medium.

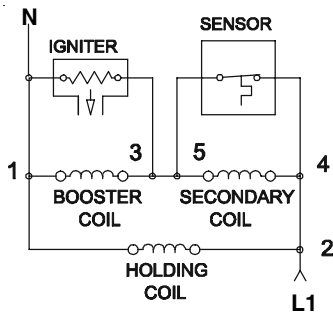
The control thermostat senses the temperature of the air in the blower housing and controls the temperature in the drum by opening and closing the heater circuit. When the temperature in the drum is below the cycle temperature, the contacts are closed, connecting line 1 to the high limit thermostat. The high limit thermostat is a safety device that prevents the dryer from overheating, if the contacts of the control thermostat fail closed. The contacts of the high limit thermostat are normally closed and are set to open at a temperature above the cycling temperature of the control thermostat. From the output terminal of the high limit thermostat, line 1 is connected to one side of, the holding coil of the gas valve, the secondary coil of the gas valve and the sensor that is mounted on the combustion chamber.

The holding coil, secondary coil, booster coil, sensor and igniter circuits interact with one another to assure safe operation of the dryer gas

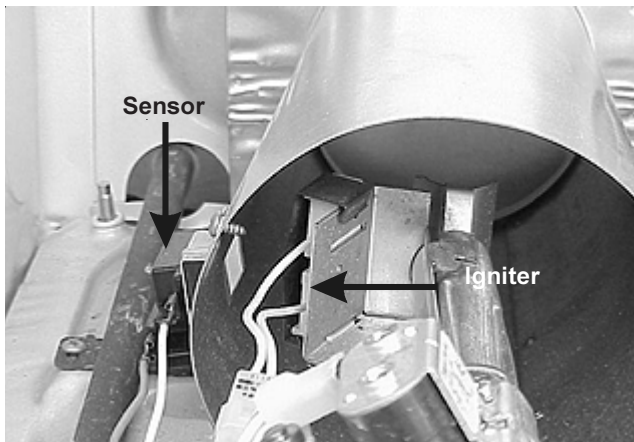


The gas valve has two chamber in series, both must

be opened before gas will flow into the burner. The solenoid that controls the gas flow through the first chamber has two coils: the booster coil and the holding coil. The solenoid that controls the second chamber has one coil: the secondary coil.



The other side of the holding coil, booster coil and igniter are connected to neutral through the two centrifugal switches in the motor, that are closed when the motor is running, and the door switch. When power is palled across these circuits, current flows through the holding coil, but the holding coil does not have enough magnet force to open the solenoid by itself. At the same time current flows through sensor contacts providing power to the booster coil and the igniter. When current flows through both the holding and booster coils, the first solenoid opens. The contacts of the sensor are in parallel with the secondary coil. As long as the contacts of the sensor remain closed, current flow bypasses the secondary coil, and gas is prevented from flowing through the second chamber to the burner.



It is necessary to raise temperature above 1100° F to ignite gas. As current flows through the igniter, the temperature of igniter is raise from room temperature to around 1800° F within 30 seconds. The contacts of the sensor are heat sensitive and set to open above the ignition temperature of gas. When the sensor contacts open, current flows through the secondary coil

opening the second chamber allowing gas to the burner, which is ignited by the heat of the igniter. When the contacts of the sensor are open, the parallel circuit formed by the igniter and the booster coil are in series with secondary coil which lowers the current flow through the igniter and booster coil. Since it takes less magnetic force to hold a solenoid open than it does to open it, the first solenoid remains open when the current through the booster coil is reduced. The reduction of current flow through the igniter reduces heat from the igniter but the sensor contacts are held open by the heat of the burner flame.

### The Air Fluff Circuit:

When the fabric selector switch is set to air fluff contacts 1 to 2 are opened removing power from the valve circuit. The drum turns but the burner does not heat.

### Automatic Perm Press:

The Automatic Prem Press Cycle operates the same as the Automatic Regular cycle for the first 15 minutes of timer run time. Then contacts B to A open removing power from the heat circuit and causing the timer motor to run continuously for the last 30 minutes. During the last 30 minutes, the buzzer will sound 5 or 6 times.

### The Cycle Signal Circuit:

The end of cycle signal circuit is made up of the cycle signal (buzzer). The cycle signal are connected in parallel with terminals B and C of the timer. Terminal B and one side of the cycle signal are connect to line 1. Terminal C and other side of the cycle signal is connected through the motor centrifugal switch to neutral. When the dryer is operating terminal B is connected to terminal C by contacts B and C of the timer and the cycle signal circuit is shorted out. At the end of the cycle contacts B and C open and current flows through cycle signal (about 5 seconds) until the motor stops and the centrifugal switch opens.

### Timed Dry Cycle:

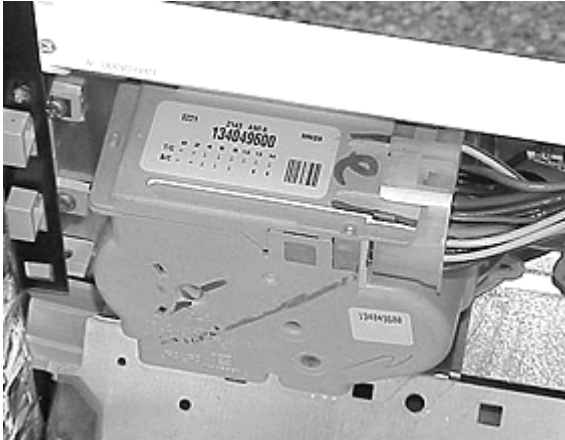
The time dry cycle operates the same as the auto dry cycle except for the operation of the timer motor. When the dial is turned to the timed dry section, contacts TM to X in the timer close connecting the timer motor to neutral through the centrifugal switch in the motor. The timer motor then runs continuously until contacts B to C of the timer opens and the motor stops.



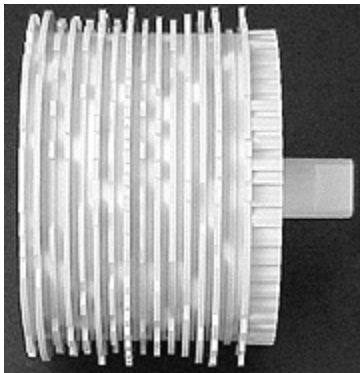
## SECTION E - WASHER SECTION OPERATION

### Timer:

The timer is located in the console and controls electrical power to the components of the washer.



The timer is made up of a motor driven spool that advances one increment a minute whenever electrical power is applied to the motor.



The spool has 14 cams that open and close the 24 contacts that supply electric power to components at the correct time in the cycle.

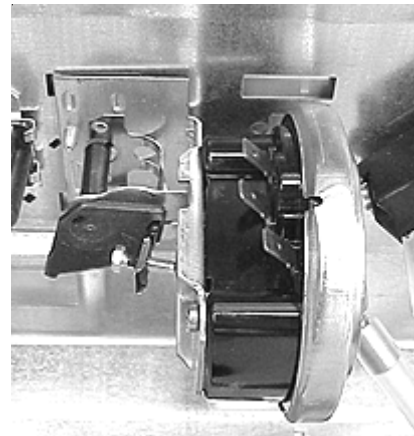
To help determine when each set of contacts are closed, a timer cycle chart is provided with each washer. (A sample timer cycle chart is shown on the following page.) The first column of the chart is titled CAM. In this column are numbers 0, 2, 4, 6, 8, 10, 12 and 14 that equate to the number of cams starting at the rear of the timer. The next two columns are titled TERM for terminals and are identified as ACTIVE and FIXED. The active terminals are the terminals that are moved by the cams, the fixed terminals are the ones that do not move. The active terminals are usually the terminals that have power applied to them with the fixed

terminals connected to the components that power is being applied to. The next column is titled CONTACT and identified as T for the top contacts of the fixed terminals and B for the bottom contacts of the fixed terminals. The next column is titled CIRCUIT and indicates the circuit controlled by the cam, terminals and contacts. For example, CAM 4, ACTIVE terminal 8, FIXED terminal 9, and CONTACT B controls the drain pump circuit at specific times. Each circuit has a horizontal line extending across the timer chart. The remaining columns make up the wash cycles and are connected by vertical lines below to the step time in minutes and the step number. When the boxes formed by the horizontal lines from the circuit and the vertical lines step time are filled in, this indicates that electrical power is applied to that circuit at that time in the cycle.

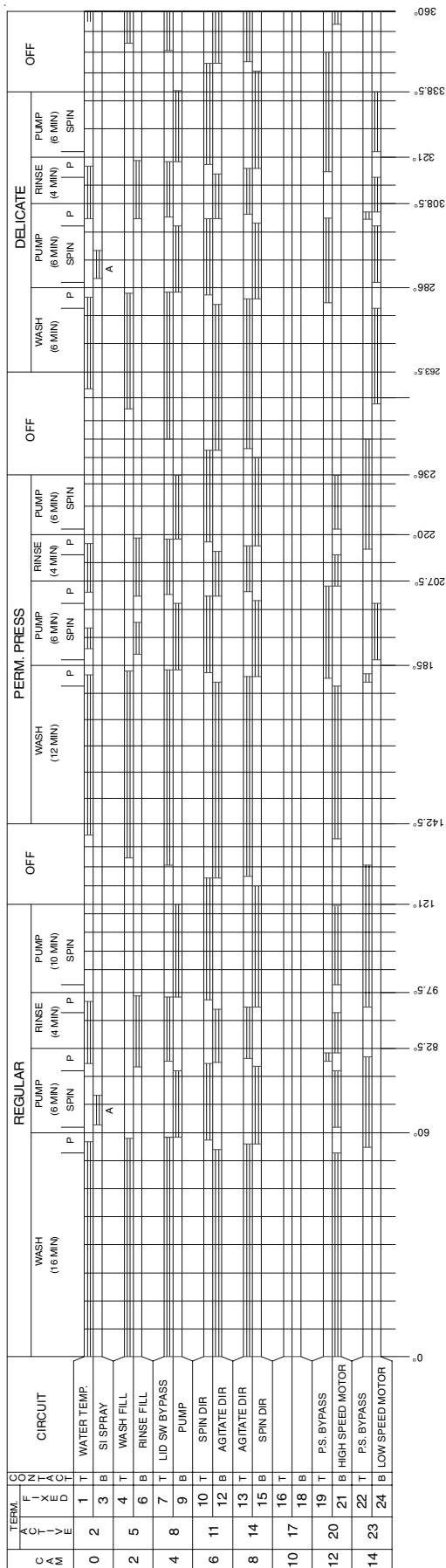
**IMPORTANT NOTE:** Only the cam numbers shown in circles and terminal numbers shown as T and the number are called out on the schematic and wiring diagram.

### Pressure Switch Assembly:

The pressure switch is located in the console.

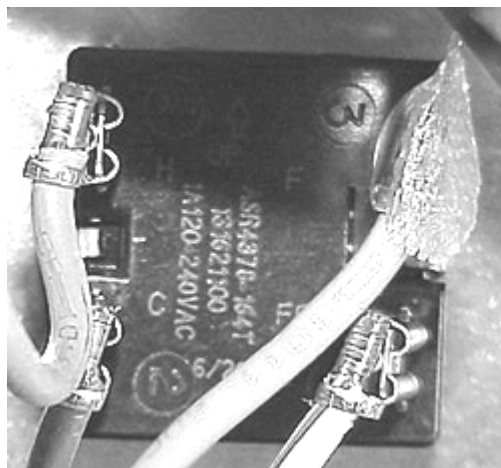


It is made up of a knob and gear assembly that allows the user to adjust the water level in the tub, an adjustable pressure switch and plastic tubing that connects the pressure switch to the outer tub. When the tub does not have water in it, the air in the plastic tubing is at atmospheric pressure and the spring in the pressure switch holds contacts 1 to 2 closed, completing the circuit to the water valves. As water enters the tub the air in the tube is compressed. When pressure in the tube exceeds the pressure of the spring in the pressure switch, the contacts of the pressure switch change from 1 to 2 to 2 to 3, turning off the water valves and supplying power to the motor circuit.



### Wash/Rinse Temperature Switch:

The wash/rinse temperature switch is located in the console.



The wash/rinse temperature switch allows the user to select the water temperature in the wash and rinse cycles. The switch controls the water temperature by supplying power to the hot and cold solenoids of the water valve.

The switch has 2 input terminals that receive power from the timer. Two output terminals that are connected to the hot and cold solenoids of the water valve.

TEMPERATURE SWITCH CIRCUIT			
WASH/RINSE	F-H	FF-H	FF-C
HOT/COLD	X	O	O
WARM/WARM (OPT)	O	X	X
COLD/COLD	O	O	X
WARM/COLD	X	O	X

X=SWITCH CLOSED O=SWITCH OPEN

### Lid Lock Assembly:

The lid lock assembly is a safety device that removes power from the motor circuits when the lid is lifted during agitation and locks the lid to prevent it from being opened during the spin cycle. The lid lock assembly is mounted to the bottom of the top panel and locks the lid by moving a locking arm through the lid strike.



### Softener Dispenser:

The softener dispenser is mounted on the top of the agitator on 2.7 cu. ft. models and in the agitator on 3.0 cu. ft. models.



The liquid fabric softener remains in the dispenser during the wash cycle. During the first spin cycle, the softener moves from the dispenser to the outer cavity of the dispenser or agitator and is held in place by centrifugal force until the end of the spin cycle.

The softener is then dispensed into the tub during the rinse fill portion of the wash cycle.

### Agitator:

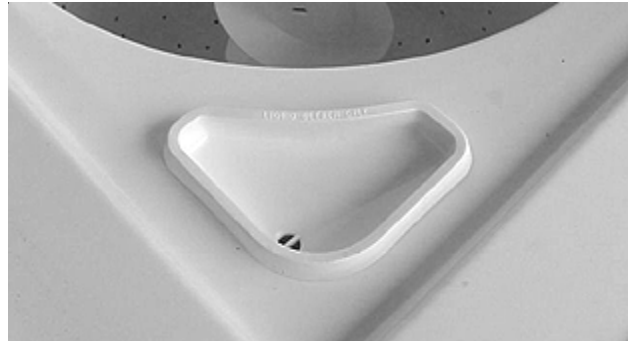
The agitator is located in the center of the inner tub



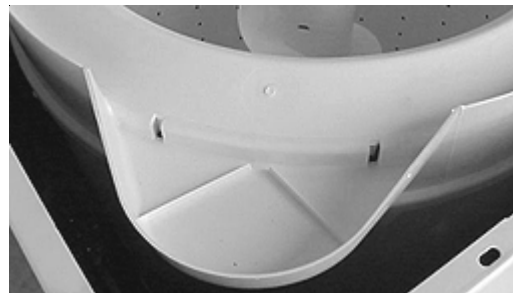
The agitator is driven by the shaft of the transmission and rotates back and forth to move the clothes through the water.

### Bleach Dispenser:

The bleach dispenser has two parts. One part is mounted in the top panel where liquid bleach is added.



The second part is molded into the tub cover and dispenses the bleach between the tub and the spin basket. The spin basket prevents the bleach from getting on the clothes until the bleach is mixed with the fill water.



### Water Inlet Valve:

The water valve is mounted to the rear panel under the main top in the right-hand side.



The water inlet valve is actually two solenoid operating valves in one body - a hot water valve and a cold

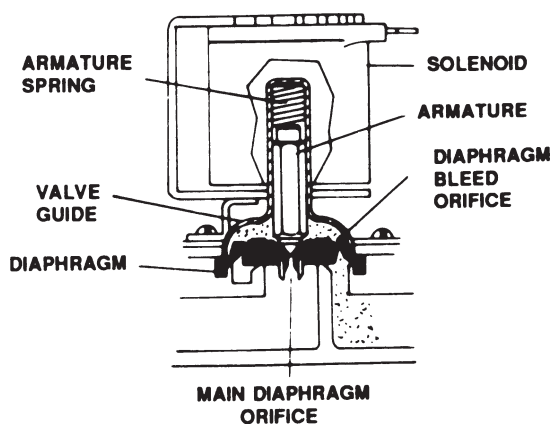
water valve that discharge into a common mixing chamber. The flow of water out of the chamber is controlled by a molded in flow washer capable of maintaining a flow rate of 3.0 - 14.6 gallons per minute, with incoming water pressure of 30 to 120 P.S.I. The inlet valve is controlled by the timer and water temperature selector switch, individually or together, to provide hot, cold, or warm water for washing and cold or warm water for rinsing. The temperature of the warm mixture will be dependent upon the temperature and pressure of the hot and cold water supply lines.

**Valve Operation:**

Both inlet solenoid valves are identical in construction and operation. The valve body provides an air passage with a large orifice and seat where the water can be stopped. The outlet of the valve body empties into the mixing chamber. A moveable rubber diaphragm operates against the valve seat to start and stop the flow of water. The diaphragm is operated by water pressure. It has a small bleed orifice outside the seat contact area, and a large main orifice at its center. The armature of the solenoid serves to open and close the main orifice. The armature operates within a closed metal tube (valve guide) which is sealed by the outer edge of the diaphragm to the valve body. A coil spring holds the armature down against the diaphragm main orifice when the solenoid is not energized.

The following line drawings and text explains basic valve operation.

When the valve is in a closed position, the solenoid is not energized. Water has bled through the diaphragm bleed orifice placing incoming line pressure on top of the diaphragm. The bottom of the diaphragm is essentially at atmospheric pressure (open to the outlet) and the pressure differential holds the valve shut.

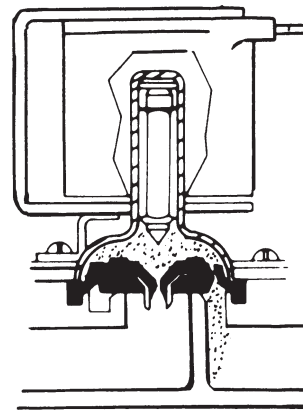


Water Valve Closed

When the solenoid is energized, the resulting

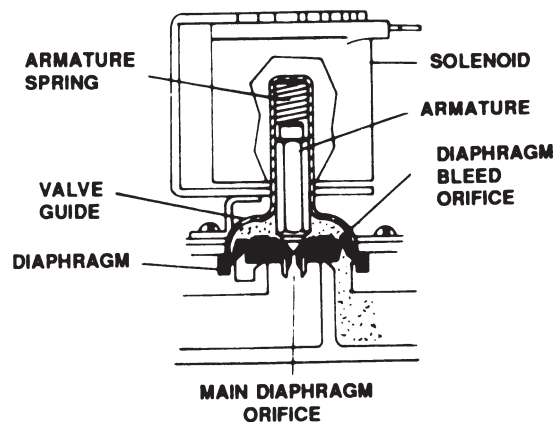
magnetic field pulls the armature up into the valve guide. The armature spring is compressed by this action. When the armature moves up, it allows the water on the top of the diaphragm to drain through the main orifice.

The diaphragm bleed orifice is much smaller than the main orifice and will not admit enough water to maintain pressure on the top side of the diaphragm. Thus, as the pressure on the top of the diaphragm is reduced to almost zero, the pressure on the bottom lifts the diaphragm off the valve seat, allowing a full flow of water.



Solenoid Activated

When the valve is in a closed position, the solenoid is not energized. Water has bled through the diaphragm bleed orifice placing incoming line pressure on top of the diaphragm. The bottom of the diaphragm is essentially at atmospheric pressure (open to the outlet) and the pressure differential holds the valve shut.



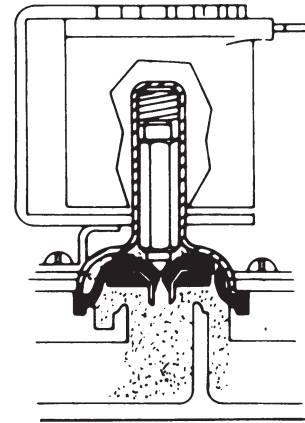
Water Valve Closed

When the solenoid is energized, the resulting

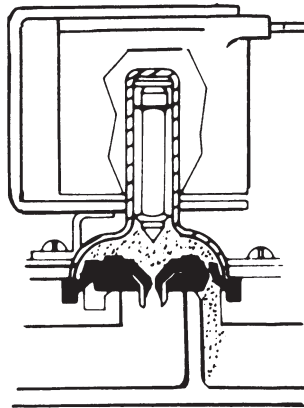


magnetic field pulls the armature up into the valve guide. The armature spring is compressed by this action. When the armature moves up, it allows the water on the top of the diaphragm to drain through the main orifice.

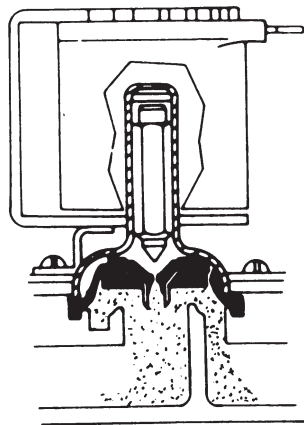
The diaphragm bleed orifice is much smaller than the main orifice and will not admit enough water to maintain pressure on the top side of the diaphragm. Thus, as the pressure on the top of the diaphragm is reduced to almost zero, the pressure on the bottom lifts the diaphragm off the valve seat, allowing a full flow of water.



Water Valve Closing



Solenoid Activated

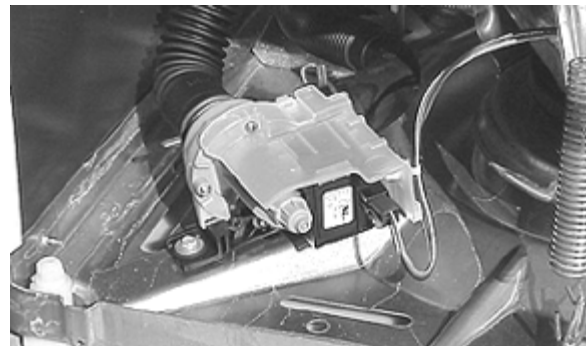


Water Valve Open and Diaphragm Up

When the solenoid is de-energized, the armature drops down, closing the diaphragm main orifice. Water continues to flow through the diaphragm bleed orifice, equalizing the pressure and allowing the spring to push the diaphragm down against the valve seat.

### Drain Pump:

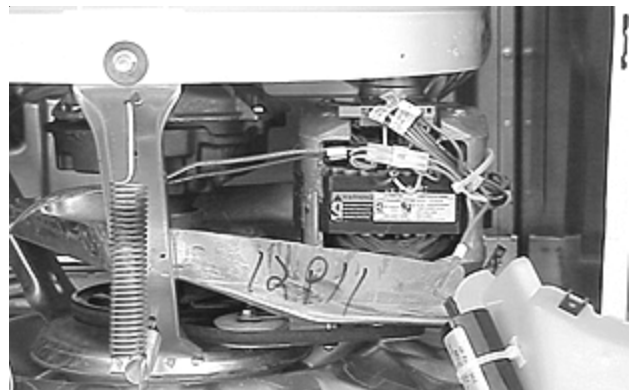
The drain pump is mounted in the left front corner of the washer base.



It operates on 120 VAC and is controlled by the timer. The pump out specifications of the drain pump vary from 12 G.P.M with a 3 foot standpipe height to 7 G.P.M. with a 8 foot standpipe height.

### The Motor:

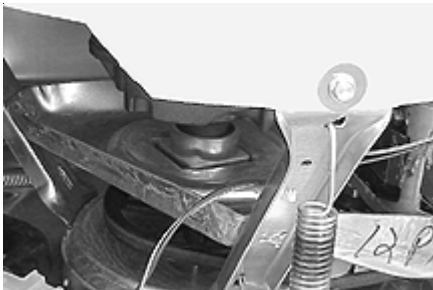
The motor is mounted to transmission mounting plate, which is part of the leg and dome assembly, and is located at the right front under the tub.



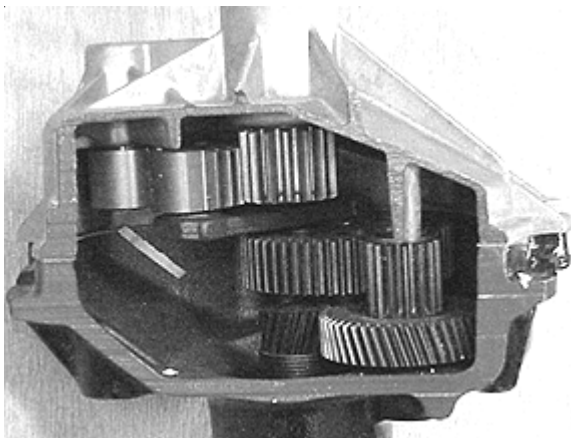
The motor is a capacitor start, bi-directional motor. Depending on the model, it is either 1/2 or 3/4 HP with 1 or 2 speeds. The motor drives the transmission by a belt. When the motor turns clockwise the transmission agitates. When the motor turns counterclockwise the transmission spins.

**Transmission:**

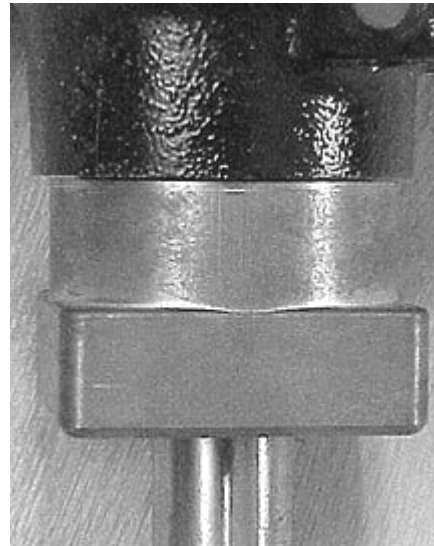
The top of the transmission is centered in the outer tub by a bearing and seal assembly. The bottom of the transmission mounts to the transmission mounting plate by bolts through the bearing block.



The agitator shaft of the transmission is connected to the agitator. When the pulley on the transmission is turned clockwise the gears inside the transmission cause the shaft to oscillate back and forth. Simultaneously, the one-way bearing located at the base of the transmission locks to prevent turning of the transmission and spin basket.

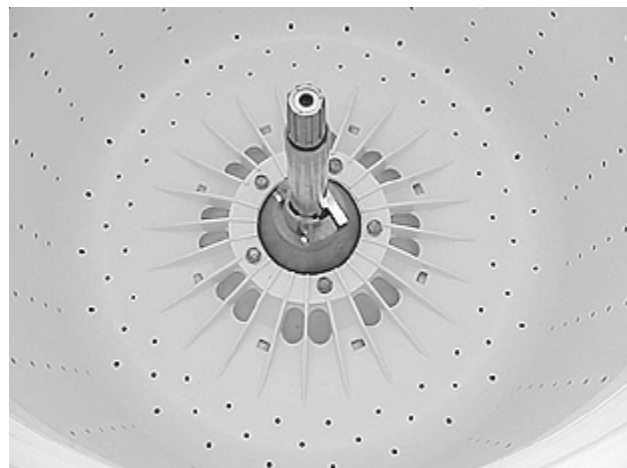


The spin basket is fastened to the spin shaft of the transmission. When the pulley on the transmission is turned counterclockwise, a small spring inside the transmission tightens around the input shaft causing the transmission and spin basket to turn. Simultaneously, the one-way bearing located at the base of the transmission slips to allow turning of the transmission and the spin basket.



**Spin Basket or Inner Tub:**

The spin basket is mounted to the top of the transmission.



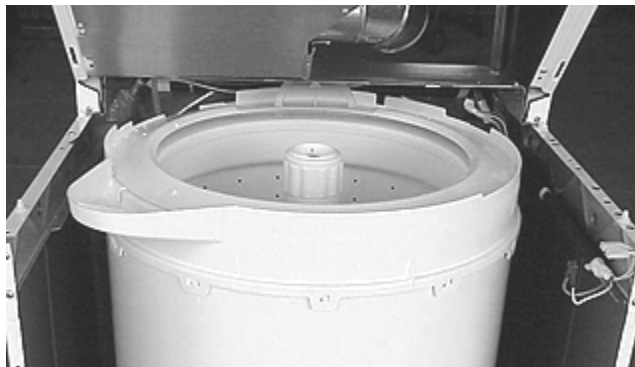
The spin basket holds the clothes. During the wash cycle the movement of the agitator draws water up through the lint screen filter in the bottom of the spin basket and forces it out the holes in the side and the bottom. As the water circulates lint is trapped on the under side of the filter screen. During the drain cycle the water is drawn down through the filter screen

flushing the lint out the drain. Because of the one way bearing at the bottom of the transmission and the movement of the agitator, the spin basket rotates or indexes during the agitation cycle. Molded into the top of the spin basket is a liquid filled ring that works as a counter balance during the spin cycle to reduce vibration.



#### **Splash Tub Cover:**

The splash tub cover snaps to the top of the outer tub and prevents water from splashing out over the outer tub.



#### **Outer Tub:**

The outer tub holds the water and is mounted to the three legs of the leg and dome assembly.



#### **Leg and Dome Assembly:**

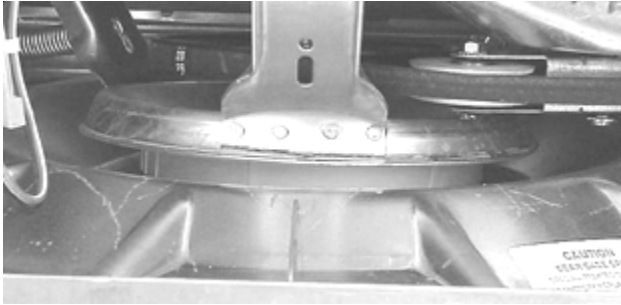
The leg and dome assembly rests on the snubber and is held down and centered by six springs.



The leg and dome assembly supports the outer tub, transmission and drive motor.

**Snubber:**

The snubber is located between the leg and dome assembly and the base.



The snubber allows the leg and dome assembly to move while the base remains stationary.

**Base:**

The base is made of heavy metal that is embossed for strength.



The base supports the complete weight of the laundry center, clothes and water.

## ELECTRICAL OPERATION

In the washer section all power passes through the thermo fuse in the drive motor.

### Fill circuit

At the start of the **Wash Cycle**, power passes through terminals M3 and M7 of the drive motor (the thermo fuse). During the fill cycle power from M7 is applied to one side of the hot and cold solenoids of the water inlet valve. The other side of the hot solenoid is connected to terminal H of the temp switch. The other side of the cold solenoid is connected to terminal T6 of the timer. Terminal T6 is connected internally in the timer to terminal T3, which in turn is connected to terminal C of the temp switch.

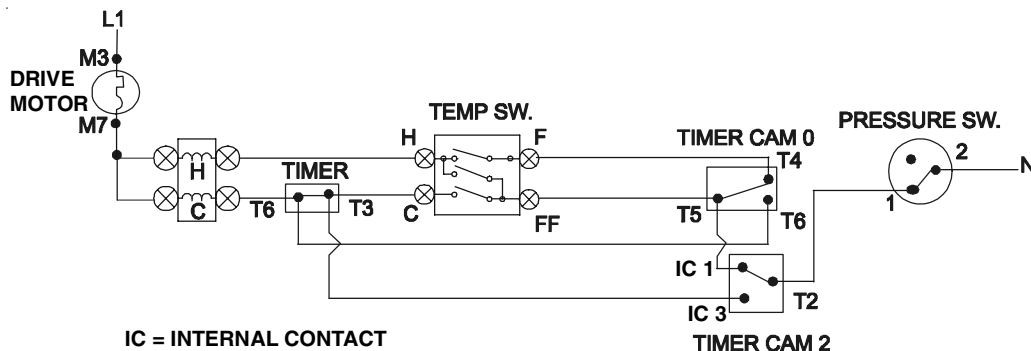
### During the wash cycle when temp switch is set to:

**Hot /Cold** Contacts H to F of the temp switch are closed and power is applied to terminal T4 of the timer. T4 is closed T5 and T5 is connected to internal contact IC1 inside the timer. Internal contact IC1 is closed to T2 connecting the circuit to terminal 1 of the pressure switch. When the tub does not have water in it, terminal 1 of the pressure switch is closed to terminal 2 of the pressure switch completing the circuit to neutral.

**Warm / Cold** Contacts H to F and C to FF of the temp switch are closed and power is applied to terminals T4 and T5 of the timer. T4 is closed T5 and T5 is connected to internal contact IC1 inside the timer. Internal contact IC1 is closed to T2 connecting the circuit to terminal 1 of the pressure switch. When the tub does not have water in it terminal 1 of the pressure switch is closed to terminal 2 of the pressure switch completing the circuit to neutral.

**Cold / Cold** Contacts C to FF of the temp switch are closed and power is applied to terminal T5 of the timer. T5 is connected to internal contact IC1 in the timer. Internal contact IC1 is closed to T2 connecting the circuit to terminal 1 of the pressure switch. When the tub does not have water in it terminal 1 of the pressure switch is closed to terminal 2 of the pressure switch completing the circuit to neutral.

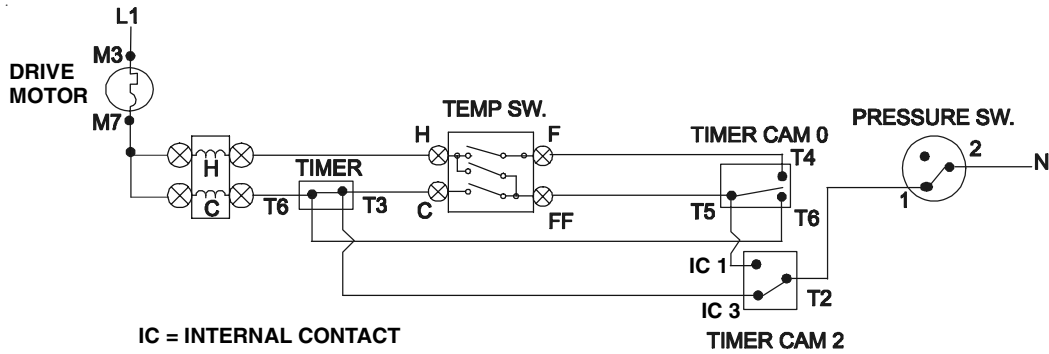
**Warm / Warm** Contacts H to F and C to FF of the temp switch are closed and power is applied to terminals T4 and T5 of the timer. T4 is closed T5 and T5 is connected to internal contact IC1 inside the timer. Internal contact IC1 is closed to T2 connecting the circuit to terminal 1 of the pressure switch. When the tub does not have water in it terminal 1 of the pressure switch is closed to terminal 2 of the pressure switch completing the circuit to neutral.



**Spray Rinse During the First Pump Cycle with the Temp Switch Set To:**

**All Settings**

Timer terminal T2 swings from internal contact IC1 to internal contact IC3. Connecting the cold water solenoid to neutral.



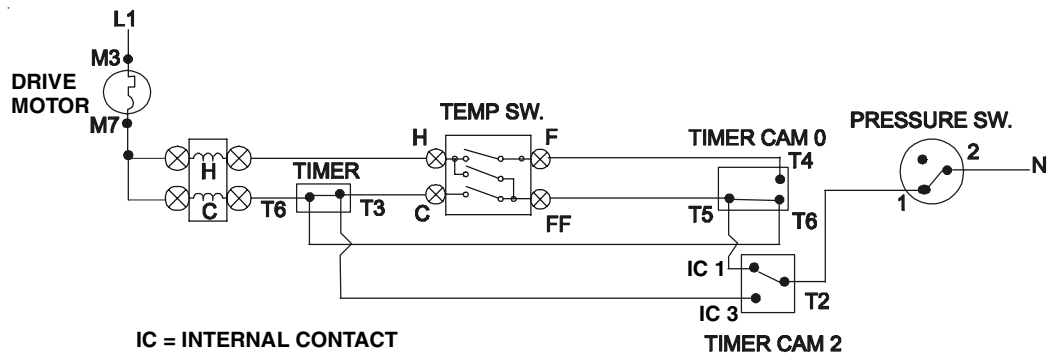
**During the Rinse Cycle with Temp Switch Set To:**

**All Settings other than Warm**

Timer terminal T2 closes to IC 1 and timer terminal T5 closes to T6 connecting **Warm/** the cold water solenoid to neutral.

**Warm / Warm**

When the temp switch is set to Warm/Warm contacts H to FF and contacts C to FF are closed. This provides two path that connect the cold water solenoid to neutral. One from terminal T6 to terminal T5 which is connected internally to internal contact IC1 in the timer. Internal contact IC1 is closed to T2 which is connected to neutral through the pressure switch. The other path for current flow for the cold water solenoid is through C to FF of the temp switch. Terminal FF of the temp switch which is connected to terminal T5 of the timer. Terminal T5 is connected to internal contact IC1, which is closed to terminal T2 of the timer. Terminal T2 is connected to neutral through the pressure switch. With the contact H closed to FF in the temp switch the hot water solenoid is connected through the same path providing a warm water rinse.

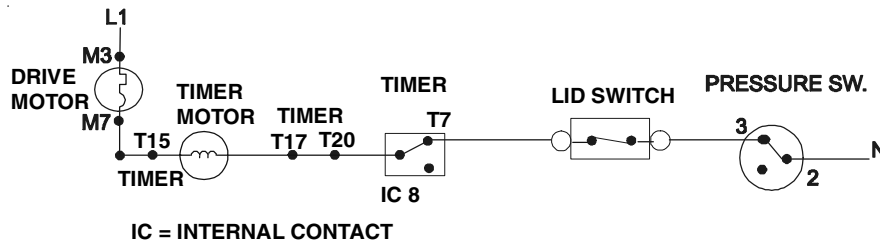




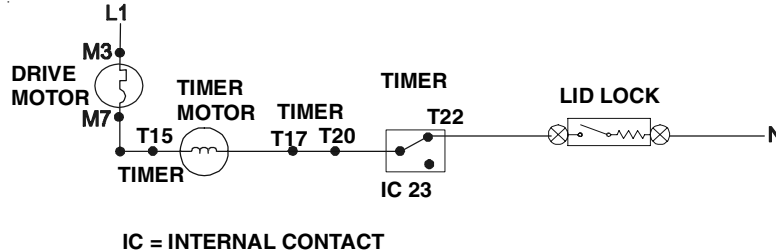
## Timer Motor Circuit

Power is not supplied to the timer motor during the fill cycle.

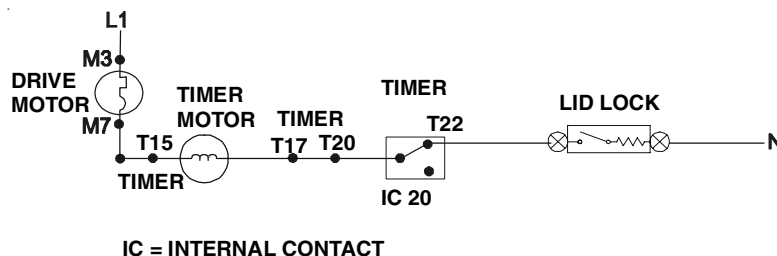
During the wash and rinse cycles power is applied through the thermo fuse in the drive motor to terminal T15 of the timer. One side of the timer motor is connected to timer terminal T15 with the other side connected to timer terminal T17. Terminal T17 is connected to timer terminal T20 by a jumper wire. Terminal T20 is connected to internal contact IC 8 of the timer. During the wash and rinse cycles IC8 is closed to terminal T9 of the timer. Terminal T9 is connected to one side of the lid switch. When the lid is closed power is applied terminal 3 of the pressure switch. When the tub fills with water and the pressure switch swing from terminals 1 to 2 to terminal 3 and 2 the timer motor is connected to neutral.



In regular wash during the pump and spin cycles and the last spin cycle of perm press, power is applied through the thermo fuse in the drive motor to terminal T15 of the timer. One side of the timer motor is connected to terminal T1 of the timer with the other side connected to terminal T17 of the timer. Terminal T17 is connected to timer terminal T20 by a jumper wire. Terminal T20 is connected to internal contact IC 23 of the timer. During the pump and spin cycles IC 23 is closed to terminal T22 of the timer. Terminal T22 is connected to neutral through the lid lock assembly.

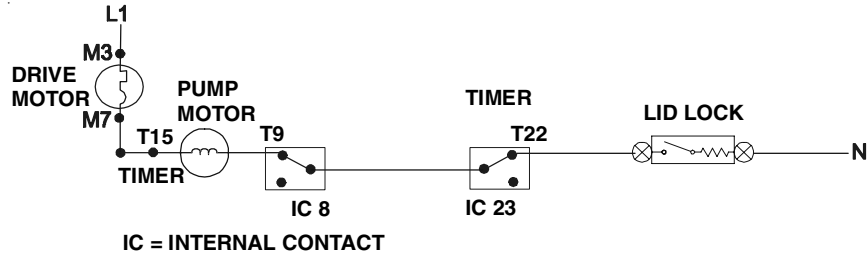


In delicate during the pump and spin cycles and the first spin cycle of perm press, power is applied through the thermo fuse in the drive motor to terminal T15 of the timer. One side of the timer motor is connected to terminal T15 of the timer with the other side connected to terminal T17 of the timer. Terminal T17 is connected to terminal T20 of the timer by a jumper wire. Terminal T20 is connected to internal contact IC20 of the timer. During the pump and spin cycles IC20 is closed to terminal T22 of the timer. Terminal T22 is connected to neutral through the lid lock assembly.

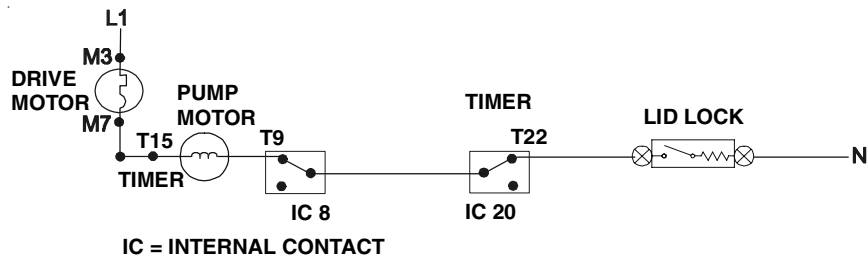


## Drain Pump

In regular wash during the pump and spin cycles and the last spin cycle of perm press, power is applied through the thermo fuse in the drive motor to terminal T15 of the timer. One side of the pump motor is connected to terminal T15 with the other side connected to terminal T9 of the timer. Terminal T9 is connected to internal contact IC8 of the timer. Internal contact IC8 is connected to internal contact IC23 of the timer. During the pump and spin cycles IC23 is closed to terminal T22 of the timer. Terminal T22 is connected to neutral through the lid lock.



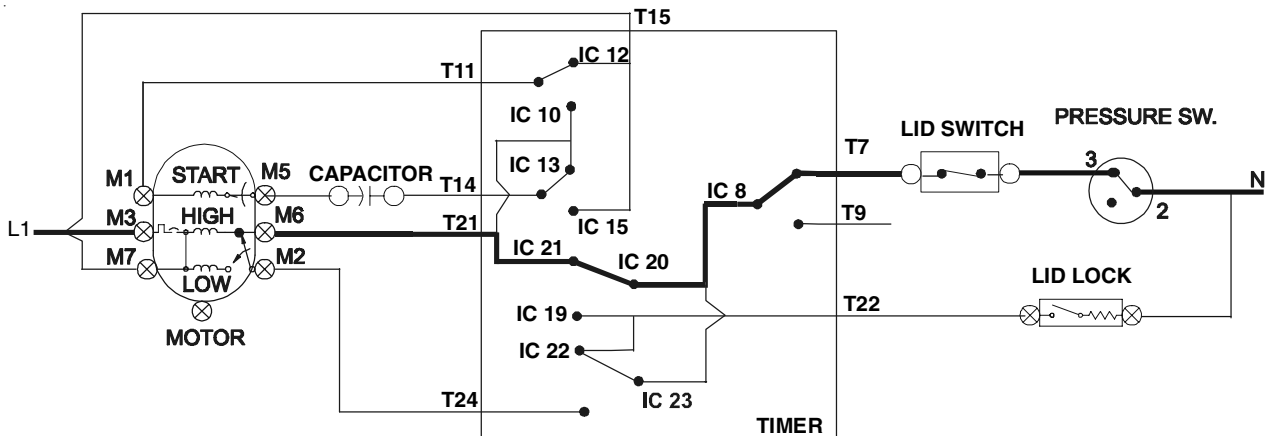
In delicate during the pump and spin cycles and the first spin cycle of perm press, power is applied through the thermo fuse in the drive motor to terminal T15 of the timer. One side of the pump motor is connected to terminal T15 with the other side connected to terminal T9 of the timer. Terminal T9 is connected to internal contact IC8 of the timer. Internal contact IC8 is connected to timer internal contact IC20. During the pump and spin cycles IC 20 is closed to terminal T22 of the timer. Terminal T22 is connected to neutral through the lid lock.



## Drive Motor

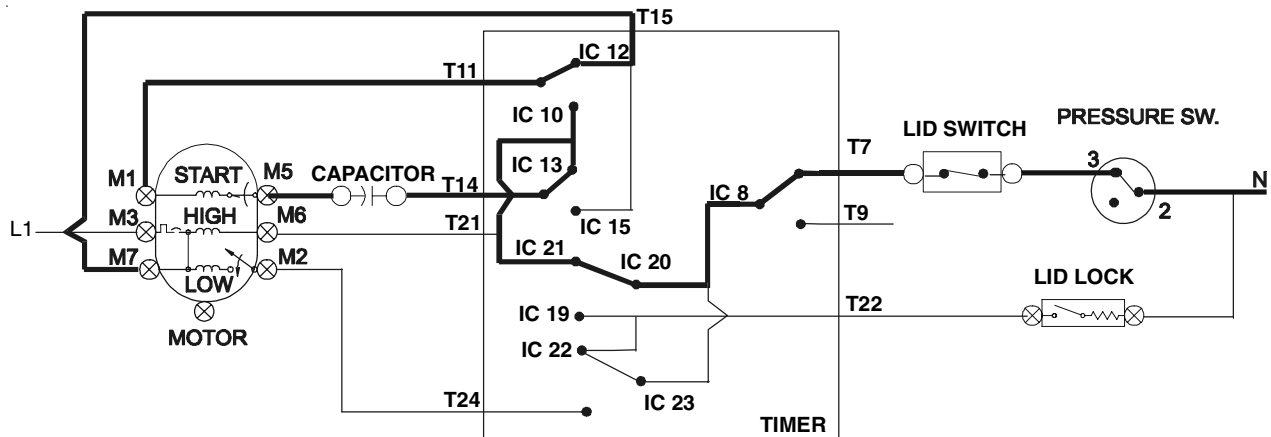
### High Speed Agitation

Line 1 is connected to terminal M3 of the motor. Terminal M3 is connected through the thermo fuse to one end of the high and low speed windings and terminal M7 of the motor. The other end of high speed winding is connected to terminal M6 of the motor and terminal M6 is connected to terminal T21 of the timer. Terminal T21 is connected to internal contact IC21 of the timer that is closed to internal contact IC20 of the timer. Internal contact IC20 is connected to internal contact IC8 of the timer, which is closed to terminal T7 of the timer. Terminal T7 is connected to neutral through the lid switch and terminal 3 and 2 of the pressure switch when the water fill is completed.





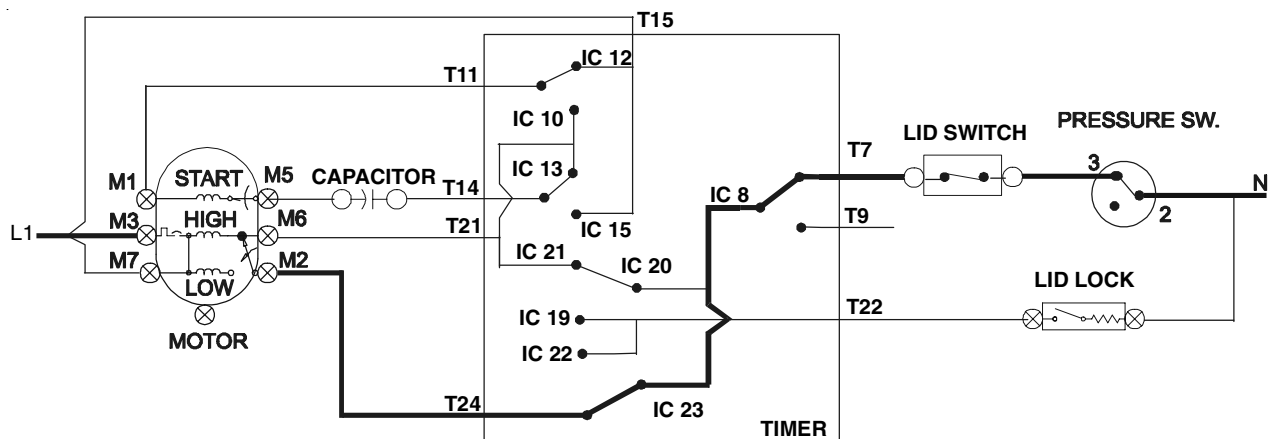
Terminal M7 supplies power to the start winding through timer terminal T15 that is connected in the timer to timer internal contact IC12. Internal contact IC12 is closed to timer terminal T11 that is connected to terminal M1 of the motor. Terminal M1 is connected to one end of the start winding. The other end of the start winding is connected to motor terminal M5 through the start winding centrifugal switch. From terminal M5 power is applied to one end of the start capacitor. The other end of the capacitor is connected to timer terminal T14. Terminal T14 is closed to timer internal contact IC13. Internal contact IC13 is connected to timer internal contact IC21 which is closed to timer internal contact IC20. Internal contact IC20 is connected to timer internal contact IC8. Internal contact IC8 is closed to timer terminal T7. Terminal T7 is connected to neutral through the lid switch and contacts 3 to 2 of the pressure switch.



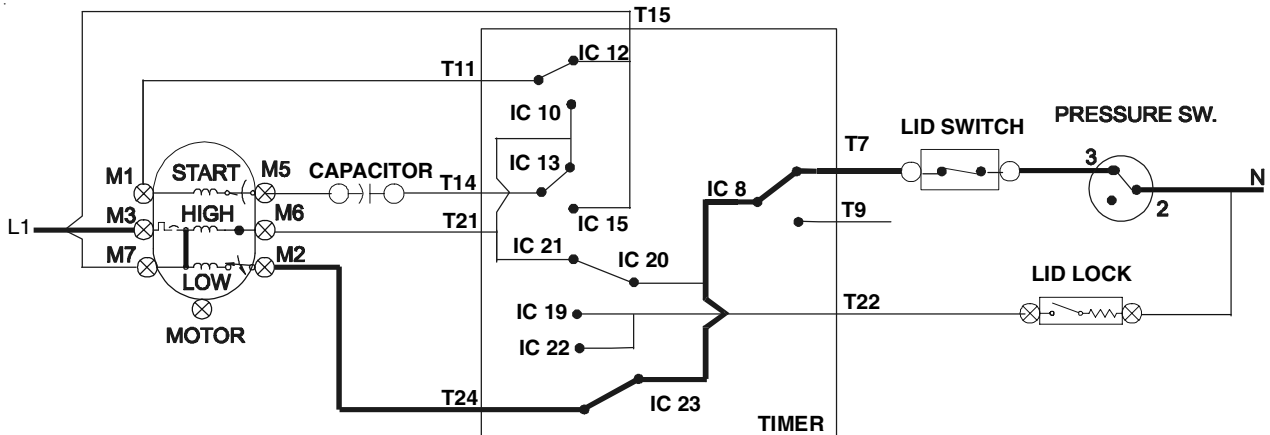
With current flowing through both the high speed run winding and the start winding, the motor starts to turn in a clockwise direction and the transmission operates in the agitation mode. When the speed of the motor reaches approximately 80 percent of its normal run speed the start winding centrifugal switch opens, removing power from the start winding.

### Low Speed Agitation

When the motor starts current flows through the high speed winding until the speed of the motor reaches approximately 80 percent of its normal run speed. During this time the run winding centrifugal switch connects the high speed winding to terminal M2 of the motor. Terminal M2 is connected to terminal T24 of the timer. Terminal T24 is closed to internal contact IC23 of the timer which is connected to internal contact IC8 of the timer. Internal contact IC8 is closed to terminal T7 of the timer. Terminal T7 is connected to neutral through the lid switch and terminal 3 and 2 of the pressure switch when the water fill is completed.

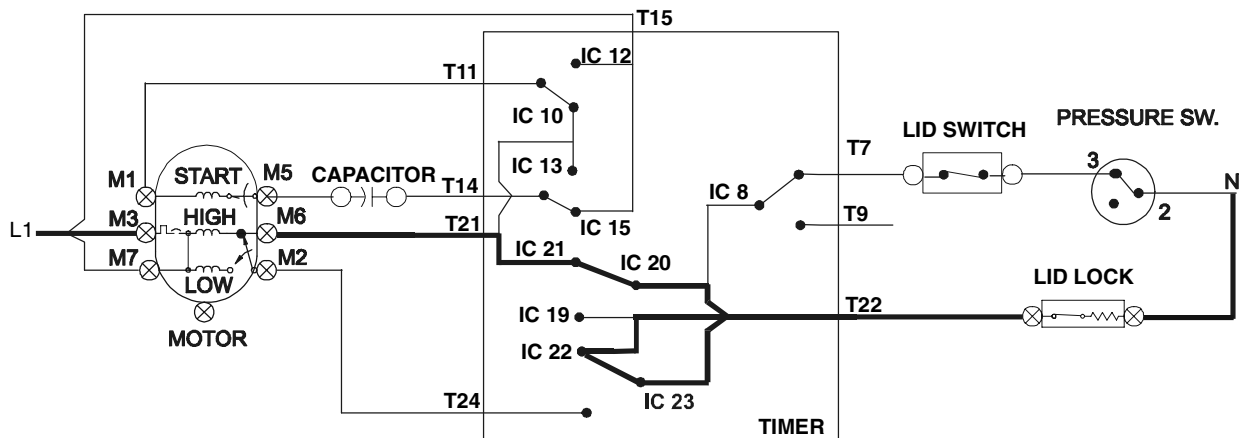


When the speed of motor reaches above 80 percent of it normal run speed, the run winding centrifugal switch swing from the high speed winding to the low speed winding. This removes the high speed winding from the circuit and connecting the low speed winding into the circuit.

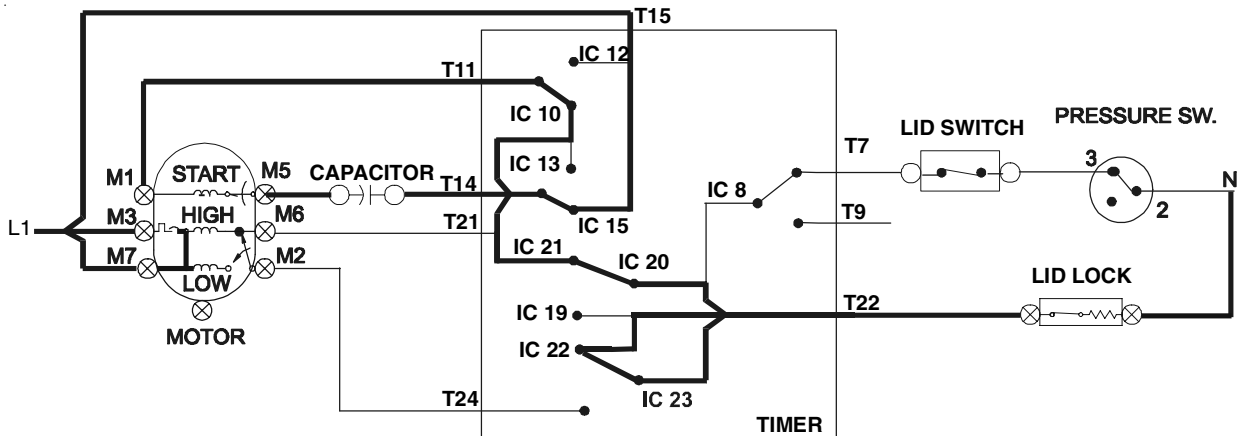


### High Speed Spin

Line 1 is connected to terminal M3 of the motor. Terminal M3 is connected through the thermo fuse to one end of the high and low speed windings and terminal M7 of the motor. The other end of high speed winding is connected to terminal M6 of the motor and terminal M6 is connected to terminal T21 of the timer. Terminal T21 is connected to internal contact IC21 of the timer that is closed to internal contact IC20 of the timer. Internal contact IC20 is connected to timer internal contact IC23 that is closed to internal contact IC22 of the timer. Internal contact IC22 is connected to timer terminal T22 which is connected to neutral through the lid lock assembly.



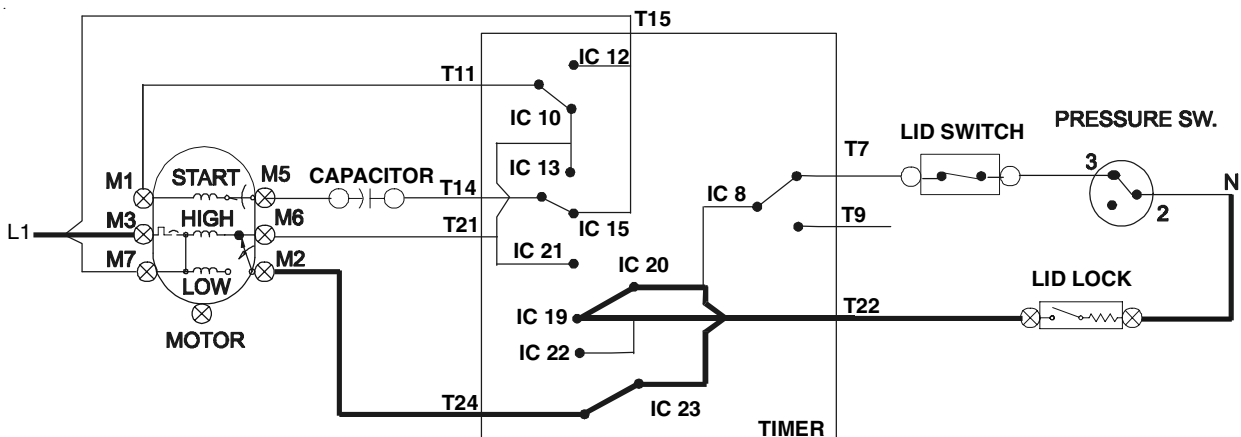
Terminal M7 supplies power to the start winding through timer terminal T15. Terminal T15 is connected in the timer to internal contact IC15. Internal contact IC15 is closed to terminal T14 of the timer which is connected to one end of the start capacitor. The other end of the capacitor is connected to terminal M5 of the motor. Terminal M5 is connected to one end of the start winding through the centrifugal switch. The other end of the start winding is connected to motor terminal M1 which is connected to terminal T11 of the timer. Terminal T11 is connected to internal contact IC10 of the timer. Internal contact IC10 is connected to internal contact IC21 that is closed to internal contact IC20. Internal contact IC20 is connected to timer internal contact IC23 which is closed to internal contact IC22 of the timer. Internal contact IC22 is connect to terminal T22 of the timer, which is connected to neutral through the lid lock assembly.



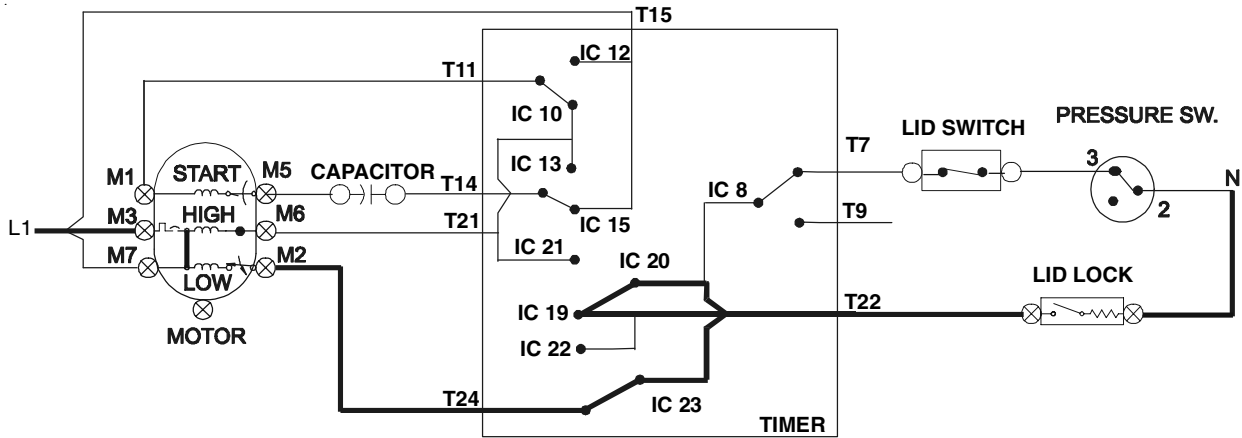
With current flowing through both the high speed run winding and the start winding the motor start to turn in a counter clockwise direction and the transmission operates in the spin mode. When the speed of the motor reaches approximately 80 percent of it normal run speed the start winding centrifugal switch opens, removing power from the start winding.

### Low Speed Spin

When the motor starts current flows through the high speed winding until reaches approximately 80 percent of it normal run speed. During this time the run winding centrifugal switch connects the high speed winding to terminal M2 of the motor. Terminal M2 is connected to terminal T24 of the timer, which is closed to internal contact IC23 of the timer. Internal contact IC23 is connected to internal contact IC20 of the timer, which is closed to internal contact IC19 of the timer. Internal contact IC19 is connected to terminal T22 of the timer that is connected to neutral through the lid lock assembly.



When the speed of motor reaches above 80 percent of it normal run speed, the run winding centrifugal switch swing from the high speed winding to the low speed winding. This removes the high speed winding from the circuit and connecting the low speed winding into the circuit.



## SECTION F - TROUBLESHOOTING FLOW CHARTS

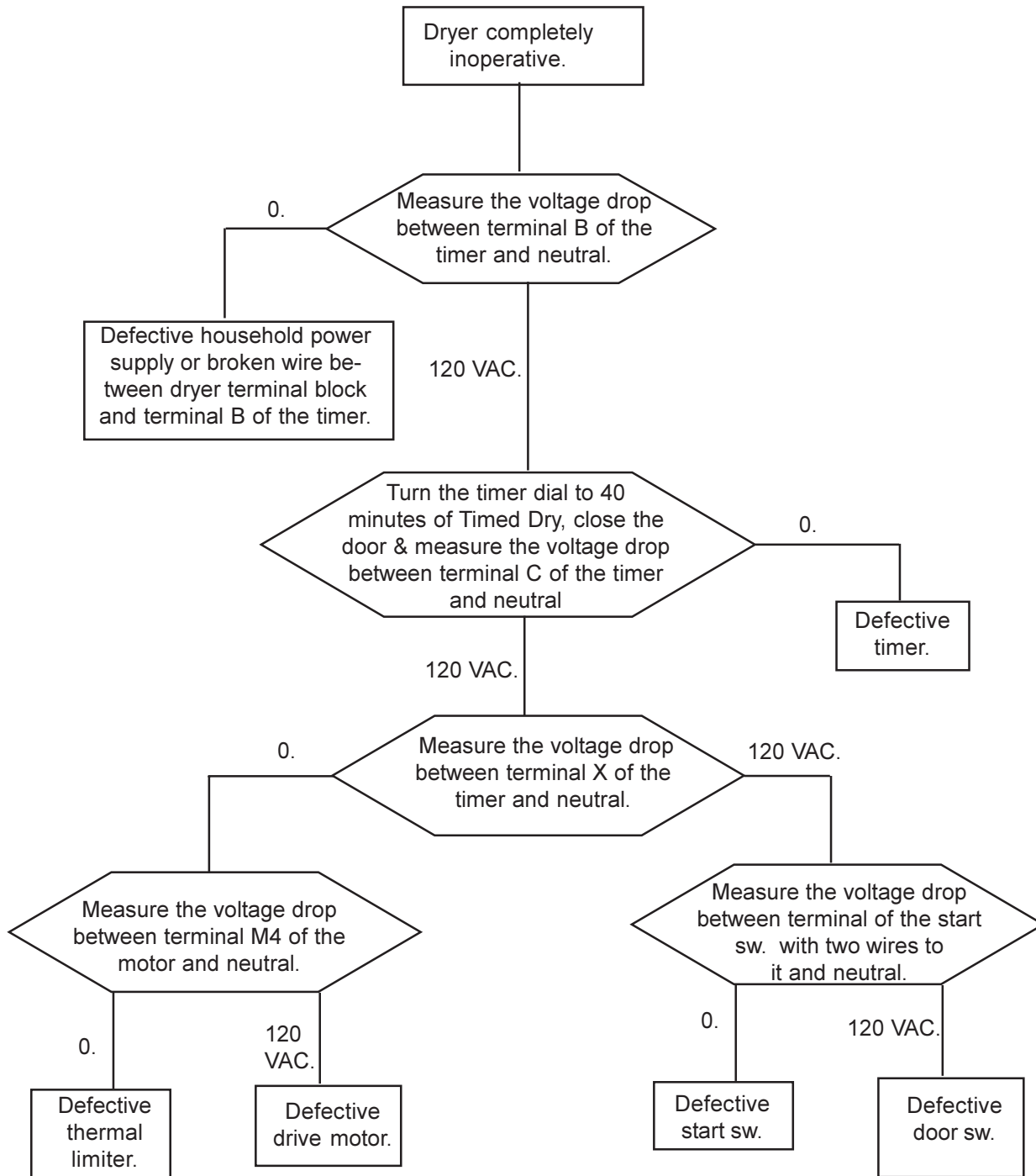
### Dryer section

**NOTE: Always check the wiring and pin/plug connectors before replacing any component.**

Electric Dryer Completely Inoperative.	Page 74
Gas Dryer Completely Inoperative.	Page 75
Electric Dryers, Blower Motor Runs but Timer does not Advance in Auto or Timed Dry.	Page 76
Electric Dryers, Timer Advances in Timed Dry but not in Auto Dry.	Page 76
Electric Dryers, Timer Advances in Auto Dry but not in Timed Dry.	Page 77
Electric and Gas Dryers Blower Motor Runs but Drum does not Turn.	Page 77
Electric and Gas Dryers Longer than Normal Drying Times.	Page 77
Electric Dryers Blower Motor Runs but Dryer does not Heat.	Page 78
Gas Dryers Blower Motor Runs but Dryer does not Heat.	Page 79
Electric and Gas Dryers Dryer Over Heating.	Page 80

## Electric Dryer Completely Inoperative.

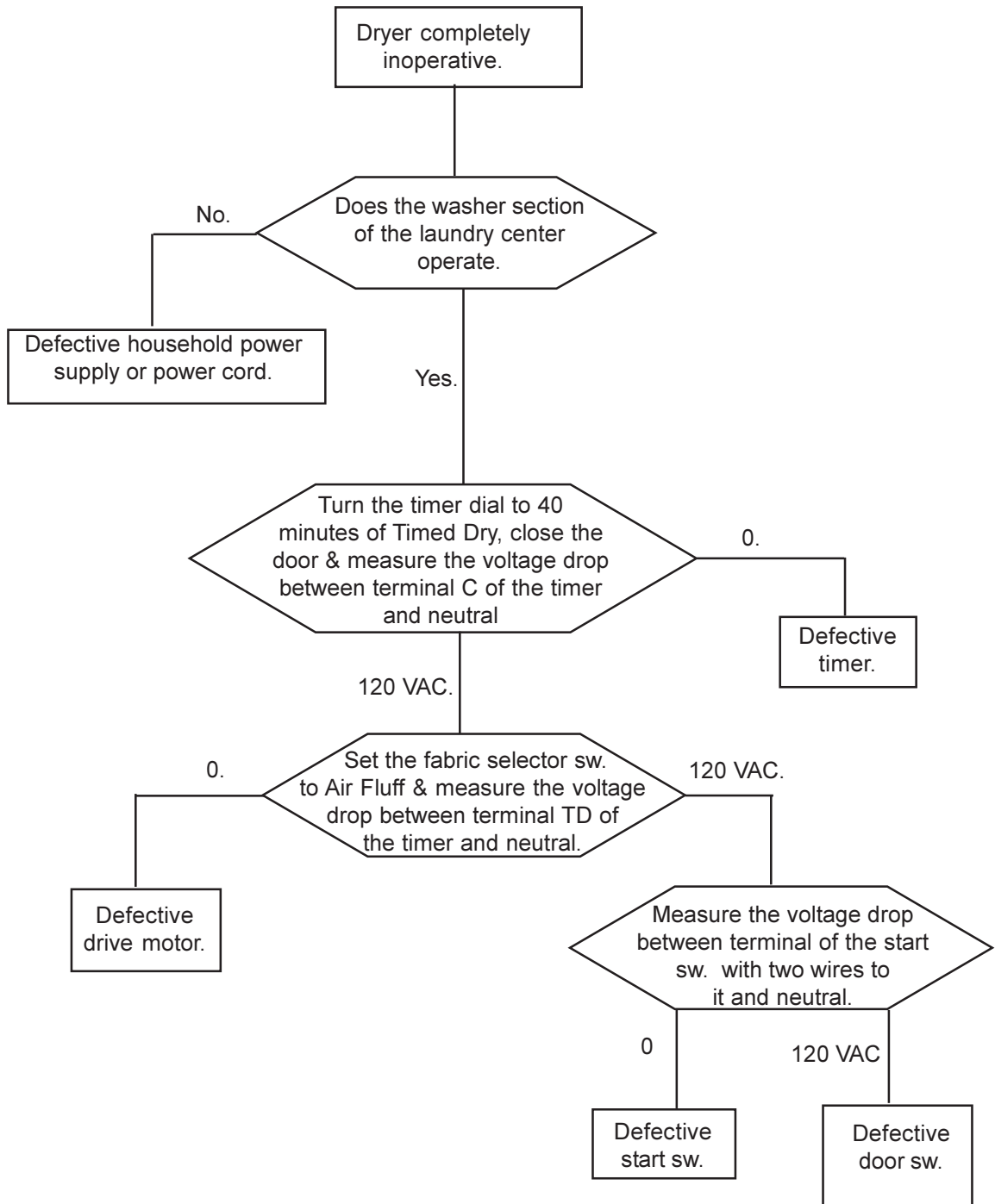
Note: Always check wiring to the components.





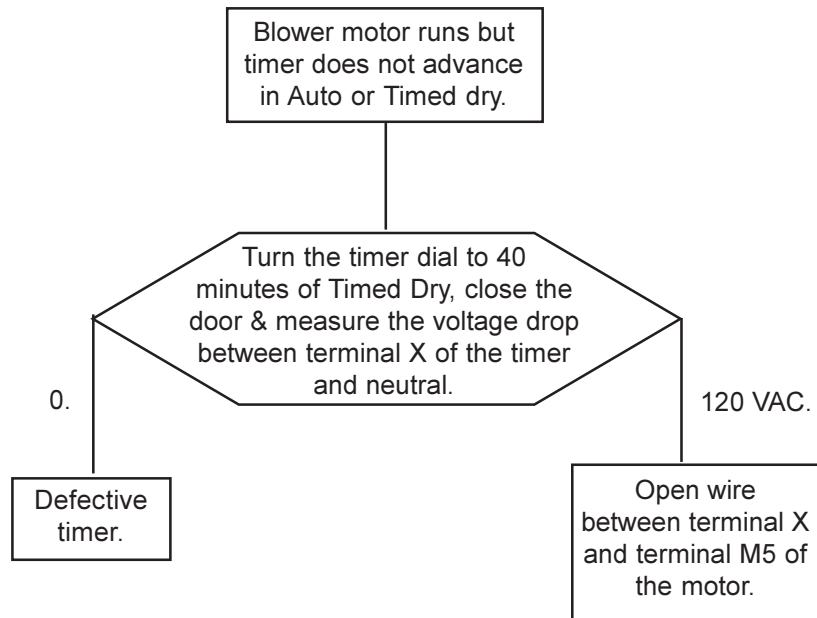
## Gas Dryer Completely Inoperative.

Note: Always check wiring to the components.



**Electric Dryers Blower Motor Runs but Timer does not Advance in Auto or Timed dry.**

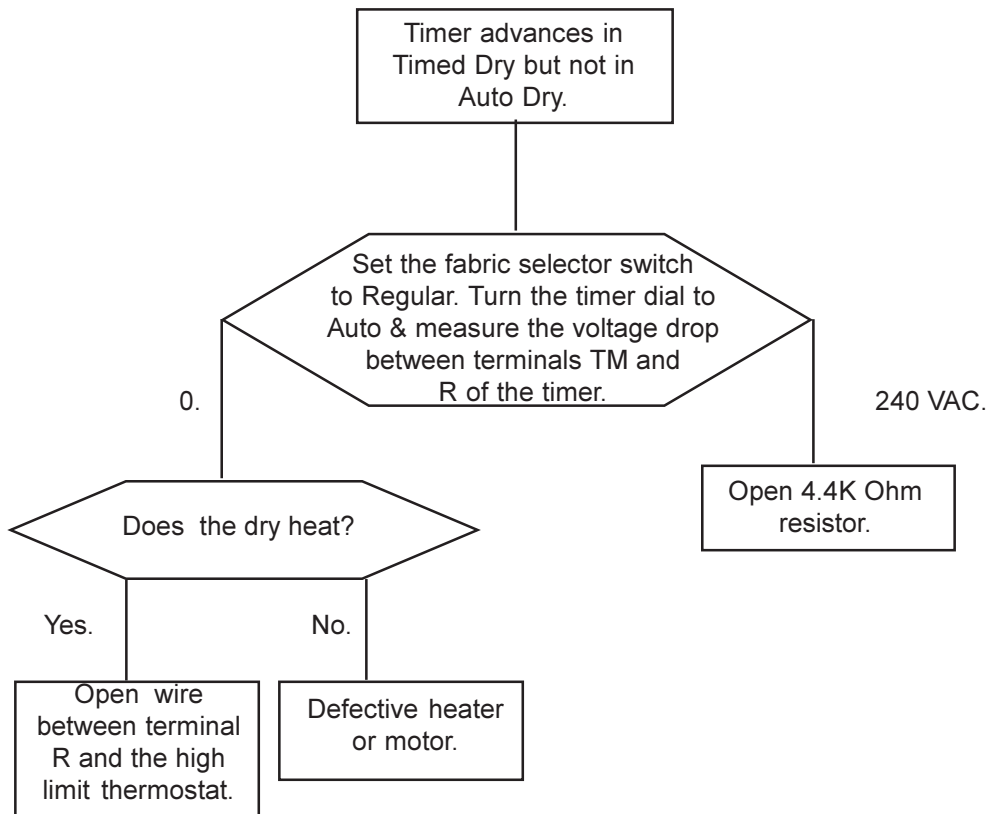
**Note: Always check wiring to the components.**



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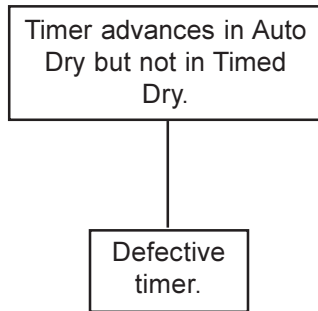
**Electric Dryers Timer Advances in Timed Dry but not in Auto Dry.**

**Note: Always check wiring to the components.**



**Electric Dryers Timer Advances in Auto Dry but not in Timed Dry.**

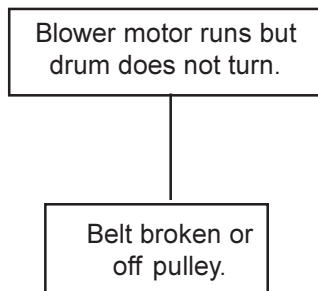
Note: Always check wiring to the components.



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**Electric and Gas Dryers Blower Motor Runs but Drum does not Turn.**

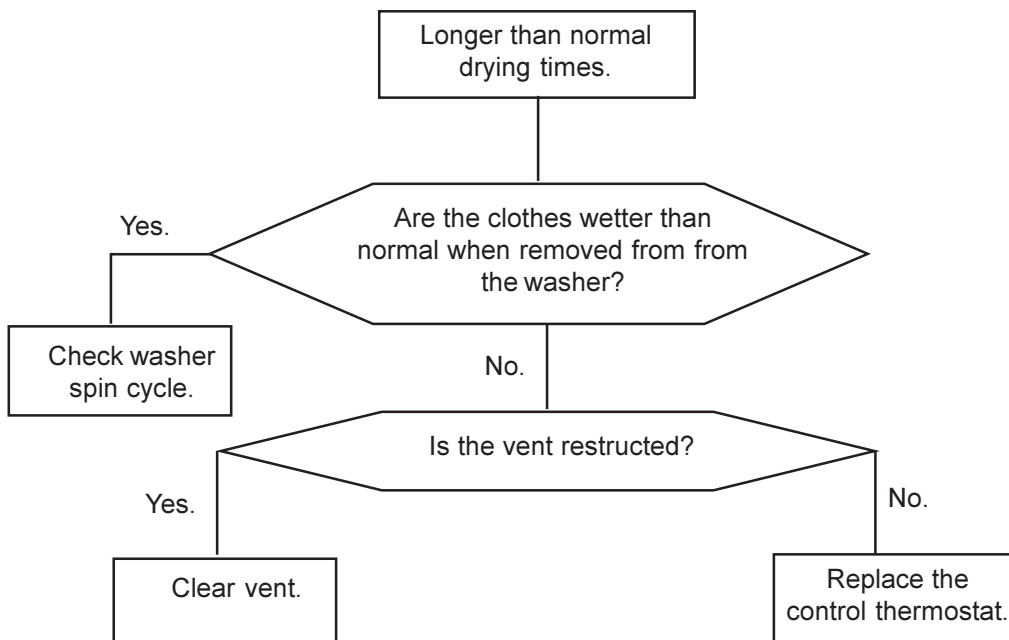
Note: Always check wiring to the components.



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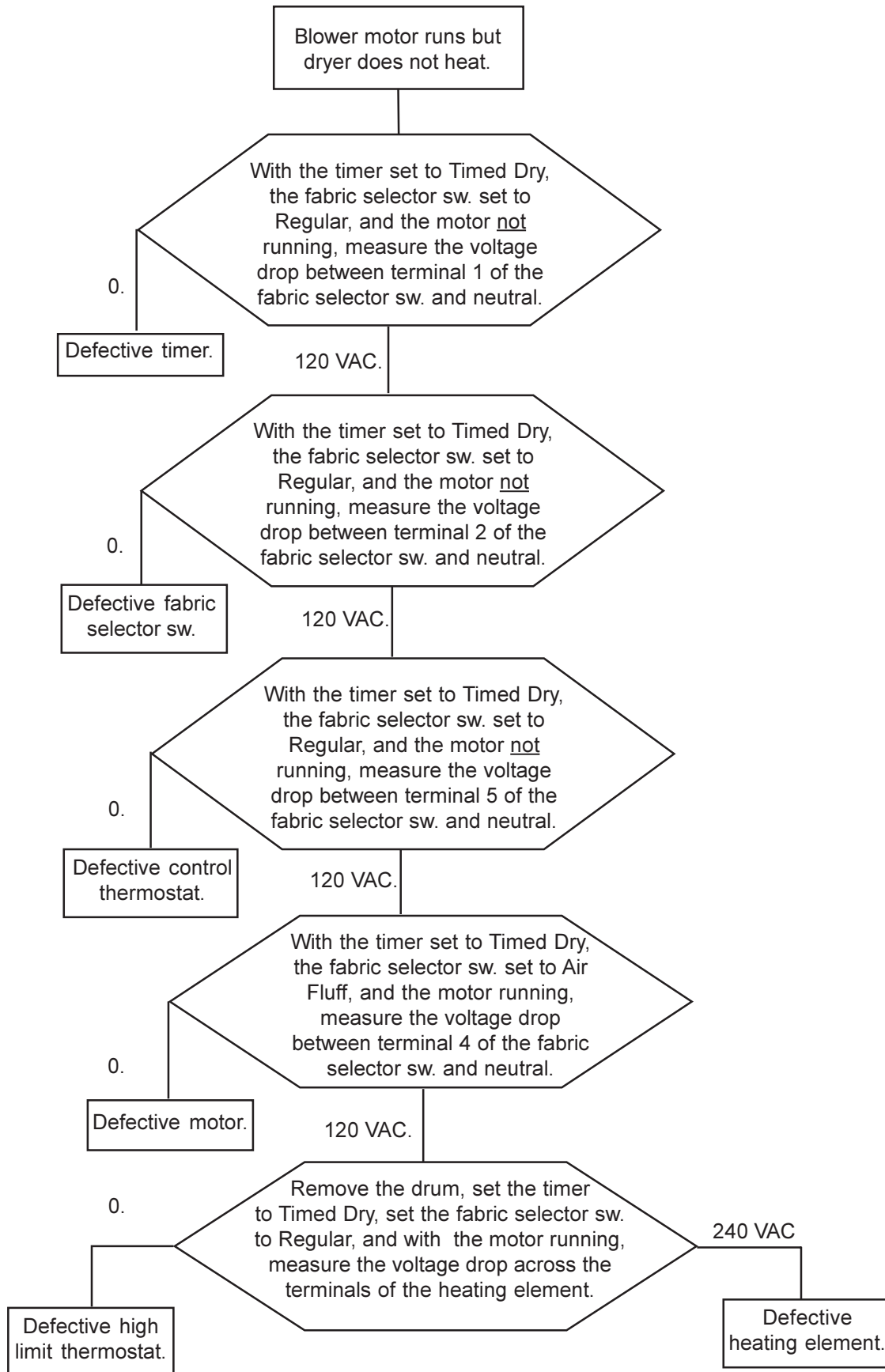
**Electric and Gas dryers longer than normal drying times.**

Note: Always check wiring to the components.



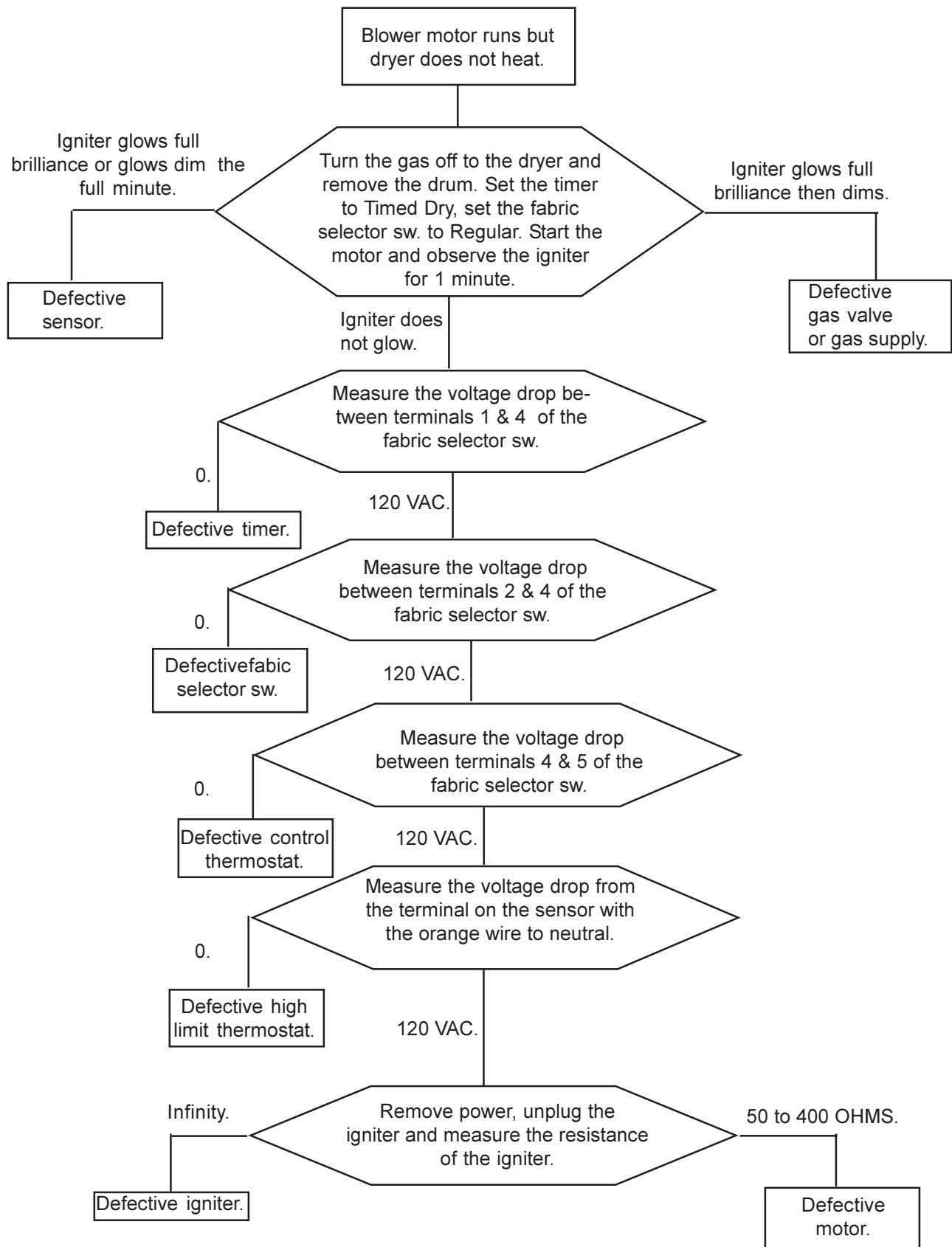
# Electric Dryers Blower Motor Runs but Dryer does not Heat.

Note: Always check wiring to the components.



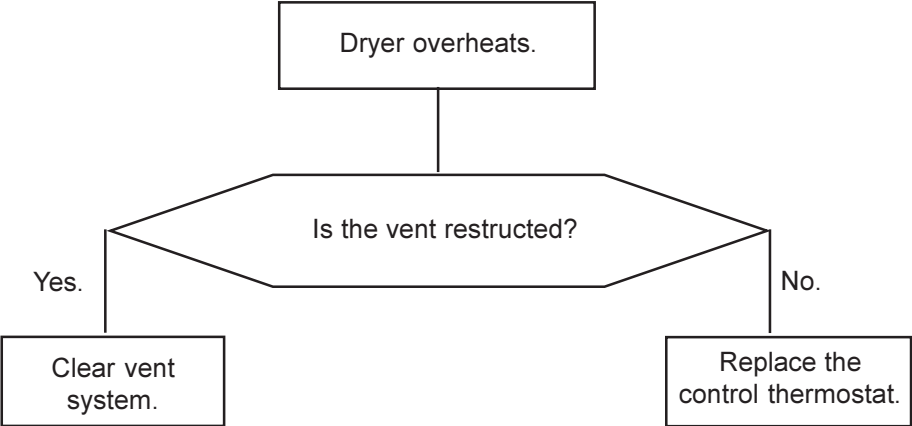
# Gas Dryers Blower Motor Runs but Dryer does not Heat.

**Note: Always check wiring to the components.**



**Electric and Gas Dryers Dryer Over Heating.**

Note: Always check wiring to the components.





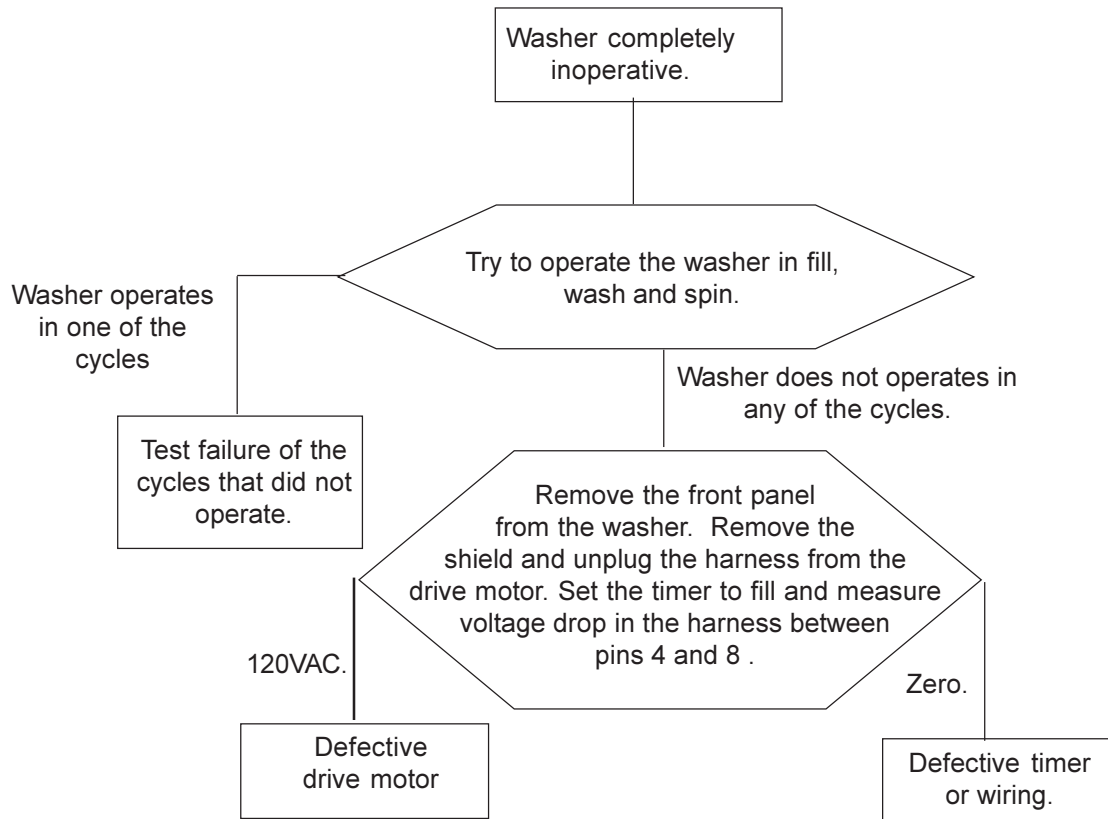
## Washer Section

**NOTE: Always check the wiring and pin/plug connectors before replacing any component.**

Washer Completely Inoperative.	Page 82
Timer Does Not Advance.	Page 82
Washer Does Not Drain.	Page 83
Drive Motor Operates in Spin but not in Agitation.	Page 84
Drive Motor does not Turn.	Page 85
Drive Motor Operates in Agitation but not in Spin.	Page 86
Drive Motor Cycles Off and On Rapidly in the Delicate Cycle.	Page 86
Slow Water Fill.	Page 87
Water Fill Does not Turn Off.	Page 88
Incorrect Water Level.	Page 88
Washer Will not Fill in Any Setting of the Temperature Selector Switch.	Page 89
Washer Will Not Fill in Wash Cycle, but Will Fill in Rinse with the Temp Switch Set to Cold/Cold.	Page 90
Washer will not Fill in Wash Cycle, but does Fill in Rinse with the Temp Switch Set to Hot/Cold.	Page 90
Water Temperature is too Hot or too Cold in the Wash Cycle with the Temp Sw. Set to Warm/Warm.	Page 91
Washer Will Only Fill with Hot Water in the Wash Cycle, with the Temp Switch Set to Warm/Cold but does Fill with Cold Water in the Rinse Cycle.	Page 91

## Washer Completely Inoperative.

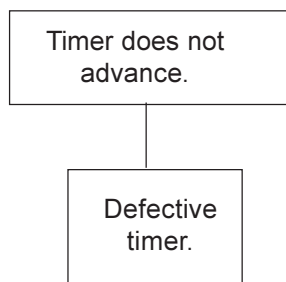
Note: Always check wiring to the components.



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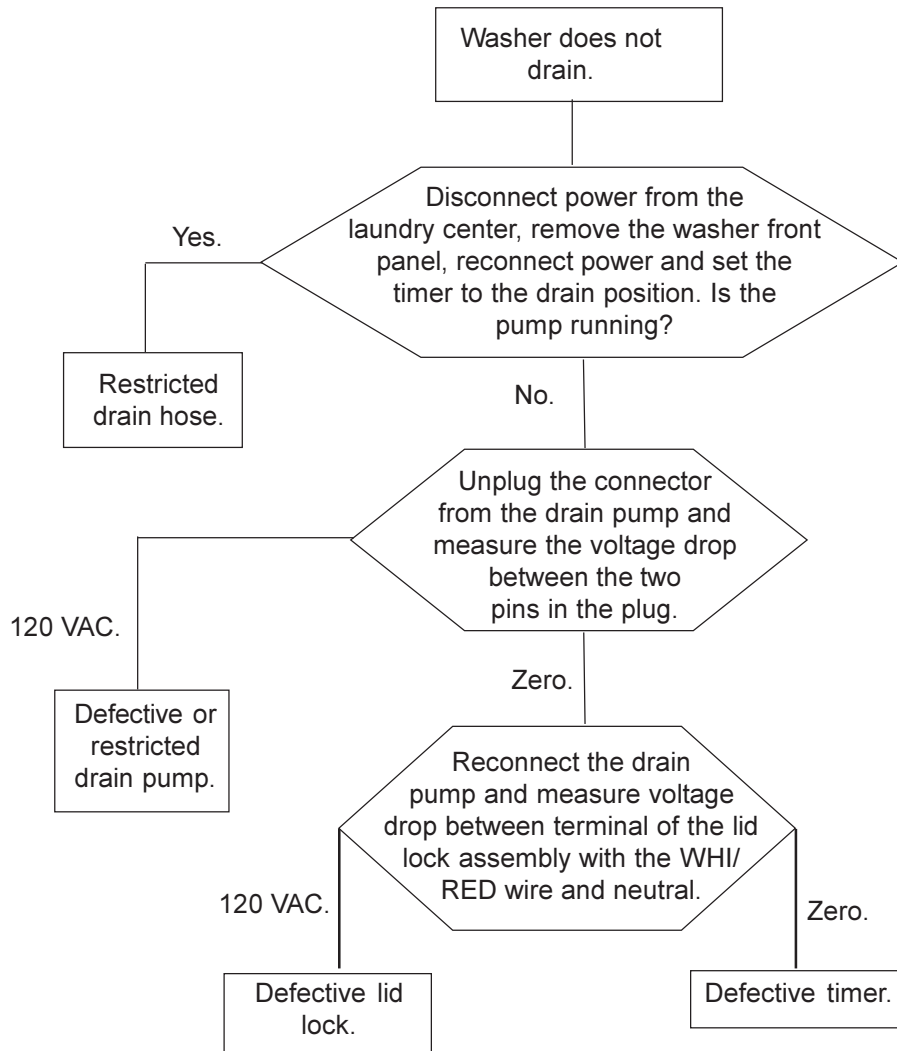
## Timer Does Not Advance.

Note: Always check wiring to the components.



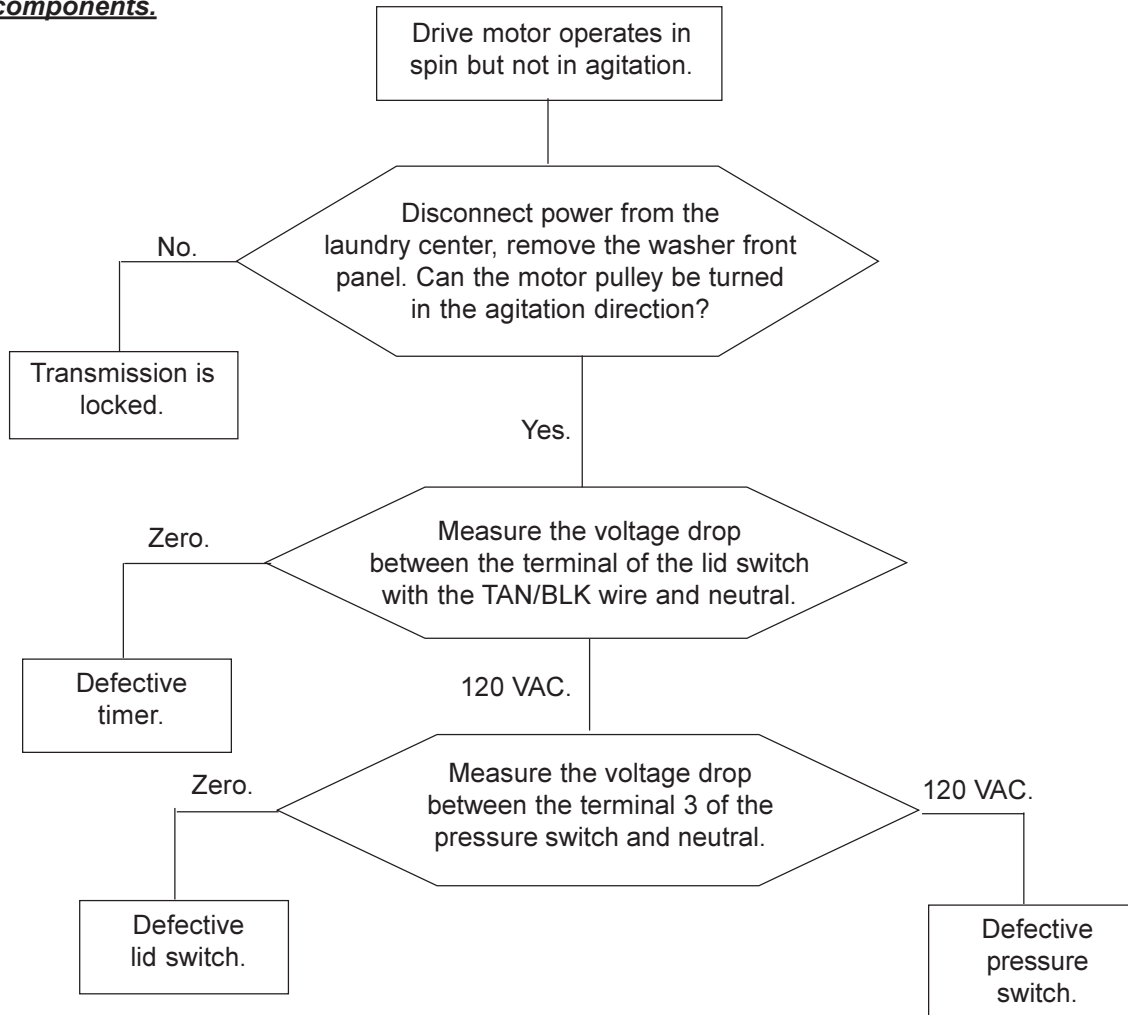
# Washer Does Not Drain.

Note: Always check wiring to the components.



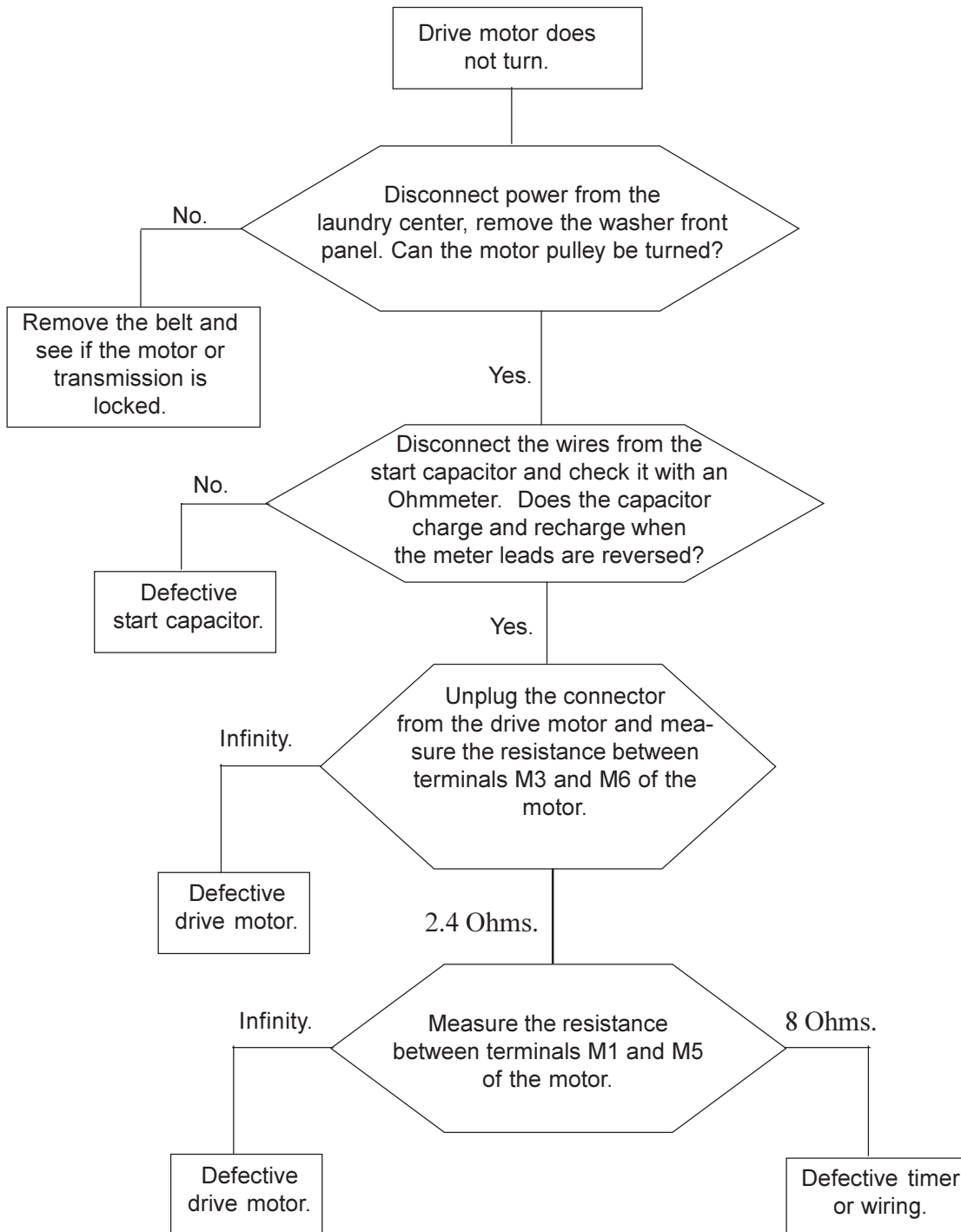
**Drive Motor Operates in Spin but Not in Agitation.**

**Note: Always check wiring to the components.**



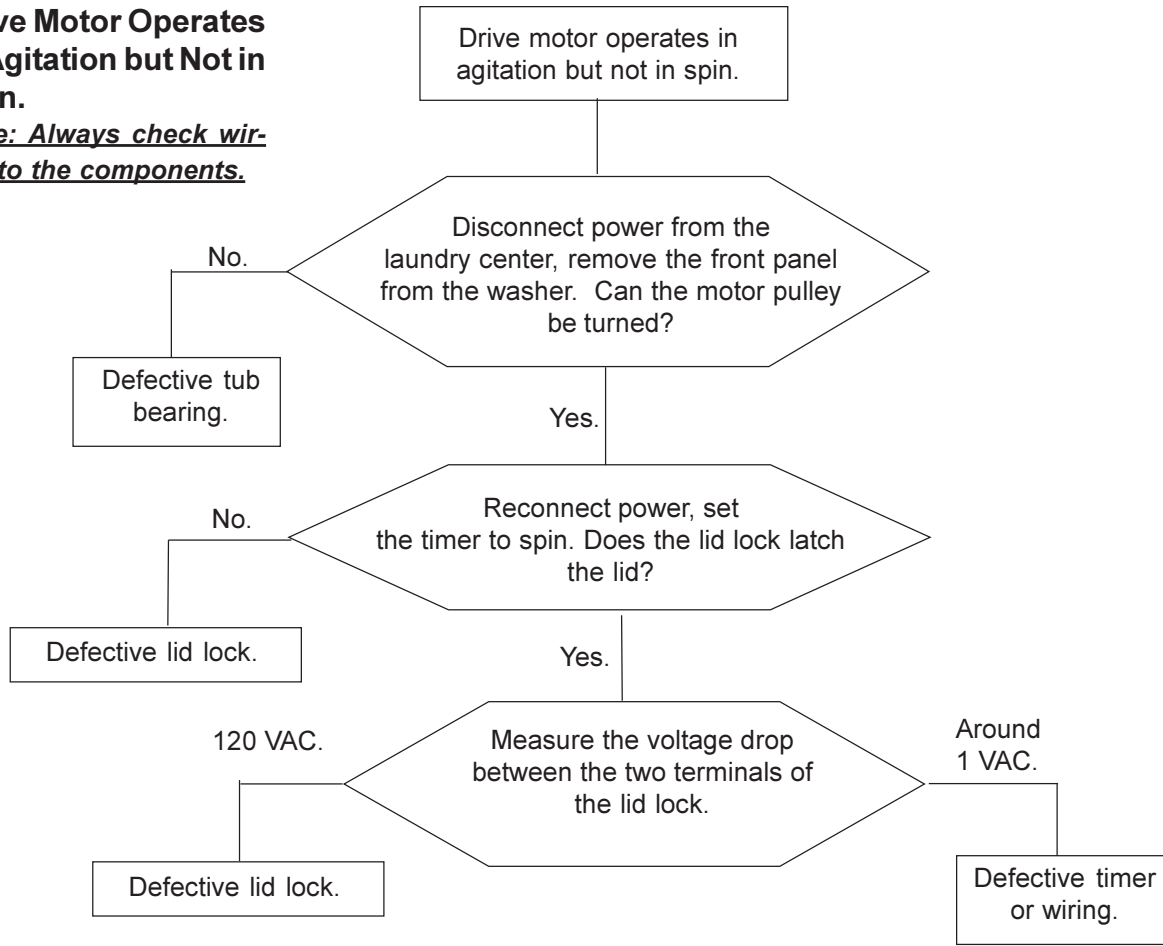
## Drive Motor Does Not Turn.

Note: Always check wiring to the components.



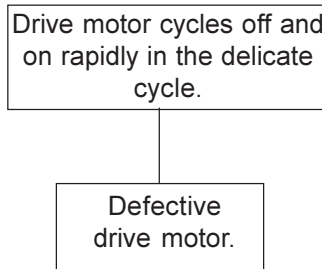
**Drive Motor Operates in Agitation but Not in Spin.**

**Note: Always check wiring to the components.**



**Drive Motor Cycles Off and On Rapidly in the Delicate Cycle**

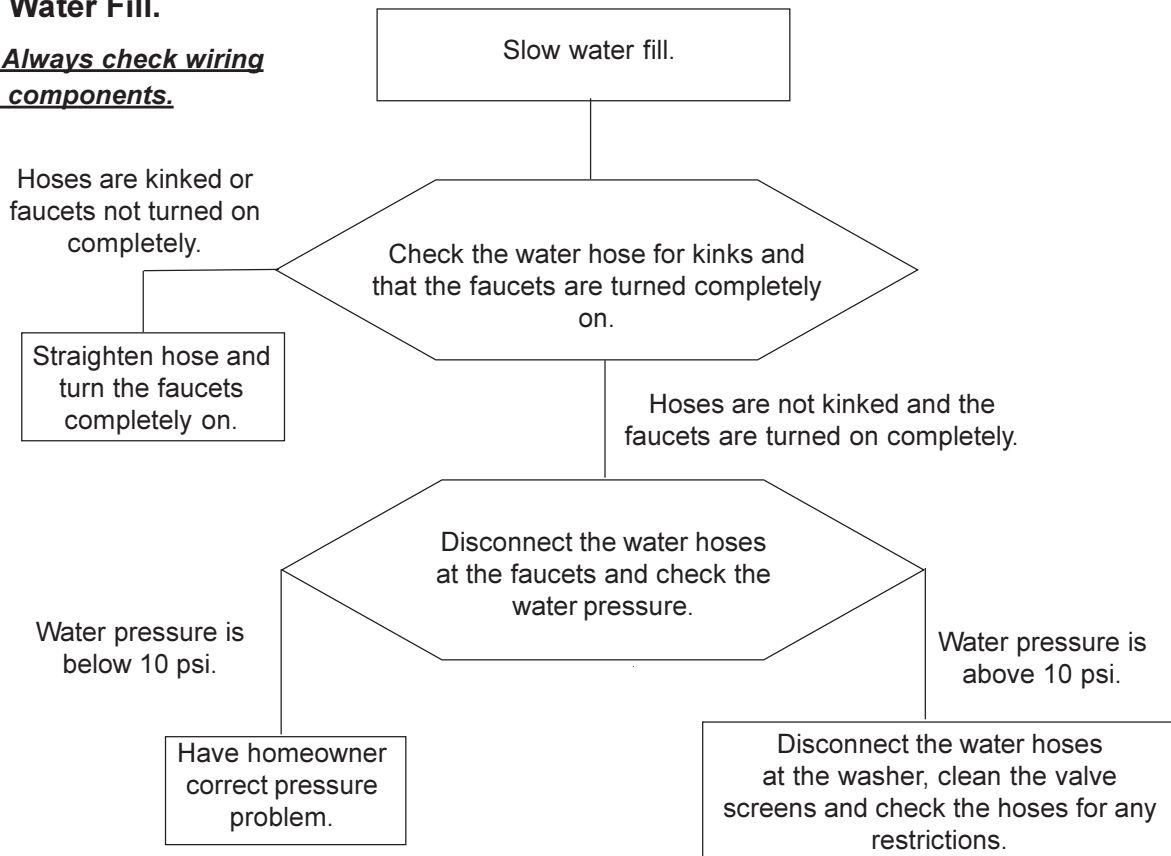
**Note: Always check wiring to the components.**





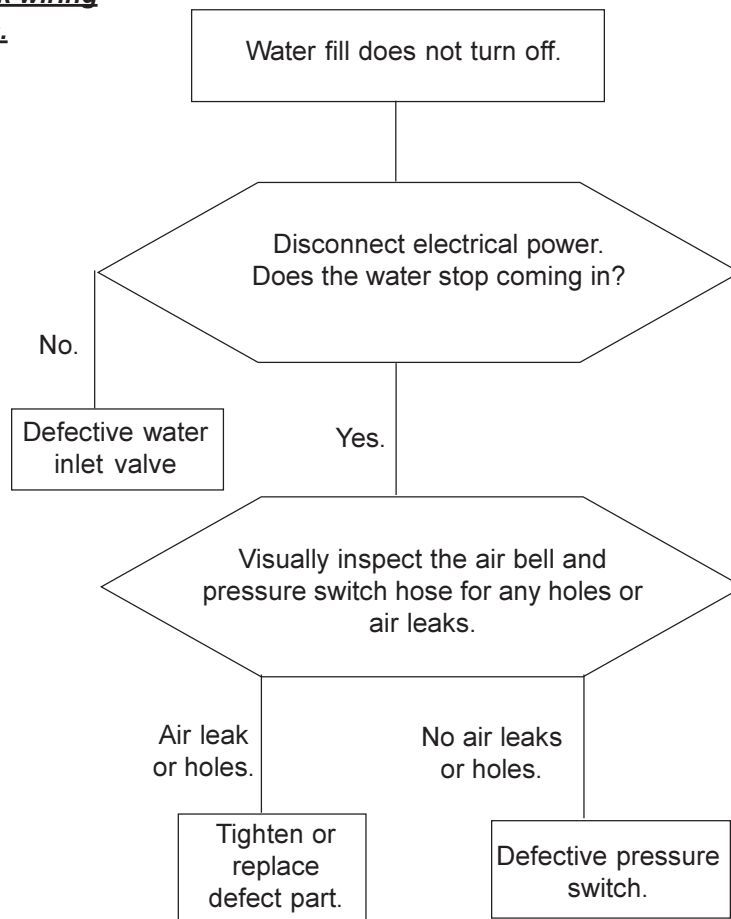
## Slow Water Fill.

**Note: Always check wiring to the components.**



## Water Fill does Not Turn Off.

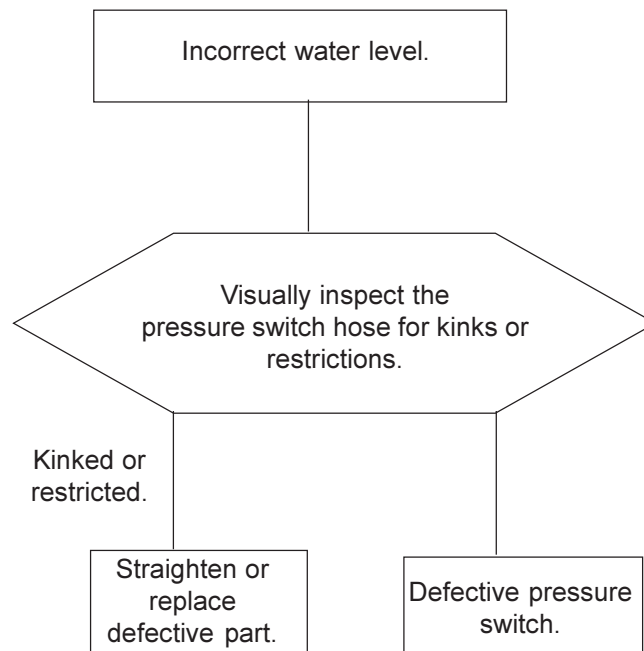
**Note: Always check wiring to the components.**



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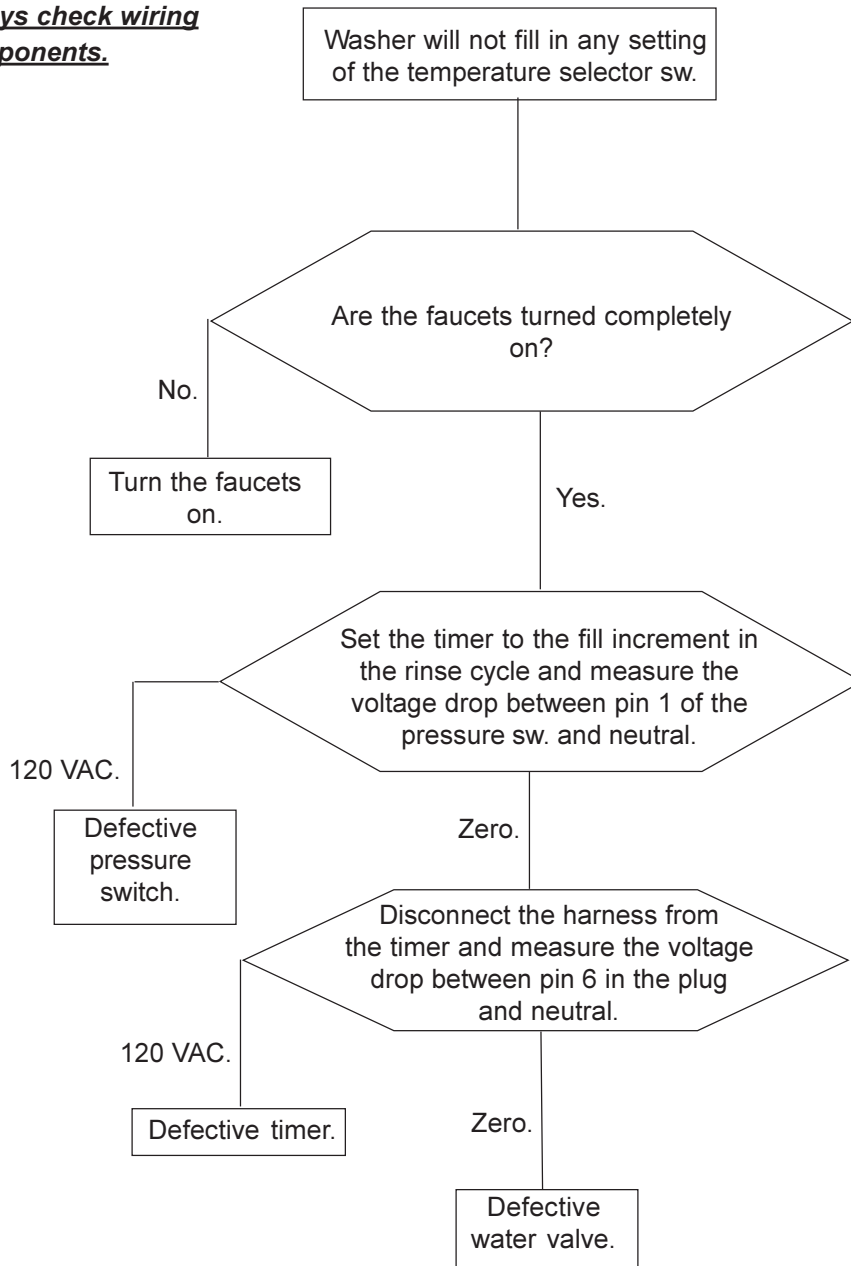
## Incorrect Water Level.

**Note: Always check wiring to the components.**



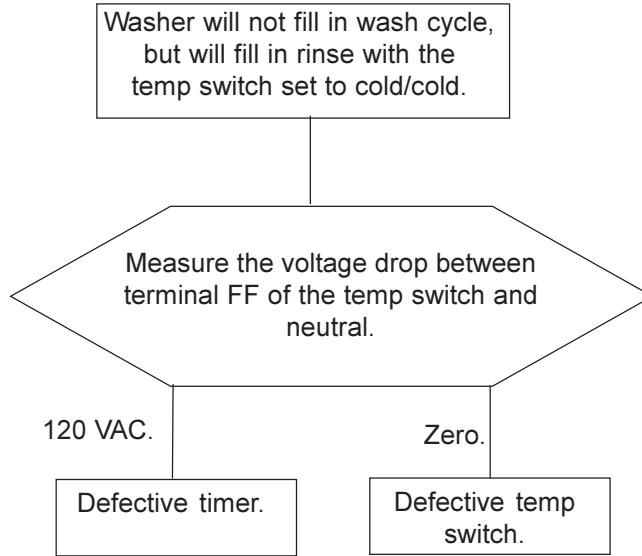
## Washer will Not Fill in Any Setting of the Temp Switch.

Note: Always check wiring to the components.



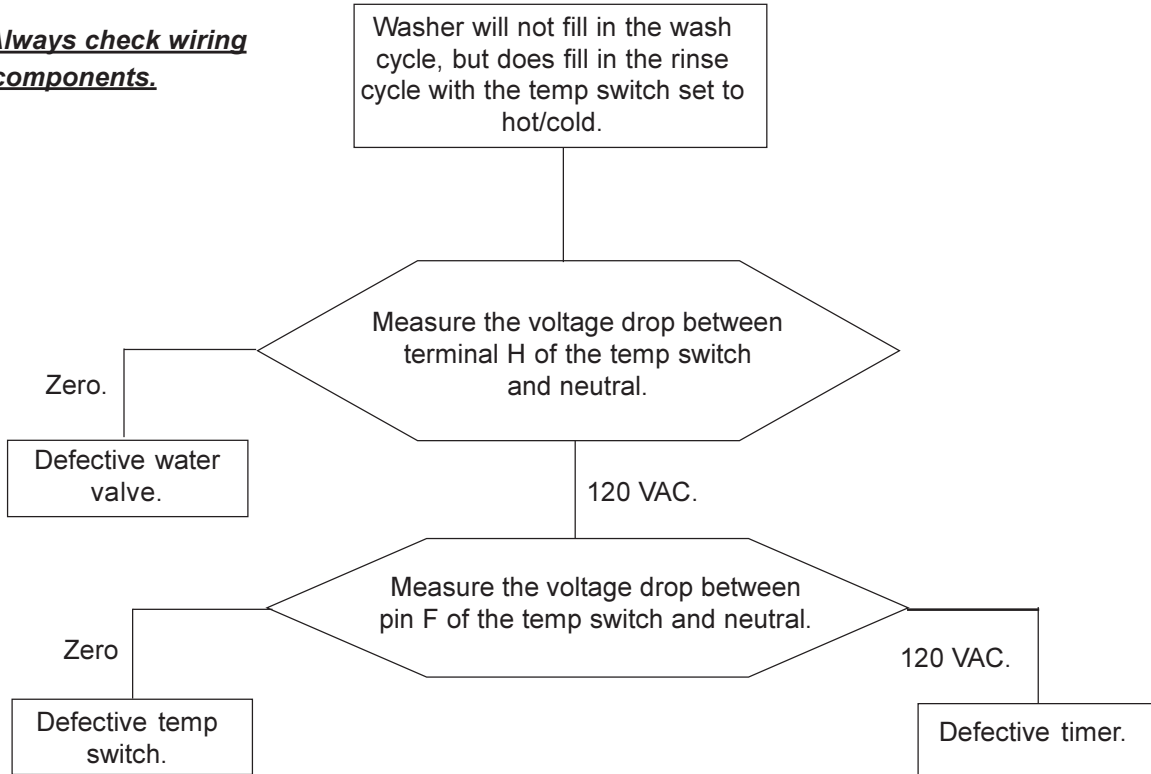
**Washer will Not Fill in Wash Cycle, but Will Fill in Rinse with the Temp Switch Set to Cold/Cold.**

Note: Always check wiring to the components.



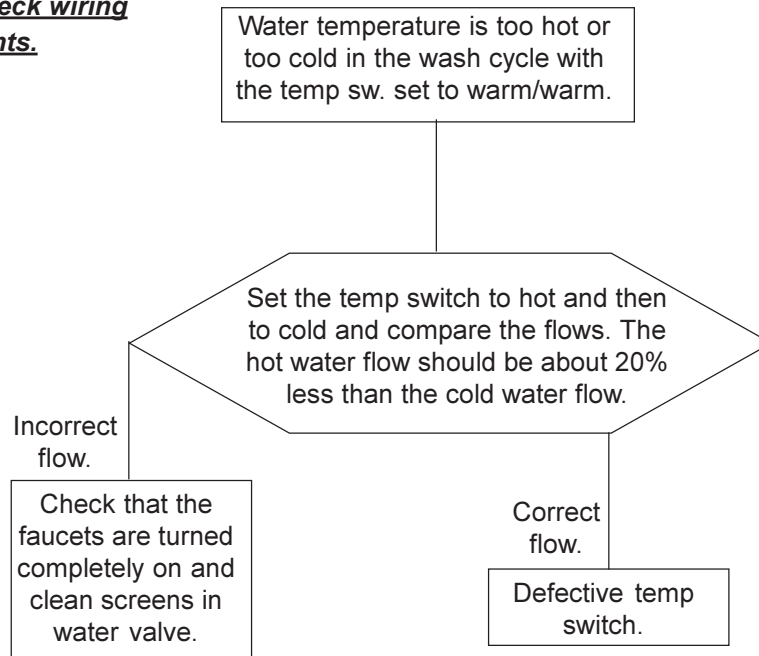
**Washer does Not Fill in the Wash Cycle, but does Fill in the Rinse Cycle with the Temp Switch Set to Hot/Cold.**

Note: Always check wiring to the components.



**Water Temperature is too Hot or too Cold in the Wash Cycle with the Temp Switch Set to Warm/Warm.**

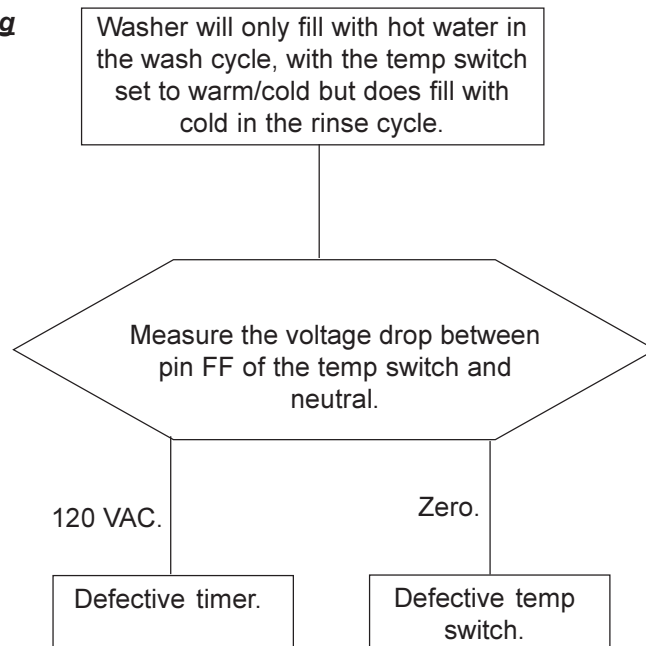
**Note: Always check wiring to the components.**



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**Washer Will only Fill with Hot Water in the Wash Cycle, with the Temp Switch Set to Warm/Cold, but does Fill with Cold in the Rinse Cycle.**

**Note: Always check wiring to the components.**



## SECTION G - TEARDOWN

This section will describe how to remove components from both gas and electric laundry center. Unless stated, the procedure will be the same on all laundry centers. Unless stated, reverse the procedure to reinstall the component.

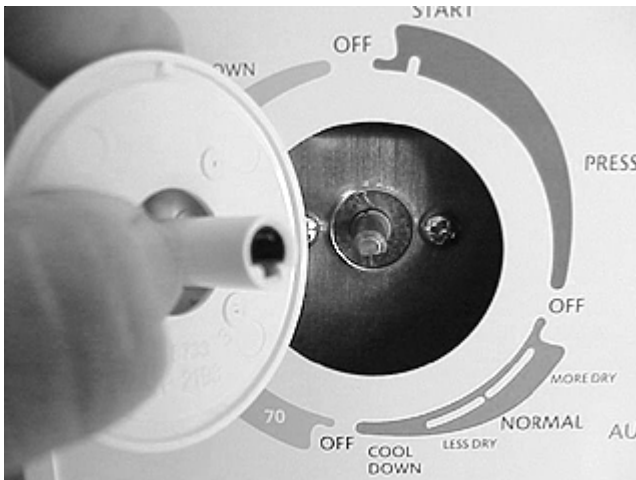
**⚠ WARNING** Always remove electrical power from the laundry center when working in an area where electrical power is present.

**⚠ WARNING** Always turn the gas off to the laundry center before opening any gas piping.

### Removing the knobs.

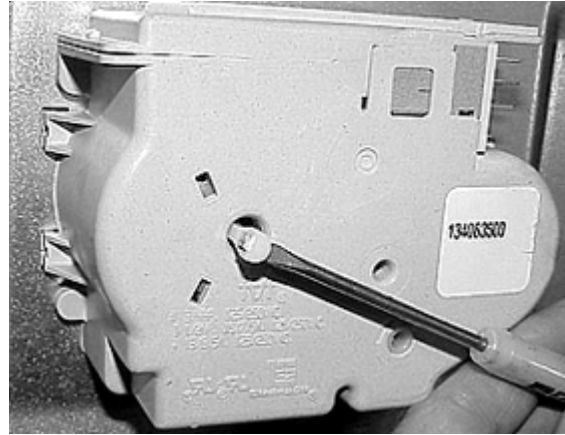
#### All knobs except the washer timer knob:

1. The shafts of the knobs are D shaped and pull straight off.

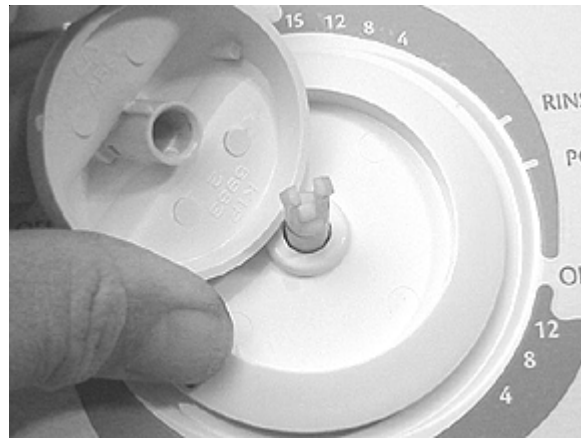


#### Washer timer knob:

1. The timer knob is held on the shaft by a locking rod that extends to the rear of the timer. To remove the knob, disconnect power, open the console panel and using a small screwdriver pull the locking rod backward to release the knob.

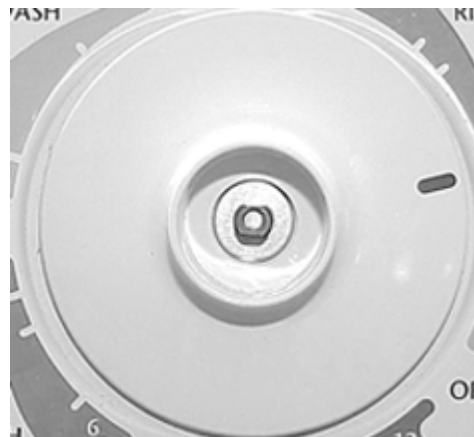


2. Then pull the knob straight off.



#### Removing the washer timer skirt:

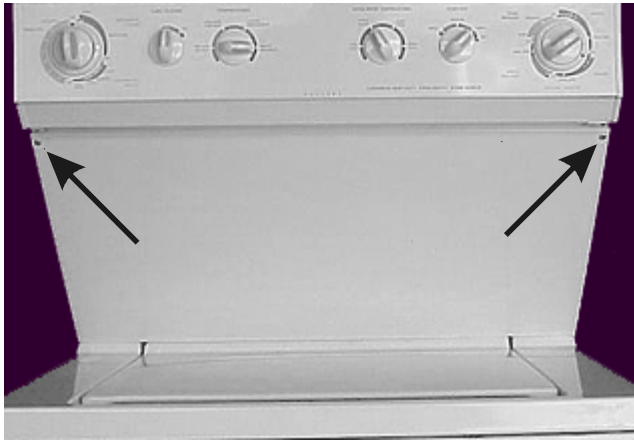
1. Remove the timer knobs and pull the skirt straight off.





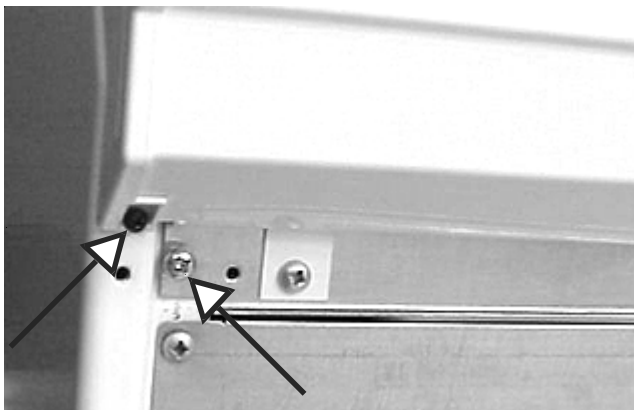
### Removing the access panel:

1. The access panel is held to the upper side panels by two screws and two tabs. Remove the two screws and pull up and out to remove the panel.



### Opening the console:

1. Disconnect power from the laundry center and remove the access panel.
2. Remove the four screws, two on each side, holding the console to the dryer section side panels.



3. Pull down and out on the console to release the taps from the side panels. The console will now hang on the wires and pressure switch hose.

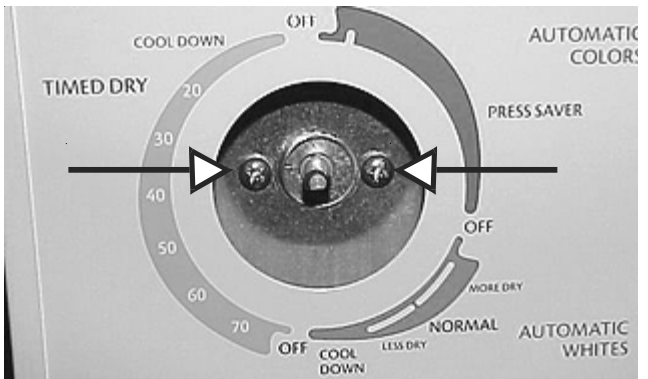


### Removing the dryer timer:

1. Disconnect the laundry center from the electrical supply.
2. Remove the timer knob and open the console.
3. Mark and disconnect the wires from the timer.

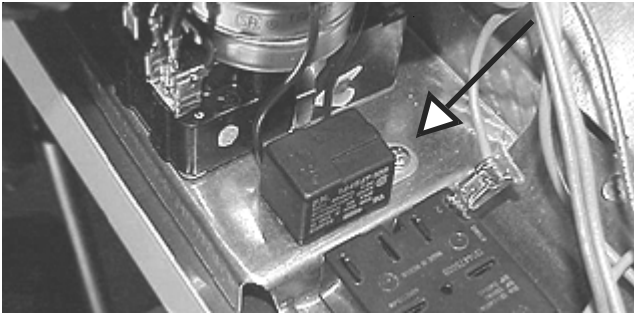


4. Remove the two screws holding timer to the console panel.

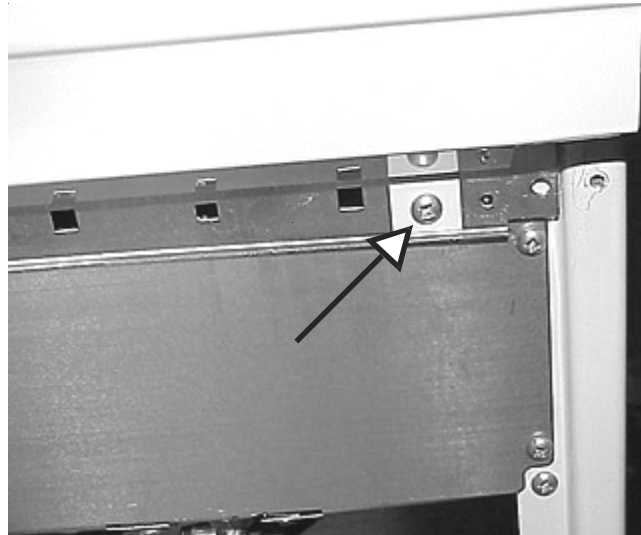


### Removing the buzzer:

1. Disconnect the laundry center from the electrical supply.
2. Open the console panel and disconnect the two wires for the buzzer at the timer.
3. Remove the screw holding the buzzer to the control mounting panel.

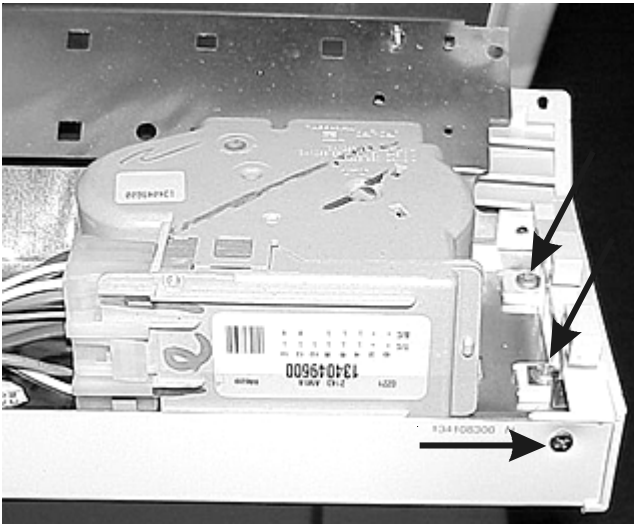


2. Open the console and remove the console end caps.
3. Remove the two screws, one at each end, holding the console front panel to the control mounting panel and lift the front panel off.



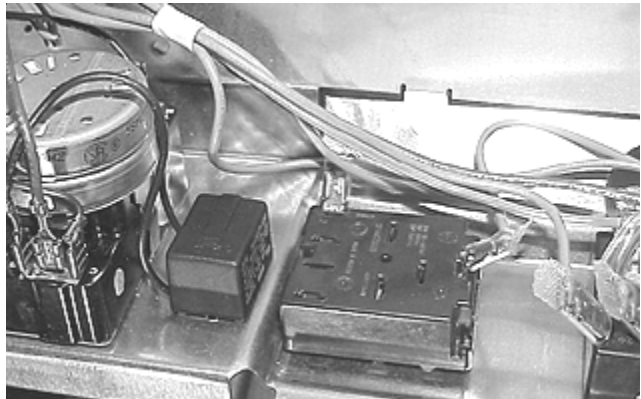
### Removing the console end caps:

1. Disconnect the laundry center from the electrical supply and open the console.
2. Remove the two screws holding the end cap to the control mounting panel and the screw in the top holding the end cap to the front panel. Then slide the end cap out.



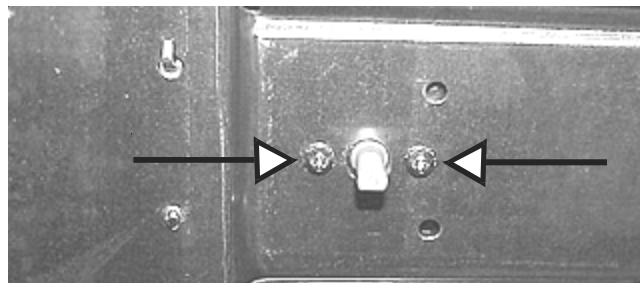
### Removing the start switch:

1. Disconnect the laundry center from the electrical supply, open the console and remove the console front panel.
2. Disconnect the wire from the start switch, remove the two screws holding the start switch to the control mounting panel and pull the switch out the back.



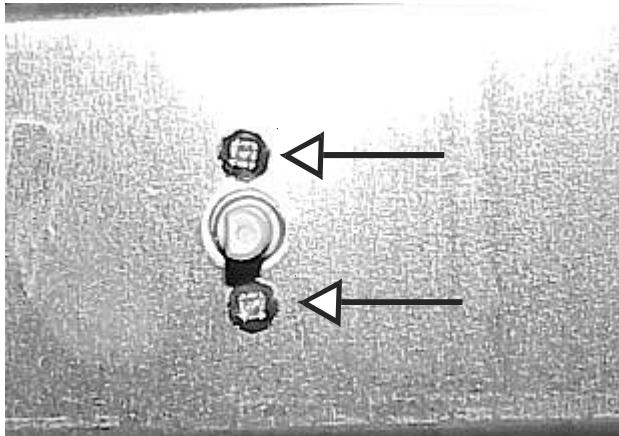
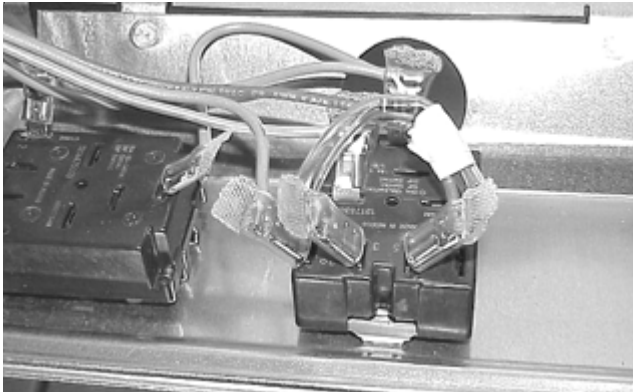
### Removing the console front panel:

1. Disconnect the laundry center from the electrical supply, remove the knobs and the washer timer skirt.



### Removing the fabric selector switch:

1. Disconnect the laundry center from the electrical supply, open the console and remove the console front panel.
2. Disconnect the wire from the start switch, remove the two screws holding the temperatures switch to the control mounting panel and pull the switch out the back.



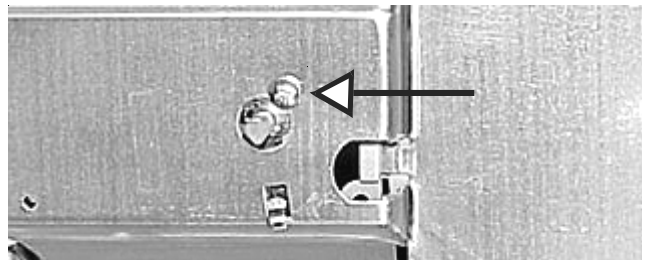
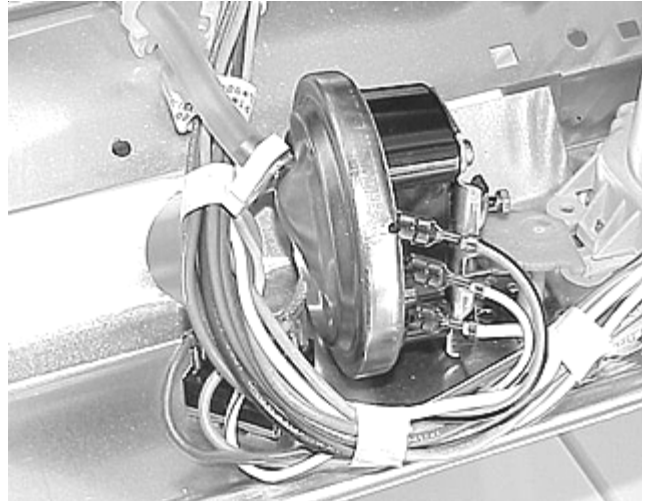
### Removing the water temperature switch:

1. Disconnect the laundry center from the electrical supply, open the console and remove the console front panel.
2. Disconnect the wire from the water temperature switch, release the locking tab, turn the switch about 1/8 of a turn clockwise and pull the switch out the back.



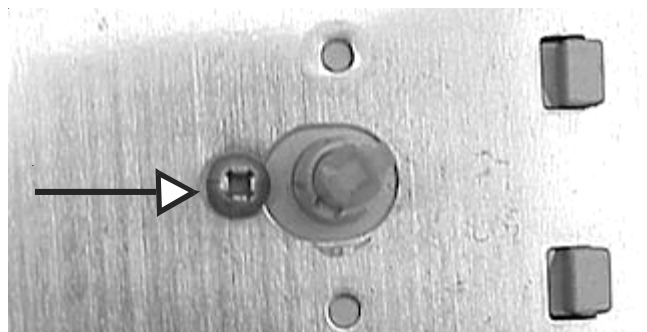
### Removing the pressure switch assembly:

1. Disconnect the laundry center from the electrical supply, open the console and remove the console front panel.
2. Disconnect the wires and the hose from the pressure switch.
3. Remove the screw holding assembly to the control mounting panel and pull back and up on the assembly.



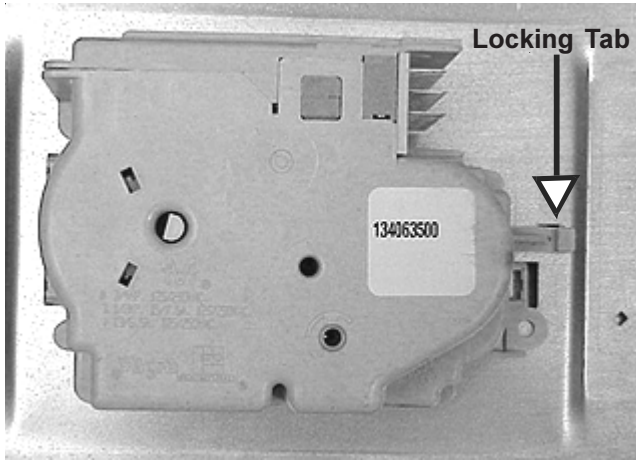
### Removing the washer timer:

1. Disconnect the laundry center from the electrical supply, open the console and remove the console front panel.
2. Unplug the harness from the timer and remove the locking screw.



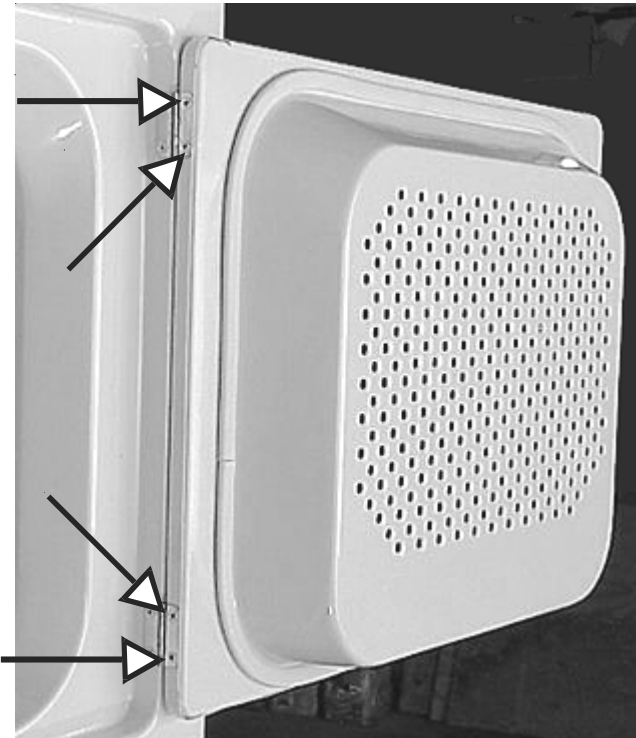


- From the rear of the console, lift timer locking tab and slide the timer to the right to release it from the control mounting plate and pull back on the timer.



### Removing the dryer door:

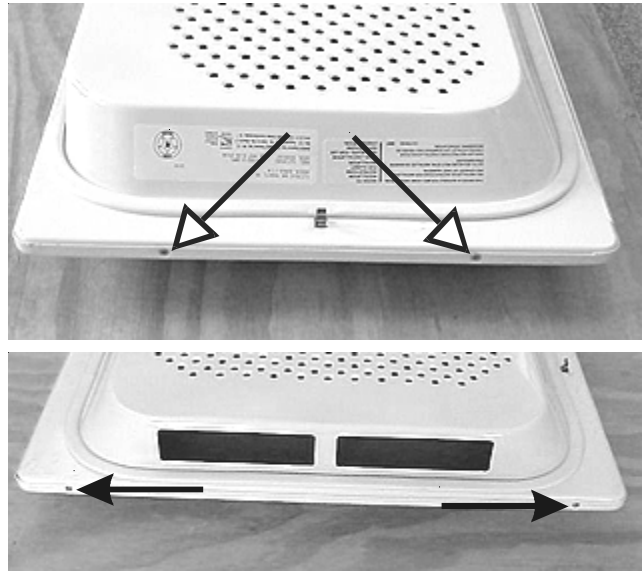
- Open the door and remove the four screws holding the door to the hinges.



### Separating the dryer door panel:

- Remove the door.

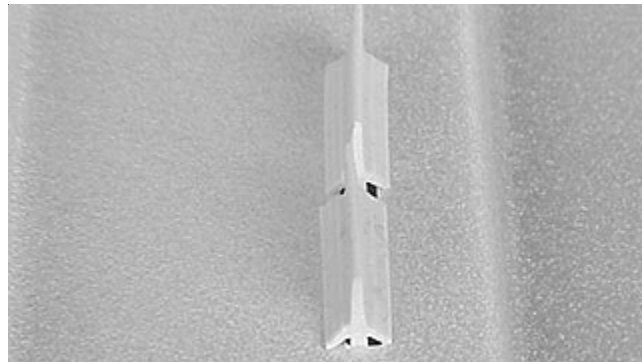
- Remove the two screws from the end and two screws from the bottom.



- Lift the inner panel off the outer panel.

### Removing the dryer door seal:

- The door seal is fastened to the inner door liner by expandable tabs pushed through slots in the liner.



- If the seal is to be replaced open the door and pull the seal from the liner. If the seal is to be reused, separate the panels and use a small screwdriver to push the tabs through the liner.

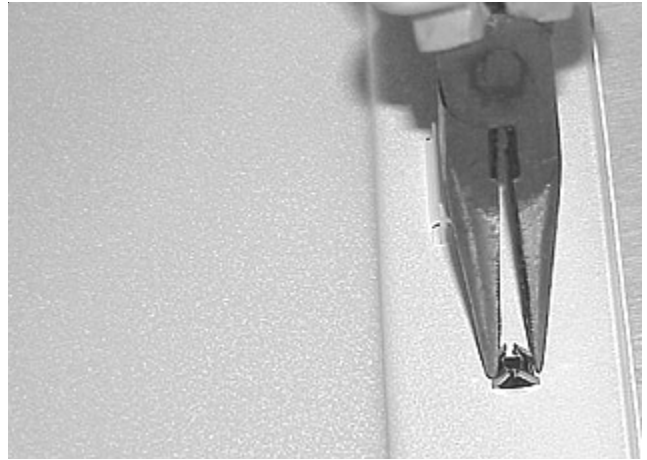
### Removing the dryer door heat shield:

1. Separate the door panels and lift the heat shield out of the outer panel.



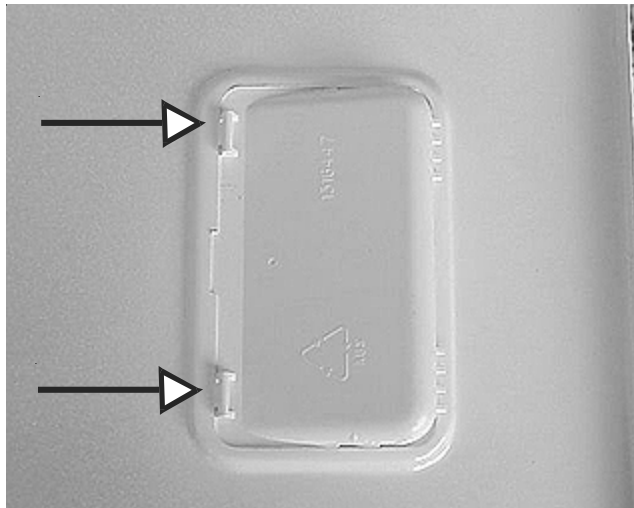
### Removing the dryer door strike:

1. Separate the panel, squeeze the ends of the strike and push it through the inner panel.



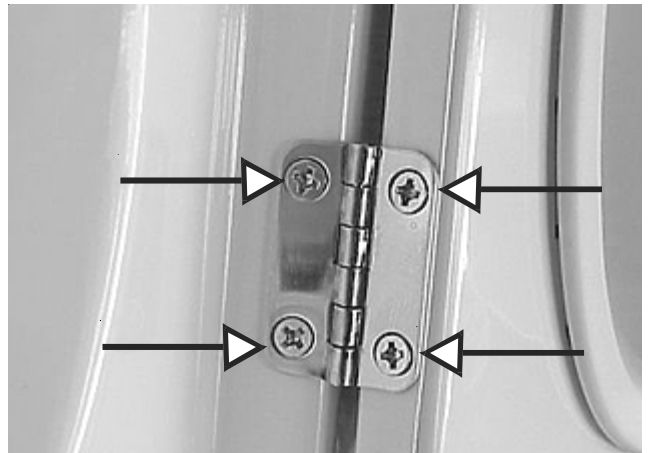
### Removing the dryer door handle:

1. Separate the panel and release the tabs holding the handle in outer panel.



### Removing the dryer door hinge:

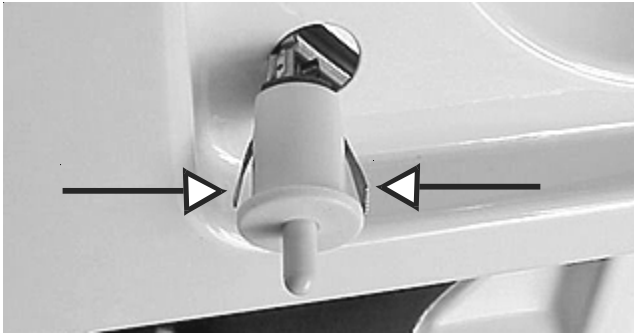
1. Hold the weight of the door and remove the four screws from the hinge



### Removing the dryer door switch:

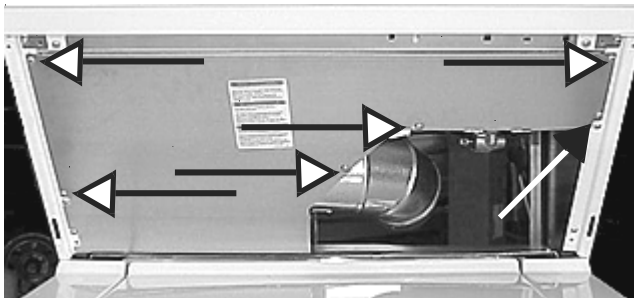
1. Disconnect the laundry center from the electrical supply and open the console.

2. Reach behind the dryer front panel, squeeze the spring load tabs on the sides of the switch and push the switch out the front.



**Removing the heat shield:**

1. Disconnect the laundry center from the electrical supply and remove the access panel.
2. Remove the six screws, four holding the heat shield to the side panels and two holding the heat shield to the dryer section base.



**Removing the dryer front panel:**

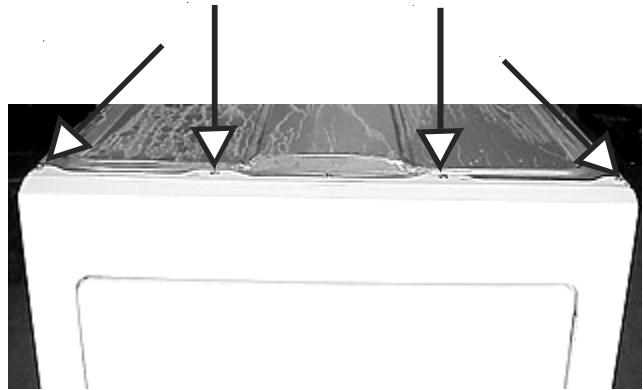
1. Disconnect the laundry center from the electrical supply, remove the access panel and heat shield.
2. Open the console and remove the two screws holding the front panel to the side panels.



3. Unplug the dryer door switch harness.

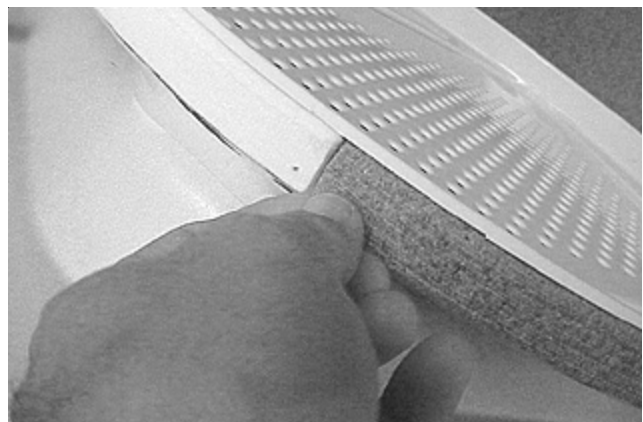


4. Remove the four screws holding the front panel to the top and carefully pull the front panel forward.



**Replacing the felt seals:**

1. Disconnect the laundry center from electrical supply and remove the dryer front panel.
2. The felt seals are two seals that are glued to front panel rim that the drum rides on.
3. To replace either seal, pull the seals off and glue the replacements to the rim.





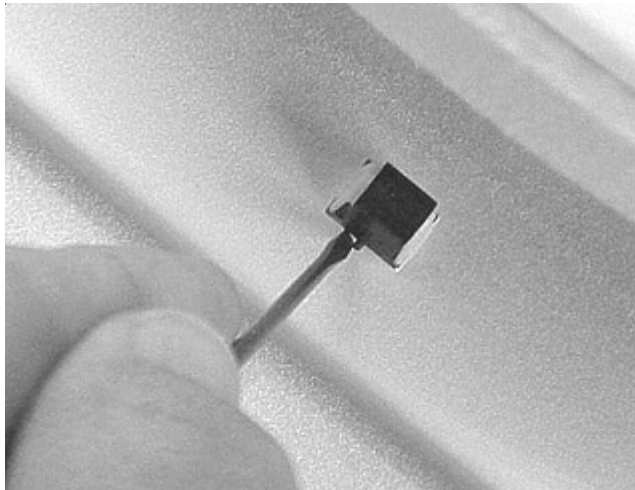
### Replacing the front duct:

1. Disconnect the laundry center from electrical supply and remove the dryer front panel.
2. Lift the filter out and remove the two plastic rivets holding the duct to the front panel.



### Removing the door catch:

1. Disconnect the laundry center from electrical supply and remove the dryer front panel.
2. Push up and forward and down and forward on the rear of the catch moving the catch forward until the metal tabs hit the front panel.
3. Release the metal tabs with a small screwdriver and push the catch out the front.



### Replacing the foam seal:

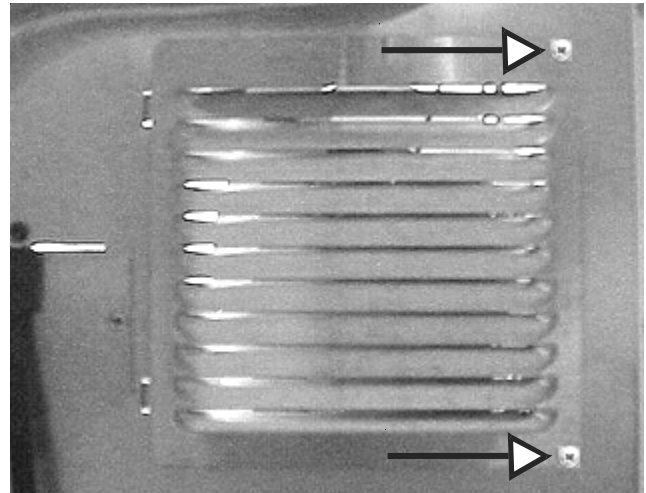
1. Disconnect the laundry center from electrical supply and remove the dryer front panel.
2. The foam seal is glued to the blower assembly duct, it provides a seal between the front panel duct and the blower housing assembly.

3. To replace the seal, pull the seal off and glue the replacement to the duct.



### Removing the dryer section rear access panel:

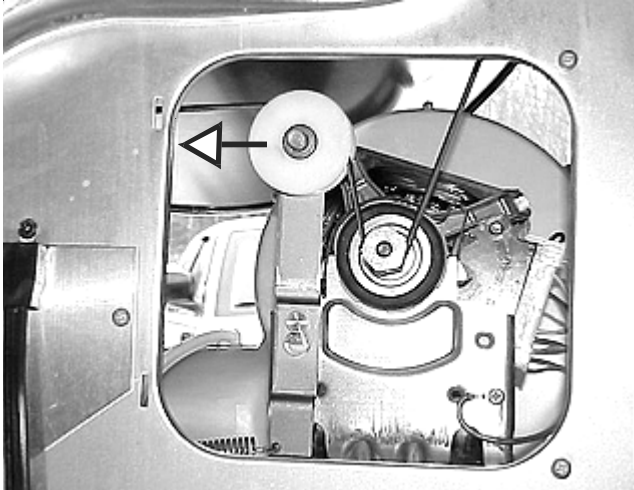
1. Remove the two screws holding the access panel to the rear panel and swing the right side of the panel out to disengage the tabs.





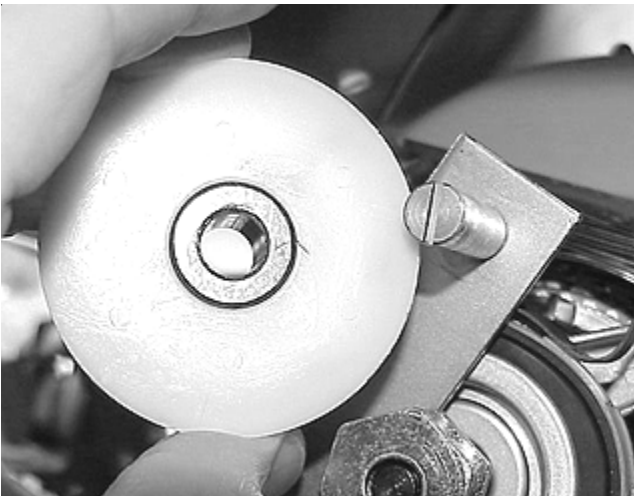
### Releasing the dryer belt:

1. Remove the access panel.
2. Push the idler pulley to the left and slip the belt off the motor pulley.



### Removing the idler pulley:

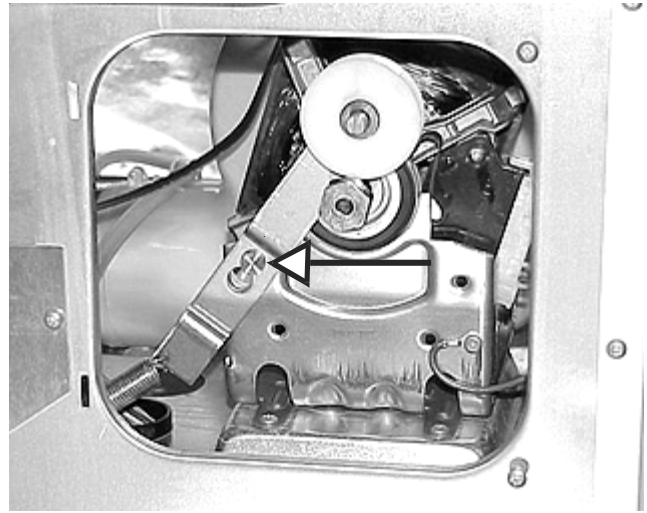
1. Disconnect the laundry center from electrical supply and remove the rear access panel.
2. Release the belt from the motor pulley and slide the idler pulley off.



### Removing the idler pulley assembly:

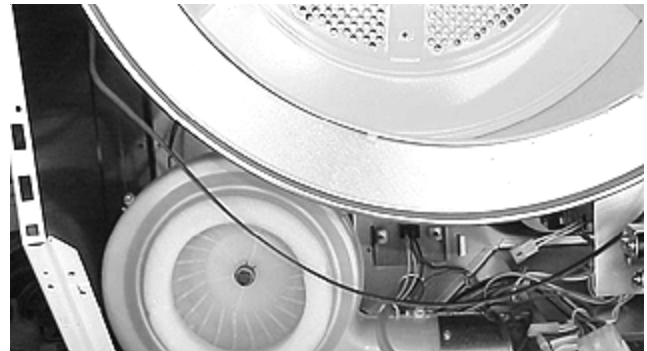
1. Disconnect the laundry center from electrical supply and remove the rear access panel.
2. Release the belt from the motor pulley.

3. Release the idler spring from the dryer section base and lift the assembly off the shoulder pin.



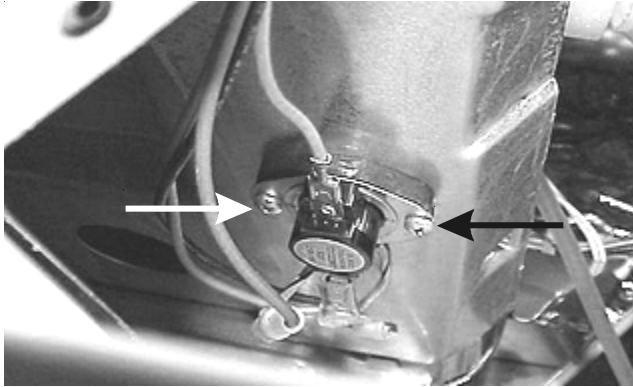
### Removing the belt:

1. Disconnect the laundry center from electrical supply and release the belt from the motor.
2. Remove the front panel.
3. From the front, slightly raise the front of the drum and slide the belt off.



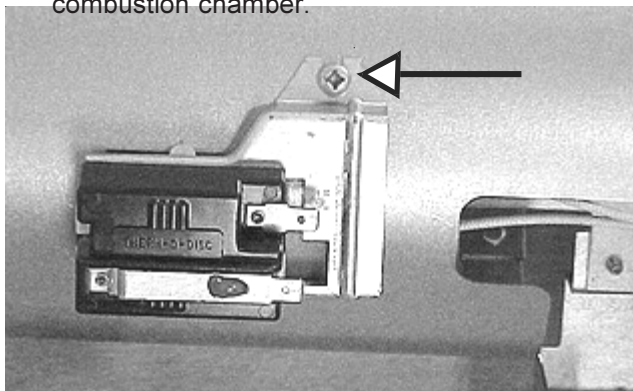
**Removing the control thermostat and thermostat heater:**

1. Disconnect the laundry center from electrical supply, remove the access panel and heat shield.
2. The control thermostat and thermostat heater is mounted to the base plate of the dryer section.
3. Disconnect the wires from the thermostat and heater remove the two screws holding the thermostat and heater to the base plate of the dryer.



**Removing the sensor: (Gas dryers)**

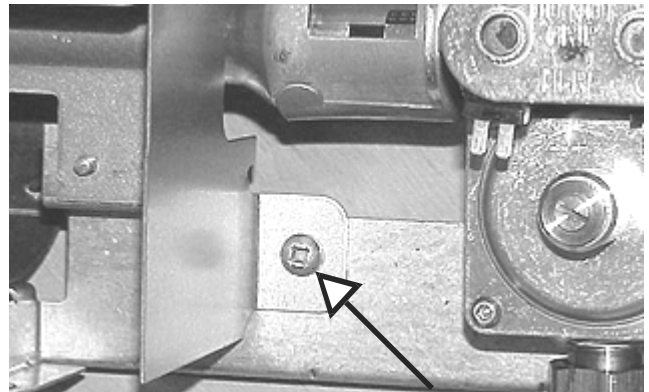
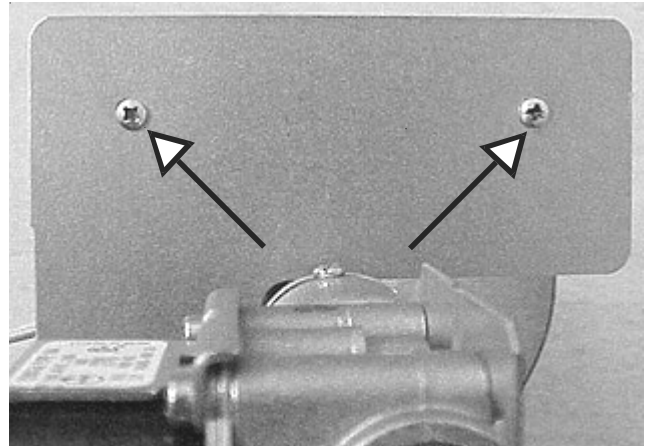
1. Disconnect the laundry center from electrical supply, remove the access panel and heat shield.
2. Open the console and disconnect the two wires from the sensor.
3. Remove the one screw holding the sensor to the combustion chamber.



**Removing combustion chamber shield: (Gas dryers)**

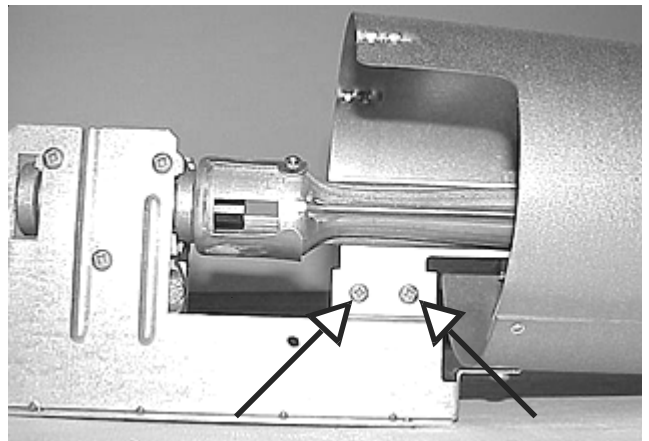
1. Disconnect the laundry center from electrical supply, remove the access panel and heat shield.

2. Remove the two screws holding the shield to the combustion chamber, the screw holding the shield to the burner bracket and lift the shield off.



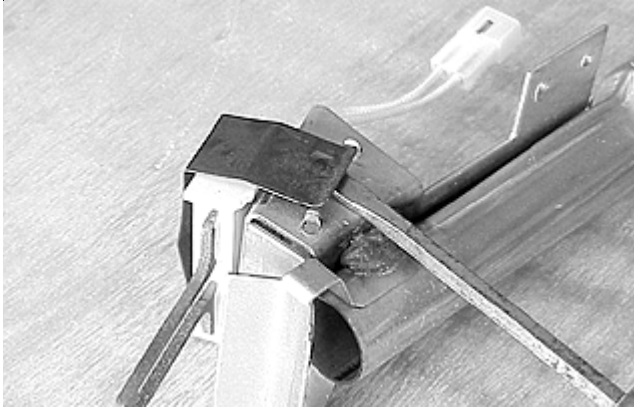
**Removing burner/ignitor assembly: (Gas dryers)**

1. Disconnect the laundry center from electrical supply, remove the access panel and heat shield.
2. Remove the combustion chamber shield and unplug the ignitor harness.
3. Remove the two screws holding the burner to the combustion assembly mounting bracket, push the burner forward to release it from the valve, then slide the burner and ignitor out the back.



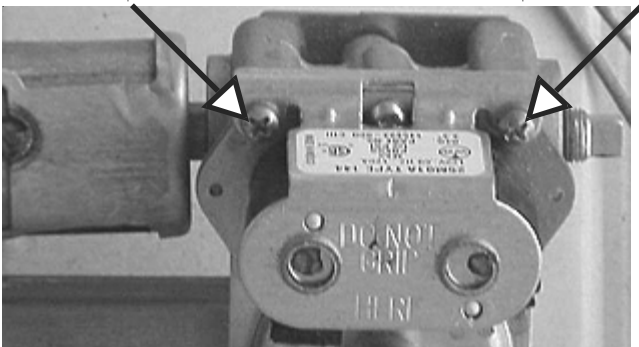
### Removing the ignitor: (Gas dryers)

1. Disconnect the laundry center from electrical supply and remove the burner.
2. Using a screwdriver, release the spring clip holding the ignitor to the burner.



### Removing the gas valve coils: (Gas dryers)

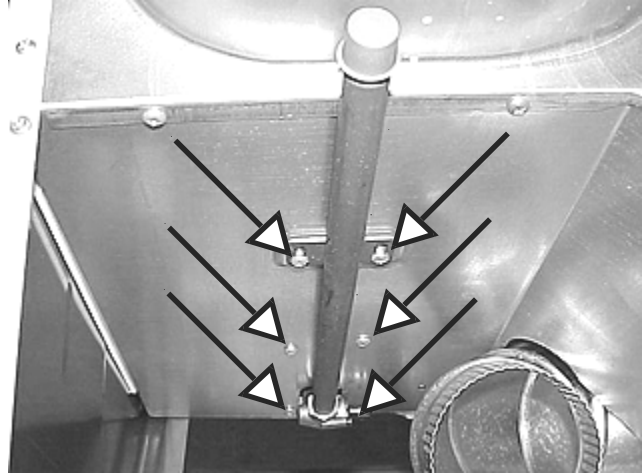
1. Disconnect the laundry center from electrical supply, remove the access panel and heat shield.
2. Disconnect the wires from the coils, remove the two screws holding the coil bracket to the valve base and lift the coils off.



### Removing the burner and combustion chamber assembly, manual shut off and the internal gas pipe: (Gas dryers)

1. Disconnect the laundry center from electrical supply and turn the gas supply off.
2. Open the console, remove the access panel and heat shield.
3. Disconnect the gas line to the laundry center.

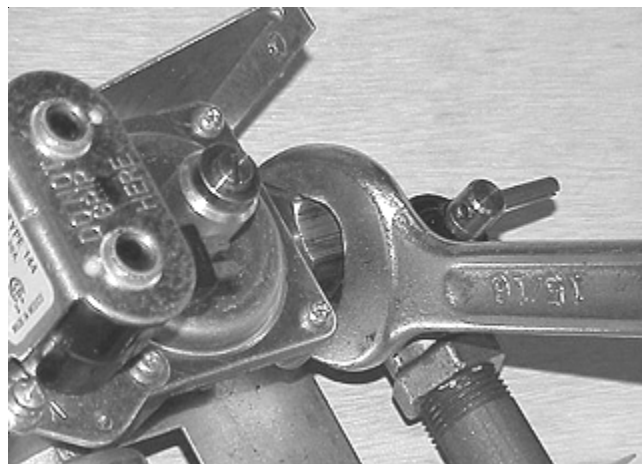
4. Remove the six screws holding the burner assembly and internal gas pipe to the dryer section base plate.



5. Slide the assembly out the front.

### Removing manual shut off and internal gas pipe: (Gas dryers)

1. Disconnect the laundry center from electrical supply, turn the gas supply off and remove the burner combustion chamber assembly.
2. Using a 15/16 inch wrench disconnect the manual shut off from the pressure regulator valve assembly.

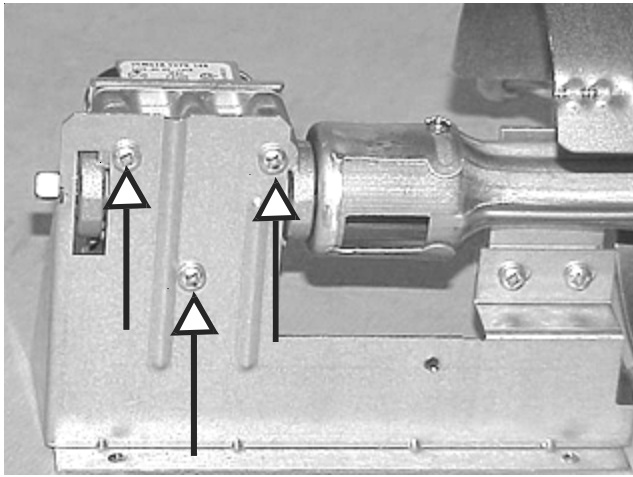


### Removing pressure regulator valve assembly: (Gas dryers)

1. Disconnect the laundry center from electrical supply, turn the gas supply off and remove the burner combustion chamber assembly.

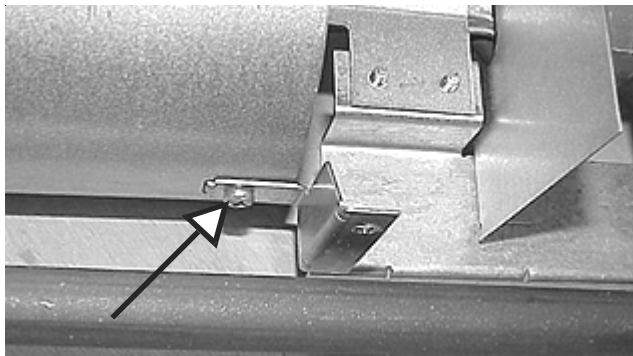


2. Disconnect the manual shut off, remove the three screws holding the assembly to the mounting bracket and pull the assembly back and out.



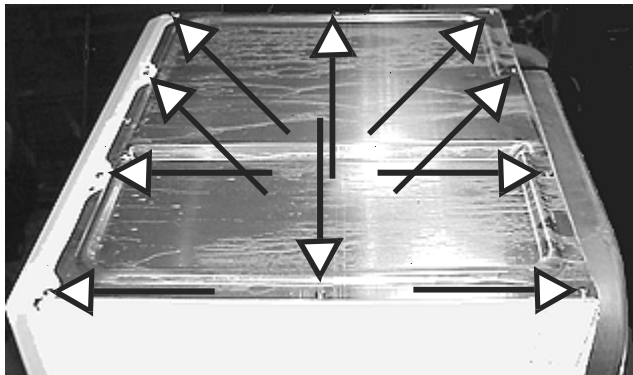
**Removing the combustion chamber: (Gas dryers)**

1. Disconnect the laundry center from electrical supply, turn the gas supply off and remove the burner combustion chamber assembly.
2. Remove the combustion chamber shield and the 1 screw holding the combustion chamber to the mounting bracket.



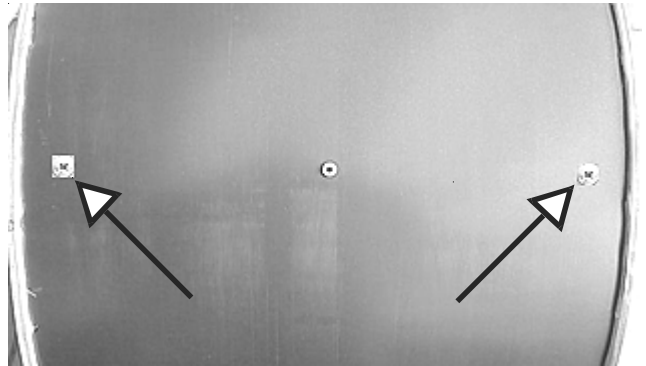
**Removing the dryer top panel:**

1. Remove the ten screws holding the top panel to the front, back and sides.



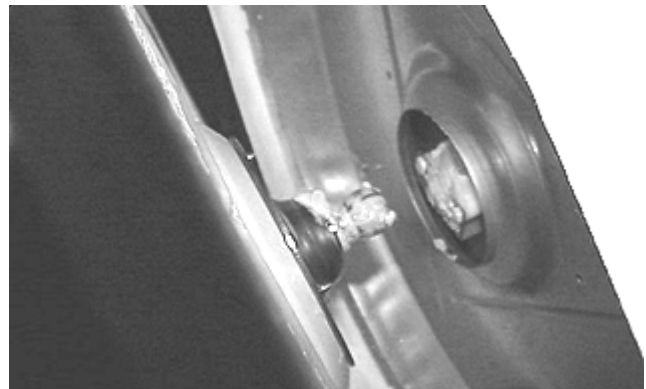
**Removing the vane from the dryer drum:**

1. Remove dryer top panel from the laundry center, and open the dryer door.
2. Rotate the drum until the vane is at the top, remove the two screws holding the vane to the drum and drop the vane into the drum.



**Removing the dryer drum:**

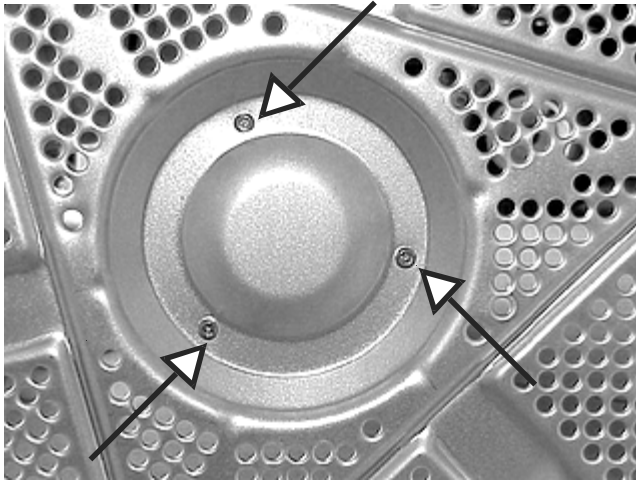
1. Disconnect the laundry center from electrical supply and remove the dryer top panel.
2. Disconnect the dryer drive belt from the motor and remove the dryer front panel.
3. Raise drum to disengage the ball from the hitch and slid the drum out the front.



**Removing the ball hitch from the drum:**

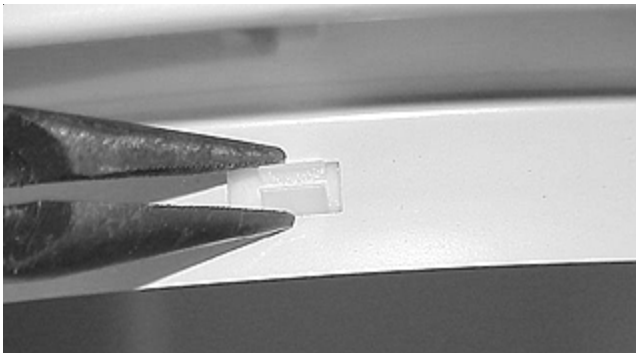
1. Disconnect the laundry center from electrical supply and remove the drum.

- Remove the three screws from inside the drum holding the ball hitch to the drum.



**Removing the teflon glides:**

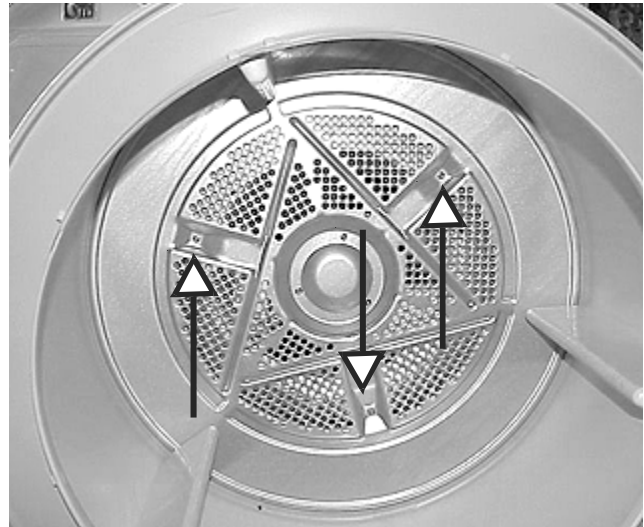
- Disconnect the laundry center from electrical supply and remove the drum.
- Squeeze the tabs to release the glides.



**Removing the drum heat shield: (Electric dryers)**

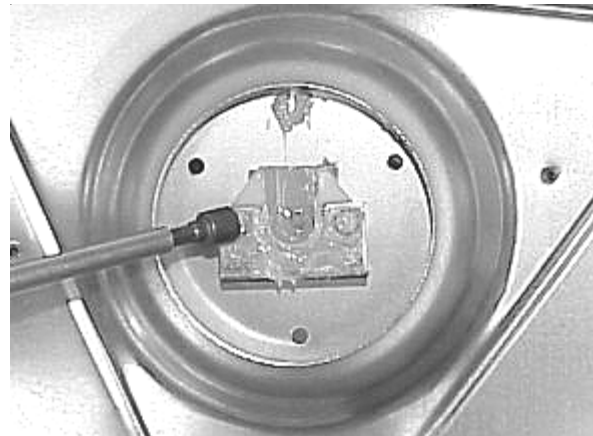
- Disconnect the laundry center from electrical supply and remove the drum.

- Remove the three screws holding the shield to the rear of the drum.

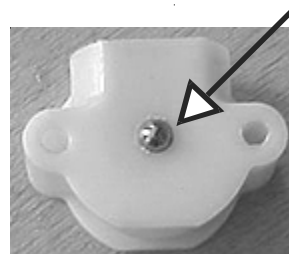


**Removing the hitch:**

- Disconnect the laundry center from electrical supply and remove the drum.
- Using a 5/16" nut driver remove the two screws holding the hitch to the rear panel while holding the large tinnerman clip from the rear of the laundry center.

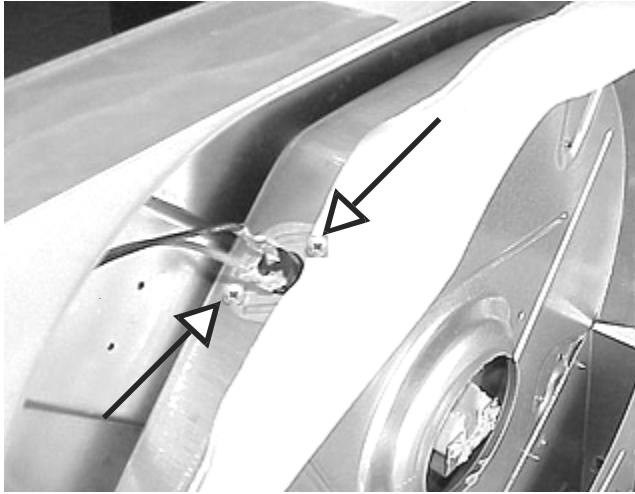


**Note:** Do not lose the grounding ball or the tinnerman mounting clip from the rear of the dryer.

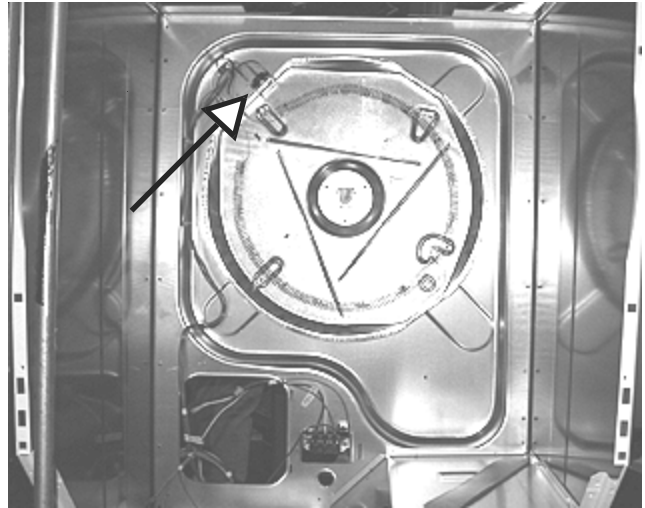


### Removing the high limit thermostat:

1. Disconnect the laundry center from electrical supply and remove the drum.
2. Disconnect the two wires and remove the two screws holding thermostat to the rear heat shield.

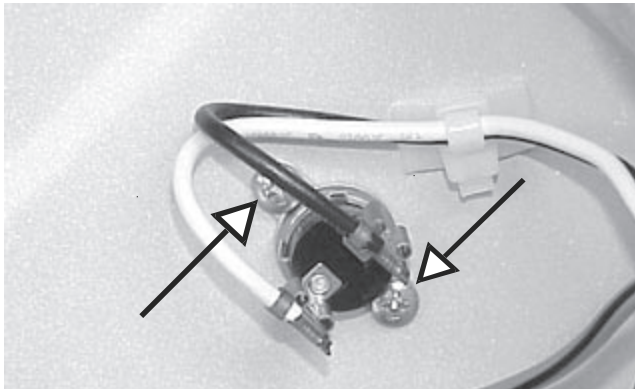


2. Disconnect the two wires from the heating element.
3. Remove the high limit thermostat.

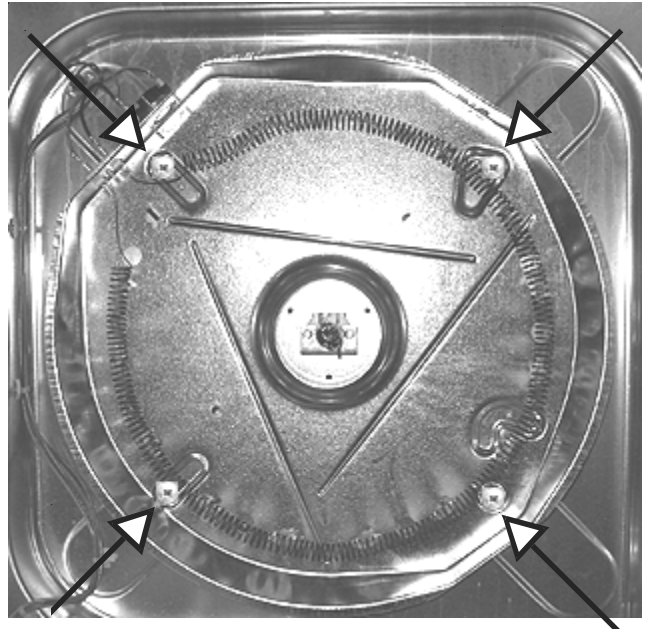


### Removing the thermal limiter: (Electric dryers)

1. Disconnect the laundry center from electrical supply and remove the drum.
2. Disconnect the two wires and remove the two screws holding limiter to the rear panel.



4. Remove the four screws securing the heating element assembly to the rear of the cabinet.



### Removing the heating element assembly: (Electric dryers)

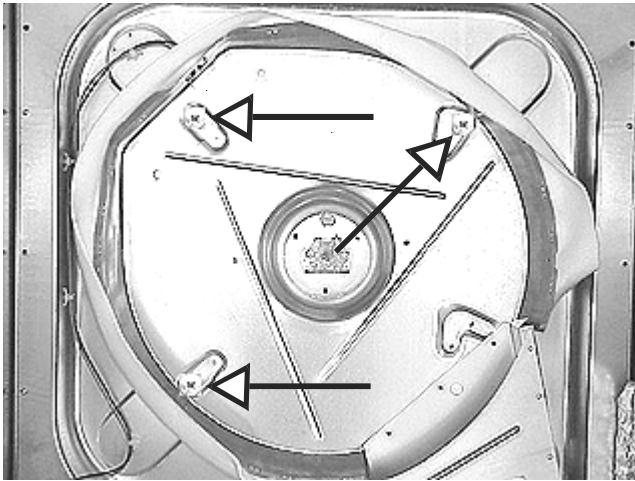
1. Disconnect the laundry center from electrical supply and remove the drum.

### Removing the duct and heat shield: (Gas dryers)

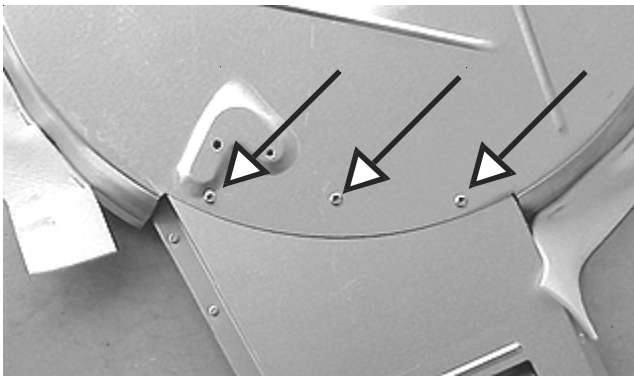
1. Disconnect the laundry center from electrical supply and remove the drum.
2. Remove the burner combustion chamber assembly.



3. Disconnect the wires from the high limit thermostat and remove the three screws holding the heat shield to the rear panel of the laundry center.

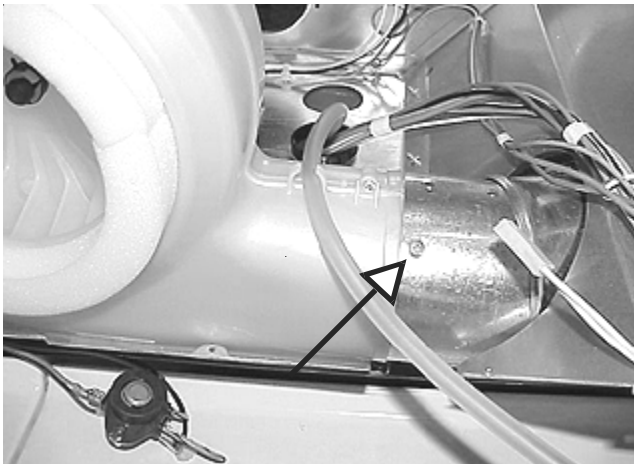


4. Lift the shield and duct out of the laundry center and remove the three screws holding the duct to the heat shield.



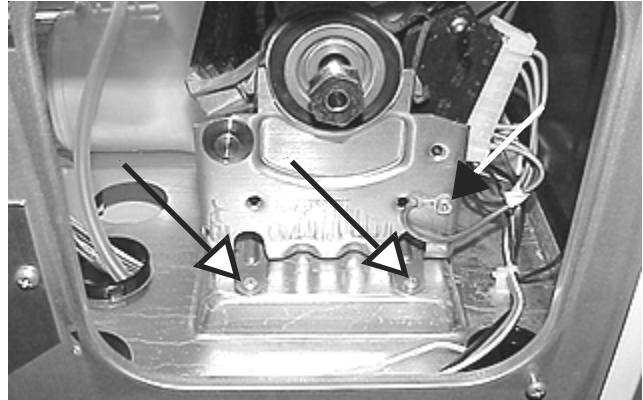
**Removing the blower and motor assembly:**

1. Disconnect the laundry center from electrical supply and remove the drum.
2. Remove the control thermostat and heater unplug the pressure switch hose and the screw holding the blower housing to the vent pipe.



3. Unplug the harness from the motor, remove the idler pulley assembly and disconnect the ground wire from the motor.

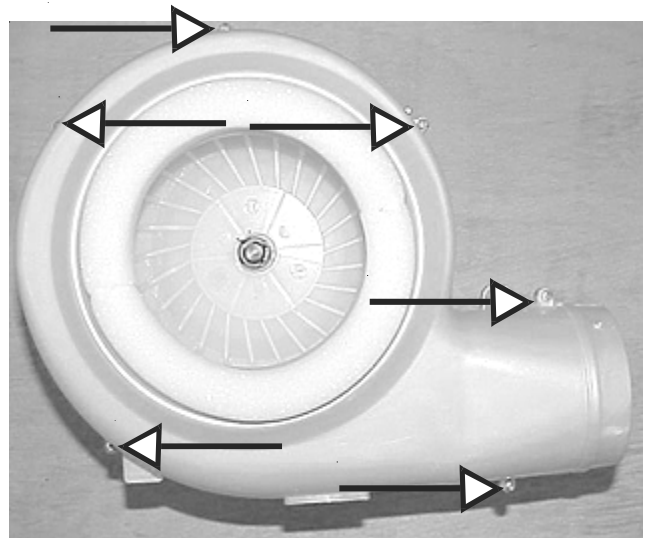
4. Remove the two screws holding the motor mounting plate to the dryer base.



5. Lift the front of the assembly and slide it backward to release the motor mounting plate from the dryer base.

**Disassembling the blower and motor assembly:**

1. To remove the front half of the blower assembly remove the six screws holding the front half to the rear half of the blower assembly.





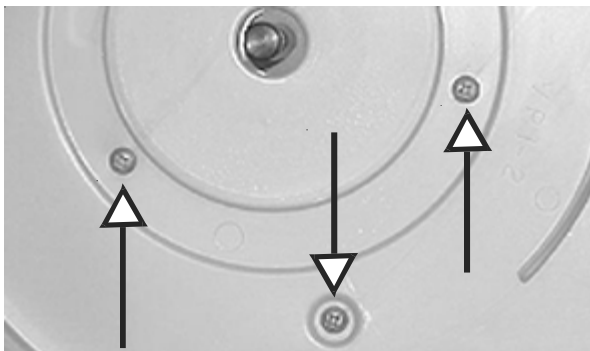
- The blower wheel can be removed by removing the clamp holding the blade to the motor shaft.



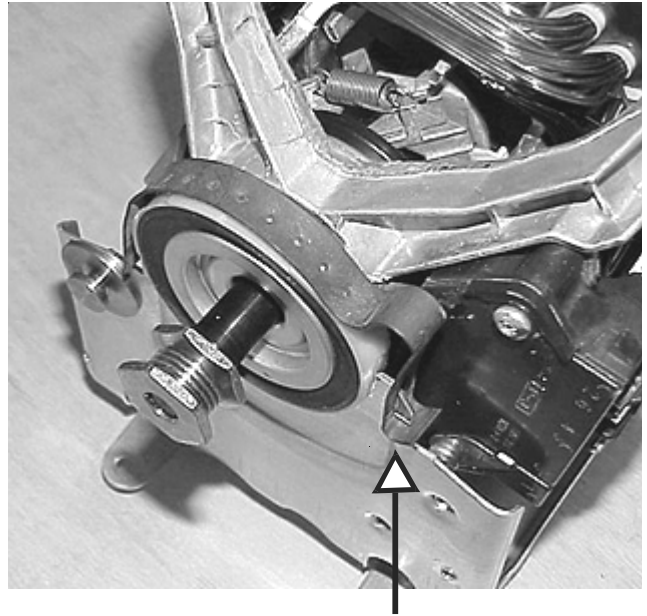
- Using two small common screwdrivers, release the blower wheel from the notch in the motor shaft and pull the blower wheel off.



- With the blower wheel removed, the rear half of the blower housing and the motor can be removed.
- To remove the rear half of the blower assembly remove the three screws holding the housing to the motor mounting bracket.

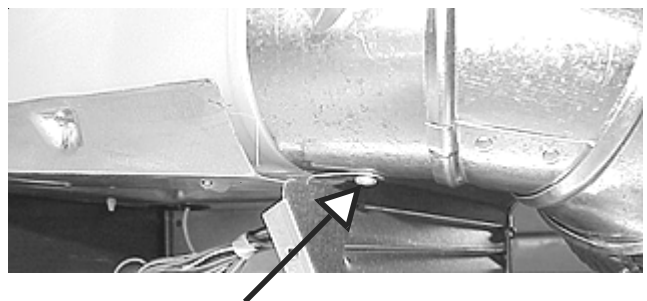
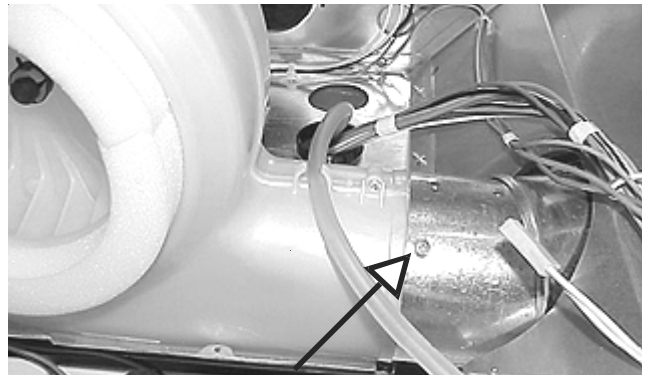


- With the fan blade removed, the motor can be removed from the motor mounting bracket by releasing the two hold-down brackets, one at the front and one at the rear.



#### Removing the internal vent duct:

- Disconnect the laundry center from electrical supply and remove the drum.
- Remove the screw holding the duct to the blower assembly and the screw holding duct to the base plate.

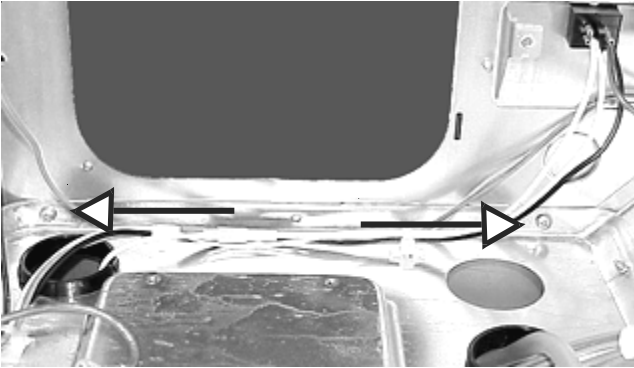


**Removing the motor and blower assembly base:**

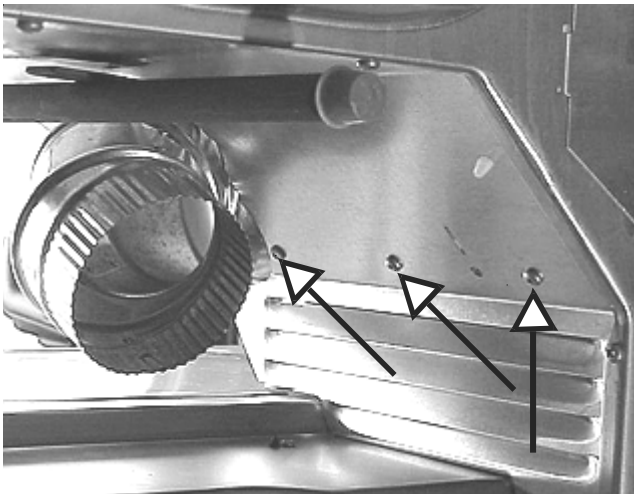
1. Disconnect the laundry center from electrical supply, remove the motor and blower assembly and disconnect the internal vent duct.
2. Remove the screw holding the base to the side panel.



3. Remove the two screws holding the base to the rear panel.

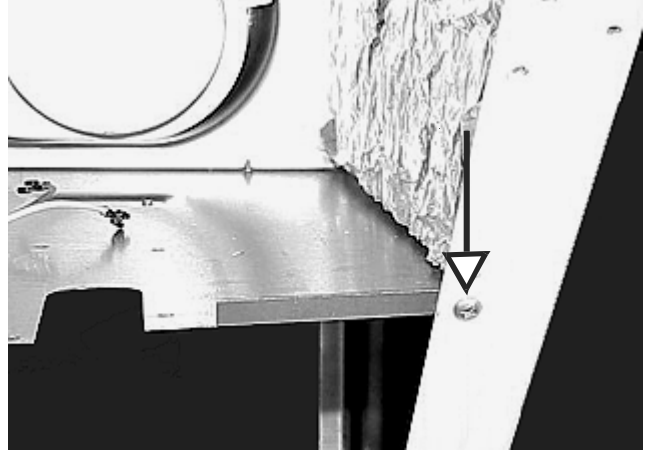


3. Remove the three screws holding the base to the burner base.

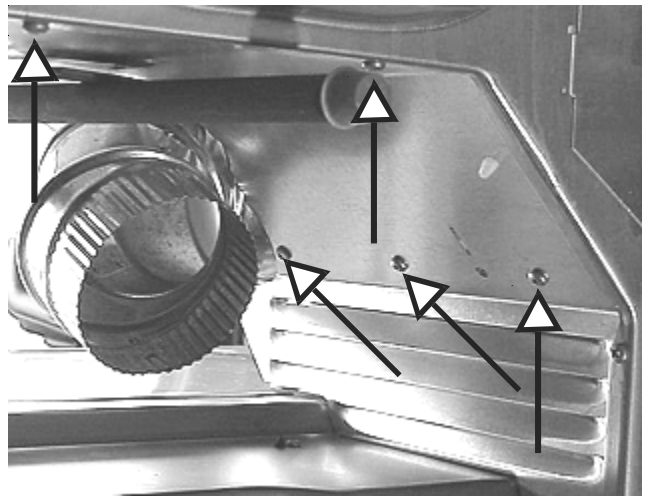


**Removing the burner assembly base: (Gas dryers)**

1. Disconnect the laundry center from electrical supply and remove the burner assembly.
2. Remove the screw holding the base to the side panel.



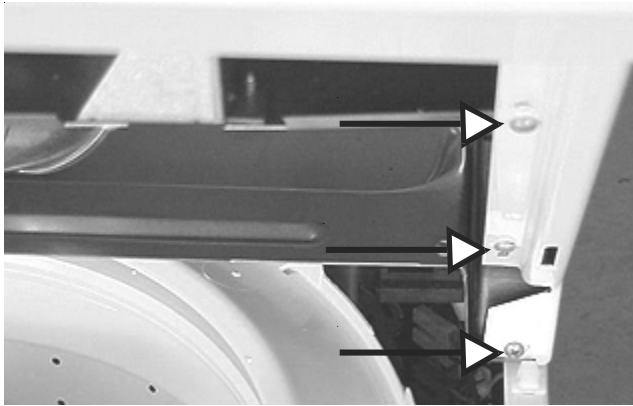
3. Remove the two screws holding the base to the rear panel and the three screws holding the base to the motor and blower assembly base.



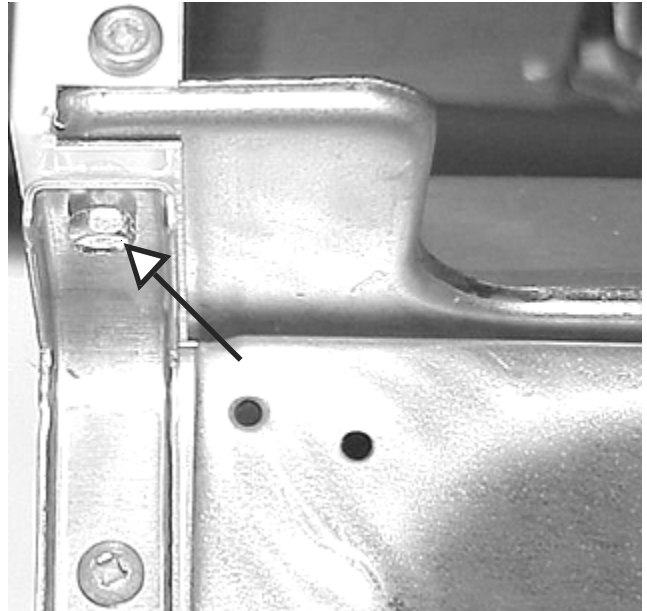
**Removing the dryer section side panels:**

1. Disconnect electrical power and remove the front access panel, heat shield, dryer front panel and washer top.
2. When removing the lefthand side panel, remove the drum and blower assembly.

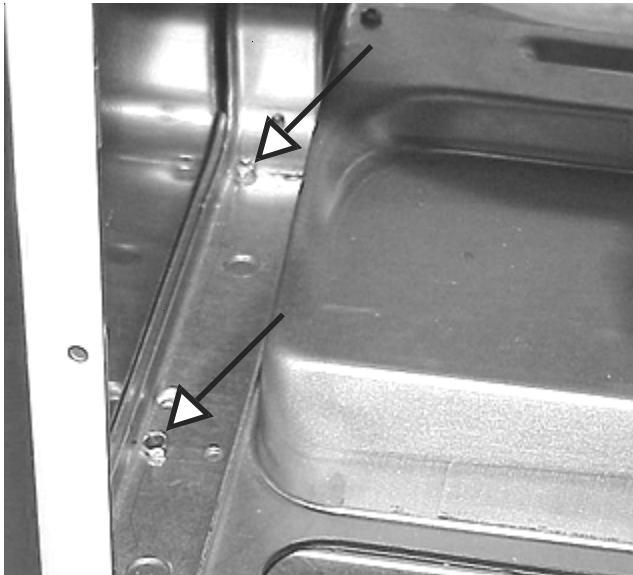
3. Remove the three screws in the front holding the side panel to the dryer section base.



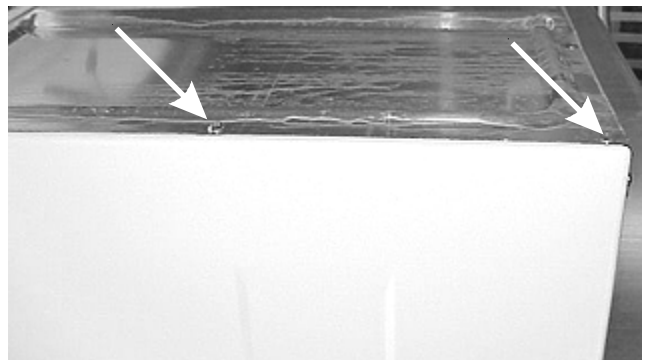
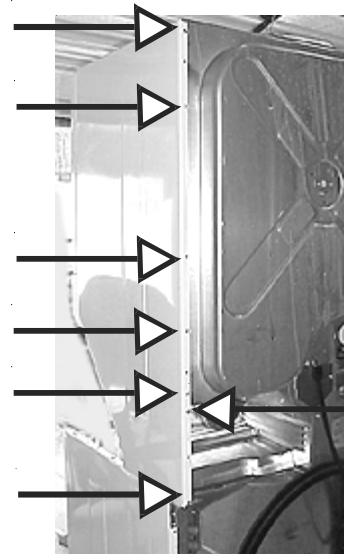
5. Remove the bolt from the rear bracket holding the dryer section to the washer section.



4. Remove the two bolts holding the side brace to the washer panel.



6. Remove the seven screws from the rear, the two remaining screws from the top and lift the panel off.





### Removing the bleach dispenser:

1. The bleach dispenser is snapped into the top. Place a screwdriver underneath the front corner and pop the dispenser out.

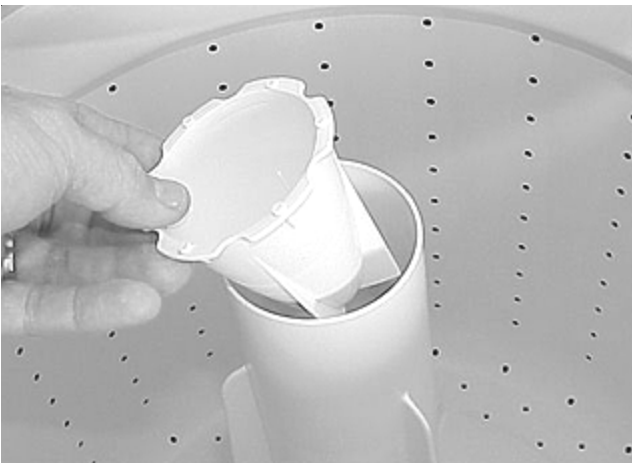


### Removing the softener dispenser assembly:

1. Raise the lid and pull up on the dispenser cap.



2. With the cap removed lift out the cup.

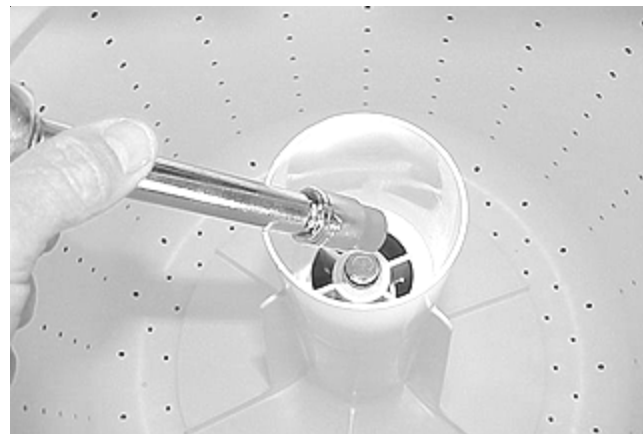


### Alternate softener dispenser assembly:



### Removing the agitator:

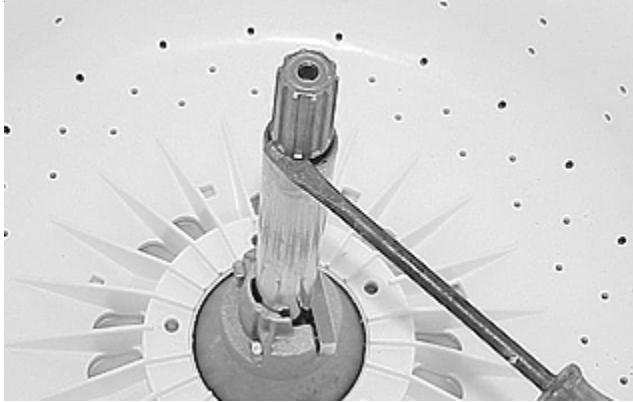
1. Raise the top, remove the softener dispenser.
2. Using a 1/2" socket remove the bolt from the center of the agitator shaft and lift the agitator off.



### Removing the drive hub:

1. The drive hub is forced on the transmission shaft by the bolt that holds the agitator to the transmission shaft.

- Place a screwdriver between transmission shaft and the drive hub and force the drive hub off.



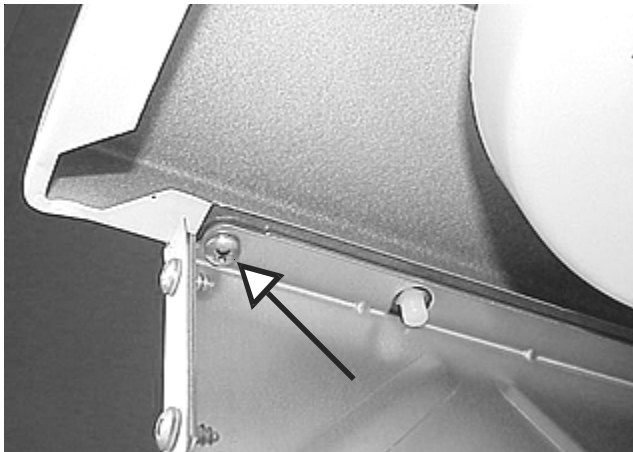
#### Removing the washer front panel:

- Disconnect the laundry center from electrical supply.
- Remove the two screws at the bottom of the panel, one on each side, and pull down on the panel to release the tabs.



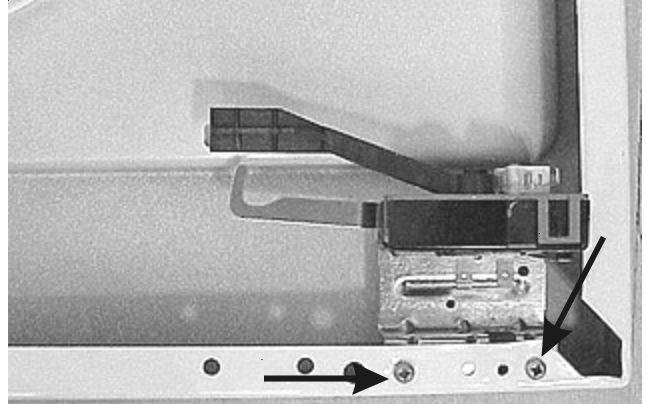
#### Removing the washer top:

- Disconnect the laundry center from electrical supply and remove the washer front panel.
- Disconnect the wiring from the lid lock assembly and remove the two screws, one in each front corner. Lift the top to release the locator pins and pull the top forward.



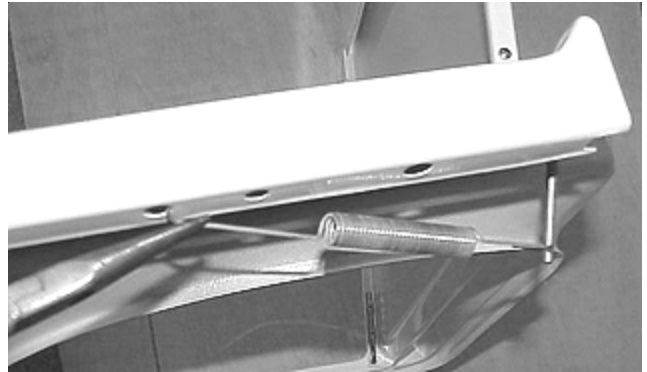
#### Removing the lid lock assembly:

- Disconnect the laundry center from electrical supply and remove the washer top.
- Remove the two screws holding the assembly to the top and lift the lid lock assembly off.



#### Disconnecting the lid springs:

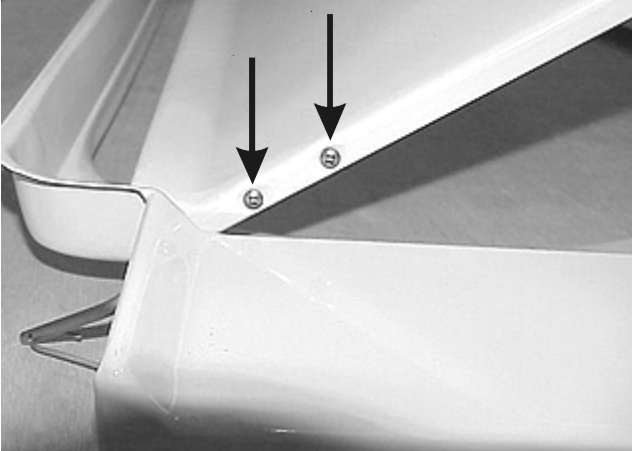
- Disconnect the laundry center from electrical supply and remove the washer top.
- Open the lid and disengage the spring from the top, then turn the spring out of the hinge.



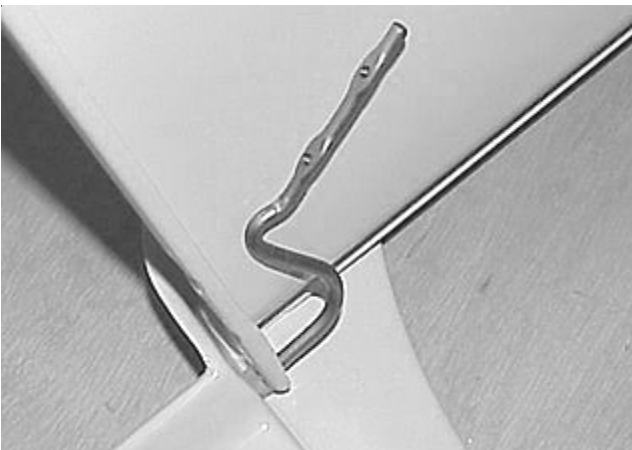
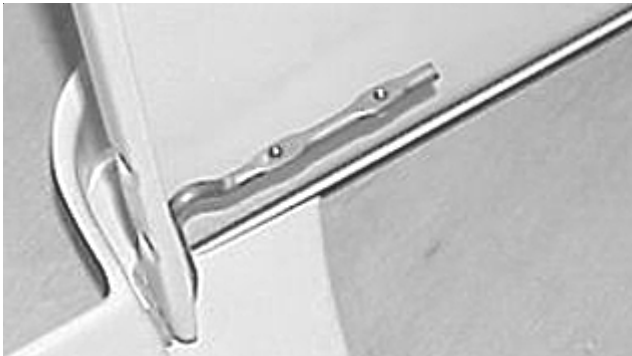
#### Removing the lid hinges:

- Disconnect the laundry center from electrical supply, remove the washer top and the hinge spring.

2. Remove the two screws holding the hinge to the lid.

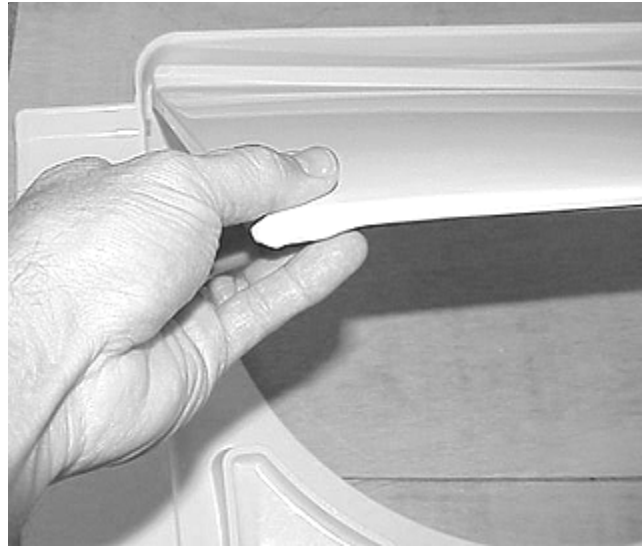


3. Pull the hinge in and rotate the end of the hinge counter clockwise while pulling.



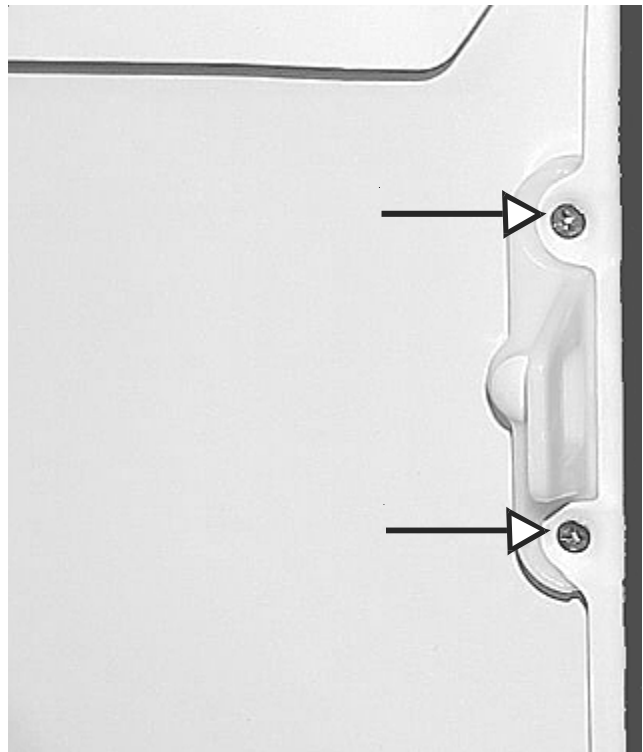
### Removing the lid:

1. Disconnect the laundry center from electrical supply and remove the top.
2. Remove the hinges and lift the lid off.



### Removing the lid strike:

1. Lift lid and remove the two screws holding the strike to the lid.



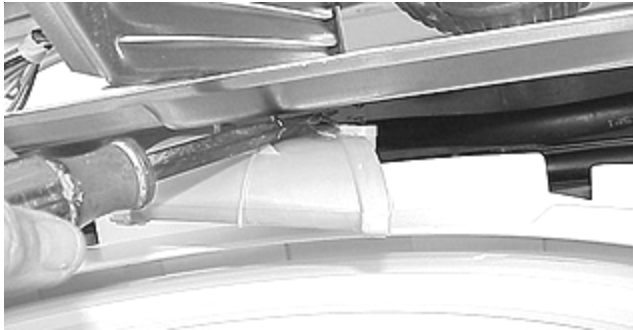


### Removing the water inlet nozzle:

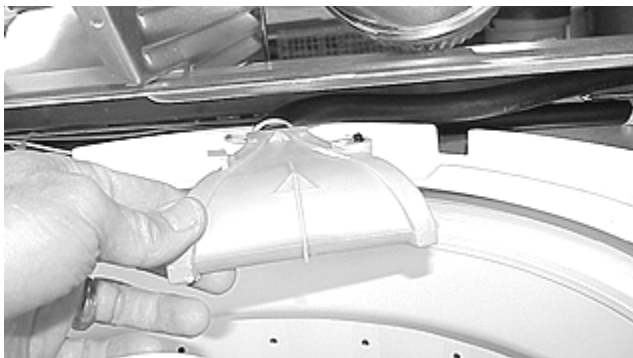
1. Disconnect the laundry center from electrical supply and remove the washer section top.
2. Remove the screw holding the nozzle to the dryer section base.



3. Using a flat blade screwdriver, pry down on the right side of the nozzle to release the plastic rivet.



4. Turn the nozzle clockwise to disengage the tab on the left side and pull nozzle forward.



### Removing the water inlet valve:

1. Disconnect the laundry center from electrical supply, turn the water off and remove the washer section top.

2. Disconnect the wiring harness from the valve.

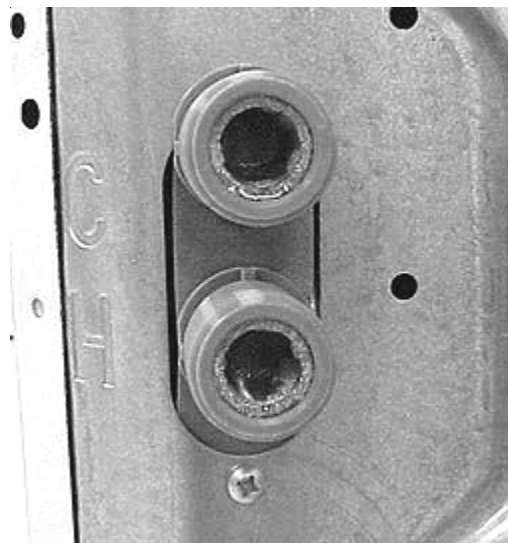


3. Gain access to the rear of the washer, disconnect the inlet hoses and remove the two screws holding the valve to the rear panel.



### Alternate water valve attachment:

3. Gain access to the rear of the washer and remove one screw holding the valve to the rear panel.



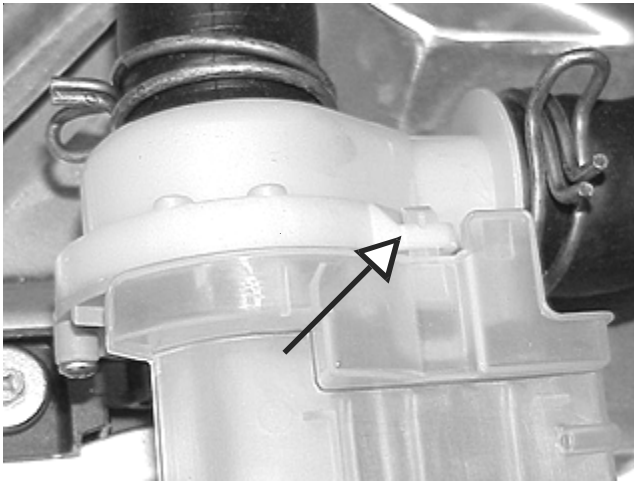
4. Pull the valve up past the tub and disconnect the outlet hose.



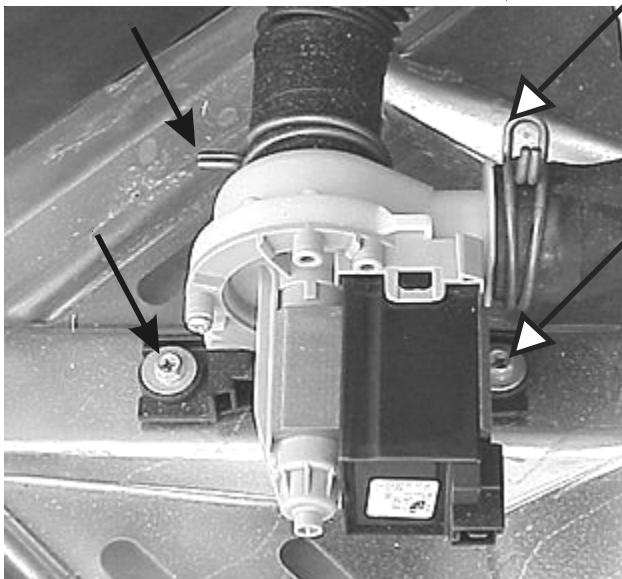
### Removing the drain pump:

**Note:** There will be water in the pump so have a pan or towels to catch it before disconnecting the pump.

1. Disconnect the laundry center from electrical supply and remove the front panel.
2. Unplug the wiring from the pump, release the tab shown and pull the shield back.



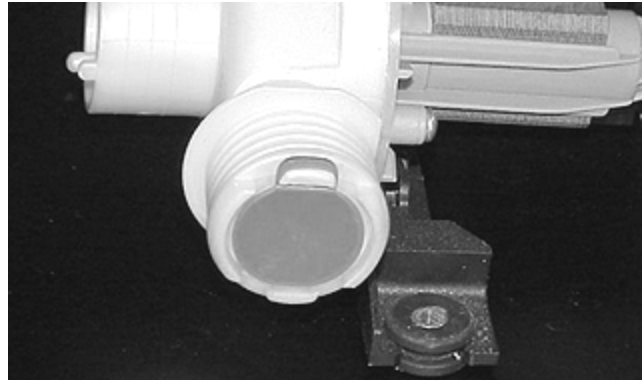
3. Disconnect the hoses and remove the two screws securing the pump to the washer base.



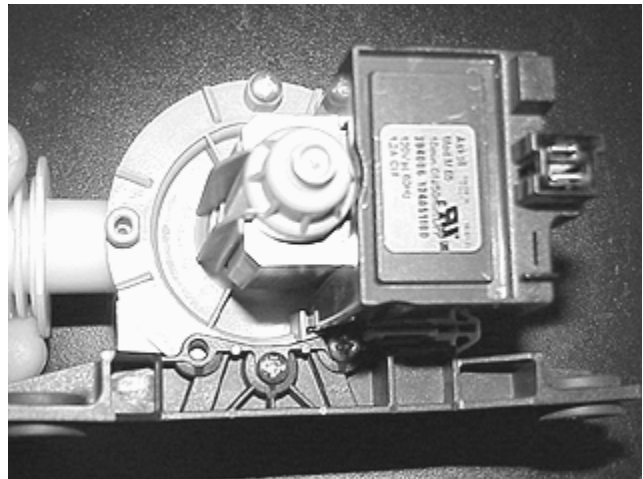
### Disassembling the drain pump:

1. Disconnect the laundry center from electrical supply.
2. Remove the drain pump from the laundry center.

3. The check valve is located in the output connection of the pump. To remove the check valve lift it off its tab.

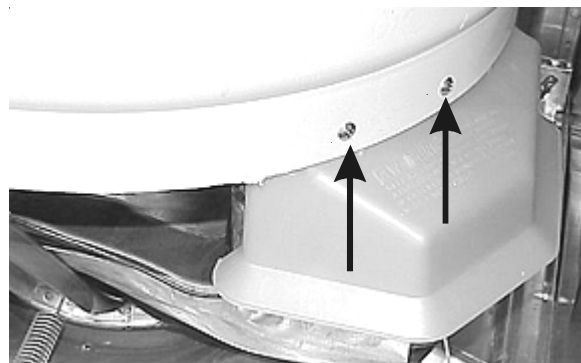


4. To remove the rear pump housing, remove three screws locking the housings together and pull the housings apart. (Do not twist.)

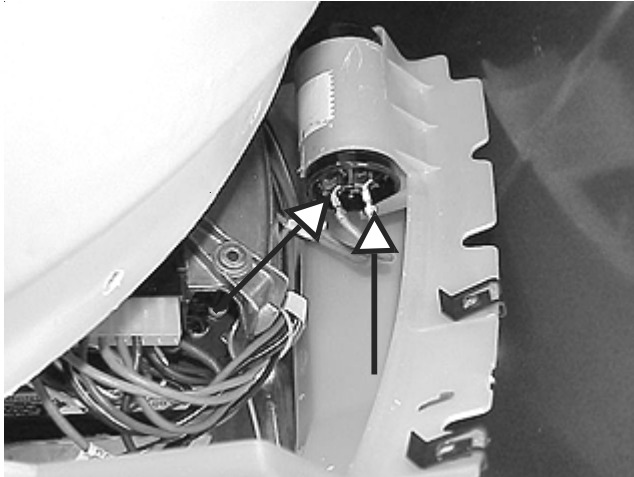


### Removing the drive motor shield:

1. Disconnect the laundry center from electrical supply and remove the front panel.
2. Remove the two screws holding the shield to the tub and rotate the shield down and out.

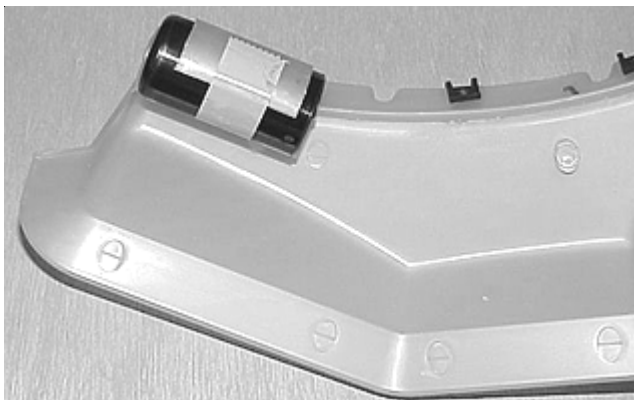


3. Disconnect the wires from the capacitor.



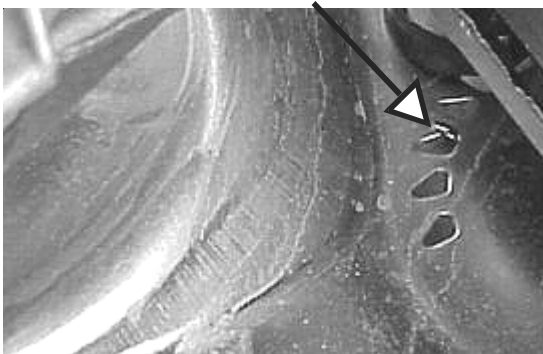
**Removing the start capacitor:**

1. Disconnect the laundry center from electrical supply and remove the washer drive motor shield.
2. Disconnect the wires from the capacitor, peel back the tape and snap the capacitor out of the bracket.



**Removing the drive belt:**

1. Disconnect the laundry center from electrical supply and remove the front panel.
2. Check the setting of idler pulley spring.

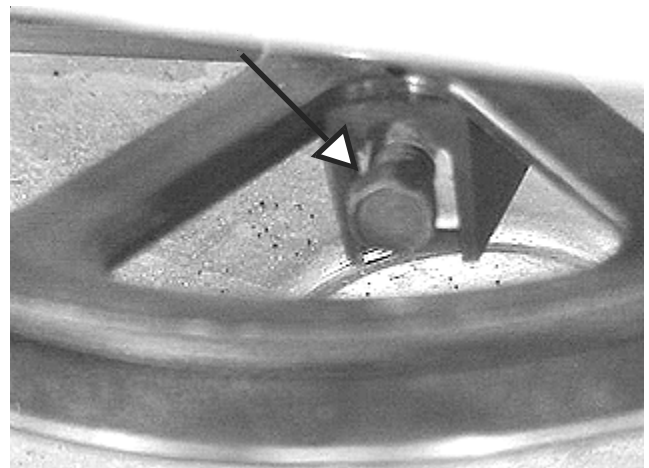


3. Push in on the idler pulley and turn the belt off.



**Removing the transmission pulley:**

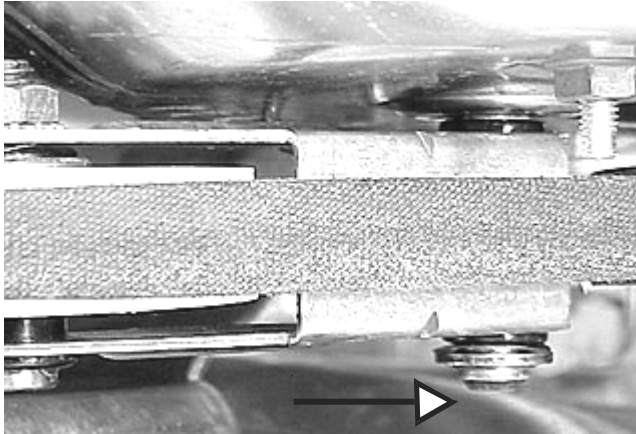
1. Disconnect the laundry center from electrical supply, remove the front panel and the drive belt.
2. Using a 3/8" socket, loosen the locking screw of the transmission pulley and drop the pulley off the shaft.



**Removing the idler pulley assembly:**

1. Disconnect the laundry center from electrical supply, remove the front panel and the drive belt.
2. Release the front vertical and horizontal springs.

3. Release the small “C” clip from the transmission stud and allow the assembly to drop down.



**Note:** The “C” clip is very small and hard to find if dropped.

**Removing the snubber:**

1. Disconnect the laundry center from electrical supply and remove the front panel.
2. Make a wire hook to pull the snubber out with.

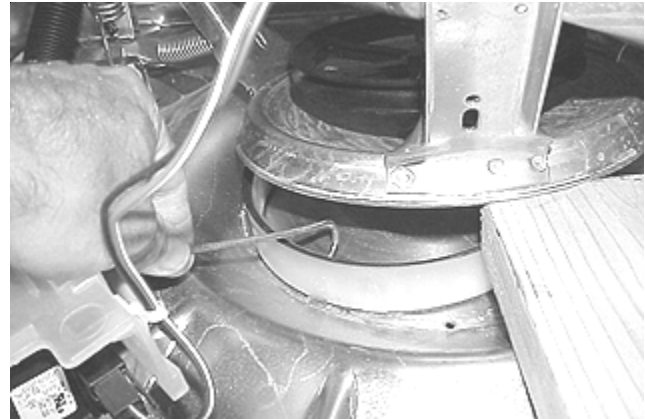


**Caution:** Never place your hands or fingers under the leg and dome assembly while it is raised.

3. Release the front vertical and horizontal springs.
4. Place a 2” by 4” between the bottom rim of the leg and dome assembly and the base and raise the leg and dome assembly.

**Note:** It is a good idea to be prepared with some sort of supports (like 3/4 inch pieces of wood) to slide between the lower edge of the assembly and the base to help support it if it were to slide off of your pry-bar.

5. Pull the snubber out with the wire hook.



**Reinstalling the snubber:**

Before reinstalling the snubber, the base must be wiped out whether the snubber is replaced or not. A cloth wetted with denatured (camp stove) alcohol or rubbing alcohol will clean any residue, such as soap, or fabric softener off of the base. An old cloth work glove would work well also. Make sure that the snubber area in the dome area is wiped out well.

**Note :** Never oil the base to stop snubber noise.

Inspect the teflon strips on upper and lower edges of the snubber as they must be perfectly smooth and undamaged in any way.

**Note:** The arrow on the side of the snubber. When reinstalling or replacing the part, the arrow must be pointing upward.

**Removing the drive motor:**

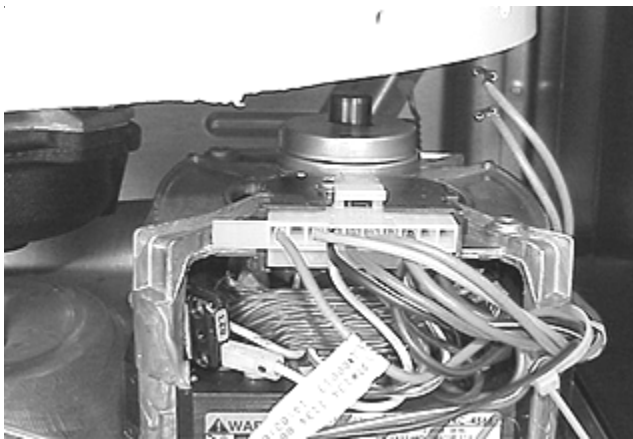
1. Disconnect the laundry center from electrical supply and remove the front panel.
2. Remove the front vertical and horizontal springs, disconnect the wires from the capacitor and remove the drive motor shield.



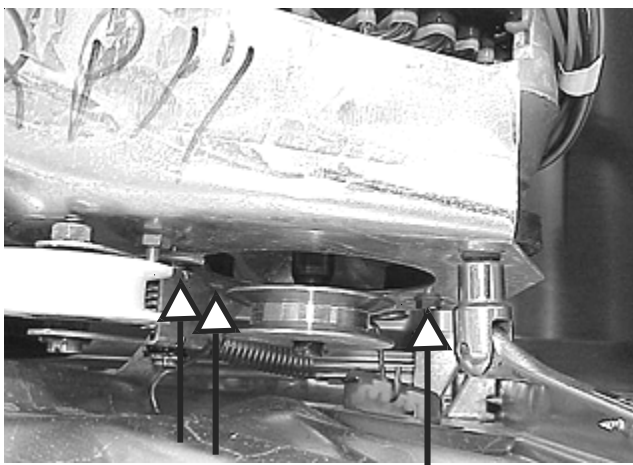
3. Remove the bolt from the front leg, raise the tub, reinsert the bolt so the bottom of the tub rests on the bolt.



4. Remove the drive belt and disconnect the wiring harness from the drive motor.



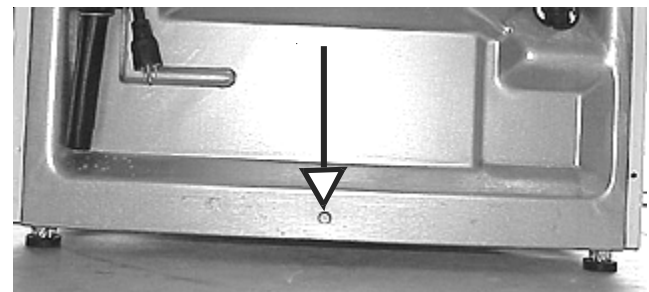
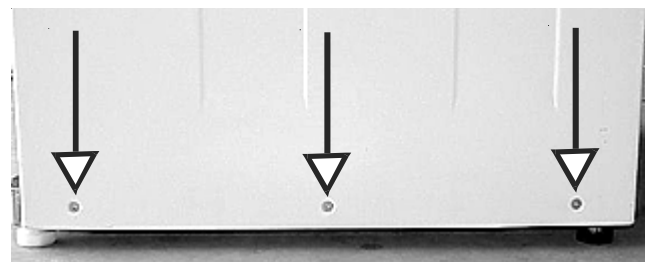
5. Using a 3/8" wrench, remove the four nuts from the motor studs, lift the motor up, tip it back and pull the motor out the front.



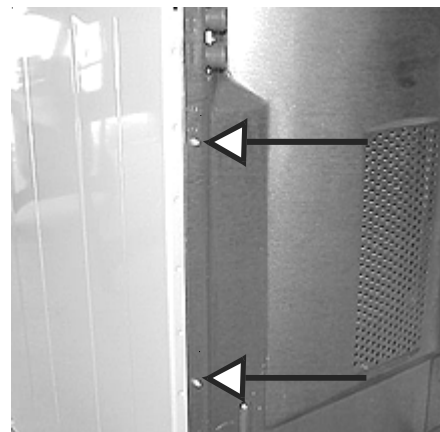
### Removing the tub, leg and dome assembly and base:

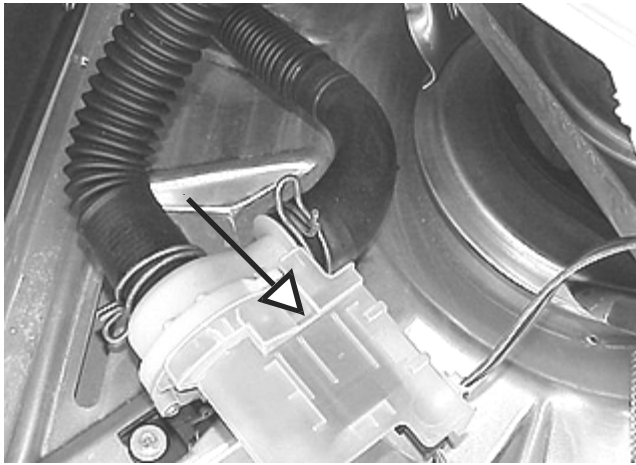
**Note:** To gain access to the tubs, transmission, leg and dome assembly and the base, of the washer section, it is necessary to side the assembly with these components out the front of the washer section.

1. Disconnect the laundry center from electrical supply, remove the washer section front panel, top and inlet nozzle.
2. Remove the seven screws, three from each side, holding the bottom of the side panels to the base and one from the rear holding the rear panel to the base.

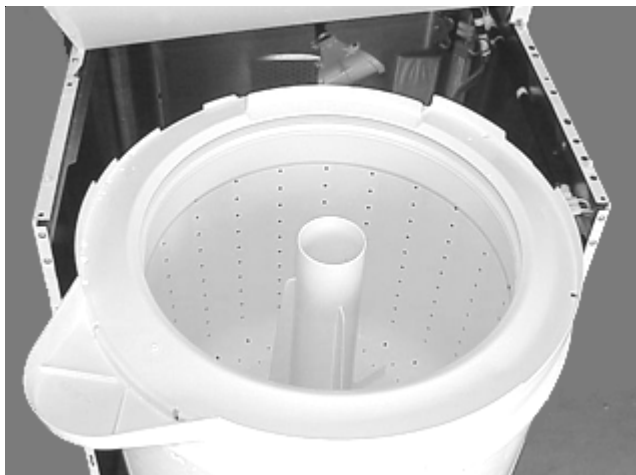
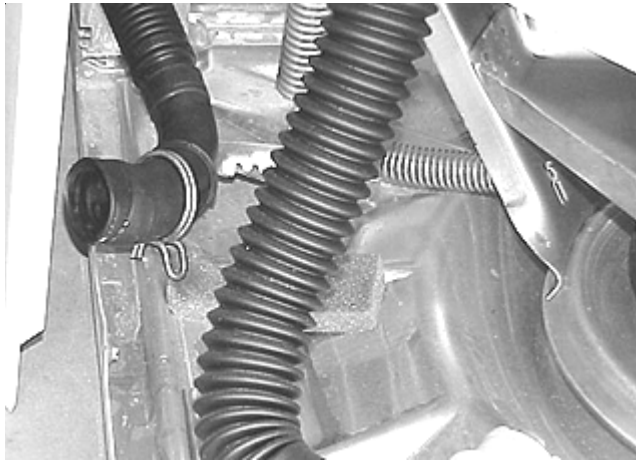


3. Release the two plastic rivets holding the wire harness ties to the rear panel and the pressure switch hose from the outer tub.
4. Disconnect the drain hose from the drain pump and allow it to side back through the tie holding it to the base.



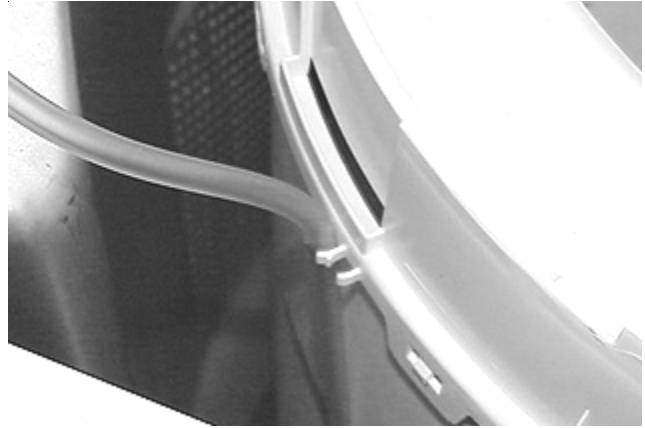


5. Pull the assembly forward as far as the harness and hose will allow.



### Removing the splash tub cover:

1. Disconnect electrical power and pull the tub, leg and dome and base assembly forward.
2. Unsnap the pressure hose from the cover.



3. Using a flatblade screwdriver, unsnap the cover from the tub and lift it off.



### Removing the spin basket:

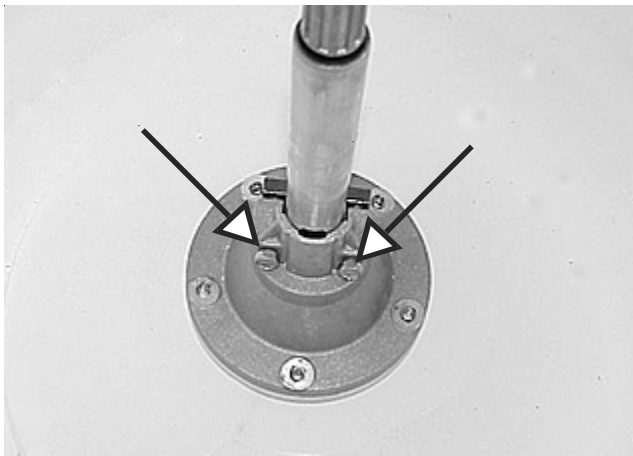
1. Disconnect electrical power and pull the tub, leg and dome and base assembly.
2. Remove the agitator and the splash tub cover.

- Using a 1/2" socket remove the five bolts holding the spin basket to the trunnion.



#### Removing the trunnion:

- Disconnect electrical power and pull the tub, leg and dome and base assembly.
- Remove the agitator, splash tub cover and spin basket.
- Using a 1/2" socket loosen the two bolts holding the lockplate to the agitator shaft and lift the trunnion off the shaft.



#### Removing the top half of the tub seal:

- Disconnect electrical power and pull the tub, leg and dome and base assembly.
- Remove the agitator, spin basket and trunnion.

- Push down on the brass ring to release the rubber seal and pull the seal and brass ring off the shaft.



#### Removing the bottom half of the tub seal:

- Disconnect electrical power and pull the tub, leg and dome and base assembly.
- Remove the agitator, spin basket, trunnion and top half of the tub seal
- Place your thumbs on the bottom seal towards you and your fingers on the other side. Push down and in with your thumbs and pull in and up with your fingers to pop the seal out.



#### Removing the outer tub:

- Disconnect electrical power and pull the tub, leg and dome and base assembly.
- Remove the agitator, spin basket, trunnion and top half of the tub seal.
- Disconnect the drain hose, drive motor shield and the pressure switch hose.

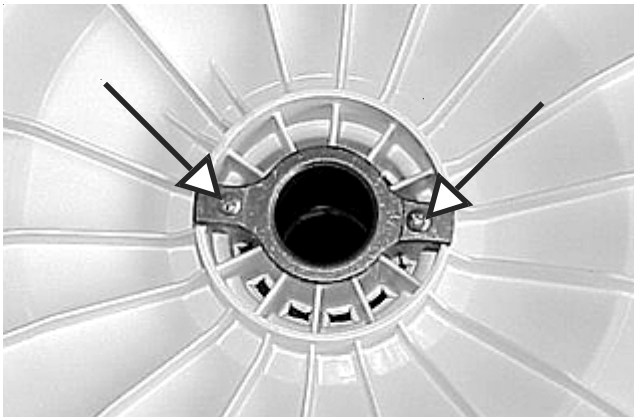


- Using a 1/2" socket remove the three bolts holding the tub to the leg and dome assembly, and lift the tub over the transmission shaft.



**Removing the tub bearing:**

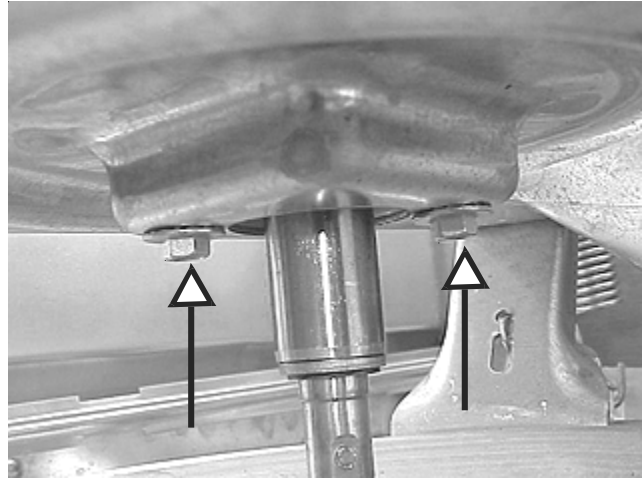
- Disconnect electrical power and pull the tub, leg and dome and base assembly.
- Remove the agitator, spin basket, trunnion, top half of the tub seal and tub.
- Turn the tub over and remove two screws holding the bearing to the tub.



**Removing the transmission:**

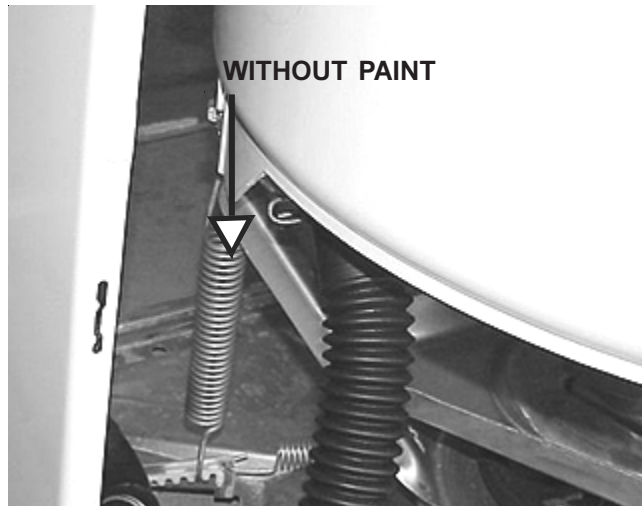
- Disconnect electrical power and pull the tub, leg and dome and base assembly.
- Remove the agitator, spin basket, trunnion, tub, drive belt, and transmission pulley.

- Using a 3/8" socket, remove the two bolts holding the transmission bearing block to the transmission mounting plate and remove transmission.



**Replacing the vertical springs:**

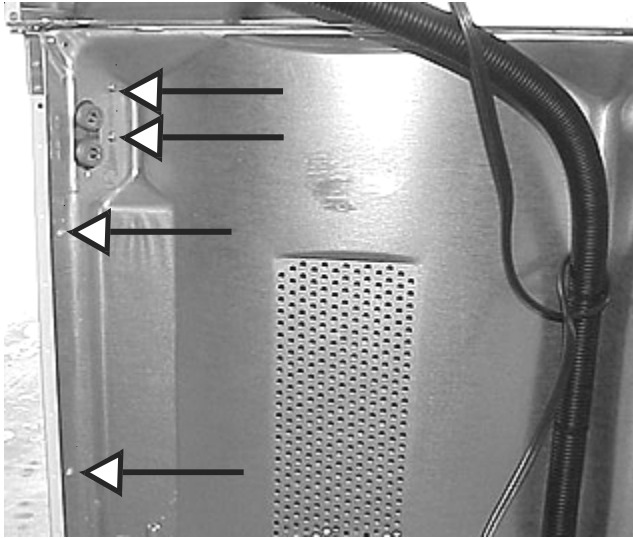
- Disconnect the laundry center from electrical supply and remove the front panel.
- The three vertical springs are not the same. The springs are identified by two them being painted. The spring without the paint goes in the left rear across from the motor.



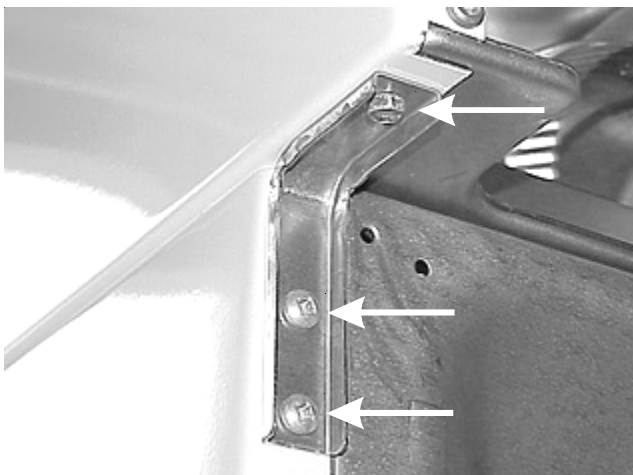


### Removing the washer cabinet:

1. Disconnect electrical power, turn gas off, if gas dryer, and the hot and cold water.
2. Gain access to the rear of the laundry center and disconnect the hoses from the water inlet valve and the dryer vent. Remove the screw or screws holding the water valve to the back panel and release the two plastic rivets holding the wire harness to the rear panel of the washer.

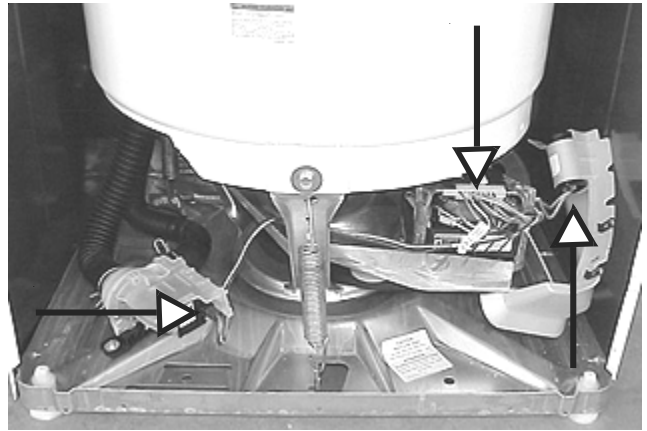


3. Remove the two rear bracket that holding dryer to the washer by removing three screws from each bracket.



4. Remove the access panel, heat shield, front panel, top, drum and blower assembly from the dryer.

5. Remove the front panel and top from the washer.
6. Disconnect the harness from the drain pump, drive motor and start capacitor.

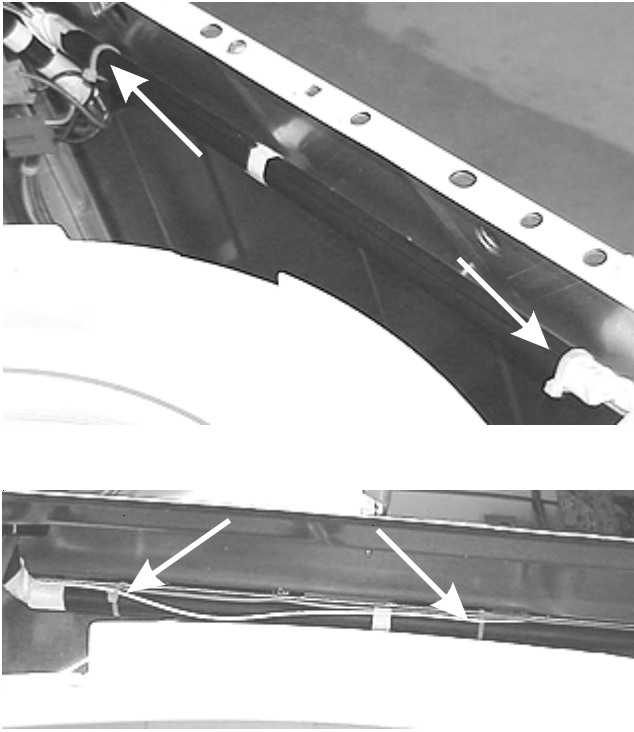


7. Release the plastic rivet wire ties from the drain pump shield, front and rightside dome legs and the wire tie on the motor.

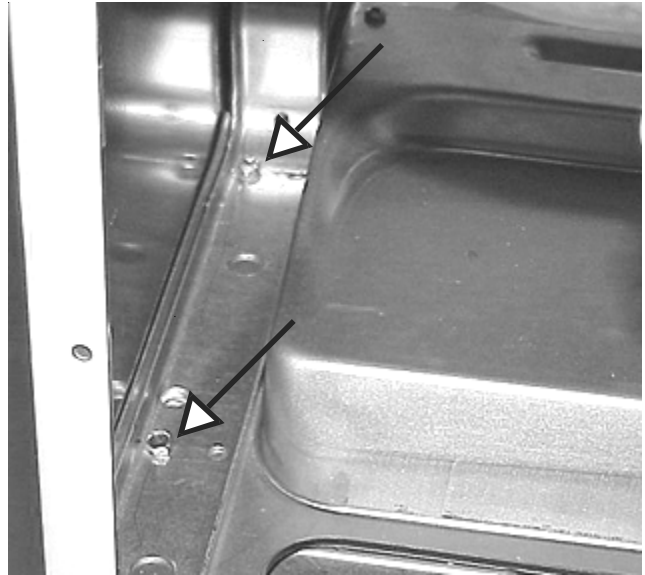


8. Remove the drain hose, the water inlet nozzle, water inlet valve and disconnect the pressure switch hose from the tub.
9. With the wiring harness released remove the six screws holding the bodysides to the base and the screw holding rear panel to the base and slide the tub, leg and dome and base assembly out the front.

10. Release the wiring harness ties from the rightside brace and the ledge of the rear panel.



11. Remove the two screws from each side holding the dryer side panels to the washer side panels.



12. Carefully lift the dryer off the washer side and rear panels.

13. Remove the side braces from the washer side panels.



