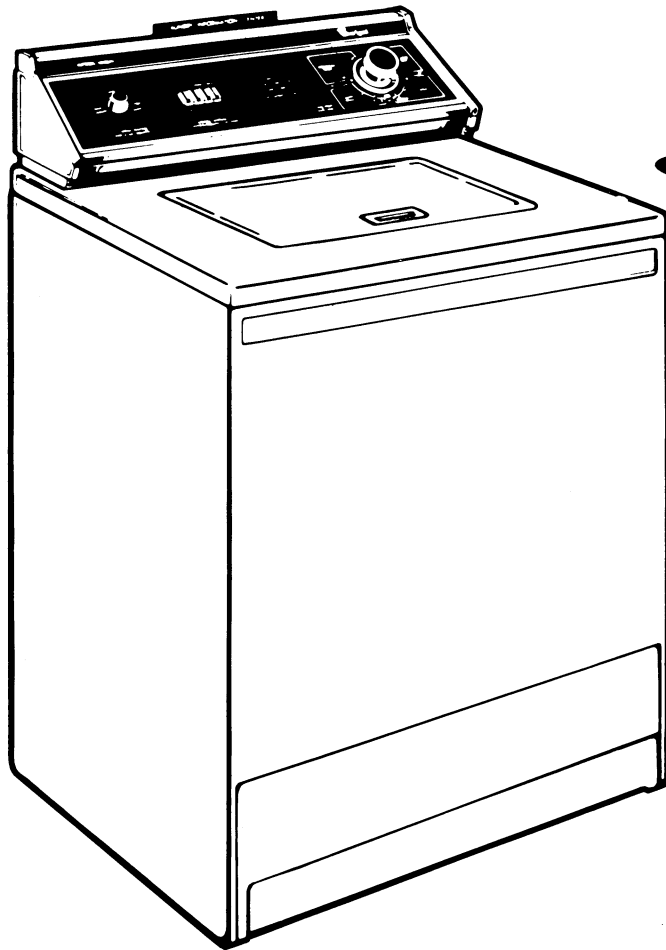


Do-It-Yourself



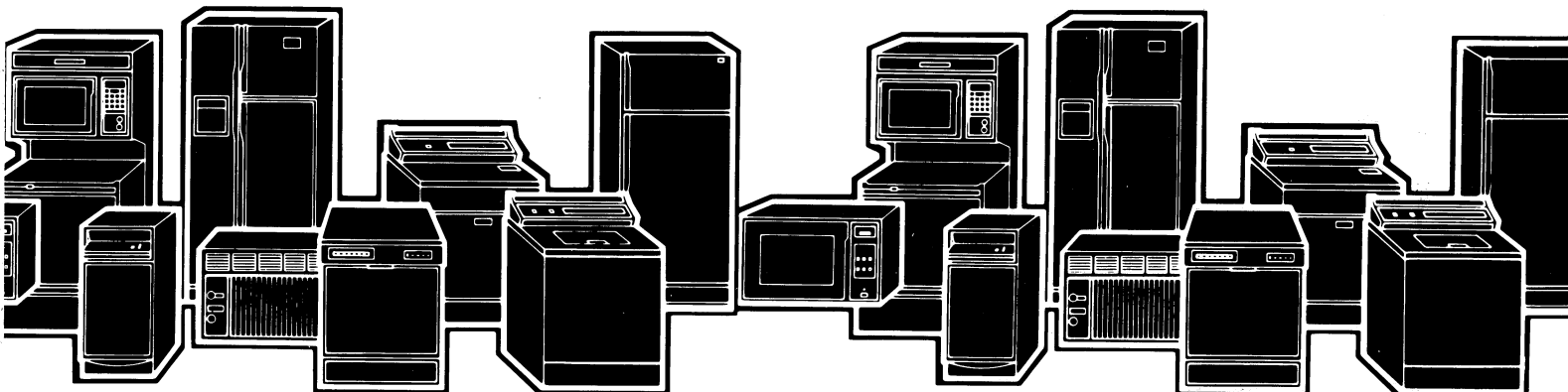
Repair Manual
for Your



**AUTOMATIC
WASHER
(Belt Driven)**

Easy-to-Follow
Photographs
and Step-by-Step
Repair Procedures

ezers, Ice Makers, Dishwashers, Built-In Ovens and Surface Units, Ranges, Microwave Ovens, Trash Compactors, Room Air Conditioners, Dehumidifiers, Automatic Washers, Clothes Dryers, Fre



WHIRLPOOL CORPORATION does not assume any responsibility or any liability in connection with the use of this manual.

NOTICE: IF THE FULL WARRANTY PERIOD IS STILL IN EFFECT, ANY SELF REPAIR OF YOUR AUTOMATIC WASHER MAY VOID THIS WARRANTY.

REFER ANY WARRANTY SERVICE TO AN AUTHORIZED WHIRLPOOL FACTORY SERVICE BRANCH.

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INTRODUCTION

This Do-It-Yourself Repair Manual should provide you with a basic understanding of the operation of your WHIRLPOOL® automatic washer. This manual includes step-by-step procedures for testing and/or replacing parts, instructions for reading wiring diagrams and timer sequence charts, problem solving charts, suggestions for preventive maintenance, and descriptions of product accessories. Although this manual covers most repair procedures for WHIRLPOOL automatic washers built over the past ten years, it does NOT cover any procedures for the electronic solid state controls.

A WHIRLPOOL automatic washer is a complicated piece of equipment. The repairs covered in this manual require mechanical skills and the ability to follow written instructions. Understanding the section in this manual entitled "HOW TO READ WIRING DIAGRAMS AND TIMER SEQUENCE CHARTS" (section H) is a must to make many of the repairs.

! WARNING

Personal Injury Hazard Or Property Damage

- Anyone who cannot use basic tools or follow written instructions should not attempt to repair the WHIRLPOOL automatic washer.
- No attempt should be made to repair your automatic washer if you do not fully understand the procedures included in this manual.
- When in doubt, contact an authorized Whirlpool Factory Service Branch for assistance (section C).
- This manual includes numerous safety cautions and warnings.
- No attempt should be made to repair your WHIRLPOOL automatic washer without first carefully reading Section A, SAFETY FIRST, and all other safety cautions and warnings printed throughout this manual and on the automatic washer.

Only the original parts of the Whirlpool automatic washer are talked about in the step-by-step procedures. It is your responsibility to read the additional instructions packed with any replacement part.

When replacing any part, always use FSP® (Factory Specification Parts) replacement parts as specified for your WHIRLPOOL automatic washer. This FSP trademark is shown on the parts carton and is a registered trademark of WHIRLPOOL CORPORATION identifying quality-tested replacement parts (section C).

The pictures of the WHIRLPOOL automatic washer used in this manual may or may not look exactly like your model; however, the repair procedures will be the same. In some pictures, parts were removed to show better detail. Unless the repair procedures specifically instruct you to do so, do NOT remove these parts.

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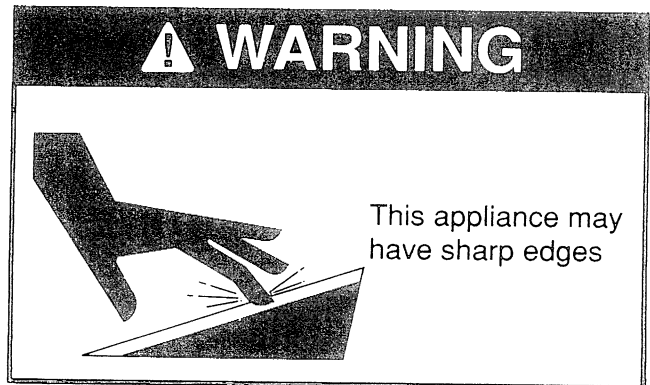
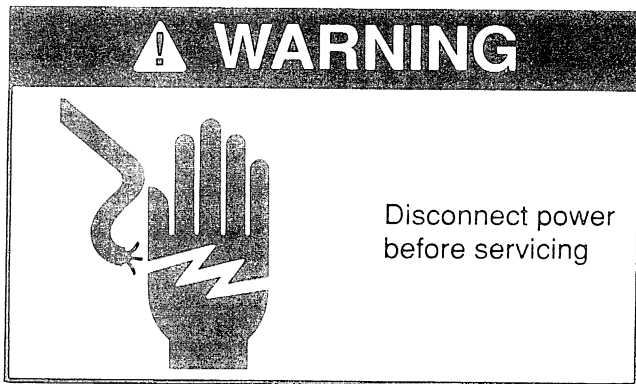
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SECTION A

Safety First

THIS SECTION MUST BE CAREFULLY READ BEFORE ANY REPAIR OR TESTING PROCEDURES ARE ATTEMPTED.



The following statements appear throughout this manual and must be adhered to.



Indicates severe personal injury or death will occur if instructions are not followed.



Indicates a potentially hazardous situation in which personal injury or death could occur if instructions are not followed.



Indicates correct operating or maintenance procedures or practices of the appliance are followed in order to prevent damage to the product or property.

Any repairs on your WHIRLPOOL® automatic washer, if improperly performed, may result in personal injury or property damage. No repairs should be attempted unless the repair procedures and the safety cautions and warnings described in this section, throughout this manual and printed on the appliance, are carefully followed and fully understood.

- Be sure to read the entire procedure carefully before attempting the step-by-step testing and/or replacements.
- To help avoid electrical shock, no live electrical test will be made.

SAFETY FIRST—SECTION A

- Make sure you know where the plug fuses or circuit breakers are located within your home.
- Before doing any repairs or testing of parts, disconnect the appliance from the electrical power supply (section B).
- It is recommended that a separate grounded 120VAC electrical circuit with a 15-amp. time-delay plug fuse or circuit breaker be used for this appliance.
- Be careful when doing any repairs or testing on this appliance as there may be sharp edges.
- Replace any damaged, pinched or frayed “power cord” or “wiring” which may be discovered when disconnecting or reconnecting the appliance.
- Do not use an extension cord.
- Do not cut off the grounding prong if your wall outlet does not accept the 3-prong power cord.
- This appliance must be grounded. Make sure all green ground wires are properly attached.
- When replacing parts or putting things back together, all wiring should be checked to be sure it is not crossing any sharp edges or pinched in some way which may cause an electrical problem.
- Carefully observe all safety cautions and warnings.
- During or following completion of the repair procedure, the appliance should not be operated unless all panels have been put back in place.
- When discarding an old appliance, always remove the door(s) to prevent accidental entrapment.
- Remember, use your appliance only for the job it was designed to do.
- Do not let children or others play, work or operate your appliance while it is being repaired.
- Use only genuine FSP® (Factory Specification Parts) replacement parts as specified for your model. This FSP trademark is shown on the parts carton and is a registered trademark of WHIRLPOOL CORPORATION that identifies quality-tested replacement parts.
- Do not attempt to operate your appliance unless it has been properly reinstalled (including electrical power connections and grounding connections) in accordance with the operating and installation instructions supplied for it by WHIRLPOOL CORPORATION. If you are unable to locate these installation instructions, contact your nearest authorized WHIRLPOOL FACTORY SERVICE BRANCH or WHIRLPOOL CORPORATION (section C).
- If you receive a shock from touching the appliance at any time during normal operation, immediately disconnect (section B) the electrical power supply. Find the electrical short and repair, or contact your nearest authorized WHIRLPOOL FACTORY SERVICE BRANCH or WHIRLPOOL CORPORATION (section C).
- Do not sit, stand on or abuse the automatic washer.
- If hot water has not been used recently (usually two weeks or longer), explosive hydrogen gases may build up in the water heater and the hot water pipes. To prevent injury or damage, before using your automatic washer, turn on all hot water faucets and allow water to run for several minutes. This will allow gases to escape. Do not smoke or use any open flame near the faucet while it is open.

SECTION B

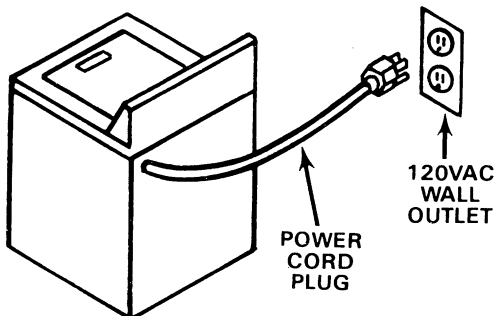
Electrical Power Supply Connections

SECTION A MUST BE CAREFULLY READ BEFORE ANY REPAIR OR TESTING PROCEDURES ARE ATTEMPTED.



Automatic washers may be disconnected from the electrical power in one of the following two ways.

PROCEDURE 1



TO DISCONNECT ELECTRIC POWER

STEP 1 Pull the power cord plug from the wall outlet.

TO CONNECT ELECTRIC POWER.

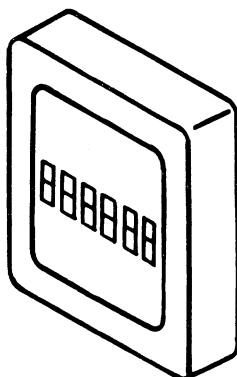
STEP 2 Plug the power cord plug into the wall outlet.

PROCEDURE 2

Household Service Box

NOTE: TO BE SURE YOU HAVE DISCONNECTED THE CORRECT CIRCUIT BREAKER OR REMOVED THE RIGHT PLUG FUSE, TURN THE APPLIANCE “ON” OR PLUG A PROPERLY WORKING TABLE LAMP INTO THE 120VAC WALL RECEPTACLE THE APPLIANCE WAS PLUGGED INTO. IF THE APPLIANCE OR LIGHT TURNS ON, YOU HAVE DISCONNECTED THE WRONG CIRCUIT. KEEP SELECTING DIFFERENT CIRCUITS UNTIL THE APPLIANCE OR LIGHT GOES OFF.

CIRCUIT BREAKER



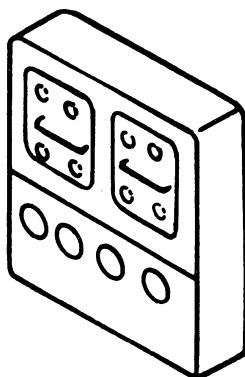
TO DISCONNECT ELECTRIC POWER

STEP 1 Move the switch to the OFF position.

TO CONNECT ELECTRIC POWER

STEP 2 Move the switch to the ON position.

PLUG FUSE



TO DISCONNECT ELECTRIC POWER

STEP 1 Unscrew the plug fuse out of the household service box.

TO CONNECT ELECTRIC POWER

STEP 2 Screw the plug fuse into the household service box.

SECTION C

Replacement Parts Information

When automatic washer problems occur, refer to the problem-solving charts in section I.

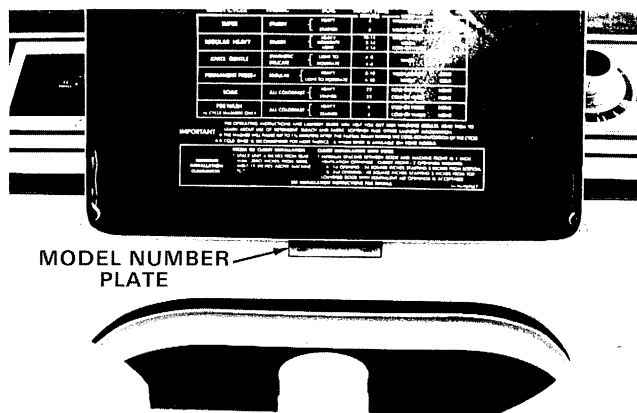
We have listed most problems, possible causes and what to do to help you. This manual also tells you how to test the parts and replace them. Be sure to read the ENTIRE PROCEDURE carefully before attempting the step-by-step testing and/or replacements.

A complete index in the back of the manual will help you find page numbers of various parts.

Model Number Plate

Open the door and locate the metal or foil plate attached to the back of the lid well.

This plate will give you the stock number, complete model number, serial number and other electrical information.



ALWAYS USE YOUR COMPLETE MODEL NUMBER WHEN ORDERING PARTS.

WRITE IN YOUR COMPLETE MODEL NUMBER HERE

TYPICAL MODEL NUMBER PLATE

WHIRLPOOL CORPORATION-BENTON HARBOR, MICHIGAN, U.S.A. 49022									
10	120	60	STOCK	Whirlpool		REG. U.S. PAT. OFF.	MARCA REGISTRADA	UL	LISTED 118G
AMPS	VOLTS	HZ							
			MODEL		LHA780		SERIAL		
LHA7800W1				C03815737					

Parts Quality

An important step in the appliance repair procedure is the selection of FSP® (Factory Specification Parts) as replacements. Use of “fits-all” or “look alike” parts could result in early parts failure, safety hazard or substandard performance of your WHIRLPOOL appliance . . . and an unnecessary repeat of your repair efforts.

To be sure that the part(s) you purchase meet the exacting quality standards used to build every new WHIRLPOOL appliance, be sure to ask for genuine FSP replacement parts as specified for your model. FSP (FACTORY Specification Parts) is a registered trademark of WHIRLPOOL CORPORATION that identifies quality-tested replacement parts.

Ask for them by name FSP!



Where To Buy Parts

You can buy your genuine FSP (Factory Specification Parts) replacement parts from any authorized WHIRLPOOL FACTORY SERVICE BRANCH. To find the telephone number, look in the yellow pages of your phone directory under:

Appliances — Household — Major Service & Repair or Whirlpool Appliances or Factory Service Branches

You can also purchase parts through the WHIRLPOOL CONSUMER ASSISTANCE CENTER. See below for the toll-free telephone number.

If You Need Help Finding Parts, Or An Authorized Whirlpool Factory Service Branch

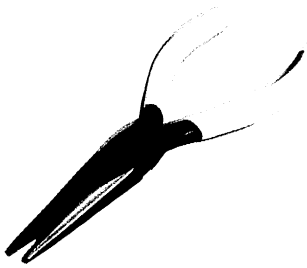
..... Call the toll-free WHIRLPOOL CONSUMER ASSISTANCE CENTER telephone number:
Continental U.S. - Alaska - Hawaii 1 (800) 253-1301

..... or write to:
WHIRLPOOL CORPORATION
Consumer Relations Department
Administrative Center
2000 M63 North

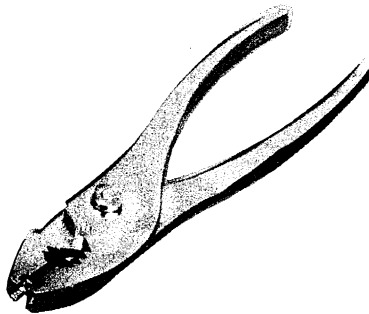
SECTION D

Tools and Testing Equipment

These tools are required for servicing any WHIRLPOOL® automatic washer.



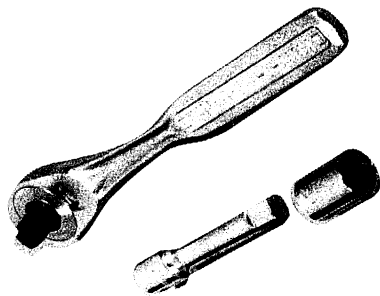
**NEEDLE NOSE
PLIERS**



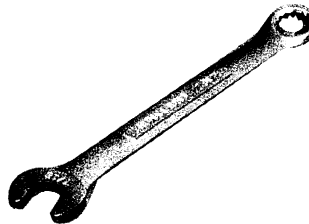
**STANDARD
PLIERS**



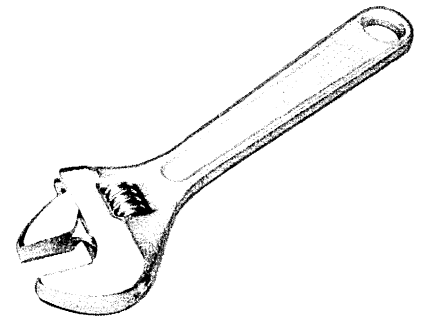
**ADJUSTABLE
PLIERS**



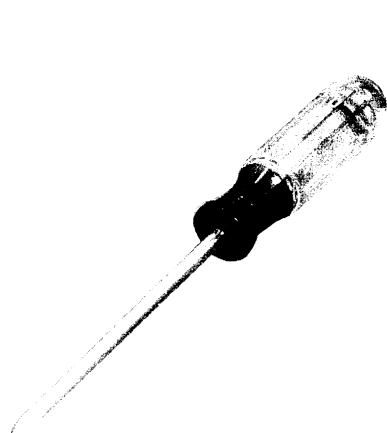
**SOCKET
WRENCHES**



**COMBINATION
WRENCHES**



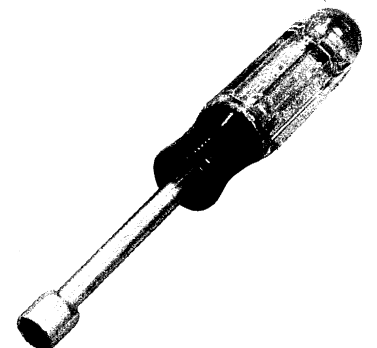
**ADJUSTABLE
WRENCH**



**PHILLIPS
SCREWDRIVER**

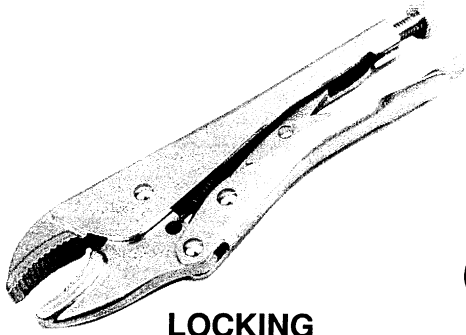


**FLAT BLADE
SCREWDRIVER**

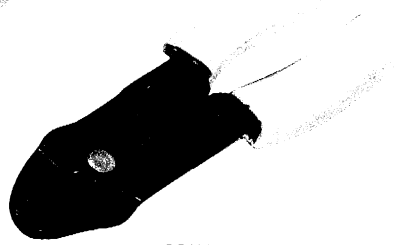


NUTDRIVERS

USE  PARTS



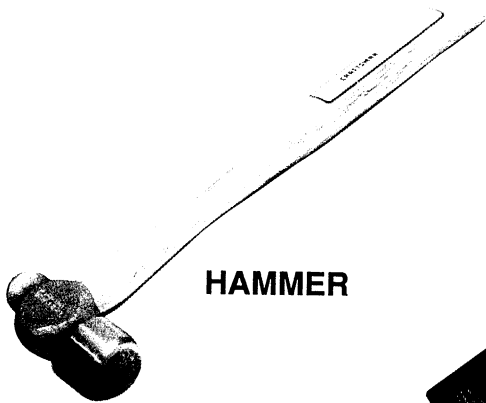
**LOCKING
PLIERS**



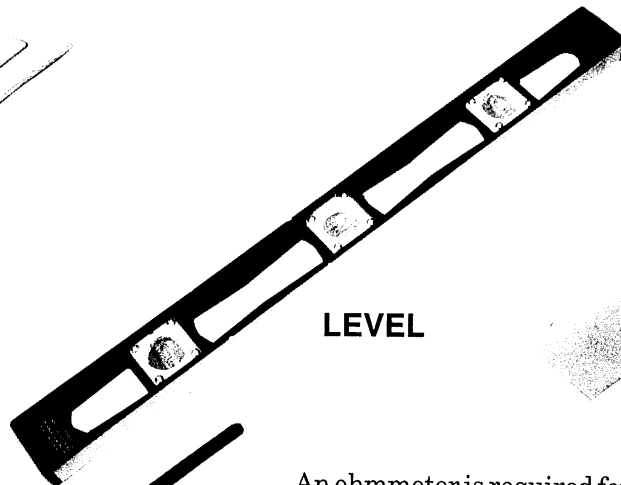
**WIRE
STRIPPERS**



**CHAIN (36 Inches, With
Hooks—for Supporting Top)**



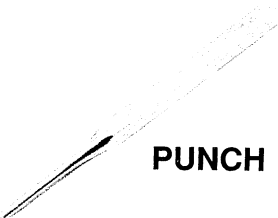
HAMMER



LEVEL



**PUTTY
KNIFE**



PUNCH



**ALLEN
WRENCH**



OHMMETER

An ohmmeter is required for checking electrical parts of the WHIRLPOOL® automatic washer.

Ohmmeters are usually combined with a voltmeter. This test instrument is called a multimeter, multitester or volt-ohmmeter (VOM).

Volt-ohmmeters measure the amount of resistance or voltage in an electrical circuit.

We will only be using the ohmmeter scale to measure resistance.

The definitions we will be using for testing are:

ZERO RESISTANCE (continuity)-makes contact-needle moves toward zero (right).

OPEN CIRCUIT-no contact-needle does not move.

⚠ WARNING

Electrical Shock Hazard

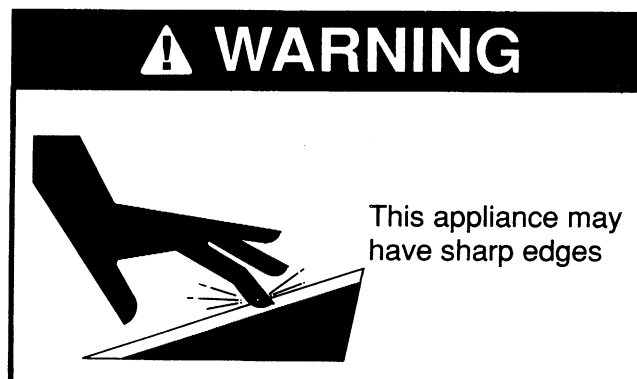
- Disconnect power before servicing (section B).
- Failure to do so could result in damage to your ohmmeter, personal injury or death.

READ THE INSTRUCTIONS THAT CAME WITH YOUR OHMMETER.

SECTION E

Fuses and Circuit Breakers

SECTION A MUST BE CAREFULLY READ BEFORE ANY REPAIR OR TESTING PROCEDURES ARE ATTEMPTED.



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2 Circuit Breaker	15

PROCEDURE 1

Fuse

Plug fuses have a round screw base with a glass window. When the plug fuse has blown, the glass window appears burned or smoky. The fuse must be replaced.

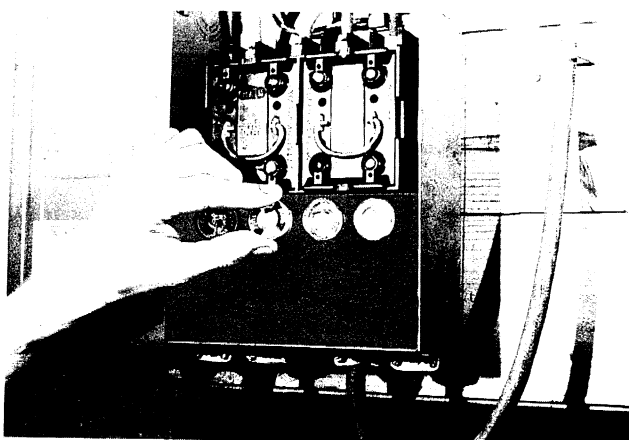
Time delay plug fuses may not appear burned or smoky. This type must be checked with an ohmmeter (see testing steps 4-8).

It is recommended that a separate grounded 120VAC electrical circuit with a 15-amp, time-delayed plug fuse be used for the appliance.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.



NOTE: The following procedures assume that the electrical circuit for the appliance does not operate any other electrical devices.

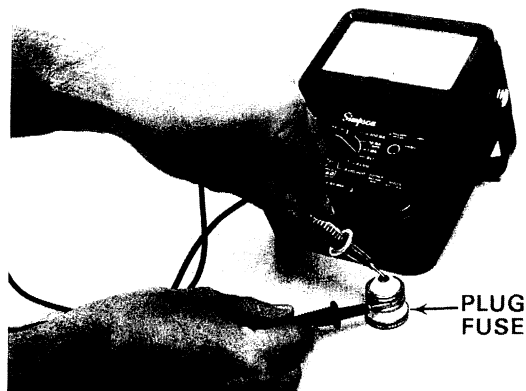
This check is to make sure your fuse has not blown.

STEP 1 Disconnect the electrical power supply (section B).

STEP 2 Plug a properly working table lamp into the 120VAC receptacle the appliance was plugged into. This is to see if you are getting electricity to your appliance. **DO NOT** plug the lamp into a 240VAC receptacle.

STEP 3 If the lamp does not turn on, remove the plug fuse from the panel and test or replace it with a new 15-amp time-delayed plug fuse.

TESTING



STEP 4 You must know how to use an ohmmeter.

STEP 5 Set the ohmmeter scale to the lowest ohms setting and ZERO the meter. Read the instructions that came with your ohmmeter.

STEP 6 Touch one ohmmeter probe to the side threads.

STEP 7 Touch the other ohmmeter probe to the tip, on the bottom of the plug fuse.

STEP 8 The ohmmeter should show ZERO resistance (continuity). If not, the plug fuse is bad and needs replacing.

STEP 9 Replace the plug fuse and if it still blows, the circuit is still overloaded or there is a short circuit in your household wiring somewhere. Call a qualified electrician for this repair.

STEP 10 After replacing the plug fuse and the plug fuse does not blow, plug the appliance power cord back in (section B). If the plug fuse blows now, the problem is in your appliance. See problem 1 in the Problem Solving Charts, section I.

PROCEDURE 2

Circuit Breaker

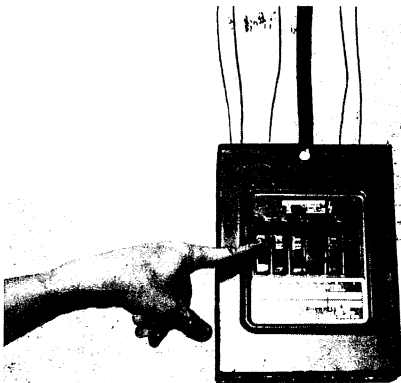
A circuit breaker panel is made up of rows of contacts. Circuit breakers can be snapped in place on this panel.

It is recommended that a separate grounded 120VAC electrical circuit with a 15-amp circuit breaker be used for the appliance.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.



NOTE: The following procedures assume that the electrical circuit for the appliance does not operate any other electrical devices.

This check is to make sure your circuit breaker has not tripped to the OFF position.

STEP 1 Disconnect the electrical power supply (section B).

STEP 2 Plug a properly working table lamp into the 120VAC receptacle the appliance was plugged into. This is to see if you are getting electricity to your appliance. **DO NOT** plug the lamp into a 240VAC receptacle.

STEP 3 When this type of breaker trips, the switch moves to a position between ON and OFF. To turn the electrical power back on, move the switch to the OFF position then back to ON.

STEP 4 If the circuit breaker still trips, the circuit is still overloaded or there is a short circuit in your household wiring somewhere, or the circuit breaker is weak. Call a qualified electrician for this repair.

STEP 5 After resetting the circuit breaker and the breaker does not trip, plug the appliance power cord back in (section B). If the circuit breaker trips now, the problem is in your appliance. See problem 1 in the Problem Solving Charts, section I.

SECTION F

Touch-Up Repairs, Preventive Maintenance and Winterizing

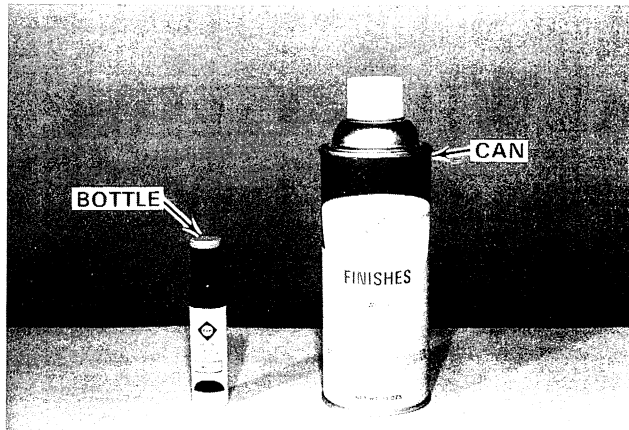
SECTION A MUST BE CAREFULLY READ BEFORE ANY REPAIR OR TESTING PROCEDURES ARE ATTEMPTED.



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PROCEDURE 1

Touch-Up Repairs



⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

Your WHIRLPOOL® automatic washer can look like new for many years by following these cleaning instructions.

STEP 1 Disconnect the electrical power supply (section B).

STEP 2 To remove dirt and soiled spots, wash them with a mild liquid soap, warm water and a soft cloth.

STEP 3 Raise the top (section K, proc. 1).

STEP 4 Clean the top of the tub ring with mild liquid soap, warm water and a soft cloth.

STEP 5 Lower the top (section K, proc. 1).

STEP 6 Leave a space between the washer and dryer. Because of vibration, the two cabinets will rub together, causing scratches and rusting.

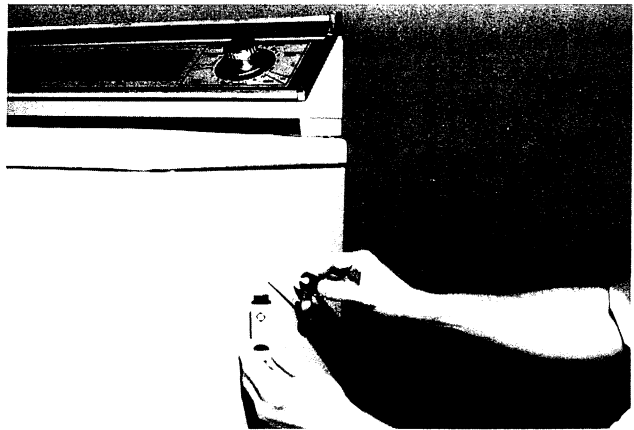
Scratches do occur, and when they do there are touch-up paints available in 1/2-oz. bottles or 15-oz. spray cans.

⚠ WARNING

Fire Hazard or Explosion

- Do not store or use flammable paints in the area of other appliances.
- Fumes can cause a fire hazard or explosion.
- Paint in a well ventilated area.
- Read the instructions on the bottle or can.

STEP 7 To repair scratches, remove any wax or dirt, using a mild liquid soap, warm water and a soft cloth. Rinse with clean water.



STEP 8 On small scratches the 1/2-oz. touch-up bottle is recommended.

STEP 9 On larger jobs the scratched area must be sanded with extra-fine sandpaper until smooth.



STEP 10 Using a spray can, spray very lightly over the area, letting each coat dry. Use several coats to avoid any running.

STEP 11 After spray painting the area, cover the area painted with leveler. This will bring back the shine in your appliance.

STEP 12 Reconnect the electrical power supply. See section B for the proper reconnection.

PROCEDURE 2 Preventive Maintenance

WHIRLPOOL® automatic washers are designed and built to rigid specifications which require a minimum of service. Preventive maintenance will even further reduce the amount of service required.

Run a cycle check, using the following procedure:

STEP 1 Start washer in the WASH FILL cycle, noting timer dial alignment and checking fill hoses for leaks.

STEP 2 Check mixing valve coils and temperature selector switch by selecting various temperatures during the fill cycle.

STEP 3 Allow machine to fill in each of your water level selections. This is to check and see if your pressure switch is working properly.

STEP 4 Allow machine to advance into AGITATION and check for recirculating flow, leaks, filter action, rattles and squeaks.

STEP 5 Turn the timer OFF then manually advance timer into pump-out. Turn timer ON and check for complete pump-out, kinked drain hoses and leaking drain hoses.

STEP 6 In the SPIN cycle, turn the timer ON. Open the lid quickly, see if the basket quits spinning. This checks to see if the lid switch is working properly.

STEP 7 If the machine is equipped with the suds saver system, check for operation of the two-way valve, and any leaks in the hoses.

STEP 8 Drive belt—check for wear and proper tension (section N, proc. 2).

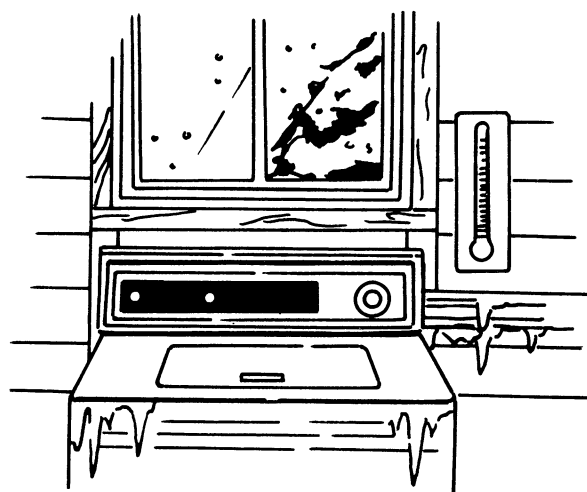
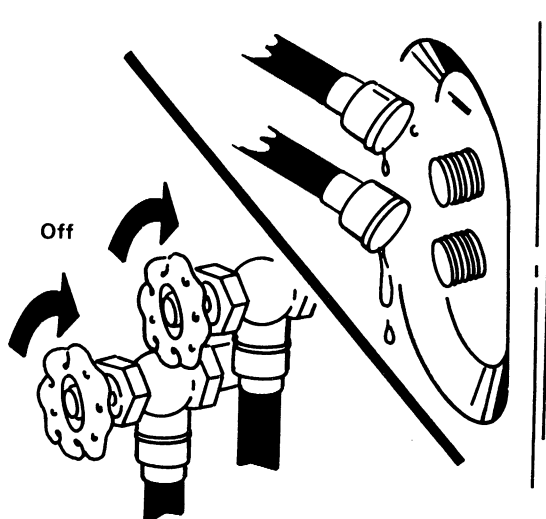
STEP 9 If machine is equipped with rinse and bleach dispensers, check them for clogging, leaks and operation.

STEP 10 Pump—check for leaks.

STEP 11 Do not use any oil on parts unless the instructions tell you to do so.

PROCEDURE 3 Winterizing

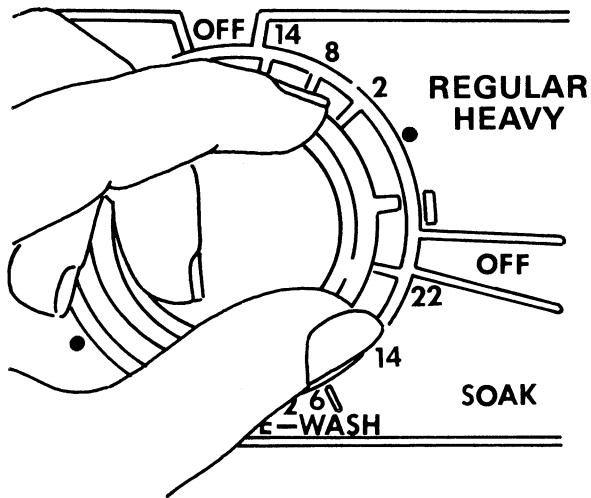
Install or store your washer where it won't freeze. Because some water stays in the washer, freezing can cause a lot of damage. If your washer is stored or moved during cold weather, it's a good idea to winterize it by following these steps:



STEP 1 Shut off both water faucets. Turn the timer knob to fill with a warm wash, warm rinse selection, and turn the machine on for 10 seconds. This will run the water out of the water inlet valve. Disconnect the end of the hoses from the washer.

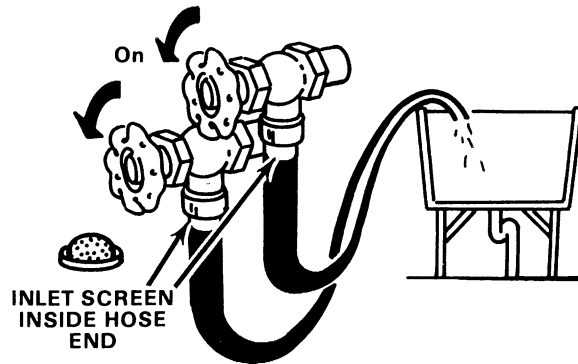


STEP 2 Pour a quart of propylene glycol (non-poisonous) antifreeze in the basket. This type of antifreeze is used in RV's (recreational vehicles).



STEP 3 Set the washer for a DRAIN and SPIN. Let it run for about 30 seconds. This mixes the antifreeze with the water left in the washer.

TO USE THE WASHER AGAIN

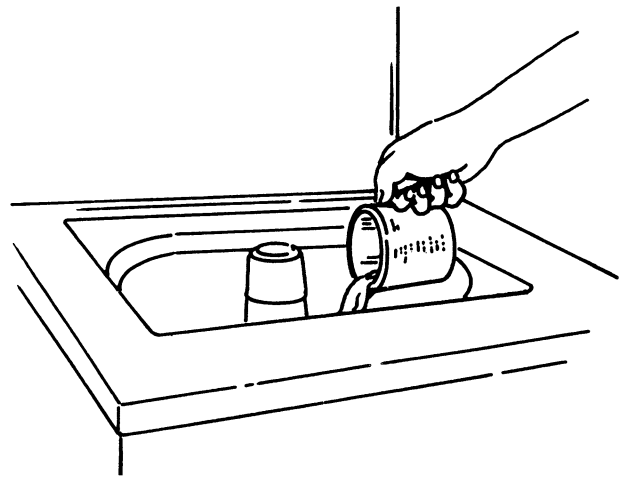


STEP 1 Remove the hoses from the faucets and clean the inlet screens if used. Replace the hoses on the faucets.

STEP 2 Flush the water pipes and hoses.

STEP 3 Replace the hoses on the back of the washer.

STEP 4 Turn on the water faucets.



STEP 5 Pour a cup of detergent in the washer basket. Then run the washer through a complete cycle; it will be ready to use.

SECTION G

How Your Automatic Washer Works

Many people like yourself wash clothes, putting them in the automatic washer, turning control knobs and setting the timer for the operation they want. But how many people know what is happening inside the automatic washer? Let's look at how your automatic washer works.

All WHIRLPOOL® automatic washers FILL (with water), AGITATE (move the clothes), PUMP OUT (remove the water) and SPIN (removes most water from the clothes).

Water enters the tub and basket through the inlet hoses, inlet mixing valve and water inlet. As the water rises in the tub and basket, it forces air through the air pressure dome and up a plastic tube to the water level switch from FILL to AGITATE. Agitation is accomplished by a plastic vane agitator located in the center of the basket. This agitator moves back and forth, creating a water motion that forces the clothes to move from top to bottom.

During agitation on self-clean filter models, water continuously circulates through the side check valve, filter, water pump and manifold trap. It goes through a series of water hoses, and then back into the tub and basket.

When the automatic washer goes into DRAIN on self-clean filter models, the water leaves the bottom of the tub and basket through the manifold trap, water pump, filter, side check valve then out the drain. See section M, proc. 6 for your type of water circulation.

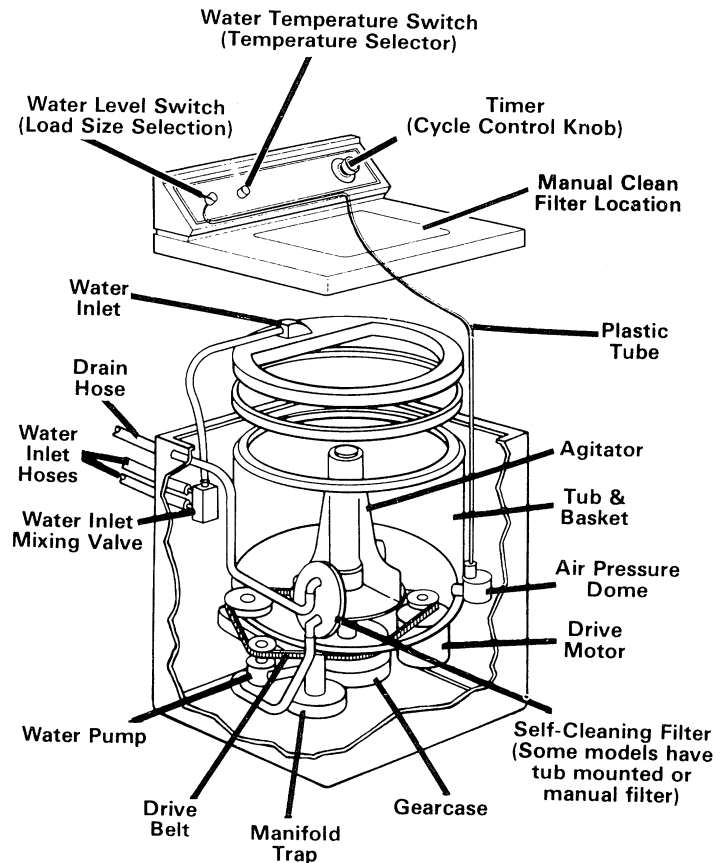
The basket is put into SPIN. The clothes are spun to remove most of the water out of the clothes.

The timer is the heart of the automatic washer. It controls the timing of the different cycles.

The main drive motor supplies the power for agitation, pumping and spinning of the automatic washer through a series of pulleys and a drive belt.

Shown below is a self-cleaning filter washer; the manual-clean filter is not shown.

This is a typical drawing; some parts may not be in the correct position.



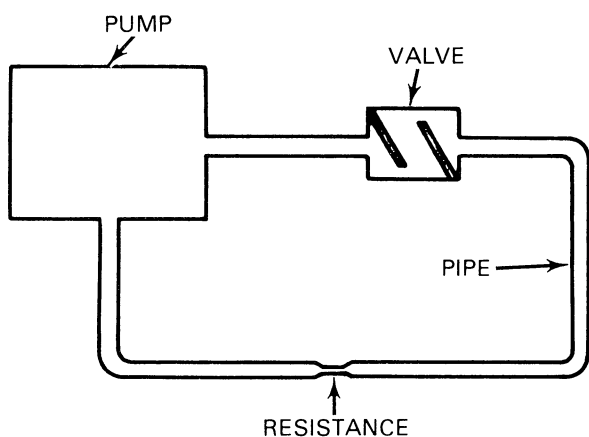
SECTION H

**How to Read
Wiring Diagrams and Timer
Sequence Charts,
Wiring Diagram Symbols,
Terminal Codes**

Knowing and understanding your wiring diagram and timer sequence chart takes a special skill. Before attempting any ohmmeter checks, you must know how and where electricity flows and how the operating controls operate.

Before we explain how to read these wiring diagrams and timer sequence charts, think of electricity as water moving through pipes in your home.

Starting with a water pump (WALL OUTLET), water (ELECTRICITY) is forced through pipes (WIRES) into valves (SWITCHES), some causing a resistance or pressure (VOLTAGE), then back through the pump (WALL OUTLET) to complete the flow of water (ELECTRICITY).



The wiring diagram for your model is located on the rear service panel.

On pages 26-27 is a typical example of a timer sequence chart and wiring diagram. These diagrams vary from model to model, but a basic knowledge of one diagram will enable you to understand any WHIRLPOOL® automatic washer wiring chart.

Page 26 represents a typical timer sequence chart. Pages 27 represents a typical wiring diagram. This detailed chart shows how the timer motor and timer switch operation control machine functions. When the timer switch sequence chart information is compared to the wiring diagram, electrical and mechanical diagnosis can be accomplished. The top horizontal row of numbers across the top of the timer sequence chart represents timer SWITCH NUMBERS. These numbers WILL NOT be found on the actual timer. They are merely guides to be used to relate between the timer sequence chart and the wiring diagram. The timer switch functions are shown directly below the timer switch numbers. These relate to the function controlled by that switch contact.

The letters below the timer switch functions, such as LBU, GY, G-BK, O-BK, etc. represent the actual timer terminal markings and wiring color code.

The vertical column at the right of the timer sequence chart shows the cycles of machine operation. As you can see, in this particular chart we are only showing three cycles— NORMAL or REGULAR/HEAVY, GENTLE and PERMANENT PRESS as well as special cycle—SUPER WASH. To the right of each cycle are the machine functions for that cycle.

The columns under the machine function heading, give basic operation on the left, and the supporting functions on the right for each timer step.

Even numbered timer steps are shown to the left of the wash cycles. The odd-number steps are not shown, to avoid confusion and an overcrowded appearance. Each timer space represents a definite period of time.

Closed switches for the components of each timer step are represented by the HEAVY UP AND DOWN BARS in the timer switch sequence chart.

The timer switch sequence chart explains the when, what, why and how of machine function at any selected point of operation.

To properly diagnose a problem, the electrical circuitry and the wiring diagram attached to the product must be thoroughly understood. Let's first study each part of the wiring diagram.

The symbol shown at the top by the letters BK and W represents the line cord attachment plug. The line marked W extends down the right side of the diagram and is known as the "neutral side" of the electrical system. Note that this line connects directly to one side of each energy converting (electrical to mechanical) component of the automatic washer, without any controlling switch.

The line shown as BK extends to the left and is known as the "hot side" of the electrical system. It provides a circuit to the master switch (No. 1) and to all electrically operated components through the timer switches, and/or the water level and temperature switches.

The heavy black lines connected to numbered switches represent circuits and switches within the timer assembly.

The pull-on, push-off timer knob switch controls all circuits. This switch starts automatic washer operation when the timer knob is pulled out, and stops when it is pushed in.

All timer switches are numbered to correspond with the timer sequence chart. A given machine component is always controlled by the same timer switch number, regardless of the model. For example: Five (5) is always reserved for high motor speed; seven (7) is always reserved for agitation, etc.

Wiring harnesses are color coded, to match the color-coded lettering imprinted on the wires of the timer-terminal connections. A given automatic washer component always uses the same wiring harness color and color code lettering, regardless of model. Example: BU (blue) is always used for high motor speed; Y (yellow) is always used for agitation.

A given component is always shown at the same position on the wiring diagram. The water temperature switch is shown within dashed lines, near the bottom of the wiring chart. The lettering at the right of the switch contacts indicates present contacts for various combinations of wash and rinse water temperature selections. The first letter represents WASH water temperature, while the second letter identifies RINSE water temperature.

Since studying and learning information has no value until it is applied, Let's follow a step-by-step procedure to diagnose a machine malfunction.

For an example, say the washer was set in the GENTLE cycle with the water temperature switch set at HOT WASH and COLD RINSE, and that the washer will not FILL. A rule is to always check the easy and obvious first.

Is there power to the machine? Be sure the machine's power cord is plugged into a live wall receptacle. Next, be sure the water faucets are turned on! Also, make sure the timer dial indication coincides with the timer function.

Let's assume in our example that, having completed all the normal examinations, the machine still does not FILL. Turn to the wiring diagram and timer sequence chart found on the back of the rear service panel. By using this information, you can determine which circuits and components are affected in an appliance's electrical system at any given time. The wiring chart is easy to follow when a step-by-step checking sequence is used.

Fill in the GENTLE cycle, takes place in timer step 26. Let's start by drawing a line horizontally through timer step 26 on the timer sequence chart and note the closed circuits.

The closed switches are switch no. 1 (master), 16 (timer), 19 (agitate motor), 7 (agitate), 10 (deep fill), and switch no. 11 (wash fill).

Now close these switches on the wiring diagram on page 27. As you can see by the heavy line, the electricity on the "BK" side of the line flows through switch no 1, water level switch (empty), temperature switch (remember we selected HC), the mixing valve and then back through the "W" side of the line, completing a circuit.

Since our problem is "NO FILL", the first thing to do is turn your timer dial to the start of the GENTLE cycle.

Did the light, if used, turn on? If so, timer switch no. 1 is OK. Now turn your timer dial to SPIN and pull the knob out. Did your automatic washer start to spin? If so, the water level switch is OK. Now you will have to go back to the section and procedure for checking out timer switches 10 and 11, the temperature switch and the mixing valve to find and correct the problem.

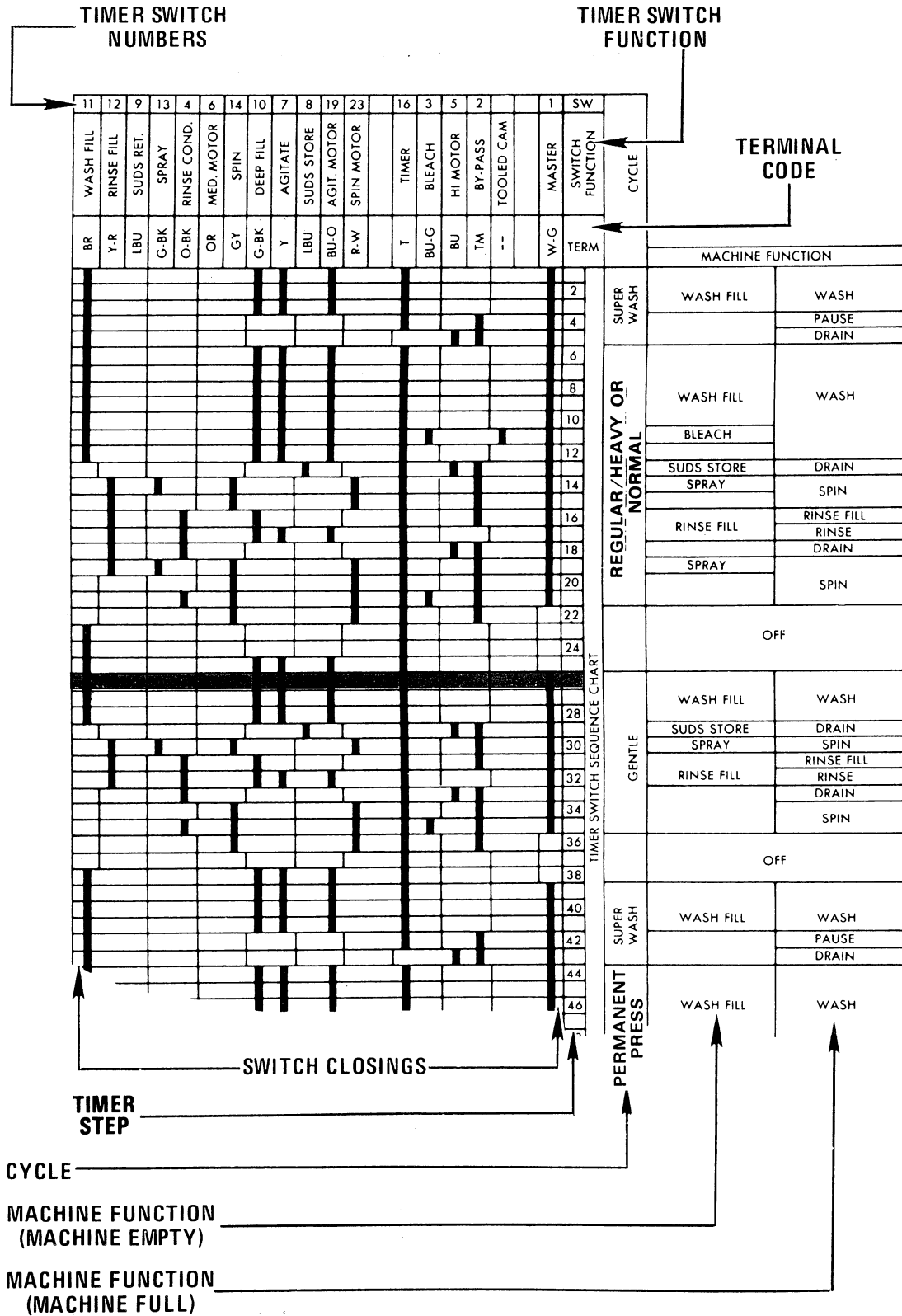
When the correct water level is reached, the switch trips from "P" (empty) to "T" (full).

With the water level switch tripping from "P" to "T", (see page 27) there is no electricity through switches 10 and 11, temperature switch and the mixing valve.

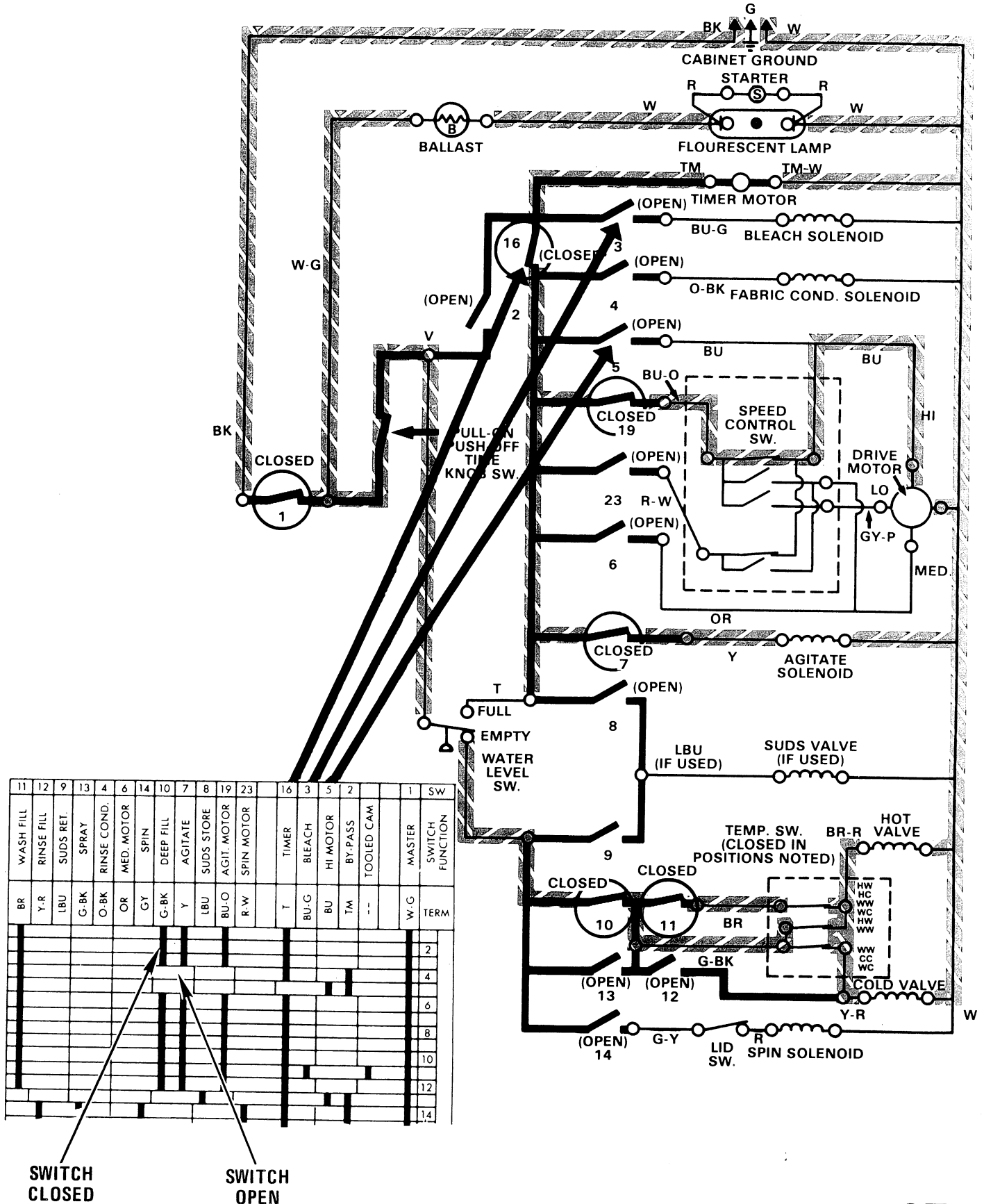
Electricity now flows from the "BK" side of the line through switch no. 1, the water level switch (full), agitate solenoid, speed switch/drive motor and timer motor all at the same time, completing a circuit through the "W" side of the line.

You can also see when switch no. 1 is closed. This completes a circuit through the ballast and fluorescent lamp, no matter what the water level switch is doing.

SAMPLE TIMER SEQUENCE CHART

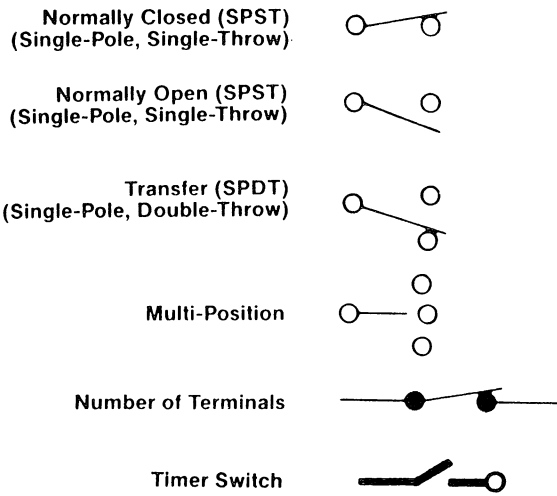


SAMPLE WIRING DIAGRAM

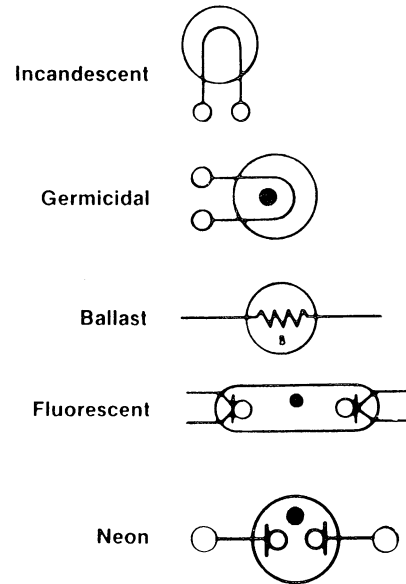


WIRING DIAGRAM SYMBOLS

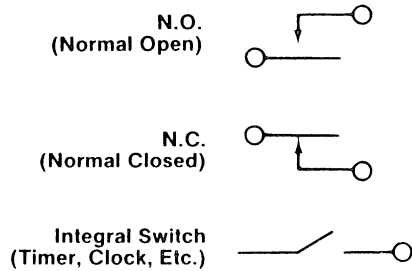
MANUAL AND MECHANICAL SWITCHES



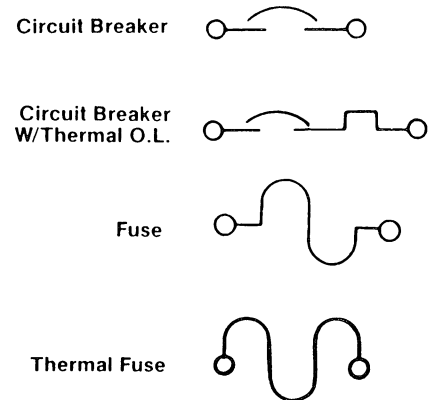
LAMPS



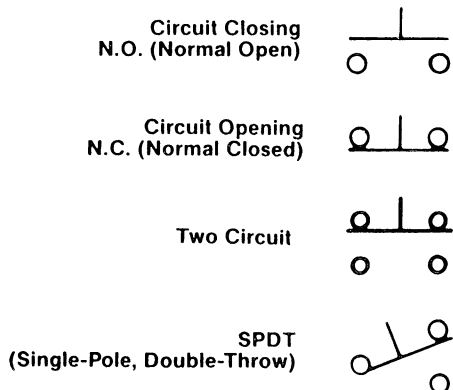
AUTOMATIC SWITCH



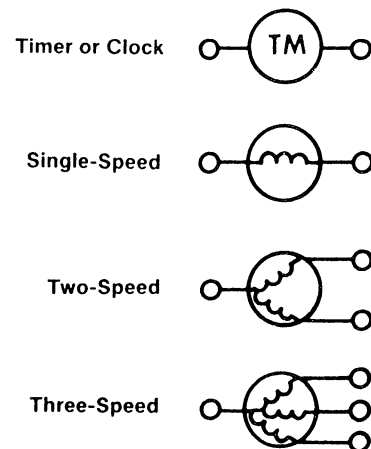
CIRCUIT PROTECTORS



PUSHBUTTON SWITCH (Momentary or Spring Return)

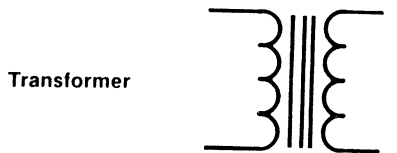
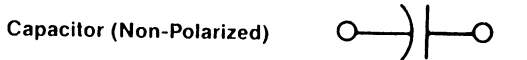
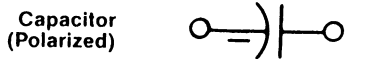
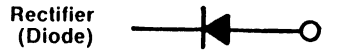
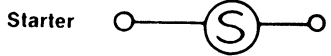
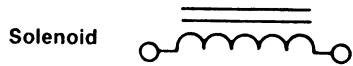
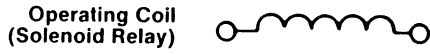
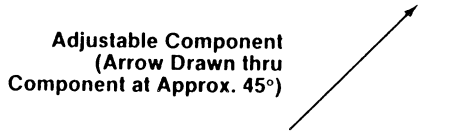


MOTORS



WIRING DIAGRAM SYMBOLS

MISCELLANEOUS



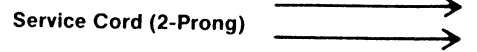
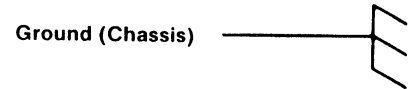
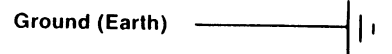
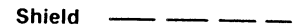
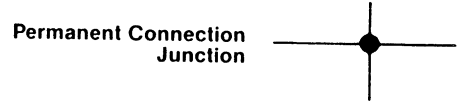
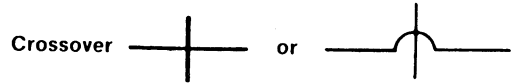
CENTRIFUGAL SWITCH



PRESSURE SWITCH S.P.D.T.



LINES AND CONNECTIONS



TERMINAL CODES

Terminal Color Codes	Harness Wire Color
BK	Black
BK-Y	Black with Yellow Tracer
BR	Brown
BR-O or BR-OR	Brown with Orange Tracer
BR-R	Brown with Red Tracer
BR-W	Brown with White Tracer
BL or BU	Blue
BL-BK or BU-BK	Blue with Black Tracer
BL or BU-G or BL or BU-GN	Blue with Green Tracer
BL or BU-O or BL or BU-OR	Blue with Orange Tracer
BL-Y or BU-Y	Blue with Yellow Tracer
G or GN	Green
G-BK or GN-BK	Green with Black Tracer
G-Y or GN-Y	Green with Yellow Tracer
GY	Gray
GY-P or GY-PK	Gray with Pink Tracer
LBU	Light Blue
O or OR	Orange
O-BK or OR-BK	Orange with Black Tracer
P or PK	Pink
P or PR	Purple
P-BK or PUR-BK	Purple with Black Tracer
R	Red
R-BK	Red with Black Tracer
R-W	Red with White Tracer
T or TN	Tan
T-R or TN-R	Tan with Red Tracer
V	Violet
W	White
W-BK	White with Black Tracer
W-BL or W-BU	White with Blue Tracer
W-G or W-GN	White with Green Tracer
W-O or W-OR	White with Orange Tracer
W-R	White with Red Tracer
W-V	White with Violet Tracer
W-Y	White with Yellow Tracer
Y	Yellow
Y-BK	Yellow with Black Tracer
Y-G or -GN	Yellow with Green Tracer
Y-R	Yellow with Red Tracer

SECTION I

Problem Solving Charts

4 Functions of the Automatic Washer for a Quick Check

It is important that you check these four functions after any repairs have been made (and before using the automatic washer) to see if you have solved your problem and have not created a different one.

- | | |
|---------------------|---|
| 1. DOES IT FILL? | YES Go to 2.
NO See problems 1, 2 & 15. |
| 2. DOES IT AGITATE? | YES Go to 3.
NO See problems 1, 3, 4 & 15. |
| 3. DOES IT DRAIN? | YES Go to 4.
NO See problems 1, 5 & 15 |
| 4. DOES IT SPIN? | YES Check for other problems.
NO See problems 1, 3, 6 & 15 |

SEE PAGES 21 AND 155-161 FOR LOCATION OF PARTS.

READ "SECTION G—HOW YOUR AUTOMATIC WASHER WORKS" FIRST. THIS IS TO HELP YOU UNDERSTAND AND POSSIBLY DIAGNOSE THE PROBLEM. THEN REFER TO THE FOLLOWING PROBLEM SOLVING CHARTS.

PROBLEM	POSSIBLE CAUSE	REPAIR PROCEDURE
1. Washer will not operate.	1a. No electrical power. 1b. Power cord. 1c. Open circuit in timer. 1d. Short (bare wire touching metal).	1a. Check electrical power. See sec. B, proc. 1 or 2, p. 7 or 8. 1b. Check power cord. See sec. O, proc. 1, p. 130. 1c. Check timer. See sec. J, proc. 12, p. 55. 1d. Check all wiring for bare wire or terminal touching metal.

PROBLEM SOLVING CHARTS—SECTION I

PROBLEM	POSSIBLE CAUSE	REPAIR PROCEDURE
2. Water will not enter washer.	2a. No electrical power.	2a. Check electrical power. See sec. B, proc. 1 or 2, p. 7 or 8.
	2b. Power cord.	2b. Check power cord. See sec. O, proc. 1, p. 130.
	2c. Water faucets closed.	2c. Make sure water faucets are turned "ON".
	2d. Inlet hoses kinked.	2d. Move inlet hoses to prevent kinking.
	2e. Plugged inlet hose screens	2e. Remove screens from inlet hoses and clean. See sec. N, proc. 1, p. 106.
	2f. Inlet mixing valve.	2f. Check inlet mixing valve. See sec. M, proc. 1, p. 90.
	2g. Water level switch.	2g. Check water level switch. See sec. J, proc. 6, p. 46.
	2h. Water temperature switch.	2h. Check water temperature switch. See sec. J, proc. 5, p. 44.
	2i. Timer.	2i. Check timer. See sec. J, proc. 12, p. 55.
	2j. Loose terminal.	2j. Check terminal connections on above parts. See sec. O, proc. 4, p. 135.
	2k. Broken wire in wiring harness.	2k. Check for broken wire. See sec. O, proc. 4, p. 135.
3. Water level too low.	3a. Water level switch.	3a. Check water level switch. See sec. J, proc. 6, p. 46.
4. Drive motor will not run.	4a. No electrical power.	4a. Check electrical power. See sec. B, proc. 1 or 2, p. 7 or 8.
	4b. Power cord.	4b. Check power cord. See sec. O, proc. 1, p. 130.
	4c. Drive motor overheated.	4c. Allow motor thermal overload to cool.
	4d. Drive motor start switch.	4d. Check start switch. See sec. N, proc. 9, p. 124.
	4e. Drive motor.	4e. Check drive motor. See sec. N, proc. 8, p. 120.
	4f. Water level switch.	4f. Check water level switch. See sec. J, proc. 6, p. 46.
	4g. Pump.	4g. Check pump. See sec. M, proc. 4, p. 98.
	4h. Timer.	4h. Check timer. See sec. J, proc. 12, p. 55.
	4i. Lid open in "SPIN CYCLE".	4i. Close lid.
	4j. Lid open in last 2 min. of agitate.	4j. Close lid.
	4k. Loose terminal.	4k. Check terminal connections on above parts. See sec. O, proc. 4, p. 135.
	4l. Broken wire in wiring harness.	4l. Check for broken wire. See sec. O, proc. 4, p. 135.
	4m. Gearcase.	4m. Replace gearcase. See sec. N, proc. 3, p. 111.

PROBLEM	POSSIBLE CAUSE	REPAIR PROCEDURE
5. Washer will not agitate.	5a. Broken or loose belt.	5a. Check belt. See sec. N, proc. 2, p. 107.
	5b. Water level switch.	5b. Check water level switch. See sec. J, proc. 6, p. 46.
	5c. Control magnet.	5c. Check control magnet. See sec. N, proc. 5, p. 116.
	5d. Drive motor start switch	5d. Check start switch. See sec. N, proc. 9, p. 124.
	5e. Drive motor.	5e. Check drive motor. See sec. N, proc. 8, p. 120.
	5f. Loose pulleys.	5f. Tighten setscrews on motor and gearcase pulleys.
	5g. Timer.	5g. Check timer. See sec. J, proc. 12, p. 55.
	5h. Gearcase.	5h. Replace gearcase. See sec. N, proc. 3, p. 111.
	5i. Broken cam bar rivet.	5i. Check cam bar rivets. See sec. N, proc. 7, p. 118.
	5j. Loose terminal.	5j. Check terminal connections on above parts. See sec. O, proc. 4, p. 135.
	5k. Broken wire in wiring harness.	5k. Check for broken wire. See sec. O, proc. 4, p. 135.
6. Water does not drain from washer.	6a. Drain hose kinked.	6a. Move drain hose to prevent kinking or replace.
	6b. Too much suds.	6b. Add cold water. Use less detergent. Read your USE & CARE GUIDE.
	6c. Incorrect drain height.	6c. Read your INSTALLATION INSTRUCTIONS.
	6d. Plugged drain hose.	6d. Remove obstruction.
	6e. Pump.	6e. Check pump. See sec. M, proc. 4, p. 98.
	6f. Broken or loose belt.	6f. Check belt. See sec. N, proc. 2, p. 107.
	6g. Manifold air lock.	6g. Check manifold. See sec. M, proc. 2, p. 92.
	6h. Side check valve (partial drain) (self-clean filter models)	6h. Clean or replace. See sec. L, proc. 6, p. 82.
	6i. Lint filter (self-clean)	6i. Check lint filter. See sec. M, proc. 3, p. 93.
	6j. Two-way valve.	6j. Check two-way valve. See sec. M, proc. 5, p. 100.
	6k. Timer.	6k. Check timer. See sec. J, proc. 12, p. 55.
	6l. Loose terminal.	6l. Check terminal connections on above parts. See sec. O, proc. 4, p. 135.
	6m. Broken wire in wiring harness.	6m. Check for broken wire. See sec. O, proc. 4, p. 135.

PROBLEM SOLVING CHARTS—SECTION I

PROBLEM	POSSIBLE CAUSE	REPAIR PROCEDURE
7. Basket is slow or will not spin. (empty tub of water)	7a. Lid open. 7b. Broken or loose belt. 7c. Control magnet. 7d. Water level switch. 7e. Lid switch. 7f. Loose motor pulley. 7g. Drive motor start switch. 7h. Drive motor. 7i. Timer. 7j. Clothes between basket and tub. 7k. Gearcase. 7l. Loose terminal. 7m. Broken wire in wiring harness.	7a. Close lid. 7b. Check belt. See sec. N, proc. 2, p. 107. 7c. Check control magnet. See sec. N, proc. 5, p. 116. 7d. Check water level switch. See sec. J, proc. 6, p. 46. 7e. Check lid switch. See sec. K, proc. 3, p. 64. 7f. Tighten pulley setscrew. 7g. Check start switch. See sec. N, proc. 9, p. 124. 7h. Check drive motor. See sec. N, proc. 8, p. 120. 7i. Check timer. See sec. J, proc. 12, p. 55. 7j. Remove clothes. 7k. Replace gearcase. See sec. N, proc. 4, p. 111. 7l. Check terminal connections on above parts. See sec. O, proc. 4, p. 135. 7m. Check for broken wire. See sec. O, proc. 4, p. 135.
8. Washer leaks water or splashes water on floor.	8a. Hoses not secured. 8b. Hose leaks. 8c. Leak in tub. 8d. Side check valve (self-clean filter models). 8e. Drain funnel. (manual clean filter models with suds saver system). 8f. Pump. 8g. Use of low water level with high agitation.	8a. Make sure hose clamps are tight, both inside and out of the washer. 8b. Check hoses and replace. 8c. Check hose connections, the four screws or holes in the tub. See sec. L, proc. 9, p. 86. 8d. Check side check valve. See sec. L, proc. 6, p. 82. 8e. Check funnel. See sec. L, proc. 7, p. 84. 8f. Check pump. See sec. M, proc. 4, p. 98. 8g. Use higher water level.

PROBLEM	POSSIBLE CAUSE	REPAIR PROCEDURE
9. Washer will not spray rinse.	9a. Inlet mixing valve.	9a. Check inlet mixing valve. See sec. M, proc. 1, p. 90. NOTE: DO NOT tamper with screens.
	9b. Water temperature switch.	9b. Check water temperature switch. See sec. J, proc. 5, p. 44.
	9c. Timer.	9c. Check timer. See sec. J, proc. 12, p. 55.
	9d. Loose terminal.	9d. Check terminal connections on above parts. See sec. O, proc. 4, p. 135.
	9e. Broken wire in wiring harness.	9e. Check for broken wire. See sec. O, proc. 4, p. 135.
10. Washer will not shut off.	10a. Timer.	10a. Check timer. See sec. J, proc. 12, p. 55.
11. Washer shakes or moves around.	11a. Shipping material not removed.	11a. Remove shipping material. See your installation instructions.
	11b. Unbalanced load.	11b. Move clothes evenly around basket.
	11c. Washer not level.	11c. Adjust the front feet and rear leveling feet. See sec. O, proc. 2 or 3, p. 132 or 133.
	11d. Weak flooring.	11d. Floor must be solid.
	11e. Gearcase braces loose.	11e. Check the five nuts and one bolt and tighten. See sec. N, proc. 3, p. 111.
	11f. Oil, grease or detergent on snubber.	11f. Check snubber. See sec. L, proc. 1, p. 72.
12. Water will not shut off.	12a. Inlet mixing valve.	12a. Listen for running water. If you hear running water the valve is stuck and must be replaced. See sec. M, proc. 1, p. 90.
	12b. Water level switch.	12b. Check water level switch. See sec. J, proc. 6, p. 46.
	12c. Air leak or kink in water level switch hose.	12c. Check hose. See sec. L, proc. 8, p. 85.
	12d. Air leak in pressure dome	12d. Check pressure dome. See sec. L, proc. 8, p. 85.
	12e. Timer.	12e. Check timer. See sec. J, proc. 12, p. 55.
13. No hot water.	13a. Inlet mixing valve.	13a. Check inlet mixing valve (hot coil). See sec. M, proc. 1, p. 90.
	13b. Water temperature switch.	13b. Check water temperature switch. See sec. J, proc. 5, p. 44.
	13c. Timer.	13c. Check timer. See sec. J, proc. 12, p. 55.
	13d. Loose terminal.	13d. Check terminal connections on above parts. See sec. O, proc. 4, p. 135.
	13e. Broken wire in wiring harness.	13e. Check for broken wire. See sec. O, proc. 4, p. 135.

PROBLEM SOLVING CHARTS—SECTION I

PROBLEM	POSSIBLE CAUSE	REPAIR PROCEDURE
14. No cold water.	14a. Inlet mixing valve.	14a. Check inlet mixing valve (cold coil). See sec. M, proc. 1, p. 906.
	14b. Water temperature switch.	14b. Check water temperature switch. See sec. J, proc. 5, p. 44.
	14c. Timer.	14c. Check timer. See sec. J, proc. 12, p. 55.
	14d. Loose terminal.	14d. Check terminal connections on above parts. See sec. O, proc. 4, p. 135.
	14e. Broken wire in wiring harness.	14e. Check for broken wire. See sec. O, proc. 4, p. 135.
15. Washer damages clothes.	15a. Too much bleach or fabric softener poured on clothes.	15a. Read your LAUNDRY GUIDE.
	15b. Too many clothes.	15b. Read your LAUNDRY GUIDE.
	15c. Agitator.	15c. Check agitator. See sec. L, proc. 4, p. 78.
	15d. Basket.	15d. Check basket. See sec. L, proc. 5, p. 80.
	15e. Water level too low.	15e. Increase water level.
	15f. Foreign objects.	15f. Remove.
16. Timer does not advance.	16a. Timer motor.	16a. Check timer motor. See sec. J, proc. 13, p. 58.
	16b. Timer.	16b. Check timer. See sec. J, proc. 12, p. 55.
	16c. Water level switch.	16c. Check water level switch. See sec. J, proc. 6, p. 46.
	16d. Loose terminal.	16d. Check terminal connections on above parts. See sec. O, proc. 4, p. 135.
	16e. Broken wire in wiring harness.	16e. Check for broken wire. See sec. O, proc. 4, p. 135.
17. Washer leaks oil.	17a. Leak in gearcase.	17a. Check gearcase. See sec. N, proc. 3, p. 111.
18. Clothes not spinning dry.	18a. Water not draining from washer correctly.	18a. See problem 6.
	18b. House drain.	18b. Incorrect drain height or plugged drain. See your installation instructions.
	18c. Side check valve.	18c. Clean or replace. See sec. L, proc. 6, p. 82.
19. Water fills and drains at the same time.	19a. Pump.	19a. Check pump. See sec. M, proc. 4, p. 98.
	19b. Control magnet.	19b. Check control magnet. See sec. N, proc. 5, p. 116.
	19c. Cam bar (agitate).	19c. Check cam bar. See sec. N, proc. 7, p. 118.

PROBLEM	POSSIBLE CAUSE	REPAIR PROCEDURE
20. Lint on clothes.	20a. Filters.	20a. Check filters. See sec. M, proc. 3, p. 93.
	20b. Wrong mixture of clothes.	20b. See your Use and Care Guide.
	20c. Overloading.	20c. See your Use and Care Guide.
21. Suds water will not return to washer (suds saver system).	21a. Kinked hoses.	21a. Move suds hoses to prevent kinking.
	21b. Plugged hoses.	21b. Remove obstruction.
	21c. Two-way valve.	21c. Check two-way valve. See sec. M, proc. 5, p. 100.
	21d. Pump.	21d. Check pump. See sec. M, proc. 4, p. 98.
	21e. Water level switch.	21e. Check water level switch. See sec. J, proc. 6, p. 46.
	21f. Timer.	21f. Check timer. See sec. J, proc. 12, p. 55.
	21g. Loose terminal.	21g. Check terminal connections on above parts. See sec. O, proc. 4, p. 135.
	21h. Broken wire in wiring harness.	21h. Check for broken wire. See sec. O, proc. 4, p. 135.

SECTION J

Console Area

SECTION A MUST BE CAREFULLY READ BEFORE ANY REPAIR OR TESTING PROCEDURES ARE ATTEMPTED.



PROCEDURE	PAGE
1 Timer Knob	40
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3 Rotary/Push-button Control Knob	42
4 Console Rear & Front Panels	42
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8 Light Ballast	50
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10 Fluorescent Light	52
11 Light Socket	54
12 Timer	55
13 Timer Motor	58

PROCEDURE 1

Timer Knob Replacement

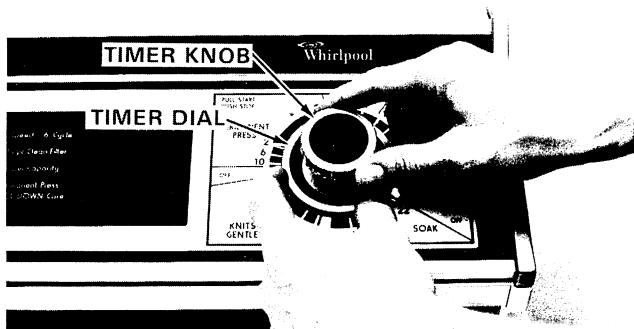
See page 156, illus. no. 58 for location of part.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

STEP 1 Disconnect the electrical power supply (section B).



STEP 2 To remove your timer knob, hold the timer dial with one hand while turning the timer knob to the left with the other hand.

REPLACEMENT

STEP 3 Place the new timer knob on the timer shaft. Turn the timer knob to the right until tight.

STEP 4 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

PROCEDURE 2

Timer Dial Replacement

See page 156, illus. no. 57 for location of part.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

Two methods have been used to attach the timer dial to the shaft of the timer, either with a locknut or the knob had a “D” flat molded in the hub.

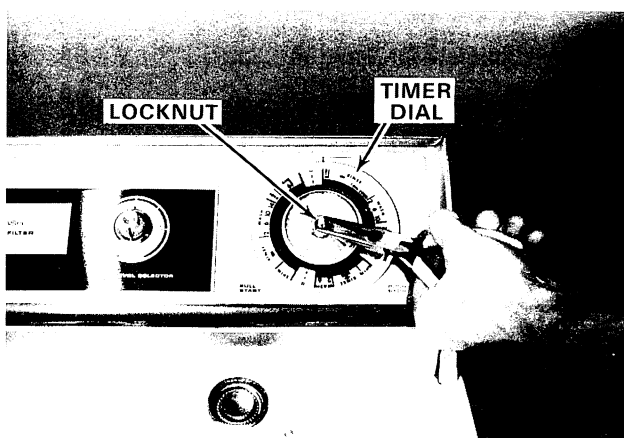
To find out which type you have, first remove the timer knob (section J, proc. 1). Look at the center of the dial. If there is a locknut holding the dial on, see Type A. If there is not a locknut, see Type B.

TYPE A

STEP 1 Disconnect the electrical power supply (section B).

STEP 2 Remove the timer knob (section J, proc. 1).

NOTE: Before removing the old dial, notice on your old dial the cycle setting the timer is in. Place the timer dial on the timer shaft showing the exact cycle setting as your old one showed.



STEP 3 Using needle nose pliers or an open end wrench, remove the locknut.

STEP 4 If you do not know what cycle the timer is in, turn the water faucets to the washer OFF.

STEP 5 Replace the timer knob (section J, proc. 1).

STEP 6 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

STEP 7 Turn the washer ON by pulling up on the knob. Very slowly turn the timer knob to the right until the washer starts to agitate.

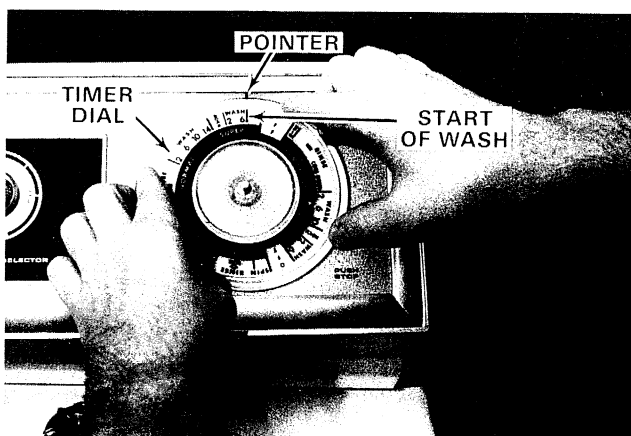
STEP 8 Continue to turn the timer knob very slowly to the right until the agitation stops.

STEP 9 Shut the washer OFF by pushing down on the knob.

STEP 10 Disconnect the electrical power supply (section B).

STEP 11 Remove the timer knob (section J, proc. 1).

REPLACEMENT



STEP 12 Place the new timer dial on, so the pointer lines up with the start of the SUPER wash setting, then push down on the dial. Timer dial is now set correctly.

STEP 13 Using needle nose pliers or an open end wrench, replace the locknut with the open portion facing down.

STEP 14 Replace the timer knob (section J, proc. 1).

STEP 15 Turn the water faucets back on.

STEP 16 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

STEP 17 Pull up on the knob in each of the OFF positions to make sure the washer is actually off. If the washer turns ON the dial needs to be readjusted. Remove the knob and locknut and slightly turn the dial. Replace the locknut and knob and test again.

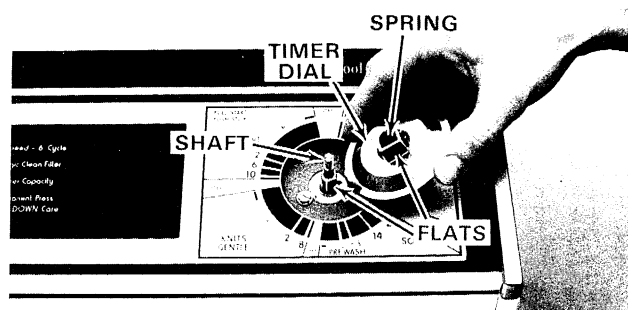
TYPE B

STEP 1 Disconnect the electrical power supply (section B).

STEP 2 Remove the timer knob (section J, proc. 1).

STEP 3 Pull the timer dial straight off.

REPLACEMENT



STEP 4 Check to make sure the metal clip is either inside or around the hub on the new timer dial.

STEP 5 Place the timer dial on, by lining up the flat of the timer shaft with the flat of the dial and push on.

STEP 6 Replace the timer knob (section J, proc. 1).

STEP 7 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

PROCEDURE 3

Rotary/Push-button Control Knob Replacement

See page 156, illus. no.'s 33 and 61 for location of parts.

⚠ WARNING

Electrical Shock Hazard

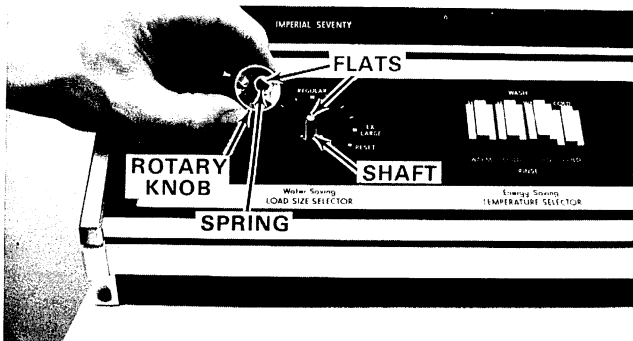
- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

There are two types of control knobs used—either the rotary or push-button type.

See Type A for the rotary or Type B for the push-button.

TYPE A

STEP 1 Disconnect the electrical power supply (section B).



STEP 2 To replace any rotary type knob, pull straight off. NOTICE the flat on the shaft of the switch and the flat in the back of the control knob.

REPLACEMENT

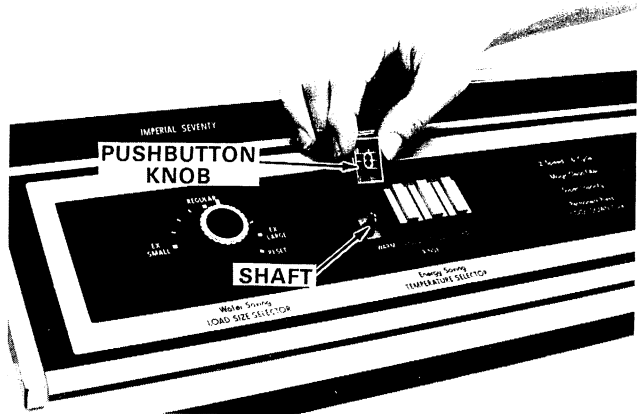
STEP 3 Check to make sure the metal clip is either inside or around the hub on the new control knob.

STEP 4 Line up the flat in the rotary knob with the flat on the switch shaft, and push on.

STEP 5 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

TYPE B

STEP 1 Disconnect the electrical power supply (section B).



STEP 2 To replace any push-button knob, just pull straight off.

REPLACEMENT

STEP 3 Push the new push-button onto the switch shaft.

STEP 4 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

PROCEDURE 4

Removing the Console Rear Panel and the Console Front Panel

See page 156, illus. no.'s 1 and 54 for location of parts.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

There are two ways the console panel is attached to the top. See Type A for the metal end cap or Type B for the plastic end cap.

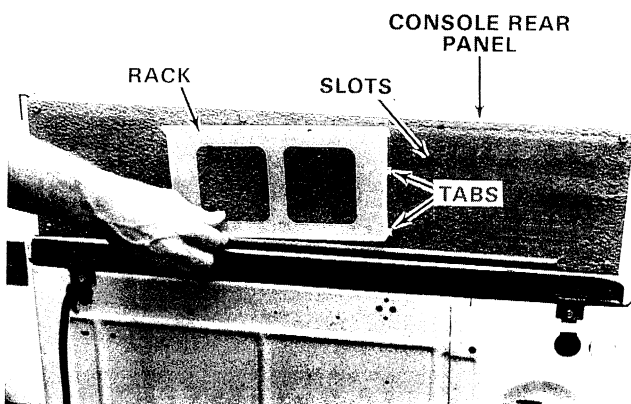
STEP 1 Disconnect the electrical power supply (section B).

⚠ CAUTION

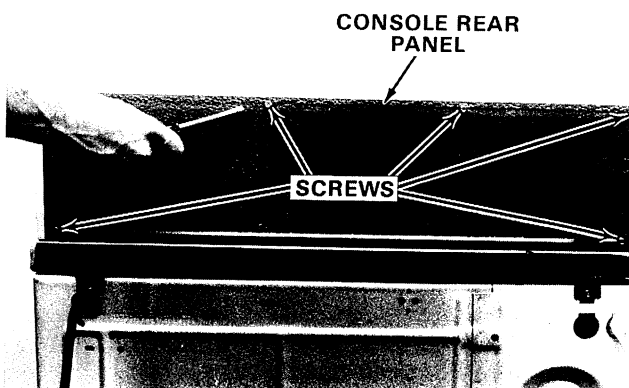
Product Damage

- Do not use the console as a hand support when moving the appliance.
- Personal property or appliance damage may result.

STEP 2 Move the automatic washer away from the wall so you can work on it.



STEP 3 If your washer has the plastic rack located on the console rear panel, this has to be removed. Slide the rack up so the tabs in the rack come out of the slots in the panel.



STEP 4 Using a screwdriver or nutdriver, remove the rear console panel screws.

TYPE A

Read steps 1-4 of this procedure.

STEP 5 Raise the top (section K, proc. 1).

STEP 6 Using a screwdriver or nutdriver, remove the four screws while holding the console so it does not fall.

STEP 7 Lower the top.

STEP 8 Place a towel on top of the washer to protect its finish.

STEP 9 Lay the console on top of the towel. This will show the controls inside the console.

REPLACEMENT

⚠ WARNING

Electrical Shock Hazard

- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

STEP 10 To replace the console, hold onto the console while raising the top (section K, proc. 1).

STEP 11 Using a screwdriver or nutdriver, insert the four screws and tighten.

STEP 12 Lower the top (section K, proc. 1).

STEP 13 Using a screwdriver or nutdriver, replace the console rear panel and tighten the screws.

STEP 14 If your washer has the plastic rack, place the tabs in the slot of the console rear panel and push down.

⚠ CAUTION

Product Damage

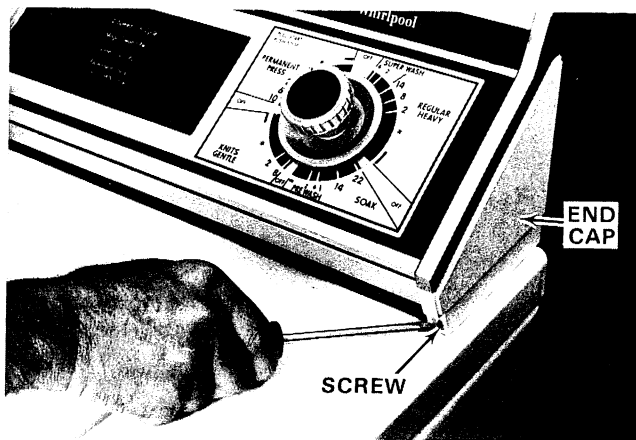
- Do not use the console as a hand support when moving the appliance.
- Personal property or appliance damage may result.

STEP 15 Move the automatic washer back to its location.

STEP 16 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

TYPE B

Read steps 1-4 of this procedure.



STEP 5 Using a screwdriver, remove the screw in front of each end cap.

STEP 6 Place a towel on top of the washer to protect its finish.

STEP 7 Lay the console on top of the towel. This will show the controls inside the console.

REPLACEMENT

⚠ WARNING

Electrical Shock Hazard

- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

STEP 8 To replace the console, place the tabs from the plastic end caps into the slots in the top, then slide the console toward the rear.

STEP 9 Using a screwdriver, replace the screw in each end cap and tighten.

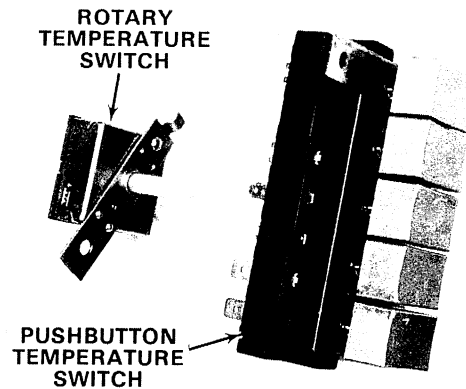
STEP 10 Using a screwdriver or nutdriver, replace the console rear panel and tighten the screws.

STEP 11 If your washer has the plastic rack, place the tabs in the slot of the console rear panel and push down.

STEP 12 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

PROCEDURE 5

Temperature Switch Testing and/or Replacement



See page 156, illus. no. 31 for location of part.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

OHMMETER REQUIRED

This switch, located inside the console, is used in controlling the temperature of the WASH and RINSE water. The first letter is the WASH water temperature, and the second letter is the RINSE water temperature. H stands for hot, C stands for cold and W stands for warm. For example, HC denotes hot water wash with a cold water rinse.

There are two types of temperature switches used, either a rotary or push-button type.

STEP 1 Disconnect the electrical power supply (section B).

STEP 2 Remove the console panels (section J, proc. 4, steps 3-4; plus Type A or Type B).

TESTING

STEP 3 Remove one wire at a time, carefully labeling each wire according to the terminal marking on the water temperature switch. This procedure should assure that the right wire is reconnected to the right terminal.

STEP 4 You must know how to use an ohmmeter.

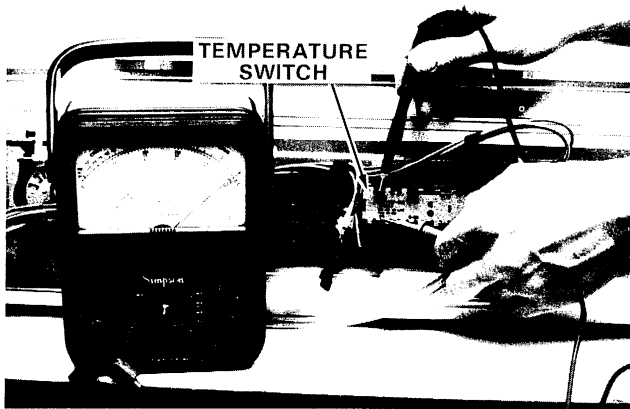
STEP 5 Set the ohmmeter scale to the lowest ohms setting and ZERO the meter. See the instructions that come with your ohmmeter.

STEP 6 Check each circuit by turning the rotary knob or pushing in on the push-button to each setting and check the proper terminals.

Use the following chart. Your switch may not have all the settings shown.

SWITCH SETTING	TERMINAL MARKING ON SWITCH
Hot/Warm	BR to BR-R, G-BK to BR-R
Hot/Cold	BR to BR-R
Warm/Warm	BR to BR-R, G-BK to BR-R G-BK to YR
Warm/Cold	BR to BR-R, G-BK to Y-R
Cold/Cold	G-BK to Y-R

STEP 7 EXAMPLE: Set temperature switch to (warm/cold). This closes two contacts inside the switch, BR to BR-R and G-BK to Y-R.



STEP 8 Touch one ohmmeter probe to terminal BR.

STEP 9 Touch the other ohmmeter probe to terminal BR-R.

STEP 10 The ohmmeter should show ZERO resistance (continuity). If not, the temperature switch is bad and needs replacing.

STEP 11 Touch one ohmmeter probe to terminal BR.

STEP 12 Touch the other ohmmeter probe to the rest of the terminals without touching terminal BR-R.

STEP 13 The ohmmeter should show an open circuit when checking these other terminals. If not, the temperature switch is bad and needs replacing.

STEP 14 Touch one ohmmeter probe to terminal G-BK.

STEP 15 Touch the other ohmmeter probe to terminal Y-R.

STEP 16 The ohmmeter should show ZERO resistance (continuity). If not, the temperature switch is bad and needs replacing.

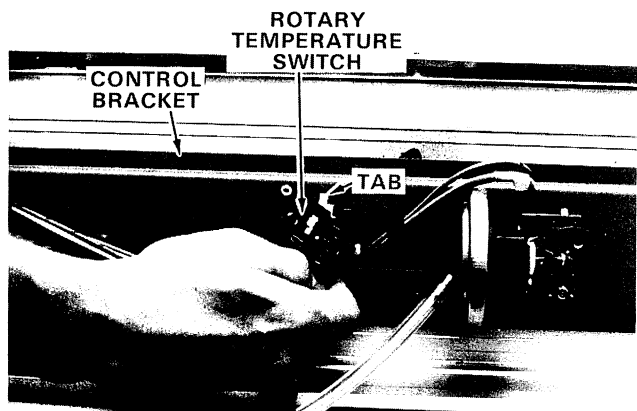
STEP 17 Touch one ohmmeter probe to terminal G-BK.

STEP 18 Touch the other ohmmeter probe to the rest of the terminals without touching terminal Y-R.

STEP 19 The ohmmeter should show an open circuit when checking these other terminals. If not, the temperature switch is bad and needs replacing.

REPLACEMENT

STEP 20 Remove the control knob (section J, proc. 3; Type A or Type B).



STEP 21 Notice the locating tab on the end of the switch bracket and where it's located in the slot on the control bracket. The tab on the replacement part must be installed in the same slot.

STEP 22 Using a nutdriver or socket wrench, remove the one screw holding the rotary type or two screws holding the push-button type temperature switch to the control bracket.

STEP 23 Carefully remove the temperature switch. The wires should have been removed already because of testing.

STEP 24 Place the new rotary type temperature switch with the locating tab in the slot on the control bracket, or the new push-button temperature switch on the control bracket.

STEP 25 Using a nutdriver or socket wrench, insert the screw or screws through the temperature switch, into the control bracket and tighten.

STEP 26 Reconnect the wires to the proper terminals as previously marked.

⚠ WARNING

Electrical Shock Hazard

- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

STEP 27 Replace the console panels (section J, proc. 4; Type A or Type B).

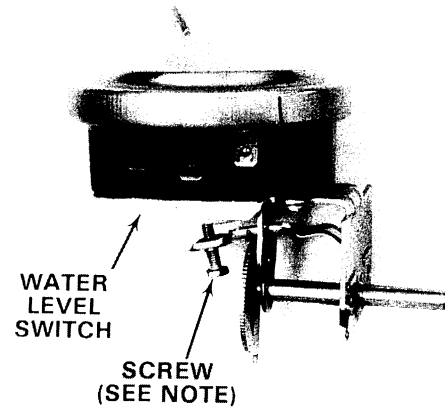
STEP 28 Replace the control knob (section J, proc. 3; Type A or Type B).

STEP 29 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

STEP 30 Run a cycle check (section F, proc. 2).

PROCEDURE 6

Water Level Switch Testing and/or Replacement



NOTE: DO NOT TURN THIS SCREW

See page 156, illus. no. 29 for location of part.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

OHMMETER REQUIRED

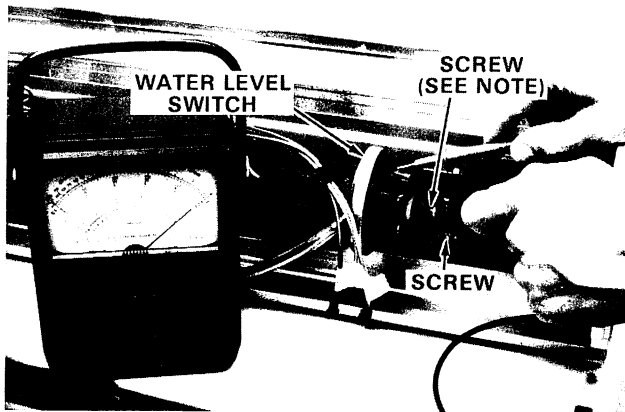
This switch, located inside the console, is used in controlling the amount of water entering the washer. There are different water levels, depending on the model you have. Selections include EXTRA LOW, LOW, MEDIUM, HIGH, and EXTRA HIGH. Some models have a fixed water level switch. This allows for just one water level in the washer.

There are three color-coded wires going to this switch—violet (V), pink (P) and tan (T). The violet (V) wire carries the current (electricity) from the timer to this switch. Contacts inside this switch send current (electricity) back through either the pink (P) wire, meaning an empty tub of water or the tan (T) wire, meaning a full tub of water.

STEP 1 Disconnect the electrical power supply (section B).

STEP 2 Remove the console panels (section J, proc. 4, steps 2-4; plus Type A or Type B).

TESTING



NOTE: DO NOT TURN THIS SCREW

STEP 3 Remove one wire at a time, carefully labeling each wire according to the terminal marking on the water level switch. This procedure should assure that the right wire is reconnected to the right terminal.

STEP 4 You must know how to use an ohmmeter.

STEP 5 Set the ohmmeter scale to the lowest ohms setting and ZERO the meter. See the instructions that come with your ohmmeter.

NOTE: If your tub is already full of water go to steps 21-26, Note, 6-11, 27-40.

or

If your tub is empty of water go to steps 6-40.

WITH EMPTY TUB OF WATER

STEP 6 Touch one ohmmeter probe to terminal V.

STEP 7 Touch the other ohmmeter probe to terminal P.

STEP 8 The ohmmeter should show ZERO resistance (continuity). If not, the water level switch is bad and needs replacing.

STEP 9 Touch one ohmmeter probe to terminal V.

STEP 10 Touch the other ohmmeter probe to terminal T.

STEP 11 The ohmmeter should show an open circuit when checking these two terminals. If not, the water level switch is bad and needs replacing.

WITH FULL TUBE OF WATER

STEP 12 Reconnect the wires to the proper terminals as previously marked.

STEP 13 Replace the console panels (section J, proc. 4; Type A or Type B).

STEP 14 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

STEP 15 Fill the machine with water.

NOTE: If you think the water level switch is bad, make sure you shut the water off before the water overflows onto the floor.

STEP 16 Disconnect the electrical power supply (section B).

STEP 17 Remove the console panels (section J, proc. 4, steps 2-4; plus Type A or Type B).

STEP 18 Remove one wire at a time, carefully labeling each wire according to the terminal marking on the water level switch. This procedure should assure that the right wire is reconnected to the right terminal.

STEP 19 You must know how to use an ohmmeter.

STEP 20 Set the ohmmeter scale to the lowest ohms setting and ZERO the meter. See the instructions that came with your ohmmeter.

STEP 21 Touch one ohmmeter probe to terminal V.

STEP 22 Touch the other ohmmeter probe to terminal T.

STEP 23 The ohmmeter should show ZERO resistance (continuity). If not, the water level switch is bad and needs replacing.

STEP 24 Touch one ohmmeter probe to terminal V.

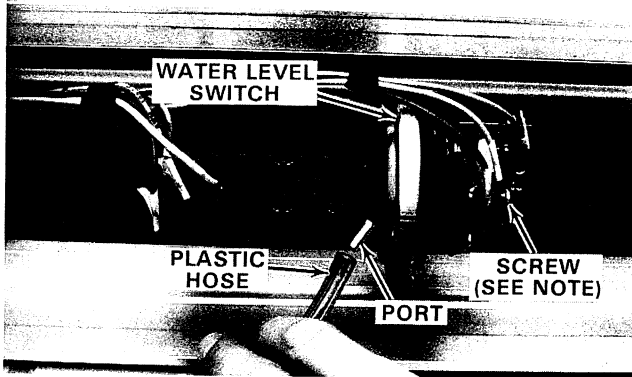
STEP 25 Touch the other ohmmeter probe to terminal P.

STEP 26 The ohmmeter should show an open circuit. If not, the water level switch is bad and needs replacing.

NOTE: If you checked the water level switch with a full tub of water, the water left in the tub must be emptied by hand for the next test. Now go back to steps 6-11, 27-40.

REPLACEMENT

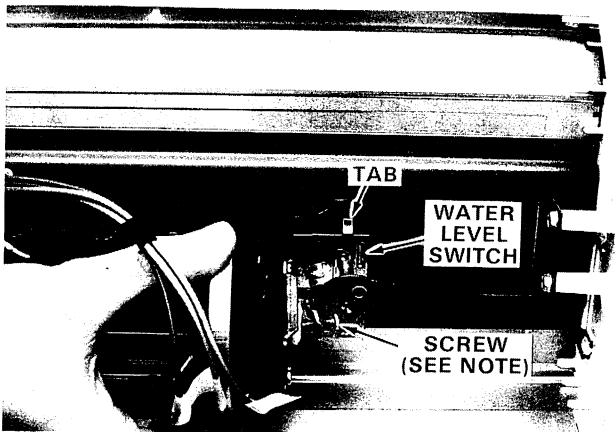
STEP 27 Remove the rotary knob (section J, proc. 3; Type A).



NOTE: DO NOT TURN THIS SCREW

STEP 28 Remove the plastic hose from the port of the water level switch.

STEP 29 Notice the locating tab on the end of the switch bracket and where it's located in the slot on the control bracket. The tab on the replacement part must be installed in the same slot.



NOTE: DO NOT TURN THIS SCREW

STEP 30 Using a nutdriver or socket wrench, remove the screw.

STEP 31 Carefully remove the water level switch. The wires should have been removed already because of testing.

STEP 32 Place the new water level switch with the locating tab in the slot on the control bracket.

STEP 33 Using a nutdriver or socket wrench, insert the screw and tighten.

STEP 34 If you checked the water level switch with a full tub of water, the water left in the tub must be emptied by hand before the hose can be connected to the port. If this is not done, the machine will overflow with water.

STEP 35 Replace the plastic hose on the water level switch port.

STEP 36 Reconnect the wires to the proper terminals as previously marked.

⚠ WARNING

Electrical Shock Hazard

- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

STEP 37 Replace the console panels (section J, proc. 4; Type A or Type B).

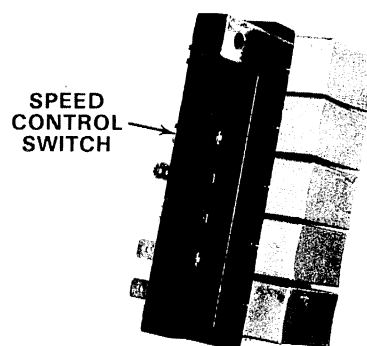
STEP 38 Replace the rotary type knob (section J, proc. 3; Type A).

STEP 39 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

STEP 40 Run a cycle check (section F, proc. 2).

PROCEDURE 7

Speed Control Switch Testing and/or Replacement



⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

OHMMETER REQUIRED

This switch, located inside the console, is used in controlling the agitation and spin speeds. This switch is a push-button type switch.

STEP 1 Disconnect the electrical power supply (section B).

STEP 2 Remove the console panels (section J, proc. 4 steps 2-4; plus Type A or Type B).

TESTING

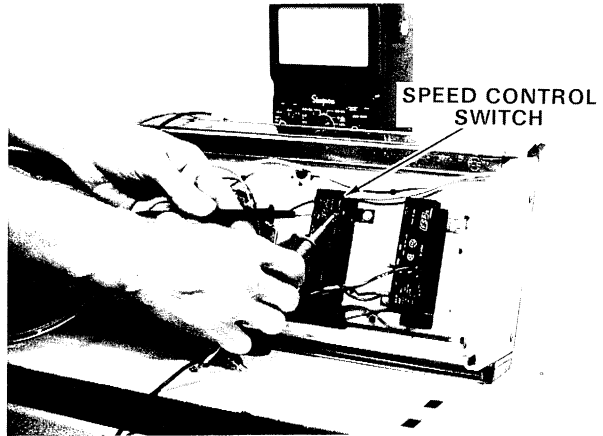
STEP 3 Remove one wire at a time, carefully labeling each wire according to the terminal marking on speed control switch. This procedure should assure that the right wire is reconnected to the right terminal.

STEP 4 You must know how to use an ohmmeter.

STEP 5 Set the ohmmeter scale to the lowest ohms setting and ZERO the meter. See the instructions that came with your ohmmeter.

STEP 6 Check each circuit by pushing in on the push-button to each setting and checking the proper terminals.

<u>SETTING</u>	<u>TERMINAL MARKING ON SWITCH</u>
Agitation High	BU-O to BU
Agitation Medium	BU-O to OR
Agitation Low	BU-O to GY-P
Spin High	R-W to BU
Spin Low	R-W to OR



STEP 7 EXAMPLE: Set speed control switch to AGITATION HIGH and SPIN HIGH. This closes contacts inside the switch, BU to BU-O and BU to R-W.

STEP 8 Touch one ohmmeter probe to terminal BU.

STEP 9 Touch the other ohmmeter probe to terminal BU-O.

STEP 10 The ohmmeter should show ZERO resistance (continuity). If not, the speed control switch is bad and needs replacing.

STEP 11 Touch one ohmmeter probe to terminal BU.

STEP 12 Touch the other ohmmeter probe to terminal R-W.

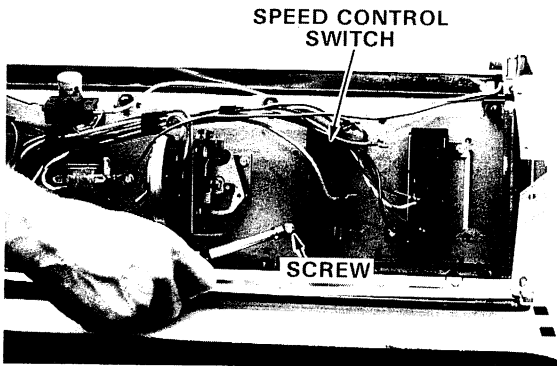
STEP 13 The ohmmeter should show ZERO resistance (continuity). If not, the speed control switch is bad and needs replacing.

STEP 14 Touch one ohmmeter probe to terminal BU.

STEP 15 Touch the other ohmmeter probe to the rest of the terminals without touching terminal BU-O or R-W.

STEP 16 The ohmmeter should show an open circuit when checking these other terminals. If not, the speed control switch is bad and needs replacing.

REPLACEMENT



STEP 17 Using a nutdriver or socket wrench, remove the two screws.

STEP 18 Carefully remove the speed control switch. The wires should have been removed already because of testing.

STEP 19 Place the new speed control switch on the control bracket.

STEP 20 Using a nutdriver or socket wrench, insert the two screws and tighten.

STEP 21 Reconnect the wires to the proper terminals as previously marked.

⚠ WARNING

Electrical Shock Hazard

- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

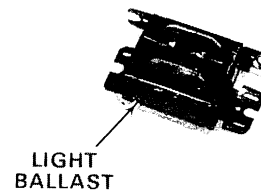
STEP 22 Replace the console panels (section J, proc. 4; Type A or Type B).

STEP 23 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

STEP 24 Run a cycle check (section F, proc. 2).

PROCEDURE 8

Light Ballast Testing and/or Replacement



⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

OHMMETER REQUIRED

This light ballast, located inside the console, is used to lower the voltage before it reaches the light.

STEP 1 Disconnect the electrical power supply (section B).

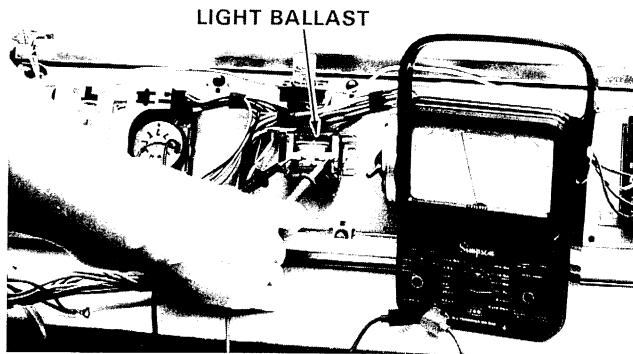
STEP 2 Remove the console panels (section J, proc. 4, steps 2-4; plus Type A or Type B).

TESTING

STEP 3 Remove one wire at a time, carefully labeling each wire according to the terminal marking on the light ballast. This procedure should assure that the right wire is reconnected to the right terminal.

STEP 4 You must know how to use an ohmmeter.

STEP 5 Refer to the instructions that came with your volt-ohmmeter to find the proper scale to measure 20-30 ohms. Set the ohms scale and ZERO the meter.



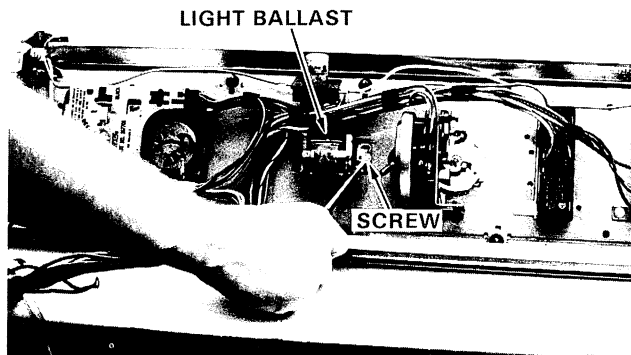
STEP 6 Touch one ohmmeter probe to one of the terminals.

STEP 7 Touch the other ohmmeter probe to the other terminal.

STEP 8 The ohmmeter should show between 20-30 ohms on the ohms scale.

STEP 9 If you do not get this reading, the light ballast is bad and needs replacing.

REPLACEMENT



STEP 10 Using a nutdriver or socket wrench, remove the two screws.

STEP 11 Carefully remove the light ballast. The wires should have been removed already because of testing.

STEP 12 Place the new light ballast inside the console.

STEP 13 Using a nutdriver or socket wrench, insert the two screws and tighten.

STEP 14 Reconnect the wires to the proper terminals as previously marked.

⚠ WARNING

Electrical Shock Hazard

- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

STEP 15 Replace the console panels (section J, proc. 4; Type A or Type B).

STEP 16 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

PROCEDURE 9

Light Starter Testing and/or Replacement

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

OHMMETER REQUIRED

This starter is used to light the fluorescent light.

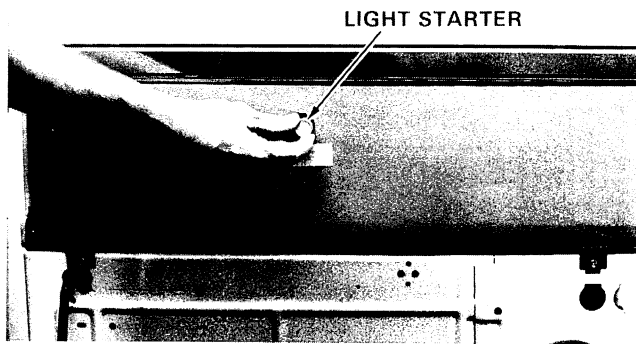
STEP 1 Disconnect the electrical power supply (section B).

⚠ CAUTION

Product Damage

- Do not use the console as a hand support when moving the appliance.
- Personal property or appliance damage may result.

STEP 2 Move the automatic washer away from the wall so you can work on it.

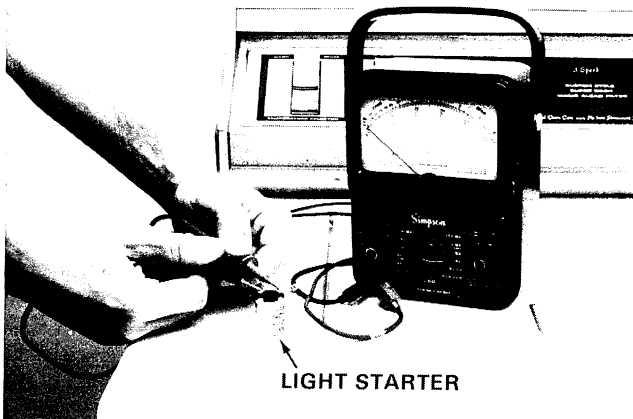


STEP 3 Remove the light starter by turning to the left.

TESTING

STEP 4 You must know how to use an ohmmeter.

STEP 5 Set the ohmmeter scale to the lowest ohms setting and ZERO the meter. See the instructions that came with your ohmmeter.



STEP 6 Touch one ohmmeter probe to one of the terminals.

STEP 7 Touch the other ohmmeter probe to the other terminal.

STEP 8 The ohmmeter should show an open circuit. If not, the light starter is bad and needs replacing.

REPLACEMENT

STEP 9 Place the new light starter in the socket and turn to the right.

⚠ CAUTION

Product Damage

- Do not use the console as a hand support when moving the appliance.
- Personal property or appliance damage may result.

STEP 10 Move the automatic washer back to its location.

STEP 11 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

PROCEDURE 10

Fluorescent Light Testing and/or Replacement

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

OHMMETER REQUIRED

This fluorescent light, located inside the console, is used to light up the controls for easier viewing. There are two locations where the fluorescent light may be located, either at the top of the console or at the bottom.

See Type A for top mount or Type B for bottom mount.

TYPE A

STEP 1 Disconnect the electrical power supply (section B).

REPLACEMENT



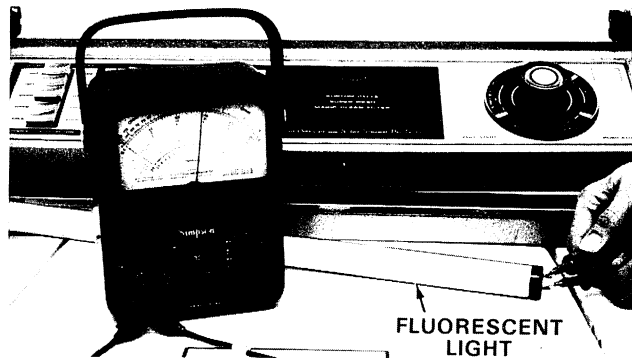
STEP 2 To remove the fluorescent light located at the top of the console, place your thumbs at each end under the edge of the trim, and lift up.

STEP 3 Turn the fluorescent light either way and gently pull to remove.

TESTING

STEP 4 You must know how to use an ohmmeter.

STEP 5 Refer to the instructions that came with your volt-ohmmeter to find the proper scale to measure 7-12 ohms. Set the ohms scale and ZERO the meter.



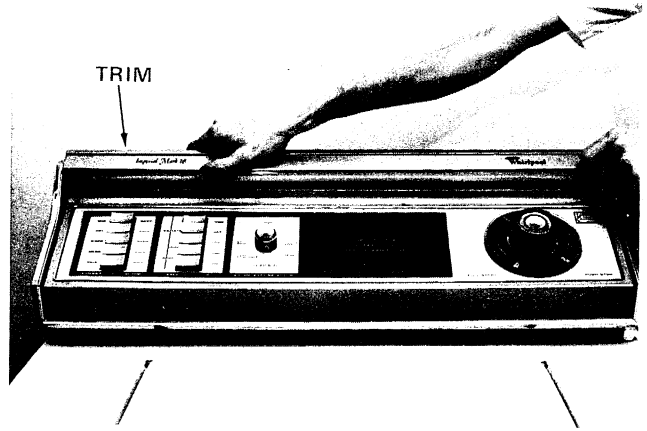
STEP 6 Test at the same end of the fluorescent light by touching one of the ohmmeter probes to one of the pins.

STEP 7 Touch the other ohmmeter probe to the other pin.

STEP 8 The ohmmeter should show between 7-12 ohms on the ohms scale.

STEP 9 If you do not get this reading, the fluorescent light is bad and needs replacing.

STEP 10 Place the new fluorescent light into the sockets, lightly push and turn to secure.

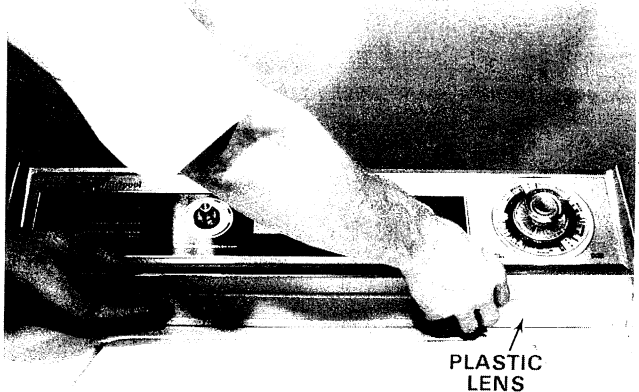


STEP 11 Replace the trim by inserting the back first, then snapping the front into place.

STEP 12 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

TYPE B

STEP 1 Disconnect the electrical power supply (section B).



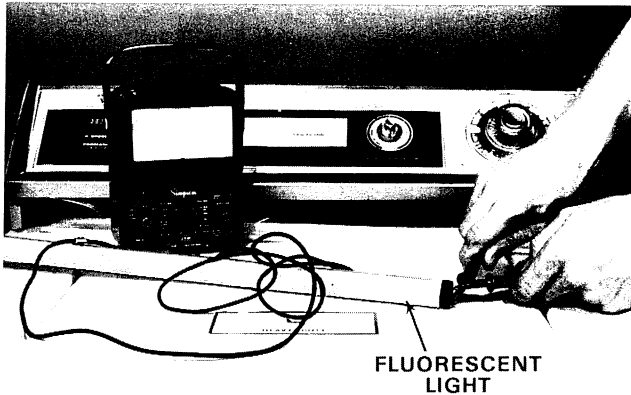
STEP 2 To remove the fluorescent light located at the bottom of the console, lift up on the top of the plastic lens. The bottom of the lens will pop out.

STEP 3 Turn the fluorescent light either way and gently pull to remove.

TESTING

STEP 4 You must know how to use an ohmmeter.

STEP 5 Refer to the instructions that came with your volt-ohmmeter to find the proper scale to measure 7-12 ohms. Set the ohms scale and ZERO the meter.



STEP 6 Test at the same end of the fluorescent light by touching one of the ohmmeter probes to one of the pins.

STEP 7 Touch the other ohmmeter probe to the other pin.

STEP 8 The ohmmeter should show between 7-12 ohms on the ohms scale.

STEP 9 If you do not get this reading, the fluorescent light is bad and needs replacing.

REPLACEMENT

STEP 10 Place the new fluorescent light into the sockets, lightly push and turn to secure.



STEP 11 Replace the plastic light lens by inserting the top end in first, then push on the bottom of the lens until it snaps into place.

STEP 12 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

PROCEDURE 11

Light Socket Testing and/or Replacement

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

OHMMETER REQUIRED

There are two fluorescent light sockets, one located at each end of the console. The fluorescent light fits into these sockets.

STEP 1 Disconnect the electrical power supply (section B).

STEP 2 Remove the fluorescent light (section J, proc. 10; Type A or Type B).

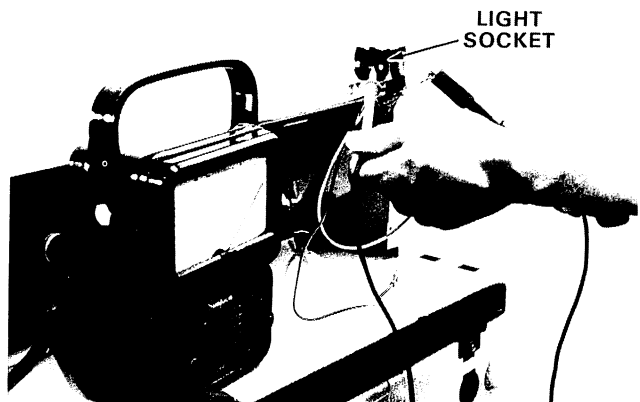
STEP 3 Remove the console panels (section J, proc. 4, steps 2-4; plus Type A or Type B).

TESTING

STEP 4 Remove one wire at a time, carefully labeling each wire according to the terminal it was hooked to. This procedure should assure that the right wire is reconnected to the right terminal.

STEP 5 You must know how to use an ohmmeter.

STEP 6 Set the ohmmeter scale to the lowest ohms setting and ZERO the meter. See the instructions that came with your ohmmeter.



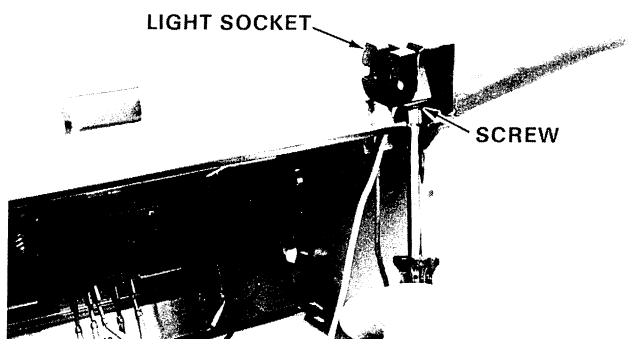
STEP 7 Place one ohmmeter probe in one of the contacts.

STEP 8 Touch the other ohmmeter probe to the wire terminal coming from the same contact.

STEP 9 The ohmmeter should show ZERO resistance (continuity). If not, the light socket is bad and needs replacing.

STEP 10 Check the other contact and wire the same way.

REPLACEMENT



STEP 11 Using a nutdriver or socket wrench, remove the one screw. The wires should have been disconnected already because of testing.

STEP 12 Place the new light socket on the control bracket.

STEP 13 Using a nutdriver or socket wrench, insert the screw and tighten.

STEP 14 Reconnect the wires to the proper terminals as previously marked.

⚠ WARNING

Electrical Shock Hazard

- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

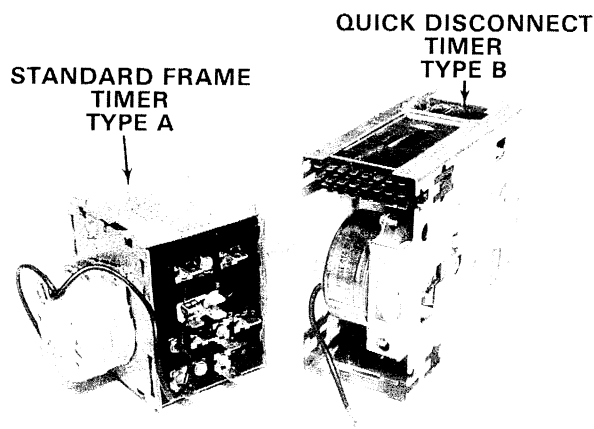
STEP 15 Replace the console panels (section J, proc. 4; Type A or Type B).

STEP 16 Replace the fluorescent light (section J, proc. 10; Type A or Type B).

STEP 17 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

PROCEDURE 12

Timer Testing and/or Replacement



See page 156, illus. no. 40 for location of part.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

OHMMETER REQUIRED

The timer is located inside the console and is the heart of the automatic washer. Its function is to control the timing of the automatic washer.

All timers used on automatic washers operate the same, but are somewhat different in looks. Due to functions or features of different models, some timers have more terminals and internal switches (contacts) than others.

On standard frame timers, the different colored harness wires are separate and plug onto separate terminals which are also marked.

On quick-disconnect timers, the different colored harness wires are placed inside either a black or white block which plugs into the timer. These blocks are colored to match the words black or white stamped on the timer. The possibility of wiring the timer wrong is greatly reduced.

Before attempting any checks on the timer, you must read and understand the WIRING DIAGRAM and TIMER SEQUENCE CHART, (section H).

See Type A for standard frame timers or Type B for quick disconnect timers.

TYPE A

STEP 1 Disconnect the electrical power supply (section B).

STEP 2 See example in steps 10-16. Turn the timer knob to the point in the cycle you suspect is bad.

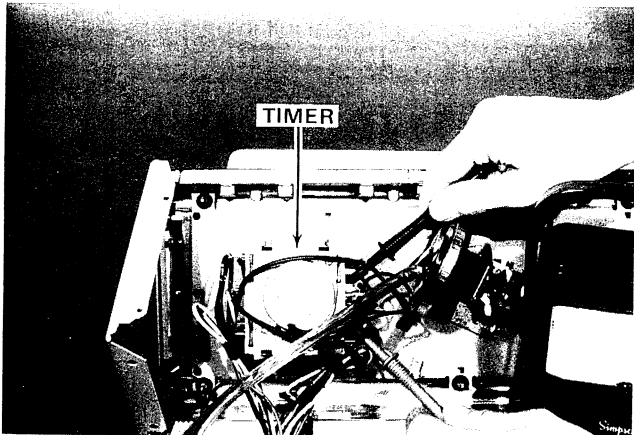
STEP 3 Remove the console panels (section J, proc. 4, steps 2-4; plus Type A or Type B).

TESTING

STEP 4 You must know how to use an ohmmeter.

STEP 5 Set the ohmmeter scale to the lowest ohms setting and zero the meter. See the instructions that came with your ohmmeter.

STEP 6 Remove the wire from the timer terminal in that part of the cycle you suspect is bad.



STEP 7 Touch one ohmmeter probe to this timer terminal.

STEP 8 Touch the other ohmmeter probe to the other timer terminal in that part of the cycle you suspect is bad.

STEP 9 The ohmmeter should show ZERO resistance (continuity) in that part of the cycle. If not, the timer is bad and needs replacing.

STEP 10 EXAMPLE: Move the timer dial to the start of any wash cycle. PROBLEM—Automatic washer does not fill.

STEP 11 Touch one ohmmeter probe to terminal P.

STEP 12 Touch the other ohmmeter probe to terminal G-BK.

STEP 13 The ohmmeter should show ZERO resistance (continuity). If not, the timer is bad and needs replacing.

STEP 14 Touch one ohmmeter probe to terminal P.

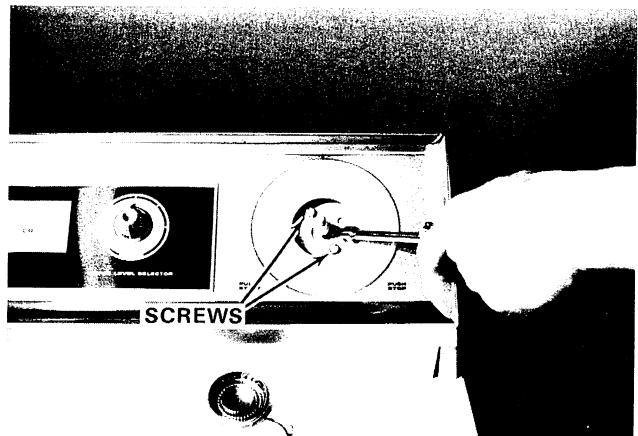
STEP 15 Touch the other ohmmeter probe to terminal BR.

STEP 16 The ohmmeter should show ZERO resistance (continuity). If not, the timer is bad and needs replacing.

REPLACEMENT

STEP 17 Remove the timer knob (section J, proc. 1, step 2).

STEP 18 Remove the timer dial (section J, proc. 2; Type A or Type B).



STEP 19 Using a screwdriver or nutdriver, remove the two screws from the front of the console.

STEP 20 Remove one wire at a time, carefully labeling each wire according to the terminal marking on the timer. This procedure should assure that the right wire is reconnected to the right terminal.

STEP 21 Carefully remove the timer.

STEP 22 Place the new timer on the control bracket.

STEP 23 Insert the two screws from the console front and tighten.

STEP 24 Reconnect the wires to the proper terminals as previously marked.

⚠ WARNING

Electrical Shock Hazard

- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

STEP 25 Replace the console panels (section J, proc. 4; Type A or Type B).

STEP 26 Replace the timer dial (section J, proc. 2; Type A or Type B).

STEP 27 Replace the timer knob (section J, proc. 1).

STEP 28 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

STEP 29 Run a cycle check (section F, proc. 2).

TYPE B

STEP 1 Disconnect the electrical power supply (section B).

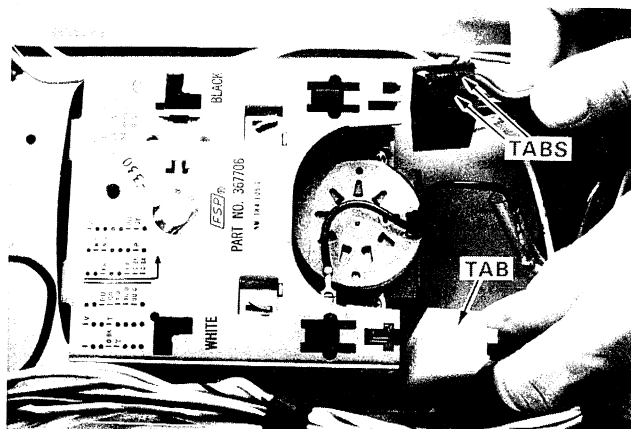
STEP 2 See example in steps 10-16. Turn the timer knob to the point in the cycle you suspect is bad.

STEP 3 Remove the console panels (section J, proc. 4, steps 2-4; plus Type A or Type B).

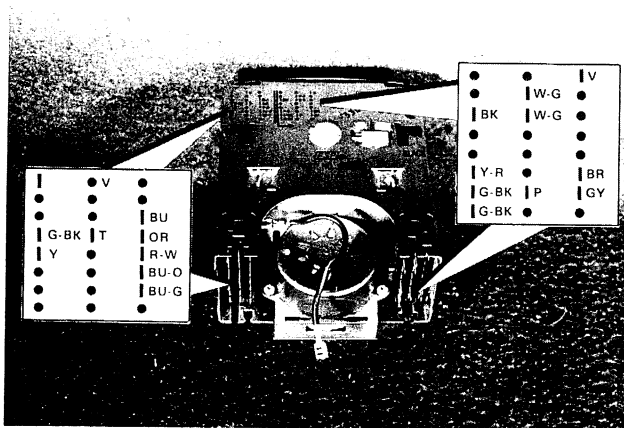
TESTING

STEP 4 You must know how to use an ohmmeter.

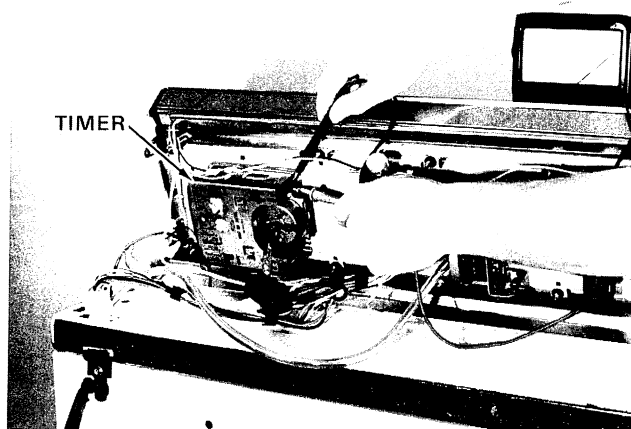
STEP 5 Set the ohmmeter scale to the lowest ohms setting and ZERO the meter. See the instructions that came with your ohmmeter.



STEP 6 Remove both the white and black disconnect blocks. Some models only have the one (black) disconnect block. The blocks have tabs on each end which must be pressed while pulling on the block.



Instead of coding timer terminals like the standard frame timers, a chart of each wiring block is printed on the back of the timer. The line through the chart separates the two blocks. Letters indicate active terminals while the black dots identify blank terminals.



STEP 7 Touch one ohmmeter probe to the timer terminal specified for this function.

CONSOLE AREA—SECTION J—PROCEDURE 13

STEP 8 Touch the other ohmmeter probe to the other timer terminal specified for this function.

STEP 9 The ohmmeter should show ZERO resistance (continuity). If not, the timer is bad and needs replacing.

STEP 10 EXAMPLE: Move the timer dial to the start of any WASH cycle. **PROBLEM**—Automatic washer does not fill.

STEP 11 Touch one ohmmeter probe to terminal P.

STEP 12 Touch the other ohmmeter probe to terminal G-BK.

STEP 13 The ohmmeter should show ZERO resistance (continuity). If not, the timer is bad and needs replacing.

STEP 14 Touch one ohmmeter probe to terminal P.

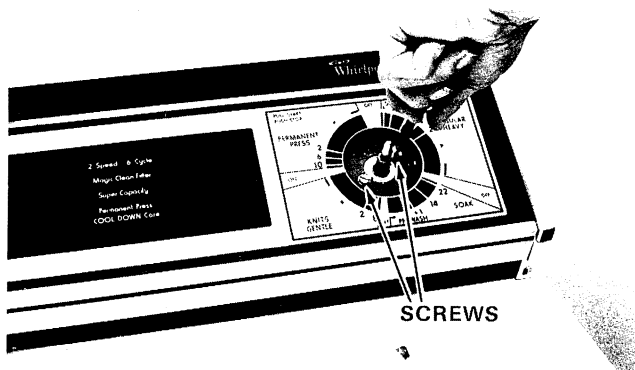
STEP 15 Touch the other ohmmeter probe to terminal BR.

STEP 16 The ohmmeter should show ZERO resistance (continuity). If not, the timer is bad and needs replacing.

REPLACEMENT

STEP 17 Remove the timer knob (section J, proc. 1).

STEP 18 Remove the timer dial (section J, proc. 2; Type A or Type B).



STEP 19 Using a screwdriver or nutdriver, remove the two screws from the front of the console.

STEP 20 Carefully remove the timer.

STEP 21 Place the new timer on the control bracket.

STEP 22 Insert the two screws from the console front and tighten.

STEP 23 Replace the colored blocks in the proper end marked BLACK or WHITE on the timer.

⚠ WARNING

Electrical Shock Hazard

- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

STEP 24 Replace the console panels (section J, proc. 4; Type A or Type B).

STEP 25 Replace the timer dial (section J, proc. 2; Type A or Type B).

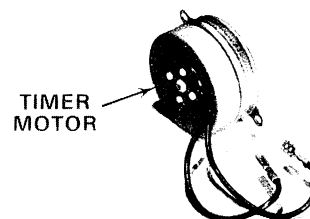
STEP 26 Replace the timer knob (section J, proc. 1).

STEP 27 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

STEP 28 Run a cycle check (section F, proc. 2).

PROCEDURE 13

Timer Motor Testing and/or Replacement



See page 156, illus. no. 41 for location of part.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

OHMMETER REQUIRED

This part is located on the timer assembly and is used to advance the timer through the cycles.

STEP 1 Disconnect the electrical power supply (section B).

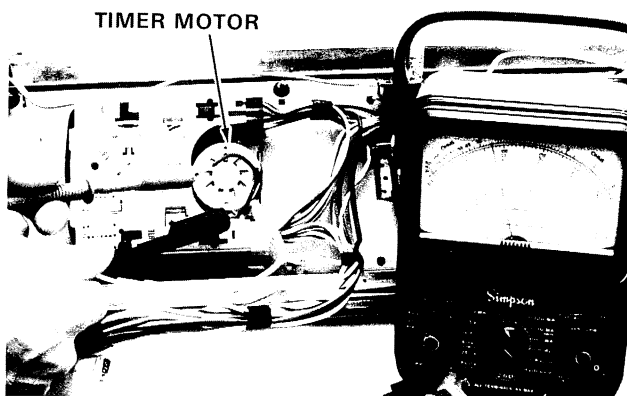
STEP 2 Remove the console panels (section J, proc. 4, steps 2-4; plus Type A or Type B).

TESTING

STEP 3 Remove one wire at a time, carefully labeling each wire according to the terminal marking on the timer motor. This procedure should assure that the right wire is reconnected to the right terminal.

STEP 4 You must know how to use an ohmmeter.

STEP 5 Refer to the instructions that came with your volt-ohmmeter to find the proper scale to measure 2,000-3,000 ohms. Set the ohms scale and ZERO the meter.



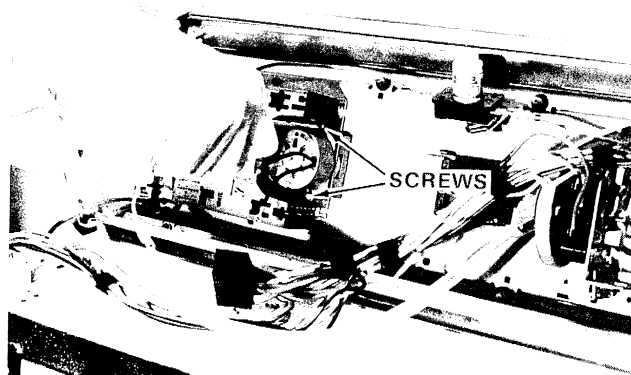
STEP 6 Touch one of the ohmmeter probes to one of the timer motor wire terminals.

STEP 7 Touch the other ohmmeter probe to the other timer motor wire terminal.

STEP 8 The ohmmeter should show between 2,000-3,000 ohms on the ohms scale. If you do not get this reading, the timer motor is bad and needs replacing.

NOTE: IF YOU GET THIS READING, THE TIMER MOTOR COULD STILL BE BAD FROM A MECHANICAL PROBLEM INSIDE THE MOTOR. REPLACE THE MOTOR OR HAVE THIS CONDITION CHECKED BY RUNNING A VOLTAGE CHECK. FOR YOUR PERSONAL SAFETY, THIS CHECK MUST BE DONE BY AN AUTHORIZED WHIRLPOOL FACTORY SERVICE BRANCH.

REPLACEMENT



STEP 9 Using a small screwdriver or nutdriver, remove the two screws holding the motor on the timer.

STEP 10 Place the new timer motor on the timer and tighten the two screws.

STEP 11 Reconnect the wires to the proper terminals as previously marked.

⚠ WARNING

Electrical Shock Hazard

- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

STEP 12 Replace the console panels (section J, proc. 4; Type A or Type B).

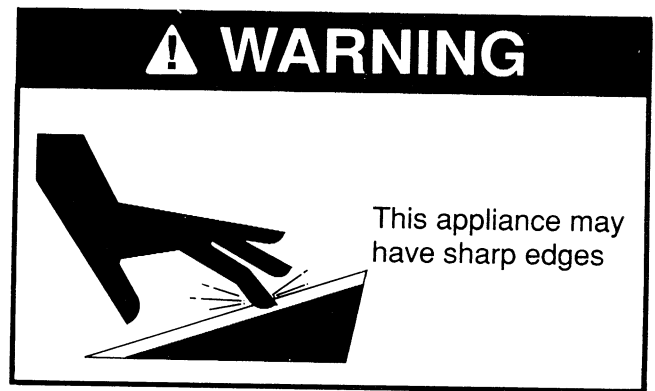
STEP 13 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

STEP 14 Run a cycle check (section F, proc. 2).

SECTION K

Top and Lid Area

SECTION A MUST BE CAREFULLY READ BEFORE ANY REPAIR OR TESTING PROCEDURES ARE ATTEMPTED.



PROCEDURE	PAGE
1 Top Access	62
2 Lid, Hinge, Springs	63
3 Lid Switch, Lever	64
4 Bleach/Rinse Conditioner Bezel	68
5 Lid Strike	69

PROCEDURE 1

Top Access

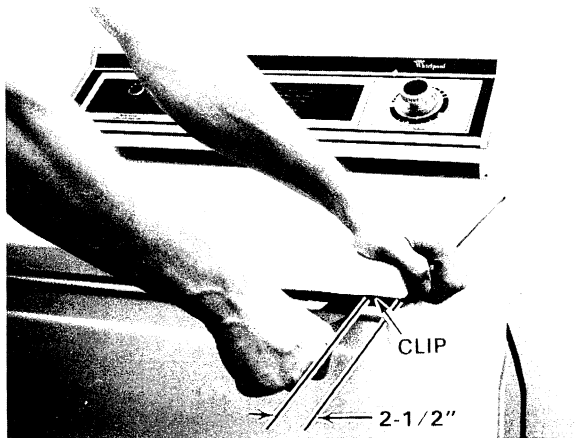
See page 156, illus. no. 22 for location of part.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

STEP 1 Disconnect the electrical power supply (section B).



STEP 2 When raising the top, always tape the lid shut.

STEP 3 Using a putty knife, place the blade between the top and cabinet in one corner, about 2-1/2 inches in from the edge.

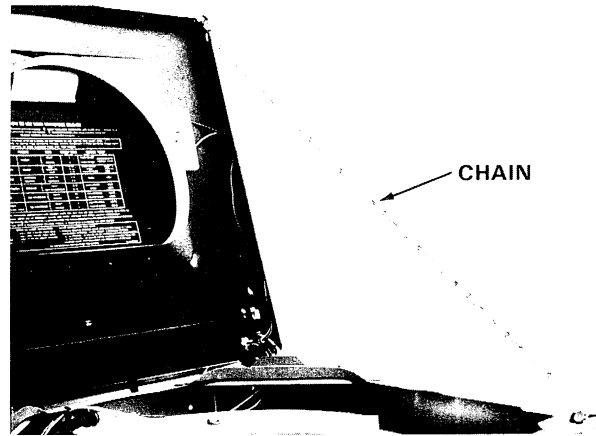
⚠ CAUTION

Product Damage

- Do not pry. This may cause you to ruin the finish.

STEP 4 Push in on the putty knife to release the clip while lifting up on the corner of the top. Do the same to the other front corner.

STEP 5 Slowly raise the top. On the brush manual-clean filter models, there is a hose (located in the right front corner) which needs to be disconnected. Use pliers or a screwdriver, depending on the type of clamp used, then slide the clamp off the housing port and remove the hose.



STEP 6 Lift up on the top. A 36-inch chain with "s" hooks at each end is very useful in supporting the top.

STEP 7 Place one of the "s" hooks in the corner brace of the top.

STEP 8 Place the other "s" hook in the corner brace on the cabinet.

REPLACEMENT

⚠ WARNING

Electrical Shock Hazard

- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

⚠ WARNING

Personal Injury Hazard

- Be careful when lowering the top.
- Failure to do so could result in pinched fingers or hand.

STEP 9 Slowly lower the top, removing the chain.

STEP 10 On the brush manual-clean filter models, there is a hose (located in the right front corner) which needs to be reconnected. Use pliers or a screwdriver, depending on the type of clamp used. Slide the hose onto the housing port, then slide the clamp onto the housing port.

STEP 11 Press down on the front corners of the top until it snaps in place.

STEP 12 Remove the tape from the lid.

STEP 13 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

PROCEDURE 2

Lid, Hinge and Spring Replacement

See page 156, illus. no.'s 13, 16, 17 and 21 for location of parts.

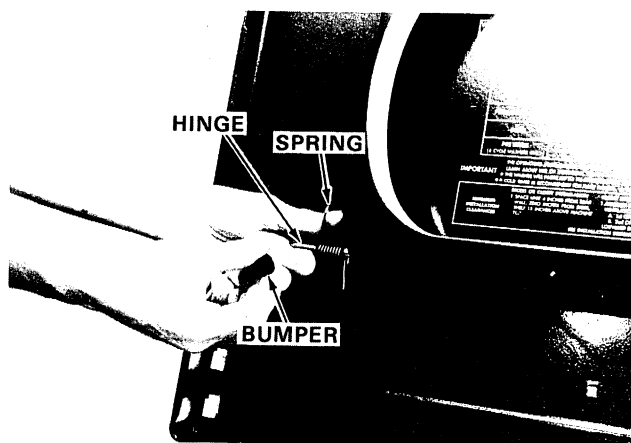
⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

STEP 1 Disconnect the electrical power supply (section B).

STEP 2 Raise the top (section K, proc. 1).

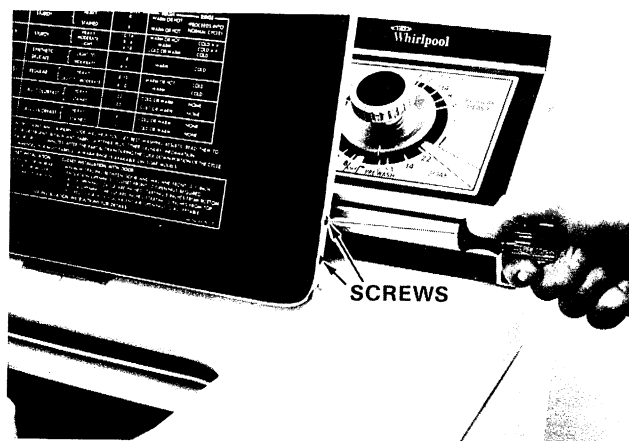


STEP 3 Remove the rubber bumpers from the lid hinges. Your washer might only have one bumper.

STEP 4 Be careful when disconnecting the spring from the hinge. Hold on to the spring, gently remove the looped end from the hinge and slide the spring off.

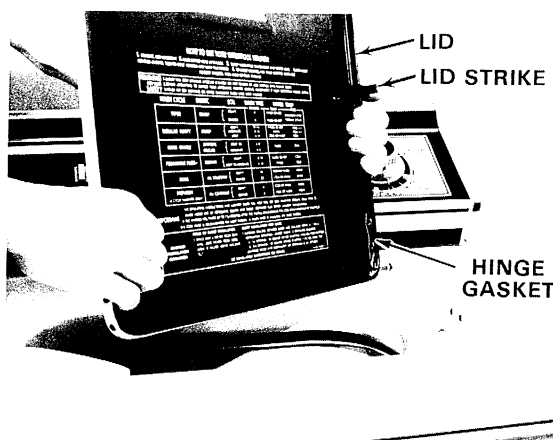
STEP 5 Remove the spring or springs.

STEP 6 Lower the top, remove the tape and open the lid.



STEP 7 Using a screwdriver, remove the two screws from one side of the lid.

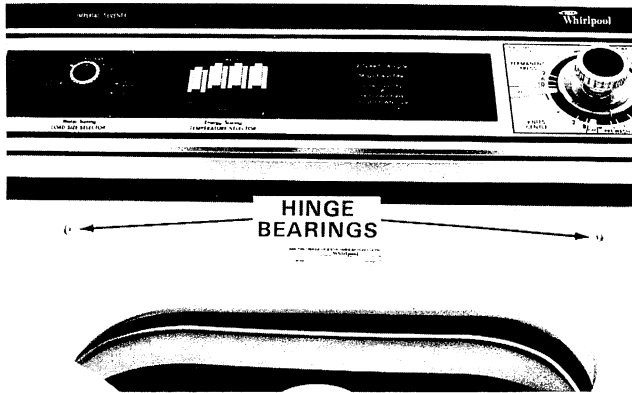
STEP 8 Pull and turn the hinge to remove from the top and lid.



STEP 9 To remove the other hinge, pull and turn the lid.

STEP 10 Using a screwdriver, remove the other two screws holding the other hinge.

STEP 11 Check and replace the hinge gaskets if they have started to rot or crack.

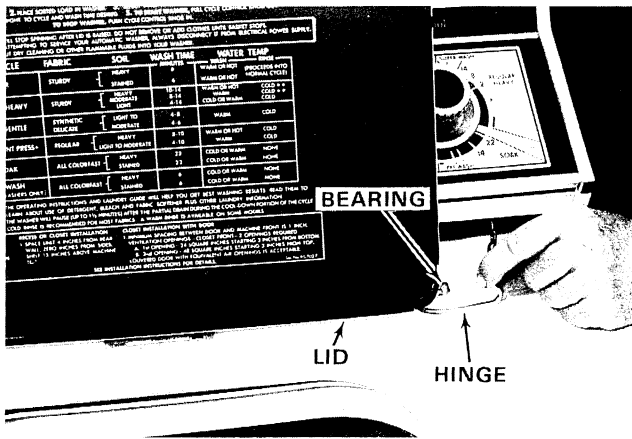


STEP 12 Check the plastic bearings in the hole on both sides of the top and replace if bad.

REPLACEMENT

STEP 13 Using a screwdriver, tighten one of the new gaskets and hinges to the lid with the two screws.

STEP 14 Insert the new lid and hinge through the plastic bearing in the top.



STEP 15 Insert the other hinge from inside the lid through the plastic bearing in the top.

STEP 16 Place the other gasket between the lid and hinge.

STEP 17 Using a screwdriver, insert the two screws and tighten.

STEP 18 Tape the lid shut.

STEP 19 Raise the top (section K, proc. 1).

STEP 20 Insert the new spring on the left hinge with the straight leg pointing to the back or down.

STEP 21 Insert the new spring on the right hinge if used, with the straight leg pointing to the back or down.

STEP 22 Place the new rubber bumpers on each end of the hinges. Your washer might only have one.

⚠ WARNING

Electrical Shock Hazard

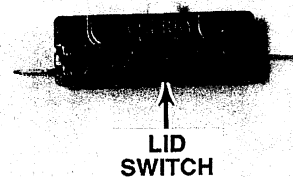
- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

STEP 23 Lower the top (section K, proc. 1).

STEP 24 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

PROCEDURE 3

Lid Switch/Lever Testing and/or Replacement



See page 156, illus. no's. 88 and 89 for location of parts.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

OHMMETER REQUIRED

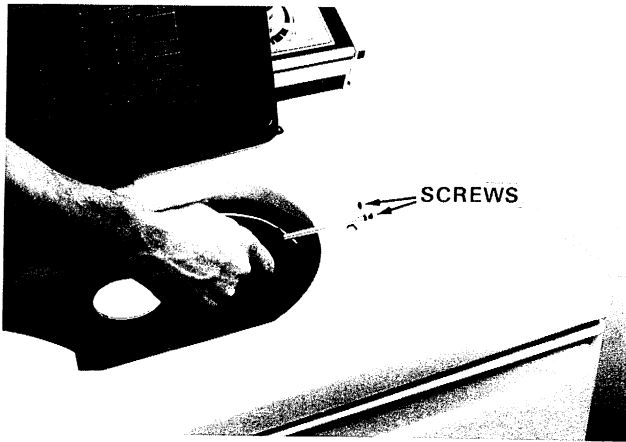
The purpose of the lid switch is to stop the automatic washer during the spin cycle when the lid is opened.

There were two types of lid switches used. See type A for the switch mounted on the right side of the lid opening, or Type B for the switch mounted in the rear of the lid opening.

TYPE A

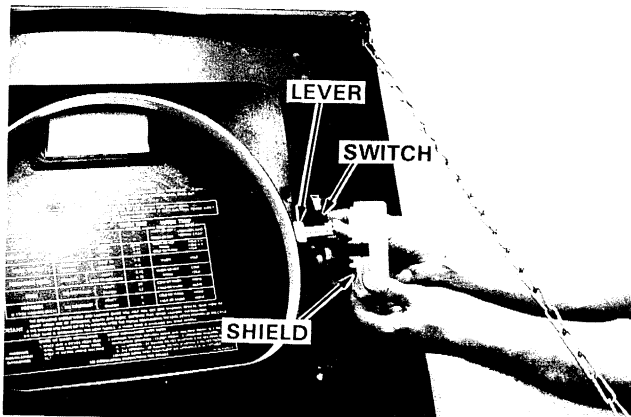
STEP 1 Disconnect the electrical power supply (section B).

STEP 2 Open the lid.



STEP 3 Using a screwdriver, remove the two screws on the right side of the lid well.

STEP 4 Raise the top (section K, proc. 1).



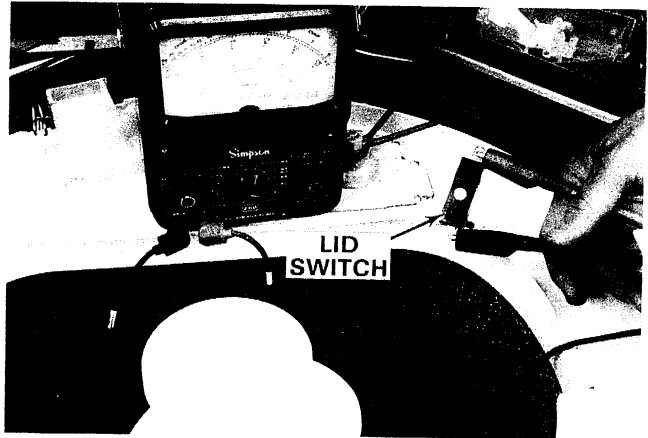
STEP 5 Remove the shield and lever from the lid switch.

TESTING

STEP 6 Remove one wire at a time, carefully labeling each wire according to the terminal marking on the lid switch. This procedure should assure that the right wire is reconnected to the right terminal.

STEP 7 You must know how to use an ohmmeter.

STEP 8 Set the ohmmeter scale to the lowest ohms setting and ZERO the meter. See the instructions that came with your ohmmeter.



STEP 9 With the button up, touch one of the ohmmeter probes to one of the terminals.

STEP 10 Touch the other ohmmeter probe to the other terminal.

STEP 11 The ohmmeter should show an open circuit when the button is up. If not, the lid switch is bad and needs replacing.

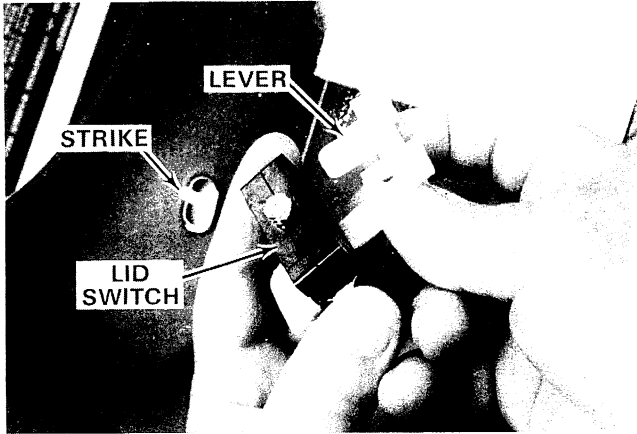


STEP 12 With the button pressed in, touch one of the ohmmeter probes to one of the terminals.

STEP 13 Touch the other ohmmeter probe to the other terminal.

STEP 14 The ohmmeter should show ZERO resistance (continuity). If not, the lid switch is bad and needs replacing.

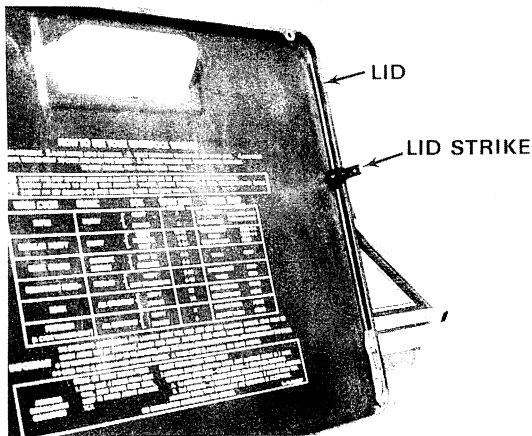
REPLACEMENT



STEP 15 Place the new lid switch in the new lever.

STEP 16 Remove the tape and carefully open the lid, holding the lid switch. Insert the two screws and turn until they start to grab.

STEP 17 Replace the new plastic shield between the top and lid switch, and snap this on the screws. Tighten the screws.



STEP 18 Check the strike on the right side of the lid and replace if it is cracked or broken.

This strike, when the lid is closed, sticks through a slot in the top and pushes down on the lever. The lever then pushes on the lid switch button.

STEP 19 Reconnect the wires to the proper terminals as previously marked.

⚠ WARNING

Electrical Shock Hazard

- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

STEP 20 Lower the top (section K, proc. 1).

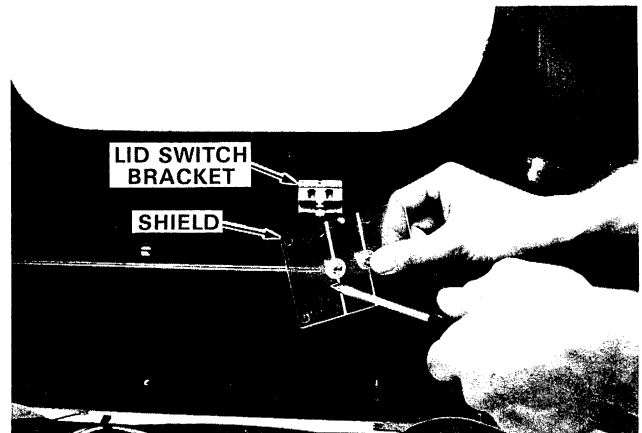
STEP 21 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

STEP 22 Run a cycle check (section F, proc. 2).

TYPE B

STEP 1 Disconnect the electrical power supply (section B).

STEP 2 Raise the top (section K, proc. 1).



STEP 3 Using a screwdriver or nutdriver, remove the two screws located in the back holding the shield to the bracket.

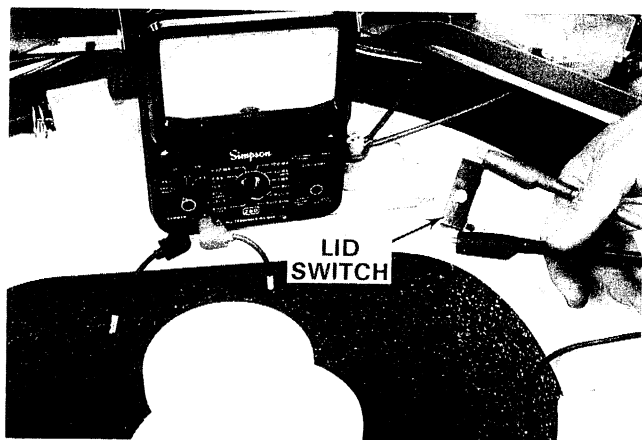
STEP 4 Remove the plastic shield.

TESTING

STEP 5 Remove one wire at a time, carefully labeling each wire according to the terminal marking on the lid switch. This procedure should assure that the right wire is reconnected to the right terminal.

STEP 6 You must know how to use an ohmmeter.

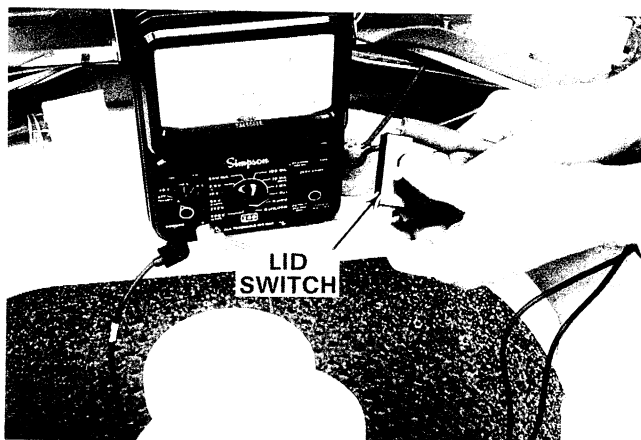
STEP 7 Set the ohmmeter scale to the lowest ohms setting and ZERO the meter. See the instructions that came with your ohmmeter.



STEP 8 With the button up, touch one of the ohmmeter probes to one of the terminals.

STEP 9 Touch the other ohmmeter probe to the other terminal.

STEP 10 The ohmmeter should show an open circuit when the button is up. If not, the lid switch is bad and needs replacing.



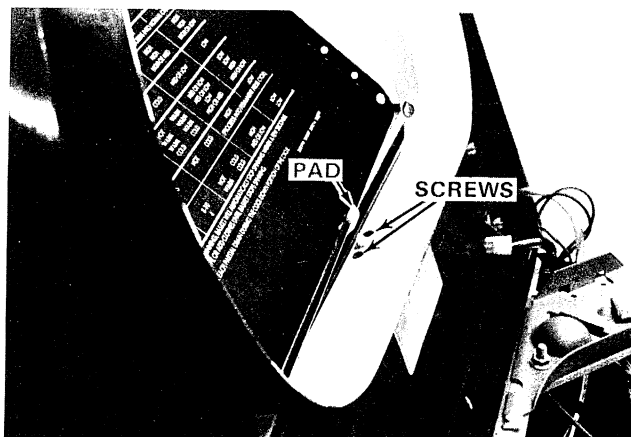
STEP 11 With the button pressed in, touch one of the ohmmeter probes to one of the terminals.

STEP 12 Touch the other ohmmeter probe to the other terminal.

STEP 13 The ohmmeter should show ZERO resistance (continuity). If not, the lid switch is bad and needs replacing.

REPLACEMENT

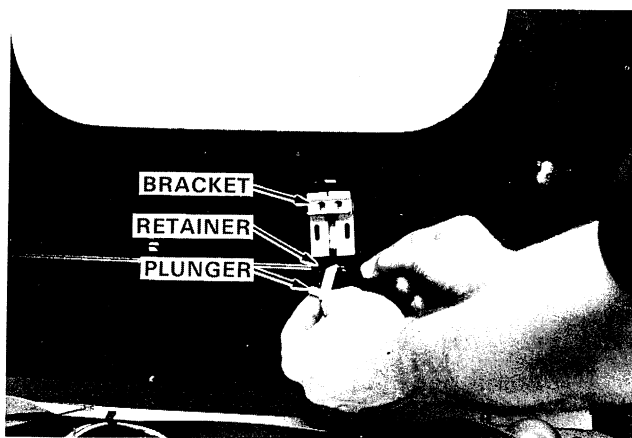
STEP 14 If the lid switch bracket needs replacing, lower the top and remove the lid (section K, proc. 2).



STEP 15 Using a screwdriver, remove the two screws in the back of the lid well.

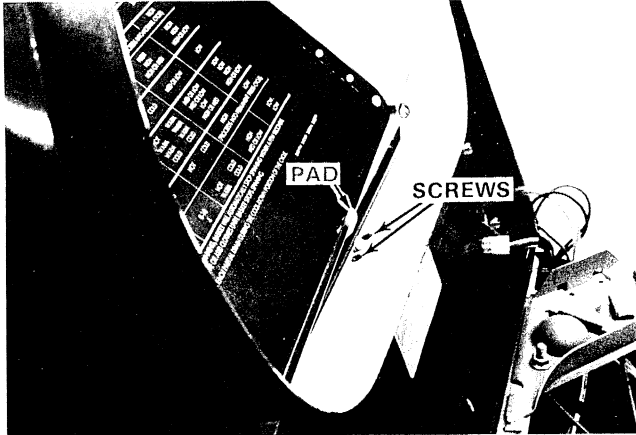
STEP 16 Raise the top and place the new bracket onto the underneath side of the top.

STEP 17 Using a screwdriver, insert the two screws in the back lid well and tighten.



STEP 18 Using a screwdriver, insert the two screws, replace the new plunger, lid switch, retainer shield, and tighten the screws.

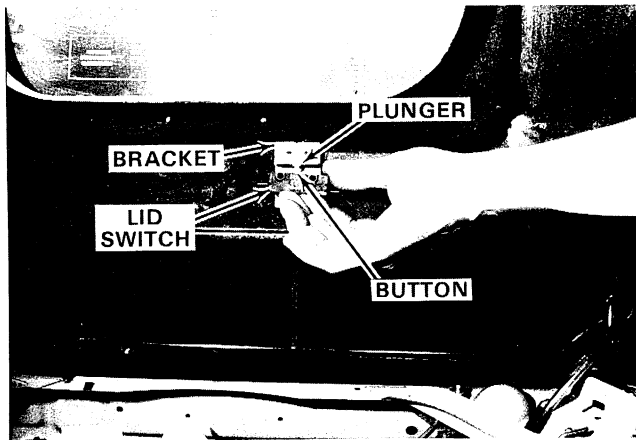
STEP 19 Reconnect the wires to the proper terminals as previously marked.



STEP 20 Make sure the pad is snapped in place on the rear of the lid.

This pad, when the lid closes, presses on the plunger which in turn presses on the lid switch button.

STEP 21 Replace the lid if removed (section K, proc. 2).



STEP 22 ADJUSTMENT: Tape the lid shut and raise the top (section K, proc. 1, steps 6-8).

STEP 23 Push the lid switch toward the plunger until the switch button is completely pressed in.

STEP 24 Using a screwdriver, tighten the two screws.

⚠ WARNING

Electrical Shock Hazard

- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

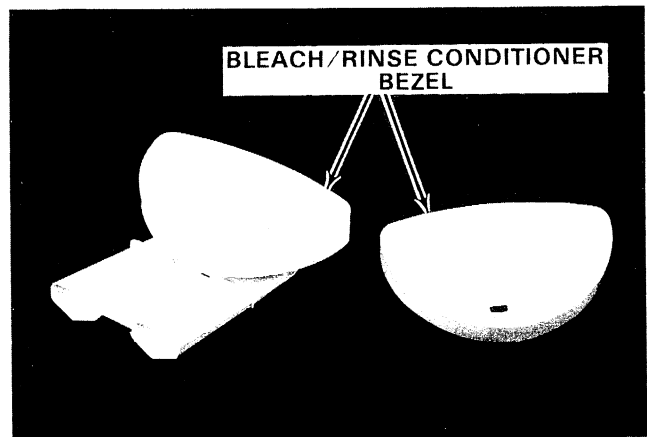
STEP 25 Lower the top (section K, proc. 1).

STEP 26 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

STEP 27 Run a cycle check (section F, proc. 2).

PROCEDURE 4

Bleach/Rinse Conditioner Bezel Replacement



See page 156, illus. no. 77 for location of part.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

This bezel is located in the left front corner, under the lid.

Depending on the features, pour the liquid into the proper side of the bezel.

Use only liquid bleach in the bleach side of the dispenser.

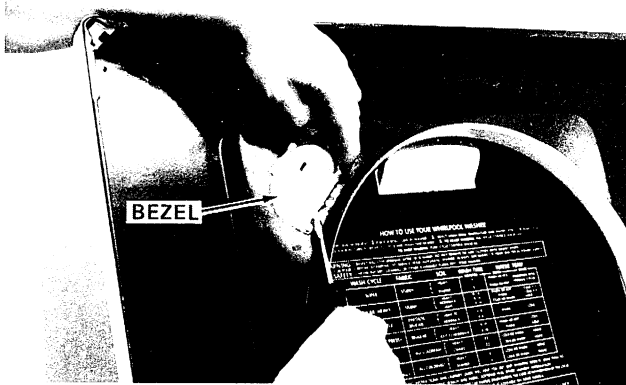
Dilute the rinse conditioner liquid before pouring in the rinse conditioner side of the dispenser.

STEP 1 Disconnect the electrical power supply (section B).

STEP 2 Raise the top (section K, proc. 1).

PROCEDURE 5

Lid Strike Replacement



STEP 3 Using a screwdriver, push in on one stud while pushing in the other stud with your hand. Then push through the top.

REPLACEMENT

⚠ WARNING

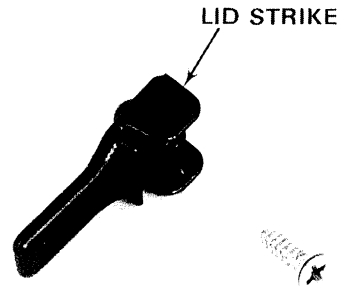
Electrical Shock Hazard

- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

STEP 4 Lower the top (section K, proc. 1).

STEP 5 Push down on the new bezel until it snaps in the top.

STEP 6 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.



See page 156, illus. no. 94 for location of part.

⚠ WARNING

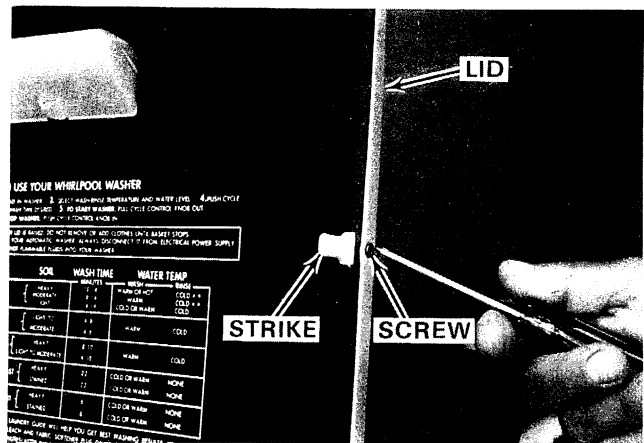
Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

This strike, when the lid is closed, sticks through a slot in the top and pushes down on the lever. The lever then pushes on the lid switch button.

STEP 1 Disconnect the electrical power supply (section B).

STEP 2 Open the lid.



STEP 3 Using a screwdriver, remove the screw holding the lid strike to the lid.

SECTION L

Tub and Basket Area

SECTION A MUST BE CAREFULLY READ BEFORE ANY REPAIR OR TESTING PROCEDURES ARE ATTEMPTED.



PROCEDURE	PAGE
1 Snubber, Spring, Plate	72
2 Water Inlet	73
3 Tub Ring, Gasket, Clips	75
4 Agitator Cap, Stud, Agitator	78
5 Locknut, Basket, Drive Block	80
6 Side Check Valve	82
7 Side Funnel	84
8 Air Pressure Dome	85
9 Tub.....	86

PROCEDURE 1

Snubber, Spring and Plate Replacement

See page 155, illus. no.'s 34 and 35 for location of parts.

⚠ WARNING

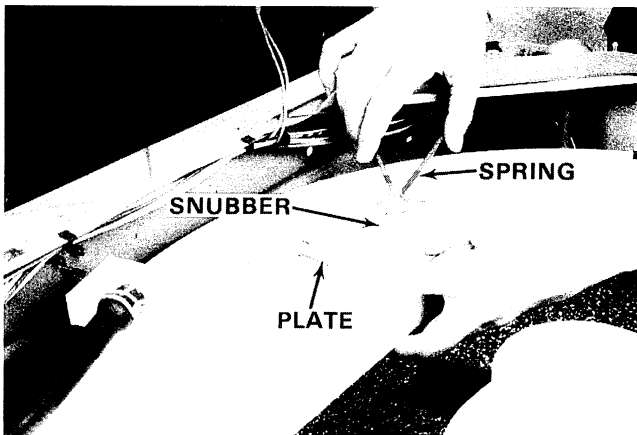
Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

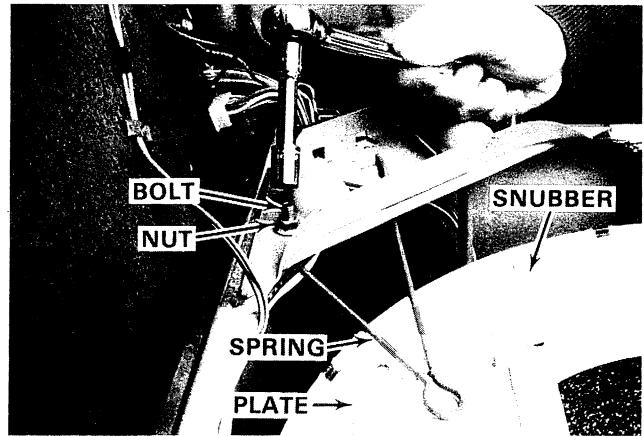
The purpose of the snubber is to reduce the movement of the base and tub during spin. The snubber rides on a stainless steel or porcelain plate. Snubbers sometimes squeak if water or soap splashes on the plate. To stop the squeak, the snubber should be rubbed against a rough surface such as a cement block.

STEP 1 Disconnect the electrical power supply (section B).

STEP 2 Raise the top (section K, proc. 1).

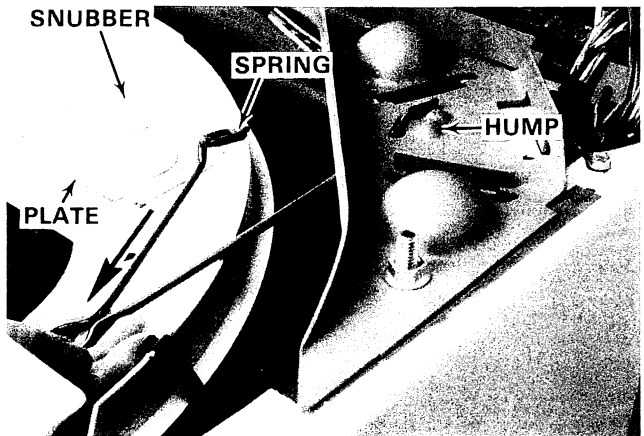


STEP 3 Lift up on the spring to remove the snubber. Clean the bottom of the snubber by rubbing with sandpaper or rubbing against a rough surface such as a cement block. This should stop any squeaking noise.



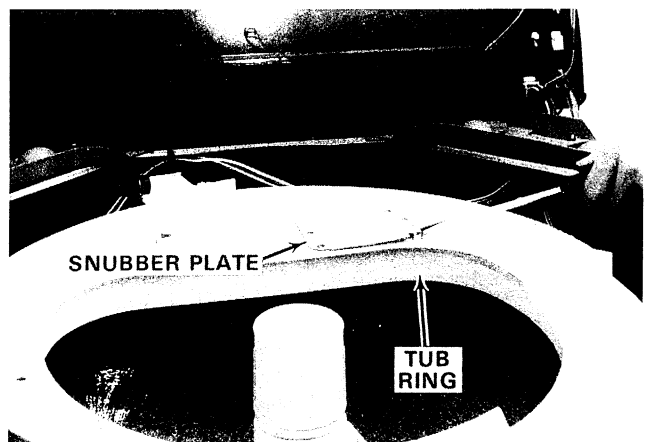
STEP 4 To remove the spring, use a nutdriver or socket wrench and remove the nut.

STEP 5 Remove the bolt from the bottom of the bracket.



STEP 6 Remove the spring by pulling toward the front of the washer while pushing down at the back of the spring.

This will release the end of the spring from the hump on the bracket.



STEP 7 To remove the snubber plate, use a flat blade screwdriver, insert between the plate and tub ring and pry up.

REPLACEMENT

STEP 8 Place the new snubber plate on the tub ring and push down until it snaps into place.

STEP 9 Insert the new spring with the offset leg under the bracket and through the slot.

NOTE: Make sure the wiring harness does not get tangled or in the way of the spring.

STEP 10 Lift and turn the spring toward the rear of the washer.

STEP 11 Turn until the offset of the spring snaps into place on the hump of the bracket.

STEP 12 Insert the shoulder bolt from underneath the bracket, through the loop of the spring, then through the bracket.

STEP 13 Using a nutdriver or socket wrench, assemble the nut and tighten.

STEP 14 Lift up on the spring and insert the new snubber.

⚠ WARNING

Electrical Shock Hazard

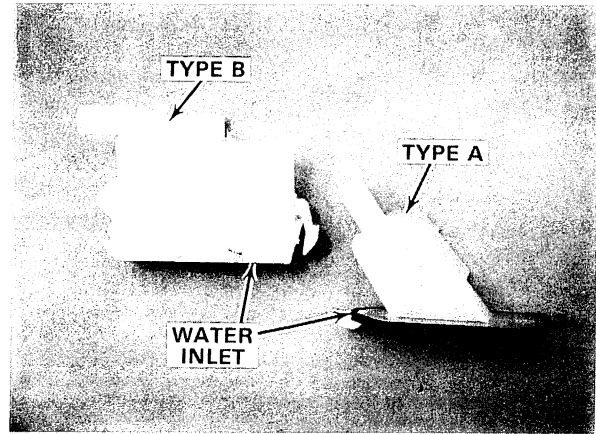
- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

STEP 15 Lower the top (section K, proc. 1).

STEP 16 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

PROCEDURE 2

Water Inlet Replacement



See page 158, illus. no. 6 for location of part.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

The purpose of the water inlet is to scatter the water as it enters the basket.

There were two types of water inlets used. See Type A for the water inlet held on by a screw, or Type B for the snap-in type.

TYPE A

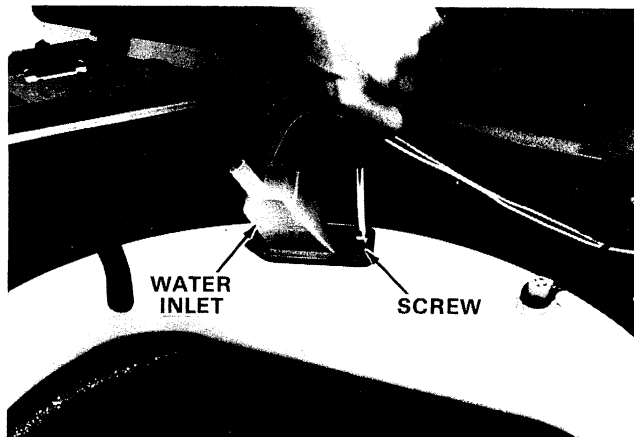
STEP 1 Disconnect the electrical power supply (section B).

STEP 2 Raise the top (section K, proc. 1).

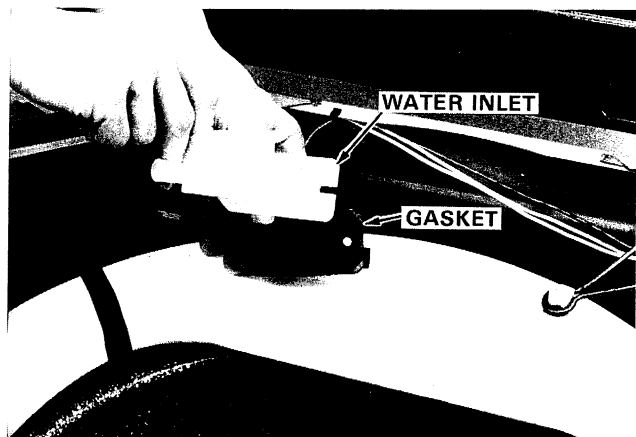
NOTE: Care should be taken when removing hoses, as they may have water in them.

STEP 3 Using pliers, slide the clamp down the hose, just off the port of the water inlet.

STEP 4 Remove the hose from the water inlet.



STEP 5 Using a nutdriver or screwdriver, remove the screw.



STEP 6 Carefully remove the water inlet by lifting up.

STEP 7 Check and replace the water inlet gasket if it has started to rot or crack or there is any sign of water leakage.

REPLACEMENT

STEP 8 Place the new gasket on the bottom of the new water inlet.

STEP 9 Place the water inlet on the tub ring.

STEP 10 Using a nutdriver or screwdriver, insert the screw and tighten.

STEP 11 Attach the hose to the port on the water inlet.

STEP 12 Using pliers, slide the clamp up the hose and onto the water inlet port.

⚠ WARNING

Electrical Shock Hazard

- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

STEP 13 Lower the top (section K, proc. 1).

STEP 14 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

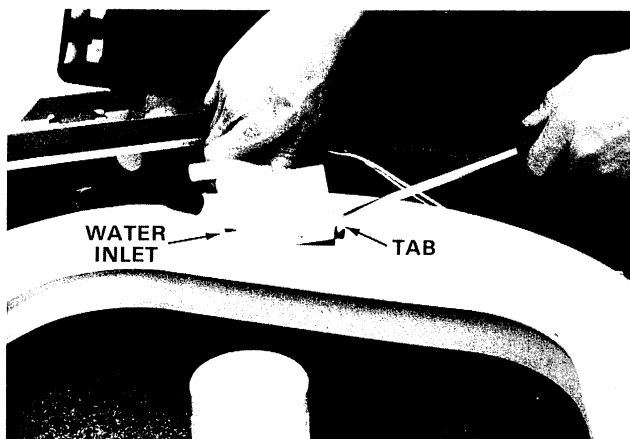
STEP 15 Run a cycle check (section F, proc. 2).

TYPE B

STEP 1 Disconnect the electrical power supply (section B).

STEP 2 Raise the top (section K, proc. 1).

NOTE: Care should be taken when removing hoses as they may have water in them.



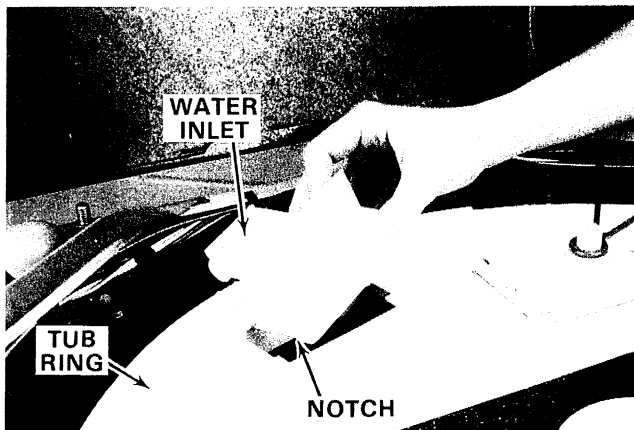
STEP 3 Using a screwdriver, push in on the locking tab while pulling up.

STEP 4 Using pliers, slide the clamp down the hose, just off the port of the water inlet.

STEP 5 Remove the hose from the water inlet.

STEP 6 Carefully remove the water inlet.

REPLACEMENT



STEP 7 Place the new water inlet notch in the slot in the tub ring and snap into place.

STEP 8 Attach the hose to the port on the water inlet.

STEP 9 Using pliers, slide the clamp up the hose and onto the water inlet port.

⚠ WARNING

Electrical Shock Hazard

- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

STEP 10 Lower the top (section K, proc. 1).

STEP 11 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

STEP 12 Run a cycle check (section F, proc. 2).

PROCEDURE 3

Tub Ring, Gasket and Clip Replacement

See page 158, illus. no.'s 9, 10, 35 and 36 for location of parts.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

The purpose of the tub ring is to prevent water from going over the tub during SPIN or splashing over the top during AGITATION.

There are two types of tub rings used because of different gaskets. These gaskets fit between the tub ring and tub. See Type A for the gasket mounted on the tub or Type B for the gasket mounted in the ring.

STEP 1 Disconnect the electrical power supply (section B).

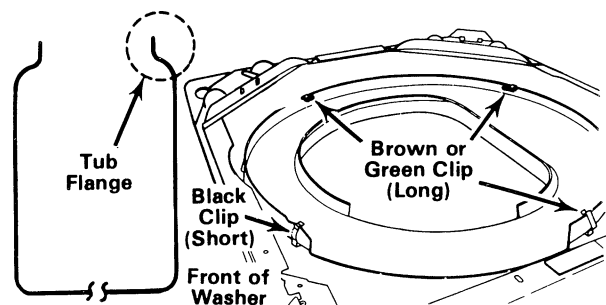
STEP 2 Raise the top (section K, proc. 1).

STEP 3 Remove the snubber and spring (section L, proc. 1).

STEP 4 Remove the water inlet (section L, proc. 2; Type A or Type B).

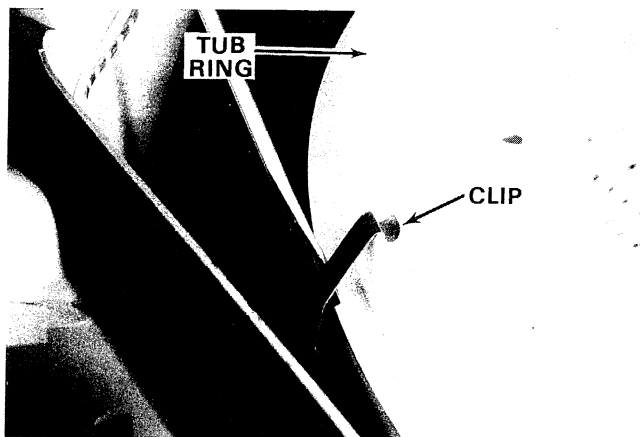
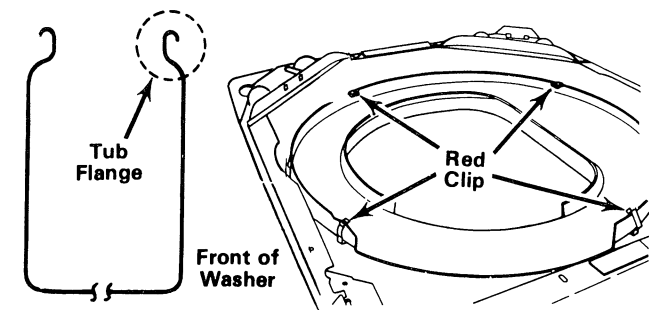
LOCATION OF TUB RING CLIPS

On machines where the top of the flange is straight, the brown or green and black clips must be used.



TUB AND BASKET AREA—SECTION L—PROCEDURE 3

On machines where the top of the tub flange curls out, the red clips must be used.



STEP 5 Using a screwdriver, push down on the tub ring by the clips, then snap the clips off the tub ring. Some washers have two, three or four clips to remove.

STEP 6 Carefully remove the tub ring by lifting straight up.

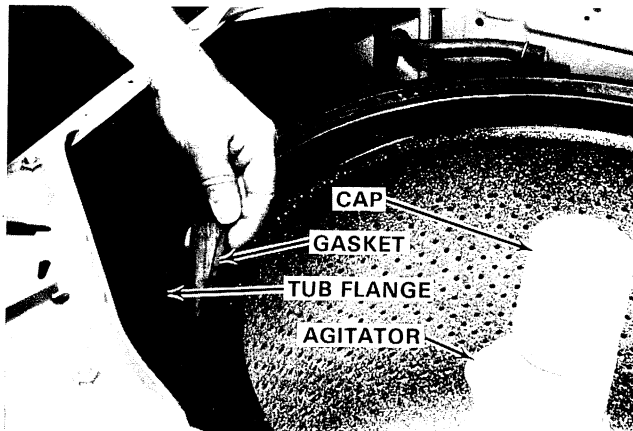
TYPE A

Read steps 1-6 of this procedure.

STEP 7 Check and replace the tub gasket if it has started to rot or crack or there is any sign of water leakage.

This gasket fits on the edge of the tub.

REPLACEMENT

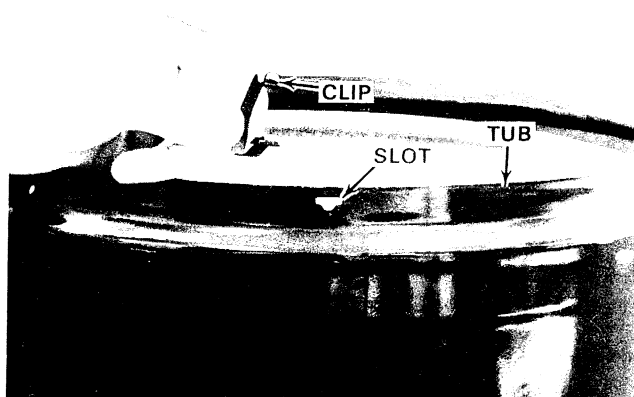


STEP 8 To replace, fit the lip of the new gasket over the straight edge of the tub, with the long side of the gasket on the inside of the tub.

STEP 9 Place the new tub ring on the gasket and tub.

Make sure the flat on the inside of the tub ring is across the back of the washer.

STEP 10 Line up the notches in the tub ring with the slots in the tub.



STEP 11 Insert the new clips from the outside into the slots of the tub.

STEP 12 Snap these clips over the tub ring notches.

STEP 13 Replace the water inlet (section L, proc. 2; Type A or Type B).

STEP 14 Replace the snubber and spring (section L, proc. 1).

⚠ WARNING

Electrical Shock Hazard

- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

STEP 15 Lower the top (section K, proc. 1).

STEP 16 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

STEP 17 Run a cycle check (section F, proc. 2).

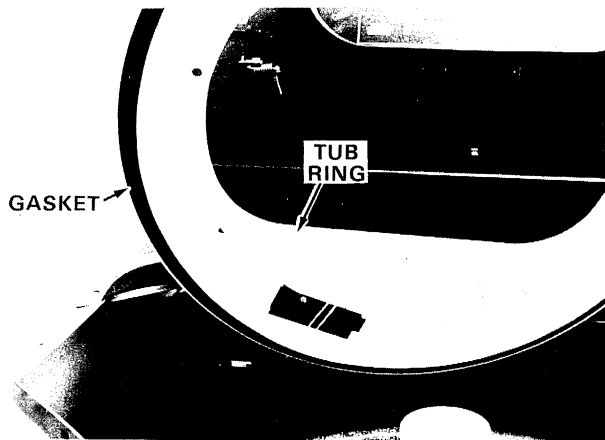
TYPE B

Read steps 1-6 of this procedure.

STEP 7 Check and replace the tub gasket if it has started to rot or crack or there is any sign of water leakage.

This flat gasket fits into a groove in the tub ring.

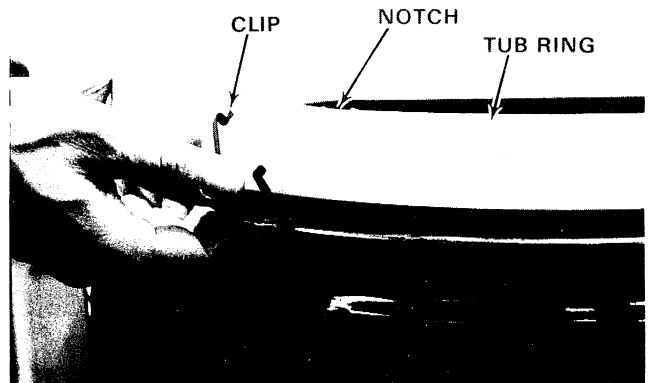
REPLACEMENT



STEP 8 Place the new gasket in the groove of the new tub ring.

STEP 9 Place the tub ring and gasket on the tub.

Make sure the flat on the inside of the tub ring is across the back of the washer.



STEP 10 Insert the new clips from the outside under the curled tub flange.

STEP 11 Snap these clips over the tub ring notches.

STEP 12 Replace the water inlet (section L, proc. 2; Type A or Type B).

STEP 13 Replace the snubber and spring (section L, proc. 1).

⚠ WARNING

Electrical Shock Hazard

- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

STEP 14 Lower the top (section K, proc. 1).

STEP 15 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

STEP 16 Run a cycle check (section F, proc. 2).

PROCEDURE 4

Agitator Cap, Stud and Agitator Replacement

See page 158, illus. no.'s 23, 25 and 26 for location of parts.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

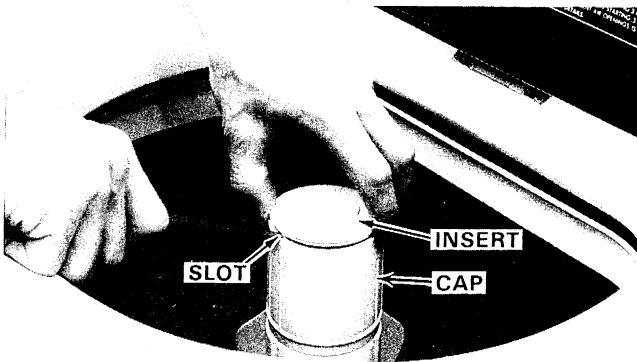
The purpose of the agitator is to move the water and clothes to provide a proper washing action.

There are two ways to remove the agitator. See Type A—look for a slot at the top edge of the cap; or Type B—a one piece cap (no slot).

TYPE A

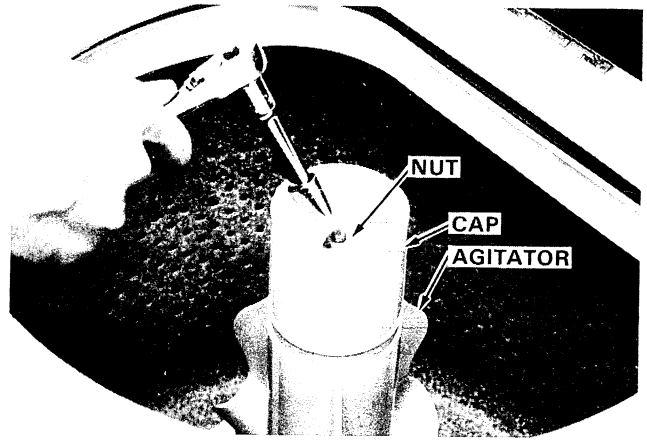
STEP 1 Disconnect the electrical power supply (section B).

STEP 2 Lift the lid.



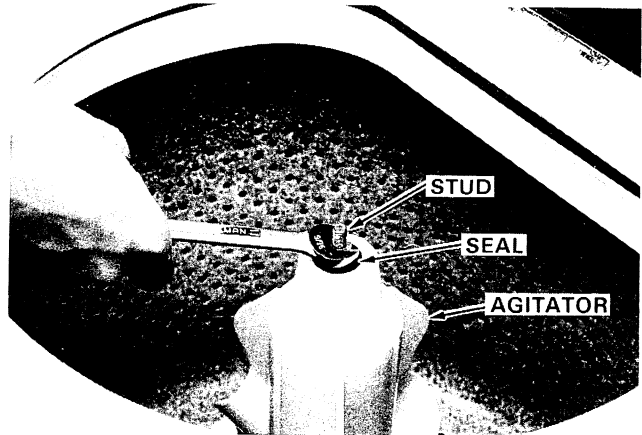
STEP 3 Using a screwdriver, insert it in the slot between the insert and cap.

STEP 4 Pry the insert off the cap.



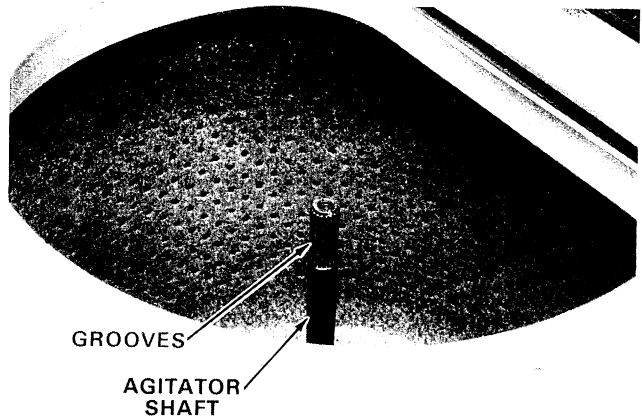
STEP 5 Using a nutdriver or socket wrench, hold the agitator with one hand while removing the nut.

STEP 6 Lift the agitator cap off the stud.



STEP 7 Using an open end wrench or socket wrench, remove the stud and seal.

STEP 8 Carefully remove the agitator by lifting straight up.



STEP 9 Inspect the inside of the agitator for worn grooves or rust. Also check the agitator shaft for worn grooves or rust. If the shaft is bad, either call a Authorized WHIRLPOOL Factory Service Branch to repair this, or replace the complete gearcase yourself.

REPLACEMENT

STEP 10 Place the new agitator on the shaft.

Rotate the agitator until it matches the grooves on the shaft, then push the agitator down.

STEP 11 Using an open end wrench or socket wrench, insert the new stud and seal and tighten.

STEP 12 Place the new agitator cap on the stud.

STEP 13 Using a nutdriver or socket wrench, place the nut on top of the stud and tighten.

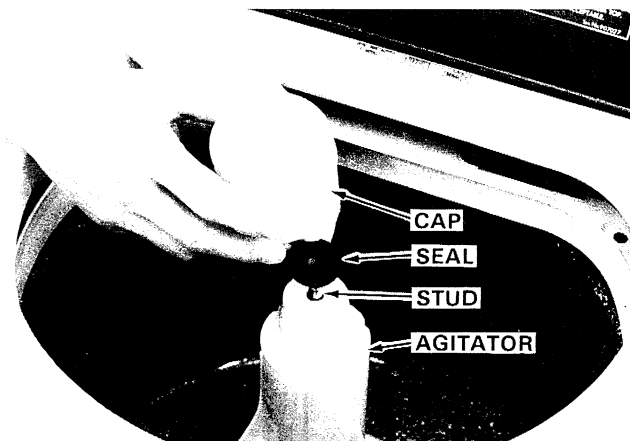
STEP 14 Press down on the insert until it snaps into place on the agitator cap.

STEP 15 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

TYPE B

STEP 1 Disconnect the electrical power supply (section B).

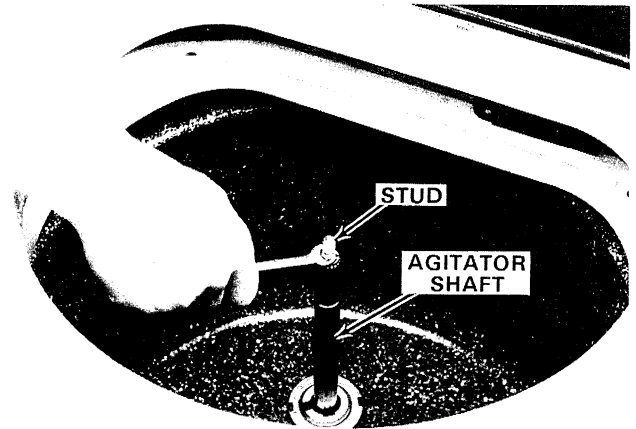
STEP 2 Lift the lid.



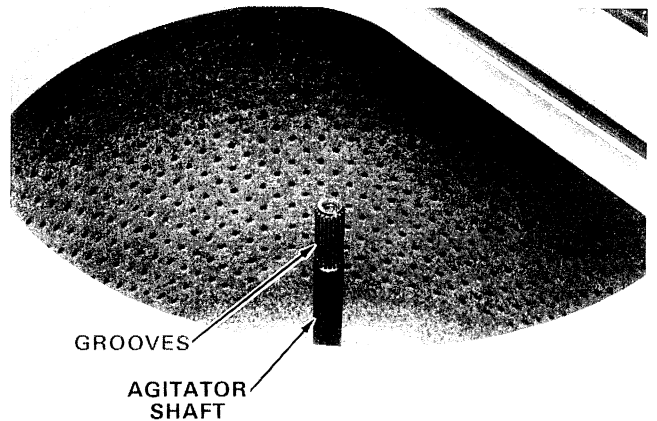
STEP 3 With one hand, turn the agitator cap to the left while holding the agitator with the other hand.

STEP 4 Remove the seal.

STEP 5 Carefully remove the agitator by pulling straight up.



STEP 6 Using an open end wrench or socket wrench, remove the stud.



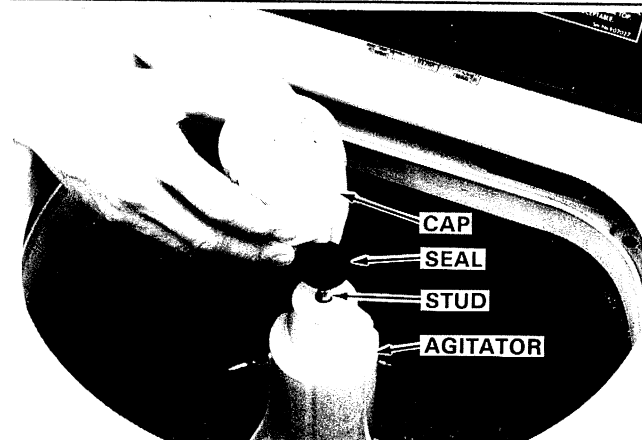
STEP 7 Inspect the inside of the agitator for worn grooves or rust. Also check the agitator shaft for worn grooves or rust. If the shaft is bad, either call a Authorized WHIRLPOOL Factory Service Branch to repair this, or replace the complete gearcase yourself.

REPLACEMENT

STEP 8 Using an open end wrench or socket wrench, insert the new stud and tighten.

STEP 9 Place the new agitator on the shaft.

Rotate the agitator until it matches the grooves on the shaft, then push the agitator down.



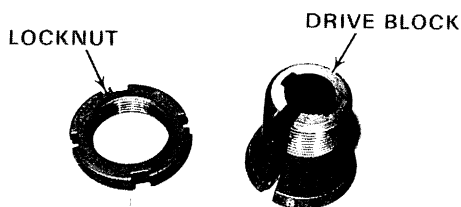
STEP 10 Place the new seal with the flat side on top of the agitator.

STEP 11 Place the new agitator cap on the stud and tighten.

STEP 12 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

PROCEDURE 5

Locknut, Basket and Drive Block Replacement



See page 158, illus. no.'s 11, 12 and 27 for location of parts.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

The purpose of the basket is to hold the clothes while they are being washed and spun dry.

The locknut and drive block fasten the basket to the spin tube.

STEP 1 Disconnect the electrical power supply (section B).

STEP 2 Raise the top (section K, proc. 1).

STEP 3 Remove the snubber and spring (section L, proc. 1).

STEP 4 Using pliers, slide the clamp off the port to the water inlet and remove the hose.

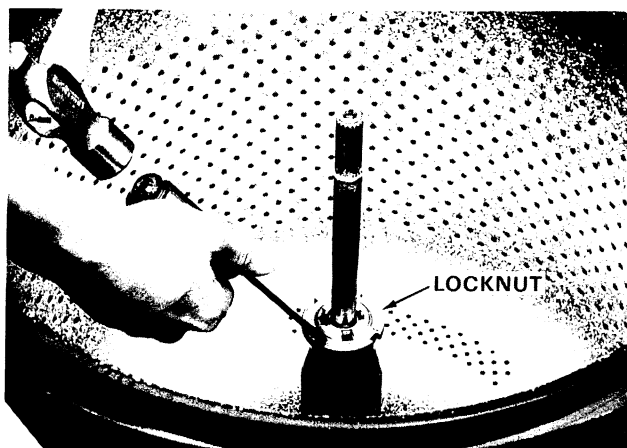
STEP 5 Remove the tub ring and clips (section L, proc. 3).

STEP 6 Remove the agitator cap, stud, and agitator (section L, proc. 4; Type A or Type B).

⚠ WARNING

Personal Injury / Product Hazard

- We recommended wearing safety glasses and gloves when hitting the spanner (lock) nut or drive block. This metal is very soft.
- Be very careful not to hit the basket as it has a porcelain finish and chips very easily when hit.
- Failure to do so could result in personal injury or product damaged.



STEP 7 Insert a screwdriver into one of the slots on the locknut.

STEP 8 Using a hammer, tap the end of the screwdriver, turning the locknut to the left to remove.

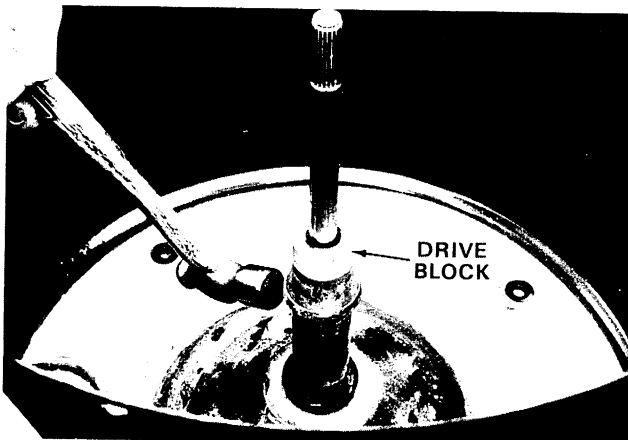
STEP 9 Carefully remove the basket by lifting straight up.

STEP 10 Remove the ring filter from the bottom of the basket if used (section M, proc. 3; Type D).

⚠ WARNING

Personal Injury / Product Hazard

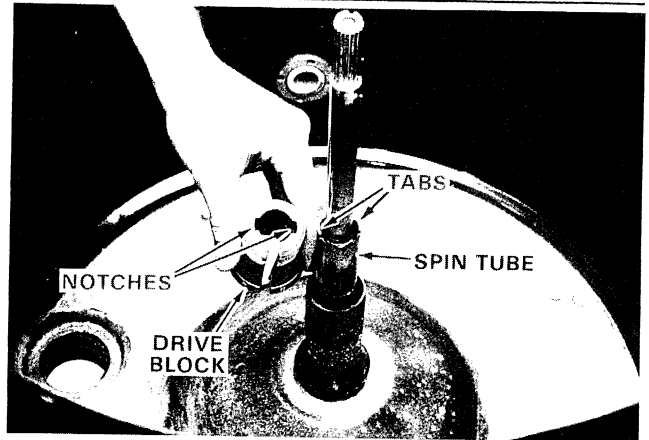
- We recommended wearing safety glasses and gloves when hitting the spanner (lock) nut or drive block. This metal is very soft.
- Be very careful not to hit the basket as it has a porcelain finish and chips very easily when hit.
- Failure to do so could result in personal injury or product damaged.



STEP 11 Using a hammer, carefully tap up from the bottom of the drive block to remove.

REPLACEMENT

STEP 12 Place the new drive block on the spin tube.



STEP 13 Line up the notches in the drive block with the tabs on the spin tube and push down by hand or tap with a hammer.

NOTE: You will need four new clips to hold your old filter if used on the basket.

STEP 14 Replace the ring filter on the bottom of the new basket if used (section M, proc. 3; Type D).

STEP 15 Place the basket on top of the drive block.

STEP 16 Place the new locknut on the drive block, turning to the right.

⚠ WARNING

Personal Injury / Product Hazard

- We recommended wearing safety glasses and gloves when hitting the spanner (lock) nut or drive block. This metal is very soft.
- Be very careful not to hit the basket as it has a porcelain finish and chips very easily when hit.
- Failure to do so could result in personal injury or product damaged.

STEP 17 Insert a screwdriver into one of the slots on the locknut.

STEP 18 Using a hammer, tap the end of the screwdriver, turning the locknut to the right until it's very tight.

STEP 19 Replace the stud, agitator and cap (section L, proc. 4; Type A or Type B).

STEP 20 Replace the tub ring and clips (section L, proc. 3; Type A or Type B).

STEP 21 Using pliers, replace the hose on the port of the water inlet and slide the clamp up the hose and onto the port.

STEP 22 Replace the snubber and spring (section L, proc. 1).

Replacing the side check valve takes a homemade tool which can be made from steel, 10 inches long by 1 inch wide and 1/8 inch thick.

⚠ WARNING

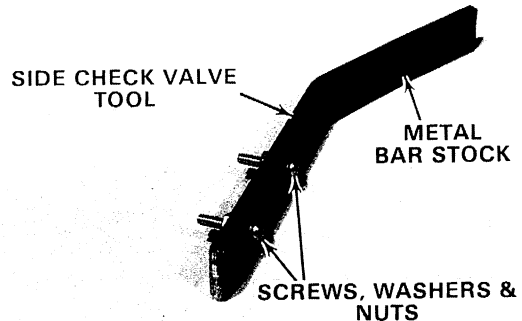
Electrical Shock Hazard

- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

STEP 23 Lower the top (section K, proc. 1).

STEP 24 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

STEP 25 Run a cycle check (section F, proc. 2).



STEP 1 Use this tool and bend it in the middle as shown. Drill the first hole 1 inch from the end.

STEP 2 Drill the other hole 1-7/8 inches from the center of the end hole.

STEP 3 Use two 3/16-inch x 1/2-inch machine screws, washers and nuts and assemble them in the holes.

STEP 4 Disconnect the electrical power supply (section B).

STEP 5 Raise the top (section K, proc. 1).

STEP 6 Remove the snubber and spring (section L, proc. 1).

NOTE: Care should be taken when removing hoses as they may have water in them.

STEP 7 Using pliers, slide the clamp off the port to the water inlet and remove the hose.

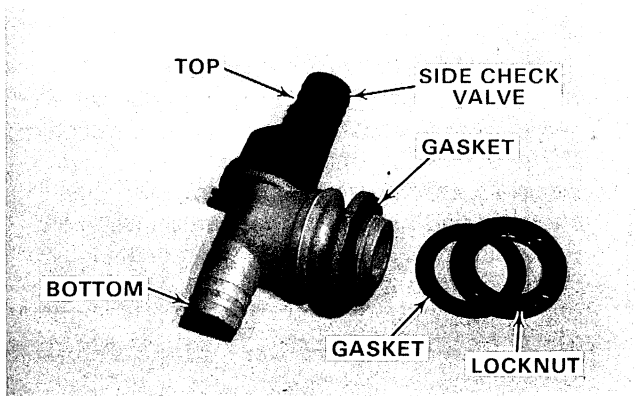
STEP 8 Remove the tub ring and clips (section L, proc. 3).

STEP 9 Remove the agitator cap, stud, and agitator (section L, proc. 4; Type A or Type B).

STEP 10 Remove the basket (section L, proc. 5).

PROCEDURE 6

Side Check Valve Replacement



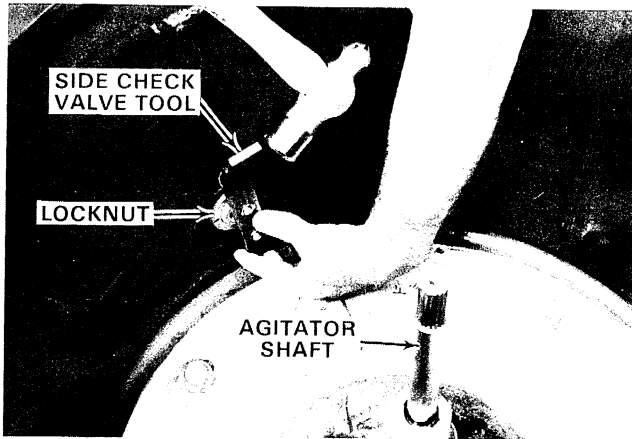
See page 159, illus. no. 7 for location of part.

⚠ WARNING

Electrical Shock Hazard

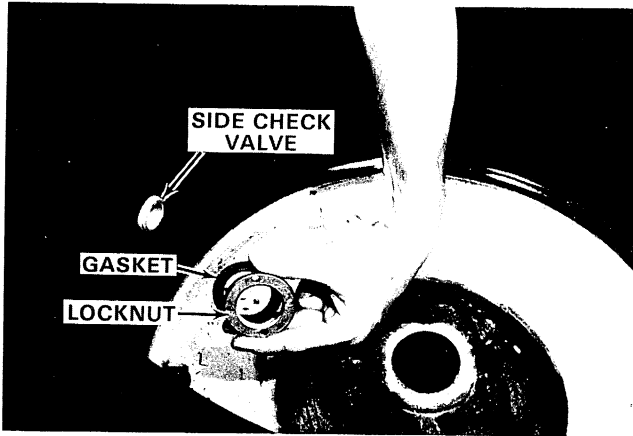
- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

The purpose of the side check valve is to direct the water flow through the filter during agitation or for draining the water from the tub. This is done with two rubber flapper valves inside the valve.

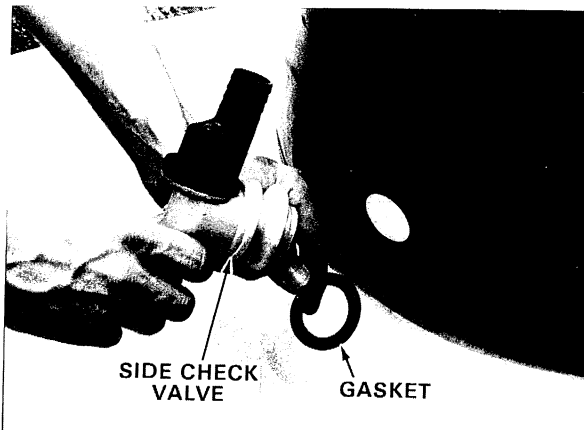


STEP 11 Place the homemade tool screws in the holes of the locknut located on the inside of the tub.

STEP 12 Using a hammer, tap the tool to loosen the locknut.



STEP 13 Remove the fiber gasket and locknut from the inside of the tub.



STEP 14 Remove the side check valve and rubber gasket from the outside of the tub.

STEP 15 Using pliers, slide the clamps off the ports of the valve.

STEP 16 Remove the two hoses from the side check valve.

STEP 17 Look inside the valve and check the two rubber flappers for proper fit, rot or cracking.

REPLACEMENT

NOTE: When replacing the side check valve, be sure you do not turn it upside down. See picture under procedure 6 for top and bottom.

STEP 18 Place the new side check valve on the two hoses.

STEP 19 Using pliers, slide the clamps onto the ports of the side check valve.

STEP 20 Replace the new rubber gasket on the valve and insert into the tub.

STEP 21 Replace the new fiber gasket from inside the tub.

STEP 22 Replace the new locknut from inside the tub.

STEP 23 Using the homemade tool, insert the screws in the holes of the locknut and tap the end with a hammer to tighten.

STEP 24 Replace the basket (section L, proc. 5).

STEP 25 Replace the stud, agitator, and cap (section L, proc. 4; Type A or Type B).

STEP 26 Replace the tub ring and clips (section L, proc. 3; Type A or Type B).

STEP 27 Using pliers, replace the hose on the port of the water inlet and slide the clamp up the hose and onto the port.

STEP 28 Replace the snubber and spring (section L, proc. 1).

⚠ WARNING

Electrical Shock Hazard

- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

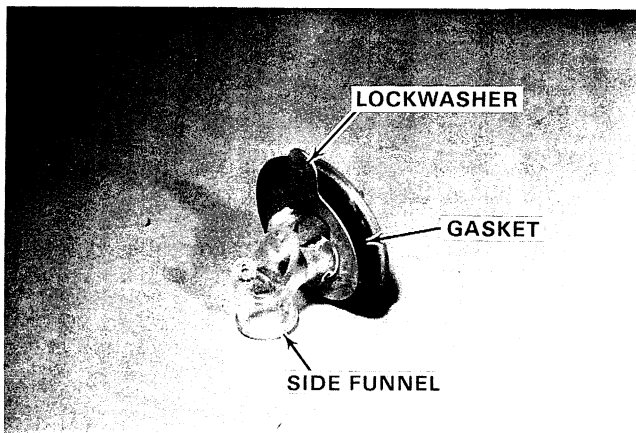
STEP 29 Lower the top (section K, proc. 1).

STEP 30 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

STEP 31 Run a cycle check (section F, proc. 2).

PROCEDURE 7

Side Funnel Replacement



See page 158, illus. no. 48 for location of part.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

The side funnel is used on manual clean filter automatic washers that have the suds saving feature.

STEP 1 Disconnect the electrical power supply (section B).

STEP 2 Raise the top (section K, proc. 1).

STEP 3 Remove the snubber and spring (section L, proc. 1).

NOTE: Care should be taken when removing hoses, as they may have water in them.

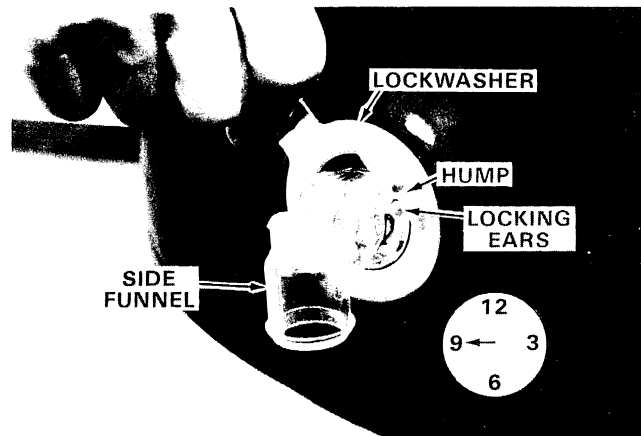
STEP 4 Using pliers, slide the clamp off the port to the water inlet and remove the hose.

STEP 5 Remove the tub ring and clips (section L, proc. 3).

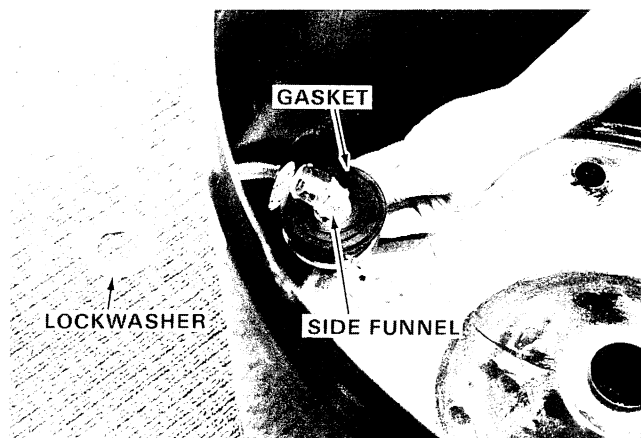
STEP 6 Remove the agitator cap, stud, and agitator (section L, proc. 4; Type A or Type B).

STEP 7 Remove the basket (section L, proc. 5).

STEP 8 Remove the hose from the side funnel.



STEP 9 Remove the lockwasher by turning to the left, past the locking ears of the funnel.



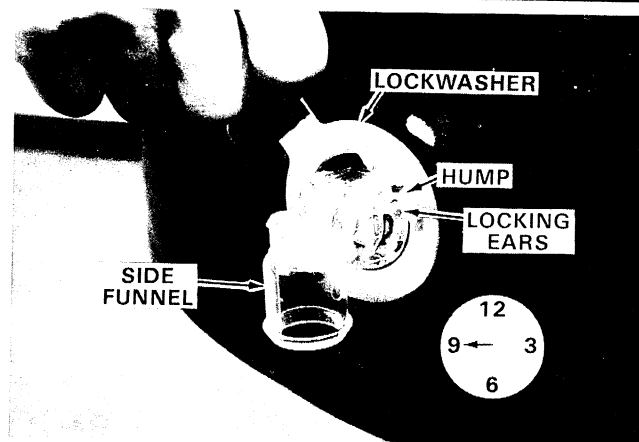
STEP 10 Remove the funnel and gasket from inside the tub. Check the funnel for any cracks.

STEP 11 Check and replace the funnel gasket if it has started to rot or crack or there is any sign of water leakage.

REPLACEMENT

STEP 12 Place the new gasket on the funnel with the flat side facing the funnel flange.

STEP 13 Place the new side funnel and gasket through the hole from inside the tub.



STEP 14 Place the new lockwasher over the side funnel with the tab at the 9 o'clock position to clear the ears.

STEP 15 Turn the lockwasher to the right until the humps are behind the ears of the side funnel. The tab of the lockwasher should be almost straight up.

STEP 16 Replace the hose on the side funnel.

STEP 17 Replace the basket (section L, proc. 5).

STEP 18 Replace the stud, agitator, and cap (section L, proc. 4; Type A or Type B).

STEP 19 Replace the tub ring and clips (section L, proc. 3; Type A or Type B).

STEP 20 Using pliers, replace the hose on the port of the water inlet and slide the clamp up the hose and onto the port.

STEP 21 Replace the snubber and spring (section L, proc. 1).

⚠ WARNING

Electrical Shock Hazard

- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

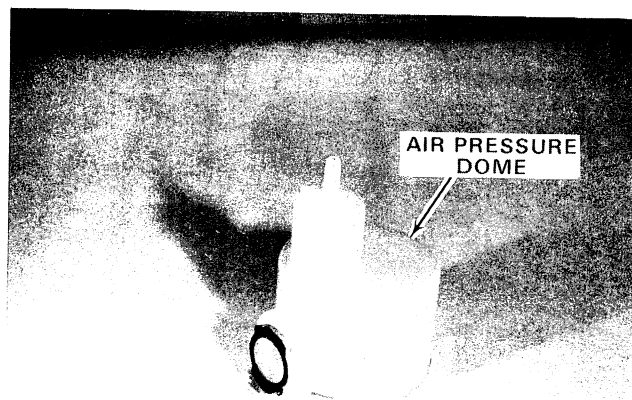
STEP 22 Lower the top (section K, proc. 1).

STEP 23 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

STEP 24 Run a cycle check (section F, proc. 2).

PROCEDURE 8

Air Pressure Dome Replacement



See page 158, illus. no. 29 for location of part.

⚠ WARNING

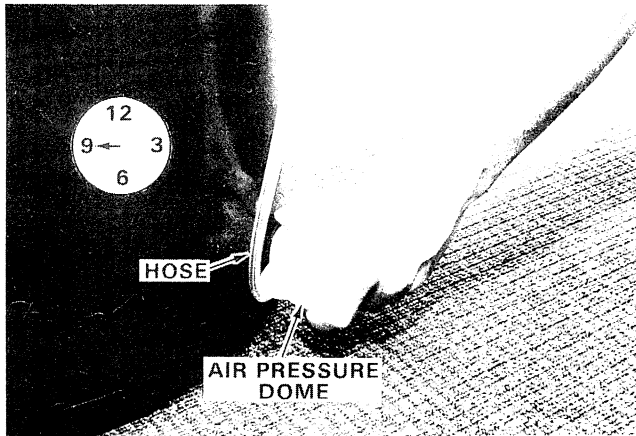
Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

The air pressure dome, along with the water level switch and a plastic tube connected between the two, control the amount of water entering the tub. Air trapped in the dome is forced up the plastic tube by the pressure of the water as it rises. The air pressure then switches the water level switch contacts inside the switch from EMPTY to FULL.

STEP 1 Disconnect the electrical power supply (section B).

STEP 2 Raise the top (section K, proc. 1).



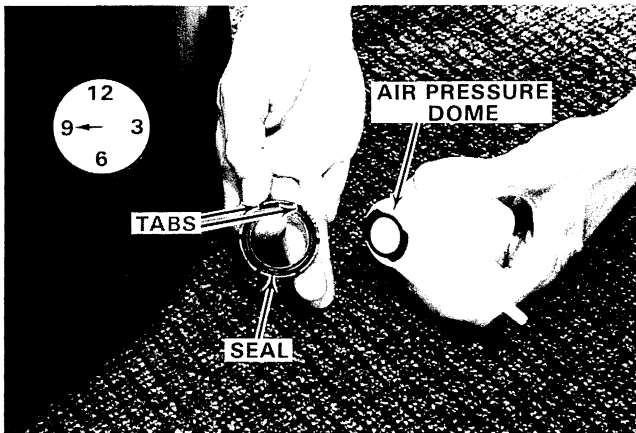
STEP 3 Remove the air pressure dome by pressing in and turning to the left to the 9 o'clock position.

STEP 4 Pull the air pressure dome away from the tub.

STEP 5 Slide the plastic hose off the air pressure dome.

REPLACEMENT

STEP 6 Replace the plastic hose on the new air pressure dome.



STEP 7 Place the new seal on with the six tabs facing the air dome. The tabs on the rubber seal must face the air pressure dome for a tight seal.

STEP 8 Place the air pressure dome into the side of the tub at the 9 o'clock position.

NOTE: Be sure the plastic hose is not kinked when you turned the air pressure dome into place.

STEP 9 Turn the air pressure dome to the right until the port is straight up.

⚠ WARNING

Electrical Shock Hazard

- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

STEP 10 Lower the top (section K, proc. 1).

STEP 11 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

STEP 12 Run a cycle check (section F, proc. 2).

PROCEDURE 9

Tub Replacement

See page 158, illus. no. 14 for location of part.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

The tub holds the water during wash.

STEP 1 Disconnect the electrical power supply (section B).

STEP 2 Raise the top (section K, proc. 1).

STEP 3 Remove the snubber and spring (section L, proc. 1).

NOTE: Care should be taken when removing hoses, as they may have water in them.

STEP 4 Using pliers, slide the clamp off the port to the water inlet and remove the hose.

STEP 5 Remove the tub ring and clips (section L, proc. 3).

STEP 6 Remove the agitator cap, stud, and agitator (section L, proc. 4; Type A or Type B).

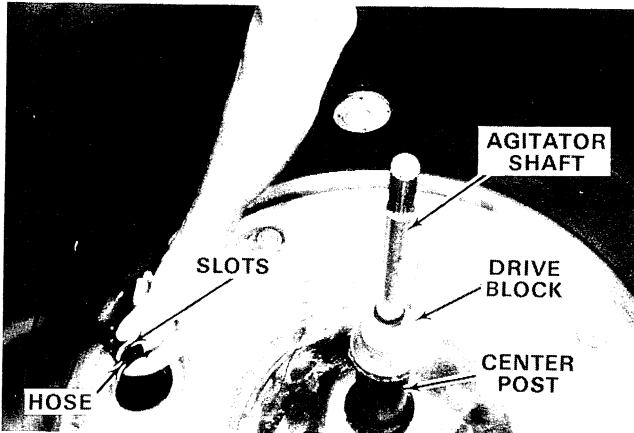
STEP 7 Remove the locknut, basket and drive block (section L, proc. 5).

STEP 8 Remove the tub-mounted filter if used (section M, proc. 3; Type B).

STEP 9 Remove the side check valve if used (section L, proc. 6).

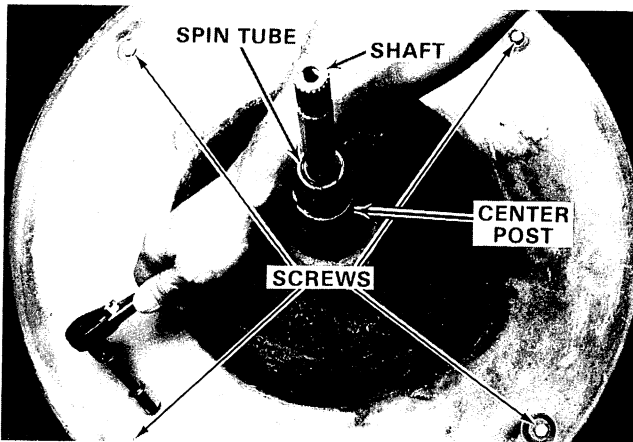
STEP 10 Remove the side funnel if used (section L, proc. 7).

STEP 11 Remove the air pressure dome (section L, proc. 8).



STEP 12 Using pliers, slide the clamp off the bleach/rinse hose, if your washer has one, from the bottom port of the dispenser.

This hose has slots which must be facing up and down when in the tub.



STEP 13 Using a socket wrench, nutdriver or screwdriver, remove the four screws at the bottom of the tub.

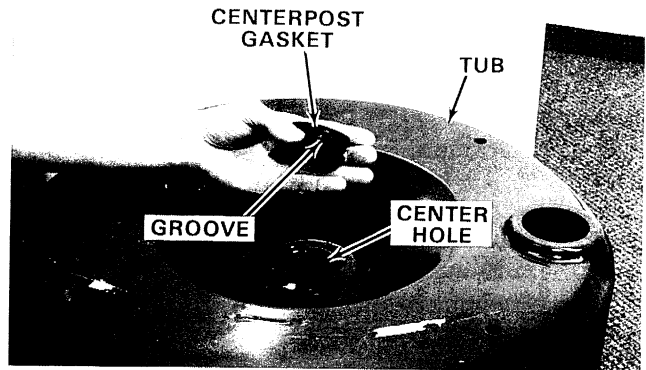
STEP 14 Clean the centerpost by scraping deposits off of it.

STEP 15 Wash the centerpost with mild soap, leaving soap on the centerpost.

STEP 16 Carefully remove the tub by pulling straight up.

The centerpost gasket should slide up the soapy centerpost when lifting the tub.

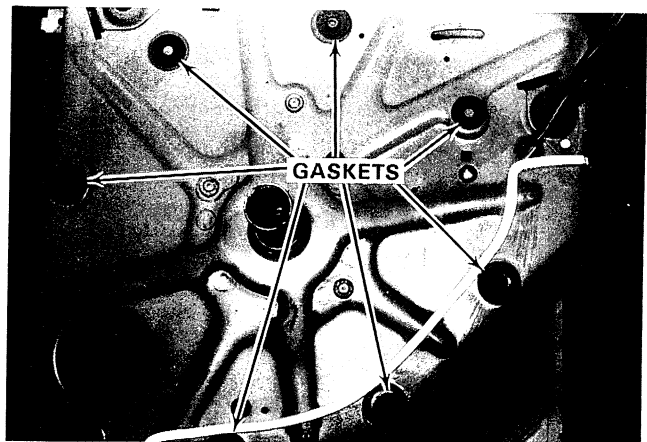
REPLACEMENT



STEP 17 Replace the centerpost gasket by removing from the bottom of the tub.

STEP 18 Place the new gasket in the center hole from the bottom of the tub.

A groove in the gasket locks it in place on the tub.

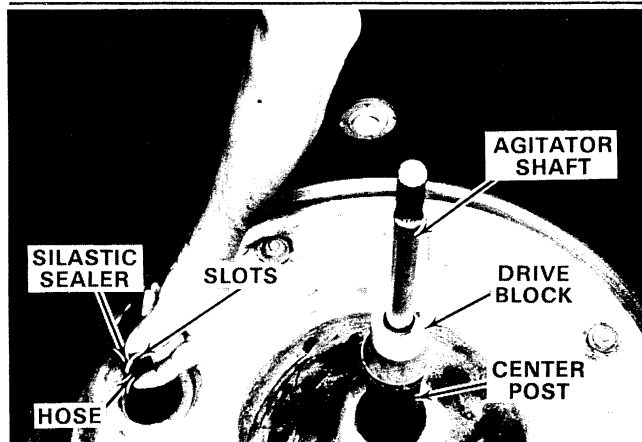


STEP 19 Make sure the round cork pads are cemented on the baseplate. This is to protect the bottom finish on the tub.

STEP 20 Lubricate the centerpost with mild soap, then slide the new tub and gasket down the centerpost.

STEP 21 Make sure the holes in the tub line up with the parts that have to be assembled.

STEP 22 Using a socket wrench, nutdriver or screwdriver, insert the four screws in the bottom of the tub.



STEP 23 Replace the bleach/rinse hose (if your model has one) from inside the tub. Place a bead of silastic around the slanted portion of the tube and push the tube out from inside the tub.

This hose has slots which must be facing up and down when in the tub.

STEP 24 Replace the air pressure dome (section L, proc. 8).

STEP 25 Replace the side funnel if used (section L, proc. 7).

STEP 26 Replace the side check valve if used (section L, proc. 6).

STEP 27 Replace the tub-mounted filter if used (section M, proc. 3; Type B).

STEP 28 Replace the drive block, basket and locknut (section L, proc. 5).

STEP 29 Replace the stud, agitator, and cap (section L, proc. 4; Type A or Type B).

STEP 30 Replace the tub ring and clips (section L, proc. 3; Type A or Type B).

STEP 31 Using pliers, replace the hose on the port of the water inlet and slide the clamp up the hose and onto the port.

STEP 32 Replace the snubber and spring (section L, proc. 1).

⚠ WARNING

Electrical Shock Hazard

- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

STEP 33 Lower the top (section K, proc. 1).

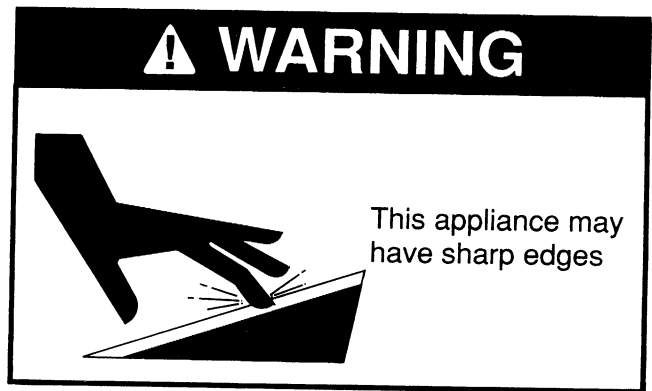
STEP 34 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

STEP 35 Run a cycle check (section F, proc. 2).

SECTION M

Water Flow Area

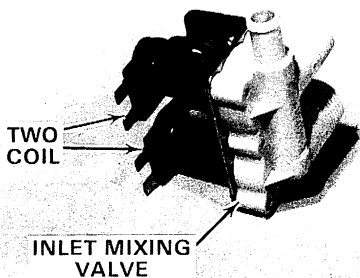
SECTION A MUST BE CAREFULLY READ BEFORE ANY REPAIR OR TESTING PROCEDURES ARE ATTEMPTED.



PROCEDURE	PAGE
1 Inlet Mixing Valve	90
2 Manifold Trap	92
3 Filter	93
4 Pump	98
5 Two-Way Valve	100
6 Water Flow Illustrations	102

PROCEDURE 1

Inlet Mixing Valve Testing and/or Replacement



See page 155, illus. no. 33 for location of part.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

OHMMETER REQUIRED

There are two basic types of inlet valves used. They are the single-coil or the two-coil mixing valve.

The single-coil inlet valve is mainly a shut-off valve for controlling water entering the machine. This is a single port valve used with a “Y” hose. Adjustments to hot and cold water are made at the faucets.

The two-coil inlet valve is actually mixing the hot and cold water at the valve.

An “H” (hot) and “C” (cold) will be found stamped on the back of the cabinet to assist in properly positioning the water inlet valve.

STEP 1 Disconnect the electrical power supply (section B).

STEP 2 Raise the top (section K, proc. 1).

TESTING

STEP 3 Remove one wire at a time, carefully labeling each wire according to the terminal marking on the inlet mixing valve. This procedure should assure that the right wire is reconnected to the right terminal.

STEP 4 You must know how to use an ohmmeter.

STEP 5 Refer to the instructions that came with your volt-ohmmeter to find the proper scale to measure 500-2,000 ohms. Set the ohms scale and ZERO the meter.



STEP 6 Touch one of the ohmmeter probes to one of the terminals on the coil.

STEP 7 Touch the other ohmmeter probe to the other terminal on the same coil.

STEP 8 You should read around 500-2,000 ohms on the ohms scale. If you do not get this reading, the water inlet valve is bad and needs replacing.

STEP 9 If your washer has a two-coil inlet mixing valve, check the other coil as described in steps 6-8.

NOTE: IF YOU GET THIS READING, THE INLET MIXING VALVE COULD STILL BE BAD FROM A MECHANICAL PROBLEM INSIDE THE VALVE. REPLACE THE INLET VALVE OR HAVE THIS CONDITION CHECKED BY RUNNING A VOLTAGE CHECK. FOR YOUR PERSONAL SAFETY, THIS CHECK MUST BE DONE BY AN AUTHORIZED FACTORY SERVICE BRANCH.

REPLACEMENT

STEP 10 Shut off the hot and cold water faucets.

STEP 11 Identify the hot water inlet hose with a piece of tape. This procedure will be easier when replacing it on the hot port of the water inlet valve.

NOTE: Care should be taken when removing hoses as they may have water in them.

STEP 12 Using pliers, remove one of the hoses from the water inlet valve port.

STEP 13 Using a pail, drain the excess water from this hose.

STEP 14 Using pliers, remove the other hose from the water inlet valve port.

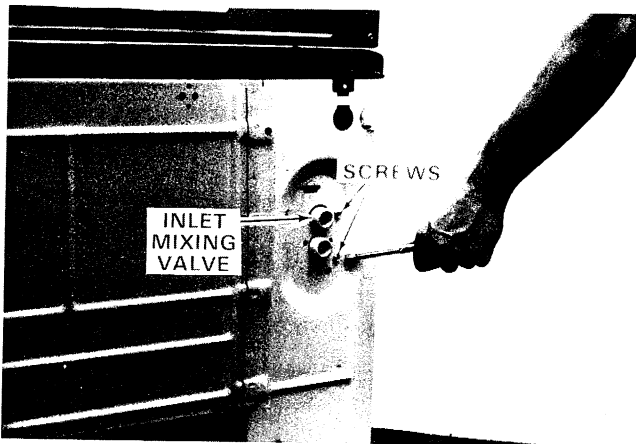
STEP 15 Using a pail, drain the excess water from this hose.

STEP 16 Remove the drain hose from the standpipe or laundry tub.

STEP 17 Using a pail, drain the excess water from this hose.

STEP 18 Using pliers, slide the clamp off the top of the water inlet valve port located on the inside of the cabinet.

STEP 19 Remove the hose from the top of the mixing valve.



STEP 20 Using a screwdriver or nutdriver, hold on to the mixing valve with one hand while removing the two screws that hold the inlet valve to the back of the cabinet.

STEP 21 Carefully remove the inlet mixing valve up through the top opening. The wires should have been removed already because of testing.

STEP 22 Place the new inlet mixing valve in the inside of the cabinet.

STEP 23 Using a screwdriver or nutdriver, insert the two screws and tighten.

STEP 24 Reconnect the wires to the proper terminals as previously marked.

STEP 25 Using pliers, attach the inlet hose and slide the clamp over the water inlet port.

⚠ WARNING

Electrical Shock Hazard

- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

STEP 26 Lower the top (section K, proc. 1).

STEP 27 Using pliers, attach the inlet hoses to the proper ports on the inlet mixing valve.

STEP 28 Turn on the hot and cold water faucets, and check for leaks.

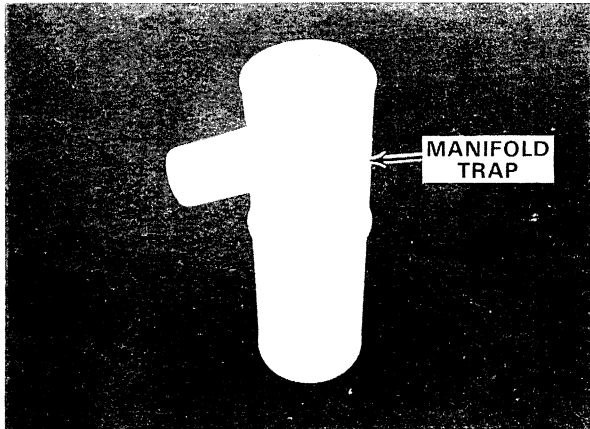
STEP 29 Insert the drain hose into the standpipe or laundry tub.

STEP 30 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

STEP 31 Run a cycle check (section F, proc. 2).

PROCEDURE 2

Manifold Trap Replacement



See page 158, illus. no. 51 for location of part.

⚠ WARNING

Electrical Shock Hazard

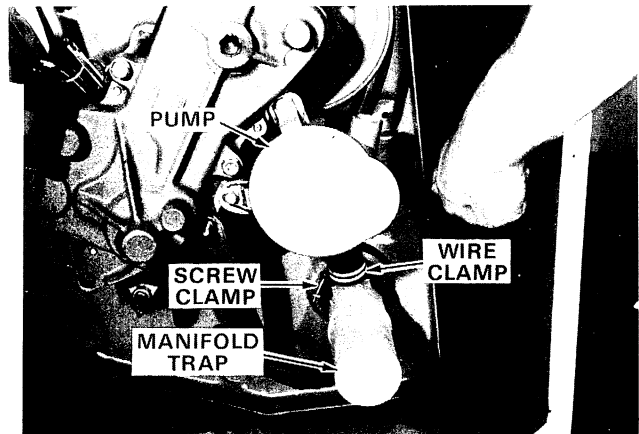
- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

The purpose of the manifold trap is to prevent large objects from entering the pump and damaging the pump impeller. A bleed hole in the center of the baffle prevents an air lock. This bleed hole must be kept open. An air lock will prevent water from pumping out or reduce the flow of water during pump-out.

STEP 1 Disconnect the electrical power supply (section B).

STEP 2 See access to parts (section N, proc. 1).

NOTE: Care should be taken when removing hoses as they may have water in them.

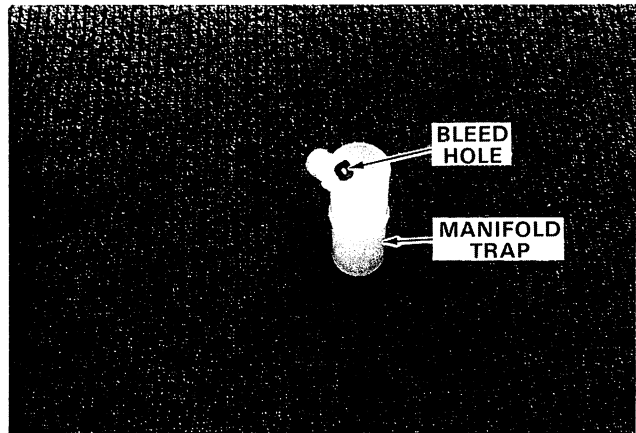


STEP 3 Using a screwdriver, loosen the screw clamp.

STEP 4 Using pliers, slide the wire clamp off the port of the manifold trap, coming from the pump.

STEP 5 Remove the hose from the port and carefully remove the manifold trap.

REPLACEMENT



NOTE: The bleed hole in the center of the manifold trap must be kept clean.

STEP 6 Insert the new manifold trap in the hoses making sure they seat properly.

STEP 7 Using pliers, slide the wire hose clamp up the hose onto the port of the manifold trap.

STEP 8 Using a screwdriver, tighten the screw clamp.

⚠ WARNING

Electrical Shock Hazard

- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

STEP 9 See access to parts (section N, proc. 1).

STEP 10 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

STEP 11 Run a cycle check (section F, proc. 2).

There are two types of filters that are used on automatic washers: manual or self-clean filters. With the manual clean filter, we recommend that the homeowner clean out the filter after every use. The self-cleaning filter is automatically cleaned when the water is pumped out of the automatic washer.

See Type A for the manual clean filter, Type B for the self-clean tub-mounted filter, Type C for the self-clean filter, Type D for the self-clean ring filter, or Type E for the self-clean manifold filter.

PROCEDURE 3

Filter Replacement

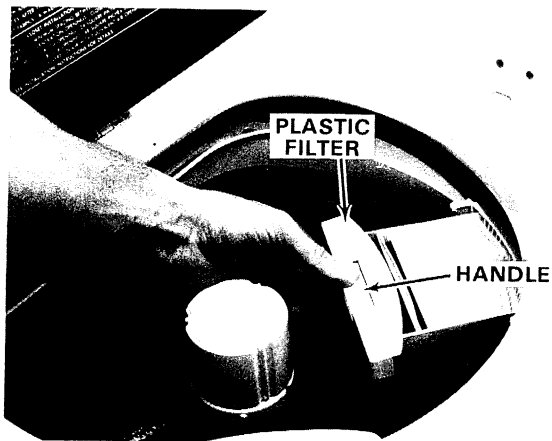
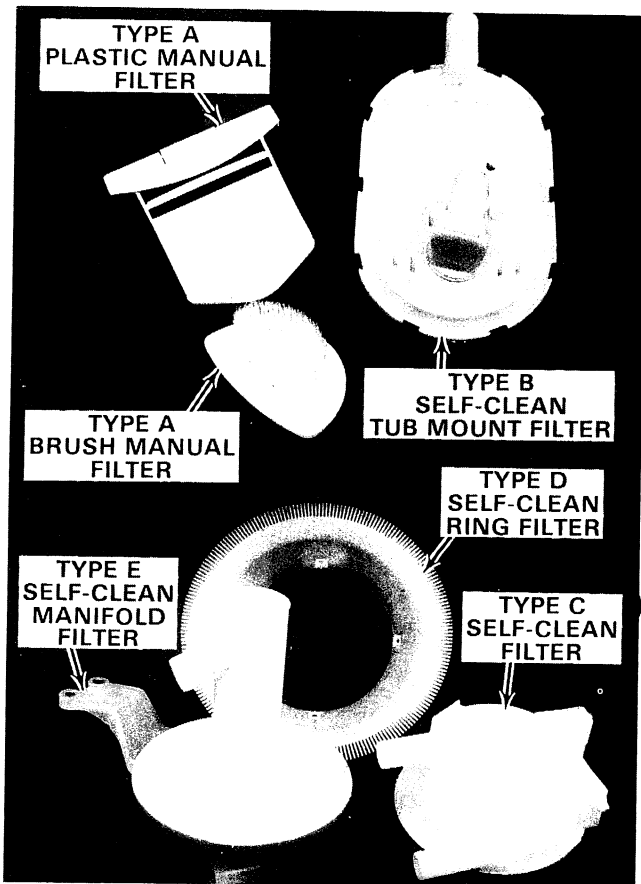
TYPE A

There are two types of manual clean filters used, either the brush type or the plastic type.

Plastic Type

The plastic type is located on the right side of the tub ring, underneath the top.

STEP 1 Lift the lid.



STEP 2 Remove by depressing the handle and pulling toward the center of the washer, then clean the filter.

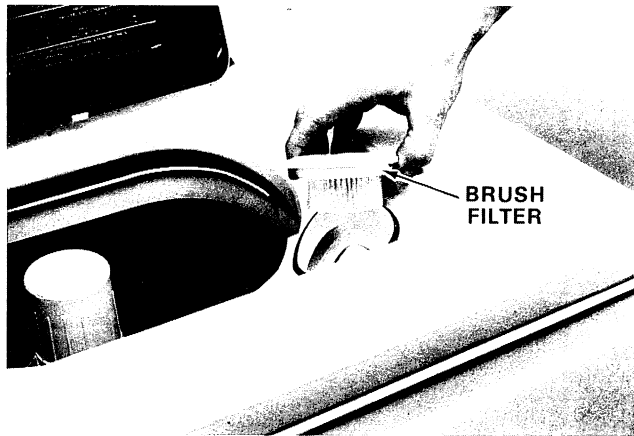
STEP 3 To replace, insert the filter into the housing until it snaps into place.

See page 158, illus. no's. 53, 57, or page 159, illus. no. 39 for location of parts.

Brush Type

The brush type is located on the right side of the top.

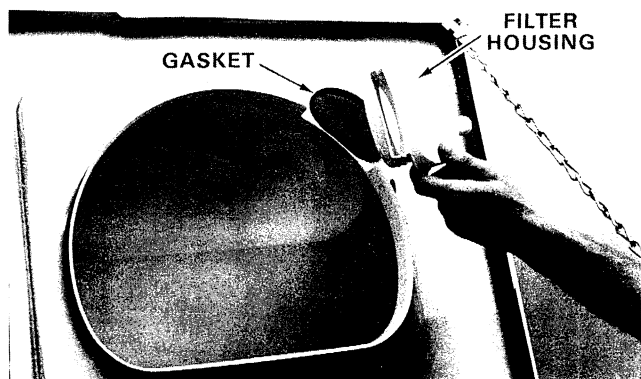
STEP 1 Lift the lid.



STEP 2 To remove, lift straight up, then clean the filter.

STEP 3 Disconnect the electrical power supply (section B).

STEP 4 To remove the filter housing, raise the top (section K, proc. 1).



STEP 5 With brush filter removed, pull the housing out of the gasket and top.

STEP 6 Remove the gasket.

REPLACEMENT

STEP 7 Place the new gasket around the edge of the opening in the top. This gasket has a small groove which fits into the top.

STEP 8 Push the new housing up into the groove of the gasket.

⚠ WARNING

Electrical Shock Hazard

- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

STEP 9 Lower the top (section K, proc. 1).

STEP 10 Insert the brush.

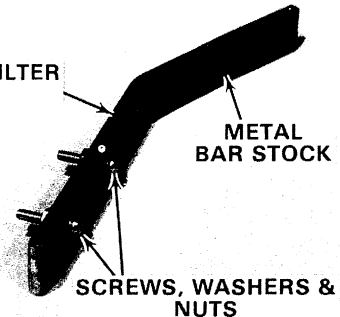
STEP 11 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

TYPE B

This type filter is located in the back left corner on the tub.

STEP 1 Disconnect the electrical power supply (section B).

TUB-MOUNTED FILTER TOOL



STEP 2 Use this tool and bend it in the middle as shown. Drill the first hole 1 inch from the end.

STEP 3 Drill the other hole 1-7/8 inches from the center of the end hole.

STEP 4 Use two 3/16-inch x 1/2-inch machine screws, washers and nuts and assemble them in the holes.

STEP 5 Raise the top (section K, proc. 1).

STEP 6 Remove the snubber and spring (section L, proc. 1).

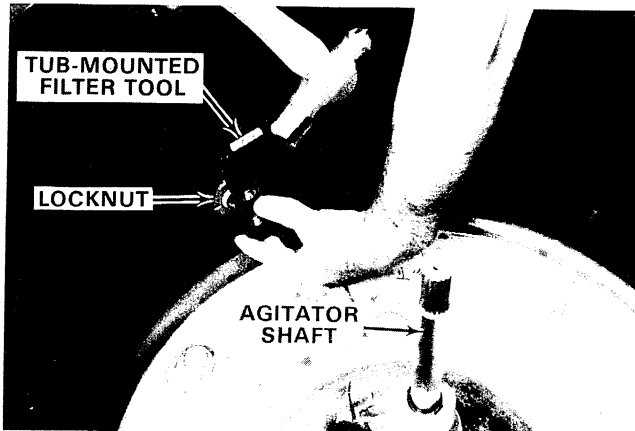
NOTE: Care should be taken when removing hoses, as they may have water in them.

STEP 7 Using pliers, slide the clamp off the port to the inlet valve and remove the hose.

STEP 8 Remove the tub ring and clips (section L, proc. 3).

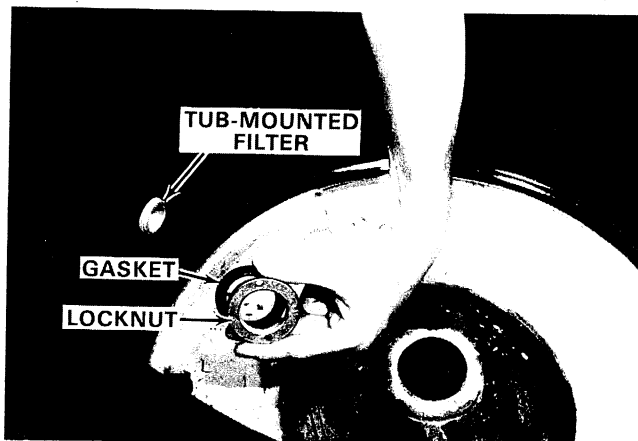
STEP 9 Remove the agitator cap, stud and agitator (section L, proc. 4; Type A or Type B).

STEP 10 Remove the locknut and basket (section L, proc. 5).

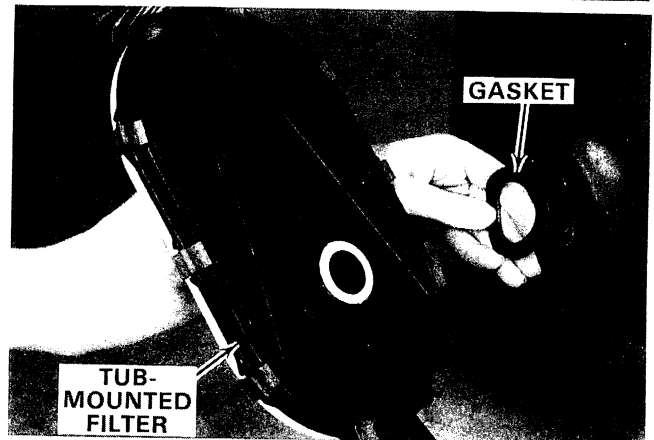


STEP 11 Place the homemade tool screws in the holes of the locknut located on the inside of the tub.

STEP 12 Using a hammer, tap the tool to the left to loosen the locknut.



STEP 13 Remove the fiber gasket and locknut from the inside of the tub.



STEP 14 Remove the tub-mounted filter and rubber gasket from the outside of the tub.

STEP 15 Using pliers, slide the clamps off the ports of the filter.

STEP 16 Remove the two hoses from the filter.

REPLACEMENT

STEP 17 Place the new tub-mounted filter on the two hoses.

STEP 18 Using pliers, slide the clamps onto the ports of the filter.

STEP 19 Replace the rubber gasket on the filter and insert into the tub.

STEP 20 Replace the fiber gasket from inside the tub.

STEP 21 Replace the locknut from inside the tub.

STEP 22 Using the homemade tool, insert the screws in the holes of the locknut and tap the end with a hammer to tighten.

STEP 23 Replace the basket and locknut (section L, proc. 5).

STEP 24 Replace the stud, agitator and cap (section L, proc. 4; Type A or Type B).

STEP 25 Replace the tub ring and clips (section L, proc. 3; Type A or Type B).

STEP 26 Using pliers, replace the hose on the port of the water inlet and slide the clamp up the hose and onto the port.

STEP 27 Replace the snubber and spring (section L, proc. 1).

⚠ WARNING

Electrical Shock Hazard

- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

STEP 28 Lower the top (section K, proc. 1).

STEP 29 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

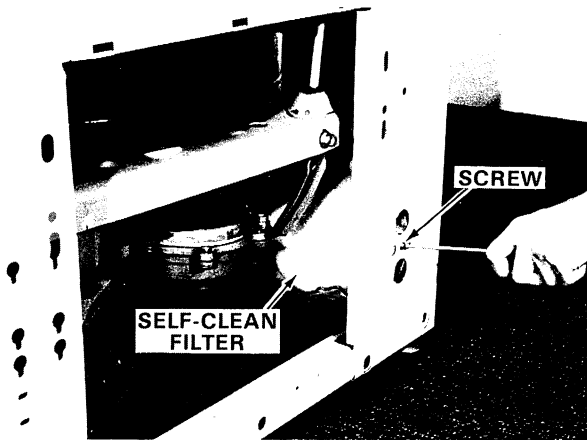
STEP 30 Run a cycle check (section F, proc. 2).

TYPE C

This self-cleaning filter is located in the left rear corner, held on with one screw to the cabinet.

STEP 1 Disconnect the electrical power supply (section B).

STEP 2 Using a screwdriver or nutdriver, remove the rear service panel.



STEP 3 Using a screwdriver or nutdriver, remove the screw holding the filter to the back of the cabinet.

NOTE: Care should be taken when removing hoses, as they may have water in them.

STEP 4 Using pliers, slide the hose clamps off the filter ports and remove the hoses.

REPLACEMENT

STEP 5 Check for cracks or see if there is anything inside the filter that might block the flow of water during washing or draining.

⚠ WARNING

Electrical Shock Hazard

- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

STEP 6 Using a screwdriver or nutdriver, place the new filter in the rear of the cabinet. Insert the screw, and tighten.

STEP 7 Using pliers, replace the hoses and slide the hose clamps over the filter ports.

STEP 8 Using a screwdriver or nutdriver, place the rear service panel and screws.

STEP 9 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

TYPE D

This type filter is located under the basket.

STEP 1 Disconnect the electrical power supply (section B).

STEP 2 Raise the top (section K, proc. 1).

STEP 3 Remove the snubber and spring (section L, proc. 1).

NOTE: Care should be taken when removing hoses, as they may have water in them.

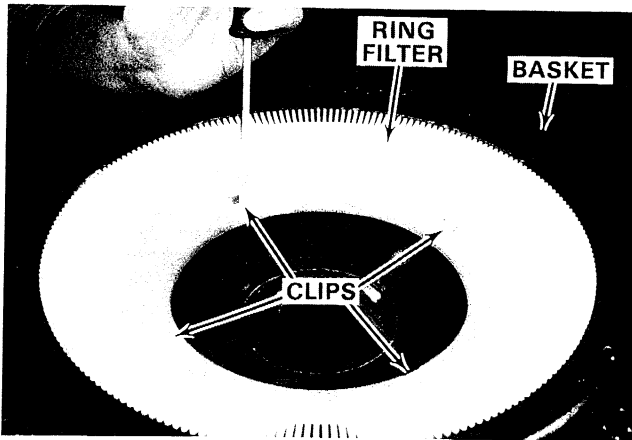
STEP 4 Using pliers, slide the clamp off the port to the inlet valve and remove the hose.

STEP 5 Remove the tub ring and clips (section L, proc. 3).

STEP 6 Remove the agitator cap, stud and agitator (section L, proc. 4; Type A or Type B).

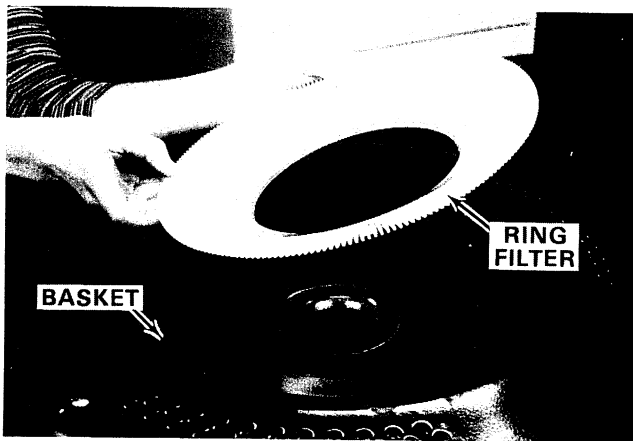
STEP 7 Remove the locknut and basket (section L, proc. 5).

STEP 8 Turn the basket over.



STEP 9 Using a screwdriver, punch out the four clips holding the filter to the bottom of the basket.

REPLACEMENT



STEP 10 Place the new ring filter on the bottom of the basket.

STEP 11 Push the four new clips on from inside the basket and into the new filter.

STEP 12 Replace the basket and locknut (section L, proc. 5).

STEP 13 Replace the stud, agitator and cap (section L, proc. 4; Type A or Type B).

STEP 14 Replace the tub ring and clips (section L, proc. 3; Type A or Type B).

STEP 15 Using pliers, replace the hose on the port of the water inlet and slide the clamp up the hose and onto the port.

STEP 16 Replace the snubber and spring (section L, proc. 1).

⚠ WARNING

Electrical Shock Hazard

- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

STEP 17 Lower the top (section K, proc. 1).

STEP 18 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

STEP 19 Run a cycle check (section F, proc. 2).

TYPE E

This is a combination manifold trap and self-cleaning filter.

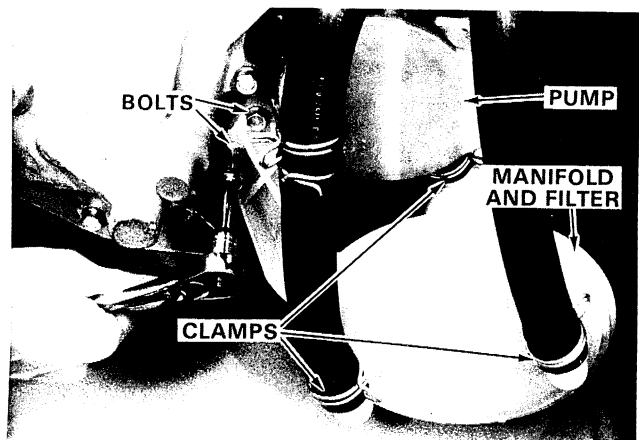
STEP 1 Disconnect the electrical power supply (section B).

STEP 2 See access to parts (section N, proc. 1).

STEP 3 Using a screwdriver, loosen the screw clamp at the top of the manifold.

NOTE: Care should be taken when removing hoses, as they may have water in them.

STEP 4 Using pliers, slide the three wire hose clamps off the ports and remove the hoses.



STEP 5 Using a socket wrench, remove the two bolts which hold the manifold and filter to the gearcase.

STEP 6 Carefully remove the manifold and filter.

REPLACEMENT

STEP 7 Check for cracks or see if there is anything inside the filter that might block the flow of water during washing or draining.

STEP 8 Connect the new manifold and filter to the hoses, making sure they seat properly.

STEP 9 Using a socket wrench, tighten the manifold and filter to the gearcase with the two bolts.

STEP 10 Using pliers, slide the wire hose clamps onto the ports of the combination trap and filter.

STEP 11 Using a screwdriver, tighten the screw clamp.

⚠ WARNING

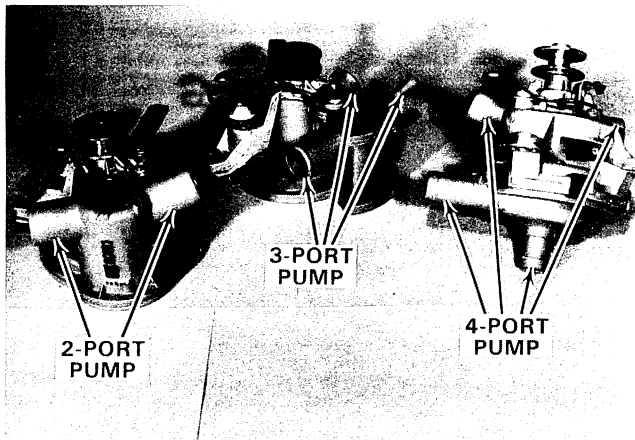
Electrical Shock Hazard

- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

STEP 12 See access to parts (section N, proc. 1).

STEP 13 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

PROCEDURE 4 Pump Replacement



See page 159, illus. no. 41 for location of part.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

There are three pump designs that are used on automatic washers. They are the two-, three- and four-port pumps.

The two-port pump is used on automatic washers using the self-cleaning filter or the water (suds saver) system.

The three-port pump is used on automatic washers using the manual clean filter.

The four-port pump is used on automatic washers using manual clean filter or the water (suds saver) system.

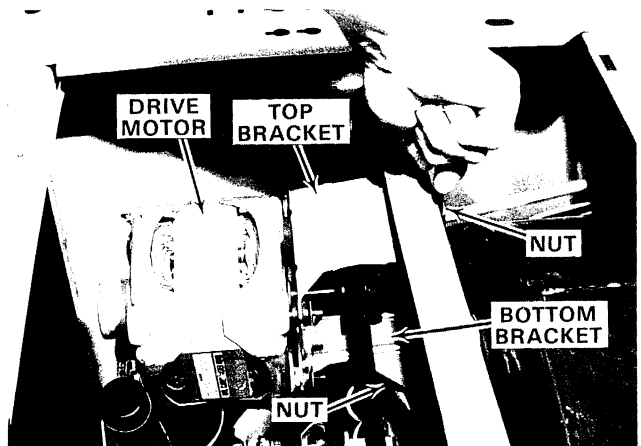
These pumps are mounted to the gearcase by two mounting bolts.

The direction of the water flow through the pump is controlled by a flapper valve inside the pump and a control lever. This control lever, located on the top of the pump, engages in a slot in the cam bar on the gearcase.

As this cam bar shifts, it moves the pump control lever. This lever, in turn, moves the flapper valve inside the pump to either recirculate or drain the water.

STEP 1 Disconnect the electrical power supply (section B).

STEP 2 See access to parts (section N, proc. 1).



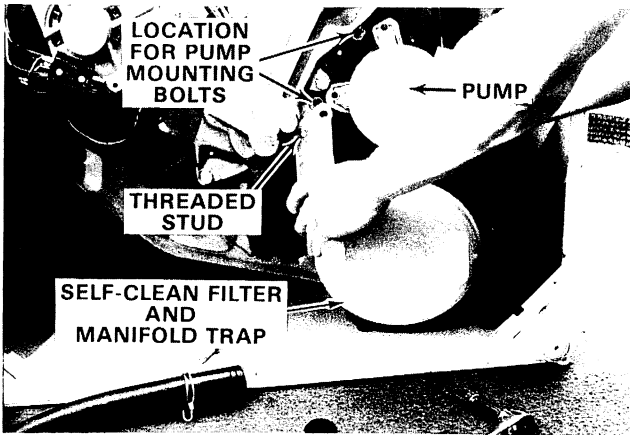
STEP 3 Using an open end wrench and a socket wrench, loosen the two main drive motor nuts.

STEP 4 Slide the motor to the right to loosen the belt.

NOTE: Care should be taken when removing hoses, as they may have water in them.

STEP 5 Using pliers, slide the hose clamps off the ports of the pump.

STEP 6 Remove the hoses from the pump.

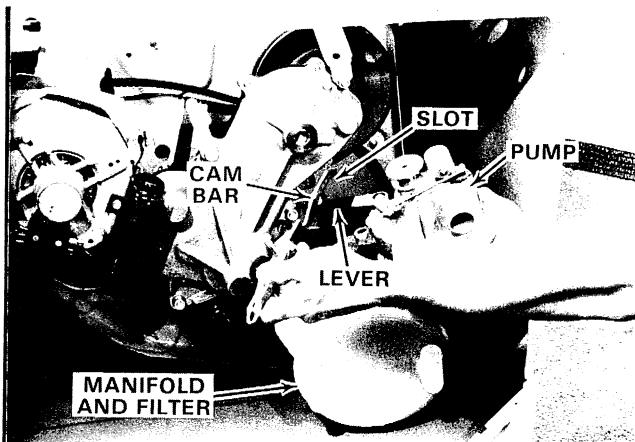


STEP 7 Using a socket wrench, remove the two bolts holding the pump to the gearcase.

STEP 8 Carefully remove the pump.

STEP 9 Check for cracks in the plastic body and look inside the ports for any blockage. Move the pump lever back and forth while looking in the ports to see if the flapper valve inside is making a tight seal when opening or closing the ports. Move the pulley back and forth to see if it moves or wobbles. If the pulley wobbles or the seal is not tight or if the plastic body is cracked, replace the pump.

REPLACEMENT

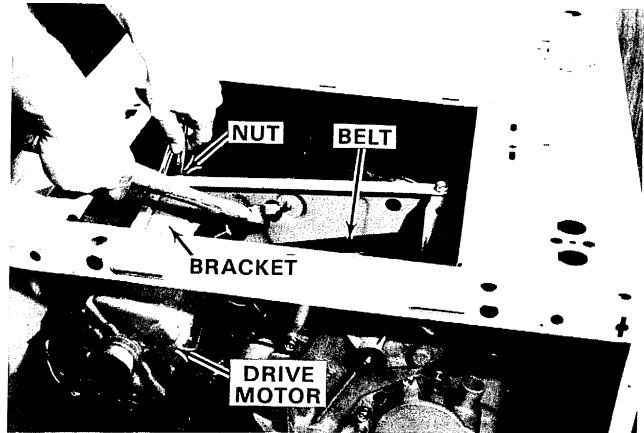


STEP 10 Place the new pump on the gearcase, making sure the pump lever is in the slot of the agitator cam bar on the gearcase.

STEP 11 Using a socket wrench, insert the bolts through the pump, into the gearcase and tighten.

STEP 12 Using pliers, slide the hoses and clamps onto the ports.

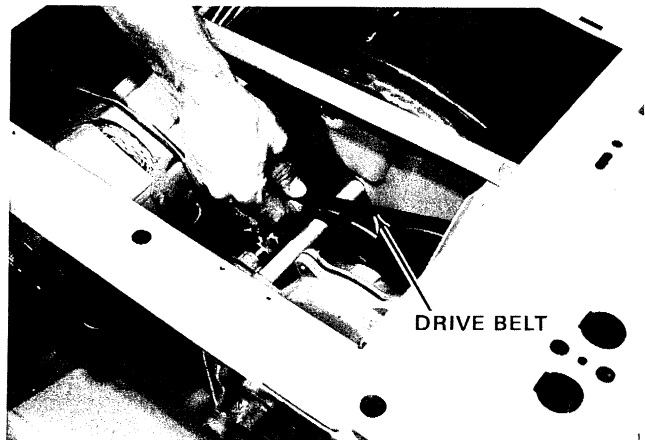
STEP 13 Replace the drive belt on the four pulleys.



STEP 14 Using an open end wrench and a socket wrench, firmly snug the two drive motor adjustment nuts.

STEP 15 Using a hammer, tap the inside edge of the drive motor bracket outward until the belt is tight.

STEP 16 Using an open end wrench and a socket wrench, finish tightening the two drive motor adjustment nuts.



STEP 17 Check the back-and-forth movement of the drive belt between the motor and drive pulleys.

A properly adjusted drive belt will move 1/2 inch when pressed with six pounds of force.

TIGHT: If the belt is too tight, it may cause early failure of the belt, bearings, drive motor or pump.

LOOSE: If the belt is too loose, slippage, no agitation or low spin speed could happen.

⚠ WARNING

Electrical Shock Hazard

- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

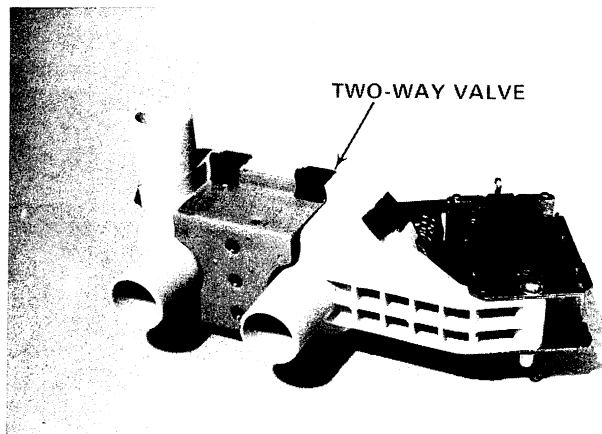
STEP 18 See access to parts (section N, proc. 1).

STEP 19 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

STEP 20 Run a cycle check (section F, proc. 2).

PROCEDURE 5

Two-Way Valve Testing and/or Replacement



See page 159, illus. no. 32 for location of part.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

OHMMETER REQUIRED

The two-way valve is used only on automatic washers having the water (suds saver) system.

The purpose of this valve is to open or close the suds or drain ports in the valve during the operation of the automatic washer.

This valve may be located to the right bottom, looking from the back, or mounted to a bracket in the middle, behind the access panel.

Internal parts of this two-way valve will not be serviced.

STEP 1 Disconnect the electrical power supply (section B).

STEP 2 Using a screwdriver or nutdriver, remove the rear service panel.

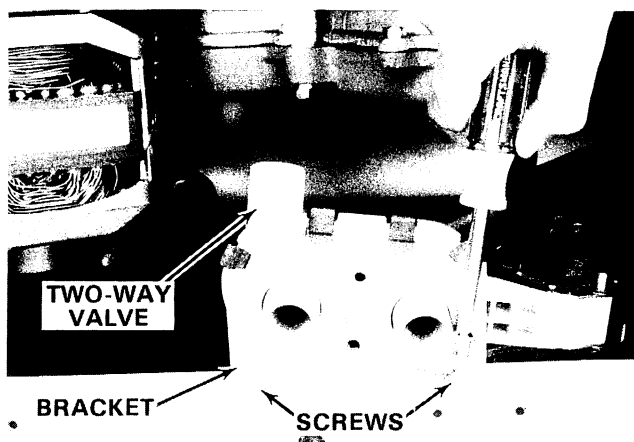
TESTING

STEP 3 Remove one wire at a time, carefully labeling each wire according to the terminal marking on the two-way valve. This procedure should assure that the right wire is reconnected to the right terminal.

NOTE: Care should be taken when removing hoses as they may have water in them.

STEP 4 To remove the two-way valve, use pliers and slide the clamps off the ports.

STEP 5 Remove the three hoses from the two-way valve ports.

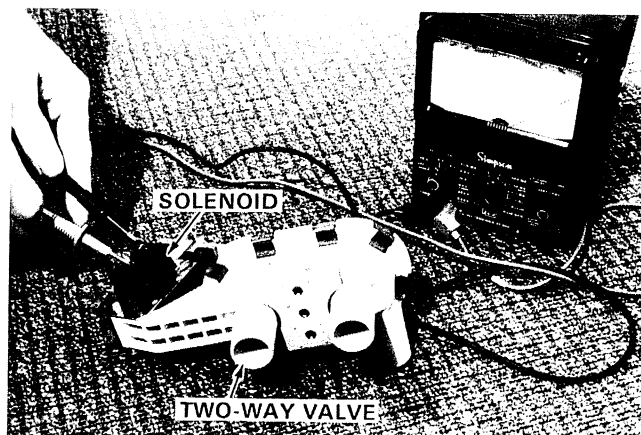


STEP 6 Using a screwdriver or nutdriver, remove the two screws holding the two-way valve to the back of the cabinet or the rear channel.

STEP 7 Carefully remove the two-way valve.

STEP 8 You must know how to use an ohmmeter.

STEP 9 Refer to the instructions that came with your volt-ohmmeter to find the proper scale to measure 10-15 ohms. Set the ohms scale and ZERO the meter.



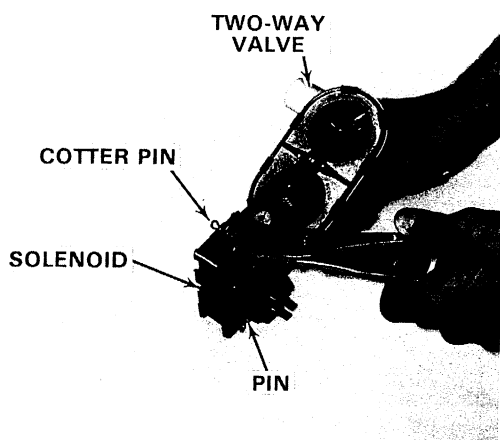
STEP 10 Touch one of the ohmmeter probes to one of the terminals on the solenoid.

STEP 11 Touch the other ohmmeter probe to the other terminal.

STEP 12 The ohmmeter should show between 10-15 ohms on the ohms scale.

STEP 13 If you do not get this reading, the solenoid is bad and needs replacing.

REPLACEMENT



STEP 14 To remove the solenoid, use pliers and bend the cotter pin straight to remove.

STEP 15 Using a screwdriver or pliers, remove the clip and pull the rivet out.

STEP 16 Carefully remove the solenoid.

STEP 17 Place the new solenoid on the new two-way valve.

STEP 18 Insert the cotter pin and bend.

STEP 19 Insert the rivet and assemble the clip.

STEP 20 Using a screwdriver or nutdriver, replace the new two-way valve on the cabinet with the screws.

STEP 21 Replace the three hoses on the new two-way valve ports.

STEP 22 Using pliers, slide the clamps onto the ports.

STEP 23 Reconnect the wires to the proper terminals as previously marked.

⚠ WARNING

Electrical Shock Hazard

- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

STEP 24 Using a screwdriver or nutdriver, assemble the rear service panel and screws.

STEP 25 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

STEP 26 Run a cycle check (section F, proc. 2).

PROCEDURE 6

Water Flow

Water washers contain valves, pumps, filters and hoses. The function is to fill the tub with water, filter the water, send water to storage tubs, only to recall the water later, then to drain the water from the automatic washer.

WARNING

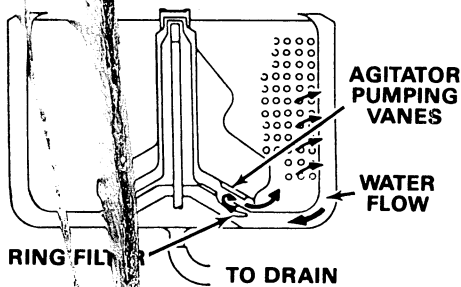
Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

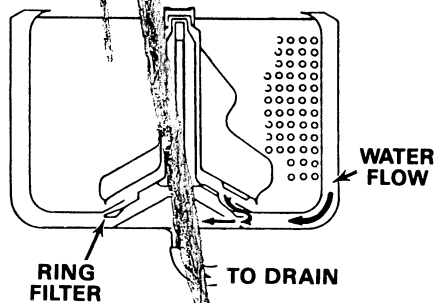
SELF-CLEANING FILTER WATER FLOW

SELF-CLEANING FILTER (Non-Suds Saver Models)

FILTERING

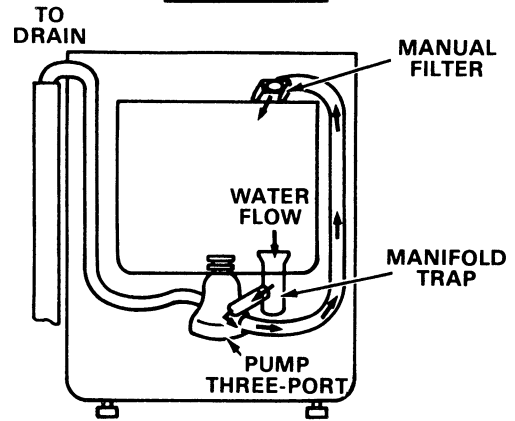


PUMP-OUT

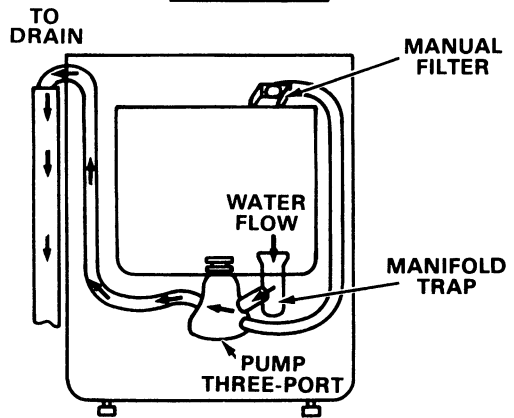


MANUAL CLEAN FILTER WATER FLOW (Non-Suds Saver Models)

FILTERING



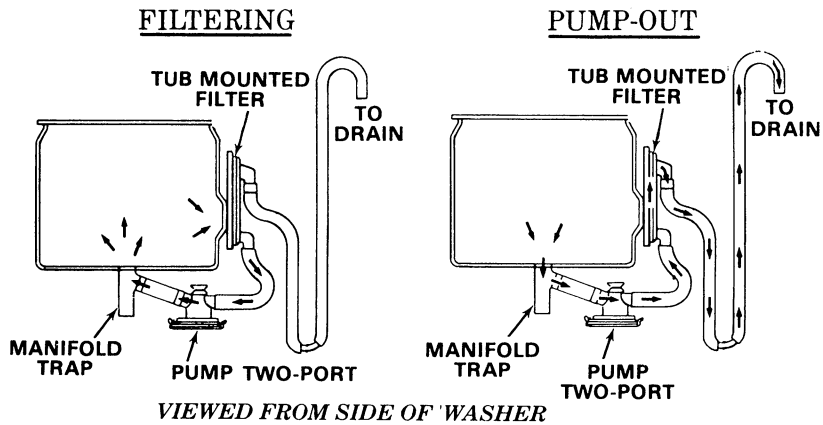
PUMP-OUT



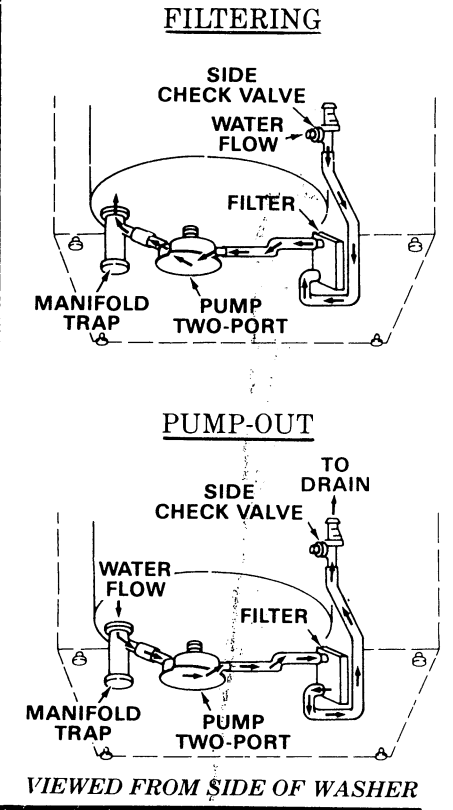
VIEWED FROM SIDE OF WASHER

**SELF-CLEANING FILTER
WATER FLOW**

**TUB-MOUNTED FILTER
(Non-Suds Saver Models)**

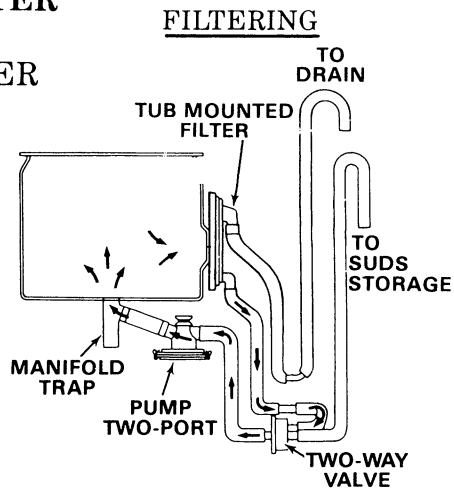


**SELF-CLEANING FILTER
WATER FLOW**

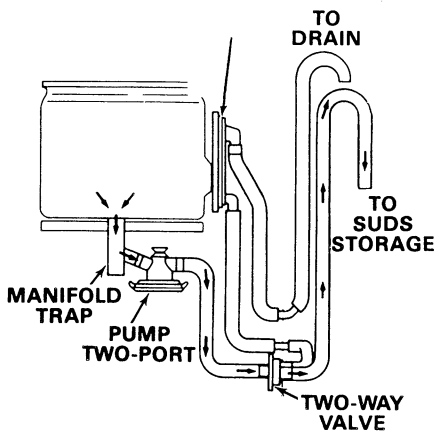


**SELF-CLEANING FILTER
WATER FLOW**

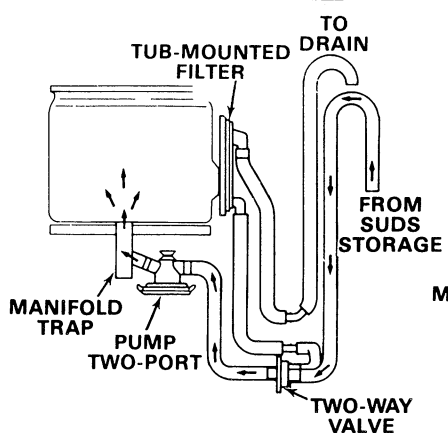
**TUB-MOUNTED FILTER
(Suds Saver Models)**



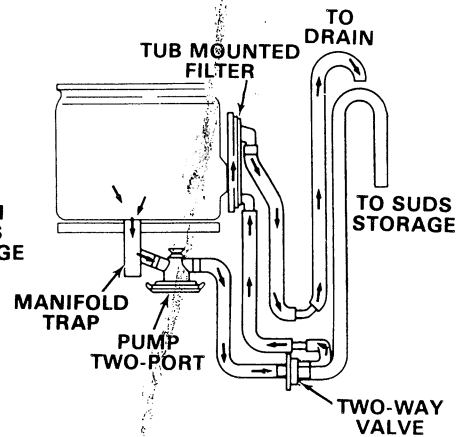
**TO SUDS WATER
STORAGE TUBS**



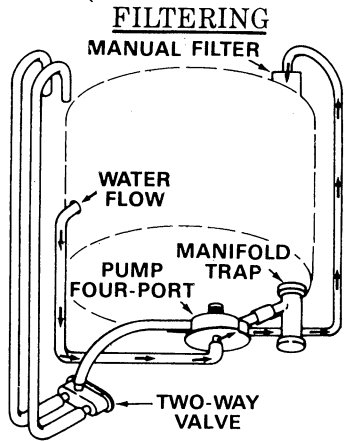
**FROM SUDS WATER
STORAGE TUBS**



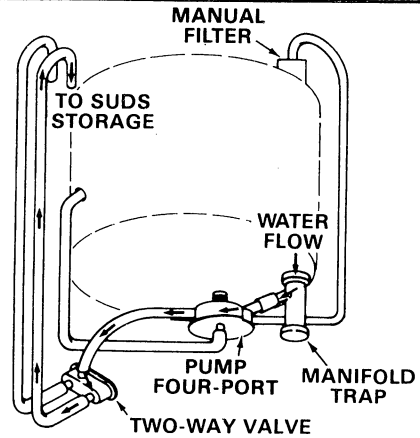
PUMP-OUT



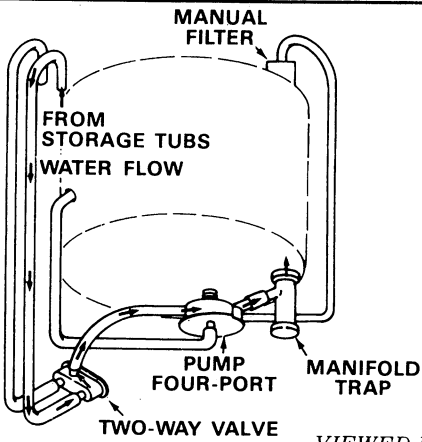
MANUAL CLEAN FILTER WATER FLOW
(Suds Saver Models)



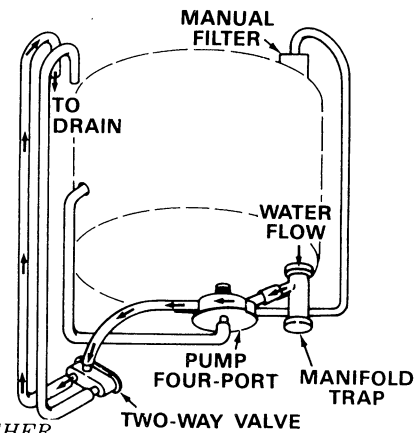
TO SUDS WATER STORAGE TUBS



FROM SUDS WATER STORAGE TUBS

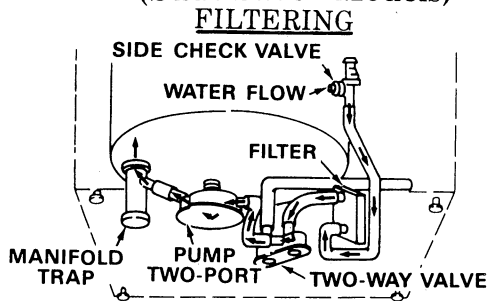


PUMP-OUT

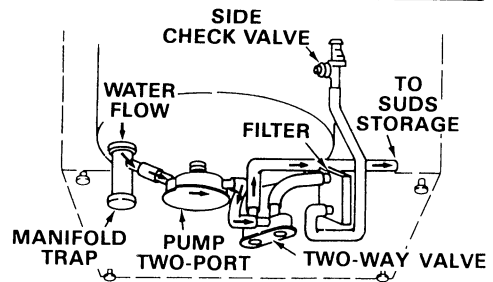


VIEWED FROM SIDE OF WASHER

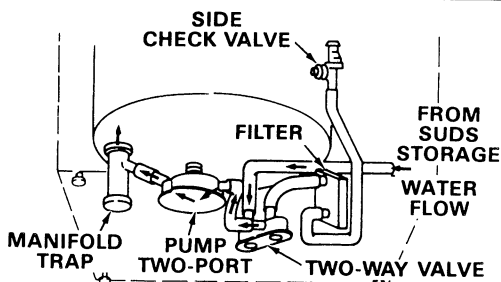
SELF-CLEANING FILTER WATER FLOW
(Suds Saver Models)



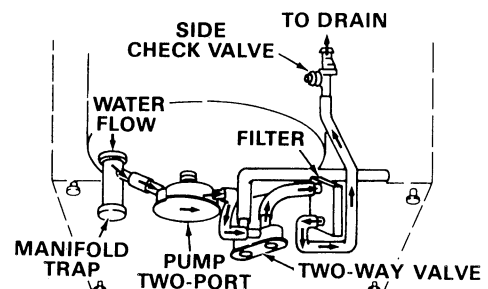
TO SUDS WATER STORAGE TUBS



FROM SUDS WATER STORAGE TUBS



PUMP-OUT



VIEWED FROM SIDE OF WASHER

SECTION N

Service Below the Tub Area

SECTION A MUST BE CAREFULLY READ BEFORE ANY REPAIR OR TESTING PROCEDURES ARE ATTEMPTED.



PROCEDURE	PAGE
1 Access to Parts	106
2 Drive Belt	107
*3 Gearcase	111
*4 Basket Drive	114
5 Control Magnet	116
*6 Plungers (Control Magnet)	117
*7 Cam Bars (Agitation and Spin)	118
8 Drive Motor	120
9 Motor Start Switch	124
10 Motor Capacitor	126

*If you do not feel you can do these procedures, call your nearest authorized WHIRLPOOL Factory Service Branch for servicing.

PROCEDURE 1

Access to Parts

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

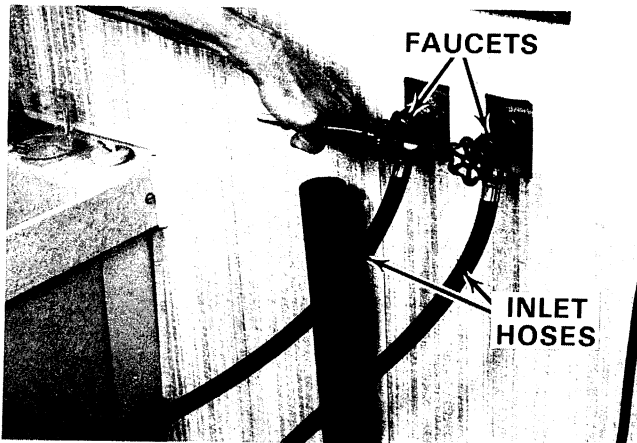
STEP 1 Disconnect the electrical power supply (section B).

⚠ CAUTION

Product Damage

- Do not use the console as a hand support when moving the appliance.
- Personal property or appliance damage may result.

STEP 2 Move the automatic washer away from the wall so you can work on it.



STEP 3 Shut off the hot and cold water faucets.

STEP 4 Identify the hot water inlet hose with a piece of tape. This procedure will be easier when replacing it on the hot faucet.

STEP 5 Using pliers, remove one of the hoses from the faucet.

STEP 6 Using a pail, drain the excess water from this hose.

STEP 7 Using pliers, remove the other hose from the faucet.

STEP 8 Using a pail, drain the excess water from this hose.

STEP 9 Remove the drain hose from the standpipe or laundry tub.

STEP 10 Using a pail, drain the excess water from this hose.

STEP 11 Tape the lid shut.

⚠ WARNING

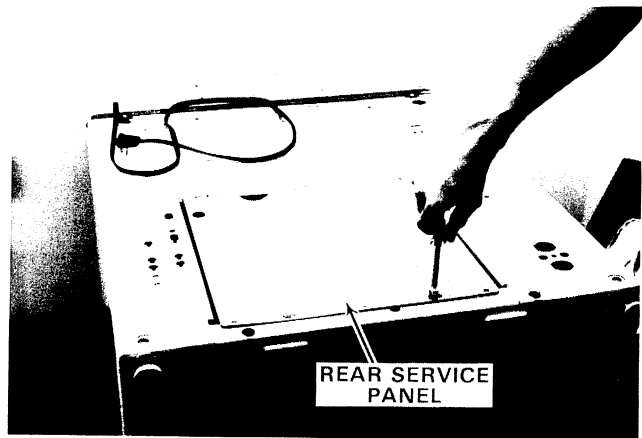
Personal Injury Hazard/Product Damage

- The automatic washer is very heavy. Get another person to help you when laying it down.
- Failure to do so could result in personal injury or product damage.

NOTE: Do not leave the washer lying down for any length of time, as this may cause the oil in the gearcase to leak out.

STEP 12 To protect the finish of the cabinet, lay a pad (rug or blanket) on the floor before laying the washer down.

STEP 13 Lay the washer on its back, front or side, depending what you are working on.



STEP 14 Using a screwdriver or nutdriver, remove the rear service panel.

REPLACEMENT

STEP 15 Using a screwdriver or nutdriver, attach the rear service panel and screws.

⚠ CAUTION

Product Damage

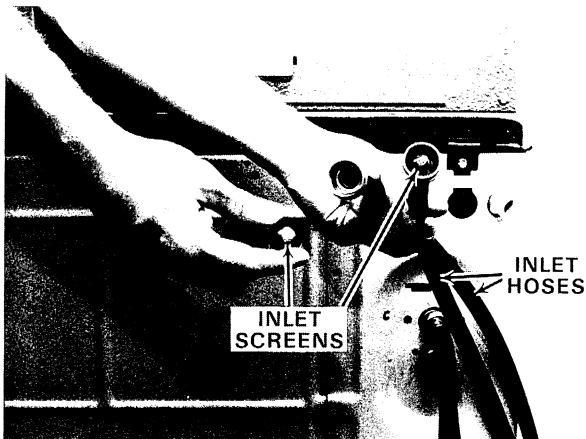
- Do not use the console as a hand support when moving the appliance.
- Personal property or appliance damage may result.

⚠ WARNING

Personal Injury Hazard/Product Damage

- The automatic washer is very heavy. Get another person to help you when lifting.
- Failure to do so could result in personal injury or product damage.

STEP 16 Set the washer upright and move it to its proper place.



SOME MODELS MAY NOT USE INLET SCREENS

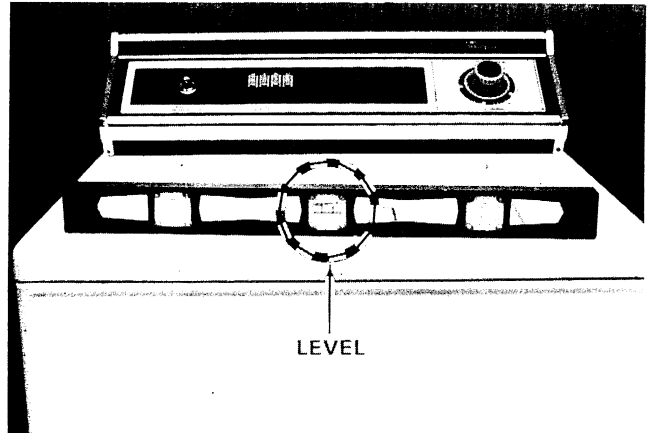
STEP 17 Before attaching the hot and cold inlet hoses, make sure the inlet screen located in the end of each hose at the faucet end is cleaned.

STEP 18 Using pliers, attach the water inlet hoses to the correct faucets.

STEP 19 Turn the faucets on and check for leaks.

STEP 20 Insert the drain hose into the standpipe or laundry tub.

STEP 21 Remove the tape.



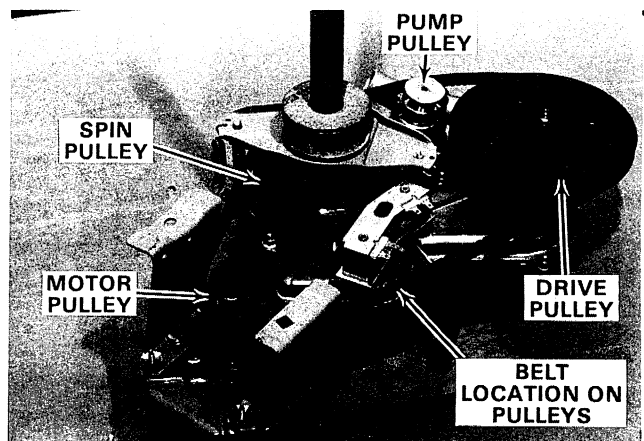
STEP 22 To level your washer, take a carpenter's level and place it on top of the washer, first side to side, then front to back. If you do not have a level, plug the power cord into the wall outlet and fill the washer basket with water to any given row of holes, then stop the washer. Check to see if the water meets the holes all the way around the basket. If it does not, screw the front feet of the washer up or down to adjust. Then tilt the machine forward and the back legs will self-adjust.

STEP 23 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

STEP 24 Run a cycle check (section F, proc. 2).

PROCEDURE 2

Drive Belt Replacement



See page 160, illus. no. 13 for location of part.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

The drive belt fits around the pump pulley, main drive pulley, spin pulley and the main drive motor pulley. The drive motor pulley moves the belt around these pulleys, causing the automatic washer to agitate, spin, circulate or drain the water.

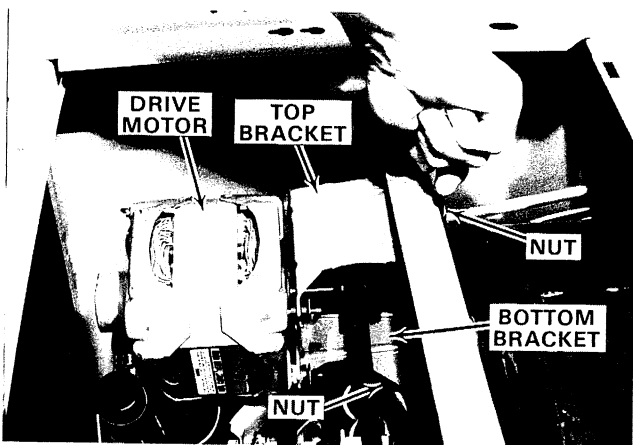
STEP 1 Disconnect the electrical power supply (section B).

STEP 2 If your drive belt only needs tightening, see steps 35-37.

STEP 3 If your drive belt broke during operation, any water standing in the basket must be emptied by hand.

STEP 4 Remove the agitator cap, stud and agitator (section L, proc. 4; Type A or Type B).

STEP 5 See access to parts (section N, proc. 1).

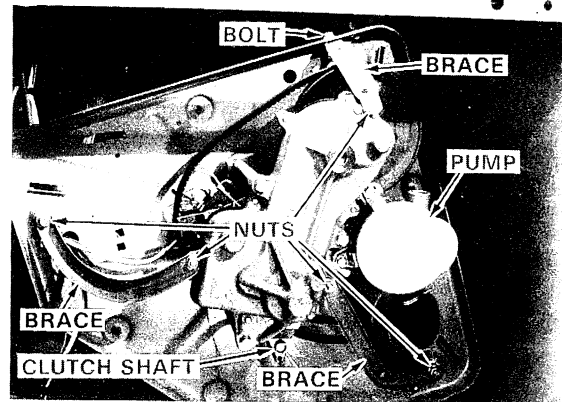


STEP 6 Using an open end wrench and a socket wrench, loosen the two main drive motor nuts.

STEP 7 Slide the motor to the right and remove the drive belt from the pulleys.

STEP 8 Slide the motor to the left.

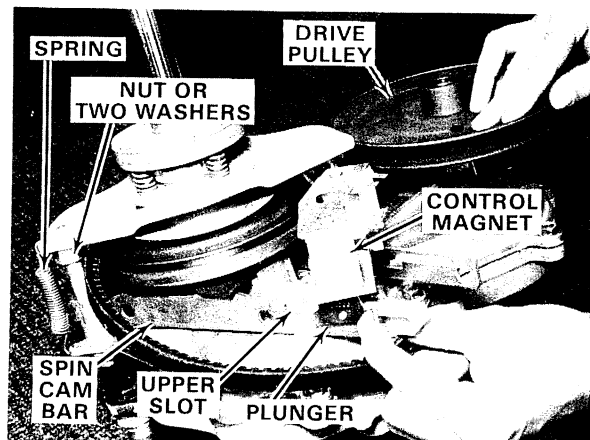
NOTE: The main drive motor was removed to clarify the picture. This drive motor does not have to be removed.



STEP 9 Using a socket wrench, remove the three braces by removing the five nuts and one bolt holding these braces from the base to the gearcase.

NOTE: Note the green ground wire on the stud closest to the motor. The ground wire must be on the stud when the support bracket is reinstalled.

STEP 10 Using a socket wrench, remove the bolts attaching the pump.

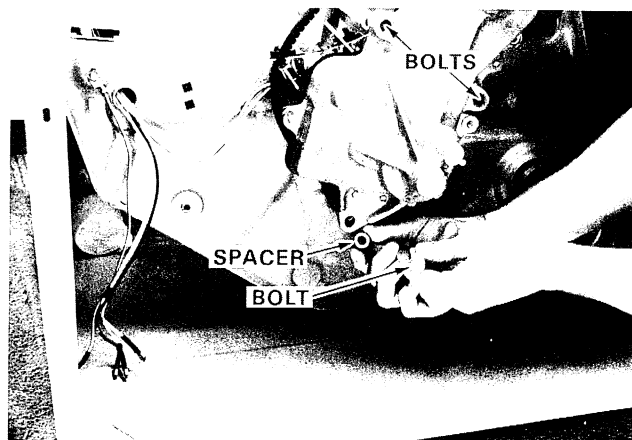


STEP 11 Using needle nose pliers, remove the end of the spring from the gearcase.

STEP 12 Hold the spin plunger up while turning the main drive pulley until the spin cam bar is in the spin position or pulled all the way back (plunger and rivet are in the upper slot).

This procedure will pull the spin cam bar back from the clutch shaft, allowing the shaft to move downward.

NOTE: The main drive motor was removed to clarify the picture. This drive motor does not have to be removed.

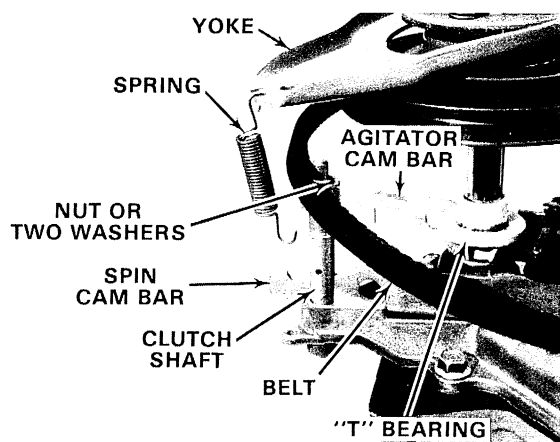


STEP 13 Using a socket wrench, remove the gearcase mounting bolt located lower left. A spacer will fall out when the bolt is removed.

STEP 14 Using a socket wrench, loosen the other two gearcase mounting bolts 1/2 inch or about 7-10 turns.

STEP 15 Using your hands, snap the yoke support out of the plastic retainer on the yoke. Your washer could have used a washer, spring and clip in place of the plastic retainer.

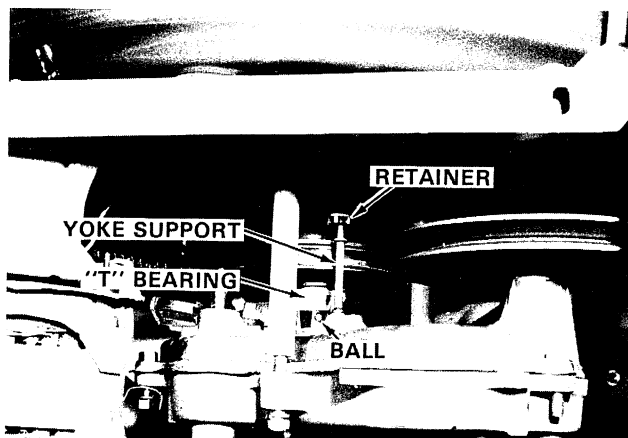
STEP 16 Pull the gearcase straight out until the gearcase stops against the bolts.



STEP 17 Slip the worn drive belt between the clutch shaft and yoke, and through the opening where the spacer was located.

REPLACEMENT

STEP 18 Slip the new drive belt through the spacer opening and between the clutch shaft and the yoke.



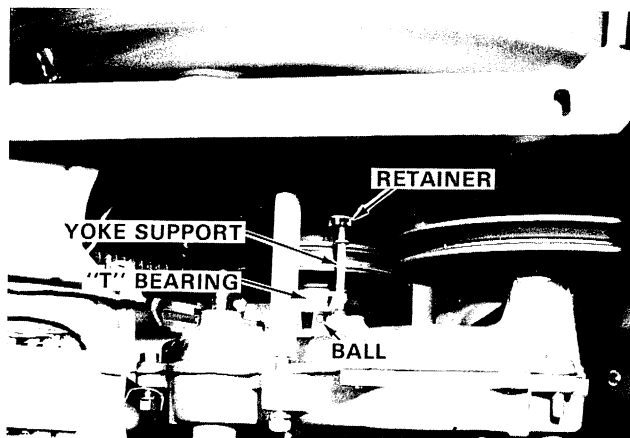
NOTE: Be sure the "T" bearing and ball are in the proper place on the agitator shaft.

The ball fits into a hole in the gearcase shaft, then the "T" bearing with a slot in it fits down over the ball.

Some washers could have used "C" type clips with the "T" bearing instead of the ball. This clip is located in a groove just under the "T" bearing.

Be sure the two washers or hexnut are in their proper place on the clutch shaft.

STEP 19 Push the gearcase back in.



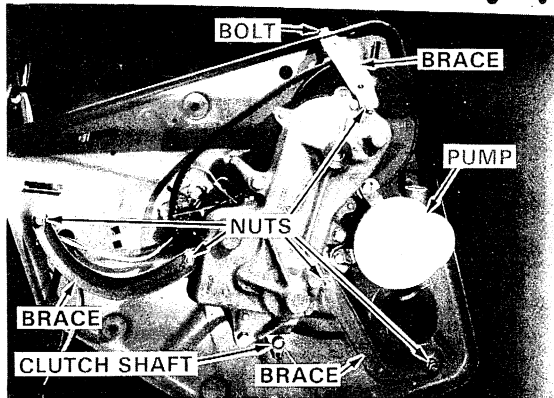
STEP 20 Snap the yoke support into the plastic retainer on the yoke. Your washer could have used a washer, spring and clip in place of the plastic retainer.

STEP 21 Insert the clutch shaft with the two washers or hexnut into the hole at the other end of the yoke.

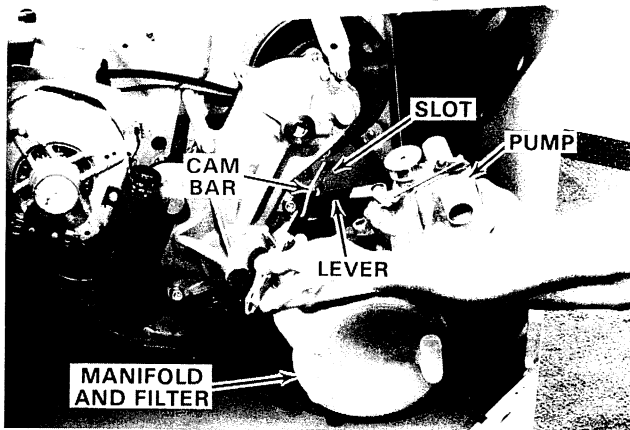
STEP 22 Tighten the two gearcase mounting bolts finger tight only.

STEP 23 Insert the spacer and mounting bolt into the lower left stud, finger tight only.

SERVICE BELOW THE TUB AREA—SECTION N—PROCEDURE 2



STEP 24 Replace the three support braces on the studs.



STEP 25 Replace the pump on the gearcase with the two mounting bolts, finger tight only.

NOTE: Make sure the pump lever is in the slot of the agitator cam bar.

STEP 26 Insert the bolt through the base and into the brace, finger tight only.

STEP 27 Replace the five nuts on the threaded studs the support braces are on, finger tight only.

STEP 28 Using a socket wrench, tighten the three gearcase mounting bolts.

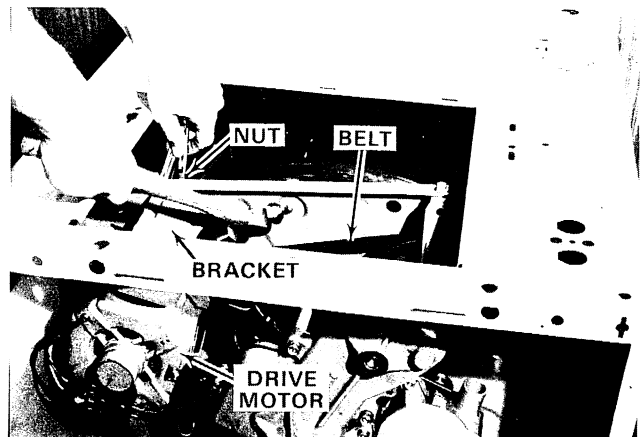
STEP 29 Using needle nose pliers, attach the spring to the gearcase and yoke.

STEP 30 Using a socket wrench, tighten the five nuts and one bolt holding the three support braces.

STEP 31 Using a socket wrench, tighten the pump mounting bolts.

STEP 32 Move the motor and bracket to the right.

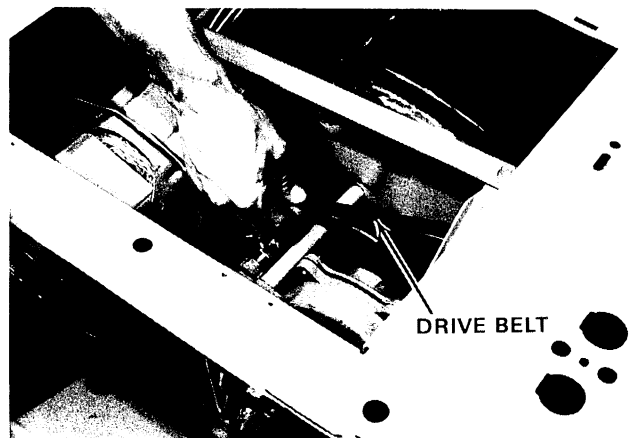
STEP 33 Place the drive belt on the four pulleys.



STEP 34 Using an open end wrench and a socket wrench, firmly snug the two drive motor adjustment nuts.

STEP 35 Using a hammer, tap the inside edge of the drive motor bracket outward until the belt is tight.

STEP 36 Using an open end wrench and a socket wrench, finish tightening the two drive motor adjustment nuts.



STEP 37 Check the back-and-forth movement of the drive belt between the motor and drive pulleys.

A properly adjusted drive belt will move back and forth 1/2 inch with six pounds of force applied.

TIGHT: If the belt is too tight, it may cause early failure of the belt, bearings, drive motor or pump.

LOOSE: If the belt is too loose, slippage, no agitation or low spin speed could happen.

⚠ WARNING

Electrical Shock Hazard

- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

STEP 38 See access to parts (section N, proc. 1).

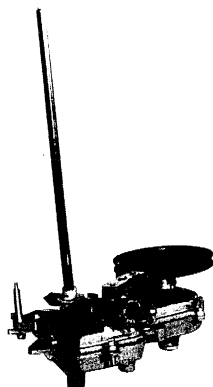
STEP 39 Replace the stud, agitator and cap (section L, proc. 4; Type A or Type B).

STEP 40 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

STEP 41 Run a cycle check (section F, proc. 2).

PROCEDURE 3

Gearcase Replacement



See page 160, illus. no. 26 for location of part.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

NOTE: This manual will not cover servicing of any parts inside the gearcase. Call your Authorize WHIRLPOOL Factory Service Branch for any servicing inside this part.

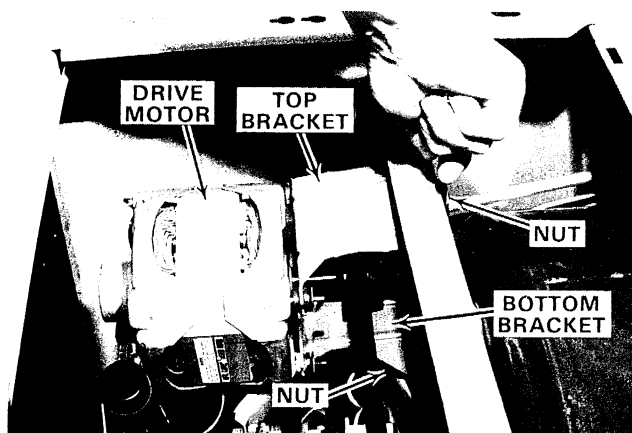
The main function of the gearcase is to drive the agitator—first in one direction then the other.

STEP 1 Disconnect the electrical power supply (section B).

STEP 2 Lift the lid.

STEP 3 Remove the agitator cap, stud and agitator (section L, proc. 4; Type A or Type B).

STEP 4 See access to parts (section N, proc. 1).

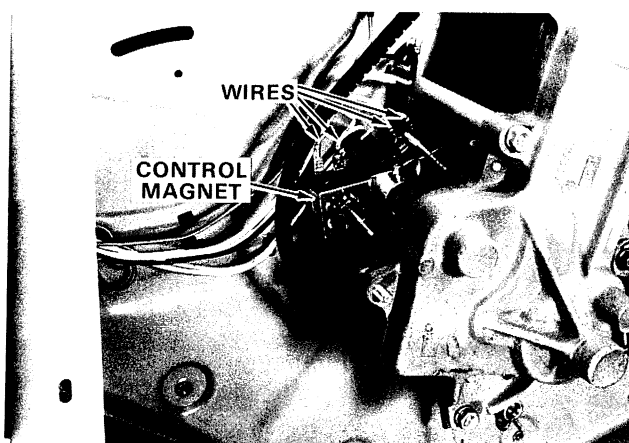


STEP 5 Using an open end wrench and a socket wrench, loosen the two main drive motor nuts.

STEP 6 Slide the motor to the right and remove the belt from the pulleys.

STEP 7 Slide the motor to the left.

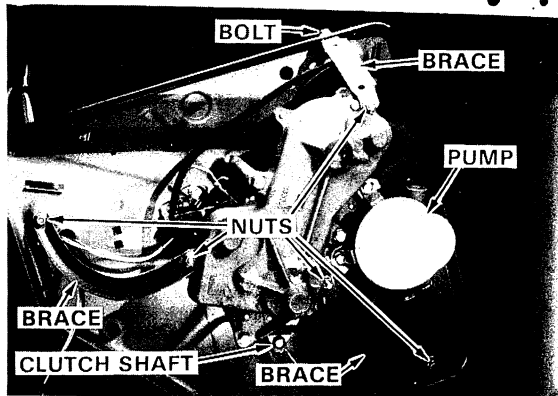
NOTE: The main drive motor was removed to clarify the picture. This drive motor does not have to be removed.



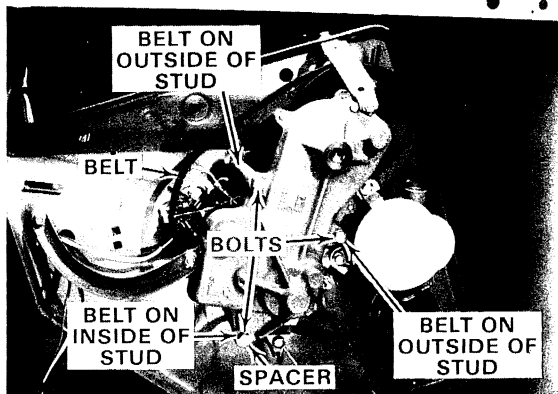
STEP 8 One at a time, remove the wires from the top of the control magnet, carefully labeling each wire according to the terminal marking on the control magnet. This procedure should assure that the right wire is reconnected to the right terminal.

SERVICE BELOW THE TUB AREA—SECTION N—PROCEDURE 3

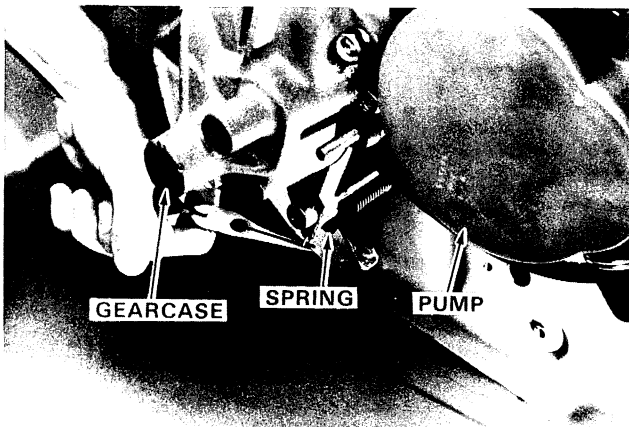
STEP 9 Using a socket wrench, remove the bolts attaching the pump.



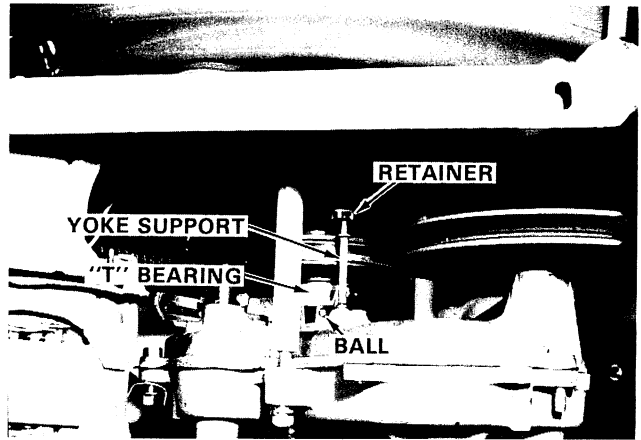
STEP 10 Using a socket wrench, remove the five nuts and one bolt, holding the three support braces, from the base to the gearcase.



STEP 11 Using a socket wrench, remove the three gearcase mounting bolts. One bolt will have a spacer between the gearcase and stud which will come out when the bolt is removed.

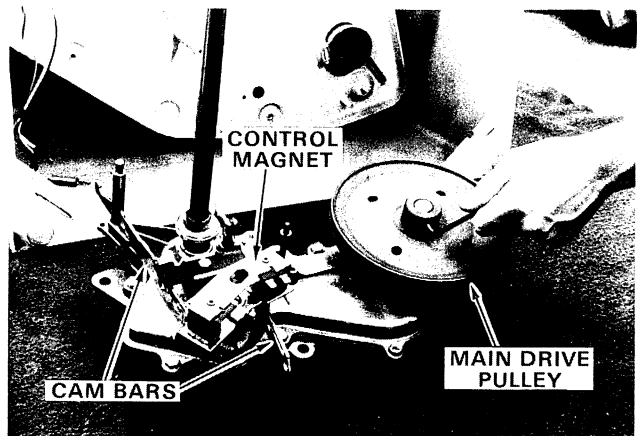


STEP 12 Using needle nose pliers, remove the end of the spring on the gearcase.



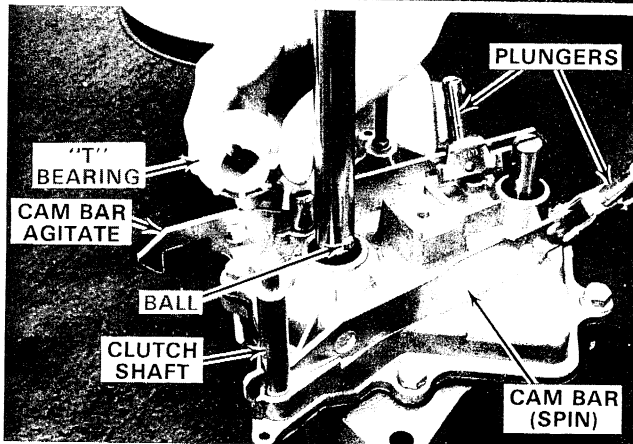
STEP 13 Using your hands, snap the yoke support out of the plastic retainer on the yoke. Your washer could have used a washer, spring and clip instead of the plastic retainer.

STEP 14 Pull the gearcase straight out.



STEP 15 With an allen wrench turn the setscrew and remove the main drive pulley from your old gearcase. You may have to heat the setscrew to loosen the glue on the threads of the setscrew.

STEP 16 Remove the control magnet, cam bars and other related parts from your old gearcase (section N, proc. 5, 6 & 7).

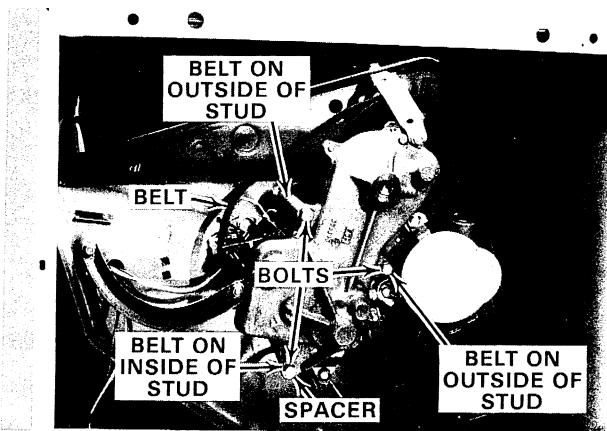


STEP 17 Remove the "T" bearing and ball from your old gearcase.

Some washers could have used "C" type clips with the "T" bearing instead of the ball. This clip is located in a groove just under the "T" bearing.

REPLACEMENT

STEP 18 Place the drive pulley on the new gearcase. Line up the hole in the pulley with the hole in the shaft and tighten the setscrew.



STEP 19 Place the drive belt over the top and right studs and inside the left stud.

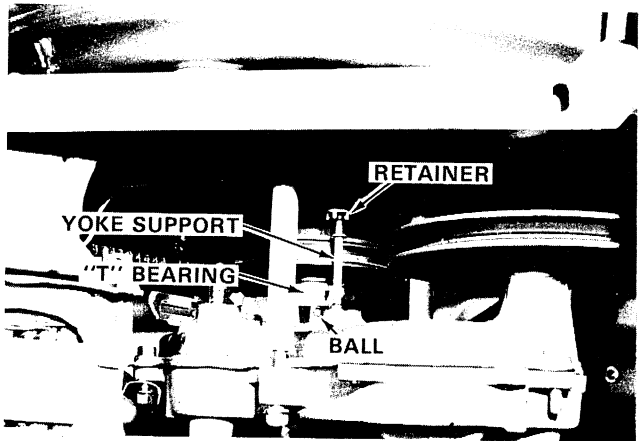
STEP 20 Carefully slide the new gearcase into the basket drive.

NOTE: Be sure the "T" bearing and ball are in their proper place on the agitator shaft.

The ball fits into a hole in the gearcase shaft, then the "T" bearing with a slot in it, fits down over the ball.

Some washers could have used "C" type clips with the "T" bearing instead of the ball. This clip is located in a groove just under the "T" bearing.

Be sure the two washers or hexnut are in their proper place on the clutch shaft.



STEP 21 Snap the yoke support into the plastic retainer on the yoke. Your washer could have used a washer, spring and clip instead of the plastic retainer.

STEP 22 Insert the clutch shaft with the two washers or hexnut into the hole at the other end of the yoke.

NOTE: Make sure the drive belt is also on the inside of this clutch shaft.

STEP 23 Insert the two mounting bolts through the gearcase and into the top and right studs, finger tight only.

STEP 24 Insert the spacer and mounting bolt into the left stud, finger tight only.

STEP 25 Replace the three gearcase support braces.

STEP 26 Replace the pump, manifold and filter (if used), to the gearcase with the two mounting bolts, finger tight only.

NOTE: Make sure the pump lever is in the slot of the agitator cam bar.

STEP 27 Insert the bolt through the base and into the brace, finger tight only.

STEP 28 Replace the five nuts on the threaded studs the support braces are on, finger tight only.

STEP 29 Using a socket wrench, tighten the three gearcase mounting bolts.

STEP 30 Using needle nose pliers, attach the spring to the gearcase and yoke.

STEP 31 Using a socket wrench, tighten the five nuts and one bolt holding the support braces.

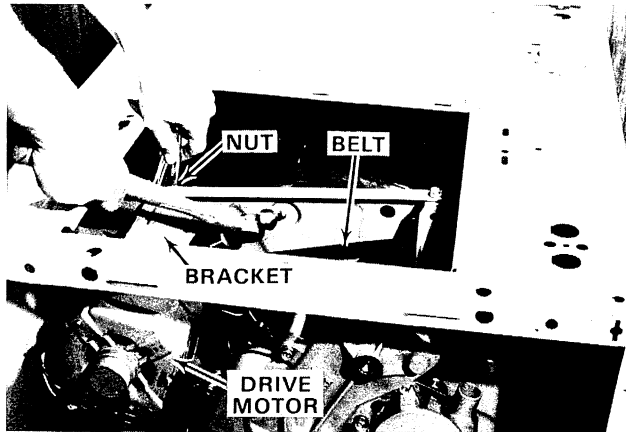
SERVICE BELOW THE TUB AREA—SECTION N—PROCEDURE 4

STEP 32 Using a socket wrench, tighten the pump mounting bolts.

STEP 33 Reconnect the wires to the proper terminals as previously marked.

STEP 34 Place the drive belt on the pulleys.

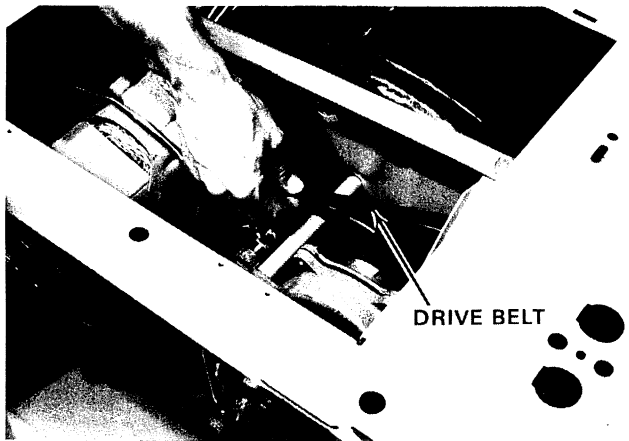
STEP 35 Slide the motor to the left.



STEP 36 Using an open end wrench and a socket wrench, firmly snug the two drive motor adjustment nuts.

STEP 37 Using a hammer, tap the inside edge of the drive motor bracket outward until the belt is tight.

STEP 38 Using an open end wrench and a socket wrench, finish tightening the two drive motor adjustment nuts.



STEP 39 Check the back-and-forth movement of the drive belt between the motor and drive pulleys.

A properly adjusted drive belt will move back and forth 1/2 inch with six pounds of force applied.

TIGHT: If the belt is too tight, it may cause early failure of the belt, bearings, drive motor or pump.

LOOSE: If the belt is too loose, slippage, no agitation or low spin speed could happen.

⚠ WARNING

Electrical Shock Hazard

- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

STEP 40 See access to parts (section N, proc. 1).

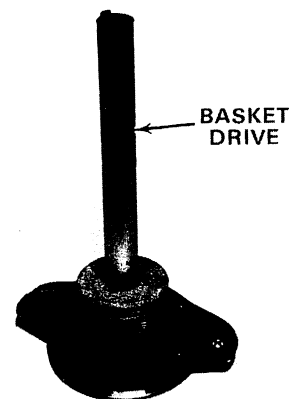
STEP 41 Replace the agitator, stud and cap (section L, proc. 4; Type A or Type B).

STEP 42 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

STEP 43 Run a cycle check (section F, proc. 2).

PROCEDURE 4

Basket Drive Replacement



See page 160, illus. no. 20 for location of part.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

NOTE: This manual will not cover servicing of any parts on the basket drive. To clean the grease or oil off the pads or check the pads for wear, call your Authorized WHIRLPOOL Factory Service Branch for any servicing on this part.

Noise caused by worn centerpost bearings cannot be corrected by replacing the basket drive. Special tools are required to remove the centerpost bearings. This repair must be done by a qualified service technician.

The main function of the basket drive is to spin the basket or stop the basket when the lid is opened or the cycle has ended.

STEP 1 Disconnect the electrical power supply (section B).

STEP 2 Raise the top (section K, proc. 1).

STEP 3 Remove the snubber and spring (section L, proc. 1).

NOTE: Care should be taken when removing hoses, as they may have water in them.

STEP 4 Using pliers, slide the clamp off the port to the water inlet, and remove the hose.

STEP 5 Remove the tub ring and clips (section L, proc. 3).

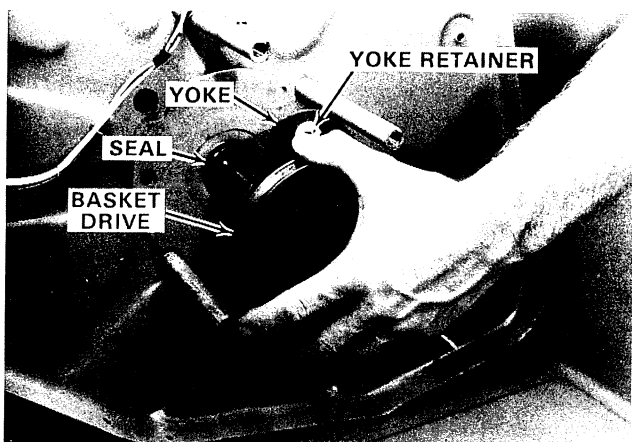
STEP 6 Remove the agitator cap, stud and agitator (section L, proc. 4; Type A or Type B).

STEP 7 Remove the locknut, basket and drive block (section L, proc. 5).

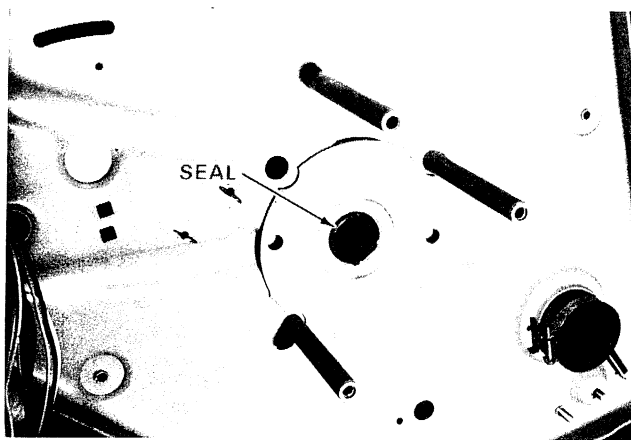
STEP 8 Lower the top (section K, proc. 1).

STEP 9 See access to parts (section N, proc. 1).

STEP 10 Remove the gearcase (section N, proc. 3).



STEP 11 Remove the basket drive by carefully pulling straight out.



STEP 12 Check the lower seal in the base and make sure it stayed in place when you pulled the basket drive out.

If the seal came out, be sure there is RYKON grease in the cup (groove) of the seal. Place the cup side of the seal next to the bearing and tap in.

REPLACEMENT

NOTE: When inserting the basket drive, be very careful not to catch the seals.

STEP 13 Place the new basket drive into the centerpost and carefully push.

STEP 14 Replace the gearcase (section N, proc. 3).

⚠ WARNING

Electrical Shock Hazard

- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

STEP 15 See access to parts (section N, proc. 1).

STEP 16 Replace the drive block, basket and locknut (section L, proc. 5).

STEP 17 Replace the agitator, stud and cap (section L, proc. 4; Type A or Type B).

STEP 18 Replace the tub ring and clips (section L, proc. 3; Type A or Type B).

STEP 19 Using pliers, replace the hose on the port of the water inlet, and slide the clamp up the hose onto the port.

STEP 20 Replace the snubber and spring (section L, proc. 1).

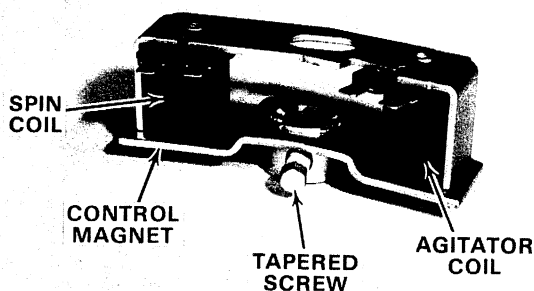
STEP 21 Lower the top (section K, proc. 1).

STEP 22 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

STEP 23 Run a cycle check (section F, proc. 2).

PROCEDURE 5

Control Magnet Testing and/or Replacement



See page 160, illus. no. 9 for location of part.

! WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

OHMMETER REQUIRED

The function of the control magnet is to raise or lower the plungers, shifting the cam bars to either the AGITATION or SPIN position.

STEP 1 Disconnect the electrical power supply (section B).

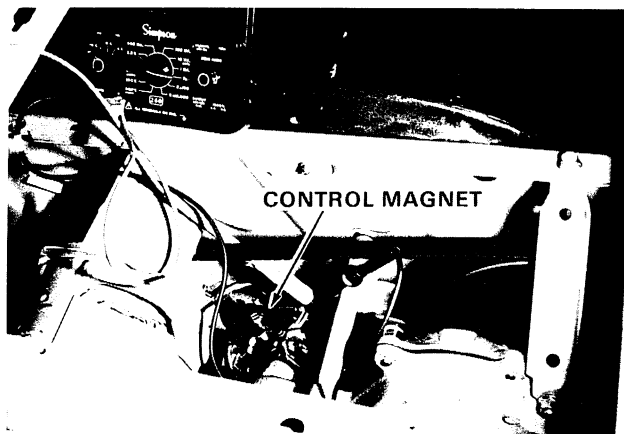
STEP 2 See access to parts (section N, proc. 1).

TESTING

STEP 3 One at a time, remove the wires from the top of the control magnet, carefully labeling each wire according to the terminal marking on the control magnet. This procedure should assure that the right wire is reconnected to the right terminal.

STEP 4 You must know how to use an ohmmeter.

STEP 5 Refer to the instructions that came with your volt-ohmmeter to find the proper scale to measure 200-700 ohms. Set the ohms scale and ZERO the meter.



STEP 6 Touch one ohmmeter probe to one of the terminals on the coil.

STEP 7 Touch the other ohmmeter probe to the other terminal on the same coil.

STEP 8 The ohmmeter should show between 200-700 ohms on the ohms scale.

STEP 9 If you do not get this reading, the control magnet is bad and needs replacing.

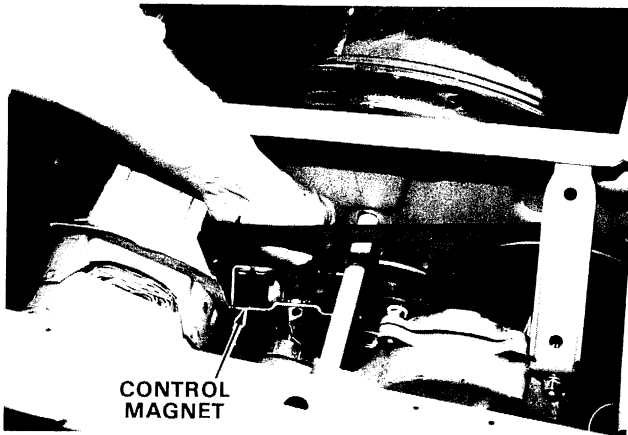
STEP 10 Check the other coil, touching one of the ohmmeter probes to one of the terminals.

STEP 11 Touch the other ohmmeter probe to the other terminal on the same coil.

STEP 12 You should read between 200-700 ohms on the ohms scale.

STEP 13 If you do not get this reading, the control magnet is bad and needs replacing.

REPLACEMENT



STEP 14 Using a socket wrench, remove the tapered screw.

STEP 15 Carefully remove the control magnet, lifting up and off the plungers.

STEP 16 Place the new control magnet over the plungers and on the stud, with the screw hole facing away from the agitator shaft.

STEP 17 Using a socket wrench, insert the tapered screw and tighten.

STEP 18 Place the wires through the top of the new control magnet or insert them in the bushing. Then reconnect the wires to the proper terminals as previously marked.

⚠ WARNING

Electrical Shock Hazard

- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

STEP 19 See access to parts (section N, proc. 1).

STEP 20 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

STEP 21 Run a cycle check (section F, proc. 2).

PROCEDURE 6

Plunger Replacement

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

See page 160, illus. no. 17 for location of part.

NOTE: If you do not feel you can do this procedure, call your Authorized WHIRLPOOL Factory Service Branch for servicing.

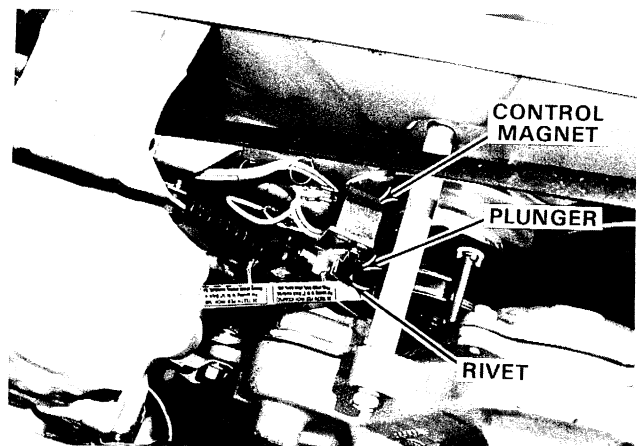
The plungers are secured to each cam bar with a hardened rivet. When the control magnet pulls the plunger up into the coil, the hardened rivet moves in offsetting slots in the cam bars. This action causes the automatic washer to shift into either AGITATION or SPIN.

The plastic liners used on each plunger are used to reduce the noise during operation.

STEP 1 Disconnect the electrical power supply (section B).

STEP 2 See access to parts (section N, proc. 1).

STEP 3 Remove the control magnet (section N, proc. 5).

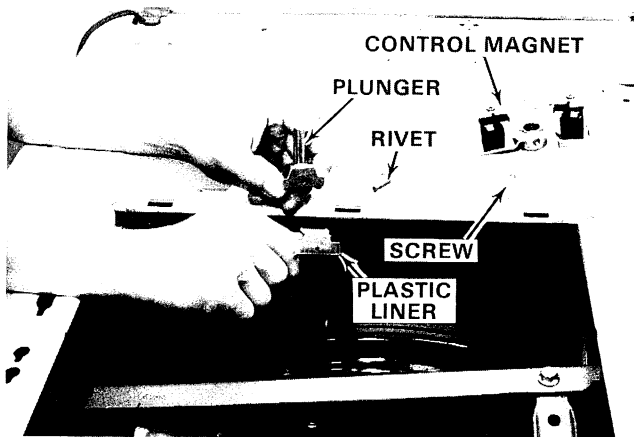


STEP 4 Using wire cutters or hacksaw blade, cut the rivets.

STEP 5 Slide the rivets out of the plungers.

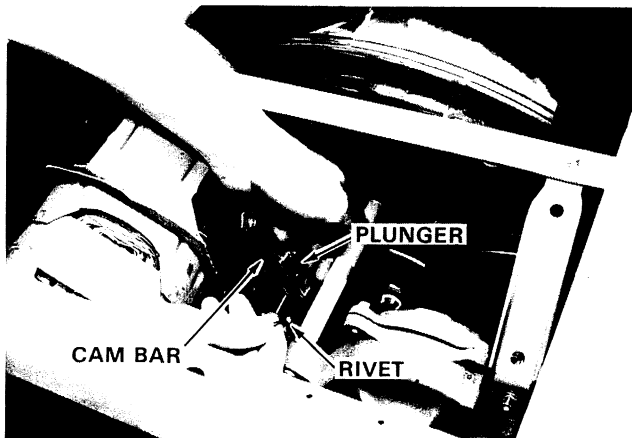
STEP 6 Lift the plungers and plastic liners off the cam bars.

REPLACEMENT



STEP 7 Place the new plastic liners inside the plungers with the curved edges facing the plungers.

STEP 8 Place the new plungers on the cam bars.



STEP 9 Slide the new hardened rivets through the plungers.

STEP 10 Place the new speed clips on the end of the rivets and push on until they hit the plungers.

STEP 11 Replace the control magnet (section N, proc. 5).

⚠ WARNING

Electrical Shock Hazard

- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

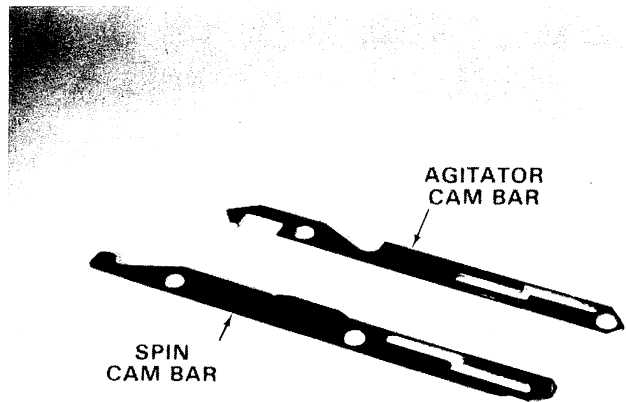
STEP 12 See access to parts (section N, proc. 1).

STEP 13 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

STEP 14 Run a cycle check (section F, proc. 2).

PROCEDURE 7

Cam Bar Replacement



See page 160, illus. no.'s 12 and 16 for location of parts.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

NOTE: If you do not feel you can do this procedure, call your Authorized WHIRLPOOL Factory Service Branch for servicing.

During agitation, one coil raises the plunger, moving the agitator cam bar in such a manner as to agitate the clothes and change the direction of the flow of water through the pump.

During spin the other coil raises the other plunger, moving the spin cam bar in such a manner as to cause the basket drive pads to come in contact with the basket drive pulley.

STEP 1 Disconnect the electrical power supply (section B).

STEP 2 Lift the lid.

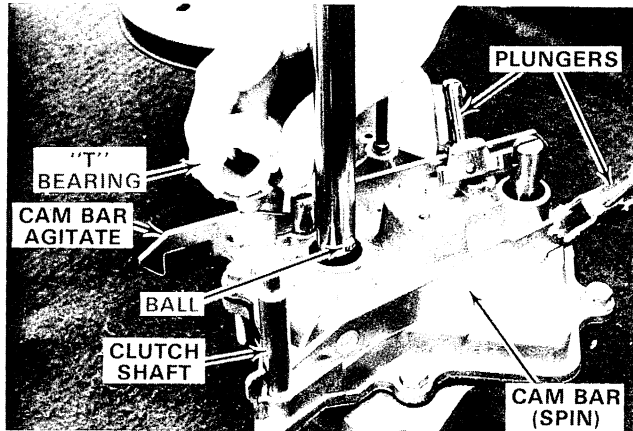
STEP 3 Remove the agitator cap, stud and agitator (section L, proc. 4; Type A or Type B).

STEP 4 See access to parts (section N, proc. 1).

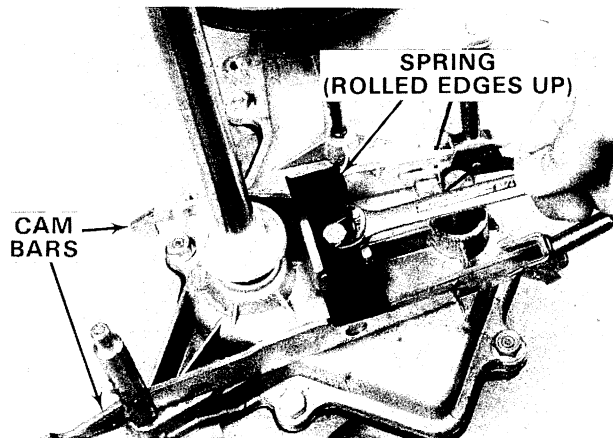
STEP 5 Remove the gearcase (section N, proc. 3).

STEP 6 Remove the control magnet (section N, proc. 5).

STEP 7 Remove the plungers (section N, proc. 6).

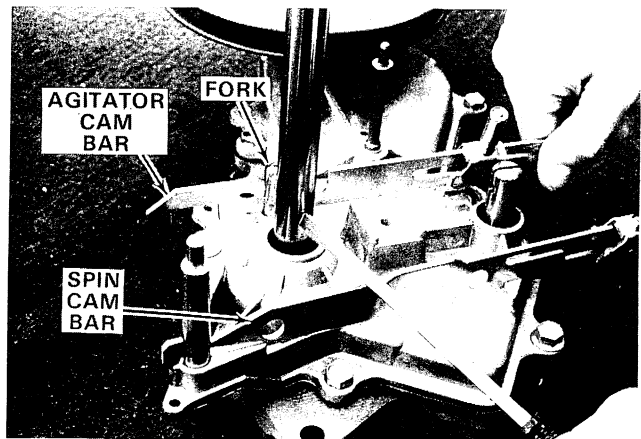


STEP 8 Slide the "T" bearing up and off the agitator shaft, and remove the ball.



STEP 9 Using a socket wrench or open end wrench, remove the screw holding the cam bar spring.

STEP 10 AGITATOR CAM BAR REMOVAL.

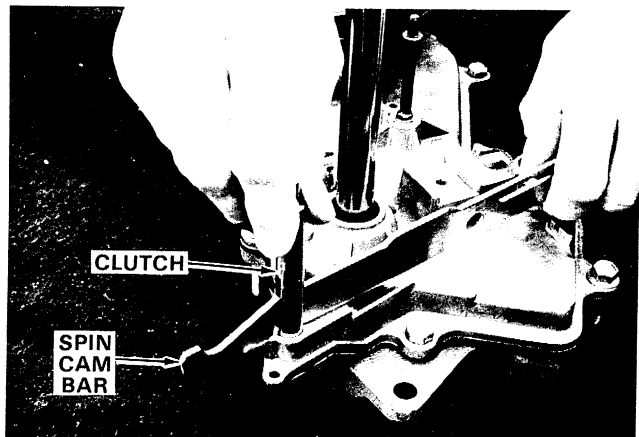


NOTE: A Insert the end of a flat blade screwdriver into the hole on the agitator shaft.

NOTE: B Place the screwdriver over the spin cam bar and pry the agitator shaft up.

NOTE: C While lifting the agitator shaft, slide the agitator cam bar out of the fork.

STEP 11 SPIN CAM BAR REMOVAL.



NOTE: A Lift up on the clutch shaft while pulling the spin cam bar out.

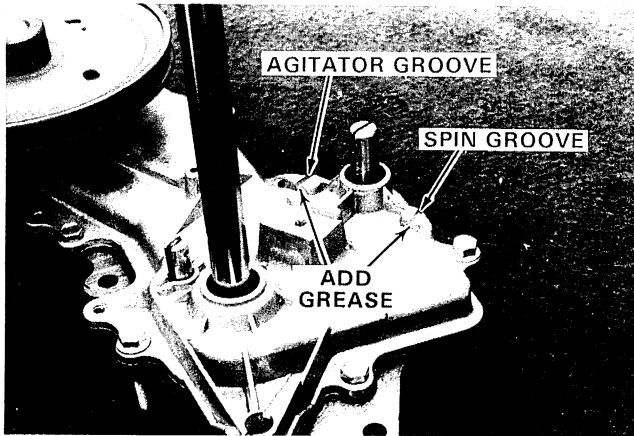
STEP 12 Replace the plungers (section N, proc. 6).

REPLACEMENT

STEP 13 Place RYKON grease in both of the grooves where the cam bars ride on the gearcase cover.

STEP 14 Raise the clutch shaft (with the long slot facing the plunger) and slide the new spin cam bar in the slot.

NOTE: Be sure the clutch is all the way down the slope part of the spin cam bar.



STEP 15 Place the spin cam bar in the groove on the gearcase cover.

STEP 16 Insert the end of a flat blade screwdriver into the hole on the agitator shaft.

STEP 17 Place the screwdriver over the spin cam bar and lift the agitator shaft up.

STEP 18 While lifting the agitator shaft, slide the new agitator cam bar through the slot in the fork.

STEP 19 Place the agitator cam bar in the groove on the gearcase cover.

STEP 20 Place RYKON grease on top of the cam bars where they will rub under the spring.

STEP 21 Place the cam bar spring, with the rolled edges facing up, on top of the boss.

STEP 22 Using a socket wrench or open end wrench, insert the screw through the cam bar spring and tighten.

STEP 23 Replace the control magnet (section N, proc. 5).

STEP 24 Place a little grease on the ball and insert the ball into the hole in the agitator shaft on the gearcase.

STEP 25 Slide the "T" bearing down the agitator shaft so the groove in the "T" bearing slides over the ball.

STEP 26 Replace the gearcase (section N, proc. 3).

⚠ WARNING

Electrical Shock Hazard

- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

STEP 27 See access to parts (section N, proc. 1).

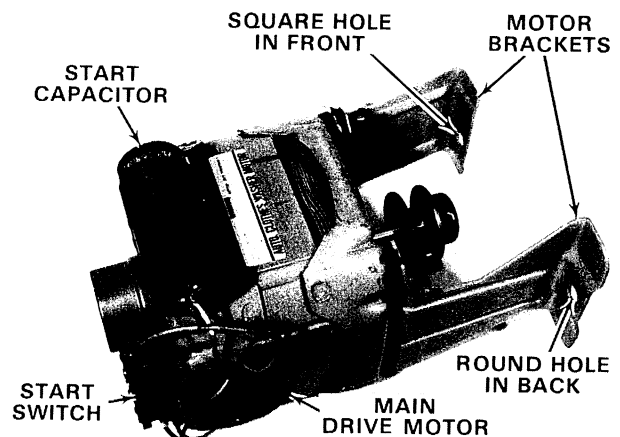
STEP 28 Replace the agitator, stud and cap (section L, proc. 4; Type A or Type B).

STEP 29 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

STEP 30 Run a cycle check (section F, proc. 2).

PROCEDURE 8

Drive Motor Testing and/or Replacement



See page 160, illus. no. 46 for location of part.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

OHMMETER REQUIRED

The main drive motor supplies the power to the pump, gearcase and basket drive through a series of pulleys and a drive belt. Drive motors are mounted with the shaft pointing up. There are one-, two- or three-speed motors used on automatic washers. All drive motors in the last ten years have a start switch located on the outside of the motor case. Because of different drive motor brands used, it is necessary when replacing the drive motor start switch that you use the same brand as your drive motor. Some drive motors also have a start capacitor.

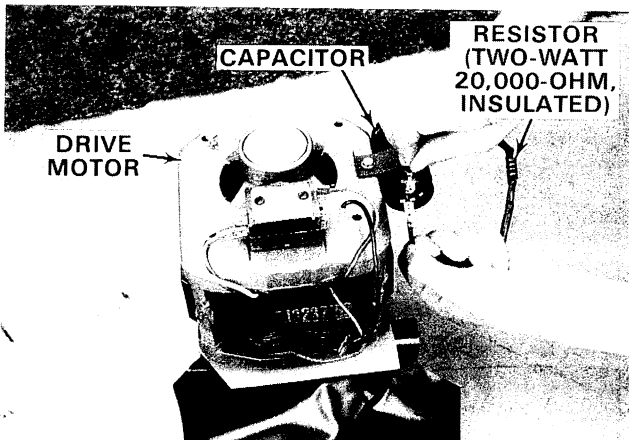
STEP 1 Disconnect the electrical power supply (section B).

STEP 2 See access to parts (section N, proc. 1).

TESTING

NOTE: It is not necessary to remove the drive motor for testing. We did, only to show clarity.

STEP 3 Remove one wire at a time coming from the main wiring harness to the start switch, carefully labeling each wire according to the terminal markings on the start switch. Then, one at a time, remove the wires coming from the motor, carefully labeling each wire according to the terminal markings on the start switch. This procedure should assure that the right wire is reconnected to the right terminal.



⚠ WARNING

Electrical Shock Hazard

- Do not touch both terminals at the same time.
- Capacitors should always be discharged prior to handling. To discharge the capacitor, use a two-watt, 20,000-ohm resistor with insulated leads. Touch both capacitor terminals at the same time with the resistor.

STEP 4 If your motor has a capacitor, remove the red or black wire from the capacitor to the motor.

STEP 5 Remove the black jumper wire from the capacitor to the start switch.

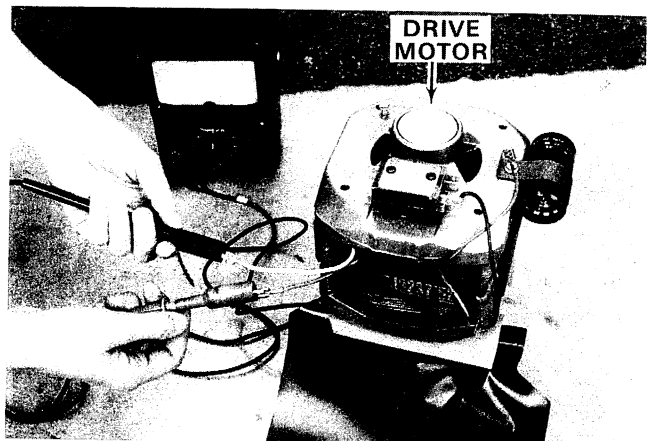
STEP 6 You must know how to use an ohmmeter.

STEP 7 Refer to the instructions that came with your volt-ohmmeter to find the proper scale to measure 1-20 ohms. Set the ohms scale and ZERO the meter.

To tell what speed drive motor you have, look at the colored wires coming from the drive motor.

<u>ONE-SPEED</u>	<u>TWO-SPEED</u>	<u>THREE-SPEED</u>
White	White	White
Blue	Blue	Blue
Black	Black	Black
Follow Steps 8-15	Violet	Violet
	Follow Steps 8-19	Gray / Pink
		Follow Steps 8-23

The following test must be made on 1-, 2- and 3-speed motors



STEP 8 Touch one ohmmeter probe to the terminal on the white wire from the motor.

STEP 9 Touch the other ohmmeter probe to the terminal on the blue wire from the motor.

STEP 10 The ohmmeter should show about 1-4 ohms on the ohms scale.

STEP 11 If you do not get this reading, the drive motor is bad and needs replacing.

STEP 12 Touch one ohmmeter probe to the terminal on the white wire from the motor.

STEP 13 Touch the other ohmmeter probe to the terminal on the black wire from the motor.

STEP 14 The ohmmeter should show about 5-20 ohms on the ohms scale.

STEP 15 If you do not get this reading, the drive motor is bad and needs replacing.

If you do get this reading, the start switch must be checked (section N, proc. 9).

The following test must be made on 2- and 3-speed motors—plus steps 8-15

STEP 16 Touch one ohmmeter probe to the terminal on the white wire from the motor.

STEP 17 Touch the other ohmmeter probe to the terminal on the violet wire from the motor.

STEP 18 The ohmmeter should show about 1-4 ohms on the ohms scale.

STEP 19 If you do not get this reading, the drive motor is bad and needs replacing.

If you do get this reading, the start switch must be checked (section N, proc. 9).

The following test must be made on 3-speed motors—plus steps 8-19

STEP 20 Touch one ohmmeter probe to the terminal on the white wire from the motor.

STEP 21 Touch the other ohmmeter probe to the terminal on the gray-with-pink-stripe wire from the motor.

STEP 22 The ohmmeter shows about 1-4 ohms on the ohms scale.

STEP 23 If you do not get this reading, the drive motor is bad and needs replacing.

If you do get this reading the start switch must be checked (section N, proc. 9).

The following three checks must be made on all 1-, 2- and 3-speed motors to check for an internal failure (short)

STEP 24 Touch one ohmmeter probe to the motor housing.

STEP 25 One at a time, touch the other ohmmeter probe to each of the wires (terminals) coming out of the motor.

STEP 26 The ohmmeter should show an open circuit when each of the wires (terminals) are checked. If not, the drive motor is bad and needs replacing.

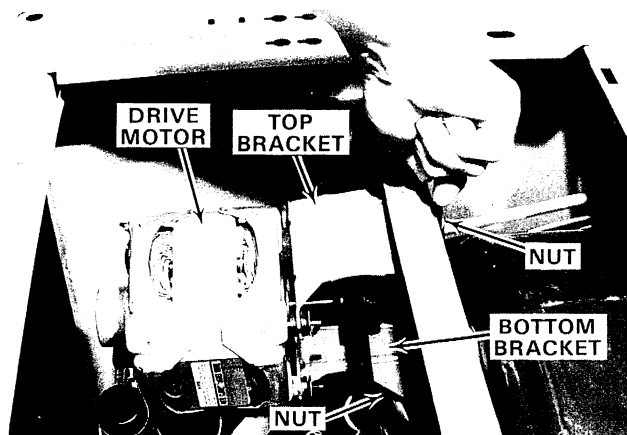
REPLACEMENT

STEP 27 Using a socket wrench or open end wrench, remove the screw holding the green ground wire to the motor.

⚠ WARNING

Personal Injury Hazard

- The drive motor is very heavy. Be careful when lifting or moving.
- Failure to do so could result in personal injury.



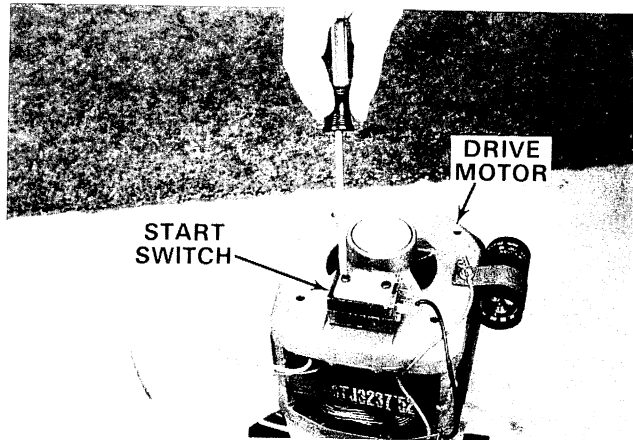
STEP 28 Using an open end wrench, remove the nut holding the motor bracket.

STEP 29 Slide the motor to the right and remove the drive belt from the motor pulley.

STEP 30 Using a socket wrench, remove the other nut holding the other motor bracket.

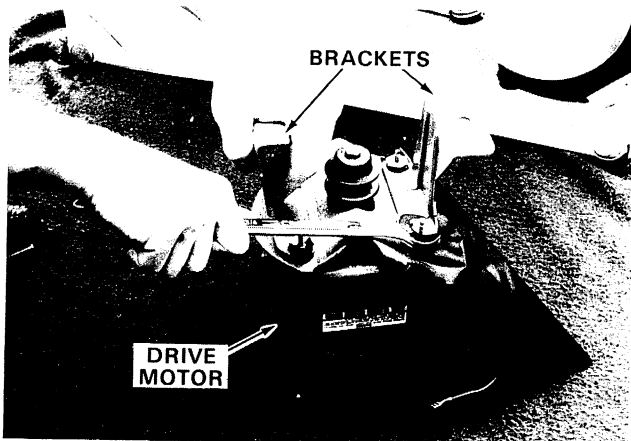
STEP 31 Carefully remove the main drive motor.

STEP 32 Remove the other wires from the start switch, carefully labeling each one according to the terminal markings on the start switch. This procedure should assure that the right wire is reconnected to the right terminal.

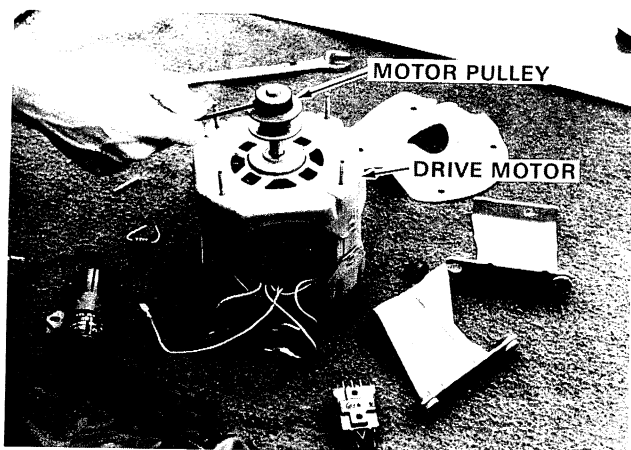


STEP 33 Using a screwdriver, remove the two screws holding the start switch.

STEP 34 Using a socket wrench or open end wrench, remove the capacitor, bracket and screw.



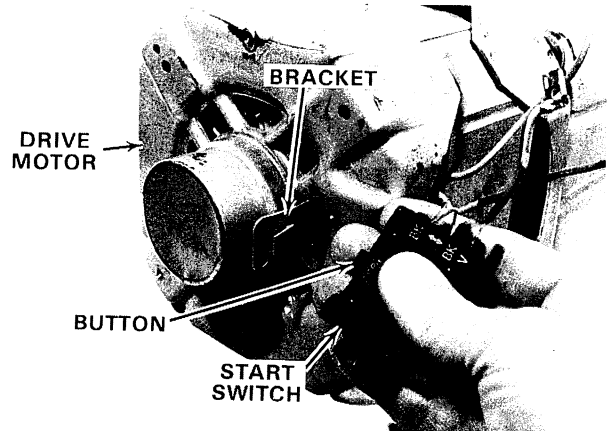
STEP 35 Using a socket wrench or an open end wrench, remove the nuts from the brackets.



STEP 36 Using an allen wrench, loosen the setscrew and remove the motor pulley.

STEP 37 Replace the motor pulley by sliding the pulley over the shaft of the new drive motor. **DO NOT** tighten the setscrew yet.

STEP 38 Using a socket wrench, assemble the two brackets to the drive motor with the nuts.



STEP 39 Using a screwdriver, replace the start switch (button facing bracket), with the two screws.

STEP 40 Using a socket wrench or open end wrench, replace the capacitor, bracket and screw, if your drive motor uses one.

STEP 41 Attach the red or black wire from the motor to the capacitor.

STEP 42 Attach the other wires from the motor to the terminals on the start switch.

STEP 43 Attach the black jumper wire to the capacitor and start switch.

⚠ WARNING

Personal Injury Hazard

- The drive motor is very heavy. Be careful when lifting or moving.
- Failure to do so could result in personal injury.

STEP 44 Using a socket wrench, tighten the lower bracket by turning the nut on the bolt.

STEP 45 Replace the bolt from underneath, through the base, and hand tighten the nut to the bolt.

STEP 46 Place the drive belt on the pulleys.

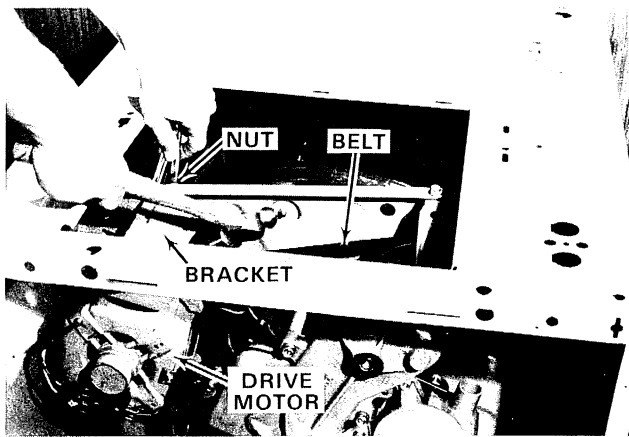
STEP 47 Slide the motor to the left.

STEP 48 Turn the main drive pulley by hand. This causes the motor pulley to line up with the rest of the pulleys.

STEP 49 Using an allen wrench, make sure the flat on the motor shaft is aligned with the setscrew and tighten.

STEP 50 Using a socket wrench or open end wrench, replace the screw and green ground wire on the drive motor.

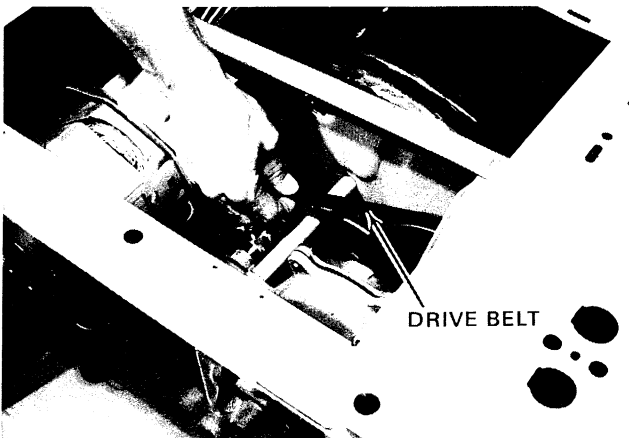
STEP 51 Reconnect the wires to the proper terminals as previously marked.



STEP 52 Using an open end wrench and a socket wrench, firmly snug the two drive motor adjustment nuts.

STEP 53 Using a hammer, tap the inside edge of the drive motor bracket outward until the belt is tight.

STEP 54 Using an open end wrench and a socket wrench, finish tightening the two drive motor adjustment nuts.



STEP 55 Check the back-and-forth movement of the drive belt between the motor and drive pulleys.

A properly adjusted drive belt will move back and forth 1/2 inch with six pounds of force applied.

TIGHT: If the belt is too tight, it may cause early failure of the belt, bearings, drive motor or pump.

LOOSE: If the belt is too loose, slippage, no agitation or low spin speed could happen.

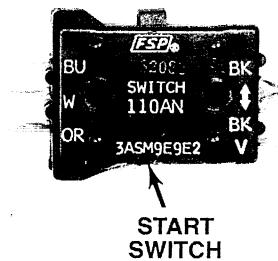
STEP 56 See access to parts (section N, proc. 1).

STEP 57 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

STEP 58 Run a cycle check (section F, proc. 2).

PROCEDURE 9

Motor Start Switch Testing and/or Replacement



See page 160, illus. no. 56 for location of part.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

OHMMEETER REQUIRED

The start switch is used in getting voltage to the motor start and run windings at the same time. As the motor increases in speed, an actuating arm inside the motor opens the switch and removes the voltage from the start windings. There are one-, two- or three-speed start switches used on automatic washers.

Because of different drive motor brands used, it is necessary when replacing the drive motor start switch that you use the same brand as your drive motor.

STEP 1 Disconnect the electrical power supply (section B).

STEP 2 See access to parts (section N, proc. 1).

TESTING

STEP 3 Remove one wire at a time, carefully labeling each wire according to the terminal marking on the start switch. This procedure should assure that the right wire is reconnected to the right terminal.

STEP 4 Using a screwdriver, remove the two screws holding the start switch to the motor.

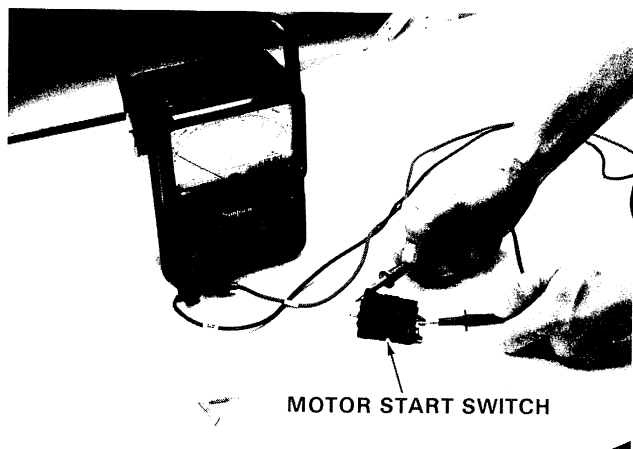
STEP 5 You must know how to use an ohmmeter.

STEP 6 Set the ohmmeter scale to the lowest ohms setting and ZERO the meter. See the instructions that came with your ohmmeter.

To tell what speed start switch you have, look at the colored wires coming from the drive motor.

<u>ONE-SPEED</u>	<u>TWO-SPEED</u>	<u>THREE-SPEED</u>
White	White	White
Blue	Blue	Blue
Black	Black	Black
Follow Steps 7-11	Violet	Violet
	Follow Steps 7-21	Gray / Pink
		Follow Steps 7-31

**The following test must be made on
1-, 2- and 3-speed start switches**



STEP 7 Touch one ohmmeter probe to terminal BU.

STEP 8 Touch the other ohmmeter probe to terminal BK (7).

STEP 9 With the start switch button out, the ohmmeter should show an open circuit. If not, the start switch is bad and needs replacing.

STEP 10 With the ohmmeter probes still touching these terminals, push in on the button.

STEP 11 With the start switch button in, the ohmmeter should show ZERO resistance (continuity). If not, the start switch is bad and needs replacing.

**The following test must be made on
2- and 3-speed start switches—
plus steps 7-11**

STEP 12 Touch one ohmmeter probe to terminal OR.

STEP 13 Touch the other ohmmeter probe to terminal BK (7).

STEP 14 With the start switch button out, the ohmmeter should show an open circuit. If not, the start switch is bad and needs replacing.

STEP 15 With the ohmmeter probes still touching these terminals (OR and BK [7]), push in on the button.

STEP 16 With the start switch button in, the ohmmeter should show ZERO resistance (continuity). If not, the start switch is bad and needs replacing.

STEP 17 Touch one ohmmeter probe to terminal OR.

STEP 18 Touch the other ohmmeter probe to terminal V.

STEP 19 With the start switch button out, the ohmmeter should show ZERO resistance (continuity). If not, the start switch is bad and needs replacing.

STEP 20 With the ohmmeter probes still touching these terminals (OR and V), push in on the button.

STEP 21 With the start switch button in, the ohmmeter should show an open circuit. If not, the start switch is bad and needs replacing.

**The following test must be made on
3-speed start switches—
plus steps 7-21**

STEP 22 Touch one ohmmeter probe to terminal GY-P.

STEP 23 Touch the other ohmmeter probe to terminal BK (7).

STEP 24 With the start switch button out, the ohmmeter should show an open circuit. If not, the start switch is bad and needs replacing.

STEP 25 With the ohmmeter probes still touching these terminals (GY-P and BK [7]), push in on the button.

STEP 26 With the start switch button in, the ohmmeter should show ZERO resistance (continuity). If not, the start switch is bad and needs replacing.

STEP 27 Touch one ohmmeter probe to terminal GY-P.

STEP 28 Touch the other ohmmeter probe to terminal G.

STEP 29 With the start switch button out, the ohmmeter should show ZERO resistance (continuity). If not, the start switch is bad and needs replacing.

STEP 30 With the ohmmeter probes still touching these terminals (GY-P and G), push in on the button.

STEP 31 With the start switch button in, the ohmmeter should show an open circuit. If not, the start switch is bad and needs replacing.

REPLACEMENT

STEP 32 Using a screwdriver, place the start switch on the drive motor and tighten the two screws.

STEP 33 Reconnect the wires to the proper terminals as previously marked.

⚠ WARNING

Electrical Shock Hazard

- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

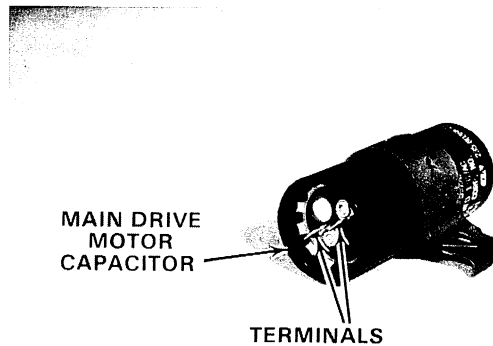
STEP 34 See access to parts (section N, proc. 1).

STEP 35 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

STEP 36 Run a cycle check (section F, proc. 2).

PROCEDURE 10

Motor Capacitor Testing and/or Replacement



See page 160, illus. no. 47 for location of part.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

OHMMETER REQUIRED

A start capacitor increases the turning force of the rotor in the motor during start.

STEP 1 Disconnect the electrical power supply (section B).

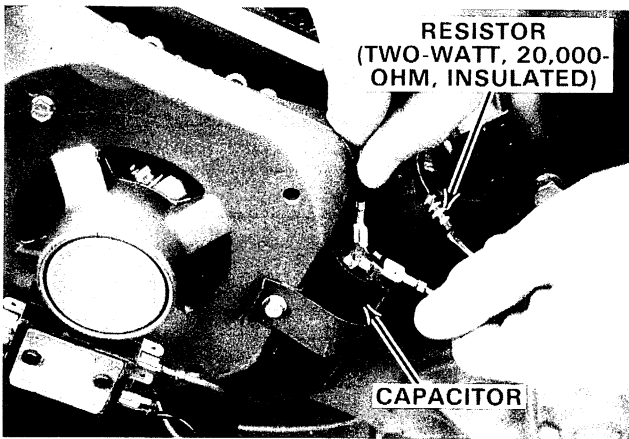
STEP 2 See access to parts (section N, proc. 1).

TESTING

⚠ WARNING

Electrical Shock Hazard

- Do not touch both terminals at the same time.
- Capacitors should always be discharged prior to handling. To discharge the capacitor, use a two-watt, 20,000-ohm resistor with insulated leads. Touch both capacitor terminals at the same time with the resistor.



STEP 3 Remove the red or black wire from the capacitor to the motor.

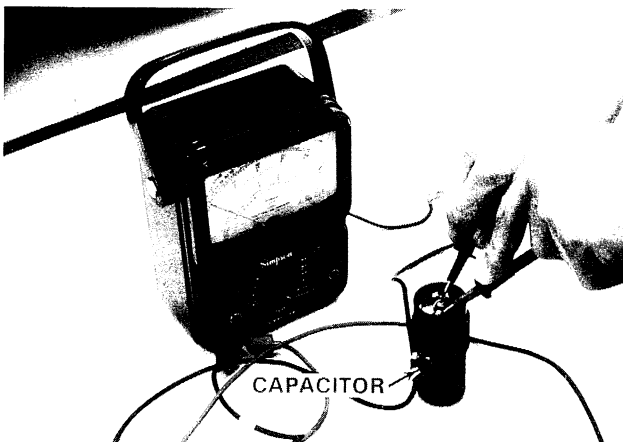
STEP 4 Remove the black jumper wire from the other terminal on the capacitor.

STEP 5 Using a socket wrench or open end wrench, loosen the screw holding the capacitor to the motor.

STEP 6 Remove the capacitor.

STEP 7 You must know how to use an ohmmeter.

STEP 8 Refer to the instructions that came with your volt-ohmmeter to find the proper scale to measure 15-30 ohms. Set the ohms scale and ZERO the meter.



STEP 9 Touch one ohmmeter probe to one of the terminals on the capacitor.

At the instant the other ohmmeter probe touches the other terminal on the capacitor, the ohmmeter needle should move instantly toward ZERO, then return slowly.

STEP 10 Touch the other ohmmeter probe to the other terminal on the capacitor.

STEP 11 If the ohmmeter needle stays at or near ZERO or does not move at all, the capacitor is bad and needs replacing.

STEP 12 Now switch the ohmmeter probes on the capacitor terminals. The same thing should happen as in steps 9-11. If not, the capacitor is bad and needs replacing.

REPLACEMENT

STEP 13 Place the new capacitor in the clamp.

STEP 14 Using a socket wrench or open end wrench, tighten the screw.

STEP 15 Attach the red or black wire from the motor to one of the capacitor terminals.

STEP 16 Attach the black jumper wire from the start switch to the other capacitor terminal.

⚠ WARNING

Electrical Shock Hazard

- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

STEP 17 See access to parts (section N, proc. 1).

STEP 18 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

STEP 19 Run a cycle check (section F, proc. 2).

SECTION 0

Cabinet Area

SECTION A MUST BE CAREFULLY READ BEFORE ANY REPAIR OR TESTING PROCEDURES ARE ATTEMPTED.



PROCEDURE	PAGE
1 Power Cord	130
2 Rear Leveling Feet.....	132
3 Front Feet	133
4 Wiring Harness and Terminals	135
5 Bleach / Rinse Conditioner Dispenser	136

PROCEDURE 1

Power Cord Testing and/or Replacement

See page 155, illus. no. 32 for location of part.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

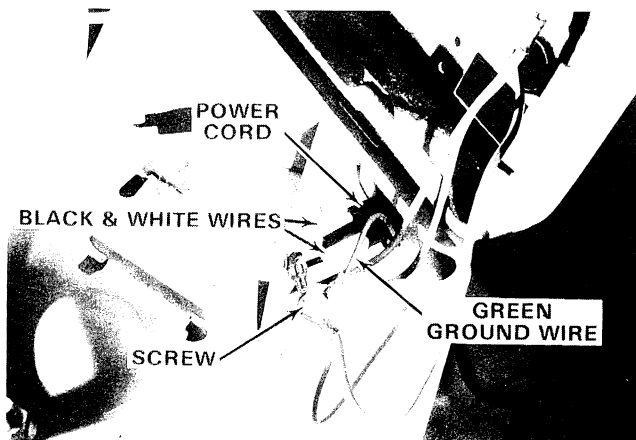
OHMMETER REQUIRED

Your automatic washer is supplied with a power cord having a 3-prong grounding plug. It must be plugged into a mating 3-prong grounding wall outlet in accordance with the National Electrical Code and your local codes.

STEP 1 Disconnect the electrical power supply (section B).

STEP 2 Raise the top (section K, proc. 1).

TESTING

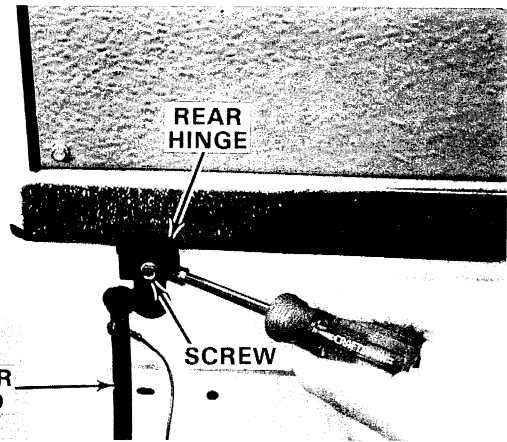


STEP 3 Remove the black wire from the power cord terminal.

STEP 4 Remove the white wire from the power cord terminal.

STEP 5 Using a nutdriver or socket wrench, remove the screw holding the power cord ground wire (green).

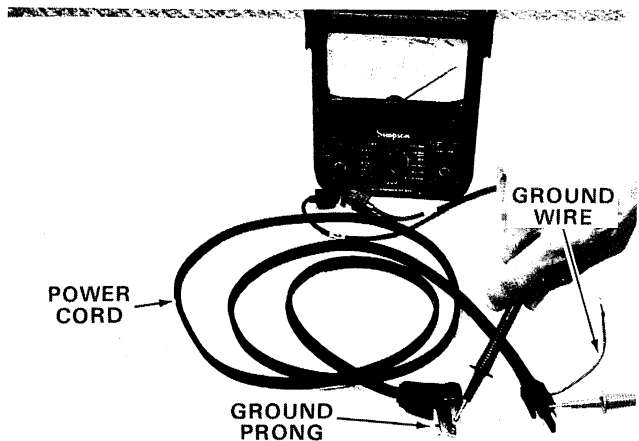
STEP 6 Lower the top.



STEP 7 Using a socket wrench or nutdriver, remove the rear hinge screw next to the power cord.

STEP 8 Carefully remove the hinge and pad.

STEP 9 Slide the power cord over and out the opening where the hinge was.



STEP 10 You must know how to use an ohmmeter.

STEP 11 Set the ohmmeter scale to the lowest ohms setting and ZERO the meter. See the instructions that came with your ohmmeter.

STEP 12 Touch one ohmmeter probe to one of the prongs on the plug.

STEP 13 Touch the other ohmmeter probe to the same wire but on the terminal at the other end of the cord.

STEP 14 The ohmmeter should show ZERO resistance (continuity). If not, the power cord is bad and needs replacing.

STEP 15 Touch one ohmmeter probe to the other prong on the plug.

STEP 16 Touch the other ohmmeter probe to the other wire on the terminal at the end of the cord.

STEP 17 The ohmmeter should show ZERO resistance (continuity). If not, the power cord is bad and needs replacing.

STEP 18 Touch one ohmmeter probe to the round prong.

STEP 19 Touch the other probe to the terminal on the green wire at the end of the cord.

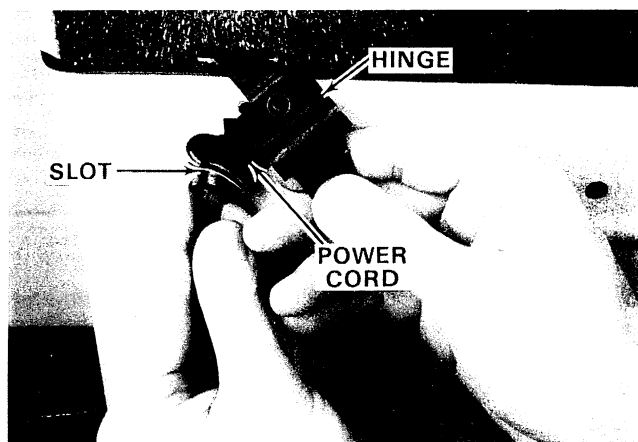
STEP 20 The ohmmeter should show ZERO resistance (continuity). If not, the power cord is bad and needs replacing.

STEP 21 Touch one ohmmeter probe to one of the prongs on the plug.

STEP 22 Touch the other ohmmeter probe to the other prong on the plug.

STEP 23 The ohmmeter should show an open circuit. If not, the power cord is bad and needs replacing.

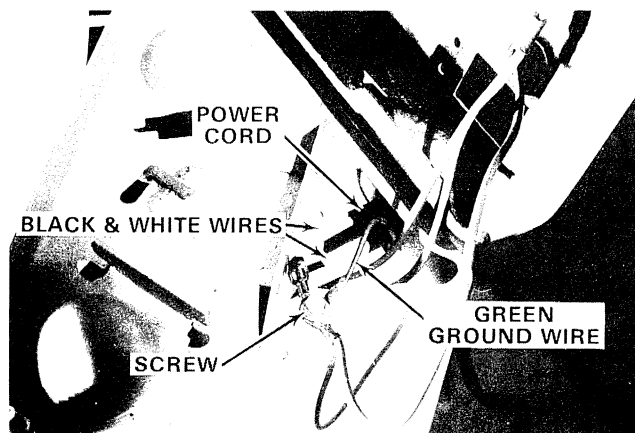
REPLACEMENT



STEP 24 Place the new power cord with the molded bushing in the lid hinge hole and slide over.

STEP 25 Using a socket wrench or nutdriver, replace the hinge into the slit on the top and tighten the screw.

STEP 26 Raise the top (section K, proc. 1).



STEP 27 Using a socket wrench or nutdriver, replace the green ground wire with the other wires and tighten the screw.

STEP 28 Reconnect the white wire on the power cord terminal.

STEP 29 Reconnect the black wire on the power cord terminal.

⚠ WARNING

Electrical Shock Hazard

- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

STEP 30 Lower the top (section K, proc. 1).

STEP 31 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

STEP 32 Run a cycle check (section F, proc. 2).

PROCEDURE 2

Rear Leveling Feet Replacement

See page 155, illus. no. 29 for location of part.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

The rear feet are housed in the rear cabinet support channel and leveling mechanism. The feet move up or down, depending on the level of your floor.

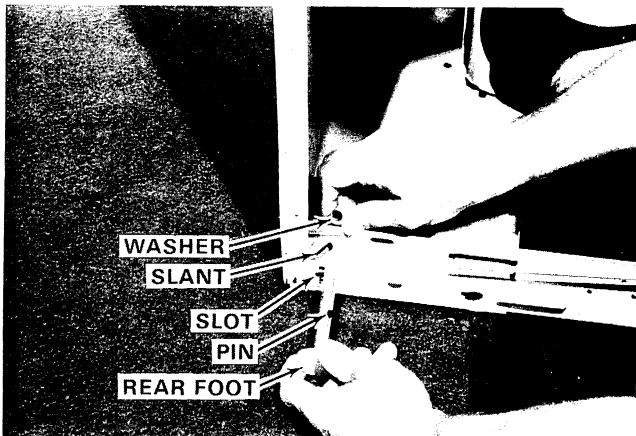
There are two types of rear leveling feet that could be used.

Automatic washers built prior to 1978, see Type A; or built after 1978, see Type B.

TYPE A

STEP 1 Disconnect the electrical power supply (section B).

STEP 2 See access to parts (section N, proc. 1).



STEP 3 Slide the bar to the right.

STEP 4 Pull down and turn the right foot until the pin is lined up with the slot in the cabinet flange.

STEP 5 Carefully remove the right rear foot.

STEP 6 Slide the bar to the left.

STEP 7 Pull down and turn the left foot until the pin is lined up with the slot in the cabinet flange.

STEP 8 Carefully remove the left rear foot.

REPLACEMENT

STEP 9 With the bar over to the left, insert the new rear foot in the left side by lining up the pins on the foot with the slots in the cabinet.

STEP 10 Replace the plastic washer between the bar and flange of the cabinet. Without the plastic washer the bar will not work properly.

STEP 11 Push the foot up and turn it at the same time until the pins rest against the slanted part of the bar.

STEP 12 Slide the bar to the right.

STEP 13 Insert the new rear foot into the right side by lining up the pins on the foot with the slots in the cabinet.

STEP 14 Replace the plastic washer between the bar and flange of the cabinet. Without the plastic washer the bar will not work properly.

STEP 15 Push the foot up and turn at the same time until the pins rest against the slanted part of the bar.

STEP 16 To check for proper operation, push up on one foot; the other foot should go down.

STEP 17 Check the other foot in the same way.

STEP 18 See access to parts (section N, proc. 1).

STEP 19 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

TYPE B

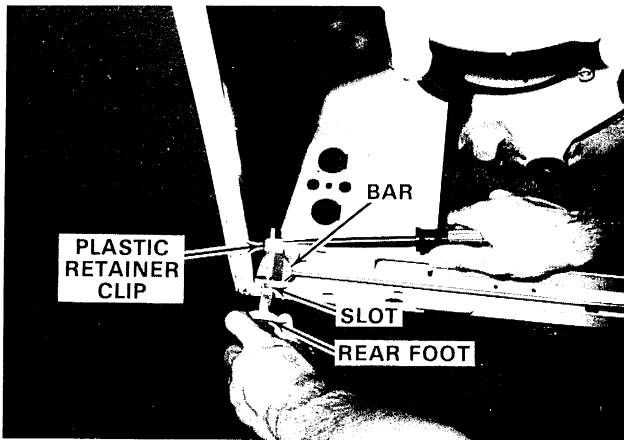
STEP 1 Disconnect the electrical power supply (section B).

STEP 2 See access to parts (section N, proc. 1).

PROCEDURE 3

Front Feet Replacement

See page 155, illus. no. 38 for location of part.



STEP 3 Insert a screwdriver in the right slot and spread the plastic tabs on the retainer clip.

STEP 4 Pull the right rear foot out of the bar assembly.

STEP 5 Insert a screwdriver into the left slot and spread the plastic tabs on the retainer clip.

STEP 6 Pull the left rear foot out of the bar assembly.

REPLACEMENT

STEP 7 Insert the new left rear foot, lining up the flat side and pins of the foot with the slots in the cabinet flange.

STEP 8 Push in on the foot until it snaps into place.

STEP 9 Insert the new right rear foot, lining up the flat side and pins of the foot with the slots in the cabinet flange.

STEP 10 Push in on the foot until it snaps into place.

STEP 11 To check for proper operation, push up on one foot; the other foot should go down.

STEP 12 Check the other foot in the same way.

STEP 13 See access to parts (section N, proc. 1).

STEP 14 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

! WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

The front feet are screwed into the front corners of the automatic washer. These are stationary.

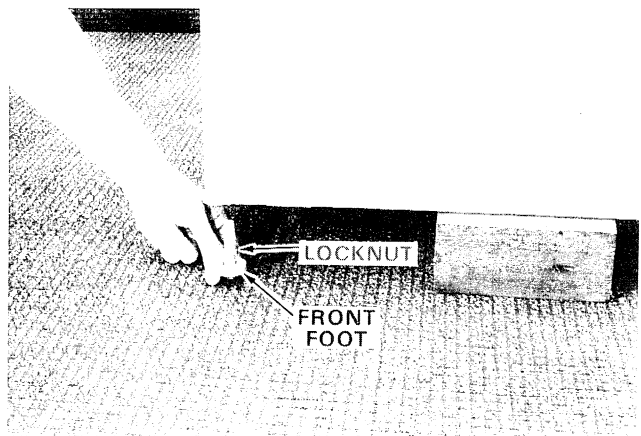
There are two types of front feet that could be used.

See Type A for the metal feet or Type B for the plastic feet.

TYPE A

STEP 1 Disconnect the electrical power supply (section B).

STEP 2 Place a 4-inch block under the front edge of the cabinet.



STEP 3 Using an open end wrench, loosen the locknuts. Your washer may use a washer on top of each locknut.

STEP 4 Remove the front feet and washers (if used).

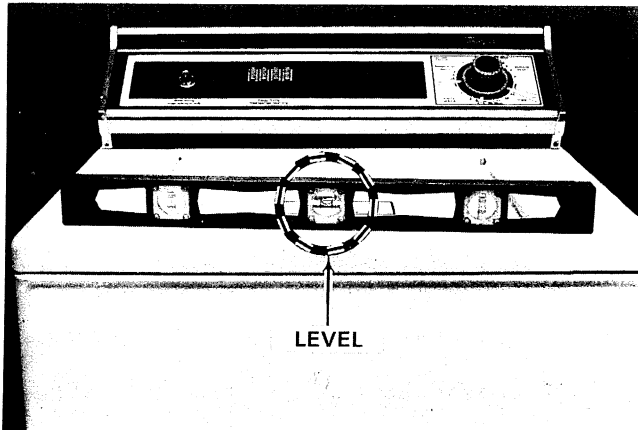
REPLACEMENT

STEP 5 Place a locknut on each new foot and screw down to 1/2 inch from the foot.

STEP 6 If your washer uses the washers, they must be placed on top of each locknut.

STEP 7 Screw each front foot into the front brackets up to the locknut.

STEP 8 Remove the block.



STEP 9 To level your washer, take a carpenter's level and place it on top of the washer, first side to side, then front to back. If you do not have a level, plug the power cord into the wall outlet and fill the washer basket to any given row of holes, then stop the washer. Check to see if the water meets the holes all the way around the basket. If it does not, screw the front feet of the washer up or down to adjust. Then tilt the machine forward and the back legs will self-adjust.

STEP 10 Using an open end wrench, tighten the locknuts.

STEP 11 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

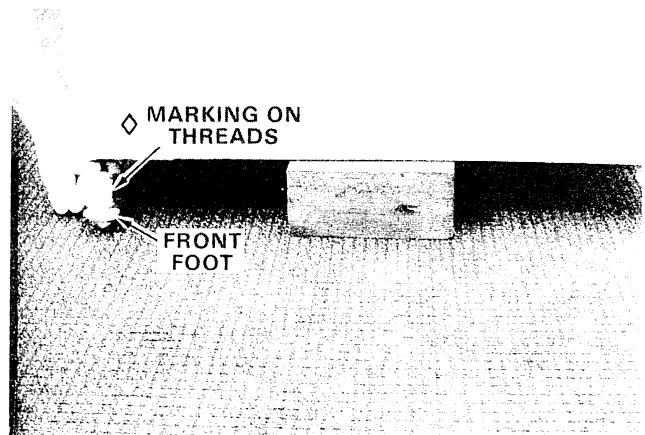
TYPE B

STEP 1 Disconnect the electrical power supply (section B).

STEP 2 Place a 4-inch block under the front edge of the cabinet.

STEP 3 Using pliers, remove the plastic front feet.

REPLACEMENT

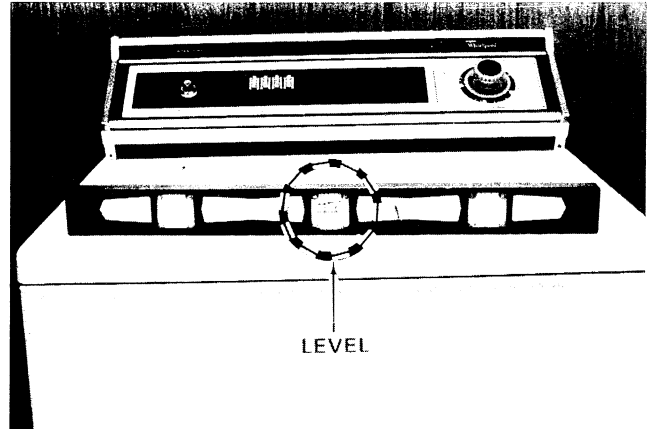


STEP 4 Insert the new plastic front feet into the corner brackets and turn them to the right.

Notice the \diamond marking on the thread of each front foot.

STEP 5 Use pliers and a little liquid soap (for lubrication) on the threads of the foot. Turn the feet until the \diamond is level with the washer.

STEP 6 Remove the block.



STEP 7 To level your washer, take a carpenter's level and place it on top of the washer, first side to side, then front to back. If you do not have a level, plug the power cord into the wall outlet and fill the washer basket to any given row of holes, then stop the washer. Check to see if the water meets the holes all the way around the basket. If it does not, screw the front feet of the washer up or down to adjust. Then tilt the machine forward and the back legs will self-adjust.

STEP 8 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

PROCEDURE 4

Wiring Harnesses, Terminal Testing and/or Replacement

See page 156, illus. no.'s 34 and 35 for location of parts.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

OHMMETER REQUIRED

Wiring harnesses carry the electrical current to different electrical parts throughout the automatic washer.

These harnesses are normally divided into two sections, the console harness and the cabinet harness.

All wires are color coded and have markings on them as to their color. These colored wires match the terminal markings on the parts.

A damaged wire could cause a safety hazard or a part to operate incorrectly.

STEP 1 Disconnect the electrical power supply (section B).

STEP 2 Remove the console panels (section J, proc. 4, steps 2-4; plus Type A or Type B).

STEP 3 Using a flat blade screwdriver or nutdriver, remove the rear service panel.

STEP 4 Raise the top (section K, proc. 1).

TESTING

STEP 5 You must know how to use an ohmmeter.

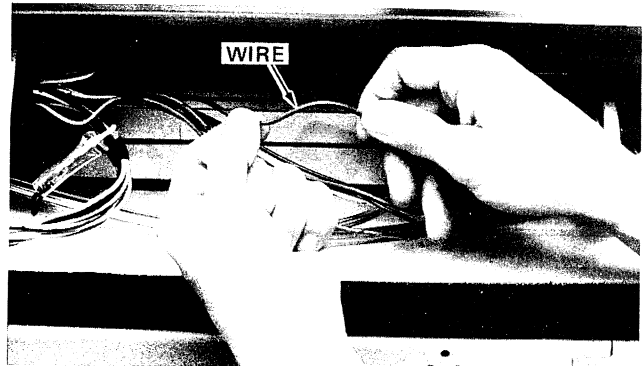
STEP 6 Set the ohmmeter scale to the lowest ohms setting and ZERO the meter. See the instructions that came with your ohmmeter.

STEP 7 Disconnect one end of the wire from the part.

STEP 8 Touch one ohmmeter probe to the wire terminal removed from the part.

STEP 9 Touch the other ohmmeter probe to the other end of the same wire.

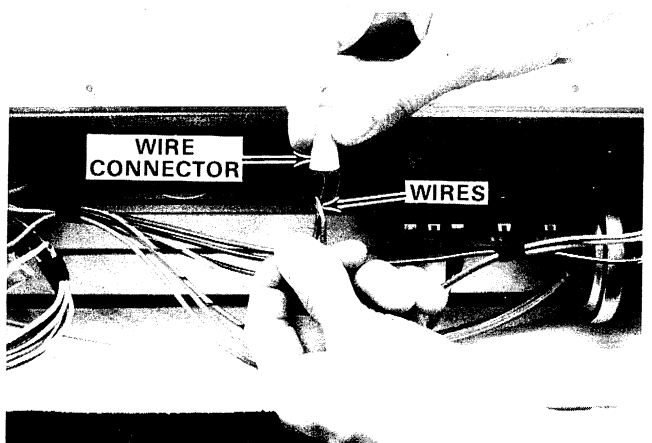
STEP 10 The ohmmeter should show ZERO resistance (continuity). If not, the wire is bad and needs repair or replacing.



STEP 11 Replace the entire wire and terminal with the same gauge wire, or locate the bad spot. To locate the bad spot, use your fingers and gently bend the wire, feeling at the same time and looking for bumps in the wire.

STEP 12 Using wire cutters cut the bad spot out of the harness.

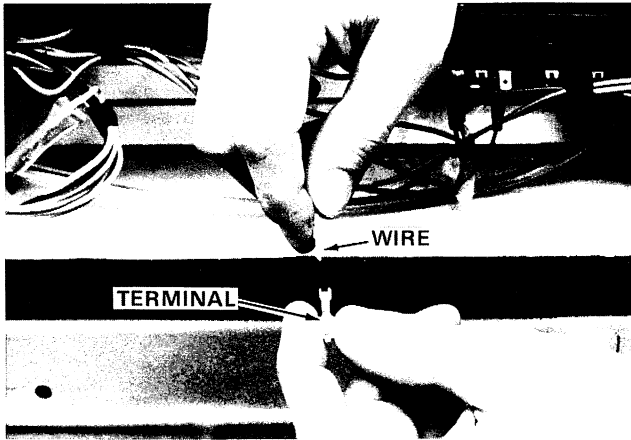
STEP 13 Strip the insulation back 1/2 inch on each cut end.



STEP 14 Use only a wire connector for splicing wires together.

NOTE: Tape is not recommended.

STEP 15 Hold the two wires together, screwing the new wire connector down on the bare wires.



STEP 16 To replace a terminal, cut the old terminal off.

STEP 17 Strip the insulation back 1/2 inch and twist the wire strands together.

STEP 18 Using a wire stripper/crimping tool, slip the new terminal over the bare wire and crimp tightly.

STEP 19 Reconnect the wire to the proper terminal on the part.

⚠ WARNING

Electrical Shock Hazard

- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

STEP 20 Replace the console rear panels (section J, proc. 4; Type A or Type B).

STEP 21 Replace the rear service panel and screws.

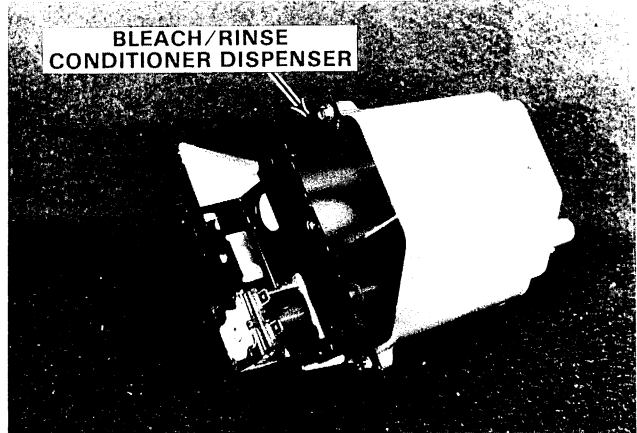
STEP 22 Lower the top (section K, proc. 1).

STEP 23 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

STEP 24 Run a cycle check (section F, proc. 2).

PROCEDURE 5

Bleach/Rinse Conditioner Dispenser Testing and/or Replacement



See page 155, illus. no. 49 for location of parts.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

OHMMETER REQUIRED

Some dispensers are electrically controlled, dumping the liquid at the right time in the wash or rinse cycles.

These dispensers are located in the left front corner, under the top.

The electric dispenser may use one or two solenoids, depending on the features of the automatic washer.

In other dispensers the liquid is poured into a tray and goes into the wash right away.

There are two types of dispensers used; see Type A for electric or Type B for non-electric.

TYPE A

STEP 1 Disconnect the electrical power supply (section B).

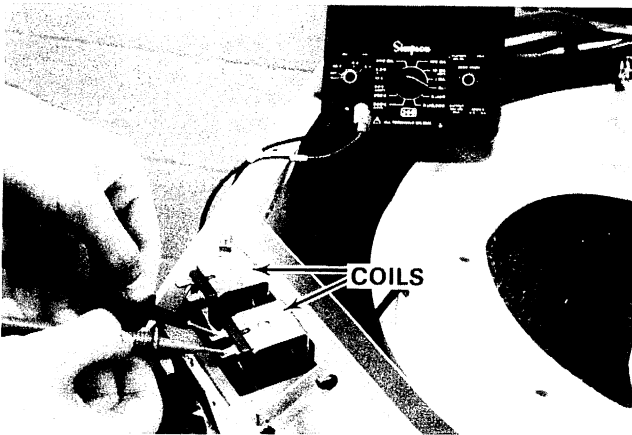
STEP 2 Raise the top (section K, proc. 1).

TESTING

STEP 3 Remove one wire at a time, carefully labeling each wire according to the terminal marking on the conditioner coils. This procedure should assure that the right wire is reconnected to the right terminal on the coils.

STEP 4 You must know how to use an ohmmeter.

STEP 5 Refer to the instructions that came with your volt-ohmmeter to find the proper scale to measure 200-500 ohms. Set the ohms scale and ZERO the meter.



STEP 6 Touch one of the ohmmeter probes to one of the terminals on the coil.

STEP 7 Touch the other ohmmeter probe to the other terminal on the same coil.

STEP 8 The ohmmeter should show between 200-500 ohms on the ohms scale.

STEP 9 If you do not get this reading, the coil is bad and needs replacing.

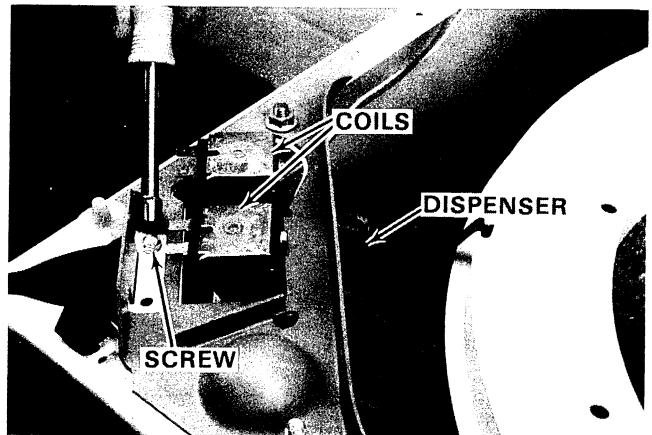
STEP 10 If your washer has two coils, touch one ohmmeter probe to one of the terminals on the other coil.

STEP 11 Touch the other ohmmeter probe to the other terminal on the same coil.

STEP 12 The ohmmeter should show between 200-500 ohms on the ohms scale.

STEP 13 If you do not get this reading, the coil is bad and needs replacing.

REPLACEMENT



STEP 14 Using a nutdriver or screwdriver, remove the screw holding the dispenser to the cabinet bracket.

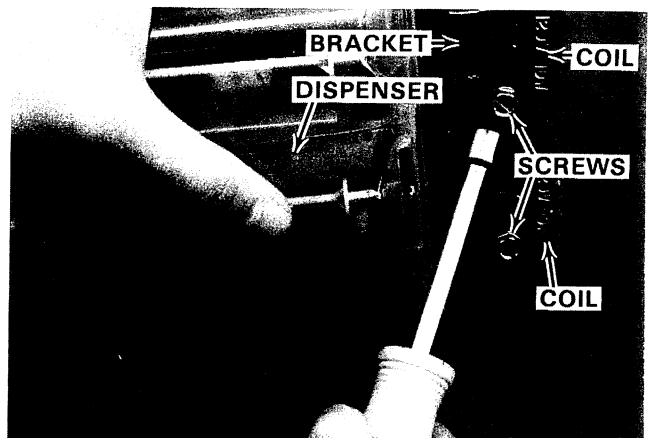
STEP 15 Slide the dispenser toward the front corner to release a tab on the coil bracket from between the corner brackets.

NOTE: Care should be taken when removing hoses, as they may have water in them.

STEP 16 Using pliers, slide the clamp off the bottom port of the dispenser.

STEP 17 Remove the hose from the bottom port of the dispenser.

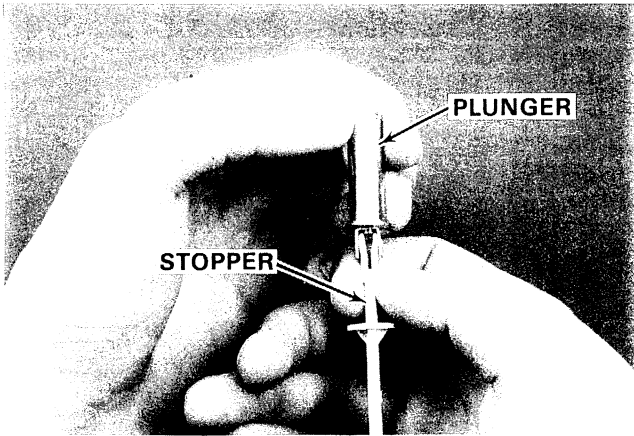
STEP 18 Push the basket toward the back right corner while removing the dispenser.



STEP 19 Using a nutdriver, remove the screw(s) holding the coil(s) to the bracket.

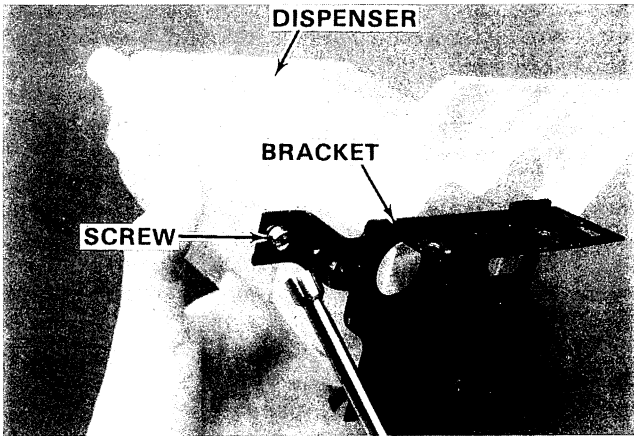
STEP 20 Carefully remove the coil(s).

STEP 21 Carefully remove the spring(s) and stopper(s) from the dispenser.



STEP 22 Push together the tabs on the stopper, pulling it out of the holes in the plunger.

STEP 23 Using a nutdriver, remove the screws holding the bracket to the dispenser.



STEP 24 Using a nutdriver, insert the screws through the new bracket, into the new dispenser and tighten.

STEP 25 Snap the tabs from the new barrel(s) into the holes in the top of the new plunger(s).

STEP 26 Insert the plunger(s) into the dispenser with the rubber stopper(s) in the holes in the bottom of the dispenser.

STEP 27 Place the new spring(s) over the barrel(s) and on top of the bracket. The larger part of the spring(s) must be on the bottom of the coil(s).

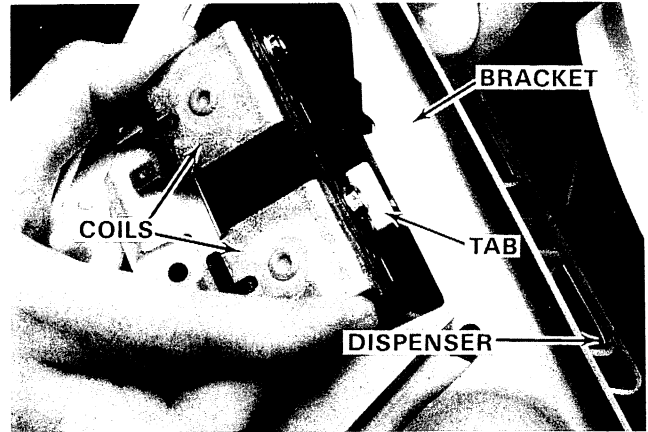
STEP 28 Place the new coil(s) over the spring(s) with the barrel(s) inside the coil(s), then push down.

STEP 29 Using a nutdriver, insert the screw(s) through the coil(s), into the dispenser and tighten.

STEP 30 Push the basket toward the back right corner while replacing the dispenser in the left front corner.

STEP 31 Replace the hose on the bottom port of the dispenser.

STEP 32 Using pliers, slide the clamp on the bottom port of the dispenser.



STEP 33 Insert the tab on the dispenser bracket between the corner brackets on the cabinet.

STEP 34 Using a nutdriver or screwdriver, insert the screw holding the dispenser to the cabinet bracket.

STEP 35 Reconnect the wires to the proper terminals as previously marked.

⚠ WARNING

Electrical Shock Hazard

- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

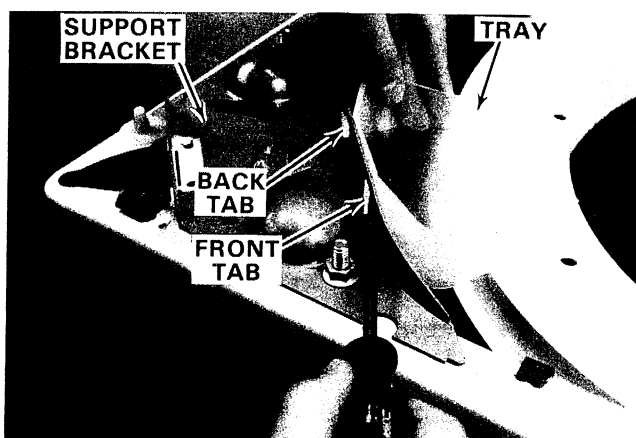
STEP 36 Lower the top (section K, proc. 1).

STEP 37 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

TYPE B

STEP 1 Disconnect the electrical power supply (section B).

STEP 2 Raise the top (section K, proc. 1).



STEP 3 Slide the plastic tray, located in the left front corner, to the back.

STEP 4 Using a screwdriver, pry in on the tab in the front, away from the support bracket.

While prying the tab out, slide the tray to the front to remove the rear tab. Then slide the tray to the back to remove the front tab.

NOTE: Care should be taken when removing hoses as they may have water in them.

STEP 5 Using pliers, slide the hose clamp off the bottom port of the tray.

STEP 6 Remove the hose.

REPLACEMENT

STEP 7 Place the hose on the new dispenser tray.

STEP 8 Using pliers, slide the hose clamp onto the tray.



STEP 9 Insert the front tab first, then the back.

! WARNING**Electrical Shock Hazard**

- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

STEP 10 Lower the top (section K, proc. 1).

STEP 11 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

SECTION P

Compact / Portable Automatic Washer Area

SECTION A MUST BE CAREFULLY READ BEFORE ANY REPAIR
OR TESTING PROCEDURES ARE ATTEMPTED.



PROCEDURE	PAGE
1 Top Access	143
2 Bottom Access	143
3 Drive Belt	146

NOTICE

The compact/portable automatic washer has many of the same parts and operates basically the same as the regular size automatic washer.

We will cover:

- A. How to get to parts under the top.
- B. How to get to parts at the bottom of the machine.
- C. How to change a drive belt.

Once you have gotten to the part you are after, refer to sections J through O for testing of that part.

PROCEDURE 1

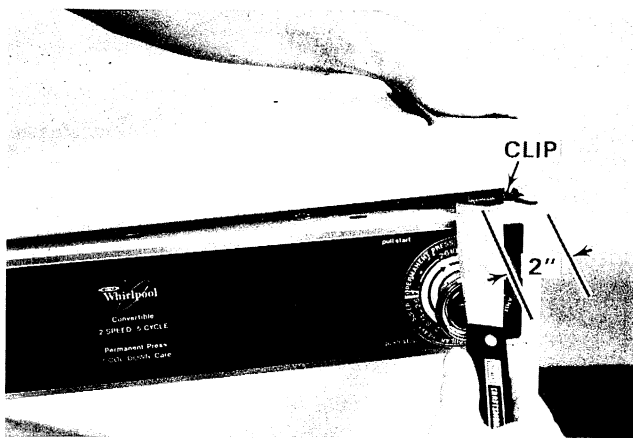
Top Access

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

STEP 1 Disconnect the electrical power supply (section B).



STEP 2 When raising the top, always tape the lid shut.

⚠ CAUTION

Product Damage

- Do not pry. This may cause you to ruin the finish.

STEP 3 Using a putty knife, place the blade between the top and cabinet in one corner, about 2 inches in from the edge.

STEP 4 Push in on the putty knife to release the clip while lifting up on the corner of the top. Do the same to the other front corner.

STEP 5 Slowly raise the top.

STEP 6 Support the top against the wall.

REPLACEMENT

⚠ WARNING

Electrical Shock Hazard

- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

⚠ WARNING

Personal Injury Hazard

- Be careful when lowering the top.
- Failure to do so could result in pinched fingers or hand.

STEP 7 Slowly lower the top.

STEP 8 Press down on the front corners of the top until it snaps into place.

STEP 9 Remove the tape from the lid.

STEP 10 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

PROCEDURE 2

Bottom Access

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

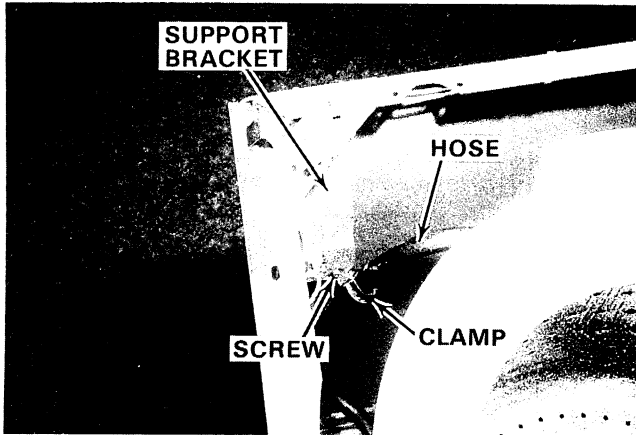
There are two ways to service parts in the bottom of the automatic washer. See Type A for raising the cabinet or Type B for laying the automatic washer down.

TYPE A

STEP 1 Disconnect the electrical power supply (section B).

STEP 2 Remove any hoses that are connected to water faucets.

STEP 3 Raise the top (section P, proc. 1).

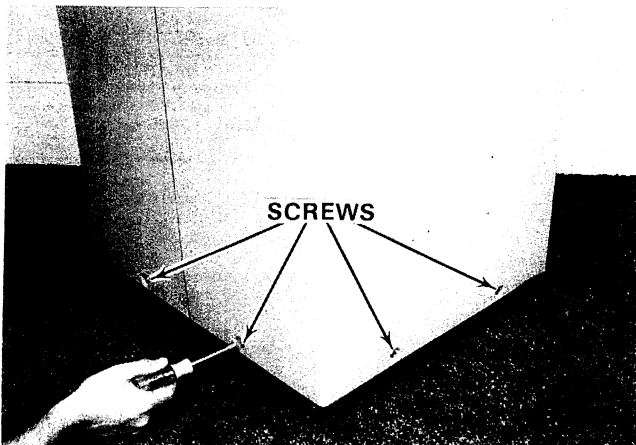


STEP 4 Using a screwdriver or nutdriver, remove the screw holding the drain hose clamp and drain hose, to a support bracket.

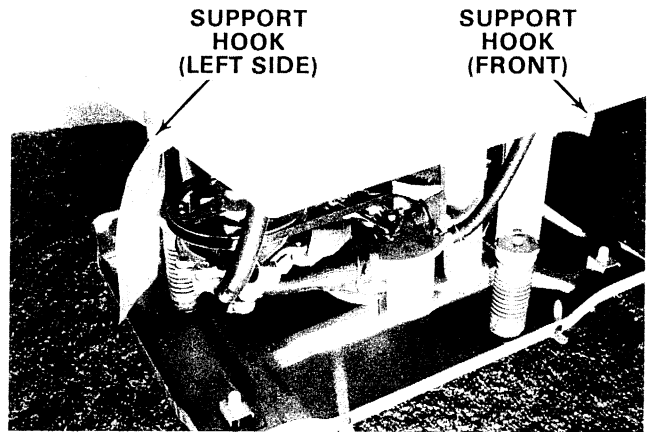


STEP 5 Remove the pressure switch hose from the top of the air dome.

STEP 6 Carefully lower the top.



STEP 7 Using a screwdriver or nutdriver, remove the screws from around the bottom of the cabinet (two on each side and two in the back).



STEP 8 Lift up on the cabinet and rest it on the two support hooks, one on the left side plus one in the right front corner.

REPLACEMENT

⚠ WARNING

Electrical Shock Hazard

- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

STEP 9 Lower the cabinet over the baseplate.

STEP 10 Using a screwdriver or nutdriver, insert the screws through the cabinet (bottom) into the base and tighten.

STEP 11 Carefully raise the top.

STEP 12 Push the pressure switch hose over the port of the air dome.

STEP 13 Using a screwdriver or nutdriver, insert the screw through the drain hose clamp, into the support bracket and tighten.

STEP 14 Lower the top (section P, proc. 1).

STEP 15 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

TYPE B

STEP 1 Disconnect the electrical power supply (section B).

STEP 2 Remove any hoses that are connected to water faucets.

STEP 3 Using a screwdriver or nutdriver, remove the two back screws.

STEP 4 Tape the lid shut.

⚠ WARNING

Personal Injury Hazard/Product Damage

- The automatic washer is very heavy. Get another person to help you when laying it down.
- Failure to do so could result in personal injury or product damage.

⚠ CAUTION

Product / Property Damage

- To protect the finish on the cabinet or floor, lay a pad (rug or blanket) on the floor before laying the automatic washer down.

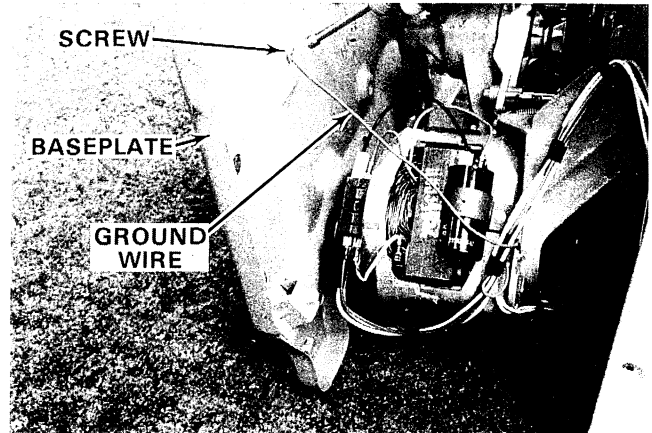
NOTE: Do not leave the washer lying down for any length of time as this may cause the oil in the gearcase to leak out.

STEP 5 Carefully lay the automatic washer on its back.

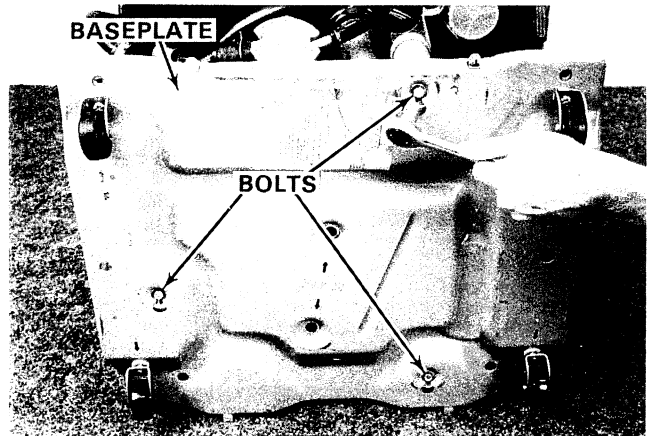
STEP 6 Place a 2 x 4—2 feet long—under the bottom edge of the automatic washer.

STEP 7 Using a screwdriver or nutdriver, remove the bottom side screws.

STEP 8 Grab the casters and slide the baseplate, gearcase and tub out the cabinet to the bottom of the tub.



STEP 9 Using a nutdriver, remove the screw holding the green ground wire on the inside of the baseplate.



STEP 10 Using a socket wrench, loosen the three bolts (if your baseplate has the keyhole slots) holding the baseplate to the springs.

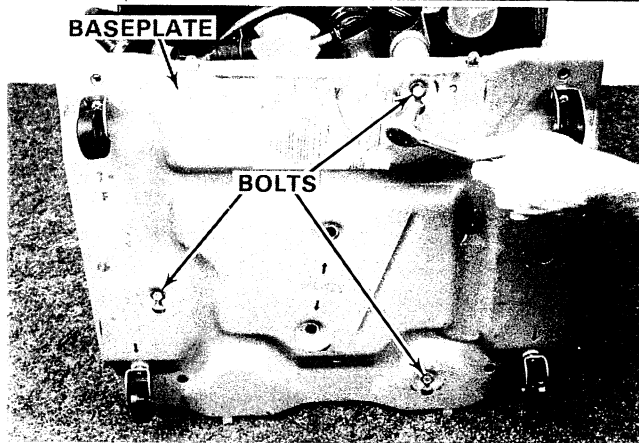
If your baseplate does not have these keyhole slots, the three bolts holding the baseplate to the springs must be removed.

STEP 11 Set the baseplate to one side.

REPLACEMENT

STEP 12 Replace the baseplate on the three springs.

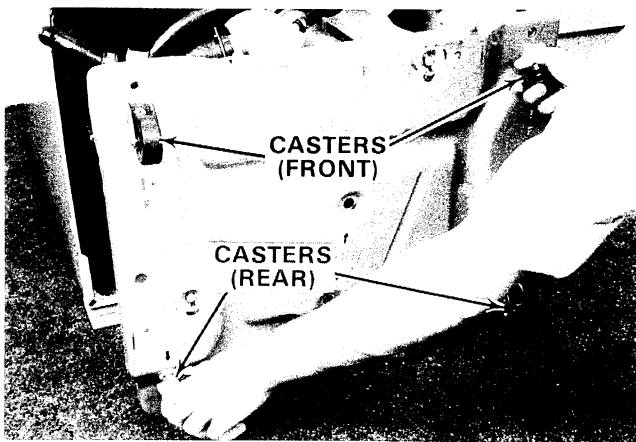
NOTE: The slanted casters are in the back.



STEP 13 Using a socket wrench, tighten the three bolts.

On some models the bolts will have to be inserted through the baseplate into the springs and tightened.

STEP 14 Using a nutdriver, insert the screw through the green ground wire into the baseplate and tighten.



STEP 15 Grab one front caster and one opposite rear caster.

STEP 16 Slide the tub, gearcase and baseplate back into the cabinet. Some rocking of the baseplate may be required when sliding this into the cabinet.

STEP 17 Using a nutdriver or screwdriver, insert the bottom side screws through the cabinet, into the baseplate and tighten.

⚠ WARNING

Personal Injury Hazard/Product Damage

- The automatic washer is very heavy. Get another person to help you when lifting.
- Failure to do so could result in personal injury or product damage.

STEP 18 Using a nutdriver or screwdriver, insert the bottom back screws through the cabinet, into the baseplate and tighten.

STEP 19 Raise the top (section P, proc. 1).

STEP 20 Check all hoses to be sure they are properly connected and are not pinched in any way.

STEP 21 Check the water shield making sure they are covering the timer and water level switch.

⚠ WARNING

Electrical Shock Hazard

- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

STEP 22 Lower the top (section P, proc. 1).

STEP 23 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

PROCEDURE 3

Drive Belt

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section B).
- Failure to do so could result in personal injury or death.

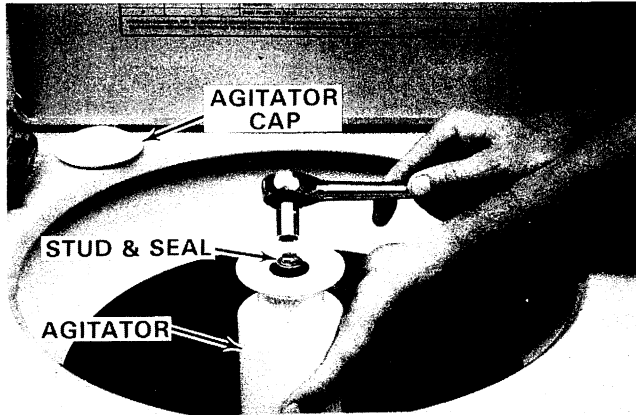
The drive belt fits around the pump pulley, main drive pulley, motor pulley, spin pulley and an idler pulley. The drive motor pulley moves the belt around these pulleys, causing the automatic washer to agitate, spin, circulate or drain the water.

STEP 1 Disconnect the electrical power supply (section B).

STEP 2 Lift the lid.

STEP 3 Using a screwdriver, insert it into the slot between the insert (cap) and agitator, and pry.

NOTE: On some models you will have to screw the cap off the agitator.



STEP 4 Using a socket wrench, hold the agitator while removing the stud and seal.

STEP 5 Carefully remove the agitator by lifting straight up.

STEP 6 Lower the lid.

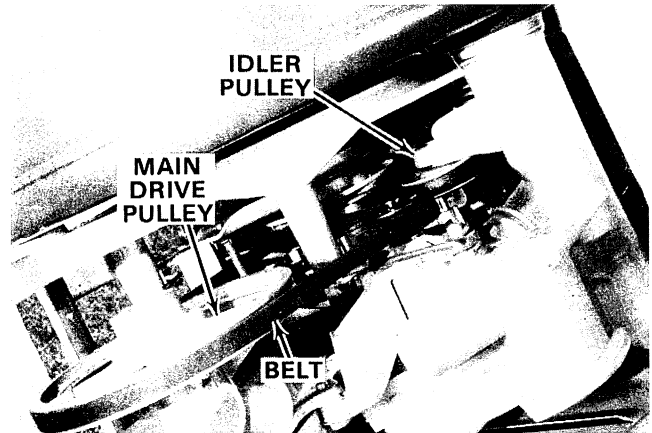
STEP 7 Tape the lid shut.

STEP 8 See bottom access (section P, proc. 2; Type B).

⚠ WARNING

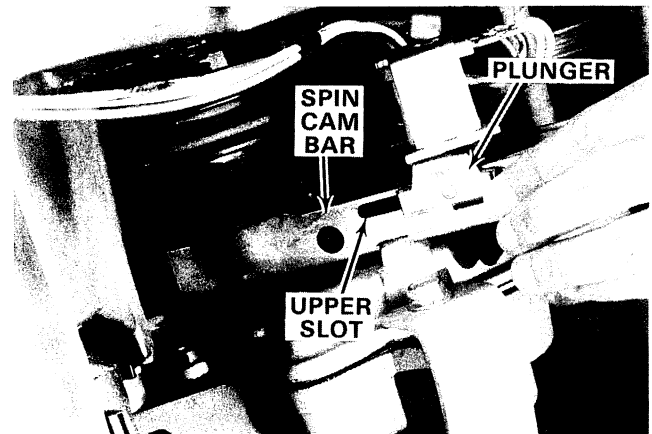
Personal Injury Hazard

- Be careful when moving the idler pulley. It may spring back.
- Failure to do so could result in pinched fingers or hand.



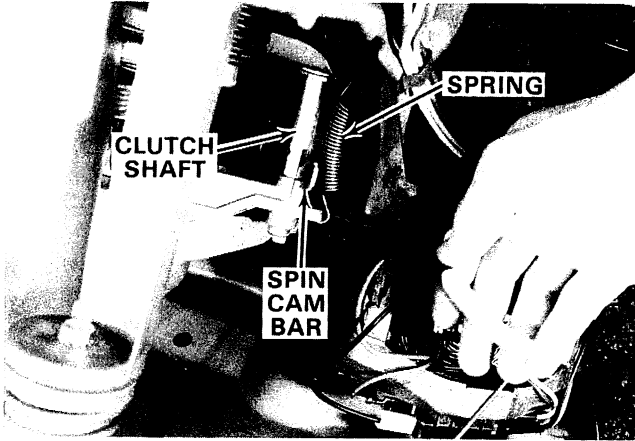
STEP 9 Using your hand, push the idler pulley toward the middle, then remove the belt.

STEP 10 Slowly move the idler pulley back.

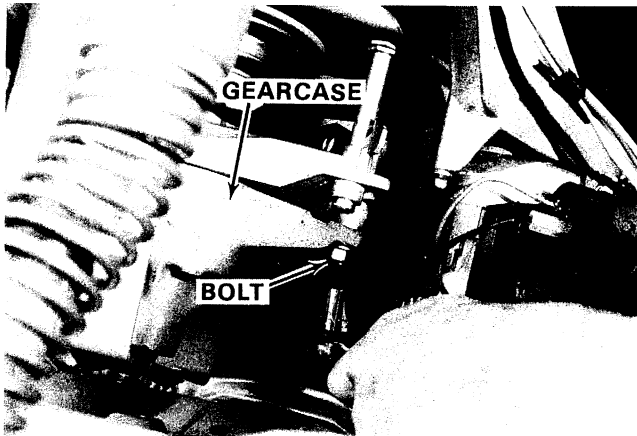


STEP 11 To make sure the spin cam bar is all the way back, hold the spin plunger up while turning the main drive pulley until the spin cam bar is in the spin position or pulled all the way back (plunger and rivet are in the upper slot).

This procedure will pull the spin cam bar back from the clutch shaft, allowing the shaft to move downward.

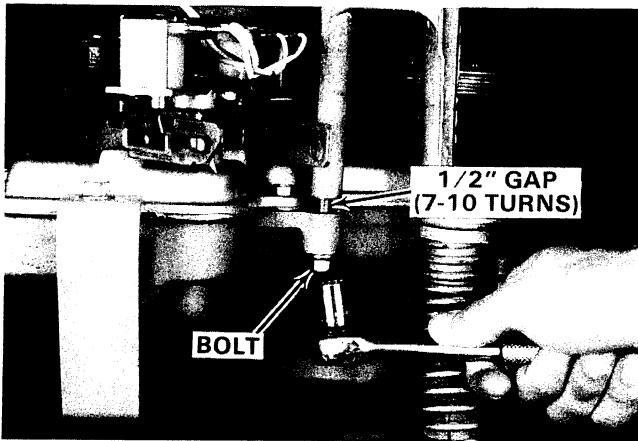


STEP 12 Using needle nose pliers, remove the spring.

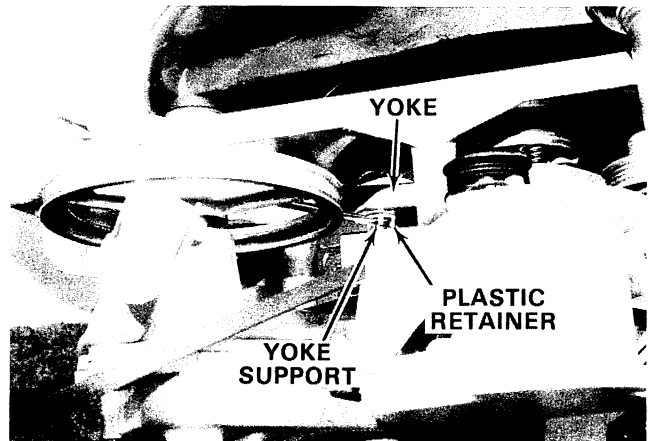


STEP 13 Using a socket wrench, remove the gearcase mounting bolt by the motor.

STEP 14 Using a socket wrench, remove the gearcase mounting bolt by the pump.



STEP 15 Using a socket wrench, loosen the gearcase mounting bolt next to the control magnet about 1/2 inch or 7-10 turns.



NOTE: Be careful not to break the ears off the plastic retainer.

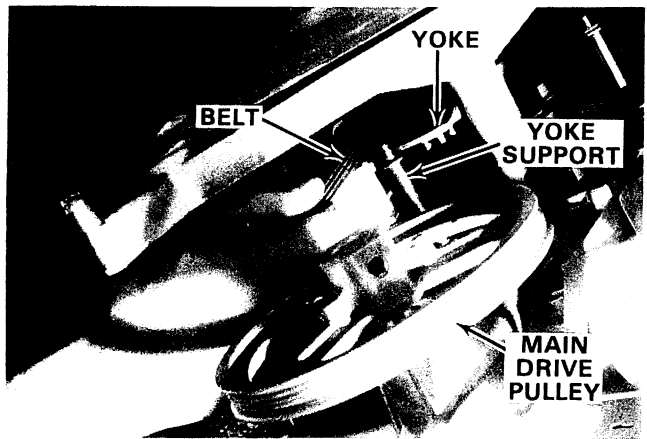
STEP 16 Using a screwdriver, place it between the plastic retainer and yoke support, and pry.

NOTE: Your washer may have two washers on top of this clutch shaft which could fall off. Be careful not to lose them.

Your washer may have used a nut on top of this clutch shaft. Be careful not to turn this.

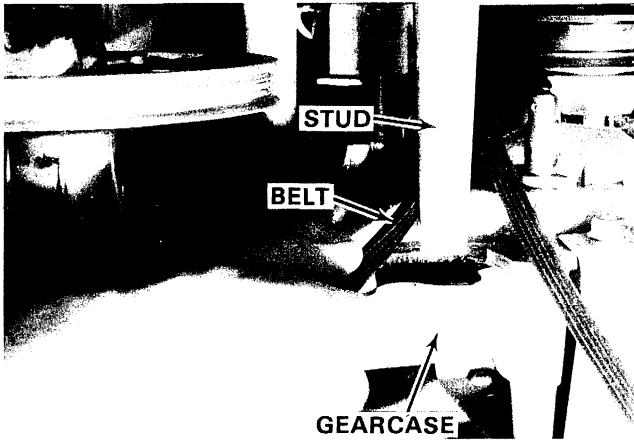
STEP 17 Lift the yoke from the yoke support and the clutch shaft, and turn somewhat.

STEP 18 Hold the bottom of the tub while pulling the gearcase out until it stops against the bolts.



NOTE: If the belt is not to be reused it may be cut and removed. If it is to be reused, proceed as follows.

STEP 19 Grab the portion of the belt in the back of the machine and slide this toward you, over the main drive pulley and yoke support.

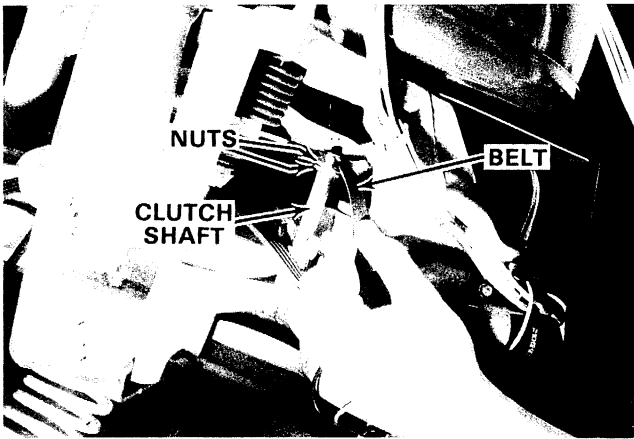


NOTE: This pump was removed to clarify the picture. This pump does not have to be removed.

STEP 20 Now slide this belt toward you, between the stud (by the pump) and gearcase.

STEP 21 On newer washers, the stud by the motor did not go all the way up to the bottom of the tub.

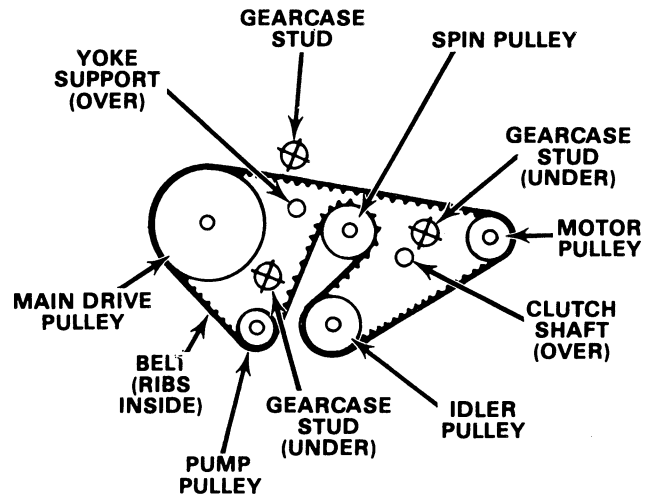
On older washers, slide the belt toward you, between the stud (by the motor) and gearcase.



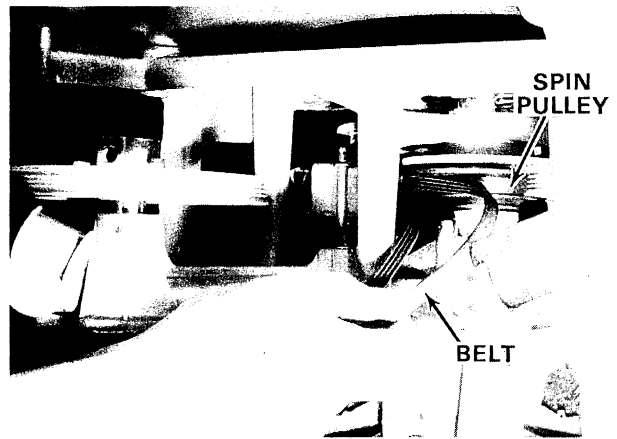
STEP 22 Slide the belt (toward you) over the clutch shaft.

STEP 23 Remove the belt.

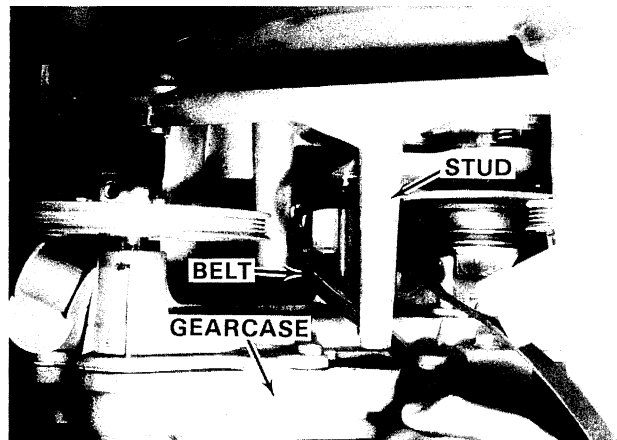
REPLACEMENT



TOP FRONT VIEW



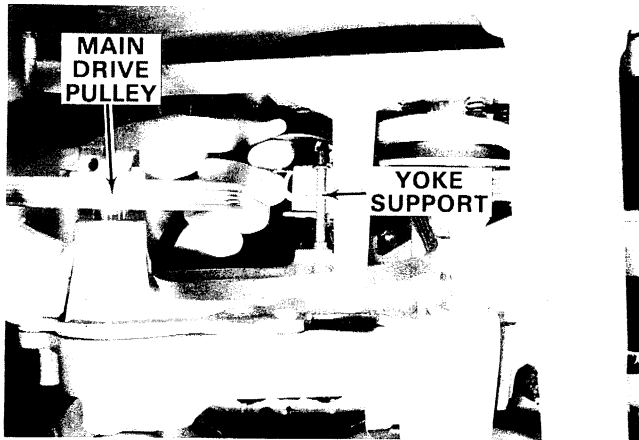
STEP 24 Loop the new belt (ribs inside) behind the back side of the spin pulley.



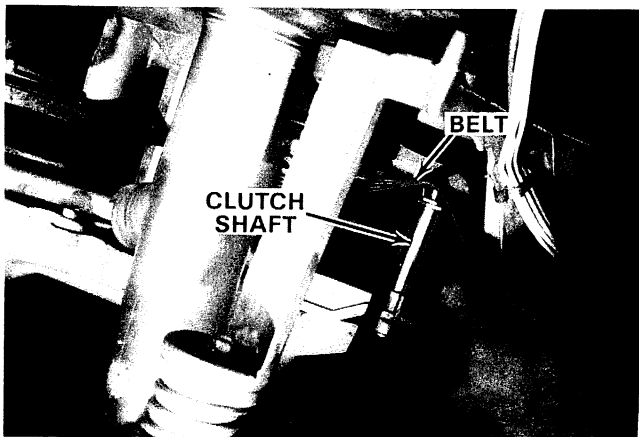
NOTE: This pump was removed to clarify the picture. This pump does not have to be removed.

COMPACT / PORTABLE AREA—SECTION P—PROCEDURE 3

STEP 25 Slide the loop of the belt away from you, between the stud (by the pump) and gearcase.



STEP 26 Slide the loop of the belt away from you, over the yoke support and main drive pulley.



STEP 27 Slide the loop of the belt away from you, over the clutch shaft.

STEP 28 On new washers, the stud by the motor did not go all the way up to the bottom of the tub.

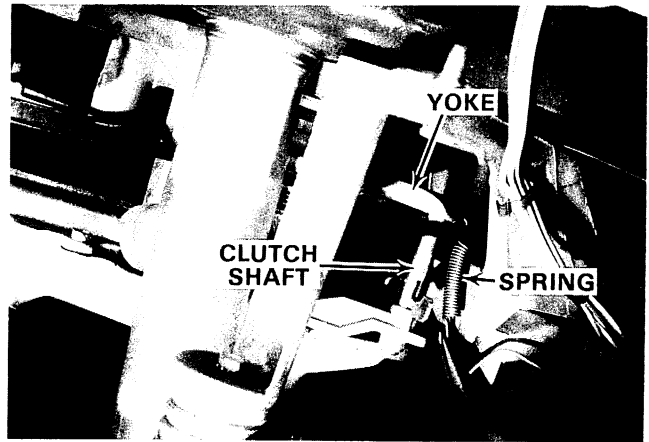
On older washers, slide the loop of the belt away from you, between the stud (by the motor) and gearcase.

STEP 29 DO NOT put the belt on the pulleys yet.

STEP 30 Be sure the two washers (if used) or nut, are on the clutch shaft.

STEP 31 Be sure the ears on the plastic retainer in the yoke are not broken.

STEP 32 Snap the retainer on the yoke support.



STEP 33 Using needle nose pliers, place one end of the spring in the hole in the yoke and the other end of the spring in the hole of the gearcase.

STEP 34 Hold onto the tub while sliding the gearcase back into the washer.

NOTE: Lift on the bottom of the gearcase. This will line up the spin tube and agitator shaft and should prevent binding. If this is not done properly it could cause a slow spin speed.

STEP 35 Finger tighten the bottom gearcase mounting bolt.

STEP 36 Insert the gearcase mounting bolt by the pump, and finger tighten only.

STEP 37 Insert the gearcase mounting bolt by the motor, and finger tighten only.

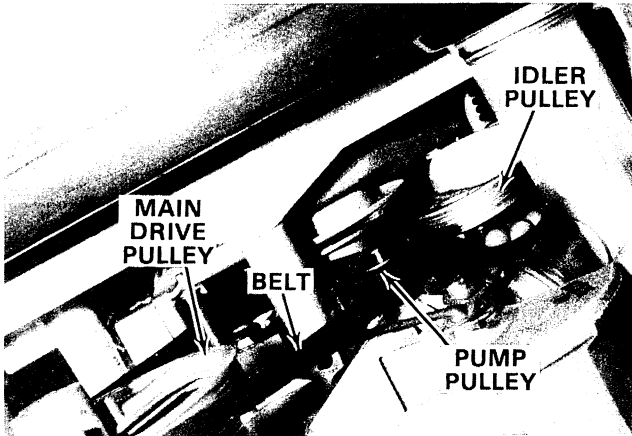
STEP 38 Using a socket wrench, tighten these three gearcase mounting bolts.

STEP 39 Place the belt around the motor pulley, main drive pulley and pump pulley.

WARNING

Personal Injury Hazard

- Be careful when moving the idler pulley. It may spring back.
- Failure to do so could result in pinched fingers or hand.



STEP 40 Use your hand and push the idler pulley toward the middle.

STEP 41 Place the belt around the idler pulley.

STEP 42 See bottom access (section P, proc. 2; Type B).

STEP 43 Untape and raise the lid.

STEP 44 Replace the agitator on the shaft.

Rotate the agitator until it matches the grooves on the shaft, then push the agitator down.

STEP 45 Using a socket wrench, insert the stud and seal on top of the agitator and tighten.

STEP 46 Replace the insert (cap) on top of the agitator and press down until it snaps into place.

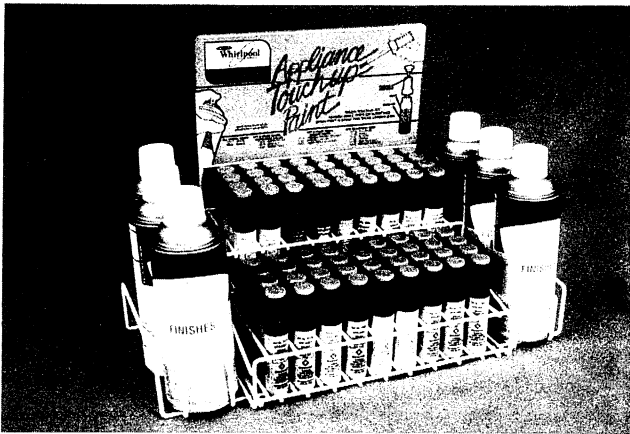
STEP 47 Close the lid.

STEP 48 Reconnect the electrical power supply to the automatic washer. See section B for the proper reconnection.

SECTION Q

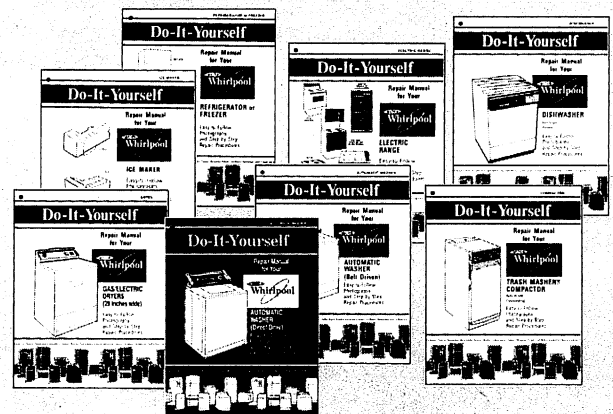
Automatic Washer Accessories

TOUCH-UP PAINT



Quick and easy way to keep your appliance looking like new. Touch up scratches and chips when they occur.

"DO-IT-YOURSELF" REPAIR MANUALS

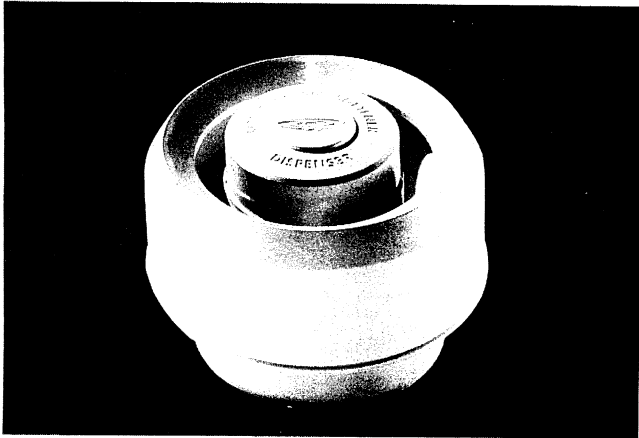


With these manuals, you will learn how to diagnose a problem that may crop up in your WHIRLPOOL Home Appliance . . . and how to correct it.

We have eight manuals available: Automatic Washer (belt drive), Automatic Washer (direct drive), Dryer (gas & electric), Dishwasher, Compactor, Ice Maker, Refrigerator/Freezer and the Electric Range.

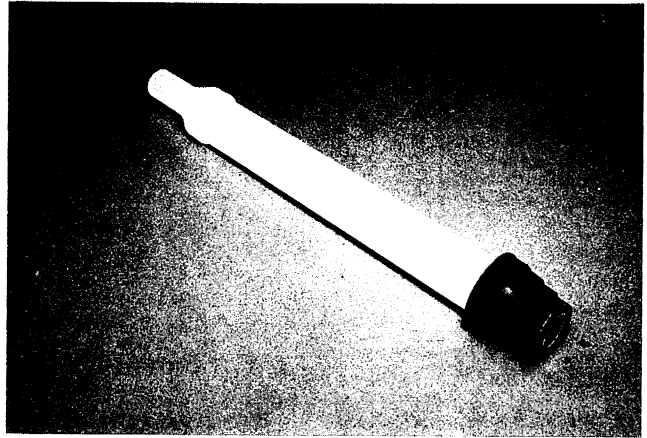
SEE YOUR AUTHORIZED WHIRLPOOL FACTORY SERVICE
BRANCH FOR ORDERING.

DISPENSER



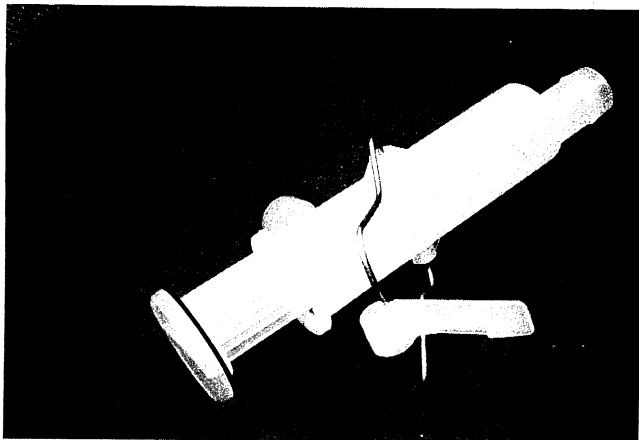
This plastic dispenser will automatically add liquid fabric softener during the deep rinse cycle. For non-electric dispenser WHIRLPOOL automatic washers. The dispenser attaches to the top of the agitator.

STANDPIPE KIT



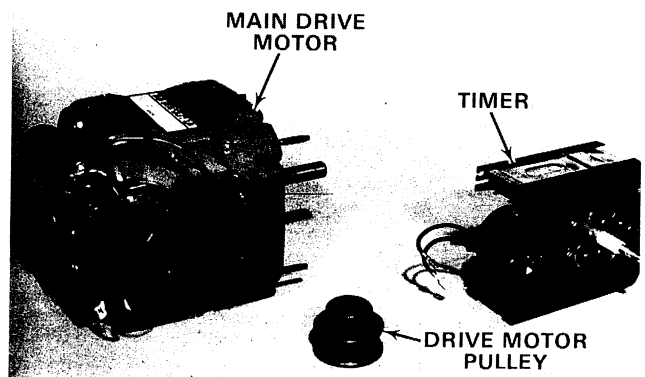
Used on all WHIRLPOOL suds saver automatic washers using a single laundry tub. Drain hose fits in top of standpipe for drain application. The suds hose fits over the side of the tub for suds saver portion.

DRAIN PROTECTOR



Designed to break up excessive amounts of lint into smaller particles and catch threads and strings from shag rugs and chenille spreads that could clog the drain.

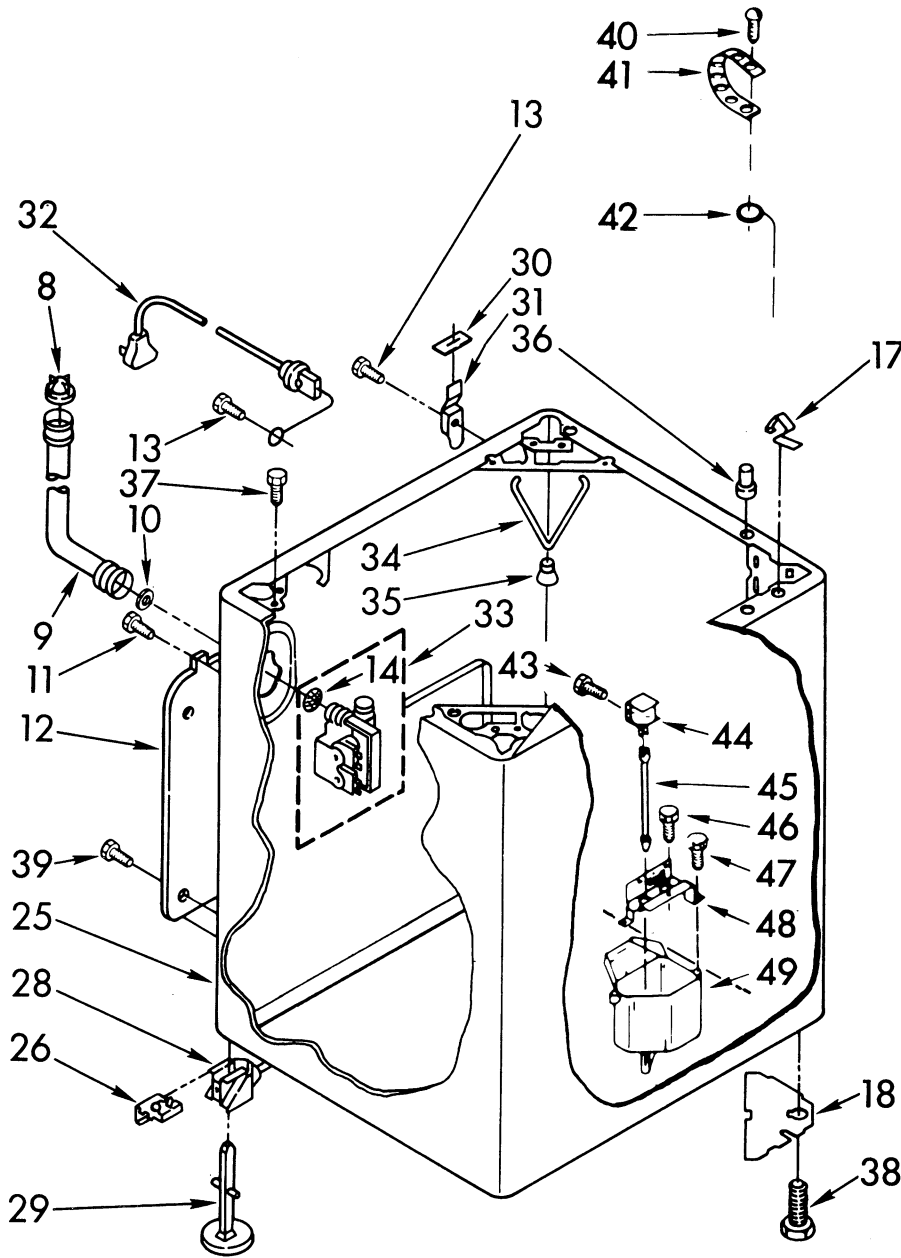
50-HZ CONVERSION



When moving from the United States to another country where the voltage changes from 60-Hz to 50-Hz, you will have to change these three parts. Some automatic washers are not designed to operate on 50-Hz. Refer to your Customer Repair Parts List for parts.

**SEE YOUR AUTHORIZED WHIRLPOOL FACTORY SERVICE
BRANCH FOR ORDERING.**

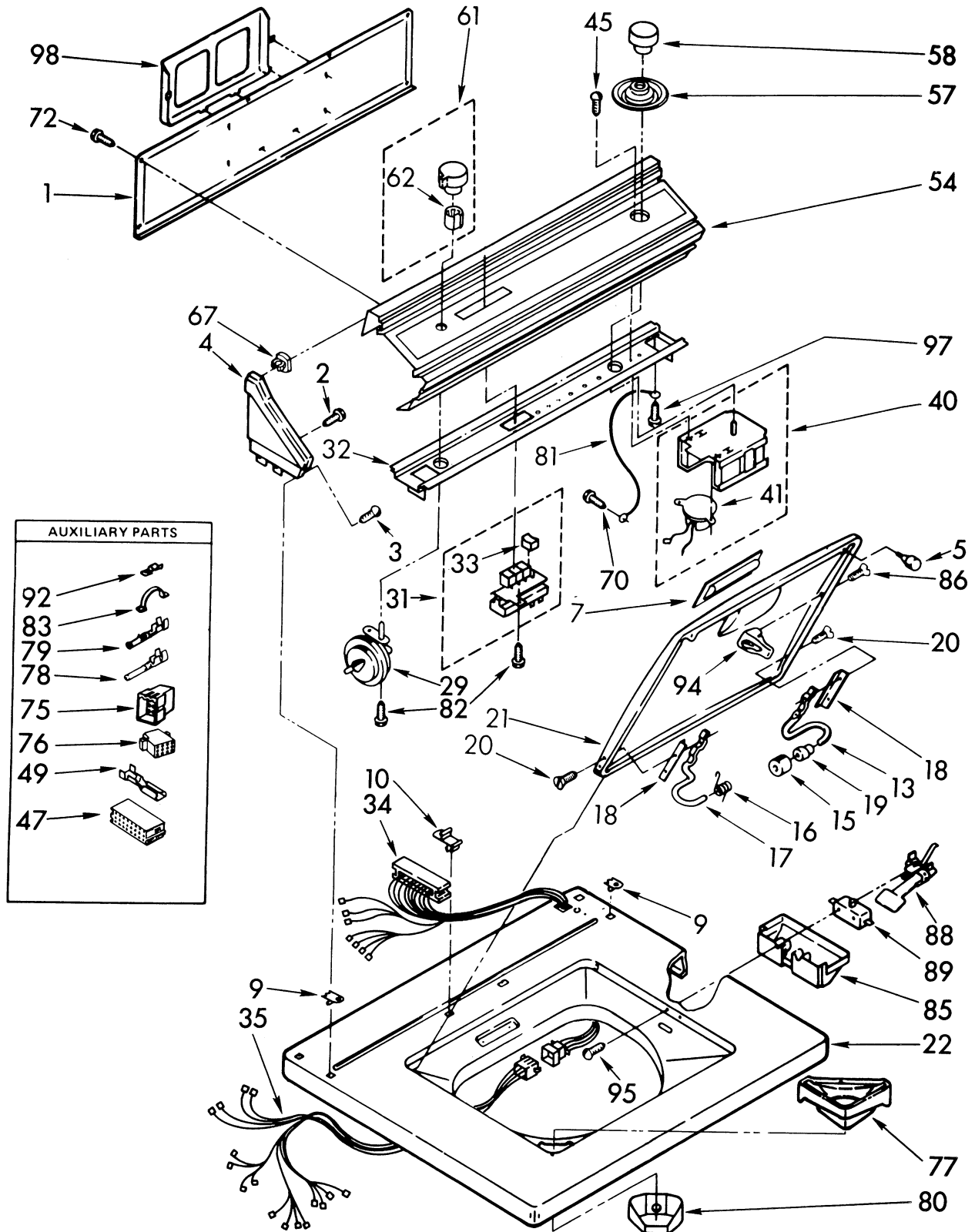
TYPICAL CABINET PARTS



Illus. No.	DESCRIPTION
------------	-------------

- | | |
|----|------------------------------|
| 8 | Screen, Filter (2) |
| 9 | Hose, Inlet (2) |
| 10 | Washer, Rubber (2) |
| 11 | Screw, # 10-24 x 3/8 |
| 12 | Panel, Rear |
| 13 | Screw, # 10-16 x 1/2 |
| 14 | Screen, Filter |
| 17 | Lock, Front Top (2) |
| 18 | Plate, Gusset |
| 25 | Cabinet |
| 26 | Clip, Leveling Mechanism (2) |
| 28 | Link, Leveling |
| 29 | Foot, Rear (2) |
| 30 | Pad, Hinge |
| 31 | Hinge, R.H. & L.H. |
| 32 | Cord, Power |
| 33 | Valve, Mixing |
| 34 | Spring, Snubber |
| 35 | Snubber |
| 36 | Locator, Top (2) |
| 37 | Screw, # 10-16 x 1/2 |
| 38 | Foot, Front (2) |
| 39 | Screw, # 10-16 x 1/2 |
| 40 | Screw, Ground # 10-24 x 1 |
| 41 | Strap, Ground |
| 42 | Wire, Ground |
| 43 | Screw |
| 44 | Solenoid |
| 45 | Rod & Stopper |
| 46 | Screw, # 10-16 x 1/2 |
| 47 | Screw |
| 48 | Bracket, Dispenser |
| 49 | Reservoir |

TYPICAL TOP AND CONSOLE PARTS



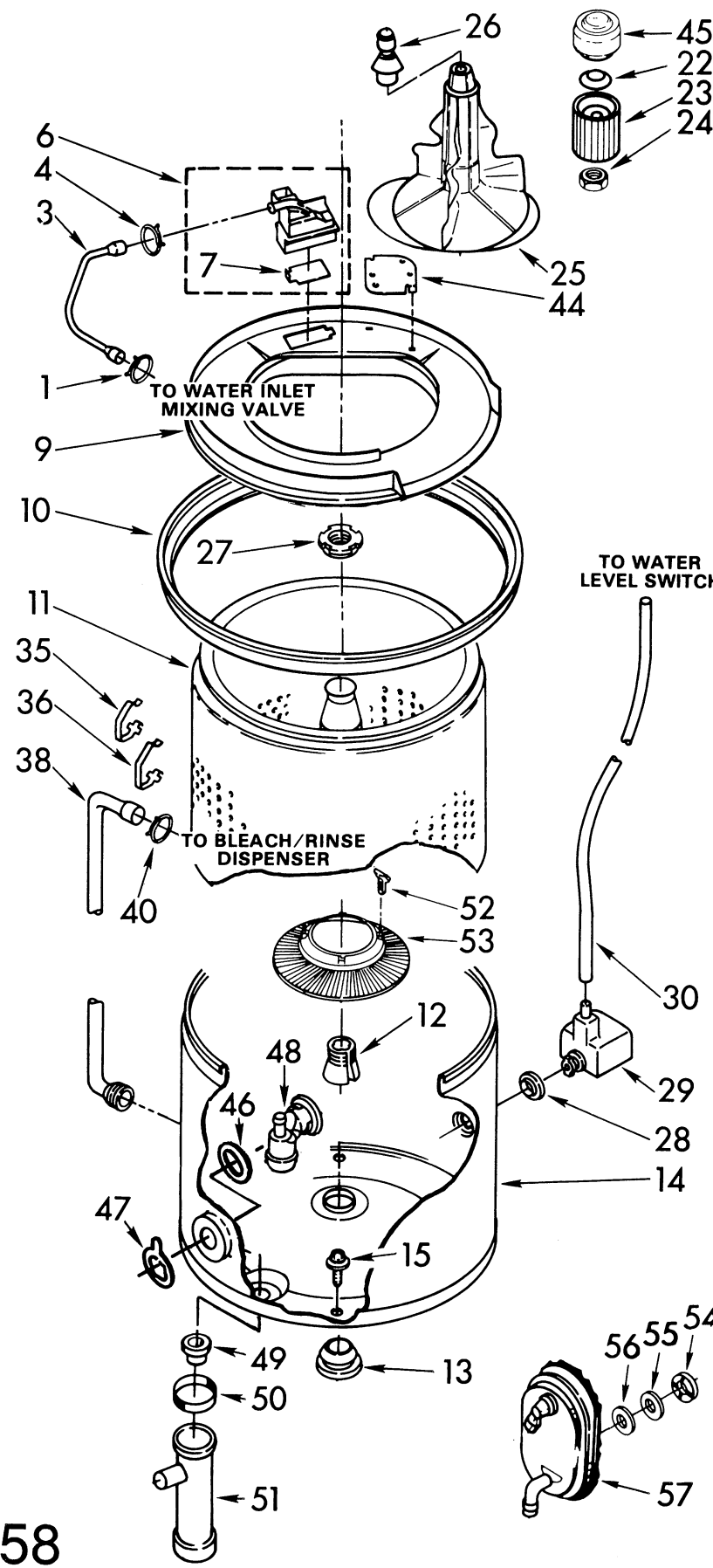
TYPICAL TOP AND CONSOLE PARTS

Illus. No.	DESCRIPTION
1	Panel, Rear
2	Screw, # 13-16 x 5/8
3	Screw
4	Cap, End
5	Bumper, Rubber
7	Handle, Lid
9	Nut, Push-In
10	Stop, Push-In Top
13	Hinge, R.H.
15	Bumper
16	Spring, Hinge (L.H.)
17	Hinge, L.H.
19	Bearing, Hinge
20	Screw
21	Lid
22	Top
29	Switch, Water Level
31	Switch, Water Temperature

Illus. No.	DESCRIPTION
32	Bracket, Control
33	Push-button
34	Harness, Console
35	Harness, Base
40	Timer
41	Motor, Timer
45	Screw, # 10-32 x .31
47	Block, Disconnect
49	Terminal (Female)
54	Panel, Control
57	Dial, Timer
58	Knob, Timer
61	Knob (Water Level)
62	Clip, Control Knob
67	Nut, Push-In
70	Screw, # 10 x 3/8
72	Screw, # 8-18 x 1/2
75	Cap, Terminal (Console Harness)

Illus. No.	DESCRIPTION
76	Plug, Terminal (Cabinet Harness)
77	Bezel, Dispenser
78	Terminal (Male)
79	Terminal (Female)
80	Tray, Dispenser
81	Wire, Ground
82	Screw
83	Clip, Harness
85	Shield, Lid Switch
86	Screw & Washer
88	Switch, Actuator
89	Switch, Lid
92	Clip, Harness
94	Strike, Lid Switch
95	Screw & Washer
97	Screw, # 10-16 x 1/2
98	Rack, Literature

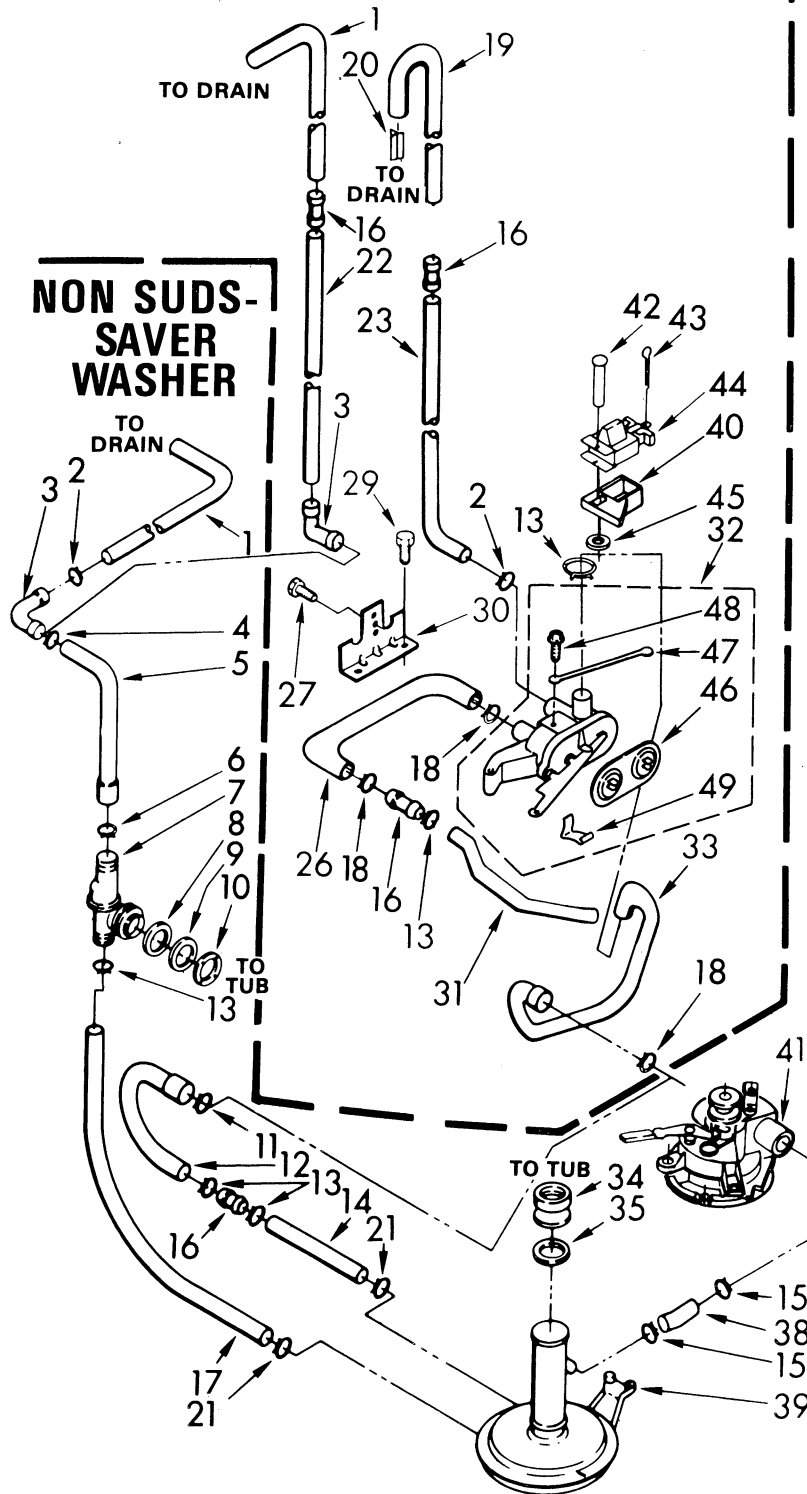
TYPICAL TUB AND BASKET PARTS



Illus. No.	DESCRIPTION
1	Clamp, Hose
3	Hose, Water Inlet
4	Clamp, Hose
6	Inlet, Water
7	Flapper
9	Ring, Tub (Includes Illus. 44)
10	Seal, Tub Ring
11	Basket
12	Block, Drive
13	Gasket, Center Post
14	Tub
15	Screw & Washer Tub (4)
22	Insert, Agitator Cap
23	Cap, Agitator
24	Nut, Lock
25	Agitator
26	Stud & Washer
27	Locknut
28	Seal
29	Dome, Air
30	Hose
35	Clip, Tub Ring
36	Clip, Tub Ring
38	Hose, Dispenser
40	Clamp, Hose
44	Plate, Snubber
45	Dispenser, Rinse
46	Gasket
47	Lockwasher
48	Funnel
49	Hose, Tub Outlet
50	Clamp, Hose
51	Trap, Manifold
52	Clip
53	Filter, Basket Ring
54	Nut, Spanner
55	Washer, Fibre
56	Washer, Rubber
57	Filter, Tub

TYPICAL WATER SYSTEM PARTS

SUDS-SAVER WASHER

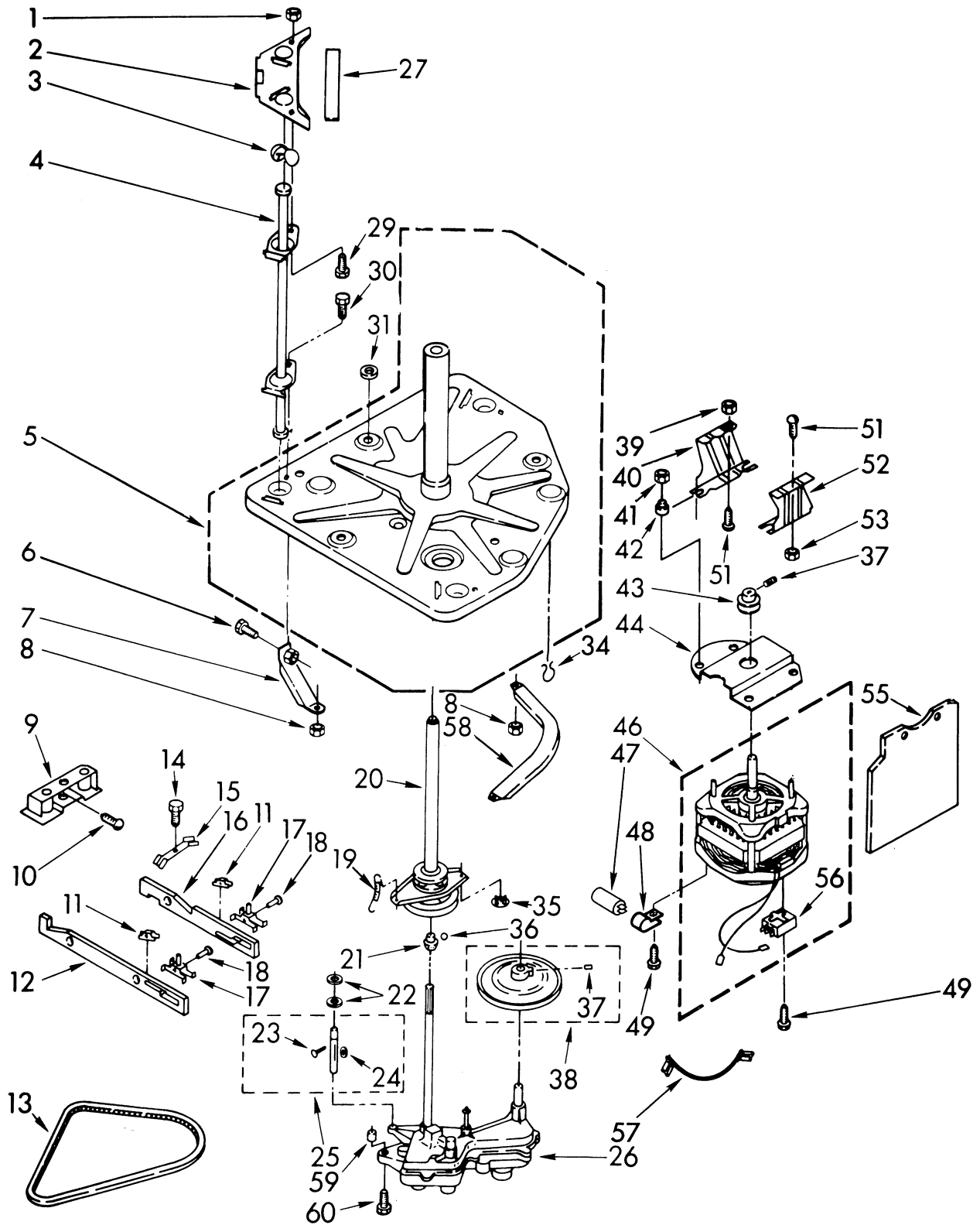


Illus.

No. DESCRIPTION

- | Illus. No. | DESCRIPTION |
|------------|-----------------------------------|
| 1 | Hose, Drain |
| 2 | Clamp, Hose |
| 3 | Connector, Hose |
| 4 | Clamp, Hose |
| 5 | Hose (Side Check Valve to drain) |
| 6 | Clamp, Hose |
| 7 | Valve, Side Check |
| 8 | Washer, Rubber |
| 9 | Washer, Fiber |
| 10 | Nut, Spanner |
| 11 | Clamp |
| 12 | Hose (Pump to Filter) |
| 13 | Clamp, Hose |
| 14 | Hose (Pump to Filter) |
| 15 | Clamp, Hose |
| 16 | Connector, Hose |
| 17 | Hose (Side Check Valve to Filter) |
| 18 | Hose, Suds Return |
| 19 | Hose, Suds Return |
| 20 | Strainer, Hose |
| 21 | Clamp, Hose |
| 22 | Hose, Outlet |
| 23 | Hose (suds return) |
| 26 | Hose (Filter to Valve) |
| 27 | Screw & Washer |
| 29 | Screw, # 10-16 x 1/2 |
| 30 | Bracket, Two-Way Valve |
| 31 | Hose (Valve to Filter) |
| 32 | Valve, Two-Way |
| 33 | Hose (Valve to Pump) |
| 34 | Hose, Tub Outlet |
| 35 | Clamp, Hose |
| 38 | Hose (Pump to Manifold) |
| 39 | Manifold & Filter |
| 40 | Shield, Two-Way Valve |
| 41 | Pump |
| 42 | Rivet |
| 43 | Pin, Cotter (1/8 x 3/4) |
| 44 | Solenoid |
| 45 | Clip, Push-On |
| 46 | Diaphragm |
| 47 | Strap, Ground |
| 48 | Screw, # 8A x 3/8 |
| 49 | Clip, Retainer |

TYPICAL DRIVE SYSTEM PARTS



TYPICAL DRIVE SYSTEM PARTS

Illus. No.	DESCRIPTION	Illus. No.	DESCRIPTION	Illus. No.	DESCRIPTION
1	Nut, # 5/16-18	21	Support, Spin Tube	41	Nut
2	Cover, Front & Rear Gusset	22	Washer	42	Grommet, Motor Bracket (4)
3	Ball, Suspension (6)	23	Pin, Roll	43	Pulley, Motor
4	Rod, Suspension (3)	24	Roller, Basket Clutch Shaft	44	Shield, Motor (upper)
5	Baseplate & Centerpost	25	Shaft, Basket Clutch	46	Motor
6	Screw	26	Gearcase	47	Capacitor, Motor Start
7	Brace, Baseplate	27	Pad, Gusset Cover (6)	48	Clamp, Capacitor
8	Nut, # 5/16-24	29	Bolt, # 5/16 x 1 (3)	49	Screw, Motor Grounding
9	Magnet		Bolt, # 5/16 x 5/8 (2)	51	Bolt, # 3/8-16 x 3/4
10	Screw		Bolt, Snubber (1)	52	Bracket, Motor Mounting
11	Guide, Cam Bar	30	Bolt, # 5/16-24	53	Nut, # 3/8-16
12	Bar, Cam (Spin)	31	Gasket, Tub (7)	55	Shield, Motor
13	Belt "V"	34	Clip, Harness	56	Switch, Motor
14	Screw, # 1/4-28 x 1/2	35	Retainer, Brake Yoke	57	Wire, Jumper
15	Spring, Brake	36	Ball	58	Brace, Manifold (1)
16	Bar, Cam (Agitator)	37	Setscrew, # 5/16-18 x 1/2	59	Spacer, Stud & Gearcase
17	Plunger	38	Pulley, Main Drive	60	Screw & Washer
18	Rivet	39	Locknut, # 3/8-16		
19	Spring, Brake Yoke	40	Bracket, Motor Mounting		
20	Basket Drive & Brake				

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