SEARS

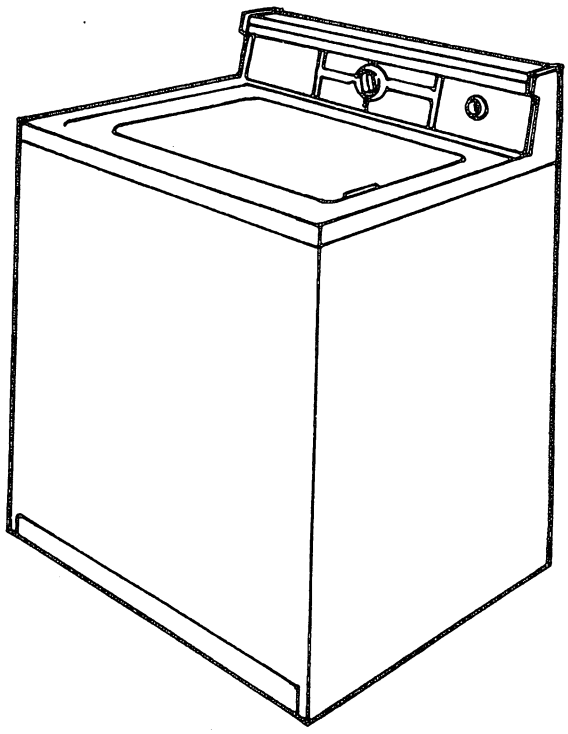
$799

Do-It-Yourself REPAIR MANUAL for Kenmore® AUTOMATIC WASHERS

(BELT DRIVEN)

Easy-to-follow step-by-step repair procedures and illustrations

Sold by *Sears, Roebuck and Co.*, Chicago, IL 60684



SEARS, ROEBUCK and CO. 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 YOUR NEAREST SEARS, ROEBUCK and CO. SERVICE CENTER.

INTRODUCTION

This DO-IT-YOURSELF REPAIR MANUAL should provide you with a basic understanding of the operation of your KENMORE® 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 KENMORE automatic washers built over the past ten years, it does NOT cover any procedures for the electronic solid state controls.

A KENMORE 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 sections in this manual entitled "HOW TO READ WIRING DIAGRAMS; AND TIMER SEQUENCE CHARTS" (Section 8) 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 KENMORE 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 your nearest Sears Service Center.
- This manual includes numerous safety cautions and warnings.
- No attempt should be made to repair your KENMORE automatic washer without first carefully reading Section 1, SAFETY FIRST, and all other safety cautions and warnings printed throughout this manual and on the automatic washer.

Only the original parts of the KENMORE 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 KENMORE automatic washer. This FSP trademark is shown on the parts carton which identifies quality-tested replacement parts.

The pictures of the KENMORE 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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SECTION 1 MUST BE CAREFULLY READ BEFORE ANY REPAIR OR TESTING PROCEDURES ARE ATTEMPTED.

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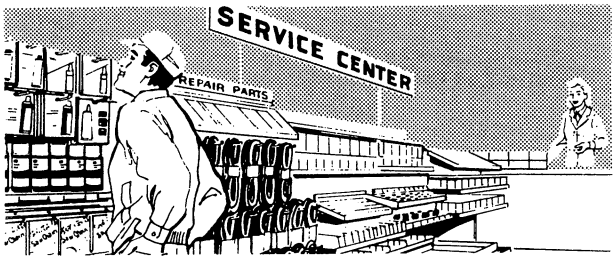
SEARS SERVICE OFFERS MORE THAN JUST REPAIRS . . .



Do-It-Yourself Service . . .
Sears Service Centers offer a wide selection of quality repair parts, repair manuals and maintenance products to keep your appliances in top operating condition. Our trained parts salespeople offer prompt, courteous assistance when you need it.

Factory Specified Parts . . .
Our nearby service centers carry the factory specified replacement parts you need for your quality appliances. In order to be assured of obtaining the right part for your appliance, don't forget your model number.

If the parts you need are not stocked locally, your order will be electronically transmitted to a Sears Repair Parts Distribution Center for handling.

"You Can Depend On Sears For Service"

SEARS SERVICE OFFERS MORE THAN JUST REPAIRS . . .

Sears Maintenance Agreements . . .
Your way of buying tomorrow's service at today's prices. A maintenance agreement eliminates repair bills resulting from normal use and allows for as many service calls as required. It assures that all work will be done by Sears professionally trained technicians. Ask for information about mainenance agreements at your Sears Service Center.

Nationwide Service . . .
If your appliance requires the service of an expert, contact Sears service. One call can put you in touch with one of the largest service organizations in the world. Our technicians have the tools and test equipment to stand behind the products we sell.

"You Can Depend On Sears For Service"

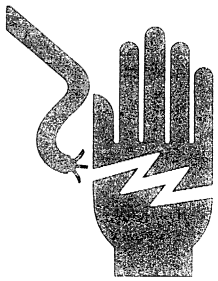
NOTES

SECTION 1

Safety First

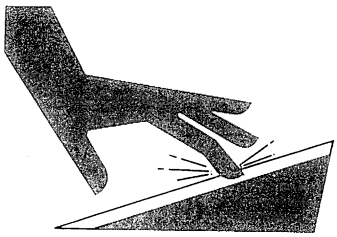
THIS SECTION MUST BE CAREFULLY READ BEFORE ANY REPAIR OR TESTING PROCEDURES ARE ATTEMPTED.

⚠ WARNING



Disconnect power before servicing

⚠ WARNING



This appliance may have sharp edges

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

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

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

⚠ CAUTION — 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 KENMORE® 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.

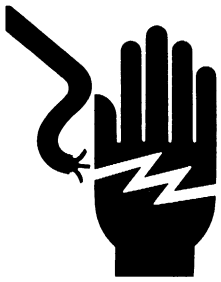
- Be sure to read the *entire procedure* carefully before attmpting the step-by-step testing and/or replacements.
- To help avoid electrical shock, no live electrical tests will be made.
- Make sure you know where the plug fuses or circuit breakers are located within your home.
- Before doing any repairs or testing of parts, disconnect the appliance from the electrical power supply (section 2).
- 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.
- Use only genuine FSP® (Factory Specification Parts) replacement parts as specified for your model. This FSP trademark is shown on the parts carton which 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 SEARS, ROEBUCK and COMPANY. If you are unable to locate these installation instructions, contact your nearest SEARS Service Center.
- If you receive a shock from touching the appliance at any time during normal operation, immediately disconnect (section 2) the electrical power supply. Find the electrical short and repair, or contact your nearest SEARS Service Center for repair.
- Read all instructions before using the appliance.
- Do not let children or others play, work or operate your appliance while it is being repaired.
- 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.

SECTION 2

Electrical Power Supply Connections

SECTION 1 MUST BE CAREFULLY READ BEFORE ANY REPAIR OR TESTING PROCEDURES ARE ATTEMPTED.

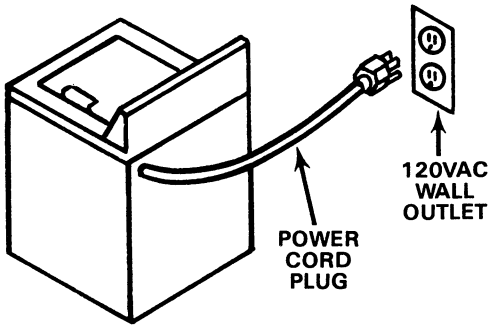
⚠ WARNING



Disconnect power before servicing

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

PROCEDURE A



TO DISCONNECT ELECTRIC POWER

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

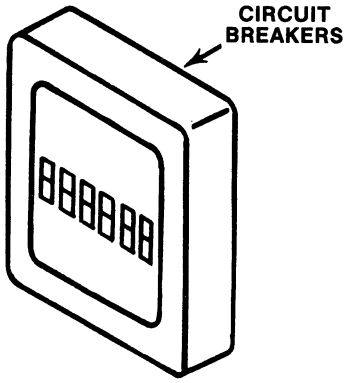
TO CONNECT ELECTRIC POWER

STEP 2 Plug the power cord into the wall outlet.

PROCEDURE B

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.

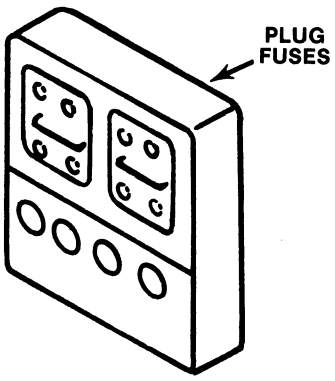


TO DISCONNECT ELECTRIC POWER

STEP 1 Move the switch to the OFF position.

TO CONNECT ELECTRIC POWER

STEP 2 Move the switch to the ON position.



TO DISCONECT 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 3
Replacement Parts Information

When automatic washer problems occur, refer to the problem-solving charts in *section 9*.

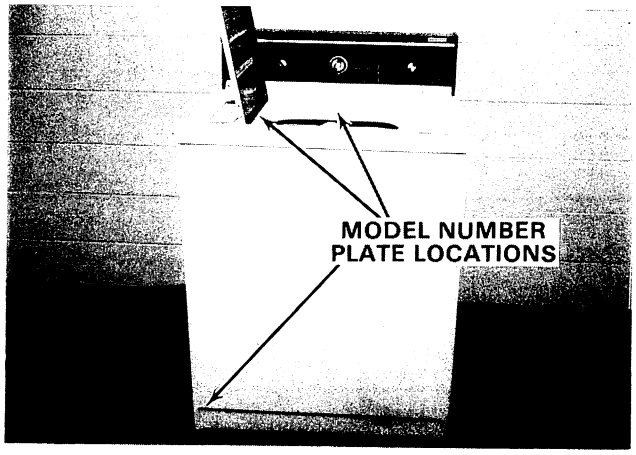
We have listed most problems, possible causes and what to do to help you. This manual also tells you how to test the parts and replace them. Be sure to read the ENTIRE PROCEDURE carefully before attempting the step-by-step testing and/or replacements.

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

Model Number Plate

There are three places this model number plate could be located, either the bottom left front on the cabinet or two places in the lid well. Open the lid and locate the metal or foil plate attached to the back or to the left side of the lid well.

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

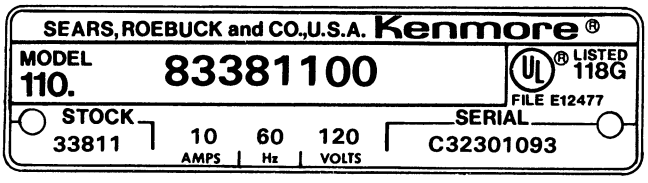


ALWAYS USE YOUR COMPLETE MODEL NUMBER WHEN ORDERING PARTS

WRITE IN YOUR COMPLETE MODEL NUMBER HERE

_ _ _ _ _ _ _ _ _ _

TYPICAL MODEL NUMBER PLATE



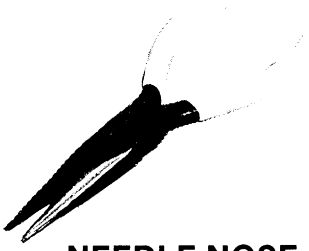
USE FSP PARTS

NOTES

SECTION 4

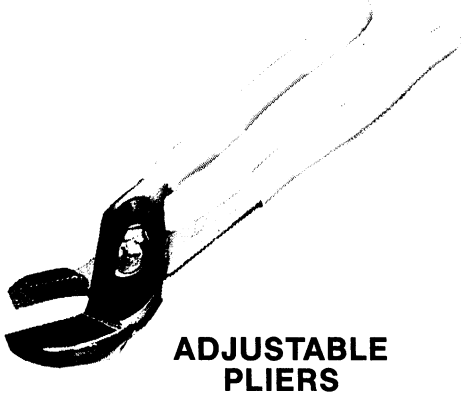
Tools and Testing Equipment

These tools are required for servicing any Sears KENMORE® automatic washer.

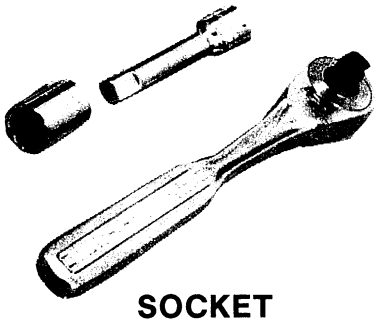


NEEDLE NOSE PLIERS

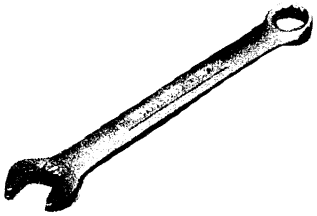
STANDARD PLIERS



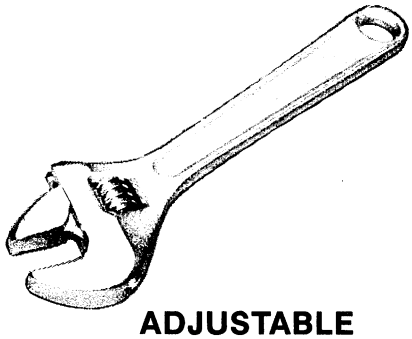
ADJUSTABLE PLIERS



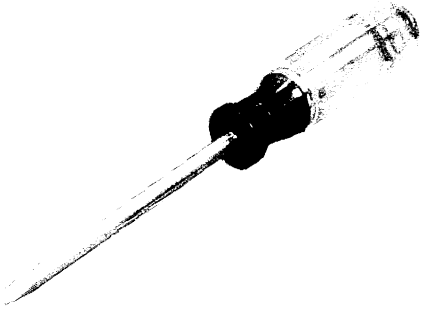
SOCKET WRENCHES



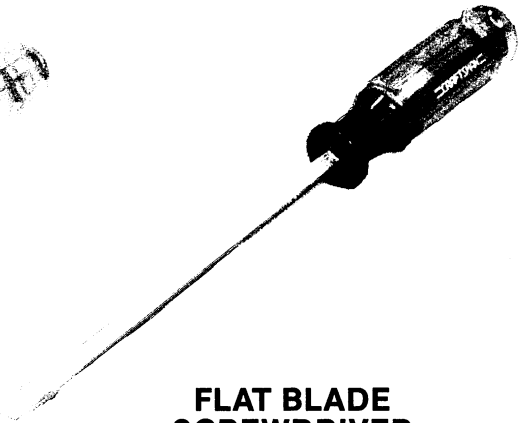
COMBINATION WRENCHES



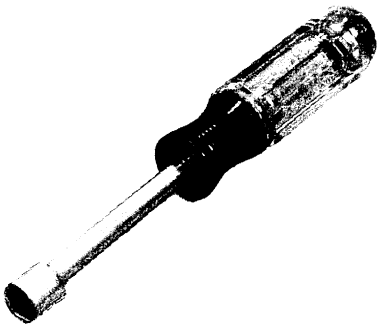
ADJUSTABLE WRENCH



PHILLIPS SCREWDRIVER



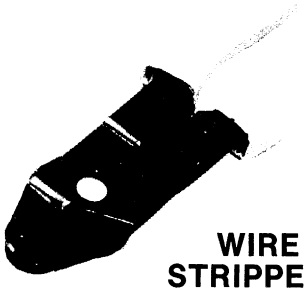
FLAT BLADE SCREWDRIVER



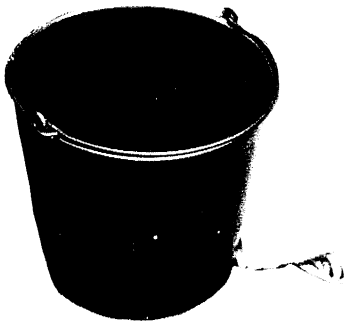
NUTDRIVERS

USE FSP PARTS

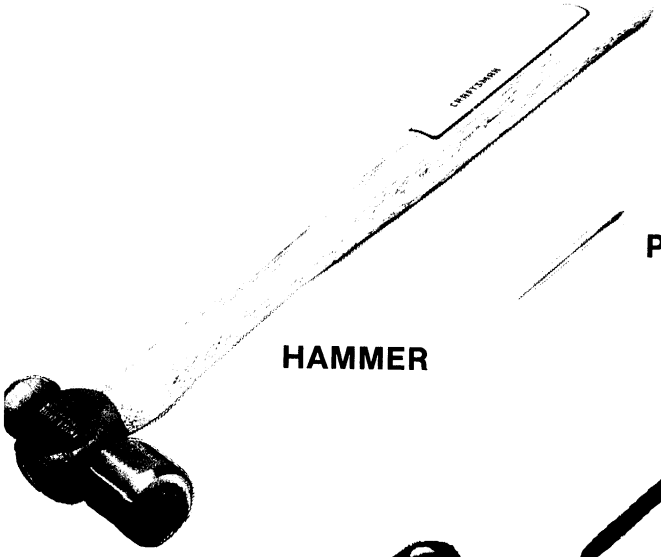
LOCKING PLIERS



WIRE STRIPPERS

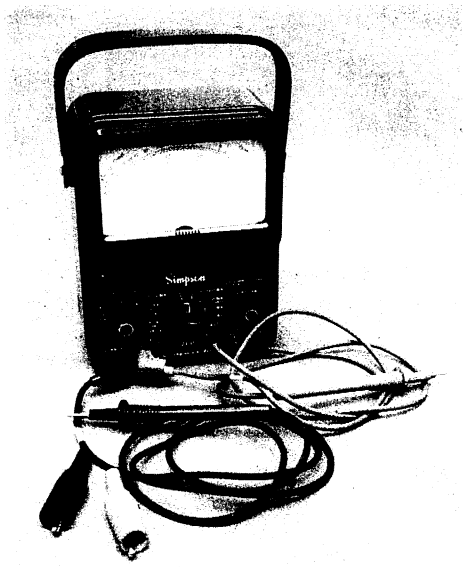


BUCKET AND RAGS



HAMMER

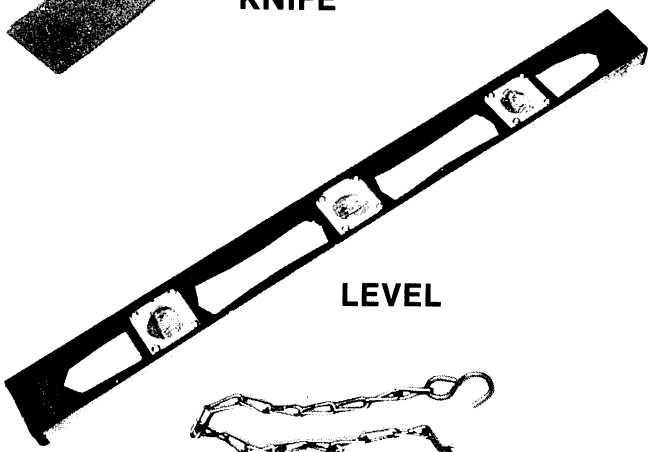
PUNCH



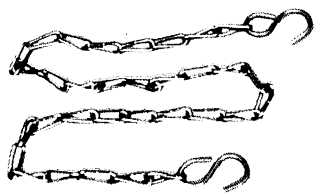
OHMMETER

ALLEN WRENCH

PUTTY KNIFE



LEVEL



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

An ohmmeter is required for checking electrical parts of the Sears KENMORE® 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

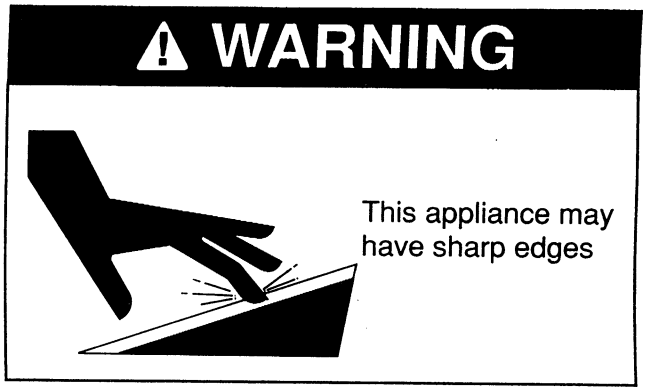
- Disconnect power before servicing (section 2).
- Failure to do so could result in personal injury or death.

FOLLOW THE INSTRUCTIONS THAT CAME WITH YOUR VOLT-OHMMETER.

SECTION 5

Fuses and Circuit Breakers

SECTION 1 MUST BE CAREFULLY READ BEFORE ANY REPAIR OR TESTING PROCEDURES ARE ATTEMPTED.



PROCEDURE **PAGE**

PROCEDURE A
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.

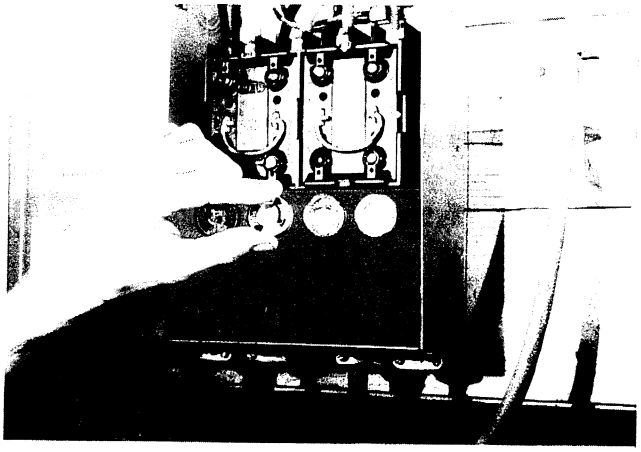
Time delay plug fuses may not appear burned or smoky. This type must be checked with an ohmmeter *(see testing steps 4-8)*.

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

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- Failure to do so could result in personal injury or death.



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

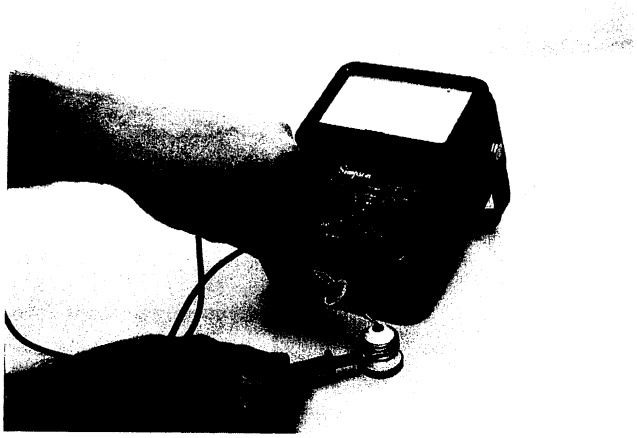
This check is to make sure your fuse has not blown.

STEP 1 Disconnect the electrical power supply *(section 2)*.

STEP 2 Plug a properly working table lamp into the 120VAC receptacle the automatic washer was plugged into. This is to see if you are getting electricity to your automatic washer. 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. See 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 automatic washer power cord back in *(section 2)*. If the plug fuse blows now, the problem is in your automatic washer. See problem 1 in the Problem Solving Charts, *section 9*.

PROCEDURE B
Circuit Breaker

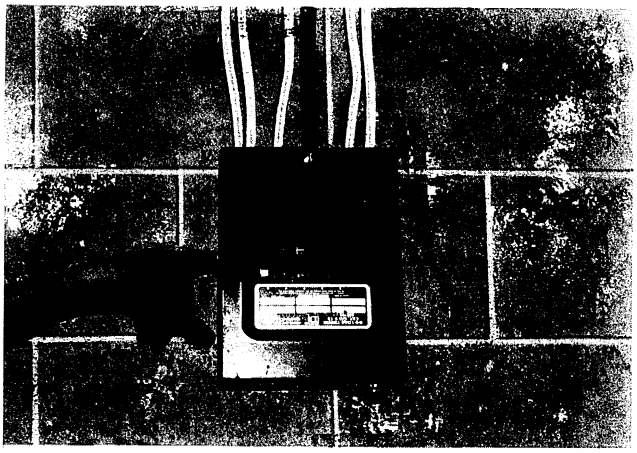
A circuit breaker panel is made up of rows of contacts. Circuit breakers can be snapped in place on this panel.

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

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- Failure to do so could result in personal injury or death.



NOTE: The following procedures assume that the electrical circuit for the automatic washer 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 2).*

STEP 2 Plug a properly working table lamp into the 120VAC receptacle the automatic washer was plugged into. This is to see if you are getting electricity to your automatic washer. 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 short circuited within your household wiring or the circuit breaker is weak. Call a qualified electrician for this repair.

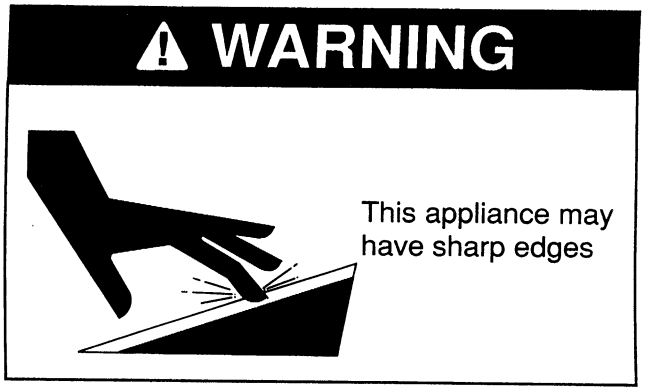
STEP 5 After resetting the circuit breaker and the breaker does not trip, plug the automatic washer power cord back in *(section 2)*. If the circuit breaker trips now, the problem is in your automatic washer. See problem 1 in the Problem Solving Charts, *section 9.*

NOTES

SECTION 6

Touch-Up Repairs, Preventive Maintenance and Winterizing

SECTION 1 MUST BE CAREFULLY READ BEFORE ANY REPAIR OR TESTING PROCEDURES ARE ATTEMPTED.



PROCEDURE A
Touch-Up Repairs

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- Failure to do so could result in personal injury or death.

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

STEP 1 Disconnect the electrical power supply *(section 2).*

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 11, proc. A).*

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 11, proc. A).*

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

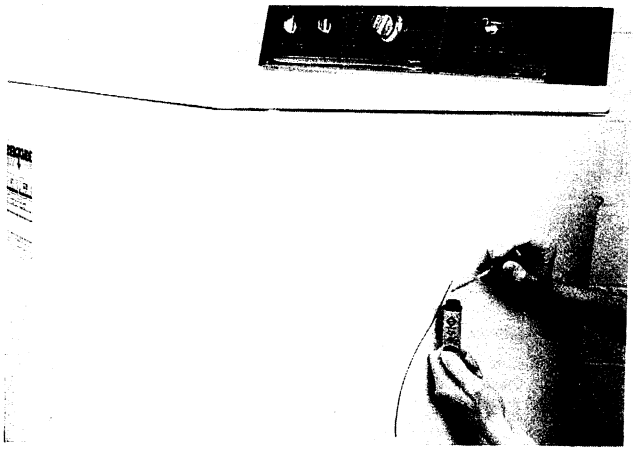
Scratches do occur, and when they do there are touch-up paints available in 1/2-oz. bottles or 15-oz. spray cans.

⚠ WARNING

Fire Hazard Or Explosion

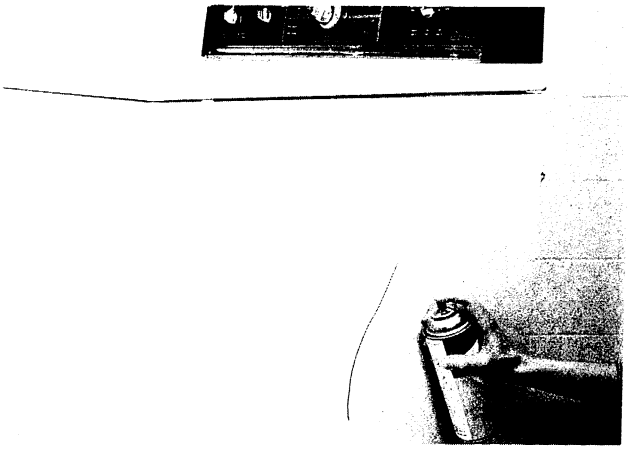
- Do not store or use flammable paints in the area of other appliances.
- Fumes can cause a fire hazard or explosion.
- Paint in a well ventilated area.
- Read the instructions on the bottle or can.

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 to the automatic washer. See section 2 for the proper reconnection.

PROCEDURE B
Preventive Maintenance

KENMORE® 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 This appliance must be grounded. Make sure all green ground wires are properly attached.

STEP 9 Drive belt—check for wear and proper tension *(section 14, proc. B)*.

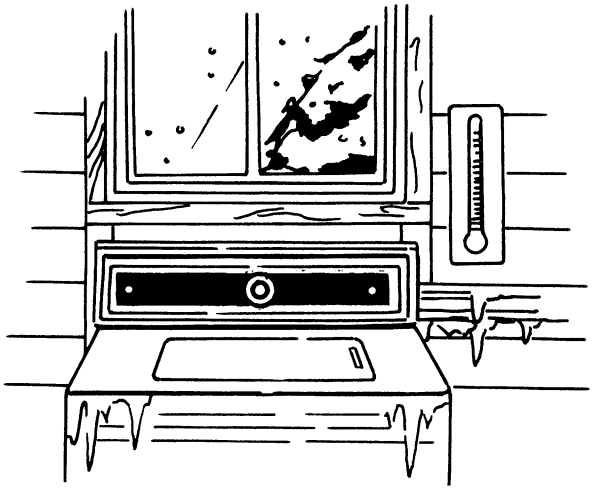
STEP 10 If machine is equipped with rinse and bleach dispensers, check them for clogging, leaks and operation.

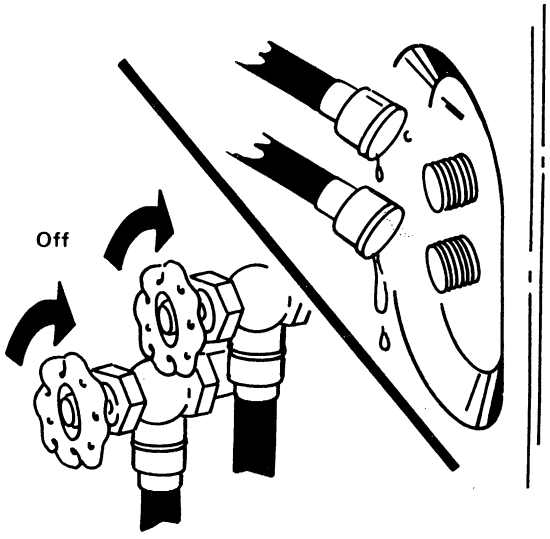
STEP 11 Pump—check for leaks.

STEP 12 Do not use any oil on parts unless the instructions tell you to do so.

PROCEDURE C
Winterizing

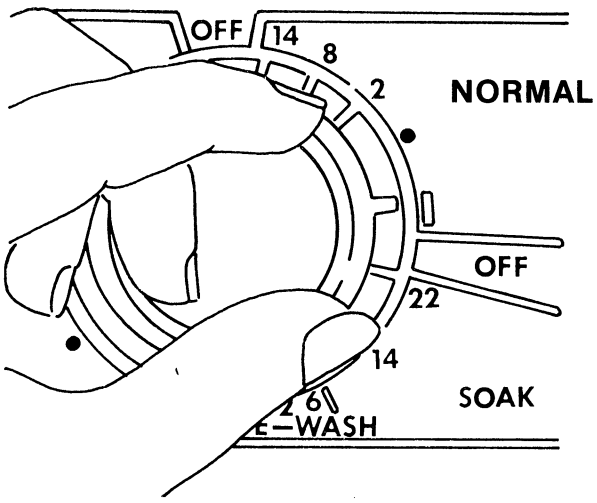
Install or store your washer where it won't freeze. Because some water stays in the washer, freezing can cause a lot of damage. If your washer is stored or moved during cold weather, it's a good idea to winterize it by following these steps:



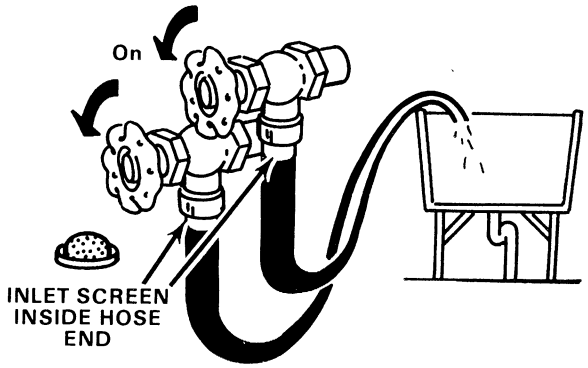


STEP 1 Shut off both water faucets. Turn the timer knob to fill with a warm wash, warm rinse selection, and turn the machine on for 10 seconds. This will run the water out of the water inlet valve. Disconnect the end of the hoses from the washer.

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.



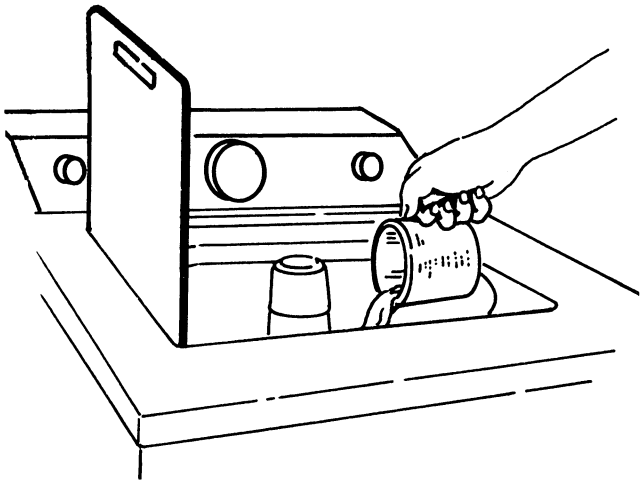
TO USE THE WASHER AGAIN

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 7

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 Sears KENMORE® automatic washers **FILL** (with water), **AGITATE** (move the clothes), **PUMP OUT** (remove the water) and **SPIN** (remove 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. The air pressure then trips 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, (if used), 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 (if used), then out the drain. See section 13, proc. F for your type of water circulation.

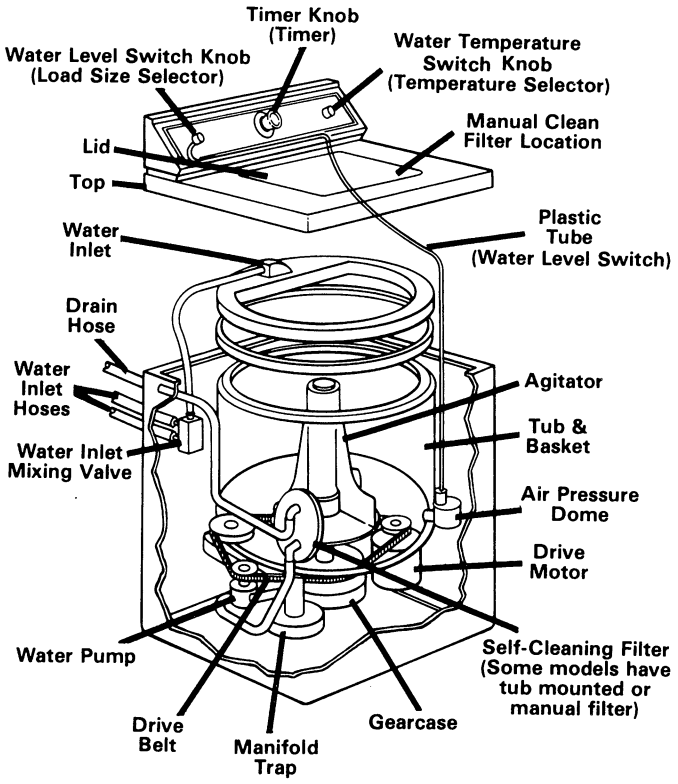
The basket is put into **SPIN**. The clothes are spun to remove most of the water out of the clothes.

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.



NOTES

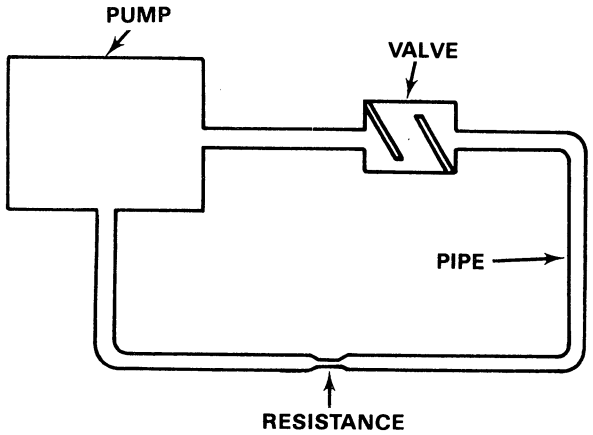
SECTION 8

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

On page 28 and 29 is a typical 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 KENMORE® automatic washer wiring chart.

Page 28 represents a typical timer sequence chart. Page 29 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 BU, GY, G-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 of the five cycles—**NORMAL, PERM-PRESS** and **DELICATE**. 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) components 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 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 exmaple, say the washer was set in the **DELICATE** 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 automatic washer. 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 **DELICATE** cycle, takes place in timer Step 38. Let's start by drawing a line horizontally through timer Step 38 on the timer sequence chart and note the energized circuits.

The closed switches are switch no. 16 (timer), 6 (low agitate motor), 7L (agitate), 10 (deep fill) and switch no. 11 (wash fill).

Now close these switches on the wiring diagram. As you can see by the heavy line, the electricity on the "BK" side of the line flows through the timer knob switch, the water level switch (empty), temperature switch and 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 **DELICATE** cycle.

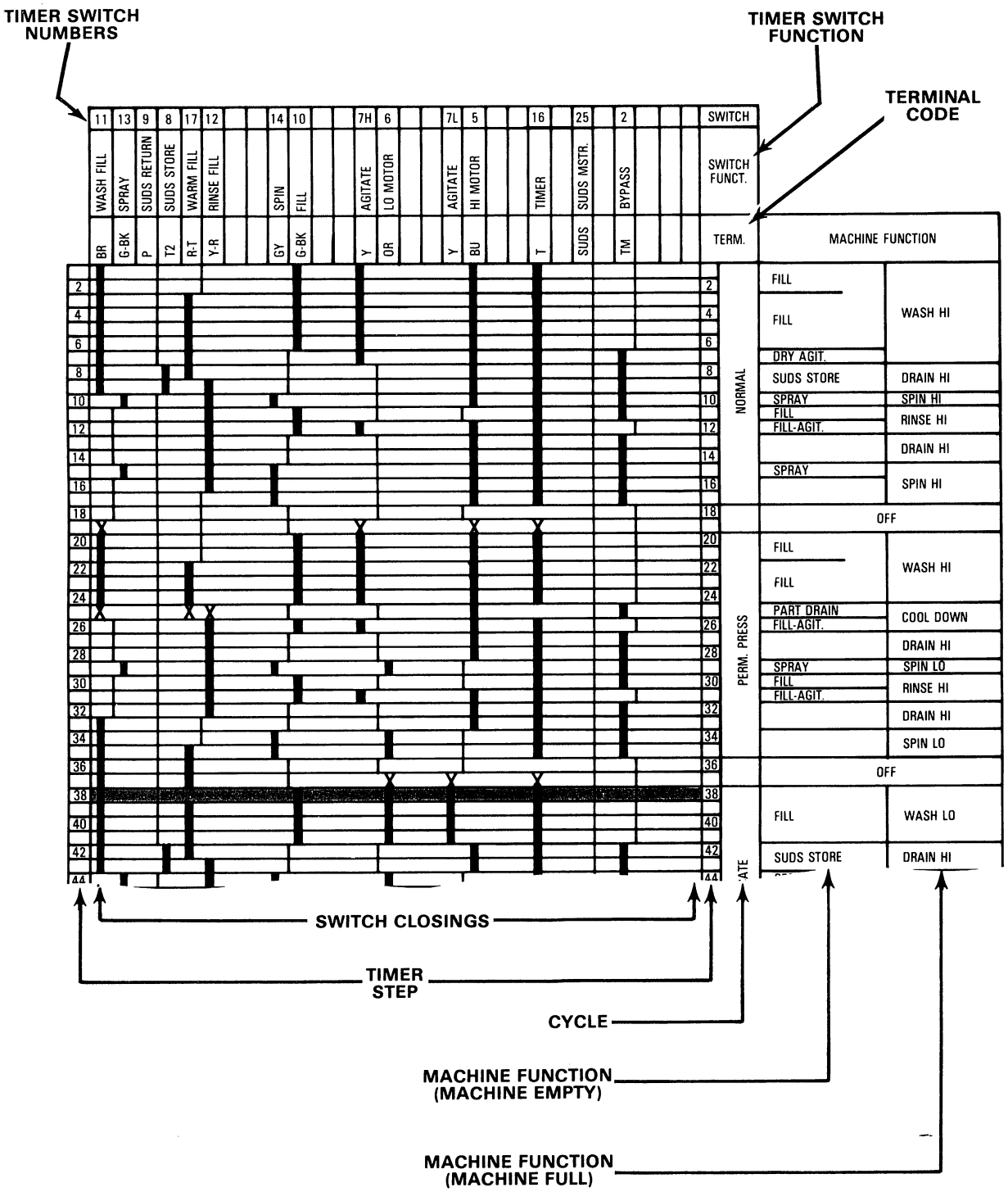
Did the light, if used, turn on? If so, timer switch 1 is ok. Now turn your timer dial to **SPIN** and pull the knob out. Did your automatic washer start to spin? If so, the water level switch is ok. Now you will have to go back to the section and procedure for checking out timer switches 10 and 11, 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).

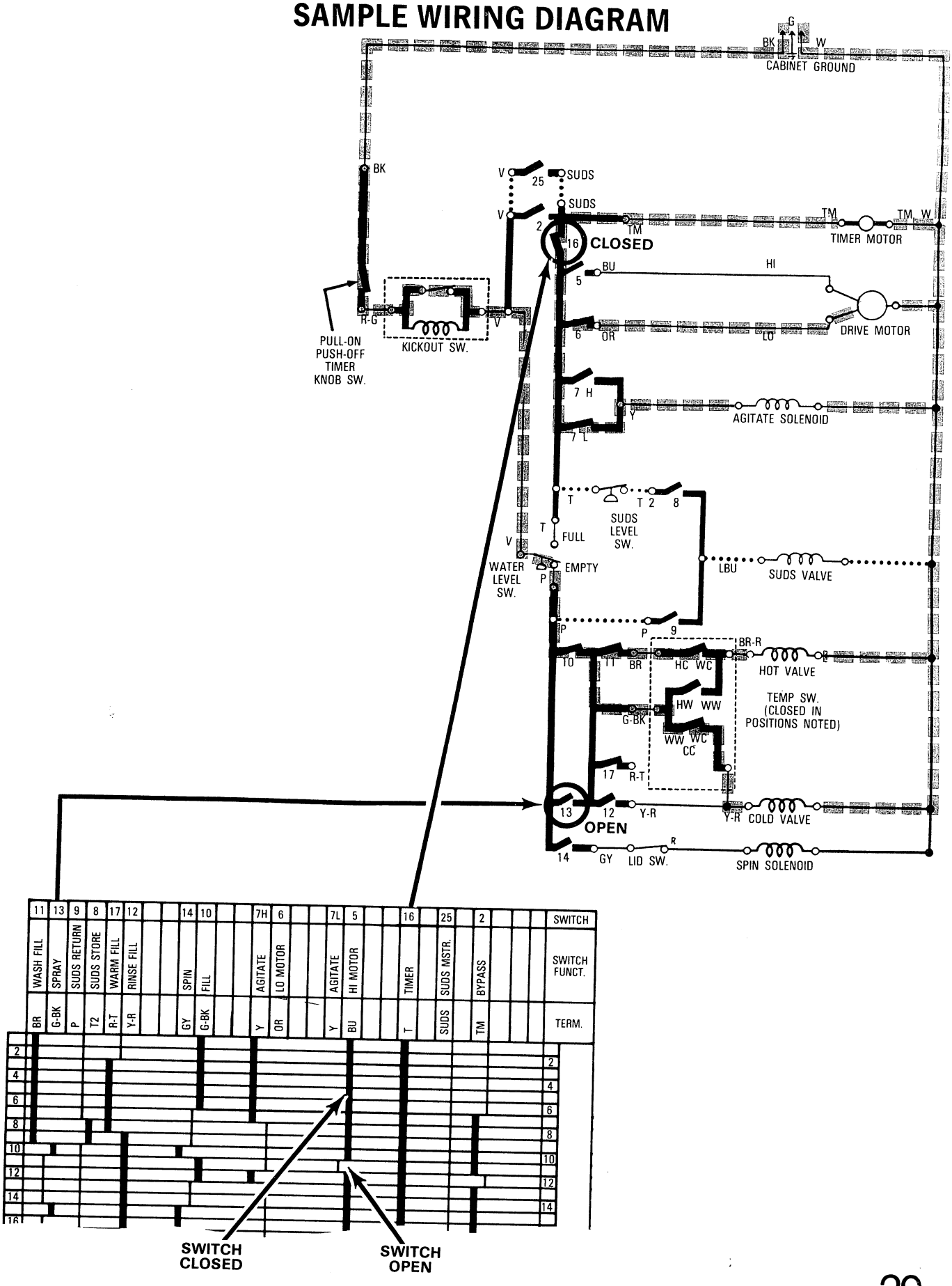
With the water level switch tripping from "P" to "T," there is no electricity through switches 10 and 11, temperature switch and the mixing valve.

Electricity flows from the "BK" side of the line through the kick-out switch, 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.

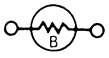
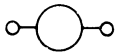
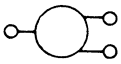
SAMPLE TIMER SEQUENCE CHART



SAMPLE WIRING DIAGRAM



WIRING DIAGRAM SYMBOLS

ITEM	SYMBOL
Ballast	
Neon Light	
Transformer	
Relay	
Coil & Switches separate in circuit	
Motor Single Speed	
Motor Multi Speed	
Fuse	
Circuit Breaker	
Terminal	
Timer Motor	
Plug Connector	
Starter (Automatic)	
Light (Incandescent)	
Water Level Switch	
Fluorescent	
Coil	
Capacitor	
Resistor (Show Value)	
Centrifugal Switch	
Internal Conductor	
Harness Wire	
Permanent Connection	
Cross Over	
Timer Switch	
Automatic Switch or Manual Switch	
Double Throw Switch	
3 Prong Plug With Ground	
Ground	

TERMINAL CODES

Terminal Color Code	Harness Wire Color	Terminal Function
BK	Black	"Hot" side of line.
BR	Brown	Timer to hot water solenoid, or temperature switch.
BR-R	Brown with Red Tracer	Temperature switch to hot water solenoid.
BU	Blue	Timer to motor when single-speed motor is used.
BU	Blue	Timer to hi-speed motor when two-speed motor is used.
BU-G	Blue with Green Tracer	Timer to bleach dispenser.
BU-O	Blue with Orange Tracer	Timer to speed control switch.
BU-Y	Blue with Yellow Tracer	Suds switch to timer.
G	Green	Ground wire.
G-BK	Green with Black Tracer	Timer to temperature switch warm and/or cold wash.
GY	Gray	Timer to lid switch.
GY-P	Gray with Pink Tracer	Timer to extra slow motor.
LBU	Light Blue	Timer to two-way value solenoid.
OR	Orange	Timer to low-speed motor when two-speed motor is used.
O-BK	Orange with Black Tracer	Timer to rinse conditioner dispenser.
P	Pink	Water level switch to timer—empty side.
R	Red	Lid switch to spin solenoid.
R-W	Red with White Tracer	Timer to speed control switch.
T	Tan	Timer to water level switch—full side.
V	Violet	Timer to water level switch.
W	White	Neutral side of line.
W-G	White with Green Tracer	Timer to console light.
Y	Yellow	Timer to agitator solenoid.
Y-R	Yellow with Red Tracer	Timer to cold water solenoid or temperature switch.

SECTION 9

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.

A. DOES IT FILL?

YES Go to B.
NO See problems 1, 2 & 15.

B. DOES IT AGITATE?

YES Go to C.
NO See problems 1, 3, 4 & 15.

C. DOES IT DRAIN?

YES Go to D.
NO See problems 1, 5 & 15.

D. DOES IT SPIN?

YES Check for other problems.
NO See problems 1, 3, 6 & 15.

SEE PAGES 23 AND 166-173 FOR LOCATION OF PARTS.

READ "SECTION 7—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.	1a. Check electrical power. See sec. 5, proc. A or B, p. 16 or 17.
	1b. Power cord.	1b. Check power cord. See sec. 15, proc. A, p. 134.
	1c. Open circuit in timer.	1c. Check timer. See sec. 10, proc. I, p. 51.
	1d. Short (bare wire touching metal).	1d. Check all wiring for bare wire. See sec. 15, proc. D, p. 139.

	PROBLEM		POSSIBLE CAUSE		REPAIR PROCEDURE
2.	Water will not enter washer.	2a.	Water faucets closed.	2a.	Open water faucets.
		2b.	Inlet hoses kinked.	2b.	Move inlet hoses to prevent kinking.
		2c.	Plugged inlet screens.	2c.	Remove inlet screens at the faucet ends of the inlet hoses and clean. See sec. 14, proc. A, p. 106.
		2d.	Inlet mixing valve.	2d.	Check inlet mixing valve. See sec. 13, proc. A, p. 90.
			or Loose terminal on inlet mixing valve solenoid.		Check terminal connection. See sec. 15, proc. D, p. 139.
		2e.	Water level switch.	2e.	Check water level switch. See sec. 10, proc. F, p. 45.
		2f.	Water temperature switch.	2f.	Check water temperature switch. See sec. 10, proc. E, p. 43.
		2g.	Timer.	2g.	Check timer. See sec. 10, proc. I, p. 51.
		2h.	Broken wire in wiring harness.	2h.	Check for broken wire. See Sec. 15, proc. D, p. 139.
3.	Drive motor will not run.	3a.	No electrical power.	3a.	Check electrical power. See sec. 5, proc. A or B, p. 16 or 17.
		3b.	Power cord.	3b.	Check power cord. See sec. 15, proc. A, p. 134.
		3c.	Drive motor overheated.	3c.	Allow motor to cool.
		3d.	Drive motor start switch.	3d.	Check start switch. See sec. 14, proc. I, p. 125.
		3e.	Drive motor.	3e.	Check drive motor. See sec. 14, proc. H, p. 121.
		3f.	Water level switch.	3f.	Check water level switch. See sec. 10, proc. F, p. 45.
		3g.	Timer.	3g.	Check timer. See sec. 10, proc. I, p. 51.
			or Loose terminal on timer.		Check terminal connection. See sec. 15, proc. D, p. 139.
		3h.	Broken wire in wiring harness.	3h.	Check for broken wire. See sec. 15, proc. D, p. 139.

	PROBLEM		POSSIBLE CAUSE		REPAIR PROCEDURE
4.	Washer will not agitate.	4a.	Broken or loose belt.	4a.	Check belt. See sec. 14, proc. B, p. 107.
		4b.	Water level switch.	4b.	Check water level switch. See sec. 10, proc. F, p. 45.
		4c.	Control magnet.	4c.	Check control magnet. See sec. 14, proc. E, p. 116.
			or Loose terminal on control magnet.		Check terminal connections. See sec. 15, proc. D, p. 139.
		4d.	Drive motor start switch.	4d.	Check start switch. See sec. 14, proc. I, p. 125.
		4e.	Drive motor.	4e.	Check drive motor. See sec. 14, proc. H, p. 121.
			or Loose terminal on drive motor.		Check terminal connections. See sec. 15, proc. D, p. 139.
		4f.	Loose pulleys.	4f.	Tighten setscrews on motor and gearcase pulleys.
		4g.	Gearcase.	4g.	See sec. 14, proc. C, p. 111.
		4h.	Broken cam bar rivet.	4h.	Check cam bar rivets. See sec. 14, proc. G, p. 119.
		4i.	Timer.	4i.	Check timer. See sec. 10, proc. I, p. 51.
			or Loose terminal on timer.		Check terminal connections. See sec. 15, proc. D, p. 139.
		4j.	Broken wire in wiring harness.	4j.	Check for broken wire. See sec. 15, proc. D, p. 139.
5.	Water will not drain from washer.	5a.	Drain hose kinked.	5a.	Move drain hose to prevent kinking.
		5b.	Too much suds.	5b.	Add cold water to washer to remove suds. Use less detergent. (See your Use & Care Guide.)

(continued)

	PROBLEM		POSSIBLE CAUSE		REPAIR PROCEDURE
5.	Water will not drain from washer. (continued)	5c.	Incorrect drain height.	5c.	See your installation instructions.
		5d.	Plugged drain hose.	5d.	Remove obstruction.
		5e.	Pump.	5e.	Check pump. See sec. 13, proc. D, p. 97.
		5f.	Broken or loose belt.	5f.	Check belt. See sec. 14, proc. B, p. 107.
		5g.	Manifold air lock.	5g.	Check manifold. See sec. 13, proc. B, p. 92.
		5h.	Side check valve (partial drain) (Self-clean Filter Models)	5h.	Clean or replace. See sec. 12, proc. F, p. 81.
		5i.	Lint filter (self-clean)	5i.	Check lint filter. See sec. 13, proc. C, p. 93
		5j.	Two-way valve (suds saver model only).	5j.	Check two-way valve. See sec. 13, proc. E, p. 99.
		5k.	Timer.	5k.	Check timer. See sec. 10, proc. I, p. 51.
		5l.	Broken wire in wiring harness.	5l.	Check for broken wire. See sec. 15, proc. D, p. 139.
6.	Basket will not spin. (Empty tub of water.)	6a.	Broken or loose belt.	6a.	Check belt. See sec. 14, proc. B, p. 107.
		6b.	Control magnet.	6b.	Check control magnet. See sec. 14, proc. E, p. 116.
			or		
			Loose terminal on control magnet.		Check terminal connections. See sec. 15, proc. D, p. 139.
		6c.	Lid switch.	6c.	Check lid switch. See sec. 11, proc. C, p. 60.
		6d.	Water level switch.	6d.	Check water level switch. See sec. 10, proc. F, p. 45.
		6e.	Loose motor pulley.	6e.	Tighten pulley setscrew.
		6f.	Broken cam bar rivet.	6f.	Check cam bar rivets. See sec. 14, proc. G, p. 119.
		6g.	Drive motor.	6g.	Check drive motor. See sec. 14, proc. H, p. 121.
			or		
			Loose terminal on drive motor.		Check terminal connections. See sec. 15, proc. D, p. 139.

(continued)

	PROBLEM		POSSIBLE CAUSE		REPAIR PROCEDURE
6.	Basket will not spin. (Empty tub of water.) (continued)	6h.	Drive motor start switch.	6h.	Check start switch. See sec. 14, proc. I, p. 125.
		6i.	Basket drive.	6i.	See sec. 14, proc. D, p. 115.
		6j.	Timer. or Loose terminal on timer.	6j.	Check timer. See sec. 10, proc. I, p. 51. Check terminal connections. See sec. 15, proc. D, p. 139.
		6k.	Broken wire in wiring harness.	6k.	Check for broken wire. See sec. 15, proc. D, p. 139.
7.	Washer leaks water.	7a.	Hoses not secured.	7a.	Make sure hose clamps are tight, both inside and out of the washer.
		7b.	Hose leaks.	7b.	Check hoses and replace.
		7c.	Leak in tub.	7c.	Check hose connections, the four screws or holes in the tub. See sec. 12, proc. I, p. 85.
		7d.	Side check valve (self-clean filter models).	7d.	Check side check valve. See sec. 12, proc. F, p. 81.
		7e.	Drain Funnel. (Manual clean filter models with suds saver system).	7e.	Check side funnel. See sec. 12, proc. G, p. 83.
		7f.	Pump.	7f.	Check pump. See sec. 13, proc. D, p. 97.
8.	Washer will not spray rinse (Some automatic washers do not have this feature.)	8a.	Timer. If washer fills with water, timer is the problem.	8a.	Check timer. See sec. 10, proc. I, p. 51.
9.	Washer will not shut off.	9a.	Timer.	9a.	Check timer. See sec. 10, proc. I, p. 51.
10.	Washer shakes or moves around.	10a.	Shipping material not removed.	10a.	Remove shipping material. See installation instructions.
		10b.	Unbalanced load.	10b.	Move clothes evenly around basket.

(continued)

	PROBLEM		POSSIBLE CAUSE		REPAIR PROCEDURE
10.	Washer shakes or moves around. (continued)	10c.	Washer not level.	10c.	Adjust the rear leveling feet and the front feet. See sec. 15, proc. B or C, p. 136 or 137.
		10d.	Weak flooring.	10d.	Floor must be solid.
		10e.	Gearcase braces loose.	10e.	Check the five nuts and one bolt and tighten. See sec. 14, proc. C, p. 111.
		10f.	Oil, grease or detergent on snubber.	10f.	Check snubber. See sec. 12, proc. A, p. 68
11.	Suds water will not return to washer. (suds saver system only)	11a.	Kinked hoses.	11a.	Move suds hoses to prevent kinking.
		11b.	Plugged hoses.	11b.	Remove obstruction.
		11c.	Two-way valve. or Loose terminal on two-way valve.	11c.	Check two-way valve. See sec. 13, proc. E, p. 99. Check terminal connections. See sec. 15, proc. D, p. 139.
		11d.	Pump.	11d.	Check pump. See sec. 13, proc. D, p. 97.
		11e.	Broken or loose belt.	11e.	Check belt. See sec. 14, proc. B, p. 107.
		11f.	Water level switch.	11f.	Check water level switch. See sec. 10, proc. F, p. 45.
		11g.	Timer.	11g.	Check timer. See sec. 10, proc. I, p. 51.
		11h.	Broken wire in wiring harness.	11h.	Check for broken wire. See sec. 15, proc. D, p. 139.
12.	Water will not shut off.	12a.	Inlet mixing valve.	12a.	Listen for running water. If you hear running water the valve is stuck open and MUST be replaced.
		12b.	Water level switch.	12b.	Check water level switch. See sec. 10, proc. F, p. 45.
		12c.	Air leak or kink in water level switch hose. or Air leak in air pressure dome.	12c.	Check for hole in hose and replace or check. for kinks and straighten. See sec. 12, proc. H, p. 84. Check for hole in air pressure dome. See sec. 12, proc. H, p. 84.
		12d.	Timer.	12d.	Check timer. See sec. 10, proc. I, p. 51.

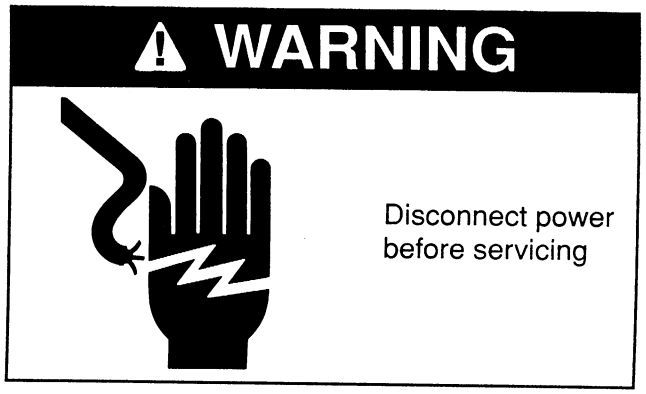
	PROBLEM		POSSIBLE CAUSE		REPAIR PROCEDURE
13.	Washer damages clothes.	13a.	Too much bleach, pouring bleach on clothes or pouring fabric softener on clothes.	13a.	Read your laundry guide.
		13b.	Too many clothes.	13b.	Read your laundry guide.
		13c.	Agitator.	13c.	Check agitator. See sec. 12, proc. D, p. 74.
		13d.	Basket.	13d.	Check basket. See sec. 12, proc. E, p. 79.
14.	Washer leaks oil.	14a.	Leak in gearcase.	14a.	Check gearcase. See sec. 14, proc. C, p. 111.
15.	Timer does not advance.	15a.	Timer motor.	15a.	Check timer motor. See sec. 10, proc. J, p. 54.
		15b.	Timer.	15b.	Check timer. See sec. 10, proc. I, p. 51.
		15c.	Water level switch.	15c.	Check water level switch. See sec. 10, proc. F, p. 45.
16.	Clothes not spinning dry.	16a.	Water not draining from washer correctly.	16a.	See problem 5, p. 33 & 34.
		16b.	House drain.	16b.	Incorrect drain height or plugged drain. See your installation instructions.
		16c.	Side check valve. (Self-clean filter models)	16c.	Clean or replace. See sec. 12, proc. F, p. 81.
17.	Water fills and drains at the same time.	17a.	Pump	17a.	Check pump. See sec. 13, proc. D, p. 97.
		17b.	Control magnet.	17b.	Check control magnet. See sec. 14, proc. E, p. 116.
		17c.	Cam bar (agitate).	17c.	Check cam bar. See sec. 14, proc. G, p. 119.
		17d.	Broken wire in wiring harness.	17d.	Check for broken wire. See sec. 15, proc. D, p. 139.
18.	Lint on clothes.	18a.	Filters.	18a.	Check filters. See sec. 13, proc. C, p. 93.
		18b.	Wrong mixture of clothes.	18b.	See your Use and Care Guide.
		18c.	Overloading.	18c.	See your Use and Care Guide.

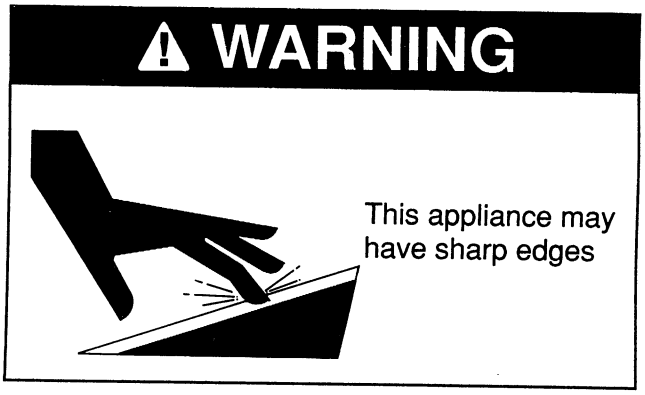
NOTES

SECTION 10

Console Area

SECTION 1 MUST BE CAREFULLY READ BEFORE ANY REPAIR OR TESTING PROCEDURES ARE ATTEMPTED.





PROCEDURE A
Timer Knob Replacement

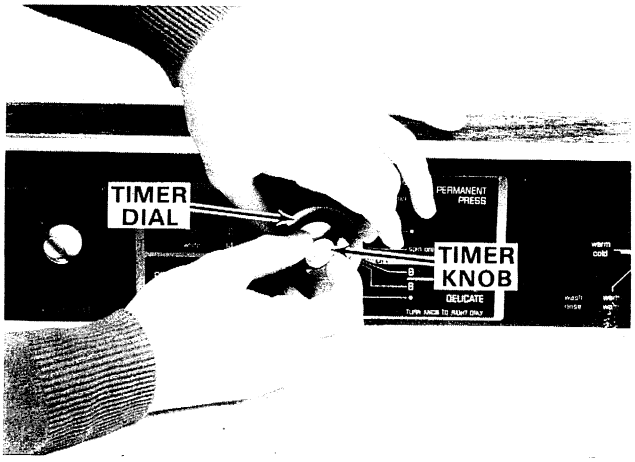
See pages 23 and 166, illus. no. 35 for location of part.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- Failure to do so could result in personal injury or death.

STEP 1 Disconnect the electrical power supply *(section 2).*



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 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 2 for the proper reconnection.

PROCEDURE B
Timer Dial Replacement

See page 166, illus. no. 36 for location of part.

⚠ WARNING

Electrical Shock Hazard

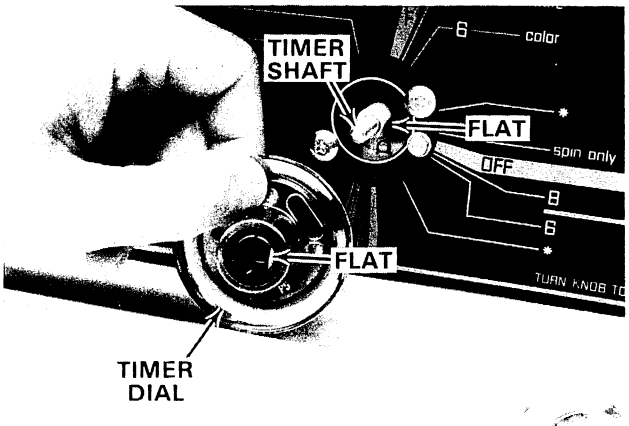
- Disconnect power before servicing (section 2).
- Failure to do so could result in personal injury or death.

STEP 1 Disconnect the electrical power supply *(section 2).*

STEP 2 Remove the timer knob *(section 10, proc. A).*

STEP 3 Pull the timer dial straight off.

REPLACEMENT



STEP 4 Check to make sure the clip is either inside or around the hub on the 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 10, proc. A).*

STEP 7 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

PROCEDURE C
Rotary Control Knob Replacement

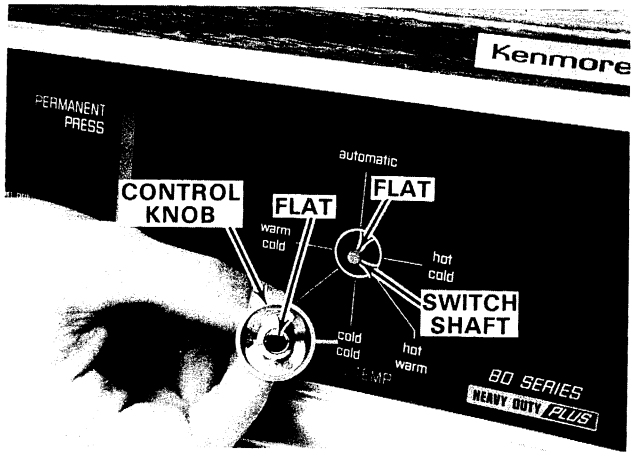
See pages 23 and 166, illus. no.'s 28, 33 and 76 for location of parts.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- Failure to do so could result in personal injury or death.

STEP 1 Disconnect the electrical power supply *(section 2).*



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 clip is either inside or around the hub on the knob.

STEP 4 Place the rotary knob on, by lining up the flat on the switch shaft with the flat of the knob and push on.

STEP 5 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

PROCEDURE D
Removing the Console Rear Panel and the Console Front Panel

See page 166, illus. no.'s 2 and 32 for location of parts.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- Failure to do so could result in personal injury or death.

There are two ways to remove the console front panel or console escutcheon. See Type A for the plastic end caps or Type B for the one-piece plastic console escutcheon.

TYPE A

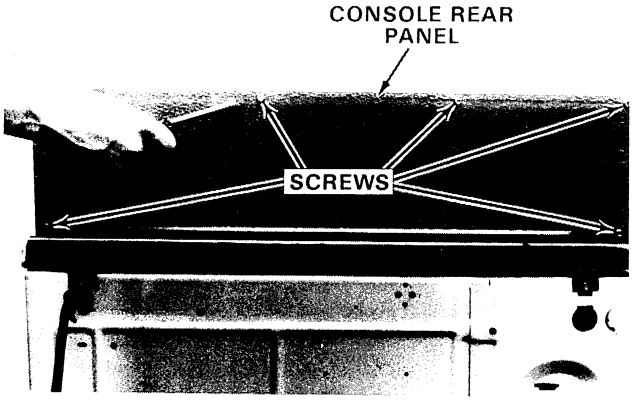
STEP 1 Disconnect the electrical power supply *(section 2).*

⚠ CAUTION

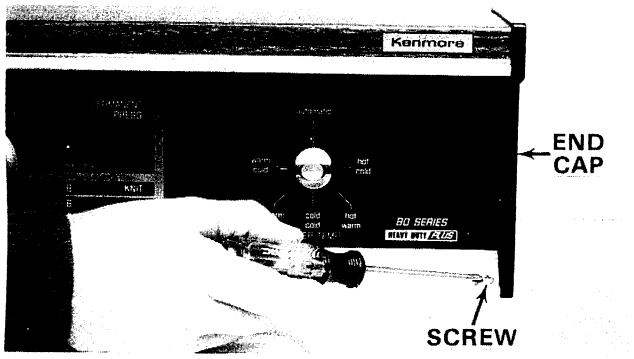
Product Damage

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



STEP 4 Using a screwdriver, remove the screw in front of each end cap.

STEP 5 Place a towel on top of the washer to protect its finish.

STEP 6 Lay the console on top of the towel. This will show the controls inside the console.

STEP 7 This appliance must be grounded. Make sure all green ground wires are properly attached.

REPLACEMENT

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

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.

⚠ CAUTION

Product Damage

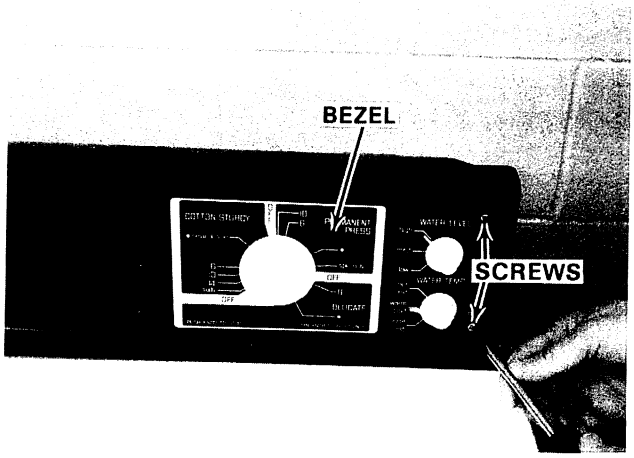
- Do not use the console as a hand support when moving the appliance.
- Personal property or appliance damage may result.

STEP 11 Move the automatic washer back to its location.

STEP 12 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

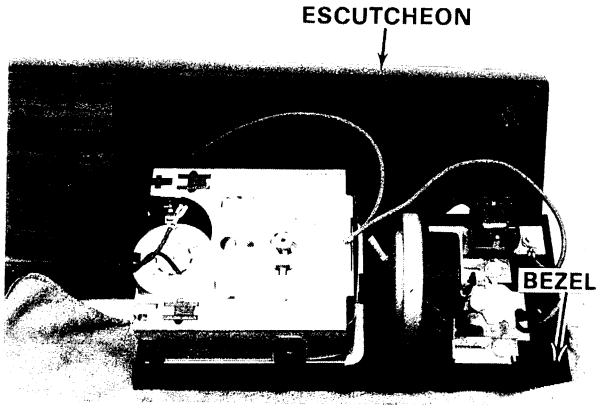
TYPE B

STEP 1 Disconnect the electrical power supply *(section 2)*.



STEP 2 Using a screwdriver, remove the screws holding the bezel to the plastic escutcheon.

STEP 3 Place a towel on top of the washer to protect its finish.



STEP 4 Lay the bezel on top of the towel. This will show the controls inside the console.

REPLACEMENT

STEP 5 To replace the bezel, insert the left side in the opening in the plastic console escutcheon.

STEP 6 Using a screwdriver, insert the screws through the bezel, into the plastic console escutcheon and tighten.

STEP 7 Reconnect the electrial power supply to the automatic washer. See section 2 for the proper reconnection.

OR

STEP 8 Disconnect the electrical power supply *(section 2).*

STEP 9 Raise the top *(section 11, proc. A).*

STEP 10 Using a screwdriver or nutdriver, remove the screws while holding the console so it does not fall.

STEP 11 Lower the top.

STEP 12 Place a towel on top of the washer to protect its finish.

STEP 13 Lay the console on top of the towel. This will show the controls inside the console.

⚠ 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.

REPLACEMENT

STEP 14 To replace the console, hold onto the console while raising the top *(section 11, proc. A).*

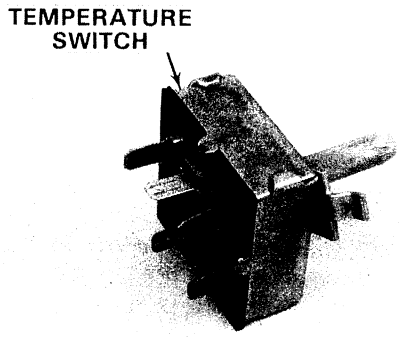
STEP 15 Using a screwdriver or nutdriver, insert the screws and tighten.

STEP 16 Lower the top *(section 11, proc. A).*

STEP 17 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

PROCEDURE E
Temperature Switch Testing and/or Replacement

TEMPERATURE SWITCH NOT USED ON ALL MODELS



See pages 23 and 166, illus. no. 24 for location of part.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- Failure to do so could result in personal injury or death.

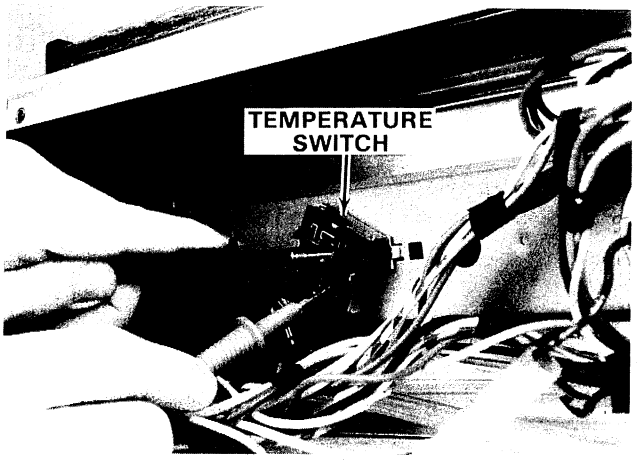
OHMMETER REQUIRED

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 were two types of temperature switches used, either a rotary or pushbutton type switch.

STEP 1 Disconnect the electrical power supply *(section 2).*

STEP 2 Remove the console panels *(section 10, proc. D; Type A or B).*



TESTING

STEP 3 Remove one wire at a time, carefully labeling each wire according to the terminal marking on the 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 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	G-BK to BR-R
Hot/Cold	BR to BR-R
Warm/Warm	BR to BR-R & G-BK to Y-R
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 ohmeter 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.

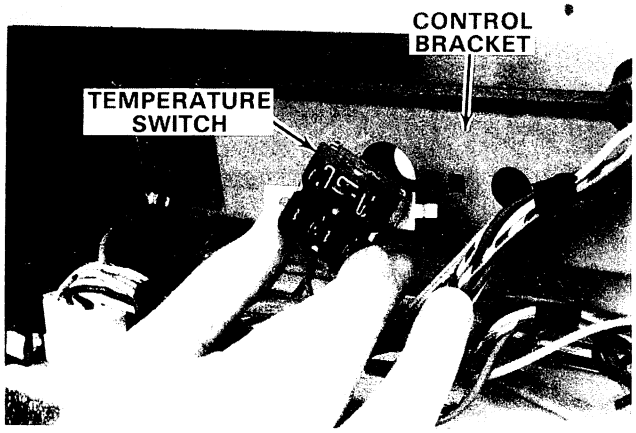
STEP 15 Touch the other ohmmeter probe to terminal Y-R.

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 10, proc. C).*

NOTE: 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 21 Using a nutdriver or socket wrench, remove the screw holding the rotary type temperature switch.

STEP 22 Carefully remove the temperature switch. The wires should have been removed already because of testing.

STEP 23 Place the rotary type temperature switch with the locating tab in the slot on the control bracket.

STEP 24 Using a nutdriver or socket wrench, insert the screw and tighten.

STEP 25 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.

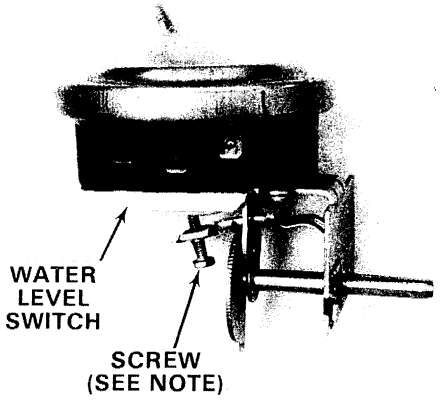
STEP 26 Replace the console panels *(section 10, proc. D; Type A or B).*

STEP 27 Replace the control knob *(section 10, proc. C).*

STEP 28 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

STEP 29 Run a cycle check *(section 6, proc. B, section 9, steps 1-4).*

PROCEDURE F
Water Level Switch Testing and/or Replacement



NOTE: DO NOT TURN THIS SCREW

See pages 23 and 166, illus. no. 25 for location of part.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- Failure to do so could result in personal injury or death.

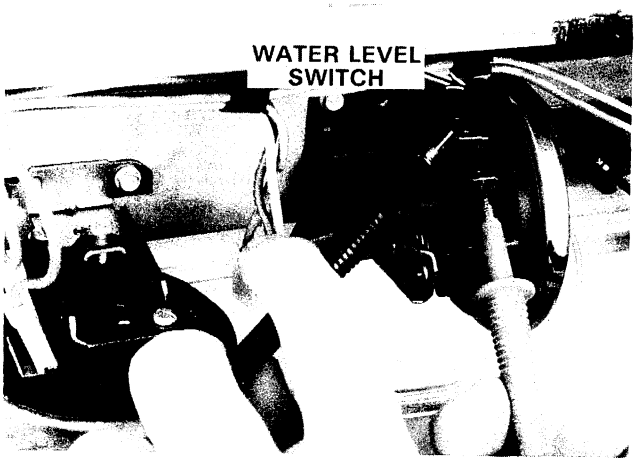
OHMMETER REQUIRED

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 2).*

STEP 2 Remove the console panels *(section 10, proc. D; Type A or B).*



TESTING

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, 27-38.
If your tub is empty of water go to steps 6-38.

With Empty Tub of Water

STEP 6 Touch one ohmmeter probe to terminal V.

STEP 7 Touch the other ohmmeter probe to teminal 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.

STEP 12 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 13 Replace the console panels *(section 10, proc. D; Type A or B).*

STEP 14 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

With Full Tub of Water

STEP 15 Fill the machine with water.

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

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- Failure to do so could result in personal injury or death.

STEP 16 Disconnect the electrical power supply *(section 2).*

STEP 17 Remove the console panels *(section 10, proc. D; Type A or B).*

TESTING

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.

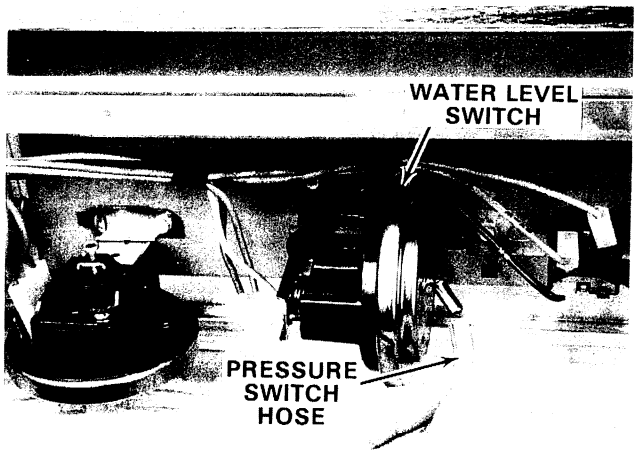
STEP 25 Touch the other ohmmeter probe to terminal P.

STEP 26 The ohmmeter should show an open circuit when checking these two terminals. 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, 27-38.

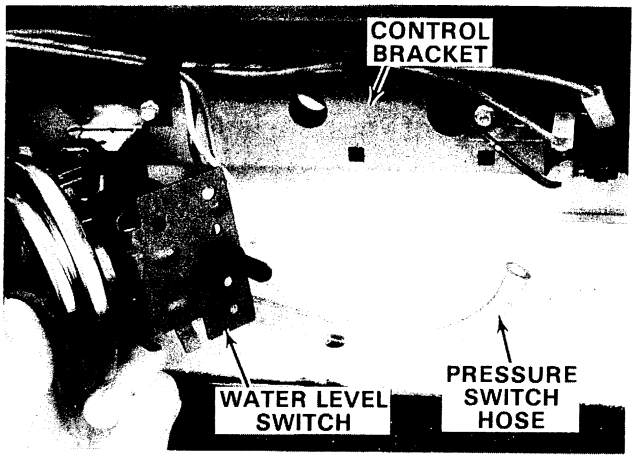
REPLACEMENT

STEP 27 Remove the control knob *(section 10, proc. C).*



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

NOTE: 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 29 Using a nutdriver or socket wrench, remove the screw.

STEP 30 Carefully remove the water level switch. The wires should have been removed already because of testing.

STEP 31 Place the water level switch with the locating tab in the slot on the control bracket.

STEP 32 Using a nutdriver or socket wrench, insert the screw and tighten.

STEP 33 Replace the plastic hose on the water level switch port.

STEP 34 Reconnect the wires to the proper terminals as previously marked.

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 before the hose can be connected to the port. If this is not done, the washer will overflow with water the next time it's used.

⚠ 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 35 Replace the console panels *(section 10, proc. D; Type A or B).*

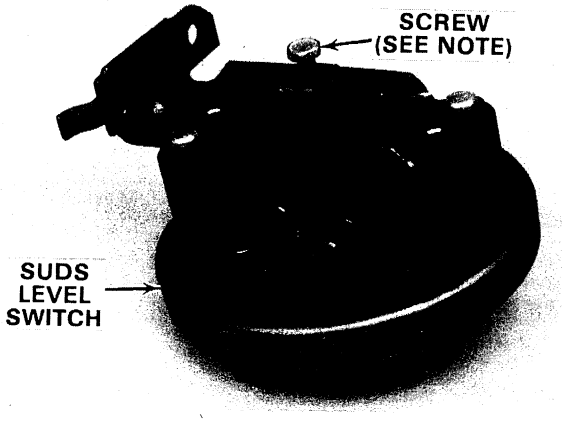
STEP 36 Replace the control knob *(section 10, proc. C).*

STEP 37 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

STEP 38 Run a cycle check *(section 6, proc. B, section 9, steps 1-4).*

PROCEDURE G
Suds Level Switch Testing and/or Replacement

SUDS LEVEL SWITCH NOT USED ON ALL MODELS



NOTE: DO NOT TURN THIS SCREW

See page 166, illus. no. 49 for location of part.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- Failure to do so could result in personal injury or death.

OHMMETER REQUIRED

This switch with a double port, is located in the console and is used during suds storage. Water is pumped out the drain until the suds level switch resets, then the water is pumped into the laundry tubs.

STEP 1 Disconnect the electrical power supply *(section 2).*

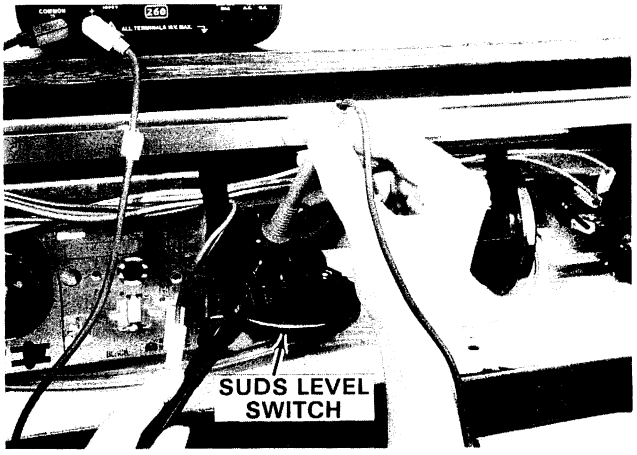
STEP 2 Remove the console panels *(section 10, proc. D; Type A or B).*

TESTING

STEP 3 Remove one wire at a time, carefully labeling each wire according to the terminal marking on the suds 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 came with your ohmmeter.



With Empty Tub of Water

STEP 6 Touch one ohmmeter probe to terminal T.

STEP 7 Touch the other ohmmeter probe to terminal T2.

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

STEP 9 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 10 Replace the console panels *(section 10, proc. D; Type A or B).*

STEP 11 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

With Full Tub of Water

STEP 12 Fill the machine with water.

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

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- Failure to do so could result in personal injury or death.

STEP 13 Disconnect the electrical power supply *(section 2).*

STEP 14 Remove the console panels *(section 10, proc. D; Type A or B).*

TESTING

STEP 15 Remove one wire at a time, carefully labeling each wire according to the terminal marking on the suds level switch. This procedure should assure that the right wire is reconnected to the right terminal.

STEP 16 You must know how to use an ohmmeter.

STEP 17 Set the ohmmeter scale to the lowest ohms setting and **ZERO** the meter. See the instructions that came with your ohmmeter.

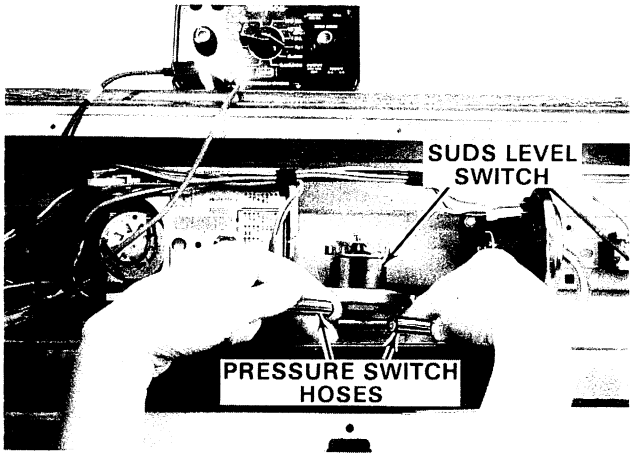
STEP 18 Touch one ohmmeter probe to terminal T.

STEP 19 Touch the other ohmmeter probe to terminal T2.

STEP 20 The ohmmeter should show an open circuit. If not, the suds level switch is bad and needs replacing.

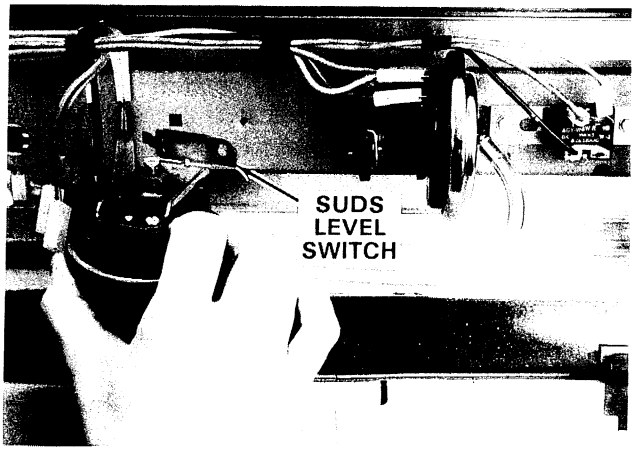
REPLACEMENT

STEP 21 Remove the control knob *(section 10, proc. C).*



STEP 22 Remove the plastic hoses from the ports on the suds level switch.

NOTE: 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 23 Using a nutdriver or socket wrench, remove the screw.

STEP 24 Carefully remove the suds level switch. The wires should have been removed already because of testing.

STEP 25 Place the suds level switch with the locating tab in the slot on the control bracket.

STEP 26 Using a nutdriver or socket wrench, insert the screw and tighten.

STEP 27 Reconnect the wires to the proper terminals as previously marked.

NOTE: 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. Readjust these wires.

STEP 28 Replace the plastic hoses on the suds level switch ports.

⚠ 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.

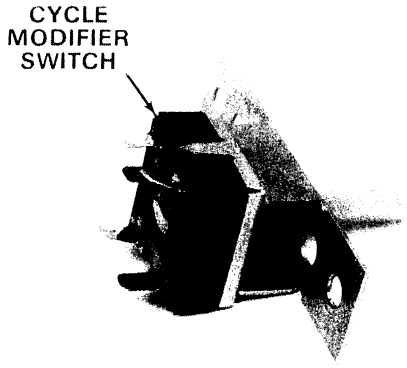
STEP 29 Replace the console panels *(section 10, proc. D; Type A or B).*

STEP 30 Replace the control knob *(section 10, proc. C).*

STEP 31 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

STEP 32 Run a cycle check *(section 6, proc. B, section 9, steps 1-4).*

PROCEDURE H
Cycle Modifier/Soak/2nd Rinse Switch Testing and/or Replacement



See page 166, illus. no. 54 for location of part.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- Failure to do so could result in personal injury or death.

OHMMETER REQUIRED

This part is located in the console and is used in giving different washing options.

STEP 1 Disconnect the electrical power supply *(section 2).*

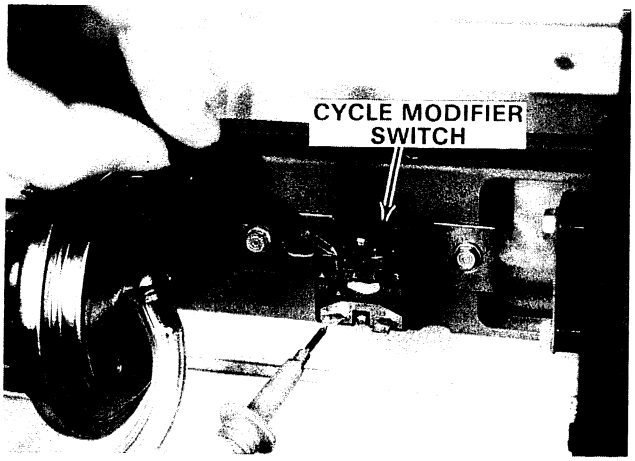
STEP 2 Remove the console panels *(section 10, proc. D; Type A or B).*

TESTING

STEP 3 Remove one wire at a time, carefully labeling each wire according to the terminal marking on the 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 turning the rotary knob 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
Soak	None
Soak & Wash	BK to GY-W
Wash	BK to GY-W
Wash/2nd Rinse	BK to GY-W, BK to T-V
Soak/Wash/2nd Rinse	BK to GY-W, BK to T-V

NOTE: TERMINALS W-R AND W-G ARE NOT USED.

STEP 7 EXAMPLE: Set switch to "Wash with 2nd Rinse." This closes two contacts inside the switch, BK to GY-W and BK to T-V.

STEP 8 Touch one ohmmeter probe to terminal BK.

STEP 9 Touch the other ohmmeter probe to GY-W.

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

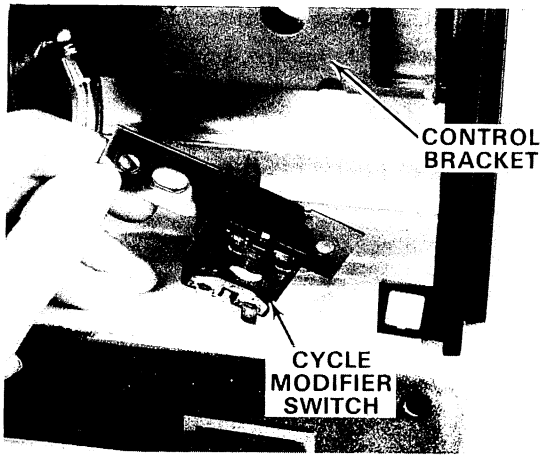
STEP 11 Touch one ohmmeter probe to terminal BK.

STEP 12 Touch the other ohmmeter probe to T-V.

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

REPLACEMENT

STEP 14 Remove the control knob *(section 10, proc. C).*



STEP 15 Using a nutdriver, remove the screws holding the cycle switch to the control bracket.

STEP 16 Carefully remove the cycle switch. The wires should have been removed already because of testing.

STEP 17 Place the cycle switch on the control bracket, lining up the mounting holes.

Some cycle switches have an arrow pointing up so it can't be mounted upside down.

STEP 18 Using a nutdriver, insert the screws through the new cycle switch, into the control bracket and tighten.

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

⚠ WARNING

Electrical Shock Hazard

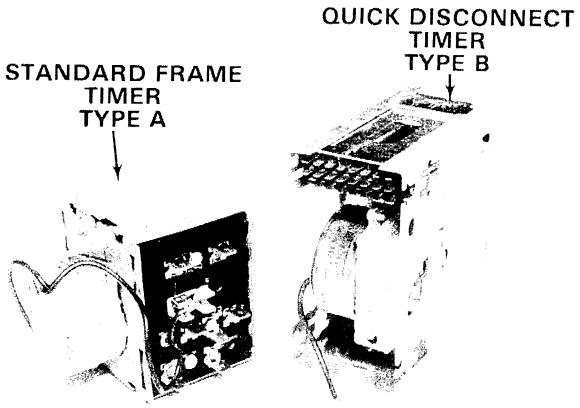
- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

STEP 20 Replace the console panels *(section 10, proc. D; Type A or B).*

STEP 21 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

STEP 22 Run a cycle check *(section 6, proc. B, section 9, steps 1-4).*

PROCEDURE I
Timer Testing and/or Replacement



See page 23 and 166 illus. no. 6 for location of part.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- 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 8).

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

TYPE A TESTING

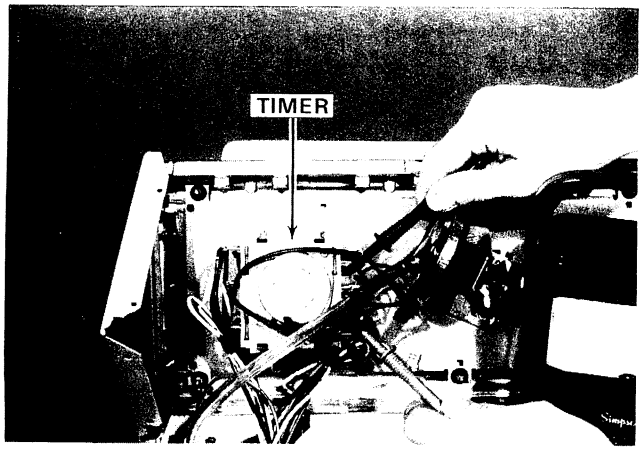
STEP 1 Disconnect the electrical power supply *(section 2).*

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 10, proc. D; Type A or B).*

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 terminal.

STEP 8 Touch the other ohmmeter probe to the other 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 10, proc. A).*

STEP 18 Remove the timer dial *(section 10, proc. B).*

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

STEP 20 Remove the other wires one 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 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 10, proc. D; Type A or B).*

STEP 26 Replace the timer dial *(section 10, proc. B).*

STEP 27 Replace the timer knob *(section 10, proc. A).*

STEP 28 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

STEP 29 Run a cycle check *(section 6, proc. B, section 9, steps 1-4).*

TYPE B TESTING

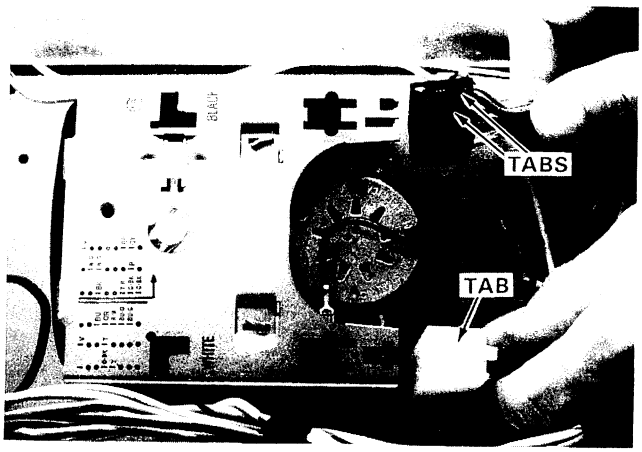
STEP 1 Disconnect the electrical power supply *(section 2).*

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

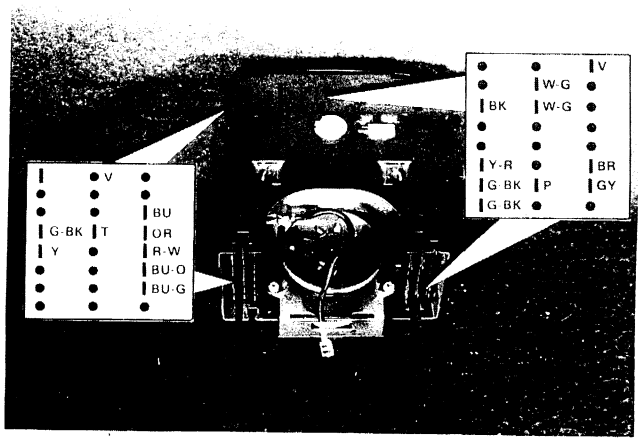
STEP 3 Remove the console panels *(section 10, proc. D; Type A or B).*

STEP 4 You must know how to use an ohmmeter.

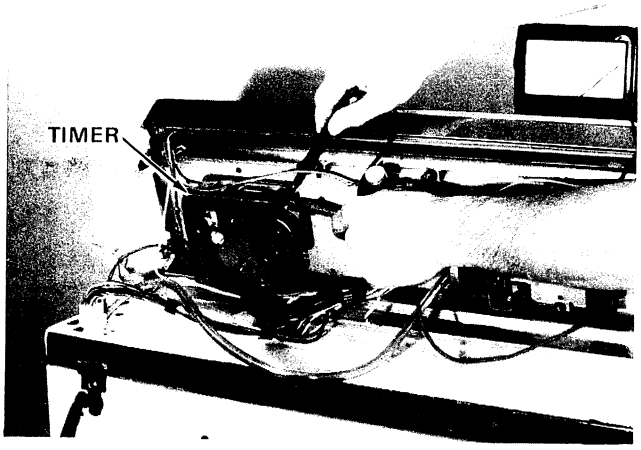
STEP 5 Set the ohmmeter scale to the lowest ohms setting and **ZERO** the meter. See the instructions that came with your ohmmeter.



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 terminal specified for this function.

STEP 8 Touch the other ohmmeter probe to the other 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.

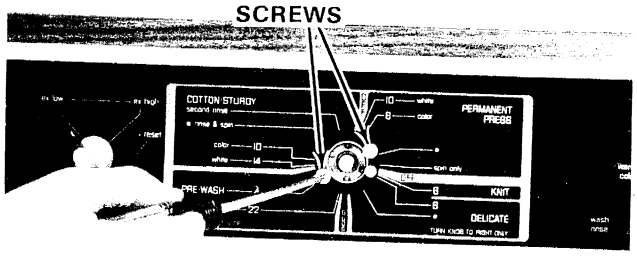
STEP 15 Touch the other ohmmeter probe to terminal BR.

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 10, proc. A).*

STEP 18 Remove the timer dial *(section 10, proc. 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 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 10, proc. D; Type A or B).*

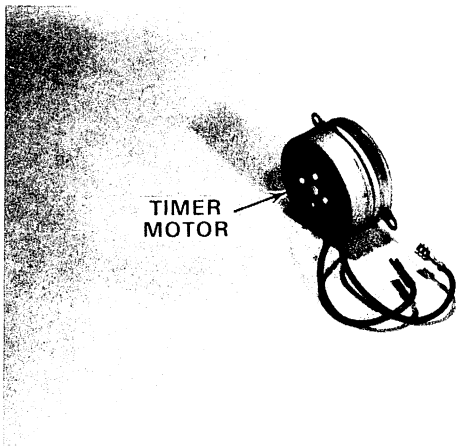
STEP 25 Replace the timer dial *(section 10, proc. B).*

STEP 26 Replace the timer knob *(section 10, proc. A).*

STEP 27 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

STEP 28 Run a cycle check *(section 6, proc. B, section 9, steps 1-4).*

PROCEDURE J
Timer Motor Testing and/or Replacement



See page 166, illus. no. 7 for location of part.

⚠ WARNING

Electrical Shock Hazard

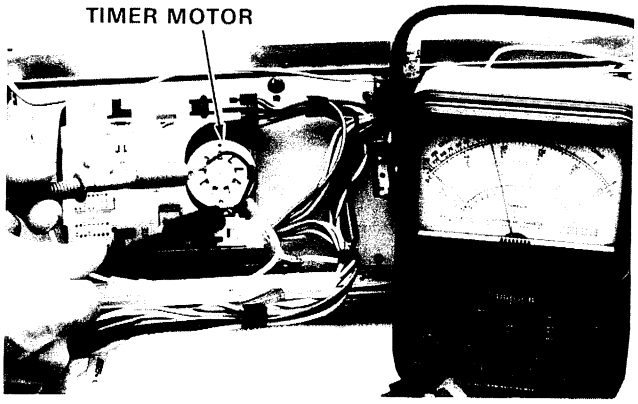
- Disconnect power before servicing (section 2).
- Failure to do so could result in personal injury or death.

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 2).*

STEP 2 Remove the console panels *(section 10, proc. D; Type A or B).*



TESTING

STEP 3 Remove one wire at a time, carefully labeling each wire according to the terminal marking on the 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.

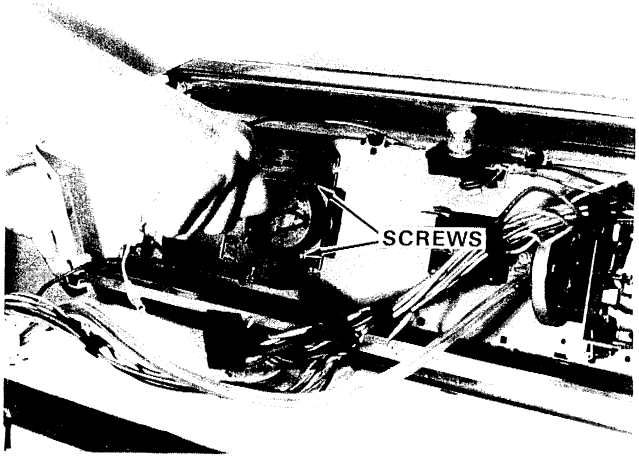
STEP 5 Refer to the instructions that came with your volt-ohmmeter to find the proper scale to measure 2,000 to 3,000 ohms. Set the ohms scale and **ZERO** the meter.

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 time 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 A QUALIFIED SERVICE TECHNICIAN.



REPLACEMENT

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

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

STEP 11 Reconnect the timer motor wires to the proper terminals or harness wire 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 10, proc. D; Type A or B).*

STEP 13 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

STEP 14 Run a cycle check *(section 6, proc. B, section 9, steps 1-4).*

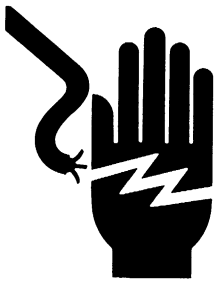
NOTES

SECTION 11

Top and Lid Area

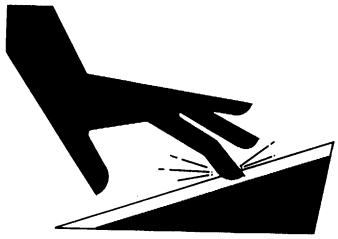
SECTION 1 MUST BE CAREFULLY READ BEFORE ANY REPAIR OR TESTING PROCEDURES ARE ATTEMPTED.

⚠ WARNING



Disconnect power before servicing

⚠ WARNING



This appliance may have sharp edges

PROCEDURE A
Top Access

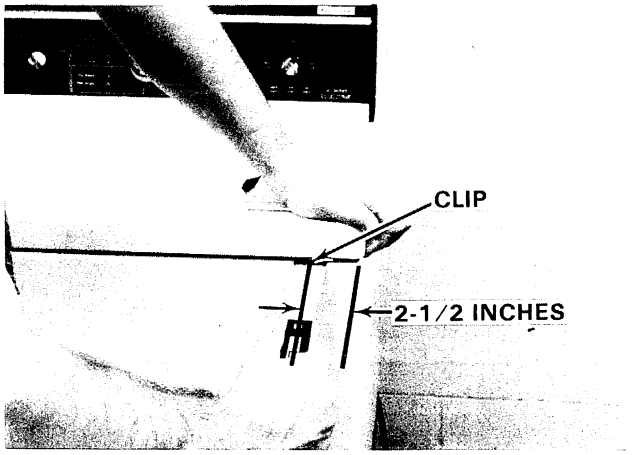
See pages 23 and 166, illus. no. 15 for location of part.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- Failure to do so could result in personal injury or death.

STEP 1 Disconnect the electrical power supply *(section 2).*



STEP 2 When raising the top, always tape the lid shut. If your model has the triple dispenser, tape this lid shut also.

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.

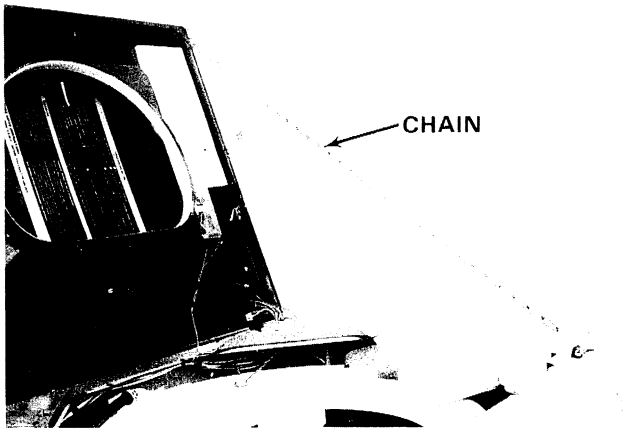
STEP 4 Push in on the putty knife to release the clip while lifting up on the corner of the top. Do the same to the other front corner.

⚠ CAUTION

Product Damage

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

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.

⚠ 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. It could pinch your finger.

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 into place.

STEP 12 Remove the tape from the lid and triple dispenser if used.

STEP 13 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

PROCEDURE B
Lid and Hinge Replacement

See pages 23 and 166, illus. no's. 8, 11 and 13 for location of parts.

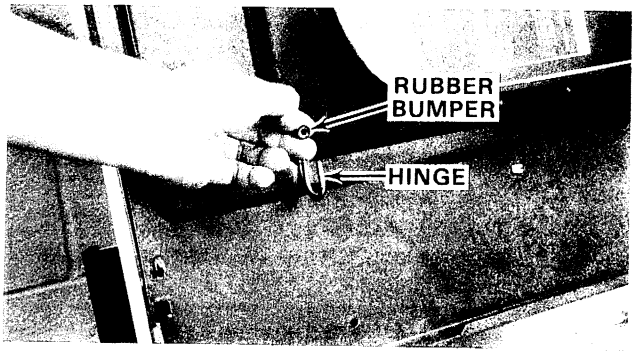
⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- Failure to do so could result in personal injury or death.

STEP 1 Disconnect the electrical power supply *(section 2).*

STEP 2 Raise the top *(section 11, proc. A).*



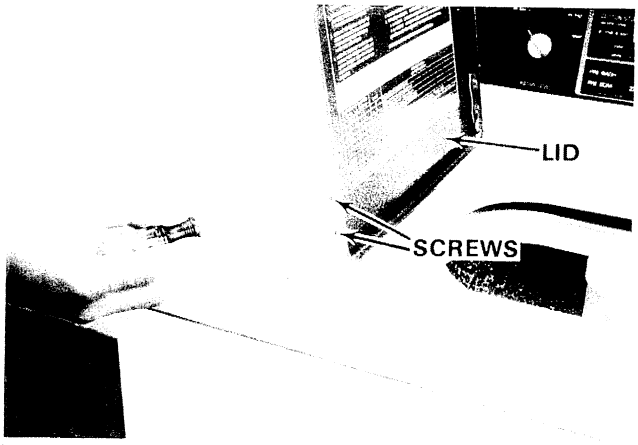
STEP 3 Remove the rubber bumpers from the lid hinges. Your washer might only have one bumper.

⚠ WARNING

Personal Injury Hazard

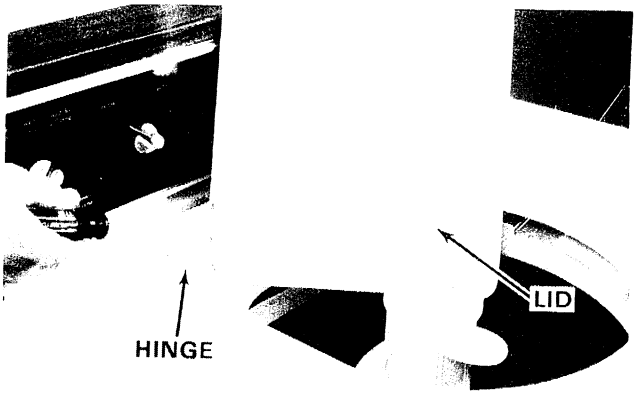
- Be careful when lowering the top. It could pinch your finger.

STEP 4 Lower the top, remove the tape and open the lid.



STEP 5 Using a screwdriver, remove the two screws from the front side of the lid.

STEP 6 Pull and turn the hinge to remove from the top and lid.

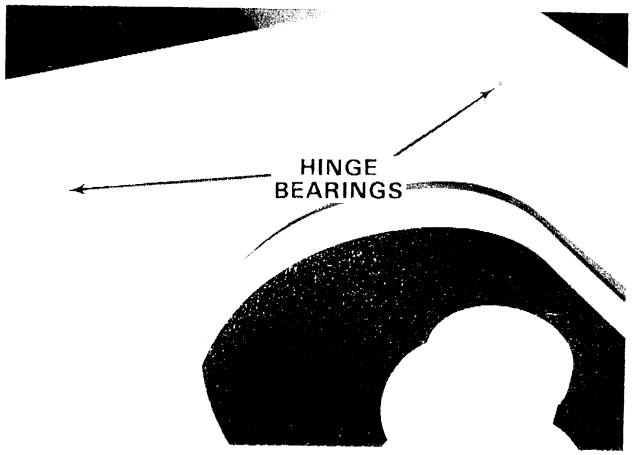


STEP 7 To remove the back hinge, pull and turn the lid toward the back.

STEP 8 Using a screwdriver, remove the other two screws holding the back hinge.

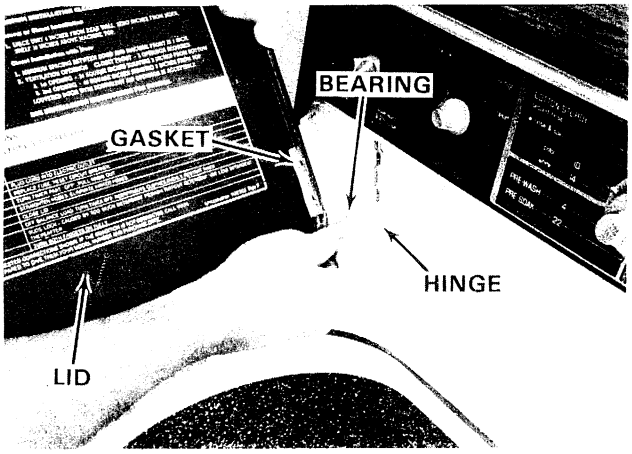
STEP 9 Hold the lid while turning the back hinge to remove from the top and lid.

STEP 10 Check and replace the hinge gaskets if they have started to rot or crack.



STEP 11 Replace the plastic bearings in the hole on both sides of the top.

REPLACEMENT



STEP 12 Insert the back hinge from inside the lid through the bearing, turning it somewhat in the top.

STEP 13 Place the back gasket between the lid and hinge.

STEP 14 Using a screwdriver, insert the two screws through the lid, into the hinge and tighten.

STEP 15 Turn the lid and hinge all the way into the top.

STEP 16 Insert the front hinge from inside the lid through the plastic bearing, turning it in the top.

STEP 17 Place the front gasket between the lid and front hinge.

STEP 18 Using a screwdriver, insert the two screws through the lid, into the hinge and tighten.

STEP 19 Tape the new lid shut.

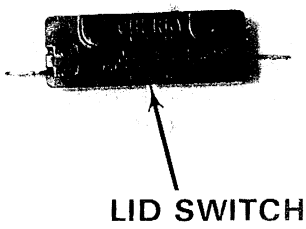
STEP 20 Raise the top *(section 11, proc. A).*

STEP 21 Place the rubber bumpers on each end of the hinges. Your washer might only have one.

STEP 22 Lower the top *(section 11, proc. A).*

STEP 23 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

PROCEDURE C
Lid Switch/Lever Testing and/or Replacement



See page 166, illus. no.'s 16 and 19 for location of parts.

⚠ WARNING

Electrical Shock Hazard

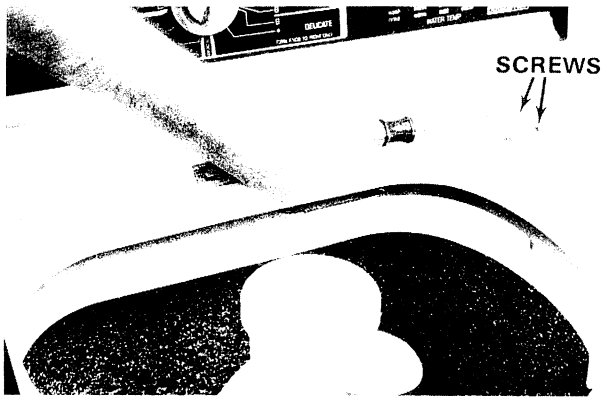
- Disconnect power before servicing (section 2).
- Failure to do so could result in personal injury or death.

OHMMETER REQUIRED

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

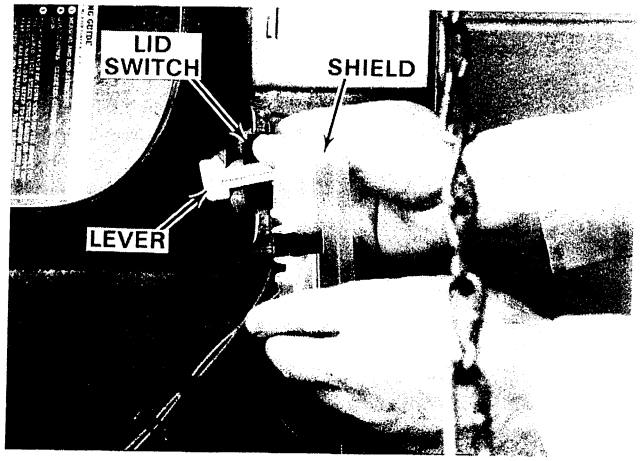
STEP 1 Disconnect the electrical power supply *(section 2).*

STEP 2 Open the lid.

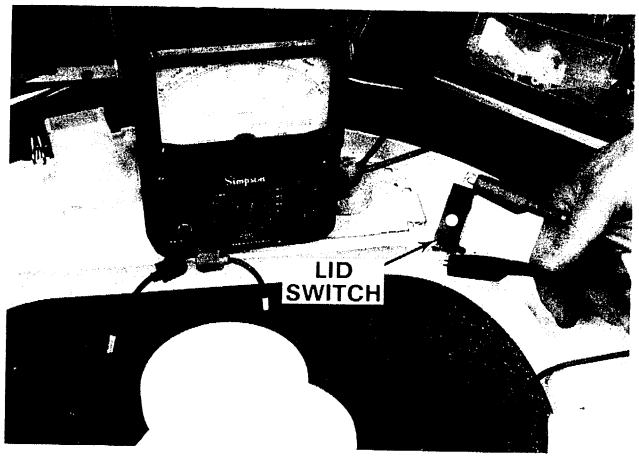


STEP 3 Using a screwdriver, remove the two screws on the right side of the lid well.

STEP 4 Raise the top *(section 11, proc. A).*



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.

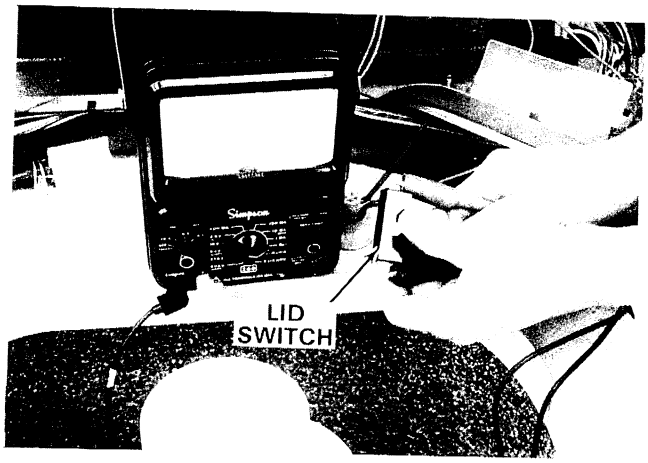
STEP 7 You must know how to use an ohmmeter.

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.

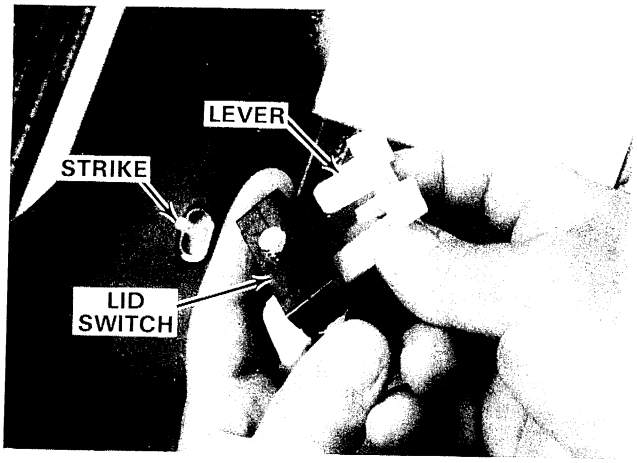


STEP 12 With the button pressed in, touch one of the ohmmeter probes to one of the terminals.

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 lid switch in the 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 plastic shield between the top and lid switch, and snap this on the screws. Tighten the screws.

STEP 18 Reconnect the wires to the proper terminals as previously marked.

⚠ WARNING

Electrical Shock Hazard

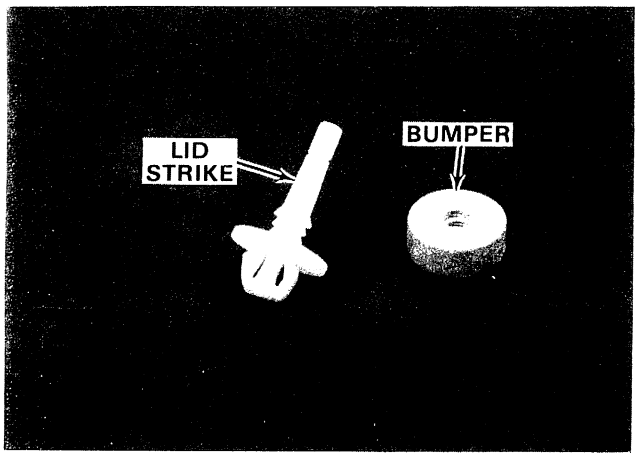
- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

STEP 19 Lower the top *(section 11, proc. A)*.

STEP 20 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

STEP 21 Run a cycle check *(section 9, steps 1-4)*.

PROCEDURE D
Lid Strike Replacement



See page 166, illus. no.'s 9 and 10 for location of parts.

⚠ WARNING

Electrical Shock Hazard

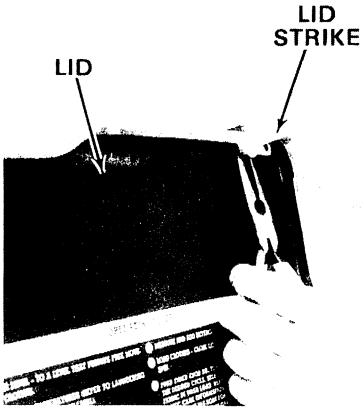
- Disconnect power before servicing (section 2).
- Failure to do so could result in personal injury or death.

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 2)*.

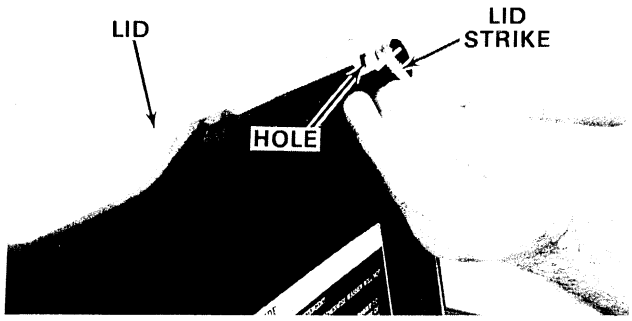
STEP 2 Open the lid.

STEP 3 Pull the rubber bumper off the strike.



STEP 4 Using needle nose pliers, squeeze the tabs together while pulling it out of the hole in the lid.

REPLACEMENT



STEP 5 Push the strike in the hole in the lid.

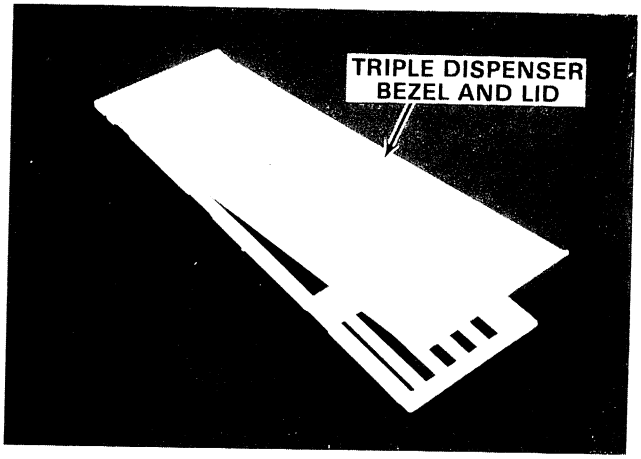
STEP 6 Push the rubber bumper on the strike, all the way to the lid flange.

STEP 7 Close the lid.

STEP 8 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

PROCEDURE E
Triple Dispenser Bezel and Lid Replacement

BEZEL AND LID NOT USED ON ALL MODELS



See page 166, illus. no.'s 57 and 59 for location of parts.

⚠ WARNING

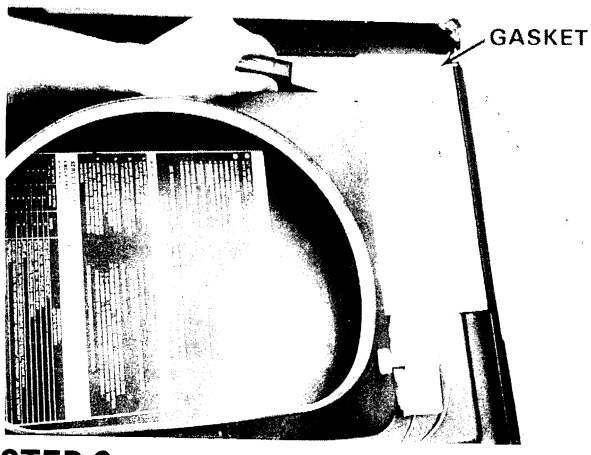
Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- Failure to do so could result in personal injury or death.

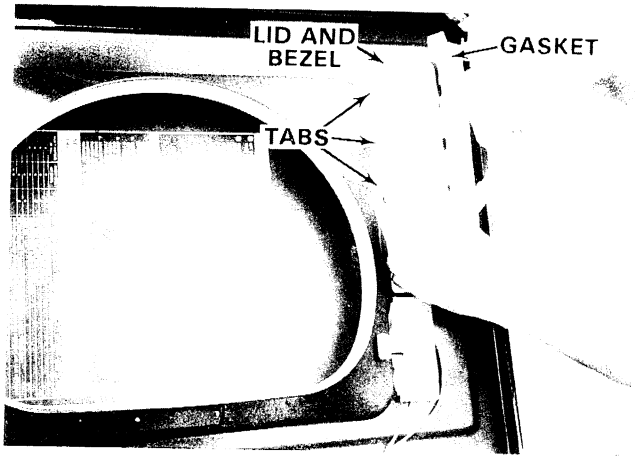
This lid and bezel is located on the top right side and is used to cover up the three compartments for detergent, bleach and fabric softener.

STEP 1 Disconnect the electrical power supply *(section 2).*

STEP 2 Raise the top *(section 11, proc. A).*

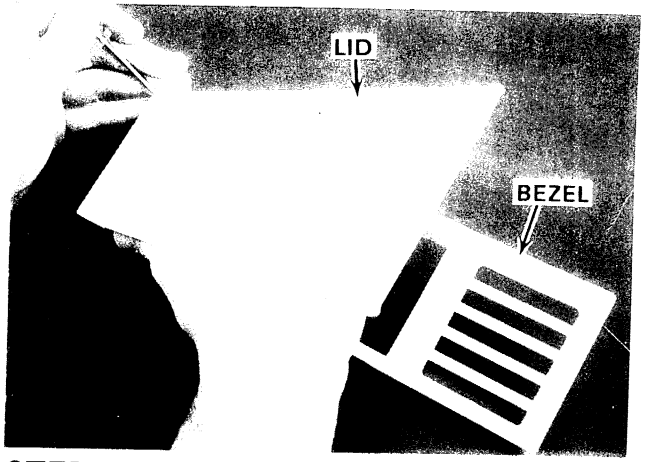


STEP 3 Using a putty knife, insert it between the gasket and top and peel off.



STEP 4 Using a small blade screwdriver, insert it between the bezel (by a tab) and top and pry.

STEP 5 Do this along the length of the bezel (about 4 tabs) and remove.



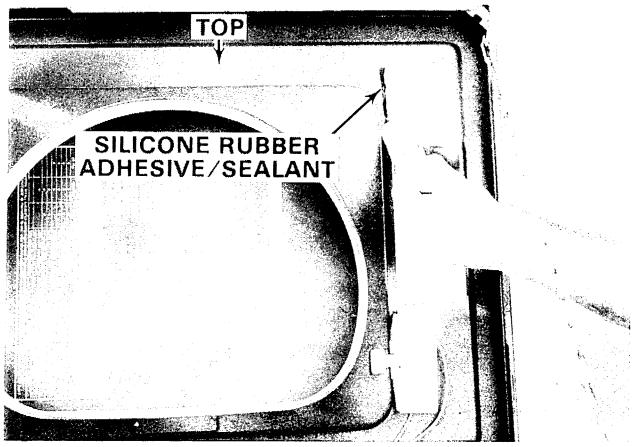
STEP 6 Using a small blade screwdriver, insert it between the bezel and lid and pry.

This will pull a tab on the lid out of a hole in the bezel.

REPLACEMENT

STEP 7 Place a tab from the lid in the hole of the bezel.

STEP 8 Snap the other tab into the other hole.



STEP 9 Place a bead of silicone rubber adhesive/sealant around the gasket (some gaskets have adhesive on the back).

STEP 10 Press on the gasket to form a tight seal against the top.

⚠ 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.

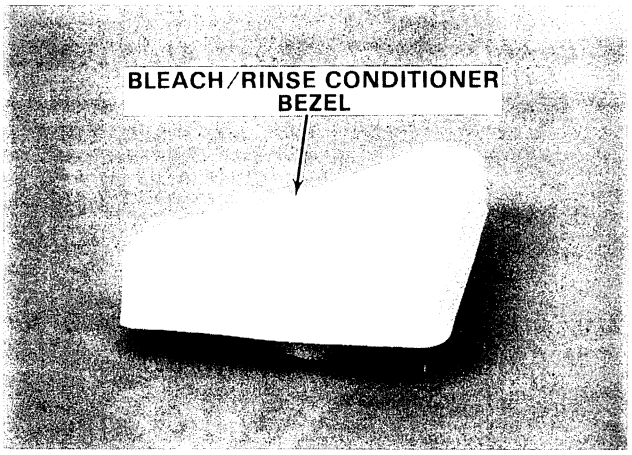
STEP 11 Lower the top *(section 11, proc. A)*.

STEP 12 Place one side of the bezel and lid in the opening of the top.

STEP 13 Press down on the other side of the bezel until it snaps into place.

STEP 14 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

PROCEDURE F
Bleach/Rinse Conditioner Bezel Replacement



See page 166, illus. no. 78 for location of part.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- Failure to do so could result in personal injury or death.

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

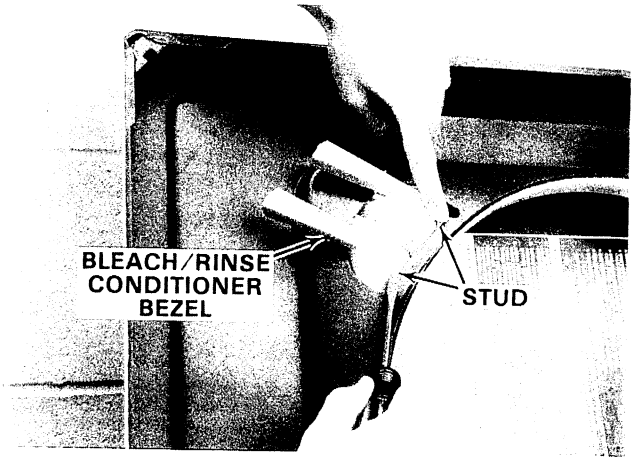
Depending on the features, pour the liquid into the proper side of the bezel.

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 2).*

STEP 2 Raise the top *(section 11, proc. A).*



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

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 11, proc. A).*

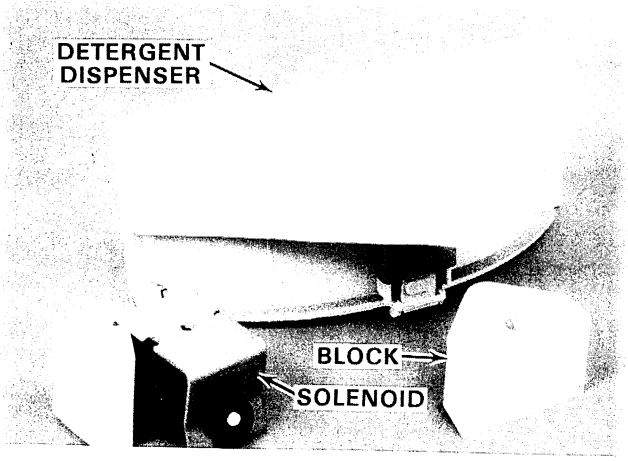
STEP 5 Open the lid.

STEP 6 Insert the bezel in the opening in the top and press down until it snaps into place.

STEP 7 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

PROCEDURE G
Detergent Dispenser, Solenoid and Parts Testing and/or Replacement

DETERGENT DISPENSER, SOLENOID NOT USED ON ALL MODELS



See page 166, illus. no.'s 79, 80 and 81 for location of parts.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- Failure to do so could result in personal injury or death.

OHMMETER REQUIRED

These parts are located on the top, in the back left as you open the lid. A plunger in the solenoid strikes the latch on the dispenser, causing the door to open and letting the detergent fall into the wash water.

STEP 1 Disconnect the electrical power supply *(section 2).*

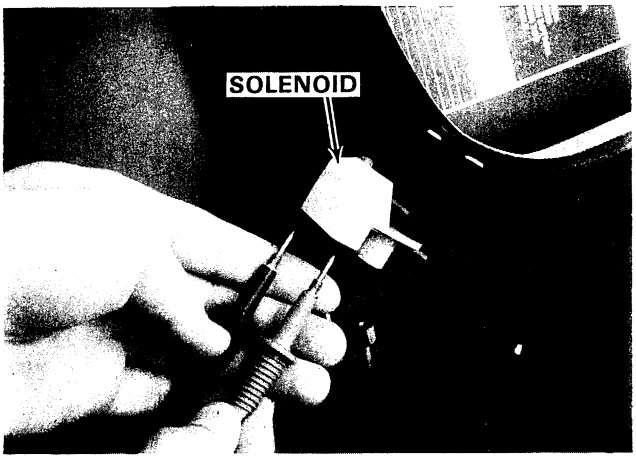
STEP 2 Raise the top *(section 11, proc. A).*

TESTING

STEP 3 Remove one wire at a time, carefully labeling each wire according to the terminal marking on the solenoid. 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 instructins that came with your ohmmeter.



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

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

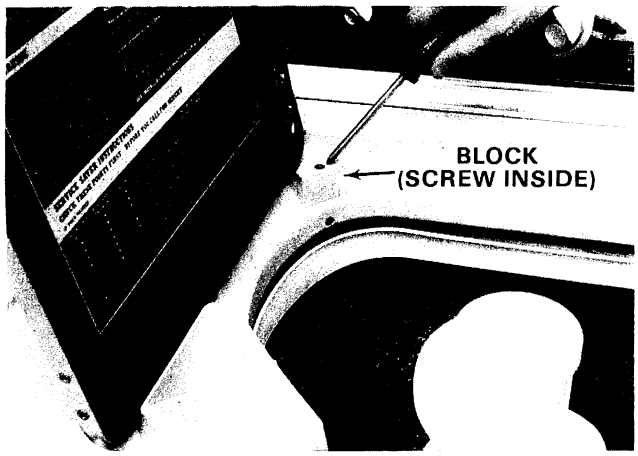
STEP 8 The ohmmeter should show **ZERO** resistance (continuity). If not, the detergent dispenser solenoid is bad and needs replacing.

REPLACEMENT

STEP 9 Carefully lower the top.

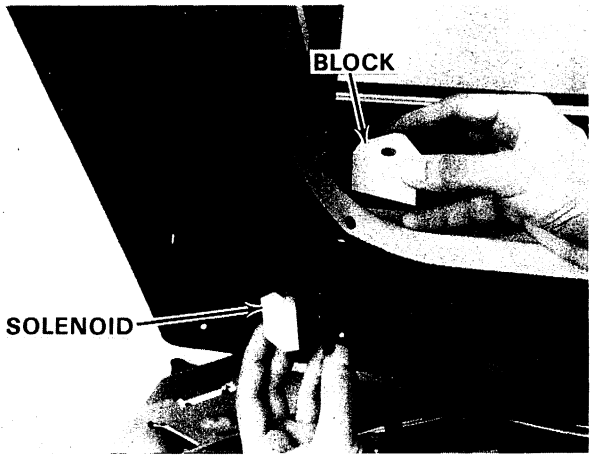
STEP 10 Remove the tape and open the lid.

STEP 11 Lift the dispenser off the block.



STEP 12 Using a screwdriver, remove the screw holding the block and solenoid to the top.

NOTE: You will have to hold the solenoid with one hand to keep it from falling in the cabinet area when removing.



STEP 13 Place the solenoid on the flange under the top.

STEP 14 Place the block with the point pointing toward the back.

STEP 15 Using a screwdriver, insert the screw through the block, top, into the solenoid and tighten.

STEP 16 Reconnect the wires to the 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 17 Lower the top *(section 11, proc. A).*

STEP 18 Open the lid and place the detergent dispenser on the new block.

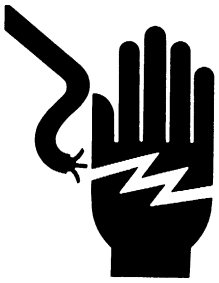
STEP 19 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

SECTION 12

Tub and Basket Area

SECTION 1 MUST BE CAREFULLY READ BEFORE ANY REPAIR OR TESTING PROCEDURES ARE ATTEMPTED.

⚠ WARNING



Disconnect power before servicing

⚠ WARNING

This appliance may have sharp edges

PROCEDURE A
Snubber, Spring and Plate Replacement

See page 172, illus. no.'s 34 and 35 for location of parts.

⚠ WARNING

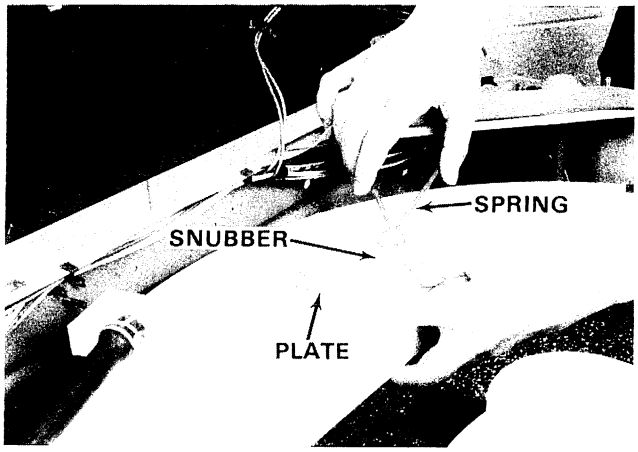
Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- Failure to do so could result in personal injury or death.

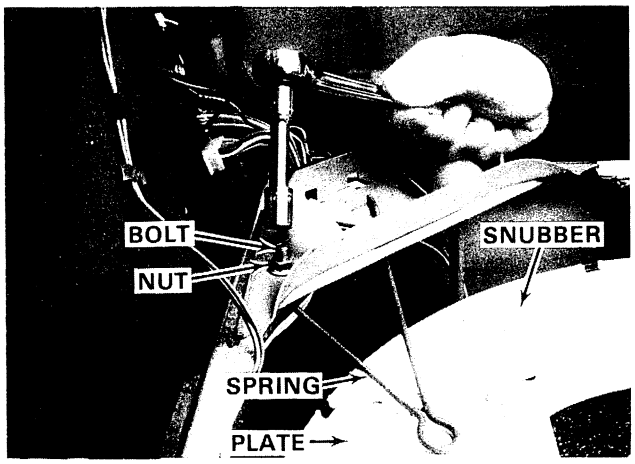
The purpose of the snubber is to reduce the movement of the base and tub during spin. The snubber rides on a stainless steel or porcelain plate. Snubbers sometimes squeak if water or soap splashes on the plate. To stop the squeak, the snubber should be rubbed against a rough surface such as a cement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

STEP 1 Disconnect the electrical power supply *(section 2).*

STEP 2 Raise the top *(section 11, proc. A).*

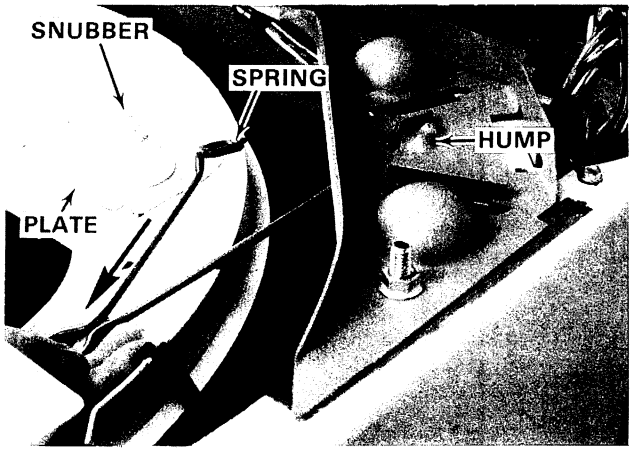


STEP 3 Lift up on the spring to remove the snubber. Clean the bottom of the snubber by rubbing with sandpaper or rubbing against a rough surface such as a cement block. This should stop any squeaking noise.



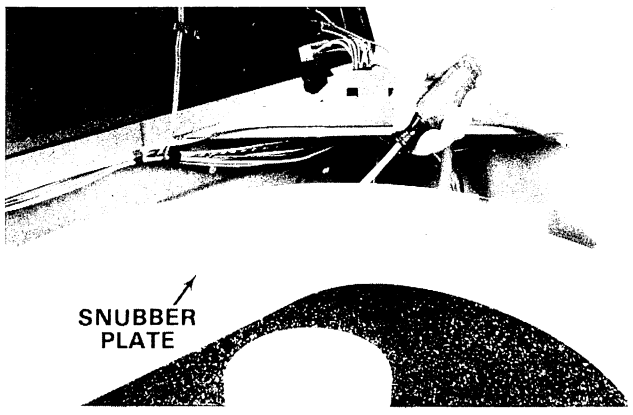
STEP 4 To remove the spring, use a nutdriver or socket wrench and remove the nut.

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 snubber plate on the tub ring and push down until it snaps into place.

STEP 9 Insert the 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 snubber.

⚠ WARNING

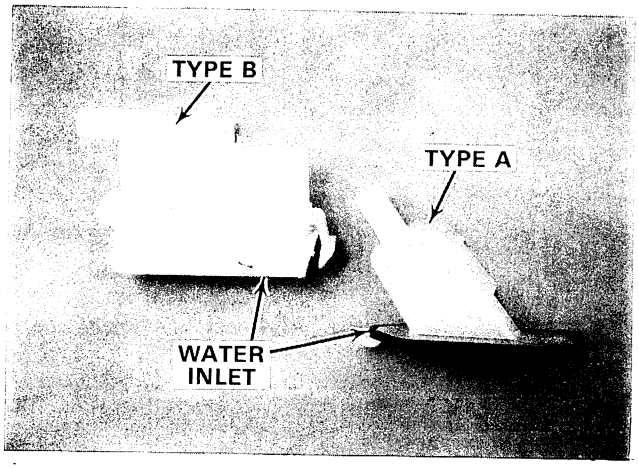
Electrical Shock Hazard

- 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 11, proc. A).*

STEP 16 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

PROCEDURE B
Water Inlet Replacement



See pages 23 and 168, illus. no. 6 for location of part.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- 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 water inlet held on by screw, or Type B for the snap-in type.

TYPE A

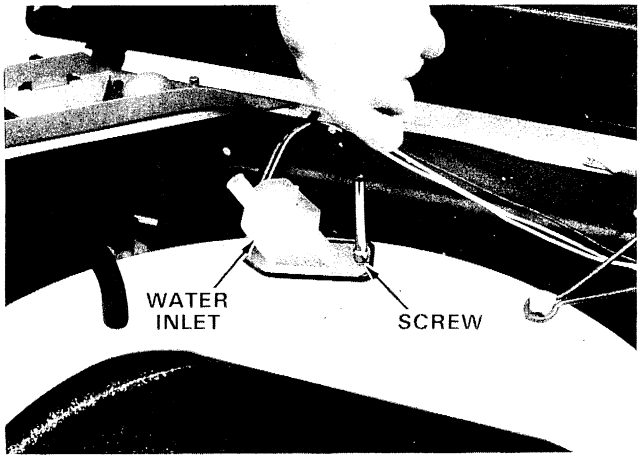
STEP 1 Disconnect the electrical power supply *(section 2).*

STEP 2 Raise the top *(section 11, proc. A).*

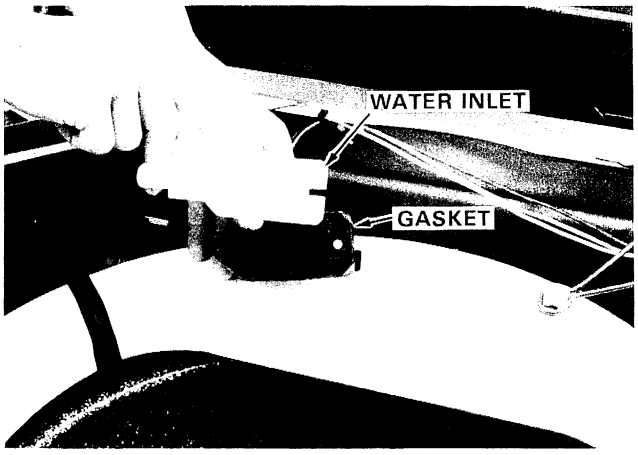
NOTE: Care should be taken when removing hoses, as they may have water in them.

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 gasket on the bottom of the 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 11, proc. A).*

STEP 14 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

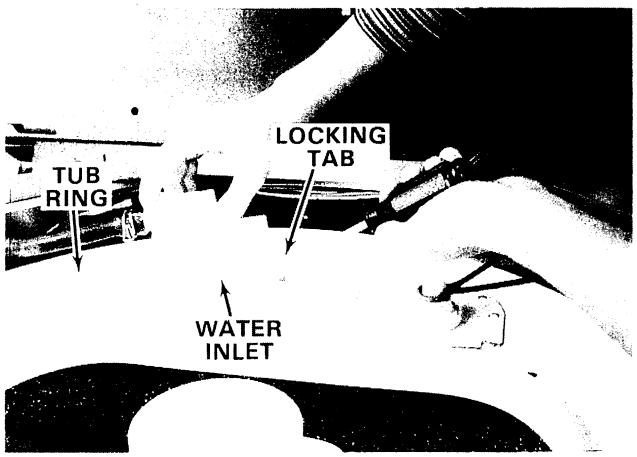
STEP 15 Run a cycle check *(section 6, proc. B, section 9, steps 1-4).*

TYPE B

STEP 1 Disconnect the electrical power supply *(section 2).*

STEP 2 Raise the top *(section 11, proc. A).*

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



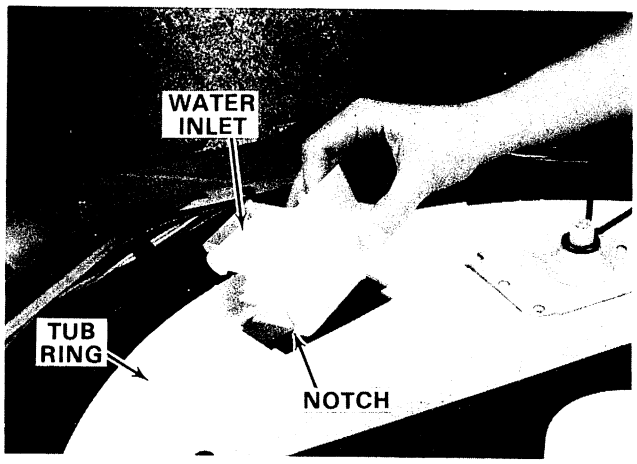
STEP 3 Using a screwdriver, push in on the locking tab while pulling up.

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 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 11, proc. A).*

STEP 11 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

STEP 12 Run a cycle check *(section 6, proc. B, section 9, steps 1-4).*

PROCEDURE C
Tub Ring, Gasket and Clip Replacement

See page 168, illus. no.'s 9, 10 and 35 for location of parts.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- 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**.

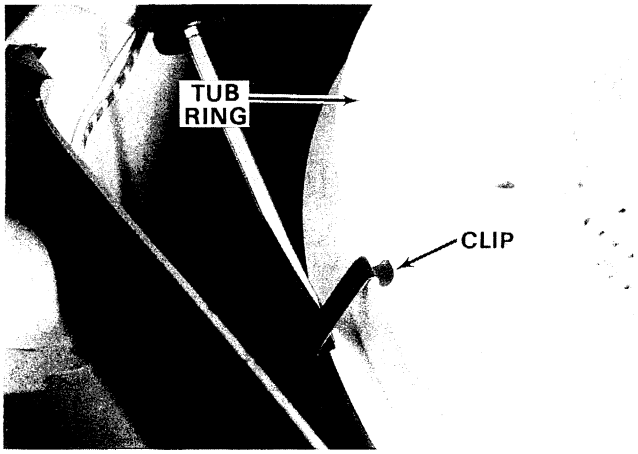
There are two types of tub rings used because of different gaskets. These gaskets fit between the tub ring and tub. See Type A for the gasket mounted on the tub or Type B for the gasket mounted in the ring.

STEP 1 Disconnect the electrical power supply *(section 2).*

STEP 2 Raise the top *(section 11, proc. A).*

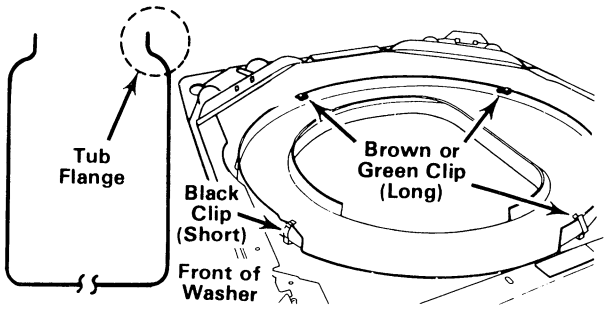
STEP 3 Remove the snubber and spring *(section 12, proc. A).*

STEP 4 Remove the water inlet *(section 12, proc. B; Type A or B).*

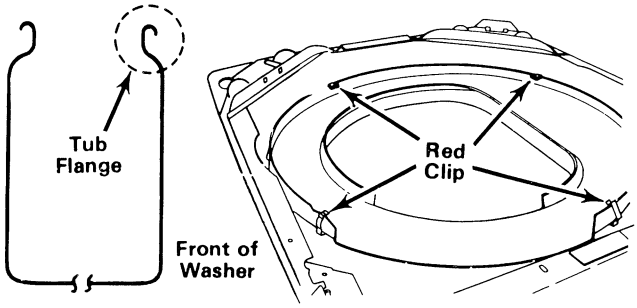


LOCATION OF TUB RING CLIPS

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



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 the tub ring. Some washers have two, three or four clips to remove.

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

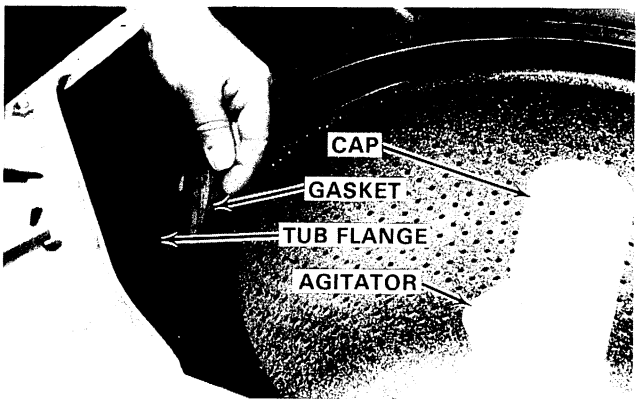
TYPE A

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

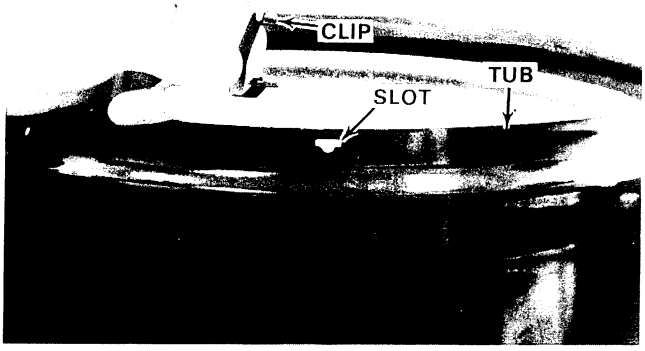


STEP 8 To replace, fit the lip of the gasket over the straight edge of the tub, with the long side of the gasket on the inside of the tub.

STEP 9 Place the 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 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 12, proc. B; Type A or B).*

STEP 14 Replace the snubber and spring *(section 12, proc. A).*

⚠ 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 11, proc. A).*

STEP 16 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

STEP 17 Run a cycle check *(section 6, proc. B, section 9, steps 1-4).*

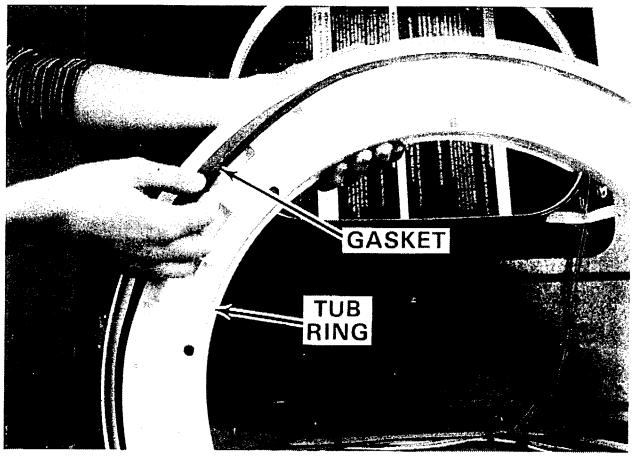
TYPE B

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.

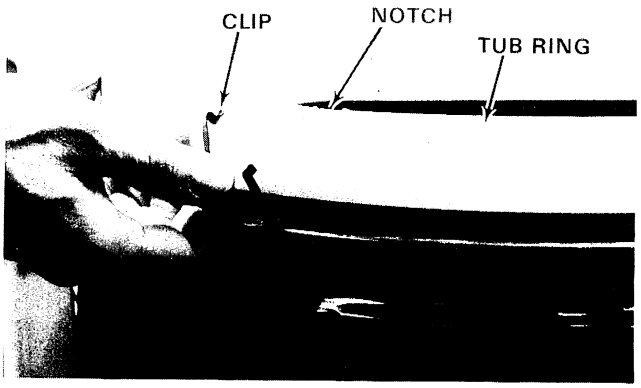
REPLACEMENT



STEP 8 Place the gasket in the groove of the 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 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 12, proc. B; Type A or B).*

STEP 13 Replace the snubber and spring *(section 12, proc. A).*

⚠ 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 11, proc. A).*

STEP 15 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

STEP 16 Run a cycle check *(section 6, proc. B, section 9, steps 1-4).*

PROCEDURE D
Agitator Cap, Stud, Agitator, Auger & Parts Replacement

See pages 23 and 168, illus. no.'s 18, 23, 25, 26, 31, 32 and 39 for location of parts.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- Failure to do so could result in personal injury or death.

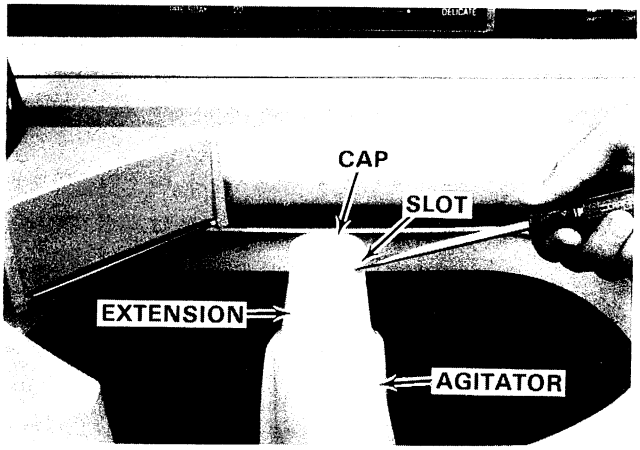
The purpose of the agitator is to move the water and clothes to provide a proper washing action.

There are three ways to remove the agitator. See Type A for a cap (with slot) inserted in an extension. This extension is between the cap and agitator. Type B for a cap (with slot or screw-on type) which is not used with an extension or Type C for a two-piece agitator.

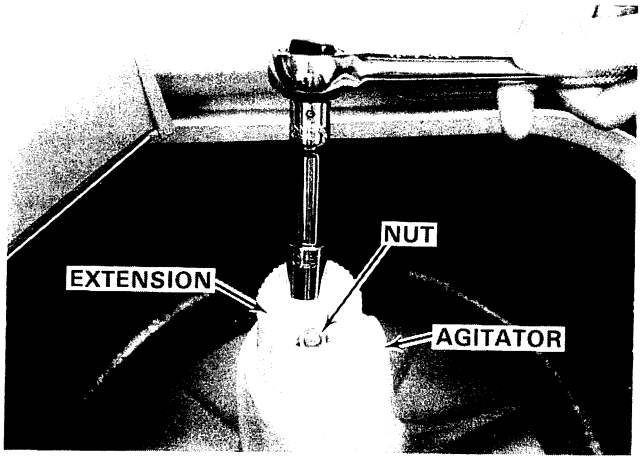
TYPE A

STEP 1 Disconnect the electrical power supply *(section 2).*

STEP 2 Lift the lid.

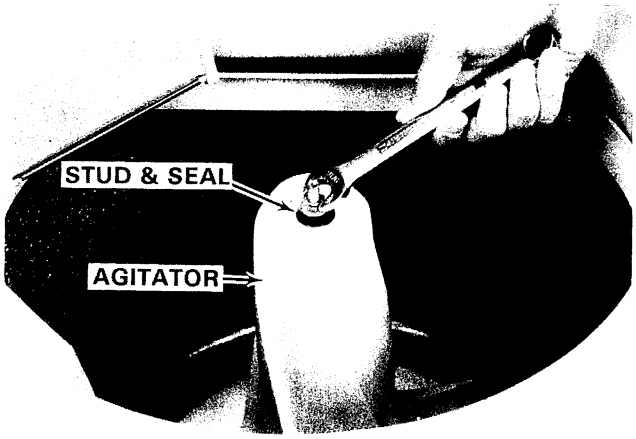


STEP 3 Using a screwdriver, insert it in the slot between the cap and extension and pry.



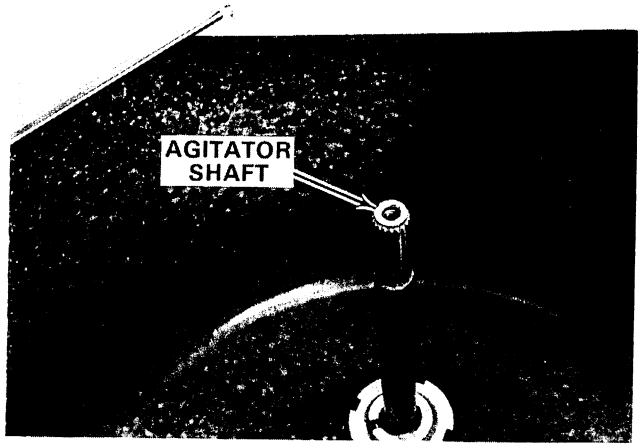
STEP 4 Using a nutdriver or socket wrench, hold the agitator with one hand while removing the nut.

STEP 5 Lift the extension off the stud.



STEP 6 Using an open end wrench or socket wrench, remove the stud and seal holding the agitator to the shaft.

STEP 7 Carefully remove the agitator by lifting straight up.



STEP 8 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 SEARS for service or replace the complete gearcase yourself *(section 14, proc. C).*

REPLACEMENT

STEP 9 Place the agitator on the shaft.

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

STEP 10 Using an open end wrench or socket wrench, insert the stud and seal and tighten.

STEP 11 Place the extension on the stud.

STEP 12 Using a nutdriver or socket wrench, place the nut on top of the stud and tighten.

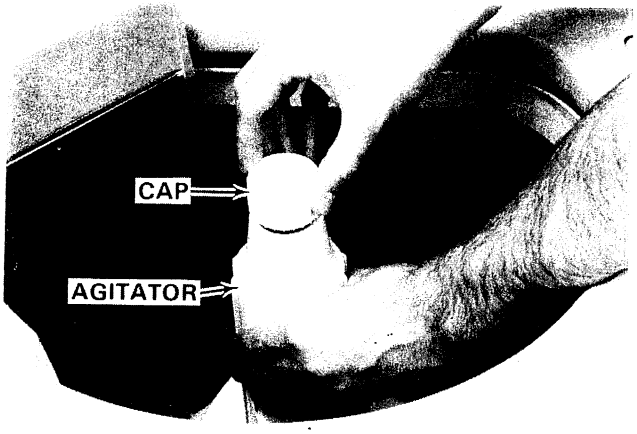
STEP 13 Press down on the agitator cap until it snaps into place on the extension.

STEP 14 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

TYPE B

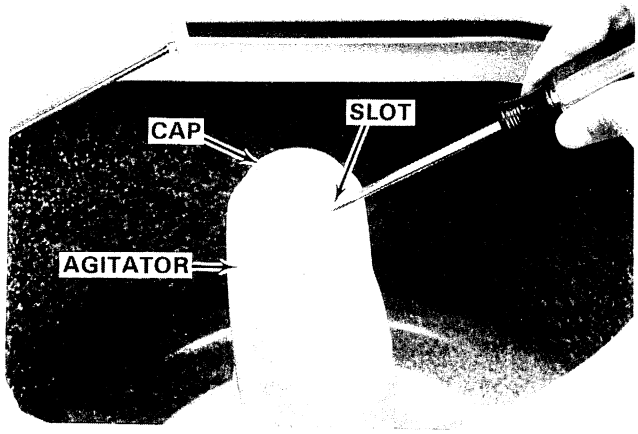
STEP 1 Disconnect the electrical power supply *(section 2).*

STEP 2 Lift the lid.

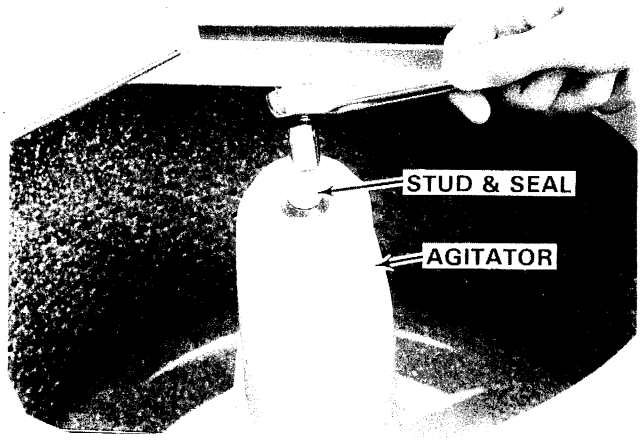


STEP 3 With one hand, turn the agitator cap to the left while holding the agitator with the other hand.

OR

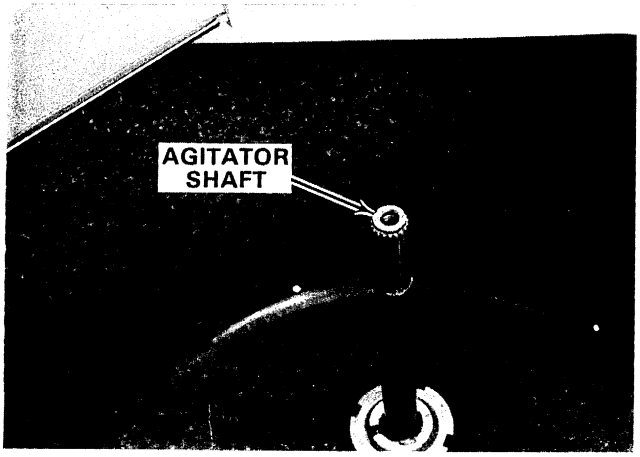


STEP 4 Using a screwdriver, insert it in the slot between the cap and agitator and pry.



STEP 5 Using an open end wrench or socket wrench, remove the stud and seal holding the agitator to the shaft.

STEP 6 Carefully remove the agitator by pulling straight up.



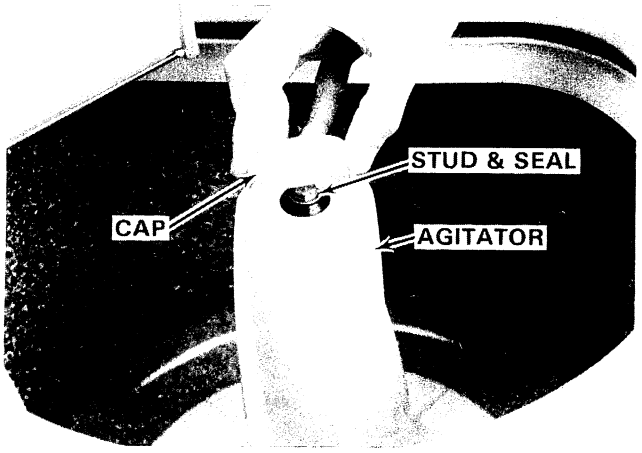
STEP 7 Inspect the inside of the agitator for worn grooves or rust. Also check the agitator shaft for worn grooves or rust. If the shaft is bad, either call SEARS for service or replace the complete gearcase yourself *(section 14, proc. C)*.

REPLACEMENT

STEP 8 Place the agitator on the shaft.

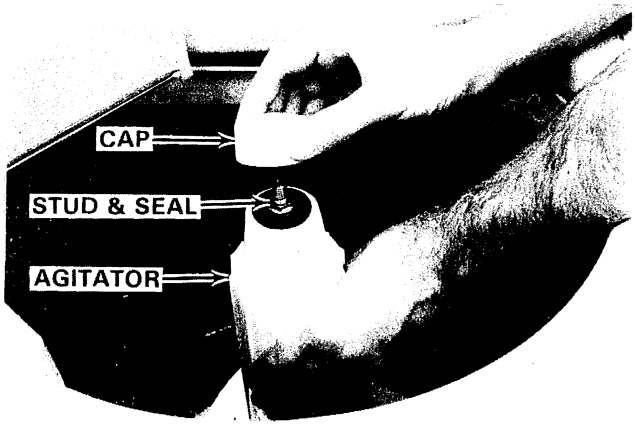
Rotate the agitator until it matches the grooves on the shaft, then push the agitator down.

STEP 9 Using an open end wrench or socket wrench, insert the stud and seal, and tighten.



STEP 10 Press down on the agitator cap until it snaps into place on the agitator.

OR



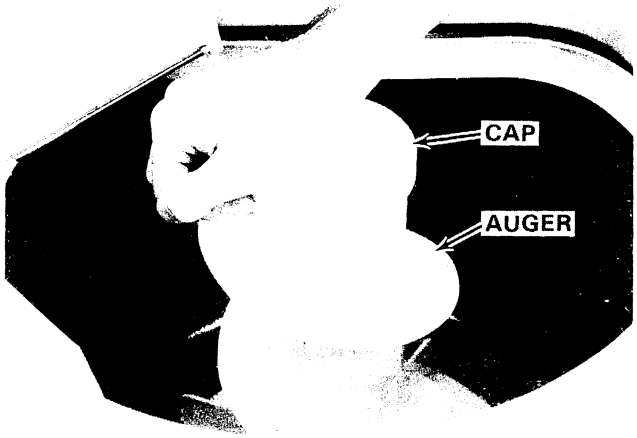
STEP 11 Place the agitator cap on the stud and seal and turn to tighten.

STEP 12 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

TYPE C

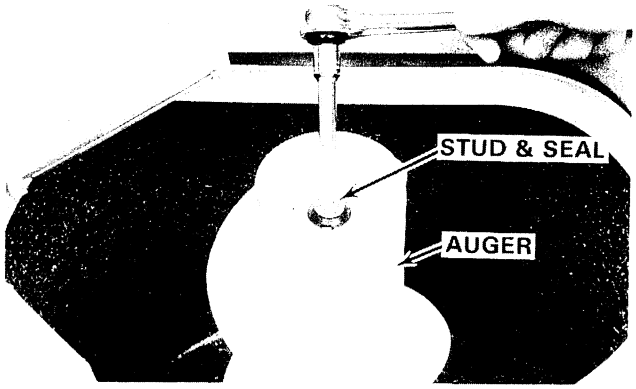
STEP 1 Disconnect the electrical power supply *(section 2)*.

STEP 2 Lift the lid.

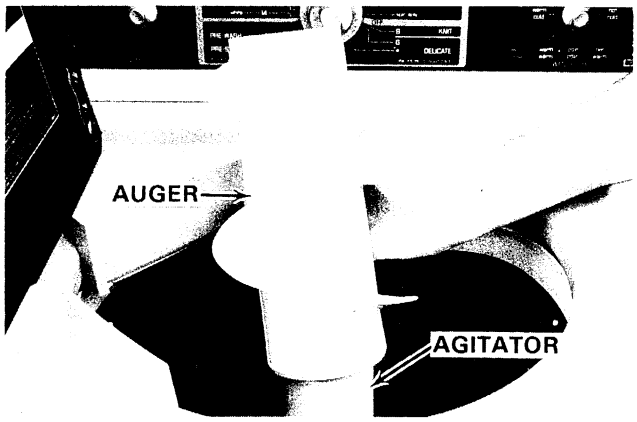


STEP 3 Use your fingers and pull up on the cap or use a hammer and tap up on the bottom of the cap.

NOTE: There is a rubber seal inside the cap.



STEP 4 Using a socket wrench, remove the stud and seal.

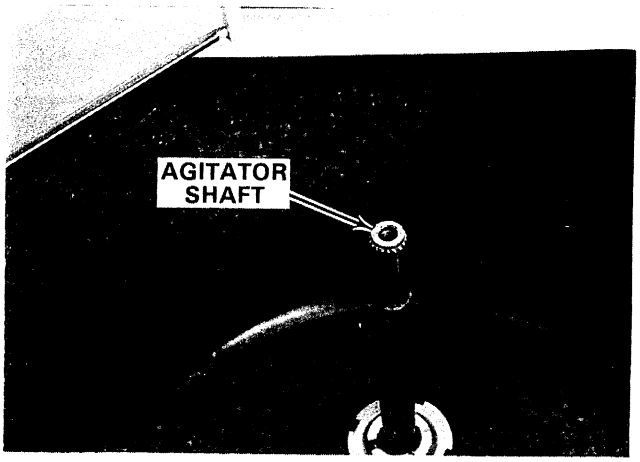


NOTE: There will be a cam and two shoes inside this auger. When removed, this cam will unsnap from the agitator.

STEP 5 Lift the auger off the agitator.

STEP 6 Carefully remove the agitator by lifting straight up.

NOTE: There is a rubber seal inside the top groove of the agitator.

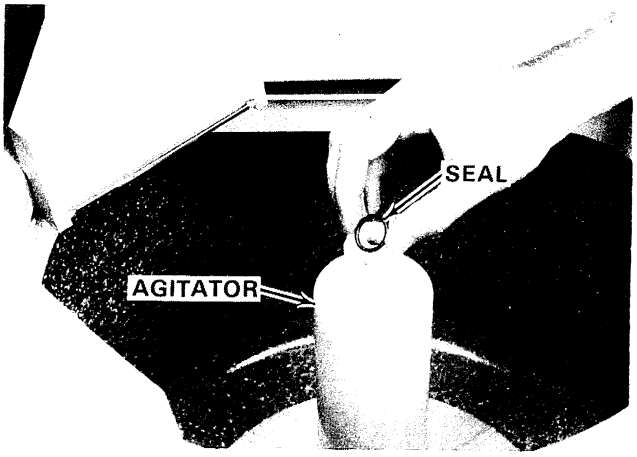


STEP 7 Inspect the inside of the agitator for worn grooves or rust. Also check the agitator shaft for worn grooves or rust. If the shaft is bad, either call SEARS for service or replace the complete gearcase yourself *(section 14, proc. C).*

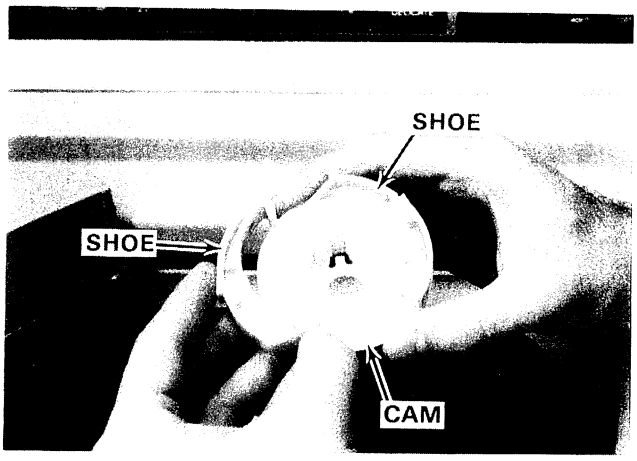
REPLACEMENT

STEP 8 Place the agitator on the shaft.

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



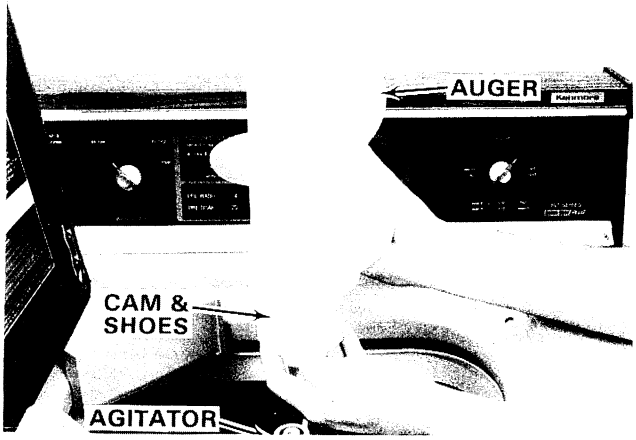
STEP 9 Place the seal in the groove on top of the agitator.



STEP 10 Hold the cam upside down.

STEP 11 Place one of the shoes on the bottom of the cam.

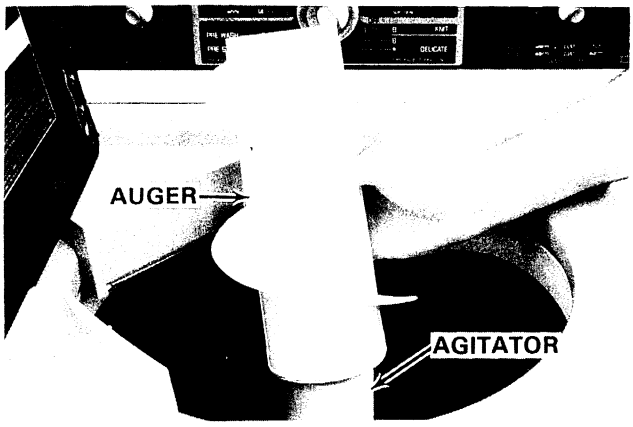
STEP 12 Place the other shoe on the bottom of the cam.



STEP 13 Turn the auger over and carefully insert the cam and shoes in the top of the auger.

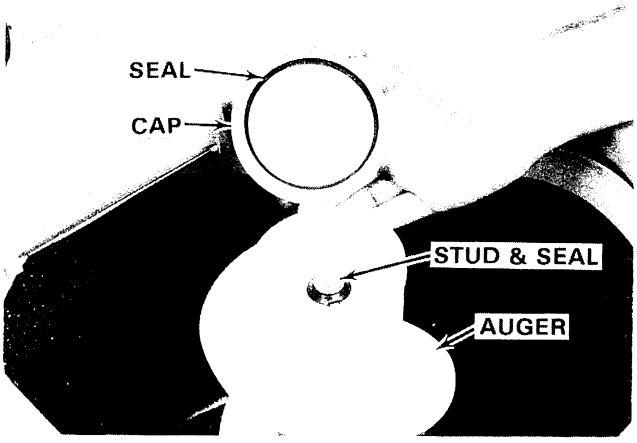
STEP 14 Turn the auger, shoes and cam upright.

NOTE: The cam has a cut-out and groove across from each other. The agitator has tabs across from each other. These must match in order for the cam to slide down on the agitator.



STEP 15 Place the auger, shoes and cam over the agitator. Hold the cam while snapping the cam to the agitator.

STEP 16 Using a socket wrench, insert the stud and seal and tighten.

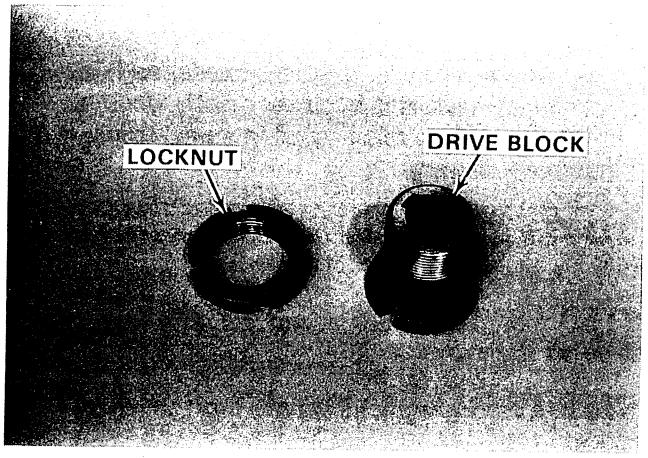


NOTE: Be sure the rubber seal is in the groove in the cap.

STEP 17 Press the cap down on top of the auger.

STEP 18 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

PROCEDURE E
Locknut, Basket and Drive Block Replacement



See pages 23 and 168, illus. no.'s 11, 12 and 27 for location of parts.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- 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 2).*

STEP 2 Raise the top *(section 11, proc. A).*

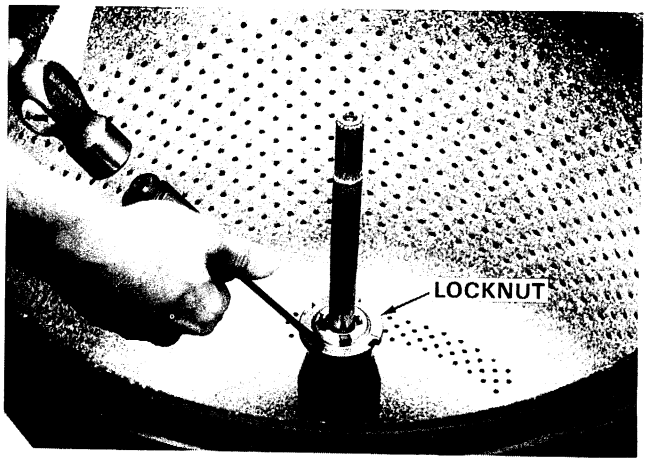
STEP 3 Remove the snubber and spring *(section 12, proc. A).*

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

STEP 5 Remove the triple dispenser if used *(section 15, proc. G).*

STEP 6 Remove the tub ring and clips *(section 12, proc. C; Type A or B).*

STEP 7 Remove the agitator cap, stud, and agitator *(section 12, proc. D; Type A, B or C).*



⚠ WARNING

Personal Injury Hazard

- We recommended wearing safety glasses and gloves when hitting the spanner {lock} nut or drive block
- 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 property damage.

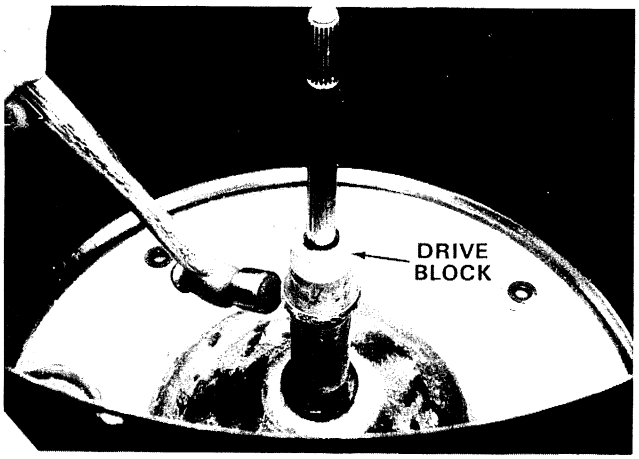
NOTE: This locknut is made of soft metal and may be damaged by hitting too hard.

STEP 8 Insert a screwdriver into one of the slots on the locknut.

STEP 9 Using a hammer, tap the end of the screwdriver, turning the locknut to the left to remove.

STEP 10 Carefully remove the basket by lifting straight up.

STEP 11 Remove the ring filter from the bottom of the basket if used *(section 13, proc. C, Type D).*

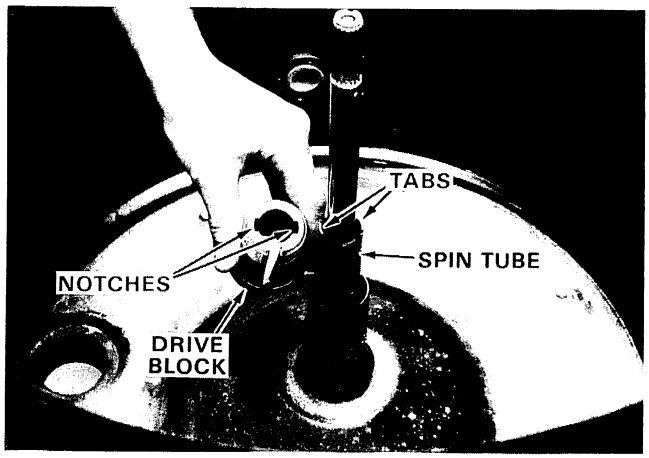


NOTE: This drive block is made of soft metal and may be damaged by hitting too hard.

STEP 12 Using a hammer, carefully tap up from the bottom of the drive block to remove.

REPLACEMENT

STEP 13 Place the drive block on the spin tube.



STEP 14 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 15 Replace the ring filter on the bottom of the basket if used *(section 13, proc. C; Type D).*

STEP 16 Place the basket on top of the drive block.

STEP 17 Place the locknut on the drive block, turning to the right.

⚠ WARNING

Personal Injury Hazard

- We recommended wearing safety glasses and gloves when hitting the spanner {lock} nut or drive block
- 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 property damage.

NOTE: This locknut is made of soft metal and may be damaged by hitting too hard.

STEP 18 Insert a screwdriver into one of the slots on the locknut.

STEP 19 Using a hammer, tap the end of the screwdriver, turning the locknut to the right until it's very tight.

STEP 20 Replace the stud, agitator and cap *(section 12, proc. D; Type A, B or C).*

STEP 21 Replace the tub ring and clips *(section 12, proc. C; Type A or B).*

STEP 22 Using pliers, replace the hose on the port of the water inlet and slide the clamp up the hose and onto the port.

STEP 23 Replace the snubber and spring *(section 12, proc. A).*

STEP 24 Replace the triple dispenser if used *(section 15, proc. G).*

⚠ 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.

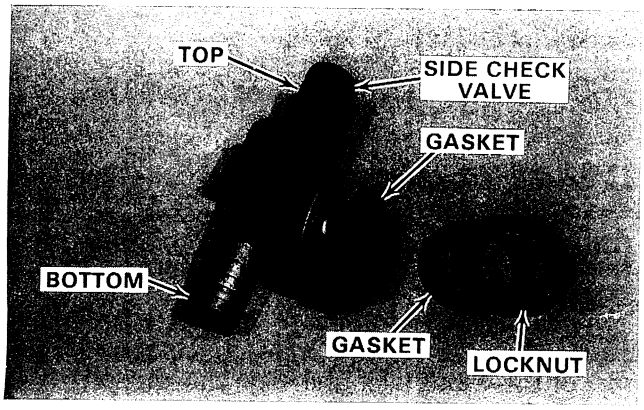
STEP 25 Lower the top *(section 11, proc. A).*

STEP 26 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

STEP 27 Run a cycle check *(section 6, proc. B, section 9, steps 1-4).*

PROCEDURE F
Side Check Valve Replacement

SIDE CHECK VALVE NOT USED ON ALL MODELS—USED ON MODELS HAVING THE SELF-CLEAN FILTER



See page 168, illus. no. 71 for location of part.

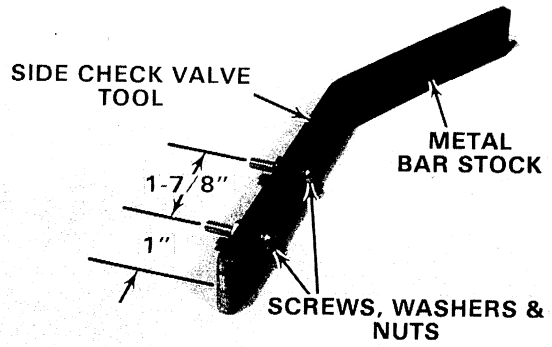
⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- 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.

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.



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 each of #10 x 1/2-inch machine screws, flat washers and nuts and assemble them in the holes.

STEP 4 Disconnect the electrical power supply *(section 2)*.

STEP 5 Raise the top *(section 11, proc. A)*.

STEP 6 Remove the snubber and spring *(section 12, proc. A)*.

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

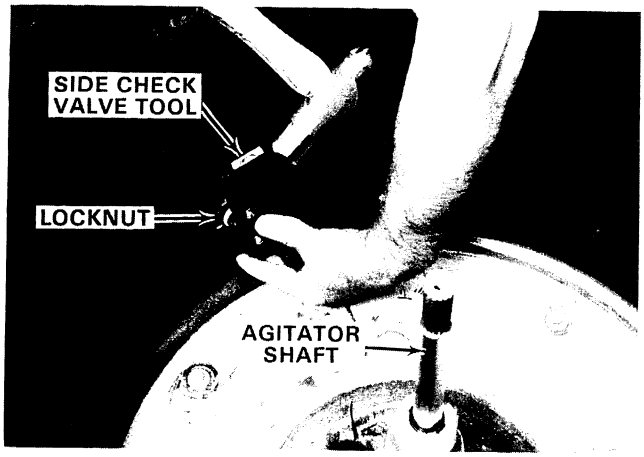
STEP 7 Using pliers, slide the clamp off the port to the water inlet and remove the hose.

STEP 8 Remove the triple dispenser if used *(section 15, proc. G)*.

STEP 9 Remove the tub ring and clips *(section 12, proc. C; Type A or B)*.

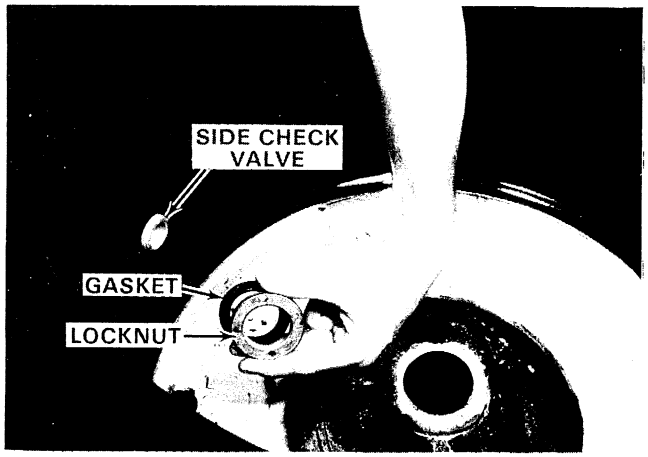
STEP 10 Remove the agitator cap, stud, and agitator *(section 12, proc. D; Type A, B or C)*.

STEP 11 Remove the basket *(section 12, proc. E)*.

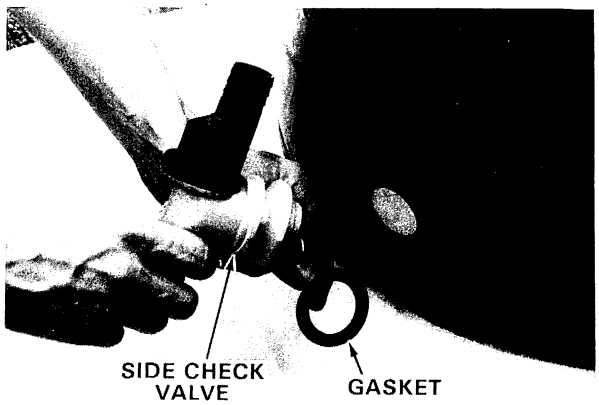


STEP 12 Place the homemade tool screws in the holes of the locknut located on the inside of the tub.

STEP 13 Using a hammer, tap the tool to loosen the locknut.



STEP 14 Remove the fiber gasket and locknut from the inside of the tub.



STEP 15 Remove the side check valve and rubber gasket from the outside of the tub.

STEP 16 Using pliers, slide the clamps off the ports of the valve.

STEP 17 Remove the two hoses from the side check valve.

STEP 18 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 F for top and bottom.

STEP 19 Place the side check valve on the two hoses.

STEP 20 Using pliers, slide the clamps onto the ports of the side check valve.

STEP 21 Replace the rubber gasket on the valve and insert into the tub.

STEP 22 Replace the fiber gasket from inside the tub.

STEP 23 Replace the locknut from inside the tub.

STEP 24 Using the homemade tool, insert the screws in the holes of the locknut and tap the end with a hammer to tighten.

STEP 25 Replace the basket *(section 12, proc. E).*

STEP 26 Replace the stud, agitator, and cap *(section 12, proc. D; Type A, B or C).*

STEP 27 Replace the tub ring and clips *(section 12, proc. C; Type A or B).*

STEP 28 Using pliers, replace the hose on the port of the water inlet and slide the clamp up the hose and onto the port.

STEP 29 Replace the snubber and spring *(section 12, proc. A).*

STEP 30 Replace the triple dispenser if used *(section 15, proc. G).*

⚠ 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.

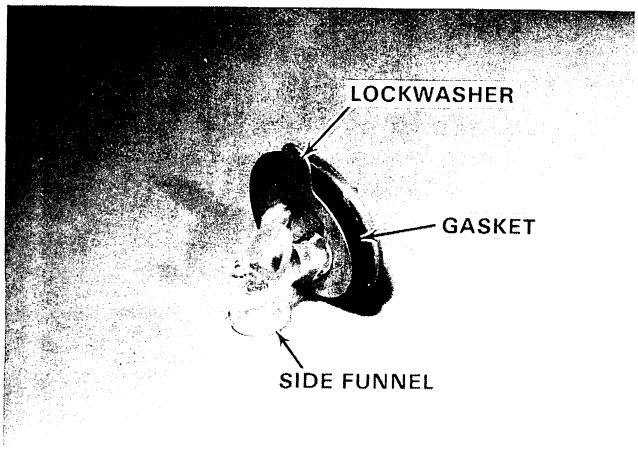
STEP 31 Lower the top *(section 11, proc. A).*

STEP 32 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

STEP 33 Run a cycle check *(section 6, proc. B, section 9, steps 1-4).*

PROCEDURE G
Side Funnel Replacement

SIDE FUNNEL NOT USED ON ALL MODELS—USED ON MODELS HAVING THE MANUAL CLEAN FILTER WITH THE SUDS SAVER SYSTEM



See page 168, illus. no. 65 for location of part.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- 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 2).*

STEP 2 Raise the top *(section 11, proc. A).*

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

STEP 3 Remove the snubber and spring *(section 12, proc. A).*

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

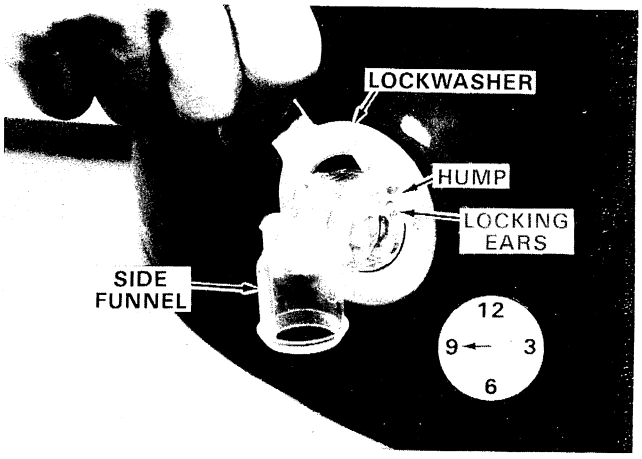
STEP 5 Remove the triple dispenser if used *(section 15, proc. G).*

STEP 6 Remove the tub ring and clips *(section 12, proc. C; Type A or B).*

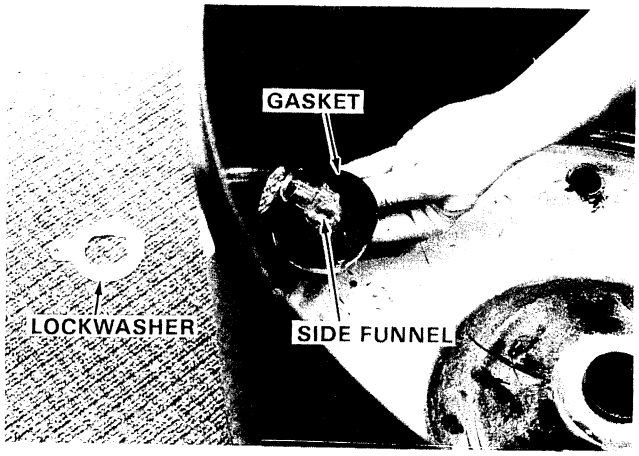
STEP 7 Remove the agitator cap, stud, and agitator *(section 12, proc. D; Type A, B or C).*

STEP 8 Remove the basket *(section 12, proc. E).*

STEP 9 Remove the hose from the side funnel.



STEP 10 Remove the lockwasher by turning to the left, past the locking ears of the funnel.



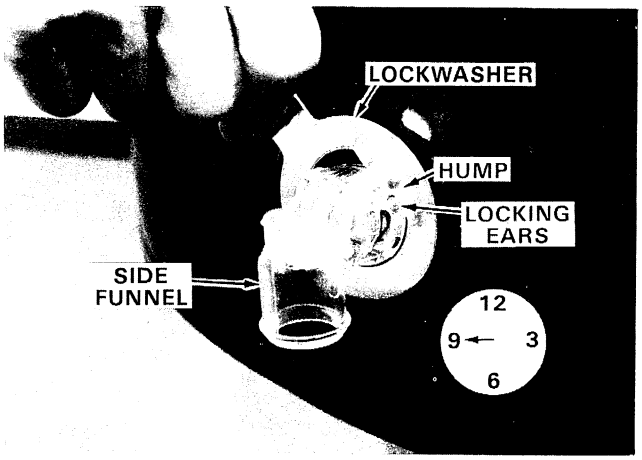
STEP 11 Remove the funnel and gasket from inside the tub. Check the funnel for any cracks.

STEP 12 Check and replace the funnel gasket if it has started to rot or crack or there is any sign of water leakage.

REPLACEMENT

STEP 13 Place the gasket on the funnel with the flat side facing the funnel flange.

STEP 14 Place the side funnel and gasket through the hole from inside the tub.



STEP 15 Place the lockwasher over the side funnel with the tab at the 9 o'clock position to clear the ears.

STEP 16 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 17 Replace the hose on the side funnel.

STEP 18 Replace the basket *(section 12, proc. E).*

STEP 19 Replace the stud, agitator, and cap *(section 12, proc. D; Type A, B or C).*

STEP 20 Replace the tub ring and clips *(section 12, proc. C; Type A or 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 12, proc. A).*

STEP 23 Replace the triple dispenser if used *(section 15, proc. G).*

⚠ WARNING

Electrical Shock Hazard

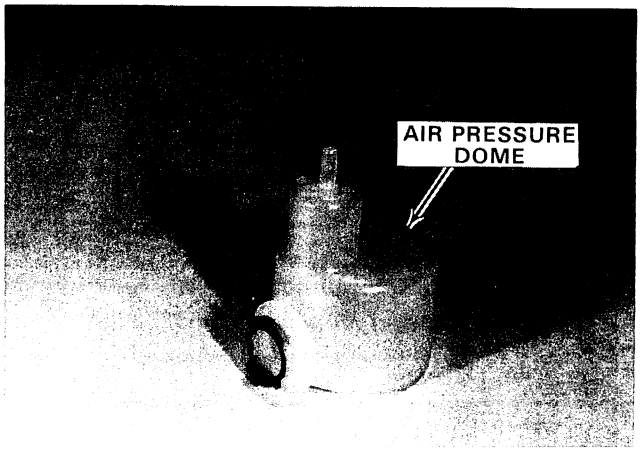
- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

STEP 24 Lower the top *(section 11, proc. A).*

STEP 25 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

STEP 26 Run a cycle check *(section 6, proc. B, section 9, steps 1-4).*

PROCEDURE H
Air Pressure Dome Replacement



See pages 23 and 168, illus. no. 29 for location of part.

⚠ WARNING

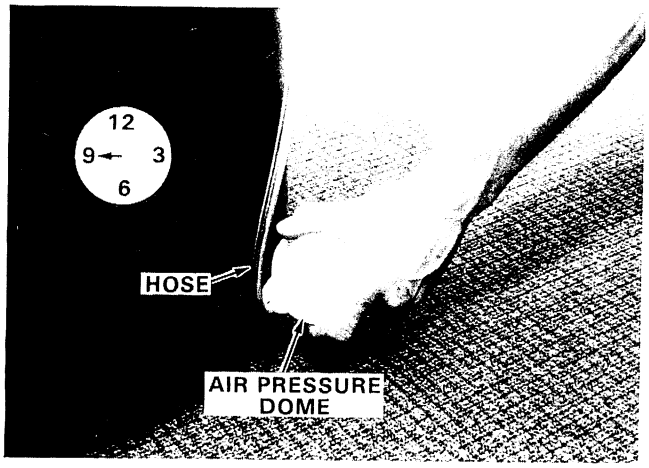
Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- 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 2).*

STEP 2 Raise the top *(section 11, proc. A).*



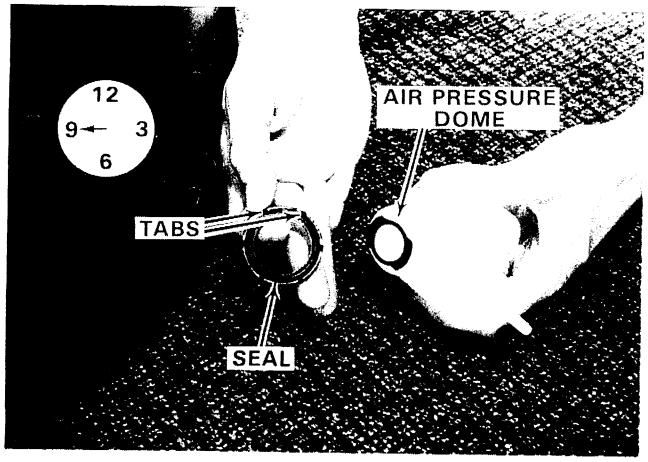
STEP 3 Remove the air pressure dome by pressing in and turning to the left to the 9 o'clock position.

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 air pressure dome.



STEP 7 Place the 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 11, proc. A).*

STEP 11 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

STEP 12 Run a cycle check *(section 6, proc. B, section 9, steps 1-4).*

PROCEDURE I
Tub Replacement

See pages 23 and 168, illus. no. 14 for location of part.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- 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 2).*

STEP 2 Raise the top *(section 11, proc. A).*

STEP 3 Remove the snubber and spring *(section 12, proc. A).*

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

STEP 4 Remove the triple dispenser if used *(section 15, proc. G).*

STEP 5 Using pliers, slide the clamp off the port to the water inlet and remove the hose.

STEP 6 Remove the tub ring and clips *(section 12, proc. C; Type A or B).*

STEP 7 Remove the agitator cap, stud, and agitator *(section 12, proc. D; Type A, B or C).*

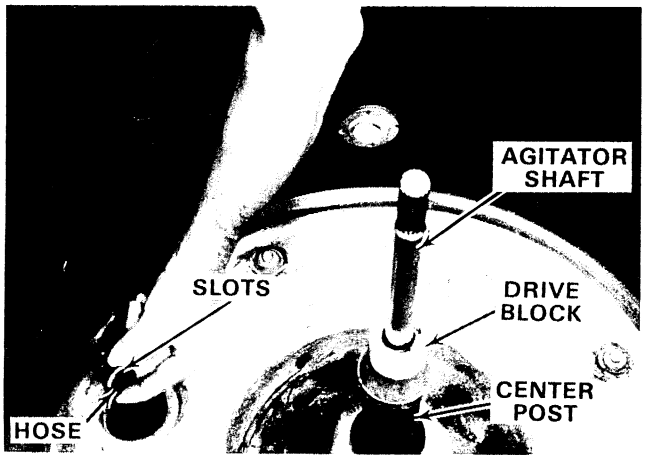
STEP 8 Remove the locknut, basket and drive block *(section 12, proc. E).*

STEP 9 Remove the tub-mounted filter if used *(section 13, proc. C; Type B).*

STEP 10 Remove the side check valve if used *(section 12, proc. F).*

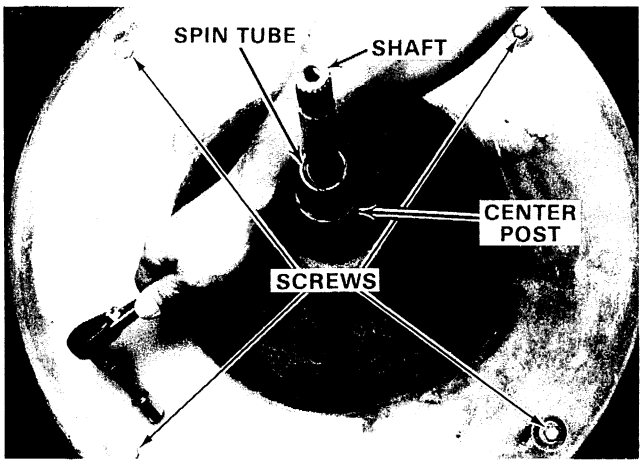
STEP 11 Remove the side funnel if used *(section 12, proc. G).*

STEP 12 Remove the air pressure dome *(section 12, proc. H).*



STEP 13 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 14 Using a socket wrench, nutdriver or screwdriver, remove the four screws at the bottom of the tub.

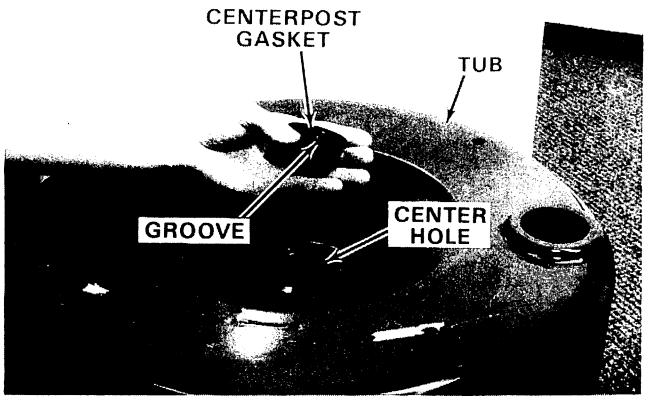
STEP 15 Clean the centerpost by scraping deposits off of it.

STEP 16 Wash the centerpost with mild soap, leaving soap on the centerpost.

STEP 17 Carefully remove the tub by pulling straight up.

The centerpost gasket should slide up the soapy centerpost when lifting the tub.

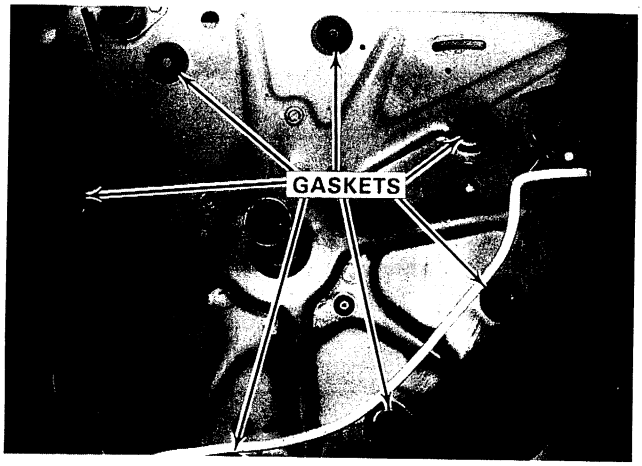
REPLACEMENT



STEP 18 Replace the centerpost gasket by removing from the bottom of the tub.

STEP 19 Place the gasket in the center hole from the bottom of the tub.

A groove in the gasket locks it in place on the tub.

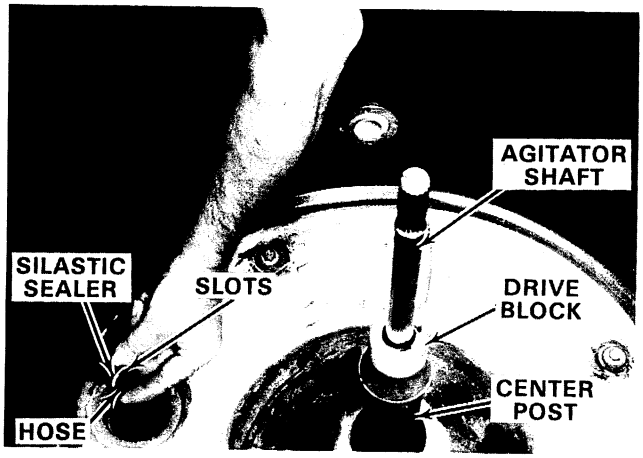


STEP 20 Make sure the round cork pads are cemented on the baseplate. This is to protect the bottom finish on the tub.

STEP 21 Lubricate the centerpost with mild soap, then slide the tub and gasket down the centerpost.

STEP 22 Make sure the holes in the tub line up with the parts that have to be assembled.

STEP 23 Using a socket wrench, nutdriver or screwdriver, insert the four screws in the bottom of the tub.



STEP 24 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 25 Replace the air pressure dome *(section 12, proc. H).*

STEP 26 Replace the side funnel if used *(section 12, proc. G).*

STEP 27 Replace the side check valve if used *(section 12, proc. F).*

STEP 28 Replace the tub-mounted filter if used *(section 13, proc. C; Type B).*

STEP 29 Replace the drive block, basket and locknut *(section 12, proc. E).*

STEP 30 Replace the stud, agitator, and cap *(section 12, proc. D; Type A, B or C).*

STEP 31 Replace the tub ring and clips *(section 12, proc. C; Type A or B).*

STEP 32 Using pliers, replace the hose on the port of the water inlet and slide the clamp up the hose and onto the port.

STEP 33 Replace the snubber and spring *(section 12, proc. A).*

STEP 34 Replace the triple dispenser if used *(section 15, proc. G).*

⚠ 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 35 Lower the top *(section 11, proc. A).*

STEP 36 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

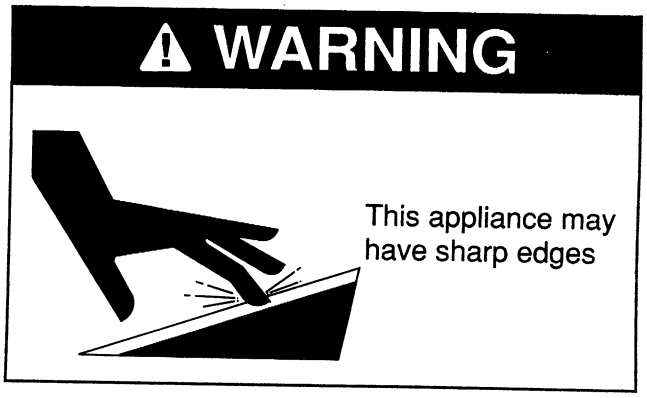
STEP 37 Run a cycle check *(section 6, proc. B, section 9, steps 1-4).*

NOTES

SECTION 13

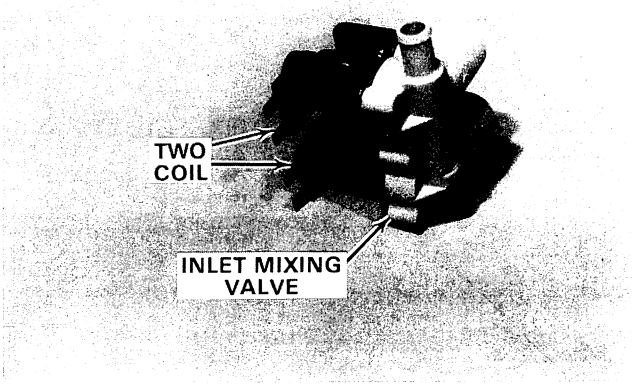
Water Flow Area

SECTION 1 MUST BE CAREFULLY READ BEFORE ANY REPAIR OR TESTING PROCEDURES ARE ATTEMPTED.



PROCEDURE A

Inlet Mixing Valve Testing and/or Replacement



See pages 23 and 172, illus. no. 33 for location of part.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- 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.

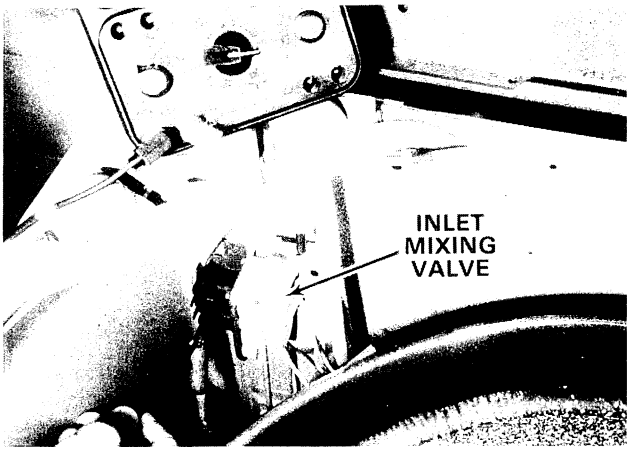
The single-coil inlet valve is mainly a shut-off valve for controlling water entering the machine. This is a single port valve used with a "Y" hose. Adjustments to hot and cold water are made at the faucets.

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 2).*

STEP 2 Raise the top *(section 11, proc. A).*



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 to 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 to 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. REPLACE THE MIXING VALVE OR HAVE THIS CONDITION CHECKED BY RUNNING A VOLTAGE CHECK. FOR YOUR PERSONAL SAFETY, THIS CHECK MUST BE DONE BY A QUALIFIED SERVICE TECHNICIAN.

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.

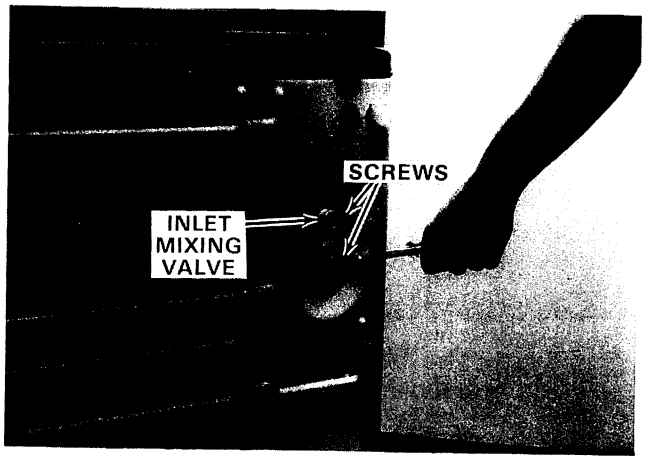
STEP 15 Using a pail, drain the excess water from this hose.

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 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 11, proc. A).*

STEP 27 Using pliers, attach the inlet hoses to the proper ports on the inlet mixing valve.

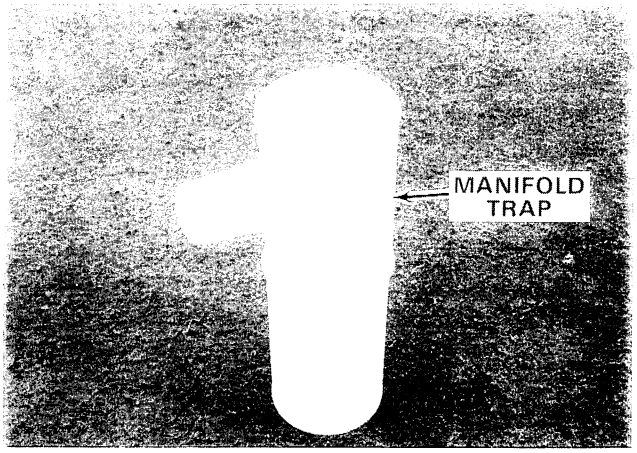
STEP 28 Turn on the hot and cold water faucets, and check for leaks.

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 2 for the proper reconnection.

STEP 31 Run a cycle check *(section 6, proc. B, section 9, steps 1-4).*

PROCEDURE B
Manifold Trap Replacement



See pages 23 and 168, illus. no. 52 for location of part.

⚠ WARNING

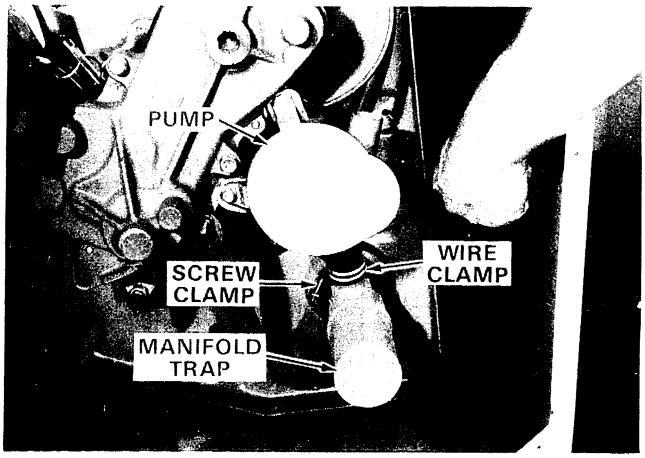
Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- 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 2).*

STEP 2 See access to parts *(section 14, proc. A).*



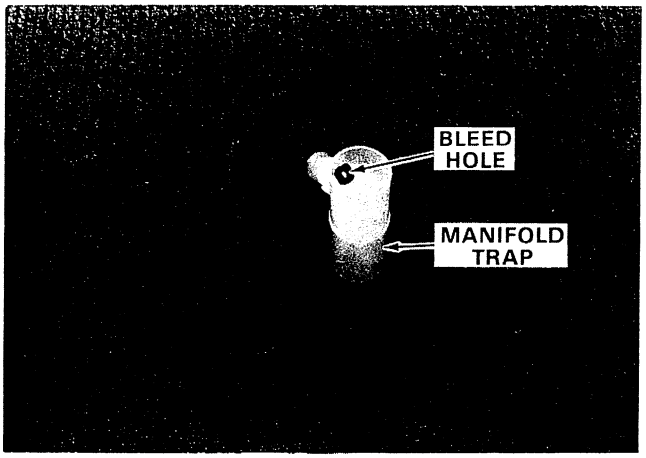
NOTE: Care should be taken when removing hoses as they may have water in them.

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 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

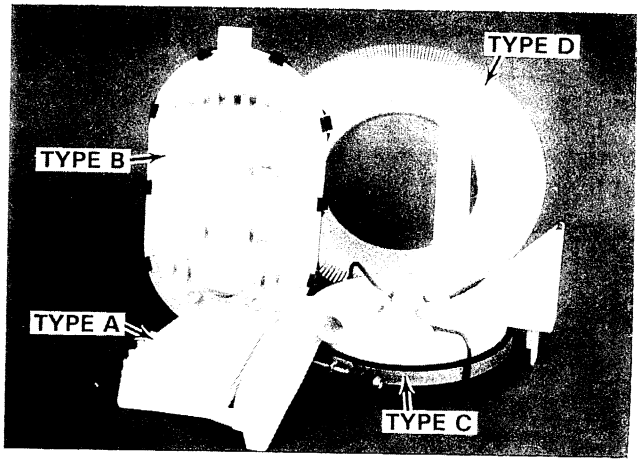
- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

STEP 9 See access to parts *(section 14, proc. A).*

STEP 10 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

STEP 11 Run a cycle check *(section 6, proc. B, section 9, steps 1-4).*

PROCEDURE C
Filter Replacement



See pages 23 and 168, illus. no. 5 or 64 for location of parts.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- Failure to do so could result in personal injury or death.

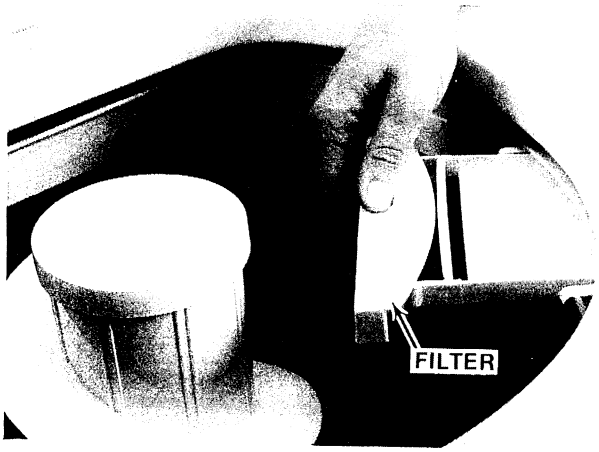
There are two types of filters that are used on automatic washers: manual or self-clean filters. With the manual clean filter, we recommend that the homeowner clean out the filter after every use. The self-cleaning filter is automatically cleaned when the water is pumped out of the automatic washer.

See Type A for the manual clean filter, Type B for the self-clean tub-mounted filter, Type C for the self-clean pancake (flat) filter ,or Type D for the self-clean ring filter.

TYPE A

This type filter is located on the right side of the tub ring, underneath the top.

STEP 1 Lift the lid.



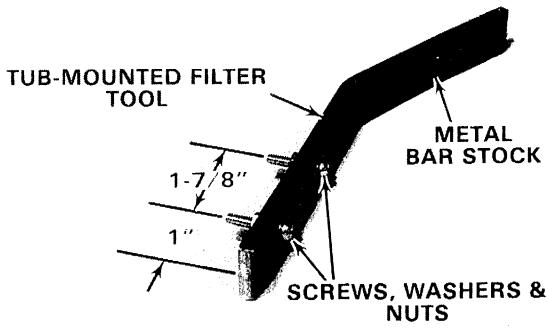
STEP 2 Remove by depressing the handle and pulling toward the center of the washer, then clean the filter.

STEP 3 To replace, insert the filter into the housing until it snaps into place.

TYPE B

This type filter is located in the back left corner on the tub.

STEP 1 Disconnect the electrical power supply *(section 2).*



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 each of #10 x 1/2-inch machine screws, flat washers and nuts and assemble them in the holes.

STEP 5 Raise the top *(section 11, proc. A)*.

STEP 6 Remove the triple dispenser, if used *(section 15, proc. G)*.

STEP 7 Remove the snubber and spring *(section 12, proc. A)*.

STEP 8 Using pliers, slide the clamp off the port to the inlet valve and remove the hose.

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

STEP 9 Remove the tub ring and clips *(section 12, proc. C; Type A or B)*.

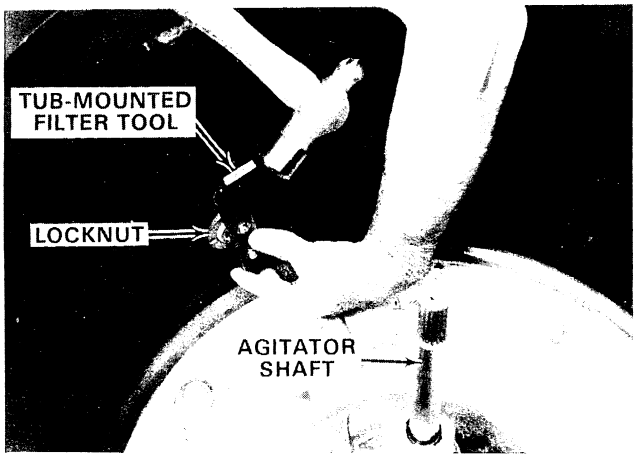
STEP 10 Remove the agitator cap, stud and agitator *(section 12, proc. D; Type A, B or C)*.

STEP 11 Remove the basket *(section 12, proc. E)*.

⚠ WARNING

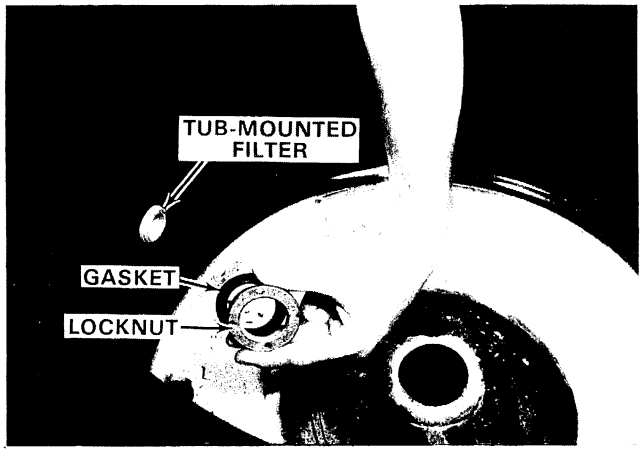
Personal Injury Hazard

- We recommend wearing safety glasses when hitting or prying.
- Failure to do so could result in personal injury to the eyes.

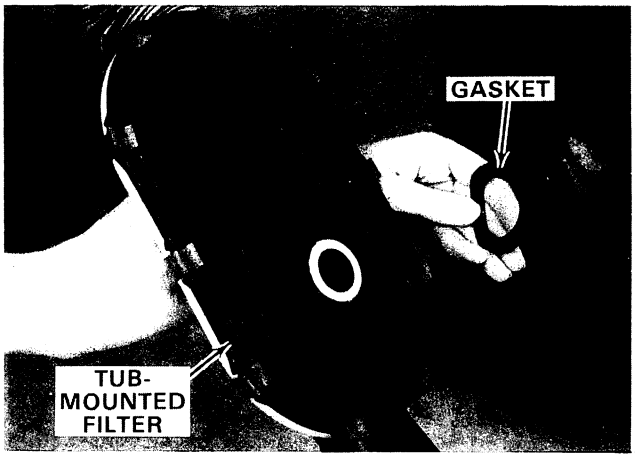


STEP 12 Place the homemade tool screws in the holes of the locknut located on the inside of the tub.

STEP 13 Using a hammer, tap the tool to the left to loosen the locknut.



STEP 14 Remove the fiber gasket and locknut from the inside of the tub.



STEP 15 Remove the tub-mounted filter and rubber gasket from the outside of the tub.

STEP 16 Using pliers, slide the clamps off the ports of the filter.

STEP 17 Remove the two hoses from the filter.

REPLACEMENT

STEP 18 Place the tub-mounted filter on the two hoses.

STEP 19 Using pliers, slide the clamps onto the ports of the filter.

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

STEP 21 Replace the fiber gasket from inside the tub.

STEP 22 Replace the 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 12, proc. E).*

STEP 25 Replace the stud, agitator and cap *(section 12, proc. D; Type A, B or C).*

STEP 26 Replace the tub ring and clips *(section 12, proc. C; Type A or 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 12, proc. A).*

STEP 29 Replace the triple dispenser if used *(section 15, proc. G).*

⚠ 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 11, proc. A).*

STEP 31 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

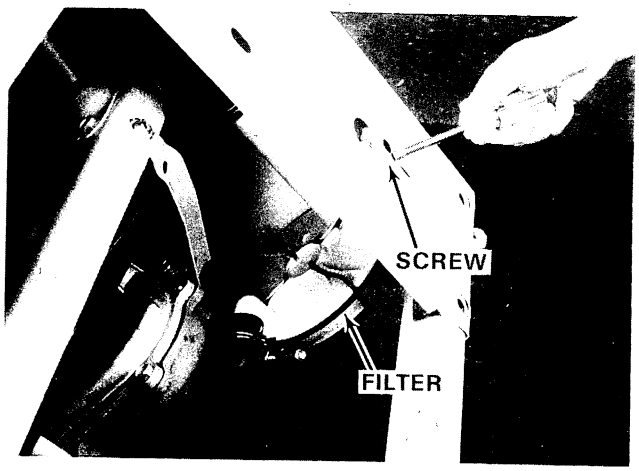
STEP 32 Run a cycle check *(section 6, proc. B, section 9, steps 1-4).*

TYPE C

This type filter is located in the left rear corner, on the cabinet.

STEP 1 Disconnect the electrical power supply *(section 2).*

STEP 2 Using a screwdriver or nutdriver, remove the rear service panel.



STEP 3 Using a screwdriver or nutdriver, remove the screw(s) 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.

STEP 6 Using pliers, replace the hoses and slide the hose clamps over the filter ports.

STEP 7 Using a screwdriver or nutdriver, place the filter in the rear of the cabinet. Insert the screw(s) and tighten.

⚠ 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 Using a screwdriver or nutdriver, replace the rear service panel and screws.

STEP 9 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

STEP 10 Run a cycle check *(section 6, proc. B, section 9, steps 1-4).*

TYPE D

This type filter is located under the basket.

STEP 1 Disconnect the electrical power supply *(section 2).*

STEP 2 Raise the top *(section 11, proc. A).*

STEP 3 Remove the triple dispenser if used *(section 15, proc. G).*

STEP 4 Remove the snubber and spring *(section 12, proc. A).*

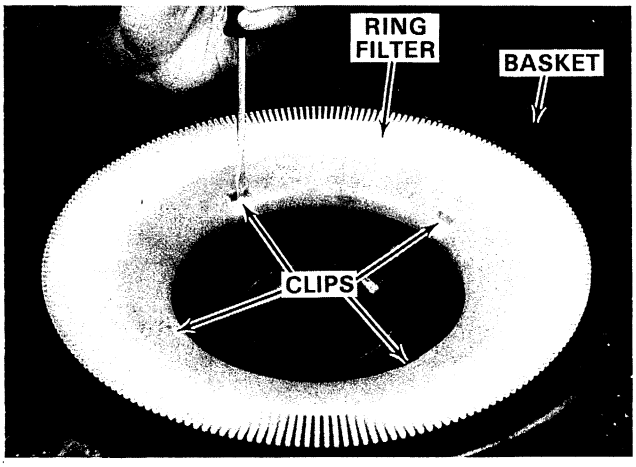
STEP 5 Using pliers, slide the clamp off the port to the inlet valve and remove the hose.

STEP 6 Remove the tub ring and clips *(section 12, proc. C; Type A or B).*

STEP 7 Remove the agitator cap, stud and agitator *(section 12, proc. D; Type A, B or C).*

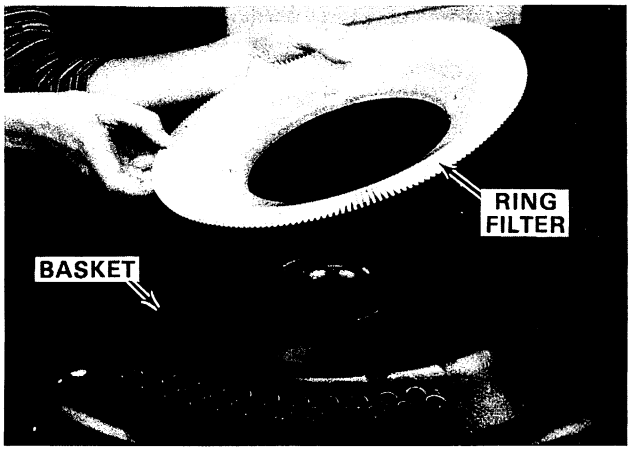
STEP 8 Remove the basket *(section 12, proc. E).*

STEP 9 Turn the basket over.



STEP 10 Using a screwdriver, punch out the four clips holding the filter to the bottom of the basket.

REPLACEMENT



STEP 11 Place the ring filter on the bottom of the basket.

STEP 12 Push the four clips on from inside the basket and into the new filter.

STEP 13 Replace the basket *(section 12, proc. E).*

STEP 14 Replace the stud, agitator and cap *(section 12, proc. D; Type A, B or C).*

STEP 15 Replace the tub ring and clips *(section 12, proc. C; Type A, or B).*

STEP 16 Using pliers, replace the hose on the port of the water inlet and slide the clamp up the hose and onto the port.

STEP 17 Replace the snubber and spring *(section 12, proc. A).*

STEP 18 Replace the triple dispenser if used *(section 15, proc. G).*

⚠ WARNING

Electrical Shock Hazard

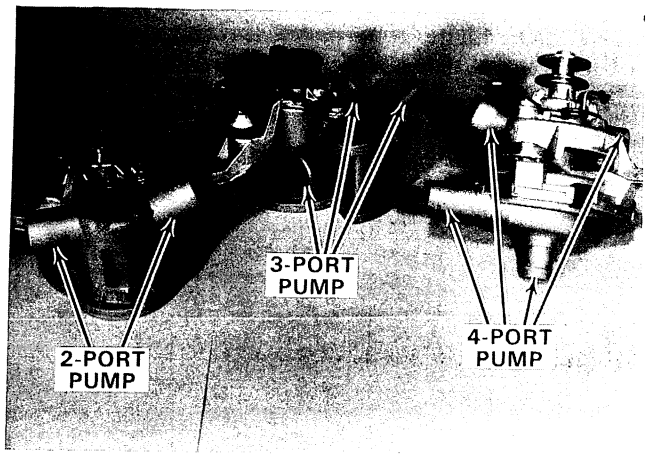
- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

STEP 19 Lower the top *(section 11, proc. A).*

STEP 20 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

STEP 21 Run a cycle check *(section 6, proc. B, section 9, steps 1-4).*

PROCEDURE D
Pump Replacement



See pages 23 and 168, illus. no. 57 for location of part.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- 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.

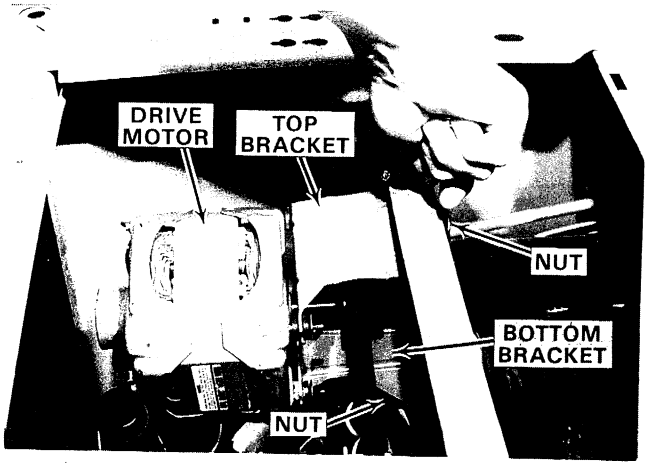
These pumps are mounted to the gearcase by two mounting bolts.

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 2).*

STEP 2 See access to parts *(section 14, proc. A).*



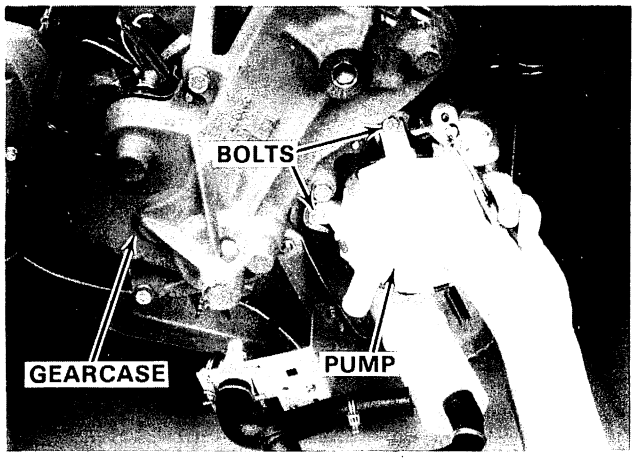
STEP 3 Using an open end wrench and a socket wrench, loosen the two main drive motor nuts.

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.

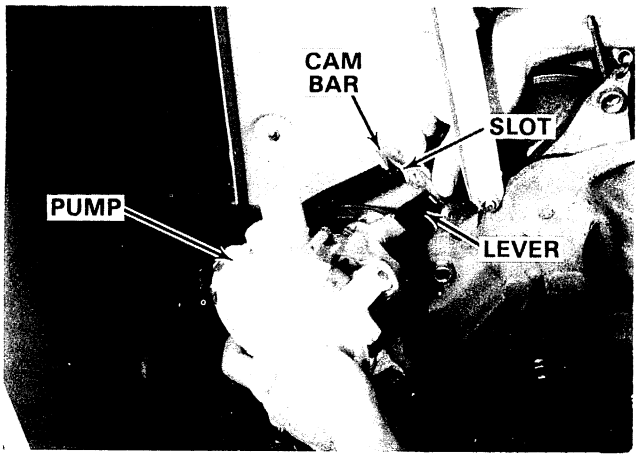


STEP 7 Using a socket wrench, remove the two bolts holding the pump to the gearcase.

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

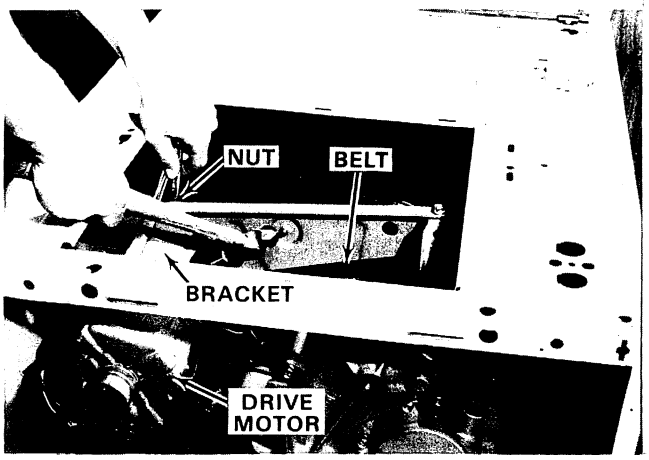


STEP 10 Place the pump on the gearcase, making sure the pump lever is in the slot of the agitator cam bar on the gearcase.

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.

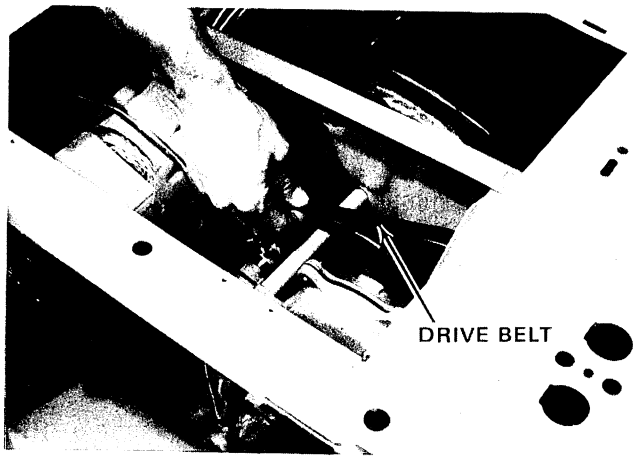
STEP 13 Replace the drive belt on the four pulleys.



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.

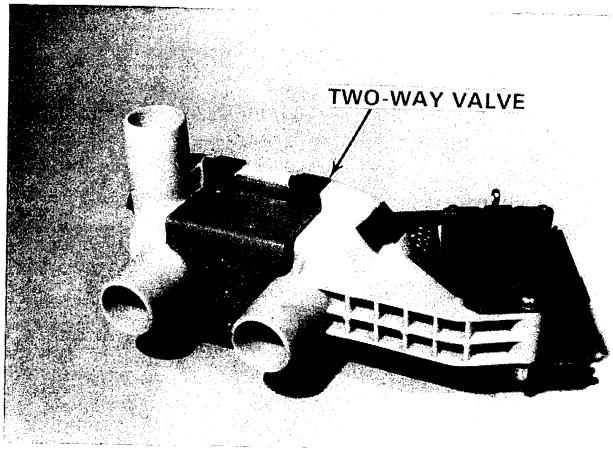
STEP 18 See access to parts *(section 14, proc. A).*

STEP 19 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

STEP 20 Run a cycle check *(section 6, proc. B, section 9, steps 1-4).*

PROCEDURE E
Two-Way Valve Testing and/or Replacement

TWO-WAY VALVE NOT USED ON ALL MODELS



See page 173, illus. no. 15 for location of part.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- 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 drainports 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 2).*

STEP 2 Using a screwdriver or nutdriver, remove the rear service panel.

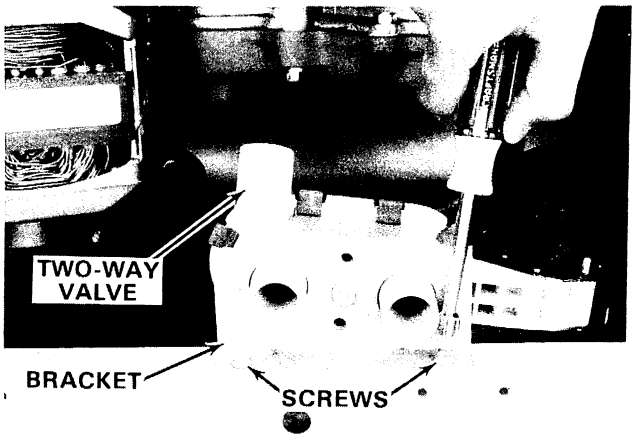
TESTING

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.

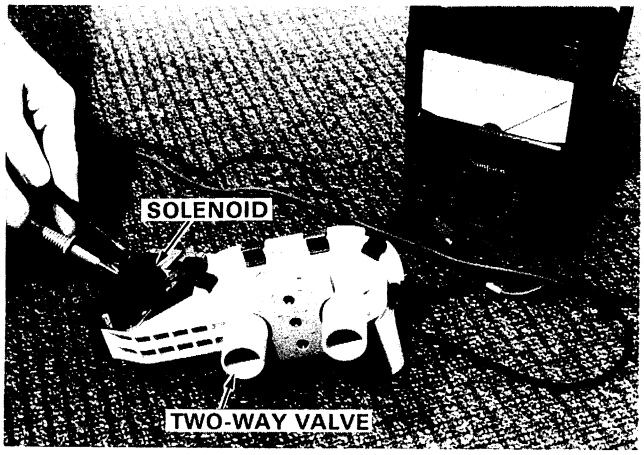
STEP 4 To remove the two-way valve, use pliers and slide the clamps off the ports.

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 to 15 ohms. Set the ohms scale and **ZERO** the meter.

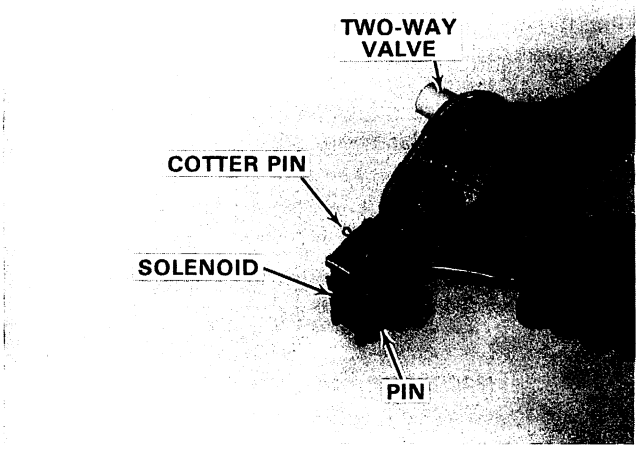
STEP 10 Touch one of the ohmmeter probes to one of the terminals on the solenoid.

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 solenoid on the 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 2 for the proper reconnection.

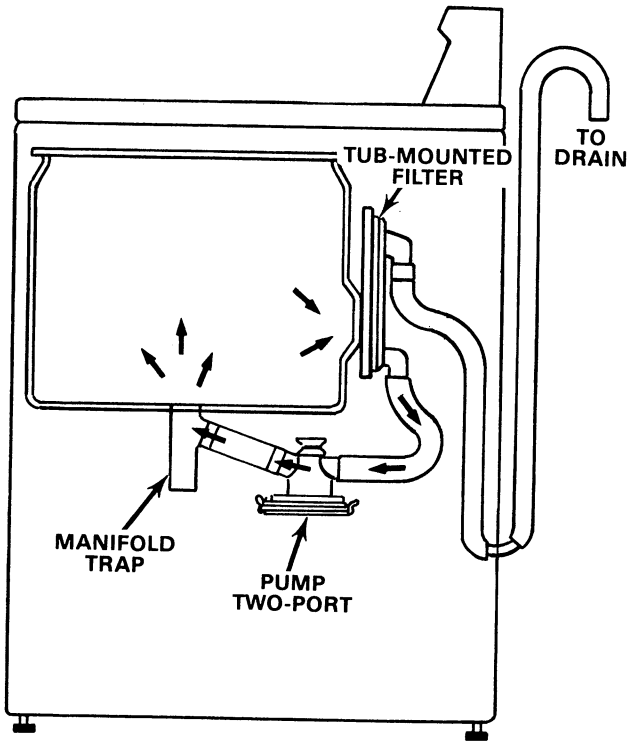
STEP 26 Run a cycle check *(section 6, proc. B, section 9, steps 1-4).*

PROCEDURE F
Water Flow

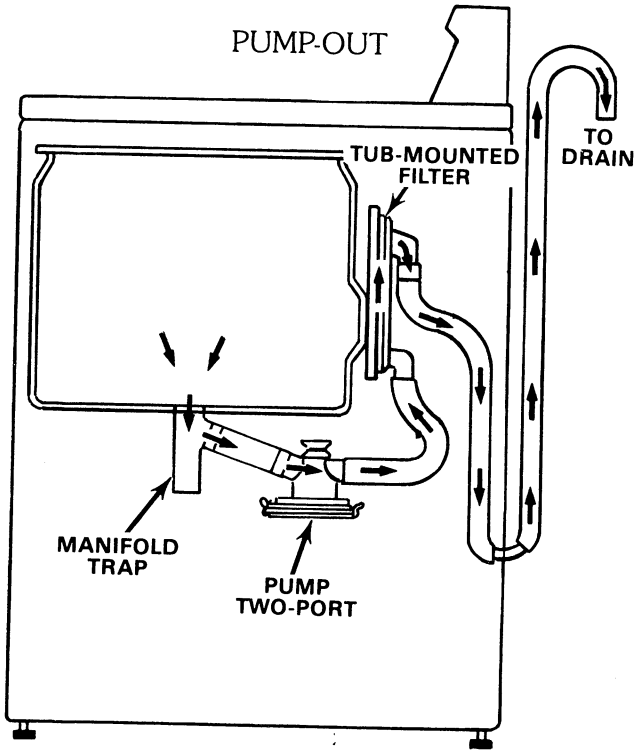
Water systems contain valves, pumps, filters and hoses. Their function is to fill the tub with water, filter the water, send water to storage tubs, only to recall the water later, then to drain the water from the automatic washer.

MANUAL CLEAN FILTER WATER FLOW (Suds Saver Models)

FILTERING



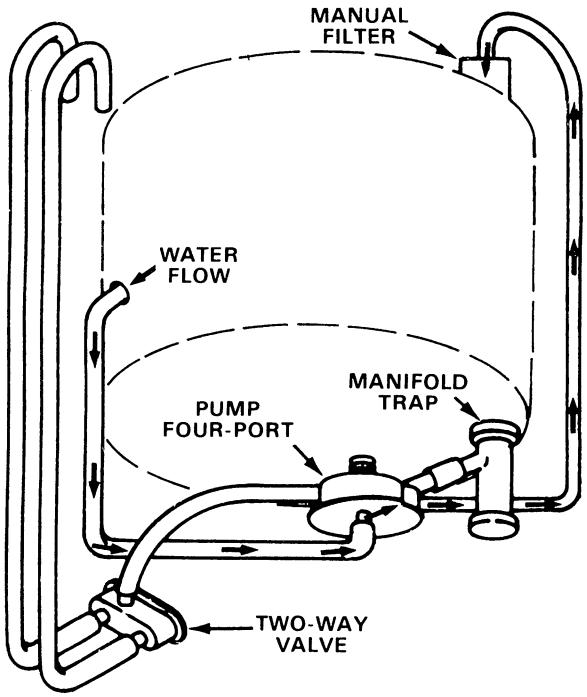
PUMP-OUT



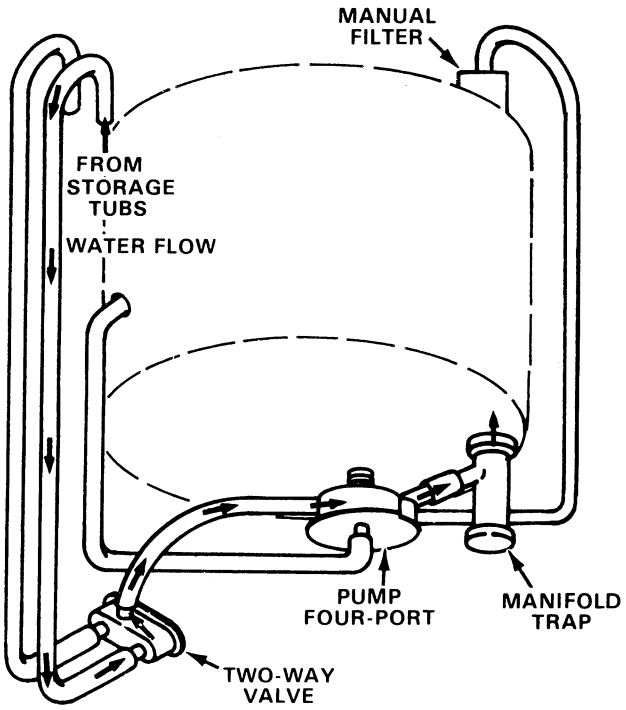
SELF-CLEANING FILTER WATER FLOW

TUB-MOUNTED FILTER (Non-Suds Saver Models)

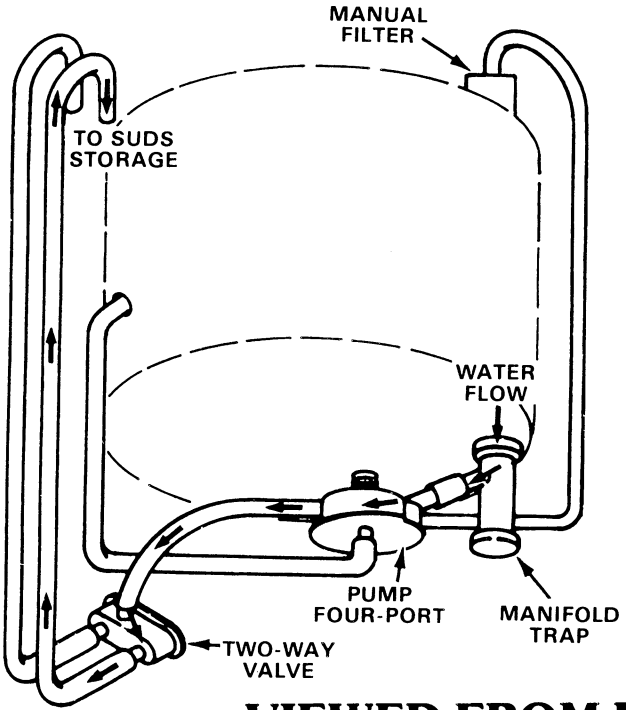
FILTERING



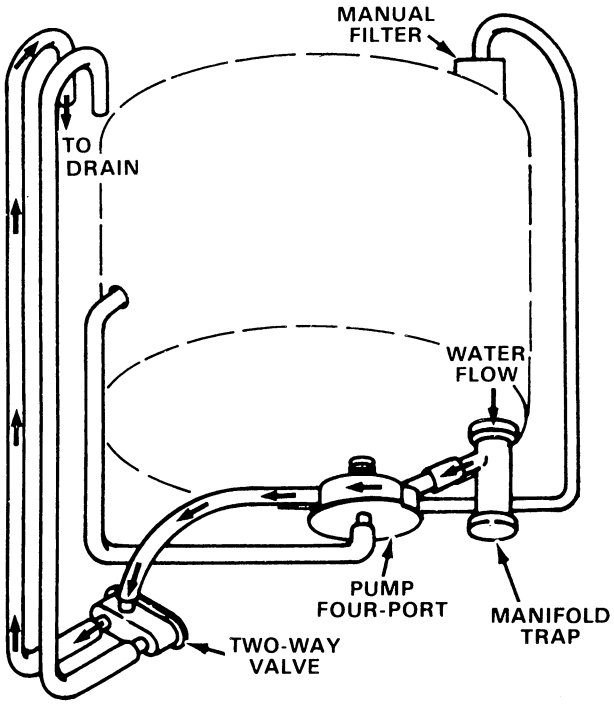
FROM SUDS WATER STORAGE TUBS



TO SUDS WATER STORAGE TUBS



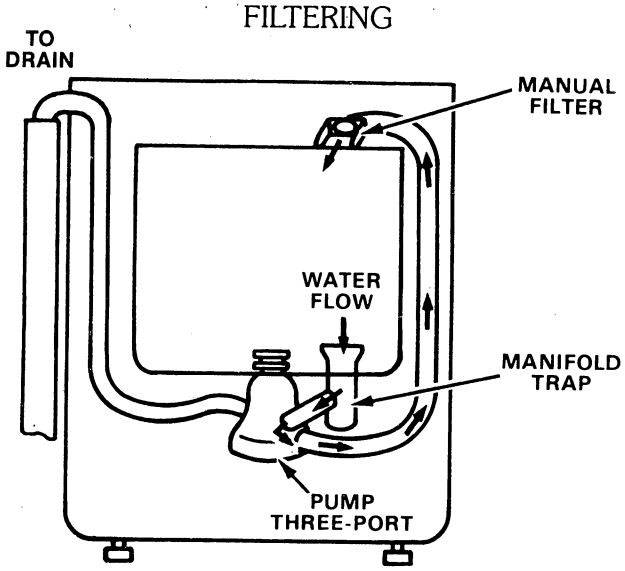
PUMP-OUT



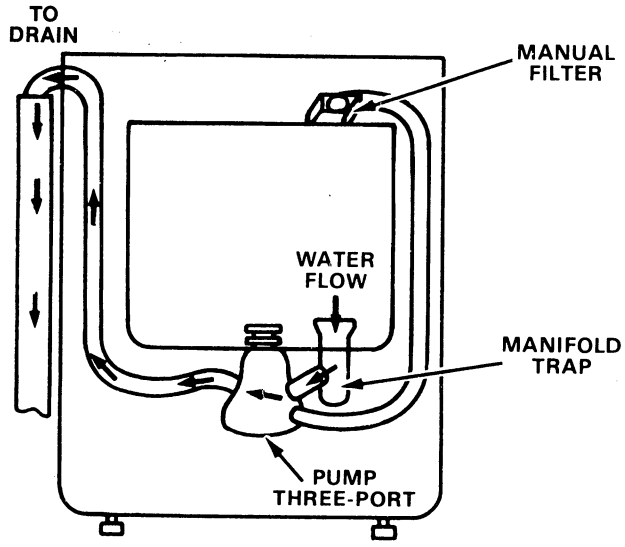
VIEWED FROM BACK OF WASHER

MANUAL CLEAN FILTER WATER FLOW (Non-Suds Saver Models)

FILTERING



PUMP-OUT

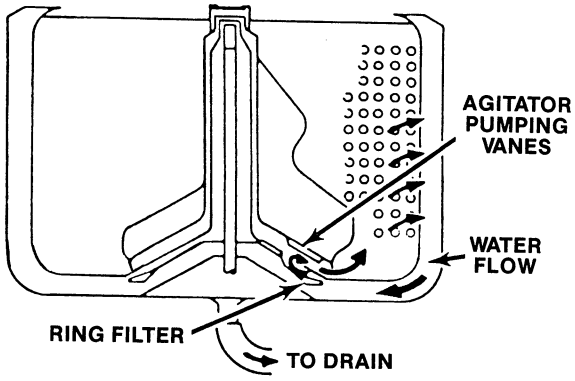


VIEWED FROM SIDE OF WASHER

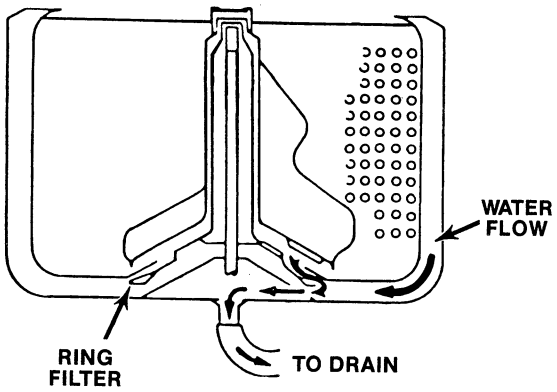
SELF-CLEANING FILTER WATER FLOW

RING FILTER (Non-Suds Saver Models)

FILTERING



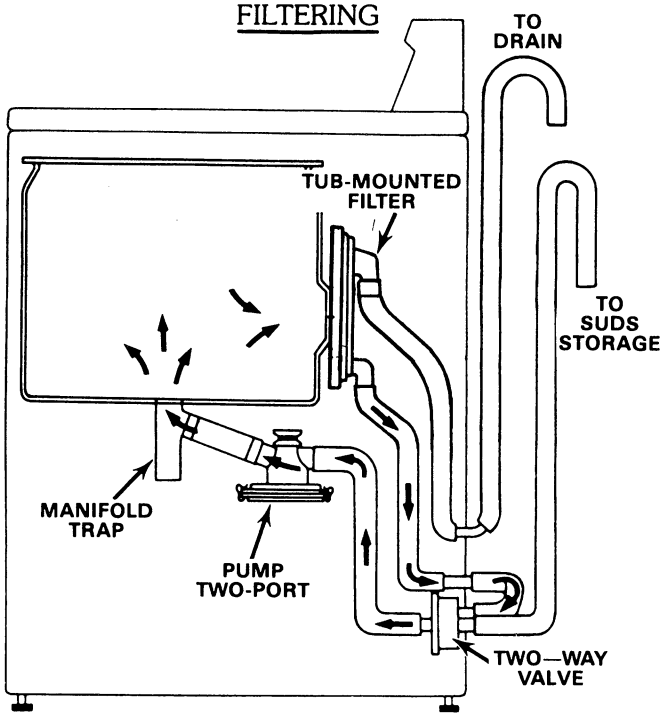
PUMP-OUT



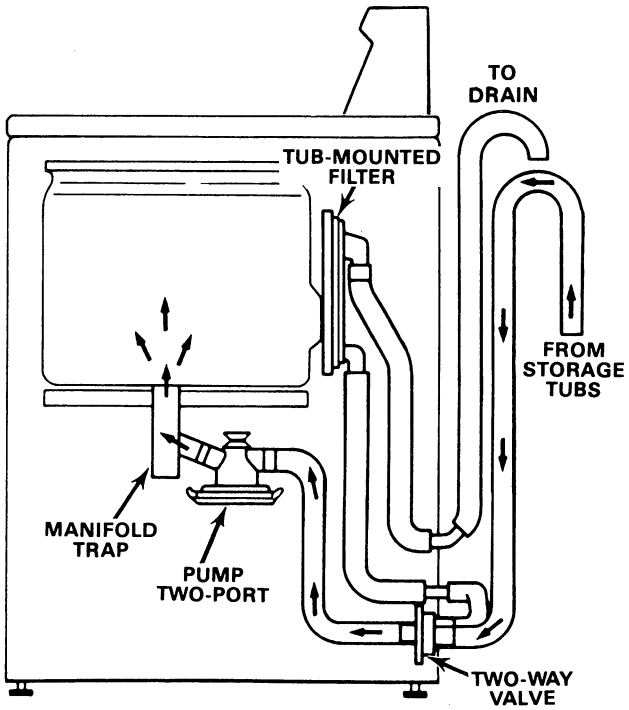
SELF-CLEANING FILTER WATER FLOW

TUB-MOUNTED FILTER (Suds Saver Models)

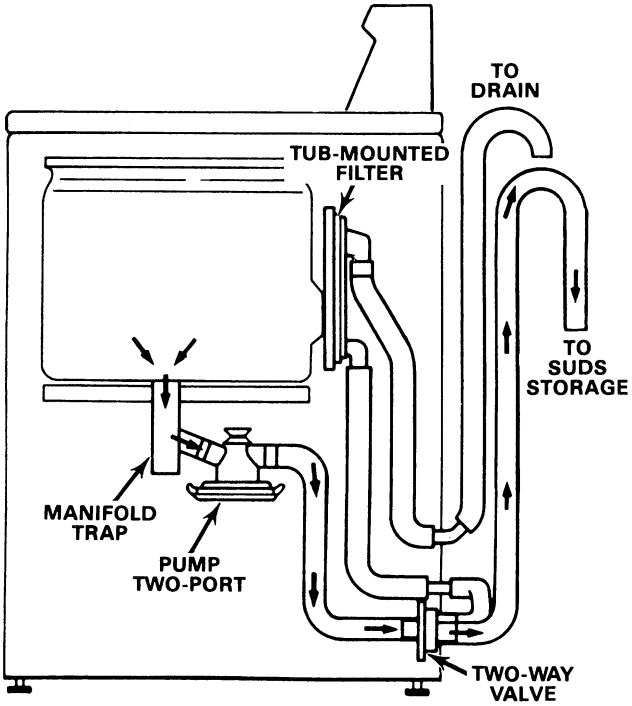
FILTERING



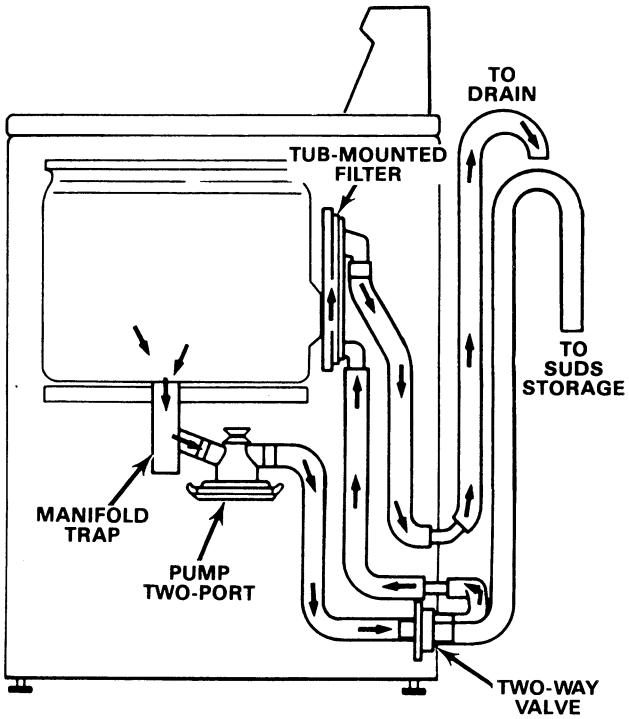
FROM SUDS WATER STORAGE TUBS



TO SUDS WATER STORAGE TUBS



PUMP-OUT

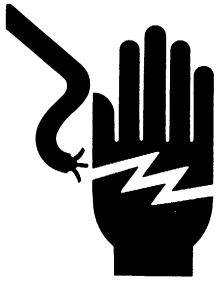


SECTION 14

Service Below the Tub Area

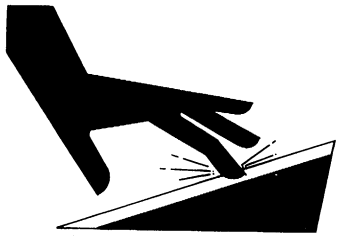
SECTION 1 MUST BE CAREFULLY READ BEFORE ANY REPAIR OR TESTING PROCEDURES ARE ATTEMPTED.

⚠ WARNING



Disconnect power before servicing

⚠ WARNING



This appliance may have sharp edges

*If you do not feel you can do these procedures, call your nearest SEARS Service Center for servicing.

USE FSP PARTS

PROCEDURE A
Access to Parts

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- Failure to do so could result in personal injury or death.

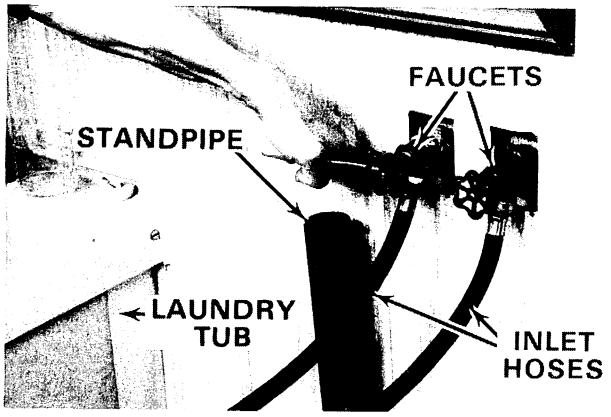
STEP 1 Disconnect the electrical power supply *(section 2)*.

⚠ 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

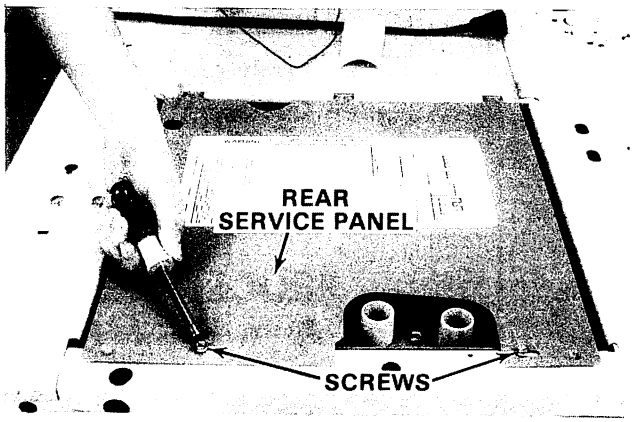
Personal Injury Hazard / Product Damage

- The automatic washer is very heavy. Get someone 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 on its back 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 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

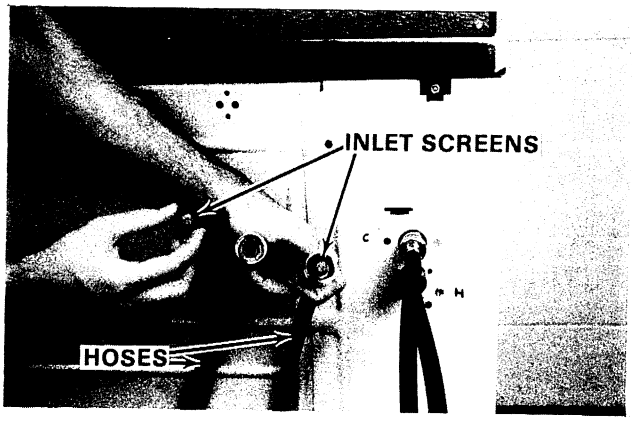
- Do not use the console as a hand support when moving the appliance.
- Personal property or appliance damage may result.

⚠ WARNING

Personal Injury Hazard / Product Damage

- The automatic washer is very heavy. Get someone to help you when laying it down.
- 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

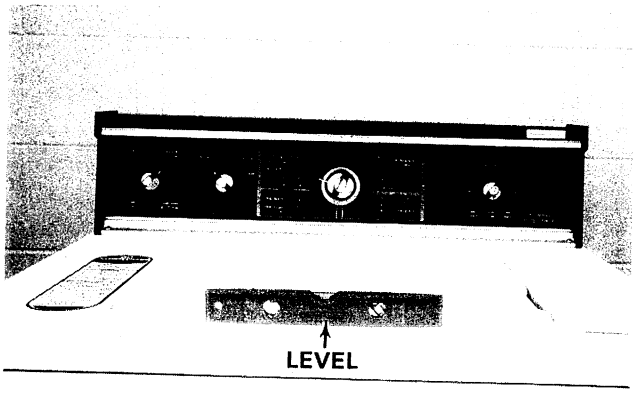
STEP 17 Before attaching the hot and cold inlet hoses, make sure the inlet screen located in the end of each hose at the facuet end is cleaned.

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.

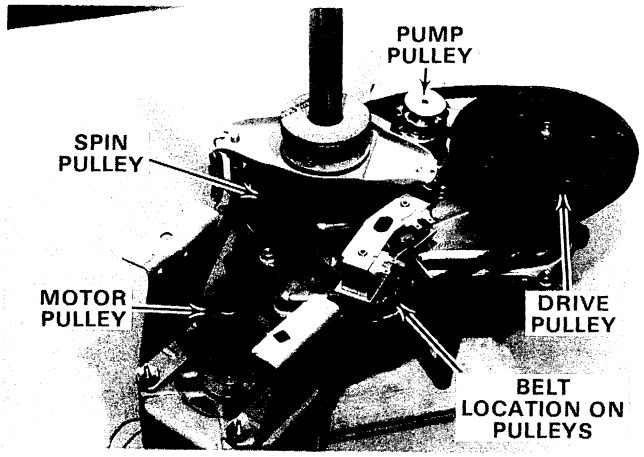


STEP 22 To level your washer, take a carpenter's level and place it on the top of the washer, first side to side, then front to back. If you do not have a level, plug the power cord into the wall outlet and fill the washer basket with water to any given row of holes, then stop the washer. Check to see 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 2 for the proper reconnection.

STEP 24 Run a cycle check *(section 6, proc. B, section 9, steps 1-4).*

PROCEDURE B
Drive Belt Replacement



See pages 23 and 170, illus. no. 13 for location of part.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- 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.

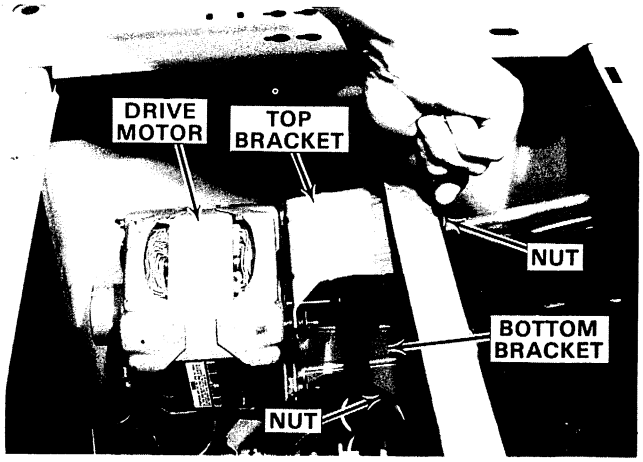
STEP 1 Disconnect the electrical power supply *(section 2).*

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 12, proc. D; Type A, B or C).*

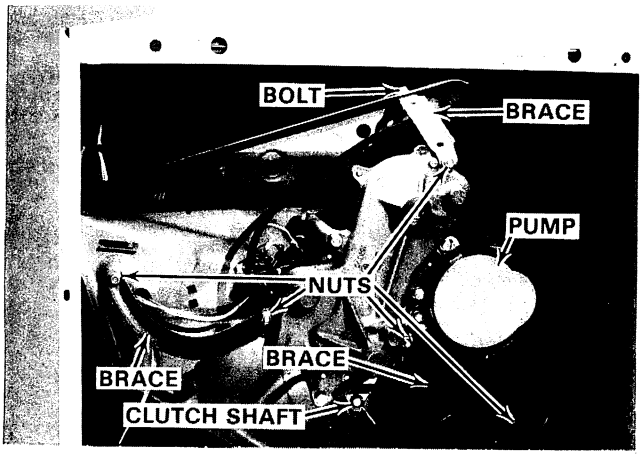
STEP 5 See access to parts *(section 14, proc. A).*



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.

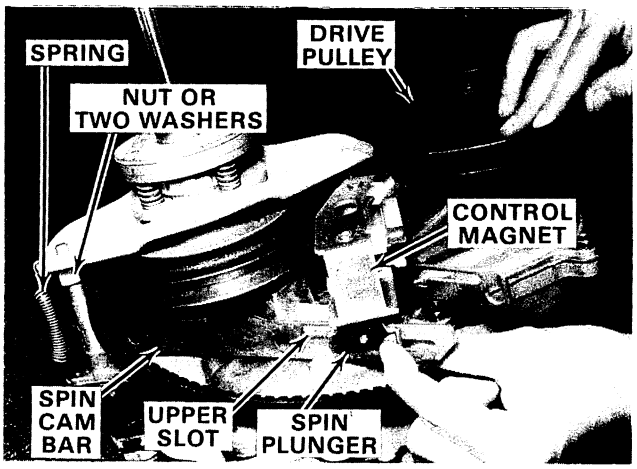


NOTE: The main drive motor was removed to clarify the picture. This drive motor does not have to be removed.

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.

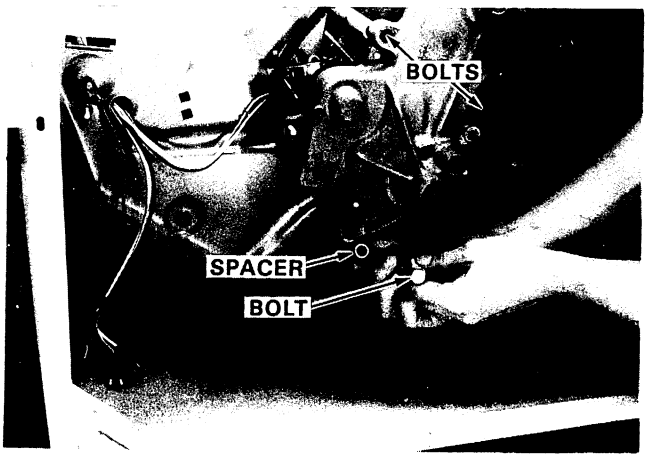
STEP 10 Using a socket wrench, remove the bolts attaching the pump.



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.



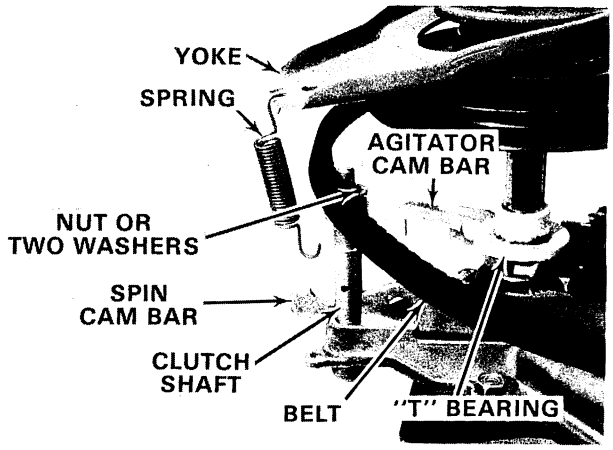
NOTE: The main drive motor was removed to clarify the picture. This drive motor does not have to be removed.

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.

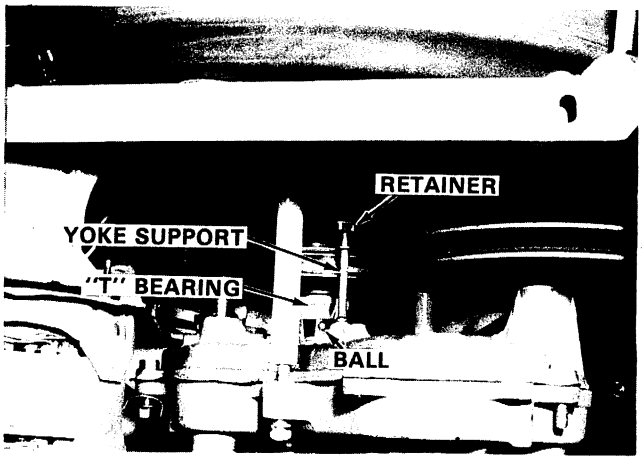
STEP 16 Pull the gearcase straight out until the gearcase stops against the bolts.



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 drive belt through the spacer opening and between the clutch shaft and the yoke.



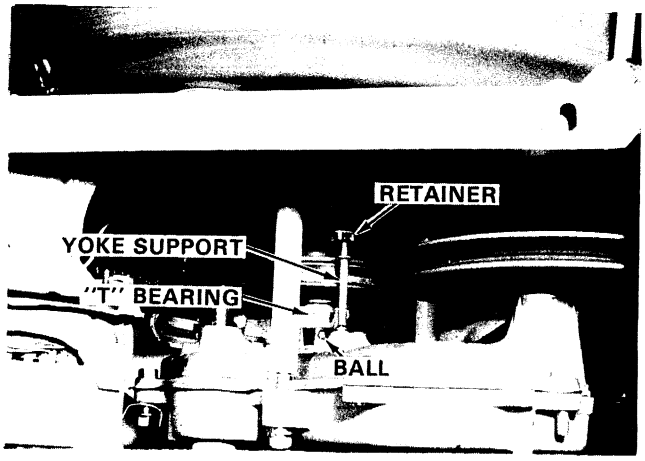
NOTE: Be sure the "T" bearing and ball are in the proper place on the agitator shaft.

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.

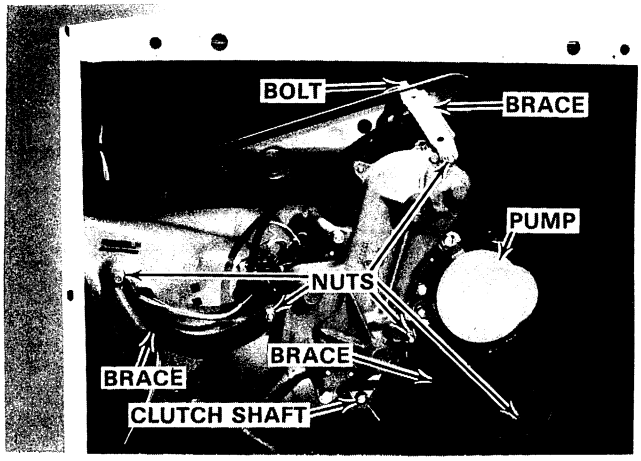


STEP 20 Snap the yoke support into the plastic retainer on the yoke. Your washer could have used a washer, spring and clip in place of the plastic retainer.

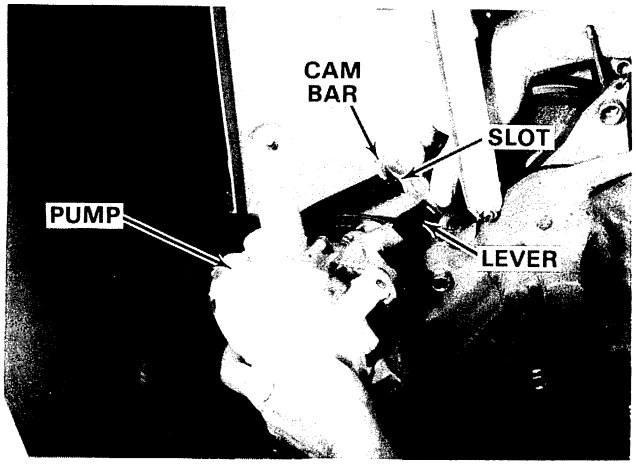
STEP 21 Insert the clutch shaft with the two washers or hexnut into the hole at the other end of the yoke.

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.



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.

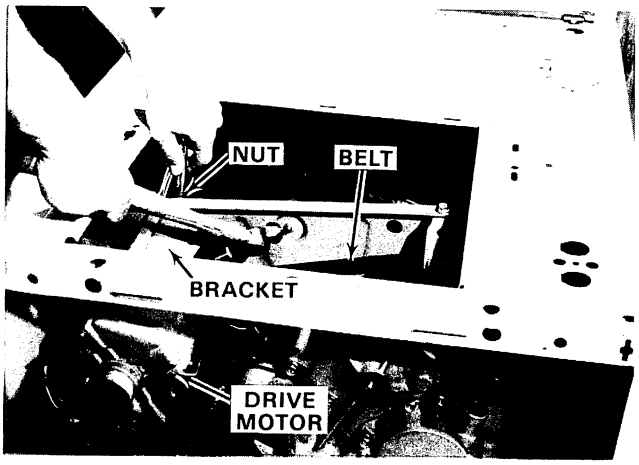
STEP 29 Using needle nose pliers, attach the spring to the gearcase and yoke.

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.

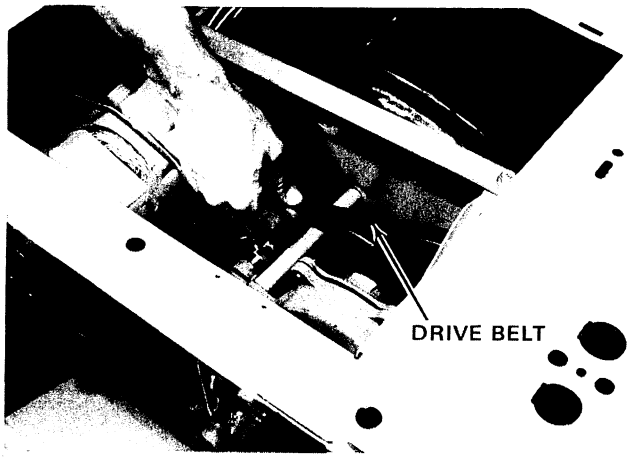
STEP 33 Place the drive belt on the four pulleys.



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.

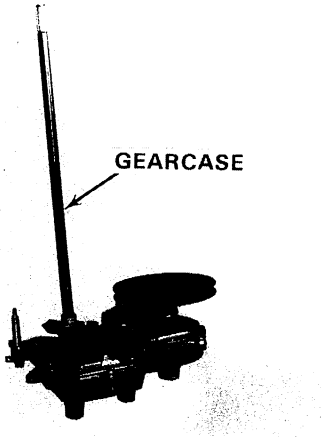
STEP 38 See access to parts *(section 14, proc. A).*

STEP 39 Replace the stud, agitator and cap *(section 12, proc. D; Type A, B or C).*

STEP 40 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

STEP 41 Run a cycle check *(section 6, proc. B, section 9, steps 1-4).*

PROCEDURE C
Gearcase Replacement



See pages 23 and 170, illus. no. 26 for location of part.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- 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 nearest SEARS Service Center for any servicing inside this part.

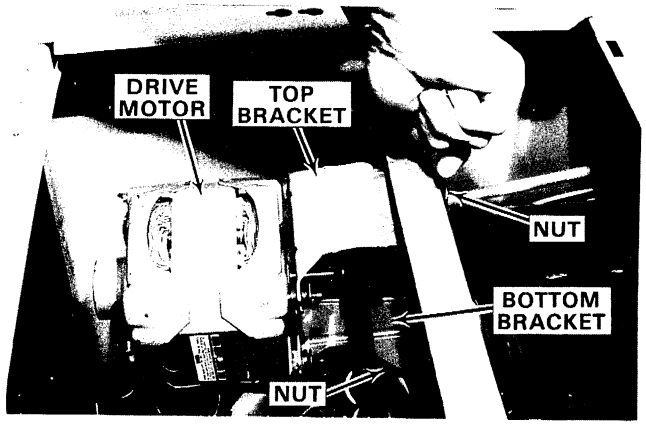
The main function of the gearcase is to drive the agitator—first in one direction then the other.

STEP 1 Disconnect the electrical power supply *(section 2).*

STEP 2 Lift the lid.

STEP 3 Remove the agitator cap, stud and agitator *(section 12, proc. D; Type A, B or C).*

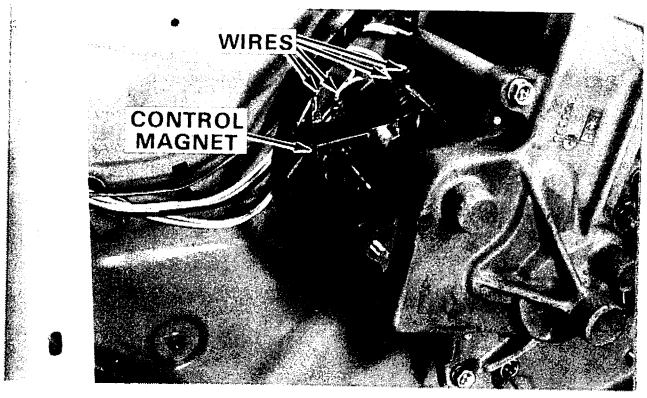
STEP 4 See access to parts *(section 14, proc. A).*



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.

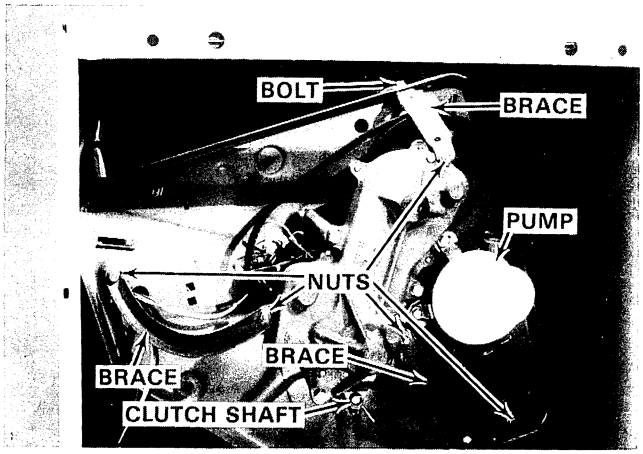
STEP 7 Slide the motor to the left.



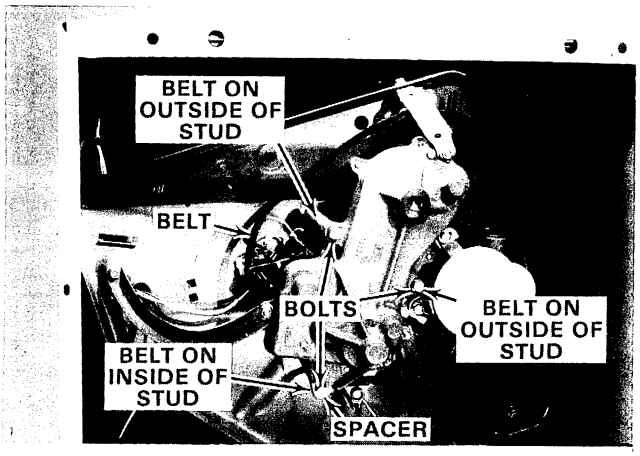
NOTE: The main drive motor was removed to clarify the picture. This drive motor does not have to be removed.

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.

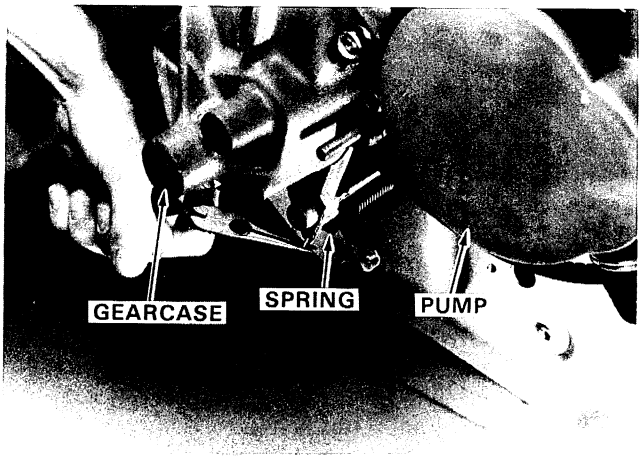
STEP 9 Using a socket wrench, remove the bolts attaching the pump.



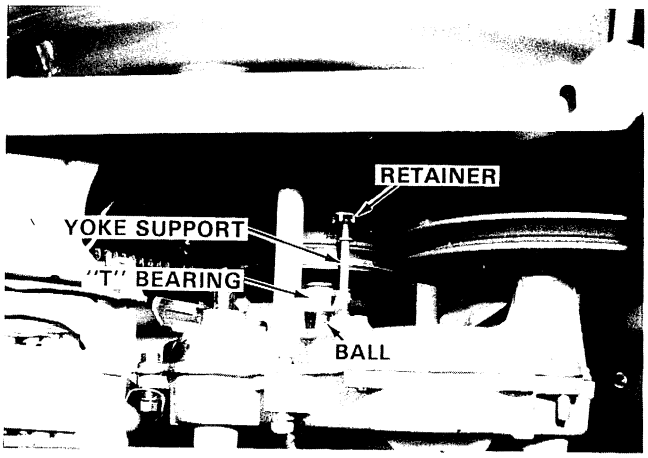
STEP 10 Using a socket wrench, remove the five nuts and one bolt, holding the three support braces, from the base to the gearcase.



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.

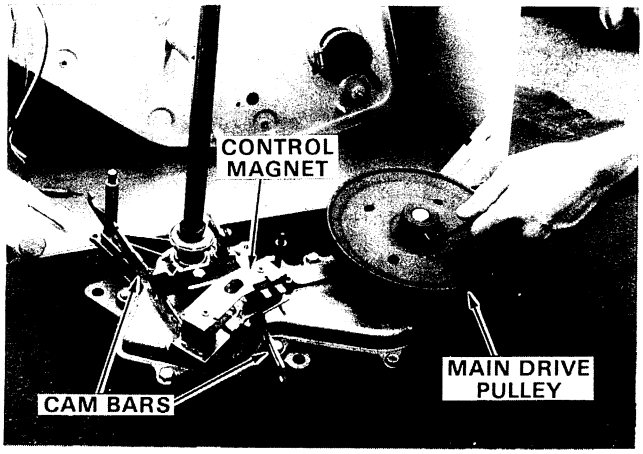


STEP 12 Using needle nose pliers, remove the end of the spring on the gearcase.



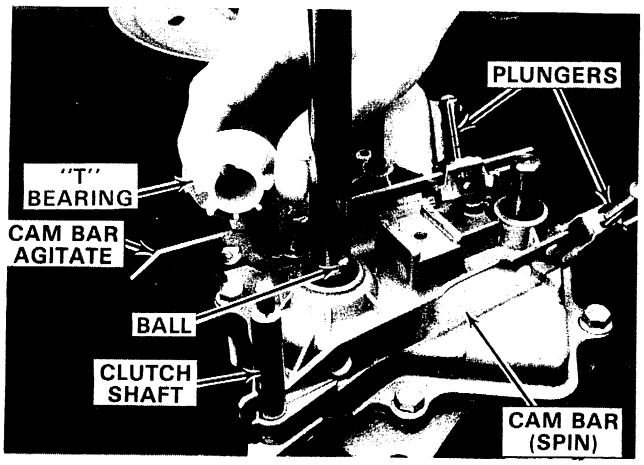
STEP 13 Using your hands, snap the yoke support out of the plastic retainer on the yoke. Your washer could have used a washer, spring and clip instead of the plastic retainer.

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 14, proc. E, F & G).*

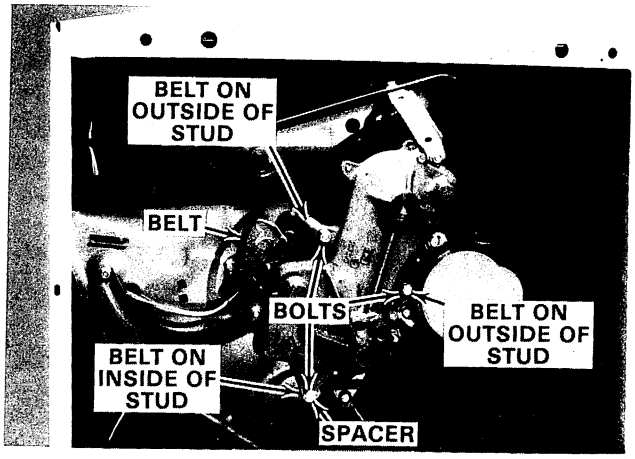


STEP 17 Remove the "T" bearing and ball from your old gearcase.

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 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.

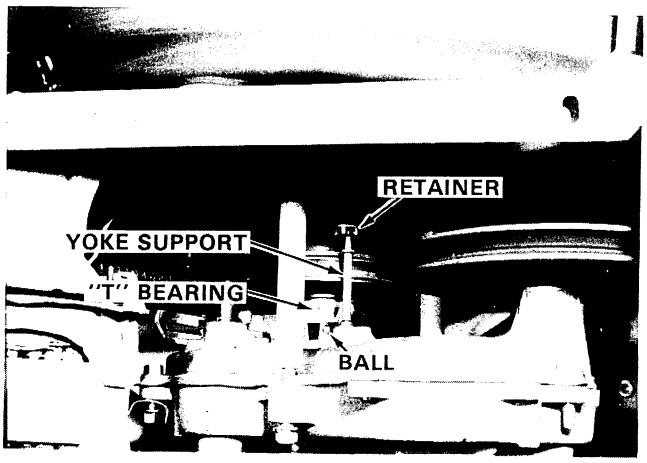
STEP 20 Carefully slide the new gearcase into the basket drive.

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.

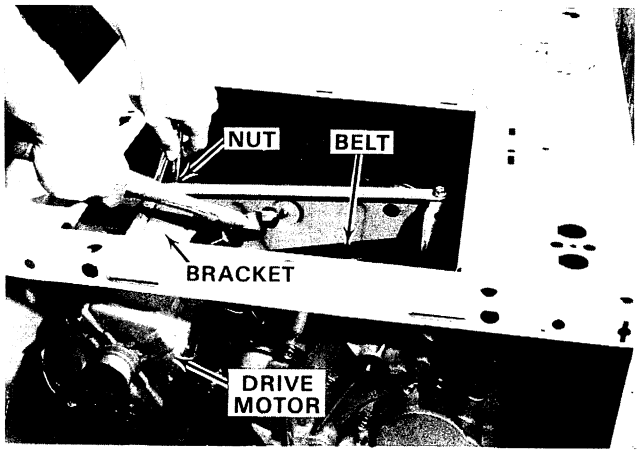
STEP 31 Using a socket wrench, tighten the five nuts and one bolt holding the support braces.

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.

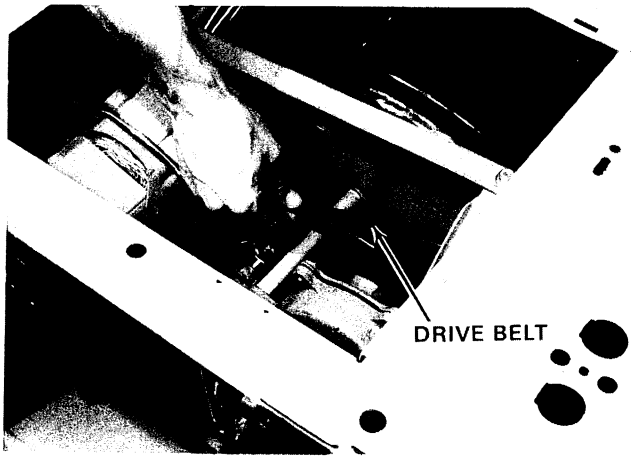
STEP 35 Slide the motor to the left.



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.

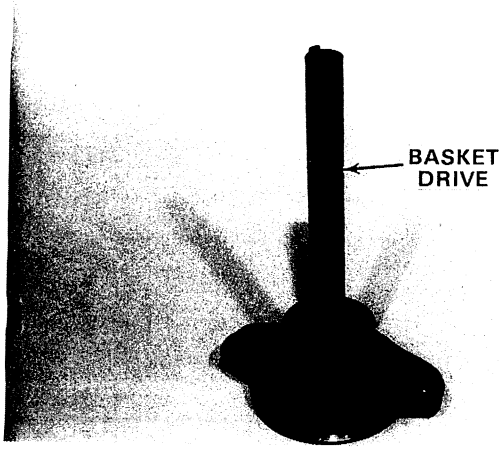
STEP 40 See access to parts *(section 14, proc. A).*

STEP 41 Replace the stud, agitator and cap *(section 12, proc. D; Type A, B or C)*

STEP 42 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

STEP 43 Run a cycle check *(section 6, proc. B, section 9, steps 1-4).*

PROCEDURE D
Basket Drive Replacement



See page 170, illus. no. 20 for location of part.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- 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. Call your nearest SEARS Service Center 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 2).*

STEP 2 Raise the top *(section 11, proc. A).*

STEP 3 Remove the snubber and spring *(section 12, proc. A).*

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 12, proc. C; Type A or B).*

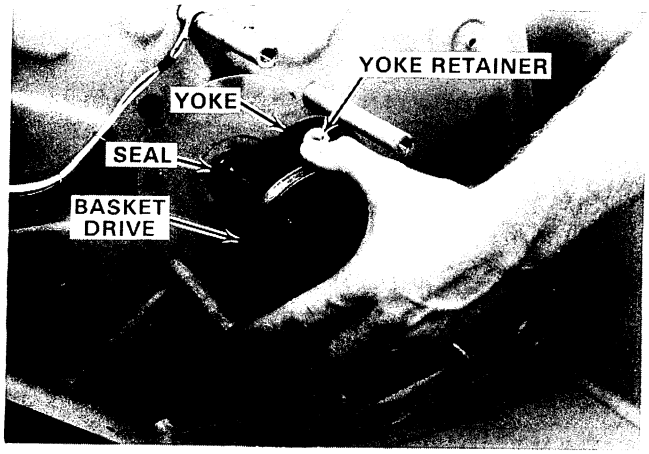
STEP 6 Remove the agitator cap, stud and agitator *(section 12, proc. D; Type A, B or C).*

STEP 7 Remove the locknut, basket and drive block *(section 12, proc. E).*

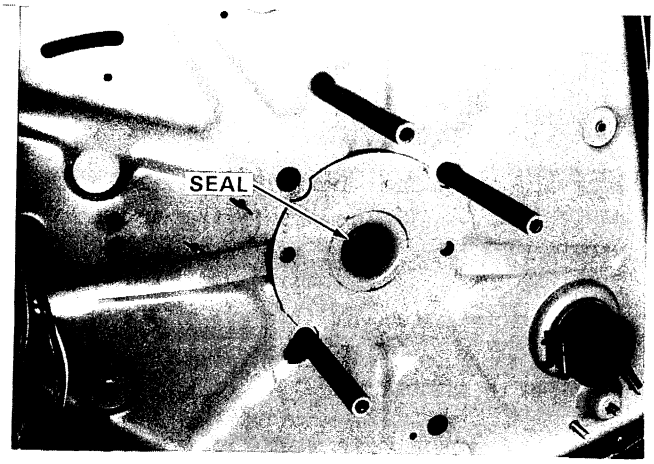
STEP 8 Lower the top *(section 11, proc. A).*

STEP 9 See access to parts *(section 14, proc. A).*

STEP 10 Remove the gearcase *(section 14, proc. C).*



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 basket drive into the centerpost and carefully push.

STEP 14 Replace the gearcase *(section 14, proc. C).*

⚠ 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 14, proc. A).*

STEP 16 Replace the drive block, basket and locknut *(section 12, proc. E).*

STEP 17 Replace the stud, agitator and cap *(section 12, proc. D; Type A, B or C).*

STEP 18 Replace the tub ring and clips *(section 12, proc. C; Type A or 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.

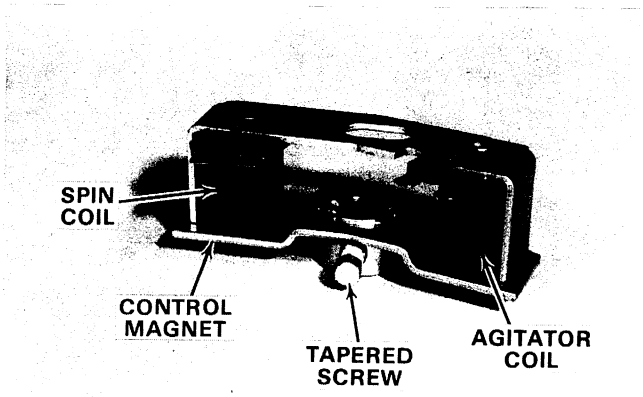
STEP 20 Replace the snubber and spring *(section 12, proc. A).*

STEP 21 Lower the top *(section 11, proc. A).*

STEP 22 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

STEP 23 Run a cycle check *(section 6, proc. B, section 9, steps 1-4).*

PROCEDURE E
Control Magnet Testing and/or Replacement



See page 170, illus. no. 9 for location of part.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- Failure to do so could result in personal injury or death.

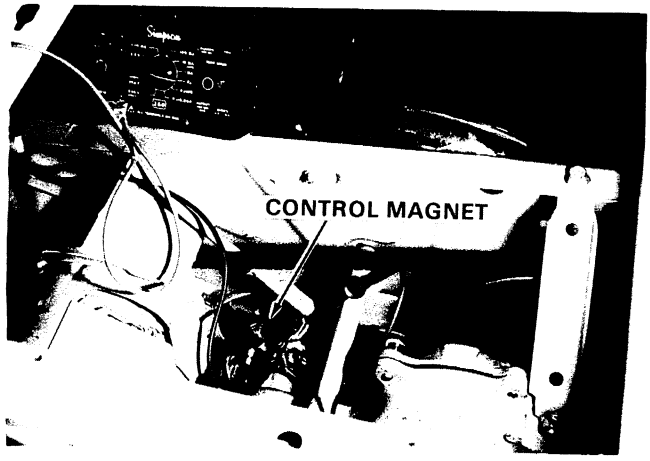
OHMMETER REQUIRED

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 2).*

STEP 2 See access to parts *(section 14, proc. A).*

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 to 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.

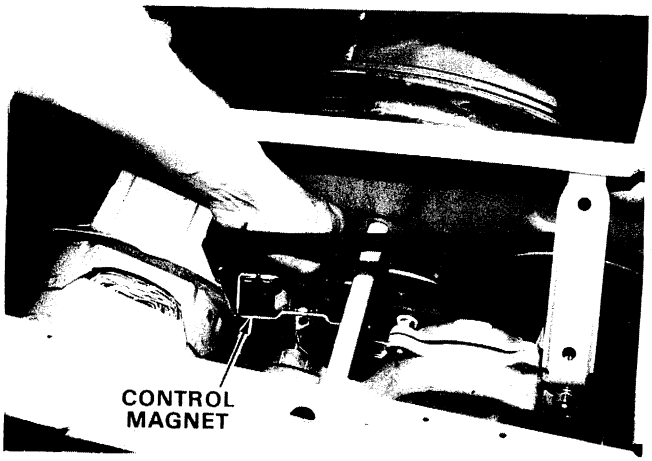
STEP 10 Check the other coil, touching one of the ohmmeter probes to one of the terminals.

STEP 11 Touch the other ohmmeter probe to the other terminal on the same coil.

STEP 12 You should read between 200 and 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 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 14, proc. A).*

STEP 20 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

STEP 21 Run a cycle check *(section 6, proc. B, section 9, steps 1-4).*

PROCEDURE F
Plunger Replacement

See page 170, illus. no. 17 for location of part.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- Failure to do so could result in personal injury or death.

NOTE: If you do not feel you can do this procedure, call your nearest SEARS Service Center for servicing.

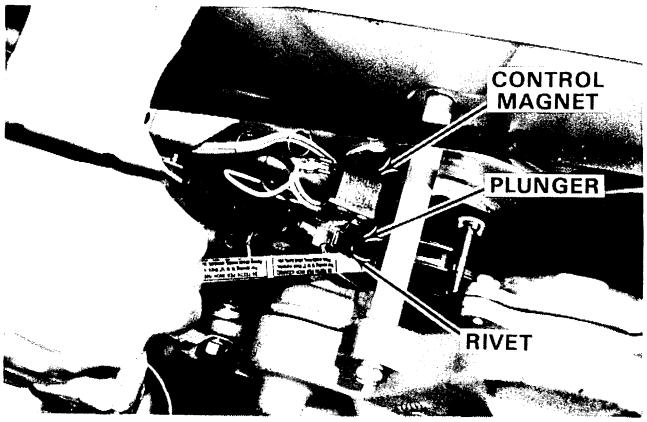
The plungers are secured to each cam bar with a hardened rivet. When the control magnet pulls the plunger up into the coil, the hardened rivet moves in offsetting slots in the cam bars. This action causes the automatic washer to shift into either **AGITATION** or **SPIN**.

The plastic liners used on each plunger are used to reduce the noise during operation.

STEP 1 Disconnect the electrical power supply *(section 2).*

STEP 2 See access to parts *(section 14, proc. A).*

STEP 3 Remove the control magnet *(section 14, proc. E).*

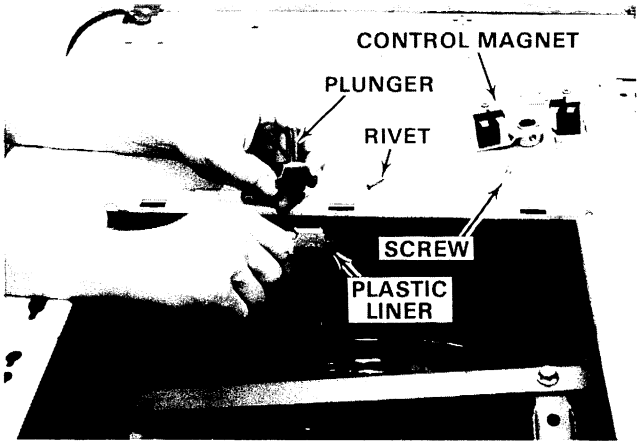


STEP 4 Using wire cutters or hacksaw blade, cut the rivets.

STEP 5 Slide the rivets out of the plungers.

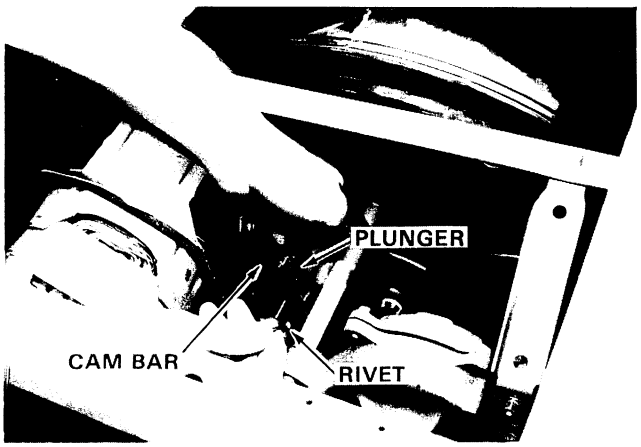
STEP 6 Lift the plungers and plastic liners off the cam bars.

REPLACEMENT



STEP 7 Place the plastic liners inside the plungers with the curved edges facing the plungers.

STEP 8 Place the plungers on the cam bars.



STEP 9 Slide the hardened rivets through the plungers.

STEP 10 Place the speed clips on the end of the rivets and push on until they hit the plungers.

STEP 11 Replace the control magnet *(section 14, proc. E).*

⚠ WARNING

Electrical Shock Hazard

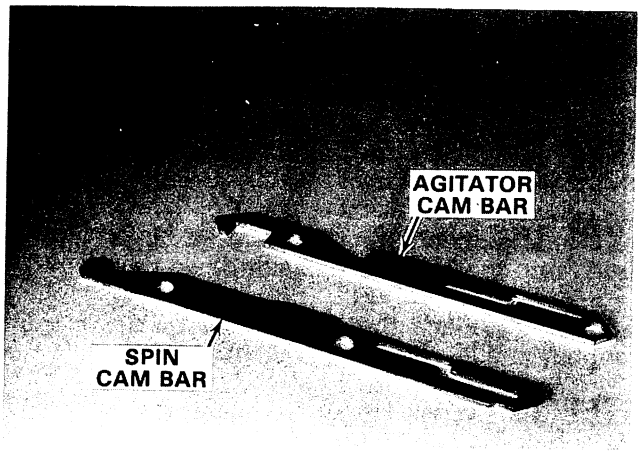
- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

STEP 12 See access to parts *(section 14, proc. A).*

STEP 13 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

STEP 14 Run a cycle check *(section 6, proc. B, section 9, steps 1-4).*

PROCEDURE G
Cam Bar Replacement



See page 170, illus. no.'s 12 and 16 for location of parts.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- Failure to do so could result in personal injury or death.

NOTE: If you do not feel you can do this procedure, call your nearest SEARS Service Center 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 2).*

STEP 2 Lift the lid.

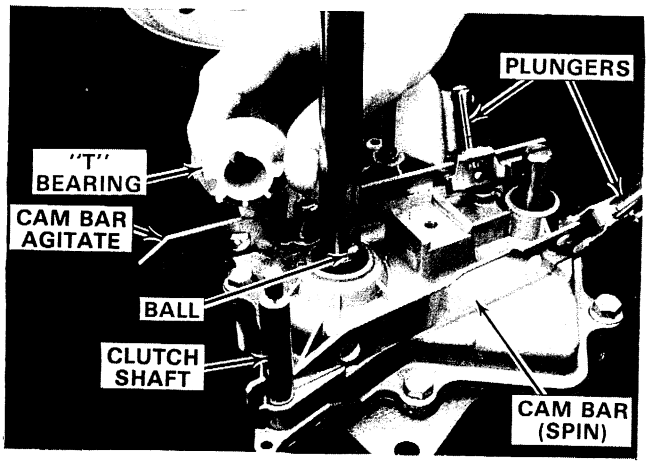
STEP 3 Remove the agitator cap, stud and agitator *(section 12, proc. D; Type A, B or C).*

STEP 4 See access to parts *(section 14, proc. A).*

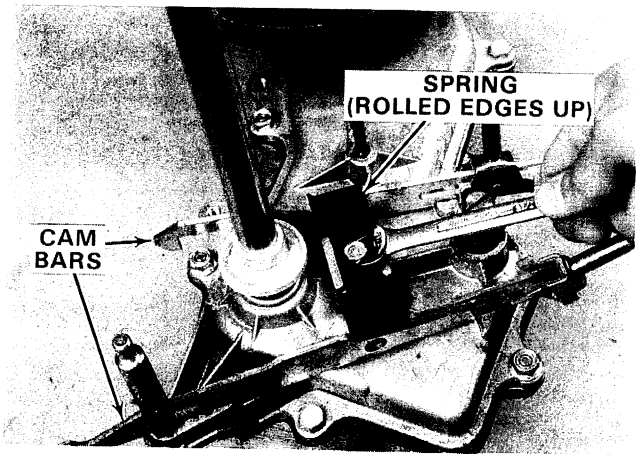
STEP 5 Remove the gearcase *(section 14, proc. C).*

STEP 6 Remove the control magnet *(section 14, proc. E).*

STEP 7 Remove the plungers *(section 14, proc. F).*

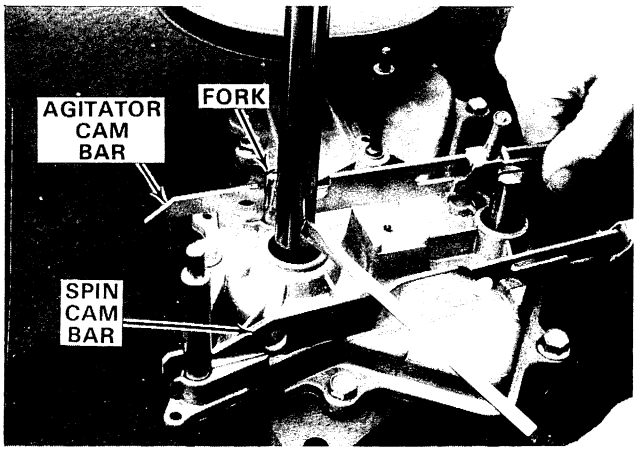


STEP 8 Slide the "T" bearing up and off the agitator shaft, and remove the ball.



STEP 9 Using a socket wrench or open end wrench, remove the screw holding the cam bar spring.

STEP 10 AGITATOR CAM BAR REMOVAL.

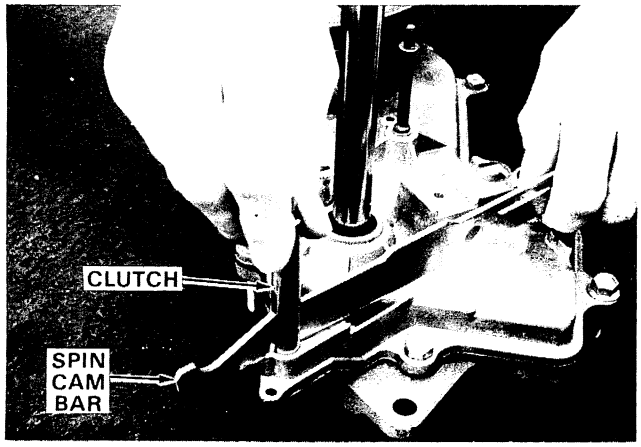


STEP A Insert the end of a flat blade screwdriver into the hole on the agitator shaft.

STEP B Place the screwdriver over the spin cam bar and pry the agitator shaft up.

STEP C While lifting the agitator shaft, slide the agitator cam bar out of the fork.

STEP 11 SPIN CAM BAR REMOVAL.



STEP A Lift up on the clutch shaft while pulling the spin cam bar out.

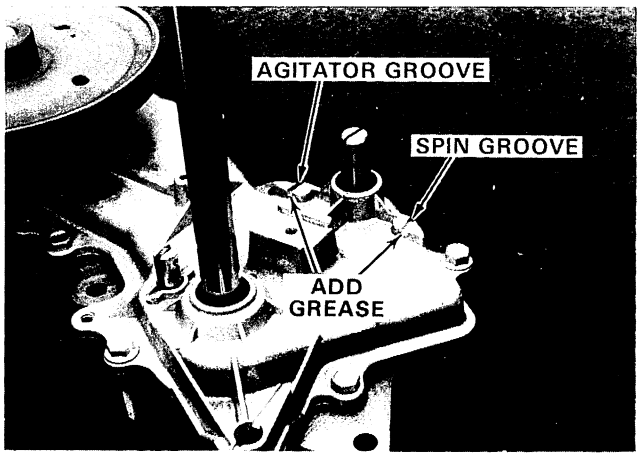
STEP 12 Replace the plungers *(section 14, proc. F).*

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 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 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 14, proc. E).*

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 14, proc. C).*

⚠ 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.

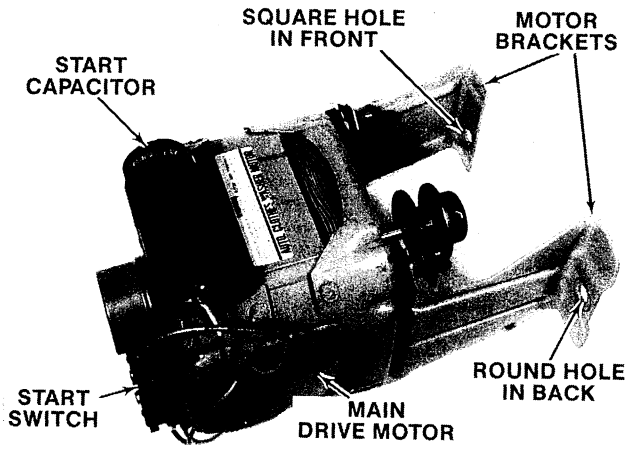
STEP 27 See access to parts *(section 14, proc. A).*

STEP 28 Replace the stud, agitator and cap *(section 12, proc. D; Type A, B or C).*

STEP 29 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

STEP 30 Run a cycle check *(section 6, proc. B, section 9, steps 1-4).*

PROCEDURE H
Drive Motor Testing and/or Replacement



See pages 23, and 170, illus. no. 46 for location of part.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- 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.

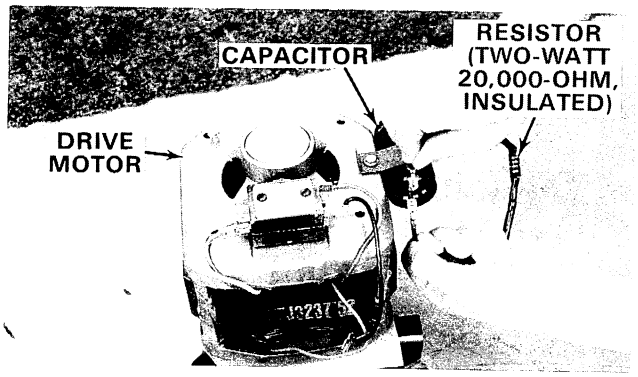
STEP 1 Disconnect the electrical power supply *(section 2).*

STEP 2 See access to parts *(section 14, proc. A).*

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.



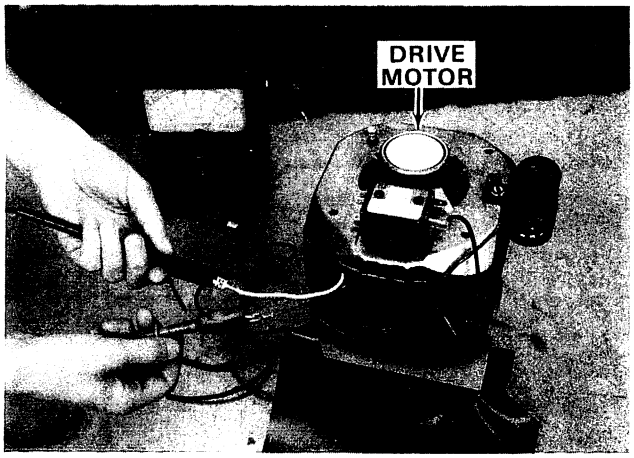
⚠ WARNING

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 to 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.

ONE-SPEED	TWO-SPEED	THREE-SPEED
White	White	White
Blue	Blue	Blue
Black	Black	Black
Follow Steps	Violet	Violet
8-15	Follow Steps	Gray/Pink
	8-19	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 14, proc. I)*.

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 14, proc. I)*.

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 should show 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 14, proc. I)*.

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.

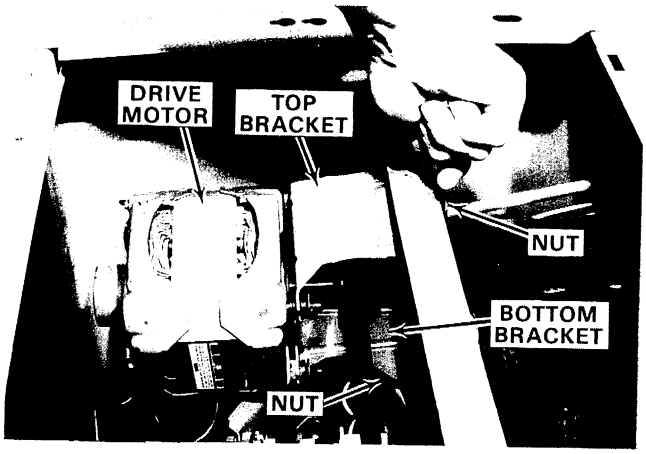
REPLACEMENT

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 very careful when lifting or moving.
- Failure to do so could result in personal injury.



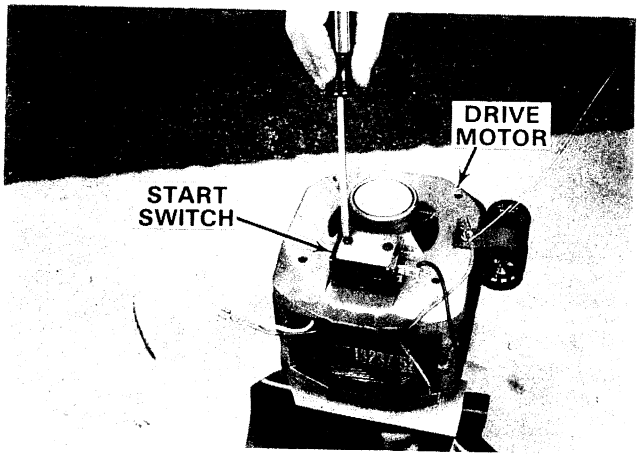
STEP 28 Using an open end wrench, remove the nut holding the motor bracket.

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.

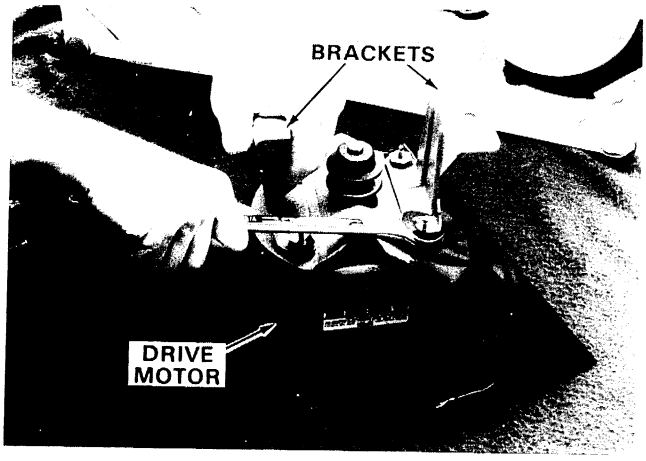
STEP 31 Carefully remove the main drive motor.

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.

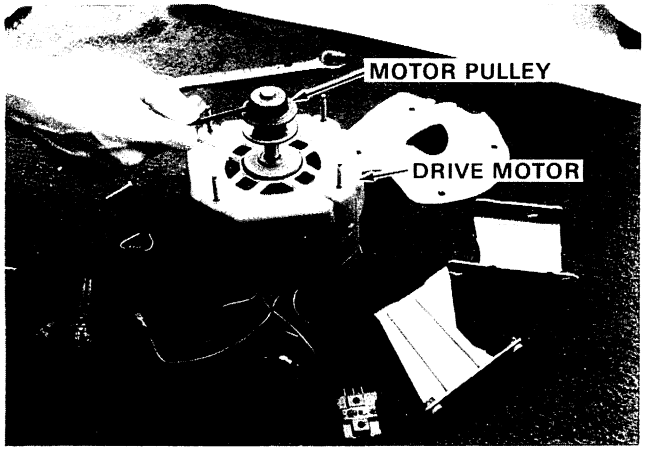


STEP 33 Using a screwdriver, remove the two screws holding the start switch.

STEP 34 Using a socket wrench or open end wrench, remove the capacitor, bracket and screw.



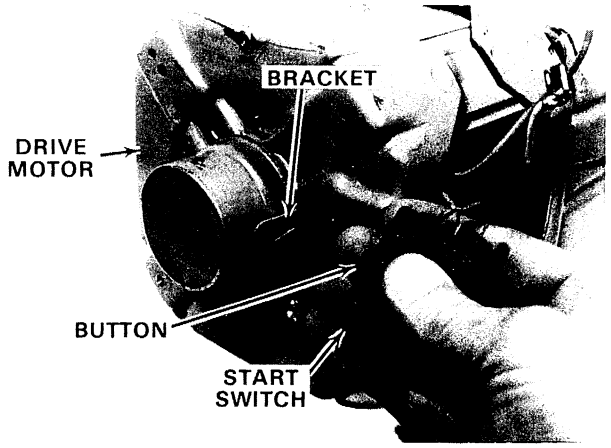
STEP 35 Using a socket wrench or an open end wrench, remove the nuts from the brackets.



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 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 very 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.

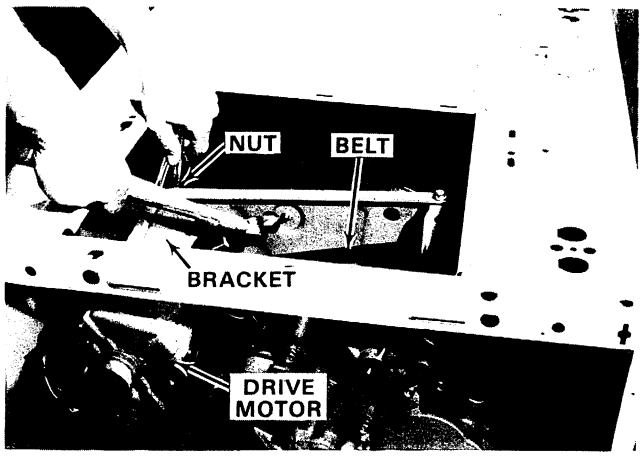
STEP 47 Slide the motor to the left.

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.

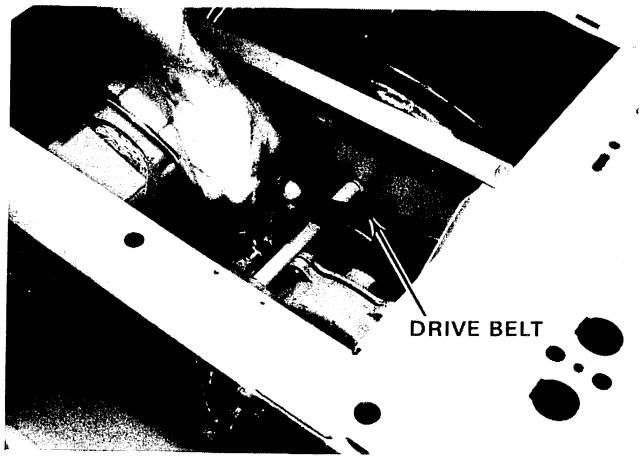
STEP 51 Reconnect the wires to the proper terminals as previously marked.



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.

⚠ WARNING

Electrical Shock Hazard

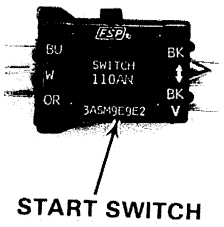
- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

STEP 56 See access to parts *(section 14, proc. A).*

STEP 57 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

STEP 58 Run a cycle check *(section 6, proc. B, section 9, steps 1-4).*

PROCEDURE I
Motor Start Switch Testing and/or Replacement



See page 170, illus. no. 56 for location of part.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- Failure to do so could result in damage to your ohmmeter, personal injury or death.

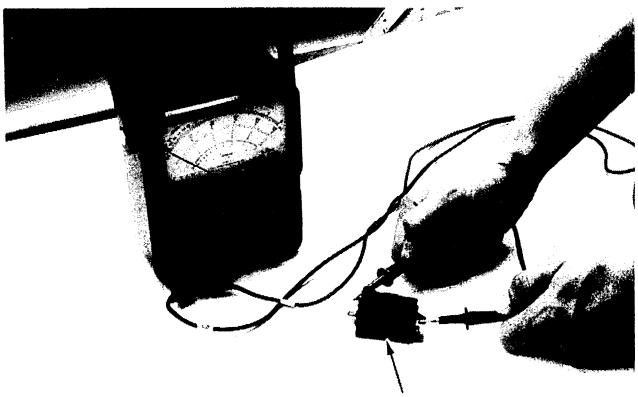
OHMMETER REQUIRED

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 2).*

STEP 2 See access to parts *(section 14, proc. A).*



MOTOR START SWITCH

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.

ONE-SPEED	TWO-SPEED	THREE-SPEED
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

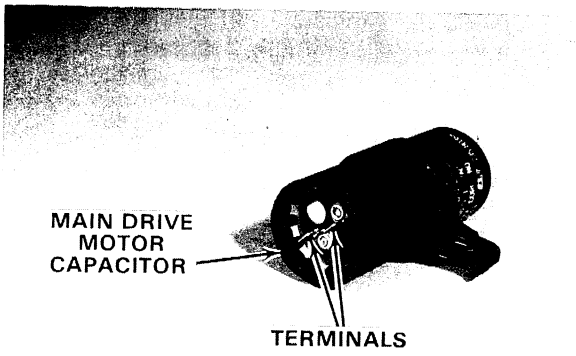
- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

STEP 34 See access to parts *(section 14, proc. A).*

STEP 35 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

STEP 36 Run a cycle check *(section 6, proc. B, section 9, steps 1-4).*

PROCEDURE J
Motor Capacitor Testing and/or Replacement



See page 170, illus. no. 47 for location of part.

⚠ WARNING

Electrical Shock Hazard

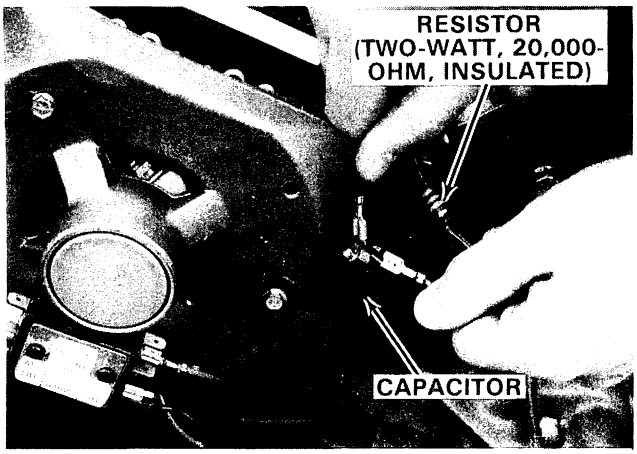
- Disconnect power before servicing (section 2).
- Failure to do so could result in personal injury or death.

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 2).*

STEP 2 See access to parts *(section 14, proc. A).*



⚠ 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.

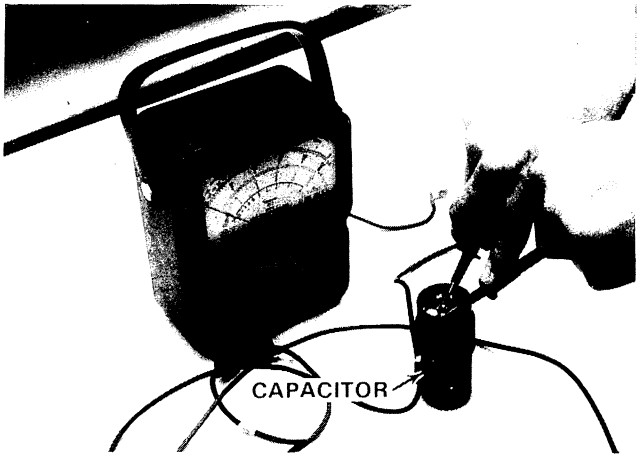
TESTING

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 to 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.

NOW

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 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

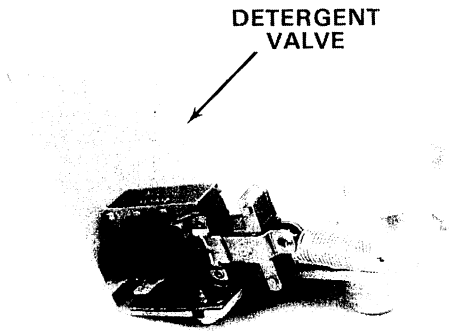
- Make sure all ground wires are properly attached.
- Make sure all wiring is not pinched or laying on sharp edges.
- Failure to do so could result in personal injury or death.

STEP 17 See access to parts *(section 14, proc. A)*.

STEP 18 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

STEP 19 Run a cycle check *(section 6, proc. B, section 9, steps 1-4)*.

PROCEDURE K
Detergent Valve Testing and/or Replacement



See page 172, illus. no. 24 for location of part.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- Failure to do so could result in personal injury or death.

OHMMETER REQUIRED

This detergent valve is located below the baseplate and is fastened to the front brace. During the first two (2) minutes of deep rinse, the detergent valve opens and allows the rinse water to be pumped up through the detergent valve into the fabric softener section of the triple dispenser. This then dilutes the fabric softener before it enters the tub.

STEP 1 Disconnect the electrical power supply *(section 2).*

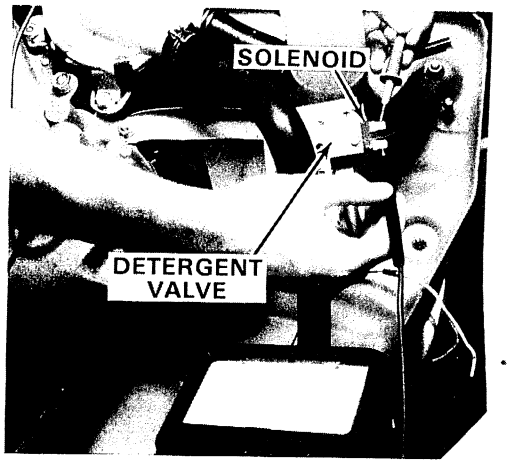
STEP 2 See access to parts *(section 14, proc. A).*

TESTING

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

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 60 to 100 ohms. Set the ohms scale and **ZERO** the meter.



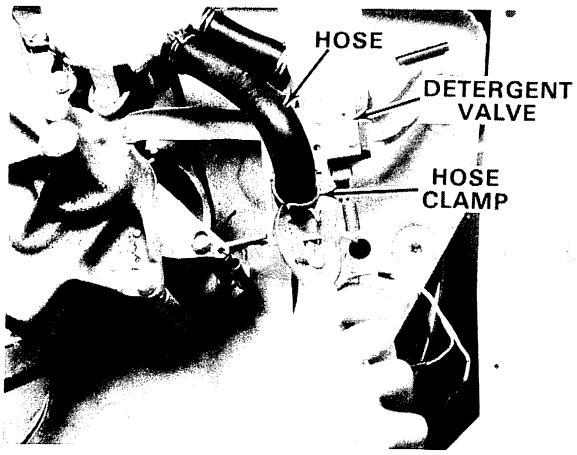
STEP 6 Touch one of the ohmmeter probes to one of the terminals on the solenoid.

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

STEP 8 The ohmmeter should show between 60-100 ohms on the ohms scale. If you do not get this reading, the solenoid is bad and needs replacing.

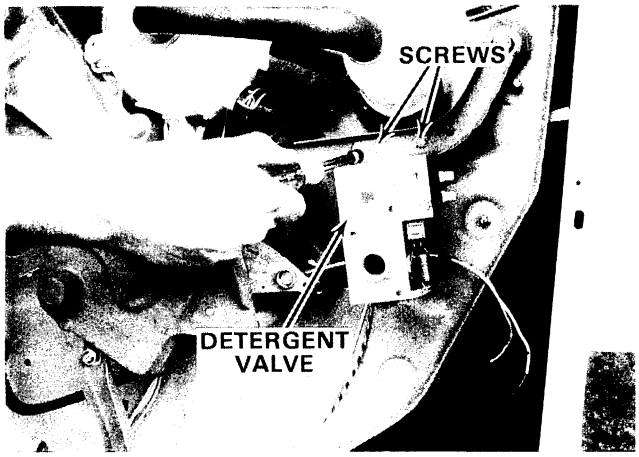
REPLACEMENT

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

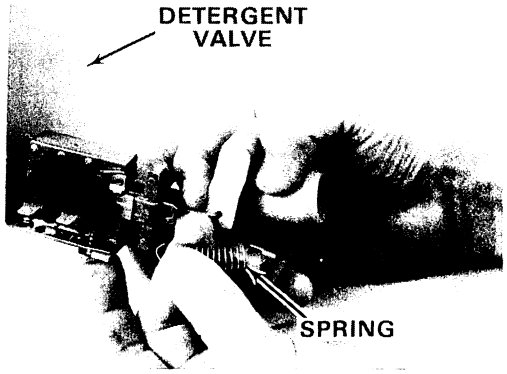


STEP 9 Using pliers, slide the two hose clamps off the ports on the detergent valve.

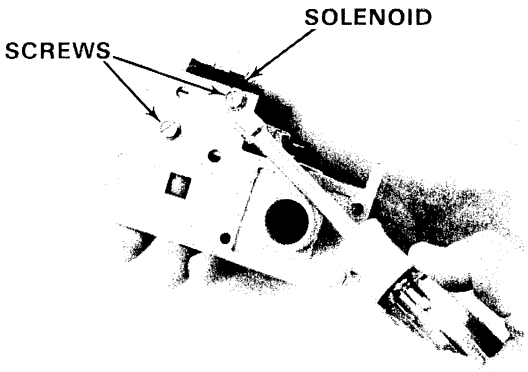
STEP 10 Remove the two hoses off the ports on the detergent valve.



STEP 11 Using a nutdriver or socket wrench, remove the two screws holding the bracket to the brace.

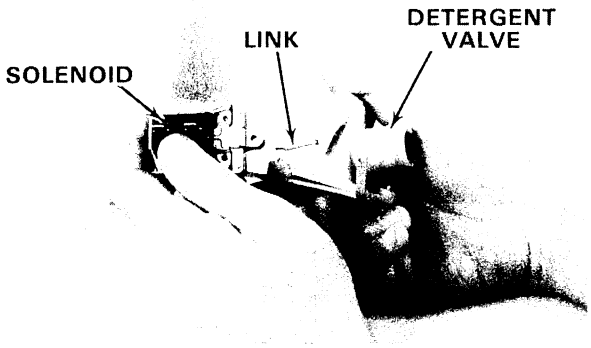


STEP 12 Using your fingers, remove the spring.

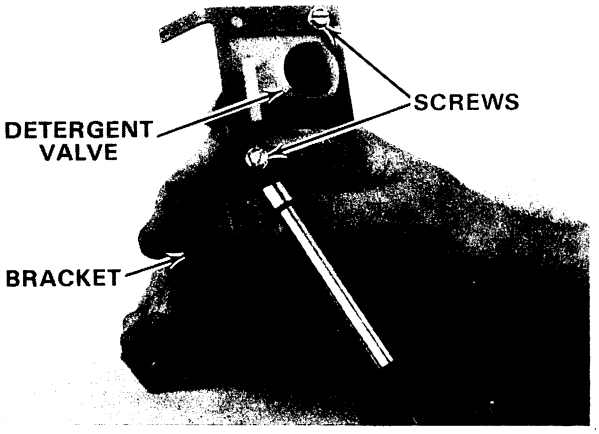


STEP 13 Using a nutdriver or screwdriver, remove the two screws holding the solenoid to the bracket.

STEP 14 Carefully remove the detergent solenoid.



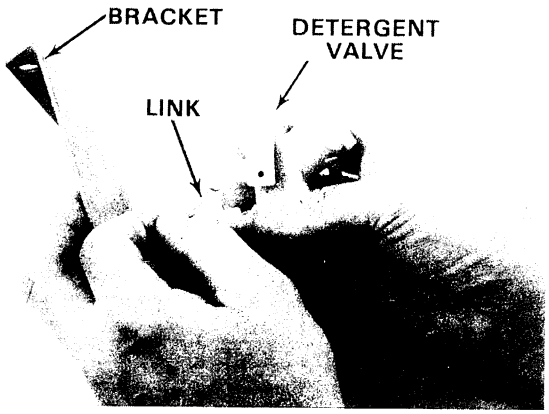
STEP 15 Using your fingers, remove the link.



STEP 16 Using a nutdriver or screwdriver, remove the two screws holding the valve to the bracket.

STEP 17 Place the valve on the bracket with the slanted port pointing away from the bracket.

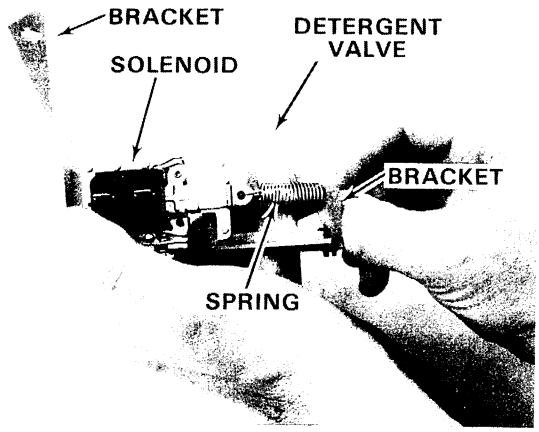
STEP 18 Using a nutdriver or screwdriver, insert the screws from the bottom through the bracket, into the valve and tighten.



STEP 19 Place one end of the link in the hole on the valve arm.

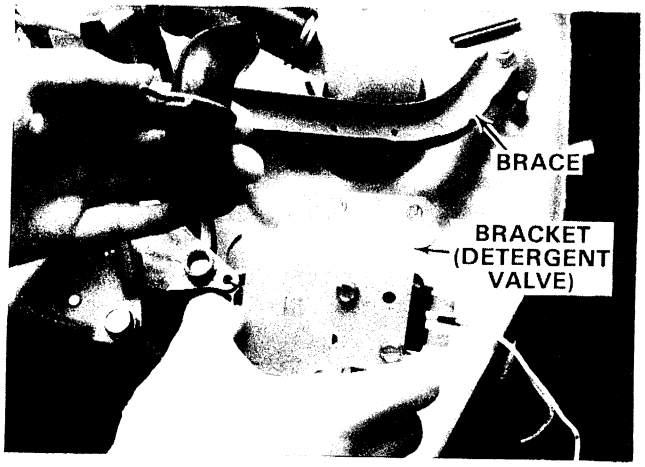
STEP 20 Place the other end of the link in the inside hole of the solenoid (solenoid terminals pointing out).

STEP 21 Using a nutdriver or screwdriver, insert the screws from the bottom through the bracket, into the solenoid and tighten.



STEP 22 Insert one end of the spring into the hole in the bracket.

STEP 23 Place the other end of the spring in the outside hole of the solenoid (solenoid terminals pointing out).



STEP 24 Using a nutdriver or socket wrench, insert the screws through the bracket, into the brace and tighten.

STEP 25 Slide the two hoses onto the ports of the detergent valve.

STEP 26 Using pliers, slide the two clamps on the ports of the detergent valve.

STEP 27 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 28 See access to parts *(section 14, proc. A)*.

STEP 29 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

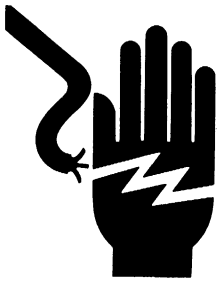
NOTES

SECTION 15

Cabinet Area

SECTION 1 MUST BE CAREFULLY READ BEFORE ANY REPAIR OR TESTING PROCEDURES ARE ATTEMPTED.

⚠ WARNING



Disconnect power before servicing

⚠ WARNING

This appliance may have sharp edges

PROCEDURE A
Power Cord Testing and/or Replacement

See page 172, illus. no. 32 for location of part.

⚠ WARNING

Electrical Shock Hazard

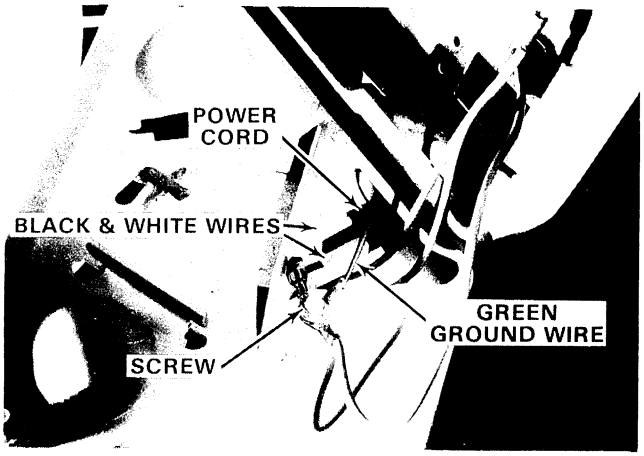
- Disconnect power before servicing (section 2).
- Failure to do so could result in personal injury or death.

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 2).*

STEP 2 Raise the top *(section 11, proc. A).*



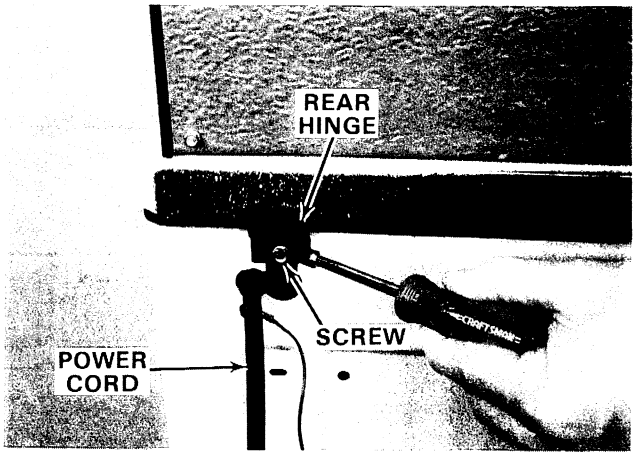
TESTING

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).

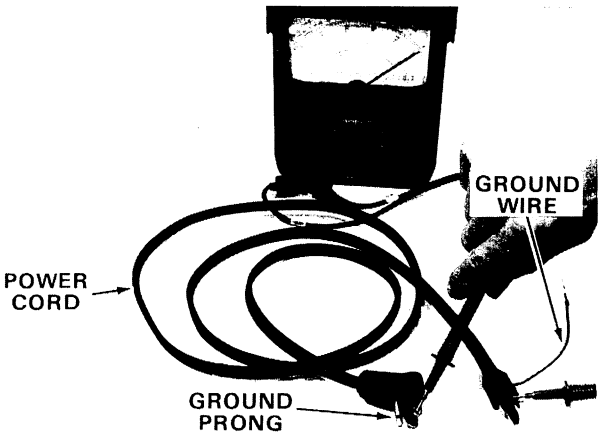
STEP 6 Lower the top.



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.

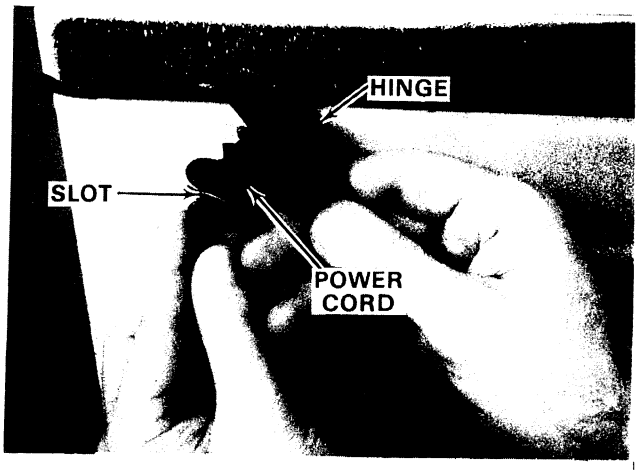
STEP 20 The ohmmeter should show **ZERO** resistance (continuity). If not, the power cord is bad and needs replacing.

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.

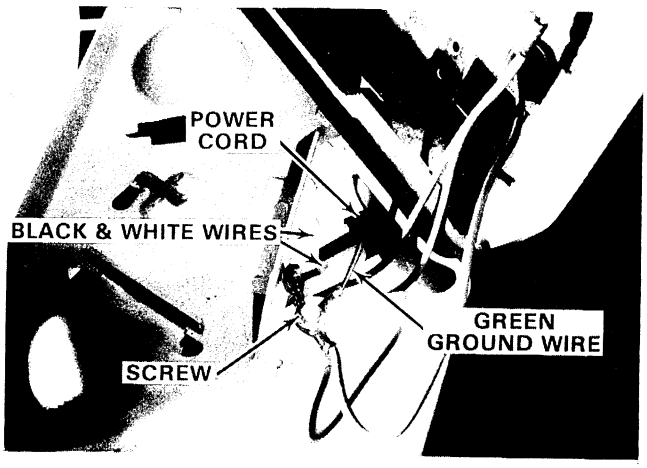
REPLACEMENT



STEP 24 Place the 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 11, proc. A).*



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 11, proc. A).*

STEP 31 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

STEP 32 Run a cycle check *(section 6, proc. B, section 9, steps 1-4).*

PROCEDURE B
Rear Leveling Feet Replacement

See page 172, illus. no. 29 for location of part.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- 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.

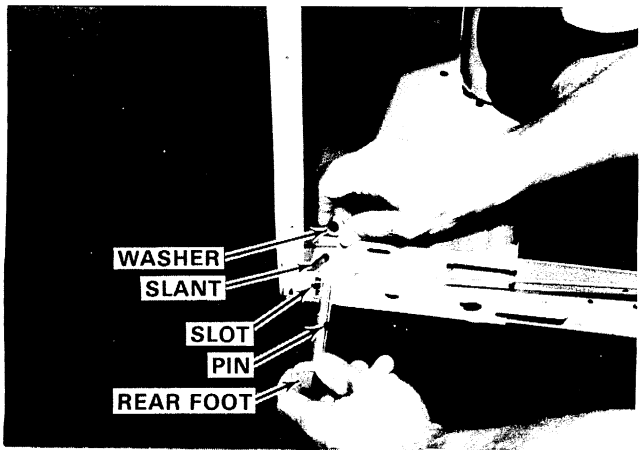
There are two types of rear leveling feet that could be used.

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 2).*

STEP 2 See access to parts *(section 14, proc. A).*



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 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 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.

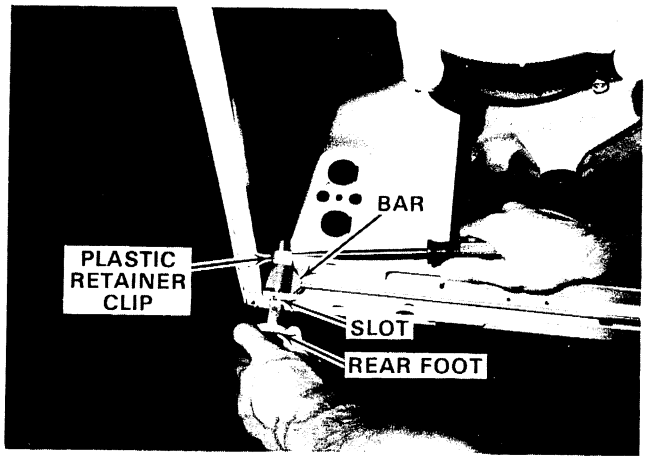
STEP 18 See access to parts *(section 14, proc. A).*

STEP 19 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

TYPE B

STEP 1 Disconnect the electrical power supply *(section 2).*

STEP 2 See access to parts *(section 14, proc. A).*



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 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 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 14, proc. A).*

STEP 14 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

PROCEDURE C
Front Feet Replacement

See page 172, illus. no. 38 for location of part.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- 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.

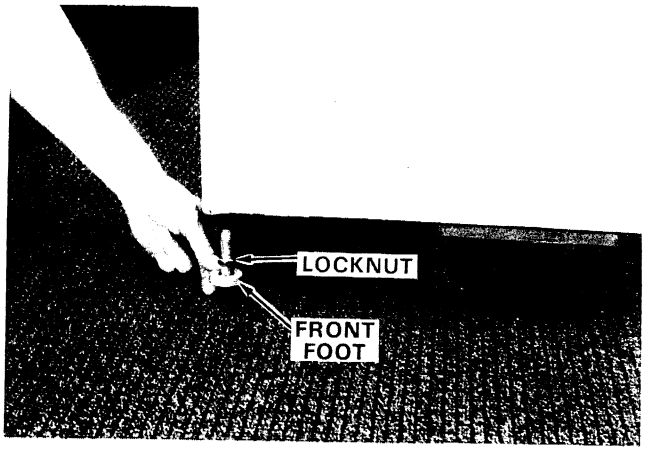
There are two types of front feet that could be used.

See Type A for the metal feet or Type B for the plastic feet.

TYPE A

STEP 1 Disconnect the electrical power supply *(section 2).*

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).

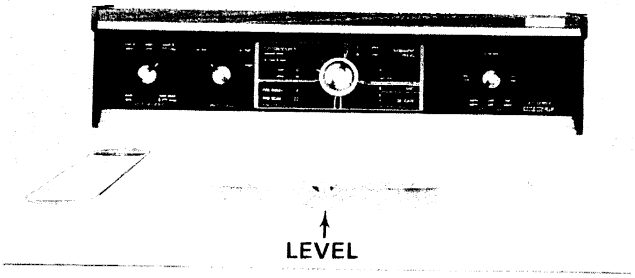
REPLACEMENT

STEP 5 Place a locknut on each 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 the 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 2 for the proper reconnection.

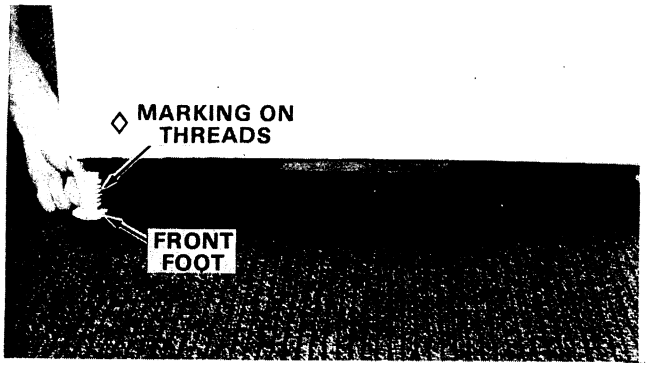
TYPE B

STEP 1 Disconnect the electrical power supply *(section 2).*

STEP 2 Place a 4-inch block under the front edge of the cabinet.

STEP 3 Using pliers, remove the plastic front feet.

REPLACEMENT

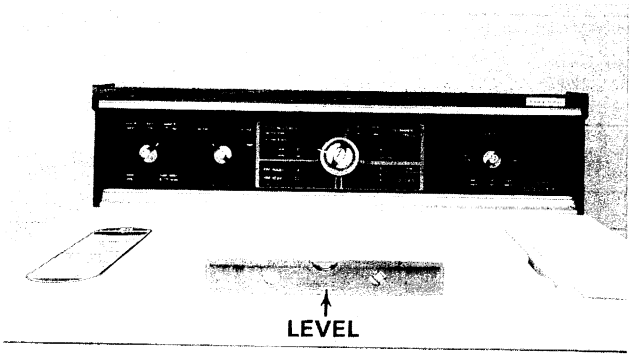


STEP 4 Insert the plastic front feet into the corner brackets and turn them to the right.

Notice the ◇ 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 ◇ 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 2 for the proper reconnection.

PROCEDURE D
Wiring Harnesses, Terminal Testing and/or Replacement

See page 166, illus. no.'s 40 and 45 for location of parts.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- 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 2).*

STEP 2 Remove the console panels *(section 10, proc. D; Type A or B).*

STEP 3 Using a flat blade screwdriver or nutdriver, remove the rear service panel.

STEP 4 Raise the top *(section 11, proc. A).*

TESTING

STEP 5 You must know how to use an ohmmeter.

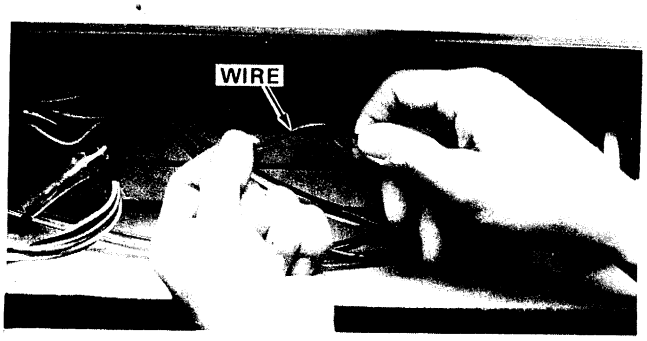
STEP 6 Set the ohmmeter scale to the lowest ohms setting and **ZERO** the meter. See the instructions that came with your ohmmeter.

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.

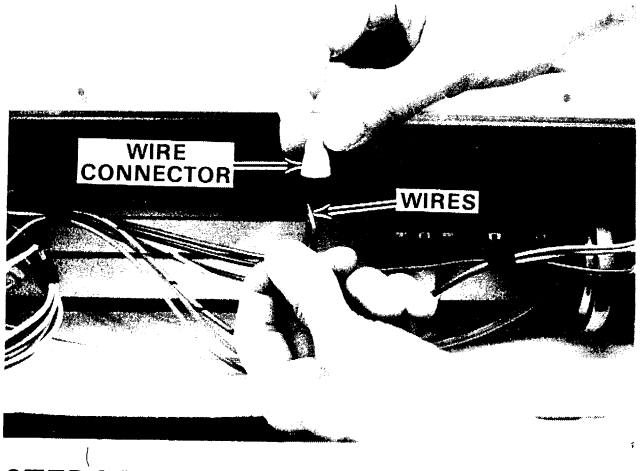
STEP 10 The ohmmeter should show **ZERO** resistance (continuity). If not, the wire is bad and needs repair or replacing.



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.

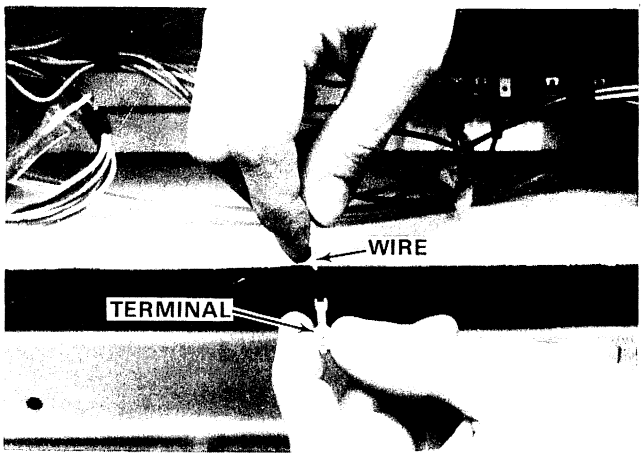
STEP 13 Strip the insulation back 1/2 inch on each cut end.



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 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 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 10, proc. D; Type A or B).*

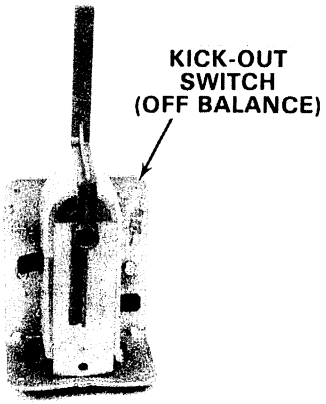
STEP 21 Replace the rear service panel and screws.

STEP 22 Lower the top *(section 11, proc. A).*

STEP 23 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

STEP 24 Run a cycle check *(section 6, proc. B, section 9, steps 1-4).*

PROCEDURE E
Kick-Out Switch (Off Balance) Testing and/or Replacement



See page 172, illus. no. 43 for location of part.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- Failure to do so could result in personal injury or death.

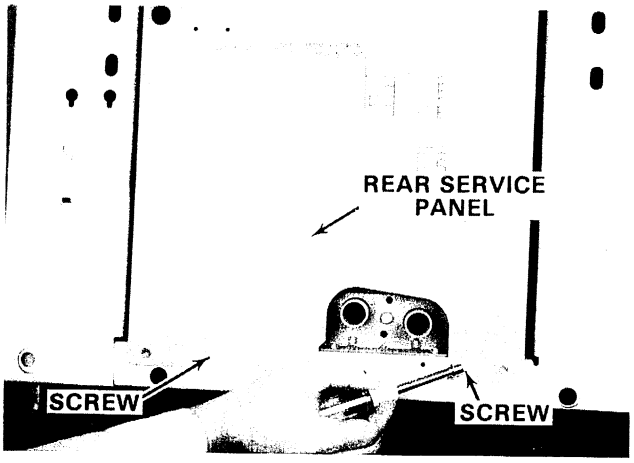
This part is located in the right rear corner of the cabinet. During **SPIN**, if the clothes get to one side of the basket this causes an off-balance load. The baseplate then strikes a lever on the kick-out switch which causes the switch to break the current to the automatic washer and shuts the machine off.

To reset and start the machine push or pull the timer knob to the "OFF" position. Rearrange the clothes in the basket then turn the automatic washer back "ON."

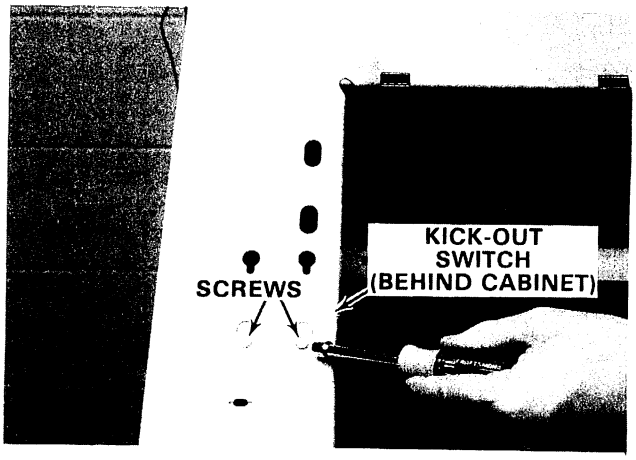
STEP 1 Disconnect the electrical power supply *(section 2).*

STEP 2 See access to parts *(section 14, proc. A).*

STEP 3 Carefully turn or pull the automatic washer out so you can work behind it.



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



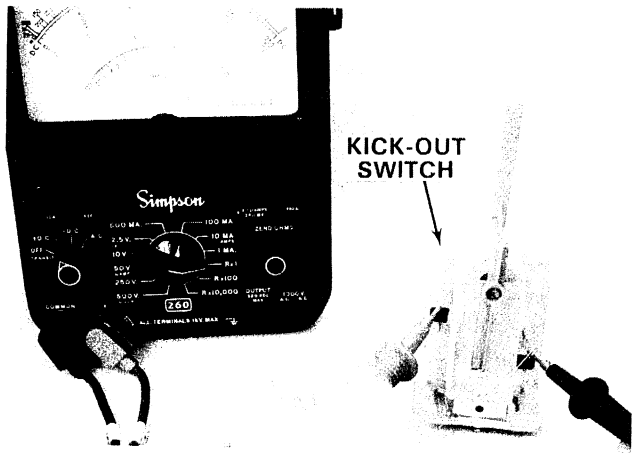
STEP 5 Using a screwdriver or nutdriver, remove the screws holding the kick-out switch to the cabinet.

TESTING

STEP 6 Remove one wire at a time, carefully labeling each wire according to the terminal marking on the kick-out 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 Touch one of the ohmmeter probes to one of the terminals.

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

STEP 11 With the lever out, the ohmmeter should show **ZERO** resistance (continuity). If not, the kick-out switch is bad and needs replacing.

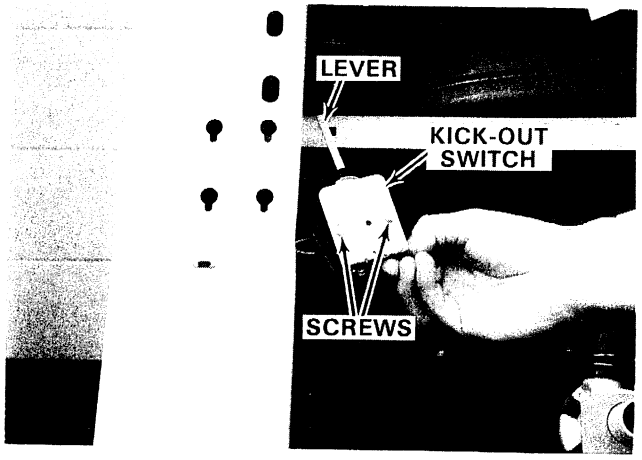
STEP 12 Touch one of the ohmmeter probes to one of the terminals.

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

STEP 14 With the lever in, the ohmmeter should show an open circuit. If not, the kick-out switch is bad and needs replacing.

REPLACEMENT

STEP 15 Reconnect the wires to the proper terminals as previously marked.



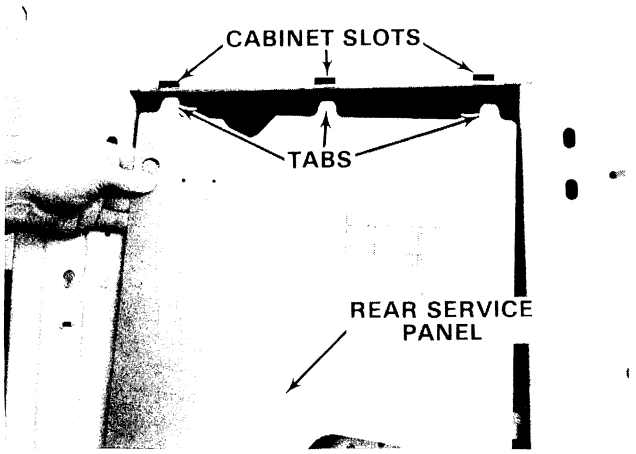
STEP 16 Place the kick-out switch inside the cabinet with the lever pointing up.

STEP 17 Using a screwdriver or nutdriver, insert the screws through the back of the cabinet, into the kick-out switch, and tighten.

⚠ 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 Place the tabs on the top of the rear service panel in the slots in the cabinet.

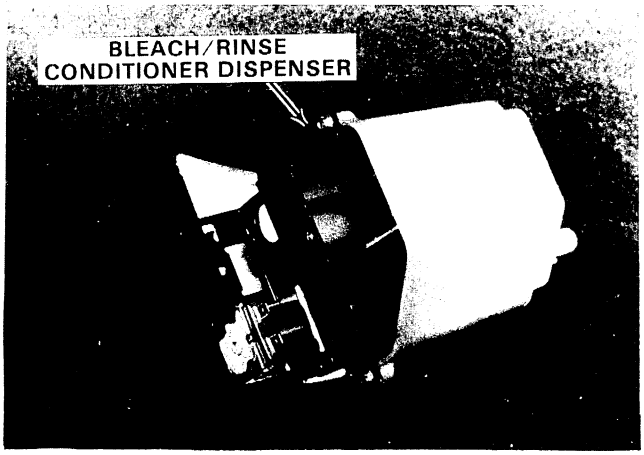
STEP 19 Using a screwdriver or nutdriver, insert the screws and tighten.

STEP 20 Place the automatic washer back in its proper location.

STEP 21 See access to parts *(section 14, proc. A)*.

STEP 22 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

PROCEDURE F
Bleach/Rinse Conditioner Dispenser Testing and/or Replacement



See page 172, illus. no. 75 for location of parts.

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- 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.

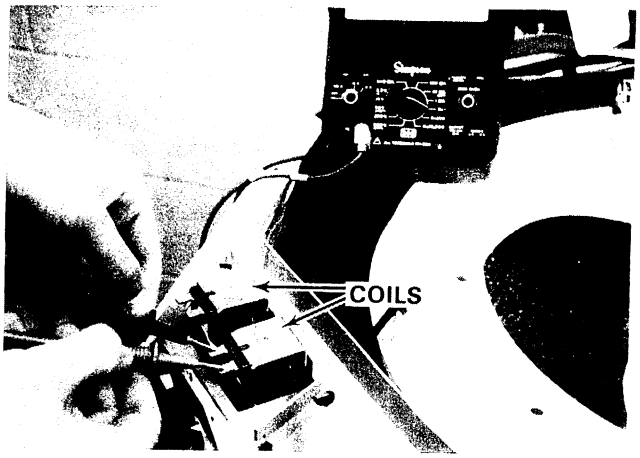
In other dispensers the liquid is poured into a tray and goes into the wash right away.

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 2).*

STEP 2 Raise the top *(section 11, proc. A).*



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 to 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 and 500 ohms on the ohms scale.

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

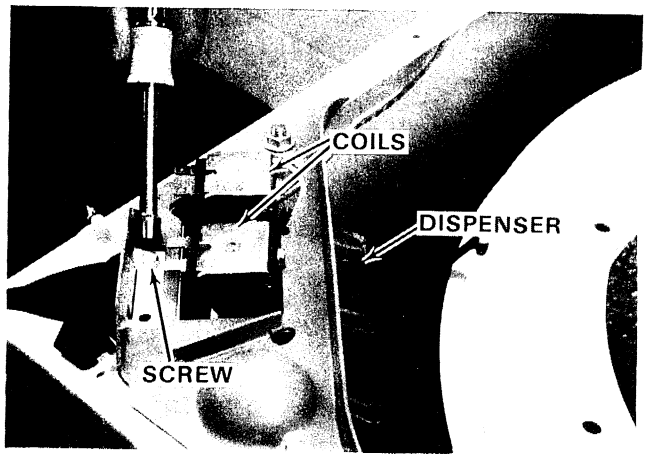
STEP 10 If your washer has two coils, touch one ohmmeter probe to one of the terminals on the other coil.

STEP 11 Touch the other ohmmeter probe to the other terminal on the same coil.

STEP 12 The ohmmeter should show between 200 and 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.

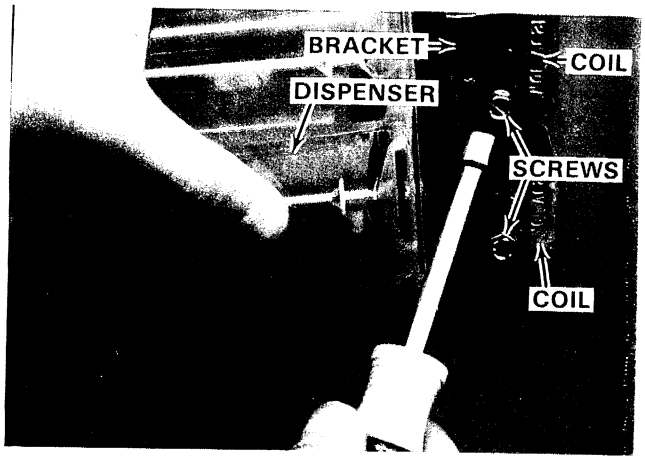
STEP 15 Slide the dispenser toward the front corner to release a tab on the coil bracket from between the corner brackets.

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.

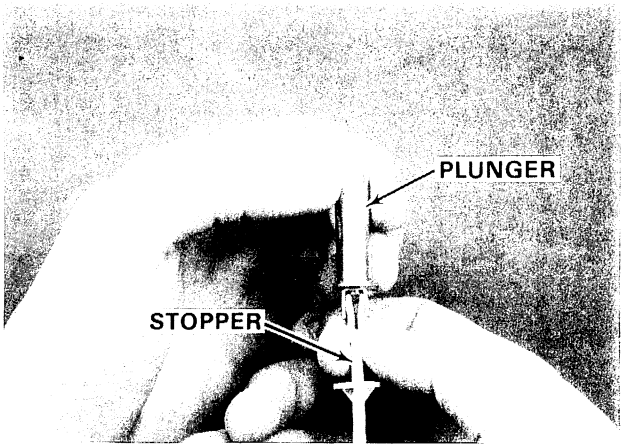
STEP 18 Push the basket toward the back right corner while removing the dispenser.



STEP 19 Using a nutdriver, remove the screw(s) holding the coil(s) to the bracket.

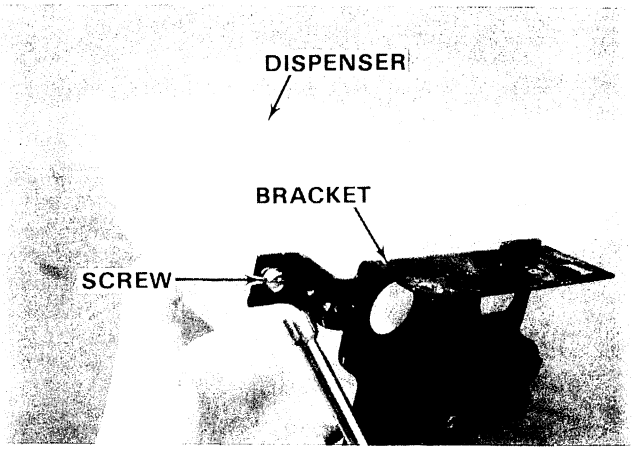
STEP 20 Carefully remove the coil(s).

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 bracket, into the dispenser and tighten.

STEP 25 Snap the tabs from the barrel(s) into the holes in the top of the 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 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).

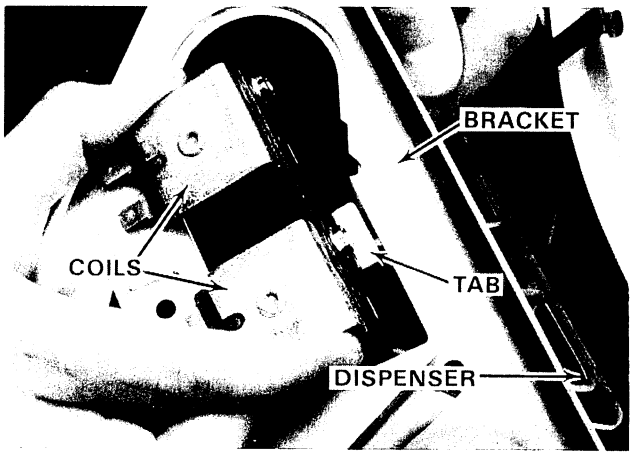
STEP 28 Place the coil(s) over the spring(s) with the barrel(s) inside the coil(s), then push down.

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.

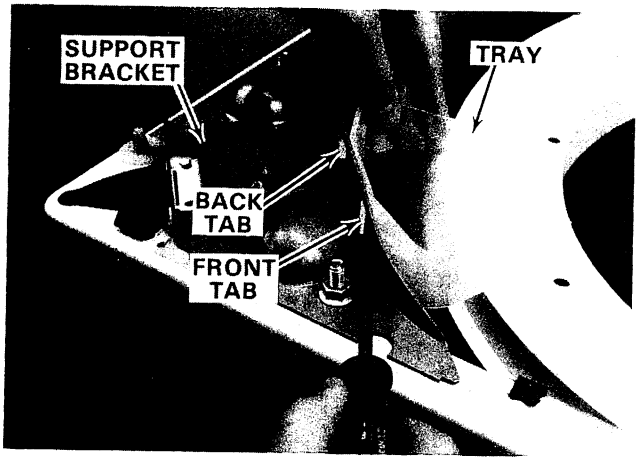
STEP 36 Lower the top *(section 11, proc. A).*

STEP 37 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

TYPE B

STEP 1 Disconnect the electrical power supply *(section 2).*

STEP 2 Raise the top *(section 11, proc. A).*



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.

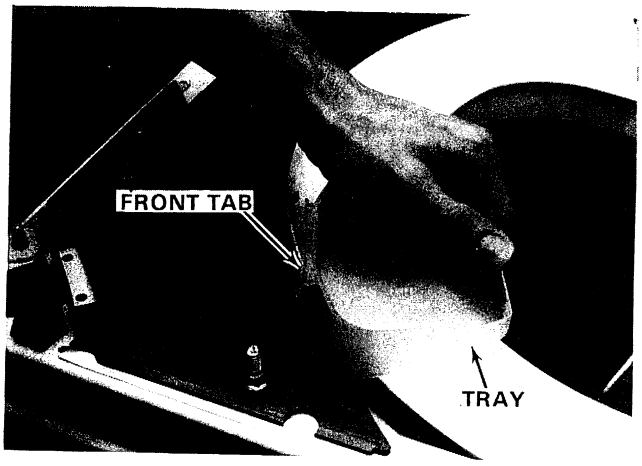
STEP 5 Using pliers, slide the hose clamp off the bottom port of the tray.

STEP 6 Remove the hose.

REPLACEMENT

STEP 7 Place the hose on the dispenser tray.

STEP 8 Using pliers, slide the hose clamp onto the tray.



STEP 9 Insert the front tab first, then the back.

⚠ WARNING

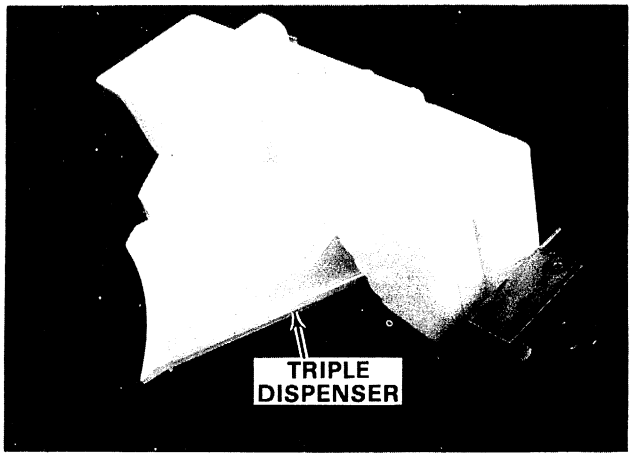
Electrical Shock Hazard

- 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 11, proc. A).*

STEP 11 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

PROCEDURE G
Triple Dispenser Testing and/or Replacement



See page 172, illus. no. 40 for location of part.

⚠ WARNING

Electrical Shock Hazard

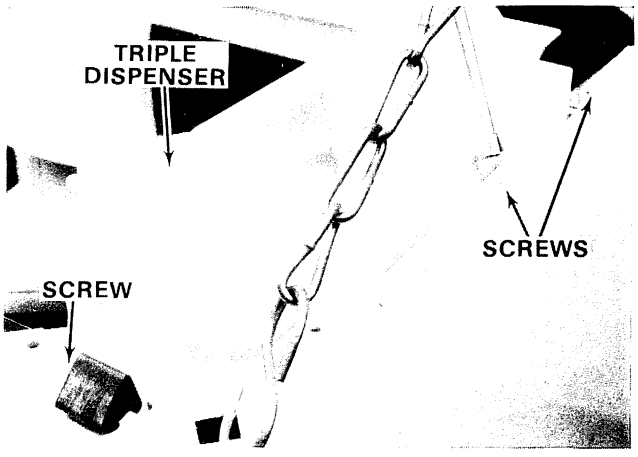
- Disconnect power before servicing (section 2).
- Failure to do so could result in personal injury or death.

OHMMETER REQUIRED

This dispenser is located on the right side under the top. This is a three-compartment dispenser which holds liquid or dry detergent, liquid bleach and fabric softener.

STEP 1 Disconnect the electrical power supply *(section 2).*

STEP 2 Raise the top *(section 11, proc. A).*



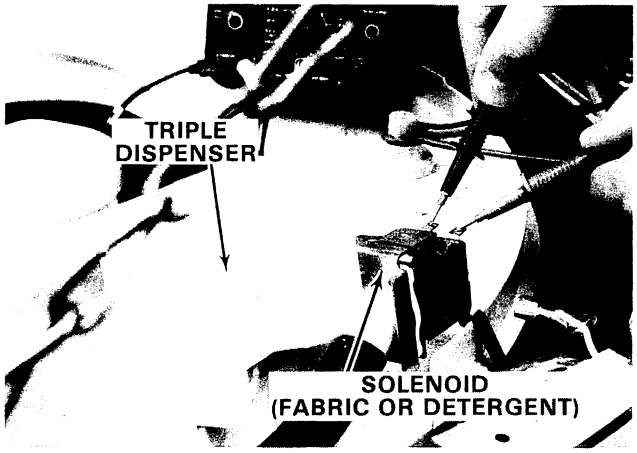
STEP 3 Using a nutdriver or screwdriver, remove the three screws holding the triple dispenser to the cabinet.

TESTING

STEP 4 Remove one wire at a time, carefully labeling each wire according to the terminal marking on the solenoids. 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 Refer to the instructions that came with your volt-ohmmeter to find the proper scale to measure 200 to 400 ohms. Set the ohms scale and **ZERO** the meter.



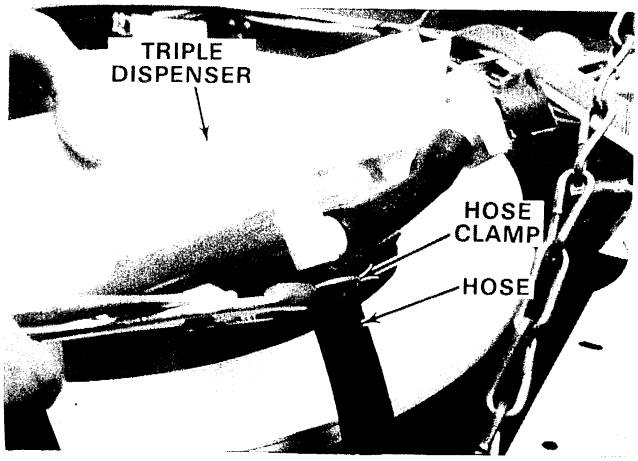
STEP 7 Touch one of the ohmmeter probes to one of the terminals on the solenoid.

STEP 8 Touch the other ohmmeter probe to the other terminal on the same solenoid.

STEP 9 The ohmmeter should show between 200-400 ohms on the ohms scale. If you do not get this reading, the solenoid is bad and needs replacing.

STEP 10 Check the other solenoid as described in steps 6-9.

REPLACEMENT



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

STEP 11 Using pliers, slide the two hose clamps off the bottom ports of the dispenser.

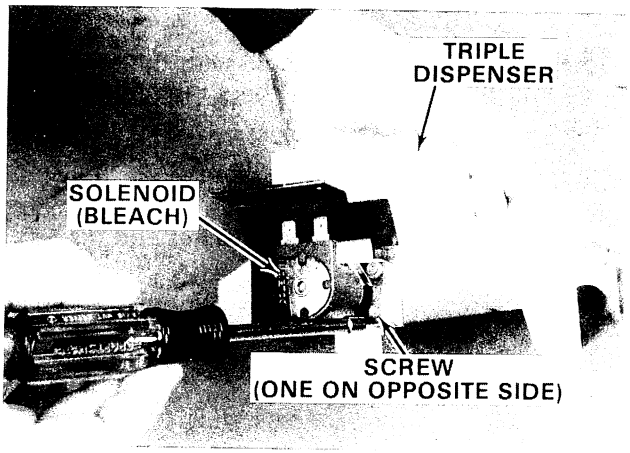
STEP 12 Remove the two hoses off the bottom ports of the dispenser.

STEP 13 Carefully remove the triple dispenser.

IF YOU WANT TO REPLACE ONLY THE BLEACH SOLENOID SEE STEPS 14-27, 42-48.

IF YOU WANT TO REPLACE ONLY THE FABRIC SOFTENER OR LIQUID/ POWDER DETERGENT SOLENOID SEE STEPS 28-48.

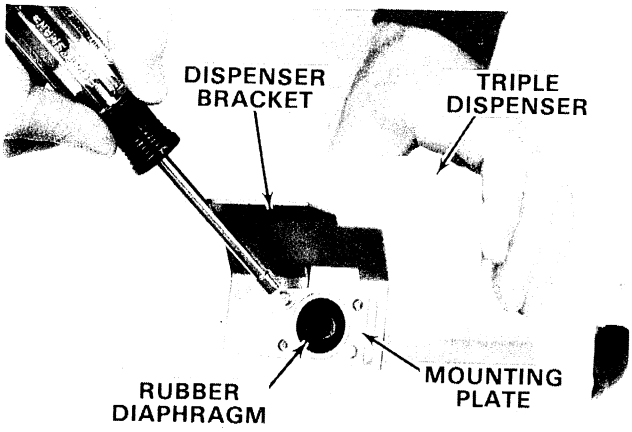
BLEACH SOLENOID



STEP 14 Using a nutdriver, remove the two screws holding the solenoid on the liquid bleach side, to the dispenser.

STEP 15 Pull the round metal armature out of the rubber diaphragm.

NOTE: The spring will also be removed when you pull the armature out of the diaphragm.

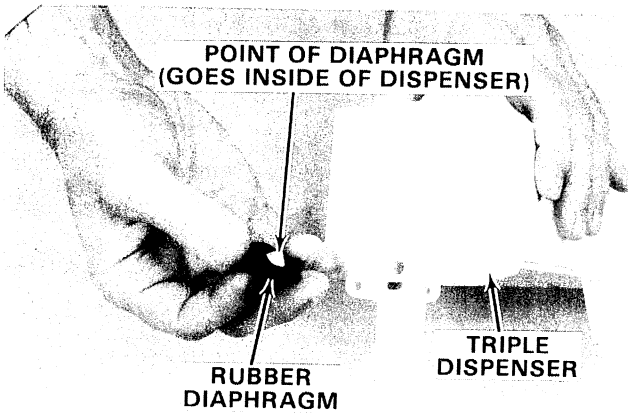


STEP 16 Using a nutdriver, remove the two screws holding the mounting plate, rubber diaphragm and dispenser bracket to the dispenser.

STEP 17 Remove the mounting plate.

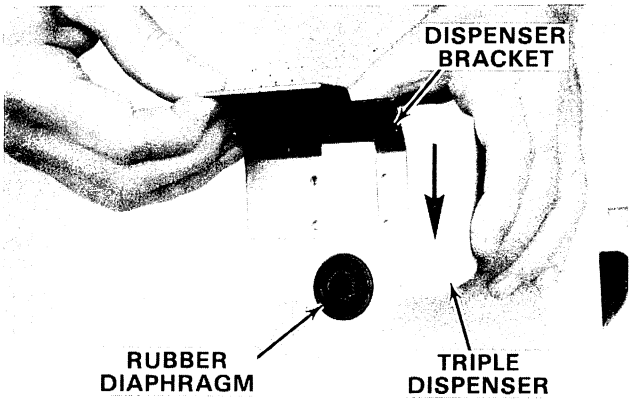
STEP 18 Remove the dispenser bracket, sliding it up.

STEP 19 Remove the rubber diaphragm.



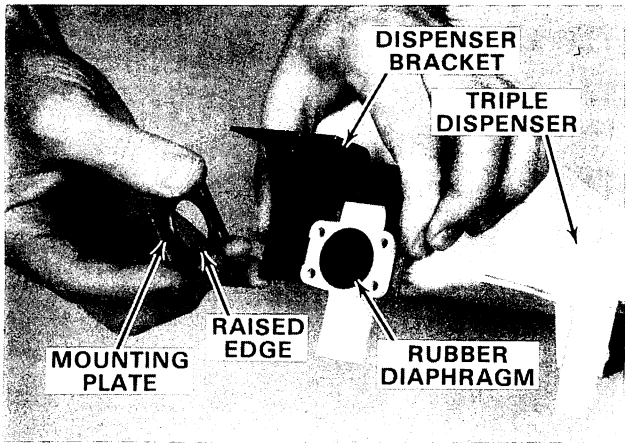
STEP 20 Place the rubber diaphragm in the triple dispenser.

NOTE: Be sure the pointed part goes inside the dispenser.



STEP 21 Slide the dispenser bracket down, behind the four holes in the dispenser.

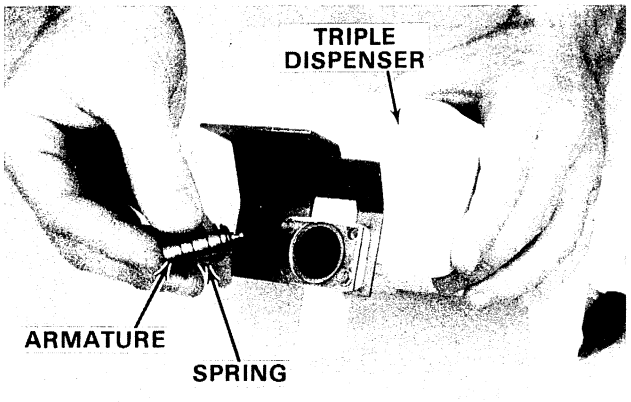
NOTE: Be sure the top of the dispenser bracket is facing away from the dispenser.



STEP 22 Place the mounting plate on the dispenser.

NOTE: Be sure the raised circle is facing the dispenser or rubber diaphragm.

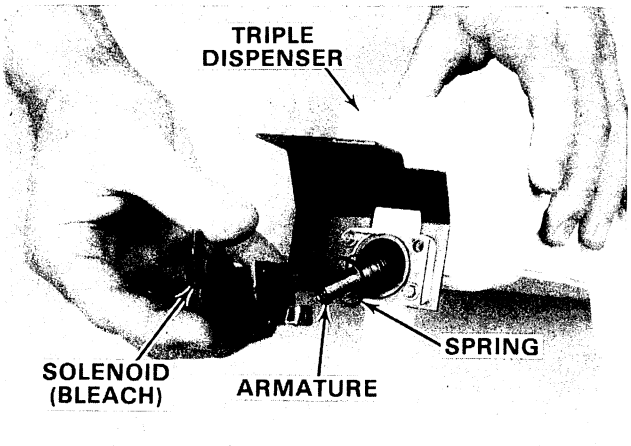
STEP 23 Using a nutdriver, insert two screws through the mounting plate, into the dispenser bracket and tighten.



STEP 24 Place the armature in the spring.

NOTE: The smaller part of the spring must be next to the rubber diaphragm.

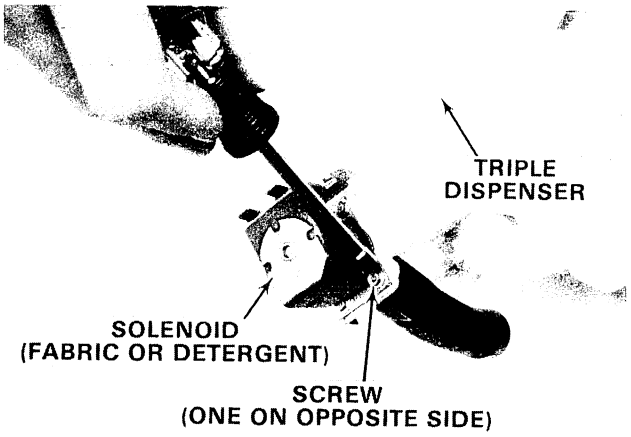
STEP 25 Push the armature, with the spring in the rubber diagraphm, until the diaphragm rests in the groove in the armature.



STEP 26 Place the solenoid with the armature inside and the large part of the spring against the solenoid on the dispenser.

STEP 27 Using a nutdriver, insert the two screws through the solenoid, mounting plate, dispenser, into the dispenser bracket and tighten.

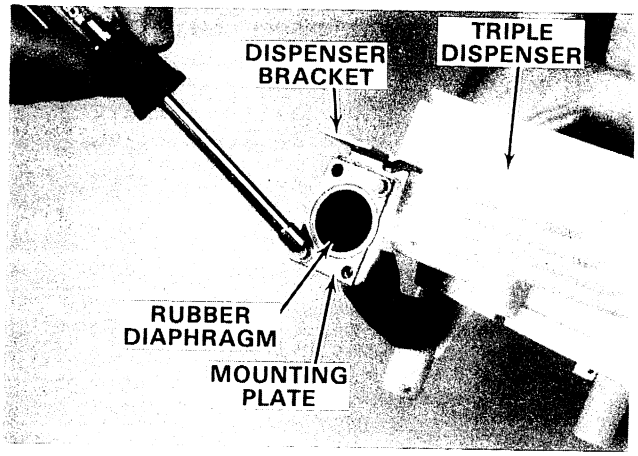
FABRIC SOFTENER OR LIQUID/ POWDER DETERGENT SOLENOID



STEP 28 Using a nutdriver, remove the two screws holding the solenoid on the fabric or detergent side, to the dispenser.

STEP 29 Pull the round metal armature out of the rubber diaphragm.

NOTE: The spring will also be removed when you pull the armature from the diaphragm.

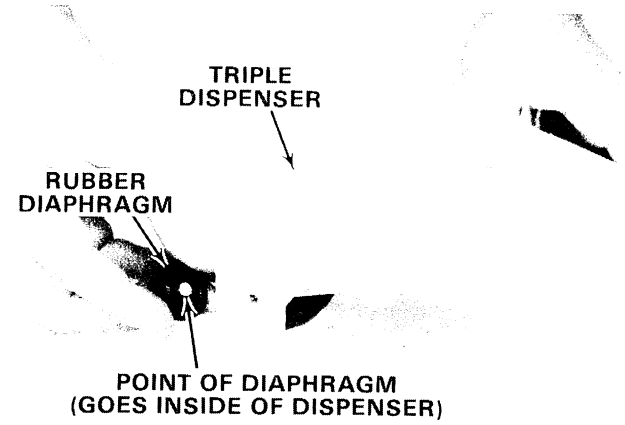


STEP 30 Using a nutdriver, remove the two screws holding the mounting plate, rubber diaphragm and dispenser bracket to the dispenser.

STEP 31 Remove the mounting plate.

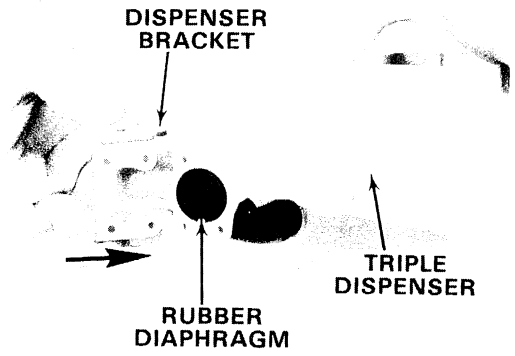
STEP 32 Remove the dispenser bracket, sliding it sideways.

STEP 33 Remove the rubber diaphragm.



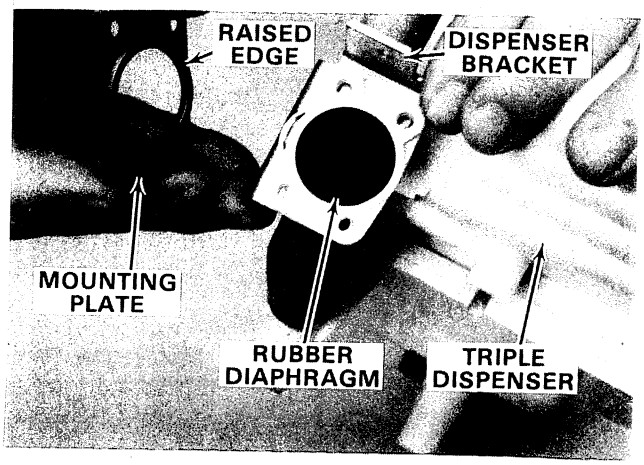
STEP 34 Place the rubber diaphragm in the triple dispenser.

NOTE: Be sure the pointed part goes inside the new dispenser.



STEP 35 Slide the dispenser sideways, behind the four holes in the dispenser.

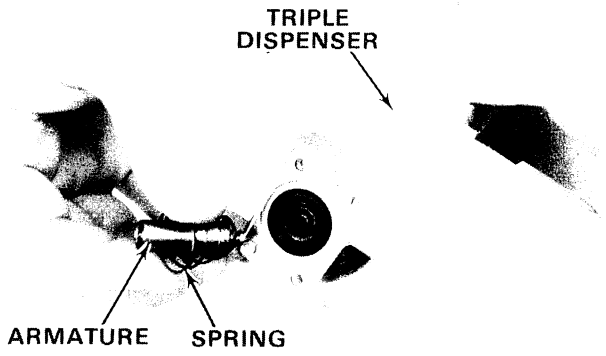
NOTE: Be sure the top of the dispenser bracket is facing away from the dispenser.



STEP 36 Place the mounting plate on the dispenser.

NOTE: Be sure the raised circle is facing the dispenser or rubber diaphragm.

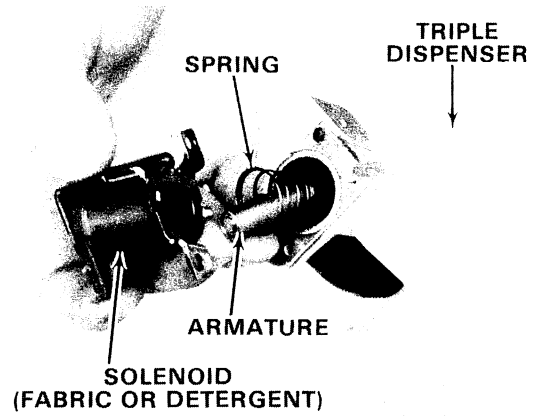
STEP 37 Using a nutdriver, insert two screws through the mounting plate, into the dispenser bracket and tighten.



STEP 38 Place the armature into the spring.

NOTE: The smaller part of the spring must be next to the rubber diaphragm.

STEP 39 Push the armature, with the spring, into the rubber diaphram until the diaphragm rests in the groove in the armature.



STEP 40 Place the solenoid, with the armature inside and the large part of the spring against the solenoid, onto the dispenser.

STEP 41 Using a nutdriver, insert the two screws through the solenoid, mounting plate, dispenser, into the dispenser bracket and tighten.

STEP 42 Place the triple dispenser on the right side of the cabinet.

STEP 43 Slide the two hoses onto the bottom ports of the dispenser.

STEP 44 Using pliers, slide the two clamps onto the ports of the dispenser.

STEP 45 Reconnect the wires to the proper terminals as previously marked.

STEP 46 Using a nutdriver or screwdriver, insert the three screws through the cabinet flange into the dispenser, and tighten.

⚠ 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 47 Lower the top *(section 11, proc. A).*

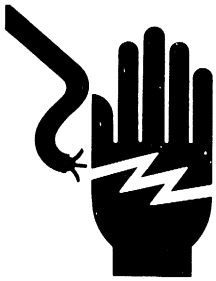
STEP 48 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

SECTION 16

Compact/Portable Automatic Washer Area

SECTION 1 MUST BE CAREFULLY READ BEFORE ANY REPAIR OR TESTING PROCEDURES ARE ATTEMPTED.

⚠ WARNING



Disconnect power before servicing

⚠ WARNING

This appliance may have sharp edges

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 10 through 15 for testing of that part.

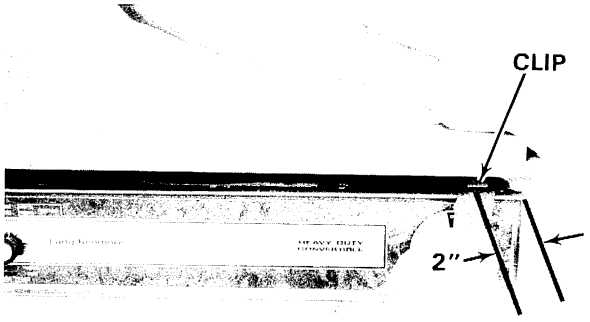
PROCEDURE A
Top Access

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- Failure to do so could result in personal injury or death.

STEP 1 Disconnect the electrical power supply *(section 2).*



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. It could pinch your finger.

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 2 for the proper reconnection.

PROCEDURE B
Bottom Access

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- Failure to do so could result in personal injury or death.

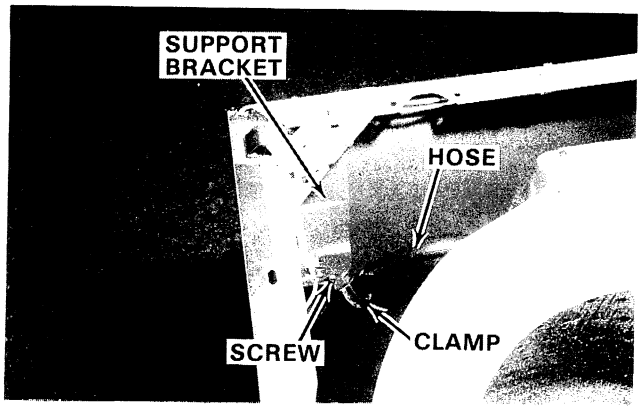
There are two ways to service parts in the bottom of the automatic washer. See Type A for raising the cabinet or Type B for laying the automatic washer down.

TYPE A

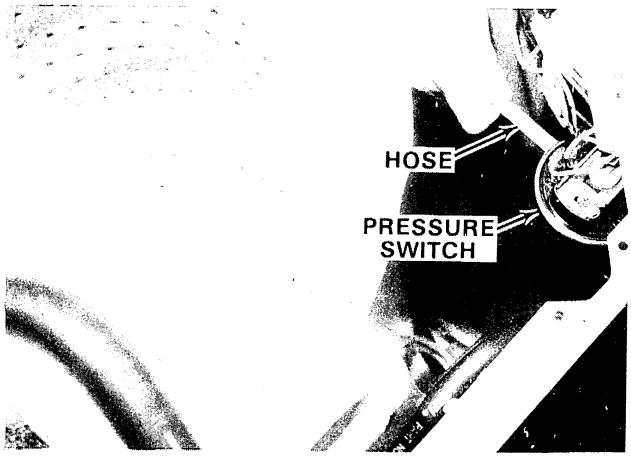
STEP 1 Disconnect the electrical power supply *(section 2).*

STEP 2 Remove any hoses that are connected to water faucets.

STEP 3 Raise the top *(section 16, proc. A).*

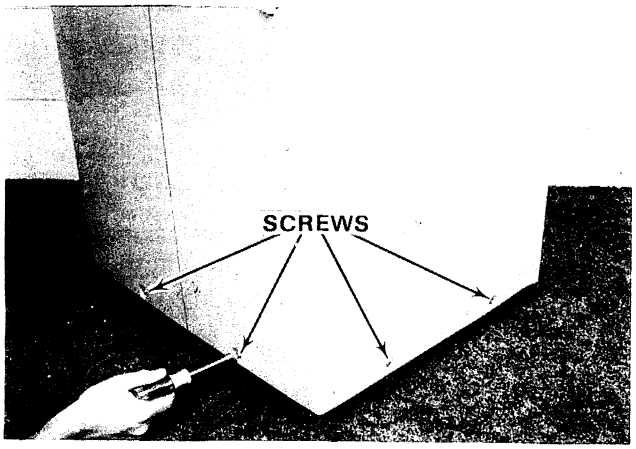


STEP 4 Using a screwdriver or nutdriver, remove the screw holding the drain hose clamp and drain hose, to a support bracket.

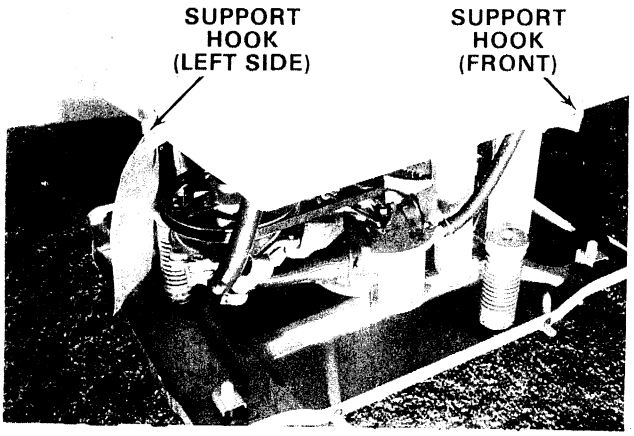


STEP 5 Remove the pressure switch hose from the top of the air dome.

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 16, proc. A)*.

STEP 15 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

TYPE B

STEP 1 Disconnect the electrical power supply *(section 2)*.

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 someone to help you when standing it upright.
- Failure to do so could result in personal injury or product damage.

⚠ CAUTION

Product/Property Damage

- Lay a pad (blanket or rug) on the floor before laying the appliance down.
- Personal property or appliance damage may result.

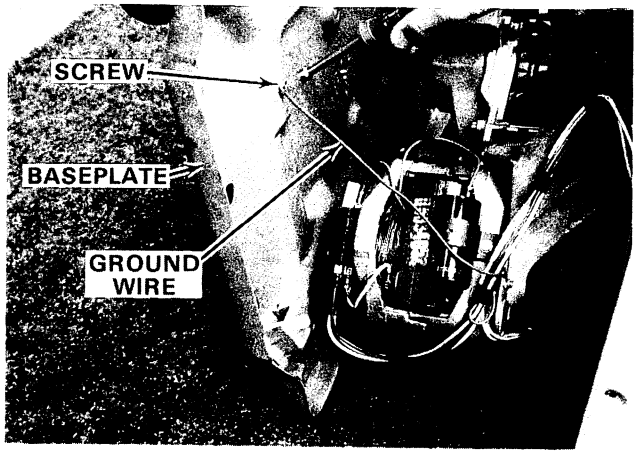
NOTE: Do not leave the washer lying on its back for any length of time as this may cause the oil in the gearcase to leak out.

STEP 5 Carefully lay the automatic washer on its back.

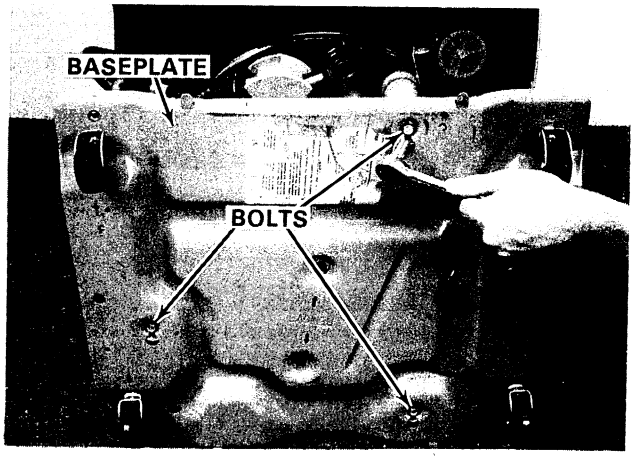
STEP 6 Place a 2 x 4—2 feet long—under the bottom edge of the automatic washer.

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.

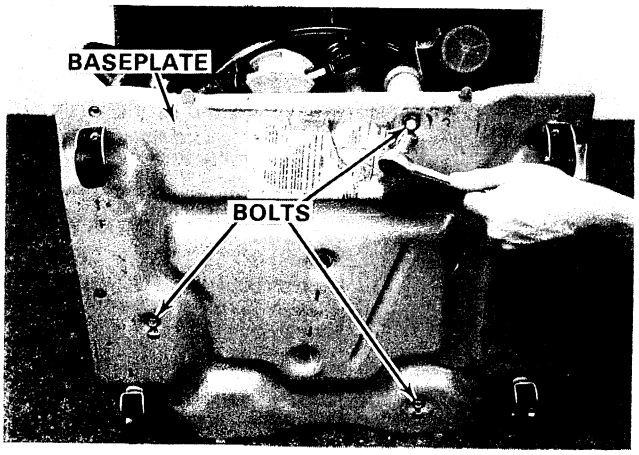
If your baseplate does not have these keyhole slots, the three bolts holding the baseplate to the springs must be removed.

STEP 11 Set the baseplate to one side.

REPLACEMENT

STEP 12 Replace the baseplate on the three springs.

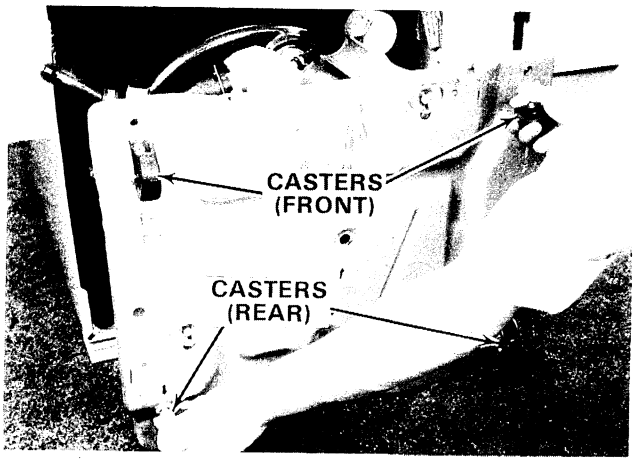
NOTE: The slanted casters are in the back.



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 someone to help you when standing it upright.
- 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 16, proc. A).*

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 16, proc. A).*

STEP 23 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

PROCEDURE C
Drive Belt

⚠ WARNING

Electrical Shock Hazard

- Disconnect power before servicing (section 2).
- Failure to do so could result in personal injury or death.

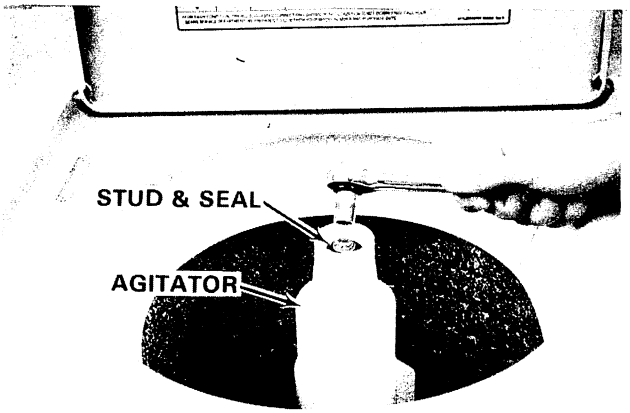
The drive belt fits around the pump pulley, main drive pulley, motor pulley, spin pulley and an idler pulley. The drive motor pulley moves the belt around these pulleys, causing the automatic washer to agitate, spin, circulate or drain the water.

STEP 1 Disconnect the electrical power supply *(section 2).*

STEP 2 Lift the lid.

STEP 3 Using a screwdriver, insert it into the slot between the insert (cap) and agitator, and pry.

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 16, proc. B; Type B).*

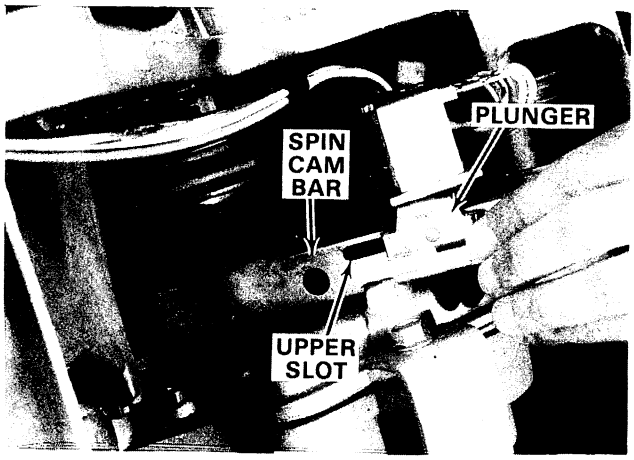
⚠ WARNING

Personal Injury Hazard

- Be careful, the idler pulley may spring back and injure you.

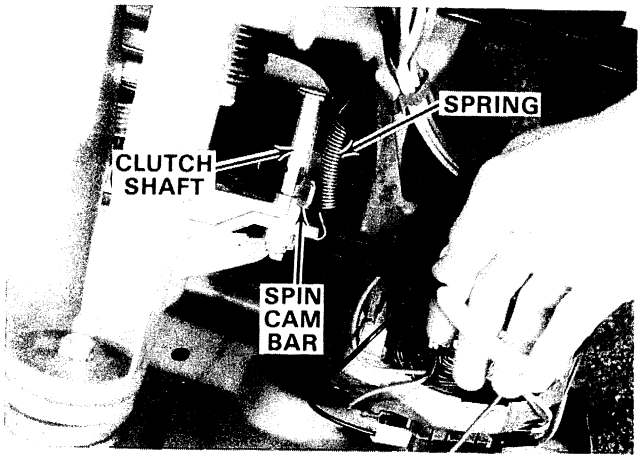
STEP 9 Using your hand, push the idler pulley toward the middle, then remove the belt.

STEP 10 Slowly move the idler pulley back.

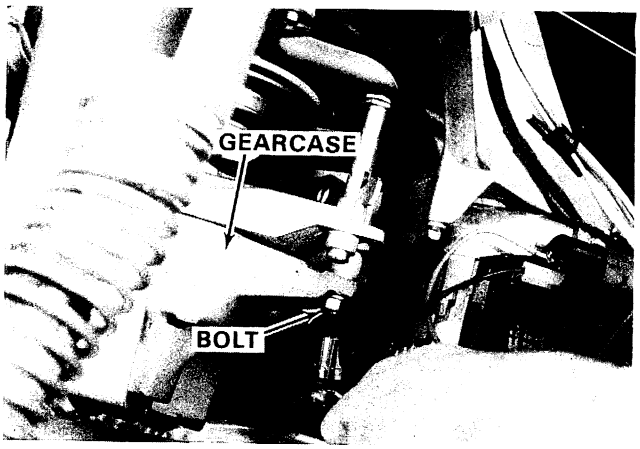


STEP 11 To make sure the spin cam bar is all the way back, hold the spin plunger up while turning the main drive pulley until the spin cam bar is in the spin position or pulled all the way back (plunger and rivet are in the upper slot).

This procedure will pull the spin cam bar back from the clutch shaft, allowing the shaft to move downward.

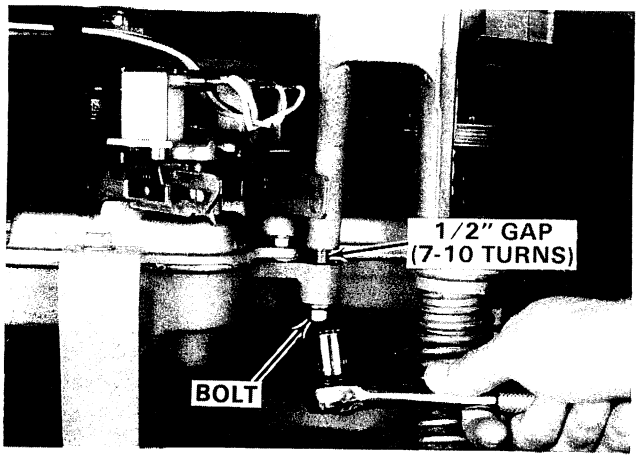


STEP 12 Using needle nose pliers, remove the spring.

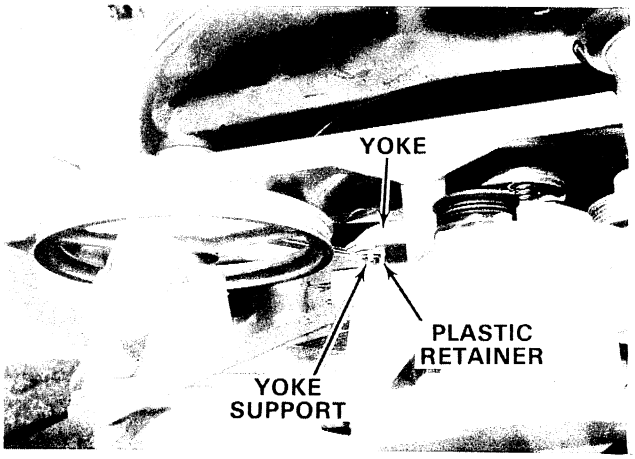


STEP 13 Using a socket wrench, remove the gearcase mounting bolt by the motor.

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.

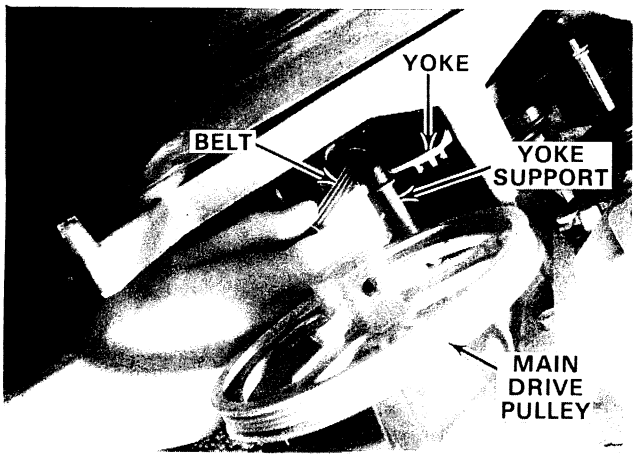
STEP 16 Using a screwdriver, place it between the plastic retainer and yoke support, and pry.

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.

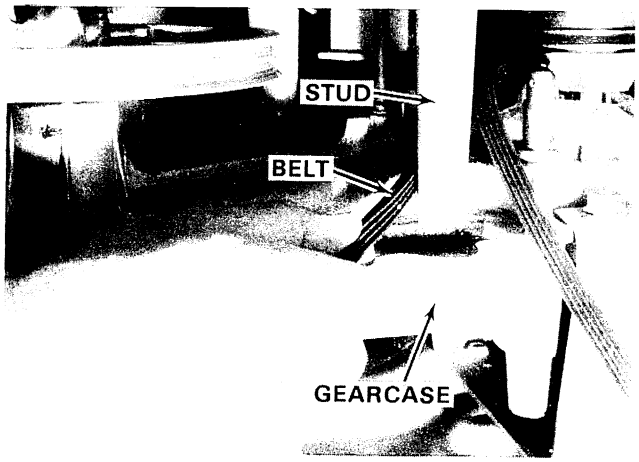
STEP 17 Lift the yoke from the yoke support and the clutch shaft, and turn somewhat.

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.

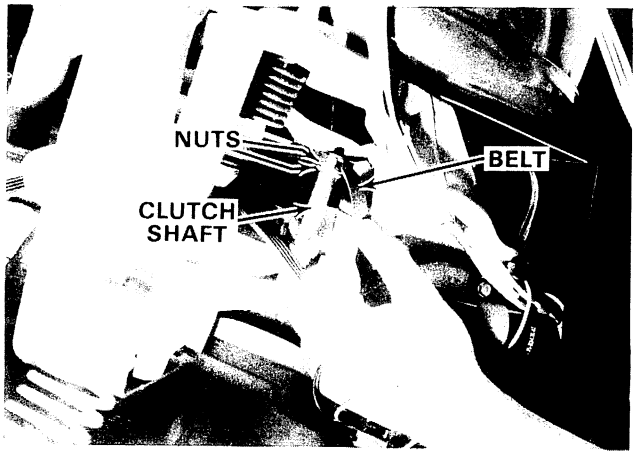


NOTE: This pump was removed to clarify the picture. This pump does not have to be removed.

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.

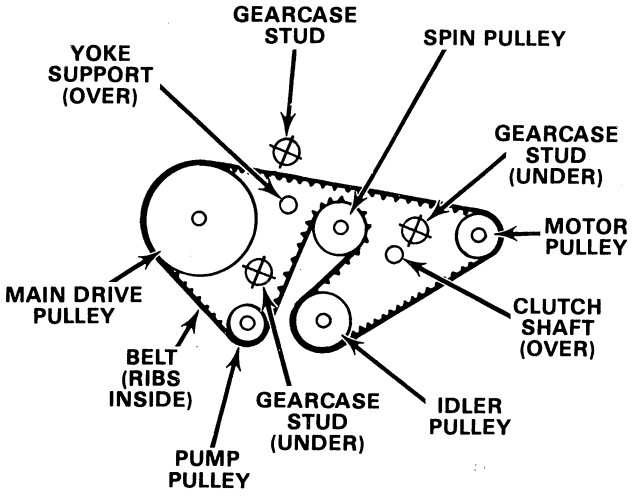
On older washers, slide the belt toward you, between the stud (by the motor) and gearcase.



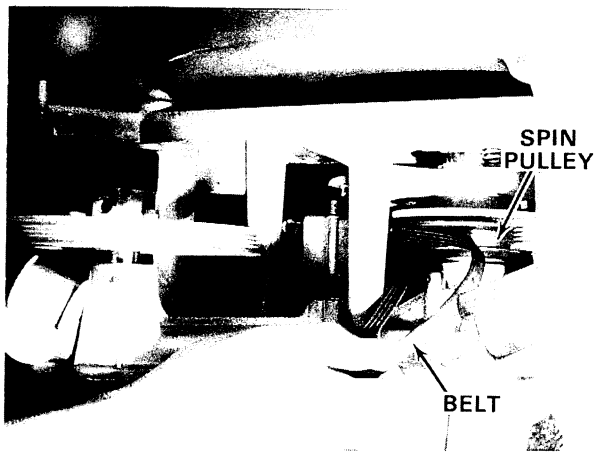
STEP 22 Slide the belt (toward you) over the clutch shaft.

STEP 23 Remove the belt.

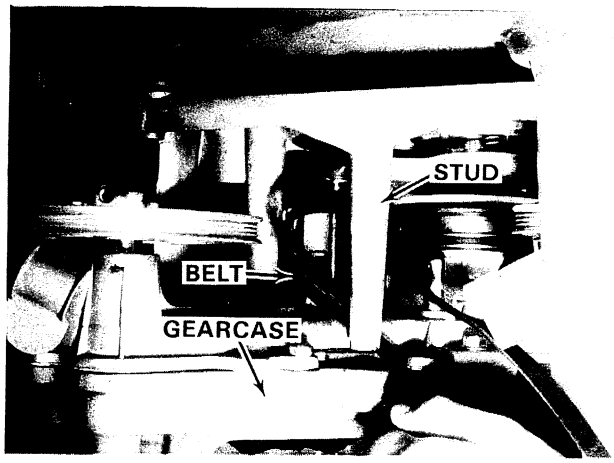
REPLACEMENT



TOP FRONT VIEW



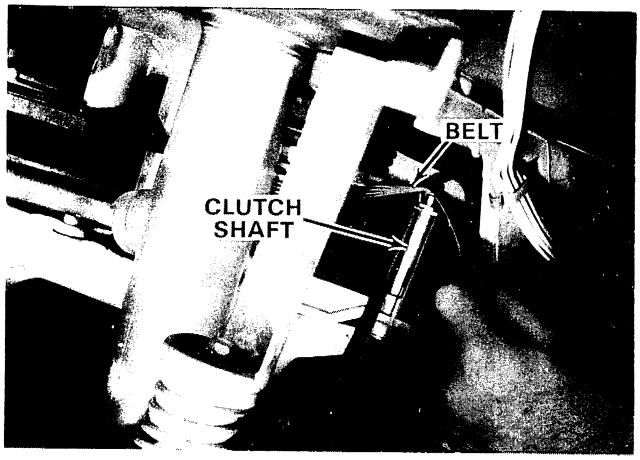
STEP 24 Loop the belt (ribs inside) behind the back side of the spin pulley.



NOTE: This pump was removed to clarify the picture. This pump does not have to be removed.

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.

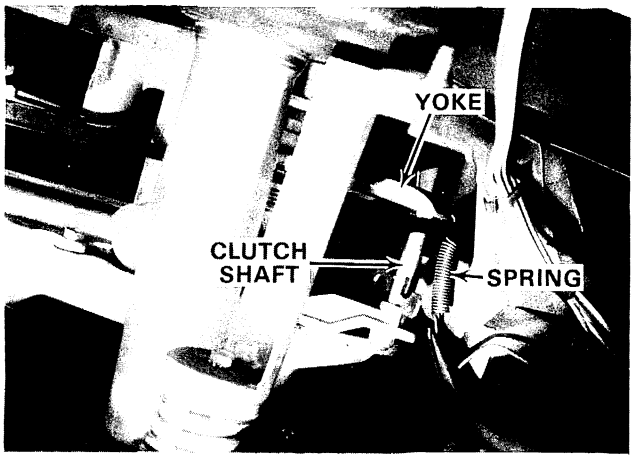
On older washers, slide the loop of the belt away from you, between the stud (by the motor) and gearcase.

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 on 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.

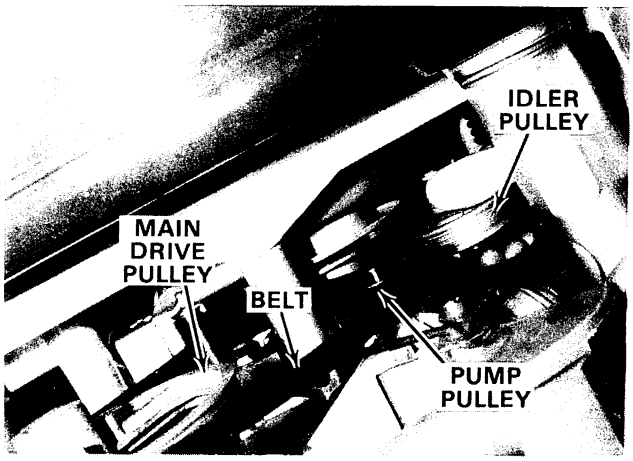
STEP 35 Finger tighten the bottom gearcase mounting bolt.

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, the idler pulley may spring back and injure you.

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 16, proc. B; 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.

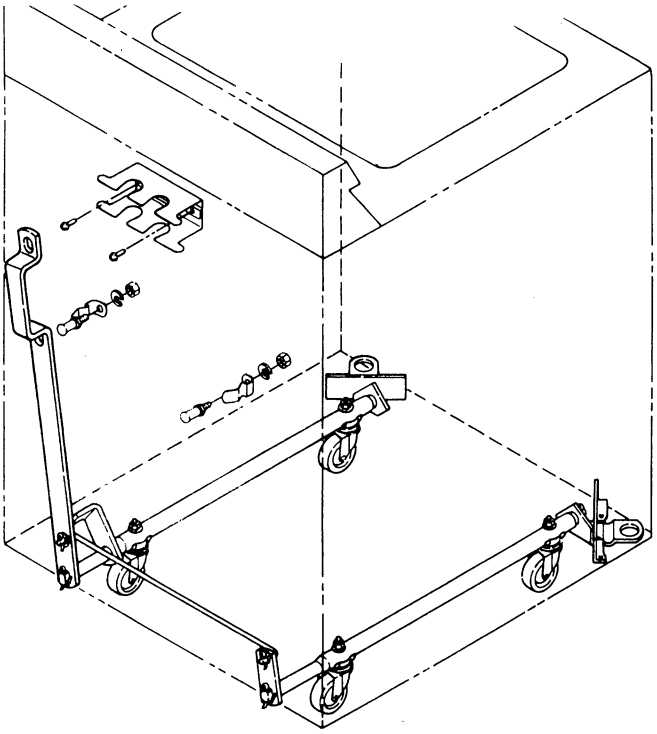
STEP 48 Reconnect the electrical power supply to the automatic washer. See section 2 for the proper reconnection.

SECTION 17

Automatic Washer Accessories

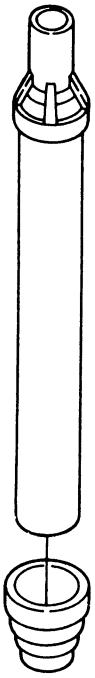
USE FSP PARTS

CASTER KIT



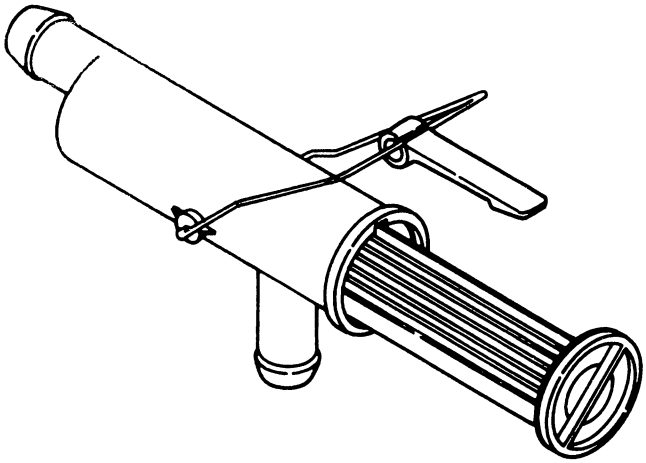
Can be used on 24" and 29" standard models. DO NOT use on 29" large capacity models.

STAND-PIPE KIT



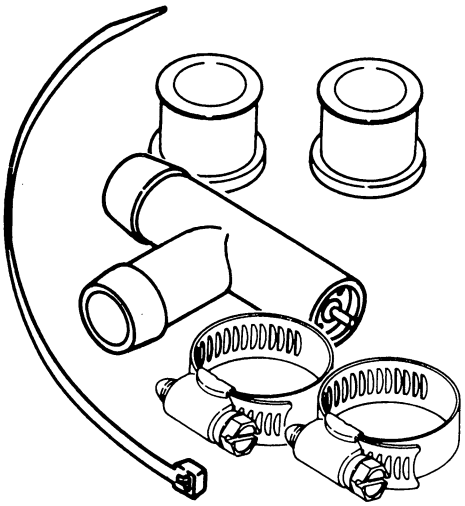
Used with suds-saver models using single laundry tub. Drain hose fits in top of standpipe for drain application. The suds hose fits over the side of the tub for suds saver portion.

DRAIN PROTECTOR



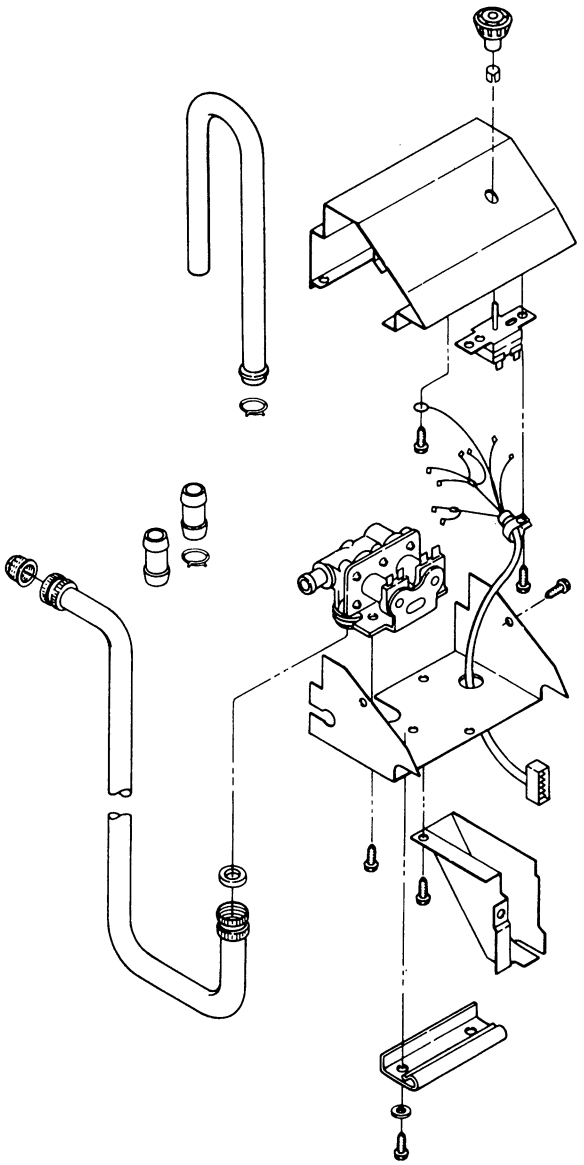
Designed to break up excessive amounts of lint into smaller particles and catch threads and strings from shag rugs and chenille spreads that could clog the drain.

SIPHON BREAK KIT

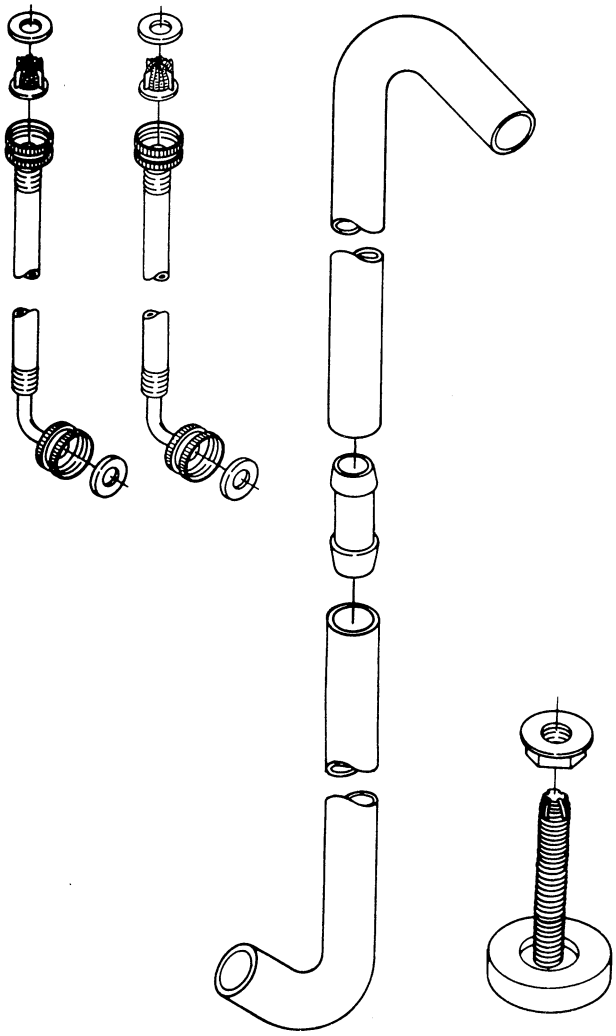


For rubber or plastic ribbed hose applications.

COMPACT AUTOMATIC WASHER PERMANENT INSTALLATION KITS

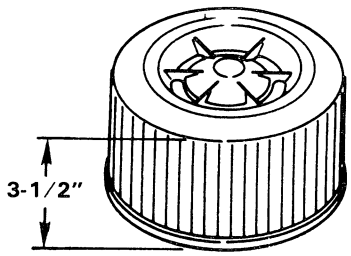


Allows conversion from portable water fill to regular water fill.

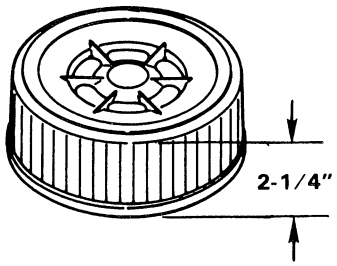


Allows conversion from a portable type compact model to a stationary permanent installation.

AGITATOR FABRIC CONDITIONER DISPENERS

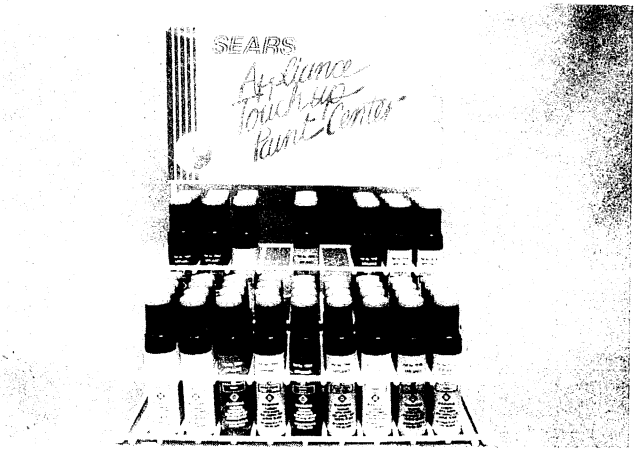


Fits on super roto-swirl, penta-vane, penta-swirl and compact agitators.



Fits on dual action agitators.

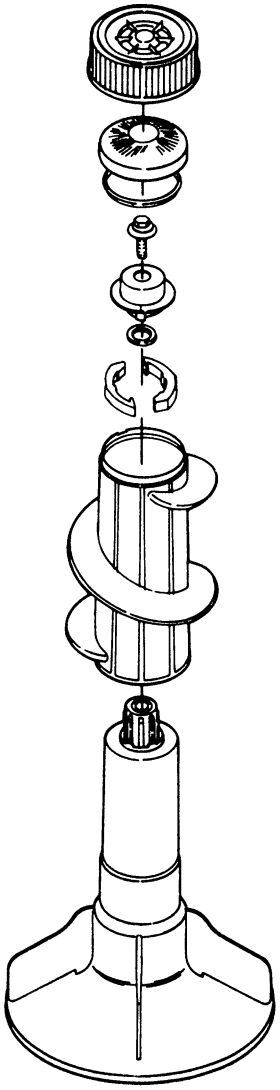
TOUCH-UP PAINT



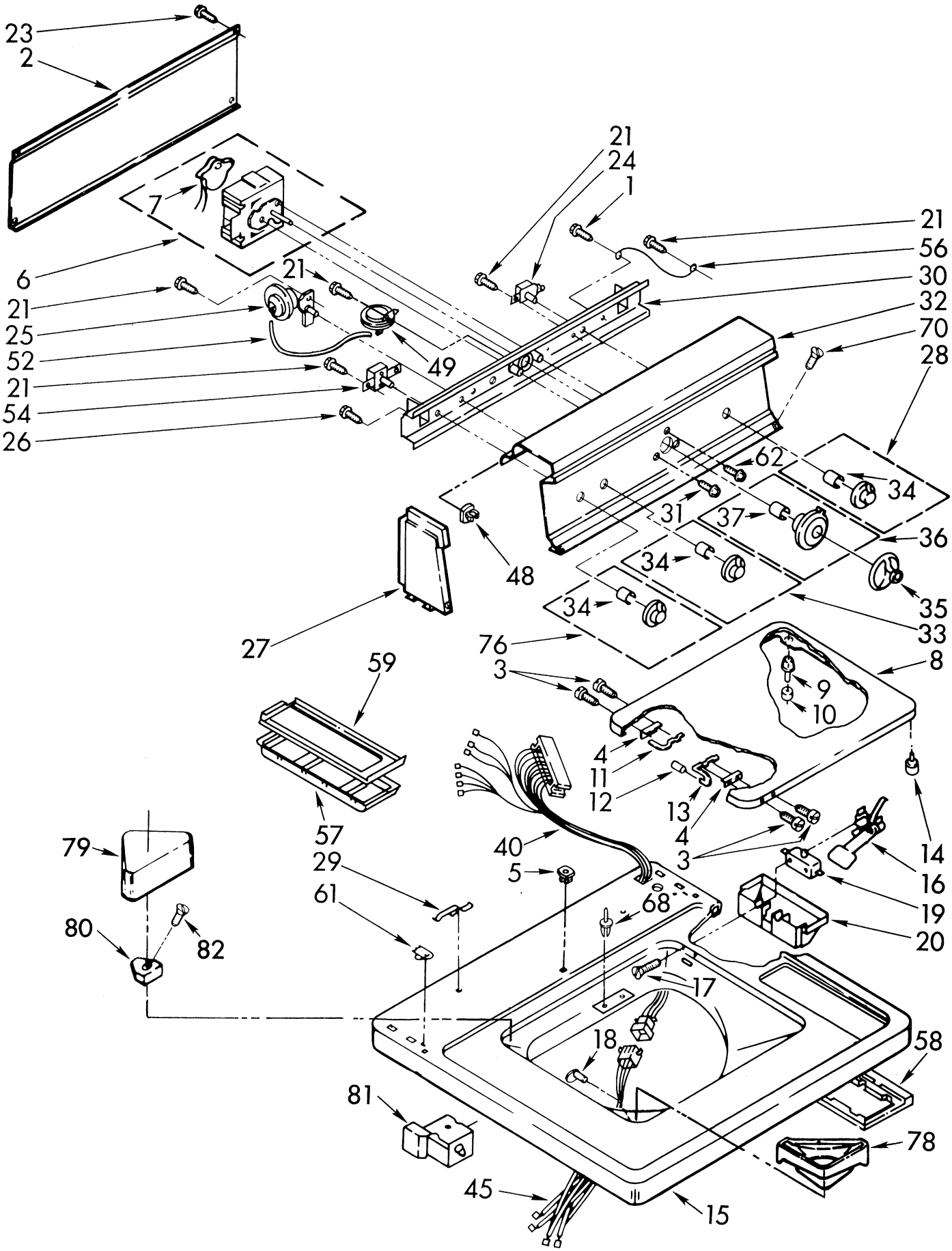
Quick and easy way to keep your appliance looking like new. Touch up scratches and chips when they occur. Rubbing compound included in each tube.

DUAL-ACTION AGITATOR KIT

For use with any KENMORE® automatic washer originally equipped with penta-vane or penta-swirl agitator.



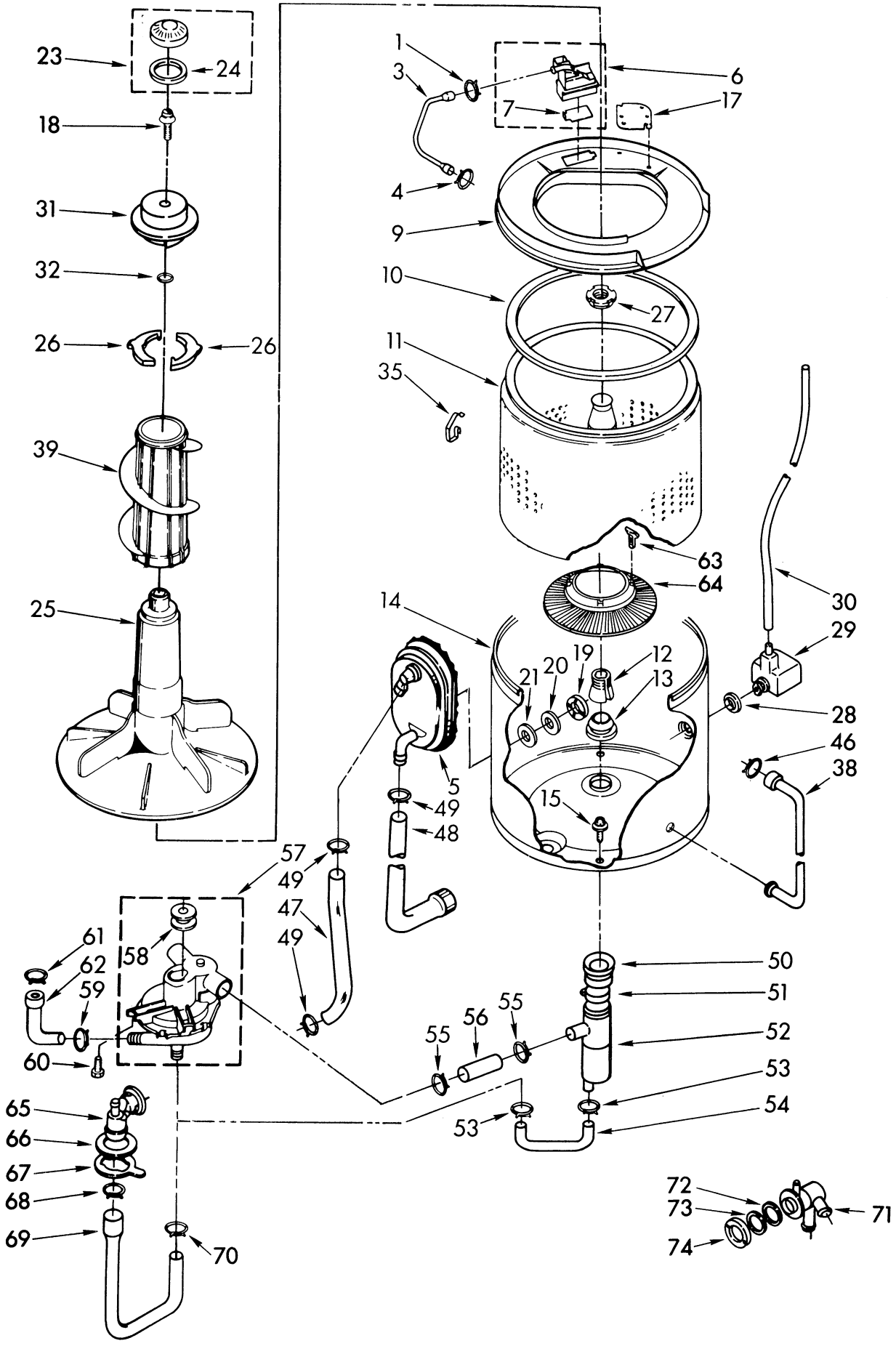
TYPICAL TOP AND CONSOLE PARTS



TYPICAL TOP AND CONSOLE PARTS

Illus. No.	DESCRIPTION
1	Screw, 10-16 x 1/2
2	Panel, Rear
3	Screw
4	Pad, Lid Hinge
5	Nut, Push-In
6	Timer
7	Motor, Timer
8	Lid
9	Strike, Lid
10	Bumper, Lid
11	Hinge, Lid (Rear)
12	Bumper, Lid Hinge
13	Hinge, Lid (Front)
14	Bumper, Rubber (Lid)
15	Top
16	Switch Actuator Assembly
17	Screw & Washer
18	Bearing, Hinge
19	Switch, Lid
20	Shield, Lid Switch
21	Screw, 8A x 3/8
23	Screw, 8-18 x 1/2
24	Switch, Water Temperature
25	Switch, Water Level
26	Screw, 13-16 x 5/8
27	Cap, End
28	Knob Assembly, Water Temperature
29	Clip, Wire
30	Bracket, Control
31	Screw, Nibbed
32	Console Panel
33	Knob Assembly, Water Level
34	Clip, Compression
35	Knob, Timer
36	Pointer & Clip Assembly
37	Clip, Compression
40	Harness, Wiring (Console)
45	Harness, Wiring (Cabinet)
48	Nut, Push-In
49	Switch, Suds Level
52	Hose, Suds Level Switch
54	Switch, Cycle Modifier
56	Wire, Ground
57	Bezel, Dispenser (Includes Illus. 59)
58	Gasket, Dispenser
59	Lid, Dispenser (Includes Ilus. 57)
61	Nut, Push-In
62	Screw, 10-32 x 1
68	Rivet, Serial Nameplate
70	Screw, 8-18
76	Knob & Clip, Cycle Modifier
78	Bezel, Conditioner
79	Dispenser, Detergent
80	Block
81	Solenoid
82	Screw, 8-32 x 5/8

TYPICAL TUB AND BASKET PARTS



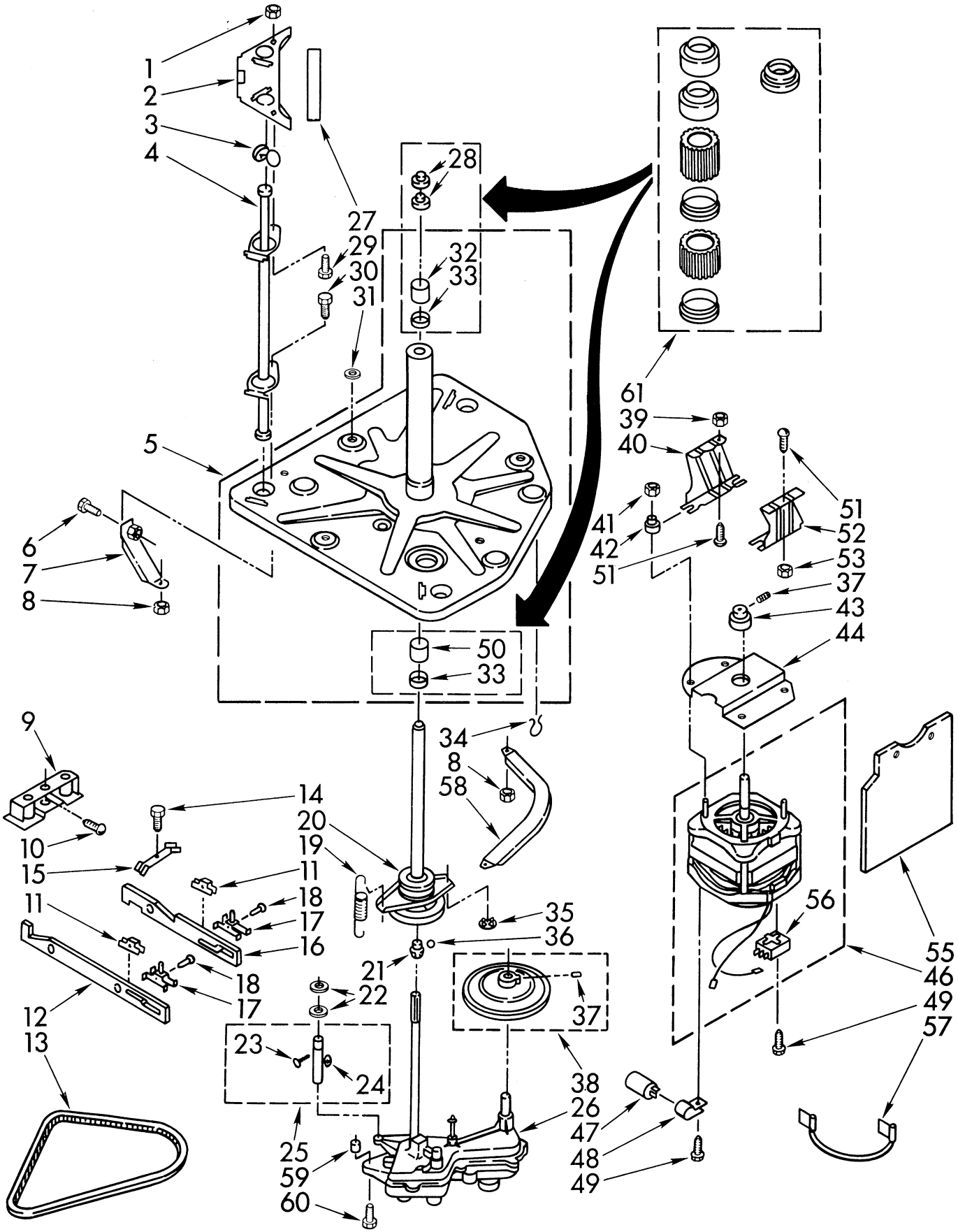
TYPICAL TUB AND BASKET PARTS

Illus. No.	DESCRIPTION
1	Clamp, Hose
3	Hose, Water Inlet
4	Clamp, Hose
5	Filter, Tub Mounted
6	Water Inlet
7	Flapper
9	Ring, Tub (Includes Illus. 17)
10	Seal, Tub Ring
11	Basket
12	Block, Drive
13	Gasket, Centerpost
14	Tub Assembly
15	Screw & Washer, Tub
17	Plate, Snubber
18	Screw & Washer
19	Nut, Spanner
20	Washer, Fibre
21	Washer, Rubber
23	Agitator Cap Assembly
24	Seal, Cap

Illus. No.	DESCRIPTION
25	Agitator & Insert Assembly
26	Shoe, Auger
27	Locknut
28	Seal
29	Air Dome
30	Hose, Pressure Switch
31	Driven Cam
32	Seal, Agitator
35	Clip, Tub Ring
38	Hose, Bleach Dispenser
39	Auger, Agitator
46	Clamp, Hose
47	Hose, Filter Drain
48	Hose, Pump To Filter
49	Clamp, Hose
50	Hose, Tub Outlet
51	Clamp, Hose
52	Manifold
53	Clamp, Hose
54	Hose, Manifold To Pump

Illus. No.	DESCRIPTION
55	Clamp, Hose
56	Hose, Pump To Manifold
57	Pump
58	Pulley, Pump
59	Clamp, Hose
60	Screw, Pump To Gearcase 5/16-18 x 7/8
61	Clamp, Hose
62	Hose
63	Clip
64	Filter, Basket Ring
65	Funnel, Drain
66	Gasket
67	Lockwasher
68	Clamp
69	Hose
70	Clamp
71	Valve, Side Check
72	Washer, Rubber
73	Washer, Fibre
74	Nut, Spanner

TYPICAL DRIVE PARTS



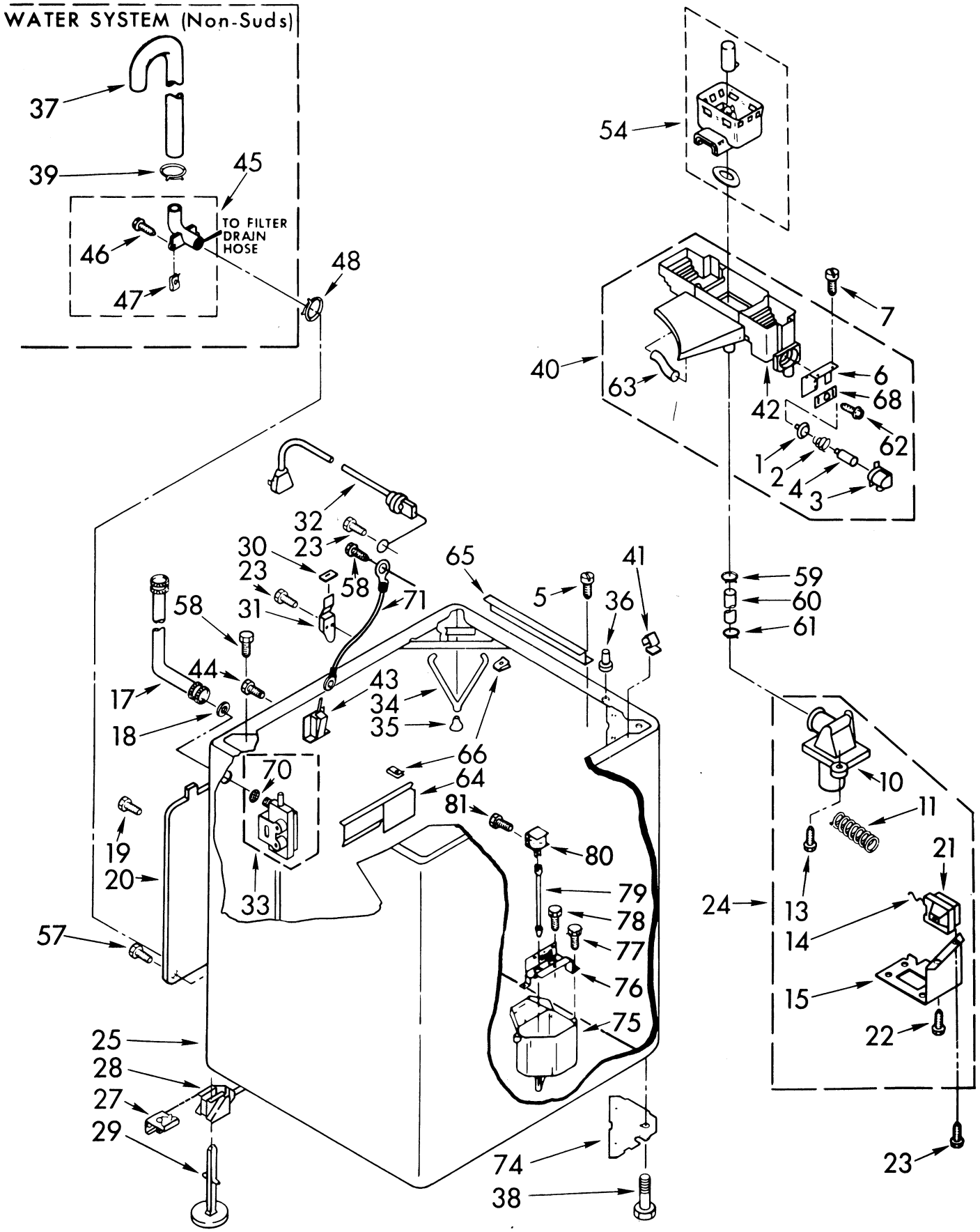
TYPICAL DRIVE PARTS

Illus. No.	DESCRIPTION
1	Nut, 5/16-18
2	Cover, Gusset
3	Ball, Suspension
4	Rod, Suspension
5	Baseplate & Centerpost
6	Screw, 5/16-24 x 5/8
7	Brace, Baseplate
8	Nut, 5/16-24
9	Magnet
10	Screw, Taper End
11	Guide, Cam Bar
12	Cam, Bar Spin
13	Belt, "V"
14	Screw, 1/4-28 x 1/2
15	Spring, Brake
16	Cam, Agitator & Pump
17	Plunger
18	Rivet
19	Spring, Brake Yoke
20	Basket Drive & Brake
21	Support, Spin Tube
22	Washer

Illus. No.	DESCRIPTION
23	Pin, Roll
24	Roller, Basket Clutch Shaft
25	Shaft, Basket Clutch
26	Gearcase
27	Pad, Gusset Cover
28	Seal, Centerpost
29	Bolt, 5/16 x 1
30	Bolt, 5/16-24
31	Gasket, Tub
32	Bearing, Upper
33	Seal, Centerpost
34	Clip, Harness
35	Retainer, Brake Yoke
36	Ball
37	Setscrew, 5/16-18 x 1/2
38	Pulley, Main Drive
39	Locknut, 3/8-16
40	Bracket, Motor Mounting
41	Nut
42	Grommet, Motor Bracket

Illus. No.	DESCRIPTION
43	Pulley, Motor
44	Shield, Motor (Upper)
46	Motor
47	Capacitor, Motor Start
48	Clamp, Capacitor
49	Screw, Motor Grounding
50	Bearing, Lower
51	Bolt, 3/8-16 x 3/4
52	Bracket, Motor Mounting
53	Nut, 3/8-16
55	Shield, Motor
56	Switch, Motor Start
57	Wire, Jumper
58	Brace, Manifold Brace, Motor
59	Spacer, Stud & Gearcase
60	Screw & Washer
61	Bearing Kit, Centerpost (Includes Illus. 28, 32, 33 & 50)

TYPICAL CABINET PARTS



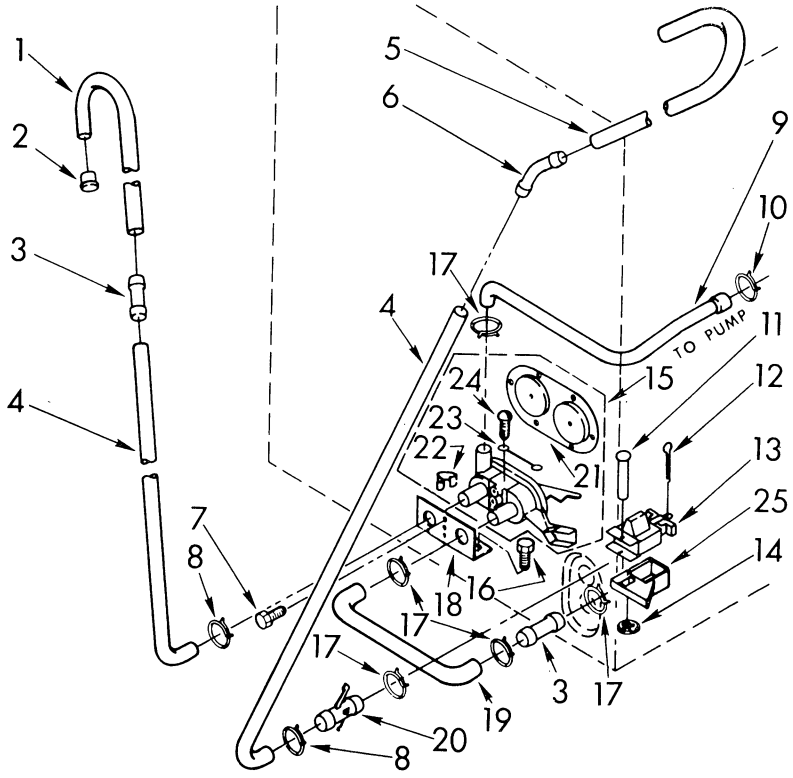
TYPICAL CABINET PARTS

Illus. No.	DESCRIPTION
1	Diaphragm
2	Spring
3	Bracket & Solenoid
4	Armature
5	Screw, 8-18 x 1/2
6	Bracket, Dispenser
7	Screw, 8-15 x 3/8
10	Body & Cover Valve
11	Spring, Return
13	Screw
14	Link, Coupling
15	Bracket, Valve
17	Hose, Inlet
18	Washer, Rubber
19	Screw, 10-24 x 3/8
20	Panel, Rear
21	Solenoid, Detergent Valve
22	Screw, 10-16 x 5/16
23	Screw, 10-16 x 1/2
24	Valve & Bracket, Detergent
25	Cabinet
27	Clip, Leveling Mechanism

Illus. No.	DESCRIPTION
28	Leveling Link Assembly
29	Foot, Rear
30	Pad, Hinge
31	Hinge
32	Cord, Power
33	Valve, Mixing (Serviced as Complete Assembly)
34	Spring, Snubber
35	Snubber
36	Locator, Top
37	Hose, Drain
38	Foot, Front
39	Clamp, Hose
40	Reservoir, Triple Dispenser Completely Assembled (Includes Illus. 1, 2, 3, 4, 6, 42, 62, 63 & 68)
41	Lock, Front Top
42	Reservoir (Includes Illus. 6, 62 & 68)
43	Relay Kick-Out Switch
44	Screw
45	Connector, 90°
46	Screw, 10 x 3/4

Illus. No.	DESCRIPTION
47	Clip
48	Clamp, Hose
54	Liquid Detergent Cup Assembled (Serviced as a Complete Assembly)
57	Screw, 10-16 x 1/2
58	Screw, 10-16 x 1/2
59	Clamp, Hose
60	Hose, Detergent Dispenser
61	Clamp, Hose
62	Screw
63	Hose, Fabric Softener Dispenser
64	Barrier, Solenoid
65	Barrier, Wire
66	Clip, Barrier To Cabinet
68	Plate, Mounting
70	Screen, Filter
71	Wire, Ground
74	Plate, Gusset
75	Reservoir
76	Bracket, Dispenser
77	Screw
78	Screw, 10-16 x 1/2
79	Rod & Stopper
80	Solenoid
81	Screw

TYPICAL WATER SYSTEM



Illus. No.	DESCRIPTION
1	Hose
2	Strainer, Hose
3	Connector, Hose
4	Hose
5	Hose, Drain
6	Connector, Hose
7	Screw & Washer
8	Clamp, Hose
9	Hose, Pump To Two-Way Valve
10	Clamp, Hose
11	Rivet
12	Pin, Cotter (1/8 x 3/4)
13	Solenoid, Two-Way Valve
14	Clip, Push-On
15	Valve, Two-Way
16	Screw, 10-16 x 1/2
17	Clamp, Hose
18	Bracket
19	Hose
20	Connector, Hose
21	Diaphragm
22	Clip, Retainer
23	Strap, Ground
24	Screw, 89A x 3/8
25	Shield, Two-Way Valve

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NOTES

SEARS