Home Automatic Washers

“CE” Approved Models

Refer to Page 5 for Model Numbers

Service

Alliance Laundry Systems

www.comlaundry.com

Part No. 37987R1
April 2006

Table of Contents

Notes

Section 1
Safety Information

Throughout this manual and on machine decals, you will find precautionary statements ("CAUTION," "WARNING," and "DANGER") followed by specific instructions. These precautions are intended for the personal safety of the operator, user, servicer and those maintaining the machine.

⚠ DANGER

Danger indicates an imminently hazardous situation that, if not avoided, will cause severe personal injury or death.

⚠ WARNING

Warning indicates a hazardous situation that, if not avoided, could cause severe personal injury or death.

⚠ CAUTION

Caution indicates a hazardous situation that, if not avoided, may cause minor or moderate personal injury or property damage.

Additional precautionary statements ("IMPORTANT" and "NOTE") are followed by specific instructions.

IMPORTANT

The word "IMPORTANT" is used to inform the reader of specific procedures where minor machine damage will occur if the procedure is not followed.

NOTE

The word "NOTE" is used to communicate installation, operation, maintenance or servicing information that is important but not hazard related.

In the interest of safety, some general precautions relating to the operation of this machine follow.

WARNING

- **Failure to install, maintain and/or operate this product according to the manufacturer's instructions may result in conditions which can produce serious injury, death and/or property damage.**
- **Do not repair or replace any part of the product or attempt any servicing unless specifically recommended or published in this Service Manual and unless you understand and have the skills to carry out the servicing.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the product is properly grounded and to reduce the risk of fire, electric shock, serious injury or death.**

W006R2

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer before servicing.**
- **Never start the washer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer is properly grounded.**

W003

WARNING

Repairs that are made to your products by unqualified persons can result in hazards due to improper assembly or adjustments subjecting you or the inexperienced person making such repairs to the risk of serious injury, electrical shock or death.

W007

WARNING

If you or an unqualified person perform service on your product, you must assume the responsibility for any personal injury or property damage which may result. The manufacturer will not be responsible for any injury or property damage arising from improper service and/or service procedures.

W008

NOTE: The WARNINGS and IMPORTANT INSTRUCTIONS appearing in this manual are not meant to cover all possible conditions and situations that may occur. Common sense, caution and care must be exercised when installing, maintaining or operating the washer.

Always contact your dealer, distributor, service agent or the manufacturer about any problems or conditions you do not understand.

Locating an Authorized Servicer

Alliance Laundry Systems is not responsible for personal injury or property damage resulting from improper service. Review all service information before beginning repairs.

Warranty service must be performed by an authorized technician, using authorized factory parts. If service is required after the warranty expires, Alliance Laundry Systems also recommends contacting an authorized technician and using authorized factory parts.

Section 2
Introduction

Model Identification

Information in this manual is applicable to these washer models*:*

Washer Model	One Speed Motor	Porcelain Washtub (Cu. Ft.)	Stainless Steel Washtub (Cu. Ft.)
AWC393*23059	X		3.0
NWC393*-3059	X		3.0
ZWC372*-3059	X	3.0	
ZWC373*-3059	X		3.0

*** Add Letter To Designate Color. L – Almond W – White**

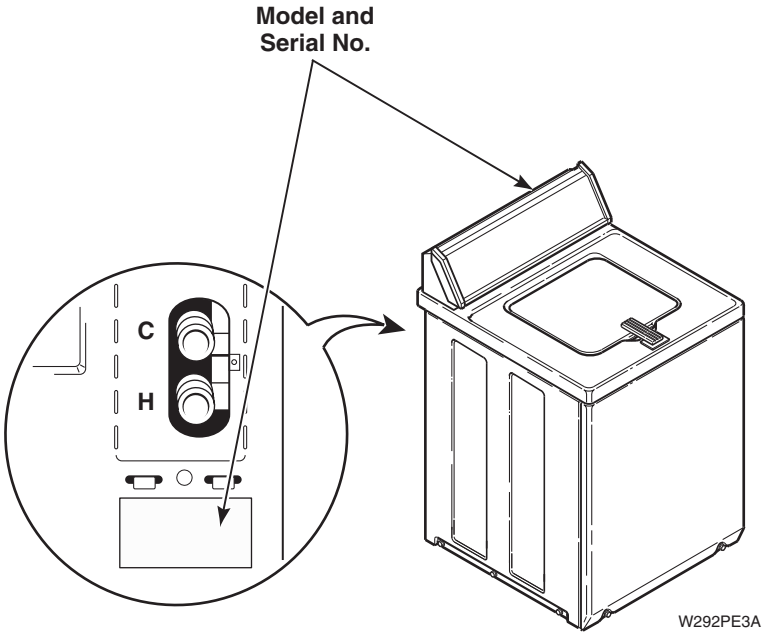
Customer Service

If literature or replacement parts are required, contact the source from whom the machine was purchased or contact Alliance Laundry Systems at (920) 748-3950 for the name and address of the nearest authorized parts distributor.

For technical assistance, call (920) 748-3121.

Nameplate Location

When calling or writing about your product, be sure to mention model and serial numbers. Model and serial numbers are located on nameplate(s) as shown.



Section 3
Troubleshooting

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer before servicing.**
- **Never start the washer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer is properly grounded.**

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IMPORTANT: Refer to appropriate wiring diagram for aid in testing washer components.

1. NO HOT WATER

POSSIBLE CAUSE	TO CORRECT
Hot water supply faucet is closed.	Open faucet.
Water supply is cold.	Check water heater.
Kinked hot water inlet hose.	Straighten or replace hose.
Clogged mixing valve screen, or screen in outer end of inlet hose nearest water supply faucet.	Disconnect hot water inlet hose, and clean or replace screen.
Inoperative hot water mixing valve solenoid.	Test solenoid and replace if inoperative.
Inoperative timer.	Test timer and replace if inoperative.
Inoperative temperature switch.	Test switch and replace if inoperative.
Inoperative pressure switch.	Test switch and replace if inoperative.
Clogged pressure hose.	Remove and clean or replace hose.
Broken, loose, or incorrect wiring.	Refer to appropriate wiring diagram.

2. NO COLD WATER

POSSIBLE CAUSE	TO CORRECT
Cold water supply faucet is closed.	Open faucet.
Kinked cold water inlet hose.	Straighten or replace hose.
Clogged mixing valve screen, or screen in outer end of inlet hose nearest water supply faucet.	Disconnect cold water inlet hose, and clean or replace screen.
Inoperative cold water mixing valve solenoid.	Test solenoid and replace if inoperative.
Inoperative timer.	Test timer and replace if inoperative.
Inoperative temperature switch.	Test switch and replace if inoperative.
Inoperative pressure switch.	Test switch and replace if inoperative.
Clogged pressure hose.	Remove and clean or replace hose.
Broken, loose, or incorrect wiring.	Refer to appropriate wiring diagram.

WARNING

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3. NO WARM WATER

POSSIBLE CAUSE	TO CORRECT
No hot water.	Refer to *Paragraph 1*.
No cold water.	Refer to *Paragraph 2*.

4. WATER FILL DOES NOT STOP AT PROPER LEVEL

POSSIBLE CAUSE	TO CORRECT
Inoperative pressure switch.	Test switch and replace if inoperative.
Air leak in pressure hose.	Replace hose.
Sediment on or under mixing valve diaphragm, defective diaphragm, or armature binding in armature guide.	Disassemble and clean mixing valve, or replace complete valve.
Broken, weak, or missing mixing valve armature spring.	Disassembly valve and replace spring, or replace. complete valve.
A siphoning action started in washer will cause water to be siphoned from washer during cycle due to end of drain hose being lower than cabinet top of washer. Drain hose fits tight in standpipe or drain.	Install No. 562P3 Siphon Break Kit. Provide an air gap around drain hose and drain receptacle.
Water in pressure hose.	Blow air through hose to remove water.
Broken, loose, shorted, or incorrect wiring.	Refer to appropriate wiring diagram.

5. TIMER DOES NOT ADVANCE

POSSIBLE CAUSE	TO CORRECT
Timer is designed to pause during fill periods.	Allow completion of fill period.
Inoperative timer.	Test timer, and replace if inoperative.
Loading door is open.	Close loading door. Loading door MUST be closed any time the washer is set to fill, agitate or spin.
Washer will not fill.	Timer pauses until pressure switch is satisfied. Refer to *Paragraphs 1* and *2*.
Timer motor lead wire off timer terminal.	Refer to appropriate wiring diagram and reattach wire.
Broken, loose or incorrect wiring.	Refer to appropriate wiring diagram.
Make sure washer isn't siphoning during rinse in cool down.	Install siphon break kit, Part No. 562P3.

WARNING

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6. MOTOR DOES NOT RUN

POSSIBLE CAUSE	TO CORRECT
Electrical power off, fuse blown, or power cord not plugged in.	Check laundry room for blown or loose fuse(s) or open circuit breakers. (Washer itself does not have an electrical fuse).
Loading door not closed or inoperative switch.	Close door or test switch and replace if inoperative.
Timer improperly set.	Reset timer, or try another cycle.
Inoperative timer.	Test timer and replace if inoperative.
Motor starting functions inoperative. No start; or motor hums only.	Check motor and replace if inoperative.
Motor is dead, won't run.	Check motor and replace if inoperative.
Motor overload protector has cycled.	Wait two or three minutes for overload protector to reset. If protector cycles repeatedly, refer to *Paragraph 9*.
Bind in upper or lower motor bearing.	Remove belts and determine if motor shaft will spin. Replace motor if shaft is locked up.
Broken, loose, or incorrect wiring.	Refer to appropriate wiring diagram.
Power cord is miswired.	Refer to appropriate wiring diagram for correct wiring.

7. NO AGITATION

POSSIBLE CAUSE	TO CORRECT
Inoperative timer. Timer is designed to pause (SOAK) during DELICATE cycle.	Test timer and replace if inoperative.
Motor will not run.	Check motor and replace if inoperative.
No Delicate cycle agitate.	Check motor and replace if inoperative.
Inoperative pressure switch.	Test switch and replace if inoperative.
Broken, loose, or incorrect wiring.	Refer to appropriate wiring diagram.
Loose or broken drive belt.	Adjust or replace belt.
Inoperative transmission assembly.	Repair or replace transmission assembly.
Sheared motor pulley roll pin.	Remove drive motor and replace roll pin and any other damaged parts.
Motor overload protector has cycled.	Wait two or three minutes for overload protector to reset. If protector cycles repeatedly, refer to *Paragraph 9*.
Bind in pump.	Replace pump.
Loading door is open or door switch is inoperative.	Close door or test switch and replace if inoperative.

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8. CONSTANT AGITATION

POSSIBLE CAUSE	TO CORRECT
Inoperative timer.	Test timer and replace if inoperative.
Shorted or incorrect wiring.	Refer to appropriate wiring diagram.
Inoperative transmission assembly.	Repair or replace transmission assembly.

9. WASHER SMOKES, OVERHEATS, CYCLES ON MOTOR THERMAL PROTECTOR, SWITCH ACTUATOR KICKS IN AND OUT

POSSIBLE CAUSE	TO CORRECT
Belt is tacky and does not allow proper slip.	Check belt and replace if defective.
Belt tension is too great and does not allow proper slip.	Make sure idler spring is properly connected.
Inoperative timer.	Test timer and replace if inoperative.
Motor switch functions inoperative.	Check motor switch and replace if inoperative.
Bind in water pump.	Replace pump.
Brake pads binding.	Free binding pads, or replace pads.
Brake, transmission, or motor have locked up and will not turn.	Check that all these components are able to move freely. Correct binding component.
Incorrect voltage.	Contact local utility company, or have a qualified electrician check power supply.

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10. SLOW SPIN OR NO SPIN

POSSIBLE CAUSE	TO CORRECT
Inoperative timer.	Test timer and replace if inoperative.
Loading door is open or door safety switch is inoperative.	Close loading door, or test switch and replace if inoperative.
Bind in water pump.	Replace pump.
Loose or broken drive belt.	Replace belt.
Washer has gone out-of-balance.	Open loading door to reset out-of-balance switch. Rearrange load in washtub.
Motor will not run.	Check motor and replace if inoperative.
Sheared motor pulley roll pin.	Remove drive motor and replace roll pin and any other damaged parts.
Motor overload protector has cycled.	Wait two or three minutes for overload protector to reset. If protector cycles repeatedly, refer to *Paragraph 9*.
No clearance or stuck brake pads.	Free sticky brake pads or replace pads.
Broken, loose, or incorrect wiring.	Refer to appropriate wiring diagram.
Inoperative transmission assembly.	Repair or replace the transmission assembly.

11. CONSTANT SPIN

POSSIBLE CAUSE	TO CORRECT
Inoperative timer.	Test timer and replace if inoperative.
Washtub does not stop spinning within seven seconds after loading door is opened.	Replace brake pads.
Excessive wear on brake pads, or missing brake pads.	Replace brake pads.
Shorted or incorrect wiring.	Refer to appropriate wiring diagram.

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12. UNIT STOPS IN CYCLE; QUITS AFTER A COUPLE LOADS; IS INTERMITTENT

POSSIBLE CAUSE	TO CORRECT
Belt is tacky and does not allow proper slip.	Check belt and replace if defective.
Belt tension is too great and does not allow proper slip.	Make sure idler spring is properly connected.
Inoperative timer.	Test timer and replace if inoperative.
Broken, loose, or incorrect wiring.	Refer to appropriate wiring diagram.
Motor overload protector has cycled.	Wait two or three minutes for overload protector to reset. If protector cycles repeatedly, refer to *Paragraph 9*.
Motor switch functions inoperative.	Check motor switch and replace if inoperative.
Brake, transmission, or motor have locked up and will not turn.	Check that all these components are able to move freely.

13. WASHER IS LOCKED UP OR BINDING

POSSIBLE CAUSE	TO CORRECT
Excessive belt tension.	Replace belt and/or idler spring.
Bind in upper or lower bearing.	Replace bearing.
Bind in water pump.	Replace pump.
Bind in transmission.	Repair or replace transmission.
Brake pads binding.	Free binding pads, or replace pads.
Incorrect voltage.	Contact local utility company, or have a qualified electrician check power supply.

14. OUTER TUB DOES NOT EMPTY

POSSIBLE CAUSE	TO CORRECT
Kinked drain hose.	Straighten hose.
Drain hose out of clamp in back of cabinet.	Remove washer front panel and install drain hose into clamp.
Inoperative water pump.	Replace pump.
Obstruction in outer tub outlet hose.	Remove obstruction.

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15. EXCESSIVE VIBRATION

POSSIBLE CAUSE	TO CORRECT
Unbalanced load in tub.	Stop washer, redistribute load, then restart washer.
Broken, or disconnected centering spring(s).	Connect or replace centering spring(s).
Washer is not properly leveled.	Adjust leveling legs.
Washer is installed on weak, “spongy”, carpeted or built-up floor.	Relocate washer, or support floor to eliminate weak or “spongy” condition.
Incorrect or loose cabinet screws.	Replace with correct screws or tighten.
Base damaged (washer was dropped).	Replace base assembly.
Balance ring not positioned properly on transmission assembly.	Refer to *Paragraph 44*.
Lubricant on pivot dome and/or snubber pad and isolator assembly.	Remove lubricant.

16. WATER LEAKING FROM OUTER TUB

POSSIBLE CAUSE	TO CORRECT
Leaking water seal in outer tub.	Replace hub and seal kit assembly. Refer to *Paragraph 38*.
Hole in outer tub.	Replace outer tub.
Pressure hose or accumulator leaking.	Replace pressure hose and/or accumulator.
Outer tub cover gasket leaking.	Replace gasket.
Obstruction in drain causing water to come over top of outer drain tub cover.	Remove obstruction.
Tub-to-pump hose leaking at clamp.	Tighten clamp.

Notes

Section 4
Grounding

WARNING

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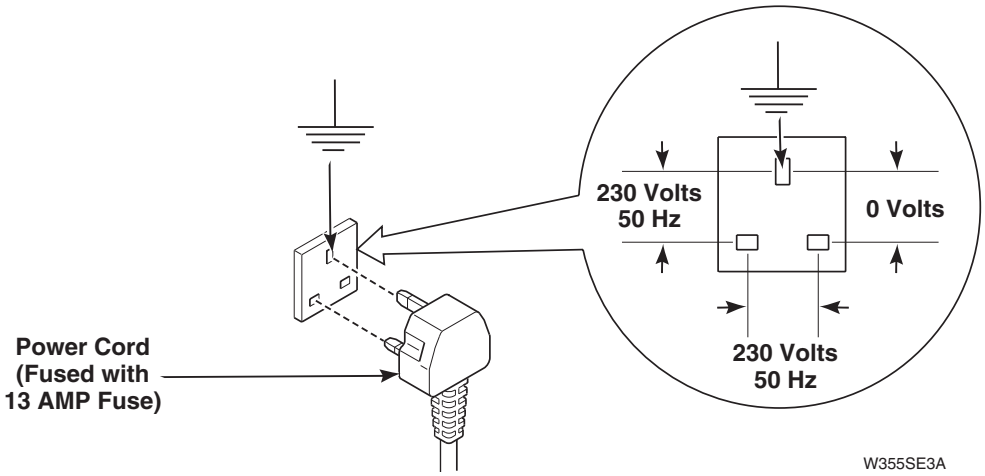
17. WALL RECEPTACLE POLARITY CHECK

Refer to *Figure 1*.



NOTE: Have a qualified electrician check polarity of wall receptacle. If a voltage reading is measured other than that illustrated, the qualified electrician should correct the problem.

Figure 1

WARNING

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18. POWER CORD TO CONTROL HOOD REAR PANEL, CONTROL HOOD REAR PANEL TO CONTROL HOOD MOUNTING BRACKET, PRESSURE SWITCH MOUNTING BRACKET AND GROUND TAB ON GRAPHICS PANEL

Refer to *Figure 2*.

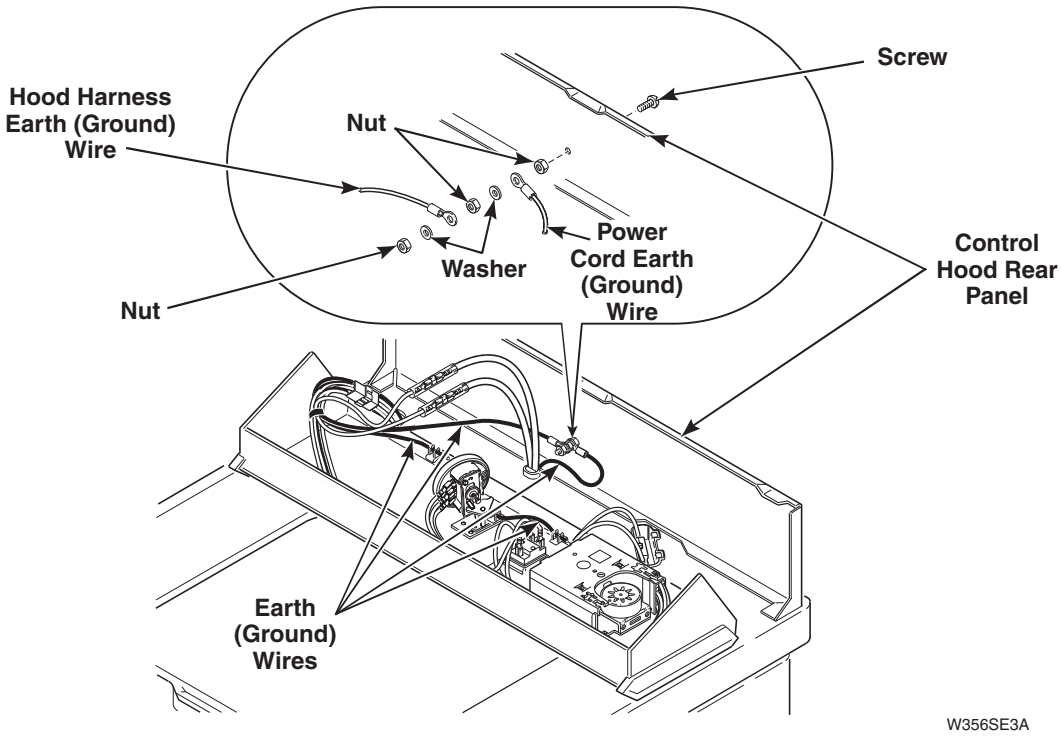

Figure 2

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
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19. CONTROL HOOD WIRE HARNESS TO TOP LEFT REAR CORNER GUSSET OF CABINET

Refer to *Figure 3*.

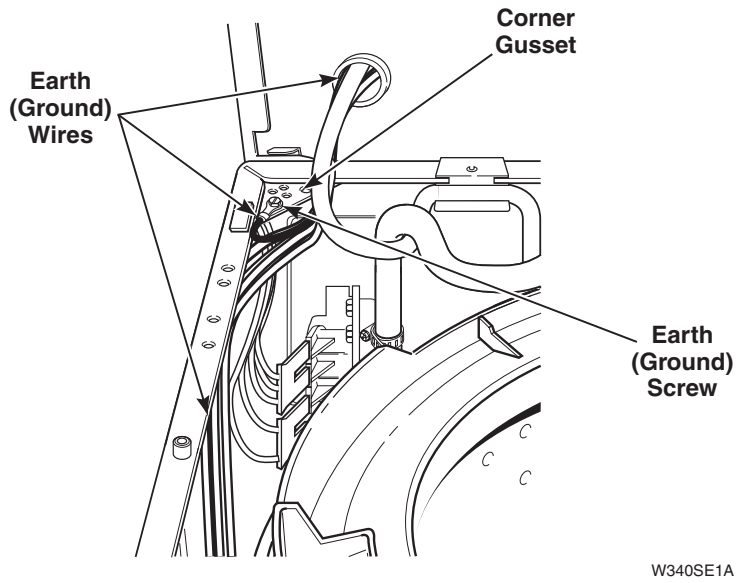

Figure 3

WARNING

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20. WIRE HARNESS TO MOTOR

Refer to *Figure 4*.

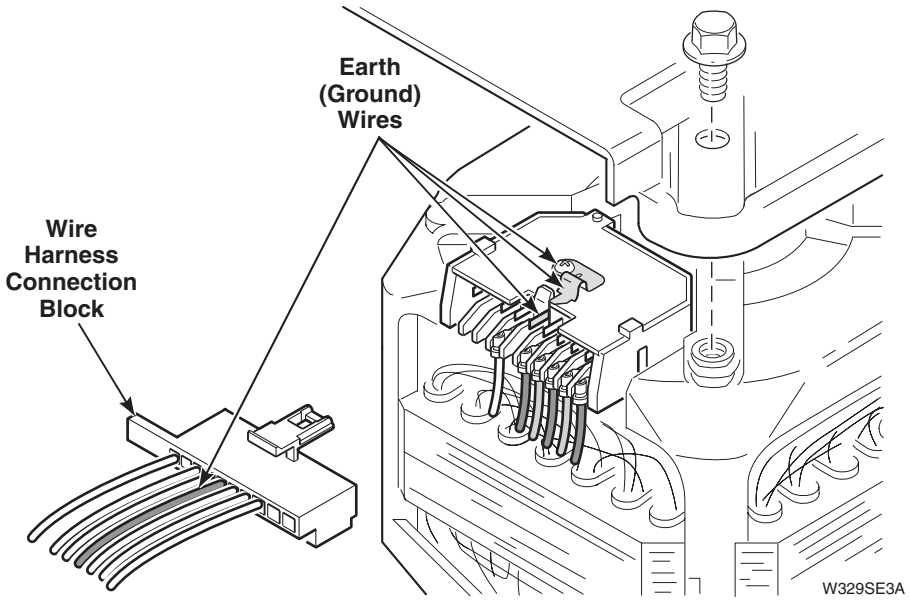

Figure 4

Section 5
Service Procedures

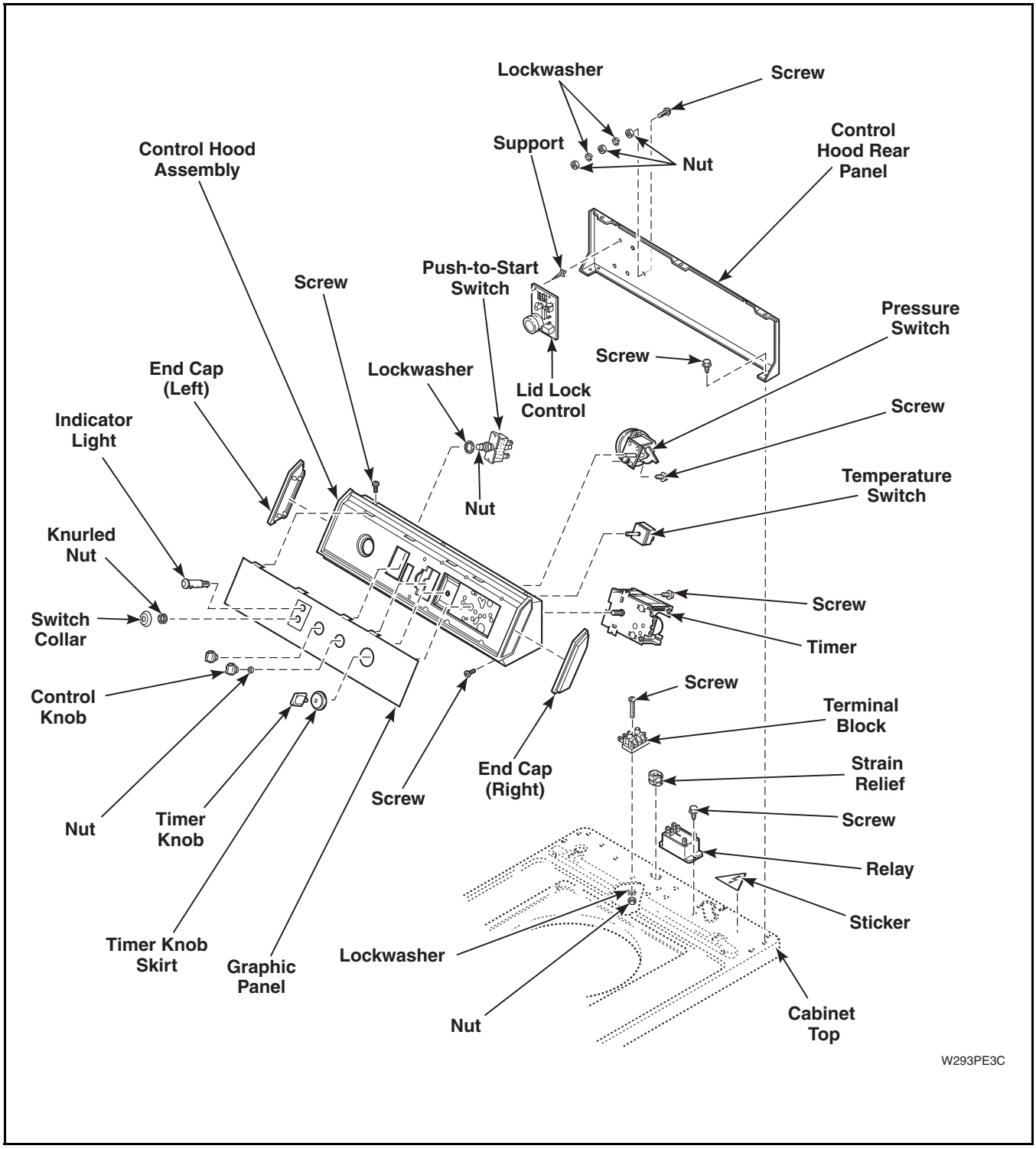

Figure 5
GRAPHIC PANEL, CONTROL HOOD AND CONTROLS

WARNING

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IMPORTANT: When reference is made to directions (right or left) in this manual, it is from the operator's position facing the front of the washer.

21. CONTROL HOOD ASSEMBLY

Refer to *Figures 5* through *7*.

a. Remove six screws (3 on top and 3 at lower front) holding hood assembly to control hood rear panel and cabinet top. Refer to *Figure 27*.
b. Disconnect wires from component parts and carefully remove components from hood assembly.

NOTE: Refer to appropriate wiring diagram when rewiring component parts.

TO REMOVE CONTROL HOOD END CAPS

Remove end caps by carefully prying caps out of slots in ends of hood. Refer to *Figure 8*.

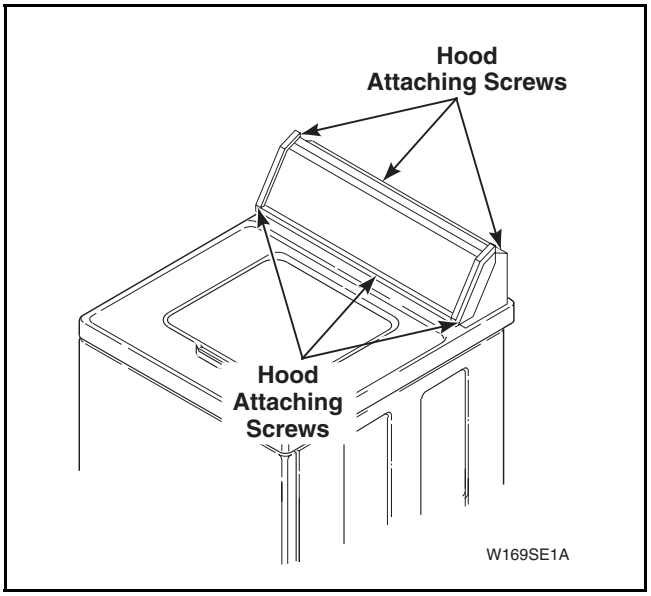

Figure 6

22. TIMER

Refer to *Figures 5* through *7*.

a. Unscrew timer knob from timer shaft (right hand thread), then remove timer knob skirt.
b. Remove six screws (3 on top and 3 at lower front) holding hood assembly to control hood rear panel and cabinet top. Refer to *Figure 27*.
c. Pivot hood assembly forward on cabinet top.
d. Remove two screws holding timer to control hood mounting plate. Refer to *Figure 9*.

NOTE: DO NOT attempt to repair timer.

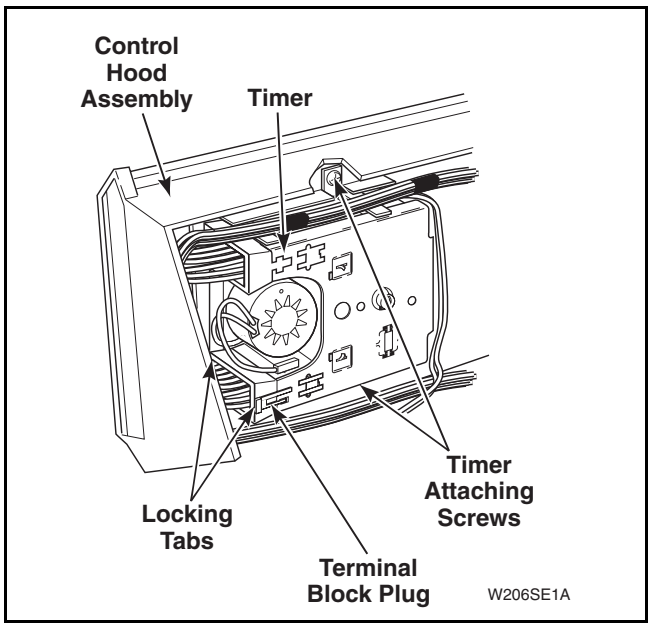

Figure 7

e. Disengage wire harness terminal block plug(s) from timer by pressing in on movable locking tabs (located on each side of terminal block plug) and pulling away from timer. Refer to *Figure 8*.

IMPORTANT: To avoid an open circuit, DO NOT pull on terminal block wires when removing blocks from timer as this could damage wires or terminal crimping.

Before attaching wire harness terminal blocks to timer, make sure all male terminals on timer are

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straight and are capable of accepting terminals from wire harness terminal blocks.

NOTE: When installing timer, make sure timer is installed correctly and is securely mounted to bracket on control hood. Refer to *Figure 9*.

f. Seat horizontal and vertical tabs on front plate of timer completely into slots on control hood mounting bracket.
g. Tighten attaching screws between 12 to 18 inch-pounds (1.37 to 2.4 Nm).

IMPORTANT: To avoid timer damage, do not allow timer to be struck on corners, edges of frame, or on timer shaft.

23. TEMPERATURE SWITCH

a. Remove six screws (3 on top and 3 at lower front) holding hood assembly to control hood rear panel and cabinet top. Refer to *Figure 27*.
b. Pivot hood assembly forward on cabinet top.
c. Disconnect wires from switch terminals.

NOTE: Refer to appropriate wiring diagram when rewiring switch.

d. Refer to *Figures 6* and *7* for switch removal.
Through Serial No. 9511021617 - Remove nut holding switch to control hood mounting plate and remove switch out rear of hood.
Starting Serial No. 9511021618 - Press in on two locking tabs and at the same time turn the switch 1/4 turn counterclockwise to remove switch from control hood mounting plate.

IMPORTANT: Before removing switch, note the switch position in relation to control hood mounting plate so switch can be reinstalled in same position.

NOTE: When installing switch, place switch tabs into cutout in mounting plate and turn switch clockwise to its full limit of travel, within the mounting plate opening, until both locking tabs snap into place.

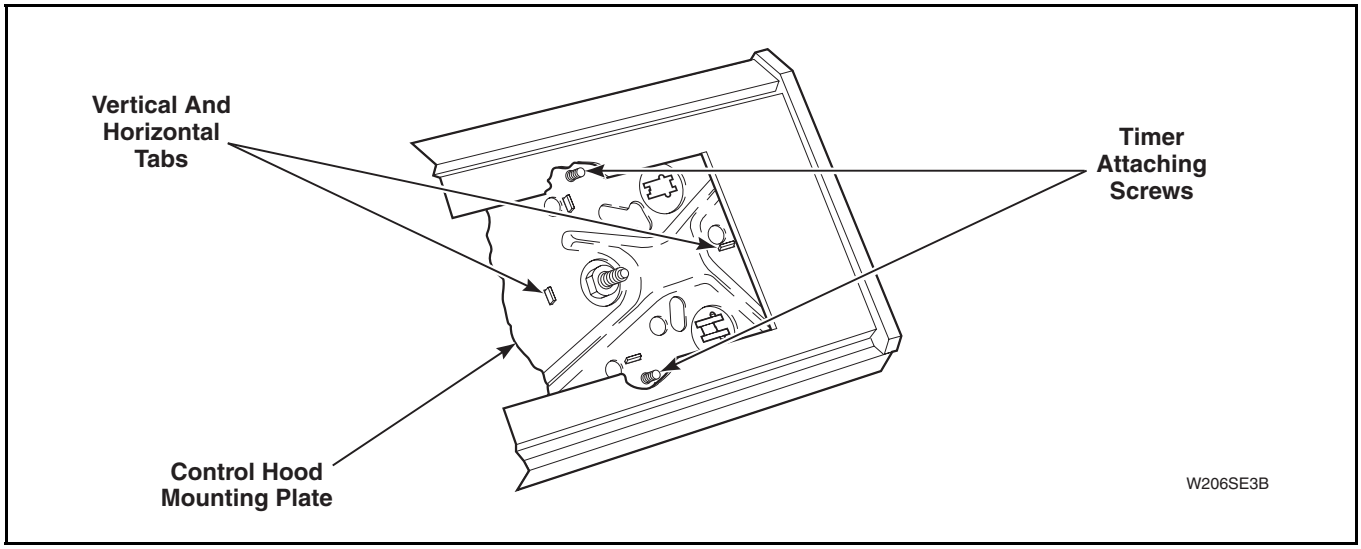

Figure 8

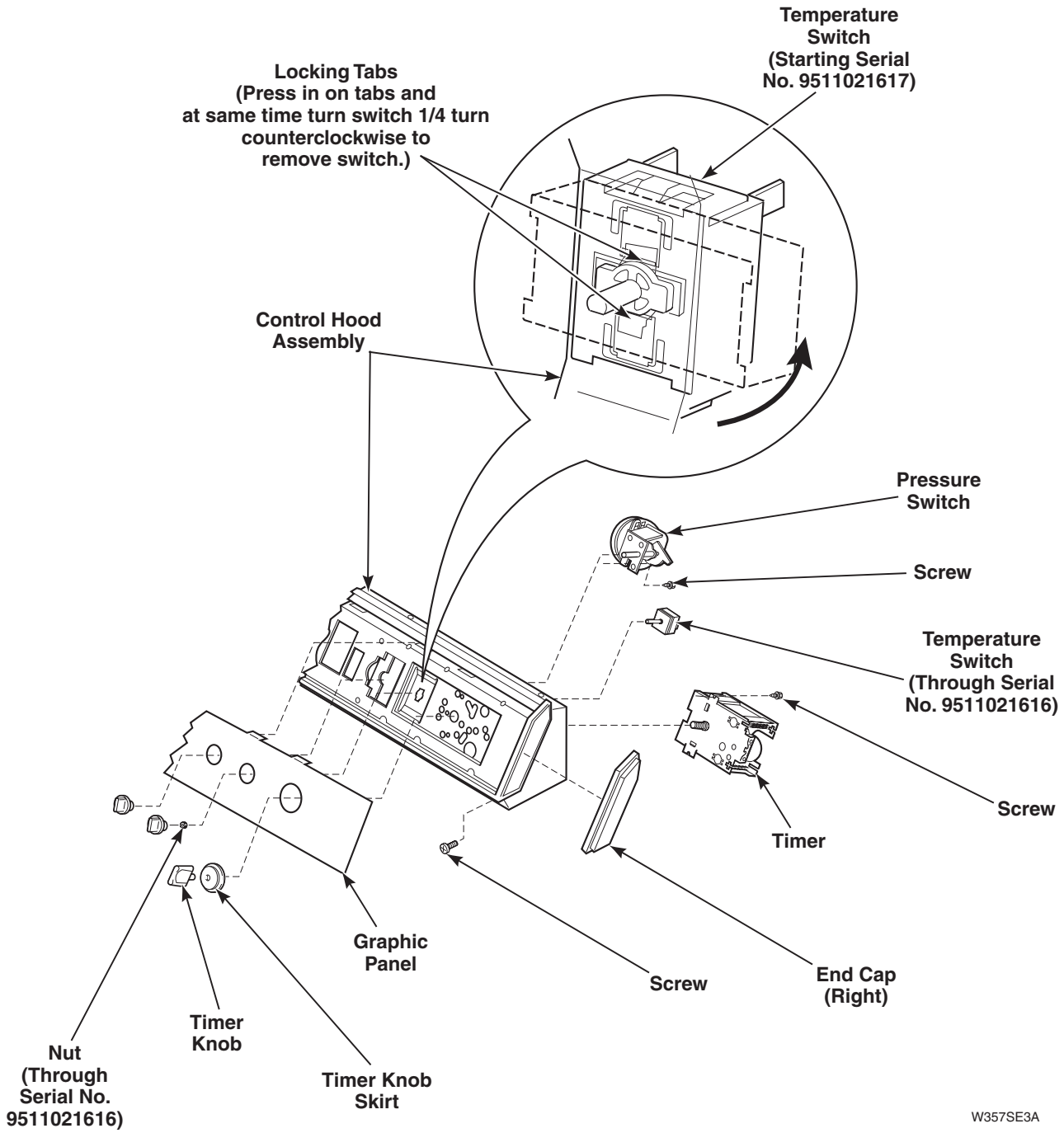

Figure 9

WARNING

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24. PRESSURE SWITCH

a. Remove six screws (3 on top and 3 at lower front) holding hood assembly to control hood rear panel and cabinet top. Refer to *Figure 6*.
b. Pivot hood assembly forward on cabinet top.
c. Disconnect pressure hose and wires from pressure switch.
d. Refer to *Figure 9* for switch removal.

NOTE: Refer to appropriate wiring diagram when rewiring switch.

IMPORTANT: Before connecting hose to pressure switch, blow air through pressure hose to remove any condensation that may have accumulated in the hose.

25. GRAPHIC PANEL

a. Unscrew timer knob from timer shaft (right hand thread), then remove timer knob skirt. Refer to *Figure 5*.
b. Pull knob off switch shaft. Refer to *Figure 5*.
c. Remove six screws (3 on top and 3 at lower front) holding hood assembly to control hood rear panel and cabinet top. Refer to *Figure 6*.
d. Pivot hood assembly forward on cabinet top.
e. Disconnect wires from component parts and carefully remove components from control hood assembly.

NOTE: Refer to appropriate wiring diagram when rewiring component parts.

f. Bend tabs on graphic panel (located inside of control hood) straight out toward rear of hood.
g. Carefully remove graphic panel off front of control hood.

26. LOADING DOOR

a. Open loading door. Refer to *Figure 10*.
b. Remove two screws holding left hinge to door and remove gasket (if present) and hinge. Refer to *Figure 10*.
c. Raise loading door to a nearly vertical position, disengage loading door from loading door clip, swing left side of door toward front of washer. Refer to *Figure 11*, procedure one.
d. Rotate loading door so door is upside down. Refer to *Figure 11*, procedure two.
e. Carefully remove loading door, right hinge and bushing from cabinet top. Refer to *Figure 11*, procedure three.

NOTE: Reverse procedure when installing door.

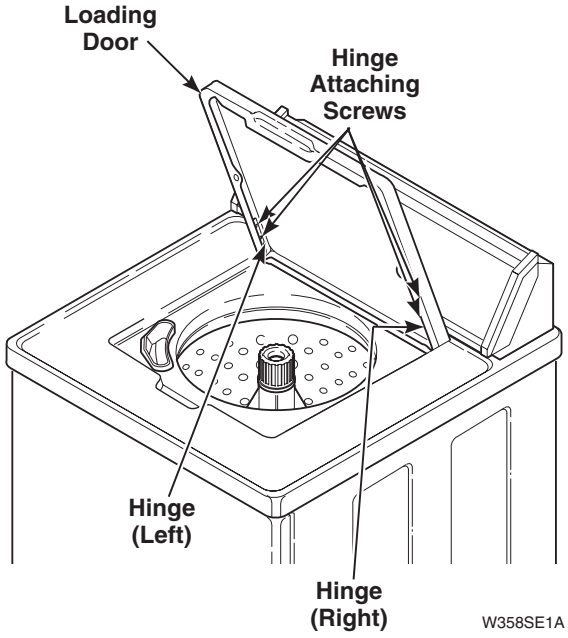

Figure 10

WARNING

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- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer is properly grounded.**

W003

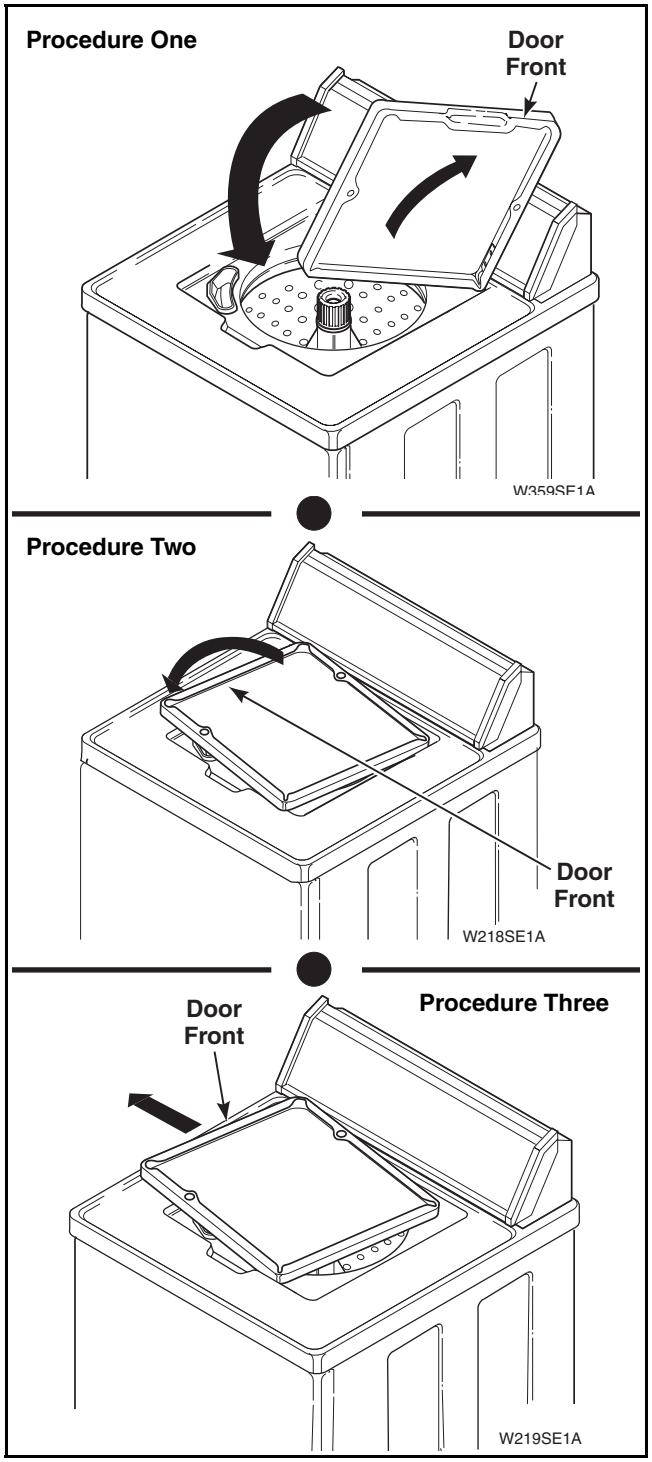

Figure 11

27. AGITATOR

a. Open loading door.

b. Remove agitator by placing two agitator hooks, No. 254P4P, under bottom edge of agitator. Refer to *Figure 12*.

IMPORTANT: Hooks should be positioned 180 degrees of each other, and must be placed under agitator vane for greater stability. If hooks are placed between vane area, agitator damage may occur.

c. Using a rocking motion (back and forth) carefully lift agitator off drive bell.

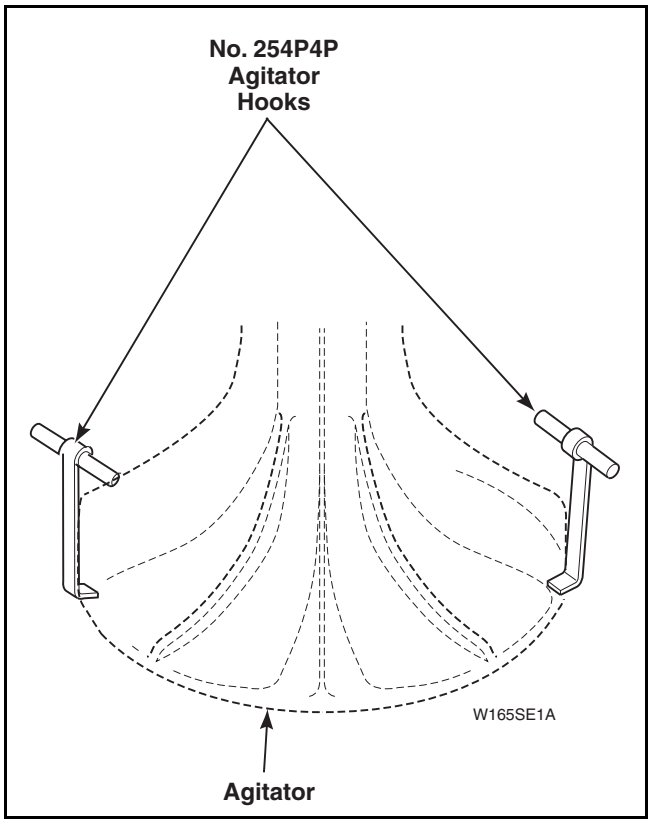

Figure 12

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer before servicing.**
- **Never start the washer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer is properly grounded.**

W003

28. AGITATOR, DRIVE BELL AND SEAL ASSEMBLY

IMPORTANT: If water is present in washtub, spin and pump out before attempting to remove drive bell.

a. Remove agitator. Refer to *Paragraph 27*.
b. Remove plug, screw and o-ring from top of drive bell.

NOTE: Use No. 294P4 Drive Bell Tool to remove drive bell from transmission shaft.

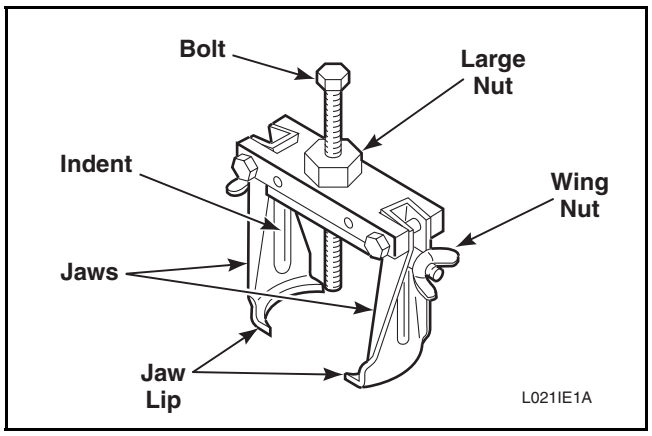

Figure 13

NOTE: Drive Bell Tool, No. 253P4, must be updated with Jaws, No. 294P4A, and Bolt, No. 294P4B, to remove the 36443P Drive Bell.

c. Back bolt out of 294P4 Drive Bell Tool approximately three quarters of the way. Refer to *Figure 13*.
d. Place tool over drive bell, making sure indent on jaws line up with wide slots on drive bell. Refer to *Figure 14*.
e. Thread bolt down through hole in top of drive bell until it bottoms out.
f. Place lip of each jaw under bottom edge of drive bell, making sure indent on jaws line up with wide slots on drive bell. Tighten wing nuts on tool to hold jaws firmly against drive bell. Refer to *Figure 14*.

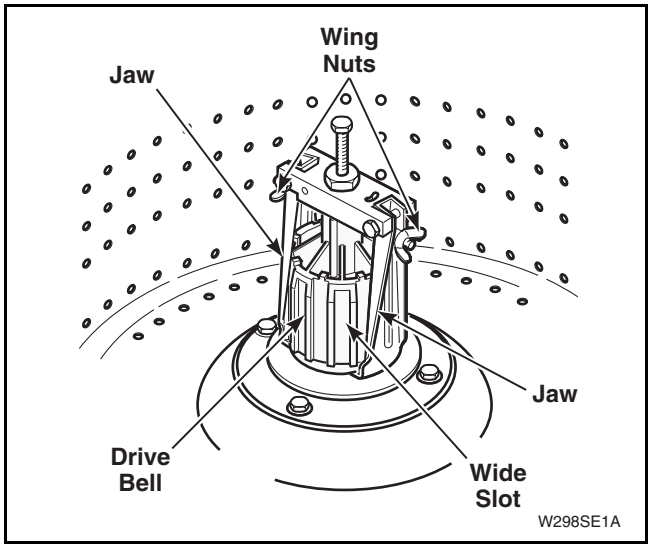

Figure 14

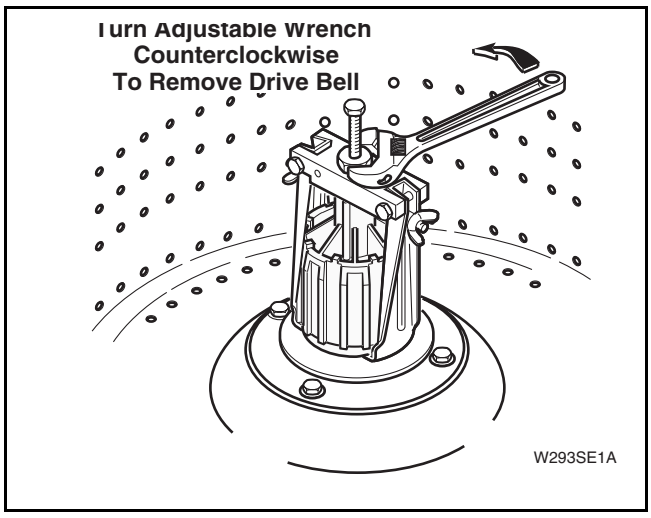

Figure 15

g. Using an adjustable wrench, turn large nut on tool **counterclockwise** to pull drive bell from transmission output shaft. Refer to *Figure 15*.

IMPORTANT: If large nut is turned clockwise when pulling drive bell, you will twist off the quarter inch bolt.

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
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- **Never start the washer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer is properly grounded.**

W003

h. After drive bell has been pulled, remove tool and drive bell by turning quarter inch bolt out of transmission output shaft.
i. Loosen wing nuts and remove drive bell from tool.
j. Remove old seal from hub assembly by:
   (1) Placing a flat bladed screwdriver between bottom edge of seal and hub.
   (2) Using washtub bolts as a pry area, pop off lower seal bead.
   (3) Grasping bottom of seal pull straight up freeing upper seal bead.

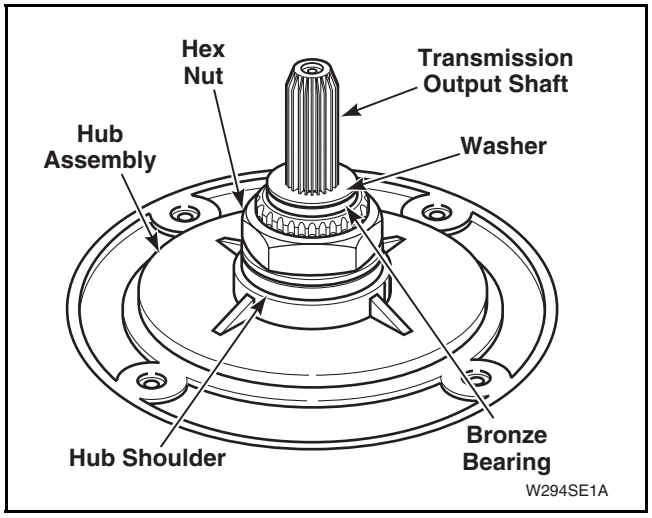

Figure 16

k. Thoroughly clean all foreign material from seal mounting area of hub assembly, bronze bearing and washer. Refer to *Figure 16*.
l. Lubricate new seal with liquid soap or soapy water to aid in assembly of seal onto hub. Refer to *Figure 17*.
m. Apply a small amount of supplied grease, No. 36765P, to inside sealing lips of seal. Refer to *Figure 17*.

IMPORTANT: DO NOT allow any lubricants to come in contact with outside surface of seal.

n. Apply remainder of supplied grease, No. 36765P, to exposed surface of washer between transmission output shaft and seal. Refer to *Figure 19*.
o. Place new drive bell seal onto hub and carefully push into position using large end of No. 293P4 Seal Tool. Refer to *Figure 18*.

IMPORTANT: Using a small pocket mirror, check entire circumference of bottom seal flange to make sure seal is pressed down against shoulder on hub; there should be no gap!

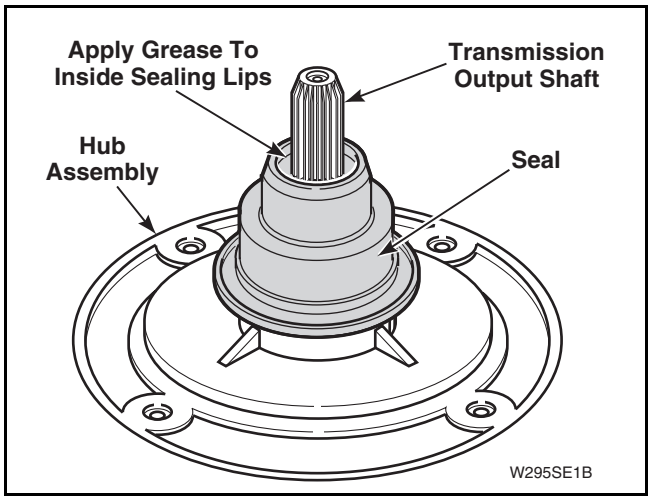

Figure 17

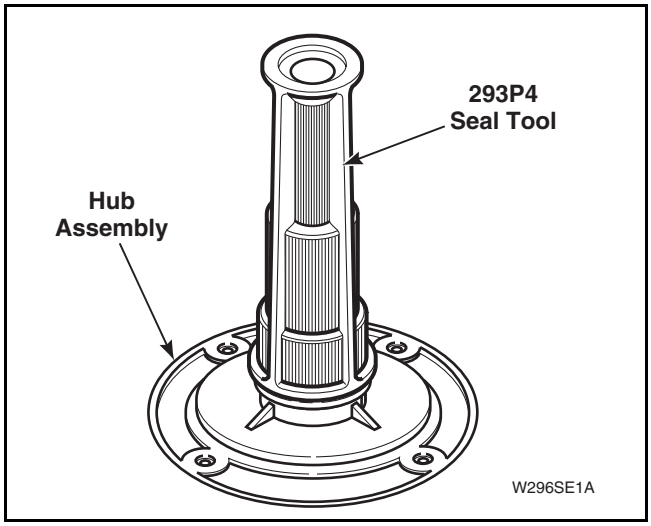

Figure 18

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer before servicing.**
- **Never start the washer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer is properly grounded.**

W003

p. Turn the No. 293P4 Seal Tool upside-down and place the small end over transmission output shaft and onto the seal. Refer to *Figure 19*.
q. Push down on tool with a quick motion until it bottoms out and the top of seal is fully seated. Refer to *Figure 19*.

INSTALLING DRIVE BELL

a. Position new drive bell over transmission output shaft. Rotate drive bell until splines in drive bell line up with splines on transmission output shaft.
b. Place No. 294P4 Bell Tool over top of drive bell. Screw bolt into transmission output shaft until it bottoms out.

NOTE: It is not necessary to clamp tool jaws on drive bell during this operation.

c. Using an adjustable wrench, turn large nut on tool **clockwise** to force drive bell down onto transmission shaft until drive bell bottoms out on shaft.
d. Turn quarter inch bolt out of transmission shaft and remove tool.
e. Place new o-ring onto new shoulder screw. Thread shoulder screw down through hole in top of drive bell and into transmission shaft.

NOTE: Tighten new shoulder screw to approximately 60 to 80 inch-pounds (6.86 to 9.15 Nm).

f. Place new plug over hole in drive bell and firmly press into place using palm of your hand.

NOTE: It may be necessary to insert the end of a paper clip along side of plug as it is pressed into drive bell to release entrapped air.

IMPORTANT: When fully seated plug should not extend above drive bell more than 1/8 inch (3.2 mm).

g. Place agitator on top of drive bell. Slowly rotate agitator until fingers on underside of agitator line up with large slots on drive bell.
h. A sharp blow on top of agitator, with palm of your hand, will force agitator down onto drive bell, allowing fingers on underside of agitator to lock under bottom edge of drive bell.

NOTE: Do not push agitator onto drive bell any further than necessary.

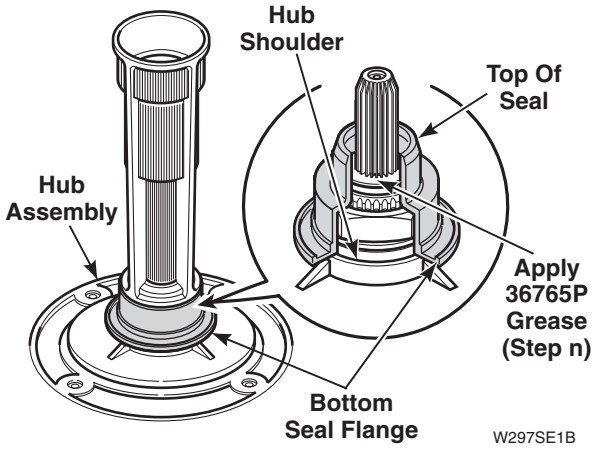

Figure 19

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer before servicing.**
- **Never start the washer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer is properly grounded.**

W003

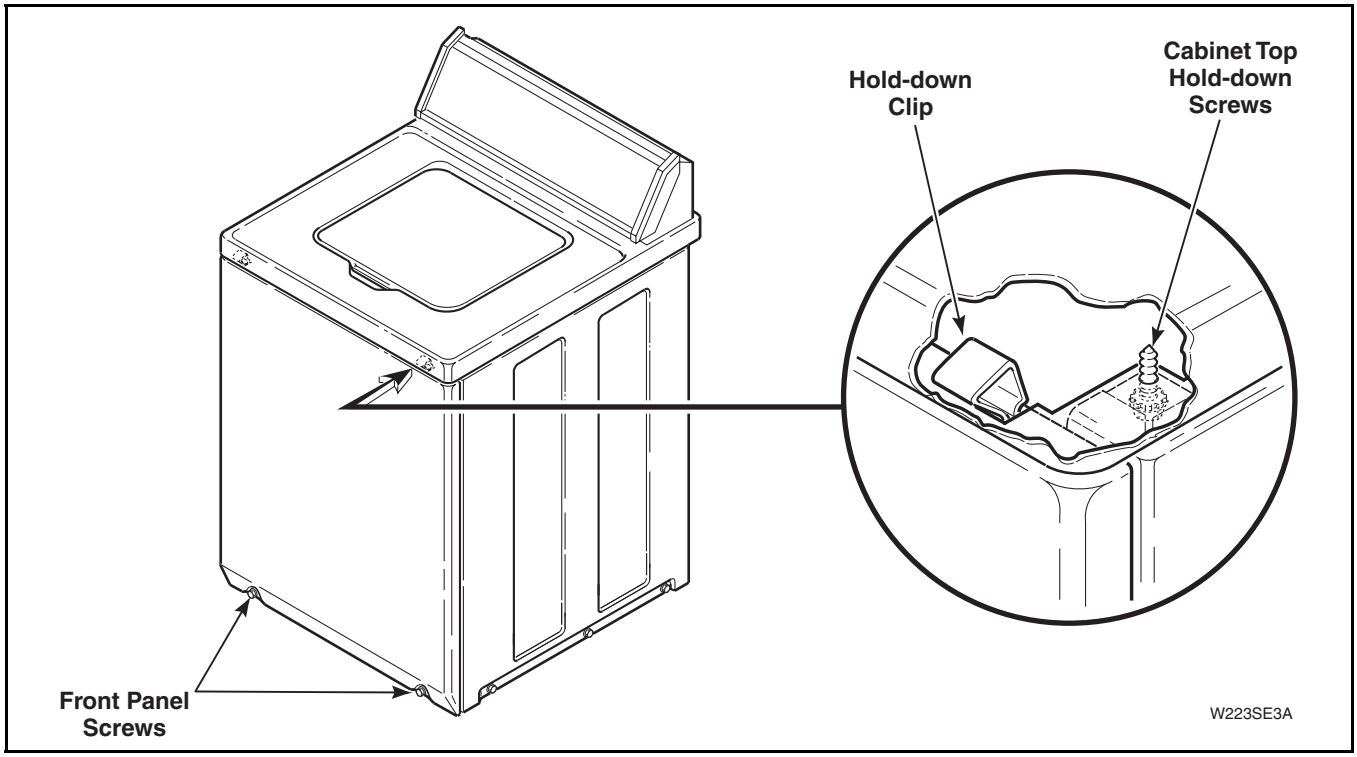

Figure 20

29. FRONT PANEL

Refer to *Figure 20*.

a. Remove two screws from bottom edge of front panel.

b. Pull bottom of panel away from washer until hold-down clips (located on top flange of panel) disengage from slots in cabinet top.

Hold-Down Clips

Compress hold-down clips enough to remove them from slots in top flange of panel.

Guide Lugs

Remove screws holding guide lugs to side flanges of front panel.

Brace

Remove screws holding brace to side flanges of front panel. Remove brace from front panel by swinging one end toward bottom of front panel and remove brace.

30. MOTOR AND MOUNTING BRACKET

a. Remove two screws from bottom edge of front panel. Refer to *Figure 20*.

b. Pull bottom of panel away from washer until hold-down clips (located on top flange of panel) disengage from slots in cabinet top.

IMPORTANT: There will always be some water that will remain in outer tub, therefore, before removing hoses from pump, hoses must be pinched off or drained to prevent water spillage.

c. Loosen hose clamps and remove hoses from pump assembly. Refer to *Figure 21*.

d. Unhook idler spring from clip on front of motor mounting bracket. Refer to *Figure 21*.

IMPORTANT: Use care when releasing idler lever tension. If idler spring is overstretched, washer operation will be affected.

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer before servicing.**
- **Never start the washer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer is properly grounded.**

W003

e. Reach in and around right side of motor and run belt off right side of large drive pulley. Refer to *Figure 21*.
f. Disconnect wire harness from motor switch by pressing down on locking tab on top of connection block and at the same time pull connection block away from motor switch. Refer to *Figure 22*.
g. Remove four screws holding motor and mounting bracket to washer base. Refer to *Figure 22*, then lift complete assembly out of washer.

IMPORTANT: Carefully lay motor on its side. Observe belt configuration around rear pump leg. Belt MUST encircle rear pump leg when reassembling. Refer to *Figure 23*.

PUMP AND BELT REMOVAL

a. Remove three screws holding pump assembly to motor. Refer to *Figure 23*.

REASSEMBLY OF PUMP AND BELT

IMPORTANT: Install pump and belt together. Drive belt MUST be replaced with belt No. 35517 (special clutch-type belt) for proper washer operation.

a. Clean any corrosion or foreign material from motor shaft that will be contacting the double "D" slot in pump impeller.
b. Apply a thin film of No. 03637P Lubricant to end and sides of motor shaft. This lubricant helps keep moisture out of the hub area and retards corrosion.
c. Align pump impeller hub with motor shaft. Make sure belt encircles rear pump leg, carefully push pump onto motor shaft so three pump legs bottom out in the embosses on motor housing before screws are tightened. Refer to *Figure 23*.
d. Tighten three screws to 35 inch-pounds (4 Nm) (maximum) DO NOT overtighten screws!
e. Reinstall motor and pump assembly into washer.

IMPORTANT: After installing motor and pump assembly in washer and all hoses have been reconnected, add at least a quart of water to washtub to lubricate pump seals. Running a pump without water will ruin its seals.

MOTOR REMOVAL

Remove nuts, steel washers, spacers and rubber mounts holding motor to mounting bracket. Refer to *Figure 24*. Lift motor off mounting bracket and remove balance of rubber mounts and steel washers from motor mounting studs.

IMPORTANT: When installing motor on mounting bracket, position motor with switch facing toward left side of mounting bracket.

NOTE: Refer to *Figure 24* for motor and mounting bracket assembly sequence.

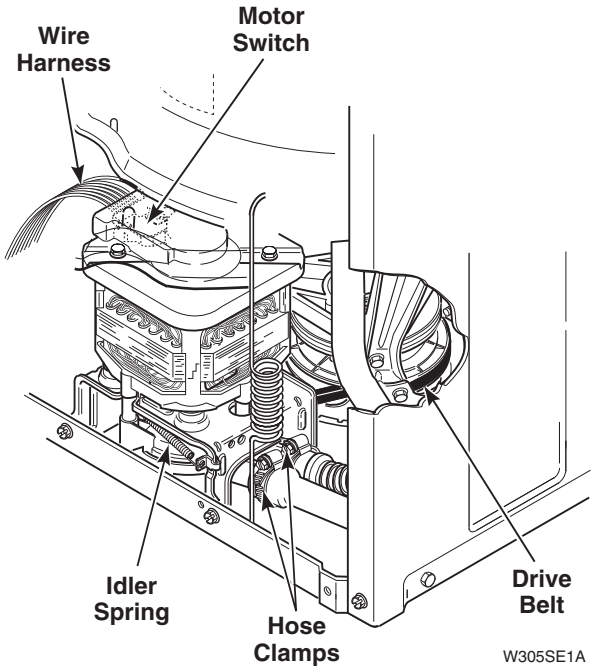

Figure 21

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer before servicing.**
- **Never start the washer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer is properly grounded.**

W003

31. IDLER LEVER AND PULLEY

a. Remove two screws from bottom edge of front panel. Refer to *Figure 20*.
b. Pull bottom of panel away from washer until hold-down clips (located on top flange of panel) disengage from slots in cabinet top.

IMPORTANT: There will always be some water that will remain in outer tub, therefore, before removing hoses from pump, hoses must be pinched off or drained to prevent water spillage.

c. Loosen hose clamps and remove hoses from pump assembly. Refer to *Figure 21*.
d. Unhook idler spring from idler lever. Refer to *Figure 24*.

IMPORTANT: Use care when removing idler spring. If idler spring is overstretched, washer operation will be affected.

e. Reach in and around right side of motor and run belt off right side of large drive pulley. Refer to *Figure 21*.
f. Disconnect wire harness from motor switch by pressing down on locking tab on top of connection block and at the same time pull connection block away from motor switch. Refer to *Figure 22*.
g. Remove four screws holding motor assembly to washer base. Refer to *Figure 22*, then lift complete assembly out of water.
h. Remove nut, washer and bolt holding idler lever and pulley to motor mounting bracket. Refer to *Figure 24*.

NOTE: Refer to *Figure 24* for idler lever and pulley assembly sequence.

i. Apply a light film of No. 03637P Lubricant to area of idler lever that makes contact with motor mounting bracket.

IMPORTANT: DO NOT OVER LUBRICATE! Excess lubricant can be thrown into pivot dome area during normal washer operation. Any lubricant on pivot dome or snubber pad and isolator assembly will cause premature tripping of the out-of-balance switch. This condition will persist until lubricant is removed.

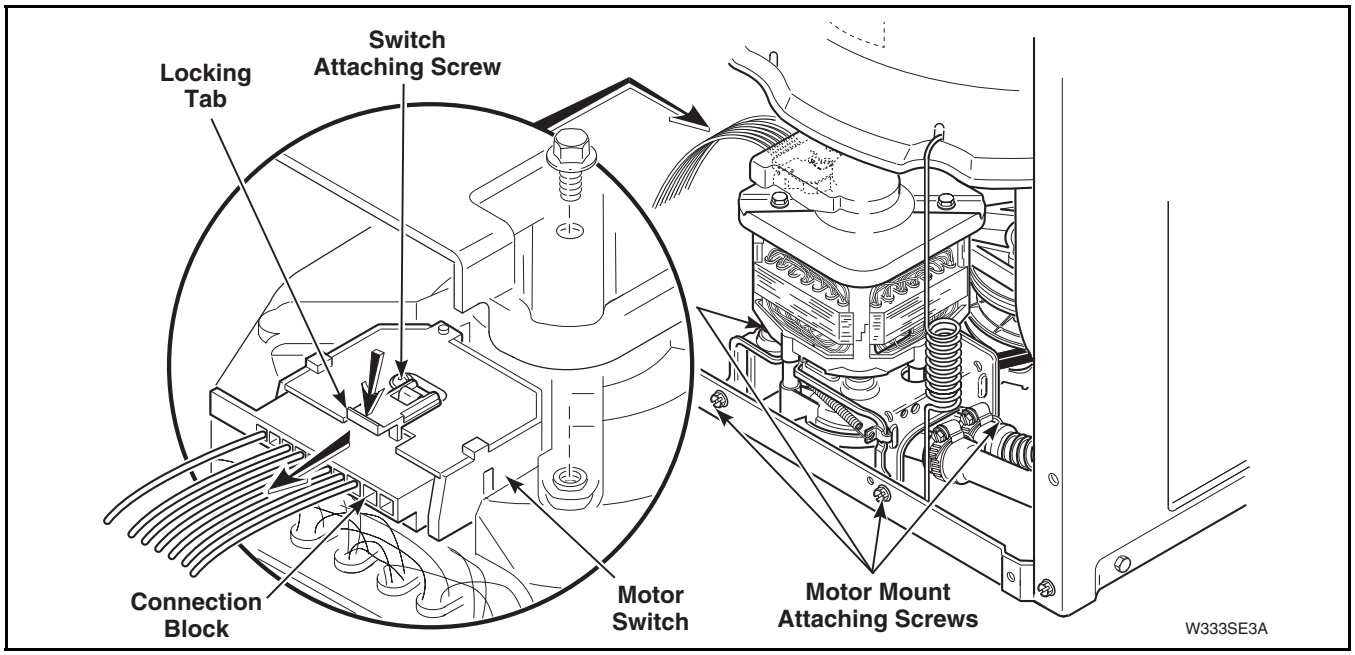

Figure 22

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer before servicing.**
- **Never start the washer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer is properly grounded.**

W003

32. MOTOR DRIVE PULLEY

a. Remove two screws from bottom edge of front panel. Refer to *Figure 20*.
b. Pull bottom of panel away from washer until hold-down clips (located on top flange of panel) disengage from slots in cabinet top.

IMPORTANT: There will always be some water that will remain in outer tub, therefore, before removing hoses from pump, hoses must be pinched off or drained to prevent water spillage.

c. Loosen hose clamps and remove hoses from pump assembly. Refer to *Figure 22*.
d. Unhook idler spring from idler lever. Refer to *Figure 24*.

IMPORTANT: Use care when removing idler spring. If idler spring is overstretched, washer operation will be affected.

e. Reach in and around right side of motor and run belt off right side of large drive pulley. Refer to *Figure 21*.
f. Disconnect wire harness from motor switch by pressing down on locking tab on top of connection block and at the same time pull connection block away from motor switch. Refer to *Figure 22*.
g. Remove four screws holding motor assembly to washer base. Refer to *Figure 22*, then lift complete assembly out of washer.
h. Lay motor assembly on its side.

NOTE: To remove pulley, support motor shaft (to prevent bending shaft) and drive out pulley roll pin. Refer to *Figure 24*.

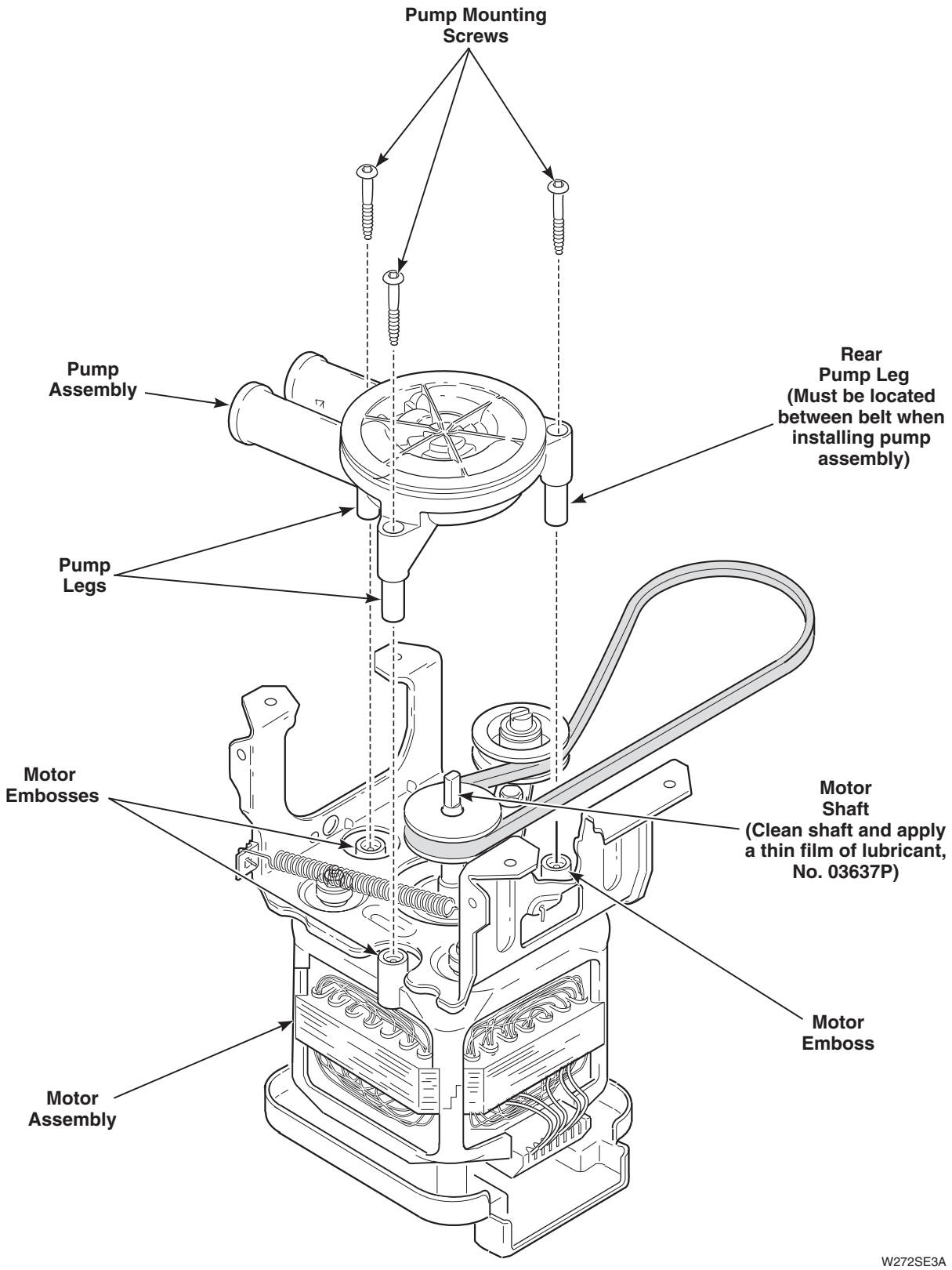

Figure 23

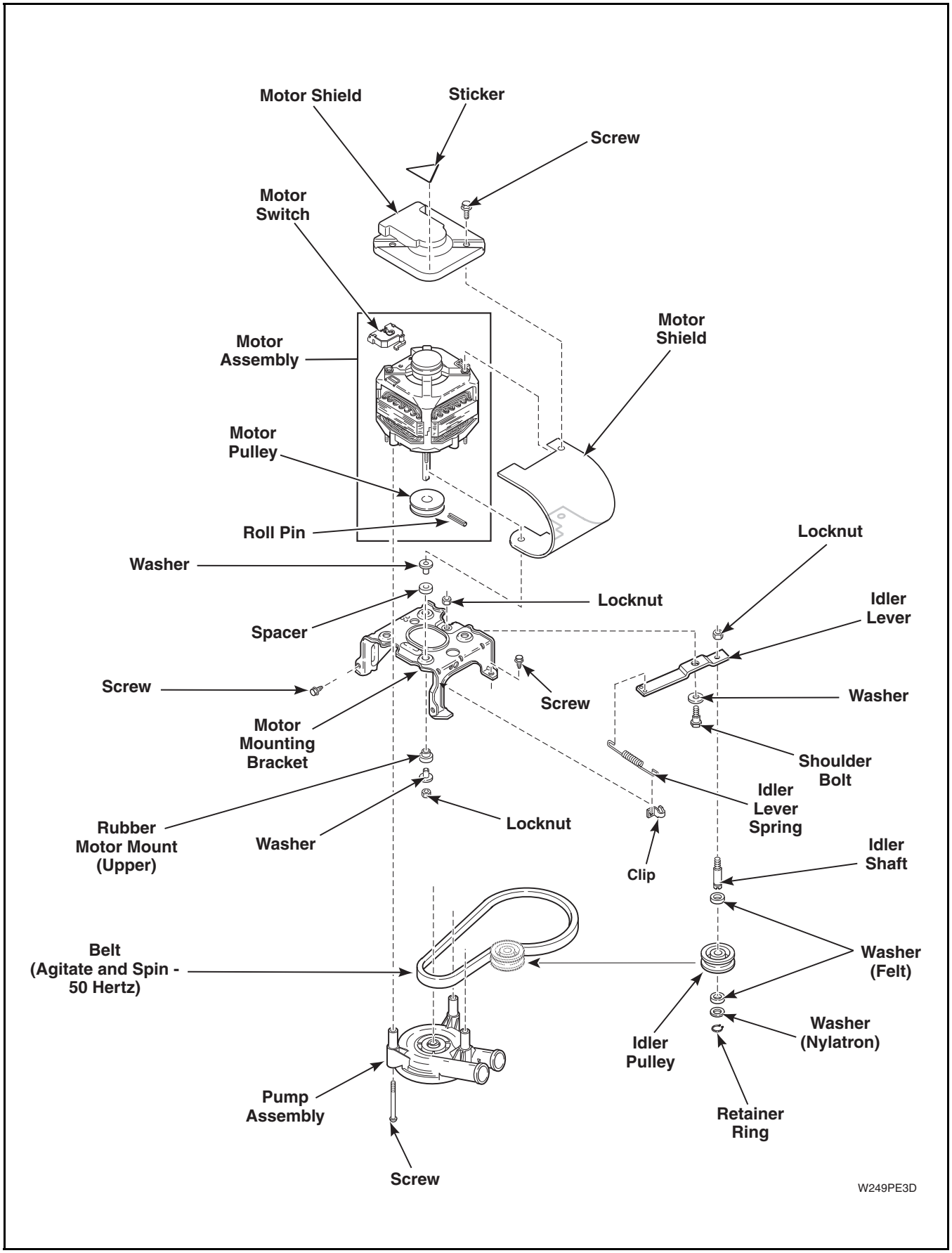

Figure 24

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer before servicing.**
- **Never start the washer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer is properly grounded.**

W003

33. MOTOR SWITCH

a. Remove two screws from bottom edge of front panel. Refer to *Figure 25*.
b. Pull bottom of panel away from washer until hold-down clips (located on top flange of panel) disengage from slots in cabinet top.
c. Remove two screws holding motor shield to motor. Refer to *Figure 24*, and remove shield.
d. Disconnect wire harness from motor switch by pressing down on locking tab on top of connection block and at the same time pull connection block away from motor switch. Refer to *Figure 22*.

IMPORTANT: To avoid an open circuit, DO NOT pull on terminal block wires when removing block from motor switch as this could damage wires or connection crimpings. Before attaching wire harness connection block to motor switch, make sure all male terminals on motor switch are straight and are capable of accepting terminals from wire harness connection block.

e. Remove screw holding motor switch to motor. Refer to *Figure 22*, and remove switch.
f. Disconnect internal motor leads from motor switch terminals.

NOTE: Refer to Wiring Schematics, Section 8 for rewiring internal switch wires.

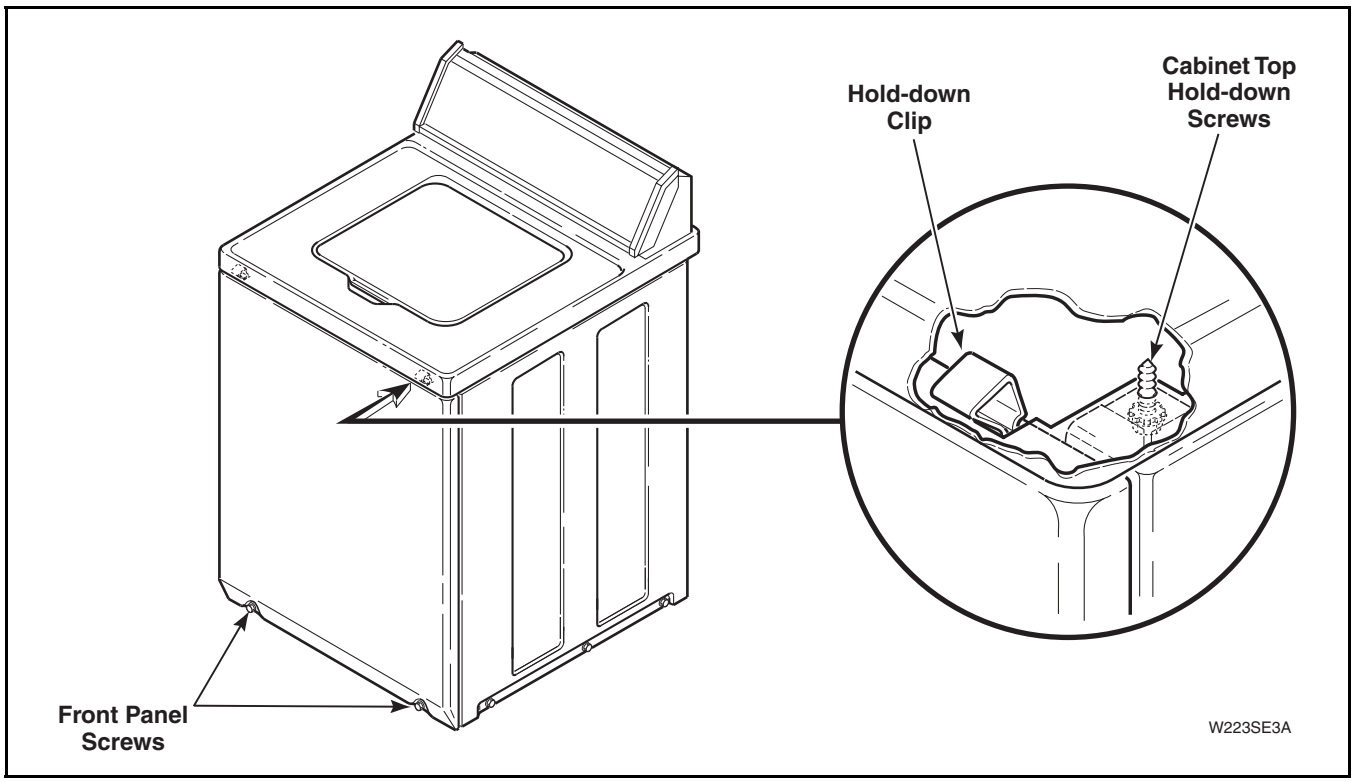

Figure 25

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer before servicing.**
- **Never start the washer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer is properly grounded.**

W003

34. CABINET TOP ASSEMBLY

a. Remove two screws from bottom edge of front panel. Refer to *Figure 25*.
b. Pull bottom of panel away from washer until hold-down clips (located on top flange of panel) disengage from slots in cabinet top. Refer to *Figure 25*.
c. Remove two cabinet top hold-down screws. Refer to *Figure 25*.
d. If area or space permits, tape loading door closed and lift cabinet top to a vertical position by hinging it on the rear hold-down bracket.

NOTE: Cabinet top is self-supporting, however, a small chain may be used for additional support. Refer to *Figure 26*.

IMPORTANT: Before lowering cabinet top into position, pivot outer tub forward far enough to prevent damaging (bending) the out-of-balance switch lever. Refer to *Figure 28*.

TO REMOVE CABINET TOP FROM WASHER

a. Repeat steps “a”, “b” and “c” above.
b. Remove six screws (3 on top and 3 at lower front) holding hood assembly to control hood rear panel and cabinet top. Refer to *Figure 27*.
c. Disconnect hose from pressure switch and push hose down through hole in cabinet top.
d. Disconnect wire harness at disconnect blocks.
e. Reinstall control hood assembly.
f. Tape loading door closed.
g. Lift front of cabinet top slightly and pull forward to disengage from rear hold-down brackets.
h. Pull top forward far enough to permit disconnecting earth (ground) wires from top left rear corner gusset of washer cabinet. Refer to *Figure 28*.
i. Disconnect wires from mixing valve solenoids at quick disconnect blocks. Refer to *Figure 28*.

NOTE: Refer to appropriate wiring diagram when rewiring mixing valve solenoids.

j. Carefully lift cabinet top off washer and set alongside the washer cabinet on protective padding.

IMPORTANT: DO NOT lay cabinet top flat because it will damage door switch actuator arm or out-of-balance lever. When reinstalling cabinet top and before lowering top into position, pivot outer tub forward far enough to prevent damaging (bending) the out-of-balance switch lever.

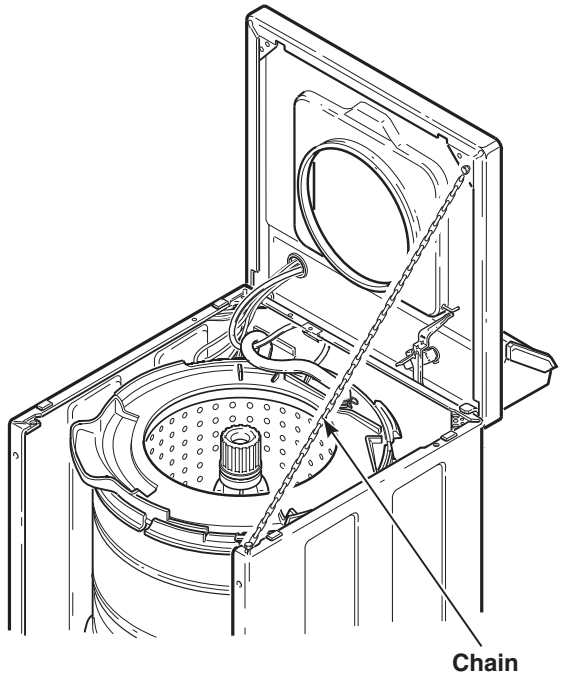

Figure 26

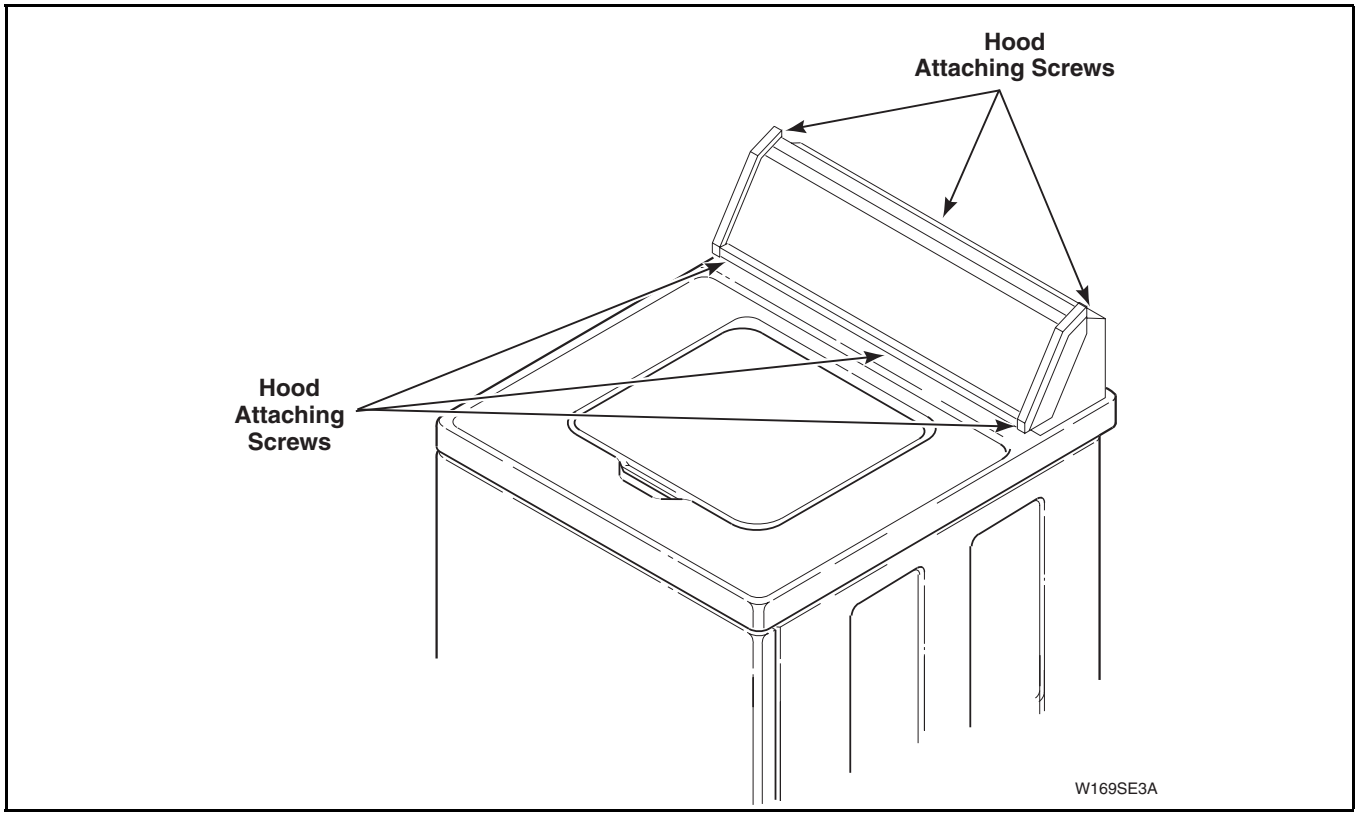

Figure 27

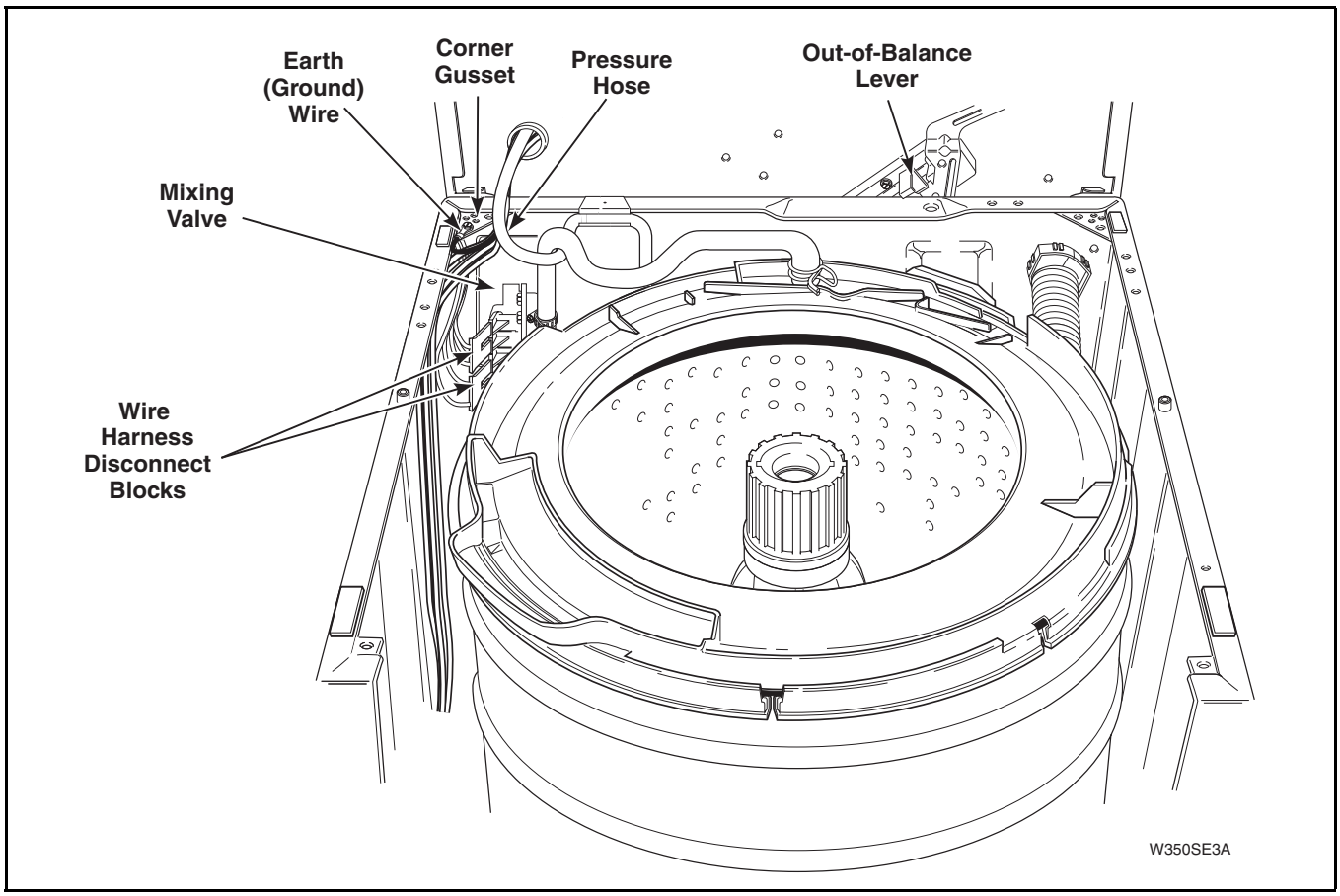

Figure 28

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer before servicing.**
- **Never start the washer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer is properly grounded.**

W003

35. OUT-OF-BALANCE SWITCH ASSEMBLY

a. Remove six screws (3 on top and 3 at lower front) holding hood assembly to control hood rear panel and cabinet top, then set hood assembly on cabinet top on protective padding. Refer to *Figure 27*.
b. Disconnect wires from switch.
c. Move switch lever off switch plunger by moving lever back under cabinet top. Refer to *Figure 30*.
d. Place a thin piece of metal or paper in front of switch to keep screws from falling through holes in switch holder.
e. Use an open-end wrench and remove screws holding switch to switch holder. Refer to *Figure 29*.
f. Remove switch and screws from switch holder.
g. Insert screws into holes in switch.
h. Place a thin piece of metal or paper in front of switch to keep screws from falling through holes in switch holder.
i. Place switch assembly into switch holder. Refer to *Figure 29*.
j. Tighten screws using an open-end wrench and torque to 10 inch-pounds (1.14 Nm).

NOTE: Make sure switch is secure within holder by wiggling it back and forth.

k. Reset switch lever by raising and lowering loading door.

NOTE: Be sure switch lever tab locates itself on top of switch plunger.

l. Reconnect wires to switch terminals.

NOTE: Refer to appropriate wiring diagram when rewiring switch.

m. Reinstall control hood assembly on cabinet top.

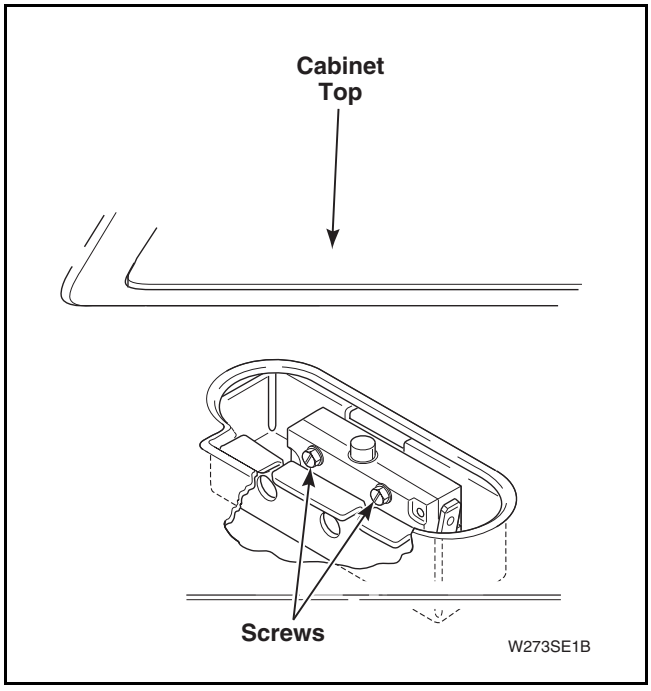

Figure 29

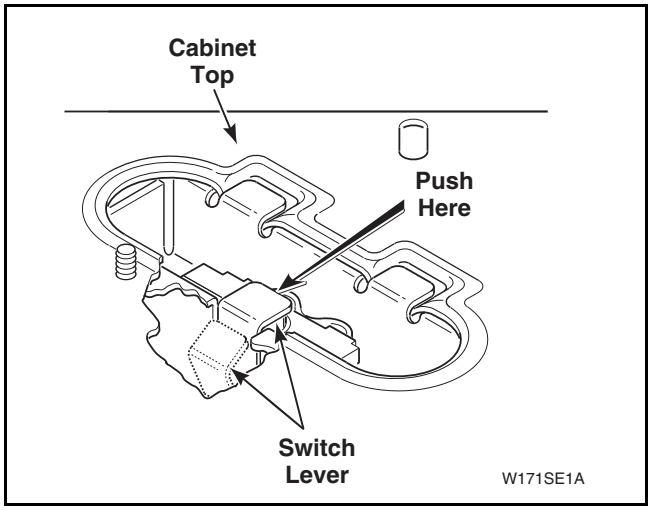

Figure 30

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer before servicing.**
- **Never start the washer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer is properly grounded.**

W003

36. MIXING VALVE ASSEMBLY

a. Remove two screws from bottom edge of front panel. Refer to *Figure 25*.
b. Pull bottom of panel away from washer until hold-down clips (located on top flange of panel) disengage from slots in cabinet top. Refer to *Figure 25*.
c. Remove two cabinet top hold-down screws. Refer to *Figure 25*.
d. If area or space permits, tape loading door closed and lift cabinet top to a vertical position by hinging it on rear hold-down bracket.

NOTE: Cabinet top is self-supporting, however, a small chain may be used for additional support. Refer to *Figure 26*.

IMPORTANT: Before lowering cabinet top into position, pivot outer tub forward far enough to prevent damaging (bending) the out-of-balance switch lever. Refer to *Figure 28*.

e. Remove two screws holding mixing valve to mounting bracket at rear of washer cabinet. Refer to *Figure 31*.

NOTE: When installing mixing valve, tab on bottom flange must be placed in positioning hole in mounting bracket.

f. Pull mixing valve out toward front of washer far enough to permit disconnecting water inlet and fill hoses from mixing valve. Refer to *Figure 31*.
g. Remove wires and quick disconnect blocks from mixing valve solenoid terminals. Refer to *Figure 31*.

NOTE: Refer to appropriate wiring diagram when rewiring solenoids.

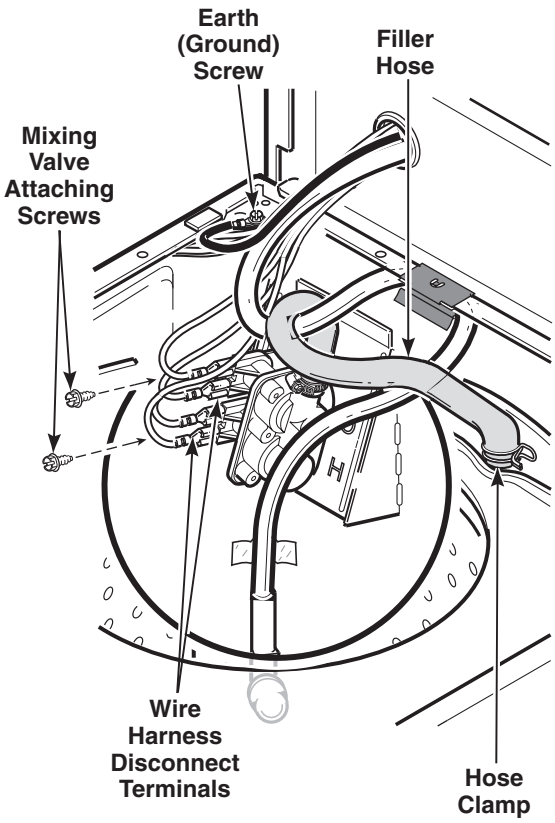

Figure 31

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer before servicing.**
- **Never start the washer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer is properly grounded.**

W003

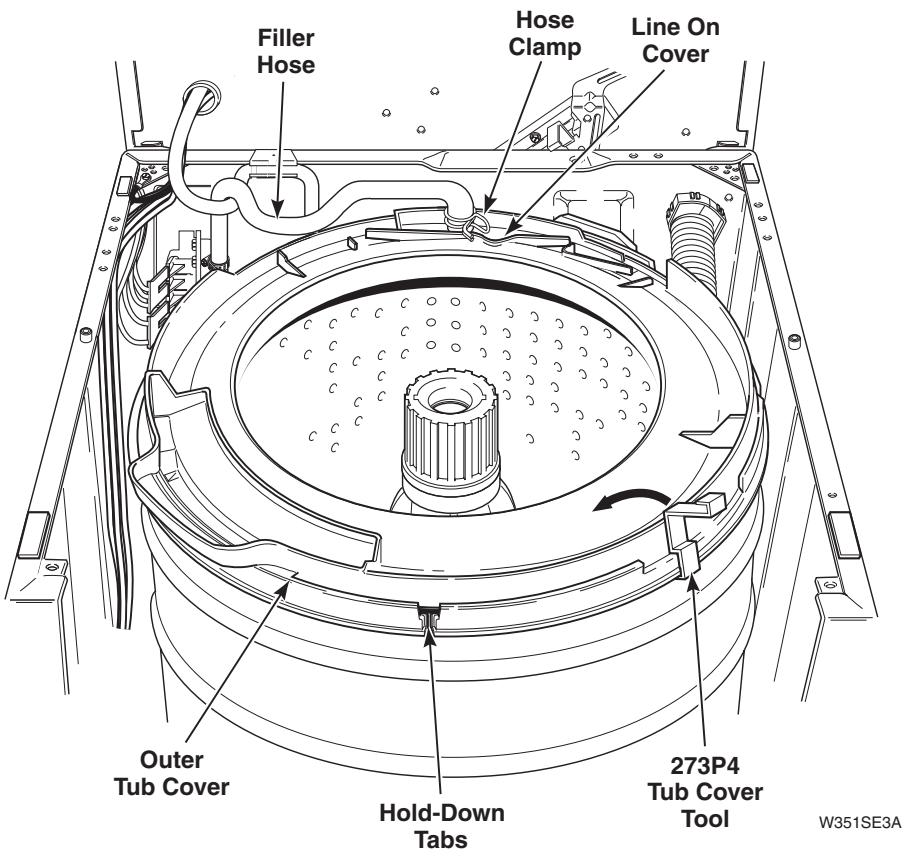

Figure 32

37. WASHTUB AND CLOTHES GUARD

a. Open loading door.

b. Remove agitator by placing two agitator hooks, No. 254P4P, under bottom edge of agitator. Refer to *Figure 12*.

IMPORTANT: Hooks should be positioned 180 degrees of each other, and must be placed under agitator vane for greater stability. If hooks are placed between vane area, agitator damage may occur.

c. Using a rocking motion (back and forth) carefully lift agitator off drive bell.

d. Hinge cabinet top or remove. Refer to *Paragraph 34*.

e. Loosen hose clamp and remove filler hose from outer tub cover. Refer to *Figure 32*.

NOTE: When installing filler hose, white line on hose must be aligned with line located on top side of outer tub cover. Refer to *Figure 32*.

f. There are eight tub cover hold-down tabs which snap over outer tub flange. Using special tub cover tool, Part No. 273P4, insert two prongs of tool underneath each side of tandem tabs. Refer to *Figure 32*. Tilt tool toward center of tub cover and at same time lift upward on cover to unsnap hold-down tabs from outer tub flange. One by one, disengage each of the eight hold-down tabs from outer tub flange and remove cover.

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer before servicing.**
- **Never start the washer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer is properly grounded.**

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IMPORTANT: When installing outer tub cover, always use a new cover gasket.

NOTE: Clean and remove any foreign material in gasket groove of outer tub cover and outer tub flange.

g. Starting at positioning pin located between two bleach funnel outlet tabs, lay gasket into gasket groove of tub cover. Refer to *Figure 33*.
h. Using your fingers, press gasket down into gasket groove of tub cover. Avoid pressing gasket past ends of hold-down tabs.

IMPORTANT: Care must be taken not to twist or bunch gasket in any one area to avoid leaks after assembly.

i. Install gasket past ends of hold-down tabs to bottom of gasket groove using semi-curled end of tub cover tool Part No. 273P4. Refer to *Figure 33*.

NOTE: Tub cover tool part No. 273P4 is designed to spread open hold-down tabs to prevent tearing of gasket during installation.

j. With tub cover tilted at approximately a 45 degree angle, insert the positioning pin into notch on outer tub flange. Refer to *Figure 34*.

NOTE: The two bleach funnel outlet tabs must be angled downward toward inside wall of outer tub for proper dispensing of bleach.

k. Lower cover and push down firmly on top of hold down tabs next to positioning pin until tabs snap over edge of outer tub flange.
l. Cross over to opposite side of tub cover and push down firmly on top of hold down tabs until tabs snap over edge of outer tub flange. Continue with this criss-cross pattern, until tub cover is fully seated. Visually check each tab area again to ensure cover is seated.
m. Check whether or not bleach drain tabs are in the down position by looking through the square holes in bleach funnel area of tub cover. If tabs are not down, a small screwdriver can be inserted down through holes in bleach funnel area to straighten tabs.

(continued on page 42)

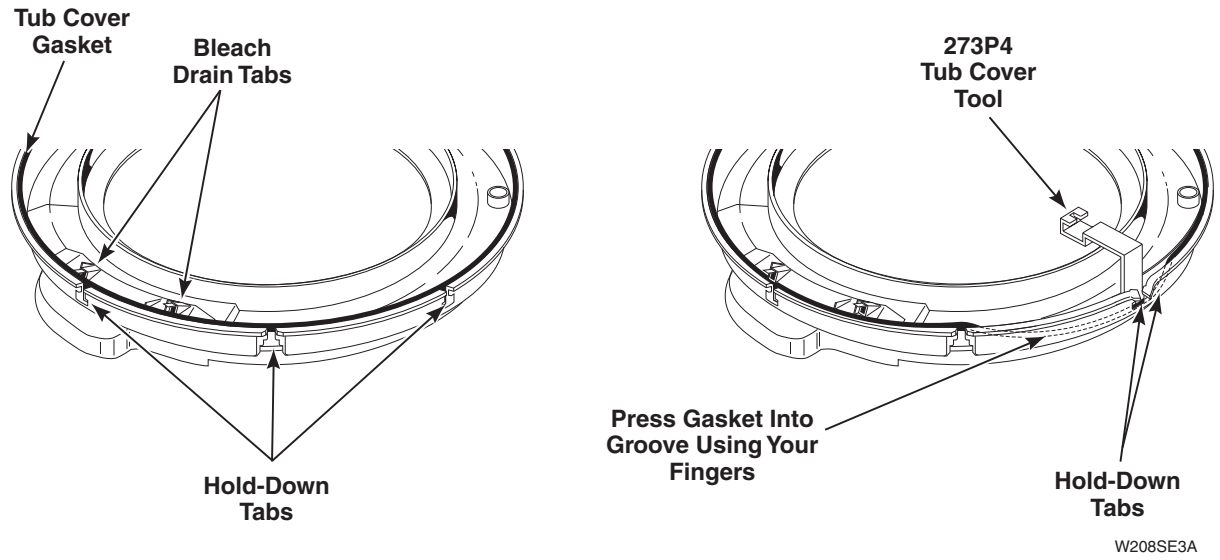

Figure 33

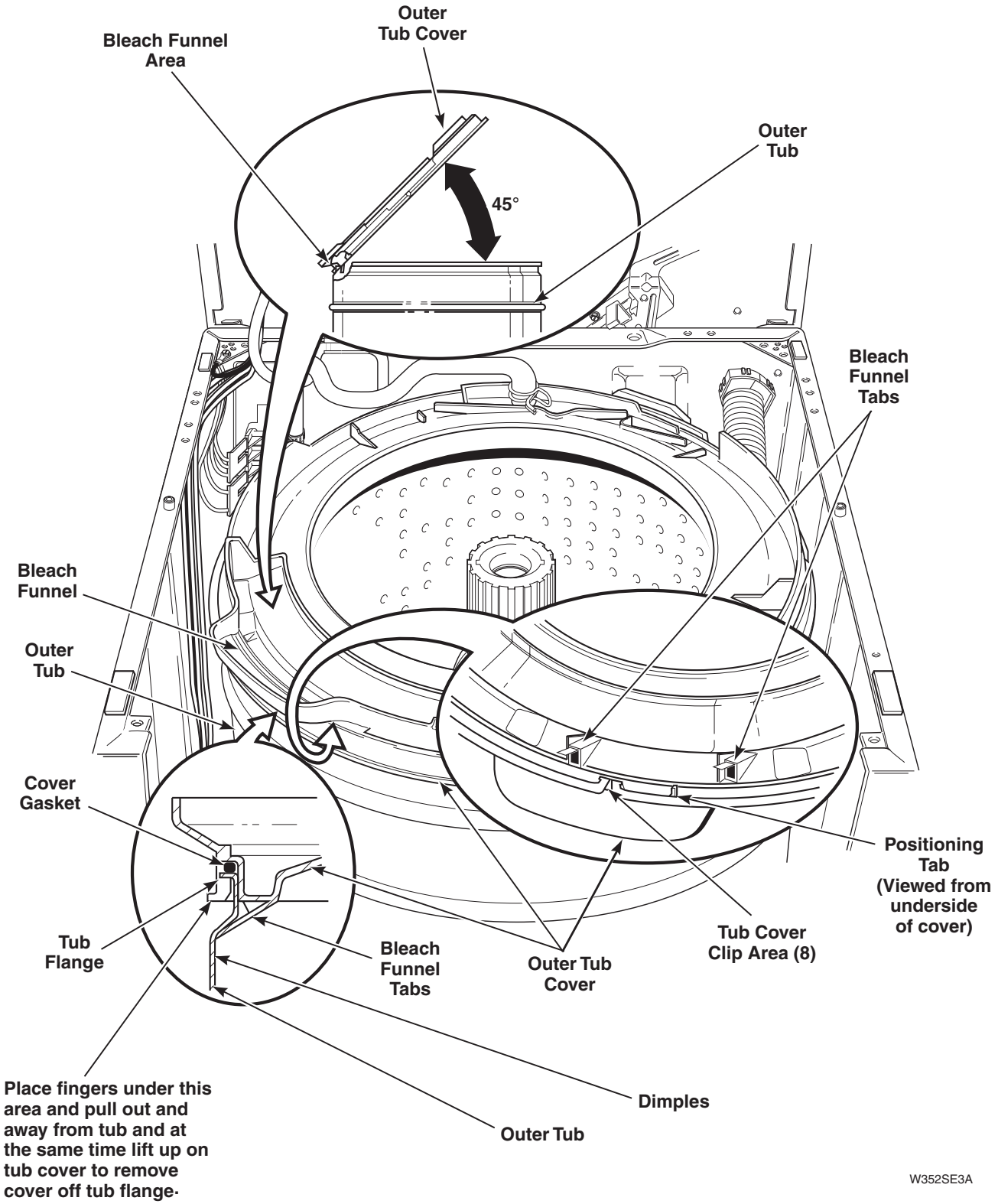

Figure 34

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer before servicing.**
- **Never start the washer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer is properly grounded.**

W003

n. Remove four screws and washers holding washtub to hub. Refer to *Figure 35*.

IMPORTANT: Porcelain Washtub Models - Use care when tightening screws to avoid chipping porcelain on washtub.

o. Lift washtub and clothes guard out of outer tub.

IMPORTANT: When removing washtub and clothes guard, DO NOT lift up on clothes guard as you could damage it. Grasp top flange of washtub and remove from outer tub.

NOTE: When installing washtub, make sure lint filter is between underside of washtub and hub.

TO REMOVE CLOTHES GUARD FROM WASHTUB

a. Place blade of a small screwdriver into slots between clothes guard and washtub. Refer to *Figure 35*.
b. Carefully pry pins of clothes guard out of holes in washtub. Refer to *Figure 35*.

NOTE: As you are prying out pins, lift up on clothes guard.

c. Pry pins out of washtub holes approximately half way around tub before clothes guard can be removed.

TO INSTALL CLOTHES GUARD IN WASHTUB

Place clothes guard on top of washtub, making sure clothes guard pins line up with holes in washtub. Then carefully push clothes guard down into washtub until all pins snap into their respective holes.

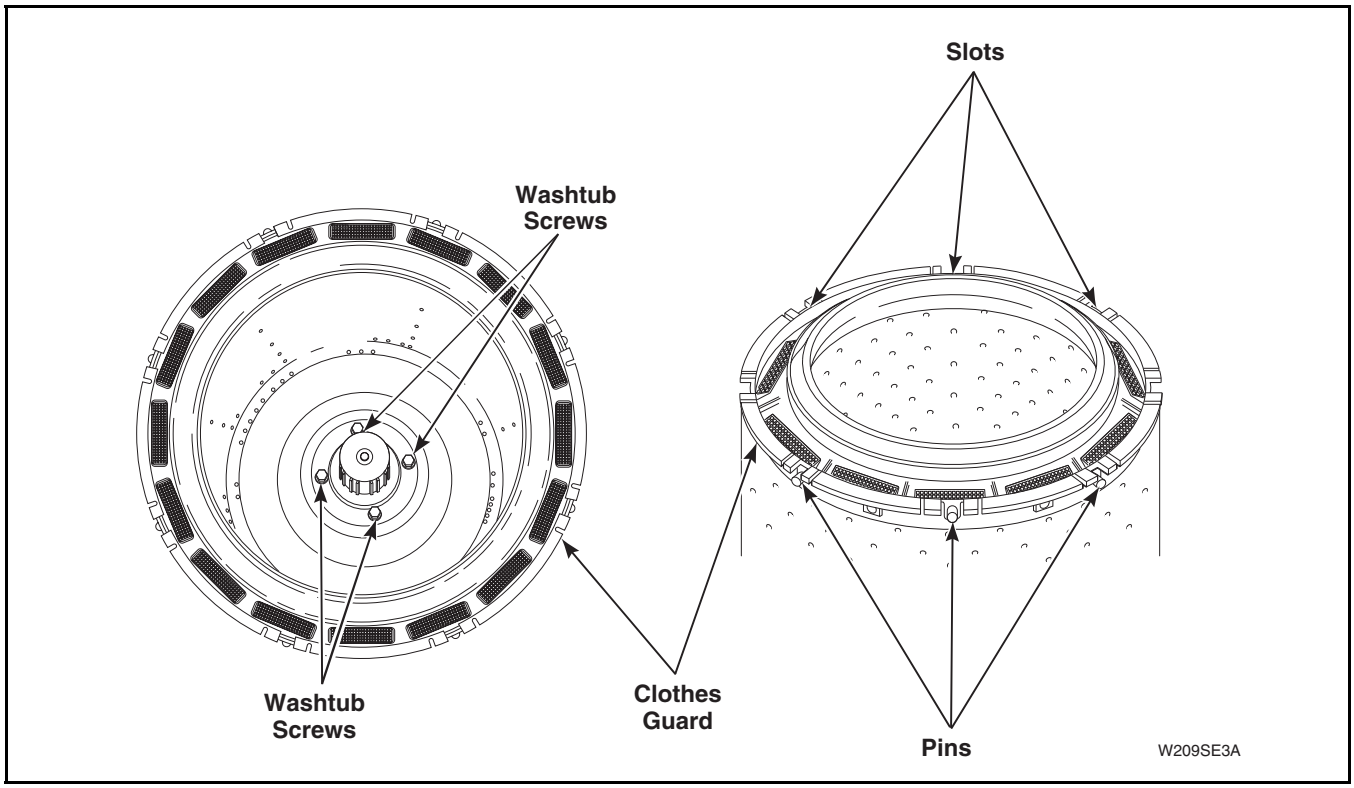

Figure 35

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer before servicing.**
- **Never start the washer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer is properly grounded.**

W003

38. HUB AND SEAL KIT ASSEMBLY

IMPORTANT: If water is present in washtub, spin and pump out before removing drive bell.

a. Remove two screws from bottom edge of front panel. Refer to *Figure 25*.
b. Pull bottom of panel away from washer until hold-down clips (located on top flange of panel) disengage from slots in cabinet top. Refer to *Figure 25*.
c. Open loading door.
d. Remove agitator by placing two agitator hooks, No. 254P4P, under bottom edge of agitator. Refer to *Figure 12*.

IMPORTANT: Hooks should be positioned 180 degrees of each other, and must be placed under agitator vanes for greater stability. If hooks are placed between vane area, damage to agitator may occur.

e. Using a rocking motion (back and forth) carefully lift agitator off drive bell.
f. Hinge cabinet top or remove. Refer to *Paragraph 34*.
g. Loosen hose clamp and remove filler hose from outer tub cover. Refer to *Figure 32*.

NOTE: When reinstalling filler hose, white line on hose must be aligned with line located on top side of outer tub cover. Refer to *Figure 32*.

Tub Cover and Gasket:

(1) There are eight tub cover hold-down tabs which snap over the outer tub flange. Using special tub cover tool, Part No. 273P4, insert two prongs of tool underneath each side of tandem tabs. Refer to *Figure 32*. Tilt tool toward center of tub cover and at the same time lift upward on cover to unsnap hold-down tabs from outer tub flange. One by one, disengage each of the eight hold-down tabs from outer tub flange and remove cover.
(2) Lift cover off outer tub and set beside washer cabinet.

IMPORTANT: When installing outer tub cover, always use a new cover gasket.

NOTE: Clean and remove any foreign material in gasket groove of outer tub cover and outer tub flange.

(3) Starting at the positioning pin located between the two bleach funnel outlet tabs, lay gasket into gasket groove of tub cover. Refer to *Figure 33*.
(4) Using your fingers, press gasket down into gasket groove of tub cover. Avoid pressing gasket past ends of hold-down tabs.

IMPORTANT: Care must be taken not to twist or bunch gasket in any one area to avoid leaks after assembly.

(5) Install gasket past ends of hold-down tabs to bottom of gasket groove using semi-curled end of tub cover tool Part No. 273P4.

NOTE: Tub cover tool Part No. 273P4 is designed to spread open hold-down tabs to prevent tearing of gasket during installation.

(6) With tub cover tilted at approximately a 45 degree angle, insert the positioning pin into notch on outer tub flange. Refer to *Figure 34*.

NOTE: The two bleach funnel outlet tabs must be angled down toward inside wall of outer tub for proper dispensing of bleach.

(7) Lower cover and push down firmly on top of hold-down tabs next to positioning pin until tabs snap over edge of outer tub flange.
(8) Cross over to opposite side of tub cover and push down firmly on top of hold-down tabs until tabs snap over edge of outer tub flange. Continue with this criss-cross pattern, until tub cover is fully seated. Visually check each tab area again to ensure cover is seated.
(9) Check whether or not bleach drain tabs are in the down position by looking through the

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer before servicing.**
- **Never start the washer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer is properly grounded.**

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square holes in bleach funnel area of tub cover. If tabs are not down, a small screwdriver can be inserted down through holes in bleach funnel area to straighten tabs.

h. Remove four screws holding washtub to hub. Refer to *Figure 35*, then lift washtub out of outer tub.

IMPORTANT: When removing washtub, DO NOT lift up on clothes guard as you could damage it. Grasp top flange of washtub and remove from outer tub.

NOTE: When installing washtub, make sure lint filter is between underside of washtub and hub.

TO REMOVE AGITATOR DRIVE BELL

a. Remove plug screw and o-ring from top side of drive bell.

NOTE: No. 294P4 Drive Bell Tool may be required to remove drive bell from transmission shaft, if not, proceed to step i.

b. Back bolt out of tool approximately three quarters of the way. Refer to *Figure 13*.
c. Place tool over bell, making sure indent on jaw lines up with the wide slots on bell. Refer to *Figure 13*.
d. Screw bolt down through hole in top of bell until bolt bottoms out in hole in transmission shaft.
e. Place lip of each jaw under bottom edge of drive bell, making sure indent on jaw lines up with wide slots on bell. Then tighten two wing nuts to hold jaws firmly against drive bell. Refer to *Figure 14*.
f. Use an adjustable wrench and turn large nut on tool **counterclockwise** to pull drive bell from transmission shaft. Refer to *Figure 15*.

IMPORTANT: If large nut is turned clockwise when pulling drive bell, you will twist off quarter inch bolt.

g. Turn quarter inch bolt out of transmission shaft, and remove tool and drive bell from washer.
h. Loosen two wing nuts and remove drive bell from tool.
i. Remove old seal from hub by placing a flat blade screwdriver between bottom edge of seal and hub using washtub bolts as a pry area to pop off lower seal bead. Then grasp seal and pull straight up freeing the upper seal bead.
j. Remove large hex nut using a No. 306P4 Hex Wrench. Refer to *Figure 36*.
k. Remove spline insert from transmission tube.

IMPORTANT: Use a new spline insert each time hex nut is removed. DO NOT reuse old insert because hex nut may loosen during washer operation.

l. Remove hub from splines on transmission tube.

NOTE: It may be necessary to use a gear puller to remove hub.

m. Remove old water seal from outer tub.

IMPORTANT: Use care when removing old seal so as not to damage tub flange or porcelain.

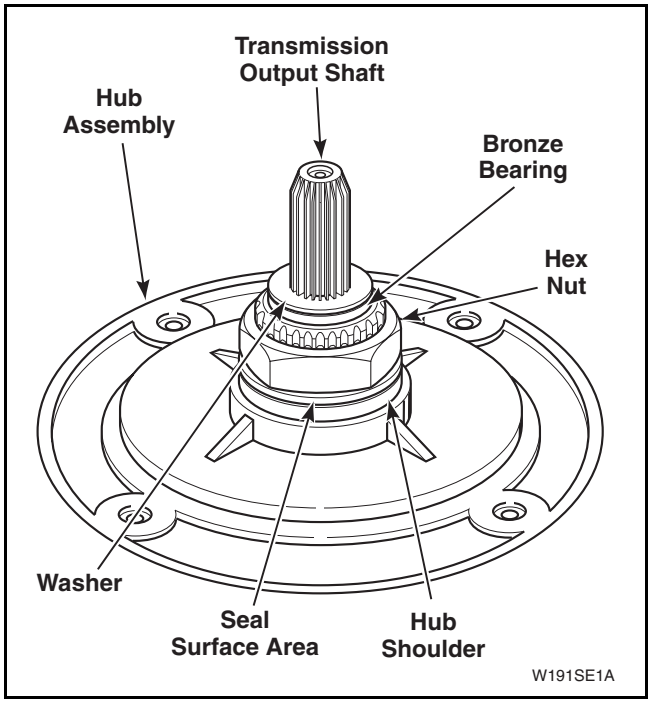

Figure 36

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer before servicing.**
- **Never start the washer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer is properly grounded.**

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TO INSTALL NO. 495P3A HUB AND SEAL KIT

IMPORTANT: Make sure inner surface of tub flange is clean of all foreign material before installing new seal.

a. Apply a small amount of 27615P Sealant, (3M800) (not supplied in kit) around outer surface of tub flange. Refer to *Figure 37*.

IMPORTANT: DO NOT allow sealant to contact flinger (if present), because this could prevent flinger from keeping moisture out of upper bearing. Refer to *Figure 37*.

INSTALLING HUB AND SEAL KIT

a. Thoroughly clean all foreign material from inner surface of outer tub flange.

IMPORTANT: All foreign material must be removed from inner surface of outer tub flange before installing No. 495P3A Hub and Seal Kit.

b. Apply a small amount of No. 27615P Sealant (3M800) (not supplied in kit) around outer surface of tub flange. Refer to *Figure 37*.

IMPORTANT: DO NOT allow sealant to come in contact with flinger (if present), because this could prevent flinger from keeping moisture out of upper bearing. Refer to *Figure 37*.

c. Apply a light film of nonstaining petroleum jelly (such as Vaseline®) to bronze portion of water seal and to outer surface of stainless steel sleeve. Refer to *Figure 38*.

IMPORTANT: DO NOT over lubricate!

d. Insert stainless steel sleeve into water seal from bottom of water seal until stainless steel sleeve is flush with bronze portion of water seal. Refer to *Figure 38*.

e. Leaving garter spring on water seal, place new water seal over outer tub flange (with seal lip on outside of tub flange). Then press seal into tub flange opening using moderate finger pressure.

f. Carefully apply a small amount of No. 27615P Sealant (3M800) (not supplied with kit) around outer edge of water seal and tub (area located just below garter spring). Refer to *Figure 38*.

IMPORTANT: DO NOT allow sealant to contact sealing surface of water seal because it will cause a water leak.

g. Lubricate inner splines of new hub assembly (supplied in kit) with No. 27604P Anti-Seize Compound.

h. Carefully place new hub assembly on splined transmission tube.

IMPORTANT: Firmly push hub assembly down against outer tub seal and hold in this position during the next three steps.

i. While holding down hub assembly, place new spline insert (with fingers pointing upward) over transmission tube until it bottoms out on hub assembly.

IMPORTANT: Use the spline insert (supplied in kit) when reinstalling large hex nut. DO NOT reuse an old spline insert because the large hex nut may loosen during washer operation.

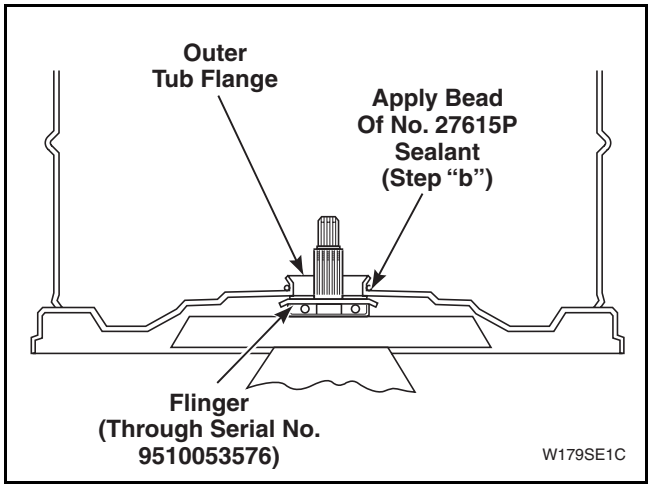

Figure 37

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer before servicing.**
- **Never start the washer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer is properly grounded.**

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j. Place large hex nut over transmission tube (with larger inside bevel toward spline insert) then finger tighten large hex nut.
k. Torque large hex nut between 40 to 70 foot-pounds (5.56 to 9.73 Kgm).

NOTE: If torque wrench is not available, place No. 237P4 Hex Wrench over large hex nut then tap hex wrench with a hammer until hub assembly turns or until large hex nut will no longer tighten.

NOTE: When installing washtub, make sure lint filter is between underside of washtub and hub.

l. Grasp top flange of washtub and carefully lower washtub down onto lint filter and hub assembly.

IMPORTANT: Before setting washtub into place, make sure holes in hub assembly are aligned with holes in lint filter.

m. Secure washtub to hub assembly using four cap screws and four gaskets from 27202P Screw and Gasket Kit (supplied in kit).

IMPORTANT: Porcelain Washtub Models - Use care when tightening cap screws to avoid chipping or damaging porcelain finish.

n. Install No. 32857 Outer Tub Cover Gasket (supplied in kit) into outer tub cover. Refer to *Paragraph 37*.

IMPORTANT: When installing outer tub cover always use a new outer tub cover gasket.

o. Reassemble washtub. Refer to *Paragraph 37*.
p. Install seal, drive bell and agitator following the instructions supplied in No. 36443P Drive Bell and Seal Kit.
q. Reinstall cabinet top and front panel.
r. Close loading door, set washer timer to final spin, start washer and allow empty washtub to spin for 30 to 60 seconds.

IMPORTANT: Setting washer to spin allows petroleum jelly (applied to bronze portion of water seal) a chance to cover seal surface before water is added to washer.

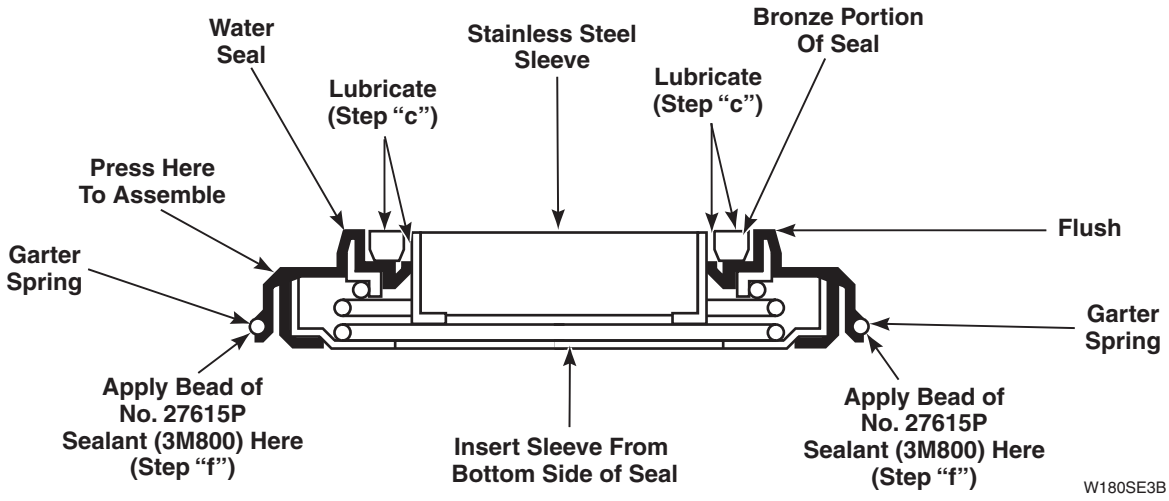

Figure 38

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer before servicing.**
- **Never start the washer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer is properly grounded.**

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TUB COVER AND GASKET

NOTE: When installing outer tub cover, always use a new cover gasket.

NOTE: Clean and remove any foreign material in gasket groove of outer tub cover and outer tub flange.

a. Starting at the positioning tab located between the two bleach funnel outlet tabs, lay gasket into gasket groove of tub cover. Refer to *Figure 33*.
b. Using your fingers, press gasket down into gasket groove of tub cover. Avoid pressing gasket past ends of hold-down tabs.

IMPORTANT: Care must be taken not to twist or bunch gasket in any one area to avoid leaks after assembly.

c. Install gasket past ends of hold-down tabs to bottom of gasket groove using semi-curled end of tub cover tool Part No. 273P4.

NOTE: Tub cover tool Part No. 273P4 is designed to spread open hold-down tabs to prevent tearing of gasket during installation.

d. With tub cover tilted at approximately a 45 degree angle, insert positioning pin into notch on outer tub flange. Refer to *Figure 34*.

NOTE: Two bleach funnel outlet tabs must be angled downward toward inside wall of outer tub for proper dispensing of bleach.

e. Lower cover and push down firmly on top of hold-down tabs next to positioning pin until tabs snap over edge of outer tub flange.
f. Cross over to opposite side of tub cover and push down firmly on top of hold-down tabs until tabs snap over edge of outer tub flange. Continue with this criss-cross pattern, until tub cover is fully seated. Visually check each tab area again to ensure cover is seated.
g. Check whether or not bleach drain tabs are in the down position by looking through the square holes in bleach funnel area of tub cover. If tabs are not down, a small screwdriver can be inserted down through holes in bleach funnel area to straighten tabs.
h. Reinstall filler hose on outer tub cover.

NOTE: When reinstalling filler hose, the white line on hose that connects to tub cover must be aligned with line located on top side of outer tub cover. Refer to *Figure 32*.

i. Place agitator on top of drive bell. Slowly rotate agitator until fingers on underside of agitator line up with large slots on drive bell.
j. A sharp blow on top of agitator, with palm of your hand, will force agitator down onto drive bell, allowing fingers on underside of agitator to lock under bottom edge of drive bell.

NOTE: Do not push agitator onto drive bell any further than necessary.

k. Reinstall cabinet top and secure to washer cabinet using screws previously removed.
l. Reinstall front panel.

39. OUTER TUB

a. Open loading door.
b. Remove agitator by placing two agitator hooks, No. 254P4P, under bottom edge of agitator. Refer to *Figure 12*.

IMPORTANT: Hooks should be positioned 180 degrees of each other, and must be placed under agitator vane for greater stability. If hooks are placed between vane area, agitator damage may occur.

c. Using a rocking motion (back and forth) carefully lift agitator off drive bell.
d. Remove two screws from bottom edge of front panel. Refer to *Figure 25*.
e. Pull bottom of panel away from washer until hold-down clips (located on top flange of panel) disengage from slots in cabinet top. Refer to *Figure 25*.

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer before servicing.**
- **Never start the washer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer is properly grounded.**

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f. Hinge cabinet top or remove. Refer to *Paragraph 34*.
g. Loosen hose clamp, and disconnect filler hose from outer tub cover. Refer to *Figure 32*.

NOTE: When reinstalling filler hose, the white line on hose that connects to tub cover must be aligned with line located on top side of outer tub cover. Refer to *Figure 32*.

Tub Cover and Gasket:

(1) There are eight tub cover hold-down tabs which snap over the outer tub flange. Using special tub cover tool, Part No. 273P4, insert two prongs of tool underneath each side of tandem tabs. Refer to *Figure 32*. Tilt tool toward center of tub cover and at the same time lift upward on cover to unsnap hold-down tabs from outer tub flange. One by one, disengage each of the eight hold-down tabs from outer tub flange and remove cover.
(2) Remove cover from outer tub and remove old gasket from tub cover.

NOTE: When installing outer tub cover, always use a new cover gasket.

NOTE: Clean and remove any foreign material in gasket groove of outer tub cover and outer tub flange.

(3) Starting at positioning pin located between two bleach funnel outlet tabs, lay gasket into gasket groove of tub cover. Refer to *Figure 33*.
(4) Using your fingers, press gasket down into gasket groove of tub cover. Avoid pressing gasket past ends of hold-down tabs.

IMPORTANT: Care must be taken not to twist or bunch gasket in any one area to avoid leaks after assembly.

(5) Install gasket past ends of hold-down tabs to bottom of gasket groove using semi-curled end of tub cover tool part No. 273P4.

NOTE: Tub cover tool Part No. 273P4 is designed to spread open hold-down tabs to prevent tearing of gasket during installation.

(6) With tub cover tilted at approximately a 45 degree angle, insert the positioning pin into notch on outer tub flange. Refer to *Figure 34*.

NOTE: Two bleach funnel outlet tabs must be angled downward toward inside wall of outer tub for proper dispensing of bleach.

(7) Lower cover and push down firmly on top of hold-down tabs next to positioning pin until tabs snap over edge of outer tub flange.
(8) Cross over to opposite side of tub cover and push down firmly on top of hold-down tabs until tabs snap over edge of outer tub flange. Continue with this criss-cross pattern, until tub cover is fully seated. Visually check each tab area again to ensure cover is seated.
(9) Check whether or not bleach drain tabs are in the down position by looking through the square holes in bleach funnel area of tub cover. If tabs are not down, a small screwdriver can be inserted down through holes in bleach funnel area to straighten tabs.

h. Remove four screws and washers holding washtub to hub. Refer to *Figure 35*.

IMPORTANT: Porcelain Washtub Models - Use care when tightening cap screws to avoid chipping porcelain on washtub.

i. Lift washtub (with clothes guard attached) out of outer tub.

IMPORTANT: When removing washtub and clothes guard, DO NOT lift up on guard as you could damage it. Grasp top flange of washtub and remove from outer tub.

j. Remove agitator drive bell. Refer to *Paragraph 28*.

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
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- **Never start the washer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer is properly grounded.**

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k. Remove large hex nut using No. 306P4 Hex Wrench. Then remove spline insert from transmission tube.

IMPORTANT: Use a new spline insert each time the hex nut is removed. DO NOT reuse the old insert as hex nut may loosen during the washer operation.

l. Remove hub from splines on transmission tube.

NOTE: It may be necessary to use a gear puller to remove hub.

m. Remove old water seal from outer tub.

IMPORTANT: Use care when removing old seal so as not to damage tub flange or porcelain.

NOTE: When reinstalling or replacing outer tub, always install a new No. 495P3A Hub and Seal Kit. Refer to *Paragraph 38*.

n. Reach in through front of motor mounting bracket and move idler lever to left to release tension on belt.

IMPORTANT: Use care when releasing idler lever tension. If idler lever spring is overstretched, washer operation will be affected.

o. While holding idler lever, reach in and around right side of motor and run belt off right side of pulley.

IMPORTANT: When removing or reinstalling complete outer tub into washer (with transmission, balance ring and pivot dome attached), damage could occur to idler lever if idler spring is left hooked to motor mounting bracket.

With idler spring hooked to motor mounting bracket, idler lever extends out through rear of bracket. When removing or reinstalling complete tub assembly, idler lever is in the way and can be damaged (bent), or idler pulley could be chipped. A bent idler lever will cause misalignment of idler pulley with drive belt, and a chipped idler pulley will damage belt.

We recommend that before removing or reinstalling the complete tub assembly, you unhook idler spring and move idler lever out of the way. This will prevent the possibility of idler lever or pulley damage.

p. Using No. 321P4 Spring Hook Tool, unhook seven centering springs from lower edge of outer tub. Refer to *Figure 39*.

IMPORTANT: When installing centering springs, make sure spring hook is fully seated in hole in tub skirt. Mark the word "FRONT" on front side of outer tub so complete tub module can be reinstalled in same position.

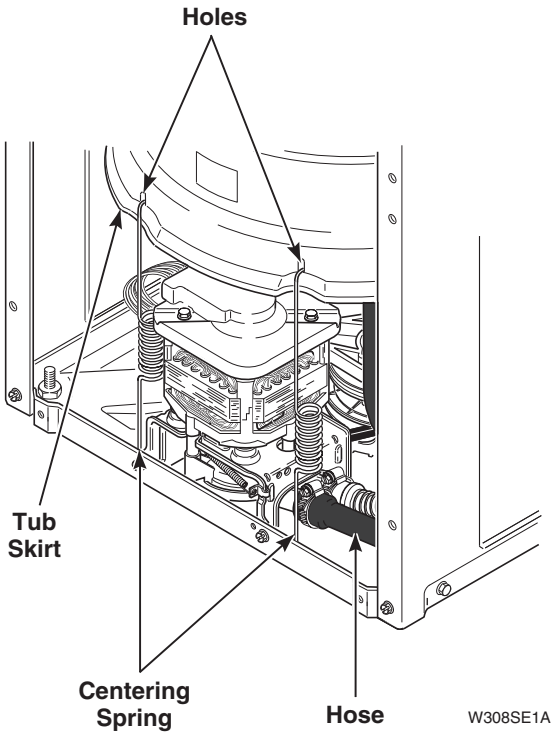

Figure 39

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer before servicing.**
- **Never start the washer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer is properly grounded.**

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q. Disconnect hose from bottom of outer tub.
r. Remove pressure hose from pressure switch.
s. Grasp outer tub and lift complete tub assembly (with transmission, balance ring and pivot dome attached) straight up and out of washer cabinet.
t. Turn outer tub upside-down and set on protective padding.
u. Remove screws and lockwashers holding each support leg to outer tub. Refer to *Figure 40*. Then lift transmission, balance ring and pivot dome off tub.

NOTE: To prevent porcelain damage, leg plates must be installed on outside of outer tub flange when reinstalling support legs. Do not overtighten screws as this could cause stripping or porcelain damage. Torque screws between 90 to 130 inch-pounds (10.3 to 14.87 Nm).

v. Turn outer tub upright and remove tape holding pressure hose to outer tub, then remove pressure bulb and grommet.

NOTE: When installing grommet into outer tub, thicker lip of grommet must be installed to outside of tub. Lubricate outer surface of large opening of pressure bulb with liquid soap to aid when assembling pressure bulb into grommet.

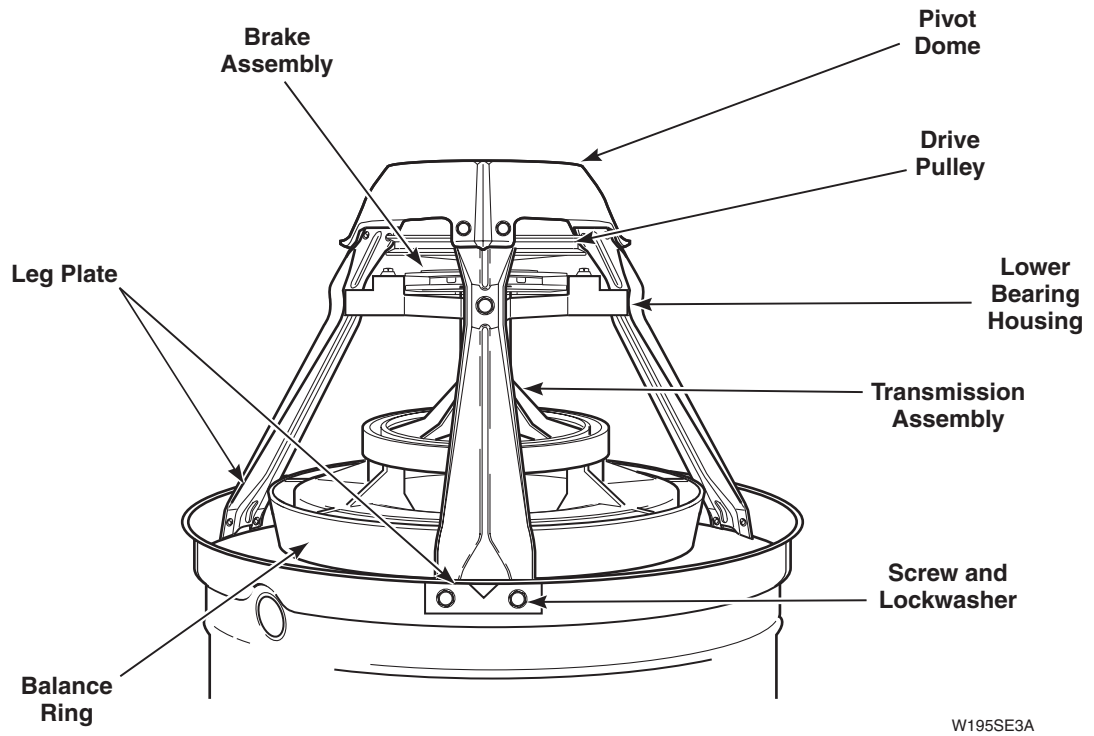

Figure 40

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer before servicing.**
- **Never start the washer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer is properly grounded.**

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40. DRIVE PULLEY AND HELIX

a. Remove two screws from bottom edge of front panel. Refer to *Figure 20*.

b. Pull bottom of panel away from washer until hold-down clips (located on top flange of panel) disengage from slots in cabinet top. Refer to *Figure 20*.

c. Hinge cabinet top or remove. Refer to *Paragraph 34*.

d. Loosen hose clamp and disconnect filler hose from outer tub cover. Refer to *Figure 32*.

NOTE: When reinstalling filler hose, the white line on hose that connects to tub cover must be aligned with line located on top side of outer tub cover. Refer to *Figure 32*.

e. Reach in through front of motor mounting bracket and move idler lever to left to release tension on belt.

We recommend that before removing or reinstalling the complete assembly, you unhook idler spring, and move idler lever out of the way. This will prevent the possibility of idler lever or pulley damage.

IMPORTANT: Use care when releasing idler lever tension. If idler lever spring is overstretched, washer operation will be affected.

f. While holding idler lever, reach in and around right side of motor and run belt off right side of pulley.

IMPORTANT: When removing or reinstalling complete outer tub into washer (with transmission, balance ring and pivot dome attached), damage could occur to idler lever if idler spring is left hooked to motor mounting bracket.

With idler spring hooked to motor mounting bracket, idler lever extends out through rear of bracket. When removing or reinstalling complete tub assembly, idler lever is in the way and can be damaged (bent), or idler pulley could be chipped. A bent idler lever will cause misalignment of idler pulley with drive belt, and a chipped idler pulley will damage belt.

g. Using No. 321P4 Spring Hook Tool, unhook seven centering springs from lower edge of outer tub. Refer to *Figure 39*.

IMPORTANT: When installing centering springs, make sure spring hook is fully seated in hole in tub skirt. Mark the word "FRONT" on the front side of the outer tub so complete tub module can be reinstalled in the same position.

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer before servicing.**
- **Never start the washer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer is properly grounded.**

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h. Disconnect hose from bottom of outer tub.
i. Remove pressure hose from pressure switch.
j. Grasp outer tub and lift complete tub module assembly (with transmission, balance ring, and pivot dome attached) straight up and out of washer cabinet.
k. Turn complete tub module upside-down and set on protective padding.
l. Remove screws holding three support legs to pivot dome and remove dome. Refer to *Figure 40*.
m. Remove screw, washer and helix holding drive pulley to input shaft of transmission assembly. Refer to *Figure 41*.
n. Lift drive pulley up and out from between tub support legs.

NOTE: When reinstalling pulley, place a small amount of lubricant on top side of the drive pulley that will be contacting large flat washers. Lubricate helix ramps and bore with a small amount of lubricant. Refer to *Figure 42*.

IMPORTANT: DO NOT OVER LUBRICATE! Excess lubricant can be thrown into pivot dome area during normal washer operation. Any lubricant on pivot dome or isolator will cause premature tripping of the out-of-balance switch. This condition will persist until lubricant is removed.

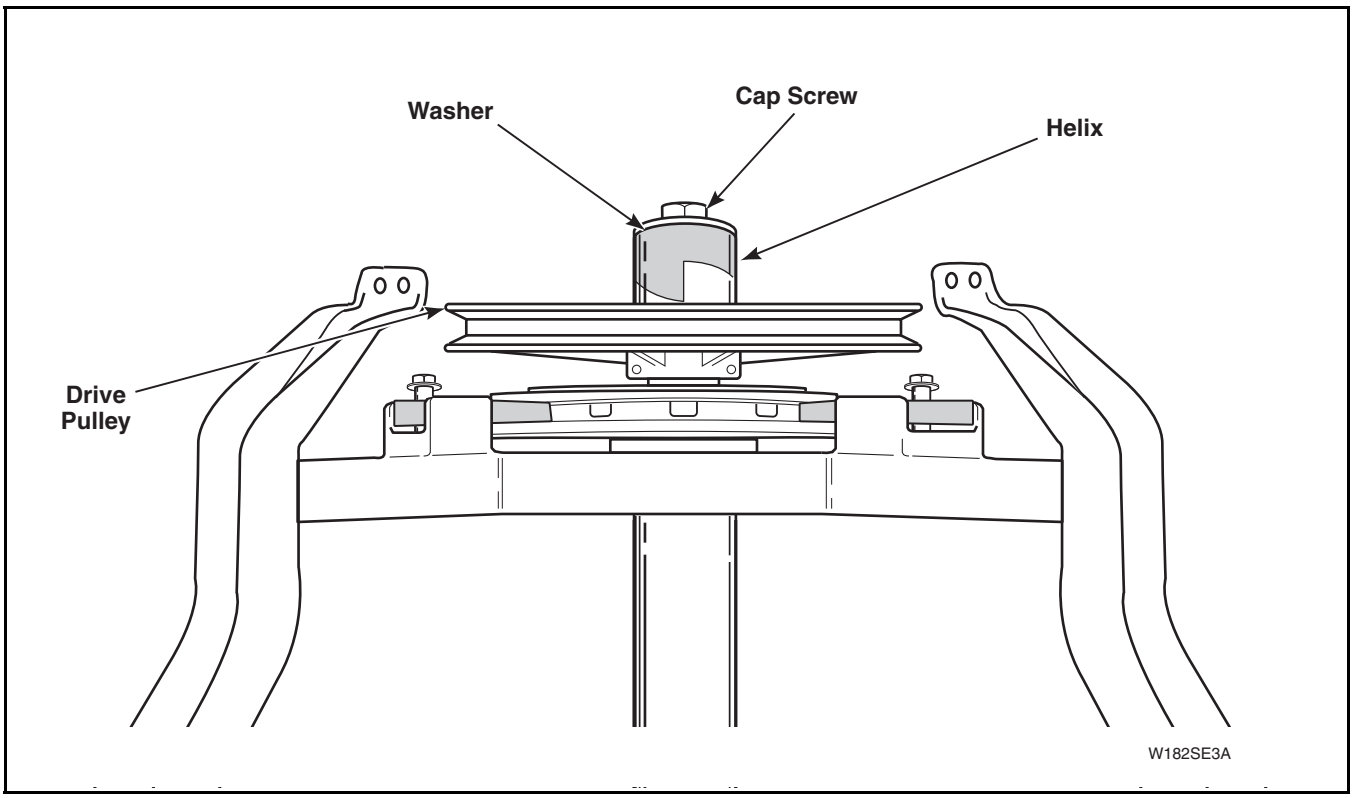

Figure 41

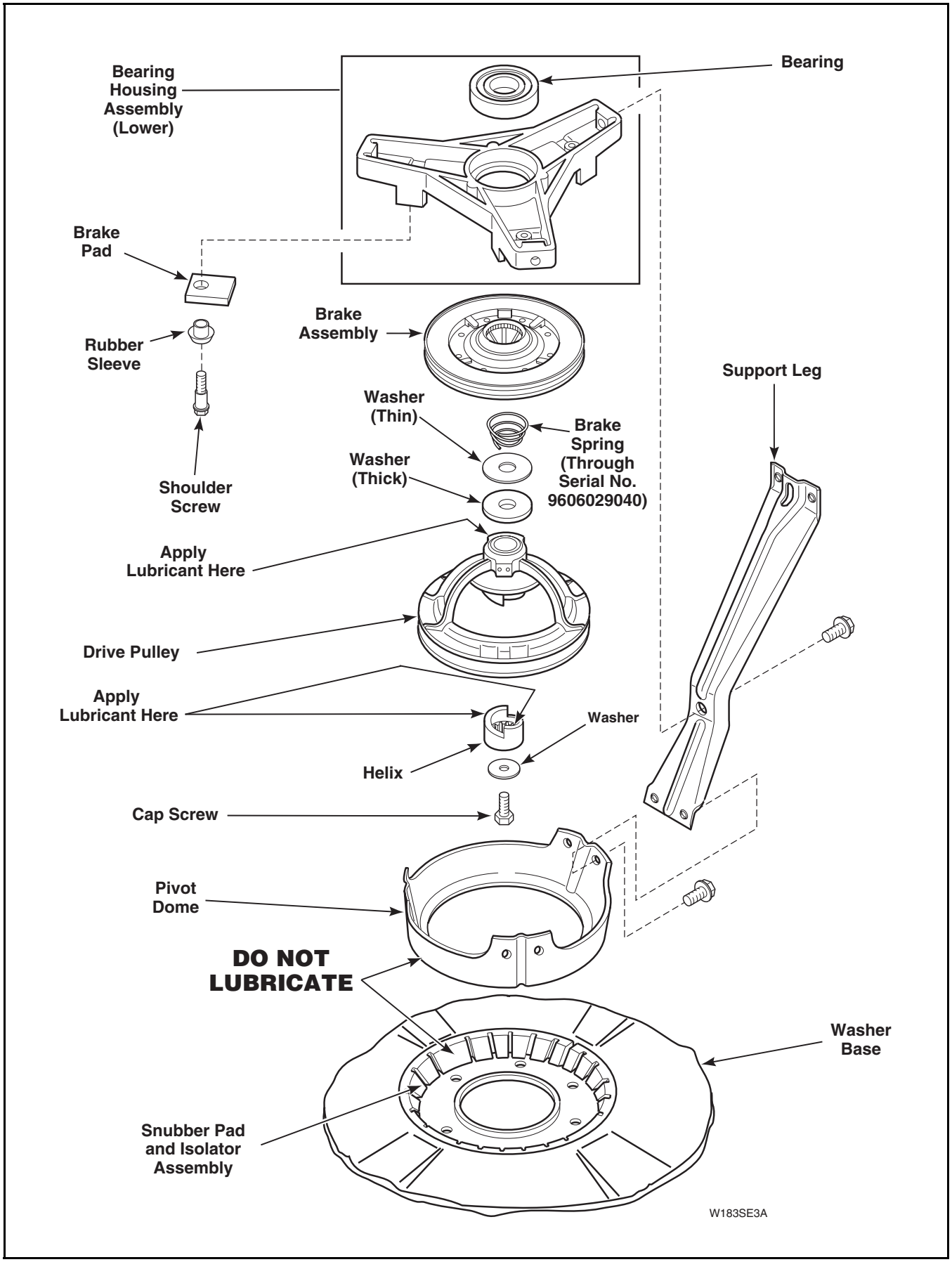

Figure 42

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer before servicing.**
- **Never start the washer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer is properly grounded.**

W003

41. BRAKE ASSEMBLY

a. Remove two screws from bottom edge of front panel. Refer to *Figure 25*.
b. Pull bottom of panel away from washer until hold-down clips (located on top flange of panel) disengage from slots in cabinet top. Refer to *Figure 25*.
c. Hinge cabinet top or remove. Refer to *Paragraph 34*.
d. Loosen hose clamp and disconnect filler hose from outer tub cover. Refer to *Figure 32*.

NOTE: When reinstalling filler hose, the white line on hose that connects to tub cover must be aligned with line located on top side of outer tub cover. Refer to *Figure 32*.

e. Reach in through front of motor mounting bracket and move idler lever to left to release tension on belt.

IMPORTANT: Use care when releasing idler lever tension. If idler lever spring is overstretched, washer operation will be affected.

f. While holding idler lever, reach in and around right side of motor and run belt off right side of pulley.

We recommend that before removing or reinstalling the complete assembly, you unhook idler spring and move idler lever out of the way. This will prevent possibility of idler lever or pulley damage.

IMPORTANT: When removing or reinstalling complete outer tub into washer (with transmission, balance ring and pivot dome attached), damage could occur to idler lever if idler spring is left hooked to motor mounting bracket.

With idler spring hooked to motor mounting bracket, idler lever extends out through rear of bracket. When removing or reinstalling complete tub assembly, idler lever is in the way and can be damaged (bent), or idler pulley could be chipped. A bent idler lever will cause misalignment of idler pulley with drive belt, and a chipped idler pulley will damage belt.

g. Using No. 321P4 Spring Hook Tool, unhook seven centering springs from lower edge of outer tub. Refer to *Figure 39*.

IMPORTANT: When installing centering springs, make sure spring hook is fully seated in hole in tub skirt. Mark the word "FRONT" on the front side of the outer tub so complete tub module can be reinstalled in same position.

h. Disconnect hose from bottom of outer tub.
i. Remove pressure hose from pressure switch.
j. Grasp outer tub and lift complete tub module assembly (with transmission, balance ring, and pivot dome attached) straight up and out of washer cabinet.
k. Turn complete tub module upside-down and set on protective padding.
l. Remove screws holding three support legs to pivot dome and remove dome. Refer to *Figure 40*.
m. Remove screw, washer and helix holding drive pulley to input shaft of transmission assembly. Refer to *Figure 41*.
n. Lift drive pulley up and out from between tub support legs.

NOTE: When reinstalling pulley, place a small amount of lubricant on top side of drive pulley that will be contacting large flat washer. Lubricate helix ramps and bore with a small amount of lubricant. Refer to *Figure 42*.

IMPORTANT: DO NOT OVER LUBRICATE! Excess lubricant can be thrown into pivot dome area during normal washer operation. Any lubricant on the pivot dome or snubber pad and isolator assembly will cause premature tripping of the out-of-balance switch. This condition will persist until lubricant is removed.

IMPORTANT: Two large flat washers must be in place between spring and drive pulley when reassembling. Thicker washer must contact top side of drive pulley. Refer to *Figure 42* for assembly sequence.

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer before servicing.**
- **Never start the washer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer is properly grounded.**

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NOTE: When reassembling, place a small amount of lubricant to top side of drive pulley that will be contacting the large flat washer. Lubricate helix ramps and bore with a small amount of lubricant. Refer to *Figure 42*.

IMPORTANT: DO NOT OVER LUBRICATE! Excess lubricant can be thrown into pivot dome area during normal washer operation. Any lubricant on pivot dome or snubber pad and isolator assembly will cause premature tripping of the out-of-balance switch. This condition will persist until lubricant is removed.

o. **Through Serial No. 9606029040 -** Using a right angle needle nose pliers, remove spring from around lower transmission tube (located inside brake assembly). Refer to *Figure 42*.

NOTE: Remove spring by turning in a counterclockwise direction (looking from lower end of input shaft of transmission assembly).

p. Remove three screws holding brake pads, rubber sleeves and brake assembly to lower bearing housing, then remove brake assembly and pads off bottom of transmission assembly. Refer to *Figure 42*.

IMPORTANT: When reinstalling brake assembly, we recommend replacing three brake pads. DO NOT replace just worn pads. Apply a small amount of No. 26594P Silicone Lubricant to both sides of each brake pad where it will contact brake assembly.

IMPORTANT: DO NOT OVER LUBRICATE! Excess lubricant can be thrown into pivot dome area during normal washer operation. Any lubricant on pivot dome or snubber pad and isolator assembly will cause premature tripping of the out-of-balance switch. This condition will persist until lubricant is removed.

NOTE: Refer to *Figure 42* for assembly sequence.

IMPORTANT: When installing spring (if used), make sure it is inserted into groove in large splines of lower transmission tube. Use tool, No. 242P4, for installing the spring.

q. After brake is installed, put washer through the following check to make sure brake is operating properly.
   (1) Turn off electrical power to washer.
   (2) Turn drive pulley one complete revolution in agitation direction, then push drive pulley up against brake.
   (3) Check for a .030 (.76mm) minimum gap between drive pulley and helix **ramp** surfaces.

IMPORTANT: If gap is less than .030 (.76mm), brake may not stop washtub from spinning in required seven seconds because brake will not close properly.

   (4) Turn on electrical power to washer and start washer in the final spin.

NOTE: After washtub has been spinning for two minutes, normal spin speed should be approximately 580 RPM. If not, the cause could be dragging brake pads. If problems occur with steps 3 or 4, remove brake assembly and correct problem.

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer before servicing.**
- **Never start the washer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer is properly grounded.**

W003

42. LOWER BEARING HOUSING

a. Remove two screws from bottom edge of front panel. Refer to *Figure 20*.
b. Pull bottom of panel away from washer until hold-down clips (located on top flange of panel) disengage from slots in cabinet top. Refer to *Figure 20*.
c. Remove two cabinet top hold-down screws, and hinge cabinet top or remove. Refer to *Paragraph 34*.
d. Loosen hose clamp and disconnect filler hose from outer tub cover. Refer to *Figure 32*.

NOTE: When reinstalling filler hose, the white line on hose that connects to tub cover must be aligned with line located on top side of outer tub cover. Refer to *Figure 32*.

e. Reach in through front of motor mounting bracket and move idler lever to left to release tension on belt.

IMPORTANT: Use care when releasing idler lever tension. If idler lever spring is overstretched, washer operation will be affected.

f. While holding idler lever, reach in and around right side of motor and run belt off right side of pulley.

IMPORTANT: When removing or reinstalling complete module assembly into washer (with transmission, balance ring and pivot dome attached), damage could occur to idler lever if idler spring is left hooked to motor mounting bracket.

With idler spring hooked to motor mounting bracket, idler lever extends out through rear of bracket. When removing or reinstalling complete tub assembly, idler lever is in the way and can be damaged (bent), or idler pulley could be chipped. A bent idler lever will cause misalignment of idler pulley with the drive belt, and a chipped idler pulley will damage belt.

We recommend that before removing or reinstalling the complete assembly, you unhook idler spring and move idler lever out of the way. This will prevent the possibility of idler lever or pulley damage.

g. Using No. 321P4 Spring Hook Tool, unhook seven centering springs from lower edge of outer tub. Refer to *Figure 39*.

IMPORTANT: When installing centering springs, make sure spring hook is fully seated in hole in tub skirt. Mark the word "FRONT" on the front side of the outer tub so complete tub module can be reinstalled in the same position.

h. Disconnect hose from bottom of outer tub.
i. Remove pressure hose from pressure switch.
j. Grasp outer tub and lift complete tub module assembly (with transmission, balance ring, and pivot dome attached) straight up and out of washer cabinet.
k. Turn complete tub module upside-down and set on protective padding.
l. Remove screws holding three support legs to pivot dome and remove dome. Refer to *Figure 40*.
m. Remove screw, washer and helix holding drive pulley to input shaft of transmission assembly. Refer to *Figure 41*.
n. Lift drive pulley up and out from between tub support legs.

NOTE: When reinstalling pulley, place a small amount of lubricant on top side of the drive pulley that will be contacting large flat washer. Lubricate helix ramps and bore with a small amount of lubricant. Refer to *Figure 42*.

IMPORTANT: DO NOT OVER LUBRICATE! Excess lubricant can be thrown into pivot dome area during normal washer operation. Any lubricant on the pivot dome or snubber pad and isolator assembly will cause premature tripping of the out-of-balance switch. This condition will persist until lubricant is removed.

o. Remove two large flat washers from transmission shaft. Refer to *Figure 42*.

IMPORTANT: Two large flat washers must be in place between brake spring (if present) and drive pulley when reassembling. Thicker washer must contact top side of the drive pulley. Refer to *Figure 42* for assembly sequence.

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer before servicing.**
- **Never start the washer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer is properly grounded.**

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p. **Through Serial No. 9606029040 -** Use a right angle needle nose pliers and remove spring from around lower transmission tube (located inside brake assembly).

NOTE: Remove spring by turning in a counterclockwise direction (looking at bottom end of shaft).

IMPORTANT: When installing spring, make sure it is inserted into groove in large splines of lower transmission tube. Use spring tool, No. 242P4, for installing spring.

NOTE: When reassembling, place a small amount of lubricant to top side of drive pulley that will be contacting large flat washer. Lubricate helix ramps and bore with a small amount of lubricant. Refer to *Figure 42*.

IMPORTANT: DO NOT OVER LUBRICATE! Excess lubricant can be thrown into pivot dome area during normal washer operation. Any lubricant on the pivot dome or snubber pad and isolator assembly will cause premature tripping of the out-of-balance switch. This condition will persist until lubricant is removed.

q. Remove three screws and rubber sleeves holding brake pads to lower bearing housing. Refer to *Figure 42*.
r. Lift brake assembly and pads off transmission tube.
s. Remove three screws holding lower bearing housing to tub support legs. Refer to *Figure 42*.
t. Rotate bearing housing past legs, then carefully lift bearing housing off transmission tube.

NOTE: It may be necessary to loosen one leg from outer tub to rotate bearing housing. Tap lightly on housing to loosen it from transmission tube.

IMPORTANT: When installing lower bearing housing, apply No. 27604P Anti-Seize Compound to the area of transmission tube that will be contacting bearing. Refer to *Figure 43*.

TO REMOVE BEARING

a. Support bearing housing around outside diameter of bearing opening and carefully press bearing out of the housing.
b. Clean all foreign material from inner diameter of bearing opening.
c. Clean any foreign material from outside diameter of new bearing.
d. Apply a retaining compound (such as Loctite) to outside diameter of new bearing and carefully press new bearing into housing (with sealed side facing up).

IMPORTANT: Press new bearing into housing by pressing on outer race of bearing only, and press until bearing bottoms out in housing.

43. TRANSMISSION ASSEMBLY

a. Open loading door.
b. Remove agitator by placing two agitator hooks, No. 254P4P, under bottom edge of agitator. Refer to *Figure 12*.

IMPORTANT: Hooks should be positioned 180 degrees of each other, and must be placed under agitator vane for greater stability. If hooks are placed between vane area, damage to agitator may occur.

c. Using a rocking motion (back and forth) carefully lift agitator off drive bell.
d. Remove two screws from bottom edge of front panel. Refer to *Figure 20*.
e. Pull bottom of panel away from washer until hold-down clips (located on top flange of panel) disengage from slots in cabinet top. Refer to *Figure 20*.
f. Remove two cabinet top hold-down screws, and hinge cabinet top or remove. Refer to *Paragraph 34*.
g. Loosen hose clamp and disconnect filler hose from outer tub cover. Refer to *Figure 32*.

NOTE: When reinstalling filler hose, the white line or hose that connects to tub cover must be aligned with line located on top side of outer tub cover. Refer to *Figure 32*.

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer before servicing.**
- **Never start the washer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer is properly grounded.**

W003

Tub Cover and Gasket:

(1) There are eight tub cover hold-down tabs which snap over the outer tub flange. Using special tub cover tool, Part No. 273P4, insert two prongs of tool underneath each side of tandem tabs. Refer to *Figure 32*. Tilt tool toward center of tub cover and at the same time lift upward on cover to unsnap hold-down tabs from outer tub flange. One by one, disengage each of the eight hold-down tabs from outer tub flange and remove cover.

(2) Remove cover from the outer tub and remove old gasket from tub cover.

IMPORTANT: When installing outer tub cover, always use a new cover gasket.

NOTE: Clean and remove any foreign material in gasket groove of outer tub cover and outer tub flange.

(3) Starting at positioning pin located between two bleach funnel outlet tabs, lay gasket into gasket groove of tub cover. Refer to *Figure 33*.

(4) Using your fingers, press gasket down into gasket groove of tub cover. Avoid pressing gasket past ends of hold-down tabs.

IMPORTANT: Care must be taken not to twist or bunch gasket in any one area to avoid leaks after assembly.

(5) Install gasket past ends of hold-down tabs to bottom of gasket groove using semi-curled end of tub cover tool Part No. 273P4.

NOTE: Tub cover tool, Part No. 273P4, is designed to spread open hold-down tabs to prevent tearing of gasket during installation.

(6) With tub cover tilted at approximately a 45 degree angle, insert the positioning pin into notch on outer tub flange. Refer to *Figure 34*.

NOTE: The two bleach funnel outlet tabs must be angled downward toward inside wall of outer tub for proper dispensing of bleach.

(7) Lower cover and push down firmly on top of hold-down tabs next to positioning pin until tabs snap over edge of outer tub flange.

(8) Cross over to opposite side of tub cover and push down firmly on top of hold-down tabs until tabs snap over edge of outer tub flange. Continue with this criss-cross pattern until tub cover is fully seated. Visually check each tab area again to ensure cover is seated.

(9) Check whether or not bleach drain tabs are in the down position by looking through the square holes in bleach funnel area of tub cover. If tabs are not down, a small screwdriver can be inserted down through holes in bleach funnel area to straighten tabs.

h. Remove four screws and washers holding washtub to hub. Refer to *Figure 35*.

IMPORTANT: Porcelain Washtub Models - Use care when tightening cap screws to avoid chipping porcelain on washtub.

i. Lift washtub (with clothes guard attached) out of outer tub.

IMPORTANT: When removing washtub and clothes guard, DO NOT lift up on guard as you could damage it. Grasp top flange of washtub and remove from outer tub.

j. Remove agitator drive bell. Refer to *Paragraph 28*.

k. Remove large hex nut using a No. 306P4 Hex Wrench. Then remove spline insert from transmission tube.

l. Remove hub from splines on transmission tube.

NOTE: It may be necessary to use a gear puller to remove hub.

m. Remove old water seal from outer tub.

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer before servicing.**
- **Never start the washer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer is properly grounded.**

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IMPORTANT: Use care when removing old water seal so as not to damage tub flange or porcelain.

NOTE: When reinstalling or replacing outer tub, we recommend installing a new No. 495P3A Hub and Seal Kit. Refer to *Paragraph 38*.

While holding idler lever, reach in and around right side of motor and run belt off right side of pulley.

We recommend that before removing or reinstalling complete tub module assembly, you unhook idler spring and move idler lever out of the way. This will prevent the possibility of idler lever or pulley damage.

n. Using No. 321P4 Spring Hook Tool, unhook seven centering springs from lower edge of outer tub. Refer to *Figure 39*.

IMPORTANT: Mark the word "FRONT" on front side of outer tub so complete tub module can be reinstalled in same position.

o. Disconnect hose from bottom of outer tub.

IMPORTANT: Some water will always remain in outer tub. Therefore, before removing hose from pump, pinch off or drain hose to prevent water spillage.

p. Remove pressure hose from pressure switch.
q. Grasp outer tub and lift complete tub assembly (with transmission, balance ring and pivot dome attached) straight up and out of washer cabinet.
r. Turn outer tub upside-down and set on protective padding. Refer to *Figure 40*.
s. Remove screw, washer and helix holding drive pulley to input shaft of transmission assembly. Refer to *Figure 41*.
t. Lift drive pulley up and out from between tub support legs.

NOTE: When reinstalling pulley, place a small amount of lubricant to top side of drive pulley that will be contacting the large flat washer. Lubricate helix ramps with a small amount of lubricant. Refer to *Figure 42*.

IMPORTANT: DO NOT OVER LUBRICATE! Excess lubricant can be thrown into pivot dome area during normal washer operation. Any lubricant on pivot dome or snubber pad and isolator assembly will cause premature tripping of the out-of-balance switch. This condition will persist until lubricant is removed.

u. **Through Serial No. 9606029040 -** Using a right angle needle nose pliers, remove spring from around lower transmission tube (located inside brake assembly). Refer to *Figure 42*.

NOTE: Remove spring by turning in a *counterclockwise* direction (looking at bottom end of shaft).

IMPORTANT: When reinstalling spring, make sure it is inserted into groove in large spline of transmission tube. Use spring tool, No. 242P4, when installing spring.

v. Remove screws and lockwashers holding each support leg to outer tub. Refer to *Figure 42*, then lift pivot dome, brake assembly and lower bearing housing off transmission tube.

NOTE: It may be necessary to tap lightly on bearing housing to loosen it from transmission tube.

IMPORTANT: When installing lower bearing housing, pivot dome and brake assembly, apply No. 27604P Anti-Seize Compound to area of transmission tube that will be contacting bearing. Refer to *Figure 43*.

To prevent porcelain damage, leg plates must be installed on outer tub flange when reinstalling support legs. (Plate must be installed on outside of tub flange.) Do not overtighten screws as this could cause stripping or porcelain damage. Torque screws between 90 to 130 inch-pounds (10.3 to 14.87 Nm).

w. Remove four screws and lockwashers holding transmission assembly to balance ring. Refer to *Figure 43*, then lift transmission assembly straight up and out of balance ring and upper bearing.

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer before servicing.**
- **Never start the washer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer is properly grounded.**

W003

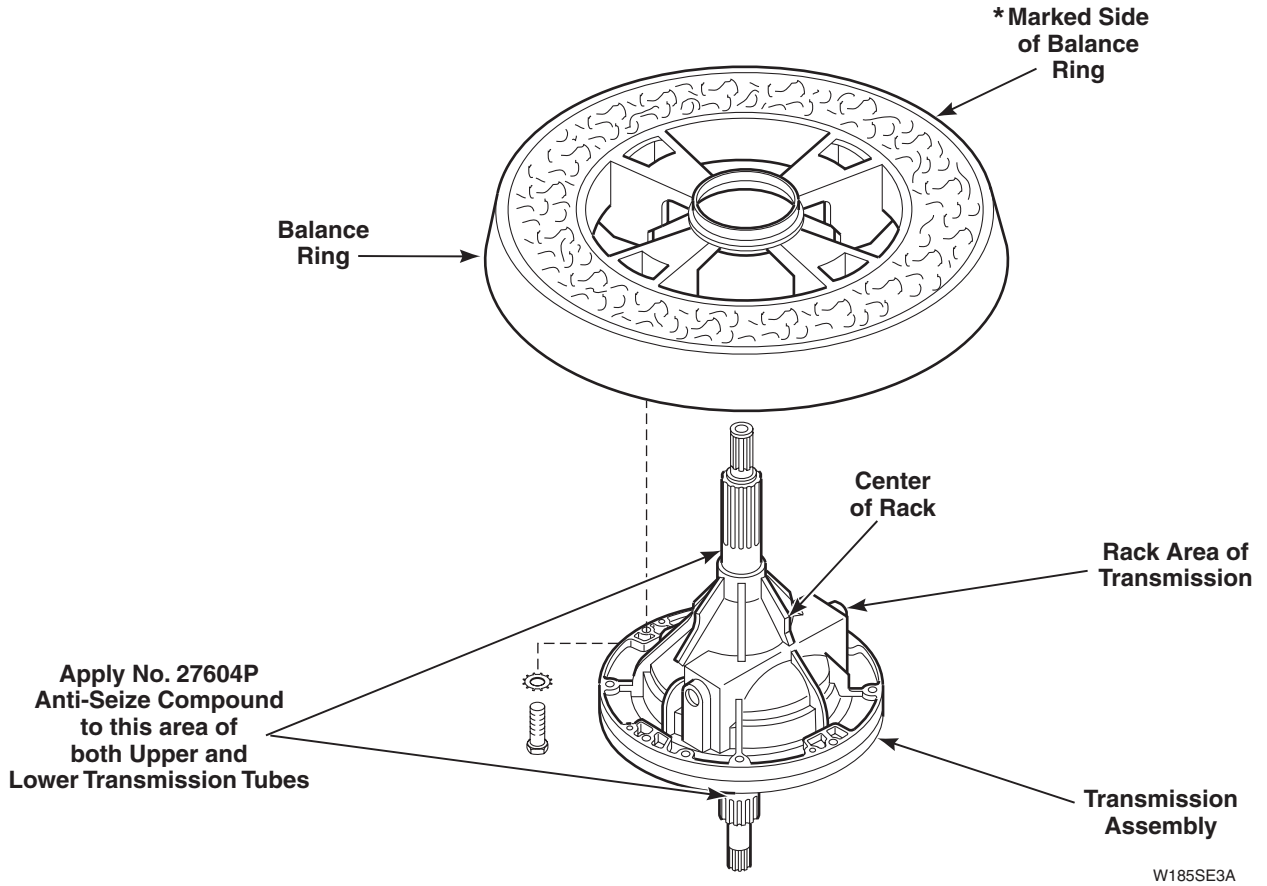

Figure 43

IMPORTANT: When replacing or reinstalling transmission assembly, it is important that No. 27604P Anti-Seize Compound be applied to area of the transmission tubes where they will be contacting upper and lower bearings. Refer to *Figure 43*.

***NOTE: If there is no mark on balance ring before disassembly, mark it and also note the position of rack on transmission assembly.**

When reinstalling transmission assembly, note, if there is a mark located on outer edge of balance ring, this mark (if present) indicates light side of ring. This light side must be installed at a 9 o'clock position with center of rack at 12 o'clock when viewed from top of transmission. Refer to *Figure 43*. Carefully lower transmission through balance ring and upper bearing. DO NOT DROP OR LOWER TRANSMISSION ASSEMBLY INTO POSITION TOO HARD, this can cause bearing to move within bearing housing which will cause vibration, noise, wear or no spin.

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer before servicing.**
- **Never start the washer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer is properly grounded.**

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TO DISASSEMBLE TRANSMISSION ASSEMBLY

Refer to *Figure 44* for assembly sequence.

a. Place transmission in a vise with input shaft end up. Clamp only the case, not the shaft.

NOTE: Supporting transmission in this manner will allow oil to collect in the transmission case.

b. Before disassembling transmission halves, mark outer edge of transmission case and cover so the two can be reassembled in the same position.
c. Place transmission in vise so three of the eight screws holding transmission case and cover together are in the twelve, four, and seven o'clock positions.
d. Loosen three screws, mentioned in step "c", approximately two turns. DO NOT remove these three screws at this time. Remove remaining five screws and lockwashers completely.
e. Remove transmission assembly from vise.
f. While holding transmission by cover end, gently tap each of the three remaining screws until two halves separate. Place assembly back into vise (cover end up) and remove three screws and lockwashers.
g. Remove screw and washer holding reduction gear to transmission cover and remove gear.
h. Remove special screw, lockwasher and flat washer holding drive pinion to input shaft.

NOTE: To prevent input shaft from turning during removal of special screw, place an old helix onto shaft and hold helix with a locking pliers.

i. Remove drive pinion from input shaft using a hammer and punch to drive shaft out of pinion.
j. Remove input shaft from transmission cover.

IMPORTANT: Carefully examine area inside cover tube (seals, bearing, roller clutch, etc.). If oil is present between seals and bearing, or roller clutch is bad, it will require replacing complete transmission cover assembly. These components are not available separately.

k. Remove internal gear, slide and rack from transmission case.
l. Remove transmission case from vise and drain oil.
m. Remove retainer ring from output shaft.
n. Using a hammer and punch, carefully drive shaft out of agitator pinion.
o. Carefully remove output shaft and washer from transmission case.

IMPORTANT: Carefully examine area inside transmission case tube (seals, bearings, etc.). If oil is present between seals and bearings, it will require replacing complete transmission case. Seals and bearings are not available separately.

TO REASSEMBLE TRANSMISSION ASSEMBLY

IMPORTANT: Wash all components in a cleaning solution (mineral spirits). Wipe inside of transmission case and cover with a clean cloth, dampened with cleaning solution, to remove any impurities. DO NOT allow cleaning solution to come in contact with bearings and seals in transmission case and/or cover.

a. Carefully insert output shaft and washer into transmission case.
b. Place agitator pinion on splines of output shaft and press onto shaft.
c. Install retainer ring on output shaft.
d. Place transmission case into a vise. Clamp only the case, not the shaft.
e. Place rack inside transmission case with rack resting on bar in case. Agitator pinion must engage the rack.

NOTE: Put a light film of transmission oil on bar where rack will slide back and forth.

f. Position slide in slot on rack.

NOTE: Put a light film of transmission oil in slot on rack, also, transmission case where internal gear will ride.

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer before servicing.**
- **Never start the washer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer is properly grounded.**

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g. Place internal gear into transmission case. Make sure guide pin on internal gear fits in hole on slide.

IMPORTANT: Never install a used internal gear in a new transmission case. If transmission case and internal gear are to be reused, be sure they are used as the original set.

h. Refill transmission case with new No. 27243P Transmission Oil (one fill).
i. To prevent seal damage, insert input shaft into cover starting at outer end of cover tube.

IMPORTANT: End of shaft with identification groove must be facing outward. This is the end that will mate with the helix. Refer to *Figure 44*.

j. Install drive pinion, flat washer, lockwasher and special screw onto input shaft.

NOTE: Use a thread locking compound on threads of special screw to prevent screw from loosening on shaft.

IMPORTANT: Make sure mating surfaces of transmission cover and case are free of oil or any other foreign material.

k. Place reduction gear on stub shaft of cover and install screw and washer.
l. Apply a bead of sealant, No. 37577P, on mating surface of transmission case.

IMPORTANT: Bead of sealant should be no more than one sixteenth inch in diameter. DO NOT allow any sealant to contact edges of internal gear (sealer may damage moving parts).

NOTE: Starting with Serial No. 9604069377, the two dowel pins in the transmission cover were removed. A transmission pin tool, Part No. 305P4, must be used to align the cover and case when reassembling the transmission after repair. The transmission pin tool must be used in sets of two and placed in the same holes that the dowel pins were in. Both transmission pin tools must be left in place until all eight screws and nuts have been installed and tightened firmly, then remove the two pins.

m. Carefully place transmission cover over top of transmission case. Make sure holes in cover line up with holes in case, and marked edges of two halves are aligned.
n. Carefully lower cover onto case.
o. Secure two transmission halves together, using eight screws removed during disassembly. Tighten eight screws evenly.
p. Remove complete transmission assembly from vise.
q. Apply Anti-Seize Compound, No. 27604P, to smooth area of both transmission tubes that will be contacting upper and lower bearings. Refer to *Figure 43*.

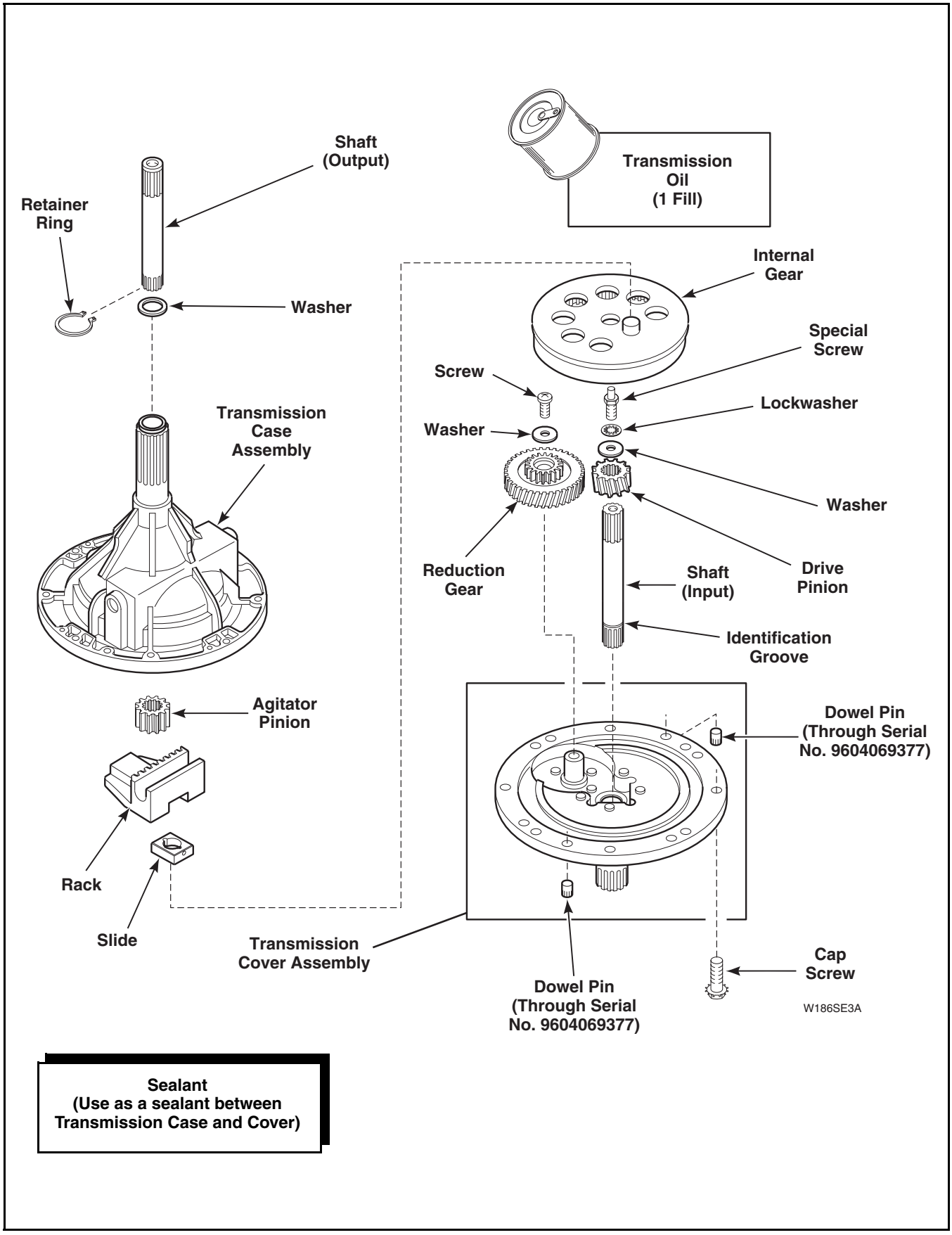

Figure 44

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer before servicing.**
- **Never start the washer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer is properly grounded.**

W003

44. BALANCE RING

a. Remove transmission assembly. Refer to *Paragraph 43*, steps "a" through "w".
b. Lift balance ring off outer tub.

IMPORTANT: When reinstalling balance ring, note, if there is a mark located on outer edge of balance ring, this mark (if present) indicates light side of ring. This light side must be installed at a 9 o'clock position with center of rack at 12 o'clock when viewed from top of transmission. Refer to *Figure 43*.

NOTE: If there is no mark on balance ring before disassembly, mark it and also note the position of rack on transmission assembly. Refer to *Figure 43*.

45. UPPER BEARING ASSEMBLY

a. Remove transmission assembly. Refer to *Paragraph 43*, steps "a" through "u".
b. Remove screws and lockwashers holding each support leg to outer tub. Refer to *Figure 40*.
c. Lift complete pivot dome (with drive pulley, brake assembly, lower bearing housing, transmission assembly, and balance ring attached) off outer tub.

IMPORTANT: To prevent porcelain damage, leg plates must be installed on outer tub flange when reinstalling support legs. (Plate must be installed on outside of tub flange). Do not overtighten screws as this could cause stripping or porcelain damage.

d. Remove three screws holding upper bearing and housing to bottom of outer tub. Refer to *Figure 45*.

NOTE: Replace bearing and housing as an assembly, and make sure flinger (if present) is properly positioned between outer tub and bearing assembly. Refer to *Figure 45*.

NOTE: When reinstalled upper bearing assembly, threads of cap screws must be secured with a locking compound.

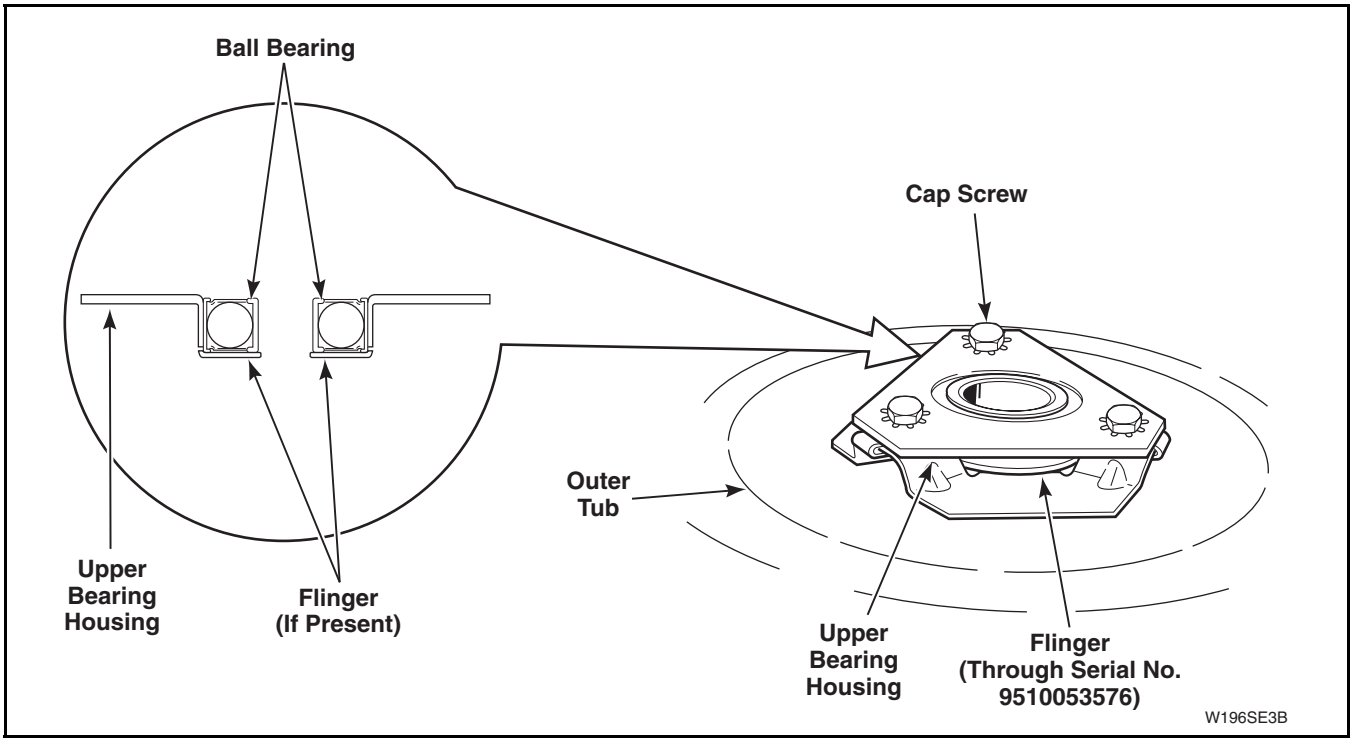

Figure 45

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer before servicing.**
- **Never start the washer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer is properly grounded.**

W003

46. SNUBBER PAD AND ISOLATOR ASSEMBLY

a. Remove outer tub. Refer to *Paragraph 39*, steps "n" through "t".

b. Locate split end of snubber pad and isolator assembly strip and using a flat blade screwdriver, carefully unsnap snubber pad and isolator assembly strip from pivot dome area of washer base. Refer to *Figure 46*.

TO INSTALL NEW SNUBBER PAD AND ISOLATOR ASSEMBLY

a. Starting at elongated hole in pivot dome area of washer base, place one end of snubber pad and isolator assembly strip into elongated hole, then snap pins on snubber pad and isolator assembly strip into their respective holes in base. It may require shifting snubber pad and isolator assembly strip to get two ends of strip to meet in area of elongated hole.

IMPORTANT: DO NOT apply any lubricant to surface of new isolator that will be contacting pivot dome. Any lubricant on pivot dome or snubber pad and isolator assembly will cause premature tripping of the out-of-balance switch.

b. Clean surface of pivot dome then carefully place tub module back into washer making sure pivot dome is positioned properly in dome recess of washer base.

NOTE: Be sure the word "FRONT" (on outer tub) is facing toward front of washer.

c. Use No. 321P4 Spring Hook Tool and starting with rear springs, hook seven centering springs into lower edge of outer tub. Refer to *Figure 39*.

IMPORTANT: When installing centering springs, make sure spring hook is fully seated in hole in tub skirt. Refer to *Figure 39*.

d. Connect hose to bottom of outer tub, tighten hose clamp.

e. Reconnect idler spring to the clip on motor mounting bracket. Refer to *Figure 21*.

f. Place drive belt on motor pulley, reach around right side of motor, starting with belt on right side of large pulley, run belt onto large pulley.

g. Route pressure hose as shown in *Figure 47*. Then route pressure hose back up through hole in the cabinet top.

h. Reconnect filler hose to tub cover. Refer to *Figure 32*.

NOTE: When reinstalling filler hose, the white line on hose that connects to tub cover must be aligned with line located on top side of outer tub cover. Refer to *Figure 32*. Make sure hose is in its natural position (not kinked or twisted). If it is not, loosen hose clamp and straighten hose.

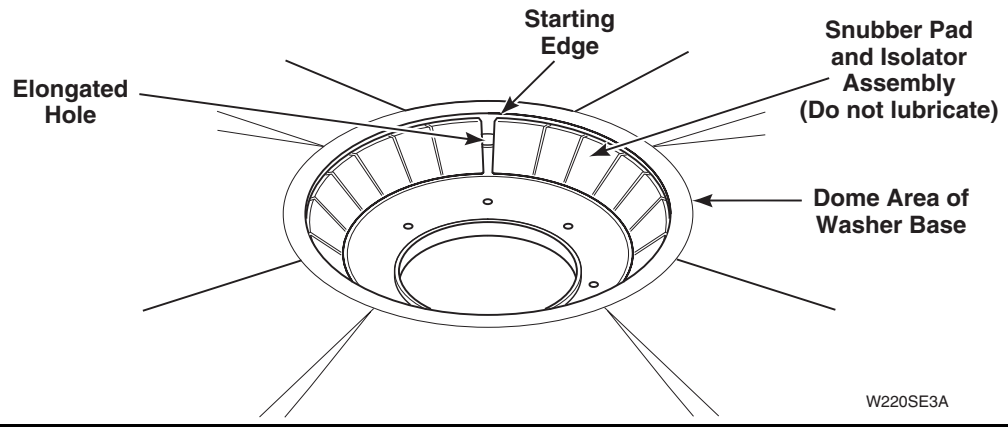

Figure 46

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer before servicing.**
- **Never start the washer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer is properly grounded.**

W003

i. Reinstall cabinet top.
j. Remove control panel, reconnect pressure hose to pressure switch. Then reinstall control panel.
k. Reinstall washer front panel.
l. Reconnect washer power cord and open water supply valves.

NOTE: Washer must be run through a complete cycle to make sure it is operating properly.

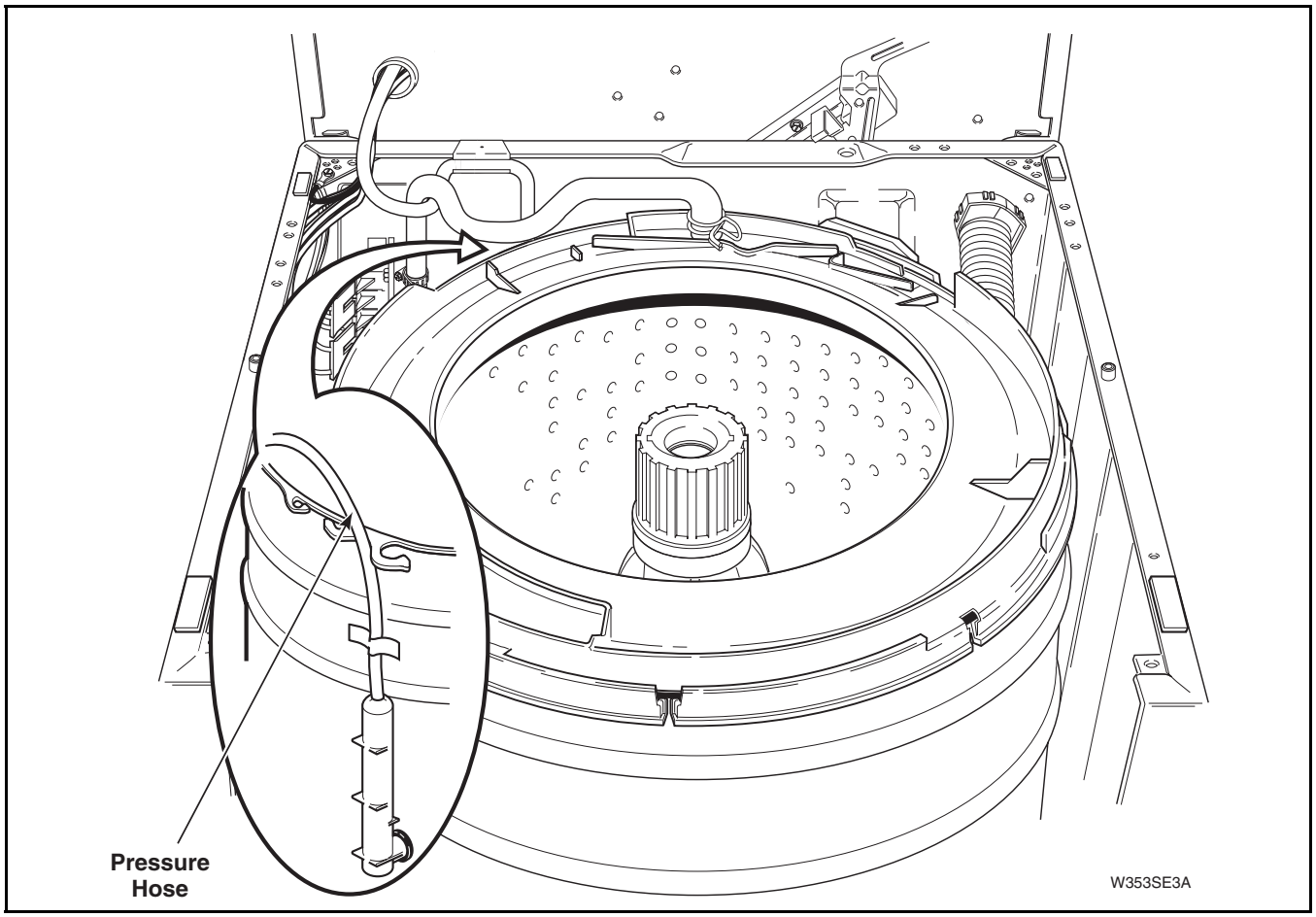

Figure 47

Section 6
Adjustments

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer before servicing.**
- **Never start the washer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer is properly grounded.**

W003

47. LEVELING LEGS

Refer to *Figure 48*.

a. Place rubber feet on all four leveling legs.

b. Place washer in position on a clean, dry, and reasonably firm floor.

c. Loosen locknuts and adjust two front leveling legs. Once adjusted, tilt unit forward on front legs and lower back down into position to set the rear self-leveling legs.

d. Washer must not rock. After washer is at desired height, tighten locknuts securely against bottom of washer base. If these locknuts are not tight, washer will not remain stationary during operation.

NOTE: Improper installation, installation on carpet or flexing of a weak floor will cause excessive vibration.

IMPORTANT: Do not slide washer across floor once leveling legs have been extended, as legs and base could become damaged.

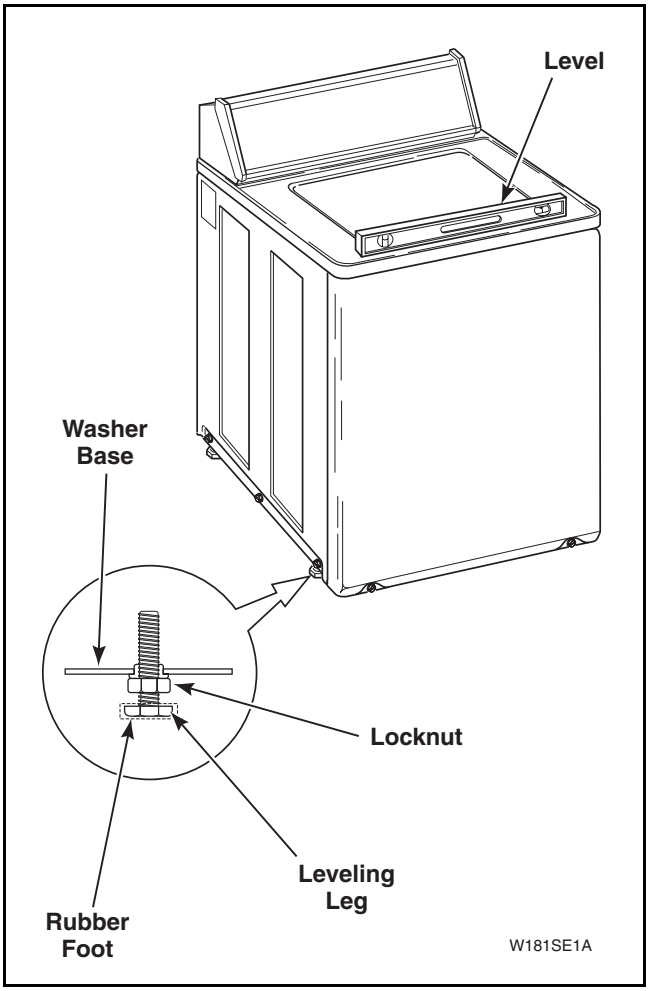

Figure 48

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer before servicing.**
- **Never start the washer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer is properly grounded.**

W003

48. PRESSURE SWITCH
Refer to *Figure 49*.

NOTE: DO NOT ADJUST PRESSURE SWITCH IF WASHER IS WITHIN THE WARRANTY PERIOD.

Pressure switch is set at the factory for proper water fill levels. However, if there is a problem of overfilling or underfilling, pressure switch can be adjusted.

Maximum water fill level can be increased by turning adjusting screw *clockwise*, and decreased by turning screw *counterclockwise*.

One quarter turn of the adjusting screw represents approximately one inch (25.4 mm) increase or decrease of water level in washtub.

IMPORTANT: DO NOT turn adjusting screw more than 3/4 of a turn in either direction as the switch may be damaged and flooding could result.

49. BELT (Agitate and Spin)
No belt adjustment is required.

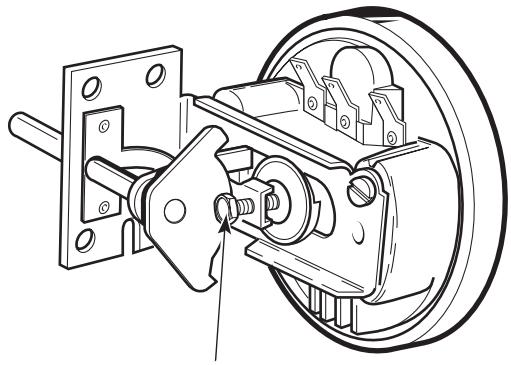

Figure 49

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer before servicing.**
- **Never start the washer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer is properly grounded.**

W003

50. OUT-OF-BALANCE SWITCH

a. Remove two screws from bottom edge of front panel. Refer to *Figure 25*.
b. Pull bottom of panel away from washer until hold-down clips (located on top flange of panel) disengage from slots in cabinet top. Refer to *Figure 25*.
c. Hinge or remove cabinet top. Refer to *Paragraph 34*.
d. Check for bent actuator arm or lever. Refer to *Figure 50*.

IMPORTANT: If switch lever repeatedly trips the out-of-balance switch, check centering of agitator within the loading door opening. If tub module is not centered within opening, centering spring(s) may have been overstretched. Replace necessary spring(s) and recheck centering. Refer to *Figure 51*.

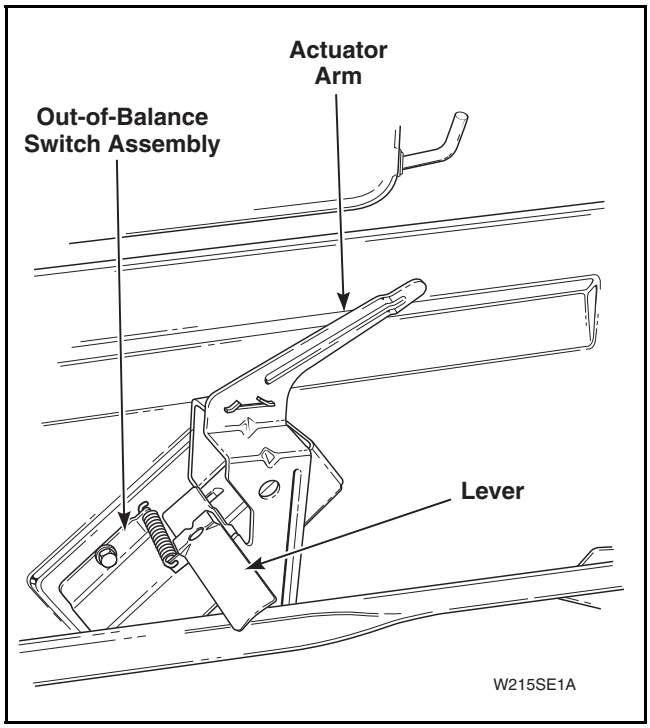

Figure 50

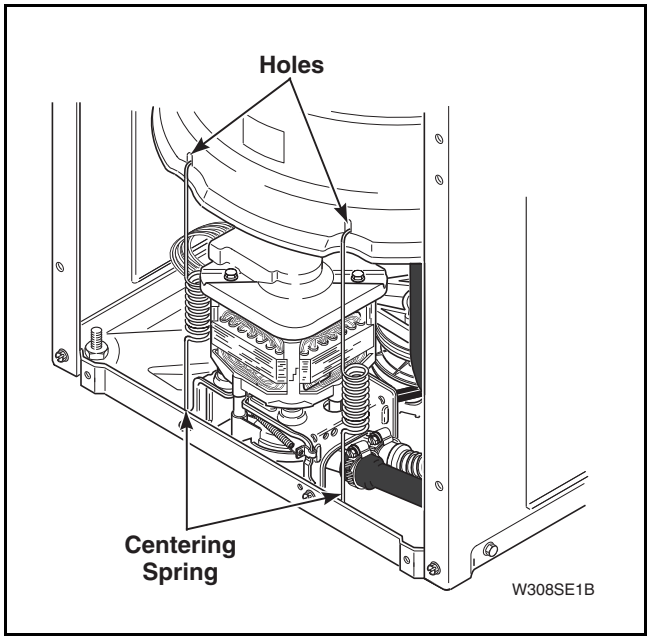

Figure 51

Notes

Section 7
Cycle Sequence Chart

NOTE: Times listed are approximate.

CYCLE	FUNCTION		WATER TEMP.	*MOTOR SPEED	EATON TIMER	
					TIME (Min:&Sec.)	DEGREES
PERMANENT PRESS (28:13 Plus Fill)	WASH, FILL or AGITATE		H,W,C	FAST	9:00	32.79
	PAUSE				1:50	6.68
	COOL DOWN (Pressure Switch Controlled)	SPIN (Partial Drain)		SLOW	:45	2.73
		FILL	COLD		Variable	
	PAUSE				1:23	5.04
	SPIN			SLOW	1:25	5.16
	SPIN and SPRAY		COLD	SLOW	:40	2.43
	SPIN			SLOW	1:40	6.07
	PAUSE				:27	1.64
	RINSE FILL (Timer Motor Runs)		W or C		1:02	3.76
	PAUSE or FILL		W or C		:22	1.34
	RINSE FILL or AGITATE		W or C	FAST	3:00	10.93
	PAUSE				1:50	6.68
	SPIN			FAST	5:51	21.31
OFF					1:88	8.99
DELICATE (24:37 Plus Fill)	WASH, FILL or SOAK		H,W,C		1:09	4.19
	WASH, FILL or AGITATE		H,W,C	SLOW	:45	2.73
	WASH, FILL or SOAK		H,W,C		2:00	7.29
	WASH, FILL or AGITATE		H,W,C	SLOW	:45	2.73
	WASH, FILL or SOAK		H,W,C		2:00	7.29
	WASH, FILL or AGITATE		H,W,C	SLOW	:45	2.73
	PAUSE (Soak)				1:50	6.68
	COOL DOWN (Pressure Switch Controlled)	SPIN (Partial Drain)		SLOW	:45	2.79
		FILL	COLD		Variable	
	PAUSE				1:23	5.04
	SPIN			SLOW	1:30	5.46
	SPIN and SPRAY		COLD	SLOW	:40	2.43
	SPIN			SLOW	1:35	5.77
	PAUSE				:27	1.64
	RINSE FILL (Timer Motor Runs)		COLD		1:02	3.76
	PAUSE or FILL		COLD		:22	1.34
	RINSE FILL or AGITATE		COLD	SLOW	2:30	9.11
	PAUSE				1:50	6.68
	SPIN			SLOW	4:21	15.84
OFF					1:88	8.99
REGULAR (35:29 Plus Fill)	WASH, FILL or AGITATE		H,W,C	FAST	15:00	54.65
	PAUSE				1:50	6.68
	SPIN			FAST	1:30	5.46
	SPIN and SPRAY		COLD	FAST	1:00	3.64
	SPIN			FAST	1:30	5.46
	PAUSE				:27	1.64
	RINSE FILL (Timer Motor Runs)		W or C		1:02	3.76
	PAUSE or FILL		W or C		:22	1.34
	RINSE FILL or AGITATE		W or C	FAST	5:00	18.22
	PAUSE				1:50	6.68
	SPIN			FAST	7:00	25.50
OFF					1:88	8.99
KEY: H = HOT W = WARM C = COLD				TOTALS	98:49	360.00

*** On single speed model washers, all speeds are fast.**

TIMER NO. 36989 CYCLE SEQUENCE
(THREE CYCLE)

Notes

Section 8
Internal Wiring of Washer Motor Switch

WARNING

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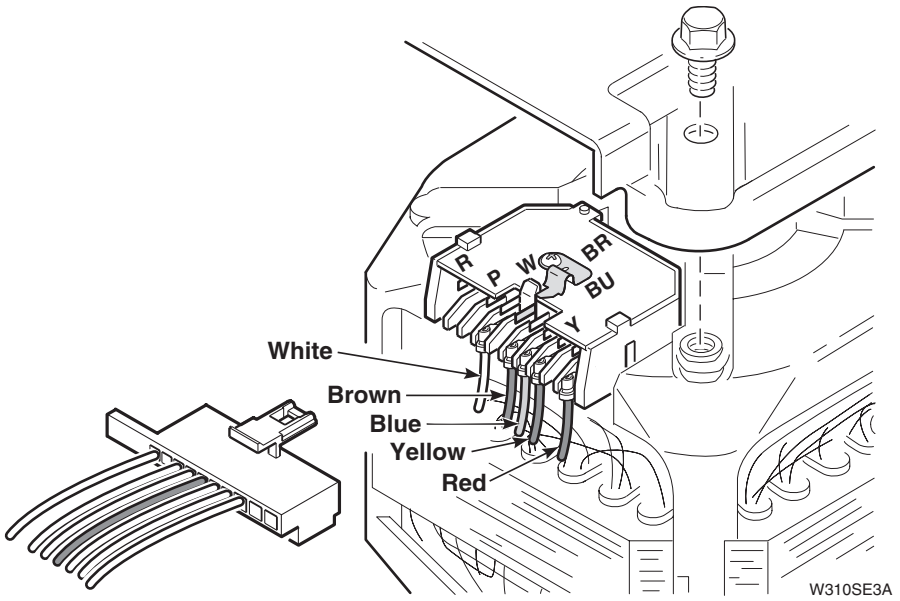
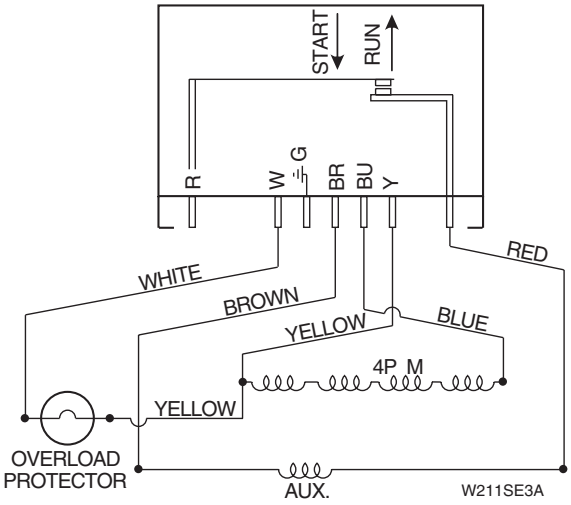
- **Never start the washer with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer is properly grounded.**

W003





MOTOR ASSEMBLY
(1 Speed Motors)

Notes