Parts and Service Manual for Home Laundry Automatic Washers

(KA Models)

Part No. 24187
8/84

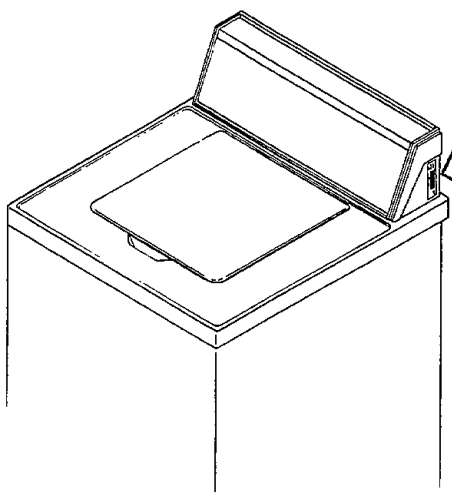
— WARNING —

FAILURE TO INSTALL, MAINTAIN, AND/OR OPERATE THIS MACHINE ACCORDING TO MANUFACTURER'S INSTRUCTIONS MAY RESULT IN CONDITIONS WHICH CAN PRODUCE BODILY INJURY AND/OR PROPERTY DAMAGE.

NOTE: The WARNING and IMPORTANT instructions appearing in this manual are not meant to cover all possible conditions and situations that may occur. It must be understood that common sense, caution and carefulness are factors which CANNOT be built into these washers. These factors MUST BE supplied by the person(s) installing, maintaining or operating the washer.

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

NAMEPLATE LOCATION



When calling or writing about your washer, PLEASE GIVE THE MODEL AND SERIAL NUMBERS. The model and serial numbers will be found on the nameplate as shown.

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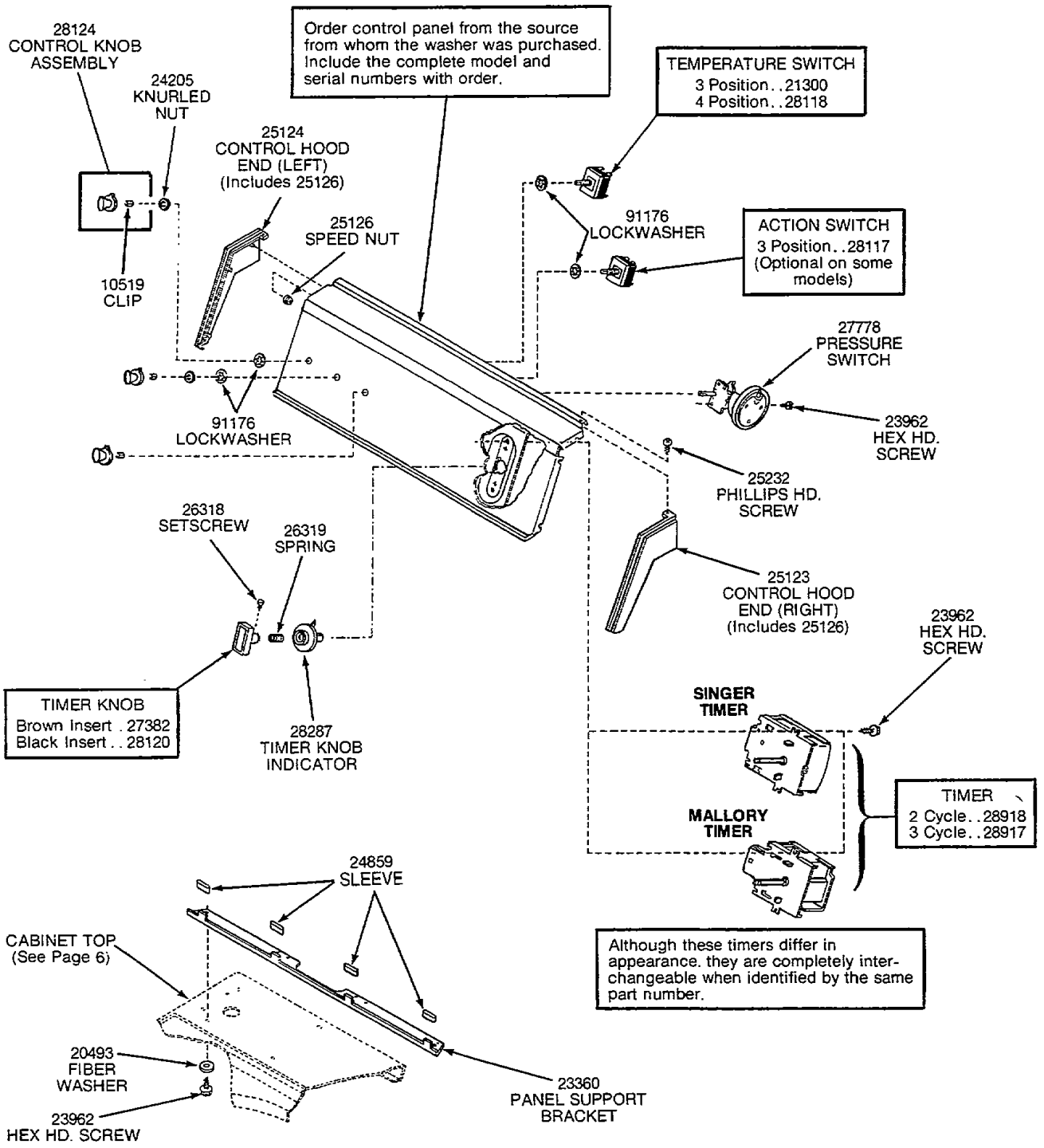
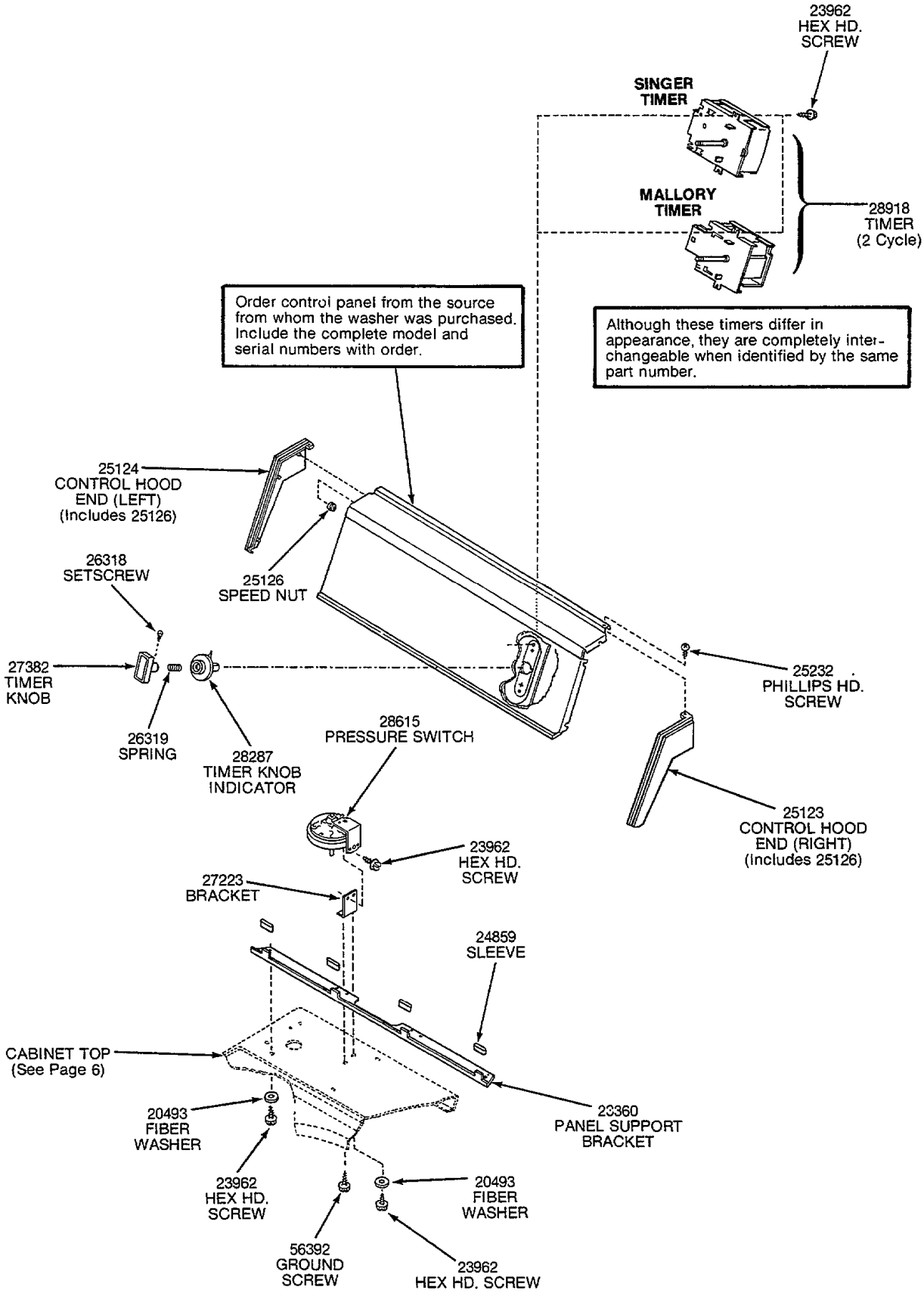
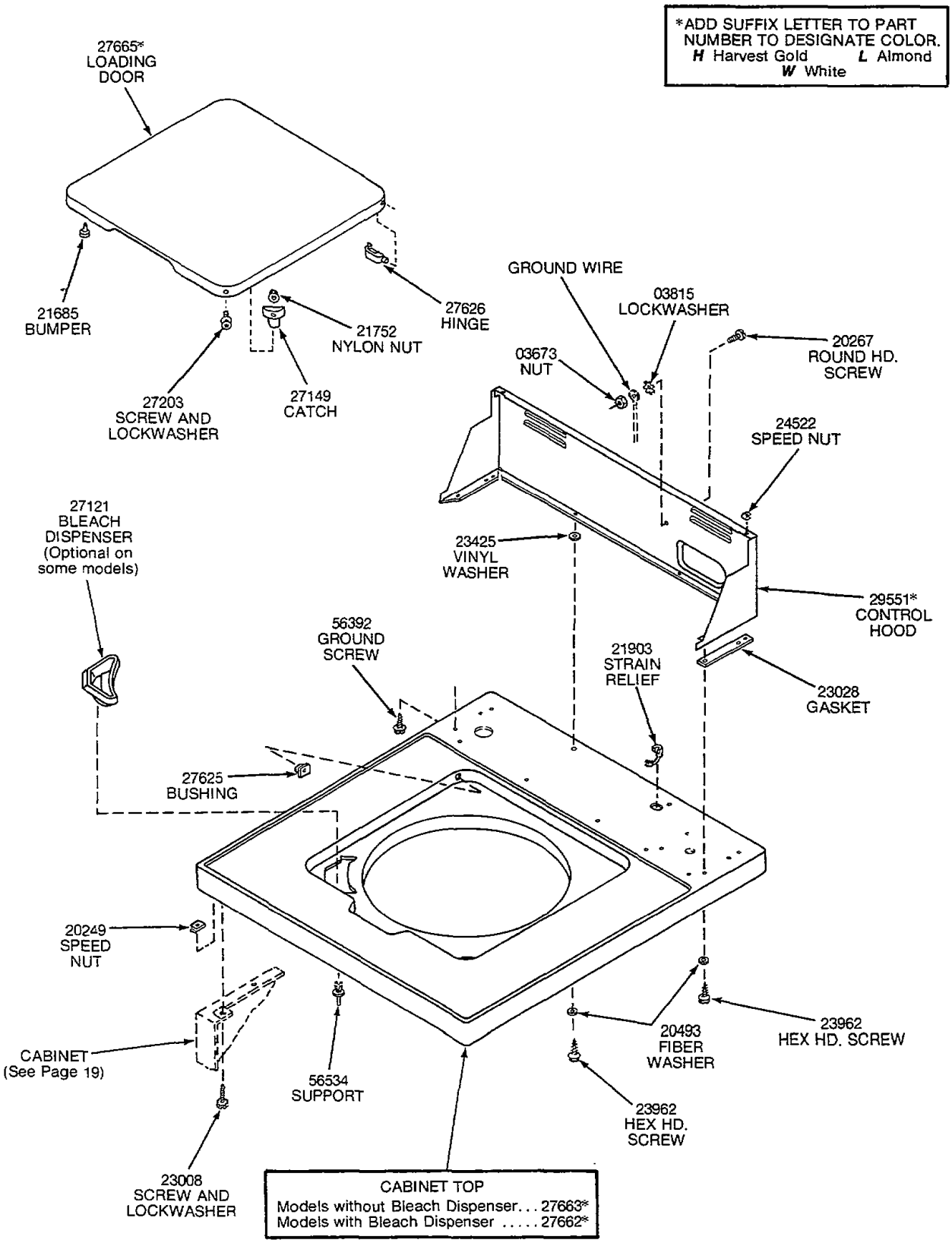
Parts



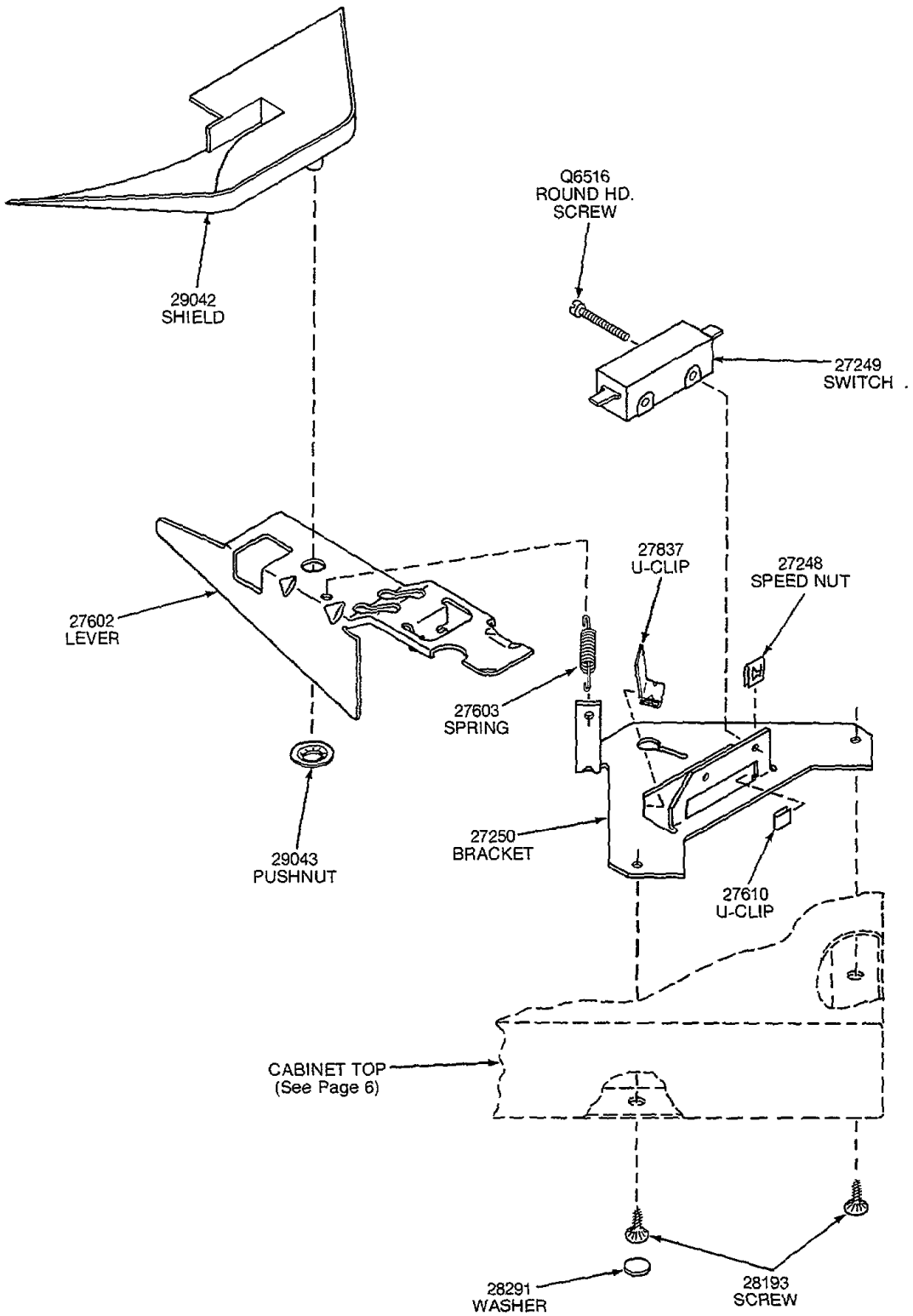
CONTROL PANEL, TIMER AND CONTROLS



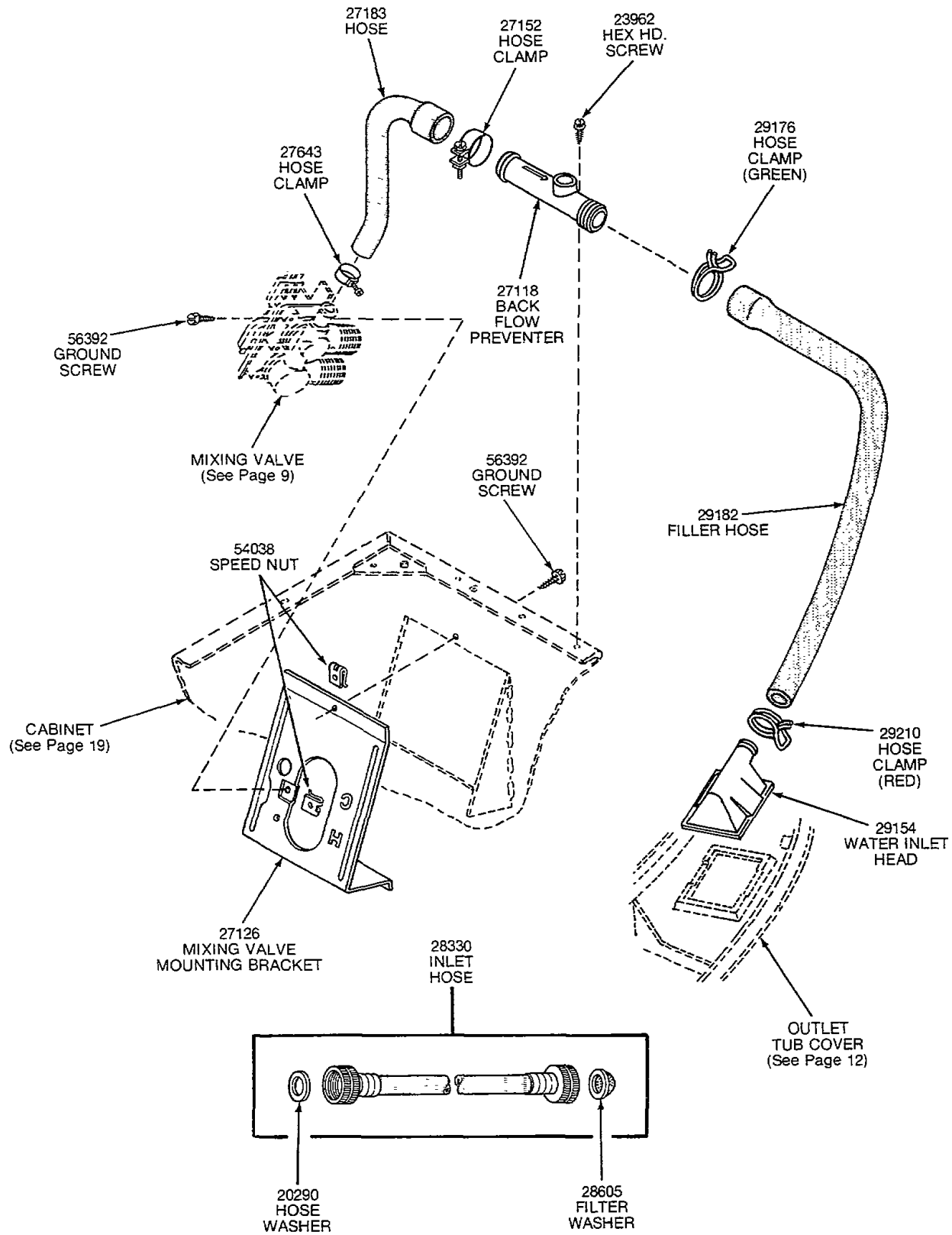
CONTROL PANEL AND TIMER



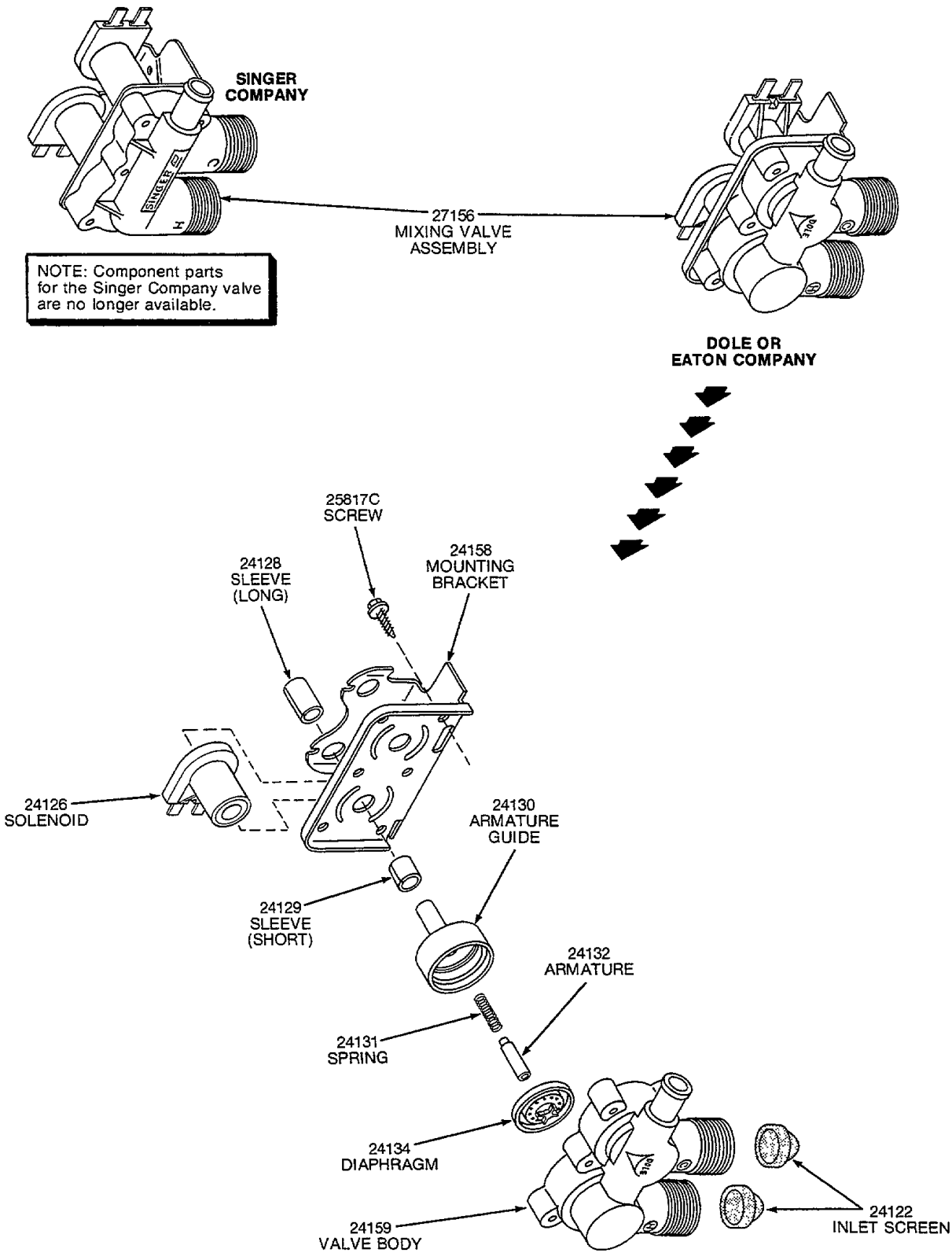
CABINET TOP, LOADING DOOR AND CONTROL HOOD



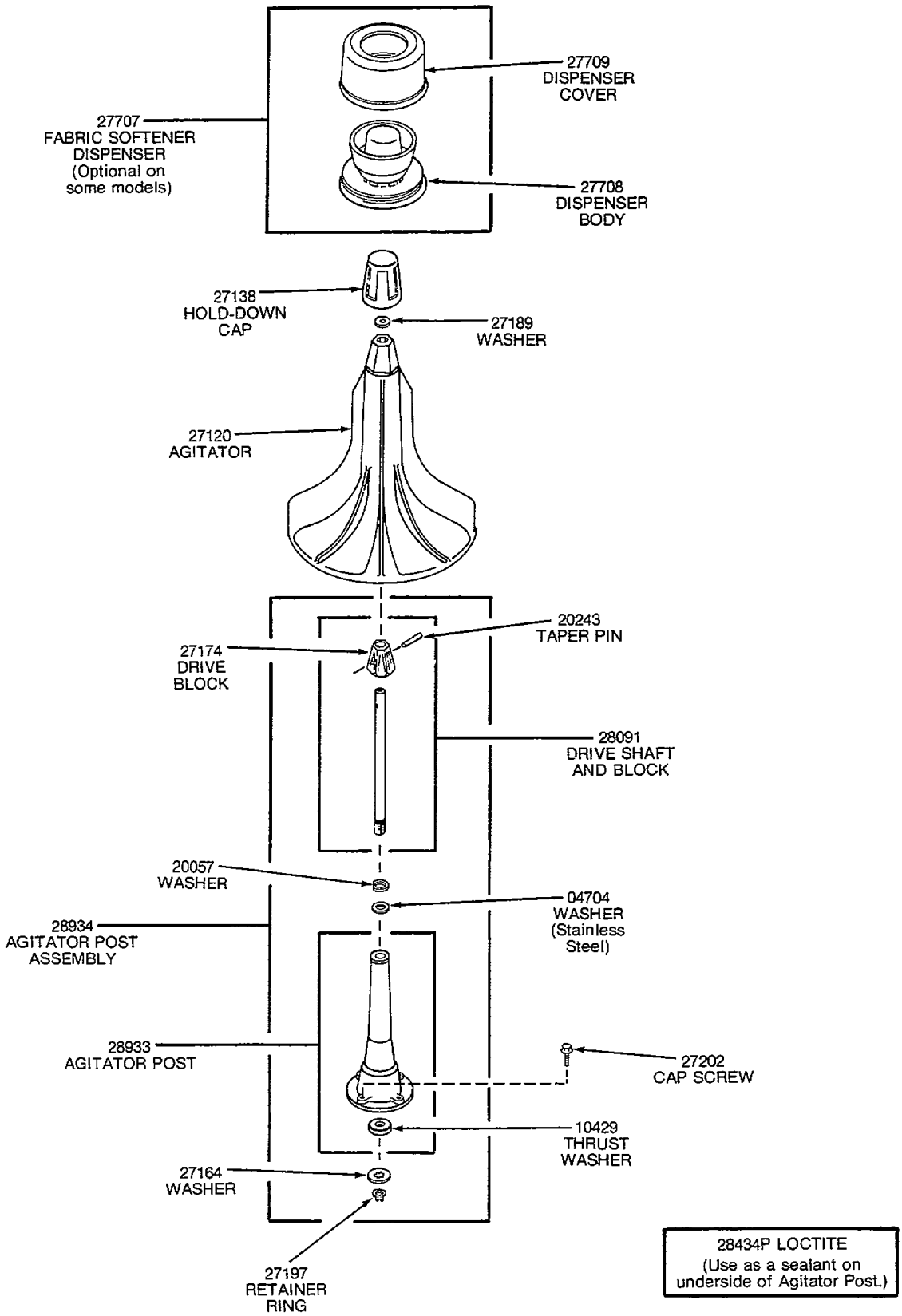
SWITCH AND BRACKET ASSEMBLY



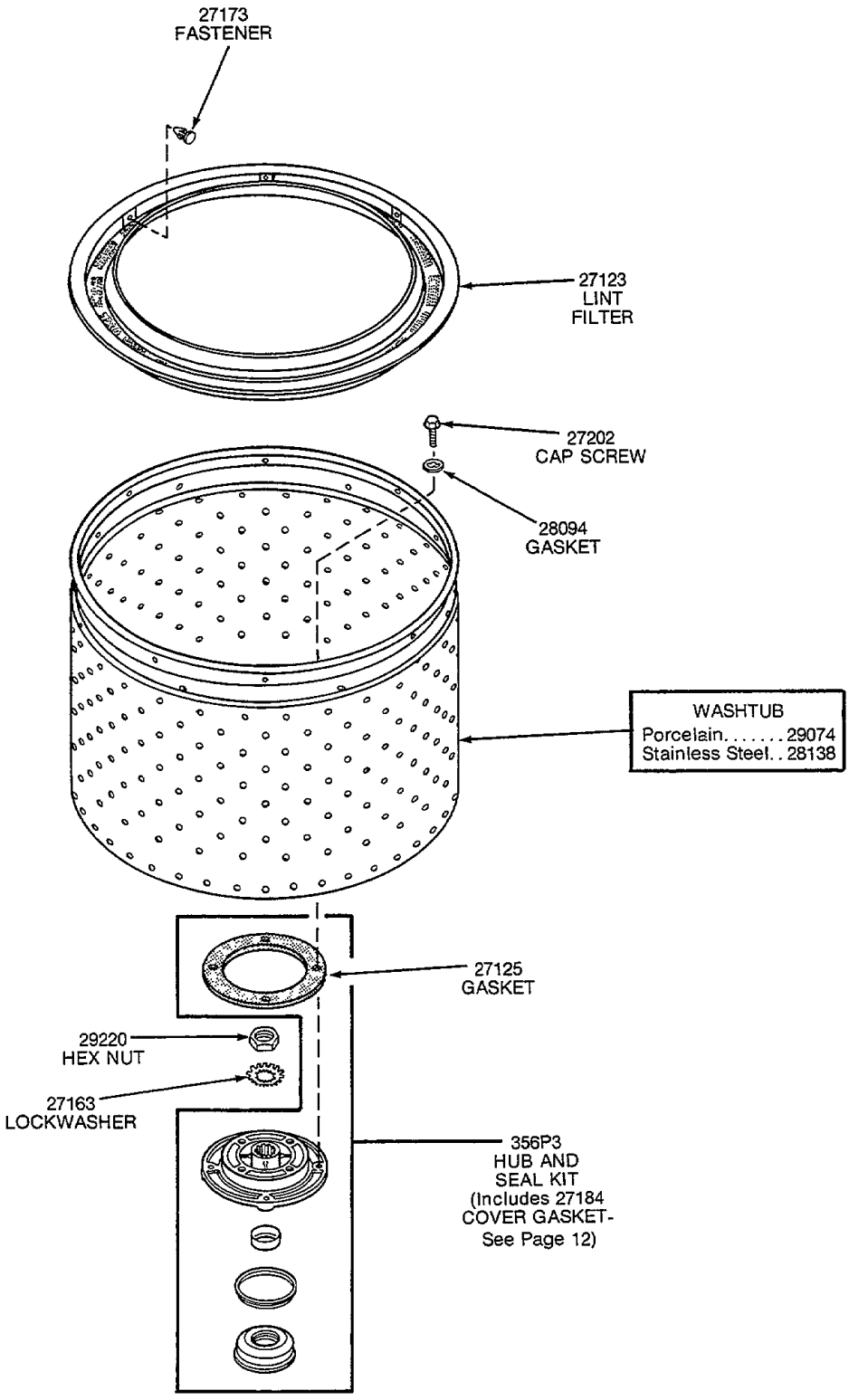
INLET HOSE, FILLER HOSE, BACK FLOW PREVENTER AND MIXING VALVE MOUNTING BRACKET



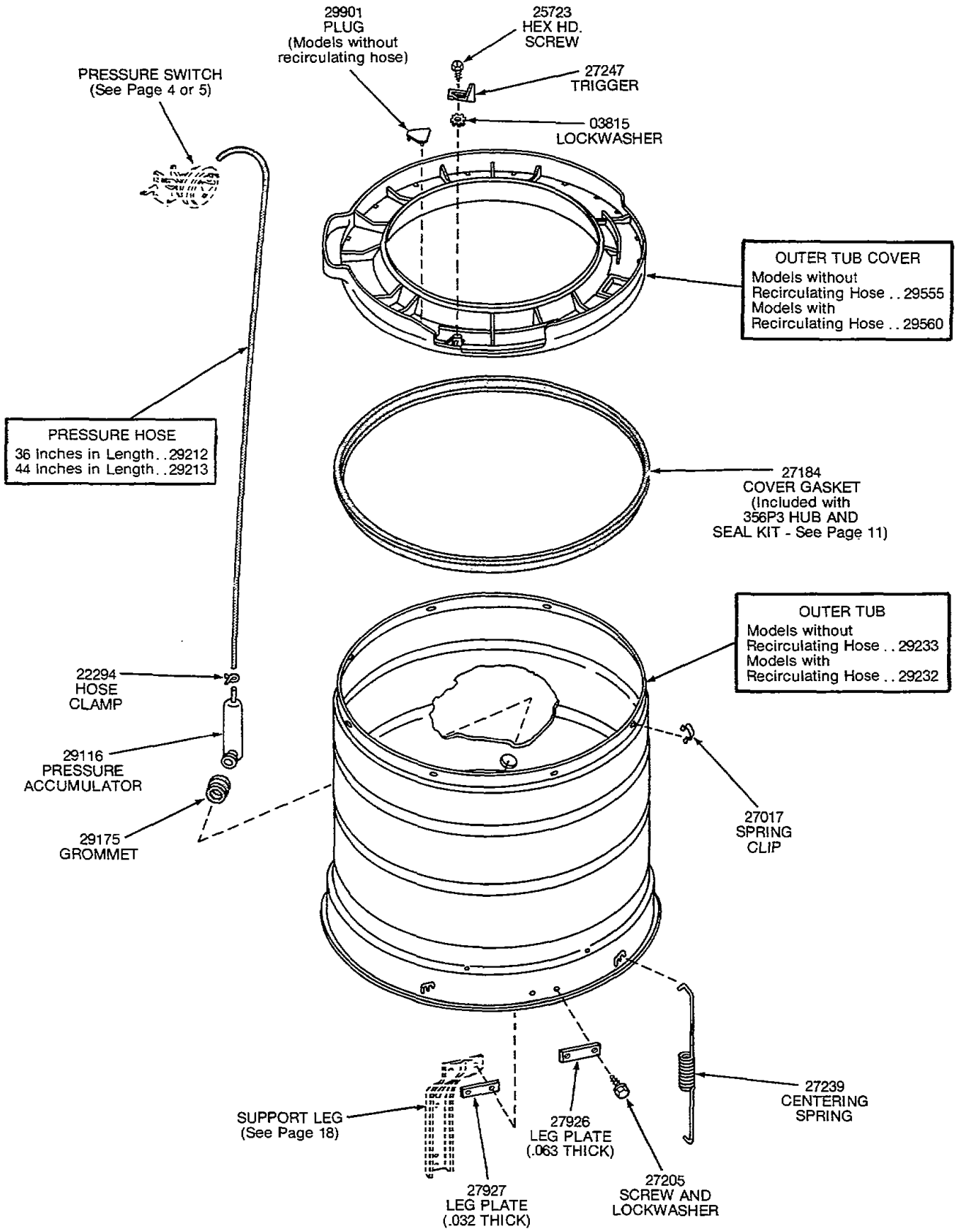
MIXING VALVE ASSEMBLY



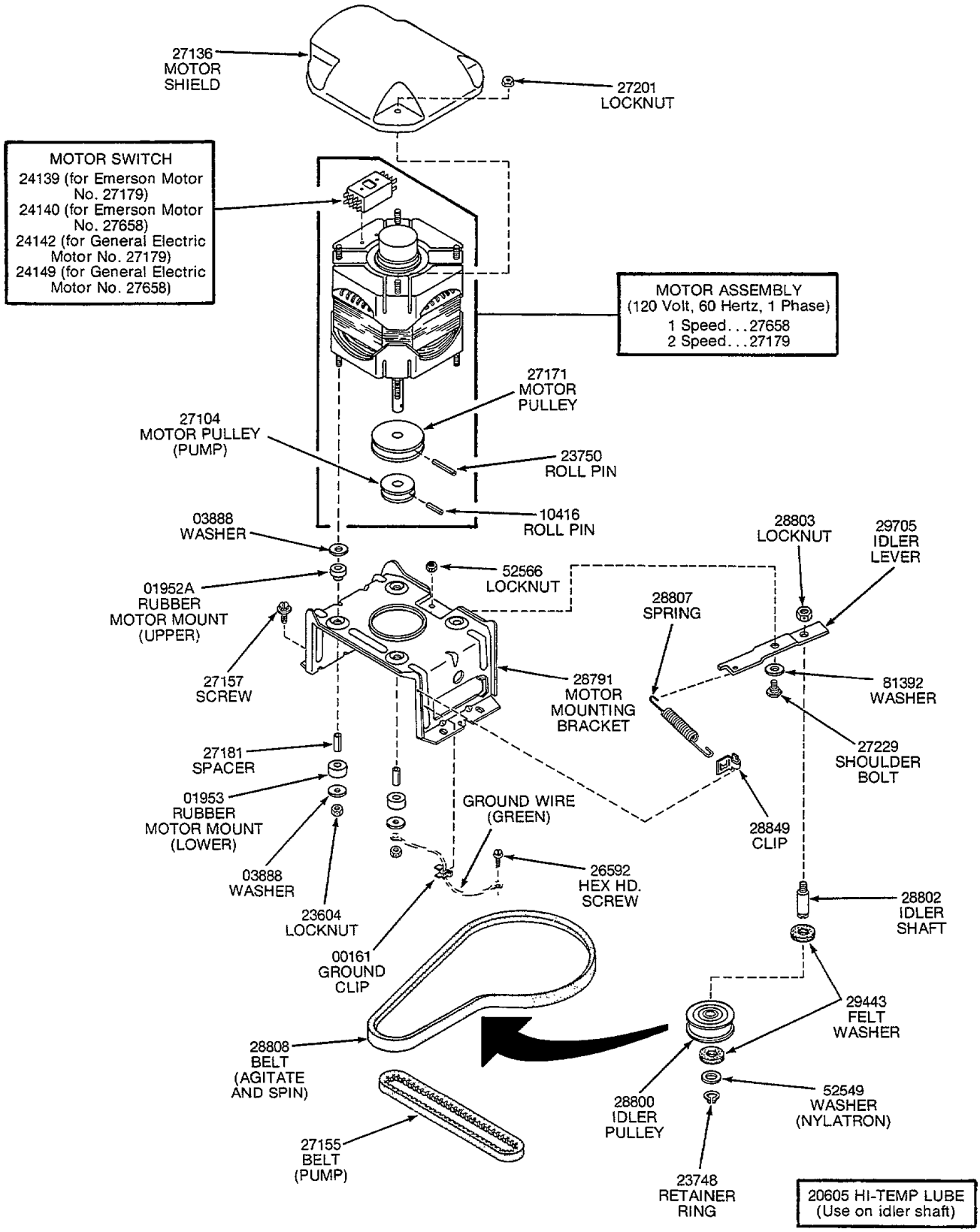
AGITATOR AND POST



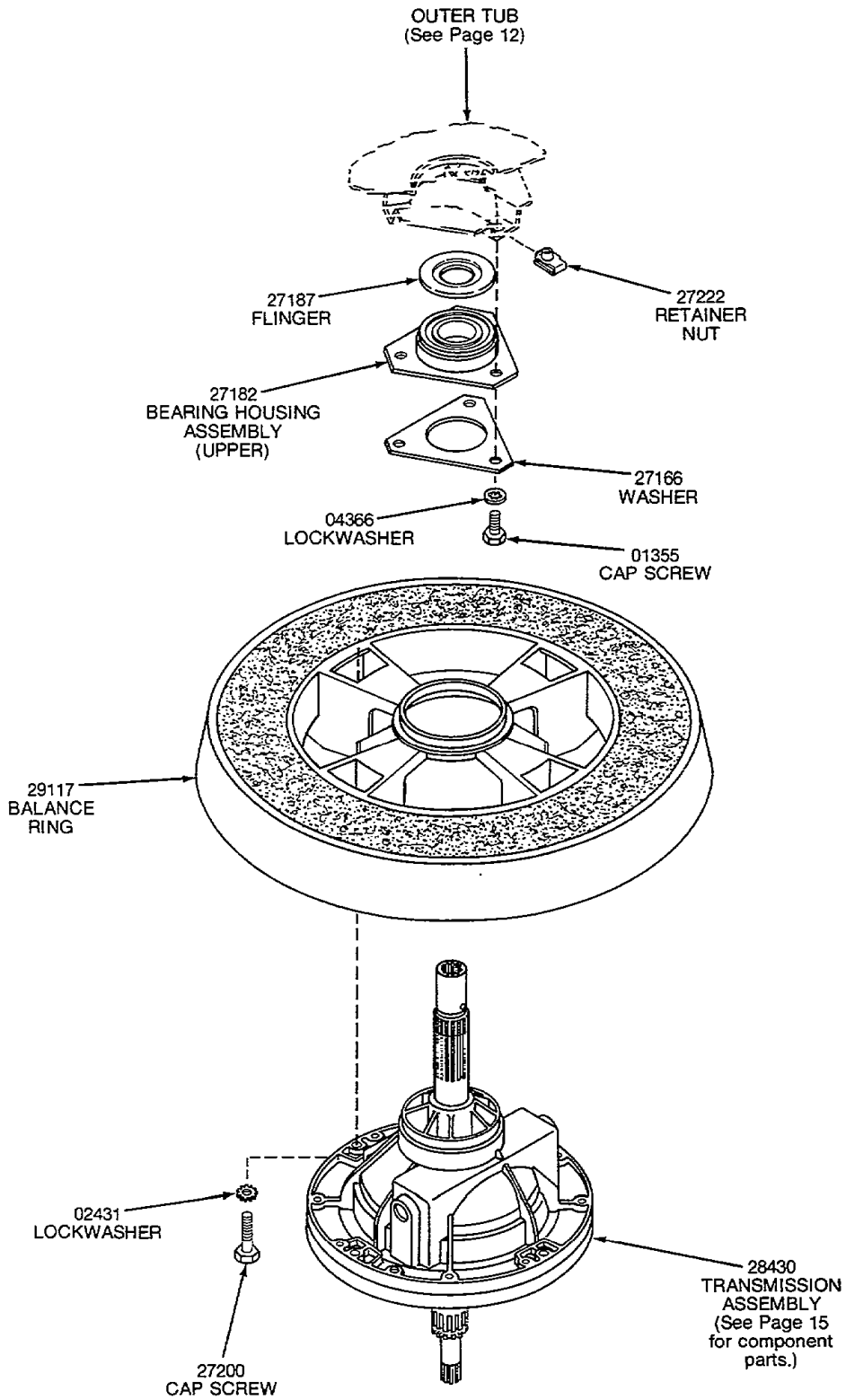
LINT FILTER, WASHTUB AND HUB



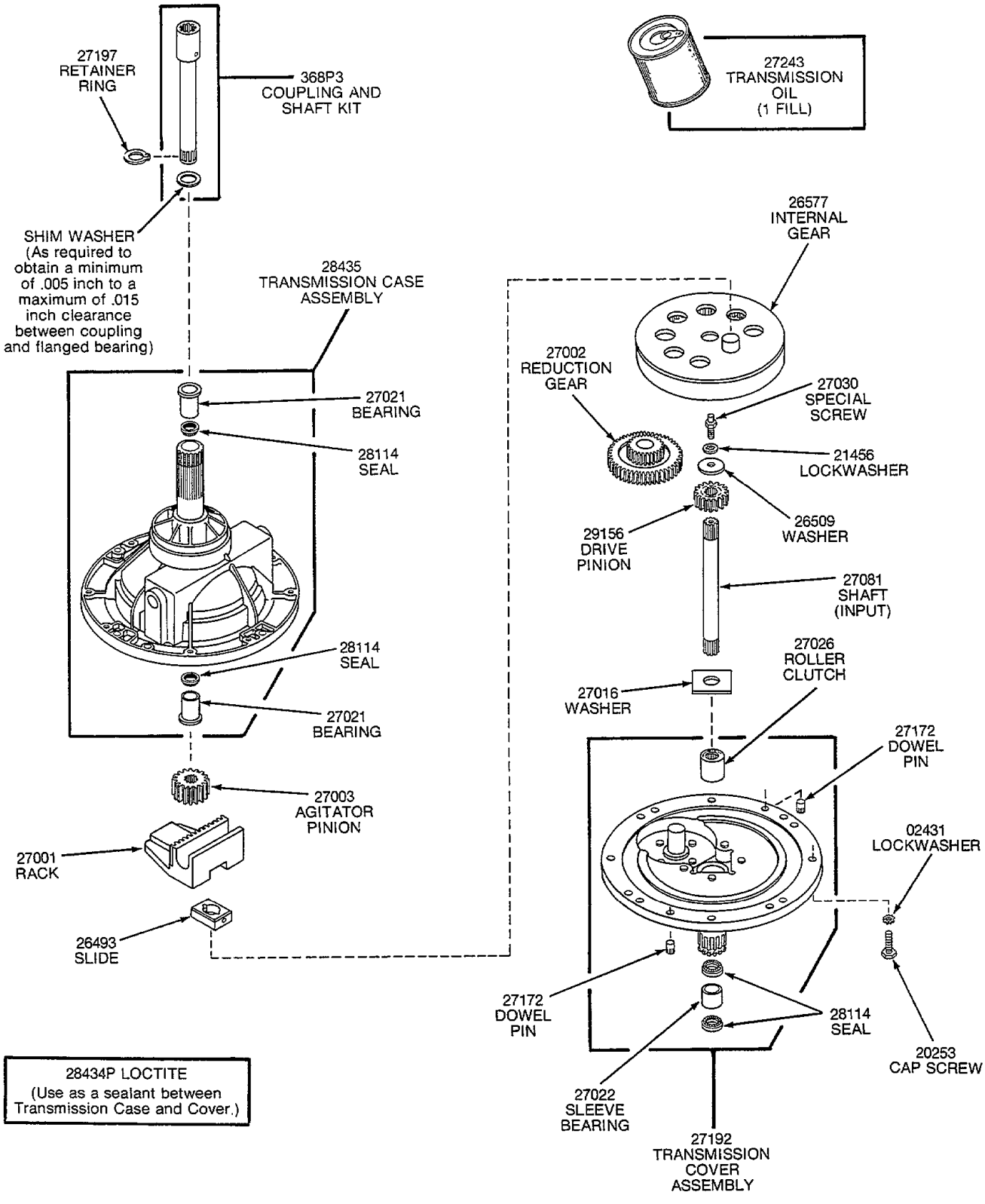
OUTER TUB, COVER AND PRESSURE HOSE



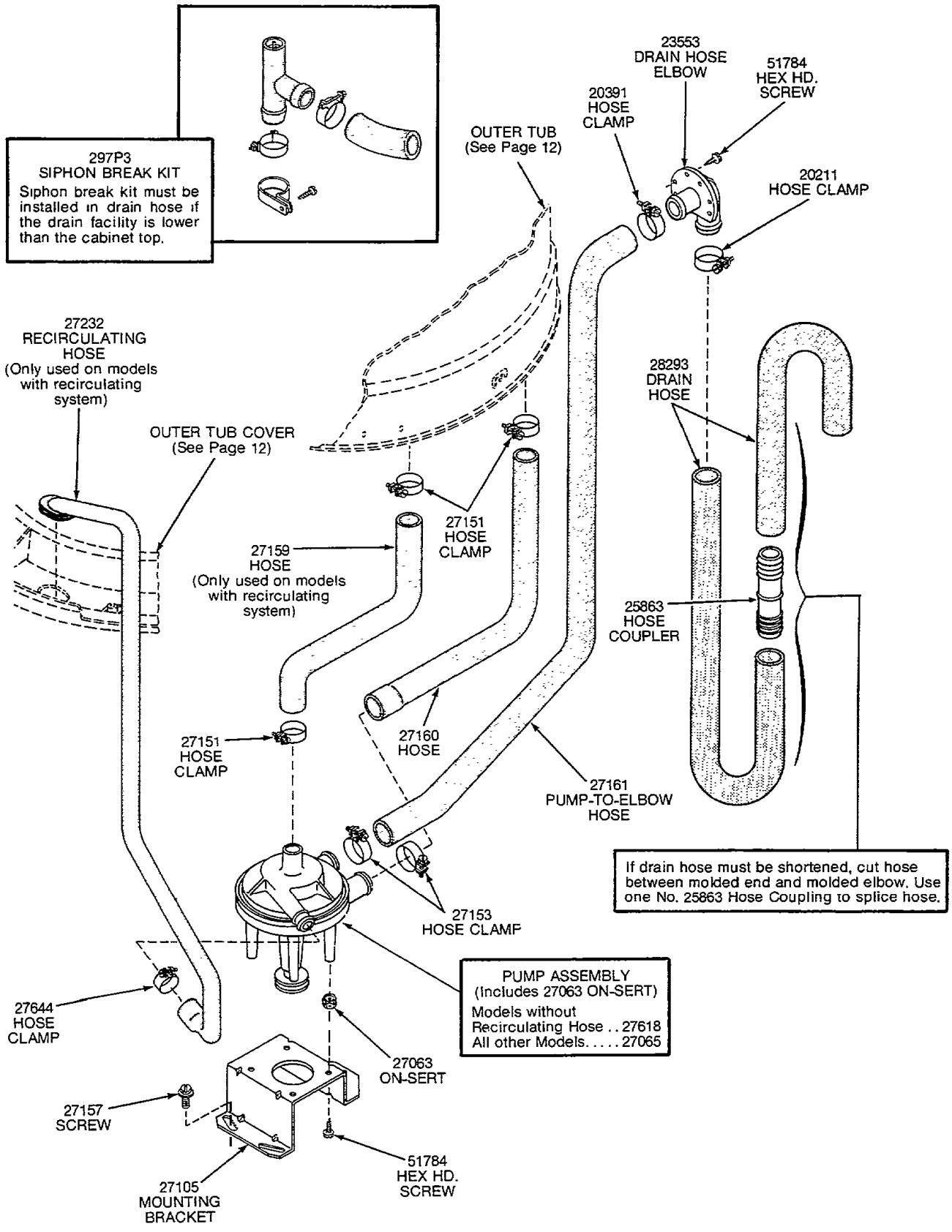
MOTOR, MOUNTING BRACKET, BELTS AND IDLER ASSEMBLY



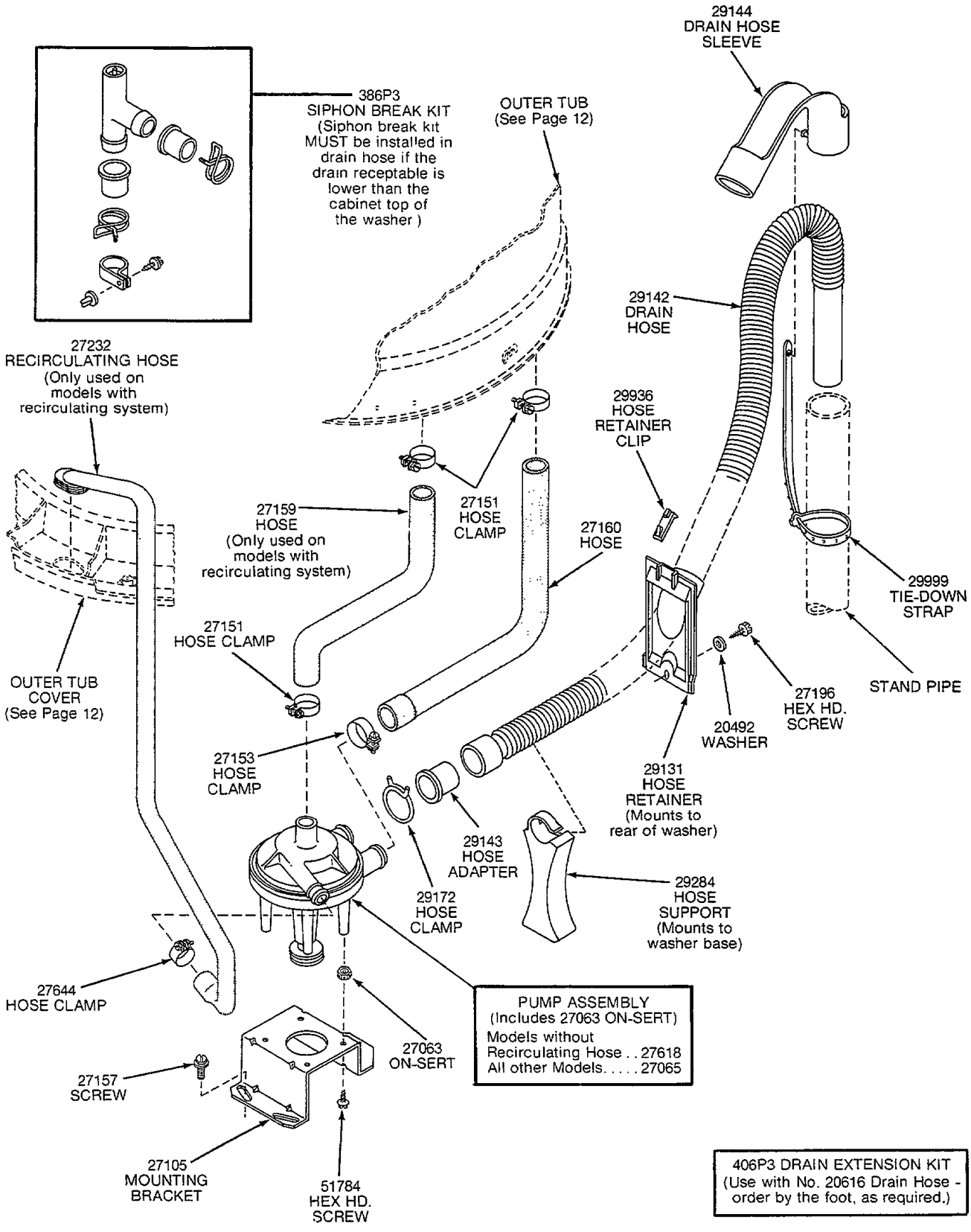
TRANSMISSION ASSEMBLY AND BALANCE RING



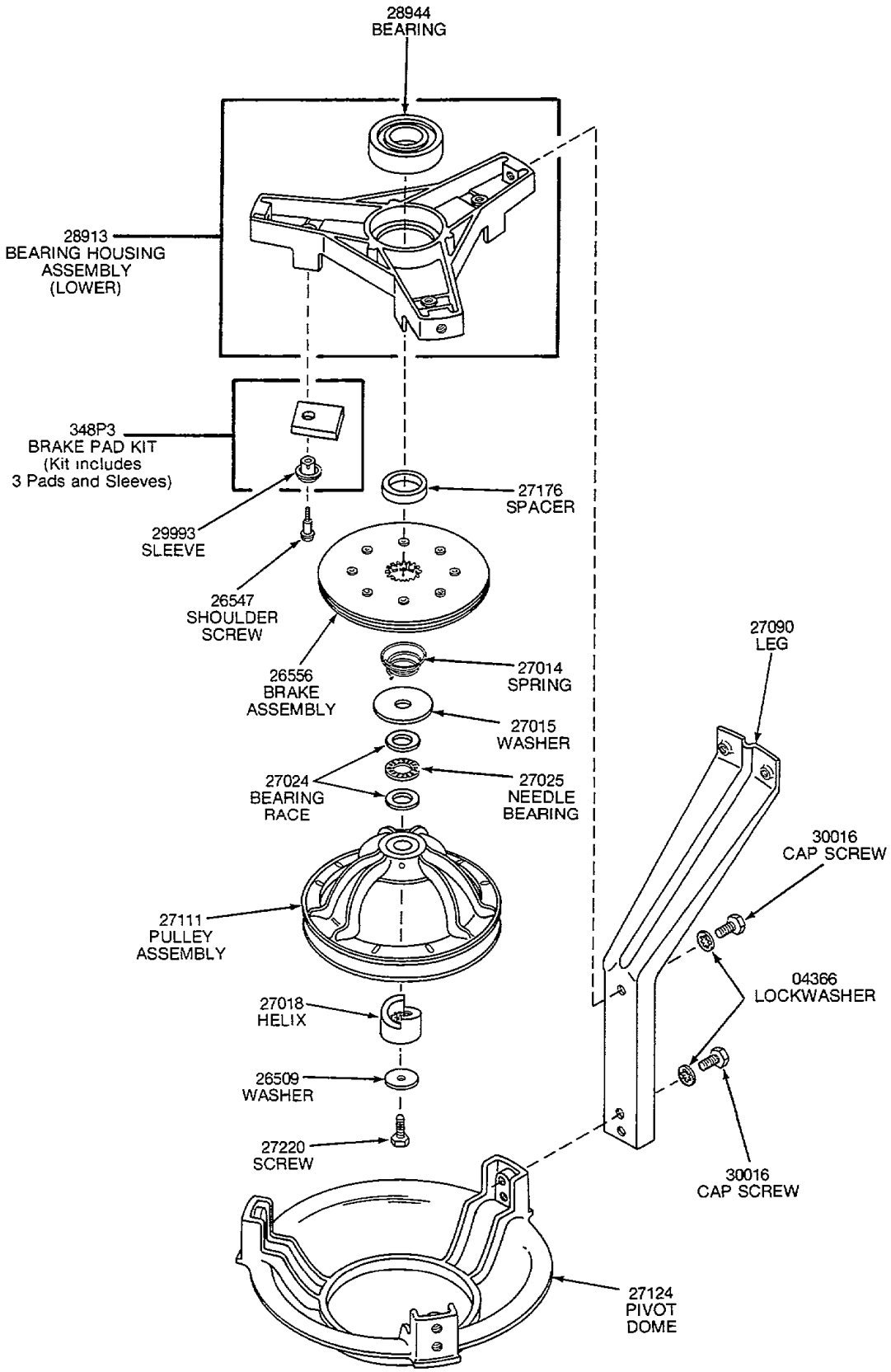
TRANSMISSION ASSEMBLY



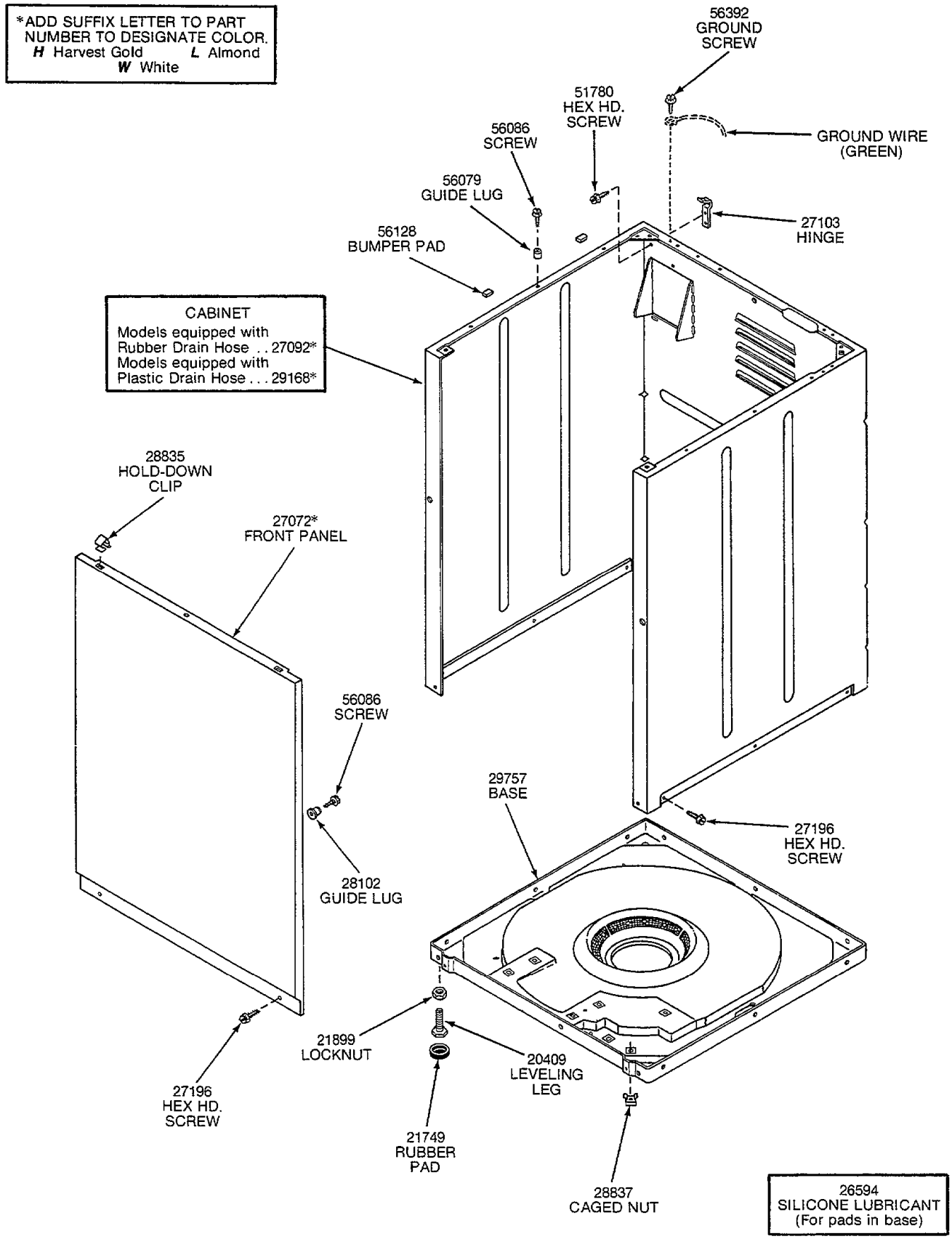
PUMP ASSEMBLY, BRACKET, HOSES AND SIPHON BREAK KIT
(Models Equipped with Rubber Drain Hose)



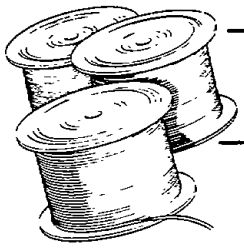
PUMP ASSEMBLY, BRACKET, HOSES AND SIPHON BREAK KIT
(Models Equipped with Plastic Drain Hose)



BEARING HOUSING, BRAKE, PULLEY AND PIVOT DOME

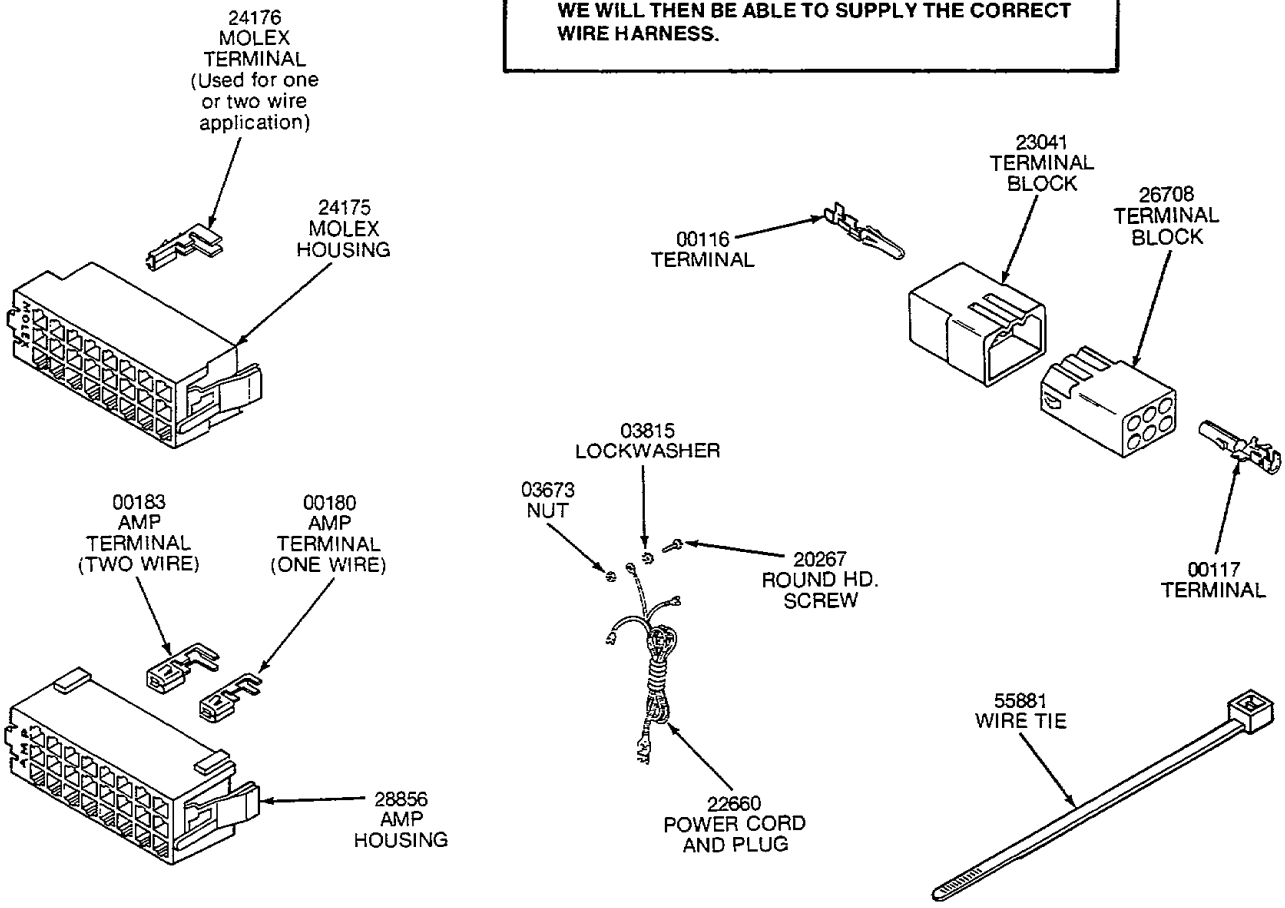


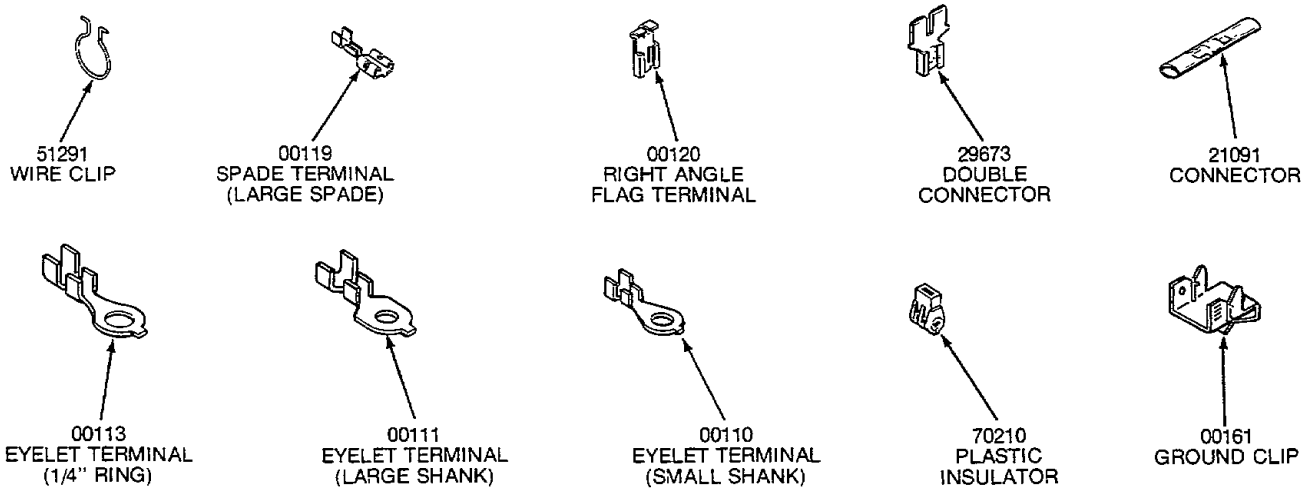
FRONT PANEL, CABINET AND BASE



18 GAUGE WIRE PER FOOT (SPECIFY COLOR)..20680
ORDER BY THE FOOT. ALWAYS SPECIFY COLOR CODE REQUIRED.
SEE WIRING DIAGRAM FOR CORRECT COLOR CODE.

WIRE HARNESSES
WHEN A WIRE HARNESS IS REQUIRED, IT IS IMPORTANT THAT THE CORRECT MODEL AND SERIAL NUMBERS BE SUBMITTED WITH THE ORDER. WE WILL THEN BE ABLE TO SUPPLY THE CORRECT WIRE HARNESS.





POWER CORD, WIRE AND TERMINALS

SECTION II
Service Procedures

—WARNING—

DISCONNECT POWER CORD AND CLOSE WATER SUPPLY VALVE BEFORE SERVICING WASHER.

1. **CONTROL PANEL** *(Refer to Figure 1 or 2)*

   a. Remove panel assembly screws and lift assembly off panel support.
   b. Remove end caps.
   c. Remove timer knob assembly.

   NOTE: When reinstalling timer knob assembly, pin in timer shaft must be positioned in slot in timer knob indicator.

   d. Pull knobs off temperature and speed (action) switches (if present), and remove knurled nuts and lockwashers holding switches to control panel.

   NOTE: Lockwashers must be between switch and control panel when installing switch.

   e. Pull knob off water level switch and remove screws holding switch to control panel.
   f. Remove screws holding timer to control panel.

   NOTE: When installing timers, shown in *Figure 2,* the horizontal and vertical tabs on front plate of timer must seat completely into the "cross shaped" holes on the control panel bracket, *Figure 4,* and that the two timer hex head attaching

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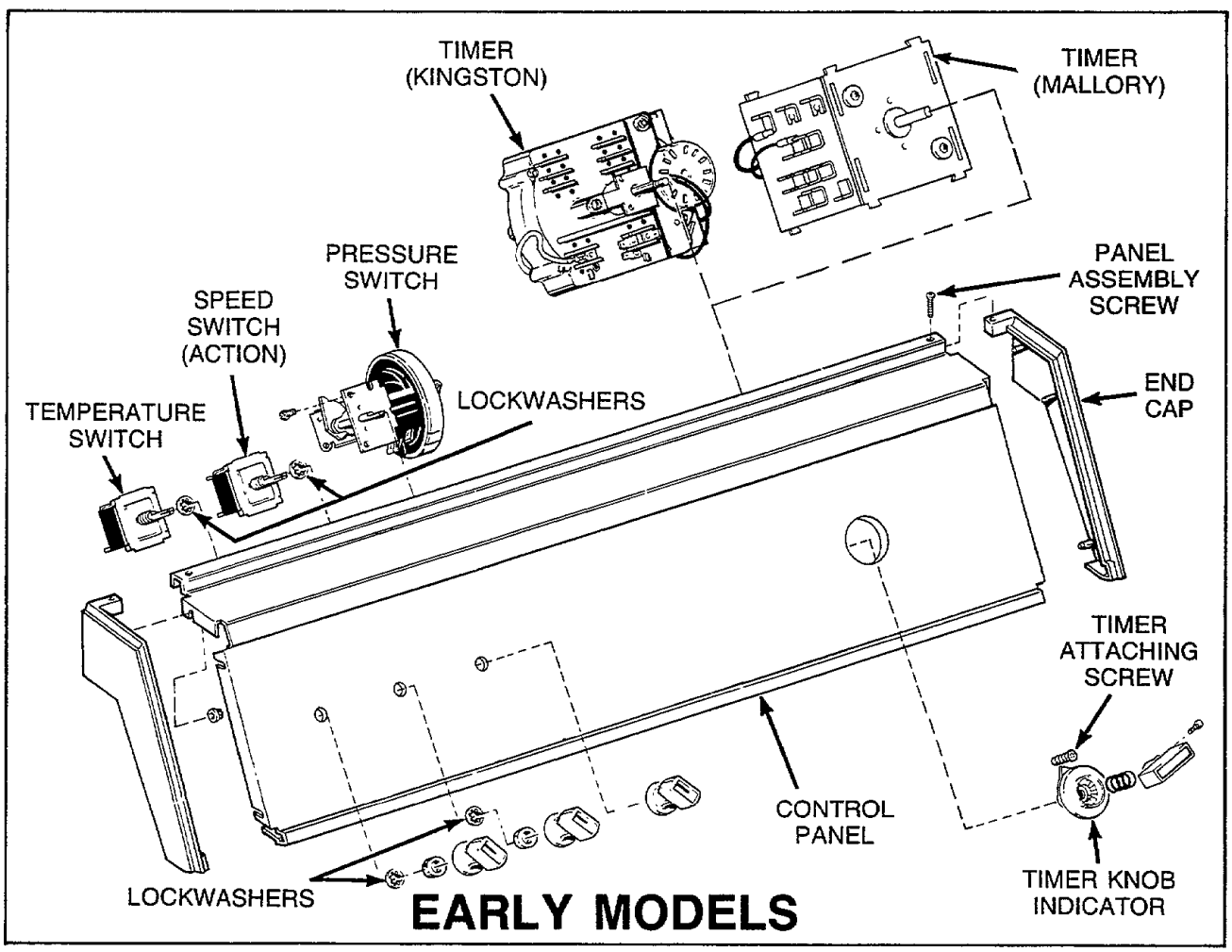

Figure 1

screws are torqued down between 12 to 18 inch pounds.

2. **TIMER**

a. Remove panel assembly screws and lift assembly off panel support.
b. Loosen setscrew holding timer knob to timer shaft, then remove knob, spring and timer knob indicator.

NOTE: When reinstalling timer knob assembly, pin in timer shaft must be positioned in slot in timer knob indicator, *Figure 1.*

EARLY MODELS *(Refer to Figure 1)*

NOTE: DO NOT attempt to repair the timer.

a. Disconnect wires from timer.

IMPORTANT: Refer to appropriate wiring diagram when rewiring timer.

b. Remove three Phillip head screws holding timer to control panel bracket, *Figure 1.*

LATE MODELS *(Refer to Figure 2)*

NOTE: DO NOT attempt to repair the timer.

a. Disengage wire harness terminal block plug from the timer by pressing in on the movable locking tabs (located on each side of the terminal block plug) and pulling plug away from timer, *Figure 3.*

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

Before attaching wire harness terminal block to timer, be sure all the male terminals on timer are straight and are capable of accepting the terminals from the wire harness terminal block.

b. Remove the two hex head screws holding timer to rear of control panel bracket.

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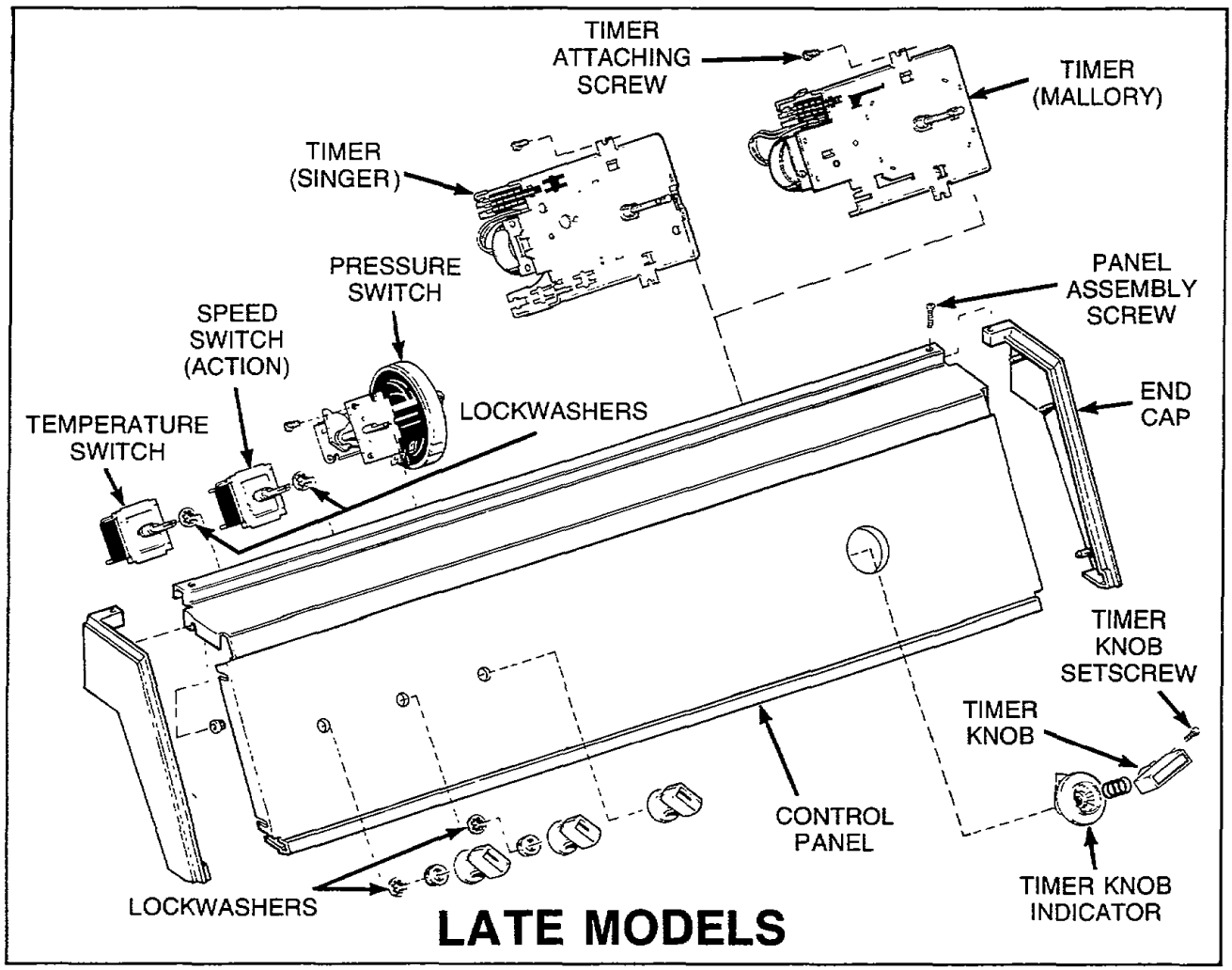

Figure 2

NOTE: When installing timer, be sure timer is installed correctly and is securely mounted to bracket on control panel, *Figure 4.*

The horizontal and vertical tabs on front plate of timer must seat completely into the "cross shaped" holes on the control panel bracket, and that the two hex head screws are torqued down between 12 to 18 pounds (14 to 21 cm-kg).

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

3. TEMPERATURE OR SPEED (ACTION) SWITCH

Refer to *Figure 1 or 2* for switch removal.

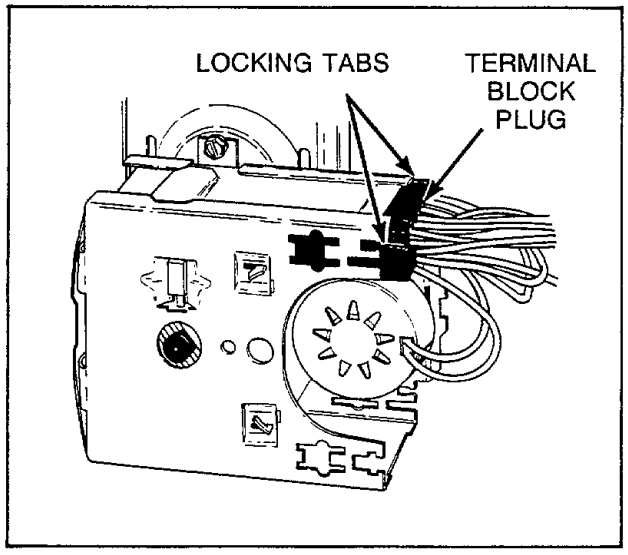

Figure 3

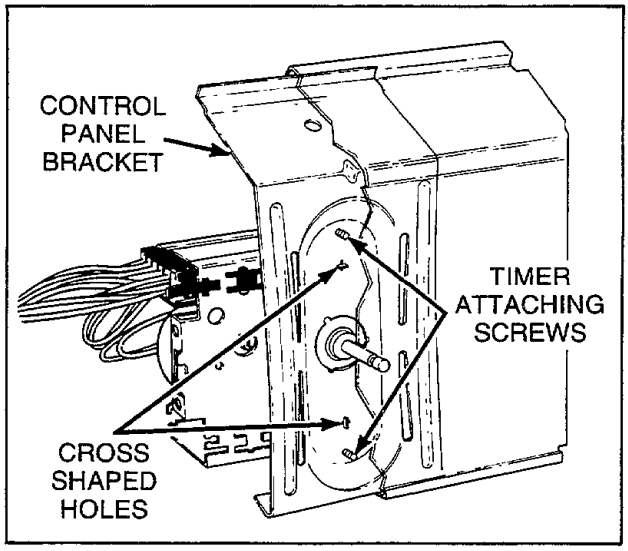

Figure 4

NOTE: Refer to appropriate wiring diagram when rewiring switch.

4. PRESSURE SWITCH

Refer to *Figure 1 or 2* for switch removal.

NOTE: Refer to appropriate wiring diagram when rewiring switch.

IMPORTANT: When installing water level switch, blow air through pressure hose before connecting hose to switch to remove any condensation that may have accumulated in the hose.

5. DRAIN HOSE ELBOW *(Refer to Figure 5)*

a. Loosen hose clamp and remove drain hose from elbow.
b. Remove screws holding elbow to rear of washer cabinet.
c. Pull elbow out through opening in cabinet far enough to permit loosening inner clamp, then remove elbow from inner hose.

NOTE: When reinstalling elbow on inner hose, DO NOT allow hose inside washer to twist! Direct elbow toward drain receptacle before tightening the inner hose clamp. If this is not done, the inner hose will twist in the direction of the outer tub resulting in the hose rubbing against the bottom edge of the outer tub.

d. Secure elbow to washer cabinet using the screws removed in step "b".

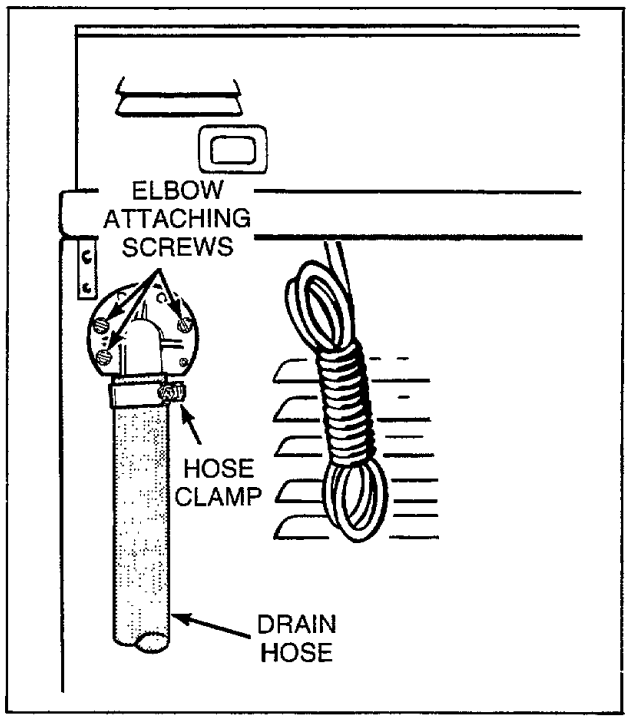

Figure 5

6. **LOADING DOOR** *(Refer to Figure 6)*

a. Depress tab on either hinge, then slide hinge out of loading door and bushing in cabinet top.
b. Tilt loading door slightly and slide door and hinge out of opposite bushing.

7. **AGITATOR POST ASSEMBLY**

— WARNING —

IF WATER IS PRESENT IN WASHTUB, SPIN AND PUMP OUT BEFORE REMOVING AGITATOR POST ASSEMBLY.

a. Remove agitator hold-down cap and lift agitator out of washtub, *Figure 6.*
b. Remove four cap screws holding agitator post assembly to washtub hub, *Figure 7,* then lift assembly out of washtub.
c. Be sure all traces of old Loctite® are removed from the hub and agitator post. Apply approximately a 1/16 diameter continuous bead of No. 28434P Loctite® to the embossed surfaces of the agitator post, *Figure 8.*
d. While tightening the four cap screws, tap lightly on the drive block to force splines on drive shaft into the coupling on the transmission assembly.

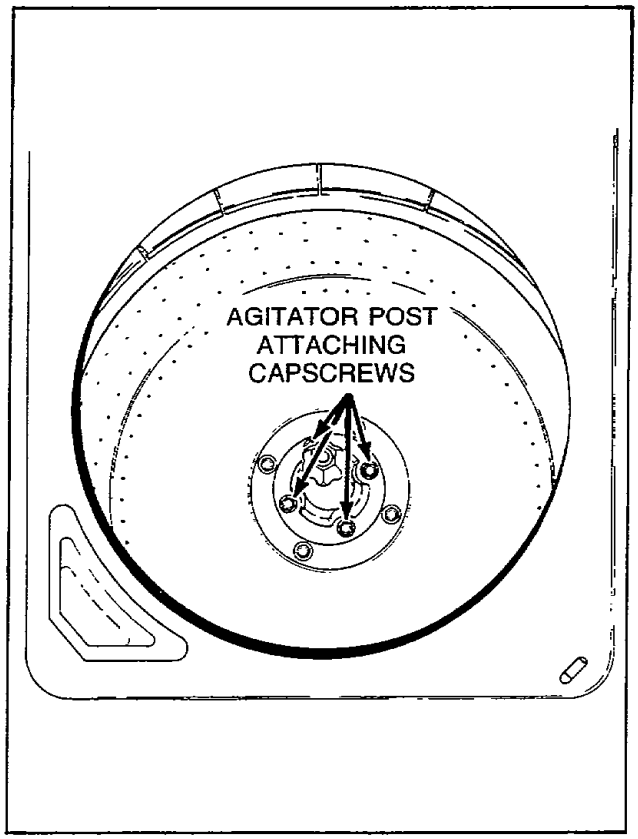

Figure 7

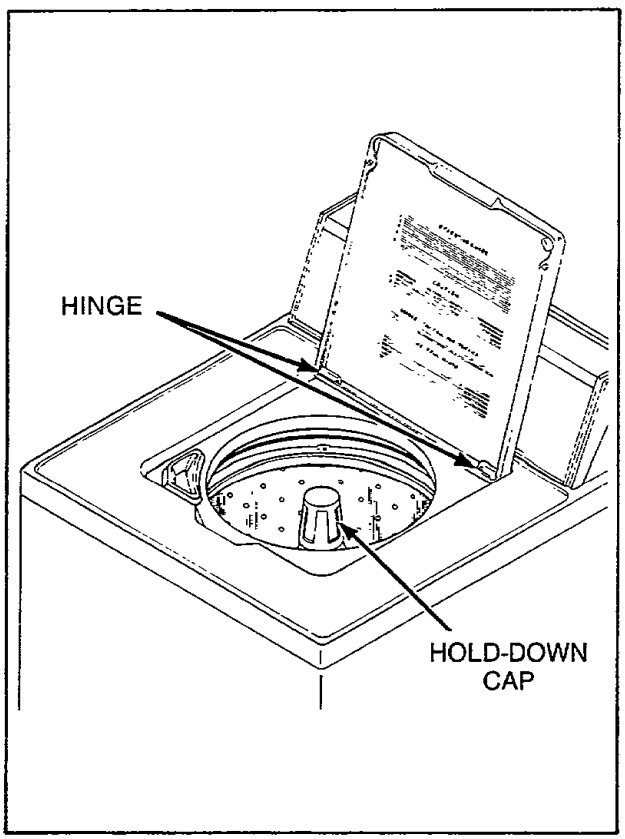

Figure 6

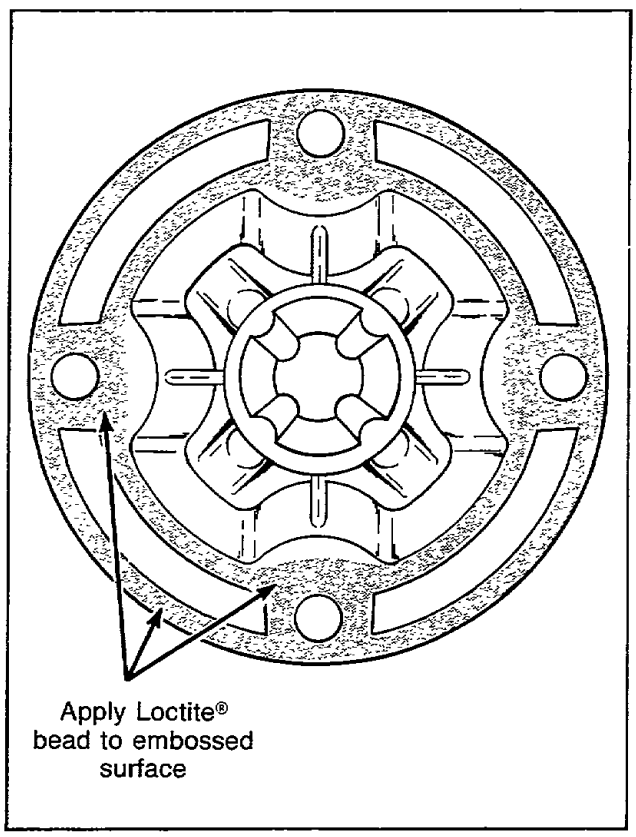

Figure 8

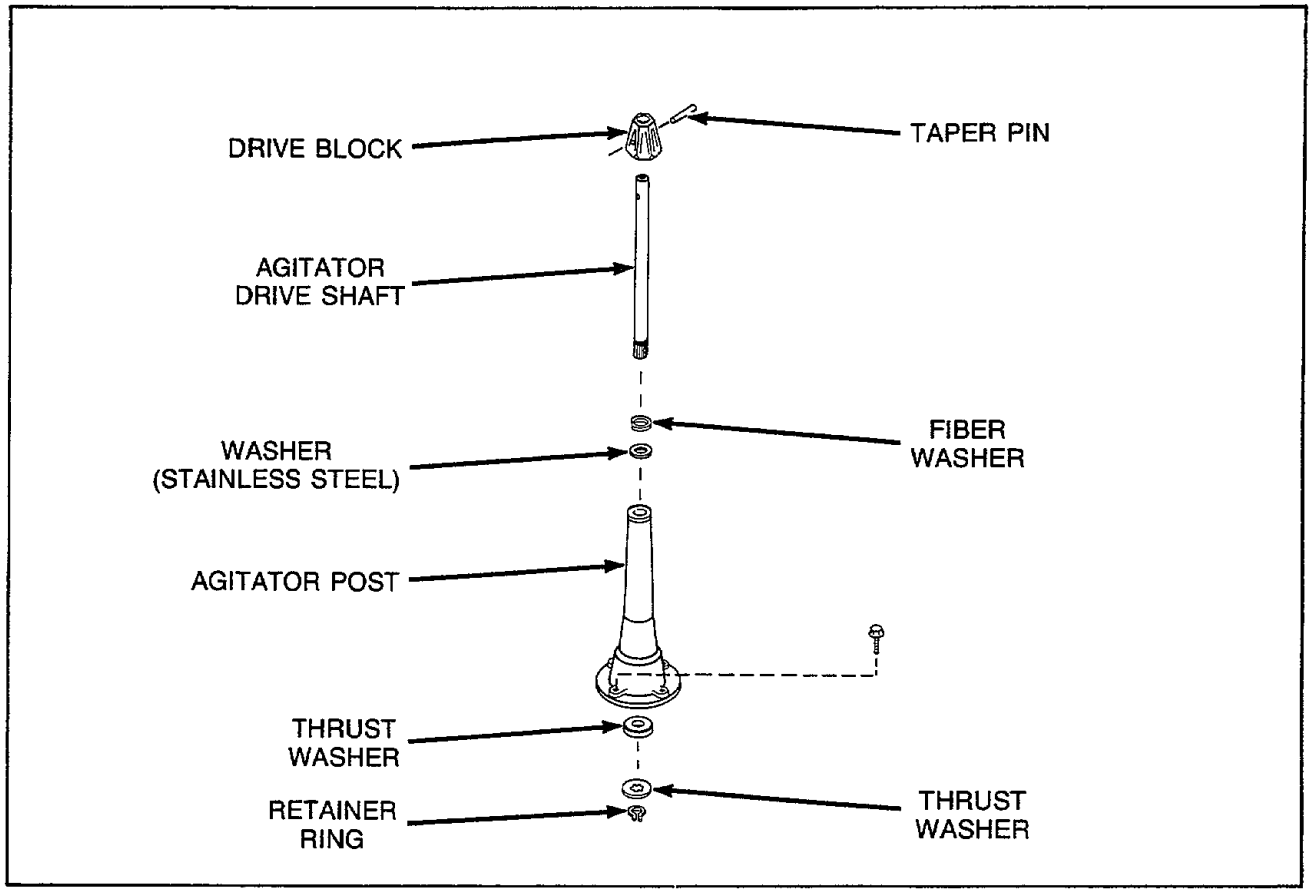

Figure 9

8. AGITATOR DRIVE SHAFT *(Refer to Figure 9)*

a. Remove agitator post assembly, paragraph 7.
b. Remove retainer ring from bottom end of drive shaft, grasp agitator drive block and pull shaft out of agitator post.

IMPORTANT: Stainless steel washer must be between thrust bearing and fiber washer on agitator drive block when installing drive shaft.

— CAUTION —

Be careful when installing drive shaft in agitator post to prevent cutting seal lips with the splines on lower end of drive shaft.

9. FRONT PANEL *(Refer to Figure 10)*

a. Remove two screws from bottom edge of 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 from slots in top flange of panel.

Guide Lugs

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

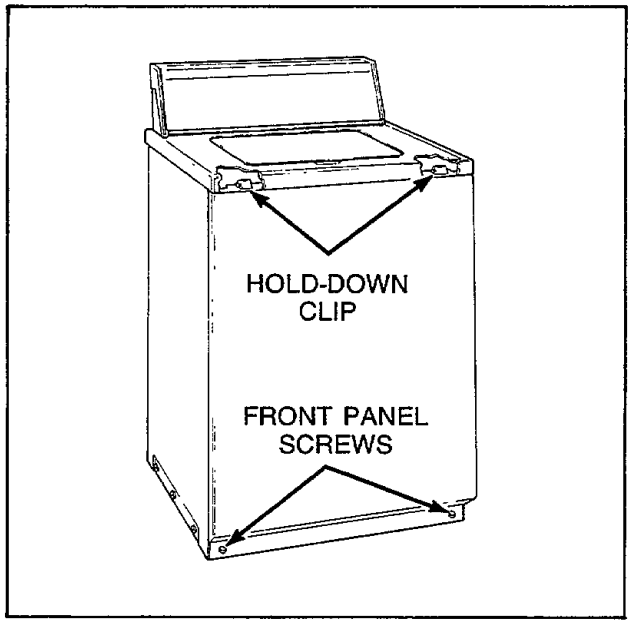

Figure 10

10. PUMP BELT

a. Remove two screws from bottom edge of front panel, *Figure 10.*
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. Loosen two front mounting screws and one rear mounting screw holding pump and bracket to washer base, *Figure 11,* pivot entire assembly toward motor to loosen belt tension.
d. Run belt off motor pulley, then remove belt from pump pulley.

NOTE: After installing pump belt, adjust belt, paragraph 33.

11. DRIVE BELT

a. Remove two screws from bottom edge of front panel, *Figure 10.*
b. Pull bottom of panel away from washer until hold-down clips (located on top flange of panel) disengage from slots in cabinet top, *Figure 10.*
c. Remove two front mounting screws and loosen the rear mounting screw holding pump and bracket to washer base, *Figure 11,* pivot entire assembly toward motor to loosen belt tension.
d. Run belt off motor pulley, then remove belt from pump pulley.

NOTE: After installing belt, adjust belt, paragraph 33.

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

IMPORTANT: Use caution when releasing idler lever tension. If the idler spring is overstretched, it will affect the washer operation.

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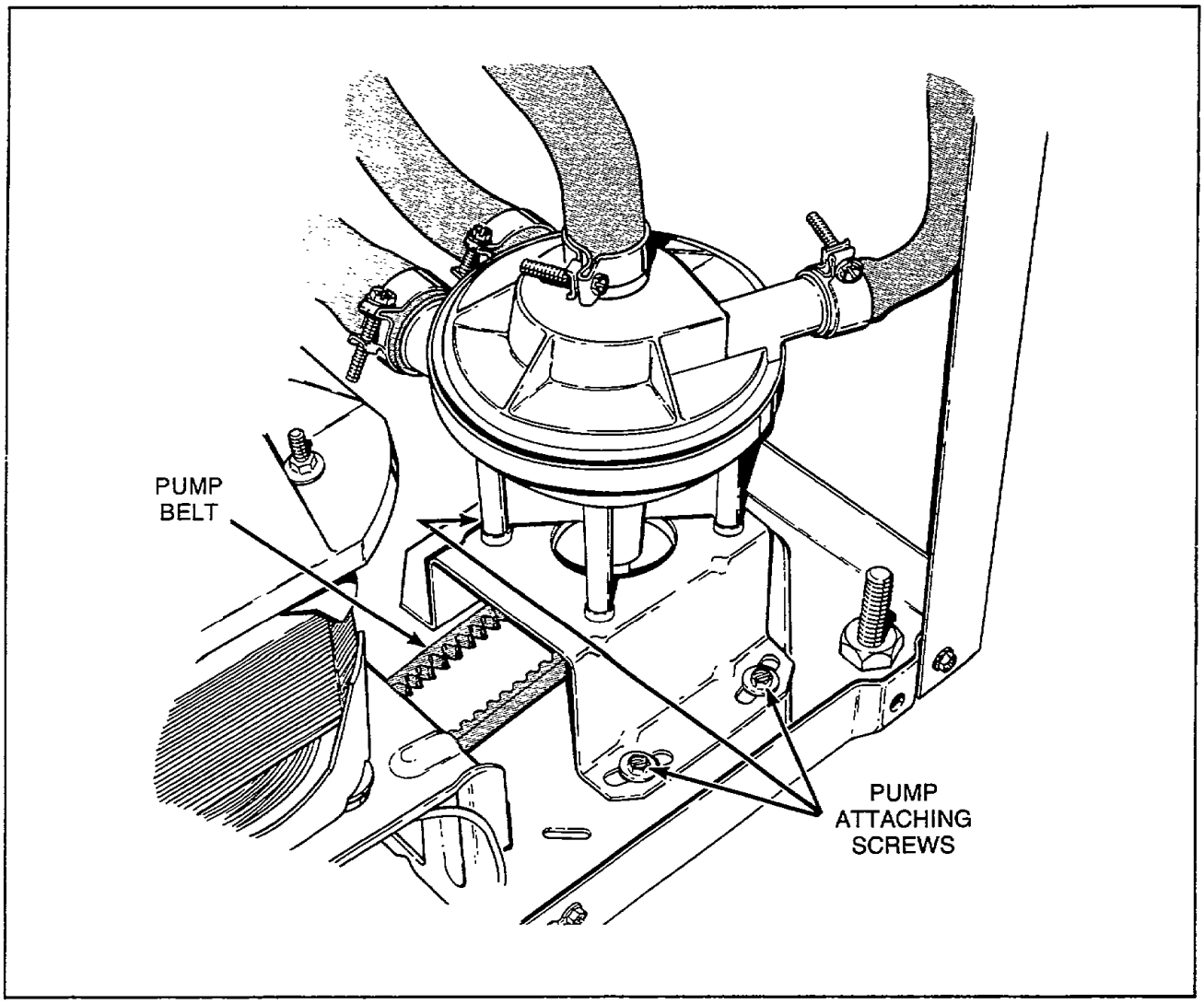

Figure 11

f. While holding idler lever, reach in and around right side of motor and run belt off right side of large drive pulley, *Figure 12.*

g. Remove belt from motor pulley and pull belt out through front of motor mount.

IMPORTANT: Drive belt MUST be replaced with belt No. 28808 (special clutch type belt) for proper washer operation.

TO INSTALL NO. 28808 DRIVE BELT

NOTE: If the new belt is replacing a burned belt, the motor pulley "V" groove must be polished with a fine (320 grit) energy cloth to remove rubber residue. If this residue is not removed it will affect the washer spin operation.

a. Push belt in through front of motor mount and place belt on motor pulley.
b. Reach in and around right side of motor, starting with belt on right side of large drive pulley, run belt onto pulley.
c. Reach in through front of motor mount and move idler lever to the left.

IMPORTANT: Do not overstretch idler spring as it will affect the washer operation.

d. While holding idler lever, reach around right side of motor and place belt on idler pulley. IDLER PULLEY MUST RIDE ON OUTSIDE OF BELT.

NOTE: There is no belt adjustment after installing new drive belt. Check to be sure motor and mounting bracket has been shifted toward rear of washer to its limit of travel within the mounting bracket attaching screws. If the motor and mounting bracket must be repositioned, loosen the four motor attaching screws, *Figure 13,* and shift motor and mounting bracket toward rear of washer to its limit of travel. Retighten the four attaching screws, *Figure 13.*

12. MOTOR AND MOUNTING BRACKET

a. Remove front panel, paragraph 9.
b. Disconnect motor wire harness plug from base wire harness receptacle.

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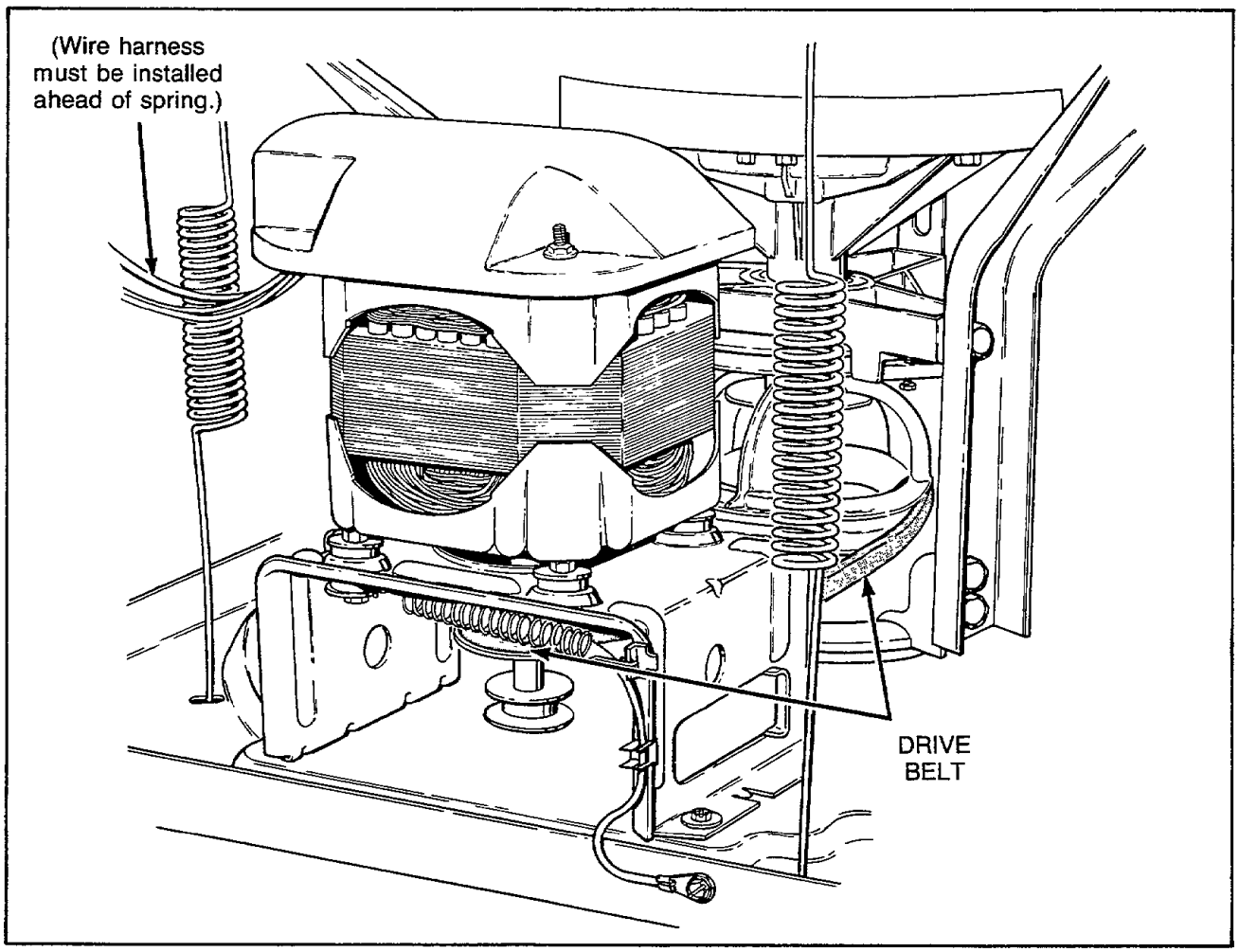

Figure 12

c. Remove pump belt, paragraph 10, then remove drive belt, paragraph 11.

NOTE: When installing belts, adjust pump belt, paragraph 33. There is no drive belt adjustment.

d. Remove screw holding ground wire to washer base, *Figure 13.*
e. Remove four screws holding motor and mounting bracket to washer base, *Figure 13,* then lift complete assembly out of washer.

NOTE: When installing motor and mounting bracket, tab on right bottom flange of mounting bracket must be placed in positioning hole in base. Mounting bracket must be shifted toward rear of washer to its limit of travel within the mounting bracket attaching screws.

f. Remove nuts, steel washers, spacers and rubber mounts holding motor to mounting bracket, *Figure 14.* Lift motor off mounting bracket and remove the remaining rubber mounts and steel washers from the 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 14* for motor and mounting bracket assembly sequence.

13. IDLER LEVER AND PULLEY

a. Remove motor and mounting bracket, paragraph 12, steps "a" through "e".
b. Remove nut, washer and bolt holding idler lever and pulley to motor mounting bracket.

NOTE: Refer to *Figure 14* for idler lever and pulley assembly sequence.

c. Apply No. 21814 Lubricant to the area of the idler lever making contact with the motor mounting bracket.

14. MOTOR DRIVE PULLEY OR PUMP PULLEY

a. Remove motor and mounting bracket, paragraph 12, steps "a" through "e".
b. Lay motor and mounting bracket on its side.

NOTE: To remove pulleys, support motor shaft (to prevent bending shaft) and drive out pulley roll pins.

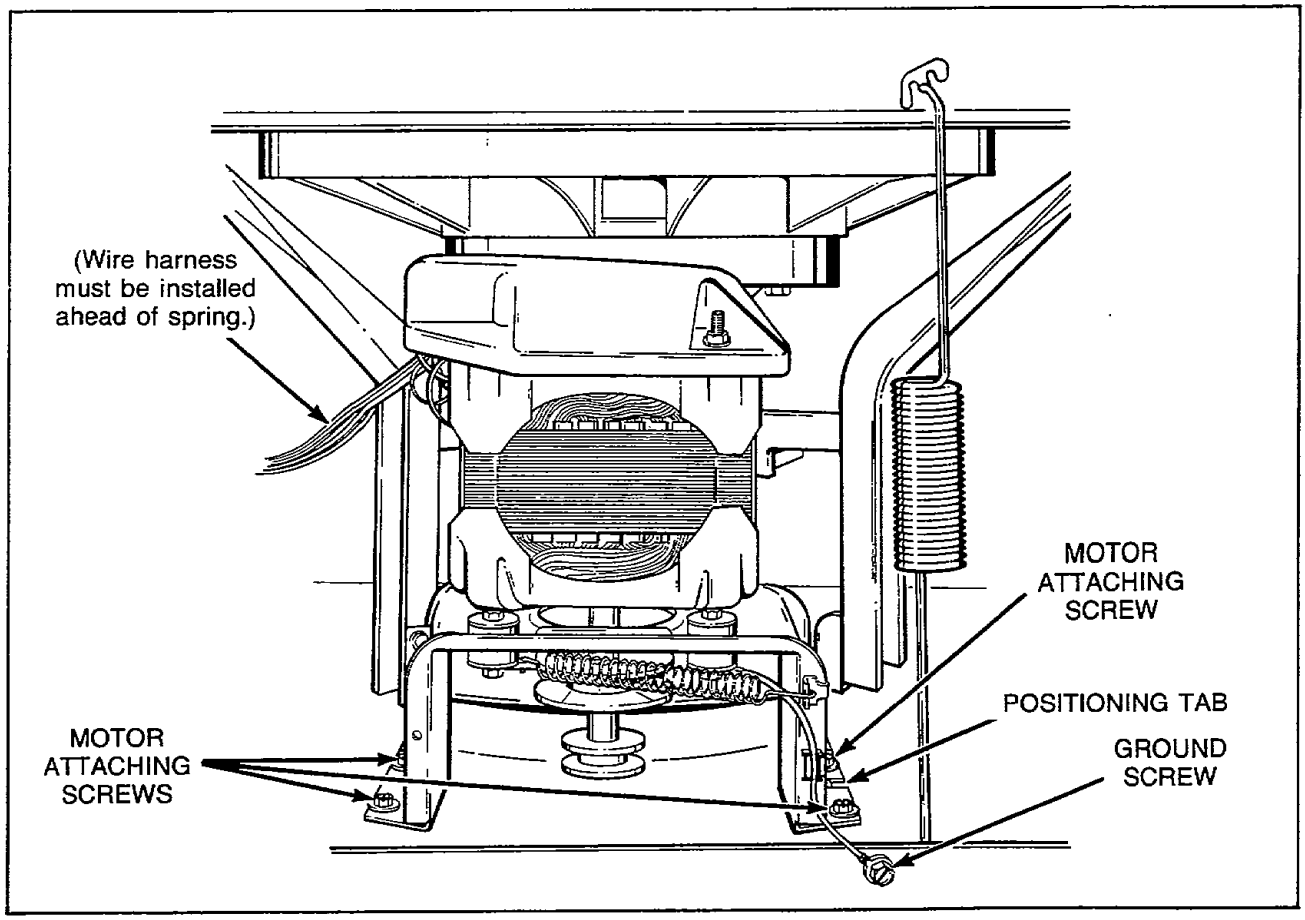

Figure 13

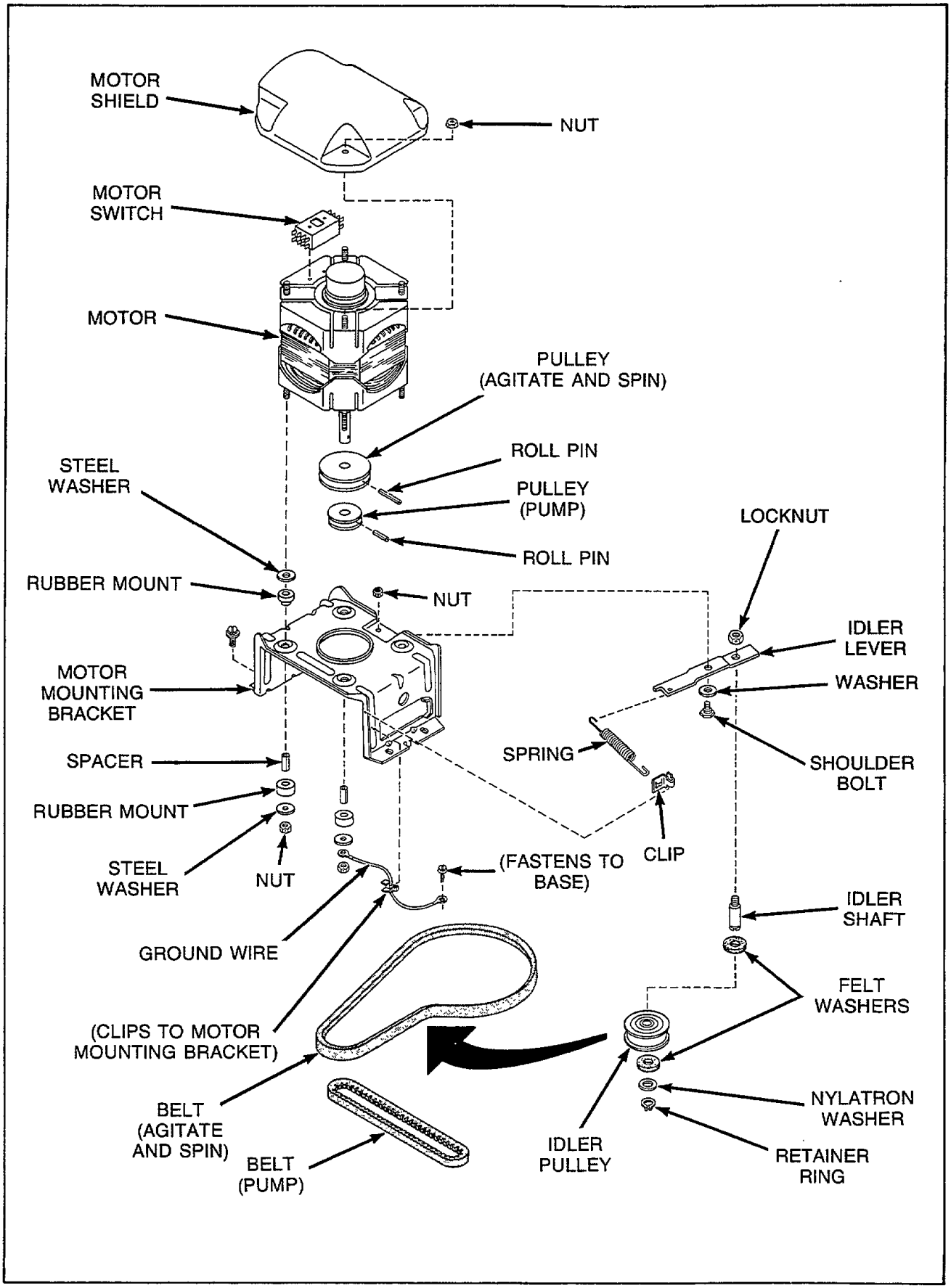
MOTOR SHIELD
NUT
MOTOR SWITCH
MOTOR
PULLEY (AGITATE AND SPIN)
ROLL PIN
STEEL WASHER
PULLEY (PUMP)
LOCKNUT
ROLL PIN
RUBBER MOUNT
NUT
IDLER LEVER
MOTOR MOUNTING BRACKET
WASHER
SPRING
SHOULDER BOLT
SPACER
RUBBER MOUNT
CLIP
STEEL WASHER
NUT
(FASTENS TO BASE)
IDLER SHAFT
GROUND WIRE
FELT WASHERS
(CLIPS TO MOTOR MOUNTING BRACKET)
NYLATRON WASHER
BELT (AGITATE AND SPIN)
IDLER PULLEY
RETAINER RING
BELT (PUMP)

Figure 14

15. MOTOR SWITCH

a. Remove front panel, paragraph 9.
b. Remove nut holding motor shield to motor.
c. Disconnect external wires from motor switch terminals.

NOTE: Refer to appropriate wiring diagram when rewiring switch.

d. Remove two screws holding switch to motor.
e. Disconnect internal motor leads from switch terminals.

16. PUMP ASSEMBLY

a. Remove front panel, paragraph 9.
b. Remove pump belt, paragraph 10.

— CAUTION —

There will always be some water that will remain in the outer tub, therefore, before removing hoses from the pump, the hoses will have to be pinched off or drained to prevent water spillage on the floor.

c. Remove the two front mounting screws, *Figure 15,* and loosen the rear screw.

NOTE: Rear screw hole in pump mounting bracket is slotted, therefore, it is not necessary to remove the rear screw.

d. Slide pump and mounting bracket toward rear of washer and lift assembly out of washer.
e. Loosen hose clamps and remove all hoses from pump assembly, *Figure 15.*

Pump Mounting Bracket
Remove four hex head screws holding pump to mounting bracket.

NOTE: Refer to *Figure 16* for pump and mounting bracket assembly sequence.

17. CABINET TOP ASSEMBLY

a. Remove two screws from bottom edge of front panel, *Figure 10.*
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 cabinet top hold-down screws, *Figure 17.*
d. If the 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, or use a small chain to support the cabinet top, *Figure 18.*

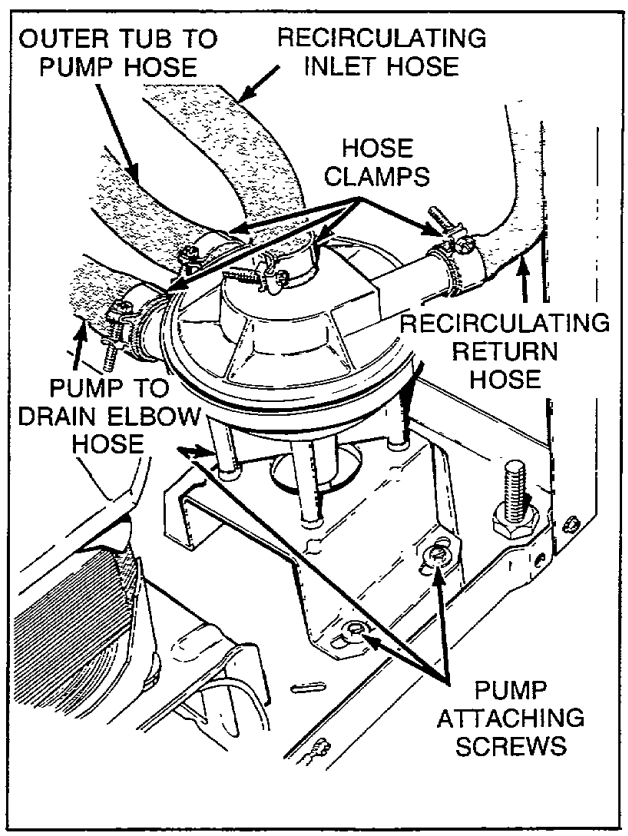

Figure 15

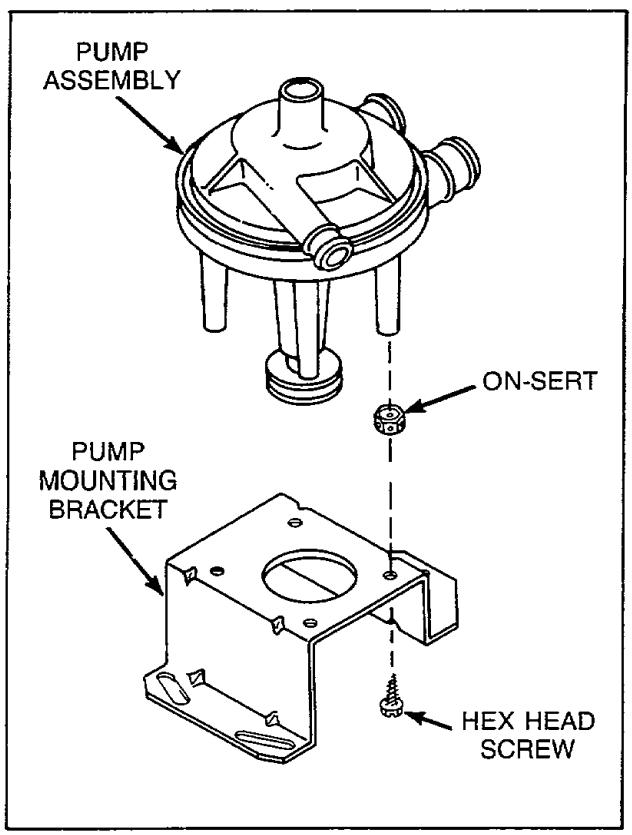

Figure 16

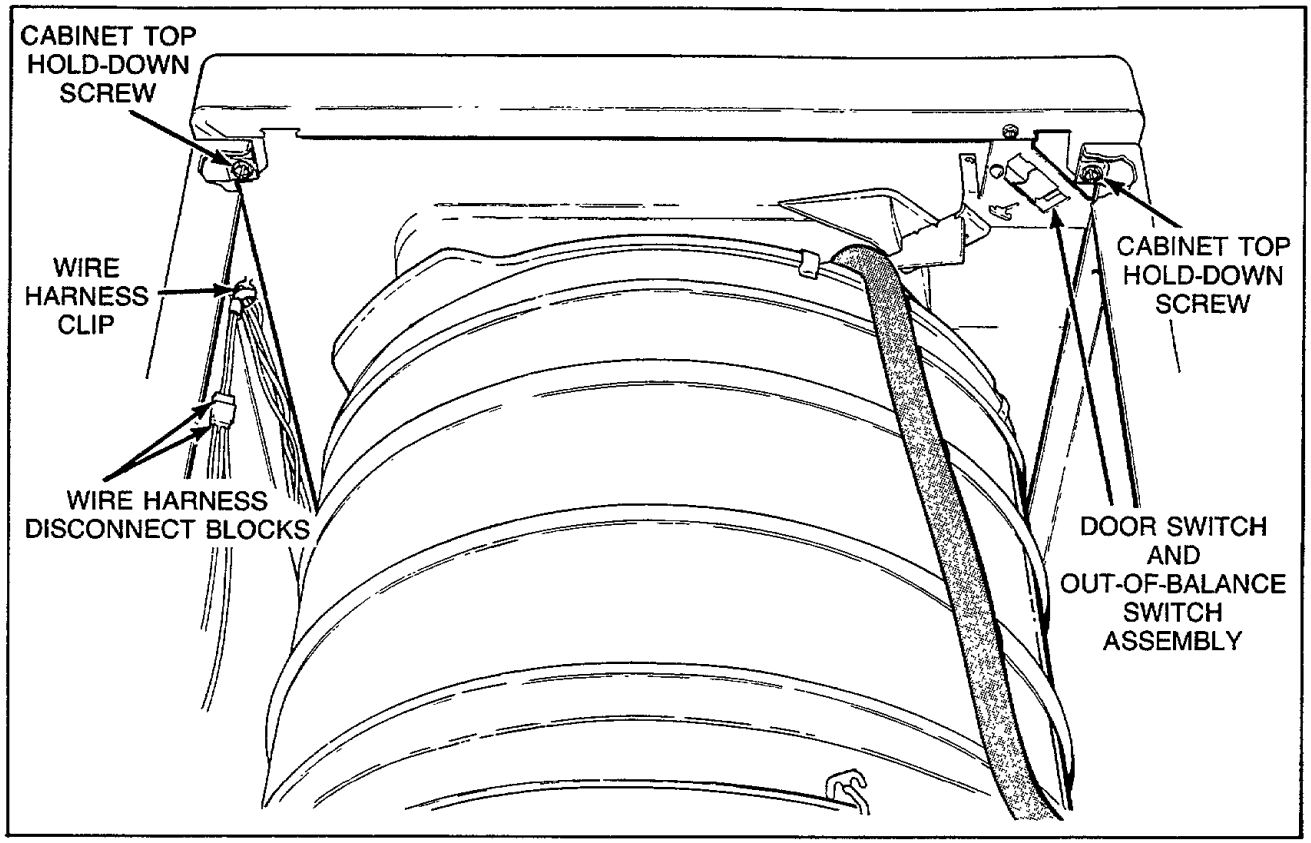

Figure 17

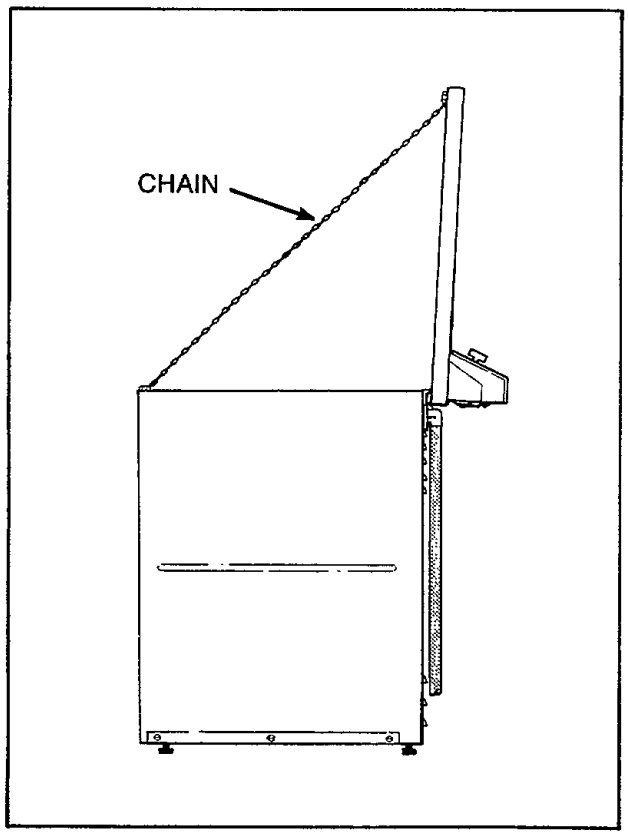

Figure 18

TO REMOVE CABINET TOP FROM WASHER

a. Repeat steps "a", "b" and "c" above.
b. Remove control panel assembly screws and lift assembly off panel supports, disconnect hose from pressure switch and push hose down through hole in cabinet top. Reinstall control panel assembly.
c. Disconnect wire harness at disconnect blocks, *Figure 17.*
d. Remove wire clips holding wire harness and pressure hose to top flange of left side of washer cabinet.
e. Tape loading door closed.
f. Lift front of cabinet top slightly and pull forward to disengage from rear hold-down brackets.
g. Pull top forward far enough to permit disconnecting green ground wire from top flange of washer cabinet and disconnecting wires from mixing valve solenoids at rear of washer.

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

h. Carefully lift cabinet top off washer and set beside washer cabinet on protective padding.

NOTE: Do not damage door switch and out-of-balance switch assembly when removing cabinet top.

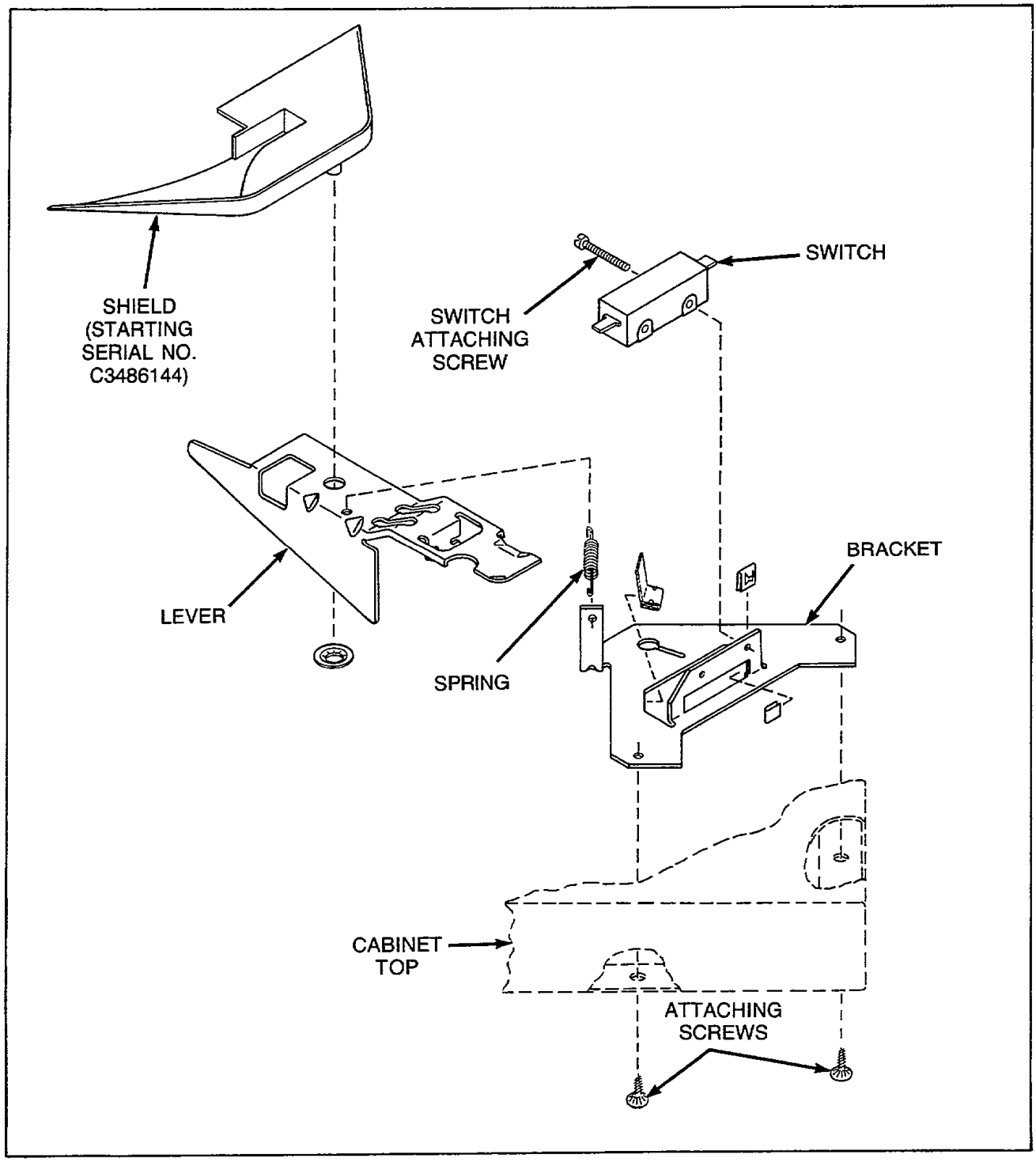

Figure 19

18. DOOR AND OUT-OF-BALANCE SWITCH AND BRACKET ASSEMBLY *(Refer to Figure 19)*

a. Remove front panel, paragraph 9.
b. Hinge cabinet top or remove, paragraph 17.
c. Remove two screws holding switch and bracket assembly to underside of front flange of cabinet top.
d. Disconnect wires from switch.

NOTE: Refer to appropriate wiring diagram when rewiring switch.

e. Remove two screws holding switch to bracket.

NOTE: After installing switch and bracket assembly, adjust per paragraph *33*.

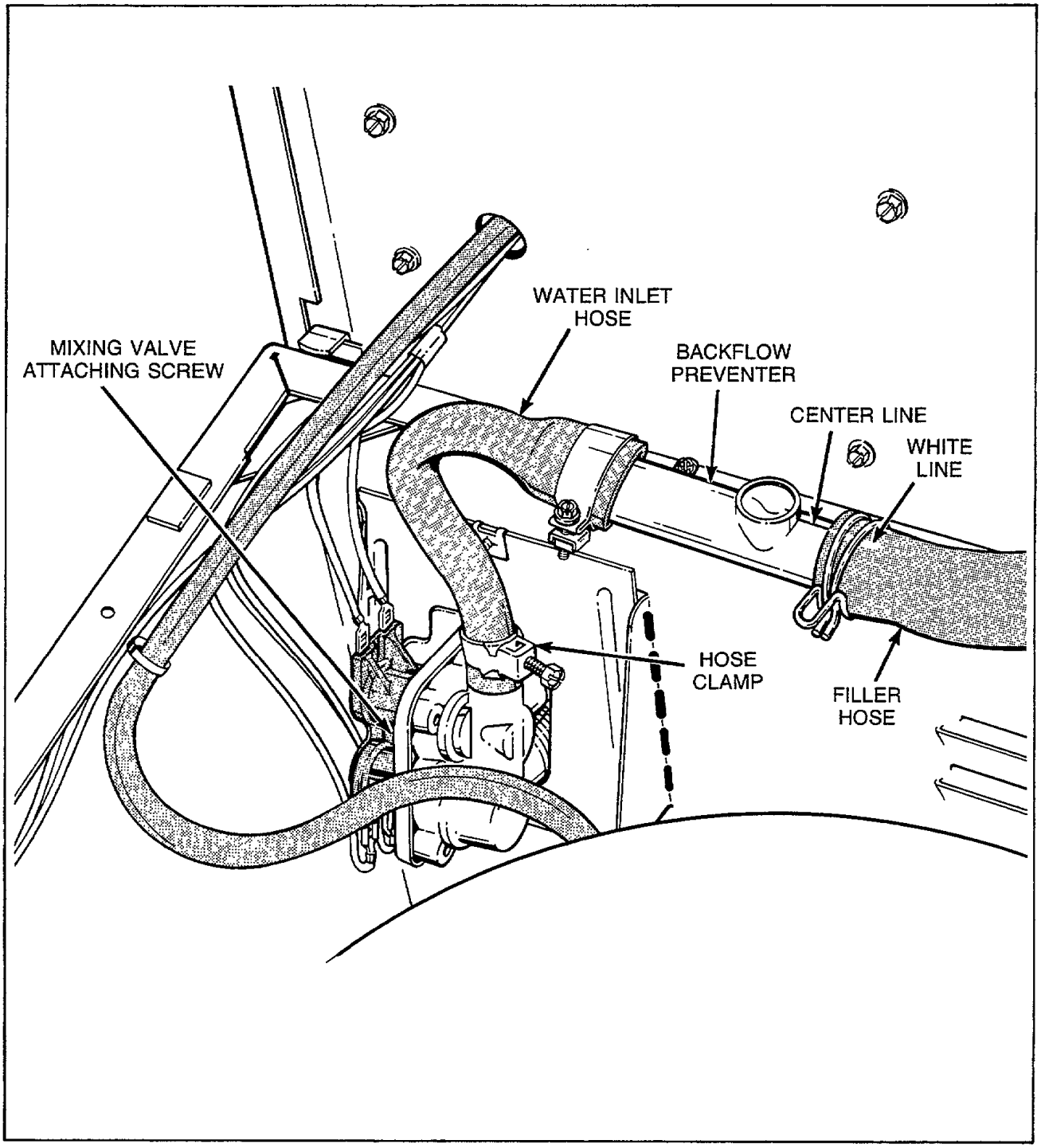

Figure 20

19. MIXING VALVE ASSEMBLY

NOTE: Close water valves in water supply lines before attempting to service mixing valve.

a. Hinge cabinet top or remove, paragraph 17.
b. Remove screw holding mixing valve to mounting bracket at rear of washer cabinet, *Figure 20*.

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

c. Pull mixing valve out toward front of washer far enough to permit disconnecting water inlet hoses from mixing valve, *Figure 20*.
d. Disconnect wires from mixing valve solenoids.

NOTE: Refer to apppropriate wiring diagram when rewiring solenoids.

20. WASHTUB AND LINT FILTER

a. Remove agitator hold-down cap and lift agitator out of washtub, *Figure 6.*
b. Hinge cabinet top or remove, paragraph 17.
c. Disconnect filler hose from back flow preventer, *Figure 20.*

NOTE: (Starting with serial no. N3605085), when installing filler hose, white line on hose must be aligned with center line of backflow preventer, *Figure 20.*

d. Remove eight clips holding outer tub cover to tub, *Figure 21,* lift cover off tub and set beside washer cabinet.

NOTE: When installing outer tub cover, always use a new cover gasket. Lubricate the gasket with a rubber lube or liquid soap to aid in assembly. Cover must be placed on outer tub so notch on top edge of outer tub cover is directly over left front clip hole in tub, *Figure 21.* Starting with this hole, place each spring clip in its respective hole and snap in place. See *Figure 21* for proper clip installation.

e. Remove four cap screws and washers holding washtub to hub, *Figure 22.*

IMPORTANT: Use caution when installing the cap screws to avoid chipping porcelain on the washtub.

f. Lift washtub and lint filter out of outer tub.

NOTE: When installing washtub, use a new gasket between tub and hub.

g. Remove the eight fasteners holding lint filter to washtub, *Figure 23.*

NOTE: When installing lint filter, it is necessary to start the first fastener in the round hole, *Figure 23.* Place the remaining fasteners in their respective holes.

21. WATER SEAL ASSEMBLY

— WARNING —

IF WATER IS PRESENT IN WASHTUB, SPIN AND PUMP OUT BEFORE REMOVING AGITATOR POST.

---

a. Remove front panel, paragraph 9.
b. Remove two cabinet top hold-down screws and hinge cabinet top or remove from washer, paragraph 17.
c. Remove agitator hold-down cap and lift agitator out of washtub.
d. Disconnect filler hose from backflow

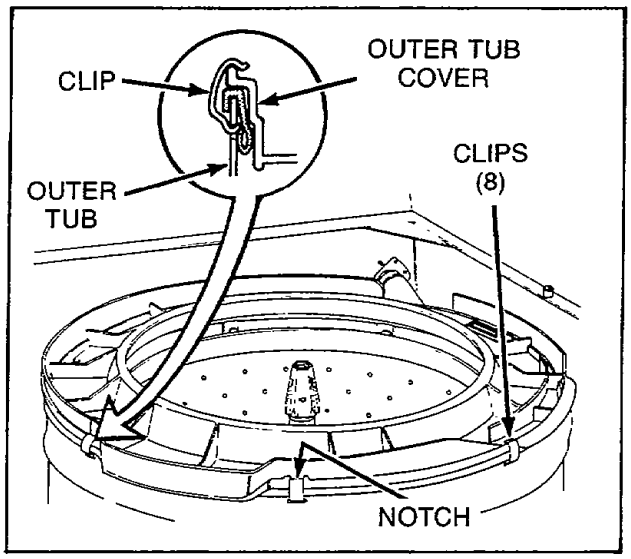

Figure 21

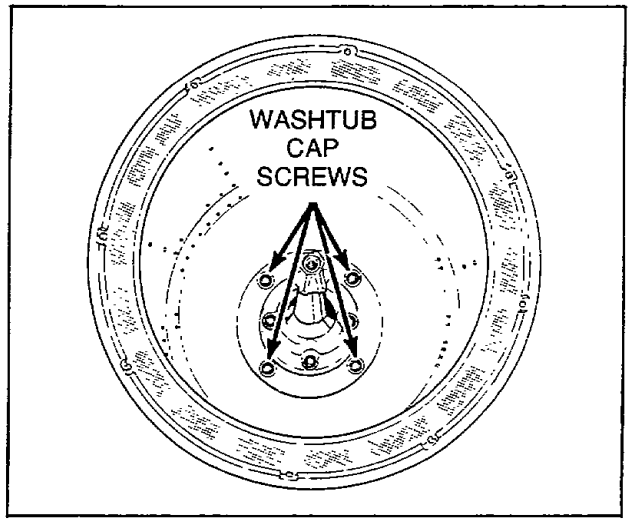

Figure 22

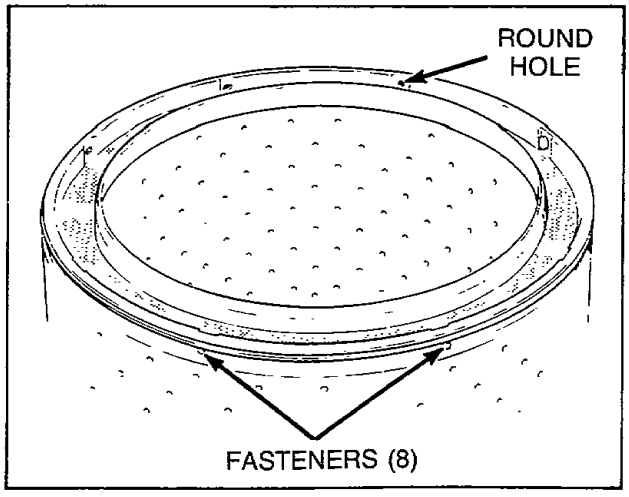

Figure 23

preventer, then remove the eight clips holding cover to outer tub, *Figure 21.*

NOTE: When reinstalling filler hose, white line on hose must be aligned with center line of backflow prevent, *Figure 20.*

e. Lift cover off tub and remove old gasket.
f. Remove the four cap screws holding washtub to hub, *Figure 22,* then lift washtub out of outer tub.

NOTE: Be sure all traces of old gasket are removed from bottom of washtub.

g. Remove four cap screws holding agitator post assembly to hub, then lift assembly from hub.
h. Straighten bent tab(s) on lockwasher, *Figure 24,* then remove hex nut using No. 237P4 Hex Wrench.
i. Remove hub from splines on transmission tube.

NOTE: It may be necessary to use a gear puller with No. 230P4 Guide Tool to remove hub.

j. Remove old seal from outer tub.

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

TO INSTALL NO. 356P3 WASHER SEAL KIT

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

a. Remove metal seal retainer ring (if present) from seal. Place new seal over outer tub flange (with seal lip on outside of tub flange). Then firmly press seal into flange opening using the small end of the No. 241P4 Plastic Seal Installer Tool (supplied in kit).

NOTE: Carefully place metal seal retainer (supplied in kit) over outer edge of seal lip, then carefully press retainer down over seal lip using the large end of the No. 241P4 Plastic Seal Installer Tool (supplied in kit).

b. Apply a small amount of No. 27615 Sealant, (supplied in kit) around the outer surface of the seal lip and tub.

— WARNING —

DO NOT ALLOW SEALANT TO GET IN CONTACT WITH THE SEALING SURFACE OF THE WATER SEAL!

c. Lubricate the inner splines of the new hub assembly (supplied in kit) with No. 27604P Anti-Seize compound.
d. Apply a light film of a non-staining petroleum jelly (such as vaseline) to the bronze portion of water seal located in washtub, and to the outer surface of the stainless steel sleeve.

— WARNING —

DO NOT OVER LUBRICATE!

e. Place the stainless steel sleeve on the underside of hub, then carefully place new hub and seal assembly (supplied in kit) on splined transmission tube and install lockwasher and locknut.

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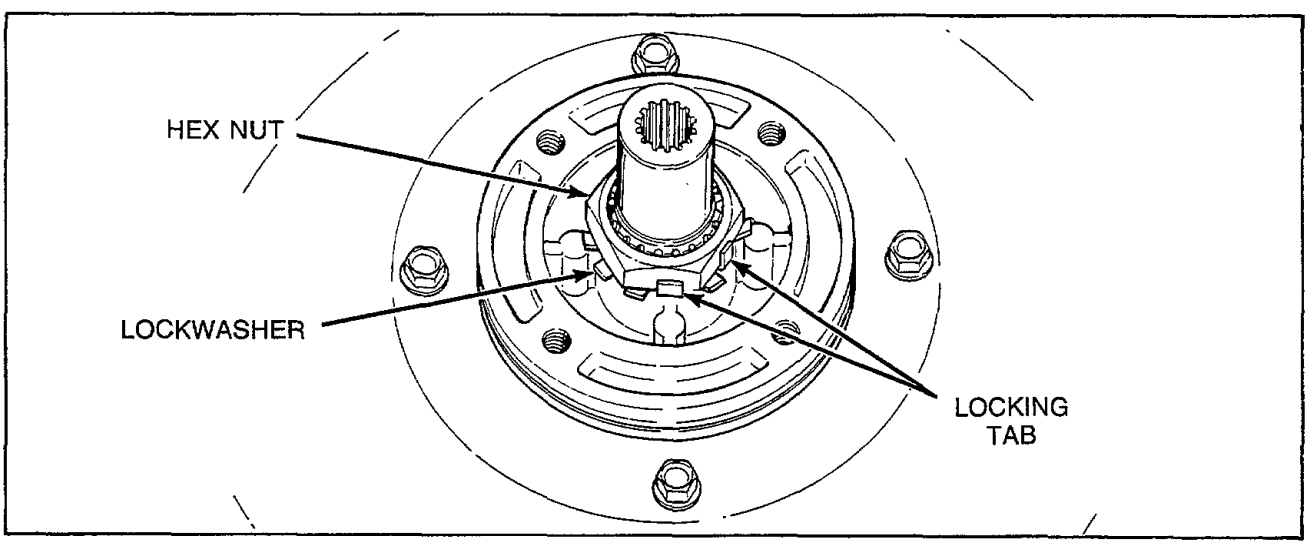

Figure 24

NOTE: Locknut must be installed with beveled side down.

IMPORTANT: Torque locknut down between 40 to 70 foot pounds (54.23 to 94.91 N-m). If a torque wrench is not available, tap hex wrench with a hammer until hub turns or until nut will no longer tighten. After nut has been tightened, bend at least two locking tabs on lockwasher into place on hex nut, *Figure 24.*

f. Apply a small amount of non-staining petroleum jelly (such as vaseline) to each of the sealing surfaces where washtub gasket will contact hub.
g. Carefully place the new washtub gasket (supplied in kit) on hub.

NOTE: Be sure holes in gasket are aligned with bolt holes in hub.

h. Apply a small amount of non-staining petroleum jelly (such as vaseline) to top surface of gasket where bottom of washtub will contact gasket.

NOTE: Be sure all traces of old gasket are removed from bottom of washtub.

i. Install washtub by grasping underside of lint filter and carefully lower washtub down onto gasket and hub.

IMPORTANT: Before setting tub into place, be sure bolt holes in washtub line up with holes in gasket and hub.

j. Secure washtub to hub using four cap screws previously removed.

IMPORTANT: Use caution when tightening cap screws to avoid chipping porcelain on the washtub.

k. Loctite must be used again when replacing the agitator post. Be sure all traces of the old Loctite has been removed from the underside of the agitator post. Apply approximately a 1/16 inch diameter continuous bead of No. 28434P Loctite to the embossed surfaces of either the agitator post or hub.

l. Carefully lower agitator post assembly down onto hub.

IMPORTANT: Before setting post in place, make sure splines on bottom end of agitator drive shaft line up with splines in coupling on transmission, and holes in agitator post line up with the bolt holes in hub.

NOTE: It may require tapping lightly on drive block to force splines on drive shaft into the coupling on transmission assembly.

m. Secure agitator post to hub using cap screws previously removed.
n. Carefully place new outer tub cover gasket, No. 27184, (supplied in kit) around top rim of outer tub.

NOTE: When installing outer tub cover, lubricate the cover gasket with liquid soap to aid assembly. Cover must be placed on outer tub so notch on top edge of outer tub cover is directly over left front clip hole in tub, *Figure 21.* Starting with this hole, place each spring clip in its respective hole and snap into place.

o. Reinstall filler hose on back flow preventer.

NOTE: When reinstalling filler hose,w hite line on hose must be aligned with center line of backflow preventer, *Figure 20.*

p. Reinstall cabinet top and secure to washer cabinet using two screws previously removed.
q. Reinstall front panel.
r. Replace agitator and tighten agitator hold-down cap.
s. Turn washer timer to the final spin, close loading door, start washer and let washtub spin for approximately 30 seconds to 1 minute.

IMPORTANT: This step is necessary to allow the petroleum jelly, applied in step "d", a chance to run in on the seal surfaces before water is added to the washer.

22. OUTER TUB

a. Remove front panel, paragraph 9.
b. Remove two cabinet top hold-down screws and hinge cabine top or remove, paragraph 17.
c. Remove agitator hold-down cap and lift agitator out of washtub.
d. Loosen hose clamp and disconnect filler hose from backflow preventer, then remove the eight clips holding cover to the outer tub, *Figure 21.*

NOTE: When reinstalling filler hose, white line on hose must be aligned with center line of backflow preventer, *Figure 20.*

e. Remove cover from outer tub and set off to the side to avoid damage, then remove old gasket.

NOTE: When installing outer tub cover, always use a new cover gasket. Lubricate the gasket with liquid soap to aid in assembly. Cover must be placed on outer tub so notch on top edge of outer tub cover is directly over left front clip hole in tub, *Figure 21.* Starting with this hole, place each spring clip in its respective hole and snap in place. See *Figure 21* for proper clip installation.

f. Remove four cap screws and washers holding washtub to hub, *Figure 22.*

IMPORTANT: Use caution when installing cap screws to avoid chipping porcelain on the washtub.

g. Lift washtub (with lint filter attached) out of outer tub.

NOTE: Be sure all traces of old gasket are removed from bottom of washtub.

h. Remove four cap screws holding agitator post to hub, *Figure 7.* Then remove assembly from hub.
i. Straighten bent tab(s) on lockwasher, *Figure 24,* then remove hex nut using No. 237P4 Hex Wrench.
j. Remove hub from splines on transmission tube.

NOTE: It may be necessary to use a gear puller with No. 230P4 Guide Tool to remove hub.

k. Remove old seal from outer tub.

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

NOTE: When reinstalling or replacing outer tub, always install a new No. 356P3 Washer Seal Kit, paragraph 21.

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

IMPORTANT: Use caution when releasing the idler lever tension. If the idler lever spring is overstretched, it will affect the washer operation.

m. 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 the complete outer tub into the washer (with transmission, balance ring and pivot dome attached), damage could occur to the idler lever if the idler spring is left hooked to the motor mounting bracket.

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

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

n. Using the No. 229P4 Spring Hook Tool, unhook the five centering springs from lower edge of outer tub, *Figure 25.*

IMPORTANT: When removing centering springs, mark on side of outer tub what notch the spring was hooked into. Springs must be placed in the same notch when reinstalling. Do not overstretch springs.

o. Disconnect hoses between outer tub and pump assembly.

p. Remove hose clamp holding pressure hose to pressure accumulator. Then remove tape holding pressure hose to outer tub.

q. Grasp outer tub and lift complete tub assembly (with transmission, balance ring and pivot dome attached) straight up and out of washer cabinet.

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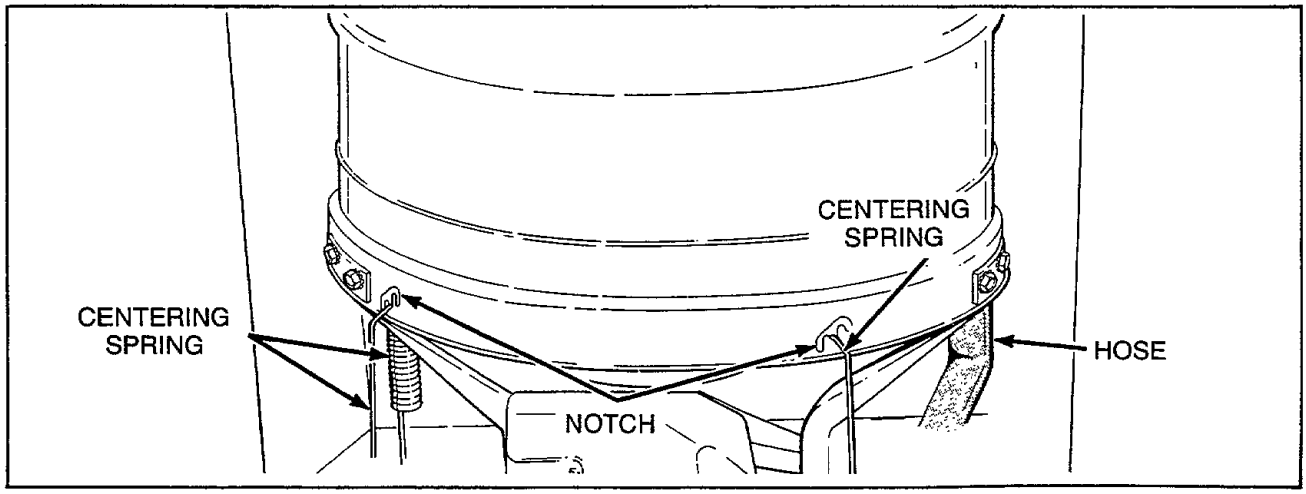

Figure 25

r. Turn the outer tub upside-down and set on protective padding.
s. Remove screws and lockwashers holding each support leg to outer hub, *Figure 26.* Then lift transmission, balance ring and pivot dome off tub.

NOTE: To prevent porcelain damage, leg plates must be installed on both sides of the outer tub flange when reinstalling support legs. (The thinner plate must be installed between leg and tub flange and the thicker plate must be installed on the outside of tub flange.) Do not overtighten the screws as this could cause stripping or porcelain damage.

t. Turn outer tub upright and remove the pressure accumulator and grommet.

NOTE: When installing the grommet into the outer tub, the thicker lip of the grommet must be installed to the outside of the tub.

23. DRIVE PULLEY AND HELIX

a. Remove two screws from bottom edge of front panel, *Figure 10.*
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 front mounting screws and loosen the rear mounting screw holding pump and bracket to washer base, *Figure 15.* Pivot entire pump assembly toward motor to loosen belt tension.
d. Run belt off motor pulley, then remove belt from pump pulley.

NOTE: After installing belt, adjust belt, paragraph 32.

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

IMPORTANT: Use caution when releasing the idler lever tension. If the idler spring is overstretched, it will affect the washer operation.

f. While holding idler lever, reach in and around right side of motor and run belt off right side of large drive pulley, *Figure 12.*
g. Remove belt from motor pulley and pull belt out through front of motor mounting bracket.

NOTE: When reinstalling belt, there is no drive belt adjustment.

h. Disconnect motor wire harness from base wire harness at disconnect blocks, *Figure 17.*
i. Remove screw holding ground wire to washer base, *Figure 13.*
j. Remove four screws holding motor and mounting bracket to washer base, *Figure 13,* then lift complete assembly out of washer.

NOTE: When reinstalling motor and mounting bracket, tab on right side of mounting bracket must be placed in positioning hole in base. Mounting bracket must be shifted toward rear of washer to its limit of travel within the mounting bracket attaching screws.

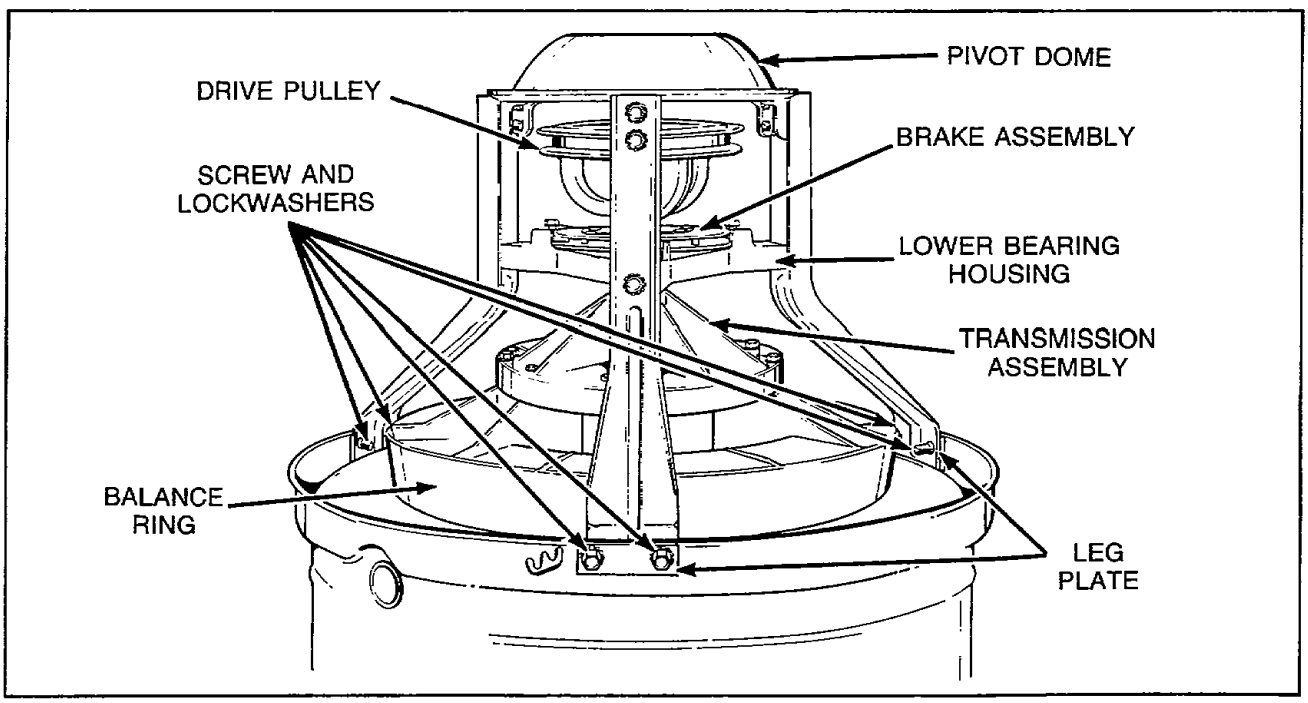

Figure 26

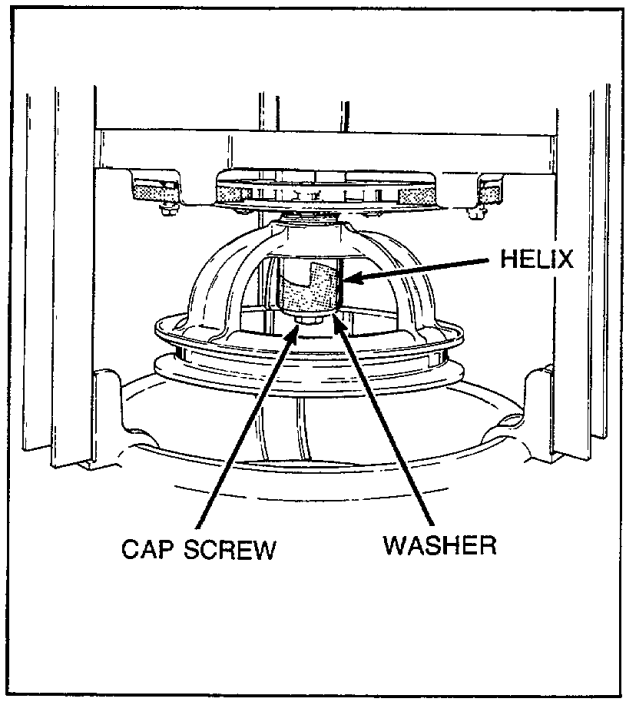

Figure 27

k. Remove cap screw, washer and helix from bottom of input shaft of transmission assembly, *Figure 27.*
l. Remove drive pulley by tilting right side up and slide pulley out between right front and rear tub support legs.

IMPORTANT: When reassembling, large flat washer, bearing race, needle bearing and bearing race must be in place, see *Figure 28* for assembly sequence.

NOTE: When reassembling, lubricate the needle bearing with No. 21814 Lubricant and the helix ramps with No. 03200 Lubricant.

24. BRAKE ASSEMBLY

a. Remove drive pulley and helix, paragraph 23.
b. Using a right angle needle nose pliers, remove spring from around lower transmission tube (located inside brake assembly).

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

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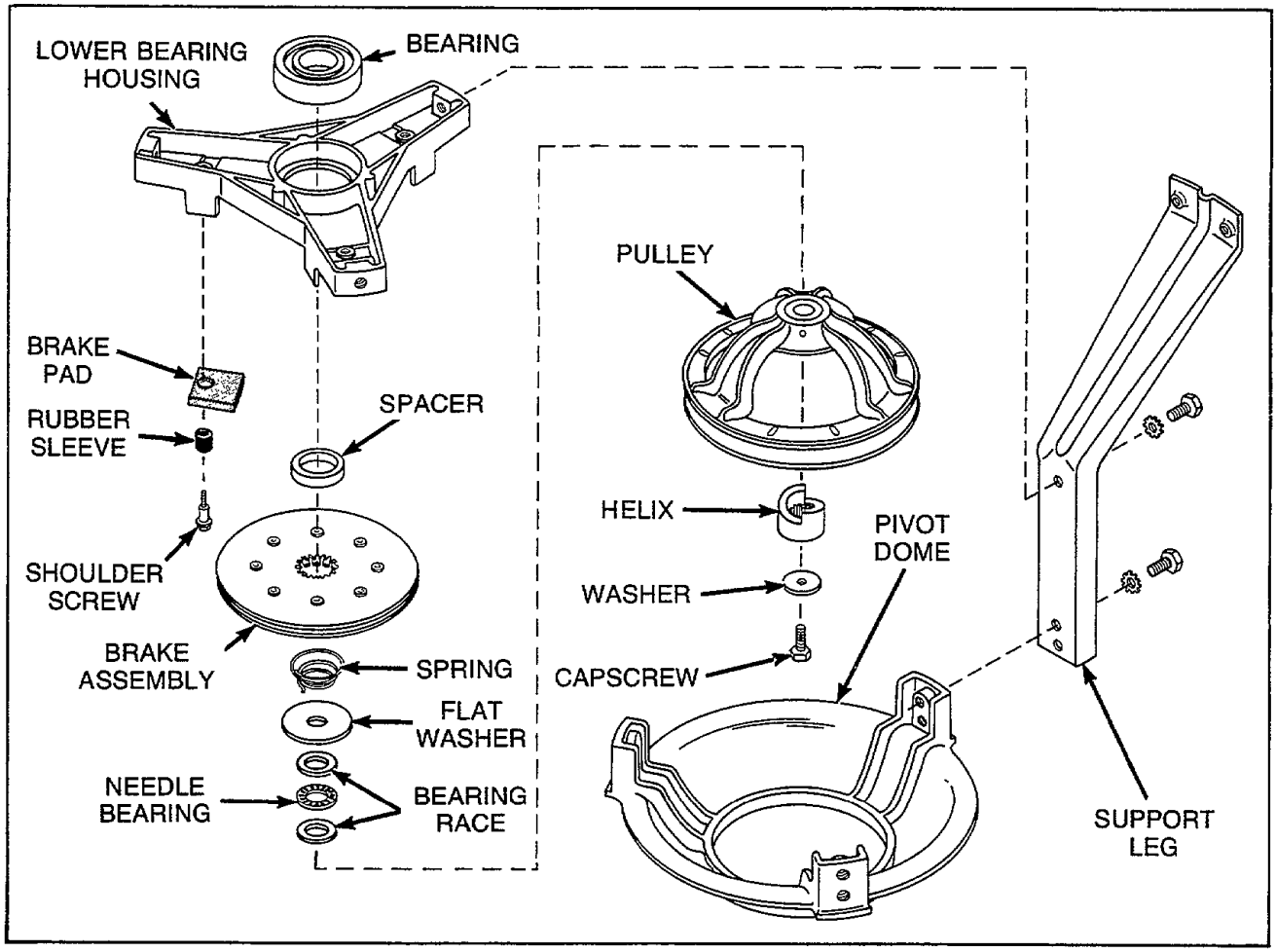


Figure 28

c. Remove three shoulder screws holding brake pads, rubber sleeves and brake assembly to lower bearing housing, *Figure 28,* then remove brake assembly, pads and spacer off bottom of transmission assembly.

IMPORTANT: When reinstalling new brake assemby, we recommend replacing the three brake pads. DO NOT replace just the worn pads.

NOTE: Refer to *Figure 28* for assembly sequence.

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

25. LOWER BEARING HOUSING

a. Remove two screws from bottom edge of front panel, *Figure 10.*
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 cabinet top hold-down screws and hinge cabinet top or remove, paragraph 17.
d. Remove agitator hold-down cap and lift agitator out of washtub.
e. Disconnect filler hose from backflow preventer, *Figure 20.*

NOTE: When reinstalling filler hose, white line on hose must be aligned with center line of backflow preventer, *Figure 20.*

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

IMPORTANT: Use caution when releasing the idler lever tension. If the idler spring is overstretched, it will affect the washer operation.

g. While holding idler lever, reach in and around right side of motor and run belt off right side of large drive pulley, *Figure 12.*
h. Pull belt out toward front of washer.

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

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

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

i. Using the No. 229P4 Spring Hook Tool, unhook the five centering springs from the lower edge of outer tub, *Figure 25.*

IMPORTANT: When removing the centering springs, mark on side of outer tub what notch the spring was hooked into. Springs must be placed in the same notch when reinstalling. Do not overstretch springs.

j. Disconnect hoses between outer tub and pump assembly.

— CAUTION —

There will always be some water that will remain in the outer tub, therefore, before removing the hoses from the pump, the hoses will have to be drained to prevent spillage on the floor.

k. Remove hose clamp holding pressure hose to pressure accumulator and remove hose.
l. Grasp outer tub and lift tub (with washtub, transmission, balance ring and pivot dome attached) straight up and out of washer cabinet.
m. Turn complete tub assembly upside-down on protective padding.

— CAUTION —

When turning the complete tub assembly upside-down, be careful not to damage the out-of-balance switch trigger (located on outer tub cover).

n. Remove cap screw, washer and helix holding drive pulley to transmission shaft, *Figure 27.*
o. Remove drive pulley from transmission shaft, *Figure 28.*
p. Remove needle bearing, bearing races and large flat washer from transmission shaft, *Figure 28.*
q. 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, be sure it is inserted into groove in large splines of lower transmissionn tube. Use spring tool, No. 242P4, when installing spring.

r. Remove three shoulder screws and rubber

sleeves holding brake pads to lower bearing housing, *Figure 28.*

s. Lift brake assembly, pads and spacer off transmission tube.
t. Remove three cap screws and lockwashers holding lower bearing housing to tub support legs, *Figure 28.*
u. Rotate bearing housing past legs, then carefully lift bearing housing off transmission tube.

NOTE: It may be necessary to loosen one leg from pivot dome to rotate housing. It may require tapping lightly on housing to loosen it from the transmission tube.

TO REMOVE BEARING

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

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

26. TRANSMISSION ASSEMBLY

a. Remove two screws from bottom edge of front panel, *Figure 10.*
b. Pull bottom of panel away from washer until hold-down clips (located on top flange of panel) disengage from slots in cabinet top, *Figure 10.*
c. Remove two cabinet top hold-down screws, *Figure 17,* and hinge cabinet top or remove, paragraph 17.
d. Remove agitator hold-down cap and lift agitator out of washtub.
e. Loosen hose clamp and disconnect filler hose from backflow preventer, *Figure 20.* Then remove the eight clips holding cover to outer tub, *Figure 21.*

NOTE: (Starting with Serial No. N3605085), when reinstalling filler hose, white line on hose must be aligned with center line of backflow preventer, *Figure 20.*

f. Remove cover from outer tub and set off to the side to avoid damage, then remove old gasket.

NOTE: When reinstalling outer tub cover, always use a new cover gasket. Lubricate the gasket with liquid soap to aid in assembly. Cover must be placed on outer tub so notch on top edge of outer tub cover is directly over left front clip hole in tub, *Figure 21.* Starting with this hole, place each spring clip in its respective hole and snap into place. See *Figure 21* for proper clip installation.

g. Remove four cap screws and washers holding washtub to hub, *Figure 22.*

IMPORTANT: Use caution when installing cap screws to avoid chipping porcelain on the washtub.

h. Lift washtub and lint filter out of outer tub.

NOTE: Be sure all traces of old gasket are removed from bottom of washtub.

i. Remove four cap screws holding agitator post to hub, *Figure 7,* and remove assembly from hub.
j. Straighten bent tab(s) on lockwasher, *Figure 24,* then remove hex nut using No. 237P4 Hex Wrench.
k. Remove hub from splines on transmission tube.

NOTE: It may be necessary to use a gear puller with No. 230P4 Guide Tool to remove hub.

l. Remove old seal from outer tub.

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

NOTE: When reinstalling or replacing the outer tub, we recommend installing a new No. 356P3 Washer Seal Kit, paragraph 21.

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

IMPORTANT: Use caution when releasing the idler lever tension. If the idler spring is overstretched, it will affect the washer operation.

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

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

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

(continued)

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

o. Using the No. 229P4 Spring Hook Tool, unhook the five centering springs from lower edge of outer tub, *Figure 25.*

IMPORTANT: When removing the centering springs, mark on side of outer tub what notch the spring was hooked into. Springs must be placed in same notch when reinstalling. Do not overstretch springs.

p. Disconnect hoses between outer tub and pump assembly.

— CAUTION —

There will always be some water that will remain in the outer tub, therefore, before removing hoses from the pump, the hoses will have to be drained to prevent water spillage on the floor.

q. Loosen hose clamp holding pressure hose to pressure accumulator and remove hose. Then remove tape holding pressure hose to outer tub.
r. Grasp outer tub and lift complete tub assembly (with transmission, balance ring and pivot dome attached) straight up and out of washer cabinet.
s. Turn the outer tub upside-down and set on protective padding.
t. Remove cap screw, washer and helix holding drive pulley to transmission shaft. Then remove drive pulley, needle bearing, bearing races and large flat washer from transmission.
u. Using a right angle needle nose pliers, 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 reinstalling spring, be 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, *Figure 26,* 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 the transmission tube.

IMPORTANT: To prevent porcelain damage, leg plates must be installed on both sides of the outer tub flange when reinstalling support legs. (The thinner plate must be installed between leg and tub flange and the thicker plate must be installed on the outside of tub flange.) Do not overtighten the screws as this could cause stripping or porcelain damage.

w. Remove four cap screws and lockwashers holding transmission assembly to balance ring.
x. Lift transmission assembly straight up and out of balance ring and upper bearing.

IMPORTANT: When reinstalling the transmission assembly, note there is a mark located on the outer edge of the balance ring. This mark indicates the heavy side of ring. This heavy side must be installed opposite the rack area of the transmission assembly. Carefully lower transmission through balance ring and upper bearing. DO NOT DROP OR LOWER TRANSMISSION ASSEMBLY INTO POSITION TOO HARD as this can cause the bearing to move within the bearing housing which will cause vibration, noise, wear or no spin.

27. BALANCE RING

a. Remove transmission assembly, paragraph 26.
b. Lift balance ring off outer tub.

28. UPPER BEARING ASSEMBLY

a. Remove transmission assembly, paragraph 26, steps "a" through "s".
b. Remove screws and lockwashers holding each support leg to outer tub, *Figure 26.* 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 both sides of the outer tub flange when reinstalling support legs. (The thinner plate must be installed between leg and tub flange and the thicker plate must be installed on the outside of tub flange.) Do not overtighten the screws as this could cause stripping or porcelain damage.

c. Remove three cap screws holding upper bearing and housing to bottom of outer tub, *Figure 29.*

NOTE: Replace bearing and housing as an assembly, and be sure flinger is properly positioned between the outer tub and bearing assembly, *Figure 29.*

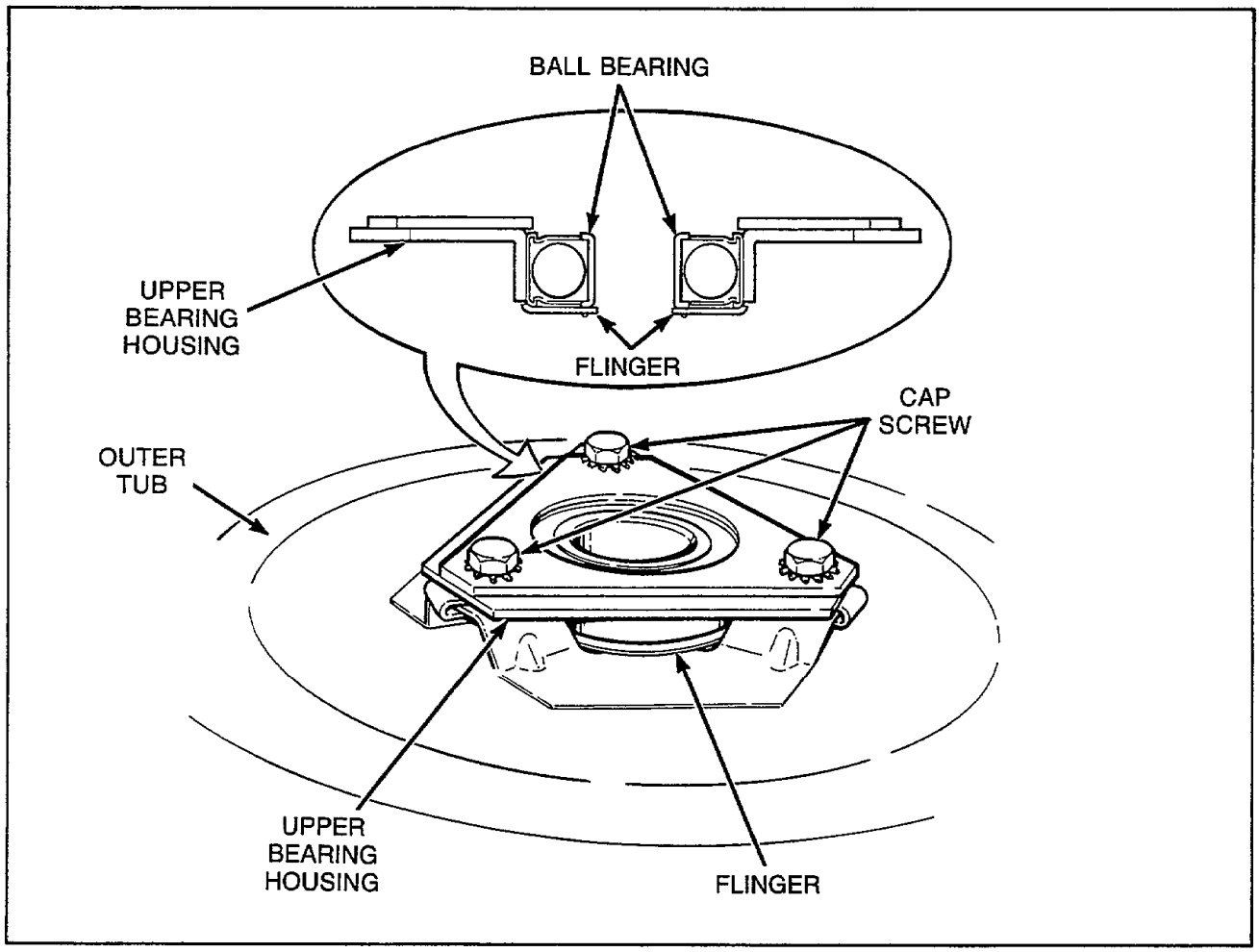

BALL BEARING
UPPER
BEARING
HOUSING
FLINGER
CAP
SCREW
OUTER
TUB
UPPER
BEARING
HOUSING
FLINGER

Figure 29

SECTION III
Adjustments

29. LEVELING LEGS *(Refer to Figure 30)*

a. Loosen locknuts and thread leveling legs into washer base as far as possible.
b. Turn appropriate leveling leg(s) out of base only until washer is level. Keep washer as close to floor as possible.
c. Install rubber pads over leveling legs.

NOTE: The No. 155P3 Anchor Pad Kit can be used in place of the rubber pads where excessive vibration causes washer to move out of position.

IMPORTANT: All four legs must rest firmly on floor as weight of washer is evenly distributed. Washer must not rock.

d. Tighten locknuts securely against bottom of washer base.

IMPORTANT: DO NOT move washer at any time unless locknuts are securely tightened and the styrofoam shipping brace is in place over the agitator (to prevent damage to washer components). DO NOT slide washer across floor once the leveling legs have been extended, as legs and base could become damaged.

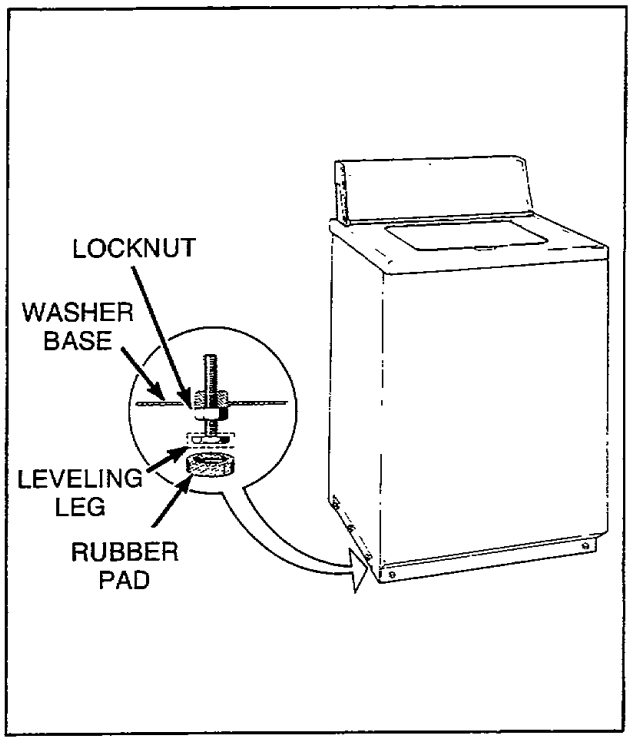


Figure 30

30. PRESSURE SWITCH *(Refer to Figure 31)*

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

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

The maximum water fill level can be increased by turning adjusting screw clockwise, and decreased by turning screw counterclockwise. 1/4 turn of adjusting screw represents approximately one inch (2.54 cm) increase or decrease of water level in tub.

IMPORTANT: DO NOT turn adjusting screw more than 3/4 of a turn in either direction.

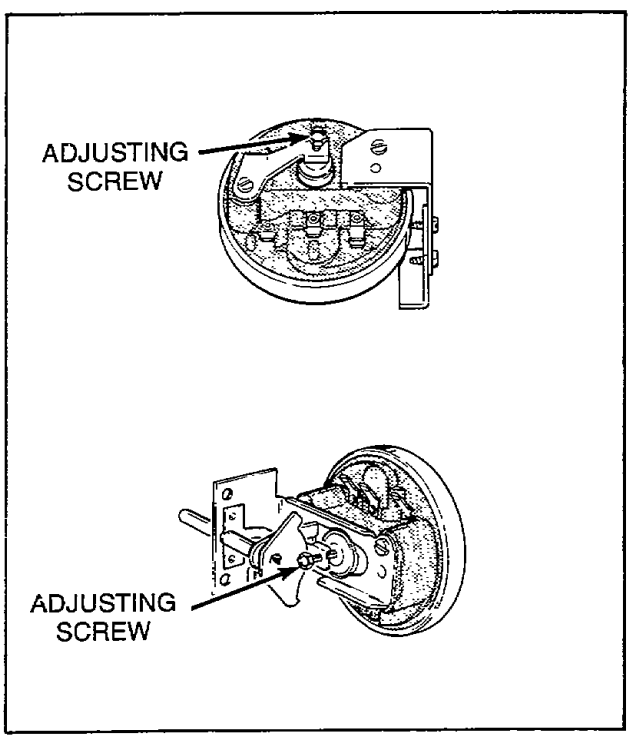


Figure 31

31. BELT - Agitate and Spin

No belt adjustment is required.

NOTE: When motor is installed in washer, motor and mounting bracket are shifted toward rear of

washer to its limit of travel within the mounting bracket attaching screw.

32. BELT - Pump

NOTE: Adjustment must be made after motor has been properly positioned, see paragraph 31.

a. Remove front panel, paragraph 9.
b. Loosen the two front mounting screws, *Figure 32,* then loosen the rear screw.
c. Shift front of pump mounting bracket to the right or left to obtain proper belt tension. Proper tension is when belt can be deflected approximately 1/2 inch (12.7 mm) from its normal position by applying moderate pressure (1-1/2 pounds - .675 kg.) to a point midway between pulleys, *Figure 33.*
d. After belt tension is obtained, tighten the three pump mounting bracket screws.

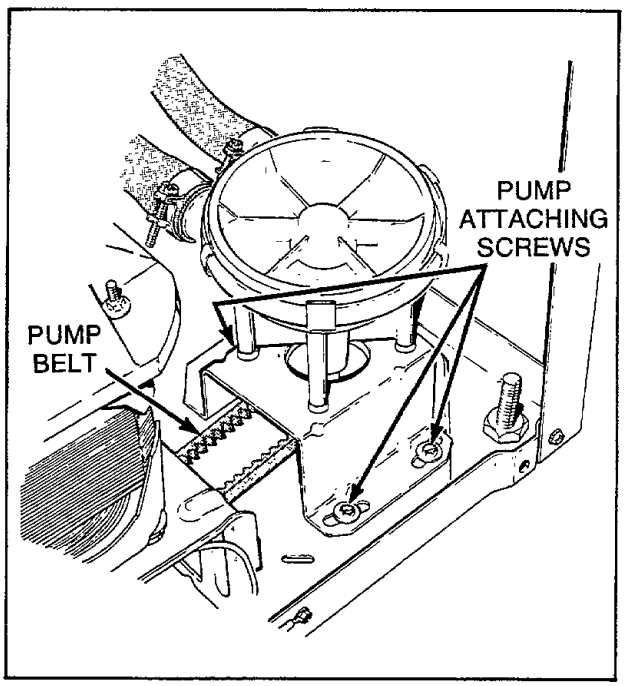


Figure 32

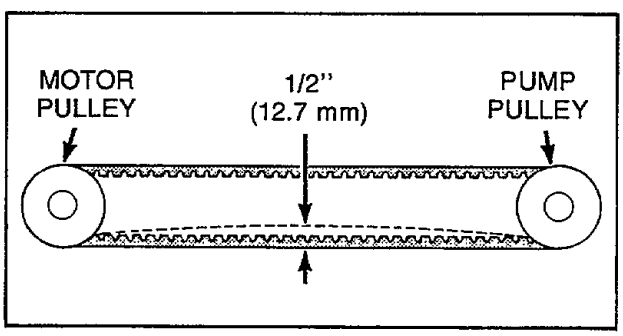


Figure 33

33. OUT-OF-BALANCE SWITCH TRIGGER

NOTE: The trigger is centered, *Figure 34,* on the mounting screw at the factory.

a. Remove front panel, paragraph 9.
b. Raise or remove cabinet top, paragraph 17.
c. Loosen screw holding trigger to tub cover, *Figure 34,* move trigger to the right (increases sensitivity) or to the left (decreases sensitivity).

IMPORTANT: If the trigger repeatedly trips the out-of-balance switch lever, check the centering of the agitator within the loading door opening. Centering springs may have to be positioned in the upper or lower notch (positioned in center notch at factory, *Figure 35),* to center the agitator within the door opening.

Example: If the springs are placed in the upper notch then the trigger must be moved to the extreme right for proper trigger operation.

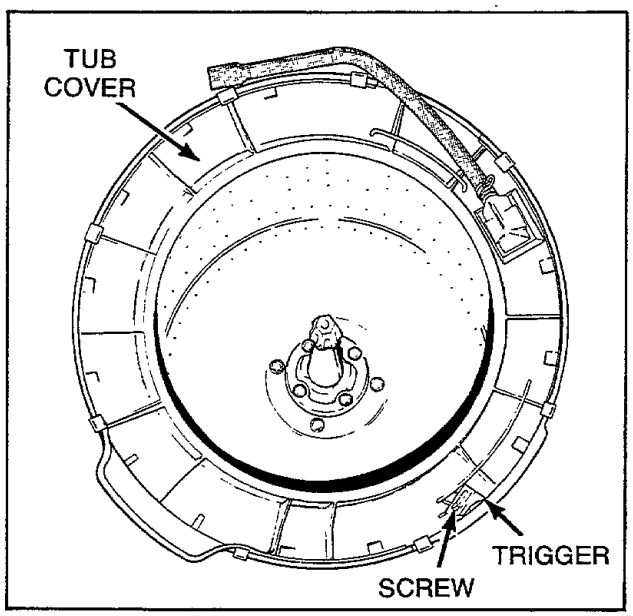


Figure 34

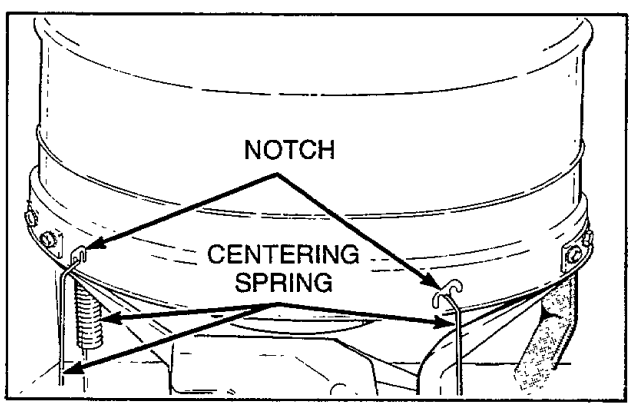


Figure 35

SECTION IV
Service Helps

IMPORTANT

Refer to appropriate Wiring Diagram for aid in testing washer components.

34. NO HOT WATER

POSSIBLE CAUSE	TO CORRECT
Hot water supply valve is closed.	Open valve.
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 valve.	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 hose.
Broken, loose, or incorrect wiring.	Refer to appropriate Wiring Diagram.

35. NO COLD WATER

POSSIBLE CAUSE	TO CORRECT
Cold water supply valve is closed.	Open valve.
Kinked cold water inlet hose.	Straighten or replace hose.
Clogged mixing valve screen, or screen in outer end of inlet hose nearest water supply valve.	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 hose.
Broken, loose, or incorrect wiring.	Refer to appropriate Wiring Diagram.

36. NO WARM WATER

POSSIBLE CAUSE	TO CORRECT
No hot water.	Refer to *paragraph 35.*
No cold water.	Refer to *paragraph 36.*

37. 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. Replace deteriorated or not easily cleaned components. Refer to Parts Section in this manual for assembly sequence of valve.
Broken, weak or missing mixing valve armature spring.	Disassemble valve and replace spring. Refer to Parts Section in this manual for assembly sequence of valve.
A siphoning action started in washer which will cause water to be siphoned from the washer during the cycle due to the end of the drain hose being lower than drain elbow at rear of washer.	Install No. 297P3 Siphon Break Kit.
Water in pressure hose.	Blow air through hose to remove water.
Broken, loose, shorted or incorrect wiring.	Refer to appropriate Wiring Diagram.

38. 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.
Timer in "OFF" position of SOAK CYCLE.	Manually advance timer to SPIN.
Loading door is open.	Close loading door.
Washer will not fill.	Timer pauses until pressure switch is satisfied.
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.

39. NO AGITATION

PROBABLE CAUSE	TO CORRECT
*Inoperative timer.	Test timer, and replace if inoperative.
Inoperative action switch.	Test switch and replace if inoperative.
Inoperative motor.	Test 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.	Replace transmission assembly.
Sheared motor pulley roll pin.	Remove drive motor, and replace roll pin and any other damaged parts.
Drive motor overload protector has cycled.	Refer to *paragraph 43.*
Bind in pump.	Replace pump.
Loading door is open or door switch is inoperative.	Close loading door and test switch and replace if inoperative.

*Timer is designed to pause (SOAK) during the HANDWASH/KNIT or DELICATE cycle.

40. CONSTANT AGITATION

POSSIBLE CAUSE	TO CORRECT
Inoperative timer.	Test timer and replace if inoperative.
Inoperative drive motor.	Test motor and replace if inoperative.
Shorted or incorrect wiring.	Refer to appropriate Wiring Diagram.

41. SLOW SPIN OR NO SPIN

POSSIBLE CAUSE	TO CORRECT
Inoperative timer.	Test timer and replace if inoperative.
Inoperative action switch.	Test switch and replace if inoperative.
Some model washers, the timer is programmed for SLOW spin in the DELICATE CYCLE regardless of the action switch setting.	Use a different cycle.
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.
Inoperative drive motor.	Test motor and replace if inoperative.
Loose or broken drive belt.	Adjust or replace spin belt.
Washer has gone OUT-OF-BALANCE.	Open loading door to rest OUT-OF-BALANCE switch.
No clearance or stuck brake pads.	Free sticky brake pads.
Broken, loose, or incorrect wiring.	Refer to appropriate Wiring Diagram.

42. CONSTANT SPIN

POSSIBLE CAUSE	TO CORRECT
Inoperative timer.	Test timer and replace if inoperative.
Inoperative drive motor.	Test motor and replace if inoperative.
Excessive wear on brake pads, or missing brake pads.	Replace brake pads.
Shorted or incorrect wiring.	Refer to appropriate Wiring Diagram.

43. DRIVE MOTOR OVERLOAD PROTECTOR CYCLES REPEATEDLY

POSSIBLE CAUSE	TO CORRECT
Excessive belt tension.	Adjust belts
Inoperative motor overload protector.	Replace motor.
Bind in water pump.	Replace pump.
Bind in transmission.	Replace transmission.
Brake pads binding.	Free binding pads, or replace pads.

44. OUTER TUB DOES NOT EMPTY

POSSIBLE CAUSE	TO CORRECT
Kinked drain hose.	Straighten hose.
Inoperative water pump.	Replace pump.
Obstruction in outer tub outlet hose.	Remove obstruction.
Loose pump belt.	Adjust belt.

45. EXCESSIVE VIBRATION

POSSIBLE CAUSE	TO CORRECT
Unbalanced load in tub.	Stop washer, redistribute load, then restart washer.
Broken, disconnected or centering spring(s) out of adjustment.	Connect or replace centering spring(s). Spring should be located in center notch, Figure 26.
Washer is not properly leveled.	Adjust leveling legs.
Washer is installed on weak, "spongy", 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.

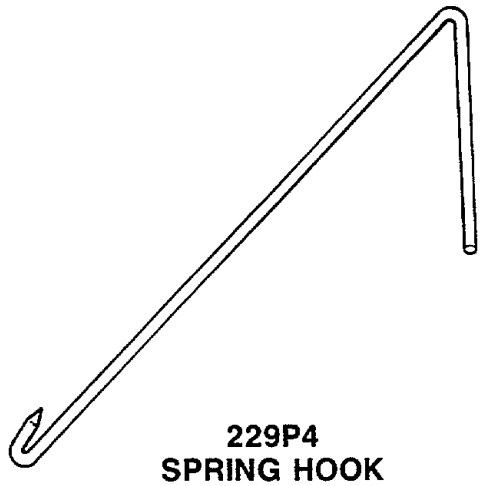
46. WATER LEAKING FROM OUTER TUB

POSSIBLE CAUSE	TO CORRECT
Leaking water seal in outer tub.	Replace water seal assembly, paragraph 21.
Hole in outer tub.	Replace outer tub.
Pressure hose bulb leaking.	Replace pressure hose and bulb.
Outer tub cover gasket leaking.	Replace gasket.

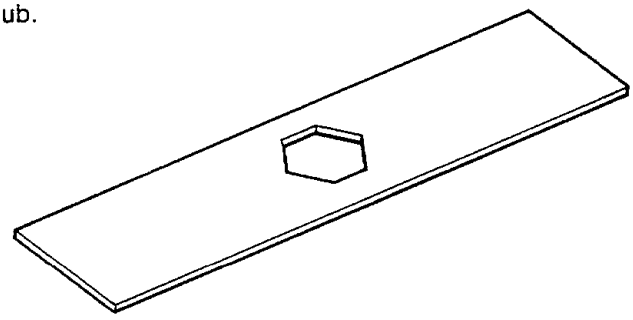
Special Tools

No. 357P3 Tool Kit

(Includes the five special tools shown below)

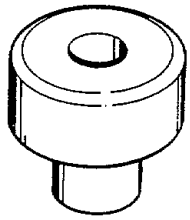


229P4
SPRING HOOK
Use for the removal of the five centering springs from the outer tub.



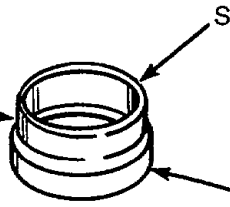
237P4
HEX WRENCH
Used to remove hex locknut from washtub hub.

242P4
BRAKE SPRING INSTALLER
Used to install brake spring.



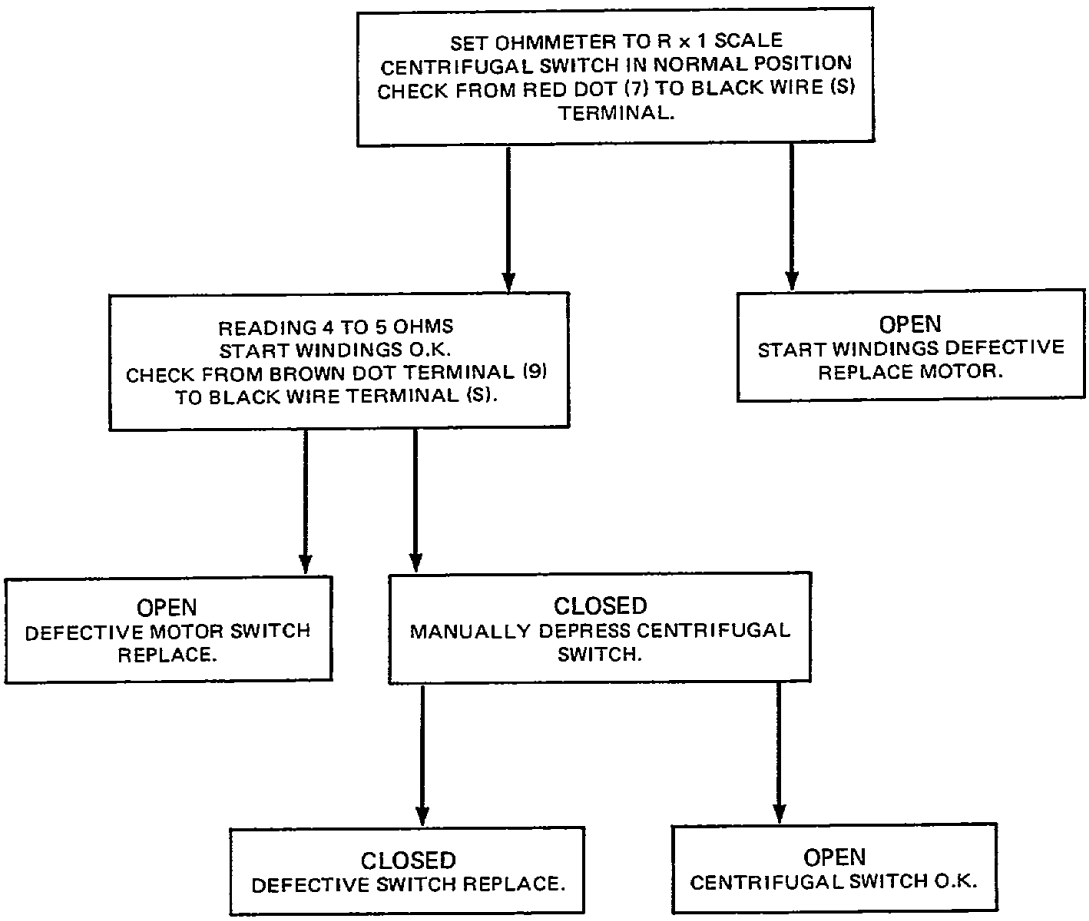
230P4
GUIDE SPINDLE
Used for the removal of the hub from the transmission.

241P4
SEAL INSTALLER
Used to install No. 356P3 Washer Seal Kit.

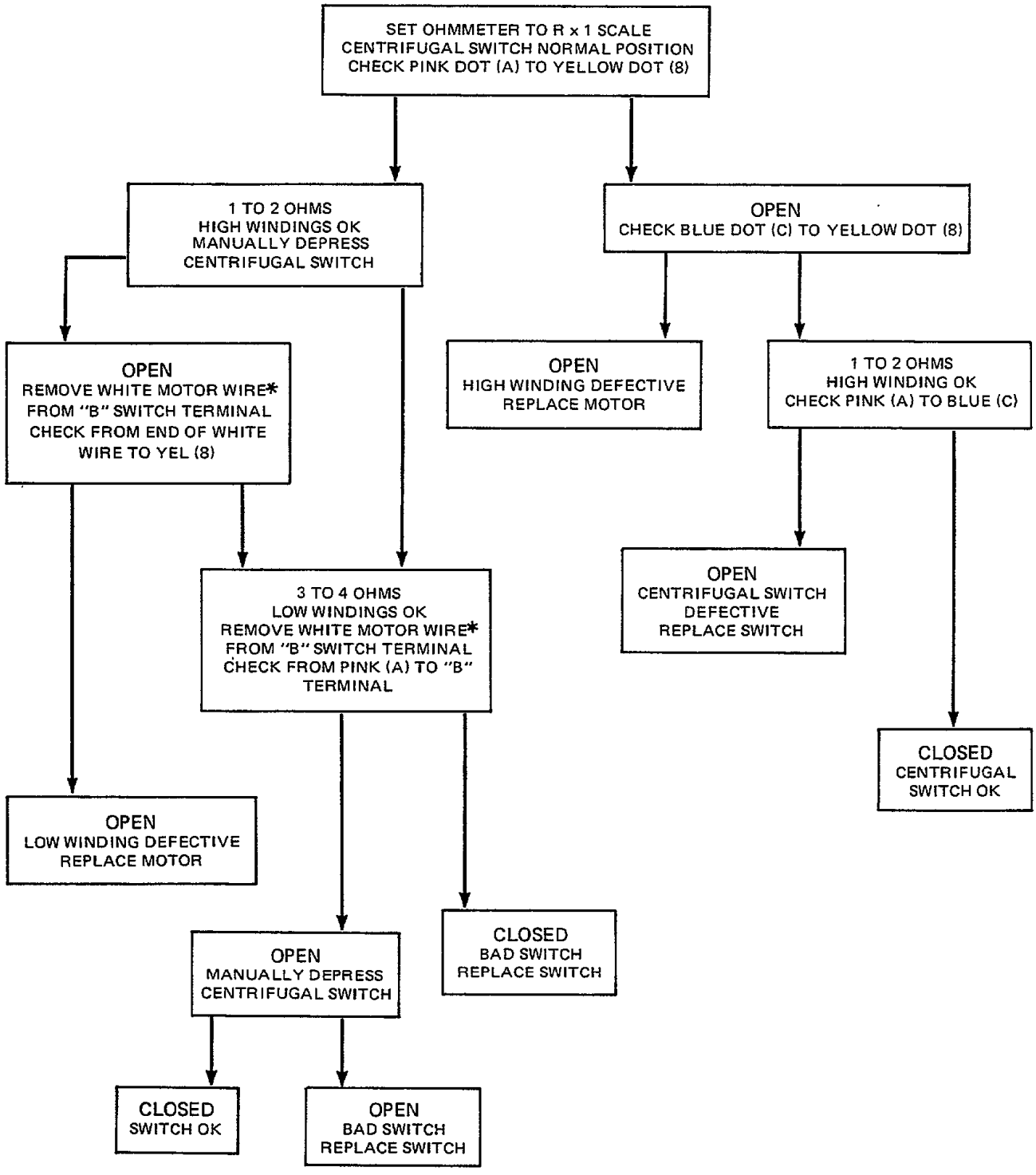


SECTION V
Test Procedures

G.E. MOTOR CHECK
(Start Windings)



G.E. MOTOR CHECK
(High and Low Windings)



*Do not confuse white wire coming from wire harness to white dot on motor switch with white wire coming from the motor to the "B" terminal.

SECTION VI
Cycle Sequence Charts

CYCLE	FUNCTION		WATER TEMP.	MOTOR SPEED	TIME (MIN. & SEC.)	DEGREES
REGULAR	WASH FILL or AGITATE		H,W,C	F or S	15:00	82.27
	PAUSE				1:14	6.75
	SPIN			F or S	1:00	5.48
	SPIN and SPRAY		COLD	F or S	1:00	5.48
	SPIN			F or S	1:00	5.48
	PAUSE				:18	1.65
	RINSE FILL (Timer Motor Runs)		W or C		:44	4.00
	PAUSE or FILL		W or C		:12	1.10
33:26 PLUS FILL	RINSE FILL or AGITATE		W or C	F or S	5:28	30.00
	PAUSE				1:14	6.75
	SPIN				7:00	38.39
OFF					**2:00**	**10.97**
PERMANENT PRESS	WASH FILL or AGITATE		H,W,C	F or S	9:00	49.36
	PAUSE				1:14	6.75
	COOL DOWN (Press. Sw. Controlled)	SPIN (Partial Drain)		FAST	1:00	5.48
		FILL	COLD		Variable	
	PAUSE				:50	4.55
	SPIN			F or S	:40	3.62
	SPIN and SPRAY		COLD	F or S	1:00	5.48
	SPIN			F or S	:40	3.67
	PAUSE				:18	1.65
	RINSE FILL (Timer Motor Runs)		W or C		:44	4.00
	PAUSE or FILL		W or C		:12	1.10
26:45 PLUS FILL	RINSE FILL or AGITATE		W or C	F or S	4:38	25.39
	PAUSE				1:14	6.75
	SPIN			F or S	6:00	32.91
OFF					**2:00**	**10.97**
	TOTALS				**65:38**	**360.0**

KEY:

H = HOT
W = WARM
C = COLD
F = FAST
S = SLOW

Timer No. 28918 Cycle Sequence (Two Cycle)

CYCLE	FUNCTION		WATER TEMP.	MOTOR SPEED	TIME (MIN. & SEC.)	DEGREES
PERMANENT PRESS	WASH FILL or AGITATE		H,W,C	F or S	9:00	32.76
	PAUSE				1:50	6.70
	COOL DOWN	SPIN (Partial Drain)		FAST	1:00	3.64
	(Press. Sw. Controlled)	FILL	COLD		Variable	
	PAUSE				1:14	4.51
	SPIN			F or S	1:25	5.16
	SPIN and SPRAY		COLD	F or S	:40	2.44
	SPIN			F or S	1:25	5.16
	PAUSE				:27	1.64
	RINSE FILL (Timer Motor Runs)		W or C		1:02	3.75
	PAUSE or FILL		W or C		:22	1.31
28:13	RINSE FILL or AGITATE		W or C	F or S	3:00	10.92
PLUS	PAUSE				1:50	6.70
FILL	SPIN			F or S	6:00	21.84
OFF					**2:28**	**8.99**
DELICATE	WASH FILL or SOAK		H,W,C		1:00	3.64
	WASH FILL or AGITATE		H,W,C	F or S	:45	2.73
	WASH FILL or SOAK		H,W,C		3:30	12.74
	WASH FILL or AGITATE		H,W,C	F or S	:45	2.73
	WASH FILL or SOAK		H,W,C		2:00	7.28
	WASH FILL or AGITATE		H,W,C	F or S	:45	2.73
	PAUSE (Soak)				1:50	6.70
	COOL DOWN	SPIN (Partial Drain)		FAST	1:00	3.64
	(Press. Sw. Controlled)	FILL	COLD		Variable	
	PAUSE				1:14	4.51
	SPIN			F or S	1:30	5.46
	SPIN and SPRAY		COLD	F or S	:40	2.44
	SPIN			F or S	1:20	4.84
	PAUSE				:27	1.64
	RINSE FILL (Timer Motor Runs)		COLD		1:02	3.75
	PAUSE or FILL		COLD		:22	1.31
24:36	RINSE FILL or AGITATE		COLD	F or S	1:00	3.64
PLUS	PAUSE				1:50	6.70
FILL	SPIN			F or S	4:37	16.82
OFF					**2:28**	**8.99**
REGULAR	WASH FILL or AGITATE		H,W,C	F or S	15:00	54.56
	PAUSE				1:50	6.70
	SPIN			F or S	1:30	5.46
	SPIN and SPRAY		COLD	F or S	1:00	3.64
	SPIN			F or S	1:30	5.46
	PAUSE				:27	1.64
	RINSE FILL (Timer Motor Runs)		W or C		1:02	3.75
	PAUSE or FILL		W or C		:22	1.31
35:29	RINSE FILL or AGITATE		W or C	F or S	5:00	18.20
PLUS	PAUSE				1:50	6.70
FILL	SPIN			F or S	7:00	25.48
OFF					**2:28**	**8.99**
	TOTALS				**98:49**	**360.0**

KEY:

H = HOT
W = WARM
C = COLD
F = FAST
S = SLOW

Timer No. 28917 Cycle Sequence (Three Cycle)