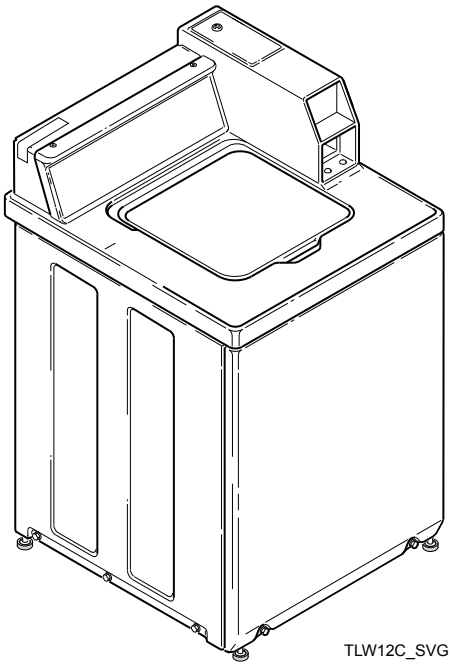
Commercial Toploads Washers

Refer to Page 7 for Model Numbers

Troubleshooting



TLW12C_SVG

Original Instructions
Keep These Instructions for Future Reference.
CAUTION: Read the instructions before using the machine.
(If this machine changes ownership, this manual must accompany machine.)

Alliance™ Laundry Systems

www.alliancelaundry.com

Part No. 204590EN
June 2018

Table of Contents

Safety Information

Precautionary statements (“DANGER,” “WARNING,” and “CAUTION”), followed by specific instructions, are found in this manual and on machine decals. These precautions are intended for the personal safety of the operator, user, servicer, and those maintaining the machine.

DANGER

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

WARNING

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

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

CAUTION

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 machine.

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

Locating an Authorized Service Person

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.

Model Identification

Information in this manual is applicable to these washer models:

BWNMN2PP303AW01	SWNMN2SP115TW01
HWNMN2PP115TW01	SWNMN2SP303AW01
HWNMN2SP115CW01	SWNMN2SP303NW22
HWNSX2PP115TQ01	SWNMN2SP303SW01
HWNSX2PP115TW01	SWNSX2PP113FW01
HWNSX2SP115CW01	SWNSX2PP303AW01
HWNSX2SP303UW01	SWNSX2SP115CW02
KWNMN2PP115TW01	SWNSX2SP115TQ02
KWNMN2PP303NW16	SWNSX2SP115TW02
KWNSX2PP115TW01	SWNSX2SP303AW01
KWNSX2PP303EW01	SWNSX2SP303BW01
KWNSX2PP303NW16	SWNSX2SP303EW01
NWNMN2SP303NW22	SWNSX2SP303NW22
NWNMN2SP543NW22	SWNSX2SP303SQ01
NWNSX2SP303NW22	SWNSX2SP303UW01
PWNSX2PP115CG02	SWNSX2SP543NW22
PWNSX2PP115TG02	UWNMN2SP115CW01
SWNMN2SP115CW01	

Introduction

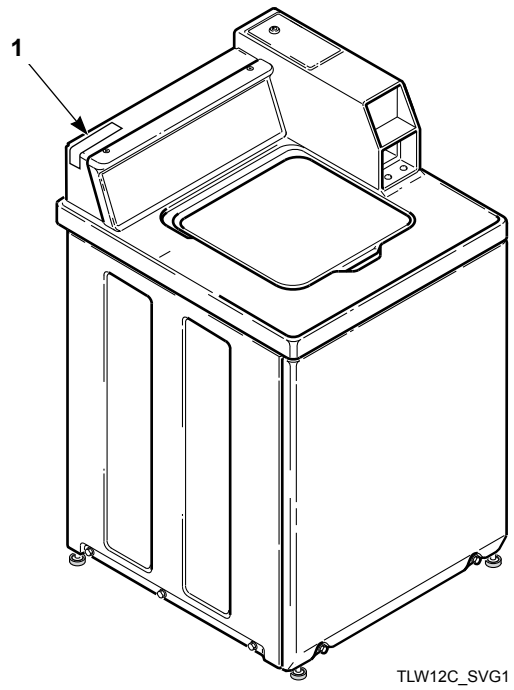
Customer Service

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.

Serial Plate Location

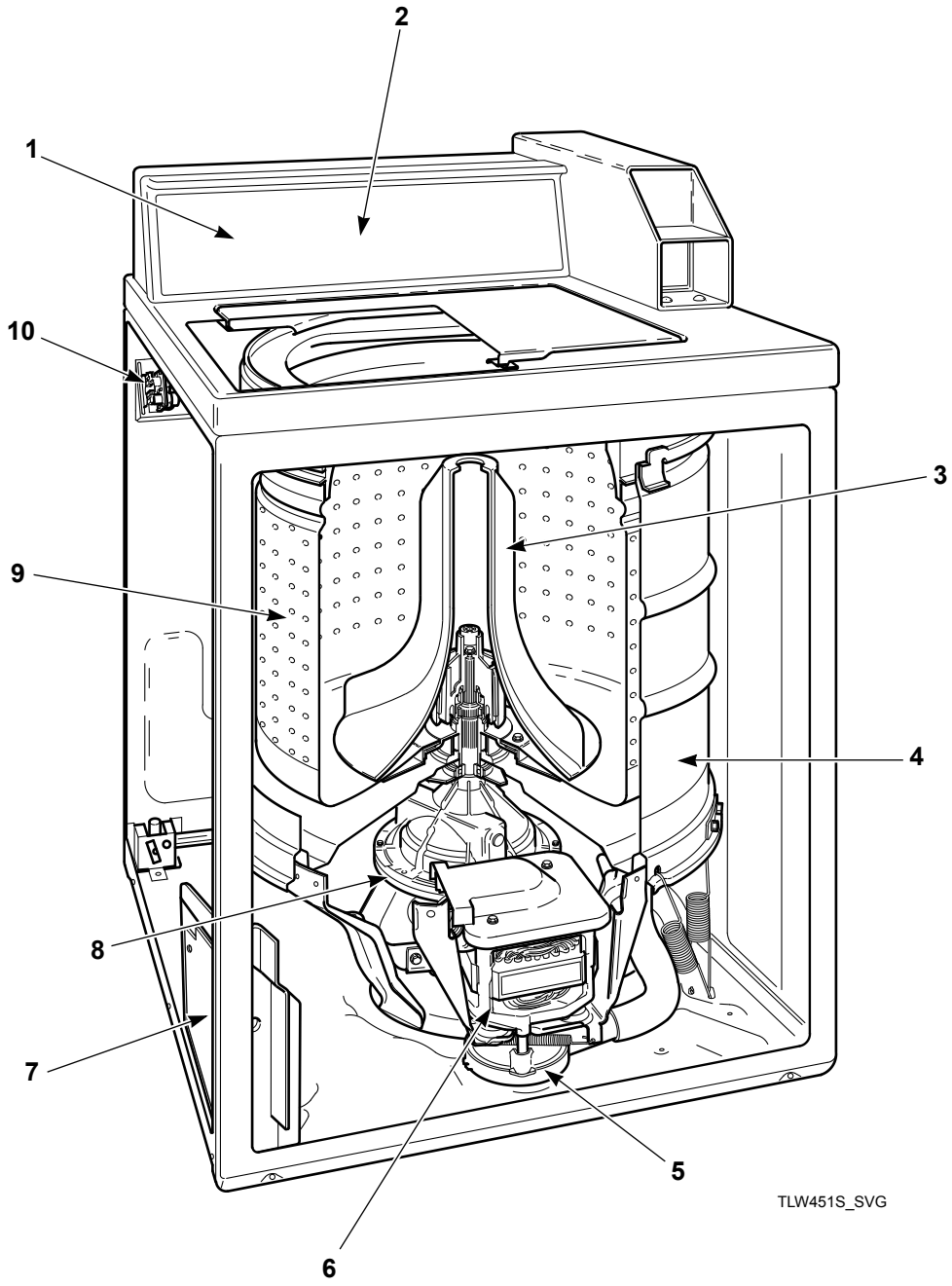
When calling or writing about your product, be sure to mention model and serial numbers. Model and serial numbers are located on Serial Plate as shown.



1. Serial Plate

Figure 1

Theory of Operation



1. Front End Control
2. Pressure Sensor (Located inside control hood)
3. Agitator
4. Outer Tub
5. Pump
6. Motor
7. Output Board
8. Transmission
9. Washtub
10. Mixing Valve

Figure 2

The cycle begins with a wash fill. The water temperature is determined by the temperature selected. While water fills the washtub, a column of air is trapped in a pressure bulb and hose. The air pressure continues to increase as the washtub fills with water until it is great enough to trip the pressure sensor at the selected water level. The pressure sensor trip then causes the wash fill to stop and wash agitation to begin. However, the lid must be closed for the washer to fill, agitate or spin.

The washer uses a reversing type motor, a special drive belt and an idler assembly. The idler assembly applies tension to the outside of the drive belt.

During agitation, the motor runs in the counterclockwise direction. The spring tension on the idler pulley applies the tension required to reduce the slack on the drive belt and maintain maximum belt to motor pulley contact. This eliminates belt slippage and ensures an efficient wash action, even with extra large loads.

The belt drives the transmission drive pulley in the counterclockwise direction. The pulley drives the helix which is splined to the input shaft of the transmission. This causes the input shaft to turn inside of a roller clutch which is pressed into the transmission cover. This roller clutch acts as a bearing in the counterclockwise direction allowing the transmission gears to operate. The transmission's rack and pinion gear design produces a 210 degree agitation stroke at the output shaft of the transmission which drives the agitator. The brake assembly remains locked during the agitation mode since no pressure is applied to it by the transmission drive pulley.

After the wash agitation is completed, the control advances into the first spin. During spin, the motor reverses turning in the clockwise direction to spin the water out of the washtub. The combination of water, washtub and load weight cause the drive belt tension on the idler side of the belt to overtake the idler spring pressure allowing the belt to become slack on the opposite side. This reduces the belt to pulley contact and allows slipping between the belt and pulley.

As water is removed by the pump and the momentum of the washtub increases, the idler spring tension gradually overcomes the belt tension removing the belt slack. This eventually increases the belt to pulley contact until maximum spin speed is achieved.

The drive pulley turns clockwise riding up the ramps of the helix, exerting pressure on the brake and forcing it to release from brake pads. The helix drives the input shaft of the transmission, and when the input shaft turns in the clockwise direction the roller clutch locks onto the shaft causing the entire transmission assembly to turn. None of the gears in the transmission are operating at this time. The hub of the washtub is splined to the transmission tube and rotates with the transmission assembly. The centrifugal force created by the spinning washtub causes water to be extracted from the clothes.

The clothes are then rinsed by water spraying onto them while the load is spinning. This water is forced through the clothes by the centrifugal acceleration. The resulting rinse water is immediately extracted. Following rinse spray, a final spin extracts the remaining rinse water from the clothes preparing them for the dryer.

General Troubleshooting

Clicking Noise During Operation on NEWLY Installed Units

If a clicking noise is heard when first starting up a new topload washer, the noise is related to the belt taking a temporary “set” around the idler pulley. The set causes a slight bump in the belt which in turn causes the idler lever to tap the motor bracket making the clicking noise. THE BELT DOES NOT NEED TO BE REPLACED.

To correct this condition please perform the following break-in procedure:

1. After installing the unit start a fill cycle to make sure the seals have been lubricated.
2. Stop the fill cycle and place the unit into a spin cycle.
3. Run the cycle for several minutes until the belt has warmed up. This will remove the “set.”
4. Normal use will keep the belt from resetting.
5. For extended periods of non-use (three to four weeks), this procedure might need to be repeated.

Error Mode

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

In Error Mode, the IN USE LED flashes to display fill and drain errors (refer to paragraphs below). Error Mode can only be exited by powering down washer.

Fill Error

A Fill Error will occur if the tub does not fill within 62 minutes of the start of the cycle. A Fill Error is indicated by the control repeatedly flashing the IN USE LED twice separated by a one and a half second pause until the control is powered down. If Error Mode is turned off, the fill error will not occur and the control will continue to wait for the fill level to be reached.

Drain Error

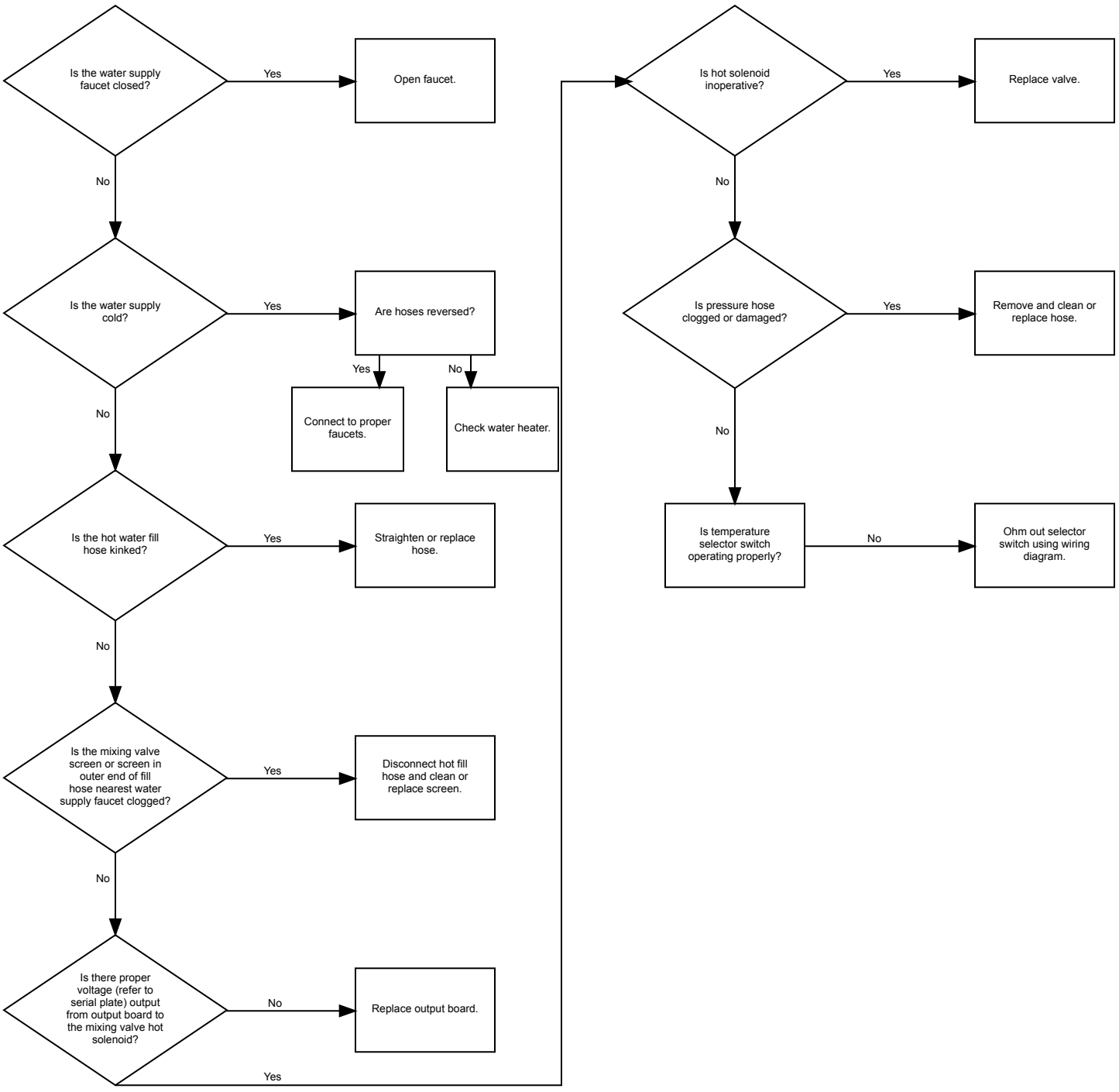
A Drain Error will occur if the tub is not empty after a spin cycle. A Drain Error is indicated by the control repeatedly flashing the IN USE LED three times separated by a one and a half second pause until the control is powered down. If Error Mode is turned off, the drain error will not occur and the machine cycle will advance to the next cycle step as though the water had been pumped out.

Troubleshooting Flowcharts

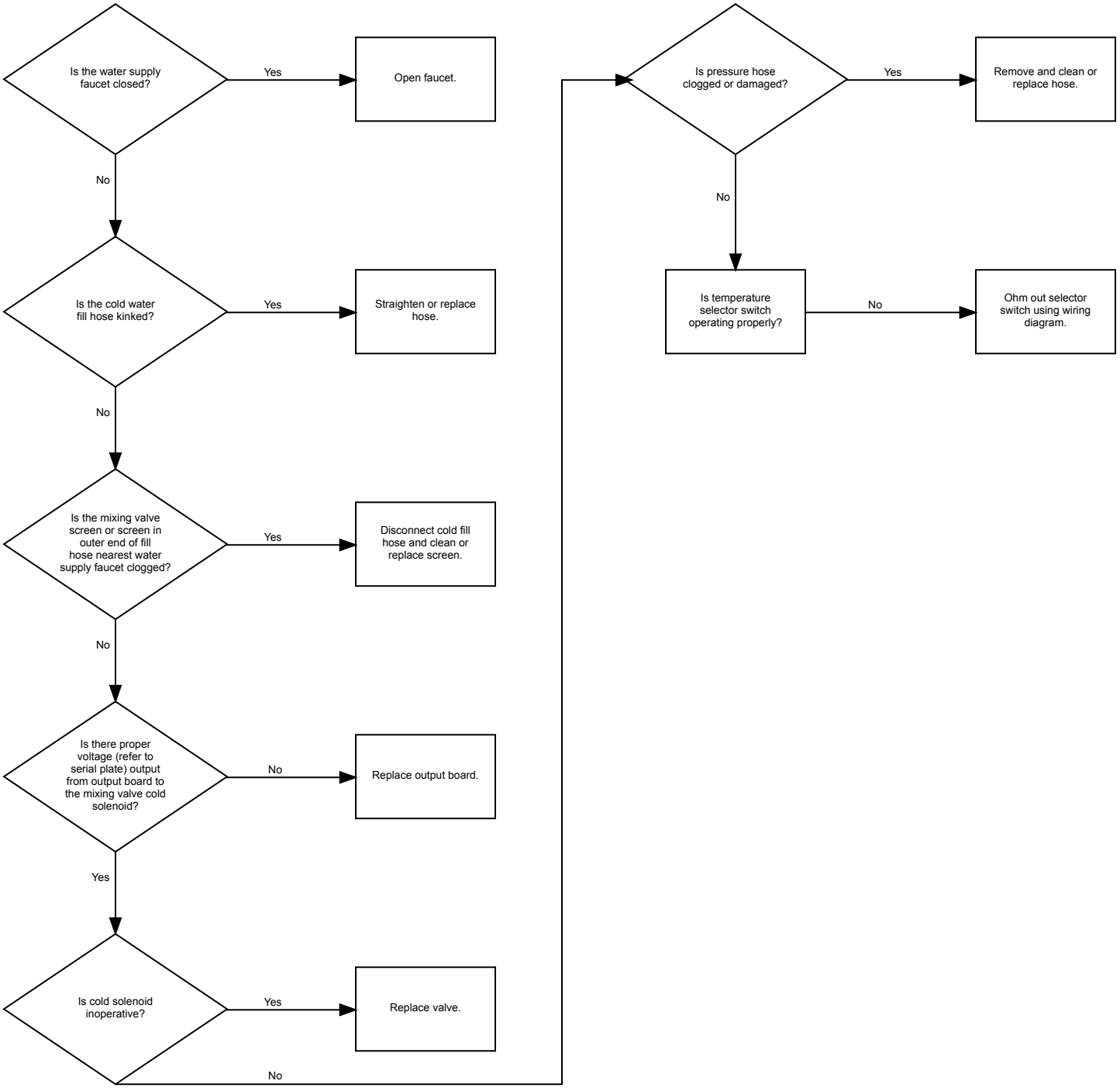
In some of the following procedures it will be necessary to check voltage using a multimeter. Refer to the washer's serial plate to determine proper voltage it is designed to operate on.

Refer to *Figure 1* for serial plate location.

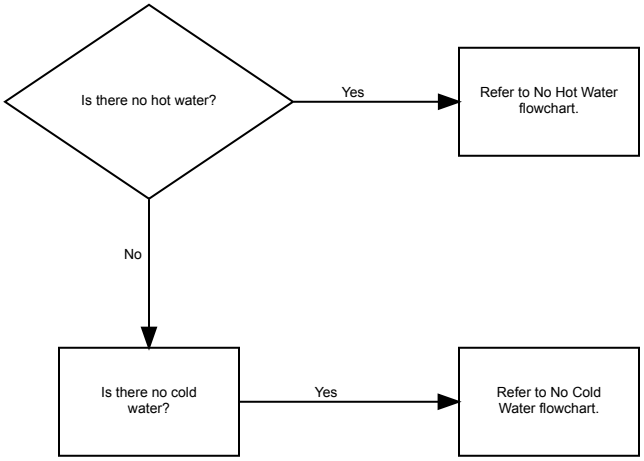
No Hot Water



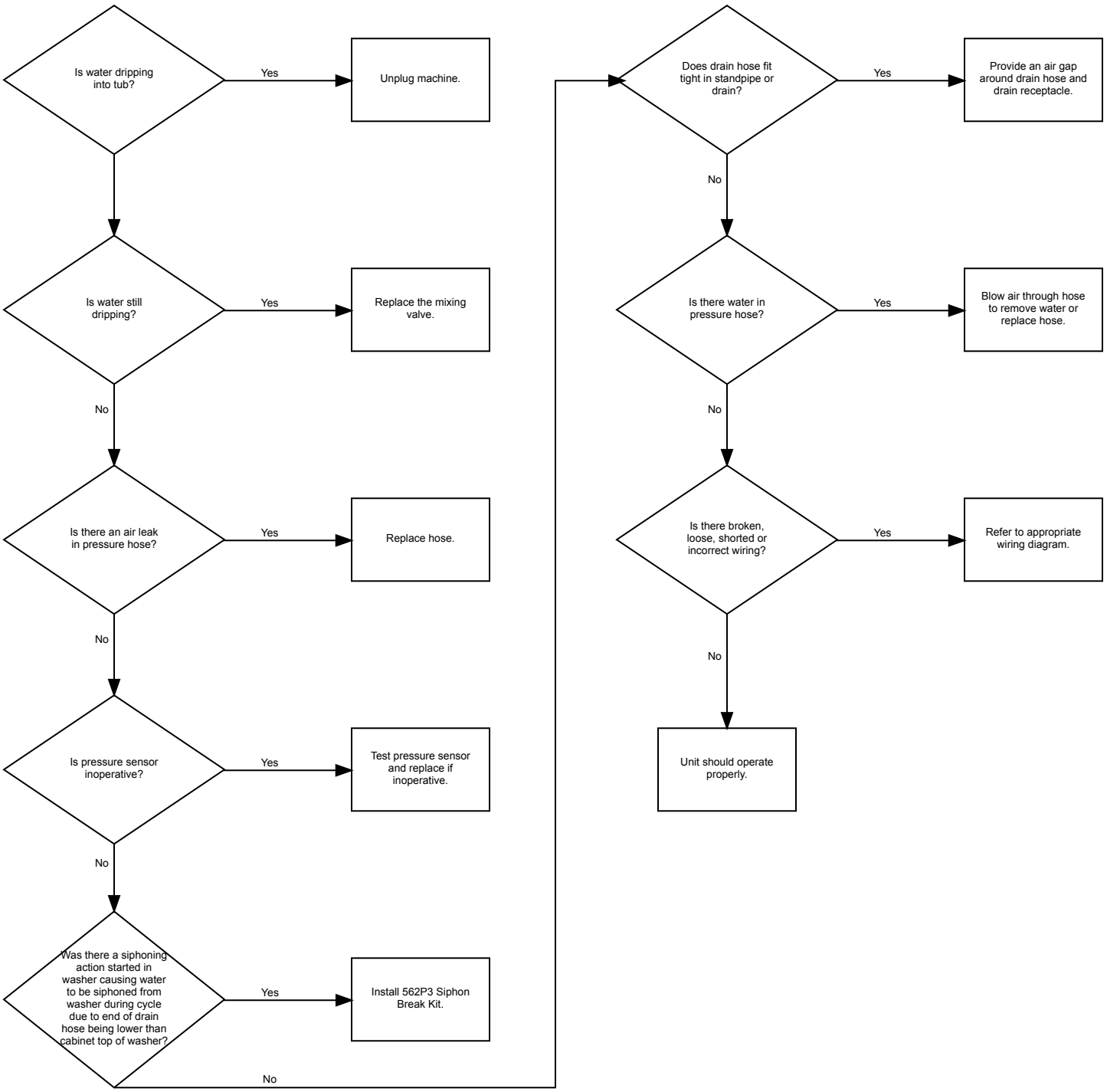
No Cold Water



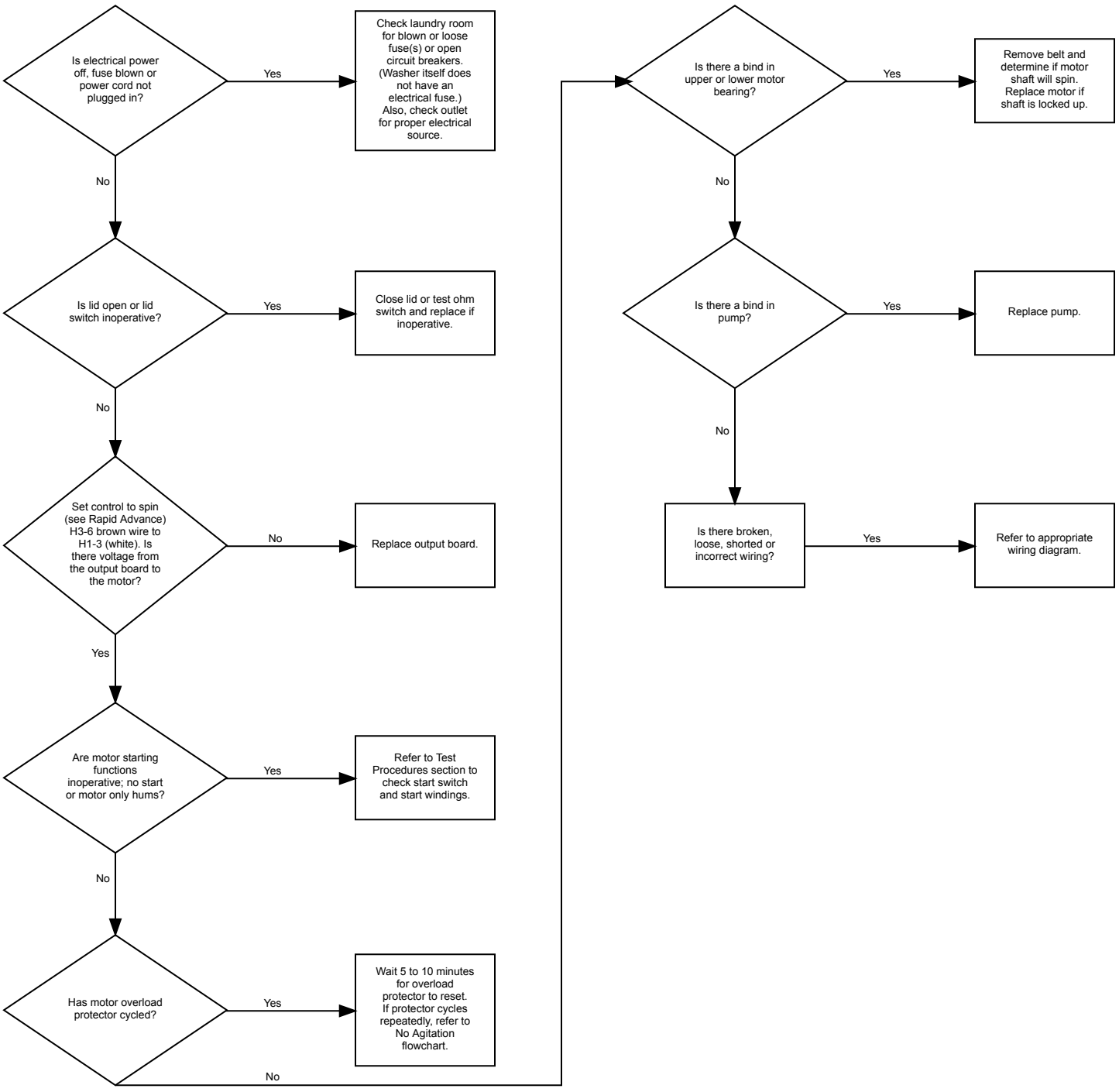
No Warm Water



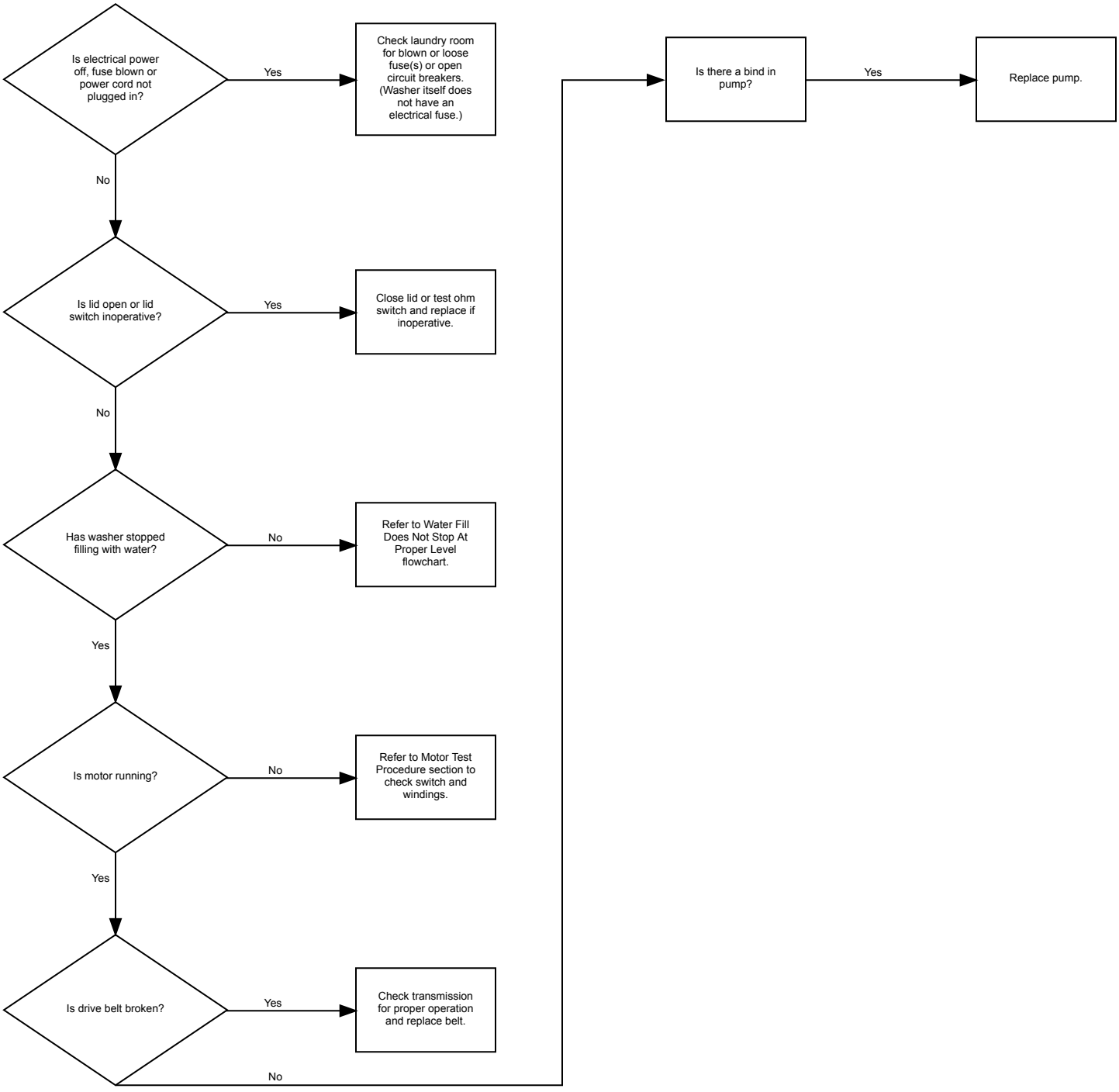
Water Fill Does Not Stop At Proper Level



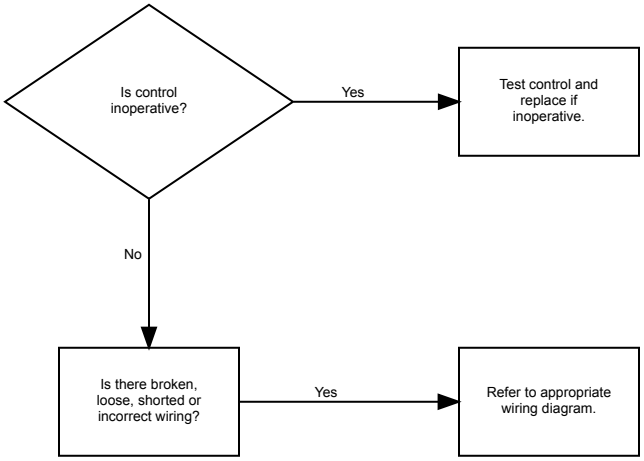
Motor Does Not Run



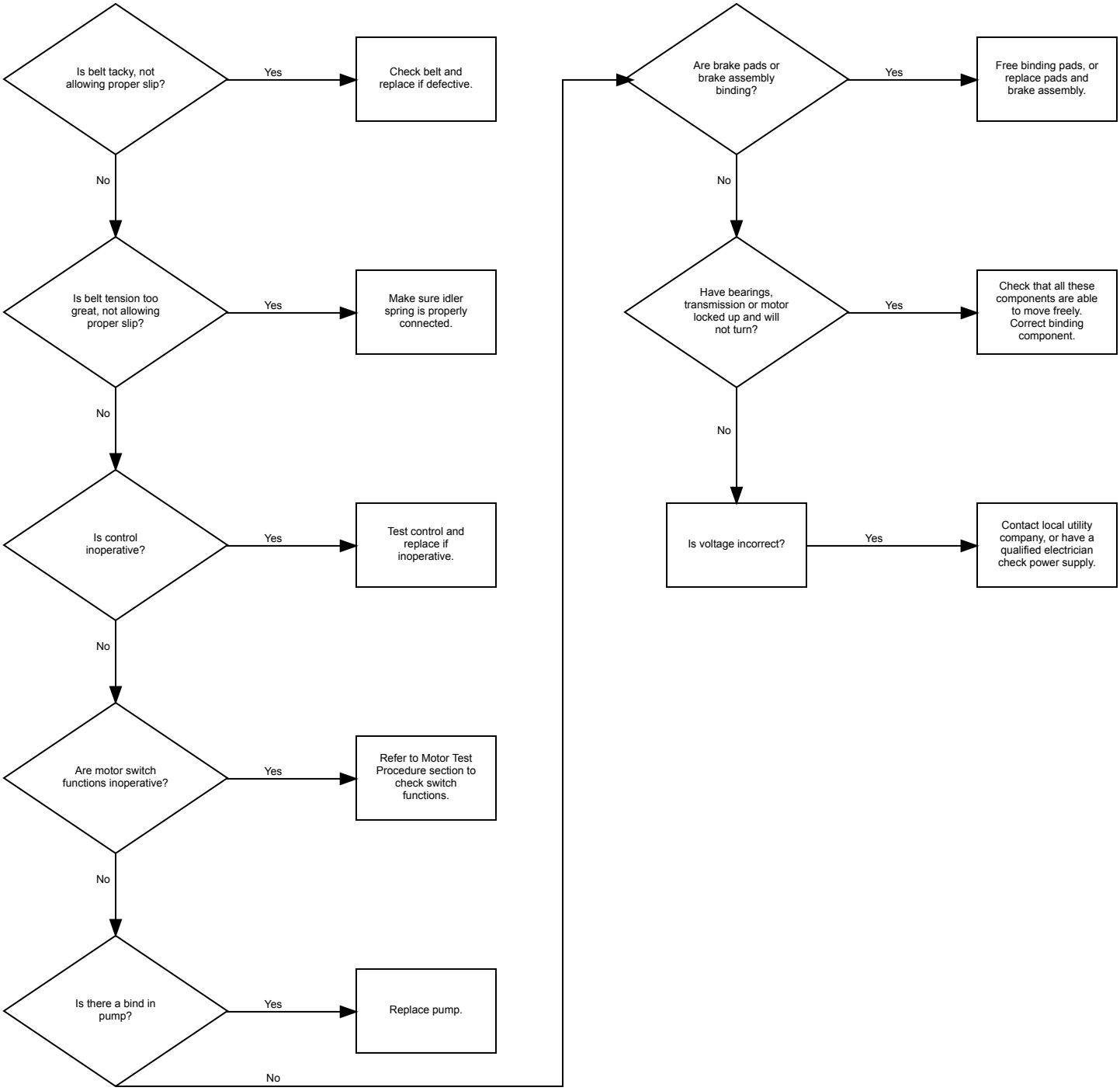
No Agitation



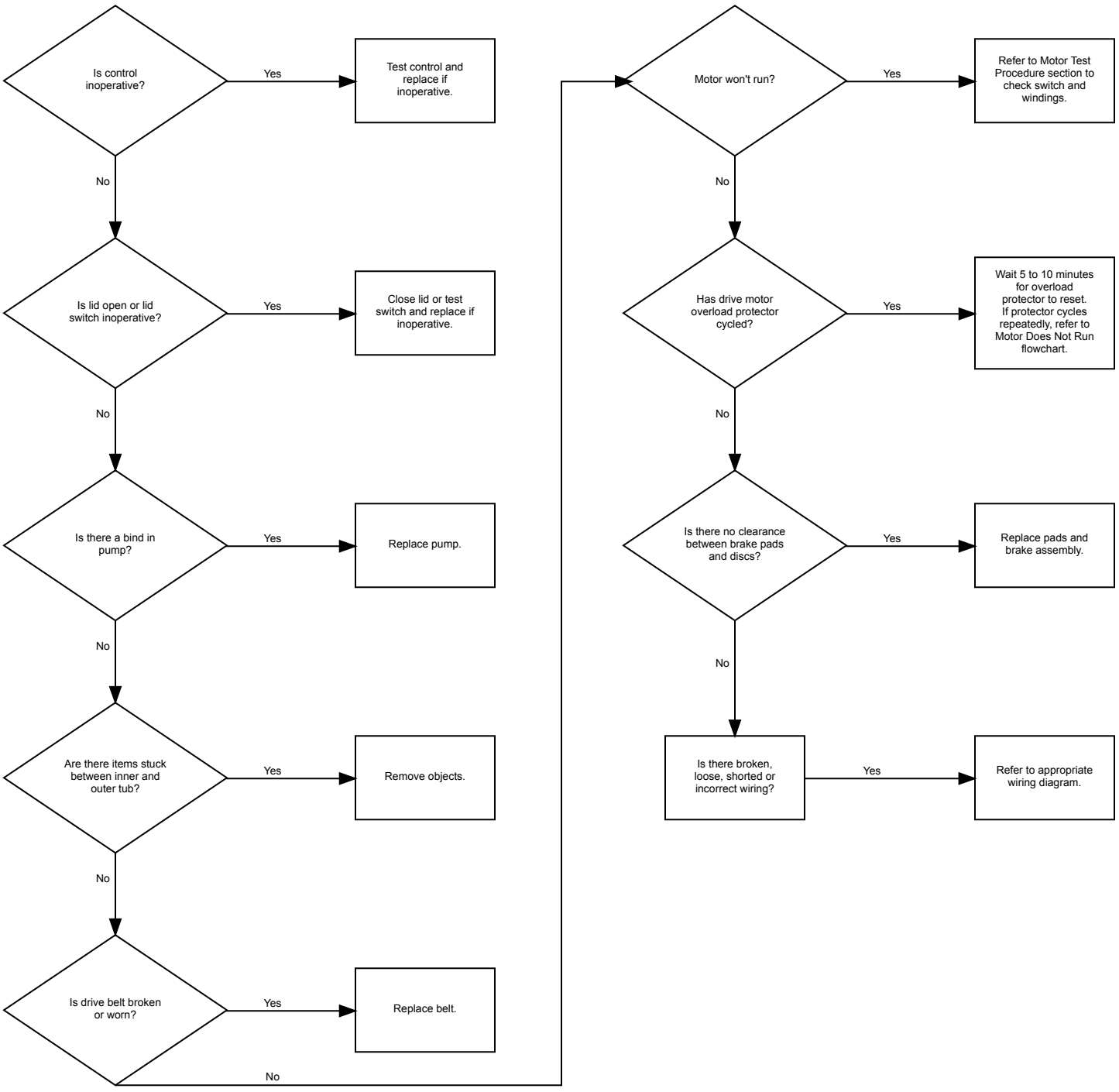
Constant Agitation



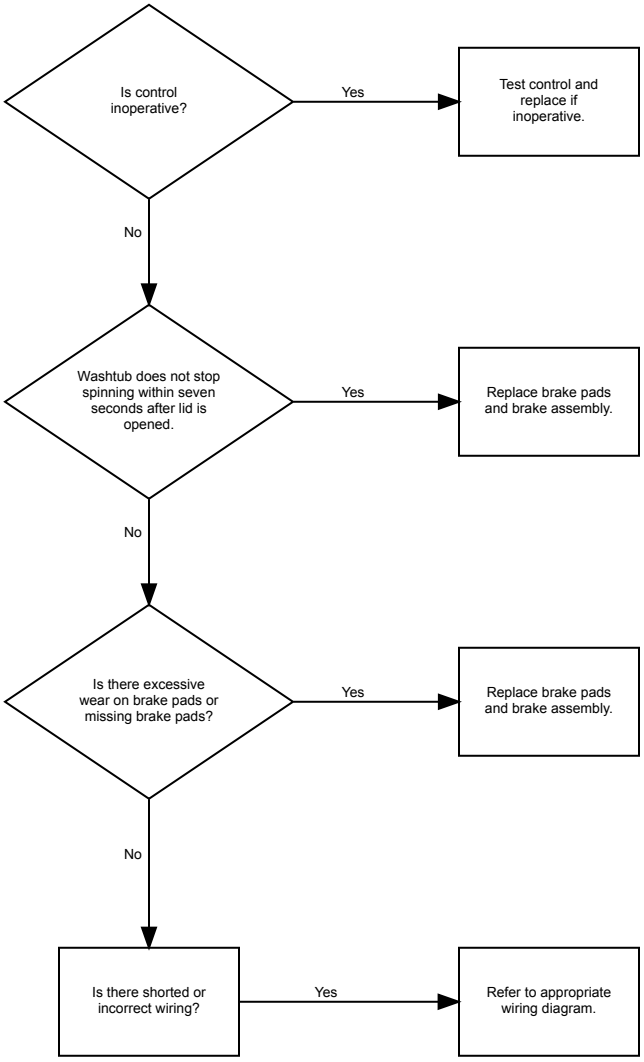
Washer Overheats, Cycles On Motor Thermal Protector, Switch Actuator Kicks In And Out



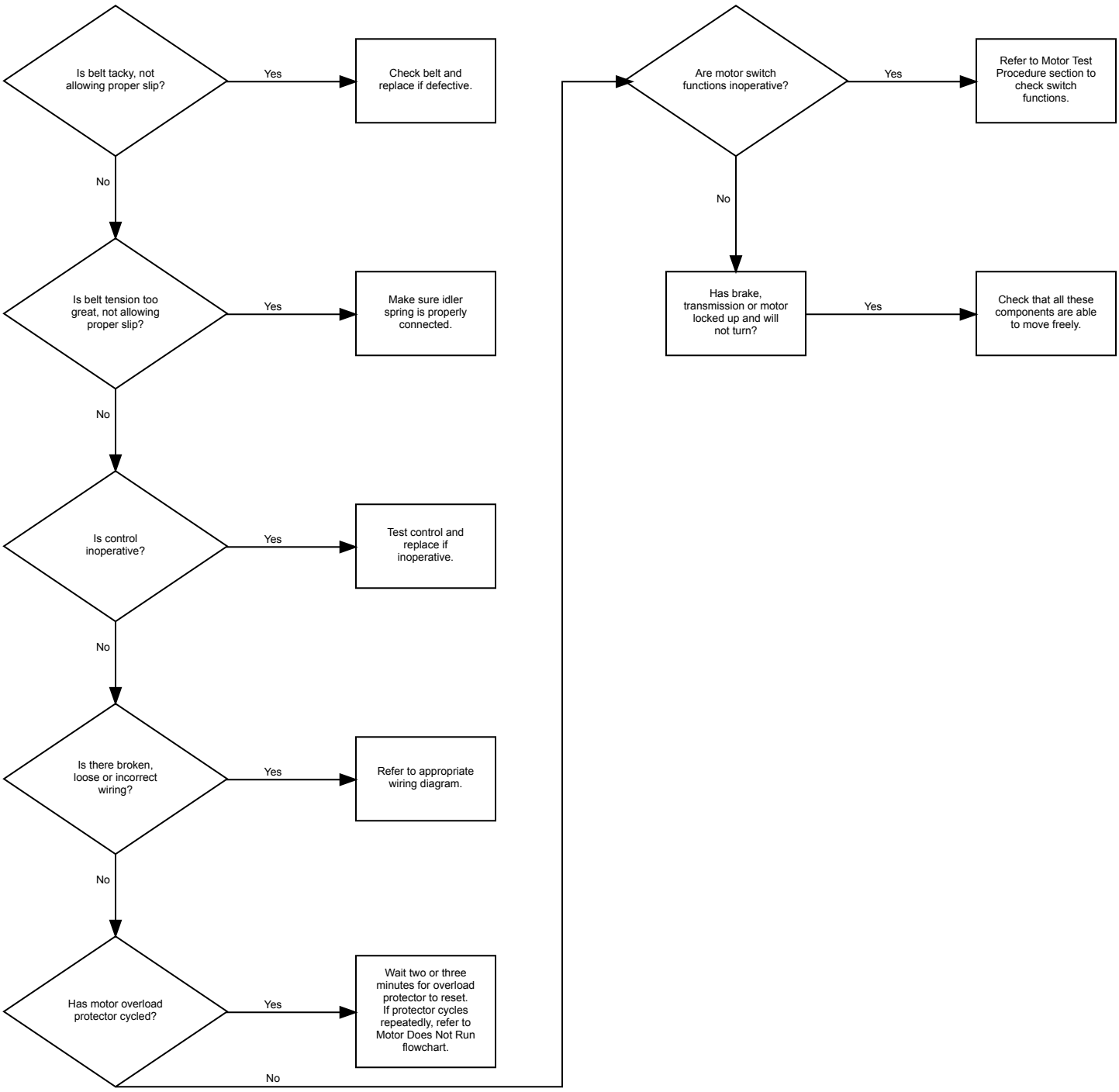
Slow Spin Or No Spin



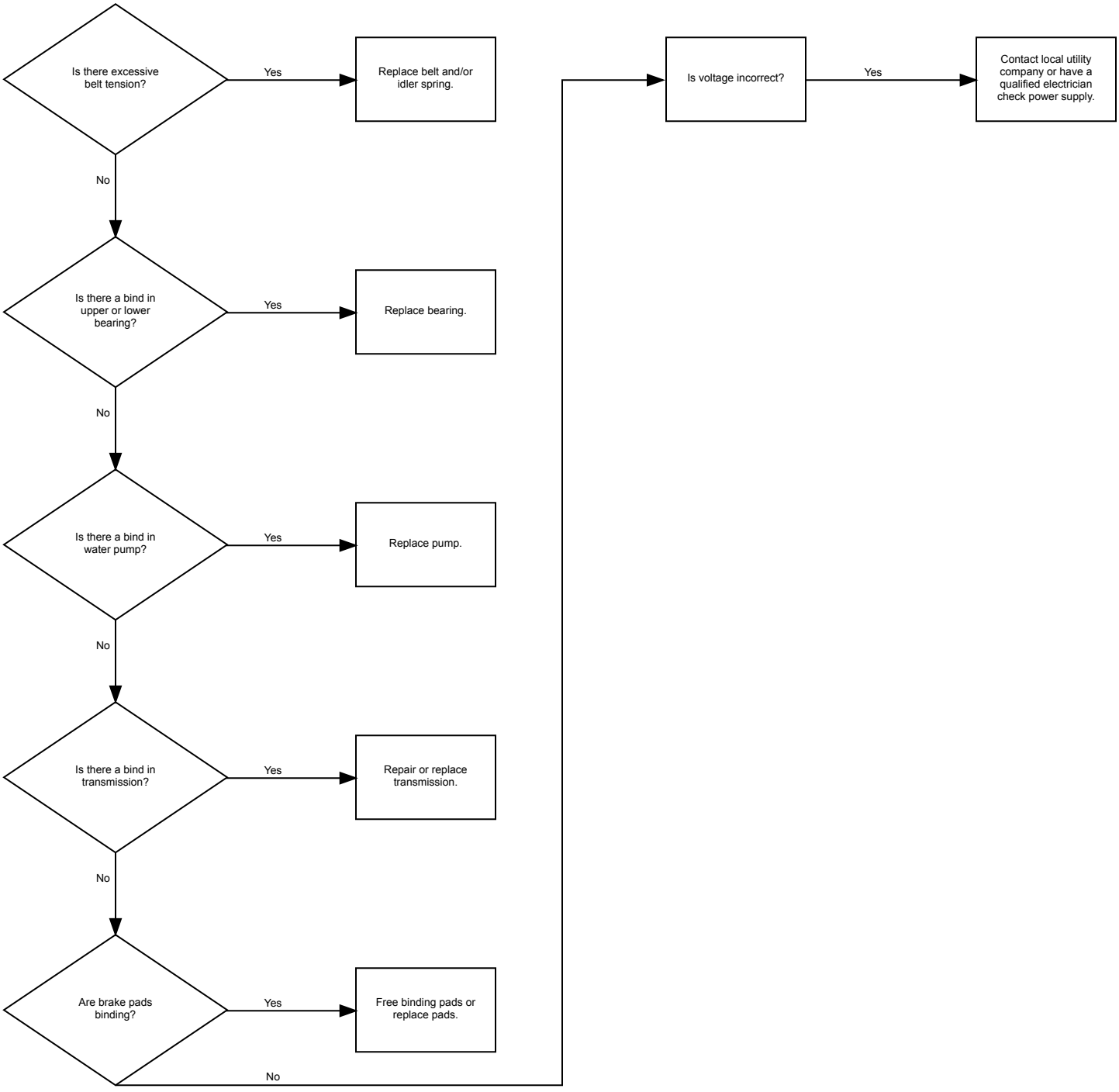
Constant Spin



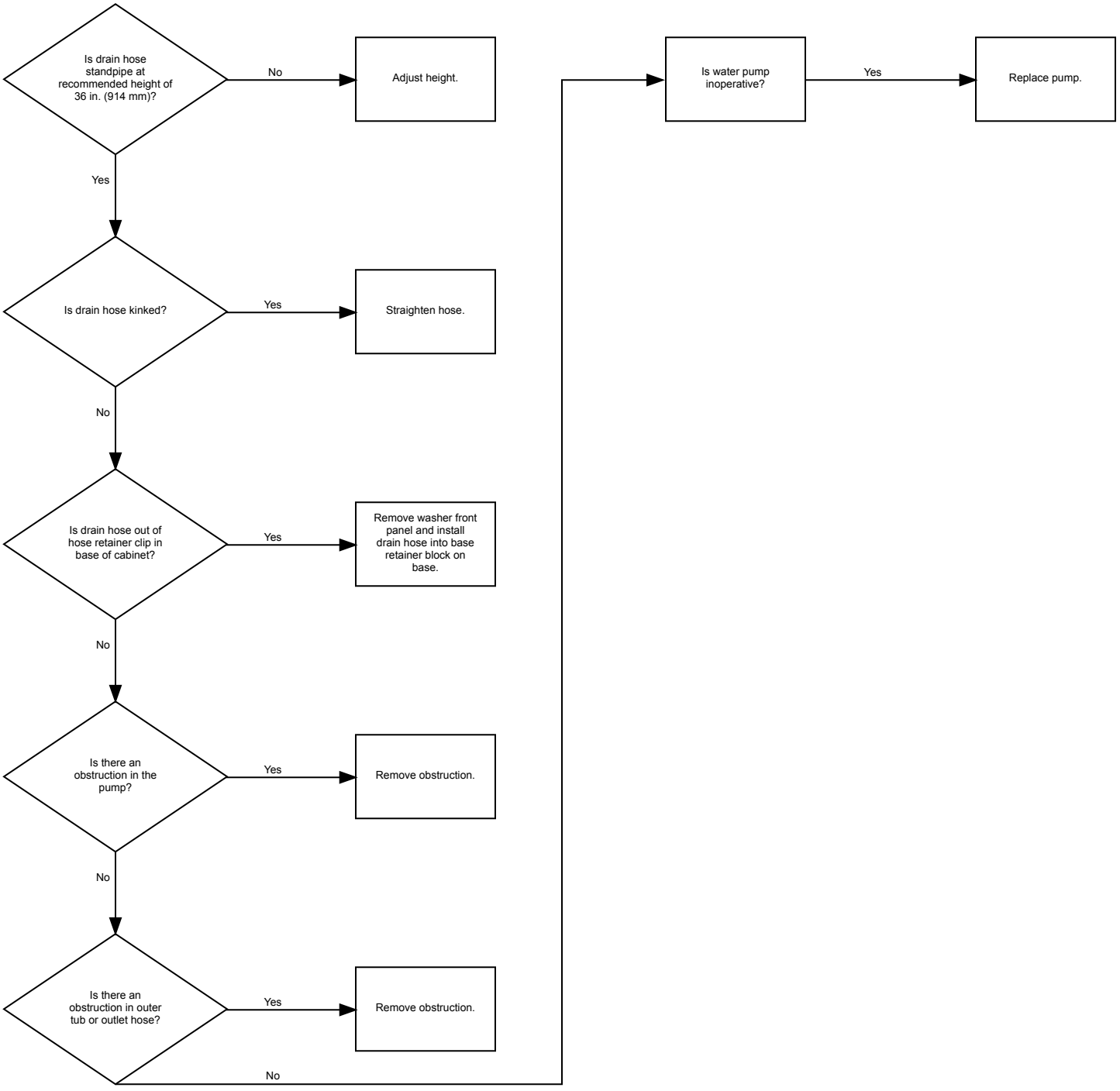
Washer Stops In Cycle, Quits After A Couple Loads, Is Intermittent



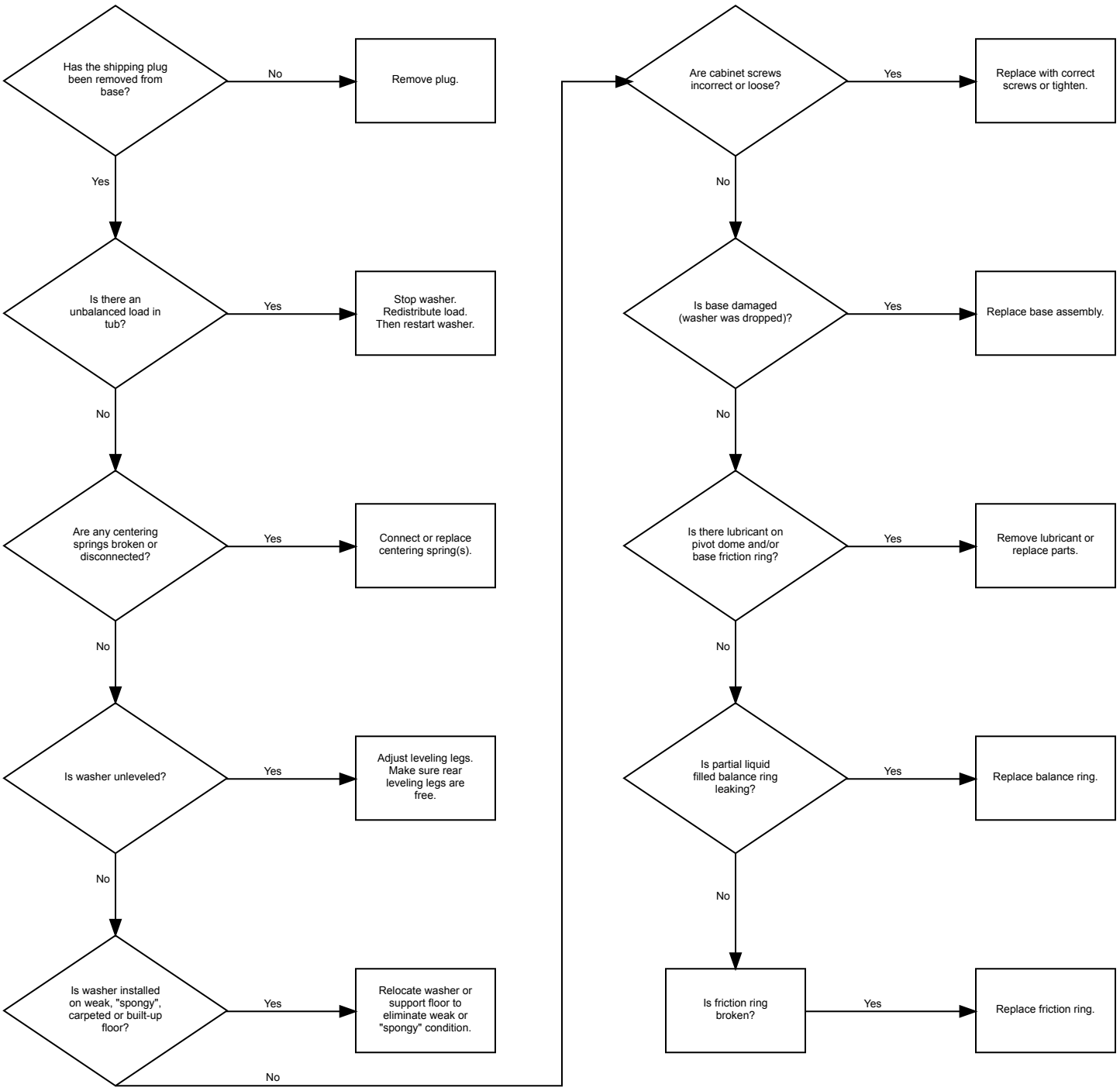
Washer Is Locked Up Or Binding



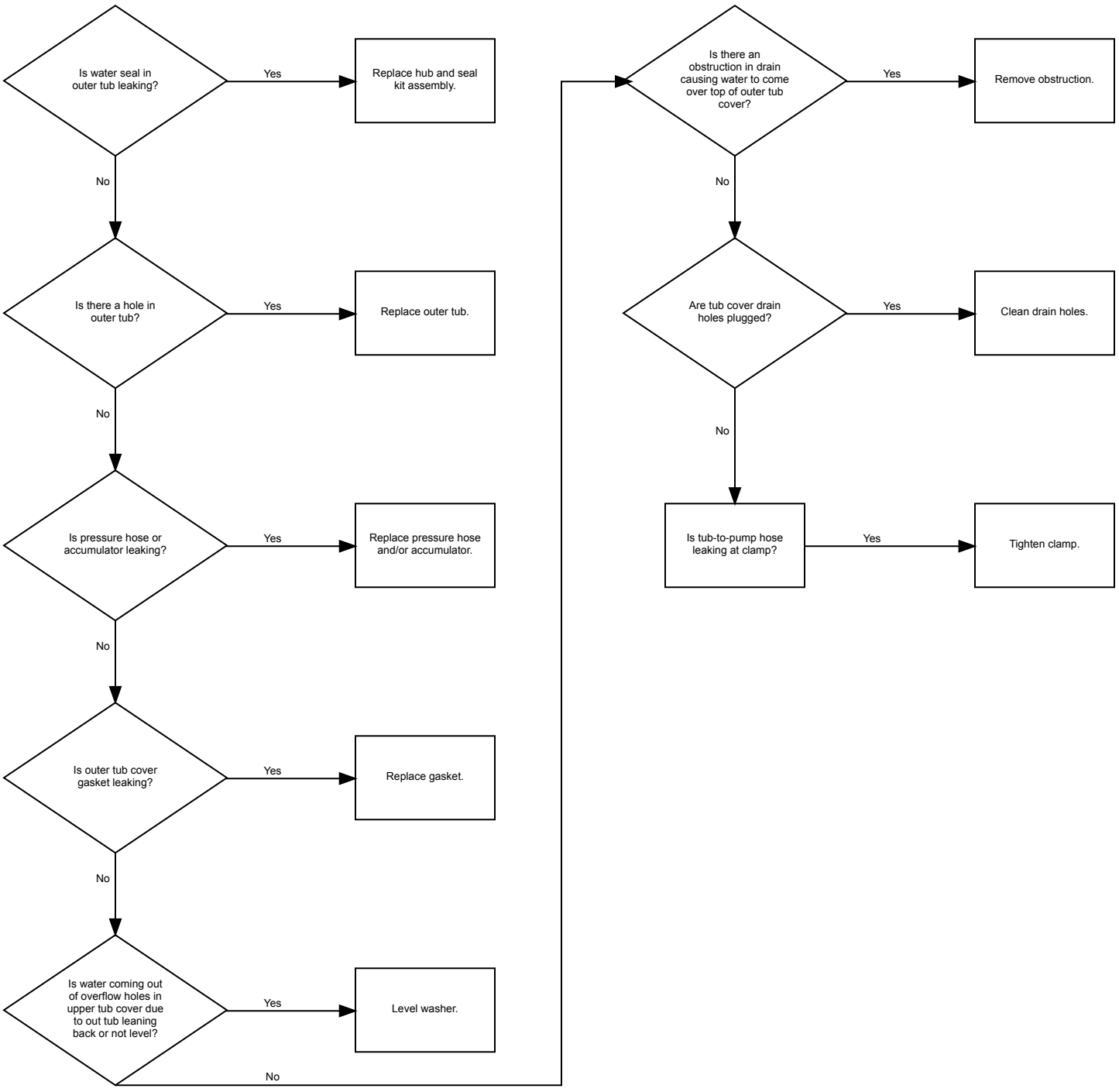
Outer Tub Does Not Empty



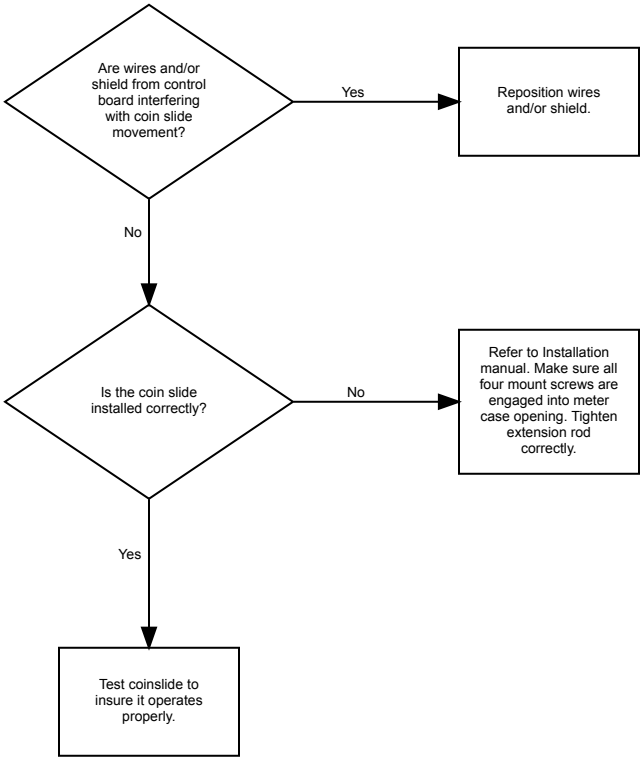
Excessive Vibration



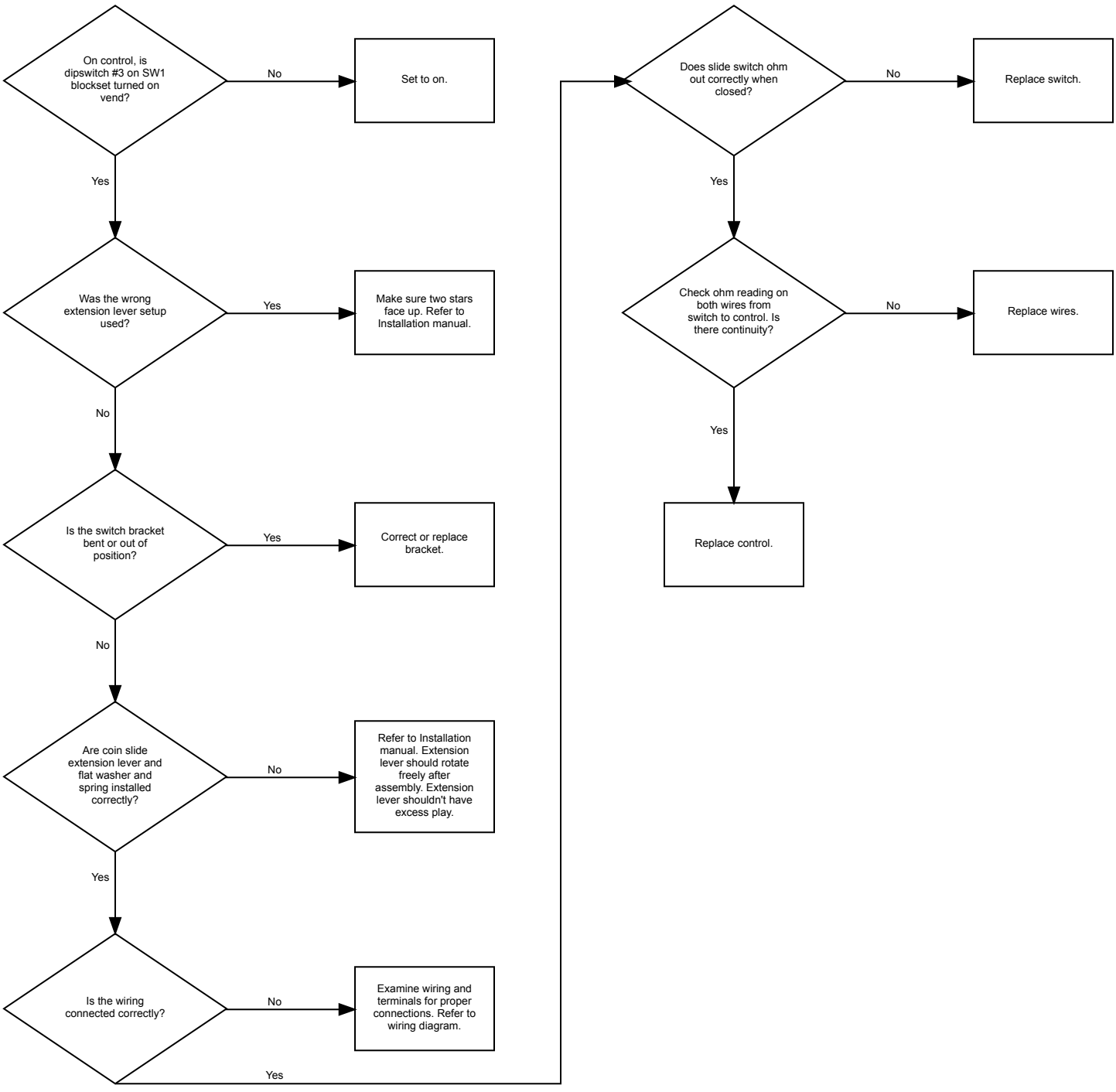
Water Leaking From Outer Tub



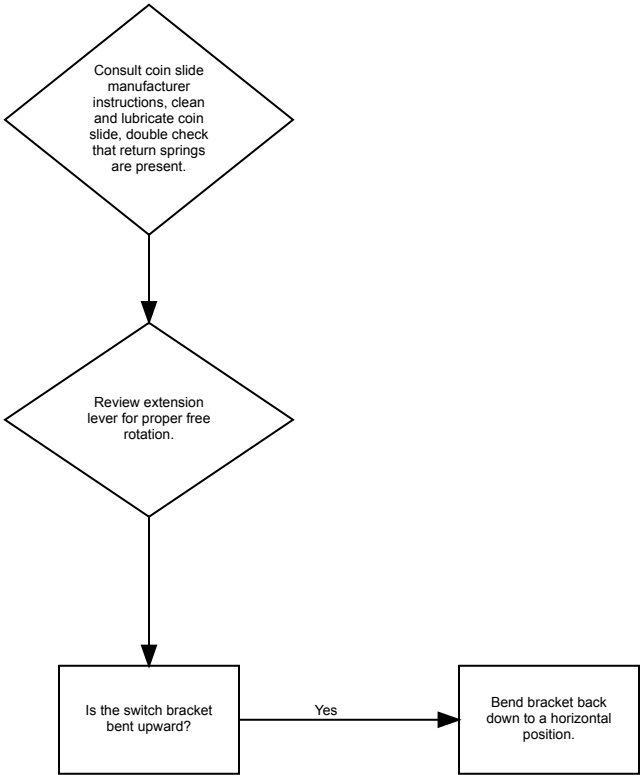
Coin Slide Cannot Fully Insert



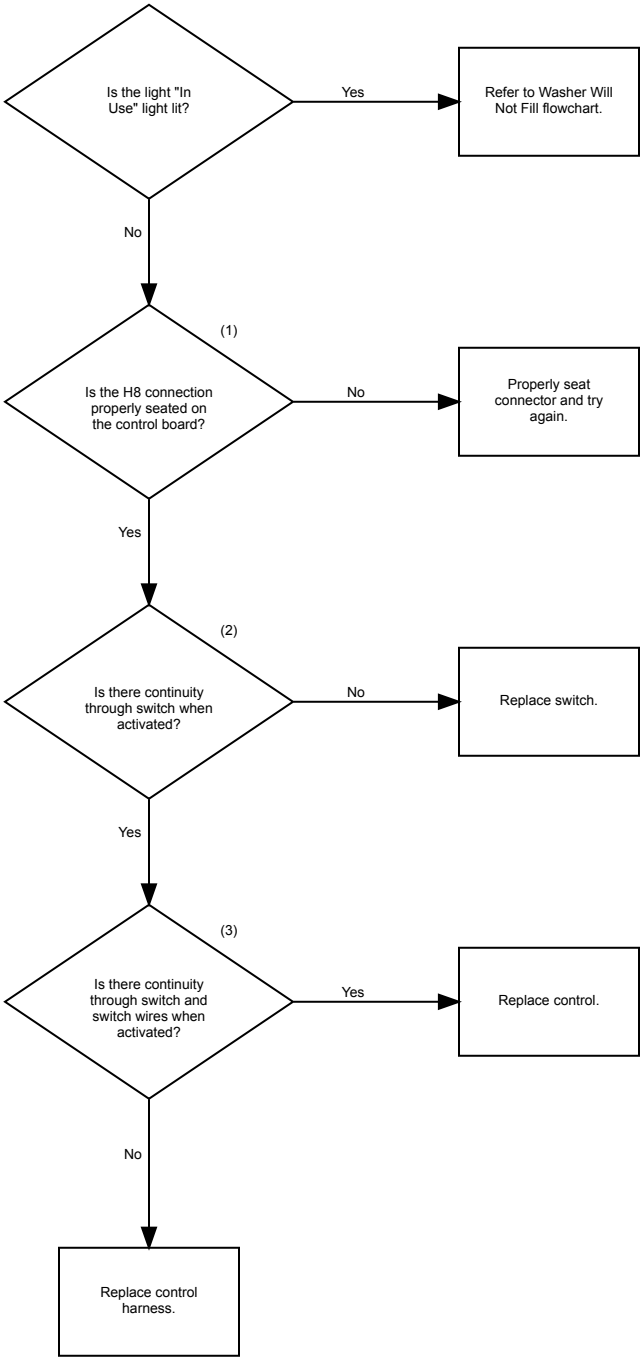
Coin Slide Fully Inserts, Switch Does Not Activate



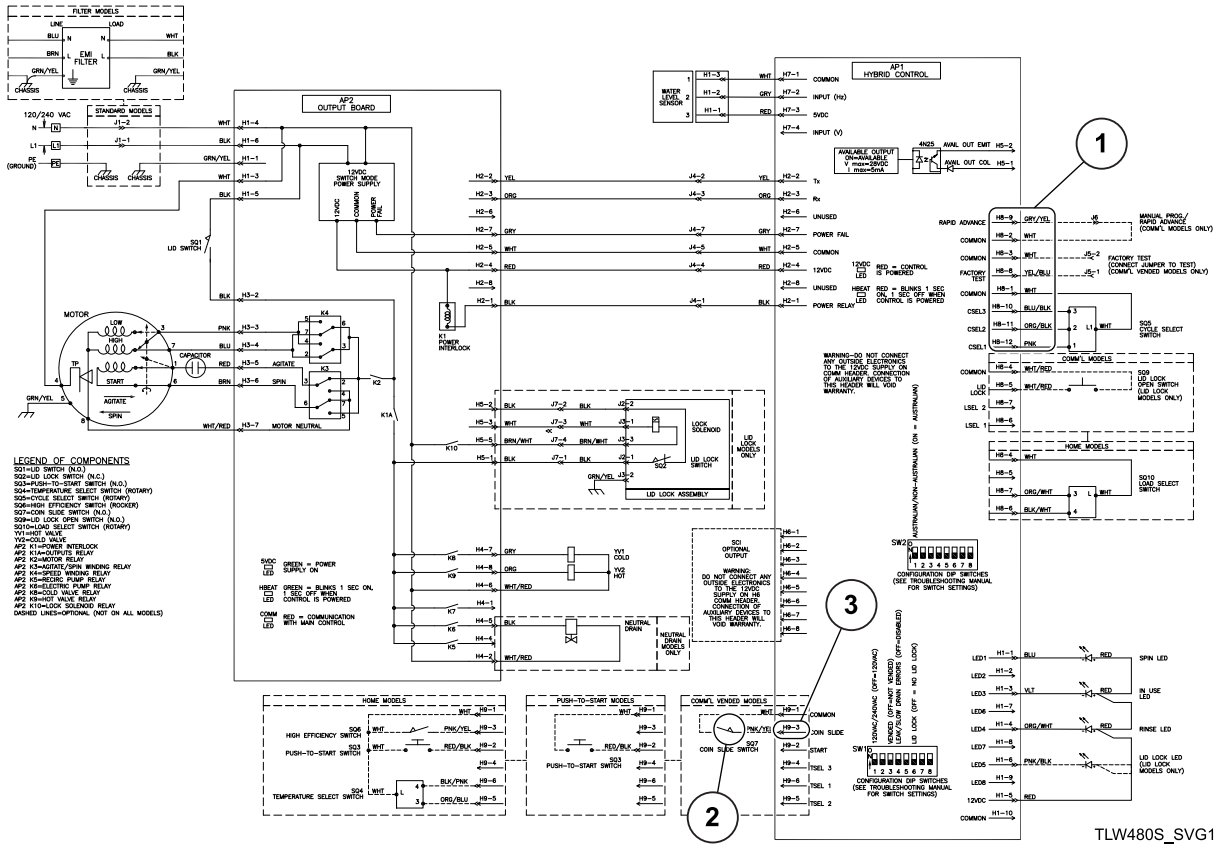
Coin Slide Does Not Return Freely



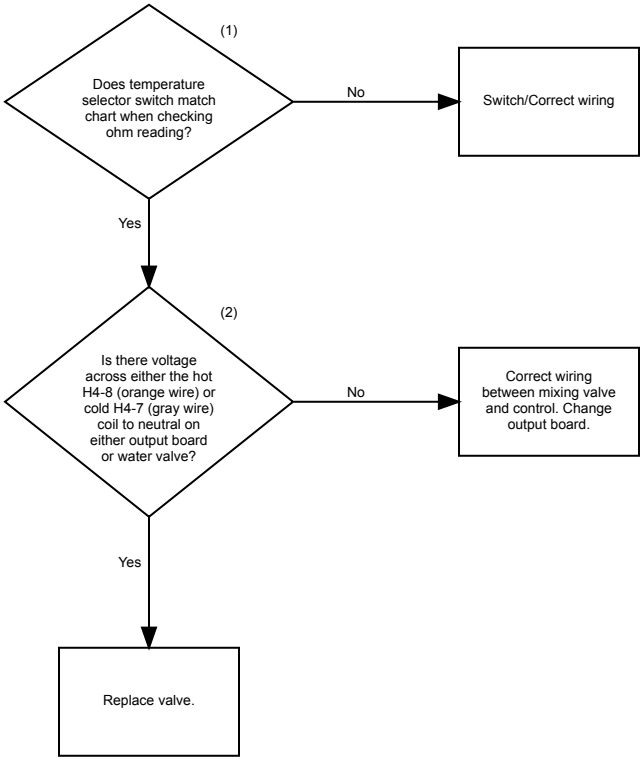
No Cycle Start When the Cloin Slide is Activated



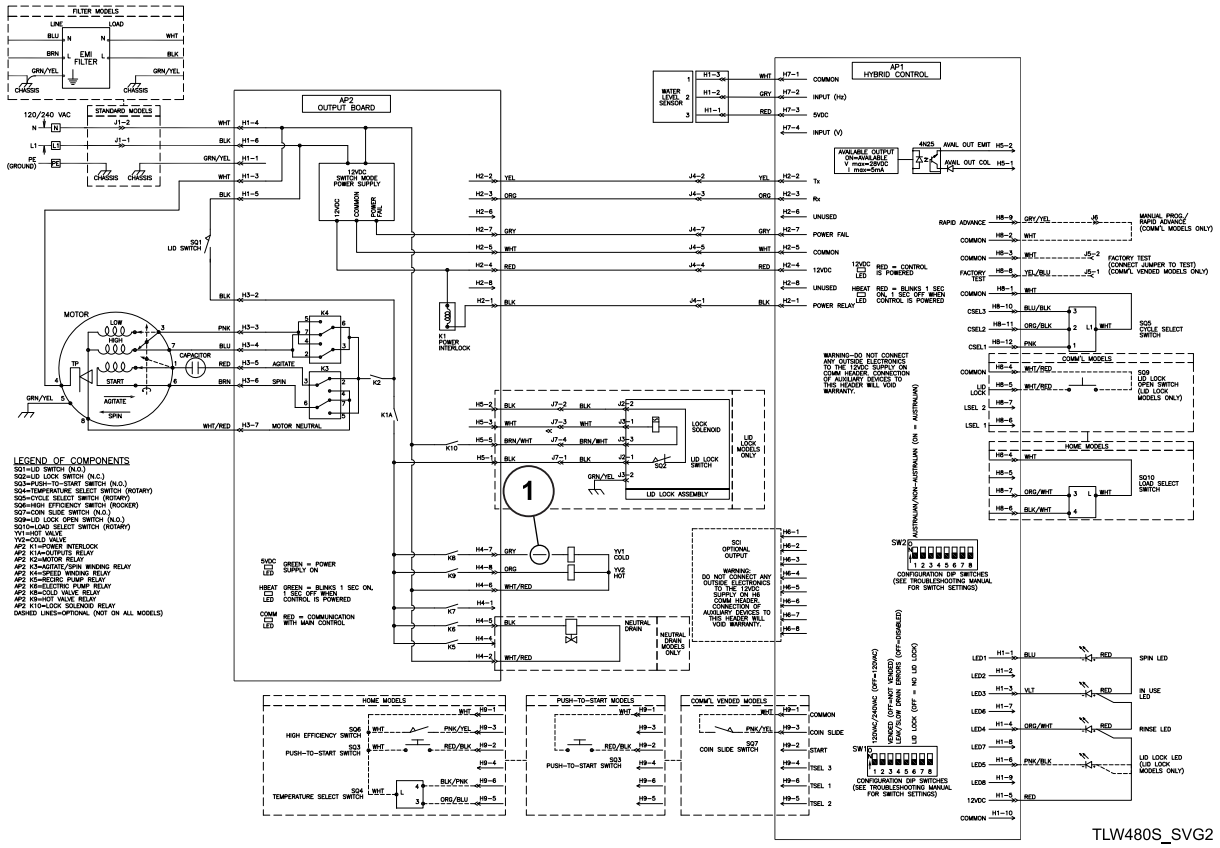
No Cycle Start When the Coin Slide is Activated



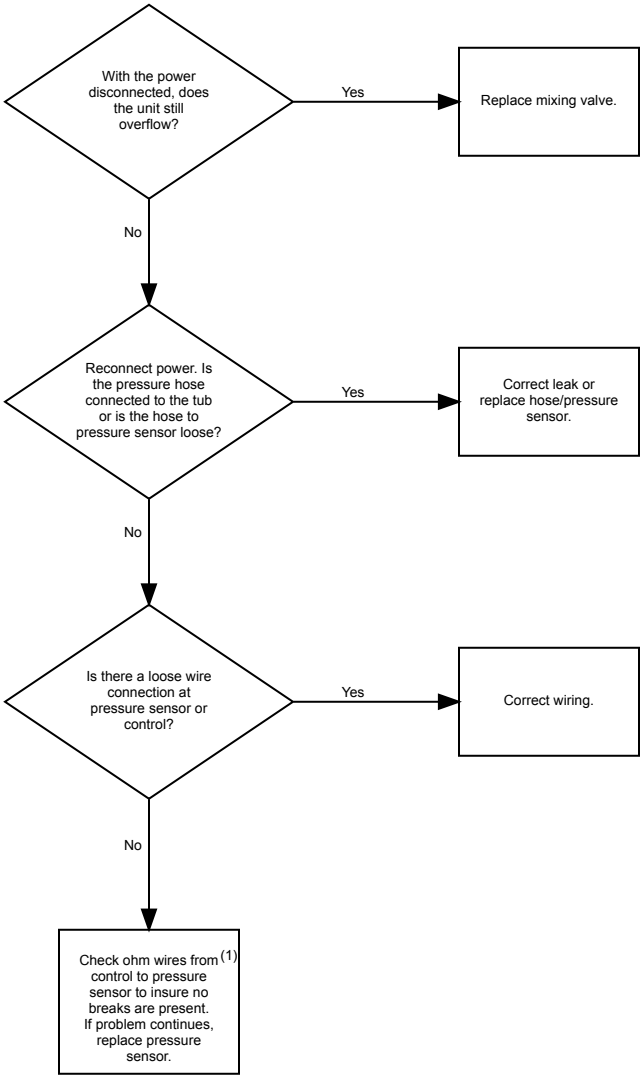
Washer Will Not Fill - Mixing Valve Diagnostic



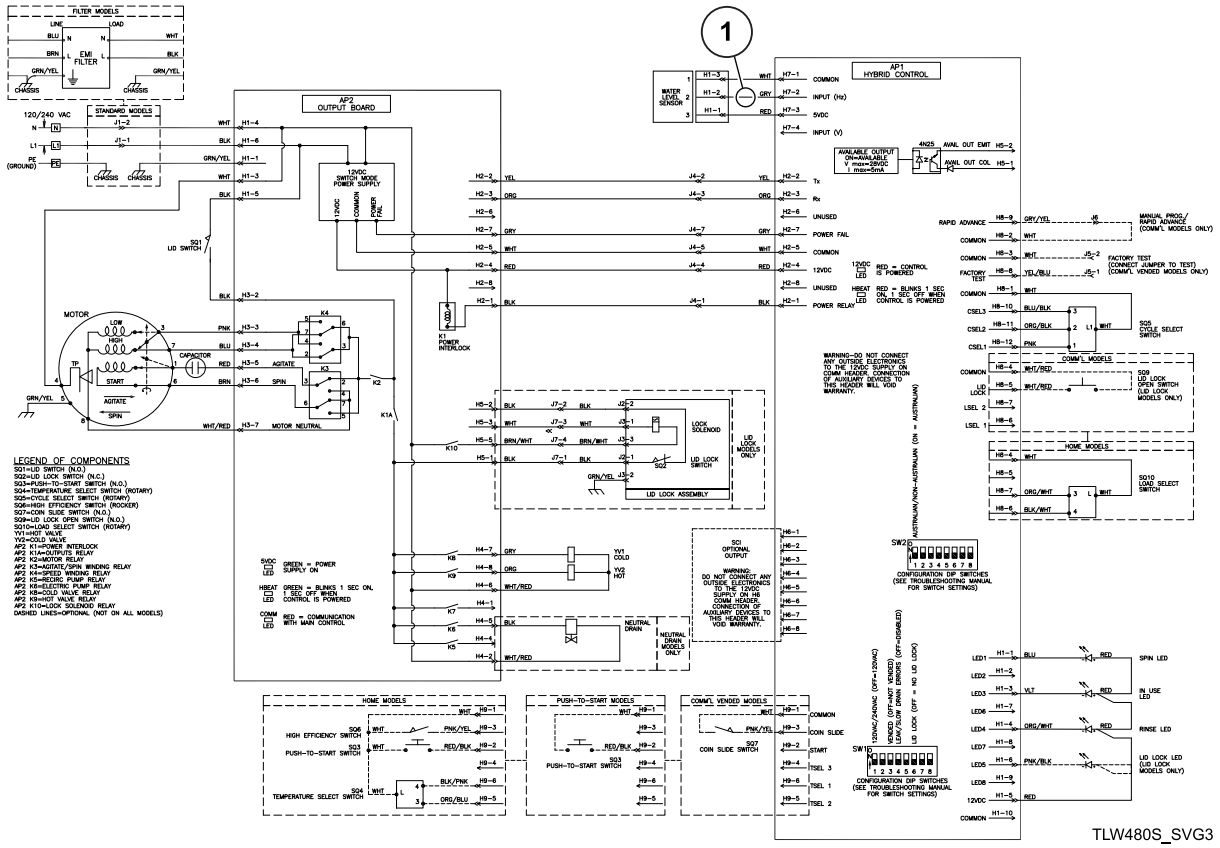
Washer Will Not Fill - Mixing Valve Diagnostic



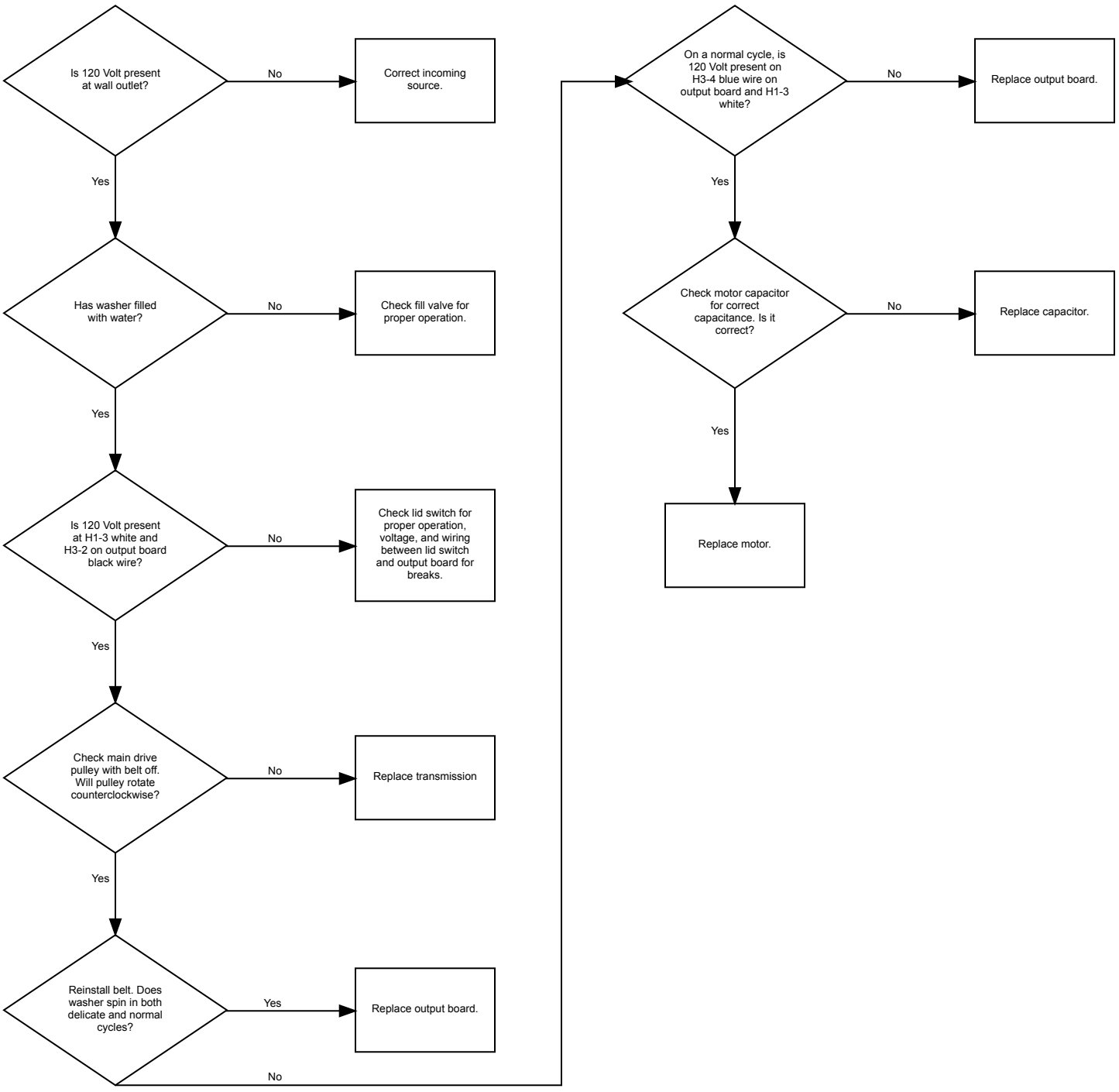
Washer Over Fills - Pressure Sensor



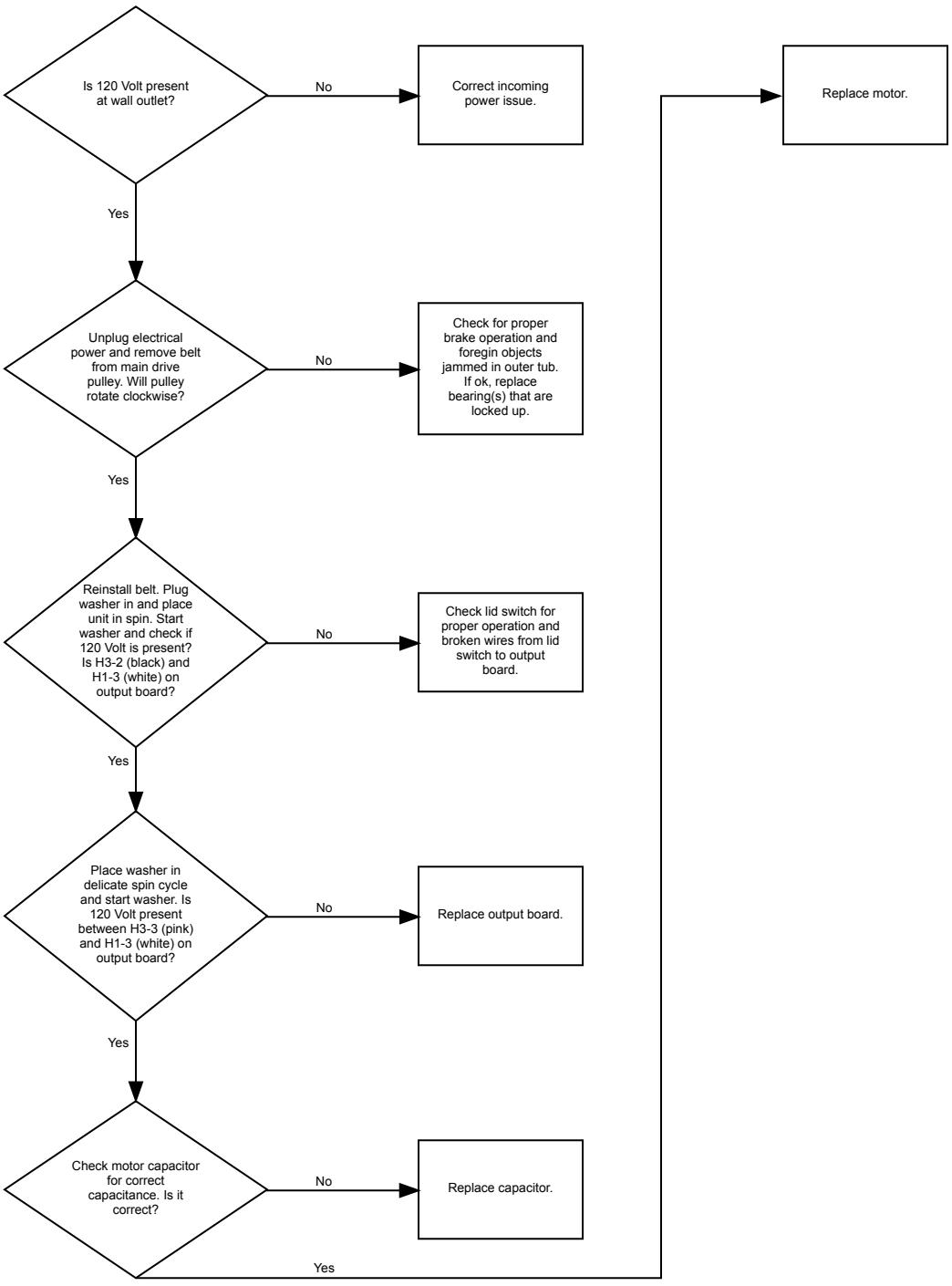
Washer Overfills - Pressure Sensor



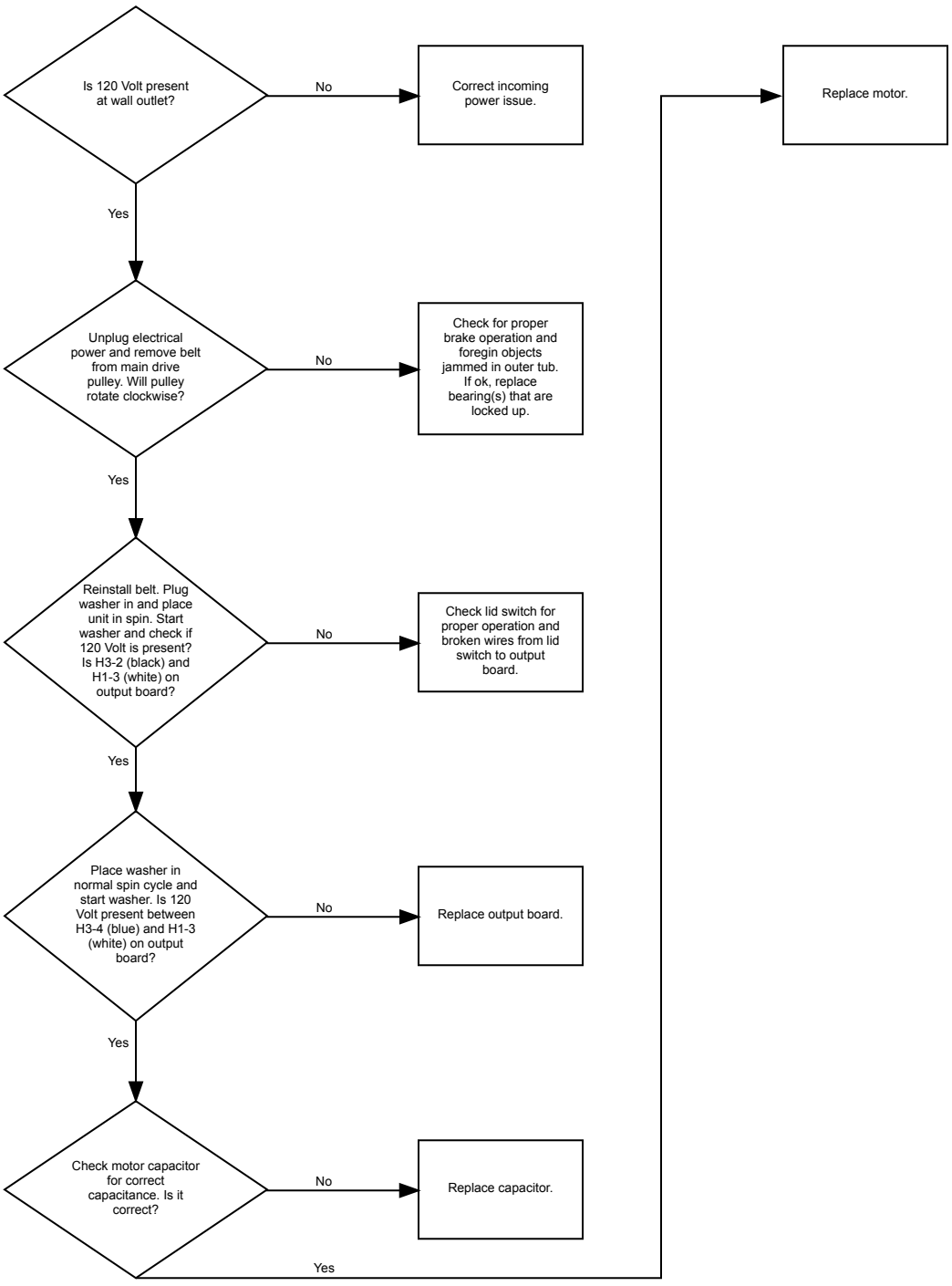
No Agitation or Spin - Low or High Speed



Washer Will Not Spin - Low Speed



Washer Will Not Spin - High Speed



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

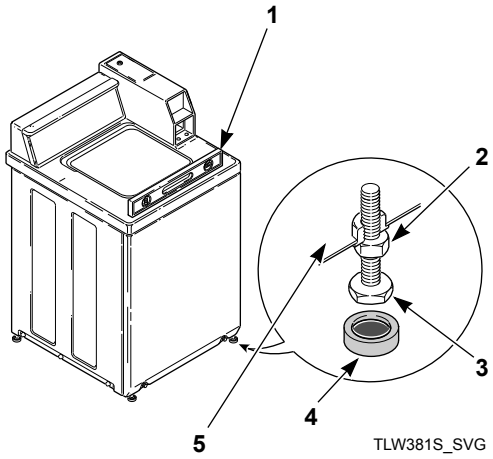
Leveling Legs

1. Place a level on the cabinet top and check if the washer is level from side to side and front to back.
2. If washer is not level, tilt washer back to access the front leveling legs. Loosen the locknuts and adjust legs by screwing into or out of washer base.
3. Once adjusted, tilt the washer forward on front legs and lower back down into position to set the rear self-leveling legs.
4. Washer must not rock. When washer is level and does not rock, tighten locknuts securely against bottom of washer base. If these locknuts are not tight, washer will not remain stationary during operation.

Improper installation or flexing of weak floor will cause excessive vibration.

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

NOTE: For areas with uneven floors, a No. 566P3 Adjustable Rear Leg Extension Kit is available as optional equipment at extra cost.



1. Level
2. Locknut
3. Leveling Leg
4. Rubber Foot
5. Washer Base

Figure 3

Belt

No belt adjustment is required.

Motor Test Procedure

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

IMPORTANT: Disconnect base wire harness plug from motor.

WARNING

Disconnect electric power to washer before performing the following steps:

W188

Perform motor test procedures using an Ohm meter.

NOTE: Resistance readings slightly out of given ranges may be due to meter conditions. These readings DO NOT necessarily indicate motor failure.

Meter Connections		Reading Should Be	If Not
1	Ground to Each Other Terminal	Open	Terminal shorted to ground
2	White to Yellow	Closed	Open thermal overload
3	Red to Brown	2-8 Ohms	Start winding open or resistance too high or too low
4	Blue to White	1-2 Ohms	High speed winding (4 pole) open or resistance too high or too low
5	Violet to White	2.5 Ohms (approximate)	Low winding open; High speed winding open; or resistance too high or too low
6	“R” to Red	Closed	Open start (auxiliary) switch
7	“P” to Blue	Closed	Open start switch 4 pole winding
Tests 8, 9 and 10 are with motor centrifugal mechanism in the run position.			
8	“R” to Red	Open	Start auxiliary switch
9	“P” to Blue	3 Ohms (approximate)	Refer to Blue to White and Violet to White
10	“P” to Violet	Closed	Open low (6 pole) winding run switch

Cycle Sequence Chart

Function		In Use Light	Rinse Light	Spin Light	Water Temperature	Cycle and Motor Speed	Time (Minutes and Seconds)
Wash	Fill	X			H, W, C		4:00
	Agitate	X				N = High PP = High D = Low	N = 10:00 PP = 9:00 D = 8:00
Pause		X					0:10
	Spin	X				Low	1:00
	Spin and Spray	X			C	Low	0:30
	Spin	X				Low	2:45
Rinse	Pause		X				0:10
	Spin		X			Low	0:05
	Spin and Spray		X		C	Low	0:30
	Spin		X			Low	1:00
	Spin and Spray		X		C	Low	0:30
	Spin		X			Low	1:00
	Pause		X				0:10
Final Spin	Spin			X		N = High PP = High D = Low	N = 7:00 PP = 6:00 D = 5:00
						Total	N = 32:50 PP = 30:50 D = 28:50