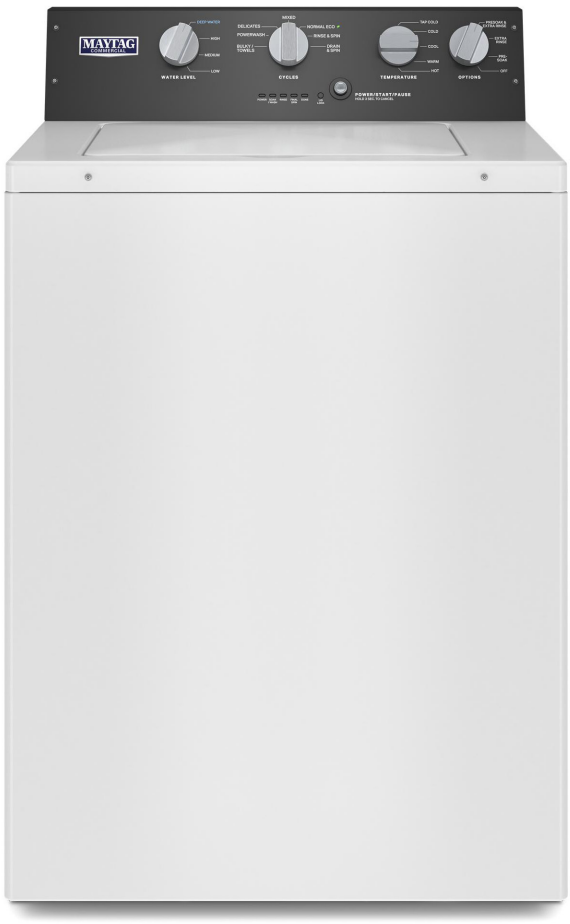
TECHNICAL MANUAL

Maytag® 3.5 cu ft Commercial-Grade Residential Agitator Washer



W11663204 Rev B

FOREWORD

This Technical Manual (Part No. W11663204 Rev B), provides the In-Home Service Professional with service information for the “Maytag® 3.5 cu ft Commercial-Grade Residential Agitator Washer.”

The Wiring Diagram used in this Technical Manual is typical and should be used for training purposes only. Always use the Wiring Diagram supplied with the product when servicing the washer.

For specific operating and installation information on the model being serviced, refer to the literature provided with the top load washer.

GOALS AND OBJECTIVES

The goal of this Technical Manual is to provide information that will enable the In-Home Service Professional to properly diagnose malfunctions and repair the “Maytag® 3.5 cu ft Commercial-Grade Residential Agitator Washer.”

The objectives of this Technical Manual are to:

- Understand and follow proper safety precautions.
- Successfully troubleshoot and diagnose malfunctions.
- Successfully perform necessary repairs.
- Successfully return the top load washer to its proper operational status.

WHIRLPOOL CORPORATION assumes no responsibility for any repairs made on our products by anyone other than authorized In-Home Service Professionals.

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Maytag® 3.5 cu ft Commercial-Grade Residential Agitator Washer

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Section 1: General Information

This section provides general safety, parts, and information for the “Maytag® 3.5 cu ft Commercial-Grade Residential Agitator Washer.”

- Safety
- General Theory of Operation
- Product Specifications
- Product Features
  - Control Panel
- Model Number Nomenclature
- Model and Serial Number Label Location
- Tech Sheet Location

Safety

Your safety and the safety of others are very important.

We have provided many important safety messages in this manual and on your appliance. Always read and obey all safety messages.

This is the safety alert symbol.

This symbol alerts you to potential hazards that can kill or hurt you and others.

All safety messages will follow the safety alert symbol and either the word “DANGER” or “WARNING.” These words mean:

⚠DANGER — **You can be killed or seriously injured if you don't immediately follow instructions.**

⚠WARNING — **You can be killed or seriously injured if you don't follow instructions.**

All safety messages will tell you what the potential hazard is, tell you how to reduce the chance of injury, and tell you what can happen if the instructions are not followed.

IMPORTANT SAFETY INSTRUCTIONS

WARNING: To reduce the risk of fire, electric shock, or injury to persons when using the washer, follow basic precautions, including the following:

- Read all instructions before using the washer.
- Do not wash articles that have been previously cleaned in, washed in, soaked in, or spotted with gasoline, dry-cleaning solvents, other flammable, or explosive substances as they give off vapors that could ignite or explode.
- Do not add gasoline, dry-cleaning solvents, or other flammable, or explosive substances to the wash water. These substances give off vapors that could ignite or explode.
- Under certain conditions, hydrogen gas may be produced in a hot water system that has not been used for 2 weeks or more. HYDROGEN GAS IS EXPLOSIVE. If the hot water system has not been used for such a period, before using the washing machine, turn on all hot water faucets and let the water flow from each for several minutes. This will release any accumulated hydrogen gas. As the gas is flammable, do not smoke or use an open flame during this time.
- Do not allow children to play on or in the washer. Close supervision of children is necessary when the washer is used near children.
- Before the washer is removed from service or discarded, remove the door or lid.
- Do not reach into the washer if the drum, tub or agitator is moving.
- Do not install or store the washer where it will be exposed to the weather.
- Do not tamper with controls.
- Do not repair or replace any part of the washer or attempt any servicing unless specifically recommended in this manual or in published user-repair instructions that you understand and have the skills to carry out.
- See Installation Instructions for grounding instructions.
- **WARNING:** Do not wash water-resistant or water repellant-type clothing. Failure to closely follow these instructions may result in an abnormal vibrating and out-of-balance condition that could result in physical injury, property damage, and/or appliance damage.

SAVE THESE INSTRUCTIONS

General Theory of Operation

Introduction

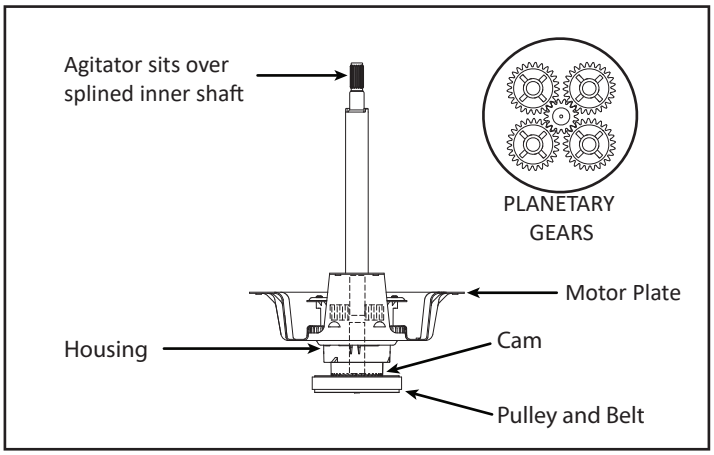
The Maytag® 3.5 cu ft Commercial-Grade Residential Agitator Washer has several familiar features and some new designs integrating them into this totally new design.

Drive System

Motor

Bi-directional PSC (Permanent Split Capacitor) 120 VAC. Agitation and variable spin speeds are accomplished by applying power in pulses.

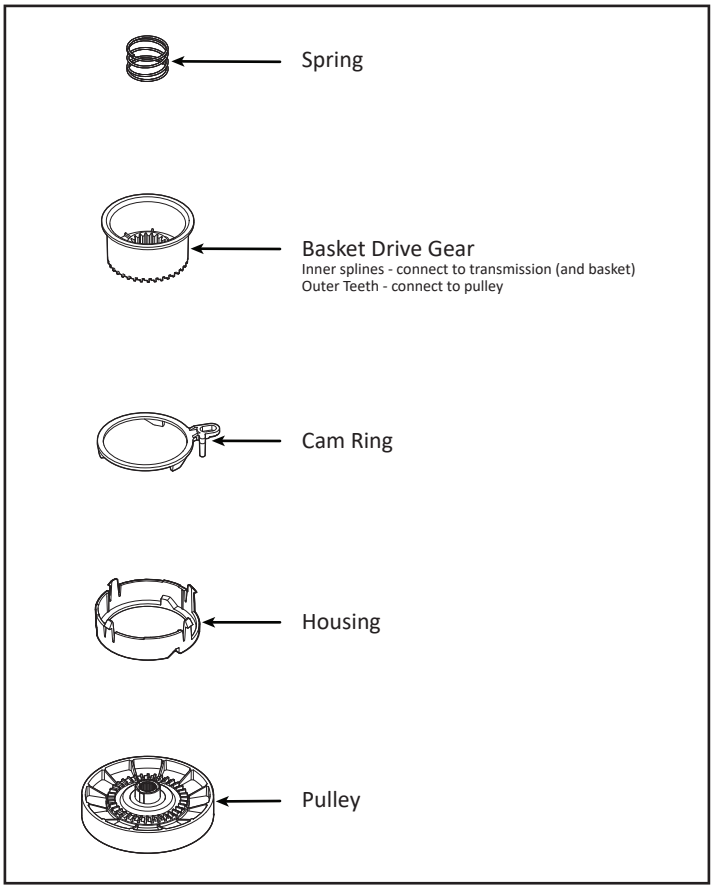
Transmission



The transmission is a non-serviceable belt driven component.

- Inner shaft top splines connect to the agitator.
- Bottom splines connect to the splutch pulley.
- Bottom splines connect to the inner splines of the splutch cam.

Splutch



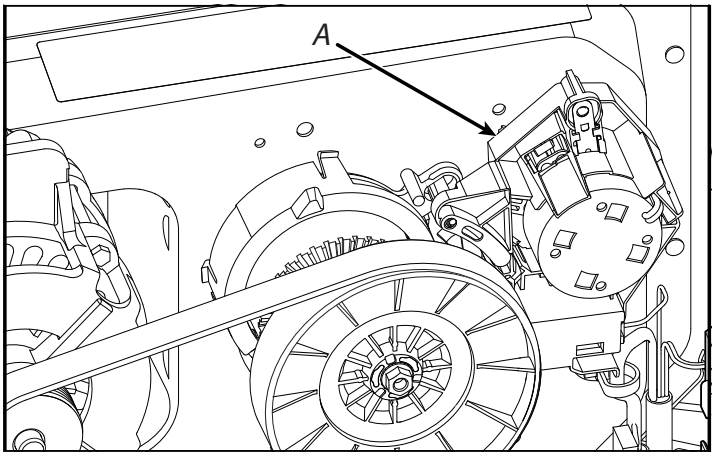
The splutch is made up of five parts:

- Spring
- Housing
- Cam Ring
- Basket Drive Gear and Pulley

The pulley is connected to the agitator through the agitator shaft. The agitator always moves with the pulley. The basket drive gear is connected to the basket by the inner splines contacting the outer splines of the transmission. The cam ring raises and lowers the basket drive gear. When the basket drive gear teeth are engaged to the pulley teeth the basket will spin along with the agipellor.

Shifter/Actuator

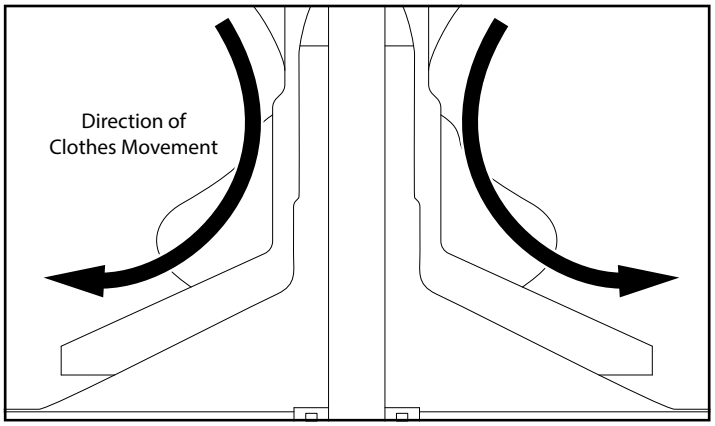
The actuator serves several functions. It has a synchronous motor that shifts the splutch slider and monitors the position of the splutch. It also houses a transmission speed/position optical sensor.



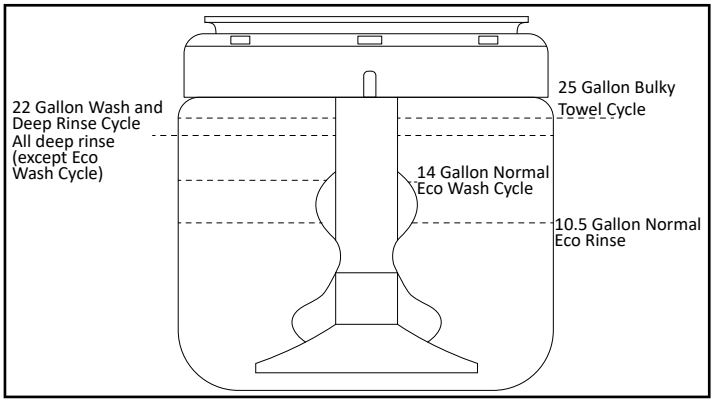
A. Shifter/Actuator

The shifter motor rotates a cam, attached to the shifter arm which moves between two positions. The shifter arm moves the transmission lever which engages or disengages the transmission creating agitate and spin. The washing machine is in spin when the shifter is up in this position. The teeth of the splutch are engaged with the teeth of the pulley and the motor turns the pulley in a direction for spin. When the shifter pulls the lever down it disengages the teeth. The washing machine is in agitate. The length of each stroke is controlled by the CCU. There are three different patterns.

Agitator



Water Levels



Lid Lock

Since this washer does not utilize a brake, a lid lock is used to prevent access during spin. During the spin cycles, a lid lock mechanism will lock the lid. The lid must be closed for the washer to fill, wash, drain, or spin. The lock mechanism houses a switch that senses the lid is down, a latch solenoid and a magnetic reed switch to confirm that the lid is locked.

Product Specifications

Maytag® 3.5 cu ft Commercial-Grade Residential Agitator Washer

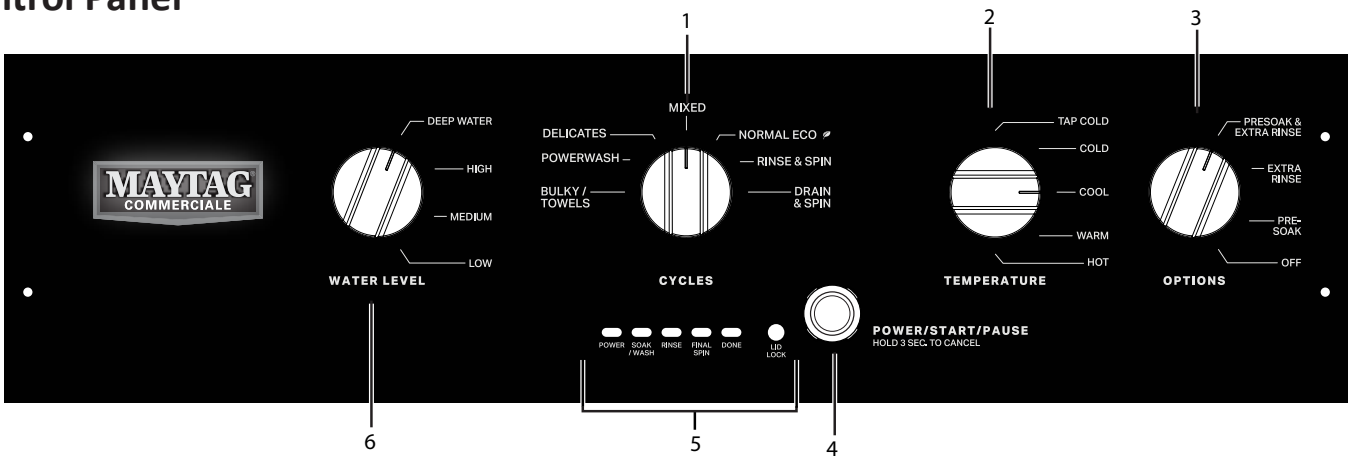
Dimensions	
Capacity (DOE) US (cu ft)	3½
Capacity IEC CAN (cu ft)	4
Depth With Door Open 90 Degree (IN, inches)	26
Depth (IN, inches)	26
Door Opening Height (IN, inches)	14
Door Opening Width (IN, inches)	17
Height with Lid Open	52
Maximum Height (IN, inches)	44
Minimum Height (IN, inches)	43
Width (IN, inches)	27
Exterior	
Adjustable Feet	Yes
Lid/Door Finish	Painted
Lid/Door Lock	Yes
Lid/Door Swing	NA
Slow Close Lid	N/A
Window	N/A
Details	
Automatic Load Size Sensing Technology	Yes
Dispense System	Detergent Fabric Softener
Drum Material	Stainless Steel
Hoses Included	Yes
Maximum G-Force	143
Motor Horsepower	1/2 HP
Motor RPM	700
Mount Type	Soft
Operating Pressure (PSI)	20-125
Out of Balance Sensing	Yes
Water Factor	6½
Weight Load Capacity	20 lbs
Drain Hose Length (ft, feet)	4½
Controls	
Automatic Temperature Controls	Yes
Control Type	Dials
Electronic Display Type	Cycle Indicator Lights
End of Cycle Signal	Yes
Feedback-Status Indicators	Done Fill Rinse Soak Wash
LED Color	Green

GENERAL INFORMATION (CONT.)

Cycles	
Number of Wash Cycles	7
Washer Cycle Selections	Bulky Delicates Drain and Spin Mixed Normal Powerwash® Rinse and Spin
Options	
Number of Washer Options	4
Washer Option Selections	Extra Rinse Off Presoak Presoak and Extra Rinse
Modifiers	
Number of Wash/Rinse Temperatures	5
Temperature Selections	Cold Cool Hot Tap Cold Warm
Features	
Sound Package	Yes
Pedestal Options	No
Certifications	
UL	Yes
Electrical	
Amps	15
Hz	60
Power Cord Included	Yes
Power Cord Length (ft)	6
Volts	120
Watts	720
Water Usage	
Average Hot Water Usage Hot Water Cycle (GI, Gallons)	7
Average Hot Water Usage Warm Water Cycle (GI, Gallons)	2.9
Average Total Water Usage per Cycle (GI, Gallons)	22
Management System Features	
Full Width Console	Yes
Service Mode Activation	Yes
Self-Diagnostics	Yes
Compatibility	
Connectivity	No
Works With	No

Product Features

Control Panel



NOTE: Not all features and options are available on all models. Appearance may vary.

1. WASH CYCLE KNOB

Use the Wash Cycle knob to select cycles on your washer. Knob does not advance during the progress of the cycle – see cycle status lights for each stage of the process. See "Cycle Guide" for detailed descriptions of cycles.

Select the cycle most suitable for your load. Items need to move freely. Tightly packing can lead to poor cleaning performance and may increase wrinkling and tangling.

2. TEMPERATURE

Temperature senses and maintains uniform water temperatures by regulating incoming hot and cold water.

Select a wash temperature based on the type of fabric and soils being washed. For best results, and following the garment label instructions, use the warmest wash water safe for your fabric.

- Normal, Warm, and Hot water may be cooler than your previous washer. Deep Water cycles will provide higher temperatures for the wash cycle.
- Even in a cold or cool water wash, some warm water may be added to the washer to maintain a minimum temperature.

3. OPTIONS

You may add or remove options for each cycle. Not all options can be used with all cycles, and some are preset to work with certain cycles.

EXTRA RINSE
This option can be used to automatically add a second rinse to most cycles.

PRESOAK & EXTRA RINSE
Use this option to add both an extra soak period to any cycle and a second rinse to most cycles.

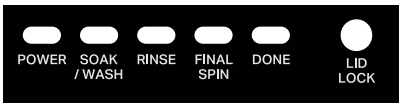
PRESOAK
Use this option to add an extra soak period to any cycle to help loosen tough stains. The washer will agitate briefly, fill and pause to soak, then begin the selected cycle.

4. POWER/START/PAUSE BUTTON

Press to start the selected cycle. To unlock the lid during Final Spin, press to pause the cycle. Press and hold for 3 seconds to cancel a cycle.

NOTE: If the washer is spinning, it may take several minutes to unlock the lid.

5. CYCLE STATUS LIGHTS INDICATOR



The Cycle Status lights show the progress of a cycle. At each stage of the process, you may notice sounds or pauses that are different from traditional washers.

POWER
This LED will turn on when a new cycle is selected or the POWER/START/PUASE button is pressed the first time and will remain on throughout the cycle.

SOAK/WASH
This LED remains illuminated during the Soak/Wash portion of the cycle.

RINSE
This LED remains illuminated during the Rinse portion of the cycle. Fabric softener can be added at this stage of the cycle.

FINAL SPIN/LID LOCKED
The Final Spin LED and the Lid Locked LED will both remain illuminated during this portion of the cycle. If you need to open the lid prior to cycle completion, press and hold POWER/START/PAUSE for 3 seconds.

DONE
This LED illuminates when the cycle is complete and will turn off when the lid is open.

6. WATER LEVEL

LOW
The Low setting is recommended for small loads, approximately 1/3 capacity with a water level of 8 gallons.

MEDIUM
The Medium setting is recommended for medium loads, approximately 1/2 capacity with a water level of 12 gallons.

HIGH
The High setting is recommended for large loads, approximately 3/4 capacity with a water level of 18 gallons.

DEEP WATER
The Deep Water is recommended for extra-large loads, approximately full capacity with a water level of 24 gallons.

WARNING: Do not wash water-resistant or water repellant-type clothing. Failure to closely follow these instructions may result in an abnormal vibrating and out-of-balance condition that could result in physical injury, property damage, and/or appliance damage.

Model Number Nomenclature

Maytag® Top Load Washer Model

MODEL NUMBER	M	VW	P	586	G	W
INTERNATIONAL SALES OR MARKETING CHANNEL						
Brand **M = Maytag®**						
Platform **VW = Top Load Washer**						
Model **P = Professional**						
Feature Set **Ranges from 215–955** **(The higher the number the more features available.)**						
Year of Launch **G = 2017** **H = 2018**						
Color **W = White**						

Model and Serial Number Label Location

Tech Sheet Location

Notes

Section 2: Diagnostics and Troubleshooting

This section provides diagnostics and troubleshooting information for the “Maytag® 3.5 cu ft Commercial-Grade Residential Agitator Washer.”

- Safety
- Diagnostic Guide
- Diagnostic LED – Main Control
- Failure Mode
- Service Diagnostic Test Modes
- Fault/Error Codes
- Quick Overview Test Mode
- Manual Overview Test Mode
- Troubleshooting Guide

For Service Technician Use Only

Safety

⚠ DANGER

Electrical Shock Hazard

Only authorized technicians should perform diagnostic voltage measurements.

After performing voltage measurements, disconnect power before servicing.

Failure to follow these instructions can result in death or electrical shock.

⚠ WARNING

Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

Voltage Measurement Safety Information

When performing live voltage measurements, you must do the following:

- **Verify the controls are in the off position so that the appliance does not start when energized.**
- **Allow enough space to perform the voltage measurements without obstructions.**
- **Keep other people a safe distance away from the appliance to prevent potential injury.**
- **Always use the proper testing equipment.**
- **After voltage measurements, always disconnect power before servicing.**

IMPORTANT: Electrostatic Discharge (ESD) Sensitive Electronics

ESD problems are present everywhere. ESD may damage or weaken the electronic control assembly. The new control assembly may appear to work well after repair is finished, but failure may occur at a later date due to ESD stress.

- Use an antistatic wrist strap. Connect wrist strap to green ground connection point or unpainted metal in the appliance

  -OR-

  Touch your finger repeatedly to a green ground connection point or unpainted metal in the appliance.
- Before removing the part from its package, touch the antistatic bag to a green ground connection point or unpainted metal in the appliance.
- Avoid touching electronic parts or terminal contacts; handle electronic control assembly by edges only.
- When repackaging failed electronic control assembly in antistatic bag, observe above instructions.

IMPORTANT SAFETY NOTICE — "For Technicians only"

This service data sheet is intended for use by persons having electrical, electronic, and mechanical experience and knowledge at a level generally considered acceptable in the appliance repair trade. Any attempt to repair a major appliance may result in personal injury and property damage. The manufacturer or seller cannot be responsible, nor assume any liability for injury or damage of any kind arising from the use of this data sheet.

For Service Technician Use Only

Diagnostic Guide

Before Servicing, check the following:

- Make sure there is power at the wall outlet.
- Has a household fuse blown or circuit breaker tripped? Was a regular fuse used? Inform customer that a time-delay fuse is required.
- Are both hot and cold water faucets open and water supply hoses unobstructed?
- Make sure drain hose is not sealed into drain pipe, and that there is an air gap for ventilation. Ensure drain height is between 39" (0.991 m) and 8' (2.4 m) above the floor.
- All tests/checks should be made with a VOM (volt-ohm-milliammeter) or DVM (digital-voltmeter) having a sensitivity of 20,000 Ω per volt DC or greater.
- Resistance checks must be made with washer unplugged or power disconnected.

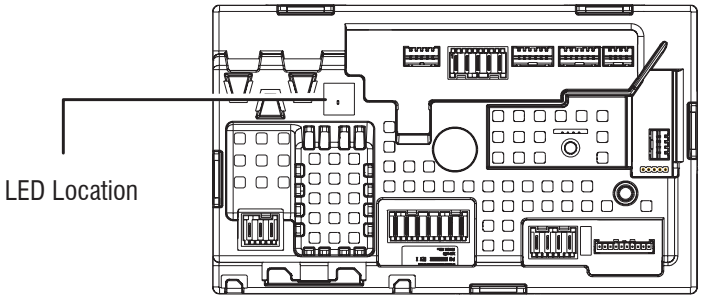
  IMPORTANT: Avoid using large diameter probes when checking harness connectors as the probes may damage the connectors upon insertion.
- Check all harnesses and connections before replacing components. Look for connectors not fully seated, broken or loose wires and terminals, or wires not pressed into connectors far enough to engage metal barbs.
- A potential cause of a control not functioning is corrosion or contamination on connections. Use an ohmmeter to check for continuity across suspected connections.

Diagnostic LED – Main Control

A troubleshooting tool has been implemented onto the main control board—a diagnostic LED.

LED ON – The Control is detecting correct incoming line voltage and the processor is functioning.

LED OFF – No power to control or control malfunction. Perform TEST #1: Main Control, to verify main control functionality.



Failure Mode

If the incoming water supply is restricted or off, the cycle will end and the following 3 LEDs will be lit. Opening and closing the lid will reset the control to the beginning of a new cycle. The incoming water supply needs to be corrected prior to starting the next cycle or the risk of another cancelled cycle is high.

- "POWER, RINSE, and DONE" LEDs On

All 5 LEDS lit and not flashing indicates that the washer is out of service. Enter the Service Diagnostic Test Modes and then enter Fault Code Display Mode to determine the mode of failure and to reset the control.

- All 5 LEDs On and Not Flashing

Service Diagnostic Test Modes

These tests allow factory or service personnel to test and verify all inputs to the main control board. Utilize these performance tests before continuing to specific component troubleshooting tests.

Activating the Service Diagnostic Test Modes

1. Be sure the washer is in standby mode (plugged in with all indicators off).
2. Perform the following sequence of movement using the cycle selector knob.

   NOTE: After **RESET**, sequence "a" through "e" must be completed within **6 seconds**, stopping just briefly between each click (resulting in the following sequence: Left - Right - Right - Left - Right, as indicated below).

   RESET - Place cycle selector knob pointer at 12 o'clock position and wait 3–4 seconds before proceeding.

   a. Rotate cycle selector knob counterclockwise one click.

   b. Rotate cycle selector knob clockwise one click.

   c. Rotate cycle selector knob clockwise one click.

   d. Rotate cycle selector knob counterclockwise one click.

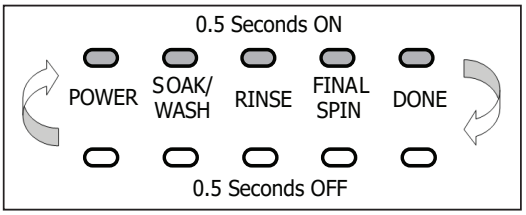
   e. Rotate cycle selector knob clockwise one click.

For Service Technician Use Only

- Successful activation of Diagnostic Test Modes will be indicated by all status LEDs (except for LID LOCKED) flashing ON and OFF in half-second intervals.

NOTE: LED names may vary between makes and models.

Legend: = ON = OFF



- If the status LEDs do not display as described above, the sequence may not have been completed within 6 seconds. Repeat step 2 to ensure this was not the cause. If still unsuccessful, see Unsuccessful Entry.

3. There are several accessible Diagnostic Test Modes shown in the chart below. To select the desired Mode of Operation, toggle the cycle selector knob left and right one click in each direction, advancing through the Test Modes until the status LEDs match the mode desired to enter.

= ON

Diagnostic Test Modes				
Mode	**Status LEDs**			
(Status LED names may vary between makes and models)	**SOAK/WASH**	**RINSE**	**FINAL SPIN**	**DONE**
Fault Code Display Mode				1
Quick Overview Test Mode			2	
Manual Overview Test Mode			2	1
Calibration Mode		4		
Drain and Spin Cycle		4		1
UI Test Mode		4	2	
SW Version Display Mode		4	2	1
Factory Diagnostics Mode	8			
Tachometer Verification Mode	8			1
Dry Factory Diagnostics	8		2	
Factory Cal Test Cycle	8		2	1
Clean Washer Cycle	8	4		

4. Press the START button to enter desired mode of operation. Refer to the following pages for detailed information on each mode of operation:

- **Fault Code Display Mode**
- **Quick Overview Test Mode**
- **Manual Overview Test Mode**
- **Calibration Mode**
- **Drain and Spin Cycle**
- **UI Test Mode**
- **SW Version Display Mode**
- **Factory Diagnostics**: If accessed, washer must be re-calibrated (see Calibration Mode).
- **Tachometer Verification Mode**
- **Dry Factory Diagnostics**
- **Factory Calibration Test Mode**
- **Clean Washer Cycle**

Unsuccessful Entry

If entry into diagnostic test mode is unsuccessful, refer to the following indication and action:

Indication: None of the LEDs turn on.

Action: Press START button to enter setting mode.

- If indicators come on, repeat steps 1 through 4 of Activating the Service Diagnostic Modes.

  NOTE: Rotating the dial too fast or too slow will affect entry.

- If no indicators come on after pressing the START button, go to TEST #1: Main Control.

Exiting the Service Diagnostic Test Modes

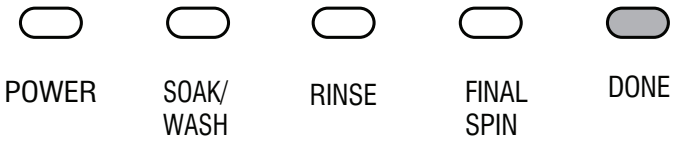
Press and hold the START button for 3 seconds at any time to exit diagnostic test modes.

Washer will exit diagnostic test modes after 5 minutes of inactivity or unplugging the power cord.

Fault Code Display Mode

To access Fault/Error Codes, perform steps 1 and 2 of Activating the Service Diagnostic Test Modes. Turn the cycle selector knob until the status LEDs correspond as follows:

- "DONE" LED On



Press the START button to enter Fault Code Display Mode.

The status LEDs flash on and off.

1. To view last four fault codes:

- Toggle cycle selector knob to view fault codes in the order of most recent to oldest. (Refer to Fault/Error Code charts.)

NOTE: If only the POWER LED flashes ON and OFF, there are no fault codes logged in the memory.

NOTE: A Fault/Error Code will be removed from memory if it does not reoccur after 10 consecutive wash cycles.

2. To exit Fault Code Display Mode:

- Toggle cycle selector knob until the status LEDs flash ON and OFF.
- Press and hold the START button for 3 seconds to exit Fault Code Display Mode.

For Service Technician Use Only

Fault/Error Code Display Method

Fault/error codes are displayed by alternating the state of the Status LEDs in one second intervals. All fault/error codes have an F# and an E#. The F# indicates the suspect System/Category and the E# indicates the suspect Component system.

If the POWER LED is ON, the Fault Number is represented; if OFF, the Error Number is represented (see example below). The remaining LEDs (SOAK/WASH, RINSE, FINAL SPIN, and DONE) represent the fault and error code in binary. (See Fault/Error Code Charts for more information.)

= ON

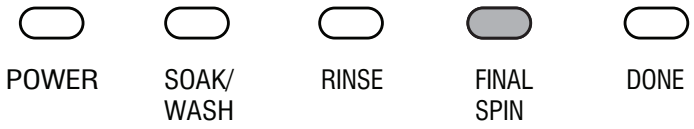
Frame Number	STATUS LEDs					Fault Code	STATUS LEDs					Error Code
	POWER	SOAK/WASH	RINSE	FINAL SPIN	DONE		POWER	SOAK/WASH	RINSE	FINAL SPIN	DONE	
1	F	8	4	2	1	F2						
2												
3							E	8	4	2	1	E3
4												
Repeat												

LED names may vary between makes and models.

Quick Overview Test Mode

To access Quick Overview Test Mode, perform steps 1 and 2 of Activating the Service Diagnostic Test Modes. Toggle the cycle selector knob until the status LEDs correspond as follows:

- "FINAL SPIN" LED On



NOTE: Status LED names may vary between makes and models.

Press the START button to begin the Quick Overview Test. Check the Quick Overview Test Mode for more information on tests.

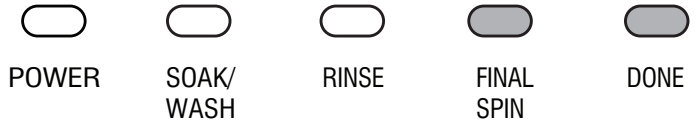
- Upon entering the Quick Overview Test Mode, the washer will perform an automatic test with water cycles to check major washer functions.
- Pressing the START button will manually advance to the next step.
- Press and hold the START button for 3 seconds at any time to exit any test mode.

IMPORTANT: Lid must be closed with lid lock enabled to perform test.

Manual Overview Test Mode

To access Manual Overview Test Mode, perform steps 1 and 2 of Activating the Service Diagnostic Test Modes. Toggle the cycle selector knob until the status LEDs correspond as follows:

- "FINAL SPIN and DONE" LEDs On



Press the START button to enter Manual Overview Test Mode.

- Upon entering the Manual Overview test mode, the washer will have all outputs OFF.
- The cycle selector knob is used to select the output to be tested.
- The START button will activate/deactivate the selected output.
- When the selected output is activated, the corresponding status LEDs flash ON and OFF.
- Press and hold the START button for 3 seconds at any time to exit any test mode.

IMPORTANT: As a safety feature, the lid must be closed with lid lock enabled to activate either Agitate or Spin Test.

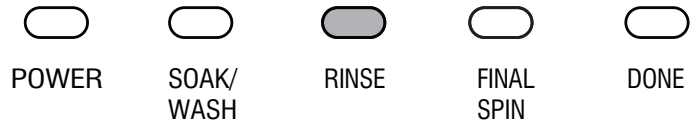
NOTE: Multiple outputs may be activated simultaneously. Outputs left on will time-out after 5 minutes.

Calibration Mode

IMPORTANT: Calibration must be performed when any of the following components have been replaced: Main Control, Basket, Drive Assembly, Suspension, Motor, and Capacitor. Calibration should also be performed when the washer is moved to a different location or, more specifically, to a different power outlet. Not performing calibration may result in poor wash performance.

To access Calibration Mode, perform steps 1 and 2 of Activating the Service Diagnostic Test Modes. Toggle the cycle selector knob until the status LEDs correspond as follows:

- "RINSE" LED On



NOTE: Status LED names may vary between makes and models.

Press the START button to begin washer calibration. All status LEDs will turn on.

- Do NOT interrupt calibration, disturb washer, or remove power; otherwise, calibration must be repeated.
- Lid must be down to perform test.
- Basket must be empty to perform test (no water or clothes).
- Calibration cycle runs for approximately 2–4 minutes. Cycle completes when door unlocks and washer enters standby mode.

For Service Technician Use Only

Drain and Spin Cycle

To access the Drain and Spin Cycle, perform steps 1 and 2 of Activating the Service Diagnostic Test Modes. Toggle the cycle selector knob until the status LEDs correspond as follows:

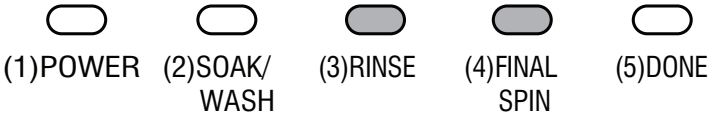
- "RINSE and DONE" LEDs On

Press the START button to start the Drain and Spin Cycle.

UI Test Mode

To access UI (User Interface) Test Mode, perform steps 1 and 2 of Activating the Service Diagnostic Test Modes. Toggle the cycle selector knob until the status LEDs correspond as follows:

- "RINSE and FINAL SPIN" LEDs On



NOTE: Status LED names may vary between makes and models. Use LED number identifications.

Press the START button to begin the UI test.

- Upon entering the UI test mode, all status LEDs will be turned ON.
- Pressing the START button will turn on and off all status LEDs, or toggle the state of each status LED independently. (Example: If 2 are on, and 3 are off, then 2 will be turned off and 3 turned on.)
- When toggling the cycle selector knob, each double click will toggle the "DONE" (5) LED.
- Turning the rotary switch will toggle the following status LED on and off.
  - (1) POWER LED
- Press and hold the START button for 3 seconds.
- Washer will exit UI test mode after 5 minutes of inactivity or unplugging the power cord.

Software Version Display Mode

To access Software Version Display Mode, perform steps 1 and 2 of Activating the Service Diagnostic Test Modes. Toggle the cycle selector knob until the status LEDs correspond as follows:

- "RINSE, FINAL SPIN, and DONE" LEDs On

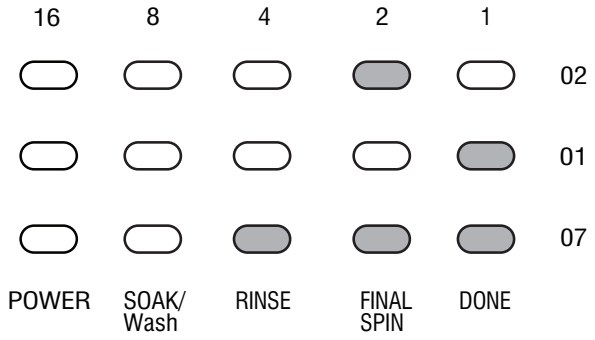
NOTE: Status LED names may vary between makes and models.

Press the START button to begin software display mode.

- Upon entering the software version display mode, the Major, Minor, and Test version numbers for the software are displayed by alternating the state of the Status LEDs in one second intervals; the process repeats following a pause.

  To calculate the number being displayed, add the representative numbers together that are displayed at the same time; see chart below for representative numbers.

  For example, if the s/w version is 02.01.07, the following sequence would be displayed:



- Press and hold the START button for 3 seconds at any time to exit software version display mode.

Factory Diagnostics

This is for factory use only, as it runs the Factory Cycle Template for testing the washer before it leaves the factory.

For Service Technician Use Only

Tachometer Verification Mode

To access Tachometer Verification Mode, perform steps 1 and 2 of Activating the Service Diagnostic Modes. Toggle the cycle selector knob until the status LEDs correspond as follows:

- "SOAK/WASH and DONE" LEDs On

NOTE: Status LED names may vary between makes and models.

Press the START button to begin tachometer verification mode.

- Tachometer verification uses the status LEDs to represent the tachometer frequency (basket RPM).

  For example, slowly turn the basket by hand; as the basket turns, the DONE, FINAL SPIN, RINSE, and SOAK/WASH status LEDs will illuminate one at a time in a visually repeating cycle. The LED timing is derived from the tachometer signal itself.

- Press and hold the START button for 3 seconds at any time to exit Tachometer Verification Mode.

Dry Factory Diagnostics

This cycle is used by the factory to gather data for setting the proper algorithms. This cycle is the same for all washers and may indicate that some switches or valves are actuated that are not used. Toggle the cycle selector knob until status LEDs correspond as follows:

NOTE: This cycle should not be used as a field diagnostic test.

- While running the Dry Factory cycle, the control is also enabling the UI Diagnostics test.

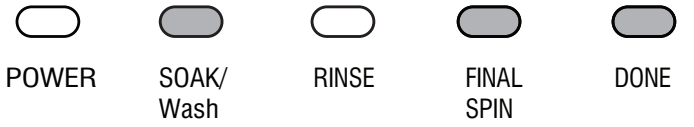
Factory Calibration Test

This cycle is used by the factory to test functions and intervals specifically for functionality testing of specific components and gathering data. Toggle the cycle selector knob until status LEDs correspond as follows:

NOTE: This cycle should not be used as a field diagnostic test.

Clean Washer Cycle

Puts washer into the Washer Cleanout Cycle. To access the Clean Washer Cycle, perform steps 1 and 2 of Activating the Service Diagnostic Test Modes. Toggle the cycle selector knob until status LEDs correspond as follows:



NOTE: This cycle should not be used with anything still loaded in the wash basket.

Customer Viewable Fault Codes

There are 3 fault codes that may be visible to the customer indicated by the following Status LEDs:

- SOAK/WASH LED ON (Long Fill Fault) – Refer to "No Fill, Long Fill" for information.
- FINAL SPIN LED ON (Long Drain Fault) – Refer to "Long Drain" for information.
- LID LOCKED LED FLASHING CONTINUOUSLY (Lid Lock Fault) – Refer to "Lid Lock Fault" for information.

For Service Technician Use Only
Fault/Error Codes

See page 2-4 to access Fault Code Display Mode.

= ON

Fault/Error Code – Description	Fault Number					Error Number				
	Status LEDs					Status LEDs				
Explanation and Recommended Procedure (Status LED names may vary between makes and models)	POWER	SOAK/WASH	RINSE	FINAL SPIN	DONE	POWER	SOAK/WASH	RINSE	FINAL SPIN	DONE
F0E0 – NO FAULT	ON	8	4	2	1	OFF	8	4	2	1
F0E2 – OVER SUDS CONDITION DETECTED	F					E			2	
Fault is displayed when Suds prevent the basket from spinning up to speed or the pressure sensor detects rising suds level. The main control will flush water in attempt to clear Suds. If the water flush is unable to correct the problem, this may indicate: ■ Not using HE detergent. ■ Excessive detergent usage. ■ Check pressure hose connection from tub to pressure sensor. Is hose pinched, kinked, plugged, or leaking air? ■ Mechanical friction on drive mechanism or basket. (Clothing between basket and tub.)										
F0E4 – HIGH WATER TEMPERATURE – RINSE CYCLE	F					E		4		
Fault is displayed when washer detects water temperature 105°F (41°C) or higher during rinse cycle. ■ Hot water getting in. Make sure inlet hoses are connected correctly. ■ If hoses are installed properly, temperature thermistor may be stuck in low resistance range. ■ See TEST #5: Temperature Thermistor.										
F0E5 – OFF BALANCE LOAD DETECTED	F					E		4		1
Fault is displayed when an off balance condition is detected. ■ Check for weak suspension. Basket should not bounce up and down more than once when pushed. ■ Clothing should be distributed evenly when loading.										
F1E1 – MAIN CONTROL FAULT	F				1	E				1
Indicates a main control fault. ■ See TEST #1: Main Control.										
F1E2 – MOTOR CONTROL FAULT	F				1	E			2	
Indicates a fault of the motor control section of the main control. ■ See TEST #3b: Drive System – Motor.										
F2E1 – STUCK KEY	F			2		E				1
The START key has been actuated for 10 consecutive minutes. ■ Fault occurs during Diagnostic Test Mode if a stuck key is detected. ■ See TEST #4: Console and Indicators.										
F2E3 – MISMATCH OF MAIN CONTROL and UI	F			2		E			2	1
The User Interface identification does not match the expected value in the Main Control Board. ■ Fault occurs during Diagnostic Test Mode if a mismatch of main control and UI is identified. ■ See TEST #4: Console and Indicators.										
F3E1 – PRESSURE SENSOR FAULT	F			2	1	E				1
Fault is displayed when the Main Control detects an out of range pressure signal. ■ Check pressure hose connection from tub to pressure sensor. Is hose pinched, kinked, plugged, or leaking air? ■ See TEST #6: Water Level.										
F3E2 – INLET WATER TEMPERATURE FAULT	F			2	1	E			2	
Fault is displayed when the Inlet Thermistor is detected to be open or shorted. ■ See TEST #5: Temperature Thermistor.										

NOTE: If the POWER LED is ON, the fault code is represented; if OFF, the error code is represented.

For Service Technician Use Only

Fault/Error Code – Description Explanation and Recommended Procedure (Status LED names may vary between makes and models)	Fault Number Status LEDs POWER	SOAK/WASH	RINSE	FINAL SPIN	DONE	Error Number Status LEDs POWER	SOAK/WASH	RINSE	FINAL SPIN	DONE
F5E1 – LID SWITCH FAULT	F		4		1	E				1
Fault is displayed if lid is in locked state, but lid switch is open. ■ User presses START with lid open. ■ The main control cannot detect the lid switch opening and closing properly. ■ See TEST #8: Lid Lock.										
F5E2 – LID LOCK FAULT	F		4		1	E			2	
Fault is displayed if Lid Lock has not moved into locked position or motor cannot be powered. ■ Lid is not closed completely due to interference. ■ Check for lock interference with lock striker. ■ Wash media buildup (detergent, lint, etc.) is preventing the lock mechanism from sliding. ■ Main control detects open lid switch when attempting to lock. ■ Main control cannot determine if lid lock is in a locked state. ■ See TEST #8: Lid Lock.										
F5E3 – LID UNLOCK FAULT	F	8	4	2	1	E	8	4	2	1
Fault is displayed if Lid Lock has not moved into unlocked position or motor cannot be powered. ■ Check for lock interference with lock striker. ■ Main control cannot determine if lid lock is in an unlocked state. ■ See TEST #8: Lid Lock.										
F5E4 – LID NOT OPENED BETWEEN CYCLES	F		4		1	E		4		
Fault is displayed if the following conditions occur: ■ User presses START after several consecutive washer cycles without opening lid. ■ See TEST #8: Lid Lock.										
F7E1 – BASKET SPEED SENSOR FAULT	F		4	2	1	E				1
Fault is displayed when the main control cannot determine speed of basket, or speed changes too quickly. ■ Locked rotor—check that basket, impeller, and motor can rotate freely. ■ Check harness connections from main control to motor and shifter. ■ See TEST #3a: Drive System – Shifter.										
F7E5 – SHIFTER FAULT	F		4	2	1	E		4		1
Fault is displayed when the main control cannot determine position of shifter. ■ Check harness connections from main control to motor and shifter. ■ Observe shifter operation. ■ See TEST #3a: Drive System – Shifter.										
F7E6 – MOTOR FAULT	F		4	2	1			4	2	
Indicates an open clockwise or counterclockwise circuit of the motor. ■ See TEST #3b: Drive System – Motor.										

NOTE: If the POWER LED is ON, the fault code is represented; if OFF, the error code is represented.

For Service Technician Use Only

Fault/Error Code – Description Explanation and Recommended Procedure (Status LED names may vary between makes and models)	Fault Number Status LEDs POWER	SOAK/WASH	RINSE	FINAL SPIN	DONE	Error Number Status LEDs POWER	SOAK/WASH	RINSE	FINAL SPIN	DONE
F7E7 – MOTOR UNABLE TO REACH TARGET RPM	F		4	2	1	E		4	2	1
Fault is displayed when basket speed sensor detects that target RPM was not reached. ■ Mechanical friction on drive mechanism or basket (clothing between basket and tub). ■ Weak motor or run capacitor, or no connection to run capacitor. ■ Load off balance. Clothing should be distributed evenly when loading. ■ See TEST #3b: Drive System – Motor.										
F8E1 – LONG FILL	F	8				E				1
Fault is displayed when the water level does not change for a period of time OR water is present but main control does not detect the water level changing. Opening and closing the lid will clear the error being displayed. ■ Is water supply connected and turned on? ■ Low water pressure; fill times longer than 6 minutes. Are hose screens plugged? ■ Check for proper drain hose installation. Is water siphoning out of the drain hose? ■ Drain hose must not be more than 4.5" (114 mm) into the drain pipe. ■ Check pressure hose connection from tub to pressure sensor. Is hose pinched, kinked, plugged, or leaking air? ■ See TEST #2: Valves.										
F8E3 – OVERFLOW CONDITION	F	8				E			2	1
Fault is displayed when main control senses water level that exceeds the washer's capacity. ■ May signify problem with inlet water valves. ■ Check pressure hose connection from tub to pressure sensor. Is hose pinched, kinked, plugged, or leaking air? ■ Check for an onboard pressure transducer fault. ■ Not pumping—pressure transducer closed or shorted in standby, or after washer completes a cycle. ■ See TEST #2: Valves and TEST #6: Water Level.										
F8E5 – HOT, COLD REVERSED	F	8				E		4		1
Fault is displayed when the hot and cold inlet hoses are reversed. ■ Make sure inlet hoses are connected correctly. ■ If hoses are installed properly, temperature thermistor may be stuck in low resistance range. ■ See TEST #2: Valves and TEST #5: Temperature Thermistor.										
F8E6 – NO FILL	F	8				E		4	2	
Fault is displayed when the water level does not change for a period of time OR water is present but main control does not detect the water level changing. Opening and closing the lid will clear the error being displayed. ■ Is water supply connected and turned on? ■ Low water pressure; fill times longer than 6 minutes. Are hose screens plugged? ■ Check for proper drain hose installation. Is water siphoning out of the drain hose? ■ Drain hose must not be more than 4.5" (114 mm) into the drain pipe. ■ Check pressure hose connection from tub to pressure sensor. Is hose pinched, kinked, plugged, or leaking air? ■ See TEST #2: Valves.										

NOTE: If the POWER LED is ON, the fault code is represented; if OFF, the error code is represented.

For Service Technician Use Only

Fault/Error Code – Description	Fault Number					Error Number				
	Status LEDs					Status LEDs				
Explanation and Recommended Procedure (Status LED names may vary between makes and models)	POWER	SOAK/WASH	RINSE	FINAL SPIN	DONE	POWER	SOAK/WASH	RINSE	FINAL SPIN	DONE
F9E1 – LONG DRAIN	**F**	**8**			**1**	**E**				**1**
Fault is displayed when the water level does not change after the drain pump is on for 10 minutes. ■ Is the drain hose or the drain pump clogged? Check tub sump under impeller for obstructions. ■ Is the drain hose height greater than 96" (2.4 m)? ■ Check pressure hose connection from tub to pressure sensor. Is hose pinched, kinked, plugged, or leaking air? ■ Is the pump running? If not, see TEST #7: Drain Pump.										

Quick Overview Test Mode

Press the START button to begin the Quick Overview Test. See page 2-5 to access Quick Overview Test Mode.

IMPORTANT: Lid must be closed and locked to perform Quick Overview Test.

= ON

Function	Status LEDs					Est. TIME
Recommended Procedure	SOAK/WASH	RINSE	FINAL SPIN	DONE	LID LOCKED	In Seconds
LID WILL LOCK				**1**	**ON**	1
Motor must be at “0” RPM. If lid does not lock, go to Manual Overview Test: Lid Lock.						
COLD VALVE WILL ACTUATE			**2**		**ON**	60
If water is not present, or temperature is wrong, go to Manual Overview Test: Cold Valve.						
HOT VALVE WILL ACTUATE			**2**	**1**	**ON**	10
If water is not present, or temperature is wrong, go to Manual Overview Test: Hot Valve.						
SHIFTER MOVES TO AGITATION POSITION		**4**			**ON**	~5-15
MOTOR AGITATES		**4**		**1**	**ON**	10
If motor does not agitate, go to Manual Overview Test: Gentle or Heavy Agitation.						
DRAIN PUMP WILL ACTUATE		**4**	**2**		**ON**	Till Empty
If water is not draining, go to Manual Overview Test: Drain.						
SHIFTER MOVES TO SPIN POSITION		**4**	**2**	**1**	**ON**	~5-15
MOTOR SPINS	**8**				**ON**	10
If basket is not turning, go to Manual Overview Test: Low or High Spin.						
LID REMAINS LOCKED UNTIL WASHER SENSES A STOPPED BASKET	**8**			**1**	**ON**	~30-45
Basket must stop spinning (0 RPM) before test continues to next phase. Time for basket to stop spinning may vary from 30 seconds up to 2 minutes.						
LID WILL UNLOCK AND CYCLE COMPLETES	**8**		**2**			1
If lid does not unlock, go to Manual Overview Test: Lid Lock.						~3 Min

For Service Technician Use Only

Manual Overview Test Mode

Pressing the START button will activate/deactivate each output. When the output is activated, the corresponding Status LEDs will flash. See page 2-6 to access Manual Overview Test Mode.

IMPORTANT: Lid must be closed and locked to perform SPIN and AGITATE tests.

= ON

OUTPUT	Status LEDs				
Output Details **NOTE: Outputs will time-out after 5 minutes.**	SOAK/WASH	RINSE	FINAL SPIN	DONE	LID LOCKED
LID LOCK					
Lock and unlock the lid. **NOTES:** ■ When lock is enabled, the "Lid Locked" LED will turn ON. Will only lock when lid is closed. Will only unlock when basket RPM is 0. If lid is not closed, washer will flash status LEDs on and off. ■ If lid does not lock or unlock, go to TEST #8: Lid Lock.					
COLD VALVE				1	
Turns ON and turns OFF cold water valve. ■ If valve does not turn on, go to TEST #2: Valves.					
HOT VALVE			2		
Turns ON and turns OFF hot water valve. ■ If valve does not turn on, go to TEST #2: Valves.					
UNUSED			2	1	
UNUSED		4			
UNUSED		4		1	
UNUSED		4	2		
DRAIN		4	2	1	
Turns ON and turns OFF the drain pump. ■ If pump does not turn on, go to TEST #7: Drain Pump.					
UNUSED	8				
LOW SPIN – To perform test, lid must be closed and locked.	8			1	ON
Spins basket from 0 to 500 RPM. **NOTE:** Allow up to 15 seconds for shifter to reposition. **IMPORTANT:** To activate Low Spin, RPM must read "0" and lid must be closed with lid lock enabled. If lid is not closed, status LEDs will flash on and off. **IMPORTANT**: Water in tub must be drained before test. ■ If motor does not spin, go to TEST #3a: Drive System – Shifter and TEST #3b: Drive System – Motor.					
HIGH SPIN – To perform test, lid must be closed and locked.	8			1	ON
Spins basket from 0 to maximum RPM. **NOTE:** Allow up to 15 seconds for shifter to reposition. **IMPORTANT:** To activate High Spin, RPM must read "0" and lid must be closed with lid lock enabled. If lid is not closed, status LEDs will flash on and off. **IMPORTANT**: Water in tub must be drained before test. ■ If motor does not spin, go to TEST #3a: Drive System – Shifter and TEST #3b: Drive System – Motor.					

For Service Technician Use Only

OUTPUT	Status LEDs				
Output Details **NOTE: Outputs will time-out after 5 minutes.**	SOAK/WASH	RINSE	FINAL SPIN	DONE	LID LOCKED
GENTLE AGITATION – To perform test, lid must be closed and locked.	8		2	1	ON
Shifts from idle motor to gentle CW/CCW agitation. **NOTE:** Allow up to 15 seconds for shifter to reposition. **IMPORTANT:** To activate Gentle Agitation, RPM must read "0" and lid must be closed with lid lock enabled. If lid is not closed, status LEDs will flash on and off. ■ If motor does not agitate, go to TEST #3a: Drive System – Shifter and TEST #3b: Drive System – Motor.					
HEAVY AGITATION – To perform test, lid must be closed and locked.	8	4			ON
Shifts from idle motor to heavy CW/CCW agitation. **NOTE**: Allow up to 15 seconds for shifter to reposition. **IMPORTANT**: To activate Heavy Agitation, RPM must read "0" and lid must be closed with lid lock enabled. If lid is not closed, status LEDs will flash on and off. ■ If motor does not agitate, go to TEST #3a: Drive System – Shifter and TEST #3b: Drive System – Motor.					

Troubleshooting Guide

NOTE: Always check for error codes first .

Some tests will require accessing components. See Figures for Component Locations. For detailed troubleshooting procedures, refer to "Troubleshooting Tests".

Problem	Possible Cause	Checks and Tests
WILL NOT POWER UP ■ No operation ■ No Status LEDs	No power to washer.	Check power at outlet, check circuit breakers, fuses, or junction box connections.
	Connection problem between AC plug and main control.	Check the AC power cord for continuity.
	Main control not properly installed in console.	See TEST #4: Console and Indicators.
	Main control problem.	See TEST #1: Main Control.
WILL NOT START CYCLE No response when Start Button is pressed.	Lid lock mechanism not functioning.	1. Lid not closed due to interference. 2. Lock not closed due to interference. 3. See TEST #8: Lid Lock.
	User Interface problem.	See TEST #4: Console and Indicators.
	Main control problem.	See TEST #1: Main Control.
UI WILL NOT ACCEPT SELECTIONS	User Interface problem.	See TEST #4: Console and Indicators.
	Main control problem.	See TEST #1: Main Control.
WILL NOT FILL	No water supplied to washer.	1. Check water connections to washer. 2. Verify hot and cold water supply is on.
	Plugged filter/screen.	Check for plugged filter or screen in the water valve or hoses.
	Drain hose installation.	Check for proper drain hose installation.
	Valve problem.	See TEST #2: Valves.
	Main control problem.	See TEST #1: Main Control.

For Service Technician Use Only

OVERFILLS	Pressure hose.	See TEST #6: Water Level.
	Valve problem.	See TEST #2: Valves.
	Washer requires calibration.	Perform washer calibration using Calibration Mode.
	Onboard pressure transducer.	See TEST #6: Water Level.
	Main control problem.	See TEST #1: Main Control.
WILL NOT AGITATE	Water covering impeller?	See TEST #6: Water Level.
	Is lid lock showing open during the cycle?	See TEST #8: Lid Lock.
	Drive belt.	Verify that drive belt is not damaged.
	Harness connections.	Check harness connections between main control and drive system.
	Shifter problem.	See TEST #3a: Drive System – Shifter.
	Motor or motor relay problem.	See TEST #3b: Drive System – Motor.
	Tachometer problem.	No tub movement or tub speed out of normal range (obstruction/belt/motor).
	Main control problem.	See TEST #1: Main Control.
WILL NOT SPIN	Is lid lock showing open during the cycle?	See TEST #8: Lid Lock.
	Drive belt.	Verify that drive belt is not damaged.
	Harness connections.	Check harness connections between main control and drive system.
	Shifter problem.	See TEST #3a: Drive System – Shifter.
	Motor or motor relay problem.	See TEST #3b: Drive System – Motor.
	Tachometer problem.	No tub movement or tub speed out of normal range (obstruction/belt/motor).
	Main control problem.	See TEST #1: Main Control.
INCORRECT WATER TEMPERATURE	Water hose installation.	Make sure inlet hoses are connected properly.
	Temperature thermistor.	See TEST #5: Temperature Thermistor.
	Valve problem	See TEST #2: Valves.
	Main control problem.	See TEST #1: Main Control.
WILL NOT DRAIN	Drain hose installation.	Check for proper drain hose installation. Make sure it is not inserted more than 4.5" (11.4 cm).
	Plugged drain hose.	Check drain hose for obstructions.
	Obstructions to drain pump.	Check tub sump under agitator plate and basket for obstructions.
	Harness connections.	Check harness connections between main control and drain pump.
	Drain pump.	See TEST #7: Drain Pump.
	Main control problem.	See TEST #1: Main Control.

For Service Technician Use Only

Problem	Possible Cause	Checks and Tests
CYCLE TIME LONGER THAN EXPECTED	Oversuds.	1. Verify use of HE detergent. 2. Excessive detergent usage.
	Off balance.	1. Load is off balance. 2. Balance ring water leak.
	Draining slowly.	Check for pump or drain hose obstructions.
	Water pressure drop.	Results in longer fill time.
	Friction or drag on drive.	Check motor and bearings; check for clothes between tub and basket.
	Weak suspension.	Basket should not bounce up and down more than once when pushed.
POOR WASH PERFORMANCE	Oversuds.	1. Verify use of HE detergent. 2. Excessive detergent usage.
	Load is tangling.	1. Washer not loaded properly. 2. Perform washer calibration.
	Incorrect water level.	1. Perform washer calibration. 2. See TEST #2: Valves. 3. See TEST #6: Water Level.
	Clothes wet after cycle is complete (not water saturated, but very damp).	1. Overloaded washer. 2. Oversuds (see above). 3. Items caught in tub sump. 4. Weak suspension. 5. Shifter not moving into position (see TEST #3a: Drive System – Shifter). 6. Cold/Rinse water > 105°F (41°C). 7. See TEST #7: Drain Pump.
	Load not rinsed.	1. Check proper water supply. 2. Not using HE detergent. 3. Washer not loaded properly. 4. Shifter not moving into position (see TEST #3a: Drive System – Shifter). 5. See TEST #2: Valves.
	Not cleaning clothes.	1. Washer not loaded properly. 2. Not using HE detergent. 3. Not using correct cycle. 4. Shifter not moving into position (see TEST #3a: Drive System – Shifter).
	Fabric damage.	1. Washer overloaded. 2. Bleach added incorrectly. 3. Sharp items in tub.
	Wrong option or cycle selection.	Select option or cycle appropriate for the load.

Notes

Section 3: Component Testing

This section provides the wiring diagram, component testing, and component location for the “Maytag® 3.5 cu ft Commercial-Grade Residential Agitator Washer.”

- Safety
- Wiring Diagram
- Troubleshooting Tests
- Component Location

Safety

⚠ DANGER

Electrical Shock Hazard

Only authorized technicians should perform diagnostic voltage measurements.

After performing voltage measurements, disconnect power before servicing.

Failure to follow these instructions can result in death or electrical shock.

⚠ WARNING

Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

Voltage Measurement Safety Information

When performing live voltage measurements, you must do the following:

- **Verify the controls are in the off position so that the appliance does not start when energized.**
- **Allow enough space to perform the voltage measurements without obstructions.**
- **Keep other people a safe distance away from the appliance to prevent potential injury.**
- **Always use the proper testing equipment.**
- **After voltage measurements, always disconnect power before servicing.**

IMPORTANT: Electrostatic Discharge (ESD) Sensitive Electronics

ESD problems are present everywhere. ESD may damage or weaken the electronic control assembly. The new control assembly may appear to work well after repair is finished, but failure may occur at a later date due to ESD stress.

- Use an antistatic wrist strap. Connect wrist strap to green ground connection point or unpainted metal in the appliance

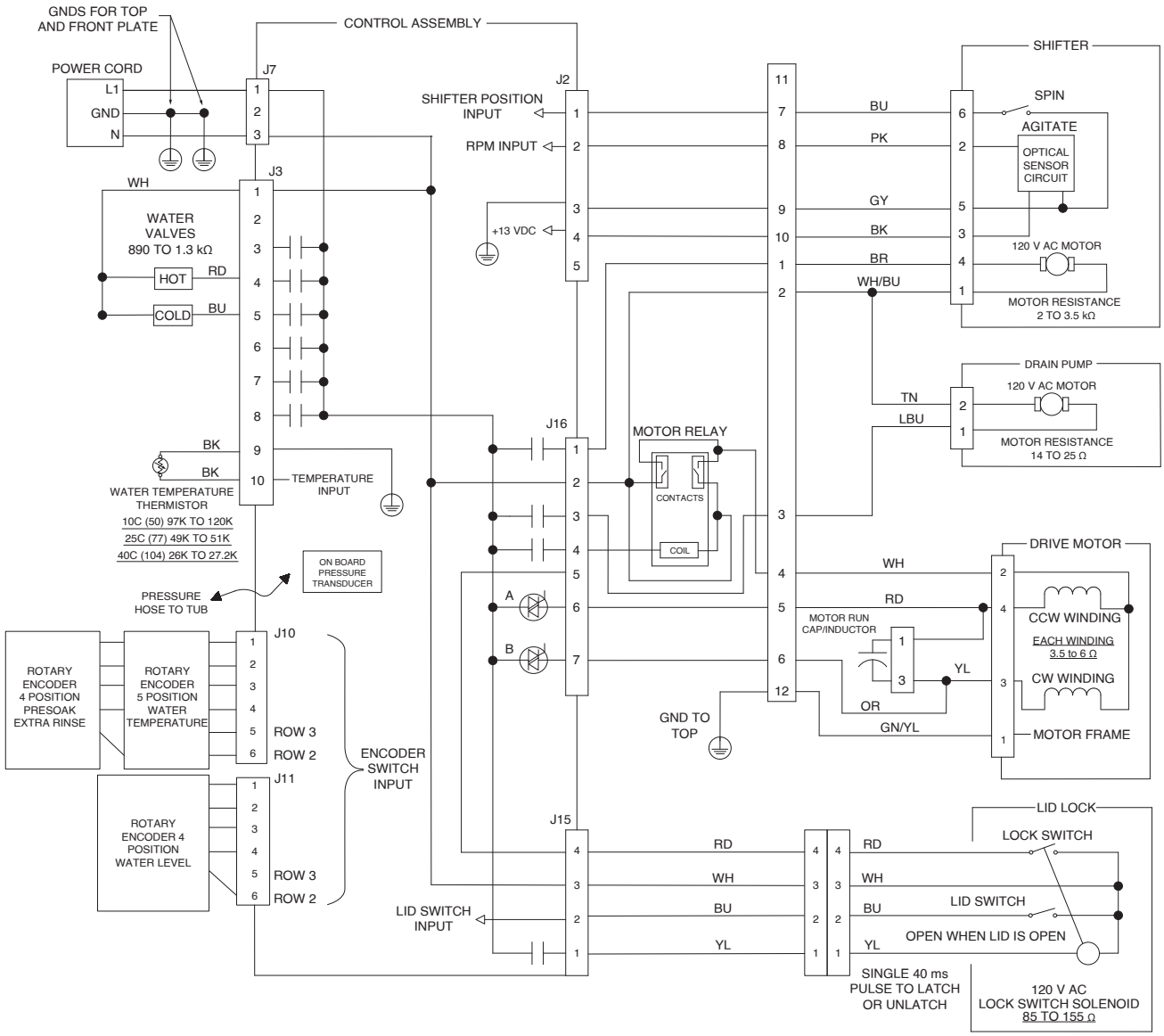
  -OR-

  Touch your finger repeatedly to a green ground connection point or unpainted metal in the appliance.
- Before removing the part from its package, touch the antistatic bag to a green ground connection point or unpainted metal in the appliance.
- Avoid touching electronic parts or terminal contacts; handle electronic control assembly by edges only.
- When repackaging failed electronic control assembly in antistatic bag, observe above instructions.

Wiring Diagram

IMPORTANT: Electrostatic discharge may cause damage to machine control electronics. See page 3-2 for ESD information.

NOTE: Schematic shows shifter in SPIN position, lock switch open, and motor off.



LEGEND

Ground	Connection	No Connection	On Some Models	In-Line Connection	P2-1 Connector P2 Position 1	Enclosed Circuitry Within	Terminals	Single Switch	Thermal Switch (opens on heat rise)	Thermal Switch (closes on heat rise)	Resistor or Element	Motor	Relay	Light Incandescent	Fuse Non-Resettable	Thermistor	Light Indicator	Triac	Thermo Fuse	Double Crimp	Splice	Temp Sensor

Troubleshooting Tests

TEST #1: Main Control

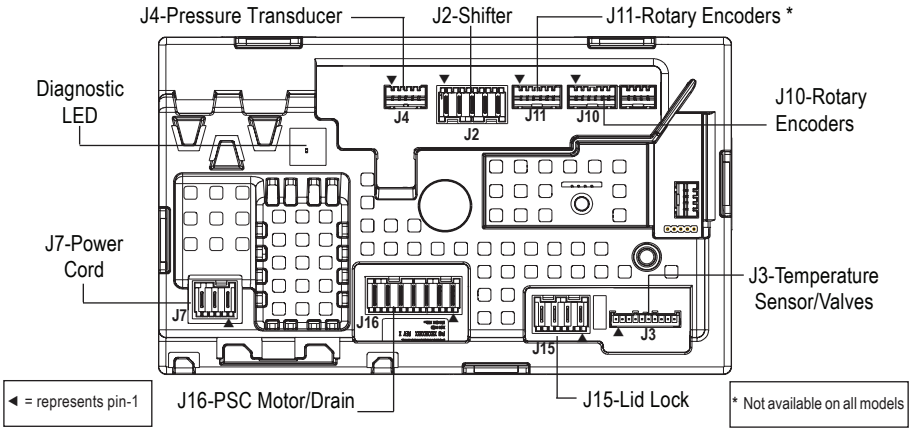
This test checks for incoming and outgoing supplies to and from the main control. This test assumes that proper voltage is present at the outlet.

1. Unplug washer or disconnect power.
2. Remove console to access main control.
3. Verify that all connectors are inserted all the way into the main control.
4. Plug in washer or reconnect power.
5. With a voltmeter set to AC, connect black probe to J7-3 (Neutral) and red probe to J7-1 (L1).
   - If 120 VAC is present, go to step 6.
   - If 120 VAC is not present, check the AC power cord for continuity (See Wiring Diagram).
6. Is the "Diagnostic LED" ON or OFF? (See Figure below for LED location.)
   - ON: (+5 VDC present) continue to step 7.
   - OFF: (+5 VDC missing) proceed to step 8.
7. With a voltmeter set to DC, connect black probe to J2-3 (Circuit Gnd) and red probe to J2-4 (+13 VDC).
   - If +13 VDC is present, main control supplies are good.
   - If +13 VDC is not present, go to step 8.
8. Check if shifter assembly is affecting the main control DC supplies.
   a. Unplug washer or disconnect power.
   b. Remove connector J2 from main control.
   c. Plug in washer or reconnect power.
   d. Repeat steps 6 and 7. Perform the +13 VDC check inside header J2 on the board – do not short pins together.
   - If one or more DC voltages are still missing, go to step 9.
   - If the DC voltages return, check for short in harness between main control and shifter assembly.
   - If harness and connections are good, replace shifter assembly.

Main Control Board Connectors and Pinouts

J2			
SHIFTER	J2-5		OPEN
	J2-4	BLK	+13VDC
	J2-3	GRY	-5VDC (CIRCUIT GND)
	J2-2	PNK	RPM INPUT
	J2-1	BLU	SHIFTER POSITION INPUT
J3			
TEMP	J3-10	BLK	TEMP THERMISTOR INPUT (HYBRID)
	J3-9	BLK	TEMP THERMISTOR GND (HYBRID)
VALVES	J3-8		OPEN
	J3-7		OPEN
	J3-6		OPEN
	J3-5	BLU	COLD VALVE (L1)
	J3-4	RED	HOT VALVE (L1)
	J3-3		OPEN
	J3-2		OPEN
	J3-1	WHT	NEUTRAL
J4			
PRESSURE TRANSDUCER	J4-3	BLU	PRESSURE TRANSDUCER INPUT
	J4-2		OPEN
	J4-1	BLU	-5VDC (CIRCUIT GND)
J7			
POWER CORD	J7-3	BLK	NEUTRAL
	J7-2	GRN	CHASSIS GROUND
	J7-1	BLK	L1

J10			
ROTARY ENCODERS	J10-6	BLK	ROW 2
	J10-5	BLK	ROW 3
	J10-4	BLK	COLUMN 0
	J10-3	BLK	COLUMN 1
	J10-2	BLK	COLUMN 2
	J10-1	BLK	COLUMN 3
J11			
ROTARY ENCODERS	J11-6	RED	ROW 4
	J11-5	RED	ROW 5
	J11-4	RED	COLUMN 0
	J11-3	RED	COLUMN 1
	J11-2	RED	COLUMN 2
	J11-1	RED	COLUMN 3
J15			
LID LOCK	J15-4	RED	LOCK SWITCH
	J15-3	WHT	NEUTRAL
	J15-2	BLU	LID SWITCH INPUT
	J15-1	YEL	LOCK SWITCH SOLENOID (L1)
J16			
MOTOR	J16-7	ORN	MOTOR CCW WINDING (L1)
	J16-6	RED	MOTOR CW WINDING (L1)
	J16-5		OPEN
	J16-4	WHT	MOTOR (NEUTRAL)
DRAIN	J16-3	LT BLU	DRAIN PUMP MOTOR (L1)
	J16-2	W/ BLU	SHIFTER MOTOR (NEUTRAL)
	J16-1	BRN	SHIFTER MOTOR (L1)



9. Main Control has malfunctioned.
   a. Unplug washer or disconnect power.
   b. Replace the main control.
   c. Reassemble all parts and panels.
   d. Plug in washer or reconnect power. Calibrate washer and perform Quick Overview Test to verify repair.

TEST #2: Valves

This test checks the electrical connections to the valves and the valves themselves.

1. Check the relays and electrical connections to the valves by performing the Cold and Hot Valve tests under Manual Overview Test Mode. Each test activates and deactivates the selected valve. The following steps assume one (or more) valve(s) did not turn on.
2. For the valve(s) in question, check the individual solenoid valves:
   a. Unplug washer or disconnect power.
   b. Remove console to access main control.
   c. Remove connector J3 from main control. Refer to Main Control Board Connector and Pinouts.
   d. Check harness connection to solenoid valves.
3. Check resistance of the valve coils across the following J3 connector pinouts:

Valve	Pinout
Hot Valve	J3, 1 and 4
Cold Valve	J3, 1 and 5

Resistance should be 890–1.3k Ω.

- If resistance readings are tens of ohms outside of range, replace the valve assembly.
- If resistance readings are within range, replace main control and calibrate washer. Perform Quick Overview Test to verify repair.

TEST #3a: Drive System – Shifter

This test checks connections, shifter motor, switch, and optical sensor.

NOTE: Refer to Figure "Shifter Assembly Strip Circuit" for tests and measurements.

IMPORTANT: Drain water from tub before accessing bottom of washer.

Functional Check:

1. Check the shifter and electrical connections by performing both the Spin and Agitate test under Manual Overview Test Mode. The following steps assume that this step was unsuccessful.
2. Unplug washer or disconnect power.
3. Check to see if basket will turn freely.
   - If basket turns freely, go to step 4.
   - If basket does not turn freely, determine what is causing the mechanical friction or lockup.
4. Remove console to access main control.
5. Visually check that the J2 and J16 connectors are inserted all the way into the main control.
   - If visual checks pass, go to step 6.
   - If connectors are not inserted properly, reconnect J2 and J16 and repeat step 1.

Shifter Motor:

6. Remove connector J16 from main control. With an ohmmeter, verify resistance of the shifter motor across the following J16 connector pinouts:

Component	J16 Connector Pinout
Shifter Motor	J16, 1 and 2

Resistance should be 2k to 3.5k Ω.

- If values are correct, reconnect J16 and proceed to step 7.
- If values are open or out of range, go to step 13.

7. Plug in washer or reconnect power.
8. With a voltmeter set to AC, connect the black probe to J16-2 (N) and red probe to J16-1 (L1). Activate shifter motor by switching between Spin and Agitate modes. Energize outputs using Manual Overview Test Mode.

   IMPORTANT: Lid must be closed with Lid Lock enabled to run the SPIN and AGITATE tests.

   NOTE: It will take 4–15 seconds for the shifter to change states.
   - If 120 VAC is present, go to step 9.
   - If 120 VAC is not present, go to step 17.

Shifter Switch:

9. With a voltmeter set to DC, connect the black probe to J2-3 (Circuit Gnd) and red probe to J2-1 (Shifter Switch). In Manual Overview Test Mode, switch between Spin and Agitate modes. Voltage should toggle between 0 and +5 VDC.

   SPIN = +5 VDC

   AGITATE = 0 VDC

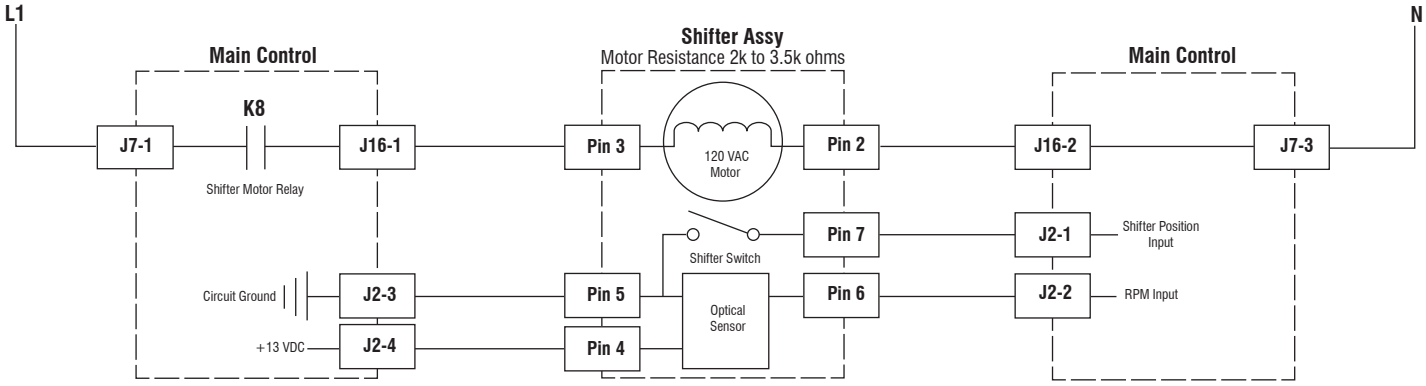


Figure - Shifter Assembly Strip Circuit

- If voltage corresponds to setting, go to step 10.
- If voltage does not switch, go to step 12.

Optical Sensor:

10. With a voltmeter set to DC, connect the black probe to J2-3 (Circuit Gnd) and red probe to J2-4 (+13 VDC).
- If +13 VDC is present, go to step 11.
- If +13 VDC is not present, go to step 17.

11. Activate Tachometer Verification Mode from the Service Diagnostic Test Modes. Slowly turn the basket by hand. The 4 status LEDs should illuminate one at a time to represent basket RPM.
- If the tachometer is not verified, go to step 12.
- If the tachometer is verified, go to step 17.

12. Unplug washer or disconnect power.

13. Tilt washer back to access the bottom of the washer and the drive motor area.

14. Visually check the electrical connections to the shifter.
- If visual check passes, go to step 15.
- If connections are loose, reconnect the electrical connections and repeat step 1.

15. With an ohmmeter, check the harness for continuity between the shifter and main control using the pinouts in the following chart.
- If there is continuity, go to step 16.
- If there is no continuity, replace the lower washer harness and repeat step 1.

Shifter to Main Control and Drain Pump
Shifter Connector Pin 2 to Main Control J16-2
Shifter Connector Pin 3 to Main Control J16-1
Shifter Connector Pin 4 to Main Control J2-4
Shifter Connector Pin 5 to Main Control J2-3
Shifter Connector Pin 6 to Main Control J2-2
Shifter Connector Pin 7 to Main Control J2-1

16. Replace the shifter assembly.
- **a.** Unplug washer or disconnect power.
- **b.** Replace shifter assembly.
- **c.** Reassemble all parts and panels.
- **d.** Plug in washer or reconnect power. Calibrate washer and perform Quick Overview Test to verify repair.

17. If the preceding steps did not correct the problem, replace the main control.
- **a.** Unplug washer or disconnect power.
- **b.** Replace the main control.
- **c.** Reassemble all parts and panels.
- **d.** Plug in washer or reconnect power. Calibrate washer and perform Quick Overview Test to verify repair.

TEST #3b: Drive System – Motor

This test checks the motor, motor relay, motor windings, wiring, and start capacitor.

NOTE: Refer to figure "Drive Motor Strip Circuit" for tests and measurements.

IMPORTANT: Drain water from tub before accessing bottom of washer.

1. Check the motor and electrical connections by performing the Gentle or Heavy Agitation test under Manual Overview Test Mode. The following steps assume that this step was unsuccessful.

2. Unplug washer or disconnect power.

3. Check to see if basket will turn freely.
- If basket turns freely, go to step 4.
- If basket does not turn freely, determine what is causing the mechanical friction or lockup.

4. Remove console to access main control.

5. Visually check that the J2 and J16 connectors are inserted all the way into the main control.
- If visual checks pass, go to step 6.
- If connectors are not inserted properly, reconnect J2 and J16 and repeat step 1.

6. Plug in washer or reconnect power. Run the Gentle Agitation test under Manual Overview Test Mode .

7. With a voltmeter set to AC, connect black probe to motor relay pin 2 and red probe to J16-6 (CCW Winding).
- If 120 VAC is cycling ON during CCW rotation, go to step 8.
- If 120 VAC is not present, go to Test #1: Main Control.

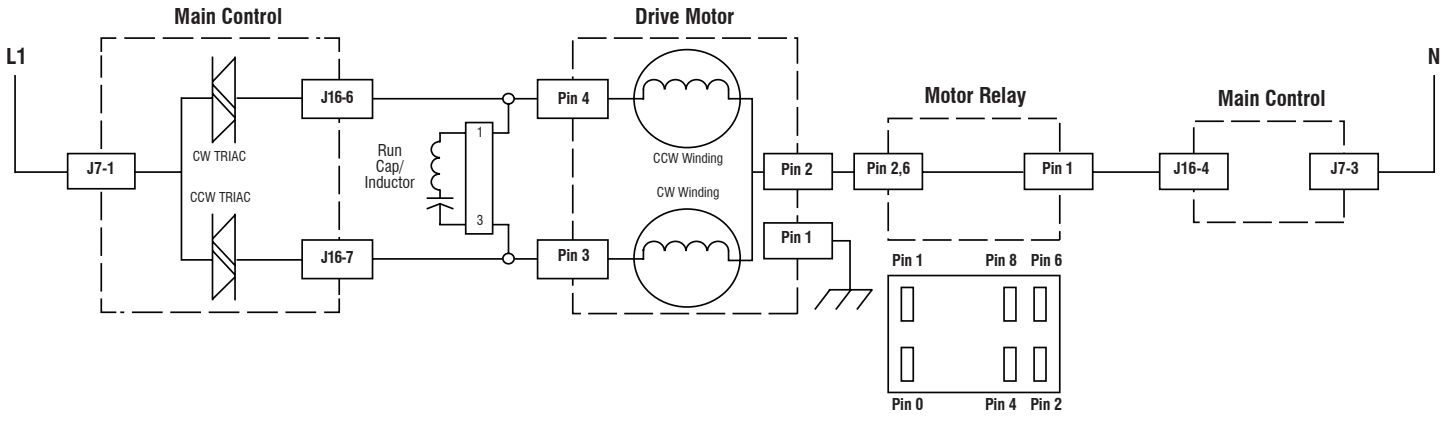


Figure - Drive Motor Strip Circuit

e.

8. With a voltmeter set to AC, connect black probe to motor relay pin 2, red probe to J16-7 (CW Winding).
   - If 120 VAC is cycling ON during CW rotation, go to step 9.
   - If 120 VAC is not present, go to Test #1: Main Control.
9. Unplug washer or disconnect power.
10. Remove connector J16 from main control. With an ohmmeter, check resistance of motor windings across the following J16 connector pinouts:

    NOTE: If the console has a cycle selector knob and 4 rotary switches, the motor size is 1/2 HP.

Size	Motor Winding	J16 Pinout	Resistance
1/2 HP	CCW Winding	J16-6 to motor relay pin 2	3.5 to 6 Ω
	CW Winding	J16-7 to motor relay pin 2	3.5 to 6 Ω

   - If values are open or out of range, go to step 11.
   - If values are correct, go to step 15.
11. Tilt washer back to access drive system.
12. Visually check the mounting bracket and electrical connections to the motor and shifter.
   - If visual check passes, go to step 13.
   - If connections are loose, reconnect the electrical connections, reassemble motor cover, and repeat step 1.
13. With an ohmmeter, check the harness for continuity between the main control, motor, and run capacitor using the following test points.

Motor Harness Check
Motor Connector Pin 1 to Chassis Ground
Motor Connector Pin 3 to Main Control J16-7
Motor Connector Pin 3 to Run Capacitor Pin 3
Motor Connector Pin 4 to Main Control J16-6
Motor Connector Pin 4 to Run Capacitor Pin 1
Motor Connector Pin 2 to Motor Relay Pin 2

   - If there is continuity, go to step 14.
   - If there is no continuity, replace the lower machine harness and repeat step 1.
14. With an ohmmeter, check resistance of motor windings at the following motor connections.

    NOTE: If the console has a cycle selector knob and 4 rotary switches, the motor size is 1/2 HP.

Size	Motor Winding	Motor Pinout	Resistance
1/2 HP	CCW Winding	Pins 4 and 2	3.5 to 6 Ω
	CW Winding	Pins 3 and 2	3.5 to 6 Ω

   - If values are open or out of range, replace motor.
   - If values are correct, go to step 15.
15. Test Motor Run Capacitor.

    NOTE: A faulty capacitor may cause the motor to “hum”, not start, or turn slowly.
    a. Discharge the capacitor by touching the leads of a 20,000 Ω resistor to the two terminals.
    b. Disconnect the wires from the capacitor terminals.
    c. With an ohmmeter, measure across the terminals and note reading.
   - If a steady increase in resistance is noted, continue to step 16.
   - If the capacitor is either shorted or open, replace capacitor, calibrate the washer, and repeat step 1.
16. If the preceding steps did not correct the motor problem, replace the main control.
    a. Unplug washer or disconnect power.
    b. Replace the main control.
    c. Reassemble all parts and panels.
    d. Plug in washer or reconnect power. Calibrate washer and perform Quick Overview Test to verify repair.

TEST #4: Console and Indicators

Console and Indicators Check:

This test is performed when any of the following situations occurs during “UI Test Mode”.

- None of the LEDs light up
- One or more Status LEDs are flashing
- Turning rotary switch does not toggle LED

None of the LEDs light up:

1. Unplug washer or disconnect power.
2. Access the main control and visually check that all connectors are inserted all the way into their respective headers.
3. Visually check that the main control assembly is properly inserted in the console.
4. If both visual checks pass, follow procedure under Test #1: Main Control to verify supply voltages.
5. To verify repair, activate the Service Diagnostic Mode, and then perform UI Test Mode.

One or more Status LEDs are flashing:

If one or more of the status LEDs are flashing (on and off in 0.5 second intervals), refer to the following notes to identify the switch(es) in question. Refer the wiring diagram when performing the following procedures.

a. Verify the switch connector is inserted all the way into the main control.
b. Check the harness between the switch and main control for continuity. Check for shorts.
c. Replace the switch.
d. Replace the main control.

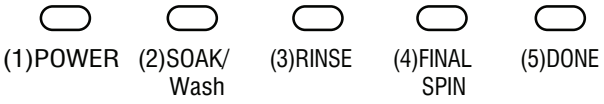
NOTE: The number and location of rotary switches varies between makes and models.

NOTE: Regardless of location, switches are read from left to right (not counting the pressure transducer), the left-most switch being #1.

NOTE: Each rotary switch and the cycle selector knob is represented by the following status LEDs:

- Rotary Switch #1 – toggles (1) POWER LED
- Rotary Switch #2 – toggles (2) SOAK/WASH LED
- Rotary Switch #3 – toggles (3) RINSE LED
- Rotary Switch #4 – toggles (4) FINAL SPIN LED
- Cycle Select Knob – toggles (5) DONE LED

NOTE: Status LED names may vary between makes and models. Use LED # identification.



Turning rotary switch does not toggle LED:

Perform the procedures under “One or more Status LEDs are flashing.”

TEST #5: Temperature Thermistor

This test checks valves, main control, temperature thermistor, and wiring.

1. Check the cold valve by performing Cold Valve test under Manual Overview Test Mode.
   - If cold water is being dispensed, proceed to step 2.
   - If hot water is being dispensed, verify proper hose connection.
2. Check the hot valve by performing Hot Valve test under Manual Overview Test Mode.
   - If hot water is being dispensed, proceed to step 3.
   - If cold water is being dispensed, ensure that household hot water is present.
3. Unplug washer or disconnect power.
4. Remove console to access main control.
5. Remove connector J3 from the main control. With an ohmmeter, measure the resistance of the temperature thermistor between pins J3-9 and J3-10. Verify that the approximate resistance, shown in the following table, is within ambient temperature range.

THERMISTOR RESISTANCE		
Approx. Temperature		Approx. Resistance
°F	°C	(kΩ)
32	0	163
41	5	127
50	10	100
59	15	79
68	20	62
77	25	50
86	30	40
95	35	33
104	40	27
113	45	22
122	50	18
131	55	15
140	60	12
149	65	10

   - If the resistance is within the range shown in the table, go to step 6.
   - If the resistance is infinite or close to zero, replace the temperature thermistor assembly.

   NOTE: Most thermistor errors are a result of the resistor being out of range. If the temperature thermistor malfunctions, the washer will default to pre-programmed wash settings.
6. If the thermistor is good, replace main control and calibrate washer. Perform Quick Overview Test to verify repair.

TEST #6: Water Level

This test checks the water level sensing components. This washer uses an on-board pressure transducer.

NOTE: Usually, if the pressure transducer malfunctions, the washer will generate a long fill or long drain error.

1. Check the functionality of the pressure transducer by running a small load cycle. The valves should turn off automatically after sensing the correct water level in the tub. The following steps assume that this step was unsuccessful.
2. Drain the tub until all water has been removed.
3. Unplug washer or disconnect power.
4. Remove console to access controls.
5. Check hose connection between the pressure transducer and the pressure dome attached to the tub.
6. Check to ensure hose is routed correctly in the lower cabinet and not pinched or crimped by the back panel.
7. Verify there is no water, suds, or debris in the hose or dome. Disconnect hose from main control and blow into hose to clear water, suds, or debris.
8. Check hose for leaks. Replace if needed.
9. If the preceding steps did not correct the problem,replace the main control and calibrate washer. Perform Quick Overview Test to verify repair.

TEST #7: Drain Pump

Perform the following checks if washer does not drain.

NOTE: Refer to Figure “Drain Pump Strip Circuit” for tests and measurements.

IMPORTANT: Drain water from tub before accessing bottom of washer.

1. Check for obstructions in the usual areas. Clean and then perform step 2.
2. Check the drain pump and electrical connections by performing the Drain Test under Manual Overview Test Mode. The following steps assume that this step was unsuccessful.
3. Unplug washer or disconnect power.
4. Remove console to access main control.
5. Visually check that the J16 connector is inserted all the way into the main control.
   - If visual check passes, go to step 6.
   - If connector is not inserted properly, reconnect J16 and repeat step 2.
6. Remove connector J16 from main control. With an ohmmeter, verify resistance values shown below across the following J16 connector pinouts:

Component	J16 Connector Pinout
Drain Pump	J16, 2 and 3

Resistance should be 14–25 Ω.

- If values are open or out of range, go to step 7.
- If values are correct, go to step 11.

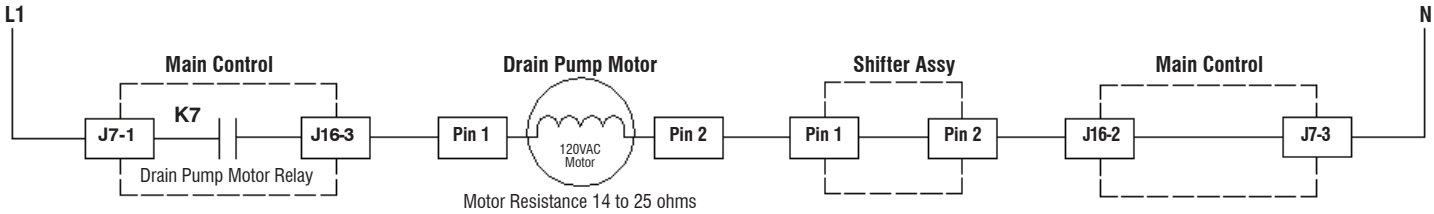


Figure - Drain Pump Strip Circuit

7. Tilt washer back to access drain pump. Verify pump is free from obstructions.
8. Visually check the electrical connections at the drain pump.
   - If visual check passes, go to step 9.
   - If connections are loose, reconnect the electrical connections and repeat step 2.
9. With an ohmmeter, check harness for continuity between the drain pump and main control. See chart below.

Main Control to Drain Pump
Drain Pump Pin 1 to Main Control J16-3
Drain Pump Pin 2 to Main Control J16-2

   - If there is continuity, go to step 10.
   - If there is no continuity, replace the lower machine harness and repeat step 2.
10. With an ohmmeter, measure the resistance across the two pump terminals. Resistance should be 14–25 Ω.
    - If values are open or out of range, replace the pump motor.
    - If the resistance at the pump motor is correct, go to step 11.
11. If the preceding steps did not correct the drain problem, replace the main control.
    a. Unplug washer or disconnect power.
    b. Replace the main control.
    c. Reassemble all parts and panels.
    d. Plug in washer or reconnect power. Calibrate washer and perform Quick Overview Test to verify repair.

TEST #8: Lid Lock

Perform the following checks if the washer does not lock (or unlock).

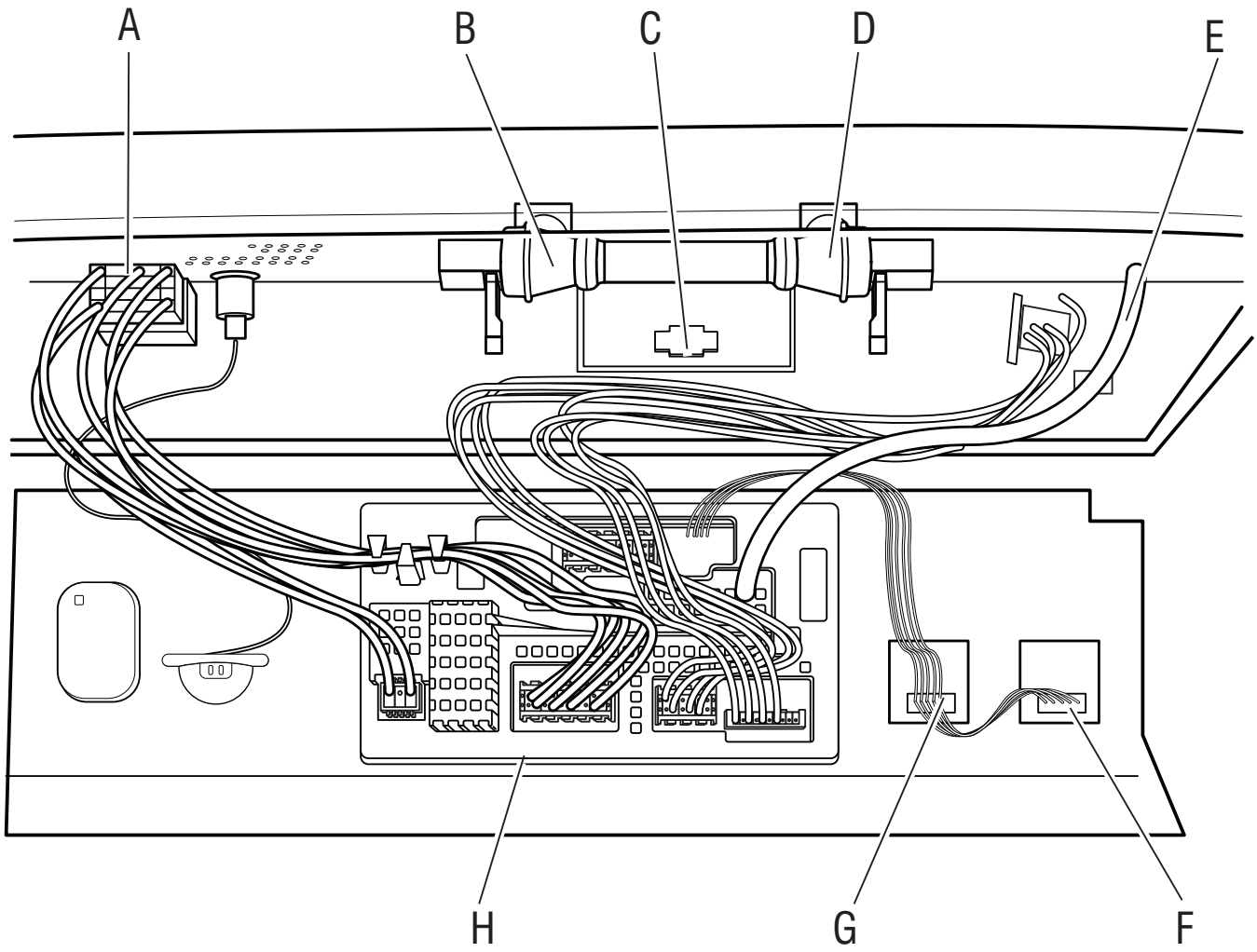
1. Perform the Lid Lock test under Manual Overview Test Mode. The following steps assume that this step was unsuccessful.
2. Check lid lock mechanism for obstruction or binding. Repair as necessary.
3. Unplug washer or disconnect power.
4. Remove console to access main control.
5. Visually check that the J15 connector is inserted all the way into the main control.
   - If visual check passes, go to step 6.
   - If connector is not inserted properly, reconnect J15 and repeat step 1.
6. Remove connector J15 from main control. With an ohmmeter, verify lid lock resistance values shown below across the following J15 connector pinouts:
   - If resistance values are good, go to step 7.
   - If switch measurements do not match the values shown in the table for unlocked (or locked) condition, a problem exists in the lid lock. Replace the lid lock mechanism.

LID LOCK RESISTANCE			
Component	**Resistance**	**Contacts Measured**	
Lock Switch Solenoid	85 to 155 Ω	J15-1	J15-3
Lock Switch	Locked = 0 Ω Unlocked = Open Circuit	J15-3	J15-4
Lid Switch	Lid Closed = 0 Ω Lid Open = Open Circuit	J15-3	J15-2

7. If the preceding steps did not correct the lock problem, replace the main control.
   a. Unplug washer or disconnect power.
   b. Replace the main control.
   c. Reassemble all parts and panels.
   d. Plug in washer or reconnect power. Calibrate washer and perform Quick Overview Test to verify repair.

Component Location

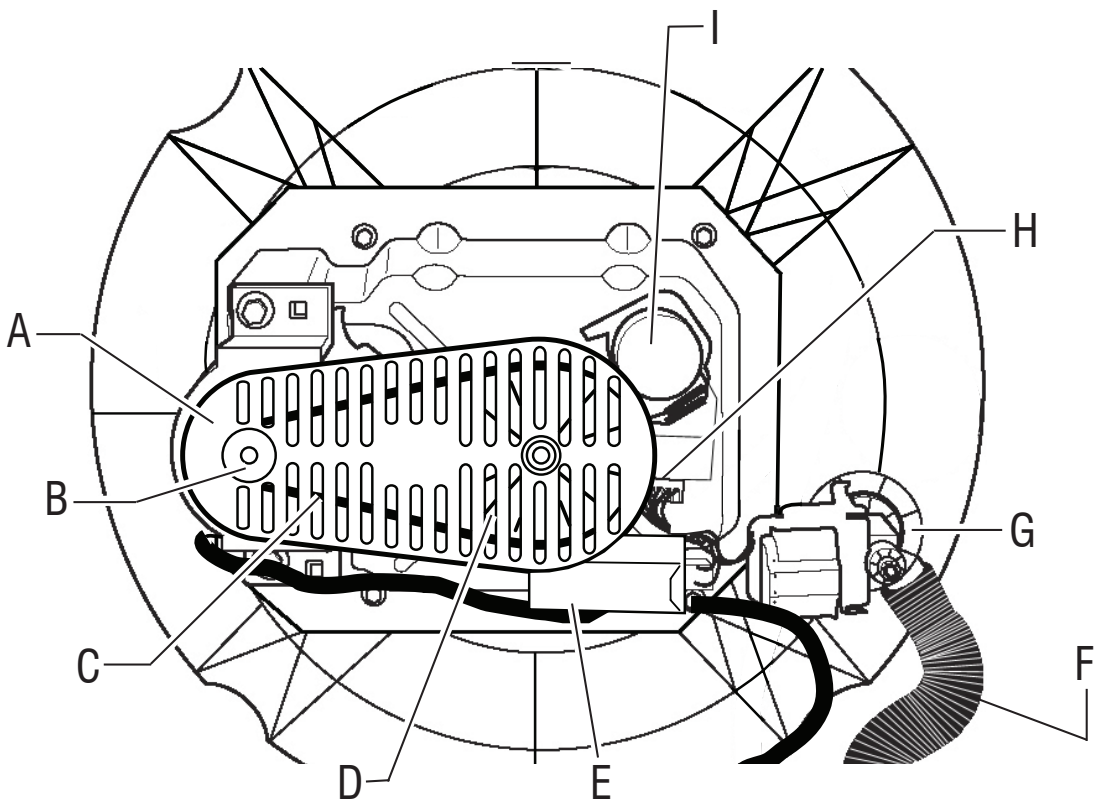
Console and Valves



A. Motor Relay (not present on all models)
B. Hot Water Valve
C. Temperature Thermistor
D. Cold Water Valve
E. Pressure Hose
F. Options Encoder
G. Water Temperature Encoder
H. Main Control Board

Component Location (cont.)

Drive System and Drain Pump



A. Drive Motor
B. Motor Pulley
C. Drive Belt
D. Shaft Pulley
E. Motor Capacitor
F. Drain Hose
G. Drain Pump
H. Shifter Assembly Connector
I. Shifter Assembly

Notes

Section 4: Component Access

This section provides service parts access, removal, and replacement instructions for the “Maytag® 3.5 cu ft Commercial-Grade Residential Agitator Washer.”

- Console Open and Components
  - Upper Back Panel
  - Upper Front Panel and Supporting Panels
  - Power Cord
  - Water Inlet Valves
  - Thermistor
  - Motor Relay
  - Transformer
  - Selector Switches
  - Central Control Unit Connections
- Components Accessible under Top Panel
  - Lid Lock
  - Lid Strike
  - Top Panel Removal
  - Agitator
  - Clothes Guard
  - Tub Ring
  - Front Panel
  - Tub Suspension Rods
- Components Accessible from the Bottom
  - Drive Belt
  - Capacitor
  - Drive Motor
  - Drive Pulley
  - Shifter
  - Splutch Assembly
  - Drain Pump
  - Drain Pump Outlet Hose
  - Transmission
  - Outer Tub
  - Cabinet

Console Open and Components

Upper Back Panel

⚠ WARNING

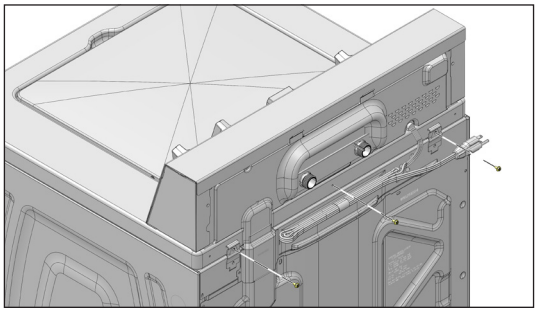
Electrical Shock Hazard

Disconnect power before servicing.

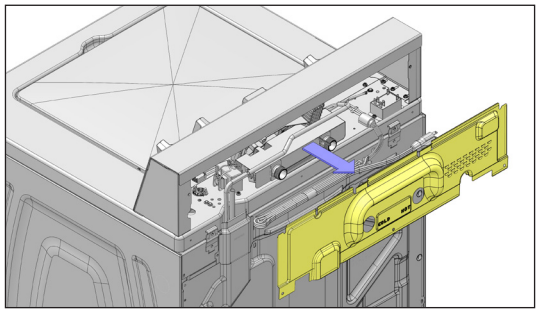
Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

1. Unplug washer or disconnect power.
2. Remove three (3) 1/4" hex head screws securing the upper back panel to the back of the console.

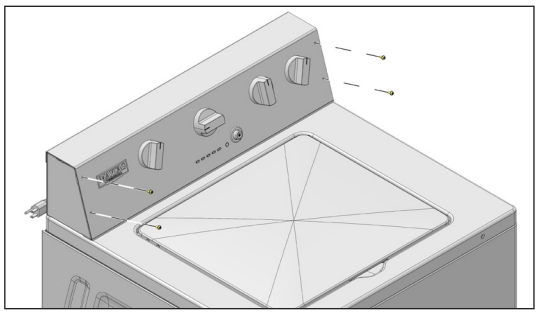


3. Pull the bottom edge of the panel out and down to release the tabs from the top edge of the console.
4. Remove the panel.

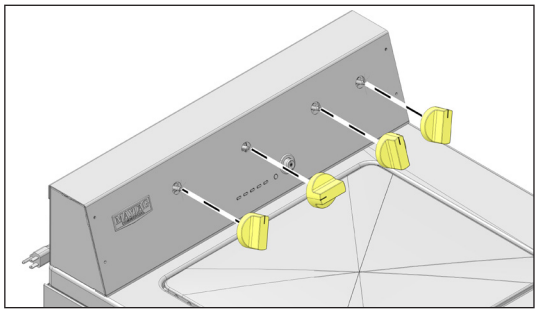


Upper Front Panel and Supporting Panels

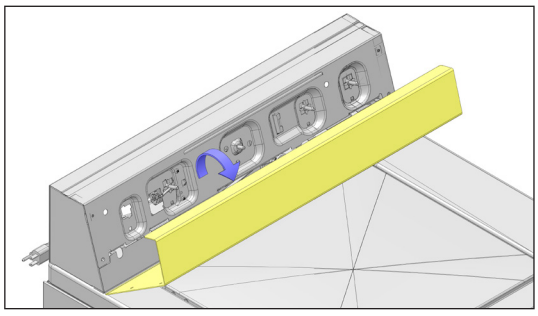
5. Complete the steps 1-4 from Upper Back Panel removal instructions.
6. To avoid damage, lay a towel on the washer and place tools or removed parts on towel.
7. Remove the four (4) top TORX®† T20® security screws on the front panel.



8. Remove all four (4) knobs from the front of the control panel.

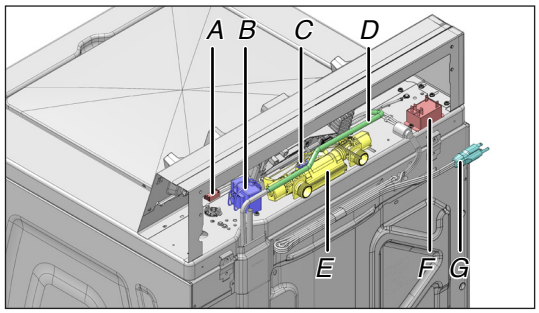


9. Lift the panel up and lay them forward to gain access to the components in the console.



†Torx and T20 are trademarks of Acument Intellectual Properties, LLC.

10. Components located in the console are the:

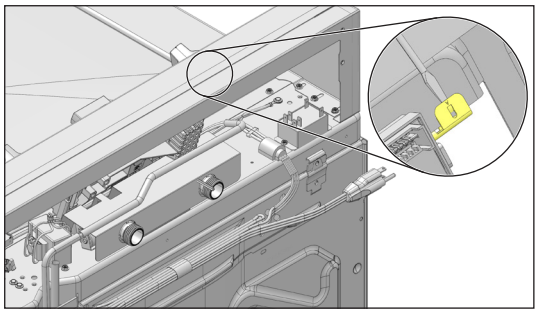


A. Wire Harness Connections
B. Transformer
C. Thermistor
D. Pressure Switch Air Hose
E. Water Inlet Valves
F. Motor Relay
G. Incoming power cord with 2 pin connector that connects to the transformer

Power Cord

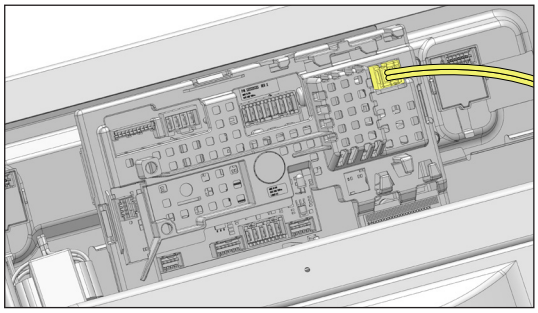
1. Complete the steps 1-9 from Panels removal instructions.

2. Use a small flat blade screwdriver to remove the ground wire clip from the back of the control panel.

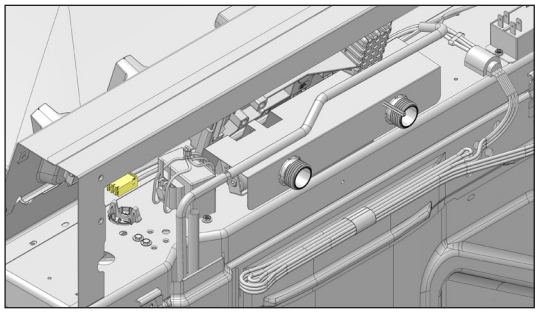


TECH TIP: When reinstalling the ground wire clip, squeeze the clip together with a pair of pliers before reinstalling the clip on the control panel to make sure it is tight.

3. Remove J7 power plug by pulling it off of the connector. There is no lock on this plug.

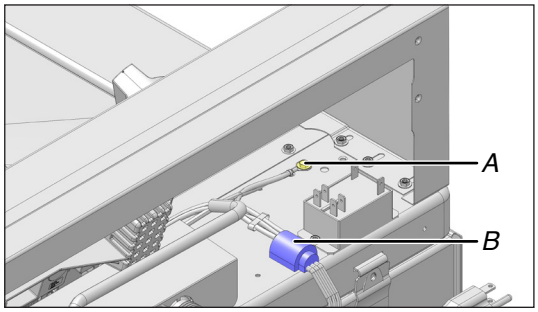


4. Disconnect the power connector to the transformer by lifting the locking tab and separating the connector.



5. Remove the 5/16" (8 mm) hex head screw securing the ground wire to the console and top of the washer.

6. Use a small flat blade screwdriver to lift wire retainer clip out of hole in the top of washer.



A. Ground Wire
A. Clip

7. Remove the power cord.

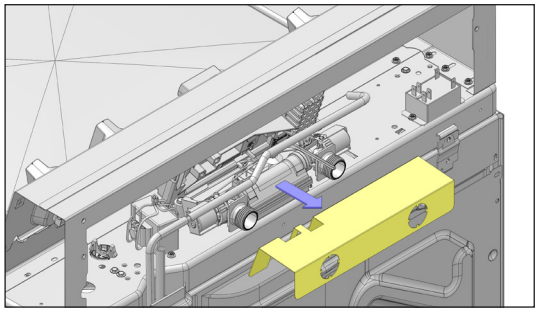
Water Inlet Valves

1. Complete the steps 1-9 from Panels removal instructions.

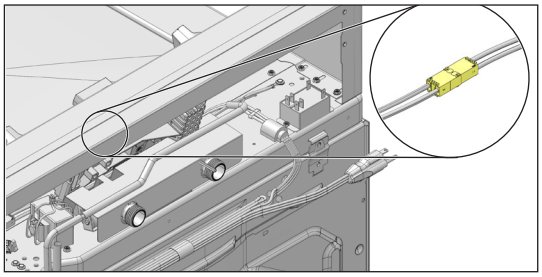
2. Remove the Power Cord.

3. Turn off the water supply to the washer.

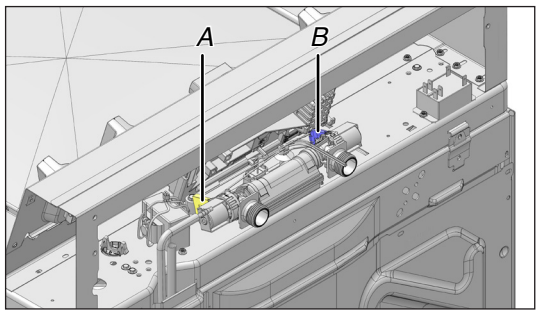
4. Pull the cardboard shield from the valve.



5. Pull the wire harness connector off the hot water inlet valve.



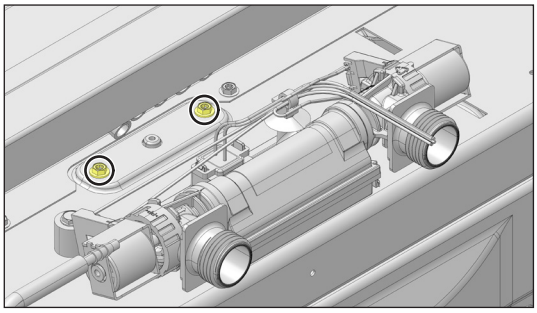
6. Pull the wire harness connector off the cold water inlet valve.



A. Wire for Cold water inlet Valve
B. Wire for Hot Water Inlet Valve

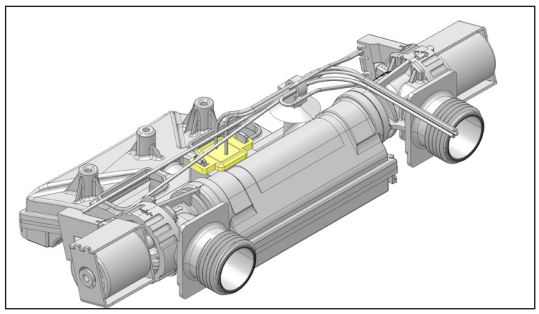
NOTE: Wires for the inlet valves are color coded, red and white wires for the hot water inlet valve, blue and white wires for the cold water inlet valve.

7. Remove two (2) T20 screws securing the water inlet assembly to the top of washer.



Thermistor

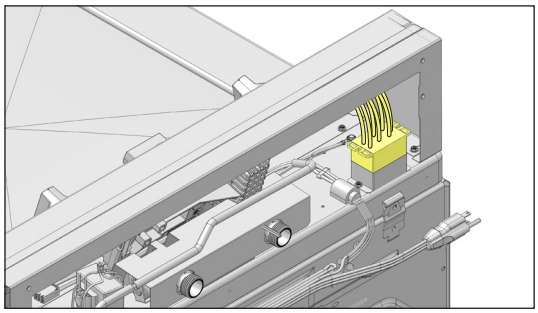
1. Complete the steps 1-9 from Panels removal instructions.
2. Remove the Power Cord.
3. Remove Water Inlet Valve.
4. Release the tabs and remove the thermistor from the top of the vacuum break.



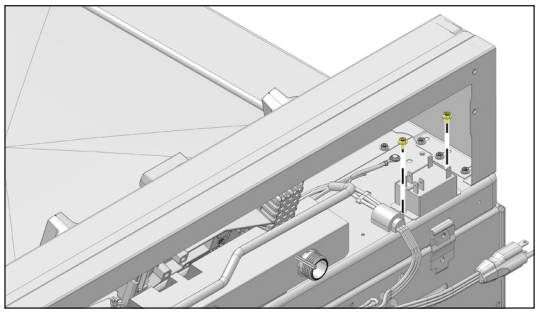
NOTE: The thermistor is part of the wire harness for the water inlet valves.

Motor Relay

1. Complete the steps 1-9 from Panels removal instructions.
2. Remove the Power cord.
3. Remove the Water Inlet Valve and Thermistor.
4. Pull the plug off the spade connectors on the top of the motor relay.



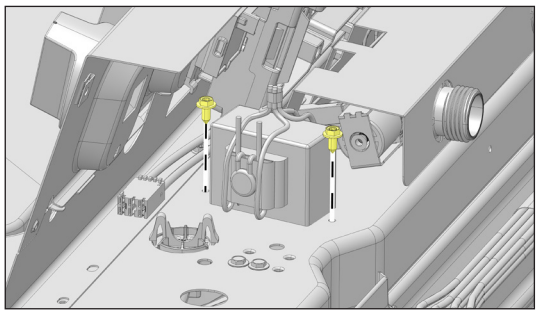
5. Loosen one, and remove the other, 5/16" (8 mm) hex head screw securing the motor relay to the top of the washer.



6. Slide the motor relay out from under the screw and remove it from the console.

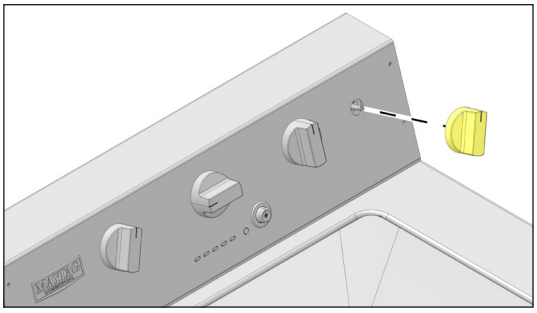
Transformer

1. Complete the steps 1-9 from Panels removal instructions.
2. Remove the Power Cord.
3. Remove the Water Inlet Valve and Thermistor.
4. Remove the Motor Relay.
5. Remove two (2) 5/16" or 8 mm hex head screws securing the transformer to the top of the washer.

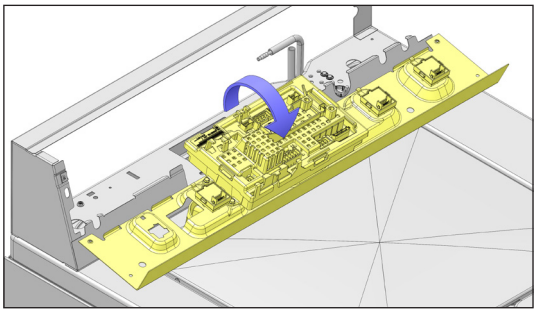


Selector Switches

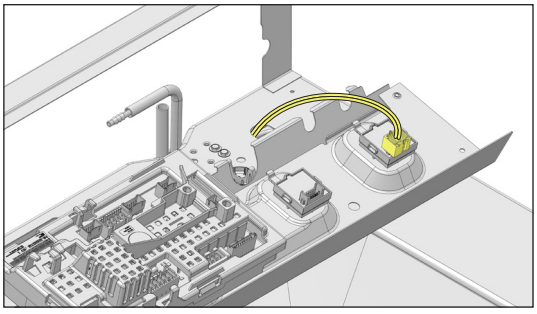
1. Complete the steps 1-9 from Panels removal instructions.
2. Remove the Power Cord.
3. Remove the Water Inlet Valve and Thermistor.
4. Remove the Motor Relay.
5. Remove the knob from the front of the control panel. There is a flat spot on the shaft and the knob for proper orientation.



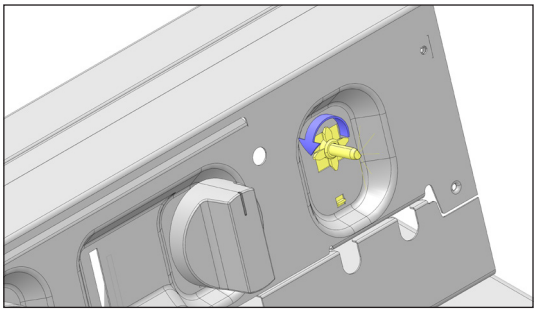
6. Lift the control panel and lay it forward.



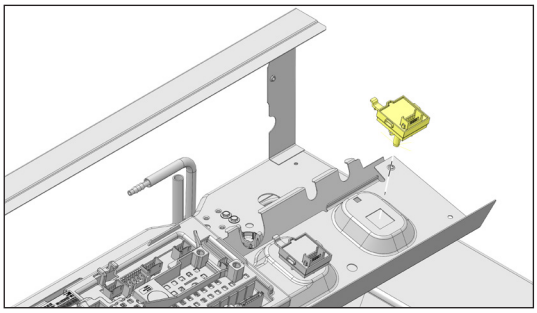
7. Disconnect the wire harness connection. Grasp all the wires as close to the connection as possible and use a finger on the other hand to help pull the connector out. The connector is keyed for proper orientation during reinstallation.



8. Lift the locking tab and rotate the temperature selector switch 1/8 of a turn.

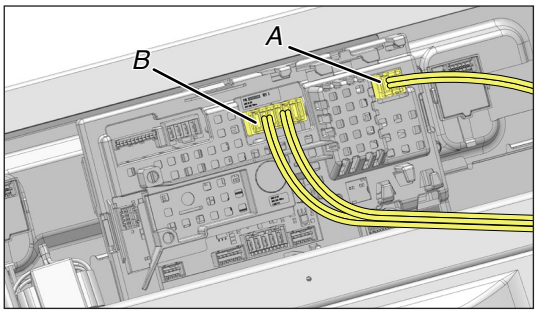


9. Pull switch out of hole in the control panel.



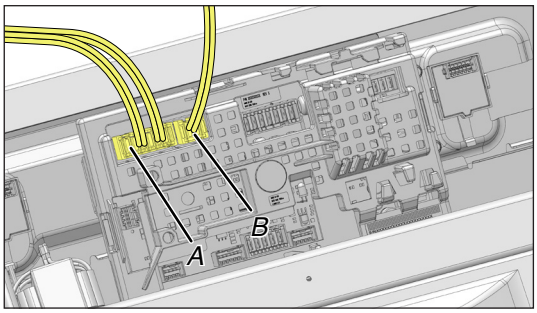
Central Control Unit Connections

1. Complete the steps 1-10 from Panels removal instructions.
2. Remove the Power Cord.
3. Remove the Water Inlet Valve and Thermistor.
4. Remove the Motor Relay and Temperature Selector Switch.
5. Remove J7 power plug by pulling it off of the connector. There is no lock on this plug.



A. J7 power plug
B. J16 connector

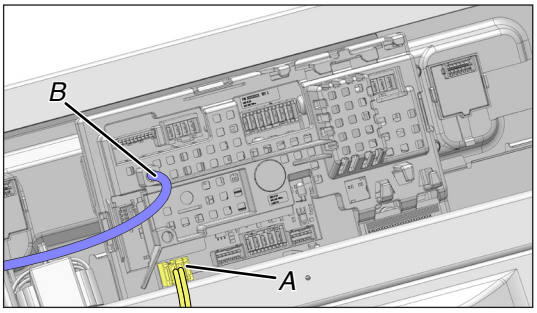
6. Press the two (2) locking tabs and disconnect plug at the J16 connector. This connector supplies power and control to components in the cabinet of the washing machine
7. Press the two (2) locking tabs and pull the lid lock plug off the connector at J15.



A. J3 Connector
B. J15 Connector

8. Press the locking tab and pull the plug for both the thermistor and water valves off the connector at J3. The thermistor is part of this wire harness. The replacement part includes the wire harness for the hot and cold water inlet valves and the thermistor.

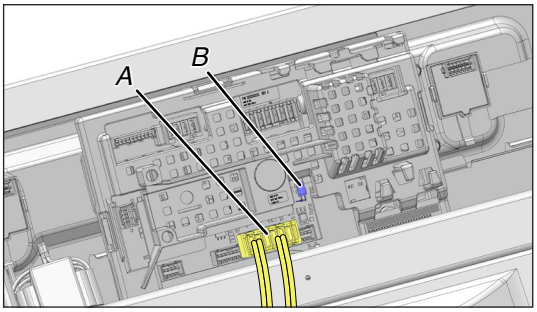
9. Pull the pressure switch air hose off the connection on the CCU.



A. J20 Cable Connector
B. Pressure Switch Air Hose

10. Release the locking tab and disconnect the communication cable Rast connector at J20.

11. Press the two (2) locking tabs and pull the plug for the shifter off of connector at J2.



A. J2 Connector
B. Green LED

12. There is a green LED on the CCU that lights when there is proper voltage to the CCU. This can be seen through the holes in the back panel of the console.

Components Accessible under Top Panel

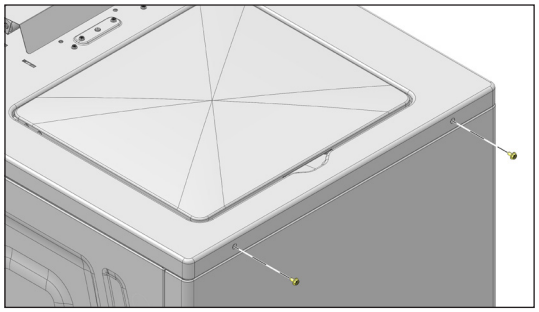
⚠ WARNING

Electrical Shock Hazard
Disconnect power before servicing.
Replace all parts and panels before operating.
Failure to do so can result in death or electrical shock.

1. Disconnect the power from washer.

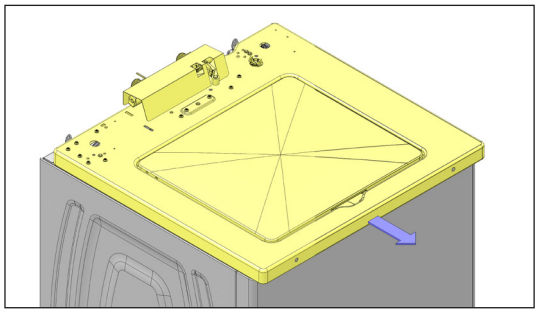
2. Complete the steps of removing the Console and Components.

3. Remove two (2) T20 security screws from the front edge.



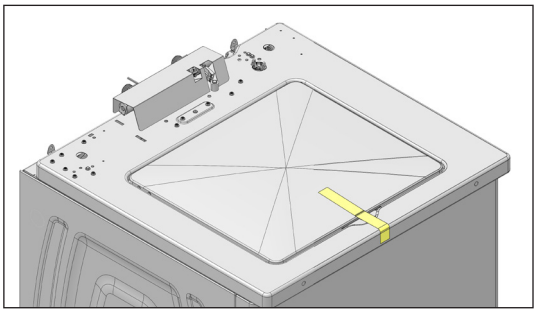
4. There are plastic bushings behind these screws that help avoid damage to the finish of the top. These bushings have clips securing them inside the top.

5. Grasp the front edge of the top. Pull the top forward and lift to release it from the clips on the cabinet.

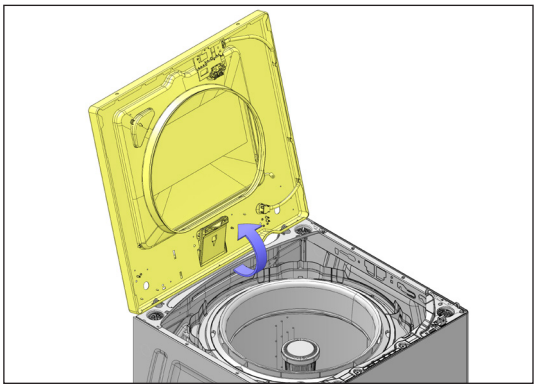


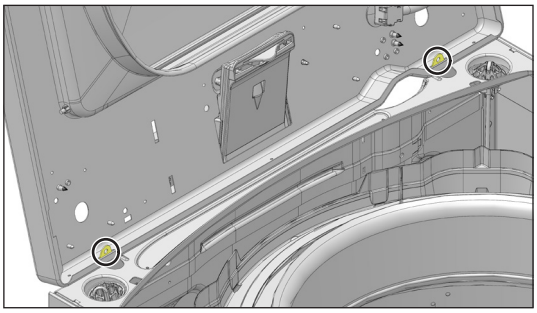
6. A method to support the top will be necessary. A string with hooks on either end, or a prop rod can be used.

7. Tape the lid so it will not open when lifting the top panel.

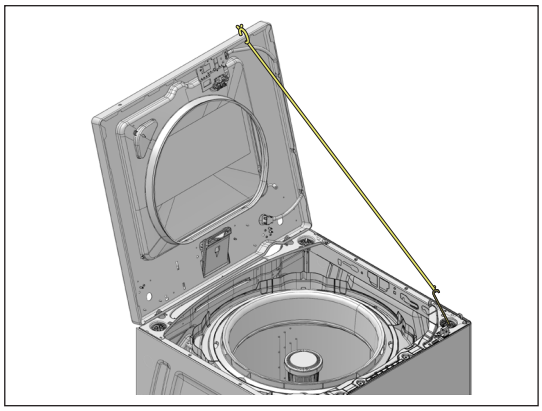


8. The top hinges up on two (2) tabs that pass through slots in the top panel.





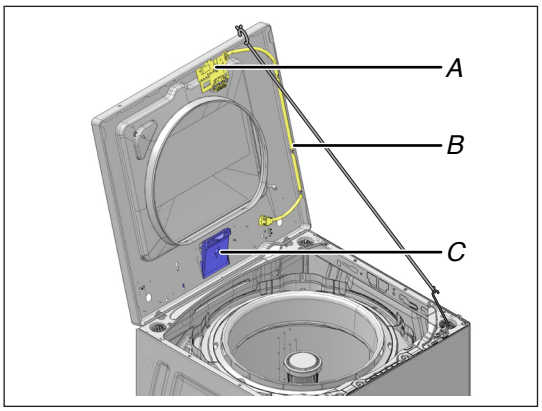
9. Attach the hook on one end of the cord to the cabinet and the hook on the other end to the front corner of the top to keep the top from opening too far.



10. A prop rod could also be used instead of the cord with hooks.

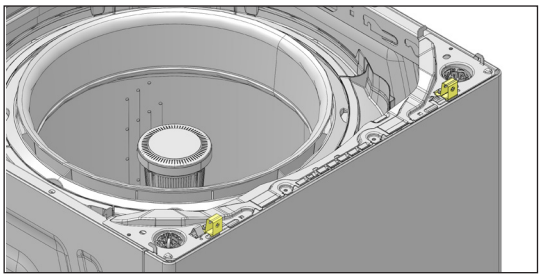
11. Open the top panel.

12. Components accessible under top panel:

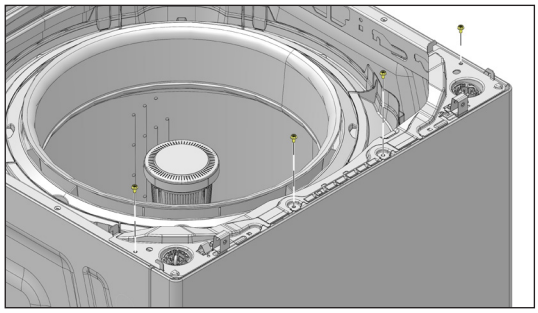


A. Lid lock and wire harness
B. Waterfall portion of the water inlet assembly
C. Waterfall Inlet

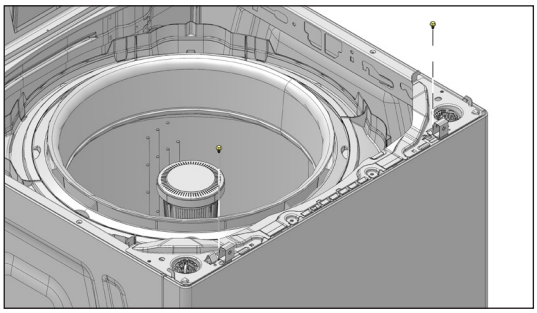
13. The top support bracket forms the top front edge of the cabinet.



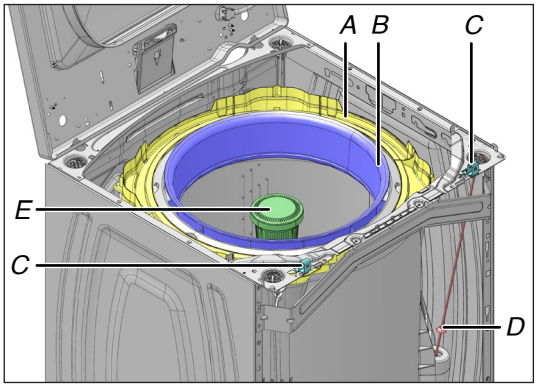
14. The support can be removed or replaced by removing four (4) 1/4" hex head screws, one in the top of each side panel and two in the middle that screw into the front support bracket.



15. Two top panel brackets are secured to the top of the top support with 1/4" hex head screws.



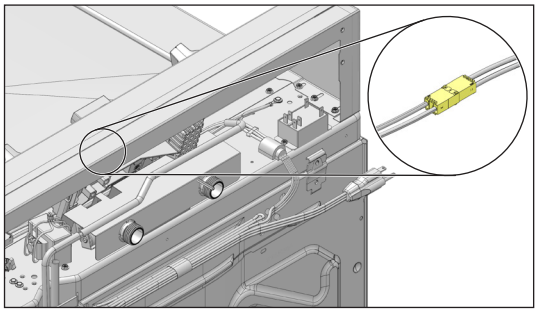
16. These are what the top panel screw into.



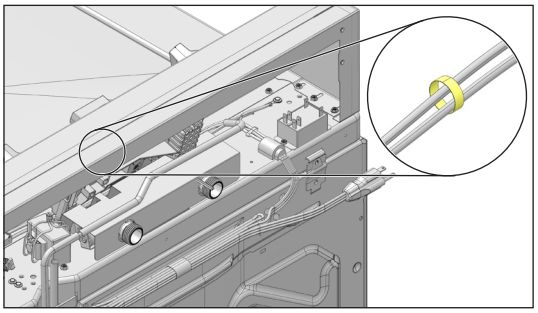
A. Tub ring
B. Clothes guard
C. Snubber straps
D. Suspension rods
E. Agitator

Lid Lock

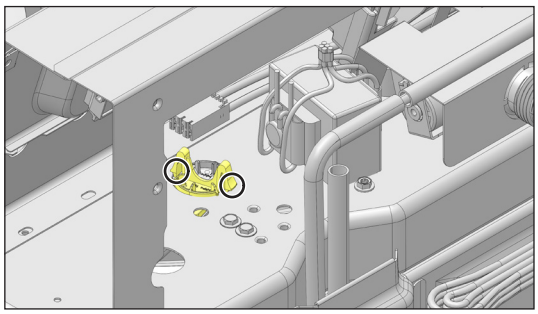
1. Disconnect the power from washer.
2. Complete the steps of removing the console and components.
3. Complete the steps 1-16 from Top Panels opening instructions.
4. Press two (2) locking tabs and disconnect lid lock wire harness connector at the right side of the console.



5. Use a small flat blade screwdriver to release the wire retainer clip in the top of the washer.

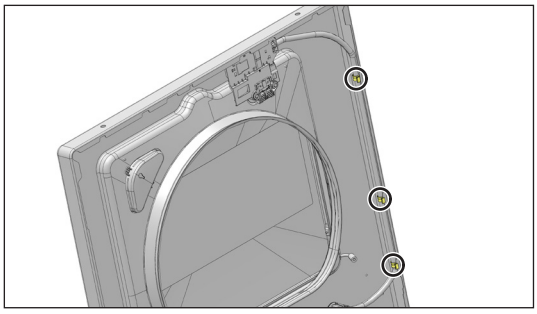


6. Release the two (2) clips that hold the hole plug in the washer top.

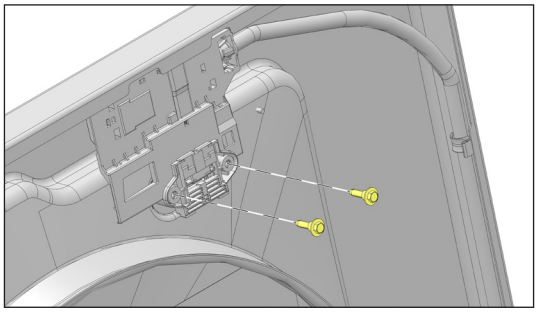


7. Push the plug and wire down into the base of the washer.
8. Reinstall the console cover with two (2) T20 security screws so it won't fall when opening the top panel.
9. Open washer top panel.

10. Pry the three (3) spring clips out to release the wire harness from the right edge of the top.



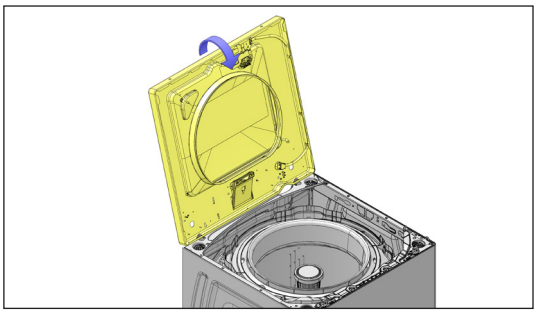
11. Remove two (2) 1/4" hex head screws securing lid lock to underside of top. These screws have a shoulder and rubber O-ring.

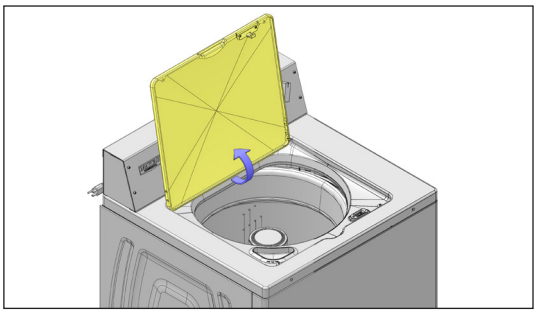


TECH TIP: When reinstalling these screws, tighten until snug, then loosen 1/4 turn. Do not overtighten theses screws. The bezel and lock assembly must be able to move slightly so latch can be properly positioned every time lid is opened and closed.

12. The lid lock is replaced as one component.

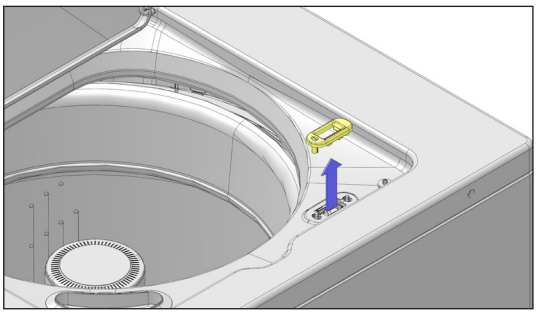
13. Lower the top panel of the washer and open the lid.





14. Remove bezel on the washer top, under the lid. The bezel has posts that protrude down through holes in the lid lock assembly.

15. When reinstalling the bezel, the locking edge with the bevel should be toward the front. The lock symbol will be toward the center of the washing machine.



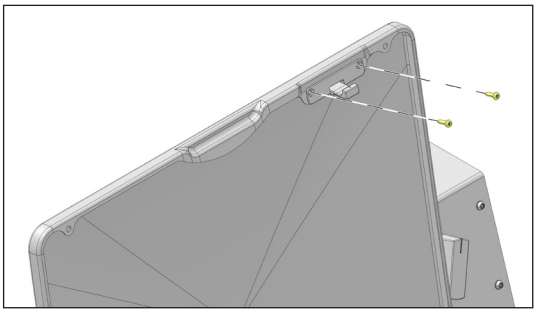
NOTE: Make sure the O-rings are present when securing the lid lock assembly.

TECH TIP: When reinstalling bezel, tape bezel in place to help with the reinstallation of the screws from under the washer top.

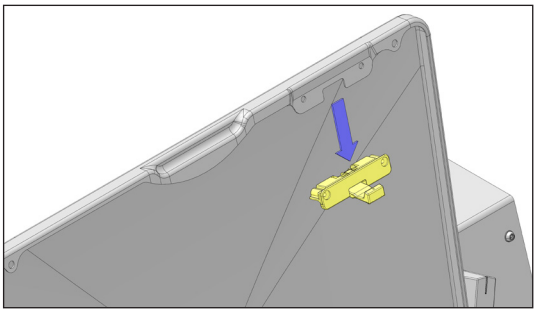
16. After selecting a cycle and pressing the Start button, the lid will lock only during the spin portion of the cycles.

Lid Strike

1. Disconnect the power from washer.
2. Complete the steps of removing the console and components.
3. Complete the steps 1-16 from Top Panels opening instructions.
4. Remove the Lid lock.
5. Lift the lid.
6. Remove two (2) T15 screws securing the strike to the underside of the lid.



7. Slide the strike down and out of the lid.

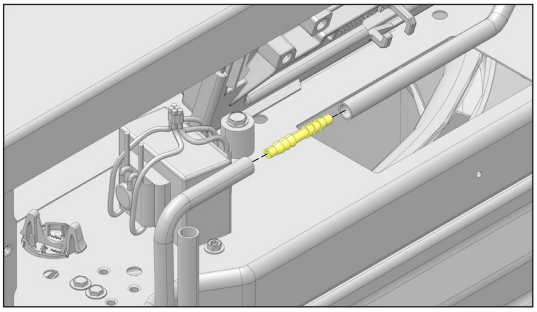


NOTE: The magnet in strike energizes reed switch in lid lock when the lid is closed.

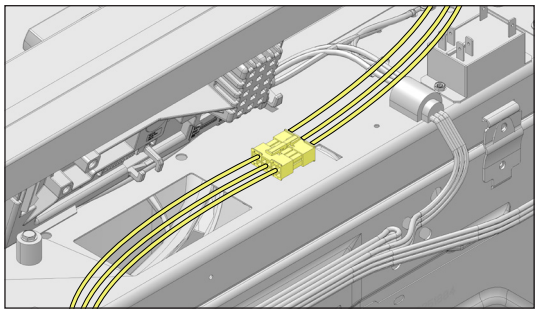
TECH TIP: If lid lock is not sensing latch correctly, check that tiny hole in latch is not clogged or covered. Clean this hole out with a toothpick or other small pointed object.

Top Panel Removal

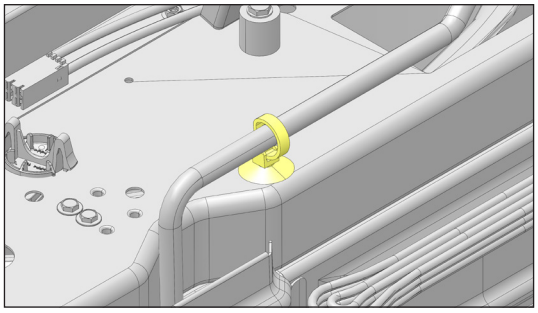
1. Disconnect the power from washer.
2. Complete the steps of removing the console and components.
3. Complete the steps 1-16 from Top Panels opening instructions.
4. Remove the Lid Lock and Lid Strike.
5. Remove the 1/4" hex head screw securing the ground wire from the cabinet of the washing machine. Ground wire screws have a pointed tip and very fine threads.
6. Pull one side of the pressure switch air hose off the ribbed connector.



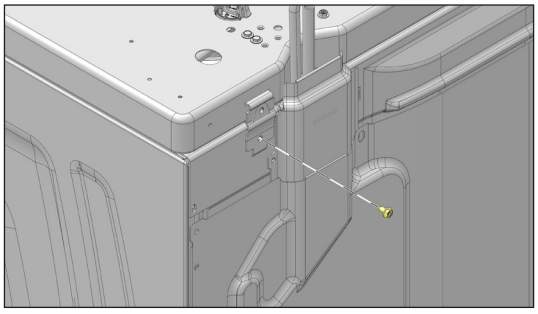
7. Press the locking tab and disconnect the 12 pin connector.



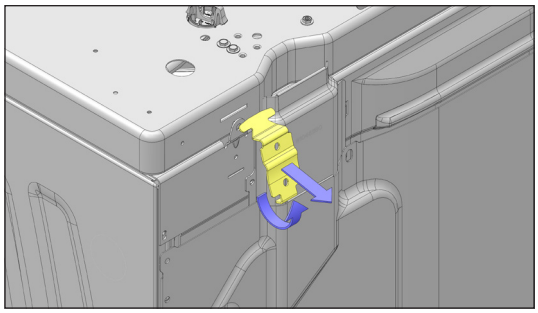
8. Pull the wire retainer clip out of the hole in the top of the washer.



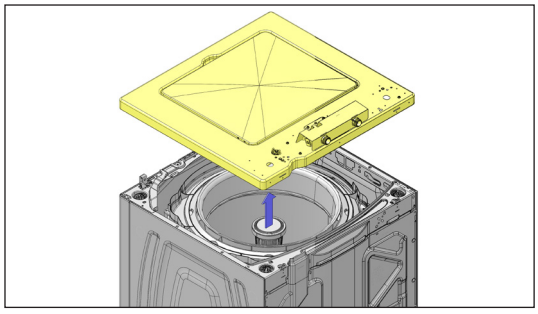
9. Remove the 1/4" hex head screw securing the hinge tab on the back of washer.



10. Pull the bottom of the hinge tab away from the washer and twist the top of the tab to remove it from the slot in the top panel. Repeat this procedure with the other hinge tab.

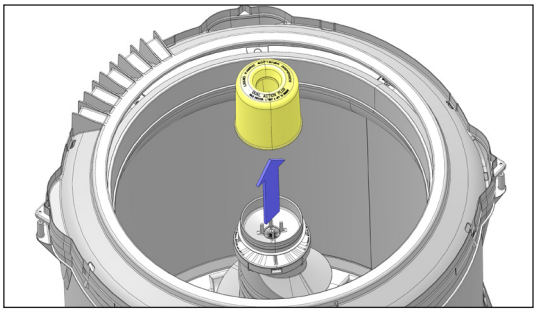


11. Lift top panel up and remove the top panel.

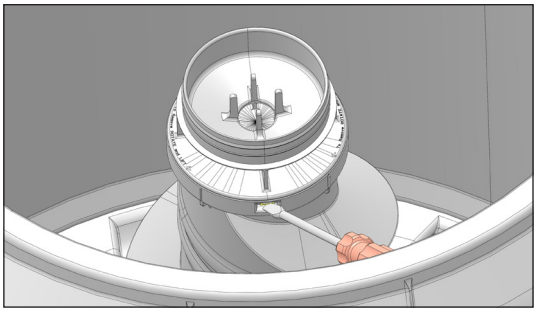


Agitator

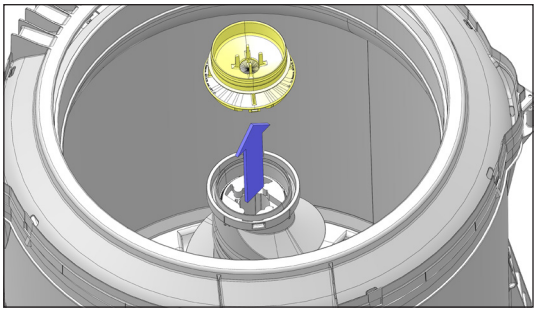
1. Disconnect the power from washer.
2. Open Lid.
3. Pull up on agitator cap to remove.



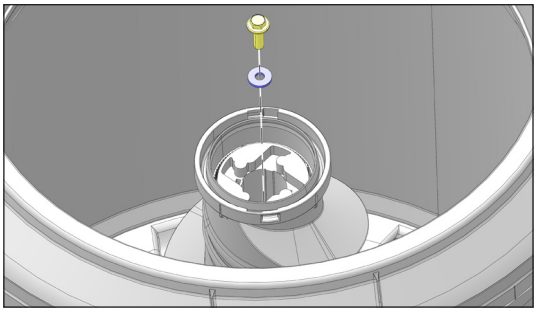
4. Use a flat blade screwdriver to depress the two (2) tabs on the bottom piece of the fabric softener dispenser.



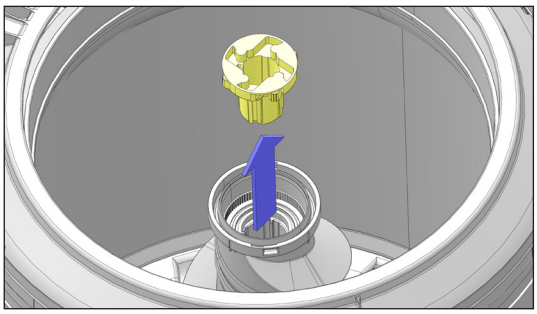
5. Lift dispenser bottom up and away to remove.



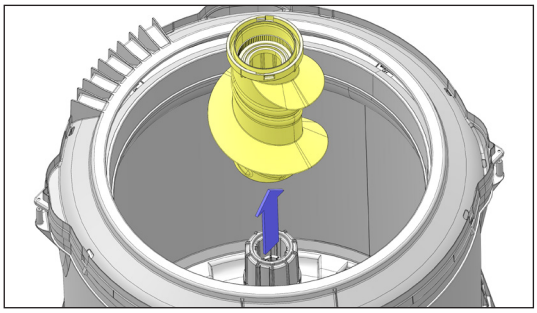
6. emove the 5/16" bolt and washer from the cam assembly.



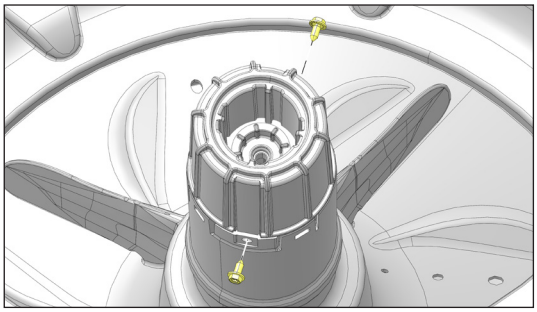
7. Lift cam assembly to remove.



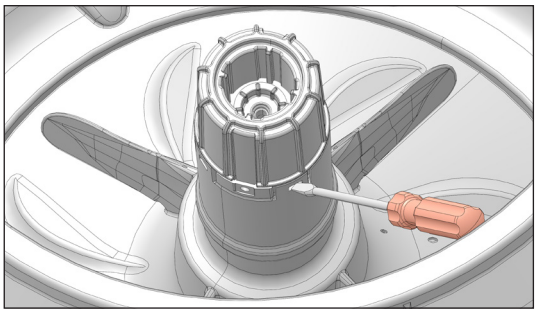
8. Lift agitator auger to remove.

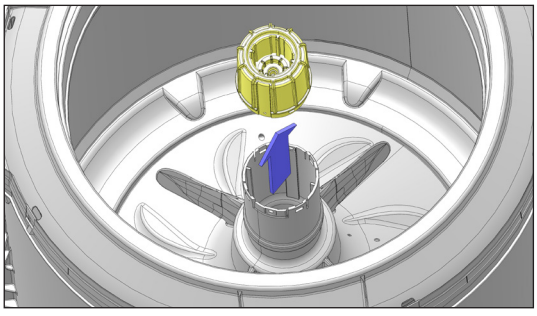


9. Use phillips screwdriver to remove two (2) screws from the agitator couple.

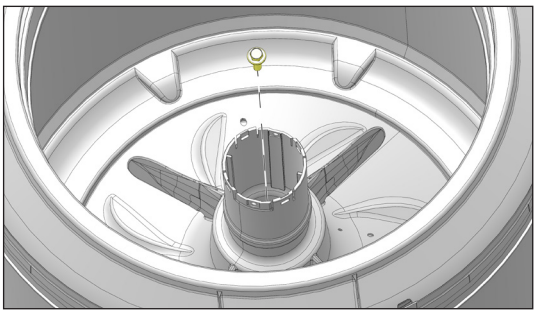


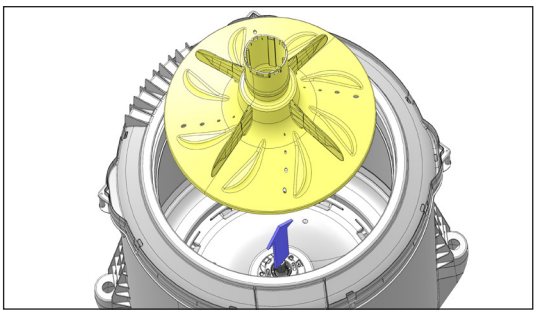
10. Use flat blade screwdriver to pry tabs to release agitator couple. Lift to remove.





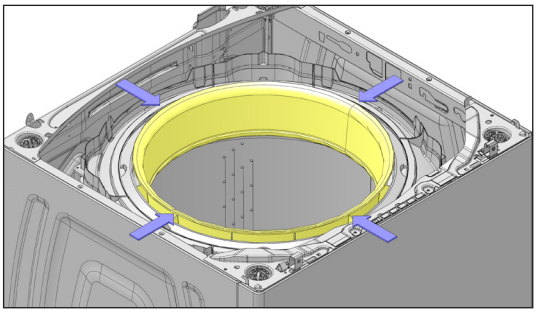
11. Remove 7/16" bolt from agitator plate. Lift to remove.





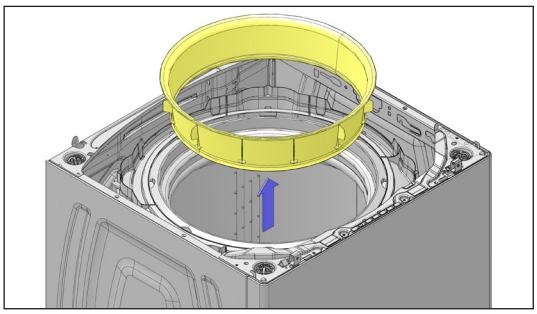
Clothes Guard

1. Disconnect the power from washer.
2. Complete the steps of removing the console and components.
3. Complete the steps 1-16 from Top Panels opening instructions.
4. Remove the Lid lock and Lid strike.
5. Remove top panel and Agitator.
6. Grasp top edge and pull in toward agitator and up to release clips that hold the clothes guard in place.



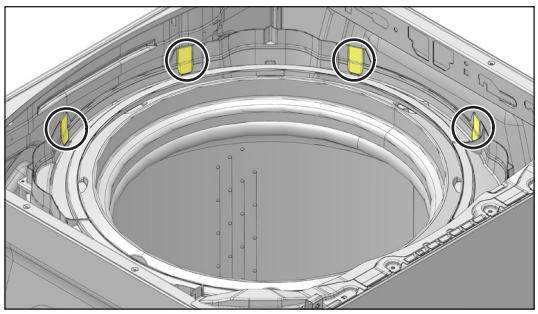
NOTE: This may need to be done in more than one place around the clothes guard to release all the clips.

7. Remove the clothes guard.

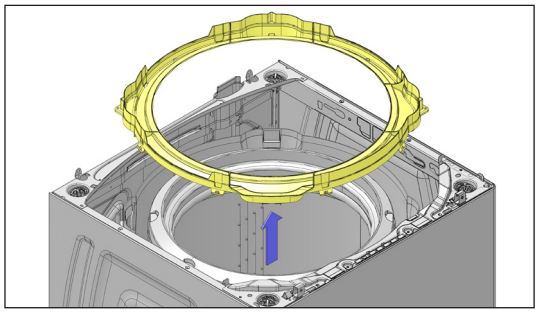


Tub Ring

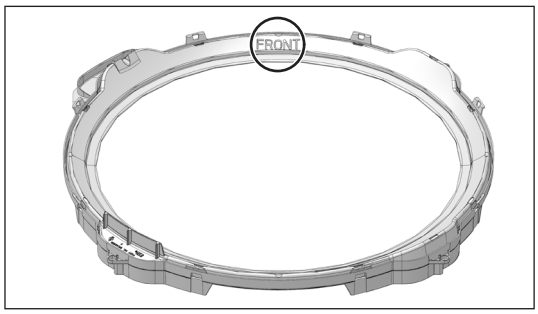
1. Disconnect the power from washer.
2. Complete the steps of removing the console and components.
3. Complete the steps 1-16 from Top Panels opening instructions.
4. Remove the Lid lock and Lid strike.
5. Remove the Top Panel.
6. Remove Agitator and the Clothes Guard.
7. Lift the tabs securing the tub ring to the outer tub. There are eight (8) tabs around the outer tub that need to be released.



8. Lift the tub ring to remove it.

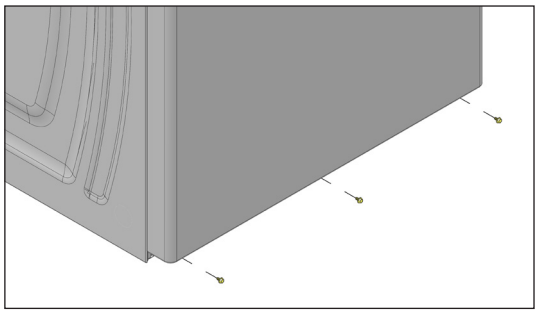


NOTE: When reinstalling tub ring, place feature for old bleach dispenser in front left corner for proper orientation of tub ring. There is also the word "Front" molded into underside of tub ring for proper orientation.

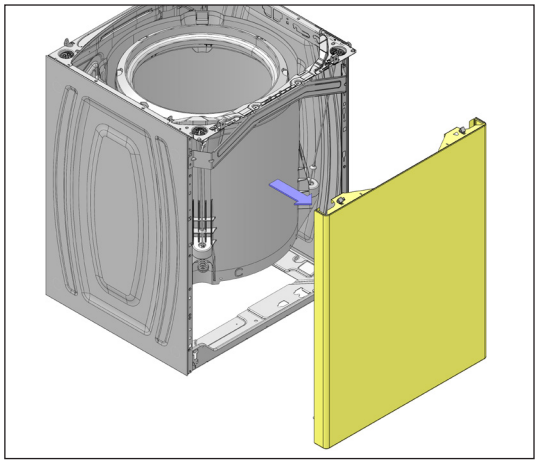


Front Panel

1. Disconnect the power from washer.
2. Complete the steps of removing the console and components.
3. Complete the steps 1-16 from Top Panels opening instructions.
4. Remove the Lid lock and Lid strike.
5. Remove the Top Panel.
6. Remove Agitator and the Clothes Guard.
7. Remove Tube Ring.
8. Remove three (3) 1/4" hex head screws along the bottom edge.

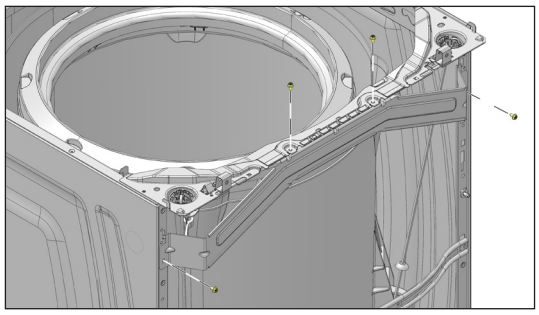


9. Grasp the front panel from the sides and pull the bottom edge out.
10. Pull the top edge down to release the clips from the top panel, then remove the front panel.



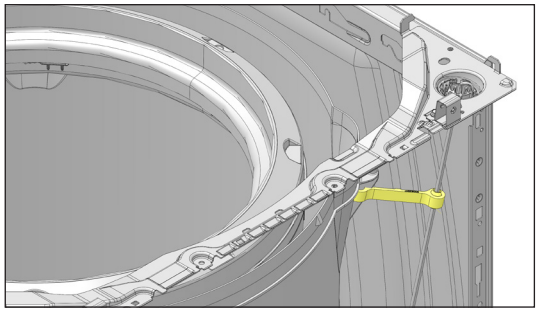
NOTE: The front support bracket, behind the front panel, gives rigidity to the center portion of the top and the cabinet, and it helps hold the front panel in place. It does allow the washer to be run without the front panel in place for testing purposes.

11. The front support bracket can be removed or replaced by removing four (4) 1/4" hex head screws, one in each side panel and two in the middle from the top support bracket.

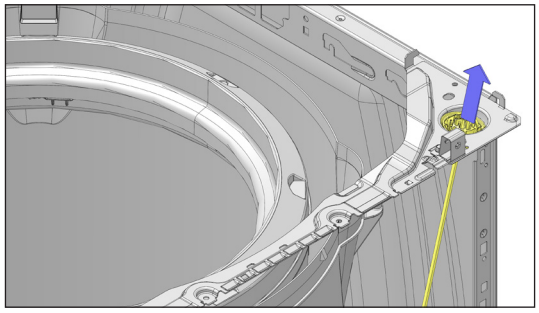


Tub Suspension Rods

1. Complete the steps 1-16 from Top Panels opening instructions.
2. Remove the Lid Lock and the Lid Strike.
3. Remove the Top Panel.
4. Remove Agitator and the Clothes Guard.
5. Remove the tub ring.
6. Remove the front panel.
7. Lift snubber strap up off post on side of tub.

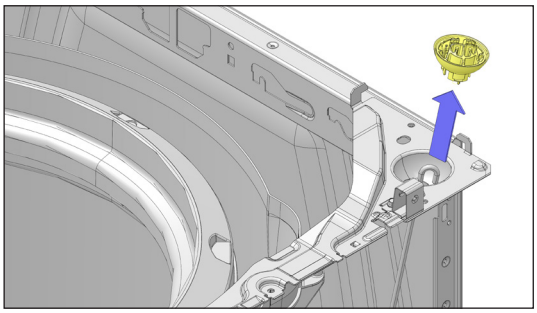


8. Lift the suspension rod up.



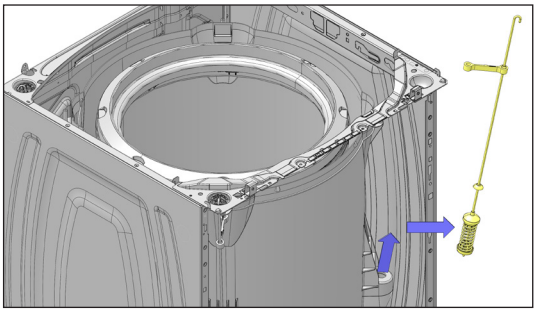
9. Rotate ball at the top to allow rod to align with the slot.

10. Slide ball up off the suspension rod.



11. Lower suspension rod down through hole in cabinet top brace.

12. Lift bottom of tub and pull suspension rod down through hole at bottom of tub.



13. Repeat with the other suspension rods.

14. Inspect bearing cups that suspension balls rest in. Replace them if they appear worn.

TECH TIP: If the bearing cups and suspension balls become noisy during movement, lubricate bearing cups with a few drops of mineral oil only.

Components Accessible from the Bottom

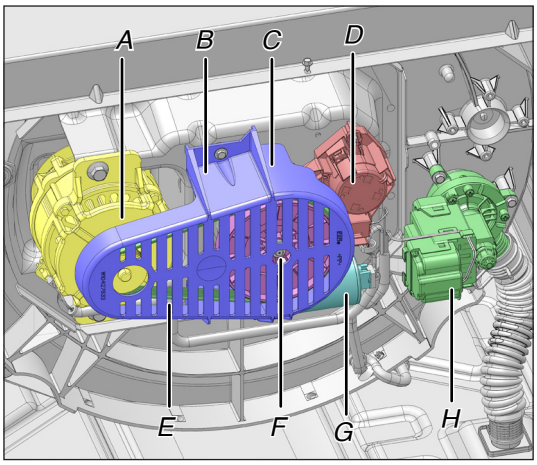
⚠ WARNING

Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.



A. Motor
B. Belt guard
C. Belt
D. Shifter
E. Splutch assembly
F. Drive Pulley
G. Capacitor
H. Pump

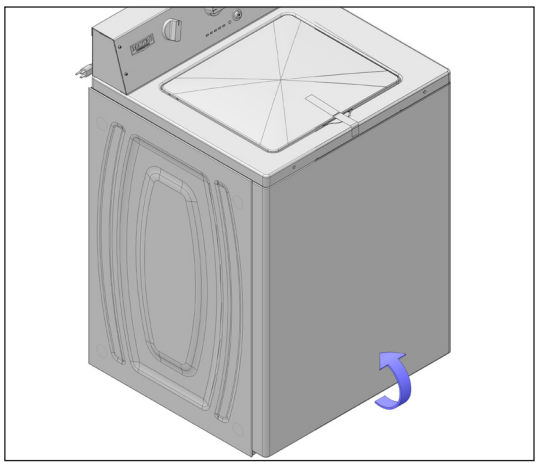
1. Remove Console and Top Panel Components.

2. Remove Front Panel Components.

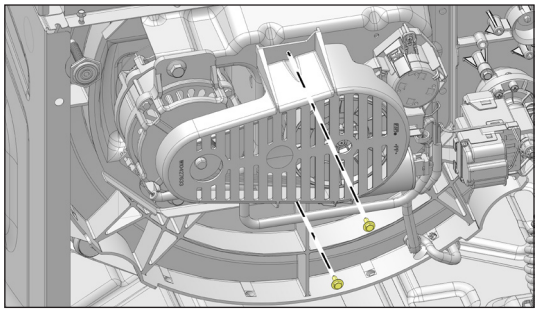
3. Lay the washing machine on its back. Use corner posts or other material to lay the washer on.

Drive Belt

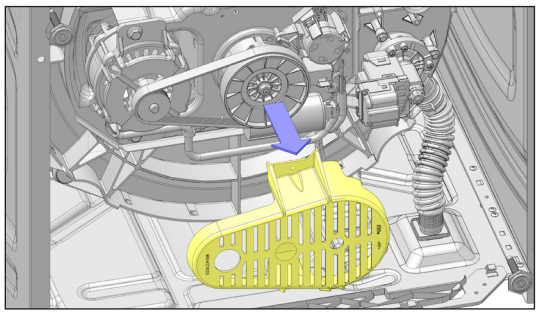
1. Unplug washer or disconnect power.
2. Remove Console and Top panel components.
3. Remove Bottom Panel components.
4. Remove the front panel or lay the washing machine on its back.



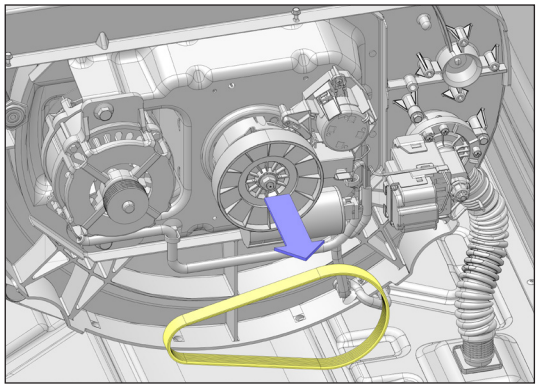
5. Remove two (2) 5/16" or 8 mm hex head screws securing the belt guard to the transmission housing.



6. Remove the belt guard.



7. To remove the belt, grasp the belt and work it off the edge while turning the pulley.

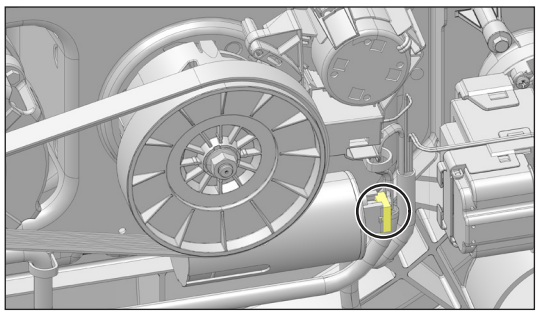


NOTE: The belt is ribbed on the inside which faces the pulley.

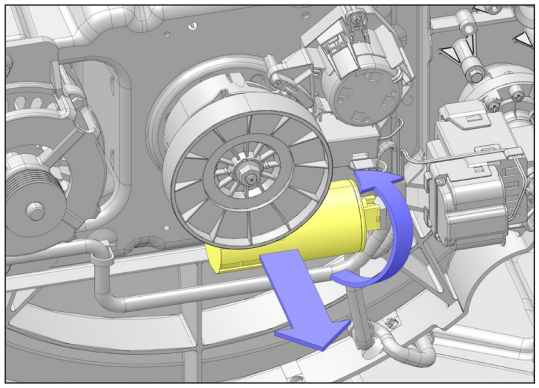
TECH TIP: When reinstalling the belt make sure the belt is centered, not riding up on the top or bottom edge of the motor pulley, and reinstall the belt guard.

Capacitor

1. Unplug washer or disconnect power.
2. Remove Console and Top panel components.
3. Remove Bottom Panel Components.
4. Remove the front panel or lay the washing machine on its back.
5. Remove the belt guard.
6. Pull wire harness connector off capacitor.

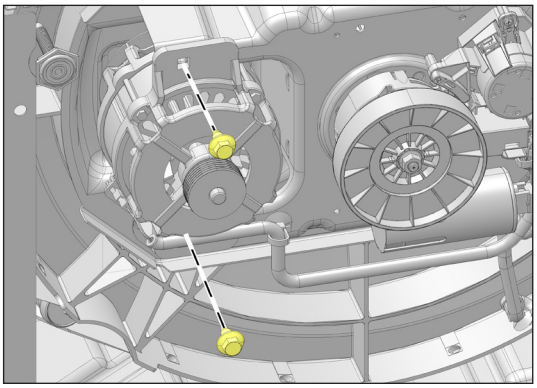


7. Lift the bottom end of the capacitor to release the tab.
8. Twist the capacitor approximately 45 degrees and pull it out of the hole in the transmission housing.

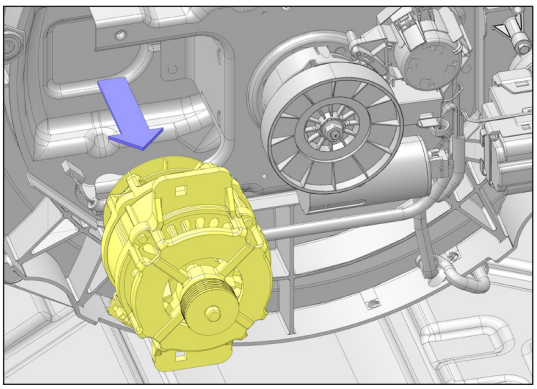


Drive Motor

1. Unplug washer or disconnect power.
2. Remove Console and Top panel components.
3. Remove Bottom Panel Components.
4. Remove the front panel or lay the washing machine on its back.
5. Remove the drive belt.
6. Press the locking tab and disconnect the wire harness to the motor.
7. Remove two (2) 1/2" or 13 mm hex head bolts securing motor to transmission housing.



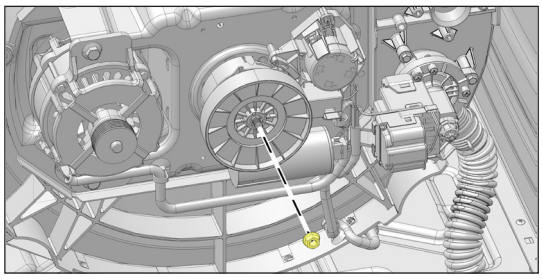
8. Support the motor when removing the second bolt.



9. Pull the motor out of the mounting hole in the transmission housing.

Drive Pulley

1. Unplug washer or disconnect power.
2. Remove Console and Top panel components.
3. Remove the Back panel and its component.
4. Remove the front panel or lay the washing machine on its back.
5. Remove the drive belt.
6. Hold the pulley to keep it from turning and remove the 1/2" or 13 mm hex nut securing the pulley.

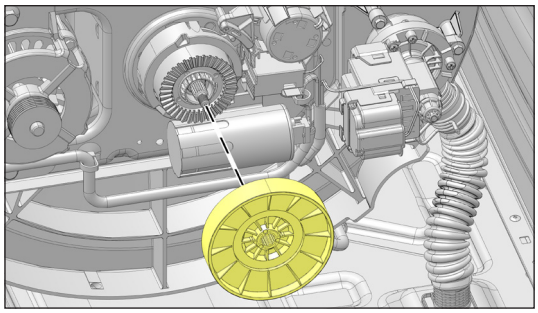


TECH TIP: There is Loctite on this nut. It may be necessary to use a strap wrench to hold the pulley, to remove the nut.

7. Make sure to apply Loctite when reinstalling the nut.
8. Pull the pulley off the splined shaft.

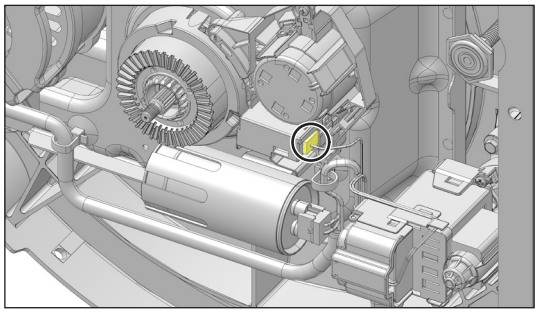
TECH TIP: There is Loctite on this nut. It may be necessary to use a strap wrench to hold the pulley, to remove the nut.

9. Make sure to apply Loctite when reinstalling the nut.
10. Pull the pulley off the splined shaft.

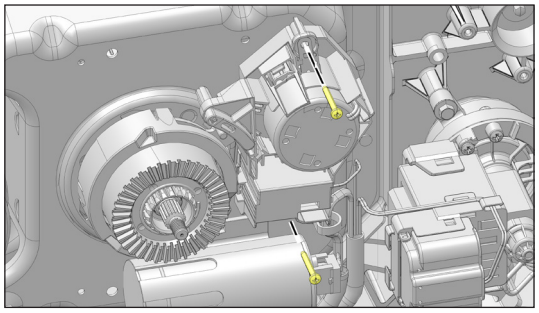


Shifter

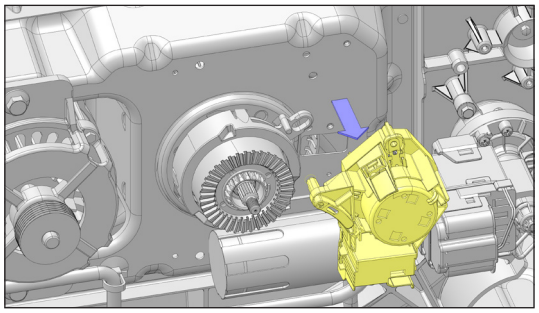
1. Unplug washer or disconnect power.
2. Remove Console and Top panel components.
3. Remove the Back panel and its component.
4. Remove the front panel or lay the washing machine on its back.
5. Remove the drive belt and drive pulley.
6. Press the locking tab and disconnect the wire harness from the shifter.



7. Remove two (2) Phillips head screws securing shifter to the transmission housing.



8. Remove the shifter.

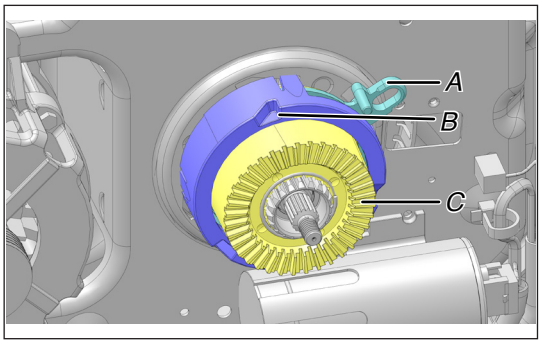


NOTE: The shifter motor rotates a cam, attached to the shifter arm which moves between two positions. The shifter arm moves the transmission lever which engages or disengages the transmission creating agitate and spin. The washing machine is in spin when the shifter is up in this position. The teeth of the splutch are engaged with the teeth of the pulley and the motor turns the pulley in a direction for spin.

When the shifter pulls the lever down it disengages the teeth. The washing machine is in agitate. The length of each stroke is controlled by the CCU. There are three different patterns.

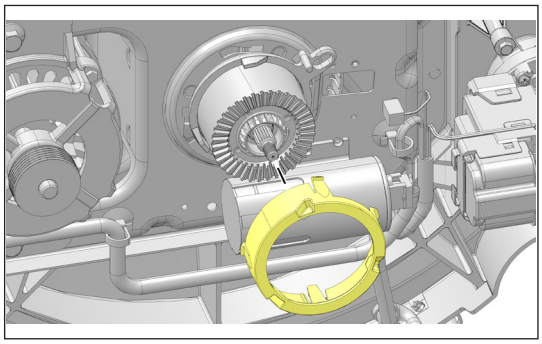
Splutch Assembly

1. Unplug washer or disconnect power.
2. Remove Console and Top panel components.
3. Remove the Back panel and its component.
4. Remove the front panel or lay the washing machine on its back.
5. Remove the drive belt and drive pulley.
6. Remove the shifter.
7. The actuator ring fits through a slot in the splutch ring.

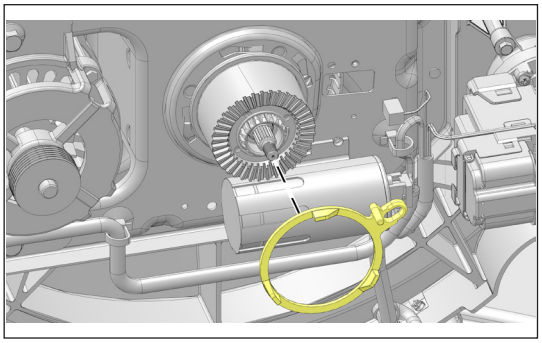


A. Actuator Ring
B. Slot in Splutch Ring
C. Splutch Gear

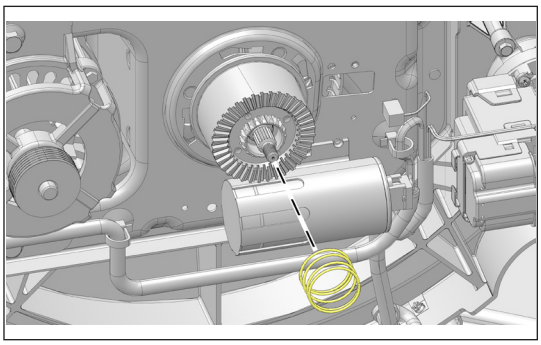
8. Rotate splutch ring to release four (4) tabs from slots in the transmission housing. The splutch ring slides off the splutch gears.



9. The actuator ring slides off of the splutch gears.

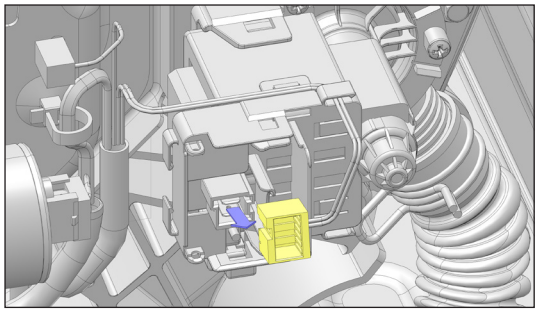


10. Remove the spring from the shaft after removing the splutch assembly.

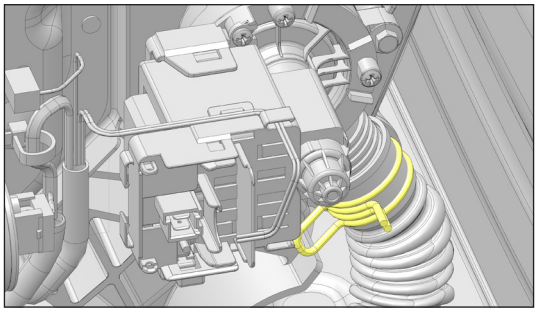


Drain Pump

1. Unplug washer or disconnect power.
2. Remove Console and Top panel components.
3. Remove the Back panel and its component.
4. Remove the front panel or lay the washing machine on its back.
5. Remove the drive belt and drive pulley.
6. Remove the shifter.
7. Remove the splutch assembly.
8. Pull up on the wire cover to open it. There are small tabs on the sides of the cover that release from slots on the base.
9. Press the locking tab and disconnect the wire harness.

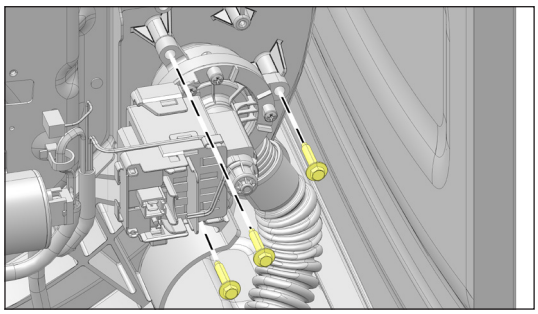


10. Squeeze the Corbin style clamp and slide it down the hose.

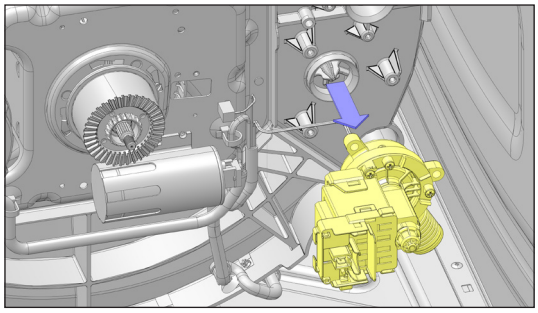


NOTE: Not all the water will be removed, so be ready to catch remaining water in a container.

11. Remove 5/6" of hex head screws securing the pump to the bottom of the outer tub. These screws have high/low threads for use in plastic.



12. Pull pump out of hole in outer tub.

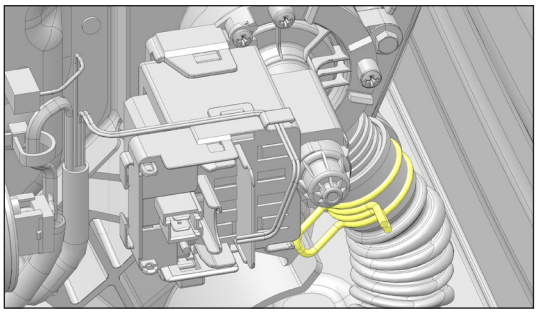


NOTE: The drain pump has no serviceable parts, it is replaced as an assembly.

Drain Pump Outlet Hose

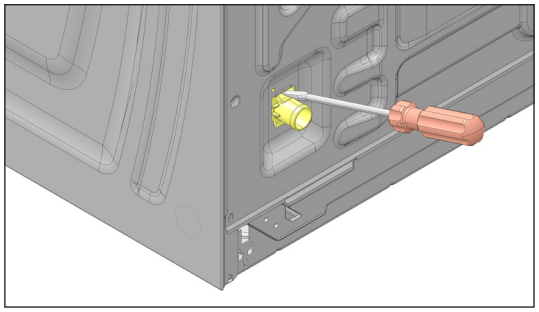
1. Unplug washer or disconnect power.
2. Remove Console and Top panel components.
3. Remove the Back panel and its component.
4. Remove the front panel or lay the washing machine on its back.
5. Remove the drive belt and drive pulley.
6. Remove the shifter.
7. Remove the splutch assembly.
8. Remove the Drain pump.
9. Squeeze the Corbin style clamp and move it down the hose.

NOTE: Not all the water will be removed so be ready to catch the remaining water in a container.

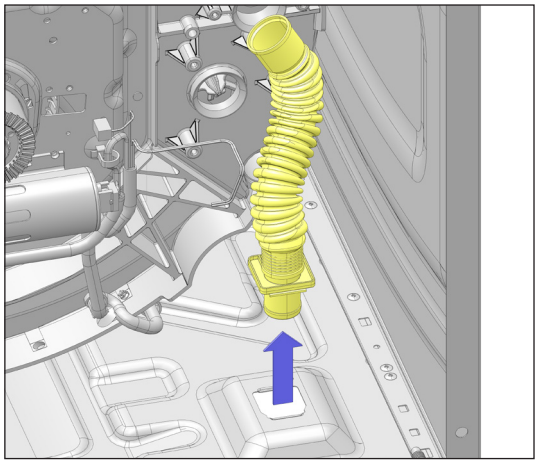


10. Pull the outlet hose off the pump.

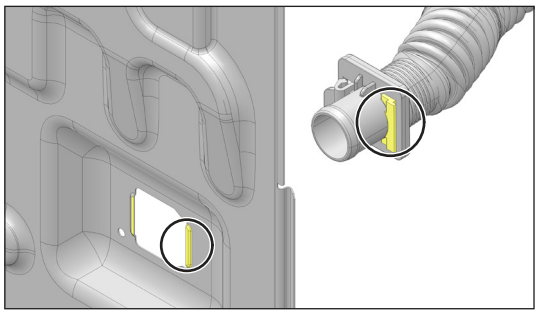
11. In the lower back corner of the washer, use a large flat blade screwdriver to release the tab at the top of the pump outlet hose fitting.



12. Lift the bottom of the fitting up off the edge of the cutout and remove the hose.



13. The tab on the bottom of the hose fitting fits over the edge of cutout in the back panel.



Transmission

1. Unplug washer or disconnect power.

2. Remove Console and Top panel components.

3. Remove the Back panel and its component.

4. Remove the front panel or lay the washing machine on its back.

5. Remove the drive belt and drive pulley.

6. Remove the shifter.

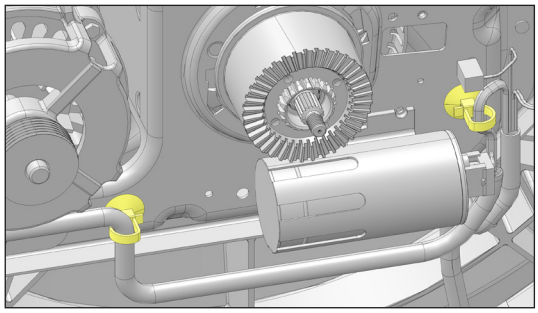
7. Remove the splutch assembly.

8. Remove the Drain pump and its outlet hose.

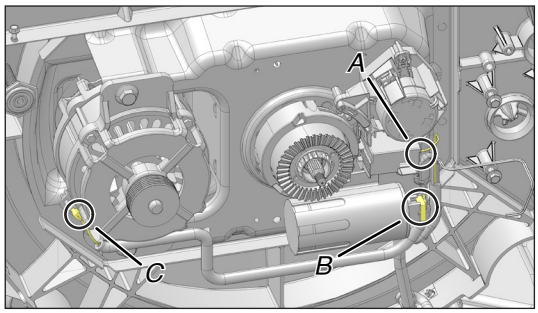
9. Lean the washer or lay it on its back.

NOTE: We have removed all components from the transmission, but only the pump has to be removed to remove the transmission.

10. If removing the transmission with all the components on it, pull the two (2) wire retainer clips out of the holes in the transmission housing. New wire retainer clips are supplied with a new transmission.



11. Disconnect the wire harness connector from the capacitor, the shifter and the motor.

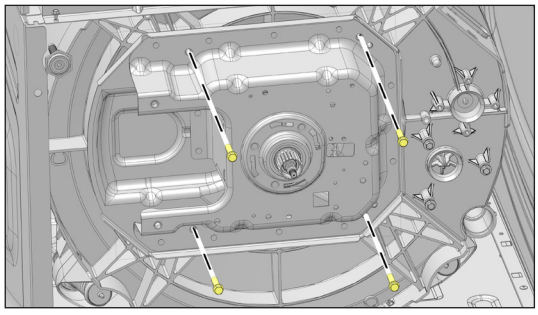


A. Capacitor Connector

B. Shifter Connector

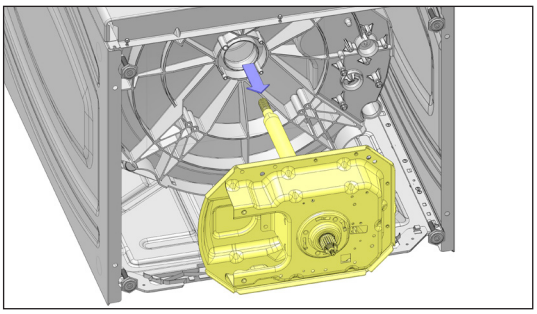
C. Motor Connector

12. Remove four (4) 10 mm hex head screws securing the transmission housing to the outer tub. These screws have high/low thread for use in plastic.

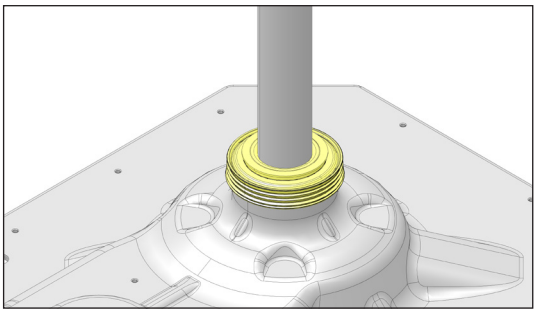


13. Support the transmission. Use a large flat blade screwdriver to pry along the top edge of the transmission until it is loose.

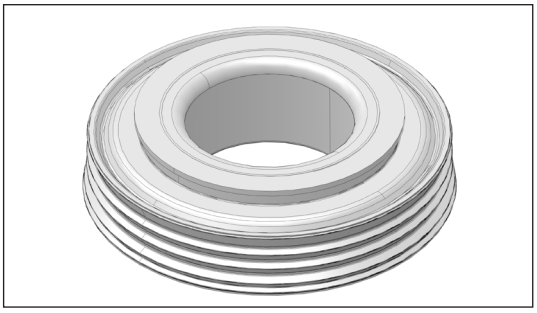
14. Slide the transmission and basket drive out of the outer tub.



15. The tub seal should come out on the transmission shaft.



16. This is seal orientation as it faces the tub.



17. This is seal orientation as it faces the transmission.

18. The seal is pressed onto the transmission shaft at the factory. A new transmission will come with a new seal pressed on.

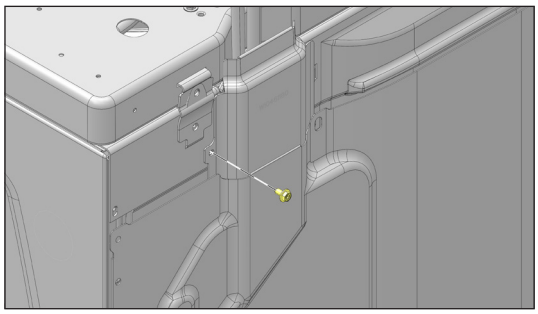
Outer Tub

1. Unplug washer or disconnect power.

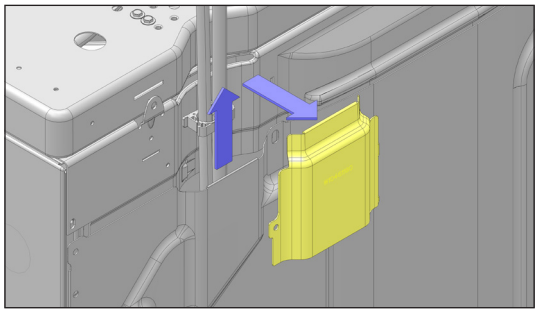
2. Remove Console and Top panel components.

3. Remove the Back panel and its component.

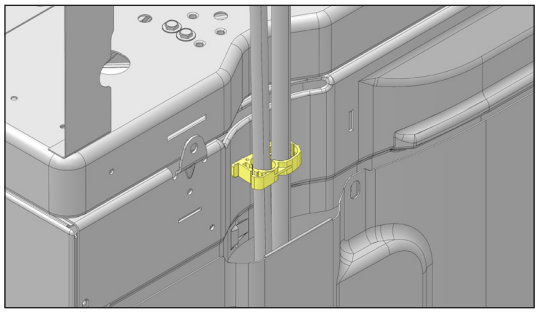
4. Remove the 1/4" hex head screw securing the wire harness cover to the back of the washing machine.



5. Push up slightly on the bottom of the cover and pull the bottom edge out to release the tabs of the cover from the slots in the back panel. Pull down to remove the top edge of the cover from the upper back panel.



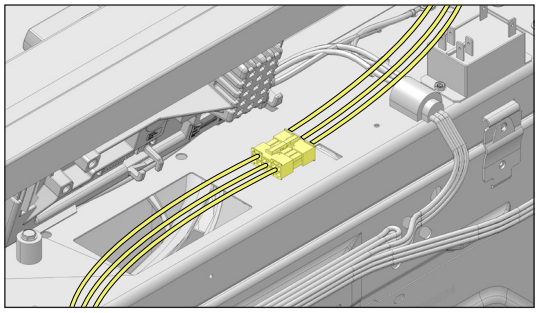
6. Release the clip securing the wire harness and pressure switch air hose. Use a small flat blade screwdriver and separate the clip where they lock together.



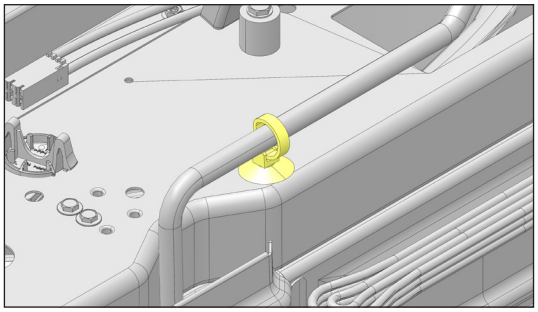
7. Release clamp on pressure switch air hose connection in console. Press the two halves of the clamp apart and open the clamp.

8. Pull pressure switch air hose off hose barb.

9. Press the locking tab and disconnect 12 pin connector for the lower wire harness.

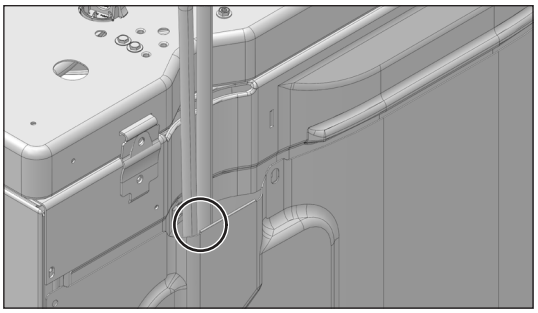


10. Pull the wire retainer clip out of the hole in the top of the washer.



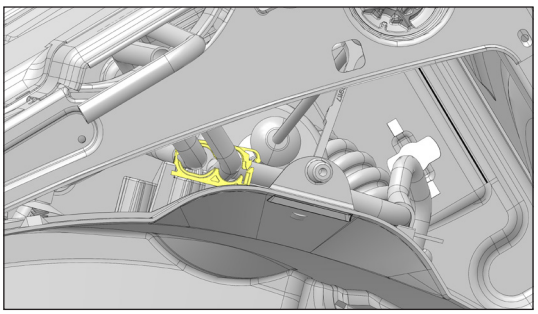
11. Push the wires and tube out the hole at the back of the console.

12. Push the wires and tube into the cabinet through the hole in the back panel.



13. Open the top panel.

14. Use a small flat blade screwdriver to release ground wire clip, from back edge of washer. There are two (2) ground wire clips, release the ground wire bundled with the wire harness and pressure switch air hose.



TECH TIP: When reinstalling ground wire clip, squeeze clip together with pliers before reinstalling clip to make sure it is tight.

15. Remove the front panel or lay the washing machine on its back.

16. Remove the drive belt and drive pulley.

17. Remove the shifter.

18. Remove the splutch assembly.

19. Remove the Drain pump and its outlet hose.

20. Remove the Transmission system.

21. Stand the washing machine upright.

22. Lift a suspension rod and push ball down.

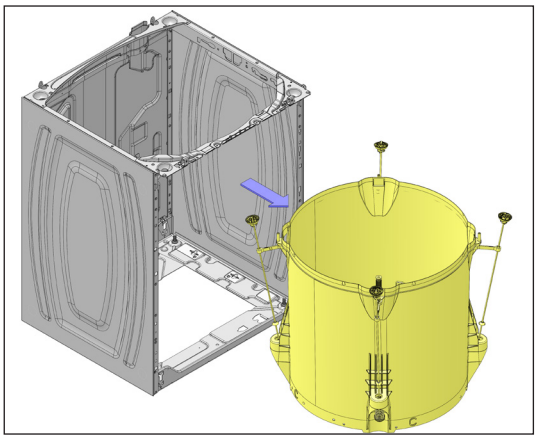
23. Rotate the ball to allow the rod to align with the slot and slide out of the ball.

24. Lower the suspension rod down through the hole in the cabinet top brace.

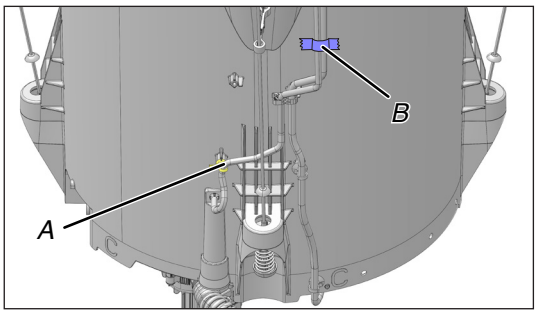
25. Hook the top of the rod over the edge of the outer tub. Repeat with three other suspension rods.

26. When removing the last suspension rod, support the outer tub so it does not drop.

27. Remove the outer tub and suspension rods through the front of the washer cabinet.

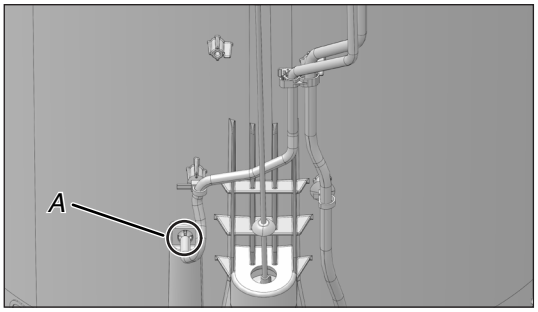


28. The wire harness is attached to the side of the outer tub with two (2) 5/16" or (8 mm) hex head screws. These screws have high/low threads for use in plastic.



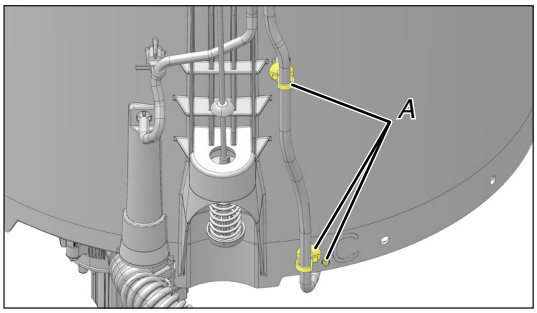
A. 5/16" Hex Head Screws
B. Tape

29. Pull air hose off air dome on the side of the outer tub.



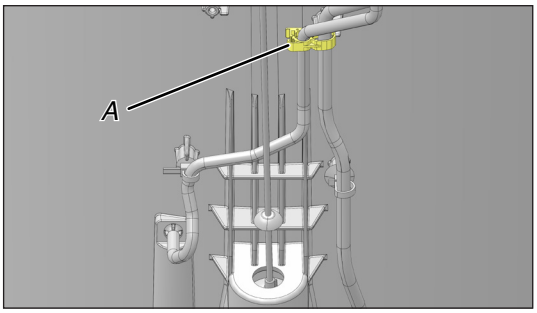
A. Air Dome

30. Pull three (3) wire retainer clip out of holes in the outer tub. One on the side and two (2) at the bottom of the outer tub.



A. Wire Harness Clips

31. The air hose is attached to the wire harness with two (2) clips and tape. To remove the hose from the wire harness pry open the two (2) white clips and remove the tape.



A. White Clips

Cabinet

1. Unplug washer or disconnect power.

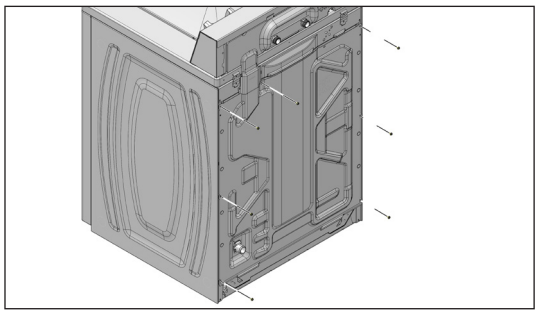
NOTE: The cabinet has 5 pieces. The two sides and base come together and cannot be replaced separately. They are permanently attached using clinch joints.

2. To replace the cabinet, remove the top of the washing machine.

3. Remove the front panel.

4. Remove the outer tub from the cabinet.

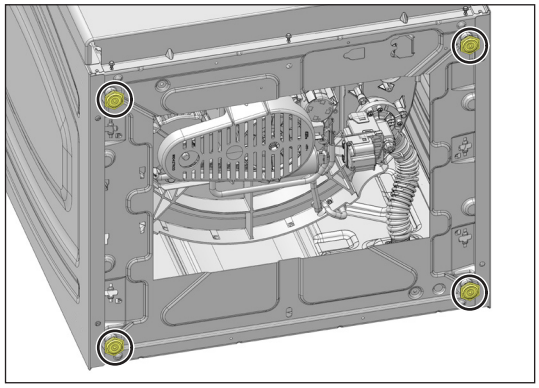
5. Remove seven (7) 1/4" hex head screws securing the back panel to the cabinet.



6. Remove the front support bracket.

7. Remove the top support bracket.

8. Unscrew the feet from bottom of cabinet.



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