

Front Load Washer—Technical Information

MAH5500B*, MAH55FL*

- Due to possibility of personal injury or property damage, always contact an authorized technician for servicing or repair of this unit.
- Refer to Service Manual 16010061 for detailed installation, operating, testing, troubleshooting, and disassembly instructions.



CAUTION

All safety information must be followed as provided in Service Manual 16010061.



WARNING

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Model	MAH55xx*	Model	MAH55xx*
Power Source		Features	
Voltage AC	120 VAC	High-Efficiency	X
Amperage (Single Unit)	15 A	No-Agitator Wash System	X
Frequency	60 Hz	Extra-Large Capacity (3.34 Cu. Ft.)	X
Motor horsepower	1/2	Easy-To-Use Electronic Controls	X
Dimensions		Pedestal Riser Compatible	X
Cabinet		Elustra Stainless Steel Tub	X
Height-overall	42 1/2"	Sloped Front Cabinet Plus Front Load Design	X
Height of cabinet	36 1/4"	Meets ENERGY STAR Efficiency Standards	X
Width	27"	2005 Energy-Compliant	X
Depth with Door Open	50 1/2"	Infinite Motor Speed	X
Depth with Rear Assembly	29"	Odds & Ends Tray	X
Depth of Cabinet	28 1/4"	Handwash Fabric Selection	X
Weight		Faster Spin Spin Speed	X
Crated	193 lbs.	Extra Rinse	X
Water Supply		Presoak	X
Water Supply Temperature Range	120-140° F	AutoFill Water Level Control	X
Effective Hose Length	4 feet	Four Water Temperature Combinations	X
Water Pressure Range	20-120 psi	Automatic Temperature Control	X
Drain		Automatic Additive Dispenser	X
Effective Hose Length	4 feet	End-Of-Cycle Chime	X
Max Standpipe Height	9 feet	Special Cycles Include Spin and Rinse & Spin	X
Recommended Standpipe Height	18"		

Component Testing Procedures



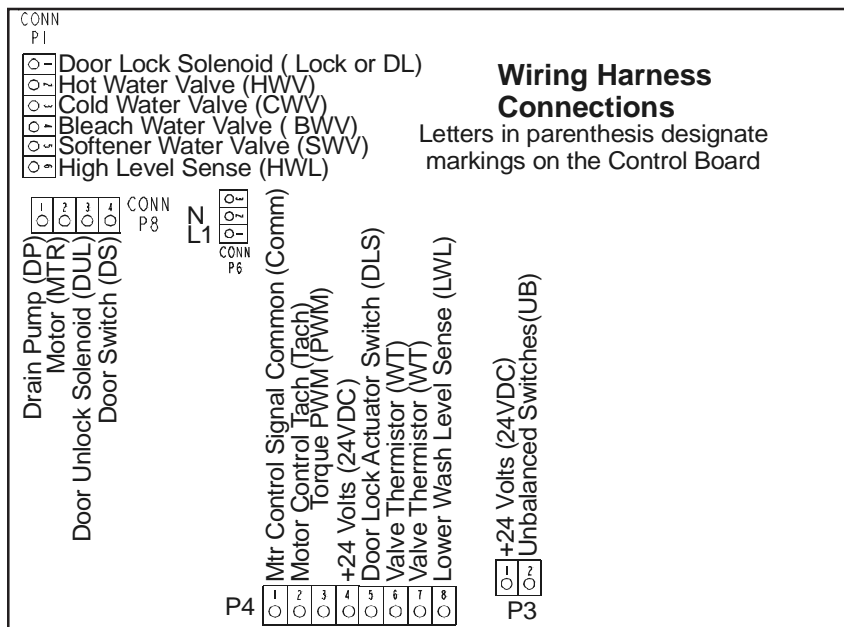
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MAH5500B* - SERIES 10 - C3, C7

MAH55FLB* - SERIES 10 - 24, 28

Machine Control Board INPUT/OUTPUT



Description	Connector/ Pin Number	Reference To Connector/ Pin Number	Voltage	Comments
Bleach water valve output	P1(4)	P6(2)	120 VAC	500 - 2K ohms
Cold water valve output	P1(3)	P6(2)	120 VAC	500 - 2K ohms
Door Lock output	P1(1)	P6(2)	120 VAC	60 millisecond pulse, 30-100 ohms
Door lock switch input	P4(5)	P4(4)	24 VDC	Less than 10 ohms when closed
Door switch input	P8(4)	P6(2)	120 VAC	Less than 10 ohms when closed
Door unlock output	P8(3)	P6(2)	120 VAC	60 millisecond pulse
Drain pump output	P8(1)	P6(2)	120 VAC	10 - 20 ohms
High water level - input	P1(6)	P6(2)	120 VAC	
Hot water valve output	P1(2)	P6(2)	120 VAC	500 - 2K ohms
L1- machine control board Input	P6(1)	P6(2)	120 VAC	
L1- motor control output	P8(2)	P6(2)	120 VAC	
Lower water level - input	P4(8)	P4(4)	24 VDC	
Motor control tach	P4(2)	P4(4)	24 VDC	
Neutral (120 VAC)	P6(2)		Neutral	
Unbalance input	P3(2)	P4(4)	24 VDC	Less than 10 ohms when closed
Softener water valve	P1(5)	P6(2)	120 VAC	500 - 2K ohms
Torque PWM	P4(3)	P4(4)	24 VDC	PWM signal between 0 & 100% duty cycle
Water valve thermistor	P4(6)	P4(7)		(10K-85K ohms)

Component Testing Procedures



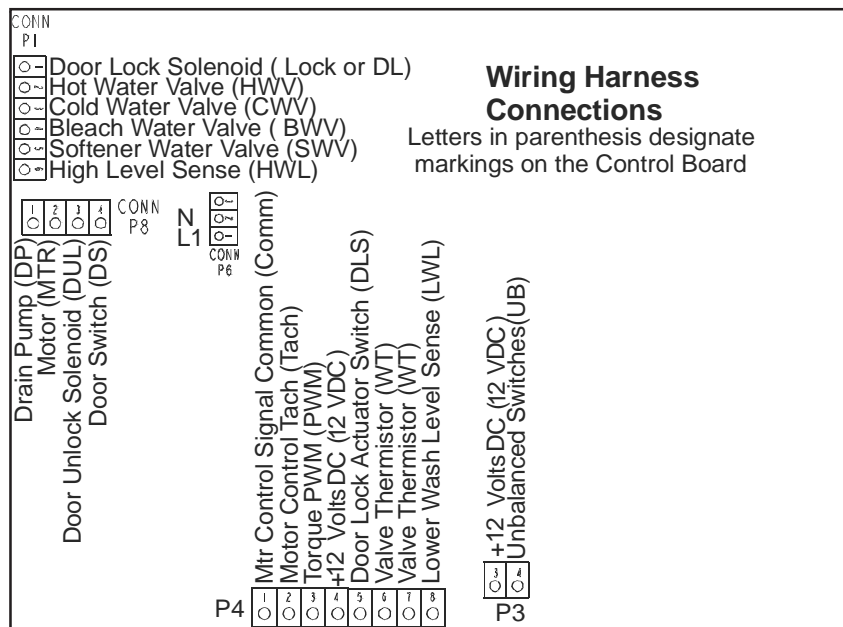
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MAH5500B* - SERIES C4 - C6, C8 - current

MAH55FLB* - SERIES 25 - 27, 29 - current

Machine Control Board INPUT/OUTPUT



Description	Connector/ Pin Number	Reference To Connector/ Pin Number	Voltage	Comments
Bleach water valve output	P1(4)	P6(2)	120 VAC	
Cold water valve output	P1(3)	P6(2)	120 VAC	500 - 1K ohms
Door Lock output	P1(1)	P6(2)	120 VAC	60 millisecond pulse, 30-100 ohms
Door lock switch input	P4(5)	P4(4)	12 VDC	Less than 10 ohms when closed
Door switch input	P8(4)	P6(2)	120 VAC	Less than 10 ohms when closed
Door unlock output	P8(3)	P6(2)	120 VAC	60 millisecond pulse
Drain pump output	P8(1)	P6(2)	120 VAC	10 - 20 ohms
High water level - input	P1(6)	P6(2)	120 VAC	
Hot water valve output	P1(2)	P6(2)	120 VAC	500 - 2K ohms
L1- machine control board Input	P6(1)	P6(2)	120 VAC	
L1- motor control output	P8(2)	P6(2)	120 VAC	
Lower water level - input	P4(8)	P4(4)	12 VDC	
Motor control tach	P4(2)	P4(4)	12 VDC	
Neutral (120 VAC)	P6(2)		Neutral	
Unbalance input	P3(4)	P4(4)	12 VDC	Less than 10 ohms when closed
Softener water valve	P1(5)	P6(2)	120 VAC	500 - 2K ohms
Torque PWM	P4(3)	P4(4)	12 VDC	PWM signal between 0 & 100% duty cycle
Water valve thermistor	P4(6)	P4(7)		(10K-85K ohms)

Troubleshooting Procedures



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Leaking

- Make sure supply hose connections are not leaking. Check for rubber gasket damage due to overtightening.
- Make sure end of drain hose is correctly inserted and secured to drain facility.
- Avoid overloading which can push the door partially open.
- Check internal hose connections.
- Check tub cover. Remove, reposition and reinstall the tub cover seal. Seal seam must be at the top of the tub cover.

Display Lights Up When Door Opened

- This is normal behavior.

No Tumble

- Washer does not tumble for the first 30 seconds after the door has been opened for safety purposes.
- Fabric cycles such as **delicates** and **handwash** only tumble for a few seconds every 30 seconds.
- Check for loose connections at machine control board, motor control board and motor.
- Perform **Motor and Motor Control Test**.
- Washer does not tumble during some drains and rinse fills.

No Water Fill

- Check to make sure water supply is turned on fully.
- Normal water level is only 2.5 to 5 inches inside the spinner.
- Check for kinks in inlet hoses.
- Check for clogged inlet screens.

- Visually check hot and cold separately at dispenser for proper flows.
- Go to **No Fill Test** page 11.

Noisy

- Clothes washer should be leveled properly as outlined in installation instructions.
- Weak floors can cause vibration and walking.
- Check for loose lower front Bracket.
- Be sure rubber feet are installed on leveling legs.
- Check that the leveling leg lock nuts are tightened.
- If complaint is a high-pitched noise during fill then disconnect supply hoses and clean screens.
- Check for proper spring placement of outer tub support springs.
- Check strut operation.

Tub is completely full of suds

- Run the clothes washer through another complete cycle using cold water and no more detergent.
- Reduce detergent amount for that specific load size and soil level. Towel loads have a minimal amount of soil present and typically create more suds.
- Use high efficiency or low sudsing detergent specially formulated for front load washers.
- Check for restricted drain system.
- Check for loose wire connections at control board and pump.
- Check to see if belt fell off motor and pulley.
- Perform **Motor and Motor Control Test**.

Troubleshooting Procedures



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Wet Clothes

- Very small clothes loads can cause unbalances add additional towels.
- Excessive suds may have been present. Check for diagnostic code 16.
- Check unbalance harness connections at all switches and at Control Board.
- Check for restricted drain system.
- Perform **Motor and Motor Control Test**.

Will Not Lock

- Door not all the way closed.
- Check electrical connections at lock assembly and machine control board. Go to **Door Lock Test**.

Will Not Unlock

- Unplug and replug in power cord and wait 2 minutes to see if machine unlocks.
- Check for door locked switch circuit to be closed at machine control. (See **Machine Control Board INPUT/OUTPUT chart**).
- Check to make sure belt has not fallen off.
- Check for loose electrical connections at door lock and at machine control board.
- Perform **Motor and Motor Control Test**.

Will Not Start

- Plug cord into live electrical outlet.
- Check fuse or reset circuit breaker.
- Push the **start/pause** button to start the clothes washer.
- Close door and push the **start/pause** button to start the clothes washer. **start/pause** LED should change from flashing to on continuously.
- Check to see if the washer is in a pause or soak period in the cycle. Wait briefly and it may start.
- Check for restricted drain system.

Will Not Drain

- Check for restricted drain system.
- Check low and high water levels. Go to **No Fill test** page 11.
- Check for 120 VAC at the pump when a spin cycle is selected.

Wrong Water Temperature

- Too Hot/Too Cold; since this product uses a low amount of water, the board regulates the incoming flow to temper the actual temperature of the water in the tub. This may appear to be significantly warmer/cooler than expected.
- Are both faucets on fully?
- Make sure temperature selection is correct.
- Make sure hoses are connected to correct faucets and inlet connections. Flush water line before filling washer.
- Check the water heater. It should be set to deliver a minimum 120°F (49°C) hot water at the tap. Also check water heater capacity and recovery rate.
- If the water heater is located a long distance from washer, water line may need to be purged prior to starting wash cycle.
- Disconnect inlet hoses and clean screens.
- This washer can sense if the fill hoses have been reversed between hot and cold. If the fill hoses on the washer were previously installed incorrectly and then corrected, the washer will need to be run through a Hot / Cold cycle. If not resolved, check for proper resistance on the water valve thermistor. (See **Machine Control Board INPUT/OUTPUT chart**).

Troubleshooting Procedures



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Consumer Information Codes

If the consumer observes codes on display, see table below:

- Sd** = Suds: Machine has detected high level of suds. The machine will alter its cycle for this situation. Use an HE detergent or cut down on the amount of detergent slightly. This can be more likely on towel loads, consider HE detergent especially for these loads.
- do** = Door is Open: The door of the machine is open. Please make sure door is fully closed before starting cycle.
- od** = Open the Door: The door has not been opened since the end of the last cycle. As a safety check the door must be opened at the completion of every cycle.
- nF** = No fill: The machine has tried to fill but cannot. See **No Water Fill**.
- PF** = Power failure: Power to the machine has been lost during the last cycle. This may occur on start up of a new machine due to factory testing.
- LO** = Locked: Door is locked (failed to unlock) - the machine has repeatedly tried to unlock but cannot. Push door closed to make sure nothing from the inside is pressing against the door which make keep it from unlocking.
- FL** = Failed to lock: The machine has repeatedly tried to lock the door but cannot. Make sure the door is shut completely
- nd** = No drain: The machine has tried to drain but cannot.
- Lr** = Locked Rotor: The machine has repeatedly tried to turn the motor but cannot.

System Diagnostics

SERVICE MODE

The **Service Mode** provides service personnel the ability to verify the operation of the washing machine. The **Service Mode** can be entered in the middle of any wash cycle. While in the **Service Mode**, the servicer can start a variety of special service tests.

Accessing Service Mode:

Pressing down the **delicates** and **heavy soil** keys for 3 seconds places the machine in the **Service Mode**. Motor speed will be displayed when started. To exit **Service Mode**, press **delicates** and **heavy soil** keys for 3 seconds again.

The following table lists the various tests available while in the **Service Mode**, which can be accessed by pressing the following keys:

To Enter Press Keys	Special Test/Function	To Exit Function
Medium	Shows Motor Torque	Start/Pause
Wrinkle Free	Membrane Pad Check	Wait 5 sec. or press Off twice
Quick	Fast Time Down Test	Start/Pause
Spin	Quick Spin Test	Start/Pause
Light Soil	Displays Software Revision Number	Start/Pause
Delicates	Quick Service Cycle	Start/Pause
Rinse	Board Output Test	Start/Pause
Presoak	Diagnostic Codes	Start/Pause

Troubleshooting Procedures



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DIAGNOSTIC CODES:

When a problem with the wash system is detected a diagnostic code is assigned and logged into the control board memory with the last cycle count at which it occurred. An assigned diagnostic code indicates the washer must be serviced. The control board will allow as many diagnostics as possible for the machine to continue running. In some cases, when the washer shuts down, something shall be displayed on the display until the consumer selects the off key. See the table for specific actions or references to where the proper action is defined.

Accessing Diagnostic Codes

After the machine is in the service mode, pressing *presoak* key will display a 'd' and turn the LED on above the presoak key. The

diagnostic codes can be viewed by using the arrow keys. The down arrow will go down the list.

Clearing Diagnostic Codes

While viewing the diagnostic code listing, the diagnostic code list can be cleared from memory by pressing the ***heavy soil*** and ***presoak*** keys for 3 seconds.

Number of Cycles Since Code Assigned

While the Diagnostic code is displayed, if the ***cotton/sturdy*** key is pressed and held, the machine shall display the number of cycles ago the code occurred while the key is held. Also, while this key is being held, the key will turn on the LED. When this key is let up, then the code is again displayed. If there are no codes available, '- -' will be displayed while this key is pressed. If the code is over 99 cycles ago, then '- -' will be displayed.

DIAGNOSTIC CODES:

Diag. Code	Description	Trigger	Action to be Taken
01	No drain	The water level fails to drop below the low water level in final spin	Will display "nd" Go to " Will Not Drain " page 4.
02	The door fails to unlock	Door failed to unlock after 11 attempts	Will display " LO " Go to " Will Not Unlock " page 4.
03	No fill	Continuous fill of 12 minutes.	Will display "nF" Go to " No Water Fill " page 3.
04	The door fails to lock	Door failed to lock after 11 attempts	Will display " FL " Go to " Will Not Unlock " page 4.
05	Continuous unbalanced circuit (During spin only)	See section for unbalanced loads.	Go to " Wet Clothes " page 4.
06	Locked rotor	Motor not turning after 10 consecutive retry attempts	Will display " Lr " Go to " Motor and Motor Control Test ", page 10.
07	(Not Used)		

Troubleshooting Procedures



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DIAGNOSTIC CODES (Continued):

Diag. Code	Description	Trigger	Action to be Taken
08	Water sensor level fault	The low water level is not satisfied before the high water level contacts are opened in the pressure switch	Go to "No Water Fill" page 3.
09	(Not Used)		
10	Low rpm unbalanced load	Never reached 400 rpm due to an unbalanced load	Go to "Wet Clothes" page 4.
11	Non-volatile memory error	Difficulty in reading memory	1. Go to "Clearing Diagnostic Codes" page 6. 2. Unplug and replug in power cord washer at power supply outlet 3. If a condition still exists, replace machine control board.
12-14	(Not Used)		
15	Stuck key	A key is sensed to be pressed for more than 75 seconds, the key shall be assumed to be stuck	Replace console/membrane switch.
16	High speed not achieved due to high motor torque	Speed never went over 400 rpm during a main wash cycle because the maximum torque was seen for too long	Go to "Wet Clothes" page 4.
17	Door actuator switch was not seen open since the last final spin	The door has not been opened after a complete wash cycle.	Will display "od" Check for: - Customer may have tried to repeat wash cycle without opening door -Go to "Door Lock Test" page 10.
18	Door lock switch seen open during cycle	Door lock switch is read as open with motor running	- Clear the diagnostic code, page 6. recheck; -Go to "Door Lock Test" page 10.

Troubleshooting Procedures



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DIAGNOSTIC CODES (Continued):

Diag.- Code	Description	Trigger	Action to be Taken
19	Door lock sense or motor control relay failed	Door lock sense switch on machine control board is read as open with motor running	See list for diagnostic code 18
20	Door switch input seen open during cycle	Door switch is open	Go to " Door Lock Test ", page 10.
21	Door sense switch failed on machine control board	Door sense switch is read as open and the door locked switch is read as locked	Go to " Door Lock Test ", page 10.
22	Door switch seen open during cycle	Door switch is read as open and the door locked switch is read as locked	Go to " Door Lock Test ", page 10.
23	Door failed to unlock	Door lock is locked and a user tries to start a cycle	Go to " Will Not Unlock " page 4.
24	Motor over speed	Motor tach signal is seen at maximum speed	- Replace motor control board
25	Motor tach signal exists without motor running	Tach signal exists without torque commanded.	- Replace motor control board
26-27	(Not Used)		
28	Valve thermistor failure	Abnormal high/low temperature or ohm resistance seen	Go to " Wrong Water Temperature " page 4.
29	Sump thermistor failure	Abnormal high/low temperature or ohm resistance seen	Check harness connections, check continuity of sump thermistor

Troubleshooting Procedures



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Membrane Pad Check Test

While in **Service Mode**, pressing the **wrinkle free** key will start a membrane pad switch check.

The membrane check involves turning all the embedded LED lights on the membrane pad except for the **wrinkle free** key. All the LEDs can be toggled by pressing the key associated with the LED. At any point, if there are 10 minutes of inactivity, then this test will exit. Press the **off** key twice within 30 seconds to cancel test.

Fast Time Down Test

While in **Service Mode**, pressing the **quick** key will advance the program to the next wash cycle.

Stage of Wash Cycle	Advances To
Presoak	End of Presoak
Wash	Every 5 Minutes of Wash Time
Spin/Drain	Every Step of The Spin Profile
Rinse	End of Rinse

Quick Spin Test

While in **Service Mode**, the pressing of **spin** key shall start the washer in the **Quick Spin Test** mode.

The following **Quick Spin Test** steps are as follows:

- 1) Lock the door.
- 2) Spin to 350 rpm and hold for 6 seconds.
- 3) Spin to 550 rpm and hold for 6 seconds.
- 4) Spin to 600 rpm and hold for 6 seconds.
- 5) Spin to 650 rpm and hold for 6 seconds.
- 6) Spin to 800 rpm and hold for 6 seconds.

If the **spin** key is pressed again during the **Quick Spin Test**, the current speed will be held indefinitely. Pressing the **spin** key again will allow the quick test to proceed as listed above.

When the washer is in the **Service Mode**, the speed will be displayed as a two digit number or a letter/number.

Speed Range	Displayed
a) 0-99 rpm	0-99 (actual)
b) 100-999 rpm	Speed / 10

Quick Service Cycle

While in **Service Mode**, pressing the **delicates** key will start a **Quick Service Cycle**. This will be a quick check of all systems.

The following steps will be followed.

1. Energize the cold and bleach water valves. Fill to Low level, then turn bleach and cold off.
2. Energize the hot and fabric softener water valves. Fill to high level, then turn all valves off.
3. Lock the door.
4. Tumble using 7/3 tumble pattern for 12 sec.
5. Turn the drain on.
6. Spin to 800 RPM using default rates.
7. End spin and coast down.
8. Unlock the door when the RPM is zero.
9. Display a 'PA' (Passed) on continuously for 10 seconds if no diagnostic codes were logged during this test.

The up arrow if pressed will advance to the next step. The right most dot will be turned on as an indication of failure and stay on until **Quick Service Cycle** test has reached the end. Any diagnostic code logged during this test will result in failure of the test, but will not necessarily stop the test. While in **Quick Service Cycle**, the pressing of the **hand wash** will suspend the machine at this step for 30 minutes until the **hand wash** key is pressed again. All LED's will flash on and off while the cycle is suspended, or on hold.

Motor Drive System

To check the system, check the board for proper output to the motor control. Performing a **Motor and Motor Control Test** does this.

Troubleshooting Procedures



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Motor and Motor Control Test

1. Disconnect power to the washer.
2. Remove the front panel and pull the JP4 Connector from the motor control board.
3. Reconnect the washer power cord to supply voltage. Make sure the door is closed.
4. Press **delicates** and **heavy soil** keys for 3 seconds to activate **Service Mode**.
5. Access **Board Output Test** by touching the **rinse** key to activate.
6. The door must be locked to access **Motor and Motor Control Test**. To lock the door press **max extract**. Press **max extract** again stop the door lock output test once the door is locked.
7. Press **stain cycle** to start the motor control output test. This will send 120VAC to the motor control board. The motor control will immediately execute a test routine and the motor should run, rotating the spinner at 50 rpm.
8. **If motor does not run;**
 - Check for 120 VAC at the motor control board harness. **See Figure 1.**
If voltage is present, then problem lies with the motor and motor control system.
 - Check for loose electrical connections at motor and motor control board.
 - Check phase windings of the motor. **See Figure 2.** If motor windings are good, replace the motor control board.
If voltage is not present;
 - Check loose electrical connections at machine control board or broken wires in harness.
 - Check door actuator switch and related wiring.

Door Lock Test

Placing the washer into the **Service Mode** and manually locking and unlocking the door mechanism through the control panel can verify the door lock. **Note:** The relay on the control board for the door unlock mechanism is disabled if the motor control board indicates the spinner speed is > 7 RPM.

1. Place the washer into **Service Mode**. (See **Service Mode**)
2. Advance to the **Board Output Test** by

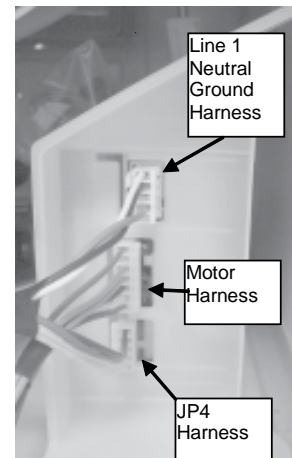


Figure 1–
Motor Control Board/JP4 Connector

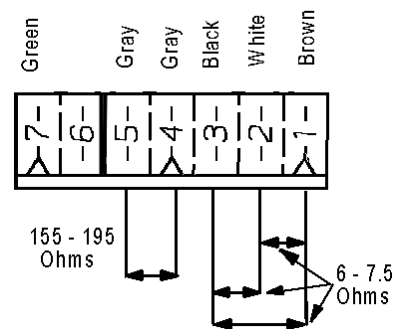


Figure 2– Schematic – Motor Harness

- touching the **rinse** key, then press **max extract** to **lock the door**. A lock signal will be sent to the solenoid every second for 10 seconds. If the door does not lock; use a voltmeter, look for 120VAC, 60 millisecond pulse to the locking solenoid.
3. **If signal is present,** then the door lock solenoid is bad and the door lock mechanism must be replaced. (Assuming the door was fully closed.) To stop the signal, press **max extract** again.
 4. **If signal is not present,** check electrical connections at switch or at control board. Check for proper outputs from the control board at Conn P1(1) and Neutral leg of power cord. If voltage is present, fix electrical connections or change wire harness. If no voltage is found, go to P8(4) and Neutral on power cord to verify 120VAC coming into the board. If voltage is not present check the door actuator switch. (make sure door is closed.) If voltage is present, change machine control board.

Troubleshooting Procedures



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5. Advance to the **Board Output Test** and press **extra rinse** to **unlock the door**. An unlock signal will be sent to the solenoid every second for 10 seconds.

If the door does not lock, use a voltmeter, look for 120VAC, 60 millisecond pulse to the locking solenoid.

If signal is present, then the door lock solenoid is bad and the door lock mechanism must be replaced. To stop the signal, press **extra rinse** again.

If signal is not present, check electrical connections at switch or at control board. Check for proper outputs from the control board at Conn P8(3) and Neutral leg of power cord. If voltage is present, fix electrical connections or change wire harness. If no voltage is found, go to P8(4) and Neutral on power cord to verify 120VAC coming into the board. If voltage is not present check the door actuator switch. (make sure door is closed.) If voltage is present, change machine control board.

No Fill Test

1. Close the door and start a spin cycle to drain all water from the washer to reset the pressure switch.
2. Press **off** and open door to verify all water is removed from the washer. If water still present, go to **Will Not Drain** diagnostics.
3. If water is drained out, close the door and go to **Service Mode**, press **delicates** and **heavy soils** keys for 3 seconds. If it is likely to need access to the water valve for voltage checks, consider raising the top cover now and close the door so that the following steps will not need to be repeated.
4. While in **Service Mode**, press the **hand wash** key places the washer into the **Board Input Test**.
5. Check the lower water level by pressing the **hand wash** key.
6. "**_1**" indicates the washer is full. If full, check the lower water level input at the machine control board by reading DC voltage between P4(4) and P4(8). If voltage is present at the machine control board, check voltage at pressure switch between BU and BR. If voltage present at pressure switch, replace pressure switch.

If voltage is not present at pressure switch, check or replace harness. If no voltage is present at the Machine control board, replace the machine control board.

7. "**_0**" indicates the washer is empty: If empty, press the **wrinkle free** key to check the high water level.
8. "**-1**" indicates full. If full, check the high water level input at the machine control board by reading 120 VAC voltage between P1(4) and Neutral P6(2). If 120 VAC is not present at the machine control board, check continuity at pressure switch across GY and YL. If no continuity, replace pressure switch. If continuity, check door switch and harness to pressure switch and harness from pressure switch to Machine control board. If 120 VAC is present at the Machine control board, replace the machine control board.
9. "**-0**" indicates empty. If empty, exit **Board Input Test** mode by pressing the start/pause key. Then enter **Board Output Test** mode by pressing the **rinse** key.
10. Turn the cold water valve on by pressing the **wrinkle free** key. Check for cold water flow at the dispenser. If no cold water flow, check the cold water valve for 120 VAC between BU and WH. If 120 VAC is present at the cold valve, replace the water valve. If 120 VAC is not present at the cold valve, check for 120 VAC at the machine control board between P1(3) and Neutral. If 120 VAC is present at the machine control board, check or replace the harness. If 120 VAC is not present at the machine control board, replace the machine control board. If cold water flows, turn the cold valve off by pressing the wrinkle free button.
11. Turn the hot on by pressing the **cotton sturdy** key. Check for hot water flow at the dispenser. If no hot water flow, check the hot water valve for 120 VAC between OR and WH. If 120 VAC is present at the hot valve, replace the water valve. If 120 VAC is not present at the hot valve, check for 120 VAC at the machine control board between P1(2) and Neutral. If 120 VAC is present at the machine control board, check or replace the harness. If 120 VAC is not present at the machine control board, replace the machine control board.

Troubleshooting Procedures



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Board Input Test

While in **Service Mode**, pressing the **hand wash** key places the washer into the **Board Input Test**.

This test will turn on a specified input after a key press. All output will be turned off after 10 minutes.

Board Input Test Table

Action	Press Key	Feedback
Door Position	cotton/sturdy	dO Open
Latch Position	delicates	LO Unlocked LI Locked
High Water Level	wrinkle free	--O Below Level --I Above Level
Low Water Level	hand wash	_O Below Level _I Above Level
Unbalance Circuit	temp down	uO Balanced uI Unbalanced
Water Inlet Temp	temp up	Degrees °F
Vibration Signal	spin	0-225**
Brown out	rinse	0-225**
Accelerometer circuit	quick	PA = Passes FA = Fails
Sump Thermistor	Light Soil	Degrees °F

**Two digit display = 0-99;
plus **max extract** LED =100,
plus **max extract** LED and **extra rinse** LED =
200.

Board Output Test

While in **Service Mode**, pressing the **rinse** key places the washer into the **Board Output Test**. This test will turn on a specified output after a key press. All outputs will continue on until the key is pressed again, or it will turn off after 10 minutes. Note, to check the fabric and bleach valves, you must turn on the hot or cold water valves first.

Board Output Test Table

Key Pressed:	Function Performed
Cotton/sturdy	Hot Water Valve
Wrinkle free	Cold Water Valve
Delicates	Bleach Valve
Hand Wash	Fabric Softener Valve
Presoak	Drain Pump
Stain Cycle	Motor Control
Extra Rinse	Unlock Door (Sends a pulse every second for 10 seconds)
Max Extract	Lock Door (Sends a pulse everysecond for 10 seconds)

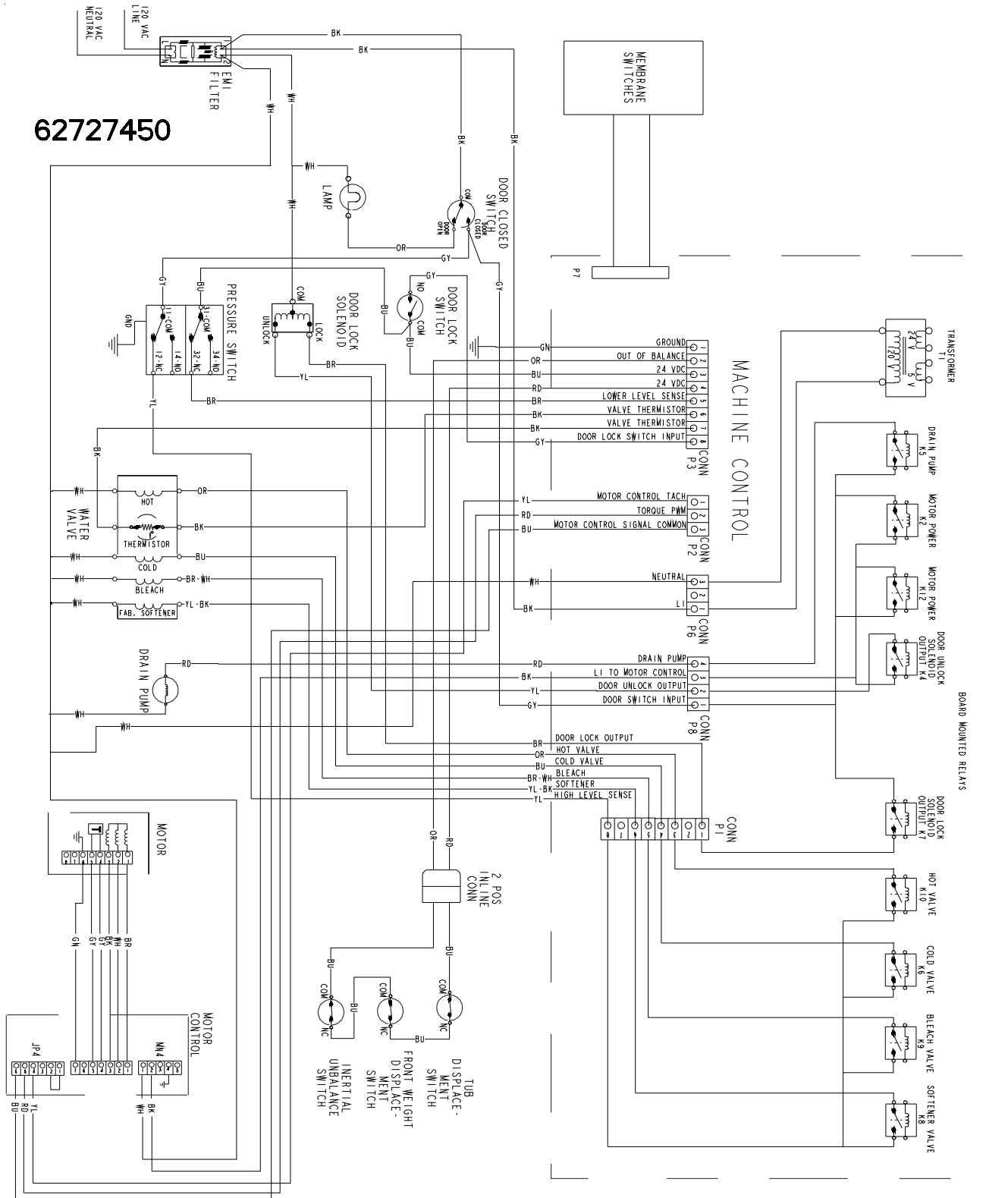
Wiring Schematics



To avoid risk of electrical shock, personal injury or death; disconnect power to washer before servicing, unless testing requires power.

MAH5500B* - SERIES 10-A6

MAH55FLB* - SERIES 10-11



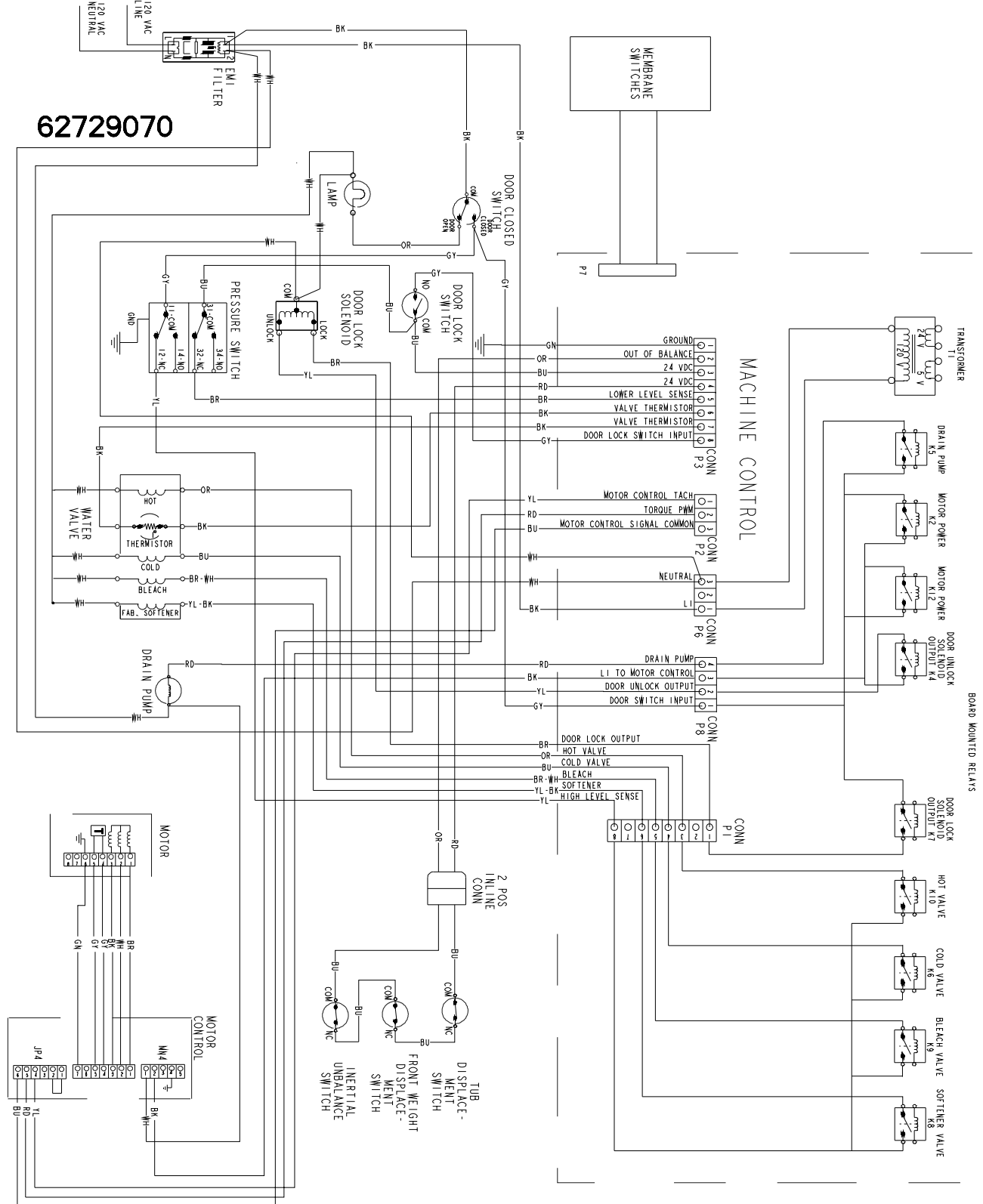
Wiring Schematics



To avoid risk of electrical shock, personal injury or death; disconnect power to washer before servicing, unless testing requires power.

MAH5500B* - SERIES A7-A9

MAH55FLB* - SERIES 12-14



Wiring Schematics

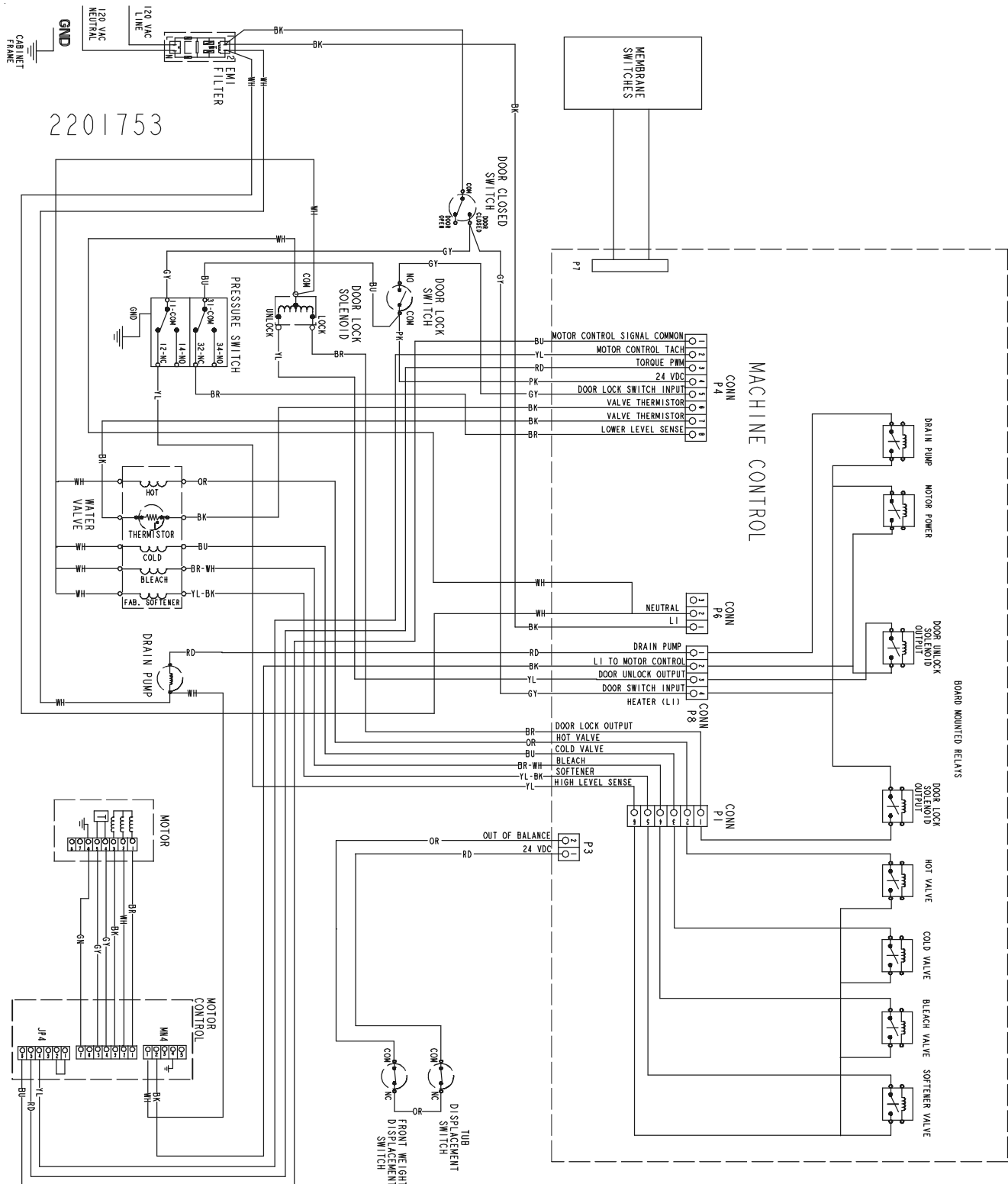


WARNING

To avoid risk of electrical shock, personal injury or death; disconnect power to washer before servicing, unless testing requires power.

MAH5500B* - SERIES B1,B4 - C3, C7

MAH55FLB* - SERIES 16,18-24,28



Wiring Schematics

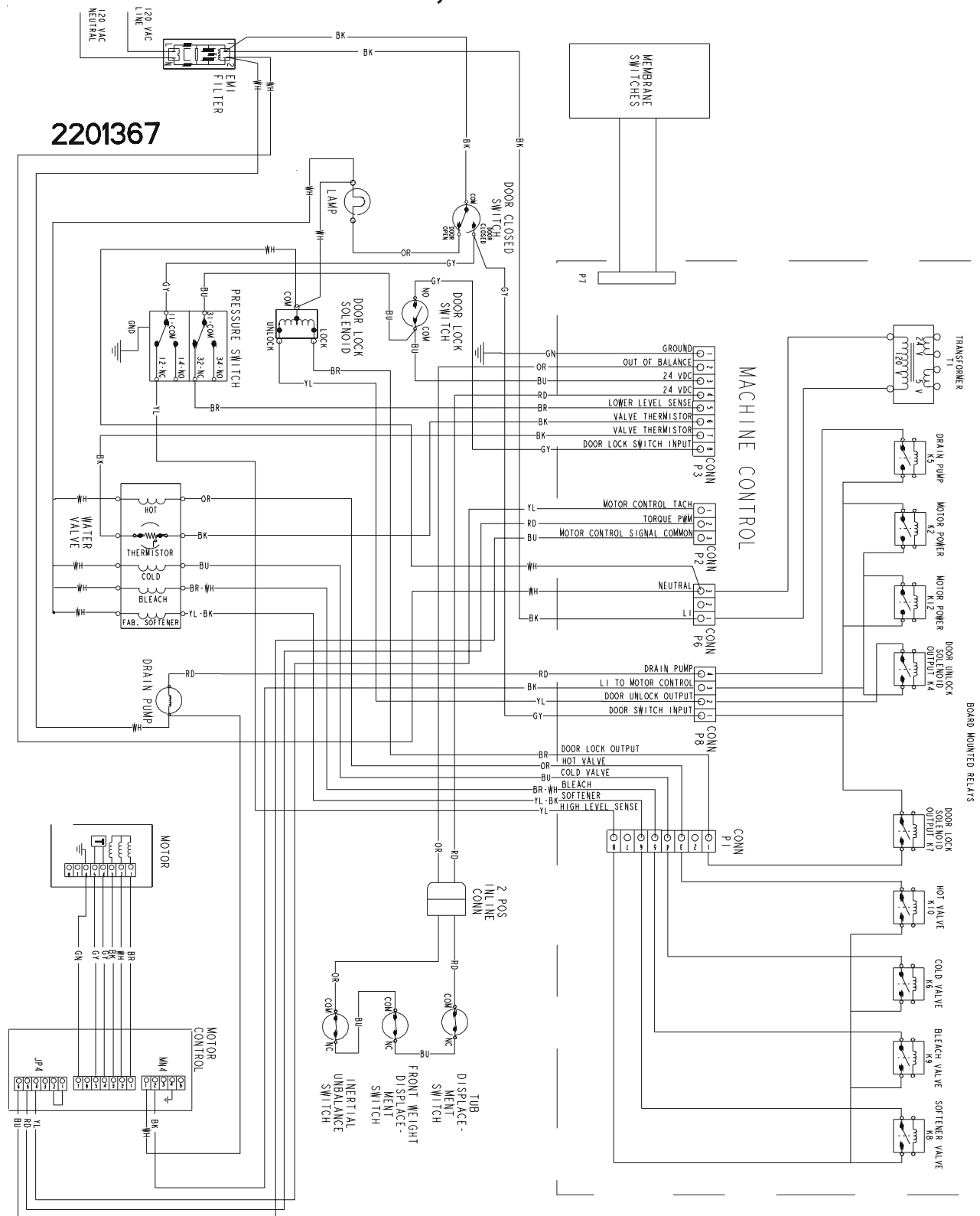


WARNING

To avoid risk of electrical shock, personal injury or death; disconnect power to washer before servicing, unless testing requires power.

MAH5500B* - SERIES B2,B3

MAH55FLB* - SERIES 15,17



Wiring Schematics



WARNING

To avoid risk of electrical shock, personal injury or death; disconnect power to washer before servicing, unless testing requires power.

MAH5500B* - SERIES C4 - C6, C8 - current

MAH55FLB* - SERIES 25 - 27, 29 - current

