

WASHING MACHINE SERVICE MANUAL

CAUTION

READ THIS MANUAL CAREFULLY TO DIAGNOSE PROBLEMS CORRECTLY BEFORE SERVICING THE UNIT.

MODEL: WM3632HW



CONTENTS

1. SPECIFICATIONS	3
2. FEATURES & TECHNICAL EXPLANATION	4
3. PARTS IDENTIFICATION	6
4. INSTALLATION	7
5. OPERATION	10
6. WIRING DIAGRAM / PROGRAM CHART	12
7. TROUBLESHOOTING	14
7-1. BEFORE PERFORMING SERVICE	14
7-2. QC TEST MODE	14
7-3. HOW TO CHECK THE WATER LEVEL FREQUENCY	14
7-4. ERROR DISPLAY	15
8. ERROR DIAGNOSIS AND CHECK LIST	17
8-1. DIAGNOSIS AND SOLUTION FOR ABNORMAL OPERATION	17
8-2. FAULT DIAGNOSIS AND TROUBLESHOOTING	20
9. DISASSEMBLY INSTRUCTIONS	30
10. EXPLODED VIEW	39
10-1. CABINET & CONTROL PANEL ASSEMBLY	39
10-2. DRUM & TUB ASSEMBLY	40
10-3. DISPENSER ASSEMBLY	41
10-4. DRYER	42

1. SPECIFICATIONS

IT	EM	WM3632HW						
POWER	SUPPLY	120V ~ 60Hz						
PRODUCT	Γ WEIGHT	198 lbs. (90 kg)						
	WASHING	280W						
ELECTRIC	DRAIN MOTOR	80W						
POWER	FAN MOTOR	25W						
CONSUMPTION	DRY HEATER	1200W						
	WASH HEATER	1000W						
REVOLUTION	WASH	42 rpm						
SPEED	SPIN	0-1200 rpm						
CY	/CLES	9						
WASH / RINSE T	EMPERATURES	6						
SPIN SI	PEEDS	6						
OPTI	ONS	Prewash, Stain Cycle, Quick Cycle, Extra Rinse, Rinse+Spin, Delay Wash						
WASH / DRY	PROGRAM	Sanitary, Cotton / Towels, Normal, Perm Press, Speed Wash						
CUSTOM F	PROGRAM	Incorporated						
WATER CIF	RCULATION	Incorporated						
OPERATIONAL WA	ATER PRESSURE	4.5-145 psi (30-1000 kPa)						
CONTRO	DL TYPE	Electronic						
WASH CA	APACITY	3.22 cu.ft (3.72 cu.ft.IEC)						
DRY CA	PACITY	Max. 11lbs (5kg)						
DIMEN	SIONS	27"(W) X 29 -1/2"(D) X 42 -3/4"(H), 49 -4/5"(D, door open)						
DELAY	WASH	up to 19 hours						
DOOR SWI	TCH TYPE	PTC + Solenoid						
WATER	LEVEL	7 steps (by sensor)						
LAUNDRY LO	AD SENSING	Incorporated						
ERROR DI	IAGNOSIS	Incorporated						
AUTO PO	WER OFF	Incorporated						
CHILD	LOCK	Incorporated						

2. FEATURES & TECHNICAL EXPLANATION

2-1.FEATURES















■ Direct Drive System

The advanced Brushless DC motor directly drives the drum without belt and pulley.

■ Tilted Drum and Extra Large Door Opening

The tilted drum and extra large door opening make it possible to load and unload easily.

■ Water Circulation

Spray detergent solution and water onto the load repeatedly. Clothes are soaked more quickly and thoroughly during the wash cycle.

Detergent suds are eliminated more easily by the water shower during rinse cycle. The water circulation system uses both water and detergent more efficiently.

■ RollerJets

The washing ball enhances wash performance and reduces damage to clothing. The jets spray and help tumble clothes to enhance washing performance while maintaining fabric care.

■ Built-in Heater

The internal heater automatically heats the water to the optimum temperature on selected cycles.

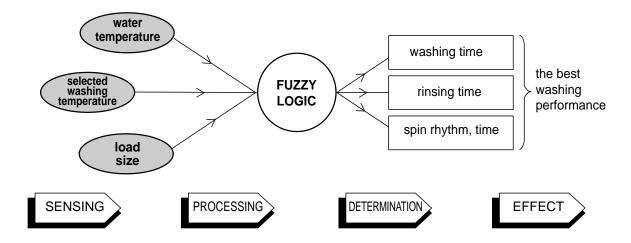
■ Child Lock

The Child lock feature prevents children from pressing any buttons

to change the settings during operation.

2-2.FUZZY LOGIC WASHING TIME OPTIMIZATION

To get the best washing performance, optimal time is determined by the water temperature, the selected washing temperature, and the size of the load.



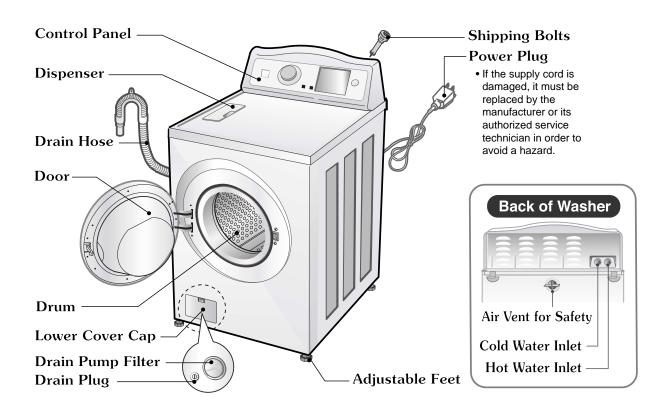
2-3.WATER LEVEL CONTROL

- This model incorporates a pressure sensor which can sense the water level in the tub.
- The water supply is stopped when the water level reaches the preset level, the washing program then proceeds.
- Spinning does not proceed until the water in the tub drains to a certain level.

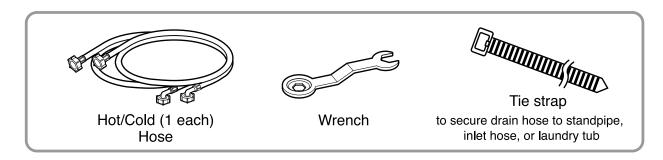
2-4.DOOR CONTROL

- The door can be opened by pulling the door handle whenever washer is not in operation.
- When the cycle is completed, the DOOR LOCKED light will turn off.
- If a power failure has occurred while in operation, the door will lock for 5 minutes.
- Clicking sounds can be heard when the door is locked / unlocked.

3. PARTS IDENTIFICATION



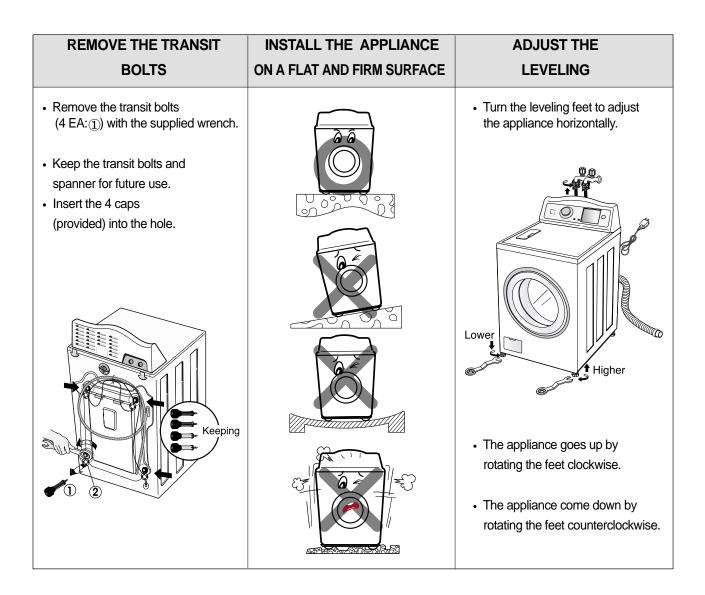
ACCESSORIES



4. INSTALLATION

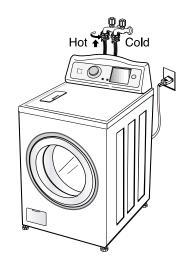
- 1 Before servicing, ask the customer what the trouble is.
- 2 Check the setup (power supply is 120V AC, remove the transit bolts....).
- (3) Check with the troubleshooting guide.
- 4 Plan your service method by referring to the disassembly instructions.
- 5 Service the unit.
- 6 After servicing, operate the appliance to see whether it functions correctly.
- STANDARD INSTALLATION

The appliance should be installed as follows:

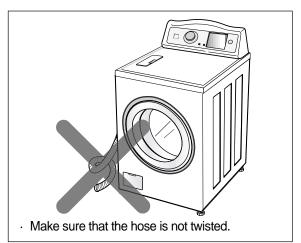


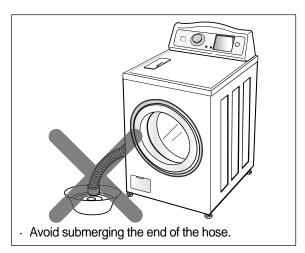
■ HOW TO CONNECT THE INLET HOSE

- Verify that the rubber washer is inside of the valve connector.
- Connect the inlet hose firmly to prevent leaks.



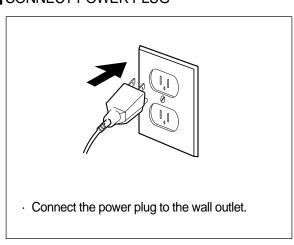
■ CONNECT THE DRAIN HOSE

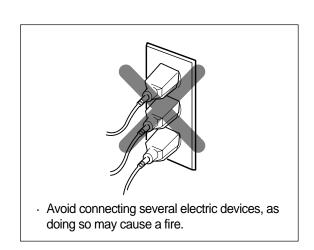




** The end of the drain hose should be placed less than 96" from the floor.

■ CONNECT POWER PLUG

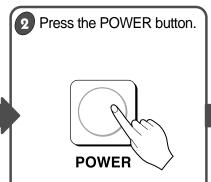




7 TEST OPERATION



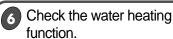
- Connect the power plug to the outlet.
- · Connect the inlet hose.



Press the Start/Pause button.



 Listen for clicking sounds to determine if the door has locked.





 Press the WASH / RINSE button and the present temperature will be displayed. Check the automatic reversing rotation of the drum.



 Make sure that the drum rotates clockwise and counterclockwise. 4 Check the water supply.



 Verify that if water is supplied through the detergent dispenser.

- Check the drain and spin functions.
- Press the POWER button twice to restart.
- Press the SPIN SPEED button.
- Press the START / PAUSE button.
- Check the drain and spin functions.



Press the START / PAUSE button.



 Listen for clicking sounds to determine if the door is unlocking. Water removal



 If SVC is required, remove the remaining water in the tub, by pulling out the drain plug.

POWER button

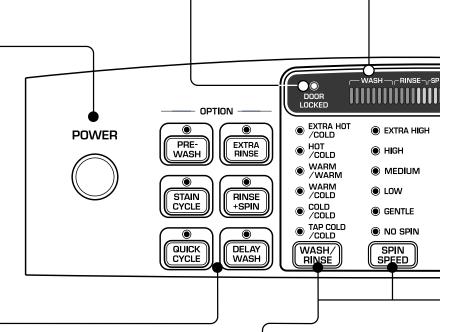
 Use this button to turn the power On / Off.

DOOR LOCKED lamp

- Lights whenever the door is locked.
- The door can be unlocked by pressing the Start / Pause button to stop the washer.

• STATUS IN

• These lights show ϵ selected cycle.



OPTION button

- Allows you to store a customized wash cycle for future use.
- To create a Custom Program :
 - 1) Select a cycle.
 - 2) Select the other desired Wash / Rinse Temp., Spin Speed, Soil Level.
 - 3) Select the desired Options.
 - 4) Press and hold the Custom Program button for 3 seconds (2 beep sounds).
 - Press the **Start / Pause** button.
 The Custom Program is now stored for future use.
- To reuse the program, select Custom Program and press Start / Pause.

WASH / RINSE temp. SPIN SPEED, SOIL LEVEL button

- Select a water temperature based on the type of load you are washing.
- To change the spin speed, select the Spin Speed button until the desired setting is displayed.
- To change the soil level, select the Soil Level button until the desired setting is displayed.

IDICATOR

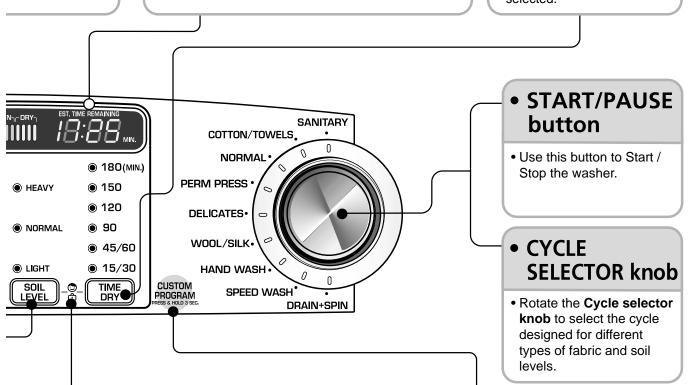
elapsed time of the

EST.TIME REMAINING

- This display shows:
 - a) the estimated time remaining in the cycle when operating.
 - b) an error code when an error has been detected.

DRY SELECTOR

- Dry programs can be selected by pressing the [DRY] button.
- By pressing the [DRY] button, [150 ightarrow180 ightarrow15 ightarrow30 ightarrow45 ightarrow60 ightarrow90 ightarrow120] can be selected.



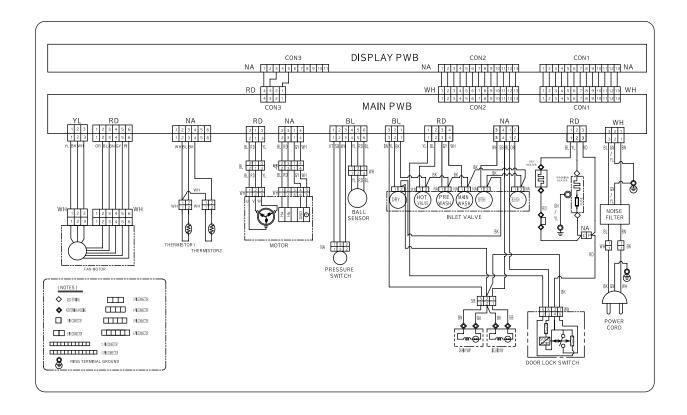
CHILD LOCK

- Use this option to prevent unwanted use of the washer.
 Press and hold Quick Cycle and Delay Wash button for 3 seconds to lock / unlock control.
- When Child lock is set, "£L" blinks and all buttons are disabled but the Power button. You can thereby lock the washer while it is operating.

CUSTOM PROGRAM button

- **Prewash** : Use this option for loads that need pretreatment. It adds 16 minutes prewash and drain.
- **Stain Cycle**: Adds time to the wash and rinse cycles for better stain removal. Automatically provides a rinse.
- Quick Cycle: The Quick cycle offers a quick cycle time.
- Extra Rinse : This option provides an additional rinse cycle.
- Rinse+Spin : Use this option to rinse and then spin.
- **Delay Wash** : Allows the start of any cycle to be delayed for 1~19(12, 9) hours.

6. WIRING DIAGRAM / PROGRAM CHART



PROGRA	RAM CHART * Water Supply : W-										w:	S	* Intermittent Spin : I·S * Disentangle : D·T																					
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U \ \ P	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	20	20	20	(11001.1411	iluto)
R Time	60	MIN	60	300	60		MIN	60	60	60	60	300	60	240	60	300	60	240	60	300	60	240	60	300	60	240	60	120 ~ 540	120		20	20		
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Cotton /Towels		. 8.	ļ			H	19		><											*****													About	57
Normal	KEREE	.8.					19	\backslash	\sim	$\overline{}$										****						****							About	56
Perm Press	****	8	****	KKKKK		H	17		><	/									****	****	*****				****	KKKKK							About	53
Delicates		8					13	$/\setminus$	><	\leq										*****				\geq	<	\leq				X			About	34
Wool/Silk	/ \	\geq	<	\leq			13		\times			•••••									*****			\geq	<	\leq				X			About	34
Hand Wash		\geq	\leq	\leq			13		<u>~</u>	\leq		*****				*****			*****	****	*****			\geq	\leq	\leq				\boxtimes			About	34
Speed Wash		\geq	\leq	\leq			7		<u>~</u>	\leq	_	•••••		120				120	****	****	*****	120		\geq	\leq	\leq				*****			About	29
Drain+Spin														_																			About	12
Wash + Rinse		. 8.					19		<u> </u>	\leq										****	*****				*****	****			\geq	\leq	\leq		About	45
Rinse + Spin				\geq	\geq	<u> </u>	<	\leq	\leq	\leq									CKKKKK	*****	KKKKK	*****		\geq	\leq	\leq							About	29
Rinse				\geq	\geq	<u> </u>	_	=	\leq										ereke		KKKKK			\geq	\leq	\leq			\geq	\leq	\leq		About	18

^{*} Basic Cycle

* Optional Cycle

* Pre-Setting Time : Water Supply - 60 sec.

Drain - 60 sec.

^{*} Basic time is minute in washing chart.
* The actual program time can be varied with the load amount, water temperature or ambient temperature.

7. TROUBLESHOOTING

7-1. BEFORE PERFORMING SERVICE

- Be careful of electric shock when disconnecting parts for while troubleshooting.
- The voltage of each terminal is 120V AC and DC when the unit is plugged in.

7-2. QC TEST MODE.

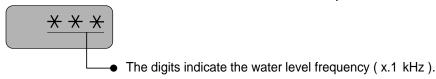
The washer must be empty and the controls must be in the off state.

- ① Press the SPIN SPEED and SOIL LEVEL buttons simultaneously.
- 2) Press the Power button, while the above condition. Then buzzer sound twice.
- ③ In order to advance to the next step of test mode, press the START / PAUSE button once.

Number of times the Start/Pause button is pressed	Check Point	Display Status
None	Turns on all lamps and locks the door.	(5:5 5)
1 time	Tumble clockwise.	rpm (40~50)
2 times	Low speed Spin.	rpm
3 times	High speed Spin.	rpm
4 times	Inlet valve for prewash turns on.	Water level frequency (25~65)
5 times	Inlet valve for main wash turns on.	Water level frequency (25~65)
6 times	Inlet valve for hot water turns on.	Water level frequency (25~65)
7 times	Inlet valve for softener turns on.	Water level frequency (25~65)
8 times	Inlet valve for bleach turns on.	Water level frequency (25~65)
9 times	Tumble counterclockwise.	rpm (40~50)
10 times	Heater turns on for 3 sec.	Water temperature
11 times	Circulation pump turns on.	Water level frequency (25~65)
12 times	Drain pump turns on.	Water level frequency (25~65)
13 times	Power off and unlock the door.	Turn off all lamps.

7-3. HOW TO CHECK THE WATER LEVEL FREQUENCY

st Press the SPIN SPEED and SOIL LEVEL button simultaneously.



So, for example a display indicating 241 : a Water level frequency of 241 x.1 kHz = 24.1 kHz

7-4. ERROR DISPLAY

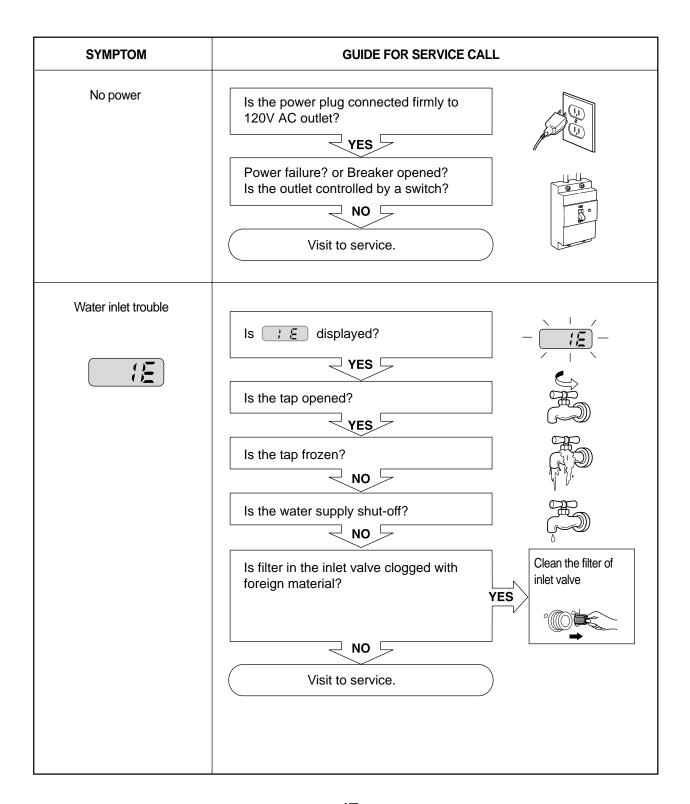
- If you press the START/PAUSE button when an error is displayed, any error except <code>"PE _ will disappear</code> and the machine will go into the pause status.
- In case of <code>FFE</code> <code>_, FEE</code> <code>_, FdE</code> <code>_</code> if the error is not resolved within 20 sec., or the in case of other errors, if the error is not resolved within 4 min., power will be turned off automatically and the error code will blink. But in the case of <code>FE</code> <code>_</code>, power will not be turned off.

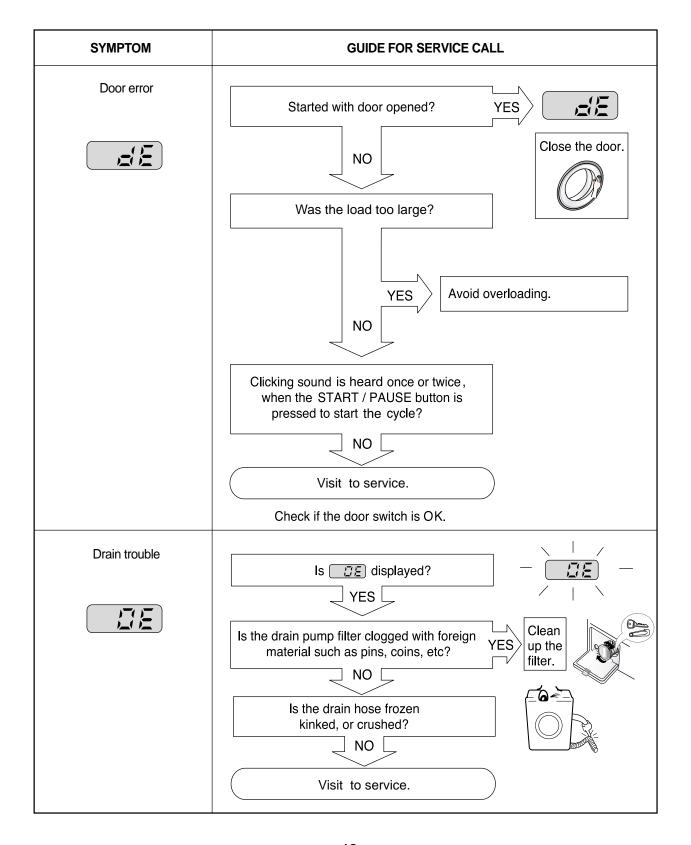
	ERROR	SYMPTOM	CAUSE
1	WATER INLET ERROR	;	Correct water level (2 level) is not reached within 8 minutes after water is supplied or it does not reach the preset water level within 25 minutes.
2	IMBALANCE ERROR		 The load is too small. The appliance is tilted. Laundry is gathered to one side. Non distributable things are put into the drum.
3	DRAIN ERROR		Not fully drained within 10 minutes.
4	OVER FLOW ERROR	FE	Water is overflowing (over 8 level). If FE is displayed, the drain pump will operate to the drain water automatically.
5	PRESSURE SENSOR ERROR	FE	The SENSOR SWITCH ASSEMBLY is out of order.
6	DOOR OPEN ERROR	<u> </u>	 Door not all the way closed. Loose electrical connections at Door switch and PWB Assembly. The DOOR SWITCH ASSEMBLY is out of order.
7	HEATING ERROR	EE	• The THERMISTOR is out order.

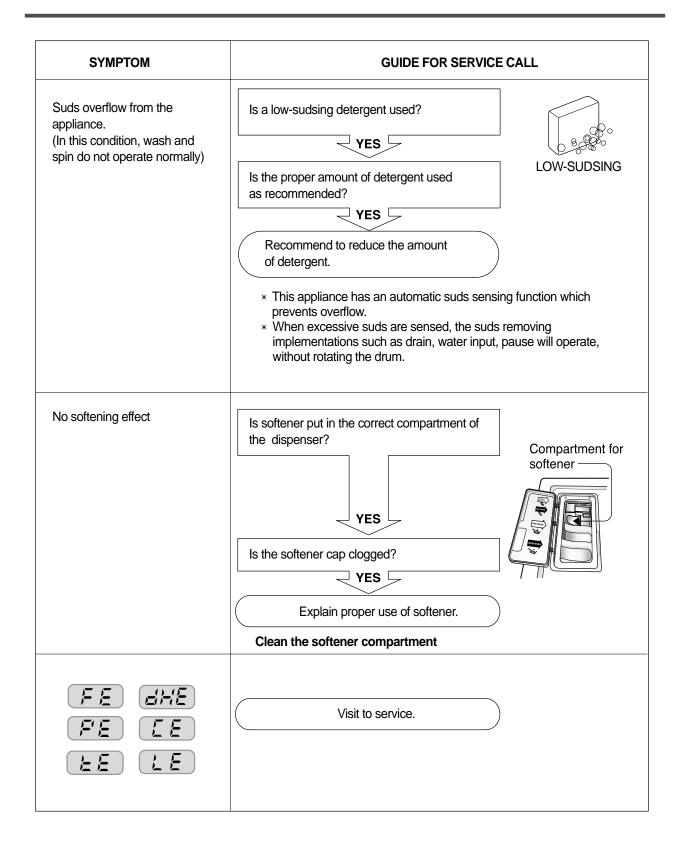
	ERROR	SYMPTOM	CAUSE
8	OVER CURRENT ERROR		MAIN PWB ASSEMBLY is out of order. Winding in the STATOR ASSEMBLY is short-circuited.
9	LOCKED MOTOR ERROR	LE	 The connector (3-pin, male, white) in the MOTOR HARNESS is not connected to the connector (3-pin, female, white) of STATOR ASSEMBLY. The electric contact between the connectors (3-pin, male, white) in the MOTOR HARNESS and 4-pin, female, white connector in the MAIN PWB ASSEMBLY is bad or unstable. The MOTOR HARNESS between the STATOR ASSEMBLY and MAIN PWB ASSEMBLY is cut (open circuited). The hall sensor is out of order/defective.
10	BALL SENSOR ERROR	5 5	Loose Ball Sensor Connector. Ball Sensor is out of order. Displayed only when the START / PAUSE button is first pressed in the QC Test Mode.
11	EEPROM ERROR	EE	EEPROM is out of order. ** Displayed only when the START / PAUSE button is first pressed in the QC Test Mode.
12	POWER FAILURE	FF	The washer experienced a power failure.
13	DRY HEATER ERROR	<u>,=;;=;</u>	 The Dry Heater is out of order. Replace the Dry Heater. The connector of the Dry Heater is not connected properly to the connector in the main PWB ASSEMBLY. Reconnect or repair the connector. The Dry fan motor is out of order. Replace the fan motor.

8. ERROR DIAGNOSIS AND CHECK LIST

8-1.DIAGNOSIS AND SOLUTION FOR ABNORMAL OPERATION



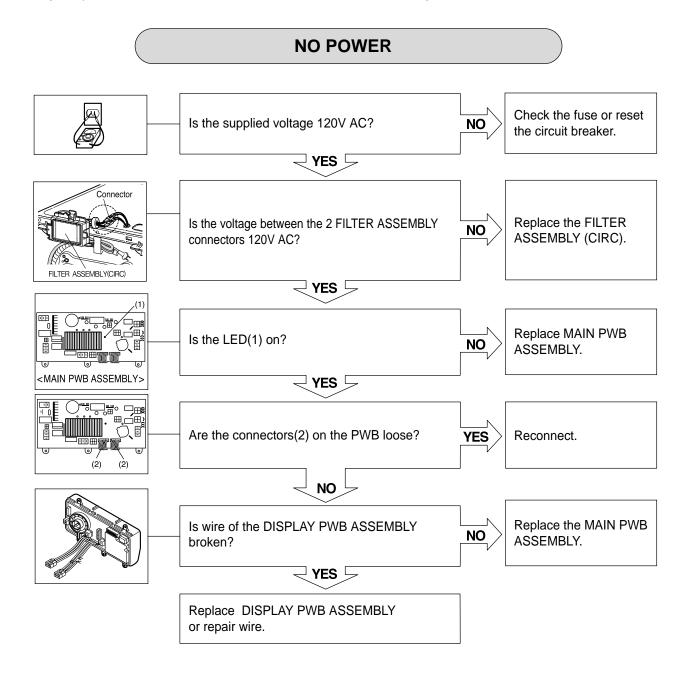


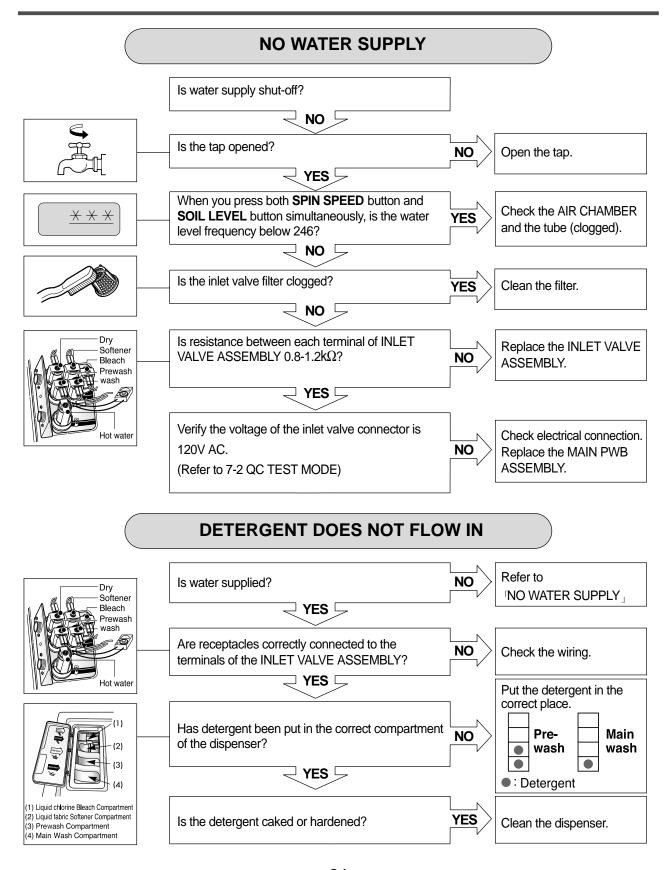


8-2. FAULT DIAGNOSIS AND TROUBLESHOOTING

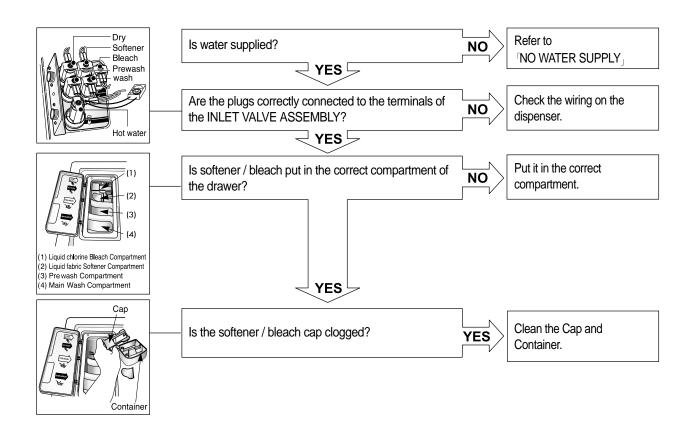
CAUTION

- 1. Be careful of electric shock if disconnecting parts while troubleshooting.
- 2. First of all, check the connection of each electrical terminal with the wiring diagram.
- 3. If you replace the MAIN PWB ASSEMBLY, reinsert the connectors correctly.

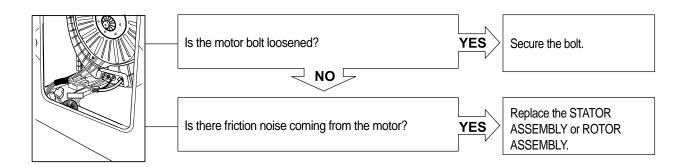




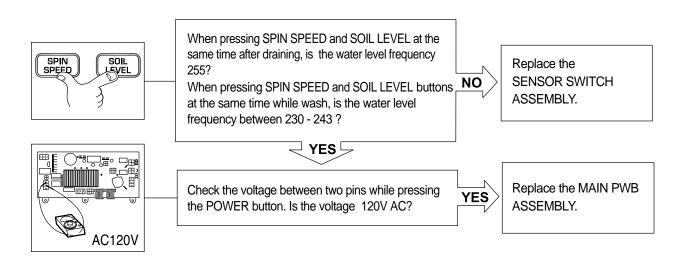
SOFTENER / BLEACH DOES NOT FLOW IN



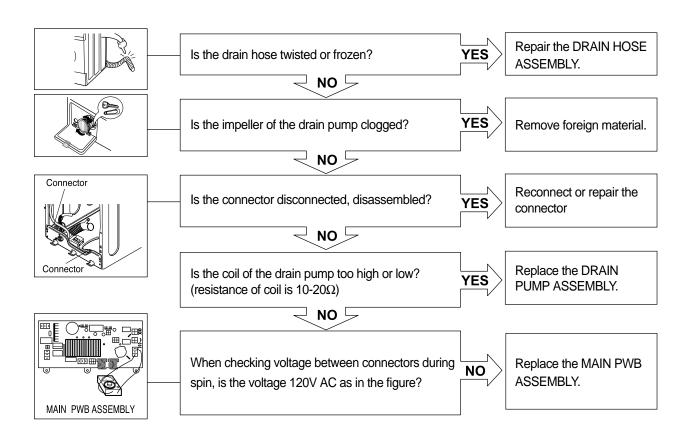
ABNORMAL SOUND



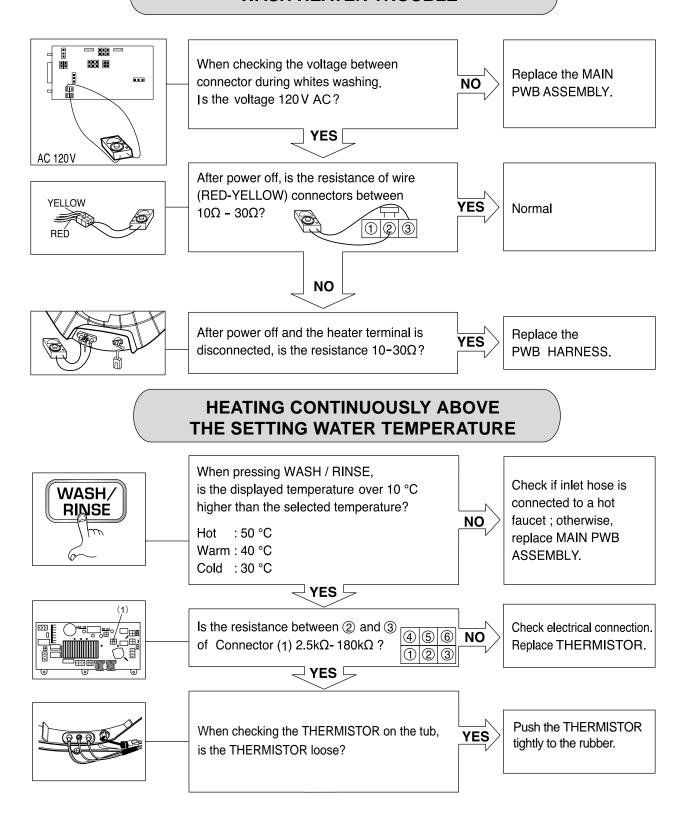
HEATING WITHOUT WATER



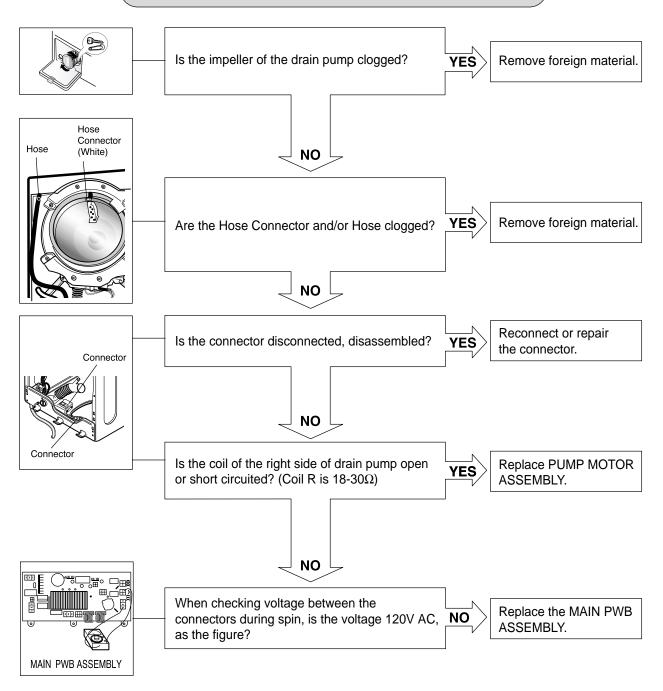
DRAIN MALFUNCTIONING

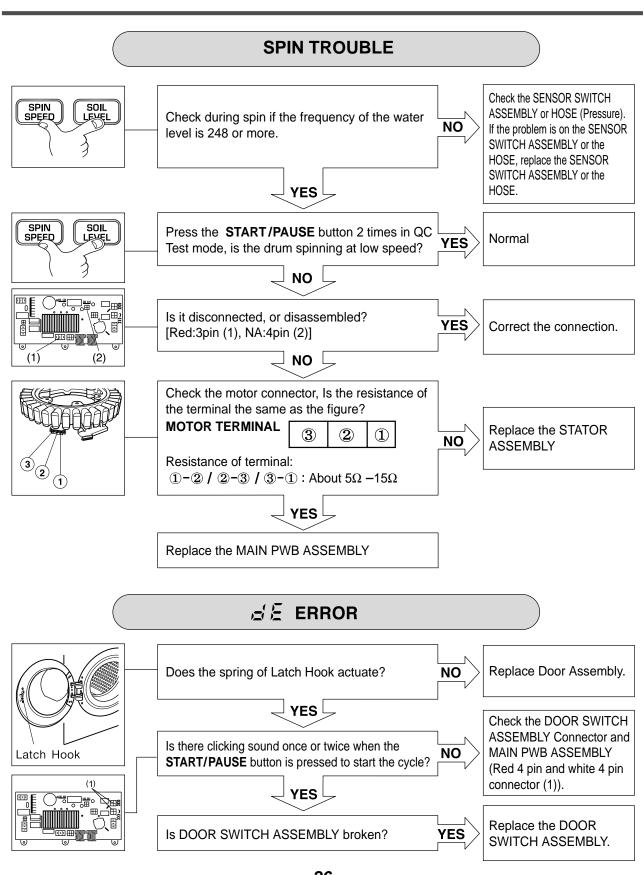


WASH HEATER TROUBLE

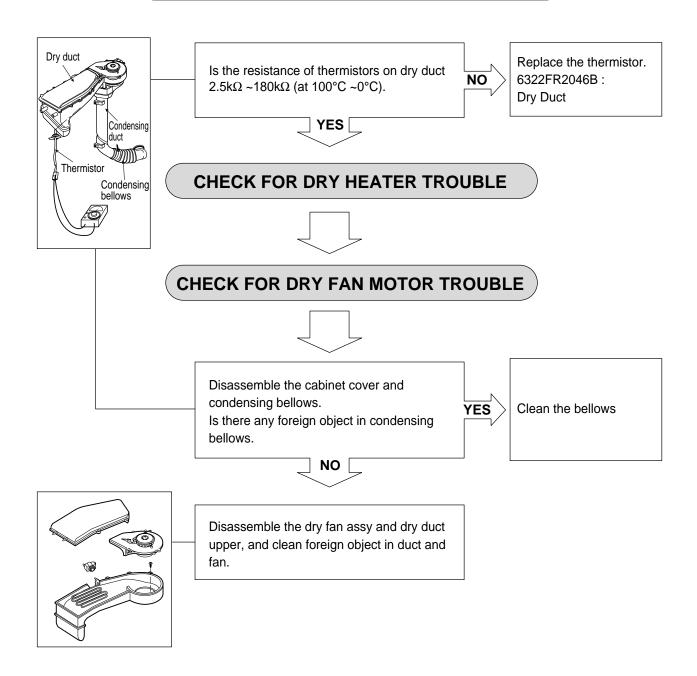


WILL NOT CIRCULATE WATER

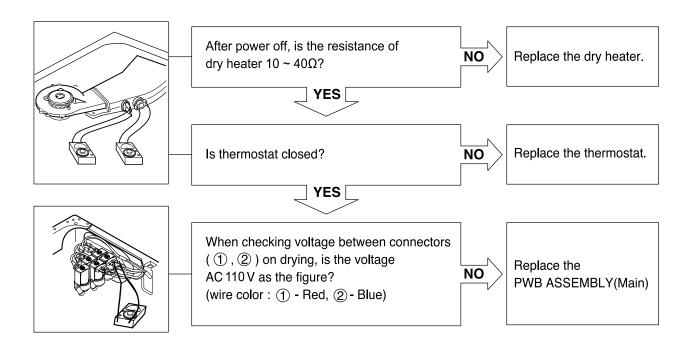




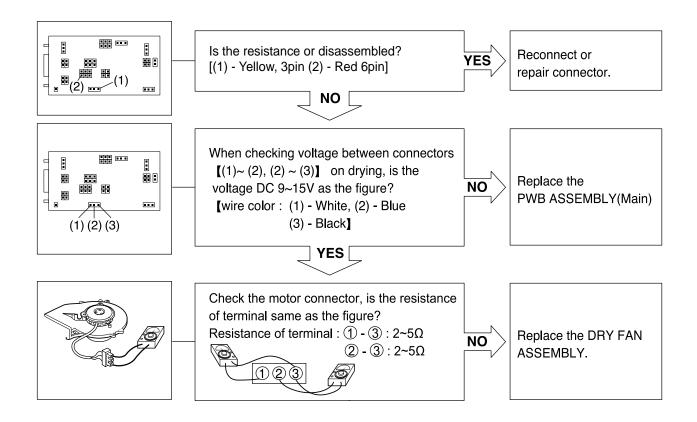
点片层 ERROR DISPLAY



DRY HEATER TROUBLE



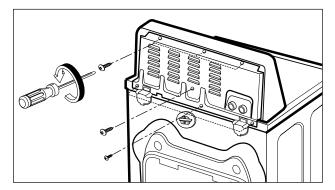
DRY FAN MOTOR TROUBLE



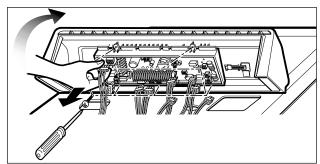
9. DISASSEMBLY INSTRUCTIONS

* Disassemble and repair the unit only after pulling out power plug from the outlet.

CONTROL PANEL ASSEMBLY

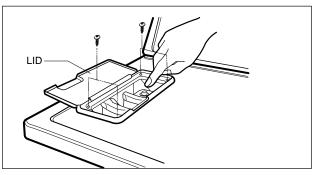


- 1. Unscrew 7 screws on the Rear Frame.
- 2. Disassemble the Rear Frame.

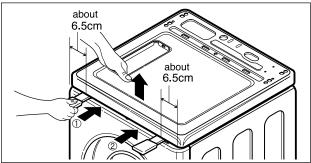


- 3. Pull the Control panel forward.
- 4. Disconnect connectors.
- 5. Unscrew 5 screws.
- 6. Disassemble the controller assembly.

TOP PLATE



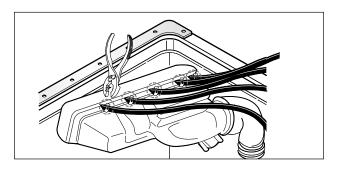
- 1. Open the Lid.
- 2. Unscrew 4 screws.
- 3. Disassemble the Lid Assembly.
- 4. Pull down the Dispenser by pushing hooks.



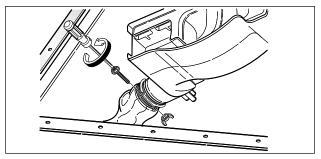
- **5.** Put a hand into the dispenser hole and hold the top plate.
- **6.** Push backward using an opener and lift the top plate.

» Do first left side (①).

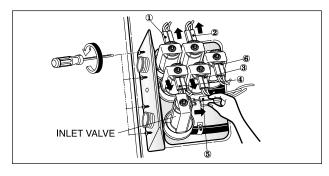
DISPENSER ASSEMBLY



- 1. Disassemble the 5 hose clamps.
- 2. Release the 5 hoses.



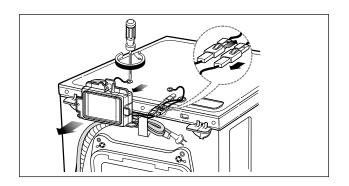
3. Unscrew the nut at the lower part of the dispenser.



- 4. Unscrew the 4 screws on the holder.
- **5.** Disassemble the 5 connectors from the valves.

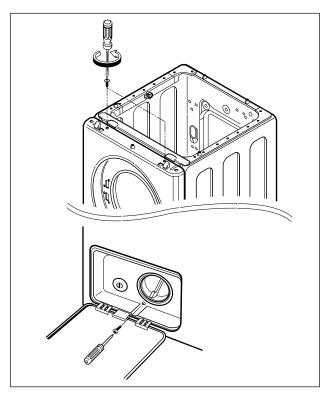
Wire color: ① WH-BK② OR-BK③ WH-BK④ GY-BK⑤ BL-BK⑥ YL-BK

NOISE FILTER

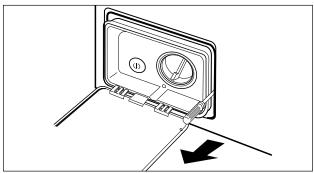


- 1. Unscrew the screw from the top plate.
- **2.** Unplug the 2 connectors.

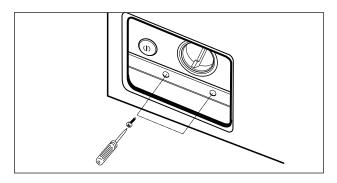
CABINET COVER



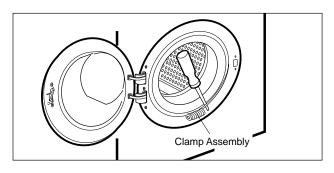
- 1. Unscrew the 2 screws from upper side of the cabinet cover.
- 2. Unscrew the screw from filter cover.

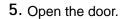


3. Put a flat (–) screwdriver into the both sides of the filter cover, and pull it out.

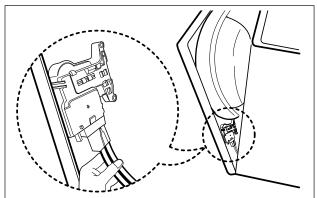


4. Unscrew the 2 screws from the lower side of the cabinet cover.

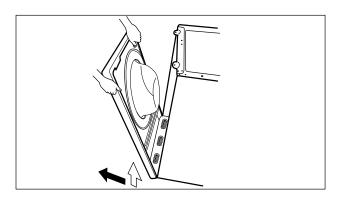




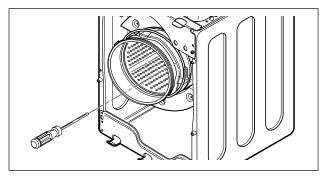
- **6.** Disassemble the clamp assembly using a flat (–) screwdriver.
- 7. Separate the clamp assembly from cabinet cover.



- 8. Tilt the cabinet cover.
- 9. Disconnect the door switch connector.

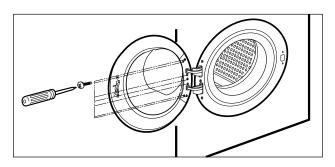


10. Lift and separate the cabinet cover.

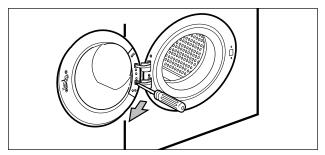


- **11.** Disassemble the clamp assembly using a flat (–) screwdriver.
- 12. Disasemble the Gasket.

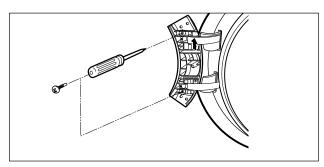
DOOR



- 1. Open the door.
- 2. Unscrew the 7 screws from the hinge cover.



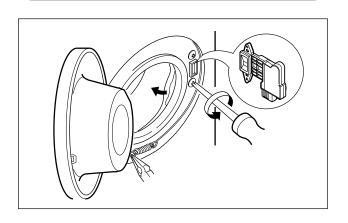
3. Put a flat (–) screwdriver into the opening of the hinge, and pull out the hinge cover.



- 4. Unscrew the screws from the door.
- **5.** Disassemble the door upward / downward.

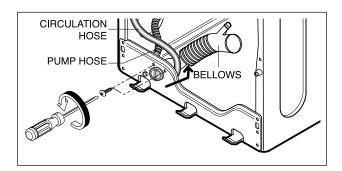
***** Be careful! The door is heavy.

DOOR SWITCH ASSEMBLY



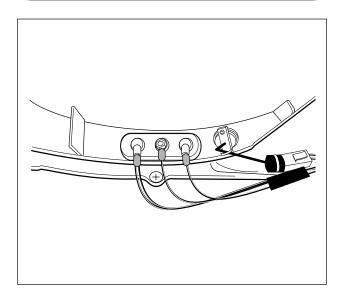
- 1. Open the door.
- 2. Disassemble the clamp assembly.
- 3. Unscrew the 2 screws from cabinet cover.

PUMP



- 1. Disassemble the cabinet cover.
- 2. Separate the pump hose, the bellows and the circulation hose assembly from the pump assembly.
- **3.** Disassemble the pump assembly in arrow direction.

HEATER

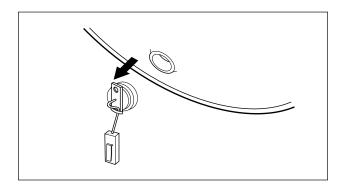


- 1. Disassemble the cabinet cover.
- **2.** Separate 2 connectors from the heater.
- 3. Loose the nut and pull out the heater.

***** CAUTION

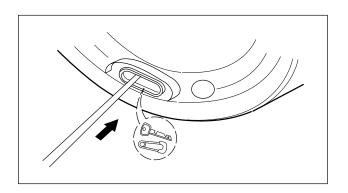
- When assembling the heater, insert the heater into heater clip on the bottom of the tub.
- Tighten the fastening nut so the heater is secure.

THERMISTOR



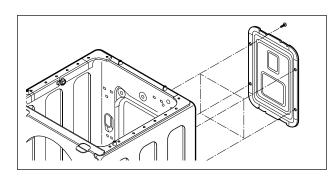
- 1. Disassemble the cabinet cover.
- 2. Unplug the white connector from the thermistor.
- 3. Pull it out by holding the bracket of thermistor.

WHEN FOREIGN OBJECT IS STUCK BETWEEN DRUM AND TUB

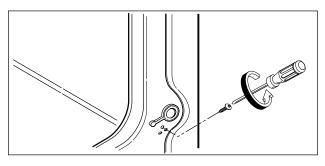


- 1. Disassemble the cabinet cover.
- 2. Separate the heater from the tub.
- **3.** Remove any foreign objects (wire, coin, etc.) by inserting a long bar in the opening.

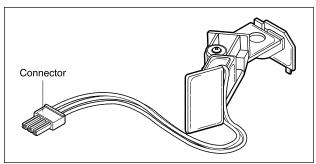
SENSOR ASSEMBLY (BALL SENSOR)



1. Unscrew the 4 screws from the back cover.

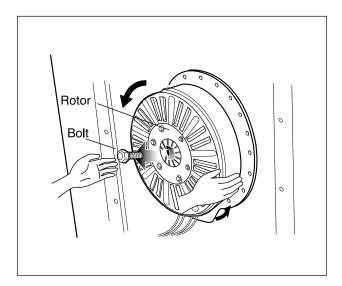


2. Unscrew the single screw from the lower-right side of the cabinet.

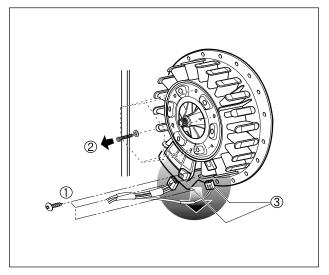


3. Disconnect the connector from PWB Harness.

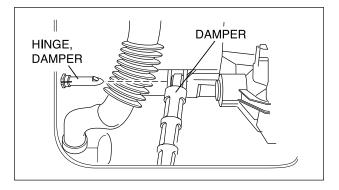
MOTOR / DAMPER



- 1. Disassemble the back cover.
- 2. Loosen the bolt.
- 3. Pull out the Rotor.

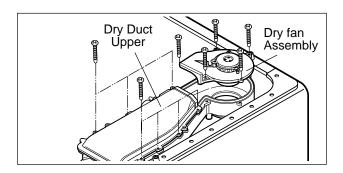


- 4. Unscrew the 2 screws from the tub bracket.
- 5. Loosen the 6 bolts on the stator.
- **6.** Unplug the 2 connectors from the stator.

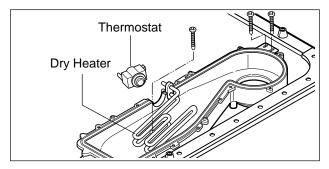


- 1. Disassemble the damper hinges from the tub and base.
- 2. Separate the dampers.

DRY DUCT

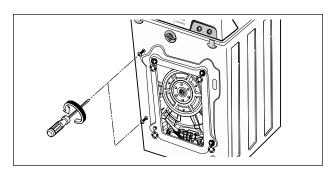


- 1. Remove 5 screws and dry fan assembly.
- 2. Remove 7 screws and dry duct upper.
- 3. Remove 2 screws and dry duct bracket.

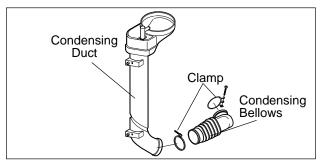


- 1. Remove 1 screw and dry heater.
- 2. Remove thermostat.

CONDENSING DUCT



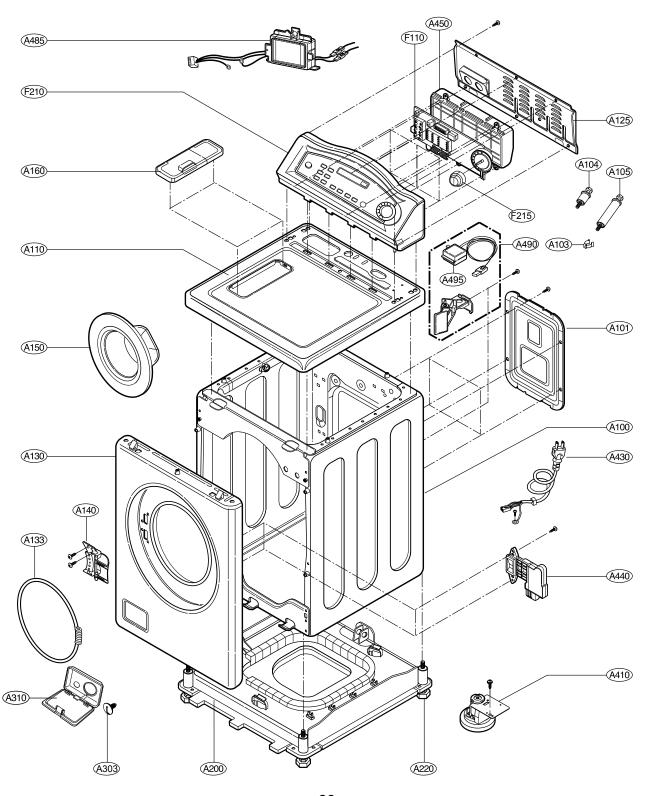
1. Remove 2 screws from cabinet.



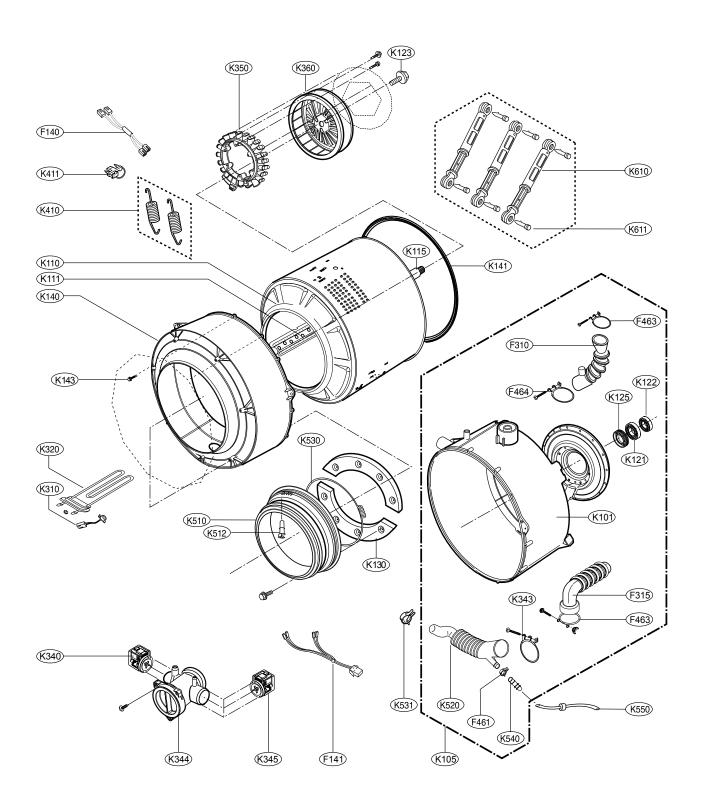
1. Remove clamp and condensing duct.

10. EXPLODED VIEW

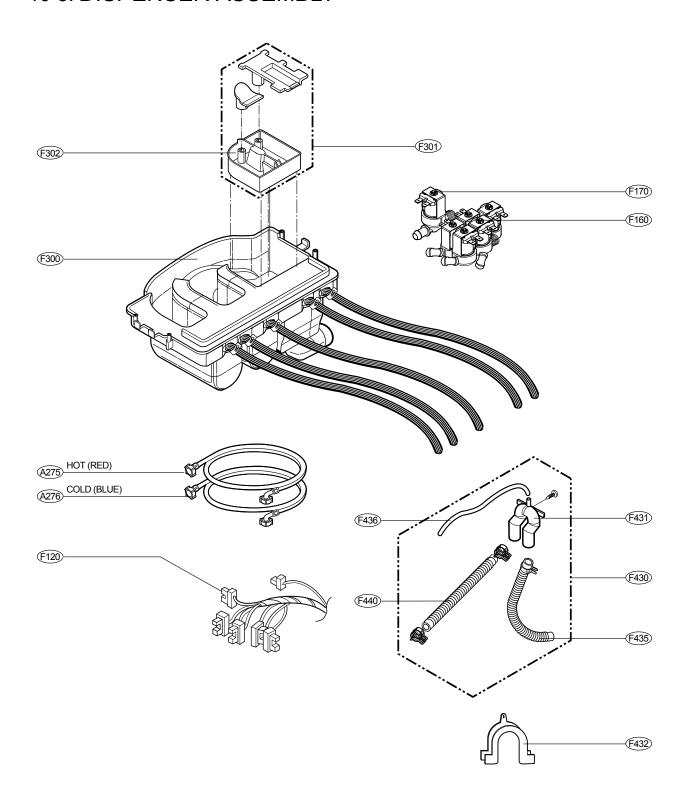
10-1. CABINET & CONTROL PANEL ASSEMBLY



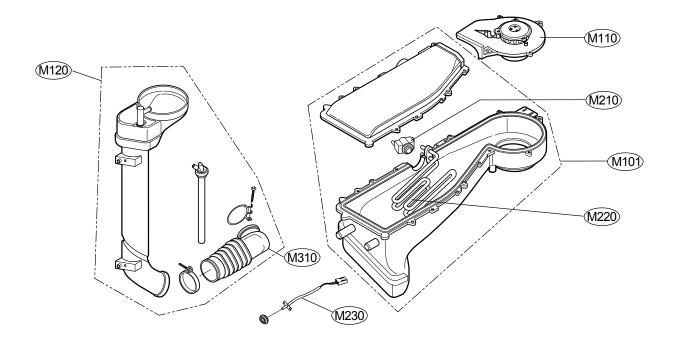
10-2. DRUM & TUB ASSEMBLY



10-3. DISPENSER ASSEMBLY



10-4. DRYER





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