

Website:http://www.LGEservice.com E-mail:http://www.LGEservice.com/techsup.html

# WASHER/DRYER COMBO 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 AND CONTROL PANEL ASSEMBLY	39
10-2. DRUM AND TUB ASSEMBLY	40
10-3. DISPENSER ASSEMBLY	41
10-4. DRYER	42

## **1. SPECIFICATIONS**

П	EM	WM3632HW						
POWER	SUPPLY	120V ~ 60Hz						
PRODUCT	T 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						
Cì	/CLES	9						
WASH/RINSE TE	EMPERATURES	6						
SPIN S	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	Included						
WATER CIF	RCULATION	Included						
OPERATIONAL W	ATER PRESSURE	4.5–145 psi (30-1000 kPa)						
CONTRO	DL TYPE	Electronic						
WASH C	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	Included						
ERROR DI	AGNOSIS	Included						
AUTO PO	WER OFF	Included						
CHILD	LOCK	Included						

## 2. FEATURES & TECHNICAL EXPLANATION

### 2-1.FEATURES

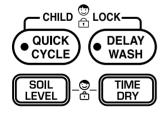












#### Direct Drive System

The advanced Brushless DC motor drives the drum directly 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

Detergent solution and water are sprayed 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 Water Heater

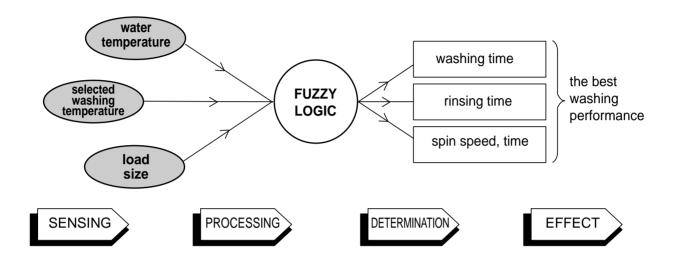
The internal heater automatically heats the water to the optimum temperature on selected cycles.

#### 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.



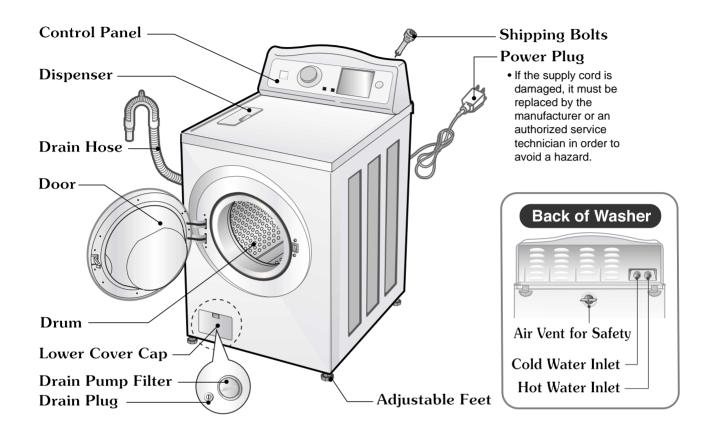
### 2-3.WATER LEVEL CONTROL

- 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.

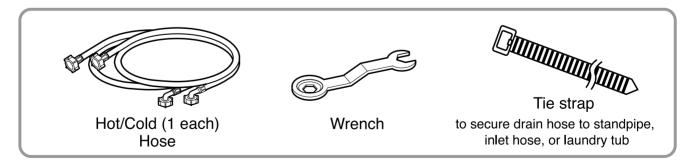
### 2-4.DOOR CONTROL

- 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**



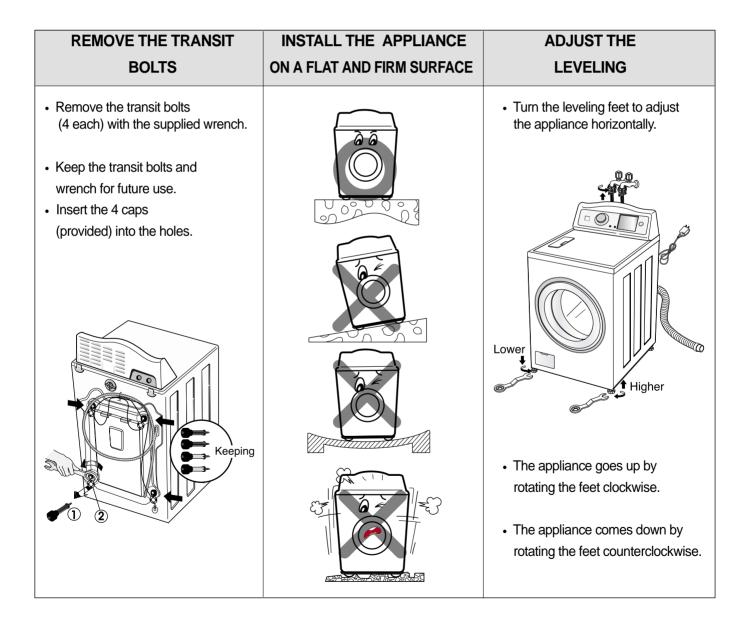
ACCESSORIES



## 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 be sure it functions correctly.
- STANDARD INSTALLATION

The appliance should be installed as follows

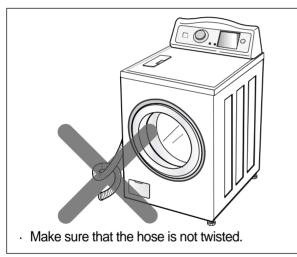


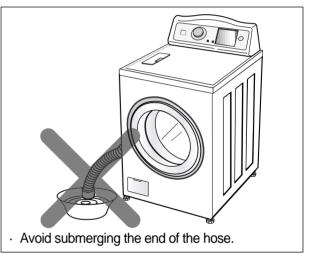
#### ■ HOW TO CONNECT THE INLET HOSE

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



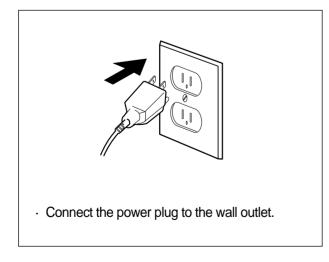
#### ■ CONNECT THE DRAIN HOSE

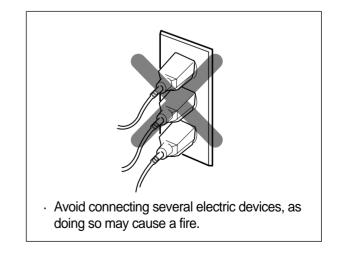




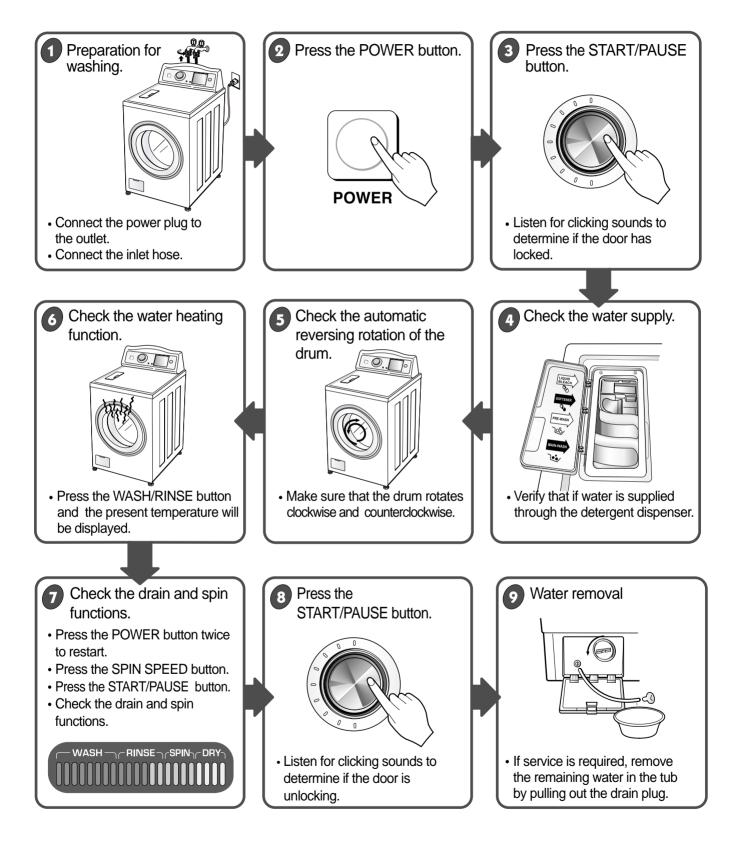
\* The end of the drain hose should be placed less than 96" from the floor.

#### ■ CONNECT POWER PLUG

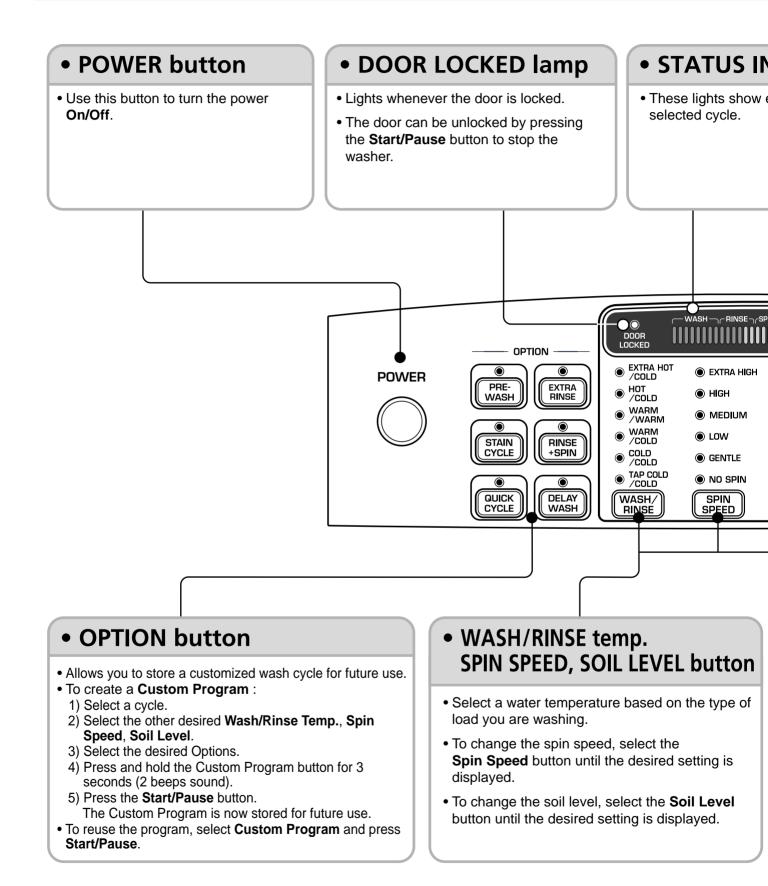


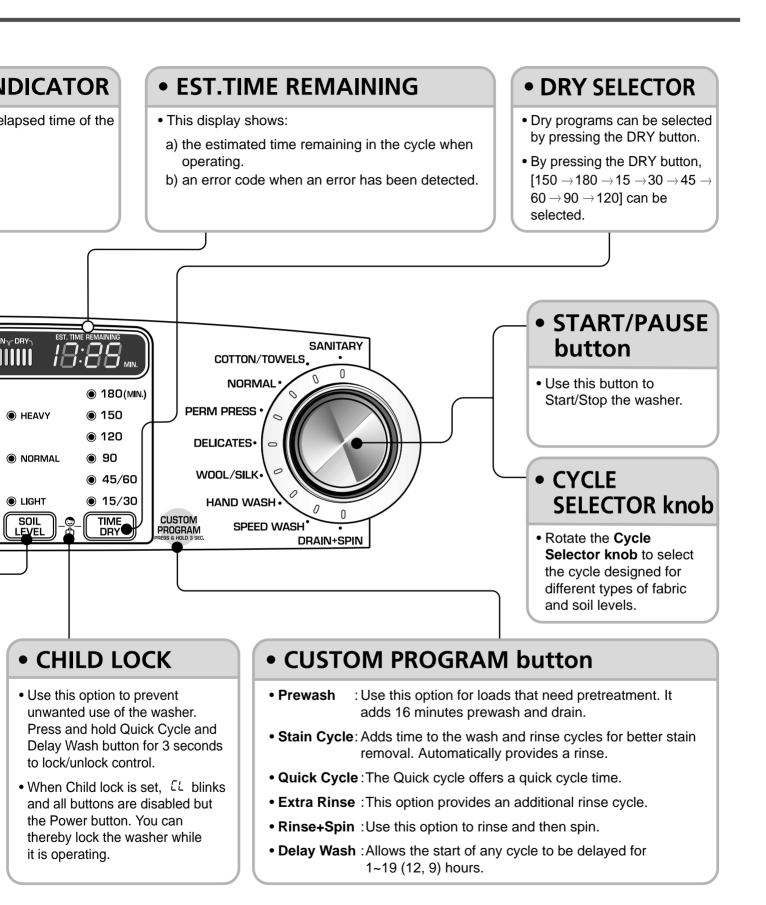


### 7 TEST OPERATION

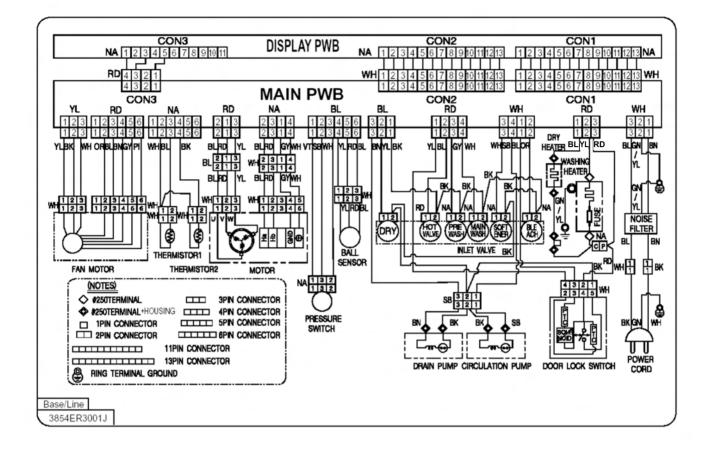


## **5. OPERATION**





## 6. WIRING DIAGRAM/PROGRAM CHART



PRO	GR/	AM CHART * Water Supply : W·S * Intermittent Spin : I·S * Disental											ngle	: D·T																					
C		Washing						Rinse											Spin					Α											
\\Y	~		Ρ	Pre Main		Normal							Extra or Stain Extra & Stain						Ľ	Spir	1	Ы	Е	UT											
$    \setminus$							W	Washing Cool dow					1				2		3			3						R	N	ò	Norm	al			
C C E		w S	Washing	Drain	I S	w s	Heating	Washing	W S	Rinsing	Drain	Drain	- s	S	Rinsing	Drain	l S	s S	Rinsing	Drain	0 - –	s.⊗	Rinsing	Drain	l S	s.⊗	Rinsing	Drain	Spin	D·T	Y	D	O F F	Worki Time (Hour:Mi	ng Ə
U \	\_Р	1	2	3	4	5	6	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	(11001.1011	iute)
R - S - E	Time	60	міΝ	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		
Sanit	tary		. 8					66		 Time										*****					*****									About ?	1:44
Cott /Tow			. 8					19		>>	$\sim$																							About	57
Norn	nal		8					19	$\square$	$\succ$	$\langle \rangle$									*****														About	56
Perm F	Press		8					13		$\succ$	$\geq$																							About	53
Delica	ates		8					13	$\square$	$\succ$	$\langle$													/	>	<	$\langle$				$\boxtimes$			About	34
Wool/	/Silk		>	<	$\langle$			13	$\square$	$\succ$	/ >									*****				/	>	<	$\langle$				Х			About	34
Hand V	Nash	$\langle \rangle$	>	<	$\langle$			13	$\square$	$\succ$	<		******											$\langle \rangle$	>	<	$\langle$				X			About	34
Speed	Wash	$\langle \rangle$	>	<	$\langle \rangle$			7	$\square$	$\succ$	<				120				120		*****		120	$\sum$	>	<	<							About	29
Drain+	Spin	in											About	12																					
Was + Rir		(KKKKK	. 8					19	$\square$	$\succ$	$/ \rangle$									*****	****	*****		*****	CKREKE	*****	*****		$\left  \right\rangle$	>	$\leq$	$\leq$		About	45
Rins + Sp							>	~	$\leq$	$\leq$											*****	*****			$\geq$	<	$\leq$							About	29
Rin	se					$\geq$	>	~	$\leq$																>	<	$\leq$		$\langle \rangle$	$\geq$	<	$\leq$		About	18

\* Basic Cycle \* Cycle \* Pre-Setting Time : Water Supply - 60 seconds Drain - 60 seconds

\* Washing chart times are in minutes.
\* 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 and static discharge when disconnecting parts 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.
- O Press the POWER button, while the above condition. Then the buzzer sounds 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.	
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	Inlet valve for dry turns on.	Water level frequency (25~65)
10 times	Tumble counterclockwise.	rpm (40~50)
11 times	Heater turns on for 3 sec.	Water temperature
12 times	Circulation pump turns on.	Water level frequency (25~65)
13 times	Drain pump turns on.	Water level frequency (25~65)
14 times	Dry fan & motor turns on.	Water level frequency (25~65)
15 times	Power off and unlock the door.	Turn off all lamps.

### 7-3. HOW TO CHECK THE WATER LEVEL FREQUENCY

 $\ast\,$  Press the SPIN SPEED and SOIL LEVEL button simultaneously.



• The digits indicate the water level frequency (x.1 kHz).

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

= 24.1 kHz

### 7-4. ERROR DISPLAY

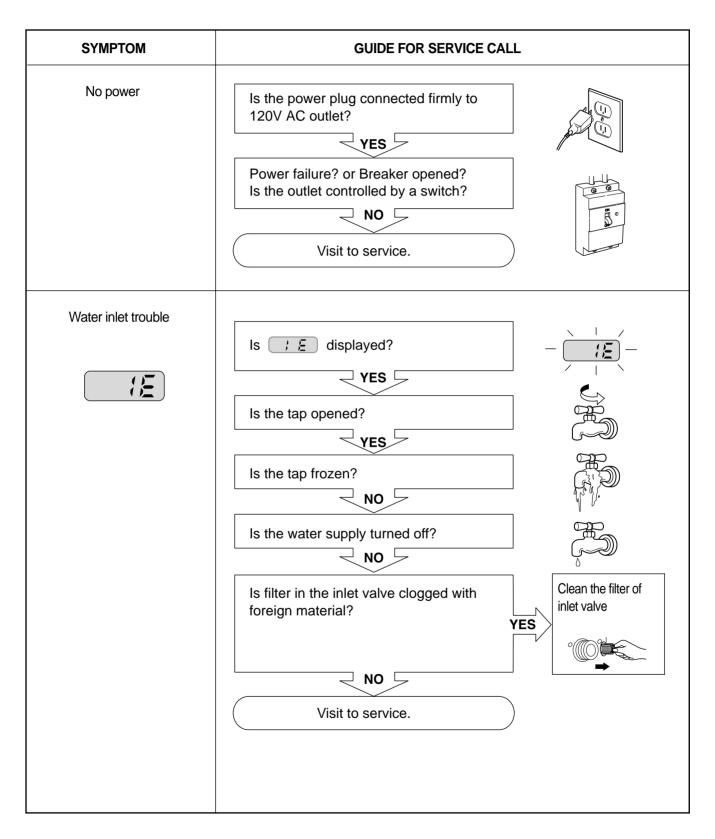
- If you press the START/PAUSE button when an error is displayed, any error except "PE \_\_ will disappear and the machine will go into the pause status.
- In case of *PE*, *FE*, *FE*, *fdE*, *fdE*,

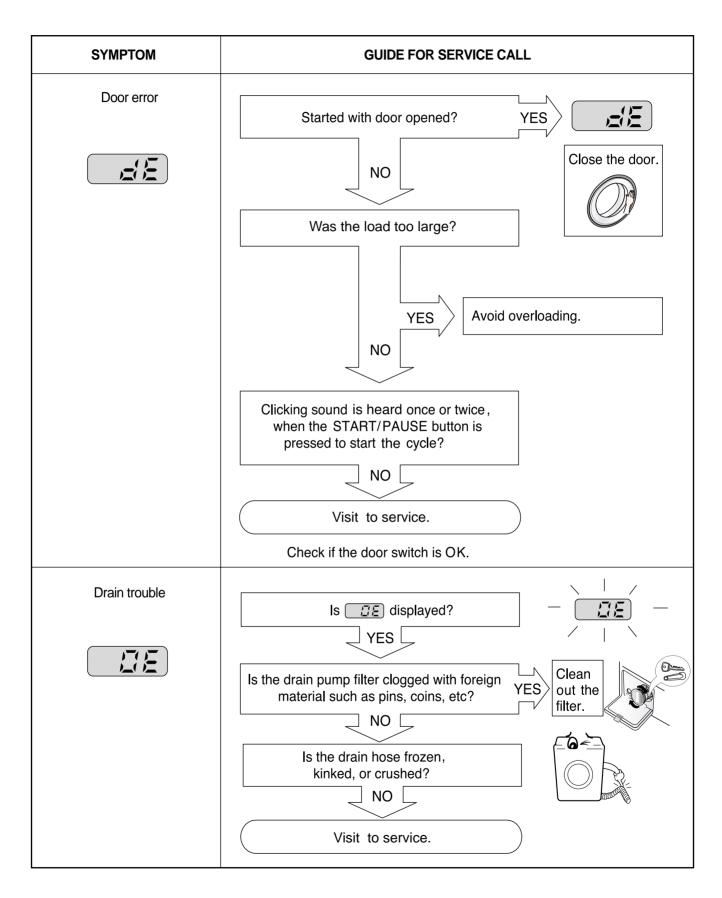
	ERROR	SYMPTOM	CAUSE
1	WATER INLET ERROR	; ;	<ul> <li>Correct water level (2 level) is not reached within 8 minutes after water is supplied or it does not reach the preset water level within 25 minutes.</li> </ul>
2	IMBALANCE ERROR		<ul> <li>The load is too small.</li> <li>The appliance is tilted.</li>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

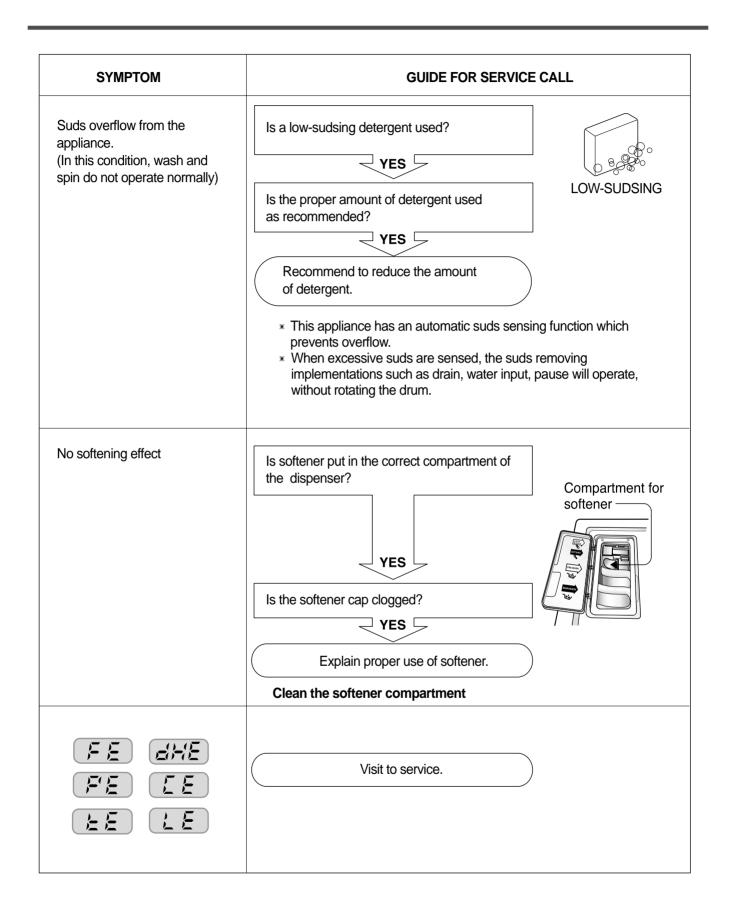
	ERROR	SYMPTOM	CAUSE
8	OVER CURRENT ERROR		<ul> <li>MAIN PWB ASSEMBLY is out of order.</li> <li>Winding in the STATOR ASSEMBLY is short-circuited.</li> </ul>
9	LOCKED MOTOR ERROR		<ul> <li>The connector (3-pin, male, white) in the MOTOR HARNESS is not connected to the connector (3-pin, female, white) of STATOR ASSEMBLY.</li> <li>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 loose.</li> <li>The MOTOR HARNESS between the STATOR ASSEMBLY and MAIN PWB ASSEMBLY is cut (open circuited).</li> <li>The hall sensor is defective.</li> </ul>
10	BALL SENSOR ERROR	55	<ul> <li>Loose Ball Sensor Connector.</li> <li>Ball Sensor is out of order.</li> <li>Displayed only when the START/PAUSE button is first pressed in the QC Test Mode.</li> </ul>
11	EEPROM ERROR	<b>EE</b>	<ul> <li>EEPROM is out of order.</li> <li>Misplayed only when the START/PAUSE button is first pressed in the QC Test Mode.</li> </ul>
12	POWER FAILURE	<b>;;;;;</b>	• The washer experienced a power failure.
13	DRY HEATER ERROR	, <u> </u>	<ul> <li>The Dry Heater is out of order.</li> <li>Replace the Dry Heater.</li> <li>The connector of the Dry Heater is not connected properly to the connector in the main PWB ASSEMBLY.</li> <li>Reconnect or repair the connector.</li> <li>The Dry Fan Motor is out of order.</li> <li>Replace the fan motor.</li> </ul>

## 8. ERROR DIAGNOSIS AND CHECK LIST

### 8-1. DIAGNOSIS AND SOLUTION FOR ABNORMAL OPERATION



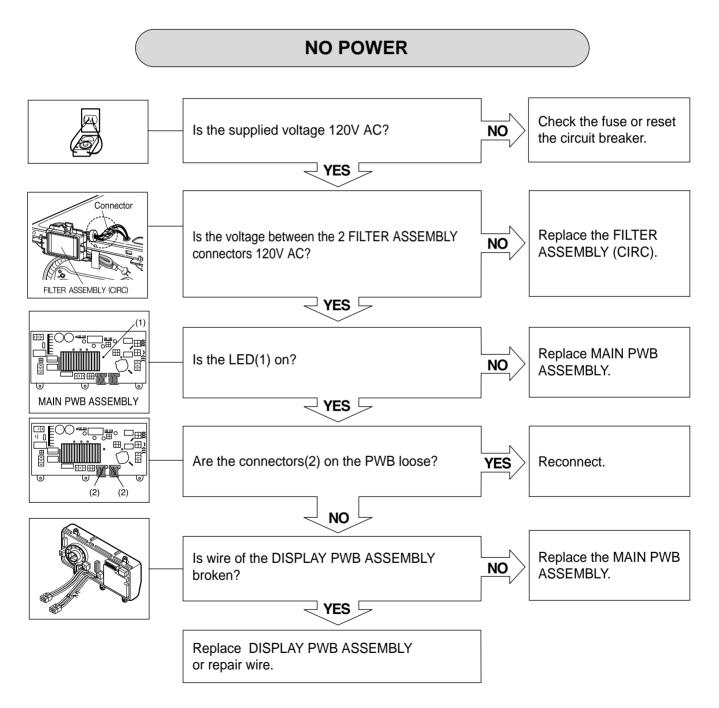


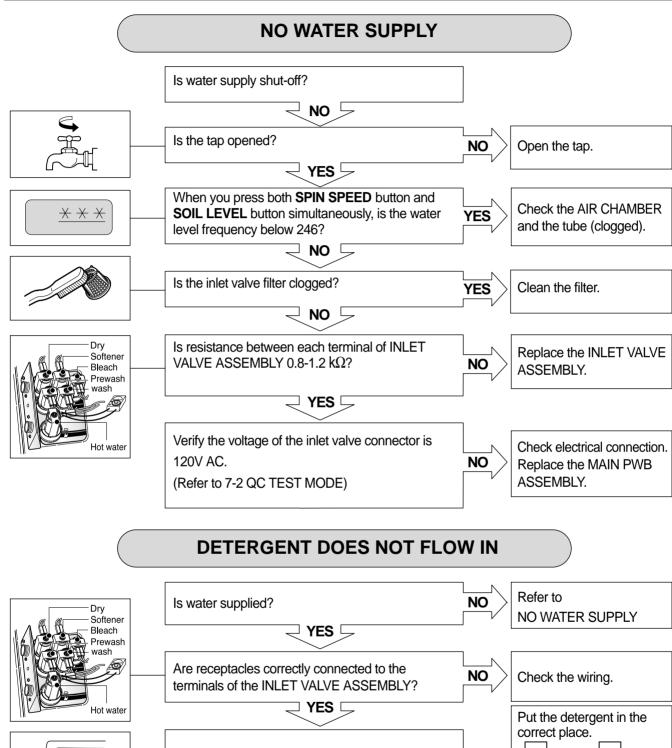


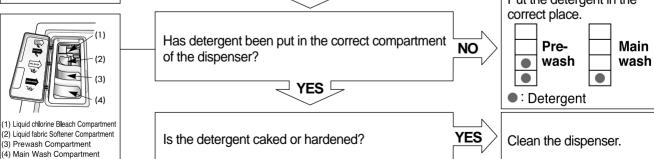
### 8-2.FAULT DIAGNOSIS AND TROUBLESHOOTING

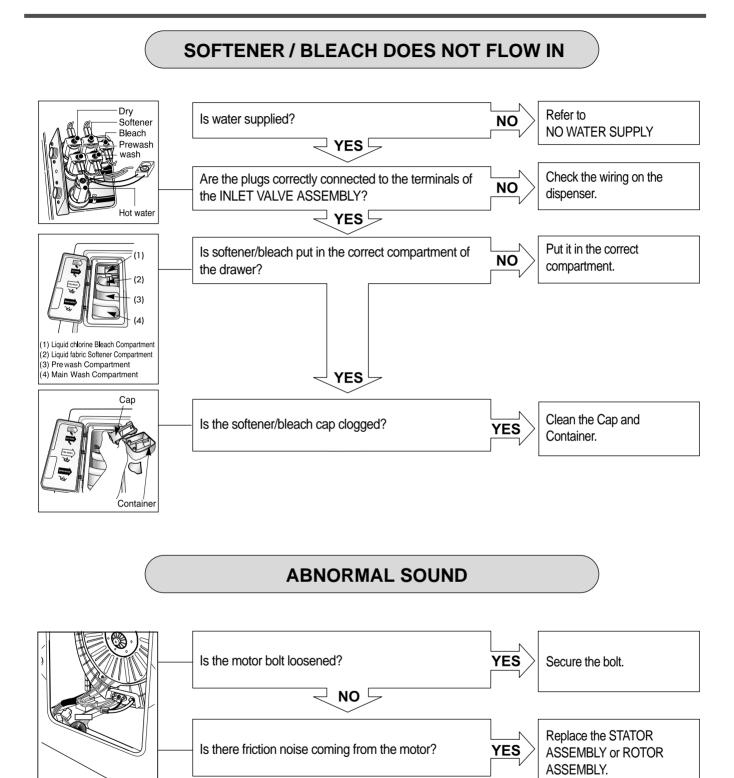
#### CAUTION

- 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.

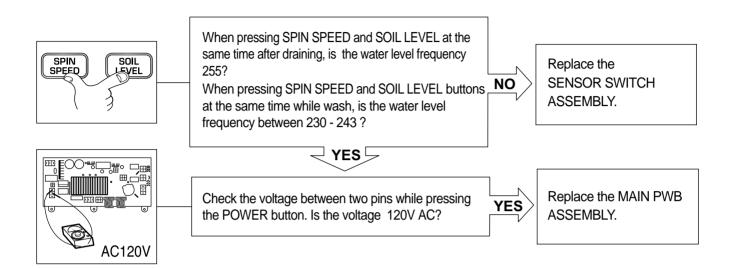




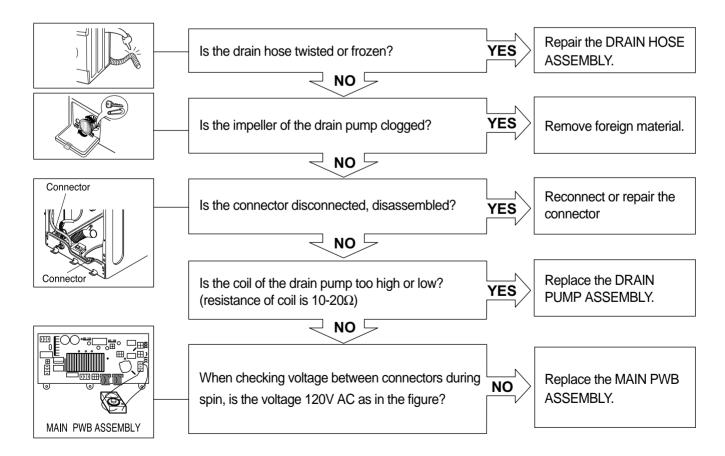


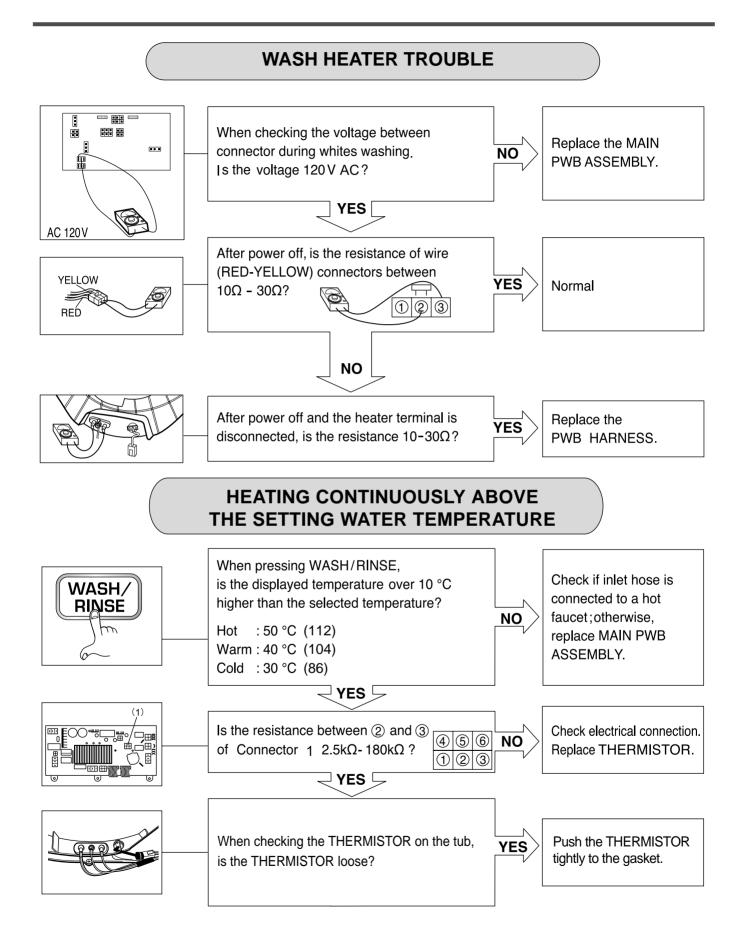


### **HEATING WITHOUT WATER**

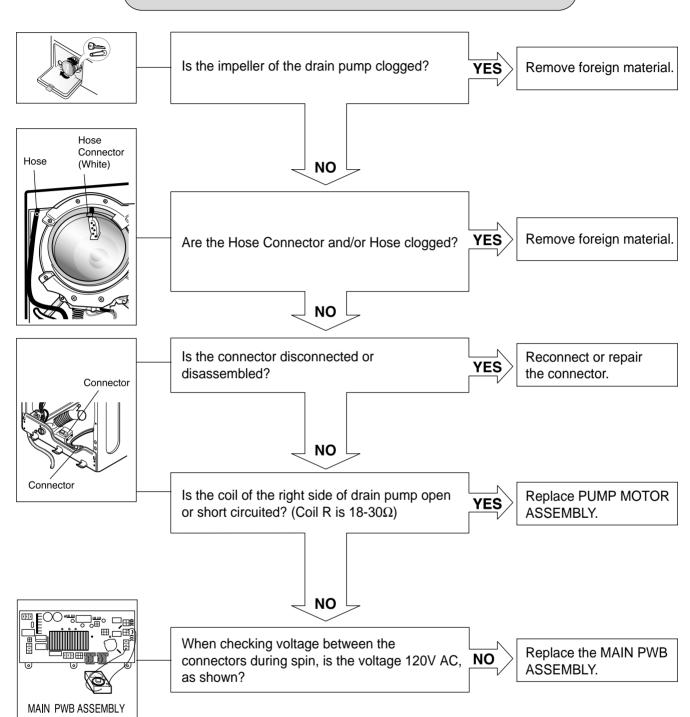


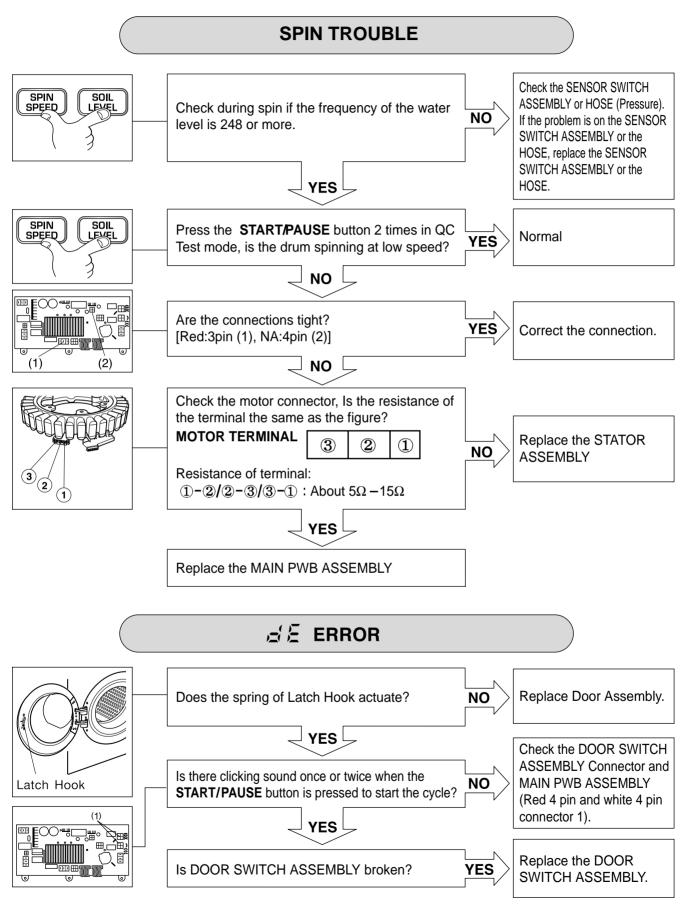
#### **DRAIN MALFUNCTIONING**



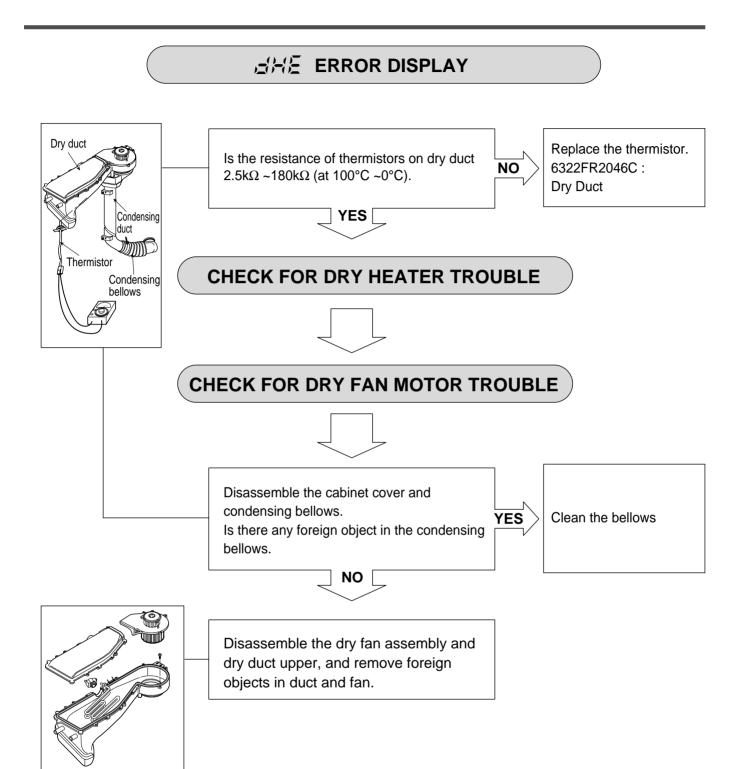


#### WILL NOT CIRCULATE WATER

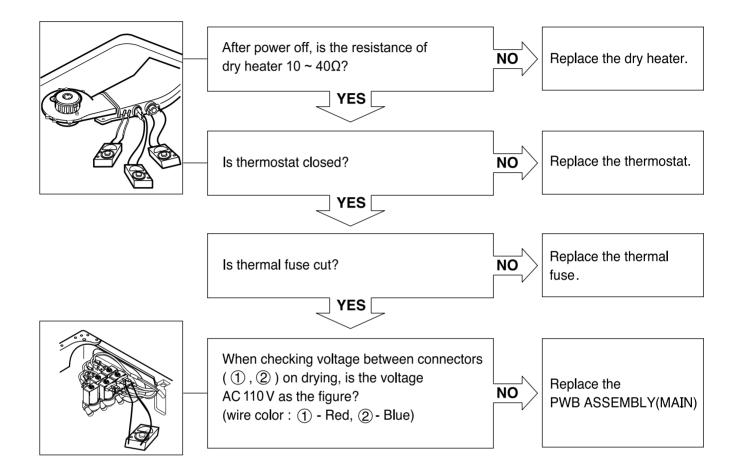


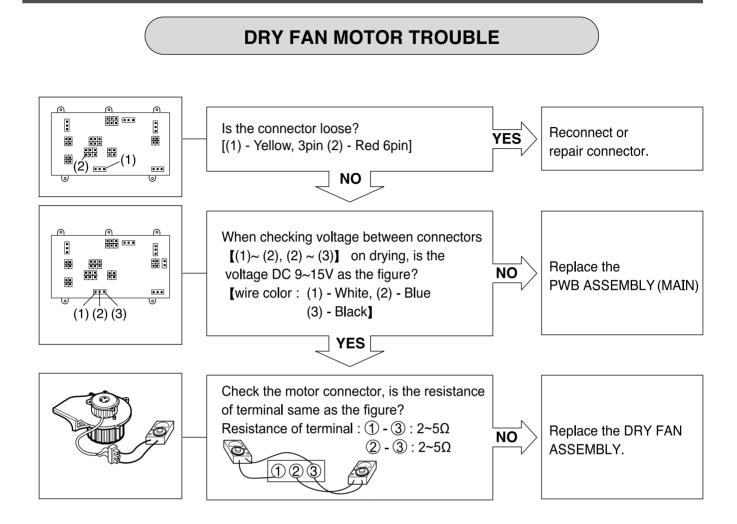


#### 



#### DRY HEATER TROUBLE

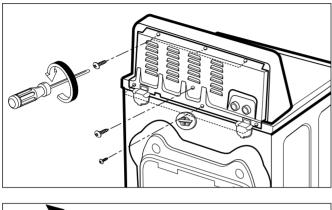


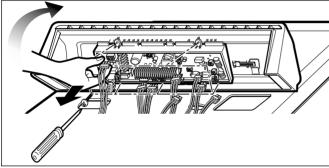


## 9. DISASSEMBLY INSTRUCTIONS

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

### CONTROL PANEL ASSEMBLY

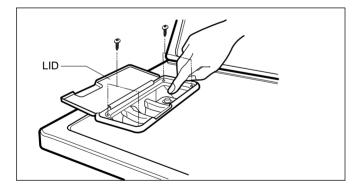


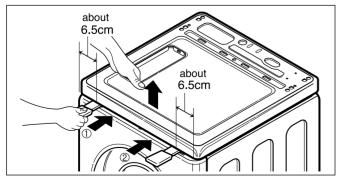


- 1. Unscrew 7 screws on the Rear Frame.
- 2. Disassemble the Rear Cover.

- 3. Pull the Control Panel forward.
- 4. Disconnect the connectors.
- 5. Unscrew 5 screws.
- 6. Disassemble the Controller Assembly.

TOP PLATE

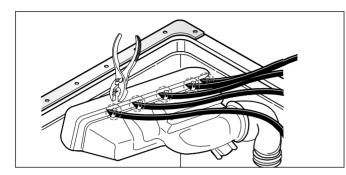


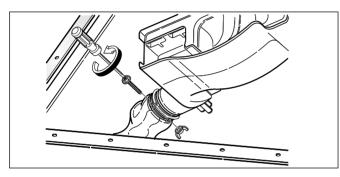


- 1. Open the Dispenser Lid.
- 2. Unscrew 4 screws.
- 3. Disassemble the Lid Assembly.
- 4. Pull down the Dispenser by pushing the hooks.
- 5. Reach through the dispenser hole and hold the top plate.
- **6.** Push backward using an opener and lift the Top Plate.

\* Do first left side (1).

### DISPENSER ASSEMBLY

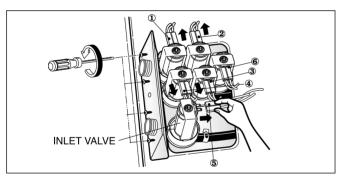




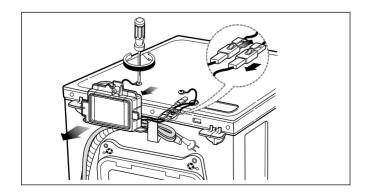
- **1**. Disassemble the 5 Hose Clamps.
- 2. Release the 5 Hoses.
- 3. Mark the hoses for correct reassembly.
- **4.** Unscrew the Nut at the lower part of the Dispenser.

- 5. Unscrew the 4 screws on the Holder.
  - **6.** Disassemble the 5 Connectors from the Valves.

Wire color : 1 WH-BK 2 OR-BK
 3 WH-BK 4 GY-BK
 5 BL-BK 6 YL-BK

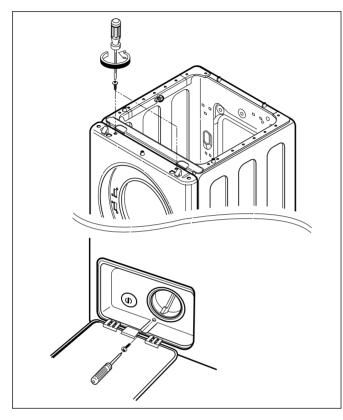


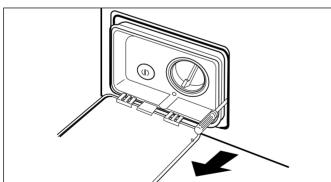
### **NOISE FILTER**

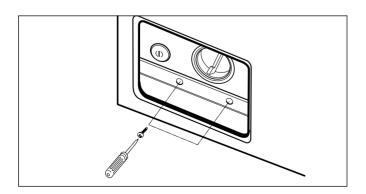


- **1.** Unscrew the screw from the Top Plate.
- 2. Unplug the 2 Connectors.

### CABINET COVER



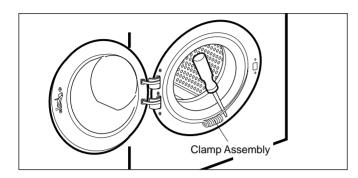


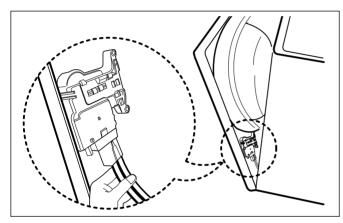


- 1. Unscrew the 2 screws from upper side of the Cabinet Cover.
- 2. Unscrew the screw from the Filter Cover.

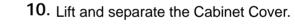
**3.** Put a flat (–) screwdriver into the both sides of the Filter Cover and pull it out.

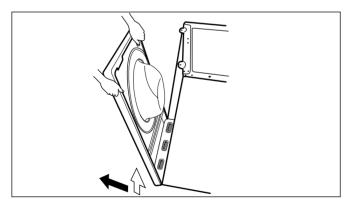
4. Unscrew the 2 screws from the lower side of the Cabinet Cover.

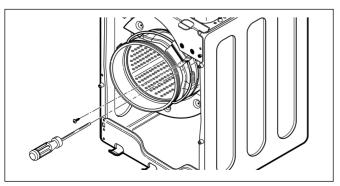




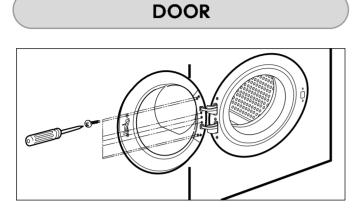
- 5. Open the Door.
- **6.** Disassemble the Clamp Assembly using a flat (–) screwdriver.
- 7. Separate the Clamp Assembly from the Cabinet Cover.
- 8. Tilt the Cabinet Cover.
- 9. Disconnect the Door Switch Connector.

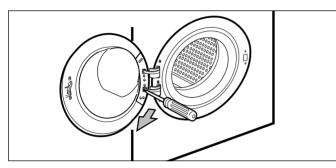




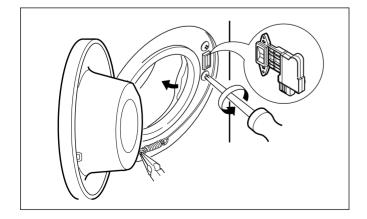


- **11.** Remove 1 screw from Bracket.
- **12.** Disassemble the Clamp Assembly using a flat (–) screwdriver.
- **13.** Disassemble the Gasket.





### DOOR SWITCH ASSEMBLY



- 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.

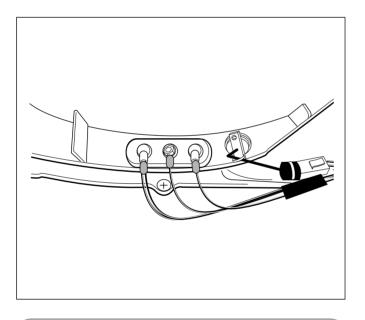
- 4. Unscrew the screws from the Door.
- 5. Disassemble the Door upward/downward.

\* Be careful ! The door is heavy.

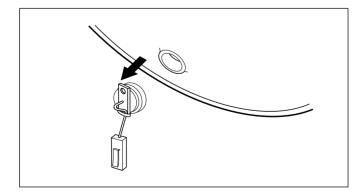
- 1. Open the Door.
- 2. Disassemble the Clamp Assembly.
- **3.** Unscrew the 2 screws from Cabinet Cover.

## PUMP CIRCULATION HOSE PUMP HOSE BELLOWS

HEATER



### THERMISTOR



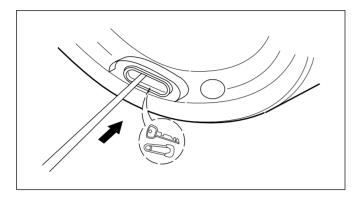
- 1. Disassemble the Cabinet Cover.
- 2. Separate the Pump Hose, the Bellows and the Circulation Hose Assembly from the pump assembly.
- **3.** Disassemble the Pump Assembly as shown.
- 1. Disassemble the Cabinet Cover.
- 2. Separate 2 connectors from the Heater.
- **3.** Loose the nut and pull out the 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.

- 1. Disassemble the Cabinet Cover.
- **2.** Unplug the White Connector from the Thermistor.
- **3.** Pull it out by holding the bracket of Thermistor.

### WHEN A FOREIGN OBJECT IS STUCK BETWEEN DRUM AND TUB

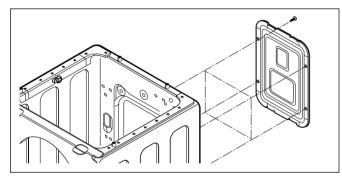


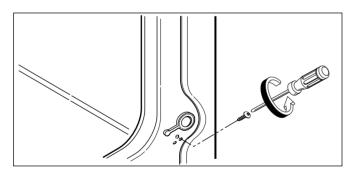
### 1. Disassemble the Cabinet Cover.

- 2. Separate the Heater from the Tub.
- **3.** Remove any foreign objects (wire, coins, etc.) by inserting a long bar in the opening.

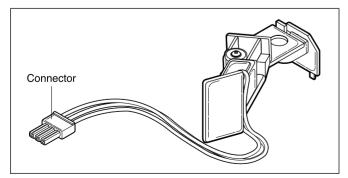
1. Unscrew the 4 screws from the Back Cover.

#### SENSOR ASSEMBLY (BALL SENSOR)



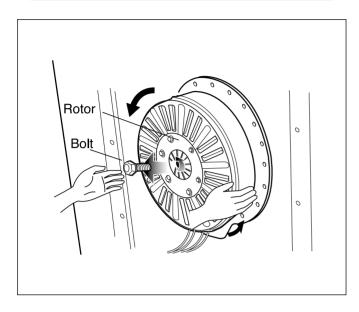


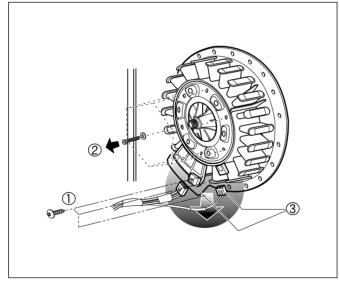
2. Unscrew the single screw from the lower-right side of the Cabinet.



**3.** Disconnect the Connector from PWB Harness.

### MOTOR/DAMPER



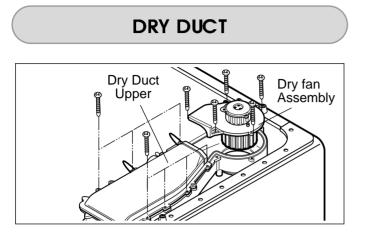


HINGE, DAMPER

- 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.

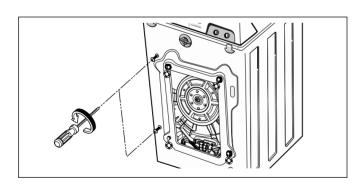


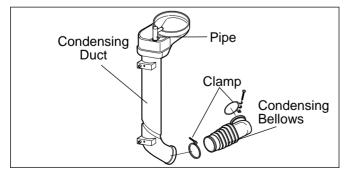
Thermostat

Dry Heater

- **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 the Dry Heater.
- 2. Disconnect wire connected with Fuse.
- **3.** Remove Thermostate and Fuse.





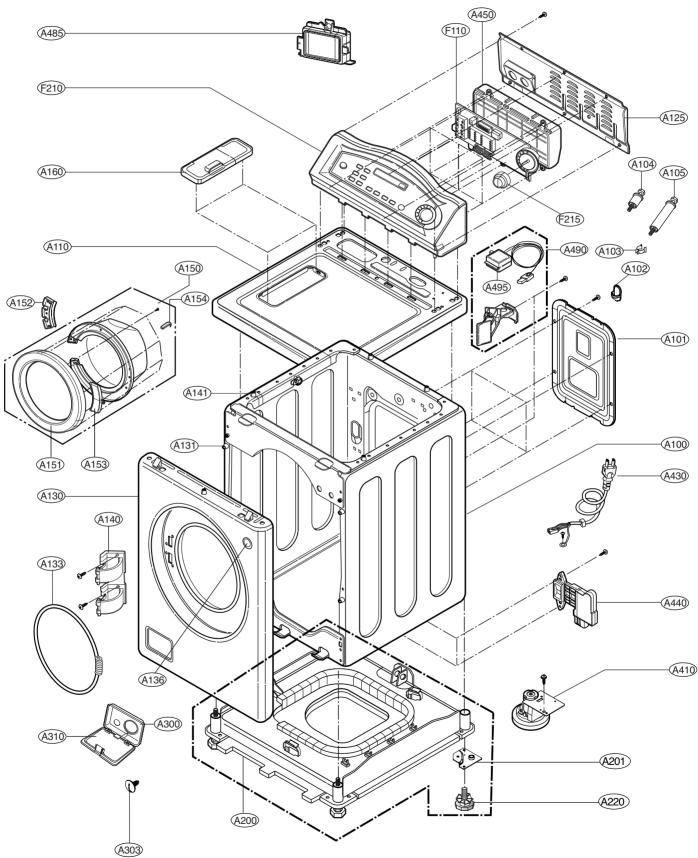


1. Remove 2 screws from Cabinet.

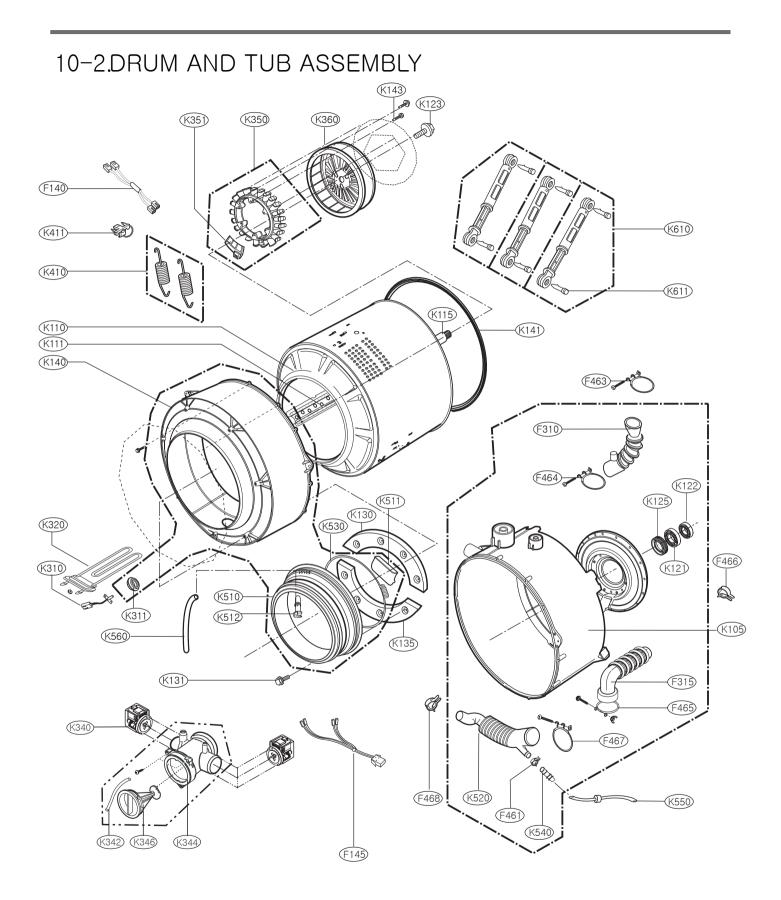
- 1. Remove Clamp and Condensing duct.
- 2. Rotate pipe 90° and remove it.

## 10. EXPLODED VIEW

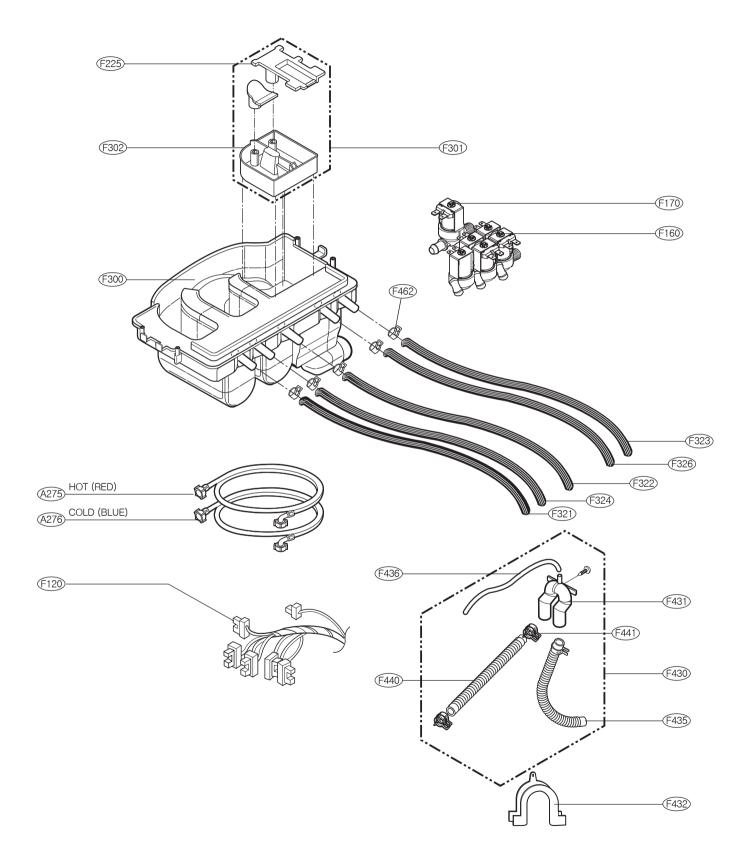
### 10-1. CABINET AND CONTROL PANEL ASSEMBLY



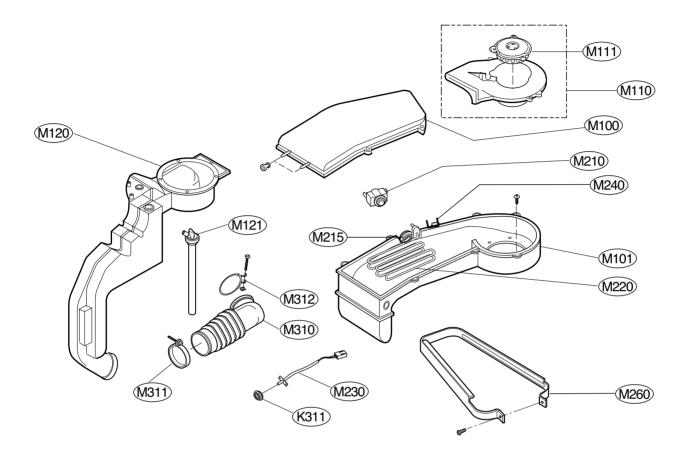
39



### 10-3.DISPENSER ASSEMBLY



### 10-4. DRYER





MAR. 2003 PRINTED IN KOREA

P/No.:3828ER3013X