



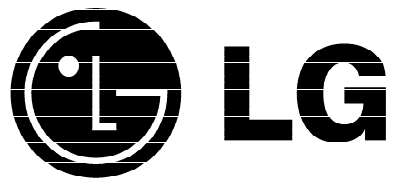
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WASHING MACHINE SERVICE MANUAL

CAUTION

READ THIS MANUAL CAREFULLY TO DIAGNOSE TROUBLE
CORRECTLY BEFORE OFFERING SERVICE.

MODEL : WD-1*(0~9)ND(K)/TD(K)/FD(K)**



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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	13
7-1.BEFORE SERVICE	13
7-2.TEST MODE	13
7-3.HOW TO KNOW THE WATER LEVEL FREQUENCY	13
7-4.ERROR DISPLAY	14
8. ERROR DIAGNOSIS AND CHECK LIST	15
8-1. DIAGNOSIS AND ANSWER FOR ABNORMAL OPERATION	15
8-2. FAULT DIAGNOSIS AND TROUBLESHOOTING	18
9. DISASSEMBLY INSTRUCTIONS	24
10. EXPLODED VIEW	31
10-1. THE EXPLODED VIEW OF CABINET ASSEMBLY	31
10-2. THE EXPLODED VIEW OF CONTROL PANEL & DISPENSER ASSEMBLY	32
10-3. THE EXPLODED VIEW OF DRUM & TUB ASSEMBLY	33
* APPENDIX (Replacement parts list)	34

1. SPECIFICATIONS

ITEM		WD-1*** (0~9)ND(K)	WD-1*** (0~9)TD(K)	WD-1*** (0~9)FD(K)
POWER SUPPLY		220-240V~, 50Hz		
PRODUCT WEIGHT		59 kg	58 kg	64 kg
ELECTRICITY CONSUMPTION	WASHING	135W		
	SPIN (1400rpm)	530W		
	DRAIN MOTOR	32W		
	WASH HEATER	2000W	2100W	2100W
REVOLUTION SPEED	WASH	50rpm		
	SPIN	WD-10** (0~9)ND(K)/TD(K)/FD(K)	No Spin~1000 rpm	
		WD-12** (0~9)ND(K)/TD(K)/FD(K)	No Spin~1200 rpm	
		WD-14** (0~9)ND(K)/TD(K)/FD(K)	No Spin~1400 rpm	
		WD-16** (0~9)ND(K)/TD(K)/FD(K)	No Spin~1600 rpm	
OPERATION WATER PRESSURE		0.3-10kgf/cm ² (30-1000kPa)		
CONTROL TYPE		Electronic		
WASH CAPACITY		Cotton (Refer to the rating label)		
DIMENSION		600mm(W)x440mm(D)x850mm(H)	600mm(W)x550mm(D)x850mm(H)	600mm(W)x600mm(D)x850mm(H)
DOOR SWITCH TYPE		Bi-Metal type		
WATER LEVEL		9 steps (by sensor)		
RESERVATION		From 3 hours to 19 hours		
SENSING OF THE LAUNDRY AMOUNT		Available		
FUZZY LOGIC		Available		
DISPLAY OF THE REMAINING TIME		Available		
ERROR DIAGNOSIS		10 items		
POWER AUTO OFF		Available		
CHILD LOCK		Available		
AUTO RESTART		Available		

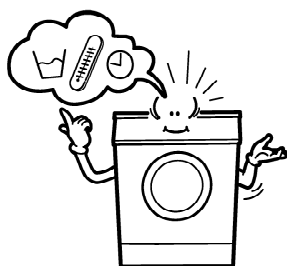
2. FEATURES & TECHNICAL EXPLANATION

2-1.FEATURES



■ Anti Crease function

With the alternate rotation of the drum, creasing in the laundry is minimized.



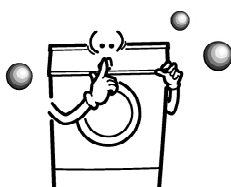
■ More economical by Fuzzy Logic System

FUZZY Logic System detects the amount of load and water temperature, and then determines the optimum water level and washing time to minimize energy and water consumption.



■ Child-Lock

The Child-Lock system has been developed to prevent children from pressing any button (except Power button) to change the programme during operation.



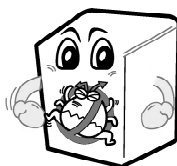
■ Low noise speed control system

By sensing the amount of load and balance, this system automatically distributes load evenly to minimize the spinning noise level.



■ Direct Drive System

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

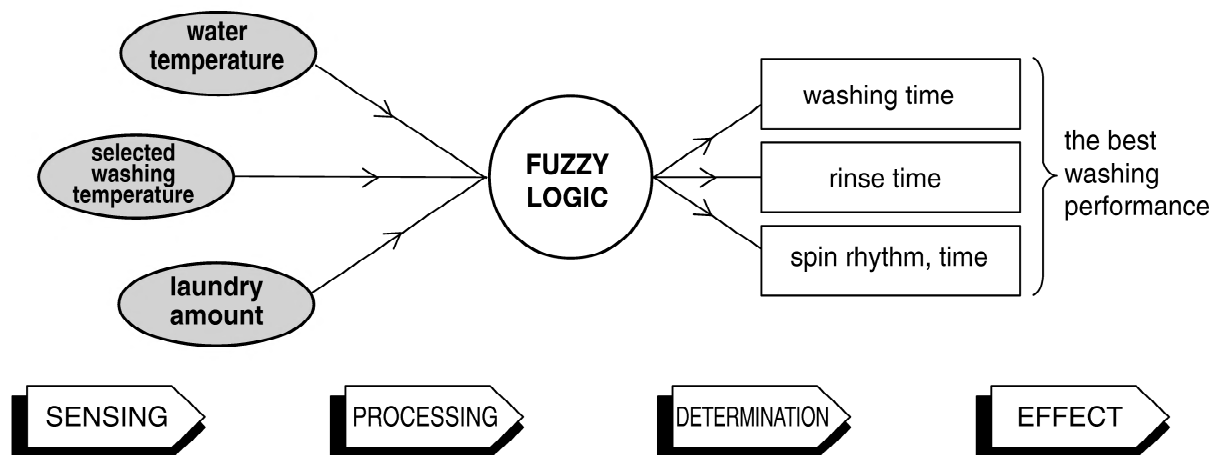


■ Built-in heater

Internal heater automatically heats the water to the best temperature on selected cycles.

2-2.DETERMINE WASHING TIME BY FUZZY LOGIC

To get the best washing performance optimal time is determined by sensing of water temperature, selected washing temperature and laundry amount.



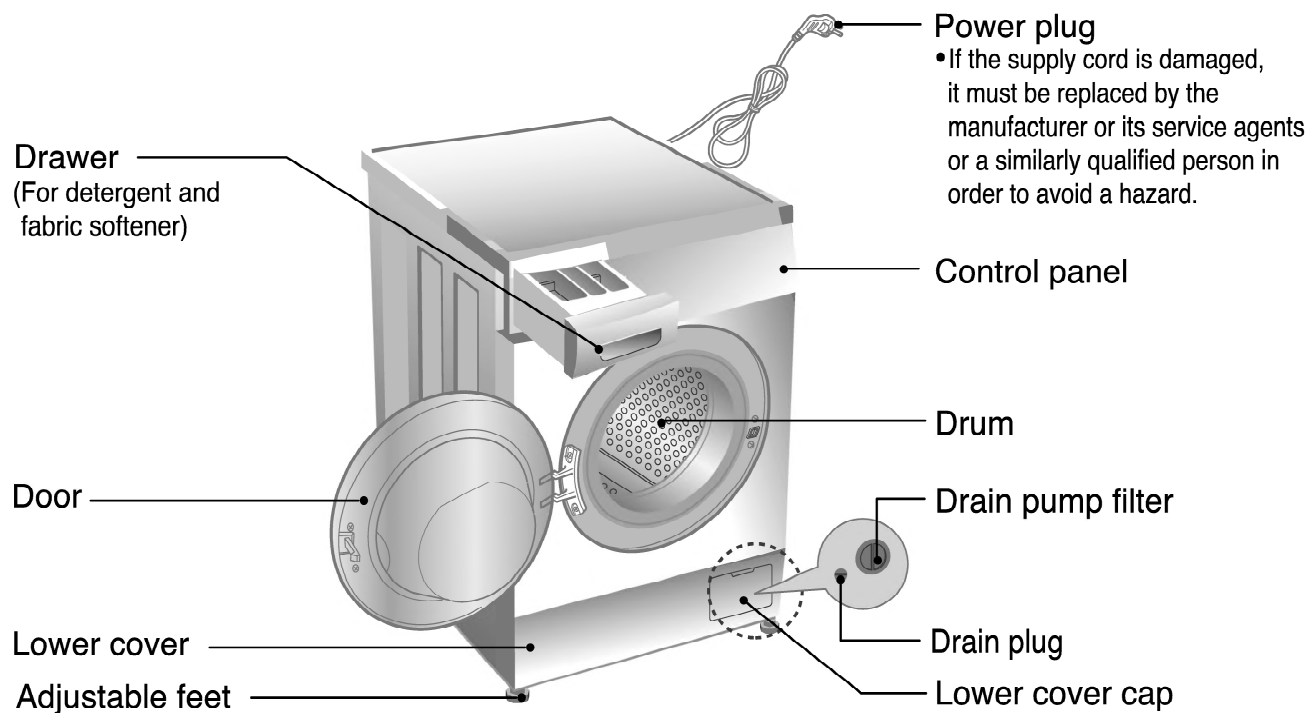
2-3.WATER LEVEL CONTROL

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

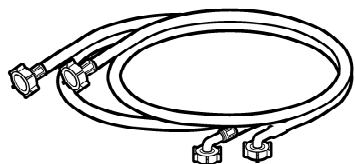
2-4.THE DOOR CAN NOT BE OPENED

- While program is operating.
- While **Door Lock** light turns on.

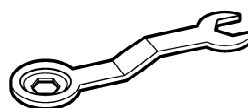
3. PARTS IDENTIFICATION



■ ACCESSORIES



Inlet hose (1EA) * Option : Hot / Cold (2EA)



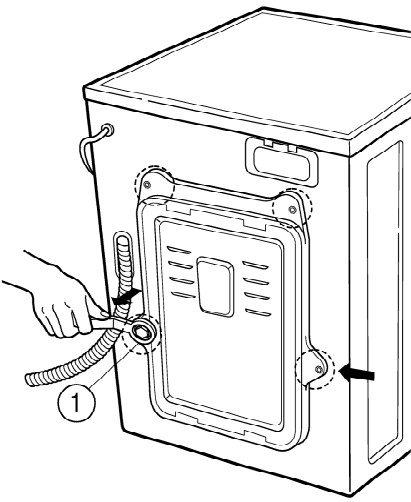
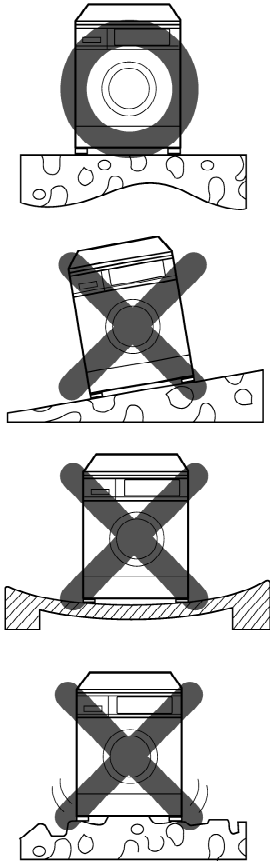
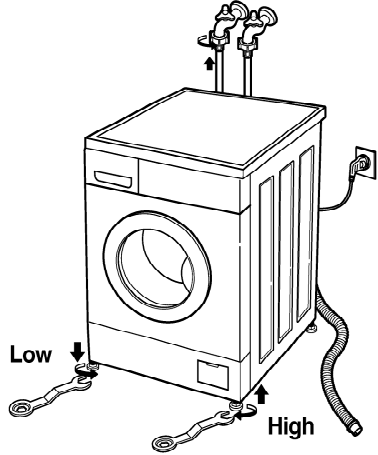
Spanner

4. INSTALLATION

- ① Before servicing ask the customer what the trouble is.
- ② Check the adjustments. (Power supply :220-240V~, Removal of transit bolts etc..)
- ③ Check the troubles referring to the troubleshooting.
- ④ Decide service steps referring to disassembly instructions.
- ⑤ Then, service and repair.
- ⑥ After servicing, operate the appliance to see whether it works O·K or NOT.

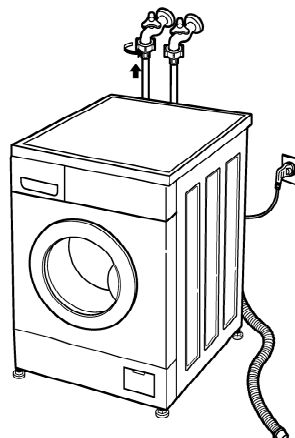
■ STANDARD INSTALLATION

The appliance should be installed as follows.

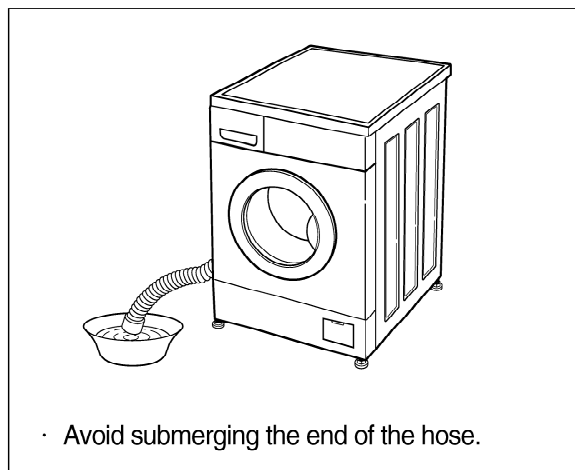
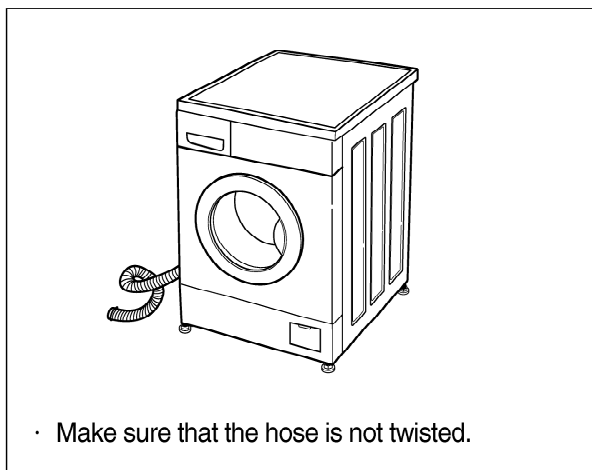
REMOVE THE TRANSIT BOLTS	INSTALL THE APPLIANCE ON FLAT AND FIRM SURFACE	ADJUST THE HORIZONTAL
<ul style="list-style-type: none"> Remove the transit bolts (4EA:①) with supplied wrench. Keep the transit bolts and wrench for future use. Insert the 4 caps provided into the hole. 		<ul style="list-style-type: none"> Turn the adjustable feet to set the appliance horizontally.  <ul style="list-style-type: none"> The appliance goes up by rotating the feet clockwise. The appliance comes down by rotating the feet counter-clockwise.

■ HOW TO CONNECT INLET HOSE

- Check that the rubber is the inside of valve connector.
- Connect inlet hoses firmly to prevent leak.

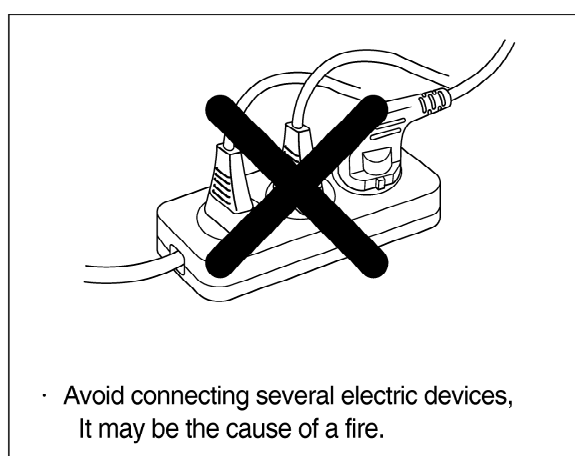
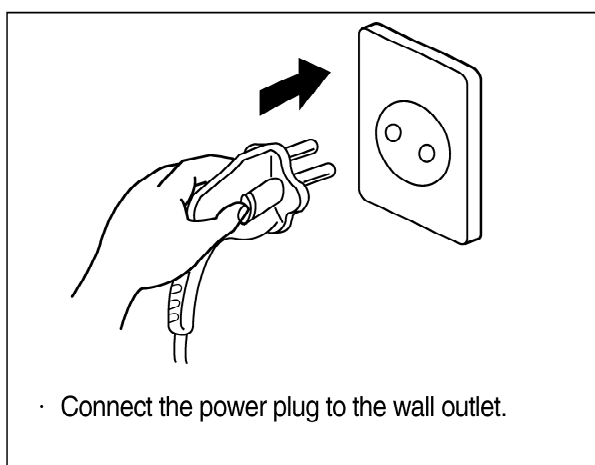


■ CONNECT DRAIN HOSE

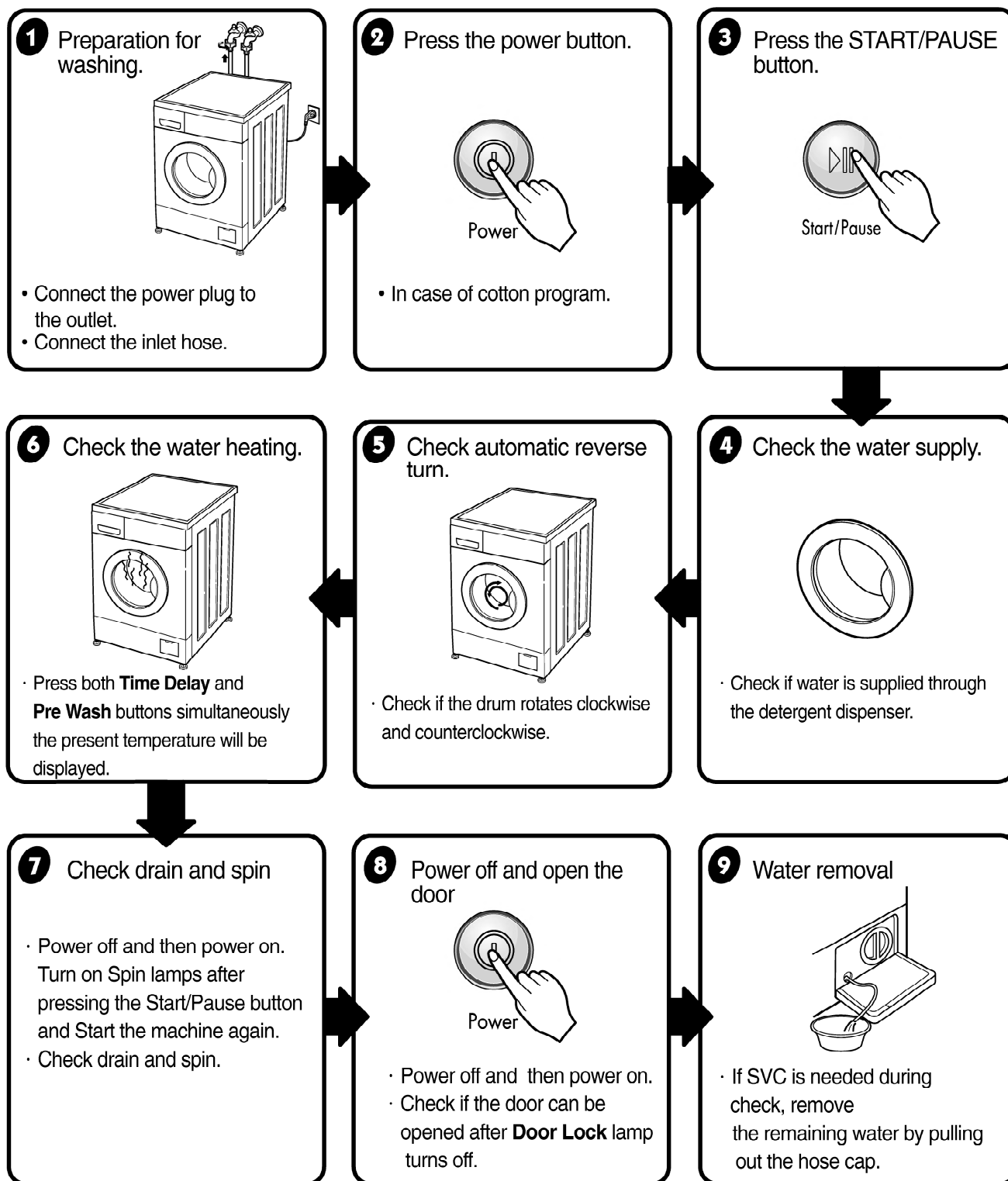


※ The drain hose should be placed under 100cm from the floor.

■ CONNECT POWER PLUG



7 TEST OPERATION



5. OPERATION

Eco

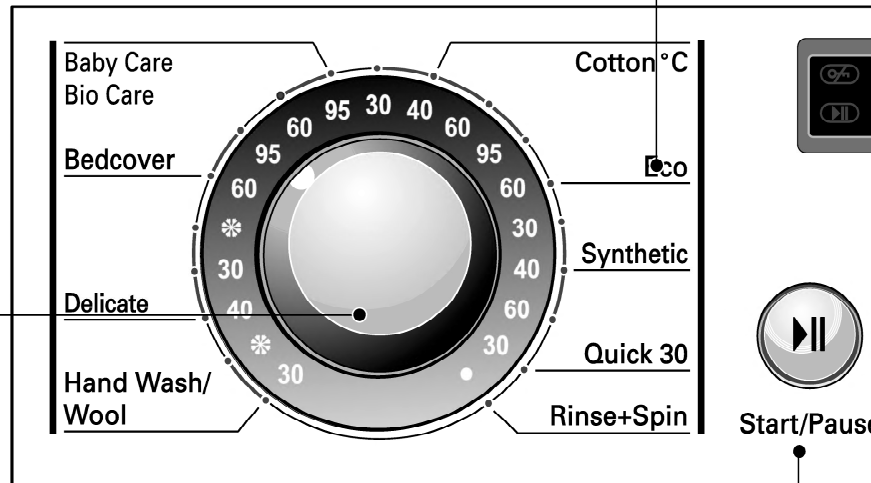
- It is possible in cotton course when 60°C

LED display

- Display the estimated remaining time (Hour : Minute) to finish.
- In case of abnormal operation, error indications are displayed.
(*IE, OE, UE, dE, tE, FE, PE, CE, LE, RE, PF*)
- See troubleshooting guide.

Wash program selector

- 10 programs can be set depending on the type of the laundry.
- If the power button is pressed, all lamps are on
- By turning the dial, [Cotton–Eco Synthetic–Quick 30–Rinse+Spin–Hand Wash/Wool–Delicate–Bedcover–Bio Care–Baby Care] can be selected. (The opposite is possible)



Start/Pause button

- Use the button to start or pause wash cycle.
- The power turns off automatically 4 minutes after the pause button is pressed.

Spin

- **WD-1036(0~9)SD(K)/1036(0~9)ND(K)/1036(0~9)TD(K)**
⇒ No Spin/No Drain/400/600/800/900/1000
- **WD-1236(0~9)SD(K)/1236(0~9)ND(K)/1236(0~9)TD(K)**
⇒ No Spin/No Drain/400/600/800/1000/1200
- **WD-1436(0~9)SD(K)/1436(0~9)ND(K)/1436(0~9)TD(K)**
⇒ No Spin/No Drain/400/600/800/1000/1400

* QC Test Mode

-Press **Medic Rinse** and **Rinse⁺** and **Power** buttons simultaneously

* Water level frequency buttons

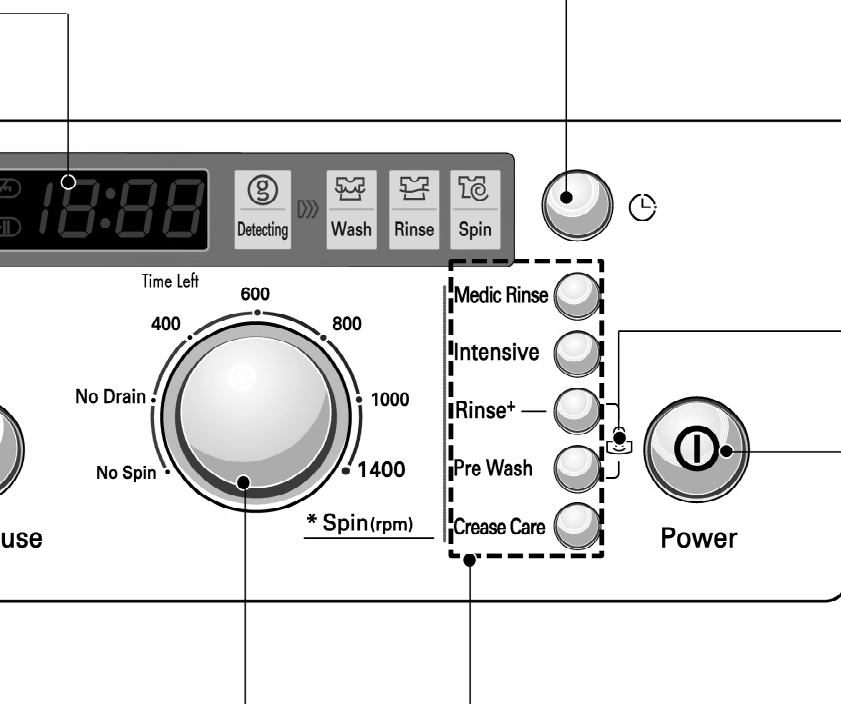
-Press **Time Delay** and **Medic Rinse** simultaneously

Time Delay

- Press the button when reservation washing is needed.
- When the button is pressed, [3:00] is displayed, maximum delay of [19:00] hours can be set.
- Each press advances time delay by the hour.
- Use [Power] button to cancel [Time Delay]
- [Time Delay] means the time required from the present to the completion of washing.

Child - Lock

- **Child Lock** system can be set and canceled by pressing and holding both **Medic Rinse** button and **Intensive** button simultaneously more than 3 seconds.
- Once **Child Lock** is set, all buttons are not functioning except power button.
- **Child Lock** system can be set anytime even during Power-off and operation.
- It is automatically cancelled when an operational error occur.



Power button

- Press the button to turn power on and off.
- Press the button to cancel the time delay.

Option

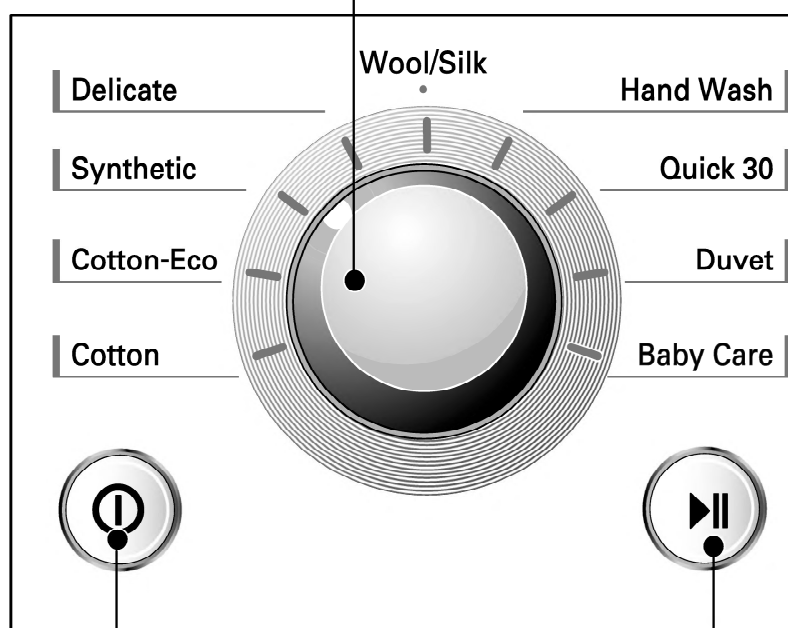
- **Medic Rinse** : Function that offers more purity in rinse operation by maintaining the optimum temperature for elimination of remnant detergent. It can be selected in all courses with the exception of Quick 30, Hand Wash/Wool, Delicate course.
- **Intensive** : • If the laundry is heavily soiled "Intensive" option is effective.
• By selecting the Intensive option, the wash time may be extended, depending on the program selected.
- **Rinse⁺** : If you wish to rinse more, the Rinse⁺ option will remove any trace of detergents.
- **Pre Wash** : If the laundry is heavily soiled, "Pre Wash" course is effective.
Pre Wash is available in Cotton and Synthetic Program.
- **Crease Care** : If you want to prevent crease, select this button with spin

Wash program selector

- 9 program can be set depending on the type of the laundry.
- If the power button is pressed, Cotton program is automatically set.
- By turning the dial, [Cotton, Cotton-Eco, Synthetic, Delicate, Wool/Silk, Hand Wash, Quick 30, Duvet, Baby Care] can be selected.
(The opposite is possible)

LED display

- Display the estimated remaining time (Hour : Minute) to finish.
- In case of abnormal operation, error indications are displayed.
(IE DE UE dE tE FE PE tE LE RE PF)
- See troubleshooting guide.



POWER button

- Use this button to turn the power On/Off

Start/Pause button

- Use the button to start or pause wash cycle.
- The power turns off automatically 4 minutes after the pause button is pressed.

* QC Test Mode

-Press **Option** and **Spin** and **Power** buttons simultaneously

* Water level frequency buttons

-Press **Time Delay** and **Temp.** simultaneously

Time Delay

- Press the button when delayed washing is needed.
- When the button is pressed, 3:00 is displayed, maximum delay of 19:00 hours can be set.
- Each press advances time delay by the hour.
- Use [Power] button to cancel [Time Delay]
- [Time Delay] means the time required from the present to the completion of washing.

STATUS INDICATOR

- These lights show which portion of the cycle the washer is operating.

INTENSIVE

- If the laundry is heavily soiled "Intensive" option is effective.
- By selecting the Intensive option, the wash time may be extended, depending on the program selected.
- To use this option press the Intensive button once before the wash program is started.



Time Delay

Intensive

- | | | | |
|----------------------------------|------------------------------------|-------------------------------|----------------------------|
| <input type="radio"/> Bio | <input type="radio"/> Rinse++ Hold | <input type="radio"/> 1400 | <input type="radio"/> 95°C |
| <input type="radio"/> Soak | <input type="radio"/> Normal+Hold | <input type="radio"/> 1000 | <input type="radio"/> 60 |
| <input type="radio"/> Pre Wash | <input type="radio"/> Medic Rinse | <input type="radio"/> 800 | <input type="radio"/> 40 |
| <input type="radio"/> Rinse+Spin | <input type="radio"/> Rinse+ | <input type="radio"/> 00 | <input type="radio"/> 30 |
| <input type="radio"/> Spin Only | <input type="radio"/> Normal | <input type="radio"/> No Spin | <input type="radio"/> Cold |

Option

Rinse

Spin

Temp.

Child - Lock

- **Child Lock** system can be set and canceled by pressing and holding both [Rinse] and [Option] button simultaneously more than 2 seconds.
- Once Child Lock is set, all buttons are inoperable except power button.
- **Child Lock** system can be set anytime even during
- Power-off and operation.
- It is automatically cancelled when an operational error occur.

OPTION button

- Pre Wash: Use this option for loads that need pretreatment. It add 16 minutes pre wash and drain.
- Rinse+Spin: Use this option to rinse and then spin.
- Soak: Use this mode to wash normal clothes or thick and heavy clothes which are excessively dirty.
- Spin Only: When you want Spin only, select this option.
- Bio: If you want to eliminate protein stains, you may select Bio function.

Rinse, Spin, Temp., Button

- Select a water temperature based on the type of load you are washing.
- To change the spin speed, press the Spin Speed button repeatedly to cycle through available options.
- To change the soil level, press the Soil Level button repeatedly until the desired setting is on.

Wash program selector

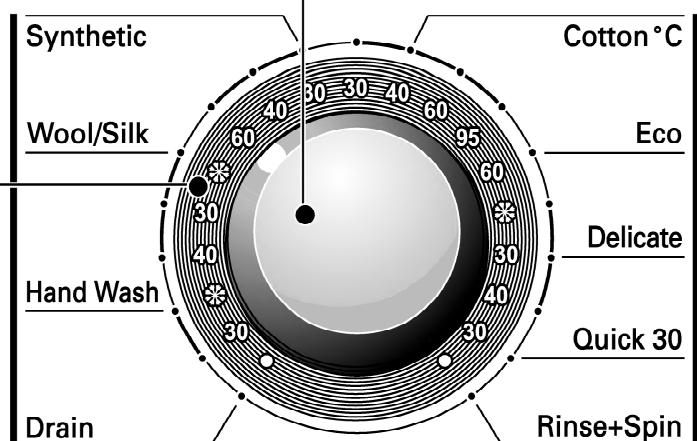
- 9 programs can be set depending on the type of the laundry.
- If the power button is pressed, all lamps are on
- By turning the dial, [Cotton—Eco—Synthetic—Quick 30—Rinse+Spin—Hand Wash/Wool—Delicate—Bedcover—Bio Care— Baby Care] can be selected.
(The opposite is possible)

LCD display

- Display the program and estimated remaining time (Hour : Minute) to finish.
- In case of abnormal operation, error indications are displayed.
(IE, OE, UE, dE, tE, FE, PE, CE, LE, RE, PF)
- See troubleshooting guide.

Water temperature selector

- By turning the dial select water temperature.



Start/Pause button

- Use the button to start or pause wash cycle.
- The power turns off automatically 4 minutes after the pause button is pressed.

Intensive

- If the laundry is heavily soiled "Intensive" option is effective.
- By selecting the Intensive option, the wash time may be extended, depending on the program selected.

Rinse Hold

- Is selected by pressing the Rinse Hold button this function leaves clothes in the machine; suspended in the water after a rinse without entering into spin.
- To proceed through to a drain or spin, once the rinse hold function is completed using to program dial scroll to the required program. (Spin)

Time Delay

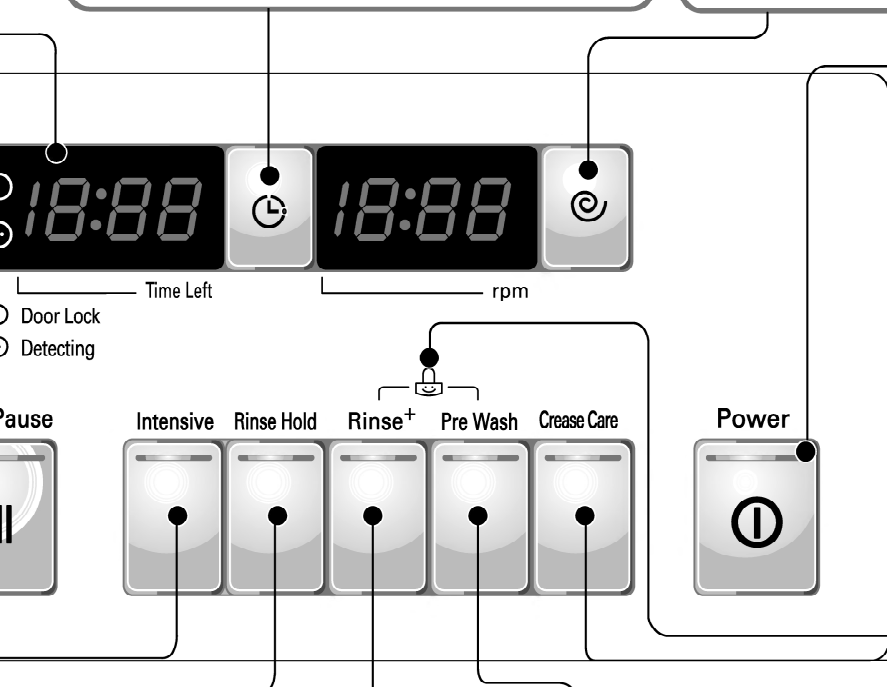
- Press the button when delayed washing is needed.
- When the button is pressed, 3:00 is displayed, maximum delay of 19:00 hours can be set.
- Each press advances time delay by the hour.
- Use [Power] button to cancel [Time Delay]
- [Time Delay] means the time required from the present to the completion of washing.

Spin button

- By pressing the Spin button the spin speed can be chosen.

Power button

- Press the button to turn power on and off.
- Press the button to cancel the delay finish.



Child - Lock

- **Child Lock** system can be set and canceled by pressing and holding both [Medic care Rinse] and [Pre Wash] buttons simultaneously more than 2 seconds.
- Once **Child Lock** is set, all buttons are inoperable except power button.
- **Child Lock** system can be set anytime even during Power-off and operation.
- It is automatically cancelled when an operational error occur.

Medic Rinse

- Function that offers more purity in rinse operation by maintaining the optimum temperature for elimination of remnant detergent. It can be selected in all courses with the exception of Quick 30. Hand Wash/Wool, Delicate course.

Pre Wash

- If the laundry is heavily soiled, "Pre Wash" course is effective.
- Pre Wash is available in Cotton and Synthetic.

Crease Care

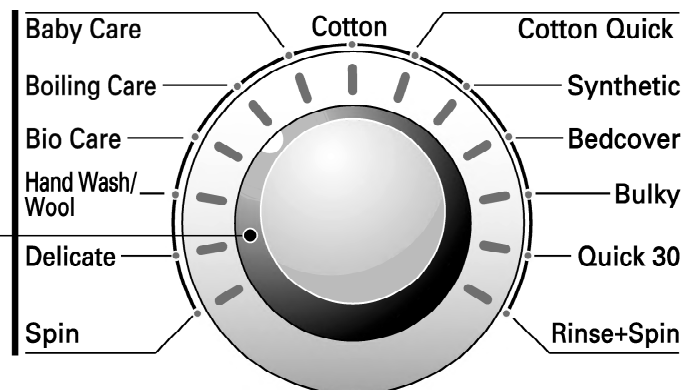
- If you want to prevent crease, select this button with spin speed.

Child - Lock

- **Child Lock** system can be set and canceled by pressing and holding both **Medic Rinse** button and **Pre Wash** button simultaneously more than 3 seconds.
- Once **Child Lock** is set, all buttons are not functioning except power button.
- **Child Lock** system can be set anytime even during Power-off and operation.
- It is automatically cancelled when an operational error occur.

Wash program selector

- 10 programs can be set depending on the type of the laundry.
- If the power button is pressed, all lamps are on
- By turning the dial, [Cotton – Cotton Quick – Synthetic – Bedcover – Bulky – Quick 30 – Rinse+Spin – Spin – Delicate – Hand Wash/Wool, Bio Care – Boiling Care – Baby Care] can be selected. (The opposite is possible)



Option

- **Medic Rinse** : Function that offers more purity in rinse operation by maintaining the optimum temperature for elimination of remnant detergent. It can be selected in all courses with the exception of Quick 30. Hand Wash/Wool, Delicate course.
- **Intensive** : • If the laundry is heavily soiled “Intensive” option is effective.
• By selecting the Intensive option, the wash time may be extended, depending on the program selected.
- **Pre Wash** : If the laundry is heavily soiled, “Pre Wash” course is effective.
Pre Wash is available in Cotton and Synthetic Program.
- **Crease Care** : If you want to prevent crease, select this button with spin

* QC Test Mode

-Press **Spin** and **Temp.** and **Power** buttons simultaneously

* Water level frequency buttons

-Press **Intensive** and **Crease Care** simultaneously

LED display

- Display the estimated remaining time (Hour : Minute) to finish.
- In case of abnormal operation, error indications are displayed.
(*IE, OE, UE, dE, tE, FE, PE, CE, LE, RE, PF*)
- See troubleshooting guide.

Time Delay

- Press the button when reservation washing is needed.
- When the button is pressed, [3:00] is displayed, maximum delay of [19:00] hours can be set.
- Each press advances time delay by the hour.
- Use [Power] button to cancel [Time Delay]
- [Time Delay] means the time required from the present to the completion of washing.

Water temperature selector

- Press the button to select water temperature.
- The water temperature [60°C → 95°C → Cold → 30°C → 40°C] can be selected in Cotton.
- 95°C is selected for Cotton, Bedcover, Bio Care, Boiling Care, Baby Care programs.

Power button

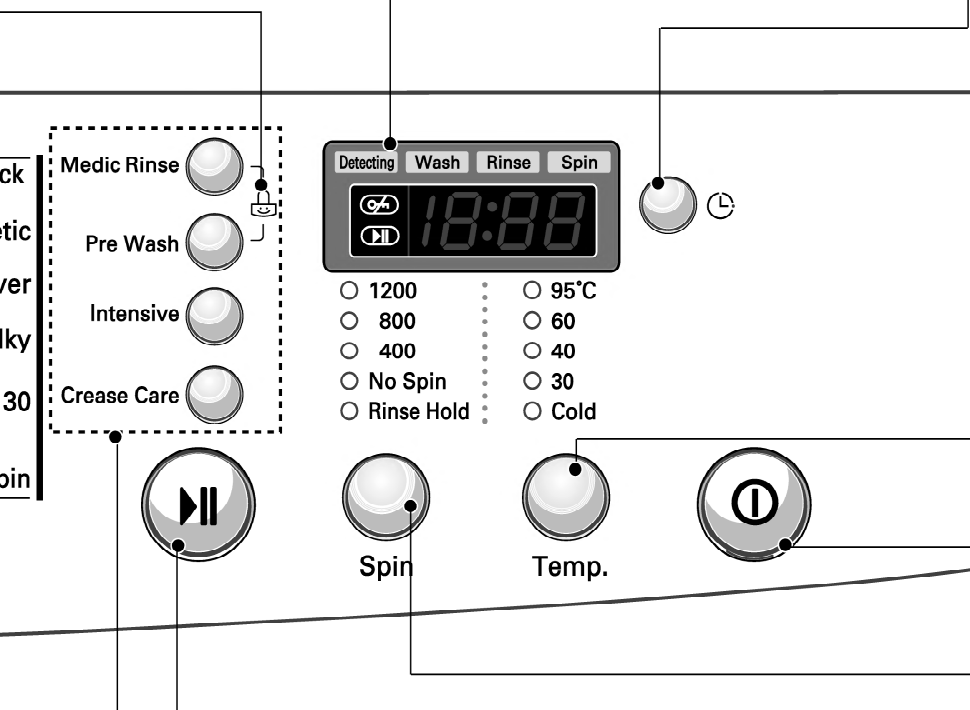
- Press the button to turn power on and off.
- Press the button to cancel the time delay.

Start/Pause button

- Use the button to start or pause wash cycle.
- The power turns off automatically 4 minutes after the pause button is pressed.

Spin

- **WD-1039(0~9)SD(K)/1039(0~9)ND(K)/1039(0~9)TD(K)**
⇒ No Spin/Rinse Hold/400/800/1000
- **WD-1239(0~9)SD(K)/1239(0~9)ND(K)/1239(0~9)TD(K)**
⇒ No Spin/Rinse Hold/400/800/1200
- **WD-1439(0~9)SD(K)/1439(0~9)ND(K)/1439(0~9)TD(K)**
⇒ No Spin/Rinse Hold/400/800/1400



Wash program selector

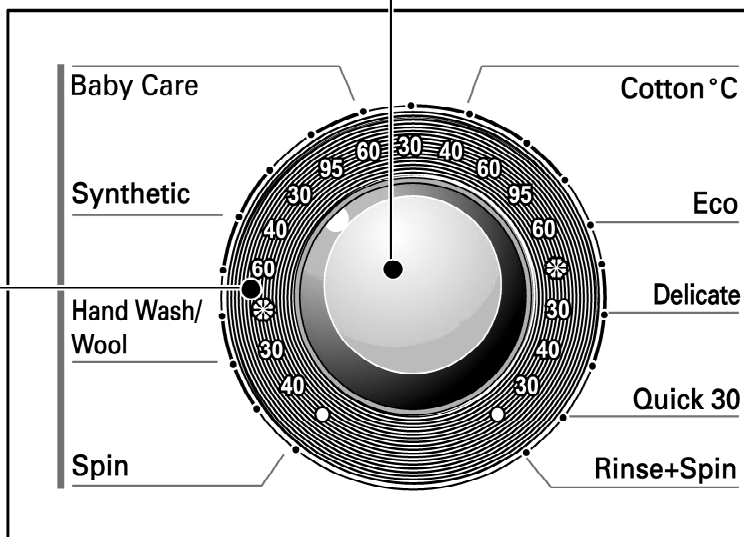
- 8 program can be set depending on the type of the laundry.
- If the power button is pressed, Cotton program is automatically set.
- By turning the dial, [Cotton–Delicate–Quick 30 –Rinse+Spin–Spin–Hand Wash/Wool–Synthetic–Baby Care]can be selected.
(The opposite is possible)

LED display

- Display the estimated remaining time (Hour : Minute) to finish.
- In case of abnormal operation, error indications are displayed.
(*IE, DE, UE, dE, EE, FE, PE, CE, LE, RE*)
- See troubleshooting guide.

Water temperature selector

- Press the button to select water temperature.
- 95°C is selected for Cotton and Baby Care only.
- By pressing the button while operating the washer, the present temperature is displayed.



Start/Pause button

- Use the button to start or pause wash cycle.
- The power turns off automatically 4 minutes after the pause button is pressed.

Spin Dial

- By turning the Spin dial the spin speed can be chosen.

Intensive

- If the laundry is heavily soiled "Intensive" option is effective.
- By selecting the Intensive option, the wash time may be extended, depending on the program selected.
- This option is not available with Quick 30 program

Rinse+

- For additional rinse which may assist in removing traces of detergent residue.
- By selecting Rinse+ function, the rinse time and the rinse water are increased.

* QC Test Mode

-Press **Rinse+** and **Intensive** and **Power** buttons simultaneously

* Water level frequency buttons

-Press **Time Delay** and **Rinse+** simultaneously

Time Delay

- Press the button when delayed washing is needed.
- When the button is pressed, **3:00** is displayed, maximum delay of **19:00** hours can be set.
- Each press advances time delay by the hour.
- Use [Power] button to cancel [Time Delay]
- [Time Delay] means the time required from the present to the completion of washing.

Child - Lock

- **Child Lock** system can be set and canceled by pressing and holding both [Rinse+] and [Pre Wash] buttons simultaneously more than 2 seconds.
- Once **Child Lock** is set, all buttons are inoperable except power button.
- **Child Lock** system can be set anytime even during Power-off and operation.
- It is automatically cancelled when an operational error occur.

Power button

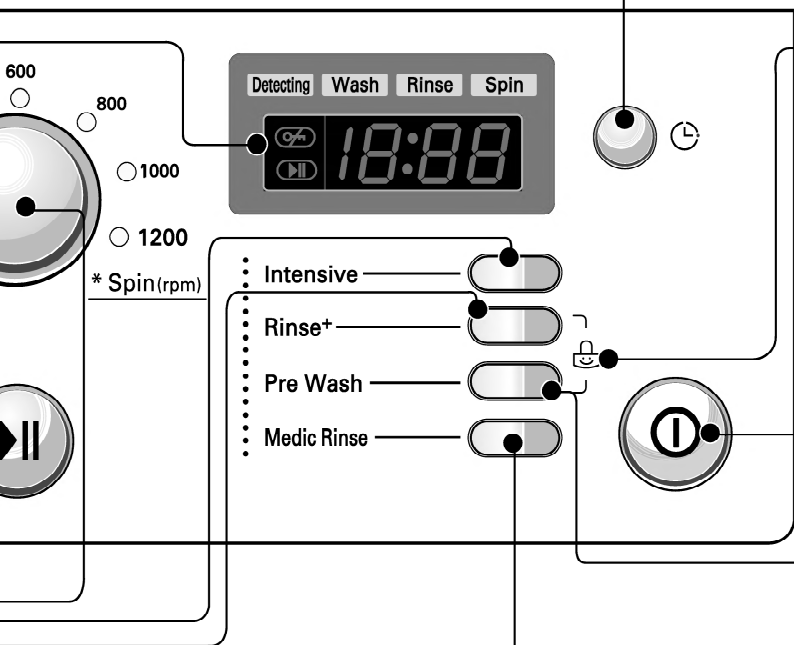
- Press the button to turn power on and off.
- Press the button to cancel the delay finish.

Medic Rinse

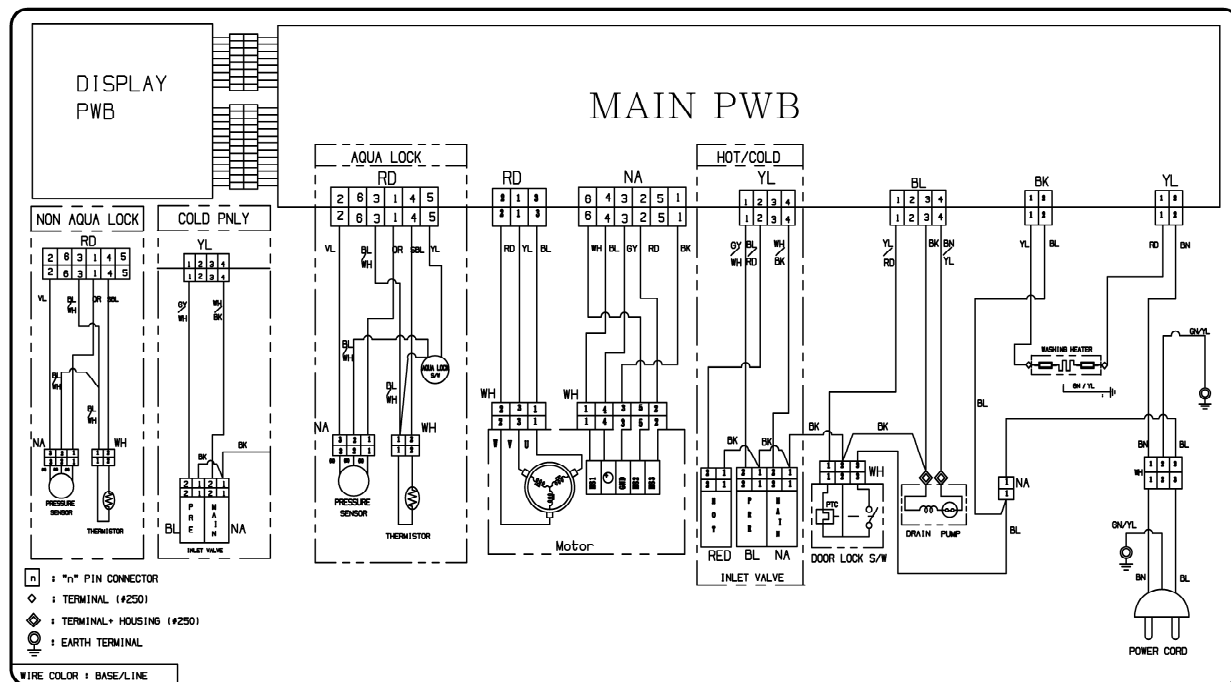
- For high effectiveness or more purity in rinse operation you can choose Medic care Rinse option.

Pre Wash

- If the laundry is heavily soiled, "Pre Wash" course is effective.
- Pre Wash is available in Cotton, Synthetic and Baby Care.



6. WIRING DIAGRAM / PROGRAM CHART



* Water Supply : W-S * Intermittent Spin : I-S * Disentangle : D-T																																		
C Y C L E C O U R S E	Washing										Rinse																Spin			A U T O O F F	E N D	Normal Working Time (Hour:Minute)		
	Pre				Main						Normal												Rinse +											
	W · S	Washing	Drain	I · S	W · S	Washing	Staycooling	W · S	Rinsing	Drain	1				2				3				4				Drain	Spin	D-T					
											W · S	Rinsing	Drain	I · S	W · S	Rinsing	Drain	I · S	W · S	Rinsing	Drain	I · S	W · S	Rinsing	Drain	I · S							W · S	Rinsing
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				
	120	MIN	60	240	120	MIN	120	60	60	60	360	120	180	60	360	120	180	60	360	120	180	60	360	120	180	60	360	120	180	60	780	120	20	20
Cotton		8				49																								780			About 1:55(53)	
Synthetic		8				34																								540			About 1:17	
Delicate						23																								360			About 52	
Bedcover						20																								540			About 1:29	
Hand Wash/ Wool						11																								360			About 49	
Quick 30						12																								160			About 30	
Rinse+Spin																														780			About 26(24)	
Bio Care		8																												780			About 2:27(25)	
Baby Care		8																												360			About 2:24<2:14>	

- * Basic Cycle
- * Optional Cycle
- * Pre-Setting Time : Water Supply - 120 sec.
Drain - 60 sec.
- * ~ Time for varies as the temperature or the amount of laundry

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

* **Medic Rinse** : Function that offers more purity in rinse of feraction by maintaining the optimum temperature for elimination of remnant detergent. It can be selected in all courses with the exception of Quick 30. Hand wash/Wool, Delicate course.

* **Intensive** : • If the laundry is heavily soiled "Intensive" option is effective.
• By selecting the Intensive option, the wash time may be extended, depending on the program selected.

* **Rinse+** : If you wish to rinse more, the Rinse+ option will remove any trace of detergents.

* **Pre Wash** : If the laundry is heavily soiled, "Pre Wash" course is effective.
Pre Wash is available in Cotton and Synthetic Program.

* **Crease Care** : If you want to prevent crease, select this button with spin

7. TROUBLESHOOTING

7-1.BEFORE PERFORMING SERVICE

- Be careful of electric shock or disconnecting the parts while trouble shooting.
- Voltage of each terminal in 220-240V~ and DC while applying an electric current.

7-2.QC TEST MODE.

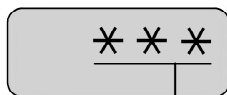
- ① Refer to the page 10~20.
- ② Press Power with above two buttons pressed and then buzzer will sound.
- ③ Press the Start/Pause button as follows.

[Press the Start/Pause button more 4 times until stop spinning]

Pressing number of [Start/Pause] button	Checking Point	Display Status
None	All lamps turn on	18:88
1 time	Clockwise spin (right)	Motor rpm (About 47)
2 times	Low speed Spin	Motor rpm (About 590~650)
3 times	High speed Spin	Motor rpm (About 950~1050) : WD-10****N(T)(F)D(K)
		Motor rpm (About 1100~1250) : WD-12****N(T)(F)D(K)
		Motor rpm (About 1350~1400) : WD-14****N(T)(F)D(K)
4 times	Inlet valve for pre-wash operation	Water level frequency (225~265)
5 times	Inlet valve for main-wash operation	Water level frequency (225~265)
	Hot inlet valve in case of hot water fill	
6 times	Inlet valve for main-wash operation	Water level frequency (225~265)
7 times	Counterclockwise spin (left)	Motor rpm (About 47)
8 times	A Heater is in operation for 3 sec.	Water Temperature
9 times	Draining pump operation	Water level frequency
10 times	Auto off operation	

7-3.HOW TO KNOW THE WATER LEVEL FREQUENCY

* Refer to the page 10~20.




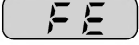

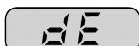
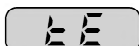









● The digits means water level frequency (10⁻¹ kHz)

ex) 241 : Water level frequency = $241 \times 10^{-1} \text{ kHz}$
= 24.1kHz

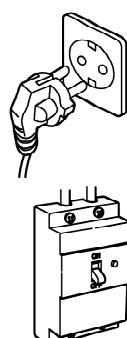


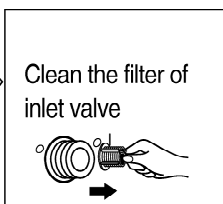
7-4.ERROR DISPLAY.

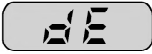



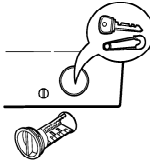
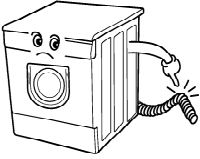
- If you press the [Start/Pause] button when an error is displayed, any error except S/W ERROR will disappear and the machine will change into pause status.
- In case of 『PE』, 『LE』, 『dE』, if the error is not resolved within 15 sec. In case of other errors, if the error is not resolved within 4 min. Power will be turned off automatically and the error only will be blinked. But in the case of 『FE』, power will not be turned off.

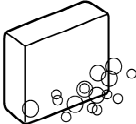
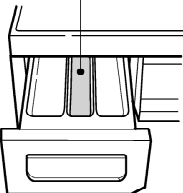
	ERROR	SYMPTOM	CAUSE
1	WATER INLET ERROR		<ul style="list-style-type: none"> ○ Water has not reached to the pre-set level within 4 min. since inlet valve operated, or water has not reached to the normal level within 25 min.
2	IMBALANCE ERROR		<ul style="list-style-type: none"> ○ The appliance is tilted. ○ Laundry is gathered to one side. ○ Non distributable things are put into the drum.
3	DRAIN ERROR		<ul style="list-style-type: none"> ○ Water has not drained enough within 8 min.
4	OVERFLOW ERROR		<ul style="list-style-type: none"> ○ Water is automatically being pumped out because too much water is in the tub.
5	SENSOR PRESSURE S/W ERROR		<ul style="list-style-type: none"> ○ The sensor pressure switch is out of order.
6	DOOR OPEN ERROR		<ul style="list-style-type: none"> ○ The [Start/Pause] button is pressed with the door open. ○ The door switch is out of order.
7	HEATING ERROR		<ul style="list-style-type: none"> ○ The thermistor is out of order.
8	CURRENT ERROR		<ul style="list-style-type: none"> ○ PWB ASSEMBLY (Main) is out of order  Replace the PWB assembly (Main) ○ Winding in the MOTOR is short-circuited.  Replace the MOTOR
9	LOCK ERROR		<ul style="list-style-type: none"> ○ The Connector (3-pin, male, white) in the wire harness is not connected to the Connector (3-pin, female, white) of MOTOR.  Reconnect or repair the connector ○ The electric contact between the connectors [3-pin, male, white in the wire harness and 6-pin, female, white in the PWB ASSEMBLY (Main)] is bad or unstable.  Reconnect or repair the contact in the connector ○ The wire harness between the MOTOR and PWB ASSEMBLY (Main) is cut (open circuited). ○ The hall sensor is out of order/defective.
10	POWER FAILURE		<ul style="list-style-type: none"> ○ The washer experienced a power failure.

8. ERROR DIAGNOSIS AND CHECK LIST

8-1.DIAGNOSIS AND ANSWER FOR ABNORMAL OPERATION

SYMPTOM	GUIDE FOR SERVICE CALL
NO POWER	<div> <p>Is the power plug connected firmly to 220-240V~ outlet?</p> <p>YES</p> <p>Power failure? or Breaker opened? Is the outlet controlled by a switch.</p> <p>NO</p> <p>Visit to check</p> </div> 
Water inlet trouble 	<div> <p>Is IE displayed?</p> <p>YES</p> <p>Is the tap opened?</p> <p>YES</p> <p>Is the tap frozen?</p> <p>NO</p> <p>Is the water supply shut-off?</p> <p>NO</p> <p>Is filter in the inlet valve clogged with foreign material?</p> <p>YES → Clean the filter of inlet valve</p> <p>NO</p> <p>Visit to check</p> </div>  

SYMPTOM	GUIDE FOR SERVICE CALL
<p>◦ DOOR OPEN ERROR</p> <p>Refer to 7-4 ERROR DISPLAY</p> 	<div data-bbox="544 439 1362 869"> <p>Did you press the Start/Pause button when the door is open?</p> <p>YES → Close the door</p>   <p>NO → Visit to check</p> <p>Check if the door switch is O.K</p> </div>
<p>◦ Drain Trouble</p> 	<div data-bbox="544 936 1433 1447"> <p>Is <i>DE</i> displayed?</p> <p>YES → Is the debris filter clogged with foreign material such as pins, coins, etc.?</p> <p>YES → Clean up the filter.</p>  <p>NO → Is the drain hose frozen with water, kinked, or crushed?</p> <p>NO → Visit to check</p>  </div>

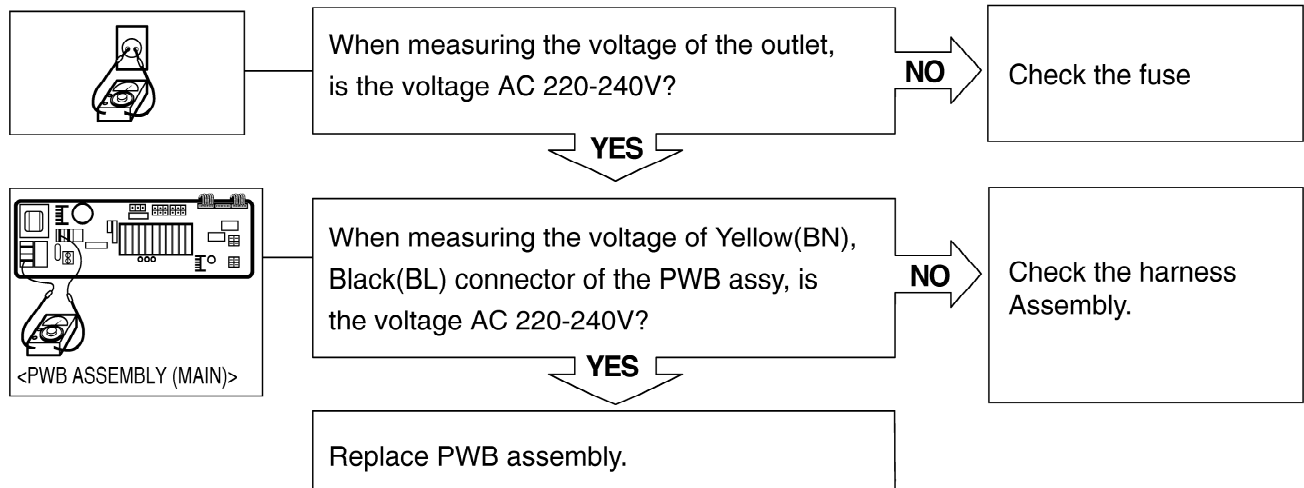
SYMPTOM	GUIDE FOR SERVICE CALL
<p>◦ Suds overflow from the appliance. (In this condition, wash and spin do not operate normally)</p>	<div data-bbox="574 414 1125 504">Is low-sudsing detergent for the drum washing machine used?</div> <div data-bbox="774 504 917 548">YES</div> <div data-bbox="574 560 1125 660">Is the proper amount of detergent used as recommended?</div> <div data-bbox="774 660 917 705">YES</div> <div data-bbox="574 705 1125 795">Recommend to reduce the amount of detergent.</div> <div data-bbox="614 806 1372 996"> <p>* This appliance has the automatic suds sensing function which operates under much suds condition for good rinse and preventing overflow.</p> <p>* When much suds are sensed, the suds removing function such as drain, water input, and pause will operate without rotating the drum.</p> </div> <div data-bbox="1189 414 1380 627">  <p>LOW SUDSING DETERGENT</p> </div>
<p>◦ No effect of softener</p>	<div data-bbox="574 1075 1125 1164">Is softener put in the correct compartment of drawer?</div> <div data-bbox="774 1164 917 1209">YES</div> <div data-bbox="574 1220 1125 1299">Is the drawer closed during wash?</div> <div data-bbox="774 1299 917 1344">YES</div> <div data-bbox="574 1344 1125 1411">Is the softener cap clogged?</div> <div data-bbox="774 1411 917 1456">YES</div> <div data-bbox="574 1456 1125 1523">Explain how to use softener</div> <div data-bbox="630 1534 1061 1568">Clean the compartment for softener</div> <div data-bbox="1149 1142 1372 1422"> <p>Compartment for softener</p>  </div>
<div data-bbox="295 1601 422 1668">FE</div> <div data-bbox="295 1668 422 1736">FE</div> <div data-bbox="295 1736 422 1803">LE</div> <div data-bbox="295 1803 422 1870">AE</div>	<div data-bbox="566 1668 1125 1736">Visit to check</div>

8-2.FAULT DIAGNOSIS AND TROUBLESHOOTING

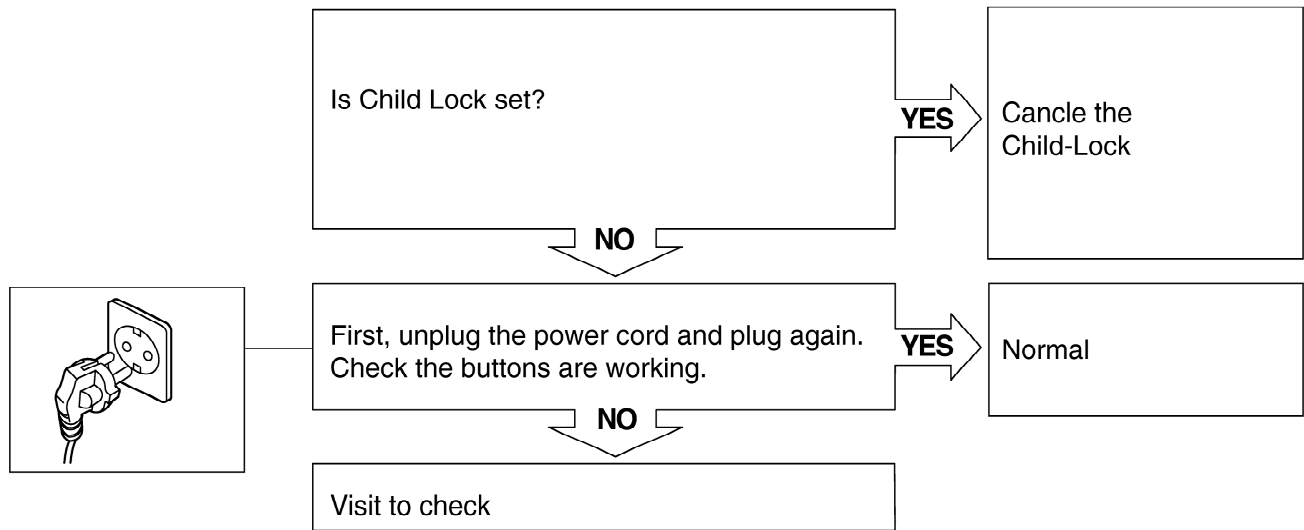
CAUTION

- 1. Be careful of electric shock or disconnecting the parts while troubleshooting.
- 2. First of all, check the connection of each part terminal with wiring diagram.
- 3. If you replace the PWB assembly (Main), put in the connectors correctly.

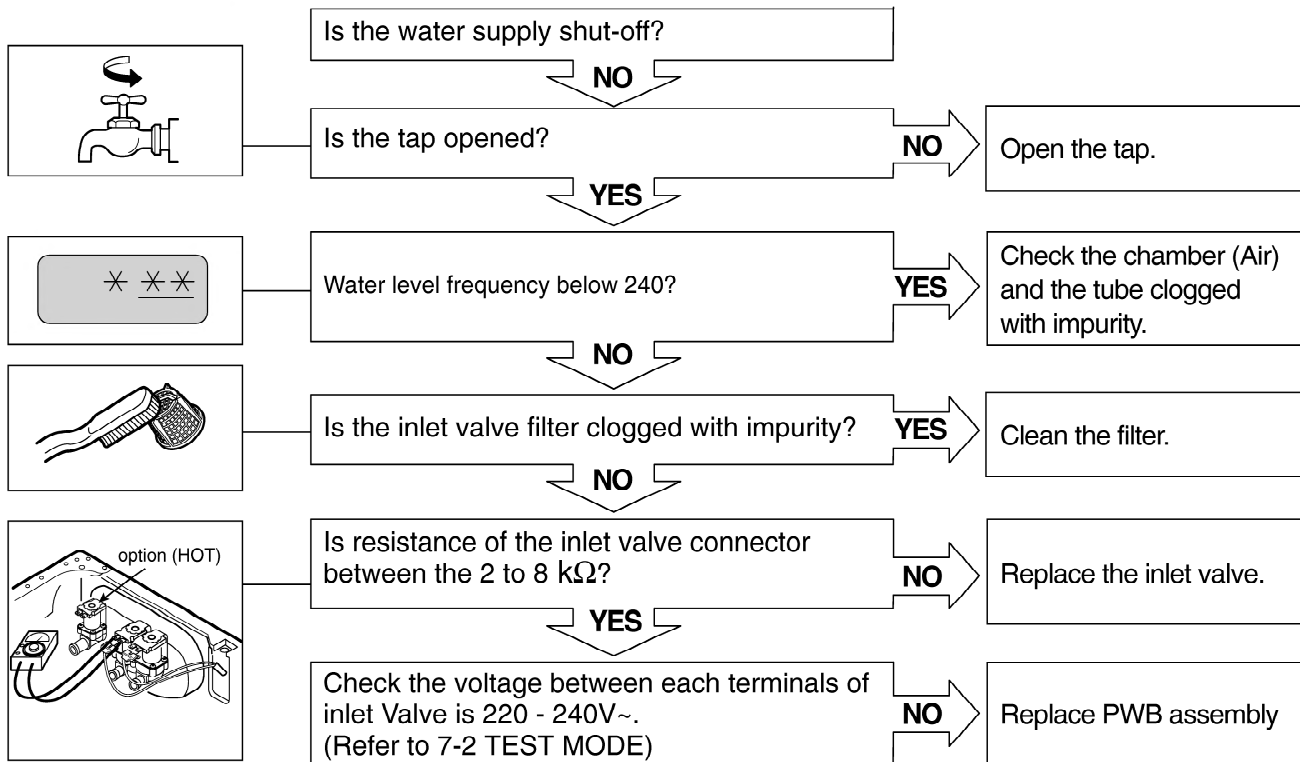
NO POWER



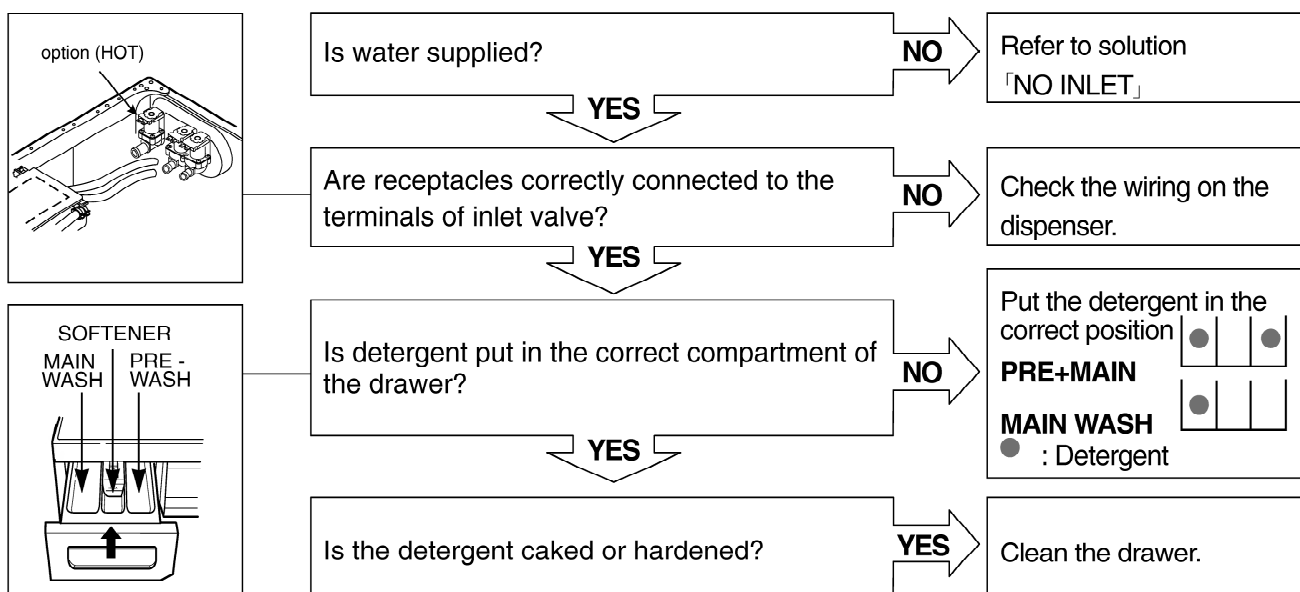
ALL BUTTONS ARE INOPERABLE EXCEPT POWER BUTTON



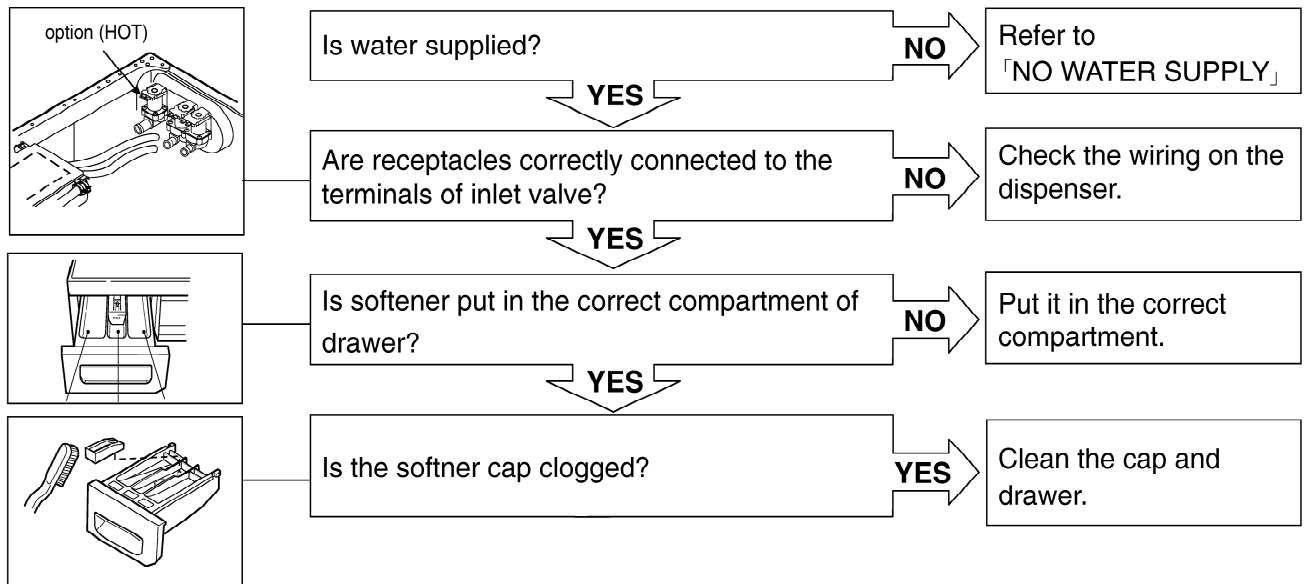
NO WATER SUPPLY



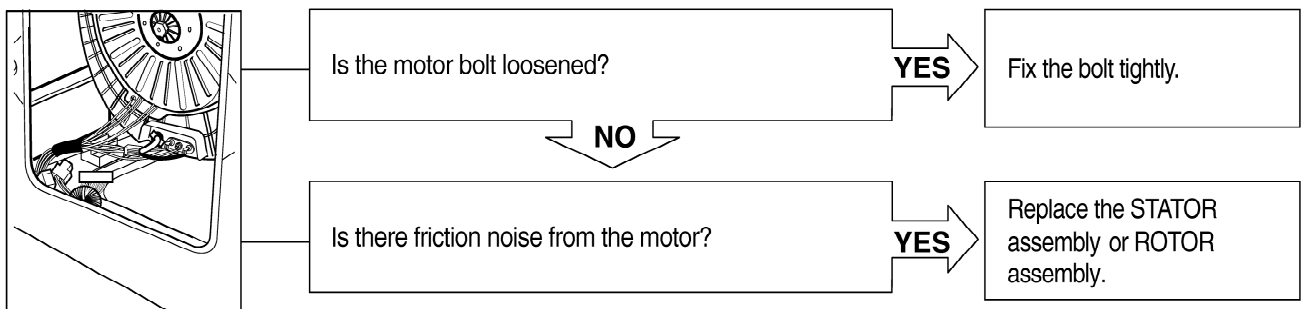
DETERGENT DOES NOT FLOW IN



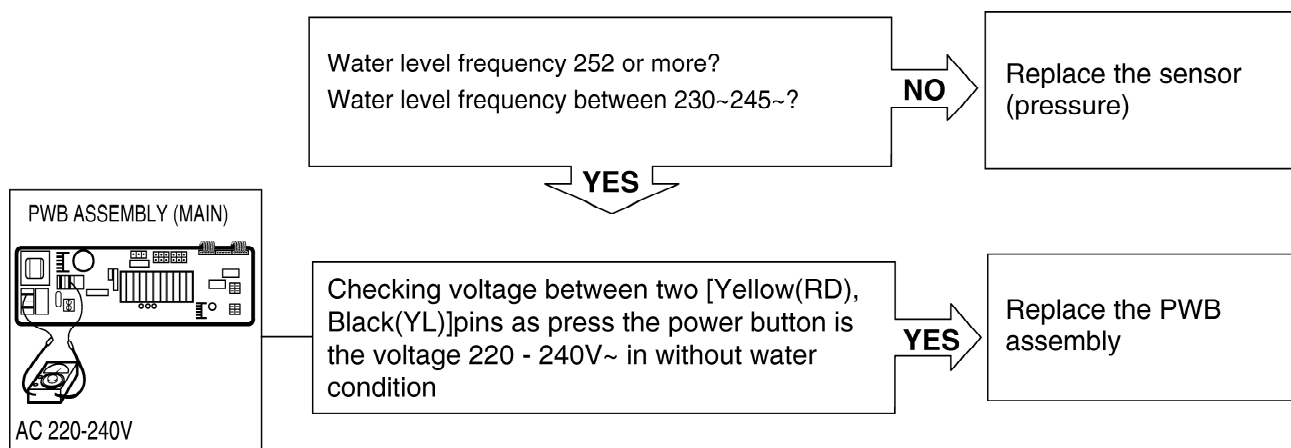
SOFTENER DOES NOT FLOW IN



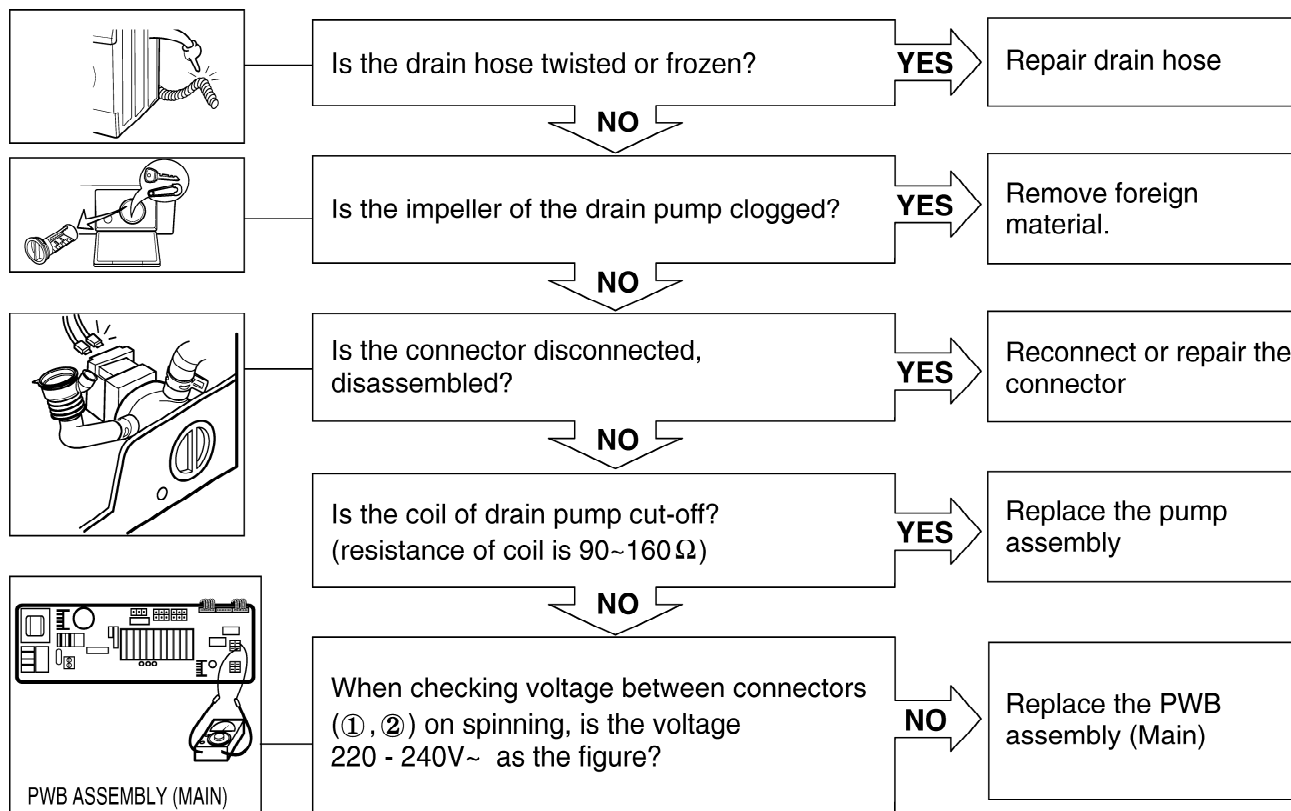
ABNORMAL SOUND



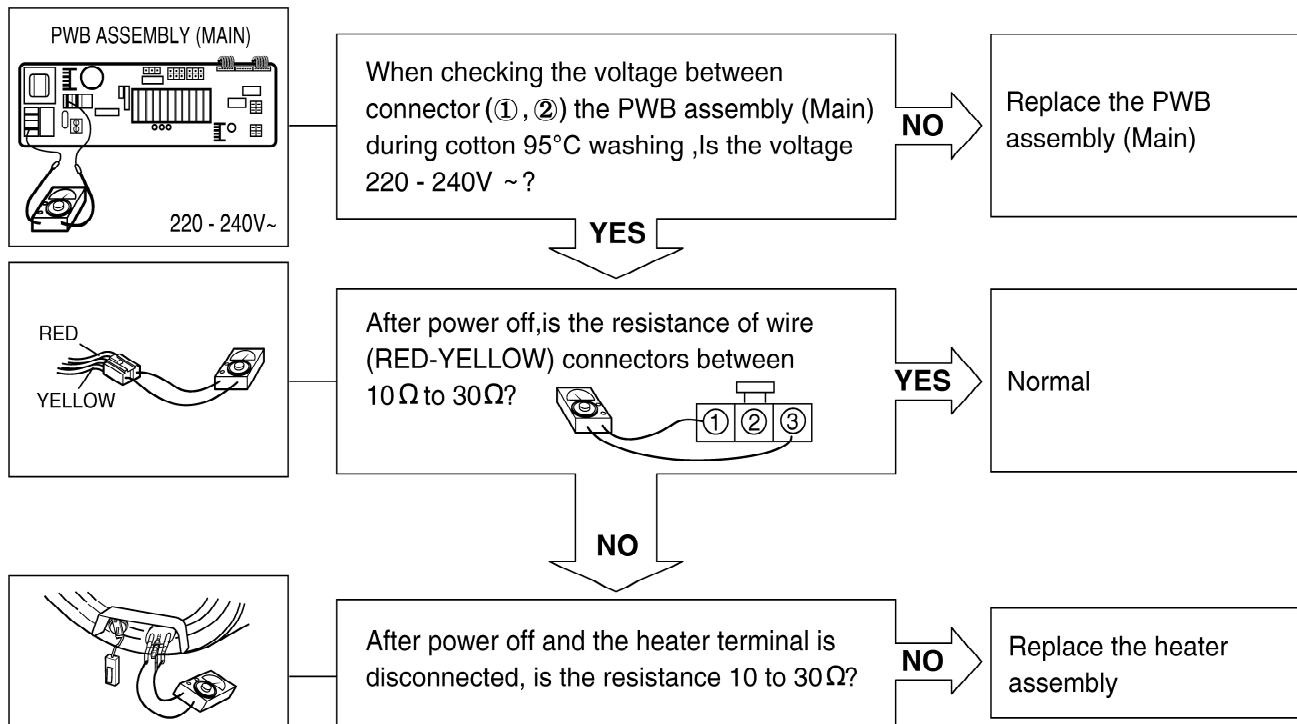
HEATING WITHOUT WATER



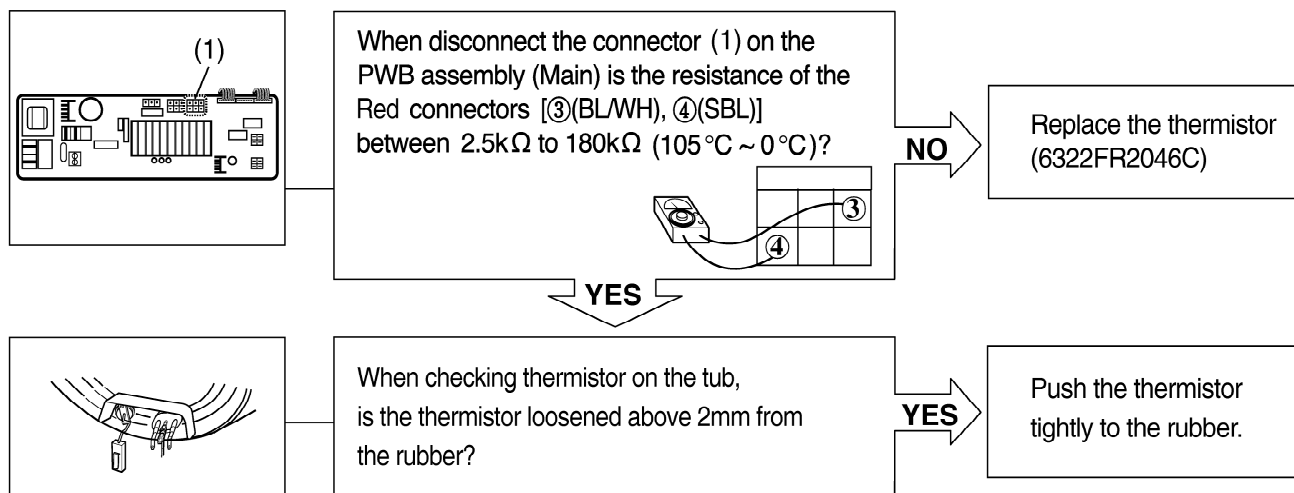
DRAIN MALFUNCTIONING



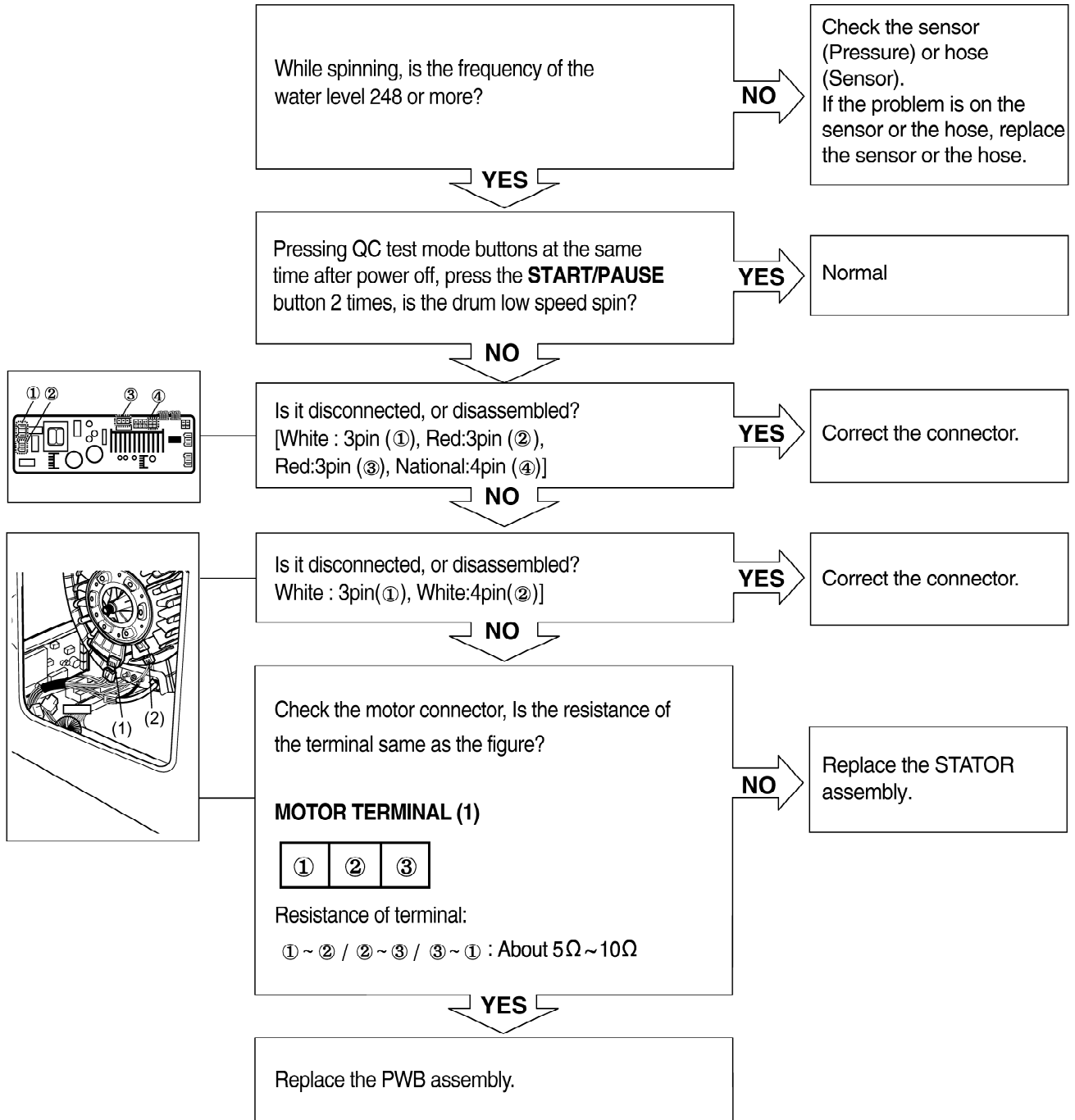
WASH HEATER TROUBLE



HEATING CONTINUOUSLY ABOVE THE SETTING WATER TEMPERATURE



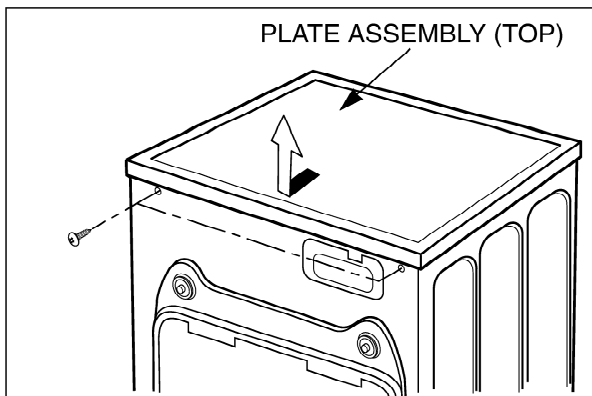
SPIN TROUBLE



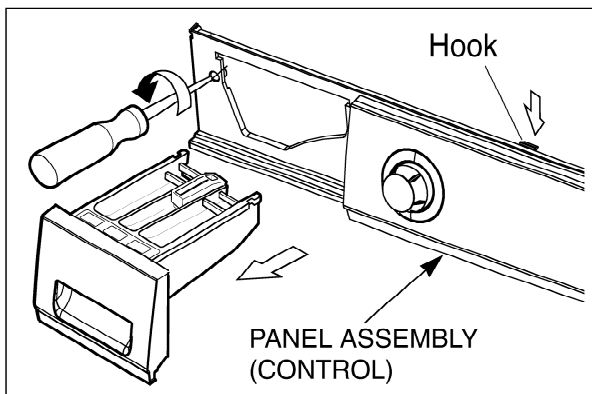
9. DISASSEMBLY INSTRUCTIONS

* Be sure to unplug the machine out of the outlet before disassembling and repairing the parts.

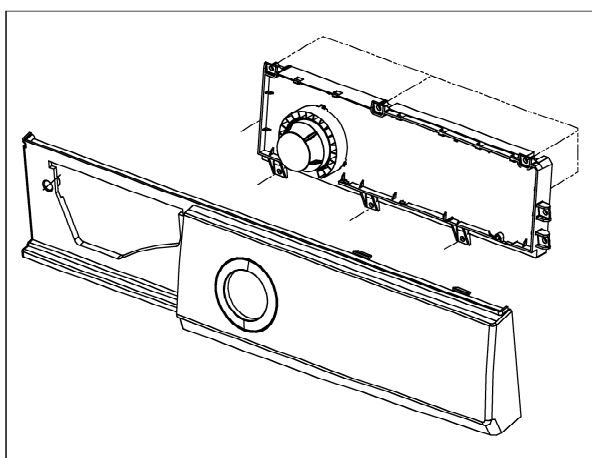
CONTROL PANEL



- ① Unscrew 2 screws on the back of the top plate.
- ② Pull the top plate backward and upward as shown.

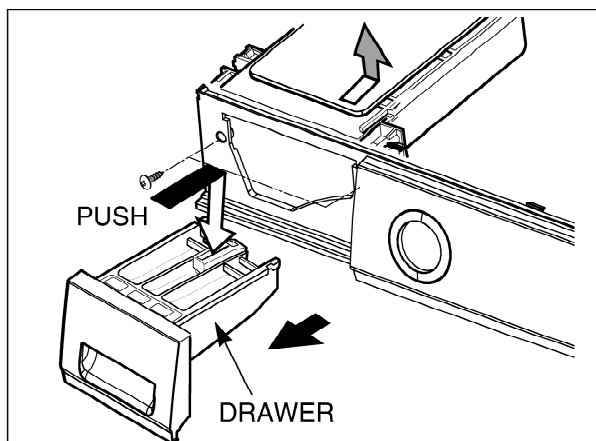


- ① Disconnect the PWB assembly connector from Main lead wire assembly.
- ② Pull out the drawer and unscrew 2 screws.
- ③ Push upper hooks down on the top and pull the control panel.

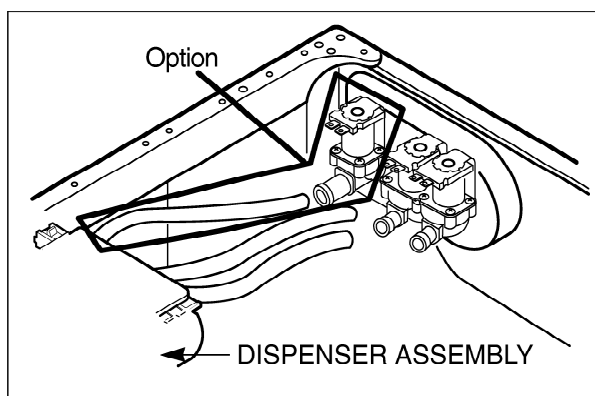


- ① Disconnect the PWB assembly (Main & Display) from the control panel by unscrewing 7 screws.

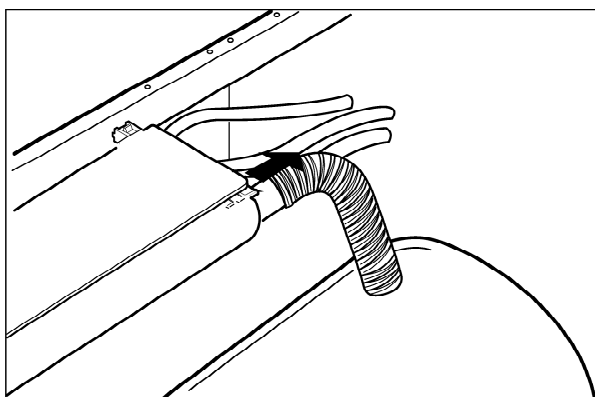
DISPENSER ASSEMBLY



- ① Disassemble the top plate assembly.
- ② Pull out the drawer to arrow direction.
- ③ Unscrew 2 screws.

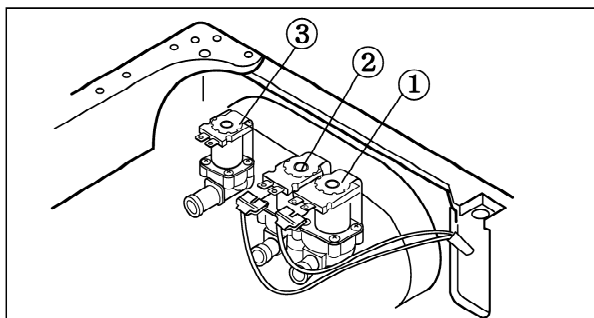


- ① The hose clamps and the hose are disassembled.



- ① The ventilation bellows and the water inlet bellows are disassembled on the tub.

INLET VALVE



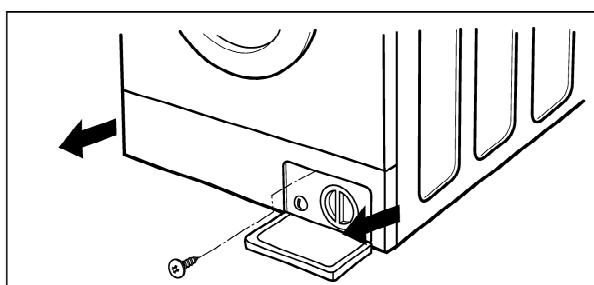
① Disconnect the wiring receptacle.

② Unscrew 2 screws from the back.

※ When reconnecting the connector

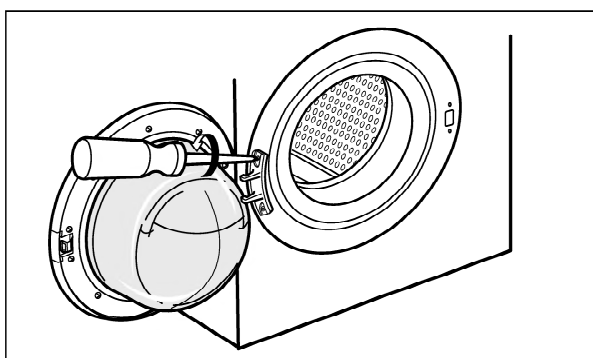
VALVE #1 (MAIN)	White / Black - Black
VALVE #2 (PRE)	Gray / White - Black
VALVE #3 (HOT)	Blue / Red - Black

LOWER COVER



■ Open the lower cover cap by using coin and pull out the lower cover to the arrow direction after a screw is unscrewed.

DOOR

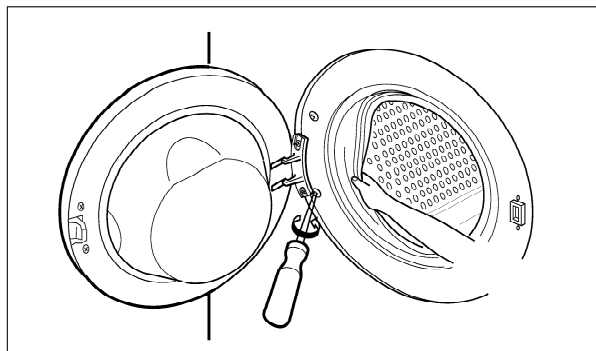


① Open the door completely.

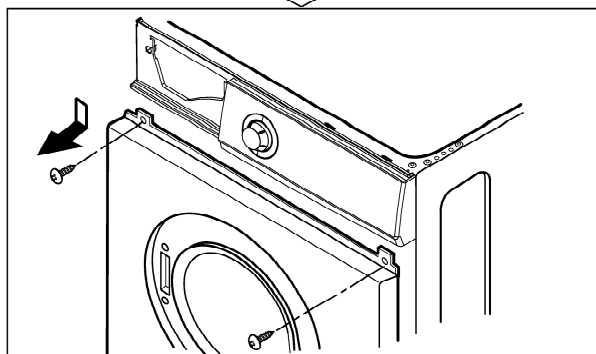
② Remove the two screws from the hinge.

※ When removing the door assembly, it is necessary to hold the bracket that is inner of the cabinet cover.

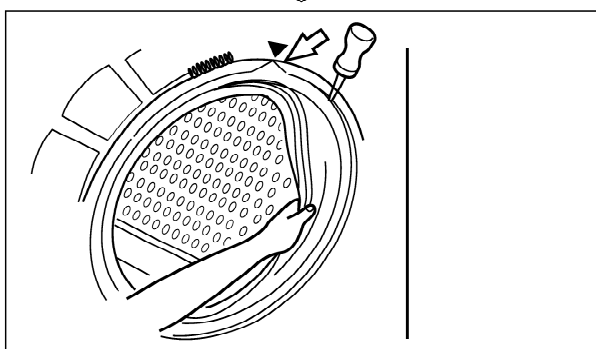
GASKET ASSEMBLY



- ① Take apart the cabinet gasket clamp.
- ② Unscrew 2 screws from the cabinet cover.
- ③ Open the lower cover cap and unscrew 1 screw inside.
- ④ Take apart the lower cover.

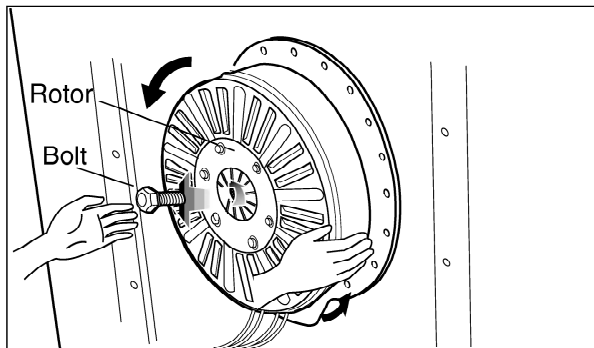


- ① Disassemble the control panel. (page 24)
- ② Unscrew all the screws on the upper and lower sides of the cabinet cover.



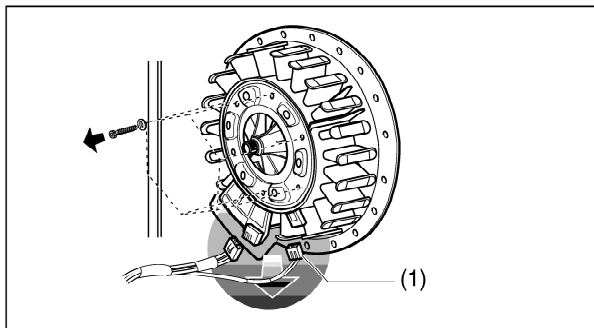
- ① Take apart the tub gasket clamp.
 - ② Make sure that the drain hole of the gasket is put beneath when reassembling the gasket.
- ※ Refer to the arrow mark on the tub cover.

ROTOR ASSEMBLY, STATOR ASSEMBLY, FRICTION DAMPER ASSEMBLY



(ROTOR ASSEMBLY)

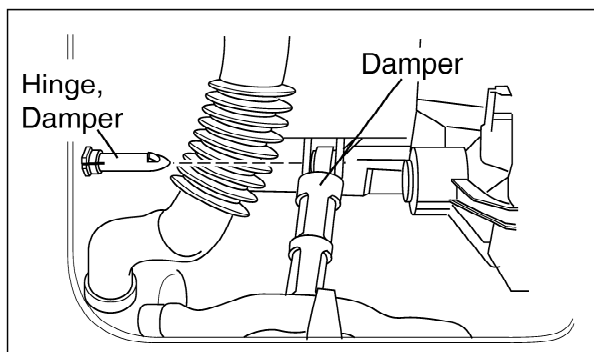
- ① Remove the BACK COVER.
- ② Unscrew the bolt to pull out the ROTOR assembly.



(STATOR ASSEMBLY)

- ① Disconnect the wiring connector.
- ② Unscrew 6 bolts from the STATOR.
- ③ Remove the STATOR.

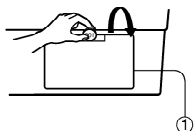
* Note : Hook of connector (1) is on the backside



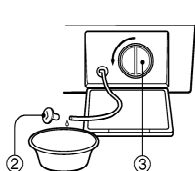
(DAMPER)

- ① Pull out the hinge, pressing its snap.
- ② Do not use the pulled-out hinge again. It may be taken off during operation.

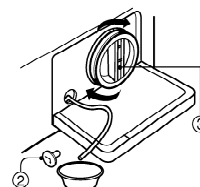
■ Clean the drain pump filter



Open the lower cover cap (①) by using a coin. Turn the drain plug (②) to pull out the hose.

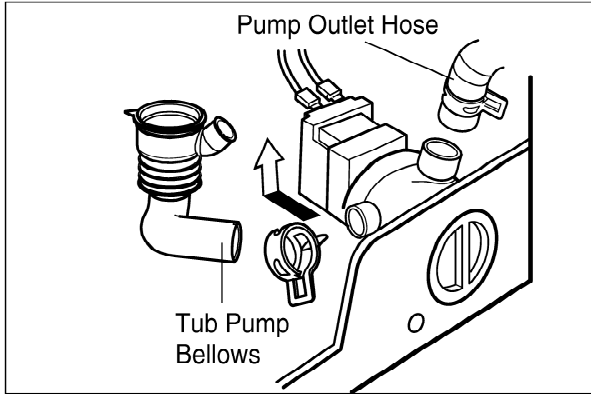


Unplug the drain plug (②), then the water flows out. At this time use a vessel to prevent water from flowing on the floor. If the water does not flow any more, turn the pump filter (③) open to the left.



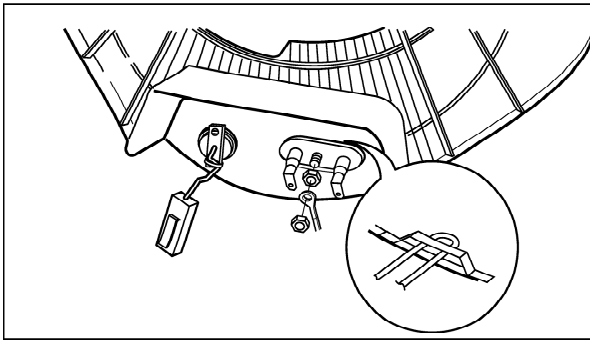
Take out any foreign material from the pump filter (③). After cleaning, turn the pump filter (③) clockwise and insert the drain plug (②) to the original place. close the lower cover cap.

PUMP



- ① Remove pump outlet hose.
- ② Remove tub pump bellows.
- ③ Remove cap (Remaining Hose.)
- ④ Disconnect the wiring.
- ⑤ Unscrew 2 screws.
- ⑥ Remove the pump.

HEATER

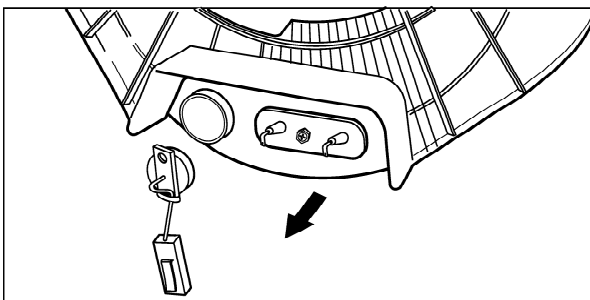


- ① Loosen the M6 heater nut to pull out the heater.

CAUTION

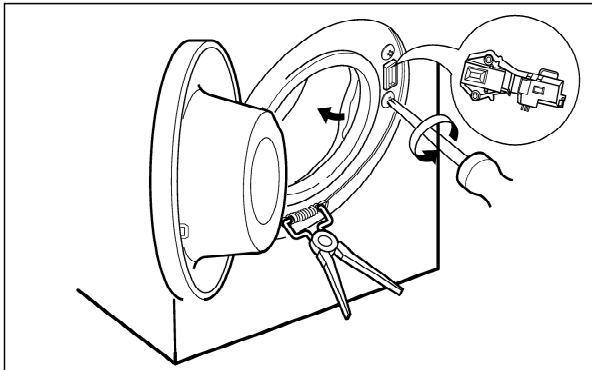
When mounting the heater, be sure to insert the heater into the heater clip on the bottom of the tub.

THERMISTOR



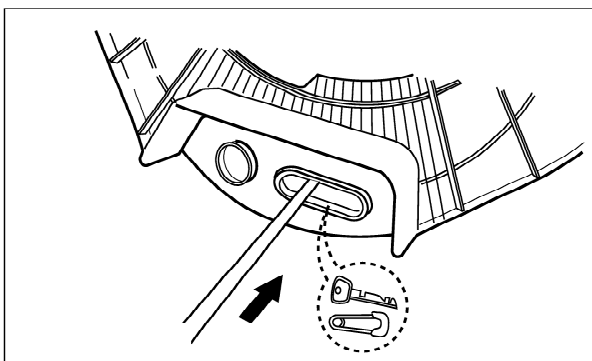
- ① Pull it out by holding the thermistor bracket.
* If it is pulled by the wire, it may be broken.
- ② When mounting the thermistor again, make sure that it is got back tight to the bushing.

SWITCH ASSEMBLY, DOOR LOCK



- ① Take apart the cabinet cover clamp and release the gasket.
- ② Unscrew 2 screws holding the door lock.
- ③ Disconnect the door lock from the wiring connector.

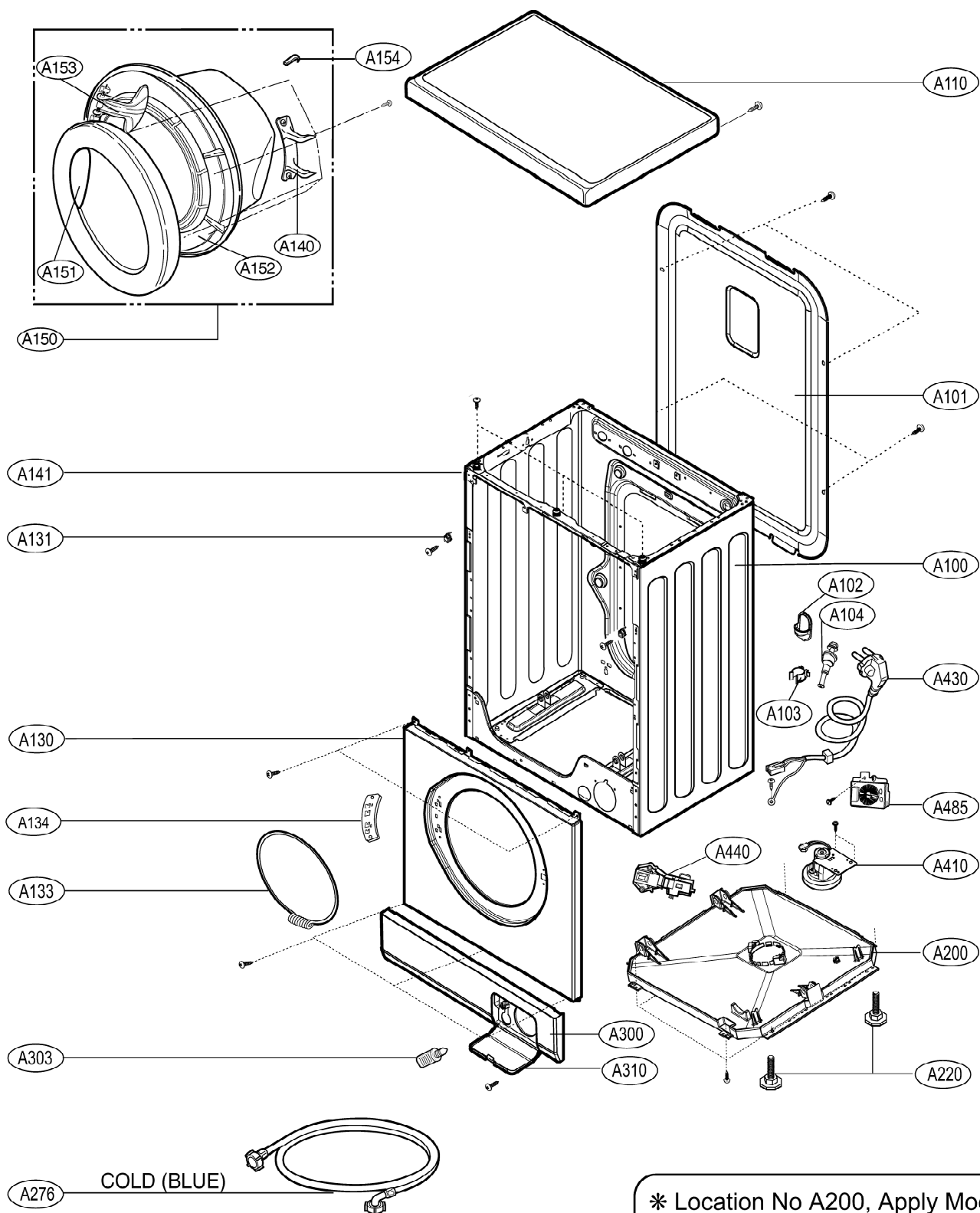
WHEN FOREIGN MATERIAL IS STUCK BETWEEN DRUM AND TUB



- ① Remove the heater.
- ② Remove the foreign material (wire, coin and others) by inserting a long bar through the hole.

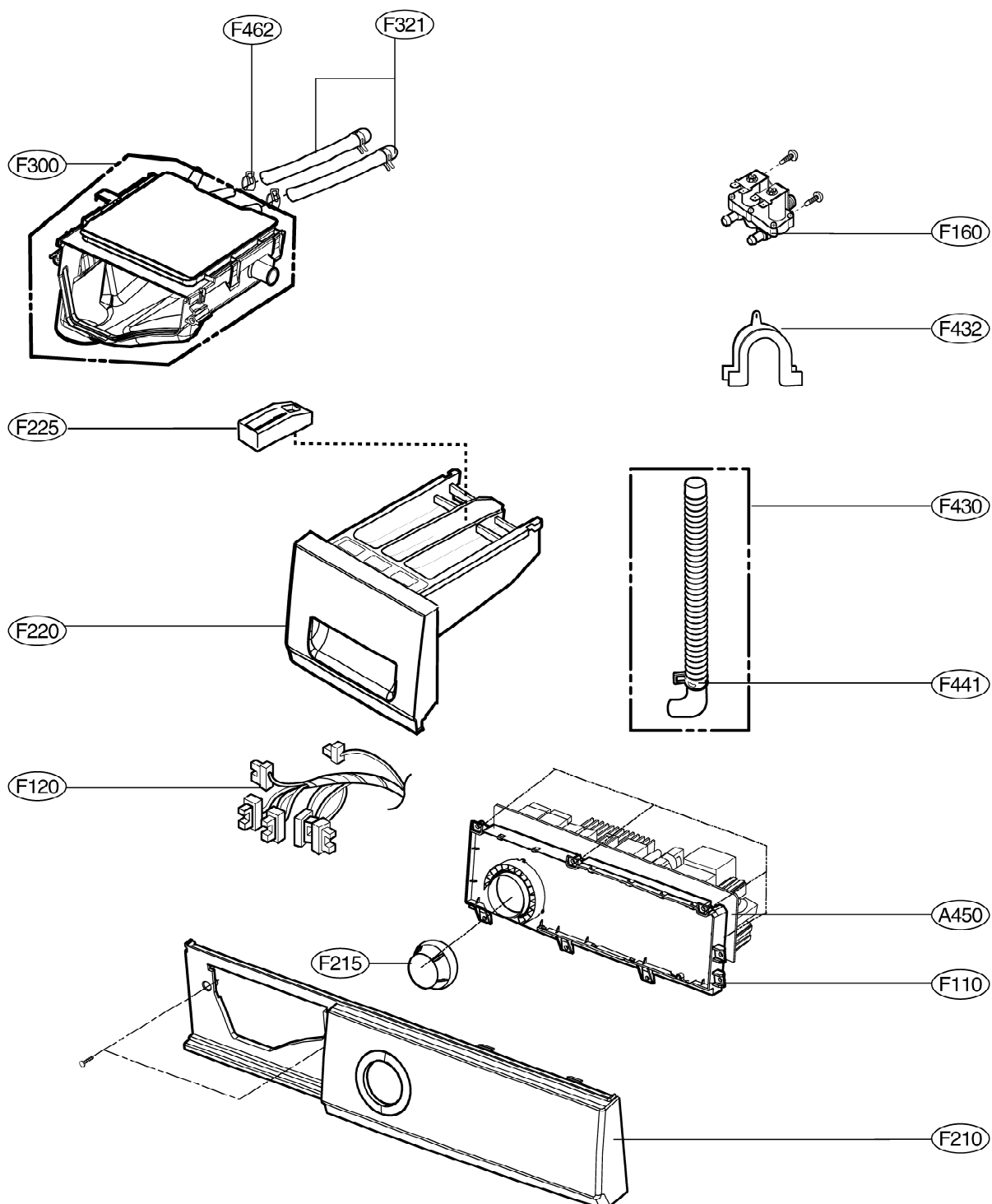
10. EXPLODED VIEW

10-1.THE EXPLODED VIEW OF CABINET ASSEMBLY



* Location No A200, Apply Model is WD-****TD(K)

10-2 THE EXPLODED VIEW OF CONTROL PANEL & DISPENSER ASSEMBLY



* Location No F216, Apply Model is
WD-**35(36)*TD(K)

10-3 THE EXPLODED VIEW OF DRUM & TUB ASSEMBLY

