2. FEATURES & TECHNICAL EXPLANATION

2-1.FEATURES

¡ Æ**LOW TANGLE AND LOW DAMAGE.**

Drum washing machine have uniform washing without damage and tangle by rubbing and beating.

¡ Æ**ADOPT FUZZY LOGIC.**

FUZZY denote that MICOM can set the optimal washing process by sensing laundry amount and temperature of ambience and water.

¡ Æ**LOW-NOISE.**

Low-noise washing and spinning is accomplished by adopting electronic motor control.

¡ Æ**LIGHT-WEIGHT**.

By reducing the weight of system dramatically to 63kg, it is easy to handle.

¡ Æ**RESERVATION. (DELAYED START)**

If necessary, the reservation time for washing can be set up by controlling the (TIME DELAY) button.

¡ Æ**EASY CHECK OF THE WATER TEMPERATURE IN WASHING.**

Water temperature is displayed by pressing the selection (WATER TEMP) button on washing.

¡ Æ**WHEN THE SETTING TEMPERATURE IS OVER 60 ¡ .**

Washed water is gradually decreased by repeating WATER INLET-RINSE-DRAIN to prevent the laundry from damage by water temperature sudden change.

¡ Æ**POWER SHOWER RINSE.**

The front of door sprays out the water to remove the remaining detergent with just a little amount water.

¡ Æ**PREFERRED TEMPERATURE SELECTION.**

Selected temperature from cold to heating(6 steps).

¡ Æ**CHILD-LOCK.**

The Child-Lock system has been developed to prevent children from processing any button to change the program during operation.

¡ Æ**RINSE HOLD.**

If you desire to leave your synthetic and wool fabrics in the machine after the wash program you may select the (RINSE HOLD) function to prevent them from getting wrinkled.

¡ Æ**Auto Restart**

Although the washing machine is turned off by a power failure, it restarts automatically in its stopped again and the process is properly adjusted and it will be the same when the machine unplugged in operation is plugged in again.

2-2.SENSING THE LAUNDRY AMOUNT

¡ PRINCIPLE : After the first water supply, the laundry absorbs the water with the revolution of drum, which causes the decrease of water level.
Micro-Processor senses decreased water level and makes water to be supplied more and recognizes he amount of the laundry by calculating the times of complementary water supply.

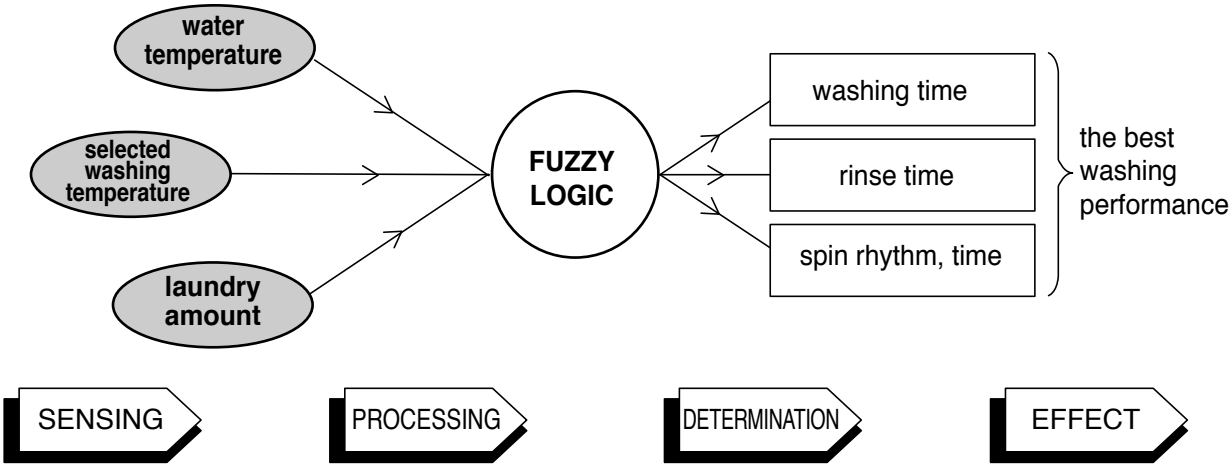
¡ Criteria :

AMOUNT OF LAUNDRY	TIMES OF COMPLEMENTARY WATER SUPPLY
below 2.0§,	1~2 times
above 4.5§,	3 times or more

¡ The times of water supply depends on amount of laundry, material of laundry and water temperature etc.

2-3.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.



2-4.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 water supply is stopped, then washing program proceeds.

¡ Spinning does not proceed until the water in the tub reduces to a certain level.

2-5.CONTROL OF DOOR OPEN

ƒU The door can be opened by pressing (DOOR OPEN)  button after finishing program.

ƒU When the revolution of drum is stopped and in case water level is below level 2, door can be opened by pressing the (DOOR OPEN)  button.

ƒU If there is no power, the door can be opened by revolving the door opener.
(If the water level is high, first drain the water by pulling out the hose cap)

2-6.IN CASE OF NOT OPEN THE DOOR

ƒU Power is off or unplugged.

ƒU Program is operating.

ƒU (DOOR LOCK) 

light turn on.

ƒU Motor(Drum) is spinning(Rotating).

2-7.IN CASE OF¡ ADOOR LOCK ¡ BLIGHT TURNS ON

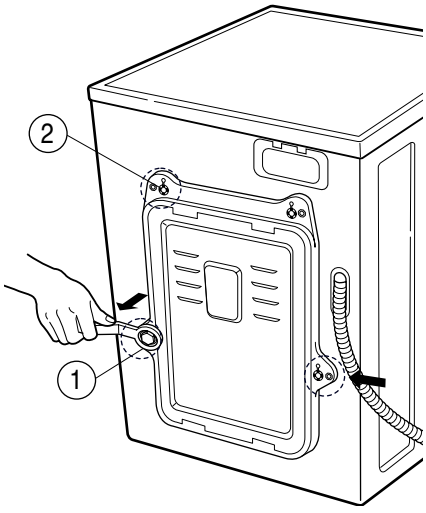
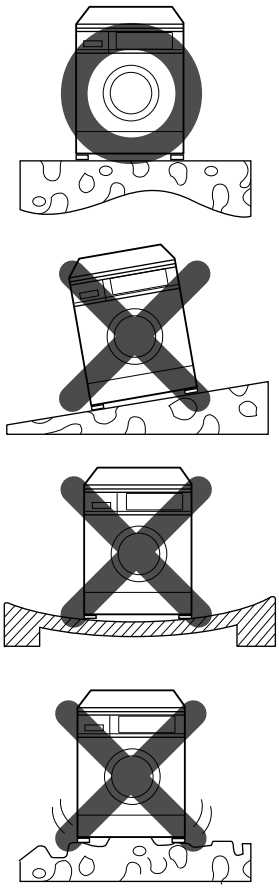
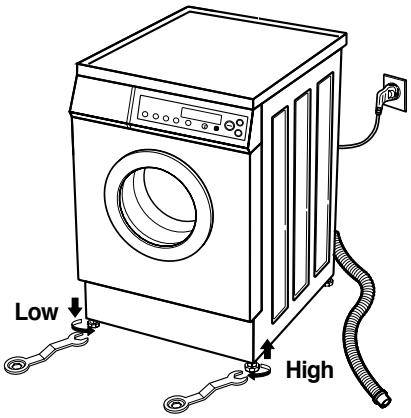
ƒU Water level frequency is below 23.2kHz.(Water level is high)

ƒU In the tub water temperature above 45 ¡

4. INSTALLATION

¢ Before servicing ask troubles of customers
¢ Check the adjustment(power supply is 220-240V, remove the transit bolts....)
¢Ł Check the troubles referring to the trouble shooting.
¢Ø Decide the step of service referring to disassembly and instructions.
¢Œ And then, service and repair.
¢º After servicing, operate the appliance whether it works Q K or NOT.

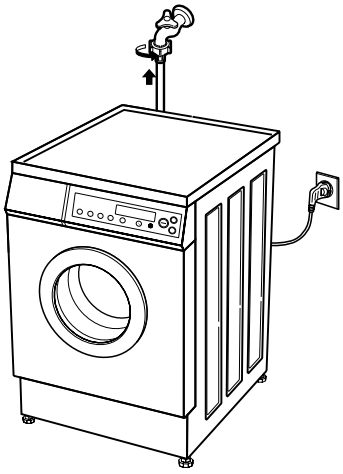
¡Æ STANDARD INSTALLATION
The appliance should be installed as follows.

REMOVE THE TRANSIT BOLTS	INSTALL THE APPLIANCE ON FLAT AND FIRM SURFACE	ADJUST THE HORIZONTAL
ƒU Remove the transit bolts (4EA:¤)with supplied spanner. ƒU Keep the transit bolts and spanner for future use. ƒU Insert the 4 caps(¤Ł)provided into the hole 		ƒU Turn the leveling feet to set the appliance horizontally.  ƒU The appliance goes up by rotating the feet clockwise direction. ƒU The appliance come down by rotating the feet counter clockwise direction.

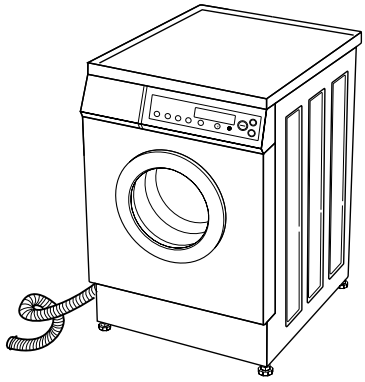
¡ Æ HOW TO CONNECT INLET HOSE

ƒ UCheck that the rubber packing is inside of the valve connector.

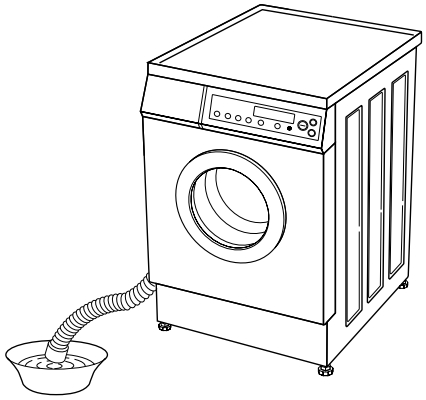
ƒ UConnect the inlet hose firmly to prevent leak.



¡ ÆCONNECT DRAIN HOSE



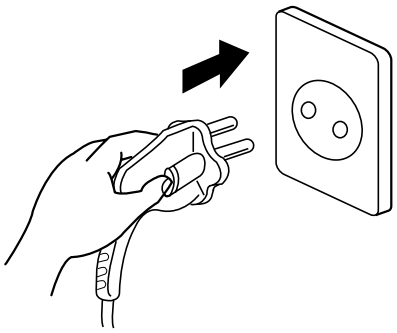
¡ / Make sure that the hose is not twisted.



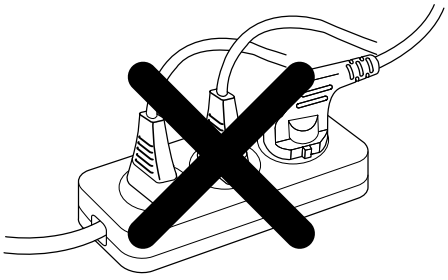
¡ / Avoid submerging the end of the hose.

¡ The drain hose should be placed under 85§fIfrom the floor.

¡ ÆCONNECT POWER PLUG



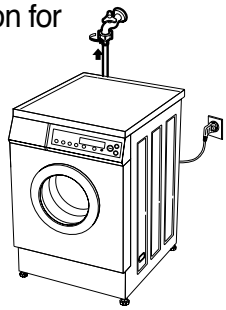
¡ / Connect the power plug to the wall outlet.



¡ / Avoid connecting several electric devices,
It may be the cause of the fire.

£GTEST OPERATION

1 Preparation for washing.



ƒUConnect the power plug to the outlet.
ƒUConnect the inlet hose.

2 Press the POWER ( ) button.

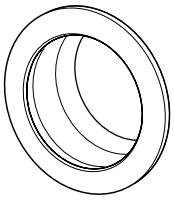
¡ /In case of coloreds program.

3 Press the PROGRAM ( ) button.

¡ /In case of coloreds program.

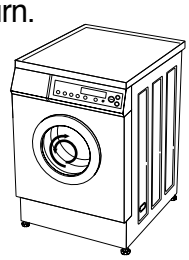
4 Press the (START/PAUSE) ( ) button.

5 Check the water supply.



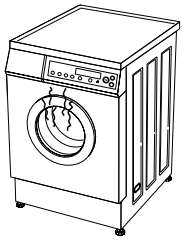
¡ /Check shower because the water supplied on the door at first.

6 Check automatic reverse turn.



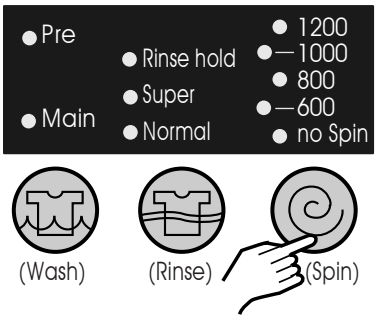
¡ /Check if the drum rotates to clockwise and counterclockwise.

7 Check the water heating.

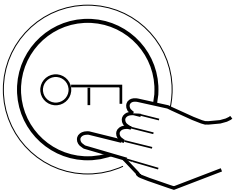


¡ /Press the button (WATER TEMP) ( ) and then the present temperature in displayed.

8 Check the drain and spin

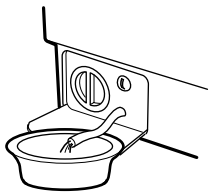


9 Power off



¡ /After power off, press the DOOR OPEN ( ) button to check the door open.

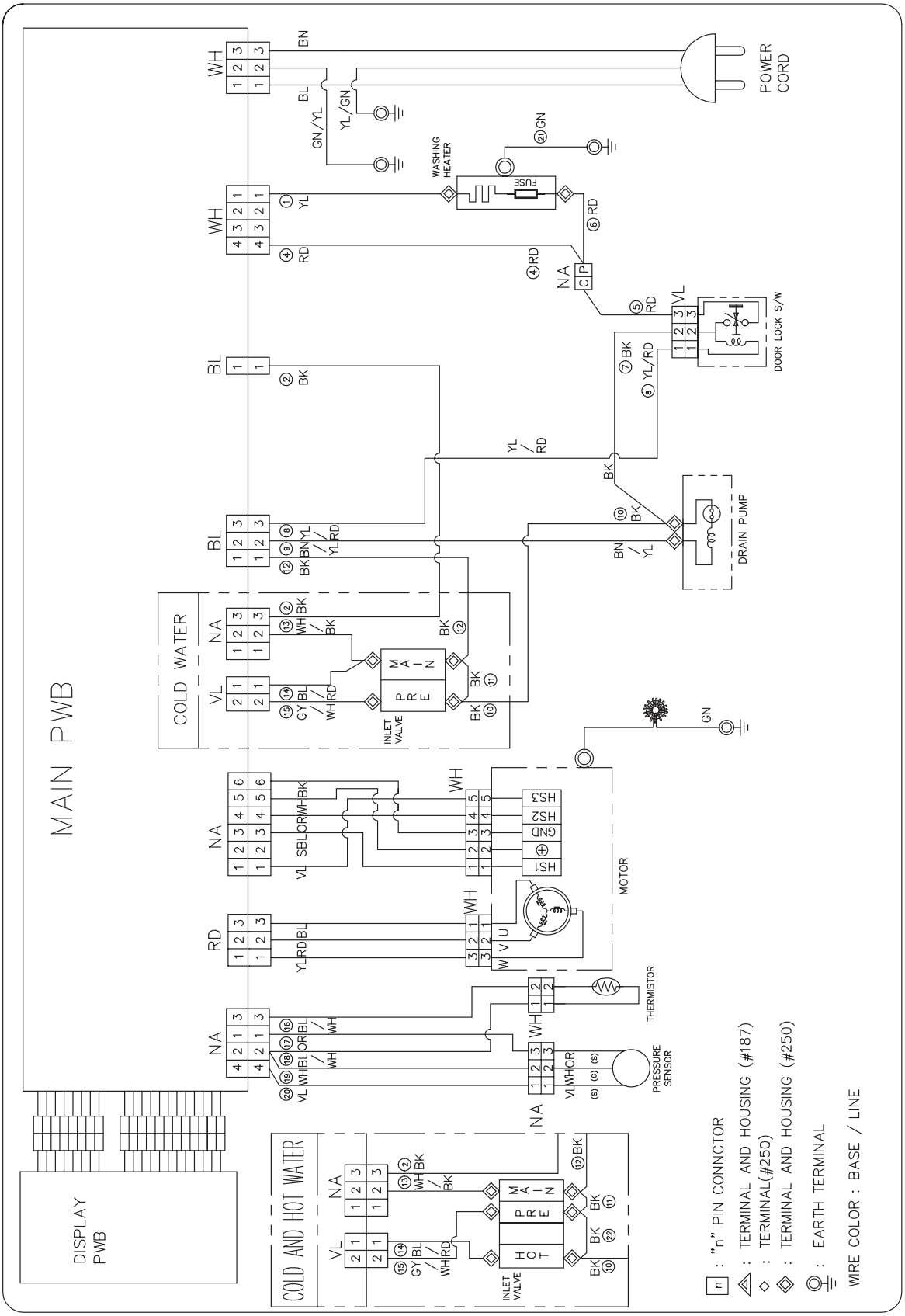
10 Water removal



¡ /If SVC is needed, during check and remove the remaining water by pulling out the hose cap.

ƒUTrouble shooting refer to (7.ERROR DISPLAY)
ƒUAssemble and disassemble refer to (9.Disassembly Instructions)

6. WIRING DIAGRAM



7. TROUBLE SHOOTING

7-1.BEFORE SVC CHECKING

¡ ÆBe careful of electric shock or disconnecting the parts while trouble shooting.

¡ ÆVoltage of each terminal in AC 220-240V and DC while applying an electric current.

7-2.QC TEST MODE.

¤ Pressing RINSE( ), and SPIN ( )button simultaneously.

¤Ł Power supply ON with pressing upper two button. then buzzer sound twice.

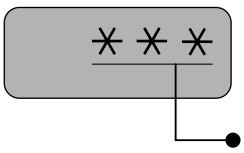
¤Ø Press the START/PAUSE ( )button as follows.

¡ æPress the START/PAUSE ( )button more 4 times until stop spinning ¡ b

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 45)
2 times	Low speed Spin	Motor rpm(About 63~67)
3 times	High speed Spin	Motor rpm(About 114~117)
4 times	Inlet valve for pre-wash operation	Water level frequency(25~65)
5 times	Inlet valve for main-wash operation	Water level frequency(25~65)
	Hot inlet valve in case of hot water fill	
6 times	Inlet valve for main-wash operation	Water level frequency(25~65)
7 times	Counterclockwise spin(left)	Motor rpm(About 45)
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

ƒ RPress the WASH ( ) and RINSE ( ) button simultaneously.



The digits means water level frequency(10^{-1} §)

ex) 241 : Water level frequency = 241 ¡ ¿10^{-1} §

=24.1§

7-4.ERROR DISPLAY.

ƒU If you press the ¡aStart/Pause ¡b button in error condition, any error except '**PE**' will disappear and the machine will change into pause status.

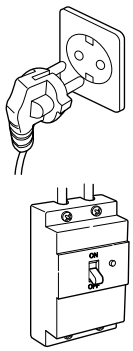
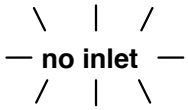
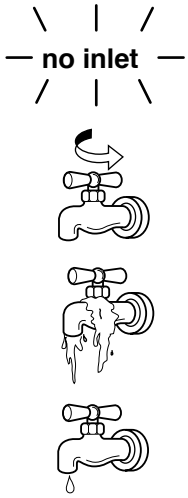
ƒU In case of ¡GPE ¡H ¡GtE ¡H ¡GdE ¡H if the error is not resolved within 20 sec., and in case of other errors, if the error is not resolved within 4 min., power will be turned off automatically and the error only will be blinked. But in case of ¡GFE ¡H power will not be turned off.

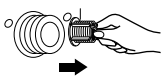
	ERROR	SYMPTOM	CAUSE
1	WATER INLET ERROR	\ | / — **NO INLET** — / | \	§ Water has not reached to the pre-set level within 4 min. since inlet valve operated or water has not reached to the normal level within 25 min.
2	IMBALANCE ERROR	\ | / — **IMBALANCE** — / | \	§ The appliance is tilted. § Laundry is gatherd to one side. § Non distributable things are put into the drum.
3	DRAIN ERROR	\ | / —**NO DRAIN**— / | \	§ Water has not drained enough within 5 min.
4	OVER FLOW ERROR		§ Water is automatically being pumped out because too much water is in the tub.
5	SENSOR PRESSURE S/W ERROR		§ The sensor pressure switch is out of order.
6	DOOR OPEN ERROR		§ The ¡aStart/Pause ¡b button is pressed with the door open. § The door switch is out of order.
7	HEATING ERROR		§ The thermistor is out of order.
8	SENSOR ERROR		§ The connector (5pin, male, white) in the Wire Harness is not connected to the connector (5 pin, female) of Hall Sensor in the MOTOR. ƒ_' reconnect or repair the contact in the connector

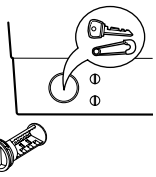
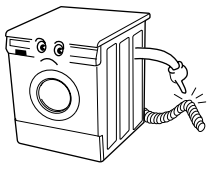
	ERROR	SYMPTOM	CAUSE
8	SENSOR ERROR		• The electric contact between the connectors (5 pin, male in the Wire Harness and 5 pin female in the Hall Sensor) is bad or unstable. ƒ_ Reconnect or repair the contact in the connector • The connector (6 pin, male, natural) in the Wire Harness is not connected to the connector (6 pin, female, natural) of PWB ASSY(Main) or the electric contact of connectors is bad/unstable. ƒ_ Reconnect or repair the contact in the connector • The electric contact between the connectors¡ a6 pin, male in the Wire Harness and 6 pin female in the controller(Main) ¡ lis bad or unstable. ƒ_ Reconnect or repair the contact in the connector • The Wire Harness between Hall Sensor in the MOTOR and PWB ASSY(Main) is cut(open circuited). ƒ_ Repair/replace the damaged WIRE HARNESS • The Hall Sensor is out of order/defective. ƒ_ Replace the Motor • The controller(Main) is out of order/defective. ƒ_ Replace the PWB ASSY(Main)
9	CURRENT ERROR		• PWB ASSY(Main) is out of order ƒ_ Replace the PWB ASSY(Main) • Winding in the MOTOR is short-circuited. ƒ_ Replace the MOTOR
10	LOCK ERROR		• The Connector(3 pin, male, white) in the Wire Harness is not connected to the Connector(3 pin, female, white) of MOTOR. ƒ_ Reconnect or repair the connector • The electric contact between the connectors¡ a3 pin, male, white in the Wire Harness and 6 pin, female, white in the PWB ASSY(Main) ¡ lis bad or unstable. ƒ_ Reconnect or repair the contact in the connector • The Wire Harness between the MOTOR and PWB ASSY(Main) is cut(open circuited). ƒ_ Repair the damaged(open-circuited) WIRE HARNESS • The hall sensor is out of order/defective. ƒ_ Replace the PWB ASSY(Main)

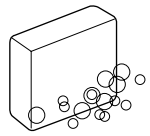
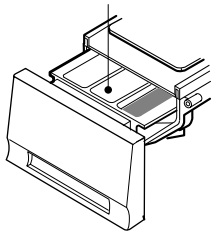
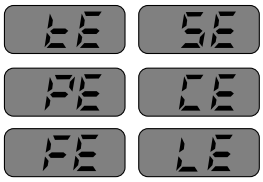
8. ERROR DIAGNOSIS AND CHECK LIST

8-1.DIAGNOSIS AND ANSWER FOR ABNORMAL OPERATION

<table>
<tr><th>SYMPTOM</th><th>GUIDE FOR SERVICE CALL</th></tr>
<tr><td>NO POWER</td><td>Is the power plug connected firmly to AC220-240V outlet?
YES
Power failure? or Breaker opened?
NO
Visit to check
  </td></tr>
<tr><td>Water inlet trouble
  </td><td>Is "no inlet" displayed?
YES
Is the tap opened?
YES
Is the tap frozen?
NO
Is the water supply shut-off?
NO
Is filter in the inlet valve clogged with foreign material?
YES
Clean the filter of inlet valve
NO
Visit to check
 

  </td></tr>
</table>

SYMPTOM	GUIDE FOR SERVICE CALL
¥ Door open trouble ¥ Error displayed on the program 	When the door opened, Is the started or on the program¡C TIME DELAY¡D ? **YES** →  Close the door  **NO** Didn't you press the DOOR OPEN ( ) button when water remained in the tub? **YES** → 1. Press the START/PAUSE ( ) button to stop the appliance. 2. Drain water by selecting spin. 3. Open the door by pressing the DOOR OPEN( ) button. **NO** Isn't door opened in spite of pressing the DOOR OPEN ( ) button **NO** Visit to check ¡ ·**Check if the door switch is O¡ /K.¡**
¥ Drain Trouble **— no drain —**	Is "no drain" displayed? **YES** Is the foreign material clogged in the drain pump filter such as pin, coin and etc.? **YES** → Clean up the filter. **NO** Is the Drain Hose frozen with water, kinked or cursched? **NO** Visit to check **— no drain —**  

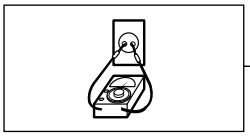
SYMPTOM	GUIDE FOR SERVICE CALL
¥ Lather overflow from the appliance. (In this condition, wash and spin do not operate normally)	Is Low-lathering detergent for the drum washing machine used? **YES** Is the proper amount of detergent used as recommended? **YES** Recommend to reduce the using amount of detergent.  LOW LATHERING DETERGENT ƒT This appliance has the automatic suds sensing function which operates under much suds condition for good rinse and preventing overflow. ƒT When much suds are sensed, suds removing fuction such as drain, water input and pause will operate without rotating the drum.
¥ No effect of softener	Is softener put in the correct compartment of drawer? **YES** Is the drawer closed during wash? **YES** Is the softener cap clogged? **YES** Explain how to use softener ¡ ·**Clean the compartment for softener** ¡ Compartment for softener 
¥ Error displayed as follows	Visit to check 

8-2.FAULT DIAGNOSIS AND TROUBLE SHOOTING

CAUTION

1. Be careful of electric shock or disconnecting the parts while trouble shooting.
2. First of all, check the connection of each part terminal with wiring diagram.

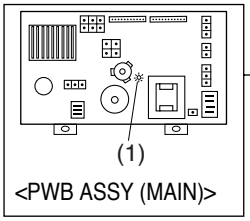
NO POWER



When measuring the voltage of the outlet, is the voltage AC 220-240V?

NO → Check the fuse?

YES

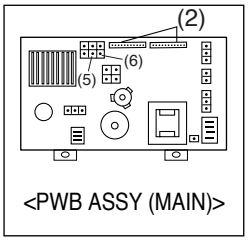


<PWB ASSY (MAIN)>

Is the LED(1) on?

NO → Replace PWB assy (Main)

YES



<PWB ASSY (MAIN)>

When measuring the voltage of natural connector(5,6) is the voltage DC 10~16.5V?

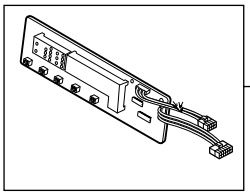
NO → Replace PWB assy(Main)

YES

Is connector(2) disconnected or disassembled?

YES → Reconnect the PWB assy (Display)

NO



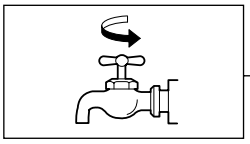
Is wire of the PWB assy(Display) disconnected?

YES → Reconnect the PWB assy (Display)

NO

Replace PWB assy(Display) (6871FC2272D)

NO WATER SUPPLY

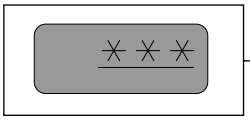


Is the water supply shut-off?

NO

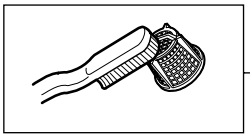
Is tap opened? **NO** → Open the tap.

YES



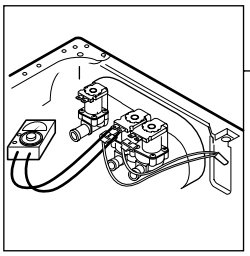
When you press both WASH( )button and RINSE( ) buttons simultaneously, is the water level frequency below 240? **YES** → Check the chamber(Air) and the tube clogged with impurity.

NO



Is the inlet valve filter clogged with impurity? **YES** → Clean the filter.

NO

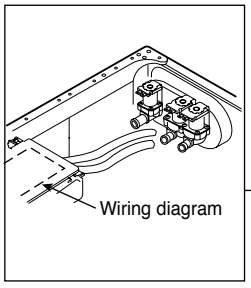


Is resistance of the inlet valve connector between 2 to 8 k§ ? **NO** → Replace the inlet valve.

YES

Check the voltage between each terminal of inlet valve is AC 220~240V. (Refer to 7-2 TEST MODE) **NO** → Replace the PWB assy (Main).

DETERGENT DOES NOT FLOW IN

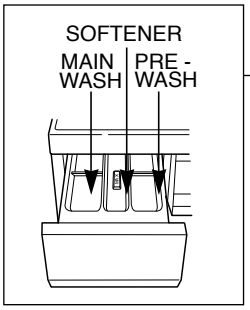


Is the water supplied? **NO** → Refer to solution ¡ Ano inlet ¡ B

YES

Are receptacles correctly connected to the therminals of inlet valve? **NO** → Check the wiring on the dispenser.

YES



Is detergent put in the correct compartment of the drawer? **NO** → Put the detergent in the correct position

PRE+MAIN ● ●

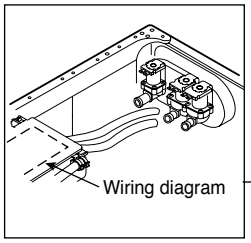
MAIN WASH ● ( )

● : Detergent

YES

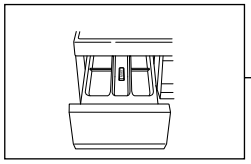
Is the detergent hardened? **YES** → Clean the drawer.

SOFTENER DOES NOT FLOW IN

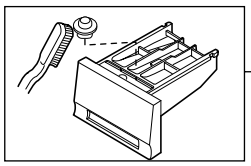


Is the water supplied?
- NO → Refer to ¡ANO WATER SUPPLY¡B
- YES ↓

Are receptacles correctly connected to the terminals of inlet valve?
- NO → Check the wiring on the dispenser.
- YES ↓

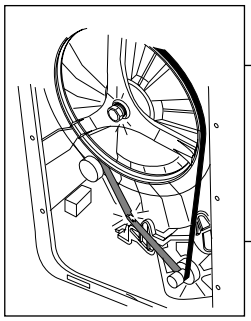


Is the softener put in the correct compartment of drawer?
- NO → Put in the correct compartment.
- YES ↓



Is the softener cap clogged?
- YES → Clean the cap and drawer.

ABNORMAL SOUND

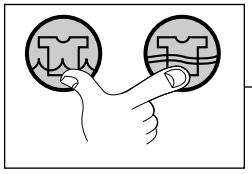


Is the pulley bolt loosened?
- YES → Fix the bolt tightly.
- NO ↓

Is the belt worn?
- YES → Replace the V-belt (4400FR3116A)
- NO ↓

Is there friction noise from the motor?
- YES → Replace the motor.

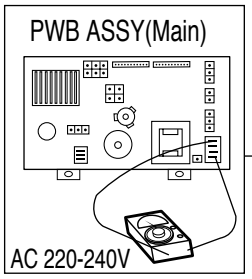
HEATING WITHOUT WATER



When pressing WASH ( ) and RINSE ( )button at the same time after draining, is the water level frequency 252 or more?
When pressing WASH ( ), RINSE ( ) buttons at the same time while wash, is the water level frequency between 220~240?

NO → Replace the sensor (pressure)

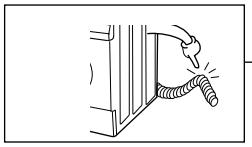
YES



Checking voltage between two pins as press the power Button is the voltage AC 220~240V?

NO → Replace the PWB assy (Main)

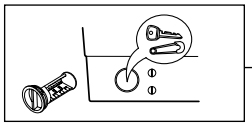
DRAIN MALFUNCTIONING



Is the drain hose twisted or frozen?

YES → Repair drain hose

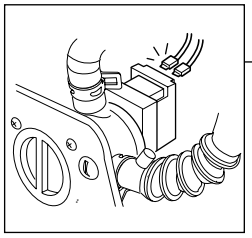
NO



Is the impeller of drain pump clogged?

YES → Remove foreign material.

NO



Is the connector disconnected, disassembled?

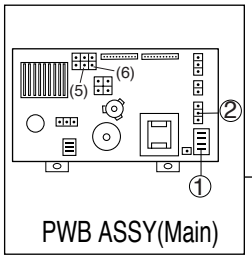
YES → Reconnect or repair the connector

NO

Is the coil of drain pump cut-off?
(resistance of coil is 90~160¥)

YES → Replace the pump assy

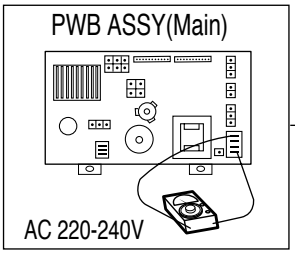
NO



When checking voltage between connectors (¥L, ¥M)on spinning, is the voltage AC 220-240V as the figure?

NO → Replace the PWB assy (Main)

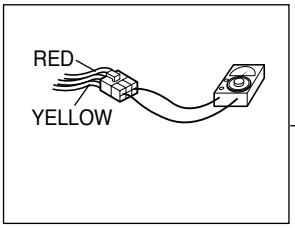
WASH HEATER TROUBLE



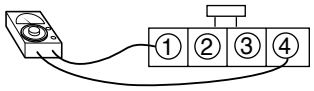
When checking the voltage between connector the PWB assy(Main)during whites washing ,Is the voltage 220 ~ 240V?

NO → Replace the PWB assy (Main)

YES ↓

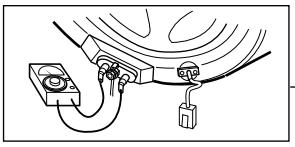


After power off,is the resistance of wire (RED-YELLOW) connectors between 10Ω to 30Ω?



YES → Normal

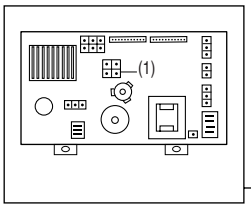
NO ↓



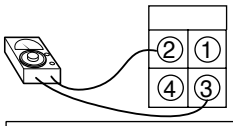
After power off and the heater terminal is disconnected, is the resistance 10 to 30Ω?

NO → Replace the heater assy

HEATING CONTINUOUSLY ABOVE THE SETTING WATER TEMPERATURE

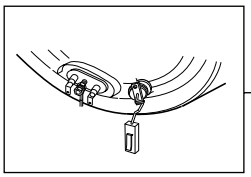


When disconnect the connector(1) on the PWB assy (Main) is the resistance of the Natural connectors¡ æ¤Ł(Blue/White, Violet), ¤Ø(Blue, White) ¡Þbetween 2.5k¥ to 180k¥ (105¡ ~0¡)?



NO → Replace the thermistor (6322FR2046B)

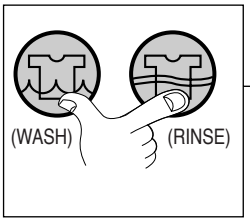
YES ↓



When checking thermistor on the tub cover, is the thermistor loosened above 2mm from the rubber?

YES → Push the thermistor tightly to the rubber.

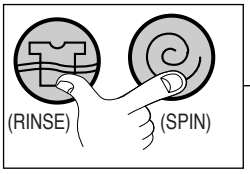
SPIN TROUBLE



Check on the spinning, is the frequency of the water level 248 or more. The frequency can be checked by pressing the WASH ( ) and RINSE ( ) buttons at the same time on the program.

NO → Check the sensor (Pressure) or hose (Sensor).
If the problem is on the sensor or the hose, replace the sensor or the hose.

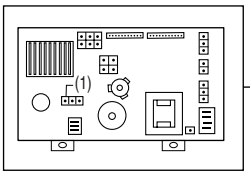
YES



When pressing RINSE( ), SPIN( ) and POWER( ) buttons at the same time after power off, press the START/PAUSE ( )button 2 times, is the drum low speed spin?

YES → Normal

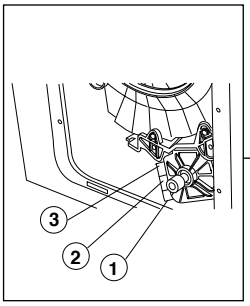
NO



Is it disconnected, or disassembled?
¡ aRed:3pin(1) ¡ b

YES → Correct the connector.

NO



Check the motor connector, is the resistance of the terminal same as the figure?

MOTOR TERMINAL

¤	¤Ł	¤Ø

Resistance of terminal:
¤ ~ ¤Ł / ¤Ł~ ¤Ø / ¤Ø~ ¤ : About 6.5§

NO → Replace the motor assy.
(4681FR1241B)

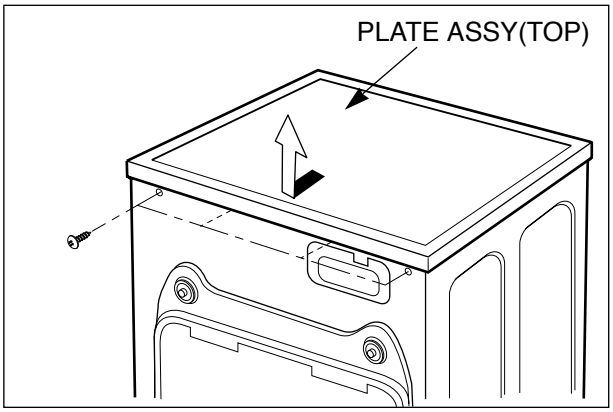
YES

Replace the PWB assy (Main)

9. DISASSEMBLY INSTRUCTIONS

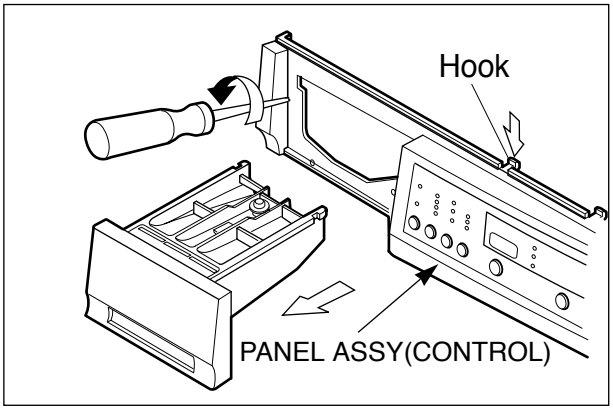
ƒRDisassemble and repair the parts after pulling out power cord from the outlet

CONTROL PANEL



¤ Two screws are unscrewed on the top plate.

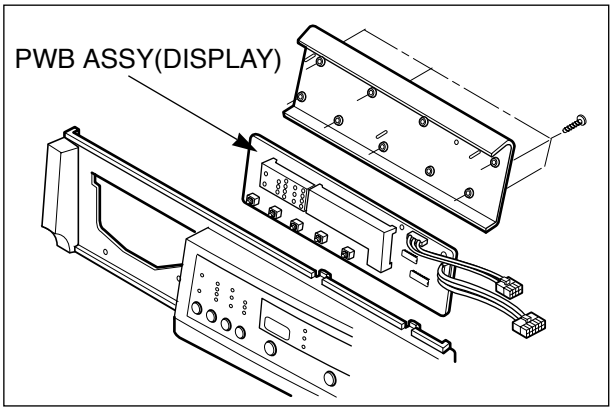
¤Ł The plate assy(Top) is pulled back and then upward to arrow direction.



¤ The PWB assy(Display) connectors are disconnected.

¤Ł Pull out drawer, three screws are unscrewed.

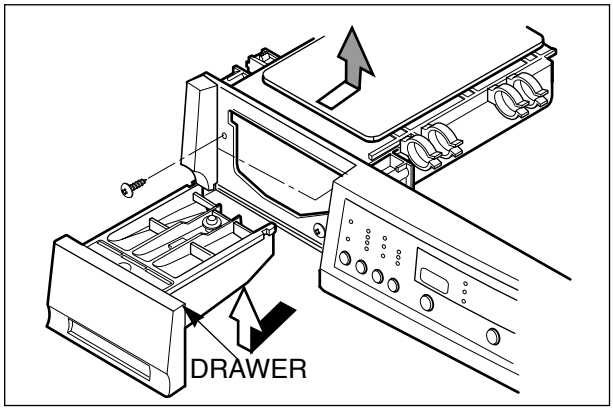
¤Ø Push two upper hooks and pull the control panel forward.



¤ The PWB assy(Display) is disconnected.

¤Ł When 9 screws are unscrewed on the PWB insulator and the PWB assy(Display) is disassembled from the PWB insulator.

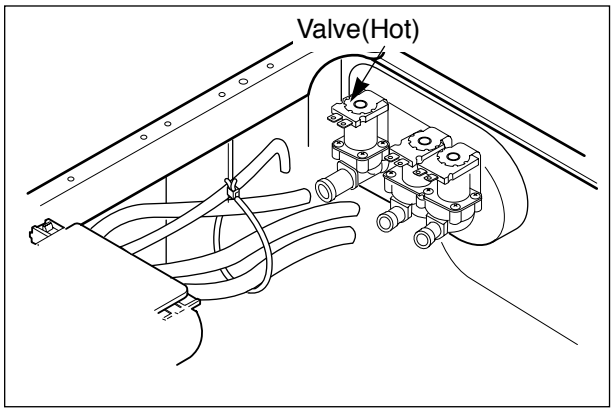
DISPENSER ASSY



¤ Disassemble the top plate assy.

¤Ł Pull the drawer to arrow direction.

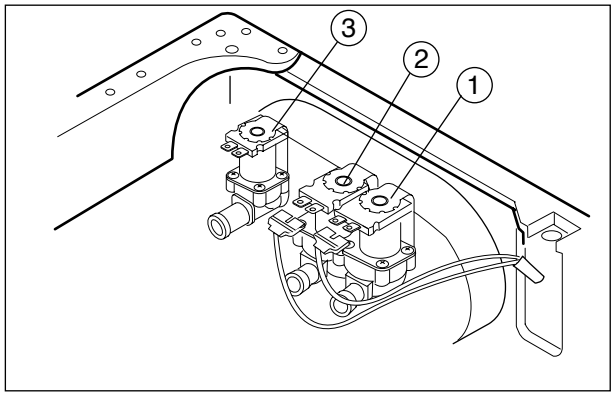
¤Ø Two screws are unscrewed.



¤ The hose clamps and the hose are disassembled.

¤Ł The ventilation bellows and the water inlet bellows are disassembled on the tub.

INLET VALVE



¤ Disconnect the wiring connector.

¤Ł Unscrew 2 screws from the back.

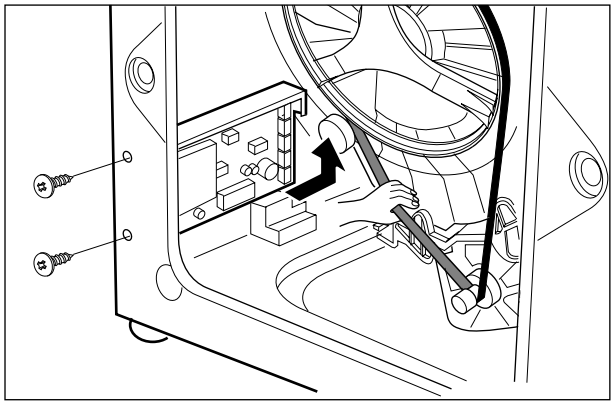
ƒ T When reconnecting the connector

VALVE#1(MAIN)	White/Black - Black
VALVE#2(PRE)	Gray/ White - Black

VALVE#3(HOT)	Blue/Red-Black

¡ aWD-1223FH/1225FH/1243FH/1245FH ¡ b

PWB ASSY(MAIN)

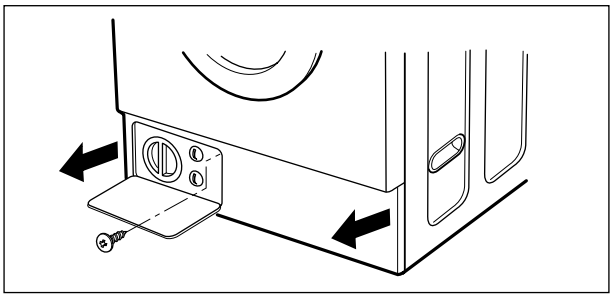


¤ The back cover is removed.

¤Ł Unscrew 2 screws

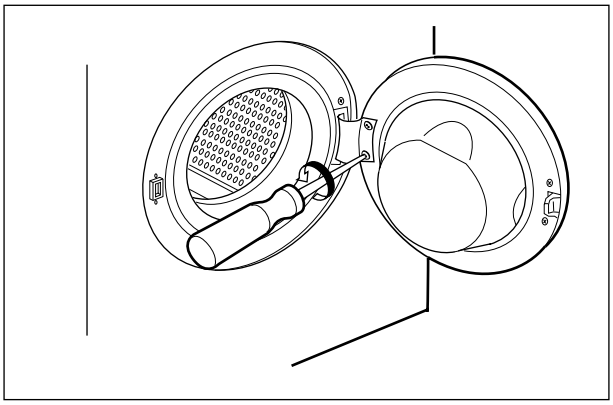
¤Ø Pull the PWB assy (Main) as shown.

LOWER COVER



§ Open the lower cover cap by using coin and remove the lower cover to arrow direction after screw is unscrewed.

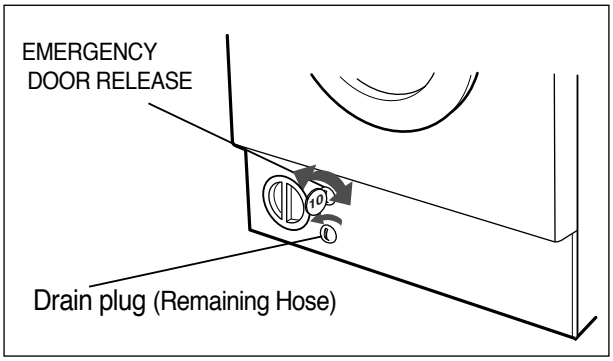
DOOR



¡ When the power cord is plugged, the door can be opened by pushing the DOOR OPEN ( ) button

¤ Open the door completely.

¤Ł Remove the two screws from the hinge.



Door opening method in case of no electricity

¤ Rotate the emergency door release counterclockwise, by a coin.

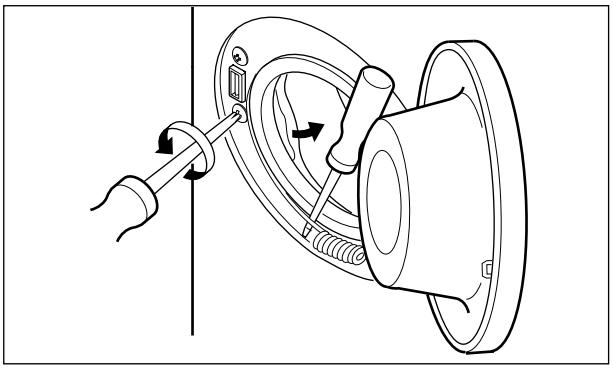
Removing method of remained water

¤ Rotate the drain plug (remaining hose) to arrow direction.

¤Ł Pull it out from hose.

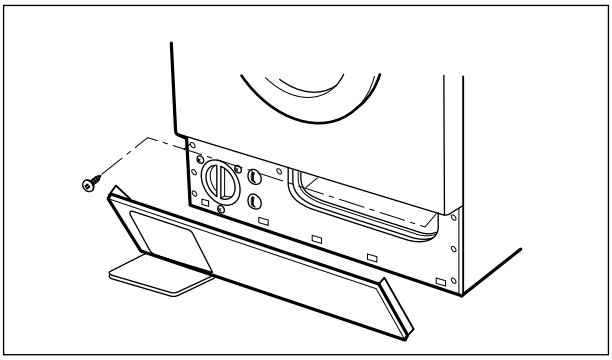
¡ First, prepare a bucket to put in the remained water

GASKET ASSY



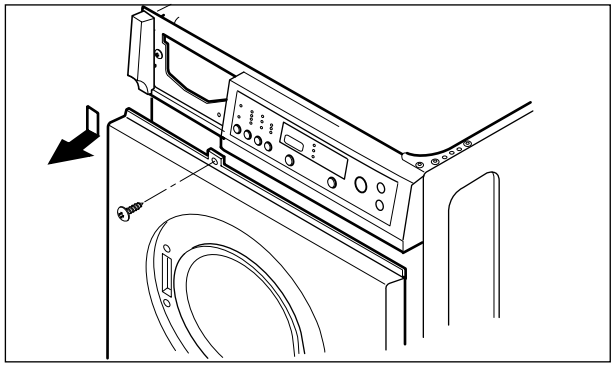
¤ The cabinet gasket clamp is released.

¤Ł Two screws are unscrewed from the cabinet cover.



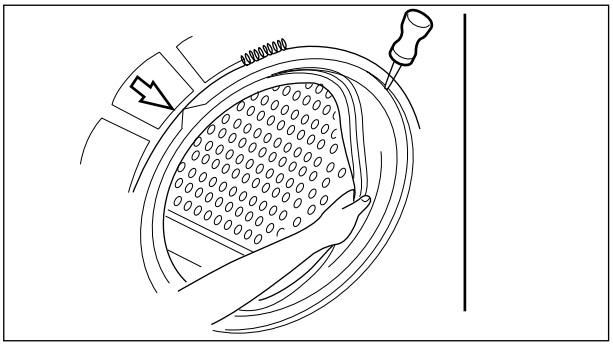
¤ Three screws are unscrewed from the lower cover.

¤Ł The lower cover is disassembled.



¤ The control panel is removed.

¤Ł Screw is unscrewed from the cabinet cover.

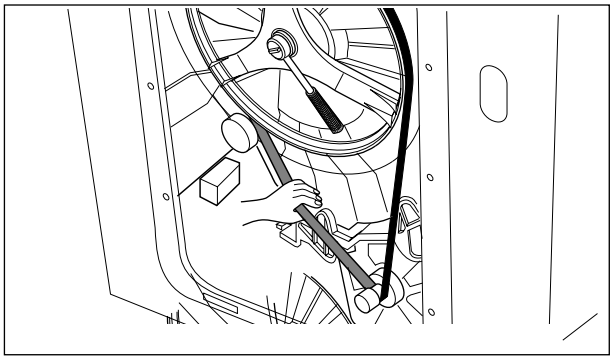


¤ Take apart the tub gasket clamp

¤Ł 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.

PULLEY, MOTOR, DAMPER

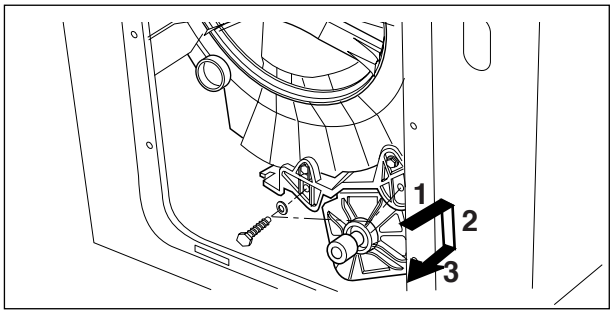


(PULLEY)

¤ The back cover is removed.

¤Ł The belt is pulled off while turning over the pulley.

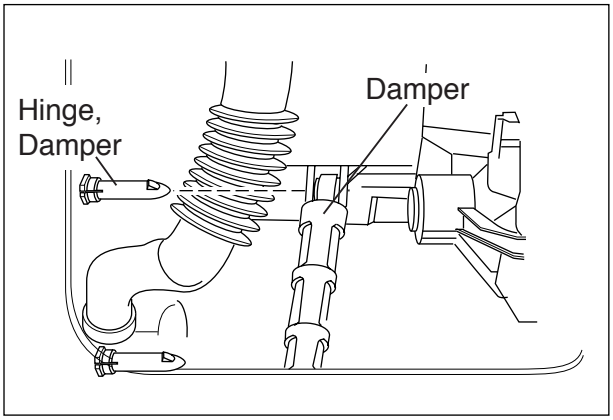
¤Ø The bolt is unscrewed to the shaft and then the pulley pulled off.



(MOTOR)

¤ Two screws are unscrewed from the bracket(Motor).

¤Ł The motor is pushed to arrow direction and then it is disassembled.
(When mounting the rubber should be fit the bracket holder<Motor>)



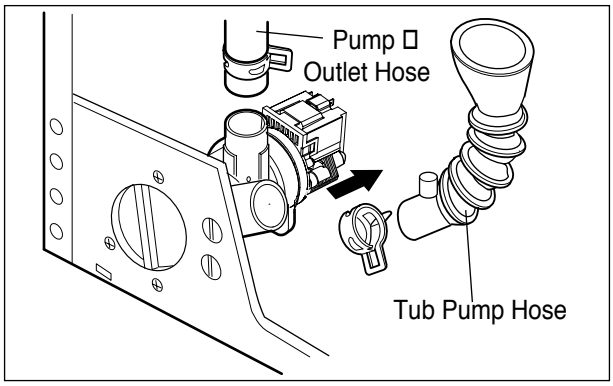
(DAMPER)

¤ Lay the washing machine.

¤Ł The hinge(Damper) at the tub is pulled off pressing on the snaps at the sharp end.

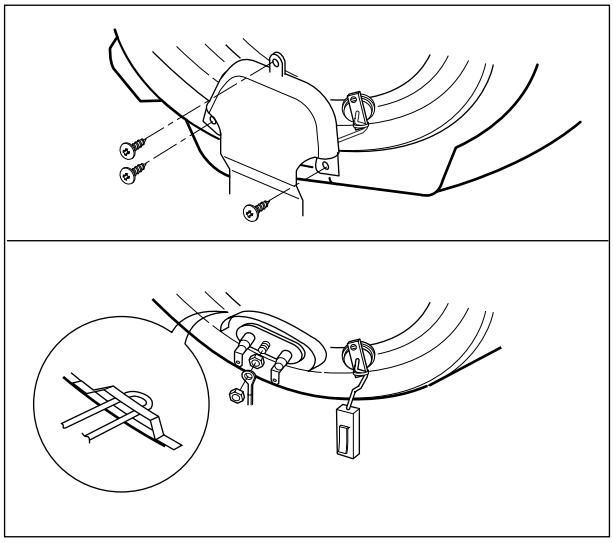
¤Ø The hinge at the base is pulled off.

PUMP



¤ Remove the pump outlet hose.
¤Ł Remove the tub pump hose.
¤Ø The pump connectors are disconnected, the hose is pulled off.
¤Œ Three screws are unscrewed.
¤º The pump is disassembled to arrow direction.

HEATER

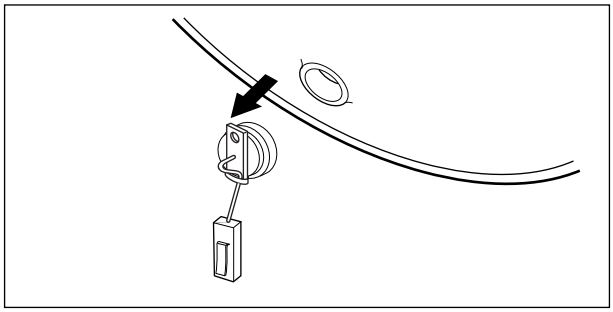


¤ Three screws are unscrewed.
¤Ł The heater M6 bolt is loosened and it is released through the tub cover.

CAUTION

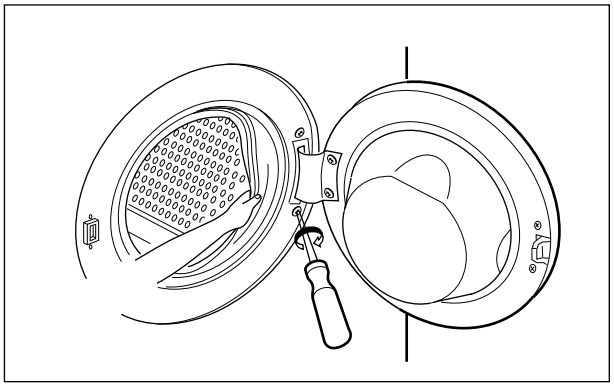
When mounting the heater, the heater should be inserted the heater clip on the bottom of the tub.

THERMISTOR



¤ Pull it out by holding the thermistor bracket.
ƒT If holding the wire and pulling out it, it may be broken.
ƒT The thermistor should be checked it is pulled to the rubber tightly.

DOOR HINGE ASSY



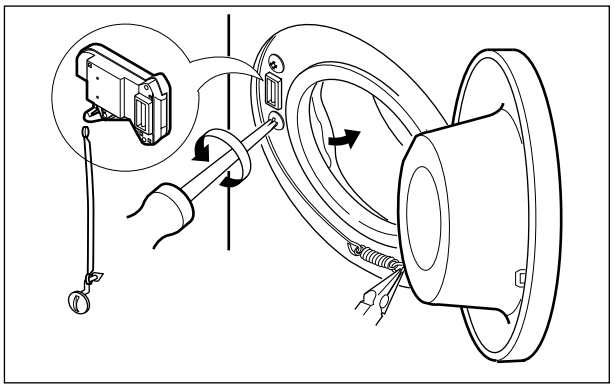
¤ Two screw are unscrewed on the door and the door is disassembled.

¤Ł The cabinet cover clamp is removed and the gasket is released.

¤Ø Two screws are unscrewed on the door hinge.

¤Œ The door hinge is disassembled by pushing the door hinge arm inside the cabinet cover.

SWITCH ASSY, DOOR LOCK

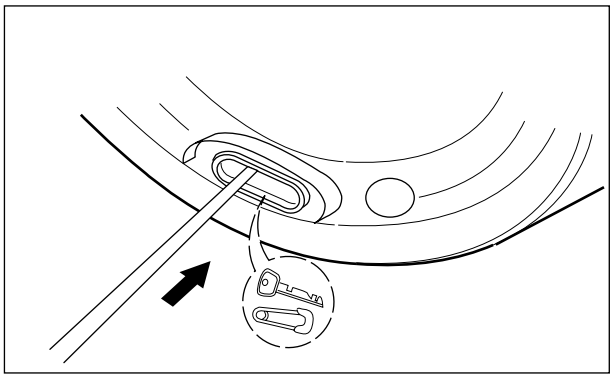


¤ The cabinet cover clamp is removed and the gasket is released.

¤Ł Two screws are unscrewed.

¤Ø The Door Lock S/W is disconnected from the wiring connector and the strap.

WHEN FOREIGN MATERIAL STACK BETWEEN DRUM AND TUB

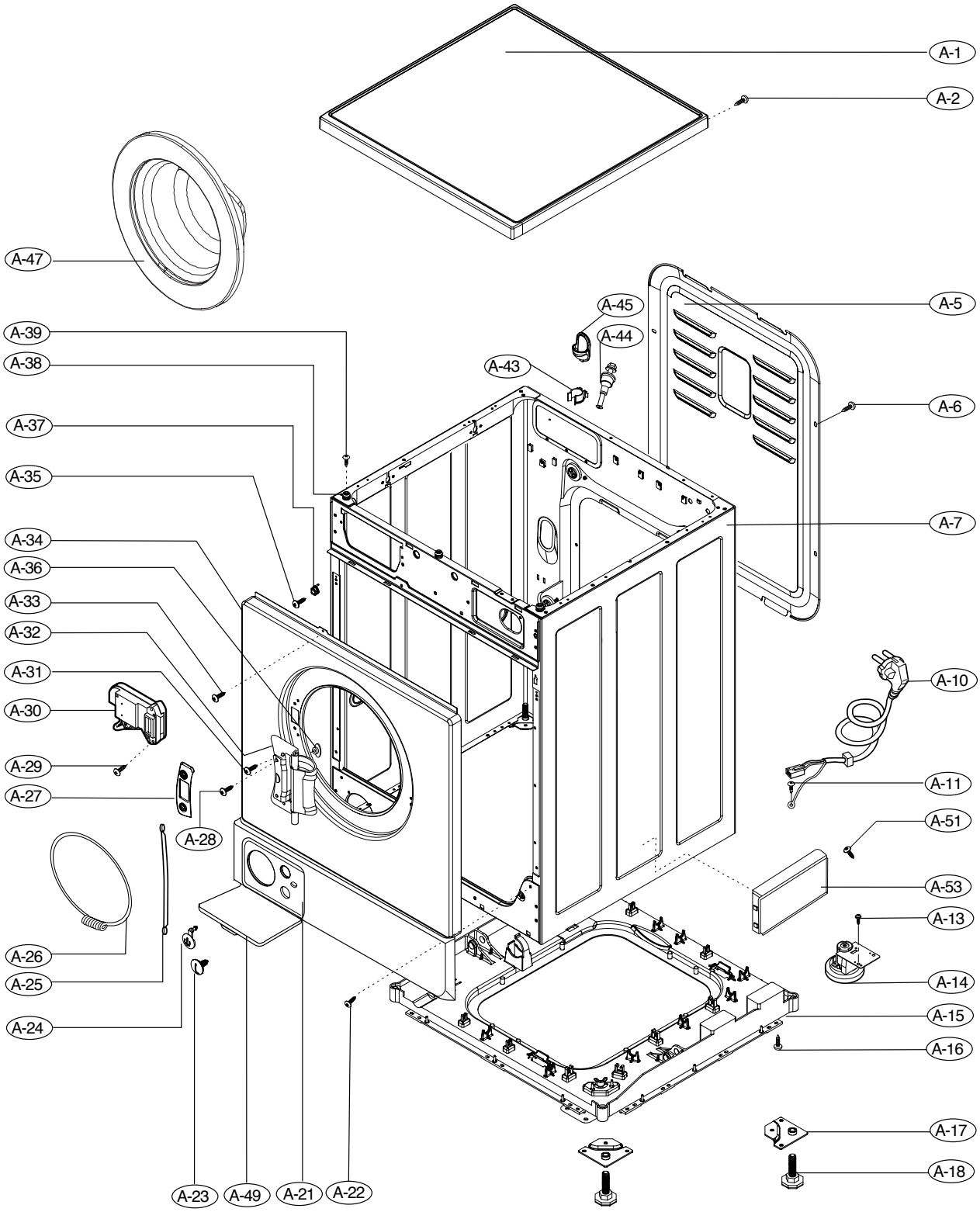


¤ The heater is removed.

¤Ł The foreign material(wire, coin, etc) is removed by inserting the long bar in the hole.

10. EXPLODED VIEW AND PART LIST

10-1.THE PART LIST OF CABINET ASSY

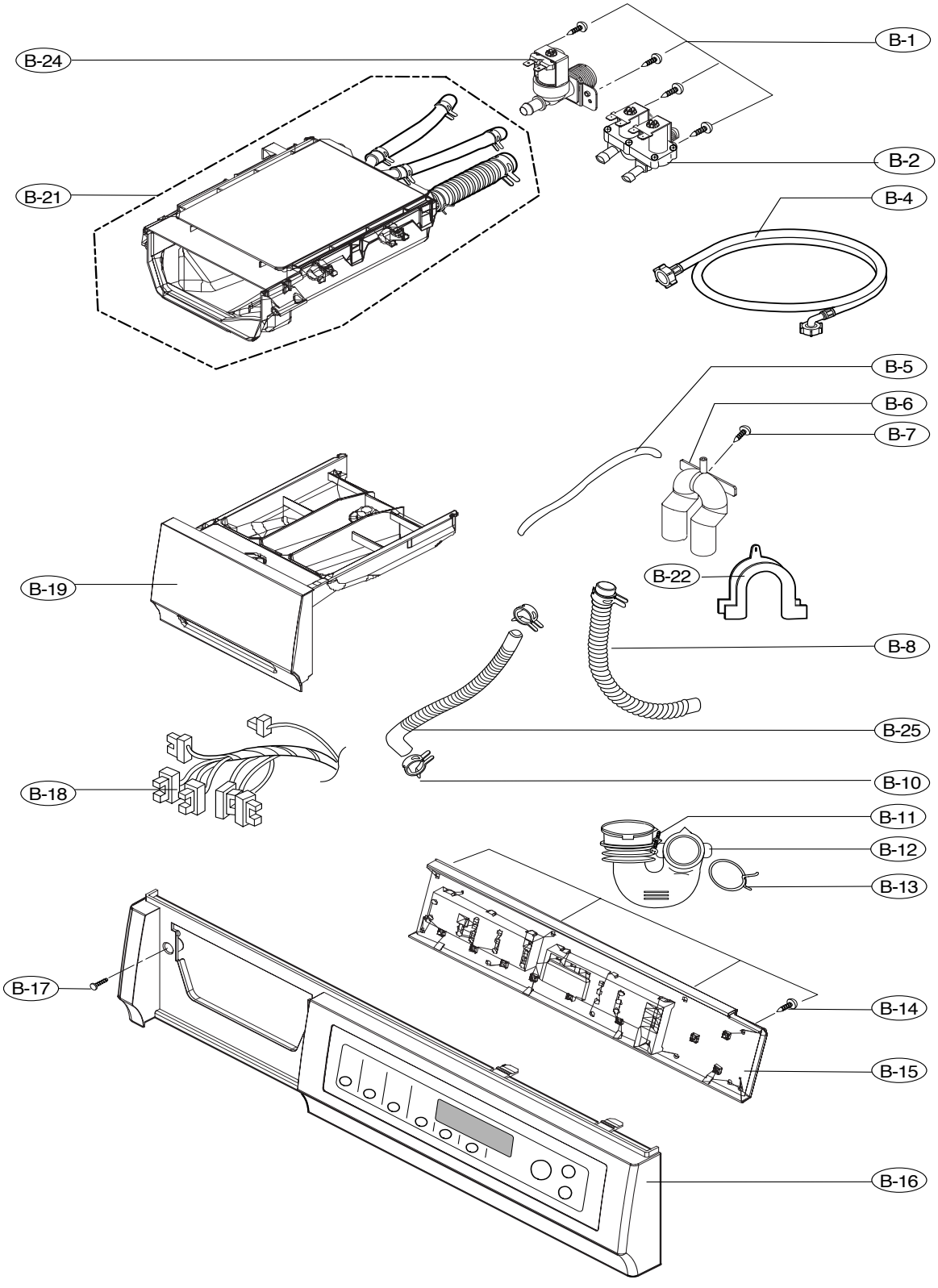


¡ÆTHE PART LIST OF CABINET ASSY

L/No.	PART NAME	PART NO.	SVC CORD	Q¡TTY	SPEC
A-1	PLATE ASSY(TOP)	3301ER1001	R	1	
A-2	SCREW, TAPPING 6 TRUSS HEAD £	1TTL0403018		2	
A-5	BACK COVER	3808FR1202A		1	
A-6	SCREW, TAPPING 6 TRUSS HEAD £	1TTG0402618		4	
A-7	CABINET ASSY	3901FR0045		1	
A-10	POWER CORD ASSY	6411FR1169B		1	C-4-2
	*See Appendix(type of power cord)	6411FR1169D		1	S-2-1
		6411FR1169E		1	B-5
		6411FR1169F		1	B-3
		6411FR1169K	R	1	B-3(BSI)
		6411FR1169L		1	B-3(SISIR)
		6411FR1169N		1	C-4-2
		6411FR1169P		1	S-2-3
		6411FR1169Q		1	S-2-1
A-11	SCREW	4000W4A003A		4	
A-13	SCREW, TAPPING 6 TRUSS HEAD £	1TTG0402618		1	
A-14	SENSOR PRESSURE	6600FR1704S	R	1	
A-15	BASE	3040FR0049A		1	
A-16	SCREW, TAPPING 6 TRUSS HEAD £	1TTG0403018		24	
A-17	BRACKET, BASE	4810FR4136A		4	
A-18	FEET ASSY	5413FR4154A	R	4	
A-21	COVER, LOWER	3550FR1166	R	1	
A-22	SCREW, TAPPING 6 TRUSS HEAD £	1TTL0402618		3	
A-23	CAP(REMAINING HOSE)	5006FR3146		1	
A-24	OPENER, DOOR	5870FR3147		1	
A-25	STRAP	4640FR4118A		1	
A-26	CLAMP ASSY, CABINET GASKET	2W20017A		1	

L/No.	PART NAME	PART NO.	SVC CORD	Q¡TY	SPEC
A-27	GUIDE	4974FR4145		1	
A-28	SCREW	4000FD4191A		2	
A-29	SCREW, TAPPING(+ TRUSS HEAD £	1TTL0403032		2	
A-30	SWITCH ASSY, DOOR LOCK	6601FR1119C	R	1	220-240VAC
		6601FR1262A	R	1	220-240VAC (EMZ)
A-31	SCREW	4000FD4191A		2	
A-32	HINGE ASSY	4775FR2114B		1	
A-33	SCREW, TAPPING(+ TRUSS HEAD £	1TTL0403032		1	
A-34	COVER, CABINET	3550FR1213		1	
A-35	SCREW, TAPPING(£ PAN HEAD £	1TPL0402618		2	
A-37	HOLDER	4930FR4157A		2	
A-38	HOLDER	4930ER4001A		3	
A-39	SCREW, TAP TITE(S(+ PAN HEAD £	1SCPF040327		3	
A-43	HOLDER	4930FR3151A		1	
A-44	BOLT ASSY, TRANSIT	4011FR3159A		4	
A-45	BUSHING	4830FR3107		1	
A-47	DOOR ASSY	3581FR1200D		1	
A-49	LOWER COVER CAP	5006FR3179		1	
A-51	SCREW TAPPING(+ TRUSS HEAD£	1TTL0403018		2	
A-53	PWB ASSY(MAIN)	6871EC1008	R	1	220-240VAC

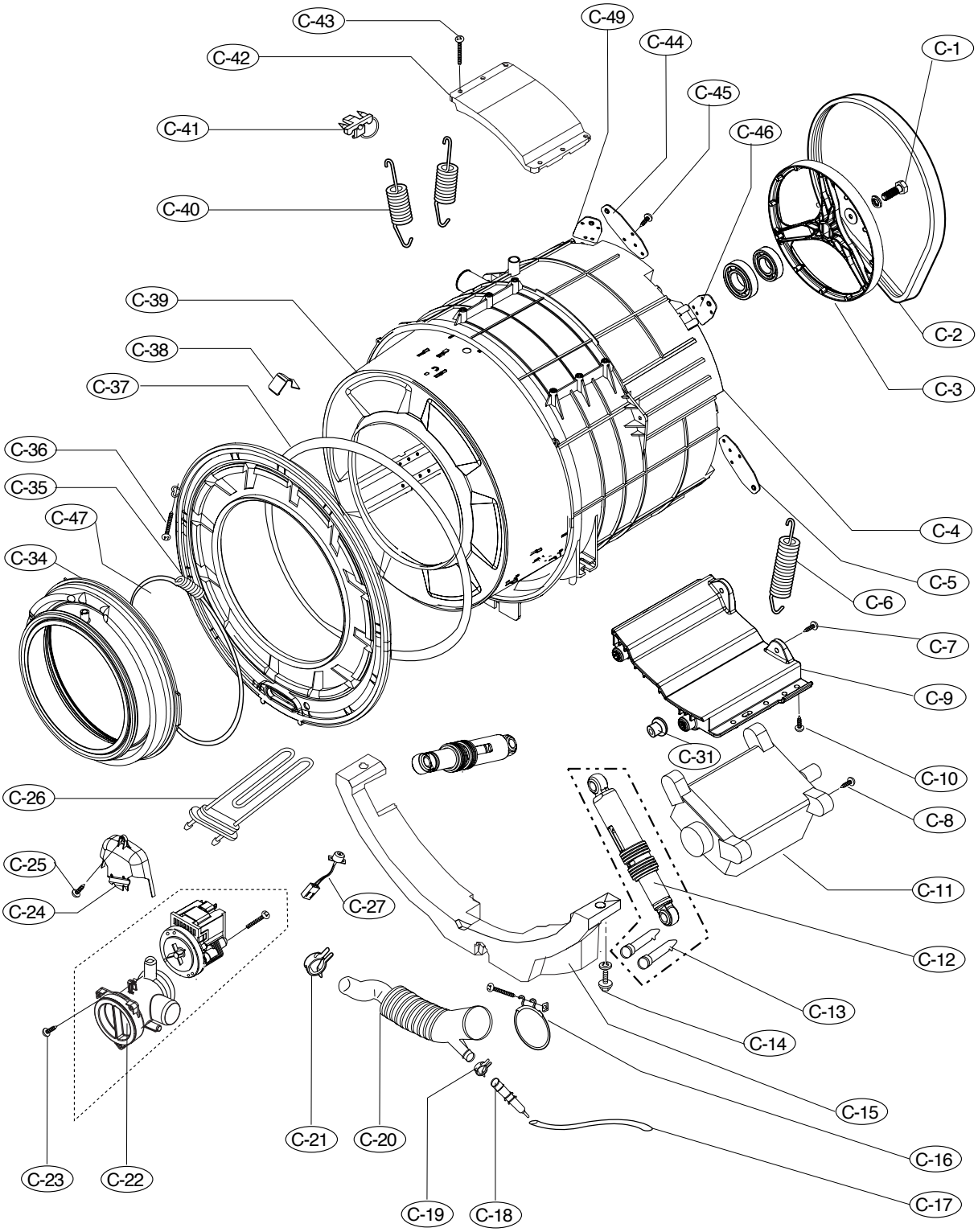
10-2 THE EXPLODED VIEW OF CONTROL PANEL & DISPENSER ASSY



¡ÆTHE PARTS LIST OF CONTROL PANEL & DISPENSER ASSY

L/No.	PART NAME		PART NO.	SVC CORD	Q¡TY	SPEC
B-1	SCREW, MACHINE£ PAN HEAD £		1SCPF040268			
B-2	VALVE		5220FR3067A	R	1	220-240VAC
			5220FR1251A	R	1	220-240VAC (SEMKO)
B-4	HOSE ASSY, INLET		5214FA1146	R	1	
			5215FD3715	R	1	VDE(IMQ)
			3W40102	R	1	VDE(IMQ)
B-5	HOSE		5214FR4125B		1	
B-6	CONNECTOR (MECH), DRAIN HOSE		4932FR3156A		1	
B-7	SCREW, TAPPING£ TRUSS HEAD£		1TTG0402618		1	
B-8	HOSE ASSY, DRAIN		5214FR3188A	R	1	
B-10	CLAMP		4861FR3068C		2	
B-11	CLAMP		4860FR3092D		1	
B-12	BELLOWS		4738FR2065A	R	1	
B-13	RING, SNAP		3W500120		1	
B-14	SCREW		4W51132A		9	
B-15	PWB ASSY(DISPLAY)		6871FC2272D	R	1	
B-16	PANEL ASSY, CONTROL	WD-1223F(H)/WD-1225F(H)	3721ER1004	R	1	
		WD-1243F(H)/WD-1245F(H)	3721FR1196	R	1	
B-17	SCREW, TAPPING£ TRUSS HEAD £		1TTL0403532			
B-18	LEAD WIRE ASSY		6877ER1002A		1	MAIN
			6877ER1002B		1	MAIN(Hot)
			6877ER1192B	R	1	MOTOR~PWB
			6877FC2261B		1	DISPLAY~PWB
B-19	PANEL ASSY, DRAWER	WD-1223F(H)/WD-1225F(H)	3721ER1001	R	1	
		WD-1243F(H)/WD-1245F(H)	3721FR1244		1	
B-21	DISPENSER ASSY		4925FR1137F	R	1	
			4925FR1137G		1	HEATING
B-22	DRAIN HOSE HANGER		3W50712A		1	
B-24	VALVE		5220FR1280A	R	1	220-240VAC (HEATING)
B-25	HOSE, PUMP		5214FR3188A	R	1	

10-3 THE EXPLODED VIEW OF DRUM & TUB ASSY

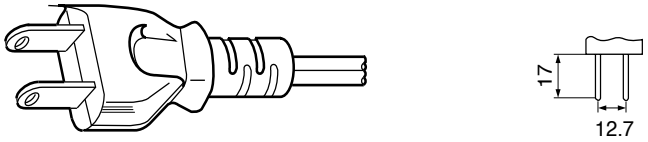
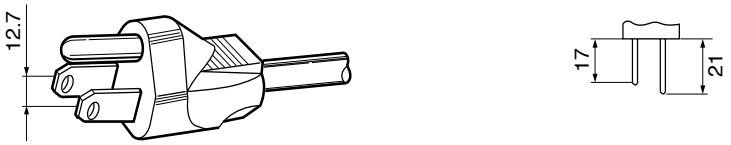
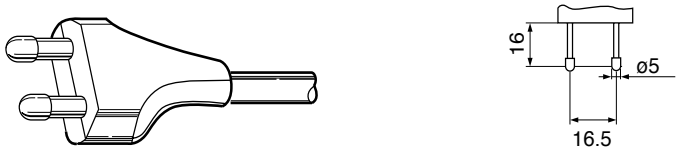
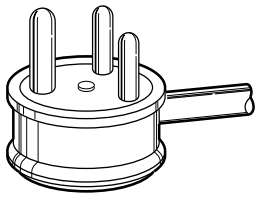


¡ÆTHE PART LIST OF DRUM & TUB ASSY

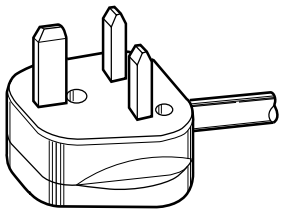
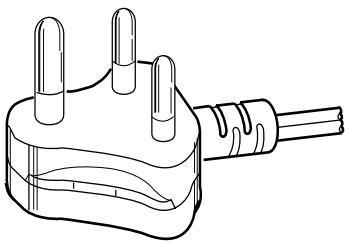
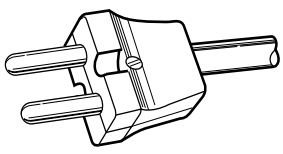
L/No.	PART NAME	PART NO.	SVC CORD	Q¡TY	SPEC
C-1	BOLT ASSY	4011FR3173A		1	
C-2	BELT, POLY-V	4400FR3116A	R	1	
C-3	PULLEY	4560FR1149A	R	1	
C-4	TUB ASSY	3045FR0031C		1	
C-5	BRACKET	4810FR4167A		1	
C-6	SPRING	4970FR2084F	R	1	
C-7	SCREW	1SZZFA4362A		2	
C-8	SCREW	1SZZFR4174A		2	
C-9	BRACKET, MOTOR	4810FR1197A		1	
C-10	SCREW	1SZZFA4362A		4	
C-11	MOTOR ASSY	4681FR1241B	R	1	220-240VDC
C-12	DAMPER ASSY	4901FR2080A	R	2	
C-13	HINGE	4774FR3118A	R	4	
C-14	BOLT ASSY	4011FR3173B		3	
C-15	WEIGHT, BALANCE LOWER	4844FR1283A		1	
C-16	CLAMP	4860FR3092C		1	
C-17	HOSE(SENSOR)	5214FR4125J	R	1	
C-18	CHAMBER, AIR	3504FR3134A	R	1	
C-19	CLAMP, HOSE	4861FR3068C		3	
C-20	BELLOWS	4738FR1145A	R	1	
C-21	CLAMP, HOSE	4861FR3068E		1	
C-22	HOUSING ASSY (MECH), PUMP	3661FR2093	R	1	
C-23	SCREW, TAPPING(+ TURSS HEAD)	1TTL0403018		3	
C-24	PROTECTOR (MECH)	3740FR3043A		1	
C-25	SCREW, TAPPING(+ TURSS HEAD)	1TTL0403318		3	
C-26	HEATER ASSY	5301FR1158A	R	1	220VAC2500W
		5301FR1158B		1	240VAC2000W
		5301FR1158C		1	220VAC2000W
		5301FR1158D		1	230VAC2000W

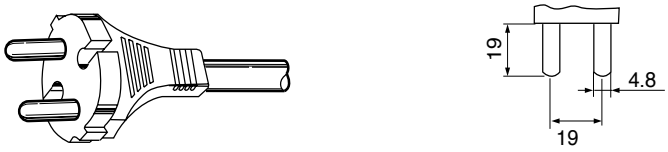
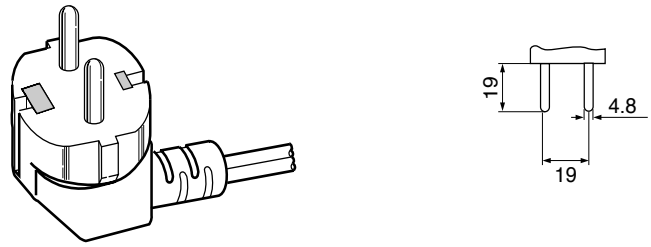
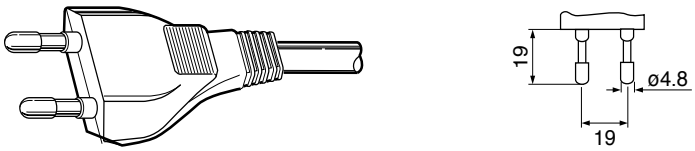
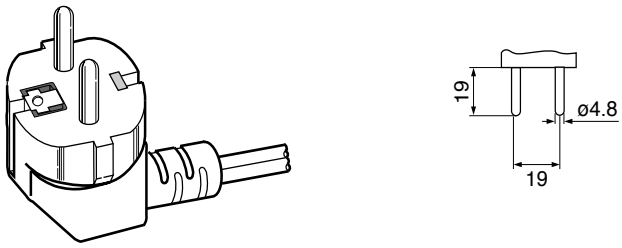
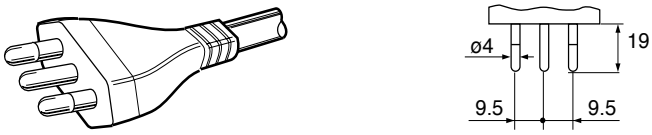
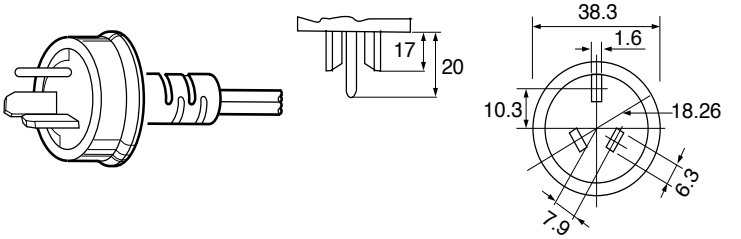
L/No.	PART NAME	PART NO.	SVC CORD	Q¡TIY	SPEC
C-27	THERMISTOR	6322FR2046B	R	1	
C-31	RUBBER	5040FR4168B	R	4	
C-34	GASKET	4987FR1165B		1	
C-35	COVER, TUB	3044FR0027A	R	1	
C-36	SCREW, TAPPING(TURSS HEAD£	1TTL0403318		3	
C-37	SEAL	4036FR4123A		1	
C-38	CLAMP, TUB	4860FR4124A		11	
C-39	TUB, DRUM ASSY	3044FR1220		1	
C-40	SPRING	4970FR2084E		2	
C-41	HOLDER(SPRING)	4930FR3040A	R	3	
C-42	WEIGHT, BALANCE UPPER	4844FR1223A	R	1	
C-43	SCREW	1SZZFA4362A		6	
C-44	BRACKET RIGHT	4810FR4166A		1	
C-45	SCREW	1TTL0503318		12	
C-46	BRACKET UPPER LEFT	4810FR4126A		2	
C-47	TUB GASKET CLAMP ASSY	4861ER2001A		1	
C-49	BRACKET UPPER RIGHT	4180FR4126B		1	
C-50	SCREW	4W51132A		3	

¡ÆAPPENDIX(The type of power cord)

TYPE	TYPE OF PLUG	POWER CORD P/No.
A-1		□ -
A-2		-
B-1		-
B-2		-

2A	2PIN	3.5Ø□	EPIN 5Ø□
5A	2PIN	5Ø□	EPIN 7Ø□
15A	2PIN	7Ø□	EPIN 8.6Ø□

B-3		6411FR1169F
B-5		6411FR1169E
C-1		-

TYPE	TYPE OF PLUG	POWER CORD P/No.
C-2-1		-
C-2-2		6411FD1096V
C-3-1		-
C-3-2		-
C-4-2		6411FR1169B 6411FR1169N
C-5		-
S-2-1		6411FR1169D 6411FR1169P 6411FR1169Q