DAEWOO

Service Manual

Washing Machine

Model: DWM-7510

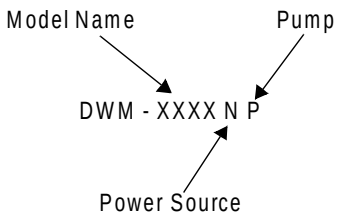
DAEWOO ELECTRONICS CO., LTD.

TABLE OF CONTENTS

1. SPECIFICATIONS

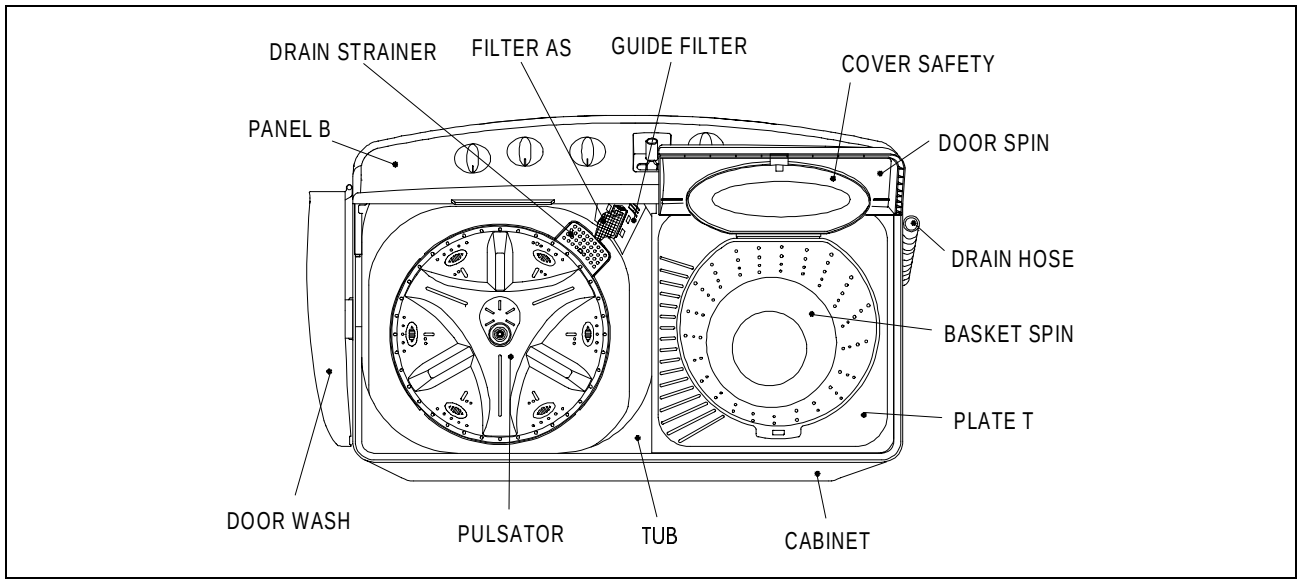
NO	ITEM		SPECIFICATIONS						
1	POWER SOURCE	VOLTAGE	AC 110V	AC 1 20V	AC 220V	AC 127/220V	AC 110/220V	AC 220V	AC 240V
		FREQUENCY	60Hz				50Hz		
2	POWER CONSUMPTION	PUMP	640W				610W		
		NON PUMP	580W				550W		
3	DIMENSION		NET : 874 X 532 X 989, PACKED UP : 898 X 558 X 1015 (WXDXH)						
4	MACHINE WEIGHT	PUMP	NET : 40kg, PACKED UP : 44kg						
		NON PUMP	NET : 38kg, PACKED UP : 42kg						
5	WASHING COURSE		STRONG, NORMAL						
6	WATER LEVEL		HIGH : 72 ℓ , MEDIUM : 61 ℓ , LOW : 52 ℓ						
7	REVOLUTION PER MINUTE	WASH	100 rpm				100 rpm		
		SPIN	1700 rpm				1400 rpm		
8	TIMER	WASH	MAX. 15 min., Manual operation						
		SPIN	MAX. 5 min., Manual operation						
9	WASHER TYPE		PULSATOR TYPE						
10	SPIN TYPE		CENTRIFUGALLY SEPARATED TYPE						
11	MAXIMUM MASS OF TEXTILE	WASH	7.5kg						
		SPIN	7.0kg						
12	WATER SUPPLY		MANUAL						
13	SPIN RINSE		O						
14	OUTLET OF DRAIN HOSE		REAR						
15	LINT FILTER		O						

NOTE : Explanation table for suffix of names.

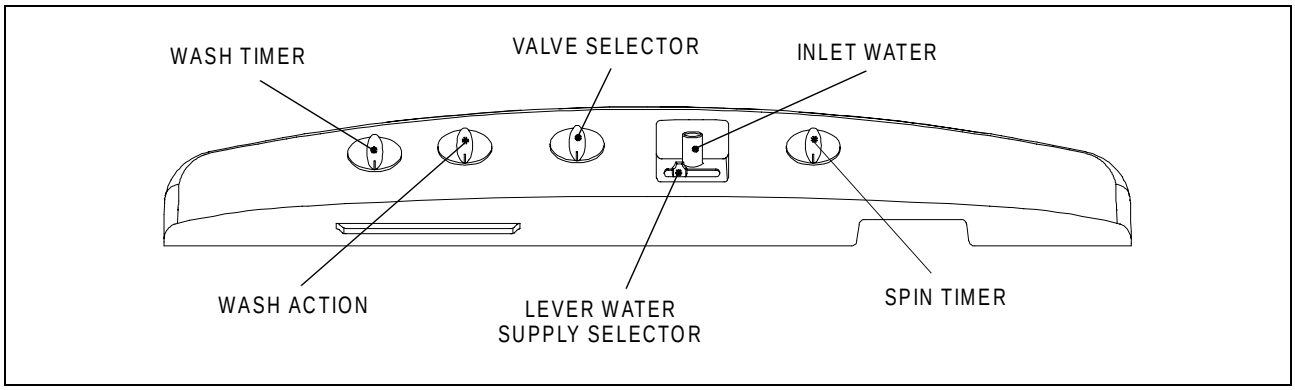
POWER SOURCE	SUFFIX		EXPLANATION
	NON PUMP	PUMP	
AC 100V 50/60Hz	J	-	
AC 110V 60Hz	T	TP	
AC 120V 60Hz	A	AP	
AC 220V 50Hz	N	NP	
AC 220V 60Hz	L	LP	
AC 240V 50Hz	M	MP	
AC 110/220V 50Hz	D	DP	
AC 127/220V 60Hz	S	-	

2. EXTERNAL VIEW

2-1. STRUCTURE OF THE WASH MACHINE



2-2. CONTROL PANEL(PANEL B ASS'Y)



WASH TIMER
Use to select the desired time for washing or rinsing.

WASH ACTION
Use to select wash action. (“STRONG”, “NORMAL”)

VALVE SELECTOR
Select “WASH.RINSE” for washing and rinsing, and “DRAIN” to drain the water.
(In case PUMP MODEL turn on the drain pump.)
“OFF” to turn off the drain pump. (Only PUMP MODEL)

LEVER WATER SUPPLY SELECTOR
Left : water supply in the WASH TUB
Right: : water supply in the BASKET SPIN.

INLET WATER
Connect inlet hose to supply water in the WASH TUB or BASKET SPIN.

SPIN TIMER
Use to select the desired time for spinning.

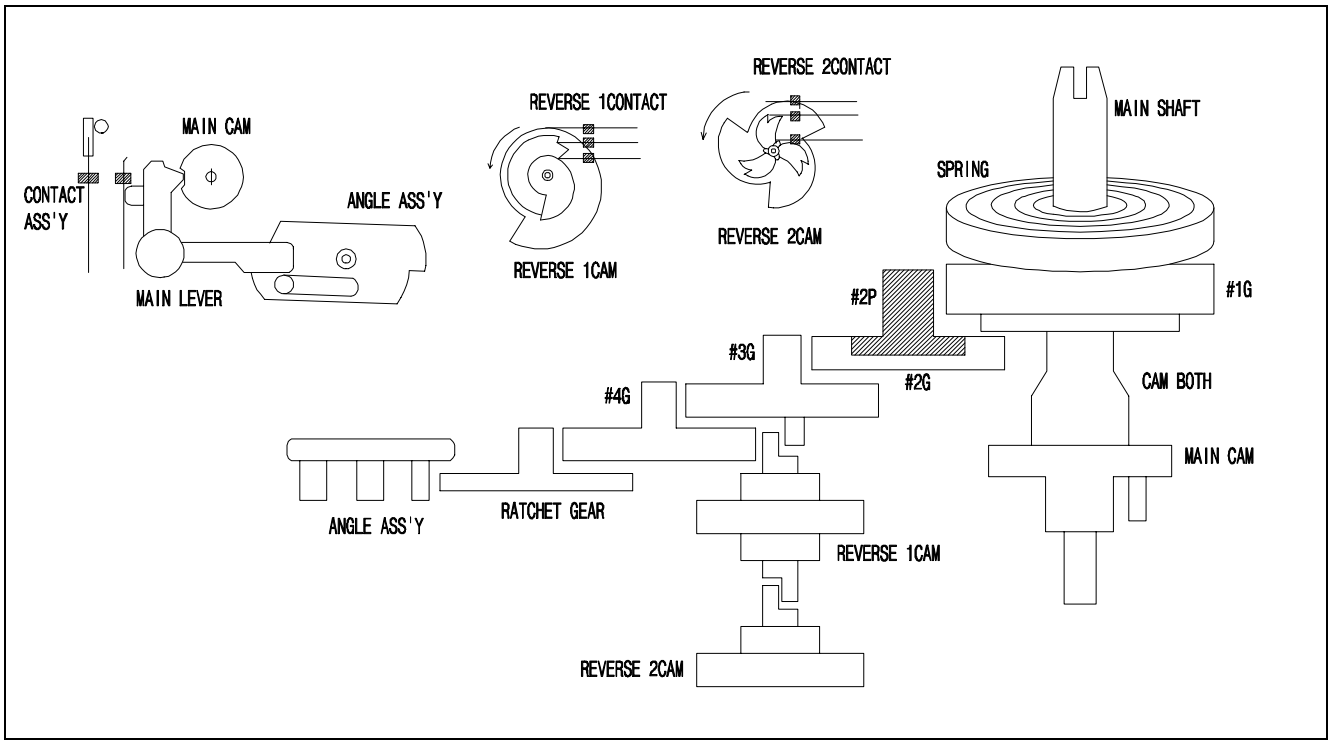
3. PRINCIPLES OF OPERATION AND EXPLANATION OF FUNCTIONS

WASH TIMER

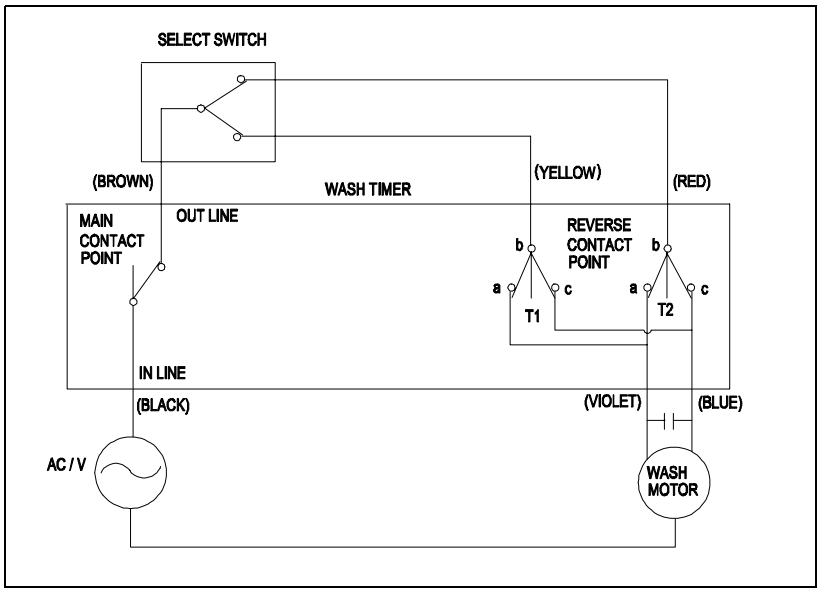
FUNCTION

The main switch remains ON during the washing time set by turning the timer knob.
At the same time, the internal switch T1 and T2 which provide power to WASH MOTOR alternately at assigned Intervals.
Select switch knob sets the wash type by means of controlling the interval of internal switch contact.

STRUCTURE AND PRINCIPLE OF ACTIVATION



CIRCUIT DIAGRAM

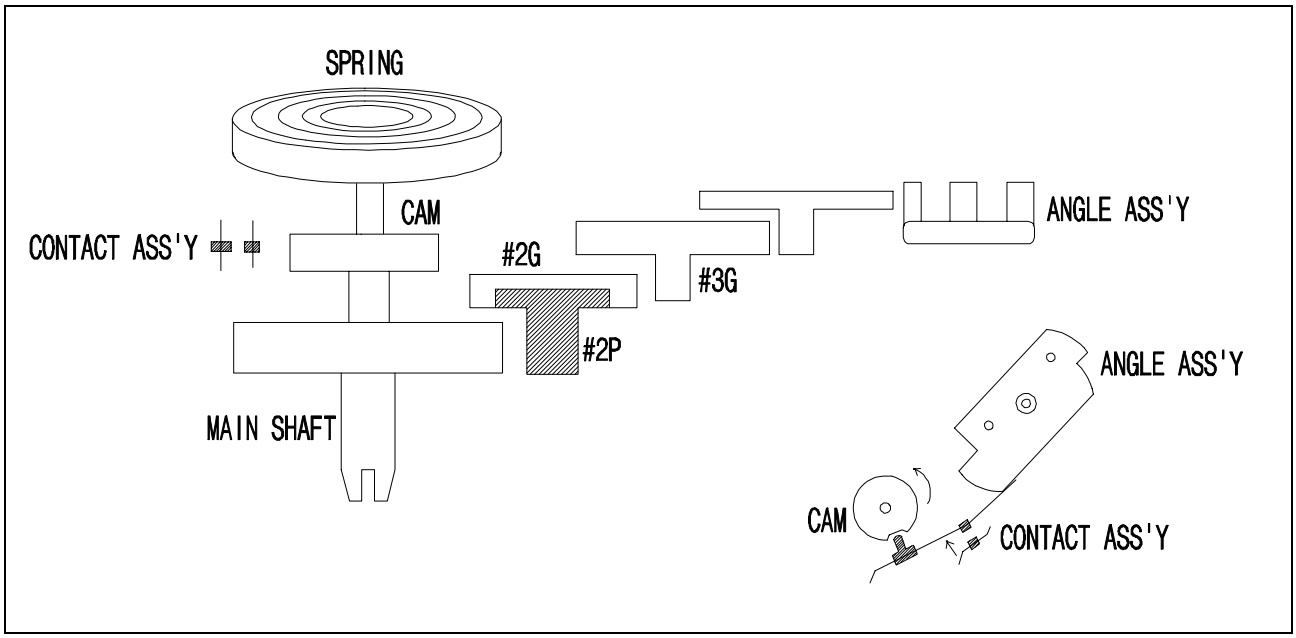


SPIN TIMER

FUNCTION

The spin timer is the switch providing power to the SPIN MOTOR(DRAIN PUMP MOTOR) during the set spin dry time, and is a spring-type time switch comes on upon turning and those contact points comes off after the set time.

STRUCTURE AND PRINCIPLE OF ACTIVATION



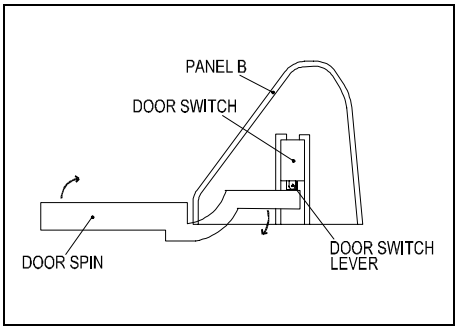
1) The main shaft turns due to the unwinding force when the spin timer is turned, the spring wound with that force being delivered through each gear and the spring slowly unwinding at a speed finally controlled by the angle assembly.
2) The contact point turns ON and the assembly angle is set in motion, which is in the CAM groove in the OFF state, comes off the groove when the main shaft is turned to wind the spring. The contact point turns OFF, return to CAM groove when the spring unwind completely.

SAFETY DEVICE FOR BASKET SPIN

The BASKET SPIN is an apparatus which eliminates the water from the laundry through centrifugal separation generated by rapid revolution(approximately 1,600rpm for 60Hz). Accordingly, there are a DOOR SWITCH to cut off the power going into the DOOR SPIN is opened and a brake system to stop the rotating BASKET SPIN.

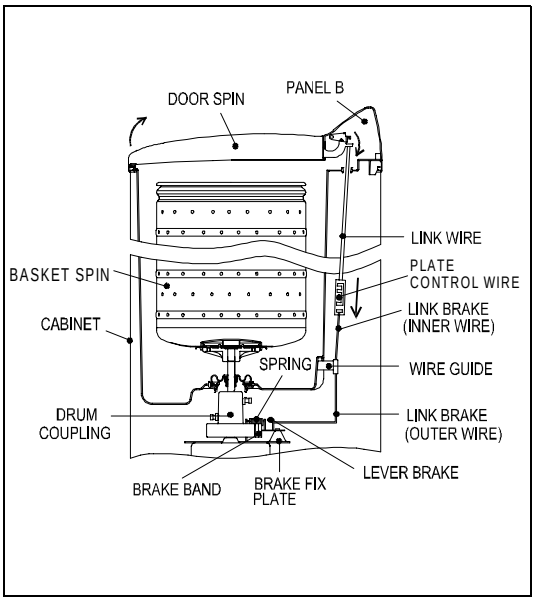
DOOR SWITCH

When the DOOR SPIN is opened during spinning, the DOOR SWITCH LEVER which sites atop the DOOR SPIN falls off the contact, and cuts off the power going into the SPIN MOTOR.



BRAKE SYSTEM

When the DOOR SPIN is opened, LINK WIRE which connect to DOOR SPIN loosens. And then the BRAKE BAND touches the DRUM COUPLING assembly and stops the SPIN DRYER as it is pulled by the SPRING in the BRAKE FIX PLATE assembly.



BRAKE BAND GAP CONTROL METHOD

The BAND BRAKE works best when the gap between it and the DRUM COUPLING is about 2mm when the DOOR SPIN is closed. The SPIN DRYER stops slowly if the gap between the two is too narrow, the SPIN DRYER revolution is affected and the PLATE CONTROL WIRE may be adjusted to maintain the BRAKE BAND gap adequately.

WASH DECELERATOR ASSEMBLY

The initial deceleration following the activation of the WASH MOTOR takes place through the PULLEY MOTOR and PULLEY PULSATOR, and the secondary deceleration is done by the gear in the GEAR HOUSING which also increases their revolution strength. This revolution speed and strength is delivered to the PULSATOR, which is then able to cause water current that is strong yet soft so that wash loads are not damaged.

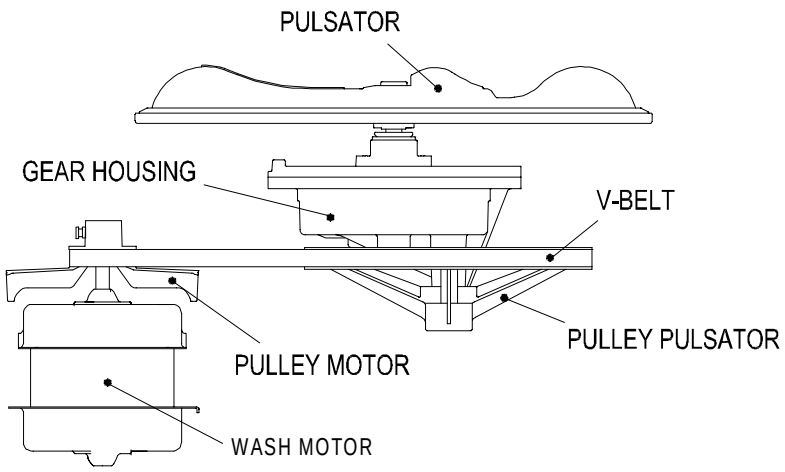
MOTOR WASH
About 1,700rpm(60Hz)
1,400rpm (50Hz)

↓

PULLEY PULSATOR
About 330rpm (60Hz)
330rpm (50Hz)

↓

PULSATOR
About 100rpm (60Hz)
100rpm (50Hz)

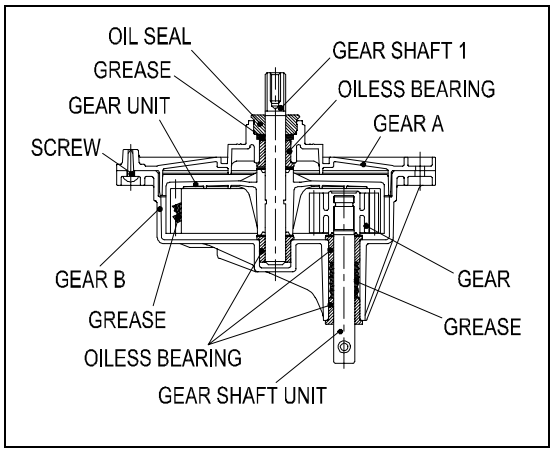


GEAR HOUSING ASS'Y

The GEAR HOUSING ASSEMBLY is a transmission device which turns the PULSATOR at 3.3 : 1 lowered speed through the gear unit assembly which receives power at the GEAR SHAFT UNIT.

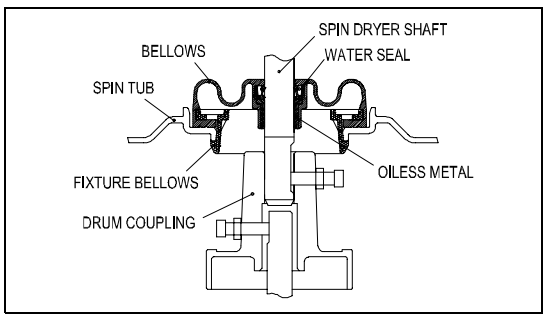
STRUCTURE

1) The two sides of the GEAR SHAFT UNIT are supported by the OILLESS BEARING in the GEAR HOUSING ASSEMBLY.
2) The GEAR UNIT ASSEMBLY is connected to the GEAR SHAFT 1 and GEAR SHAFT UNIT by the GEAR and GEAR UNIT respectively.
3) The two sides of GEAR SHAFT 1 are supported by the OIL SEAL and OILLESS BEARING in the GEAR HOUSING ASSEMBLY.



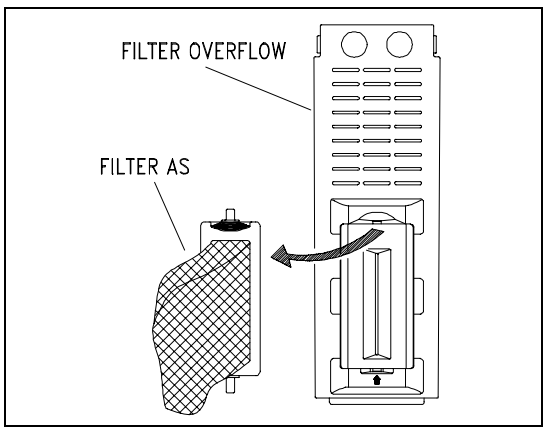
SPIN BELLOWS ASS'Y

The wrinkled rubber device on the bottom of the BASKET SPIN is called SPIN BELLOWS ASSEMBLY. It has a waterseal and a oilless metal inside to prevent leakage and so that the BASKET SPIN may work smoothly.



FILTER

Much lint may be obtained depending upon the kind of clothes to be washed and same of the lint may also be suck to the clothes.
To minimize this possibility, a lint filter is provided on the upper part of the FILTER OVERFLOW to filter the wash water.
Use of the lint filter during every wash is recommend.



CLEANING THE LINT FILTER

1) Remove the FILTER AS from the FILTER OVERFLOW by pressing it downwards.
2) Turn the FILTER AS inside out, and wash the lint off with water.
3) Return the FILTER AS it was, and fix the FILTER AS to the FILTER OVERFLOW.

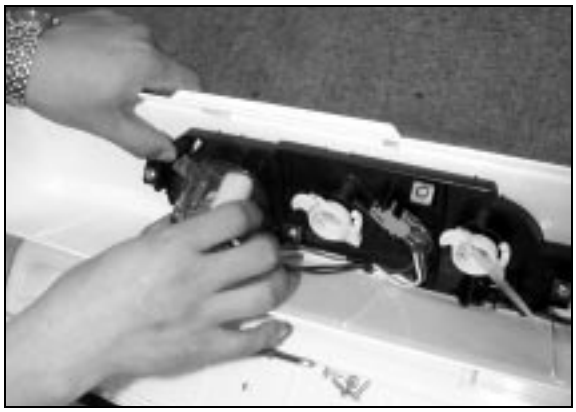
4. DIRECTION FOR DISASSEMBLY AND ASSEMBLY

ASSY PANEL BACK

1. Remove 5 screws on the PANEL B.

2. Remove KNOB and 2 screws on the PANEL B. (Spin Timer)

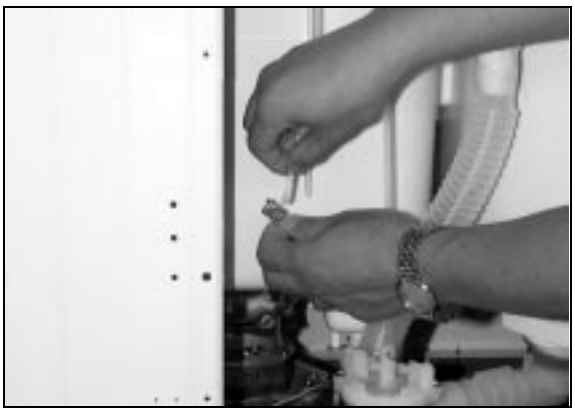
3. Remove CONTROL LEVER and WASH TIMER.



BASKET SPIN

4. Remove 5 screws on the COVER BACK.

5. Remove LINK BRAKE and ASSEMBLY BRAKE WIRE.



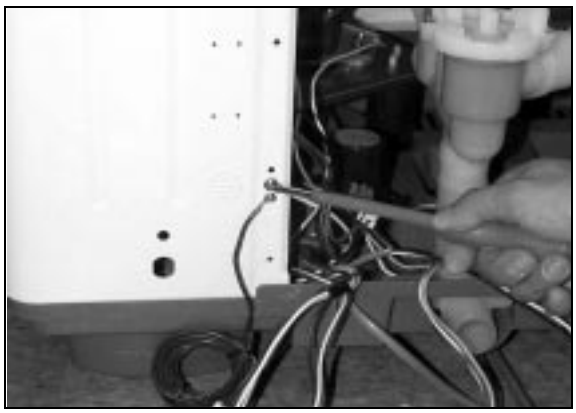
6. Remove 1 bolt and nut on the upper side of the DRUM COUPLING AS.

7. Remove 2 screws on the PLATE T.

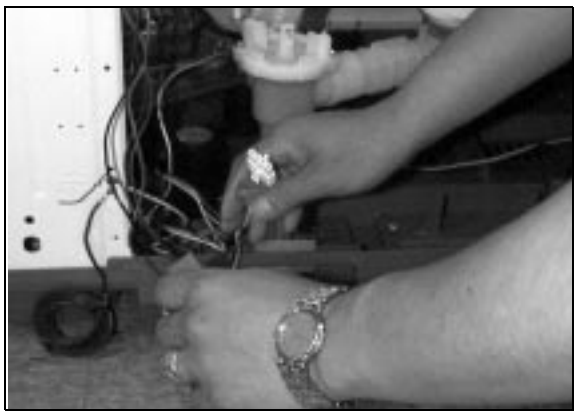
8. Lift up the BASKET SPIN.

ASSY BASE UNDER

9. Remove 1 screw on the CABINET.

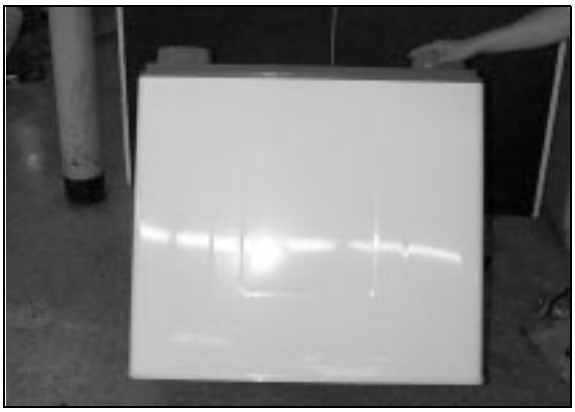


10. Separate HARNESS AS connectors.



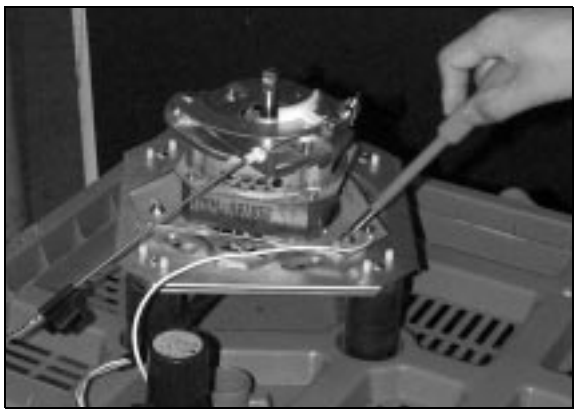
11. Remove a V-BELT from PULLEY MOTOR.

12. Turn over the washing machine.



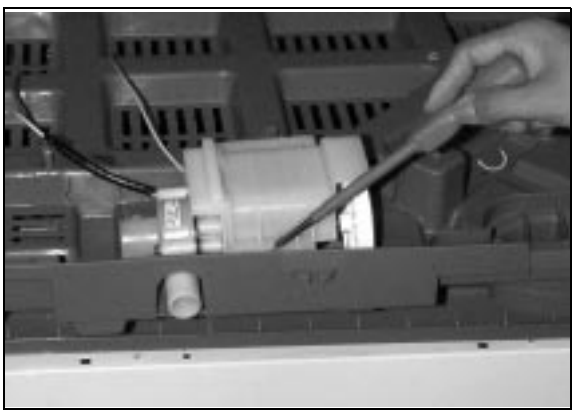
13. Remove 7 screws on the BASE UNDER ASSY.

14. Remove 3 screws on the BRACKET SPIN, and remove the SPIN MOTOR.



15. Remove 3 bolts on the BASE UNDER, and remove the WASH MOTOR.

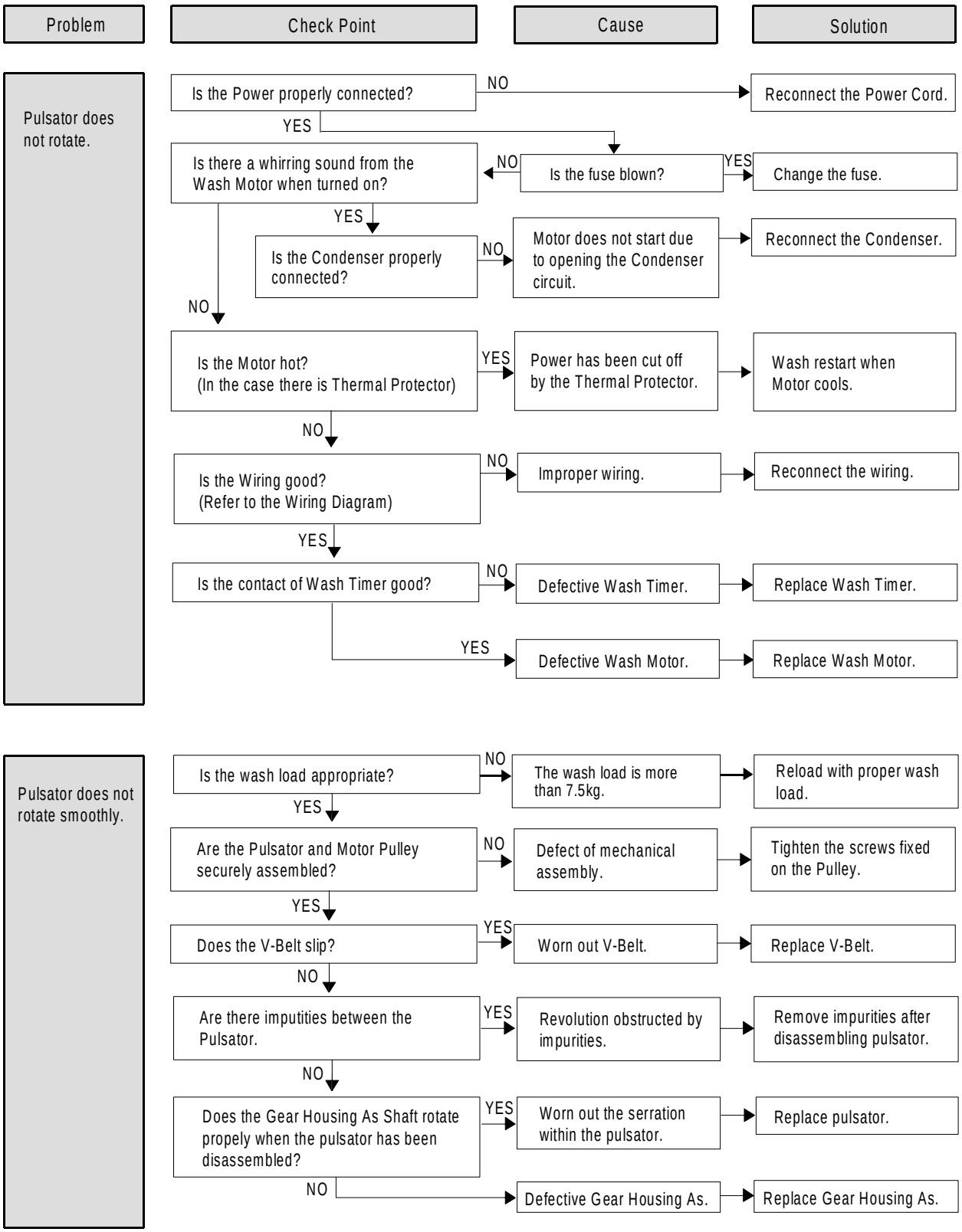
16. Remove 3 screws on the COVER PUMP. (In case of PUMP MODEL)

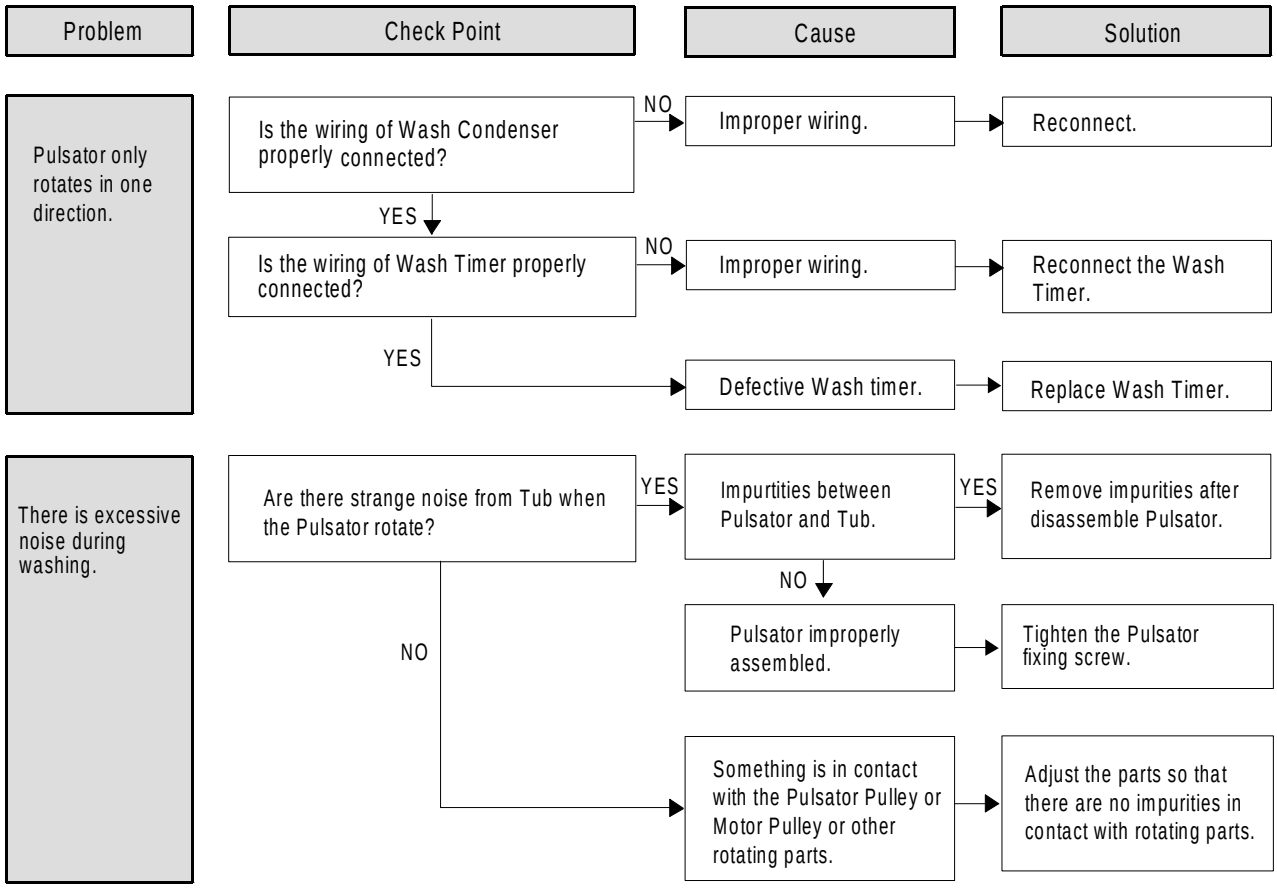


5. TROUBLESHOOTING GUIDE

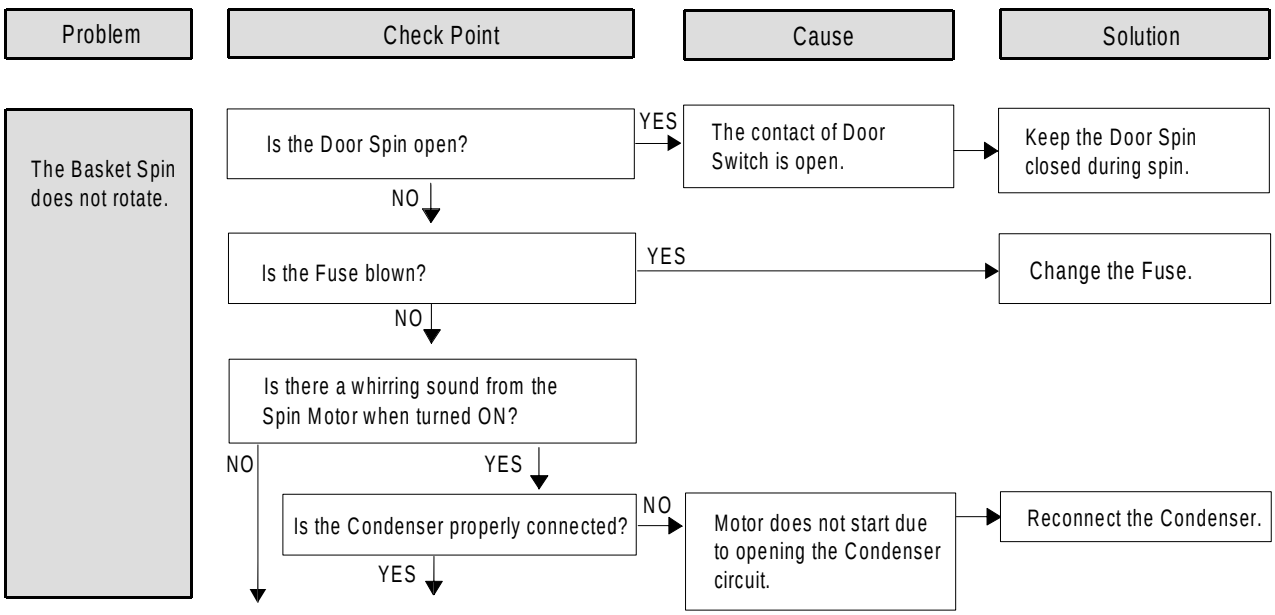
Note : Pull out the power plug to repair and make sure that the Washing Machine has been properly grounded.

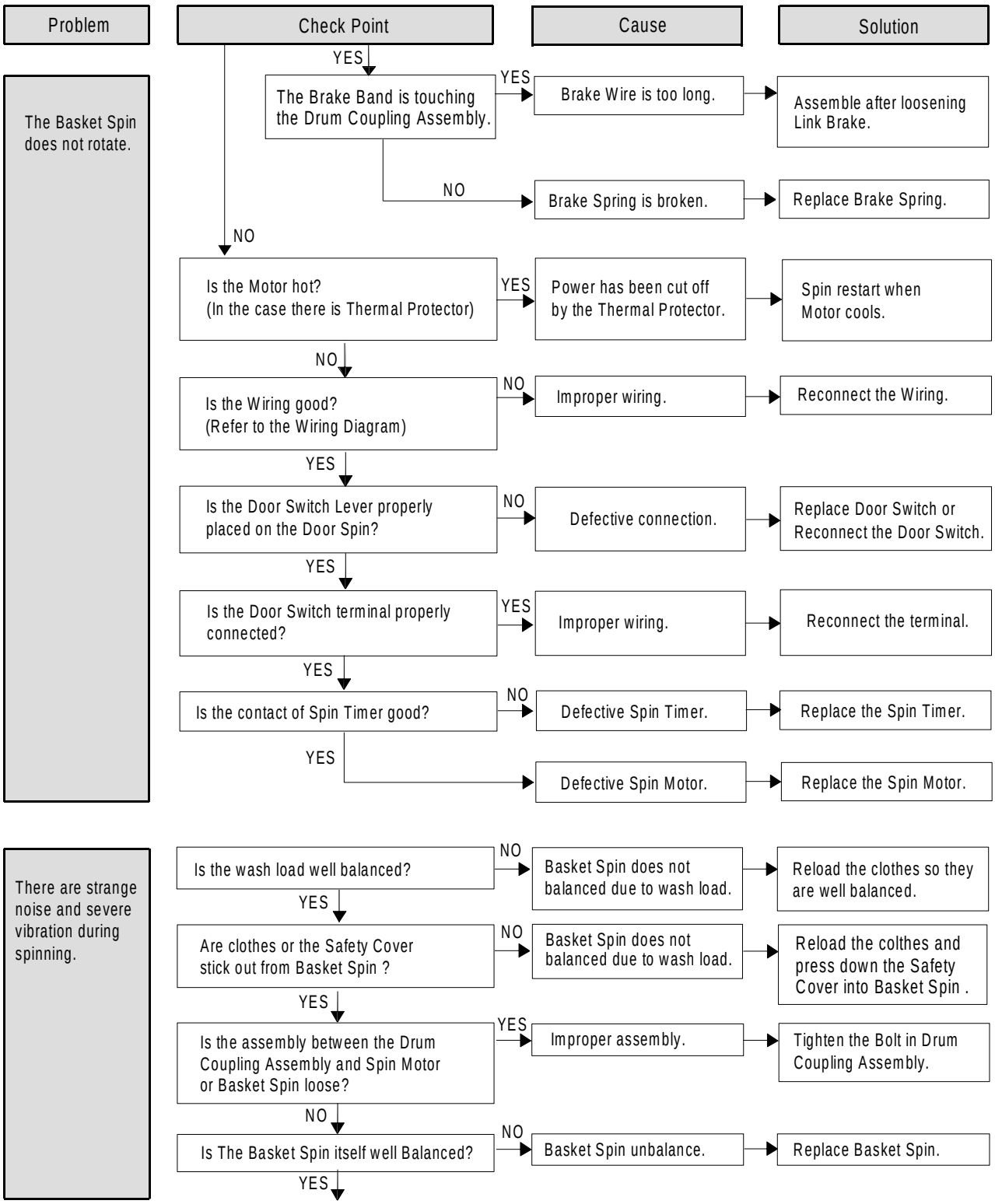
Concerning Wash

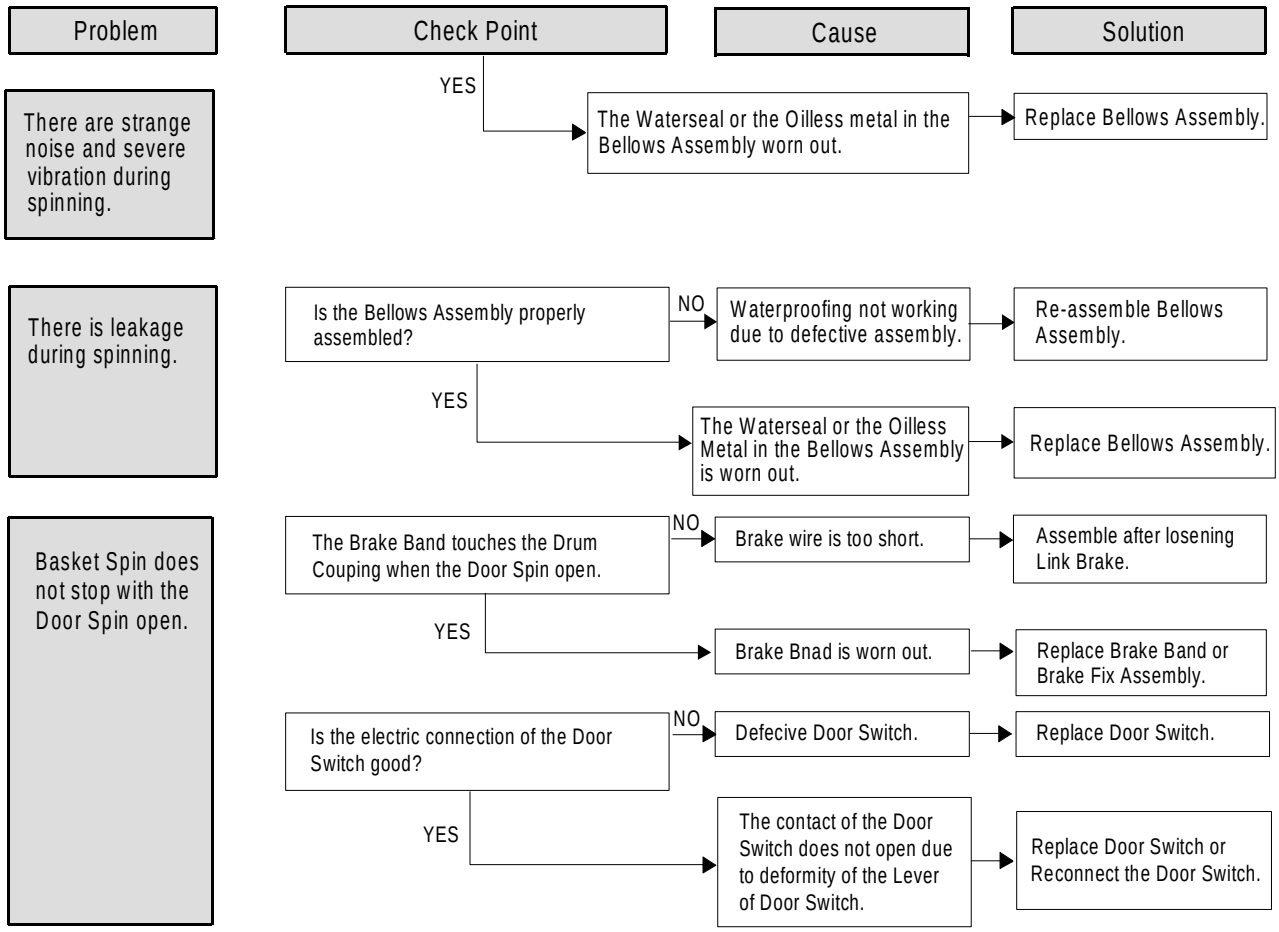




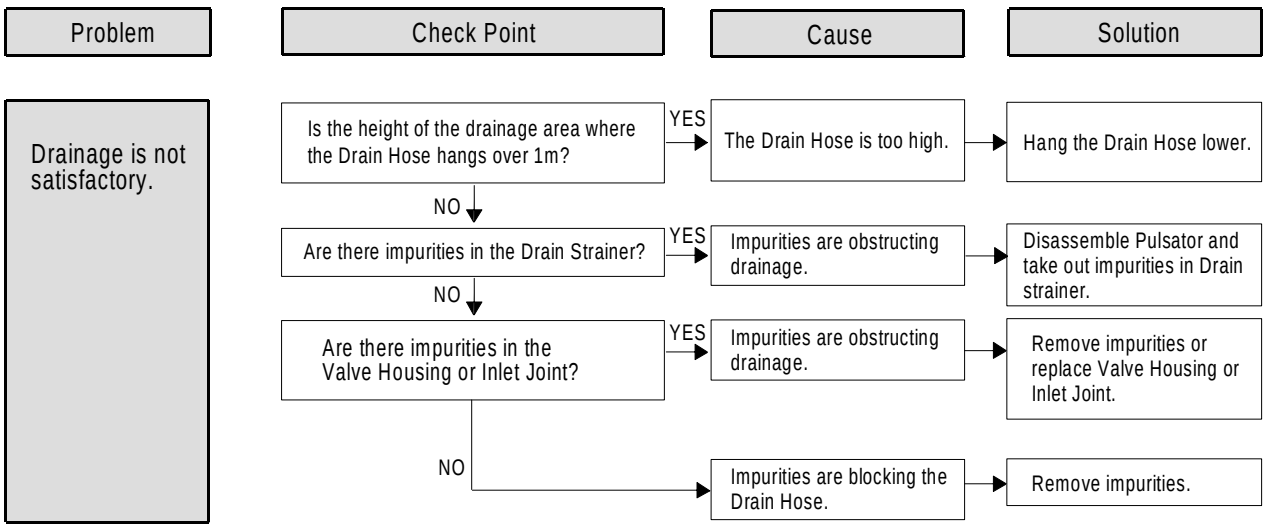
Concerning Spin

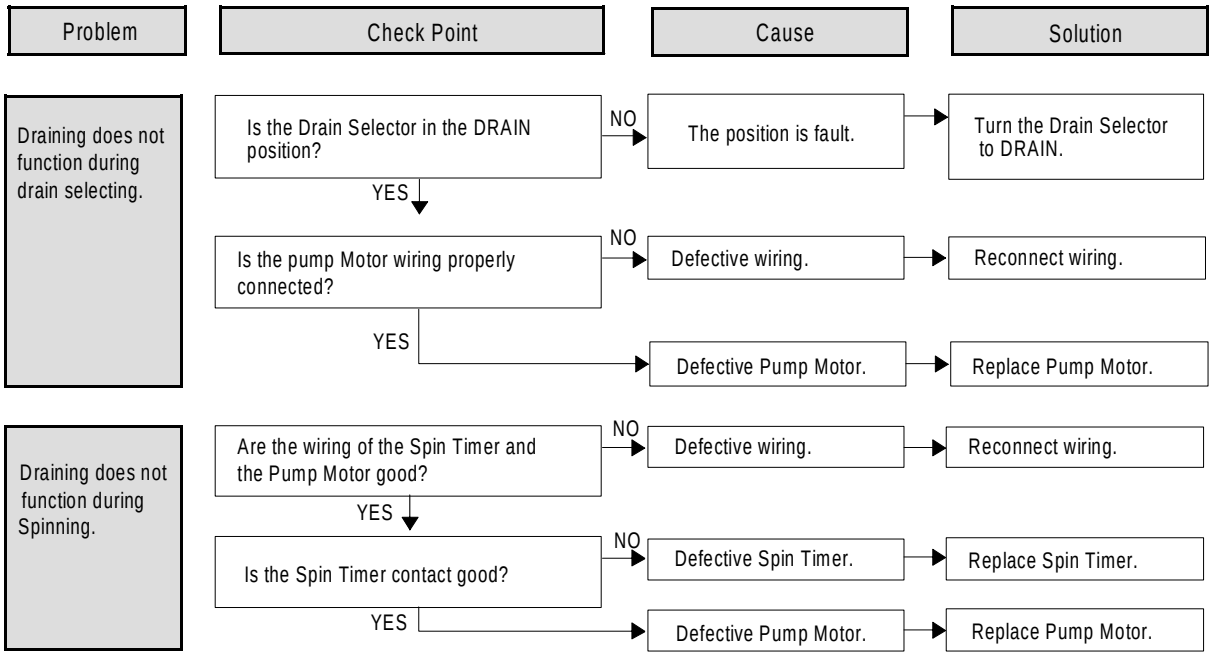



Problem
Check Point
Cause
Solution
The Basket Spin does not rotate.
YES
The Brake Band is touching the Drum Coupling Assembly.
YES
Brake Wire is too long.
Assemble after loosening Link Brake.
NO
Brake Spring is broken.
Replace Brake Spring.
NO
Is the Motor hot? (In the case there is Thermal Protector)
YES
Power has been cut off by the Thermal Protector.
Spin restart when Motor cools.
NO
Is the Wiring good? (Refer to the Wiring Diagram)
NO
Improper wiring.
Reconnect the Wiring.
YES
Is the Door Switch Lever properly placed on the Door Spin?
NO
Defective connection.
Replace Door Switch or Reconnect the Door Switch.
YES
Is the Door Switch terminal properly connected?
YES
Improper wiring.
Reconnect the terminal.
YES
Is the contact of Spin Timer good?
NO
Defective Spin Timer.
Replace the Spin Timer.
YES
Defective Spin Motor.
Replace the Spin Motor.
There are strange noise and severe vibration during spinning.
Is the wash load well balanced?
NO
Basket Spin does not balanced due to wash load.
Reload the clothes so they are well balanced.
YES
Are clothes or the Safety Cover stick out from Basket Spin ?
NO
Basket Spin does not balanced due to wash load.
Reload the colthes and press down the Safety Cover into Basket Spin .
YES
Is the assembly between the Drum Coupling Assembly and Spin Motor or Basket Spin loose?
YES
Improper assembly.
Tighten the Bolt in Drum Coupling Assembly.
NO
Is The Basket Spin itself well Balanced?
NO
Basket Spin unbalance.
Replace Basket Spin.
YES

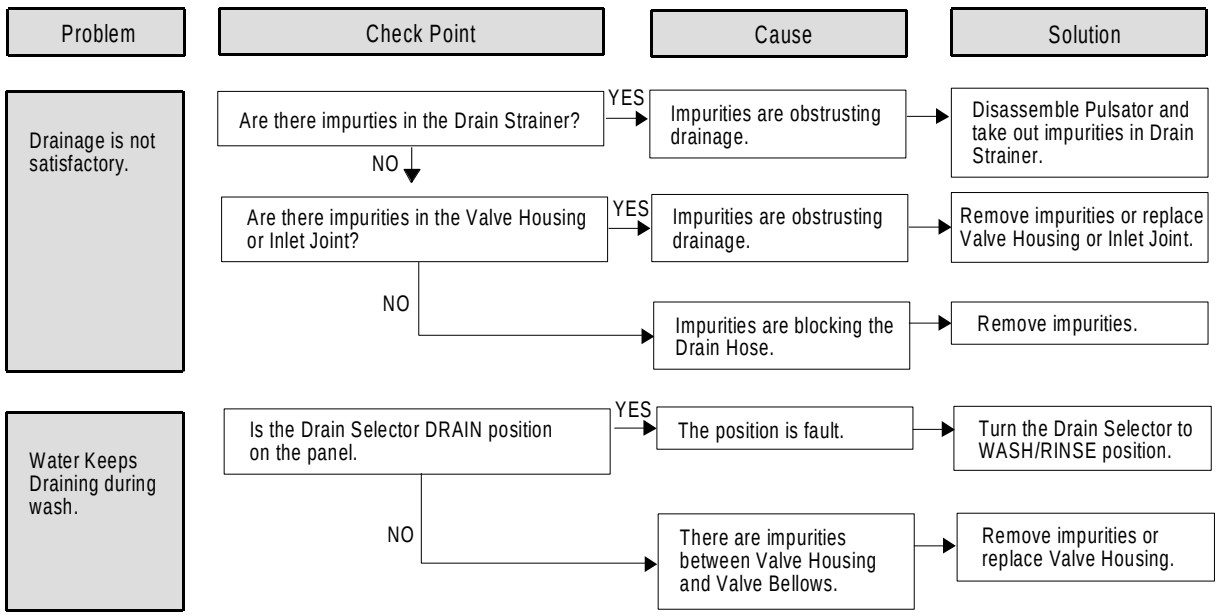


Concerning Drainage (Pump)



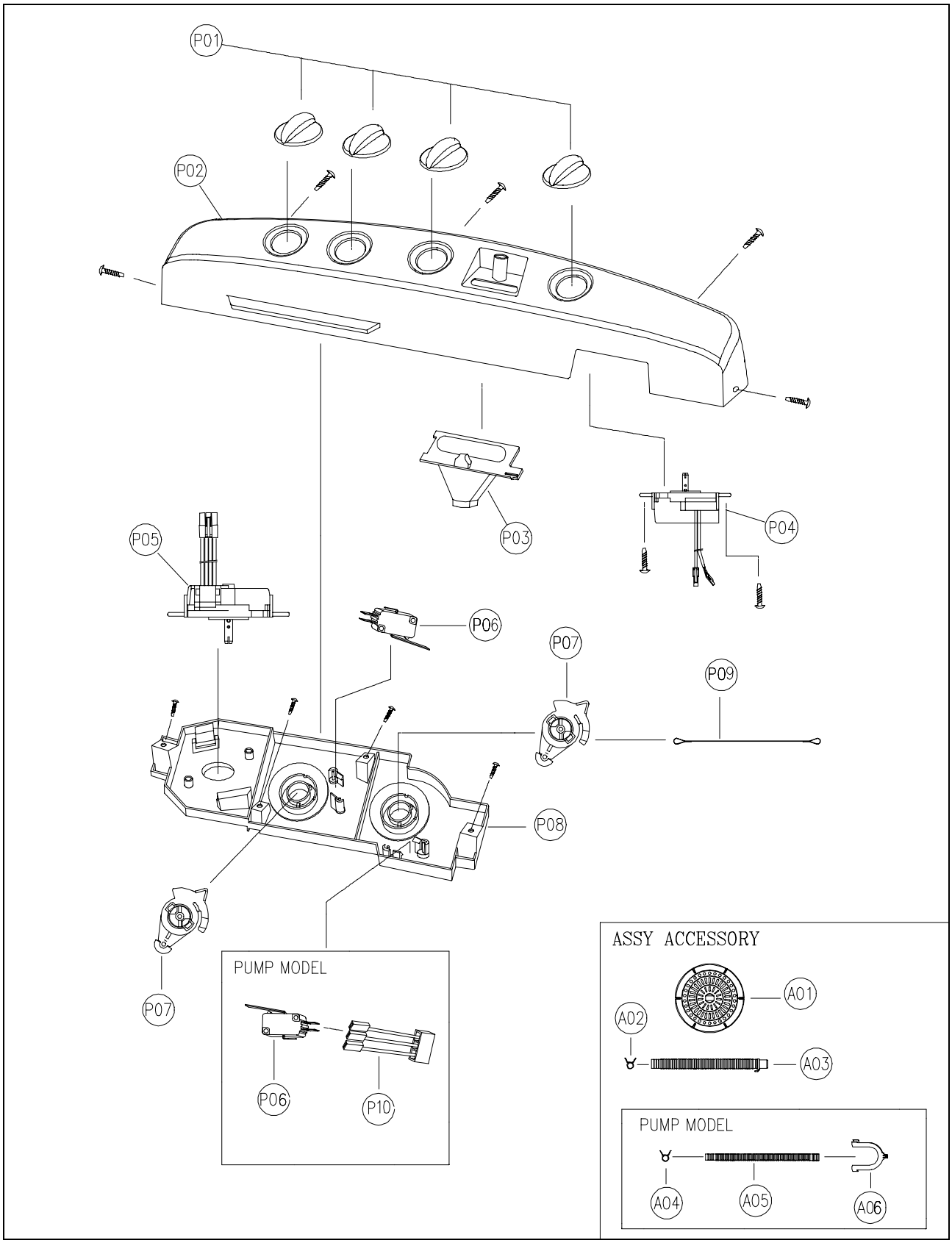


Concerning Drainage (NON PUMP)



6. EXPLODED VIEW AND PARTS LIST

ASSY PANEL BACK



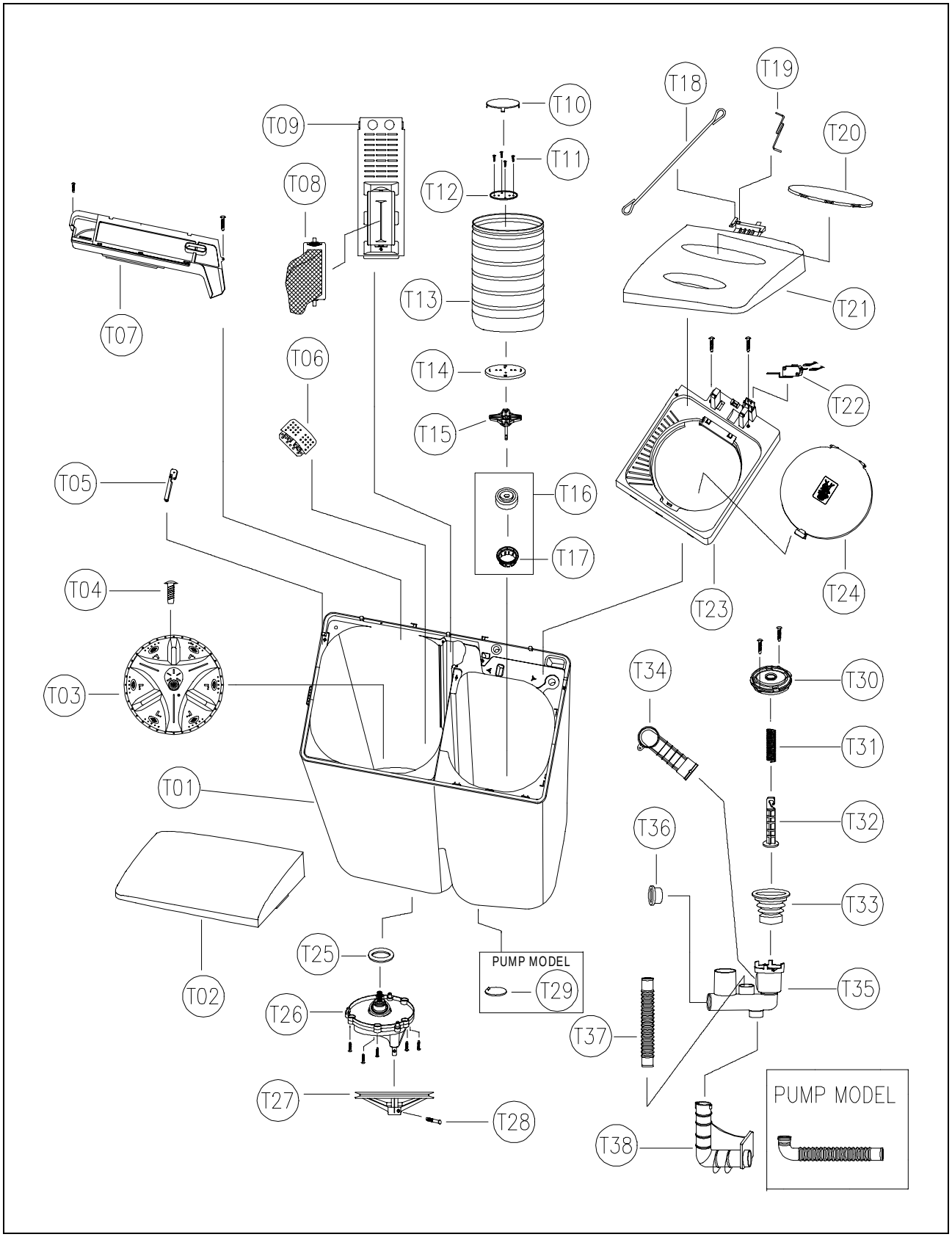
ASSY PANEL BACK

NO.	PART NAME	PART CODE	SPECIFICATION	REMARK
P01	KNOB	3613402400	HIPS	COLOR OPTION
P02	PANEL B	3614220900	HIPS	COLOR/LETTER OPTION
P03	LEVER W.S SELECT	3613701000	PP	COLOR OPTION
P04	TIMER SPIN	3619910100	S-7510A	
P05	TIMER WASH	3619910200	S-K75A	
P06	SWITCH DRAIN	3619043700	VP531A-2H, 250VAC/15A	
P07	LEVER CONTROL	3613700800	POM	
P08	BRACKET CONTROL	3610604200	HIPS	
P09	LINK VALVE	3617801500	PP BAND W6	
P10	HARNESS DRAIN	3612757500	7510P SW DRAIN	PUMP MODEL

ASSY ACCESSORY

NO.	PART NAME	PART CODE	SPECIFICATION	REMARK
A01	COVER SAFETY	3611416300	PELD	
A02	HOSE CLAMP	4508A06120	SW 2.6D ZN8-C (R15.5)	NON PUMP MODEL
A03	DRAIN HOSE	3613223000	L=1100mm	NON PUMP MODEL
A04	CLAMP HOSE O	3611202400	HSW-3, 4.0 kg	PUMP MODEL
A05	HOSE DRAIN O	3613222600	4010P, OSUNGSA	PUMP MODEL
A06	GUIDE DRAIN HOSE	3612502300	PP	PUMP MODEL

ASSY TUB


T01
T02
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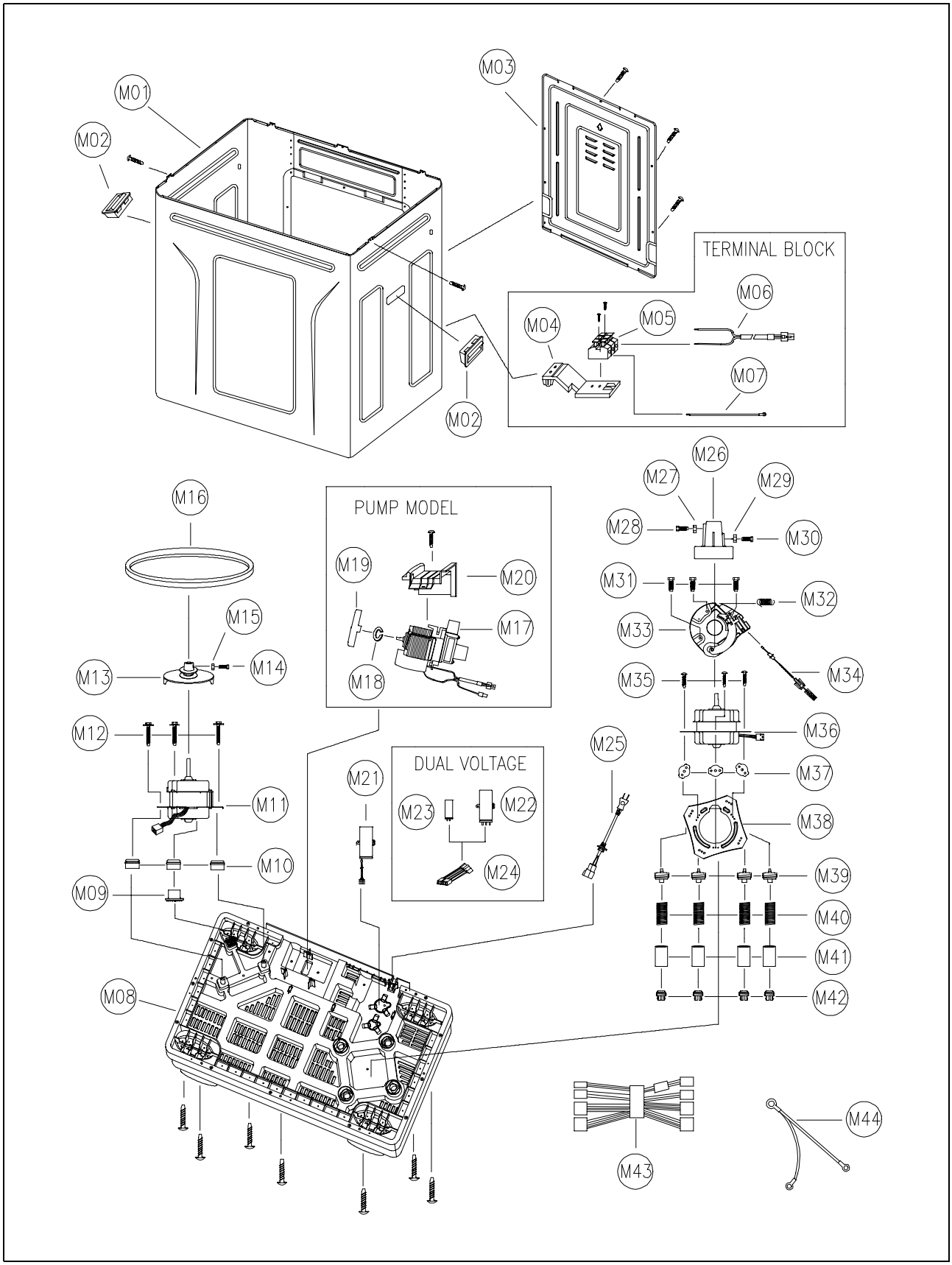
T37
T38
PUMP MODEL
PUMP MODEL

ASSY TUB

NO	PART NAME	PART CODE	SPECIFICATION	REMARK
T01	TUB	3618815600	PP	
T02	DOOR WASH	3611795000	HIPS	COLOR OPTION
T03	PULSATOR AS	3619704700	7.5kg	COLOR OPTION
T04	SPECIAL SCREW	3616002900	SUS304	
T05	GUIDE DOOR	3612507100	PP	
T06	DRAIN STRAINER	3619606600	PP	
T07	BASE WATER SUPPLY	3610387100	PP	COLOR OPTION
T08	FILTER AS	3611904000	PP+ POLYESTER	
T09	FILTER OVERFLOW	3611903700	PP	
T10	COVER BASKET	3611416000	PP	
T11	BOLT SPIN BASKET	4506B19031		
T12	PLATE UPPER	3614516900	SPG T1.2	
T13	BASKET SPIN	3619102400	SPCE	
T14	PLATE UNDER	3614517900	SPG T2..0	
T15	FIXTURE SHAFT AS	3612005300	7.0kg D14	
T16	BELLOWS AS	3616401600	7.5kg	
T17	FIXTURE BELLOWS	3612005100	PP	
T18	LINK BRAKE	3617801600	PP BAND W6	
T19	SPRING COVER	3615109100	SWC	
T20	WINDOW SPIN	3615501900	ABS	COLOR OPTION
T21	DOOR SPIN	3611794900	HIPS	COLOR OPTION
T22	SWITCH COVER	3619001200	15A 220VAC RW-622,250	
T23	PLATE T	3614517000	PP	COLOR OPTION
T24	COVER INNER	3611416100	PP	
T25	PACKING	3614001900	NBR	
T26	GEAR HOUSING AS	3617306200	DWM-7510S R=3.3:1	
T27	PULLEY PULSATOR	3618405500	FRPP	
T28	SPECIAL BOLT	3616008400	M6 SIDE FIXING	
T29	PACKING	4509A05032	NR	PUMP MODEL
T30	VALVE CAP	4505F06013	PP	
T31	SPRING VALVE	4505C06020	SUS304 WR D1.0	
T32	ROD VALVE	3618504000	PP	
T33	BELLOWS VALVE	4505C06040	NR	
T34	INLET JOINT	3617503800	PP	
T35	CASE VALVE	3611118200	PP	
T36	CAP	3610909800	PP	
T37	HOSE OVERFLOW	4506H60610	PE-HD	
T38	ELBOW DRAIN	3617101900	PP	NON PUMP MODEL
	HOSE A	3613217420	PE-LD/EVA, O-SUNG	PUMP MODEL

ASSY MAIN


M01
M02
M03
TERMINAL BLOCK
M04
M05
M06
M07
PUMP MODEL
M16
M15
M13
M14
M12
M11
M10
M09
M08
M19
M20
M17
M18
DUAL VOLTAGE
M21
M23
M22
M24
M25
M26
M27
M29
M28
M30
M31
M32
M33
M34
M35
M36
M37
M38
M39
M40
M41
M42
M43
M44

ASSY MAIN

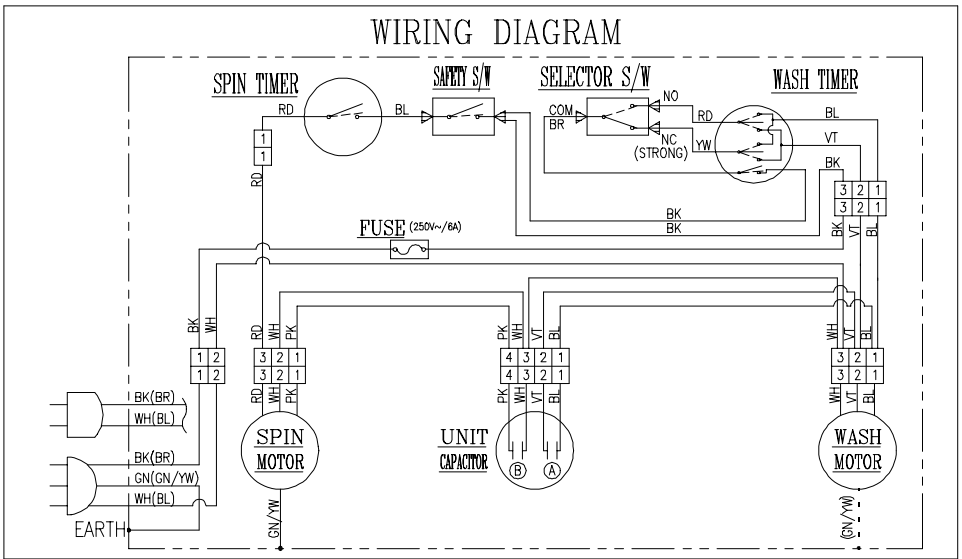
NO	PART NAME	PART CODE	SPECIFICATION	REMARK
M01	CABINET WELD AS	PRAWPS0000	7510S	COLOR OPTION
M02	HANDLE CABINET	4506J03010	PE-HD	COLOR OPTION
M03	COVER BACK	3611416200	T0.4x520x610	
M04	TERMINAL BLOCK	3618701900	271-312	OPTION
M05	BRACKET TERMINAL	4505D37002	PP	OPTION, T/BLOCK
M06	HARNESS POWER	3612756810	7510MP, T/BLOCK 250-CON.	OPTION, T/BLOCK
M07	HARNESS	4505D64081	16/0.26X340 FOR GND.	OPTION, T/BLOCK
M08	BASE UNDER	3610387000	PP	NON PUMP MODEL
	BASE UNDER	3610387010	PP, PUMP	PUMP MODEL
M09	CUSHION SPOT	450M712010	PP	
M10	CUSHION W/M MOTOR	3611506200	NR	
M11	MOTOR WASH	3618949700	AC 110V 60Hz, W1D42ED001	DWM-7510T(P)
		3618950800	AC 120V 60Hz, W1D42JD001	DWM-7510A(P)
		3618949300	AC 220V 60Hz, W1D42UD101	DWM-7510, L
		3618949500	AC 220V~240V 50Hz, W1D42VD101	DWM-7510N(P), M(P)
		3618949900	AC 110V/220V 50Hz, 120/240V 60Hz, W1D42GD001	DWM-7510S,D(P)
M12	SPECIAL BOLT	3616003100	M5x35 WASHER	
M13	PULLEY MOTOR	4506H12011	ADC-12	60Hz
		4509A20022	ADC-10	50Hz
M14	BOLT HEX	7342602011	6B-2 6x20 POINTING MFZN	
M15	NUT HEX	7393600011	6N-3-6 MFZN	
M16	BELT V	450M700020	M-32	
M17	DRAIN PUMP	3619601610	AC 110V 60Hz CON.	DWM-7510TP
		3619610030	AC 120V 620Hz CON.	DWM-7510AP
		3619600720	AC 220~240V 50Hz CON.	DWM-7510NP,MP
		3619603810	AC 110/220V 50Hz CON.	DWM-7510DP
M18	RING E	7402003031	ER-3 SKZN	PUMP MODEL
M19	FAN COOLING	3611801300	ABS	PUMP MODEL

NO	PART NAME	PART CODE	SPECIFICATION	REMARK
M20	BRACKET PUMP	3610604000	PP(OSUNG SA)	PUMP MODEL
M21	UNIT CONDENSER	3618943020	50/25㎌ 200VAC CON.	DWM-7510T(P)
		3618950600	41.6/20.8uF 200/230VAC CON.	DWM-7510A(P)
		3618943420	12.5/5.2㎌ 400/440VAC CON.	DWM-7510L
		3618948300	10.4/5.2㎌ 400/440VAC CON.	DWM-7510N(P), M(P)
M22	CAPACITOR WASH	4505E11000	25㎌x2 200VAC CON.	DWM-7510D(P),DUAL
		4509C11020	20.8㎌x2 200VAC CON.	DWM-7510S,DUAL
M23	CAPACITOR SPIN	4509C11010	20.8㎌ CON.	DWM-7510D(P),S,DUAL
M24	HARNESS CONDENSER	3612706710	CONNECTOR A, B	DUAL VOLTAGE
M25	CORD POWER AS	-	-	
M26	COUPLING DRUM AS	4507K16001	7.5kg	
M27	NUT HEX	7393800011	6N-3-8 MFZN	
M28	BOLT HEX	7342802011	6B-2 8x20 POINTING MFZN	
M29	NUT HEX	7393600011	6N-3-6 MFZN	
M30	BOLT HEX	7642602011	6B-2 6x20 POINTING MFZN	
M31	BOLT HEX	7341500811	6B-1-5x8 MFZN	
M32	SPRING BRAKE	4507K53010	SWC D1.0 ZNB-C	
M33	BRAKE FIX PLATE AS	4505C54000	2-WAY	
M34	ASSY BRAKE WIRE	3619201800	SUS WIRE + PP	
M35	BOLT HEX	7341501611	6B-1-5x16 HS MFZN	
M36	MOTOR SPIN	3618949600	AC 110V 60Hz W1D35 EF001	DWM-7510T(P)
		3618950700	AC 120V 60Hz WID35JF001	DWM-7510A(P)
		3618949200	AC 220V 60Hz W1D35UF001	DWM-7510, L
		3618949400	AC 220V~240V 50Hz W1D35VF001	DWM-7510N(P), M(P)
		3618950100	AC 110/220V 50Hz W1D35FF002	DWM-7510D(P)
		3618950000	AC 120/240V 60Hz W1D35LF002	DWM-7510S
M37	CUSHION MOTOR SPIN	3611532900	PP	
M38	BRACKET MOTOR SPIN	3610604100	SPG T1.4	
M39	STOPPER	4506H14020	PEHD	

NO	PART NAME	PART CODE	SPECIFICATION	REMARK
M40	SPRING CUSHION	4507K14010	SWC D3.2	
M41	RUBBER DAMPING	4506H14030	NBR	
M42	STOPPER LOWER	3615200800	PP	
M43	HARNESS AS	3612756300	7.5kg DUAL, NORMAL	NON PUMP
		3612756400	7.5kg DUAL, PUMP	
		3612756500	7.5kg SINGLE, NORMAL	NON PUMP
		3612756600	7.5kg SINGLE, PUMP	
M44	HARNESS EARTH	3612757800	UL1015 AWG18 L=490 + 600	PUMP MODEL
		3612757810	UL1015 AWG18, L=490	NON PUMP

7. WIRING DIAGRAM

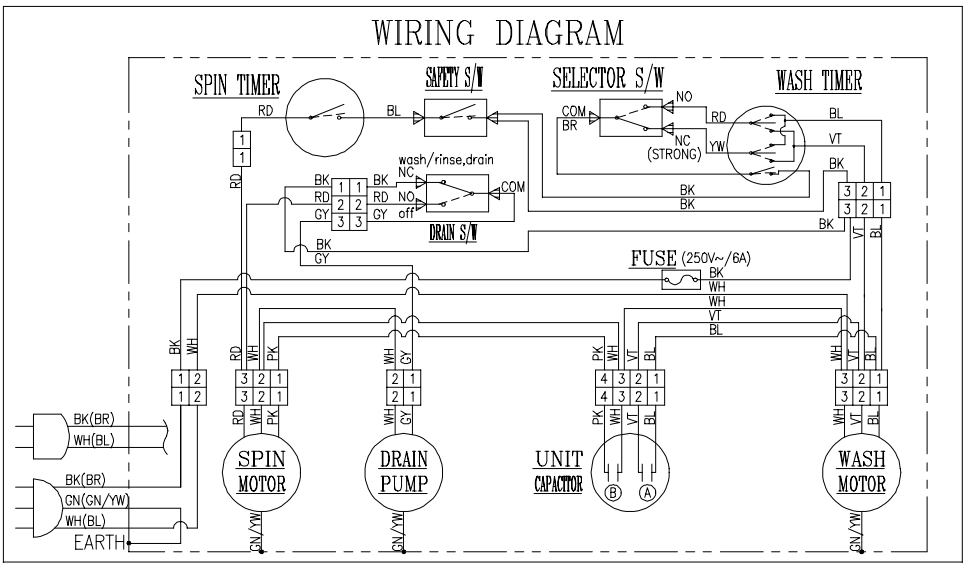
7-1. SINGLE VOLTAGE (NORMAL)



RATING VOLTAGE(V~)		100	110	120	220	220	230~240
Hz		50/60	60	60	60	50	50
CAPACITOR	Ⓐ	50	50	41.6	12.5	12.5	10.4
	Ⓑ	25	25	20.8	5.2	5.2	5.2

BK:BLACK VT:VIOLET
BL:BLUE BR:BROWN
RD:RED YW:YELLOW
PK:PINK GN:GREEN
WH:WHITE GN/YW:GREEN/YELLOW

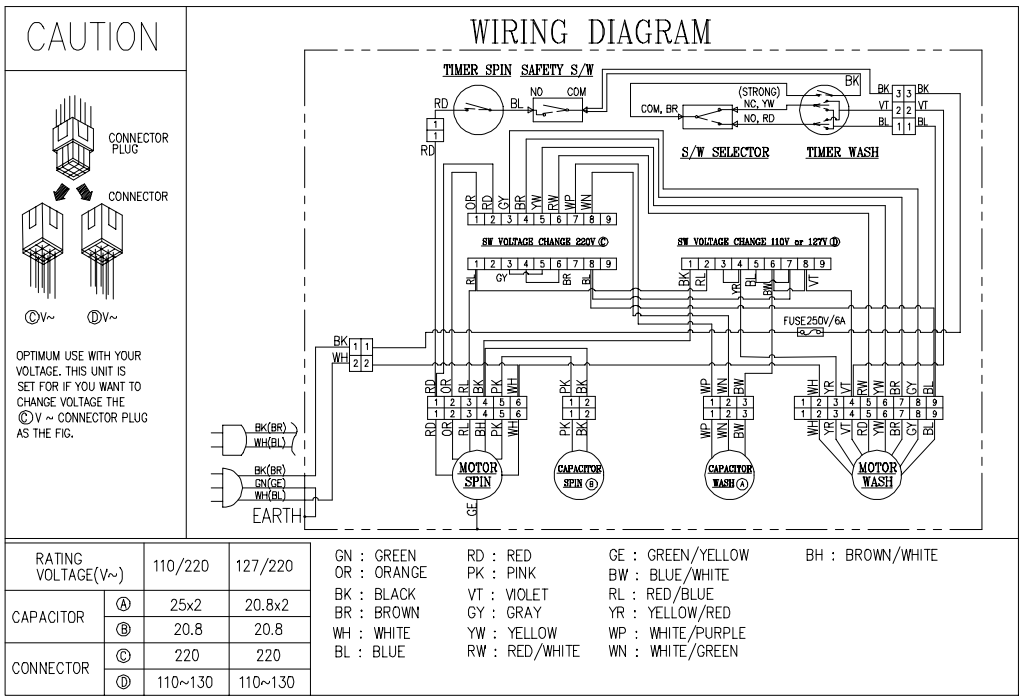
7-2. SINGLE VOLTAGE (PUMP)



RATING VOLTAGE(V~)		110	120	220	220	230~240
Hz		60	60	60	50	50
CAPACITOR	Ⓐ	50	41.6	12.5	12.5	10.4
	Ⓑ	25	20.8	5.2	5.2	5.2

BK:BLACK VT:VIOLET
BL:BLUE BR:BROWN
RD:RED GN:GREEN
PK:PINK GY:GRAY
WH:WHITE GN/YW:GREEN/YELLOW

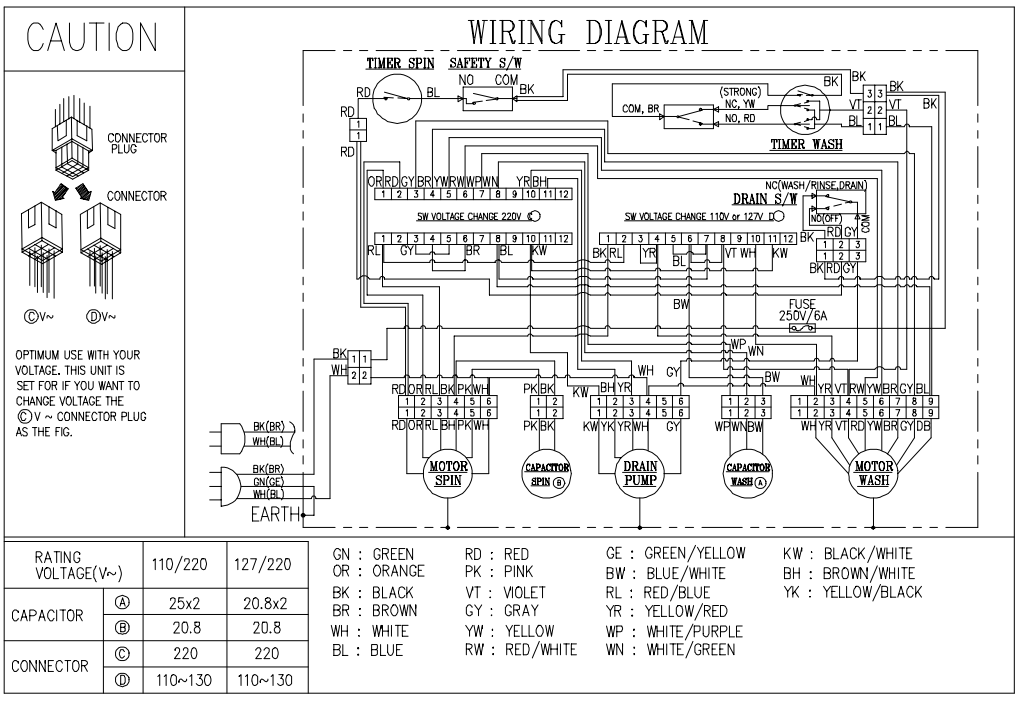
7-3. DUAL VOLTAGE (NORMAL)



RATING VOLTAGE(V~)		110/220	127/220
CAPACITOR	Ⓐ	25x2	20.8x2
	Ⓑ	20.8	20.8
CONNECTOR	ⓒ	220	220
	ⓓ	110~130	110~130

GN : GREEN
OR : ORANGE
BK : BLACK
BR : BROWN
WH : WHITE
BL : BLUE
RD : RED
PK : PINK
VT : VIOLET
GY : GRAY
YW : YELLOW
RW : RED/WHITE
GE : GREEN/YELLOW
BW : BLUE/WHITE
RL : RED/BLUE
YR : YELLOW/RED
WP : WHITE/PURPLE
WN : WHITE/GREEN
BH : BROWN/WHITE

7-4. DUAL VOLTAGE (PUMP)



RATING VOLTAGE(V~)		110/220	127/220
CAPACITOR	Ⓐ	25x2	20.8x2
	Ⓑ	20.8	20.8
CONNECTOR	ⓒ	220	220
	ⓓ	110~130	110~130

GN : GREEN
OR : ORANGE
BK : BLACK
BR : BROWN
WH : WHITE
BL : BLUE
RD : RED
PK : PINK
VT : VIOLET
GY : GRAY
YW : YELLOW
RW : RED/WHITE
GE : GREEN/YELLOW
BW : BLUE/WHITE
RL : RED/BLUE
YR : YELLOW/RED
WP : WHITE/PURPLE
WN : WHITE/GREEN
KW : BLACK/WHITE
BH : BROWN/WHITE
YK : YELLOW/BLACK

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