

S/M No. : DW50100001

# Service Manual

## Washing Machine

Model: DW-5010

**DAEWOO**

### ✓ Caution

: In this Manual, some parts can be changed for improving, their performance without notice in the parts list. So, if you need the latest parts information, please refer to PPL(Parts Price List) in Service Information Center (<http://svc.dwe.co.kr>).

**DAEWOO ELECTRONICS CORP.**

<http://svc.dwe.co.kr>

Aug. 2003

**WASHING MACHINE**

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# 1. SPECIFICATIONS

NO.	ITEM		SPECIFICATIONS
1	POWER SOURCE	VOLTAGE	AC 127V
		FREQUENCY	60Hz
2	POWER CONSUMPTION	NON PUMP	400W
		PUMP	-
3	DEMENSION		440 X 802 X 941 (W X D X H)
4	CAPACITY	WASH	5.0Kg
		SPIN	4.0Kg
5	MACHINE WEIGHT	NON PUMP	NET : 22.5Kg, PACKED : 25.5Kg
		PUMP	NET : 23.5Kg, PACKED : 26.5Kg
6	WATER LEVEL		HIGH : 491, MEDIUM : 421, LOW : 351
7	OPERATING WATER PRESSURE		0.3 ~ 3.0kgf/cm <sup>2</sup> (3.0 ~ 30.0 N/cm <sup>2</sup> )
8	REVOLUTION PER MINUTE	WASH	300RPM
		SPIN	1,700RPM
9	WASHING TYPE		Pulsator Type
10	SPIN TYPE		Centrifugally Seperated Type
11	TIMER	WASH	Max. 15Min., Manual Operation
		SPIN	Max. 5Min., Manual Operation
12	PULSATOR		6 WINGS ( 300mm)
13	WATER SUPPLY		MANUAL

Explanation table for suffixes of model names.

Power Source	Suffix		specifications
	Non Pump	Pump	
AC 110V, 60Hz	T	TP	<p>Model name → DW-XXXX N P → Power source</p>
AC 120V, 60Hz	A	AP	
AC 220V, 60Hz	L	LP	
AC 120/240(127/220)V, 60Hz	D, (S)	DP	
AC 220V, 50Hz	N	NP	
AC 230~240V, 50Hz	M	MP	
AC100V, 50/60Hz	J	-	

## 2. CAUTIONS ON THE OPERATION

### 2-1. INSTALLATION

- Install the washer in the place easy of access to water, electrical power and drainage.
- Install the washer on a firm and flat floor.
- Be sure that the washing machine must be grounded with the external g rounding wire(option) or with the power cord and electric outlet of the house.
- Avoid installing the machine where it can be exposed to rain or directray of the sun, that may cause trouble or discoloration. In case the machine has to be installed in such a place, provide a shield top rotect machine from rain or direct rays of the sun.
- In summer or other periods when there is a great difference between the water temperature and the air temperature, drops of water may condense on the outs ide of the tub, and the floor might become wet from dripping; be careful o f this.
- Please disconnect the power cord plug after washing.

### 2-2. GROUNDING

- Connect the grounding wire(option) to a water faucet if the pipe is made of metal.
- Make sure that the power cord is unplugged during ground work.
- Be sure to wind grounding wire on a metal pipe like Fig1.  
(Do not connect the grounding wire end to a gas tube.)
- For maximum security, attach the grounding wire to a copper plate or grounding rod and bury it at least 20cm in the ground like Fig2.

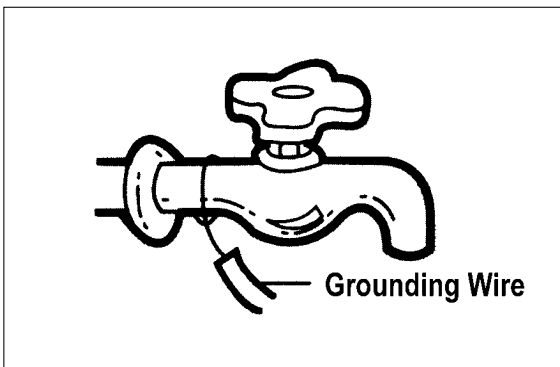


Fig. 1

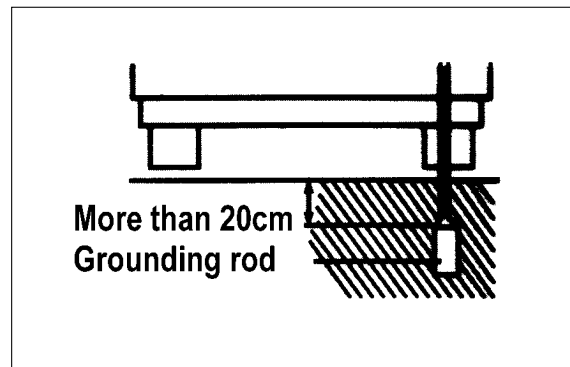


Fig. 2

## 2-3. CAUTION ON USE

- Do not use water which contains rust.
- Never put your hands into the tub during wash and rinse process.
- This unit is made of poly-propylene, use water below 50.
- The opening must not be obstructed by carpeting when the washing machine is installed on a carpeted floor.
- Put the wet clothes into the spindryer drum, being sure that they must be well balanced.
- Place the safety cover horizontally on the top.
- Ensure that the spindryer drum completely stops before reaching in to remove the laundry.



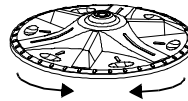
**Putting in the clothes**  
Distribute the clothes in the tub being sure that nothin is protruding out of the top.



**Detergent Amount**  
If you use too much detergent. There will be an excessive amount of suds and rinsing may be insufficient: Lim it the amount of detergent you use.



**Pocket Check**  
Check the pockets of the laundry and remove contents that shouldn't be washed before putting the laundry into the tub.



### Acting Time Of Pulsator

Wash Action	Move	Stop
Normal Reverse	6.8"	4.5"
Soft Reverse	4.5"	6.8"

\* Soft Reverse Action is available with DW-5034 non pump model only.

# 3. PRINCIPLES OF OPERATION AND EXPLANATION OF FUNCTIONS

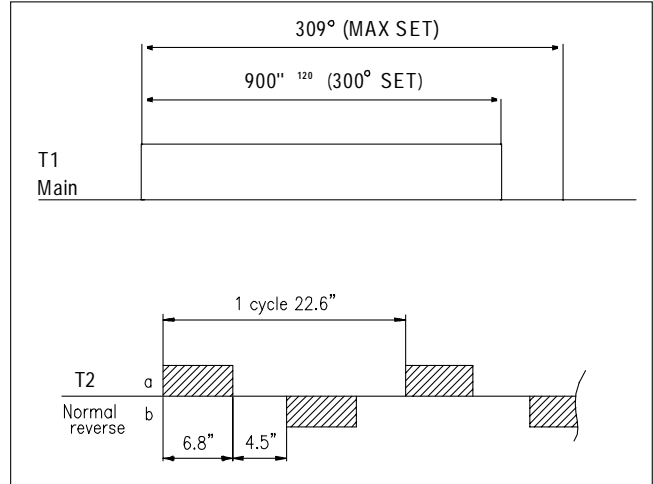
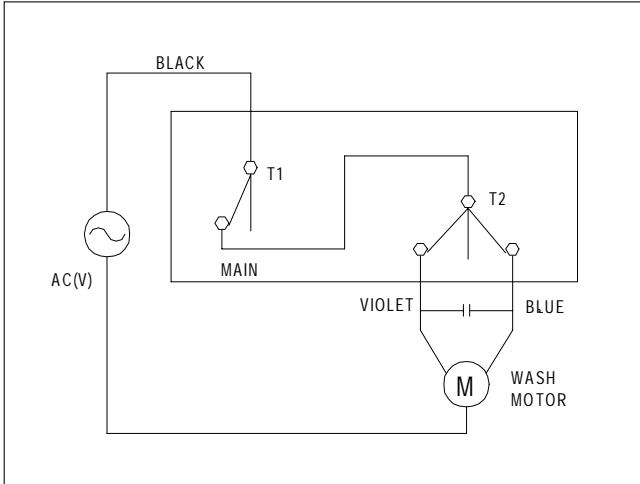
## TIMER WASH

### - Function

The main switch(T1) remains ON during the washing time set by turning the timer knob.

At the same time, the internal switch(T2) provides Power to wash motor alternately at assigned intervals.

### Circuit Diagram

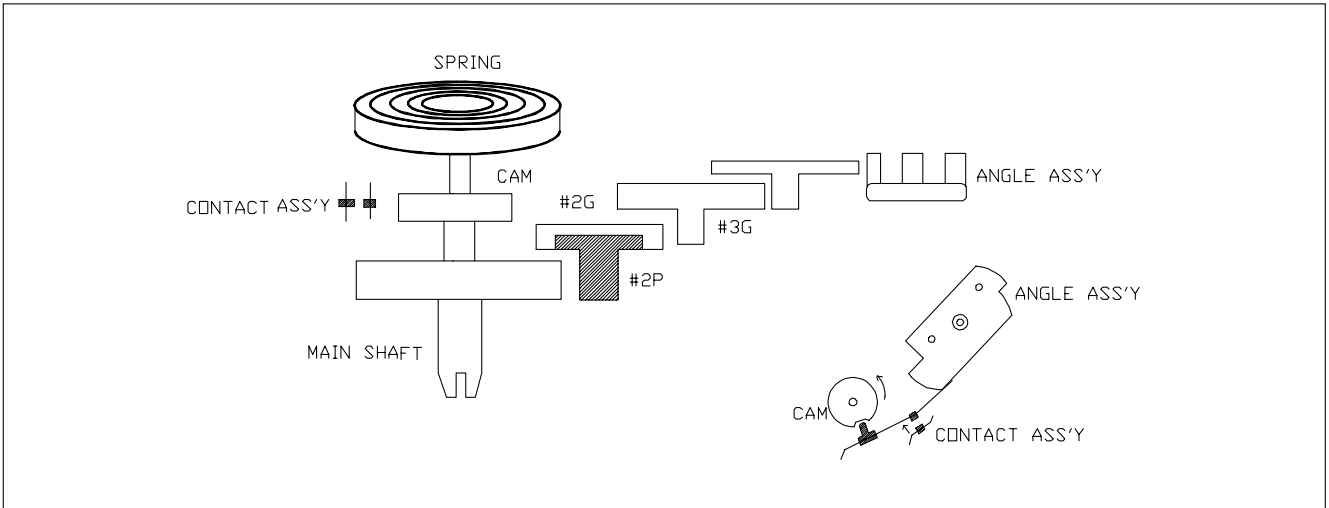


## TIMER SPIN

### - Function

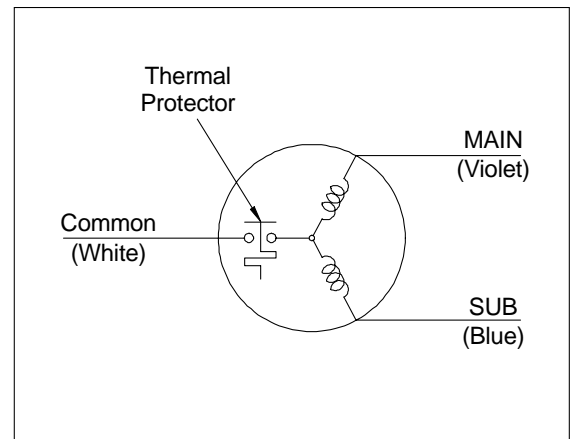
The Spin Timer is the switch providing power to the spin motor(Drain Pump motor) during the set spin dry time, and is a spring-type time switch comes on upon turning and those contact point comes off after the set time.

### Structure and Principle of Activation



## SAFETY DEVICE FOR MOTORS

In case excessive strain is placed on the motor due to excessive electricity, over heating, or overloading so that the temperature of motor reaches to about 130°C the thermal protector attached to the motor shuts off the motor automatically. In the case the motor does not operate, until the temperature of motor drops to about 85°C. It takes about an hour.



## SAFETY DEVICE FOR SPIN DRYER

The spin dryer is an apparatus which eliminates the water from the laundry through centrifugal separation generated by rapid revolution(approximately 1700rpm for frequency of 60Hz).

Accordingly, there are a door switch to cut off the power going into the spin motor when door spin is opened and a brake system to stop the rotating spin dryer.

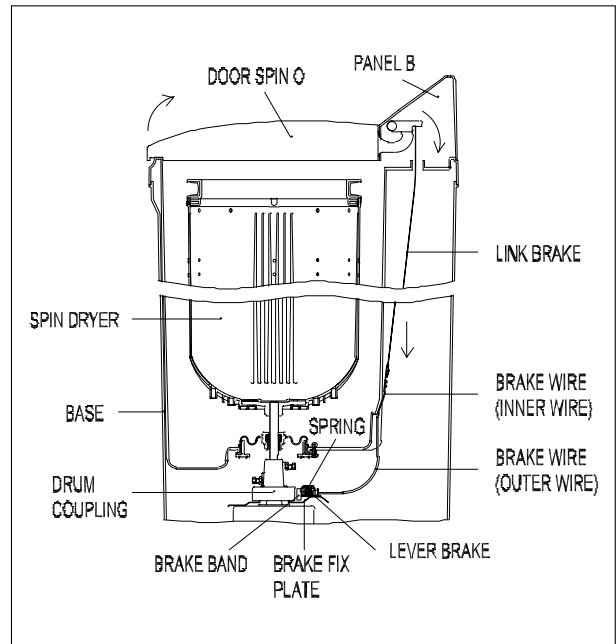
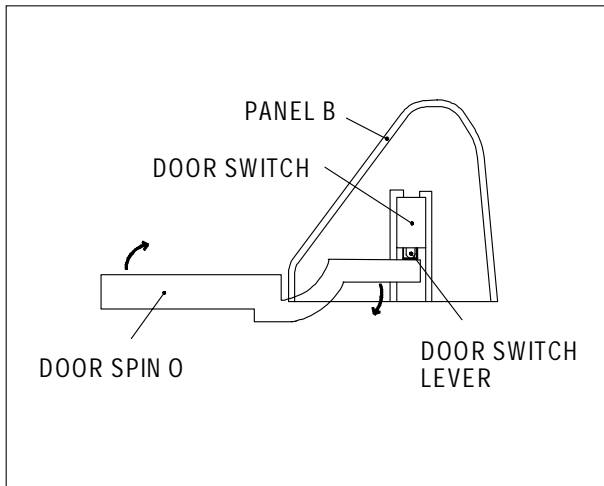
### Door Switch

When the door spin o is opened during spin drying the lever of the door switch which sits a top the door spin o falls off the contact, and cuts off the power going into the spin motor.

### Brake System

When the door spin is opened, the link brake and brake wire is loosened.

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.



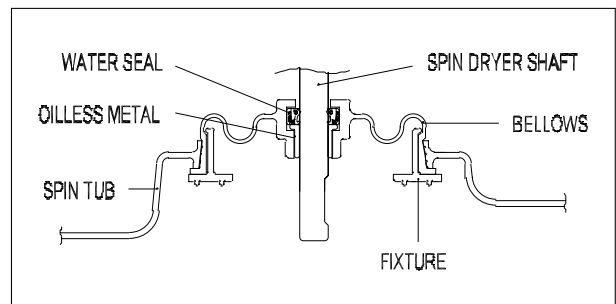
### Brake Band Gap Control

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 is too large.

### SPIN BELLOWS ASS'Y

The wrinkled rubber device below the spindryer is called spin bellows assembly.

It has a waterseal and an oilless metal inside to prevent leakage and so that spin dryer may work smoothly.





# 4. TROUBLE SHOOTING GUIDE



## NOTES

Pull out the power plug prior repair and make sure that the Washing machine has been properly grounded.

### Concerning Wash

PROBLEM	CHECK POINT	CAUSE	SOLUTION	
PULSATOR DOSE NOT ROTATE.	Is the Power properly connected?	NO	Reconnect the Power Cord.	
	YES ↓			
	Is there a whirring sound from the Wash Motor when turned on?			
	YES ↓			
	Is the Condenser properly connected?	NO	Motor does not start due to opening the Condenser circuit.	Reconnect the Condenser.
	NO ↓			
Is the Motor hot? (In case there is Thermal Protector)	YES	Power has been cut off by the Thermal Protector	Power restored when Motor cools	
NO ↓				
Is the Wiring good? (Refer to the Wiring Diagram)	NO	Improper wiring.	Reconnect the wiring.	
YES ↓				
Is the contact of Wash Timer good?	NO	Defective Wash Timer.	Replace Wash Timer.	
YES		Defective Wash Motor.	Replace Wash Motor.	
PULSATOR DOES NOT ROTATE SMOOTHLY.	Is the wash load appropriate?	NO	Reload with proper wash load.	
	YES ↓			
	Are the Pulsator and Motor Pulley securely assembled?	NO	Defect of mechanical assembly.	Tighten the screws fixed on the Pulley.
	YES ↓			
	Does the V-Belt slip?	YES	Worn out V-Belt.	Replace V-Belt
	NO ↓			
Are there impurities between the Pulsator and Tub.	YES	Revolution obstructed by impurities.	Remove impurities after disassembling pulsator.	
NO ↓				
Does the pulsator shaft rotate propely when the pulsator has been disassembled?	YES	Worn out the Serration within the pulsator.	Replace pulsator.	
NO		Defective Case Shaft As.	Replace Case Shaft As..	

PROBLEM	CHECK POINT	CAUSE	SOLUTION
PULSATOR ROTATE ONLY IN ONE DIRECTION.	Is the wiring of Condenser properly connected?	NO → Improper wiring.	Reconnect.
	YES ↓ Is the wiring of wash timer properly connected?	NO → Improper wiring.	Reconnect the Wash Timer
	YES →	Defective Wash timer.	Replace Wash Timer.
THERE IS EXCESSIVE NOISE DURING WASHING.	Are there strange noise from Tub when the Pulsator rotates?	YES → Impurities between Pulsator and Tub.	Remove impurities after disassembling Pulsator.
	NO ↓	Pulsator improperly assembled.	Tighten the Pulsator fixing screw.
	NO →	Something is in contact with the Pulsator Pulley or Motor Pulley or other rotating parts.	Adjust the parts so that there are no impurities in contact with rotating parts.

### Concerning Spin

PROBLEM	CHECK POINT	CAUSE	SOLUTION
THE SPIN DRYER DOES NOT ROTATE.	Is there a whirring sound form the Spin Motor when turned ON?		
	NO ↓		
	YES ↓ Is the Condenser properly connected?	NO → Motor does not start due to opening the Condenser circuit.	Reconnect.
	NO ↓		
	Is the Motor hot? (In case there is Thermal Protector)	YES → Power has been cut off by the Thermal Protector	Power restored when Motor cools
	NO ↓		
Is the Wiring good? (Refer to the Wiring Diagram)	NO → Improper wiring.	Reconnect the wiring.	
YES ↓			
Is the contact of Spin Timer good?	NO → Defective Spin Timer	Replace the Spin Timer.	
YES →	Defective Spin Motor	Replace the Spin Motor.	

PROBLEM	CHECK POINT	CAUSE	SOLUTION
THERE ARE STRANGE NOISE AND SEVERE VIBRATION DURING SPINNING.	Is the wash load well balanced?	NO → Spin Dryer does not balanced due to wash load.	Reload the clothes so they are well balanced.
	YES ↓		
	Are clothes or the Safety Cover stuck out of the Spin Basket?	YES → Tub is in contact with the object stuck out.	Reload the clothes and press down the Safety Cover into Spin Basket.
	NO ↓		
	Is the assembly between the Drum Coupling Assembly and Spin Motor or Spin Dryer loose?	YES → Improper structural assembly	Tighten the Bolt in Drum Coupling Assembly
THERE IS LEAKAGE DURING SPIN DRYING.	NO ↓		
	Is The Spin Dryer itself well Balanced?	NO → Spin Dryer unbalance	Re-assemble Spin Dryer.
	YES →	The Waterseal or the Oilless metal in the Bellows Assembly worn out.	Replace Bellows Assembly
THERE IS LEAKAGE DURING SPIN DRYING.	NO →	Waterproofing not working due to defective assembly.	Re-assemble Bellows Assembly.
	YES →	The waterseal or the oilless metal in the Bellows Assembly is worn out.	Replace Bellows Assembly.

### Concerning Drainage

PROBLEM	CHECK POINT	CAUSE	SOLUTION
DRAINAGE IS NOT SATISFACTORY.	Are there impurities in the Drain Strainer?	YES → Impurities are obstructing drainage.	Disassemble Pulsator and take out impurities in Drain strainer
	NO ↓		
	Are there impurities in the case valve or Inlet Joint.	YES → Impurities are obstructing drainage.	Remove impurities or replace Case Valve or inlet joint.
WATER KEEPS DRAINING DURING WASH	NO →	Impurities are blocking the Drain Hose.	Remove impurities
	Is the Drain Selector is at the DRAIN position?	YES → Misoperation	Turn Drain Selector to WASH/RINSE position
	NO →	There are impurities between the Case Valve and Valve Bellows.	Remove impurities. Or replace Case Valve.

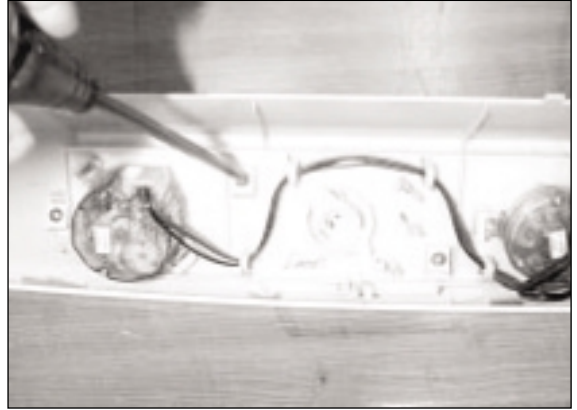
## 5. HOW TO DISASSEMBLE

### 5-1. REPLACING WASH TIMER AND SPIN TIMER

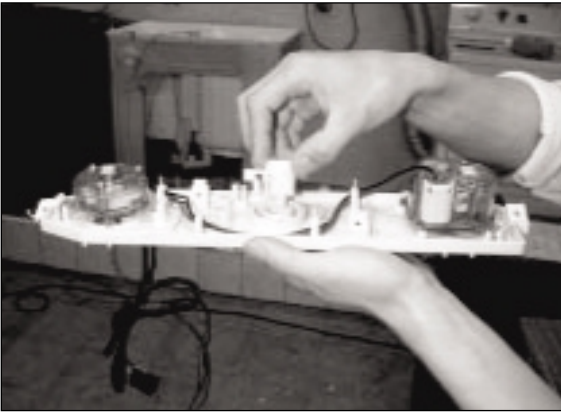
1. Remove 5 screws on panel.



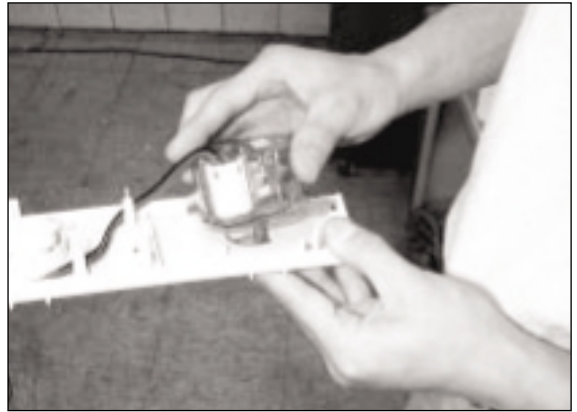
2. Remove 4~5 screws on bracket panel.



3. Remove control lever.



4. Remove wash and spin timer.



### 5-1. REPLACING WASH TIMER AND SPIN TIMER

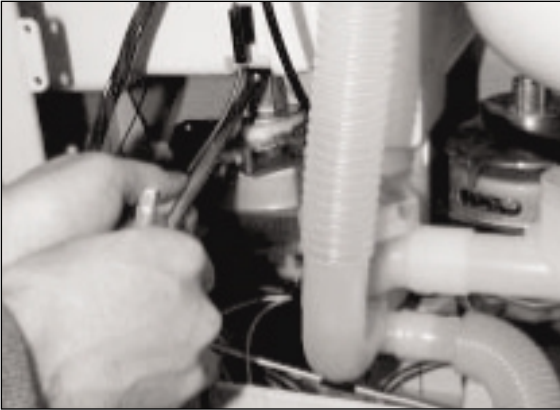
1. Remove 2 screws on the cover B



2. Separate link brake from the brake wire assembly.



3. Remove nut and bolt on spin basket shaft and remove spin basket.



4. Remove a belt connecting motor pulley and pulsator pulley.



5. Remove 3 screws fixing the drain pump. (pump model)



6. Remove cap screw(2EA) and 5 screws on flange of the tub. And lift up the tub assembly.



7. Remove 3 screws and wash motor.

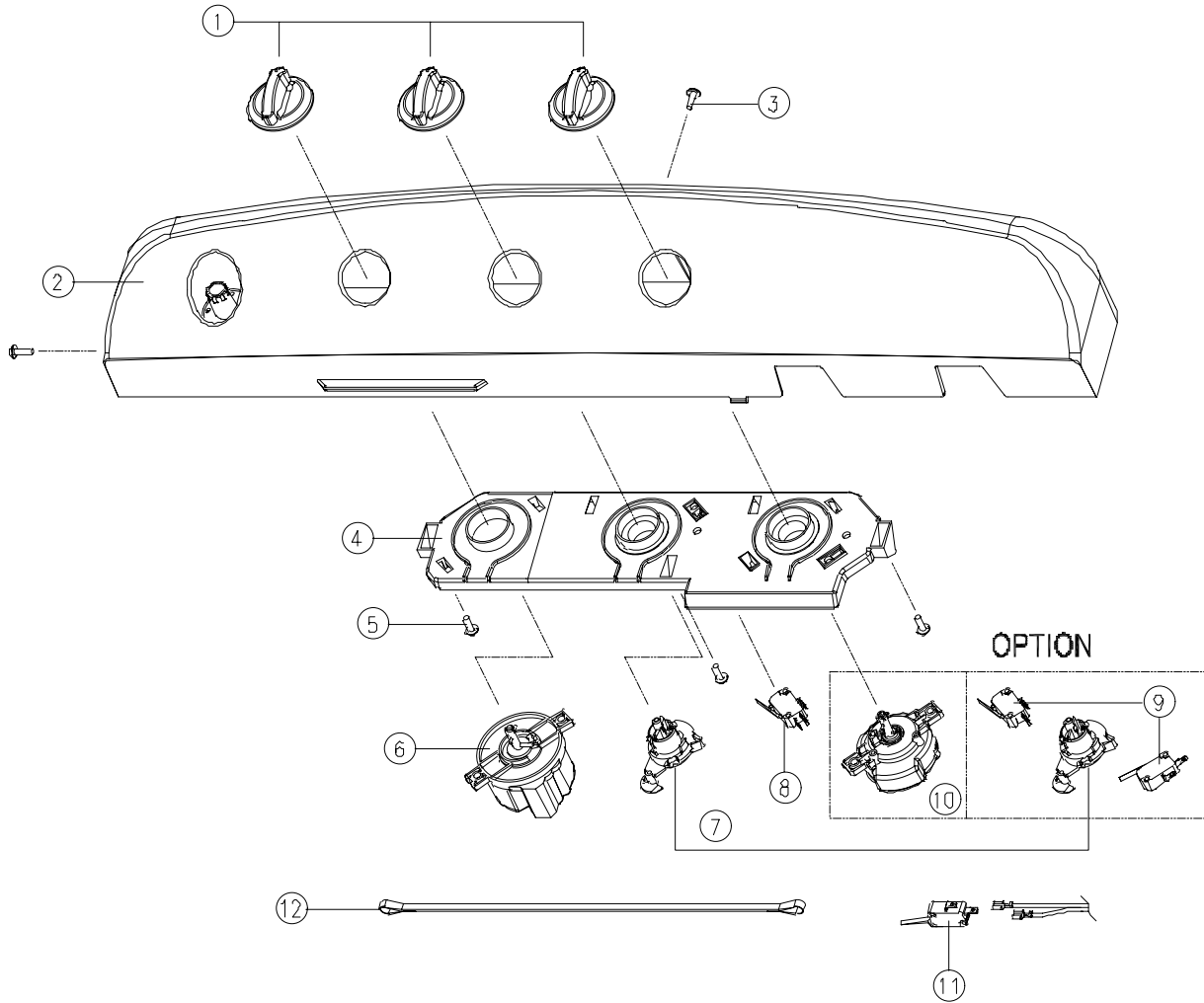


8. Remove 3 screws and spin motor.

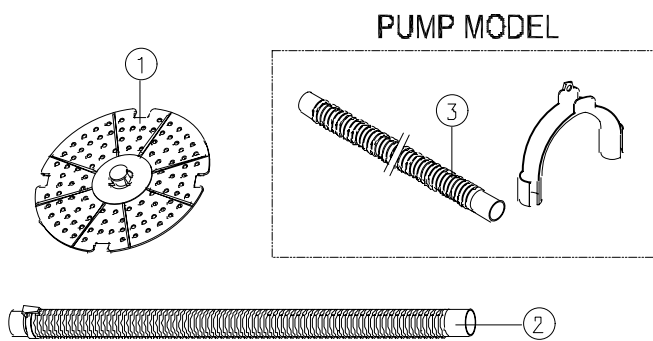


# 6. EXPLODED VIEWS

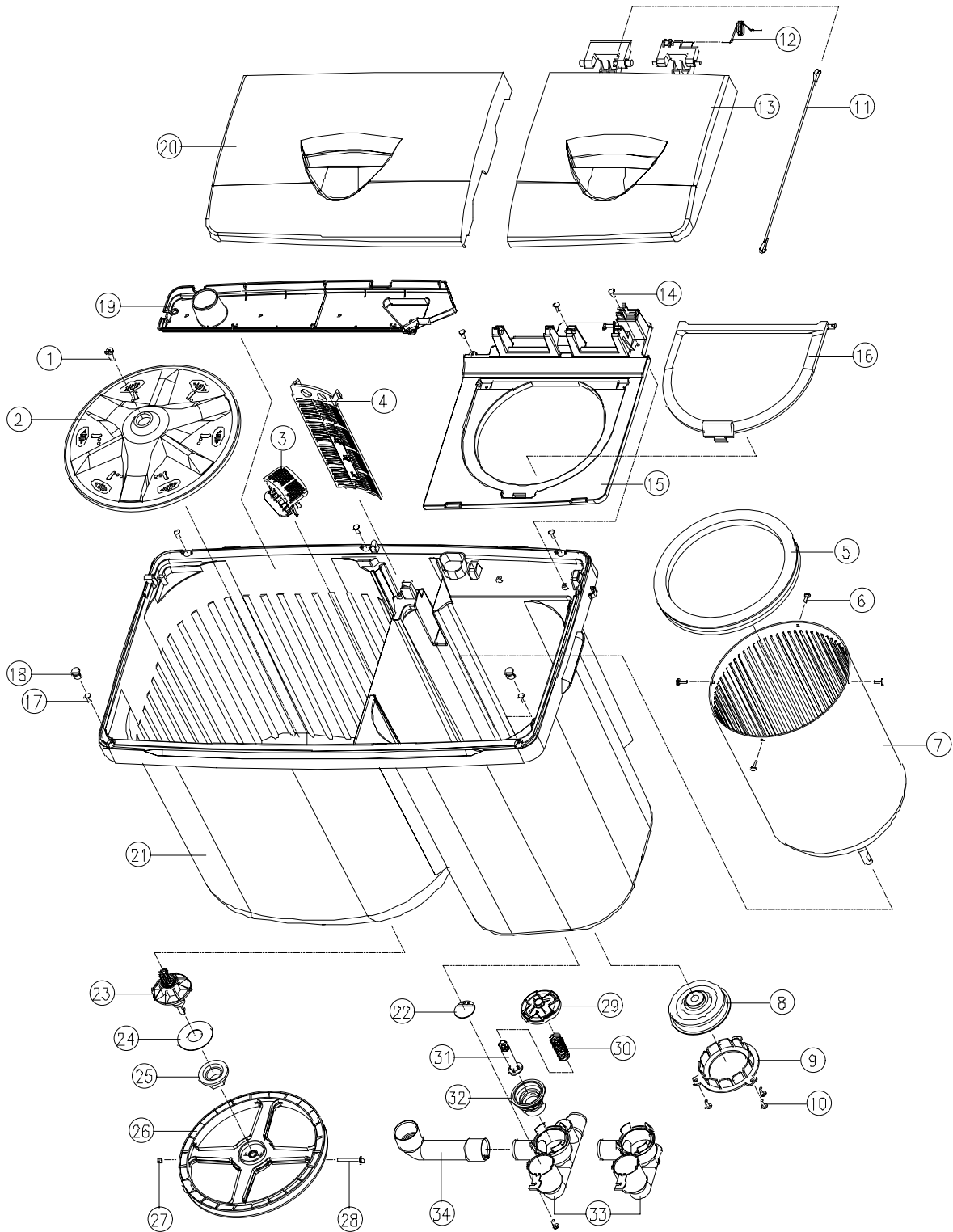
## PANEL ASS'Y



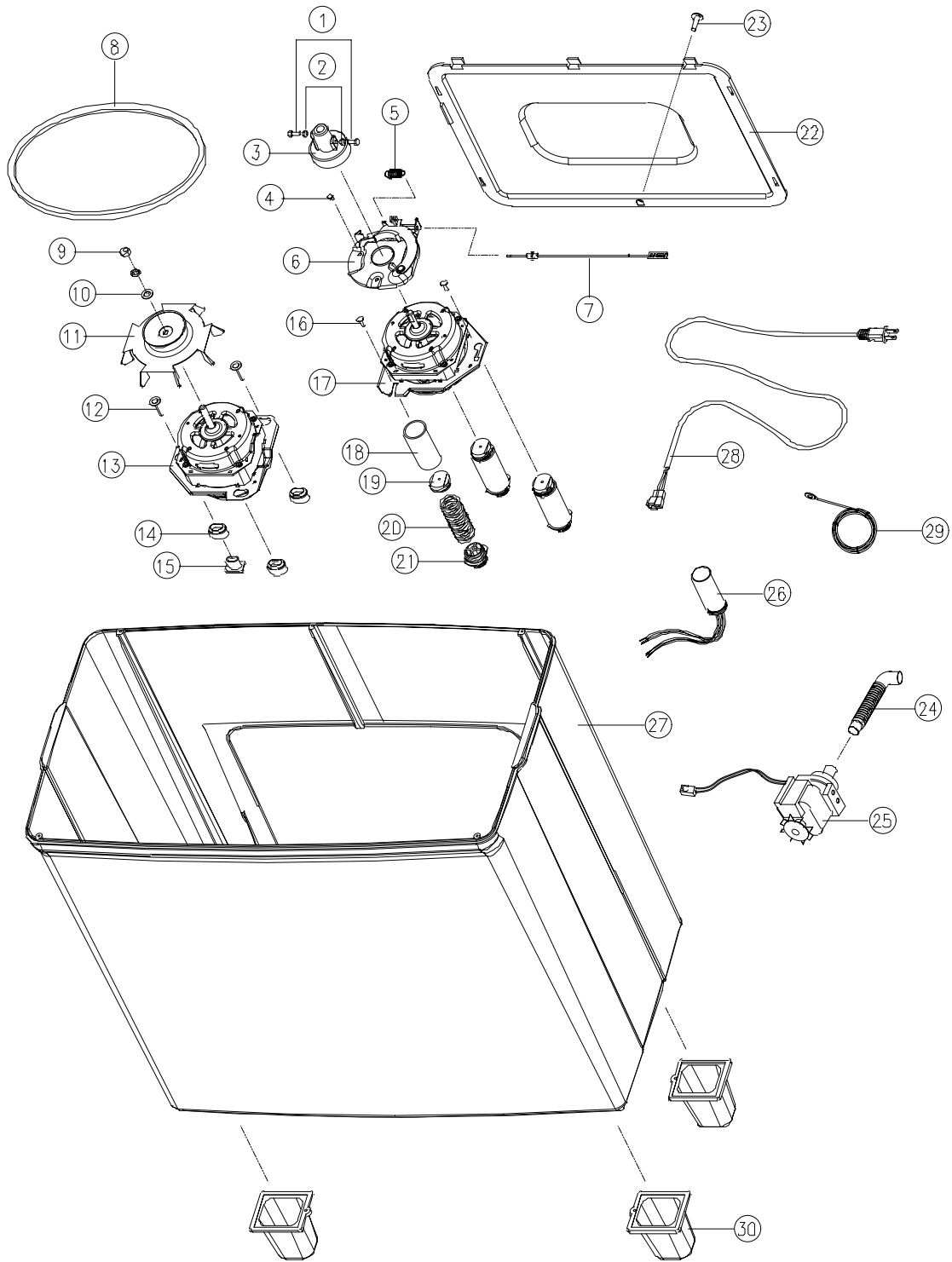
## ACCESSORY ASS'Y



# TUB ASS'Y



BASE ASS'Y





## 7. PART LIST

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### PANEL ASS'Y

NO.	PART NAME	PART CODE	SPEC.	Q'TY	REMARKS
1	KNOB	3613403800	ABS	3.00	
2	PANEL	3614280000	HIPS	1.00	
3	SCREW TAPPING	7122401411	T2S TRS 4X14 MFZN	2.00	
4	BRACKET PANEL	3610607500	HIPS	1.00	HB, S/TIMER
		3610607510	HIPS	1.00	HB, LEVER
		3610607520	HIPS	1.00	VO, S/TIMER
5	SCREW TAPPING	7122401411	T2S TRS 4X14 MFZN	3.00	
6	TIMER WASH	3619910760	S-K60NT(MEXICO), SAN	1.00	S/TIMER
		3619910770	S-K60NL, SAN	1.00	LEVER
7	LEVER CONTROL	3613701400	POM	2.00	
8	SWITCH SELECTOR	3619045900	GSM-V1621A4 250V 16A	1.00	PUMP,S/TIMER
9	SWITCH SELECTOR	3619045700	GSM-V1623A4	2.00	LEVER
10	TIMER SPIN	3619910820	S-600FA(MEXICO)	1.00	
11	SWITCH COVER	3619045400	GSM-V16183A4 250V 15A	1.00	OPTION
12	LINK VALVE	3617804700	PP, L2=718MM	1.00	

### ACCESSORY ASS'Y

NO.	PART NAME	PART CODE	SPEC.	Q'TY	REMARKS
1	COVER SAFETY	4506F61011	PE-LD	1.00	
2	HOSE DRAIN O AS	3613224310	820MM,HANGER,NON CLAMP	1.00	
3	HOSE DRAIN O AS	3613218800	LD-PE/EVA L=1600 PUMP	1.00	

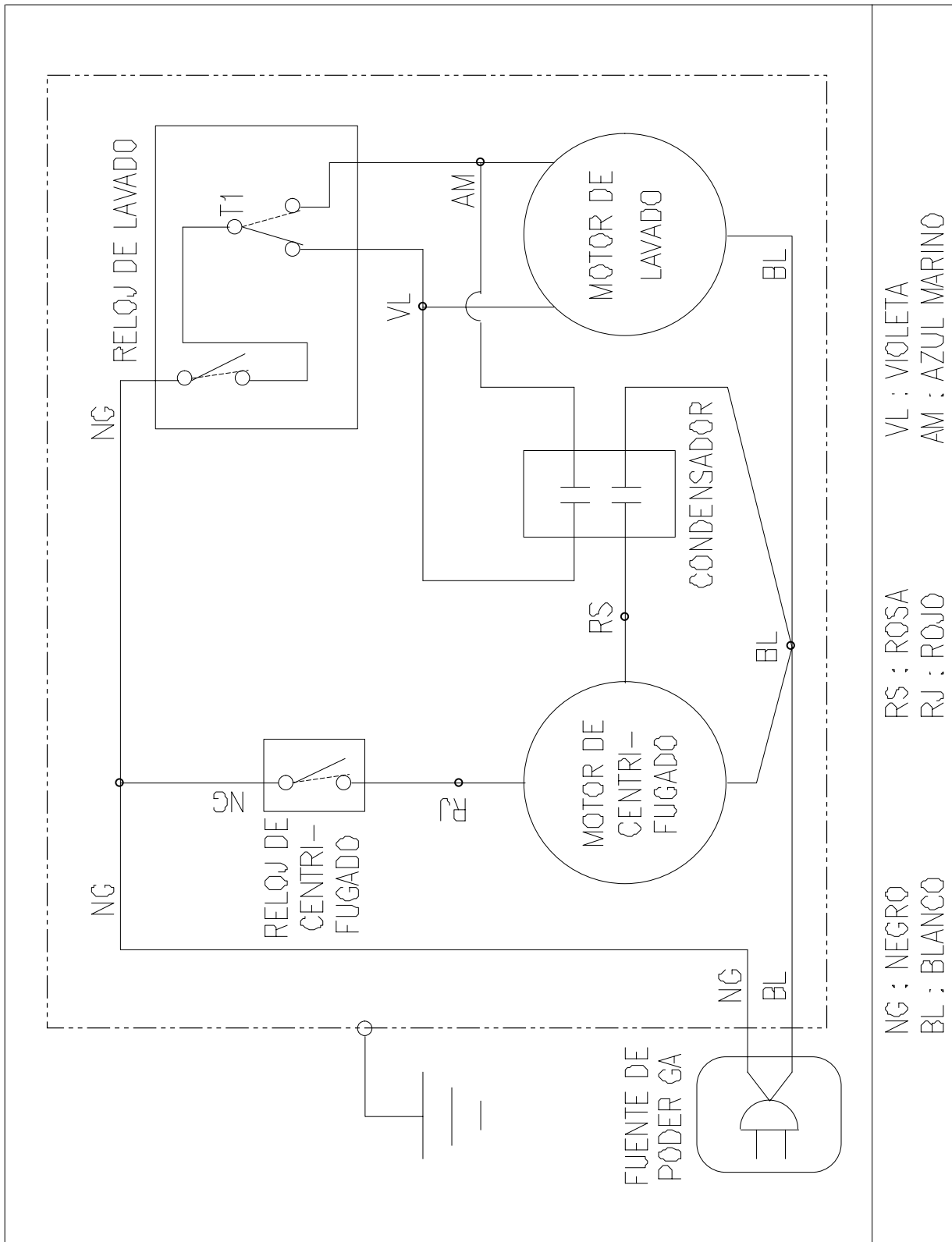
**TUB ASS'Y**

NO.	PART NAME	PART CODE	SPEC.	Q'TY	REMARKS
1	SPECIAL SCREW	3616002901	SUS 304, 6X19.5(NON SILOCK)	1.00	
2	PULSATOR AS	3619705000	PP	1.00	
3	DRAIN STRAINER	3619606400	PP	1.00	
4	FILTER OVERFLOW	3611903600	PP	1.00	
5	RING BASKET	3614602000	PP	1.00	
6	SCREW TAPPING	7122401211	T2S TRS 4X12 MFZN	4.00	
7	BASKET SPIN AS	3619102510	DWM-600FA	1.00	
8	BELLOWS AS	3616401010	5510PA, 3620DE	1.00	
9	FIXTURE	3612004400	PP	1.00	
10	SCREW TAPPING	7122401211	T2S TRS 4X12 MFZN	3.00	
11	LINK BRAKE	3617804800	PP, L2=467MM	1.00	OPTION
12	SPRING COVER	3615108820	HSW3, 600FA	2.00	
13	DOOR SPIN	36117AAE00	HIPS	1.00	
14	SCREW TAPPING	7122401411	T2S TRS 4X14 MFZN	3.00	
15	PLATE T	3614530000	PP	1.00	
16	COVER I	4507K33021	PP	1.00	
17	SCREW TAPPING	7122401611	T2S TRS 4X16 MFZN	5.00	
18	CAP SCREW	3610909610	PP	2.00	
19	BASE WATER SUPPLY	3610391600	PP	1.00	
20	DOOR WASH	36117AAF00	HIPS	1.00	
21	TUB	2618819600	PP	1.00	
22	RROTECTOR F.B	3618303500	NBR	1.00	PUMP
23	CASE SHAFT AS	3611118500	AS, 4.0KG	1.00	
24	GASKET	3612301400	NBR	1.00	
25	SPECIAL NUT	3616007500	FRPP	1.00	
26	PULLEY PULSATOR	3618405200	FRPP	1.00	
27	NUT PULLEY	7392050611	6N-2-6	1.00	
28	SPECIAL BOLT	3616008300	SM18C+SILOCK	1.00	
29	CAP VALVE	3610909405	PP	1.00	
30	SPRING VALVE	4505C06023	SWC WR 1.0D	1.00	
31	VALVE ROD	3615406705	PP	1.00	
32	BELLOWS	4509A06042	NR	1.00	
33	CASE VALVE	3611119305	PP	1.00	NON PUMP
		3611119400	PP	1.00	PUMP
34	INLET JOINT	3617505100	PP	1.00	

**BASE ASS'Y**

NO.	PART NAME	PART CODE	SPEC.	Q'TY	REMARKS
1	BOLT HEX(P)	7342602011	6B-2 6X20 POINTING MFZN	2.00	
2	NUT HEX	7392600011	6N-2-6 MFZN	2.00	
3	COUPLING DRUM	3619400300	AL	1.00	
4	BOLT HEX	7341500811	6B-1 5X8 MFZN	3.00	OPTION
5	SPRING BRAKE LEVER	3615109000	SWC D1.0 ZN8-C	1.00	OPTION
6	PLATE BRAKE AS	3414517400	ASSY, 4.0KG	1.00	OPTION
7	ASSY BRAKE WIRE	3619201702	SUS WIRE+PE L260	1.00	OPTION
8	BELT V	3616500800	A36.6	1.00	
9	NUT HEX	7392800011	M8X1.25 MFZN	1.00	
10	SPECIAL WASHER	3616019100	PW-1-8.4 MFZN	1.00	
11	PULLRY MOTOR AS	3618431600	PRESS(SGCC 1.2T,D24), 4.3MM	1.00	
12	SPECIAL SCREW	3616017010	T2 TRS 4X35 MFZN PW	3.00	
13	UNIT MOTOR WASH	3618946730	W1S35JD041, 127V/60HZ	1.00	
14	CUSHION MOTOR	450M712020	NR	3.00	
15	CUSHION SPOT	450M712010	PP	1.00	
16	SCREW TAPPING	7122401611	T2S TRS 4X16 MFZN	3.00	
17	MOTOR SPIN	3964720411	W1D25JE045 127V/60HZ	1.00	
18	DAMPER	4509A14013	NBR, DW-3600	3.00	
19	STOPPER UPPER	4509A14021	PP	3.00	
20	SPRING CUSHION	4509A14031	SWC ZN8-C	3.00	
21	STOPPER LOWER	3615200200	PP	3.00	
22	COVER BACK	3611400700	PP	1.00	
23	SCREW TAPPING	7122401411	T2S TRS 4X14 MFZN	1.00	
24	HOSE PUMP	3613220900	LDPE(PLASET PUMP)	1.00	
25	UNIT DRAIN PUMP	3618952500	110V 60HZ 30EN011 #1806	1.00	
26	UNIT CAPACITOR	3618943210	41.6/16βfi, 200/250VAC, E	1.00	
27	BASE	3610391500	PP	1.00	
28	CORD POWER	WAK42H762-	A VCTFK 2X0.75 2.3M GY	1.00	
29	HARNESS OUTER	3612756110	L2850, GN, RING-TERMINAL	1.00	
30	LEG	3617702400	PP	4.00	

# 8. WIRING DIAGRAM



DW-5010

**DAEWOO**

**DAEWOO ELECTRONICS CORP.**  
686, AHYEON-DONG MAPO-GU SEOUL, KOREA  
C.P.O. BOX 8003 SEOUL, KOREA  
TELEX: DWELEC K28177-8  
CABLE: "DAEWOOELEC"

PRINTED DATE: Aug. 2003

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