



# **Service Manual**

**Auto Washer** 

Model: DWF-240LWTP

### ✓ 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).



Feb. 2013

AUTO WASHER AUTO W

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## 1. SPECIFICATIONS

no.	item		DWF-240LWTP
1	POWER SOURCE		110V / 60Hz
2	POWER CONSUM	IPTION	650 W
3	WEIGHT		51kg
4	dimension (wxhxd)		630(w) x 1030(h) x 670(d) mm
_		) F	Fuzzy, Eco, Wool, Blanket, Soak, Duster, Tub Clean,
5	WASHING COURS	DE .	Gym Shoes, Under Wear, Book Bag, Sports Wear
6	WATER CONSUM	PTION	231 ℓ
		High	95 ℓ
7	WATER LEVEL	Mid	81 <i>e</i>
	SELECTOR	Low	65 ℓ
		Small	50 ℓ
8	OPERATING WATER PRESSURE		0.3kgf/cm² ~ 8kgf/cm²
9	REVOLUTION	WASH	135
9	PER MINUTE	SPIN	690
10	PULSATOR		9 WINGS
11	WATER LEVEL CO	ONTROL	ELECTRONIC SENSING
12	AUTOMATIC WAT	ER SUPPLY	0
13	GEAR MECHANIS	M ASS'Y	SPUR GEAR
14	LINT FILTER		2
15	AUTOMATIC SOFTE	NER INPUT	0
10	FUNCTION FOR T	IME DELAY	
16	(RESERVATION)		O
17	DISPLAY OF RESIDUAL TIME		0
18	FUNCTION FOR B	SUBBLE	0
19	DRAIN TYPE		PUMP & NON PUMP
20	AUTOMATIC POWER OFF		0



In case of moving Washing Machine, please follow the following picture.

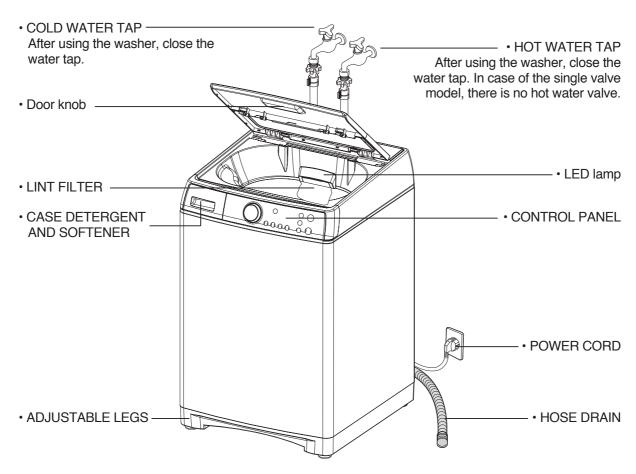


## 2. STRUCTURE OF THE WASHING MACHINE

The parts and features of your washer are illustrated on this page. Become familiar with all parts and features before using your washer.

#### NOTE

The drawings in this book may vary from your washer model.
 They are designed to show the different features of all models covered by this book, Your model may not include all features.



## **ACCESSORIES (FULL OPTION)**

DRYTEN (OPTION)		COVER	UNDER	V	VATER TAP ADAPTER
HOSE DRAIN (FOR PUMP)	HOSE DRAI	N CLAMP (FOR PUMP)	HOSE DRAIN (FC	R NON-PUMP)	CONNECTOR INLET(OPTION)

## 3. DIRECTIONS FOR INSTALLATION AND USE

#### **INSTALLING PLACE**

Install the washer on a horizontal solid floor. If the washer is installed on an unsuitable floor, it could make considerable noise and vibration.



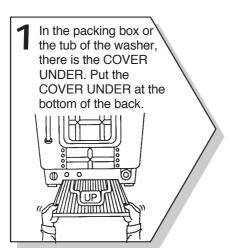


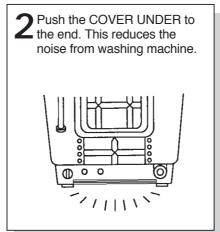
Keep the machine body more than 25cm apart from the wall surface. It will make easy cleaning the drain filter which is equipped at the back side of it. And if it comes into contract vibration may occur.

### Never install in these places

- The place where it would be exposed to direct sunlight.
- The place nearby a heater or heat appliance.
- The place where it would be supposed to be frozen in winter.
- The kitchen with coal gas and a damp place like a bathroom.

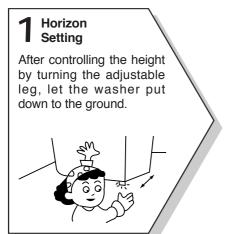
## **■ Installation Of the COVER UNDER (Noise Insulation Plate)**

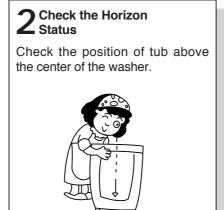




<sup>\*</sup> The drawing of the COVER UNDER is variant from your model

### How To Install On An Inclined Place







NOTES

The openings must not be obstructed by carpeting when the washing machine is installed on a carpeted floor.

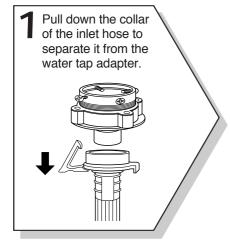
#### How to Connect the Inlet Hose

Be careful not to mistake in supplying between the hot(maximum : 50°C) and cold water.

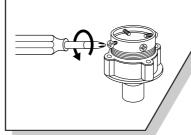
In using only one water tap or in case of attached one water inlet valve, connect the inlet hose to the cold water inlet valve.

Do not over tighten: this could cause damage to couplings.

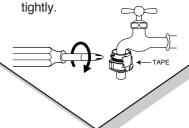
#### • • • • FOR ORDINARY TAP

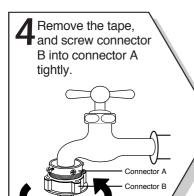


2 Loosen the four screws at the water tap adapter, but don't loosen the screws until they are separated from the water tap adapter.

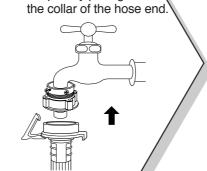


Connect the water tap adapter to the water tap and tighten the four screws evenly with pushing up the adapter so that the rubber packing can stick to the water tap tightly





5 Connect the inlet hose to the water tap adapter by pulling down the collar of the hose end.

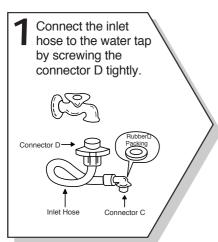


6 Connect the inlet hose adapter to the water inlet of the washer by turning it clockwise to be fixed tightly.

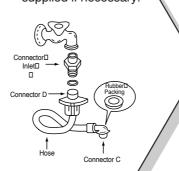


 Please check the rubber packing inside the inlet hose adapter.

#### •••• FOR SCREW-SHAPED TAP



2 Connect the connector-inlet supplied if necessary.



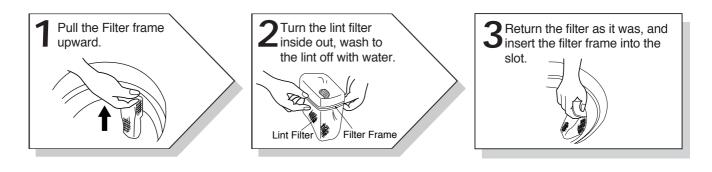
3 Insert the inlet hose adapter into the water inlet of a washer and turn it to be fixed.



· Check the packing in the inlet

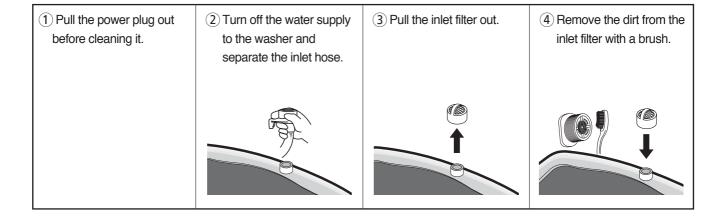
#### • • • • CLEANING THE LINT FILTER

• This washer has two Lint Filters in the top TUB in order to filter off lint and fuzz.



#### •••• CLEANING THE WATER INLET FILTER

· Clean the filter when water leaks from the water inlet.



## 4. FEATURE AND TECHNICAL EXPLANATION

## **Feature of the Washing Machine**

- 1 First applying the Radical Technology in the world ... go beyond washing, sterilize your clothes and deodorize a bad smell.
- 2 The first air bubble washing system in the world.
- 3 Quiet washing through the innovational low-noise design.
- 4 Improving washing performance by more than 35%, while reducing power consumption by 40%.
- 5 The laundry detergent dissolves well in water because of the air bubble washing system.
- 6 The adoption of the water currents to adjust the unbalanced load.
- 7 One-touch operation system.

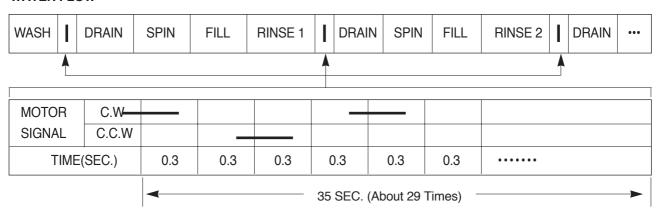
### Water Current to Adjust the Unbalanced Load

It is a function to prevent eccentricity of the clothes after wash by rotating pulsator C.W and C.C.W for 35 seconds.(But, the SUIT course have no operation of the water currents to adjust the unbalanced load.)

#### **EFFECT**

It reduces vibration and noise effectively while spinning.

#### **WATER FLOW**

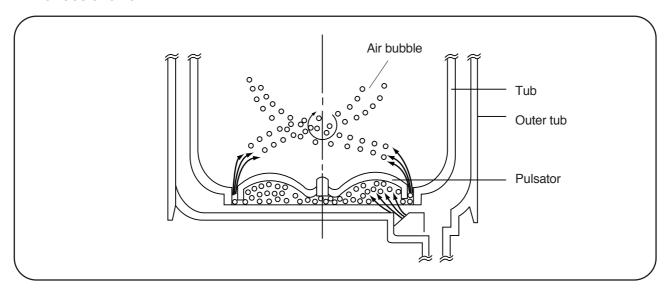


## **Automatic Water Supply System for Blanket Wash**

The water level would be lowered because the blanket absorbs water at the beginning of washing. Therefore, after 2 minutes, the operation is interrupted to check the water level, and then the water is supplied again until the selected water level is reached.

## Functional Principle of Bubble Washing Machine

#### **ACROSS SECTION**



#### **FUNCTIONAL PRINCIPLE**

Bubble Motor supplies the air from the bottom of outer tub to the inner space of pulsator, the air is dispersed by the rotation of pulsator. Air-bubble is created by the centrifugal force, and rises up.

## **Automatic Drainning time Adjustment**

This system adjusts the draining time automatically according to the draining condition.

Draining condition	Good draining	The washer begins spin process after drainage.
	Bad draining	Draininig time is prolonged.
Condition	No draining	Program is stopped and gives the alarm.

#### **FUNCTIONAL PRINCIPLE**

1 The micom can remember the time from the begining of drain to reset point when the pressure switch reaches to "OFF" point

Drain Time	Movement of the Program
Less than	Continue draining
15 minutes	Continue draining
More than	Program stops and gives the alarm with $\mathbf{H}\mathbf{E}$ blinked on display lamp.
15 minutes	I rogram stops and gives the diami with The billined on display lamp.

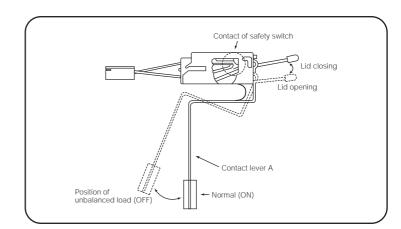
In case of continuous draining, residual drain time is determined by micom.
Draining time as a whole = D + 90
Residual drain time.
The time remembered by micom.

## **Automatic Unbalance Adjustment**

This system is to prevent abnormal vibration during intermittent spin and spin process.

#### **FUNCTIONAL PRINCIPLE**

- 1. When the lid is closed, the contact lever A of the safety switch is "ON" position.
- 2. In case that wash loads get uneven during spin, the outer tub hits the safety switch due to the serious vibration, and the spin process is interrupted.
- 3. In case that P.C.B. ASS'Y gets "OFF" signal from the safety switch, spin process is stopped and rinse process is started automatically.
- 4. If the safety switch is operated due to the unbalance of the tub, the program is stopped and the alarm is given.





### NOTES

The alarm finished when you close the lid after opening it. Check the unbalance of the wash load and the installation condition.

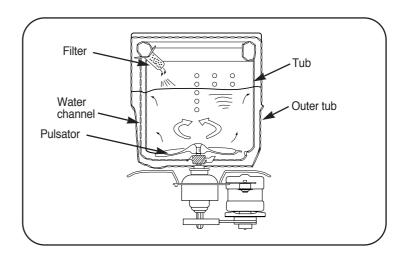
## **Circulating-Water Course and Lint Filter**

#### **CIRCULATING-WATER**

The washing and rinsing effects have been improved by adopting the water system in which water in the tub is circulated in a designed pattern.

When the pulsator rotates during the washing or rinsing process, the water below the pulsator fans creates a water currents as shown in figure.

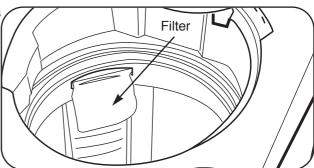
The water is then discharged from the upper part of the tub through the water channel. About 40 L/min. water is circulated at the 'high' water level, standard wash load and standard water currents.



### **Lint Filter**

Much lint may be obtained according to the kind of clothes to be washed and some of the lint may also stick to the clothes.

To minimize this possibility a lint filter is provided on the upper part of the tub to filter the wash water as it is discharged from the water channel. It is good to use the lint filter during washing.



#### **HOW TO REPLACE LINT FILTER**

- 1 Pull the filter frame upward.
- 2 Turn the lint filter inside out, and wash the lint off with water.
- 3 Return the filter as it was, and fix the filter frame to the slot.

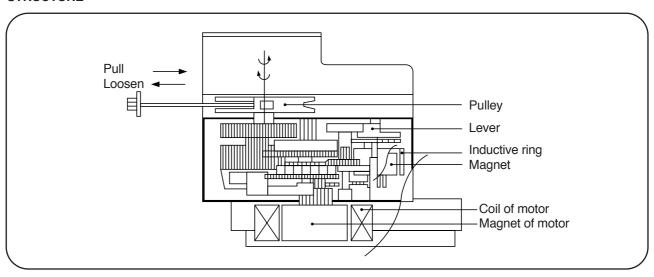
### **Residual Time Display**

When the START/HOLD button is pressed, the residual time (min.) is displayed on the time indicator, and it will be counted down according to process.

When operation is finished, the TIME INDICATOR will light up  $oldsymbol{R}$  .

#### **Drain Motor**

#### **STRUCTURE**

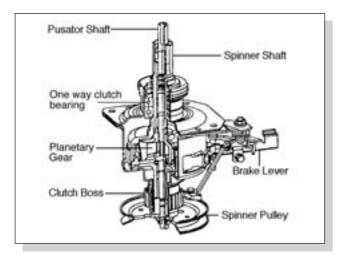


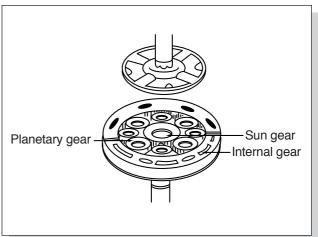
#### **FUNCTIONAL PRINCIPLE**

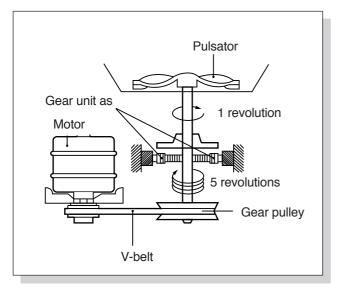
- 1 When the DRAIN MOTOR connected to the power source, the DRAIN MOTOR rotates with 900 r.p.m and revolves the pulley by gear assembly for reducing.
- 2 When the pulley is rotated, the pulley winds the wire to open the drain valve.
- 3 Therefore, rotation of pulley changed to the linear moving of wire.
- 4 The wire pulls the brake lever of Gear Mechanism Ass'y within 5 seconds.
- 5 After the wire pulled, gear assembly is separated from motor and condition of pulling is held by operation of the
- 6 When the power is turned off, the drain valve is closed because the wire returns to original position.

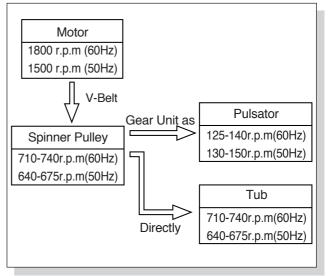
## Gear Mechanism Ass'y

The proper water currents is made by the rotation of pulsator at a low speed to prevent the damage to the small sized clothes.









## 5. DIRECTIONS FOR DISASSEMBLY AND ADJUSTMENT

## Warning —

BEFORE ATTEMPTING TO SERVICE OR ADJUST ANY PART OF THE WASHING MACHINE, DISCONNECT THE POWER CORD FROM THE ELECTRIC OUTLET.

## **Gear Mechanism Ass'y Replacement**

#### **GEAR MECHANISM ASS'Y REPLACEMENT**

- (1) Remove CASE DETERGENT and bolt.
- (2) Separate PANEL F by pushing PANEL F to the left.



(3) Remove 4 bolts and separate PLATE T from washing machine.



(4) Unscrew 4 bolts and separates COVER TUB from TUB ass'y.



(5) Remove CAP PULSATOR form PULSATOR using screw driver.



6 Unscrew PULSATOR mounting screw and separates PULSATOR form TUB ass'y.



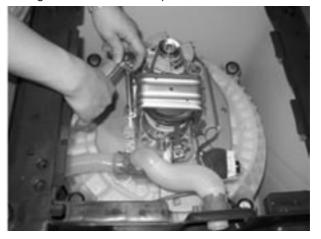
(7) Unscrew special nut using 'T' type box wrench.



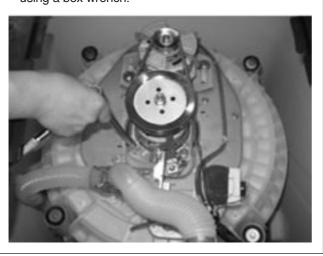
(8) Separate TUB I from TUB ass'y.



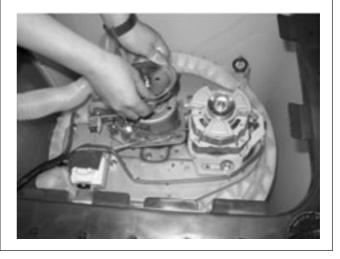
9 Lay the top of the washing machine on the floor. ①Unscrew 4 special bolts of GEAR PROTECT using a box wrench and separate GEAR PROTECT.



11) Unscrew 4 special bolts of GEAR MECHANISM using a box wrench.



(12) Separate GEAR MECHANISM and BELT V.

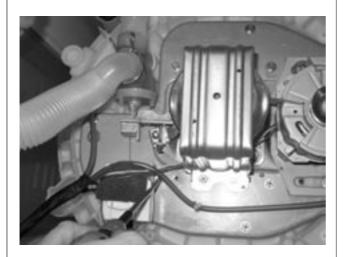


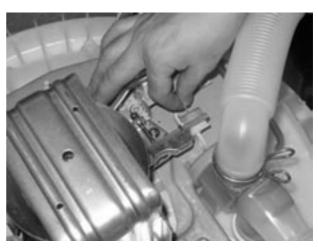


**NOTES** 

### MOTOR DRAIN AND VALVE REPLACEMENT (NON PUMP MODEL)

- Lay the top of the washing machine on the floor.
   Unscrew 2 special bolts mounting MOTOR DRAIN.
- ③ Take out the wire of MOTOR DRAIN.
- 4 Separate MOTOR DRAIN from BASE.





(5) Turn the valve using screw driver as shown picture.

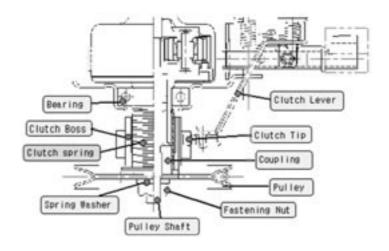
6 Separate the valve lid from VALVE DRAIN assay.

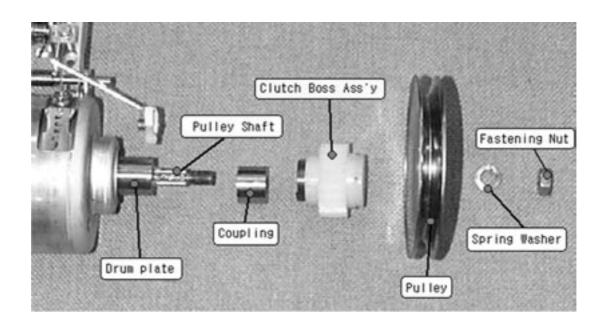




## 6. THE REPAIR METHOD OF GEAR MECHANISM FOR CLUTCH SPRING PROBLEM

## the structure of gear mechanism





#### ●TOOL FOR REPLACING THE CLUTCH BOSS ASSEMBLY●

Tool name	Specification	Q'ty
Fixing jig	67 62	1
Ratchet handle		1
Socket and extension bar	socket : 10mm, 17mm	per each
Cotton yarn		some

## how to check the clutch spring

#### **CHECKING METHOD**

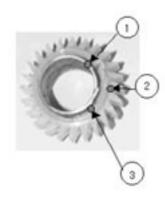
IN THIS CASE, YOU MUST EMPTY THE SPIN TUB FIRST.

- 1) TO CHECK THE REVOLUTION OF SPIN TUB.

  IF THE SPIN TUB DOES NOT REVOLVE AND ONLY THE PULSATOR IS TURNING, THAT IS CLUTCH SPRING DEFECT.
- 2) TO CHECK THE SPIN SPEED(RPM) BETWEEN SPIN TUB AND PULSATOR. IF YOU FIND THE DIFFERENT SPIN SPEED BETWEEN SPIN TUB AND PULSATOR, THIS IS ALSO CLUTCH SPRING DEFECT.

IN THIS CASE, WE ARE GOING TO SUPPLY THE CLUTCH BOSS ASSEMBLY INSTEAD OF GEAR MECHANISM ASSEMBLY. PLEASE REFER TO FOLLOWING FIG.

#### THE CLUTCH BOSS ASSEMBLY



NO.	PARTS NAME	SPECIFICATION	CODE	Q'TY
1	CLUTCH SPRING	1.5*1.5	3615110000	1
2	CLUTCH BOSS	PP	3619301300	1
3	GREASE	beacon#325 3g		
PACKING METHOD	PACKING THE CLUTCH BOSS ASS'Y BY USING VINYL PACK			1

CLUTCH BOSS ASS'Y PART CORD: 3619301400

## The Process Of Disassembling

### Disassembling 1

No.	Process		Notice
1	Release screws marked 4-point	Remove the protector	Use wrench or driver - ratchet handle - extension bar - socket : 10mm
2	Belt	Remove the v-belt	
3	Fastening Nut	Loosen the fastening nut	Use fixing jig for pulley as to see fig 1. and 17mm-socket for nut
4	Spring Washer	Disassemble the spring washer	Take out plain washer if it has

### Disassembling 2

No.	Proc	cess	Notice
5	Pulley	Disassemble the pulley	
6	Clutch Boss Ass'y	Disassemble the clutch boss assembly	Catch the boss and pull upward with spiral rotate in the clockwise direction
7	Coupling Clutch Boss Ass'y	Separate coupling from clutch boss ass'y	
8	THE SE PARTS NEEDED CLEAN  finished face  Coup I ing	Cleaning	Clean the drum plate, coupling surface and contact face between drum plate and coupling  It is necessary to keep cotton piece goods being dry and clean

## The Process Of Assembling

### Assembling 1

No.	Process		Notice
1	Uneven Face Coupling	Assemble the coupling	Check the uneven face of coupling is assembled upward
2	New Clutch Boss Ass'y	Assemble the new clutch boss ass'y	- Push in the clutch boss ass'y with rotating on the clockwise direction After assembling, rotate on the clockwise more 2~3 teeth and pull out the pulley shaft upward
3	Pulley	Assemble the pulley	
4	Spring Washer	Assemble the spring washer	If there was plain washer, you have to assemble plain washer the first and then assemble spring washer

### Assembling 2

No.	Proc	Notice	
5	Fastening Nut	Assemble the fastening nut	- Use fixing jig and 17mm socket wrench as if disassembling, as fastening torque about 100~200kgf-cm Check the end-play, up and downward and check the binding force, too much or not on bi-direct of rotation.
6	Belt	Assemble the belt	
7	Protector	Assemble the protector	
8	Synchronous Motor  Drain Valve  Clutch Tip 3.5~4.5	Final checking	Finally, check the interference depth both clutch tip and clutch boss(3.5~4.5mm)

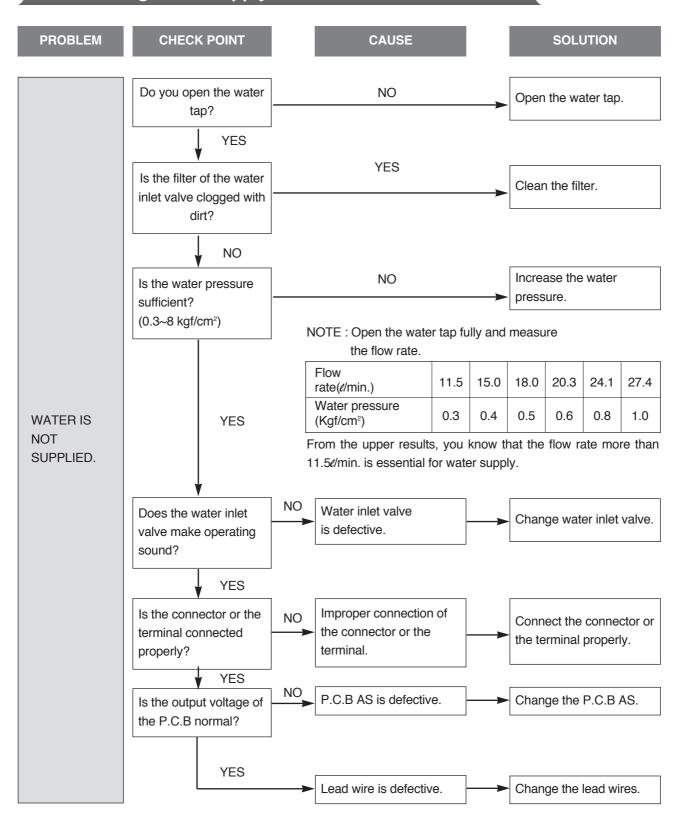
## 7. TROUBLE SHOOTING GUIDE

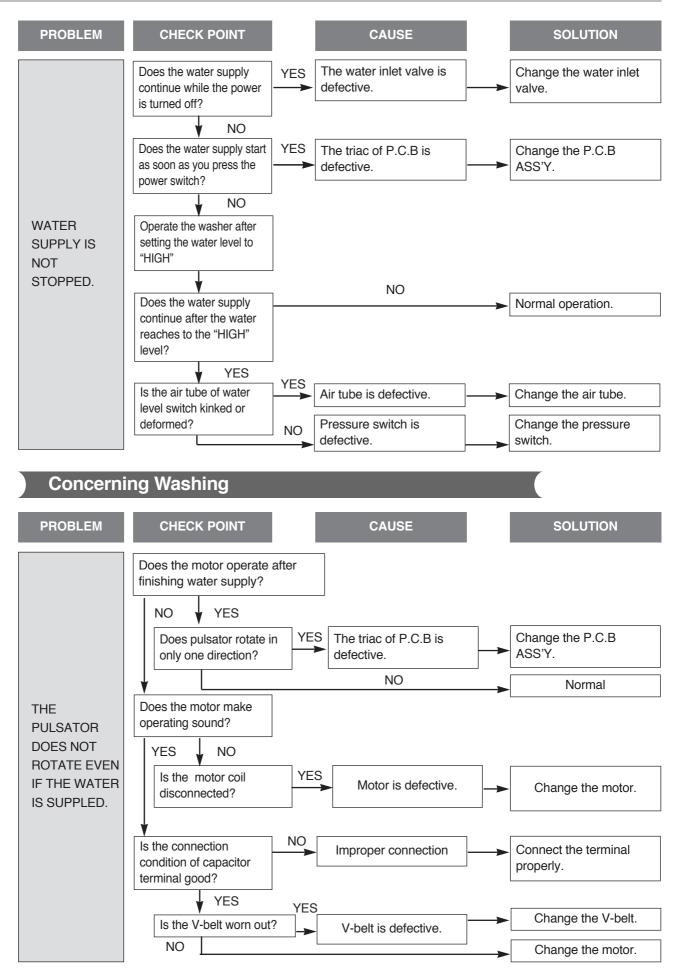


#### NOTES

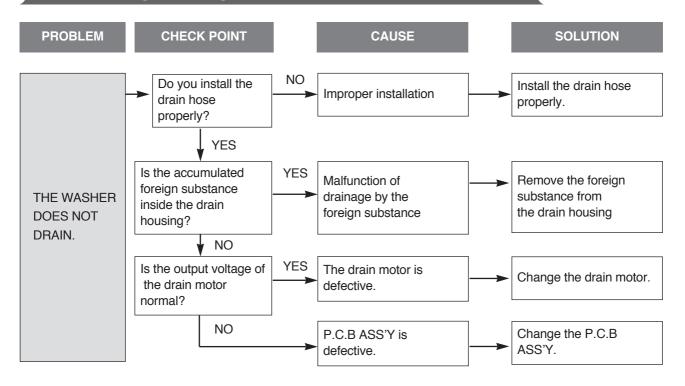
- 1. When replace the P.C.B. ASS'Y do not scratch the surface of the P.C.B. ASS'Y.
- 2. Disconnect the power cord from the electric outlet.

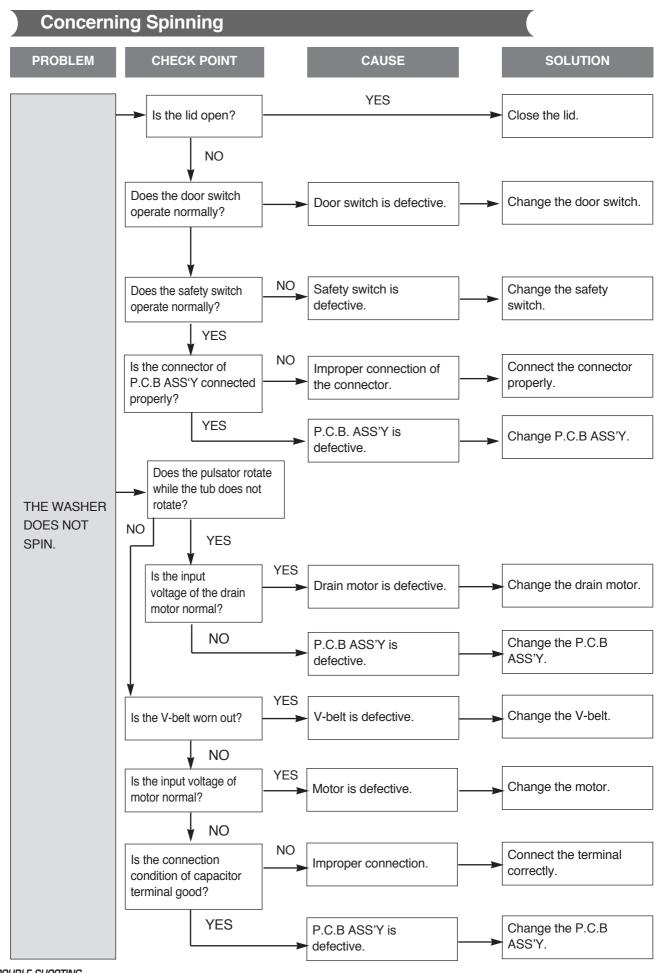
## **Concerning Water Supply**



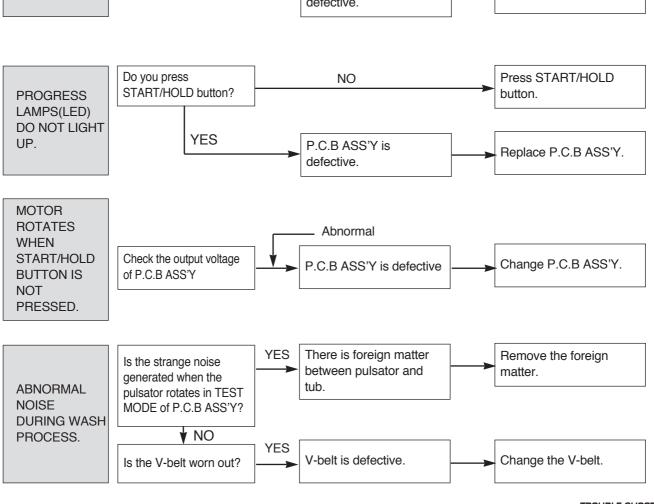


## **Concerning Draining**





#### **Concerning Operating PROBLEM CHECK POINT** CAUSE SOLUTION NO Is the plug connected Connect the plug. to electric outlet? YES YES Is Fuse opened? Change Fuse **₽** NO THE NO Is the condition of **INDICATOR** Change P.C.B ASS'Y. Power button is defective power button good? LAMPS(L.E.D) DO NOT LIGHT YES **UP WHEN THE** NO Is the connector of the Improper connection of Connect the connector **POWER** P.C.B. ASS'Y the connector. properly. **BUTTON IS** connected properly? PRESSED. YES NO Is input voltage of the Transformer is defective Change Transformer transformer normal? YES P.C.B. ASS'Y is Change P.C.B ASS'Y. defective. Do you press Press START/HOLD NO START/HOLD button?

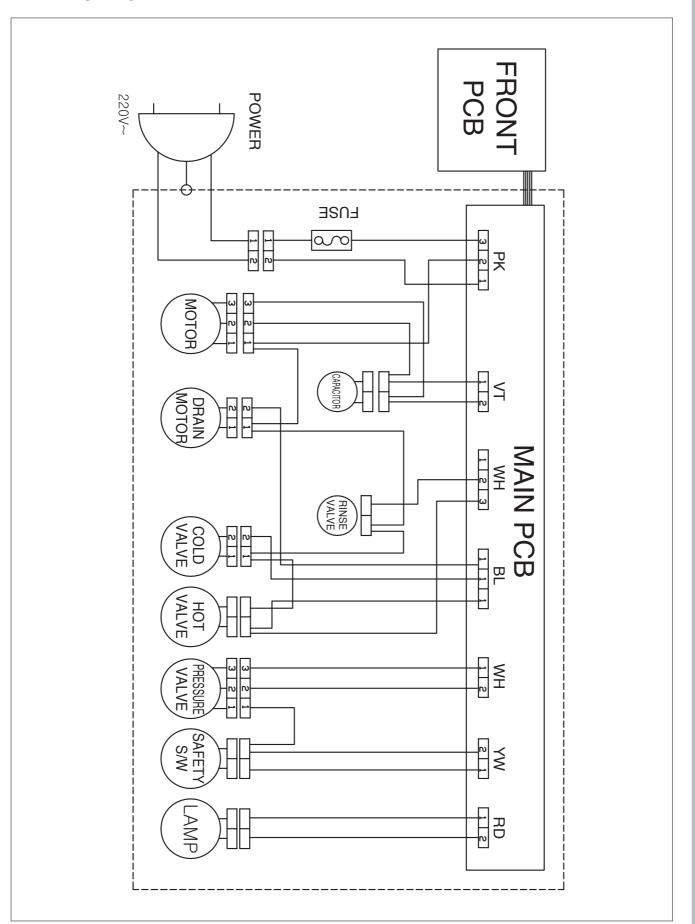


## 8. PRESENTATION OF THE P.C.B ASS'Y

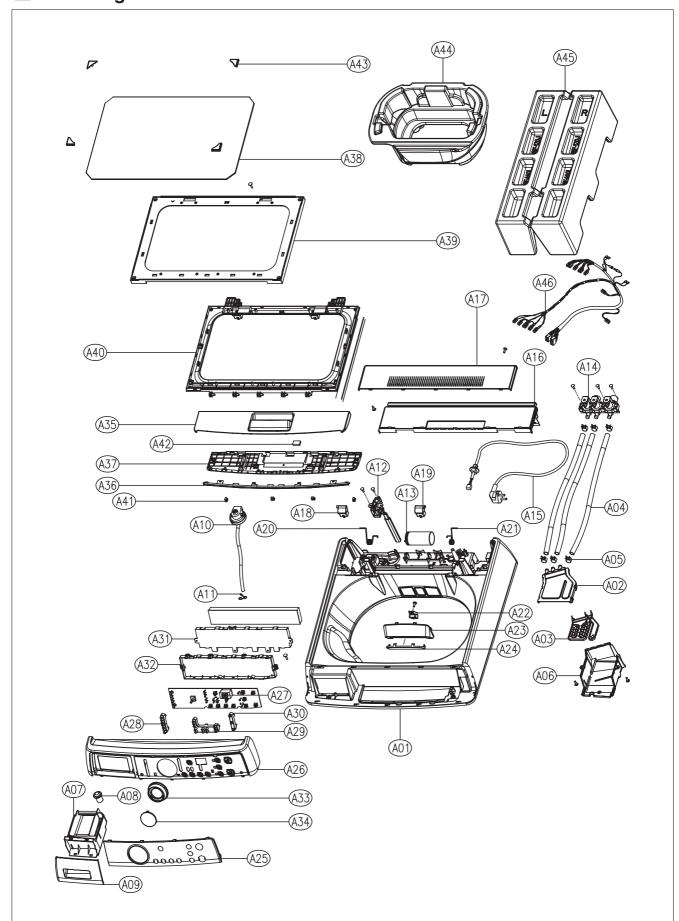
## Concerning Error Message

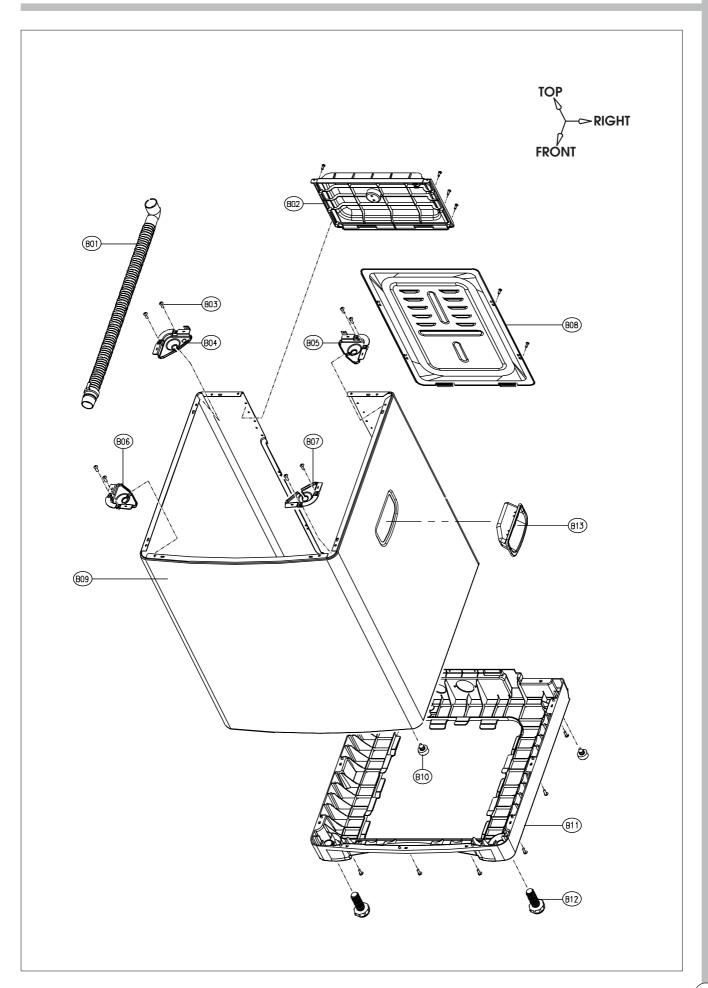
MESSAGE	CAUSE	SOLUTION
	Improper installation of drain hose.	Install drain hose properly.
<b>IIE</b>	The drain hose is blocked up by foreign matter.	Remove foreign matter from drain hose.
	Drain motor is inferior.	Change drain motor.
	The water tap is closed.	Open the water tap.
IE	The water inlet filter clogged.	Clean the water inlet filter.
	It passes over the 60 minutes, yet it doesn't come to assigned water level.	Fully open the water tap and Check the water pressure.
	Wash loads get uneven during spin.	Re-set wash loads evenly.
LIE	Poor installation of the unit.	Proper installation.
	The lid is opened.	Close the lid.
LE	The safety switch is inferior.	Change the safety switch.
EB	The load sensing is inferior. After the load sensing operates about 7 seconds, the message is displayed during 0.5 second and water level is always fixed 'high'.	Change the P.C.B. ASS'Y.
EB	The water level sensing is inferior.	Check the water level sensor and the contact part of the connector.

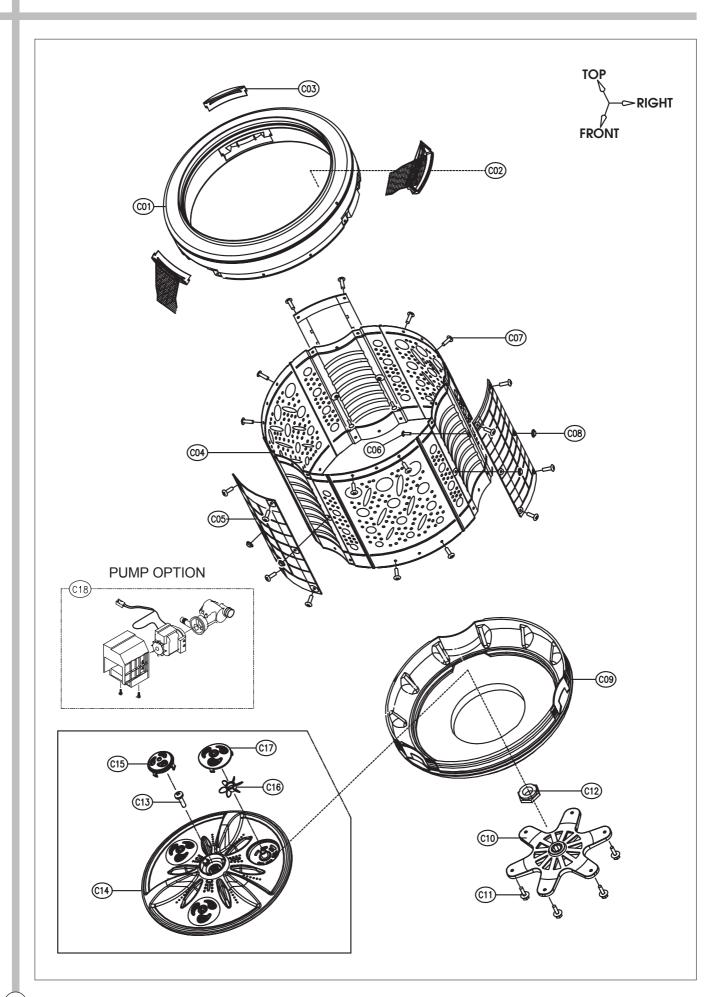
## Wiring Diagram

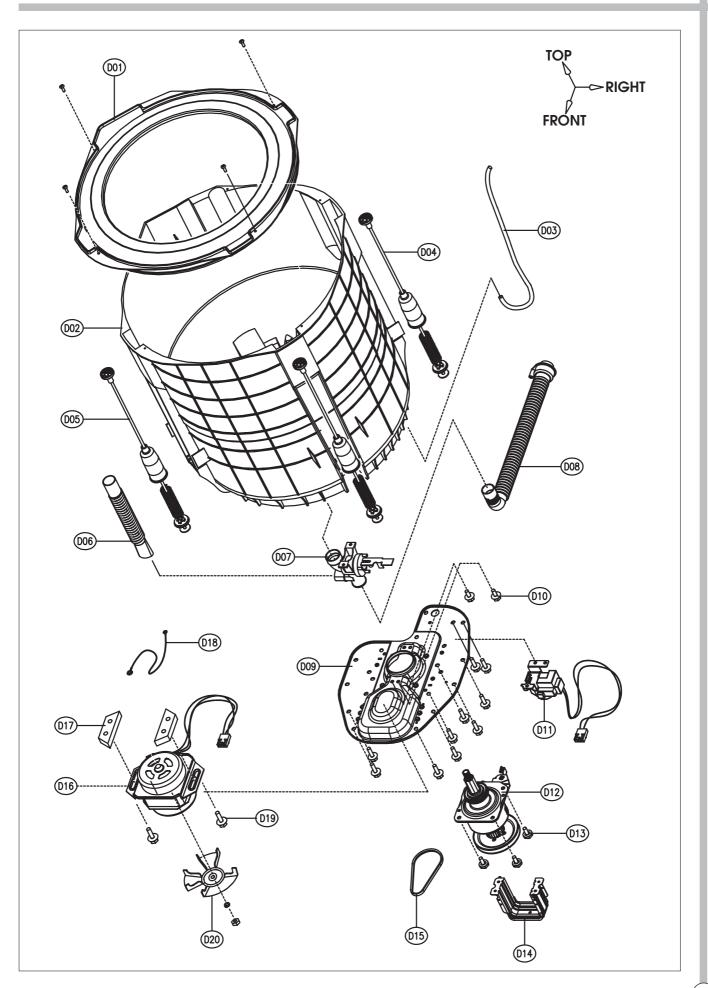


## Parts Diagram









## Parts List

No.	PARTS CODE	PARTS NAME	DESCRIPTION	Q'TY	REMARK
A01	3614541900	PLATE *T	ABS, 150LN	1	
A02	3618111500	NOZZLE TOP	PP	1	
A03	3618111600	NOZZLE UNDER	PP	1	
A04	3613276100	HOSE INLET	EPDM 60° ID9.5 OD14.5 L545 ±2.5 (COLD)	1	
	3613276200	HOSE INLET	EPDM 60° ID9.5 OD14.5 L600 ±2.5 (HOT)	1	
	3613276300	HOSE INLET	EPDM 60° ID9.5 OD14.5 L510 ±2.5 (PRE)	1	
A05	3611205800	CLAMP HOSE	100H, ID=13.8 W=10.0 0.9T	1	
A06	3617511500	INLET BOX	PP, DWF-150LN	1	
A07	36111T1Z00	CASE DETERGENT	PP	1	
A08	3610907800	CAP SOFTNER	PP	1	
A09	36111T2B00	CASE HANDLE	ABS	1	
A10	3614801635	SENSOR PRESSURE AS	CDL-15N-1,225DO,3PIN,L1=740,L2=90	1	
A11	3611205800	CLAMP HOSE	100H, ID=13.8 W=10.0 0.9T	1	
A12	3619047020	SWITCH SAFETY	SF-030A21 14T 5BEND NON-ARM	1	
A13	3618929100	UNIT CAPACITOR	54UF 200VAC, CAN, P2	1	
A14	3615416312	VALVE INLET	DR-12AS:C-R-H.110-130V50/60HZ NON-O.P+RUBBER	1	
A15	3611339050	CORD POWER AS	EP-3PIN VCTF,H05VV-F 3X0.75 2.0M GY,LONGWELL	1	
A16	36142T2E00	PANEL *B	ABS	1	
A17	36116DFG00	DECORATOR PANEL *B	ABS	1	
A18	3612904200	HINGE DOOR L	POM	1	
A19	3612904300	HINGE DOOR R	POM	1	
A20	3615117800	SPRING DOOR L	PI=2, DWF-150LN	1	
A21	3615117700	SPRING DOOR R	PI=2, DWF-150LN	1	
A22	3613625600	LAMP LED	DWF-320, LED LAMP	1	
A23	36111T1X10	CASE LAMP	ABS	1	
A24	3615509900	WINDOW LAMP	TR ABS	1	
A25	36116DFE00	DECORATOR PANEL *F	TR ABS, DWF-150LN	1	
A26	36142T2D00	PANEL *F	ABS, 150LN	1	
A27	3613061600	LED DISPLAY	DISPLAY 88, 150LN	1	
A28	3613061300	HOLDER LED COURSE	HIPS	1	
A29	3613061400	HOLDER LED FUNCTION	HIPS	1	
A30	3613061500	HOLDER LED SELECTION	HIPS	1	
A31	36111T2A00	CASE PCB MAIN	HIPS, DWF-150LN/130JN	1	
A32	36111T2900	CASE PCB FRONT	HIPS, DWF-150LN/130JN	1	
A33	3616645600	KNOB DIAL	ABS,DWF-320L	1	
A34	36116DF800	DECO KNOB DIAL	ABS,DWF-320L	1	
A35	3612613400	HANDLE *O	ABS, DWF-150LN	1	
A36	36116DFH00	DECORATOR HANDLE	ABS, DWF-150LN	1	
A37	3612613500	HANDLE *I	ABS, DWF-150LN	1	
A38	36117AD000	GLASS	GLASS, 150LN	1	
A39	36117AD000	DOOR *O	ABS, DWF-150LN	1	
A40	36117AC200	DOOR *I	ABS, DWF-150LN	1	
A41	3611559900	CUSHION DOOR	NR	8	
A41	3619048300	SWITCH MAGNET	BAFE(1200GAUSS),15X25X6T, 140F	1	
A42	3612009900	FIXTURE GLASS	ABS, DWF-320L	1	
A43	3611574900	CUSHION TUB	EPS, 150LN & 130JN	1	
A44 A45	3611574800	CUSHION SHOULDER	EPS, 150LN & 130JN EPS, 150LN & 130JN	1	
	3612798111	HARNESS AS	140L. PUMP. 110V. NON-BUBBLE. F/R CONN.	1	
A46	3012/30111	HADINESS AS	140L. FUIVIF. 110V. INCIN-DUDDLE. F/M CUIVIN.	I	

No.	PARTS CODE	PARTS NAME	DESCRIPTION	Q'TY	REMARK
B01	3613218800	HOSE DRAIN OUTER AS	LD-PE/EVA L=1600 PUMP	1	
B02	3614514600	PLATE UPPER	PP	1	
B03	7122501211	SCREW TAPPING	T2S TRS 5x12 MFZN	8	
B04	3615302220	SUPPORTER TUB BL	SPG 1.6T	1	
B05	3615302320	SUPPORTER TUB BR	SPG 1.6T	1	
B06	3615302420	SUPPORTER TUB FL	SPG 1.6T	1	
B07	3615302520	SUPPORTER TUB FR	SPG 1.6T	1	
B08	3611413605	COVER *B	0.35T	1	
B09	3610808012	CABINET SUB AS	PAINTING (0.7T,13KG)	1	
B10	3612100330	FOOT	BUTYL VE(Small)	2	
B11	3610312210	BASE *U	PP (DWF-1398)	1	
B12	3617702122	LEG ADJUST AS	VE	2	
B13	3612603300	HANDLE CABINET	PP	2	
C01	3616104000	BALANCER AS	DWF-1094	1	
C02	3611904700	FILTER AS	100M LINT FILTER AS	2	
C03	3612202900	FRAME FALL	PP, Water fall	1	
C04	3618817270	TUB	120H,3-FILTER,+M/B	1	
	3618815300	SUS			
C05	3612504700	GUIDE FILTER AS	13KG MAGIC 1 PIECE	3	
C06	3616051029	SPECIAL BOLT	STS430, 5x10	6	
C07	3616051629	SPECIAL SCREW	SUS430 T2 TRS 5.5x16	12	
C08	3616M50829	SPECIAL NUT	STS430 M5x0.8P	6	
C09	3618815502	TUB U	13KG,+M/B,+RIB	1	
C10	3617200600	FLANGE TUB	ALDC12 VE1,6POINT	1	
C11	3616007001	SPECIAL SCREW	SCM24H,6.5x24 101S	6	
C12	4507D83080	SPECIAL NUT	SUS 304	1	
C13	3616062629	SPECIAL SCREW	STS430 6x26.5	1	
C14	3619707710	PULSATOR AS	NANO SILVER,100K, IMPELLER	1	
C15	3610915800	CAP PULSATOR	104KR	1	
C16	3611885600	FAN IMPELLER	PP	3	
C17	3610915900	CAP	ABS	3	
C18	36189L550F	UNIT DRAIN PUMP AS	LOW/60HZ,40W,L=1310,KET 1806 D/L,BK,BB CUT,HOSE 8	1	
D01	3611413910	COVER TUB *O	PP, 1398	1	
D02	3618807105	TUB *O	DWF-12,13KG,SINSUNG	1	
D04	3619805910	SUSPENSION AS (F)	DWF-130JN, L=620, SPRING=94(YL), HDPE	2	
D05	3619806010	SUSPENSION AS (B)	DWF-130JN, L=620, SPRING=86(BK), HDPE	2	
D06	3613208901	HOSE OVERFLOW	PELD, L=280MM	1	
D07	3615408400	VALVE DRAIN AS	1098'S,VE TYPE	1	
D08	3613212120	HOSE DRAIN INNER	EVA,L=184	1	
D09	3610387400	BASE	SECEN 2.0T	1	
D10	3616007001	SPECIAL SCREW	SCM24H,6.5x24 101S	14	
D11	36196TAN30	DRAIN MOTOR	100-110V,SV-HJ7T22D,KET#1806D/L,L1150,RD	1	
D12	3617310200	GEAR MECHANISM	GM-1300-KS6P2(SPUR)	1	
D13	7341801511	BOLT HEX	6B-1 8x15 MFZN	4	
D14	3618346000	PROTECTOR GEAR	SGCC 1.2T	1	
D15	3616590240	BELT V	M20.5, AGING 60HZ	1	
D16	3618401120	PULLEY MOTOR	SCP1 DS=10 DP=48.5 60HZ	1	
D17	3611502700	CUSHION DOWN	POM(8MM)	2	
D18	3612757030	HARNESS EARTH INNER	L ID=4.3,R ID=8.3,L=810	1	
D19	7650802528	BOLT HEX	6B-1 8x25 PW(3x28) MFZN	2	
D20	3618401480	PULLEY MOTOR AS	M-TYPE(PRESS) DS=10 DP48.5 60HZ	1	
	30.0.01.00			'	

## **■** Sequence Chart

				FUZ	ZZY			SO	AK			
	Division	Progress Time	Small	Low	Mid	High	Small	Low	Mid	High		
	Sensing	8 sec.		-								
р	Water inlet	4 min.										
r		2 min.										
е	Pre-wash	60 min.										
		30 min.										
W		18 min.				14 min.				14 min.		
a		15 min.										
s   h	Wash	10 min.										
l		6 min.										
		BC 35 sec.										
	Drain	3 min.										
		1 min.										
	Balance Spin	60 sec.										
		30 sec.										
R	Mid. Spin	90 sec.	_									
l ï	No.	20 sec.	_									
n	Natural Stop	120 sec.										
s		60 sec.						_				
е	Rinse Shower	40 sec.						_				
١.	Hirise Shower	60 sec.										
1	Water inlet	sec. 4 min.								_		
	vvaler irriet	2 min.										
	Rinse	3 min.	_	_		_						
	1 111136	2 min.										
		BC 35 min.										
	Drain	3 min.										
	Diam'	1 min.										
	Balance Spin	60 sec.										
		30 sec.										
R	Mid. Spin	90 sec.										
l i		60 sec.										
n	Natural Stop	120 sec.										
e		60 sec.										
		40 sec.										
2	Water inlet	4 min.										
		2 min.										
	Rinse	3 min.										
		2 min.										
		BC 35 min.										
	Drain	3 min.										
		1 min.										
	Balance Spin	60 sec.										
s	NA-i-	30 sec.										
p	Main spin	9 min.										
ľ		7 min.										
n		5 min.	_			_	_	_		_		
1		3 min.										
	Natural Stop	120 and										
	ivaluiai Slop	120 sec. 60 sec.										
$\vdash$	Buzzer	10 sec.										
$\vdash$												
	Over Time	indication	43	43	56	53	38	38	48	45		
											<u> </u>	

		_	DUSTER			TUB C						
	Division	Progress Time	Small	Low	Mid	High	Small	Low	Mid	High		
	Sensing	8 sec.										
р	Water inlet	4 min.										
r		2 min.										
е	Pre-wash	60 min.							_			
		30 min.										
w		18 min.										
а		15 min.										
S	Wash	10 min.										
h		6 min.										
		BC 35 sec.										
	Drain	3 min.										
		1 min.										
	Balance Spin	60 sec.										
		30 sec.										
ь	Mid. Spin	90 sec.										
R i		20 sec.										
n	Natural Stop	120 sec.										
s		60 sec.										
e		40 sec.										
	Rinse Shower	60 sec.										
1	14/-1	sec.										
	Water inlet	4 min.					_					
	Dinas	2 min.										
	Rinse	3 min. 2 min.										
		BC 35 min.	-		-			-	-			
	Drain	рој 33 min. 3 min.	_			-	-		-			
	Diaiii	1 min.						_				
	Balance Spin	60 sec.										
	Baianoo opiii	30 sec.										
R	Mid. Spin	90 sec.										
i		60 sec.										
n	Natural Stop	120 sec.										
s e	·	60 sec.										
		40 sec.										
2	Water inlet	4 min.										
		2 min.										
	Rinse	3 min.										
		2 min.										
		BC 35 min.										
	Drain	3 min.										
		1 min.										
	Balance Spin	60 sec.										
s		30 sec.										
p	Main spin	9 min.										
i		7 min.										
n		5 min.				_			_			-
		3 min.										<del>                                     </del>
	Notural Ctan	120 aga									-	-
	Natural Stop	120 sec. 60 sec.										
	Buzzer	10 sec.									-	
	Over Time	muicauofi	28	28	32	32	32	32	36	36		
											<u> </u>	

	District	Due sure to Time		BLAI	NKET		WC	OOL			
	Division	Progress Time	Small	Low	Mid	High	Mid	High			
	Sensing	8 sec.									
р	Water inlet	4 min.									
r		2 min.									
е	Pre-wash	60 min.									
w		30 min.									
a		18 min.									
s	Wash	15 min. 10 min.									
h	VVaSII	6 min.									
		BC 35 Sec.		-		-					
	Drain	3 min.									
	Biani	1 min.									
	Balance Spin	60 sec.				_		_			
		30 sec.									
_	Mid. Spin	90 sec.									
R		20 sec.									
i n	Natural Stop	120 sec.									
s		60 sec.									
e		40 sec.									
	Rinse Shower	60 sec.								1	
1	Water inlet	sec. 4 min.				_				1	
	vvaler inlet	2 min.									
	Rinse	3 min.	-	-	-		-	-			
	Tillio	2 min.									
		BC 35 min.			_	_					
	Drain	3 min.									
		1 min.									
	Balance Spin	60 sec.									
R		30 sec.									
l ï	Mid. Spin	90 sec.									
n	National Otan	60 sec.						•			
s	Natural Stop	120 sec. 60 sec.									
е		40 sec.									
2	Water inlet	4 min.									
-	viator milot	2 min.									
	Rinse	3 min.					_	_			
		2 min.									
		BC 35 min.									
	Drain	3 min.									
		1 min.									
	Balance Spin	60 sec.									
s	Main aria	30 sec.								1	
	Main spin	9 min. 7 min.								1	
p i		5 min.			_					+	
n		3 min.								+	
		1 min.								+	
	Natural Stop	120 sec.					<del>-</del> -			+	
		60 sec.									
	Buzzer	10 sec.				_				<u> </u>	
	Over Time	Indication	53	53	59	59	36	36			

		_		E	00				
	Division	Progress Time	Small	Low	Mid	High			
	Sensing	8 sec.							
р	Water inlet	4 min.							
r		2 min.							
е	Pre-wash	60 min.							
		30 min.							
W		18 min.							
a		15 min.							
h	Wash	10 min.							
"		6 min.							
		BC 35 sec.							
	Drain	3 min.							
		1 min.							
	Balance Spin	60 sec.							
	Milori	30 sec.							
	Mid. Spin	90 sec.			-				
	Natural Stop	10 sec.							
	Natural Stop	120 sec. 60 sec.	_	_					
<sub>D</sub>		40 sec.							
R	Rinse Shower	60 sec.		-					
n n	Tillise Shower	30 sec.							
s	Mid. Spin	90 sec.	-						
е	Iviid. Opiii	10 sec.			_				
	Natural Stop	120 sec.			_	_			
		60 sec.							
		40 sec.							
	Water inlet	4 min.							
		2 min.							
	Rinse	3 min.							
		2 min.							
		BC 35 min.							
	Drain	3 min.							
		1 min.							
	Balance Spin	60 sec.							
s		30 sec.							
p	Main spin	9 min.							
ï		7 min.							
n		5 min.			_	_			
		3 min.							
	Natural Stop	1 min. 120 sec.							
	i valuiai Slop	60 sec.						-	
	Buzzer	10 sec.							
<u> </u>	Over Time		23	23	27	27	+	-	
	Over time	mulcation		23					

	B	B		GYM S	SHOES			BOOK	( BAG			
	Division	Progress Time	Small	Low	Mid	High	Small	Low	Mid	High		
	Sensing	8 sec.										
р	Water inlet	4 min.										
r		2 min.										
е	Pre-wash	60 min.										
l		30 min.										
w		18 min.										
a		15 min.										
h	Wash	10 min.										
		6 min.										
		BC 35 sec.										
	Drain	3 min.										
	Dalara a Onia	1 min.										
	Balance Spin	60 sec.						_				
	Mid Coin	30 sec.						_				
R	Mid. Spin	90 sec. 20 sec.										
i	Natural Stop	120 sec.										
n	ivaturai Stop	60 sec.										
s		40 sec.						_				
е	Rinse Shower	60 sec.	_		_	_	_		_	_		
۱.	Turisc criower	sec.										
1	Water inlet	4 min.										
		2 min.										
	Rinse	3 min.			_	_			_	_		
		2 min.										
		BC 35 min.										
	Drain	3 min.										
		1 min.										
	Balance Spin	60 sec.										
		30 sec.										
R	Mid. Spin	90 sec.										
'n		60 sec.										
s	Natural Stop	120 sec.										
е		60 sec.										
		40 sec.										
2	Water inlet	4 min.										
		2 min.										
	Rinse	3 min.			_				_	_		
		2 min.	-					_				
	Drain	BC 35 min.					-		_			
	Dialii	3 min. 1 min.										
	Balance Spin	60 sec.										
	Daiance Spiri	30 sec.										
s	Main spin	9 min.					-					
р	ινιαιτι οριτι	7 min.										
i		5 min.										
n		3 min.										
		1 min.										
	Natural Stop	120 sec.										
		60 sec.										
	Buzzer	10 sec.		_			_					
	Over Time		51	51	57	57	48	48	54	54	<u> </u>	
					<u> </u>							

				UNDEF	WEAR			SPORTS	WEAR			
	Division	Progress Time	Small	Low	Mid	High	Small	Low	Mid	High		
	Sensing	8 sec.										
р	Water inlet	4 min.										
r		2 min.										
е	Pre-wash	60 min.										
		30 min.										
W		18 min.										
a		15 min.										
S h	Wash	10 min.										
'''		6 min.										
		BC 35 sec.										
	Drain	3 min.										
		1 min.										
	Balance Spin	60 sec.										
		30 sec.										
R	Mid. Spin	90 sec.										
l 'i'	Notinal Otara	20 sec.										
n	Natural Stop	120 sec.		_	_	_					-	
s		60 sec. 40 sec.										
е	Rinse Shower	60 sec.			_							
١,	niiise sriowei	sec.										
1	Water inlet	4 min.										
	vvater irriet	2 min.										
	Rinse	3 min.		_	_	_	_	_	_			
	1 111100	2 min.										
		BC 35 min.		_	_		_	_				
	Drain	3 min.										
		1 min.										
	Balance Spin	60 sec.										
_		30 sec.										
R	Mid. Spin	90 sec.										
n '		60 sec.										
s	Natural Stop	120 sec.										
е		60 sec.										
		40 sec.										
2	Water inlet	4 min.										
		2 min.										
	Rinse	3 min.		_	_			_		_		
		2 min.	_									
<u> </u>	Drain	BC 35 min. 3 min.				-			-		-	
	Dialli	1 min.										
	Balance Spin	60 sec.										
	Daiance Opin	30 sec.										
s	Main spin	9 min.				_						
þ		7 min.									1	
i		5 min.										
n		3 min.										
		1 min.										
	Natural Stop	120 sec.				<u> </u>					1	
	'	60 sec.										
	Buzzer	10 sec.										
	Over Time	Indication	45	45	51	51	50	50	56	56		



#### DAEWOO ELECTRONICS CORP.

1-2, Jeo-dong 1(il)-ga, Jung-gu, Seoul, Korea C.P.O. BOX 8003 SEOUL, KOREA TELEX: DWELEC K28177-8

CABLE: "DAEWOOELEC"

S/M NO.: PRINTED DATE: Feb. 2013

# **ABOUT THIS MANUAL**

VISION CREATIVE, INC.

서울 종로구 통의동 6번지 이룸빌딩 4층

담 5	강	정건기 님
MODE	L	DWF-240LWTP (S/M)
접 -	수	2013.02.13

MEMO 총 41p

13.02.13-표지, 표지뒤, 2p, 32p, 33p\_ 신규 5p

연락처 VISION 담당 방문수

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