S/M No. : WDE115R001

Service Manual

DRUM WASHING MACHINE

Model: DWD-E115R
DWD-E113R

✔ **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

DAEWOO ELECTRONICS

DEC. 2006

DRUM WASHING MACHINE SERVICE MANUAL

1. WHAT IS DRUM ?

1. WHAT IS DRUM WASHER?

One of the famous washers in the globe which uses laundry falling energy.

2. Sales point of our washer

❖ The biggest capacity with compact size

❖ Environmently friendly washer with NANO technology
  • Sterilizing up to 99.9%

❖ No damage and entanglement but excellent washability

❖ 4way savings-noise, vibration, washing times, energy

❖ Self-cleaning course of Drum

❖ Good washing performance with heating system

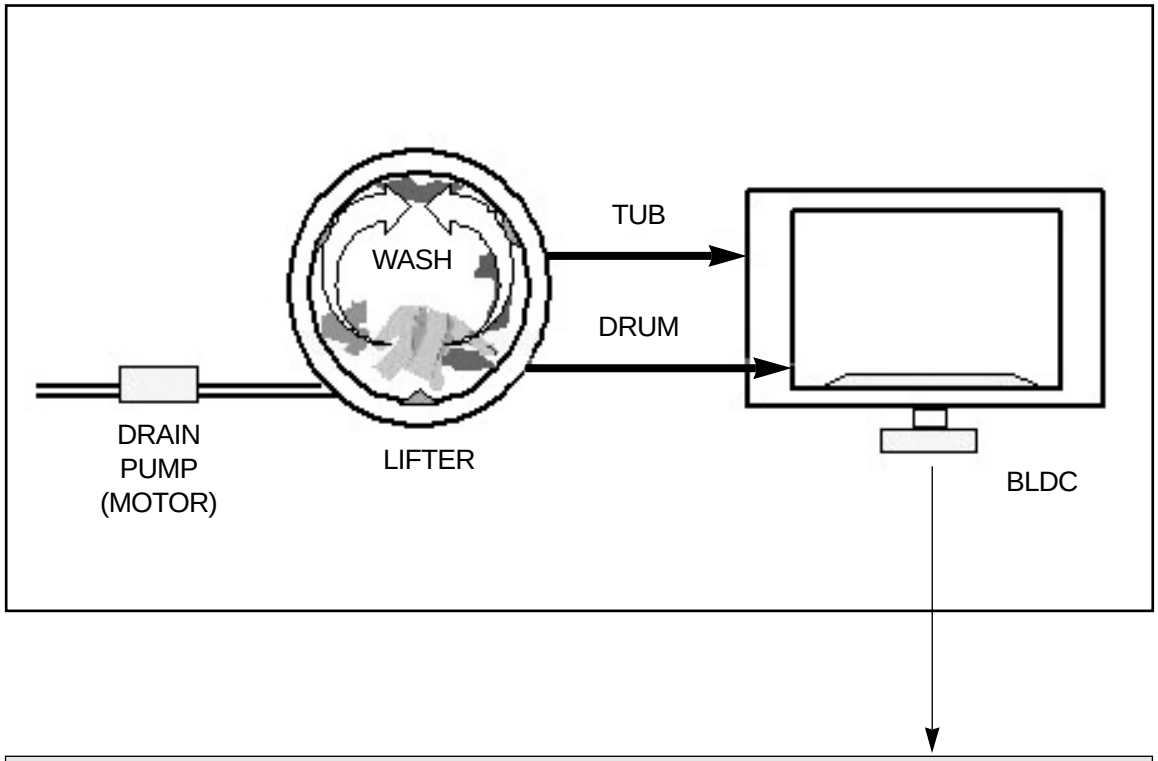
❖ Condensing dry system with saving energy

❖ Big door glass with easy laundry take-in/out

❖ The higest spin speed - 1200rpm

❖ Superior Interior Design

3. THE DIRECT DRIVE SYSTEM OF DRUM WASHING MACHINE



- DD CONTROL : DIRECT DRIVE SYSTEM
- BLDC MOTOR

4. DRIVE SYSTEM

3. INLET PARTS

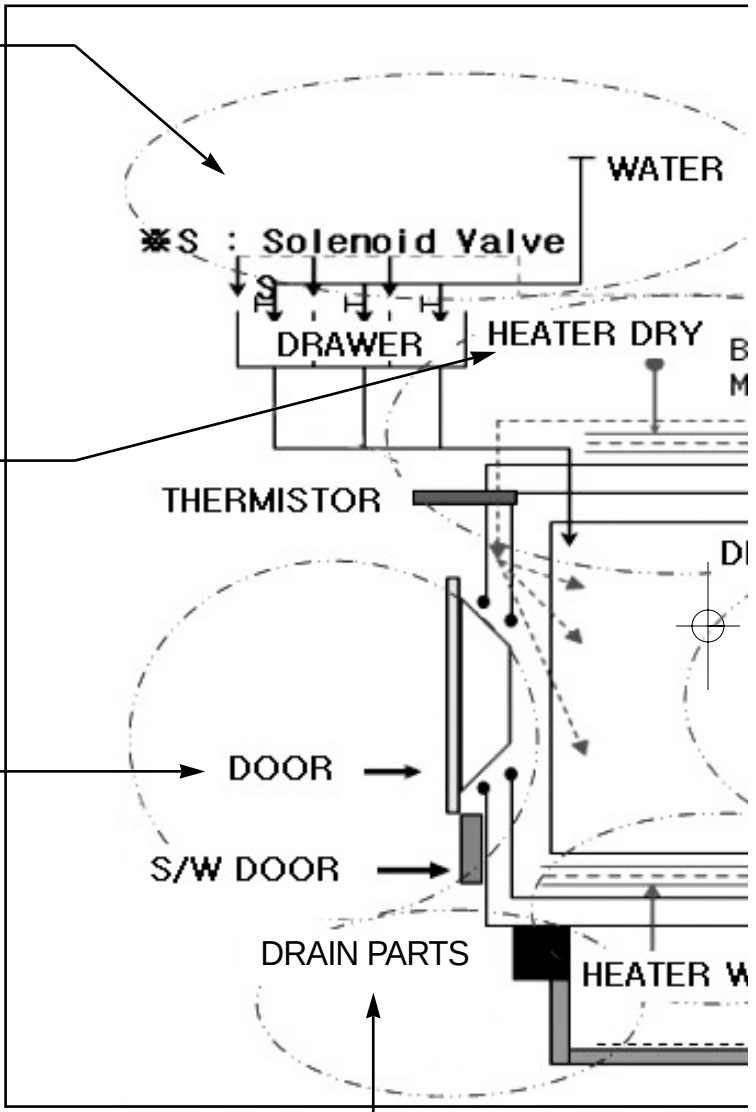
- COLD : 3-WAY
- COLD, PREWASH, DRY
- COLD : 2-WAY
- COLD, PREWASH

6. DRY PARTS

- HEATER DRY : OPTION
- BLOWER FAN
- FAN MOTOR : BLDC
- THERMISTOR
- THERMOSTAT
  : FUSE, BI-METAL
- CONDENSING SYSTEM
- DRY FAN DRIVE
  → GENERATION OF HEATER'S HEAT
  → TEMP. SENSOR
  → 110°C Off 100°C On : OPTION

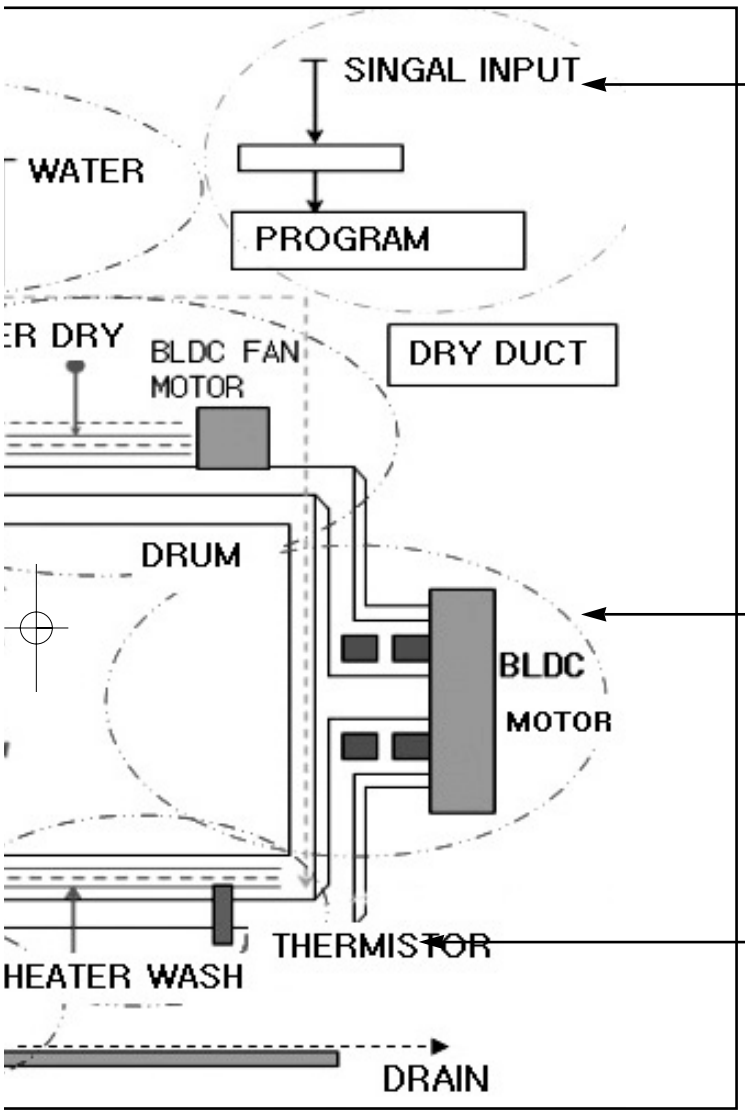
5. DOOR PARTS

- DOOR LOCK S/W
  : ADDING CLOTHES
- LOCK HINGE
- DOOR AS : GLASS
- GASKET



7. DRAIN PARTS

- DRAIN PUMP(MOTOR)
- VALVE HOUSING
- DRAIN HOSE I



1. CONTROLLER

- MAIN PCB
- FRONT PCB
- HARNESS
- NOISE FILTER
- POWER CORD : 15A

2. DRIVE PARTS

- BLDC MOTOR
- DRUM
- BEARING
- SPIDER/SHAFT
- TUB
- WEIGHT BALANCER

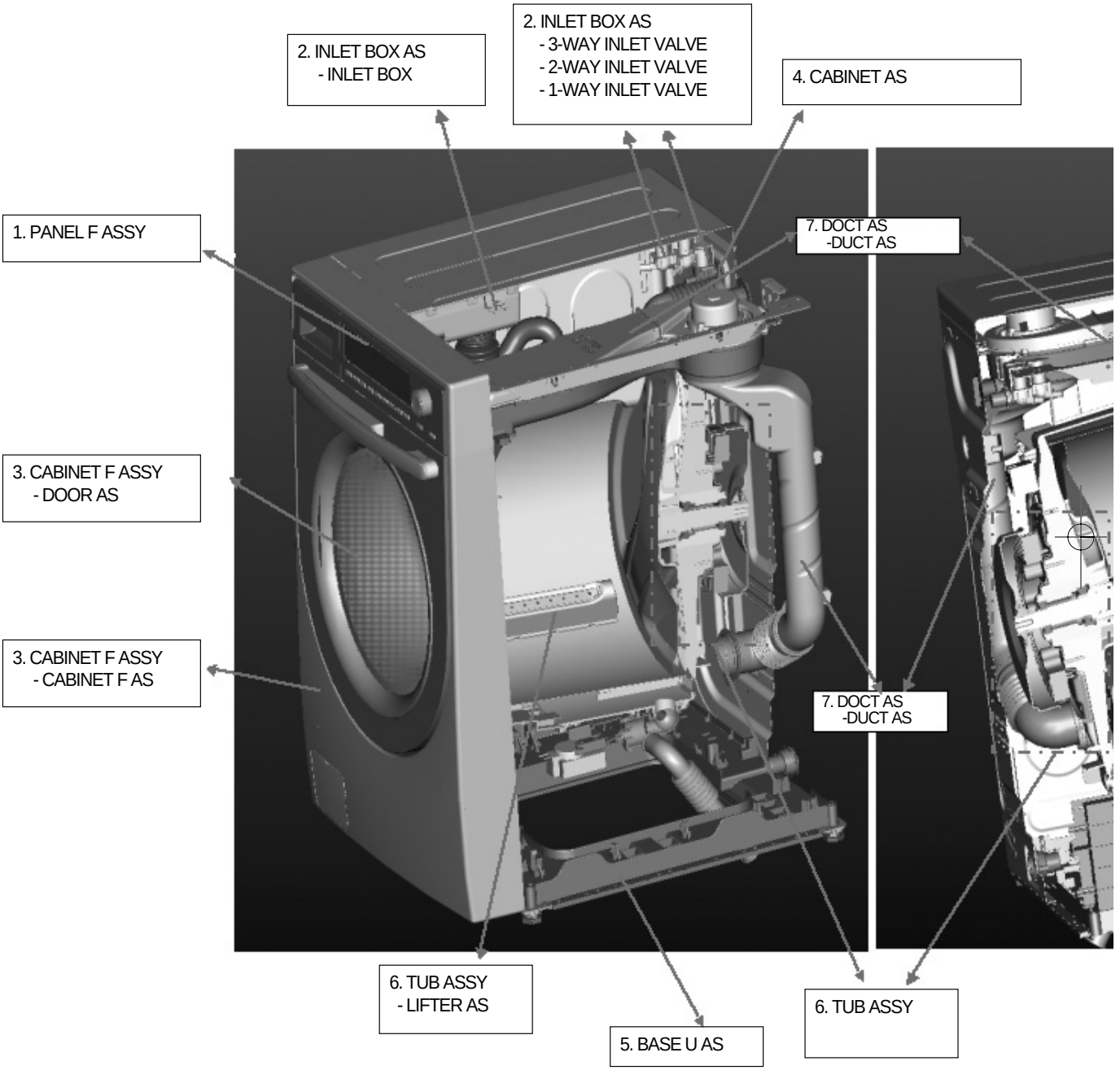
4. WASH HEATING

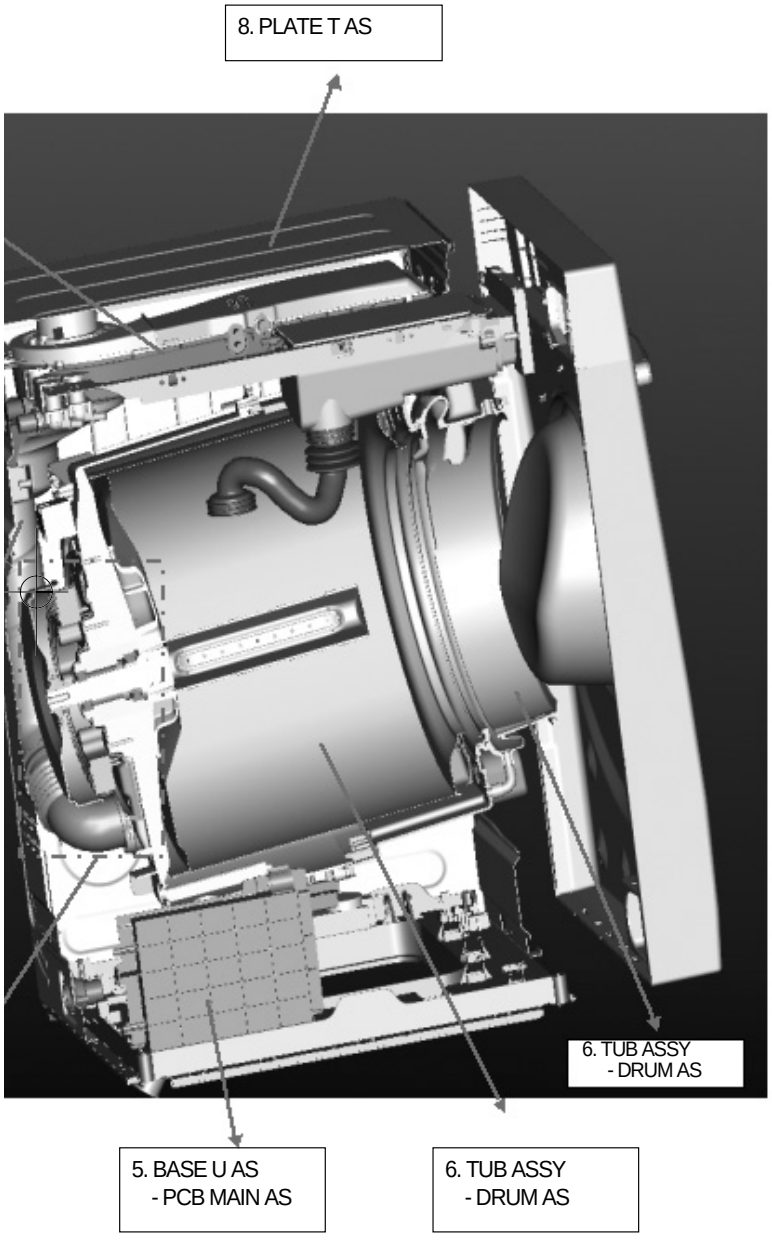
- WASH HEATER : OPTION
- THERMISTOR
- 40°C FIXED TEMP. CONTROL : OPTION
- 60°C, 90°C BOIL

8. SUPPORTER

- BASE
- DAMPER AS : (Right)2(60N)/(Left)1(120N) Spring : 4

5. FUNCTION


2. INLET BOX AS
- INLET BOX
2. INLET BOX AS
- 3-WAY INLET VALVE
- 2-WAY INLET VALVE
- 1-WAY INLET VALVE
4. CABINET AS
1. PANEL F ASSY
7. DOCT AS
-DUCT AS
3. CABINET F ASSY
- DOOR AS
3. CABINET F ASSY
- CABINET F AS
7. DOCT AS
-DUCT AS
6. TUB ASSY
- LIFTER AS
5. BASE U AS
6. TUB ASSY

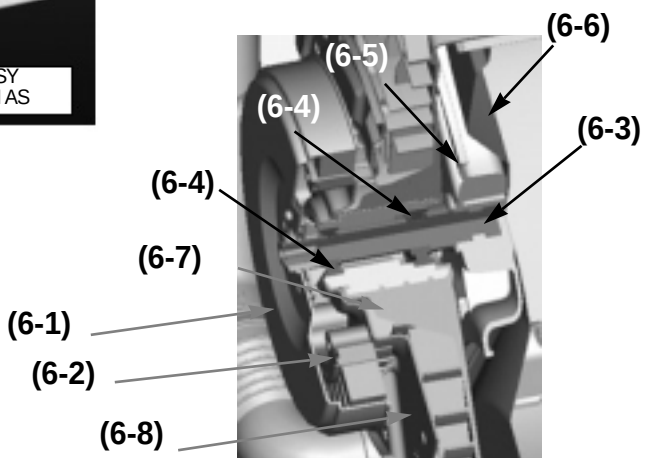


✻ 6. TUB ASSY - Parts For Driving

(6-1) BLDC ROTOR
(6-2) BLDC STATOR — BLDC MOTOR

(6-3) SHAFT
(6-4) BEARING
(6-5) SPIDER — Parts For Transmitting

(6-6) DRUM
(6-7) TUB
(6-8) BASE



2. DRUM WASHING SPECIFICATION OF MACHINE

1. EXTERIOR DIAGRAM

① PREMIUM TYPE

NO	PARTS NAME
1	FRAME DOOR O
2	DOOR GLASS PLATE
3	DOOR GLASS BAND
4	HANDLE DOOR UPPER
5	HANDLE DOOR LOWER
6	HANDLE DOOR COVER
7	PANEL OUTER
8	PANEL INNER
9	PANEL PLATE
10	BUTTON DIAL OUT
11	BUTTON DIAL IN
12	CASE HANDLE
13	CASE HANDLE PLATE
14	CABINET F OUTER
15	COVER PUMP
16	PLATE T
17	CABINET
18	HANDLE CABINET
19	BASE UNDER

DIMENSION(WxDxH)		630mm(W) x 755mm(D) x 950mm(H)
MACHINE WEIGHT		89 kg
WATER CONSUMPTION		WASH 89 ℓ / DRY 28 ℓ
WASHING CONSUMPTION		28 ℓ
POWER SOURCE		Option
POWER CONSUMPTION	WASHING	1100W (Heating) ~ 2400W : Option
	DRY	1250W ~2400W : Option
CAPACITY	WASHING	11 kg (Domestic)
	SPIN	11 kg (Domestic)
	DRY	6.5 kg (Domestic)
WASHING TYPE		DRUM TYPE
DRY TYPE		Digital condensing dry system
OPERATION WATER PRESSURE		29kPa ~ 784kPa(0.3kgf/cm^2~8kgf/cm^2)

1. EXTERIOR DIAGRAM

② LUXURY TYPE

NO	PARTS NAME
1	FRAME DOOR O
2	DOOR PLATE GUIDE
3	PROTECTOR GLASS
4	HANDLE DOOR UPPER
5	HANDLE DOOR LOWER
6	PANEL OUTER
7	PANEL INNER
8	BUTTON SELECT
9	BUTTON POWER
10	BUTTON DIAL OUT
11	BUTTON DIAL IN
12	CASE HANDLE
13	WINDOW DISPLAY
14	CABINET F OUTER
15	COVER PUMP
16	PLATE T
17	CABINET
18	HANDLE CABINET
19	BASE UNDER

DIMENSION(WxDxH)		630mm(W) x 755mm(D) x 950mm(H)
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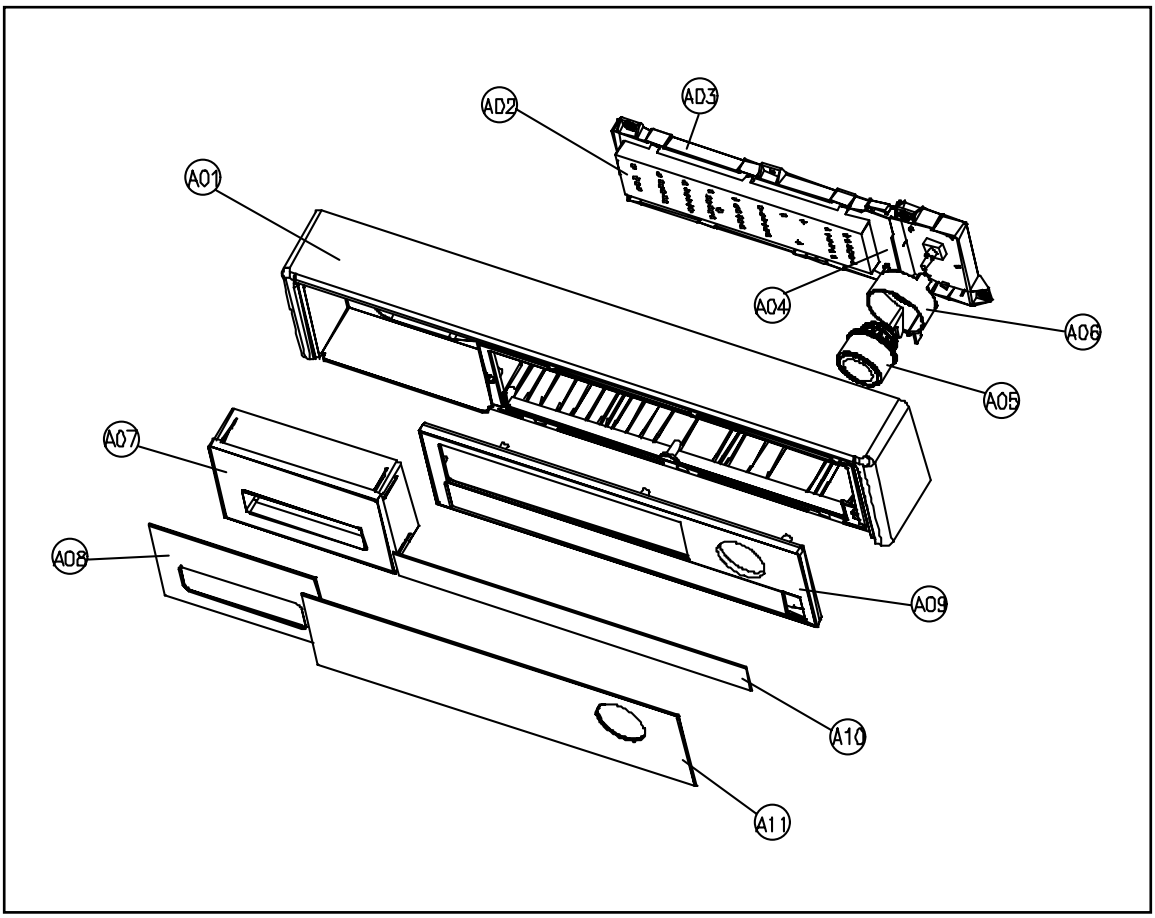
3. PARTS LIST FOR EACH ASSY

1. PLATE T, PANEL LOWER AS

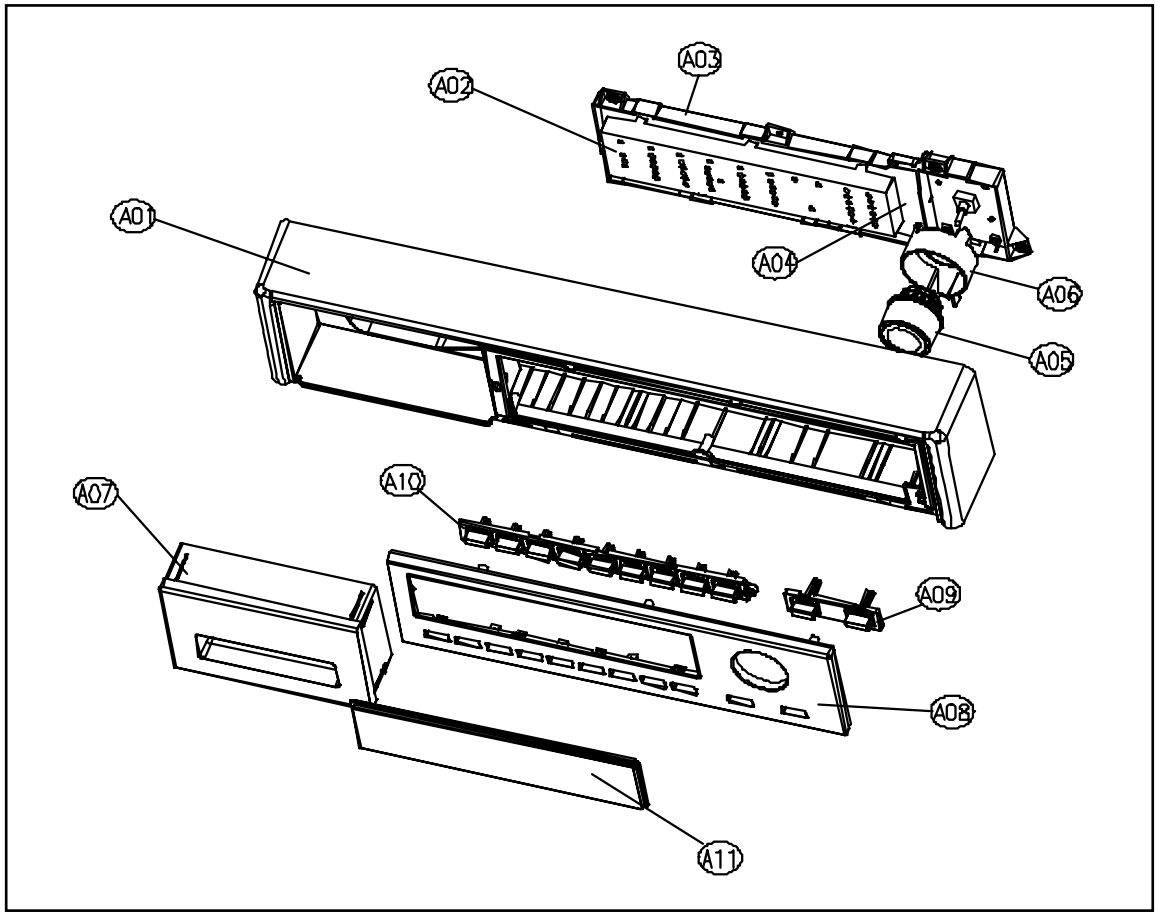
① PREMIUM TYPE



No.	PARTS NAME	PARTS CODE	DESCRIPTION	Q'TY	REMARK
A01	PANEL OUTER	3614286100	ABS	1	
A02	HOLDER LED CUSTOM	3613052300	E110RP	1	
A03	CASE PCB F	3611143600	HIPS	1	
A04	PCB AS	PRPSSW2D21	DWD-E110R FRONT PCB ASSY	1	
A05	BUTTON DIAL AS	3616634700	130RP'S BUTTON DIAL AS	1	
A06	HOLDER DIAL	3613052100	HIPS	1	
A07	CASE HANDLE	3611143800	ABS	1	
A08	CASE HANDLE PLATE	3611143900	ACRYLIC	1	
A09	PANEL INNER	3614286200	ABS	1	
A10	PCB AS	PRPSSW2D22	DWD-E110R TOUCH PCB ASSY	1	
A11	PANEL PLATE	3614286300	ACRYLIC	1	

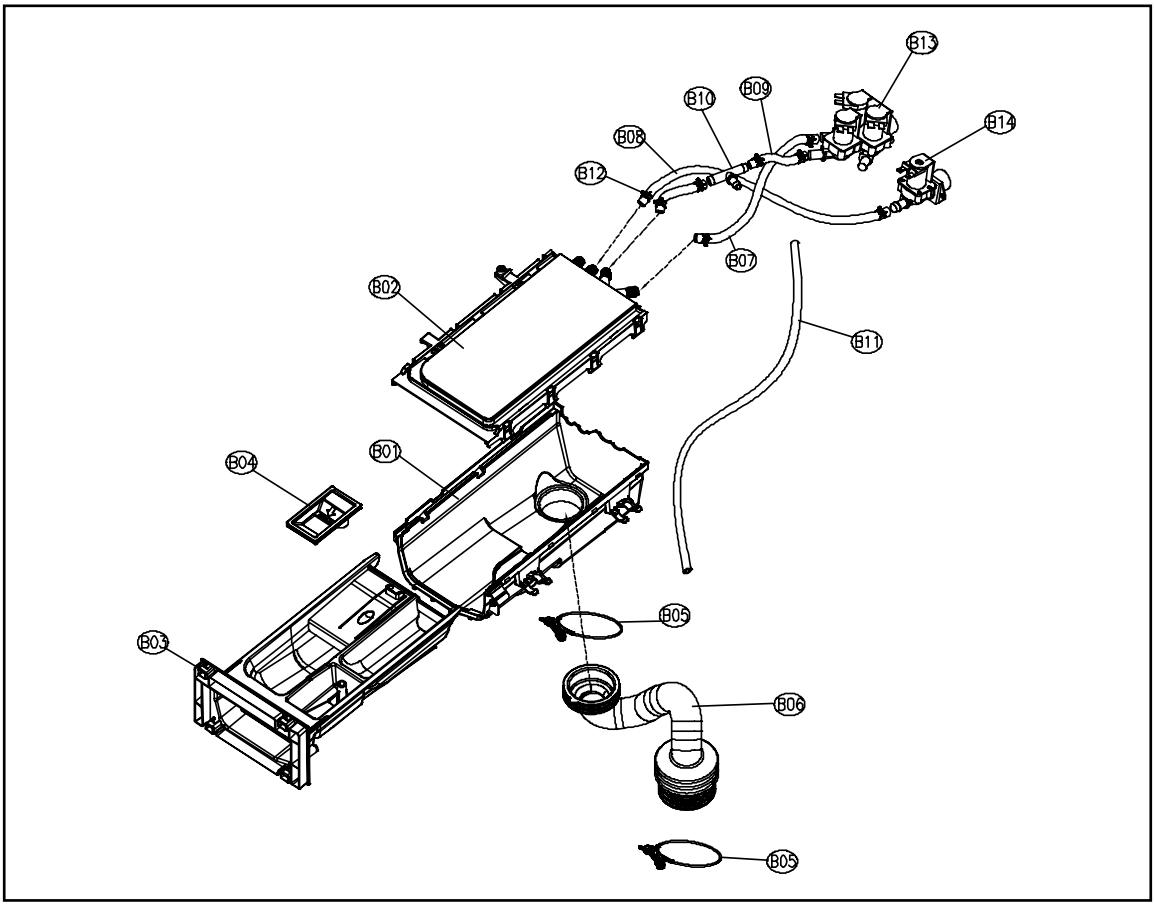
1. PANEL F ASSY

② LUXURY TYPE



No.	PARTS NAME	PARTS CODE	DESCRIPTION	Q'TY	REMARK
A01	PANEL OUTER	3614286100	ABS	1	
A02	HOLDER LED CUSTOM	3613052300	E110RP	1	
A03	CASE PCB F	3611143600	HIPS	1	
A04	PCB AS	PRPSSW2D24	DWD-E112R FRONT PCB ASSY	1	
A05	BUTTON DIAL AS	3616634700	130RP'S BUTTON DIAL AS	1	
A06	HOLDER DIAL	3613052100	HIPS	1	
A07	CASE HANDLE	3611143800	ABS	1	
A08	PANEL INNER	3614286400	ABS	1	
A09	BUTTON POWER	3616635600	ABS	1	
A10	BUTTON SELECT	3616635500	ABS	1	
A11	WINDOW DISPLAY	3615504700	ABS	1	

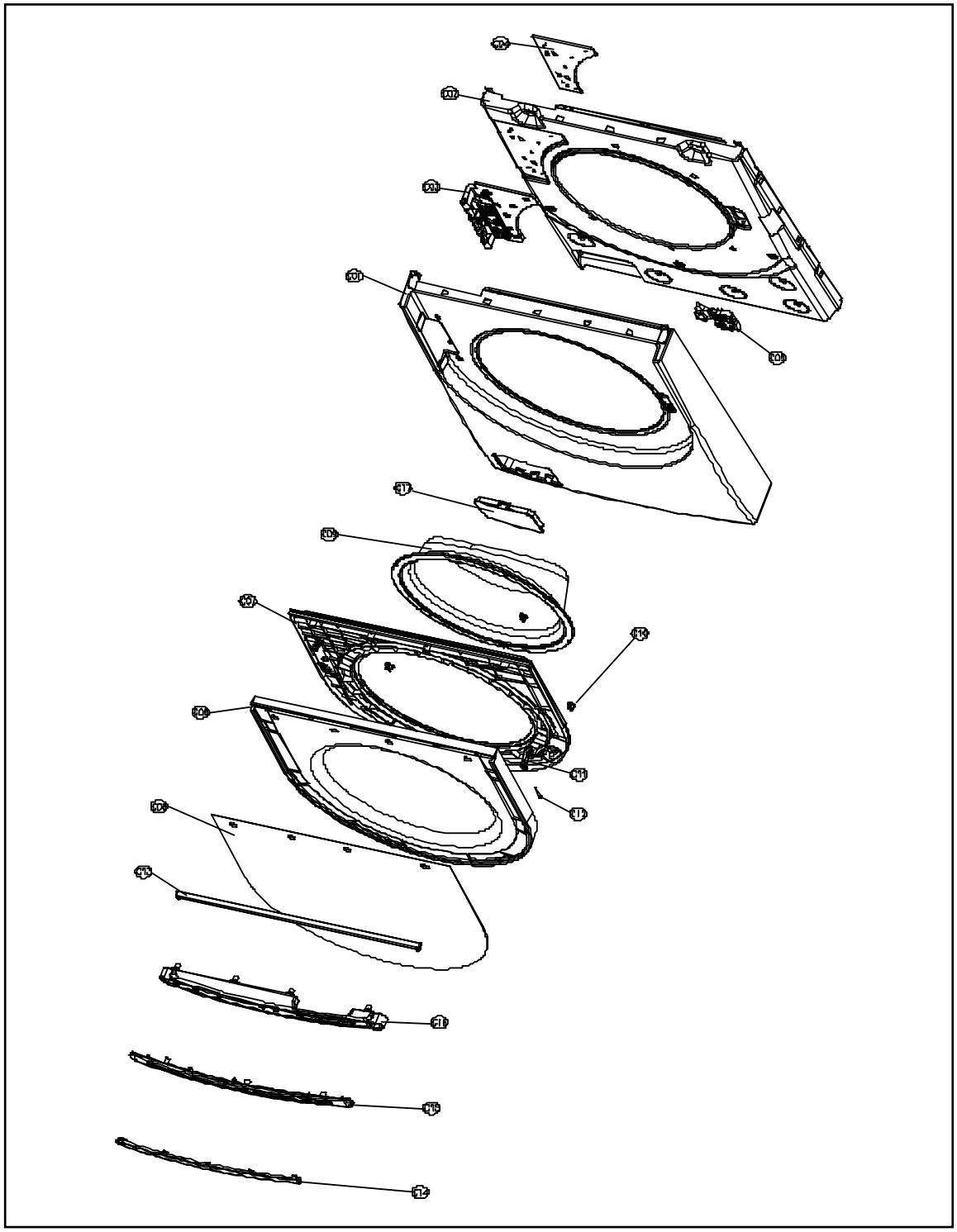
2. INLET BOX AS



No.	PARTS NAME	PARTS CODE	DESCRIPTION	Q'TY	REMARK
B01	INLETBOX	3617506200	PP, B110RN	1	
B02	NOZZLE AS	3618104600	PP, TOP+UNDER	1	
B03	CASE DETERGENT	3611143700	PP	1	
B04	CAP SOFTENER	3610916600	PP	1	
B05	CLAMP AS	3611203200	ID=60, WIRE+GUIDE+BOLT+NUT	2	
B06	HOSE INLET	3613271000	EPDM	1	
B07	HOSE A	3613266640	EPDM,ID=10,L=280MM,MAIN, B110RN	1	
B08	HOSE B	3613266740	EPDM,ID=10,L=370MM,HOT, B110RN	1	
B09	HOSE C	3613267040	EPDM,ID=10,L=160MM,+SHOWER, B110RN	1	
B10	PIPE JOINT(HOSE INLET)	3614413300	PP	1	
B11	HOSE SHOWER	3613270100	EPDM, ID=8.5, OD=12.5, GASKET SHOWER	1	
B12	CLAMP HOSE	3611205800	100H, ID=13.8 W=10.0 0.9T	8	
B13	VALVE INLET	3615415050	220~240V,3WAY,RINSE GUIDE, PP/BRACKET	1	
B14	VALVE INLET	3615414800	220-240V 1-WAY HOT PP-BRACKET	1	

3. CABINET F ASSY

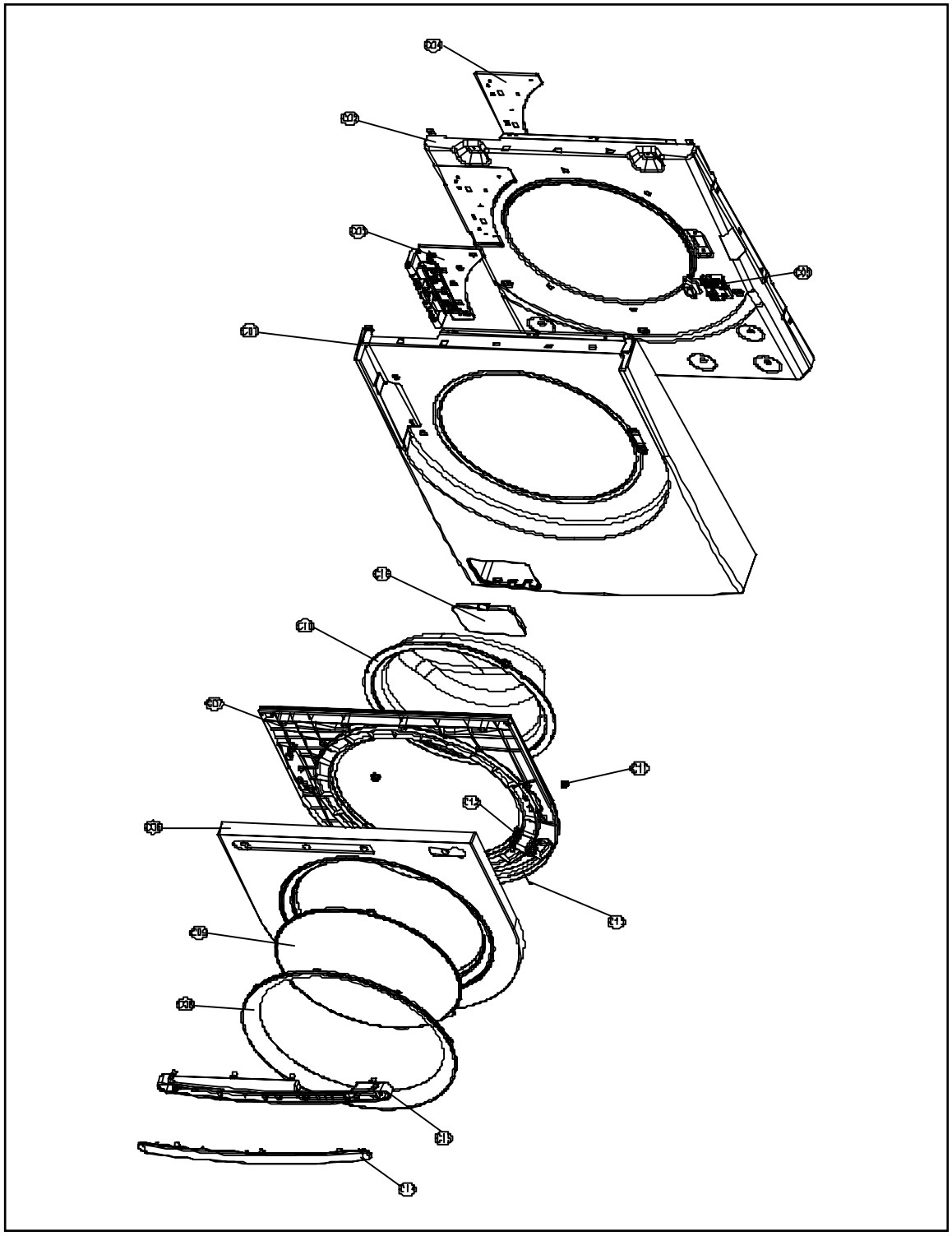
① PREMIUM TYPE



No.	PARTS NAME	PARTS CODE	DESCRIPTION	Q'TY	REMARK
C01	CABINET F OUTER	3610812200	ABS	1	
C02	CABINET F INNER	3610812100	SECD 0.8T	1	
C03	HINGE DOOR AS	3612903500	E110R	1	
C04	PLATE HINGE SUPPORT	3614539400	SPG 2.0T	1	
C05	SWITCH DOOR LOCK	3619047200	DL-S1.250V16A.BITRON	1	
C06	FRAME DOOR O	3612207300	ABS	1	
C07	FRAME DOOR I	3612207400	ABS	1	
C08	DOOR GLASS PLATE	36117ABJ00	GLASS	1	
C09	DOOR GLASS	361A110600	GLASS (DWD-100DR)	1	
C10	CUSHION DOOR	3611568400	DWD-E110RP	3	
C11	HOOK DOOR	3613100900	ZNDC	1	
C12	PIN HANDLE	3618200100	SUS, D3.0	1	
C13	DOOR GLASS BAND	36117ABK00	ABS	1	
C14	HANDLE DOOR COVER	3612610200	ABS	1	
C15	HANDLE DOOR UPPER	3612610000	ABS	1	
C16	HANDLE DOOR LOWER	3612610100	ABS	1	
C17	COVER PUMP	3611427600	ABS	1	

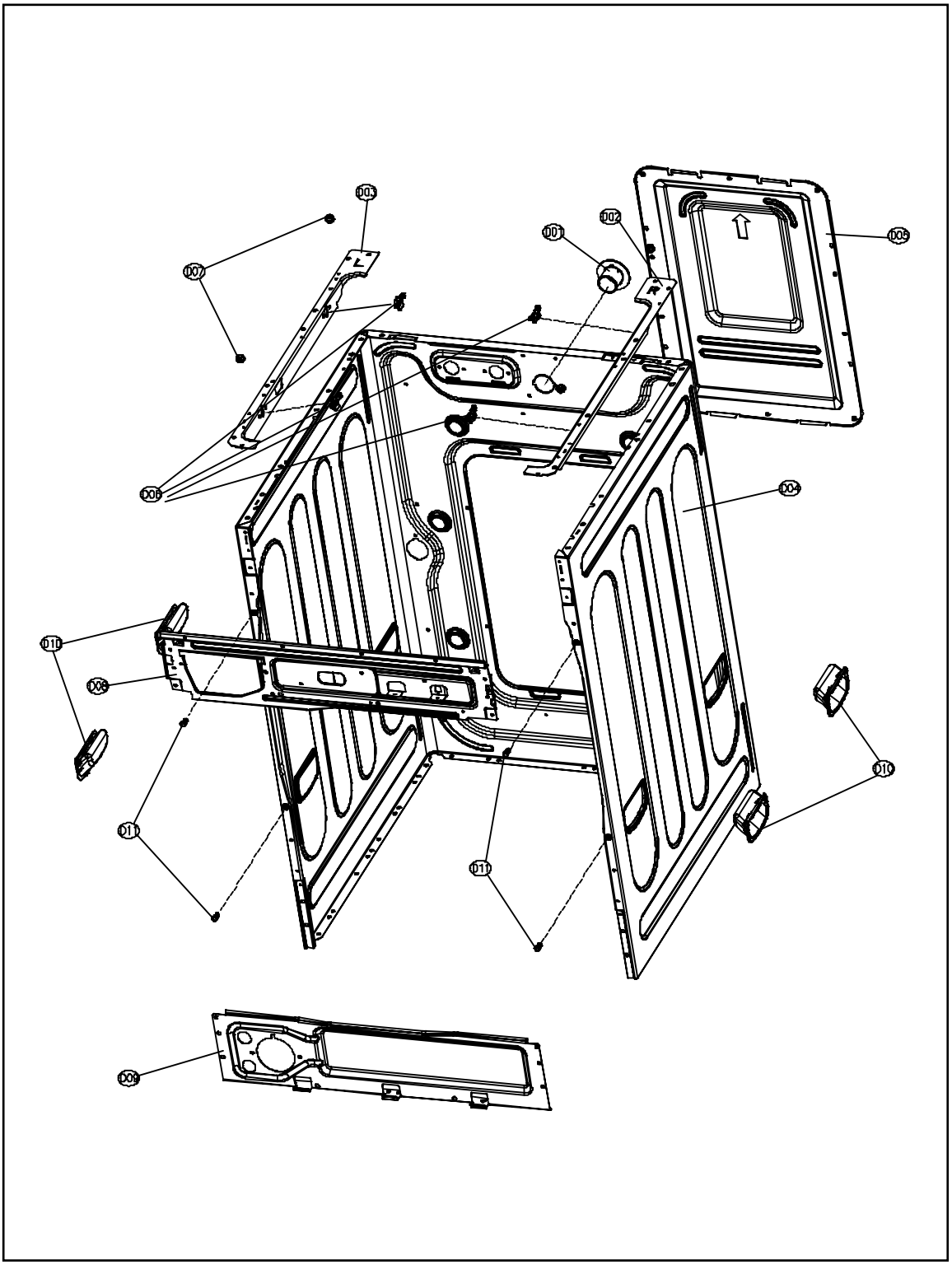
3. CABINET F ASSY

② LUXURY TYPE



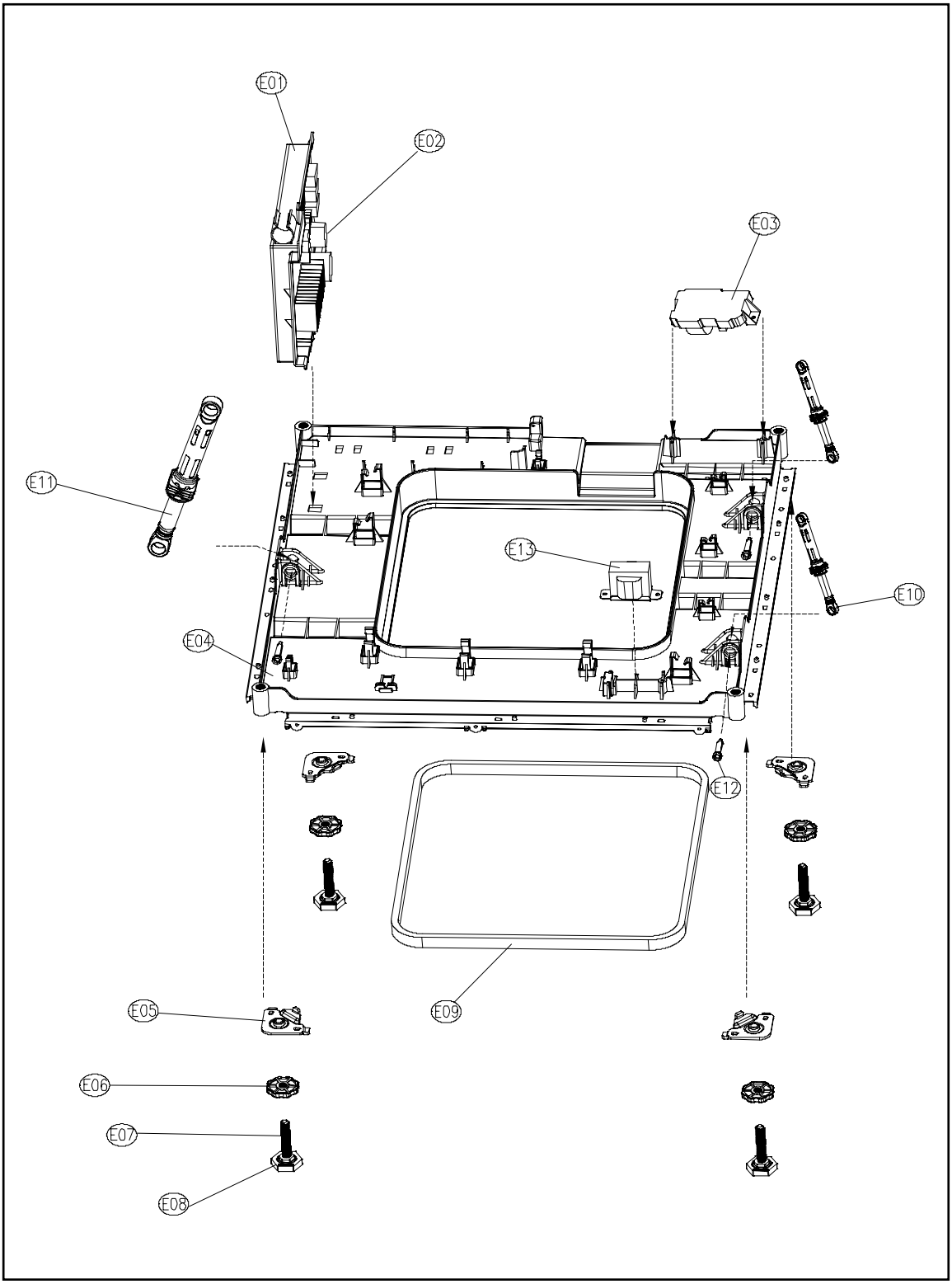
No.	PARTS NAME	PARTS CODE	DESCRIPTION	Q'TY	REMARK
C01	CABINET F OUTER	3610812200	ABS	1	
C02	CABINET F INNER	3610812100	SECD 0.8T	1	
C03	HINGE DOOR AS	3612903500	E110R	1	
C04	PLATE HINGE SUPPORT	3614539400	SPG 2.0T	1	
C05	SWITCH DOOR LOCK	3619047200	DL-S1.250V16A.BITRON	1	
C06	FRAME DOOR O	3612207800	ABS	1	
C07	FRAME DOOR I	3612207400	ABS	1	
C08	DOOR PLATE GUIDE	36117ABL00	ABS	1	
C09	PROTECTOR GLASS	3618304201	ABS TRANSPARENT	1	
C10	DOOR GLASS	361A110600	GLASS (DWD-100DR)	1	
C11	CUSHION DOOR	3611568400	DWD-E110RP	3	
C12	HOOK DOOR	3613100900	ZNDC	1	
C13	PIN HANDLE	3618200100	SUS, D3.0	1	
C14	HANDLE DOOR UPPER	3612610300	ABS	1	
C15	HANDLE DOOR LOWER	3612610100	ABS	1	
C16	COVER PUMP	3611427600	ABS	1	

4. CABINET ASSY



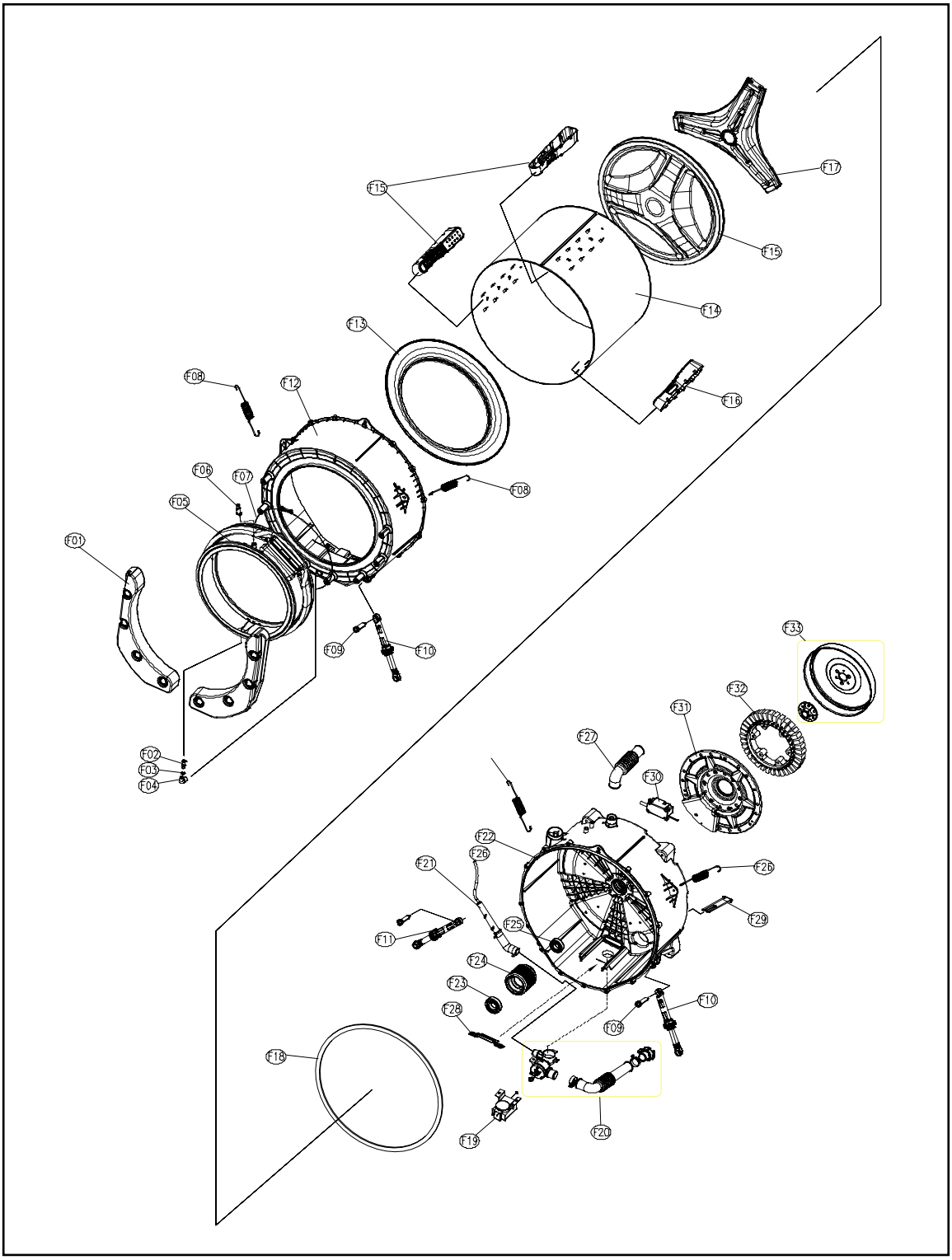
No.	PARTS NAME	PARTS CODE	DESCRIPTION	Q'TY	REMARK
D01	NOZZLE AIR	3618103110	PP, DWD-100DR	1	
D02	FRAME TOP R	3612204300	GI, 1.6T, DWD-100DR	1	
D03	FRAME TOP L	3612204900	1.6T, GI, DWD-100DR	1	
D04	CABINET	3610810900	SGCD1,0.8*925.7*1922,PAINTING,DWD-110RP	1	
D05	COVER BACK AS	3611425510	COVER BACK + PAD CABINET AS	1	
D06	STOPPER SPRING	3615202200	POM, DWD-100DR	4	
D07	FIXTURE PLATE	3612008000	130RP,POM	4	
D08	FRAME UPPER	3612207600	SBHG 1.2T	1	
D09	FRAME LOWER	3612207500	SBHG 1.2T	1	
D10	HANDLE CABINET	3612608100	PP, DWD-100DR	4	
D11	SPECIAL BOLT	3616029100	M4X12.5 MACHINE,DWD-100DR	4	

5. BASE U AS



No.	PARTS NAME	PARTS CODE	DESCRIPTION	Q'TY	REMARK
E01	CASE PCB MAIN	3611139300	HIPS	1	
E02	MAIN PCB AS	3610PCBE00	E110,112R'S MAIN PCB + HARNESS AS	1	
E03	UNIT FILTER(EMI K19)	3611908000	DWLF-K19,X0.47U.Y1000P.VAR471K.FUSE20A	1	
E04	BASE U	3610391910	PP, DWD-100DR	1	
E05	SUPPORTER LEG	3615303600	PO+ , 3.0T	4	
E06	FIXTURE LEG	3612006400	ABS, DWD-100DR	4	
E07	SPECIAL BOLT	3616029000	10 X 1.25, 51MM	4	
E08	FOOT	3612100600	BUTYL, DWD-100DR	4	
E09	ABSORBER BASE	3610115200	PE FOAM, 8X1425, 20T	1	
E10	DAMPER FRICTION	361A700130	60N AKS ST=170-260 DL=197.5 LOW NOISE	2	
E11	DAMPER FRICTION	361A700120	120N AKS ST=170-260 DL=197.5 LOW NOISE	1	
E12	DAMPER PIN	361A700200	AKS D=14.5	3	
E13	REACTOR	52G043J002	DWD-100DR, 4A	1	

6. TUB ASSY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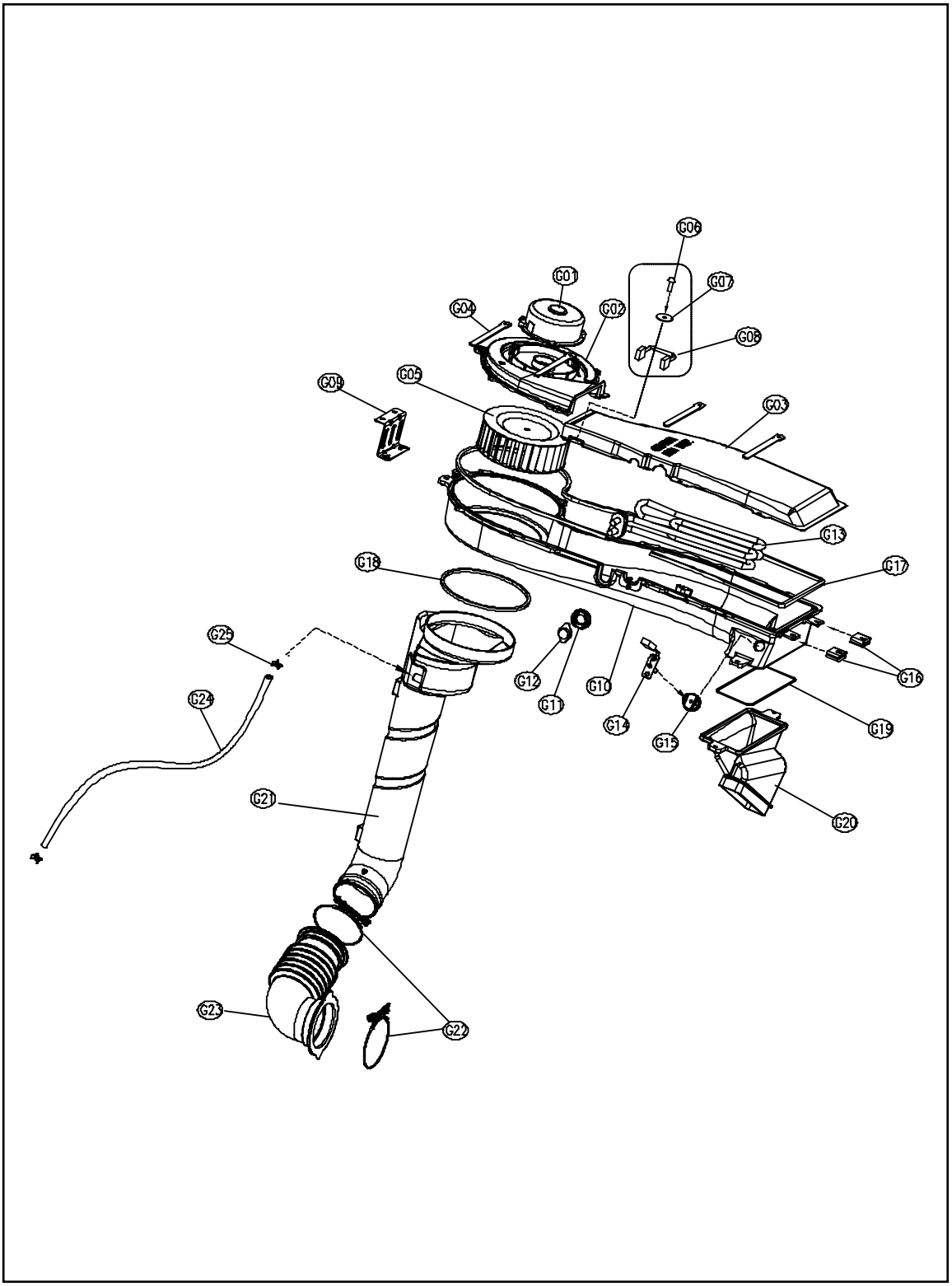
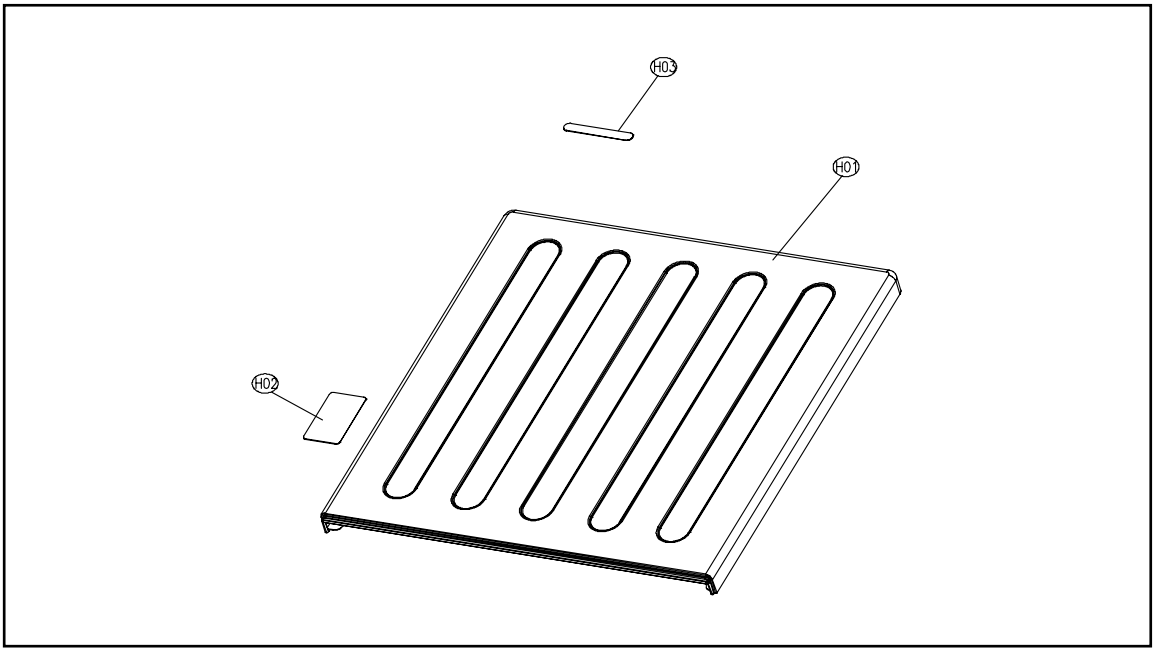
No.	PARTS NAME	PARTS CODE	DESCRIPTION	Q'TY	REMARK
F01	BALANCER WEIGHT R/L AS	3616108200	E110R	1	
F02	PIPE JOINT	3614404900	PP	1	
F03	CLAMP (HOSE PIPE)	3611204300	ø14, MZFN	1	
F04	HOSE JOINT	3613266500	EPDM	1	
F05	GASKET	3612320700	EPDM	1	
F06	NOZZLE SHOWER	3618104000	PP	1	
F07	CLAMP GASKET AS	3611203600	GASKET	1	
F08	SPRING SUSPENSION F	3615113500	2.9	2	
F09	DAMPER PIN	361A700200	AKS D=14.5	3	
F10	DAMPER FRICTION	361A700130	60N AKS ST=170-260 DL=197.5 LOW NOISE	2	
F11		361A700120	120N AKS ST=170-260 DL=197.5 LOW NOISE	1	
F12	TUB FRONT	3618820401	FRPP FH7300GM	1	
F13	DRUM FRONT	3617003101	0.5T	1	
F14	DRUM CENTER	3617003001	SUS 0.5T	1	DRUM SUB AS
F15	DRUM REAR	3617003200	SUS	1	
F16	LIFTER AS	361A400350	DWD-A11*S,LIFT BODY+FILTER AS	3	
F17	SPIDER AS	361A300200	11KG	1	
F18	GASKET TUB	3612321100	EPDM FORM	1	
F19	DRAIN MOTOR	36196TAJ00	SV-MX7T20D 220-50/60 ST23(56.5)	1	
F20	VALVE DRAIN AS	3615415100	DWD-100DR	1	
F21	AIR TRAP AS	3610AAR101	110RP, HOSE+TRAP	1	
F22	TUB REAR	3618820501	FRPP FH7300GM	1	
F23	BEARING INNER	3616303100	6206Z FAB	1	
F24	BEARING HOUSING	3616303000	ALDC	1	
F25	BEARING OUTER	3616303200	6205Z FAG	1	
F26	SPRING SUSPENSION R	3615113600	2.9	2	
F27	HOSE AIR	3613266300	EPDM, DWD-100DR	1	
F28	FIXTURE HEATER	3612007300	SUS 0.7T 440X45	1	
F29	HEATER WASH	3612802400	220V 2KW.1R0A721001.RW8TF.IRCA	1	
F30	UNIT BUBBLE PUMP	36189L4100	220-240V DBK-240DA 700~1200CC	1	
F31	BASE	3610392000	SESEN	1	
F32	UNIT STATOR BLDC	36189L4800	220V 2KW.1R0A721001.RW8TF.IRCA	1	
		36189L4830	ø265X28H,36SLOT,2SENSOR,3254D02000,28T AL COIL		
F33	UNIT ROTOR BLDC	36189L4900	MAGNET24,SERRATION,WR1238F001	1	

7. DUCT B AS+DUCT PIPE AS



No.	PARTS NAME	PARTS CODE	DESCRIPTION	Q'TY	REMARK
G01	UNIT FAN MOTOR	36189L3Z00	ISM-77806DWWA 24V,CW,8P,14W	1	
G02	COVER DUCT	3611426600	PBT+GF30%	1	
G03	DUCT B UPPER	361A201200	ALCOSTA 0.5T*228*449	1	
G04	CLAMP CORD	3611203310	DALE-3,A=12,B=4.4,L=126	4	
G05	FAN AS	3611886100	D133*46L,PPGF30%,HANYU	1	
G06	SCREW TAPPING	7122400811	T2S TRS 4x8	1	
G07	WASHER PLAIN	7400432011	PW 4.3*20*1T	1	
G08	FUSE TEMPERATURE	361A800120	128°C DF-128S 15A 250V VDE	1	
G09	FRAME HEATER FRANGE	3612204100	SBHG 1.2T, DWD-100DR	1	
G10	DUCT B LOWER	361A201800	ALDC	1	
G11	PACKING THERMOSTAT	3614009900	SILICON, DWD-100DR	1	
G12	SWITCH THERMOSTAT	3619046500	ON120°C OFF150°C 230V 15A VDE	1	
G13	HEATER DRY	3612800900	220V 2100W 23.05OHM 6.1W/SQ INCOLOY800 1R1A034001	1	
G14	THERMISTOR DRY	361AAAAC00	R40=26.065kΩ,R90=4.4278kΩ	1	
G15	PACKING RUBBER	3614009800	SILICON, DWD-100DR	1	
G16	CUSHION DRY	3611562800	NBR, DWD-100DR	2	
G17	GASKET SEAL A	3612320820	DWD-110RP, ø5,L=1385	1	
G18	GASKET SEAL B	3612320830	EPDM FOAM, L=415, ø5	1	
G19	GASKET INLET	3612322900	T=1.0	1	
G20	DUCT GUIDE	361A201900	ALDC	1	
G21	DUCT AS	361A200800	11KG	1	
G22	CLAMP AS(DUCT)	3611203700	DUCT	2	
G23	BELLOWS DUCT	3616403000	EPDM	1	
G24	HOSE SPRAY(DRY)	3613266800	EPDM 470MM	1	
G25	CLAMP SPRING	3611203800	ID=15.5, T=0.6, B=10	2	

8. PLATE TOP ASSY



No.	PARTS NAME	PARTS CODE	DESCRIPTION	Q'TY	REMARK
H01	PLATE T	3614539500	SECD 1.2T	1	
H02	LABEL CAUTION	3613553830	DRUM 11KG,DRY+WASH,KOR,PVC,95*143,SILK 2°	1	
H03	LABEL INSTALL	3613555700	ART+OPP,WATER VALVE STICKER	1	

4. SEQUENCE CHART OF PCB

1. SEQUENCE CHART

DIVISION		Default Wash Temp	Normal		Heavy Stain	White		Eco-White	
			Small	Middle	Middle	Small	Middle	Small	Middle
Default Wash Temp			40degree		40degree	95degree		60degree	
Pre. Wash	Sensing	20sec							
	Water Supply	2min			■				
	Pre. Wash	10min			■				
		8min			■				
	Drain	1min			■				
	Balancing Spin	2min			■				
	Mid.Spin	3min			■				
Washing	Sensing	20sec	■	■		■	■	■	■
	Water Supply	2min	■	■	■	■	■	■	■
	Washing1 (Heating)	90min					■		
		80min				■	■		
		65min				■	■		
		55min		52min.		■	■		■
		50min	47min.	■	■	■	■	■	■
		40min	■	■	■	■	■	■	■
		35min	■	■	■	■	■	■	■
		30min	■	■	■	■	■	■	■
		25min	■	■	■	■	■	■	■
		20min	■	■	■	■	■	■	■
Rinse	Drain	1min	■	■	■	■	■	■	■
	Balancing Spin	2min	■	■	■	■	■	■	■
	Mid.Spin	3min	■	■	■	■	■	■	■
	Water Supply	2min	■	■	■	■	■	■	■
	Rinse 1	3min	■	■	■	■	■	■	■
	Drain	1min	■	■	■	■	■	■	■
	Balancing Spin	2min	■	■	■	■	■	■	■
	Mid.Spin	3min	■	■	■	■	■	■	■
	Water Supply	2min	■	■	■	■	■	■	■
	Rinse 2	3min	■	■	■	■	■	■	■
	Drain	1min			■	■	■	■	■
	Balancing Spin	2min			■	■	■	■	■
	Mid.Spin	3min			■	■	■	■	■
	Water Supply	2min			■	■	■	■	■
	Rinse 3	3min			■	■	■	■	■
Spin	Drain	1min	■	■	■	■	■	■	■
	Balancing Spin	2min	■	■	■	■	■	■	■
	Main Spin	7min							
		5min	■	■	■	■	■	■	■
		3min	■	■	■	■	■	■	■
END	Crease care	60sec	■	■	■	■	■	■	■
	END	10sec	■	■	■	■	■	■	■
Remain Time Display			1:25	1:30	1:54	2:06	2:16	1:41	1:51

NOTE

1. In the Heavy Stain Course, Prewash is included as Default.
2. Default Setting Times of Rinse in the Normal Course are two times.
3. According to Water Temperature, Wash Time is changed.
   Cold - 30°C(5min)/30°C-40°C(5min)/40°C-60°C(15min)/60°C-95°C(25min)

DIVISION		Default Wash Temp	Wool	Anti-	Blanket	Quick 30	Drum Drying	Small Wash	Memory
			Small	Allergy	Middle	Middle	High	Small	
Default Wash Temp			Cold		Cold	30°C	Cold	40°C	
Washing	Soak	30min					■		
	Water Supply	2min	■		■	■	■	■	
	Washing	40min							
		35min							
		30min						▮	
		25min			▮			▮	
		20min			▮			▮	
		15min	▮		▮			▮	
		10min	▮		▮			▮	
		8min	▮		▮			▮	
Rinse	Drain	1min	■		■	■	■	■	
	Balancing Spin	2min	■		■	■	■	■	
	Mid.Spin	3min	■		■	■	■	■	
	Water Supply	2min	■		■	■	■	■	
	Rinse 1	3min	■		■	■	■	■	
	Drain	1min	■		■	■	■		
	Balancing Spin	2min	■		■	■	■		
	Mid.Spin	3min	■		■	■	■		
	Water Supply	2min	■		■	■	■		
	Rinse 2	3min	■		■	■	■		
	Drain	1min			■				
	Balancing Spin	2min			■				
	Mid.Spin	3min			■				
	Water Supply	2min			■				
	Rinse 3	3min			■				
Spin	Drain	1min	■		■	■	■	■	
	Balancing Spin	2min	■		■	■	■	■	
	Mid.Spin	7min							
		5min	▮		▮	▮	▮	▮	
		3min	▮		▮	▮	▮	▮	
DRY	Crease care	60sec					■		
	Dry	40min		▮					
		30min		▮			■		
	Cooling	5min		■			■		
	END	10min		■			■		
	Crease care	30min					■		
END	Crease care	60sec	■		■	■		■	
	END	10sec	■		■	■		■	
Remain Time Display			49	35	1:11	32	1:51	54	

NOTE

1. Anti-Allergy Course is for removing scent and sterilizing clothes by controlling temp. about 70~80°C with heater dry on for 35 min.

DIVISION		Default Wash Temp	Eco-Steam	Normal steam	Strong Steam	Cotton
			Small	Small	Middle	Middle
Default Wash Temp						40°C
Steam	Sensing	20sec	■	■	■	■
	Steam Water Supply	1min	■	■	■	■
	Steam Heating	20min	■	■	■	■
	Steam Washing	15min			▮	
		10min			▮	
		7min	■		▮	
	Finishing Water Supply	1min	■	■	■	■
	Finishing Washing	30min				
		10min				
		5min	■	■	■	■
Washing	Soak	30min				
	Water Supply	2min				
	Washing 2	30min				
		20min	▮	▮	▮	▮
		15min	▮	▮	▮	▮
Rinse	Drain	1min	▮	▮	▮	▮
	Balancing Spin	2min	▮	▮	▮	▮
	Mid.Spin	3min	▮	▮	▮	▮
	Water Supply	2min	▮	▮	▮	▮
	Rinse 1	3min	▮	▮	▮	▮
	Drain	1min	▮	▮	▮	▮
	Balancing Spin	2min	▮	▮	▮	▮
	Mid.Spin	3min	▮	▮	▮	▮
	Water Supply	2min	▮	▮	▮	▮
	Rinse 2	3min	▮	▮	▮	▮
Spin	Drain	1min				
	Balancing Spin	2min	■	■	■	■
	Main	7min				
		5min	▮	▮	▮	▮
		3min	▮	▮	▮	▮
END	Crease care	60sec	■	■	■	■
	END	10sec	■	■	■	■
Remain Time Display			1:27	1:30	1:35	1:30

NOTE

1. Cotton Course is for all cooton clothes such as towel, diaper and the same course as Normal Steam Course.
2. At the Steam Washing, Washing Time is 30min for Heavy Stain, and 20 min for the other course.
3. Finishing Washing is the heating stroke to be reached up to Wash Temp, and if Wash Temp. of Washing is 30-40°C, time is 5min, and if 60°C, time is 10min, if 95°C, time is 30min.

2. Main function of PCB program

2-1. LOAD SENSING

1) Deciding the water level

① Cotton, Whites, ECO-White course will be followed by this process.
② Check the water level with dry laundry at the starting wash.
③ Check the water level by using motor output data during 20 sec, 65 rpm.

2) Deciding Spin Starting Step.

① Check after finishing washing step with wet laundry.
② Checking by using motor output data during 20 sec, 65 rpm.
③ The decided data is different depending on loading condition.

2-2. BALANCE SPIN

1) Motor running during balance spin.

① Spreading the laundry : Rotating the same 45 rpm with left and right direction alternatively.
② Attaching stop : Attaching the laundry to drum inside with constant speed.
③ Unbalance checking point : First step, check the U.B at 95 rpm, 160 rpm.
Second step, check the U.B at 95 rpm, 350 rpm.
Third step, at 300 rpm. if the unbalance data is over the criterion,
This process will be repeated.
④ Drain step : Drain at water around 160 rpm.
⑤ After drain, check the unbalance data again. This is so-called balance spin step.

2) Property of balance spin.

① Conducting 10 times maximum.
② If the washer can not pass balance spin step during 10 times, then water will be supplied.
③ If the washer can not pass 20 times of balance spin, UE error mode will be displayed on PCB.

2-3. DOOR S/W

1) The working principle of Door S/W

① Door Locking
Bimetal on (3 sec) --> solenoid (supply 20msec pulse 2 times)

② Door Unlocking
Bimetal off --> solenoid (supply 20msec pulse, until unlock)

③ After door locking, all parts can work normally.

④ After pressing power button, if the temperature of wash thermistor is over 50°C or the water level is over the safety level, the door will be locked.

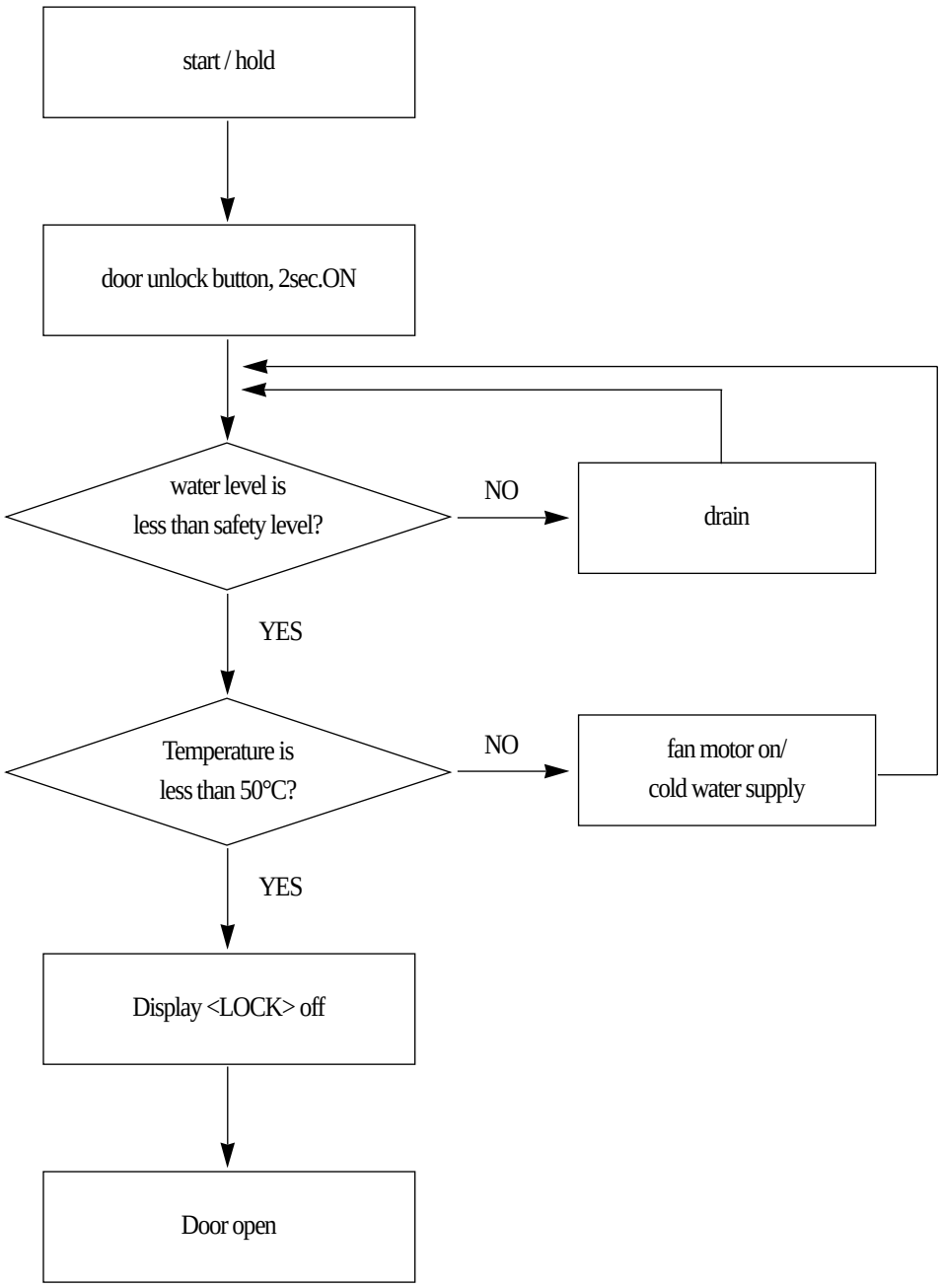
⑥ The door will be unlocked immediately after all processes are finished.

⑦ The door can be opened during processing if there is no problem to unlock.

2) DOOR OPEN SYSTEM

① If add the laundry during washing, press the door unlock button.

② Door open sequence at abnormal condition.



2-4. Child Lock

① Press the “TEMP”. and “DRY” button simultaneously during processing.
② Under the Child Lock function, only power button is working.
③ During Child Lock function, CHL will be displayed on PCB.
④ In order to unlock Child Lock mode, press "TEMP" and "DRY" simultaneously.

2-5. The sequence of drain

① If the checking time to reset point is below 1 min, the remaining drain time is 30 sec.
② If the checking time to reset point is over 1 min, the remaining drain time is 2 min.
③ If the checking time to reset point is over 10 min, OE singal will be appeared on PCB.
④ If the temperature is over 50°C, the water will be supplied to high water level, then the drain will start.

3. Convenience service functions(test mode)

1. Testing Mode

PCB and other electronic parts will be tested without water supply whether they are normal or not.

1) Process : press power button --> press "SPIN" button 3 times with pressing "WASH" button --> 'L d' will be shown on LED --> Whenever pressing "TEMP" button 1 time, below process will be occurred.

L C (Lock Closed) --> F (Fan Motor) ---> H (Hot V/V) --> C (Cold V/V) ->
P (prewashing V/V) -> d (dry V/V) -> bb (bubble) -> dr (drain motor) ->
L O(Lock S/W Open)

2) More details

① When turn on 'LOCK' signal, all process is conducting normaly.
② When working starts, the PCB displays all the sensor conditions.
③ In this case, BLDC Motor is not tested. In order to test it, select spin or rinse.

2. Continous testing mode

1) Process : after pressing "WASH", "RINSE", "SPIN" button simultaniously, press "POWER" button.

ALL LED On/Off 1 time --> L C (Lock Closed) ---> R (Motor right) --> L (Motor Left) --> F (Fan Motor) ---> H (Hot V/V) --> C (Cold V/V) --> b (pre-wash V/V)
--> d (dry V/V) --> bb (bubble) --> h1 (HEATER WASH)--> h2(HEATER DRY) --> dr (DRAIN MOTOR On) -->L O(Lock S/W Open)

2) More tails

① LED test can be done with all LED On.
② All sensor conditions will be shown on PCB during processing.

4. ERROR DISPLAY

MESSAGE	ERROR	CAUSE	SOLUTION
IE	WATER INLET ERROR	The water tap is closed.	Open the water tap.
		The filter of the valve inlet is clogged.	Clean the filter of the valve inlet.
		The valve inlet is an inferior product or broke down.	Change the valve inlet.
		The water level sensor (sensor pressure) is an inferior product or broke down.	Change the water level sensor (sensor pressure).
		The drain motor works during water supply.	Change the drain motor.
		The PCB ASS'Y does not check the water level.	Change the PCB ASS'Y.
OE	DRAIN ERROR	The drain hose is kinked or clogged.	Clean and straighten the drain hose.
		The drain motor is an inferior product.	Change the drain motor.
		The valve inlet works during drain.	Change the valve inlet
		The water level sensor is an inferior product .	Change the water level sensor.
		The PCB ASS'Y does not check the water level.	Change the PCB ASS'Y.
UE	UN-BALANCE ERROR	The laundry is concentrated to one side of the drum during spin.	Rearrange the laundry.
LE	DOOR OPEN ERROR	The Start/Hold button is pressed while the door is opened.	Close the door.
		The switch door lock is an inferior product.	Change the switch door lock.
		The PCB ASS'Y does not check the door lock.	Change the PCB ASS'Y.
E2	OVERFLOW ERROR	The water is supplied continuously due to an inferior valve inlet.	Change the valve inlet.
		The valve inlet is normal, but the water level sensor (sensor pressure) is inferior.	Change the water level sensor (sensor pressure).
		The drain motor dose not work. (The drain motor is an inferior product or broke down.)	Change the drain motor.
E3	FAN MOTOR ERROR	The fan motor does not work. (The fan motor is an inferior product or broke down.)	Change the fan motor.
		The PCB ASS'Y does not control the fan motor.	Check the connector or change the PCB ASS'Y .
E4	LEAKAGE ERROR	Water leaks from the tub or the hose drain.	Check the leak of the tub or the hose drain. Then change the tub or the hose drain.
		The foreign matter is jammed in the drain bellows. (Non-pump model)	Remove the foreign matter in the drain bellows.
E5	HIGH VOLTAGE ERROR	The laundry is jammed between the gasket and the drum.	Rearrange the laundry.
		The PCB ASS'Y is an inferior product.	Change the PCB ASS'Y.
E6	EMG ERROR	The laundry is jammed between the gasket and the drum.	Rearrange the laundry.
		The motor is an inferior product.	Change the motor.
		The PCB ASS'Y is an inferior product.	Change the PCB ASS'Y.
E7	DIRECTION ERROR	The motor spins into an opposite direction.	Change the PCB ASS'Y or the motor.
		The motor hall IC is an inferior product or broke down.	Change the motor hall IC or the motor.
E8	MOTOR ERROR	The motor is not normally connected.	Check the connector of the motor.
		The motor does not work. (The motor is an inferior product or broke down.)	Change the motor.
E9	SENSOR PRESSURE ERROR	The water level sensor is an inferior product.	Change the water level sensor.

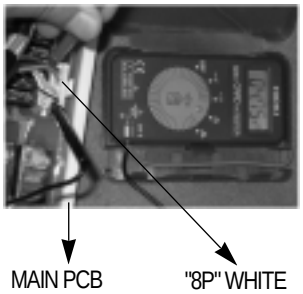
MESSAGE	ERROR	CAUSE	SOLUTION
H1	THERMISTOR (TEMP. SENSOR) DRY ERROR	The thermistor dry is an inferior product or broke down.	Change the thermistor dry.
		The thermistor dry is not connected normally.	Check the connector of the thermistor dry.
H2	THERMISTOR WASH ERROR	The thermistor wash is an inferior product or broke down.	Change the thermistor wash.
		The thermistor wash is not connected normally.	Check the connector of the thermistor wash.
H3	THERMISTOR DRY OVERHEATING ERROR	The fan motor does not spin with the proper rpm. (The fan motor is an inferior product or broke down.)	Change the fan motor.
		The thermistor dry is an inferior product or broke down.	Change the thermistor dry.
H4	THERMISTOR WASH OVERHEATING ERROR	The heater worked without the water in the tub.	Check the water level.
		The thermistor wash is an inferior product or broke down.	Change the thermistor wash.
H5	WATER TEMP. ERROR	The water temp. is over 45°C in delicate & wool course.	Change the thermistor wash.
H6	HEATER WASH ERROR	The heater wash dose not work. (The water temp. doesn't rise over 2°C during 15min.)	Change the heater wash.
H7	HEATER DRY ERROR	The heater dry dose not work. (The water temp. doesn't rise over 3°C during 8min.)	Change the heater dry.
H8	HEATER WASH OVERHEATING ERROR	The heater worked without the water in the tub.	Check the water level and the heater wash.
PFE	PUMP FILTER ERROR	The drain pump filter is clogged.	Clean the drain pump filter.
		The drain pump does not work during spin.	Change the drain pump.
		The large amount of detergent was used.	Use the proper amount of detergent.
		The drain hose is placed higher than 1m above the floor.	Place the drain hose 1m below the floor

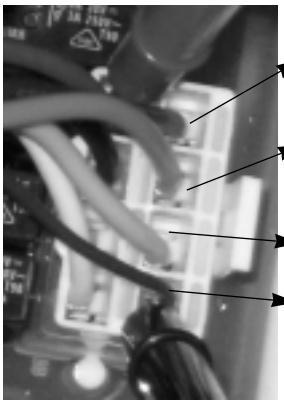
5. TROUBLE SHOOTING

1) VALVE INLET

TROUBLE	SITUATION	CAUSE	CHECK POINT	SOLUTION	PCB ERROR MODE
WATER IS SUPPLIED	NO WATER SUPPLY WITH "BUZZ" SOUND	closed water tap	check the water tap opened	Open the water tap	"IE"
		coil short	check the resistance 4320~5280Ω		"IE"
		alien materal jammed	check the filter	Clean the filter	"IE"
		alien material inside inlet valve	–	Change the Inlet-Valve	"IE"
	NO WATER SUPPLY WITH SILENCE	unfixing connector	check the connector	The contact of the Connector	"IE"
		coil short	check the resistance 4320~5280Ω check the connector	Change the Inlet-Valve	"IE"
		harness short	check the pressure switch		"IE"
WATER SUPPLY IS NOT STOPPED	THE WATER SUPPLY START WHEN POWER "ON"	pressure s/w broken	check the hose torn or twisted	Change the Sensor Pressure	"E2"
		pressure hose broken	–	Change the bad parts	"E2"
	THE WATER SUPPLY START WHEN POWER "OFF"	inlet valve broken	check the leakage of inlet valve	Change the Inlet-Valve	-
Etc	water leakage to the side	inlet valve poorly assembled		Change the Inlet-Valve	-

Checking method of coil resistance, harness, connector.



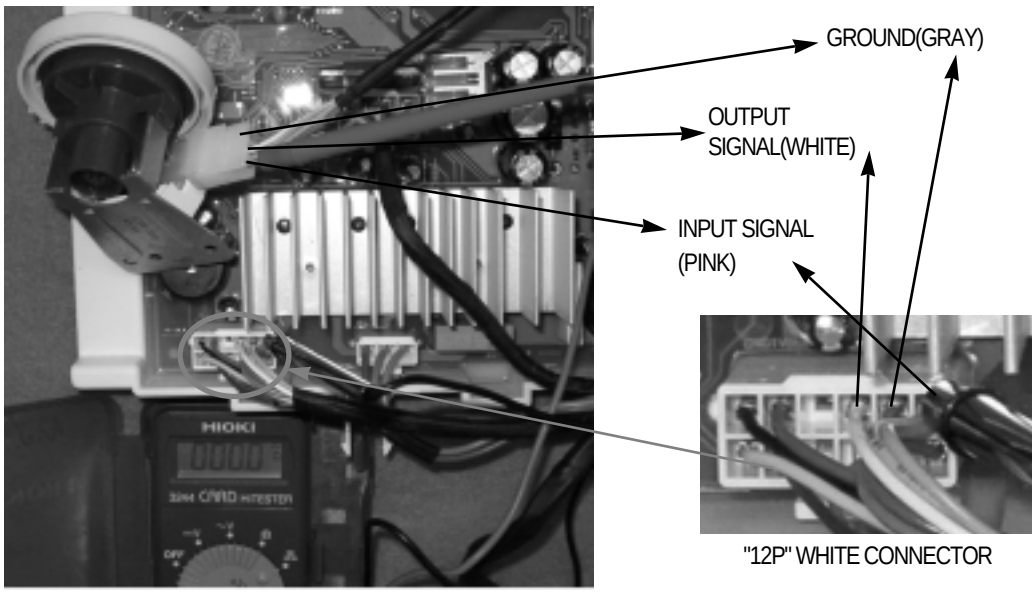


* "IE" ERROR : lack of water supply

2) PRESSURE SWITCH

TROUBLE	SITUATION	CAUSE	CHECK POINT	SOLUTION	PCB ERROR MODE
continuously water supply	inlet valve is normal, but continuous water supply	bellows problem	frequency Check : refer to below	change the pressure switch	"E2"
		hose problem	frequency Check : refer to below	change the hose	"E2"
			check the fine hole	change the hose	"E2"
		clogged hose	check the hose condition	remove the alien	"E2"
"E9" ERROR	water level frequence below 15kHz or over 30kHz	connector slipped out	check the connector condition	reconnecting	"E9"
		pressure switch broken	frequency Check : refer to below	change the pressure switch	"E9"
		connector short	connector broken		"E9"

Checking method of coil registance, harness, connector.



* E2 : overflow error ;Water level is higher than overflow level because of continuous water supply.
E9 : Pressure switch trouble, the frequency is less than 15kHz or more than 30kHz in the processing.

■ Checking method of the Frequency

① Power ON

② First, press the “DRY” button 3 times with pressing the “WASH” button. The frequency of Air status will be appeared.
ex) 623 → 26.23kHz.

③ Press “TEMP” button
1 time: water supply
2 times: stop the water supply
3 times: start the drain
4 times: stop the drain
5 times: return to Air status mode

3) DOOR LOCK SWITCH

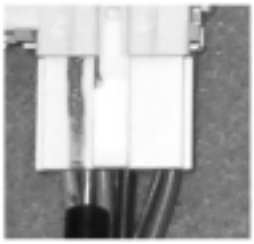
1) CLASS

Failure Status	Details	Cause	Diagnosis of Failure	Solution	PCB ERROR MODE
"Tick" Sound	Tick Sound happens	Normal Sound	When Door is locked/unlocked, this Solenoid Working sound is heard.		-
"LE" Error	"LE" with tick sound	Connector slipped out	check the joining status of connector by eye	Assemble Connector	"LE"
		DOOR closed loosely	-	Close Door securely	"LE"
		Failure of DOOR HOOK	-	Replace DOOR AS	"LE"
		CATCH CAM broken	Tick sound happen	Replace DOOR S/W	"LE"
	"LE" without tick sound	Connector slipped out	check the joining status of connector by eye	Assemble Connector	"LE"
		Terminal slipped out	Refer to below checking method.	Insert Receptacle no.2 or no.3	"LE"
		Solenoid Coil Disconnection	Refer to below checking method.	Replace DOOR S/W	"LE"
DOOR not open	Power Failure/Forced Power Off during operation	During operation, "Power Failure" or "Forced Power S/W OFF" causes door not to be opened until maximum 5 minutes pass.			
	Power on state	Water remained in tub	Check whether the water level is over safety level.	After draining water, open the door	-
		hot temp. in tub	Prevent the burn due to hot temp. after dry.		
	ETC	Follow below process			

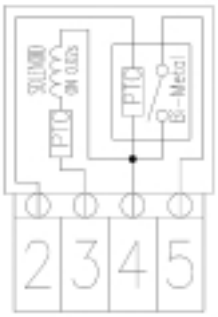
Checking Method of wiring/coil disconnection, connector slipping out on PCB board : Operate with the Door lock switch connected

1. Replacing method of DOOR LOCK SWITCH
   1) Open DOOR, disassemble CLAMP SPRING for fixing gasket
   2) Disassemble GASKET
   3) Disassemble two screws for DOOR LOCK S/W
   4) Disassemble DOOR LOCK S/W
   5) Assemble in the reverse order

2. Checking method of DOOR LOCK SWITCH

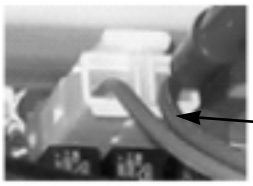


PIN array 2345 (No no.1)

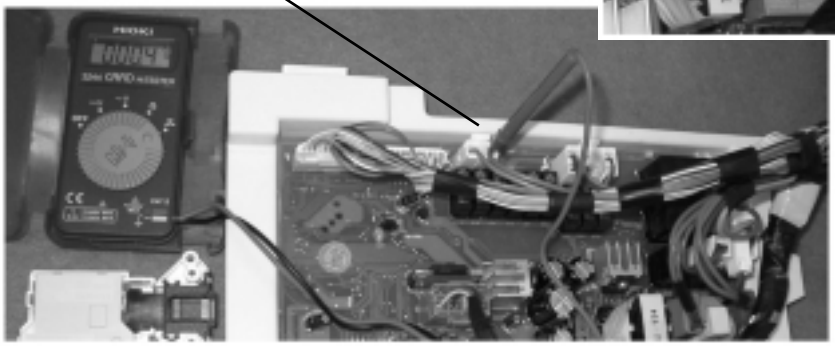


Between No. 3 & No.4
: if 156 ~ 234Ω, it is normal

3. Checking method of DOOR LOCK SWITCH



Between Viloet and Blue wire
: If 156 ~ 234Ω, it is normal

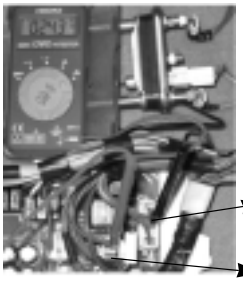


4) HEATER

Failure Status	Cause	Diagnosis of Failure	Solution	PCB Error Mode
Can not heat water	Wiring Disconnection	Check whether disconnected or not : See Fig. A	Connecting the disconnecting point	"H6"
	Heater Wash Disconnection	Check whether disconnected or not : if normal, the resistance between two ends is 23.3~25.7Ω.	Replacing Heater Wash	"H6"
	Connector/Terminal Seclusion	Check whether disconnected or not : See Fig. A	terminal/connector tightly Connecting	"H6"
	Heater Wash/Thermistor Wash Poor	Measure the resistance of two ends of the sensor : if 11.981KΩ at R25, it is mormal	Replacing temp. sensor	"H2"
Overheat water	Heater Wash/Thermistor Wash Poor	Measure the resistance of two ends of the sensor : if 11.981KΩ at R25, it is mormal	Replacing Heater Wash	"H2" or "H4"
Can not dry	Wiring Disconnection	Check whether disconnected or not : See Fig. B	Inserting terminal/connector	"H7"
	Heater Dry Disconnection Fuse Temp.	Check whether disconnected or not : if normal, the resistance between two ends is 22.3~24.7Ω.	Replacing Fuse Temp.	"H7"
	Connector/Terminal	Shipped out	tightly Connecting	"H7"
	Slipped out Operation Trouble of FAN	Check whether disconnected or not : See Fig. B	Re-connecting	"H7"
	MOTOR	Excessive Noise : Restraint/Failure of Fan Motor	Replacing Fan motor	"H7" or "E3"
	Heater Wash/Thermistor	Fan slipped out : MOTOR is operating, but there is rotating sound.	Re-assemble after disassembling	"H7"
	Fault of Thermistor (Dry)	Measure the resistance of two ends of the sensor : if 26.065KΩ, it is mormal	Replace Thermistor	"H1"

Checking Method of wiring/coil disconnection, connector slipping out on PCB board : Operate with the heater connected

[Figure A]

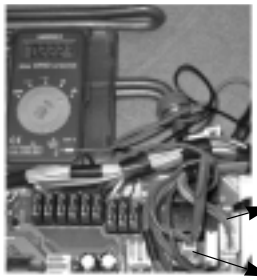


* Inspect Wiring/Heater Wash Disconnection : Check the current and resistance of two terminals

3P Connector orange wire

1P Connector Blue Wire

[Figure B]



* Inspect Wiring/Heater Dry Disconnection : Check the current and resistance of two terminals

3P Connector Red Wire

1P Connecor Blue Wire

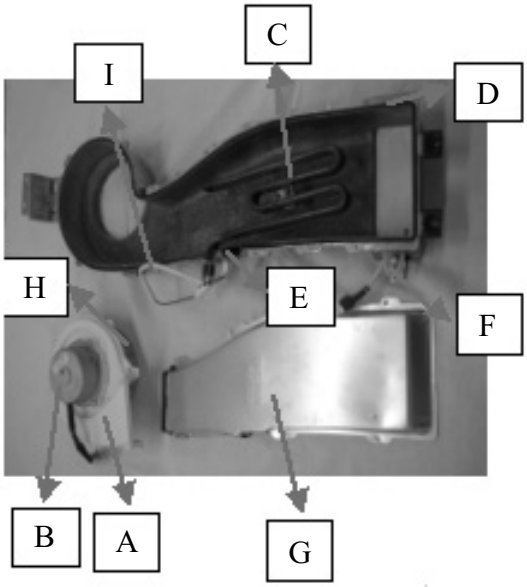
* Replaceing method of Heater and Temp. Sensor

1. Disassemble Connector

2. Disassemble EARTH and NUT for fixing heater

3. Replace heater & sensor

4. Assemble in the reverse order. Be sure to assemble in the order : Nut for heater-Nut for EARTH.



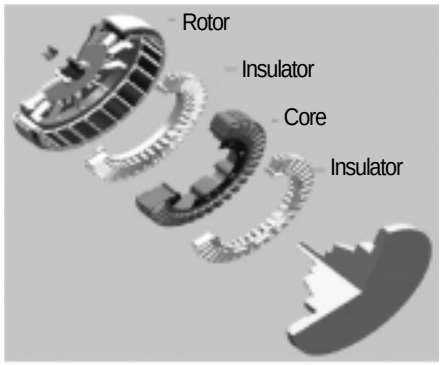
Division	Parts Name
A	DUCT COVER
B	FAN MOTOR
C	HEATER DRY
D	DUCT B LOWER
E	THERMOSTAT(Bimetal)
F	THERMISTOR (Temperature Sensor)
G	DUCT B UPPER
H	FAN AS
I	FUSE TEMPERATURE

*** ERROR MODE**

1. "H1" : Thermistor Dry OPEN/SHORT
2. "H2" : Thermister Wash OPEN/SHORT
3. "H3" : Dry Overheating(Sensing Temp. is over 125°C)
4. "H4" : Wash Overheating(Sensing Temp. is over 95°C)
5. "H5" : Wash Overheating
   (In Wool, Lingerie courses sensing temp. is over 45°C)
6. "H6" : Abnormal condition of Heater Wash
   (when the temp. increase at 10 minutes after heater operation is under 10°C)
7. "H7" : Abnormal condition of Heater Dry(when the temp. increase at 10 minutes after heater operation is under 10°C)
8. "H8" : Heater Wash Overheating
   (when the temp. increase within 30sec after heater operation is over 5°C without water)
9. "E3" : FAN MOTOR Broken(no signal from HALL IC)

5) MOTOR

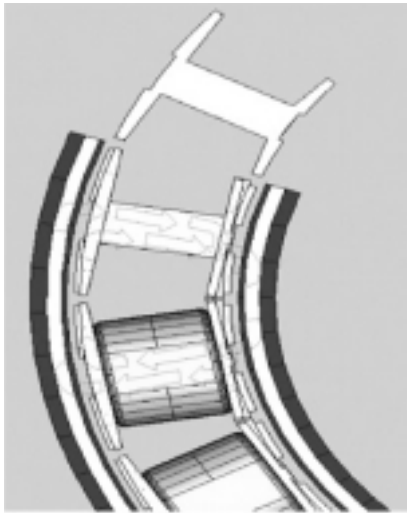
1) BLDC MOTOR



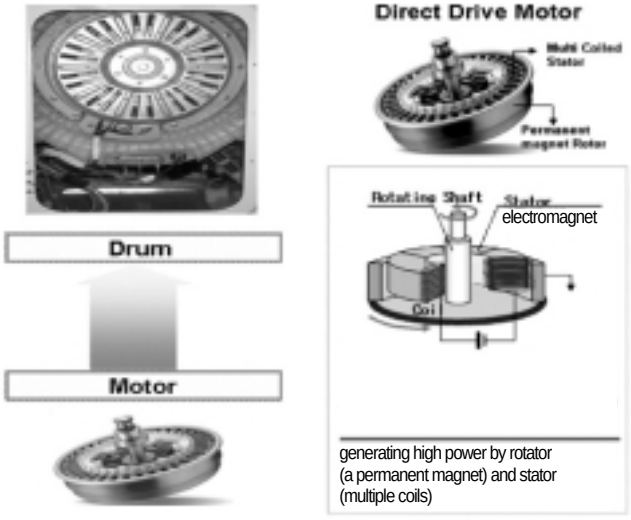
BLDC MOTOR

2) Driving mechanism of BLDC MOTOR

Magnetic density flow of BLDC Motor

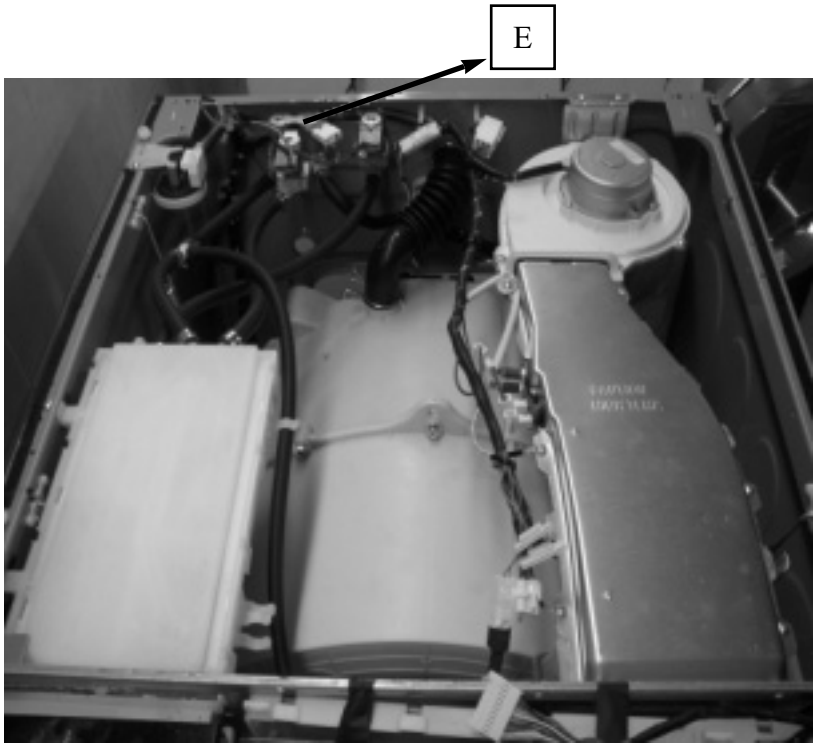


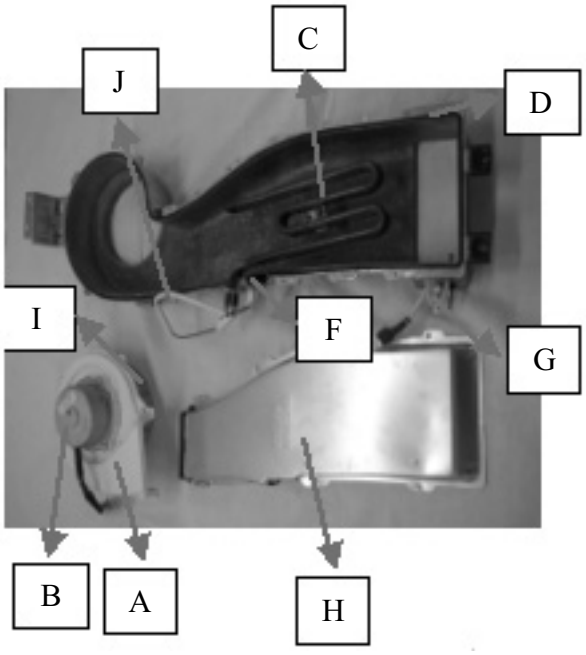
Sequence diagram of BLDC MOTOR



6) DRY SYSTEM(OPTION)

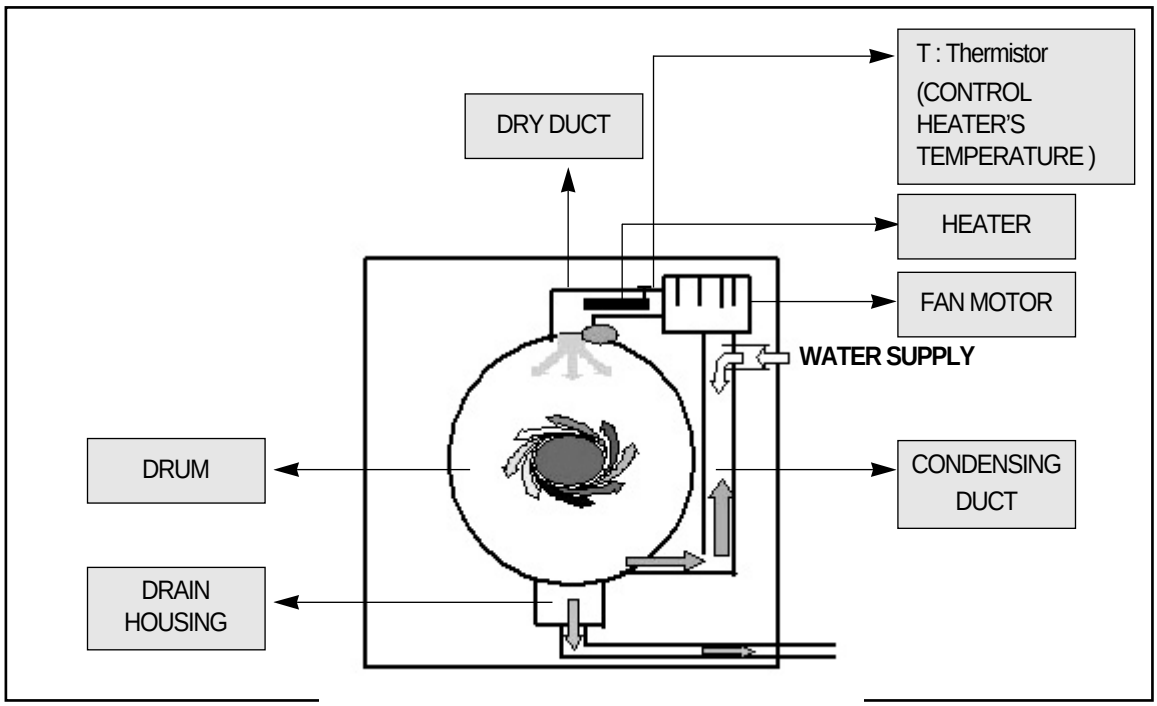
1) DRY SYSTEM





Division	Parts Name
A	DUCT COVER
B	FAN MOTOR
C	HEATER DRY
D	DUCT B LOWER
E	VALVE INLET(DRY)
F	THERMOSTAT(Bimetal)
G	THERMISTOR(Temperature Sensor)
H	DUCT B UPPER
I	FAN AS
J	FUSE TEMPERATURE

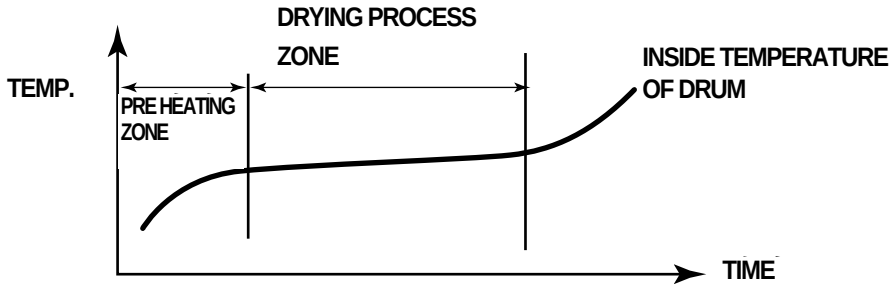
2) DRY FUNCTION DIAGRAM



While rotating DRUM, DRY HEATER applice heat to air and FAN blows it into DRUM evaporating water in the laundry.

- Evaporated water is sucked into CONDENSING DUCT, and condensed in DUCT contacting WATER SUPPLY (condensed water is extracted through DRAIN HOUSING).
- Dry function is performed by continuous repetition of evaporating and condensing circulation as above.

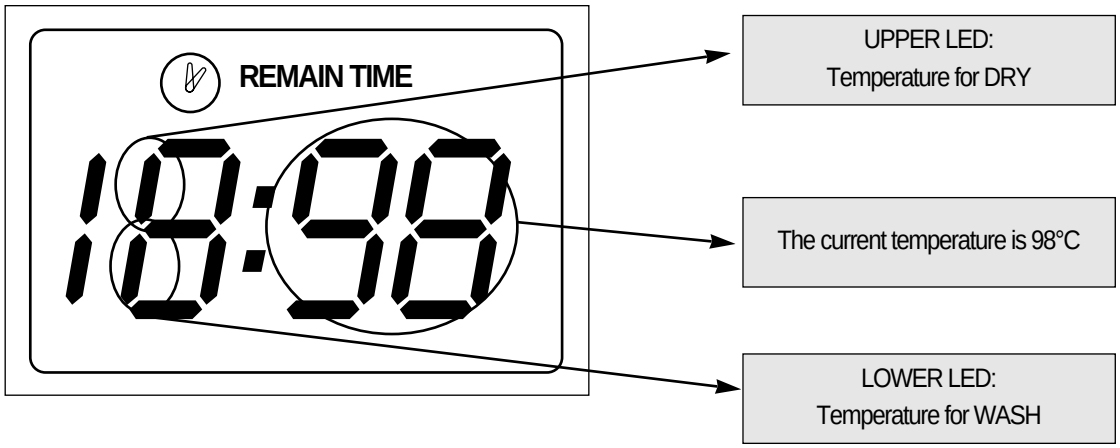
3) TEMP-TIME GRAPH DURING DRY CYCLE



4) DRY COURSE

COURSE	DRY COURSE
LOW TEMP.	Heater control temperature is 60°C On/70°C Off Drying Time is 120/180min according to Load Sensing Data
IRON	Heater control temperature is 60°C On/70°C Off, with good condition for ironing Drying Time is 70/130min according to Load Sensing Data
Cupboard	Heater control temperature is 100°C On/110°C Off, drying time is 166 min Drying Time is 150/210min according to Load Sensing Data
STRONG	Heater control temperature is 100°C On/110°C Off, drying time is 216 min Drying Time is 210/270min according to Load Sensing Data
SELECTING TIME 1Hr, 2Hr, 3Hr.	Heater control temperature is 100°C On/110°C Off, customer can select the drying time out of 1:00, 2:00, 3:00

In order to check the drying temperature during process going on : --> press the "DRY" button, the display shows as below.



5) TROUBLE SHOOTING OF DRY SYSTEM

✥ HEATER DRY

Function : heating the air during dry

• FAILURE MODE : * "H7" - The air cannot be heated to 10°C during 2 min.

• CHECKING METHOD : * Check the resistance of heater coil and replace with new one.

✥ Thermistor

Function : sensing the air temperature.

• FAILURE MODE : * The air cannot be heated even though water is supplied.

* "H1" - shot or cut-off

* "H3" - air temp. is reached over 150°C

• CHECKING METHOD : * Check the resistance of thermistor, replace with new one.

✥ FUSE TEMPERATURE

function : protecting from the fire hazard or overheating, if the temp., rises over 128°C, power supply will be cut-off.

• Pictures

• FAILURE MODE : Dry is not performed.

• CHECKING METHOD : Check if fuse is short, and replace with new one.

✦ SWITCH THERMOSTAT(BIMETAL)

function : control the duct temperature, if the temp reached over 150°C, all power supply will be cut. and if the temp go down 120°C the power will be ON.
protecting overheating by cutting off heater power supply if the temperature rises over 150°C, and reoperating heater by connecting heater power supply if the temperature falls under 120°C.

• OPERATING TEMPERATURE

OPEN TEMPERATURE(OFF)	150°C ± 5°C
CLOSE TEMPERATURE(ON)	120°C ± 5°C

• PICTURE

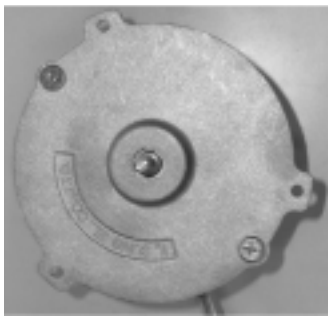
✦ UNIT FAN MOTOR

function : circulating the inside air during dry process.

• SPEC

ITEMS		SPEC
RATING VOLTAGE		24V
RPM	MOTOR	3700 ± 10%
	DUCT FAN AS	1900 ± 10%
ROTAING DIRECTION		CW

• PICTURE



• FAILURE MODE : * E3 shown : FAN MOTOR cannot work.

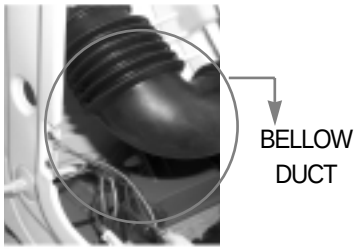
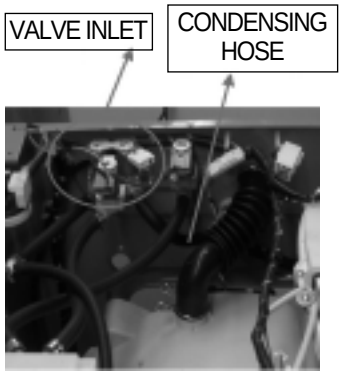
• CHECKING METHOD : Check the FAN MOTOR is short, and replace with new one.

6) LACK OF DRY PERFORMANCE

• Situation : after drying, the clothes still get wet.

cause) ☞ The laurdry amount is more than the recommendation capacity 7.0kg.
☞ Condensing cold water is not supplied.
☞ Clogging Bellows Duct results in poor air circulation.

checking method)

part name	checking point	checking results	jurge	repair method
BELLOWS DUCT		clogging bellows duct	heater was overheated owing to poor air circulation	clean the bellow duct
VALVE INLET +Condensing HOSE		no water supply from inlet valve	VALVE INLET connector slipped out	connect normally
			VALVE INLET broken	replace valve inlet
			ill-connection of condensing hose to duct pipe	connect normally

• Situation after drying, the clothes was soaked and hot.

cause) ☞ The dry is done from bad spin performance because of unbalance.
☞ no spin was done before the dry had started.

• Situation : PCB shows "H1" or "H3".

cause) ☞ Thermistor is broken.
☞ Thermistor is short or cut-off.

countermeasures) ☞ replace the Thermistor.

• Situation : PCB shows "H7".

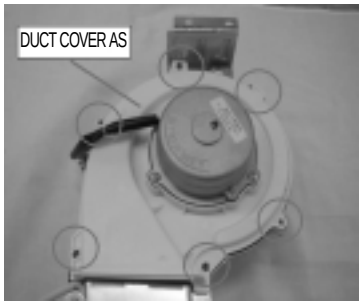
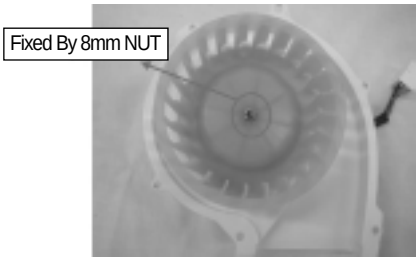
cause) ☛ Dry heater is cut-off.
☛ Fuse temp. is cut-off.

repaire method) ☛ replace the Dry heater.
☛ replace the Fuse temp.

checking point	part name	checking results	repaire method
	HEATER	dry Heater is short or cut-off.	replace the dry Heater.
	SENSOR TEMP.	Thermistor is short or cut-off.	replace the Thermistor.
	FUSE TEMP.	FUSE TEMPERATURE is cut-off.	replace the FUSE TEMPERATURE.

• situation : PCB shows "E3".

cause) ☞ FAN MOTOR can not work.
countermeasures) ☞ Replace the Fan Motor.

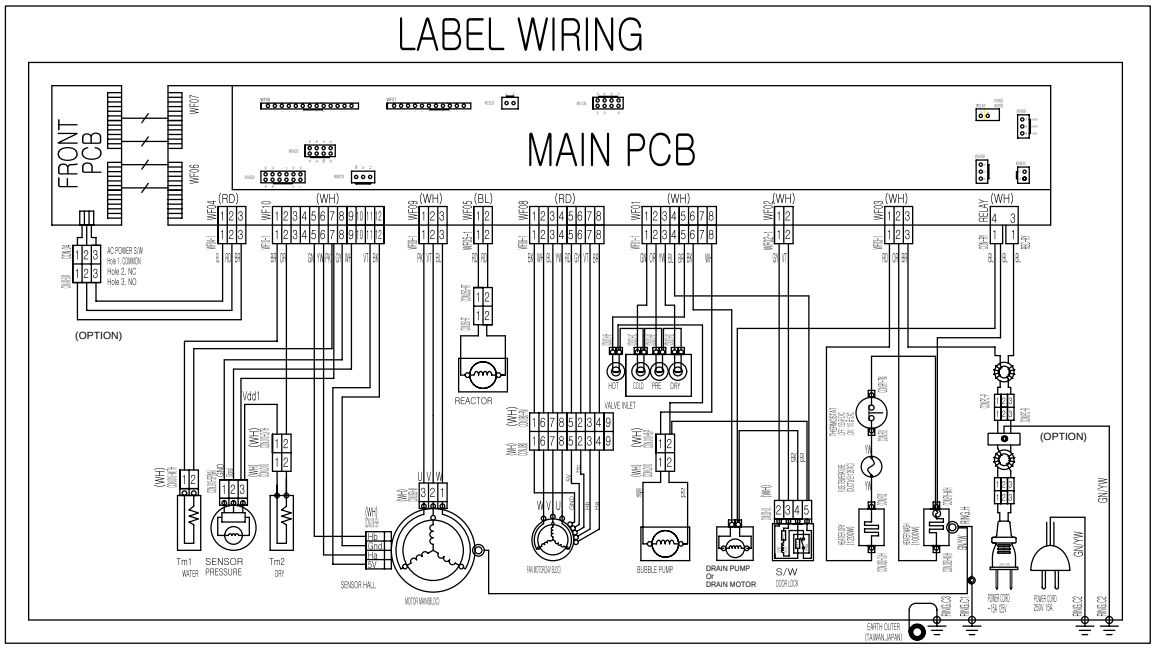
part name	checking results	repair method	disassemble process of Fan Motor
FAN MOTOR	fan motor failure	replace fan motor	① Disassemble Duct Cover As from Duct B As (Screw 4EA)  ② Disassemble FAN AS From Duct Cover As (Fixed by 8mm NUT)  ③ Disassemble the FAN MOTOR(SCREW 3EA)

Remarks) control times of each parts during dry process

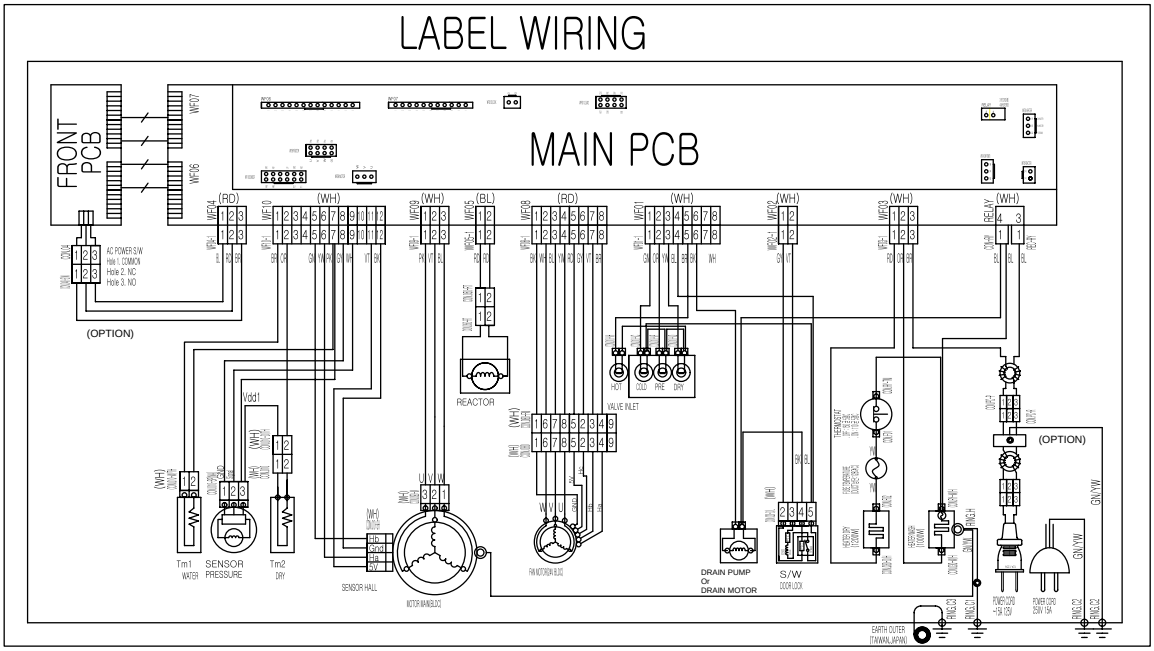
parts	Control time
MOTOR	10 sec On, 10sec Off
DRAIN MOTOR	Continous working
FAN MOTOR	Continous working
DRY HEATER	100°C On, 110°C Off
INLET VALVE	5sec On, 20sec Off

6. WIRING DIAGRAM

DOUBLE VALVE, BUBBLE



DOUBLE VALVE, N/BUBBLE



7. TROUBLE SHOOTING REGARDING DRAIN

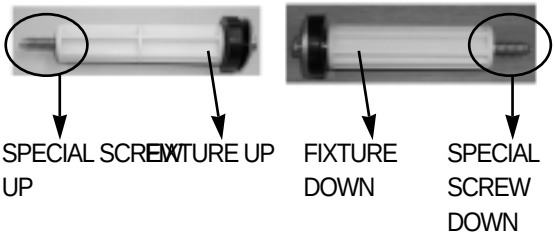
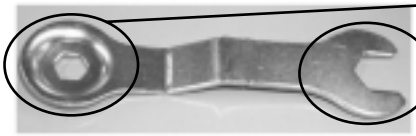
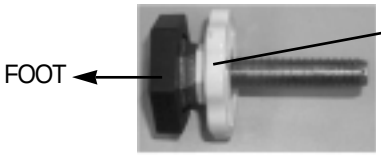
❑ Checking Methods

• Situation : * "OE" is shown on PCB.
* Not finishing drain during 10 min.
* The water level can not reach to RESET POINT during 10 min of drain.

Checking Methods	Replacing methods
* Check the hose drain O condition; twisted or frozen.	* replace HOSE DRAIN O
* Check the hose drain O condition, blocked. * DRAIN MOTOR is broken.	* clean the inside of Filter. * replace DRAIN MOTOR

8. INSTALLATION GUIDE

1. PARTS & CONFIGURATION

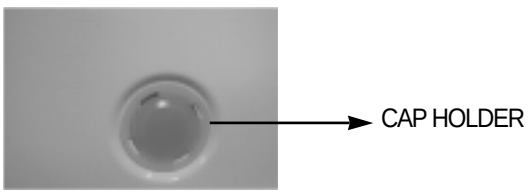
PARTS NAME	FIGURES	REMARKS
FIXTURE UP/DOWN AS		SPECIAL SCREW UP : L= 109mm SPECIAL SCREW DOWN :L=145mm
UNIT SERVICE WRENCH		① Use this part to remove FIXTURE UP/ DOWN. ② Adjust leg with this part.
LEG ADJUST AS		

2. INSTALLATION PROCESS

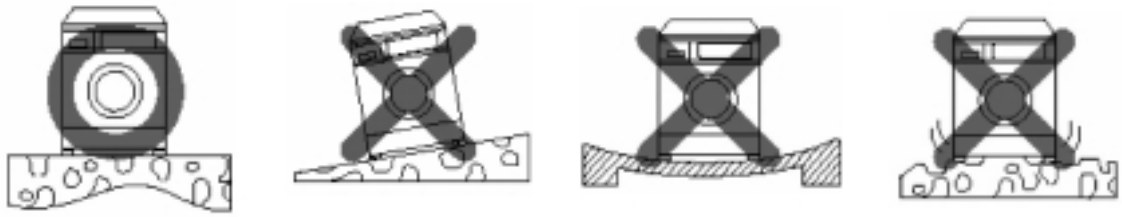
① Remove the FIXTURE UP/DOWN AS

Removal Method	Remarks
	☞ Disassemble the FIXTURE UP/DOWN AS by turning CCW direction. ☞ Please keep FIXTURE UP/DOWN AS for later use. ☞ When fixing FIXTURE UP/DOWN AS, turn it CW direction.

② Insert CAP HOLDER(4EA) after removing FIXTURE UP/DOWN AS.



③Please install the DRUM WASHING MACHINE properly on even and hard floor as below.



④Adjust the level of washer using LEG ADJUST AS.

Adjusting Method	Remarks
	☞ If turned CW, the LEG ADJUST AS moves the washer upward. ☞ If turned CCW, the LEG ADJUST AS moves the washer downward.

⑤After adjusting level, fix SPECIAL BOLT.

Adjusting Method	Remarks
	☆ Please fix the SPECIAL BOLT by rotating it CCW in order to prevent washer vibration.

9. ATTENTION POINT WITH SERVICING

No	Item	Part Name	Checking Point
1	Replacing Thermistor Dry	Thermistor Dry	Keep the Packing from seperating (Hold Packing when replacing) Keep the Packing from folding
2	Replacing Duct B As & Duct Pipe	DUCT B AS & DUCT PIPE	Check the sealing between Duct Pipe & Duct B AS
3	Replacing & Repairing Inlet Valve	Inlet Valve	Use only screw M4*8 for fixing Inlet Valve
4	Replacing Hose Drain	Hose Drain	Keep the sealing condition of Tub O tightly
5	Replacing HOSE A,B,C	HOSE A,B,C	Check the assembling order between INLET BOX & Hose A,C : Pre Wash-Cold
6	Replacing Heater Wash	Heater Wash	Unfastening the nut for fixing earth first then unfasten the nut for fixing heater
			At assembling the heater dry, check if the assembling condition between fixture heater is tight.(little gap on left & right)
			At fastening the nut for fixing the heater wash, keep the protrusion length of bolt to 10~12mm. (if under 10mm, water can leak, and if over 12mm, fixture heater can deform)
7	Replacing “Thermistor Wash”	Thermistor Wash	Unfasten the Nut for fixing heater, replace the thermistor, and fasten the nut for fixing heater
8	Assembling “Hinge Door”	Hinge Door	At fastening screw for fixing Door AS, be careful so that scratching at the related parts does not happen : If the scratching happens, it is possible to be claimed about appearance damage
9	(Dis)assembling “Door AS”	Door As	Be careful about the up/down direction of Door Glass : Keep the indication point of the part code downward.
10	(Dis)assembling “Motor AS”	MOTOR AS	To avoid the injury on the hand, grip the rim of the rotor At initiating the assembling operation of the stator, grip the stator and fasten the screw; at unfastening the screw, grip the stator so that it does not fall.

DAEWOO

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CABLE: “DAEWOOELEC”

DRUM WASHING MACHINE

2006. 12