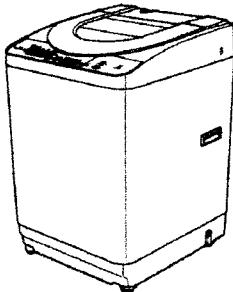


Order No. PHAT0601008C3

Service Manual

Fully Automatic Washing Machine



NA-F70G2P

NA-F70G2P

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are important for safety. These parts are marked by **Δ** in the Schematic Diagrams, Circuit Board Diagrams, Exploded Views and Replacement Parts List. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire or other hazards. Do not modify the original design without permission of manufacturer.

Specification

Model		NA-F70G2P
Rate Voltage and Frequency	220V/50Hz	UAE(PGF)
	230V/50Hz	-
	230V/60Hz	-
	240V/50Hz	Middle East UAE, Mauritius, Lebanon, Barain, Oman, Kuwait, Qatar
Rate Power Consumption	220V/50Hz	440
	230V/50Hz	-
	230V/60Hz	-
	240V/50Hz	440
Standard Water Consumption		155 Liter
Standard Capacity		7 kg
Water Supply Pressure		0.03 to 1Mpa (0.3 to 10 kgf/cm ²)
Outer Dimension		572 mm X 583 mm X 982 mm
Weight		33 kg

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Usage :

For repairs and change of spare part only for washing machine type
Panasonic Model NA-F70G2P

Instruction for Usage : The work repair and changeing of spare part should be operated
by a skilled technician from the distribution agents, or Panasanic' s
standard service center.

Warning :

Switch off electrical power before commencing work to avoid a potential
short circuit or injury.

1. Specifications

NA-F70G2P

Voltage (AC)	220 V/50Hz : UAE(PGF) 240 V/50Hz : Middle East		
External Dimension	Width 583 mm	Depth 572 mm	Height 982 mm
Water Consumption (Normal Program)	155 liter		
Water Pressure	0.3-10 kgf/cm ² (8-25 liter/min)		
Pulsator (r.p.m)	130 r/min		
Spin Tub (r.p.m)	897 r/min		
Machine Weight	33 kg		
Colour	White		

Motor Power	Input 320 Watts	Output 440 Watts
Safety Switch	Checking unbalance/ tub lid	
Alarm	Rings when finish washing or unusual	
Thermoprotector	Motor	
Water Inlet Hole	o	
Fabric softener dispenser	o	
Bleach dispenser	o	
Filter	o	
Automatic power-cut switch	o	
Accessories	Inlet pipe (1.2 m.) Tab joint Drain pipe (80 cm.) Rat prevention screen	

Standard Water Consumption

Model NA-F70G2P

Wash Level	Water	Clothes Weight	
High	56 liters	7.0 kg	51 liters
<High Lower>	53 liters	5.0 kg	48 liters
Medium	45 liters	3.5 kg	41 liters
<Medium Lower>	41 liters	2.7 kg	38 liters
Low 1	35 liters	2.0 kg	33 liters
<Lower 1 Lower>	32 liters	1.5 kg	30 liters
Low 2	25 liters	1.0 kg	24 liters
<Lower 2 Lower>	22 liters	0.7 kg	21 liters
Low 3	18 liters	0.5 kg	18 liters
<Lower 3 Lower>	16 liters	0.3 kg	16 liters

2. Features and Technical Information

Model NA-F70G2P

Program	Time
Normal	approx. 46-60 min
Mini	approx. 15 min
Speedy	approx. 37-53 min
Blanket	approx. 47-55 min
Delicate	approx. 23 min
Tub Dry	approx. 36 min
Soak 1 hour	approx. 61 min
Soak 3 hour	approx. 179 min
Soak 8 hour	approx. 471 min

Product special features

Dial indicating detergent level after sensing wash level
Pre-set timer
Fabric softener dispenser
Detergent dispenser
Automatic power-off when finish
Dial indicating unusual sign (LED will blink)
Alarm ON-OFF
Overflow sensing device

2. Features and Technical Information

■ New Age Washing Machine

Tub Dry

30-Minute spinning system prevents fungi inside the tub

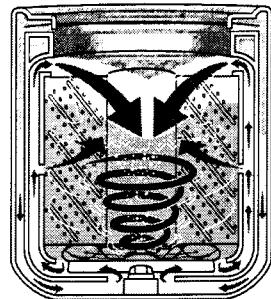
Super Cleaning Plus

This system operates with low wash level in the first 2 minutes so that clothes are cleaner with concentrated detergent.

Double Cross Cascade

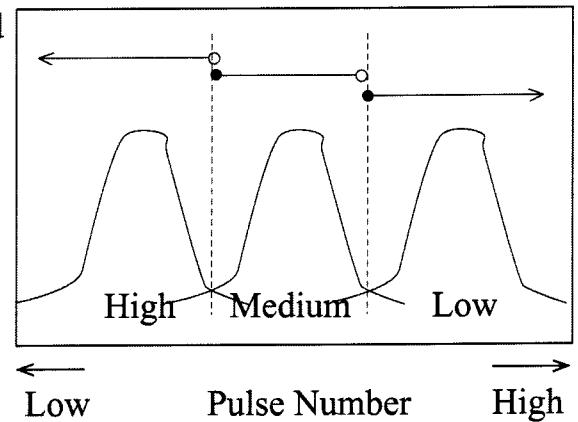
NA-F70G2P

Powerful double cross cascade makes water swirl in a downward vortex better than in old-fashioned machines. With the Pulsator System, the cascade helps to dissolve detergent quickly to make clothes cleaner.



Weight Sensor

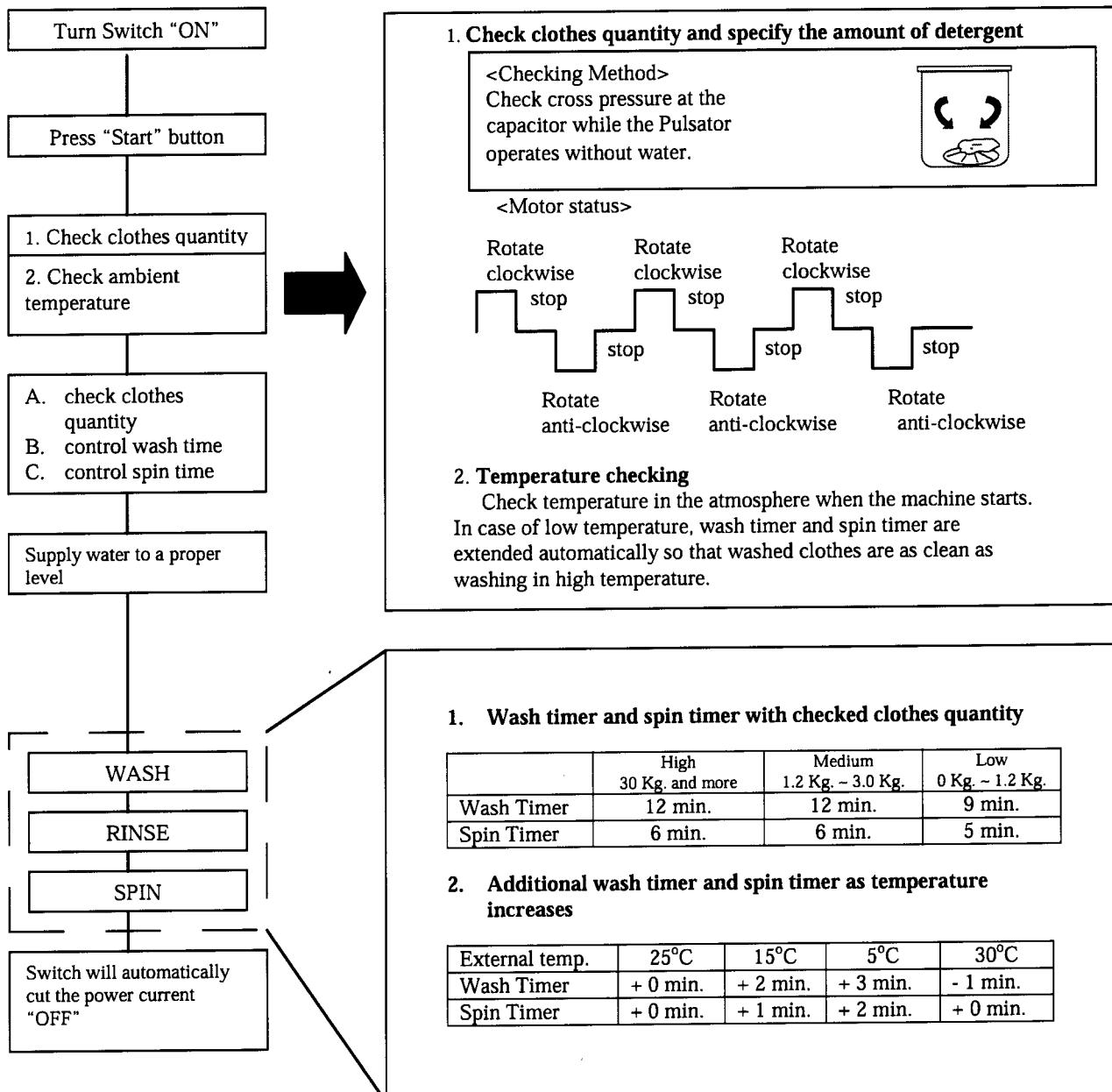
The weight is sensed by the moving force of the Pulsator, which changes a capacitor pole and releases a signal wave. The wave is changed into a pulse number from which the clothes weight is sensed. Prior to weight sensing for Normal and Strong program, the machine runs without water by spinning the Pulsator to left and right for 4.2 seconds (NO 0.3 second - OFF 0.4 second). The motor stops (OFF), a water system counts the pulse number, then calculates the accumulated pulse numbers for drawing water into the tub over a defined level. The dial will indicate High wash level.



2. Features and Technical Information

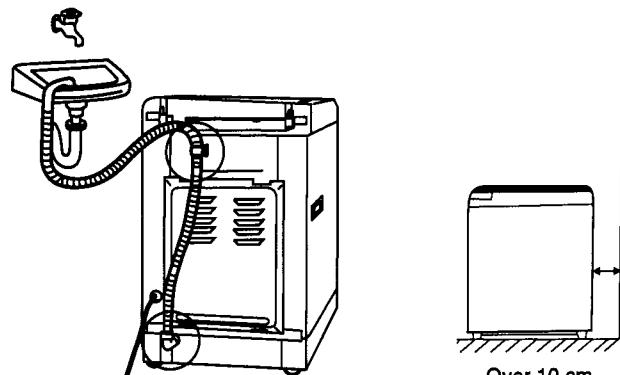
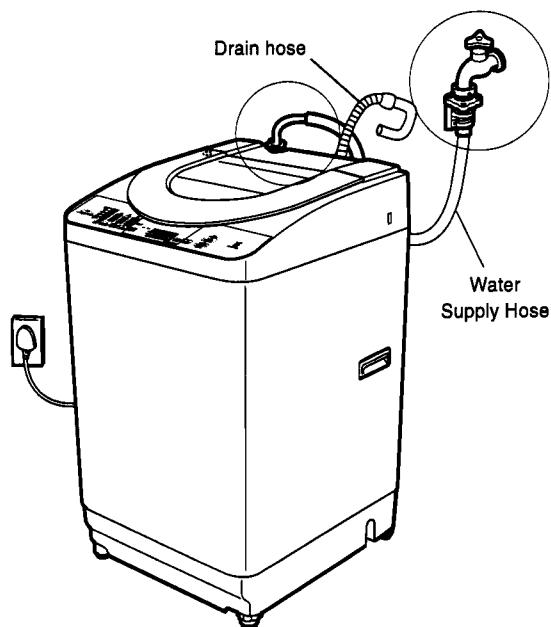
Function Control with Fuzzy sensor

Clothes quantity checking, wash level indication and detergent consumption indication with Fuzzy Logic system



3. Installation

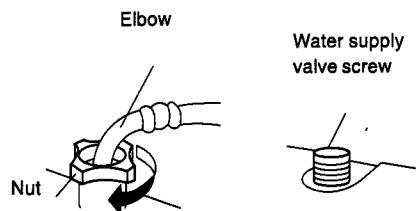
■ 3.1 Checking of Placement



[Cautions]

- Firmly tighten the nut, otherwise water leakage will result.
- Water Pressure Rating : $2.9 \times 10^4 \sim 9.8 \times 10^5$ Pa
- Install the machine 10 cm or more away from the wall.

Connect the water supply hose to the water supply valve screw.



1. Push the water supply hose nut straight onto the water supply valve screw.
2. Hold the elbow by lifting it up, screw the nut onto the water supply valve screw, and firmly tighten the nut.
3. After the nut is tightened, check whether or not the elbow is unsteady or loose.
4. After tightening, open the faucet to confirm that there is no water leakage.

[Cautions]

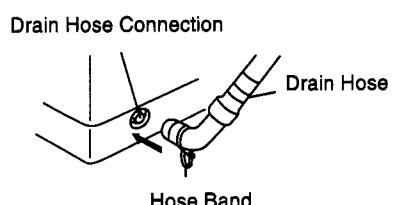
Firmly tighten the nut, otherwise water leakage will result.

Water Pressure Rating :

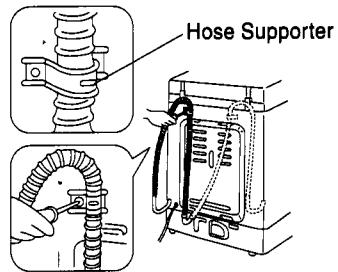
$2.9 \times 10^4 \sim 9.8 \times 10^5$ Pa

To connect Drain Hose

1. Connect the drain hose securely to the drain hose connection of the washing machine. And move the hose band next to the body.

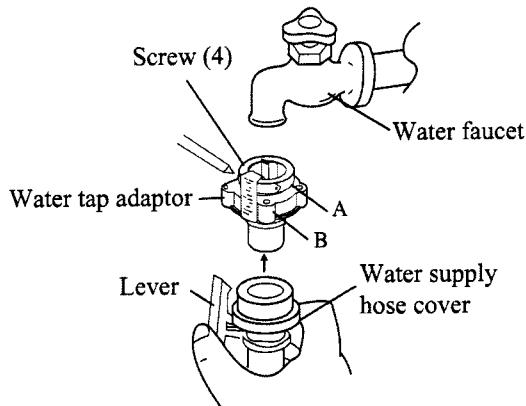


2. Fasten the drain hose on the rear side of body as shown by the hose holder supplied with the washing machine.



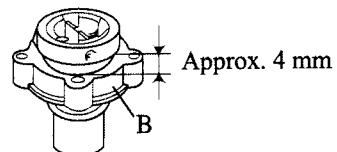
3. Installation

■ 3.2 Connect the water supply hose



[Note]

- Firmly tighten part B of the water tap adaptor, otherwise water leakage will result.
- When the hose must be reinstalled (after you remove, for example), turn B to the left until about 4 mm of the thread becomes visible, then carry out the procedure described above.

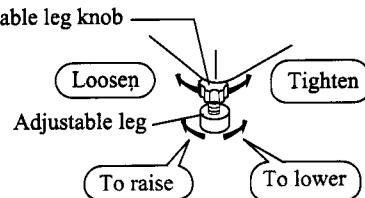


- If a water tap adaptor is already connected, replace with the attached new one.

■ 3.3 Install Washing Machine to steady

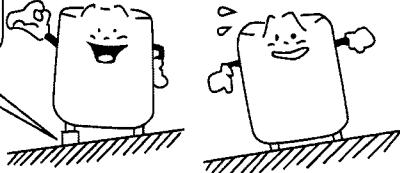
Adjust Height of leg

1. Turn the adjustable leg knob towards (Loosen) direction to loose it.
2. Turn the adjustable leg to adjust the levelness.
 - 2.1 When increasing height, turn adjustable leg towards (Loosen) direction.
 - 2.2 When decreasing height, turn adjustable leg towards (Tighten) direction.
3. Turn the adjustable leg knob towards (Tighten) direction to tighten it.



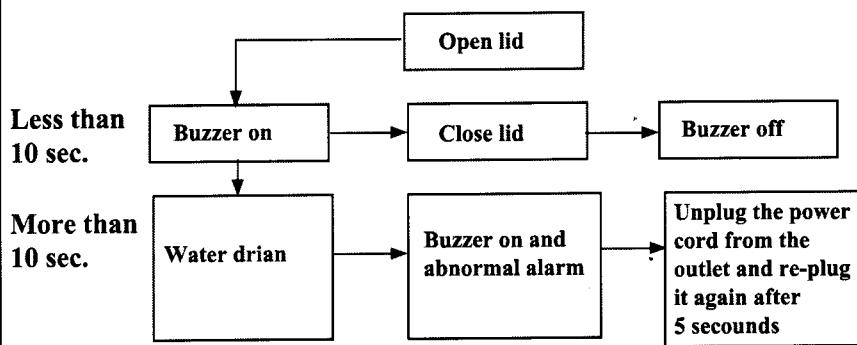
If the floor is largely inclined

Use board or a like for prop up under leg of washing machine



■ 3.4 CHILD LOCK Program

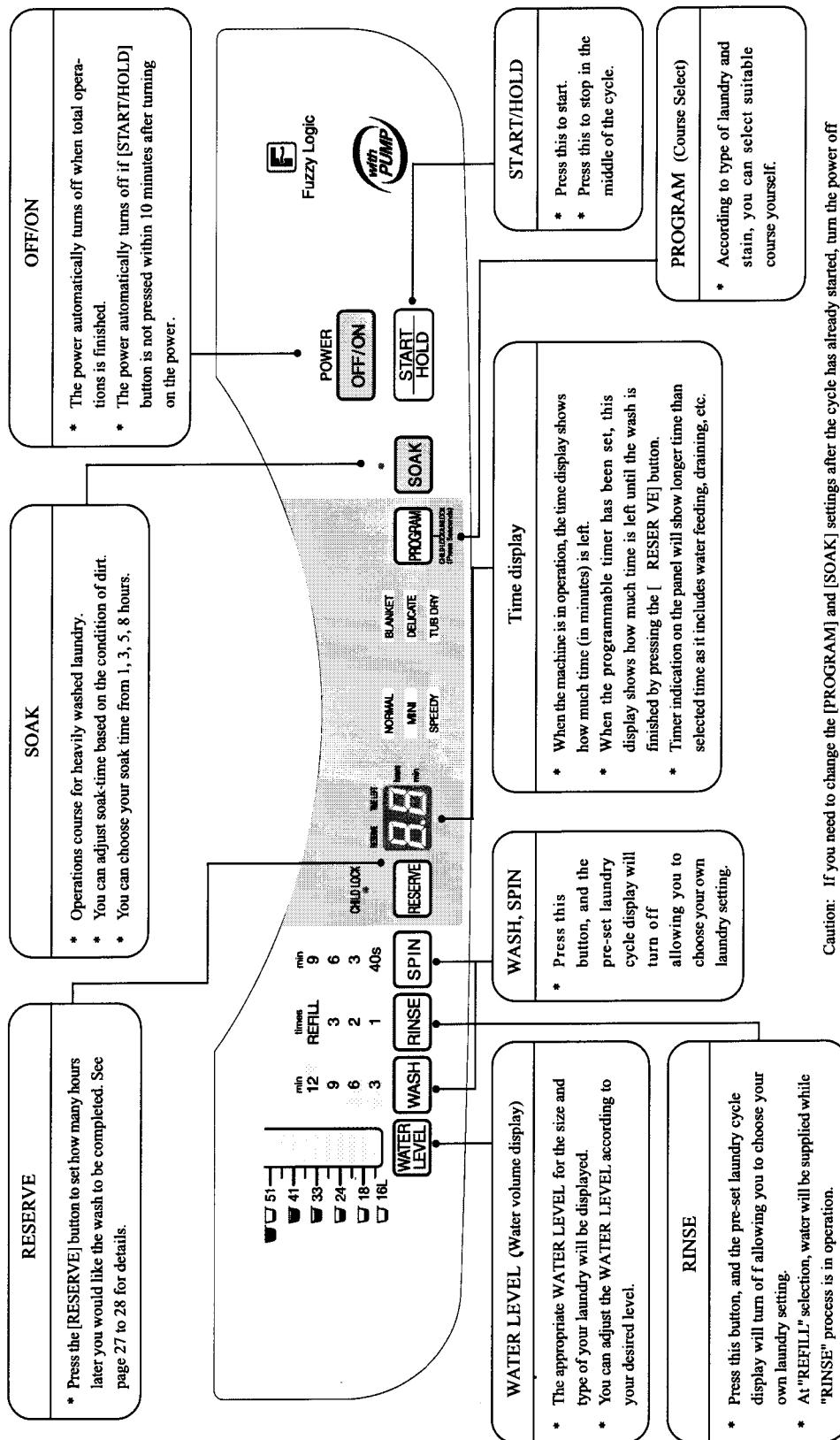
Press the [POWER OFF/ON] button for at least 5 seconds. The buzzer sounds (two time for setting) and the [CHILD LOCK] indication turns on.



4. Operations Panel

■ Model F70G2P

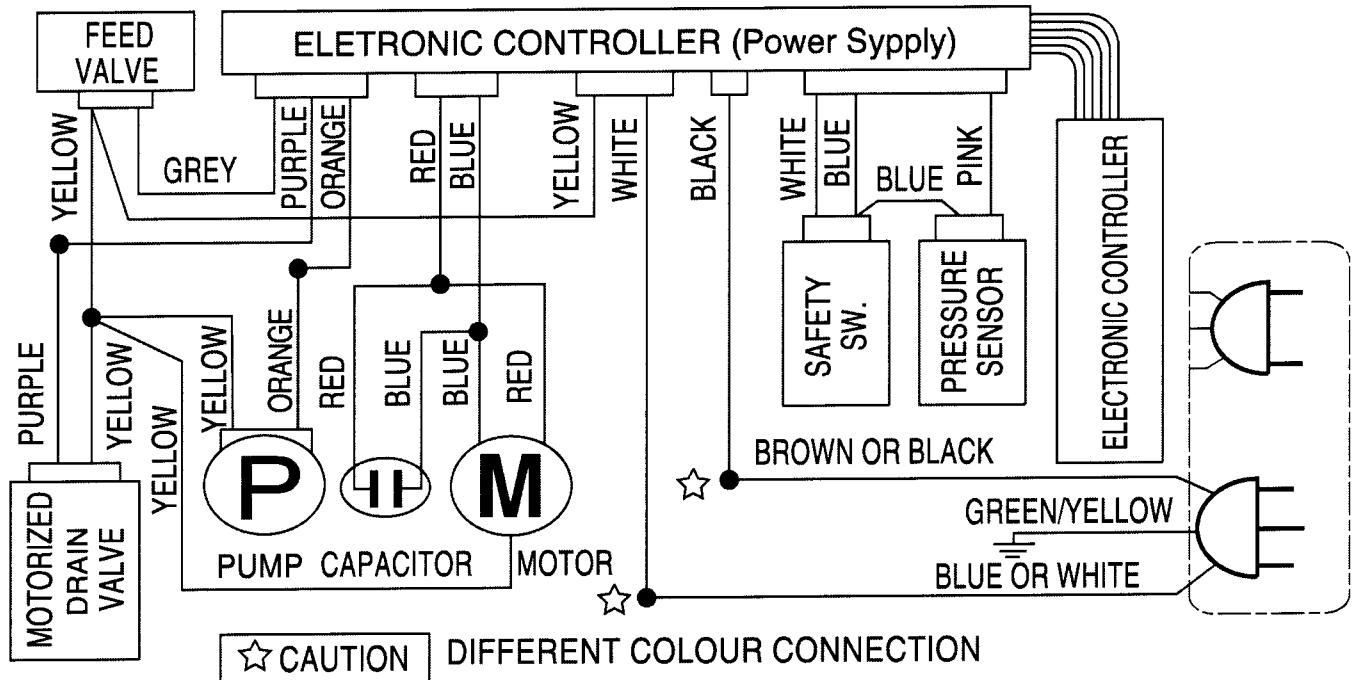
 Fuzzy logic control is used to recommend the proper water level and amount of detergent for the amount of laundry being done.



Caution: If you need to change the [PROGRAM] and [SOAK] settings after the cycle has already started, turn the power off and on it back.

5. WIRING DIAGRAM

■ MODEL NA-F70G2P



6. TABLE OF ERRORS

Case of buzzer alarm

 Flashing

• Lit

○ Not Lit

 WASH  RINSE + • RESERVE 	<ul style="list-style-type: none"> Check if abnormalities listed below are seen in the external water hose. <ul style="list-style-type: none"> Is the hose connected? Is it clogged with lint? Is it crushed? Is the tip soaked in water? Is a small pipe used? Is a part of hose at a height of over 10 cm midway? Is the extension hose longer than 3m? Is the hose lay down? 	 After open and close of the lid. Operation will restart.
	<ul style="list-style-type: none"> Check if the lid is opened. <p>→ Close the lid.</p>	
	<ul style="list-style-type: none"> Is the laundry unbalanced? <p>→ Even it out.</p> <ul style="list-style-type: none"> The machine is rattling. Is it inclined toward the floor? Is the adjustable knob loose? (Adjust the machine so it does not jingle, then tighten the adjustable knob.) 	
	<ul style="list-style-type: none"> Check if you have forgotten to connect the water hose and to turn on the faucet. Check if the connection of the water supply hose is clogged with dirt. <p>Please refer to "Maintenance" (Water supply hose filter)</p> <ul style="list-style-type: none"> Check if the water supply failure. 	
 WASH  RINSE + • CHILD LOCK 	<ul style="list-style-type: none"> Check if the lid open more than 10 seconds after start of water feeding. [CHILD LOCK] mode will activated to force the water drain. Pull out power plug from the socket outlet and replug it after 5 seconds. Please refer to "[CHILD LOCK] program". 	
DETERGENT VOLUME  45  WASH  35  RINSE  30  SPIN  16L	<ul style="list-style-type: none"> The buzzer does not sound. Pull out the power plug and request for service. 	

7. TROUBLESHOOTING

■ 7.1 Table of Troubleshooting

Problem (have to check)		Corresponding device								Others
		Control panel	Water Inlet Valve	Water level sensor	Safety switch	Gear motor	Capacitor	Mechanism case	Holding spring	
Machine doesn't work	No light at the dial	0								
	Dial light is on	0	0							
Unusual amount of water inside machine	No sound of water from inlet valve	0	0							
	There is sound of water from inlet valve									Check water supply
	Not enough water flow									Check water supply
	Water never stops flowing in	0	0	0						
Washing system doesn't work	Pulsator does not spin (no sound of motor)	0								Motor
	Pulsator does not spin (there is sound of motor)					0	0			Belt, Motor
	Pulsator spins only one way	0					0			Pulley, Motor
	Pulsator spins slowly	0								Belt, Motor
Unusual draining	No draining	0								
	Drains slowly	0		0					0	
Unusual spinning system	No spinning (no sound of motor)									0
	No spinning (Pulsator spins)	0		0						
	No force in spinning (tub spins slowly)					0				
Unusual loud noise	Loud noise during washing									Belt, Motor
	Loud noise during dry spinning					0				Check installation
Water leak	Water leaks from drain pipe					0	0			Something clogged
	Water leaks at the bottom of machine									Drain pipe A, Pulsator
Incorrect working	Water is supplied during spinning									Unbalanced tub, leaning
	Rinses more than 3 times			0			0			Unbalanced tub, leaning
	Pulsator spins despite no water			0						Air pipe clogged
	Cannot change function program	0	0							Description of usage
	Water does not flow out of a filter									Description of usage
	No overflow during water filling as rinsing									Description of usage
	Selected washing program cannot be memorized									Description of usage
	Fabric softener flows away too fast									Description of usage
	Pulsator spins in short range as washing and rinsing									Description of usage
	Works at low wash level then supplies water again									Description of usage

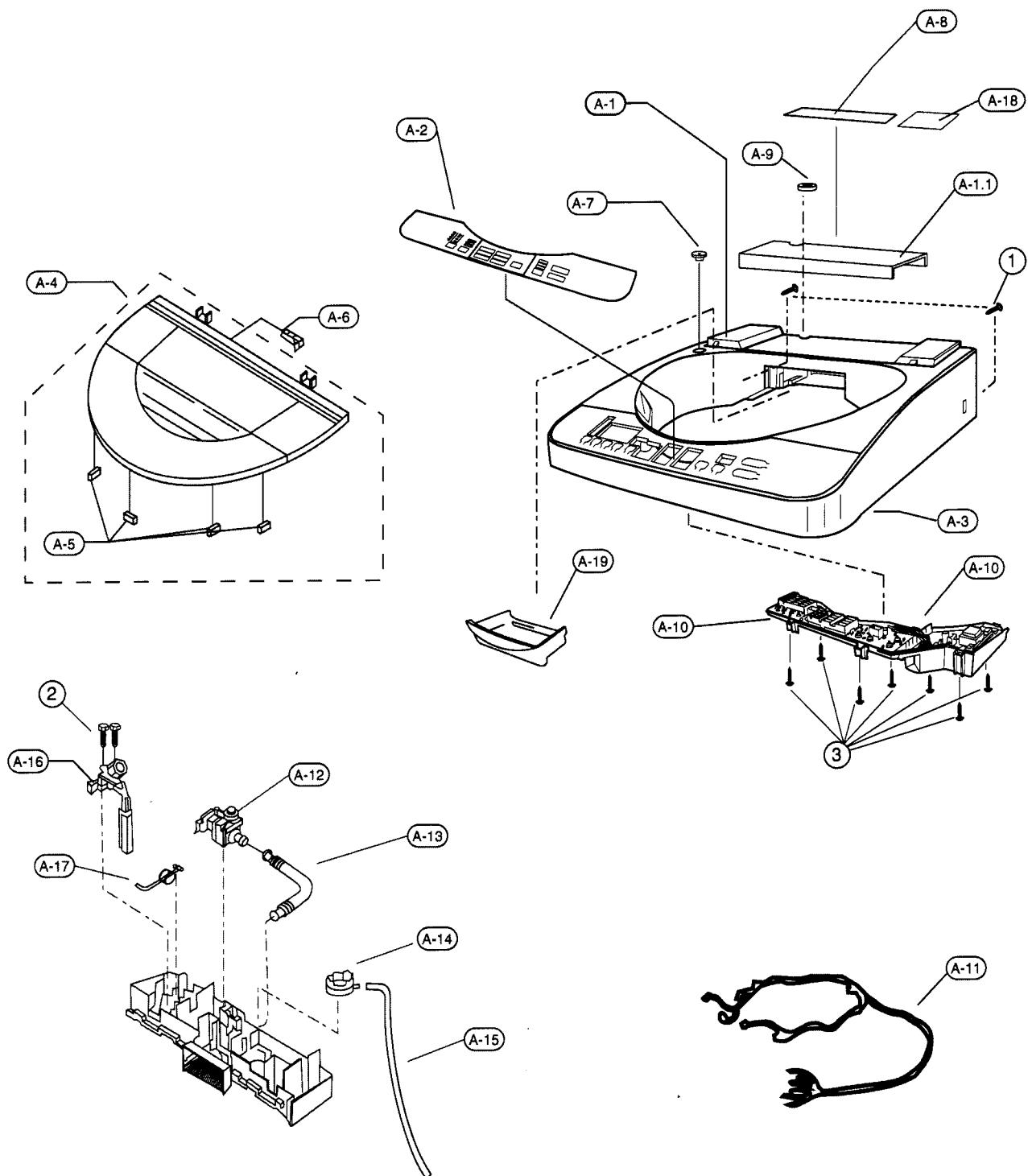
7. TROUBLESHOOTING

■ 7.2 The following symptoms are not trouble

State	Cause
Water is filled into tub as washing	→ - Wash level will be higher as there are lots of clothes. But sometimes when wash level is lower, water will fill automatically
Too high wash level compared to the amount of clothes	→ - When clothes are wet or there is water inside the tub before washing, wash level will sometimes be higher than usual
Too low wash level compared to the amount of clothes	→ - Sometimes wash level is too low because of soft clothes made from synthetic fiber or mixed fiber
During spinning, function is changed into water filling and start rinsing again	→ - Clothes inside the tub are unbalanced, (piled up in one side), Balance -Adjusting System will operate automatically by draining water out of the tub and filling up again, at the same time, start washing and spinning until the program finishes.
No water flows out of the filter and the cascade system does not work	→ - When wash level is set to be very low, sometimes water will not flow through the filter and the cascade system will not work
Tub and washed clothes move when draining	→ - To remove excess bubbles, a tub will spin slowly and fast in sequence
Cannot press start button	→ - Only [WATER LEVEL] button works after starting operating. If you want to change a program, press HOLD or [POWER OFF/ON] button and reset the program
Machine still works on former program when pressing start button	→ - If there is water inside the tub, the machine will start by draining
Machine does not work	→ - Check whether there is input electric current - Check whether a fuse has blown or a breaker has cut - Check whether a breaker switch has been pressed - Have a tap valve been closed? - Check whether [Start/Hold] button has been pressed - The machine is in pre-set timer program or not
No water	→ - Check whether a tap valve has been closed - Check whether water supply has been cut off - Check whether inlet pipe is clogged
Machine works longer than it should	→ - Wash timer will be longer since if 1. Clothes inside the tub are unbalanced 2. Inlet water is low pressure 3. Drain pipe is clogged or is connected too long or too high
When opening the tub lid, alarm rings and water is drained during washing and rinsing	→ - In the case where CHILD LOCK program is selected, if the tub lid opens for more than 10 seconds, water will be drained immediately. Correction can be made by unplugging, then reinsert after 5 seconds, and press start button again
Sound of water in tub's rim area	→ - Water inside the tub rim is for maintaining balance during spinning
No water from the mains supply	→ - Household water pipe may be clogged. Correction can be made by allowing water to flow away for a while in order to dispose of dirty water. Then connect to the machine as usual
Power outage	→ - Machine will stop during power outage. Repress start button when electric current available. However, water will not flow into the machine.

8. LOCATION OF PARTS AND REPLACEMENT PARTS

■ 8.1 Location of Parts - A Model NA-F70G2P

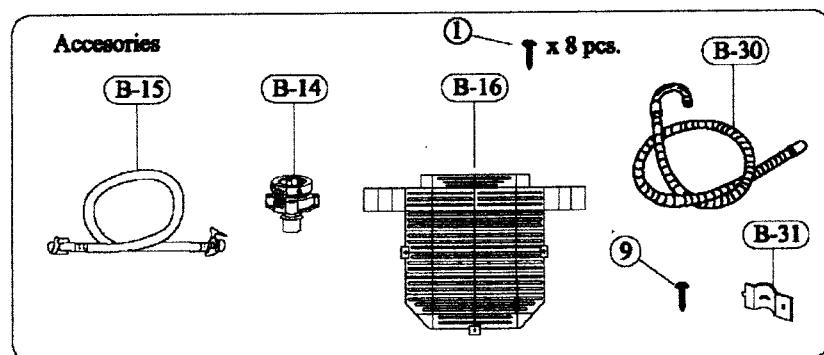
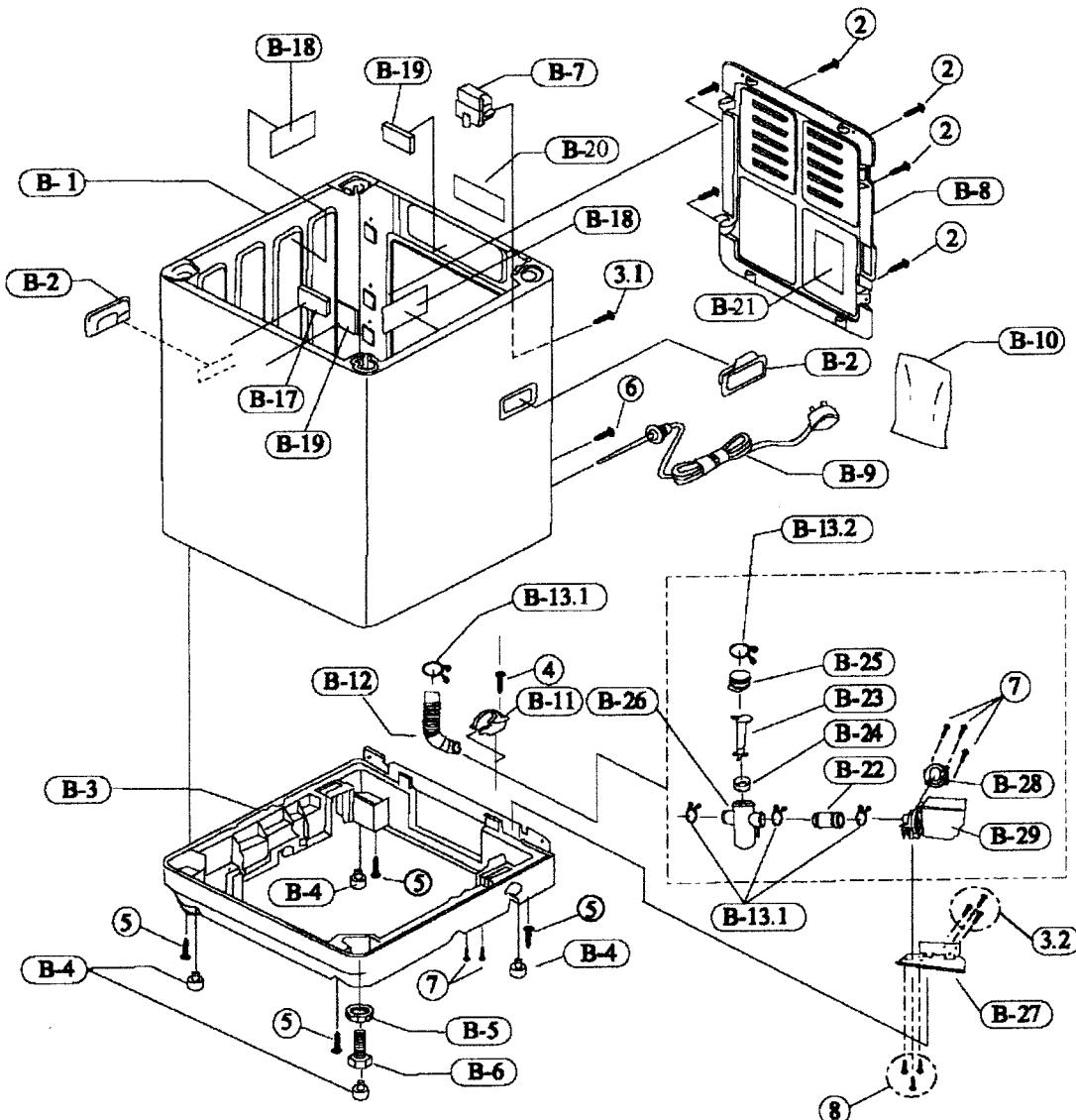


8. LOCATION OF PARTS AND REPLACEMENT PARTS

■ 8.2 Replacement of Parts List - A

8.LOCATION OF PARTS AND REPLACEMENT PARTS

■ 8.3 Location of Parts List - B Model NA-F70G2P



8.LOCATION OF PARTS AND REPLACEMENT PARTS

■ 8.4 Replacement of Parts List B

No.	Part Name	Part Number	Model	Remarks
			NA-F70G2P	
B1	Body A Unit White	AXW001A6UP0D	1	UAE/PGF,Middle East
B2	Grip (White)	AXW01106UP0D	2	UAE/PGF,Middle East
B3	Base A	AXW03016WE00	1	
B4	Leg Covering	AXW03396UP00	4	
B5	Adjustable Leg Thumb	AXW03486JZ00	1	
B6	Adjustable Leg	AXW03356UP00	1	
B7	Capacitor	AXW04037P107	1	11 uF
B8	Back Panel	AXW01566JZ00	1	
B9	Power Cord Unit (C2 + Earth)	AXW004A72904	1	UAE / PGF
B9	Power Cord Unit (S3)	AXW004A78105	1	Middle East
B10	Chemical Cover	AXW04486UP00	1	
B11	Hose Holder A	AXW01206MD00	1	
B12	Drain Hose B	AXW02316RJ00	1	
B13.1	Hose Brand	AXW024552400	4	
B13.2	Hose Brand	AXW024553700	1	
B14	Feed Valve Joint A Unit	AXW012H6UJ00	1	
B15	Pressure Hose Unit	AXW012C6UJ00	1	
B16	Bottom Cover	AXW21586UP00	1	
B17	Body A Protection	AXW90466FK10	2	t 20 Front Right & Back.
B18	Body A Protection	AXW90466AA5M	2	t 1 Right & Left
B19	Body A Protection	AXW90466NTA0	1	t 30 Front Left
B20	Name Plate	AXW01536WE00	1	
B21	Wiring Diagram	AXW0476WE00	1	
B22	Drain Hose A	AXW02306WE00	1	
B23	Drain Trap Filter A	AXW18076RJ00	1	
B24	Drain Trap Filter B	AXW18086RJ00	1	
B25	Filter Cover	AXW220861200	1	
B26	Filter Frame	AXW22056RJ00	1	
B27	Pump Bracket A	AXW08276WE00	1	
B28	Pump Bracket C	AXW08296WE00	1	

8.LOCATION OF PARTS AND REPLACEMENT PARTS

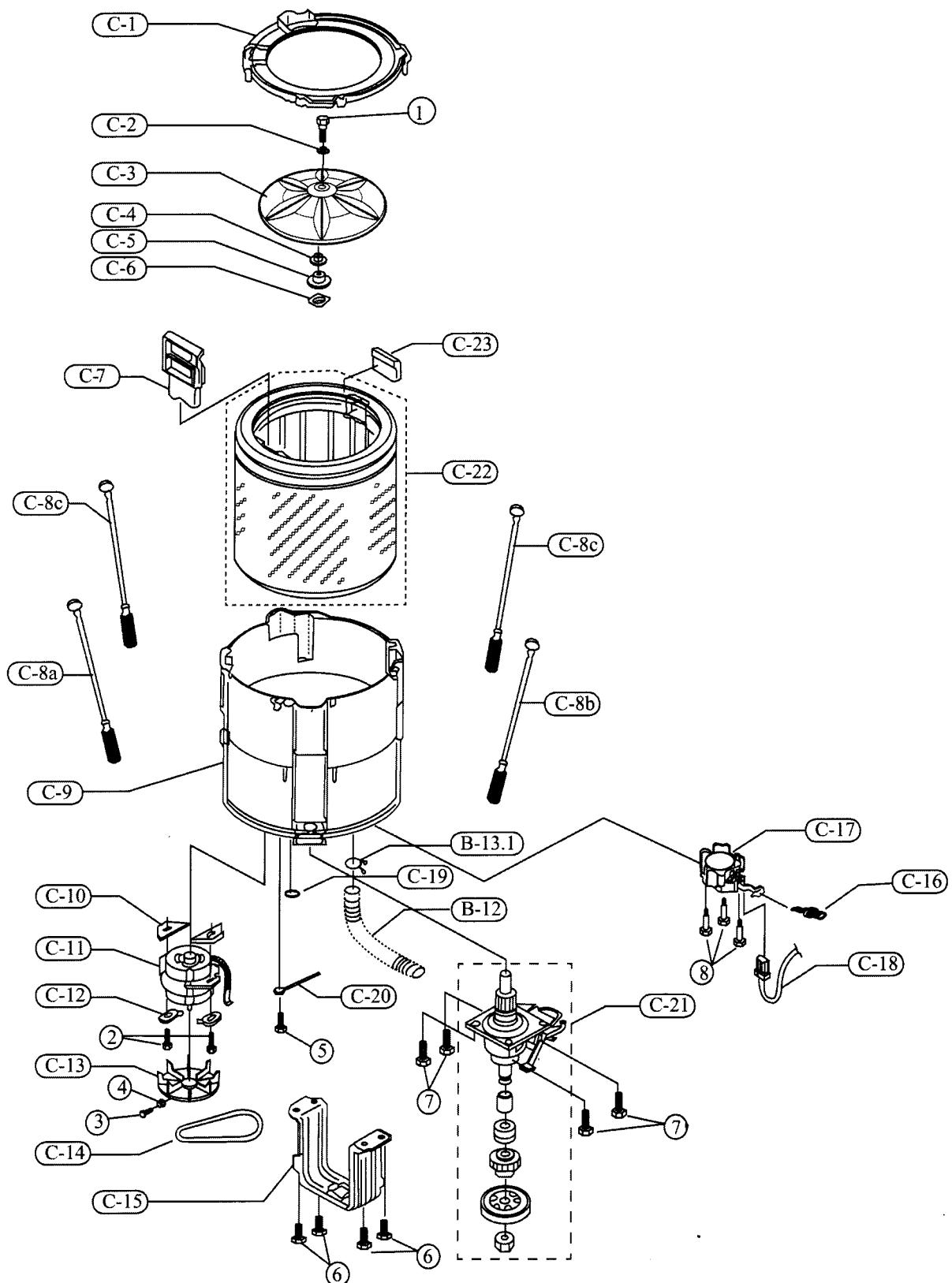
■ 8.4 Replacement of Parts List B

No.	Part Name	Part Number	Model	Remarks
			NA-F70GEP	
B29	Pump Unit	AXW003C6WE00	1	
B30	Drain Hose Unit	AXW002D6RJ00	1	
B31	Hose Supporter	AXW0279GRJ10	1	
1	Special Tapping Screw	XTTAXW444J	8	Bottom Cover + Base A
2	Special Tapping Screw	XTTAXW444J	6	Back Panel + Body A
3	Binding Tapping Screw	XTTAXW438J	1	Capacitor + Body A
4	Binding Tapping Screw	XTB4-20BFJ	1	Hose Holder A + Base A
5	Binding Tapping Screw	XTTAXW444J	4	Base A + Body A
6	Pan Head Screw	XSN5-10BN8	1	Earth + Body A
7	Bind Tapping Screw	XTB4-15CFJ	2	Filter Frame + Base A
			3	Pump Bracket C + Base A
8	Pan Head Tapping Screw	XTN5-16BFJ	3	Pump Unit + Pump Bracket A
9	Special Tapping Screw	XTTAXW444J	1	Hose Supporter

8.LOCATION OF PARTS AND REPLACEMENT PARTS

■ 8.5 Location of Parts List - C

Model NA-F70G2P



8.LOCATION OF PARTS AND REPLACEMENT PARTS

■ 8.6 Replacement of Parts List C

No.	Part Name	Part Number	Model	Remarks
			NA-F70G2P	
C1	Outer Tub Cover	AXW32246MC0M	1	
C2	O-ring	AXW02576BM00	1	
C3	Pulsator	AXW05016UR00	1	Single pulsator
C4	Shaft Bushing	AXW05046UP00	1	
C5	Spinner Shaft Flange Nut	AXW15176RU00	1	
C6	Spinner Flange Washer B	AXW151980200	1	
C7	Filter Unit	AXW022A6RU00	1	
C8a	Suspension Unit (F-R)	AXW034U6UT50	1	Front Right
C8b	Suspension Unit (F-L)	AXW034U6UTA0	1	Front Left
C8c	Suspension Unit (R-R/L)	AXW034U6UT00	2	Rear Right/Left
C9	Outer Tub A	AXW12016NK10	1	
C10	Motor Washer A	AXW04206JZ00	2	
C11	Motor	AXW040157406	1	
C12	Motor Washer B	AXW04216JZ00	2	
C13	Motor Pulley	AXW04116UP00	1	50 Hz
C14	V-Belt	AXW041219850	1	M19.8
C15	Spinner Plate B	AXW32326UP00	1	
C16	Valve Rod A	AXW09326MD00	1	
C17	Gear Motor	AXW348201006	1	Nakagawa
C18	Lead Wire Unit	AXW014B6UP00	1	
C19	Over Flow Joint	AXW02936RJ00	1	
C20	Earth Unit	AXW003F6UP00	1	
C21	Mechanism Case Unit	AXW020A6UP2C	1	
C22	Tub Unit	AXW002A6UT0D	1	SUS
C23	Rinse Case	AXW21715WP0D	1	

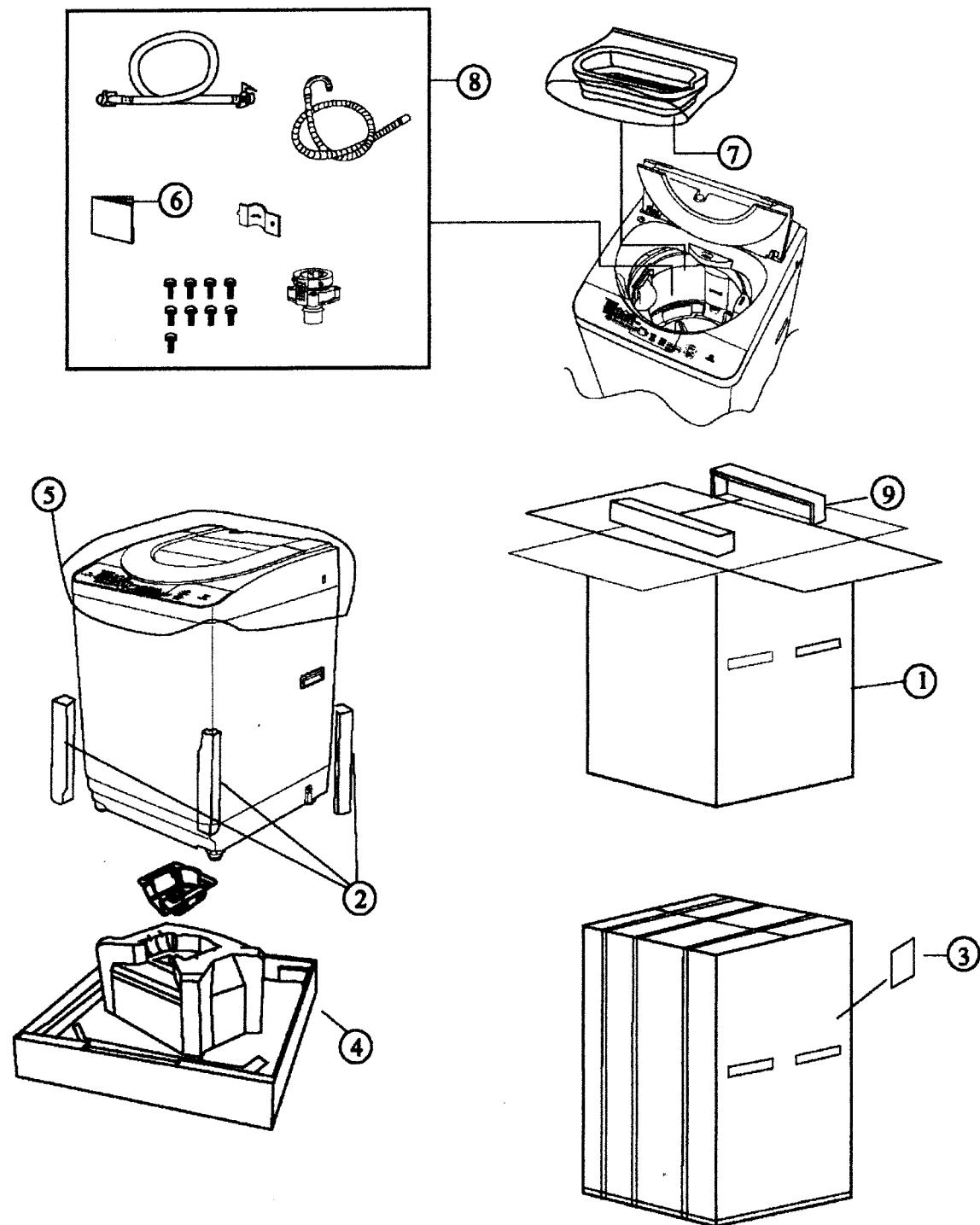
8.LOCATION OF PARTS AND REPLACEMENT PARTS

■ 8.6 Replacement of Parts List C

No.	Part Name	Part Number	Model	Remarks
			NA-F70G2P	
1	Special Screw	XSSAXW679	1	Pulsator
2	Special Bolt	XVGAXW839J	2	Motor
3	Special Bolt	XVGAXW703J	1	Motor Pulley
4	Special Nut	XNGAXW701J	1	Motor Pulley
5	Special Bolt	XVGAXW411J	1	Outer Tub + Earth U
6	Special Bolt	XTWAXW682J	4	Spinner Plate B
7	Special Bolt	XVGAXW812J	4	Mecha Case U
8	Special Tapping Screw	XTWAXW6518J	3	Gear Motor

8. LOCATION OF PARTS AND REPLACEMENT PARTS

■ 8.7 Location of Packing Part



8. LOCATION OF PARTS AND REPLACEMENT PARTS

■ 8.8 Replacement of Packing Part